

1 10 20 30 40  
QUERY  
UniRef90\_F6YB33  
UniRef90\_F6PZW9  
UniRef90\_W5N3S9  
UniRef90\_L7M4M2  
UniRef90\_UPI0001CBA86E  
UniRef90\_V9KU85  
UniRef90\_UPI000359BA40  
UniRef90\_A7RRP9  
UniRef90\_V3YZC1  
UniRef90\_H3BB21  
UniRef90\_R7UM01  
UniRef90\_T1FN86  
UniRef90\_A0A022T5W9  
UniRef90\_E2QC37  
UniRef90\_A0A034V7Z1  
UniRef90\_K1QG68  
UniRef90\_E0VV79  
UniRef90\_D6WVSN3  
UniRef90\_D3TP88  
UniRef90\_UPI00027F3FDB  
UniRef90\_R4WT47  
UniRef90\_A0A026WVM91  
UniRef90\_I1GGA8  
UniRef90\_S4RY44  
UniRef90\_T2MFI9  
UniRef90\_B3S5N9  
UniRef90\_J9K4H2  
UniRef90\_UPI00034F5252  
UniRef90\_H9KT46  
UniRef90\_J3JUW9  
UniRef90\_E9G5X4  
UniRef90\_U6NVG8  
UniRef90\_V8PFH8  
UniRef90\_E2BEM9  
UniRef90\_E9BXH8  
UniRef90\_B7PKD0  
UniRef90\_H2Z533  
UniRef90\_S2JBN9  
UniRef90\_UPI000258ECEA  
UniRef90\_A0A023FBE4  
UniRef90\_G6DEX7  
UniRef90\_B4JFL0  
UniRef90\_UPI000395A0E2  
UniRef90\_C3XS00  
UniRef90\_F4PCK7  
UniRef90\_I1CRG6  
UniRef90\_V7C104  
UniRef90\_T1JT14  
UniRef90\_C7YM06  
UniRef90\_Q17BQ8  
UniRef90\_UPI00032AA504  
UniRef90\_U5EH14  
UniRef90\_A0A024GPA9  
UniRef90\_K3WVW3  
UniRef90\_H2NLI1  
UniRef90\_G4MY67  
UniRef90\_B4NLA3  
UniRef90\_A8WY21  
UniRef90\_U6IT43  
UniRef90\_UPI0002B40DA1  
UniRef90\_F2T8A0  
UniRef90\_B6HRV9  
UniRef90\_F1SA56  
UniRef90\_F1SA56  
UniRef90\_F1SA56  
UniRef90\_C8VLC9  
UniRef90\_M4FYX8  
UniRef90\_A1CHX6  
UniRef90\_J0HEF0  
UniRef90\_G7Y4Y7  
UniRef90\_I8U260  
UniRef90\_C1H8A9  
UniRef90\_T5AH85  
UniRef90\_G3JHK2  
UniRef90\_I1HRB2  
UniRef90\_G4VPB5  
UniRef90\_G0RNS5  
UniRef90\_F1L5Y5  
UniRef90\_A0A024JK04  
UniRef90\_W4W6S0  
UniRef90\_S8B3D7  
UniRef90\_B9RUT5  
UniRef90\_G4Z7G8  
UniRef90\_A0A044UJ19  
UniRef90\_V4U6M2  
UniRef90\_W3WKQ6  
UniRef90\_M7NS85  
UniRef90\_D7TWQ3  
UniRef90\_G9NY27  
UniRef90\_G2QH6  
UniRef90\_L2FRP3

QUERY	50	60	70	80
UniRef90_F6YB33	S Y K F N H L V P R L V L Q R E K H F H Y L K R R G L R R Q L L T D A Y E E C L D A S S R R			
UniRef90_F6PZW9	T Y K I N H H V P R L I L H R E E K H F H Y L K R R G L R R Q L L T D D A Y E E C L D A S S R R			
UniRef90_W5N3S9	A Y K K N Q E K I Q L V L E R E E Q H T H Y L K R R G L R R Y L L S D D A Y E E C L D A S S R R			
UniRef90_L7M4M2	T T Q A A V R L A E P P R L Q R E E Q H I A Y L M K G L S H L P K A Y E Q D L D A S S R R			
UniRef90_UPI0001CBA86E	R F S I D N S D A P N P L L Y K E D R K H I H Y L K K G L K R N L S S E S Y E C L D A S S R R			
UniRef90_V9KU85	A V I T L N Q A L L R P V L E R E K H F L Y L K K G L R H L S T E S Y E C L D A S S R R			
UniRef90_UPI000359BA40	T F K L D T Y P D V P F L E R E S H V E F L K K G L R R N L S S S Y E C L D A S S R R			
UniRef90_A7RRP9	S Y L A V D L D P E I P L T R Q K H L N Y V R W K G L R R N L S S D S Y E C L D A S S R R			
UniRef90_V3YZC1	E F E I E S D P D I P V L K R D E H T M F L W K G L R R H L S D A Y E E C L D A S S R R			
UniRef90_H3BB21	L Y K N S P T P M P P T L E R E K H S L Y L R R R G L R R H L S D A Y E E C L D A S S R R			
UniRef90_R7UM01	Y F K N C L D I E T P M L F R R K H E A F L M K G L R Q H L S S E S Y E C L D A S S R R			
UniRef90_T1FN86	K F E F D D D S S A L E L F R R H S Q F L I K G L L S S A S Y E C L D A S S R R			
UniRef90_A0A022T5W9	V A E D P K L L R G R H L S W L K K S L N K L S E G Y E C L D C S S R R			
UniRef90_E2QC37	E F E K N S S L D P K V K I H R E D H Q R Y L E S M L R R L P L H Y E C L D A S S R R			
UniRef90_A0A034V7Z1	R F Q Q M Q L D P K V K I H R E D H Q R Y L E S M L R R L P L H Y E C L D A S S R R			
UniRef90_K1QG68	Y F A V R S H A E K P S L K R D Q H L L F L K K S L Q H L S N S Y E C L D A S S R R			
UniRef90_E0VV79	V F E N I L P P Q L T R N K H S A F L K K S S H L S S S Y Q S L D A G R			
UniRef90_D6WYNS3	D L S L R I N P N L P P E L L Q E N H K C Y L L D C L S S S G Y Q S L D A S R			
UniRef90_D3TP88	R Y Q Q K F L D P K I K F H R E E H Q R F L E S M L R R L P L G N Y E C L D A S S R R			
UniRef90_UPI00027F3FDB	S Y K F N H L V P R L V L Q R E K H F H Y L K R R G L R R Q L L T D A Y E E C L D A S S R R			
UniRef90_R4WT47	S F D K T R N P D F P E L K Q H W T K D Y L I N N L L T D K L Q Y E V Y D C N R			
UniRef90_A0A026VWM91	S C H G E T D P V L L K Y K H I D H L K K S I A F L R E T Y E C L D S S R R			
UniRef90_I1GGA8	S Y R D N P E A E K L Y L F R E D H I L A Y L E S G L R K L P D Y H F E C L D A S S R R			
UniRef90_S4RY4	S P R N L F R D R H Y Q Y L K K G L R H L S D A Y E C L D A S S R R			
UniRef90_T2MFI9	N V Q D D K N N G I K L L R S K H I S Y L K K G L L Q L S S D S Y E C L D A S S R R			
UniRef90_B3S5N9	Y Q E D L H L T F R I L Q L F I R Q H L N Y L N N S L K K L P Q S Y E C L D A S S R R			
UniRef90_J9K4H2	S F K A Q C D P E A P V L Y K Q N H I N Y I K N H M F T L P E N Y E C L D A S S R R			
UniRef90_UPI00034F5252				
UniRef90_H9KT46				
UniRef90_J3JUW9	D L H A T L T N N E P L L A R K Q K H K L Q F L K S S L F F Q L I S S A Y E Q C L D A S S R R			
UniRef90_E9G5X4	T F L E N H E I D T P R L L N R L Q I V D F L V R H G L R L R K L S S A S Y E C L D A S S R R			
UniRef90_U6NVG8	G Y E A G E N S D R Y V L Q R N L H F V D Y L T K S G L R R Q L C G R D A Y E C L D A S S R R			
UniRef90_V8PFH8	V Y K R N H H D T R Y V L Q Q E K H V L K R G L R R Q L S G D A Y E C L D A S S R R			
UniRef90_E2BEM9				
UniRef90_E9BXH8	D I A A Q D R L A A C E L R R I Q H V K Y L K R G L F M F P A G Y V S L D A S S R R			
UniRef90_B7PKD0				
UniRef90_H2Z533	D Y E E F I D F Q P D L L T D L H T P Y L L R G L E R L S K S Y Q S C L D A S R			
UniRef90_S2JBN9	P Y A P N N S L D E I L Q L E R K D H I E Y L K R G L N G R V G S S L D A S K			
UniRef90_UPI000258ECEA	M N S A I L R K D H I R L L K K S L H L N E E Y E C L D C C S R R			
UniRef90_A0A023FBE4				
UniRef90_G6DEX7	L D K Y E E F P D L K R S L H I N Y L L N T L Q M L P L S Y E V M D C S S R R			
UniRef90_B4JFL0	R F E E K A S V D P P K L K K N S H A N Y L K N V L M Q L P Q S Y E C L D A S S R R			
UniRef90_UPI000395A0E2	R F N H V Q N P G A S Q L N R T Q H L Q Y L E I M L H K L P W N Y E C L D A S S R R			
UniRef90_C3XS00	A Y K T N H H S S Q Y V L Q R E K H F H Y L K R G L R R Q L T E A Y E E G M P D V P			
UniRef90_UPI000395A0E2	N F R S N S D G D A D P V L H R E K H L S Y L K K G L R R Q L T E A Y E E C L D A S S R R			
UniRef90_F4PCK7	E H S C R S P N P V L R S K H I D Y I Q H A F A G L K C G W V S L D A S K			
UniRef90_I1CRG6	P Y A P N N K I E E I R L R K E R H I T Y L I K G L E I G L G Q W G S V L D A S K			
UniRef90_V7C104	T I P P N A Q T L M M E L Q R E N H M Q F L S M G G L F Q H L S S A F S V L D A N R			
UniRef90_T1JT14	R T R F S A N P D Q L E L N R S Q I S S W L M G G L F Q P D V F Y Q S L D A A K			
UniRef90_C7YM06	G Q E H S S C N S H P H L D R R R H V N F L H K Q L G K L P G G F M S A D P S R R			
UniRef90_Q17BQ8	R Y E Q L A D P S L P K L L R T E H A R Y L E T S G L E R L S C G Y E C L D A S S R R			
UniRef90_UPI00032AA504	L F A P N A R S L M L E L Q R E K H I E F L S K G L R R H L G S A F S V L D A S S R R			
UniRef90_U5EH14	R F E Q L A D P T L P N L L R A E H V V H L E K S L Q H L S S A Y Q C L D A S S R R			
UniRef90_A0A024GPA9	P F E T L P I D Q Q I E L L R D Q H A E F L K R G L S H L P S G G F V T A L D A S S R R			
UniRef90_K3WWW3	N S G F T N A A L E P R L M R E K H I D F L K R G L H L P S G G F V A L D A S S R R			
UniRef90_H2NLI1	S Y K F N H L V P R L V L Q R E K H F H Y L K R R G L R R Q L L T D A Y E C L D A S S R R			
UniRef90_G4MY67	G S D A N A D V E H P H I D R K K H V R F L R N M L R S L P A N F I A A D A S S R R			
UniRef90_B4NLA3	R F E Q M Q L N P R L L N R I E H Q H Y L D V M L R S L P A N Y E C L D A S S R R			
UniRef90_A8WY21	S L V L D E D A S Q L T V L R Q R H T A Y L L R Y L K N C P P S Y S T L D A S R			
UniRef90_U6IT43	E K L E N L R G S A M R L F K I E H I N Y L N R R L V N D L P E T F E H L D A S Q			
UniRef90_UPI0002B40DA1	F F L R A P R S A Q M L E L Q R E N H I E Y L T N G L H L G P S F R V L D A N R			
UniRef90_F2T8A0	G L A S S Q N G P F P R L D R D E H V S F L Y D S L L E S Y P E R F V G L D A S S R R			
UniRef90_B6HRV9	G L H S T Q K D F N P A L Q R D L H I S Y L Y S A L E D Y P D G S F V A M D A S S R R			
UniRef90_F1SA56				
UniRef90_F1SA56				
UniRef90_F1SA56				
UniRef90_C8VLC9				
UniRef90_M4FYX8	G A H S S Q K G P L P S L M R D V H I G Y L C D S L E D Y P P G F V A M D A S S R R			
UniRef90_A1CHX6	A S D A D N G H G V P L R D R D R H V R F L H K S M G Q L P P Q Y V A A D A S S R R			
UniRef90_J0HEF0	G I H T S Q K G P F L A L Q R D R H V V A Y L F D S L E D Y P A S F V A M D A S S R R			
UniRef90_G7Y4Y7	G V A Q S L Y G P F P S L Y R D V H V A Y L F D A L E E Y P G K F V A M D A S S R R			
UniRef90_I8U260	E R L S T W K D N A L R L F K L N H V H Y I S K R L V Q L A T S F E C L D A S Q			
UniRef90_C1H8A9	G I H S S Q K G P F P A L N R D D H I A Y L Y D S L E S Y P G S F V A L D A S S R R			
UniRef90_T5AH85	G M A S S Q N D S F P R L D R D A H I S F L Y D S L E S Y P D R F V G L D A S S R R			
UniRef90_G3JHK2	D Y R N A H G V P H L L Y R D R H V K F L H K Q L G T L P S M F K S A D P S R R			
UniRef90_I1HRB2	G E E H A G K S N Q P R L D K Q R H V K F L Q K Q L G R R L A P P Q M T A A D P S R R			
UniRef90_G4VPB5	G A A P N T K S V M L E L W R D Q H V E Y L T K G L R R L A P P S F H V L D A N R			
UniRef90_G0RNS5	E K L C Q W K D D A L R L F K I N H V N Y L N K R L F N L P M S F E H L D A S Q			
UniRef90_F1L5Y5	G L E H D K V N A H P R L D R E H A R F L R K Q L G A L P G A Y V G A D P S R R			
UniRef90_A0A024JK04	N Y L L D S M D D A P V L C R T V H Y L R C H S K E L G A F S Q S L D A S S R R			
UniRef90_W4W6S0	G A K E N P E T K N L L K E K H L A Y A K K M L G P L P A G F V S L D A S S R R			
UniRef90_S8B3D7				
UniRef90_B9RUT5	G L H P S Q T G P F P A L H R E D H V T Y L Y E S L E D Y P A G F V A M D A S S R R			
UniRef90_G4Z7G8	I F A N I P H K A Q L E L Q R D K H M E Y L T R G L K Q L S S S F C V L D A N R			
UniRef90_A0A044UJ19	Q L S F V N T D L E P L M R E K H I A Y L K R R G L T R L S A G F V A L D A S S R R			
UniRef90_V4U6M2	A Y L D D D S E Y A P I L C R T L H T R L Y R S L K Q L S A G S C S H L D A S S R R			
UniRef90_W3WKQ6	S V P P L A Q K L M M E L Q R K N H V E Y L L R G L Q Q L G P S F C S L D A N R			
UniRef90_M7NS85	A Q D D S N I H G V P H L R R R Q R I N F L K H T L G Q L P A P F V A M D A S S R R			
UniRef90_D7TWQ3	D K V N S Q L N Q K T H I E Y L N T L T K L P K S Y V L A L D A S R			
UniRef90_G9NY27	S V P R N A Q S V L L E L Q R D K H I E F L T N G L R Q L G P S F C V L D A N R			
UniRef90_G2QH6	G K E H S H G L N A H P R L D K Q R H V R F L K K Q L G A L P S M F V G A D P S R R			
UniRef90_L2FRP3	G E D E N Q L V P R L D R D R H V R F L H Q C L P G R F V A A D A S R			
UniRef90_L2FRP3	L A R N A H G V P A L L R D N H V K F L E K Q L G R F P A P Y V A A D A S R			

QUERY	90	100	110	120
UniRef90_F6YB33	P W L C Y W I L H S S L E L L D E P I P Q L V A T D V Q Q F L E R C Q Q S P E G G F			
UniRef90_F6PZW9	P W L C Y W I V H S S M G L L D D E T P P E S L L A S S D D V V V L L T A K R C Q Q S P T N G G F			
UniRef90_W5N3S9	P W L C Y W I L H S S L E L L D D E T P P E S L L A S S D D V V V L L T A K R C Q Q S P T N G G F			
UniRef90_L7M4M2	P W L C Y W I L H S S L E L L D E V T L Y S E M K S T S I V A N F F L G K R C Q Q S H P E D G G F			
UniRef90_UPI0001CBA86E	P W L C Y W I L H S S L E Y L L G G E E Q L P Q S E E Q S S R D I V Q F L K R R C Q Q S P P D N G G F			
UniRef90_V9KU85	P W L C Y W I L H S S L E L L L G G E E P L P F E R A L L E I A N F I G R R C Q Q S P P R E G G F			
UniRef90_UPI000359BA40	P W L C Y W I L H S S L E L L L G G E E V P L P F E R A L L E I A N F I G R R C Q Q S P P R E G G F			
UniRef90_A7RRP9	P W L C Y W M L H S S L E K L L G E E T V P L Q Q V S S Q V I G F L R R K C Q Q S H P E D G G F			
UniRef90_V3YZC1	P W L C Y W I L H S S M E L L L Q V P L P Q S V E S S E I V C E F F L G Q C Q Q S P T D G G F			
UniRef90_H3BB21	P W L C Y W I L H S S L E L L L Q V P L P Q S V E S S E I V C E F F L G Q C Q Q S P T D G G F			
UniRef90_R7UM01	P W L C Y W I L H S S I D L P E G M A S S Q V A Q F L A K R C Q Q S C P D G G F			
UniRef90_T1FN86	T W L C Y W I L Q S S M S L L D L N M T D E K L S C I I D F L A K R C Q Q S P T D G G F			
UniRef90_A0A022T5W9	P W L C Y W S L H S S A L N L L G E Q L H E E D N K K V I N F L L S K Q C Q Q S P L G G G F			
UniRef90_E2QC37	T W L T Y W I L H S S L L N D M P D D H E T L S E H V V V K F L D Q C Q Q S H P E D G G F			
UniRef90_A0A034V7Z1	P W N V Y W I L Q A A H L L N D M P D D H E T L S E H V V V K F L D Q C Q Q S H P E D G G F			
UniRef90_K1QG68	S W L C Y W I L H S S L E L L D E T H V S N D E I T L I S Q F L K R C Q Q S C S S G G G F			
UniRef90_E0VV79	P W L C Y W I L H S L S L L L E D Q L E D Q E I S A K I A Q F L K K C Q Q S T E D G G F			
UniRef90_D6WSN3	P W L C Y W I L H A L A L M G I K L P D E K K S A I A K F L A K C Q Q S P D D G G F			
UniRef90_D3TP88	P W C T Y W I L Q A G H V L N F T F A P Q T L E A V V Q F L T K C Q Q S H P E D G G F			
UniRef90_UPI00027F3FDB	P W L C Y W I L H S S L E L L D D E Y P L Q I V A T D V C Q Q F L L C Q Q S P E D G G F			
UniRef90_R4WT47	G W L C Y W I L H S S L L L D D Y E L D D V S K S C V V K F L L S L C Q Q S N E D G G F			
UniRef90_A0A026VWM91	P W L C F W I L H S S L A L L G D H L D D E A N N K V I R F L A K R C Q Q S P T D G G F			
UniRef90_I1GGA8	P W L C Y W I L H S S L S L L L E H E I S Q D D L A S Q D V I D F L R R C Q Q S P H G G G F			
UniRef90_S4RY4	P W I C Y W I L H S L E L L D D E P V P E E V C Q Q V A F L K L C Q Q S C P D D G G F			
UniRef90_T2MFI9	P W L C Y W I L H S S L E L L N E T P P E E V C Q Q V A F L D K R C Q Q S N H D G G F			
UniRef90_B3S5N9	P W L V Y W I L S S L D L K K T P P E E F K H S I I D F L L S K C Q Q S H P E D G G F			
UniRef90_J9K4H2	P W L C Y W L C Q S S L A L L N C N L L E K S N V S F L S K C Q Q S H P E D G G F			
UniRef90_UPI00034F5252	P W L C Y W I L H S S L E L L D E R P L P Q I V A T D V C Q Q F L L C Q Q S P E D G G F			
UniRef90_H9KT46	P W L C Y W S L H S S Q I L L E Y D E Y S K I V I S F L A K C Q Q S P S G G G F			
UniRef90_J3JUW9	T W I C Y W L L H S P L T L M G V R L F N D G L K S D I V Q F L A K C Q Q S P S G G G F			
UniRef90_E9G5X4	T W V C Y W N L H S S L E L L E V S P I P D E T K N A V I S F L N C Q Q S P T D G G F			
UniRef90_U6NVG8	S W M C Y W A V H S S L N I L G V S P I P H T Q K A E V I V A F L K T C Q Q S H P D G G F			
UniRef90_V8PFH8	P W L C Y W I L H S S L E L L G E P L P D S V T S D V C Q Q F L L K C Q Q S H P D G G F			
UniRef90_E2BEM9	P W L C Y W I L H S S L E L L G E R L G D E E Y S K I A G F L A K R C Q Q S P E D G G F			
UniRef90_E9BXH8	P W L C Y W S V H S S L A L L G A E L N Y A E M K S I A D F L K R C Q Q S R N D G G F			
UniRef90_B7PKD0	P W L C Y W I L H S S L E L L D T S I V A E M K S I A D F L G R C Q Q S H P E D G G F			
UniRef90_H2Z533	P W L C Y W I V H S S L A L L K H P L P D E Q K L R L C Q Q F L S K C Q Q S K E D G G F			
UniRef90_S2JBN9	P W L V Y W I F H S S L D L L E Y R K F D S N L I A R S I E T F K K W Q L P T E G G F			
UniRef90_UPI000258ECEA	P W L C Y W I L H S S L E I L L G E Y R L D H N N S S K I V G F L T K C Q Q S H A E G G F			
UniRef90_A0A023FBE4	T W I V Y W T L H S A L A L N Y E L D D T N M K T A V V N F L K G C Q Q S H A E G G F			
UniRef90_G6DEX7	P W L I Y W L L H S G L W L K D D A S T L S K V V N F L A K C Q Q S N K T D G G F			
UniRef90_B4JFL0	P W C I Y W I L Q S S K L L G Y N Y D D D K Y L E D I V Q F L I K C Q Q S R A P T G G F			
UniRef90_UPI000395A0E2	P G A T A W G I P S P W G C H Q G S P S P S R S V C Q Q F L K R C Q Q S P Q G G F			
UniRef90_C3XS00	P W L C Y W I V H S L E L L E E P L P E E T V T R A V S S A C Q Q S H P D G G F			
UniRef90_F4PCK7	P W L I M W M H H T L D L L E G T E L P L T I K I R L A S S L A C Q Q S H P N G G F			
UniRef90_I1CRG6	P W L V Y W I V H S L D L L E Y K F T P D I I E R L V S T I K H W Q L P S G G F			
UniRef90_V7C104	P W L C Y W I F H S I A L L G E S V I E D E L D N T J I E F L S R C Q Q S R D D G G F			
UniRef90_T1JT14	P W M I Y W I H S S I A L L G E S L L N S H D V I T F L N R C Q Q S R D D G G F			
UniRef90_C7YM06	P W I F Y W C L A A L S L L G E D V S S Y R Q S L V D T V R P M Q N P D G G F			
UniRef90_Q17BQ8	P W L V Y W I M N A A S V L G K F N D S L L N R T V D F L I K C Q Q S Q D D G G F			
UniRef90_UPI00032AA504	P W L C Y W I H S L A L L G E S D D D E L E D N T V D F L N R C Q Q S P N G G F			
UniRef90_U5EH14	P W L T Y W I L N A S N L L N K Y S D G L L N N V D F L I K C Q Q S R S V E G G F			
UniRef90_A0A024GPA9	P W L S Y W M L H S G L Q L L E M P L P T D I Y D R V I R T F Q H F W H S D G G F			
UniRef90_K3WWW3	P W I C Y W I F H S L E L L D A P V E Y I D R T I S T I K H F W H E D G G F			
UniRef90_H2NLJ1	P W L C Y W I L H S S L E L L D E P I P Q I V A T D M C Q F L L C Q Q S P E D G G F			
UniRef90_G4MY67	P W F L Y W S L N A M A L L G E N V K E D Y A E S L A D T A R S M Q N E S G G F			
UniRef90_B4NLA3	A W C I Y W I L Q A A Q L S F T F D E E T L D H V I Q F L I K C Q Q S R A P T G G F			
UniRef90_A8WY21	S W M C Y W S V N A L K I L L D A E I P K E T V D N I I T F L K A C C E H P D G G F			
UniRef90_U6ITA3	P W L A Y W I L H S L R L L G D Y E L S D A K L K L M N F V K S C Q Q S Q D D G G F			
UniRef90_UPI0002B40DA1	P W I C Y W I L H S I A L L G D S V L D E A R A I D F L N R C Q Q S Q D S G G F			
UniRef90_F2T8A0	P W M V Y W A L A G L H F L G G E D V T K F R E R V I A T A A P M Q N P T G G F			
UniRef90_B6HRV9	P W L V Y W A L A G L A M M G E E T T R F R E R V I T T L A P M Q N P T G G F			
UniRef90_F1SA56	V R S A Y C A A S V A S S L T N I V T P D L F E G T A E W I A R C Q Q S N W E G G I			
UniRef90_F1SA56	V R S A Y C A A S V A S S L T N I V T P D L F E G T A E W I A R C Q Q S N W E G G I			
UniRef90_C8VLC9	P W M I Y W A L A A L S L L G E D V L S R H R E R A I A T P M Q N P T G G F			
UniRef90_M4FYX8	P W F L Y W C L N S I A L L G E D V T E T Y A A R V A D T A R S M Q N P E G G F			
UniRef90_A1CHX6	P W M V Y W A L A G L S L F G G E D V T R F R E R V I S T F K A A Q N P T G G F			
UniRef90_J0HEF0	P W M M Y W A L T G L Y L L G G E D V T R L R K R V I S T A A P M Q N P T G G F			
UniRef90_G7Y4Y7	P W L A Y W M V H S L R L L N F T I S D E T K A Y L L A F L K S T Q H P E D G G F			
UniRef90_I8U260	P W M V Y W A L A G L A L L G E D V S T Q F R E R V I T S F R P M Q N P T G G F			
UniRef90_C1H8A9	P W M V Y W A L A G L H M L L G G E D V T K F R Q R V I A T A P M Q N A S G G F			
UniRef90_T5AH85	P W I F Y W C L A G L S L L G H D V K S Y R S R L I E T V R P M Q N E T G G F			
UniRef90_G3JHK2	P W F Y W S L A A L A L L G E D V S A Y R E R L V E T V R S V Q Q N P D G G F			
UniRef90_I1HRB2	P W L C Y W M V H S L A L L L G E E T L S A D D L E H D I V D F L S R C Q Q S Q D R D G G F			
UniRef90_G4VPB5	P W L A Y W I V H A L R L L L N F V I P E E T S V K L I S F L A S S Q Q H P D G G F			
UniRef90_G0RNS5	P W I F Y W C L N A L S L L G E D V E P Y R A R L V E T V R S T Q N P T G G F			
UniRef90_F1L5Y5	P W F C Y W G M H S L R L L L G E A T V D E S L T S S I I R F L K T C E W P T G G F			
UniRef90_A0A024JK04	P W C V Y W G T N A M M L L G D E V Q E V Y G K R I A S T I L A C Q V S P E G G I			
UniRef90_W4W6S0	P W L C F W L L H S L A I L L G E R L E S E E C S K I V L A K C Q Q S S T G G F			
UniRef90_S8B3D7	P W M V Y W A L A G L A L L G E D P T H F R E R V A G T L R P M Q N A T G G F			
UniRef90_B9RUT5	P W L C Y W I L H S I A L L G E S I D Y E L E N N A I D F L N R C Q Q S P N G G F			
UniRef90_G4Z7G8	P W I Y W I L H S L E L L D A L L E E N I E R A I A T L K M C W N D E R G G G			
UniRef90_A0A044UJ19	P W F C Y W G M H S L K L L G A S V L D E E N L T S R P V N G L L I K			
UniRef90_V4U6M2	P W I C Y W I L H S M A L L G E F I D A D L E D R T I E F L S R C Q Q D P N G G Y			
UniRef90_W3WKQ6	P W S L Y W A L N G M A L L G G A D I S G Y R D G L I A T A Q H L Q N D S G G F			
UniRef90_M7NS85	P W I Y W T L C S A Y A L L G G S V E E Y R E R T I Q S I S V L Q N E S G G F			
UniRef90_D7TWQ3	P W L C Y W I L H S I A L L G D S V D D E L E N N T I D F L S R C Q Q D P N G G Y			
UniRef90_G9NY27	P W I F Y W C L N A L S L L G E D L E P Y R A R L I E T V R P M Q N K T G G F			
UniRef90_G2QH6	P W F L Y W C L S A L T M L G G E D V A S Y R D A I V A T V R S M Q N D S G G F			
UniRef90_L2FRP3	P W F L Y W S L N A L A L L G Y D T A V Y R D D L I A T V R T M Q N L P G G G F			

QUERY G G G P G G Q Y P H 130 L A P T Y A A V N A L L I I G T E E E A Y D V I N N R R E K K L L Q Y  
UniRef90\_F6YB33 G G G P G G Q Q H P H L A P T T Y A A V N A L L C C C C I I G T E E E A F D D V I N N R R E K K L L L L E Y  
UniRef90\_F6PZW9 C G G G P G G Q Q H A H L A P T T Y A A V N A L L C C C C I I G T E E E A F D D V I N N R R E K K L L L L A F F  
UniRef90\_W5N3S9 A G G P G G Q Q H A H L A P T T Y A A V N A L L S L L I I G T E E E A Y N N V I N N R R Q R L L L L D F F  
UniRef90\_L7M4M2 A G G P G G Q Q E A H L A P T T Y A A V N A L L S L L I I G T E E E A Y K V I N N R R K T L L Y Q F F F  
UniRef90\_UPI0001CBA86E A G G P G G Q Q C P H L A P T T Y A A V N A L L C C C C I I G T S T E E E A Y D D V I D D R R P K L L Q Q F F  
UniRef90\_V9KU85 A G G P G G Q Q C I I L A P T T Y A A V N A L L C C C C I I G T E E E A Y D V I D D R R Q K L L Y E Y F Y  
UniRef90\_UPI000359BA40 A G G P M Q Q F P H L A P T T Y A A V N A L L I I L A T E E E K V L D V I D D R R Q K L L Y E Y F Y  
UniRef90\_A7RRP9 A G G P N G Q V P H L A P T T Y A A V C A L L S I L I I G S T D E E A Y N V I D D R R P A L L Y E Y F Y  
UniRef90\_V3YZC1 A G G P G G Q V A H L A P T T Y A A V N A L L I I I G T D E E A Y N V I N N R R E K L L L E Y F Y  
UniRef90\_H3BB21 A G G P G G Q L A H L A P T T Y A A V N A L L I I I G T D E E A F K V I N N R R E K L L L E Y F Y  
UniRef90\_R7UM01 A G G P G G Q L A H L A P T T Y A A V N A L L I I I G T D E E A F K V I N N R R E P A L L Q R K F Y  
UniRef90\_T1FN86 A G G P G G Q Y S H L A P T T Y A A V N A L L I I I G T E E E A Y K L I N N R R E A M F K F Y  
UniRef90\_A0A022T5W9 G G G P S Q F P H L A S T T Y A A V C A L L C C C I I T S E E E A Y D A S I D D R R K S G L V H F F  
UniRef90\_E2QC37 G G G P R Q Y P H L G T T T Y A A V N A L L S L I I G T S D E S N A Y R A I D D R R E S S L L Q M Q F F F  
UniRef90\_A0A034V7Z1 A G G P G G Q Y P H L A P T T Y A A V N A L L I I I G T S D E S N A Y R A I D D R R E S S L L Q M Q F F F  
UniRef90\_K1QG68 G G G P G G Q Y A H L A T T Y A A V N A L L I I I G T E E S D A F K V I N N R R E K L L Y S F F F  
UniRef90\_E0VV79 G G G P G G Q Y P H L A P T T Y A A V N A L L I I I G T E E E A F D V I N N R R E K L L L E Y F F  
UniRef90\_D6W5N3 G G G P G G H L A H L A A T T Y A A V N A L L V I L G T E E E A Y N V I K R R D K L L Q E Q F F  
UniRef90\_D3TP88 A G G P D Q Y P H L A P T T Y A A V N S L L A M I I G T P S A Y R A I N N R R D S L L E R Q F F  
UniRef90\_UPI00027F3FDB G G G P G G Q Y P H L A P T T Y A A V N A L L I I I G T E E E A F K A V I N N R R K T L L L E Y F F  
UniRef90\_R4WT47 G G G P N Q F S H L A P T T Y A A V N A L L I I I G T E E E A F K A V I N N R R K T L L L E Y F F  
UniRef90\_A0A026VWM91 G G G P G G Q Y A H L A S T T Y A A V N A L L I I I G T Q E E A Y D V I D D R R K N L L K R F F F  
UniRef90\_I1GGA8 G G G P G G Q L A H L A P T T Y A A V L A L L C C C C I I L G T K E E A Y D I D D R R P S L L Q L F F  
UniRef90\_S4RY4 G G G P G G Q Q A H L L A P T T Y A A V N A L L I I I G T E E E S Y A V I D D R R E K L L Q Q S F F  
UniRef90\_T2MFI9 G G G P G G Q L S H L L A P T T Y A A V C C S L L I I L G W L L A A Y D I I N N R R E K L L Q Q S F F  
UniRef90\_B3S5N9 G G G P G G Q L I P H L A P T T Y A A V C C C A V L I I N L K E G E Y A Q M I N N R R E K L L Y T F F  
UniRef90\_J9K4H2 C G G P N Q M P H L L A P T T Y A A V C C C C C C C I I I G T E E E A Y A V I N N R R E K L L Y T F F  
UniRef90\_UPI00034F5252 G G G P G G Q Q P H L L A P T T Y A A V N A L L I I I G T E E E A Y D I I I N N R R E K L L Q Q F F  
UniRef90\_H9KT46 G G G P G G Q H P H L A S T T Y A A V N A L L C C I I I G T P Q E A Y Q V I N N R R K G L L K Q F F  
UniRef90\_J3JUW9 A G G P G G Q Y P H L L A P T T Y A A V N A L L V I V Q S E E E A F K I I N N R R K A L L Y E F F  
UniRef90\_E9G5X4 G G G P F Q Y S H L L A P T T Y A A V N A L L V I L Q S T E E E A L A A I N N L D S L S R F  
UniRef90\_U6NVG8 G G G P G G Q Y A H L L A P T T Y A A S V M A L A S L I I Q T E E E A Y N V I N N R R E K L L R Q F F  
UniRef90\_V8PFH8 G G G P G G Q Y P H L L A P T T Y A A V N A L L C C I I I G T Q E E A Y N V I D D R R K N L L L E Y F F  
UniRef90\_E2BEM9 G G G P G G Q Y P H L L A S T T Y A A I N A L L C C I I I G T Q E E A Y N V I D D R R K N L L R Q F F  
UniRef90\_E9BXH8 S G S P G G Q L S H L L A P T T Y A A I N T A L V T I I G T P S E A L G V I D D R R K R L L L S F F  
UniRef90\_B7PKD0 C G G P G G Q Q A H L L A P T T Y A A V N A L L C C I I I G T E E E A Y S V I D D R R K K L L Y S F F  
UniRef90\_H2Z533 G G G P G G Q M S H L L A P T T Y A A V N C C C E L A T E E E A Y S V I N N R R K S L L L E F F  
UniRef90\_S2JBN9 G G G S D G Q L A H L L A P T T Y A A V N A L L A I T I I G T K E E A Y D V L D D R R A L L Y R F F  
UniRef90\_UPI000258ECEA G G G P G G Q Y P H L L A P T T Y A A I N A L L C C I I I G T P Q E A Y Q A I D D R R K G L L K R F F  
UniRef90\_A0A023FBE4 G G G P G G Q D A H L L A P T T Y A A V N A L L C C I I I G T D E E A F R A I D D R R K K L L A S F F  
UniRef90\_G6DEX7 G G G P G G Q F A H L L G A T T Y A A V N A L L S I I I G T D E E A Y N S I D D R R S A L L Q N F F  
UniRef90\_B4JFL0 G G G P G G Q Y A H L L A P T T Y A A V N S L I I I G T E E E A Y R A I D D R R E S L L V R F F  
UniRef90\_UPI000395A0E2 G G G P G G Q H P H L L A P T T Y A A V N A L L I I I G T E E E A F G V I D D R R K K L L L E Y F F  
UniRef90\_C3XS00 G G G P G G Q L A H L L A P T T Y A A V N A L L C C I I I G T E E E A Y N V I D D R R P K L L Y Q R F F  
UniRef90\_F4PCK7 G G G P G G Q L A H L L A T T T Y A A V N A L L A I I I G T E E E A F K V I N N R R W K L L Y R F F  
UniRef90\_I1CRG6 G G G G D Q L G H L L A T T T Y A A V N A L L A I I A G T K E E A Y K I I D D R D A L L Y K F F  
UniRef90\_V7C104 A G G P G G Q M P H L L A T T T Y A A V N T L I T L I I G S Q K S L A S I N N R D A K L L H Y G F F  
UniRef90\_T1JT14 G G G P D D Q L P H L L A T T T Y G A I N T A L V T L I I C D T E A L Q S I I D D R A A L L Y K F F  
UniRef90\_C7YM06 A G G F G G Q T S H L L A T T T Y A T V L S L A L V G G E D S Y D V V D D R R A A M W R W  
UniRef90\_Q17BQ8 G G G P G G Q D P H L L A P T T Y A A V N A L L C I I I G T D R A L L A S I N N R R D L L K K F F  
UniRef90\_UPI00032AA504 A G G P G G Q M P H L L A T T T Y A A V N T L I T L I I G G E K S L A S I N N R R D K L L Y G F F  
UniRef90\_U5EH14 G G G P G G Q Y P H L L A T T T Y A A V N A L L C L I I I G T E K A L L A N A I N N R R S S L L K K F F  
UniRef90\_A0A024GPA9 G G G P M Q L I G H T A T T T Y A A S C L L A I I I G T S E A L L D T L V D D R R S K L L Y D F F  
UniRef90\_K3WWW3 G G G P A G Q L G H T A T T N Y A S C L L T L A I I I G T P E A L L D L V D D R R H A L L Y R F F  
UniRef90\_H2NLJ1 G G G P G Q Y P H L L A P T T Y A A V N A L L C I I I G T E E E A Y D I I I N N R R E K L L L Q Y W  
UniRef90\_G4MY67 S G G P H G Q T S H L L A T T T Y A A V L A L A V V G D E E G L S L I D D R R E L L W K W  
UniRef90\_B4NLA3 G G G P G G Q Y A H L L A P T T Y A A V N S L C I I I G S Q S A Y R A I D D R R E S L L T Q F F  
UniRef90\_A8WY21 G G G P G G Q L A H L L A P T T Y A T V M C L A S L I I Q T E E A L K S I I N N R R E T L L H N F F  
UniRef90\_U6ITA3 S G G P H Q L A H L L A P T T Y G A V N C L V S L N S H E A D A L D V I I D D R R K A L L G D W F  
UniRef90\_UPI0002B40DA1 G G G P G G Q L P H L L A T T T Y A A V N S L V T L I I G S H E A L S S I I N N R R H K L L Y T F F  
UniRef90\_F2T8A0 G G G H G Q M S H C A S S Y A A L I L S L A L V G G Q D A F K L V D N R R T A M W R W  
UniRef90\_B6HRV9 G G G H G Q T S H L L A G S Y A A V L S L A M V G G E E A F G L V D R H A M W Q W  
UniRef90\_F1SA56 G G V P G G M E A H G G Y T F C G L A A L V I L K K E R C L N L K S L L L Q W  
UniRef90\_F1SA56 G G V P G G M E A H G G Y T F C G L A A L V I L K K E R C L N L K S L L L Q W  
UniRef90\_C8VLC9 G G G H G Q I S H C A S S Y A A V L S L A M V G G E E A F N L I I D R Q A M W K W  
UniRef90\_M4FYX8 G G G H G Q T S H L L A T T T Y A T V L S L A L V G T E E A L A L V I D R R R A M W K W  
UniRef90\_A1CHX6 G G G H G Q M S H V L A S S Y A A V L S I A M V G G E E A F K L I D R R K A M W R W  
UniRef90\_J0HEF0 G G G H G Q M S H C A S S Y A A V L S I A M V G G G A E A F S L I D R V A M W K W  
UniRef90\_G7Y4Y7 G G G P Y Q F A H L L A T T T Y G A I N C L A A L C W K D A L D I I D R P A L F H W  
UniRef90\_I8U260 G G G H G Q L S H C A P T T Y A A V L S L A M V G G E E A F K L I D R R K A M W R W  
UniRef90\_C1H8A9 G G G H G Q L S H C A S S Y A A I L S L A L V G G E E A F K L V N R T A M W Q W  
UniRef90\_T5AH85 G G G F G Q T S H L L A T T T Y A T V L S L C L V G G E E A Y E V I D R R S L W R W  
UniRef90\_G3JHK2 G G G F G Q D S H L L A T T T Y A T V L A L M L V G G E E A Y D V I D R R H A M W E W  
UniRef90\_I1HRB2 G G G P G G Q L P H L L A T T T Y A A V N T L V T I I G S E S A L S S I I K R D N L Y K F  
UniRef90\_G4VPB5 G G G P Y Q F A H L L A T T T Y G A V N C L A S L C R R D A L D I I N R D A L A D W  
UniRef90\_G0RNS5 G G G F G Q A S H L L A T T T Y A V L S L A L V G G T E E A Y D V I D D R R S M W K W  
UniRef90\_F1L5Y5 G G G P G G Q Y P H L L A T T T Y G A V M A L V S I I G T E E E A L A S I N N R R K T L H D F  
UniRef90\_A0A024JK04 G G G H G Q I G H L L A A S Y A S I N S L A I S G D E E A W N K L D R R K A I Y D W  
UniRef90\_W4W6S0 G G G P G G Q T S H L L A S T T Y A A V N A L C T I I G T Q E A Y D V I D D R R K A L K R F  
UniRef90\_S8B3D7 G G G H G Q T S H L L A S S Y A A V L A L A M V G G G A E A F A L V D D R D N A M W R W  
UniRef90\_B9RUT5 G G G P G Q L P H L L A T T T Y A A V N S L V T L G G P R A L L S S I I N R G K L Y T F  
UniRef90\_G4Z7G8 F G G P K Q L G H L A T T T Y A S C L T L A L L G T P E A L L E T V I D D R Q A L L Y Q F  
UniRef90\_A0A044UJ19 S G G P G G Q Y P H L L A T T T Y G A I N A L V S I I G T D E E A F A S I D D R K T L K D F  
UniRef90\_V4U6M2 G G G P G G Q M P H L L A T T T Y A A V N A L I S L G G E K S L S S I I N R S K V Y T F  
UniRef90\_W3WKQ6 G G G F G G Q Q S H L L A T T T Y A M V L A I V G G S E A Y E I I D D R R A M W K W  
UniRef90\_M7NS85 S G G H G Q M P H L L A P T T Y A A V M A L C I V G S E A A Y N I I N R S S L Y C W  
UniRef90\_D7TWQ3 G G G P G G Q M P H L L A T T T Y A A I N A L I T L G G H R S L S S I I N R G K V Y T F  
UniRef90\_G9NY27 G G G F G G Q S S H L L A T T T Y A T V L S L A L V G G D E A F E A V D D R R G M W K W  
UniRef90\_G2QHM6 G G G G G G Q L S H L L A T T T Y A A V L A L A L V G G Q E A Y E V V D D R K A M W R W  
UniRef90\_L2FRP3 G G G H G Q N S H L L A T T T Y A A V V L A L A I V G G E D A Y E V I D R R A M W R W

QUERY	170	180	190	200
UniRef90_F6YB33	L	V	A	S
UniRef90_F6PZW9	L	V	A	S
UniRef90_W5N3S9	L	V	A	S
UniRef90_L7M4M2	L	V	A	S
UniRef90_UPI0001CBA86E	L	V	A	S
UniRef90_V9KU85	L	V	A	S
UniRef90_UPI000359BA40	L	V	A	S
UniRef90_A7RRP9	L	V	A	S
UniRef90_V3YZC1	L	V	A	S
UniRef90_H3BB21	L	V	A	S
UniRef90_R7UM01	L	V	A	S
UniRef90_T1FN86	L	V	A	S
UniRef90_A0A022T5W9	F	R	T	L
UniRef90_E2QC37	L	F	S	V
UniRef90_A0A034V7Z1	L	F	S	V
UniRef90_K1QG68	L	M	R	M
UniRef90_E0VV79	L	W	K	L
UniRef90_D6WSN3	L	W	R	M
UniRef90_D3TP88	L	L	K	V
UniRef90_UPI00027F3FDB	L	L	Y	S
UniRef90_R4WT47	L	R	R	L
UniRef90_A0A026VWM91	L	S	S	L
UniRef90_I1GGA8	L	S	S	Q
UniRef90_S4RY54	L	L	Y	R
UniRef90_T2MFI9	L	L	T	S
UniRef90_B3S5N9	L	L	S	L
UniRef90_J9K4H2	L	L	V	S
UniRef90_UPI00034F5252	L	L	Y	S
UniRef90_H9KT46	L	L	S	S
UniRef90_J3JUW9	L	L	Q	S
UniRef90_E9G5X4	L	L	H	R
UniRef90_U6NVG8	L	L	Y	S
UniRef90_V8PFH8	L	L	M	S
UniRef90_E2BEM9	L	L	K	S
UniRef90_E9BXH8	L	L	Y	S
UniRef90_B7PKD0	L	L	K	R
UniRef90_H2Z533	L	L	W	R
UniRef90_S2JBN9	L	L	L	S
UniRef90_UPI000258ECEA	L	L	S	S
UniRef90_A0A023FBE4	L	L	K	K
UniRef90_G6DEX7	L	L	I	F
UniRef90_B4JFL0	L	L	F	S
UniRef90_UPI000395A0E2	L	L	L	Y
UniRef90_C3XS00	L	L	L	S
UniRef90_F4PCK7	L	L	L	E
UniRef90_I1CRG6	L	L	M	R
UniRef90_V7C104	L	L	R	R
UniRef90_T1JT14	L	L	L	M
UniRef90_C7YM06	L	L	C	S
UniRef90_Q17BQ8	L	L	W	A
UniRef90_UPI00032AA504	M	R	R	R
UniRef90_U5EH14	L	R	N	V
UniRef90_A0A024GPA9	F	M	T	R
UniRef90_K3WWW3	F	M	K	R
UniRef90_H2NLI1	L	L	Y	S
UniRef90_G4MY67	L	L	C	D
UniRef90_B4NLA3	L	L	F	S
UniRef90_A8WY21	L	L	K	K
UniRef90_U6ITA3	L	L	L	S
UniRef90_UPI0002B40DA1	L	L	L	Q
UniRef90_F2T8A0	L	L	G	K
UniRef90_B6HRV9	L	L	I	T
UniRef90_F1SA56	V	T	S	R
UniRef90_F1SA56	V	T	S	R
UniRef90_F1SA56	V	T	S	R
UniRef90_C8VLC9	L	L	G	K
UniRef90_M4FYX8	L	L	C	S
UniRef90_A1CHX6	L	L	G	K
UniRef90_J0HEF0	L	L	G	Q
UniRef90_G7Y4Y7	L	L	L	Q
UniRef90_I8U260	L	L	G	R
UniRef90_C1H8A9	L	L	L	G
UniRef90_T5AH85	L	L	C	S
UniRef90_G3JHK2	L	L	C	S
UniRef90_I1HRB2	M	L	Q	M
UniRef90_G4VPB5	M	R	K	L
UniRef90_G0RNS5	L	C	Q	L
UniRef90_F1L5Y5	L	I	M	S
UniRef90_A0A024JK04	L	L	R	I
UniRef90_W4W6S0	L	L	A	S
UniRef90_S8B3D7	L	L	G	R
UniRef90_B9RUT5	L	L	R	R
UniRef90_G4Z7G8	F	L	S	R
UniRef90_A0A044UJ19	L	H	S	V
UniRef90_V4U6M2	L	L	K	C
UniRef90_W3WKQ6	L	L	S	S
UniRef90_M7NS85	L	I	M	R
UniRef90_D7TWQ3	L	L	R	R
UniRef90_G9NY27	L	L	C	Q
UniRef90_G2QHM6	L	L	C	Q
UniRef90_L2FRP3	L	I	C	S

QUERY	L	F	E	G	T	A	E	W	I	A	R	A	R	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_F6YB33	L	F	E	G	T	A	E	W	I	A	R	A	R	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_F6PZW9	L	F	F	D	G	T	A	E	W	I	A	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_W5N3S9	L	F	F	E	G	T	A	E	W	I	A	R	S	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_L7M4M2	L	F	F	E	G	T	A	E	W	I	A	R	S	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_UPI0001CBA86E	L	F	F	E	G	T	A	E	W	I	A	R	S	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_V9KU85	L	F	F	E	G	T	A	E	W	I	A	R	S	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_UPI000359BA40	L	V	E	G	T	A	D	F	I	T	R	S	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_A7RRP9	L	F	A	G	T	A	D	W	L	K	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	L	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_V3YZC1	L	F	K	D	T	A	P	Q	W	L	A	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	L	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_H3BB21	L	F	E	G	T	A	E	W	I	L	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_R7UM01	M	F	D	D	G	T	A	E	W	I	V	S	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	L	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_T1FN86	M	F	D	D	A	T	P	E	W	I	V	S	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_A0A022T5W9	L	F	K	G	T	D	D	W	I	S	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_E2QC37	L	F	D	D	K	T	A	E	W	I	V	S	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_A0A034V7Z1	L	F	D	D	K	T	G	D	W	I	A	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	D	L	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_K1QG68	L	F	D	C	T	P	E	W	I	A	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	D	L	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_E0VV79	L	F	K	N	S	G	E	W	I	A	N	C	Q	N	W	E	G	G	I	I	G	G	V	P	D	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_D6WSN3	L	V	R	G	T	S	F	E	W	I	A	N	C	Q	N	W	E	G	G	I	I	G	G	V	P	D	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_D3TP88	L	F	D	K	T	G	D	W	I	A	T	C	Q	N	W	E	G	G	I	I	G	G	V	P	D	L	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_UPI00027F3FDB	L	F	L	C	H	L	G	W	L	L	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_R4WT47	L	F	K	G	S	A	E	W	I	V	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_A0A026VWM91	M	F	K	G	T	A	D	W	I	A	K	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_I1GGA8	M	L	S	G	T	A	D	W	I	A	S	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	T	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_S4RYI4	L	F	E	G	T	A	D	W	I	A	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_T2MFI9	M	F	K	G	T	A	D	W	I	A	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	L	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_B3S5N9	L	F	K	D	T	P	E	W	I	A	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	L	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_J9K4H2	L	F	K	E	S	A	E	W	I	V	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_UPI00034F5252	L	F	E	G	T	A	E	W	I	A	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_H9KT46	I	L	F	K	E	S	E	W	I	A	K	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_J3JUW9	L	V	I	S	N	T	A	E	W	I	V	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	L	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_E9G5X4	L	F	S	G	T	S	E	W	I	L	K	C	Q	N	W	E	G	G	I	I	G	G	V	P	N	Q	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_U6NVG8	L	K	D	G	A	E	W	I	L	K	C	Q	N	W	E	G	G	I	I	G	G	V	P	L	T	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V		
UniRef90_V8PFH8	L	F	D	E	K	T	A	E	W	I	A	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_E2BEM9	I	F	R	G	T	E	E	W	I	A	K	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_E9BXH8	L	F	E	G	T	A	E	W	I	L	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	V	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_B7PKD0	L	F	E	G	T	A	E	W	I	V	A	K	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_H2Z533	L	F	D	N	S	P	Q	W	V	V	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	A	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_S2JBN9	L	T	E	N	C	I	D	F	I	A	R	S	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	K	E	A	H	N	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_UPI000258ECEA	I	F	E	G	T	E	N	W	I	A	K	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_A0A023FBE4	L	F	E	K	S	V	D	W	I	A	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_G6DEX7	L	F	D	E	K	T	A	E	W	I	V	S	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_B4JFL0	L	S	E	G	T	A	D	W	I	A	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	D	L	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_UPI000395A0E2	L	F	A	G	T	A	E	W	I	A	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_C3XS00	M	F	E	G	T	P	E	W	I	V	R	C	Q	N	W	E	G	G	I	I	G	G	V	P	E	M	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_F4PCK7	L	M	D	R	A	S	E	F	I	V	Q	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	L	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_I1CRG6	L	T	E	N	C	I	D	F	I	A	R	S	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	K	E	A	H	N	G	Y	T	F	F	C	G	L	A	A	L	V
UniRef90_V7C104	L	I	Q	N	V	G	D	Y	I	L	K	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	S	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_T1JT14	L	F	E	G	S	A	E	W	I	L	K	C	Q	N	W	E	G	G	I	I	G	G	V	P	D	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V		
UniRef90_C7YM06	L	F	T	G	L	A	D	Y	V	R	Q	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	V	E	A	H	G	A	Y	A	F	F	C	A	L	G	C	L	S	A
UniRef90_Q17BQ8	L	F	E	G	T	A	S	W	I	A	E	C	Q	N	W	E	G	G	I	I	G	G	V	P	D	L	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_UPI00032AA504	L	V	R	N	V	G	D	Y	I	L	S	C	Q	N	W	E	G	G	I	I	G	G	V	P	G	S	E	A	H	G	G	Y	T	F	F	C	G	L	A	A	L	V	
UniRef90_U5EH14	L	F	K	D	T	A	K	W	I	A	C	Q	N	W	E	G	G	I	I	G	G	V</																					



QUERY S F W Q A G L L L P L L L H R A L L H A Q G D P A L S M S H W M F H Q Q A L Q Q E Y I L  
UniRef90\_F6YB33 S F W Q A G L L L P L L L H R A L L H A Q G D P A L S M S R W M F F H Q Q Q A L Q Q E Y I L  
UniRef90\_F6PZW9 S F W Q A G L L L P L L L H R S T L H A E G D D S A I L N L A N W M F D D Q Q Q A L Q Q E Y I L  
UniRef90\_W5N3S9 S F W Q A G L L L P L L L H R S L F K E G D K A L S M T N W M F F D Q Q Q A L Q Q E Y I L  
UniRef90\_L7M4M2 S L W Q G G A F P L L L H K V L F S L G N E S L S M E S W L F D D Q Q A L Q Q E Y I L  
UniRef90\_UPI0001CBA86E S L W Q A G V L P L L L H M V L S K Q G D K S L S G D N W M F F D Q Q A L Q Q E Y I L  
UniRef90\_V9KU85 S F W Q A G I L P L L L H R T L H V Q G D S A L S L T H W M F F H Q Q E A L Q Q E Y I L  
UniRef90\_UPI000359BA40 S F W Q G G I F P L I I H M I M C T D D D D P N L S S P G R W M F F H Q Q E A L Q Q E Y I L  
UniRef90\_A7RRP9 S Y W L G G L F P L L L H S V L E A K Q D D N A I S S A N S W M F F D Q Q A L Q Q E Y I L  
UniRef90\_V3YZC1 S F W Q G G A L P L L L H M V L Y C A K E E D P A V S S Q S W L F D D T S A L Q Q E Y I L  
UniRef90\_H3BB21 S F W Q A G L L P L L L H R V L Y M Q G D D R G L S S M T N W M F F H Q Q E A L Q Q E Y I L  
UniRef90\_R7UM01 S F W Q G G A F P L M H M I L S K E K D D T L S S A D S W M F F H Q Q A L Q Q E Y I L  
UniRef90\_T1FN86 S F W Q G G I F P L I I H T I L T K Q G D N A L S S Y E G W M F F H Q Q A L Q Q E Y I L  
UniRef90\_A0A022T5W9 S F W Q G A S F P L I I S A I L S K E K K Y F N S N D Y W L F D D Q Q A L Q Q E Y I L  
UniRef90\_E2QC37 S F W Q G A A F P L I I S A L L S K Q D N K E L I E T V L F N D T S A L Q Q E Y I L  
UniRef90\_A0A034V7Z1 S F W V G A T I P I T Q A F I S Q K S G L S M K K S L F D D T S A L Q Q E Y I L  
UniRef90\_K1QG68 S F W Q G G A L P L I I H M V L A Q E H N D N L S S E K W M F D D Q Q A L Q Q E Y I L  
UniRef90\_E0VV79 S F W Q G G T F P L I I H G I L S K D I E N V L N H E R W L F H Q Q E A L Q Q E Y I L  
UniRef90\_D6WSN3 S F W Q G A A F P L I I Y S L L A E D G L E V K N H L F D E R A L Q Q E Y I L  
UniRef90\_D3TP88 S F W V G A T I P I T Q A I I S N Q N N H K L V K T L F D V G A L Q Q E Y I L  
UniRef90\_UPI00027F3FDB S F W Q A G L L P L L L H R A L L H A Q G D P A L S M S H W M F F H Q Q A L Q Q E Y I L  
UniRef90\_R4WT47 S F W Q A G A I A L L H A L R L L S D E K K Y L N T D T W L F N C N L L Q Q E Y I L  
UniRef90\_A0A026WM91 S F W Q G G L F P L L L H A L L L K L G K T F N N S E H W L F N Q E A L Q Q E Y I L  
UniRef90\_I1GGA8 S F W V G G L F P L L I Y M S L K H S G D D K G L Q D N L W H F H Q Q E S L Q Q E Y I L  
UniRef90\_S4RY4 S F W Q A G L L P L L I H R S L M N E G D Q A L S E Q R W M F F H Q Q E A L Q Q E Y I L  
UniRef90\_T2MFI9 S F W Q G G I F P L V I H S T L Q M Y S D E N L S E N T W M F D D Q S A L F E E Y I L  
UniRef90\_B3S5N9 S F W Q G L F P L L N L V L F M S N G D E S I D L E E W L F D D V A L Q Q E Y I L  
UniRef90\_J9K4H2 S F W Q A A I F P V I S E L L F S E N Q R P M W S M Y F D D Y Q A L Q Q E Y I L  
UniRef90\_UPI00034F5252 S F W Q A G L L T L L H R A L L H A Q G D P A L G M S R W M F F H Q Q A L Q Q E Y I L  
UniRef90\_H9KT46 S F W Q G G A F P L I I T L T M E N K V F N S A Y W L F N Q E A L Q Q E Y I L  
UniRef90\_J3JUW9 S F W Q G G A F P L L Y T L L A K E G C A P K R H L F D E R A L Q Q E Y I L  
UniRef90\_E9G5X4 S F W Q G A L F P L L L H F L L A K Q Y S E A L D A K R W L F N Q E A L Q Q E Y I L  
UniRef90\_U6NVG8 S F W Q A A N F P L I I D G E M A R Q Q G R L P T E G L F D A R M L F E E Y I L  
UniRef90\_V8PFH8 S F W Q A G L L P L L I H R A L H A K G K F E L Q N V T R A F L F D A R M L F E E Y I L  
UniRef90\_E2BEM9 S F W Q G G A F P L I I H A L L S K E K E E Y N S N Y W L F N Q E A L Q Q E Y I L  
UniRef90\_E9BXH8 S F W Q G G T F P S V A Y A L Y A N E P N E Q A L E G G F M N D Q D A L Q Q E Y A L  
UniRef90\_B7PKD0 S F W Q G G V F P L L L H K V L F A M G N D A L S M E S W L F D Q Q A L Q Q E Y I L  
UniRef90\_H2Z533 S F W Q G G V L P L L L H K V L E D S H L A E L N E H S W L Y D D Q Q A L Q Q E Y I L  
UniRef90\_S2JBN9 S F W G A G D F P I I Q A H V Q W E E Y L F D D R E A L Q Q E Y I L  
UniRef90\_UPI000258ECEA S F W Q G S F P L I I H A L L T K E E K A F N S D Y W L F D D Q G A L Q Q E Y I L  
UniRef90\_A0A023FBE4 S F W Q G S L A I N L G L I K E N Y F E M K P S E W H F D S A L L Q Q E F L L  
UniRef90\_G6DEX7 S F W Q G A I F P I I S A L L S Q D N K E M I E T V L F N Q G A L Q Q E Y I L  
UniRef90\_B4JFL0 S F W V G A T I P I T Q A T L I G S S R D M D Q T L F D V G A M Q Q E Y I L  
UniRef90\_UPI000395A0E2 S F W Q A G L L P L L L H R A L L H A R G D P A L S M A H W M F D Q Q A L Q Q E Y I L  
UniRef90\_C3XS00 S F W Q A G T L P L L L H R V L M M E G D E A L S K E S W M F F H Q Q A L Q Q E Y I L  
UniRef90\_F4PCK7 S L W Q G G I V S P L L L H M V L K R K T G Q V N L L N R D A L E R Y I V  
UniRef90\_I1CRG6 S F W G A G D F P I I K S A L S R H E H V N T S D Y L F D R E G L Q Q E Y I L  
UniRef90\_V7C104 S F W Q G G A V A L L E Q R L Y S I V D K Q M E E T S Q P L F H S Q A L Q Q E Y I L  
UniRef90\_T1JT14 S F W Q A A A L V I I E S H L A K Q N S H V L N Y R R W T F N Q Q A L Q Q E Y I L  
UniRef90\_C7YM06 S H W V G G C W P L I I E A A L N G P G G E A A A V S D S L F S R D G L I R Y I L  
UniRef90\_Q17BQ8 S F W Q G A L T P V I Q S L I A R K E N Y P E I M N T A L F N R I A L Q Q E Y I F  
UniRef90\_UPI00032AA504 S F W Q G G A V V L L Q R L H S S S S D F K N I G Y N F I N E W K L Q Q Y I L  
UniRef90\_U5EH14 S F W V G A I I P I T Q A L I K T N P T N T L I M D N S L F H R H A L Q Q E Y I L  
UniRef90\_A0A024GPA9 S F W Q G A I P A L L A P R L K E M Y G L D H F Q C H Q Q L Q L Q Q K Y I L  
UniRef90\_K3WWW3 S F W Q G A L P A L L V D V L E E Q Y G T T V Y Q C H Q Q E Q L Q Q K Y I L  
UniRef90\_H2NLI1 S F W Q A G L L P L L L H R A L L H A Q G D P A L S M S H W M F H Q Q A L Q Q E Y I L  
UniRef90\_G4MY67 S H W V G G C W P L I I E A C L N G P V K V S S L E P Q H L F S R E G L M R Y I L  
UniRef90\_B4NLA3 S F W V G A T I P I T Q A T M P G M E H T L F D V E A L Q Q E Y I L  
UniRef90\_A8WY21 S F W Q G A I F P L L I D G E M E R E G R S L E K G L F E A K M L F E E Y I L  
UniRef90\_U6ITA3 S F W V G A I F P L L L E K V L F E N T S S S G S P E Y T M F D T S A L Q Q E Y I L  
UniRef90\_UPI0002B40DA1 S F W Q G G V C S L L E Q R V L G Y E F T E K H S P S Q P L F N S L A L Q Q Y I L  
UniRef90\_F2T8A0 S H W V G G C W P L I I Q A A V N G T S T P S Y S R S G S L F H R E G L T T R Y I L  
UniRef90\_B6HRV9 S H W V G G C W P L L E S S L E G K P D S T E P A N S L F S R E G L T T R Y I L  
UniRef90\_F1SA56  
UniRef90\_F1SA56  
UniRef90\_F1SA56

S H W V G S C W P L I T Q S A L D G V Q D A A G P K P G N L Y S R E G L T T R Y I L  
UniRef90\_C8VLC9 S H W V G S C W P L I I E A C L R G P I A A A S A A P E P M F N S R E G L T T R Y I H  
UniRef90\_M4FYX8 S H W V G N C W P L I I Q S A L D G P H S P E Q E T V G S L Y S R E G L T T R Y I L  
UniRef90\_A1CHX6 S H W V G G C W P L I I Q A A L N G T Q S N A Q P R F G S L Y S R E G L T T R Y I L  
UniRef90\_J0HEF0 S F W L G A L F P V I E E L L D L S D D P A L T D E T L F N S A S A L Q Q E Y I L  
UniRef90\_G7Y4Y7 S F W V G G C W P L I I Q S A I N G T Q S P P K Q T S T G A L F Y S R E G L T T R Y I L  
UniRef90\_I8U260 S H W V G G C W P L V H A S A I N G T Q S P L H S R Y R G A L F H R E G L T T R Y I L  
UniRef90\_C1H8A9 S H W V G G C W P L L E A S L R G P E G P A A E T A D H L F S R N G L I R Y I L  
UniRef90\_T5AH85 S H W V G G C W P L I I Q A A L S G P S D Q Q A A D T G S L F S R D G L I R Y I L  
UniRef90\_G3JHK2 S H W V G G C W P L I I Q A A L S G P S D Q Q A A D T G S L F S R D G L I R Y I L  
UniRef90\_I1HRB2 S F W Q G A A I A L T Q A L M T V V D K Q S N Q G P L F H N I A L Q Q Q Y I L  
UniRef90\_G4VPB5 S F W Q G A I F P I V E E L L W L S G D P A L N D M D T L F N S A L Q Q E Y D V  
UniRef90\_G0RNS5 S H W V G G C W P L I I E A S L S G P T A E A T E E D D S L F S R N G L I R Y I L  
UniRef90\_F1L5Y5 S F W Q A A V F P M M Q V E L D K R S P T E L R A P F D A K A L Q Q E F L V  
UniRef90\_A0A024JK04 N H W V G G C W A L I E N I V S Y H D L W D R T A L Q Q N Y T L  
UniRef90\_W4W6S0 S F W Q G G T F P L I I A A L L S T Q G K G F N N S D H W L F N Q E A L Q Q E Y I L  
UniRef90\_S8B3D7 S H W V G G C W P L L Q S A L D G K P S P E T V G S L F S R D G L D R Y I L  
UniRef90\_B9RUT5 S F W Q G G V F A L L Q R L R S I G G E H A H G V T V P L F H S S A L Q Q Q Y I I  
UniRef90\_G4Z7G8 S F W Q G A V F P L L E A D V V R Q K Y G E D V P Y Q C H Q Q E Q L Q Q K Y I I  
UniRef90\_A0A044UJ19 S F W Q A A V F P L L L A V A Q L A V G N N I S A S F D G K A L Q Q E Y I I  
UniRef90\_V4U6M2 S F W Q G G V F A L L R R F H S I H C H H F Q H R E R E P L F H S I A L Q Q R Y I L  
UniRef90\_W3WKQ6 S H W V G G C W P L L Q A S L A R D H S S A L P S G H S F Y D R E G L T T R Y I M  
UniRef90\_M7NS85 S W W L G G C W A L L S S V I E D V R T P L V D K N A L R R Y I I  
UniRef90\_D7TWQ3 S F W Q G G V F A L I Q K L H S I N F L K E P A E M E P L F H S I A L Q Q Q Y I I  
UniRef90\_G9NY27 S H W V G G C W P L I I E A G L S G P E G P T A E A D D S L F S R N G L I R Y I L  
UniRef90\_G2QH M6 S H W V G G C F P L V E A C L N T D R H R P P P A D E S L F N S R E G L T T R Y I L  
UniRef90\_L2FRP3 S H W V G G C W P L I I D A V L K G Q Q S R T T P A E G S L Y S R E G L I R Y I L



QUERY M C C C Q C P A G G 330 D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_F6YB33 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_F6PZW9 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_W5N3S9 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_L7M4M2 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_UPI0001CBA86E L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_V9KU85 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_UPI000359BA40 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_A7RRP9 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_V3YZC1 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_H3BB21 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_R7UM01 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_T1FN86 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_A0A022T5W9 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_E2QC37 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_A0A034V7Z1 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_K1QG68 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_E0VV79 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_D6WSN3 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_D3TP88 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_UPI00027F3FDB L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_R4WT47 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_A0A026VWM91 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_I1GGA8 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_S4RY4 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_T2MFI9 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_B3S5N9 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_J9K4H2 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_UPI00034F5252 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_H9KT46 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_J3JUW9 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_E9G5X4 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_U6NVG8 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_V8PFH8 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_E2BEM9 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_E9BXH8 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_B7PKD0 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_H2Z533 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_S2JBN9 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_UPI000258ECEA L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_A0A023FBE4 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_G6DEX7 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_B4JFL0 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_UPI000395A0E2 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_C3XS00 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_F4PCK7 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_I1CRG6 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_V7C104 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_T1JT14 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_C7YM06 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_Q17BQ8 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_UPI00032AA504 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_U5EH14 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_A0A024GPA9 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_K3WWW3 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_H2NLI1 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_G4MY67 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_B4NLA3 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_A8WY21 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_U6ITA3 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_UPI0002B40DA1 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_F2T8A0 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_B6HRV9 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_F1SA56 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_F1SA56 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A  
UniRef90\_F1SA56 L L C C C Q C C P A G G L L L D K P G K S R D F Y H T C Y C L S G G L S I A A Q H F F G G S G A

UniRef90\_C8VLC9 G C C C Q C S K N G G G L L R D K P G K H P D S Y H T C Y T L T G L S S V Q H W D S D E  
UniRef90\_M4FYX8 C C C C Q C D H S G G L L R D K P G K M S D A Y H S C Y V L S G G L S S A E N R W Q L I  
UniRef90\_A1CHX6 S C C C Q C S K H G G L L R D K P G K H P D S Y H T C Y T L V G L S T V Q H H S S N D  
UniRef90\_J0HEF0 G C C C Q C S P H G G L L R D K P G K H P A D S Y H T C Y T L A G L S T N T Q S Y H F F E D  
UniRef90\_G7Y4Y7 L C C C Q C E G D G G L L L D K P G K N A D C Y H T C Y A L A G L S T A Q H K P S P A  
UniRef90\_I8U260 A C C C Q C G K H G G L L R D K P G K H P D S Y H T C Y T L T G L S T T Q Y Y H S S D N E  
UniRef90\_C1H8A9 N C C C Q C G P H G G L L R D K P G K H P D S Y H T C Y T L A G L S T V Q H H H S S V E  
UniRef90\_T5AH85 C C C G M S K R G G G M R D K P S K Y S D A Y H T C Y V L A G L S S A Q H K W D S P  
UniRef90\_G3JHK2 C C C C Q C D Q T L E G G L L R D K P S K Y S D A Y H T C Y V L S G L S S A Q H K W T L K  
UniRef90\_I1HRB2 L L C A Q V L E G G L L R D K P G K N R D H Y H S C Y C L S G L S V S Q Y S S D S C  
UniRef90\_G4VPB5 S T C C D G G G L L L D K P G K N P D A Y H T C Y S L S G L S V A Q H S P R C R  
UniRef90\_G0RNS5 C C C C M S K R G G L L R D K P S K Y S D A Y H S C Y V L S G L S S A Q R W E A S P  
UniRef90\_F1L5Y5 L C C C Q C D K E K G G G F R D K P E K A R D M Y H T C Y T L S G L S S A Q R S E S  
UniRef90\_A0A024JK04 Y C C C Q C S T S G G L L R D K P G K N P D A Y H T N Y T L A G L S S G A Q Y R Y I Y E S  
UniRef90\_W4W6S0 T C C C Q C N T P H G G L L R D K P G K N R D I Y H T C Y V L S G L S S A Q N S  
UniRef90\_S8B3D7 G C C C Q C T P M G G L L R D K P G K S A D S Y H T C Y V L T G L S T A T Q H H H A S P  
UniRef90\_B9RUT5 L C C C Q C E Q E G G G F R D K P G K A R D Y Y H T C Y C L S G L S V C Q Y S W S K D  
UniRef90\_G4Z7G8 L C C G Q C E T S G G L L R D K P G K P R D H Y H S C Y C L S G L S V A Q H G D G K  
UniRef90\_A0A044UJ19 A C C C Q C D T E N G G L L R D K P D K P S D I Y H T C Y V L S G L S I A Q H Y Y  
UniRef90\_V4U6M2 L C C C Q C D P G G G L L R D K L R K P R D Y Y H T C Y C L S G L S L C Q H S W L K S  
UniRef90\_W3WKQ6 S C C C Q C D H S G G M R D K P G R R S D A Y H T C Y V L S G L S S V Q H H V S A D  
UniRef90\_M7NS85 T C C C Q C Y K T G G L L R D K P E K Y P D Q Y H T C Y C L S G L S V I Q Y I F Y S E N  
UniRef90\_D7TWQ3 L C C C Q C L Q E G G G F R D K P G K H R D Y Y H T C Y C L S G L S V A Q Y S Y S K D  
UniRef90\_G9NY27 C C C C Q C D M S G G M R D K P S K Y S D A Y H T C Y V L S G L S S A Q N W E V L P  
UniRef90\_G2QHM6 C C C C Q C D Q T G G L L R D K P G K M S D A Y H S C Y V L S G L S S A Q H Q W V L P  
UniRef90\_L2FRP3 C C C G C S K R G G L L R D K P S K P S D A Y H T C Y V L S G L S S A Q H R W D L T



QUERY	P
UniRef90_F6YB33	P
UniRef90_F6PZW9	P
UniRef90_W5N3S9	P
UniRef90_L7M4M2	P
UniRef90_UPI0001CBA86E	P
UniRef90_V9KU85	P
UniRef90_UPI000359BA40	P
UniRef90_A7RRP9	
UniRef90_V3YZC1	
UniRef90_H3BB21	
UniRef90_R7UM01	P
UniRef90_T1FN86	
UniRef90_A0A022T5W9	P
UniRef90_E2QC37	P
UniRef90_A0A034V7Z1	
UniRef90_K1QG68	P
UniRef90_E0VV79	P
UniRef90_D6WSN3	P
UniRef90_D3TP88	
UniRef90_UPI00027F3FDB	P
UniRef90_R4WT47	
UniRef90_A0A026WM91	P
UniRef90_I1GGA8	
UniRef90_S4RYY4	P
UniRef90_T2MFI9	P
UniRef90_B3S5N9	P
UniRef90_J9K4H2	
UniRef90_UPI00034F5252	P
UniRef90_H9KT46	P
UniRef90_J3JUW9	
UniRef90_E9G5X4	
UniRef90_U6NVG8	
UniRef90_V8PFH8	P
UniRef90_E2BEM9	P
UniRef90_E9BXH8	
UniRef90_B7PKD0	
UniRef90_H2Z533	
UniRef90_S2JBN9	
UniRef90_UPI000258ECEA	P
UniRef90_A0A023FBE4	
UniRef90_G6DEX7	P
UniRef90_B4JFL0	
UniRef90_UPI000395A0E2	P
UniRef90_C3XS00	P
UniRef90_F4PCK7	
UniRef90_I1CRG6	
UniRef90_V7C104	
UniRef90_T1JT14	
UniRef90_C7YM06	
UniRef90_Q17BQ8	
UniRef90_UPI00032AA504	
UniRef90_U5EH14	
UniRef90_A0A024GPA9	
UniRef90_K3WWW3	
UniRef90_H2NLJ1	P
UniRef90_G4MY67	
UniRef90_B4NLA3	P
UniRef90_A8WY21	
UniRef90_U6ITA3	
UniRef90_UPI0002B40DA1	
UniRef90_F2T8A0	
UniRef90_B6HRV9	
UniRef90_F1SA56	
UniRef90_F1SA56	
UniRef90_F1SA56	
UniRef90_C8VLC9	
UniRef90_M4FYX8	
UniRef90_A1CHX6	
UniRef90_J0HEF0	P
UniRef90_G7Y4Y7	
UniRef90_I8U260	
UniRef90_C1H8A9	
UniRef90_T5AH85	
UniRef90_G3JHK2	
UniRef90_I1HRB2	
UniRef90_G4VPB5	
UniRef90_G0RNS5	
UniRef90_F1L5Y5	
UniRef90_A0A024JK04	
UniRef90_W4W6S0	P
UniRef90_S8B3D7	
UniRef90_B9RUT5	
UniRef90_G4Z7G8	
UniRef90_A0A044UJ19	
UniRef90_V4U6M2	
UniRef90_W3WKQ6	
UniRef90_M7NS85	
UniRef90_D7TWQ3	
UniRef90_G9NY27	
UniRef90_G2QHM6	
UniRef90_L2FRP3	

1 10 20 30 40  
UniRef90\_M1WGWZ4 I P S L F T F G P P I R D A L L T T D S S Q L Q D E T V E E C A P F L T  
UniRef90\_S3D6E5 I Q D Y F T H P P L V R D N Y Q T E T S E V Q D D T V T A C L P H L Y  
UniRef90\_UPI0002C3359F V A T R T Q R E Q W M V E S E V L R I Y N  
UniRef90\_T1IU12 R C V K E N F Y R E R F N D D K F K T K T S K E Q N K I E D S I Q L L Y  
UniRef90\_F0Y5G6  
UniRef90\_U5FIW6 E S G G E T V T Q V E Q W S V E D R V F R I Y N  
UniRef90\_E4YF17 N V F T T S T E S Q S A T E T R V V R L C Q  
UniRef90\_E4V1K7 E T E T S R A Q A E V V G R C L P F L R  
UniRef90\_A0A022RW41 S K T Q E E Q W M V Q N Q V F R I Y D  
UniRef90\_N4VCS2 P S L F T S P P P V R D T L P T A T Q S A Q D E T V R E C L P F L S  
UniRef90\_G2QQX2 I P D L F T Q L P P V R D S L V T G T S Q V Q D E T V G V C L P F L S  
UniRef90\_W9QZF2 R Q L V L D S P Y P N E S P I E S K G L D E Q R Q K L L V  
UniRef90\_R7VW81 R H E Y T F S V V D D Y Q T K V E E I V Q E V F D  
UniRef90\_A0A024TNI8 P T S A K S L P T D N W P T S T T R L Q H E T E S L C L L E Q L Q  
UniRef90\_D8S0K4 S A T R E Q K A L E A K V S D V F R  
UniRef90\_A0A017SSA9 P A L F T E P P V I H D P L T T E T S E L Q E Q T L E K C L P F L Q  
UniRef90\_T0QTU2 L P V Q K S L P T D G C P T Q T S R M Q A E T E A T C I S F F V  
UniRef90\_C5FUR3 N P L F A T L P P L D G L Q T E T S R S Q A Q V A A R C I P L L A  
UniRef90\_A9SVW9  
UniRef90\_G7XKB4 P A L F Q E L P S L L D A L C T E S S E V Q S E T V N K C L P F L K  
UniRef90\_MOTU01 T T T Q L E Q L R V E Q E V Y G I Y R  
UniRef90\_G4V1H6 Q P E P M I P D L F K Q P S L V K D D L I T A T S Q L Q D Q T V E H C L P F L T  
UniRef90\_B4FPF5 T V T Q V E Q M K V E A R V G D I Y R  
UniRef90\_A9V860 I N D D G L S T L T T R Q Q E A V E T Q L E E C F R  
UniRef90\_D8R953  
UniRef90\_Q38920 E S T R R R V M E E L S S T V S Q R E Q F L V E N D V F G I Y N  
UniRef90\_A7E4E7 V N M I P D I F T E Y P L L R D M L Q T Q T S H L Q D Q T I Q E C L P F L S  
UniRef90\_W1PF95 F T V T Q R Q Q L L V Q E K V G K I L N  
UniRef90\_K1XHX5 P D I F T Q L P P C R D L H I T E S S Q V Q D E T V Q E V L P F L S  
UniRef90\_G0SAH2 F M I P D I F T Q L P L I R D E L V T K T S I E Q D E T V E A C L P F L R  
UniRef90\_L8G615 Y Q I P L F S Q Q P L I H D L L A T E T S E K Q G E V V E T C A S F L S  
UniRef90\_M2X2S1 F R D L K S L Y L Q N E Q T Y P T E T Y L V Q R Q V E R S I L K I  
UniRef90\_Q04903 P T V S Q R D Q W I V E S Q V F H I Y Q  
UniRef90\_W9WZR6 P A Y F W Q P P P L L D T L E T E T S T V Q K E T V N D C L P L L N  
UniRef90\_U9U897  
UniRef90\_K2RX76  
UniRef90\_H6C262 P A Y F L Q P P A L L D E L E T E T S T L Q A N T V N E C I P L L N  
UniRef90\_W9WNVW0 E P P L P D D L E T E T S I V Q D K T V K E C L P L L N  
UniRef90\_B8LWT0 E Y N I P P L F T N P P L L R D A L Q T K T S Q D Q D E T I E K C L P F L T  
UniRef90\_K0KMG4 E E L L T A T T E E Q K R T E D I V K G I Y D  
UniRef90\_G3AH96 P D N S F Q P A A S A V E E D P Y V S F T T E T Q D E T E N V I L T R F K  
UniRef90\_T1HNF3  
UniRef90\_R1E3J8 R D G G A P S D T T E E Q I A T E E A C Q R C I D  
UniRef90\_Q2GSE3 P G F M I P D L F T Q L P P V R D T L V T G T S T V Q D E T V E V C L P F L A  
UniRef90\_F2S354 I P S L F A T Q P P L L D E L Q T D T S R A Q A E V V G R C I P L L R  
UniRef90\_L7MB91  
UniRef90\_V5G3R9 S I P R L F K E P P P I R D S L T T E T S K L Q D E T L E K C L P F L K  
UniRef90\_W4ZJ2  
UniRef90\_T1EA12  
UniRef90\_T1EA12  
UniRef90\_C4R549  
UniRef90\_Q6FL08 L E T D T T L A R N D V L H S I N K L L E  
UniRef90\_A0A059A070  
UniRef90\_A9T4H0  
UniRef90\_P53612  
UniRef90\_P53612  
UniRef90\_K1QIP5  
UniRef90\_UPI0001CBBCF7  
UniRef90\_M5VYR3 E P S A M I A D I F T R P P L V R D V L L T D T S D V Q D E T V I Q L C L P F M D  
UniRef90\_F0XHM5 I R D A Y A T E T S I T Q D E T E E I L L P Y L E  
UniRef90\_E5A9J9  
UniRef90\_Q6Z8L7  
UniRef90\_W1QEV1 K P T D E F Y H F A L N Y R F N D D N Y L T F S S I E Q K R T E E L V Q E C F N  
UniRef90\_E5SJZ6  
UniRef90\_M4BJD9 V A T V T Q H D Q W K V E S Q V F R I Y D  
UniRef90\_M5W7M4 I P D I F T T L P P V R D L L N T Q T S L L Q D Q T V I Q E C L P F H L  
UniRef90\_S3D4M4  
UniRef90\_F0ZKB2 P E L F S C P P P I R D E L E T Q T S K L Q D K T I Q E C L P F L T  
UniRef90\_R7YY34 R H E Y T F S V V D E Y Q T K V E D L V Q E V F S  
UniRef90\_UPI0003C4CF9A Q P D V M I P E Y F T H M P L V R D R L I T D T S E M Q E S T A Q M C L D I F R  
UniRef90\_U7PTI7  
UniRef90\_C3XQH0  
UniRef90\_C3XQH0  
UniRef90\_G8BQL8 D T S D Y Q T E T I A D R N E V L K D C L P L L E  
UniRef90\_Q0UNK1 I K D D Y E T E T S K T E D D T H E I L P F L E  
UniRef90\_W6MVA7 L N R F D T L V I E M V S F P A P T D S T A T T R L Q L E T E T P I R E Y Y E  
UniRef90\_Q0D038 P A L F T Q P P V L Q D A L I T E T T E L Q N E T V D K C L P F L K  
UniRef90\_B2VWD3 I K D T L E T A T S E V D E E T A R L I L P Y L E  
UniRef90\_Q00ZE3 L H S F F T S H T L F A L V F S S L E S V S D Y T H Q H S V T P I S R S M S  
UniRef90\_U4LRL4  
UniRef90\_F7W540 L P D L F K Q P P L V K D D L I T D T S K L Q D Q T V E H C L P F L A  
UniRef90\_G7E9N3 L P F D S P A A I K Q K V P D D G L I T T E T S D A Q R E T E D A I Q A Q L A  
UniRef90\_K0KNE1  
UniRef90\_C1E5T3 D F P T E T S L E Q W K L E H V A R D I Y R  
UniRef90\_Q6C928 H I L L T L P I R D S Y V T E T S E L Q N A T E E Q I V A C L E  
UniRef90\_U4LF63 S Y P V L R D T Y Q T K S Q K D Q D Q T V I S E V L P H I T  
UniRef90\_H3FYC7  
UniRef90\_Q5D978 F H L R Q A D R T N G P E T R T I I D Q M E T E S L V S K A Y Y  
UniRef90\_S8AFR4  
UniRef90\_K4E3M5  
UniRef90\_R7QA22  
UniRef90\_S2JBJ6 Q R V Q H E N I F S D T W H A Q H Y V E Q R V F D I

UniRef90\_M1WGWZ4 G Y D Q C N I H G T P P L R R R P Q H V I K F L Q K Q L G K L P K M F K S A D S S 80  
UniRef90\_S3D6E5 D P K F A A D E G L P H L D R K R H I A F L A K S L L G Q L P G V F L G Y D A S R R  
UniRef90\_UPI0002C3359F H F E G L P L S D Q L K L K R D D H I N Y L M R G L G L L P A S F S S L D A N R R  
UniRef90\_T1IU12  
UniRef90\_F0Y5G6  
UniRef90\_U5FIW6 L F A N I P P V A Q L E L L Q R D E H V A Y L M K G L L G G L G G S S Y V A L D A S R R  
UniRef90\_E4YF17 E F L D K E I Q P E L R L D V R K H I T Y A S N K G L T S L G P S F Y E S L D A S R R  
UniRef90\_E4V1K7 G E E A S L S L P L Q S L L A R E D H V E Y L L D A L T G D Y P A R F V G L D A S R R  
UniRef90\_A0A022RW41 R L P P H A Q S V N F E L L R R D D H V E Y L L T Q S L L G R F P A N F T V L D A S R R  
UniRef90\_N4VCS2 G P P D A G T A G V P S L L R D N H V K F L L R K Q L L G R F P A P Y V A A D A S R R  
UniRef90\_G2QQX2 G E D N E H G V P R L L D R E R H V R F L H K S L L G R L P G A F V A A D A S R R  
UniRef90\_W9QZF2 T Y I R D K M G E L A A E K H V K Y I I S V E K K K D S E S V V M E H L R  
UniRef90\_R7VW81 A C K T N H H A S Q F V L H R D K H V H Y L K R G L R Q L T E A Y E C L D A S R R  
UniRef90\_A0A024TNI8 A A G F L N D R F E V R L L R E K H V P Y L V R G L E Y L P P G F A S M D A S R R  
UniRef90\_D8S0K4 S F A S A G Y R N R A E L W R E H L D Y L L K G M T R L P A S F T V L D A S R R  
UniRef90\_A0A017SSA9 G N Q K S Q R E P F A L L G R D D H I G F L Y D S L E E Y P D D F V A L D A S R R  
UniRef90\_T0QTU2 D L D D L P A S E R V C L L K E R H T P Y L M R G L L E Y L P P G F Q S M D A S R R  
UniRef90\_C5FUR3 G F L S L N G Q G V Q Q L A R Q L H V D Y L L D A D F R G Q Y P A S F V G L D A S R R  
UniRef90\_A9SVW9 R L E L W R E E H V Q Y L L K R A F R G L T S Y S V L D A S R R  
UniRef90\_G7XKB4 G I H N S Q A G P F P A L N Q N D H L T Y L Y D S L E D Y P E G F A G M D A S R R  
UniRef90\_MOTU01 L F H G V A P H T R L E L W R D K H I E F L T R G L L K Q L G P N F H V L D A S R R  
UniRef90\_G4V1H6 G E D G P L D L N D P K L N R E K H I K F L K Q S L G R G P L G R F V A V D A S R R  
UniRef90\_B4FPF5 S A A P N T K S I M L E L W R D Q H I E Y L T P G L R G H M G P A F H V L D A S R R  
UniRef90\_A9V860 P V L A D P E V Q P L M L D R R R H I G F L R S G L G Q K L G S G Y Q C L D A S R R  
UniRef90\_D8R953 M E L R V D K H V E F L K S L E K K D F D S M V M E H L R  
UniRef90\_Q38920 Y F D A S D V S T Q M E I Q R D K Q L D Y L M K G L R Q L G P Q F S S L D A N R R  
UniRef90\_A7E4E7 G K E A Y Y P Y G V P Q L R R E K H I Q F L H K Q L L K Q L P S A Y V G A D A S R R  
UniRef90\_W1PF95 T L I G A S P G T K L E L W Y E R H I E F L N A G L K Q L G P G Y S V L D A N R R  
UniRef90\_K1XHX5 G Q N S D V E T N E P R L A R D R H I S F L H K S L L G R L P S G Y V A A D A S R R  
UniRef90\_G0SAH2 G D D D F F D Y N E P E L D R E R H I R F L R Q C L G L K L P G R F V A A D A S R R  
UniRef90\_L8G615 S Y N E H G V P H L L R E K H V N F C H K Q S L N P L P A P F T R A D A S R R  
UniRef90\_M2X2S1 E Q E P L R G E D R L N K E E H K E Y L H Q S L K Q L P T S Y Q A L D A S Q  
UniRef90\_Q04903 L F A N I P P N A Q S T I  
UniRef90\_W9WZR6 G I N D P C R S P F P C L E R E A H I G F L Q Q S L D E Y P A P F V G I D A S R R  
UniRef90\_U9U897 L L V D L H V K Y I Q S L D T K K D D E Y W L T E H L R  
UniRef90\_K2RX76 G A K G E Q L P E E L K L H V D K H V K Y I Q S L D T R K D D E Y W L T E H L R  
UniRef90\_H6C262 A I E D P S R S P F P T L Q R E R H I D F L H E H L Q E F P A G F V G L D A S R R  
UniRef90\_W9WNW0 E V D D A S R S P F P N L E K E K H I G F L H D N L G E F P A P F V G L D A S R R  
UniRef90\_B8LW70 G K D N L N K F G L S H L L K D E H I E Y L N A D S L G L Y P A G F V A M D A S R R  
UniRef90\_K0KMG4 D L I E E G R V P H L L K D K H E K Y L N A A L G Q L P P A F K G L D A S Q  
UniRef90\_G3AH96 E L I G K L S F N Y R L H E K Y L M S F Y S K L P S G Y V V L D A N H  
UniRef90\_T1HNF3 P D L K R S L H I G Y L L N T L K N L S Q S F E V M D A S R R  
UniRef90\_R1E3J8 E I C D P E L R R E A A L T R E H R T Y C A S G L W R L S A G Y A S L D A S R R  
UniRef90\_Q2GSE3 G E D G D N G H G V P G I Y R A K H V R F L H Q C L G K L P A R F V A A D A S R R  
UniRef90\_F2S354 G E E E S A G V P L P L A R E L H V E Y L L D A L G E Y D G R F V G L D A S R R  
UniRef90\_L7MB91 A Y T T N H H W Q S Q F V L Q R E K H V H Y L K R G L R Q L T D A Y C L T E H L R  
UniRef90\_V5G3R9 G T E S S L F G S L P A L N Q K D D H I E Y L Y D S L E D Y P T N F V G I D S S R  
UniRef90\_W4ZJ2 D V T L K P T A P K E V F F Y K H V T Y L T S Y S K K D D Y Y V M T E Y L R  
UniRef90\_T1EA12  
UniRef90\_T1EA12  
UniRef90\_C4R549 S I L D D G Q L P T L E T T Q H R S F V K Y F L E T L P A G F L A L D A S H  
UniRef90\_Q6FL08 N L C L E P N N S E L E L N K D F H K V Y L E M F D S A L P P Q M A A L D A S Q  
UniRef90\_A0A059A070 E L V G N K H V E Y I L S V E R R K D D F L V L M D H L R  
UniRef90\_A9T4H0 E L Y L D K H V A Y I K S L D K K K D F D A V V M E H L R  
UniRef90\_P53612  
UniRef90\_P53612  
UniRef90\_K1QIP5  
UniRef90\_UPI0001CBBCF7 D V T I S S K A P T S F L G D K H A D Y I A A Y G S K K D D Y E Y C I T E Y L R  
UniRef90\_M5VYR3 G F A K L P P D A Q L E L K R E N H I D Y L K G G L R Q L P S S F C I L D A L R  
UniRef90\_F0XHM5 G Q E G Q D G L S N P S L D R Q R H I K F L K A S L L G T L P G S F V S Y D A S R  
UniRef90\_E5A9J9 G N P N N F S L N S P A L Q R E R H V S M L R K C M L G D Y P G Q F A L M D A S R  
UniRef90\_Q6Z8L7 D L L S Q E K S Q F P L L T R K R H S K Y I N T V L R P L P A P F T A L D A S H  
UniRef90\_W1QEV1 A F N D E Q Q V E V P Q L L R E E H A K Y L R S G I E Q L P S G Y A S L D A S R  
UniRef90\_E5SJZ6 R E K H V A Y L E R G L T R L S S G F V S L D A S R R  
UniRef90\_M4BJD9 L F P P N A Q S V M I E L L Q R D N H I E Y L T R G L R Q L P P S F C T L D A S R  
UniRef90\_M5W7M4 N N L G L P I N P H L D R K R H I A F L H K N L R R L P A A F T A D A S R  
UniRef90\_S3D4M4 N E I D H T T T F L K D K H I N Y I T N L D K K D T F E Y W V T E H I R  
UniRef90\_F0ZKB2 G K G L K D W Q S Q P E L S R A A H V E F L Q D A L G D Y P P Q F A V M D A S R  
UniRef90\_R7YY34 A Y T T N H H W Q S Q F V L Q R E K H V H Y L K R G L R Q L T D A Y C L T E H L R  
UniRef90\_UPI0003C4CF9A Q N V Q S G D P P L P R L D R K R H A R F L H K S L E P L P G T F V G Y D P S R  
UniRef90\_U7PTI7  
UniRef90\_C3XQH0  
UniRef90\_C3XQH0  
UniRef90\_G8BQL8 D P D L E S K L N R D F L K M Y L T A A F S Q L P S Q M T A L D A S Q  
UniRef90\_Q0UNK1 G N P N D F T L N A P K L Q R E R H A A M L K G V L G D Y P A R M A Q M D A S R  
UniRef90\_W6MVA7 T I L E D G S Q S M P E L T I G E H V N F L K G Y L N E L P A P Y K A Y D A S H  
UniRef90\_Q0D038 G I H K T Q N G P F Q A L K R D E H I G Y L Y D S L E D Y P A G F V A M D A S R  
UniRef90\_B2VWD3 G N P N D F D L N A P K L Q R D R H E A M L K K I L G D Y P S T E G A A A M D A A R  
UniRef90\_Q00ZE3 A A K E F E L P S M P T L C V D E H C A F V A R A S E S A D T E H A L T E H L R  
UniRef90\_U4LRL4 T L A L H V E K H V H Y I T T L D T K D T L S Y H L S E H L R  
UniRef90\_F7W540 G Q D G P L E L N D P R L N R E K H I K F L K Q S L G P L P G R F V G M D A S R  
UniRef90\_G7E9N3 Q Y L P V S G P A K C E L D R A K H T R F L T A T L P G L P G A F V A L D A S R  
UniRef90\_K0KNE1 M P L H K Q K H I E Y I V S L D K Q K D Y H Y W A T E H L R  
UniRef90\_C1E5T3 R S V A S A R L R E E L H R E T H V A Y L T K S L S R H L S A G H V V L D A S R  
UniRef90\_Q6C928 K S R D Q V R S L E T E K H V N F L N M F L S P L P D K F T G L D A S R  
UniRef90\_U4LF63 K R G N A L P A L K R E K H I A F L E S G L E Q L P D Y M V S L D A S R  
UniRef90\_H3FYC7 D V D V K E S A P S T L L R D L H A T F I K E F G N K N G Y E F L M S E Y L R  
UniRef90\_Q5D978 E K L C Q W K D D A L R L F L K N H I N Y L H K R L F N L P M S F E H L D A S Q  
UniRef90\_S8AFR4 E L F V D K H V K Y I Q S L D T R K D E E Y W L T E H L R  
UniRef90\_K4E3M5 L L A D L H S V L L G L D E Y K D D R Y W M S Q H L K  
UniRef90\_R7QA22 R H A R P P E K P L V L F R E K H V S W L M R H L Q Y L P R G S E S F D V L Q  
UniRef90\_S2JBJ6 E L L I P L H V K Y I Q S L D R K D D L E Y W L T E H L R

UniRef90\_M1WGWZ4 P W L F Y W C L N G L S L L G E D V S A 100 Y R S R R L I E T V R P M Q N E D G G G F  
UniRef90\_S3D6E5 P W L L F W C L N G L Y L M G A D V E P Y R S Q Q L I D T A R S R M Q N A S G G G F  
UniRef90\_UPI0002C3359F P W M C Y W I L H S L A L L G A P V E A D G L K N I I D F L R R N C C Q Q H P K N D G G G F  
UniRef90\_T1IU12 S E A Q T D P E I L C T F L K N C C Q Q H P K N D G G G F  
UniRef90\_F0Y5G6 P W L C Y W I L H G M D L L L D A L P E E K I D D C V A T L A K C C Q R S P T T G G G Y  
UniRef90\_U5FIW6 P W L C Y W I L H S M A L L L G E S L D Y Q L E N N A I D F L N R C C Q Q S K N G G G F  
UniRef90\_E4YF17 P W L V Y W T L H A L D L L L G V V S D E K K T E E F L E L C C Q Q S K N G G G F  
UniRef90\_E4V1K7 P W M V Y W A L T G L A L L G E D V S V F R R R V V A T A A P M Q S G S G G G F  
UniRef90\_A0A022RW41 P W L C Y W I L H S I A L L L G G D C A D N L E S D A I D F L R R M Q Q D P N G G G Y  
UniRef90\_N4VCS2 P W F L Y W S L N A L A L L G F D A A T Y R E S D L V S T V R T M Q N L S G G V  
UniRef90\_G2QQX2 P W F L Y W C L A A L T L L G E D V T S Y R E S V A E T A R S M Q N D T G G G F  
UniRef90\_W9QZF2 I N G A Y W G L T T L D L L E K L H A V D V D E V V S W I T S C Q H E S G G G F  
UniRef90\_R7VW81 P W L C Y W I L H S L E L L D E P I P Q S V A S D W G G A V T P G W Q E L G G L  
UniRef90\_A0A024TNI8 P W F M Y W I L H S L E L L D D E A D A A F A S R C I N T I Q R C W C S Q G G G F  
UniRef90\_D8S0K4 P W L C Y W I V H S M A L L D R Q L D P A L Q T D T I E F L K H C K D P T G G G Y  
UniRef90\_A0A017SSA9 P W M C Y W A L A G L S L L G E D V S K F R Q R V I A T F T P M Q N P T G G G F  
UniRef90\_T0QTU2 P W F T Y W I L H S L E M L G A H A E M Q S F H A A C N T I K R C W S D T G G G F  
UniRef90\_C5FUR3 P W M V Y W A L A G L A L L G N Q D L G L F R S R V A A T A A P M Q N G T G G G F  
UniRef90\_A9SVW9 P W L C Y W I M H S L A M L G Q D P L P G M D R R T I D F L S R C C Q Q D P N G G Y  
UniRef90\_G7XKB4 P W M V Y W V L A G L S L L G E D V T K Y R R E R V I S T F T P M Q N P T G G M  
UniRef90\_MOTU01 P W L C Y W I L H S I T L M G E D V S S E L E D N V V E T F L S H C C Q Q E S G G G Y  
UniRef90\_G4V1H6 P W Y L Y W C L S G L T M M G E D V S S Y R E D S V I E T A R T M Q N E S G G G F  
UniRef90\_B4FPF5 P W L C Y W M V H P L A L L D E A L D D D L E N D I I D F L A R C C Q Q D K D G G Y  
UniRef90\_A9V860 P W L T Y W C L H G L S L L G G Y E P D N E S E R T R C I N T L R Q C C K N A T G G G F  
UniRef90\_D8R953 M N G A Y W G L T A L D L M G C R E D V D D A K V I S W L L Q C C H A D C G G G F  
UniRef90\_Q38920 P W L C Y W I L H S I A L L G E T V D D E L E S N A I D F L G R C C Q Q S E G G G Y  
UniRef90\_A7E4E7 P W M F Y W A L A G L S T L L G G D S I S S Y R E K L I S T C R P I Q N V T G G G F  
UniRef90\_W1PF95 P W L C Y W I L H S I A L L G Q S V D D E L E D R A I D F L S R C C Q Q D T N G G Y  
UniRef90\_K1XHX5 P W M F Y W A L N G L A T L L G E D V S S E Y R Q R V I N T V R P I Q N A T G G G F  
UniRef90\_G0SAH2 P W F L Y W C L S A L T M L G E D V S Y R N A V I A T A R S M Q N E T G G G F  
UniRef90\_L8G615 P W F F Y W T L T A L S A L L G E D V G Q Y R E R L I S T V K P L Q N S T G G G F  
UniRef90\_M2X2S1 P W L C Y W I L H A L D L L E D E P T E E E K I G L L E H L S R C C Q S P N G G G F  
UniRef90\_Q04903 P W L C Y W I L H S I A L L G E T D D D L E D N T V D F L N R C C Q Q D P N G G Y  
UniRef90\_W9WZR6 P W M V Y W A L V G L Y M L G E D V S V F R A R V V K T F Y S M Q N P N G G I  
UniRef90\_U9U897 L S G V Y W G L T A L D L L N S L D A L K K E D V V K Y V V S C Q H D N G G G F  
UniRef90\_K2RX76 L N G L Y W G L T A L H L L G G Q P D A L P R Q D V L D F V L A C L H A D D G G G F  
UniRef90\_H6C262 P W M V Y W A L L S L Y M L G E D V I A H F R S R V V K T F T P L Q N A S G G G F  
UniRef90\_W9WNW0 P W M V Y W A L L G L Y L L G E D I S V F R S R V V K T F Y S M Q H P D G G I  
UniRef90\_B8LW0T P W M S Y W A L A G L T L L G E D V S K F R E R V V A T F K A A Q N P T G G G F  
UniRef90\_K0KMG4 P W I Y Y W I L N S M K L Q L E V S Q D V K D Q T A R K L L G L Q H K D G G L  
UniRef90\_G3AH96 P W L M Y W L A N A H T L I K T P L E I D T I E L I N S K I E H C L V D E G G I  
UniRef90\_T1HNF3 T W I V Y W T L H S L A L L N H E L D A S M K T A V I N F L N S C C Q H A E G G F  
UniRef90\_R1E3J8 P W L C Y W I V H S L S L L G N T R I L D A A A D A V I N F L G R C C R D P D G G F  
UniRef90\_Q2GSE3 P W F L Y W C L S A L T M L G E D V T S Y R D S I I Q T A R S M Q N D T G G G F  
UniRef90\_F2S354 P W M V Y W A L T G L A L L G E D I L F R A R L L A T A A S M Q S G S G G G F  
UniRef90\_L7MB91 M S G L Y W G L T A M D L M G S L T D S F D R A E I I E F V K Q C Q Y S C G G G F  
UniRef90\_V5G3R9 P W M A Y W A L A G L S L L G E D V T R Y R E R V I T T F T P M Q N A T G G G F  
UniRef90\_W4ZJ2 M S G M Y W G I A A M D L L G Q L N R M N K Q K I E F T V S C Q H E C G G F

UniRef90\_T1EA12 T W M I F W L V N S F L L L G G S K I D E D M S N R I S E N I L S Y L N E D G G G F  
UniRef90\_C4R549 P W L L Y W I A N S L K V L D E S L S E T N K H L I V E K L F H I L S P D H G P F  
UniRef90\_Q6FL08 P W L L Y W I A N S L K V L D E S L S E T N K H L I V E K L F H I L S P D H G P F  
UniRef90\_A0A059A070 M N G A Y W G L S A L D L L G K L D S T V D L E D I V S W I M K C Q H E S G G G F  
UniRef90\_A9T4H0 M S G A Y W G L T A L D I M G R L G D M N V D E I V S W I L M C Q D D C G G F  
UniRef90\_P53612

UniRef90\_P53612 M S G M Y W G L T A M D L M K Q V L D R M N K E E V L R F I Q Q C Q H E C G G G V  
UniRef90\_K1QIP5 M S G I Y W G L T A M D L L G K V L H N M D K D K V V Q F V I Q Q C Q H E C G G G V  
UniRef90\_UPI0001CBBCF7 P W V C F W N L H S L A L L G E S F D A Q L Q Q N N I V D F V L C R C Q Q D P N G G Y  
UniRef90\_M5VYR3 P W L L Y W C L N G L T L L G E D V S V Y R Q R R L V D T A R S M Q N A S G G G F  
UniRef90\_F0XHM5 P W L L Y W C L N G L T L L G E D V S V Y R Q R R L V D T A R S M Q N A S G G G F  
UniRef90\_E5AJ9 P W I L Y W C L Q G L T A L G M D I S E Y Q T R V A H T F S L A Q H A P D G G F  
UniRef90\_Q6Z8L7 L N G A Y W G L T T L D L L H K L R A V E A D E V I E W I M S C Y H P S G G F  
UniRef90\_W1QEV1 P W I T Y W I V N S K A L L G E E I D S E L S E N I G H K V L E C Q V D E T G A I  
UniRef90\_E5S26 P W I V Y W I V Q S L E L L Q E E P L S I E T S K K I I A F L K T C Q S P E T G G F  
UniRef90\_M4BJD9 P W I L Y W I L H A L D L L D A L P V I E E T T R V I E T L N P F W D D D G G F  
UniRef90\_M5W7M4 P W L C Y W I L H S L A L L G E S V L D D E L E H N T I D F L S R C C Q Q D P S G G Y  
UniRef90\_S3D4M4 P W M F Y W A L A G L A T M G E S L E D D Y T E R L S T L V K P I Q N A S G G G F  
UniRef90\_F0ZKB2 M N G M Y W G L T S L N L L G A L E K M D K E E I I Q W L S C Q K P N G G G F  
UniRef90\_R7YY34 M W I L Y W A L A G L S F L G E D I A E R V A S M I Y T F D A A Q C H P S G G F  
UniRef90\_UPI0003C4CF9A P W L C Y W I L H S L E L L D E D P I P E S V A S D V C Q F L S C C Q S P S G G F  
UniRef90\_U7PTI7 P W F L F W C L N G L R L L G E D V T P Y R A R L V E T A R S M Q N A S G G F

UniRef90\_C3XQH0 P W I L Y W V A N S L Y M L D A W L T D D H K K R L K E K I F V I S P D G G P F  
UniRef90\_C3XQH0 P W I V Y W G L Q S M T A L G L D L D I H P F Q K R V A H T F S L A Q S P T G G H  
UniRef90\_G8BQL8 P W L M Y W L T N G L L K V L D L S E Y Y K Q I S N T V I S Y G S A G M G  
UniRef90\_Q0UNK1 P W M A Y W A L A G L S L L G E D V T K F R Q R I I S T F G A M Q N P T G G G F  
UniRef90\_W6MVA7 P W L V Y W A L Q S M T A L G Q D L S S Y H K R I A H T F S L V Q H P D G G G F  
UniRef90\_Q0D038 L S G I Y W G V C A L G R L D R T F S D R A K K E E L L S Y V D S C R N E N G S Y  
UniRef90\_B2VVD3 P W L V Y W A L Q S M T A L G Q D L S S Y H K R I A H T F S L V Q H P D G G G F  
UniRef90\_Q00ZE3 I N G V Y W G L T A L H L L G H P E A L P R D E T I S F V T S C L Q P C G G G F  
UniRef90\_U4LRL4 P W F L Y W C L S G L T M M G E D V S Y R E S V I A T A R T M Q N E S G G G F  
UniRef90\_F7W540 P W L L Y W T L H A L E L M N V S L D P A S A S R A A T L L K M Q S P H G G G F  
UniRef90\_G7E9N3 L N G T Y W G L T A L C L L D S K D S F Q K Q D I V D F V L S C H N E D G G G F  
UniRef90\_K0KNE1 C W L C Y W I V H A L A L L G E P L G D D A A R D V V E F L S L C Q H P D G G F  
UniRef90\_C1E5T3 A W L L Y W S A N A I R V L G G E L S D E D A Q K G V P L T L E S F K E D G V F  
UniRef90\_Q6C928 P W L V Y W C L T G L S L L G V D I S R Y R N K V I S T F T P I Q N A T G G G F  
UniRef90\_U4LF63 I S G L Y W C V A A M D L L G K L S D M D G E S I V S V L S M Q R E N G G F  
UniRef90\_H3FYC7 P W L A Y W I V H A L K L L N F V I P E E T S V K L L S F L A S S Q H P E G G F  
UniRef90\_Q5D978 L N G V Y W G L T A L H L L G R P D A L P R D E T I K F V Q S C Q H E N G G G F  
UniRef90\_S8AFR4 V S G A F W G L S A M E L L G H T I P D K I N R Q D V I E F V V G C Q W N S D G G G F  
UniRef90\_K4E3M5 G W S C F W I V H S L N L L G A T I P V P T A S M V V K H L A T F K D P V V G G F  
UniRef90\_R7QA22 L S G I Y W G L T A L D L M N H I I D A L P R N E I I D Y V K S L Q H E N G G F  
UniRef90\_S2JB6 L S G I Y W G L T A L D L M N H I I D A L P R N E I I D Y V K S L Q H E N G G F

UniRef90\_M1WGWZ4 A G G F G Q T S H L A T T Y A T V L S 130 L A L V G G E D A Y E V I D R R R S M W K W  
UniRef90\_S3D6E5 G G G H G Q A S H L A T T Y A V V M S L T I L V G G E D A Y E V I D R R R A L W K W  
UniRef90\_UPI0002C3359F G G G P G Q M P H L L A A T T Y A A V S C A L I T L G G T R R E A Y E S S I N D R R R E L Y T W  
UniRef90\_T1IU12 G G G P M Q V A H L L A A T T Y A A V S C A L V I I G G T R R E A Y E S S I N D R R R K L G E Y  
UniRef90\_F0Y5G6 G G G P Q Q L A H L C A P T T Y A A S L A I A V L G T R R A Y E S S I N D R R K G L Y A F  
UniRef90\_U5FIW6 G G G P G Q M P H L L A T T Y A A V N S I V T L G G A N R R A Y E S S I N N V E N K L Y N F  
UniRef90\_E4YF17 G G G P H Q M P H L L A T T Y A A M N A I A I L G G A N R R A Y E S S I N V E N M K T F  
UniRef90\_E4V1K7 G G G H G Q M A H L C A S S Y A L T L S L A M V G G E E A F A L I N D R L A C W R W  
UniRef90\_A0A022RW41 G G G H G Q M P H L L A T T Y A A I N A L L T L G G H K S L S S I N D R R K L Y S F  
UniRef90\_N4VCS2 G G G H G Q N S H L L A T T Y A A V L A I V G G G E E A Y E V I N D R R R A M W R W  
UniRef90\_G2QQX2 G G G G R Q L S H L L A T T Y A A V V L S L A L V G G E E A Y E V V D R R K A M W R W  
UniRef90\_W9QZF2 G G N V G H D P H I L Y T L S A V Q V L A L F D K L A L L D I E K V S N Y  
UniRef90\_R7VW81 Q Q Q P G D P H L L Y P G G P V G H P R D A G G A T S R C P R A G S S K G V  
UniRef90\_A0A024TNI8 G G G L Q L G H L L A T T Y A S C L A L A I I G T A E A Y A I V D R P A L L A F  
UniRef90\_D8S0K4 G G G P G Q I A H L L A T T Y A A V L T L V S I G G G S E A Y R L I D D R R K L L E F  
UniRef90\_A0A017SSA9 G G G H G Q M S H L S A S S Y A A V L T L A M V G G S E A Y R L I D D R R R K M W S W  
UniRef90\_T0QTU2 G G G L Q M S H L M A T T Y A S C L A I I G T P E A Y D I V D R R E A L L A F  
UniRef90\_C5FUR3 G G G H G Q M S H L C A S S Y A L T L S L A M V G G P E A F S L V D R R L A C W R W  
UniRef90\_A9SVW9 G G G P G Q L A H L L A T T Y A A V N T L V T I G G G E K A Y S I D D R R N E V L R F  
UniRef90\_G7XKB4 G G G H G Q L S H L C A S S Y A T V L A L A M V G G E E A F N L T D R R E A M W R W  
UniRef90\_MOTU01 G G G P G Q M P H L L A T T Y A A V I N T L I T L G G G E M S L S S I H R R E N M L K F  
UniRef90\_G4V1H6 G G G H G Q T S H L L A T T Y A A V I L A I A L V G G E E A Y D V I D K K A M W K W  
UniRef90\_B4FPF5 S G G P G Q L P H L L A T T Y A A V N T L V T I G S E R A L S S I N R G N L Y N F  
UniRef90\_A9V860 G G G P G Q L S H L L A T T Y A A S V N A L A I L G P D A L S I D R I S L R K F  
UniRef90\_D8R953 S G N L G H D P H I L Y T L S A V Q I L A I Y D R M E L L D S D K A A S Y  
UniRef90\_Q38920 G G G P G Q L P H L L A T T Y A A V N A L V T L G G D K A L S S I N R R E K M S C F  
UniRef90\_A7E4E7 G G G N G Q M S H L L A T T Y A A N V L S I S M V G G Q E K A L D I I D R R K A M W K W  
UniRef90\_W1PF95 G G G P G Q L P H L L A T T Y A A V N T L I T I G G G E K A L S S I N D R R K M H M F  
UniRef90\_K1XHX5 G G G N G Q M S H L L A P T T Y A T L L S L A I V G G E S E S M E L I D R R K S M W K W  
UniRef90\_G0SAH2 G G G G G Q L S H L M A T T Y A A V V L A L A L V G G G E A Y D V V D R R K A M W K W  
UniRef90\_L8G615 G G G H G Q M S H L L A T T Y A A V V L S L A M V G G D D A I N A I D R R K A M W Q W  
UniRef90\_M2X2S1 G G G Y G Q V A H L L A T T Y A A V C A L C I L G T P E A F D V I H L D K L Y M W  
UniRef90\_Q04903 A G G P G Q M P H L L A T T Y A A V N T L I T L G G G E K S L A S I N R R N K L Y G F  
UniRef90\_W9WZR6 G G G F G Q D A H L Q A G T Y A A L L S L A L V G G E E A Y S L V D R E K M W H W  
UniRef90\_U9U897 G G H L G H D P H L T Y T L Y A V Q I L V I E D A L D A V N V D K I V E Y  
UniRef90\_K2RX76 G A A P G H D A H M L Y T V A S A V Q I L A T L D G F E E L E Q R V R E K I L G R F  
UniRef90\_H6C262 G G G F G H Y S H L L A G T Y A A L L S L A L V G G G E E A Y S L V D R G Q M W H W  
UniRef90\_W9WNW0 G G G F G Q Y A H L L A G T Y A A L L S L A L V G G G E E A Y G L V D R R Q K M W H W  
UniRef90\_B8LW0T G G G H G Q M S H L L A A S T Y A A V L S L A L V G G G E E A Y K V V D R R R A M W S W  
UniRef90\_K0KMG4 G G G V G Q L G H H A A T Y A A G T L A L L E D E E T W N K I N R R D Q L Y K W  
UniRef90\_G3AH96 A G G V N Q L G H H A A S T Y S G I L T L I L T K N Y Q L L E S I R D K I Y N W  
UniRef90\_T1HNF3 G G G P G Q D A H L L A P T T Y A A V N A L C I L G T D E A L S I I N V K G T M T N F  
UniRef90\_R1E3J8 C G G P G Q M A H L L A P T T Y A A V N T L V T I G T P A A F E L I K G A K L G S F  
UniRef90\_Q2GSE3 G G G G R Q L S H L L A T T Y A A V V L S L A L V G G G E A Y Q V V D R K A M W K W  
UniRef90\_F2S354 G G G H G Q M A H L C A S S Y A M T L S L A M V G G G E A F R L I D R L S C W R W  
UniRef90\_L7MB91 G A S I H H D P H I L L Y T L S A V Q I L A T F A T F D A L N T I D I D K T V S Y  
UniRef90\_V5G3R9 G G G H G Q L S H L C A S T Y A A V L C I L A M V G G E A F S M I D R E A M W R W  
UniRef90\_W4ZJ2 G A S I G H D P H L L Y T L S A I Q I L A I Y Q L V A L D P S L P K L H R T D H A R Y  
UniRef90\_T1EA12 G G G A G L I S H V V S S Y A A V M A L S L S N D H H V L D K I D R R G A T Y E W  
UniRef90\_C4R549 G G G V G Q L P H L L A G T Y A A I N A L S L C I S N D H H V L D K I D R R G A T Y E W  
UniRef90\_Q6FL08 G G N L G H D P H H V H Y T L S A V Q V L A L F D K L D V L D I D K I V T G Y  
UniRef90\_A0A059A070 G G N H E H D P H I L Y T L S A V Q I L A L F D R V D A V D A D K I L A S Y  
UniRef90\_A9T4H0 G G N H E H D P H I L Y T L S A V Q I L A L F D R V D A V D A D K I L A S Y  
UniRef90\_P53612 D A P D T L L L L E K H A D Y  
UniRef90\_P53612 D A P D T L L L L E K H A D Y  
UniRef90\_K1QIP5 S A S L G H D P H L L Y T L S A I Q I L T M Y D A L D M V N T E K V V E F  
UniRef90\_UPI0001CBBCF7 S A S N G H D P H H M L Y T L S A V Q I L T L Y N K V D A I N V N K V V D Y  
UniRef90\_M5VYR3 G G G P G Q M P H L L A T T Y A A V C S L V T L G G H K A L S S I N R S E M C M F  
UniRef90\_F0XHM5 G S G H G Q V S H L L A T T Y A A V L S L A L V G G Q E C Y D V V D R R R K L W K W  
UniRef90\_E5A9J9 G G G Y G Q L P H L L A T T Y A A V L S V A M A G G T E T Y N M I N R K T L W H F  
UniRef90\_Q6Z8L7 G G N V G H D A H V L Y T L S A V Q V L C L F D R L D A L D V D K V A D Y  
UniRef90\_W1QEV1 G G G N G Q M A H M A A T Y A A G L V A L T V S K S Y K A A A Q L E R S K I Y N W  
UniRef90\_E5S26 G G G P G Q M A H L L A T T Y A A V L M A L C I V G T E E A Y Q A I D R P A L S F  
UniRef90\_M4BJD9 G G G P K Q L G H L A T T Y A A S C L I T L A L L G T P E S F E A V D R Q A L Y R F  
UniRef90\_M5WTM4 G G G P G Q L P H L L A T T Y A A V N A L I T V G G D Q A L S S I N R R C E L Y K F  
UniRef90\_S3D4M4 G G G N G Q M S H L L A P T T Y A A V L S L V M V A G G D Q V L E L V N R R A M W K W  
UniRef90\_F0ZKB2 S G N T L H D D H L L S T L S A I Q I L V Q L D S L D R I D I N P V I E Y  
UniRef90\_R7YY34 G G G H G Q L P H L L A P S Y T A V L S A A L G A T P D S Y D F I D R R K A M W H W  
UniRef90\_UPI0003C4CF9A G G G P S Q H P H L L A P T T Y A A V S A L C I I G T E A F N V I N R R K L L E Y  
UniRef90\_U7PTI7 G G G H G Q S S H L L A T T Y A A V V M G L A I V G G E A C Y E A I D R R A L W K W  
UniRef90\_C3XQH0 E D A P S D L L N K H A D F  
UniRef90\_C3XQH0 E D A P S D L L N K H A D F  
UniRef90\_G8BQL8 A G G L G Q L P H V A A T Y A A I N T L T L C D N I D S W D L V N R D A I L N W  
UniRef90\_Q0UNK1 G G G Y G Q L P H V A A T Y A A I L S L A M A G G T E T Y E S I N R R K T M W H F  
UniRef90\_W6MVA7 G G M G Q L P H V A S T Y A A G L M T L A I T G E N W K D I N D R R G T Y D W  
UniRef90\_Q0D038 G G G H G Q M S H L C A S S Y A A V L S L A M V G G G E V F Q L I D R K A I G A Y  
UniRef90\_B2VWD3 G G G Y G Q Y A H L L A C S Y A A T L S L A I A G G K D S Y D V I N R K T L W H Y  
UniRef90\_Q00ZE3 G G G V G H D G H L Y T L S A V Q I I Y A L F D E L S R I D V E A V V G F  
UniRef90\_U4LRL4 S S A P G H D A H L L S T V S A V Q I I L A T I D A L D T I D T T L V A K W  
UniRef90\_F7W540 G G G H G Q L S H L L A T T Y S V I L A I A L V G G E E A Y N V I D R K G M W K W  
UniRef90\_G7E9N3 G G G P G Q M A H L L A T T Y A A T M A L A I V G G V E S E W D K I E R K A M Y G W  
UniRef90\_K0KNE1 G A F K D H D S H L L S T L S A L Q I L I Y D S L D V L S T E D V D K L V K F  
UniRef90\_C1E5T3 G G G P G Q M P H L L A P T T Y A A V A C L A E I A T V E A A K C V D R R A K C A A F  
UniRef90\_Q6C928 G G G S G Q D A H A A S T Y A A F L A L A D S D D E A W G R I N P E E V L K H  
UniRef90\_U4LF63 G G G H G Q M S H L L A G T Y A A V L S L A S V G G S A L S L V N R I S M L K W  
UniRef90\_H3FYC7 A P A E N H D A H L L H T L C A I Q I L I L G A K D R L G D A E R R K V I E F  
UniRef90\_Q5D978 G G G P Y Q F A H L L A T T Y G A V N C L A S M C R R D A L D I V N R D T L V N W  
UniRef90\_S8AFR4 G A H P S H D A H L L Y T L S A I Q I L A M I I D A L D A V D T E A C A A Y  
UniRef90\_K4E3M5 G G N V G Q D S H M L Y T L S A V Q V L C L F G A L D A I D K E K C A C W  
UniRef90\_R7QA22 Y G G G P G Q S S H L L A S F S V I M T L C G L G T E E A L M S I D S V S L R F W  
UniRef90\_S2JB6 R A D K D H D A H L S N T L Y A I Q I L V T L D A L E T I N L D K A V E Y

UniRef90\_M1WGWZ4  
UniRef90\_S3D6E5  
UniRef90\_UPI0002C3359F  
UniRef90\_T1IU12  
UniRef90\_F0Y5G6  
UniRef90\_U5FIW6  
UniRef90\_E4YF17  
UniRef90\_E4V1K7  
UniRef90\_A0A022RW41  
UniRef90\_N4VCS2  
UniRef90\_G2QQX2  
UniRef90\_W9QZF2  
UniRef90\_R7VW81  
UniRef90\_A0A024TNI8  
UniRef90\_D8S0K4  
UniRef90\_A0A017SSA9  
UniRef90\_T0QTU2  
UniRef90\_C5FUR3  
UniRef90\_A9SVW9  
UniRef90\_G7XKB4  
UniRef90\_MOTU01  
UniRef90\_G4V1H6  
UniRef90\_B4FPF5  
UniRef90\_A9V860  
UniRef90\_D8R953  
UniRef90\_Q38920  
UniRef90\_A7E4E7  
UniRef90\_W1PF95  
UniRef90\_K1XHX5  
UniRef90\_G0SAH2  
UniRef90\_L8G615  
UniRef90\_M2X2S1  
UniRef90\_Q04903  
UniRef90\_W9WZR6  
UniRef90\_U9U897  
UniRef90\_K2RX76  
UniRef90\_H6C262  
UniRef90\_W9WNW0  
UniRef90\_B8LW70  
UniRef90\_K0KMG4  
UniRef90\_G3AH96  
UniRef90\_T1HNF3  
UniRef90\_R1E3J8  
UniRef90\_Q2GSE3  
UniRef90\_F2S354  
UniRef90\_L7MB91  
UniRef90\_V5G3R9  
UniRef90\_W4ZJ2  
UniRef90\_T1EA12  
UniRef90\_T1EA12  
UniRef90\_C4R549  
UniRef90\_Q6FL08  
UniRef90\_A0A059A070  
UniRef90\_A9T4H0  
UniRef90\_P53612  
UniRef90\_P53612  
UniRef90\_K1QIP5  
UniRef90\_UPI0001CBBCF7  
UniRef90\_M5VYR3  
UniRef90\_F0XHM5  
UniRef90\_E5A9J9  
UniRef90\_Q6Z8L7  
UniRef90\_W1QEV1  
UniRef90\_E5S26  
UniRef90\_M4BJD9  
UniRef90\_M5WMT4  
UniRef90\_S3D4M4  
UniRef90\_F0ZKB2  
UniRef90\_R7YY34  
UniRef90\_UPI0003C4CF9A  
UniRef90\_U7PTI7  
UniRef90\_C3XQH0  
UniRef90\_C3XQH0  
UniRef90\_G8BQL8  
UniRef90\_Q0UNK1  
UniRef90\_W6MVA7  
UniRef90\_Q0D038  
UniRef90\_B2VVD3  
UniRef90\_Q00ZE3  
UniRef90\_U4LRL4  
UniRef90\_F7W540  
UniRef90\_G7E9N3  
UniRef90\_K0KNE1  
UniRef90\_C1E5T3  
UniRef90\_Q6C928  
UniRef90\_U4LF63  
UniRef90\_H3FYC7  
UniRef90\_Q5D978  
UniRef90\_S8AFR4  
UniRef90\_K4E3M5  
UniRef90\_R7QA22  
UniRef90\_S2JB6

170 180 190 200

L C S L K Q P D G G G F T M S V G G G E E D V V R G A Y C A A V I S I L D L P L D L  
L N S L K Q P D G G G F T M S V G G G E E D V V R G A Y C A A V I S I L D L P L D L  
L R R R M K Q P P E S G S G F R M H D D A G G E E A D I R G A Y C A A V I S I L D L P L D L  
L S R M K Q P P S G S G F R M H D D A G G E E A D I R G A Y C A A V I S I L D L P L D L  
L L N N V K N E D G S F A M H V D A N G E T D T R A I Y C A A S V A T M L N Q L K T D D K  
L G Q L K Q A D G G G F Q V S V G G G E Q D V R G A Y C A M V M I A L L D I P L I E L  
L L R M K D T P D G G G F R M H D G G E E V D V R G A Y C A A V I S I L D L P L D L  
L C S L K Q P D G G G F Q V C L G G G E E D I R G A Y C A A I I I T L L G L P L D L  
V A G L Q N E D G S F S G D E W G E E V D T R F S Y I A I C C L S L L C H L D K L  
L C Q C H Q C H P F F W P W P A P A R S A Y C A A S V A S L L T N V L T P A  
F L S L K D P T G A F R A H D H G E E L D V R T T Y C A I S I A A L Y N I L T P P E  
L R R M K Q P D G G G F R L H D G G E E M D V R G A Y C A A V I S I L D L P L D L  
L G R L K Q P D G G G F R L C H E N G G E E D V R G A Y C A M V V I S L L D L P L E T  
F L A N K D P T G A F H A H D Q G G E E D I R I T Y C V I S I A S L F G I L T P E L  
L G Q L K Q A D G G G F Q V S V G G G E E D V R G A Y C A M V M I A L L D I P L I E L  
L I R M K Q P D G G G F R V C A G G G E E D V R G A Y C A M V V H S L L N L P L E T  
L L Q M K D S P D G G G F R M H N G G E E I D V R A Y C A A S V A S L L N V L D D E  
L C S L K Q P D G G G F Q V C V G G G E E D I R G A Y I A A V I I T L L D L P L D L  
M L Q M K D V S G A F R M H D G G E E I D V R A S Y T A I S V A S L L V N I L D F K  
L A A R K R A D D G S F T M H E D G G E E I D V R G V Y C A T S A A F L A C L P L D E  
I A S L Q Q E D G S F A G D E W G E E I D T R F S Y C A C C L S L L K R L D V I  
L R R M K D T S G G G F R M H D M G E E M D V R A Y C A I S V A S L L N L M D D E  
L G K L K M S P D G G G F R M A V D G G E E M D V R A Y C A L A P A R S S N Y T T F I  
L R R M K D P S G A F R M H D A G G E E M D V R A Y C A I S V A S L L N I L D Y E  
L S I L K Q P P S G G G F Q M S V G G E E D V R G A Y I A A V I I V L L D L P L I E L  
L C S L K Q P D G G G F Q V C L I G G E E D L T P E S P A W K E D G S A N L L T  
L S R L K Q P D G G G F Q M S I G G E E D V R G A Y C A A M L V K L L R L P N F D E  
L L T L K N S D G G S F R V T E L G E S D V R G L Y C A L A V A H I C G L L T S E  
M R R M K P N G G G F R M H D E G E E I D V R A Y C A I S V A S L L N I L D D E  
L G R L K Q A D G G G F Q I C E G G E E D T R G A L C I S P A R D A G I E T  
V A S C Q D R D G A F T G D E W G E E I D T R F S Y C A L S C L S L L K R L D A I  
I A G L Q R E N D G T F A G D E W G E E D T R F L Y G A F N A L S L L H L M H L V  
L G R L K R P D G G G F Q I C E G G E E D V R G A Y C A L V V I S L L N L P L E T  
L G Q L K Q A D G G G F K V S E G A E E E D T R G A L C A L L A I S L L N L P L E T  
L L S I K Q D D G S F V M H L G G E E K D T R A V Y C A L V I A S L L F D L L T P E  
L L S L K N E N G S F V M H E Y G E E A D T R S T Y C V L V I A S L L N L P L E  
L R A M R V G D G A F T M H T H D G E E I D M R S V Y C A I V A S L L N V Q N H  
L R A M R R E D G A F T M H D D G E E V D V R G A Y C A I A V A T L S N G E V E A T  
L G S L K Q P D G G G F Q V F V G G E E D I R Y A Y C A A V I S L L R L P L D L  
L G Q L K Q A D G G G F Q V S V G G E E Q D T R G A Y C A M V M I A L L D L P L E L  
V K E Q Q E D G S F V G D K W G G E E D T R F S F C A V A C L A L L N K L H A  
L G D V K Q P D G G G F Q M S V G G E E D V R G A Y C A M V V I S L L D L P L D T  
V T G L Q Q E D G S F V G D K W G G E E D T R F S F C A V A T L S L L K R L D A V  
L Q V S L E R L S S S Y E C L D S S R P W M V Y W I L N A A S V L N L F A D E  
L Q V S L E R L S S S Y E C L D S S R P W M V Y W I L N A A S V L N L F A D E  
L L S L K L E D G G G F C M Y K G G E E V D T R A V Y C A L V I A S L L G I L T P E  
L L S L K Q P D G G G F K C L D G G E E D T R G V Y C A L S I A S M L D I L T D E  
V A S L Q K E D G S F S G D T W G E E V D T R F S Y I A I C C L S I L K R L D S M  
I S G L Q N E D D Y E Y C M S E Y L R M S G V Y W G L T V M D L M G Q L H R M  
I A S Y G S K K D D Y E Y C M S E Y L R M S G V Y W G L T V M D L M G Q L H R M  
V V S L Q Q E D G S F T Y G D K W G E E V D T R F S F C A I A C L A L L N K L N A I  
I K G L Q Q E D G S F T Y G D K W G E E V D T R F S F C A I A C L A L L G R L D E I  
L R Q M K H P S G G G F R I H D G G E E I D V R A C Y A A L S V A S L L N I L D D E  
L C A L K Q P D G G G F Q M S I G G E E I R G A F C A V V V L S L L H L P L D L  
L G R M K Q A D G G G F T M A E G G E E E D I R G A F C A V V V L S L L H L P L D L  
I A G L Q N E D G S F S G D I W G E E V D T R F S Y I A I C C L S L L H R L E K I  
L L E M K Q P D G G G F I M H Y N D G E E A D T R A V Y C A L C V A S L L D I M D D K  
L T L M K Q P D G G G F I S M H E D G E E I D I R G A Y C A A V A R I T N I Y N E K  
F L S R K H A T G A F M A H D E G E E I D V R V T Y C V I S I A S L F G I L T D E  
L G Q M K H P S G G G F R M H D G G E E I D V R A Y C A A V I S I L L N I L D D D  
L G R L K Q R D G G G F Q M S V G G E E D V R G A Y C A M V I I T L L D L P L D L  
I V K L Q Q E D G S F F G D Q W G E E I D T R F S Y V A I T L S L L G A L D R I  
L G R M K Q P G G G F S M C A D G G E E V D T R G A F C A L V I S L L N L P L E L  
L Y S L K Q P D G G G F I M H V G G E E D V R G A Y C A A S V A S L L N I L T P  
L C A L K Q P D G G G F Q M S V G G E E D V R G A Y C A A V I S I L L N L P L D L  
I A L Y G A K K D D Y E Y C M T E Y L R L S G M Y W G L T T M D L L G Q L E R M  
I A L Y G A K K D D Y E Y C M T E Y L R L S G M Y W G L T T M D L L G Q L E R M  
L L S L K Q K N G G G F K T S F T G E E N D T R G V Y C A L S I A S L L N I T P E  
L G R M K Q A D G G G F T M C H S D G G E E D A R A V Y C A L C V A R V L D I M D S E  
L M S L K N A D G S F K M H S D G E E D A R A V Y C A L C V A R V L D I M D S E  
C A M V I I S L L D L P L T L P P G S E A R Q S G L E T  
L G R M K Q A D G G G F T M C L G G E E D I R G A Y C A M V I S L L T N L P M E L  
L S S M Q L S N G S F Q G D H W G E E I D T R F T Y C A L S A L R L L G R L D A V  
V A G L Q Q E D G S F A G D E W G E E I D T R F L Y G A L N C L S L L G K M E L I  
L C T L K Q P D G G G F Q V C V G G E E D I R G A Y I A A V V I T L L D L P L D L  
L L S L K Q P D G G G F V M H I G G E E D V R G S Y C A L A V A S C L L N L T P D  
I T S L Q L E N G A F Q G D R F G G E E D T R F V Y T A I Q S L A L L G K L N S Q  
L A R C K D K S G G G F R M H E G G E E D T R G Y C A L A V A R L L G V Q D A E  
N L K L K S P D G G G F A S N H G G E E D V R G T Y C R L V V A S L L N T L T T E  
L H S L K N P N G S F K V C I G G E E D V R G I Y C A L T V I S L L R L P T D N  
V K A R Q L E D G S F S G D E S N E E I D T R F S V A L C C L H L L D S M E A V  
M R K L H Q P D G S F L M H L G G E E A D V R G A Y C A A V A K I L N K L N P D  
V A G L Q K P S G G V A G D E W G E E D T R F V Y T A L Q T L K I L N K L D R V  
V A S M Q L P D G S F Q G S D E W G E E D T R F V Y T A M N C L Q L L G R L H L I  
I L Q M K Q A D G S F R V S D G G E E D V R A M Y C A I C I A S I V G L L K G V  
V Q T L Q N P D G S F R G D E W G E E D S R F S Y M A L N L S L V K R L D A I



UniRef90\_M1WGWZ4 L F D G L P E W I 210 Q R C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_S3D6E5 L F T G L A N Y I V Q R C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_UPI0002C3359F L V D N V T G S E W L M T C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_T1IU12 M F D G L A S E W L M T C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_F0Y5G6 L A E G A A A Y A L R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_U5FIW6 L V R G V G N F I L S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_E4YF17 L F R E R T P E Y L L A R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_E4V1K7 F T S G L P D Y I L A R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_A0A022RW41 L T Q N V G D Y I V R R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_N4VCS2 L F T G L A D Y I V R R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_G2QQX2 L L S G V G D Y I V R R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_W9QZF2 N V J E K A V K Y I V S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_R7VW81 L F A G T A E W I A R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_A0A024TNI8 L T F G V V D F V K A C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_D8S0K4 L L E K L G E Y V A S R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_A0A017SSA9 F T S G L P E Y L L A R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_T0QTU2 L T L G V V I E F V L A A C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_C5FUR3 F T S G L P E Y L L A R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_A9SVW9 L V D K V A D Y I V R R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_G7XKB4 F T S G L S E Y I L S R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_MOTU01 L V T D L G N Y I L S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_G4V1H6 T P E G L A E Y I V R S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_B4FPF5 L A K G V G D Y I A R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_A9V860 L F A G S A A W I A R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_D8R953 N V J E K A V D Y I A S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_Q38920 L T Q G L G D Y I L S R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_A7E4E7 D Q L P E W I L S R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_W1PF95 L V Q N V G N Y I L S R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_K1XHX5 L L T G L P E W I S R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_G0SAH2 L G V S D Y I R R R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_L8G615 L F T G L S G E Y V S R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_M2X2S1 L V E N C S T Y I S R L C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_Q04903 L L K N V G D F I L S R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_W9WZR6 F K D G L G E Y L L S R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_U9U897 N V P K A V I E F I M L C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_K2RX76 D V D K A V I E H I Q T C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_H6C262 F M D D L G E Y L S R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_W9WNW0 F R D G L G E Y L S R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_B8LWT0 F L D G L P E Y L L S R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_K0KMG4 L T K G T A E W L A K C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_G3AH96 L T D G V Q D W L N L C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_T1HNF3 L F E K S V D Y I S R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_R1E3J8 P W E D T A N W I L G C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_Q2GSE3 L L T G V A D Y V R R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_F2S354 F T S G L P E Y L L A R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_L7MB91 N J E K A V I E F V V S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_V5G3R9 F L S G L P E Y L A R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_W4ZJ2 D J E K A V I Q Y V V S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_T1EA12 L L N R V V D F L I K C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_T1EA12 L L N R V V D F L I K C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_C4R549 L V A G T A E W L J A R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_Q6FL08 L T E G V V E Y L I J A C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_A0A059A070 D V I E K A V K Y I V S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_A9T4H0 N L J E K A C N F V A S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_P53612 N R E E I L V F I K S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_P53612 N R E E I L V F I K S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_K1QIP5 D V D R A V I E F V L T C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_UPI0001CBBCF7 D V D K A M E F V L K C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_M5VYR3 L V Q N V G N Y I L S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_F0XHM5 F R D P G L A K Y V Q R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_E5A9J9 F T D G L G D W V S K C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_Q6Z8L7 N V Q K A V D Y I V S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_W1QEV1 L A Y K A L D W L A S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_E5SJZ6 L F D K T A E W M I G C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_M4BJD9 L Q A G V V D Y V L S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_M5WTTM4 L V H N V G S F I L S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_S3D4M4 P V D G L P E Y V W A R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_F0ZKB2 N V N K A V I E F I D R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_R7YY34 F V D G L A K W I A S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_UPI0003C4CF9A L F A G T A E W I A R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_U7PTI7 S P D G L A E N Y V Q R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_C3XQH0 D R Q Q V V E F V A A C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_C3XQH0 D R Q Q V V E F V A A C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_G8BQL8 L T E N V L E Y L J A C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_Q0UNK1 L T D G L G D W V S K C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_W6MVA7 L T E N T V I E W L S R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_Q0D038 F T S G L S E Y L A R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_B2VWD3 F T D G L G E W V S K C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_Q00ZE3 D V D K A C A Y I V S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_U4LRL4 D V I E K A V I E Y V L R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_F7W540 T P E G M A E Y V R S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_G7E9N3 L A Q G T A R F V A S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_K0KNE1 I V D G A V D F I M K C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_C1E5T3 L C E G V G A F V K M C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_Q6C928 L T D G V I K Y I A S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_U4LF63 L L K K T T E Y L I S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_H3FYC7 D T E K A C E F V L R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_Q5D978 L F E S T A E W V A S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_S8AFR4 D V I E K A V I D F V L R C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_K4E3M5 D L D A A V R W V L Q C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_R7QA22 E A E K L A S Y V L K S C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S  
UniRef90\_S2JB6 N V I E K T I E W I L L C C C Q T Y E E G G V I S S A A P A G F T E A H H G G A Y A F F C C C A L L G G C L S S

UniRef90\_M1WGWZ4  
UniRef90\_S3D6E5  
UniRef90\_UPI0002C3359F  
UniRef90\_T1IU12  
UniRef90\_F0Y5G6  
UniRef90\_U5FIW6  
UniRef90\_E4YF17  
UniRef90\_E4V1K7  
UniRef90\_A0A022RW41  
UniRef90\_N4VCS2  
UniRef90\_G2QQX2  
UniRef90\_W9QZF2  
UniRef90\_R7VW81  
UniRef90\_A0A024TNI8  
UniRef90\_D8S0K4  
UniRef90\_A0A017SSA9  
UniRef90\_T0QTU2  
UniRef90\_C5FUR3  
UniRef90\_A9SVW9  
UniRef90\_G7XKB4  
UniRef90\_MOTU01  
UniRef90\_G4V1H6  
UniRef90\_B4FPF5  
UniRef90\_A9V860  
UniRef90\_D8R953  
UniRef90\_Q38920  
UniRef90\_A7E4E7  
UniRef90\_W1PF95  
UniRef90\_K1XHX5  
UniRef90\_G0SAH2  
UniRef90\_L8G615  
UniRef90\_M2X2S1  
UniRef90\_Q04903  
UniRef90\_W9WZR6  
UniRef90\_U9U897  
UniRef90\_K2RX76  
UniRef90\_H6C262  
UniRef90\_W9WNW0  
UniRef90\_B8LWT0  
UniRef90\_K0KMG4  
UniRef90\_G3AH96  
UniRef90\_T1HNF3  
UniRef90\_R1E3J8  
UniRef90\_Q2GSE3  
UniRef90\_F2S354  
UniRef90\_L7MB91  
UniRef90\_V5G3R9  
UniRef90\_W4ZJ2  
UniRef90\_T1EA12  
UniRef90\_T1EA12  
UniRef90\_C4R549  
UniRef90\_Q6FL08  
UniRef90\_A0A059A070  
UniRef90\_A9T4H0  
UniRef90\_P53612  
UniRef90\_P53612  
UniRef90\_K1QIP5  
UniRef90\_UPI0001CBBCF7  
UniRef90\_M5VYR3  
UniRef90\_F0XHM5  
UniRef90\_E5A9J9  
UniRef90\_Q6Z8L7  
UniRef90\_W1QEV1  
UniRef90\_E5SJZ6  
UniRef90\_M4BJD9  
UniRef90\_M5WTM4  
UniRef90\_S3D4M4  
UniRef90\_F0ZKB2  
UniRef90\_R7YY34  
UniRef90\_UPI0003C4CF9A  
UniRef90\_U7PTI7  
UniRef90\_C3XQH0  
UniRef90\_C3XQH0  
UniRef90\_G8BQL8  
UniRef90\_Q0UNK1  
UniRef90\_W6MVA7  
UniRef90\_Q0D038  
UniRef90\_B2VWD3  
UniRef90\_Q00ZE3  
UniRef90\_U4LRL4  
UniRef90\_F7W540  
UniRef90\_G7E9N3  
UniRef90\_K0KNE1  
UniRef90\_C1E5T3  
UniRef90\_Q6C928  
UniRef90\_U4LF63  
UniRef90\_H3FYC7  
UniRef90\_Q5D978  
UniRef90\_S8AFR4  
UniRef90\_K4E3M5  
UniRef90\_R7QA22  
UniRef90\_S2JB6

I I L D A P H Y L D V P R L L V S W L S S R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L D S P R Y L N N V P R L L V S W L S S R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L N E K V N H L C D V N R L L V S W L S S R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L L G K E K L L C D V N R L L V S W L S S R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L L N A T D A V D L D A L E R W L A R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L N E V N H L D L D L A G L T V R W L S S R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L N K T S V I N C D V N R L L V S W L S S R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I M G H P H T M D L P S L I S W L S A R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L T N E V H R L N V P R L L V S W L S S R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L D D T P H R I L N V P R L L V S W L S S R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L D H P S Y L D V P R L L V S W L S S R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I T G S L H H V L D K D L L G W W L C E R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L K Q E H H L D L D R S L R W L T H H R Q M R F E G G G F L N G R P E K L P D V V G G G Y  
I L D G W D A I D E D A L V H Y I A H R R Q M A V E G G G F Q G R T T N K L V D D G G G Y  
M A D Q V D S L D L P G L L S W A F S R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L D R P R Y M D V P R L L V S W L S A R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L N A L D R V N I P A L T H Y V A H R R Q M A V E G G G F Q G R T T N K L V D D G G G Y  
I L G H P R A M D L P S L L V S W L S A R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L N K V N T K L P L L L S W L S A R R Q Y A P P E G G G K V I C C G Q G K V I E G G G F F R G R T T N K L V D D G G G Y  
I M G P P R C M D V P L L L S W L S A R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L T N E A D K L D L P S L L V S W L S A R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L D N P R R I D V P R L L V S W L S S R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I L L N E A E K V D L P S L L G W W A F R R Q Y A P P E G G F F S G R T T N K L V D D G G G Y  
I A G G A E H H I D L D K D L L G W W L C E R R Q M K F S G G G L N G R P E K L Q P D V V G G G Y  
I L T N E V D R L N L D S L M N W A V H R R Q Y A P P E G G G F Q G R T T N K L V D D G G G Y  
I L L G E A P H Y L D V P G G F I S W A R R Q Y A P P E G G G F S G R T T N K L V D D G G G Y  
I L L N E A D R M D V P S L L V S W L S A R R Q Y A P P E G G G F S G R T T N K L V D D G G G Y  
I L L G D P Q Y L D V P L L I S W L S A R R Q Y A P P E D D G G F S G R T T N K L V D D G G G Y  
I L L D H P R S C P R L L A W L S A R R Q Y A P P E G G G F S G R T T N K L V D D G G G Y  
I L L G D P R S L D V I P T L L S W L S S R R Q Y A P P E G G G F A G R T T N K L V D D G G G Y  
I L L D E P H S L D I K K L Q F W V T N R R Q L P L E E G G G F Q G R T T N K L V D D G G G Y  
I L L G E V N R L D L D L D V W V V S R R Q Y A P P E G G G F Q G R T T N K L V D D G G G Y  
I Y G P P H E L D V D A L I W W L S S R R Q Y A P P E G G G F A G R T T N K L V D D G G G Y  
I V N S L H L V D A D L L G W W L C E R R Q L K P N G G G L N G R P E K L L E D V V G G G Y  
I A G R L D L V D R D K L G G W L S E R R Q L P N G G G L N G R P E K L T E D V V G G G Y  
I L Y D A P H F L D V D A L L S W L S S R R Q Y A P P E G G G L L A G R T T N K L V D D G G G Y  
I M G P P R Y M D I P L L V S W L S A R R Q Y A P P E G G G F S G R T T N K L V D D G G G Y  
I L L G K T K T I N V E K L V K W T V V R R Q L R L E E G G G F S G R S T N K L V D D G G G Y  
I L N T E K S L N V E K L L R W S V E R R Q M S F E G G G L N G R T T N K L V D D S G G G Y  
I L L G S V D H C D M K S L H R W L N G R Q M A F E G G G F F Q G R T T N K L V D D S G G G Y  
I L L G A A H R L R L P L V R W L V L G R Q M A H H A E G G G F S G R T T N K L V D D S G G G Y  
I L L D H P S Y L D V P R L I A W L S S R R Q Y A P P E G G G F S G R T T N K L V D D S G G G Y  
I M G H P R Y I D L P S L L S W L S A R R Q Y A P P E G G G F S G R T T N K L V D D S G G G Y  
I L G R L R H H I N A D L L G W W L C E R R Q L P S S G G G L N G R P E K L P D V V G G G Y  
I L L G K P R Y M D I P L L L S W L S A R R Q Y A P P E G G G F S G R T T N K L V D D G G G Y  
V T N N L H Y I N A D L L G W W L C E R R Q L P S S G G G L N G R P E K L P D V V G G G Y  
I I G A L D T I D R T S L K Q F L G A V R E S N G A Y R M H I L G G E L D V R G  
I I G A L D T I D R T S L K Q F L G A V R E S N G A Y R M H I L G G E L D V R G  
I L L G P P Q H C D L K N L V K W S V N R Q F Q N E G G M N G R S T N K L V D D G G G Y  
I L N A L D K M N T E K L M E W C S A R R Q Y N E L L G L C G G R S T N K L V D D G G G Y  
I T G S L H H I D K D L L G W W L C E R R Q V K S S G G L N G R P E K L P D V V G G G Y  
I G G A L H H V D K D L L G W W L A E R Q V K S S G G L N G R P E K L P D V V G G G Y  
I L Y D S V H V I N V D K V V A Y V Q S L Q K E D D G S F A G D I W G E I D T R F  
I L Y D S V H V I N V D K V V A Y V Q S L Q K E D D G S F A G D I W G E I D T R F  
I T G R L H H I N A D L L G W W L C E R R Q L P S S G G G L N G R P E K L P D V V G G G Y  
I T G R L H H I N A D L L G W W L C E R R Q L P S S G G G L N G R P E K L P D V V G G G Y  
M I N Q V N Q L D L P R L I D W L V F Q Q G K E C G G F K G R T T N K L V D C G G G Y  
I L D S P D Y L D V Q R L V S W L S S R R Q Y A P P E G G G F S G R T T N K L V D G G G Y  
I L G P P K Y L L I H W L S S R R Q A T P E G G G Y N G R T T N K L V D G G G Y  
I T G S L H H I D R D L L G W W L C E R R Q C K E G G L N G R P E K L A D V V G G G Y  
M L K S P S D L D P N L S W T V I Q M Q S L E G G G L N G R T T N K L V D D G G G Y  
I L G R E K L C H A P S V K K W L A S R Q M Q F F E G G G F S G R T T N K L V D D G G G Y  
I L E T V H Q T I D L P G L L H W L A N R Q M P F E G G Y Q G R T T N K L V D D G G G Y  
I L I N Q I N R L D L P R L I D W L V F R Q G K E F F G F Q G R T T N K L V D D G G G Y  
I L I N D P H Y L D V P R L L S W L S A R R Q Y A P P E G G G F A G R T T N K L V D D G G G Y  
I L V N R L D L V D I D K L G W W L C E R R Q L P N G G G L N G R P E K L S S D V V G G G Y  
I L L G P P H Y L N V A L V A W L S S R R Q Y A P P E G G G L A G R T T N K L V D D G G G Y  
I L K Q L T R V P I C P S Q H W V T S R R Q M R P F E G G G F L Q G R T T N K L V D D G G G Y  
I L D S L E Y L N V P R L I S W L S A R R Q Y A P P E G G G F S G R T T N K L V D D G G G Y  
I L Y D A L D A V N V D K L V E F V S N L Q Q P P D D G S F Y G D K W G E V D T R F  
I L Y D A L D A V N V D K L V E F V S N L Q Q P P D D G S F Y G D K W G E V D T R F  
I L G K L D S I N I P K L I E W C A T K Q Y N E E K G F C G G R S N K L V D D G G G Y  
I L L G P P K K L D I P L L T H W L S S R R Q C S P P E G G G Y N G R T T N K L V D D G G G Y  
I L D S P K K C D L D R L V D W I S A R R Q L P V I E G G G F Q G R T T N K L V D D G G G Y  
I L L G K P R C M D V P L L L S W L S S R R Q Y A P P E G G G F S G R T T N K L V D D G G G Y  
I L L G P P K Y L N L D M L L Y W L S S R R Q C T P P E G G G Y N G R T T N K L V D D G G G Y  
I G G R L D Y V D G D L L G W W L A E R Q V K V G G G L N G R P E K L P D V V G G G Y  
I A G R L G E I D G E M L G D W L A E R Q L A N G G L N G R P E K L L E D V V G G G Y  
I L D N P R R I D R L V S W L S Y R Q Y A P P E G G G F S G R S T N K L V D D G G G Y  
M V S P E I P L Q I D A L L R W A W Q Q H V E G A G F R G R S T N K L V D D G G G Y  
I A N K L D L V D Q E L T G W W L S E R Q V E N G G L N G R P G K I P D V V G G G Y  
I C D S A H S L D L P E L T H W L A H R Q G A V E G G F F S G R T T N K L V D D G G G Y  
I L V P I R E M D V E S C L A W L S A R R Q Y O P P E G G G F S G R T T N K L V D D G G G Y  
I L Y P P E K I D M D A L L R W M S A R R Q Y G P P E G G G L S G R T T N K L V D D G G G Y  
I L T D R L D S I D R D K T A Q W L A M R Q C N S S G G L S G R T T N K L P D V V G G G Y  
I L L G R S D S I D L P R L L H W V S H R Q M A T E G G G F Q G R T T N K L V D S G G G Y  
M T N N L D R M S R D Q L A G W L A Q R Q L P N G G L N G R P E K L L E D V V G G G Y  
I A N A L H C I D T K E Q L S W L A M R Q L P S S G G L N G R P E K L K A D V V G G G Y  
I L D E L D A V D T G E A L L D W A V M R Q M A Y E G G G F O G R T T N K L V D S G G G Y  
I V D A L H H V D R D L S W W L C E R R Q L K N G G L N G R P Q K L E D V V G G G Y

UniRef90\_M1WGWZ4 S H W V G G C W P L I E A S L T G P Q N P T K K S H D S I S N R N G L I R Y I Y  
UniRef90\_S3D6E5 S H W V G D C W P L V E A C L E T A S A A S A K P S Q S L F S R E G L I R Y I L  
UniRef90\_UPI0002C3359F S F W Q G G A F A L L Q R L G H C S L D S H T S T T A H I S E V G G K I S K G T  
UniRef90\_T1IU12 S F W Q G G L F P L I H R I L V K T S L D S T L G L E R W L F H Q G A L Q R Y I L  
UniRef90\_F0Y5G6 S F W Q G G T L A L V A H V R R G H T R S D E A P P G L R G A L Q R Y I L  
UniRef90\_U5FIW6 S F W Q G G V L A L Q R F D S G E E H A S T G N S T S E G E D T S R A L Q R Y I L  
UniRef90\_E4YF17 N F W Q G G S F P I V H G L L E Q K E H A P K N S W L C D S R A L Q R Y I L  
UniRef90\_E4V1K7 S H W V G G C W P L I Q Q A L S A S T S E S E S V A S L Y S R E G L T R Y I L  
UniRef90\_A0A022RW41 S F W Q G G V A A I I Q R L H L M N F I K G S K Q D M R P L F N S R E G L Q Q Y I L  
UniRef90\_N4VCS2 S H W V G G C W P L I D A V L K G A S E L D D D Q D G S L L Y S R E G L R Y I L  
UniRef90\_G2QQX2 S F W V G G C F P L I E A C L N S G G A G G A P A D D T L F S R E G L I R Y I L  
UniRef90\_W9QZF2 S W W V L S S L I I I D R V H W I N K S L I N K S A L Q E Y I L  
UniRef90\_R7VW81 S F W Q A G L L P L I H R A L H A R G D T A L S M T H W M L D Q K S A L V E Y I L  
UniRef90\_A0A024TNI8 S F W Q G S V P A L L S L K R G H Y V S N T E A H Q K Y I L  
UniRef90\_D8S0K4 S F W Q G G V F P L L Q S V V T K L I S Q Q T S G S R N P F H N P T A L Q Q Y I L  
UniRef90\_A0A017SSA9 S H W V G G C W P L V Q S A L D G M Q P A A A P A S S R G N L Y C R E G L T R Y I L  
UniRef90\_T0QTU2 S Y W M G A V P A L L A P Y T R G I Y V S D R A A H Q R Y I L  
UniRef90\_C5FUR3 S H W V G G C W P L V Q Q A L D A G S L S A P R S L Y S D R E G L S R Y I L  
UniRef90\_A9SVW9 S F W V G G A G Q A Q L S T V D Q I L N E N E O M L Y G P L Y N A H A L Q R Y I L  
UniRef90\_G7XKB4 S H W V G T C W P L V S S A L N G V Q S A T G P E P A N L Y S R E G L T R Y I L  
UniRef90\_MOTU01 S F W Q G G V L A L A Q R L L L I V H K Q L E S S F I S G V N R E E G L S D Y I L  
UniRef90\_G4V1H6 S H W A G G C F P L I E A C L N K T A T G L A A A P E S L Y S R E G L R Y I L  
UniRef90\_B4FPF5 S F W Q G A A I A F T Q K L I T I V D K Q L K S S Y S C L F H N I A L Q Q Y I L  
UniRef90\_A9V860 S F W V G G V F P L L R K M L K A Q G A D P G L L C S A E G L H Y V C  
UniRef90\_D8R953 S W W V L S S L V T L G R V D W I D K E K L K T F V L  
UniRef90\_Q38920 T F W Q A A P C V L L Q R L Y S T N D H D V H G S S H I V F D S L G L Q R Y I L  
UniRef90\_A7E4E7 S H W V G G C W P L I E A C L E S P T Q Q T Q S I P I N K L Y S R E G L R Y I L  
UniRef90\_W1PF95 S F W Q G G V L V L I Q R M S I I D K Q G S S F I K E S I D W G P L Q Q Y I L  
UniRef90\_K1XHX5 S H W V G G C W P L L E A C L N G N A S N P E S S D G K L F S R E G L T R Y I L  
UniRef90\_G0SAH2 S H W V G G C F P L I E A C L D S D G T K L P P A T E S L Y S R E G L T R Y I L  
UniRef90\_L8G615 S H W L G G C W P L I D A C L A G S E N H G A P H N D S L Y S R E A L T R Y I L  
UniRef90\_M2X2S1 S F W Q G G L L T L L E F W T R K Y Q K R N T S F R F S G E D L E R Y I L  
UniRef90\_Q04903 S F W Q G G A V A L Q R L H S I N F I S E W R Q S E P L F H S E G L Q Q Y I L  
UniRef90\_W9WZR6 S H W L G G C W P L A Q A V S G P R D K A R D V S E N L Y S S E G L A R Y I L  
UniRef90\_U9U897 S W W V L S A L S L L G R L H W I N K E K L I E F V L  
UniRef90\_K2RX76 S W W V M S A M A M I D R L H W I D D S K L A A F I L  
UniRef90\_H6C262 S H W L G S C W P L V Q A A M N G P R G P G Q K V T E N L Y S S E G L A R Y I L  
UniRef90\_W9WNNW0 S H W L G S C W P L I Q A A V S G P R D S A G S R S E N L Y S S E G L A R Y I L  
UniRef90\_B8LW70 S H W V G D C W P L V Q S A L N G P H D A I P E V P Q Y L F S R E G L A R Y I M  
UniRef90\_K0KMG4 S F W V G G L I P L F D I F L D I F L D H E T A S R A G L Q N Y I L  
UniRef90\_G3AH96 S F W L G A L F P M L E I I T G Q K E L F N R N G L A H Y I L  
UniRef90\_T1HNF3 S F W Q G G S L A I L N L G L M S E N L E K N Q C E W H F D S S L L Q E Y I L  
UniRef90\_R1E3J8 S F W Q G G A F P L V Q S L L Q S R G E L A P G G A I Y N A P A L L D Y I L  
UniRef90\_Q2GSE3 S H W V G G C F P L I E A C L N S N I G R S S S G D E S I F S R E G L R Y I L  
UniRef90\_F2S354 S H W V G G C W P L I Q Q A L S D P E P L S A L Y S R E G L T R Y I L  
UniRef90\_L7MB91 S W W V L A S L K I I G R L H W I D K E K L Q N F I L  
UniRef90\_V5G3R9 S H W V G G C W P L I Q A A L N G T Q H P V Q P S V G S L Y S R E G L A R Y I L  
UniRef90\_W4ZJJ2 S W W V L A S L K I I N R L H W I D S K K L T A F I L  
UniRef90\_T1EA12 A Y C A I S S A K L A S F A P E D E L K L F E G T A A W I L  
UniRef90\_T1EA12 A Y C A I S S A K L A S F A P E D E L K L F E G T A A W I L  
UniRef90\_C4R549 S H W V G G I F P E L E L A T Q C D L L D R A A L L K N Y I L  
UniRef90\_Q6FL08 S F W V G A T A A I L E S Y N Y G E C I N K D A L L R N Y I L  
UniRef90\_A0A059A070 S W W V L C S L I M I D R A H W I D K E K L I K F I L  
UniRef90\_A9T4H0 S W W V L A S L V I M E R V H W I D R K K L E Q F I L  
UniRef90\_P53612 S F C A V A T L A L L G K L D A I N V E K A I E F V L S C M N F D G L L G W W L  
UniRef90\_P53612 S F C A V A T L A L L G K L D A I N V E K A I E F V L S C M N F D G L L G W W L  
UniRef90\_K1QIP5 S W W V L A S L K I I G K L H W I D K D K L I Q F I L  
UniRef90\_UPI0001CBBCF7 S W W V L A S L K I I G R I H W I D K K K L E T F I L  
UniRef90\_M5VYR3 S F W Q G G T F A L L Q R A C S T I D Q Q L V I E M E P L F D G R A L Q L Y I L  
UniRef90\_F0XHM5 S H W V G G C W P L V E A C L R S E H E N P S L P S R S L F S R E G L R Y I L  
UniRef90\_E5A9J9 S H W V G G C W S L V E A A V T T G L W N R T A L A R Y I L  
UniRef90\_Q6Z8L7 S W W V L S S L I M I D R V H W I D K D K L A K F I L  
UniRef90\_W1QEY1 S H W V G G L T P L L E I A T G Q K D L L N R I Q L Q N Y I L  
UniRef90\_E5SJV6 S F W Q A A S F Q I V N Q F E I A T G V I V D V I E V Q F R Q T S V A E L H F A L  
UniRef90\_M4BJD9 S F W Q G A V P A L L D E T V R E R Y G N D V P Y Q C H Q R Q L Q K Y I L  
UniRef90\_M5W7M4 S F W Q G G V F P L L Q R V R S I E V G E S F E G T S S H V D D A C H S R Q  
UniRef90\_S3D4M4 S H W V G G C W P L I E A C L E G P T T A S A S S T D S L Y S R E G L R Y I L  
UniRef90\_F0ZKB2 S W W V I S S L C T I D R L N W I N T E K L K N Y I L  
UniRef90\_R7YY34 S H W L G G C W A L V E A A V A G P G K P G A G P P P S L W S R E G L R Y I L  
UniRef90\_UPI0003C4CF9A S F W Q A G L L P L L H R A L H A G Q G D P A L S M T H W M F H Q E A L Q E Y I L  
UniRef90\_U7PTI7 S H W V G D C W P L V E A S L Q R S S D G V P K P P Q S L F S R E G L T R Y I L  
UniRef90\_C3XQH0 S F C A V A C L K L L D K L S A I D V E K A T N F V L S C M N F D G L L G W W L  
UniRef90\_C3XQH0 S F C A V A C L K L L D K L S A I D V E K A T N F V L S C M N F D G L L G W W L  
UniRef90\_G8BQL8 S F W V G G T I A I L E A Y G Y G D Y I F D H D S L R E Y I L  
UniRef90\_Q0UNK1 S H W V G G C W S L V E A F T R S T P S T H I L W N R S A L A R Y I L  
UniRef90\_W6MVA7 S H W T G G L V P L I E M C Q P E Y F D K I I S R E A L E N Y I L  
UniRef90\_Q0D038 S H W V G S C W P L I Q A A L D G T Q G P Q A T S V G D L Y S R E G L T R Y I L  
UniRef90\_B2VVD3 S H W V G G C W S I V E A V T T S G L W N R P A L G R Y I L  
UniRef90\_Q00ZE3 S W W V L S S L S I V E A V T T S G L W N R P A L G R Y I L  
UniRef90\_U4LRL4 S W W V L S S L A M I G R L G W I D K E G L V G F I L  
UniRef90\_F7W540 S H W V G G C F P L I E A C L S P S G S G S E K E P E S L Y N R E G L R Y I L  
UniRef90\_G7E9N3 S W W C G G L F S L L N A L D S P A Q A Q D A P G E T Q L F D R V G L Q Q Y I L  
UniRef90\_K0KNE1 S W W V L S S L A L I N K L D W I D Y E K L K K F I L  
UniRef90\_C1E5T3 S F W Q G G A F P V L T S S N T A P S A P S A P S A P S F S S R A L Q Q W L  
UniRef90\_Q6C928 A Y W V G A S L V L I N G A V H A G P S L W D R K Q L A Q Y V L  
UniRef90\_U4LF63 S T W I G G C W P L V E A A L G C E T G S L W N R E G L V R Y I M  
UniRef90\_H3FYC7 S W W V L S S L A M L R R L N W I D Q D K M I R F I Y  
UniRef90\_Q5D978 S F W Q G A L F P I V E E L L W L S G D S A L N A T D T L F N P A L Q E Y I L  
UniRef90\_S8AFR4 S W W V L S S L A M L G K L H W I D Q N K L V G W I L  
UniRef90\_K4E3M5 S W W V S S S L S M L G H T D W I D R K A L F N F I L  
UniRef90\_R7QA22 S F W V G S L F P L G L K A R A P A G M S K L F D A D A L Q R Y I L  
UniRef90\_S2JBJ6 S W W V L S S L S V L G N V H W I D K E K L S K F I L

UniRef90\_M1WGWZ4 C C C Q D L T G G L R D K P S K Y S D A Y H T C Y V L S G L S C A Q H W D L V S  
UniRef90\_S3D6E5 C C C Q D D T G G L R D K P G R M S D A Y H T C Y V L S G L S S A Q H H P F V F E  
UniRef90\_UPI0002C3359F S S Q V D D T G G F L R D K P G K N R D F Y H T C Y C L S G L S V A Q H H D A G S P  
UniRef90\_T1IU12 L C C C Q T V N G G L R D K P G K N R D Y Y H T C Y T L S G L S V A Q H H F A G G K  
UniRef90\_F0Y5G6 L C C C V Y P E G G L R D K P G K N R D Y Y H T C Y C L S G L S A S Q R L Y G D P  
UniRef90\_U5FIW6 E T C H F K N G G F A D R P G S K P R D Y Y H T C Y C L S G L S V C Q H H S Y D S P  
UniRef90\_E4YF17 L A C C Q S V A G G F A D R P G S K P R D Y Y H T C Y A L S G V L A A L Q H H V Y S R H  
UniRef90\_E4V1K7 N C C Q S S Q Y G G L R D K P G K H A D S H H T C Y T L A G L S S A Q H H T H V N T E  
UniRef90\_A0A022RW41 L C C Q Q E E A G G F R D K P G S K R D H Y H T C Y V L S G L S V C H H H C N V K E  
UniRef90\_N4VCS2 C C C G Q D K R G G L R D K P S R P S D A Y H T C Y V L S G L S S A Q H H Q W S P C  
UniRef90\_G2QQX2 C C C Q D D T G G L R D K P G K N S D A Y H S C Y V L S G L S S A Q H H W A V L P  
UniRef90\_W9QZF2 D C C Q D T E N G G L S D R P G D D A V D V Y H T Y F G V A G L S L L E Y P G  
UniRef90\_R7VW81 L C C C Q C P A G G L R D K P G K S R D F Y H T C Y C L S G L S A I A Q H H F G S G D  
UniRef90\_A0A024TNI8 L C C G Q Q I E G G L R D K P G K S R D H Y H S C Y V L S G L S A V A Q T Y G D K  
UniRef90\_D8S0K4 L C C C Q V L N G G L R D K P G K S K D S Y H T C Y C L S G L S S T A Q H H C L S D H  
UniRef90\_A0A017SSA9 S C C Q Q A K R G L R D K P G K H P D S Y H T C Y T L T G L S T T Q H R H Y H T  
UniRef90\_T0QTU2 L C C G Q Q L E G G L R D K P G K P R D H Y H S C Y V L S G L S L S Q H H G D G R P  
UniRef90\_C5FUR3 N C C Q S S Q Y G G L R D K P G K S H A D S Y H T C Y T L A G L S S N A Q H H P A L A D  
UniRef90\_A9SVW9 L C C C Q V L D G G L R D K P G K S R D D Y Y H T C Y C L S G L S S Q A Q H R V N A P  
UniRef90\_G7XKB4 G C C C Q S K Y G G L R D K P G K H P D S Y H T C Y A L T G L S S Q A Q Y P A N D V  
UniRef90\_MOTU01 L C C S Q V L E G G F R D K P G K Q R D F Y H S C Y C L S G L S V S Q Y S W S K D  
UniRef90\_G4V1H6 C C C Q D D T G G L R D K P Y K M S D Y H T N Y V L S G L S S A Q H H Q W D L D  
UniRef90\_B4FPF5 L C C S Q V L E G G L R D K P G K N R D H Y H S C Y C L S G L S A V S Q Y S A G S C  
UniRef90\_A9V860 L C C C Q H P R G G L R D K P G K G R D F Y H T C Y C L S G L S Q A V G H P  
UniRef90\_D8R953 D C C Q D T E E G G L S D R P N D A V D V F H T F F G V A G L S L L D Y P G  
UniRef90\_Q38920 L C C S K I P D G G F R D K P R K P R D F Y H T C Y C L S G L S S V A Q H H A W L K D  
UniRef90\_A7E4E7 C C C Q D T G G L R D K P R K P R D S Y H T C Y V L A G L S S A Q H H Y S A E K D  
UniRef90\_W1PF95 L C C C Q V L E G G F K D K P G K A R D H Y H T C Y C L S G L S V C Q H H Y S S K D  
UniRef90\_K1XHX5 C C C C Q D D T G G L R D K P S H S S D S Y H T C Y V L A G L T S A Q N W T S E P  
UniRef90\_Q0SAH2 C C C C Q D D T S G G L R D K P G K M S D A Y H S C Y V L S G L S S A Q H H Q W S L D  
UniRef90\_L8G615 C C C G Q D T T G G L R D K P G K M F S D Y H T C Y L L V G L S S A Q H H K W L Q  
UniRef90\_M2X2S1 R Y C Q C R G G G F R D K P G K P R D L Y H T C Y A L S G L S V A H Q N L S G T  
UniRef90\_Q04903 L C C S Q E Q D G G L R D K P G K R R D H Y H S C Y C L S G L S L C Q Y S W S K P  
UniRef90\_W9WZR6 C C C Q A K G G G L R D K P S K R P D S Y H T C Y N L S G L S I V E H S H S P S  
UniRef90\_U9U897 V A Q D S E G G G L A D R P G D M A D V F H T L F G I A G L S L L G Y P D  
UniRef90\_K2RX76 R C C Q D P E L G G F A D R P G D M V D V F H T V F G L A G L S L V K Y P G  
UniRef90\_H6C262 C C C C Q A E D G G L R D K P S K P P D S Y H T C Y T L S G L S T V E H S H S P S  
UniRef90\_W9WNW0 C C C C Q A E E G G L R D K P S K H P D S Y H T C Y T L C G L S T V E H S H S Y A  
UniRef90\_B8LWT0 N C C Q N N K N G G L R D K P G K Y P D S Y H S C Y T L T G L S T I Q Y Y H Y Q D  
UniRef90\_K0KMG4 G C C C Q N E M G G L R D K P G K Y P D F Y H T N Y V L L G L T V I Q N K F S E P  
UniRef90\_G3AH96 R C A Q S N H G G F M D K P G K G V D F Y H T N Y A L C G L S V C E Y L H S V S  
UniRef90\_T1HNF3 I C C C Q H L Y G G F L R D K P T T S Q D P Y H T C Y S L S G L S L A Q S P Y V G D  
UniRef90\_R1E3J8 V C A Q V A Q G G L R D K P G K G R D Y Y H T C Y A L S G L S V A Q H H A S A  
UniRef90\_Q2GSE3 C C C C Q D D T G G L R D K P G K M S D A Y H S C Y V L S G L S S A Q H H Q W E L D  
UniRef90\_F2S354 N C C C Q D D T H G G L R D K P G K H V D S F H H T C Y T L A G L S S V Q H R H V N S  
UniRef90\_L7MB91 A S Q D E E T G G F G D R P G D M V D P F H T L F G L A G L S L L G  
UniRef90\_V5G3R9 A C C Q S K R G G L R D K P G K H P D S Y H T C Y T L T G L S S L Q N H G T S Q  
UniRef90\_W4ZJ2 A C C Q D D E T G G F A D R P G D M V D P F H T L F G L A G L S L L G N H S D S I  
UniRef90\_T1EA12 A E C Q T Y E G G F G G A P D L E A H G G Y S F C A A A A L M I L G  
UniRef90\_T1EA12 A E C Q T Y E G G F G G A P D L E A H G G Y S F C A A A A L M I L G  
UniRef90\_C4R549 I C C C Q E E N G G L R D K P G K R P D F Y H T N Y V L C G L S V C Q H H D P A  
UniRef90\_Q6FL08 A C C Q T E H P G G L R D K P G K H S D F Y H T N Y V L L G L S V S E S N G I E M  
UniRef90\_A0A059A070 N C C Q D T E N G G I S D R P N D A V D V Y H T F F G V A G L S L L E Y P G  
UniRef90\_A9T4H0 D C C Q D P E C G G L S D R P D D A V D V F H T F F G V A G L S L L G F P G  
UniRef90\_P53612 C E R Q L P S G G L N G R P E K L P D V C Y S W W V L A S L K I I G H H W I D R E  
UniRef90\_P53612 C E R Q L P S G G L N G R P E K L P D V C Y S W W V L A S L K I I G H H W I D R E  
UniRef90\_K1QIP5 A S Q D E E T G G F A D R P G D M V D P F H T L F G I A G L S L L G  
UniRef90\_UPI0001CBBCF7 A C C Q D D E T G G F A D R P G D V D P F H T L F G I A G L S L L G S F P  
UniRef90\_M5VYR3 L C C S Q E E N G G L K D K P G K S R D F Y H T C Y A L S G L S V  
UniRef90\_F0XHM5 C C C C Q D Q T G G L R D K P A R M S D P Y H T C Y V L S G L S S A Q H H K W S P F  
UniRef90\_E5A9J9 A C C Q D E K K G G L K D K P G K Y S D A Y H T C Y N L A G L S A A Q H H R Y A Y D  
UniRef90\_Q6Z8L7 N C C Q D K E N G G I S D R P D N A V D I Y H T Y F G V A G L S L M E Y P G  
UniRef90\_W1QEV1 C C C C Q D E P A G L R D K P S A R A D F Y H T N Y V L C G L S M T Q H H Y H R I  
UniRef90\_E5SJZ6 L P T S V R E R N R D Y Y H T C Y T L S G L S I A Q H H F D T E  
UniRef90\_M4BJD9 L C G Q E I T G G L R D K P G K P R D H Y H S C Y C L S G L S V A Q H H G D G R  
UniRef90\_M5WTTM4 E V N F N D I G N F V K R P I E M E S D L F H T C Y C L S G L S V C Q H H M W S D E  
UniRef90\_S3D4M4 S C C C Q D K R G G L R D K P S H N S D S Y H T C Y V L A G L S S A Q H H W T S E F  
UniRef90\_F0ZKB2 K C C C D N E T G G L A D K P G D I P D V F H T Y F G I S G F S L M G Q F  
UniRef90\_R7YY34 C C C A Q G H Y G L R D K P S K H P D A Y H T C Y N L A G F S S A Q H H V Y S Y D  
UniRef90\_UPI0003C4CF9A L C C C Q C P A G G V L D  
UniRef90\_U7PTI7 C C C C Q D E T G G L R D K P G R M S D P Y H T C Y V L S G L S S A Q H H K W E L S  
UniRef90\_C3XQH0 C E R Q L P S G G L N G R P E K L P D V C Y S W W V L A S L K M I G H W I D K D  
UniRef90\_C3XQH0 C E R Q L P S G G L N G R P E K L P D V C Y S W W V L A S L K M I G H W I D K D  
UniRef90\_G8BQL8 R C C Q D D K M G L R D K P G K R P D F Y H T N Y V L A S G L A T E Y K F D K T  
UniRef90\_Q0UNK1 S A C C Q D K K G G L K D K P G K Y P D A Y H T C Y N L A G L S M A A Q Y K Y V L D  
UniRef90\_W6MVA7 C C C C Q A Q N G G L R D K P G K S P D F Y H S N Y V L C G L S M C E N K Y E L R  
UniRef90\_Q0D038 G C C C Q G K D G G L R D K P G K H V D S Y H T C Y T L T G L S M A Q Y R H Y Y E  
UniRef90\_B2VVD3 A A C C Q E K K G G L K D K P G K S S D A Y H T C Y N L A G L S A A Q Y K Y A G R  
UniRef90\_Q00ZE3 K C C Q D E K K G G I S D R P D D E P D V Y H T F F G I A G L A L M G H P A V  
UniRef90\_U4LRL4 G C C Q D E K K G G I S D R P N D E V D V F H T V F G L A G L S L L G Y E G  
UniRef90\_F7W540 S C C C Q D Q T G G L R D K P Y K M S D A Y H T N Y V L S G L S S A Q H H Q W D L D  
UniRef90\_G7E9N3 L L J A Q A E G G L R D K P G K P A D A Y H T C Y N L S G L S A A Q H H P W I Q S  
UniRef90\_K0KNE1 D C C Q D D V S G G L S D R P G N Q V D V F H T I F G I A G L S L M G F E D  
UniRef90\_C1E5T3 L C C C Q L P N G G M Q D K P G K G R D H Y H T C Y C L S V A Q H H W G  
UniRef90\_Q6C928 N C C Q Q S G G G L R D K P G C K A D A Y H T N Y A A C G I A M S Q Y E G E N G  
UniRef90\_U4LF63 A A T Q N D K G G L R D K P S K N S D F Y H T N Y V L L G L S G T Q H R H W Y E  
UniRef90\_H3FYC7 A C C Q D D E T G G F S D R P G D M P D P F H T V F G T A A L S L F G  
UniRef90\_Q5D978 L C C C Q  
UniRef90\_S8AFR4 S C C Q D E V R G G L A D R K G D A V D V F H T V F G L A G L S L V G W G G  
UniRef90\_K4E3M5 A C C Q D A E D G G L S D K P G N M A D V Y H T F Y G L C G L S L L G Y  
UniRef90\_R7QA22 E C A Q L E N G G F R D K P G T S R D L M H S C Y A L S G L S I A Q H H F G E A K  
UniRef90\_S2JBJ6 S A Q D P E N G G I S D R P G D M V D V F H T V F G V A G L S L L G Y P G

UniRef90\_M1WGWZ4 A R A D A V L F E E V D R V E P S H P V Y A I S Q N R V D D C Q R Y F A T K T  
UniRef90\_S3D6E5 G K E G V Q V F E E E D R V S T V H P V Y T I S D E R V E K I K D Y F R A K T  
UniRef90\_UPI0002C3359F V M A R A I K G P S S N L L I P I H P L F N V V L D Q Y N E A R E F F T H  
UniRef90\_T1IU12 F G S T W I S G D A Q N E L I P I H P L I Y N I C V D S V N A H E F F S N L P  
UniRef90\_F0Y5G6 D A S T V V Y G D P G N L L H E T H P L V F N V R V D K V A R A A A F F A G L P  
UniRef90\_U5FIW6 S L P G Q V L G P E Y S N L L E S P I H P L N V V L K Q Y R E V R E F F S R  
UniRef90\_E4YF17 G Q T T L C P E P E E N C L S M I N P L H N V R P I A V I D I Y D Y F A A R  
UniRef90\_E4V1K7 T T S T T V Y E E K D Q L A P L H P L F V I P H A A V D A I H S W C T A N P I  
UniRef90\_A0A022RW41 A E T P P V M G P Y S N L L E G T I H P V L Y N I V L D K Y Y E A H E F F A R L  
UniRef90\_N4VCS2 P E E G A Q I F D E E D R V L E P T I H P V Y T I P Q E S V D D M K A Y F A Y K  
UniRef90\_G2QQX2 Y L E G V Q I F D N K D R V R P I H P V Y A I P Q Q N V L A M K E Y F R K K  
UniRef90\_W9QZF2 L H H E V V L G V P E N R L L Q A T H P V Y N I A P E K V V R A V M H F L Q L P V  
UniRef90\_R7VW81 V V G A G T N K L I P T H P A F N I G W D K V L R I Q T H F  
UniRef90\_A0A024TNI8 P P S S H V F G P Y S N L L D S T H P L L N F H M K R Y M E A V D Y F V S K  
UniRef90\_D8S0K4 D T S D V S V F E E T D R V N P A H P L Y V I P H K A A E D M R L W Y E K E P L  
UniRef90\_A0A017SSA9 E T P V F V A G A P E N R V E P T H P A Y N I S P D K V L L I Q S Y F A E K  
UniRef90\_T0QTU2 G S D P D T V Y E E Q D R L E T A L H P L F V I P H A A A E A I R S F C R A N P I  
UniRef90\_C5FUR3 P P P K A V L G P Y T N L L E P V H P L C N V V L S K Y T D A I R Y F R H P  
UniRef90\_A9SVW9 A S S D Q N V F D E K D R L K A F H P I F V V P H A A A E N L R V W C E Q R P I  
UniRef90\_G7XKB4 D G G P P L I G P Y T N L L E P V H P L Y N V V L H K Y Y K S H E F F S T L  
UniRef90\_MOTU01 S D P L P L I Y E D S D R V R P I H P A Y A I P Q K N V N A I R A Y F Q G R  
UniRef90\_G4V1H6 P L P Q H V L G P Y S N L L E P I H P L Y N V V L D K Y H T A Y E F F S  
UniRef90\_B4FPF5 E L I V S T H E A F N I A S A K A K A A Q E F F A S Q T  
UniRef90\_A9V860 L K R I D A V Y A L P V D V V R I  
UniRef90\_D8R953 E D T P P I M G G Y S N L L E P V Q L L H N I V M D Q Y N E A I E F F  
UniRef90\_Q38920 Y V E T T Q I Y D E G D R V L G T R L H P V F V I P E G V A E A T R A Y F A A K  
UniRef90\_R7VW81 L P P N A V L G P C C N L R V R V H P L Y N V V L E R Y Q D A H E Y Y Y  
UniRef90\_A0A017SSA9 I I D D S Q I F D E E D R I G T L H P V F V I P Q G T A E E M R A Y F T S R  
UniRef90\_K1XHX5 E P T D P Q V F A P K D R V R S I H P V Y A I P Q Q N V C A I Q Q Y F Q A K  
UniRef90\_G0SAH2 A P T D D S M A S E E D R V K S I H P V Y V I P E G I A E R I M Q Y C D S Q  
UniRef90\_L8G615 V T H P L V M G P Y S N L L E P I H P L N V V L R M E R F E L A A T Y L R N K  
UniRef90\_M2X2S1 P L P K V V M G P Y S N L L E P I H P L N V V L D R Y R E A H E F F S Q L  
UniRef90\_Q04903 E R D A S K T F E T S A G V L K Q E V D P V Y C M P T S V T E R V L R  
UniRef90\_W9WZR6 L Q N D S K V F D T G A G V K K I H P I Y T I P H D A A L A I R Q W F L M R P L  
UniRef90\_U9U897 G Q N D K D I I D D G C D R L V A F H P I Y T I A H K N A E A L R R W C E E R P L  
UniRef90\_K2RX76 S D H S V V K M G A G C D K L D T I N P I F G L P K G Y A E R F H S F F A T K T  
UniRef90\_H6C262 N K D D V A Y G D K H Y T L P V H P V F G L P V K D V D E A R Q Y F Q N  
UniRef90\_W9WNNW0 A D V L G A E N K L  
UniRef90\_B8LW70 S E L P G V P E G W N G V R L I N P I F N V V N D K V E A A L E H F F R A  
UniRef90\_K0KMG4 A L E E L Q V F D N K D R V R P I H P V Y A I P Q P S V R A I Q D Y F T D R P  
UniRef90\_G3AH96 I N V N A T V Y E A R D R L A A L H P L F V I P H A A V D A I H S W C R A N P I  
UniRef90\_T1HNF3 D E R L K P V N P V F C M S E E V V A R  
UniRef90\_R1E3J8 V E A D A N V F D E R D R L Q P F H P L Y S I P H K A A E H M L R R C  
UniRef90\_Q2GSE3 K P V N P V F C M P E N I L T R I  
UniRef90\_F2S354 L M T E K L G A D P A N F I E L H P I F G I P M N T V L K N R E  
UniRef90\_L7MB91 I D S Q I N N N N V N S N L V K A I N D P A Y A L P V N V V N R I T Y F K A K T I  
UniRef90\_V5G3R9 K L R S F I L A C Q D E E I K P V S P V F C M P E E V L Q R  
UniRef90\_W4ZJJ2 K L R S F I L A C Q D E E I K P V N P V F C M S E E V I Q R A  
UniRef90\_T1EA12 E E R I K P V N P V F C M P E E T L E R I R L H  
UniRef90\_C4R549 D E V E G K V F D E G D R V A A M N P V Y L I P W G C A E K M R R Y F E G K  
UniRef90\_Q6FL08 G N V N K G L G D D G D V V R S L H P V Y A I P A D C V A R T Q E F F R A K  
UniRef90\_A0A059A070 V N K G L G D D G D V V R S L H P V F V I P Y M A V Y E C R K F F E E K  
UniRef90\_A9T4H0 S D P S V T E V S D I N H V R S L D P V Y G V P N G L A S Q M I A L Y R A  
UniRef90\_P53612 E E P F V V G S S K N L N L I H L N Y F I  
UniRef90\_P53612 G E P I V Y G D A S N L L K R T H P A Y N I G Y D K A L K T I Q Y F Q A K  
UniRef90\_K1QIP5 V L P R A L M G S Y S N L L E P I H P L F N V V L E Q Y H E A R E F F T R  
UniRef90\_UPI0001CBBCF7 L F D E E Q I F D E D R V T L H P V F V I P E G I A E Q T R A Y F A S K  
UniRef90\_M5VYR3 D E V E G K V F D E G D R V A A M N P V Y L I P W G C A E K M R R Y F E G K  
UniRef90\_F0XHM5 D E G G M Q V F D E E D R V C T V H P I Y T I S A E R V D Q I Q A Y F R A K  
UniRef90\_E5A9J9 K L R T F I I A C Q D E E V K T V N P V L C M P E D T L R R I N L H I E  
UniRef90\_Q6Z8L7 K L R T F I I A C Q D E E V K T V N P V L C M P E D T L R R I N L H I E  
UniRef90\_W1QEV1 N A T S I I V K K R D N E L N P V N P I Y G I P I D V A S K I Y D H F R  
UniRef90\_E5SJZ6 K D G E D V I W D H E I T I R A V I F G I P Y R A V Y E C R R Y F E A K  
UniRef90\_M4BJD9 P D N L F S Y N V T E P T V V A I L D P I F G V P N G K V E K F R S F C A A Q  
UniRef90\_M5W7M4 N A S D V N V F D E S D R L T A F H P I Y V I P H R A A E E M R R W F E N Q P L  
UniRef90\_S3D4M4 Y E D D K I V W D G D I V K P E V I H P I F V I P F M S V Y E M R K Y F E D K  
UniRef90\_F0ZKB2 L Q E V D P V Y C M P R S V T K R  
UniRef90\_R7YY34 S D P L P L V Y E D S D R V R P I H P A Y A I P Q K N V A G I R A Y F Q G R  
UniRef90\_UPI0003C4CF9A T F E D Y C F G P E S N E V L P S H P V F N V T L P R I K K M Y D W A Y G Q P I  
UniRef90\_U7PTI7 L V P V D P M Y C L P V E V S K K I K K W  
UniRef90\_C3XQH0 A D G L T V G P A T N L I E R T D P V N V T E A R L A E W T R L V A Q L P  
UniRef90\_C3XQH0 L Y W Q A T S C D G A D T I C P V N P V Y G V P L G V A E M R L Y F T L K  
UniRef90\_G8BQL8 A D P D S R W G D S K D R V E A A H P V F N I K H E M V I E A R N W A E S  
UniRef90\_Q0UNK1 R D G L E P V D A V L C M T K K S L G T K T I  
UniRef90\_W6MVA7 L K E V D P I Y C M P V E T T K R  
UniRef90\_Q0D038 E D Y P L N E I N P V Y A M P Y S V L E E  
UniRef90\_B2VWD3 D A K N E V K K V D P V F N I A E D K I N Y V K E F F S Q  
UniRef90\_Q00ZE3 L K T V N P V Y C I P K Y V I S R I  
UniRef90\_U4LRL4 H  
UniRef90\_F7W540  
UniRef90\_G7E9N3  
UniRef90\_K0KNE1  
UniRef90\_C1E5T3  
UniRef90\_Q6C928  
UniRef90\_U4LF63  
UniRef90\_H3FYC7  
UniRef90\_Q5D978  
UniRef90\_S8AFR4  
UniRef90\_K4E3M5  
UniRef90\_R7QA22  
UniRef90\_S2JBJ6

UniRef90\_M1WGZ4  
UniRef90\_S3D6E5  
UniRef90\_UPI0002C3359F  
UniRef90\_T1IU12  
UniRef90\_F0Y5G6  
UniRef90\_U5FIW6  
UniRef90\_E4YF17  
UniRef90\_E4V1K7  
UniRef90\_A0A022RW41  
UniRef90\_N4VCS2  
UniRef90\_G2QQX2  
UniRef90\_W9QZF2  
UniRef90\_R7VW81  
UniRef90\_A0A024TNI8  
UniRef90\_D8S0K4  
UniRef90\_A0A017SSA9  
UniRef90\_T0QTU2  
UniRef90\_C5FUR3  
UniRef90\_A9SVW9  
UniRef90\_G7XKB4  
UniRef90\_M0TU01  
UniRef90\_G4V1H6  
UniRef90\_B4FPF5  
UniRef90\_A9V860  
UniRef90\_D8R953  
UniRef90\_Q38920  
UniRef90\_A7E4E7  
UniRef90\_W1PF95  
UniRef90\_K1XHX5  
UniRef90\_G0SAH2  
UniRef90\_L8G6I5  
UniRef90\_M2X2S1  
UniRef90\_Q04903  
UniRef90\_W9WZR6  
UniRef90\_U9U897  
UniRef90\_K2RX76  
UniRef90\_H6C262  
UniRef90\_W9WNW0  
UniRef90\_B8LWT0  
UniRef90\_K0KMG4  
UniRef90\_G3AH96  
UniRef90\_T1HNF3  
UniRef90\_R1E3J8  
UniRef90\_Q2GSE3  
UniRef90\_F2S354  
UniRef90\_L7MB91  
UniRef90\_V5G3R9  
UniRef90\_W4ZJJ2  
UniRef90\_T1EA12  
UniRef90\_T1EA12  
UniRef90\_C4R549  
UniRef90\_Q6FL08  
UniRef90\_A0A059A070  
UniRef90\_A9T4H0  
UniRef90\_P53612  
UniRef90\_P53612  
UniRef90\_K1QIP5  
UniRef90\_UPI0001CBBCF7  
UniRef90\_M5VYR3  
UniRef90\_F0XHM5  
UniRef90\_E5A9J9  
UniRef90\_Q6Z8L7  
UniRef90\_W1QEV1  
UniRef90\_E5SJZ6  
UniRef90\_M4BJD9  
UniRef90\_M5WTM4  
UniRef90\_S3D4M4  
UniRef90\_F0ZKB2  
UniRef90\_R7YY34  
UniRef90\_UPI0003C4CF9A  
UniRef90\_U7PTI7  
UniRef90\_C3XQH0  
UniRef90\_C3XQH0  
UniRef90\_G8BQL8  
UniRef90\_Q0UNK1  
UniRef90\_W6MVA7  
UniRef90\_Q0D038  
UniRef90\_B2VWD3  
UniRef90\_Q00ZE3  
UniRef90\_U4LRL4  
UniRef90\_F7W540  
UniRef90\_G7E9N3  
UniRef90\_K0KNE1  
UniRef90\_C1E5T3  
UniRef90\_Q6C928  
UniRef90\_U4LF63  
UniRef90\_H3FYC7  
UniRef90\_Q5D978  
UniRef90\_S8AFR4  
UniRef90\_K4E3M5  
UniRef90\_R7QA22  
UniRef90\_S2JBJ6

P

P

UniRef90\_A3LS53  
UniRef90\_W9C548  
UniRef90\_K2RSP5  
UniRef90\_Q245J5  
UniRef90\_J3NVU4  
UniRef90\_V2XL17  
UniRef90\_W2T1U0  
UniRef90\_F8P268  
UniRef90\_D3BIK5  
UniRef90\_C5M2M3  
UniRef90\_K7ITQ0  
UniRef90\_B6HME5  
UniRef90\_A5DMM7  
UniRef90\_Q8LFX5  
UniRef90\_O13782  
UniRef90\_B2ABA8  
UniRef90\_G3JKI2  
UniRef90\_H0ZAV7  
UniRef90\_E4ZG32  
UniRef90\_UPI000252B48A  
UniRef90\_A0A023ZS7  
UniRef90\_N4VYX9  
UniRef90\_M0TYQ2  
UniRef90\_V2XU01  
UniRef90\_V5GY89  
UniRef90\_J3PN00  
UniRef90\_H9J7Q2  
UniRef90\_F6U1E2  
UniRef90\_U7PJ1  
UniRef90\_M5FU94  
UniRef90\_U1GXA6  
UniRef90\_Q6FSK7  
UniRef90\_H2AP30  
UniRef90\_S9RF00  
UniRef90\_S7Q2L5  
UniRef90\_D8TQA9  
UniRef90\_B6QE40  
UniRef90\_C9ZLR6  
UniRef90\_F2UJ19  
UniRef90\_R1GHR0  
UniRef90\_A7TH86  
UniRef90\_W9VL63  
UniRef90\_N1JAE0  
UniRef90\_W6KY78  
UniRef90\_F0XR8  
UniRef90\_UPI0003EBDF65  
UniRef90\_R8BAY3  
UniRef90\_I6NE55  
UniRef90\_G8ZZ53  
UniRef90\_C8V7A2  
UniRef90\_Q6CKY4  
UniRef90\_T5ALU6  
UniRef90\_G0V9C3  
UniRef90\_T1IYZ5  
UniRef90\_B2ARE5  
UniRef90\_B0G172  
UniRef90\_W2SBR7  
UniRef90\_A0A023FAL4  
UniRef90\_P22007  
UniRef90\_A0A044SN57  
UniRef90\_UPI0003D28646  
UniRef90\_H3HCD9  
UniRef90\_G8BEZ3  
UniRef90\_P20133  
UniRef90\_F4QA53  
UniRef90\_G8YGM4  
UniRef90\_N1JG47  
UniRef90\_F4PL21  
UniRef90\_C4Y6T5  
UniRef90\_R7SCR7  
UniRef90\_W0T6C8  
UniRef90\_A7TIM6  
UniRef90\_J7R0B4  
UniRef90\_L8G9V3  
UniRef90\_G3AIV9  
UniRef90\_UPI0002B4ABA2  
UniRef90\_A8P2J6  
UniRef90\_B9SQ28  
UniRef90\_B9SQ28  
UniRef90\_K5WLX9  
UniRef90\_J3NFK9  
UniRef90\_A2DK66  
UniRef90\_F1A0F1  
UniRef90\_M5FRS8  
UniRef90\_Q758V2  
UniRef90\_C5KJW4  
UniRef90\_A4S4A2  
UniRef90\_G3AZT4  
UniRef90\_L1JU42  
UniRef90\_W2RR14  
UniRef90\_UPI0004416F12  
UniRef90\_E1Z373

1 N P E F S F N P Q 10 D S P K D D Y S K T V D D Q E D T E M L L L E C Y K 40  
P T L Y S S P P L L V D H L E T K T S Q D Q R E T V E K I L P F Y K  
P T P N D S F P T P T S Q V Q A E T E D V L A K H  
R P F P T D S Y D T E T S E T Q A E T E S T L L K H L  
Q S K P T I E K E P V T K T I V A Q E L I S Q Q I F K K  
P H K S E I A E N T E Y I L S D T T E L Q R D T E L V I L D E Y S  
L N  
P V M A E E Y S S E T S E A Q A E V S S R I E R I Y K  
S E T Q V M Q N E T A T A V L P L L N  
R R R L R D D G M R T C T S A E Q S K V E D I V Q E V Y D  
T H T T Q I Q N N I H P S A A V T Y M  
T V T Q V E Q M K V E A R V A D I Y R  
P R H A L A P T P F D D L Q T A T S K S Q V S T E I D I S L N L E  
K  
P S L F S S P R P T P T D A L S T P T S Q D Q S S T E S L I I P L L S  
I E T Q T T L D R E E T L S K C V P L L S  
S D T Q A L Q E E T A S A V A P L L Q  
R P T P T D S L W T E T S T S Q A E T E E L L A  
D A L K T K S S E D Q R E T V E K I L P F H T  
M N  
K  
V V E P Q Y S T E T I E Q R R E V I K D C Q K L Y N  
G L I T E T L V E R E E L I N E C L E L Y E  
I D S L F T T P P P L H D P L I T P T S T L Q D E T L S D I L P F L S  
P H H F L T P P P L Q D E L T T Q T S E A Q Q K T L E E C L P L L R  
N L L K  
L E T D T T E A R Y K V L Q S V L E I Y D  
T P T V I A Q N G M I A Q I M E K R A  
M E  
P D L F T S H Q H L N D S L D T E T S E K Q D A V V Q E C L P F L S  
S V A Q D I Y L C E T T S D Q V Q V E S T I R T I Y E  
D T E T T E A R A H V I N D C V S L L T  
V E T E T T I D R Q K V L M S C K E L L  
H L K  
T A T I I A Q N G M T D S I K E R L K  
T T L P L V E D T Y E S E T T L A Q T K T E K S I R S I Y K  
F R P A P S P D D S F P T E T S K L Q A E T E D I L L K H L

UniRef90\_A3LS53 E H P Q L Q F S D K L H L A Y V R K S L Q Q L P H Y Y N S L D A N H 80  
UniRef90\_W9C548 A A L P E E L Q L A I E P H V K Y L Q S L D S R K D E E Y W H T E H L R  
UniRef90\_K2RSP5 L K L N S H G I P H L L R K D H L A Y A A D G L T D Y P P N F V I A M D A S R  
UniRef90\_Q245J5 V L N K E A H G N Y L R K A L F D L K F N I R Y D V G H  
UniRef90\_J3NVU4 A L P D E L R L A T E A H V K Y I Q S L D T R K E D Y Y W L T E H L R  
UniRef90\_V2XL17 V P L S D E T V K P I L Q R N N H L R F L I R N L T Q F P S R Y V S Q D A S R  
UniRef90\_W2T1U0 P L D P N T P L V L Q K N L H M Q Y L V R N L T Q L P T R Y T S Q D A S R  
UniRef90\_F8P268 R S D F N K S N K K A E V N E Q A L K T F L N G A V D Y L H T S H Q S L D S S R  
UniRef90\_D3BIK5 N N P D L N F N K D A H L K F I I N S F R K M P T G A Y R V L D A N H  
UniRef90\_C5M2M3 D V Q L S E T V P E L L L D K H T D Y L V S Y G T N K D D Y F C M T E H L R  
UniRef90\_K7ITQ0 E G I P D S E L H S S K H V T Y I K N L D T R K D E E Y W L T E H L R  
UniRef90\_B6HME5 R G G S N L K A Q F L D K H L D Y V E H N L H T L P S P Y V V L D A N H  
UniRef90\_A5DMM7 K L V A D K H L R Y I L N L M E K K K E S F E S M D H L R  
UniRef90\_Q8LFX5 G E S Q S F N L Q T K H L K Y L T Q S L T R Q D E Y W L T E H L R  
UniRef90\_O13782 A F Q Q L P E E L E L A T S A H V K Y I Q S L D S K T D E D Y W L T E H L R  
UniRef90\_B2ABA8 A Y K T N H H S S Q Y V L Q R E K H F H Y L K R G L R Q L T E A Y E C L D A S R  
UniRef90\_G3JKI2 S L L I A N M P D E M Q L Y V D K H V S Y I Q S L D S R K D E E Y W L T E H L R  
UniRef90\_HOZAV7 P E L L L E K H A N F L T S Y G T D K D E E Y C M T E H M R  
UniRef90\_E4ZG32 D A A P N A K S T V L E L W R D Q H V E Y L T K G L R H L A P S F H V L D A N R  
UniRef90\_UPI000252B48A A M P D N A L L F L V D K H V R Y I Q S L D T R K D E E Y W L T E H L R  
UniRef90\_A0A023ZSJ7 L E E E K H A R Y I V S V E K K K D D E A L V I E H L R  
UniRef90\_N4VYX9 L L V P Q H V S Y I Q N L G K N K D L E Y H F S T H L R  
UniRef90\_M0TYQ2 D I K L Q D N I P N N I L L F E K H I E F I K E Y G O D N N Y E Y G M T D Y L R  
UniRef90\_V5GY89 S W L D K R D E E N P L L T R S S H I S Y L Y P L F S K L S S G F T S L D A S R  
UniRef90\_J3PN00 T L L L Q K H S D Y L A S Y L N K D D Y E Y C M T E Y L R  
UniRef90\_H9J7Q2 D V A L K E D A P Q T F L L E K H I E Y I A A Y G N K E D Y E Y C M T E Y L R  
UniRef90\_F6U1E2 E Q D K L P S E L Q L A T D A H V K Y I Q S L N R Q D E Y E Y W L T E H L R  
UniRef90\_U7PJ1 K P D D P A Q E P Y L V T E K H V N Y I K S L D T R K D E E Y W L T E H L R  
UniRef90\_M5FU94 E L L K Q K H I E Y I E S L D K R K E D Y Y W L S E H L R  
UniRef90\_U1GXA6 V D R Q E L N S Q F H R M Y L Y P F Q N S M P P Q M A A M D A G Q  
UniRef90\_Q6FSK7 D R Q E L F H F N K H R M Y L K K M L E P L P S F S V L D A S K  
UniRef90\_H2AP30 K H I P S A D N P A Q P L H R N A H L Q W L V R N L Q G F P T R Y T S Q D A S Q  
UniRef90\_S9RF00 D D Q G L R R T L L V D K H A A Y I K S F E N R S D K L E F V I A T E H F W  
UniRef90\_S7Q2L5 Q E L C M D K H V A Y I Q S L N K R S D E E Y A Y T E H L R  
UniRef90\_D8TQA9 T L L A D L H L R F L T K L D D H K D K Y W T S Q H L K  
UniRef90\_B6QE40 K L D P E Q H L P Y V T G G L G T L P S G F E T L D A S R  
UniRef90\_C9ZLR6 G E L N S H G I P H L L R Q E H L D Y A A D G L T D Y P A P F V I A M D A S R  
UniRef90\_F2UJ19 S E N I V F L R D K H I K Y I T D S L D K K Q E D Y Y W L S E H L R  
UniRef90\_R1GHR0 H S T L P S K E L S L V V E K H V K Y I Q L L D T R K D E D Y W L T E H L R  
UniRef90\_A7TH86 M S A Q S S I L I E K H V Q F I E S N D K K L Q W K T H H L K  
UniRef90\_W9VL63 E A S D K P P S S E V Q L A T A A H V K Y I Q G L N S H Q D A Y F W L T E H L R  
UniRef90\_N1JAE0 D V T I K P D A P D T L L L E K H A D Y I A S Y G S K K D D Y Y C M S E Y L R  
UniRef90\_W6KY78 L A T E K H V T Y L Q S L D T K K D E E Y W L T E H L R  
UniRef90\_F0XR88 Q F E D V E A T L N V K M H K L Y C Y S F T N T L P S R Y L T A L D A S Q  
UniRef90\_UPI0003EBDF65 M V G E L V L L K A K H I H Y I E A L D N K Q E S Y Y W L T E H L R  
UniRef90\_R8BAY3 D L K L C V E K H I D Y I K K L D S R K D E E Y W L T E H L R  
UniRef90\_I6NE55 K A P E K F N H L Q K D S H K M F L E Y W L N N L P S G F K S L D A S Q  
UniRef90\_G8ZZ53 P D Q P L D E L S L A T E A H V K Y I Q S L D T K K D E D Y W L T E H L R  
UniRef90\_C8V7A2 M E F L K E K H I E Y I K S L D A K Q G D E Y W L S E H L R  
UniRef90\_Q6CKY4 E L A L K K H A D Y I A S Y G D K K D D Y Y C M T E Y L R  
UniRef90\_T5ALU6 S S P L P P D L F T P S L R R E A H I A F L H A S L G R L P G K F V I A D A S R  
UniRef90\_G0V9C3 L L I D K H V E Y I V K L G S K K D S E Y W V T E H I R  
UniRef90\_T1IYZ5 A A G D P T R S P F E L R K E D H I D F L H E N L S V F P A Y V G L D A S R  
UniRef90\_B2ARE5 D V T L A K D R P K S L L T E K H L K F I L S Y G S N D D E Y Y C T T E Y L R  
UniRef90\_B0G172 D E K N I E P A L T K E F H K M Y L D V A F E S L P P Q M T A L D A S Q  
UniRef90\_W25BR7 E L L T K H V D Y I K Q Y V I E N K D S Y E V I A A E Y L R  
UniRef90\_A0A023FAL4 S S D D E S K S A P P A F D V A L H V R Y L V G L K N K K E D F E S C M E H M R  
UniRef90\_P22007 E L L V G K H V K Y I I T V E R K D D F E S V V M E H L R  
UniRef90\_A0A044SN57 S S I P N Q T L Y K D K H I K F I I D Q E S N R S F E Y W L S E H L R  
UniRef90\_UPI0003D28646 M S G S L T L K E K H I R Y I E S L D T K K N F E Y W L T E H L R  
UniRef90\_H3HCD9 D H K D D E T G E E L L E L F K E Q C V S F A T D A L G Y I H G S H T S L I E S S R  
UniRef90\_G8BEZ3 E V N K Q D T P A Q K S L D K M H V E F V Q S L D S R K Q S Y E Y W L S E H L R  
UniRef90\_P20133 A L R P K H G I P K L D R K H I A F L H R N L R L P A T Y T S A D A S R  
UniRef90\_F4QA53 L V E K H I S Y V N L D N K K D F E Y W V T E H L R  
UniRef90\_G8YGM4 E L L Q G Q V T N S P L N V D T H L R F L E R S L E P L P F F Y M L D S S Q  
UniRef90\_N1JG47 E S R L L T D K H V Q Y I Q T L G N S K D D S Y H M T A H L R  
UniRef90\_F4PL21 S E K A L R E K H I E Y V A S L D E K T N D E Y W L S E H L R  
UniRef90\_C4Y6T5 A V Q C E I E P L H K K D F H R E Y L D Y V L Q P L P Q M T A L D A S Q  
UniRef90\_R7SCR7 E L P E E I S L A A E A H V K Y I Q S L D T R K D E E Y H Y T E H L R  
UniRef90\_W0T6C8 T F V K D K H L Q Y V I E Q D S H R S N D E Y W L S E H L R  
UniRef90\_A7TIM6 E N E I P E N A P K E F L L E K H A L F I A Y E E K R S F E Y I M T E Y L R  
UniRef90\_J7R0B4 E L L V P L H V S Y L K G Q N K D D L T Y H L T S H L R  
UniRef90\_L8G9V3 T L N I P L H V K Y I Q N L G K S D D E L Y H L T A H L R  
UniRef90\_G3AI9 P R L D R D R H V R F L H K T V G R L P A P F V I A A D A S R  
UniRef90\_UPI0002B4ABA2 E L L R E K H I R F I I A L M K N K E Y E Y W M T I A I R  
UniRef90\_A8P2J6 S K K A I S H I E T D K I K F L Y K G I E T I P A S H Q S L D S S K  
UniRef90\_B9SQ28 L L I D K H V K Y I Q S G E N T D D L M Y H L T A H L R  
UniRef90\_B9SQ28 M K L L K E K H I S F I K S L D K K H D F E Y W V T E H L R  
UniRef90\_K5WXL9 G S S Q P L L V D K H E K Y I Y D L D K A L T M D F V L S E S I R  
UniRef90\_J3NFK9 L A V D A H A S F I N A S A S E D T L E H A F T E H L R  
UniRef90\_A2DK66 D I I S S H K H F N N F F E T Q N H L K Y I S N S L Q S L P H H Y S S L D P N H  
UniRef90\_F1A0F1 L V E K H I S Y V N L D N K K D F E Y W V T E H L R  
UniRef90\_M5FRS8 E S R L L T D K H V Q Y I Q T L G N S K D D S Y H M T A H L R  
UniRef90\_Q758V2 S E K A L R E K H I E Y V A S L D E K T N D E Y W L S E H L R  
UniRef90\_C5KJW4 A V Q C E I E P L H K K D F H R E Y L D Y V L Q P L P Q M T A L D A S Q  
UniRef90\_A4S4A2 E L P E E I S L A A E A H V K Y I Q S L D T R K D E E Y H Y T E H L R  
UniRef90\_G3AZT4 E N E I P E N A P K E F L L E K H A L F I A Y E E K R S F E Y I M T E Y L R  
UniRef90\_L1JU42 L P N E L T L V I D K H V S Y L E T L D T R D E E Y W L T E H L R  
UniRef90\_W2RR14 P T G S S S P P V L Q R N S H L Q F L V R N L Q R G F P A Y T S Q D A S Q  
UniRef90\_UPI0004416F12 H P A R Q E L L A G E H A H Y I H A F E N T S F E F Y A T E H F R  
UniRef90\_E1Z373





UniRef90\_A3LS53  
UniRef90\_W9C548  
UniRef90\_K2RSP5  
UniRef90\_Q245J5  
UniRef90\_J3NVU4  
UniRef90\_V2XL17  
UniRef90\_W2T1U0  
UniRef90\_F8P268  
UniRef90\_D3BIK5  
UniRef90\_C5M2M3  
UniRef90\_K7ITQ0  
UniRef90\_B6HME5  
UniRef90\_A5DMM7  
UniRef90\_Q8LFX5  
UniRef90\_O13782  
UniRef90\_B2ABA8  
UniRef90\_G3JKI2  
UniRef90\_H0ZAV7  
UniRef90\_E4ZG32  
UniRef90\_UPI000252B48A  
UniRef90\_A0A023ZSJ7  
UniRef90\_N4VYX9  
UniRef90\_M0TYQ2  
UniRef90\_V2XU01  
UniRef90\_V5GJ89  
UniRef90\_J3PN00  
UniRef90\_H9J7Q2  
UniRef90\_F6U1E2  
UniRef90\_U7PJJ1  
UniRef90\_M5FU94  
UniRef90\_U1GXA6  
UniRef90\_Q6FSK7  
UniRef90\_H2AP30  
UniRef90\_S9RF00  
UniRef90\_S7Q2L5  
UniRef90\_D8TQA9  
UniRef90\_B6QE40  
UniRef90\_C9ZLR6  
UniRef90\_F2UJ19  
UniRef90\_R1GHR0  
UniRef90\_A7TH86  
UniRef90\_W9VL63  
UniRef90\_N1JAE0  
UniRef90\_W6KY78  
UniRef90\_F0XR8B  
UniRef90\_UPI0003EBDF65  
UniRef90\_R8BAY3  
UniRef90\_I6NE55  
UniRef90\_G8ZZ53  
UniRef90\_C8V7A2  
UniRef90\_Q6CKY4  
UniRef90\_T5ALU6  
UniRef90\_G0V9C3  
UniRef90\_T1IYZ5  
UniRef90\_B2ARE5  
UniRef90\_B0G172  
UniRef90\_W25BR7  
UniRef90\_A0A023FAL4  
UniRef90\_P22007  
UniRef90\_A0A044SN57  
UniRef90\_UPI0003D28646  
UniRef90\_H3HCD9  
UniRef90\_G8BEZ3  
UniRef90\_P20133  
UniRef90\_F4QA53  
UniRef90\_G8YGM4  
UniRef90\_N1JG47  
UniRef90\_F4PL21  
UniRef90\_C4Y6T5  
UniRef90\_R7SCR7  
UniRef90\_W0T6C8  
UniRef90\_A7TIM6  
UniRef90\_J7R0B4  
UniRef90\_L8G9V3  
UniRef90\_G3AIV9  
UniRef90\_UPI0002B4ABA2  
UniRef90\_A8P2J6  
UniRef90\_B9SQ28  
UniRef90\_B9SQ28  
UniRef90\_K5WLVX9  
UniRef90\_J3NFK9  
UniRef90\_A2DK66  
UniRef90\_F1A0F1  
UniRef90\_M5FRS8  
UniRef90\_Q758V2  
UniRef90\_C5KJW4  
UniRef90\_A4S4A2  
UniRef90\_G3AZT4  
UniRef90\_L1JU42  
UniRef90\_W2RR14  
UniRef90\_UPI0004416F12  
UniRef90\_E1Z373

130 140 150 160

A G G A N Q M G H A A S T Y A G V L S L I L T E N Y E L L D K L R H N L Y K W  
G A A P G H D A H L L Y T V S A T I Q T L L V M V D A V E E L L D G N G R K D L V G K Y  
G G G H Y Q F P H I A L T S Y A A I C S L L A L L G S E E E A Y E L T V N D R K K T M W H F  
G A A P G H D A H M L S T V S A V Q I L L A M V D A L D E L D K R G D K G Q V G K F F  
G G G P S H E A H L L P T Y A A V C S L A S L V G S T P E E A L Q S T I N D R K K L S R D F F  
G G G P G Q A S H L L P T Y A A V V M A L L A N V G S R E P G G W D Q V I D R A K M Y K F F  
A G G I D Q E S H V V S T F A A V N A L L A L L N S F E Q A Y K V I D R E S M Y R F  
A G G S N Q L G H V V S T Y A A G I L T L A L T K Q F E L L D S I L D R N L N L Y D W  
S A S V G H D P H M L H T L S A V I Q I L L I Y D A L E T L D I E K V V K Y  
G A A P G H D A H M L Y T V S A V L L I T I D A V D E L E K R G R E N K V G S F  
G I G S G Q I G H C A S T Y A S V L L A L V L V E D W E T L L E I R N R N K L Y K W  
A G N T G H D P H V L Y T L S A V Q I L L A L F D K L N L L D V E K V S N Y  
G G G N G Q D D E H L L S T Y A S V L S I L L C L C D S T D E L E R D R K L Y D W  
G A A P G H D A H M L Y T V S A V Q I L L A M V D A F D E L E T R G K V G K Y  
G A A P G H D A H L L S T V S A V Q V L T M V D G L E D L E A R G K G Q G K Y  
G G G P G H D A H L L A P T Y A A V N A L C I I G T E E A F S V I D S R A G G A W  
G A A P G H D A H M L Y T V S A V Q I L L A T L D A W R E L E D R O K I G K Y A V  
A A S L Q H D P H I L Y T L S A V Q I L L C I Y D A L D T I D I E K V I K Y  
G G G P G Q V I G M L D T F K C L L Q N E C L D R S R L L D I S I R E N L Y K F F  
G A A P G H D A H M L Y T V S A V Q I L L A T L D A F A E L D E R I R H N L V G O F F  
A G N L G H D P H L L Y T I S A V Q V L L A L L D R L D L L D I E K V S D Y  
G A H P G H D A H L L S T L S A V Q V L V M V E A L D K I P D I E R L V K F  
S A C I G H D P H L L H T L S A V Q I L L C I Y N N L D A I D T K G V V K Y  
A G G P G Q L A H L L A S T Y A C V A G L A L L L D D E T C A Q I D R K K M Y E W  
S A S I G H D P S I L Y T L S A V Q V L A M Y D R L D A V D I E G L V R Y  
G P A P A H D P S I L Y T L S A V Q V L C M L D K L D K I H I D K A V A F F  
A A A P G H D A H M L Y T V S A V Q I L L A M I N A L D E L D N R G R E A V A Q F F  
A G G P Y Q N A H V L P T Y A A V C A L A V G G W D Q I D R Y C R A K L Y D F F  
G A A P R H D A H M L S T V S A V Q I L L A T V D A L D E L E R I K I L G K Y  
A P F P R H D A H L L T T L S G L Q I L L V T Y D S L D L T S E Q K D K C Y E F  
G G G M D Q L P H I A G T Y A A I N S I V L C D N N D C W E K I N R S A I Y E W  
C G G N G Q E E H V L S T Y A A V L S I C I C D C D E A F A L I D R A K L V Q W  
G G G P G Q A P H L L A T Y A S V C A L A N V G R P G G W D Q I D R E K M Y K F  
G G S E R L N D P H M L Y T L S A V Q I L L A L Y D K V D E L D A D K V A S Y F  
G A A P G H D A H M L Y T V S A V Q I L L A T L D A L D E L D R S G R A G K G R F  
G G N I G Q D S H M L Y T L S A V Q L L C L L H A T D A L D A E K C A R W  
G G G V G Q V A H A A P T Y A A V N A L A I I G T E E A W S I T N R E K L A S W  
G G G H G Q S P H V I C S Y A S V L A L I V G G E E A Y N L T D R K S M W H F  
A P F P G H D G H M L S T L S A V I Q I L L A T Y D A L D S M N R D I R E K C V A F  
G A A P G H D S H M L Y T V S A V Q I L L A T I N A L L E A L E D K P E R E R T A K Y  
G A A P G H D S H L L Y T C Q I L L A T V D A L L E L E I R N K L H T A K W  
G G N Q G H S S H L L Y T M S A V Q L L C F F D A L D Q I D G D K T A G W  
G A A P G H D A H M L Y T V S A I Q I L L A M V D G L D A L D S R G K G K A T K F  
S A S I G H D P H L L Y T L S A V Q I L L T L Y D S I N V D V N K V V E Y  
G A A P G H D A H M L S T V S A V Q I L L A M I D A F D E L E K R G K G K A T K F  
P G G L G Q D E P H L M T G Y S T I G A L C L C N Y N D F W G R I N T K A I Y D W  
A A F P R H D A H L L T T L S A V Q I L L K T Y D S L D V L S S Q I E K C V K F  
G A A P G H D A H L L Y T V S A V Q I L L V T L D A V D E L E K R G K L K V G S F  
S G G K H Q L P H L A T Y A A I N S I A L C H N L D D N R E I N K K A I Y D W  
G A A P G H D A H M L S T V S A V Q I L L A M V N A L D E L E T R G K A K V G K Y  
S P F P R H D A H L L T T L S G I Q I L L S T Y N S L D A L T E E Q I E K C V I F  
S A S I G H D P H L L Y T L S A I Q V F Y I L T I F D A I D T I N T A Q V V S Y  
G G G G Q L S H L L A T S Y A V V L A L A I V G G E E G F E V I D R R Q M W R W  
G G N T S H D D H L L S T L S A V Q I L L I Q Y D A L D K I D I N S V V D Y  
G G G H G H D S H L L A T Y G A L Q L S I A L A G G E S A Y R M L D R R A M W H W  
S A S I G H D P H L L Y T L S A V Q I L A C I L D A V S E L P I E G I V N Y  
G G G P G Q L S H L L A S T Y A A I N A L S L C D N I D C W D R I D R K G I Y Q W  
A P A E Q H D A H L L H T L S A V Q I M I M L N K L D E I D T D A I A C Y  
G G N I G H D A H V L Y T L S A I Q V L A L F D K I Y V L D I D K V S N Y  
A G N V G H D R H L L Y T L H A L L V L A M L G G L D R I Q R D K C A A F  
G S F P K H D A H L L S T L S A L Q I L L K T Y D S S L F L S D D S K K K L V K F  
A P F P R H D A H L L T T L S A V Q I L L A T Y D A L D V L G K D R K V R L L S F  
A G G M D Q V S H M V S T F A A V S A L M V V E S Y E V I N R R T M Y Q F  
G A F P Q H D A H L L S T L S A L Q I L L I L Y D R L E S L G D E R K N K V K N F  
G G G N G Q M S H L L A P S Y A I V L A L A L V G G N E S F D V I D R K A M W K W  
S G N V S H D E H L L S T L S A V Q I L L M Q L D A L D R L D Q D L V A K Y  
G G S K G Q I G H V A S T Y A A L L V L T L I E D Y E T L H R I R D N L L G G W  
G A H P D H D A H L L S T L S A I Q I L L V T H E A L D R V D V N R V T K F  
A A F P G H D G H L L T T L S G L Q I L L A T Y K A L D R L S N E D K D E I V R F  
G G G I G Q L P H L A T Y A S I E A L S S C N S N G S W D K I D K R I Y N W  
G G G I G Q M P H I A G T Y A S I N A L A L C G N I E C Y W D Y I D R E S I Y Q W  
G A A P R H D A H M L Y T C S A I Q I L L A T V G A L D E L D K P C K Q K L G E W  
G S F P K H D S H L L S T L S A V Q V L R T Y D N E L T M S S E K R T K L V K F  
S A S K N H D P H L L Y T L S A V Q I L L V L Y D E I N R I N T E R V A F  
G A H P D H D A H L L S T L S A I Q I L L I M Q D A L D R V D V D R V V K Y  
E Y V V M E H L R M N G A Y W G L A T L D L L G K L D V V D S S E V I D W  
E Y V V M E H L R M N G A Y W G L A T L D L L G K L D V V D S S E V I D W  
G A H P D H D A H L L S T C S A I Q I L L V M Q D A L D R L D I P R V V N F  
G G G H D Q T S H L L A T A A R T G H P Q G A M I P D L F A G L P D R R A M W K W  
A G N T G H D P H I H Q T L S A T G Q A L I M L D A Y N R F D R D K L V Q W  
G G G N S H T S H V V S T F A A T S A L F T I G T E A Y N V F N R E E M Y K F  
G A H P G H D A H V L P T L S G I Q I L L V M Y D E V E R A D K E R L V S Y  
A A Y E G H D A H L L T T L S G I Q V L A T Y D A L D T L T P Q E V I E Q C V N F  
G F F P G M D S H I N S T H Y A L L V L A E L D A L D T L S P E E R I E T R R F  
S G G A G H D G H V L Y T L S A V Q L L Y A L F D A M D R I D R D S V V N Y  
A G G K N Q L G H V A S T Y A G I L L L V C L R E Y E L L D S I R Y N L H S W  
G G S V D H D A H L L Y T L S A V Q I L L I F D K I E L V D K E K I A N Y  
G A A P K H D S H M L Y T T S A V Q I L L A T I D A L S E L D G N G K V A K Y  
G G G P G Q A S H L L P T Y A A V C A L A I A G R P G G W D Q I N R K K M Y D F  
G G S E R H D A H L L Y T L S A L Q I L L A L Y D E L H R V N A D T V A H Y





UniRef90\_A3LS53  
UniRef90\_W9C548  
UniRef90\_K2RSP5  
UniRef90\_Q245J5  
UniRef90\_J3NVU4  
UniRef90\_V2XL17  
UniRef90\_W2T1U0  
UniRef90\_F8P268  
UniRef90\_D3BIK5  
UniRef90\_C5M2M3  
UniRef90\_K7ITQ0  
UniRef90\_B6HME5  
UniRef90\_A5DMM7  
UniRef90\_Q8LFX5  
UniRef90\_O13782  
UniRef90\_B2ABA8  
UniRef90\_G3JKI2  
UniRef90\_HOZAV7  
UniRef90\_E4ZG32  
UniRef90\_UPI000252B48A  
UniRef90\_A0A023ZSJ7  
UniRef90\_N4VWYX9  
UniRef90\_M0TYQ2  
UniRef90\_V2XU01  
UniRef90\_V5GY89  
UniRef90\_J3PN00  
UniRef90\_H9J7Q2  
UniRef90\_F6U1E2  
UniRef90\_U7PJ1  
UniRef90\_M5FU94  
UniRef90\_U1GXA6  
UniRef90\_Q6FSK7  
UniRef90\_H2AP30  
UniRef90\_S9RF00  
UniRef90\_S7Q2L5  
UniRef90\_D8TQA9  
UniRef90\_B6QE40  
UniRef90\_C9ZLR6  
UniRef90\_F2UJ19  
UniRef90\_R1GHR0  
UniRef90\_A7TH86  
UniRef90\_W9VL63  
UniRef90\_N1JAE0  
UniRef90\_W6KY78  
UniRef90\_F0XRB8  
UniRef90\_UPI0003EBDF65  
UniRef90\_R8BAY3  
UniRef90\_I6NE55  
UniRef90\_G8ZZ53  
UniRef90\_C8V7A2  
UniRef90\_Q6CKY4  
UniRef90\_T5ALU6  
UniRef90\_G0V9C3  
UniRef90\_T1IYZ5  
UniRef90\_B2ARE5  
UniRef90\_B0G172  
UniRef90\_W2SBR7  
UniRef90\_A0A023FAL4  
UniRef90\_P22007  
UniRef90\_A0A044SN57  
UniRef90\_UPI0003D28646  
UniRef90\_H3HCD9  
UniRef90\_G8BEZ3  
UniRef90\_P20133  
UniRef90\_F4QA53  
UniRef90\_G8YGM4  
UniRef90\_N1JG47  
UniRef90\_F4PL21  
UniRef90\_C4Y6T5  
UniRef90\_R7SCR7  
UniRef90\_W0T6C8  
UniRef90\_A7TIM6  
UniRef90\_J7R0B4  
UniRef90\_L8G9V3  
UniRef90\_G3AIV9  
UniRef90\_UPI0002B4ABA2  
UniRef90\_A8P2J6  
UniRef90\_B9SQ28  
UniRef90\_B9SQ28  
UniRef90\_K5WVLX9  
UniRef90\_J3NFK9  
UniRef90\_A2DK66  
UniRef90\_F1A0F1  
UniRef90\_M5FRS8  
UniRef90\_Q758V2  
UniRef90\_C5KJW4  
UniRef90\_A4S4A2  
UniRef90\_G3AZT4  
UniRef90\_L1JU42  
UniRef90\_W2RR14  
UniRef90\_UPI0004416F12  
UniRef90\_E1Z373

250 260 270 280  
I F Q E K S S V H L D A L T K W A V S R Q Y G V E G G G L S N G R T N E K L V D A C Y  
I A K R I D V V N I L D K L G R W L S E S R Q Q V E C G G G L S N G R T N E K L V D A C Y  
I L G E P F H R L D L P A L R T H Y L S S K Q M K T E F G G G F F A Q G R T A N K K L V D N G Y  
I L K Q G F H R I N L N R F T Y W L T E S S R Q Q M K T E F G G G F F A Q G R T A N K K L V D N G Y  
I A G R L D L I D T D R L G C W L S E S R Q Q V P A E F G G G F F A Q G R T P E K K Q E D V G Y  
L L Q P F V Q L I D T D R L V R W L V I Q M Q G S E F F G G G F F R Q G R T T N K K L V D D G G Y  
L L D R Y R L A D S E L L L Q W L V G K R Q M R F F E G G G F F R Q G R T T N K K L V D D G G Y  
M L Q P F P S V D F K A L L R W L T H M Q P I E E L G G G F F R Q G R T T N K K L V D D G G Y  
L L K R F D L I D V E L L L R W L V I Q R Q P H E Y E D D G G G L Q D G R T S N K K L V D D A C Y  
L L H S K F P V N L D F L T S W C I I Q R Q P H G L E F G G G L Q D G R T S N K K L V D D A C Y  
I T G D L H C Y D A D R R L G W W L C E R R Q L P S G G G L L N G R P E K L P D V G Y  
I A G R L D L V N K D R L G A W L S E S R Q Q L P E S G G G F F L N G R T P E K L A D V G Y  
L V L S Q T P F D I N S F T R W S V M R Q H Q L E F G G G L L N G R T P E K L V D D G Y  
I T G N L H R V D K D L L G W W L C E R R Q D Y E S G G G L L N G R P E K L P D V G Y  
L L G G L D N L N E I K L S T W L V I Q R Q D P A L Y G G F F S G R S P E K L V D G Y  
I A K R Q D L I V D K E R L L G W L S E S R Q L A G G L L N G R S P E K K E D V G Y  
I A N R L D L I V D K E K L L Q H W V T G R Q Q M R F F E G G G F F Q G R C N K K L V D G Y  
I A G R L D L V N Q E K L G A W L C E R R Q L K P S N G G L L N G R P E K L P D V G Y  
I T G N L H L I D A D Q L L S W W L C E R R Q L P S N G G L L N G R P E K L P D V G Y  
L L N E V E K L D L P S L T G W V A F S R Q Q L G V E C G G G L L N G R T N K K L V D G Y  
I A Q R L D L V N H Q K L A A W L S E S R Q Q L K N G G G L L N G R T P E K K E D V G Y  
I T G S L H H V D R D L L G W W L C E R R Q Q K N D G G G L L N G R P E K L A D V G Y  
I L D R L D L V D R D T L A W W L A E R R Q L P N S G G L L N G R P E K L P D V G Y  
I T N R L D L V D R D T L A W W L C E R R Q L P N S G G L L N G R P E K L P D V G Y  
L L E G L P S V D Y D A C L R W A A H M Q P I E S G G G F F R G R T N E K L V D G Y  
I C K R M D A L H D A D E L A W W L C E R R Q L P S S G G G L L N G R P E K L P D V G Y  
L L R E L H H I D A D E L L G W W L C E R R Q L P S S G G G L L N G R P E K L P D V G Y  
V A G R L D L A D A D K V G R W L S E S R Q Q V S E N G G G L L N G R P E K K E D V G Y  
L L R P L H L I D L P R L V R W A T G M Q P V E N G A G F F R G R T N K K L V D G Y  
I A G H L D L V D R D R L G A W L S E S R Q L E N G E N G G L L N G R P E K L E D V G Y  
I V G R L N V F Q I E E I G W W L C E R R Q L P E E E G G L L N G R P S K L P D V G Y  
L L N S F D K I S I V E K L M E W C S A R Q Q Y N E E E K G G L S G R S N K L V D G Y  
L L Q G I Q K L D S I P E S L V K W L V I Q R Q D S A E L Y G G F F S G R T N K K L V D G Y  
M V R S F V S I D V R R L L R W L V M M Q Q G S E E T Q G G G F F R G R T N K K L V D G Y  
L A D A L H L V D R S R L F C W W L C E R R Q T K T G G G L L N G R P E K L Q D V G Y  
I A G R L D L I D R D R L G T W L S E R R Q L E V S G G G L L N G R P E K L E D V G Y  
I A G A L D R I D D K E Q L A G W L A M R Q Q L P S G G G L L N G R P E K K A D V G Y  
I L C S T H L I D D T P L A T E W L A N S R Q Q M A M S E G G G F F A G R A N K K L V D G Y  
I L G A P F H H L D V P A L I H W L S A N S R Q Q A P M S E G G G F F A G R A N K K L V D G Y  
I V N K L G K L Q M E E L G W W L C E R R Q L P P E F E G G L L N G R P S K L P D V G Y  
I A R R L D L V D H K D R L A A W L S E R R Q L P P E N G G G L L N G R P E K L E D V G Y  
I L G R L D S V D K D R L G G W L S E R R Q V P E F E N G G G L L N G R P E K L E D V G Y  
I A N A L D R L P V D A L A A W L A S R Q L P S G G G L L N G R P E K K A D V G Y  
I A G R L D L A D S A D K L G R W L S E R R Q L V S G G G L L N G R P E K K E D V G Y  
I T N Q L H Q V N Q I N E I G W W L C E R R Q V P E F E G G G L L N G R S N K L P D V G Y  
I A D R L D L V D T D R L G R W L S E R R Q V A E S E G G F F N G R P E K L E D S G Y  
I L G A L D K I N Q I N E I G W W L C S T R Q Q Y N E E E K G G F F S G R S N K L V D G Y  
I V G R L N D L N Q I N E I G W W L C E R R Q V P E F E G G G L L N G R S N K L P D V G Y  
L A G R L D L V D K D R L G G W L S E R R Q L D H G G G L L N G R P E K L A D A G Y  
M L N A L D K V N Q I D A L L S W C S S R Q T K E E K G G L L N G R S N K L T D G Y  
I A G R L D T V N Q H E K L G R W L S E R R Q T P G E K G G L L N G R P E K K E D V G Y  
V V G K V N K L Q Q D K I G W W L C E R R Q L P P E F E G G L L N G R P S K L P D V G Y  
I L K H L H I N A D L L G W W L C E R R Q L P P E F E G G G L L N G R P E K L P D V G Y  
L L G P P Q T L N L P S L S W L S S R Q Y A P S E G G G F S G R T N K K L V D G Y  
I L N E I N K I D I D K L G W W L S E R R Q L P P E N G G L L N G R P E K S S D V G Y  
L L G P P R Y L D L D A L T Y W M S S S R Q Y A P S E G G L L A G R T N K K L V D G Y  
I I G E L S R V D D A L H L G W W L C E R R Q L P S E G G L L A G R P E K L P D V G Y  
I L R S M D Q I N V I E K L L E W S S A R Q Q L Q E E E R G G F C G R S N K L V D G Y  
I A D C L E M I D A Q R T A R W L A E R Q C R S S G G L L N G R P E K L P D V G Y  
I T G S L H H V D A Q L L G W W L C E R R Q V K S S G G L L N G R P E K L P D V G Y  
L G F A L Q Y V D D E L L G W W L C E R R Q C D S S G G L L N G R P E K Q A D V G Y  
I M D K L D V L A R E K I A R W L S E R R Q V L P E F G G F F N G R P S K L P D V G Y  
I A N K L D M L Q L E E I G W W L C E R R Q L P E F G G L L N G R P S K L P D V G Y  
L L N S L H L I N F N S L L R W L V N R Q Q L D Y D G G G I Q G R T N K K L V D T G Y  
I A N N L H L I D Q Q S K L G S W L S E R R Q V L P P S G G G L L N G R P E K L P D V G Y  
I L E E P R H L N V S R L M A W L S A R Q H A P E F G G F S G R C N K K L V D G Y  
I I N R L D L I D R D Q L L G W W L C E R R Q L P P E N G G L L N G R P E K T S D V G Y  
L P G G A E L D D Q P N L L R W L S G R Q F F L E G G F F S G R T N K K L V D S G Y  
I L D R L D E I D D Q P S L C W W L S E R R Q L P P E N G G L L N G R P E K L E D V G Y  
I V G R L D A L Q Q P N N I A M W L S E R R Q V P E N E G G L L N G R P S K L P D V G Y  
I M G A L D K I N T P K L T D W C A T K Q Q Y N E E E K G G L C G R S N K L V D G Y  
I L D A L D Q I N V D K L L E W C S A R Q L N E E E K G G L L N G R N N K L V D G Y  
I A G K L D T V K K V E L L S G W L S E R R Q T E E E G G G L L N G R P E K L E D V G Y  
I T D N L H L I N Q D K L A S W L S E R R Q V L P S S G G F F N G R P E K L P D V G Y  
F K Y R R V A I Q L E K W L S E R R Q L P E S G G L L N G R P E K L P D V G Y  
I L D K L D E V D T D T L G W W L A E R Q L P N G G L L N G R P E K L E D V G Y  
L L H C L D K I N V E K A V N Y I L S C C K N V D D G G F F G S S P G G E S H A G Q  
L L H C L D K I N V E K A V N Y I L S C C K N V D D G G F F G S S P G G E S H A G Q  
I L D R L D V C D A D T L S W W L S E R R Q M D S G G G L L N G R P Q K L E D V G Y  
L L G S P D Y L N V P R L T S W L S S R Q Y A P S G G G F F S G R T N K K L V D G Y  
I A N A L D Q I D T E A L G F W L S E R R Q D P S S G G F F N G R P E K L P D V G Y  
I L N S L N K V D M D S L H R W I T F R Q P P E D G G F F Q G R T N K K L V D T G Y  
I L D R L D E I D Q E N L A W W L A E R R Q L P E N G G L L N G R P S K L E D V G Y  
I V G R L G D L Q Q E D I G W W L C E R R Q V L P P E N G G L L N G R P S K L P D V G Y  
L L G E E D E I D D W R L G H W L A E R Q I P K V H G G G F F N G R P E K A P D V G Y  
I G N R L D S V D G D L L G W W L A E R R Q V K V L E G G L L N G R P S K L P D V G Y  
L K N A L Q Y S I D L E K F I K W V V S R Q V L N L E G G L L N G R S N K L V D A C Y  
I A D S L H H V R A D D L C W W L C E R R Q T A G G G L L N G R P E K L P D V G Y  
I A R R L D L V D I D R L G A W L S E R R Q L P E N G G L L N G R P E K L E D V G Y  
M L Q P F P K V D I K T L V R W L T H M Q G S E N G G G F K G R T N K K L V D G Y  
I A G R L D L V D A D L L C W W L C E R R Q T K S G G L L N G R P E K L Q D V G Y

UniRef90\_A3LS53 S F W I G A L Y P M L 290 E S V T G E G E L F S 310 320  
UniRef90\_W9C548 S W W V A T S L A M I G R L H W I D G D K L A N F I L L  
UniRef90\_K2RSP5 N H W V G G C W A L V N E A A L Q A P G M A E R G S H K G L W S R E Q K L A N F I L L  
UniRef90\_Q245J5 S F W Q G A T F R I L N E I T G G A A S Y N N Q L L Y D R Q Q K L Q A Y I L L  
UniRef90\_J3NVU4 S W W V L A S L E I V G R E G L D D G A A H Q D E E V D T D V W N P E A R M L Q E E Y I L L  
UniRef90\_V2XL17 A W W V G G C F A L L E G L D D G A A H Q D E E V D T D V W N P E A R M L Q E E Y I L L  
UniRef90\_W2T1U0 S F W Q A A N F P L I G G E M A R E G R L S A E G L F D A R M L Q E E Y I L L  
UniRef90\_F8P268 S W W V G G C F S L L A S L G I G E G E L W D E V D S L W N R I A L Q E E Y I L L  
UniRef90\_D3BIK5 T F W Q G A A F P I V Q S H L G S Q N I G N Q Q I G K Q L F N Q R E A L Q E E Y I L L  
UniRef90\_C5M2M3 S F W V G A L F P L V E L L N E S T T P L F N R E A L Q E E Y I L L  
UniRef90\_K7ITQ0 S W W V L S L S L L G Y L H W I D K D R L T K F I L L  
UniRef90\_B6HME5 S W W V G S T L A M I D R L H W I D G E K L A A F V L L  
UniRef90\_A5DMM7 S Y W V G A T F P L I E A I T S F H P L F D R E A L Q E E Y I L L  
UniRef90\_Q8LFX5 S W W V L S S L I M I D R V H W I E K A K L V K F I L L  
UniRef90\_O13782 S W W V G A S H V I V A S G Y G S A S H K S L P N L F Y N P E K L L G Y I L L  
UniRef90\_B2ABA8 S W W V L S S L E M I G K T H W I D R D R L L I N F I L L  
UniRef90\_G3JKI2 S W W V L S S L A M I D R T H W I D R D G L I K F I L L  
UniRef90\_H0ZAV7 S F W Q A G L L P L L H R A L H A R G D P A L S M A H W M F D Q L A L Q E Y I L L  
UniRef90\_E4ZG32 S W W V M S S M A M L N K L H W I D G Q K L A R F I L L  
UniRef90\_UPI000252B48A S W W V L S A L T I L G R L H W I V N K E Q L V K F V L L  
UniRef90\_A0A023ZSJ7 S F W Q G A A L A L A Q K L M T V D F M K Q S N Q I G P L F H N I A L Q Q Y I L L  
UniRef90\_N4WVYX9 S W W V M S S M A M L D K L H W I D G A K L T Q F I L L  
UniRef90\_M0TYQ2 S W W V L S S L I M I D R V H W I I D K E K L T R F I L L  
UniRef90\_V2XU01 S F W V L S S L A I L N K V H W I D A D A K L T F F I L L  
UniRef90\_V5GY89 S W W V L S S L T I L G R L H W I D G N A L K T F I L L  
UniRef90\_J3PN00 S W W C A G A F P L L Q A L M S T D F P D Q Q D S F D L F D R R A L Q E Y I L L  
UniRef90\_H9J7Q2 S W W V M S S L S M L N R I H W I V D K K S L E E F I L L  
UniRef90\_F6U1E2 S W W V L S S L A I L G K L H W I D K H K L K M F I L L  
UniRef90\_U7PJ1 S W W V L S S L A L V K R L H W I D R D A L T A F I L L  
UniRef90\_M5FU94 S W W V G G M E P L L R E L V R E K A G G E G E W E D W V F Q K E G I Q H Y T L  
UniRef90\_U1GXA6 S W W V L S S L A M I D R L H W I D G K K L S A F I L L  
UniRef90\_Q6FSK7 S W W V L S S L A I L G K L D W I D Y D K L S A F I L L  
UniRef90\_H2AP30 S F W V G A T A A M I E A S G Y Q N P I N K E A L R E Y I L L  
UniRef90\_S9RF00 S W W V G G S H L I L A S G F G N R S E N V T H A L F Y N S R K A L M K Y I L L  
UniRef90\_S7Q2L5 S W W V G G A F A L L E M L Q E G A H D E W D V D D A L F N R K A L Q E Y I L L  
UniRef90\_D8TQA9 S W W C L S C L S I L G R L H W I D R D A L T R F I L L  
UniRef90\_B6QE40 S W W V A A S L A I L G C L D W I D K Q K L Q S F I L L  
UniRef90\_C9ZLR6 S W W V V S S L S M L A D L L W I D R H A L F R F V L L  
UniRef90\_F2UJ19 S F W V G G C F P I L A D L L W I E A Q G L P G D V V N A E A L I D Y V V L  
UniRef90\_R1GHR0 N H W V G G C W A L V E A A L Q V P G T A D R T L A N G L W S R E G M V R Y I L L  
UniRef90\_A7TH86 S W W V L S S L S I L D K L S W I D Y N K L R A F I L L  
UniRef90\_W9VL63 S W W V L S S L S M I G K L R W I D A A E L T K F I L L  
UniRef90\_N1JAE0 S W W V G C S I T M I E R L H W I D G E K L A A F I L L  
UniRef90\_W6KY78 S W W V I A S L A M L N C T H W I D R E A L F R Y I F  
UniRef90\_F0XR8 S W W V L S S L T L I N R L H W I V D R D Q L V A F I L L  
UniRef90\_UPI0003EBDF65 S W W V L A S L K I G R L H W I D R E K L J S F I L L  
UniRef90\_R8BAY3 S W W V L S S L K M I N K V H W I D R E R L T Q F I L L  
UniRef90\_I6NE55 S F W I G G S A A I L D A Y G Y G N C F D K K G L E N Y I L L  
UniRef90\_G8ZZ53 S W W V L S S L A L I D K L D W I D Y D K L R E Y I L L  
UniRef90\_C8V7A2 S W W V G A S L A M I G K L N W I D G S K L A A Y I L L  
UniRef90\_Q6CKY4 S F W V G G T A A I L E A Y G Y G V C I D K D A L K Q Y I L L  
UniRef90\_T5ALU6 S W W V L S S L A L I H L T H W I D R D A L T G F I L L  
UniRef90\_G0V9C3 S W W V L S S L A I L N K L N W I D Y K K L R H F I L L  
UniRef90\_T1IY25 S W W V L A S L R I G R L H W I I N S K E K L T H Y I L L  
UniRef90\_B2ARE5 H W V G A C F P L I E A A L A N S P T P V N D S L F S R E G L R Y I L L  
UniRef90\_B0G172 S W W V L S A L S A I D R L H W I I D N D K L K S Y I L L  
UniRef90\_W2SBR7 H W L G N C W P L V Q A A L S G D G H G V N P G A G D L Y S S E G L A R Y I L L  
UniRef90\_A0A023FAL4 S W W V L A S L T I L G R S S W I D T S S L I G Y I L L  
UniRef90\_P22007 S F W V G G S A A I L E A F G Y G Q C F N K H A L R D Y I L L  
UniRef90\_A0A044SN57 S W W V L A S L S I L G R L H W I I D N K S M I K F I L L  
UniRef90\_UPI0003D28646 S W W V L S S L I M I D R V H W I I D K G K L V K F I L L  
UniRef90\_H3HCD9 S W W N I S S L I M I G K L D W I S K E K L I Q F I L L  
UniRef90\_G8BEZ3 S W W V L S T L A I L G K S H W I V N L E K L Q R F I L L  
UniRef90\_P20133 S W W V L S S L A I L G R L D W I N Y E K L T R F I L L  
UniRef90\_F4QA53 S Y W Q C A L F P I L R A Y D E S L A S Q H H A M F Y Q L F N Q Q K L Q E Y I L L  
UniRef90\_G8YGM4 S W W V L S S L A L I D K L H W I N S E Y L E S F I L L  
UniRef90\_N1JG47 H W I G G C W P L I E A S L T A L S A P N Q D P N A E K S D I N S E Y L E S F I L L  
UniRef90\_F4PL21 S W W V V S A L S V I D R L H W I T D N E K L R N Y I L L  
UniRef90\_C4Y6T5 S F W I G A V F A L V E C I T K E K T L F N R Q A L R C Y I H  
UniRef90\_R7SCR7 S F W V L S A L S T L G K L S W I D A E K L T E F I L L  
UniRef90\_W0T6C8 S W W V L S T L A I L K K A D W I D F D K L T E F I L L  
UniRef90\_A7TIM6 S F W V G G T V A I L E A Y G Y G E Y I M N H N E M R E Y I L L  
UniRef90\_J7R0B4 S F W V G A T G A L I E T K G Y V C P I D K N A L H E Y I C  
UniRef90\_L8G9V3 S W W V A S S L A M L G C L N Y I D G K K L E T F I L L  
UniRef90\_G3AIV9 S W W V L S S L A I L N K K H W V D L E K L L E S F I L L  
UniRef90\_UPI0002B4ABA2 S W W V I A S L K I L G K V H W I D E E R L L E S F I L L  
UniRef90\_A8P2J6 S F W V L S A L S I L K K V P W I D A K K L E A F I L L  
UniRef90\_B9SQ28 I F C C V G A L A I T G S L H H V D K D L L G W W L  
UniRef90\_B9SQ28 I F C C V G A L A I T G S L H H V D K D L L G W W L  
UniRef90\_K5WLVX9 S F W V L S A L S I L N K L E Y I D S D K L I S F I L L  
UniRef90\_J3NFK9 S H W V G G C W P L I E A C L K G P I D A A S A T P E S M F S R E G L R Y I L L  
UniRef90\_A2DK66 T W W V G S P L K I L G K T H W V E Y E K L R K F V L L  
UniRef90\_F1A0F1 S Y W Q G A V F I I V Q N Y Y D Q L N N N N N N N N N N L F D Q T K L L D Y T I  
UniRef90\_M5FRS8 S F W V L S A L S I L H K L K W I D S D A L I R F I L L  
UniRef90\_Q758V2 S W W V L S T L A I L G K A D W I D H E K L G D F I L L  
UniRef90\_C5KJW4 S W W I T S A L S V L G K L H W I D S D A L T G F I L L  
UniRef90\_A4SA2 S W W V L S A L S I L G K T H W I D R G A L A R F I L L  
UniRef90\_G3AZT4 S F W V G G C Y G L L E S V L A V D I F D K Q A L K I Y I M  
UniRef90\_L1JU42 S W W N L S A L V I L G R I D W I D R E K L R Q F I L L  
UniRef90\_W2RR14 S W W V V S S L A M I K R L H W I D G D K L S N F I L L  
UniRef90\_UPI0004416F12 S W W V G G A F G L L E A L G V G Q P H E W D D V D D S L Y N R K A L Q E Y I L L  
UniRef90\_E1Z373 S W W C L S A L S I L G R L H W I D Q Q A L T D F I L L

UniRef90\_A3LS53 R K C A Q A E E G G G F R D R K P G K S V D F Y H T N Y T L C G L S L C E T D D D D E 350 360  
UniRef90\_W9C548 G A C Q D T E E E G G G F A R D R K P G G D M V D V F H T C Y F T G V A G L S L L G F P G G  
UniRef90\_K2RSP5 L G A C Q Q E K K D G G G L Y R D D K P G G K F P V D D G Y H S C C Y S N L S G L S S A G Q R Y R S D A  
UniRef90\_Q245J5 R S Q Q D T E A G G G L V S D R D K P P G N Q V D V W H T C F S I A G L S L L K W P G A D N K  
UniRef90\_J3NVU4 Y A G Q D H P A G G G L R D R D K P P K S R D D S Y H T L Y C L A G L S L A A A Q H K A P D  
UniRef90\_V2XL17 M S C Q Q D E A G G G F R D D K P D K T R D L Y H T C Y V L S G L S L A V A Q Q A Y S I L R  
UniRef90\_W2T1U0 L A G Q Q H P A G G G L R D D K P P K S S D A Y H T L Y C L S G L S L S A Q Q H S W T E E S  
UniRef90\_F8P268 V C C Q Q D E K R N G G G F S D H P E K K G R D Y Y H T C Y T L S G L S L I S Q H N D I H S F  
UniRef90\_D3BIK5 R I J A Q E D N G G G F K D K P G K N V D F Y H T N Y S T L A G L S L I L E H H E P L A F  
UniRef90\_C5M2M3 S C C Q Q D T E T G G G F S D R D K P G G D M V D P F H T L F G L T A I S M L L G  
UniRef90\_K7ITQ0 Q C C Q Q D P D A S G G G F A D R K P G G N S M V D V Y H T H F S L A G L S L I A K F N G L E E E  
UniRef90\_B6HME5 K C C Q Q L E S G G G F R D D K P G G K S V D F Y H T N Y V L S G L S L I A Q H E Y F L K  
UniRef90\_A5DMM7 D S Q D M D N G G G I S D R D K P S Y T V D V F H T Y F G V A G L S L L L E Y P G  
UniRef90\_Q8LFX5 Q C C Q Q S T S T K G G G L R D D K P G D K R P D Q Y H T C Y C L L G L S S I A H T P G D G W  
UniRef90\_O13782 Q C C Q Q D T E S G G G L R D R P G D M V D V W H T L F G I T G L S L L D Y P G  
UniRef90\_B2ABA8 S T Q D L K N G G G F S D A R G N M T D V F H T C F G L A G L S L L L G Y P G G  
UniRef90\_G3JKI2 L C C Q Q C P A G G G L L D D K P G G K S R D F Y H T C Y C L S G L S L A I A Q H F G S G D  
UniRef90\_H0ZAV7 Q C C Q Q D P D Q G G G L A D R P G D M V D V F H T L F G I A G L S L L L N Y P G  
UniRef90\_E4ZG32 A C C Q Q D I E S G G G F S D R D K P G G D I A D P F H T L F G L T A L S L L L N  
UniRef90\_UPI000252B48A L C A A Q Q V L E G G G L R D R P G G K N R D H Y H S C Y C L S G L S L V S Q Y S S D S C  
UniRef90\_A0A023ZSJ7 Q C C Q Q D P D L G G G L A D R D K P G D M V D V F H T V F G L A G L S L L K Y P S G  
UniRef90\_N4VWYX9 N C C Q Q D K D N G G G I S D R D K P D N A V D V F H T Y F G V A G L S L L M E Y P G  
UniRef90\_M0TYQ2 S A Q Q D T D N G G G F A D R D R P G D V A D V F H T H F G V A G L S L I L G Y P G  
UniRef90\_V2XU01 A C C Q Q D T E T G G G F A D R D R P G D V A D P Y H T L F G L A A L S L L A Q H G H  
UniRef90\_V5GY89 L T S Q D L T G G G L R D D K P S A V P D M Y H T H Y T L A G L S L L A Q H S W E V Q  
UniRef90\_J3PN00 A C Q Q D N E T G G G F S D R D K P G D I L T D P F H T L F G L A G L S L L L G N T  
UniRef90\_H9J7Q2 A S Q D N E T G G G F A D R D R P G D M V D P F H T L F G I A G L S L L L G  
UniRef90\_F6U1E2 S C C Q Q D P E N G G G F A D R D R P G N M V D V W H T V Y A L A G L S L L L D F P G  
UniRef90\_U7PJ1 A I J A Q L A Q G G G L R D D K P S K P P D A Y H T A C N L A G L S L A T A Q H F R W A E D  
UniRef90\_M5FU94 R C Q Q D Y E G G G I S D R D K P G D M V D V F H T V F Y L A G L S L L L G F P G  
UniRef90\_U1GXA6 D S Q D Q K G G G I S D R D K P D N E V D V Y H T L F G L A G L S L L M G F  
UniRef90\_Q6FSK7 C C C Q Q T E F P G G L R D D K P G K R A D F Y H T N Y V L L G L S L A I S E H S A S S L  
UniRef90\_H2AP30 C C C Q Q A K S G G G L R D D K P P K R P D Q Y H T C Y C L L G L S S I A Y D D N D W  
UniRef90\_S9RF00 Y A G Q Q H P T G G G L R D D K P P K V S D A Y H T L S C L S G L S L A S A Q H H W V E E  
UniRef90\_S7Q2L5 D C C Q Q D E E D G G G I S D R D K P D D M A D I Y H T F F G I A G L S L L M G Y P G  
UniRef90\_D8TQA9 R C C Q Q D Y D H G G G L S D R D R P G N V A D V F H T H F G L A G L S L L L G Y S G  
UniRef90\_B6QE40 A C C Q Q D S E D G G G L A D D K P G N Q A D V Y H T F Y G L C G L S L L L G Y  
UniRef90\_C9ZLR6 C V C Q Q C P S G G G F R D D K P G G K R Q D Y Y H T S Y C L S G L S L A S M K R F A P N H  
UniRef90\_F2UJ19 C A C Q Q Q G K N G G G L K D D K P G K P V Q D Y Y H S C Y N L S G L S L A G Q Y P E H G S  
UniRef90\_R1GHR0 Q S Q Q D E K K G G G L S D R D R P E N E V D V Y H T V F G I A G L S L L M G F  
UniRef90\_A7TH86 R C C Q D A D E L G G G F A D R D R P G D A V D V F H T V F G L A G L S L L L G F P G L V E  
UniRef90\_W9VL63 R C C Q D T E L G G G F A D R D R P G D A A V D V F H T V F G L A G L S L L L G F P G  
UniRef90\_N1JAE0 S C C Q D D E D G G G I S D K P G N A A D V Y H T F F G L C G L S L L L D Y K D Y P  
UniRef90\_W6KY78 R C C Q D P E E T G G G F A D R D R P G N M V D V W H T V Y S V A G L S L L L D Y P G  
UniRef90\_F0XR88 A C C Q D E T G G G F A D R D R P G D M V D P F H T L F G I A G L S L L L G  
UniRef90\_UPI0003EBDF65 K C C Q D P E L G G G I A D R D R P G D M V D V W H T V Y S V A G L S L L L D Y E G  
UniRef90\_R8BAY3 K C C Q Q Q E N P G G L K D D K P G A N P D F Y H T N Y C L L G L S L V A Q Y D F K S T  
UniRef90\_I6NE55 K C C Q Q D E K G G G L S D R D R P D N E V D V F H T L F G I A G L S L L M G F G N  
UniRef90\_G8ZZ53 R C C Q D P E A G G G F A D R D R P G N A A D V V F H T H F A I A G L S L L L G Y E G  
UniRef90\_C8V7A2 K C C Q Q S E S G G L R D D K P G D Q A D F Y H T N Y V L A G L S L I C E H S F M V R  
UniRef90\_Q6CKY4 R S Q Q D P E N G G G I S D R D R P G D M V D V W H T C F G L A G L S L L L G Y P G  
UniRef90\_T5ALU6 S S Q Q D T K R G G G I S D R D R P D N E V D V F H T L F G I T G L S L L M G F  
UniRef90\_G0V9C3 A C C Q D D E T G G G F C D R P G N M V D P F H T L F G I A G L S L L L G  
UniRef90\_T1IYZ5 N C C Q Q D E T G G G L R D D K P G K M S D A Y H S C Y V L S G L S L A G M H Q W V L E  
UniRef90\_B2ARE5 K C C Q D N E T G G G I A D D K P G D I P D V F H T F F G I C G L S L L M G Y F K D Q I  
UniRef90\_B0G172 C C C Q Q A T P G G L R D D K P S K R P D S Y H T C Y T L S G L S T T K H F H T S H  
UniRef90\_W2SBR7 A T Q D V E T G G G F S D R D R P G D I P D P F H T L F G L A G L S L L K V P G  
UniRef90\_A0A023FAL4 Y C C Q Q E K E P G G L R D D K P G A H S D F Y H T N Y C L L G L S L V A E S S Y S C T  
UniRef90\_P22007 A C C Q D N D G G G F A D R D R P G D A V T D P F H T V F G L A G L S L L L G A Y  
UniRef90\_A0A044SN57 D C C Q D K E N G G G I S D R D R P D D A V D V F H T Y F G L A G L S L L L G Y P G  
UniRef90\_UPI0003D28646 A C C Q D P E D G G G I A D R D R P G N V A D V F H T F F G I A G L S L M L G Y F D R E K  
UniRef90\_H3HCD9 S C C Q D P L E G G G I S D R D R P D N Q T D I Y H T C F G I A G L S L L L D Y T K F D  
UniRef90\_G8BEZ3 K C C Q D E K K G G G L S D R D R P E N E V D V F H T V F G V A G L S L L M G Y  
UniRef90\_P20133 V C C Q Q N V R G G G F S D H P Q R G R D Y Y H T C Y T L A G L S L V S Q H N G S R Q  
UniRef90\_F4QA53 S C C Q D L E S G G G F S D R S E G N Q P D V F H T C F A I T G L S L L I Q  
UniRef90\_G8YGM4 L T A S I L S S G H L Y S R S E G R M S D S Y H T C Y V L A G L S L A L S A P F S W S  
UniRef90\_N1JG47 K C C Q D N E T G G G I A D D K P G N V P D V F H T F F G L C G L S L L M S Y F D M E E  
UniRef90\_F4PL21 N C C Q Q D E R G G G L K D D K P G K H P D F Y H T N Y S I C G L S L I A E Y H Y T A Q  
UniRef90\_C4Y6T5 S A Q D T E R G G G I A D R D R P G D E S D F Y H T H F G I A G L S L L L G Y P G  
UniRef90\_R7SCR7 N C C Q D P K K G G G I S D R D R P D N E V D V F H T V F G L A G L S L I M G Y  
UniRef90\_W0T6C8 Q C C Q Q T K R P G G L R D D K P G K N P D F Y H T N Y V L A G L S L V V E Y T F K I D  
UniRef90\_A7TIM6 R C C Q Q D P A M G L R D D K P G K H A D L Y H T N Y V L L G L S L A I T E A S Q D G P  
UniRef90\_J7R0B4 K C C Q Q D S E R G G G L A D R D R P G D M V D V F H T V F G V A G L S L L L G Y P G  
UniRef90\_L8G9V3 S A Q Q D L K E T G G G I S D R D R P D N A T D L Y H T C F G I T G L S L I D W F  
UniRef90\_G3AIV9 A S Q D D E T G G G I S D R D R P G D M T D P F H T L F G V A G L S L L L G F D R D N I  
UniRef90\_UPI0002B4ABA2 S A Q Q A E G G G I A D R D R P G D M V D V F H T L F G V A G L S L L L G Y P G  
UniRef90\_A8P2J6 C E R Q V K S G G G L N G R P E K L P D V C Y S W W V L S S L I M I D H W I S K E  
UniRef90\_B9SQ28 C E R Q V K S G G G L N G R P E K L P D V C Y S W W V L S S L I M I D H W I S K E  
UniRef90\_B9SQ28 S A Q D P E G G G I A D R D R P G D M V D V F H T C F G T A G L S L L V G Y P G  
UniRef90\_K5WLX9 C C C Q Q D K R G G G L R D D K P G K S P D A Y H S C Y V L A G L S L S A E N W V V S P  
UniRef90\_J3NFK9 S A Q D P E T G G G L A D R D R P S N I P D P F H T F I G C A G L S L L F A Q H N D I P N  
UniRef90\_A2DK66 R C C Q Q H D S G G F S D H P T R N K D F Y H T C Y S L S G I S L L A Q H N D I P N  
UniRef90\_F1A0F1 S A Q Q D P D G G G I S D R D R P G D M V D V F H T V F G L C G L S L L L G H P D  
UniRef90\_M5FRS8 A S Q D P K S G G G I S D R D R P E N Q V D V F H T L F G I A G L S L L M K H  
UniRef90\_Q758V2 R A Q E E E D G G G I A D R D R P G D V P D V F H T F F G L A G L S L L L D T S G S  
UniRef90\_C5KJW4 R C C Q D E T S G G G L S D R D R P D D E P D V F H T F F G I A G L S L L M G H P A V I  
UniRef90\_A4S4A2 N C A Q N T S G G G F K D D K P G K S I D F Y H T N Y S L M G L S I C E H S V A I A  
UniRef90\_G3AZT4 N A Q D E T E G G G I A D R D R P G D V A D V F H T F F G I S G L S L L L G Y T E D E  
UniRef90\_L1JU42 K C C Q Q D P H G G M S D R P G D M V D V F H T V F G V A G L S L L L G Y P G L V E  
UniRef90\_W2RR14 Y A G Q H T P A G G G L R D D K P P K Q S D A Y H T L S C L A G L S L S A Q H S W A E E  
UniRef90\_UPI0004416F12 D C Q Q D E D G G G L S D R P E D Q V D V Y H T F F G I A G L S L L M G R P G  
UniRef90\_E1Z373

UniRef90\_A3LS53 K E D S P L A D S N S F T G P I N P V V Y G L P F D L T N T C R D H F Y R L 370 380 390 400  
UniRef90\_W9C548 V E E V D P I Y C M P K R I T E R A L  
UniRef90\_K2RSP5 D D E E S R V W D E E D R V G M V N P V Y V L P W G K A E A A R R W F E E K  
UniRef90\_Q245J5 E E E Y F M N K M T S S T K Q I N V V Y N L P Q D K L D F A K S F Y A K L P  
UniRef90\_J3NVU4 L E A V D P V Y C M P K S T I E R  
UniRef90\_V2XL17 S A H G K A L G T A K R V I N A T H P L F N L T V T H T D A I M A Y F Y R Q P  
UniRef90\_W2T1U0 E N G S V L G G N Q N A V E A I N P V F N L T T S S E Q F A A S F F A K  
UniRef90\_F8P268 E G T S Q I I G G Q G N R V E A T H P L F N L T I T H T E A M M Q H F Y G Q T L  
UniRef90\_D3BIK5 S I N D T V Q E M P K F T L Q P T H P I V Y N L T L  
UniRef90\_C5M2M3 Q L E V K I D K D E N T F T N P V H P V I F G I P M N F V Q E C K Q V F A S K S L  
UniRef90\_K7ITQ0 A D K S L K E V N P T F C M P E Y V I Q R  
UniRef90\_B6HME5 I D A I N S C M P K  
UniRef90\_A5DMM7 E E T D E N T T E D T Y R L A A V H P V I G I P I D A V E K C R K I M R K K  
UniRef90\_Q8LFX5 V K T I D P A Y A L P V H V I N R I L  
UniRef90\_O13782 S Y K P S I L H S S L S S L L P A H P I Y C V P F G F E E R I K S Y F L S Q  
UniRef90\_B2ABA8 L E F V D E V Y C L P K S T I T R I  
UniRef90\_G3JKI2 L E P V D P R Y C M P Q K I T E K A L S  
UniRef90\_H0ZAV7 L H N E V V L G I P E N C L Q A T H P V Y N I A P E K V A R A V M H F L Q Y P V  
UniRef90\_E4ZG32 L E E V D P V Y C M P R A V T R R C L  
UniRef90\_UPI000252B48A T D Y P L K K I N P T Y C M P E Y V I Q R L H  
UniRef90\_A0A023ZSJ7 P L P Q H M L G P Y S N L L E E P I H P L Y N V V L E K Y E E A Y E F F S  
UniRef90\_N4VYX9 L E E V D P V Y C M P R S V T R R C L  
UniRef90\_M0TYQ2 L K T I D P A Y A L P V D V V N R I F F R K  
UniRef90\_V2XU01 L V D L D P V Y C M P V K K I E S M  
UniRef90\_V5GY89 D T V Q K V N P T Y C M P Q H V I D R L Q  
UniRef90\_J3PN00 K D K D L V V G M V S N E L P V H P V L N I K H S A V E K M M N H F Y H Q  
UniRef90\_H9J7Q2 S I K P V N P T Y C M P Q E T I D R L K  
UniRef90\_F6U1E2 E T S L K Q I N P V Y C M P Q D V L N K  
UniRef90\_U7PJ1 L E P V H A G Y C M P K A T I A N  
UniRef90\_M5FU94 E G A D V Y L G G E D N R V N A V H P L Y N L T I T S V R K M M G H F Y A Q  
UniRef90\_U1GXA6 L V A V D P V Y C M P K H V I Q R C I Q  
UniRef90\_Q6FSK7 D S L I E I N P V Y C M P Q T V V N K I K N Y  
UniRef90\_H2AP30 L S K P I R L R D N S S N L I E L S P I Y G L P A K D V E K F T S F F L E K T I  
UniRef90\_S9RF00 L I E P S S L H S T N S N F L L P T H P I F C I P L G L E K K M L S Y F  
UniRef90\_S7Q2L5 E G A S K F V G G S G N R V N A T H P L F N L T M T H T D A M M G H F Y R Q T V  
UniRef90\_D8TQA9 L A K E I D P T W A L P V E V V E R I K K  
UniRef90\_B6QE40 L K E I D P V Y C M P K E T I E R  
UniRef90\_C9ZLR6 E D Y P L R D I N P V Y A M P Y D V L E  
UniRef90\_F2UJ19 P L L S Q L N A T H P I H N V P P A N A E R M Q A M S S Q T  
UniRef90\_R1GHR0 F S P P L A A G D E A D R V L G K V N P V Y V T P W G K A E E A R R Y F E E K  
UniRef90\_A7TH86 E N L D P I D P A Y C M P V S V T S K F K K Y  
UniRef90\_W9VL63 V D P  
UniRef90\_N1JAE0 L E E V D A V Y C M P K K V V K R V L E  
UniRef90\_W6KY78 L K Q I N P V Y A M P Y D V L E R  
UniRef90\_F0XR88 L V P V N A A Y C M P K L T I A R  
UniRef90\_UPI0003EBDF65 E E Q I K V N P V F C M P E E V L R R M  
UniRef90\_R8BAY3 L E V V H P A Y C M P V S T I E R  
UniRef90\_I6NE55 G G D P S E I E C T K P M V N A I N P I Y G I P V K D V R K F K S Y F K K  
UniRef90\_G8ZZ53 L I P V D P V Y C M P V S V T K T I K K Y  
UniRef90\_C8V7A2 V E E V D P V Y C M P K S I T S K I L S  
UniRef90\_Q6CKY4 N N S P F D F V V P E P E V E I H P I F G L A I L D V N N E I N  
UniRef90\_T5ALU6 M E A V D P V Y C M P K A T I D R L I R  
UniRef90\_G0V9C3 E N L N P I D P V Y C M P C E V T S K F K K Y  
UniRef90\_T1IY25 D R S V K E V N P V Y C M P Q Q Y I T Q K  
UniRef90\_B2ARE5 D E E W M V L F E N A D R V R V H P V Y V I P Q G A V R A M R G Y F R G K  
UniRef90\_B0G172 E S I D P V Y A L G T K T L Q K L G L N L P W N K  
UniRef90\_W25BR7 S E S N P A A F D D G T D V K P M H P V F A I P H H S V E G L R Q W S G Q Q P  
UniRef90\_A0A023FAL4 L Q R I N P T Y C M P Q D V I E R L R  
UniRef90\_P22007 P N D S P I K C T P D S K L T D V N P V Y G L P I E N V R K I I H Y F K S N  
UniRef90\_A0A044SN57 N E S L A A V D P V F C M  
UniRef90\_UPI0003D28646 I K A P I D P A Y A L P V D V V N R V M  
UniRef90\_H3HCD9 E T H P E Y E G I R Q I H P T F A I P T D V V E K L Q  
UniRef90\_G8BEZ3 L D E I D P V Y C M P K R I T R N F Q K W  
UniRef90\_P20133 D N L V P I D P I Y C M P K S V T S K F K K Y  
UniRef90\_F4QA53 E M P P V T L T S D S N L I E P T H P I F N L C L P K  
UniRef90\_G8YGM4 G K K H G L K A I D P V Y C L P S E I S A N I K K W  
UniRef90\_N1JG47 S E P D I V V Y D E A D R V K P L H P I F V I P E E A V R W M F K I F A  
UniRef90\_F4PL21 I D P T Y A L G  
UniRef90\_C4Y6T5 K L D G F S F K S E E Y T L P V N P V F G L P L G Y A E R C R  
UniRef90\_R7SCR7 L V D L D P V Y C M P A P I I E R L R K G W K A L P  
UniRef90\_W0T6C8 D S L K P I D P V Y C M P Y A T E T F Q R  
UniRef90\_A7TIM6 N P K D P F S G V P S S N I T A I N P V Y C L P I D L V K N F A N H F  
UniRef90\_J7R0B4 V R S S P A L H I E S S G L S P I N P V Y G V P V V N L R B A E Y F H H K  
UniRef90\_L8G9V3 L A E V D P I Y C M P K K A S I E Q C W F Y N I N I  
UniRef90\_G3AIV9 K Y N F K E I D P L Y C M P V E V T K N F K K W  
UniRef90\_UPI0002B4ABA2 E E V D P V F C L P S Y V I Q R L  
UniRef90\_A8P2J6 L V D L D P V Y C M P A E V I T K K  
UniRef90\_B9SQ28 K L V K F I L N C Q D T E N G G I S D R P D D A V D V F H T Y F  
UniRef90\_B9SQ28 K L V K F I L N C Q D T E N G G I S D R P D D A V D V F H T Y F  
UniRef90\_K5WLX9 L E D L D P V Y C M P A K L I E K M  
UniRef90\_J3NFK9 Y Q D E V Q V F D E G D R V A P V H P L Y V I P E D K V A S A Q A Y F A A L  
UniRef90\_A2DK66 V D P A Y A L P N E V L V R H F G K L G I  
UniRef90\_F1A0F1 I I T T M N S N T Q E Q T V E P I H P I Y N I K I S K C E K A L K H F Y S L  
UniRef90\_M5FRS8 V R E I N P I Y C L P A E I A K K  
UniRef90\_Q758V2 D G L V P I D P I Y C M P Y D I T E K F K K Y  
UniRef90\_C5KJW4 F H L R P V D P V A L P L D T V R R  
UniRef90\_A4S4A2 V E P I D P V F A L P N S V L K Q  
UniRef90\_G3AZT4 E D K N I N V N D D I N T E I N C V F G L P E V L S K A C K N Y F L  
UniRef90\_L1JU42 E G I P G L R R I D P V Y A L P V Q V L E R M  
UniRef90\_W2RR14 V D P  
UniRef90\_UPI0004416F12 E G G S K V V G G V N R V N A T H P I Y N L T M T H T E G I M S H F Y A Q Q I  
UniRef90\_E1Z373 L Q P I D P T F A L P V E V I



UniRef90\_A3LS53  
UniRef90\_W9C548  
UniRef90\_K2RSP5  
UniRef90\_Q245J5  
UniRef90\_J3NVU4  
UniRef90\_V2XL17  
UniRef90\_W2T1U0  
UniRef90\_F8P268 P  
UniRef90\_D3BIK5  
UniRef90\_C5M2M3  
UniRef90\_K7ITQ0  
UniRef90\_B6HME5  
UniRef90\_A5DMM7  
UniRef90\_Q8LFX5  
UniRef90\_O13782  
UniRef90\_B2ABA8  
UniRef90\_G3JKI2 P  
UniRef90\_H0ZAV7  
UniRef90\_E4ZG32  
UniRef90\_UPI000252B48A  
UniRef90\_A0A023ZSJ7  
UniRef90\_N4WYX9  
UniRef90\_M0TYQ2  
UniRef90\_V2XU01  
UniRef90\_V5GY89  
UniRef90\_J3PN00  
UniRef90\_H9J7Q2  
UniRef90\_F6U1E2  
UniRef90\_U7PJJ1  
UniRef90\_M5FU94  
UniRef90\_U1GXA6  
UniRef90\_Q6FSK7  
UniRef90\_H2AP30  
UniRef90\_S9RF00  
UniRef90\_S7Q2L5 P  
UniRef90\_D8TQA9  
UniRef90\_B6QE40  
UniRef90\_C9ZLR6  
UniRef90\_F2UJ19  
UniRef90\_R1GHR0  
UniRef90\_A7TH86  
UniRef90\_W9VL63  
UniRef90\_N1JAE0  
UniRef90\_W6KY78  
UniRef90\_F0XR8B  
UniRef90\_UPI0003EBDF65  
UniRef90\_R8BAY3  
UniRef90\_I6NE55  
UniRef90\_G8ZZ53  
UniRef90\_C8V7A2  
UniRef90\_Q6CKY4  
UniRef90\_T5ALU6  
UniRef90\_G0V9C3  
UniRef90\_T1IYZ5  
UniRef90\_B2ARE5  
UniRef90\_B0G172  
UniRef90\_W2SBR7  
UniRef90\_A0A023FAL4  
UniRef90\_P22007  
UniRef90\_A0A044SN57  
UniRef90\_UPI0003D28646  
UniRef90\_H3HCD9  
UniRef90\_G8BEZ3  
UniRef90\_P20133  
UniRef90\_F4QA53  
UniRef90\_G8YGM4  
UniRef90\_N1JG47  
UniRef90\_F4PL21  
UniRef90\_C4Y6T5  
UniRef90\_R7SCR7  
UniRef90\_W0T6C8  
UniRef90\_A7TIM6  
UniRef90\_J7R0B4  
UniRef90\_L8G9V3  
UniRef90\_G3AIV9  
UniRef90\_UPI0002B4ABA2  
UniRef90\_A8P2J6  
UniRef90\_B9SQ28  
UniRef90\_B9SQ28  
UniRef90\_K5WLX9  
UniRef90\_J3NFK9  
UniRef90\_A2DK66 P  
UniRef90\_F1A0F1  
UniRef90\_M5FRS8  
UniRef90\_Q758V2  
UniRef90\_C5KJW4  
UniRef90\_A4S4A2  
UniRef90\_G3AZT4  
UniRef90\_L1JU42  
UniRef90\_W2RR14  
UniRef90\_UPI0004416F12 P  
UniRef90\_E1Z373

	1	10	20	30	40
UniRef90_F2U489					K
UniRef90_N1PQH3				H N D L S T E T S G K Q T E T A A E C L P F L F	
UniRef90_O93830					
UniRef90_UPI00044138B4				R P T P L D G Y P T P T S E T Q L E T E S I I S E L F K	
UniRef90_G7E4K1					
UniRef90_B0D5U4					
UniRef90_B0D5U4					
UniRef90_L8GK35				R L P F Q D Y V D E T P T D G R S L E D E D D P S D D F E	
UniRef90_G4MQQ5					
UniRef90_G8ZXP6				V E T D T S I A R D E V I E K C Q A L Y E	
UniRef90_S7PZL1					
UniRef90_A0A024J8L9					
UniRef90_A0A026WZH9					
UniRef90_W9WC25					
UniRef90_B3RPD4					
UniRef90_I1FY68					K
UniRef90_C6H2L6					
UniRef90_C6H2L6					
UniRef90_Q6BQR7					
UniRef90_G4T4W5				D G C P T A T S F I Q E K T E K E L K E A Y D	
UniRef90_B6K0M5				E T L R A Y E Q T N A V C K P F L D	
UniRef90_M3J893	N P E S S W N P	H E S T I I	D N T R Y T S I T T E L Q E D T E T A V L D Q L		
UniRef90_R7T1W6			P T D G Y P T A T S S L Q S D T E I T I		K
UniRef90_C4XXU3					
UniRef90_A0A015JY20				N T D A L P T E S S K A Q T D T E V S V Y E L F K	
UniRef90_UPI0003505051					
UniRef90_W1Q8F1					
UniRef90_A4RTB3				S A S A E A V L N L E N T A R D I Y E	
UniRef90_W5CCI5				A T S Y A A V N T L V T I E R A L S	
UniRef90_W5CCI5				A T S Y A A V N T L V T I E R A L S	
UniRef90_R4XBR9				E T L Q A Q I D T E R D C K P Y L E	
UniRef90_A3GH05					
UniRef90_C5DUT1					
UniRef90_M5E9M8					
UniRef90_T1KNM3					
UniRef90_A0A016TU31					K
UniRef90_U1HEF7					
UniRef90_U1HEF7					
UniRef90_W0T5G6				N L M T E T L Q D R E T L I E D C L E L Y D	
UniRef90_J9JC04				D E D P R A L M K L I K G M Y K	
UniRef90_A0A059BC02					
UniRef90_UPI000444A3FF					
UniRef90_I2H064				L K T E T T D E R S E V M E E C L K L L H	
UniRef90_U4TX49					E H L H
UniRef90_P41992					K
UniRef90_E1ZTF0				I D D S L Q T T T S I D Q A E L E R R V A H I Y A	
UniRef90_K5VIB6					
UniRef90_F9XG08					
UniRef90_G0SWD5					
UniRef90_E0VAW6					
UniRef90_U6IAV0					
UniRef90_C5DBA3					
UniRef90_UPI0004408064					
UniRef90_I0Z5S5					
UniRef90_C4R5H8					
UniRef90_Q241P5		S Q E E E E K K Q D T Q V E S Q T S Q E K Q R			
UniRef90_M2XHG5					
UniRef90_UPI0002658C8B					L K
UniRef90_M3JAT6					
UniRef90_G0W6D7				L E T D T T I S R D E V K H T C Q E L F E	
UniRef90_C1FJP1					
UniRef90_G4VI00					
UniRef90_D5GAX7					
UniRef90_A5DA16					
UniRef90_Q6BHP7				P V I T D E Y P S V T T E A Q I Q V Q L S I N S I Y R	
UniRef90_A5E6U1					
UniRef90_R4GF94					
UniRef90_D8Q834				T L R P T P T D G F P T E T S R V Q H E T E E I L A K	
UniRef90_S9UHC3					
UniRef90_V5FH04					
UniRef90_K1WW94					
UniRef90_M2QXA0					
UniRef90_U6HT31					
UniRef90_UPI0002B4366B				R H E Y T F S V V D D Y Q S K V E D I V Q E V Y D	
UniRef90_B0EMY5				E I F D D E N I Q T K T S I D Q I N T E K A V S N A Q K	
UniRef90_A2DLV2				L Y D D G V E T A T T A S Q R D V E I T L E F A L N	
UniRef90_R9ARI4					
UniRef90_UPI0004560EBB				I E D G Q R T E T S E A Q H A L E Q R L I S L L K	
UniRef90_I0YSP1					
UniRef90_E9FU55					
UniRef90_E4X2S6					
UniRef90_G8YHC2				S V E T Q T S I D Q E E T E E S I T N I Y E	
UniRef90_C5DQ16				E T E T T E A R D K L I H E C R I L L E	
UniRef90_UPI0004623242				P T P I D G Y S T P T S T L Q A S T E N V I	K
UniRef90_M7X394				P T P T D G I A S E T L A A Q H E A E Q S I S S L L T	
UniRef90_B7GE31					
UniRef90_A0A034VR28					S
UniRef90_U5EX36					
UniRef90_V5EEN4					
UniRef90_I4YCM2					
UniRef90_J7S0L9					
UniRef90_C5L1G6				N D D R F P T H S S M E Q R R T E M S I M N C Y E	

UniRef90\_F2U489 D V D L P A D A P K 50 A F L R Q Q H I T F L E I E Q W N K R K G E E Y V M S E Y L R 80  
UniRef90\_N1PQH3 G K E A L A G I P T P H L N R A K H I T F L E N G L G D L P A P Y V L L D A S R  
UniRef90\_O93830 F D K S K H V V Q Y I V E Q E S H R S F E Y W L S E H L R  
UniRef90\_UPI00044138B4 D E P P A L D R N A H V N Y L G R C L Q G L P S K Y Q V Q E A S K  
UniRef90\_G7E4K1 M D P E G K L M V E L H V K Y L Q S L D Q R R N E A Y H L T E H L R  
UniRef90\_B0D5U4  
UniRef90\_B0D5U4  
UniRef90\_L8GK35 D Y N E D G V G L C R L Q H A S Y A G R G L R G L P G G Y S S L D A S R  
UniRef90\_G4MQQ5 Q D P S L P D E P E L R L A A A A H V K Y V Q S L D T R K E D Y Y W L T E H L R  
UniRef90\_G8ZXP6 E A Q T I P E L H R D A H K K F L A S F T N D L P Q M A A L D A S Q  
UniRef90\_S7PZL1 A S E T Q L V V D K H V A Y I K S G D N K D D L T Y H M T A H L R  
UniRef90\_A0A024J8L9 M K L T K E K H I S Y I K S L D T K K K D E Y W Y S G H L R  
UniRef90\_A0A026WZH9 P E L L I E K H V N Y L L S Y G T K K D D Y Y H Q T E H I K  
UniRef90\_W9WC25 V E D L S L V V D K H V K Y I Q A L D T R K D E D Y W L T E H L R  
UniRef90\_B3RPD4 Q L W K L K H R D Y I V N Y G K S K D D Y Y C M S E Y L R  
UniRef90\_I1FY68 D V E L P D R P E L Q E L L L E K H A S Y I E T F E K N K D D D Y C M T E F L R  
UniRef90\_C6H2L6  
UniRef90\_C6H2L6  
UniRef90\_Q6BQR7 E L K F V K E K H V K Y I Q D L D S K Q T F E Y W L S E H L R  
UniRef90\_G4T4W5 S V P K P L I L Q R M R H F Q W L K V L L Q G L P A R Y K S Q D A S Q  
UniRef90\_B6K0M5 K P S T G F A L D A H I K F L E S S L K P F P A P Y T V L D A S K  
UniRef90\_M3J893 A N V P E L K F N K S A H I K Y T I K A L K K L P A A Y I S L D A N H  
UniRef90\_R7T1W6 S H L P S S G T P Q I A L Q K K S H F E F L R N L R Q F P E R Y T S Q D A S Q  
UniRef90\_C4XXU3 L Q D T P P T M S F N K D L H V K Y I Q D L D S K I S Y E Y W L S E H L R  
UniRef90\_A0A015JY20 D A R D K K L I N T I K L N R G S H I K Y V K D G L K G L P S Y L V A L D A S K  
UniRef90\_UPI0003505051 E Y C M S E Y L R  
UniRef90\_W1Q8F1 L D K S K H V A Y I K S L D D Q K Q F E Y W L S E H L R  
UniRef90\_A4RTB3 R P D R A S A L A R D A H V E Y L L G G L R T L P T A F T S L D A S R  
UniRef90\_W5CC15 S I K R D N L Y K F M L L M K D K S G A F R M H D G G E I D  
UniRef90\_W5CC15 S I K R D N L Y K F M L L M K D K S G A F R M H D G G E I D  
UniRef90\_R4XBR9 A P V P P L N T K K H T A F L L R G L D P L S E G Y I S L D A A R  
UniRef90\_A3GH05 F Y K E K H I A F V V D Q D S H R S F E Y W L S E H L R  
UniRef90\_C5DUT1 T F L R D K H I A Y V Q S L D K H H E S E Y W L S E H L R  
UniRef90\_M5E9M8 M T L V D R H V Q F I K K L E Q K R D S S Y H M T A H L R  
UniRef90\_T1KNM3 P P L I L D K H K D F I M N C A P T D G S L E Q T M E H L K  
UniRef90\_A0A016TU31 D V D I P A N A P K D L L A A L H T E F I T N Y E K N K D S Y Y I M A E P L R  
UniRef90\_U1HEF7  
UniRef90\_U1HEF7  
UniRef90\_W0T5G6 K T S E K P N V L L K G L H K L F L Y A F T H P L P S G F K S L D A S Q  
UniRef90\_J9JC04 T F E L D P P N A K A E L L F N Q L H A D F V S K G F N M L P R G M Q G L D S G Q  
UniRef90\_A0A059BC02 E L A G D K H V K Y I L S V E K K K  
UniRef90\_UPI000444A3FF T L T V P A H I K Y I Q N L G N K D D L A Y H T T A H L R  
UniRef90\_I2H064 E R K D W V L K K A E H L K Y L N M A F S Q L P S N M S V L D A S Q  
UniRef90\_U4TX49 D V V L P D N I T E E L L T S Q H I D F I K K Y G E Q N K F E Y G M T D Y L R  
UniRef90\_P41992 D V D L P Q N S P N E L L K D L H A N F I N Q Y E K N K S Y Y I M A E H L R  
UniRef90\_E1ZTF0 T E Y A D G D E E L S L N P Q Q H I K Y L Y G G L G Q L P S Y F I S L D A S R  
UniRef90\_K5VIB6 M S T D L E L H I P L H V K Y I Q S L G K S K D D L Y H L T A H L R  
UniRef90\_F9XG08 Q L P S E L Q L V T E K H V A Y I Q S L D T R K D E E Y H L T E H L R  
UniRef90\_G0SWD5 T L L T D L H V S Y I Q S L D K D Q D S S Y L F T E H L R  
UniRef90\_E0VAW6 M T E Y L R  
UniRef90\_U6IAV0 D L K L N K E S H V S Y I K S L D S K R D Y E Y W L S E H L R  
UniRef90\_C5DBA3 T L L V P L H V K Y I Q S L D T H K D D A Y H M T H L R  
UniRef90\_UPI0004408064 F E Y Y A T E H F R  
UniRef90\_I0Z5S5 M S L H K E L H R K Y I Q E L D S H K D D Y Y W L T E H L R  
UniRef90\_C4R5H8 N F L R K Q H E E Y L L S L E K S K D L G Y Y L T E H L R  
UniRef90\_Q241P5 L P V D L H Q Q Y L C K A Q N D K S W E Y F L T A H K R  
UniRef90\_M2XHG5 D I Q I P E D A N K E L L I A K H T K Y L Y D F A E N K D S E Y V M T E H L R  
UniRef90\_UPI0002658C8B P P F V K S K H V Q Y I I N Q E Q N R T F E Y W L S E H L R  
UniRef90\_M3JAT6 K V I N K E E V V L D R K F H R R Y L L A F G S T L P Q L T A L D A S Q  
UniRef90\_G0W6D7 E L L L Q K H V K F L V R C K S E N D S T L D Y C R  
UniRef90\_C1FJP1 T L L T S K H V A Y I Q S L D T K R D L D Y H L T S H L R  
UniRef90\_G4VI00 Q L F K Q H V E Y L N S Q I S Q D S Y E Y W L S E H L R  
UniRef90\_D5GAX7 G L I Q S S T N E N R P F C I T E H N K Y I M K S L T D L P Y Y Y K S L D A N H  
UniRef90\_A5DA16 D I T Q H E F V K E K H I N F I E Q E S N R S Y E Y W L S E H L R  
UniRef90\_Q6BHP7 H L F G P A T L N K N A H M Q F L A R N L Q G F P A R Y V S Q D A S Q  
UniRef90\_A5E6U1 E L L V A F V H R L D E T V L W K A Q H L K  
UniRef90\_R4GF94 K L Y V Q K H V D Y I K G L D T R K D E E Y W L T E H L R  
UniRef90\_D8Q834 S S L P T E L Q L S I A A H V K Y I Q S L D T R K D E E Y H L T E H L R  
UniRef90\_S9UHC3 N S P Q L S I P L H V K Y I Q S G E N Q D D L F H M T S H L R  
UniRef90\_V5FH04 L M F E K H V A F L K A L E K E D P M L D Y M K  
UniRef90\_K1WW94 A Y K T N H H S S Q Y V L Q R E K H F H Y L K R G L R Q L T E A Y E C L D A S R  
UniRef90\_M2QXA0 R Y I T R H N F L T Y S F N P E V H I K W L S I H K P L P S G F E S L D S S T  
UniRef90\_U6HT31 G D K T V L R I P S R D Y L I D K I V H L G K S Y Q N F C Y Q E  
UniRef90\_UPI0002B4366B Q D K E L D R L A H A K Y L T E S L S G L P A S M K A L D A S R  
UniRef90\_B0EMY5 A H T E D E H G L L V D L H V A F I Q A L D R K R D S A Y H L T T H L R  
UniRef90\_A2DLV2 D Y Q A D D V E S S L E L T R A R H I E Y L H E G L R E R Q H H I A L G C S R  
UniRef90\_R9ARI4  
UniRef90\_UPI0004560EBB  
UniRef90\_I0YSP1  
UniRef90\_E9FU55  
UniRef90\_E4X2S6  
UniRef90\_G8YHC2 R I G S R K P V D A F C F N E V D K H V K F L V K A A T T R G F E W E M T E Y L R  
UniRef90\_C5DQ16 R D D L N T L D K E F H K K F L D S S P F H Q L P P G M V A L D A S A  
UniRef90\_UPI0004623242 S H I L P A G G A Q P E L Q R D S H F A F L R N L R Q F P E R Y V S Q D A S Q  
UniRef90\_M7X394 E H L A A S A D P Q L Q R D V H T A Y L T R L L K P L P K Y F T G L D A S R  
UniRef90\_B7GE31 E D D P H R F R V C L L R E K H V Q Y L Q Q V W T K L G S S F V S L D A S R  
UniRef90\_A0A034VR28 N V D G N N E N N S T D L H F W K H V E Y I E N H G K Q D D Y E Y C M T E F L R  
UniRef90\_U5EX36 E L L F D K H V E Y I A N H G N D K N D E Y C M T E F L R  
UniRef90\_V5EEN4 M D P T R H L L I P L H V A F V E A L D K K R D S A Y H F T T H L R  
UniRef90\_I4YCM2 L L R D K H V E Y I V Q L G K D N T L G Y H L T E H L R  
UniRef90\_J7S0L9 M Q L L K E K H I A Y V K S L D S H T D D Y W L S E H L R  
UniRef90\_C5L1G6 G F M K E Q A D G S F Q L N R E A H T K F L K K A L K S L P T K Y S C L D A S R

UniRef90\_F2U489 MSGLYWCVITALELLDSDRDKLDTAAVVKFIDEFCFDDSGGFF  
UniRef90\_N1PQH3 PWFYWMAGLSFLDEEDVSHYKERLINTVIRPLQNDPTGGGF  
UniRef90\_O93830 MNGLYWGVITALEITMNEGLSALAQQDVIINDYIMLFCWDDKDTGGF  
UniRef90\_UPI00044138B4 AWMFYWLLQTSFSLGLVGVLDLPAASKQRRAINTIMRFYQPDGGGF  
UniRef90\_G7E4K1 MNGLYWGLTALAFLLNRKLDALPRQDMLDWVMAFCWDDKGGF  
UniRef90\_B0D5U4  
UniRef90\_B0D5U4  
UniRef90\_L8GK35 P W L C Y W I L S T L S T T S K P P T K S M T S R V V D F L K R C Q A P T G G G F  
UniRef90\_G4MQQ5 L N G V Y W G L V S L H L L G Q Q P L D A L P R D A T I E K L V L S C Q H P T D N G G G F  
UniRef90\_G8ZXP6 P W L L Y W T A N S L R V L N E K L T K E Y Q F R I E K L F A I S P T G G G P F  
UniRef90\_S7PZL1 M N A I Y W G L T A L C I M G H K E A L D R E E M I D F V M S C Q W D D E G G G F  
UniRef90\_A0A024J8L9 L S G L Y W G L T A L Q M L G S P E T L P R E E V I E F V L S C Q Q H P N G G G F  
UniRef90\_A0A026WZH9 T M S G I Y W G L T A L D L M G A L E R A N K E D M L E F F I G R C Q Q N S D G G G F  
UniRef90\_W9WC25 L N G V Y W G L T A L H L L R H P D V L P R D H T L E F F V A C Q N S D G G G F  
UniRef90\_B3RPD4 I N G V Y W G I T A L C L L D Q L D Q L N K T E V I D F V K S C Q Q H P S S G G F  
UniRef90\_I1FY68 V S G I Y W C L T A M D L I G Q L D R M N K T E I L D Y V M S C F D K D G G F  
UniRef90\_C6H2L6  
UniRef90\_C6H2L6  
UniRef90\_Q6BQR7 M N G L Y W G V T A L G I M N S L D A L S R D G V V Q F V L S C W D K Q G G G F  
UniRef90\_G4T4W5 P W L M F W I I N S F Q L M G V Q L D V A T K Q R A I D T L M Q C Q S P D G G G F  
UniRef90\_B6K0M5 T W L T Y W E L V S L A L L G R L T D D D V K E Q A V H T L A T F R G P N G G G F  
UniRef90\_M3J893 T M V Y W L Y N S Y V M L D D D P F D K D L F P L I V N K V E E C Q D N G S R G G G F  
UniRef90\_R7T1W6 P W L I Y W T L H G F S I L G A G L D D Q T K K R T I E T L T A L Q H P D G G G F  
UniRef90\_C4XXU3 L N G L Y W G L T A L A T M D R L D A L P E D E V I S F V L T C F Q D D E E G G G F  
UniRef90\_A0A015JY20 P W L C F W M L Y S L D I L G D E L S Q D L V K K G I S T I T K L Q N P T G G G F  
UniRef90\_UPI0003505051 M S G V Y W G L T A M D L M G Q L H R M N K E E T L A F I K S C Q H E C G G G I  
UniRef90\_W1QB81 M N G I Y W G A C H A L F L M R A E H E R D K K T L V E F I L N C Y D R T Y G G G F  
UniRef90\_A4RTB3 A W V V Y W C V H G L A L L G V D L F R E R D E A L A S D V V R F L R T T C F G G F  
UniRef90\_W5CC15 V R A C Y T A I S V A S L V N I L D D E L A K G V G N Y I A S C Q T Y E G G I  
UniRef90\_W5CC15 V R A C Y T A I S V A S L V N I L D D E L A K G V G N Y I A S C Q T Y E G G I  
UniRef90\_R4XBR9 P W I F Y W C L N G L S L M Q G T T V D V L S K Q R L V G E S A S A C Q Q H P D G G G F  
UniRef90\_A3GH05 M N G L Y W G V V S L V I M N A L E D A L P Q N E V I D Y T L S C W D E K G G G F  
UniRef90\_C5DUT1 L N G V Y W G L T A L C L M D A K E L E N K D A L I E F V M K C Y C K S G G G F  
UniRef90\_M5E9M8 M N G V Y W G L C A L E I M H A G D A L D R D A L I E F V L S C Y Y D E T G G G F  
UniRef90\_T1KNM3 M S G I Y W C L T A I N L L G D E Y L A N H R A E I L D L I R K C Q H S S G G I  
UniRef90\_A0A016TU31 L S G I Y W C V S A V S I L N K S D A L S R D A I V E Y I R E C Q R A D G G F  
UniRef90\_U1HEF7  
UniRef90\_U1HEF7  
UniRef90\_W0T5G6 P W L L Y W I G N S L K L L N N W L T A D Y Q K R L L S Q K L W S C S P T G G G P F  
UniRef90\_J9JC04 P W F I Y W L T E A L E V L L G Y E L T T E E Q K S L C V S Q Y L R K C Q N P K G G F F  
UniRef90\_A0A059BC02 M N A V Y W G L T A L C I M G A K L D A L D K G E M I E Y V M S C Q W D D E A G F F  
UniRef90\_UPI000444A3FF P W L L Y W I A N S L S V L D N K L T D D F R T R I E E K L N A I S P D D G G P Y  
UniRef90\_I2H064 L S G M Y W G L T A L E L M N A G V L T D T Q D A I V E Y I V K C Q D P D G G G I  
UniRef90\_U4TX49 V S G T Y W C V A N M D L S K Q L P V L E R M S T E E V N Y V L G C Q R N T D G G G Y  
UniRef90\_P41992 T W I C Y W V T H R C A L L G S P P Q A D R D S I A F I A S C Q Q H P E D G G G F  
UniRef90\_E1ZTF0 M N A I Y W G L T A L C I M K H K D A L S R E E M I E F V M S C Q W D D E A G G F  
UniRef90\_K5VIB6 L S G I Y W G L V S L H L L G Q Q P D A L P R E E L L D F V F D C H H D N G G G F  
UniRef90\_F9XG08 M N G V Y W G L T A L A F M G R M D A L P R D E M I R W V M S C Q W H H E D G G G F  
UniRef90\_G0SWD5 M S G M Y W G L T A L D L M G T L Q N M D R E E T I K Y V V N C Q H H E S G G G I  
UniRef90\_E0VAW6 L S G T Y W S L T A L D L M K R L D L Y D K D G I V D L I K S C W F N P D G G G F  
UniRef90\_U6IAV0 L N G V Y W G L T A L C L D A K N T F N K Q E I I E F V R S C W W K T G G G F  
UniRef90\_C5DBA3 L N G I Y W G L T A L C I M G H Q D A L P R D E M I D F V T S C W D E E A G G F  
UniRef90\_UPI0004408064 M S G V Y W G L T A M H L L G Y E K L D V M D R D T I L G W V L S C Q K D D H G G G F  
UniRef90\_I025S5 M N G L Y W G I T A L F T L K Y E D T F N K E E V I D F V L S C W W D D H G G G F  
UniRef90\_C4R5H8 I G G A Y W S L N A L A C L G I K L P Q E K V D K L V K W I L S C Q N E D G G G F  
UniRef90\_Q241P5 I S G A Y W T L T S L D L L H A L L E T T D E N A I I S W I F S C Q H H E S G G G F  
UniRef90\_M2XHG5 L S G I F W S I T A L D L M G T L R D F N K E A I E I V K S C Q Q H S N G G G L  
UniRef90\_UPI0002658C8B M N G L Y W G V T A L I T M N E L S A L P S S E V I K Y V L S C W D E N S G G F  
UniRef90\_M3JAT6 P W M L Y W I A N S L K V L D P W L T D D K N A I Q E K I F K V P H Q D G G P F  
UniRef90\_G0W6D7 L S G M Y W G L T S L D L L G R L D V V D A D E I C D E F V Q R C W K V P D G G Y  
UniRef90\_C1FJP1 M S G T Y W V L T A L D L L D S L S E V D G D E L V D F V L S C Q W K K C G G G F  
UniRef90\_G4VI00 L S G V Y W G L T A L H L L N H P T A L P R S E T I D F V K S C Y H P S G G G L  
UniRef90\_D5GAX7 L N G I Y W G V T A L A T M N L K A L P R E N E V F D F V L S C W D R S G G F  
UniRef90\_A5DA16 G W L L F W L I N S Y S I I N G R L D A K I R D L V S N K I C R N V I D S G G I  
UniRef90\_Q6BHP7 M N G L Y W G V T A L I T M K S L N E K L P E N S V V E F I L S C W D S S G A F  
UniRef90\_A5E6U1  
UniRef90\_R4GF94 P W L M F W T F Q A F S V L Q V G L D P G N R Q Q R A I D T I L A W Q H P D G G G F  
UniRef90\_D8Q834 M S G V Y W G I G A L Q L L L G R C D Y A R Q D D V L D F V M T C Y N E D G G G F  
UniRef90\_S9UHC3 L N G V Y W G L T A L H L L N Q P E A L P R D E T I D F V L S C Q Q D N G G G F  
UniRef90\_V5FH04 L N G L Y W G L T A L H L M N R A D A L P R K E T I D F V L S C Q A E D G G G F  
UniRef90\_K1WWW94 M N A I Y W G L T A V S V M G H K D S L P R D Q M V D Y V M S C Q W D E T G G G F  
UniRef90\_M2QXA0 L S G I Y W S L T A L D L M K R L D V I D K A N V L A F V K S C Q N I D G G F  
UniRef90\_U6HT31 P W L C Y W I L H S L E L L D E P I P D S V A S D V I  
UniRef90\_UPI0002B4366B P W I L Y W S L N P L R L G F Y N V D E Y L N E Y T E A L R L R I T L P D G V I  
UniRef90\_B0EM5 T W L P Y W F L N S M Y V L K L H K I D F F K D S I I K Y L S K R I T S Y D G G Y  
UniRef90\_A2DLV2 P W I T Y W S L H S L L T L G I S L D H V S R S R A I S T L S K Y Q N A S G G G F  
UniRef90\_R9ARI4 T N G V Y W G L T A L E I M G R P P D A L D A Q A L I D Y V L S C Q W D Q R G G F  
UniRef90\_UPI0004560EBB P W L C Y W I T H S L A L L R A P F P S V E P D V N F L R A C Q S P T G G G F  
UniRef90\_I0YSP1 M N G T Y W S L T A M D L M G K L G E M D R D G I L F I K Q C Q H E S G G G I  
UniRef90\_E9FU55 M S G I Y W S L T A L D L L G Q L D Q L P R E D M I S Y F S C L S E N G G F  
UniRef90\_E4X2S6 G W M I Y W L C N S L D V S G Q P L T E E L Q G S V R R K I E R N I S E N G S D  
UniRef90\_G8YHC2 P W L L Y W V A N G L R V M N P S L R E T Q R R I Q E K V F R I N P H G G P F  
UniRef90\_C5DQ16 P W L L Y W T L H G F S I L G A G L D D V T K K R S I E T L A L A Q H P D G G G F  
UniRef90\_UPI0004623242 P W I L Y W S M H S L A L L D G E L D A T A K T R L V E T L K R C Q N P D G G G F  
UniRef90\_M7X394 T W M L Y W A M H A S D L M G H R P S V N E R S S G N D I L P S P G A T L G G G F  
UniRef90\_B7GE31 M S G I Y W G V T A L D I M N Q L D R L D R T S I D F I R R C Q C P I V G G F  
UniRef90\_A0A034VR28 M S G I Y W G V T A L D I M N Q L D R L D R T S I D F I R R C Q C P I V G G F  
UniRef90\_U5EX36 M N G V Y W G L T A L E I L G R P E V L D R Q A L I D F V F S C W N E E G G G F  
UniRef90\_V5EEN4 L N G I Y W A V T C L A L L K R P I D A L D R Q Q T I D Y V Y S C W D N K G G G F  
UniRef90\_I4YCM2 L N G V Y W G L T V L C I L G S P E T F D K D D V I A F V M S C W D N K G G G F  
UniRef90\_J7SOL9 P W F V F W I L R A L L E L L G E L D R L E V A E D V N F Q G V Y  
UniRef90\_C5L1G6

UniRef90\_F2U489 S A S Q G H D P H L L L Y T L S A V Q I L L C I Y D A M Q Q K Y V D G A C K F  
UniRef90\_N1PQH3 G G G H G Q Y S H C A G T Y A C L L A L L A A T G G E L E T V D R K A M W H W  
UniRef90\_O93830 G S F P K H D P H L L A S T Y A S A L Q V L K I Y D Q R E E S S N G N K R R E R L L K F  
UniRef90\_UPI00044138B4 G G G P N Q F P H L L A T Y A A V S A L A L V G R D G G W D Q I D R E K M Y A W  
UniRef90\_G7E4K1 R P H P G H D V N V H C T L S A V Q I L L A T H D A L H I L T P H H V I E L I V Q Y  
UniRef90\_B0D5U4 AV L L K H I P D G V I E P L P G L Q K N A H M Q F  
UniRef90\_B0D5U4 AV L L K H I P D G V I E P L P G L Q K N A H M Q F  
UniRef90\_L8GK35 G G G P G Q L P H M A P T Y A A V N A L V I I G T E E A Y S A I D R R P G L H A F  
UniRef90\_G4MQQ5 G A A P G H D A H M L S T Y A A V Q I L L A M V D A L D E L D K K G R R Q V G K F  
UniRef90\_G8ZXP6 G G G V G Q L P H L A S T Y A A I N A L A L C N G E D Y W D M V D E K A I Y D W  
UniRef90\_S7PZL1 G A H P D H D A H L L A T T S A I Q I L V T H D A L D R V D K A R V A R L V  
UniRef90\_A0A024J8L9 G S H P Q Y D P H L L Y T L S A V Q I L L F M E D A L D R I D I D K V A S F  
UniRef90\_A0A026WZH9 S A S L Q Q H D P H L L Y T L S A V Q I L L C M Y N A L D V I D I D K V V N Y  
UniRef90\_W9WC25 G A A P G H D S H M L Y T V S A V Q I L L A T V D G L E D F E R R E R I A K C K F  
UniRef90\_B3RPD4 G A S P N H D P H L L S T L S A I Q I L L T I Y D A V D E V I D V L D G A V N F  
UniRef90\_I1FY68 R P A V N H D P H L L Y T L S A V Q I L L L L Y D S V S L L I D K D R L V S F  
UniRef90\_C6H2L6 R L D R D A H I S S F  
UniRef90\_C6H2L6 R L D R D A H I S S F  
UniRef90\_Q6BQR7 G A Y P K H D A H I L S T L S A I Q I L L A V Y D S L E I L N N E Q K R Q L I E F  
UniRef90\_G4T4W5 G G G P K Q A P G L L P T Y A A V S T L A C V G H P G G W D Q I D R Q K M Y A W  
UniRef90\_B6K0M5 T N G L G H K E H I L T T Y A A V L S I C L C N N S E A Y D L I D K R R L L D W  
UniRef90\_M3J893 A G G S N Q L G H V A S S Y A G I V L T V I T K Q Y E L L D Q I R F N F Y E W  
UniRef90\_R7T1W6 A G G P G Q A H L L P T Y A A I C A F A V V G R P G E W D A L D R N K M Y N F  
UniRef90\_C4XXU3 A A F P G H D A H V I T T L S A L Q I L L L I Y N S M E V L G E E K T R R I G D F  
UniRef90\_A0A015JY20 G G G P G Q L S H A A T Y A A V N A L A T I G T K E A Y D L I D K V S K F L K I  
UniRef90\_UPI0003505051 S A S L G H D P H L L Y T L S A V Q I L L I Y E S L H V V D V N K I V E Y  
UniRef90\_W1Q8F1 G A F P K H D S H I L S T L S A L Q L L K M Y D A L D V I N D K K S Q I L Q F  
UniRef90\_A4RTB3 G G G P G Q M P H I A T T Y A A T C A L L V T I G T D E A R E A I V G A D L R A F  
UniRef90\_W5CC15 A G E P S A E A H G G Y T F C G L A A M V L L N E V I E K L D L P S L I G W V A F  
UniRef90\_W5CC15 A G E P S A E A H G G Y T F C G L A A M V L L N E V I E K L D L P S L I G W V A F  
UniRef90\_R4XBR9 G G G N G Q M A H L A P T Y A A I L A I A T L G D E S V Y S V V D R R K L Y S W  
UniRef90\_A3GH05 G A F P K H D A H I L S T T S A L Q V L K I Y D N E Q V L G E E K K E Q T A Q F  
UniRef90\_C5DUT1 G P F P R H E A H L H A T L S A I Q V L A T Y D A L P V L G S T E R R A I V Q F  
UniRef90\_M5E9M8 G S Y P R H D A H M L S T L S A I Q I L L A L K D A L P V L G S T E R R A I V Q F  
UniRef90\_T1KNM3 G P S E N H D P H L L H T L S A I Q I L L T I L D A L I E E D V V D I S K V V S Y  
UniRef90\_A0A016TU31 A P A T H H D S H L L H T L S A V Q I L L I M F E A L D S F D L D S I A D Y  
UniRef90\_U1HEF7 R L D R Q G H I D F  
UniRef90\_U1HEF7 R L D R Q G H I D F  
UniRef90\_W0T5G6 N G G K H Q L P H L L T T N Y A A I N A L I C D V E H R D D K Q E I N K Q A I Y D W  
UniRef90\_J9JC04 G G A P Y H Q S H V A S S Y A A M L A I V N I G T Q E A Y D E M I D V K G M R Q F  
UniRef90\_A0A059BC02 G G N L G H D P H L L Y T L S A I V Q V L A L F D K L D V L D I N K V T N Y  
UniRef90\_UPI000444A3FF G A H P G H D A H L L S T L S A I Q I L L V M Q D A L D R A D V D R L V Q F  
UniRef90\_I2H064 S G G I G Q L A H N A S N Y A A I N A L A L C N I N D C W D K I D R D A I H D W  
UniRef90\_U4TX49 S A C L D H D P H L L H T L S G I Q I L A M F D K L D A I D I E G V V K Y  
UniRef90\_P41992 G P A P G H D S H L L H T L S A V Q T L I F N S I E K A D A D T S E  
UniRef90\_E1ZTF0 G G G P Y Q L A H L A P T Y A A T V C L Q L A C V P P R A A V V D R P K L L S F  
UniRef90\_K5VIB6 G A H P D H D A H I H S T L S A I Q I L C V Q D A M D R L D V D R I T K F  
UniRef90\_F9XG08 G A A P R H D P H L L Y T V S A V Q V L A M L D A F D E L E N R V K M K I V A R Y  
UniRef90\_G0SWD5 A H P G H E P H I H S T L S A V Q I L A M Q D S L D V L N K D K I V A W  
UniRef90\_E0VAW6 R P S P G H D P H L L Y T L S G I Q I L L C L F D A V N R L D L N K I V E Y  
UniRef90\_U6IAV0 A P A P N H D S H I L Y T L S A I Q I L L V Y T Y D E V N Q I D S E K V I K Y  
UniRef90\_C5DBA3 S A F P G H D A H I H T T L S A I Q I L A T Y N A L D E L E G E A L K Q C I S F  
UniRef90\_UPI0004408064 G A Y P G H D A H V H P T L S A I Q I L A T Q D A L D K I D V E R V T N F  
UniRef90\_I0Z5S5 G G S E R H D S H L L Y T L S A V Q I L A L Y G A L D R V N S E Q I L T S Y  
UniRef90\_C4R5H8 G A F P R H D S H I L L S T L S A V Q I L L K T Y G Q L D L P A T K R S K L V F  
UniRef90\_Q241P5 G G N T Q H D S H I T S T H Y A I L T L I F E E L N K V D I D K V V G Y  
UniRef90\_M2XHG5 G G N V D Q D P H L L S T L S A V Q C L A L Y R R L D E L D S E K V I S Y  
UniRef90\_UPI0002658C8B S A A P R L D S H I L L Y T L S G V Q I L V T F D A L N A I N A D A V V D Y  
UniRef90\_M3JAT6 G S F P K H D G H I L L S T L S A L Q I L K I Y S P E L S L T D V Q K Q L K D F  
UniRef90\_G0W6D7 G G G V G Q L A H M A G T Y A S V N A L A V C D N I S C W D K I D R Q A L Y D W  
UniRef90\_C1FJP1 A P C V H H D A H V L Y T L S A V Q I L A L F D R M E L I D R D A I A S F  
UniRef90\_G4VI00 A P C P K H D A H L L S T L S A I Q I L L A M Y D C L N K V N V I E A V C A F  
UniRef90\_D5GAX7 G A S P G H D P H L L Y T L S G I Q I L L A T I D A L D E I D G D K V I E Y  
UniRef90\_A5DA16 G A F P R H D G H L L S T L S A I Q V L S I Y N R L D D P K V D K P A I V K F  
UniRef90\_Q6BHP7 A G G A N Q I G H A A A T Y A S I L A L V L V E D Y E L L N K I R P N L Y K W  
UniRef90\_A5E6U1 G A F P Q H D A H I L S T L S A L Q I L K I Y D N E K Q L T L G Q K S Q L V K F  
UniRef90\_R4GF94 G G G P G Q N A H L I P T Y A S V C A L A I A G R P G G W D D I D R Q K M Y D F  
UniRef90\_D8Q834 G G N A D H D S H V L Y T L S A L Q I L C I Y D A L D L L D V D R T A A W F  
UniRef90\_S9UHC3 G A A P G H D A H M L Y T V S A V Q I L V M V D G L D E L E K R G R E K V G S F  
UniRef90\_V5FH04 G A A P G H D A H I L Y T C A V Q V L A M V D G W Q E L E E R G K K A V G A W  
UniRef90\_K1WWW94 G A S P G H D A H I L S T L S A I Q I L L T M Q D A T D R L D V P R I V K F  
UniRef90\_M2QXA0 A P A P G H D S H I L S T L S G I Q I L L A M Y D E F Q S F N C N E A V K Y  
UniRef90\_U6HT31 R G S Q Q L I P L V A G C Y S G I N S A M I D I G T M S A Y Q L I N R Q S N T Y N F  
UniRef90\_UPI0002B4366B A S S P D Q K G N I I L T Y T A S V M S L A I I G T E K A F S S I N R S E I Y N F  
UniRef90\_B0EM5 G G G R G Q I S H V I L T T Y A S V M S L V I A G G P G D W D A I D R R G V Y D F  
UniRef90\_A2DLV2 G S H P G H D P H I L S T L S A I Q I L L A L K D A L P L L S E Q D G K R L L Q F  
UniRef90\_R9ARI4 G G G P M Q L P H I L A P T Y A A T S T L V T L G G Q D A L S S V D R A L L G F  
UniRef90\_UPI0004560EBB G A S V D H D P H L L Y T L S A V Q I L C I Y D A L D A I D C E K I V N Y  
UniRef90\_I0YSP1 S P A P N H Y P T I I Y T L S A I Q V L V I L E A T D K L G E K K L K V I E F  
UniRef90\_E9FU55 G I G G G K Q H V A S C Y A S L S L V I A E A Y S L G K L R N H L Y S W  
UniRef90\_E4X2S6 G G G M G Q L P H L A G T Y A A V N A L A I C D N T D C W D K I N R S S I L Y N W  
UniRef90\_G8YHC2 A G G P G Q A A H L L P T Y A A V C S F A V V G R P S E W E S I D R K K M Y D F  
UniRef90\_C5DQ16 G G G P G Q L S H L A P T Y A A V C A L A H A G P E G W R A V D R H G M Y R F  
UniRef90\_UPI0004623242 G G G P G Q M P H A A T T Y A A V L A L N H A V S E S A M K L L Q R I R V Y S W  
UniRef90\_M7X394 A P C E G H D P H I L Y T L S A I Q I L C I Y D A L N E I D C A V I R Y  
UniRef90\_B7GE31 S P C I G H D P H I L Y T L S A V Q I L C I Y D C L N E V N V K A I A K Y  
UniRef90\_A0A034VR28 G S F P G H D A H V H S L S A I Q I L A M K D A L D E L D T R G R L V K F  
UniRef90\_U5EX36 G S H P N H D S H M L S T L S A I Q V L A T H D A I Q E S G I D T S K V I N Y  
UniRef90\_V5EEN4 A P F P R H D S H L L S T L S G L Q I L A T L G G L D N V D Q L K L C L K F  
UniRef90\_I4YCM2 F F S E Q S L D I G R F X X F  
UniRef90\_J7S0L9  
UniRef90\_C5L1G6

UniRef90\_F2U489  
UniRef90\_N1PQH3  
UniRef90\_O93830  
UniRef90\_UPI00044138B4  
UniRef90\_G7E4K1  
UniRef90\_B0D5U4  
UniRef90\_B0D5U4  
UniRef90\_L8GK35  
UniRef90\_G4MQQ5  
UniRef90\_G8ZXP6  
UniRef90\_S7PZL1  
UniRef90\_A0A024J8L9  
UniRef90\_A0A026WZH9  
UniRef90\_W9WC25  
UniRef90\_B3RPD4  
UniRef90\_I1FY68  
UniRef90\_C6H2L6  
UniRef90\_C6H2L6  
UniRef90\_Q6BQR7  
UniRef90\_G4T4W5  
UniRef90\_B6K0M5  
UniRef90\_M3J893  
UniRef90\_R7T1W6  
UniRef90\_C4XXU3  
UniRef90\_A0A015JY20  
UniRef90\_UPI0003505051  
UniRef90\_W1Q8F1  
UniRef90\_A4RTB3  
UniRef90\_W5CC15  
UniRef90\_W5CC15  
UniRef90\_R4XBR9  
UniRef90\_A3GH05  
UniRef90\_C5DUT1  
UniRef90\_M5E9M8  
UniRef90\_T1KNM3  
UniRef90\_A0A016TU31  
UniRef90\_U1HEF7  
UniRef90\_U1HEF7  
UniRef90\_W0T5G6  
UniRef90\_J9JC04  
UniRef90\_A0A059BC02  
UniRef90\_UPI000444A3FF  
UniRef90\_I2H064  
UniRef90\_U4TX49  
UniRef90\_P41992  
UniRef90\_E1ZTF0  
UniRef90\_K5VIB6  
UniRef90\_F9XG08  
UniRef90\_G0SWD5  
UniRef90\_E0VAW6  
UniRef90\_U6IAV0  
UniRef90\_C5DBA3  
UniRef90\_UPI0004408064  
UniRef90\_I025S5  
UniRef90\_C4R5H8  
UniRef90\_Q241P5  
UniRef90\_M2XHG5  
UniRef90\_UPI0002658C8B  
UniRef90\_M3JAT6  
UniRef90\_G0W6D7  
UniRef90\_C1FJP1  
UniRef90\_G4VI00  
UniRef90\_D5GAX7  
UniRef90\_A5DA16  
UniRef90\_Q6BHP7  
UniRef90\_A5E6U1  
UniRef90\_R4GF94  
UniRef90\_D8Q834  
UniRef90\_S9UHC3  
UniRef90\_V5FH04  
UniRef90\_K1WWW94  
UniRef90\_M2QXA0  
UniRef90\_U6HT31  
UniRef90\_UPI0002B4366B  
UniRef90\_B0EMY5  
UniRef90\_A2DLV2  
UniRef90\_R9ARI4  
UniRef90\_UPI0004560EBB  
UniRef90\_I0YSP1  
UniRef90\_E9FU55  
UniRef90\_E4X2S6  
UniRef90\_G8YHC2  
UniRef90\_C5DQ16  
UniRef90\_UPI0004623242  
UniRef90\_M7X394  
UniRef90\_B7GE31  
UniRef90\_A0A034VR28  
UniRef90\_U5EX36  
UniRef90\_V5EEN4  
UniRef90\_I4YCM2  
UniRef90\_J7S0L9  
UniRef90\_C5L1G6

170 180 190 200  
I A A L Q R E D G G S F Q G M A D E W G E V E D T R F S F C A L A S L L G K L D A I  
L T G L V K Q Q D D G S F R M A I G A G E E D T R F G A Y Y C A M T A I S L L L N L P L G L  
F M S L L K Q Q P D D G S F Q G M A D E W G E V E D T R F G A Y Y C A M T A I S L L L N L P L G L  
I L S L L Q Q D E T G F S F A G D S E W G D E V E D T R F S Y C A V S T L A V L L L N Q L H R P L  
L I R N L V Q G F P T R Y T S Q D A S Q Q P W L M F W T I Q A F S V L V Q Q G L D D P G G  
L L A R K R P D D G S F T M H E D G E V E D T R F G T Y C G L L A A A S L L A N V L L T D E V  
I A D L Q N R N G T F A G D E W G E V E D T R F G L Y G A L N A L S L L A N G L L E M D E  
I L S L L Q Q P S G G V F A G D S F G G E V I D T R F S Y C A V N S L A S L M L G G C L S D L V  
V A S L L Q Q E A D D G S F Q G D Q Q W G E V I D S R F V F T A I Q T L S L L L D R R L S L V  
V R D R Q Q Q D D G S F T G D Q Q W G E V I D S R F V F T A I Q T L S L L L D R R L S L V  
I A G L Q Q N E T D G S F A G D E W G E T D T R F L Y G A F N A L S L L L N M M H L V  
I H C Q Q Q N D D G S F S G D K R W G E V I D N R F S F C A A C L A L S L L L G R L D A V I  
V S K L Q Q P D D G S F V G L D R W G E V D T R F S F C A L A T L S L L L G R L D A V I  
L Y S L L E S Y P E R F V G L D S S R P W M V Y W A L T G L Y L L L G E D V T K  
L R S L L E S Y P E R F V G L D S S R P W M V Y W A L T G L Y L L L G E D V T K  
I R G L Q Q N G C F Q G D S F G E T D T R F V Y T A I Q A L I L L G E L L T Q E  
F M S L L K Q P D D G S F L V S R N A E I D V R A L Y S L L V T A T L L D M M T P E  
L M S L L K R N A D D G S F R V H E D E G C D S R A S Y A A V C L A Y L V D G V N P H  
L M K L L K L P N G S F M M H E D G S D T R S T Y C L V I A N L L N I A T D E  
F M S L L K Q A D D G S F L V S H H G E V I D V R G I Y C L L V V A T L L N L I T P E  
V L S L L Q Q L P D G S F K G D E F T F I D T R F V F V S L Y L L T L L N G R T E P E  
K N K L Q Q E D D G S F A G D K W G E I E D T R F S F C A A A T L A L L L G K L D A I  
V Q S L L Q K E D D G S F A G D K W G E I E D T R F S F C A A A T L A L L L G K L D A I  
I K G L L K L P R G G F R Q Q G D R F G E V E D T R F V Y T A I Q S L S L L L G S L S P D E  
L L S L L K K D S R G G F R Q Q G D R F G E V E D T R G C Y A A L A T A H L C G V L D E E  
R Q Q G V E C G G F Q G R T N K L V D G C Y S F W G A A I A L A Q K L M A G S S  
R Q Q G V E C G G F Q G R T N K L V D G C Y S F W G A A I A L A Q K L M A G S S  
I M S L L K Q G D D G S F Q G D R F G E V E D T R F I Y T A M L S L L L D E L T T P E  
I K G L L Q L S D D G S F Q G D R F G E V E D T R F I Y T A M L S L L L D E L T T P E  
I R G L L Q L S D D G S F Q G D R F G E V E D T R F I Y T A M L S L L L D E L T T P E  
V L S L L Q Q R P N G S F Q G D R W G E T D T R F V Y C A V S L S A L A H L D G K L D Q L  
V K S L L Q Q E D D G S F F G D K W G E I D V R F S F G A I A T L S L L L D K L D E I  
V R R L Q Q N E D D G S F G G D V S N E V D T R F S F C A V A T L Y L L L N G R L H V I  
L H S L L R E F P A G F V A V D A S R P W M V Y W A L T M G L Y L L L G E D V T Y  
L H S L L R E F P A G F V A V D A S R P W M V Y W A L T M G L Y L L L G E D V T Y  
L L S L L K T D D G A F Y T V P V G E Q D V R G V Y A A L T V A S L L L G I M D E D E K  
L G S V K N N P G S F I V H T N G E I D M R G V F C S M V I A D L N I L D D E D  
I R A L L Q N E D D G S F S G H I W G E I D T R F S Y C A T C C L A L L K R L D S L  
I L S L L Q S S G V F A G D S F G E I D T R F S Y C A V N A L S L L L Q L D K L  
L L M L K Q S N G G F K T C L E G E I D T R G V Y C A L S I A S L L L N I L T P E  
V Q K L L Q Q F D D G S F S G D K W G E V D T R F S F C A V M L L S L L L N R M S A T L  
V K G L L Q Q E D D G S F C G D H E S G E V D T R F T C L C S A L A T C H L G R L S T S  
L L Z R M C V P G G G M T M H L S G E V D T R V G C A L A T A C E M L L L D K S S A  
L L S L L Q K P S G G V F A G D K Y G E V D S R F S Y C A V N A L A L L G R L H E L  
L A G L L Q Q P N G S F A G D C Y G E V D T R F L Y A A L N A L S L L L N M L P A I  
V L S L L Q Q P R G S F A G D E W G E Q D S R F S C C A V G L L S L L L N G R L D D I  
I Q K L L Q Q D D D G S F S G D K W G E I D T R F S F C A V A A L S L L I G K L D A I  
I S S L L Q Q N S D D G S F N G D K W G E V D S R F S F C A A S L S L L L G V I T E G V  
I K D N Q Q L P D D G S F Q G D R F G E V D A S R F V Y S A I N A L S L L L G E L T P E  
L L S L L Q Q L P S G A F A G D R F G E T D T R F L Y C A V N A L S L L L G Q L S T L V  
V S S L L Q Q Q D D G S F A G D S F G E I D T R F S Y C A L S C C L S L L L G N L Q A V  
V K G L L Q K D D G S F A G D R F G E V D T R F V Y T G L S C L S L L L G E L T P E  
I K S L L Q Q K E D D G S F M G D T W G E V D T R F S Y C A L S S L A L F N R L N E I  
I A S L L Q Q S D D G S F M G D V W G E V D S R F T Y A A I C L C L I L K R L D V I  
V C S L L H Q L S D D G S F F G D K W G E V D T R F S L C A V A T L A L S L L L K R L D A I  
I T I G L Q Q L P D D G S F Q G D R Y G E V D T R F V Y T A V S A L S L L L G E L S D E  
L L A L L K Q P D D G S F K T C L E G E A D T R G V Y C A L T L A S L L L N L T D E  
L N S L L Q R E D G A I M G D E W G E I D T R F A Y C A L S T L I D R P R C I  
V S K L L Q Q P D D G S F A G D I W G E I D T R F S F C A V A T L H I L L G M L S K I  
V S K L L Q Q N P D D G S F S G D E R F G E V D S R F V Y C A L S T L S L L L G R L G D V  
I K E L L Q Q L E N G S F Q G D R F G E V D T R F I Y T A I S A L S L L L G E L T E V  
F L S L L K M P N G S F I M H Q N G E S D T R S T Y C V L V V A S L L L N I L T T D  
I K D L L Q Q P N G S F Q G D G F G E V D S R F T Y T A V S A L S L L L G E L T P P A  
M H V G G E V D S R A Y C A A A V A S L T N I L T P P A  
F M S L L K Q P D D G S F L V S R N A E V D V R G I Y C L I V T A T L L D I L C T P E  
I A G M L Q Q Q D D G S F C F K G D K W G E V D T R F V Y G L L S A L Q L L G R L H L A  
I A G L L Q Q D E T G T F K G D E W G E T D T R F L Y G A L L L G L S L L L G L L D R V  
I A G L L Q Q N K T G T F A G D E W G E E D T R F I C S S L L I G L S L L L K L L Q L A  
I V S L L Q Q P S G G V I A G D S F G E I D T R F F C C G L L A L S V L L H L H E L  
I S A L L Q N P D D G S F V I N G D R W G E V D S R F S F C A L A A L S L L L G I E G V  
L R R C Q S P Q G G F G G G P G Q H P H L A P T Y A A V N A L C I I G  
L L S R K F P D D G S F F E M C A D S G I D T R A T Y C A I S T A Y V L N L L D D N  
L K Q S K Q P D D G S F S A G A L E S D S R S T Y C A A I C V A S L L L N M L T P E  
L M R V K Q Q D D G S F I V H E G G E V D V R G C Y C A L A V A T L L D L T P P E  
I V G L L Q Q L P R Y A V L Q G D K W G E V D T R F L Y C A V S A L A H L G A L G R F A  
I K R M C K V R Y A V L N M H A G G E V D C R G C Y T A V A T L H H L N M D K A  
V K K L L Q N D D D G S F C G D Q W G E V D T R F S M C A V A C L A L L G R L D A I  
V K S L L Q N S D D G S F I G S P D D E S D T R F S F C A I A T L K L L N S L D D E I  
F L K L L K R K D D G S F S M H Y G E S D T R S V Y C A V L S A T L L G L L D E R  
L L T L L K R E D D G S F Q T C F R G E Y D T R G V Y C A I S V A S T L L G L L T Q E  
F M S L L K Q P D D G S F L V S H H G E V D V R G C Y C A L A V A T L L N L L T P P E  
L L S L L K Q P D D G S F I M H E H G G E V D V R G C Y C A L A V A T L L N I L T P P E  
M L S L L Q Q E P D D G S F R M Q H D G E I D V R A T Y C V L A V A K L L N L C C T E  
V S G L L Q Q F D D G S F F G D K W G E V D T R F S F C A A I L T L L G R M E S I  
V N S L L Q Q P D D G S F F G D K W G E V D T R F S F C A V A I L A L L D K M E S I  
L L E L L Q Q L P N G A I Q G D Q W G E T D T R F L Y C A V S A L A H L D E L D K L  
I L S L L R P K N G S F F T G D E W G E S D T R F T Y C A V S A L S L L L G A L H K L  
I S S N Q L E D D G S F Q G D R F G E V D A R F S Y N A L S C L S L L L G E L T P P E  
L I S M K D S T G G F R V H E N G E T D M R G C Y C A I A V A K M M K L L T P E

UniRef90\_F2U489  
UniRef90\_N1PQH3  
UniRef90\_O93830  
UniRef90\_UPI00044138B4  
UniRef90\_G7E4K1  
UniRef90\_B0D5U4  
UniRef90\_B0D5U4  
UniRef90\_L8GK35  
UniRef90\_G4MQQ5  
UniRef90\_G8ZXP6  
UniRef90\_S7PZL1  
UniRef90\_A0A024J8L9  
UniRef90\_A0A026WZH9  
UniRef90\_W9WC25  
UniRef90\_B3RPD4  
UniRef90\_I1FY68  
UniRef90\_C6H2L6  
UniRef90\_C6H2L6  
UniRef90\_Q6BQR7  
UniRef90\_G4T4W5  
UniRef90\_B6K0M5  
UniRef90\_M3J893  
UniRef90\_R7T1W6  
UniRef90\_C4XXU3  
UniRef90\_A0A015JY20  
UniRef90\_UPI0003505051  
UniRef90\_W1Q8F1  
UniRef90\_A4RTB3  
UniRef90\_W5CC15  
UniRef90\_W5CC15  
UniRef90\_R4XBR9  
UniRef90\_A3GH05  
UniRef90\_C5DUT1  
UniRef90\_M5E9M8  
UniRef90\_T1KNM3  
UniRef90\_A0A016TU31  
UniRef90\_U1HEF7  
UniRef90\_U1HEF7  
UniRef90\_W0T5G6  
UniRef90\_J9JC04  
UniRef90\_A0A059BC02  
UniRef90\_UPI000444A3FF  
UniRef90\_I2H064  
UniRef90\_U4TX49  
UniRef90\_P41992  
UniRef90\_E1ZTF0  
UniRef90\_K5VIB6  
UniRef90\_F9XG08  
UniRef90\_G0SWD5  
UniRef90\_E0VAW6  
UniRef90\_U6IAV0  
UniRef90\_C5DBA3  
UniRef90\_UPI0004408064  
UniRef90\_I025S5  
UniRef90\_C4R5H8  
UniRef90\_Q241P5  
UniRef90\_M2XHG5  
UniRef90\_UPI0002658C8B  
UniRef90\_M3JAT6  
UniRef90\_G0W6D7  
UniRef90\_C1FJP1  
UniRef90\_G4VI00  
UniRef90\_D5GAX7  
UniRef90\_A5DA16  
UniRef90\_Q6BHP7  
UniRef90\_A5E6U1  
UniRef90\_R4GF94  
UniRef90\_D8Q834  
UniRef90\_S9UHC3  
UniRef90\_V5FH04  
UniRef90\_K1WWW94  
UniRef90\_M2QXA0  
UniRef90\_U6HT31  
UniRef90\_UPI0002B4366B  
UniRef90\_B0EMY5  
UniRef90\_A2DLV2  
UniRef90\_R9ARI4  
UniRef90\_UPI0004560EBB  
UniRef90\_I0YSP1  
UniRef90\_E9FU55  
UniRef90\_E4X2S6  
UniRef90\_G8YHC2  
UniRef90\_C5DQ16  
UniRef90\_UPI0004623242  
UniRef90\_M7X394  
UniRef90\_B7GE31  
UniRef90\_A0A034VR28  
UniRef90\_U5EX36  
UniRef90\_V5EEN4  
UniRef90\_I4YCM2  
UniRef90\_J7S0L9  
UniRef90\_C5L1G6

N V D A A V Q H V L R C L N F D G G G F G V G T E S E S H A G Q L Y C C V G V L T  
F T D G L G E W I G R C C Q N Y F E G G G F S G A P T S N E S A H G A Y A F C C A L V A G L S  
L I A D T A S A F I M S Q C C Q N Y F E G G G F S G A P T S N E S A H G A Y A F C C A L V A G L S  
L I A G L P E F I A M S Q C C Q N Y F E G G G F S G A P T S N E S A H G A Y A F C C A L V A G L S  
D K Q K T A S W I E R C C Q N Y F E G G G F S G M T E S G A E S H A A Y V W T C C V A G A L A  
N K Q R A I D T I M A W Q H P D D G G G F G G G G P K Q A A A H L L P T Y A A A V C C S L A L A  
N K Q R A I D T I M A W Q H P D D G G G F G G G G P K Q A A A H L L P T Y A A A V C C S L A L A  
L V A G T P E Y L A S C C Q T Y F E G G G M G G E P P G N E A S H G G Y A Y C C V V S A L S  
D V G K A V D F H I V A C C Q N S F D D G G G F G G N R P H D E A H S G Q I F C C A V S A S L S  
L T E G V V D F L V D C C Q N S F D D G G G F G G C C P H D E A H S G Y T F C C A V S A S L S  
D V I E K T V S V Y I R A C C R N Y F D D G G G F G N C I G A E T H A G Q V F V C C V V A S L S  
N T D K T V E W I L R C C Q N Y F D D G G G F G L V P G A E S H A A Q I F V C C V G L T L S  
D V I E K A V Q F V L R C C M N F D D G G G F G S K P E S E S H A G L I Y C C C V G L T L S  
D V N K A V S Y I Q A C C A N F D D G G G F G R S P P G E S H S A Q I Y F T C C V G L T L S  
N V D S A I D F L S C C C M N F D D G G A F G G C K P G S E S H A A Q V Y C C V G L T L S  
D I E K S V D F L S C C M N F D D G G F G G V I P G S E S H A A G V Y C C V G L T L S  
F R E R V I A T A A P M Q N S T G G G F G G G H G Q M S H C A S S Y A L V L S L A L A  
F R E R V I A T A A P M Q N S T G G G F G G G H G Q M S H C A S S Y A L V L S L A L A  
V I D P A V N F I A S K C E N F D G A F G G M L P G A E S H A A Q V F T C C V L G T L A  
L V A G T A S F I A S T Q T Y E G G G F A S T S A G T P E A H G G Y A G C C A I L A S W V  
L F D G T L D W L L Q C C Q T Y E G G G F A G N P N T E A H G G Y T F C C A V L A S I S  
L L E G V E D W I D L C C Q T Y E G G G F S N I P N T E A H G G Y T F C C A V L A S Y F  
L L A G V P D F L A T C C Q T Y E G G G F G S F P G W E A H G G Y T F C C A T A S W V  
L T M D S A A S F I L D C C Q N Y F D D G G F G M Y P G A E S H A A Q M Y T C C I G A L A  
L T A G T A E W I K R C C Q N Y F D D G G F G G E P P G I E G H G G Y T F C C V L G A M E  
D V I G K A V E F I V L S C C M N F D D G G G F G C R P P G S E S H A G Q I Y C C C T G F L A  
V V D P A V S D F I L R C C Q N Y F D D G G F G L V P G S E S H S A Q I F T C C V L G T L A  
L T R G V S D F V A S C C Q S Y E G G G F G G E P P R G E A H G G Y T F C C G L A C A  
D E Q S K Q S Q P S K L S S V D D S C C G T S S A S E K S S V V D Y A K I G F D D F  
D E Q S K Q S Q P S K L S S V D D S C C G T S S A S E K S S V V D Y A K I G F D D F  
M V T G T Q D W L S K L Q R Y E G G G F S G L H N A E S H A A Q V F T C C V L G A L S  
I T D P A T K F V M A C C Q N F D G A F G M L P G A E S H A A Q V F T C C I G A L A  
V V D P A V S F I M R C C Q N F D D G G F G L C P G A E S H A A Q C C V C L G A L A  
D H E K T I S W I L R C C A N M D D G G F G L T E G A E S H A A Q V F T C C V L G A L S  
N V I E K A V D F I M K C C N N F D D G G F G S R P P G S E S H A G L V Y C C A L G A L A  
D V I G K A V K Y V L S C C Q N F D D G G F G T R P P G S E S H A A Q V Y C C C L G T L C  
Y R E R V I T T F A P M Q N A S G G G F G G G H G Q Y S H L A G T Y A V V L S L A  
Y R E R V I T T F A P M Q N A S G G G F G G G H G Q Y S H L A G T Y A V V L S L A  
L T D G V T D F L T R C C Q S Y E G G G F G C C P G G E A H G G Y T F C C A V A S L A  
L I K G V G D F I S S C C Q T Y E G G G F S C V P L G E A H G G Y T F C C G L A L I  
N V I E K A V R Y I V S C C K T L D D G G F G C C T P G A E S H A G Q I F C C C V T A L A  
D K E R L V E Y I R R C C Q N F D D G G F G G V I D A E S H A A Q V F V C C V T A L A  
L T D T G V L Y I S C C Q S Y E G G G F G A T P L A E S H H G G Y T F C C G V A S L A  
K V I Q K A V K F V L K S C C K N F D D G G F G S R P P L A E S H A G L T Y C C C V G F L S  
N I D S A V R F I L M R C C Q N T D D G G F G T R P P L A E S H S G Q I Y C C C V G A L A  
V A D G M V D Y I C R C C Q S H E G G G F G G E P P W N E A H G G Y T F C C G L A A A  
D T E K T V D Y I R R C C K N F D D G G F G A V I G A E S H A A Q V F V C C T A A L A  
D V I T A A T N Y I K S C C Q N F D D G G F G V A P G A E S H S G Q V F T C C V S T L A  
D K E V T V D F I R N C C Q N F D D G G F G R V E G A E S H A S Y V W T S V S T L A  
N V N K A V E F V L S C C M N F D D G G F G S R P P G S E S H A G L I Y C C V I G F L S  
D I Q M A V N F I V A C C Q N P D D G G F A T R P P G S E S H A A Q A Y C C V I G A L S  
V V D P A V A F I K R C C Q N F D D G G F G L C P G A E S H A A M A F T C C I G A L A  
D K D G A I A H I V I Q C C R N F D D G G F G T S P G A E S H A A Q V F V C C V I S A L A  
N V P R A V S Y I V S C C Q N F D D G G F G C S A G N E S H A A Q V F C C C V A A L H  
V V D P A V E F I A Q C C Q N F D D G A Y G M V P G A E S H A A Q V F V C C V A A L A  
N V Q K A A E Y V L R C C R N F D D G A F G G S P D A E S H G A Y I F T G V G A L T Y  
R V D K A V E F V I S C C L N F D D G G F G C L P G A E S H S G Q V Y C C C I G A L Y S  
D I E S T T N Y I L S C C M N F D D G G F G R R P H S E T H A G Q V Y C C C I A T L S  
I G D R A S R F I M R C C F N F D D G G F G L V P G S E S H A A Q V F T C C V L G T L A  
L R E G T V I E W I V K C C Q N Y F E G G G F G S D P E D E A H G G Y T F C A V A S L A  
D R G K V V E W I D K C C K N F D D G G Y G S P G G E S H A G Q V F T C C V A S G L A  
D I E A C A S Y L E K C C Q N L D D G C F G T R P G S E S H A G Q A Y C C V I G A L A  
S A E G A V D F V L R C C L N A D D G G F G M A P A A E S H A A Q V F T C C V G A L K A  
M S R P A V D F I L Q N F D D G G F G M V P G A E S H A A Q V F T C C L A T L A  
L C E G T L Q W L N S C C Q T F E G G G F A G V P N T E A H G G Y T F C C G M A S Y F  
L C D T A A K F I M D C C Q N F E G G G F G L V P G S E S H A A Q G F V C C V G A L A  
L F T G T A E W I A R C C Q N W E G G G F G V P G M E A H G G Y T F C C G L A L V  
L V I E G T A S F V A S C C Q T Y E G G G F S S A S Q P E A H G G Y T Y C C S L A A W T  
N V I E K A V S W V L Q C C A N W D D G G Y G V L P G A E S H A A Q Q I E C C C V A L A C  
D V P K A V S Y V Q Q C C A N L D D G A Y G V R P P G A E S H A G Q V L T C C C V A L A  
D V P L A V A Y I T S C C A N F D D G G Y G V S P G A E S H S G Q I Y A C C V A A L A  
D V D S A A G Y I R R C C K N F D D G G Y G A R E G A E S H A A Q V F V C C V A L A  
D I C M A E Y L V R C C Q N P D D G G F G T R P G S E S H A A Q V A V I G A L S  
T E E A F S V I D R S G A G Q E A H G G Y T F C C G V A A L V  
L K E G V A E W L L K C C Q T Y E G G G F S G C P G G E A H G G Y S Y C C A V A L A  
L I E G T V I E F L I S C C Q Q Y F D D G G F P R A H C E T H G G Y S F C C A V A L A  
L L H N V E K F V L A S C C Q T F E G G G F S A C S F G E A H G G Y T S C C A L S A L T S  
N R T A G M E N H I L R C C H N Y F E G G G F G L C C Q Q G E A H S G Q V I F V C C I A A L S  
V L Q A M A E F I G R A C C Q T Y E G G G F G G E P P G N E A H G G Y T F C C G L A A L V  
N I D N A V N F V I S C C M N F D D G G F G C R P P G S E S H S G Q V Y C C C V G M L S  
D T S K T V D H I K A C C Q N F D D G A F G V R V G S E S H A A Q V F C C C V G T L A  
L S E G V I E W L N R C C Q T Y E G G G F A G V P G T E A H G G Y T F C C A L A S Y L  
L C E N V V E F L V H C C Q N Y E G G G F G G V P H D E A H G G Y T F C C A V A S L A  
L L A G V P D F I A T C C Q T Y E G G G F G S F P G W E A H G G Y A F C C A T A S W V  
L A S G T A S F I A S C C Q T Y E G G G L A A A P L G E A H G G Y A F C C A A S W S  
T L N K V V E S V V R C C Q T F E G G G F G G E P W T E A H G G Y T F C C A V A A L Q  
N V D R A I K F V M S C C C N Q D D G G F G S K P G A E S H A G L I Y C C C V G F L S  
N I E K A V N F V M S C C S N S D D G G F G S K P N A E S H A G L I Y C C C V G F L S  
D R G L T I E H I L S C C H N P D D G G F G T G P G A E S H A A Q A W V C I G A L S  
D K D R I V D W F K Q C C M N F D D G G F G N I S A E T H S G Q V F T A V A A L A  
V V D P A V N F V L R C C Q N F D D G G F G L S P G A E S H A S M A F T C C L G A L K  
L E E G V V G Y I R R C C Q T W E G G L A G E P G L E A H G G Y G F C C G L A A M

UniRef90\_F2U489 I A N R L Y S I D Q T K L G L W L S Q R Q T N P E R S G G G F F A N G R T P E K L P D V C Y  
UniRef90\_N1PQH3 I T D A P H Y L L D D V H A L L R W L S G R Q Q T N P E S G G G F F A N G R T P E K L P D V C Y  
UniRef90\_O93830 I M N K L D L K L D D L V R E K L L D W L T E N M Q Q T V L P E L G G G F F A N G R T P E K L P D V C Y  
UniRef90\_UPI00044138B4 L L R P F P K L I D D L R M L M R W L A E N M Q Q T V L P E L G G G F F A N G R T P E K L P D V C Y  
UniRef90\_G7E4K1 L L G R R L D I V D D R D T L S W W L C E R Q Q L P L E N G G G F F A N G R T P E K L P D V C Y  
UniRef90\_B0D5U4 I V G R P D Q I D D R E K L Y K F F M S L K Q Q K E D D G S F L V S H H A E V D V R Y  
UniRef90\_B0D5U4 I V G R P D Q I D D R E K L Y K F F M S L K Q Q K E D D G S F L V S H H A E V D V R Y  
UniRef90\_L8GK35 I L G E L R R L D D L P A L L K W T C E R Q Q M R F E G G G F Q G R T P E K L P D V C Y  
UniRef90\_G4MQQ5 I A G R A L D L V D D T D K L G R W L S E R Q Q L A G G E G G G L N G R S P E K L Q E D V C Y  
UniRef90\_G8ZXP6 I L D R L D L V D D T D K L G R W L S E R Q Q L D P E N G G G L N G R S P E K L Q E D V C Y  
UniRef90\_S7PZL1 I L D R L D L V D D H E T L G W W L A E R Q Q L P L E N G G G L N G R S P E K L P D V C Y  
UniRef90\_A0A024J8L9 I L N K L D L L D D A D T T C W W L A E R Q Q T K P S S G G G L N G R S P E K L P D V C Y  
UniRef90\_A0A026WZH9 L P G H L H L L D D A D R L G W W L C E R Q Q L P L E N G G G L N G R S P E K L P D V C Y  
UniRef90\_W9WC25 I A R R L D L V D D H E R L A A W L S E R Q Q L P L E N G G G L N G R S P E K L P D V C Y  
UniRef90\_B3RPD4 I T G R L D L V D D A L G W W L S E R Q Q L P L E N G G G L N G R S P E K L P D V C Y  
UniRef90\_I1FY68 I C K R L D V I N N A D Q L G W W L C E R Q Q L P L E N G G G L N G R S P E K L P D V C Y  
UniRef90\_C6H2L6 L V G A F K L I N R T A M W Q W L G K L K Q A D D G G F Q V T L G G E E D V R G  
UniRef90\_C6H2L6 L V G A F K L I N R T A M W Q W L G K L K Q A D D G G F Q V T L G G E E D V R G  
UniRef90\_Q6BQR7 I T N S L K L V N D V K L G N W L S E R Q V L P L E N G G G F F N G R T P E K L P D V C Y  
UniRef90\_G4T4W5 L L K P F M T L N V D K F L R W L V W M Q Q G E Q Y G G G F R G R S T N K L P D N C Y  
UniRef90\_B6K0M5 V L N G S S R V R R I P L A R W L T Q R Q D A T L G G G F R G R T N K L V D G C Y  
UniRef90\_M3J893 L L H S K I P F S L D L T R W C V I R Q Q H E L E G G G F D G R T N K L V D A C Y  
UniRef90\_R7T1W6 L L Q P E P K I N T R A L L R W C V Q M Q P I E L G G G F K G R T N K L V D G C Y  
UniRef90\_C4XXU3 I C D R L D S V S P R T A N W L S E R Q Q V L P S E G G G F Q G R P E K L P D V C Y  
UniRef90\_A0A015JY20 I M G K T D L Q I N V D L L G W W L C E R Q Q L P L E N G G G L N G R S P E K L P D V C Y  
UniRef90\_UPI0003505051 I T D Q L H K L N V D L L G W W L C E R Q Q L P L E N G G G L N G R S P E K L P D V C Y  
UniRef90\_W1Q8F1 I A G Q V D K I D R E A L E W W L S E R Q Q V L P E N G G G F F N G R T P E K L P D V C Y  
UniRef90\_A4RTB3 L A G D I G A L D L A S L E R W L A N R Q G E I E N G G G F F N G R T P E K L P D V C Y  
UniRef90\_W5CC15 M K Q S P L F H N I A L Q Q Y I L L C A Q V P P E E G G L R D K P G K N R D H Y H  
UniRef90\_W5CC15 M K Q S P L F H N I A L Q Q Y I L L C A Q V P P E E G G L R D K P G K N R D H Y H  
UniRef90\_R4XBR9 I L G D P K E Y D I P A L A Y W L S T R Q M P V E G G G F R G R T N K L V D G C Y  
UniRef90\_A3GH05 V T D N L H L L D D D T K L N W L S E R Q Q V L P S E G G G L N G R S P E K L P D V C Y  
UniRef90\_C5DUT1 I V G R L N E L D Q L E K T G W W L C E R Q Q V P P E G G G L N G R S P E K L P D V C Y  
UniRef90\_M5E9M8 I L Q A L H R R L D Q D T L A W W L A E R Q Q V P G G G G L N G R S P Q K L E D V C Y  
UniRef90\_T1KNM3 L T G F L D K I D A D L L G W W L C E R Q Q L P L E N G G G L N G R S P E K L P D L C Y  
UniRef90\_A0A016TU31 I T G R L E S I D R D R N A E W L A Q R Q C A S G G G L N G R S P E K L P D V C Y  
UniRef90\_U1HEF7 L V G A Y S L I D R E N M W K W L G R L K K A N G G G F E V C E G G E V D V R G  
UniRef90\_U1HEF7 L V G A Y S L I D R E N M W K W L G R L K K A N G G G F E V C E G G E V D V R G  
UniRef90\_W0T5G6 L L D A L D K I N I Q D L M S W C S S R Q A R E E E R G G F N G R S N K L V D S C Y  
UniRef90\_J9JC04 L L K E S J K K L N Q D R L I E W L A N R Q L T E E G G G F N G R S N K L V D S C Y  
UniRef90\_A0A059BC02 I T G S L H H I D K D L L G W W L C E R Q Q V K P S E G G G L N G R S P E K L S D V C Y  
UniRef90\_UPI000444A3FF I L D R L D V I D E P M L A W W L A E R Q Q L P S E G G G L N G R S P E K L E D V C Y  
UniRef90\_I2H064 I L N G L D K I N I N K L L Q W C S S K Q C L P S E N M G G F C G R S N K L V D G C Y  
UniRef90\_U4TX49 I T K R F D V L D I D N L A W W L C E R Q Q N P S S G G G F N G R S P E K L P D V C Y  
UniRef90\_P41992 I A G R L D E I D R D R T A E W L A F R Q C D S G G G F N G R S P E K L P D V C Y  
UniRef90\_E1ZTF0 L L G K A H A L D D R L R W A V R C Q G Q V E S G G G F M G R T N K L V D G C Y  
UniRef90\_K5VIB6 I L D R L D V I D Q D T L A W W L A E R Q Q L P L E N G G G L N G R S P E K L E D V C Y  
UniRef90\_F9XG08 I A G E L D S Y D G K D R L A A W L S E R Q Q L P P S N G G G L N G R S P E K L V D V C Y  
UniRef90\_G0SWD5 M L D R L D I V D S D T L C W W L C E R Q Q L P L E N G G G L N G R S P E K L E D V C Y  
UniRef90\_E0VAW6 I T N N L H L V N A D L L G W W L C E R Q Q L N S S G G G L N G R S P E K L P D V C Y  
UniRef90\_U6IAV0 L L G Q L R R L D I G K A W W L A E R Q Q L P P S G G G L N G R S P S K M Q P D V C Y  
UniRef90\_C5DBA3 I V G K L G E L Q F E N I G W W L C E R Q Q V P L E N G G G L N G R S P S K M Q P D V C Y  
UniRef90\_UPI0004408064 I L D R L D L V D V D T L A W W L A E R Q Q L P C G G G L N G R S P E K L E D V C Y  
UniRef90\_I025S5 I A G A L D R L D R D L T C W W L C E R Q Q T K K S G G G L N G R S P E K L Q D V C Y  
UniRef90\_C4R5H8 I A N R L D L V N K D M L I P W L S E R Q Q V K G S G G G L N G R S P E K L P D V C Y  
UniRef90\_Q241P5 I A G Y L D A F D K D Q L G F W L S E R Q Q T S K G G G F N G R S P E K L A D V C Y  
UniRef90\_M2XHG5 L T D S L Y R I D Q E L T G W W L A E R Q Q L K P N S G G G L N G R S P E K L A D V C Y  
UniRef90\_UPI0002658C8B I L N Q L H H I V N A E Q L G W W L C E R Q Q L P L E N G G G L N G R S P E K L P D A C Y  
UniRef90\_M3JAT6 I V G K L G L L T D E K M V D W L T E R Q Q V L P S S G G G F N G R A E K L P D V C Y  
UniRef90\_G0W6D7 I L N S L D K I N L H F K L M E W C S L R Q Q T N E E G G G L A G R S P E K L V D G C Y  
UniRef90\_C1FJP1 L C D A V D R I D H F F L G W W L A E R Q Q V K A E G G G L N G R S P E K L P D V C Y  
UniRef90\_G4VI00 I L R Q L H R L N I D R A A W W L A E R Q Q L P L E N G G G L N G R S P E K L P D V C Y  
UniRef90\_D5GAX7 I A G S L S E D Q V N L L G D W L C E R Q Q L P L E N G G G L N G R S P E K L E D V C Y  
UniRef90\_A5DA16 I T G Q L D R I K V E K T A A W L S D R Q V L E G G G L N G R S P E K L P D S C Y  
UniRef90\_Q6BHP7 L L L N P M Q I D V H L L I R W C V M R Q Y Q L E G G G L S G R T N K L V D A C Y  
UniRef90\_A5E6U1 I M D R K H L L K E I K V A S W L S E R Q Q V L P S E G G G L S G R T N K L P D V C Y  
UniRef90\_R4GF94 L L K K E H L L N L R S L L H W V T G R Q M H F E G G G F Q G R C P E K L V D G C Y  
UniRef90\_D8Q834 M L Q P F P S I N L K A L L R W C T H M Q Q T E L G G G F K G R T N K L V D G C Y  
UniRef90\_S9UHC3 I A N A L D R I D V N R L S A W L A M R Q L P L E N G G G L N G R S P E K K A D V C Y  
UniRef90\_V5FH04 I A G R L D L V D D K D R L G S W L S E R Q Q L P E N G G G L N G R S P E K L E D A C Y  
UniRef90\_K1WWW94 I A G R I D L V D D R E K L G R W L S E R Q Q L E Q N G G G L N G R A E K L E D V C Y  
UniRef90\_M2QXA0 I L G R L D E I D H E T L G W W L A E R Q Q L P L E N G G G L N G R S P E K L E D V C Y  
UniRef90\_U6HT31 L L N Q L R R L D I G K A A W W L A E R Q Q L P L E N G G G L N G R S P G K E P D V C Y  
UniRef90\_UPI0002B4366B I L K Q E H L L N L R S L L H W V T G R Q M R F E G G G F Q G R C N K L V D G C Y  
UniRef90\_B0EMY5 L L G R I D E I D I N K L L R W L V Q R Q K P L E G G G F D G R T N K L V D A C Y  
UniRef90\_A2DLV2 I L N S I D K L N V E K V I N W C A M R Q T S Y A G G G F N G R T N K L V D T C Y  
UniRef90\_R9ARI4 M V D S T R S F D L D G L I R W S V H M Q K T E L G G G F R G R T N K L V D G C Y  
UniRef90\_UPI0004560EBB I L D A R L H H I D R D K V G W W L S E R Q Q L P L E N G G G L N G R S P Q K L E D V C Y  
UniRef90\_I0YSP1 L A D R V D L N L P S L L H W A V H R Q G L V E G G G F M G R T N K L V D G C Y  
UniRef90\_E9FU55 I T G H L H L I K A D S L G W W L C E R Q Q L P L E N G G G L N G R S P E K L P D V C Y  
UniRef90\_E4X2S6 L L E K L E T I D Q E L L G W W L A D R Q L P C G G G L N G R T P M K K E D V C Y  
UniRef90\_G8YHC2 L L L K P C N I D M E L L V R W C V M R Q H K A E G A F S G R T N K L V D A C Y  
UniRef90\_C5DQ16 I L G A L D T I N V I K L A D W C S S Q R Q Y N D E K G L S G R S N K L V D V C Y  
UniRef90\_UPI0004623242 L L Q S F P Q I D T R A L P R W C A S Q M Q P I E E G G G F F K G R T N K L V D G C Y  
UniRef90\_M7X394 M L R A R A E I D V R A L M R W S A S Q Q P I E E G G G F F K G R T N K L V D G C Y  
UniRef90\_B7GE31 L L N R V D A A N V P A L T R W L T A Q Q C G F E G G G F Q G R T N K L V D G C Y  
UniRef90\_A0A034VR28 I T Q S L H L L D V D K L G W W L C E R Q Q L T P S G G G L N G R S P E K L P D V C Y  
UniRef90\_U5EX36 I T D Q L H R L D C E K L A W W L C E R Q Q L P L E N G G G L N G R S P E K L P D V C Y  
UniRef90\_V5EEN4 I L Q A L D R I D R D R A G G W L A E R Q Q L P L E N G G G L N G R S P Q K L E D V C Y  
UniRef90\_I4YCM2 I L D R L D I D R D N L S W W L S E R Q Q L P E S G G G L N G R S P S K L E D V C Y  
UniRef90\_J7S0L9 I T G K L H L I Q I D M I G W W L S E R Q Q L P L E S G G G L N G R S P S K L P D V C Y  
UniRef90\_C5L1G6 L G K A E E A L N L E R L A R W V C Q R Q L A F E G G G F N G R S P N K L V D S C Y



UniRef90\_F2U489 S W W V L S S I Q M L Q 290 300 310 320 C Q D W I D A D R L K A F I L L  
UniRef90\_N1PQH3 S H W V G G C W A L I Q A A L F G T L S A D T V K D C W S R E G L I R Y I L L  
UniRef90\_O93830 S W W V L S S L S I L K R K N W V D L K L Q L E N Q Y V L L  
UniRef90\_UPI00044138B4 S W W V G A E F G V L E W L L K Q E A E E W H D V E D G L F N K Q A L Q E Y V L L  
UniRef90\_G7E4K1 S W W V I A T L A I L D R T D W V N G D K L S R F I L L  
UniRef90\_B0D5U4 C L L V V A S L L D L I T P E L V A G T A E F I S  
UniRef90\_B0D5U4 C L L V V A S L L D L I T P E L V A G T A E F I S  
UniRef90\_L8GK35 S Y Q S A I F P Q I Q P V E E I P R P G R E C E G D L M F D Q L A V Q A Y I L L  
UniRef90\_G4MQQ5 S W W V L S S L E T L G R T H W I D R D Q L L A A F I L L  
UniRef90\_G8ZXP6 S F W V G G T A A V M E L Y G L D H L I N K S S L R A R D Y I L L  
UniRef90\_S7PZL1 S F W C L S A M S I L D K L S W I D S D K L I S F V L L  
UniRef90\_A0A024J8L9 S W W V L S A L A I L E K R L D W I D G D K L R A F I L L  
UniRef90\_A0A026WZH9 S W W V L S A L T L L G R L D W I D K E A I T N Y I L L  
UniRef90\_W9WC25 S W W V L S S L A M L G K L H W I D A S K L I T F I L L  
UniRef90\_B3RPD4 S W W V L S S L A I I G K L H W I N K V K A I L S R D N I F R H E K L I N F I L L  
UniRef90\_I1FY68 S W W V L S S L S I I G R I H W I D K E R L T Q F I M  
UniRef90\_C6H2L6 A Y C A M V M I A L L D L P L Q L P L D S P A R H A G L D T F I S G L P E Y L S  
UniRef90\_C6H2L6 A Y C A M V M I A L L D L P L Q L P L D S P A R H A G L D T F I S G L P E Y L S  
UniRef90\_Q6BQR7 S W W V L S S L S I L G K K H W I D A D K L E H Y I L L  
UniRef90\_G4T4W5 S W W C G E S L A I V E S I L D L Q D D E W V D T D W W L Y N N K A L Q E Y I L L  
UniRef90\_B6K0M5 S W W V G A S V N L F A L E A N S D S D T R P L T K S E K L Q E Y I Y  
UniRef90\_M3J893 S F W V G A L F P M V E L L A G T S Q S L F D R E G L R H Y I L L  
UniRef90\_R7T1W6 S W W V G G C V V L V E T L L E D S A K A W D A D S L F N R R A L Q E Y I L L  
UniRef90\_C4XXU3 S W W V L S C L A M L Q K A H W V S F I D K E E F I L L  
UniRef90\_A0A015JY20 S F W V G L F P L L E A I M Q S N S E V S K Y I A Q S L F D R E A L Q E Y I L L  
UniRef90\_UPI0003505051 S W W V L A S L K M I G R L H W I D R E K L R C F I L L  
UniRef90\_W1Q8F1 S W W V M S S L S I L G R L D Y I N G D K L R E F I L L  
UniRef90\_A4RTB3 S F W Q G G C F P L L A L A N S H L L E Q F I H Q S R H V V T P E A L Q G W I L L  
UniRef90\_W5CC15 C Y C L S G L S V L F D R E A L S K Y I L L  
UniRef90\_W5CC15 C Y C L S G L S V L F D R E A L S K Y I L L  
UniRef90\_R4XBR9 S W W V G A E Y A M V E C A L G I E T S K H W I D L Q K L E D F I L L  
UniRef90\_A3GH05 S W W V L S S L A I L K K I D Y E K L R E F I L L  
UniRef90\_C5DUT1 S W W V L S S L A I I G R L E W I D A D K L R A F I L L  
UniRef90\_M5E9M8 S W W V L A S L S I I G R L H W I D R N K L A E F I L L  
UniRef90\_T1KNM3 S W W V L A S L Q M I G R L H W I D R N K L A E F I L L  
UniRef90\_A0A016TU31 S W W V L A S L A M L G R L D W V D R A S E A M I K F I Y  
UniRef90\_U1HEF7 A Y C A M V I I V L L N L P F E L P S P I H T N V G T L S T F Q Q G L E D Y L A  
UniRef90\_U1HEF7 A Y C A M V I I V L L N L P F E L P S P I H T N V G T L S T F Q Q G L E D Y L A  
UniRef90\_W0T5G6 S F W V G G T A A I L E A Y G Y G V C I D K H A L K Q Y I L L  
UniRef90\_J9JC04 N F W Q G A S F E L F D I A L K G K G N V E H E W L Y N Q D A L Q A Y T L L  
UniRef90\_A0A059BC02 S W W V L S S L I M I D R V H W I D K E K L I K F I L L  
UniRef90\_UPI000444A3FF S F W V L S A L S I V E A L E J E W I D A D Q L L T S F I L L  
UniRef90\_I2H064 G F W V G G T C G I L E A Y G Y G T F M N K K A L R D Y T L L  
UniRef90\_U4TX49 S W W V L A T L A M L G K L T W I D G A K L Q T F I F  
UniRef90\_P41992 S W W V L A S L A I L G R L N F I D S D A M K K F I Y  
UniRef90\_E1ZTF0 S F W Q G G V F P L L V A L L K E Q Q G A A L E G L P L L Y D A A A L Q L W L L  
UniRef90\_K5VIB6 S F W V L S A L S I L K K V S W I D A D K L M Q F I I  
UniRef90\_F9XG08 S W W V L T G L A L I G R L H W I D K E K L T T F I L L  
UniRef90\_G0SWD5 S W W V I A T L A I L G R S H W I D G A K L T K F I L L  
UniRef90\_E0VAW6 S W W V L S S L T I L G R L H W I Q K E S L V K F V L L  
UniRef90\_U6IAV0 S W W V L A S L T I L G R L M W I D A S E L A K F I L L  
UniRef90\_C5DBA3 S W W V L S S L A I L G K L E W I S F E K L R E F I L L  
UniRef90\_UPI0004408064 S F W V L S A L S T L N K L H W I N A E K L V S F I L L  
UniRef90\_I0Z5S5 S W W C L S A L S I L D R L H W I D R D A L S N F I L L  
UniRef90\_C4R5H8 S W W V L S S L S I L Q S L Y C I D Q E A L R Q F I Y  
UniRef90\_Q241P5 S W W V Y S S F R M I Q R V N W L S S L S I L Q S L Y C I D C Q G L E N F I L L  
UniRef90\_M2XHG5 S W W V L S S L A M L N K L D W I D S S K L I E F I L L  
UniRef90\_UPI0002658C8B S W W V L T S L A I I G K L H W I D K D K L S A F I L L  
UniRef90\_M3JAT6 S W W V L S S L K M V D S A D L I D K E R L S E F I L L  
UniRef90\_G0W6D7 S F W V G A T S A I L E S R G W D S S M H W I D K K V L R D Y I L L  
UniRef90\_C1FJP1 S W W V L S S L C I M G K M H W I D Q K A L R A R F I L L  
UniRef90\_G4VI00 S W W T V A T L A I F G R L T W I K Q T D L T R F I L L  
UniRef90\_D5GAX7 S W W V L S S M A M I G K L Q W I D R E K L V I F I L L  
UniRef90\_A5DA16 S W W V M S S L S I L G K A H W I V D F T G L I S F I L L  
UniRef90\_Q6BHP7 S F W L G A I Y P M I E L I T N T K T I F D R D A L K C Y I L L  
UniRef90\_A5E6U1 S W W A L S T L S I L G R K H W V D L T K L E N F I L L  
UniRef90\_R4GF94 S F W Q A G L L P L L H R A L H A Q G D T A L S M S H W M F D Q S A L Q E Y I L L  
UniRef90\_D8Q834 S W W V G G C F A L L Q S L G H S D I T H S T N P S D S L F N R K A L Q E Y I L L  
UniRef90\_S9UHC3 S W W L I S A L S A M Q R T T W I D K E A L F K Y I L L  
UniRef90\_V5FH04 S W W T A A S L A M I G R L H W I N G D K L T A F V L L  
UniRef90\_K1WWW94 S W W V G S S L A M I G K L S W I D G E A L K G F I L L  
UniRef90\_M2QXA0 S F W V L S S M S T L N K I S W I D T D K L T E F I L L  
UniRef90\_U6HT31 S W W V L A S L T V L G R L M W I D A A D L A K F I L L  
UniRef90\_UPI0002B4366B S F W Q A G L L P L L H R A L H A R G D P A L S M A H W M F D Q L A L Q E Y I L L  
UniRef90\_B0EM55 T F W Q A S I F G I L K K Y S K T F Q A S P V F P N V D K L L D Y I I  
UniRef90\_A2DLV2 T W W V G A M C R I L S D E F K I E P F W N Q D E G I T N W I L L  
UniRef90\_R9ARI4 S W W L G G S F S L F E Y W Q L A E D D D W V D E E G C L Y D R E A L Q G Y V L L  
UniRef90\_UPI0004560EBB S W W V L S A L S I G R L H W I D A G K L S R F I L L  
UniRef90\_I0YSP1 S F W Q G A L F P L L Q Q C I C V M S R A T N V P D R P L F N T A A L R L W L L  
UniRef90\_E9FU55 S W W V V A S L R I I G R V I W I D K N Q L R K F I M  
UniRef90\_E4X2S6 S W W A L S S L V M I K K S A W I D H K K L A E F I L L  
UniRef90\_G8YHC2 S F W I G A S L A M I E L A L Q K S S I F N R D A L R L Y I L L  
UniRef90\_C5DQ16 S F W V A G T A A I L E A Y G H G N C I D K A G L K E Y I K  
UniRef90\_UPI0004623242 S W W V G G C V V L V E A L L D E A H K A W D D I D D S L F D R K A L Q E Y I L L  
UniRef90\_M7X394 S W W C G G L F V I V D S L L A E T D D E P Q P E R E L F D R K S L Q E Y V T L L  
UniRef90\_B7GE31 S F W Q G G A S I V S A F L L F D Q G M L Q R Y V L L  
UniRef90\_A0A034VR28 S W W V L S S L T I M G R L H W I S A E K L K Q F I L L  
UniRef90\_U5EX36 S W W V L A S L T I M G R L H W I I N S E K L K Q F I L L  
UniRef90\_V5EEN4 S W W V L S T L S V L G R L H W I N A K K L S K F I L L  
UniRef90\_I4YCM2 S W W V L S G L S I L H R L H W I N K E K L M S F I L L  
UniRef90\_J7S0L9 S W W V L S S L A I I G K L E W I D Y E K L T Q F I L L  
UniRef90\_C5L1G6 S Y W Q Y G S L S I L K A L L G I P E K E Q A W C A P E P L Q M Y I L L

UniRef90\_F2U489 A C Q D D E S G G F A D R P G D M V D P F H T L F G I A A L S M L G E S D 350 360  
UniRef90\_N1PQH3 C C A Q Q P K G G M R S D R P S C R Q P D A Y H T C Y S L A G L S A A Q N H F L Y D  
UniRef90\_O93830 T C A Q D L E N T G G F S D R K P G N Q G A D V Y H T C F A I A G L S L I D Y K  
UniRef90\_UPI00044138B4 M A A Q A S T G G G L R D R P G K N G A D A Y H T L Y N L A G L S S A Q H H G D S P  
UniRef90\_G7E4K1 S C C Q D T D T G G G L R D R P E D V A D V W H T V F G I A G L S L L G H P G  
UniRef90\_B0D5U4 S C C Q T Y E G G F A S A P L L G E A H G G Y T F C A L A S W V L L Q P Y I V D Q  
UniRef90\_B0D5U4 S C C Q T Y E G G F A S A P L L G E A H G G Y T F C A L A S W V L L Q P Y I V D Q  
UniRef90\_L8GK35 A C C Q D D D G G L R D R P P K Y R D Y Y H T C Y A L A G L S A V T Q H N L D P A  
UniRef90\_G4MQQ5 K C C Q D T E K G G M S D R K P G N Q G A D V Y H T C F G L T G L S L L K W P G  
UniRef90\_G8ZXP6 Y C C Q N G S P G G L R D R P G T H P D L Y H T N Y L L G L A L C E N S F N L S  
UniRef90\_S7PZL1 S A Q D S E G G G I A D R P G D M V D V F H T H F G I A G L S L L G Y P G  
UniRef90\_A0A024J8L9 A A Q N E D D G G L A D R P G D E A D V F H T L F G I A G L S L L G Y E D  
UniRef90\_A0A026WZH9 S C C Q D V E T G G F S D R P G D M V D P F H T L F G I A A L S L L G Y P  
UniRef90\_W9WC25 S C C Q D A D H G G L A D R P G D M V D V F H T V F G I A G L S L L G Y P  
UniRef90\_B3RPD4 A C C Q D D E T G G L A D K P G D L V D P F H T L F G I A G L S L L G  
UniRef90\_I1FY68 A T Q D D E T G G F S D R P G D M V D P F H T L F G I A G L S L L G N R Q K  
UniRef90\_C6H2L6 R C C Q T F E G G I S G S P G T E A H G A Y A F C A L A C C I L G G P  
UniRef90\_C6H2L6 R C C Q T F E G G I S G S P G T E A H G A Y A F C A L A C C I L G G P  
UniRef90\_Q6BQR7 A C C Q D L E K G G I S D R E D N Q T D V F H T C F G I A G L S L I E S K T F P  
UniRef90\_G4T4W5 G L G Q D N A G G L R D R P S K R A D V Y H T F Y S L A G F S T A Q H R V Y Q S  
UniRef90\_B6K0M5 Q C C Q P A T G G L R D R P P K P A D L Y H T C Y C L L G L S S I A H N Y R L V  
UniRef90\_M3J893 R V A Q E E T G G F R D K P G K G I D F Y H T N Y T L S G L S I V E H Y S S D  
UniRef90\_R7T1W6 C A G Q H P A G G L R D R P P K P A D A Y H T L Y C A A G L A A A Q H S W S E E  
UniRef90\_C4XXU3 S C C Q D L E R G G F S D R P D N Q T D V F H T C F A I A A L A L M  
UniRef90\_A0A015JY20 I A C Q S P K G G L L D R K P K R G A D V Y H T C Y C I A S G L S T A Q H H W K D D  
UniRef90\_UPI0003505051 A C C Q D E E T G G F A D R P G D M V D P F H T L F G I A G L S L L G  
UniRef90\_W1Q8F1 Q C C Q D F E E G G L S D R P G N Q V D V Y H T L F G I A G L S L L G Y E D  
UniRef90\_A4RTB3 D C C Q S E A G G L R D R P G T G R D H Y H T C Y C L S G L S L A Q H F G R C  
UniRef90\_W5CC15  
UniRef90\_W5CC15

UniRef90\_R4XBR9 A C C Q L P R R G G L R D R P E K H P D Y Y H T C Y C L A G L S S A A Q Y H Y W K C  
UniRef90\_A3GH05 E C C Q D S K D G G L G D R P D N Q T D V Y H T C F G I A G L S L I D F  
UniRef90\_C5DUT1 K S Q D D S K K G G L S D R P D N E V D V F H T L F G I A G L S L M G F  
UniRef90\_M5E9M8 S A Q D P D G G G L A D R P D N V A D V F H T L F G I A G L A L L G H P G  
UniRef90\_T1KNM3 A C C Q D Q E T G G F S D R P G N V A D P F H T L F G I A G L S L L T H F D Q S D  
UniRef90\_A0A016TU31 A C C Q D D E T G G F S D R P G N V A D P F H T L F G I A G L S L L G  
UniRef90\_U1HEF7 K C C Q T L E G G I S G A P G N E A H G A Y A F C A I A G L C L M N E P H I G  
UniRef90\_U1HEF7 K C C Q T L E G G I S G A P G N E A H G A Y A F C A I A G L C L M N E P H I G  
UniRef90\_W0T5G6 R C C Q E E V P G G L R D R P G K K P D F Y H T N Y V L A G L C I E Y S F E A T  
UniRef90\_J9JC04 I C C Q E G T G G L K D K P M K K P D F Y H T C Y A S S G M S I S Q Y L S D Y D  
UniRef90\_A0A059BC02 D C C Q D T E N G G I S D R P D D A V D I F H T Y F G V A G L S L L E Y P G  
UniRef90\_UPI000444A3FF S A Q D P D A G G L A D R P G D M A D V F H T L F G V A G L S L L G Y P G  
UniRef90\_I2H064 A C C Q S K H P G G L R D R P G K K P D F Y H T N Y A L I G L S I I S N E S S L H  
UniRef90\_U4TX49 A C C Q D Q E T G G F S D R P K D V P D P F H T L F A V A A L S L L D Y  
UniRef90\_P41992 A C C Q D D E T G G F A D R P G D C A D P F H T V F G I A A L S L L F G  
UniRef90\_E1ZTF0 K C C Q M P R G G L R D R P G K P A D Y Y H T C Y C L S G L S C S Q H Y S G I V  
UniRef90\_K5VIB6 S A Q D P D N G G I A D R P G N Q A D V F H T Q F G V A G L S L L G Y P G  
UniRef90\_F9XG08 Q C C Q D P D H G G L A D R P E D M V D V F H T C F G T A G L S L L G Y P G  
UniRef90\_G0SWD5 S A Q D P D K G G L A D R P E D V A D V W H T V F G I A G L A L L G Y P G  
UniRef90\_E0VAW6 A C C Q D S E N G G F S D R P G D L P D P F H T L F G L A A L S L L G E K  
UniRef90\_U6IAV0 A S Q D T D T G G I S D R P G D N Y P D P F H T L F G L A G L S L L N E E V K D S  
UniRef90\_C5DBA3 K S Q D P K S G G I S D R P D N E V D V F H T L F G I A G L S L L M G Y  
UniRef90\_UPI0004408064 S A Q D P E E G G I A D R P N N A V D V F H T H F G V A G L S L L G Y P N  
UniRef90\_I0Z5S5 E C C Q D E E R G G I S D R P D D M V D V F H T F F G I A G L S L L M G  
UniRef90\_C4R5H8 T C C Q D A V N G G I S D R P D N Q T D V Y H T L F G I A G L S L L M G F  
UniRef90\_Q241P5 D C C Q D S E G G I A D R P E N C V D V F H T F F G I A A L S L L N Q Q K Y D L  
UniRef90\_M2XHG5 H C C Q D L E N G G I A D Y P D D R S D V F H T F F G L A G L S L L G C P  
UniRef90\_UPI0002658C8B A C C Q D S D G G L A D R P G D E V D P Y H T N F G L A G L S L L G  
UniRef90\_M3JAT6 E C C Q D L E H G G F G D R P D N A T D V Y H T C F S I T A L S L L D Y  
UniRef90\_G0W6D7 I C C Q S H E K G G L R D R P G K H S D F Y H T M Y L L F G L V I T E N H N I E A  
UniRef90\_C1FJP1 G C C Q D D K K G G I A D R P D D E P D V Y H T F F G L A A L S L L M G F P G  
UniRef90\_G4VI00 A S Q D D Q T G G I A D R P G N I P D P F H T L F G L A G L S L L A Y F S S P K  
UniRef90\_D5GAX7 S C C Q D E E N G G I A D R K G D V A D V F H T V F G V A G L S L L G Y E G  
UniRef90\_A5DA16 K C C Q D P N G G I S D R A D N E T A D V Y H T C F A L A G L S L I E M S Q K S K  
UniRef90\_Q6BHP7 N C C Q N E T G G F K D R P G K S V D F Y H T N Y T I C G L S I T E H H F S K T  
UniRef90\_A5E6U1 S C C Q D L E K G G I S D R P D N Q T D V Y H T C Y G I C G L S L I D Y  
UniRef90\_R4GF94 L C C Q C P A G G L L D R P G K S R D F Y H T C Y C I S G L A I A Q H F G S G D  
UniRef90\_D8Q834 Y A G Q H P S G G L R D R P P K G A D A Y H T L Y C L A G L S A A Q H P Y A E E  
UniRef90\_S9UHC3 S C C Q D K E D G G I A D R P G N E A D V Y H T F F G L C G L S L L G Y E Y P  
UniRef90\_V5FH04 R C C Q D P E A G G I A D R P G H M V D V Y H T V F S I A G L S L L G Y  
UniRef90\_K1WWW94 R C C Q D P D M G G I A D R P G D V V D V F H T V F G I A G L S L L G Y Q G  
UniRef90\_M2QXA0 S A Q D T E D G G I A D R P G N Q V D V F H T L F G V A G L S L L G Y P G  
UniRef90\_U6HT31 A S Q D S E T G G I A D R P G N I P D P F H T L F G L A G L S L L K A P K A N E  
UniRef90\_UPI0002B4366B L C C Q C P A G G L L D R P G K S R D F Y H T C Y C L S G L A I A Q H F G S G D  
UniRef90\_B0EMY5 L A S Q N K D G G Y R D K P S K K P D L Y H T N Y A L S G I S L I H A S D H Q  
UniRef90\_A2DLV2 S V I C Q H E S G G A F D R P G V I N P D L F H T M Y G Y I G L S A S A N D Y L K K  
UniRef90\_R9ARI4 N A Q N P K G G L R D R P G K N S D T Y H T A Y N I S G L S A S Q H Y I K Y D  
UniRef90\_UPI0004560EBB S A Q D P D D G G I A D R P D N V T D V F H T N F G V A G L S L L G F P G  
UniRef90\_I0YSP1 Q C C Q N R G G L R D R P G T A V D Y Y H T C Y C L S G L A A C Q E Y S G G R  
UniRef90\_E9FU55 A C C Q D V E T G G F S D R P N D M P D P F H T L F G L A G L S L L G  
UniRef90\_E4X2S6 S A A D D E I G G I A D R P G D I P D P F H T L F G I A G L S L I Q Y N N S  
UniRef90\_G8YHC2 N C Q S T H S G G F K D R P G K V V D P F H T N Y T L C G L S I A E N S D K D S  
UniRef90\_C5DQ16 C C Q M T T R P G I R D R P G T K P D F Y H T N Y G L L G V A I T E N P N A L K  
UniRef90\_UPI0004623242 L A G Q H P A G G L R D R P K A A D A Y H T L Y C S A G L S A A Q H S W A E E  
UniRef90\_M7X394 L V I A Q A P S G G L R D R P G K P A D A Y H T C Y N L S G D S T A Q  
UniRef90\_B7GE31 L C A Q N V T G G L R D R P S A R R D F Y H S C Y N I S G L S V I A Q Q V D S L P  
UniRef90\_A0A034VR28 T C C Q D S E T G G F A D R T G N M P D I F H T L F G I A G L S I L G F E G  
UniRef90\_U5EX36 S C C Q D N E T G G F S D R T G N L P D F H T  
UniRef90\_V5EEN4 S A Q D P E D G G I A D R P D N V T D V F H T V F G C A G L S L L G F E G  
UniRef90\_I4YCM2 S S Q D P D N G G I A D R P G D V A D V Y H T L F G V A G L S M M G Y P D  
UniRef90\_J7S0L9 S C C Q D E K R G G I S D R P N N E A D V F H T V F G V A G L S L L G Y K D  
UniRef90\_C5L1G6 A C C Q D R E R G G F R D R P G K N C D Y Y H T C Y A L S G M A S Q W H C

UniRef90\_F2U489  
UniRef90\_N1PQH3  
UniRef90\_O93830  
UniRef90\_UPI00044138B4  
UniRef90\_G7E4K1  
UniRef90\_B0D5U4  
UniRef90\_B0D5U4  
UniRef90\_L8GK35  
UniRef90\_G4MQQ5  
UniRef90\_G8ZXP6  
UniRef90\_S7PZL1  
UniRef90\_A0A024J8L9  
UniRef90\_A0A026WZH9  
UniRef90\_W9WC25  
UniRef90\_B3RPD4  
UniRef90\_I1FY68  
UniRef90\_C6H2L6  
UniRef90\_C6H2L6  
UniRef90\_Q6BQR7  
UniRef90\_G4T4W5  
UniRef90\_B6K0M5  
UniRef90\_M3J893  
UniRef90\_R7T1W6  
UniRef90\_C4XXU3  
UniRef90\_A0A015JY20  
UniRef90\_UPI0003505051  
UniRef90\_W1Q8F1  
UniRef90\_A4RTB3  
UniRef90\_W5CCI5  
UniRef90\_W5CCI5  
UniRef90\_R4XBR9  
UniRef90\_A3GH05  
UniRef90\_C5DUT1  
UniRef90\_M5E9M8  
UniRef90\_T1KNM3  
UniRef90\_A0A016TU31  
UniRef90\_U1HEF7  
UniRef90\_U1HEF7  
UniRef90\_W0T5G6  
UniRef90\_J9JC04  
UniRef90\_A0A059BC02  
UniRef90\_UPI000444A3FF  
UniRef90\_I2H064  
UniRef90\_U4TX49  
UniRef90\_P41992  
UniRef90\_E1ZTF0  
UniRef90\_K5VIB6  
UniRef90\_F9XG08  
UniRef90\_G0SWD5  
UniRef90\_E0VAW6  
UniRef90\_U6IAV0  
UniRef90\_C5DBA3  
UniRef90\_UPI0004408064  
UniRef90\_I025S5  
UniRef90\_C4R5H8  
UniRef90\_Q241P5  
UniRef90\_M2XHG5  
UniRef90\_UPI0002658C8B  
UniRef90\_M3JAT6  
UniRef90\_G0W6D7  
UniRef90\_C1FJP1  
UniRef90\_G4VI00  
UniRef90\_D5GAX7  
UniRef90\_A5DA16  
UniRef90\_Q6BHP7  
UniRef90\_A5E6U1  
UniRef90\_R4GF94  
UniRef90\_D8Q834  
UniRef90\_S9UHC3  
UniRef90\_V5FH04  
UniRef90\_K1WW94  
UniRef90\_M2QXA0  
UniRef90\_U6HT31  
UniRef90\_UPI0002B4366B  
UniRef90\_B0EMY5  
UniRef90\_A2DLV2  
UniRef90\_R9ARI4  
UniRef90\_UPI0004560EBB  
UniRef90\_I0YSP1  
UniRef90\_E9FU55  
UniRef90\_E4X2S6  
UniRef90\_G8YHC2  
UniRef90\_C5DQ16  
UniRef90\_UPI0004623242  
UniRef90\_M7X394  
UniRef90\_B7GE31  
UniRef90\_A0A034VR28  
UniRef90\_U5EX36  
UniRef90\_V5EEN4  
UniRef90\_I4YCM2  
UniRef90\_J7S0L9  
UniRef90\_C5L1G6

370 380 390 400

S K A A V R D F D E E D A V K P V H P V F V L P F D V V D R A R A Q F  
K Y G F K E I D P V Y C M P V E V T S K F  
R D H D M F V G G K A N R L N A I H P I L T L T M T H S R G M L N H F Y G Q  
L A K V D P V F C M P R A V T I K

P T K P T I  
P T K P T I  
T M P P T C L R T A T D L L K R I D P S H G I S V E K V Q R A R R Y F Q A L P  
L E D V D P V Y C M P K A T I Q R R I T  
D N G K A V Q C K P L P V T A P I N P I Y G L P T K N V Q K F I S H F  
L I D L D P V Y C M P A H I I E A M R K G W K A L P  
L E L I D P T Y C L P A K M I P R I K N F  
D E E F P L K P I N P T Y C M P E Y L I D R  
S L A E V D P V Y C M P K T V T R A L P Y W Q S  
D T T L K Q V N P V Y C M P E E V I Q K L R  
G V N L I F C L P Q N V I E R L

F S K I D P I Y C L P T T V S E K L K K W  
K S L Q G S L G S P N N R V N A I H P V F T L L I S Q A S N I M D H F Y G Q T S  
D N R V H A Q N S S S P R L Q P A H P V C C V P V N D A E S M I T H F S S L

E G T T T Y V G G A A N R V N A A H P I F N L T I T H A D G I L A H F Y G Q M P  
F P E K Y E L K P I D P I F C L P K E V A Q K I H R F  
V T N R I V L G D P N N L I N S T H P I H N V A L P N V R K M I E H F Y  
E E Q I K A V N P V F C M P E D V L Q R I I K K Y  
L V P V D P V Y C M P Y H V T N S I K K Y  
G V V E V V G P T E S N A L V K L E P L V N V V E H K Y T A W M S

S D I S L T S A N E E D R V A S I H P L Y A I P W G K A E K L R A W  
E K Y N F K E I D P I Y C M P T E V T K K F R K W  
E N L I S I D P V Y C M P Y V T K K F K K Y  
L A R V D P T Y C M P S T A V  
K P A P I D F E S V K N S I G F I N P V L C L P E T I V S K  
S E N L S P V D A V F C M P K S T L K E

K K N E C C T F D S S C D V E P I N P I F G L P E Q D V R R  
R L H S F L A G I E Q G K L R R I H P V F N T R Y D Y V A K I K S Y F R Q Q  
L K A T D P A Y A L P V D V V N R I K S Y F R Q Q  
L I D L D P V Y C M P A E L I E K M R K R W S A L P  
I T S E P N K S L P N S H C S T V N P V Y G L P I S S V T A F S K H F R  
E N T Q K V N P T Y C M P Q H V I D R L Q  
D D T L E S V D P I E C M T  
L G G A Q V R D G S M G V H R T M H G M L C V S  
L D D L D P V F C M P A S V I E A L K K G W Q A L P  
L L E V D P A Y C M P K H I T D K  
L Q A V D P R L C M P L S V T D K L L K  
S L K Q V N P T Y C M P Q N V I D K  
P E R S E V L E S A F K N L N E I N P V F C M P Q Y V I D R  
D G L I E I D P V Y C M P T S V T K T F K K Y  
L E D L D P V Y C M P A R V T E K L K L R K A W K A L  
L E P I D P T Y A L P V N T V Q S V L K  
D D L E P I D P V Y C M P K R I V L T I E K Y  
V P I D P T F A L P K P L L

Q L K R I H P A Y A L P L E I I  
E N R L K K I N P V F C L C Q D V I D R L K  
E K Y G F I E I D P I Y C M P L K K  
K L I D S Y K F I P S D L Q G I N P V Y G L P I D D T K L F M N H F R N  
I K P I D P V F A L P T H V C E R I  
L K E V D P V Y C M P K D V T D R I  
E F G L V P I D P V Y C M P T S V T R K F T N Y T Q Q  
E S D A F A Y S I D H E K I N E I N P V F S L P N G M A E E C K R Y F Q R  
E K Y G F D E I D P V Y C M P I R V T K K F Q K W  
L H H E L V L G I P E N R L R P T H P V N I V P E K V V K A V M H F L Q Q P V  
E G A S K V V G G P S N R V N A T H P V F N L T M T H A E G M M A H F Y K Q Q V  
N G L K Q V N P V Y A L P Y E V L E R I S K H L A K Q  
L E E V D P V Y C M P K K V I A R E L G H  
L E D L D P V Y C M P A K T A K G L K T N W Q A L P  
S G H E K V L S V A S Y A L R E L N P V F C M P Q Y I I D R  
L H N E V V L G I P E N C L Q A T H P V Y N I A P E K V A R A V M H F L Q Y P V  
M K N T I R P I E P A M G V D Q F Y F N K A C E Y F R S L  
Q G G F E L I D M D A R Y A I P K E S V E A I K N Y F A N N P  
A D R A R Q M A V D F N E

L E P V D P T Y C M P A K V I R K L K E Y Q L P A  
V D P S I N V L T S K L D A A I A Y Y G S  
H T D D F P L

E S S L K T I N P V F C M P Q Q V I S R L K  
L D L E I V S K T S D I K L K P I D P I L C L P S Y L L R K I  
S Q L S F A L L V H T S P V R V N P V F G I R M D K V L K C R E H  
I N S S A I N P D D N S G L E S I N P V Y G L P S R D L E T F Y K H F  
E G T E L Y V G G A A N R V N A T H P L F N L T T T H S D A M M A Y F Y G Q T F

D F G H P S E S V V H E T H P V Y N L R T E R V R K M L T H W Q T Q P I  
L K A I N P T L C M P Q Y V I D R I K P Q I L S K P  
G L G A L S L L G G N N L K K I N P T F C M P E Y V I E R C  
L Q Q V D P T Y C M P L R T K A  
L E Q V D P V Y C M P V K T I E R M H  
L V P V D P T Y C M P Y S I T A T F Q K Y  
G S P P V T L G D N T T L V Q S D V L Y N I S K E A L S R L E K Y F E D I P

UniRef90\_F2U489  
UniRef90\_N1PQH3  
UniRef90\_O93830  
UniRef90\_UPI00044138B4  
UniRef90\_G7E4K1  
UniRef90\_B0D5U4  
UniRef90\_B0D5U4  
UniRef90\_L8GK35  
UniRef90\_G4MQQ5  
UniRef90\_G8ZXP6  
UniRef90\_S7PZL1  
UniRef90\_A0A024J8L9  
UniRef90\_A0A026WZH9  
UniRef90\_W9WC25  
UniRef90\_B3RPD4  
UniRef90\_I1FY68  
UniRef90\_C6H2L6  
UniRef90\_C6H2L6  
UniRef90\_Q6BQR7  
UniRef90\_G4T4W5 P  
UniRef90\_B6K0M5  
UniRef90\_M3J893  
UniRef90\_R7T1W6 P  
UniRef90\_C4XXU3  
UniRef90\_A0A015JY20  
UniRef90\_UPI0003505051  
UniRef90\_W1Q8F1  
UniRef90\_A4RTB3  
UniRef90\_W5CCI5  
UniRef90\_W5CCI5  
UniRef90\_R4XBR9  
UniRef90\_A3GH05  
UniRef90\_C5DUT1  
UniRef90\_M5E9M8  
UniRef90\_T1KNM3  
UniRef90\_A0A016TU31  
UniRef90\_U1HEF7  
UniRef90\_U1HEF7  
UniRef90\_W0T5G6  
UniRef90\_J9JC04  
UniRef90\_A0A059BC02  
UniRef90\_UPI000444A3FF  
UniRef90\_I2H064  
UniRef90\_U4TX49  
UniRef90\_P41992  
UniRef90\_E1ZTF0  
UniRef90\_K5VIB6  
UniRef90\_F9XG08  
UniRef90\_G0SWD5  
UniRef90\_E0VAW6  
UniRef90\_U6IAV0  
UniRef90\_C5DBA3  
UniRef90\_UPI0004408064 P  
UniRef90\_I0Z5S5  
UniRef90\_C4R5H8  
UniRef90\_Q241P5  
UniRef90\_M2XHG5  
UniRef90\_UPI0002658C8B  
UniRef90\_M3JAT6  
UniRef90\_G0W6D7  
UniRef90\_C1FJP1  
UniRef90\_G4VI00  
UniRef90\_D5GAX7  
UniRef90\_A5DA16  
UniRef90\_Q6BHP7  
UniRef90\_A5E6U1  
UniRef90\_R4GF94 P  
UniRef90\_D8Q834 P  
UniRef90\_S9UHC3  
UniRef90\_V5FH04  
UniRef90\_K1WW94  
UniRef90\_M2QXA0  
UniRef90\_U6HT31  
UniRef90\_UPI0002B4366B P  
UniRef90\_B0EMY5  
UniRef90\_A2DLV2  
UniRef90\_R9ARI4  
UniRef90\_UPI0004560EBB P  
UniRef90\_I0YSP1  
UniRef90\_E9FU55  
UniRef90\_E4X2S6  
UniRef90\_G8YHC2  
UniRef90\_C5DQ16  
UniRef90\_UPI0004623242 P  
UniRef90\_M7X394  
UniRef90\_B7GE31  
UniRef90\_A0A034VR28  
UniRef90\_U5EX36  
UniRef90\_V5EEN4  
UniRef90\_I4YCM2  
UniRef90\_J7S0L9  
UniRef90\_C5L1G6

	1	10	20	30	40
UniRef90_W5KFT0					
UniRef90_W2T7K4					
UniRef90_J9JK26					K
UniRef90_G0QF07					
UniRef90_N1QDZ1			DD	LKTTTSEAEKTEKE	CLPLLLT
UniRef90_K5VT88					
UniRef90_E9BR14					
UniRef90_K5VI85				RPA	PVDGFPPTSDLQTTTENILKARFE
UniRef90_H8X0Y6					YQSSSTEQQDECLNDVITETYL
UniRef90_M2N1G1		Q	TATRNLVHDD	LQTVTSETQAKTTAE	CLPYVVT
UniRef90_F0W5Z7					
UniRef90_UPI000440E430					
UniRef90_M3A1A1					
UniRef90_A8XP2					
UniRef90_M2YL73					
UniRef90_S8DQG1					
UniRef90_B6AHV9					
UniRef90_F1L0D5					
UniRef90_D7FX18					
UniRef90_B0ERG8					
UniRef90_A0A058Z6X6					
UniRef90_UPI000388C82F					
UniRef90_UPI000388C82F					
UniRef90_H2LDQ8					K
UniRef90_Q0UX99					
UniRef90_C5DL64					
UniRef90_UPI0004408B9A					
UniRef90_W1PZ93					
UniRef90_W1PZ93					
UniRef90_G3B951					
UniRef90_B9WG67					
UniRef90_Q759K2					
UniRef90_J4IBT6					
UniRef90_M2M4E9					
UniRef90_U5H006					
UniRef90_W6MWI8					
UniRef90_C5MIH6					
UniRef90_L0AY61					
UniRef90_L0AY61					
UniRef90_J9I9E2					
UniRef90_R9XGL4					
UniRef90_UPI000359D2B7					
UniRef90_G8B6R5					
UniRef90_W0YHN3					
UniRef90_I4YAS6					
UniRef90_S0B8K2					
UniRef90_B6K6U5					
UniRef90_J4UDI5					
UniRef90_A0A059AQE3					
UniRef90_S8AGG4					
UniRef90_F4NX78					
UniRef90_I2H438					
UniRef90_UPI00042B697E					
UniRef90_T0QR33					
UniRef90_J0D8K2					
UniRef90_D8QC02					
UniRef90_A0A058Z366					
UniRef90_W4K1Q2					
UniRef90_G1XAU6					
UniRef90_D8LBL3					
UniRef90_A8P1H5					
UniRef90_U6L5G3					
UniRef90_Q5CSN2					
UniRef90_G7YK23					
UniRef90_S6F179					
UniRef90_D3PGC8					
UniRef90_A0DLA2					
UniRef90_L8GWR5					
UniRef90_G0V9P9					
UniRef90_D2W1P3					
UniRef90_K3W6R4					
UniRef90_S8E0Q1					
UniRef90_S8E0Q1					
UniRef90_V4B4M5					
UniRef90_Q5KIV0					
UniRef90_B9T610					
UniRef90_D2V4P3					
UniRef90_Q4Y943					
UniRef90_D8MAS3					
UniRef90_UPI0002C3D33B					
UniRef90_Q6J6P6					
UniRef90_Q6J6P6					
UniRef90_B7G2W5					
UniRef90_F4S1U9					
UniRef90_UPI0003F49E88					
UniRef90_Q55D51					
UniRef90_J9G1N9					
UniRef90_A9NYH3					
UniRef90_E3KAQ5					
UniRef90_S9VD42					
UniRef90_R4XBT0					
UniRef90_J4I952					

UniRef90\_W5KFT0  
UniRef90\_W277K4  
UniRef90\_J9JK26  
UniRef90\_G0QP07  
UniRef90\_N1QDZ1  
UniRef90\_K5VT88  
UniRef90\_E9BR14  
UniRef90\_K5VI85  
UniRef90\_H8X0Y6  
UniRef90\_M2N1G1  
UniRef90\_F0W5Z7  
UniRef90\_UPI000440E430  
UniRef90\_M3A1A1  
UniRef90\_A8XPK2  
UniRef90\_M2YL73  
UniRef90\_S8DQG1  
UniRef90\_B6AHV9  
UniRef90\_F1L0D5  
UniRef90\_D7FXI8  
UniRef90\_B0ERG8  
UniRef90\_A0A058Z6X6  
UniRef90\_UPI000388C82F  
UniRef90\_UPI000388C82F  
UniRef90\_H2LDQ8  
UniRef90\_Q0UX99  
UniRef90\_C5DL64  
UniRef90\_UPI0004408B9A  
UniRef90\_W1PZ93  
UniRef90\_W1PZ93  
UniRef90\_G3B951  
UniRef90\_B9WG67  
UniRef90\_Q759K2  
UniRef90\_J4IBT6  
UniRef90\_M2M4E9  
UniRef90\_U5H006  
UniRef90\_W6MWI8  
UniRef90\_C5MIH6  
UniRef90\_L0AY61  
UniRef90\_L0AY61  
UniRef90\_J9I9E2  
UniRef90\_R9XGL4  
UniRef90\_UPI000359D2B7  
UniRef90\_G8B6R5  
UniRef90\_W0YHN3  
UniRef90\_I4YAS6  
UniRef90\_S0B8K2  
UniRef90\_B6K6U5  
UniRef90\_J4UDI5  
UniRef90\_A0A059AQE3  
UniRef90\_S8AGG4  
UniRef90\_F4NX78  
UniRef90\_I2H438  
UniRef90\_UPI00042B697E  
UniRef90\_T0QR33  
UniRef90\_J0D8K2  
UniRef90\_D8QC02  
UniRef90\_A0A058Z366  
UniRef90\_W4K1Q2  
UniRef90\_G1XAU6  
UniRef90\_D8LBL3  
UniRef90\_A8P1H5  
UniRef90\_U6L5G3  
UniRef90\_Q5CSN2  
UniRef90\_G7YK23  
UniRef90\_S6F179  
UniRef90\_D3PGC8  
UniRef90\_A0DLA2  
UniRef90\_L8GWR5  
UniRef90\_G0V9P9  
UniRef90\_D2W1P3  
UniRef90\_K3W6R4  
UniRef90\_S8E0Q1  
UniRef90\_S8E0Q1  
UniRef90\_V4B4M5  
UniRef90\_Q5KIV0  
UniRef90\_B9T610  
UniRef90\_D2V4P3  
UniRef90\_Q4Y943  
UniRef90\_D8MAS3  
UniRef90\_UPI0002C3D33B  
UniRef90\_Q6J6P6  
UniRef90\_Q6J6P6  
UniRef90\_B7G2W5  
UniRef90\_F4S1U9  
UniRef90\_UPI0003F49E88  
UniRef90\_Q55D51  
UniRef90\_J9G1N9  
UniRef90\_A9NYH3  
UniRef90\_E3KAQ5  
UniRef90\_S9VD42  
UniRef90\_R4XBT0  
UniRef90\_J4I952

50 60 70 80

T L F L D K H A D Y L A A Y G S K K D D Y Y T L S E Y L R R  
E Y L M A E P L R R  
D V K L D N T T K T W V L K K H I D F L Q S F G K E R H Q Y E S S M E F L R R  
D H K Q Q P I N N K P F Y R E A H I Q Y L L S L E N S K D L G Y Y L S E F L R R  
G D Q N S H G I P H L N R V K H A A F L E D W I D E L P G P Y V A M D A S R Q  
Q P T L Q K N L H L Q F L A R M M Q G F P A R Y L S Q D A S R Q  
D L H K F V H E L D D N T Q W K A Q H L K  
Y V K A S P N D F T P V L H R N A H L Q F L L R N L Q G F P A R Y R S Q D A S Q  
E T P E L K F H K E A H L N Y A K K C L T K L P S G Y K S L D A N H  
G K D T Q G L A L N P H L R R K A H A E Y L R G F L G E L P A F A A M D A S R  
K F E L S I H L K H L L A L K N K K E D F E A C M E H M R  
Q L S A S A I S P D P T L N K N T H L Q F L V R N L Q G F P L R Y T S Q D A S R Q  
G E E S L G L P L N P R L N R E K H A S F L D Q F T G E L P A F A A M D A S R  
D V D L P Q S S P K L L K G L H S N F I Q Q Y E K D K G G Y Y I M A E H L R  
L P E E L Q L V V E K H V S Y I Q S L D S R R D E E Y H L T E H L R  
Q S L Q S G D P S Q V V L Q R N L H L P Y L L R N L R Q L P Q Q Y T G Q D A S R Q  
L Y R D E H L E Y V Q M R L R R F P I S S A S N E A S R  
D L D I P K A A P S E L L L D L H A R F I S N Y E K N K D S Y Y I L A E Y L R  
D Q G I V N A A G E A V L M R T K H E V Y L M R G L C G L G P G F I S L D A S R  
M T F I P Q K H V E F L R N K E K E N E N D I E S I T S S H  
P P L N V K A H V D F I A A L D K K K N D Y Y W L T E Q A V

D V I L K P D A P S S L L L D K H A D Y L A A Y G S K K D D Y Y T L S E Y L R R  
M P G E L R L F V D K N V R A L T R P Q R K D E L E Y W L T E H L R  
A L A D V E P T L F K H A H R S Y L D Y A L G H L P P Q M K A L D A S Q  
H H R P D P N L P K P A L Q K A A H L Q W L V R N F S Q F P E R F V S Q D A S Q

M T L A R L K H I Q Y V K N A T S R Q S S F E Y W L S E H L R  
S K T H N H Q P Q N D N F Y I D A H L K Y I L S S L N P M S S G Y Q V L D V N H  
E A G G S V P A L R V S A H L K L V E W P L R S M P A Q F T T L D A A Q  
H Y Q Q V Q P N P K P L L E R K H L Q F L L R M L Q G F P Q R Y V S Q D A S R Q  
Q L P E E L K L V V D K H V A Y I O S L D T R K D E E Y H L T E H L R  
N A A P P E E L L V D L H V K Y I Q S L D E K R D H Y Y H T T Q H L R  
M Q L F R E K H V D Y V K N L T K T D Q L E Y W L T E H L R  
M S E S I P F V K S K H V N F I T E Q E S H R S F E Y W L S E H L R

K Y D F N P I D A K P E F L N E K H A M F V R K A Y A N L P A K A Q K N D S C Q  
E A G G S T P A L R T H D H W R F S E W P L S E K P M H L E I L S A A Q  
D I V I P S S A P Q T L F L Q K H A D Y L A A Y G E K K D D Y Y V M T E F L R  
E L P K L F Y K D A H L N Y V M K C L T K L P S G Y K S L D A N H  
S I P P N S Q S V I L E L Q R D K H F D Y L T R G L R K L G P S F S V L D A N R  
E L D R V A H A N Y L T E S L R S L P A S M R V L D A S R  
R Y I K S K F L S Y S F N R E L S K W L I S A T H P L P S S F E T L E S S T  
D P S F L K E T H I E Y L K R L K E Q D T L E F W L T Q H L H  
K T A D K A A A P P L D I P R D H V K Y I Q A L D E D L A Y H L T A H L R  
F F A Q L P A A Q L E V Q R D N H I E Y L T R G L R G L A P S F G S L D A S R  
D S R V P T L D K T T H I D F L I E P L E D L S R G F T G L D A S R  
L L K R D S L E Y W L T S H L R  
L L K R N T Q P D H E H W L T E H L R  
A F Y D M P P S S Q L E L Q R E N H V E Y L T N G L K H L G P S F C V L D A N R  
F F L G A H L K Y V A N L S K Q K E S L E S C M E H M R  
S S S S K L L V D K H V A Y I Q A L A K N K D D A Y H L T T H L R  
L L T D L H V K Y I Q R L G K S K D D A Y H L T A H L R  
A F L Q Q H G I P A P T F D V S N M K A F L R S M F R P M S S A F S S L D G S R  
T G L R S S G P P L R K N E H L H F L L R N L R G F P A R Y V H Y D A S R Q  
S V C Q P F L P P L D K A T H V E F L L S P L E G L S G G F V G L D A S R  
E H A E P P S F F E E L H R Q Y V I R S E Q T D T F E Y C M T E H L R  
S H P E N K D A P S T V L Q E K K H M Q F L I R N L G G F G S Y S Q D A S Q  
E F L W K R A A R Q V S L H R S R H V A F L T K H L D V P F S E I M M E A S R  
D Y D E S A N I Q D K L K R N E H L K F V R M R K T Y P E S S I T E G E S T R  
D M R L D E S M P R E L L R R H A D F L S A Y E K N D D C T L D Y L K  
R T D F P V L N R D F H K K F L E S P L H K L P P G M V S L D A S G  
D A K I P E N A P T S L L T D L H R Q F V A G Y S T K D N Y E Y A M S E F L R  
Y Y K E Y E P A D K L E L L A D Q H I K Y C T K R L N I G Y S I L Y L D V G Q  
K E A E G E K E L R L A E E A H K G Y T R R L G K T K G F E H W V T E H L K  
S K D K K D A T L N R D F L K M Y L N K L P Q L T P L D A S R Q  
E F A K H A H I D Y I Q H L E E K T F E Y C V T E H L R  
F D V E L H V K Y L I G L K N K K E D F E S C M E H M R  
L D R E E M I E F V M S C W D D E A G A F G A H P D H  
L D R E E M I E F V M S C W D D E A G A F G A H P D H  
M E E Q M K F L H D K H V K F F Q R I L Q I L P S R Y A T L D S N R  
L N K S L H I K Y I Q D L D K K K D L A Y I T S H L R  
E L A V D K H V K Y I S V E K K D S A S V M E H L R  
P Y I Q K Q A L D S L V L F I E E H T K F A K K G L R T L P S Y F D S L D A S R  
K F I F I L N I Q L E K E R H F K I C T D I Y F L K N L S L F L E A S K  
T F I R E K H I D Y I I K V G N E K D T T A I A T E H L R  
M E F V W E K H V T F V R K Q Q E K S S E D I E S M S H L K  
D R G K V Y S F L L R M K D A S G G F R M H D E L D  
D R G K V Y S F L L R M K D A S G G F R M H D E L D  
L E N E P P F Y D A L H V N Y V S G L A A K L P S S Y E G T A H L R  
P D T S T L L I E K H I N F I Q S L D K K E D S S Y H L T E H L R  
P P L D I L E K H V K Y I Q N L D K K Q D L S Y F L T E H L R  
S T E N G N I I E K K K L N F L M N G I E K I P M S H Q G L D S S K  
G H Y T N E H L K  
A L V N V T P G G Q L E L W R D K H I D Y L L Q G F R R L A P S Y C V L D A N R  
S S K E S R S I D S V K L A S S S I T Y L Y P K I F E L P G S W I A L D A S R  
E L H V Q F V R K L D E V V L W K A Q H L K  
T L L R D K H V S F I H R L Y E L P T S L E S L Q H I R



UniRef90\_W5KFT0 S A S G H D P H L L Y T L S A V Q I L T L Y D N V K A I D V D K V V D V 160  
UniRef90\_W277K4 A P A T H H D S H L L H T L S A V Q I L T L Y F N E A L D S F D L D S I A Q Y Y  
UniRef90\_J9JK26 S P A P G H D D P H L L Y T L S A V Q I A C L L N R E L E A L D S F D T E K I V S Q Y  
UniRef90\_G0QF07 G G N L L H D S H L L T S T H Y A V L V L L L L L K A L Q E I D A E K V V Q Y  
UniRef90\_N1QDZ1 G G G H G Q S S H C A A T Y A T L L A L T A V G G G A L L E V V D D R K A M W H F  
UniRef90\_K5VT88 A G G P G Q S P H L L P T Y A A V C A L A V G R P G G W D E V D D R Q K L Y D F  
UniRef90\_E9BR14 G G N A D M D S H L L H T M S A V Q L L C M F G D A V A R I D D V E R T V R W  
UniRef90\_K5VI85 A G G P G Q F P H L L P T Y A S V C A L A I V G H P G A W D Q I D R K K M Y N F  
UniRef90\_H8X0Y6 A G G A N G Q V G H L L A S T Y A A V L L T L L T K N T G T L L R I D R K N L Y T W  
UniRef90\_M2N1G1 G G G H G Q S S H C A C S Y A T I L L L T A V E G L E V V D R K A M W H W  
UniRef90\_F0W5Z7 G G N V G H D P H L L Y T L H A L L L L A M L N A L P R I D T E K T V A Y  
UniRef90\_UPI000440E430 G G G P G Q S P H L L P T Y A S V C A L A V G R P G G W D E I D R E K L Y R W  
UniRef90\_M3A1A1 G G G H G Q S S H A A G T Y A T L L A L A T V G G L E V V D R K A M W H F  
UniRef90\_A8XPk2 G P A P G H D S H L L H T L C A V Q T L I I F D C L Q K A D A E S I C E Y  
UniRef90\_M2YL73 G A S P G Q D P H M L F T C S A V Q L L A M V D G E L D E L D K R G R G K M A K F  
UniRef90\_S8DQG1 G G G P G Q A P H L L A T Y A A V S A L A I V G P G G W D D I D R R K K M Y D F  
UniRef90\_B6AHV9 C G N F S H M P N I V S T Y A A V C S L I I V G D T E A L G S I D R K M Y Q Y  
UniRef90\_F1L0D5 A P A P G H D A H L L H T L S A V Q I L I M L N K L E E L D V S G V A N Y  
UniRef90\_D7FX18 G G G P Q Q L P H C A P M Y A S V L S L L I L G T P E A Y A G I E R S A L V A R  
UniRef90\_BOERG8 G G N I G Y D G H T Y N T L S A I Q V L L C I L G K R S L I P V I E Q V A N F  
UniRef90\_A0A058Z6X6 A G N L G H D A H L L Y T L S A I Q L L I L A T Y D A L D R V D T D R V V E Y  
UniRef90\_UPI000388C82F G A K K D D Y E Y C M S E Y G V Y W G L T V M D L M G Q L Q R M T K E E I L A F  
UniRef90\_UPI000388C82F G A K K D D Y E Y C M S E Y G V Y W G L T V M D L M G Q L Q R M T K E E I L A F  
UniRef90\_H2LDQ8 S A S P G H D P H L L Y T L S A V Q I L L C L Y D S L H A L D V D K V V E Y  
UniRef90\_Q0UX99 G A A P G Q Q A H M L V C N Y A A I N A L A L C D N D C W A S T K R E G I Y E W  
UniRef90\_C5DL64 C G G F G Q Q A H L L V C N Y A A I N A L A L C D N D C W A S T K R E G I Y E W  
UniRef90\_UPI0004408B9A G G G P G Q F P H L L P T Y A A V S A L A S V G R P G G W D Q L N R E K L Y A F  
UniRef90\_W1P293 E S L V M E H L R M N G A Y W G L T A L D L M G K L G A V D R D M V V S W  
UniRef90\_W1P293 E S L V M E H L R M N G A Y W G L T A L D L M G K L G A V D R D M V V S W  
UniRef90\_G3B951 G A Y P Q H D G H L L S T L S G L Q L L I Y D S L H T I D D K R A Q I T K F  
UniRef90\_B9WG67 G G G I N Q L G H L A S T Y A A I L T L I L T D Q Y E L N S L R E L I R D W  
UniRef90\_Q759K2 A G G L H Q L P N I A C T Y A A I E T F V L C D S P D A W S R I N R V A L Y Q F  
UniRef90\_J41BT6 C G G P G Q A A H L L A T Y A S V C S L A L V G G P G A W D E V D R K K M Y D F  
UniRef90\_M2M4E9 G A A P G H D A H L L Y T G Y S V Q L L T M I D G F G A L E P D C K Q K I A R F  
UniRef90\_U5H006 A P H P D H E P H L H P T L S A I Q L L I L A T H D A L H L L D T D K L V Q Y  
UniRef90\_W6MW18 G P Y P K H E A H L L S T L S A L Q I L K L Y N S L D R L G S F K P D L V K F  
UniRef90\_C5MIH6 G S F P K H D A H M L S T L S A L Q I L L S I Y D P K L S L P I E K K D L K F  
UniRef90\_L0AY61 Y W A L H S L L L L G A D I K V Y R Q R A I N T  
UniRef90\_L0AY61 Y W A L H S L L L L G A D I K V Y R Q R A I N T  
UniRef90\_J919E2 G G A P G H S S N L I A S Y A A V L T L V N I G T H E A F D L I N V S G M K D F  
UniRef90\_R9XGL4 V G G P Q Q L P H I A C T Y A A V E A L A L C D S N D A W S R I D R E S L Y R W  
UniRef90\_UPI000359D2B7 S C S G H D P H L L S T Y A A V Q I L T L Y E A V D A V D T E A V V Q W  
UniRef90\_G8B6R5 A G G A N Q M G H L A S T Y A A V L T L L L T K N T A T L L R I K N D N L Y T W  
UniRef90\_W0YHN3 G G G P G Q M P H L A T T Y A A V N S L I T L G S P K A L S S I N R E K L Y T F  
UniRef90\_I4YA56 G G G P G Q I S H I L T T Y A S I M S F V I A G G P G S W E D I D R R A I Y N F  
UniRef90\_S0B8K2 K G S Q L T R P I A G C Y S G I N A M I S I G T T K A Y Q C I K A Y N F  
UniRef90\_B6K6U5 A C Y P G H D E H I T N T V Y A V Q V L L M L D A L N E V D T D R I A N Y  
UniRef90\_J4UD15 G A H P G H D A H I H A T L S A V Q V L I M Q S R D A L E S C D V E R V V K F  
UniRef90\_A0A059AQE3 G G G P G Q L P H L A T T Y A A V N S L I T L G G S R S L S I N R D K V H N F  
UniRef90\_S8AGG4 G G G N G Q A P H M A S A Y A A I L T L V V T S Y Y E S R D W I D R Q K L L D W  
UniRef90\_F4NX78 G G G H P G H D P H L L F T L S A I Q L L I L A T F D A L D K V D T L T C K Y  
UniRef90\_I2H438 A P Y P G H D G H M L A T L S G V Q I L A I Y D S I D S L T N E Q I E S L V K F  
UniRef90\_UPI00042B697E G G G P G Q M P H V A T T Y A A V N S L V T L G G D K A L C S I N R E K L Y T F  
UniRef90\_T0QR33 G G N L G H D R H L L Y T C H A V I L A L A M L G R E S V V L V D E T A D F  
UniRef90\_J0D8K2 G A N P G H D A H L L Y T L S G I Q I L L V T Y D A L D R L D V D K R T R V V D F  
UniRef90\_D8QC02 G A H P D H D A H M L S T L S G I Q I L L E L D A L G R L D V D R V V K F  
UniRef90\_A0A058Z366 G G G P G Q L L A H L A P T Y A A V A T L V N L N D D E P L R L I D R E S L Y R W  
UniRef90\_W4K1Q2 G G G P G Q A A H L L P T Y A A V C A L A I V G R P G G W D Q I D R E K I Y S W  
UniRef90\_G1XAU6 G G G N G Q A P H V L A A Y A S I L T L A I T S Y H N S F A W I D R Q K L L Q W  
UniRef90\_D8LBL3 G G N E G H D P H I L Y T L S A L Q V M A L L G E L D R V D R K K V A G Y  
UniRef90\_A8P1H5 G G G P G Q A A H L L T T Y A S V C I L S M V G R P G G W D D I D R K K V Y E F  
UniRef90\_U6L5G3 G G G P N Q Q F H L A C T Y A A A A L V E C G L V G R W G L K R R Q D L Y K A  
UniRef90\_Q5CSN2 G G N F S H M P N L V S T Y L A V S S I I T G D T E A L L K I D R F K M Y Q F  
UniRef90\_G7YK23 S P A P R H D S H L L S T L S G I Q I L A L F D R M D M L N I D G A T R F  
UniRef90\_S6F179 G G G L G Q L P H L A S T Y A A I N A L A I C E N V D C W D S I N K D S I Y N W  
UniRef90\_D3PGC8 R P A A N H D S H I L Y T L S A I Q I A A I Y D S M D I I P K A Q V T K F  
UniRef90\_A0DLA2 G G G P Y G F E H L A P T Y S S L L T L F I L G S P A S L G L I D R K A G L E N F  
UniRef90\_L8GWR5 G G S I G H D A H L L Y T L S A I Q V L A I L D A L G R L D V D R D R T A Y  
UniRef90\_G0V9P9 G G G V G Q L P H M A G S F A A I N S L V V C D N I D C W D K V D R K A I Y K W  
UniRef90\_D2W1P3 A G A P N H D A H I L Y T L S A V Q L L V L L N I E F L T L E Q I E K I G E F  
UniRef90\_K3W6R4 A G N V G H D R H L L Y T L H A L L L S M L D A L D R I Q K E K A A A Y  
UniRef90\_S8E0Q1 A G D K W G E I D T R F L Y C A V N A L S L L G R L H E L D V D K T V G Y  
UniRef90\_S8E0Q1 A G D K W G E I D T R F L Y C A V N A L S L L G R L H E L D V D K T V G Y  
UniRef90\_V4B4M5 R G S P Y D C G H I A D T Y T A L S S L V I L G D D L S K L N K R A I S A G  
UniRef90\_Q5K1V0 G P H P G H D G H I L A T L S G I Q V L L M E D A L D R A D I E Q I L I S F  
UniRef90\_B9T610 K V L D V V D S N E V I E W I M Q C Q H E S D  
UniRef90\_D2V4P3 A G G P G Q L S H V A P T F S G T I A L C A L K A N Q G L D I D K Q K M Y S F  
UniRef90\_Q4Y943 G G G L N Q Y T I T T Y A A I C V E I Y L N D D D F L G F L D K K K L H S Y  
UniRef90\_D8MAS3 G G N L N H D S N L Y T L S A L Q I L A I C D K M D V I D K K K V S F  
UniRef90\_UPI0002C3D33B G G N I G Y D G H I Y N T L S A V Q V L C I L G K R D L I P I D K V A N F  
UniRef90\_Q6J6P6 A G E P G S E A H G G Y A F C G L A A L I L I D E V H R L D L P R L I D W  
UniRef90\_Q6J6P6 A G E P G S E A H G G Y A F C G L A A L I L I D E V H R L D L P R L I D W  
UniRef90\_B7G2W5 G G N A S Q D A H I L Y T L S A I Q I L A L A D R L D D P R L Q R D A I V K F  
UniRef90\_F4S1U9 S H P F H D P H L H S T L S A I Q I L V M Q N S L D K V I D K Q I T N Y  
UniRef90\_UPI0003F49E88 G A H P G H D G H I L G T L S A I Q I L A I Q D A L D Q I D V K N R V S F  
UniRef90\_Q55D51 G G G N S H T S H V S T F A A V S A L Y V I G T E E S Y K T I D R E A M Y K F  
UniRef90\_J9G1N9 G G N I G H D P G L V N S L Y S L L L A M Y D N I E A I D V N K M A E Y  
UniRef90\_A9NYH3 G G G P G Q M P H L A S T T Y A A V N S L V T I G G Q T A L A S V N R K M L Q F  
UniRef90\_E3KAQ5 S P G P G H L A H L A A T Y A C I C C L A I L L E D D T W S Q V Q I G K L Y A W  
UniRef90\_S9VD42 G G N K G H D S H M L Y T L S A I Q V L C L Y D A L D K I D V E K T A D Y  
UniRef90\_R4XBTO G S A P G H D P H V V C T L H A I Q I L T L V E A L D E I D V A G T V A W  
UniRef90\_J41952 M N T E D P S Q Q L D I P L H V K Y



	170	180	190	200
UniRef90_W5KFT0	V	R	G	L
UniRef90_W277K4	V	R	R	L
UniRef90_J9JK26	V	I	S	K
UniRef90_G0QP07	I	S	K	T
UniRef90_N1QDZ1	L	G	Q	V
UniRef90_K5VT88	F	M	S	L
UniRef90_E9BR14	I	A	S	M
UniRef90_K5VI85	F	M	S	L
UniRef90_H8X0Y6	I	V	S	L
UniRef90_M2N1G1	L	G	Q	V
UniRef90_F0W5Z7	V	A	Q	L
UniRef90_UPI000440E430	F	M	S	L
UniRef90_M3A1A1	L	G	Q	V
UniRef90_A8XPK2	V	K	G	L
UniRef90_M2YL73	I	A	D	L
UniRef90_S8QG01	F	M	S	V
UniRef90_B6AHV9	L	K	S	L
UniRef90_F1L0D5	V	I	A	R
UniRef90_D7FX18	F	M	S	L
UniRef90_BOERG8	I	K	S	L
UniRef90_A0A058Z6X6	V	C	S	L
UniRef90_UPI000388C82F	I	K	S	L
UniRef90_UPI000388C82F	I	K	S	L
UniRef90_H2LDQ8	V	K	G	L
UniRef90_Q0UX99	I	A	N	L
UniRef90_C5DL64	L	L	T	L
UniRef90_UPI0004408B9A	F	M	S	L
UniRef90_W1P293	V	L	K	C
UniRef90_W1P293	V	L	K	C
UniRef90_G3B951	I	K	D	L
UniRef90_B9WG67	L	L	T	L
UniRef90_Q759K2	L	L	R	L
UniRef90_J4IBT6	F	M	S	L
UniRef90_M2M4E9	V	A	S	H
UniRef90_U5H006	V	L	S	L
UniRef90_W6MW18	I	K	D	L
UniRef90_C5MIH6	I	I	T	G
UniRef90_L0AY61	I	M	S	C
UniRef90_L0AY61	I	M	S	C
UniRef90_J919E2	L	L	I	S
UniRef90_R9XGL4	M	L	R	L
UniRef90_UPI000359D2B7	V	K	G	L
UniRef90_G8B6R5	I	M	S	L
UniRef90_W0YHN3	L	L	R	M
UniRef90_I4YA56	L	L	R	M
UniRef90_S0B8K2	L	L	M	S
UniRef90_B6K6U5	V	V	N	L
UniRef90_J4UD15	L	L	S	L
UniRef90_A0A059AQE3	L	R	Q	M
UniRef90_S8AGG4	I	R	K	T
UniRef90_F4NX78	I	Q	S	L
UniRef90_I2H438	V	V	I	T
UniRef90_UPI00042B697E	L	R	R	M
UniRef90_T0QR33	V	A	S	L
UniRef90_J0D8K2	I	L	S	L
UniRef90_D8QC02	L	L	S	L
UniRef90_A0A058Z366	L	M	S	L
UniRef90_W4K1Q2	F	L	S	L
UniRef90_G1XAU6	L	R	K	I
UniRef90_D8LBL3	V	S	G	L
UniRef90_A8P1H5	F	M	S	L
UniRef90_U6L5G3	I	L	S	L
UniRef90_Q5CSN2	F	K	K	L
UniRef90_G7YK23	I	L	S	L
UniRef90_S6F179	I	L	T	L
UniRef90_D3PGC8	I	S	E	P
UniRef90_A0DLA2	F	W	S	I
UniRef90_L8GWR5	V	A	S	L
UniRef90_G0V9P9	L	M	E	S
UniRef90_D2W1P3	I	G	S	L
UniRef90_K3W6R4	I	A	S	L
UniRef90_S8E0Q1	L	R	Q	C
UniRef90_S8E0Q1	L	R	Q	C
UniRef90_V4B4M5	L	R	A	L
UniRef90_Q5KIV0	L	K	L	K
UniRef90_B9T610	I	I	G	L
UniRef90_D2V4P3	L	I	S	L
UniRef90_Q4Y943	I	L	S	L
UniRef90_D8MAS3	I	L	S	L
UniRef90_UPI0002C3D33B	V	K	E	R
UniRef90_Q6J6P6	L	V	F	R
UniRef90_Q6J6P6	L	V	F	R
UniRef90_B7G2W5	V	V	G	L
UniRef90_F4S1U9	I	L	A	R
UniRef90_UPI0003F49E88	L	L	S	L
UniRef90_Q55D51	L	M	R	M
UniRef90_J9G1N9	V	A	S	L
UniRef90_A9NYH3	L	L	R	M
UniRef90_E3KAQ5	M	L	S	L
UniRef90_S9VD42	I	A	S	M
UniRef90_R4XBT0	I	A	S	L
UniRef90_J41952	I	A	S	L





UniRef90\_W5KFT0 S W W V L A A L K L I G R I H W I D K A K L R N F I L  
UniRef90\_W277K4 S W W V L A S L A M L G R L D W V D K A S I N S R C F L S F E A L T K F I Y  
UniRef90\_J9JK26 S W W V F S T L N L M L G R D H W I D K E E L K T F I L  
UniRef90\_G0QP07 S W W I F S A F K M I K R Q Q W I D C G N L E Q F I L  
UniRef90\_N1QDZ1 S H W V G G C W A L I Q A A I A G N N N H T S T K Q I P L W N R V G L T R Y L L  
UniRef90\_K5VT88 S W W C G G S F A L L E S L G I G Q H E G W D D I D E S L F D R K A L Q E Y I L  
UniRef90\_E9BR14 S W W V S S S L S A L G R T S W I D K E A L F Q Y I L  
UniRef90\_K5VI85 S W W V G G C V L V L V E G L L D S N E H A W G D V D D S L F N R E A L Q E Y V L  
UniRef90\_H8X0Y6 S F W I G A L T P M V E V L H Q P H A I S R V A L K N Y I L  
UniRef90\_M2N1G1 S H W V G G C W S L L Q A A F S Q S S A T T E L E P S E L W N P A A L T R Y L L  
UniRef90\_F0W5Z7 S W W D I A S L I M L G K L D W I N K D K L I D Y I L  
UniRef90\_UPI000440E430 A W W V G G E F A L L E A L G V S G Y D F P H S H S Q S V F N R R A L Q E Y I L  
UniRef90\_M3A1A1 S H W V G G C W A L I E Q A I A G S N G Q T P N L W S R E A L T R Y L L  
UniRef90\_A8XPK2 S W W V L A S L S L L G R L D F I D Q T S M K K F I Y  
UniRef90\_M2YL73 S W W V L T S M A M L D R I H W I D G E K L A R F I L  
UniRef90\_S8DQG1 S W W V G G C F P L V D A L L S T E D N E W H D I D D T L F N R E A L Q E Y V L  
UniRef90\_B6AHV9 S F W F T G L L Y C L K E V C R I R S M L A E K P F N H W C D Y Q A L Q S F L L  
UniRef90\_F1L0D5 S W W V L A S L A I I G R I H W I D Q D L M K K F I L  
UniRef90\_D7FX18 S F W Q G G A V A I L D Y V T A G R E S E V S H R D  
UniRef90\_BOERG8 S W W V L T S L I L L G K V D W I D K D A L E K F I L  
UniRef90\_A0A058Z6X6 S W W C L S A L T I L D R L H H W I S A E P L S N F I L N A Q A L E D D Q Y  
UniRef90\_UPI000388C82F I Y C C T G F L A I T G Q L H Q I N A D L L G W W L  
UniRef90\_UPI000388C82F I Y C C T G F L A I T G Q L H Q I N A D L L G W W L  
UniRef90\_H2LDQ8 S W W V L A S L K L I G R I H W I D K S R L R T Q F I L  
UniRef90\_Q0UX99 S W W V M S S M A M L G R L H W I D G E K L T Q F I L  
UniRef90\_C5DL64 S Y W V G A V A A T L E A Y G L G E S I D K S Q L R E Y I L  
UniRef90\_UPI0004408B9A S W W V G G C F A L L R S L G V G V H P P I P Q Q Q H D I F N R P G L Q E Y I L  
UniRef90\_W1PZ93 V F C C V G A L A I T T G S L N L I D K D F L G W W L  
UniRef90\_W1PZ93 V F C C V G A L A I T T G S L N L I D K D F L G W W L  
UniRef90\_G3B951 S W W V L S P L T I L L G H Q N W V D L A R L G D F I L  
UniRef90\_B9WG67 G F W I G L S P L I L Q L I V R S Q G Q V N H S V K I F D E E K L Q Q Y I L  
UniRef90\_Q759K2 S F W V G G T A A I L E A Y G Y G E C I D K D A M A S Y I L  
UniRef90\_J4IBT6 S W W V G G C L A L V E A F I R A E E D A W H D I D D G L L N R E A L Q E Y I L  
UniRef90\_M2M4E9 S W W V M S S M A M L G R L H W I D K A K L T A F I L  
UniRef90\_U5H006 S W W A L A S L A I T M G R E H W I D A Q K L K S F I L  
UniRef90\_W6MW18 S W W V L T G M D L L G C L D W V D H D K L R Q Y I L  
UniRef90\_C5MIH6 S W W V L S S L D M L D N K D K V D L D K L E K F I L  
UniRef90\_L0AY61 T Y C G L A A L A L L G N M D I I D T K M A Y R W C I  
UniRef90\_L0AY61 T Y C G L A A L A L L G N M D I I D T K M A Y R W C I  
UniRef90\_J919E2 G F W I G T C F E L F D I A M K G Q G N L D G Q W L Y N I E A A Q G Y V K  
UniRef90\_R9XGL4 S F W V G G T A A I L E A Y G Y G Q C I D K A A L Q S Y I L  
UniRef90\_UPI000359D2B7 S W W V L A S L K L I G R L H W I D K D K L V I Q F I L  
UniRef90\_G8B6R5 G F W I G A L I P M V D V L R K S H T I D K V A L K N Y M L  
UniRef90\_W0YHN3 S F W Q G A V A F L I Q R L K S I V H E Q  
UniRef90\_I4YA56 S W W L G G S F N L L E Y W Q Q G D D D S W I D E E T C L Y D R E A L Q G Y I L  
UniRef90\_S0B8K2 T F W Q A A V F G V F K K Y S K K F Q A I D V K P D V E K L L D Y V I L  
UniRef90\_B6K6U5 S W W I L S P L A I I N K I D W I D R E K L I E F I K  
UniRef90\_J4UD15 S W W N L A G L A I I G K L H W I N R D K L I S F I L  
UniRef90\_A0A059AQE3 S F W Q G G A C A L L Q K L H  
UniRef90\_S8AGG4 S T W V G G C W S L V E A A A N G T G F D I D S N V G S L W N R K A L A R Y I L  
UniRef90\_F4NX78 S W W V L S S L A I L D R I H W I N A D K L V E F I L  
UniRef90\_I2H438 S W W V G A S L A I L G K I D W I N G D D L E K F I L  
UniRef90\_UPI00042B697E S F W Q G G V F A L L K R L Q S T K G E Q S V P M  
UniRef90\_T0QR33 S W W N I S S L V L G K L H W I N R E K L T Q F I L  
UniRef90\_J0D8K2 S H W V L S S L A V L R R V S W I D G P L L E R F I L  
UniRef90\_D8QC02 S F W V L S A L A I L N K L E W I D R D K L V S F I L  
UniRef90\_A0A058Z366 S F W C G A V L A L L S G T T R S V M A A E T S M D P L L F D R A S L L D Y L F  
UniRef90\_W4K1Q2 S W W V G G A F A L L E A H Q D A G D E A W D D V D D S M F N R K A L Q E Y V L  
UniRef90\_G1XAU6 S T W V G G C W S L V E A A V N S G K T A V K T N I G D L W S R K A L T R Y I L  
UniRef90\_D8LBL3 S W W I L S S L K I L G A V D W I D G A R L K G F I L  
UniRef90\_A8P1H5 A W W C G G S F G L L E A V D G E K S E E E W D D F D D G L F N S K A L Q E Y V L  
UniRef90\_U6L5G3 S F W L G A M F P L I S E C L R H L Q R E Y P M T H C F M S S A H L Q Q Y I L  
UniRef90\_Q5CSN2 S F W F T G L L F C I E E L R I R T S T T E S Y I Q C L C D E F Q A L A S Y I L  
UniRef90\_G7YK23 S W W T L A S L T I L G R L A W I D E K K L T H F I L  
UniRef90\_S6F179 S F W V G G V A S I L E A Y G Y G P C I E K D A L R D Y I C  
UniRef90\_D3PGC8 S W W V L A S L S I I G R L H W I D K K A L R D S N F I Y  
UniRef90\_A0DLA2 S F W Q G A L F N L M L S G Y V N E Q L M D V Q E L K T Y I Q  
UniRef90\_L8GWR5 S W W V L S A L C L L D R L A W I D A G A L E R F I L  
UniRef90\_G0V9P9 S Y W V G A T A A I L E A A G Y G N C I N K K Y L R E Y I L  
UniRef90\_D2W1P3 S W W V L S A L G I M D R V H W I N A E K L H D Y I C  
UniRef90\_K3W6R4 S W W N I A S L I I L G K L D W I S K E K L T Q Y I L  
UniRef90\_S8E0Q1 T H F G V A G L S L L G Y P G L V D L D P V Y C M P A H I I E R R G L R K  
UniRef90\_S8E0Q1 T H F G V A G L S L L G Y P G L V D L D P V Y C M P A H I I E R R G L R K  
UniRef90\_V4B4M5 S F W V G A T L K I L E I F E L S D A E F N R G Y I L  
UniRef90\_Q5KIV0 S W W C L A S L I I L G K I H W V N A D K L I N F I L  
UniRef90\_B9T610 S W W V L S S L I M I D R V H W I N K E K L V K F I L  
UniRef90\_D2V4P3 S F W V G A S F P L L E A A L V S L K D P  
UniRef90\_Q4Y943 S F W L G S I F Y I L K K L F K Q N E S K Q Q S I N K N L F N M N Y L K L Y I L  
UniRef90\_D8MAS3 S W W S L S A M I L L N H V P L D K Q G L I N F I L  
UniRef90\_UPI0002C3D33B S W W V L S S M C I L G T V D W I S K D K L I S F I L  
UniRef90\_Q6J6P6 N F T A I G S L S M L L Q Q Y I L L C S Q E E Q G F R D K P G K R R D Y Y  
UniRef90\_Q6J6P6 N F T A I G S L S M L L Q Q Y I L L C S Q E E Q G F R D K P G K R R D Y Y  
UniRef90\_B7G2W5 S W W I L S A L S I L G K M E W I N G D K L A G F I L  
UniRef90\_F4S1U9 S W W A L A S L E I I G K T H W I D R N K L K S F I L  
UniRef90\_UPI0003F49E88 S W W D L A S L S I L G R L N W I D R D K L I D F I L  
UniRef90\_Q55D51 S Y W Q G A V Y I I I Q S Y F N Y Y K K Q Q Q D D G D G L F N Q A K L Q E Y V I  
UniRef90\_J9G1N9 S W W L S T F M I E R E K W I D F G G L K E Y V L  
UniRef90\_A9NYH3 S F W Q G G V F P L F Q R L  
UniRef90\_E3KAQ5 I W W C G G L L P L L E A M L M S D H S G E K E F P D L C D R Q A L Q E Y I E  
UniRef90\_S9VD42 S W W V V S S L S A I G R T S W I D R E E L F R Y I L  
UniRef90\_R4XBT0 S W Y V L S S L A M L G R T A W I D R D R L R F I L  
UniRef90\_J41952 S Y C A V N A L S L L G H L H E L D V E K T V D Y I R D E I D H E T L A W W L A

UniRef90\_W5KFT0 A C Q D E E T G G F A D R P G D M V R F 330 340 350 360  
UniRef90\_W277K4 A C Q D D E T G G F S D R P G D C A D P F H T L F G V A G L S L F G N E N L S P  
UniRef90\_J9JK26 A S Q D N E G G G F S D R P G D E P D P F H T L F G L A A L S L L M S Y  
UniRef90\_G0QP07 D C Q D E K G G G I A D R P D N C V D V F H S F F G I A A L S L L L D  
UniRef90\_N1QDZ1 C C G Q Q P G G G M R D K P S T R P D A Y H T C Y S L A G L S A A Q H G S T T D  
UniRef90\_K5VT88 L A G Q H P A G G L R D K P G K N A D L Y H T L Y C L S G L S A A Q H W E E E  
UniRef90\_E9BR14 S C Q D T Q D G G F S D K P G N Q P D V Y H T F F G L C G L S L L G Y E G  
UniRef90\_K5VI85 I A G Q H A A G G L I D K P P K P A D A Y H T L Y C L S G L S A A Q H S W V E E  
UniRef90\_H8X0Y6 R V A Q V E S G G F R D K P G K S V D F Y H T N Y T L C G L S F C E H Y H L D E  
UniRef90\_M2N1G1 T C C Q Q P K G G M R D K P S A R P D A Y H T C Y S L S G L S A A Q N L Y I E  
UniRef90\_F0W5Z7 D C Q D L E D G G I A D R P G N I A D V F H T F F G I C G L I M L G Y F D R E G  
UniRef90\_UPI000440E430 I A G Q H A A G G L R D K P G K N A D S Y H T L Y C L S G L S A A Q H R V F P S  
UniRef90\_M3A1A1 C C Q Q G K K G G M R D K P S T R P D A Y H T L Y S L A G L S A A Y H Y D S T A  
UniRef90\_A8XP2 A C Q D D E T G G F A D R P G D F A D P F H T V F G I A A L S L L F G  
UniRef90\_M2YL73 S A Q D P D Q G G I A D R P G D M V D V F H T V F G I A G L S L L G Y P G  
UniRef90\_S8DQ01 F A G Q H P A G G L R D K P G K L P D S Y H T L Y C L A G L S A A Q H R W L E D  
UniRef90\_B6AHV9 V C C Q S P A G G F R D K P G L S R D M Y H T C Y A L S G L S L A Q D S S D F P  
UniRef90\_F1L0D5 A C Q D E D G G F A D R P G D V A D P F H T V F G L A G L S L L G D S S L  
UniRef90\_D7FX18  
UniRef90\_BOERG8 Q A Q D M E D G G I A D R P G D C A D I Y H T Y F G I A G L S L M R K Y T D I I  
UniRef90\_A0A058Z6X6 S R E S Q D H G G I A D R P G D R P D V F H T L F G V A G L S L L K Y P G  
UniRef90\_UPI000388C82F C E R Q L P S G G L N G R P E K L P D V C Y S W W V L A S L K I I G H W I D R E  
UniRef90\_UPI000388C82F C E R Q L P S G G L N G R P E K L P D V C Y S W W V L A S L K I I G H W I D R E  
UniRef90\_H2LDQ8 A C Q Q D E E T G G F A D R P G D M V S Y H T H  
UniRef90\_Q0UX99 Q C Q D P E L G G L S D R P G D M V D V F H T N F G I A G L S L L Q Y P G L E E  
UniRef90\_C5DL64 K C C Q S K E P G G L R D K P G K S P D Y Y H T A Y V L M G L S A T E Y S F S V R  
UniRef90\_UPI0004408B9A Y A A Q H P I G G L R D K P G K P A D A Y H T L Y S L A G L S T A Q H Y V S P E  
UniRef90\_W1P293 C E R Q V K S G G L N G R P E K L P D V C Y S W W V L S S L I M I N Q W I D R D  
UniRef90\_W1P293 C E R Q V K S G G L N G R P E K L P D V C Y S W W V L S S L I M I N Q W I D R D  
UniRef90\_G3B951 G C Q D E E T G G F S D R K D N Q T D L Y H T C F A I M G L S I L A D H  
UniRef90\_B9WG67 I I A Q E E T G G F S D K P G K Q V D Y Y H T N Y S L S G L S I L E H T F S L A  
UniRef90\_Q759K2 T C C Q D T Y G M R D K P G K P A D F Y H T N Y A L L G L A V I T Q Y N F A A G  
UniRef90\_J41BT6 Y A G Q H P A G G L R D K P G K P A D A Y H T L Y C L S G L S A A Q H H W L E D  
UniRef90\_M2M4E9 Q C Q D P D E G G M A D R P G D M V D V F H T V F G V A G L S L L G Y P G  
UniRef90\_U5H006 S A Q D P D E G G I A D R P E D L A D V W H T V F G I A G L S L L S Y P G  
UniRef90\_W6MW18 S C Q Q D L E T G G L S D R P D N Q V D V F H T V F G I A G L S L L G F E D  
UniRef90\_C5MIH6 S C Q Q D L E N G G F S D R P D N Q T D V Y H T C F A I T A L S L I N H K  
UniRef90\_L0AY61 N R V T P Q F G F Q G R P H K L V D S C Y S F W V G A S L E I L N L H M L E C  
UniRef90\_L0AY61 N R V T P Q F G F Q G R P H K L V D S C Y S F W V G A S L E I L N L H M L E C  
UniRef90\_J91E2 I C C Q N E K G G V K D K P D K N P D I Y H S F Y S V S G L S S S Q Y S S D Y N  
UniRef90\_R9XGL4 T C C Q D S H G M R D K P G K P A D F Y H T N Y V L L G L A T A Q Y D F V A G  
UniRef90\_UPI000359D2B7 A C Q D E E T G G F A D R P G D M V R L L C L Y F V L S  
UniRef90\_G8B6R5 R V A Q V E S G G F R D K P G K S V D F Y H T N Y A L C G L S C C E H K Y D T C  
UniRef90\_W0YHN3  
UniRef90\_I4YA56 N A A Q T P K G G L R D K P G K N A D T Y H T A Y N L S G L S A S Q H Y I K Y E  
UniRef90\_S0B8K2 L A S Q S K D G G F R D K P T K S V D L Y H T A Y N L S G M S A V L Y A T N H K  
UniRef90\_B6K6U5 T C Q D P D S G G F S D R K E D V A D V Y H T C F S L A G L A L G H P D  
UniRef90\_J4UD15 S A Q D E E D G G I A D R P G D W V D V F H T V F G L A G L S L L G Y P G  
UniRef90\_A0A059AQE3  
UniRef90\_S8AGG4 A C C Q D P H G G L R D K P G M R P D Y Y H S N Y V L L G L S A A Q N Y Y Y Y D  
UniRef90\_F4NX78 S S Q D E E G G I A D R P G D N P D V F H T L F G L C G L S M L G Y G N  
UniRef90\_I2H438 K C Q D E E R G G F S D R P G N E T D V F H T I F S L A G L S L V G K Q D  
UniRef90\_UPI00042B697E  
UniRef90\_T0QR33 N C Q D K E D G G I A D R P G N M A D I Y H T F F G I C G L S M L G Y F D G K E  
UniRef90\_J0D8K2 A A Q D E D G G L A D R A G N D V D V F H T L F G I T G L S L L G Y P G  
UniRef90\_D8QC02 S A Q D T T K G G I A D R P E D E P D V F H T Q F G V A G L S L L G Y P G  
UniRef90\_A0A058Z366 V C Q Y D A S G G F K D K P S R L D A Y H T C Y S L S G V S V A  
UniRef90\_W4K1Q2 L A G Q H P A G G L R D K P P K N S D A Y H T L Y C L A G L S A A Q H R W T E E  
UniRef90\_G1XAU6 T C C Q G P H G G L R D K P G I R P D Y Y H S N Y V L L G L S A A Q H Y G T G G  
UniRef90\_D8LBL3 R C Q D S E D G G I A E R P G N L A D L F H T F F G I A G L S L L G Y F D G R E  
UniRef90\_A8P1H5 L A G Q H P S G G L R D K P P K P A D A Y H T L Y C L A G L S A Q H R I F P S  
UniRef90\_U6L5G3 C C C Q A E N G G L R D K P G K P D L Y H S C Y A L S G L S I S Q Y R A E S S  
UniRef90\_Q5CSN2 I C C Q L S E G G L I D K P K K P R D L Y H T C Y A L S G L S L A Q Y R I S N K  
UniRef90\_G7YK23 A S Q D S E A G G I A D R P G D I A D P F H T L F G L A G L S L I A H Y D N P S  
UniRef90\_S6F179 C C Q M T N R P G I R D K P G T N P D F Y H T N Y G L L G L A I T E N P H A F K  
UniRef90\_D3PGC8 A C Q D S E T G G I S D R P G D Y P D P F H T L F G M A G L S L M  
UniRef90\_A0DLA2 M C Q N A P A G G I F D K P S K N P D Y H T C Y G L S G Y S L S D S N F Q  
UniRef90\_L8GWR5 Q C Q D V E S G G I A D R P G D M V D I F H T F F G I G G L S L L G Y A H V I G E  
UniRef90\_G0V9P9 Y C Q S E E P G L R D K P G K H P D F Y H T M Y N I L Y G L A I T E E N V T S T  
UniRef90\_D2W1P3 N C Q D T E K G G I S D R P N N M V D V F H T M F G I G G L S L L G Y G D  
UniRef90\_K3W6R4 E C Q D L E D G G L A D R P G N V A D V F H T F F G I C G L S M L G Y F D R E K  
UniRef90\_S8E0Q1  
UniRef90\_S8E0Q1  
UniRef90\_V4B4M5 E T Q S D I T G G F A K W P Q T S P D A L H A Y F G I C G L S L L G E P G  
UniRef90\_Q5KIV0 S A Q D L D D G G I G D R P G D W V D V F H T I F G V A G L S L L G Y P D  
UniRef90\_B9T610 S C Q D T E N G G I S D R P D D A V D V F H T Y F G V A G L S L L G Y P G  
UniRef90\_D2V4P3  
UniRef90\_Q4Y943 L C S Q S N K G G M K D K P K E K V D Y Y H T C Y A L S G L A L V E N Y L L K H  
UniRef90\_D8MAS3 K C Q D P R G G L S D R P M D E R D L Y H T Y F G I A G L I M L G Y L D E Q N  
UniRef90\_UPI0002C3D33B K A Q D L E D G G I A D R P G D C A D V Y H T Y F G I A G L T L L N A Y E D V V  
UniRef90\_Q6J6P6 H T C Y C L S G L S I C Q Y C S V D L  
UniRef90\_Q6J6P6 H T C Y C L S G L S I C Q Y C S V D L  
UniRef90\_B7G2W5 R C Q D D E D G G I A D R P D D M A D V F H T F F G I A G L S L L G H L H D N T  
UniRef90\_F4S1U9 S C Q D S N L G G I A D R P N D M P D L W H T I F G L S G L S I L N F H G  
UniRef90\_UPI0003F49E88 S A Q D L E D G G I A D R P G D M V D V F H T V F G L A G L S L V G Y P G  
UniRef90\_Q55D51 R F C Q K Y S G F S D H P H R G K D Y Y H T C Y G L S G I S L S Q Y N E I G K  
UniRef90\_J9G1N9 N C Q D Q E T G G I G D R P G N E V D V F H T F F G L T A L S L M G Y Y D  
UniRef90\_A9NYH3  
UniRef90\_E3KAQ5 Q P T A E S K G G L K D K P G M D P D M Y H T H Y I L S G L S V G Q H K P S Y S  
UniRef90\_S9VD42 S C Q D E E D G G I S D K P G N Q A D V Y H T F F G L C G L S L L G Y  
UniRef90\_R4XBT0 S A Q E E H G G L S D R P G D V A D I H H T C F G L T G L S L I G  
UniRef90\_J41952 E R Q L I P N G G L N G R P E K L E D V C Y S F W V L S S L S I L K K W I D P E

UniRef90\_W5KFT0  
 UniRef90\_W27K74  
 UniRef90\_J9JK26  
 UniRef90\_G0QP07  
 UniRef90\_N1QDZ1  
 UniRef90\_K5VT88  
 UniRef90\_E9BR14  
 UniRef90\_K5VI85  
 UniRef90\_H8X0Y6  
 UniRef90\_M2N1G1  
 UniRef90\_F0W5Z7  
 UniRef90\_UPI000440E430  
 UniRef90\_M3A1A1  
 UniRef90\_A8XPK2  
 UniRef90\_M2YL73  
 UniRef90\_S8DQG1  
 UniRef90\_B6AHV9  
 UniRef90\_F1L0D5  
 UniRef90\_D7FX18  
 UniRef90\_BOERG8  
 UniRef90\_A0A058Z6X6  
 UniRef90\_UPI000388C82F  
 UniRef90\_UPI000388C82F  
 UniRef90\_H2LDQ8  
 UniRef90\_Q0UX99  
 UniRef90\_C5DL64  
 UniRef90\_UPI0004408B9A  
 UniRef90\_W1PZ93  
 UniRef90\_W1PZ93  
 UniRef90\_G3B951  
 UniRef90\_B9WG67  
 UniRef90\_Q759K2  
 UniRef90\_J4IBT6  
 UniRef90\_M2M4E9  
 UniRef90\_U5H006  
 UniRef90\_W6MW18  
 UniRef90\_C5MIH6  
 UniRef90\_L0AY61  
 UniRef90\_L0AY61  
 UniRef90\_J9I9E2  
 UniRef90\_R9XGL4  
 UniRef90\_UPI000359D2B7  
 UniRef90\_G8B6R5  
 UniRef90\_W0YHN3  
 UniRef90\_I4YA56  
 UniRef90\_S0B8K2  
 UniRef90\_B6K6U5  
 UniRef90\_J4UDI5  
 UniRef90\_A0A059AQE3  
 UniRef90\_S8AGG4  
 UniRef90\_F4NX78  
 UniRef90\_I2H438  
 UniRef90\_UPI00042B697E  
 UniRef90\_T0QR33  
 UniRef90\_J0D8K2  
 UniRef90\_D8QC02  
 UniRef90\_A0A058Z366  
 UniRef90\_W4K1Q2  
 UniRef90\_G1XAU6  
 UniRef90\_D8LBL3  
 UniRef90\_A8P1H5  
 UniRef90\_U6L5G3  
 UniRef90\_Q5CSN2  
 UniRef90\_G7YK23  
 UniRef90\_S6F179  
 UniRef90\_D3PGC8  
 UniRef90\_A0DLA2  
 UniRef90\_L8GWR5  
 UniRef90\_G0V9P9  
 UniRef90\_D2W1P3  
 UniRef90\_K3W6R4  
 UniRef90\_S8E0Q1  
 UniRef90\_S8E0Q1  
 UniRef90\_V4B4M5  
 UniRef90\_Q5KIV0  
 UniRef90\_B9T610  
 UniRef90\_D2V4P3  
 UniRef90\_Q4Y943  
 UniRef90\_D8MAS3  
 UniRef90\_UPI0002C3D33B  
 UniRef90\_Q6J6P6  
 UniRef90\_Q6J6P6  
 UniRef90\_B7G2W5  
 UniRef90\_F4S1U9  
 UniRef90\_UPI0003F49E88  
 UniRef90\_Q55D51  
 UniRef90\_J9G1N9  
 UniRef90\_A9NYH3  
 UniRef90\_E3KAQ5  
 UniRef90\_S9VD42  
 UniRef90\_R4XBT0  
 UniRef90\_J4I952

V D A V F C M P K H T L K E  
 D N I L D P I D P T Y C M P K A V I N R  
 G E K Y Q L Q I D P T F A L P K S V L R N Q F Q H L  
 E E R K A L V I D V E D L V V P V H P V F V L P M G V V E Q A K M Q F  
 G T S R V I G P S N S Y R L N N A T H P L T N L T I T H T E A I L K Y F Y G Q D I  
 N G I T V L G I D E H D V V E C V H P V F V L S Y D I L D R  
 E G T V V V V G G A A N R L N A T H P L L N L T A T H V E A M M A H F Y G Q K T  
 N D E G I C L A L S T T F T H A I N P V F G I P T S  
 I K H P E Y T R I K K I H P V F A L P M D V A E K  
 K E R K V V V G P A S N R V N A T H P L F N L T I T H T E A I V G H F Y K Q T V  
 P T K D E S G R D E Q D L V V P V H P V F V M T M E V V E K T R L Q F Q K  
 D E T L E E V D P L F C M T K K  
 L K P V D P T Y C M P K D I V D Q  
 E G A D K F V G G S A N R V N A T Q P L F N L T V T H T G M I M A H F Y Q Q K V  
 I S S F E T L G S P S D L I N P T D P F L N L I R P D K I I Q A R H F L A N N P L  
 S S V D A V L C M T K R S L S T L  
 G E I D P R F A M P K D V L E F Y H  
 L E P V D P L F C M P L K V T Q R  
 K L R C F I L A C Q D E E  
 K L R C F I L A C Q D E E  
 V D P  
 D C P Q R I Q S V E Q P D V E P V N P I F G L P I D V L A R F V D Y  
 E G G S I Y V N G P G D R L N A T H P I F T L T M T H V G Q V M E H F Y G Q  
 K L K T F I L E C Q D  
 K L K T F I L E C Q D  
 E L Y D L E A I D P V Y C M P Y S A T Q K I Q K W  
 F Q I D I N K E E E D N F T N P I H P V F G I P I N F V K K C H E Y F R L K T I  
 E T P A D I E C T P I G T I C P I N P V Y G L P A K N V R S F V A H F R Q  
 E G A D K Y V G G S G N R V N A T Q P L F N L T V T H T E L M M A H F Y G Q T L  
 L V E V D P A Y C M P R H I T A Q I  
 L E P V D P I Y C M P A E A T K R  
 L V P V D A S Y C L P K A V V A T I K K F  
 K Y N F K Q I D P I Y C M P I G I V  
 N E A D S R K L E Q L E I V K L L L A I Y I M T V S Q T G K G F R D K P  
 N E A D S R K L E Q L E I V K L L L A I Y I M T V S Q T G K G F R D K P  
 R L Q S  
 A S T T D I E C T P T P D V C P I N P I Y G I P V K D V R N F V T H F L  
 L A F K I V V K S S D N S T Q A I N P V F G V P I S  
 P D R K S V R G G S N I T N P T H P V F N L T M S K S S A A L K Y F Y R Q  
 M K D Q I G Q V E P A M G V D L A L F K Q A C D Y F K S  
 L K P I D P R Y C I P T E V S K K  
 L Q D I D P L Y C M P A D V I A A  
 G W E E G L V S N E R S R V G T Q H P L F N I P L H A V A E I Q E W W  
 L N K V D P R Y C M L T S T I D A  
 L M P I D P K Y C L P P S V T  
 D F G G F  
 Q R I H P V F A I P E R D V E R L Q  
 L E D L D P V Y C M P A S V I E A L R K D W L A L P  
 L A D L D P V Y C M P A A L I E K M R K R W K A L P  
 E G T S K I V G L A S N K V N A T H P L F N M T I T H T E A V M G H F Y N Q T V  
 G W L E G L V S D E S D R V G A Q H P L F N I P L G A E S Q L Q S W W E  
 G Y D S F L P V D A V Y A L P V P L V E Q  
 K H K C E T F L N T K W  
 R G P Y V Y G C W K S N L L Q Q T D P F Y N V C C T H M Q E C R E Q L K Q L P  
 Q S P P F F E C E E N S I N T D P F L N I R T D K I R K S R L L L N R H P L  
 S H N C P N G C L A K T R L K P I N P I F C M P Q Y V I E R M  
 I T S T I I D Q D R A S G L T A I N P V Y G L P N K D L E L F Y K H F  
 G V N R N I I K E V N P V F C M P Q S V I D K C  
 N P I Y N V P N K C I D F V Q K F F Q  
 G D L  
 P V D A S L L P S A P S G I C P M N P V Y G L P T K D A K A F F N H F R  
 K Y G L K T I D P T F A L P I D A L K K I  
 A A H P E Y A P I R H V H P V Y A V P V D T A E K L Q  
 L I K L H P A L N I S Q R A S D H L Q Y I H Q Q  
 L R D I D P V Y C M P A D L I S R  
 L K A T D P A Y A L P V D V V N R I  
 Y F E D K Y N V E N I N K L N K I H I L L Y N I T A Q K V Y K S Y N Y F S  
 I P S T H I H P A Y A L P M P V I E R M  
 G K I D A R Y A M P V D I L Q  
 N S P P F V L G P Y T N L L E Q V H P L Y G I V L D R Y N E A R D F F S K  
 N S P P F V L G P Y T N L L E Q V H P L Y G I V L D R Y N E A R D F F S K  
 E N K P Y R Y I D P V Y A L P T D I V R R  
 L E K I D P I Y C I P T E  
 L K D I D P V Y C M P S E V I D K M  
 A I Q S L N  
 I E K I D H V Y A I P I D T I K K H F P H V Y Q Q  
 P K S K L V V G P P E N E V G K V N P V L N V K H S A V E Q I M N Y F Y H Q N C  
 T D Y P L E E I N P V Y A L P Y Y V L D R L Q  
 K D G L A E I D P R Y C M P L A V T K K  
 K L T A F I L S A Q D

UniRef90\_W5KFT0  
UniRef90\_W2T7K4  
UniRef90\_J9JK26  
UniRef90\_G0QP07  
UniRef90\_N1QDZ1  
UniRef90\_K5VT88 P  
UniRef90\_E9BR14  
UniRef90\_K5VI85 P  
UniRef90\_H8X0Y6  
UniRef90\_M2N1G1  
UniRef90\_F0W5Z7  
UniRef90\_UPI000440E430 P  
UniRef90\_M3A1A1  
UniRef90\_A8XP2  
UniRef90\_M2YL73  
UniRef90\_S8DQG1 P  
UniRef90\_B6AHV9  
UniRef90\_F1L0D5  
UniRef90\_D7FXI8  
UniRef90\_B0ERG8  
UniRef90\_A0A058Z6X6  
UniRef90\_UPI000388C82F  
UniRef90\_UPI000388C82F  
UniRef90\_H2LDQ8  
UniRef90\_Q0UX99  
UniRef90\_C5DL64  
UniRef90\_UPI0004408B9A  
UniRef90\_W1PZ93  
UniRef90\_W1PZ93  
UniRef90\_G3B951  
UniRef90\_B9WG67  
UniRef90\_Q759K2  
UniRef90\_J4IBT6 P  
UniRef90\_M2M4E9  
UniRef90\_U5H006  
UniRef90\_W6MWI8  
UniRef90\_C5MIH6  
UniRef90\_L0AY61  
UniRef90\_L0AY61  
UniRef90\_J9I9E2  
UniRef90\_R9XGL4  
UniRef90\_UPI000359D2B7  
UniRef90\_G8B6R5  
UniRef90\_W0YHN3  
UniRef90\_I4YAS6  
UniRef90\_S0B8K2  
UniRef90\_B6K6U5  
UniRef90\_J4UDI5  
UniRef90\_A0A059AQE3  
UniRef90\_S8AGG4  
UniRef90\_F4NX78  
UniRef90\_I2H438  
UniRef90\_UPI00042B697E  
UniRef90\_T0QR33  
UniRef90\_J0D8K2  
UniRef90\_D8QC02  
UniRef90\_A0A058Z366  
UniRef90\_W4K1Q2 P  
UniRef90\_G1XAU6  
UniRef90\_D8LBL3  
UniRef90\_A8P1H5  
UniRef90\_U6L5G3  
UniRef90\_Q5CSN2  
UniRef90\_G7YK23  
UniRef90\_S6F179  
UniRef90\_D3PGC8  
UniRef90\_A0DLA2  
UniRef90\_L8GWR5  
UniRef90\_G0V9P9  
UniRef90\_D2W1P3  
UniRef90\_K3W6R4  
UniRef90\_S8E0Q1  
UniRef90\_S8E0Q1  
UniRef90\_V4B4M5  
UniRef90\_Q5KIV0  
UniRef90\_B9T610  
UniRef90\_D2V4P3  
UniRef90\_Q4Y943  
UniRef90\_D8MAS3  
UniRef90\_UPI0002C3D33B  
UniRef90\_Q6J6P6  
UniRef90\_Q6J6P6  
UniRef90\_B7G2W5  
UniRef90\_F4S1U9  
UniRef90\_UPI0003F49E88  
UniRef90\_Q55D51  
UniRef90\_J9G1N9  
UniRef90\_A9NYH3  
UniRef90\_E3KAQ5 P  
UniRef90\_S9VD42  
UniRef90\_R4XBT0  
UniRef90\_J4I952

UniRef90\_J4I952  
UniRef90\_A7SXBO  
UniRef90\_R1BCS2  
UniRef90\_U5HEI8  
UniRef90\_G2X5U3  
UniRef90\_O04679  
UniRef90\_O04679  
UniRef90\_F0YFP4  
UniRef90\_C1N0H3  
UniRef90\_F4RUW4  
UniRef90\_B8C277  
UniRef90\_Q4P6I7  
UniRef90\_A8JAL7  
UniRef90\_A8JAL7  
UniRef90\_B4MZZ4  
UniRef90\_X8JKY2  
UniRef90\_S4RWR2  
UniRef90\_A2ELU9  
UniRef90\_F9X7P4  
UniRef90\_H9GDB4  
UniRef90\_B0XBT8  
UniRef90\_X8J3Q0  
UniRef90\_S9VXR4  
UniRef90\_B9EZK8  
UniRef90\_UPI000455FCBA  
UniRef90\_E9BZ77  
UniRef90\_E9BZ77  
UniRef90\_M4BJQ5  
UniRef90\_A0A015JEY4  
UniRef90\_UPI0001CBA22C  
UniRef90\_Q01DY3  
UniRef90\_F1R2A6  
UniRef90\_E3NNU4  
UniRef90\_E3NNU4  
UniRef90\_C7YQ87  
UniRef90\_M2YR00  
UniRef90\_P46960  
UniRef90\_M1UXJ2  
UniRef90\_M7PC69  
UniRef90\_J9VP80  
UniRef90\_UPI0002B4BB2F  
UniRef90\_S8CN30  
UniRef90\_M5E9N2  
UniRef90\_T2MF58  
UniRef90\_A0A034VHI2  
UniRef90\_A9USS4  
UniRef90\_A9USS4  
UniRef90\_A2DHE3  
UniRef90\_D5GGD3  
UniRef90\_E3LSU8  
UniRef90\_E3LSU8  
UniRef90\_M0Y9Y7  
UniRef90\_Q59LE1  
UniRef90\_F0VP09  
UniRef90\_M7ZLW8  
UniRef90\_M4E9Y6  
UniRef90\_E9CFJ8  
UniRef90\_M4ENG5  
UniRef90\_UPI000265270C  
UniRef90\_T1FNQ4  
UniRef90\_A0A016SI56  
UniRef90\_A0A016SI56  
UniRef90\_J4D8V9  
UniRef90\_B6ADN2  
UniRef90\_UPI0003992055  
UniRef90\_UPI0003992055  
UniRef90\_S8ETK4  
UniRef90\_R7UH38  
UniRef90\_U9UU42  
UniRef90\_UPI0002C30699  
UniRef90\_G7KXT5  
UniRef90\_F7A2B2  
UniRef90\_M5X1Q9  
UniRef90\_R4FLG1  
UniRef90\_A0EA16  
UniRef90\_UPI00026588B3  
UniRef90\_C5FYH3  
UniRef90\_U6PED4  
UniRef90\_I3T3X9  
UniRef90\_I3T3X9  
UniRef90\_W7TZN2  
UniRef90\_UPI0000E46455  
UniRef90\_A5E4K7  
UniRef90\_B3RW24  
UniRef90\_W5HVD0  
UniRef90\_K4C2D0  
UniRef90\_E9ID90  
UniRef90\_T0RGD9  
UniRef90\_C9SSZ9  
UniRef90\_R7S937  
UniRef90\_Q9CRG6  
UniRef90\_M2RBF2

1 10 20 30 40  
E E A E I Q A E E K I S  
D G I L D S D T L D A Q L Q V E H T I S T L L T  
P A I F T S P P P I K E T H R S H T L T Q Q N A T M H E C L P L L A  
S  
M A  
R  
R F D D E G I E T P T S K A E L G Q E D E I K K V L L  
F R D E E L I T T T T E Q Q L K T T R E C L P L L L  
P T D G R D T Q T S L A Q Y E T E T A I S D L L  
T V T Q V E Q M K V E A K V G E I Y R  
P S T S A S A I E D L A A T A R E L H R  
V S K P L P S N S R P S A T L D E Q A E T E D L I S Q L F D  
R A T P D D L F P T A T S M E Q A C T E S S I A A L L A  
H L K  
T P A I F T T R P Y D D E G I P T K T S E M Q K E K C N Y I K C L R  
I L Q D T L K T L S S K E Q L S T A E I C M K Y L S  
K S P I I D I T Y F S T V E S Q M D L E L I L N E Y Y  
M K V E A R V A D I Y R  
T V S Q R E Q F L V E N D V F G M Y S  
T V S Q R D Q F L V L N D V F R I Y S  
R H E Y T F S V V D D Y Q T K V E E I V Q E V F D  
R H E Y T F S V V D D Y Q T K V E E I V Q E V F D  
N T D A L P T E S S K A Q T D T E V S V Y E L F K  
F Q  
T R T E E E Q A E C E A S C T S L L N  
Q P T E F I T S S Y W Q M S T E T N N L P S L T T E S Q R L T S K E I L K T Y N  
P T D T G R P A E S E A I V V D D G F V D I S A S E S D E Q E L L A S E M K  
P Q V H L S S N G Q P S D T F I E Q S E T E R I I S Q L L E  
R P T P V D G Y P S P T S R L Q I A T E D L L R



UniRef90\_J4I952  
 UniRef90\_A7SXB0  
 UniRef90\_R1BCS2  
 UniRef90\_U5HEI8  
 UniRef90\_G2X5U3  
 UniRef90\_O04679  
 UniRef90\_O04679  
 UniRef90\_F0YFP4  
 UniRef90\_C1N0H3  
 UniRef90\_F4RUW4  
 UniRef90\_B8C277  
 UniRef90\_Q4P6I7  
 UniRef90\_A8JAL7  
 UniRef90\_A8JAL7  
 UniRef90\_B4MZZ4  
 UniRef90\_X8JKY2  
 UniRef90\_S4RWR2  
 UniRef90\_A2ELU9  
 UniRef90\_F9X7P4  
 UniRef90\_H9GDB4  
 UniRef90\_B0XBT8  
 UniRef90\_X8J3Q0  
 UniRef90\_S9VXR4  
 UniRef90\_B9EZX8  
 UniRef90\_UPI000455FCBA  
 UniRef90\_E9BZ77  
 UniRef90\_E9BZ77  
 UniRef90\_M4BJQ5  
 UniRef90\_A0A015JEY4  
 UniRef90\_UPI0001CBA22C  
 UniRef90\_Q01DY3  
 UniRef90\_F1R2A6  
 UniRef90\_E3NNU4  
 UniRef90\_E3NNU4  
 UniRef90\_C7YQ87  
 UniRef90\_M2YR00  
 UniRef90\_P46960  
 UniRef90\_M1UXJ2  
 UniRef90\_M7PC69  
 UniRef90\_J9VP80  
 UniRef90\_UPI0002B4BB2F  
 UniRef90\_S8CN30  
 UniRef90\_M5E9N2  
 UniRef90\_T2MF58  
 UniRef90\_A0A034VHI2  
 UniRef90\_A9USS4  
 UniRef90\_A9USS4  
 UniRef90\_A2DHE3  
 UniRef90\_D5GGD3  
 UniRef90\_E3LSU8  
 UniRef90\_E3LSU8  
 UniRef90\_M0Y9Y7  
 UniRef90\_Q59LE1  
 UniRef90\_F0VP09  
 UniRef90\_M7ZLW8  
 UniRef90\_M4E9Y6  
 UniRef90\_E9CFJ8  
 UniRef90\_M4ENG5  
 UniRef90\_UPI000265270C  
 UniRef90\_T1FNQ4  
 UniRef90\_A0A016SI56  
 UniRef90\_A0A016SI56  
 UniRef90\_J4D8V9  
 UniRef90\_B6ADN2  
 UniRef90\_UPI0003992055  
 UniRef90\_UPI0003992055  
 UniRef90\_S8ETK4  
 UniRef90\_R7UH38  
 UniRef90\_U9UU42  
 UniRef90\_UPI0002C30699  
 UniRef90\_G7KXT5  
 UniRef90\_F7A2B2  
 UniRef90\_M5X1Q9  
 UniRef90\_R4FLG1  
 UniRef90\_A0EA16  
 UniRef90\_UPI00026588B3  
 UniRef90\_C5FYH3  
 UniRef90\_U6PED4  
 UniRef90\_I3T3X9  
 UniRef90\_I3T3X9  
 UniRef90\_W77ZN2  
 UniRef90\_UPI0000E46455  
 UniRef90\_A5E4K7  
 UniRef90\_B3RW24  
 UniRef90\_W5HVD0  
 UniRef90\_K4C2D0  
 UniRef90\_E9ID90  
 UniRef90\_T0RGD9  
 UniRef90\_C9SSZ9  
 UniRef90\_R7S937  
 UniRef90\_Q9CRG6  
 UniRef90\_M2RBF2

A F N D D F L R E K H I K F F K R C L A V L P S E Y S S L D T S R  
 A S E P A L A R A S H R S Y I L R V S S D T D S E F Q V S E H L R  
 K Q M T S F L P A T L D R S L H F N Y L T G M L S H L P A P Y L I A D A S R  
 G D S D T L E L N R P R L R R E A H V K Y L H K Q L G K L P A P Y L I A D A S R  
 N R E K L Y T F L L R M K D A S G G F R M H D E V D  
 N R E K L Y T F L L R M K D A S G G F R M H D E V D  
 A S P E A A A S P E A V F H D E K H A S Y L V A V S K N T E A E F V L T E Y M R  
 A S I P S R L L S S L H A D F I Q R A S S D D D A L E S A L D H L R  
 L D R S A H M K Y L I P S L G H L G A R L T S L D A S R  
 N N T D P P I G H F Y D A L H A N Y I A A L G D K L P S S Y E G T E H L R  
 G A S A S T L D P T R D L L I P L H V A F I E A L D K K R D S A Y H L T T H L R

T A E A T D G N D A K K L Q F W K H V E Y I E N H G K Q D D Y E Y C M T E F L R  
 L E T Q K H I D Y V Q K L G K N H D L A F Y L T S H L R  
 Q E E Q Q E E A S S P H F S R D R H V R F F S R C L Q V L P E R Y A A L E T S R  
 I G K E L L L K R H Y T L I T R M I E G I I P G G T K K E Q Q S  
 G E E N S H K I P H L N R E K H A S F L R A N V G S L P S G Y V L M D A S R  
 E R L D F L K E R H V R F F Q R C L Q T L P E R Y S S L E T S R  
 D A A A E V P A E E I L F Q K H A K Y F V R F L N L L P A R L A S H D S T R  
 I V L N N P S D V R L N R A I H A Q W A H T S L Q G L P S R Y T S Q D A S Q  
 S M D L E R V K H L N Y L N E G Q R Q D E L D F W L K E H L H  
 G N A P N A N S L M L E L W R E Q H V E Y L T R G L K H L G P S F H V L D A N R  
 L Q R N A H L Q F L V R N L T Q F P E R Y V S Q D A S Q

M P T E K E F V R D K H I S Y L K R G L T L L P K Q Y A S N D T N R  
 F W R E K H V K F F R R C L N V L P E Q Y S S L D T N R  
 D A F A R N G S A E P L R G D A H A E Y L R G G L G A L P Q V F V S L D A S R  
 F L R E R H V R F F Q R C L Y V L P E R Y A P Y E T S R

P K L A V D A H V K Y I Q S L D T R K D E D Y W L T E H L R  
 S H L P L Q L N L V D K H V A Y I Q A L D S R N D E Q Y H L T E H L R  
 V L L R D K H I S Y L H D I G N R T D E D F W L K E H L H  
 L Q L P R S E H I A F L N R D V R A L P S T F W V T E H K K  
 L D F L I D K H I K Y I L S F N E R K L T E Y W E T E S R K  
 T A D P N A L V S E S G L R K Q E H T Q F L A S S F Q L P G K F V S L D A S R  
 E G L T N K E F S R E K H I K Y F L R C L Q C L P I P Y S S L D T S R  
 V F N L P P H A Q S L H F E R D D H I Q Y L T K G L A Q L G P S F R V L D S N R  
 E T A E L R R D E H V A Y L R R L L A P L P A P Y V T F E S N R  
 E N E I P E N A P K E F L L E K H A L F I K A Y E E K K N D Y Y I M T E Y L R  
 E P A L L K K H A K F F V R F L N L L P A R L A S H D S T R  
 H L L G Q P E L D R R A I L A F V E Q C F D E T S G G F S C A P D N D  
 H L L G Q P E L D R R A I L A F V E Q C F D E T S G G F S C A P D N D  
 S R T V D W N L G D H I G F L S N L I N K S S V K G Q R S E S I I  
 N P S D P F P I L S R R E H I A F L K S G V G K L R E E M V A L D A S R

D A A P N A K S A V L E L W R D Q H V E Y L T K G L R H L A P S F H V L D A N R  
 L K T H Q H H Q E Q Q N F Y I D A H L K Y I L S S L I D M P S G Y Q V L D V N H  
 F Y S S Q H E R Y L L H L N D D P S F L E M T Q H L K  
 D A A P N A K S V M L E L W R D Q H V E Y L M K G L R H L A P S F H V L D A N R  
 Y F D T S D I A T Q V E I Q R D K Q L D Y L M N G L R Q L G P S F S S L D A N R  
 D S A V I E I E K T A A Y I A S Y E N K V D F E H C V T D H L R  
 D F D A S D I A T Q I E I Q R D K Q L D Y L M N G L R H L G P S F S S L D A N R

I E F M R N R H V K Y F T H C L K M L P S S C S S L D T N R  
 Y A H  
 Y A H  
 K L N S E S L F K F L L N N V N D R V S E G F A F E P I K  
 L N L I V N K H F H F L W K L Q G E K G T I E E F M E P Q K  
 A C K T N H H A S Q F V L H R D K H F H Y L K R G L R Q L T E A Y E C L D A S R  
 A C K T N H H A S Q F V L H R D K H F H Y L K R G L R Q L T E A Y E C L D A S R

A G P N R H E F N W K K H V R F F K M C L Q V V P G R Y A S M D T T R  
 D A R D K K L I N T I K L N R G S H I K Y V K D G L K G L P S Y L V A L D A S K  
 F E R E K H V T Y L Q M M Y Q I L P H Y Q T Q E I N H  
 T I D K D L H V T F A Q M M Y H L L P N P Y E S Q E I N H  
 K D G S P E E R L L F L P D R H V R Y F Q R S L Q L L P E Q C A S L E T S R  
 F E R D R H V T F L Q M M Y Q L L P S P Y Q S Q E I N R  
 M V F A R E K I K F F K R F L D L L P A R L S K A D S T R  
 Q Q L V N H L P Y L M A L D K S K D L E S I G Y Y L S E H L K  
 M E L V R D R H V K F F N R C L K I L P S S F E E L F D R K  
 S T S G T Q E L Y I Q K H V D Y I K R C Q R R D E L E Y W L T E H L R  
 L T L Q K H V K F L I R H L N V F P E Q Y C S L D T N R

S W C N L D Q S S R I R L L R E R H V A Y L M K G L T H L G P G F L C L D A S R  
 T L S I L K R H V R F F R M C L Q A L P S S Y S S L D T S R  
 E T S D L A F Y T L D H L A Y I I D H L N E M P G A Y K S L D S N H  
 F L R S K H I N Y F K R T L N V L P P E C E K L D P T R  
 E E G E L A A E K H V R Y I V T A E K K D S F E S L M E H L R  
 E L D S I S I P M F F D K N R H I C Y L E M M L E L L P S P Y Q S Q E I N R  
 T P Q L T Q E K H V K Y F Q R L L Q V M P S S L A D F D S T R  
 D R E A H V L F L R H V R K L P E P Y A G Q D H H R  
 Q A E L S H P C P R P A R P S K N H T V S H K Q L G K L P A P Y L I A D A S R  
 K K D D T L Q V E L T K L R T Q E H A T F L G K W F F S L P A G V I S L D A S R

A H V P T S G T P P V L N R N L H L Q F L L R N L Q Q F P E R Y T S Q D A S Q



UniRef90\_J4I952  
UniRef90\_A7SXB0  
UniRef90\_R1BCS2  
UniRef90\_U5HEI8  
UniRef90\_G2X5U3  
UniRef90\_O04679  
UniRef90\_O04679  
UniRef90\_F0YFP4  
UniRef90\_C1N0H3  
UniRef90\_F4RUW4  
UniRef90\_B8C277  
UniRef90\_Q4P6I7  
UniRef90\_A8JAL7  
UniRef90\_A8JAL7  
UniRef90\_B4MZZ4  
UniRef90\_X8JKY2  
UniRef90\_S4RWR2  
UniRef90\_A2ELU9  
UniRef90\_F9XTP4  
UniRef90\_H9GDB4  
UniRef90\_B0XBT8  
UniRef90\_X8J3Q0  
UniRef90\_S9VXR4  
UniRef90\_B9E2K8  
UniRef90\_UPI000455FCBA  
UniRef90\_E9BZ77  
UniRef90\_E9BZ77  
UniRef90\_M4BJQ5  
UniRef90\_A0A015JEY4  
UniRef90\_UPI0001CBA22C  
UniRef90\_Q01DY3  
UniRef90\_F1R2A6  
UniRef90\_E3NNU4  
UniRef90\_E3NNU4  
UniRef90\_C7YQ87  
UniRef90\_M2YR00  
UniRef90\_P46960  
UniRef90\_M1UXJ2  
UniRef90\_M7PC69  
UniRef90\_J9VP80  
UniRef90\_UPI0002B4BB2F  
UniRef90\_S8CN30  
UniRef90\_M5E9N2  
UniRef90\_T2MF58  
UniRef90\_A0A034VHI2  
UniRef90\_A9USS4  
UniRef90\_A9USS4  
UniRef90\_A2DHE3  
UniRef90\_D5GGD3  
UniRef90\_E3LSU8  
UniRef90\_E3LSU8  
UniRef90\_M0Y9Y7  
UniRef90\_Q59LE1  
UniRef90\_F0VP09  
UniRef90\_M7ZLW8  
UniRef90\_M4E9Y6  
UniRef90\_E9CFJ8  
UniRef90\_M4ENG5  
UniRef90\_UPI000265270C  
UniRef90\_T1FNQ4  
UniRef90\_A0A016SI56  
UniRef90\_A0A016SI56  
UniRef90\_J4D8V9  
UniRef90\_B6ADN2  
UniRef90\_UPI0003992055  
UniRef90\_UPI0003992055  
UniRef90\_S8ETK4  
UniRef90\_R7UH38  
UniRef90\_U9UU42  
UniRef90\_UPI0002C30699  
UniRef90\_G7KXT5  
UniRef90\_F7A2B2  
UniRef90\_M5X1Q9  
UniRef90\_R4FLG1  
UniRef90\_A0EA16  
UniRef90\_UPI00026588B3  
UniRef90\_C5FYH3  
UniRef90\_U6PED4  
UniRef90\_I3T3X9  
UniRef90\_I3T3X9  
UniRef90\_W7TZN2  
UniRef90\_UPI0000E46455  
UniRef90\_A5E4K7  
UniRef90\_B3RW24  
UniRef90\_W5HVD0  
UniRef90\_K4C2D0  
UniRef90\_E9ID90  
UniRef90\_T0RGD9  
UniRef90\_C9SSZ9  
UniRef90\_R7S937  
UniRef90\_Q9CRG6  
UniRef90\_M2RBF2

130 140 150 160

R G S S Y E Y G H I A M T Y T A V L A M L L L L G D D L S R I N R P A I I E G  
G G N L G H D A H M L Y S Y A V Q V L A L F G A L H T V I D R G R V M R F Y  
G G G P G Q I S H L A P T Y A A V C A L L A Y C G Q I G W D I I D A R E G M H R Y  
G G G H G Q M S H L A T S F A L I L S I A I V G G E E L Y E V I I D R K A M W K W  
A G E P G S E A H G G Y T F C G L A A M I L I N E V N R L D L P G L T D W  
A G E P G S E A H G G Y T F C G L A A M I L I N E V N R L D L P G L T D W  
G G G E G H D P H L L Y T L S A V Q I L L A L L G A L D K C D G A K A A A Y  
G G N E G H D A H L L Y T L S A V Q I L L A L L G A L D K C D G A K A A A F  
G G G P D Q L A H L L A P T F S S I S T L T S L L G E E T W S R V K I K M Y E W  
F G G N C H D G H L L Y T L S A I Q I L L A M A D C M D D E R L N K E A I V K F  
G S F P G H D A H V H S T L S A I Q I L L A I K E A L D E L D S R M R T R L V K F  
H D F L V L H R E N H V A Y  
H D F L V L H R E N H V A Y  
A P C E G H D A H L L Y T L S A I Q I L L C T Y D A L D E L D T D A V V R F Y  
G T F P G H D A H L L Y T L S A I Q I L L V M Q N A A D K L D K E R V T K Y  
R G H P Y D S A H I A M T Y T G L A C I L L G A D D L S R V I D K R A C L A G  
S G Y K Q D F T N T I S L Y G A V I I G I M A I R T E E A Y K L I D R K A L Y D L  
G G G H G Q Y S H I A G T Y A V I L L A L A A V D G L E M V D R K K M W H F  
R G H P Y D S G H I A M T Y T G L C C L V L L G A D D L S R V N K E A C L A G  
U N I R E F 9 0 \_ B 0 X B T 8  
G G S S Y R W G H L L A T Y T G I A V L V A L G A D D L S R L D R R A I L D G F  
G G G P G Q I P H L L P T Y A A V C A L L A I V G R P G E W D Q I N R R Q K C Y E F  
A C Y P G H D H I T N T V Y A I Q V L L M L G D S L D R I N K E K V A S Y  
G G G P G Q L P H L L A T T Y A A V N T L V T I G S E R A L S S V N R D N L Y K F  
G G G P G Q A A H L L P T Y A A V C A L L A I V G R P G G W D Q I D R E K M Y A F  
V G D V W G E V D T R F S L C A M A C L S L L G R L D A I D V I Q A A V R F F  
V G D V W G E V D T R F S L C A M A C L S L L G R L D A I D V I Q A A V R F F  
S N I L G H D R L Y T L H A L L V L A M L G A L E R I Q R D K C A V F  
R G S P F D A A N L L A M T Y T A L T S L L T L G A D D L S R V N R S S I I N S  
R G W A Y D S G H V A M T Y T A L A S L L L L G A D D L S R L N K A A I L S A  
G G G P G Q M G H L A T T Y A A T A A L V T I G G D D A R E V I A R A D V K R F  
R G H P Y D S G H V T M T Y T G L A C L L L G A D D L G R V D R A A C V I S G  
Y M H E G G E I D M R S A F C A L S T C V V V G L P L E E I S E G V A E W  
Y M H E G G E I D M R S A F C A L S T C V V V G L P L E E I S E G V A E W  
S A A P A H D P H M L Y T C S S V V Q I V L A M I D A F D E L E E K M K K V A K Y  
A C Y P G H D H I T N T V Y A V Q V L A M L D S L H V V D K D K V A S Y  
G G S S C T D L L L N T F Y A V Q V L A V C G E E A R L D R S S I J A Y  
G G G P S Q I P H L L P T Y A A V C S L A I A G N D S S T G A A A R Q S I Y E F  
R G S P Y E S S H I A M T Y T A L C S L I L L G A D D L S R V N R N A I I N G F  
G G G P G Q M P H L L A T T Y A A V N T L I T I G G E R S L S S I N R R E N L Y E F  
G G G P G Q L G H L L M S T Y A A V C A L L A I V G G P G G W D A I N D R R A M Y A W  
S A S K N H D P H L L Y T L S A V Q I L L V L Y G D E I N R I N I E E V A A F  
Q G S N Y Q W G H I A M T Y T G I G L L A T L L G A D D L S R L D R K S L I V D G Y  
A G D R W D E I D T R F S L C A L A T L K L L G T M D Q L N L E A A V D Y  
A G D R W D E I D T R F S L C A L A T L K L L G T M D Q L N L E A A V D Y  
S G F S E D N C S N I T N Q A I T A L S I C G D E N A Y K L I D R S K M Y N F  
G G G N G Q L S H V T A S Y A A V L A L A V V G Y G E A L G I V D R R A M F R W  
H Y I M A E H L R V S G I Y W C A N A M D L T K N L D R M S R E E I V D Y  
H Y I M A E H L R V S G I Y W C A N A M D L T K N L D R M S R E E I V D Y  
G G G P G Q L P H L L A T S Y A A V N T L V T I G S E K A L S S I K R E N L Y K F  
G G G N N Q L G H L L A S T Y A A I L T L L L T D Q Y E L L D N L R E L I R D W  
A Q G P G Q D P H I T S T H Y A L L L L V G M N K L H L V D T A R V A A W  
G G G P G Q L P H L L A T S Y A A V N T L V T I G S E K A F S S I N R E Q M A C F  
A G A L G H D A T M L H T Y S A I Q V L L L E K S L R S T D T I D I A G V I R Y  
G G G P G Q S L L V

A Q G P G Q D P H I T S T H Y A L L L L L V G M N K L H L V D T D K V A A W  
R G S P H D S G H I A S T Y A L L S L L L L G D N L S K I D R P A I V A G  
G G G P G Q I S H A A T Y A A V N A L A T I G T K E A Y D L I D R E T L Y N W  
C G S N S L I C N L A S T Y A A L A I L K I I G Y D L S S N I K S E W L L K S  
H G S H H N S H L A S T Y C A L A I L K I V G Y D L S S L D S E S M S S M  
R G H P H D S G H I A M T Y T A L A S L L L G A D D L S R V N K E A C L A G  
Y G F H G S V S N L A S T Y C A L A I L K I V G Y N D L S S I D S E S I L T S  
Q G S A Y A N G H L A M T Y T G L A S L I T L G A D D L S R V N R K A V T Q G  
G G N T N H D S H I T N T H Y A I L L S F L L N C E L D D Y E A A A K Y  
S P H I F D V P V L G M T Y T S L C S L L L L G A D D L S R V H R K Q I L N D  
G A P G H D A H M L Y T V S A V Q I L L V T L N A V N E L D K N G R G G K P Q G  
G G G A Y S S A N L A Q T Y S A L L C L A I L L G A D D F K R V N K D A L N T  
E S V V M E H L R M N G A Y W G L T A L D L L G K L H T V D V D E V V S W  
E S V V M E H L R M N G A Y W G L T A L D L L G K L H T V D V D E V V S W  
G G G P Y Q I S H C A P T Y A A V L A S L L L G T E E A Y K T I D R P A I Y K W  
R G H P Y D W G H V A M T Y T G L A S L L L G A D D L S R V N M P A I V A G  
A G G I N Q L G H A S T Y S A I L T L V L T Q N Y T D L N K L R P G I Y S W  
R G S P F Y N G H I A M T Y T A L N C L L L G A D D L S R V N K D G I A S G  
G G N V G H D P H V L Y T L S A V Q V L L A L L G R L D V L D A D K I A D Y  
Y G F H G N C S H L A S T Y C A L S I L L K T L G Y D L T L M D S M S I I K S  
Q A S T Y Q C G H L A M T Y T S L V T L L L G A D D L S R V N R Q A V I E G  
R G S P W D V A H L A S T Y A S I A I L R T L G A D D L S R V N K Q A V T A S  
G G G H G Q V S H L A T T F A L I L S I A I V G G E D L Y E V I D R K A M W K W  
G G G P T H L P Q L L P T Y A A V C S L A I V G G P G E D G A E A R Q R I Y E F  
G G G P G Q V A H L L Y T L S A V Q I L L A Y G D S V H V I N V D K V V A Y  
G G G P G Q V A H L L P T Y A A V C S L A I A G K P G G W D E I D R A K M H A W



UniRef90\_J4I952  
 UniRef90\_A7SXB0  
 UniRef90\_R1BCS2  
 UniRef90\_U5HEI8  
 UniRef90\_G2X5U3  
 UniRef90\_O04679  
 UniRef90\_O04679  
 UniRef90\_F0YFP4  
 UniRef90\_C1N0H3  
 UniRef90\_F4RUW4  
 UniRef90\_B8C277  
 UniRef90\_Q4P6I7  
 UniRef90\_A8JAL7  
 UniRef90\_A8JAL7  
 UniRef90\_B4MZZ4  
 UniRef90\_X8JKY2  
 UniRef90\_S4RWR2  
 UniRef90\_A2ELU9  
 UniRef90\_F9X7P4  
 UniRef90\_H9GDB4  
 UniRef90\_B0XBT8  
 UniRef90\_X8J3Q0  
 UniRef90\_S9VXR4  
 UniRef90\_B9EZK8  
 UniRef90\_UPI000455FCBA  
 UniRef90\_E9BZ77  
 UniRef90\_E9BZ77  
 UniRef90\_M4BJQ5  
 UniRef90\_A0A015JEY4  
 UniRef90\_UPI0001CBA22C  
 UniRef90\_Q01DY3  
 UniRef90\_F1R2A6  
 UniRef90\_E3NNU4  
 UniRef90\_E3NNU4  
 UniRef90\_C7YQ87  
 UniRef90\_M2YR00  
 UniRef90\_P46960  
 UniRef90\_M1UXJ2  
 UniRef90\_M7PC69  
 UniRef90\_J9VP80  
 UniRef90\_UPI0002B4BB2F  
 UniRef90\_S8CN30  
 UniRef90\_M5E9N2  
 UniRef90\_T2MF58  
 UniRef90\_A0A034VH12  
 UniRef90\_A9USS4  
 UniRef90\_A9USS4  
 UniRef90\_A2DHE3  
 UniRef90\_D5GGD3  
 UniRef90\_E3LSU8  
 UniRef90\_E3LSU8  
 UniRef90\_M0Y9Y7  
 UniRef90\_Q59LE1  
 UniRef90\_F0VP09  
 UniRef90\_M7ZLW8  
 UniRef90\_M4E9Y6  
 UniRef90\_E9CFJ8  
 UniRef90\_M4ENG5  
 UniRef90\_UPI000265270C  
 UniRef90\_T1FNQ4  
 UniRef90\_A0A016SI56  
 UniRef90\_A0A016SI56  
 UniRef90\_J4D8V9  
 UniRef90\_B6ADN2  
 UniRef90\_UPI0003992055  
 UniRef90\_UPI0003992055  
 UniRef90\_S8ETK4  
 UniRef90\_R7UH38  
 UniRef90\_U9UU42  
 UniRef90\_UPI0002C30699  
 UniRef90\_G7KXT5  
 UniRef90\_F7A2B2  
 UniRef90\_M5X1Q9  
 UniRef90\_R4FLG1  
 UniRef90\_A0EA16  
 UniRef90\_UPI00026588B3  
 UniRef90\_C5FYH3  
 UniRef90\_U6PED4  
 UniRef90\_I3T3X9  
 UniRef90\_I3T3X9  
 UniRef90\_I3T3X9  
 UniRef90\_W77ZN2  
 UniRef90\_UPI0000E46455  
 UniRef90\_A5E4K7  
 UniRef90\_B3RW24  
 UniRef90\_W5HVD0  
 UniRef90\_K4C2D0  
 UniRef90\_E9ID90  
 UniRef90\_T0RGD9  
 UniRef90\_C9SSZ9  
 UniRef90\_R7S937  
 UniRef90\_Q9CRG6  
 UniRef90\_M2RBF2

```

A R E E M V I E F V MS C W D Y D E A G F GA H P D H D A H L L S T L S A I Q I L T
N T E K A V Q Y I R N S S Q W D Y D Y G G A Q G E H L L E S H G G S T F C A I V A S L S
D V A A A V R Y I R A C C E N F D D G G Y S S H P P G G G E A H A G G Y A F T C A V A G S L A
L A H A N T S S F I A S C C Q T Y E G G S S H P P G G G E A H A G G Y A F T C A V A G S L A
S P D V H E Q L S E L S D E E E H L E G G I S S H V V Q Q D T F P L G Q A G A C C A D T G Y E
V H E Q L S E L S D E E E H L E G G I S S H V V Q Q D T F P L G Q A G A C C A D T G Y E
D V A K A V D F V D R C R N F D G G G Y S G A V P G G A E S H A G Q Q T F C C C V G A L A E
D V D A A A A F V D R C R N F D G G G Y S G A V P G G A E S H A G Q Q T F C C C V G A L A E
F S F G L S N F I S G C C Q T Y E G G G L A S T P L G G E A H A G G Y T S C C G V L A S H C
D T Y K A V Q Y I I L S C C C R N F D G G G F G S V P G A E S H A G Q Q V F C C C I G A L S
D R Q V D T I G H I L S C C C H N P A G G G Y G T A P G A E S H A A Q Q A W V C C V G A L S
D V D D I V A F L Q S C C Q H P A G G G Y G G G P M Q L A H L A P T Y A A V V A A A V
D V E K A V G Y I R S C C C Q N Q D G G G F G G K P G G E S H A A G L T Y C C C V G F L S
D L E R T V K F Y I R R C C C R N F D D G G F G G C C P G G A E S H A A Q V Y V C L G T L V
D L Q K T L D Y I R N S L S Y D S G L A Q G G L E S H H G G S T F C A I A S L C
F T S E K T A D Y V L S C C Q T Y E G G G F S P V P H C C E S H H G G Y I Y C G I A C L A
F T D N R L G E W V G K C C Q T Y E G G G L A G A G A G L E S H H G A G A G L E S H H G G S T F C C G I A S L C
D M K K A I D Y I R R S S M S Y D N G G L A Q G A G L E S H H G G S T F C C G I A S L C
D R R K M A E Y I Q K S I T R Y Y E G G L S A S S H Y E M E S H H G G T T S C A A V A S L E
L V E G T S E F L R S C C Q T Y E G G G F A S S S H P P E A H H G G Y T F C C G L A S M C
N Q S A A V D W I L K C C R N F D G G G F G L C P G A E T H A A Y V F T C C V A S L A
L A K G V G N Y I T R S C C Q T Y E G G G F A G S A P Y P E A H H G G Y T F C C G L A S M C
L V R G T A A F V A S C C Q T Y E G G G F A S A S Q Y P E A H H G G Y T F C C G L A S M C
D R D Q L G W W L A E R Q L P S G G L N G R P E K L P D V C Y S W W V L S S M C
D R D Q L G W W L A E R Q L P S G G L N G R P E K L P D V C Y S W W V L S S M C
N V I E T A V A Y V D A E K C R N F D D G G F G N M P G C E S H H G G H I F T A V S A S L S
N I E K A I D Y I K N S Q S Y D F G I G Q G P G G E S H H G G S T Y C A I S S L Y
D V D M A A T F I N R Q S L S Y E Y G I A G G E P G L E E H H G G P T Y C C G I A S L V
V R S G V G A Y V I S R C C Q T Y E G G G I G G E P G G E A H H G G Y T Y C C G L A C A
D R Q K T I D Y I R R S T S F D F G I G Q G A G L E S H H G G S T F C A V A S L C
D M E S L L R W T R R Q M R Y E G G G F Q G R T N K L V D G C Y S F W Q G A I F P
D M E S L L R W T R R Q M R Y E G G G F Q G R T N K L V D G C Y S F W Q G A I F P
D V I E R A V T H I I A C A N F D G G G Y G T G P G A E S H S G Q T F T C C V A A L A
N L Q A A A D H V L K A C C Y N F D D G G F G V A P G A E S H S G Q V F T C C V A A L T
N K N T A A V D W L M K C C Y N F D D G G F G L C P G A E S H H G A M V F T C C V A A L K
R T D A L V D Y I M R C C E N D D D G G F G V T P G A E S H A G Q V F C C C V G T L A S
D T E K V V K W I L A C C C Q N L D D G G F G G V P G A E S H A G H V L S C I G S T L S
L L H N V D K F I V S A C C Q T Y E G G G F A C A S F P E A H H G G Y T S C C S L N S H F
D K T S A V N Y I R M S S M S Y D Y G L S Q G P Q L E A H H G G S T Y C C G V A S L I
L T Q G T G D Y I V S C C Q T Y E G G G L A G E P G G S E A H H G G Y T Y C C G L A A M V
L L D G A S F V I A S C C Q T Y E G G G F A Q T P G G E A H H G G Y A Y C C A L A S Y V
D V D K A I E F V I S C C M N F D G G G F G S K P G S E S H A G Q Q I Y C C C L A L S
D K E K M F E F I T S C C I R Y D N G G F N G R P E K L P D V C Y S W W V L S A M S
D D Q L L G W W L A E R Q L P S G G G F N G R P E K L P D V C Y S W W V L S A M S
D D Q L L G W W L A E R Q L P S G G G F N G R P E K L P D V C Y S W W V L S A M S
L T K D V L K F T K S C C Q T Y E G G G F S A T P P F G E A H H G G Y A H C C G V G L Y
L T Q G T K E Y L G R C C Q T Y E G G G F A T P F G N E A H H G G Y A F C C G L A L C
D A D S I C K Y V Q R L Q Q E D G S F C G D Q S G E V D T R F T L C C S F A T C H
D A D S I C K Y V Q R L Q Q E D G S F C C G D Q S G E V D T R F T L C C S F A T C H
L A R G V G N Y I A S C C Q T Y E G G G I A G E P S A E A H H G Y T F C C G L A A M V
L I D G V E N W L N S C C Q T Y E G G G F S N T P N T E A H H G G Y T Y C C A L A S Y F
T A N E T A L Y I V S C C R N S D G G G F G W L P G G E A H A A S V F C C L A W A
L A K G V G N Y I A S C C Q T Y E G G G I A G E P S A E A H H G A S S F R A G W A H
L R G L G D Y I L S C C Q T Y E G G G L G G E P G S E A H H G G Y T Y C C G L A T M I
K V D A A V A H L M R C C Q N W D F G G F G S V P D T E A H A G Q I Y C C C L A T A
L T Q G L G D Y I L S C C Q T Y E G G G I G G E P G S E A H H G A G N T Y C C G L A T M A
L F D G T P E W I V S C C Q T Y E G G G F A G Q P G M E A H H G G Y T F C C S V A A L V
D V H A S V D F I R K S L T Y E G A F A Q G P G L E A H H G G S T Y C A V A S L V
D S E M L L Q W L A R Q M R F E G G G F Q G R T N K L V D G C Y S F W Q A A N F P
D S E M L L Q W L A R Q M R F E G G G F Q G R T N K L V D G C Y S F W Q A A N F P
N I D R A V D F I L S C C Y N F D D G G F G W Q P K T E S H A A A A F C C C V A G L A
H L E R C L N F L R C C Y N L D G A F G S I P C S E S H A A Y T F C C V A S L A
D L R S L L R W V H R Q M R F E G G G F Q G R C C N K L V D G C Y S F W Q A G L L P
D L R S L L R W V H R Q M R F E G G G F Q G R C C N K L V D G C Y S F W Q A G L L P
T A E G T A L Y V Q R C R N S D G G F G W L P G G E S H A A S V F C C C L A L A
D R P K V I R Y I K R S L T Y E G A F A Q G P G L E A H H G G T T F C C A V A S L V
L T A G T A E W I K R C C Q N Y D G G G L G G E P G L E E H H G G Y T F C C G L A A M E
D K E K A K E Y I I N C C Q S Y D D G G F G L T P G A E S H H G G A I Y C C G I A S L R
D K E K V K D Y I L N C C Q S Y D D G G F G L V I P G A E S H H G G A T Y C C A I A S L R
D M E R S L D Y I R R S M S Y E N A L G Q G A G L E S H H G G A T Y C C G I A S L C
D K E K A K E Y I L R C C Q S Y D D G G F G L T P G S E S H H G G A T Y C C G I T S L R
D I D K T V S Y I T K S M S Y D Y G F G Q G P Y L E S H H G G V T Y C C A V A S L T
D V K A A S Y I K K C R N F D G A F G G I P D A E S H H G A Y V F C C C V A S L Y
D V D A C V R F I K S C C L T Y E G A V A C L P G A E A H H G S S F C C A V A S L A
D T D K A V A Y I Q S C A N F D G G Y G V R P G A E S H A G Q Q T F T C C V A S L A
N F S L R N F I R N S L Q N Y D G G I G Q G P G D E S H H G G S T Y C A I A S L S
D V S R V T N Y I V S L Q N E D G S F S G D T W G E V D T R F S Y I A I C C C L S
D V D R V T N Y I V S L Q N E D G S F S G D T W G E V D T R F S Y I A I C C C L S
L A A G V V E I L S C C Q T Y E G G G F G G E P D Q Q E A H H G G Y V F C C I A A L T
N K D K A V Q F I Q N S L T H D F G I G Q G P G Q Q E C H H G G T T F C C G I A S L V
L C A G V E D W I L Q C C Q T Y Q G G F A G V I P G V E A H H G L T Y C C A L G A L F
N K D K A V G Y I L S S I T Y D G G I S Q G P E L E S H A A G S T F C C A V A S L Q
N V D K A V E Y I V S C K N L D D G G F G A M P G G E S H H G A Q T F C C C V A S L A
D K E K A K E Y I I N C C Q S Y D D G G F G L T P S S E S H H G G A T F C C A V A S L R
N I P S A I D Y I L Q S L S Y D D G G I G Q G P G L E A H H G G S T F C C A V A S L F
D R D G V V R Y V N A C A T Y E G G G L G M N P G L E A H H G G V T Y C C G M A S L A
L F T G L A E Y V R R C C Q T F E G G L G G K P D T E A H H G A Y T F C C A L G C L A
L L H N V D R F I S A C C Q T Y E G G G F S C S R P M A E S H H G G Y T S C C T N S S F
N V E K A I E F V I S C C M N F D D G G F S C S R P M A E S H H G A Q Q I Y C C L T G L A
L L A G I P E V I A S C C Q T Y E G G G F S A S F G E A H H G G Y T F C A T A A W A

```

UniRef90\_J4I952  
UniRef90\_A7SXB0  
UniRef90\_R1BCS2  
UniRef90\_U5HEI8  
UniRef90\_G2X5U3  
UniRef90\_O04679  
UniRef90\_O04679  
UniRef90\_F0YFP4  
UniRef90\_C1N0H3  
UniRef90\_F4RUW4  
UniRef90\_B8C277  
UniRef90\_Q4P6I7  
UniRef90\_A8JAL7  
UniRef90\_A8JAL7  
UniRef90\_B4MZZ4  
UniRef90\_X8JKY2  
UniRef90\_S4RWR2  
UniRef90\_A2ELU9  
UniRef90\_F9X7P4  
UniRef90\_H9GDB4  
UniRef90\_B0XBT8  
UniRef90\_X8J3Q0  
UniRef90\_S9VXR4  
UniRef90\_B9EZX8  
UniRef90\_UP1000455FCBA  
UniRef90\_E9BZ77  
UniRef90\_E9BZ77  
UniRef90\_M4BJQ5  
UniRef90\_A0A015JEY4  
UniRef90\_UP10001CBA22C  
UniRef90\_Q01DY3  
UniRef90\_F1R2A6  
UniRef90\_E3NNU4  
UniRef90\_E3NNU4  
UniRef90\_C7YQ87  
UniRef90\_M2YR00  
UniRef90\_P46960  
UniRef90\_M1UXJ2  
UniRef90\_M7PC69  
UniRef90\_J9VP80  
UniRef90\_UP10002B4BB2F  
UniRef90\_S8CN30  
UniRef90\_M5E9N2  
UniRef90\_T2MF58  
UniRef90\_A0A034VHI2  
UniRef90\_A9USS4  
UniRef90\_A9USS4  
UniRef90\_A2DHE3  
UniRef90\_D5GGD3  
UniRef90\_E3LSU8  
UniRef90\_E3LSU8  
UniRef90\_M0Y9Y7  
UniRef90\_Q59LE1  
UniRef90\_F0VP09  
UniRef90\_M7ZLW8  
UniRef90\_M4E9Y6  
UniRef90\_E9CFJ8  
UniRef90\_M4ENG5  
UniRef90\_UP1000265270C  
UniRef90\_T1FNQ4  
UniRef90\_A0A016SI56  
UniRef90\_A0A016SI56  
UniRef90\_J4D8V9  
UniRef90\_B6ADN2  
UniRef90\_UP10003992055  
UniRef90\_UP10003992055  
UniRef90\_S8ETK4  
UniRef90\_R7UH38  
UniRef90\_U9UU42  
UniRef90\_UP10002C30699  
UniRef90\_G7KXT5  
UniRef90\_F7A2B2  
UniRef90\_M5X1Q9  
UniRef90\_R4FLG1  
UniRef90\_A0EA16  
UniRef90\_UP100026588B3  
UniRef90\_C5FYH3  
UniRef90\_U6PED4  
UniRef90\_I3T3X9  
UniRef90\_I3T3X9  
UniRef90\_W77ZN2  
UniRef90\_UP10000E46455  
UniRef90\_A5E4K7  
UniRef90\_B3RW24  
UniRef90\_W5HVD0  
UniRef90\_K4C2D0  
UniRef90\_E9ID90  
UniRef90\_T0RGD9  
UniRef90\_C9SSZ9  
UniRef90\_R7S937  
UniRef90\_Q9CRG6  
UniRef90\_M2RBF2

T Q D A L D R V I D L L P R V V K F I L S L Q Q P S G V F A G D S F N G E I D T R F  
L M N Q L D K V V F T K S Q L K L I R W C I F R Q K G G F H G R S P N K P V D D T C Y  
L I G G Q L D K G S L V D S E E L A W W L C E R Q T P P G E G G G F N G R R S N Q K D A D V C O Y  
M S G E K Q R E V D R S D A L I R W A T S M Q P I E E G G G F F R D K P P G K G R D Y Y H  
F V R R R C T S T T T H L L A L L A T S M Q Y A P E V G G G F F S G R T S N K K L V D D G C O Y  
F I N R R P I A M D S S M Y L Q Q Q Y V L L C S Q I E V G G G F F R D K P P G K G R D Y Y H  
F I N R R P I A M D S S M Y L Q Q Q Y V L L C S Q I E V G G G F F R D K P P G K G R D Y Y H  
I A K R L D L V D G T L L G W W L A E R Q C D S G G G L N G R P P E K K Q A D V C O Y  
I A G A P G E P L D R E A L G W W L C E R Q V K A S G G G L N G R T N K K L P D V C O Y  
L P G S I E P L D Y Q A C L L R W L A E R M Q P I E G G G F F R D K P P E K K L V D D G O Y  
I A H S L H L L N A D L L S W W L A E R Q C D S G G G L N G R P P E K K Q A D V C O Y  
L I G A L D S I D D R A D R V G G W L C E R Q C I P P P E N G G G L N G R S V H E G G E G D L R A  
T V G A L G S I D D R A A V R S F L L R M C I P P P E G G G F S V H E G G E G D L R A  
L T Q R R L H L L D Q P K L G W W L C E R Q L P A N G G L N G R P P E K K L P E D V C O Y  
I L D R R L D E V D Q V T L A W W L A E R Q L P A N G G L N G R P P E K K L P E D V C O Y  
L M E K L H S V L S D R Q L R R I R W S I L R R Q N G G F N G R T N K K L V D T T C O Y  
L L N R L E D I N T S S C I R Y L S S Q S F A G G G F N G R T N K K L V D A T C O Y  
I P K Y L N T T T L S W L T S G T Q T S P I E G G G F A G R A N K K L V D A T C O Y  
L M G K L E E V L S E K E L D R I R W C I M R Q Q Q N G Y H G R S P N K P V D T T C O Y  
L S G Q L D L S A D V R A K T V R W L V F R Q G G G F F R D K P P G R S N K K L V D D G O Y  
L L I Q P D P K F N V K K L V R W A T A M Q P I E G G G F F R D K P P G K L V D D G O Y  
L L E Q L D R I D Q D L L G W W L S E R Q T K N G G L N G R P P E K K L P D D T C O Y  
L N E V D K L D L A S L T G W V A F R W G V E C G G L N G R T N K K L V D D G O Y  
M P E R R Q Q I N Y K A S L T R W A A Q L Q E A E L G G G F R G R T N K K L V D D G O Y  
M L D R L Q W I D A E R L A K F I L A C Q Q D D V A G G G I A D R P D D M S D P Y H  
M L D R L Q W I D A E R L A K F I L A C Q Q D D V A G G G I A D R P D D M S D P Y H  
M G F A L Q Y V D D E L L G W W L C E R Q C D S G G L N G R P E D K M Q A D V C O Y  
M L N K L D E L S K E K T L F W L T S R Q S E S G F F Q G R A N K K P P D T T C O Y  
L M Q Q L D S I F T N K Q L E R I R W C I F R Q Q Q G F Q G R T N K K L V D D G O Y  
L A G D F G T L D L E N R W L V N R Q G E L E G G G F F R D K P P D K P V D L Y H  
M M G K L Q E V F S E R E L G R L R W C V L R Q Q N G G F Q G R P N K K P V D T T C O Y  
L L D G E M E R E L E K G L Y L L V G C C Q S I H G G G F R D K P P D K P V D L Y H  
L L D G E M E R E L E K G L Y L L V G C C Q S I H G G G F R D K P P D K P V D L Y H  
I A G R L D L V D K E K L G R W L S E R Q V P C G G L N G R P E K K E D V C O Y  
I A G E I H C L I G K D R L G A W L S E R Q L P P S G G L N G R P E K K L V D D G O Y  
I L N K L D L I G D E E L L G W W L S E R Q V K G S G G L N G R P E K K L P D S O Y  
L C G A L Y R L R D N R L A R W L A Y R Q L V N G G F N G R P E D K L P D V C O Y  
V L K R L D V I D D N L I G L W L S E R Q V L N G G F N G R P E D K L P D V C O Y  
L L T S P L S I D A N A L R W T V L Q G G E E G G F F R G R T N K K L V D D G O Y  
L M D K L E E C F N E K E I K F L R W C L K R Q K S G F Q G R P N K K P V D T T C O Y  
L M N E A N R L K L P E L I N W V S W R Q G V E G G G F F R G R A N K K L V D D G O Y  
H L A Q I P P V H V P R L V R W A T S L Q G A V E G G G F F R G R T N K K L V D D G O Y  
I T N R L H H I D P D L L A W W L C E R Q L E S G G L N G R P E K K L P D V C O Y  
L S G Q L H R L D V A T I E N L K R W L I F R Q V N G G L N G R P N K K A V D D T C O Y  
C L N K L D W I D Q D Q L R A F I L A C C Q D D E T G G G I A D R P G D M V D P F H  
C L N K L D W I D Q D Q L R A F I L A C C Q D D E T G G G I A D R P G D M V D P F H  
I L N A L D E I D L N D L V I Y I A M R Q D E F A G G G F N G R T N K K L V D S O Y  
I L G E P K Y L D M D R A V I S W L S A R Q Y A P E G G G F F R G R T N K K L V D D G O Y  
L L G P L S V L N V D S A V R F L M R C Y N T D G G F F G T R P G S E S H S G Q  
L L G P L S V L N V D S A V R F L M R C Y N T D G G F F G T R P G S E S H S G Q  
L L N E V E K L D L P S I G W V A F R Q G V E C G G F Q G R T N K K L V D G O Y  
L L Y L S N S V C W E K L L E W S V H R Q H E L L E G G V D G R T N K K L V D A C O Y  
L S E G L S C V D K E Q L A L W L D R Q Q V G G G G F F Q G R P S K A P D V C O Y  
F V K E W N A D S K D G Q I N W V Y V Q G S D E G S K O S Q P S K L S S V D D C O Y  
L I N E V D R L N L D S L M N W V V H R Q G V E M G F Q G R T N K K L V D G O Y  
L I N R L S Q L D Q R A Q Q W V E R Q R D S G G L N G R T N K K I H D A C O Y  
L I T E V D R L N D S L M N W I V H R Q Q G V E R G G L N G R T N K K L V D G O Y  
L I G H E R L C D V Q G L R W L A M R Q M R F E G G F Q G R T N K K L V D G O Y  
L M N R L S T L D S S K E I K R I L W C M F R Q E S G F Q G R P N K K P V D T T C O Y  
L I E G E M L F D A R M L E E Y I L M S C Q D E A G G G F R D K P D K T R D L Y H  
Q L N A I S L I D C D L G F W L C E R Q T N S G G F F N G R P E K K L P D I C O Y  
L L H R H W M L D Q S A L Q E Y I L L C C C C P A G G G L L D K P G K S R D F Y H  
L L H R H W M L D Q S A L Q E Y I L L C C C C P A G G G L L D K P G K S R D F Y H  
L C E S L G C V D K E Q L A L W L I E R Q V E G G G F F R G R P E K A P D V C O Y  
L M G C L H E V I S P S Q L D R L R W C L L R Q Q S G F Q G R P N K K P V D T T C O Y  
I M G K T D L D I P L L L R W A T S L Q M Q L E G G G F Q G R P N K K L V D D G O Y  
L M G F L E E I N V P M L L V W C L Q R Q A A D G G F F Q G R P N K K P S D T T C O Y  
L M G Y V E E I D L P L L L D W I L Q R Q G T D G G F F Q G R P N K K S T D T T C O Y  
L M G K L E E V F S E K E L N R I R W C L M R Q Q N G G F H G R P N K P V D T T C O Y  
L M G F I E D I D V P L L L D W C V Q R Q A A D G G F F Q G R P N K K P S D T T C O Y  
L M G K L Y S E L S E K Q I E G L R W A I M R Q L S G F Q G R A N K K P E D T T C O Y  
L C E D L S F N I D E L S M W I H E R Q T S K G G L N G R P E K K A D V C O Y  
L I G R L E E I R D N R A D L V R W C L N R Q E S G F F N G R P N K K R V D T T C O Y  
I V D R L D L V D T D R L G G W L S E R Q L D N G G L N G R P E K K E D V C O Y  
L A N R L W K Q E I D R L V K W A L W K Q D D G G F F H G R A H K P D D S O Y  
I L R R L D K I N V E K A V K Y I I S C K N M D G G F F G C T P G G E S H A G Q  
I L R R L D K I N V E K A V K Y I I S C K N M D G G F F G C T P G G E S H A G Q  
I L S E T D G V D L F S L Q G W L A R R Q M S V E G G F F Q G R T N K K L V D D G O Y  
L L D R L T Q K Q L D G I K K W C L F R R Q Q T G G F F N G R P N K K T D T T C O Y  
L L N S S P E K I R E K M V K W C V D R Q T D E G G F F N G R L N K K L V D A C O Y  
L M D C L D T Y K K E M L K R W L V N R Q C L N D G G F F Q G R P N K K L Q D T T C O Y  
I T G S L H H I D R D L L G W W L C E R Q C R D G G L N G R P E K K A D V C O Y  
L M G S S C F I D V P L L L D W C L Q R Q A A T D G G F F Q G R L N K A T D T T C O Y  
L M R E H L N V S W D R L A R L K R W C L M R Q Q D G G F F N G R P G K P S D T T C O Y  
L C G R L A Q V D I Q K L I R W L V S R Q Q G G G F F Q G R T N K T P D S O Y  
I L D A P H R I D V P R L I S W L S S R Q Y A P E G G F F S G R T N K K L V D D G O Y  
L L R S P S P I D V E S A L R W S V L M Q G E A G G F F K G R P N K K L V D D G O Y  
I T S Q L H P Q V N S D L G W W L C E R Q L P S G G L N G R P E K L P D V C O Y  
L I Q A P A V N M R S L A R W Y A A M Q R A E L G G L N G R T N K K L V D G O Y

250

260

270

280

UniRef90\_J4I952 S Y C A V N A L S L L G H L H E L D V E K T V D Y L R D E I D H E T L A W W L A  
UniRef90\_A7SXB0 A F W V G A S L E I L N S F K M I D F T A N R D Y L M  
UniRef90\_R1BCS2 S W W V L S A M C L L R R D G W I D G E A L R R F I L  
UniRef90\_U5HEI8 S W W N G G L F G V I D G L L D E A E A E E G A E V R D L F D R Q A L Q E Y V L  
UniRef90\_G2X5U3 S H W V G G C W P L V D A A L L N G S Q R P G D P H E E E W F S R E G L I R Y V L  
UniRef90\_O04679 T C Y C L S G L S I A Q Y S W T D E  
UniRef90\_O04679 T C Y C L S G L S I A Q Y S W T D E  
UniRef90\_F0YFP4 S W W I L S S L T I L G R S H W I D E A K L A A F I L  
UniRef90\_C1N0H3 G W W V L S S A L S L N K L E W I D A D A L A R F I L  
UniRef90\_F4RUW4 S W W C G G L I E E E E R E K D N E T T R A E E S F K G L Y D R K G L Q E Y I L  
UniRef90\_B8C277 S W W I L S A L S T I M G R V N W I N T S K L G Q F I L  
UniRef90\_Q4P6I7 S W W V L S T L S V L G R L H W I N F P P R L T L S M V L I G D I G H L S H M L  
UniRef90\_A8JAL7 C Y T A M A V A H M L G L D A D K Q Q L A A R S G L A G Y V R  
UniRef90\_A8JAL7 C Y T A M A V A H M L G L D A D K Q Q L A A R S G L A G Y V R  
UniRef90\_B4MZZ4 S W W V L S S L T I M G R L H W I S S E K L Q E F I L  
UniRef90\_X8JKY2 S F W V L S S L A I L R K L H W I D A D A L T K F I L  
UniRef90\_S4RWR2 S F W V G A T L Q L L D I F R F T D F E K N R Q Y I L  
UniRef90\_A2ELU9 T F W I G A T M R I C D H F K I P E F W D K N S L T Q Y C  
UniRef90\_F9X7P4 S H W V G G C W A L I Q A L A G P K H E G R T T D L W S R E G L I R Y V L  
UniRef90\_H9GDB4 S F W V G A T L K L K I F Q Y T N Y E K N R N Y I L  
UniRef90\_B0XBT8 S F W I G A T L K I L N A F E L T S S K D N R Q Y V M  
UniRef90\_X8J3Q0 S W W I G G L E P L L L D L L G P G N Q E A E T E P A A L F D K T S L Q R F T L  
UniRef90\_S9VXR4 G W W V L S P L A I I K K L E W I D R N D L T R F I L  
UniRef90\_B9EZX8 S F W Q G A A L A L T Q K L M T V V D E Q L K S S Y S S K D D A C G T S S S T E  
UniRef90\_UPI000455FCBA S W W V G G C F A L L E A L L G D E E D G W K D V D D S L W N R A A L Q T Y L L  
UniRef90\_E9BZ77 T V F G L A G L S L L A R L G  
UniRef90\_E9BZ77 T V F G L A G L S L L A R L G  
UniRef90\_M4BJQ5 S W W N I A S L I M I G K L D W I S K E K L I E F I L  
UniRef90\_A0A015JEY4 S F W I G A S L K I L D K L E L I N Y E Q N H N F L M  
UniRef90\_UPI0001CBA22C S F W V G A T L K L L G A F E Q L D Y S S N R N Y I L  
UniRef90\_Q01DY3 S F W Q G G C F P L L R R A M F T S G A F E S S S T P A A F S S G A L Q R W I L  
UniRef90\_F1R2A6 S F W V G A T L Q L L D V F Q Y T N F E K N R N Y I L  
UniRef90\_E3NNU4 T C Y V L S G L S I A Q K Y  
UniRef90\_E3NNU4 T C Y V L S G L S I A Q K Y  
UniRef90\_C7YQ87 S W W V L S S L A M I D R T H W I D R D A L I A F I L  
UniRef90\_M2YR00 S W W V L T P L A M I D R L H W I D K Q K L T D F I L  
UniRef90\_P46960 G W W D L S P L A I I G K L D W I D R N Q L T D F I L  
UniRef90\_M1UXJ2 S W W V L A S L K I I A K D H W I S A D A L E R F I F  
UniRef90\_M7PC69 S W W V F S S L V M I N R S H W I N N E Y L I N F I L  
UniRef90\_J9VP80 S W W V G G G A P V A E E L V R R E K S E D V P P I P P I F N R V A L Q E F T L  
UniRef90\_UPI0002B4BB2F S F W V G A S L K M L D F L K Y S N F E S N N E F I I  
UniRef90\_S8CN30 S F W Q G A V L G I A Q R L L H S  
UniRef90\_M5E9N2 G W F C G G G L T L A E E L A A P G A A A L P E P P E L L D R E A L A T Y V L  
UniRef90\_T2MF58 S W W V I A S L K I L G K V H W I D  
UniRef90\_A0A034VHI2 S F W I G A A L R I L G A F E L I D Y E E N R A Y I M  
UniRef90\_A9US4 T H F G L A G L S L L G E P S L A P V N P I F C M P Q A V I D R  
UniRef90\_A9USS4 T H F G L A G L S L L G E P S L A P V N P I F C M P Q A V I D R  
UniRef90\_A2DHE3 S W W M G T A A R I S N H L K I P E F W N V D A M S Q Y I L  
UniRef90\_D5GGD3 S T W V G G C W A L I E A G I N G P Q D E N E E K L G E  
UniRef90\_E3LSU8 I Y C C V G A L A I A G R L A E I D R D R T A E W L A  
UniRef90\_E3LSU8 I Y C C V G A L A I A G R L A E I D R D R T A E W L A  
UniRef90\_M0Y9Y7 S F W Q G A I A I A Q K L M T V V A E Q S K P S  
UniRef90\_Q59LE1 G F W I G G L S P L L Q L I M N S S Q G Q G Q Q Q E V K V F D E E K L R Q Y L L  
UniRef90\_F0VP09 S F W I L A S L C L L G Y M D W V D T K G L T E F I L  
UniRef90\_M7ZLW8 S C G T S S S G L A S E K S S V V D Y A S N Q G P L F H N I A L Q Q Y I L  
UniRef90\_M4E9Y6 T F W Q A A P C V L L Q R F F S S Q D M A P H G S S S H M  
UniRef90\_E9CFJ8 A W W T L A S L A I L D P S G W K S R I N L E G A C Q Y L I  
UniRef90\_M4ENG5 T F W Q A A P C V L L Q R L Y S A H D  
UniRef90\_UPI000265270C S F W Q A G V F P L V H S I L T K Q E D T A L S M D S W M F D Q K A L Q E Y V L  
UniRef90\_T1FNQ4 S F W V G A T L K L L D S Y S M I D K E A N R T Y L M  
UniRef90\_A0A016SI56 T C Y V L S G L A I  
UniRef90\_A0A016SI56 T C Y V L S G L A I  
UniRef90\_J4D8V9 S W W I L S A L H N I G R S N W V D P D T L I D F I I  
UniRef90\_B6ADN2 S W W I Y S V L F I L G K T H Y I N K L A L E K Y I L  
UniRef90\_UPI0003992055 T C Y C L S G L A I A Q H F G S G D L H H E  
UniRef90\_UPI0003992055 T C Y C L S G L A I A Q H F G S G D L H H E  
UniRef90\_S8ETK4 S F W I L A S L C I L G Y M D W V D T K G L T E F I L  
UniRef90\_R7UH38 S F W V G G T L Q L L G V F N Y S N N L F N R G F L E  
UniRef90\_U9UU42 S F W V G G L F P L L E A I M  
UniRef90\_UPI0002C30699 A F W I A S I L K I L G G H K L I D Q K A L R G F I I  
UniRef90\_G7KXT5 A F W I G G V L R I L G G C N F V D N K A L R G F I L  
UniRef90\_F7A2B2 S F W V G A T L K L L D I F K Y T N F E K N R N F I L  
UniRef90\_M5X1Q9 A F W I A S V L K L L G G H K F I D K K A L H G F I L  
UniRef90\_R4FLG1 S F W V G A T L K M L N F F E M V D Y N E N R S F I M  
UniRef90\_A0EA16 S W W M Y S A L C L L K R E Q W I N Q Q A L E N Y I L  
UniRef90\_UPI00026588B3 S F W V G G T L R L L D S F Q F A D G A M I R D F V C  
UniRef90\_C5FYH3 S W W V M S A L A M I G R L H W I D G E K L A A F I L  
UniRef90\_U6PED4 A F W I G A T L E I L N A N H L M D K D K L R S F L L  
UniRef90\_I3T3X9 I F C C V G A L A I T G S L D L V D K D L L G W W L  
UniRef90\_I3T3X9 I F C C V G A L A I T G S L D L V D K D L L G W W L  
UniRef90\_W7TZN2 S F W Q G A T A L L V E M A L H G E  
UniRef90\_UPI0000E46455 S F W V G S T L K L L K V F N L I D F R W N R N Y I L  
UniRef90\_A5E4K7 G F W I G A L F P M L D I L R T S K S S S K L Y S S L H I F N R E A M L N Y M L  
UniRef90\_B3RW24 S F W V G A A L K I L D A Y D Y I D F E C Q R Q Y I L  
UniRef90\_W5HVD0 S W W V L S S L I I D R V H W I D K E K L A K F I L  
UniRef90\_K4C2D0 A F W V G G V L K I L G A H K F I D Y E G L R K F L F  
UniRef90\_E9ID90 S F W V G A T L E L L E F L N F S D G Q Q N E F I L  
UniRef90\_T0RGD9 A F W D G A T L Q M L G F H N L V D I P S V R K F V L  
UniRef90\_C9SSZ9 S H W V G G C W P L V D A A L N G A S E L D E N V G D D E G D C Q L T H D W D M  
UniRef90\_R7S937 S W W V G G G F P V L E E L A R R E A G V E R P L P I L F D N V A L Q E Y I L  
UniRef90\_Q9CRG6 S W W V L A S L K I I G R L H W I D R E K L R S F I L  
UniRef90\_M2RBF2 A W W V G G A R S I V G E C V A G D V D E D D D V D D S L F D R A A L Q E Y V L

UniRef90\_J4I952 E R Q L P N G G L L N G R P E K L E D V C Y S F W V L S S L S I L K K W L D P E 330 340 350 360  
UniRef90\_A7SXB0 Q T Q A N V T G G F S K W P G I H P D A L H S Y F G V C G L S L M N E R G L V P  
UniRef90\_R1BCS2 S C Q D E E E G G I A D R P G D L P D V F H T F F G E R G E S L H G T D G V  
UniRef90\_U5HEI8 Y C A Q A P T G G L R D K P G K P S D G Y H T C Y N L S G L S S A Q H  
UniRef90\_G2X5U3 C C A Q D Q S G G L R D K P S R P S D A Y H S C Y V L S G L T S A Q H D W D R P  
UniRef90\_O04679 A D S P P L P R D V F G P Y  
UniRef90\_O04679 A D S P P L P R D V F G P Y  
UniRef90\_F0YFP4 E C Q E G D G G G V A D R P G N M A D V F H T F F G I G G L S L L S W F D G T A  
UniRef90\_C1N0H3 D A Q D D G E K G G I A D R P S D E P D V F H T F F G V A G L S L L G F E G  
UniRef90\_F4RUW4 L T S Q P L L G G L R D K P T V P P D Q Y H T H Y I L S G L S S A Q N Q H R M S  
UniRef90\_B8C277 H C Q D D D D G G I A D R P T D M P D V Y H T F F G L C G L S L I G H L G K  
UniRef90\_Q4P67 Y A Q D A E D G G I A D R P D N V T D V F H T V F G C A G L  
UniRef90\_A8JAL7 A C Q T Y E G G L G G E P G N E A H G G Y T F C G V A A L V L A G G P G L L A  
UniRef90\_A8JAL7 A C Q T Y E G G L G G E P G N E A H G G Y T F C G V A A L V L A G G P G L L A  
UniRef90\_B4MZZ4 S C Q D L E T G G F S D R T G N M D I F H T L F G  
UniRef90\_X8JKY2 S A Q D P D A G G I A D R P G D M A D V F H T L F G V A G L S L L G Y P S  
UniRef90\_S4RWR2 S T Q D N L V G G F A K W P D S H P D A L H S Y F G V C G L S L L G E A G  
UniRef90\_A2ELU9 C A C Q F L F G G F C D H P S Q A D P F H T I Y T L A G I G V A G D R  
UniRef90\_F9X7P4 C C Q E G K R G G M R D K P S T R P D A Y H T C Y S L A G L S S A Q N Q H F F Y D  
UniRef90\_H9GDB4 S T Q D R L V G G F A K W P D S H P D A L H A Y F G I C G L S L M D E S G  
UniRef90\_B0XBT8 S T Q D K T V G G F S K W P G S H T D P F H T Y F G I C G L S F L Q E P G  
UniRef90\_X8J3Q0 V S S Q V S T G G L R D K P G K S A D P Y H T N Y N L A G Y S T A Q H R V Y R S  
UniRef90\_S9VXR4 S A Q D Q E T G G F S D R R E D V P D V Y H T C F S L T A L S L L Q Y P D  
UniRef90\_B9EZX8 A A Y Y A K F G F I E K S N Q L G P L F H N Y H S C Y C L S G L S V S Q Y S A  
UniRef90\_UPI000455FCBA C A G Q H P A G G L R D K P K P A D A Y H T H Y C L S G L S S A Q H H W A E E  
UniRef90\_E9BZ77  
UniRef90\_E9BZ77  
UniRef90\_M4BJQ5 A C Q D P E D G G I A D R P G N V A D V F H T F F G I A G L C M L G Y F D R E K  
UniRef90\_A0A015JEY4 Q T Q A K F G G F A K L I D N Y P D V M H T Y L G I A G L S L M N E P  
UniRef90\_UPI0001CBA22C S T Q D N V T G G F S K W P D C H P D A L H S Y F G V C G L S L M K E P G  
UniRef90\_Q01DY3 D C C Q S D N G G L R D K P G T G R D H Y H T C Y C L S G L S L A Q H H G R C  
UniRef90\_F1R2A6 S T Q D R L V G G F A K W P D S H P D P L H T Y F G L C G L S L M G E A G  
UniRef90\_E3NNU4  
UniRef90\_E3NNU4  
UniRef90\_C7YQ87 Q C Q D T Q I G G I S D R P G D M V D V W H T Q F G L C G L S L L G Y P G  
UniRef90\_M2YR00 Q C Q D P D Q G G F A D R P G D M V D V F H T C F G T A G L S L L G H P G  
UniRef90\_P46960 G T Q D A D S G G F A D R K E D A T D V Y H T C F S L A G L S L L Q F P N  
UniRef90\_M1UXJ2 S C Q N T Y A G G I A D R P G D E P D V F H T F F G L A G L S L L  
UniRef90\_M7PC69 S C Q D F K N G G I S E R P K M Q P D M F H T C F A I L S L S I L K Y P G  
UniRef90\_J9VP80 V A A Q D T G G L R D K P G K R P D Q Y H T C N N L S G L S I A Q K M S H S  
UniRef90\_UPI0002B4BB2F S T Q D T L V G G F S K W P D V H P D V M H S Y L G L C G L S L M Q L Y N L S P  
UniRef90\_S8CN30  
UniRef90\_M5E9N2 A V A Q A P R G G L R D K P S K R P D A Y H T C Y N L S G L S L C E H  
UniRef90\_T2MF58  
UniRef90\_A0A034VHI2 E T Q D S I V G G F S K W P Q S T T D P F H T Y F G L C G L S F M N E P G L S A  
UniRef90\_A9USS4  
UniRef90\_A9USS4  
UniRef90\_A2DHE3 R S S Q I H S G G F C D S P P N D P D P L H T C Y S M A G L C V V G  
UniRef90\_D5GGD3 K E V G G L R D K P R K G P D Y Y H S N Y I L L G L A S T Q N Y  
UniRef90\_E3LSU8 F R Q C D S G G L N G R P E K L P D V C Y S W W V L A S L S I L G H F I D Q S  
UniRef90\_E3LSU8 F R Q C D S G G L N G R P E K L P D V C Y S W W V L A S L S I L G H F I D Q S  
UniRef90\_MOY9Y7  
UniRef90\_Q59LE1 I I A Q D E S G G F K D K P G K Q V D Y Y H T N Y S L S G L S I L E H S E E E G  
UniRef90\_F0VP09 Q A Q D D E E G G I A D R P G D V S D V F H T Y F G I A A L S L M Q  
UniRef90\_M7ZLW8 L C A Q V P E G G L R D K P G K N R D H Y H S C Y C L S G L S V S Q Y S S V S C  
UniRef90\_M4E9Y6  
UniRef90\_E9CFJ8 S T Q N R S T G G L A P R P N E R A D V F H T H F A I A G L A L G H A S I Q A  
UniRef90\_M4ENG5 L V P E G G L R D K P G R P R D F Y H T C Y C L S G L S V A Q H A W S K D  
UniRef90\_UPI000265270C L C C Q N N H G G L I D K P G K A R D F Y H T C Y C L S G L S V A Q H F L A G Q  
UniRef90\_T1FNQ4 E T Q D L I I G G F S K W P N H S P D A L H A Y F A I C G L S L M N E P G  
UniRef90\_A0A016SI56  
UniRef90\_A0A016SI56  
UniRef90\_J4D8V9 E S Q N P N D G G I A F Y P G Y I G D V C H T F F A L C G I S L I D A K  
UniRef90\_B6ADN2 N A Q D I E E G G I S D R P G D I S D V F H T F F G L S A L S I I Q K K A N  
UniRef90\_UPI0003992055  
UniRef90\_UPI0003992055  
UniRef90\_S8ETK4 Q A Q D E E D G G I A D R P G D V S D V F H T Y F G T A A L S L M Q  
UniRef90\_R7UH38 E T E D S V V G G F A K W P D N S P D P L H A Y F G V C G L S L M S E P G V L K  
UniRef90\_U9UU42  
UniRef90\_UPI0002C30699 T C Q S E Y G G F S K F P G E L P D L Y H S Y Y G F T A F S L L E E P G L S S  
UniRef90\_G7KXT5 S C Q Y K Y G G F S K F P G D F P D L Y H S Y Y G F A A F S L L E E S G L K S  
UniRef90\_F7A2B2 S T Q D R L V G G F A K W P D S H P D A L H A Y F G I C G L S L I G E A G I C E  
UniRef90\_M5X1Q9 P C Q S E Y G G F S K F P G S L P D L Y H S Y Y G L T A F S L L E E P G L N P  
UniRef90\_R4FLG1 T T Q D N L T G G F A K W K D S E P D P L H T Y L G I N G L S F I G E E G  
UniRef90\_A0EA16 E C Q D S D G G I A D R P N N Q A D V F H T F F G L A A L S L L N  
UniRef90\_UPI00026588B3 Q A Q S V I T G G F K W S D A S A D P M H S Y L A L A G L S F I G K D K L Q E  
UniRef90\_C5FYH3 R C Q D P E H G G I A D R P E D M F  
UniRef90\_U6PED4 I A Q H Q H M G G F C K I P E E Y P D L L H T Y F S I A A F S L L R E P G  
UniRef90\_I3T3X9 C E R Q V K S G G L N G R P E K L P D V C Y S W W V P S S L I M I D H W I S K E  
UniRef90\_I3T3X9 C E R Q V K S G G L N G R P E K L P D V C Y S W W V P S S L I M I D H W I S K E  
UniRef90\_W7TZN2  
UniRef90\_UPI0000E46455 S T E D T G M G G F A K W P D F H P D A L H A Y L G L C G L S M M G E E G  
UniRef90\_A5E4K7 R I A Q D G D G G F R D K P G K W P D F Y H T N Y S L C G V S L C Q H Q Y Y Y D  
UniRef90\_B3RW24 S T Q S Q Y T G G F S K W I D T L P D P L H S Y F G I C G L S L A R N F D  
UniRef90\_W5HVD0 N C Q V T  
UniRef90\_K4C2D0 T C Q S Q Y G G F G K T P E Q L P D L Y H A Y Y G F C A F S M L E E P G L K S  
UniRef90\_E9ID90 N T Q D T A I G G L A K F D N T R P D P L H T Y L G L C G L S L L R H P G L C S  
UniRef90\_T0RGD9 S C Q F A H G G G I A K F P D T Y P D V M H A Y Y S L A G L S I A G E H G L L P  
UniRef90\_C9SSZ9 T Y V G E D D T I L A E P R W R V R P R  
UniRef90\_R7S937 V A A Q N E S G G L R D K P G K R P D A Y H T C N N L S G L S I A Q H A W D E  
UniRef90\_Q9CRG6 A C Q D E E T G G F A D R P G D M V D P F H T L F G I A G L S L L G E E Q I K P  
UniRef90\_M2RBF2 C A G Q H A A G G L R D K P K H S D A Y H T L Y C L S G L S V A Q H S W L E E



UniRef90\_J4I952 K L T A F I L L S A Q D 370 380 390 400  
UniRef90\_A7SXB0 I H A A L N F S Q A A D H L Q R L H  
UniRef90\_R1BCS2 P P I D A A H A M P A S V M E Q L R A E Q A L E P S R T L R  
UniRef90\_U5HEI8  
UniRef90\_G2X5U3 R T G A D Q V F D E E D R V A T I H P A Y T I P E Q K A Y A M K A Y F A A K T  
UniRef90\_O04679 S K C L L E Q V H P L F N V V L D R Y Y E A R E Y  
UniRef90\_O04679 S K C L L E Q V H P L F N V V L D R Y Y E A R E Y  
UniRef90\_F0YFP4 Y A G R P A I D P V F A L P A P L V A E  
UniRef90\_C1N0H3 L R R I D P T Y A L P A D V V Q R M  
UniRef90\_F4RUW4 K E Q K L V V G V P A N Q L I P I H P L F N I R S E Y V K K T M D Y F  
UniRef90\_B8C277 L I G N R E G K L Y R E V D P V F A L P L D V V K K  
UniRef90\_Q4P6I7 Q Q V D P T Y C M P L R T T K A  
UniRef90\_A8JAL7 A T L D V  
UniRef90\_A8JAL7 A T L D V  
UniRef90\_B4MZZ4 I G G L S L L G H G G L K P I N P T L C M P Q Y I I D R  
UniRef90\_X8JKY2 L V D I D P V Y C M P A A T L E K L R K D W R A L P  
UniRef90\_S4RWR2 L E E L H P A L N M T T R A  
UniRef90\_A2ELU9 E K Y E I R P A V D P F S G V P Q E L S Q K F L N Y F L N L  
UniRef90\_F9X7P4 V T Q D E V T G D E V D A V I R P V H P V F V L P M E V V E R T R S Q F E K  
UniRef90\_H9GDB4 I R K V H P A L N M L H  
UniRef90\_B0XBT8 L Q P V E P A L N I S Q R A F Q R L K Q  
UniRef90\_X8J3Q0 L V A E F Y L G G E Q N R V N A T H P L F N L M I S H T R A M A N Y F Y Q Q  
UniRef90\_S9VXR4 L K P V D A R F C L P L E V T K K  
UniRef90\_B9EZX8 M V D S D A C P L P Q H V L G P I H P L Y N V V L D K Y H T A Y E F F S S  
UniRef90\_UPI000455FCBA E G T A M V L G G S V N G V N A T H P V F N L T M T H T E G I M G H F Y K Q V I  
UniRef90\_E9BZ77  
UniRef90\_E9BZ77  
UniRef90\_M4BJQ5 E T H P E Y E G I R Q I H P T F A I P T E V V E K L Q  
UniRef90\_A0A015JEY4 R F L E L D P A I N I S K K A K E N L L N N C A  
UniRef90\_UPI0001CBA22C L N P I H A A V N I T Q R A L S K I H E Q W R Q  
UniRef90\_Q01DY3 G L V E V V G P A E S N A L V E I E P L V N V V K H K Y E W M R  
UniRef90\_F1R2A6 L Q P V H A A L N I S L R A S D S L R R  
UniRef90\_E3NNU4  
UniRef90\_E3NNU4  
UniRef90\_C7YQ87 L E A V D P V Y C M P K T T T Q R I  
UniRef90\_M2YR00 L L E V D P A Y C M P K H I T D R  
UniRef90\_P46960 I E P V D P R F C L P L E V T Q K M K  
UniRef90\_M1UXJ2 E R Q Q L I A I D P V Y A L P C A L V K R I H  
UniRef90\_M7PC69 L L E I N P V Y F L P V E V V Q K L K  
UniRef90\_J9VP80 V S S N R L K F D A S K G L P A V K P V  
UniRef90\_UPI0002B4BB2F L F P A L N I S E R A Y H L R K I H  
UniRef90\_S8CN30  
UniRef90\_M5E9N2  
UniRef90\_T2MF58  
UniRef90\_A0A034VHI2 V M P S L N I S M A Y N R L K Q L H  
UniRef90\_A9USS4  
UniRef90\_A9USS4  
UniRef90\_A2DHE3 S G E R V K V V L P V L D L P K E S V D R M K K Y F S D Q G V  
UniRef90\_D5GGD3  
UniRef90\_E3LSU8 A M K T F I Y A C Q D D E  
UniRef90\_E3LSU8 A M K T F I Y A C Q D D E  
UniRef90\_MOY9Y7  
UniRef90\_Q59LE1 G G G G G G G G G D N F T N P I H P V F G I P I K F V K K C H D Y F K L K P I  
UniRef90\_F0VP09  
UniRef90\_M7ZLW8 P L P Q H M L G P Y S N L L E Q I H P L Y N V V L E K Y E E A Y E F F S S  
UniRef90\_M4E9Y6  
UniRef90\_E9CFJ8 V D A R F C L P T L A L Q Q  
UniRef90\_M4ENG5 K D T P P I L G S Y A N H L E Q V H L L H N V V M D R Y N K A I E F F  
UniRef90\_UPI000265270C L R E D D V A G D P K N E L R P T H P V F N I S L Q C A H N A S H Y F G K L P I  
UniRef90\_T1FNQ4 L Q Q M Q P A L N I S V R A A H W  
UniRef90\_A0A016SI56  
UniRef90\_A0A016SI56  
UniRef90\_J4D8V9 K Y M L Q Q I H P I Y A T T F E A V E R I R N  
UniRef90\_B6ADN2 L K K I D P I F A I P  
UniRef90\_UPI0003992055  
UniRef90\_UPI0003992055  
UniRef90\_S8ETK4 T V P G I H K V H P V L S L P C D V V R R  
UniRef90\_R7UH38 M D A A L N V S E S A A R L R G I H S L W  
UniRef90\_U9UU42  
UniRef90\_UPI0002C30699 L C V E L G M T D  
UniRef90\_G7KXT5 L C S E L  
UniRef90\_F7A2B2 V H P A L N V S L T T Y R L Q Q L H  
UniRef90\_M5X1Q9 L C V E L  
UniRef90\_R4FLG1 L L E V D P A L N I S V R A T K Y L H K  
UniRef90\_A0EA16 L F V P L N V T V T H E R L K K I H  
UniRef90\_UPI00026588B3 G D K Y Q L N P I D P A F A L P K S I L K N I  
UniRef90\_C5FYH3 L A P I N A S L N V S R H E V S K F K  
UniRef90\_U6PED4  
UniRef90\_I3T3X9 K L I K F I L D C Q  
UniRef90\_I3T3X9 K L I K F I L D C Q  
UniRef90\_W7TZN2  
UniRef90\_UPI0000E46455 C Y K D V N C D E K K P L A P I H P A L N I S Q R A A D H L L S  
UniRef90\_A5E4K7 L N P V H P V F G V P V S Y I N A A C M Y V E Q  
UniRef90\_B3RW24 L L E I H P A L N I T I R A Y Q H L R  
UniRef90\_W5HVD0  
UniRef90\_K4C2D0 I C T E L  
UniRef90\_E9ID90 I N P E L N I S Q A Y E H L Q R I H  
UniRef90\_T0RGD9 L E T K L Q V P L P K  
UniRef90\_C9SSZ9 T G A D Q V F D E E D R V A T I H P A Y T I P E Q K A Y A M K A Y F A A K T  
UniRef90\_R7S937 E G E E N V V G G K R N R V N A T A P V I N I L L S R V K P F I N Y F Y Q Q  
UniRef90\_Q9CRG6 V S P V F C M P E E V L Q R V N  
UniRef90\_M2RBF2 E G T E I Y V G G A V N R V N A T H P L F N L T V T H T E A V M A H F Y G Q S L

UniRef90\_J4I952  
UniRef90\_A7SXBO  
UniRef90\_R1BCS2  
UniRef90\_U5HEI8  
UniRef90\_G2X5U3  
UniRef90\_O04679  
UniRef90\_O04679  
UniRef90\_F0YFP4  
UniRef90\_C1N0H3  
UniRef90\_F4RUW4  
UniRef90\_B8C277  
UniRef90\_Q4P6I7  
UniRef90\_A8JAL7  
UniRef90\_A8JAL7  
UniRef90\_B4MZZ4  
UniRef90\_X8JKY2  
UniRef90\_S4RWR2  
UniRef90\_A2ELU9  
UniRef90\_F9X7P4  
UniRef90\_H9GDB4  
UniRef90\_B0XBT8  
UniRef90\_X8J3Q0  
UniRef90\_S9VXR4  
UniRef90\_B9EZX8  
UniRef90\_UPI000455FCBA P  
UniRef90\_E9BZ77  
UniRef90\_E9BZ77  
UniRef90\_M4BJQ5  
UniRef90\_A0A015JEY4  
UniRef90\_UPI0001CBA22C  
UniRef90\_Q01DY3  
UniRef90\_F1R2A6  
UniRef90\_E3NNU4  
UniRef90\_E3NNU4  
UniRef90\_C7YQ87  
UniRef90\_M2YR00  
UniRef90\_P46960  
UniRef90\_M1UXJ2  
UniRef90\_M7PC69  
UniRef90\_J9VP80  
UniRef90\_UPI0002B4BB2F  
UniRef90\_S8CN30  
UniRef90\_M5E9N2  
UniRef90\_T2MF58  
UniRef90\_A0A034VHI2  
UniRef90\_A9USS4  
UniRef90\_A9USS4  
UniRef90\_A2DHE3  
UniRef90\_D5GGD3  
UniRef90\_E3LSU8  
UniRef90\_E3LSU8  
UniRef90\_M0Y9Y7  
UniRef90\_Q59LE1  
UniRef90\_F0VP09  
UniRef90\_M7ZLW8  
UniRef90\_M4E9Y6  
UniRef90\_E9CFJ8  
UniRef90\_M4ENG5  
UniRef90\_UPI000265270C P  
UniRef90\_T1FNQ4  
UniRef90\_A0A016SI56  
UniRef90\_A0A016SI56  
UniRef90\_J4D8V9  
UniRef90\_B6ADN2  
UniRef90\_UPI0003992055  
UniRef90\_UPI0003992055  
UniRef90\_S8ETK4  
UniRef90\_R7UH38  
UniRef90\_U9UU42  
UniRef90\_UPI0002C30699  
UniRef90\_G7KXT5  
UniRef90\_F7A2B2  
UniRef90\_M5X1Q9  
UniRef90\_R4FLG1  
UniRef90\_A0EA16  
UniRef90\_UPI00026588B3  
UniRef90\_C5FYH3  
UniRef90\_U6PED4  
UniRef90\_I3T3X9  
UniRef90\_I3T3X9  
UniRef90\_W7TZN2  
UniRef90\_UPI0000E46455  
UniRef90\_A5E4K7  
UniRef90\_B3RW24  
UniRef90\_W5HVD0  
UniRef90\_K4C2D0  
UniRef90\_E9ID90  
UniRef90\_T0RGD9  
UniRef90\_C9SSZ9  
UniRef90\_R7S937  
UniRef90\_Q9CRG6  
UniRef90\_M2RBF2 P

UniRef90\_C4JDV8  
UniRef90\_A2FT38  
UniRef90\_B4KKL1  
UniRef90\_E2BK11  
UniRef90\_M1VLU1  
UniRef90\_K0SEG0  
UniRef90\_F4R8Y1  
UniRef90\_UPI00035987D2  
UniRef90\_Q6C4B4  
UniRef90\_I7IA05  
UniRef90\_K1PY80  
UniRef90\_I7IS58  
UniRef90\_R7YT42  
UniRef90\_I1FCT3  
UniRef90\_B0CUZ6  
UniRef90\_B9HMG6  
UniRef90\_K1WRG3  
UniRef90\_K1WRG3  
UniRef90\_E9FXI7  
UniRef90\_A0A022QX23  
UniRef90\_Q7Q4H9  
UniRef90\_M4BL60  
UniRef90\_UPI000455FD32  
UniRef90\_N6SY11  
UniRef90\_A0A059A909  
UniRef90\_M0RES8  
UniRef90\_UPI0002B45D5F  
UniRef90\_G2YT92  
UniRef90\_D8TH22  
UniRef90\_D8TH22  
UniRef90\_Q4T9G9  
UniRef90\_Q4T9G9  
UniRef90\_Q4T9G9  
UniRef90\_O80642  
UniRef90\_UPI0003C38A05  
UniRef90\_D3BTD4  
UniRef90\_A7AN84  
UniRef90\_A7AWW3  
UniRef90\_G6CZ42  
UniRef90\_F8NYU1  
UniRef90\_UPI0003D7729C  
UniRef90\_V2WSF0  
UniRef90\_K8F716  
UniRef90\_Q4MZL6  
UniRef90\_UPI0004622D39  
UniRef90\_D6RVZ4  
UniRef90\_L1LDA2  
UniRef90\_S8E5G6  
UniRef90\_J9JYU6  
UniRef90\_I1JDP8  
UniRef90\_A0A024UTK4  
UniRef90\_W7HZA1  
UniRef90\_O18197  
UniRef90\_A9RRA9  
UniRef90\_K5VT73  
UniRef90\_L8WY18  
UniRef90\_R7Q5U4  
UniRef90\_R7Q5U4  
UniRef90\_B9T226  
UniRef90\_V4ZSG3  
UniRef90\_Q6EMC1  
UniRef90\_S2J6B1  
UniRef90\_C0NMX9  
UniRef90\_C5XQ00  
UniRef90\_W9SPR0  
UniRef90\_E0VZ15  
UniRef90\_C1MMX3  
UniRef90\_UPI00042B1D5B  
UniRef90\_L0PDT8  
UniRef90\_W5HFU7  
UniRef90\_W5HFU7  
UniRef90\_A2E265  
UniRef90\_D8LZ74  
UniRef90\_B3L838  
UniRef90\_UPI0002B48BE8  
UniRef90\_UPI0003EC273E  
UniRef90\_T1J3U5  
UniRef90\_G0N5N3  
UniRef90\_G0N5N3  
UniRef90\_K8EBW5  
UniRef90\_UPI000441266F  
UniRef90\_Q5CXB3  
UniRef90\_Q5CXB3  
UniRef90\_A0A059BG70  
UniRef90\_A0A059BG70  
UniRef90\_R7T1B5  
UniRef90\_M9LQ15  
UniRef90\_D8RF16  
UniRef90\_L7M260  
UniRef90\_L7M260  
UniRef90\_J4G104  
UniRef90\_S3DHS9

1 P R Q G V P S L F T Q P P V V R N G A E T E T T R A Q D E T V Q Q C L P F L K 40  
10 20 30  
Y L Q E P P S S L V Q D L E A  
T E S S T N V Q L C E E K L H K L K K  
Q K V N K L Y S K H L A S T L E T E N L D N L K Q L K F S R K D D L V N E Y L Q  
E T A V S L D S D R S K S E E E D E E E  
E P L Y S L R P E H V R E R L Q D D S V E T V T S L E Q A K V E E K L Q E V F S S  
H L S L P F L I D G L N T E T S S R Q L S T A Q N L L K  
T E D Q L L E F A  
P T D G R D T L T S L A Q L S V E L T  
S L P D L F T Q L P L I R D Q L V T E T S K T Q D A T L D Q C L P F L K  
N  
R E E F N D E N V V T R T S C D N I D T E R R I E E L L D  
D F D G Y M T R T T L D Q E E C E E R C A A Y L D  
S F D D E Y L S N S V I K D S E T T V L Q T E L E E T V R E M Y L

UniRef90\_C4JDV8 G V A P T L Y G P F P S L Y R D A H L A F L Y D A L E E Y P G K F V G L D A S R 80  
UniRef90\_A2FT38 D P A E P E P V V L A K H A K N L L R F L H L L P A R M S S H D D T R  
UniRef90\_B4KKL1 T P K L A K M H V K Y F Q R L L Q I M P S D L V E F D S T R  
UniRef90\_E2BK11 E F Q E H F T R E K H F N F V L D S R R E L G E E Y L S L E A S Q  
UniRef90\_M1VLU1 D F D P Y A I R L V R D A H I K Y L L H A M V K M P R G F V S L D A S H  
UniRef90\_K0SEG0 Q K P I E T S V L A K D A H V E F I K S T L K E I P T P F T A L D S S R  
UniRef90\_F4R8Y1 N V S G Y H K G S Q P V V E R A K H I K Y F K R V L S V L P S H H L D S H R  
UniRef90\_UPI00035987D2  
UniRef90\_Q6C4B4 G R L Y T L L D K K I I F T R E N H L S F V K R H L W S K L L D L F F L D A S Q  
UniRef90\_I7IA05 F L K P K H I K F F E R C L Q I L P S R Y S S L D T N R  
UniRef90\_K1PY80 P E L C I D K H V K Y L Y D Y A N E R C S E G F F V E I N K  
UniRef90\_I7IS58 S E S P S L N K P K H L K Y W T R C L K T L P H A Y I A N D S M R  
UniRef90\_R7YT42 E V D A V K E E E F V V K K H V R Y F S R C L D I L P T Q C Q S L D A N R  
UniRef90\_I1FCT3 P A L S R A G H V S H C S R F L N G L P G T R T D L D P S R  
UniRef90\_B0CUZ6 L T F D K E R H V A F L E M M Y F M L P C H Y Q S Q E I N H  
UniRef90\_B9HMG6 E F T K E K H A K Y F L R C L N A L P S S M V S L D S I R  
UniRef90\_K1WRG3 V F D R D R H I L Y L Q M M Y Q L L P S P Y Q S Q E I N R  
UniRef90\_E9FX17 D N N I E G E V F E R K H A K Y F I R F L H T L P G R L A S H D S T R  
UniRef90\_A0A022QX23 M A S T S F E R E L H A Q Y F L T N L R S L P A Y I T S Q D S Q R  
UniRef90\_Q7Q4H9 P P F T R F G H G T H C K R C L V G L P G S Q V I D I D P S K  
UniRef90\_M4BL60 K L S F Q K E L H K K Y L N R F L N R M P S F L A N M D S N R  
UniRef90\_UPI000455FD32 F D R E R H V K F L E M M Y H M L P R P Y Q S Q E I N H  
UniRef90\_N6SY11 S P R L E R E R H L L F L E M M A L G L P K E Y E S Q E I N R  
UniRef90\_A0A059A909 E A K L E V A K H I K Y W Q R C L H S L P T V Y T S T D S S R  
UniRef90\_M0RES8  
UniRef90\_UPI0002B45D5F L R A L Q M E D G S F Y A L P E N D  
UniRef90\_G2YT92 L R A L Q M E D G S F Y A L P E N D  
UniRef90\_D8TH22 L R A L Q M E D G S F Y A L P E N D  
UniRef90\_D8TH22 Y S P P V Q S S P S A N F E K D R H L M Y L E M M Y E L L P Y H Y Q S Q E I N R  
UniRef90\_Q4T9G9 T L D I E K H V K Y F K R C L N A L P S P Y A K G L A N H  
UniRef90\_Q4T9G9 L S R D S H I H Y I A K H L T V S G A A K V V Q T C S Q  
UniRef90\_Q80642 M T D D L H I N H E A I Y N F L L N L N R L S I E G F A Y E P I K  
UniRef90\_UPI0003C38A05 L A H R Q H V K Y F M R F L N V L P A S L S S H D T T R  
UniRef90\_D3BTD4 E S D L E P L A E L P R L A T T G H A T H C K M C L A G L P A G Q V D I D S S R  
UniRef90\_A7AN84 S Y K F N H L V P R I L L Q R E K H F H Y L K R G L R Q L T D A Y E C L D A S R  
UniRef90\_A7AWW3 P P L G R G G H A G H V K R C L I G L P S S Q V I E A D S S R  
UniRef90\_G6CZ42 K H V E F I K S S L D T E T I E Y A L T E H L R  
UniRef90\_F8NYU1 K L D L E K I Y N F L L N S L D D R V S E G F A F E P I K  
UniRef90\_UPI0003D7729C M S E T I T L G K G G H A A H C K R C L I A L P F S Q V I E I D P S R  
UniRef90\_V2WSF0 Q H V K Y F M R F L N I L P S S L S S H D T T R  
UniRef90\_K8F716 V L N R E A I Y N F L L D S I D D R V S E G F A Y E P I K  
UniRef90\_Q4MZL6 T L N R R G H A K L A Q L C L S G L P F S Q V I E V D P S R  
UniRef90\_UPI0004622D39 N K P Q L K P E Q H K K Y F R R S L D L L P G E V A V F D Y S R  
UniRef90\_D6RVZ4 E K D V H V T F L E L M Y Y L L P S P Y E S Q E I N H  
UniRef90\_L1LDA2 E K E S H V M Y F L R N L R Q L P E P Y A R Q D H H R  
UniRef90\_S8E5G6 S V K Q T P I P N R  
UniRef90\_J9JYU6 R K A A E S G D Q T Q T F E F K K H I G F L I R H L N V F P Q P Y N T L E T S R  
UniRef90\_I1JDP8 E E T H R A H V F Y F R D L E Q L P S P Y E P N D V N R  
UniRef90\_A0A024UTK4 S E T S P V L P L N R G H V G H C K R F L A G L P A G A V E A D A S R  
UniRef90\_W7HZA1 S G T S V K L D R P A H A R W A Y S L I Q G L P G R Y T S Q D A S Q  
UniRef90\_O18197 G E E Q P S P F Q S S S F N R E H H I A Y L E M M Y Q M L P N Y Y Q S Q E I N R  
UniRef90\_A9RRA9 K L R T S A H I A F A Q R Y L E K F G N G M M E L D A S R  
UniRef90\_K5VT73 D Y A W S D S E L Q F F D R D R H V Q F L E M M Y D L L P S R Y Q S Q E I N H  
UniRef90\_L8WY18 F S K E K L V K Y F K S N L C M L P T P Y T Q T E T N R  
UniRef90\_R7Q5U4 G L A S S Q T G P F P R L D R D A H I S F L Y D S L E S Y P E R F V G L D S S R  
UniRef90\_R7Q5U4 P P E M D F E R L R H V A F D A M A T E L P D E Y A S Q E V N H  
UniRef90\_B9T226 F D K D R H V M F L Q M M Y Q L L P Y Q Y Q T Q E I N R  
UniRef90\_V4ZSG3 I E D K D E K L T T F D L A H R K Q H V K Y F Q R F L H F S P A Y T S Y Q D C S R  
UniRef90\_Q6EMC1 L D R D A H V A Y L T R S L T H L G S G F V L D A S R  
UniRef90\_S2J6B1 F D R D R H V A F L E M M Y N L I P H Y Y Q S Q E I N R  
UniRef90\_CONMX9 L E L F V D K H I E Y I L S F S S R N L I D F S E E H Y K K  
UniRef90\_C5XQ00  
UniRef90\_W9SPR0  
UniRef90\_E0VZ15  
UniRef90\_C1MMX3  
UniRef90\_UPI00042B1D5B  
UniRef90\_L0PDT8  
UniRef90\_W5HFU7  
UniRef90\_W5HFU7  
UniRef90\_A2E265 V K E L R K L N L A M Y L  
UniRef90\_D8LZ74 M L S Q D E L A T R I K F M R D Q H I Q Y C R K H L G T L G G A Y M S Q C S A K  
UniRef90\_B3L838 D Q I Q F V K D K H L K Y L N T Y D T N G E E L I F N E T L K  
UniRef90\_UPI0002B48BE8 F D R D R H V M F L E M M Y Q L L P F Q Y Q T Q E I N H  
UniRef90\_UPI0003EC273E E R L D F L R D R H V R F F Q R C L Q V L P E R Y S S L E T S R  
UniRef90\_T1J3U5 F L R K K H V Q F L L R C L D V L P Q I H A T F D T S R  
UniRef90\_GON5N3  
UniRef90\_GON5N3  
UniRef90\_K8EBW5 K N D E E E D V R T F N L E R T K H V E Y C L R N V R E L H P T Y V S L N S S R  
UniRef90\_UPI000441266F A E Q A H P E P P K L Q R A G H A S H C I R C I Q S L A P S H V E F D T S R  
UniRef90\_Q5CXB3  
UniRef90\_Q5CXB3  
UniRef90\_A0A059BG70  
UniRef90\_A0A059BG70  
UniRef90\_R7T1B5 T L A R G G H A S H S S R C L I G L P S S Q V I E V D P S R  
UniRef90\_M9LQ15 E L T A S K H V S F L L R C L R M L P A P Y T S A D D Q R  
UniRef90\_D8RF16 F D R D A H V Q F F A G F L R G L S A D Y L G Q E C N T  
UniRef90\_L7M260 N D L D D C A S G F N C G H  
UniRef90\_L7M260 N D L D D C A S G F N C G H  
UniRef90\_J4G104 P P L A R N S H A M H C K L C L S G L P F S Q V I E M D S S R  
UniRef90\_S3DHS9 A D P P E D T H L D I P Q H I K Y W K R C L T L L P T Q Y T T D S S R

UniRef90\_C4JDV8 P W M M Y W G L L A G L Y F L G E D V T K F R Q R V I S T A T P M Q N S T G G F  
UniRef90\_A2FT38 S N N Y Y W A S S A L Y L L G T L D Q L N K D D A I D F L M K C K C A N G A F  
UniRef90\_B4KKL1 S T I V F F A V C G L D V L N D H L I S P E E L R K D D I D W T Y D H E R Q C G G F  
UniRef90\_E2BK11 L M I A Y F A F S G L D L L N D E I S E E V K L Q A I D W I Y G L Q V Q G A G V  
UniRef90\_M1VLU1 T W L Y W I A H S L N I L L G R K L T S E S E A R G I T R F C L E C R T E Q G G F  
UniRef90\_K0SEG0 P W M L Y W T L H S S L M L G H P L S D V E L E R I V S T L R H C F W T D V G E A F  
UniRef90\_F4R8Y1 S W L S F W L S S M S M L N A P F E E T E H K A L I D T I L S F Q D P N G G F  
UniRef90\_UPI00035987D2 V S V A F F A T S G L D V L E M K E L S D S R E N I V K W I Y S L Q L I E Q C G G F  
UniRef90\_Q6C4B4 P W L Y W M T H S L D L M Y Q S L S P T F S N M L C A S V D S F Q K P N G G F  
UniRef90\_K1PY80 M T I A F F A L S G L D L L N S D R I E K E K E S I I K W I Y S S N I C Q C G G F  
UniRef90\_I7IS58 V G G M Y W S L T T L A L L C P E L P E S D G F N L Y D K L S N C K N E D G G F  
UniRef90\_R7YT42 M T I A F F L V S G L D L L D N C L I T E A E R K D Y V D W I Y H C Q H P H G G F  
UniRef90\_I1FCT3 M T I L F F C L S G L D V L D N L I T D D Q R G S E I E W I Y S Q Q V S K C G G F  
UniRef90\_B0CUZ6 L A I A F Y C I G S L D L L G E L I D Q A E R S W R E W V W E Q Q S H G T G G F  
UniRef90\_B9HM66 L T L A Y F V I S G L D L L G S L D R V D K D A V A M W L S L Q Q S N P G G F  
UniRef90\_K1WRG3 P K L H K E K H V K Y W Q R C L K S L L L P T  
UniRef90\_K1WRG3 P K L H K E K H V K Y W Q R C L K S L L L P T  
UniRef90\_E9FX17 L S M S F F A I S G L D V L G R D L D R V D K H R K E Y I N W I Y L F C L E R C G F  
UniRef90\_A0A022QX23 L T L A Y F V I S G L D L L D R A L L D R V D K E S V I N W V L S L Q A E N G Q F  
UniRef90\_Q7Q4H9 V T I A F F A V S G L D V L D H M L T D T F Q Q D I C N W I Y K P K P G E R G G F  
UniRef90\_M4BL60 V V L A F F C V H G L A L L K Q L E R V D R H Q V I E W V Y S F H A G N G G F  
UniRef90\_UPI000455FD32 L A L A F Y C I G S L D L L N Q L L D K D D R E S W R E W I W E C G P Y G A G G F  
UniRef90\_N6SY11 S I V L Y F C V S G L D L L G D D I P E E R K N Q M I D W L Y S L Q V P V S G G F  
UniRef90\_A0A059A909 L T L A Y F V I S G L D L L D A L D R V H K D A V A D W V L S F Q A D N G G F  
UniRef90\_M0RES8 L T L A Y F A I S G L S L L D A L D R V D K D Q V A D A N W V L S F Q A E F Y G F  
UniRef90\_UPI0002B45D5F L T L G F F I L S A L D L L N V T F S D S Q R R A I R A W I L K C Q H P F G G F  
UniRef90\_G2YT92  
UniRef90\_D8TH22  
UniRef90\_D8TH22  
UniRef90\_Q4T9G9 I R F I Y C A A S I C Y M L D D W S G M D T R K A I E Y I R G S L S Y D G G F  
UniRef90\_Q4T9G9 I R F I Y C A A S I C Y M L D D W S G M D T R K A I E Y I R G S L S Y D G G F  
UniRef90\_Q4T9G9 I R F I Y C A A S I C Y M L D D W S G M D T R K A I E Y I R G S L S Y D G G F  
UniRef90\_O80642 L T L A H F A I S G L H F L G A R D R V D K D V V A K W V L S F Q E Y G F  
UniRef90\_UPI0003C38A05 G T I A F F S V C G L D V L N H L L T P E M R Q N I I D W T H T D E R N C S G F  
UniRef90\_D3BTD4 L S L T Y F V I S G L D L L G G I D E I P I A K K D I I D W V Y S C G F R G A N F  
UniRef90\_A7AN84 P W V V Y W S L H G L S I L G A D E I S L Y K D R A I H S L F S C W S V S G G F  
UniRef90\_A7AWW3 I G G V Y W T L T A I S L L K G K V N D I L H P K L L D I T E A S K N P D G G F  
UniRef90\_G6CZ42 V T I A Y F S V A G L D V L G T S M T L D M Q S R L I E W I Y R L Q V E P C G G F  
UniRef90\_F8NYU1 L A L V F Y C L S G L D L L D N K T N N D E R Q M W V S W V W E Q Q T S G S G F  
UniRef90\_UPI0003D7729C P W L C Y W I L H S L E L L D E P I P Q I V A T D V C Q F L E L C Q S P D G G F  
UniRef90\_V2WSF0 L A L A F Y C I G S L D L L G D Q L S D N E R E S W K T W I W E Q Q T R G T G G F  
UniRef90\_K8F716 L S G M Y W G L T A H K L L E E E E E I M S K E D V M K F I N E C Y D E K S S F  
UniRef90\_Q4MZL6 L G G L Y W S L T A I S L L K G P P N S I V H P K T I K F L S L S K N D D G A F  
UniRef90\_UPI0004622D39 I A V V F Y C L G T L D L L G H D L D R E S W R S W L W E Q Q L C G P F G T G G F  
UniRef90\_D6RVZ4 V T L A Y F S V A G L D V L G S A I S L D L R S R I E W L Y R Q V H P D C G F  
UniRef90\_L1LDA2 L G G M Y W S L T A I A L L K G K I N D I V H P K A N K T L E S M K N S N G A F  
UniRef90\_S8E5G6 L A V V F Y C L G T L D L L G V L D S Q V P E A G R I H W R E W I W E Q Q T G G F  
UniRef90\_J9JYU6 L T I L Y F A L I G L D I L D D S L T D N R K D I V E W V Y R C S V H K C G F  
UniRef90\_I1JDP8 L T L A Y F V I S G L D I L D S L H K V A K D A V V S W V L S F Q A H D G Q F  
UniRef90\_A0A024UTK4 V V L L F F C V Q Q L A L L G E L D R V D K K A I D F V Y S I N A A D C G F  
UniRef90\_W7HZA1 P W I F Y W C I N A L A A L G E D V G G Y N D R T V A S L K P L Q H K D G G F  
UniRef90\_O18197 N T I F L F A I S S L D L L G N L L T P E R R Q A Y I D W I Y G L Q F T N G G F  
UniRef90\_A9RRA9 L T L A Y F A V S A L D L L N A L D Q Q V S V D V I D W V Y S L Q S P V F G F  
UniRef90\_K5VT73 V A I G F Y C L G S L D L L G T L E T K T R P E E R A A W I R W M W E Q Q S V C  
UniRef90\_L8WY18 P W L T Y W A L Q T L T C L G V Q L D P A T K Q R T I D T I A N Q H P D G G F  
UniRef90\_R7Q5U4 Y T L S S G I Q I L Y D N L S L I D V D K V V S Y I R G L Q K P D G S F  
UniRef90\_R7Q5U4 Y T L S S G I Q I L Y D N L S L I D V D K V V S Y I R G L Q K P D G S F  
UniRef90\_B9T226 L T L A Y F T I S G L H I L N A L D R V D K D A V A S W V L S F Q A H N G Q F  
UniRef90\_V4ZSG3 C W L V Y W M V H A L D L M D A F P S Q H R E R I L S F L R A A W D R Q G G F  
UniRef90\_Q6EMC1 I T L A H F A I V G L D I L D G A F L D R I D K E R E I V N W L S L Q A D N G Q F  
UniRef90\_S2J6B1 V T L A F F C L G A L S L L G E L V T E E N K H D W I E W L Y A Q Q V L P C G F  
UniRef90\_CONMX9 P W M V Y W A L T G L Y L L G E D V T K F R E R V I A T A A P M Q N S T G G F  
UniRef90\_C5XQ00 L T L A Y F A V G G L S L L R E L D R I N K D E I A K W I L S F Q E Q F Y G F  
UniRef90\_W9SPR0 L T L A Y F V I S G L H L L R Q L N S I D K E A V A D W V L S F Q E Q F Y G F  
UniRef90\_E0VZ15 L Y L A F L A I S G L D L L N D T I A S N E D K L H I I E W V Y S Y S I D R C G F  
UniRef90\_C1MMX3 A W L C Y W I V H S L A L L S H P L A S T A S D V E F L G K C Q R P G G F  
UniRef90\_UPI00042B1D5B L T L A F F T I S G L H L L Q A L D R V D K D R V A N W V L S F Q A Q F Y G F  
UniRef90\_L0PDT8 L Q N I N W V L N A L F I L D R K D L I P R D N V I D F V M S C K Y E D D G F  
UniRef90\_W5HFU7 V L C L F D R L D V L D A D K I A D C I L L Q I F N I T G L Q N E D  
UniRef90\_W5HFU7 V L C L F D R L D V L D A D K I A D C I L L Q I F N I T G L Q N E D  
UniRef90\_A2E265 P W N P F Y T L P I T C L G L E N E E E F R K A N T I Q Y L K N H L N D H C G W  
UniRef90\_D8LZ74 P W L Y Y Y V L N S L D L L N A E A I D C Y P Q A I N S I E A C R C A L G G Y  
UniRef90\_B3L838 M R G V F Y Y I C S C K I L S H E I E K K E E F I N F I L Q C Q N P D G G F  
UniRef90\_UPI0002B48BE8 L T L A Y F V I S G L D L L G A M D R V D K D K I A N W V L S F Q A E L Y G F  
UniRef90\_UPI0003EC273E L T I A F F A L S G L D M L D S L D V V N K M D D I I E W I Y S L Q V N R C G F  
UniRef90\_T1J3U5 L A I A F A L S G L D M L N S L L S R K Q E I I D W I Y S F Q M Y R N S  
UniRef90\_G0N5N3  
UniRef90\_G0N5N3  
UniRef90\_K8EBW5 T W I V Y W L V H S L G V L G E D L E E D L R A D V V E F L A S C Q H E S G G F  
UniRef90\_UPI000441266F M A V G F Y C I A S L E L L G Q K L K E H E R E D I R R W I W A Q Y P Y G S G F  
UniRef90\_Q5CXB3  
UniRef90\_Q5CXB3  
UniRef90\_Q5CXB3  
UniRef90\_A0A059BG70 V K Y I L S V E K K K D S F  
UniRef90\_A0A059BG70 V K Y I L S V E K K K D S F  
UniRef90\_R7T1B5 I A V I F Y C L G T M D I L S T L Q G E Q D R E S W K E W F W E Q Q I S S T G F  
UniRef90\_M9LQ15 M T L G Y F A L A G L D L L H H K V A L D E A R E L V D W V Y D Q Q A P E G G F  
UniRef90\_D8RF16 L S L A Y F A I S A L D I L N A L N Q V W N S S C E R W N F D R R V D P D L R F  
UniRef90\_L7M260 I A M T Y T A L A T L I L G D D L S R V D K Q A I M Q G L K A L Q Q E S S G F  
UniRef90\_L7M260 I A M T Y T A L A T L I L G D D L S R V D K Q A I M Q G L K A L Q Q E S S G F  
UniRef90\_J4G104 L A L G F Y C L G T L D L L G T K T P S E R E A W R N W L W E Q Q T H G S G F  
UniRef90\_S3DHS9 M T L A F F I L S A L D L L N D T F P P A Q R T S I R D W I L K C Q H P H G G F

UniRef90\_C4JDV8 G G G H G Q M S H C A S S Y A V I L S L A M V G G A E A F G L V D R R M A L G A Y  
UniRef90\_A2FT38 G G N G S E P N T H N T L S V I Q T L I L Y G D D D L S R L N D R Q E P I V K W  
UniRef90\_B4KKL1 M G C A Y Q W G H L A M T Y T S I A V L V L L G D D D L K R V L N D R Q S L I V R G  
UniRef90\_E2BK11 R S G E F Q Y G H L A M T Y T G L V T L L L L G D D D L K R V L N D R Q S L I V R G  
UniRef90\_M1VLU1 G G G G H H P H A A A T F A A T S A L F I A G T P E A F E V L L D R R R K F L H W  
UniRef90\_K0SEG0 G G G P Q Q M H C A T T Y A A V L A L S L V T G G G E G L N R K R L Q M Y A F  
UniRef90\_F4R8Y1 G G G P Q Q S A H L A S T Y A C T L A L S S L L A K G S E W S K V N R D Q M Y E W  
UniRef90\_UPI00035987D2 R G C P Y D S S N I A M T Y T A V L S L L T L G D D D L S G V H K E P V L J A G  
UniRef90\_Q6C4B4 G A A P N H D A H I T F T L S A V Q I L L L E D S L D K L D A D Q I A D Y  
UniRef90\_I7IA05 G G G G Q I G N V I T T Y A C V C L Q Y I A G L S G L N L R R N D I Y K F  
UniRef90\_K1PY80 R G S S T D S G H I A M T Y T A V A S L L T L G G D D L S G V N K S A L L T A  
UniRef90\_I7IS58 R G S P G H E S H L I P T H Y A V L V C I L L L E K M D M I D V L G D D L S G V N K S A L L T A  
UniRef90\_R7YT42 R G F P W D P A N L P A T Y F A L A T L I L L G D D L Q R V R R R A C L K W  
UniRef90\_I1FCT3 R G S P Y D C H I A M T Y T A L S C L L L L G D D N L S R I N K R P A V L T G  
UniRef90\_B0CUZ6 R P S P Q N D T P H I A M T Y T A L L T L A L L G R D D F S K L D R S G L I K F  
UniRef90\_B9HM66 C G S I Q N H S H L A S T Y C A L S L L K T V G Y N L S N I L D R S K L I S M S  
UniRef90\_K1WRG3 Q Y T S T D S S R M T L G F F I L S A L D L L G G G A E T F P A K Q R A E I R D W  
UniRef90\_K1WRG3 Q Y T S T D S S R M T L G F F I L S A L D L L G G G A E T F P A K Q R A E I R D W  
UniRef90\_E9FX17 R G H P L D T S H I T M T Y A A I N T L L L G D D L G R I D A E L L K S  
UniRef90\_A0A022QX23 Y G F H G N G S H L A S T Y C A L A I L K S V G Y D D L S L I D A E L L K S  
UniRef90\_Q7Q4H9 G G I Q Q R W G H L A T Y T G I A V L V A L G D D D L S R V L N R R A I V E R A  
UniRef90\_M4BL60 R G G P Y D T S N V A L S T Y A L C I L R T L G D D L H R V L D R K T A I V E R A  
UniRef90\_UPI000455FD32 K P G P G N V P Q L I V T Y T A L L T L A L L R D D F T R L D R T G I A Q L  
UniRef90\_N6SY11 Q G S T Y Q W G H I A T T Y S C L L S L L L G D D L K R V L N T S E L I K S  
UniRef90\_A0A059A909 Y G F H G N G S H L A S T Y S A L A I L K I V G Y N L S N I D S E M L T S  
UniRef90\_M0RES8 C G S R T N C S H L A S T Y C A L A I L K M I G Y N L S N I S P E S I L I S  
UniRef90\_UPI0002B45D5F C G S T N H P A N L P A T F F A L L S L G F V G G L K D V K R E E C L R W  
UniRef90\_G2YT92 D E L H H D F L E L H R D S S H I A Y  
UniRef90\_D8TH22 D E L H H D F L E L H R D S S H I A Y  
UniRef90\_D8TH22 D E L H H D F L E L H R D S S H I A Y  
UniRef90\_Q4T9G9 G Q G A G R E S H G G W T Y C A I A S L C L M G R L D E L S R R E L D R I R R W  
UniRef90\_Q4T9G9 G Q G A G R E S H G G W T Y C A I A S L C L M G R L D E L S R R E L D R I R R W  
UniRef90\_Q4T9G9 G Q G A G R E S H G G W T Y C A I A S L C L M G R L D E L S R R E L D R I R R W  
UniRef90\_O80642 G S R S G R E S P H I A S T Y C A L A L K V I G H D L S T I D S K S L I S  
UniRef90\_UPI0003C38A05 L G S C Y Q W G H L A M T Y T S L G I L V T L G D D D L S R L D R K S I V D G  
UniRef90\_D3BTD4 L G G P Y D M P S I A N T Y C A I A L R I V L G D D D F G R V N R D A I T R S  
UniRef90\_A7AN84 G G G P G Q I G H L A T T Y A A I C C F K M F G C V N M L D T A K I L R K F  
UniRef90\_A7AWW3 G N G P G H P S S I A T H Y A I L S L A L L G K Q D V I D K E C T I K Y  
UniRef90\_G6CZ42 Q G S Q Y R C G H L A M T Y T G L C V L L T L G D D D L S R V L N R S A L V E G F  
UniRef90\_F8NYU1 K P G P Y N S P H I I V T Y T A L L C L A I L R D D F T R L N R S G L I K F  
UniRef90\_UPI0003D7729C G G G P G Q Y P H L A P T Y A A V N A L C I I G T E E A Y N V I N R E K L Q Y  
UniRef90\_V2WSF0 R P S P Y D S P H L I M T Y T A L L S L A I L R D D F S R L D R R G L V E F A  
UniRef90\_K8F716 A G A P G H D G H L Y T L S A I Q I F V L Y E C Q E Q L S E E R A K K I C T A  
UniRef90\_Q4MZL6 G F G P K H P S N L I A T H Y A I L T L A L I N R L D F I N R N D I K F I S T  
UniRef90\_UPI0004622D39 R P S P Y D L P H L V M T Y T A L S S L L L R D D D F S K L D R A G I R F G  
UniRef90\_D6RVZ4 Q G S S T R C G H L A M T Y T G L C I L L A L L G D D L S R I N R T A I I Q G  
UniRef90\_L1LDA2 G F A P K H S N L I A T H Y G I L V L G L L D K L E L L D R E G I I E F F  
UniRef90\_S8E5G6 R P S P Y D V P H L I M T Y T A L M S L A L L R D D F V R L V D N R S A V L R F  
UniRef90\_J9JYU6 M G S T Y C E S N V A M T Y M A L C I L I T L G D D L S R V L N R S A V L R G  
UniRef90\_I1JDP8 Y G F H G N N S H L A S T Y C A I S I L K I V G Y E D N L S R V L D S E T I V T S  
UniRef90\_A0A024UTK4 G G S T W D A A H L A S T Y A A L A I L K T L G D N L A R V N R K A A I V Q S  
UniRef90\_W7HZA1 G G G N Q M P H M A S V A V L T L A I T T Y H E S F G W I D R K R L L Q W  
UniRef90\_O18197 R G S H Y D E A N L A Q T Y S A V L S L A I L G D D L K K V D R K A I L K T  
UniRef90\_A9RRA9 R G S P Y D G G H L A S T Y S A L S I L R I L G D D D L S C V H E A V L V Q T  
UniRef90\_K5VT73 G Y G T G D T P N L I M T Y T S I L S L A L L R D D L S R L D R K G L V Q F  
UniRef90\_L8WY18 G G G P D I R D L R H G F S R Q K C Y E F  
UniRef90\_R7Q5U4 A G D E W G E I D T R F S Y C A L L S L S I L N R L D A V D V D A A V A F F  
UniRef90\_R7Q5U4 A G D E W G E I D T R F S Y C A L L S L S I L N R L D A V D V D A A V A F F  
UniRef90\_B9T226 Y G F Q G S R S H L A S S Y C A L A I L K I V G Y N L S N L D S K S I L T S  
UniRef90\_V4ZSG3 G G G P G Q Q A H L A P T Y A A T A S V F V T R G V V E W F H T M S R E A C K G Y  
UniRef90\_Q6EMC1 Y G F H G N V S H L A S S Y C A L T I L R T V G Y D F S L L N S K L I L E S  
UniRef90\_S2J6B1 R G S H Y D S S H L A N T Y T A L L N L L L G G D D L S R V N R K A I V K T  
UniRef90\_CONMX9 G G G H G Q M S H C A S S Y A L V L S L A L V G G Q D A F K L I N R T A M W Q W  
UniRef90\_C5XQ00 C G S R S D V S H L A S T Y S A L A I L K I I G Y D L A N I D C K A L L L S  
UniRef90\_W9SPR0 H G S P S D D S H L A S T Y C A L A I L K I I G F N F S N I D S E S I L T S  
UniRef90\_E0VZ15 Q G S Y T H I G H I V M T Y T G L A L L L L G D D L S K V N R K S A V L G G F  
UniRef90\_C1MMX3 G G G P G Q M P H L A P T Y A A V C C L A S I A T P E A F A C V N R K S L R S F  
UniRef90\_UPI00042B1D5B G L S P Y N A G H L A S T Y C A L A I L K T V G Y N L L T I D K E S I L I S  
UniRef90\_LOPDT8 G Q I P F S D P H L L N T L Y A A V Q I L A I C D S I D K I N P E K I A K Y  
UniRef90\_W5HFU7 G S F S G D I W G E V D T R F S Y I S I C T L S L L H R L H K I N V D K A V E Y  
UniRef90\_W5HFU7 G S F S G D I W G E V D T R F S Y I S I C T L S L L H R L H K I N V D K A V E Y  
UniRef90\_A2E265 S G Y L H D Y P G M V P M Y G M A I F L G L E E S E E L Y E M V D Q K A F Y E Y  
UniRef90\_D8LZ74 A G S H L E Y P H T M V T Y A A V N T L A I L R S Y A L I H R S D I Y R F  
UniRef90\_B3L838 S N N K S H D S N I V S T H Y A I L S L L L L N H P D N S P K N I T D S T A E Y  
UniRef90\_UPI0002B48BE8 C G S R S S Q S H L A S T Y C A L V I L K V I G Y D F S N I N S E I A I S  
UniRef90\_UPI0003EC273E R G H P Y D S G H I A M T Y T G L S C L V I L G D D L S R V N K E A C L A G  
UniRef90\_T1J3U5 I W F V Q D S G H I A M T Y T G L A S L V L L G D D L S R V N K R G I I A G  
UniRef90\_G0N5N3 L D K M S A E D I V D Y  
UniRef90\_G0N5N3 L D K M S A E D I V D Y  
UniRef90\_K8EBW5 G G G P G Q L A H L A P T Y A A M S A L V T I G T K E A M A V V D V G K L R A W  
UniRef90\_UPI000441266F R A G S Y D F P D L I M T Y V A L L L L C I L R D D F S Q L D R N G L S Q F  
UniRef90\_Q5CXB3 Q K H Y E F  
UniRef90\_Q5CXB3 Q K H Y E F  
UniRef90\_A0A059BG70 E S V V M E H L R L N G A Y W G L T T L D L L G K L D T V D S D E V V S W  
UniRef90\_A0A059BG70 E S V V M E H L R L N G A Y W G L T T L D L L G K L D T V D S D E V V S W  
UniRef90\_R7T1B5 R P S T Y M T P H L V M T Y T A L L C L S I L R D D F S N L D R R G I L H L  
UniRef90\_M9LQ15 R G S P S T P A N I A M T Y S A L L I L A I L R D D Y T R L D R G A L L R Y  
UniRef90\_D8RF16 G F S S Y D G G H I A M T Y S A L A I L K I L G D D Y S R V L S R N G A L V R S  
UniRef90\_L7M260 A L I H G S E D D M R F V Y C A A A I C S M L H D W S G F D K E K A V S F  
UniRef90\_L7M260 A L I H G S E D D M R F V Y C A A A I C S M L H D W S G F D K E K A V S F  
UniRef90\_J4G104 K P S P Y D T H L I M T Y T A L M S L A I L R D D F S K L D R P E K L K F  
UniRef90\_S3DHS9 C G S P N H P A N L P A T Y F A L L A L S F V G G L E S V N R G A C L A W

	170	180	190	200
UniRef90_C4JDV8	C	V	P	P
UniRef90_A2FT38	I	V	C	C
UniRef90_B4KKL1	L	V	C	C
UniRef90_E2BK11	L	V	C	C
UniRef90_M1VLU1	V	V	C	C
UniRef90_K0SEG0	F	V	C	C
UniRef90_F4R8Y1	I	V	C	C
UniRef90_UPI00035987D2	I	V	C	C
UniRef90_Q6C4B4	I	V	C	C
UniRef90_I7IA05	L	V	C	C
UniRef90_K1PY80	L	V	C	C
UniRef90_I7IS58	V	V	C	C
UniRef90_R7YT42	L	V	C	C
UniRef90_I1FCT3	I	V	C	C
UniRef90_B0CUZ6	L	V	C	C
UniRef90_B9HMG6	I	V	C	C
UniRef90_K1WRG3	I	V	C	C
UniRef90_K1WRG3	I	V	C	C
UniRef90_E9FX17	V	V	C	C
UniRef90_A0A022QX23	M	V	C	C
UniRef90_Q7Q4H9	V	V	C	C
UniRef90_M4BL60	L	V	C	C
UniRef90_UPI000455FD32	L	V	C	C
UniRef90_N6SY11	L	V	C	C
UniRef90_A0A059A909	M	V	C	C
UniRef90_M0RES8	M	V	C	C
UniRef90_UPI0002B45D5F	L	V	C	C
UniRef90_G2YT92	I	V	C	C
UniRef90_D8TH22	I	V	C	C
UniRef90_D8TH22	I	V	C	C
UniRef90_Q4T9G9	C	V	C	C
UniRef90_Q4T9G9	C	V	C	C
UniRef90_Q4T9G9	C	V	C	C
UniRef90_Q80642	C	V	C	C
UniRef90_UPI0003C38A05	V	V	C	C
UniRef90_D3BTD4	L	V	C	C
UniRef90_A7AN84	L	V	C	C
UniRef90_A7AWW3	V	V	C	C
UniRef90_G6CZ42	V	V	C	C
UniRef90_F8NYU1	L	V	C	C
UniRef90_UPI0003D7729C	L	V	C	C
UniRef90_V2WSF0	L	V	C	C
UniRef90_K8F716	I	V	C	C
UniRef90_Q4MZL6	L	V	C	C
UniRef90_UPI0004622D39	L	V	C	C
UniRef90_D6RVZ4	V	V	C	C
UniRef90_L1LDA2	I	V	C	C
UniRef90_S8E5G6	V	V	C	C
UniRef90_J9JYU6	V	V	C	C
UniRef90_I1JDP8	M	V	C	C
UniRef90_A0A024UTK4	L	V	C	C
UniRef90_W7HZA1	I	V	C	C
UniRef90_O18197	V	V	C	C
UniRef90_A9RRA9	V	V	C	C
UniRef90_K5VT73	V	V	C	C
UniRef90_L8WY18	F	V	C	C
UniRef90_R7Q5U4	V	V	C	C
UniRef90_R7Q5U4	V	V	C	C
UniRef90_B9T226	M	V	C	C
UniRef90_V4ZSG3	M	V	C	C
UniRef90_Q6EMC1	M	V	C	C
UniRef90_S2J6B1	L	V	C	C
UniRef90_CONMX9	L	V	C	C
UniRef90_C5XQ00	L	V	C	C
UniRef90_W9SPR0	M	V	C	C
UniRef90_E0VZ15	L	V	C	C
UniRef90_C1MMX3	L	V	C	C
UniRef90_UPI00042B1D5B	M	V	C	C
UniRef90_LOPDT8	I	V	C	C
UniRef90_W5HFU7	I	V	C	C
UniRef90_W5HFU7	I	V	C	C
UniRef90_A2E265	V	V	C	C
UniRef90_D8LZ74	F	V	C	C
UniRef90_B3L838	I	V	C	C
UniRef90_UPI0002B48BE8	M	V	C	C
UniRef90_UPI0003EC273E	L	V	C	C
UniRef90_T1J3U5	L	V	C	C
UniRef90_G0N5N3	V	V	C	C
UniRef90_G0N5N3	V	V	C	C
UniRef90_K8EBW5	L	V	C	C
UniRef90_UPI000441266F	L	V	C	C
UniRef90_Q5CXB3	L	V	C	C
UniRef90_Q5CXB3	L	V	C	C
UniRef90_A0A059BG70	I	V	C	C
UniRef90_A0A059BG70	I	V	C	C
UniRef90_R7T1B5	L	V	C	C
UniRef90_M9LQ15	L	V	C	C
UniRef90_D8RF16	M	V	C	C
UniRef90_L7M260	I	V	C	C
UniRef90_L7M260	I	V	C	C
UniRef90_J4G104	L	V	C	C
UniRef90_S3DHS9	L	V	C	C





UniRef90\_C4JDV8  
UniRef90\_A2FT38  
UniRef90\_B4KKL1  
UniRef90\_E2BK11  
UniRef90\_M1VLU1  
UniRef90\_K0SEG0  
UniRef90\_F4R8Y1  
UniRef90\_UPI00035987D2  
UniRef90\_Q6C4B4  
UniRef90\_I7IA05  
UniRef90\_K1PY80  
UniRef90\_I7IS58  
UniRef90\_R7YT42  
UniRef90\_I1FCT3  
UniRef90\_B0CUZ6  
UniRef90\_B9HMG6  
UniRef90\_K1WRG3  
UniRef90\_K1WRG3  
UniRef90\_E9FX17  
UniRef90\_A0A022QX23  
UniRef90\_Q7Q4H9  
UniRef90\_M4BL60  
UniRef90\_UPI000455FD32  
UniRef90\_N6SY11  
UniRef90\_A0A059A909  
UniRef90\_M0RES8  
UniRef90\_UPI0002B45D5F  
UniRef90\_G2YT92  
UniRef90\_D8TH22  
UniRef90\_D8TH22  
UniRef90\_Q4T9G9  
UniRef90\_Q4T9G9  
UniRef90\_Q4T9G9  
UniRef90\_O80642  
UniRef90\_UPI0003C38A05  
UniRef90\_D3BTD4  
UniRef90\_A7AN84  
UniRef90\_A7AWW3  
UniRef90\_G6CZ42  
UniRef90\_F8NYU1  
UniRef90\_UPI0003D7729C  
UniRef90\_V2WSF0  
UniRef90\_K8F716  
UniRef90\_Q4MZL6  
UniRef90\_UPI0004622D39  
UniRef90\_D6RVZ4  
UniRef90\_L1LDA2  
UniRef90\_S8E5G6  
UniRef90\_J9JYU6  
UniRef90\_I1JDP8  
UniRef90\_A0A024UTK4  
UniRef90\_W7HZA1  
UniRef90\_O18197  
UniRef90\_A9RRA9  
UniRef90\_K5VT73  
UniRef90\_L8WY18  
UniRef90\_R7Q5U4  
UniRef90\_R7Q5U4  
UniRef90\_B9T226  
UniRef90\_V4ZSG3  
UniRef90\_Q6EMC1  
UniRef90\_S2J6B1  
UniRef90\_CONMX9  
UniRef90\_C5XQ00  
UniRef90\_W9SPR0  
UniRef90\_E0VZ15  
UniRef90\_C1MMX3  
UniRef90\_UPI00042B1D5B  
UniRef90\_LOPDT8  
UniRef90\_W5HFU7  
UniRef90\_W5HFU7  
UniRef90\_A2E265  
UniRef90\_D8LZ74  
UniRef90\_B3L838  
UniRef90\_UPI0002B48BE8  
UniRef90\_UPI0003EC273E  
UniRef90\_T1J3U5  
UniRef90\_G0N5N3  
UniRef90\_G0N5N3  
UniRef90\_K8EBW5  
UniRef90\_UPI000441266F  
UniRef90\_Q5CXB3  
UniRef90\_Q5CXB3  
UniRef90\_A0A059BG70  
UniRef90\_A0A059BG70  
UniRef90\_R7T1B5  
UniRef90\_M9LQ15  
UniRef90\_D8RF16  
UniRef90\_L7M260  
UniRef90\_L7M260  
UniRef90\_J4G104  
UniRef90\_S3DHS9

I M G S P C E M I N N  
I A N A L E K R V D C T A L R L R F L T E R Q T K D G G F F N G R P E K E S D V C Y  
L S E Q L H R L D Q V E R L R K R W L V F E R Q M D D G G F F Q Q G R P N K P V D T C Y  
L M K Q L S N I D Q L V E R L R R W L C L M R Q D G G G F F Q Q G R P N K P V D T C Y  
I L N D S G F L S V N P C R K W L L L R Q R Q F E E G G F F Q Q G R P N K L V D A G C Y  
I L G T V S L V D L D T A C Q S W L A R R Q M G F F E G G G F F Q Q G R S N K L V D G G C Y  
L L K S L T S L D Y E A C W R W L T S M Q P I E E G G G F F Q Q G R S N K L V D G G C Y  
L M G R L T T A L T E R Q Q T Q L R W L L R R Q E T E G G F F T G R P N K P A D T C Y  
I A G K L D L I D G D L A C K W L S E R Q L P E E G G L N G R P N K L P D V C Y  
I L G K H E V I N L D K F K W C T N R V M K T E F G F L N Q G R P N K L V D S C Y  
L M N K L K T S F S E K K L K Q L R W C V C R Q Q S G G F F Q Q G R P N K P T D T C Y  
L S N R L Y R L D R D R L G W W L C E S R Q T S T G G F F N G R H Q N K L P D V C Y  
F L D R L P H S N L D T I R W L V S R Q T M Q W A G G F F Q Q G R P N K L A D T C Y  
L M N K L E S R E I E R I K W C I M R Q Q L T G G F F Q Q G R P N K P A D T C Y  
L M Q R L T T S E R Q K T I Q W L S N Q H E S G G F F Q Q G R T N K P D A D A C Y  
L M G A S S I D I P L L L E W C L Q R Q A A D G G F F Q Q G R A N K P S D T C Y  
F V E G L D E V R K G D A L R W L R S L Q R P D D G S F F E G A V E G G R D M R Y  
F V E G L D E V R K G D A L R W L R S L Q R P D D G S F F E G A V E G G R D M R Y  
L M G A L S S N Q K A K L V R W L V S R Q Q S G G F F Q Q G R P N K L P D T C Y  
L M G R C H C I N V P L L L E W S L Q K Q A V D G G F F Q Q G R S N K P T D T C Y  
L S G Q L H L L S A D T R D K I R W L V F R Q Q D G G F F Q Q G R P N K P V D T C Y  
L S G Q L T Q L K C E K L T I R W L V F R Q Q D G G F F Q Q G R L N K V P D S C Y  
L S G R I S P T E R K Q T I R W L V Q K Q D I S G G F F V G R T N K A A D A C Y  
L S N N L H L L S Q E F K N L R W L L S R L E G G F F Q Q G R P N K P S D T C Y  
L M G F I S K A N I R S L L D W L R Q R O F A D G G F F N G R P N K P S D T C Y  
L M G Q S A V I D V P L L V E W S L K R Q S F D G G G L Q Q G R C N K P S D T C Y  
L L G Q E Q K A R T K P L L K W A F R Q M K L E G G F F Q Q G R T N K L V D T C Y  
L L D R L P K Y N Q P E T I R W L A L R Q T S Y N E G F F N G R C N K R V D T C Y  
T L G A L G L V D R A K L R D F L F R M C I P P E G G F F S V H E G G E G D L R A  
T L G A L G L V D R A K L R D F L F R M C I P P E G G F F S V H E G G E G D L R A  
L M G R L D E T L S R R E L D R I R W C I M R Q Q S G G F H G R P N K P V D T C Y  
L M G R L D E T L S R R E L D R I R W C I M R Q Q S G G F H G R P N K P V D T C Y  
L M G R L D E T L S R R E L D R I R W C I M R Q Q S G G F H G R P N K P V D T C Y  
L M G Y I S L I D P S L L N W C L Q R Q A N D G G F F Q Q G R T N K P S D T C Y  
L S D Q L H R L D A D T I E N I R R W C I F R Q V D G G F F Q Q G R P N K P V D T C Y  
L M G R L D L L R D R K L V H W L A N K Q Q T G G F F Q Q G R L N K D P D T C Y  
L L N S L D A I R D T R L V Q W C A R Q Q T A E L G Y F Q Q G R P H K L V D V C Y  
E L G A L H L V D T T A L G I W L S E R Q T P G G G C N G R A E K A P D T C Y  
L T N Q L D K L T I E Q I E G L K R W L L F R Q I D G G F F Q Q G R P N K P V D T C Y  
L A N R S F L L E R R N T I R W L I Q N Q D G S G G F F Q Q G R T G K D A D A C Y

L Y P R L N P E E V Q K S V H W L I H N Q S S C G G F F S G R T N K E A D A C Y  
I C D N Q L D L L E E N D K L A W W L A E R Q V K V D G G L N G R P E K K L P D A C Y  
E L D L L D L L E S D K L G F W L S E R Q T T V D G G L N G R P E K K L P D A C Y  
L A S R L L P Q E R A R T I R W L V Q N Q T P S G G F F Q Q G R P N K L A D A C Y  
L T D Q L D K L Q E I D G L K R W L V Y R Q I D D G G F F Q Q G R P N K P V D T C Y  
V L E A V Y L V D R D K L G F W L A E R Q T K S G G F F S G R T N K K A P D T C Y  
L G S R V A P A E R L R T V R W L S A N Q S S S G G F F S G R T N K L A D A C Y  
L L N K L N L V L D E N K E R W A V A N R Q T D G G F F Q Q G R P N K S D P D T C Y  
L M G S S L I D A P L L L D W I L Q R Q Q T D G G F F Q Q G R P N K S S D T C Y  
L S G R L V Q F D L T Q L Q H W L L M R Q Q H H D G G F F S G R T N K D P D T C Y  
L L G E P R H M D L G R F I S W L S A R Q Y A P E G G F F S G R T N K L V D G C Y  
L S N R L W T R D L D R L I S W A I Q K Q D G G F F H G R A H K P D D S C Y  
L M G R L L N L D R T G L V G W C A R R Q T D C D G G F F Q Q G R V N K L A D A C Y  
L A P S I L D S A F R A R T I R W L H N Q A V D G G F F S G R T N K I S D A C Y  
L L Q P D P K V N V K K L V R W A T G M Q P I E E G G G F R G R T N K L V D G C Y  
M L G K A D W V D A R K L R E F I L A C Q D E E D G G G I A D R P G D M A D I F H  
M L G K A D W V D A R K L R E F I L A C Q D E E D G G G I A D R P G D M A D I F H  
L M G P P S I I D V P L L L E W C L K R Q A A D G G F F Q Q G R L N K P T D T C Y  
I L G K A H E L D L D R L H W A V M R Q M G F E G G F F Q Q G R T N K L V D S C Y  
L M G S P C E I I D V P L L L E W S L Q R Q G D D G G F F Q Q G R T N K P T D T C Y  
L M D K L D E V N R D E L V K W C L F R Q T K G G F F Q Q G R P N K L E D V C Y  
I L G D P K E M I K R F I E G S S A L N I M A L S Y T A C S G R N P D S Y H  
L M G F I Q S X Q O C M L L E W C L Q R Q V T N G G F F Q Q G R R N K P N D T C Y  
L M G S S I I N V P L L L D W S L Q R Q A A D G G F F Q Q G R P N K D S D T C Y  
L C D G L N E I F S E K Q I A Q L R W C V N R Q V S G F F N G R P N K L V D T C Y  
L C D G A R G L P E L L H W L C M R O G A V E G G F F N G R T N K L V D G C Y  
L M G Y I E D I N V P L L L D W S M Q R Q A T D G G F F Q Q G R A N K A S D T C Y  
L F K R L D I D V N L V S W L S E R Q Q V L S G G L N G R P E N K A E D V I Y H  
I I D R V H W I D K E K L A K F I L N C Q D K E N G G L S D R P D N A V D I Y H  
I I D R V H W I D K E K L A K F I L N C Q D K E N G G L S D R P D N A V D I Y H  
I L N S L D A L N T N K V Y R I A D C Q D V P F S G G Y A G R T N K L A D A C Y  
L L E S L R D A N D L A L E K W L Y D R Q T S L E G G Y N G R T N K L V D G C Y  
L L E K L H L T N E E K I G E W L S L R Q Q T N S G G F F N G R A E K L S D T C Y  
L M G F I E D I N V P L L L E W C L Q K Q A A D Q G G Y Q G R P N K P A D T C Y  
L M G K L E E V F S E K E L N R I R W C L M R Q Q N G Y H G R P N K P V D T C Y  
L M N S L E T A F S S R Q I S L L R W C L H R Q Q K L G F Q Q G R T N K P D D T C Y  
L L G R L S T V N I D S A M K F L L R C C Y N T D G G F F G T R P G S E S H S G Q  
L L G R L S T V N I D S A M K F L L R C C Y N T D G G F F G T R P G S E S H S G Q  
L C D M V V E V D L D A F E E W L V H R Q C G V E G G F F N G R T N K L C D G C Y  
M G A S L T E A E Q S A T V R W L A L K Q R A H E G G F F S G R T E K V A D A C Y  
M I G K L D Q A D S A K I S K W I S S L Q N K D G S F R C D Q Y L E T D C R F  
M I G K L D Q A D S A K I S K W I S S L Q N K D G S F R C D Q Y L E T D C R F  
I L K R L D S I N V E K A V R Y I V S C K T L D G G F F G C T P G A E S H A G Q  
I L K R L D S I N V E K A V R Y I V S C K T L D G G F F G C T P G A E S H A G Q  
L A P R L A G V N R A R T I R W L V Q N Q T E S G G F F S G R T N K L A D A C Y  
L L S R V E Q W P S D Q A V A W L A H R Q V N A T G G F F Q Q G R P S K L P D V C Y  
L I G Q I T G I D F P L L T S W L L Q R Q A V I T G G F F Q Q G R L N K A P D T C Y  
L L G A F K F V N H K E N L E F L Y S T Q D P I T G G F F S K W P D S D P D P M H  
L L G A F K F V N H K E N L E F L Y S T Q D P I T G G F F S K W P D S D P D P M H  
L A H R L S S E R S R L I R W L V Q K Q T S L G G F F S G R T A K A D A C Y  
I L N R L N N P D T A K T I R W L M S R Q Q I G Y I P G F F N G R C N K S V D T C Y

UniRef90\_C4JDV8 H W V I G G C W P L I Q A A L N G D P D N P Q P K F G S L Y S R E G L T R Y I L 290 300 310 320  
UniRef90\_A2FT38 S W W A G A P L S I L N G E K D S I N A E F L K D F I L  
UniRef90\_B4KKL1 S F W I G A A L C I L N S F E L T D Y A Q N K R E Y I M  
UniRef90\_E2BK11 S F W V G A T L N L L R V S C F S D A K Q N K A F I L  
UniRef90\_M1VLU1 A Y W I G A S C K I V D V E F N A S A L A R Y I L R  
UniRef90\_K0SEG0 S F W Q G G A V A V L D S Y L G D E M K S S E L S Y D E Q M L Q R E Y I L  
UniRef90\_F4R8Y1 A W W C G G L F P V I E N L I Q E E I N Q S F E F S N S S Y D R R G M L Q R E Y I L  
UniRef90\_UPI00035987D2 S F W V G A A L Q M L G M L D L S N V I T F N R S F V L  
UniRef90\_Q6C4B4 S W W V L S C L A M M K K L H W I N R D K L R D F I L L  
UniRef90\_I7IA05 S Y W I G A T I Y L L N K L D I L S N D D C K R I L L S W I N R D K L R D F I L L  
UniRef90\_K1PY80 S F W V G A T L K L I D T Y H L I N S E F N R G F L M  
UniRef90\_I7IS58 S W W L S A T L Y I L G R Q E W F N R A K L T E F I L L  
UniRef90\_R7YT42 A F W A G G S L G L N K V H L I D H T A N R R Y I L L  
UniRef90\_I1FCT3 S F W I G A T L E M L G A S D W V D K E L N V I Q F I L L  
UniRef90\_B0CUZ6 C F W C G A A L K I L G A G N E F V D A R A L A G F I L A  
UniRef90\_B9HMG6 A F W V G A V L R I L G G S K L I D G T A L R G F I L L  
UniRef90\_K1WRG3 C L T A V A V R W I L R G D E V V L V K E E D I D V E R L V D H I R  
UniRef90\_K1WRG3 C L T A V A V R W I L R G D E V V L V K E E D I D V E R L V D H I R  
UniRef90\_E9FX17 S F W V P A T L K I L G A H Q F I D R K S N R K F V L L  
UniRef90\_A0A022QX23 A F W I G V L R I L R A D K F I N K K A L R E F I L L  
UniRef90\_Q7Q4H9 S F W L G A T L K I L H A F E L T S F Q A N R D Y I L  
UniRef90\_M4BL60 A F W N G A T L A L L Q K H S L V D S P S C R Q F I Y  
UniRef90\_UPI000455FD32 C F W C G A S L N I L G V I G T L V D E D A L R S F I G  
UniRef90\_N6SY11 S F W T G G A L K L L N A Y Q F I E S D D N P N F V L  
UniRef90\_A0A059A909 A F W I G A T M G L L G A N K F I D E I A L R S F I L L  
UniRef90\_M0RES8 A F W V G G V L K M L G V Y E F I D K D A L H D F I L L  
UniRef90\_UPI0002B45D5F S F W Q G G I L P V I H S I L Q M Y S D E N L S N T N W M F D Q S A L E E Y I L  
UniRef90\_G2YT92 C F W V G I S L M V G R S D V I N R D G S R R F I L L  
UniRef90\_D8TH22 C Y T A M A V T H M V A L E E G D K Q E L L A R S G M V E Y I R  
UniRef90\_D8TH22 C Y T A M A V T H M V A L E E G D K Q E L L A R S G M V E Y I R  
UniRef90\_Q4T9G9 S F W V G A T L E L L G V F R Y T N F N K N R S F I L L  
UniRef90\_Q4T9G9 S F W V G A T L E L L G V F R Y T N F N K N R S F I L L  
UniRef90\_Q4T9G9 S F W V G A T L E L L G V F R Y T N F N K N R S F I L L  
UniRef90\_O80642 A F W I G A V L K L I G G D A L I D K M A L R K F I L M  
UniRef90\_UPI0003C38A05 S F W I G A S L K I L N A F E M T D Y A A N R S Y I L  
UniRef90\_D3BTD4 S F W V G A T L A L L N E T K V V D Q M L L R G F I Y  
UniRef90\_A7AN84 S F W L S G T L A L L N E P I N S S S D L S H L L L K A Y I L  
UniRef90\_A7AWW3 S W W V I S A L T N I G R S A W F D K T K L T E F I C  
UniRef90\_G6CZ42 S F W V G A S L K I L D A L H L S N F E S N K S Y V Y  
UniRef90\_F8NYU1 C F W C G A S L S I L G V G E L V N T S A L A R F V A  
UniRef90\_UPI0003D7729C C F W C G A T L K L L G A G H L V D Y S A L S K F T A  
UniRef90\_V2WSF0 S W W V L S S L A A L K K K H W I D L D K L K A F I L L  
UniRef90\_K8F716 S W W I L S V L C N I G R L D W V N H D Q L K A V E F I I  
UniRef90\_Q4MZL6 C F W C G A S L K I L G A G D L V D E K A L A G F L A  
UniRef90\_UPI0004622D39 S F W V G A S L K I L N A L Q L T N Y G S N R R Y V Y  
UniRef90\_D6RVZ4 S W W I L S A L C N I D R V E W I C G E K L T E F I L L  
UniRef90\_L1LDA2 C F W C G A S L S M L D A G E A V D T T A L A S F M H  
UniRef90\_S8E5G6 S F W L G A T L S I M G S L S R I N K E R N R D F V L L  
UniRef90\_J9JYU6 A F W I G A V L R I L G H H G G G F K F V D N K A L R G F I L L  
UniRef90\_I1JDP8 A F W N G A S L H L L G H H G L V D I P S C E R F I L L  
UniRef90\_A0A024UTK4 S A W V G G C W A F V E A G A N G A E S A R S S V K V N M W S R K A L V R Y T L  
UniRef90\_W7HZA1 A F W I G A T L K I L N A Y H L V S K Q H L R E F I L M  
UniRef90\_O18197 A F W V G G S L K M L G K Y N L C D A A K L R S F L F  
UniRef90\_A9RRA9 C F W C G A S L A I L G A G D L V D N A A L V A F L A  
UniRef90\_K5VT73 S W W I G G L E P L L I E L L G L G N D E T D N A P M A L F D K T S L Q R F T L  
UniRef90\_L8WY18 T F F G F A G L S L M E E E G F E K I D P A  
UniRef90\_R7Q5U4 T F F G F A G L S L M E E E G F E K I D P A  
UniRef90\_B9T226 A F W V G A V L R I L G G Y K F I D G K A L R G F I L I  
UniRef90\_V4ZSG3 S F W M S A L F P L L A H A F H L A G H R I P R E L W A S S R H L Q Q Y I L L  
UniRef90\_Q6EMC1 A F W V G G V L K I L G A H K Y I N D S G L R G F I L L  
UniRef90\_S2J6B1 G F W V G A S L D L L G S F D L V N H E A L R E F Q  
UniRef90\_CONMX9 T C Y I L A G L S Y H L I D R C A L R G F I L L  
UniRef90\_C5XQ00 A F W V G G V L K I L G A G G E K F I D D K S L R G F I L L  
UniRef90\_W9SPR0 A F W I G A V L R I L N A L D K I D M K S N R E Y I L L  
UniRef90\_E0VZ15 S F W L G G A L H L L N A L  
UniRef90\_C1MMX3 S F W Q G G A F P L L G G Y K F I D K I A L R S F I L L  
UniRef90\_UPI00042B1D5B A F W I G A V L R I L I D N E S L V N Y I L L  
UniRef90\_L0PDT8 S W W V F S P L V M M N R S H W I D N S Q Q D L L D K T T  
UniRef90\_W5HFU7 T Y F G V A G A L I D G V S W S E A Y G S C L R P P F R C C Q Q D L L D K T T  
UniRef90\_W5HFU7 T Y F G V A G A L I D G V S W S E A Y G S C L R P P F R C C Q Q D L L D K T T  
UniRef90\_A2E265 S W W I G S P A R T L S N Y L K I G P F W N D R A M S E F V V  
UniRef90\_D8LZ74 S W Y V G S A I A N V A K A R G A K E W T D R A R L M Q Y M R  
UniRef90\_B3L838 A W W I Y S S L I T L G K Y K W V N K N A L K N Y I L  
UniRef90\_UPI0002B48BE8 A F W I G S T L R I L G G L D L I D K K A L K A F I L L  
UniRef90\_UPI0003EC273E S F W V G A T L K L L K I F Q Y T N F E K N R N Y I L  
UniRef90\_T1J3U5 A F W I G A V L K M L G I I G M V D F V E C R E Y V L  
UniRef90\_G0N5N3 I Y C C V G A L A I V G R L D D I D R D R T A E W L A  
UniRef90\_G0N5N3 I Y C C V G A L A I V G R L D D I D R D R T A E W L A  
UniRef90\_K8EBW5 S F W I G A S F P L L E M V Y H L I D R C A L R G F I L L  
UniRef90\_UPI000441266F S F W C G A A L A V L G R S E L V D A T R N N A F L A  
UniRef90\_Q5CXB3 S Y C A L S S L T I L N R I N E I D I I G A R S Y L L  
UniRef90\_Q5CXB3 S Y C A L S S L T I L N R I N E I D I I G A R S Y L L  
UniRef90\_A0A059BG70 I F C C V G A L A I T G S L H H I D K D L L G W W L  
UniRef90\_A0A059BG70 I F C C V G A L A I T G S L H H I D K D L L G W W L  
UniRef90\_R7T1B5 C F W C G A A L A I L G E G D L V N E R T L T E F L A  
UniRef90\_M9LQ15 S F W N G A L S L L S A H E L V D A P A D A G Y V L  
UniRef90\_D8RF16 A F W V G A S L V F L G A Y K L C D R E A L R L S L L  
UniRef90\_L7M260 A Y M G I A S L S L M G A E K V A P L E P A L N I S Q  
UniRef90\_L7M260 A Y M G I A S L S L M G A E K V A P L E P A L N I S Q  
UniRef90\_J4G104 C F W C G A A L N L G A G D L V D S A A L A S F L G  
UniRef90\_S3DHS9 A F W V T A S L N M L N P T Y T P L V N T P S M R R F L F

UniRef90\_C4JDV8 G C C Q S P H G G L R D K P G K P A D S Y H S C Y T L A G L S N T Q N Y H F D D 330 340 350 360  
UniRef90\_A2FT38 S A Q Q D P D T G G L A D R P G N H A D P Y H T F F G C A G L S L F G F F D  
UniRef90\_B4KKL1 S T Q Q N Q L I G G F A K F P K S T P D P F H T Y L G L C G L A F I G E P G L N A  
UniRef90\_E2BK11 N T Q D D V Q L G G F A K F E N T R P D P L H T Y L G L C G L S L L K V P  
UniRef90\_M1VLU1 Y C Q D F E T G G F R D K P G S D P D F Y H T C Y A L S G L C L T G W H A L G E  
UniRef90\_K0SEG0 L C A Q D V N G L R D K P S K P K D F Y H S C Y N L S G L S V A Q H A V S G D  
UniRef90\_F4R8Y1 L A S Q Q G K G G L R D K P F M G V D I Y H T H Y V L S G L S S S Q H F W I D V  
UniRef90\_UPI00035987D2 S A Q S S L T G G L S K Y P D H V P D P L H T Y L G L C G L S L I G E P G  
UniRef90\_Q6C4B4 K A Q D E D D G G L A D R E G D V A D V F H T N F G L C G L S L L G  
UniRef90\_I7IA05 L I A Q T E F G F R D K P G K D P D L Y H T C Y S L S S L A L T D E  
UniRef90\_K1PY80 E T Q G S I T G G F S K W P D H T P D A L H A Y  
UniRef90\_I7IS58 E S Q N T E T G G L S H K P G N I S D V F H T F F G I A T I Y L I K M H S  
UniRef90\_R7YT42 E K T Q H M V G G F G K Q P A D P P D V Y H S Y L G L A A L A L V D E P G V K  
UniRef90\_I1FCT3 S T E G E Y T G G F S K W P K C H P D P L H S Y L G L C G L S L T N Y S  
UniRef90\_B0CUZ6 R C Q F K F G G L A K A P G E T P D P Y H T Y L S L A A L S M Y P P  
UniRef90\_B9HMG6 T C Q S E Y G G F S K F P N E L P D L Y H S Y Y G Y T A L S L L E E P G L N A  
UniRef90\_K1WRG3 A G Q T Y D G G F S E S S E H E A H A G Y T Y C A I A A L S L L N  
UniRef90\_K1WRG3 A G Q T Y D G G F S E S S E H E A H A G Y T Y C A I A A L S L L N  
UniRef90\_E9FX17 D T Q C N I G G L S K W I D H S S D P L H S Y L G L A G L S  
UniRef90\_A0A022QX23 T C Q S K Y G G F S K F P R L L P D I Y H S Y Y G F C A F S L L K E P A L N S  
UniRef90\_Q7Q4H9 S T Q Q D P T V G G F S K W P Q A Y T D P F H S Y F G L C G L S F L N E P G L Q E  
UniRef90\_M4BL60 A C Q F S F G G L C K Y P E S V P D V M H S Y L S L A W L S I A A H T D T D  
UniRef90\_UPI000455FD32 S C Q H K F G G L A K A P K E H P D P Y H T Y L S L A A L S T A R A G P D G N  
UniRef90\_N6SY11 M T Q D K Y G G F S K W V N S A S D P M H T Y F G L A G L S L M N Y G D L N E  
UniRef90\_A0A059A909 T C Q S E Y G G F A S K P G V L P D L Y H S Y Y G L A A F S I L G E A G L K P  
UniRef90\_M0RES8 S C Q S K Y G G F T K F P E N M P D L Y H S Y Y S F A A L S L L G E P G L R P  
UniRef90\_UPI0002B45D5F V N K Q W P Q G G L I D K P G K S R D F Y H T C Y C L S G L S V A E H F I G D E  
UniRef90\_G2YT92 E K T Q H M I G G F G K T P G D P P D L Y H S Y L G L A A L A L V L K E P G I K E  
UniRef90\_D8TH22 A C Q T Y E G G L G G E P G N E A H G G Y S F C G V A A L M L A G G P S L V S  
UniRef90\_D8TH22 A C Q T Y E G G L G G E P G N E A H G G Y S F C G V A A L M L A G G P S L V S  
UniRef90\_Q4T9G9 S T Q D R L V G G F A K W P D S H P E G N G N N A V V S L L M F G N W P G  
UniRef90\_Q4T9G9 S T Q D R L V G G F A K W P D S H P E G N G N N A V V S L L M F G N W P G  
UniRef90\_Q4T9G9 S T Q D R L V G G F A K W P D S H P E G N G N N A V V S L L M F G N W P G  
UniRef90\_O80642 S C Q S K Y G G F S K F P G Q L P D L Y H S Y Y G Y T A F S L L E E Q G L S P  
UniRef90\_UPI0003C38A05 E T Q D N I V G G F A K W P H S T T D P F H T Y L G L C G L S F T G E P G L L E  
UniRef90\_D3BTD4 S A Q Q P N I G G L A K I P Q N M P D L L H S Y M S L S G L T L N E P N  
UniRef90\_A7AN84 C I S Q N P G G G F R D K P T K P V D L Y H T C Y A L S A M E V I S Q P  
UniRef90\_A7AWW3 R S Q N R D D G G L A Y F P G Y I G D V F H T F F A L A A L S L I D H K G F G L  
UniRef90\_G6CZ42 E T Q D C V V G G F S K W P D T C T D P M H T Y L G L A G L S L I G E S G L L E  
UniRef90\_F8NYU1 S C Q F K F G G L A K A P G E H P D P F H T Y L A L A A L S L H  
UniRef90\_UPI0003D7729C  
UniRef90\_V2WSF0 E C Q F K F G G I A K S P G E R P D P Y H T Y L S L A A L S I L M K H E G Y P P  
UniRef90\_K8F716 R C Q D D I S G G I A S D R P D D V Y H T F F G I A G L S L I M K H E G  
UniRef90\_Q4MZL6 E S Q S Q S D G G I A Y F P G Y M G D V C H T F F A L C G I S L I D  
UniRef90\_UPI0004622D39 S C Q F K F G G L S K A P G E R S D P Y H T Y L S L A V L S V L P A D H G D  
UniRef90\_D6RVZ4 E T Q D M V V G G F S K W P D T C T D P M H T Y L G L S G L S L I G E S G  
UniRef90\_L1LDA2 E S Q N E N D G G I A F F P G Y M G D I C H T F F A L C G I A L I N N K  
UniRef90\_S8E5G6 Q C Q F K F G G L A K A P G E R A D P Y H T Y L S L A A L A L F P P D  
UniRef90\_J9JYU6 N N A N L T G G F S K N M D S I P D P M H T C L S L C G L S L I G  
UniRef90\_I1JDP8 S C Q Y K Y G G F S K F P G E Y P D L Y H S Y Y G F T A F S L L E E S G L K S  
UniRef90\_A0A024UTK4 S C Q H K H G G V A K F P A V I P D V L H S Y Y G L A W L S I A G  
UniRef90\_W7HZA1 T C Q S P R G G L R D K P G I H P D Y Y H S N Y V L G L S A A Q H Y Y Y D  
UniRef90\_O18197 I C C H P H I G G F C K Y P G G Y S D I L H T Y F S I A A L S L I G E P  
UniRef90\_A9RRA9 T C Q T K F G G F S K L P H G Y P D L L H S Y Y G V C A F S L L E E S G L Q S  
UniRef90\_K5VT73 R C Q F S M G G L A K A P E K P A D P Y H T Y M A L A A A V L P S P H V N E  
UniRef90\_L8WY18 V S S Q L S S G G L R D K P G K A A D L Y H T A Y N L A A G Y S T A Q H R V Y R S  
UniRef90\_R7Q5U4  
UniRef90\_R7Q5U4  
UniRef90\_B9T226 T C Q S K Y G G F S K F P G E L P D I Y H S Y Y G Y T A F S L L E E P G L N S  
UniRef90\_V4ZSG3 A C C Q D P R G G L R D K P G K A A D L Y H T C Y A L S G L S V A Q H V L A G E  
UniRef90\_Q6EMC1 S C Q S Q Y G G F S K F P G Q L P D L Y H T Y Y G F C A F S L L E E P D L K P  
UniRef90\_S2J6B1 S K C Q P K M G G F G K D P E S Y P D L L H S Y M G V A V L S L M K E P G  
UniRef90\_CONMX9 A Q H H F H T G I A S A G E P N N P F P S A F S W S H A P A T A S T E  
UniRef90\_C5XQ00 T C Q S P Y G G F T K F P D D R P D I Y H S Y G L A A L S L L E E D G L E P  
UniRef90\_W9SPR0 T C Q S E F G G F S K F P G Q L P D L Y H S Y Y G Y T A F S L L E E P S L N P  
UniRef90\_E0VZ15 S T Q D D I L G G F A K G P N I Y T D P L H T Y L G L C G L S L M N  
UniRef90\_C1MMX3  
UniRef90\_UPI00042B1D5B T C Q S E F G G F S K Y P E M Q P D I Y H S Y Y G C T A F S L L E E P G L N P  
UniRef90\_L0PDT8 L C Q D S E K G G I S E R P K G D P D L F H T S I G I T S L S I L K Y P G L L E  
UniRef90\_W5HFU7 I V C  
UniRef90\_W5HFU7 I V C  
UniRef90\_A2E265 K V S Q Y Q F G G L R D R P S N K S D S F H T L F G C A G I C V S A N H D V F N  
UniRef90\_D8LZ74 M E Q N P R S G G L R D K P E M K P D L Y H T N Y  
UniRef90\_B3L838 L C Q D L K T G G L S D N P D C L P D I C H T F F G L A A L S L I D N L H G  
UniRef90\_UPI0002B48BE8 T C Q S K Y G G F S K F P M D F P D L Y H S Y Y G F T A F S L L E E P D I N S  
UniRef90\_UPI0003EC273E S T Q D R L V G G F A K W P D S H P  
UniRef90\_T1J3U5 S T Q G L I S G G L A K W P D A S A D P I H T Y L G I C G L A L M G E E G L R K  
UniRef90\_G0N5N3 F R Q C D S G G L N G R P E K L P D V C Y S W W V L A S L A I L G N F I D Q E  
UniRef90\_G0N5N3 F R Q C D S G G L N G R P E K L P D V C Y S W W V L A S L A I L G N F I D Q E  
UniRef90\_K8EBW5  
UniRef90\_UPI000441266F S C Q F K Y G G I A K A S N E H S P D P F H T Y M A L A S L A I Y P S Y G F S S  
UniRef90\_Q5CXB3 R C Y N S D G A F G G V P C S E S H A A Y T Y C C V V S L A L L N S L D I I N  
UniRef90\_Q5CXB3 R C Y N S D G A F G G V P C S E S H A A Y T Y C C V V S L A L L N S L D I I N  
UniRef90\_A0A059BG70 C E R Q V K S G G L N G R P E K L A D V  
UniRef90\_A0A059BG70 C E R Q V K S G G L N G R P E K L A D V  
UniRef90\_R7T1B5 N C Q F K F G G I A K A P G E R P D P Y H T Y L S L A I L A I L P A D H G N  
UniRef90\_M9LQ15 S A Q S R V G G V S K I P G D H P D L L H T Y L G L A S L S L H Q H G Q G G D  
UniRef90\_D8RF16 S C Q N K K G G F S K Y P D D D V D M L H S Y Y G V C G F S L L N E P G L E S  
UniRef90\_L7M260  
UniRef90\_L7M260  
UniRef90\_J4G104 K C Q Y Q F G G I S K A P S E R A D P Y H T Y L S L A A L A I Y K P K G T N E  
UniRef90\_S3DHS9 T Q T Q H R I G G F S K H P G G P D I Y H S Y L G L A A L A V M K E P G L K E

UniRef90\_C4JDV8 VE P D G V L F H E R D R L N V T H P L F V I P H S A A E A M R S W Y E S N P L I  
 UniRef90\_A2FT38 V M P S L N I S M A A Y H L N R Q L H D P V L A L P V E V L K R H F R S L  
 UniRef90\_B4KKL1 N G T K V E L E L D P T Y N L T T N A L K Q A K E F F A  
 UniRef90\_E2BK11 D L N E L F G D R S N N I L G R T D G V L N I R I E R V Q E M R K R F  
 UniRef90\_M1VLU1 K E N Q L V I G L D E N L I E S I H P V F N I S N Q A V Q V T M N Y F Y S Q T  
 UniRef90\_K0SEG0 L S P V H P A L N M T Q R A F D  
 UniRef90\_F4R8Y1 T D G L D Q V N P V Y C L P Q K V M H R V K Q  
 UniRef90\_UPI00035987D2 L G L G G L S L L G E E G V L P M H A A L N I S Q R A S N H L H S  
 UniRef90\_Q6C4B4 V L G Q A C K L S P I N P L H I L T Q Y T V D R  
 UniRef90\_I7IA05 P I S P T L C V S K D A L R H L I H P V F V T L N E K L K I I T  
 UniRef90\_R7YT42 Q L K P I S A P L N I S Q R A A E W L Q S  
 UniRef90\_I1FCT3 K T F D G D A R P E T W T F D P L D P L L N A R M G T A L W A R K Y I P A  
 UniRef90\_B0CUZ6 L S V E L L S L R M P K T E  
 UniRef90\_B9HMG6 R L P D L S L R M P K T E  
 UniRef90\_K1WRG3 R L P D L S L R M P K T E  
 UniRef90\_K1WRG3 V C E E T D L V E E I H P A L N V T K R A F E H W Q K L F  
 UniRef90\_E9FX17 L S V E L G L T D  
 UniRef90\_A0A022QX23 V M P S L N I S M R A Y R  
 UniRef90\_Q7Q4H9 K T R D D E E E V E Y P P L A P L D T K L Q V P  
 UniRef90\_M4BL60 I G H S A A N A S T S W E L P P L D P L L N A T V D T A A W A R E H I P K  
 UniRef90\_UPI000455FD32 M F P A L N C T S R H S R I K K L H  
 UniRef90\_N6SY11 L C L E L G V I T A S D D  
 UniRef90\_A0A059A909 L C V E L G I T A S D D  
 UniRef90\_M0RES8 V T N T H I E G S Q T N L L Q P I H P I F N I C I D S A N E A L L H F N K L A V  
 UniRef90\_UPI0002B45D5F L D S A L C I S V D A K K N I E E L A A L V P S R T Y W V H G Y  
 UniRef90\_G2YT92 S T L D V  
 UniRef90\_D8TH22 S T L D V  
 UniRef90\_D8TH22  
 UniRef90\_Q4T9G9 L C P E L G L  
 UniRef90\_Q4T9G9 V M P S L N M S M A A Y H V K E L H  
 UniRef90\_O80642 L R P L N P S L G I S Q R A A  
 UniRef90\_UPI0003C38A05 E P I H A R Y A T T S Y G L E  
 UniRef90\_D3BTD4 I T P T L N I  
 UniRef90\_A7AN84 P P Q Q D V S A P S S W I Q A L D P L L N T K Q D T A A W A R Q H I P A  
 UniRef90\_A7AWW3 P L D P N G I A K T S W E F E A F D P L L N A R H E T A R W V R E Y  
 UniRef90\_G6CZ42 L E E I D P I Y A L P V R S V R K I  
 UniRef90\_F8NYU1 S Q R Y N L T Q I H P V Y A T T L E T V E R L K R F  
 UniRef90\_UPI0004622D39 D A S W E L P Q L D A L W N A T E E T A A W G R E H I P A R  
 UniRef90\_D6RVZ4 L L E I E P R L N I T K R A Y E H L K  
 UniRef90\_L1LDA2 E Y N L Q P V H P I Y A T T M E T A N R L L K Y  
 UniRef90\_S8E5G6 A D E S W Q L P P L D P L W N A T L D T A R W A R E H V P A Q  
 UniRef90\_J9JYU6 E E N L N P I N P A L N I T V R A A N  
 UniRef90\_I1JDP8 L F S E L G I T E N A  
 UniRef90\_A0A024UTK4 D R G G S A L G D E E D R V G T Q H P V F N I P L G A E A Q L R A W W R  
 UniRef90\_W7HZA1 A V N P V H P S L N V S M R V A E R I  
 UniRef90\_O18197 L C P E L G L  
 UniRef90\_A9RRA9 T W T L S R L D V L W N T T E G T A A W L R K H L T E K  
 UniRef90\_K5VT73 L V T E F Y L G G E G N R V Q A T H P L F N L T I S H T R A M M N Y F Y Q Q  
 UniRef90\_L8WY18  
 UniRef90\_R7Q5U4 L C V E L  
 UniRef90\_R7Q5U4 Q P K V F T S G L E G C L V A R T D I F Y N V R I D R V T A A R N  
 UniRef90\_B9T226 I H V E L G M T D  
 UniRef90\_V4ZSG3 Q G Q S S I V F N E E D R L E V V H P L F V I P H R A A G K L R E W C Q K H P L  
 UniRef90\_Q6EMC1 L H V D L  
 UniRef90\_S2J6B1 L C A E L  
 UniRef90\_CONMX9 E E S L L Q L D P A L N I S K R A H E F L K N L  
 UniRef90\_C5XQ00  
 UniRef90\_W9SPR0  
 UniRef90\_E0VZ15  
 UniRef90\_C1MMX3  
 UniRef90\_UPI00042B1D5B L C A E L G M T D  
 UniRef90\_L0PDT8 M S P D Y F L P M  
 UniRef90\_W5HFU7  
 UniRef90\_W5HFU7  
 UniRef90\_A2E265 L N N T P E V D S I S S I P L S K F N K M K E Y F S H K P  
 UniRef90\_D8LZ74 A D G R L N L R L V H P V Y A I P L D V V R E  
 UniRef90\_B3L838 L F V E L  
 UniRef90\_UPI0002B48BE8  
 UniRef90\_UPI0003EC273E S F P A L N I S D A A K H L H N I H  
 UniRef90\_T1J3U5 S M K N F I Y A C Q D D E  
 UniRef90\_G0N5N3 S M K N F I Y A C Q D D E  
 UniRef90\_G0N5N3  
 UniRef90\_K8EBW5  
 UniRef90\_UPI000441266F A G D D D T A A S W K L A S M D P V L N A T V K T A A W A  
 UniRef90\_Q5CXB3 I D R L A F W L C E R Q L L C  
 UniRef90\_Q5CXB3 I D R L A F W L C E R Q L L C  
 UniRef90\_A0A059BG70  
 UniRef90\_A0A059BG70  
 UniRef90\_R7T1B5 D E T W K L P R L N P L W N A T E D T A Q W A R A H I P A K  
 UniRef90\_M9LQ15 D T D E H R L D F G L A P L D A A L N C T L A A K Q W I D T H L  
 UniRef90\_D8RF16 L C C E L  
 UniRef90\_L7M260  
 UniRef90\_L7M260  
 UniRef90\_J4G104 S W E L P Q V D V L R N A T V D T A L W A R N R I R A  
 UniRef90\_S3DHS9 L D A A L C V S R E Q R A R I

UniRef90\_C4JDV8 P  
UniRef90\_A2FT38  
UniRef90\_B4KKL1  
UniRef90\_E2BK11  
UniRef90\_M1VLU1  
UniRef90\_K0SEG0  
UniRef90\_F4R8Y1  
UniRef90\_UPI00035987D2  
UniRef90\_Q6C4B4  
UniRef90\_I7IA05  
UniRef90\_K1PY80  
UniRef90\_I7IS58  
UniRef90\_R7YT42  
UniRef90\_I1FCT3  
UniRef90\_B0CUZ6  
UniRef90\_B9HMG6  
UniRef90\_K1WRG3  
UniRef90\_K1WRG3  
UniRef90\_E9FXI7  
UniRef90\_A0A022QX23  
UniRef90\_Q7Q4H9  
UniRef90\_M4BL60  
UniRef90\_UPI000455FD32  
UniRef90\_N6SY11  
UniRef90\_A0A059A909  
UniRef90\_M0RES8  
UniRef90\_UPI0002B45D5F P  
UniRef90\_G2YT92  
UniRef90\_D8TH22  
UniRef90\_D8TH22  
UniRef90\_Q4T9G9  
UniRef90\_Q4T9G9  
UniRef90\_Q4T9G9  
UniRef90\_O80642  
UniRef90\_UPI0003C38A05  
UniRef90\_D3BTD4  
UniRef90\_A7AN84  
UniRef90\_A7AWW3  
UniRef90\_G6CZ42  
UniRef90\_F8NYU1  
UniRef90\_UPI0003D7729C  
UniRef90\_V2WSF0  
UniRef90\_K8F716  
UniRef90\_Q4MZL6  
UniRef90\_UPI0004622D39  
UniRef90\_D6RVZ4  
UniRef90\_L1LDA2  
UniRef90\_S8E5G6  
UniRef90\_J9JYU6  
UniRef90\_I1JDP8  
UniRef90\_A0A024UTK4  
UniRef90\_W7HZA1  
UniRef90\_O18197  
UniRef90\_A9RRA9  
UniRef90\_K5VT73  
UniRef90\_L8WY18  
UniRef90\_R7Q5U4  
UniRef90\_R7Q5U4  
UniRef90\_B9T226  
UniRef90\_V4ZSG3  
UniRef90\_Q6EMC1  
UniRef90\_S2J6B1  
UniRef90\_CONMX9  
UniRef90\_C5XQ00  
UniRef90\_W9SPR0  
UniRef90\_E0VZ15  
UniRef90\_C1MMX3  
UniRef90\_UPI00042B1D5B  
UniRef90\_L0PDT8  
UniRef90\_W5HFU7  
UniRef90\_W5HFU7  
UniRef90\_A2E265  
UniRef90\_D8LZ74  
UniRef90\_B3L838  
UniRef90\_UPI0002B48BE8  
UniRef90\_UPI0003EC273E  
UniRef90\_T1J3U5  
UniRef90\_G0N5N3  
UniRef90\_G0N5N3  
UniRef90\_K8EBW5  
UniRef90\_UPI000441266F  
UniRef90\_Q5CXB3  
UniRef90\_Q5CXB3  
UniRef90\_A0A059BG70  
UniRef90\_A0A059BG70  
UniRef90\_R7T1B5  
UniRef90\_M9LQ15  
UniRef90\_D8RF16  
UniRef90\_L7M260  
UniRef90\_L7M260  
UniRef90\_J4G104  
UniRef90\_S3DHS9

UniRef90\_S7PS12  
UniRef90\_S7PS12  
UniRef90\_A8NQM8  
UniRef90\_V5F1W3  
UniRef90\_C1HEA1  
UniRef90\_S7Q5R5  
UniRef90\_V4T7R9  
UniRef90\_Q8SRA3  
UniRef90\_A0A026WYD8  
UniRef90\_W6ZZF6  
UniRef90\_A0A016PVC7  
UniRef90\_A0A024GKR7  
UniRef90\_E6ZPN3  
UniRef90\_A2DUY8  
UniRef90\_A0A017SAK4  
UniRef90\_K7JAJ1  
UniRef90\_H2YT29  
UniRef90\_A7EG41  
UniRef90\_V5IH49  
UniRef90\_K9FNN8  
UniRef90\_E9C2Z3  
UniRef90\_B8N2I0  
UniRef90\_W5L092  
UniRef90\_H9K295  
UniRef90\_H9K295  
UniRef90\_UPI0003D255E5  
UniRef90\_UPI0003D255E5  
UniRef90\_G9NGQ9  
UniRef90\_H2ZE28  
UniRef90\_F2DPG8  
UniRef90\_UPI0004544E0A  
UniRef90\_UPI0004544E0A  
UniRef90\_R1B3H5  
UniRef90\_C6KSM5  
UniRef90\_L8FMF9  
UniRef90\_E9E3W8  
UniRef90\_UPI0003DED280  
UniRef90\_UPI0004418400  
UniRef90\_A9UTN7  
UniRef90\_S8CI57  
UniRef90\_M2RMF1  
UniRef90\_V8P926  
UniRef90\_I2FVJ3  
UniRef90\_R0M7I5  
UniRef90\_C7ZCM1  
UniRef90\_K3W9R3  
UniRef90\_M1WEM5  
UniRef90\_M1WEM5  
UniRef90\_E0S8U4  
UniRef90\_D2VCW8  
UniRef90\_A8QAP2  
UniRef90\_I1NK88  
UniRef90\_J4CD43  
UniRef90\_J4CD43  
UniRef90\_E5S7U6  
UniRef90\_E5S7U6  
UniRef90\_W2RPR9  
UniRef90\_R0GAK3  
UniRef90\_N4VC77  
UniRef90\_N4VC77  
UniRef90\_Q4P690  
UniRef90\_F4S066  
UniRef90\_C6LMS2  
UniRef90\_B7FRK8  
UniRef90\_J4UJN3  
UniRef90\_G0SZC3  
UniRef90\_F4RUW5  
UniRef90\_H9KJZ4  
UniRef90\_G0RC06  
UniRef90\_S8BX49  
UniRef90\_B6QHB8  
UniRef90\_B6QHB8  
UniRef90\_B6QHB8  
UniRef90\_A0A023AZ79  
UniRef90\_Q4YU18  
UniRef90\_UPI0003C18997  
UniRef90\_B3L5S6  
UniRef90\_B3L5S6  
UniRef90\_B3L5S6  
UniRef90\_D7G4Q8  
UniRef90\_DONZY1  
UniRef90\_K9I3F0  
UniRef90\_K2RXK6  
UniRef90\_K2RXK6  
UniRef90\_J3PSP4  
UniRef90\_S4PY17  
UniRef90\_A0A017SSE6  
UniRef90\_D5GKJ0  
UniRef90\_C4V8U5  
UniRef90\_W7AI63  
UniRef90\_W7AI63  
UniRef90\_Q7RLX9

T Q N E W D R [L] S S P S S D

M S

[I] [V] K

E P H [I] R T Y A E [I] [L] K Q K Q D D E G Y Q T T S S [I] R Q D R [V] E N D [I] [L] K [L] Y K

H T P D D F [C] P T [L] T S [V] D Q R [C] T E E A [I] H D [L] M E

T [L] R R E H T S F [L] S P S [I] S T A S N R E Q R A [I] [V] D M S T

P R [V] P [L] P S D G [V] Y T D T [L] [L] E Q R D T E D R [L] G D [V] [L] A

[L] T

S E S K [V] E [V] [C] [L] [L] R N K [I] [L] A

P Q Y P [L] [L] P T P F D N [V] K T A T S E K Q [L] S T E [L] E [I] F K Y [L] E  
R [C] F D D [I] S K Q [V] F N D E G [V] P T N S S [L] E Q K S [V] E N [L] [L] K [I] Y K

UniRef90\_S7PS12  
 UniRef90\_S7PS12  
 UniRef90\_A8NQM8  
 UniRef90\_V5F1W3  
 UniRef90\_C1HEA1  
 UniRef90\_S7Q5R5  
 UniRef90\_V4T7R9  
 UniRef90\_Q8SRA3  
 UniRef90\_A0A026VWYD8  
 UniRef90\_W6ZZF6  
 UniRef90\_A0A016PVC7  
 UniRef90\_A0A024GKR7  
 UniRef90\_E6ZPN3  
 UniRef90\_A2DUY8  
 UniRef90\_A0A017SAK4  
 UniRef90\_K7JAJ1  
 UniRef90\_H2YT29  
 UniRef90\_A7EG41  
 UniRef90\_V5IH49  
 UniRef90\_K9FNN8  
 UniRef90\_E9C2Z3  
 UniRef90\_B8N2I0  
 UniRef90\_W5L092  
 UniRef90\_H9K295  
 UniRef90\_H9K295  
 UniRef90\_UPI0003D255E5  
 UniRef90\_UPI0003D255E5  
 UniRef90\_G9NGQ9  
 UniRef90\_H2ZE28  
 UniRef90\_F2DPG8  
 UniRef90\_UPI0004544E0A  
 UniRef90\_UPI0004544E0A  
 UniRef90\_R1B3H5  
 UniRef90\_C6KSM5  
 UniRef90\_L8FMF9  
 UniRef90\_E9E3W8  
 UniRef90\_UPI0003DED280  
 UniRef90\_UPI0004418400  
 UniRef90\_A9UTN7  
 UniRef90\_S8CI57  
 UniRef90\_M2RMF1  
 UniRef90\_V8P926  
 UniRef90\_I2FVJ3  
 UniRef90\_R0M7I5  
 UniRef90\_C7ZCM1  
 UniRef90\_K3W9R3  
 UniRef90\_M1WEM5  
 UniRef90\_M1WEM5  
 UniRef90\_E0S8U4  
 UniRef90\_D2VCW8  
 UniRef90\_A8QAP2  
 UniRef90\_I1NK88  
 UniRef90\_J4CD43  
 UniRef90\_J4CD43  
 UniRef90\_E5S7U6  
 UniRef90\_E5S7U6  
 UniRef90\_W2RPR9  
 UniRef90\_R0GAK3  
 UniRef90\_N4VC77  
 UniRef90\_N4VC77  
 UniRef90\_Q4P690  
 UniRef90\_F4S066  
 UniRef90\_C6LMS2  
 UniRef90\_B7FRK8  
 UniRef90\_J4UJN3  
 UniRef90\_G0SZC3  
 UniRef90\_F4RUW5  
 UniRef90\_H9KJZ4  
 UniRef90\_G0RC06  
 UniRef90\_S8BX49  
 UniRef90\_B6QHB8  
 UniRef90\_B6QHB8  
 UniRef90\_B6QHB8  
 UniRef90\_A0A023AZ79  
 UniRef90\_Q4YU18  
 UniRef90\_UPI0003C18997  
 UniRef90\_B3L5S6  
 UniRef90\_B3L5S6  
 UniRef90\_B3L5S6  
 UniRef90\_D7G4Q8  
 UniRef90\_D0NZY1  
 UniRef90\_K9I3F0  
 UniRef90\_K2RXK6  
 UniRef90\_K2RXK6  
 UniRef90\_J3PSP4  
 UniRef90\_S4PY17  
 UniRef90\_A0A017SSE6  
 UniRef90\_D5GKJ0  
 UniRef90\_C4V8U5  
 UniRef90\_W7AI63  
 UniRef90\_W7AI63  
 UniRef90\_Q7RLX9

P A L F R S G H V N S G K R F L N T F P A S S T D L D G G R  
 F E T K K H I S F L L R C L R L L P Q P Y T S A D D Q R  
 E L F V Q K H V D Y V K R L D T R K D E E Y W L T E H M R  
 S P E P L P K L S R N A H A L H C I R C L S G L P S S Q T E M D S S R  
 G E E Q A A S D S S S Q F N R N Q H V A F L M M Y E S L P H Y Q Y Q E I N R  
 M E L E V D R H S A F I K E T I K T R N F L Y Y L T E P F R  
 P Q L A K E K H A K Y F R G L L K L M P S D L A E F D S T R  
 E E L Q F V K D K H V N Y L N T Y T T T T S E E L I F N E T L K  
 S D L G N P S L D K Q Q H I K Y W Q R C H K T L P S P Y T A Y D S T R  
 E K E L H A L Y F L R H L K S L P E G Y E L Q D S N R  
 F E R K K H I S F L L R C L R L L P Q P Y T S A D E Q R  
 M E L N I S Q C V K Y F S A L L K G L P P S F E Q Q E I L L  
 T P K L M K K K H T N Y F R I L R M M P S E C P D A I R  
 T F E R K K H I R F F T R I L Q I L P S R Y A I L D T S R  
 E P Q L E V A K H I K Y W Q R C F K S L P T A Y T S T D S R  
 P V L H H E R H I A F L M K G L S H L P L P Y Q D L D A S R  
 T D S N P T F N T E R H V K Y Y L R C L K T L P S A Y T S N D S N R  
 D S G S A T I D T Q E T F N R Q R H A K Y F A M C L K V L P R S M A T L D T Q R  
 E A V F Q K E R H I K Y F L R C L K T L P S L Y T S N D S N R  
 D Q I Y F L K D R H V R F F Q R C L Q V L P E R Y S S Y E T S R  
 P E L L L E K H A N F L L S Y G T D K D E Y Y C M T E H M R  
 P E L L L E K H A N F L L S Y G T D K D E Y Y C M T E H M R  
 P T L D K A K H V K F W Q R C H K S L P T A Y T A S D S T R  
 D V T L K E D A P K N F L M S K H I E Y I A N Y G N K E D Y E Y C M T E Y L R  
 F L E M M S S E L P D G Y A T Q E V N H  
 Q L E R D K H A R Y L L H C L R E V P Q P Y A A L D T S R  
 M S E D I E F V Q E K H I Q Y L E S Y T T K N A E E L I F N E T L K  
 Q P V F N K E L H I K Y W H R C L K S L P T E Y T S T D S S R  
 L N N E P L L A R Q K H I Q F L K K S L F Q L S E A Y Q C L D S S R  
 F H F E R H V T Y Y S R N M Q M L P G F M A S L D T N R  
 T F D R D R H V D F L L M M Y Q L L P S D Y Q D Q E I N R  
 M S S F P R L A R T G H T S H C K I C L S G L P F S Q V E V D S S R  
 E R L D F L K E R H V R F F Q R S L Q I L P E R Y S S L E T S R  
 K I E V K R H V S F L L R C L H L L P Q P Y T S A D D Q R  
 L T D K H I E F I Q K T I Q K K D F N F Y F T E P T R  
 L H K Q K H I K Y W Q R C H K T L P S P Y T A Y D S T R  
 F D R E L H T R F F L K N L R S L P A P Y A S Q D V H R  
 M S L K V D E H C S F I Q S M I D T K N F L Y Y L T E P Y R  
 P P L E V D K H V K Y F M G H C S V L P H F Y G S Q D T N R  
 P F L G Q D A P P L P L A R D A H I T Y L K R L L E P L P A P Y V T F D A N R  
 P E Q P E F A R E R H V L F L E A M A S E L P A D Y A S Q E V N H  
 N D P T F D K A R H I K Y W K R N A D L L P E A Y T S G D A A R  
 N K D S L E S A V T D H L R  
 T A S V K E L T S R L E T K K H I S F L L R C L R M L P Q P Y T S A D D Q R  
 K D A H V E F I K S T L K E I P T P F T A L D S S R  
 N D E H V E F D R Y R H I Q Y F A Y C V R Q L P G S Y S K L D T N R  
 D T A P A L V P R E P V L R K A E H G T F L H S T F Y R L P S P Y V A L D A S R  
 F L A K Q H A L F A L R H A K Y L P T P Y Q A E D A S R  
 L I G S F T L K R K A H A K F L I Q S L T R P S K C Y I G S D T M K  
 Q L A T K K H A K Y F Q R L L R I M P N C S A E F D C S R  
 E A P Q L D K A R H I K Y W Q R C H K T L P T P Y T S N D S T R  
 S S E P P P P K P R A T F E K Q R N I K Y W L R C L R T L P T E Y T S N D L N R  
 M L E E K H D E E C V L Y K S E H V Q F C K Y F V K E L P H K L I K L H A G Q  
 M I F L E E K H I K Y L N S Y I V T S V E E L L F N E T L K  
 E R L E F L R D R H V R F F Q R C L H V L P E R Y S S L E T S R  
 M G F D W D K H T G F F H R S L L N L P R Q Y T T A D T Q R  
 T F D R E L H T R Y F L K N L R S L P E P Y A S Q D S Q R  
 P C F N R A G H V A H A K R C M S A L P A S Q T D L D A S R  
 S F A N P T A P D Q E S Q S I D S Y Q  
 Q F E Q N A S I D P P R L Y K S A H A K F L K N A L I N L S Q S Y T C L D A S R  
 V F N K D R H I K Y Y R R C L K T L P N L Y T G N D S N R  
 L T L Q K Q K H I K Y W L R C L R T L P T D Y T T T D L N R  
 N K L L D L D T N H V N F L E K I R N L K D L D F F L S E P C R

UniRef90\_S7PS12  
 UniRef90\_S7PS12  
 UniRef90\_A8NQM8  
 UniRef90\_V5F1W3  
 UniRef90\_C1HEA1  
 UniRef90\_S7Q5R5  
 UniRef90\_V4T7R9  
 UniRef90\_Q8SRA3  
 UniRef90\_A0A026VWYD8  
 UniRef90\_W6ZZF6  
 UniRef90\_A0A016PVC7  
 UniRef90\_A0A024GKR7  
 UniRef90\_E6ZPN3  
 UniRef90\_A2DUY8  
 UniRef90\_A0A017SAK4  
 UniRef90\_K7JAJ1  
 UniRef90\_H2YT29  
 UniRef90\_A7EG41  
 UniRef90\_V5IH49  
 UniRef90\_K9FNN8  
 UniRef90\_E9C2Z3  
 UniRef90\_B8N210  
 UniRef90\_W5L092  
 UniRef90\_H9K295  
 UniRef90\_H9K295  
 UniRef90\_UPI0003D255E5  
 UniRef90\_UPI0003D255E5  
 UniRef90\_G9NGQ9  
 UniRef90\_H2ZE28  
 UniRef90\_F2DPG8  
 UniRef90\_UPI0004544E0A  
 UniRef90\_UPI0004544E0A  
 UniRef90\_R1B3H5  
 UniRef90\_C6KSM5  
 UniRef90\_L8FMF9  
 UniRef90\_E9E3W8  
 UniRef90\_UPI0003DED280  
 UniRef90\_UPI0004418400  
 UniRef90\_A9UTN7  
 UniRef90\_S8CI57  
 UniRef90\_M2RMF1  
 UniRef90\_V8P926  
 UniRef90\_I2FVJ3  
 UniRef90\_R0M7I5  
 UniRef90\_C7ZCM1  
 UniRef90\_K3W9R3  
 UniRef90\_M1WEM5  
 UniRef90\_M1WEM5  
 UniRef90\_E0S8U4  
 UniRef90\_D2VCW8  
 UniRef90\_A8QAP2  
 UniRef90\_I1NK88  
 UniRef90\_J4CD43  
 UniRef90\_J4CD43  
 UniRef90\_E5S7U6  
 UniRef90\_E5S7U6  
 UniRef90\_W2RPR9  
 UniRef90\_R0GAK3  
 UniRef90\_N4VC77  
 UniRef90\_N4VC77  
 UniRef90\_Q4P690  
 UniRef90\_F4S066  
 UniRef90\_C6LMS2  
 UniRef90\_B7FRK8  
 UniRef90\_J4UJN3  
 UniRef90\_G0SZC3  
 UniRef90\_F4RUW5  
 UniRef90\_H9KJZ4  
 UniRef90\_G0RC06  
 UniRef90\_S8BX49  
 UniRef90\_B6QHB8  
 UniRef90\_B6QHB8  
 UniRef90\_B6QHB8  
 UniRef90\_A0A023AZ79  
 UniRef90\_Q4YU18  
 UniRef90\_UPI0003C18997  
 UniRef90\_B3L5S6  
 UniRef90\_B3L5S6  
 UniRef90\_B3L5S6  
 UniRef90\_D7G4Q8  
 UniRef90\_D0NZY1  
 UniRef90\_K9I3F0  
 UniRef90\_K2RXK6  
 UniRef90\_K2RXK6  
 UniRef90\_J3PSP4  
 UniRef90\_S4PY17  
 UniRef90\_A0A017SSE6  
 UniRef90\_D5GKJ0  
 UniRef90\_C4V8U5  
 UniRef90\_W7AI63  
 UniRef90\_W7AI63  
 UniRef90\_Q7RLX9

L G V A F Y S L G T M D L L L G A L P E Q R E R D R E I W T E W L W E Q Q T S G F  
 M T L G Y F A V S G L D L L D S K I P L D E K A E L I E W V Y D Q Q L P T G G F  
 L N G V Y W G L T A L H L L G H P E A L P R D E T I A F I L S Q H D N G G F  
 L A L V F Y C L G S L D L L G V L E S K S D R E S W K E W I W Q Q H A S G K G F  
 I T L A H F A I S S G L C L L G A L D R V D K D A V S D W V L S L Q A H N G E F  
 L N T I Y W S V N A L S M L G R G E M Q E M R D R V V G Y V M R C Q N D D G G F  
 L M I A Y F A L S S G L D L L N D E L I G E K G K S E A I D W I Y R L Q Q V V G A G S  
 M C G V F Y Y I C S C K I L S H E I E Q K E E F I N F I L Q C Q N A D G G F  
 L T F A C F I I S S C L L S V P L S S S E R D A V R R W V L S L Q H P E G G F  
 V V L A F F C I H G L A I L N E L H R V D K G V I E W V Y A L Q T Q S G G F  
 M T L G Y F A L S S G L D L L G D K T P P D E K T E L A E W V Y D Q Q S P T G G F  
 T N L V Y F S V N S L A L L G D S L D K E T K D Q I E W L Y K Q Q V H S G G F  
  
 M T F A F F A I S G L D L L D A L D S A E L K Q Y A I A W I Y R L Q V P R C G F  
 L T V A F F A L S G L G V L D A L I P D K D K Q E T I E W I Y T L Q V V G N K A  
 M T L G F F I L S A L D L L N V T F P E S Q R R S I R A G I L R C Q H P F G G F  
 P W L C Y W I L H S L E L L D T S I Y A E M K S S I A D F L G R C Q H P E G G F  
 M L L A Y L T L S S G L D V L G V K T T P D E R Q R Y I D W L Y H C Q V P S G G F  
 M T L V Y F A V S S G L D L L N S L L I E S R R A A I D W V Y A M Q V Q A C G F  
 V L L A Y F T V A G L D L L G N K T T S E R Q G Y V E W I Y H C Q V P S G G F  
 L T I V F F A L S G L D V L D A L E V V D K P S L I E W I Y S L Q V G R C G F  
 M S G M Y W G L T A L D L M G K L E Q T N R N E V L E F I A Q C Q T E S G G F  
 M S G M Y W G L T A L D L M G K L E Q T N R N E V L E F I A Q C Q T E S G G F  
  
 R C Q I L D I A G L Q N E D G S F  
 R C Q I L D I A G L Q N E D G S F  
 L T F A F F I I S A L D I L S V P L T A E D R A A V R T W V L S L Q H P D G G F  
 L S G I Y W G L T A V D L M H C R D R M N E A I V E F V S C Q K D C G G F  
 L T L A Y F A V A G L S L L R E L H R V N K D Q L A K W V L S H N G Q F F G F  
  
 A D Y I A S Y G S K K D D Y  
 A D Y I A S Y G S K K D D Y  
 L S L A Y F C V A G L D V L A H K I E P L R A G L V E W I Y S L Q D R L G G F  
 M C G V F Y F L C S C K I L S H T I E K K E E F I N F I L K C Q N V D G G F  
 L S L G F F I L S A F D L L G E Q L D R K D V A S L K Q W I L N C E H P N G G F  
 L T F A F F I V S A L D L L S V P F T P K E L S S I R S W V L S L Q H P D G G F  
 P W L C Y W S L H S L Q I L G E R L E Y D E Y S K I I S F L A K C Q S P E G G F  
  
 D A L D R E E M I Q F V L S C W D E D A G F  
 D A L D R E E M I Q F V L S C W D E D A G F  
 A T L V F F C V S G L D L L H A P L Q A E Q R Q H V I D W L Y S L Q V G V G G F  
 L T M A Y F V V S G L D I L Q A L D R I G R D E A I S W V L S L Q Q F Q F Y G F  
 I A L L Y C F G T L D L L G T K T S E T D R Q K W R D W L W E Q Q T S G K H G  
 L T V A F F A L S S G L D M L D S R I L D V V N K E D I E W I Y S L Q Q S H R C G F  
 M T L G Y F T L A S L D L L S C R I P R D E R E E L L N W V Y A Q Q S L H G G F  
 L S T L Y W T I N T Y K L K R E D L I Q K Q E I L D F V L S C K N E D G G F  
 L T F A T F T I S A L D L L D A P L T P S D R A A I R W V L S L Q H P D G G F  
 V V L A Y F C V H G L A V L G E L D R V D K H Q I I E W V Y S L Q V S D C G F  
  
 E D V D V E G M I D H V R H T Q T Y D G G V  
 E D V D V E G M I D H V R H T Q T Y D G G V  
 L S T I Y W S V N S L S M L G R E E M L R M K D R I I E Y V M N C K N D G G F  
 M T I L Y F I I S G L D V L G K A L N D E R K K E L I E W V Y S C G F R G G N F  
 A W M L Y W V A H A L D L L R A P L R G S L Q A R A I S T L M H F Q S R D G G F  
 L T L A Y F A V A G L S L L R E L D R V N K D Q I A K W I L S F Q V Q F Y G F  
 E V S N L L K F R V C R L V L E F I S D V P E F  
 E V S N L L K F R V C R L V L E F I S D V P E F  
  
 M S L G F F I V A A L D L L G T L V S E E R A W I D W I Y S L Q V P S G G F  
 M N G A Y W G L T T L D L L E K L G S V D Q D E V V S W V M T C Q H E S G G F  
 T Y F A L L I L A I V A D D A D K I D R V K T L R W L R R L Q R D D G S F  
 T Y F A L L I L A I V A D D A D K I D R V K T L R W L R R L Q R D D G S F  
 M T L G Y F A I S S G L D L L N N K I P T E E K V E L D W V Y A Q Q L P T G G F  
 S W L T F W I L N S V L M L N V P F E E T K H K A L V D T I L S F Q D P N G G F  
 L S G L Y W A L C S I F I L D R L L Q F I E R N C L I V R P G D E N Q E E T A G F  
 L T L A H F G V H A L D M L G V W E D E L E K K A L I D W I Y A M Q V P Q A G F  
 P W L M Y W T V H S L D L L G I G L D P G T T E R A V Q T L L K F E S P G F G G  
 M T L A Y F C L A S L A L L Q V L L N K P T Q R E G F V D W V Y E Q Q A A V G G F  
 P T V I F W L N S L S M L D I L L N T S D R Q R T I E T I L A C Q H P F G G F  
 L A V A F F A I S S G L D I L N C D L S E E T K L E A I N W I Y R L Q Q P R S G F  
 L T F A F F I I S A L D I L S V P F T A Q E R A A V R S W V L S L Q H P D G G F  
 T S L A F F C V N G L H V L G N L T K P E E R E E W I S W L Y S C Q I P S G G F  
  
 T W V L Y W C L H A M K L L E H Q V E G D I I A T A R E W L A A I E C E G G G F  
 M C G V F Y F I C S C E I L S Y E I D K K E E L I N F I L K C Q N A D G G F  
 L T L A  
  
 T T L A Y F C V T G L D L I G K L C T E A E R A T V K R W V L A Q Q W R R R G F  
 V V L A F F C I H G L A L L E E L E L V D K C Q L I E W V Y S L Q V D D C G F  
 L A L A F Y N I G I L D L L G V M N D G D T K D E W L E W L W A Q Q T Q G K G F  
  
 P Y L D Y L G L G C P I Y V D V K I K P E E R D R A I E T I L S F Q H P D G G F  
 P W L I Y W I L H A L W A L K D M P D A E T L S H T V S F L S K C Q H S E G G Y  
 M L L A F F T I A G L D I L G V L H T E E R Q G Y I E W I Y H C Q V P T G G F  
 L T L G F F C I A A L D L L G C L Q D E E T D R A G W I N W I Y K N Q L P T G G F  
 L N T L Y W I V N S Y K I M G I D P G M K D I V D F V K S C K N E D G G Y



UniRef90\_S7PS12  
 UniRef90\_S7PS12  
 UniRef90\_A8NQM8  
 UniRef90\_V5F1W3  
 UniRef90\_C1HEA1  
 UniRef90\_S7Q5R5  
 UniRef90\_V4T7R9  
 UniRef90\_Q8SRA3  
 UniRef90\_A0A026WVD8  
 UniRef90\_W6ZZF6  
 UniRef90\_A0A016PVC7  
 UniRef90\_A0A024GKR7  
 UniRef90\_E6ZPN3  
 UniRef90\_A2DUY8  
 UniRef90\_A0A017SAK4  
 UniRef90\_K7JAJ1  
 UniRef90\_H2YT29  
 UniRef90\_A7EG41  
 UniRef90\_V5IH49  
 UniRef90\_K9FNN8  
 UniRef90\_E9C2Z3  
 UniRef90\_B8N2I0  
 UniRef90\_W5L092  
 UniRef90\_H9K295  
 UniRef90\_H9K295  
 UniRef90\_UPI0003D255E5  
 UniRef90\_UPI0003D255E5  
 UniRef90\_G9NGQ9  
 UniRef90\_H2ZE28  
 UniRef90\_F2DPG8  
 UniRef90\_UPI0004544E0A  
 UniRef90\_UPI0004544E0A  
 UniRef90\_R1B3H5  
 UniRef90\_C6KSM5  
 UniRef90\_L8FMF9  
 UniRef90\_E9E3W8  
 UniRef90\_UPI0003DED280  
 UniRef90\_UPI0004418400  
 UniRef90\_A9UTN7  
 UniRef90\_S8CI57  
 UniRef90\_M2RMF1  
 UniRef90\_V8P926  
 UniRef90\_I2FVJ3  
 UniRef90\_R0M7I5  
 UniRef90\_C7ZCM1  
 UniRef90\_K3W9R3  
 UniRef90\_M1WEM5  
 UniRef90\_M1WEM5  
 UniRef90\_E0S8U4  
 UniRef90\_D2VCW8  
 UniRef90\_A8QAP2  
 UniRef90\_I1NK88  
 UniRef90\_J4CD43  
 UniRef90\_J4CD43  
 UniRef90\_E5S7U6  
 UniRef90\_E5S7U6  
 UniRef90\_W2RPR9  
 UniRef90\_R0GAK3  
 UniRef90\_N4VC77  
 UniRef90\_N4VC77  
 UniRef90\_Q4P690  
 UniRef90\_F4S066  
 UniRef90\_C6LMS2  
 UniRef90\_B7FRK8  
 UniRef90\_J4UJN3  
 UniRef90\_G0SZC3  
 UniRef90\_F4RUV5  
 UniRef90\_H9KJZ4  
 UniRef90\_G0RC06  
 UniRef90\_S8BX49  
 UniRef90\_B6QHB8  
 UniRef90\_B6QHB8  
 UniRef90\_B6QHB8  
 UniRef90\_A0A023AZ79  
 UniRef90\_Q4YU18  
 UniRef90\_UPI0003C18997  
 UniRef90\_B3L5S6  
 UniRef90\_B3L5S6  
 UniRef90\_B3L5S6  
 UniRef90\_D7G4Q8  
 UniRef90\_D0NZY1  
 UniRef90\_K9I3F0  
 UniRef90\_K2RXK6  
 UniRef90\_K2RXK6  
 UniRef90\_J3PSP4  
 UniRef90\_S4PY17  
 UniRef90\_A0A017SSE6  
 UniRef90\_D5GKJ0  
 UniRef90\_C4V8U5  
 UniRef90\_W7AI63  
 UniRef90\_W7AI63  
 UniRef90\_Q7RLX9

R P S P Y D S P H V I M T Y T A L L L S L A M L L  
 R G S P S T G A N V A M T Y A A L L L L L A V L K  
 G A A P G H D A H M L Y T V S A V Q I L L V T I D A V D E E L D K Q N R R Q K V G S Y  
 R P S P Y D T P H L I M T Y T A L L L S L S L L  
 Y G F H G N G S N L A M S T Y C A L A I L K A V G Y N F A N I L H D S K S L L T S  
 G G C E G Y S S N I T S T F N A L Q I L L Y I Y H I P Y H D R S T A M F  
 R S G E Y Q C G H V L A M T Y T G L V T L L L L G D D L S R V D R K S I L E G  
 C G S S T H T A N I A A T F F A L V L L G L A A E N E A F K G V D R V R L L K W  
 R G S V W D E S S I A A T Y A A L S V L K T L G D D D H S R V L N R K A I V Q M  
 R G S P S Q G A N V A M T Y A A L I L L A V L Q D D F F E R L D R P G L R F  
 R P S P D H E S H I L T M T Y C A L A V L I L L G D D N L E R V E K D R I F A E F  
 Q S S T Y H C G H L A M T Y T G L A S L L I L L G D A V D E L D S R G K Q S I L E F  
 S D N N Y D C S H I L A M T Y T G L A S L L I L L G D D L S R V V N K H A C L L E G W  
 C G G S T N H R F P D I Y A F F A I L S L G F V G G L V D V I D R R E L C L R F W  
 C G G P G Q Q A H V L A P T Y A A V N A L C I L L L L G T E E A Y N V I D R R K L Y S  
 R G F P G D P A N V L P A T F F A L V N L I L L G D D L S R V V K R R E L C L E W  
 R P G S S D S G H L A M S F F A L S V L A V L G D D D F S R V R N R Q A I V Q S  
 R G F T G D P A N I P S T Y A A L V L L I L L G D D D L S R V V K R T E C L Q W  
 R G H P Y D S G H V A M T Y T G L A C L I L L G D D D L S R V N K E A C L A G  
 T G D I W G E I D M R F S F C A V A T S L L D R L D A I D I N K A V E F  
 T G D I W G E I D M R F S F C A V A T S L L D R L D A I D I N K A V E F  
 S G D I W G E V D T R F S Y I A I L S L A L L H R L D K V D V G K A V K Y  
 S G D I W G E V D T R F S Y I A I L S L A L L H R L D K V D V G K A V K Y  
 C G S P A H S A N I A A T F F A L I L L L G M A A E T E A F A G V D R K A V L W  
 G P A P D H D P S I L Y T L S A I Q V L C M L D K V I E K I D V E K A V D F  
 C G S P C H S N H L A S T Y S A L A I L K T V G Y D V L N L D S K V L L L A S  
 E Y C M S E Y L R M S G I Y W G L T V M D L M G Q L D R M N R E E I L V F  
 E Y C M S E Y L R M S G I Y W G L T V M D L M G Q L D R M N R E E I L V F  
 R G S P Y D G A H I A M T Y T A L A V L L L L G D D L S R V D G P R V L A F  
 G N N I N Y D S H I V S T H H A I L S L L L N Y Y N V V Y S K S I R E N T C K Y  
 C G S P N H P A N L P A T F F A L M A L N F V G K V I G E V D R K K C L K W  
 C G S P T H S A N L A A T F F A L L L L G V S A G T D A F A G V I Q R R K L L R W  
 G G G P G Q H H P A N L A S T Y A A I N A L C T I G T P Q A Y Q V I N K G L K Q F  
 G A H P S H D A H I L A T L S G I Q I L V I Q D A L D R L S P E R T E R V V Q F  
 R G S S Y D G G H L A M T Y T A L A L L G V L K A D L L S R I Q D S E S L I K S  
 G G S Y N G S H L A S T Y C A L A I L K I L G Y D M S L T I D S E S L I K S  
 T G G D Y D A P H L I M T Y A A L L S L A I L G R D D D C S K L N R T G I V Q L  
 R G H P Y D S G A N V A M T Y T G L C C L I L L G D D D L R R V N K V A C L A G  
 R G G P S T S A N V A M T Y S A L L I L L A I L K D D F F E R L D R V G L Q R Y  
 G G N K D Y P S N V A M S T F N A L Q I L L F I L K Q S Y S C P K T A S F  
 C G S S T H T A N I A A T F F A L L L L G V A A E N E A F K D V E R T K L L R W  
 R G G P Y D T S N I A S T Y A A L C I L R T L G D D L G R V N K P A V I G A  
 A E A L D H E A H A G Y A Y C A V G A L Y M L D R P P E R G V P D R T A L I R F  
 A E A L D H E A H A G Y A Y C A V G A L Y M L D R P P E R G V P D R T A L I R F  
 G G C K G Y P S N I T S T F H A V Q I L Y I Y R I A Y R D R N T A L F  
 I G L P Y D V G H I A M T Y T A L A I L L R I L G D D F S R V N K K S I I G A  
 G G G P G Q H I L G H L A M S T Y A A  
 C G S P C H S N H L A S T Y S A L A I L K I V G Y D L A N I D N K V L L S S  
 V Q G N Y V G I R Y T E H G Q H V L R F C H L C V S V S P F K S E R H L R Y  
 V Q G N Y V G I R Y T E H G Q H V L R F C H L C V S V S P F K S E R H L R Y  
 C L A A L D I A N S L D K V N A Q D V I E F  
 C L A A L D I A N S L D K V N A Q D V I E F  
 R G F H W D P A N L H N T Y M G L V A L L V L G D D D L G R V K R T E C L R W  
 A G N T G H D P H V L Y T L S A V Q I L L A L F D K L H I L D V G K V S S Y  
 G E I V L D D G T V R D T R L C Y L A A M I R G D E D W V E D I N V D A V I E H  
 G E I V L D D G T V R D T R L C Y L A A M I R G D E D W V E D I N V D A V I E H  
 R G S P S T S P C S S T S A S G G A N I A M T D D F A R L N D R E P L K R F  
 G G G P G Q S A H L A S T F A C T L A L P S L L A Q R T W S K V N R D G M Y E W  
 S G S P G H D M H V H T T S G L Q C L L L N K F E V I S P E L G V L A N T  
 K G G P W Q Y G H I A M N Y T A L A T L R T L G D D W S R L D R K G I L E A  
 G P G N T H L A H L P N Y A A V C S L A I V G S E R S Q L V Q A R Q G I Y D F  
 R G S D S D P P N L I Q T Y T A L I L L G L L D D N F E R L D R Q G L L R F  
 G G G P D Q V G H L A Q T F S I L S A L V I L L G E E T W N R V N K Q I Y K W  
 Q P S T Y Q C G H L A M T Y T G L V T L L I L G D D L S R V D K K S I I E G  
 C G S P T H S A N I A A T F F A L I L L G L A A D T E A F A G V N R R G L L R W  
 R G G P W D P P T L P G T F F C I I T L L S L G D D L A R I N R E A T L E W  
 K E R H I K Y  
 K E R H I K Y  
 K E R H I K Y  
 G G G A G Q I A H A G L T Y A A V C S A V Y C N F Q P H R D S L A S W  
 G N N I N Y D S H I V S T H Y A I L S L Y I Y K D G N K L N D I D R A N C K Q Y  
 F F A L S G L D M L D A L D V V E K A D L I E W

D A P D T L L L L E K H A D Y  
 D A P D T L L L L E K H A D Y  
 R D D F S K L N R A G G L I K F F  
 D D D F A R L D R D R G L I R F F  
 D A V D E E L D K Q N R R Q K V G S Y  
 R D D F A R L H S Q Q S L L T F S  
 F A N I L H D S K S L L T S  
 Y H D R S T A M F  
 D D L S R V D R K S I L E G  
 D D G F N P Y L H S C H R Y  
 N E A F K G V D R V R L L K W  
 D D D H S R V L N R K A I V Q M  
 Q D D F E R L D R P G L R F  
 D D N L E R V E K D R I F A E F  
 D D D L S D K R G K Q S I L E F  
 D D D L S R V V N K H A C L L E G W  
 D D L S R V V N R R E L C L R F W  
 D D L S R V V N R R E L C L E W  
 D D D F S R V R N R Q A I V Q S  
 D D D L S R V V K R T E C L Q W  
 D D D L S R V N K E A C L A G  
 R L D A I D I N K A V E F  
 R L D A I D I N K A V E F  
 H R L D K V D V G K A V K Y  
 H R L D K V D V G K A V K Y  
 E T E A F A G V D R K A V L W  
 K V I E K I D V E K A V D F  
 Y D V L N L D S K V L L L A S  
 L D R M N R E E I L V F  
 L D R M N R E E I L V F  
 D D L S R V D G P R V L A F  
 N Y Y N V V Y S K S I R E N T C K Y  
 V I G E V D R K K C L K W  
 D A F A G V I Q R R K L L R W  
 P Q A Y Q V I N K G L K Q F  
 L D R L S P E R T E R V V Q F  
 D L L S R I Q D S E S L I K S  
 D D D C S K L N R T G I V Q L  
 D D L R R V N K V A C L A G  
 D D F F E R L D R V G L Q R Y  
 Q S Y S C P K T A S F  
 D D L G R V N K P A V I G A  
 P P E R G V P D R T A L I R F  
 P P E R G V P D R T A L I R F  
 R I A Y R D R N T A L F  
 D D F S R V N K K S I I G A  
 D L A N I D N K V L L S S  
 C V S V S P F K S E R H L R Y  
 C V S V S P F K S E R H L R Y  
 I A A L D I A N S L D K V N A Q D V I E F  
 I A A L D I A N S L D K V N A Q D V I E F  
 D D L G R V K R T E C L R W  
 G K V S S Y  
 I N V D A V I E H  
 I N V D A V I E H  
 P L K R F  
 V N R D G M Y E W  
 V E L G V L A N T  
 L D R K G I L E A  
 Q A R Q G I Y D F  
 L D R Q G L L R F  
 K Q I Y K W  
 D K K S I I E G  
 V N R R G L L R W  
 R E A T L E W  
 K E R H I K Y  
 K E R H I K Y  
 K E R H I K Y  
 P H R D S L A S W  
 D A L D V V E K A D L I E W

R G G P F G E G N L A A T Y S A L A T L V A L D V D L T T G V D S D A I V R A  
 R G G T Y D S S N I A A T F A A L C I L R T L G D D L S R V N K A A I I G S  
 R P S P Y D T P H I I M T Y T A L L A L S I L R D D F A K L D R S G L I R L  
 S G S P G H L A H L A A T Y A C I C C L A I L L E D A E Q D V V N N T W S  
 G G G P G Q Y S H L G T T Y A A V N A L S I I G T D E A Y N S I D R S S L Q K F  
 R G F T G D P A S I P S T F F A L V L L I L L G D D L S R V R K R V E C L Q W  
 R G S P W D P L V P A S F F A L V A L V S L G D D L E R V R K R G L L E L  
 G G S T N H P S T I L T T F N A L Q I L L Y I Y K E N F Y D N K T I N F  
 L E K E R H F K I C T D  
 L E K E R H F K I C T D  
 L E K E R H F K I C T D

UniRef90\_S7PS12 UniRef90\_S7PS12 UniRef90\_A8NQM8 UniRef90\_V5F1W3 UniRef90\_C1HEA1 UniRef90\_S7Q5R5 UniRef90\_V4T7R9 UniRef90\_Q8SRA3 UniRef90\_A0A026WYD8 UniRef90\_W6ZZF6 UniRef90\_A0A016PVC7 UniRef90\_A0A024GKR7 UniRef90\_E6ZPN3 UniRef90\_A2DUY8 UniRef90\_A0A017SAK4 UniRef90\_K7JAJ1 UniRef90\_H2YT29 UniRef90\_A7EG41 UniRef90\_V5IH49 UniRef90\_K9FNN8 UniRef90\_E9C2Z3 UniRef90\_B8N210 UniRef90\_W5L092 UniRef90\_H9K295 UniRef90\_H9K295 UniRef90\_UPI0003D255E5 UniRef90\_UPI0003D255E5 UniRef90\_G9NGQ9 UniRef90\_H2ZE28 UniRef90\_F2DPG8 UniRef90\_UPI0004544E0A UniRef90\_UPI0004544E0A UniRef90\_R1B3H5 UniRef90\_C6KSM5 UniRef90\_L8FMF9 UniRef90\_E9E3W8 UniRef90\_UPI0003DED280 UniRef90\_UPI0004418400 UniRef90\_A9UTN7 UniRef90\_S8CI57 UniRef90\_M2RMF1 UniRef90\_V8P926 UniRef90\_I2FVJ3 UniRef90\_R0M7I5 UniRef90\_C7ZCM1 UniRef90\_K3W9R3 UniRef90\_M1WEM5 UniRef90\_M1WEM5 UniRef90\_E0S8U4 UniRef90\_D2VCW8 UniRef90\_A8QAP2 UniRef90\_I1NK88 UniRef90\_J4CD43 UniRef90\_J4CD43 UniRef90\_E5S7U6 UniRef90\_E5S7U6 UniRef90\_W2RPR9 UniRef90\_R0GAK3 UniRef90\_N4VC77 UniRef90\_N4VC77 UniRef90\_Q4P690 UniRef90\_F4S066 UniRef90\_C6LMS2 UniRef90\_B7FRK8 UniRef90\_J4UJN3 UniRef90\_G0SZC3 UniRef90\_F4RUW5 UniRef90\_H9KJZ4 UniRef90\_G0RC06 UniRef90\_S8BX49 UniRef90\_B6QHB8 UniRef90\_B6QHB8 UniRef90\_B6QHB8 UniRef90\_A0A023AZ79 UniRef90\_Q4YU18 UniRef90\_UPI0003C18997 UniRef90\_B3L5S6 UniRef90\_B3L5S6 UniRef90\_B3L5S6 UniRef90\_D7G4Q8 UniRef90\_D0NZY1 UniRef90\_K9I3F0 UniRef90\_K2RXK6 UniRef90\_K2RXK6 UniRef90\_J3PSP4 UniRef90\_S4PY17 UniRef90\_A0A017SSE6 UniRef90\_D5GKJ0 UniRef90\_C4V8U5 UniRef90\_W7AI63 UniRef90\_W7AI63 UniRef90\_Q7RLX9

170 180 190 200

I A S Y G S K K D D Y E Y C M S E Y L R M S G V Y W G L T V M D L M G Q L N R M  
I A S Y G S K K D D Y E Y C M S E Y L R M S G V Y W G L T V M D L M G Q L N R M  
I A S Y G S K K D D Y E Y C M S E Y L R M S G V Y W G L T V M D L M G Q L N R M  
L R G N C Q P D G G F A A E E Q T E S D D L R T F L Y C A F A I S S M L M G D D W S G I  
V G A L Q Q D R D G G F A A E E Q T E S D D L R T F L Y C A F A I S S M L M G D D W S G I  
I A N L Q Q D A T D G G F A A E E Q T E S D D L R T F L Y C A F A I S S M L M G D D W S G I  
L R S C Q Q R H D G S F M I H F P N S G A E K D L R S V V Y C A A A I S S M L M G D D W S G I  
M R N L Q Q R H D G S F M I H F P N S G A E K D L R S V V Y C A A A I S S M L M G D D W S G I  
I S G L L Q P A G Y F H N D G T Y G E S D T R I S C A V L G L H L L L S L M E R G G  
V C S C Q N P D G G F A M V T G C E S D M R F V Y C A C C V S A I L L D D D W S G V  
I L T L L N E D D G S F G Q N I W G E S D M R F V Y C A C C V S A I L L D D D W S G V  
L K G L L Q R E D D G S F G Q N I W G E S D M R F V Y C A C C V S A I L L D D D W S G V  
L R K L L Q S R D D G G F A A E E Q T E S D D L R T F L Y C A F A I S S M L M G D D W S G V  
V G A L Q Q E T D G G F A A E E Q T E S D D L R T F L Y C A F A I S S M L M G D D W S G V  
L K S L L Q Q L P N G T F M G H H G S E A D L R F T F C A F A I S S M L M G D D W S G V  
I A G L Q Q D K K G C F A G D E W G E S D D L R T F L Y C A F A I S S M L M G D D W S G V  
M R A C Q N P D G G F A M V T G C E S D M R F V Y C A C C V S A I L L D D D W S G I  
I K A L L Q Q L P D G S F K S S Y D G G E S D M R F V Y C A C C V S A I L L D D D W S G I  
M K R L L Q R E D D G S F G G K I Q G G E S D M R F V Y C A C C V S A I L L D D D W S G I  
L K R V L Q Q P D G S F G G K I Q G G E S D M R F V Y C A C C V S A I L L D D D W S G I  
L P K V L Q R V D D G S F G G S V G G P R D L R Y C C C A A G I R Y I L R G V P D T  
M R A L L Q S R D D G S F A T A D K N G E S D V R F L Y C A C V S H L L K D W S G V  
L S K M Q R E N G S F G E V L G G G D L R F C C F G A G T R Y I L L R G I M D I  
L K A L L Q L E D D G S F Y S V P G S E N D M R F V Y C A C C V S A I L L D D D W S G I  
V M K C C M N F D D G G F G S K P G A E S H A G M I Y C S I G L L S I T G N L H L I  
V M K C C M N F D D G G F G S K P G A E S H A G M I Y C S I G L L S I T G N L H L I  
I L S C K N V D D G G F G C T P P G A E S H A G Q I F C C V A A L A I T G S L H H V  
I L S C K N V D D G G F G C T P P G A E S H A G Q I F C C V A A L A I T G S L H H V  
L K K L Q R S D D G S F G Q V L W G E S D T R H S Y L A S I R W M L N W V E D I  
I G G L Q Q N E D D G S F S G D E W G E S D T R F S F C A V T A L S L V G R L C P I  
M K K L Q Q Q D D G S F M T H I G A E T D L R F V Y C A A A I C S M L K D W S G I  
I K S C Q H E C C G G I S A S I G H D P H L L Y T L S A V Q I L T L Y D S V H A I  
I K S C Q H E C C G G I S A S I G H D P H L L Y T L S A V Q I L T L Y D S V H A I  
V L S L Q D N E A D G C F S A Y P G G E R D M R F L F C A A A V V A M L R G S S G I  
I L T L F N E D D G S F K G D M W G E S D T R F V Y C A A V S C L T I L N K I N L V  
L Q K L L Q R E D D G S F G E T L G G G R D M R Y C Q C A A A T R W M L L K E V D D I  
V K K L L Q R E D D G S F G Q V L W G E S D T R H S Y L A S I R W M L L G A E E D I  
L S S L H G P E D D G S F S L H K D G E T D L R G I Y C L A S A I R W M L N V Y T P E  
I L D R Q T P A G V F S G D S F G E T D T R F T H C S V L S A L L G R L S E L  
L R A H Q V A S G S F V S N L G G E E D M R F L Y C A C T V A T M I K G L D H V  
M K N L Q Q Q P D G G F A S N A G G E E D L R F L F C A A A I C S M L N S W S G I  
I R A C Q H E D D G S F S A P D G G E A D L R S V Y C A F A L S S M L D D W S G I  
I R A L L Q L E D D G G F C A V E G E S E N D M R F L Y C A A C I C S M L N S W S G I  
I G S L Q Q D E D G G F G M G V G V D R D P R F T Y C A I A I C S M L N G E W S I  
I L N L I Q E D D G S F W N D E F G G E S D V R I L L C S G V L S L H L L E I L S Y E  
L K G L L Q R E D D G S F G Q N I W G E S D M R H S Y L A S C I R W M L R W V E D V  
L R H L R Q Q G S F S S P Y G S E E D M R F V Y C A C A I S Y L L N D W S G I  
L V H R Q Q F R Y L A Q E E E D A D S S E E D A D S S E E D A D S S E E  
I S G L L Q P E G Y F R Y N D R Y G E I D T R I S C C G V L A C K V F L S E V G V  
L K Y L L Q D K N G C F A T C F G S E T D I R F T F C A C A I S A F L N D W S G V  
P D G S F L V H E N G E T D V R A T Y C V V V V S M L L G I A T D E  
M R N L Q Q P D D G S F M T H I G A E T D L R F V Y C A A A I C S M L K D W T G M  
L K G H L S C T G P T K M I N L G Y L D S W I V Y W A L H S L C L L G E D I V P  
L K G H L S C T G P T K M I N L G Y L D S W I V Y W A L H S L C L L G E D I V P  
V L S C C S H S N G G F S S S V D N D P H L L H T L S A V Q I L T L Y N C T N L M  
V L S C C S H S N G G F S S S V D N D P H L L H T L S A V Q I L T L Y N C T N L M  
V K Q L Q K S N G C F G E M V G G K D D L R S S Y C A A G I Y I L G S E T D L  
V A E L Q N E D D G S F S G D M W G E S D T R H S Y L A S I R W M L L G A E E D I  
I R R G Q T Y D G G V A E S C H H E S H A G Y A Y C A V G A L Y L L D R P S E V  
I R R G Q T Y D G G V A E S C H H E S H A G Y A Y C A V G A L Y L L D R P S E V  
I S S L Q Q H R D G G F A A E E Q T E S D D L R T F L Y C A F A I S S M L M G D D W S G I  
I L T L K Q S N G S F L M Q K N G E S D V R S C Y C V L I V S T L L N F L T P E  
I A G L Q Q A E D D G G F Y S G D Y T K E R D T R F C Y C A V L S L T L L R L D N L I  
L K G L L Q L T D G G F A S S V G S E S H D M R F L Y C A C C I S H M L N D W S C I  
F M R M K R P D G G F H V C D G G E I D V R G T Y C L L V V A T L L D L L T P E  
I G A C Q T S D G S F L Q F P G C P E D P R S T Y S A F A V A S M L D D D W S T I  
V L S L K S P E G G F S M Q Q D G E V D T R A T Y C V L A I A T L L N F L T P H  
M R A C Q N P D G S F T A T I G C E S D M R F L Y C A C C I S I L N D W S G I  
L K K L Q R R D D G S F G Q V L W G E S D M R H S Y L A S A I R W M L D W V E D I  
V A S L Q R S D G S F A E M R T G A E D P R F L Y L A A A I R W M L R G E E D I  
F L R C L K T Q L P Y Q Y T S S D G G R I L L G F F I I A G L D L L G A L T P E  
F L R C L K T Q L P Y Q Y T S S D G G R I L L G F F I I A G L D L L G A L T P E  
F L R C L K T Q L P Y Q Y T S S D G G R I L L G F F I I A G L D L L G A L T P E  
L R S L F T P D G A V L M H R D G E A D S R S V Y C A V A S C H M Q A V L S S D  
V L S L L N T D G S F V K G D I W G E S D T R F V Y S A V S C L T L L N K M H L I  
I Y S L Q E D S D F Y A V P E G S E N D M R F V Y C A S C I C Y V L N D W S G I  
K Q K H F K F C T D I F F V K N L R L S Y W C I H T I Y I L H N D V E I  
K Q K H F K F C C T D I F F V K N L R L S Y W C I H T I Y I L H N D V E I  
K Q K H F K F C T D I F F V K N L R L S Y W C I H T I Y I L H N D V E I  
L G S L Q R E D D G S F K A S S D S T C D V R F T Y C A C A V S T I L G N W S G V  
L R A H L Q R N K T G C F S A N A G G E S D M R F V Y C A C A I S S M L M G D D W S G V  
L R A C Q R D D G S F T T P G G E S D L R T L Y C A F A I S S M L M G D D W S G V  
L T Y W K R C L K T F L P H L Y T S N D C N R M T L A F F I L S A L D L L T E Q  
L T Y W K R C L K T F L P H L Y T S N D C N R M T L A F F I L S A L D L L T E Q  
K R V L D G S F A V Q H E T E S D V R G C Y G A L A V A M L N L L T P E  
L W T V R E V D D G S F A L H R G G E Q D I R G A Y C A V S L A K L T N T F T E A  
L P R L Q R E D D G S F G G E I E G G R D L R F C C F A A G T R Y L L E G V E D I  
L P K V L Q R E D D G S F G E W L G G S D M R F V Y C A A V A I R W M L Q G I E D I  
I L S N M N E D D G S F R N D R Y G M T D N R I N C S A V L S L H L L Y L N K T L  
I Y F L K N L S L S F W I F Y W C I H T I Y I L Y N D F E I E Q K L C K D T F S  
I Y F L K N L S L S F W I F Y W C I H T I Y I L Y N D F E I E Q K L C K D T F S  
I Y F L K N L S L S F W I F Y W C I H T I Y I L Y N D F E I E Q K L C K E T S I



UniRef90\_S7PS12  
UniRef90\_S7PS12  
UniRef90\_A8NQM8  
UniRef90\_V5F1W3  
UniRef90\_C1HEA1  
UniRef90\_S7Q5R5  
UniRef90\_V4T7R9  
UniRef90\_Q8SRA3  
UniRef90\_A0A026WYD8  
UniRef90\_W6ZZF6  
UniRef90\_A0A016PVC7  
UniRef90\_A0A024GKR7  
UniRef90\_E6ZPN3  
UniRef90\_A2DUY8  
UniRef90\_A0A017SAK4  
UniRef90\_K7JAJ1  
UniRef90\_H2YT29  
UniRef90\_A7EG41  
UniRef90\_V5IH49  
UniRef90\_K9FNN8  
UniRef90\_E9C2Z3  
UniRef90\_B8N2I0  
UniRef90\_W5L092  
UniRef90\_H9K295  
UniRef90\_H9K295  
UniRef90\_UPI0003D255E5  
UniRef90\_UPI0003D255E5  
UniRef90\_G9NGQ9  
UniRef90\_H2ZE28  
UniRef90\_F2DPG8  
UniRef90\_UPI0004544E0A  
UniRef90\_UPI0004544E0A  
UniRef90\_R1B3H5  
UniRef90\_C6KSM5  
UniRef90\_L8FMF9  
UniRef90\_E9E3W8  
UniRef90\_UPI0003DED280  
UniRef90\_UPI0004418400  
UniRef90\_A9UTN7  
UniRef90\_S8CI57  
UniRef90\_M2RMF1  
UniRef90\_V8P926  
UniRef90\_I2FVJ3  
UniRef90\_R0M7I5  
UniRef90\_C7ZCM1  
UniRef90\_K3W9R3  
UniRef90\_M1WEM5  
UniRef90\_M1WEM5  
UniRef90\_E0S8U4  
UniRef90\_D2VCW8  
UniRef90\_A8QAP2  
UniRef90\_I1NK88  
UniRef90\_J4CD43  
UniRef90\_J4CD43  
UniRef90\_E5S7U6  
UniRef90\_E5S7U6  
UniRef90\_W2RPR9  
UniRef90\_R0GAK3  
UniRef90\_N4VC77  
UniRef90\_N4VC77  
UniRef90\_Q4P690  
UniRef90\_F4S066  
UniRef90\_C6LMS2  
UniRef90\_B7FRK8  
UniRef90\_J4UJN3  
UniRef90\_G0SZC3  
UniRef90\_F4RUW5  
UniRef90\_H9KJZ4  
UniRef90\_G0RC06  
UniRef90\_S8BX49  
UniRef90\_B6QHB8  
UniRef90\_B6QHB8  
UniRef90\_B6QHB8  
UniRef90\_A0A023AZ79  
UniRef90\_Q4YU18  
UniRef90\_UPI0003C18997  
UniRef90\_B3L5S6  
UniRef90\_B3L5S6  
UniRef90\_B3L5S6  
UniRef90\_D7G4Q8  
UniRef90\_D0NZY1  
UniRef90\_K9I3F0  
UniRef90\_K2RXK6  
UniRef90\_K2RXK6  
UniRef90\_J3PSP4  
UniRef90\_S4PY17  
UniRef90\_A0A017SSE6  
UniRef90\_D5GKJ0  
UniRef90\_C4V8U5  
UniRef90\_W7AI63  
UniRef90\_W7AI63  
UniRef90\_Q7RLX9

250 260 270 280  
L Y D S I N V I D V N K V V E Y V Q S L Q K E D G S F A G D I W G E I D T R F  
L L K P R L T P A E K E R E T R W L M S L Q K K E D G S F F A G D I W G E I D T R F  
L L P Q D E T T A R E E A L A W L A H N R Q Q V A P S G G G F F Q G R T N K K E A D D A C C Y  
I A D R Q L D L I D T D R L A S W L S E R R Q Q L D S N G G G F F Q G R T E K K L E D D V C C Y  
L A L S L T Q A Q R R Q T I R W L V H R Q Q E A L G G G F F Q G R A N K K P D D A C C Y  
L M G S S S L I D L P R L L S W C L L Q R Q A A D G G G F F Q G R A N K K P D D A C C Y  
S L G A L E T V D R E E V A R F I A T K Q Q A S S D G G G F S G R V S K K E S D V C C Y  
L M K K H V I N V I F D V L T W R R W C L M R Q N N D G G G F H G R A P G K P S D T T C C Y  
L L D R P G L P N R Q G L I Q F L A S R R P F A Y H I G F F N G R W N K K A D D T S C C Y  
L S G C E R N L D C D K L I R W L V J F R Q Q N S G G G F F Q G R C N K K E P D D C C Y  
L L D R V H N G S M W A R L A W L A H R R Q Q V A P S G G G F N G R P E K K L P D D V C C Y  
I W G A I D R I D K Q A L A Y W L S Q R R Q D D G G G F N G R T E N K K L T D D T C C Y  
I A G E L G A I D K D R L A G W L S E R R Q L E N G G F L N G R P E K K L E D S C C Y  
L M G R L T P K Q L K R L E Y W C I S R Q R N Q D G G F N G R P H K K D D T T C C Y  
L L D R L P K C C D L K P E T I R W L A L R Q T S Y D G G F N G R C N K K V D T C C Y  
L L E R E T C C D L K K L I R W L T N  
F L R R T S S N Q F E A L I T W L A S R Q T A Q L A G F N G R C N K K Y A D T C C Y  
L M D Q L D E V E Q D R I R W C I M R Q Q T E L G G F N G R P G K K L V D S C C Y  
F L D R L S K N G S H K E S I L V R W L V T R Q T C E L G G F N G R C N K K Y A D T C C Y  
L M G K L E D K F S E R E L N R I R W C I L R Q Q N G G F H G R P N K K P V D T C C Y  
I L G R L H W V D K E Q L V K F V L A C C Q D T E S G G F S D R P G D I L A D P F H  
L L G R L H W V D K E Q L V K F V L A C C Q D T E S G G F S D R P G D I L A D P F H  
M I D R V H W I D K G K L V K F I L D A C C Q D K E N G G I S D R P D D A V D V F H  
M I D R V H W I D K G K L V K F I L D A C C Q D K E N G G I S D R P D D A V D V F H  
M L D R N S L A D R A M L K F L A H R R Q F K Y L S G G F N G R W N K R A D T C C Y  
V L G E L H H V D D D L L G W W L C E R R Q L P S G G G F N G R P E K K M P D V C C Y  
L M G F I Q P I D V Q K L L E W C L Q R Q A A D G G G F Q G R R N K K P S D C C Y  
L L G K L D A I N V E K A I E F V L S C M N F D G G G F G C R P G Q L P D V C C Y  
L L G K L D A I N V E K A I E F V L S C M N F D G G G F G C R P G Q L P D V C C Y  
L M G T L R R L Q P Q R T V R W C V L E R Q V I G G F N G R A N K K D E D T C C Y  
L I Q K L Y L I N E N K L A H W L S L R Q T T N G G F N G R P E K K L T D T C C Y  
N L G R L P V T N L Q D T I R W L M S R Q V N Y V E G C N G R L N K K P D T C C Y  
A P H K S E A V D R D A L I H F L V Y R Q F N Y H V G Y N G R W N K K A D T C C Y  
L L G K P H F C C L K S F L M  
V L G A L N C L D R D T C A W W L S E R Q Q L P N G G G F N G R P E K K L E D V C C Y  
M L G T L D E A R S E R L T L E W L L Q R Q Q E G G G F F Q G R S N K K P A D D T C C Y  
L M G L F D E A S A T L L L D W C L L Q K Q C E G G G F F Q G R S N K K P A D D T C C Y  
L A P R I T P A E R A R T I R W L T Q N Q T S C G G G F F Q G R T G K K L A D A C C Y  
L M G K L E E V F S E K E L K R I R W C I M R S Q Q N G G F Q G R P N K K L V D T C C Y  
L L P S S T S P F P Q N L S W I H R Q V S P S G G G F Q G R P N K K L P D V C C Y  
S L G A L E T F G V T D I T R F I L R Q K E N G G G F S G R V G K K E D V C C Y  
K Q G L P N R E G L Q F L A S R Q F A Y L A G F N G R W N K K A D D T C C Y  
L S G R L M Q L R M D Q S L R W L V F R Q Q N G G F N G R C N K K A D D T C C Y  
M M G A S H A V N I A P S R A Y L L N I T Q H C T G G G F S K Y A G G Y P D L Y H  
M M G A S H A V N I A P S R A Y L L N I T Q H C T G G G F S K Y A G G Y P D L Y H  
S L G A L E L V D K E S L S R F I L N K T Q A R S G G G F S G R V S K K E D V C C Y  
L M G Y L D K L D H E E M K E W L L K R Q Q L S G G F F Q G R P Q K D A D D T C C Y  
L V Y G K A H D V D A L V R W A T S L Q G S E G G G F F Q G R T N K K L V D G C C Y  
L M G E P S S I D V L L L E W C L Q R Q A A D G G G F F Q G R R N K K S D T C C Y  
M L H S L H E V D T R K L H S F L M D M K L D S G A F T T T Y G G E Y D T R S  
M L H S L H E V D T R K L H S F L M D M K L D S G A F T T T Y G G E Y D T R S  
L L N R L N D I D V R K A V G F V L K C R N F D G G F G T R P G S E S H A G Q  
L L N R L N D I D V R K A V G F V L K C R N F D G G F G T R P G S E S H A G Q  
C L D R I Y L L Q L D A N L G W M L Q R Q T T W S A G F S G R C N K K M A D T C C Y  
L I T G N L H V L D K G L G W W L C E R R Q D D K S G G L N G R P K K K P D V C C Y  
M L G H V D L L D A E P S R R F L M S K T Q H I I G G F S K Y P G G P P D I Y H  
M L G H V D L L D A E P S R R F L M S K T Q H I I G G F S K Y P G G P P D I Y H  
L L A R P E W E R D K A E A V S W L V H R Q V A P T G G F F Q G R P A K K L P D V C C Y  
L L K S L T S I D Y K A C W R W L T S M Q P I K G G G F R G R S N K K L V D G C C Y  
L L D S L H L I N Q R S L F L L S R Q C I N G G G C G R P N K K E D T C C Y  
L M K A V D K I D R E W R D L L R W C V N R Q V C G M Q G R P N K K E D T C C Y  
L G D Y P R P I D A E S A L R W S V M M Q G E E V G G F F R G R T N K K L V D G C C Y  
L A S R L H D L E P P C L R W L D R M Q V R P P A G F F Q G R A N K K P T D A C C Y  
L L K S L V S L D Y D A C L L D W M C M Q P I E G G G F R G R T N K K L V D G C C Y  
L M N E L H N V L T N D Q L N R L R W C L M R Q Q D S G F H G R P G K P S D T C C Y  
R A L D R G V A D R E R L R F L A H R R Q F K Y L S G F N G R W N K K A D D T C C Y  
L L G R L H V P H P R E K T I H W L V S R R Q Q A P N N G F N G R D N K R P D T C C Y  
L G D D L S R V K R R E C C L Q W L L Q R N D G S F G D L L G V G E K I S D L R F  
L G D D L S R V K R R E C C L Q W L L Q R N D G S F G D L L G V G E K I S D L R F  
L G D D L S R V K R R E C C L Q W L L Q R N D G S F G D L L G V G E K I S D L R F  
I C D K L E L V D S L K A L E W C L N R Q S V L E G G C D G R P N K K L V D A C C Y  
L T Q K L Y L N E E K V A H W L S L R Q T N N G G F N G R A E K L T D T C C Y  
L M G K L E E V F S E K E L N R I R W C I M R Q Q N T G F H G R P N K K P V D T C C Y  
Y N N F L S F L D R K K L H S Y I L K L K C K D G S F R L H R N G E I D M R G  
Y N N F L S F L D R K K L H S Y I L K L K C K D G S F R L H R N G E I D M R G  
Y N N F L S F L D R K K L H S Y I L K L K C K D G S F R L H R N G E I D M R G  
L L G V L E K L P P R R Q G L L E W C V N R Q G G V G F F Q G R P N K K P E D S C C  
L S G R V M Q L K C E Q S T V R W L V J F R Q Q N G G G F F Q G R C N K K P S D C C Y  
L T D P L T P E E K R V K W L M S T Q T S S G G G F F Q G R T G K K V G D S C C Y  
I L G D L Q R V K R R E C C L Q W L P R L Q R A E D G S F G G R I E G G H D T R F  
I L G D L Q R V K R R E C C L Q W L P R L Q R A E D G S F G G R I E G G H D T R F  
L L Q N T H R K V E A C C L R W A A Q A Q A S E G G G F R G R T N K K L V D G C C Y  
L L N R T K L C D L D A L L  
F L K T P G S E E F A S I L L R W L V S R Q Q T P D L G G F N G R S N K K A D T C C Y  
L L G R L H P T S F E N L R W L T V S R Q K P L W A G F N G R C N K K A D T C C Y  
S L G S L Q Y T N R D I S R F I A L R Q E K S G G G F S G R C N K K E D V C C Y  
Y L N D L G F I D K K K L H S Y I L Q L K C K D G S F R L H K D G E I D M R G  
Y L N D L G F I D K K K L H S Y I L Q L K C K D G S F R L H K D G E I D M R G  
Y N N F L G F I D K K K L H S Y I L Q L K C K D G S F R L H K D G E I D M R G

UniRef90\_S7PS12 S F C A V A T L A L L G K L D A I N V E K A I E F V L S C M N F D G L L G W W L 290 300 310 320  
UniRef90\_S7PS12 S F C A V A T L A L L G K L D A I N V E K A I E F V L S C M N F D G L L G W W L  
UniRef90\_A8NQM8 C F W C G A A L K I L G A S E L V D T K A M A E F L A  
UniRef90\_V5F1W3 S F W N G A A L S L L G Q H D L V D A V A D A G Y V L  
UniRef90\_C1HEA1 S W W V A S S L A M I G R L H W I N G E K L A A F I L  
UniRef90\_S7Q5R5 C F W C G A S L Q L L D V K G L V D T G P L A S F L A  
UniRef90\_V4T7R9 A F W I G S V L R M L G G Y N L I D K E A L R G F L L  
UniRef90\_Q8SRA3 S F W A Y S S L V L I G K E C Y V N Q E E L T R F I F  
UniRef90\_A0A026WVD8 S F W V G A T L E L L E F F D F S D A E Q N K A F I L  
UniRef90\_W6ZZF6 S W W I F A S S L I L L G K Y K W V N K D A L K N Y I F  
UniRef90\_A0A016PVC7 C W W V G G T L A M L G N P S I I N V L P S R R Y L L  
UniRef90\_A0A024GKR7 A F W N G G A L D L L E L H T F V D L E S I R N F V V  
UniRef90\_E6ZPN3 S F W N G A A L S L L G G H P L I D A H A D A G Y V L  
UniRef90\_A2DUY8 S F W I G A P L K T L G W F D D F V N K E R L T T F I F  
UniRef90\_A0A017SAK4 S W W V M S S L A M I G R L H W V D G K K L A A F I L  
UniRef90\_K7JAJ1 S F W I G A T L Q L L G V S E L S D C Q K E N R A F I L  
UniRef90\_H2YT29 S F W V G A S L K L L G I F D L V D F K E N E N F V L  
UniRef90\_A7EG41 C F W V G A S L N M L G H R D V I N R D G S R R F L F  
UniRef90\_V5IH49  
UniRef90\_K9FNN8 S F W N G A T L M M L D Q Y S V V D E V R N R R Y L L  
UniRef90\_E9C2Z3 S F W V G G T L K L L G A Y D L V D R T C L R G F L L  
UniRef90\_B8N2I0 S F W N T A S L N M M N R L T L V D A T R N R R Y L L  
UniRef90\_W5L092 S F W V G A T L E L L D V F Q Y T H F E K N R N Y L L  
UniRef90\_H9K295 T L F G L T A L S L L N  
UniRef90\_H9K295 T L F G L T A L S L L N  
UniRef90\_UPI0003D255E5 T Y F G L A G L S L L E Y P G I K P I D P A Y A L P V D V V N R V M L G R  
UniRef90\_UPI0003D255E5 T Y F G L A G L S L L E Y P G L K P I D P A Y A L P V D V V N R V M L G R  
UniRef90\_G9NGQ9 T W W A C S M F R L L D A D Y N Y D A V P T G N Y L L  
UniRef90\_H2ZE28 S W W V  
UniRef90\_F2DPG8 A F W I G G V L K M I G A Y H L I D H A A L R E F L L  
UniRef90\_UPI0004544E0A S W W V L A S L K I I G R L H W I D R E K L R S F I L  
UniRef90\_UPI0004544E0A S W W V L A S L K I I G R L H W I D R E K L R S F I L  
UniRef90\_R1B3H5 S F W I G G S L A L L G A T L Q R A A L S A F C  
UniRef90\_C6KSM5 S W W I F S T L I V L K K Y N W I N K N A L K N Y I L  
UniRef90\_L8FMF9 S F W V D A S L Y L L G Q S K L I N R E G S R R W L I  
UniRef90\_E9E3W8 C W W V A G T L A M V D S F D A V N I A P S R Q Y L L  
UniRef90\_UPI0003DED280  
UniRef90\_UPI0004418400 S F W V L S S L S I L G K L S W I D A D K L T S F I L  
UniRef90\_A9UTN7 S F W V G G S L A L L G A L Q M A D Q E A L F A Y L H  
UniRef90\_S8CI57 A F W I G S V V R M I V G G G D E L I D A E A L K G F L  
UniRef90\_M2RMF1 C F W C G A S L S T I L G A G E L V D S T A L A L W M A  
UniRef90\_V8P926 S F W V G A T L K V I Q F Q M M K E T Q M D Y K E L V S K S L K N  
UniRef90\_I2FVJ3 S F W N G A A L S I L S H S L I D A Q K D T A Y V L  
UniRef90\_R0M7I5 S F W A Y S S M I L I K K S H L I N E N E L R N F I F  
UniRef90\_C7ZCM1 C W W V G G T L A M L G N S S L I N A P S R R Y I L  
UniRef90\_K3W9R3 A F W N G A T L E L L G K H S F V D V P S C Q A F V Y  
UniRef90\_M1WEM5 A Y L G L A A L A V I G D E D L K D F D V G L C C S R E T L R K I E L A R  
UniRef90\_M1WEM5 A Y L G L A A L A V I G D E D L K D F D V G L C C S R E T L R K I E L A R  
UniRef90\_E0S8U4 S F W A Y S S L V L I G K E N C V N Q E R L E N F I L  
UniRef90\_D2VCW8 S F W V G G T L Q T L D C L Q Y V D E V Q T E N C V N Q E R L E N F I L  
UniRef90\_A8QAP2 G W F C G G G L M T V L E M L S T E T D V A S S A I T L L H R D A L R T Y I Q  
UniRef90\_I1NK88 A F W I G G V L K I I G A Y R F I D H G A L R S F L L  
UniRef90\_J4CD43 T Y C A V A C A S M T G L L T E E L A R N T A E F V Q  
UniRef90\_J4CD43 T Y C A V A C A S M T G L L T E E L A R N T A E F V Q  
UniRef90\_E5S7U6 V Y C C V G V L A M T K H L N T I D V D Q L A W W L  
UniRef90\_E5S7U6 V Y C C V G V L A M T K H L N T I D V D Q L A W W L  
UniRef90\_W2RPR9 C F W N V G A M A L L R R E S L V G V E A L K T Y L F  
UniRef90\_R0GAK3 S W W V L S S L I M I D R V H W I K K G K L V K F I L  
UniRef90\_N4VC77 G Y L G L A A L A T L G D A A L K P F D A S L C A T Q E T V D K I T L A R K G L  
UniRef90\_N4VC77 G Y L G L A A L A T L G D A A L K P F D A S L C A T Q E T V D K I T L A R K G L  
UniRef90\_Q4P690 S F W N G A C L S L L E Q H D L I D S F A D A T Y V L  
UniRef90\_F4S066 A W W C G G L F P V I E N L I Q E D E K D V F E F S N S S Y N R Q G L Q E Y V L  
UniRef90\_C6LMS2 S W W I G S P V Y I L L D Y I L F N E N N S H I T E R D D I F N T A L L R F I N  
UniRef90\_B7FRK8 S Y W I G T L R L L D N D Q L L D H T A L Q S F V M  
UniRef90\_J4UJN3 G W W V G G G V P V V E E L A R R Q R D K D E P G M Q A L F N R G A L Q E Y V L  
UniRef90\_G0SZC3 S F W N M G A L S L L P A V S P D L S I D D V L D P A L D R T W L L  
UniRef90\_F4RUW5 N W W C A G S F P I G A L I S E K H D S L I H E D L T F Y D R Q S L Q E Y L V  
UniRef90\_H9KJZ4 S F W V G A T L Q M L D I N K L S D P D K N K A F L L  
UniRef90\_G0RC06 T W W A C G T L K M L D C E E F Y D P Q P S C N Y L L  
UniRef90\_S8BX49 S F W V V G C L L L K K S H L V D A E S N R E Y L L  
UniRef90\_B6QHB8 C Y C A A G I R Y L L R G P H G T G V K D I R D I D V V K L V A Y I Q  
UniRef90\_B6QHB8 C Y C A A G I R Y L L R G P H G T G V K D I R D I D V V K L V A Y I Q  
UniRef90\_B6QHB8 C Y C A A G I R Y L L R G P H G T G V K D I R D I D V V K L V A Y I Q  
UniRef90\_A0A023AZ79 S F F V C A S T V I A G Y A L G I R P N F S H G G L K R Y L L  
UniRef90\_Q4YU18 S W W I F S S L I L K K Y K W I N K N S L K K Y I L  
UniRef90\_UPI0003C18997 S F W V G A T L K L L D I F Q Y T D F E K N R N Y I L  
UniRef90\_B3L5S6 T Y C A I A V C S M C H I L T N Q V K K N V E K Y I L  
UniRef90\_B3L5S6 T Y C A I A V C S M C H I L T N Q V K K N V E K Y I L  
UniRef90\_B3L5S6 T Y C A I A V C S M C H I L T N Q V K K N V E K Y I L  
UniRef90\_D7G4Q8 S F W V G A T L A L L D G L D L V D D G R A R Q F H V  
UniRef90\_DONZY1 A F W N G A T L D L L G K H S F V D L P S C K K F I Y  
UniRef90\_K9I3F0 C F W C G A S L K I L K M D H L V E T K T L A S F L A  
UniRef90\_K2RXK6 I Y C A A G V R W V L R G S S A E G P V D G V D D I D V D A V V R C I  
UniRef90\_K2RXK6 I Y C A A G V R W V L R G S S A E G P V D G V D D I D V D A V V R C I  
UniRef90\_J3PSP4 I W W C G G L L P L L E A M L M S D T S R E E F P D L C D R Q A L Q E Y V L  
UniRef90\_S4PY17  
UniRef90\_A0A017SSE6 S F W N T A T L A M L G R L A L V D A R N R R Y L L  
UniRef90\_D5GKJ0 S F W V C G S L D M M K K L H L I D F N S N R R Y L L  
UniRef90\_C4V8U5 S F W A Y A T M K M I H K N H L L N E Q M L I D F I L  
UniRef90\_W7AI63 T Y C A I S V C S M C H I L T K S I K K N V A K Y I L  
UniRef90\_W7AI63 T Y C A I S V C S M C H I L T K S I K K N V A K Y I L  
UniRef90\_Q7RLX9 T Y C A I S V C S M C H I L T K K I K K N V A K Y I L

UniRef90\_S7PS12 C E R Q L P S G G L N G R P E K V D P F H T L F G I A G L S L L G 330 340 350 360  
UniRef90\_S7PS12 C E R Q L P S G G L N G R P E K V D P F H T L F G I A G L S L L G  
UniRef90\_A8NQM8 S A Q Q F K F G G I A K V P G E H P D P Y H T Y L S L A A I A M Y P P E V D G D  
UniRef90\_V5F1W3 S A Q S R V G G I A K I P N E H P D L L H T Y L G L A S L S L H Q P D E D G S  
UniRef90\_C1HEA1 R C Q V L D H  
UniRef90\_S7Q5R5 K C Q F S Q Y G G I A K A P G E H S D P F H T Y L S L A A L G I L Y  
UniRef90\_V4T7R9 T C Q Q S Q Y G G F G K C P G D L L Y H S F Y G Y T A F S L L E E P G L N P  
UniRef90\_Q8SRA3 S C Q G P S G G F S D R P G N E T D L Y H L M F A L A G L S L L G Y K G L R R  
UniRef90\_A0A026VWD8 N T Q D T L V G G I A K F E N T R P D P L H T Y  
UniRef90\_W6ZZF6 L C Q D L D N G G I S D N P D C L P D I C H T F F G L A A L S L I D N M N E S D  
UniRef90\_A0A016PVC7 D V T Q H R I G G F S K A V G G P P D M Y H S Y L G L A A L A T M G D E D L K E  
UniRef90\_A0A024GKR7 S C Q H P L G G F G K Y P E A F P D V M H S Y Y S L A W L S I A  
UniRef90\_E6ZPN3 S A Q S R V G G I A K I P D D H P D L L H T Y L G L A S L S L H Q S G S T G V  
UniRef90\_A2DUY8 S N Y C G H G M F R S N S T A A P D L L H T H F S L V I G L S L C G F P G L E Q  
UniRef90\_A0A017SAK4 R C Q D P E A G G F A D R P G D M V D V F H T C F G V A G L S L L K F E G T K E  
UniRef90\_K7JAJ1 D T Q N T I M G G F G K Y D N E R P D P L H A Y L G L C S L S L I G E P D  
UniRef90\_H2YT29 S T Q D I I V G G F A K W P Q I N P D A L H S Y M G V C G L A L M  
UniRef90\_A7EG41 E K T Q H M I G G F G K T P G D I P D I Y H S Y L G L A A L A V L K E P G I K E  
UniRef90\_V5IH49  
UniRef90\_K9FNN8 E K T Q H A V G G F G K G P G D P P D L L H S Y F G M A S L A F Q G E A G L N P  
UniRef90\_E9C2Z3 S T Q S T T T G G L A K S P D T L A D P L H S Y L A L C G F S L S G E P D V L P  
UniRef90\_B8N2I0 E K T H I V G G F G K G V G E P D L L H S Y F G L V S L A F Q G E P G L E S  
UniRef90\_W5L092 S T Q D S L V G G F A K W P D S H P  
UniRef90\_H9K295  
UniRef90\_H9K295  
UniRef90\_UPI0003D255E5  
UniRef90\_UPI0003D255E5  
UniRef90\_G9NGQ9 D I T Q H V I G G F G K A V G E P P D I Y H S Y L G L A T V G L I G G Y D L K E  
UniRef90\_H2ZE28  
UniRef90\_F2DPG8  
UniRef90\_UPI0004544E0A T C Q Q T R Y G G F S K F P D D L P D I Y H S Y Y G L A A L S L L G E  
UniRef90\_UPI0004544E0A A C Q D E E T G G F A D R P G D M V D P F H T L F G I A G L S L L G E E Q I K P  
UniRef90\_R1B3H5 S C Q Q H P T F G G I A K H P D T R P D I C H T H Y A L C G L A G A G L A P  
UniRef90\_C6KSM5 L C Q D I E K G G I S D N P D C L P D I C H T F F G L A A L S L I D N L N E S E  
UniRef90\_L8FMF9 E K T Q H M I G G F A K E P G Y P P D I Y H S Y L G L G T L A M L G E P D  
UniRef90\_E9E3W8 D V T Q H R I G G F S K H A G G P P D L Y H S Y L G L A A L A L M G D T D L K E  
UniRef90\_UPI0003DED280  
UniRef90\_UPI0004418400 S S Q D P E Q G G I A D R P D N M V D V F H T V F G V A G L S L V G Y P G  
UniRef90\_A9UTN7 S T E S D M G G F A K H P G G Y P D P L H A Y M G L A G V A L W D T D Q T  
UniRef90\_S8CI57 S S C E T K C G G F S K F P E V W P D L Y H S Y Y G I C S L S L M N E T G L K P  
UniRef90\_M2RMF1 Q C Q Y K F G G I A K A P S E R P D P Y H T Y L S L A A L A L M G E S G L R K  
UniRef90\_V8P926 A L H A Y F G I C G L S L M G E S G L R K  
UniRef90\_I2FVJ3 S A Q S R V G G I S K V P G E H P D S L H T Y L G L A S L S L H Q P A E G Q E  
UniRef90\_R0M7I5 S C Q N K E G G F S D R P G N E P D I Y H L M F S L A A L S L L G H D D L N E  
UniRef90\_C7ZCM1 D I T Q H Q I G G F S K A V G G P P D M Y H A Y L G L A A L S T M G E T D L K E  
UniRef90\_K3W9R3 S C Q F P F G G I A K F P D T M P D V M H S Y Y S L A W L S I A S N H I K A N  
UniRef90\_M1WEM5  
UniRef90\_M1WEM5  
UniRef90\_E0S8U4 S C Q G R S G G F S D R P G D E V D L Y H L M F S L A G L S L L G Y K G L K K  
UniRef90\_D2VCW8 L S C Q T E Y G G I S K V K D T Y P D V L H T Y M S L A G L S M L G F E G  
UniRef90\_A8QAP2 V V A Q V P R G G L R D K P G K R P D A Y H T C Y N L C G L S M C E H  
UniRef90\_I1NK88 S C Q S P Y G G F T K F Y D Q F P D I Y H S Y Y G L A A  
UniRef90\_J4CD43 S C Q T Y E G G I A A E P G L E A H A G Y T Y C G V A C L A L L G Q L H  
UniRef90\_J4CD43 S C Q T Y E G G I A A E P G L E A H A G Y T Y C G V A C L A L L G Q L H  
UniRef90\_E5S7U6 A E R Q C K S G G L N G R P E K L P D V C Y S W W V L A S L K I L G R H E W I D  
UniRef90\_E5S7U6 A E R Q C K S G G L N G R P E K L P D V C Y S W W V L A S L K I L G R H E W I D  
UniRef90\_W2RPR9 G S T Q H L I G G F S K T P G A V P D L L H A Y T G L A A L S V V G Q E G L K E  
UniRef90\_R0GAK3 D C Q D I D N G G I S D G P N N A V D I F H T S F G L S W L S L L E Y P G  
UniRef90\_N4VC77 M K T  
UniRef90\_N4VC77 M K T  
UniRef90\_Q4P690 S A Q S R V G G I A K I P D D H P D L L H T Y L G L A S L S L H Q A A S T E A  
UniRef90\_F4S066 L A S Q G Q K G G L R D K P F M E V D I Y H T H Y V L S G L S S S Q H F H  
UniRef90\_C6LMS2 V C I H P K V S G G L A D R P E N Y P D E Y H T F F S L A A M S L F D  
UniRef90\_B7FRK8 N C Q T Q M G G F S K L I G A Y P D M L H A Y Y S L A  
UniRef90\_J4UJN3 L A A Q E P A G G L R D K P G K R P D L Y H T C N N L S G L S V A Q H Q W V E D  
UniRef90\_G0SZC3 D C Q H K V F G G I A R E P G A R P D V Y H T Y L S L A A L A L L G D A D G K  
UniRef90\_F4RUW5 S Q V R S V D G G L C D K P S L D P D L Y H T Y I L S G L S S S Q H  
UniRef90\_H9KJZ4 E T Q D S L V G G F G K F A D C L P D P L H T Y  
UniRef90\_GORC06 D I T Q H S I G G F G K S V G D P P D I Y H S Y L G L T T V A L L G G A E L  
UniRef90\_S8BX49 E N T A H I I G G F G K V P K A P P D V L H S C L G A V S L T G I S R E E G I N R  
UniRef90\_B6QHB8 S C Q S Y D G G L G E T P F R E A H A G L T Y C A M G A L T L L H R T G S  
UniRef90\_B6QHB8 S C Q S Y D G G L G E T P F R E A H A G L T Y C A M G A L T L L H R T G S  
UniRef90\_B6QHB8 S C Q S Y D G G L G E T P F R E A H A G L T Y C A M G A L T L L H R T G S  
UniRef90\_A0A023AZ79 K C C Q P C Y G G L C D K P G T T A D W Y H T S Y G L S G L S I  
UniRef90\_Q4YU18 L C Q D I N S G G I S D N P D C L P D I C H T F F G L A A L S L I D N I D D S E  
UniRef90\_UPI0003C18997 S T Q D R L V G G F A K W P D S H P D A L H A Y F G I C G L S L I G E S G  
UniRef90\_B3L5S6 S C Q N Y E G G F T S E K F Q E S H G G Y T Y C A L A T L C I L G  
UniRef90\_B3L5S6 S C Q N Y E G G F T S E K F Q E S H G G Y T Y C A L A T L C I L G  
UniRef90\_B3L5S6 S C Q N Y E G G F T S E K F Q E S H G G Y T Y C A L A T L C I L G  
UniRef90\_D7G4Q8 S C Q N R I C G G F A K A P G V P P D M L H S F Y S I S W L S L A G E A G V Q E  
UniRef90\_DONZY1 S C Q Q F P F G G L C K Y P D T V P D V M H S Y L S L A W L S L A V N S N T I  
UniRef90\_K9I3F0 D S Q F K F G G I A K C P G E H P D P Y H T Y L S I A A L S L A M Y P S P L A A  
UniRef90\_K2RXK6 R A S E T Y D G G I S E A P Y H E A H A G F T Y C A I G A L A L L G R L P S N A  
UniRef90\_K2RXK6 R A S E T Y D G G I S E A P Y H E A H A G F T Y C A I G A L A L L G R L P S N A  
UniRef90\_J3PSP4 L A S Q E P T G G L R D K P G M A P D M Y H T H Y I L S G L S V G Q H K W E F D  
UniRef90\_S4PY17  
UniRef90\_A0A017SSE6 E K T Q H F I G G F G K G V G E P P D L L H S Y F G L V S L A F E G E P G L N S  
UniRef90\_D5GKU0 E K T Q H F I G G F A K V P G T P D L L H S F M G L A S L A L M R E E G  
UniRef90\_C4V8U5 S C Q G K N G G F A K D R P K N E A D P Y H L M F S L A A L S L L G Y E G V G E  
UniRef90\_W7AI63 S C Q N Y E G G F T S E K F Q E S H G G Y T Y C A L A T L C I L G E  
UniRef90\_W7AI63 S C Q N Y E G G F T S E K F Q E S H G G Y T Y C A L A T L C I L G E  
UniRef90\_Q7RLX9 S C Q N Y E G G F T S E K F Q E S H G G Y T Y C A L A T L C I L G

UniRef90\_S7PS12  
UniRef90\_S7PS12  
UniRef90\_A8NQM8  
UniRef90\_V5F1W3  
UniRef90\_C1HEA1  
UniRef90\_S7Q5R5  
UniRef90\_V4T7R9  
UniRef90\_Q8SRA3  
UniRef90\_A0A026VVD8  
UniRef90\_W6ZZF6  
UniRef90\_A0A016PVC7  
UniRef90\_A0A024GKR7  
UniRef90\_E6ZPN3  
UniRef90\_A2DUY8  
UniRef90\_A0A017SAK4  
UniRef90\_K7JAJ1  
UniRef90\_H2YT29  
UniRef90\_A7EG41  
UniRef90\_V5IH49  
UniRef90\_K9FNN8  
UniRef90\_E9C2Z3  
UniRef90\_B8N2I0  
UniRef90\_W5L092  
UniRef90\_H9K295  
UniRef90\_H9K295  
UniRef90\_UPI0003D255E5  
UniRef90\_UPI0003D255E5  
UniRef90\_G9NGQ9  
UniRef90\_H2ZE28  
UniRef90\_F2DPG8  
UniRef90\_UPI0004544E0A  
UniRef90\_UPI0004544E0A  
UniRef90\_R1B3H5  
UniRef90\_C6KSM5  
UniRef90\_L8FMF9  
UniRef90\_E9E3W8  
UniRef90\_UPI0003DED280  
UniRef90\_UPI0004418400  
UniRef90\_A9UTN7  
UniRef90\_S8CI57  
UniRef90\_M2RMF1  
UniRef90\_V8P926  
UniRef90\_I2FVJ3  
UniRef90\_R0M7I5  
UniRef90\_C7ZCM1  
UniRef90\_K3W9R3  
UniRef90\_M1WEM5  
UniRef90\_M1WEM5  
UniRef90\_E0S8U4  
UniRef90\_D2VCW8  
UniRef90\_A8QAP2  
UniRef90\_I1NK88  
UniRef90\_J4CD43  
UniRef90\_J4CD43  
UniRef90\_E5S7U6  
UniRef90\_E5S7U6  
UniRef90\_W2RPR9  
UniRef90\_R0GAK3  
UniRef90\_N4VC77  
UniRef90\_N4VC77  
UniRef90\_Q4P690  
UniRef90\_F4S066  
UniRef90\_C6LMS2  
UniRef90\_B7FRK8  
UniRef90\_J4UJN3  
UniRef90\_G0SZC3  
UniRef90\_F4RUW5  
UniRef90\_H9KJZ4  
UniRef90\_G0RC06  
UniRef90\_S8BX49  
UniRef90\_B6QHB8  
UniRef90\_B6QHB8  
UniRef90\_B6QHB8  
UniRef90\_A0A023AZ79  
UniRef90\_Q4YU18  
UniRef90\_UPI0003C18997  
UniRef90\_B3L5S6  
UniRef90\_B3L5S6  
UniRef90\_B3L5S6  
UniRef90\_D7G4Q8  
UniRef90\_DONZY1  
UniRef90\_K9I3F0  
UniRef90\_K2RXK6  
UniRef90\_K2RXK6  
UniRef90\_J3PSP4  
UniRef90\_S4PY17  
UniRef90\_A0A017SSE6  
UniRef90\_D5GKJ0  
UniRef90\_C4V8U5  
UniRef90\_W7AI63  
UniRef90\_W7AI63  
UniRef90\_Q7RLX9

370 380 390 400  
E E Q I K P V N P V F C M P E E V L R R M  
E E Q I K P V N P V F C M P E E V L R R M  
V P D S E T W K L E P L D P L L N A N L S T A A W V R K H V P A R P  
G N A E D G D G I D F G V K R L D A A W N C S L G A N E W L R E H L T K Q  
L P E D P E E S W K F E A L D P S L N A R L E T A Q W A R E K I P S R S L  
L C A E L  
I D P G F G L  
L G L C G L S L L G Q P G L C T I N P E L N I S Q R A Y E H L Q Q  
G G L D L R Q M H P V Y A I P M H V V R E  
F D V G L C C S Q E T T R K I  
A G I E F G L K R L D A A Y N C S S T A R E W I R A H L T R  
I D S V L G L V S K H L  
V D P V Y C M P K A V T S K C L  
L R E M H A A L N I S Q R A Y T H L Q Q L  
L D S A L C I S M D A K K N I E E L A A L V P Q K T Y W V H G Y  
V D P T M G S S E R T V R H L  
L D A A I N M  
V D P A L C A S Q R A V R H L H S L  
V D A G L C C S T D T V R K I D  
V S P V F C M P E E V L Q R V N  
V S P V F C M P E E V L Q R V N  
L E P  
K Y T L Q Q M H P V Y A I P V H T V K M R N  
L K T F D P V L C A S Q E A K S K I  
F D V G L C C S K E T V R K I  
L V D L D P V Y C M P A A V I E K  
K A L N P C M C D Q Q  
L C F E L  
H P P S E G A S S W E L F P F N M F W N T T E E T A Q W V R D H V P A H  
V H P A L N V S T T S E R L Q H L H Q I W A  
G V E F G M K R L D A A Y S C S L E A K A W I Q Q H L  
V D P G F C L  
F D V G L C C S M D T T R K I  
N K I S S S K D K S L P D L A P L N T K L Q V P  
I D P G F G L  
L N K V F P S L N I T E R A A K  
K  
K  
F D P V L C V S R D R L D A I  
V K P I D P A Y A L P V H I I N R I L  
K S G G A G E A G A D F G L K P L D A A Y N C S M T T K E W I R T Q L T K  
V T L P G L G Q L C P M H P S L A L P N S I C Y R L F E  
K S N E L V V G G Q E S R V G V T T P V F N V S Q G R L R P F I K Y F Y G Q  
I L G L R R L D A G W N V P V E V A E R M R S  
K E I D A G L C C S K E G V A K L  
V D S A L C T S L Q T R E  
I D Q P E I L S P Q S E R F Q S L  
I D Q P E I L S P Q S E R F Q S L  
I D Q P E I L S P Q S E R F Q S L  
K Q F N T S D D L A Q T S P I L N V C I E  
L K K M H P V Y A I P I D T V K K  
L R K V H P A L N I S L R A F E Q L Q  
M D A A L G V T R  
V V D G E E L P K L A P L D T K L Q V P  
D E K P D S W E F P E L D P L L N A R V D T A E W A R K Y I S G K  
G S P D P P F G L S D P E L  
G S P D P P F G L S D P E L  
P K A K L V V G P P E N E I G R V N P V L N V K H S A V K Q I M D Y F Y H Q T  
V D P A T C T T H R G I Q H L H S L  
L N R L D P T L C I S M Q A K E R L V N  
V D P G F A I

UniRef90\_S7PS12  
UniRef90\_S7PS12  
UniRef90\_A8NQM8  
UniRef90\_V5F1W3  
UniRef90\_C1HEA1  
UniRef90\_S7Q5R5  
UniRef90\_V4T7R9  
UniRef90\_Q8SRA3  
UniRef90\_A0A026WYD8  
UniRef90\_W6ZZF6  
UniRef90\_A0A016PVC7  
UniRef90\_A0A024GKR7  
UniRef90\_E6ZPN3  
UniRef90\_A2DUY8  
UniRef90\_A0A017SAK4  
UniRef90\_K7JAJ1  
UniRef90\_H2YT29  
UniRef90\_A7EG41  
UniRef90\_V5IH49  
UniRef90\_K9FNN8  
UniRef90\_E9C2Z3  
UniRef90\_B8N2I0  
UniRef90\_W5L092  
UniRef90\_H9K295  
UniRef90\_H9K295  
UniRef90\_UPI0003D255E5  
UniRef90\_UPI0003D255E5  
UniRef90\_G9NGQ9  
UniRef90\_H2ZE28  
UniRef90\_F2DPG8  
UniRef90\_UPI0004544E0A  
UniRef90\_UPI0004544E0A  
UniRef90\_R1B3H5  
UniRef90\_C6KSM5  
UniRef90\_L8FMF9  
UniRef90\_E9E3W8  
UniRef90\_UPI0003DED280  
UniRef90\_UPI0004418400  
UniRef90\_A9UTN7  
UniRef90\_S8CI57  
UniRef90\_M2RMF1  
UniRef90\_V8P926  
UniRef90\_I2FVJ3  
UniRef90\_R0M7I5  
UniRef90\_C7ZCM1  
UniRef90\_K3W9R3  
UniRef90\_M1WEM5  
UniRef90\_M1WEM5  
UniRef90\_E0S8U4  
UniRef90\_D2VCW8  
UniRef90\_A8QAP2  
UniRef90\_I1NK88  
UniRef90\_J4CD43  
UniRef90\_J4CD43  
UniRef90\_E5S7U6  
UniRef90\_E5S7U6  
UniRef90\_W2RPR9  
UniRef90\_R0GAK3  
UniRef90\_N4VC77  
UniRef90\_N4VC77  
UniRef90\_Q4P690  
UniRef90\_F4S066  
UniRef90\_C6LMS2  
UniRef90\_B7FRK8  
UniRef90\_J4UJN3  
UniRef90\_G0SZC3  
UniRef90\_F4RUW5  
UniRef90\_H9KJZ4  
UniRef90\_G0RC06  
UniRef90\_S8BX49  
UniRef90\_B6QHB8  
UniRef90\_B6QHB8  
UniRef90\_B6QHB8  
UniRef90\_A0A023AZ79  
UniRef90\_Q4YU18  
UniRef90\_UPI0003C18997  
UniRef90\_B3L5S6  
UniRef90\_B3L5S6  
UniRef90\_B3L5S6  
UniRef90\_D7G4Q8  
UniRef90\_DONZY1  
UniRef90\_K9I3F0  
UniRef90\_K2RXK6  
UniRef90\_K2RXK6  
UniRef90\_J3PSP4  
UniRef90\_S4PY17  
UniRef90\_A0A017SSE6  
UniRef90\_D5GKJ0  
UniRef90\_C4V8U5  
UniRef90\_W7AI63  
UniRef90\_W7AI63  
UniRef90\_Q7RLX9



UniRef90\_Q7RLX9  
 UniRef90\_M3ASF1  
 UniRef90\_M3V0L7  
 UniRef90\_R9P9W5  
 UniRef90\_W9XEX2  
 UniRef90\_C3Y267  
 UniRef90\_G2WXH1  
 UniRef90\_G2WXH1  
 UniRef90\_V5FFM1  
 UniRef90\_V5FFM1  
 UniRef90\_U6LPD4  
 UniRef90\_G3YEK1  
 UniRef90\_Q8IHP6  
 UniRef90\_UPI00046C102C  
 UniRef90\_UPI00046C102C  
 UniRef90\_G0QPM7  
 UniRef90\_M7PEG7  
 UniRef90\_W9Z1W9  
 UniRef90\_B4FEH5  
 UniRef90\_M4CLE4  
 UniRef90\_M4CLE4  
 UniRef90\_X8JHS4  
 UniRef90\_U4L576  
 UniRef90\_W1PJ11  
 UniRef90\_G1XEM1  
 UniRef90\_B8MKE3  
 UniRef90\_V6TFE9  
 UniRef90\_W6MKJ1  
 UniRef90\_T0KGS8  
 UniRef90\_UPI0004417259  
 UniRef90\_Q0CFT3  
 UniRef90\_F0XQZ3  
 UniRef90\_UPI0004449B67  
 UniRef90\_W3XPE2  
 UniRef90\_D8PZ66  
 UniRef90\_N1JB10  
 UniRef90\_W9X407  
 UniRef90\_A6R3F3  
 UniRef90\_D6WCZ2  
 UniRef90\_A0A010R7U7  
 UniRef90\_A0A059LNY6  
 UniRef90\_G3SJP4  
 UniRef90\_W4K8G6  
 UniRef90\_G7E8R0  
 UniRef90\_U6K901  
 UniRef90\_U6K901  
 UniRef90\_A6RAV5  
 UniRef90\_L1JSB9  
 UniRef90\_G4VIK5  
 UniRef90\_A1CE61  
 UniRef90\_A0A024JLE0  
 UniRef90\_E2LPX8  
 UniRef90\_M5G2M5  
 UniRef90\_M5G2M5  
 UniRef90\_C5FY08  
 UniRef90\_D4B518  
 UniRef90\_J6F9A3  
 UniRef90\_UPI0003F4946F  
 UniRef90\_Q4N428  
 UniRef90\_R9AAS4  
 UniRef90\_R8BJN0  
 UniRef90\_D4D7Y7  
 UniRef90\_G3SB84  
 UniRef90\_E4X9S2  
 UniRef90\_F4PHZ3  
 UniRef90\_W1QID6  
 UniRef90\_B8LDH3  
 UniRef90\_Q4WND8  
 UniRef90\_F0Z6P9  
 UniRef90\_F6RFP1  
 UniRef90\_C4R8Y5  
 UniRef90\_G2QKJ4  
 UniRef90\_L7HUP4  
 UniRef90\_W4XMR6  
 UniRef90\_M7T0P3  
 UniRef90\_U1M9Z7  
 UniRef90\_U1M9Z7  
 UniRef90\_T0MDK2  
 UniRef90\_B2AML4  
 UniRef90\_E4X1T4  
 UniRef90\_M0ZIE9  
 UniRef90\_I4Y5T5  
 UniRef90\_Q4UFE5  
 UniRef90\_Q4UFE5  
 UniRef90\_Q55DA3  
 UniRef90\_W5Q326  
 UniRef90\_W5Q326  
 UniRef90\_F2SGB1  
 UniRef90\_K9FVH9  
 UniRef90\_J3PA59  
 UniRef90\_G0RXR8  
 UniRef90\_I2FSD1

S I P D L F T Q L P L I R D Q L V T E T S K T Q D A T I D Q C L P F L K

I P S L F A T Q P P L L D S L Q T D T S R S Q A E V V G R C I P F L R

Q T R V E D K I E E V F S

V T K T L E D Q W V V E R R V R E I Y D

P A L F T Q P P P I R D P L I T E T V D L Q N V T V E K C L P F L K

D N V S T Q T S D D Q L E T E E A I N A L F S

UniRef90\_Q7RLX9  
UniRef90\_M3ASF1  
UniRef90\_M3V0L7  
UniRef90\_R9P9W5  
UniRef90\_W9XEX2  
UniRef90\_C3Y267  
UniRef90\_G2WXH1  
UniRef90\_G2WXH1  
UniRef90\_V5FFM1  
UniRef90\_V5FFM1  
UniRef90\_U6LPD4  
UniRef90\_G3YEK1  
UniRef90\_Q8IHP6  
UniRef90\_UPI00046C102C  
UniRef90\_UPI00046C102C  
UniRef90\_GOQPM7  
UniRef90\_M7PEG7  
UniRef90\_W9Z1W9  
UniRef90\_B4FEH5  
UniRef90\_M4CLE4  
UniRef90\_M4CLE4  
UniRef90\_X8JHS4  
UniRef90\_U4L576  
UniRef90\_W1PJ1  
UniRef90\_G1XEM1  
UniRef90\_B8MKE3  
UniRef90\_V6TFE9  
UniRef90\_W6MKJ1  
UniRef90\_T0KGS8  
UniRef90\_UPI0004417259  
UniRef90\_Q0CFT3  
UniRef90\_F0XQZ3  
UniRef90\_UPI0004449B67  
UniRef90\_W3XPE2  
UniRef90\_D8PZ66  
UniRef90\_N1JB10  
UniRef90\_W9X407  
UniRef90\_A6R3F3  
UniRef90\_D6WCZ2  
UniRef90\_A0A010R7U7  
UniRef90\_A0A059LNY6  
UniRef90\_G3SJP4  
UniRef90\_W4K8G6  
UniRef90\_G7E8R0  
UniRef90\_U6K901  
UniRef90\_U6K901  
UniRef90\_A6RAV5  
UniRef90\_L1JSB9  
UniRef90\_G4VIK5  
UniRef90\_A1CE61  
UniRef90\_A0A024JLE0  
UniRef90\_E2LPX8  
UniRef90\_M5G2M5  
UniRef90\_M5G2M5  
UniRef90\_C5FY08  
UniRef90\_D4B5I8  
UniRef90\_J6F9A3  
UniRef90\_UPI0003F4946F  
UniRef90\_Q4N428  
UniRef90\_R9AAS4  
UniRef90\_R8BJN0  
UniRef90\_D4D7Y7  
UniRef90\_G3SB84  
UniRef90\_E4X9S2  
UniRef90\_F4PHZ3  
UniRef90\_W1QID6  
UniRef90\_B8LDH3  
UniRef90\_Q4WVND8  
UniRef90\_F0Z6P9  
UniRef90\_F6RFP1  
UniRef90\_C4R8Y5  
UniRef90\_G2QKJ4  
UniRef90\_L7HUP4  
UniRef90\_W4XMR6  
UniRef90\_M7TOP3  
UniRef90\_U1M9Z7  
UniRef90\_U1M9Z7  
UniRef90\_T0MDK2  
UniRef90\_B2AML4  
UniRef90\_E4X1T4  
UniRef90\_MOZIE9  
UniRef90\_I4Y5T5  
UniRef90\_Q4UFE5  
UniRef90\_Q4UFE5  
UniRef90\_Q55DA3  
UniRef90\_W5Q326  
UniRef90\_W5Q326  
UniRef90\_F2SGB1  
UniRef90\_K9FVH9  
UniRef90\_J3PA59  
UniRef90\_G0RXR8  
UniRef90\_I2FSD1

50 60 70 80  
R H V A Y W T R C L K T L P H H Y T G N E S N R  
L E I K K H I S F L L R C L R M L P Q P Y T S A D D Q R  
L D R E R H I K Y W K R C A Q T L P E P Y T S G E A S R  
Q S E F A K E K H V K F F K R C L Q V L P S R Y C S L D T T R  
D  
T F T K E R H I K Y F L R C L K T L P S L Y T S N D S N R  
L L N L Q L E K Q L H F K F C L D I F L K N M K L I S L E A S K  
R T G P G I S H P Y D S G H  
R T G P G I S H P Y D S G H  
M S L D I D K H T K F H L R H L K M L P H D Y L F S D T S R  
R T Q L D R E R H I K Y W K R C S Q L L P E P Y T S G E A S R  
M A D E V E L A A D Q H V R Y I V T V E K K K D S F E S M E H I R  
L K R H M H V A L N Y R C L G G L G S G A V E A D D S R  
S L D G P P Y P P P E T L N I P R H L K Y W L R C T K T L P E D Y T P T D T N R  
M V D T L P Y H Y Q R E D T H R  
F N R D R N I K Y W L R C L R T L P T E Y T S N D L N R  
T F N K E R H I K Y F L R C L K T L P Y Q Y T T G D G G R  
V G L S H T K  
E I L K E K H V K F F R R C I N M W P E A Y E A H D S N K  
L E K E R H I K Y W Q R C H K T L P H Q Y T S D S T R  
L A R T A H A M H A K R C L T G L P A S K V E I D S S R  
M T D P A V F N R E R H I K Y F L R C L K T L P D L Y T S N D S N R  
D P P F D N T R H I R Y W Q R C L R S L P H Q Y T S N D S T R  
A E L S P L P A L N K N G H V A H C N R C L A G L P S S L V E M D S S R  
M E L D A A R H I R Y F K R C Y S V L P H H Y T A N D S S R  
L A R S G H A A H A N R C L T A L P A S Q I E L D S S K  
E D Y V L N R K E H I N Y W K R C L K S L P T Q Y M S T D S S R  
L D K E R H I K Y W K R C A Q I L P E P Y T S G E S S R  
M A D S S S L R K D R Q I K Y F L R C L K T L P H Q Y T S N D S S R  
M D T H R  
M P L E K A R H I K Y W Q R C H K T L P H Q Y T S S D S T R  
E R L D F L R D L H V R F F Q R C L E V L P E R C S S L E T Q R  
P A L N R L G H A G H S N R C L Q G L P S S L V E F D S S R  
L H T A K H A S H A L F S L I L L P Q E Y I G E D S S R  
P S L H A R L H A Q Y L L G L G A D P F T I E A F F S L K  
P S L H A R L H A Q Y L L G L G A D P F T I E A F F S L K  
G L A S S Q T G P F P R L D R D A H I S F L Y D S L E S Y P E R F V I G L D S S R  
E A S F D A K L H Q R Y F R K L L Q G A P G S L Q G L D S S R  
R Q K L K I Y F K R C T G I L P Y S M V S L D S S R  
Q P V F N K E R H I K Y Y L R C L K T L P A A Y T S G D S N R  
E F K K K L H N K Y F Q R C L G F L P S Q A T P Y D S S R  
D E H I A G F R G S S F L T G P S A S A K E P P H  
D E H I A G F R G S S F L T G P S A S A K E P P H  
M E L R K D R Q I K Y F L R C L K T L P H P Y T S N D S N R  
G E E T G L P L N R Q S L A R E L H V E Y L L D A L G E Y P G R F V I G L D A S R  
S Q S T F K R K A H K G F F T R C L Q A L P S S A E A H D A N R  
Q K T F K K N A H I A Y F T R C L K A L P S Q A E G Q D G N R  
L R P E L H I N Y I K S H L S Q D K E D L A Y L D S S R  
K F L H R H L N L L P S A Y E S N D S A R  
S P P L D K P R H F R Y W Q R C L R T L P H Q Y T S N D S I R  
S T S G A Q E L Y T Q K H V D Y I K S L D T R R D E E Y W L T E H L R  
E R L D F L R D L H V R F F Q R C L E D L P E R Y S S L E T S R  
N R K S H I R Y F K N I L N V L P Q R Y A S L D S Q R  
F E I E K H I K Y I K R N L M A L P S P Y T S A L P N H  
F D P K V H V R Y F L R C L G I L P S I Y E G E D S N K  
E T V F N K E R H I K Y Y L R C L K T L P H Q Y T S N D S N R  
T F N P E K L A K F F Q R S L N A L P Q P Y L S G L P N H  
A Y R I N H H V P R L L Q R E K H F Y L K R G L R Q L T D A Y E C L D A S R  
M S L D A S K H V K Y F Q L C L D M L P S R F E E D S N K  
P E P M L D I D R H L K Y W K M C L Q P L P N H Y L P N E G V R  
L D L A K H L R Y F T R C M R T L P Q Q Y T S N D S T R  
R H I R Y W Q R C Q R T L P H H Y T S N D S T R  
L K D S T K L M P E W C Q Y D R A N  
L K D S T K L M P E W C Q Y D R A N  
L R Y N E H L K F L D K Y K S I K D L D F Y L T E P C R  
A D D L P N P E P T L D I D R H L K Y W K M C L Q S L P H H Y L S N E G N R  
Y F S P N S L S D L I E L E R D K H F D Y L S Q G L R K L G P S F S V L D A S R  
A K F S F R H L E L L P N V Y E S N D S A R  
Q F C V K C S R S L N S I M K C W D S E H  
Q F C V K C S R S L N S L M K C W D S E H  
E K L A K F F Q R S L N A L P A P Y T S G L P N H

- UniRef90\_Q7RLX9
- UniRef90\_M3ASF1
- UniRef90\_M3V0L7
- UniRef90\_R9P9W5
- UniRef90\_W9XEX2
- UniRef90\_C3Y267
- UniRef90\_G2WXH1
- UniRef90\_G2WXH1
- UniRef90\_V5FFM1
- UniRef90\_V5FFM1
- UniRef90\_U6LPD4
- UniRef90\_G3YEK1
- UniRef90\_Q8IHP6
- UniRef90\_UPI00046C102C
- UniRef90\_UPI00046C102C
- UniRef90\_G0QPM7
- UniRef90\_M7PEG7
- UniRef90\_W9Z1W9
- UniRef90\_B4FEH5
- UniRef90\_M4CLE4
- UniRef90\_M4CLE4
- UniRef90\_X8JHS4
- UniRef90\_U4L576
- UniRef90\_W1PJ11
- UniRef90\_G1XEM1
- UniRef90\_B8MKE3
- UniRef90\_V6TFE9
- UniRef90\_W6MKJ1
- UniRef90\_T0KGS8
- UniRef90\_UPI0004417259
- UniRef90\_Q0CFT3
- UniRef90\_F0XQZ3
- UniRef90\_UPI0004449B67
- UniRef90\_W3XPE2
- UniRef90\_D8PZ66
- UniRef90\_N1JB10
- UniRef90\_W9X407
- UniRef90\_A6R3F3
- UniRef90\_D6WCZ2
- UniRef90\_A0A010R7U7
- UniRef90\_A0A059LNY6
- UniRef90\_G3SJP4
- UniRef90\_W4K8G6
- UniRef90\_G7E8R0
- UniRef90\_U6K901
- UniRef90\_U6K901
- UniRef90\_A6RAV5
- UniRef90\_L1JSB9
- UniRef90\_G4VIK5
- UniRef90\_A1CE61
- UniRef90\_A0A024JLE0
- UniRef90\_E2LPX8
- UniRef90\_M5G2M5
- UniRef90\_M5G2M5
- UniRef90\_C5FY08
- UniRef90\_D4B5I8
- UniRef90\_J6F9A3
- UniRef90\_UPI0003F4946F
- UniRef90\_Q4N428
- UniRef90\_R9AAS4
- UniRef90\_R8BJN0
- UniRef90\_D4D7Y7
- UniRef90\_G3SB84
- UniRef90\_E4XS2
- UniRef90\_F4PHZ3
- UniRef90\_W1QID6
- UniRef90\_B8LDH3
- UniRef90\_Q4WND8
- UniRef90\_F0Z6P9
- UniRef90\_F6RFP1
- UniRef90\_C4R8Y5
- UniRef90\_G2QKJ4
- UniRef90\_L7HUP4
- UniRef90\_W4XMR6
- UniRef90\_M770P3
- UniRef90\_U1M9Z7
- UniRef90\_U1M9Z7
- UniRef90\_T0MDK2
- UniRef90\_B2AML4
- UniRef90\_E4X1T4
- UniRef90\_MOZIE9
- UniRef90\_I4Y5T5
- UniRef90\_Q4UFE5
- UniRef90\_Q4UFE5
- UniRef90\_Q55DA3
- UniRef90\_W5Q326
- UniRef90\_W5Q326
- UniRef90\_F2SGB1
- UniRef90\_K9FVH9
- UniRef90\_J3PA59
- UniRef90\_G0RXR8
- UniRef90\_I2FSD1

MYLAFFILLSAALDLDLDSWTH EQERNDYINWLYHCQHPPDGGF

MTLGYFAIAGLDLDDDRIPADERSSELIWVVEQQQLPTGGF

MSFGFFIVAJALDLGALITPSEKRGWLEWLYT CQVPHGGF

LTVAFL

MRLCYWCRLRGDVKEGEPEVIEDIDVDALIGHIRRQQGQTYDGGV

MRLCYWCRLRGDVKEGEPEVIEDIDVDALIGHIRRQQGQTYDGGV

GDDLRSRVNRRGCLQWLPSLQREDGGSF

GDDLRSRVNRRGCLQWLPSLQREDGGSF

LDYLLEERREDALEFFILSCCLCPGGF

MLLAFFFTVAAGLDLGLVKTTP EERQGYIDWLYHCQVPTGGF

PWLFYWCISHSILHILYNTFE DYLKKGVFLYLNKIKNNDDGGF

IAMTYTGLSCLVILGDDLRSRVNKA CLAGLRAALQLE DGSF

IAMTYTGLSCLVILGDDLRSRVNKA CLAGLRAALQLE DGSF

MSLCFFCICSLDLDLGSLETSTTRKNWIDWLYSCQVSNNGSF

MSFGFFIVAJALDLGALITPDERQS WLEWLYT CQVPHGGF

LN GAYWG

MAVAFYSLASMDLYGVKTS EKDRTEWVQWITWAQYTDGAGGF

MTLGFSSISALDLGLNEETPQERAGWVDWLYMNQLP GG GGF

TLTAYFAVSGLAILNA LDRVDKERLANWVLSQALPHGGH

TSLAFAFCVNGLSILGNLTKPEERAQWIDWLYSCQSTGGGF

VLLGFFTIAGLDLGLVLTTP EERQGYINWLYHCQHPRGGF

LSGLYVWVLCIFILHGRQPTDVFDRRLHQFVKDCQSEIAGF

MAIVYFSLAAGLDVLLGALPKELERREALDWWYSHLVP SGGF

LALTFFVLAALDILSGLLITAEEDRAARNFVGLQLHPAGGF

LVLGFYVLAAGLDVLLGALPKELERREALDWWYSHLVP SGGF

MLLAFFFTVAAGLDVLLGALPKELERREALDWWYSHLVP SGGF

MTLGFIVAAIDLLPLPISPTDKQKL RDWVLA CQHPPGGF

MAFSFYVLAAGLDLGLMGTSPKISEVERKDWTEWLVACQARGGTGF

LSLGYFVLAAGLDLGLLESKEEREGWRAFWEQQAARGPHGT

VALAYVLAAGLDLGLLESKEEREGWRAFWEQQAARGPHGT

MTLGFVLAAGLDLGLLESKEEREGWRAFWEQQAARGPHGT

MSFGFFIVAJALDLGALVLPTEKRSWIEWVYSCQVHTGGF

MTLAFPFTVAAGLDALDDNISPAERNGYIDWLYHCQVPSGGF

VLLTYFAVSGLDLGLNELDSFPNKQATLEWLYSLQVFD DGGF

IALLSFFVLAALDILSGLLITPA DRAAARKFVGLYHPGGF

SNLNR C GFRGSSSYLGLLFLNPSKAPGTA

MAVGFYGLGILDLYGDKVSTTDS EGWRAWITWAQQA HGS GGF

MSLAFYFSLGLSLGSLALLPERRRTEYLA WLYAQQSSSSGGF

MGAAYWASNALWLLGLRSEKTKRHSNTEETKDSQNGNPGEG

MGAAYWASNALWLLGLRSEKTKRHSNTEETKDSQNGNPGEG

PWMVYWALTGLHLGLGEDVITKF RERVIATAAPMQNSTGGF

CTIAYFCVYSGLDVLLNA L TGE DKEQVCGWMLRLIDN GGF

LVLVLF FASSGLALLDALDLDVDRNE LIEFVYSHQDKKGGF

MLLAFPFTISGLDILGVKTTPEDRRGYIDWLYHCQVPSGGF

TALLAYFCISGLSLLGTDLIT ERQQWIDWLYHSNMVPSGGF

ILMTYTALLSLAILRDDDFCRLDRRRVLAFLERTQLP DGSF

ILMTYTALLSLAILRDDDFCRLDRRRVLAFLERTQLP DGSF

MTLAFYFVLAAGLDLGLLISAAERAGYINWLYHCQVSTGGF

PWMVYWALTGLALGLGEDVSDVDDDGRLVATAAPMQSGSGGGF

ITI AF FCLGLGLYLLGESPSDKDRQDWTEWVLSLQSPGGF

ITI AF FCLGLGLYLLGESPSDKDRQDWTEWVLSLQSPGGF

PWIMYWSLHSLLLLRHDIQSYKQRS LNSIMK CWDNEFGGF

TLTAYFVLAAGLDLGLLISAAERAGYINWLYHCQVSTGGF

MTLGFVLAAGLDLGLLISAAERAGYINWLYHCQVSTGGF

LNGLVYWG LTAALHLGLHPDALPRDKTIEFVLS CQREDGGF

SF

LVIAQFALGGLSLLAEIDVKNKQEFINWLYSLQCP SGGF

LSIVYFMLSGLDILDEQETD DTLS TQLKEFVYS C GFRGANF

LALIYFCVGLDL D ALDQLPGKAAATIEWVYKHWDYGGF

MLLAFPFTISGLDILGSKITAEERKGFIDWLYHCQVPSGGF

LSLTYFVVAAGLDLGLLISAAERAGYINWLYHCQVSTGGF

PWL CYWVILHSSIALLGESILEKASEYCDYVYK CQQLPYGGF

VATTYSALCVLKMFDSSVHMVDRELLHSFLMDMKSADGSF

VATTYSALCVLKMFDSSVHMVDRELLHSFLMDMKSADGSF

LSLIFVVSGLDLN KDILEKEKQD INWVYSRQL EN C GGF

LNGLV

PWLVYWALAGLAMLG EETTRFRERRVITTLRPMQNP TGGF

MTLGFYIINAMDLITPTLITSEDRRVRDWVLA AQHPHGGF

MALAYFIINAMDLITPTLITSEDRRVRDWVLA AQHPHGGF

SWLLYWLHSDYLLS VSLDSKGRARAIA T L S F QNT TGGF

UniRef90\_Q7RLX9  
UniRef90\_M3ASF1  
UniRef90\_M3VOL7  
UniRef90\_R9P9W5  
UniRef90\_W9XEX2  
UniRef90\_C3Y267  
UniRef90\_G2WXH1  
UniRef90\_G2WXH1  
UniRef90\_V5FFM1  
UniRef90\_V5FFM1  
UniRef90\_U6LPD4  
UniRef90\_G3YEK1  
UniRef90\_Q8IHP6  
UniRef90\_UPI00046C102C  
UniRef90\_UPI00046C102C  
UniRef90\_GOQPM7  
UniRef90\_M7PEG7  
UniRef90\_W9Z1W9  
UniRef90\_B4FEH5  
UniRef90\_M4CLE4  
UniRef90\_M4CLE4  
UniRef90\_X8JHS4  
UniRef90\_U4L576  
UniRef90\_W1PJ11  
UniRef90\_G1XEM1  
UniRef90\_B8MKE3  
UniRef90\_V6TFE9  
UniRef90\_W6MKJ1  
UniRef90\_T0KGS8  
UniRef90\_UPI0004417259  
UniRef90\_QOCFT3  
UniRef90\_F0XQZ3  
UniRef90\_UPI0004449B67  
UniRef90\_W3XPE2  
UniRef90\_D8PZ66  
UniRef90\_N1JB10  
UniRef90\_W9X407  
UniRef90\_A6R3F3  
UniRef90\_D6WCZ2  
UniRef90\_A0A010R7U7  
UniRef90\_A0A059LNY6  
UniRef90\_G3SJP4  
UniRef90\_W4K8G6  
UniRef90\_G7E8R0  
UniRef90\_U6K901  
UniRef90\_U6K901  
UniRef90\_A6RAV5  
UniRef90\_L1JSB9  
UniRef90\_G4VIK5  
UniRef90\_A1CE61  
UniRef90\_A0A024JLE0  
UniRef90\_E2LPX8  
UniRef90\_M5G2M5  
UniRef90\_M5G2M5  
UniRef90\_C5FY08  
UniRef90\_D4B5I8  
UniRef90\_J6F9A3  
UniRef90\_UPI0003F4946F  
UniRef90\_Q4N428  
UniRef90\_R9AAS4  
UniRef90\_R8BJN0  
UniRef90\_D4D7Y7  
UniRef90\_G3SB84  
UniRef90\_E4X9S2  
UniRef90\_F4PHZ3  
UniRef90\_W1QID6  
UniRef90\_B8LDH3  
UniRef90\_Q4WND8  
UniRef90\_F0Z6P9  
UniRef90\_F6RFP1  
UniRef90\_C4R8Y5  
UniRef90\_G2QKJ4  
UniRef90\_L7HUP4  
UniRef90\_W4XMR6  
UniRef90\_M770P3  
UniRef90\_U1M9Z7  
UniRef90\_U1M9Z7  
UniRef90\_T0MDK2  
UniRef90\_B2AML4  
UniRef90\_E4X1T4  
UniRef90\_MOZIE9  
UniRef90\_I4Y5T5  
UniRef90\_Q4UFE5  
UniRef90\_Q4UFE5  
UniRef90\_Q55DA3  
UniRef90\_W5Q326  
UniRef90\_W5Q326  
UniRef90\_F2SGB1  
UniRef90\_K9FVH9  
UniRef90\_J3PA59  
UniRef90\_G0RXR8  
UniRef90\_I2FSD1

130 140 150 160

```

R M W P G D P A N V P A T Y F A L S A L L A S G D D L E K E R H F K L C T D
L E R V K R R K T L E W

R G S P S S T F S P C S S S A T G T A N V A M T Y Q D D F S R L D R K A L W R F
R G W H W D P A N L P N T Y F A L V I T L V I L G D D L S R V K R R E E L A W
A E S S Q H E A H A G Y A Y C A I G A L Y M L D T D D S F D V I D R E G L I K F
A E S S Q H E A H A G Y A Y C A I G A L Y M L D T D D S F D V I D R E G L I K F
G E L I S V D G R I A F C Y C A A G I R Y I L R G V D D I K D V D I E K L L S F
G E L I S V D G R I A F C Y C A A G I R Y I L R G V D D I K D V D I E K L L S F
S S D L Q Q D A N L T S T H Y A L L L V L G L G R L H L L P S P A K T A A W
R A F T G D P A N V P S T F F A L E L L V L L G D D L S R V K R R E L Q W
G G G L N Q Y T H I A T T Y A A V C V I C Y M L N N W S G M D T K K A T E Y
C A L E G S E N D M R F V Y C A S C I C Y M L N N W S G M D T K K A T E Y
C A L E G S E N D M R F V Y C A S C I C Y M L N N W S G M D T K K A T E Y

Q P S C H D L V H I V S T Y F A I C I L L L I L K D D M K R L N K K N I I Q L
R G W H W D P A N L P N T Y F A L A T L V I L G D D L Q R V V Q R R Q C I A W
L T T L D L L H K L H A V D A A E V V D W

R G G I H A S P N L I M T Y A A I L S L A I L R D D F S K L D K P A L L Q L
R G G P Y D P V N L P A C Y F A I A T L V A L G D D L E R L D R R G L L K V
F G F C G S S S H L A S T Y C A L A I L K M I G G H E E S T I V C E F I L S T T
R A S P W D P A T L P G T F F C A L I T L L S L G D D L T R I V C E F I L S T T
R G F T G D P A N I L P S T F L A L E T L L L G D D L S R V K R K E C L K W
S G S P G H D M H L V H T T S G L Q C L L L N K D F E S T V S P E L G V I L A N T
R G G S Y D P A N V L A T T F A L Q I L L T L R D E F E M K E R L D K E K I M G F
C G S P T H A L P K A V C A G A I V A D G Q E G A K S A Y A G V D R V K T L R W
G F K P Y D A P A N I L M T Y A A L S L A I L R D D F A R L D R P G L V R F
R G F T G D P A N V L P A T F F A L L V I L L L G D D L S R V K R R E C L Q W
A G G P T H A Q P V A G T H S A A N L A A T V A A E S A F I G V N R A A T L S W
R P S P H T P P N I L M T Y A A L Q S L A I L R D D S F D Q L D R D G L V R F
C G S P Q H N A N I A T Y F A L M L L A I V A E D D Y I N V N R V A T L R W
A F T P S H F P H I I M T Y T A L L S L A I L R D D F T R L D R K G L S R F
C G S P N H P A N L P A T F F A I L S L G F V G D L T R V A R K K C L R W
R G W H W D P A N V P N T F F A L A T L V L L G D D L G R V K R R E C L A W
R G F P G D P A N V P A T F F A L M A L I V L G D D L T R V R R R E C L W
Q G S S Y K W G H I A T T Y S A L A T L V I L K D D L E R V H R K S I L K S
C G S P N H S A N L A S T Y F A L L I L A I V A D G P A F A G V D R V A T L R W

R H P Y D S G H I A M T Y T G L S Q L L I L G D D L S R V N K E A C L A G
R G A P G C S A P N L I M T Y T A L Q A L L A I L R D D F A P L N D R P G L A R F
R C S D G N S S N S S T K E G G D S E C A S V P S L D Y L L E S R E D T V C E F
R C S D G N S S N S S T K E G G D S E C A S V P S L D Y L L E S R E D T V C E F
G G G H G Q M S H C A S S Y A L V L S L A L V G G Q N A F K L V N R T A M W Q W
R G S T W D L G H V A M S Y T A L A T L V I C D Y N I Q T L D R R G I Q M
R G S N Y D G S H V T M V Y S A L S T L L L L G D N L S R V D R K R G T L A G
R G F T G D P A N V P S T F F A L V L L I L L G D D L S R V K R K Q C L E W
R G S A T H K A N L P A T Y F S I M S L A A L R D G S F R E K L D R K K I C R D F
H E A H L P T Y A A I C S L A I V N S W D G I D L D K A V A Y
E P W P G S E G D I R I I Y A A L A T C S M L N S W D G I D L D K A V A Y
E P W P G S E G D I R I I Y A A L A T C S M L N S W D G I D L D K A V A Y
R G F T G D P A N V P A T F F A L L V A L L L L E D D L A R V R R R E C L S W
G G G H G Q T A H C A S S Y A I T L S L A M L E M A G S A Q A G G R R V S G Q R
A G S P H A P G H L P S T Y T A L C C L A L L G S P M D R L D K P A L R R F
R G S T N Q P G H L P S T Y T A L M C L G L L R A P L D R L D V V A L L G K F
G G G E Y Q R A H V A T T Y A A L C V L K M F N S V H M V D V E L L Y S F
G G F R G D P S N L T M T Y A A I L L L G L L R D D F T R L D K P G I L K S
C G S P T H Y Q Y E G Y D F E A G T A D I A R P A D S A Y L G V D R L A T L R W
G A A P G H D A H M L H T V I S A V Q I L V T L D A I D E L N K D G R
G A H P Y D S D H I A M T Y T G L S C L V I L G D D L S R V N K E A C L A G
Y G S P A H K P H I A S T Y F A V Q C L L L G D D L S R V N K E A C L A W
I G Q P F D N S T L A N S Y C A L M I L R I L R D D L G R V N K K S I T N A
R G G P Y D V P N L A A T G F A L Q I L V T L G D D L S Q V D R N K V R R F

R G F T G D P A N V P A T F F A L V V L L I L G D D L S R V K R V E C L Q W
R G Y N F D L S P N T Y F A L L I L L K I L G D D N Y E R V N K E A I L K S
S P G S G E Y S P L P A T Y F A Q I V A A L L I E F Q V F F P K L V R S G H E I F
R G S E Y D V P N M A A T L F S L Q I L Y M F K D K R I M D R L D K N R I M S F
V P S S T G L A N L P A T L F A L Q N L P A T G A R S A F D G V D R A Q T L R W
A G S T T H P P H E Y D G W D F G S L R T E P G N S N C S N I V D R V A T L R W
C G S P H H N A N I A T Y F G L V A L L G V L A E G D A Y G P V D R L K T L R W
R A Q L D T E N D M R F V Y C A V A I C Y I L N D F S A I N M E R M L D F
R A Q L D T E N D M R F V Y C A V A I C Y I L N D F S A I N M E R M L D F
G G S V G F P S T L T T F N A L Q I L L S L L E E K F Y D E N T I N F
S P A H G Y E Q S E P E T A E A A G M A N A P G T E R A F D G V D R A Q T L R W

G G G P G Q M P H L A T T Y A A V N S L I T L G K P E A L S S I N R E K L Y T F
R G S P Y D P S N L T M T Y T A I L L L A L L R D D F S R L D V K G L I R S
S A T Y G G E C D V R S T Y C A I A S A C I A G I L T E K I V E N T L E Y
S A T Y G G E C D V R S T Y C A I A S A C I A G I L T E K I V E N T L E Y
R G Y N Y D L P S T P N T Y C A L L I L R I L G D D F S G V N K K A I I D S
L T V M D L M G Q L H R M N R E E I L T F
L T V M D L M G Q L H R M N R E E I L T F
Y W G L T A L H I L L G H P D A L P R D K T L E F
G G G H G Q T S H L A G S Y A A V L S L A M V G G E E A F G L V D R H A M W Q W
C G S P T H P A H E Y D G W D F E A A A P A P G S E S A F A G V R R A A T L R W
Q S S P G E S D H Y A A D Y P S P A N L P A T D P S D G A L V G V D R V K T L R W
G G G P D Q I A H L M A T Y A A V S A L A I V G G P G G W D A I D R K K M Y E W

```

UniRef90\_Q7RLX9  
UniRef90\_M3ASF1  
UniRef90\_M3VOL7  
UniRef90\_R9P9W5  
UniRef90\_W9XEX2  
UniRef90\_C3Y267  
UniRef90\_G2WXH1  
UniRef90\_G2WXH1  
UniRef90\_V5FFM1  
UniRef90\_V5FFM1  
UniRef90\_U6LPD4  
UniRef90\_G3YEK1  
UniRef90\_Q8IHP6  
UniRef90\_UPI00046C102C  
UniRef90\_UPI00046C102C  
UniRef90\_G0QPM7  
UniRef90\_M7PEG7  
UniRef90\_W9Z1W9  
UniRef90\_B4FEH5  
UniRef90\_M4CLE4  
UniRef90\_M4CLE4  
UniRef90\_X8JHS4  
UniRef90\_U4L576  
UniRef90\_W1PJ11  
UniRef90\_G1XEM1  
UniRef90\_B8MKE3  
UniRef90\_V6TFE9  
UniRef90\_W6MKJ1  
UniRef90\_T0KGS8  
UniRef90\_UPI0004417259  
UniRef90\_Q0CFT3  
UniRef90\_F0XQZ3  
UniRef90\_UPI0004449B67  
UniRef90\_W3XPE2  
UniRef90\_D8PZ66  
UniRef90\_N1JB10  
UniRef90\_W9X407  
UniRef90\_A6R3F3  
UniRef90\_D6WCZ2  
UniRef90\_A0A010R7U7  
UniRef90\_A0A059LNY6  
UniRef90\_G3SJP4  
UniRef90\_W4K8G6  
UniRef90\_G7E8R0  
UniRef90\_U6K901  
UniRef90\_U6K901  
UniRef90\_A6RAV5  
UniRef90\_L1JSB9  
UniRef90\_G4VIK5  
UniRef90\_A1CE61  
UniRef90\_A0A024JLE0  
UniRef90\_E2LPX8  
UniRef90\_M5G2M5  
UniRef90\_M5G2M5  
UniRef90\_C5FY08  
UniRef90\_D4B5I8  
UniRef90\_J6F9A3  
UniRef90\_UPI0003F4946F  
UniRef90\_Q4N428  
UniRef90\_R9AAS4  
UniRef90\_R8BJN0  
UniRef90\_D4D7Y7  
UniRef90\_G3SB84  
UniRef90\_E4X9S2  
UniRef90\_F4PHZ3  
UniRef90\_W1QID6  
UniRef90\_B8LDH3  
UniRef90\_Q4WND8  
UniRef90\_F0Z6P9  
UniRef90\_F6RFP1  
UniRef90\_C4R8Y5  
UniRef90\_G2QKJ4  
UniRef90\_L7HUP4  
UniRef90\_W4XMR6  
UniRef90\_M7T0P3  
UniRef90\_U1M9Z7  
UniRef90\_U1M9Z7  
UniRef90\_T0MDK2  
UniRef90\_B2AML4  
UniRef90\_E4X1T4  
UniRef90\_M0ZIE9  
UniRef90\_I4Y5T5  
UniRef90\_Q4UFE5  
UniRef90\_Q4UFE5  
UniRef90\_Q55DA3  
UniRef90\_W5Q326  
UniRef90\_W5Q326  
UniRef90\_F2SGB1  
UniRef90\_K9FVH9  
UniRef90\_J3PA59  
UniRef90\_G0R XR8  
UniRef90\_I2FSD1

170 180 190 200  
I Y F L K N L S L S F W L F Y W C L H T L Y L L Y N D F E I E Q K L C K E T S I  
I Q K M Q R R D D G S F G G N V E G G M D P R F G Y C A A G I R Y L I L R M I D D I  
I V A S C Q R R E D D G S F V A A E H W G S D D N R F V Y C C A V I A L A L T L I L R G K L D D V I  
I V K L Q L Q Q R D D G S F A A E E M V G D R D P R F T Y C C A I A I C S M L L G E W G G V  
V A G L Q Q R P N G S F G E F L G G A D D D P R H F M C C A V G I I K I L Q Q G N S P G F  
I Y S L Q R F V L P D K D D E E G G E N D D M R F V Y C C A S C V S Y I L D D D W S P G M  
L V H R Q F A Y L E R Q E Q D A E E E N D D P D V A N F A I L P R N L A D L  
L V H R Q F A Y L E R Q E Q D A E E E N D D P D V A N F A I L P R N L A D L  
I E E C Q N Y D D G G M A E S P F C E A H A G L T Y C A I G A L S F L D R R L S S P T  
I E E C Q N Y D D G G M A E S P F C E A H A G L T Y C A I G A L S F L D R R L S S P T  
V R S L Q L P S G G F M A D P W G E T D S R F V Y C C G V A S L S L L G E L G A A  
I P R M Q R D N G S F R G G K I E G G D L M R F C C F A A G T R Y I L L D G I K D I  
I L K L K C T D G S F R V H I N G E I D M R G T Y C A I I S C S M C H L L T N E  
I R R S M S Y D N G L A Q G A G L E S H G G S T F C C G I A S L C L M G K L E E V  
I R R S M S Y D N G L A Q G A G L E S H G G S T F C C G I A S L C L M G K L E E V  
I L L C K N K Q G S F L V S Q G G E A D M R G V Y I A I L I Q D I L N I K S P S  
I V H L Q N K D G S F R P C L G S D T D I R F T Y C S I A T L Y I L N I D K F T  
V R S L Q R K N G S F G E F L G G A D D P R L C L C A V G T L K I L Q A D E E V  
I M S C Y H P E G G F G G N V G H D P H V L Y T L S A V Q V L C L F G A T D R V  
A H F I I S G L H F L G A T D R V  
A H F I I S G L H F L G A T D R V  
V A S R Q N A D G S F S A V P H D T V D L R V L Y T A F V I C Y L L R D D W T C  
V N R L Q R E D G S F G E C L I R E N D M R F V Y M A A A V R W L L R G Q E G M  
M K C L Q R A D D G S F M S R T G A E T D L R F V F C A A A V S S M L N D W S G L  
L A T L Q R A D D G S F A E M H S G E T R D P R F V L A A A V R W L L R G E E D I  
L P K L Q R A D D G S F G D M L G G G N D L R F C Y C A A G I R Y F L R D V R D I  
I T D L Q Q A E D G G F Y G G D Y T K E R D T R F C Y C A A V L S L T I L H L N N L I  
V K S C Q R A D D G S F C G Q P F G E T D L R Y C M I A A T I R K L I L G G A S D I  
L R R L Q R A D D G S F G G R I E G G R D M R L C Y L A A A T R W M L D W V E D I  
L A A C Q R A D D G S F S S V P G T D A D L R L V Y C A V A V A S S M L A D L G G D I  
L P N M Q R H D G S F G G Q I E G G D L R F C C F G A G T R Y I L R D V D I  
L S Q L Q R K D G S F G E V I A G G S D T R Y C Y I A S M I R W M L R G Q T D I  
L R A C Q D A D D G S F S T T P G C D S D L R M V Y C A F A I S S M L G G D W R G V  
L K S L Q R E D D G S F G G T V G G G R D M R Y A Y M A A V I R W W L G G D Q A D  
V G S C Q L S D G S F G T T P R A D A D L R T Y C A F A I C S M L R D W S A T  
L K S L Q R D D G S F G G I L G G R D M R Y C Y V A A A I R W M L K G Y E D I  
V R S L Q R P N G S F G E F L G G A D D P R H C M C A V G I M K I L K E N Q D P  
L A G M Q R A D G S F G G R L E G G S N D L R F C C C A A G V R Y I L R G R D D I  
L R S L Q L P N G C F M G A K D G E H D M R F V F C A A C I C Y I L D D F S G M  
I R R L Q R A D D G S F G G A I A G G R D M R L C F L A A T I R W A L L D W E D I  
I A G L Q Q P D G S F A G D E W G E I D T R F S Y C A L C A L W I L N R L D A V  
L R A L Q Q L E D G S F C A V P G S E N D M R F L Y C T S C V I C Y M L N D R S G M  
V G A C Q G R D D G S F A T P P S N E R D V R F S Y C A C A I A T L L D D W S C I  
V L N C L C S C C G G F S S D L H Q E A N I T S T H Y A L L L L S G L G R L H L L  
L G K L K Q A D G G F Q V T L G G E A H G A Y A F C A L A C L Y I L G D P K E M  
V R N C Q G E D G S F C A H H G E A D L R F S Y C A A A L C F M L G D D F S C I  
L S A M Q C E P G L F A G D I C G G E R D M R F V F S A V A S C Y I L D G L D S I  
L P R L Q R G D G S F G E V L G G S R D L R F C C C A A G T R Y I L R G V G D I  
V G K C Q R E D G S F A P N W F G E N D L R C N Y M A T G I L K A L R V N E V M  
F M S L K Q P D G S F T V S R Q G E V D V R G I Y C L A V A T L N L I L T P E  
V K A C R V Q D D G S Y G Q T P H A E A N G G A T Y C A V A A L N L A H P L Q G E  
V K A C R V Q D D G S Y G Q T P H A E A N G G A T Y C A V A A L N L A H P L Q G E  
L C S M Q R E D D G S F G Q T L G G G R D L R F C C C A A G I R Y I L K G E E D I  
R R R A G C P V S L F H I S E F S N F F R G A Y C A M V M I A L L D L P L I E L  
L K S C Q A E D G S F A P T P D T E N D A R M S Y C A V V C G T V A D S G T E G  
L R S C Q A A D G S F S A P T P R F E N D L R M T Y C A S V I Q Y L I N V N I  
L M D M K S S D G S F S A T Y G G E R D T R S T Y C A I A S A Y M A G N L T E E  
I R D R R H A D G S F S P T P N S E S D I L R V Y C A C A T S T L I N D F S E V  
L R R M Q R E D G S F G E V I A G G K D M R Y C Y L A A T I R W M L G W V E D I  
L R A L Q L E D G S F C A V P G S E N D M R F L Y C A S C I C Y M L N N Q S S G M  
V H S L M N P D G S F Q G A A D G P T D L R F T Y C A A F L T H L F E G F S E D  
M K H L Q Q P D G S Y V G S A G G E S D M R Y L Y T A C A I S F L L E D W S G T  
V E R C Q R R P N G S F S P V V G G E E D L R Y C M L A M T L S R L L D G S A V  
L R K L Q R E D G S F G G E I K G G R D L R F C C C A A G T R Y I L Q Q G V S D I  
L K F R Q R S D G A C S G S P H G G E D L R H L F T A S A S V F M L D D W S A I  
L I C K V C P V G S F S L S E L T R V K F K S A Y C A A S V A S L T N I T P  
V S Q C Q T E D G S F K S C L G G R S D L R H C M I A C T I R R I L S F Q D D I  
L R R L Q R P D G S F G E V F V G G Y D M R Y C Y I A A S I R W M L G W V E D I  
L K K L Q R P D G S F G E T I A G G R D M R Y C Y L A A I R W L G W V E D I  
I V S C Q T Y E G G F A G Q P G M E A H G G Y T F C S V A A L V L L G H E R L C  
L R R L Q R E D G S F G E Y I A G G R D M R P C Y L A A T I R W L G G A E D F  
I K R S I N Y D G G I G E G P H L E S H G G S T F C A I A S L A M S G H L W D E  
I L K K H K E D G S F K N D S F D M S D N R I N C Y S A L S L H L L Y I N E P I  
L R R L Q R K D G S F G W F I G G Y D M R Y C Y I A A S I R W M L G W V E D I  
L R M K D A S G G F R M H D P G E V D V R A C Y T A A S V A T M L Q L K T D K  
I E D R Q K P D G S F A P I P G S S E I L R V Y C A S A S I L L G D F S G I  
I I S C Q T Y E G G L S A E P Y L E A H A G Y T Y C G L A S I N I I N V K N K L  
I I S C Q T Y E G G L S A E P Y L E A H A G Y T Y C G L A S I N I I N V K N K L  
L R K R Q R E D G A I S A S P N G D Y D L R H L F S A C A I S F I L D D W S A I  
I K S C Q H E C G G I S A S I G H D P H L L Y T L S A V Q I L T L Y D S I N V I  
I K S C Q H E C G G I S A S I G H D P H L L Y T L S A V Q I L T L Y D S I N V I  
V L S C Q S E D G G F G A A P R H D A H M L Y T V S A V Q L V T L D S I N V I  
I G R L K Q P D G G F R V C E G G E E D V R G A Y C A M T L I S L L D L P L I T L  
L R G L Q R E D G S F G E T I A G G R D M R Y C Y I A S M I R W L G W V E D I  
L R R L Q R E D G S F G M Y I G G Y D M R Y C Y I A S A R W L G W V E D I  
I M N L K Q P D G S F L V H V N G E V D V R A G Y C V V C I A T M L A S T Q E

UniRef90\_Q7RLX9  
UniRef90\_M3ASF1  
UniRef90\_M3VOL7  
UniRef90\_R9P9W5  
UniRef90\_W9XEX2  
UniRef90\_C3Y267  
UniRef90\_G2WXH1  
UniRef90\_G2WXH1  
UniRef90\_V5FFM1  
UniRef90\_V5FFM1  
UniRef90\_U6LPD4  
UniRef90\_G3YEK1  
UniRef90\_Q8IHP6  
UniRef90\_UPI00046C102C  
UniRef90\_UPI00046C102C  
UniRef90\_G0QPM7  
UniRef90\_M7PEG7  
UniRef90\_W9Z1W9  
UniRef90\_B4FEH5  
UniRef90\_M4CLE4  
UniRef90\_M4CLE4  
UniRef90\_X8JHS4  
UniRef90\_U4L576  
UniRef90\_W1PJ11  
UniRef90\_G1XEM1  
UniRef90\_B8MKE3  
UniRef90\_V6TFE9  
UniRef90\_W6MKJ1  
UniRef90\_T0KGS8  
UniRef90\_UPI0004417259  
UniRef90\_Q0CFT3  
UniRef90\_F0XQZ3  
UniRef90\_UPI000449B67  
UniRef90\_W3XPE2  
UniRef90\_D8PZ66  
UniRef90\_N1JBI0  
UniRef90\_W9X407  
UniRef90\_A6R3F3  
UniRef90\_D6WCZ2  
UniRef90\_A0A010R7U7  
UniRef90\_A0A059LNY6  
UniRef90\_G3SJP4  
UniRef90\_W4K8G6  
UniRef90\_G7E8R0  
UniRef90\_U6K901  
UniRef90\_U6K901  
UniRef90\_A6RAV5  
UniRef90\_L1JSB9  
UniRef90\_G4VIK5  
UniRef90\_A1CE61  
UniRef90\_A0A024JLE0  
UniRef90\_E2LPX8  
UniRef90\_M5G2M5  
UniRef90\_M5G2M5  
UniRef90\_C5FY08  
UniRef90\_D4B5I8  
UniRef90\_J6F9A3  
UniRef90\_UPI0003F4946F  
UniRef90\_Q4N428  
UniRef90\_R9AAS4  
UniRef90\_R8BJN0  
UniRef90\_D4D7Y7  
UniRef90\_G3SB84  
UniRef90\_E4X9S2  
UniRef90\_F4PHZ3  
UniRef90\_W1QID6  
UniRef90\_B8LDH3  
UniRef90\_Q4WND8  
UniRef90\_F0Z6P9  
UniRef90\_F6RFP1  
UniRef90\_C4R8Y5  
UniRef90\_G2QKJ4  
UniRef90\_L7HUP4  
UniRef90\_W4XMR6  
UniRef90\_M770P3  
UniRef90\_U1M9Z7  
UniRef90\_U1M9Z7  
UniRef90\_T0MDK2  
UniRef90\_B2AML4  
UniRef90\_E4X1T4  
UniRef90\_M0ZIE9  
UniRef90\_I4Y5T5  
UniRef90\_Q4UFE5  
UniRef90\_Q4UFE5  
UniRef90\_Q55DA3  
UniRef90\_W5Q326  
UniRef90\_W5Q326  
UniRef90\_F2SGB1  
UniRef90\_K9FVH9  
UniRef90\_J3PA59  
UniRef90\_G0RXXR8  
UniRef90\_I2FSD1

I K K N V F Y Y L 210  
D I D A A L V R N C I  
N T E A A A V R N Y L  
D A E A A R G Y L  
D E A G L Q R Y I  
D V I D K V V S I  
S S L E E N K H F V  
S L I E E N K H F V  
E F E S L V Q W L V  
E F E S L V Q W L V  
E A A A A V G F V  
D V I D K L A A F V  
V K K N V E K Y I  
F S E K E L N R I  
F S E K E L N R I  
L I D G C L A R F I  
H I L E S L L K Y I  
D E T K L Q Q F Y I  
D V I D K V A D Y V  
D K D A V A K W V  
D K D A V A K W V  
D V I P G A L S F I  
E V E K L V G Y I  
N K I K A K D Y I  
D V D Q A K V R Y I  
D V D A K L V S F V  
N I N E M L S K F T  
D V D A M V G H I  
D V D R A V A Y I  
D V D A L V A Y I  
D V D A L V R Y I  
N V D K F V F H I  
D V D A A V A Y I  
D V E M L L R H I  
D E L G L R R Y I  
D I G R L T S H I  
D I D R T V D F I  
D V D G L V R H I  
D L P K A V E F V  
D M K K A I S Y I  
D V D R A L A F V  
D R D S L V H Y I  
P S A K T A A W R  
P S A K T A A W R  
I K S S A L N T M A L S Y T T C S G S H W V I G G C W P L V Q A A V N G I Q S T S  
D R E R S A S H I L S C C Q T Y E G G F G L A P G L E A H G G S T Y C C A I A S L L A S L K S  
N C E N V A D F I A K C C Q T Y E G G F A N L P Y L E A H A G A T Y C C A V A S L L A S L T S  
D V I D K L V E F I K A C C Q T Y D G G M S E A P F C E S H A G L T Y C C A V A S L L T S  
L V A G T P E F I A S C C Q T Y E G G F A S A S H P E A H G Y T F C C A V A S L W V  
E R D R T V R W L V H R Q R G G F Q G R I E K E Q D A C Y S F W C G A A L T T S  
E R D R T V R W L V H R Q R G G F Q G R I E K E Q D A C Y S F W C G A A L T T S  
N A K R L I D Y V Q A C C Q T Y E G G F A E S P F N E S N A G L T Y C C A G G T L S  
P L D A P A R K A G L T L F T T G L P E Y L A R C T S L S L S L T L S L  
N K Q K A G R Y L R R C C Q T W E G G F A S R P G V E A Q G G M T Y C C A I S S L L A S L  
D I T S A Q R L I R R C R T W E G G Y A S K P G I E A Q G G T T Y C C A I A S L L A S L  
L T E N T L E Y I I S C C Q T Y E G G L S S E P Y L I E A H A G Y T Y C C L A C I A  
H I P T A L I A Y I H A C C R S Y D G S V A Q M S N G H E G Q G G T T Y C C A I A S L L E S  
D V D A L V S H I R R G Q T Y D G G V A E G S Q H E S H A G Y G Y C C A V A L A L S  
D T E K A V T Y I Q S C A N F D G G Y G V R P G A E S H A G Q T F T C C A V G A L A  
D M K K A I S Y I K R S M S Y D N G L A Q G A G L E S H G G S T F C C G I A S L L C  
D I D N A V S Y I I S C C Q S P D T S F G Q V P G S E G H G A L T F C C A I A S L K  
D I D L A L Q Y I R S S F G Y E F A F G Q Q P L Q E A H G G S T Y C C A I A A L S  
D S G R L L Q Y V R S T L A F D G G L S M S T G G N E A H A G L T Y C C G L A A L K R  
L S P A I P R Y I A S C C Q T Y E G G F G A E P G N E A H G G Y S F C C A I A A L R T  
N V D R L V E F I Q A C C Q T Y D G G M S E A P F R E A S H S G L T Y C C A I A G A L T T  
D K E S A L K Y I L S C C L S Y E G G A F G Q T P K Q E A H G G P T Y C C A I A S L T T  
L F E G T A E W I A R C C Q N W E G G I G G V P G M E A H G G Y T F C C G L A S L V  
N V E K L K D H I M Q C C L N Y N G G L G G S P N E E S H A G L T F C C G L A S L K  
D T Q A L T R Y I L G S Q T Y D G G F A G S S Q M E S H A G Y A Y C C A I A A L S  
D V E A L V R H I R A G Q T F D G G V A E S S M H E S H A G Y A Y C C A I S A L L S  
D V A G L L R W L M R Q M R F E G G F Q G R T N K L V D G C Y S F W Q A G V F P  
D V A K L V A H L R R S Q G F D G G L A E S S M H E S H A G Y A Y C A V A J A L S  
S V E R L E R W A L F K Q T E G F H G R T N K P D D T C Y G F W I G A T L K  
S V E R L E R W A L F K Q T E G F H G R T N K P D D T C Y G F W I G A T L K  
N V K K C L T S Y I L S C Y N L D G G F G L E K N D E S H C A F T F C C A I S L R S  
D K E R L T S Y I L S C Q T Y D G G F A G S S Q M E S H A G Y A Y C C A I S A L S  
L F E R T P E Y L A R C C Q S W D G G F G P N P G A E S H G G F T F T S L A L A  
L T H G V G N Y I L S C C Q T Y E G G L A G E P G S E A H G  
D I P Q T I A Y I L K R C R T Y D G G S Y S Q T P N G E G Q G G T T Y C A L A S L E  
D L K R A Y D W C I N R L T A Q F G F Q G R P H K L V D S C Y S F W V G A S L L  
D L K R A Y D W C I N R L T A Q F G F Q G R P H K L V D S C Y S F W V G A S L L  
N K E S A I D Y I K S C L S Y E F A F G Q T P Q Q E A H G G P T Y C C A I A S L L  
D I N K V V E Y V Q S L Q K E D G S F A G D I W G E I D T R F S F C C A V A T L A  
D I N K V V E Y V Q S L Q K E D G S F A G D I W G E I D T R F S F C C A V A T L A  
N K D G S T A Y I Q S C A N F D G G Y G V R P G A E S H A G Q T F T C C V A G A L A  
L T S G L P E Y I L S R C C Q T F E G G I S G S P G S E A H A G A Y A F C A L A C L S  
D V E A L A R Y I L R Q A Q T F D G G V A E S S M H E S H A G Y A Y C C A I S G L S  
D I D G L R S Y I L R Q T Q T Y D G G F A G S S Q M E S H A G Y A F C A I A A L S  
L L S G T S S F I A S C C Q T Y E G G I A A A P L G E A H G G Y T Y C A A A S Y L

220  
230  
240

UniRef90\_Q7RLX9 Y N N F L G F L D K K K L H S Y I L Q 260 L L K C K D G S F R L H K D G E L D M R G  
UniRef90\_M3ASF1 F V N R R L Q T P D P N M T I R W L V E R R Q T P Q E A G M N G R M N K A A D T V C C Y  
UniRef90\_M3VOL7 L L N R L D V L D K E K D L A W W L C E R R Q T V T G G G F N Q G R P A K K L P D V C C Y  
UniRef90\_R9P9W5 L L Q Q E A V W E R D R K E D E A L S W L V H R E R Q V J A P S G G G F A G G R P A K K L P D V C C Y  
UniRef90\_W9XEX2 F L J A L L Q K V D T S I C T R W M L D R Q T T W I A G F F C G R C G K K L A D T T C C Y  
UniRef90\_C3Y267 L M N R V Q E A F S D R Q L D G L R W C L F R Q Q S G G F F A Q G R P P G K P T D T C C Y  
UniRef90\_G2WXH1 A T G L I A N A P S R N F L L S K T Q H I I G G F F A K Y P P G G P P D V H H H  
UniRef90\_G2WXH1 A T G L I A N A P S R N F L L S K T Q H I I G G F F A K Y P P G G P P D V H H H  
UniRef90\_V5FFM1 M M D R L H L V D S A G I R N Y L L E K T Q H I V G G F F G K T V G G E P P D L L H  
UniRef90\_V5FFM1 M M D R L H L V D S A G I R N Y L L E K T Q H I V G G F F G K T V G G E P P D L L H  
UniRef90\_U6LPD4 L C G G L W A V D R Q R T A Q W L L N R Q T T S G G G F F N G R P E K A P D V C C Y  
UniRef90\_G3YEK1 V L S P G A N E F E S L V R W L V A R Q T T E L G G F F M G R C N K F A D T C C Y  
UniRef90\_Q8IHP6 I L G K V N K I N L K N L T H W L M A N K Q S N T I E L G G F F M G R T N K K L V D S C C Y  
UniRef90\_UPI00046C102C L L K I F Q Y T N F E K N R N Y I L S T Q D R L V G G F F A K W P D S H P D A L H  
UniRef90\_UPI00046C102C L L K L F Q Y T N F E K N R N Y I L S T Q D R L V G G F F A K W P D S H P D A L H  
UniRef90\_G0QPM7 I L G Q E H K V N K I N L K N L T H W L M A N K Q S N T I E L G G F F M G R T N K K L V D S C C Y  
UniRef90\_M7PEG7 I N K K L S S L C L E K T I N W L L K K Q I D D Y G G F S G R T N K S S D T T C C Y  
UniRef90\_W9Z1W9 F L G L L H S H L D R V P S C V C W M L D R Q T T W I A G F F C G R C G K K M A D T C C Y  
UniRef90\_B4FEH5 I T G S L H H I L D R V D S A G I R N Y L L E K T Q H I V G G F F G K T V G G E P P D L L H  
UniRef90\_M4CLE4 V I G H L S T I D S E L L L S L K N L Q Q D D G S F M P T H T G G E T D L R F R  
UniRef90\_M4CLE4 V I G H L S T I D S E L L L S L K N L Q Q D D G S F M P T H T G G E T D L R F R  
UniRef90\_X8JHS4 L C P G L N H K D K K T I R W L S H H Q T T G F C G R T G K T P D S C C Y  
UniRef90\_U4L576 L L G H L E D S N Y D D L V R W L V Q R Q V P F E G G F H G R C N K K A D T T C C Y  
UniRef90\_W1PJ1 L M G F I D D L D M Q P V L E W S L Q R Q T A D G G F F Q G R P N K A S D T C C Y  
UniRef90\_G1XEM1 L L Q R P K T E N Y Q S L L R W L V S R Q T S D L G G F F N G R L N K I A D T T C C Y  
UniRef90\_B8MKE3 L L D S L H L T N Q R S L F L L S N R Q C A N G G F F C G R P D K E P A D T T C C Y  
UniRef90\_V6TFE9 L L G K L D L E D W D T V L W L V H R Q I S A D G G F F N G R E N K R A D T T C C Y  
UniRef90\_W6MKJ1 L L D R P P S Q D V I E L L V K F L V Y R Q Q F D Y E F E G F F N G R C N K V A D T T C C Y  
UniRef90\_T0KGS8 L L E R L L E S R E R R A T V R W L A R C Q D G E T G G G F C G R T G K V A D A  
UniRef90\_UPI0004417259 F L G R L E S D R R E S L V R W L V A R Q T T E W A G G F F N G R S N K P A D T T C C Y  
UniRef90\_Q0CFT3 L L D R P Q E P D K P A F I H W L A S R Q H P R Y I G F F N G R S N K P A D T T C C Y  
UniRef90\_F0XQZ3 L A S P L S P S E H A S T L R W L V H T Q D A A S G G F V G R T G K L A D A  
UniRef90\_UPI000449B67 M L D K A G L P N I P A L V H Y L V S R Q F V Y A G G F S G R P N K I P D T T C C Y  
UniRef90\_W3XPE2 L L P P L T A R E R A Q T I R W L V S R Q K S S G G F S G R L N K D P D A T T C C Y  
UniRef90\_D8PZ66 D Y T T Q A L T N I P E T I R W L V S R Q I E Y E G G F S G R C N K L V D T T C C Y  
UniRef90\_N1JB10 F M A R Q A K V D L A S C T R W M L D R Q T T W I A G F F C G R C G K M A D T T C C Y  
UniRef90\_W9X407 F L G A P T A T N F E D L V R W L A W R Q T V H W A G F N G R S N K I A D T T C C Y  
UniRef90\_A6R3F3 L T K Q L H R L S P P Q L E G L K R W L L N R F E N G F T G R P N K P S D T T C C Y  
UniRef90\_D6WCZ2 L L D R P P D P D A S L L V K F L V Y R Q F E Y L E G F F N G R C N K V A D T T C C Y  
UniRef90\_A0A010R7U7 I A G A E T S A D S D V L A W W L C E R Q T A S G G L N G R P E K L H D V C C Y  
UniRef90\_A0A059LNY6 L M G K L E E V F S E K E L N R I K R W C M R S A Q Q N S Y F C G R P N K P V A D T T C C Y  
UniRef90\_W4K8G6 P P P R L P A Q R A K T V R W L V Q K Q S A D G G F F C G R T G K A D A D A C C Y  
UniRef90\_G7E8R0 M A D S L H K I D D P A S L R W S V S R Q Q V E P D A G F F E G R P G K P P D A C C Y  
UniRef90\_U6K901 L L G E L R A A E A G A A V R F V Q Q L M N E D G G F F G W V P G G E S H A A S  
UniRef90\_U6K901 L L G E L R A A E A G A A V R F V Q Q L M N E D G G F F G W V P G G E S H A A S  
UniRef90\_A6RAV5 Y S G S G S L F H R E G L I R Y I L S C C Q G P H G G L R D K P G K N P D S Y H  
UniRef90\_L1JSB9 L M G Y L D T M D R N V V W C L K R M V S E S G G Y F C G R C N K V S D S C C Y  
UniRef90\_G4VIK5 L I D K L E S V S R N D L L K W L N L Q E E G F H G R V G K P D D T T C C Y  
UniRef90\_A1CE61 F L R R L S S K E F E G L L R W L V S R Q T A E L G G F F N G R C N K D A D T T C C Y  
UniRef90\_A0A024JLE0 L M T P W M C D W N K T V Q W L S H R Q N E D D G G F F N G R L N K P A D T T C C Y  
UniRef90\_E2LPX8 L L Q P V D T I N M R N L V R W L V Q M Q G S Q I L G G F F R G R T N K K L V D G C C Y  
UniRef90\_M5G2M5 L L G C A D F V D R D A N A E F L M R C Q F K L G G F A K A A G E F S D P L H  
UniRef90\_M5G2M5 L L G C C A D F V D R D A N A E F L M R C Q F K L G G F A K A A G E F S D P L H  
UniRef90\_C5FY08 F L G C L Q P E K K E R L I S W L V C C R Q T T F Y A G G F N G R P N K I A D T T C C Y  
UniRef90\_D4B5I8 I L G R Y I D L P S L I S W L S A R Q Y A P E G G F S G R T N K L V D G C C Y  
UniRef90\_J6F9A3 L L G E L N T E L E E A T R W L S Q R Q I G G F F Q G R P G K L E D V C C Y  
UniRef90\_UPI0003F4946F L Y E E M K M V E Q E A T L R W A L Q R Q I G G F F Q G R P G K L E D V C C Y  
UniRef90\_Q4N428 I I N V K N K L D L M K V Y E W C V N R L T P Q F G F Q G R P H K L V D S C C Y  
UniRef90\_R9AAS4 M I S Q L N E E D V S A T L R W L S Q R Q V D F G F Q G R T N K D S D A C C Y  
UniRef90\_R8BJN0 L L D R P Q T P D L V S P A L I R F L V S R Q L A F L E G F N G R C N K V A D T T C C Y  
UniRef90\_D4D7Y7 I V D R L D L V D T D R L G G W L S E R Q L E N G G L N G R P E K K E D  
UniRef90\_G3SB84 L M G K L E V F S E K E L N T K R W C I M S Y H G S G R P N K P V D T T R Y  
UniRef90\_E4X9S2 F F G R L H S R E L R I V R F C V N R Q S E G L H G R P H K P D D T T C C Y  
UniRef90\_F4PHZ3 L L G L L Q S V K R E K L V Q W L V M K Q T S G F S G R T N K D P D T T C C Y  
UniRef90\_W1QID6 L A G E L D L C E W Q P T L D F L V H R Q L H Y N G A F N G R V N K Y G D T C C Y  
UniRef90\_B8LDH3 I L N S V S T I D V I E A L Q S W Q A R Q M G F E G G F C G R T N K L V D T G C C Y  
UniRef90\_Q4WND8 F L C R L P S Q E F E H L L K W L V S R Q T S E W A G F N G R C N K Y A D T T C C Y  
UniRef90\_F0Z6P9 L M G R L D V L E K E Q L L F W A K K Q I T G F S G R T N K D P D T T C C Y  
UniRef90\_F6RFP1 I L K K E C S L N K C L L L Q W V T S R Q M R F E G G F Q G  
UniRef90\_C4R8Y5 L L G A L N P N E W R N T I R W L C H R Q D D N N G G F N G R E N K S A D T T C C Y  
UniRef90\_G2QKJ4 L L D R P L T R D M P G L I H W L A S R Q F V Y H V A C N G R C N K V A D T T C C Y  
UniRef90\_L7HUP4 L L S R P S S V N P Y I L H F L A S R Q F E Y T D G F N G R V N K V A D T T C C Y  
UniRef90\_W4XMR6 L V H S I W M F D Q K A L Q E Y V L L C C Q N N H G G L I D K P G K A R D F Y H  
UniRef90\_M770P3 L L D L A N P P S P L T H F L V S R Q F T Y L D G F N G R L N K A A D T T C C Y  
UniRef90\_U1M9Z7 M L D A Y S L I N R E A L R R F L L S A Q D D V V G G F F G K Y P D S N P D A L H  
UniRef90\_U1M9Z7 M L D A Y S L I N R E A L R R F L L S A Q D D V V G G F F G K Y P D S N P D A L H  
UniRef90\_T0MDK2 S L G Y L D Y I N K R D I S K F I L L S R Q G K N G G F S G R T N K K E D V C C Y  
UniRef90\_B2AML4 L L D R P R I R D L P A L I H W L T S R Q F L Y L E H P N G R T N K V A D T T C C Y  
UniRef90\_E4X1T4 L I N K T S V I N L P L S L V R W L C N R Q K S V E G F D G R A N K L V D S C C Y  
UniRef90\_MOZIE9 L L S S I S H K E S D E T L R W L S Q R Q I H G F Q G R T N K D C D S C C Y  
UniRef90\_I4Y5T5 I I E Q L F K F N E D R K L H E E L V K C Y Q T S K G L R D K P G K P P D L Y H  
UniRef90\_Q4UFE5 I I E Q L F K F N E D R K L H E E L V K C Y Q T S K G L R D K P G K P P D L Y H  
UniRef90\_Q5DA3 L L G R L D V L E K E Q L T F W L V K Q I T G F C G R T N K D P D T T C C Y  
UniRef90\_W5Q326 L L G K L D A I N V I E K A I E F V L S C M N F D G G F G C R P G Q L P D V C C Y  
UniRef90\_W5Q326 L L G K L D A I N V I E K A I E F V L S C M N F D G G F G C R P G Q L P D V C C Y  
UniRef90\_F2SGB1 I V G R L D L V D T D R L G G W L S E R Q L E N G G L N G R P E K K E D V C C Y  
UniRef90\_K9FVH9 I L G P P E E I  
UniRef90\_J3PA59 L L L E R P C G M H V D S L L R F L A S R Q C P E H V G L N G R C N K V A D T T C C Y  
UniRef90\_G0RXR8 L L D R P L T R D L P L L H W L S R Q F V Y L S A L N G R C N K L P A D T T C C Y  
UniRef90\_I2FSD1 A L S L L T W L N R D A L I R W A T A Q Q I P F E G G F R G R T N K L V D G C C Y

UniRef90\_Q7RLX9  
UniRef90\_M3ASF1  
UniRef90\_M3VOL7  
UniRef90\_R9P9W5  
UniRef90\_W9XEX2  
UniRef90\_C3Y267  
UniRef90\_G2WXH1  
UniRef90\_G2WXH1  
UniRef90\_V5FFM1  
UniRef90\_V5FFM1  
UniRef90\_U6LPD4  
UniRef90\_G3YEK1  
UniRef90\_Q8IHP6  
UniRef90\_UPI00046C102C  
UniRef90\_UPI00046C102C  
UniRef90\_G0QPM7  
UniRef90\_M7PEG7  
UniRef90\_W9Z1W9  
UniRef90\_B4FEH5  
UniRef90\_M4CLE4  
UniRef90\_M4CLE4  
UniRef90\_X8JHS4  
UniRef90\_U4L576  
UniRef90\_W1PJ1  
UniRef90\_G1XEM1  
UniRef90\_B8MKE3  
UniRef90\_V6TFE9  
UniRef90\_W6MKJ1  
UniRef90\_T0KGS8  
UniRef90\_UPI0004417259  
UniRef90\_Q0CFT3  
UniRef90\_F0XQZ3  
UniRef90\_UPI0004449B67  
UniRef90\_W3XPE2  
UniRef90\_D8PZ66  
UniRef90\_N1JB10  
UniRef90\_W9X407  
UniRef90\_A6R3F3  
UniRef90\_D6WCZ2  
UniRef90\_A0A010R7U7  
UniRef90\_A0A059LNY6  
UniRef90\_G3SJP4  
UniRef90\_W4K8G6  
UniRef90\_G7E8R0  
UniRef90\_U6K901  
UniRef90\_U6K901  
UniRef90\_A6RAV5  
UniRef90\_L1JSB9  
UniRef90\_G4VIK5  
UniRef90\_A1CE61  
UniRef90\_A0A024JLE0  
UniRef90\_E2LPX8  
UniRef90\_M5G2M5  
UniRef90\_M5G2M5  
UniRef90\_C5FY08  
UniRef90\_D4B5I8  
UniRef90\_J6F9A3  
UniRef90\_UPI0003F4946F  
UniRef90\_Q4N428  
UniRef90\_R9AAS4  
UniRef90\_R8BJN0  
UniRef90\_D4D7Y7  
UniRef90\_G3SB84  
UniRef90\_E4X9S2  
UniRef90\_F4PHZ3  
UniRef90\_W1QID6  
UniRef90\_B8LDH3  
UniRef90\_Q4WND8  
UniRef90\_F0Z6P9  
UniRef90\_F6RFP1  
UniRef90\_C4R8Y5  
UniRef90\_G2QKJ4  
UniRef90\_L7HUP4  
UniRef90\_W4XMR6  
UniRef90\_M770P3  
UniRef90\_U1M9Z7  
UniRef90\_U1M9Z7  
UniRef90\_T0MDK2  
UniRef90\_B2AML4  
UniRef90\_E4X1T4  
UniRef90\_MOZIE9  
UniRef90\_I4Y5T5  
UniRef90\_Q4UFE5  
UniRef90\_Q4UFE5  
UniRef90\_Q55DA3  
UniRef90\_W5Q326  
UniRef90\_W5Q326  
UniRef90\_F2SGB1  
UniRef90\_K9FVH9  
UniRef90\_J3PA59  
UniRef90\_G0RXR8  
UniRef90\_I2FSD1

T Y C A L S V C S M C H L L T K K L K K N V  
A W W A G A S F F M M D Q  
S W W V L T S L I L L G K V D W  
S F W N G A A L A L L Q Q  
C F W N V G A L A I L Q Q  
S F W V I G G T L K L L D  
A Y L G L A A L A T M G D S S L R D F D A G L C V S T E T V D K I R A A R  
A Y L G L A A L A T M G D S S L R D F D A G L C V S T E T V D K I R A A R  
S Y L G L V S L S L L N E P G L E S V D A A L C C A S K R T M Q R L K S L P W W N  
S Y L G L V S L S L L N E P G L E S V D A A L C C A S K R T M Q R L K S L P W W N  
S F W I Y A A L Q V L L  
S F W N L A T L D M M N R L  
S F W M G S I F F L I Y  
A Y F G I C G L S L M E E S G I C K V H P A L N V S  
A Y F G I C G L S L M E E S G I C K V H P A L N V S  
S F W Q G S L F R L I S Q A T N Q A T S Y Q N  
S F W V G A L K C L Q  
C F W N V G A L A I L Q Q  
S W W V L S S L V M I D R V H W  
L Y C A A A I S D M L  
L Y C A A A I S D M L  
S F W C G A S L K I L E A S  
S F W I G G T L S L L K K L  
A F W V G G V L R M L G A D H  
S F W V I G S L D L K K A  
C F W V T G T L G T M N Q L  
S W W I G S P A Y I L L D Y L W D E K C V D N K A K M I F N I D A L L R F I T  
V F W V L G S L V V L  
G N K E V L I D V E S A K V F L D  
C W W V I G G T L Q M L G H V  
D L I D E V P S R R F L M  
C F W C G A S F S R V F F V G V C G G V Q I L G A G A F V D A D R N A A F L L G  
S F W N T A T L A M M G R L Q  
L V D A E R N R R Y L L  
T W W T M G T L A N I L H Q G T I D D R E V I E P S  
R R F L L  
C F W C G A G I E L L G H G  
D V V D R D A L A G F M G  
V D Q A S G K Q F L L  
T W W V A G A L D L L S D A F E G P T R  
H L V D E D A L T S F L N  
A F W V I A S L D L I F R G Q E  
N L V D K L A A R R F L L  
C F W N V G A L A I L R Q  
H L V D S E A M R R Y L L  
S F W V T G T L G I L D R L  
N V V D A E A N R R Y L L  
S F W T G G A L K L L N A Y Q F I E  
E K D N D Q F I T  
C W W V I G G T L Q M L  
G H T D L I D A E P S R R F I T  
S W W C L S A L S T I L K R L H W  
I D G E A L A D F I L  
S F W V G A T L K L L K I F Q Y T  
N F E K N R N Y F V T  
G F W C G A L R V L G A D  
T L V D A R A L A R F V A  
S F W Q T A S L Q I L  
G E D V G D V R A D T A W L L  
A F C C L A A L D L C G G L  
W V V D R Q R T A Q W L L  
A F C C L A A L D L C G G L  
W V V D R Q R T A Q W L L  
T C Y T L A G L S  
G S A H F S D S S A I R R F L C  
S F W I G A S L D I L L  
C H H L V D K N S A V R F V T  
T F W V C A S L K I L N  
S L I D A G R N R H Y L L  
S L W N T G T L V M M D R L  
I I N S K R A E S Y L D  
A F W C A A S L E I L L G T G N S N T  
I I N S K R A E S Y L D  
A W W V I G C F A L L E G L D D G S A H Q D E E V D T D V W N P E A L Q E Y I L  
T Y L S M A A L S I  
S L V D S Q A N R R Y L L  
T Y L S M A A L S I  
D L V N E E P N T A F L L  
C F W V T G S L A M L D R L  
S H W V G G C W P L I Q Q A L S D P T S D S E S E S D C L Y S R E G L T R Y I L  
S F W C G G A L A I L G H S  
D L V N E E P N T A F L L  
S F W I G A T I H I L G H P Q L I D S L S D L S F L L S  
S F W V G S S L I L I E Q L F N Q L D K F Y G Q N D T T F Y N R E L L K C Y L L  
S F W I R G A F N S L K A I S S L P P S F D I F D D A Q D G N F I L L  
C W W V G G A L A I L G H S D L L T P A P A R Q F I L L  
S F W V G A T L K L L K I F Q Y T  
N F E K N R N S I F L  
T F W T C A A L K L L A Q P S I E I S E K  
L D K E R V L N S V I R  
S F W I G A S L D M L G A  
Y H L V D S N L V S S F I L  
A F W C L A A L E L L D I A  
D L V D G E A V K R F L L  
S F W L G G A V A V L D G W F R G S E D N D E D D G E  
P T F D Q M M L Q R Y I L  
S L W N S G T L V M M D R L  
S L I D Q Q R N R R Y L L  
S F W I G A S L T M L N R  
Y D L V D F P S I D A F I T  
S F W V I G S L K L F N M  
E H L I D Q K Q I K Q Y I T  
T W W V G A A L A N I L  
G H K E V L D W A P S R R F L L  
C W W V C G T A E I L R Q M H S S E G V Y V S M A  
Q E S A R R F L M  
T C Y C L S G L S V A Q H F L S V C F C F F V F F I F Y  
L I D R A P A R R F I I  
V W W V S G A L A L L G Q S S G  
L I D R A P A R R F I I  
T Y F S I G A L S L L H Q P S L R V M F P P L N  
T Y F S I G A L S L L H Q P S L R V M F P P L N  
S F W A Y A T L I L L K K D  
Y L I D K V R L T N F I L  
T W W V A A L S N L K Q L  
L G D W A P A R R F L L  
N F W Q G G S F P I V H G L L E Q K H A P K N S  
W L C D S R A L M D Y T F  
S F W C R G A F E S L K K L S N P D D L E  
I F S D E L D G D F L  
T C Y S L S Y F N L I E K N L  
T C Y S L S Y F N L I E K N L  
A F W I G A S L M M I D R  
Y D L I D F A S I N A F I G  
S W W V L A S L K I I G R L H W  
I D R E K L R S F I L  
S W W V L A S L K I I G R L H W  
I D R E K L R S F I L  
S W W V M S A L A M I G R L H W  
I N G D K L A A F I L  
T W W V A G T L D S L R R L P G G G A D V D  
I A R E P A R R F L M  
T W W V G A L R I L  
G H F D L L D A A R A R R F L L  
G W F S G G L



UniRef90\_Q7RLX9  
UniRef90\_M3ASF1  
UniRef90\_M3VOL7  
UniRef90\_R9P9W5  
UniRef90\_W9XEX2  
UniRef90\_C3Y267  
UniRef90\_G2WXH1  
UniRef90\_G2WXH1  
UniRef90\_V5FFM1  
UniRef90\_V5FFM1  
UniRef90\_U6LPD4  
UniRef90\_G3YEK1  
UniRef90\_Q8IHP6  
UniRef90\_UPI00046C102C  
UniRef90\_UPI00046C102C

S C Q N Y E G G F T S E K F Q E S H G G Y T Y C A L A T L C I L G  
G K T Q H P A G G F G K F P G D L P D L Y H S C L G L A A L G M I G  
Q A Q D M E D G G F I A D R P G D C A D I Y H T Y F G L A G L S L M R K Y T D I I  
S A Q S K V G G I A K I P G D H P D L L H T Y L G M A S L A L H R Q S G E E Q A  
G K V T H I I G G F A K S P G E L P D L L H S Y L G L A T L A I Y N E P G  
S T Q D T V V G G F A K W P D S H P D A L H S Y F G V A G L S L L G E E G

UniRef90\_GOQPM7  
UniRef90\_M7PEG7  
UniRef90\_W9Z1W9  
UniRef90\_B4FEH5  
UniRef90\_M4CLE4  
UniRef90\_M4CLE4  
UniRef90\_X8JHS4  
UniRef90\_U4L576  
UniRef90\_W1PJ1  
UniRef90\_G1XEM1  
UniRef90\_B8MKE3  
UniRef90\_V6TFE9  
UniRef90\_W6MKJ1  
UniRef90\_T0KGS8  
UniRef90\_UPI0004417259  
UniRef90\_Q0CFT3  
UniRef90\_F0XQZ3  
UniRef90\_UPI0004449B67  
UniRef90\_W3XPE2  
UniRef90\_D8PZ66  
UniRef90\_N1JB10  
UniRef90\_W9X407  
UniRef90\_A6R3F3  
UniRef90\_D6WC22  
UniRef90\_A0A010R7U7  
UniRef90\_A0A059LNY6  
UniRef90\_G3SJP4  
UniRef90\_W4K8G6  
UniRef90\_G7E8R0  
UniRef90\_U6K901  
UniRef90\_U6K901  
UniRef90\_A6RAV5  
UniRef90\_L1JSB9  
UniRef90\_G4VIK5  
UniRef90\_A1CE61  
UniRef90\_A0A024JLE0  
UniRef90\_E2LPX8  
UniRef90\_M5G2M5  
UniRef90\_M5G2M5  
UniRef90\_C5FY08  
UniRef90\_D4B5I8  
UniRef90\_J6F9A3  
UniRef90\_UPI0003F4946F  
UniRef90\_Q4N428  
UniRef90\_R9AAS4  
UniRef90\_R8BJN0  
UniRef90\_D4D7Y7  
UniRef90\_G3SB84  
UniRef90\_E4X9S2  
UniRef90\_F4PHZ3  
UniRef90\_W1QID6  
UniRef90\_B8LDH3  
UniRef90\_Q4WND8  
UniRef90\_F0Z6P9  
UniRef90\_F6RFP1  
UniRef90\_C4R8Y5  
UniRef90\_G2QKJ4  
UniRef90\_L7HUP4  
UniRef90\_W4XMR6  
UniRef90\_M770P3  
UniRef90\_U1M9Z7  
UniRef90\_U1M9Z7  
UniRef90\_T0MDK2  
UniRef90\_B2AML4  
UniRef90\_E4X1T4  
UniRef90\_M0ZIE9  
UniRef90\_I4Y5T5  
UniRef90\_Q4UFE5  
UniRef90\_Q4UFE5  
UniRef90\_Q5DA3  
UniRef90\_W5Q326  
UniRef90\_W5Q326  
UniRef90\_F2SGB1  
UniRef90\_K9FVH9  
UniRef90\_J3PA59  
UniRef90\_G0R XR8  
UniRef90\_I2FSD1

L A Q D P S T G G F A D R P G D I P D A F H T F F A I A A L G M M H A N R S P S  
G K T Q H I I G G F G K G V I G E P P D L L H S Y F G M V A L A F Q G E E G

L C Q N E E G G L F D K P G K Y P D I Y H T A Y S L S G L S S A Q R T S D E  
N R T H S I I G G F I K S E G E H P D V M H S Y F G L A A L S I F G E K N V Q E  
E H V S H L I G G F G K A P G E M Q D L L H S Y L G L A T L A I Y N E P G L K E  
N C Q D K E N G G I S D R P D N A V D L Y H T Y F G I A G L S L M E Y P G  
N C Q S Y D G G F G L I P G S E S H G G G T Y C A I A S L R L M G F I G A D L  
N C Q S Y D G G F G L I P G S E S H G G G T Y C A I A S L R L M G F I G A D L  
E C Q F Q F G G I A K V P D D R P D P L H S Y L S I A S L A L M R E E G  
E K T R H I I G G F M K L P G G K P D I L H S F L G L A A L A L M R E E G  
T C Q S K F G G F S K H P W D F P D L Y H S Y G V C A F S L G I F R E E G I V P  
E D T A H R I G G F G K W A G A P P D V L H S Y C L G M V S L G I F R E E G I N R  
D K T Q H I I G G F G K S V I G E V P D I Y H S Y C L G M I S L A L I N E P G L E P  
V C I N P K V S G V A D R P E N Y P D E Y H T F F S L A A M S L E N  
H M Q D T L I G G F A K G H G E T P D E Y H S Y L G L A A L A T M G K G L Q S  
S K T Q H L I G G F S K Y P G G P P D I Y H G Y L G L A A L A T M G D S T L  
E C Q F K F G G I A K V P G E H P D P Y H T Y L S L A V I S L L  
E K T Q H I V G G F G K G V I G E P P D L H S Y L G M V S L A F Q G E A G L A S  
E K M Q H V I G G F S K C P G G P P D L Y H S Y L G L A A L A T M G E P S L K S  
R C Q Y K F G G I A K A P G E H P D P Y H T Y L S C A M I A M Y Q N Q N Q A S  
E K T Q H V I G G F A K N A G K P P D V Y H A Y L G L A A L A T M D E Q E A G L  
R C Q F R Y G G I S K A P G E H P D P Y H T Y L G L A A A S M  
K Q T Q H Q I G G F S K M P G D P P D I Y H S Y L G L A A L A L M R E P G  
G K V T H I I G G F A K G P G E L P D L L H S Y L G L A T L A I Y K E P G  
E K T Q H I I G G F G K C V D D P P D L L H S Y L G L A S L G L F G E A G  
L V T Q D R N G G F S K W V N T A P D A M H T Y L G L A G L S F M N E T G I S S  
R K T Q H L I G G F S K Y P G G P P D I Y H G F L G L A A L A I M G D A D L K P  
D C Q D E D G G I S D C P E N M V D V Y H T F F G I A G L S L L D K M  
S T Q D R L V G G F A K W P P V I Q A Y F G I C G L S L M E E S G I C K  
R C Q F R F G G I A K A P G E H P D P Y H T Y L S S A M L A I  
A C Q D E R R G G I A R S P G D Y S G E R G T A L C A Q G  
N R Q T R G G G F N G R P E K A P D V C Y S F W I F A A L Q V L G Y W V D S R  
N R Q T R G G G F N G R P E K A P D V C Y S F W I F A A L Q V L G Y W V D S R  
A Q H H H F H T G I A S A G E A N N P F P S A F S W S H A P V T A S T E  
K C E N K T F G E A T C D P L H T Y L S L C G F S I A G D Q G  
R C W N D V I G A F T K T P D Q F C D P L H T Y L S L S G L S C L C A S D N S T  
D K T Q H I I G G F G K G I G E P P D L L H S F A G L A S L A F Q G E E G L S S  
Q A Q H K L F G G F A K V T G E T P D Q M H S F L G L S A L S L L E E H G L L S  
Y A G Q H P A G G L R D K P P K S A D S Y H T L Y C L A G L S A A Q H K T A P D

E K T Q H M I G G F G K T S G E P P D L L H S Y L G L A S L G L F G E Q G L D A  
N C C Q S Q H G G L R D K P G N V Q H R H V N V N S S T S T S I D A S S G S G S  
N S Q S P L G G F G K A P E D Y P D P F H S Y L A L A T A L A M  
A Q S P L G G F G K D P E A Y P D P Y S Y L A L A I S L S H P D L G L  
V V A Q T G K G F R D K P G K P S D L Y H T C Y S L S Y L N L I D N  
S C L H P L G G I A K Y P D E L P D V L H N C L G L S A L S M A S N R V D Q A  
D K T Q H V I G G F S K Y P G G P P D I Y H G W L G L A A L A T M G D P E L N E  
D P E H G G I A D R P E D M V D V F H T V F G L T G L S L L K Y P G L K E  
S T Q D R L V G G F A K W P H P G A L H A Y F G I C G L S L M  
S C V D E N I G G I K A K N Q Y A D P T H S Y F A L A G L G L I  
G A Q H P A I G G I S K I P D S F P D A L H S Y M S F S G L S I I Q N  
E Q T L S P T G G F C K T P D E L P D P L H S F L G I A A L G I R T P G I A P  
L C A Q D V N G G L R D K P S K P R D F Y H S C Y N L S G L S V S Q H A L L S A  
E K T Q H I I G G F G K G I G E P P D L L H S F A G L V I S L A F Q G E E G L S S  
S A Q H E A I G G I A K E P G T L P D L M H S Y L S I E G L S F G N H P S V I Q Q

V T Q N K F M G G F T K T S E K I S D P L H S S L A L C T L S I L G F P G L A Q  
E K M A H R I G G F S K H P G G P P D V Y H S C F G L A A L A V M G E P G L A E  
D K T Q H L I G G F S K H P G G P P D V Y H A Y F G L S A L A V L G E P G L K  
R A R D F Y H T C Y C L S G L S V A Q H F L A G Q  
E K T Q H L I G G F A K H P G G P P D I Y H A Y L G L A A L A M A G A E G G R E

T C Q S L K G G F S D R P G N E P D P Y H L M F S L A A L S L L N Y N K L S S  
E K M A H R I G G F S K Y P G G P P D V Y H S C F G L T V M S L M G E P G L Q K  
L A C Q S V A G G F A D R P G S H R D Y Y H T C Y A L S G V A A L Q H V F S R H  
L S C S G K L G G I A K Y P N E Y P D V L H N C L G L S A L S M A K S R S S S A

S A Q H E A I G G V A K E P G Q L P D V M H S Y L S L V G L S F G N I P S I Q Q  
A C Q D E E T G G F A D R P G D M V D P F H T L F G I A G L S L L G  
A C Q D E E T G G F A D R P G D M V D P F H T L F G I A G L S L L G  
R C Q D P E H G G I A D R P E D M V D V F H T V F G L T G L S L L K Y P G L K E  
D K T Q H L I G G F S K H P G G P P D V Y H S Y L G L A V L A T M G E P G L K E  
E R T A H T I G G F S K Y P G G P P D V Y H G C F G L A A L G L L S E E W R

UniRef90\_Q7RLX9  
 UniRef90\_M3ASF1  
 UniRef90\_M3VOL7  
 UniRef90\_R9P9W5  
 UniRef90\_W9XEX2  
 UniRef90\_C3Y267  
 UniRef90\_G2WXH1  
 UniRef90\_G2WXH1  
 UniRef90\_V5FFM1  
 UniRef90\_V5FFM1  
 UniRef90\_U6LPD4  
 UniRef90\_G3YEK1  
 UniRef90\_Q8IHP6  
 UniRef90\_UPI00046C102C  
 UniRef90\_UPI00046C102C  
 UniRef90\_G0QPM7  
 UniRef90\_M7PEG7  
 UniRef90\_W9Z1W9  
 UniRef90\_B4FEH5  
 UniRef90\_M4CLE4  
 UniRef90\_M4CLE4  
 UniRef90\_X8JHS4  
 UniRef90\_U4L576  
 UniRef90\_W1PJ1  
 UniRef90\_G1XEM1  
 UniRef90\_B8MKE3  
 UniRef90\_V6TFE9  
 UniRef90\_W6MKJ1  
 UniRef90\_T0KGS8  
 UniRef90\_UPI0004417259  
 UniRef90\_Q0CFT3  
 UniRef90\_F0XQZ3  
 UniRef90\_UPI0004449B67  
 UniRef90\_W3XPE2  
 UniRef90\_D8PZ66  
 UniRef90\_N1JB10  
 UniRef90\_W9X407  
 UniRef90\_A6R3F3  
 UniRef90\_D6WCZ2  
 UniRef90\_A0A010R7U7  
 UniRef90\_A0A059LNY6  
 UniRef90\_G3SJP4  
 UniRef90\_W4K8G6  
 UniRef90\_G7E8R0  
 UniRef90\_U6K901  
 UniRef90\_U6K901  
 UniRef90\_A6RAV5  
 UniRef90\_L1JSB9  
 UniRef90\_G4VIK5  
 UniRef90\_A1CE61  
 UniRef90\_A0A024JLE0  
 UniRef90\_E2LPX8  
 UniRef90\_M5G2M5  
 UniRef90\_M5G2M5  
 UniRef90\_C5FY08  
 UniRef90\_D4B5I8  
 UniRef90\_J6F9A3  
 UniRef90\_UPI0003F4946F  
 UniRef90\_Q4N428  
 UniRef90\_R9AAS4  
 UniRef90\_R8BJN0  
 UniRef90\_D4D7Y7  
 UniRef90\_G3SB84  
 UniRef90\_E4X9S2  
 UniRef90\_F4PHZ3  
 UniRef90\_W1QID6  
 UniRef90\_B8LDH3  
 UniRef90\_Q4WND8  
 UniRef90\_F0Z6P9  
 UniRef90\_F6RFP1  
 UniRef90\_C4R8Y5  
 UniRef90\_G2QKJ4  
 UniRef90\_L7HUP4  
 UniRef90\_W4XMR6  
 UniRef90\_M7T0P3  
 UniRef90\_U1M9Z7  
 UniRef90\_U1M9Z7  
 UniRef90\_T0MDK2  
 UniRef90\_B2AML4  
 UniRef90\_E4X1T4  
 UniRef90\_M0ZIE9  
 UniRef90\_I4Y5T5  
 UniRef90\_Q4UFE5  
 UniRef90\_Q4UFE5  
 UniRef90\_Q55DA3  
 UniRef90\_W5Q326  
 UniRef90\_W5Q326  
 UniRef90\_F2SGB1  
 UniRef90\_K9FVH9  
 UniRef90\_J3PA59  
 UniRef90\_G0RXR8  
 UniRef90\_I2FSD1

V D G I K E V D P A M C I S K T A S A R I  
 G E I D P R F A M P K D V L E F Y H  
 A E A S D D H R G K D T G L K Q L D A A Y N C S L S A K A W I R E H L T R  
 L K E L D P T F C I S K D A V E R L T K  
 L Q P M F P A L N I S Q G A A N S L R S  
  
 L R Q L H P V A A L P V D V A S R L K  
 L D S V D P A L C M S H R A V I Q Q L Q S  
  
 N G Y I L L D G N S D N L V E N I N I V Y N I N Q V K L N F A K N Y F I K K G L  
 I E P A L G I S K S S L Q  
 Y D P T F C F S K E A V E K I Q N F L K K  
 L S N D T S S S I L D P S L V K P L D P A Y A L P L H V V N R I  
 L S N D T S S S I L D P S L  
 Y P P A T G D Q S W L V Q P L V P A L N T E E S T A R W L I T H L R  
 L N R L D P A L C I S M Q A K E R L M  
  
 L C F E L G M P E P  
 V D S A L C T A L Q T R E L  
 A D P T L C T G V S  
 V I T L P G L G K L C P M H P S L A L P I S  
 V D V E L V I  
 K P F D A S L C A T N E T V E K I  
 P P R A P A N A Q G W A G L Q P L D A L L N A K R D T A E W A R K H I P A K P  
 V D P T M C A S H R A V E H L H S L  
 F D P V L C I S S D T V K K I  
 P L I D P S S K S E G W A L A G L D P L L N A R R E T A G W A R E  
 G L F N V R L C I G K E A A N R V  
 Y P T S T T D E T W A F E P F D C L L N A R E E T A K W A R K Y I P A  
 L K A L D P A L C V S L D H R S R I L Q  
 L K A F D P T F C M S V E A V E R  
 I A R V D P T F C T S K R A R R H L E S L P  
  
 V F P D L N M S T A H E H L L S L H  
 F D A S I C A T D A T  
 E L V T I D P I Y A L P T T T V D W L R  
 H L A L N V S T Q T S E R L L D L H  
 A E P A A R G T D A R W A L A P L D P L L N A R Q D T A R W A R E H  
  
 R L S E F I L  
 R L S E F I L  
 Q G Q S S V V F N E E D R L E V V H P L F V I P H R A A E K L R E W C Q K H P L  
  
 T G H D V K S I D S K S E L L T V Y P E L N I P H Q R L K Q I H L Q W S K K  
 V D P A L C A S H R A V I Q H M  
  
 L M P S L V V  
 S A H Q K V L E A L W E P D Q T T E S T L N L R R E V Y T R A L S W  
  
 V D P M L C A S R R V R R H L D S L  
 L D A A F T V Y E A R D R L A A L H P L F V I P H A A V D A I H S W C R A N P I  
 T P A R E Q L G L A E I D P V W N L A P E M R D R L L K P V  
 L S L D P R L N V S N D T  
  
 K S L K R I N S T L N V D I E T L D H I K R  
 L D P A M C V S V N T V R K V  
 V D P  
 E E S R I C K V H P T V N V S T R T S E  
  
 V D V T V V L  
 P S V D D E E G D G K N I V G K T D P V I N I R V E R V K L V L S W F A S  
 V D P A L C A S H R A A R H M  
  
 I L P A L G L  
  
 L F D S A L A V P V A T V R V I  
 P F D V G L C V S K D T I A K I  
 L R E D D V A G D P K N E L  
 G E G D E E K K G S E D G L G R F D P R L C V G A E A A D R I R R  
  
 I D P G L A F  
 L D G G L A V  
 G Q T T I C P E P E E N C L S M I N P L H N V R P I A V I D I Y D Y F A A R  
 T T L K S I N S T I N I E I T A L E W L K S R I N Q L  
  
 V I P C L N L  
 E E Q I K P V S P V F C M P E E V L R R  
 E E Q I K P V S P V F C M P E E V L R R  
 V D P  
 F D E S L C V S S Q T V T S I  
 A R D G L A E V D A A L A V P V G T V R

UniRef90\_Q7RLX9  
UniRef90\_M3ASF1  
UniRef90\_M3V0L7  
UniRef90\_R9P9W5  
UniRef90\_W9XEX2  
UniRef90\_C3Y267  
UniRef90\_G2WXH1  
UniRef90\_G2WXH1  
UniRef90\_V5FFM1  
UniRef90\_V5FFM1  
UniRef90\_U6LPD4  
UniRef90\_G3YEK1  
UniRef90\_Q8IHP6  
UniRef90\_UPI00046C102C  
UniRef90\_UPI00046C102C  
UniRef90\_G0QPM7  
UniRef90\_M7PEG7  
UniRef90\_W9Z1W9  
UniRef90\_B4FEH5  
UniRef90\_M4CLE4  
UniRef90\_M4CLE4  
UniRef90\_X8JHS4  
UniRef90\_U4L576  
UniRef90\_W1PJ11  
UniRef90\_G1XEM1  
UniRef90\_B8MKE3  
UniRef90\_V6TFE9  
UniRef90\_W6MKJ1  
UniRef90\_T0KGS8  
UniRef90\_UPI0004417259  
UniRef90\_Q0CFT3  
UniRef90\_F0XQZ3  
UniRef90\_UPI0004449B67  
UniRef90\_W3XPE2  
UniRef90\_D8PZ66  
UniRef90\_N1JB10  
UniRef90\_W9X407  
UniRef90\_A6R3F3  
UniRef90\_D6WCZ2  
UniRef90\_A0A010R7U7  
UniRef90\_A0A059LNY6  
UniRef90\_G3SJP4  
UniRef90\_W4K8G6  
UniRef90\_G7E8R0  
UniRef90\_U6K901  
UniRef90\_U6K901  
UniRef90\_A6RAV5  
UniRef90\_L1JSB9  
UniRef90\_G4VIK5  
UniRef90\_A1CE61  
UniRef90\_A0A024JLE0  
UniRef90\_E2LPX8  
UniRef90\_M5G2M5  
UniRef90\_M5G2M5  
UniRef90\_C5FY08  
UniRef90\_D4B5I8  
UniRef90\_J6F9A3  
UniRef90\_UPI0003F4946F  
UniRef90\_Q4N428  
UniRef90\_R9AAS4  
UniRef90\_R8BJN0  
UniRef90\_D4D7Y7  
UniRef90\_G3SB84  
UniRef90\_E4X9S2  
UniRef90\_F4PHZ3  
UniRef90\_W1QID6  
UniRef90\_B8LDH3  
UniRef90\_Q4WND8  
UniRef90\_F0Z6P9  
UniRef90\_F6RFP1  
UniRef90\_C4R8Y5  
UniRef90\_G2QKJ4  
UniRef90\_L7HUP4  
UniRef90\_W4XMR6  
UniRef90\_M7T0P3  
UniRef90\_U1M9Z7  
UniRef90\_U1M9Z7  
UniRef90\_T0MDK2  
UniRef90\_B2AML4  
UniRef90\_E4X1T4  
UniRef90\_M0ZIE9  
UniRef90\_I4Y5T5  
UniRef90\_Q4UFE5  
UniRef90\_Q4UFE5  
UniRef90\_Q55DA3  
UniRef90\_W5Q326  
UniRef90\_W5Q326  
UniRef90\_F2SGB1  
UniRef90\_K9FVH9  
UniRef90\_J3PA59  
UniRef90\_G0RXR8  
UniRef90\_I2FSD1

P

1

10

20

30

40

UniRef90\_B2VZI9  
 UniRef90\_B7PHM6  
 UniRef90\_B7PHM6  
 UniRef90\_E3MMV2  
 UniRef90\_E3MMV2  
 UniRef90\_A2DHP4  
 UniRef90\_C0P614  
 UniRef90\_E6ZSC0  
 UniRef90\_A0A024TME4  
 UniRef90\_L8GR14  
 UniRef90\_W9XMJ8  
 UniRef90\_W9XMJ8  
 UniRef90\_E4ZG70  
 UniRef90\_Q6C6I4  
 UniRef90\_B8LDD8  
 UniRef90\_S7W6Y6  
 UniRef90\_E1G4G9  
 UniRef90\_E1G4G9  
 UniRef90\_J3QC69  
 UniRef90\_D2W497  
 UniRef90\_D2W497  
 UniRef90\_D2W497  
 UniRef90\_B6K347  
 UniRef90\_S9RDK8  
 UniRef90\_S9RDK8  
 UniRef90\_G3JL49  
 UniRef90\_F2SX40  
 UniRef90\_K0KKW5  
 UniRef90\_W5CXY4  
 UniRef90\_W5CXY4  
 UniRef90\_G4TB88  
 UniRef90\_G4TB88  
 UniRef90\_E5STR3  
 UniRef90\_J9VKJ2  
 UniRef90\_M3HM46  
 UniRef90\_M7BYM6  
 UniRef90\_U6KMW7  
 UniRef90\_U6KMW7  
 UniRef90\_U7PJ43  
 UniRef90\_E4UWH0  
 UniRef90\_M2LBW9  
 UniRef90\_C4Y3S7  
 UniRef90\_N1RNR7  
 UniRef90\_V5E9Y8  
 UniRef90\_V5E9Y8  
 UniRef90\_I3ELS1  
 UniRef90\_C5M3A4  
 UniRef90\_C9ZRR5  
 UniRef90\_C9ZRR5  
 UniRef90\_K0R1X6  
 UniRef90\_F4R634  
 UniRef90\_T1GKK2  
 UniRef90\_T1GKK2  
 UniRef90\_Q6CNY9  
 UniRef90\_S3BUL7  
 UniRef90\_UPI000273D2FF  
 UniRef90\_H2YT28  
 UniRef90\_H2YT28  
 UniRef90\_S9W0U7  
 UniRef90\_C5GFZ9  
 UniRef90\_G8ZYY4  
 UniRef90\_C5DPD6  
 UniRef90\_H6BNI3  
 UniRef90\_C1G9H6  
 UniRef90\_J4KPV1  
 UniRef90\_A8Q967  
 UniRef90\_G9N5X3  
 UniRef90\_F4PAR5  
 UniRef90\_F4PAR5  
 UniRef90\_S6F3S0  
 UniRef90\_A7TJI0  
 UniRef90\_L7JX00  
 UniRef90\_L7JX00  
 UniRef90\_UPI0004561748  
 UniRef90\_C5KEG4  
 UniRef90\_C5KEG4  
 UniRef90\_A0A058ZCNO  
 UniRef90\_M0ZIF1  
 UniRef90\_F9XFT5  
 UniRef90\_W6KU39  
 UniRef90\_W2SYV5  
 UniRef90\_W2SYV5  
 UniRef90\_W2SYV5  
 UniRef90\_G7YXC9  
 UniRef90\_UPI0001F29D8F  
 UniRef90\_UPI0001F29D8F  
 UniRef90\_R1EKI0  
 UniRef90\_R1EKI0  
 UniRef90\_Q74Z22  
 UniRef90\_UPI0003D70CDC  
 UniRef90\_UPI0003D70CDC  
 UniRef90\_Q6FV33

D N V F T Q T S D D Q L E T E E A I N A L F S  
 P T S A K S L P T D N W P T S T T R L Q H E T E S L C L J E Q L Q

I P A L F A T Q P P L L D Q L Q T D T S R S Q A E V V G R C V P F L R

Y N D E G V S T Q S S V D A M N L N A T I K

F R

UniRef90\_B2VZ19  
UniRef90\_B7PHM6  
UniRef90\_B7PHM6  
UniRef90\_E3MMV2  
UniRef90\_E3MMV2  
UniRef90\_A2DHP4  
UniRef90\_C0P614  
UniRef90\_E6ZSC0  
UniRef90\_A0A024TME4  
UniRef90\_L8GR14  
UniRef90\_W9XMJ8  
UniRef90\_W9XMJ8  
UniRef90\_E4ZG70  
UniRef90\_Q6C614  
UniRef90\_B8LDD8  
UniRef90\_S7W6Y6  
UniRef90\_E1G4G9  
UniRef90\_E1G4G9  
UniRef90\_J3QC69  
UniRef90\_D2W497  
UniRef90\_D2W497  
UniRef90\_D2W497  
UniRef90\_B6K347  
UniRef90\_S9RDK8  
UniRef90\_S9RDK8  
UniRef90\_G3JL49  
UniRef90\_F2SX40  
UniRef90\_K0KKW5  
UniRef90\_W5CXY4  
UniRef90\_W5CXY4  
UniRef90\_G4TB88  
UniRef90\_G4TB88  
UniRef90\_E5STR3  
UniRef90\_J9VKJ2  
UniRef90\_M3HM46  
UniRef90\_M7BYM6  
UniRef90\_U6KMW7  
UniRef90\_U6KMW7  
UniRef90\_U7PJ43  
UniRef90\_E4UWH0  
UniRef90\_M2LBW9  
UniRef90\_C4Y3S7  
UniRef90\_N1RNR7  
UniRef90\_V5E9Y8  
UniRef90\_V5E9Y8  
UniRef90\_I3ELS1  
UniRef90\_C5M3A4  
UniRef90\_C9ZRR5  
UniRef90\_C9ZRR5  
UniRef90\_K0R1X6  
UniRef90\_F4R634  
UniRef90\_T1GKK2  
UniRef90\_T1GKK2  
UniRef90\_Q6CNY9  
UniRef90\_S3BUL7  
UniRef90\_UPI000273D2FF  
UniRef90\_H2YT28  
UniRef90\_H2YT28  
UniRef90\_S9W0U7  
UniRef90\_C5GFZ9  
UniRef90\_G8ZYY4  
UniRef90\_C5DPD6  
UniRef90\_H6BNi3  
UniRef90\_C1G9H6  
UniRef90\_J4KPV1  
UniRef90\_A8Q967  
UniRef90\_G9N5X3  
UniRef90\_F4PAR5  
UniRef90\_F4PAR5  
UniRef90\_S6F3S0  
UniRef90\_A7TJi0  
UniRef90\_L7JX00  
UniRef90\_L7JX00  
UniRef90\_UPI0004561748  
UniRef90\_C5KEG4  
UniRef90\_C5KEG4  
UniRef90\_A0A058ZCNO  
UniRef90\_MOZIF1  
UniRef90\_F9XFT5  
UniRef90\_W6KU39  
UniRef90\_W2SYV5  
UniRef90\_W2SYV5  
UniRef90\_W2SYV5  
UniRef90\_G7YXC9  
UniRef90\_UPI0001F29D8F  
UniRef90\_UPI0001F29D8F  
UniRef90\_R1EKi0  
UniRef90\_R1EKi0  
UniRef90\_Q74Z22  
UniRef90\_UPI0003D70CDC  
UniRef90\_UPI0003D70CDC  
UniRef90\_Q6FV33

50 Q F N H A R H V K Y W R R N L K T L P H F Y T S N D S N R 80  
H E F D S G H  
H E F D S G H  
Y D E A N  
Y D E A N  
E S F E

R L R P A R F D P T L L L E R Q A H V N F L T K M L E P L P G A Y T A F D T N R  
A A G F L N D R F E V R L L R E K H V P Y L V R G L E Y L P P G F A S M D A S R  
R Y L K S C L S L L P R P Y E S Q D S V R  
A D D  
A D D  
A G P F E T Q L H Y A R H I K F W R R N L K T L P H F Y T S N D A N R  
E K T K H T K Y F S R C L F L L P A Q A T S Y D G N R  
K F E R L R H I R Y F T H S L Q N L P S Q Y S S A D T N R  
F Y K E K I K S Y I L K C N E G K E D L S I K K E F Y K  
L A K S G T S T T S N Y F L Y D S A H  
L A K S G T S T T S N Y F L Y D S A H

P E L Q V K K H I A Y F K R N L M M F P Q P Y Q E M D S E R  
D K Q A V E Q F L S L C Q L P G G H F K S T A S D  
D K Q A V E Q F L S L C Q L P G G H F K S T A S D  
E S P S L D V D R H I K Y W K R C H G T L P A P Y T S N D S T R  
G E E P L N G H G V Q S L A R E L H V E Y L L D A L G E Y P G R F V G L D A S R  
E L L V K K H V K Y F Q M C L N V L P S R L Q K E D S N K

H P H Q A T F K R N A H V N Y F V R C L T A L P T A A E G H D S N R  
L L T E K H G K F F N R C L I G L P S A A Q S E D S N K

D P P L D N T R H L R Y W Q R C L R T L P Y Q Y T A N D S T R  
M A L R K D R Q L K Y F L R C L K T L P H P Y T S N D S S R  
N E D A A Q E P D L D K A R H V K Y W T R C L K T L P H H Y T S N D S N R  
M S L L F E K H A K Y F E L C S H S L P S K A Q S E D A N K  
S P S F N K S Q H I K Y W K T C L N S L P T D Y T S T D S M R

N K K P T L L D K D R H L K Y I I K Q M N K P L N I A Y S A L I P W  
L I N K H E K F F N R C L L G L P A S A Q S E D S N K  
H  
H  
E T S N T T D D F H F L I K A H I R Y S L R C L R L L P S P Y E S D D N N R

N V A K H I K F C Q R H L Q L L P S H R L D L D P N R  
M D L D A K K H T R Y W Q R C L R S L P H Q Y T A N D S T R  
E R L D F L R D R H V R F F Q R C L Q V L P E R Y S S L E T S R  
Y D C S H  
Y D C S H  
M Q L T V S K H V A F F Q R H L I L L P N P Y E E H D S E R  
L R K D R Q I K Y F L R C L K T L P H Q Y T S N D S S R  
Q L D N R K H V K F L K R H L E L L P S S H Q E H D P N K  
L E S T K H V K F L K R H L L M L P S S Q Q S H D V N R  
S R Y R L D R D R H I K Y W K R C A Q L L P E P Y T S G D S N R  
N P A E S A V L R K D R Q V K Y F I R C L K T L P H Q Y T S N D S S R  
L D V E R H I K Y W K R C H G S L P A P Y T A N D S T R

N P D A E E P K L D K A R H V K Y W Q R C H N T L P T P Y T S N D S T R  
H S G D I S H  
H S G D I S H  
N L E L N R E K H L K F L K R H L L I L P S A Q Q G N D V N K  
K L K K E K H W K F L K R H L N L L P S S H Q K Q D P N R

H D A P A P L P P L N R Q A H L N F L I K Q I D P L P A S F V G F D T N R

L G V E K H R K Y F D K C L G P I P H Y F A T L E P S R  
H  
L E E E P K L D K A R H I K Y W L R C L K T L P H H Y T G N E S N R  
T S S D D T N S M E T K F F R S A H I G Y V K R Q L Q D L P S G V Q G L Y P S R  
R C S Q K E D G S F W S E G Y S D  
R C S Q K E D G S F W S E G Y S D  
R C S Q K E D G S F W S E G Y S D  
G F Y V N C F L G P P G F T V A A H I H F H L T F A N S L R Q A M F R T G

M E L L V K K H V K F M E R H I G L L P S S Q E K N D A N R

K K K H V K Y I E R H L Q L L P A K Y E D N D V N K

UniRef90\_B2VZ19  
UniRef90\_B7PHM6  
UniRef90\_B7PHM6  
UniRef90\_E3MMV2  
UniRef90\_E3MMV2  
UniRef90\_A2DHP4  
UniRef90\_C0P614  
UniRef90\_E6ZSC0  
UniRef90\_A0A024TME4  
UniRef90\_L8GR14  
UniRef90\_W9XMJ8  
UniRef90\_W9XMJ8  
UniRef90\_E4ZG70  
UniRef90\_Q6C614  
UniRef90\_B8LDD8  
UniRef90\_S7W6Y6  
UniRef90\_E1G4G9  
UniRef90\_E1G4G9  
UniRef90\_J3QC69  
UniRef90\_D2W497  
UniRef90\_D2W497  
UniRef90\_D2W497  
UniRef90\_B6K347  
UniRef90\_S9RDK8  
UniRef90\_S9RDK8  
UniRef90\_G3JL49  
UniRef90\_F2SX40  
UniRef90\_K0KKW5  
UniRef90\_W5CX4  
UniRef90\_W5CX4  
UniRef90\_G4TB88  
UniRef90\_G4TB88  
UniRef90\_E5STR3  
UniRef90\_J9VKJ2  
UniRef90\_M3HM46  
UniRef90\_M7BYM6  
UniRef90\_U6KMW7  
UniRef90\_U6KMW7  
UniRef90\_U7PJ43  
UniRef90\_E4UWH0  
UniRef90\_M2LBW9  
UniRef90\_C4Y3S7  
UniRef90\_N1RNR7  
UniRef90\_V5E9Y8  
UniRef90\_V5E9Y8  
UniRef90\_I3ELS1  
UniRef90\_C5M3A4  
UniRef90\_C9ZRR5  
UniRef90\_C9ZRR5  
UniRef90\_K0R1X6  
UniRef90\_F4R634  
UniRef90\_T1GKK2  
UniRef90\_T1GKK2  
UniRef90\_Q6CNY9  
UniRef90\_S3BUL7  
UniRef90\_UPI000273D2FF  
UniRef90\_H2YT28  
UniRef90\_H2YT28  
UniRef90\_S9W0U7  
UniRef90\_C5GFZ9  
UniRef90\_G8ZY4  
UniRef90\_C5DPD6  
UniRef90\_H6BNI3  
UniRef90\_C1G9H6  
UniRef90\_J4KPV1  
UniRef90\_A8Q967  
UniRef90\_G9N5X3  
UniRef90\_F4PAR5  
UniRef90\_F4PAR5  
UniRef90\_S6F3S0  
UniRef90\_A7TJ10  
UniRef90\_L7JX00  
UniRef90\_L7JX00  
UniRef90\_UPI0004561748  
UniRef90\_C5KEG4  
UniRef90\_C5KEG4  
UniRef90\_A0A058ZCNO  
UniRef90\_MOZIF1  
UniRef90\_F9XFT5  
UniRef90\_W6KU39  
UniRef90\_W2SYV5  
UniRef90\_W2SYV5  
UniRef90\_W2SYV5  
UniRef90\_G7YXC9  
UniRef90\_UPI0001F29D8F  
UniRef90\_UPI0001F29D8F  
UniRef90\_R1EK10  
UniRef90\_R1EK10  
UniRef90\_Q74Z22  
UniRef90\_UPI0003D70CDC  
UniRef90\_UPI0003D70CDC  
UniRef90\_Q6FV33

90 100 110 120  
M L L A L F T V S A L D I L G D L L S A E E R Q G H I D W V Y S C Q L P E G G F  
I A M T Y T A L L T L V I L L G D D L S R V D K V A L L R A L K A L Q K K T G S F  
I A M T Y T A L L T L V I L L G D D L S R V D R Q A I L R A L K A L Q K K T G S F  
L A Q T Y S A L L S L A I L L G D D L K R V D R Q A I L K T V K N A Q R D N G C F  
L A Q T Y S A L L S L A I L L G D D L K R V D R Q A I L K T V K N A Q R D N G C F  
P W Q P F Y A L L P I I I A N Q E N Q I D L E K F I K N T I K L L K N R E C G W  
  
S W L L Y W I L H S Y D L L S V S L D P K G R A R A I A T L L S F Q N K T G G F  
P W F M Y W I L H S L E L D D D E A D A A F A S R C I N T I Q R C W C S Q G G F  
T T I L Y F V T S S L D V L D D G F L M P D L R A T V I E W L Y A M H A P R W G F  
L R L C L C A V G T M K I L L Q G N E Q E I D A F R L R Q F I T N C Q S H E G G F  
L R L C L C A V G T M K I L L Q G N E Q E I D A F R L R Q F I T N C Q S H E G G F  
M L L A L F T V S A L D I L L G D L L S P E E R Q G H I E W V Y G C Q L P T G G F  
L S I V Y F C L S G L D L L G T L D T D E Q R K E Y I E W I Y K Q V V E S G G F  
L T L V H F C I Q S L D V L G A L P D H H D R E E V E W I Y A L Q Q S T P P T  
I K L M Y F V V T S L K L L C C D E I E K I R E G Y I L N C K N S D G G Y  
I S Q T Y V A L C C L L L L G D D L S R V D R K A V L E G I C Y D Q L S D G S F  
I S Q T Y V A L C C L L L L G D D L S R V D R K A V L E G I C Y D Q L S D G S F  
M N G V Y W G L A S T L L L D R P D G L P R Q E M I N W V M S C W F P Q G G F  
E F A K H A H I D Y I Q H E E K E Q T T F  
E F A K H A H I D Y I Q H E E K E Q T T F  
E F A K H A H I D Y I Q H E E K E Q T T F  
  
M V L G Y F C L L G L D L L K A E I R E Q D K I D W I A W V R S C R V Y Y V G Y  
M R Q L Y L A T T I A T L L L N I S F P H T K L S L Q Y I Q K C Q N Y E G G F  
M R Q L Y L A T T I A T L L L N I S F P H T K L S L Q Y I Q K C Q N Y E G G F  
L T L A C F I I S S L D L L Q S S P L T P P E R A A I R T W V L S L Q H P D G G F  
P W M V Y W A L T G L A L L G E Q V S G F R R R L V A T A A P M Q S G S G G F  
L M I I Y C C I A G L S I L L K Y Q V T I Q E K T D L L N F I Y E H L V D T G G F  
I V G Y D V L N L D S K V L L L S M K K L Q Q P D G S F  
I V G Y D V L N L D S K V L L L S M K K L Q Q P D G S F  
V P S L L V P S H V S Y I Q K L G E S Q D D L  
V P S L L V P S H V S Y I Q K L G E S Q D D L  
L T L L Y F V L S G L D I L D E D S A D E K R K I D W I Y S L Q V P S C G F  
V T I A Y F C L C A L D V L D E K T T E K Q R A E W A E W S L Q V P S G G F  
L A I T Y F C L H G L Q L I N F K F S D V E L Q Y Y R D F I Y N Q F D E F I A F  
F L E K H A D Y I A S Y

MT L G C F S V A A A D V L L T S I I P P A D R K A F R S W V L A C Q H P G G G F  
MT L A Y F T L A G L D L L G A L L D S A A E R T K G Y V N W L Y H C Q V P T G G F  
L Y L A Y F I V S A L D L L G A L L D S A A E R T K G Y V N W L Y R C Q H P N G G F  
L T L V Y F V L H G L G L I G Q L N R I G D T T Q H I A D I Y K Q L I P S Q T F  
V A L G F F I L S S L D L L G D I L S A A K R K S I H D W I L K C Q H P N G G F  
D A I D R T R M Y E W I M S L K Q P D G S F  
D A I D R T R M Y E W I M S L K Q P D G S F  
V G Q F Y D G T H E E V E K L D K I A T Q I I N L Q G S D G T G I  
L A I I Y F C L H G L S L I N F N F S D V E L Q Y H R D F V Y N Q F D E I V A F  
L A T S Y A G V C C S L C I L G C C P L Q A L P R S A I K R W L L S L R C A A G S F  
L A T S Y A G V C C S L C I L G C C P L Q A L P R S A I K R W L L S L R C A A G S F  
L S L V H F C I Q A L D I L L G C C L P G D I D R G P L V E W I Y S L Q T R G G G F  
L T F G F S I G S L S L G D R L N Q E E K D D Y L H W I Y R W D S D S G G F  
M T Y T C L A T L V T L G D D L S R V D K K A V I K G V E A S Q N E N G S F  
M T Y T C L A T L V T L G D D L S R V D K K A V I K G V E A S Q N E N G S F  
L A I A F Y S L T A I E L L G S K P V R K D F Q Y S L D W I R S C Y I E L A D Y  
M L L G C F T V A A L D L L G S S D T D D R R R Y R E W V L S C Y H P G G G F  
L T I A F F A L S G L D M L D S L D V V N K D D I E W I Y S L Q V N R C G F  
I A M T Y T G L A S L L I L G D D L R R V N K H A C L E G I K A L Q L P D G S F  
I A M T Y T G L A S L L I L G D D L R R V N K H A C L E G I K A L Q L P D G S F  
M A L G F F C L L G L D L L N S K V S K E D R E S W I E W I Y R N Y C K Y A G F  
M T L A F F S L A G L D L L D A L D D N K E Y K A N G Y I W I Y H C Q V P S G G F  
M A I I F Y S I M G L A A L K I D V C K E Y K A N L H W L H K H Y D S Q E T I  
I A I I F Y S I V G L S A L G V D C S R E Y A S S I P Y I I P G Y E E V I F S G F  
M S F G F T I V A A L D L L G A L V S T D E R Q G W I E W I Y G C Q V P H G G F  
M T L A F F T I A G L D L L G D N L Q S P S E R K G Y I D W I Y H C Q V P S G G F  
L T L A C F I V S S L D L L R S P L T A K E R A A I R A W V L S L Q H P D G G F  
L I F A F F I T S A L D L L S V P L T A Q E R A A A R A W V L S L Q H P D G G F  
I T M T Y T A L A L L L T L E D D L S R V D R E A T I G S L A R L Q C E D G C F  
I T M T Y T A L A L L L T L E D D L S R V D R E A I I G S L A R L Q C E D G C F  
M A I I F Y S I T A L G A L D A D L P W I C H Y V K V K L P C H S E V I F S A F  
L A L V F Y S I L G L S A L E Y D L P W I R R Y Q K M K L P E S K E Y I S G F

A W L L Y W I L H S Y D L L S A T L D A S G R A R A I A T L V S F Q N T T G G F  
  
M S L V F F L I G G M A I T D S L E S L K A S T A V A D W I Y M M Q V E P T G F  
L A T T Y A A V N S L L T L G K P L S S I N R E K L Y T F L R M K D A S G G F  
M Y L A F F I S S A L D L L G S S T T A S E R S E Y I D W I Y H C Q H P R G G F  
P W L V Y W C L Q A A D F L G I T D Q Q V P A D S M A D F L Y A C V T P I V G F  
M R F V F C A V A I C H I L Q D N S Y I N W T S L K K F V R S S L N Y D G G I  
M R F V F C A V A I C H I L Q D N S Y I N W T S L K K F V R S S L N Y D G G I  
M R F V F C A V A I C H I L Q D N S Y I N W T S L K K F V R S S L N Y D G G I  
L V V L Y F G V G G L A I I K E Q D E P R V K D C I E W I Y S H H I S T Q D G L  
  
L S I V Y Y S L A G I C S L D A D A L S G H R E K A A G S I V Q L Y R Q F G G F  
  
M A I L Y Y S F Q S L S L L G E D I P W I K S H L I T K S A P K Q N Q R I S G F

UniRef90\_B2VZ19 R P W P G D P A H V P G T F F A L L T 140 L V V L G D D L E K V K R T E L L A W  
 UniRef90\_B7PHM6 S A S V G S E D D M R F V Y C A S A I C Y M L G H D W S G M D A D D T L R R F  
 UniRef90\_B7PHM6 S A S V G S E D D M R F V Y C A S A I C Y M L G H D W S G M D A D D T L R R F  
 UniRef90\_E3MMV2 S Q G V G S E S D M R F V F C A V A I C K I L D G E K E E V I N W V K L S E F F  
 UniRef90\_E3MMV2 S Q G V G S E S D M R F V F C A V A I C K I L D G E K E E V I N W V K L S E F F  
 UniRef90\_A2DHP4 G P S N Y E G P E M V P L Y G N L T L L G L L G T E E A Y E L A D R K K F Y Q Y  
 UniRef90\_COP614  
 UniRef90\_E6ZSC0

UniRef90\_A0A024TME4 G G G P D Q I A H L M A T Y A A V S A L A I V G G P G G W D I D R T K M Y E W  
 UniRef90\_L8GR14 G G G L Q L G H L A T T Y A S C L J A L A I I G T A E A Y A I V D R A A I L L S A  
 UniRef90\_W9XMJ8 G Q A P L L E A H S G L N Y C A I A A L S F L G P P E S I Q Q V V A S Q A K L D V  
 UniRef90\_W9XMJ8 G Q A P L L E A H S G L N Y C A I A A L S F L G P P E S I Q Q V V A S Q A K L D V  
 UniRef90\_E4ZG70 R P W P G D P A H V P G T F F A L L T L V L G D D L E R V K R R E I L E W  
 UniRef90\_Q6C614 R G S P Y D P A N L A A T F F G L A C L G I L G D R E I W T R L S R D K I L S Y  
 UniRef90\_B8LDD8 A N H P Y D H S H L A M T Y V A L C T L V A L G N D D L S R L S R S A L L Q T  
 UniRef90\_S7W6Y6 G P C V G Y P S H V F S T F A L L V L R S L N Y N S Y D K N T I E Y  
 UniRef90\_E1G4G9 R G Q Q G T E N D M R F V Y C A I A I C H T L N D F S T I D M K A V L N F  
 UniRef90\_E1G4G9 R G Q Q G T E N D M R F V Y C A I A I C H T L N D F S T I D M K A V L N F  
 UniRef90\_J3QC69 R H P G H D P H S T L S A I Q I L T M Q N A I D V L E K P K V I N D Y  
 UniRef90\_D2W497 E Y C V T E H L R M S G M Y W G L T G M D L M S E S S K M N R E H I L Q F  
 UniRef90\_D2W497 E Y C V T E H L R M S G M Y W G L T G M D L M S E S S K M N R E H I L Q F  
 UniRef90\_D2W497 E Y C V T E H L R M S G M Y W G L T G M D L M S E S S K M N R E H I L Q F  
 UniRef90\_B6K347 R G G P W D E P M L A G T L F A A C N L L F L G D N P R S N T E D M K G I E R F  
 UniRef90\_S9RDK8 S L T P Y A E A H A G A T F C A L A S L K L L V G L D Q T S V T K P Y E F Q D W  
 UniRef90\_S9RDK8 S L T P Y A E A H A G A T F C A L A S L K L L V G L D Q T S V T K P Y E F Q D W  
 UniRef90\_G3JL49 C G S A T H A P T G A S A G D A S A G D A N L D E Q N A F A G V R R K R L L R W  
 UniRef90\_F2SX40 G G G H G Q T A H C A S Y A I T C L S L A M V G G Q E A F T K L I D R L A C W R W  
 UniRef90\_K0KKW5 R G S L T H P P T I A N T Y C A L C L S M I E E D F T E K L D K L Q I M K Y  
 UniRef90\_W5CX4 M P T H I G A E T D L R F V Y C A A A I C S M L K D W S G M D K E K A K E Y  
 UniRef90\_W5CX4 M P T H I G A E T D L R F V Y C A A A I C S M L K D W S G M D K E K A K E Y  
 UniRef90\_G4TB88 A Y H L T S H L R L N A V Y W G L T A L C I M E Q R D A L D R Q Q L L D F  
 UniRef90\_G4TB88 A Y H L T S H L R L N A V Y W G L T A L C I M E Q R D A L D R Q Q L L D F  
 UniRef90\_E5STR3 L P A H V N M G H L V M T Y F A I L C L G I L G D N F E R L D F N L I K K F  
 UniRef90\_J9VKJ2 K G S T Y M D P H L P S T Y T A L L L A L L R A P L D R L N I P G L I Y F  
 UniRef90\_M3HM46 R S T H Y D L P N L S S T L F A L Y I L L I L K S P Y H E K I N R R K V L N F  
 UniRef90\_M7BYM6 G A K K D D Y V G E I D T R F S F C A A A T L A L L G K L D V V D V E K A V E F  
 UniRef90\_U6KMW7  
 UniRef90\_U6KMW7

UniRef90\_U7PJ43 A G S P T H F A T G G P T L G A Q G E A N I A K K E G A F L G V N R N A T L R W  
 UniRef90\_E4UWH0 R G F T G D P A N V P A T F F A L V A L L I L K E D D L A R V R R S E C L A W  
 UniRef90\_M2LBW9 R M F P G D P A N I P A T Y F A L A S L L L L K D D F S R I N R A G T L H W  
 UniRef90\_C4Y3S7 A L D P G H N P N L S A T F F A L A I L L S L K E D Y S K T L D R H K I M R F  
 UniRef90\_N1RNR7 C G S P T H P A N L P A T F F A L L N L N Y V G  
 UniRef90\_V5E9Y8 L V H V N G E V D V R A G Y C V V C I A T L L G I S T P K I F E G M A P F  
 UniRef90\_V5E9Y8 L V H V N G E V D V R A G Y C V V C I A T L L G I S T P K I F E G M A P F  
 UniRef90\_I3ELS1 S A G P G H M P N L G S T Y A G V V L K I L N R L D E I D K A F E V Q F  
 UniRef90\_C5M3A4 R S T H Y D L P N L S S T L F A L Y C L V L K S P Y H Q K I N R R K L L N F  
 UniRef90\_C9ZRR5 R M H I G G E A D I R A S Y C V A V I T T L L Q L Q D S S G D I L R E Q E A Q F  
 UniRef90\_C9ZRR5 R M H I G G E A D I R A S Y C V A V I T T L L Q L Q D S S G D I L R E Q E A Q F  
 UniRef90\_K0R1X6 K G G P Y D H S H L A M T Y V A I C S L R A L G D D L S R V D A E A V L G T  
 UniRef90\_F4R634 T G H P N N Q P H L T H T Y A A L L L A L L S T P Q S Y T A L D V P K L L K F  
 UniRef90\_T1GKK2 S L S A S E E G N E H D M R F T Y C A S I C F I L N D W G K V D K L K M K E Y  
 UniRef90\_T1GKK2 S L S A S E E G N E H D M R F T Y C A S I C F I L N D W G K V D K L K M K E Y  
 UniRef90\_Q6CNY9 S G F Q L T T L N L P N T L F G L T C L M L L G D H E F F D K L N R D T L G K F  
 UniRef90\_S3BUL7 S G S T T P R G V Y S S F D F V A G E P E V G A R G E F F G G V D R N A T L R W  
 UniRef90\_UPI000273D2FF R G H Y D S G H L A M T Y T G L S C L V I L G D D L S R V N K E A C L A G  
 UniRef90\_H2YT28 S S Y D G S E N D M R F I Y C A C C V C T M L D D F S A I N Q A T A T N F  
 UniRef90\_H2YT28 S S Y D G S E N D M R F I Y C A C C V C T M L D D F S A I N Q A T A T N F  
 UniRef90\_S9W0U7 R G F A T Q E P Q L A A T S F A I S N L L L L G D D L S R I D K H A V E Q F  
 UniRef90\_C5GFZ9 R G F P G D P A N V P A T F F A L M A L I V L G D D L L T R V I K R R E C G L S F  
 UniRef90\_G8ZY4 S G F T G S F S M L I S T L F A L I L T C R T L K D E E F F H E I L D P K G V W  
 UniRef90\_C5DPD6 V G S N T S C I S L P N T L F A L L T L R I M K C D E F F Q K V D R E S L G N F  
 UniRef90\_H6BN13 R G W H W N P A N L P A T Y F A L A T L V I L G D D L S R V K V D E C R N W  
 UniRef90\_C1G9H6 R G F P G D P A N V P A T F F A L M T L I L L G D D L L R R V K R R E C L Q W  
 UniRef90\_J4KPV1 C G S A T H A P A G A S A G D A N L A A T F F A L V L L A L A G V G G P Q E E G  
 UniRef90\_A8Q967  
 UniRef90\_G9N5X3 C G S P T H S A N I A A T F F A L L L L G L V A E S E A F A G V D R K A L L L W  
 UniRef90\_F4PAR5 S P T L D S Y E K D M R F L Y C A C A I S F I L S D W R G V N K I K A R E Y  
 UniRef90\_F4PAR5 S P T L D S Y E K D M R F L Y C A C A I S F I L S D W R G V N K I K A R E Y  
 UniRef90\_S6F3S0 V G S L S P C M S L P N T L F A M L T L K V M K C E D F F S L D K E S L G L F  
 UniRef90\_A7TJ10 V G S P L V D I P G L N T F F G L I V L I T L K D Y D F F T I D H D S I S R F  
 UniRef90\_L7JX00 K I I D F  
 UniRef90\_L7JX00 K I I D F

UniRef90\_UPI0004561748 G G G P D Q I P H L M S T F A A V L J A L A T I G G P G G W D A I D R Q K M Y R W  
 UniRef90\_C5KEG4 G Y V P S R D D P L R M V V E K L  
 UniRef90\_C5KEG4 G Y V P S R D D P L R M V V E K L  
 UniRef90\_A0A058ZCNO R S H T L D T S H I T M T Y C A L A A L A I L G D D F S R V N R A I V I Q H  
 UniRef90\_MOZIF1 R M H D G G E V D V R A C Y T A I S V A N I L N I V D D E L T H G V G N Y  
 UniRef90\_F9XF15 R M W P G D P A N I P A T Y F A L S A L L I A G D D L S R V R R R E T L Q W  
 UniRef90\_W6KU39 A G G P C Q I Q H L I T S Y A A C C A L C I L G K P E Y L F N L P R A A I K R W  
 UniRef90\_W2SYV5 G Q G P G D E S H G G S T F C A I A S L S L S N R L W D G S I L S R N E I S R L  
 UniRef90\_W2SYV5 G Q G P G D E S H G G S T F C A I A S L S L S N R L W D G S I L S R N E I S R L  
 UniRef90\_W2SYV5 G Q G P G D E S H G G S T F C A I A S L S L S N R L W D G S I L S R N E I S R L  
 UniRef90\_G7YXC9 V S S S Y D C S H V T M V Y A A L C T L L I L G D D L S R V D R H S V L S  
 UniRef90\_UPI0001F29D8F  
 UniRef90\_UPI0001F29D8F  
 UniRef90\_R1EK10  
 UniRef90\_R1EK10  
 UniRef90\_Q74Z22 L G S R T M E M S S A N T L F A T L S L L C L G K H E L L D D E R R A A I C E L  
 UniRef90\_UPI0003D70CDC S Q F N R Q Q H V A F  
 UniRef90\_UPI0003D70CDC S Q F N R Q Q H V A F  
 UniRef90\_Q6FV33 V G S L N V R V D G V I T F N L P N T L F A L L V L A L L K Q H H Y I C H E R F





UniRef90\_B2VZ19  
UniRef90\_B7PHM6  
UniRef90\_B7PHM6  
UniRef90\_E3MMV2  
UniRef90\_E3MMV2  
UniRef90\_A2DHP4  
UniRef90\_C0P614  
UniRef90\_E6ZSC0  
UniRef90\_A0A024TME4  
UniRef90\_L8GR14  
UniRef90\_W9XMJ8  
UniRef90\_W9XMJ8  
UniRef90\_E4ZG70  
UniRef90\_Q6C614  
UniRef90\_B8LDD8  
UniRef90\_S7W6Y6  
UniRef90\_E1G4G9  
UniRef90\_E1G4G9  
UniRef90\_J3QC69  
UniRef90\_D2W497  
UniRef90\_D2W497  
UniRef90\_D2W497  
UniRef90\_B6K347  
UniRef90\_S9RDK8  
UniRef90\_S9RDK8  
UniRef90\_G3JL49  
UniRef90\_F2SX40  
UniRef90\_K0KKW5  
UniRef90\_W5CX4  
UniRef90\_W5CX4  
UniRef90\_G4TB88  
UniRef90\_G4TB88  
UniRef90\_E5STR3  
UniRef90\_J9VKJ2  
UniRef90\_M3HM46  
UniRef90\_M7BYM6  
UniRef90\_U6KMW7  
UniRef90\_U6KMW7  
UniRef90\_U7PJ43  
UniRef90\_E4UWH0  
UniRef90\_M2LBW9  
UniRef90\_C4Y3S7  
UniRef90\_N1RNR7  
UniRef90\_V5E9Y8  
UniRef90\_V5E9Y8  
UniRef90\_I3ELS1  
UniRef90\_C5M3A4  
UniRef90\_C9ZRR5  
UniRef90\_C9ZRR5  
UniRef90\_K0R1X6  
UniRef90\_F4R634  
UniRef90\_T1GKK2  
UniRef90\_T1GKK2  
UniRef90\_Q6CNY9  
UniRef90\_S3BUL7  
UniRef90\_UPI000273D2FF  
UniRef90\_H2YT28  
UniRef90\_H2YT28  
UniRef90\_S9W0U7  
UniRef90\_C5GFZ9  
UniRef90\_G8ZYY4  
UniRef90\_C5DPD6  
UniRef90\_H6BNI3  
UniRef90\_C1G9H6  
UniRef90\_J4KPV1  
UniRef90\_A8Q967  
UniRef90\_G9N5X3  
UniRef90\_F4PAR5  
UniRef90\_F4PAR5  
UniRef90\_S6F3S0  
UniRef90\_A7TJ10  
UniRef90\_L7JX00  
UniRef90\_L7JX00  
UniRef90\_UPI0004561748  
UniRef90\_C5KEG4  
UniRef90\_C5KEG4  
UniRef90\_A0A058ZCNO  
UniRef90\_MOZIF1  
UniRef90\_F9XFT5  
UniRef90\_W6KU39  
UniRef90\_W2SYV5  
UniRef90\_W2SYV5  
UniRef90\_W2SYV5  
UniRef90\_G7YXC9  
UniRef90\_UPI0001F29D8F  
UniRef90\_UPI0001F29D8F  
UniRef90\_R1EK10  
UniRef90\_R1EK10  
UniRef90\_Q74Z22  
UniRef90\_UPI0003D70CDC  
UniRef90\_UPI0003D70CDC  
UniRef90\_Q6FV33

210 220 230 240  
D V D K F V T C V R S E C Y D G G L S E A P Y H E A H A G F T C C A A A A A A  
L S E R R Q L N R L S R S R L F R R Q Q S G F Q G R R P N K P I D T C Y S F W V G A A L A E  
L S E R R Q L N R L S R S R L F R R Q Q S G F Q G R R P N K P I D T C C C Y S F W V G A A L L E K  
D I D R L I R W A I Q K K Q E I G G F H G R A H K P D D S C C Y A F W I G A T L L K  
D I D R L I R W A I Q K K Q E I G G F H G R A H K P D D S C C Y A F W I G A T L L K  
L S A G L V D L Y K S C C Q Q T Y E E G G F S A P M P N A E A H H G G Y T F C A V L A L L Y  
L A K G V G D Y I A S C C Q Q T Y E E G G I A A A F P Q P E A H H G G Y T F C A P A S S P  
L F E G M A P F I A S C C Q Q T Y E E G G I A A A F P Q P E A H H G G Y T F C C A A A L L S  
L T F G V V D F V K A C Q Q T Y E E Y A M A P Q P F G Q E A H H G G S T Y C C A A A T L V  
N L S S L R D G L M A Q E P A A A G G F C G R R C G K M A D T C Y C F W N V V G A L A  
N L S S L R D G L M A Q E P A A A G G F C G R R C G K M A D T C Y C F W N V V G A L A  
D V D K F V T C V R S E C Y D G G L S E A P Y H E A H A G F T C C A A A A A A  
N I P A M V G H I K N T S F Y Q G G I L S G Q Q T G E P H S G L T Y C C G I S A L L K  
N I P A M V G H I K N T S F Y Q G G I L S G Q Q T G E P H S G L T Y C C G I S A L L K  
D I N S I E Y F I L L D C I N S Y K D D G G A L L G L T P Q G R E S H L A Q T Y C C S L G S L S  
S V E K L V K W A L W K Q D D E G G F H G R A N K P D D S C Y A F W I G G T L K  
S V E K L V K W A L W K Q D D E G G F H G R A N K P D D S C Y A F W I G G T L K  
D R E R V V G F I S R C Q N K E D D G G F S G M V E S H A A Y V W T C V G G T L A  
Q I E K I G E F I G S L Q K E D D G G F S G M V E S H A A Y V W T C V G G T L A  
Q I E K I G E F I G S L Q K E D D G G F S G M V E S H A A Y V W T C V G G T L A  
Q I E K I G E F I G S L Q K E D D G G F S G M V E S H A A Y V W T C V G G T L A  
N V E Q S L D Y I K S C Q R Y E G G G F G Q T P G A E A H A G A T F C A I A S W K  
S Q Q D V K S F L L C Q Q Q H K F F G G G F S K I P G E F P D V L H S S L G L Y A L A  
S Q Q D V K S F L L C Q Q Q H K F F G G G F S K I P G E F P D V L H S S L G L Y A L A  
D I K R W T E F I A G T Q T H D G G G M S G S P H Q T E S H H G A Y T F C A L S A L S  
F T S G L P E E N I L A R C Q Q T Y E E G G F S G S P G T E S H H G A Y T F C A L S A L S  
N L S K I E Y N I L A R C Q Q T Y E E G G F L G L G E A H H A G Y T F C C G L T S L K  
D V Q L L L E W C L Q R Q A A D D G G F Q G R R N K P S D T C Y A F W I G G V L K  
D V Q L L L E W C L Q R Q A A D D G G F Q G R R N K P S D T C Y A F W I G G V L K  
D V D R I V S F I L L G L Q H P N G S F A G D R F G E T D T R F L Y C C A V S A L S  
D V D R I V S F I L L G L Q H P N G S F A G D R F G E T D T R F L Y C C A V S A L S  
D V S K A T S Y I K K C C R N Y D D G A Y A S R P G I E A Q G G T T Y C C S L T T L S  
N L S K L K E W I R K C C R T W E N G G F S S T I M D E S H V G F T F C A I A S L K  
D L D S L L K F I L D R H N P N G G F S S T I M D E S H V G F T F C A I A S L K  
N A D L L G W W L C E R Q L P S P E K L P D V C Y S H W V L L A S L K  
R E D A V C E F V L R C C L Q P C C G G F S A D V C Q E A Q L A S T H Y A L L L V  
R E D A V C E F V L R C C L Q P C C G G F S A D V C Q E A Q L A S T H Y A L L L V  
G V D A L V L Y I R R A C Q Q T Y D D G G F S E S S T H E S H A G A Y A F C S I A L L E  
D A E K L I D Y V A C Q Q T Y D D G G F A E S S T H E S H A G A Y A F C S I A L L E  
N V N Q L V H C V R L A E T F S G G L A D E S F H E P H A G Y T F C C C T G P A  
N L D E L R K F I L D R K K V N Y D D G G L S E S S A H T E S H S G L T Y C C G I A S L K  
D V D A L V R H I L R G G E T Y D D G G L S E S S A H T E S H S G L T Y C C G I A S L K  
N R E A M I R W A T A Q Q G I P A G F R G R T N K L V D G C Y G W F S G G G L F  
N R E A M I R W A T A Q Q G I P A G F R G R T N K L V D G C Y G W F S G G G L F  
I F G G I D T L L C S L Q T Y E E G G F A A S P G E E A H H G G Y T F C A V A G L K  
D L D S L L K F I L D R H N P N G G F S S T I L D E S H V G F T F C A I A A L K  
N Y T A L R G W L A R Q L R F E G G F N G R T N K L V D S C Y A H W V G A S H V  
N Y T A L R G W L A R Q L R F E G G F N G R T N K L V D S C Y A H W V G A S H V  
N I E A A T E Y I L S C M A Y D G G S L A L T P G R E G H G G S T L C G V A S L R  
D V Q S T G K F P N R I Q R Y D G G Y G Q A P F L E S Q G G T T Y C V L A A L L K  
Q L D G L K R W L L R Q V D G G F Q G R A N K P V D T C Y S F W I G A T L L K  
Q L D G L K R W L L R Q V D G G F Q G R A N K P V D T C Y S F W I G A T L L K  
N V S K L L Q Y I M S R Q C T Y M G G F G D W N E P H H G G Y T S C A I A S A L S  
N V S K L L Q Y I M S R R Q Q T Y M G G F A E S S H E S H A G A Y A F C A I A M E  
D M K K A M H P I L E R M S Y D N G L A Q G A G L E S H H G G S T F C C G I A S L C  
L S P K Q L K C I S R Q R N G F N G R P H K D D D T C Y S F W V G A S L K  
L S P K Q L K C I S R Q R N G F N G R P H K D D D T C Y S F W V G A S L K  
H I E L S F Q Y I L H C Q N Y E G G F S L I P F A E A H A G A T F C A L A S L R  
N T N R L T S H I E D C Q Q S A D D G G F S V S P M T E P H A G L T Y C C A L A S L S  
D V E K L I S Y I L L A C Q Q C Y A D D G G F G S Y G E P H A G Y T S C C A L S A L S  
D V D R V I D Y M M T K K C D F G G G F G D A Y G E T H A G Y T S C C A L A F Q  
D E E G L R R F I G N C C Q S H F E D G G F I G Q A P L L N E A H S G L N Y C C G I A T L S  
D V N S L I V G F I E A C C Q S F E D G G F S V S P L L N E A H S G L N Y C C G I A T L S  
D L D K L I V G F I E A C C Q S F E D G G F S V S P L L N E A H S G L N Y C C G I A T L S  
D H E K T I Q W V L R C C S N F D D G G F G L T E S T E A E S H A A Q V L T C V G A L S  
D T E R M I E Y I K S C Q Q T Y D D G G I A E S S T E A E S H S L A L L D R H S E A F  
N K E K T I F W L L S R Q E T G F Q G R I N K A P D T C Y S F W V G A C L E E  
N K E K T I F W L L S R Q E T G F Q G R I N K A P D T C Y S F W V G A C L E E  
D V D R L I D Y M L T K K C D I G G F G D Y G E P H A G Y T S C A I A S A F S  
D F E K F I D Y I K E Q E C T V G G Y G K F D E P H S G Y T S C A I A T L S  
V A I E T I E F L K S C K N S D D G G Y G S T K G Y P S T V F N T M L A C Q V A T  
V A I E T I E F L K S C K N S D D G G Y G S T K G Y P S T V F N T M L A C Q V A T  
L V R G L G D F I A S C Q T Y E G G L G Q P Y G E A H G G Y A Y C A L A T H L  
Q R E E I V G W L R A L V S S E D G L S G A A F N E G D I R F A Y C V V L S L D  
Q R E E I V G W L R A L V S S E D G L S G A A F N E G D I R F A Y C V V L S L D  
D Q V R A L E Y I R Q S Y N Y D G G F G Q G P F L E S H H G G S T F C A L A S L S  
D L L G L I D W V V F E A Q G V E G G F Q G G R T N K L V D G C Y S F W Q G A V V F  
R L D S L V S C I F E A E S Y E G G L S D S R Y H E P H A G Y T Y C C A L G V L N  
L T P Q C A L F I A A C Q T H E G G F A G T L A A E A H H A G A Y T Q C G L A A L L  
D Q R E L R S F L L A Q H Q P L G G F C K V P D P P D L L H T Y F S L A A F S  
D Q R E L R S F L L A Q H Q P L G G F C K V P D P P D L L H T Y F S L A A F S  
D Q R E L R S F L L A Q H Q P L G G F C K V P D P P D L L H T Y F S L A A F S  
D R E A L V S F I G D S M T Y E G G F G N L P G L E A H A G A T Y C A L A S L S  
E R Q G Y V E W I Y H C C Q V P S G G F R G T P E N E A I P S T F F A L V I L L I  
E R Q G Y V E W I Y H C C Q V P S G G F R G T P E N E A I P S T F F A L V I L L I  
S T E Q E I D W Y R N Q H P D D G G F R A S P W D P A N L P A T L F A L Q T L L  
S T E Q E I D W Y R N Q H P D D G G F R A S P W D P A N L P A T L F A L Q T L L  
D V G R L V D Y V L S Q R C V G G A F G T F G E A H A G Y T S C A L S L L S  
D K D A V S D W L S L Q A H H P G F H H G S R S H N G S N L A S T Y C A L A I L K  
D K D A V S D W L S L Q A H H P G F H H G S R S H N G S N L A S T Y C A L A I L K  
N V S K L L D Y I K N Q Q C F D G A Y G Q Y G E A H A G Y T S C A L S T L A

UniRef90\_B2VZ19  
UniRef90\_B7PHM6  
UniRef90\_B7PHM6  
UniRef90\_E3MMV2  
UniRef90\_E3MMV2  
UniRef90\_A2DHP4  
UniRef90\_C0P614  
UniRef90\_E6ZSC0  
UniRef90\_A0A024TME4  
UniRef90\_L8GR14  
UniRef90\_W9XMJ8  
UniRef90\_W9XMJ8  
UniRef90\_E4ZG70  
UniRef90\_Q6C614  
UniRef90\_B8LDD8  
UniRef90\_S7W6Y6  
UniRef90\_E1G4G9  
UniRef90\_E1G4G9  
UniRef90\_J3QC69  
UniRef90\_D2W497  
UniRef90\_D2W497  
UniRef90\_D2W497  
UniRef90\_B6K347  
UniRef90\_S9RDK8  
UniRef90\_S9RDK8  
UniRef90\_G3JL49  
UniRef90\_F2SX40  
UniRef90\_K0KKW5  
UniRef90\_W5CXY4  
UniRef90\_W5CXY4  
UniRef90\_G4TB88  
UniRef90\_G4TB88  
UniRef90\_E5STR3  
UniRef90\_J9VKJ2  
UniRef90\_M3HM46  
UniRef90\_M7BYM6  
UniRef90\_U6KMW7  
UniRef90\_U6KMW7  
UniRef90\_U7PJ43  
UniRef90\_E4UWH0  
UniRef90\_M2LBW9  
UniRef90\_C4Y3S7  
UniRef90\_N1RNR7  
UniRef90\_V5E9Y8  
UniRef90\_V5E9Y8  
UniRef90\_I3ELS1  
UniRef90\_C5M3A4  
UniRef90\_C9ZRR5  
UniRef90\_C9ZRR5  
UniRef90\_K0R1X6  
UniRef90\_F4R634  
UniRef90\_T1GKK2  
UniRef90\_T1GKK2  
UniRef90\_Q6CNY9  
UniRef90\_S3BUL7  
UniRef90\_UPI000273D2FF  
UniRef90\_H2YT28  
UniRef90\_H2YT28  
UniRef90\_S9W0U7  
UniRef90\_C5GFZ9  
UniRef90\_G8ZY4  
UniRef90\_C5DPD6  
UniRef90\_H6BNI3  
UniRef90\_C1G9H6  
UniRef90\_J4KPV1  
UniRef90\_A8Q967  
UniRef90\_G9N5X3  
UniRef90\_F4PAR5  
UniRef90\_F4PAR5  
UniRef90\_S6F3S0  
UniRef90\_A7TJ10  
UniRef90\_L7JX00  
UniRef90\_L7JX00  
UniRef90\_UPI0004561748  
UniRef90\_C5KEG4  
UniRef90\_C5KEG4  
UniRef90\_A0A058ZCNO  
UniRef90\_MOZIF1  
UniRef90\_F9XFT5  
UniRef90\_W6KU39  
UniRef90\_W2SYV5  
UniRef90\_W2SYV5  
UniRef90\_W2SYV5  
UniRef90\_G7YXC9  
UniRef90\_UPI0001F29D8F  
UniRef90\_UPI0001F29D8F  
UniRef90\_R1EK10  
UniRef90\_R1EK10  
UniRef90\_Q74Z22  
UniRef90\_UPI0003D70CDC  
UniRef90\_UPI0003D70CDC  
UniRef90\_Q6FV33

F L G R L P L P D V P K T L H W L V S 250 260 270 280  
L L G A F K F V E S G R N L E F L D S T Q D D Q F F V G G F F S K W P N D S D P D D P M H  
L L G A F K F V E S G R N L E F L D S T Q D D Q F F V G G F F S K W P N D S D P D D P M H  
L L N A Y H L I S P T H L R E F L M I S S Q H P H I G G G F C K E P G G G Y S D I L H  
L L N A Y H L I S P T H L R E F L M I S S Q H P H I G G G F C K E P G G G Y S D I L H  
L L N E A E K V I N D L P S L I G W V A F D R Q Q D S F S G G F F N Q G R T N K L V D S C C Y  
R Q P S L P Q L D R D A L I R W A T A Q Q L P F F E G G F R G R T N K L V D G C Y  
L L D G W D A I D E D A L V V R L L L E R Q V T G F Q G R V N K D A D T C Y  
L T G F L D H L H Q D Q L T R W L L L E R Q V T G F Q G R V N K D A D T C Y  
L L Q Q H Q L V D I E A L R R Y L L L Q H V A H L I G G F G K A P G G E L P D V L H  
L L Q Q H Q L V D I E A L R R Y L L L Q H V A H L I G G F G K A P G G E L P D V L H  
F L D R L P L P N V P K T L H W L V S R Q T R P P A H G F N G R C N K V A D T C Y  
N A G Q L N N K E W G T T L E W L V G R Q Y S Q T S G G F N G R V G K L A D T C Y  
L M G V L D E V D K K I I K F I L M R Q Q Y S L S A G G F N G R A N K K E D T C Y  
L L G F L D C V D K K I I K F I L M R Q Q Y S L S A G G F N G R A N K K E D T C Y  
L L D A Y M F V D K E R L R S F I Y S T Q D D R Q L G G F G K F S D V V P D A L H  
L L D A Y M F V D K E R L R S F I Y S T Q D D R Q L G G F G K F S D V V P D A L H  
L L G R L D M V D K N T L G W L V S E R Q V P N G G L N G R P E K L E D V C Y  
L I N N K K Y I N V E K T V D Y V L S C C Q N F D G G F G V C P G A E S H A G Q  
L I N N K K Y I N V E K T V D Y V L S C C Q N F D G G F G V C P G A E S H A G Q  
L I N N K K Y I N V E K T V D Y V L S C C Q N F D G G F G V C P G A E S H A G Q  
L L N K M C I P H Y D R L L R W L V F R Q Q S D G G F N G R T Q K L T D T C Y  
F N D K A N F P E V E H A I C L P T R R M  
F N D K A N F P E V E H A I C L P T R R M  
L L S K P H I P D R A Q L L K F L A H R Q F T Y H A G C N G R W N K K A D T C Y  
L I M G H P R T M L R H V D S C H H  
L I G K L N T Q D W N K T I N W L I T H R Q Q I D F N G S H N G R D N K F G D T C Y  
M I G A Y H L I D H G A L R E F L L T C C Q T R Y G G F F S K F P D E L P D I Y H  
M I G A Y H L I D H G A L R E F L L T C C Q T R Y G G F F S K F P D E L P D I Y H  
L L G C L D R I L D K D R T V S Y I R R C C K N F D G G Y G S D A G G E S H A S Q  
L L G C L D R I L D K D R T V S Y I R R C C K N F D G G Y G S D A G G E S H A S Q  
L L D K L F D E N L Q K T L H W I S R Q N V L G G F H G R P G K L D D S C Y  
F M N S P S P L N D R D T R W L V S R Q L G G F N G R P G K L E D V C Y  
L L D Y P L I E D L Q N T T E W L I Q R Q V D Y P G G F N G R E N K L G D T C Y  
L I G R L H W I D R E K T A A W V Q S L Q Q P G G G F L S A A G G E A D C R F  
G L G R L Q L L S A A K T A A W V Q S L Q Q P G G G F L S A A G G E A D C R F  
G L G R L Q L L S A A K T A A W V Q S L Q Q P G G G F L S A A G G E A D C R F  
L L G R A P E A D P A L L S W L G S R S C H P L L G F T E N G R C N K H A D S C Y  
F L A C L P E E Y E R L I S W L V R Q T T F E G E T E N G N K P V M D T C Y  
E S P L I E A P K N P E E V L K W L V F L Q Q T E L S D P N A G R E N K P A D T C Y  
L I G H N F S G H E D W T K K W L V H R Q Q V D Y P G G F N G R N K F A D T C Y  
S L S R L P N T N P E Q A T R W L S R Q L E Y E F E G C N G R L N K D A D T C Y  
T V L S A M I E S E L I E D A H K S A G S A S K P A D V Q  
T V L S A M I E S E L I E D A H K S A G S A S K P A D V Q  
L L Q K P I P N T D L L K R W L L E R Q Q D V I N N G F N G R T N K G S D S C Y  
L L E Y P L E N L K W T K E W L I Q R Q V D Y P G G F N G R E N K L S D T C Y  
L S R E M L L L D H A Q L V D I S N L H P E S F F E A W S Q H E E E K Q A S R V E  
L S R E M L L L D H A Q L V D I S N L H P E S F F E A W S Q H E E E K Q A S R V E  
L M G V L H R L D G W K C V Y W C V S R Q Y P A G A G M Q G R P N K L E D T C Y  
L L D S L S S E D A L E T A R W L V H R Q Q N E F H A G F S Q G R P G K I L D A C Y  
L L N A F D F T H F P E N R E Y I L S T Q D T V V G G F S K W P R C T T D P F H  
L L N A F D F T H F P E N R E Y I L S T Q D T V V G G F S K W P R C T T D P F H  
L L N Q L Q N I F R Q D T L H W L V N S R V S D S G G F N G R E N K L A D T C Y  
L L D R P A E A D L P D L M R W L A S R S F V Y Q T G F N G R C N K H A D S C Y  
L M G K L E E V F S E K E L N R I R W C I M R Q Q N G Y H G R P N K P V D T W  
L I G I F D L V D F K E N E N F V L S T Q D I T V G G F A K W P Q I N P D A L H  
L I G I F D L V D F K E N E N F V L S T Q D I T V G G F A K W P Q I N P D A L H  
L L V N I T S I D T K K L T T W L V K R Q Q L S G G F N G R T N K D H D T C Y  
F L G C T P P A K F E D I R W L A W R Q T A H L A G F N G R S N K I A D T C Y  
L L G R L S D C F K E R T I S W L V S R Q V S N H H G G F Q G R E N K F A D T C Y  
L L H G L D K L D K E R T V D W L H R Q P E E N G G F Q G R E N K F A D T C Y  
F L G M M Q N L D E S C V R W M L D R Q T T W E K R H N G R S P D E R L D L S  
L L S R P H I P N R A Q L L K F L S H R Q F I Y H A G C N G R W N K K A D T C Y  
L L H A L D R L D Q D T L A W W L V E R Q V P G G G L N G R P Q K L E D V C Y  
T P G E T K R A D R P S L R F L A A R Q F P Y L A G F N G R W N K K A D T C Y  
M L G S Y Q Q I V D V N A L H E F L I L T H S K H G G Y S K I P K N Y P D I L H  
M L G S Y Q Q I V D V N A L H E F L I L T H S K H G G Y S K I P K N Y P D I L H  
L L G C L D R L D R E T V D W L S R Q D D E H H G G F Q G R E N K F A D T C Y  
L L N C T E F I F K E K T L C W L L Q R Q V S N E G G F Q G R E N K F A D T C Y  
M L N Y D F Y D E E T V D Y V L S C C N N G V F Y A E K W C G D E E D N R F  
M L N Y D F Y D E E T V D Y V L S C C N N G V F Y A E K W C G D E E D N R F  
A L S R L P Y C D V P R L V R W A T S L Q P I E G G G F R G R T N K L V D G C Y  
L L D R L S G A E S E R V G R W I R R C C Q A A E G G F G Q R P G C E A H A G H  
L L D R L S G A E S E R V G R W I R R C C Q A A E G G F G Q R P G C E A H A G H  
L M G K L D E P D R D H T T Q W L I H R Q L L E L S Y N G R P H K D E D S C Y  
L I Q R L N L V V H E Q L G L S S S H V I Q E T F P L L S Y N G R P H K D E D S C Y  
F I E R L K S I D P A L T L S W L V A R Q T E T E T T L H G S P D K S T L T S A  
L V K Q P H L I L Q R A R L R R W L A V R Q L S F E E G G F N G R T N K L V D S C Y  
L L R E P G F S P I H A S L N L L Y Y C I H  
L L R E P G F S P I H A S L N L L Y Y C I H  
L L R E P G F S P I H A S L N L L Y Y C I H  
L L G R L H S F L Y D R L V K W L V K L Q A E G F H G R P Q K D D D T C Y  
L G D D L S R V K R T E C L Q W L S K M Q R E N G S F G G T E G K I E D L R F F  
L G D D L S R V K R T E C L Q W L S K M Q R E N G S F G G T E G K I E D L R F F  
L I G D L Q R V K R R E C L Q W L P R L Q R A E E D G S F G G R I E G G H D T R F  
I L G D L Q R V K R R E C L Q W L P R L Q R A E E D G S F G G R I E G G H D T R F  
L L G K L D S L D R D R T I S W L V Q R Q V S D H G G F Q G R E N K A A D T C Y  
A V G Y N F N I D S K S I L T S M R N L Q Q H H D G S F M P I H F G A E K D L R F F  
A V G Y N F N I D S K S I L T S M R N L Q Q H H D G S F M P I H F G A E K D L R F F  
L L K A R E T L D V E K T L T W L S H R Q V S D H G G F Q G R P N K F A D T C Y

UniRef90\_B2VZ19 A Y WT C A P L Q I L G Y L 290 300 310 320 N I V D Q V P I R K W L L  
UniRef90\_B7PHM6 T Y M G I A G M S L M G V E D L L P L H P A L N L S Q  
UniRef90\_B7PHM6 T Y M G I A G M S L M G V E D L L P L H P A L N L S Q  
UniRef90\_E3MMV2 T Y F S I A A L S L L G E P A L N P V H P S L N V S M R A A D H I S R L R F  
UniRef90\_E3MMV2 T Y F S I A A L S L L G E P A L N P V H P S L N V S M R A A D H I S R L R F  
UniRef90\_A2DHP4 C W W V G A S P A R T L A N Y L D I G P F W D D K A I S Q F L L  
UniRef90\_C0P614 S F W Q G A A I A F T Q K L I T I V D K Q L K S S Y S C L F H N I A L Q Q Y L L  
UniRef90\_E6ZSC0 G W F S G G L  
UniRef90\_A0A024TME4 S F W I G A S L K M L D K L H L A D Y R L S K A F T  
UniRef90\_L8GR14 S Y L G L A T L A I Y N E P G L K E F D P T F C F S K E A V E K M K K A S W  
UniRef90\_W9XMJ8 S Y L G L A T L A I Y N E P G L K E F D P T F C F S K E A V E K M K K A S W  
UniRef90\_E4ZG70 A Y W T C V P L Q I L G H L D I V D R A P I R K W L L  
UniRef90\_Q6C614 S F W V G A S L A S L G G T N Y V S A D L A R E Y L N  
UniRef90\_B8LDD8 S Y W L G G T L H L L D A S S H L L L D G W A L R E Y V L  
UniRef90\_S7W6Y6 S F Y G L S S L K I L D S H L L I D K E K L I N F L L  
UniRef90\_E1G4G9 T C Y S I S A L S L L H  
UniRef90\_E1G4G9 T C Y S I S A L S L L H  
UniRef90\_J3QC69 S W W A L A S L V I L G K A E W I D R S K L T S F L L  
UniRef90\_D2W497 I F T C V G A L S I A K A L D R F D H D T L S W W L C  
UniRef90\_D2W497 I F T C V G A L S I A K A L D R F D H D T L S W W L C C  
UniRef90\_D2W497 I F T C V G A L S I A K A L D R F D H D T L S W W L C  
UniRef90\_B6K347 S F W V Q A T L S L L G E I H L V E A N A S R N F L L  
UniRef90\_S9RDK8 F W W A G A L S L L G Q E S L L R R E P A R N Y L T  
UniRef90\_G3JL49 T C Y T L A G L S S V Q H K H V  
UniRef90\_F2SX40 S F W C S S L A L F D K E F F I D G P K T E K Y L E  
UniRef90\_K0KKW5 S Y Y G L A A L S L L  
UniRef90\_W5CX40 S Y Y G L A A L S L L  
UniRef90\_W5CX40 S Y Y G L A A L S L L  
UniRef90\_G4TB88 L W T C V G A L A I L D R L D E V E T E P L A W W L  
UniRef90\_G4TB88 L W T C V G A L A I L D R L D E V E T E P L A W W L  
UniRef90\_E5STR3 S F W V G A V V E A K N F I D C K R A C D F T L  
UniRef90\_J9VKJ2 S F W C G G T L S V L G R D D L I D H D A N K A F L L  
UniRef90\_M3HM46 S W W C T G S L H L I N P E F V G L C D T E K A E R Y L D  
UniRef90\_M7BYM6 S Y C G L A S L W L L G A L F C C L A A L E L C G G L W A V D R S K T A R W L L  
UniRef90\_U6KMW7 S Y C G L A S L W L L G A L F C C L A A L E L C G G L W A V D R S K T A R W L L  
UniRef90\_U6KMW7 S Y C G L A S L W L L G A L F C C L A A L E L C G G L W A V D R S K T A R W L L  
UniRef90\_U7PJ43 T W W A V G S L T L Q Q N G H G L G E A A G T A A A N W D A S R R F L L  
UniRef90\_E4UWH0 C F W V T G S L A M L D Q L G L V D S Q A N R R Y L L  
UniRef90\_M2LBW9 A F W A G A C F H I M Q Q P Q L Y N D Q A I R R Y L L  
UniRef90\_C4Y3S7 S W W V G S L K L I D T D G V G L T N G D M V V D Y L L  
UniRef90\_N1RNR7 S Y Y V V G A L N L I G Q G K L I N W S N R R F L L  
UniRef90\_V5E9Y8 D W N G M L T V P P A P V V V A P S T F G S N S S D S W L F D R V G L Q E Y I A  
UniRef90\_V5E9Y8 D W N G M L T V P P A P V V V A P S T F G S N S S D S W L F D R V G L Q E Y I A  
UniRef90\_I3ELS1 N F W V G A C Y K M L G L G I R S Y E G L A Q Y L L  
UniRef90\_C5M3A4 S W W C T G S L Y I M D P E S V N L V D I E K A T E Y L N  
UniRef90\_C9ZRR5 A Y L S A T P L A A S W S S G V P N V L D D D A G D F Y F N Q R R L Q L Y I L  
UniRef90\_C9ZRR5 A Y L S A T P L A A S W S S G V P N V L D D D A G D F Y F N Q R R L Q L Y I L  
UniRef90\_K0R1X6 S Y W I G G T L H L L G E S R L L N G Q A L R E Y V L  
UniRef90\_F4R634 S F W C T A A L S L I Q E H H S L K D I N S I P G P L L H D P E A N I K F L M  
UniRef90\_T1GKK2 T Y F G I C G L S F I N E P G L A E V M P S L N I S M  
UniRef90\_T1GKK2 T Y F G I C G L S F I N E P G L A E V M P S L N I S M  
UniRef90\_Q6CNY9 A F W C L N S L R I L E P Q R W S Q L I D V P L I R D Y L L  
UniRef90\_S3BUL7 T W W T L G S I A I L Q R N D L A L D Y K E D T S A N W D A S R R F L L  
UniRef90\_UPI000273D2FF S Y M G V C G L A L M S L H S L Q P V D P T L N I S  
UniRef90\_H2YT28 S Y M G V C G L A L M S L H S L Q P V D P T L N I S  
UniRef90\_H2YT28 S Y M G V C G L A L M S L H S L Q P V D P T L N I S  
UniRef90\_S9W0U7 S Y W V Q G S L Q L L G A S Q F I S H N N V K S F L L  
UniRef90\_C5GFZ9 S F W V T G T L G R I L D S L N V I N A E A G R R Y L L  
UniRef90\_G8ZY4 V F W C L N S L R I L L T P D G C E L P I Q P D L A E D F L I N R  
UniRef90\_C5DPD6 A F W C L N S L K I L D E N E F N N V C R A G L A Q D Y L T  
UniRef90\_H6BNi3 S L F C G R C G K M A C Y C F W N V G A L A I L Q Q H Q L V N V D A L R R Y L L  
UniRef90\_C1G9H6 I D E K I S S L P V L L C Y S F W V T G T L S I L D R L N V V N V D T N R R Y L L  
UniRef90\_J4KPV1 F W W A G A L S L L S W W V L S S L S L L H R L H W L D S E R L C A F I L  
UniRef90\_A8Q967 S W W V L S S L S L L H R L H W L D S E R L C A F I L  
UniRef90\_G9N5X3 T W W A C G T L R L L D C D S F Y N P E S C N Y L L  
UniRef90\_F4PAR5 S Y M G F A G L A I S G K P G L G K L V S A L G I S Q R S F D F W K  
UniRef90\_F4PAR5 S Y M G F A G L A I S G K P G L G K L V S A L G I S Q R S F D F W K  
UniRef90\_S6F3S0 V F W C L N S L S I L T P D W K G L C D T D L V N S Y L L  
UniRef90\_A7TJ10 C F W C L N S L S I L T P D W K G L C D T D L V N S Y L L  
UniRef90\_L7JX00 V C A A L T S L V L L D V N R R K N M G E L D S S T D K G F E K E K T I R Y L L  
UniRef90\_L7JX00 V C A A L T S L V L L D V N R R K N M G E L D S S T D K G F E K E K T I R Y L L  
UniRef90\_UPI0004561748 G W F C G G L E Q Q S M L H R E P A S N Y L T  
UniRef90\_C5KEG4 T F C A V A A L K L L G M N D D Y D V E A C V K W L K  
UniRef90\_C5KEG4 T F C A V A A L K L L G M N D D Y D V E A C V K W L K  
UniRef90\_A0A058ZCNO S F W V G S S I E L L S F N N A C R D G A A Q E Y L T  
UniRef90\_M0ZIF1 E F I N R P L A M R P L F D S M Y L Q Q Y V L  
UniRef90\_F9XFT5 S L F P T P S L P P L S A G M N G R T N K V A D T C Y H M F G A P A L Q T Y L L  
UniRef90\_W6KU39 S H W V G A S F A L L S A S  
UniRef90\_W2SYV5  
UniRef90\_W2SYV5  
UniRef90\_W2SYV5  
UniRef90\_G7YXC9 T F W V C A S L K L L N A Q D L I D Q G A L L K F I A  
UniRef90\_UPI0001F29D8F C C F G A G T R Y I L L R G K C G D G L E G I M D I D V D K L V A F I E  
UniRef90\_UPI0001F29D8F C C F G A G T R Y I L L R G K C G D G L E G I M D I D V D K L V A F I E  
UniRef90\_R1EK10 I Y C A A G V R W I L R G S S V E G E V D G A Q D V D A V V R C I  
UniRef90\_R1EK10 I Y C A A G V R W I L R G S S V E G E V D G A Q D V D A V V R C I  
UniRef90\_Q74Z22 A F W C M N S L E I L G A S A L V D T S L I D S Y L L Q Q  
UniRef90\_UPI0003D70CDC V Y C A A A I C F L L E D W S G M D R E R A K A Y I L  
UniRef90\_UPI0003D70CDC V Y C A A A I C F L L E D W S G M D R E R A K A Y I L  
UniRef90\_Q6FV33 A T W C L N S I Q L L T K E W Q G Y E D W S G M D R E R A K A Y I L

UniRef90\_B2VZ19  
UniRef90\_B7PHM6  
UniRef90\_B7PHM6  
UniRef90\_E3MMV2  
UniRef90\_E3MMV2  
UniRef90\_A2DHP4  
UniRef90\_C0P614  
UniRef90\_E6ZSC0  
UniRef90\_A0A024TME4  
UniRef90\_L8GR14  
UniRef90\_W9XMJ8  
UniRef90\_W9XMJ8  
UniRef90\_E4ZG70  
UniRef90\_Q6C614  
UniRef90\_B8LDD8  
UniRef90\_S7W6Y6  
UniRef90\_E1G4G9  
UniRef90\_E1G4G9  
UniRef90\_J3QC69  
UniRef90\_D2W497  
UniRef90\_D2W497  
UniRef90\_D2W497  
UniRef90\_B6K347  
UniRef90\_S9RDK8  
UniRef90\_S9RDK8  
UniRef90\_G3JL49  
UniRef90\_F2SX40  
UniRef90\_K0KKW5  
UniRef90\_W5CXY4  
UniRef90\_W5CXY4  
UniRef90\_G4TB88  
UniRef90\_G4TB88  
UniRef90\_E5STR3  
UniRef90\_J9VKJ2  
UniRef90\_M3HM46  
UniRef90\_M7BYM6  
UniRef90\_U6KMW7  
UniRef90\_U6KMW7  
UniRef90\_U7PJ43  
UniRef90\_E4UWH0  
UniRef90\_M2LBW9  
UniRef90\_C4Y3S7  
UniRef90\_N1RNR7  
UniRef90\_V5E9Y8  
UniRef90\_V5E9Y8  
UniRef90\_I3ELS1  
UniRef90\_C5M3A4  
UniRef90\_C9ZRR5  
UniRef90\_C9ZRR5  
UniRef90\_K0R1X6  
UniRef90\_F4R634  
UniRef90\_T1GKK2  
UniRef90\_T1GKK2  
UniRef90\_Q6CNY9  
UniRef90\_S3BUL7  
UniRef90\_UPI000273D2FF  
UniRef90\_H2YT28  
UniRef90\_H2YT28  
UniRef90\_S9W0U7  
UniRef90\_C5GFZ9  
UniRef90\_G8ZY4  
UniRef90\_C5DPD6  
UniRef90\_H6BNI3  
UniRef90\_C1G9H6  
UniRef90\_J4KPV1  
UniRef90\_A8Q967  
UniRef90\_G9N5X3  
UniRef90\_F4PAR5  
UniRef90\_F4PAR5  
UniRef90\_S6F3S0  
UniRef90\_A7TJ10  
UniRef90\_L7JX00  
UniRef90\_L7JX00  
UniRef90\_UPI0004561748  
UniRef90\_C5KEG4  
UniRef90\_C5KEG4  
UniRef90\_A0A058ZCNO  
UniRef90\_MOZIF1  
UniRef90\_F9XFT5  
UniRef90\_W6KU39  
UniRef90\_W2SYV5  
UniRef90\_W2SYV5  
UniRef90\_W2SYV5  
UniRef90\_G7YXC9  
UniRef90\_UPI0001F29D8F  
UniRef90\_UPI0001F29D8F  
UniRef90\_R1EK10  
UniRef90\_R1EK10  
UniRef90\_Q74Z22  
UniRef90\_UPI0003D70CDC  
UniRef90\_UPI0003D70CDC  
UniRef90\_Q6FV33

D K T Q H L V G G F G K V T G D P P D M Y H S F L G L M V I A M F G E S G  
330 340 350 360  
R L V Q G K Y G G F C D H P P D F A D S F H T L F G S A G L A V V G N  
L C S Q V L E G G L R D K P G K N R D H Y H S C Y C L S G L A V S Q Y S A G S C  
M S C Q T P L G G F G K C V E N P P D V L H T Y M A L C G L S M M G A P G  
D K T Q H M V G G F G K V T G D P P D L Y H S F L G L M V I A M F G E P G  
N T Q N T L L G G F G K T P G E I P D P L H S Y L G V C A L S I F G Q P G L G K  
Q C Q S P Y G G F G K T V N A M P D L L H S F Y S M A W L A I S E E  
S C H N E D G G F T D M V G N P S D I Y H T C Y S L L A L S I L E V F D L G S  
S C Q  
E R Q C E N G G L N G R P E K L S D V F  
E R Q C C E N G G L N G R P E K L S D V F  
E R Q C E N G G L N G R P E K L S D V F  
E Q T Q H L I G G F S K V H G E Y P D V L H S A L G L F S L A L H D D S K L S D  
G I T Q H R I G G F G K T T G A P P D I Y H S Y L G L T A L A V M G D P K L K P  
N T T N A S S G S L E A A F G W M S S P N N D  
V T Q N N I L G G F A K S D A D D P D P Y H S F L A L S A L T I I N S H C  
S E R Q L P N G G L N G R P E K L E D  
S E R Q L P N G G L N G R P E K L E D  
S T Q D D D G G F G K T G E A H A D L M H T Y L S L A G L S I L G Y P G L K P  
S A Q S P L G G F G K E P E D Y P D P Y H S Y L A L A A L S L S L N R F G D D  
I T Q N Q M F G G F G R D P D A T P D P L H S Y L A L A S L S L W D H R K F N  
V L T A E Y V A A C R C S A E T P R F Q H R Y Y C L A A V A A L  
A R Q T P A G G F N G R P E K A P D V C Y S F W I F A A L K L L G Y D S A A D  
A R Q T P A G G F N G R P E K A P D V C Y S F W I F A A L K L L G Y D S A A D  
E E M Q H A I G G F S K A P G G P D V Y H S Y L S L A V L A T K G E P T L K A S  
E K T Q H M I G G F G K T A G E L P D L L H S Y L G L A S L G L F G E R D A A S  
G K T Q H D V G G F G K F A G D L P D L Y H S Y L G L A A L S L A E M T G V K K  
N H T Q H K I G G F G K D T E A F P D P F H S F L A M A S L S L I K Y N S N  
E K T Q H S I G G F G K Q P G Y P P D M Y H A L L G L A T L A T W N E P G L K E  
Q R T A A E G G G L R D K P D K R P D A Y H T C Y N L S G L S L S Q H S V R L S  
Q R T A A E G G G L R D K P D K R P D A Y H T C Y N L S G L S L S Q H S V R L S  
S N C Q E E E G L K N I P E S H P D I Y H T A Y A L I G L Y I N E T D F N Y  
R T Q N S L F G G F G R D P E A T P D P L H S Y L A L A S L S L W N H K  
A C C Q N E E G G L M D K P N Y P N D F Y H T C Y S L S G M S S A Q N P S D E R  
A C C Q N E E G G L M D K P N Y P N D F Y H T C Y S L S G M S S A Q N P S D E R  
S C Q S P Y G G F G K T V I G A M P D L L H S Y Y S L A W L S L S N E G C C D  
L C Q S K Q W G G I A R F P E D H P D V Y H N Y L A L G S I S L  
N Q T Q N K V G G F A K N D Q D D P D I Y H S M M G I S A L K L I D D E I N G V  
T Q T Q H V I G G F A K T P G G A P D I Y H S Y L G L A S L A T H G D A A L  
N Q T Q H N F G G F S K V A G E F P D V L H S S L G L Y A L A F N D E T N F P K  
E K T Q H V I G G F G K C V G D P P D L L H S Y  
T Q N N I G G F S K N D Q D D P D L Y H T C L G I A A L A M L D G S F D G V  
K T Q N N L I G G F S K N D E D D P D L Y H T C L G I A A V L Q L M N G T F D G I  
G H V A H L V G G F G K A P G E L P D L L H S Y L G L A T L A L Y D E S G  
E K T Q H L I G G F A K C A G E P D L L H S Y L G L A S F G L F G E A G  
G I T Q H R I G G F A K T T G A P P D I Y H S Y L G L T A L A I M G E P K L K E  
S A Q D P E R G G I A D R P D N V T D V F H T Q F G V A G L S L L G Y S G  
G I T Q H R I G G F G K S V G D P P D I Y H S Y L G L T T V A L L G G S D L  
K T Q N T L V G G F S K N D Q D S P D L Y H T C L G I A A L S L M Q G T F D G V  
Q T Q N T I I G G F S K T D E D D P D I Y H T Y L G I A A L K L I D G T L D G P  
K C Y N M D G G F G C I P G A E S H C G Q I Y A C L V S L K L L N A L H R I D  
K C Y N M D G G F G C I P G A E S H C G Q I Y A C L V S L K L L N A L H R I D  
R R V L L P D K G C N G R P G K P A D S C Y V F W V M G A L H M L G E W L D T D  
R R V L L P D K G C N G R P G K P A D S C Y V F W V M G A L H M L G E W L D T D  
K C Q S V I G G L S S S M G G S P D P I H S Y L G L C G W H L C Q K H L G S A  
L C S Q I E V G G F R D K P G K G R D Y Y H T C Y C L S G L S I A Q Y S W S P P  
S K T Q H P A G G F G K F P G D L P D L Y H S Y M G L A A L G L I G T E G I K S  
R C W D Q V I G G I R K Y P G C V A D P L H S F L A L S G L S C L N H L E S S D  
A C Q V R I D G G I G E G P F C E S H S G H T Y C A I G A L T F L D R L S K N H  
A C Q V R I D G G I G E G P F C E S H S G H T Y C A I G A L T F L D R L S K N H  
R A S E T Y D G G I S E A A Y H E A H A G F T Y C A I G A L A L L G N A G S P P  
R A S E T Y D G G I S E A A Y H E A H A G F T Y C A I G A L A L L G N A G S P P  
T Q N S L V G G F A K T D E D D P D I Y H T F L G I A A L G L I A G S F D G V  
N C Q S Y D G G F G L T P G S E S H G G G T Y C A V A S L R L M G  
N C Q S Y D G G F G L T P G S E S H G G G T Y C A V A S L R L M G  
V T Q N Q I G G F S K N D A D D P D L Y H T C L G I S A L I L L D E R L D G S

UniRef90\_B2VZ19  
 UniRef90\_B7PHM6  
 UniRef90\_B7PHM6  
 UniRef90\_E3MMV2  
 UniRef90\_E3MMV2  
 UniRef90\_A2DHP4  
 UniRef90\_C0P614  
 UniRef90\_E6ZSC0  
 UniRef90\_A0A024TME4  
 UniRef90\_L8GR14  
 UniRef90\_W9XMJ8  
 UniRef90\_W9XMJ8  
 UniRef90\_E4ZG70  
 UniRef90\_Q6C614  
 UniRef90\_B8LDD8  
 UniRef90\_S7W6Y6  
 UniRef90\_E1G4G9  
 UniRef90\_E1G4G9  
 UniRef90\_J3QC69  
 UniRef90\_D2W497  
 UniRef90\_D2W497  
 UniRef90\_D2W497  
 UniRef90\_B6K347  
 UniRef90\_S9RDK8  
 UniRef90\_S9RDK8  
 UniRef90\_G3JL49  
 UniRef90\_F2SX40  
 UniRef90\_K0KKW5  
 UniRef90\_W5CXY4  
 UniRef90\_W5CXY4  
 UniRef90\_G4TB88  
 UniRef90\_G4TB88  
 UniRef90\_E5STR3  
 UniRef90\_J9VKJ2  
 UniRef90\_M3HM46  
 UniRef90\_M7BYM6  
 UniRef90\_U6KMW7  
 UniRef90\_U6KMW7  
 UniRef90\_U7PJ43  
 UniRef90\_E4UWH0  
 UniRef90\_M2LBW9  
 UniRef90\_C4Y3S7  
 UniRef90\_N1RNR7  
 UniRef90\_V5E9Y8  
 UniRef90\_V5E9Y8  
 UniRef90\_I3ELS1  
 UniRef90\_C5M3A4  
 UniRef90\_C9ZRR5  
 UniRef90\_C9ZRR5  
 UniRef90\_K0R1X6  
 UniRef90\_F4R634  
 UniRef90\_T1GKK2  
 UniRef90\_T1GKK2  
 UniRef90\_Q6CNY9  
 UniRef90\_S3BUL7  
 UniRef90\_UPI000273D2FF  
 UniRef90\_H2YT28  
 UniRef90\_H2YT28  
 UniRef90\_S9W0U7  
 UniRef90\_C5GFZ9  
 UniRef90\_G8ZYY4  
 UniRef90\_C5DPD6  
 UniRef90\_H6BNI3  
 UniRef90\_C1G9H6  
 UniRef90\_J4KPV1  
 UniRef90\_A8Q967  
 UniRef90\_G9N5X3  
 UniRef90\_F4PAR5  
 UniRef90\_F4PAR5  
 UniRef90\_S6F3S0  
 UniRef90\_A7TJI0  
 UniRef90\_L7JX00  
 UniRef90\_L7JX00  
 UniRef90\_UPI0004561748  
 UniRef90\_C5KEG4  
 UniRef90\_C5KEG4  
 UniRef90\_A0A058ZCNO  
 UniRef90\_MOZIF1  
 UniRef90\_F9XFT5  
 UniRef90\_W6KU39  
 UniRef90\_W2SYV5  
 UniRef90\_W2SYV5  
 UniRef90\_W2SYV5  
 UniRef90\_G7YXC9  
 UniRef90\_UPI0001F29D8F  
 UniRef90\_UPI0001F29D8F  
 UniRef90\_R1EKI0  
 UniRef90\_R1EKI0  
 UniRef90\_Q74Z22  
 UniRef90\_UPI0003D70CDC  
 UniRef90\_UPI0003D70CDC  
 UniRef90\_Q6FV33

370                      380                      390                      400  
 L R S V D P A L C I T Q                      K A K S H L E S L P  
 L E P D C L S G V P T T E T                      I S S I P I E K F E K I K K Y F E S K P  
 P L P Q H V L G P Y S N L L E P I H P L Y N V V L D K Y H T A Y E F F S  
 L R D I H C A L G M T Q R A A  
 V V P E                      L C I S E K A F E T L                      N K A K R H L E S L P  
 C D H V L G L A L D L N  
 V C P A L C L  
 L H A E L C C S V E  
 A A A A D T V Y E A R D R L A A L H P L E V I P H A A V D A I H S W C R A N P I  
 K N E L E P I D P L L S I T L K A S T F L K K  
 L  
 K E N S F                      G L K T L D V R W N V S A E T A E W L Q R  
 L Q E V D P V L V I T K E S F N F F K E  
 A P R D F G F G G F A D R                      P G D V A D A F H T F F A  
 A P R D F G F G G F A D R                      P G D V A D A F H T F F A  
 F D P A M S V S V D T V R T I  
 V A K G                      E E L D A V D P M L C                      A S R R V R R H L G S L P  
 L D A G M C M S T E R S R L P K L W A S W N V  
 V T F S G D Q E L A E I D P E L I I T M D A  
 L D P E A R S K M E K D I L E V T A P  
 T E T S T F L G A T S N K I N P T H P I F N I T F P K A K L F M D W A Y G Q  
 T E T S T F L G A T S N K I N P T H P I F N I T F P K A K L F M D W A Y G Q  
 H L G L P V A A  
 K Y D L Q E V D P V L V I T K E S Y R F F K E  
 S G V S S E L H L S K N C L R P T N P I F N I N Q S K V L F A L R T W G A K T  
 S G V S S E L H L S K N C L R P T N P I F N I N Q S K V L F A L R T W G A K T  
 D E L H A P G E D D A E T I E S I  
 S Y A L L S D L E N P L V E H H S V L N V P I K T V N W I K K C F  
 L C I P  
 K S F D P S M S V S L D T V R A I  
 V E H A I C L  
 L A L A S L G L L G E A G I A S V D P T F C                      T S K R A R Q H L E S L T  
 L F I P  
 F C I P K Q F A P  
 L K E F D P T F C F S K D A V E K L K R H  
 I A T V D P T F C                      T S K R A R H H L E S L P  
 L                      D A E L C C S A E  
 L Q R V D P T Y C M P C H I T K A I Q R P F Q S R P  
 K E V D A G F C C S K E G A R K I  
 M C I P  
 L C M P I  
 K T R  
 K T R  
 G L E E F I R L C Y D E E V G G L S P  
 G L E E F I R L C Y D E E V G G L S P  
 G V E N L D D A P A D F P L I S I D T S L D M P L H S V E H M K K L H A Q  
 L P R D V F G P Y S K C L L E Q V H P L F N V E L D R Y Y E A R K Y F S G L  
 V                      D A G M C I S A E A E Q R V H G L W  
 P D K S T S E R S M E N K L E P I L P E L N I P H R H L R R I H Q S W E A  
 K P I A L  
 K P I A L  
 V S D D P V V G M S D P E L  
 V S D D P V V G M S D P E L  
 L C V P K T V S V  
 L F L P A

UniRef90\_B2VZI9  
UniRef90\_B7PHM6  
UniRef90\_B7PHM6  
UniRef90\_E3MMV2  
UniRef90\_E3MMV2  
UniRef90\_A2DHP4  
UniRef90\_C0P614  
UniRef90\_E6ZSC0  
UniRef90\_A0A024TME4  
UniRef90\_L8GR14  
UniRef90\_W9XMJ8  
UniRef90\_W9XMJ8  
UniRef90\_E4ZG70  
UniRef90\_Q6C6I4  
UniRef90\_B8LDD8  
UniRef90\_S7W6Y6  
UniRef90\_E1G4G9  
UniRef90\_E1G4G9  
UniRef90\_J3QC69  
UniRef90\_D2W497  
UniRef90\_D2W497  
UniRef90\_D2W497  
UniRef90\_B6K347  
UniRef90\_S9RDK8  
UniRef90\_S9RDK8  
UniRef90\_G3JL49  
UniRef90\_F2SX40  
UniRef90\_K0KKW5  
UniRef90\_W5CXY4  
UniRef90\_W5CXY4  
UniRef90\_G4TB88  
UniRef90\_G4TB88  
UniRef90\_E5STR3  
UniRef90\_J9VKJ2  
UniRef90\_M3HM46  
UniRef90\_M7BYM6  
UniRef90\_U6KMW7  
UniRef90\_U6KMW7  
UniRef90\_U7PJ43  
UniRef90\_E4UWH0  
UniRef90\_M2LBW9  
UniRef90\_C4Y3S7  
UniRef90\_N1RNR7  
UniRef90\_V5E9Y8  
UniRef90\_V5E9Y8  
UniRef90\_I3ELS1  
UniRef90\_C5M3A4  
UniRef90\_C9ZRR5  
UniRef90\_C9ZRR5  
UniRef90\_K0R1X6  
UniRef90\_F4R634  
UniRef90\_T1GKK2  
UniRef90\_T1GKK2  
UniRef90\_Q6CNY9  
UniRef90\_S3BUL7  
UniRef90\_UPI000273D2FF  
UniRef90\_H2YT28  
UniRef90\_H2YT28  
UniRef90\_S9W0U7  
UniRef90\_C5GFZ9  
UniRef90\_G8ZYY4  
UniRef90\_C5DPD6  
UniRef90\_H6BNI3  
UniRef90\_C1G9H6  
UniRef90\_J4KPV1  
UniRef90\_A8Q967  
UniRef90\_G9N5X3  
UniRef90\_F4PAR5  
UniRef90\_F4PAR5  
UniRef90\_S6F3S0  
UniRef90\_A7TJI0  
UniRef90\_L7JX00  
UniRef90\_L7JX00  
UniRef90\_UPI0004561748  
UniRef90\_C5KEG4  
UniRef90\_C5KEG4  
UniRef90\_A0A058ZCNO  
UniRef90\_M0ZIF1  
UniRef90\_F9XFT5  
UniRef90\_W6KU39  
UniRef90\_W2SYV5  
UniRef90\_W2SYV5  
UniRef90\_W2SYV5  
UniRef90\_G7YXC9  
UniRef90\_UPI0001F29D8F  
UniRef90\_UPI0001F29D8F  
UniRef90\_R1EKI0  
UniRef90\_R1EKI0  
UniRef90\_Q74Z22  
UniRef90\_UPI0003D70CDC  
UniRef90\_UPI0003D70CDC  
UniRef90\_Q6FV33

UniRef90\_G3GVU4  
UniRef90\_W7MBC2  
UniRef90\_A3M018  
UniRef90\_G0UPA7  
UniRef90\_G0UPA7  
UniRef90\_C4YLV6  
UniRef90\_U6FSY5  
UniRef90\_B5RUX8  
UniRef90\_R0JX23  
UniRef90\_UPI0004560CD2  
UniRef90\_UPI0004560CD2  
UniRef90\_M9MEJ8  
UniRef90\_UPI0001D37FA4  
UniRef90\_UPI0001D37FA4  
UniRef90\_B9ESW2  
UniRef90\_G3B0C5  
UniRef90\_U110L1  
UniRef90\_G8YD88  
UniRef90\_A0A059ESQ3  
UniRef90\_G0WFF5  
UniRef90\_E9F6L1  
UniRef90\_H8ZFA4  
UniRef90\_F2SH46  
UniRef90\_H3CLM1  
UniRef90\_R9XAY9  
UniRef90\_P32434  
UniRef90\_W0TH86  
UniRef90\_A2RBD5  
UniRef90\_G8BFW6  
UniRef90\_J9DQA0  
UniRef90\_M2WKW5  
UniRef90\_M2WKW5  
UniRef90\_I2GZ86  
UniRef90\_G2R7G3  
UniRef90\_V6LLD5  
UniRef90\_H8X5Z6  
UniRef90\_S0B2Q7  
UniRef90\_G0VEV9  
UniRef90\_A9UTQ4  
UniRef90\_G4VIK6  
UniRef90\_C4M2T2  
UniRef90\_A0A059AA13  
UniRef90\_C8VFH7  
UniRef90\_G3AHL8  
UniRef90\_G8BVJ7  
UniRef90\_I1N555  
UniRef90\_B9WLT5  
UniRef90\_Q4P3G5  
UniRef90\_A5D9X0  
UniRef90\_K4E821  
UniRef90\_K4E821  
UniRef90\_G0TXI2  
UniRef90\_E3KZA6  
UniRef90\_E3KZA6  
UniRef90\_R9P9I7  
UniRef90\_C5KFZ2  
UniRef90\_A0DAT9  
UniRef90\_J7S258  
UniRef90\_UPI00042C7A5A  
UniRef90\_M0SEU2  
UniRef90\_P18898  
UniRef90\_S9UXK4  
UniRef90\_S9UXK4  
UniRef90\_H2AQW2  
UniRef90\_C4JXR7  
UniRef90\_C4JXR7  
UniRef90\_J5S5B5  
UniRef90\_A4I281  
UniRef90\_A4I281  
UniRef90\_K0E2G0  
UniRef90\_E3KUP5  
UniRef90\_E3KUP5  
UniRef90\_J7G644  
UniRef90\_Q5DGK6  
UniRef90\_Q7S4G5  
UniRef90\_F6WSX2  
UniRef90\_C5DMR4  
UniRef90\_J3K3U8  
UniRef90\_J3K3U8  
UniRef90\_J3K3U8  
UniRef90\_DORMJ0  
UniRef90\_U6GJQ4  
UniRef90\_A4HF02  
UniRef90\_A4HF02  
UniRef90\_U6IQR5  
UniRef90\_U5H741  
UniRef90\_U5H741  
UniRef90\_U5H741  
UniRef90\_C6LV97  
UniRef90\_UPI0003EE345A  
UniRef90\_D4AXV1  
UniRef90\_B4I187

1

10

20

30

40

M K C L P F F K

D H V F T Q T S D D Q L D T E S A I N E L F S

Y D D E G L S T K S S V D A I H L N S T L K K R V S

T E T E K E Q L E V F E E V Q N A L N

D N V F T Q T S D D Q L E T E E A I N A L F S

S P A T P T T I A Q R E V E L L L L R F L Q

D N V Y T Q T S D D Q V E T E E A I N A L F S

K K F F N

Q T Y T A I L I L G I L E  
Q T Y T A I L I L G I L E  
Q T Y T A I L I L G I L E

T Q F V F K N T G Y Y S H T V K E E D S I D A C C A A E L L

UniRef90\_G3GVU4 D V T K S D A P D T L L L E K H A D Y L A S Y G S K K D D Y Y C M S E Y L R 50 60 70 80

UniRef90\_W7MBC2 S G T G D P L L D K Q Q H I K Y W Q R C H K T L P S P Y T A Y D S T R

UniRef90\_A3M018 E Q R E F L T E K H A K F F Q R C L L L L P A K L Q G E D A N R

UniRef90\_GOUPA7

UniRef90\_GOUPA7

UniRef90\_C4YLTV Q L L I N K H E K F F N R C L I G L P S T A Q S E D S N K

UniRef90\_U6FSY5 M D V H R

UniRef90\_B5RUX8 L L I E K H E K Y F R L C M Q S L P S K A Q S E D S N R

UniRef90\_ROJX23 F N Y D R H I R Y W R R N L K T L P H F Y T S N D S N R

UniRef90\_UPI0004560CD2 L E R R R H V A F Y L R H L S M L P Q P Y T S A D S Q R

UniRef90\_UPI0004560CD2 L E R R R H V A F Y L R H L S M L P Q P Y T S A D S Q R

UniRef90\_M9MEJ8 R L R P S R F D P S F L L E R Q A H V A F L T K L L E P L P G A Y T A F D T N R

UniRef90\_UPI0001D37FA4

UniRef90\_UPI0001D37FA4

UniRef90\_B9ESW2 P E Q P E F A R E R H V L F L E A M A S E L P A D Y A S Q E V N H

UniRef90\_G3B0C5 Q L L I H K H V K Y F T L C L N M L P S K H Q D Q D N N K

UniRef90\_U110L1 A S E P V L L R D R H I K Y W L R C A R T L P E A Y T S T D S N R

UniRef90\_G8YD88 L L V D K L E Q Y F R R C M Q S L P S R A Q E E D S N R

UniRef90\_A0A059ESQ3 D K E R I K E F I S A T L M K R N L K F Y T T E Y I R

UniRef90\_G0WFF5 E K H V K F V T R H L N L L P S T H Q N Q D V N R

UniRef90\_E9F6L1 L D K P R H V K Y W Q R C F T S L P S A Y T T N D S T R

UniRef90\_H8ZFA4 V L D K D A H I E Y L I K Q M N K P L N I G Y T S L V P W

UniRef90\_F2SH46 M A L R K D R Q I K Y F L R C L K T L P H P Y T S N D S N R

UniRef90\_H3CLM1 T L L L D K H A D Y L A S Y G S K N D D Y T L S E Y L R

UniRef90\_R9XAY9 M E L L I K H V R F M E R H I G L L P S S Q E K N D A N R

UniRef90\_P32434 M E L T R A K H I A F F K R H L I L F P T P Y E E H D C E R

UniRef90\_W0TH86 K H L K F C Q R H L H L L P P H Y Q D K D P N R

UniRef90\_A2RBD5 T F T K E R H I K Y F L R C L K T L P S L Y T S N D S N R

UniRef90\_G8BFW6 M S L L H A K H E R F F N R C L T A L P S S A A S E D S N K

UniRef90\_J9DQA0 R S K T E C F I N K I A K E Q D F R Y L L S K P I R

UniRef90\_M2WKW5

UniRef90\_M2WKW5

UniRef90\_I2GZ86 E F R A T L H L K F M G R H L M M L P P T Y Q S H D P N K

UniRef90\_G2R7G3 A E A P D Q P E P V L D H E R H L R Y W K M C L Q S L P R H Y L S N E G N R

UniRef90\_V6LLD5 I F K D A E M D F T G A L L Q F L I T S L Q L L P S H R K E E G T R

UniRef90\_H8X5Z6 M S L L H F K H E K F F N R C L T A L P S S A A S E D S N K

UniRef90\_S0B2Q7 P M M E L L R K K Y V L G G I H P L P S G M S E I E I G R

UniRef90\_G0VEV9 N R K K H I K F I E R H L A L L P G S H E A Q D V N K

UniRef90\_A9UTQ4 M T E H M F

UniRef90\_G4VIK6 R Q K L K I Y F K R C T G I L P Y S M V S L D S S R

UniRef90\_C4M2T2 N F I I G G L T Q L P D S F Q S V I E T I G R

UniRef90\_A0A059AA13 F D R E R H V K F L E M M Y H M L P R P Y Q S Q E I N H

UniRef90\_C8VFH7 S E A V F T K D R H V T F F L R C L K T L P G L Y T S N D S N R

UniRef90\_G3AHL8 L P G S A A S E D S N K

UniRef90\_G8BVJ7 E T K K H V K F L Q R H L L L L P P K A Q S Q D P N K

UniRef90\_I1N555 E K D A H V R F L E L M Y Y M L P S P Y E S Q E I N H

UniRef90\_B9WLT5 Q L L I T K H E K F F N R C L I G L P S S A Q S E D S N K

UniRef90\_Q4P3G5 R L R P S K F D P T L L L E R Q A H I S F L T K L L E P L P G A Y T A F D T N R

UniRef90\_A5D9X0 M A L E V K K H V R Y F E M C L A S F P S Q A E S E D S N K

UniRef90\_K4E821

UniRef90\_K4E821

UniRef90\_G0TXI2 Y H Q P D H P V A D M R L Y R D K H V K Y L Q K R L V S L P A S L E S L Y S A Q

UniRef90\_E3KZA6

UniRef90\_E3KZA6

UniRef90\_R9P9I7 R F R P S N L D P T L L L E R Q A H I T F L T K L L E P L P G A F T A F D T N R

UniRef90\_C5KFZ2 Q Q Q L T L G Q H E V F V Q K T L Y E Q K L P Y K A D S L K

UniRef90\_A0DAT9 K L V K F L E R H L G L L P V T Q E G N D V N K

UniRef90\_J7S258

UniRef90\_UPI00042C7A5A

UniRef90\_M0SEU2 K K H R K F F E R H L Q L L P S S H Q G H D V N R

UniRef90\_P18898

UniRef90\_S9UXK4 S L E D N L T K H V K F L Q F H L S L L P S R Y E S Y E V N K

UniRef90\_S9UXK4

UniRef90\_H2AQW2

UniRef90\_C4JXR7

UniRef90\_C4JXR7

UniRef90\_J5S5B5 K H E K F F E R H L Q L L P S S H Q G H D V N R

UniRef90\_A4I281 E P R F Y R A A H V H F L M E N L S V T P Q G F S S L Y P S R

UniRef90\_A4I281 E P R F Y R A A H V H F L M E N L S V T P Q G F S S L Y P S R

UniRef90\_K0E2G0 S E A V F T K D R H V T F F L R C L K T L P G L Y T S N D S N R

UniRef90\_E3KUP5

UniRef90\_E3KUP5

UniRef90\_J7G644 I F L Q N Q K I G I F N S L K C E K F I K E Y F F K I S F F F Y P N N Q I Q

UniRef90\_Q5DGK6

UniRef90\_Q7S4G5 P Y L D V L R H L R Y W K M C I R P L P H V Y L S N E S N R

UniRef90\_F6WSX2 E R L D F L R D R H V R F F Q R C L Q V L P E R Y S S L E T S R

UniRef90\_C5DMR4 A A P I P D G R L T I Q K H R R F L Q R H L A I L P S K Y Q E Y E A N K

UniRef90\_J3K3U8

UniRef90\_J3K3U8

UniRef90\_J3K3U8

UniRef90\_DORMJ0

UniRef90\_U6GJQ4 E F L W R R A S S Q V Y L Q R N E H I L F L N K H L H T P F S S T M I E L N A

UniRef90\_A4HF02 P R F H R A A H V R F L M E N L N A A P Q G M S G L Y P S R

UniRef90\_A4HF02 P R F H R A A H V R F L M E N L N A A P Q G M S G L Y P S R

UniRef90\_U6IQR5

UniRef90\_U5H741 D D F S R L D R K A L L R F I A S C Q N E D G S F L Q C P E A G D

UniRef90\_U5H741 D D F S R L D R K A L L R F I A S C Q N E D G S F L Q C P E A G D

UniRef90\_U5H741 D D F S R L D R K A L L R F I A S C Q N E D G S F L Q C P E A G D

UniRef90\_C6LV97 H N E D I T S L P T S D L C D F I C K E L H K P L S S M Q D L S M

UniRef90\_UPI0003EE345A E R L D F L R D R H V R F F Q R C L Q V L P E R Y S S L E T S R

UniRef90\_D4AXV1 M A L R K D R Q T K Y F L R C L K T L P H P Y T S N D S N R

UniRef90\_B4I187 E D R T D T E P V L L S K H A K N L L R F L N L L P A R M A S H D N T R



UniRef90\_G3GVU4 MSGLIYWGLT 90 VM D L M G Q L D R M N R E E I L V F I K S C Q H E C G G G 120  
UniRef90\_W7MBC2 L T F A C F T I S A L D L L S V P L T H T E R A A I R W W V L S L Q H H P E G G F  
UniRef90\_A3M018 L S F I Y A F C L H G S L G L L K Q Q K Y T K E E L Q A S Y S D F I Y K D Y D D D F S A F F  
UniRef90\_G0UPA7 L A T S Y A A V C S L C I I G Q Q P L K I L P R A A I K R W L L S L R R S D D G S F F  
UniRef90\_G0UPA7 L A T S Y A A V C S L C I I G Q Q P L K I L P R A A I K R W L L S L R R S D D G S F F  
UniRef90\_C4YL V6 L A I T I Y F C L H G L Q L I Q N Q E L I Y Y R N F I I N Q F M L E N N Q I T T S F F  
UniRef90\_U6FSY5 L T L L H F S V S G L A I L N E S P L L N F I Y A H Q Q D P S C G S F F  
UniRef90\_B5RUX8 L S L L I Y F C L H G L G I L L G K L L T D D E K K A Y A T H V Y A H Q Q D P S G Q F F  
UniRef90\_R0JX23 M L L A L F T V S S A L D I L G G D L L S A D R A Q E G H I D W V Y G C C Q L P E G G F F  
UniRef90\_UPI0004560CD2 L T L A Y F A L S S S L D L L G G K I S Q A D R A E Y A D W I Y Q C C S A E R G G G F  
UniRef90\_UPI0004560CD2 L T L A Y F A L S S S L D L L G G K I S Q A D R A E Y A D W I Y Q C C S A E R G G G F  
UniRef90\_M9MEJ8 S W L L Y W I L H S F D L L S V A L D P K G R A R A I A T L L S F Q N K S G G G F  
UniRef90\_UPI0001D37FA4 Y V I A F Y M Q A L Q L E D G S F F  
UniRef90\_UPI0001D37FA4 Y V I A F Y M Q A L Q L E D G S F F  
UniRef90\_B9ESW2 L T L A Y F A V A G L S L L R E L D S V N K D Q Q L A K W I L S  
UniRef90\_G3B0C5 L S L I C F C L E G L E L L N G L F S D V E R A Q Q F S D F I Y N S S Y Y T G N G F F  
UniRef90\_U110L1 M T L A F F I V D L L D L L A S K I D A N E R D S W R N W I F S C Q L D S G G F F  
UniRef90\_G8YD88 L A L V I F C L H G L E A I N R L D T A E E K E K H A K H I Y E H M L E D P S F F  
UniRef90\_A0A059ESQ3 T S C I Y W S L G T F K L L N E D M T S L K A F S L C Y L N E V Y N D D G G Y F  
UniRef90\_G0WFF5 M A I I F Y A I E T L S S L D P S I T I Y K K K N T I H W I R S H Y L K N E N I  
UniRef90\_E9F6L1 L T F A F F I V S A L D L L S V P F T S K E R S S I R S W V L S L Q H P D G G F F  
UniRef90\_H8ZFA4 V S S W I A N A L Y A S L N H K L S K L H D I A L Q I V G L Q C S A E R G G G F  
UniRef90\_F2SH46 M T L A Y F T L A G L D L L G V L I S A S E R A G Y V N W L Y H C Q L P T G G F F  
UniRef90\_H3CLM1 M S G I Y W G L T A M D L M G Q L P R M N R Q E I D F I T A C Q H E C G G F F  
UniRef90\_R9XAY9 L A I V Y S L V G I C C L D A E A L T A H R E G A S V I Q L R H R Q S G G F F  
UniRef90\_P32434 T V L A F F C G L D L L N A L N T I D D D K K S W I E W I Y K N Y V K Y S G F F  
UniRef90\_W0TH86 L A V I F Y A L T S I Q L L S E R D A D V G K Q Y S L E W L R S C Y V E C S G F F  
UniRef90\_A2RBD5 M L L A F F T V A G L D L L G V K T T P E E R Q G Y I D W I Y H C Q V P T G G F F  
UniRef90\_G8BFW6 L A I I F F C L Q G L Q L L K K L F T K E E C Q F H K E Y L W K S F T P Y F S H  
UniRef90\_J9DQA0 L S T L Y W Y V A S L R M L Q I P F S K I P R E E I E Y V Y K C R N K D G L F  
UniRef90\_M2WKW5  
UniRef90\_M2WKW5  
UniRef90\_I2GZ86 M A I I Y Y S L C G I A A T D K T Q I E T K Y S K S R E F I L A H H C T I S G F F  
UniRef90\_G2R7G3 M A L A Y F I I N A S Q R K P P L I P P E D R R R L R G W V L S H Q Q P G G G F F  
UniRef90\_V6LLD5 V S Q L Y W A V S P I L I L Q K L L K T D I K F N F V H I L A D S L S V F F  
UniRef90\_H8X5Z6 L A I I F F C L Q G L Q L L K K D F T K E E C Q F H E N Y I W N S F F L D S Y F F  
UniRef90\_S0B2Q7 V T M T M F Y F G A Y K L L F P E K P L K D V V N V L E T L R V K S N D P S V F F  
UniRef90\_G0VEV9 M A I V F Y A I E S L C A L E I D T K E I Y T K N L G W I H K H Y S P I A G F F  
UniRef90\_A9UTQ4 L S G L I F G K S G A L A A A G Q D D H L A A Q K V R I H A C R R D D G G Y F  
UniRef90\_G4VIK6 I V V L F F A S C G L A L L D A D D I V D R N E I I E F V Y S H Q D K K G G F F  
UniRef90\_C4M2T2 I T M L M F Y L G A Y K I L F P E Q P E K T I Q Y I L T S L S V K S D S K E V F F  
UniRef90\_A0A059AA13 L T L A Y F V I S G L D I L D A L D R V H K D A V A D W V L S F Q A D N G Q F F  
UniRef90\_C8VFH7 M L L A F F I V A G L D L L G S K T T P E E R Q G Y I E W I Y Q C Q V P S G G F F  
UniRef90\_G3AHL8 L S I I Y F C L H G L Q L L D K E L E Y Y S K F I Y D E F L I E N D D F I G F F  
UniRef90\_G8BVJ7 L G I V Y A I A G L A L L D E S L S A Y T K N K D W I Y K H Y K E F D G F F  
UniRef90\_I1N555 L T L A Y F V I S G L D I L N S L H K V A K D A V I S W V L S  
UniRef90\_B9WLT5 L A I I Y F C L H G L Q L L Q F Q F H E Q E L I Y Y R N F I Y K Q F N E I I S F F  
UniRef90\_Q4P3G5 S W L L Y W I L H S Y D L L S V S L D P K G R A R A I A T L L S F Q N K S G G G F  
UniRef90\_A5D9X0 L A L V Y F C L Q G L Q I L R H D F S E S D R T G Y S Q Y I Y S Y M G N R Q G F F  
UniRef90\_K4E821 L A A S Y A A L C S L C I L P R K L H A L P R A A I K R W I L S L R C K D G S F F  
UniRef90\_K4E821 L A A S Y A A L C S L C I L P R K L H A L P R A A I K R W I L S L R C K D G S F F  
UniRef90\_G0TX12 P W L V Y W T L Q A A D V L G E L F A V V P P E A M A E F L F D C P T D V T P G  
UniRef90\_E3KZA6 E W M L S L K T P N G S F F  
UniRef90\_E3KZA6 E W M L S L K T P N G S F F  
UniRef90\_R9P917 S W L L Y W I L H S Y D L L S V S L D P K G R A R I V T L L S F Q N S G T G G F F  
UniRef90\_C5KFZ2 L M A Q T H A V R Q F  
UniRef90\_A0DAT9 A L F L Y C C V T T L K L L K S E C Q S E P I I N F L K L L E V K P H Q Y  
UniRef90\_J7S258 L A I V F Y S L E S L S A L D E L V C K K Y H P Y K S W W V D A D G R E L G G F F  
UniRef90\_UPI00042C7A5A  
UniRef90\_M0SEU2  
UniRef90\_P18898 M A I I F Y S I S G L S I F D V N V S W M R K H Y I K T V L D D T E N T I S G F F  
UniRef90\_S9UXK4 D T L S F I V R C Q T H E G G F F  
UniRef90\_S9UXK4 D T L S F I V R C Q T H E G G F F  
UniRef90\_H2AQW2 F A I V F Y A I V S L S V I Y Q D V S E K Y Q S N L G W V R S H Y T K I S G F F  
UniRef90\_C4JXR7 K E R H I K Y Y L R C L K T L L P H  
UniRef90\_C4JXR7 K E R H I K Y Y L R C L K T L L P H  
UniRef90\_J5S5B5 M A I V F Y S M V G L S I L D V D L D W I R K H Y I K K T L D D K N S T L S G F F  
UniRef90\_A4I281 P W I V Y W A L Q A A D V L S A M L H R T P P S A I V A F L H S C L S V D H T C  
UniRef90\_A4I281 P W I V Y W A L Q A A D V L S A M L H R T P P S A I V A F L H S C L S V D H T C  
UniRef90\_E0E2G0 M L L A F F I V S G L D L L G S K T T P E E R Q G Y I E W I Y Q C Q V P S G G F F  
UniRef90\_K3KUP5 D L P K L L Q F V R D C Q R P N G S F F  
UniRef90\_E3KUP5 D L P K L L Q F V R D C Q R P N G S F F  
UniRef90\_J7G644 S W V F F W I I N S F D L I R K S I N P V I L K N F K K K I Q N L L F R C G Q K  
UniRef90\_Q5DGK6  
UniRef90\_Q7S4G5 L A L A Y F I V N S V T L M L T P S I R E D K R A M R K W V L H H Q H P T G G F F  
UniRef90\_F6WSX2 L T I A F F A L S G L D L L D P S L D V V N K D D I E W I Y S L Q V N R C G G F F  
UniRef90\_C5DMR4 L A I V T Y A L I G L S C I G D P V S E E Y A A S K E W L R R H Y R V I G G F F  
UniRef90\_J3K3U8 K D R H I K Y F L R C L K T L L P H  
UniRef90\_J3K3U8 K D R H I K Y F L R C L K T L L P H  
UniRef90\_J3K3U8 K D R H I K Y F L R C L K T L L P H  
UniRef90\_DORMJ0  
UniRef90\_U6GJQ4 S K I L Y T L D L C W D D K G G G A W  
UniRef90\_A4HF02 P W I V Y W A L Q A A D V L N E V L H R T P P S A I V A F L H S C L S I D H T C  
UniRef90\_A4HF02 P W I V Y W A L Q A A D V L N E V L H R T P P S A I V A F L H S C L S I D H T C  
UniRef90\_U6IQR5  
UniRef90\_U5H741 P R S T Y A A F V L A S M L D D W F S I D L D A A L A F L I T C Q R P D G G F F  
UniRef90\_U5H741 P R S T Y A A F V L A S M L D D W F S I D L D A A L A F L I T C Q R P D G G F F  
UniRef90\_U5H741 P R S T Y A A F V L A S M L D D W F S I D L D A A L A F L I T C Q R P D G G F F  
UniRef90\_C6LV97 S M Q L Y W L Y C T L T V L N P Q T A E G F R Q K V I N T L Q S W V S P Q S G L  
UniRef90\_UPI0003EE345A M T V A F F A L S G L D M L D S L D V V N K D D I E W I Y S L Q V N R C G F F  
UniRef90\_D4AXV1 M T L A Y F T L A G L D L L G A L I S A S E R A G Y V N W L Y C Q V P T G G F F  
UniRef90\_B4I187 S T I V F F A V C G L D V L N H L V P Q M R Q D I I D W I Y D N E K K C G G F F

UniRef90\_G3GVU4  
UniRef90\_W7MBC2  
UniRef90\_A3M018  
UniRef90\_G0UPA7  
UniRef90\_G0UPA7  
UniRef90\_C4YLV6  
UniRef90\_U6FSY5  
UniRef90\_B5RUX8  
UniRef90\_R0JX23  
UniRef90\_UPI0004560CD2  
UniRef90\_UPI0004560CD2  
UniRef90\_M9MEJ8  
UniRef90\_UPI0001D37FA4  
UniRef90\_UPI0001D37FA4  
UniRef90\_B9ESW2  
UniRef90\_G3B0C5  
UniRef90\_U110L1  
UniRef90\_G8YD88  
UniRef90\_A0A059ESQ3  
UniRef90\_G0WFF5  
UniRef90\_E9F6L1  
UniRef90\_H8ZFA4  
UniRef90\_F2SH46  
UniRef90\_H3CLM1  
UniRef90\_R9XAY9  
UniRef90\_P32434  
UniRef90\_W0TH86  
UniRef90\_A2RBD5  
UniRef90\_G8BFW6  
UniRef90\_J9DQA0  
UniRef90\_M2WKW5  
UniRef90\_M2WKW5  
UniRef90\_I2GZ86  
UniRef90\_G2R7G3  
UniRef90\_V6LLD5  
UniRef90\_H8X5Z6  
UniRef90\_S0B2Q7  
UniRef90\_G0VEV9  
UniRef90\_A9UTQ4  
UniRef90\_G4VIK6  
UniRef90\_C4M2T2  
UniRef90\_A0A059AA13  
UniRef90\_C8VFH7  
UniRef90\_G3AHL8  
UniRef90\_G8BVJ7  
UniRef90\_I1N555  
UniRef90\_B9WLT5  
UniRef90\_Q4P3G5  
UniRef90\_A5D9X0  
UniRef90\_K4E821  
UniRef90\_K4E821  
UniRef90\_G0TXI2  
UniRef90\_E3KZA6  
UniRef90\_E3KZA6  
UniRef90\_R9P9I7  
UniRef90\_C5KFZ2  
UniRef90\_A0DAT9  
UniRef90\_J7S258  
UniRef90\_UPI00042C7A5A  
UniRef90\_M0SEU2  
UniRef90\_P18898  
UniRef90\_S9UXK4  
UniRef90\_S9UXK4  
UniRef90\_H2AQW2  
UniRef90\_C4JXR7  
UniRef90\_C4JXR7  
UniRef90\_J5S5B5  
UniRef90\_A4I281  
UniRef90\_A4I281  
UniRef90\_K0E2G0  
UniRef90\_E3KUP5  
UniRef90\_E3KUP5  
UniRef90\_J7G644  
UniRef90\_Q5DQK6  
UniRef90\_Q7S4G5  
UniRef90\_F6WSX2  
UniRef90\_C5DMR4  
UniRef90\_J3K3U8  
UniRef90\_J3K3U8  
UniRef90\_J3K3U8  
UniRef90\_DORMJ0  
UniRef90\_U6GJQ4  
UniRef90\_A4HF02  
UniRef90\_A4HF02  
UniRef90\_U6IQR5  
UniRef90\_U5H741  
UniRef90\_U5H741  
UniRef90\_U5H741  
UniRef90\_C6LV97  
UniRef90\_UPI0003EE345A  
UniRef90\_D4AXV1  
UniRef90\_B4I187

S A S L G H D P H L L Y T L S A V Q I L L T L Y D S V H A L D V D K V V A Y  
C G S S T H T A N L I A A T F F A L V L L L G L L A A D S G E A F S G V D R V R L L K W  
R A T P Y D L G E A D I R A S Y C F A L L N L L L L E S D D Y S K V L L D N H K V M K F  
C M H L G G E A D I R A S Y C V A V I V T L L Q L H D A S G D V L L T S Q T A E F F  
R S Q K Y D S C H I N S T L F A L Y N L L L L K S P Y Y H T I I N R K Q A V I M N F  
R G S P Y D S C H I T M N Y S A L V S L L L V L G D D L E R V N R Q A V I D G  
E S G N Y D L P N L S A T F F A L I N L L L A L E S D D Y S A K L D R H K I M N F  
R P W P G D P A H V P G T F F A L L T L V L V L G D D L E R V V K R K E I L A W  
F R G G P G V G S A V P S L A T L G P S A S A A A A H A V D V D V E V E V D A G  
F R G G P G V G S A V P S L A T L G P S A S A A A A H A V D V D V E V E V D A G  
G G G P D Q I S H L M P T A E D V A D G K S V E G R G G W D A L D R H K M R S W  
A V A E G S E N D M R F V Y C A S C I C Y M L N W S G M D V K K A I T Y  
Q V H P K T D N E L D N G Q R F Y S G F C G S  
R S G V Y D I A T M S S T F F G L Q S L L V L R D T I N E K V D R H S I M K F  
R G F H W D P A N V P A T F F A L V I T L I L L G S D D L S R V R R R E C L I T W  
R P S Q Y D L P N L S A T F F A L C S L L A L G S D F S R I L D R H K I M R F  
G Q S L N F L P S T I T A T L S A L Q T Y D L M G E T F Y D L E D K T E D Y  
S G F I G S K T M L P N T L F A L L T L L L L D D K E F F T N V L D C K V C R F  
C G S P T H V M N L A T T F F A L L L L G V A A G T D A F A G V R R R K L L R F  
S P D R S Q L P N L G C T Y A G L V L L K V M K K D H M L D R D G I L K F  
R G F T G D P A N V P A T F F A L V A L L L L E D D L A R V R R R E C L A W  
S A S L G H D P H L L Y T L S A I Q V T S Y S F F P L M Y C M R N M A R F  
L G S R T M E M S S A N T L F A T L S L L C L F L G E A H E F L Q K E N S A A I C E F  
Q A Y R T Q E P Q L A G T V F S I C C L F L G E D N L S R V T D R I K N F  
A V C S M K E A R L L S T S L P N T L F G L D G E F V R S R V C L R S L G A L  
R A F T G M D P A N V P S T F F A L E L L V I L G S D D L S R V K R R E C L Q W  
A G E D Y D Y G S I S A C F F A L A S L I T L K S D L L K Q L N K S K L M R Y  
G G E I G Y P S N I L A T L N A L Q I F Y V C K E Q F Y D A T S I I G T L E N F  
MS A G R D E A A R L D K P R H V K Y  
MS A G R D E A A R L D K P R H V K Y  
I G T L T L D F Q L S N T L F A L L S L R L L A L L G E D S F F E N S H K R H I G N L  
A G F P L Q A P Y L P A T M F A L L Q L L A L L A D E D A F R G M D R V Q T L R W  
F P G Q E P H A I C V Y G A S L L R Y A M N L Q L T N E Q T N Q I V K F  
S G E T Y D Y G N I S A C F F A L A S L V T L Q S D L K R L D R S K V M K Y  
N G F T G C E G H I S Y T Y A A L A S L S Q L G Y D L R R I D D K T S I T S T  
V G S L T M D I A G V N T I S L P N T L F A L L T L L L D S I E M G R I S S F  
A G N E V Y P S H L Y T Y S A V Q L A I L Y N Q P E L L D A D A L E A F  
R G S N Y D G S H V T M V Y S A L S T L L L L G D N L S R V D R R G T L A G  
Q G F T G C E M H I S Y T Y A A L A S L S Q L G Y D L R R I D K S S I V N S Y H  
Y G F H G N G S H V L A S T Y S A L A I L K I V G Y N D L S N I D S E S M L T S  
R G F T G D P A N V P S T F F A L V I L L I L G D D L S R V K R T E C L K W  
R A G S Y D L P N L S A T L F A L Y N L L I L K S N Y S K R L D Q D K I M K F  
I G S P G Q T L N S N T L F A L I L L N I I D D C D G R S K N I N Y E H I R F  
Q A H S P G A K A D L N D G Q F Y G F H G  
R S T H Y D C P N L S S T L F A L Y N L L L L K S P Y H N Y I N R N K I M K F  
F G G P D Q I A H L M P T A E H V A D G K S V E S H G G W D A I D R T T M Y N W  
R P S Y D M P S A T F F A L V S L L A L E S D Y T K R I D R T Q K I J O F  
C L H T G G E A D I R A S Y C A A V M T V L L Q L N D R D D T V L T E Q T A A F  
C L H T G G E A D I R A S Y C A A V M T V L L Q L N D R D D T V L T E Q T A A F  
S S G T S D V S L A V K T V A S E L N D S T D A R Q Q S S S A Y P N E K I K E  
A M H Q D G D I D V R G C A T A L S V A T V L N L L T P E L V K N L P E Y  
A M H Q D G D I D V R G C A T A L S V A T V L N L L T P E L V K N L P E Y  
G G G P D Q I A H L P T T E D I V D G K S V E V G R G W D A I D R G K M Y D W  
V G L P E C E V I S M Y A T Q H M H A K Y S S F D G V Y S F L G S N N F D R Y S T  
K P S T F D D P S I V N S Y C A I S V L R E L Q H N I Q V D Q E S A L N F  
V G S P G V N S S L A N T L F A L V C L T L C E S Y E E F E N P L R K P I K F

V G S H A T T I N L P N T L F A L L S M I M L R D Y E Y F E T I D K R S L A R F  
A C H S Y Q Y A H G A Y T H C A L A Y L L H P R E L L Q E Q R I D L H R L R R W  
A C H S Y Q Y A H G A Y T H C A L A Y L L H P R E L L Q E Q R I D L H R L R R W  
V G S P D V I S H L P N T L F G L L T L T T L H D R E F K I L D T H S L C N F  
Q Y T P N D S N R M T L A F F V V A G L D L L D S L N S V S A P E R R A Y A N W  
Q Y T P N D S N R M T L A F F V V A G L D L L D S L N S V S A P E R R A Y A N W  
V G S H A T V N I A N T F A L V S L I M L K D Y E Y F E T I D R E S L S R F  
Q A E V N N D P H V T S T T S V T L S R D S A D A T S A T R M P P V I E D A A E V  
Q A E V N N D P H V T S T T S V T L S R D S A D A T S A T R M P P V I E D A A E V  
R G F T G D P A N V P S T F F A L V I L L I L G D D L S R V K R T E C L K W  
G S F P S H D E D V R F V Y C A V A I L A I V R V D P S T V I D V D S T E R F  
G S F P S H D E D V R F V Y C A V A I L A I V R V D P S T V I D V D S T E R F  
G K L F L N S S N L I S L Y T L T L S F F S L S K F S N I K K F Y L L K I Y S F

C G T S S L V F H L Y D T Y A G L A N I D E A A G E N V E E G V D R V G T L R F  
R G H P Y D S G H I A M T Y T G L S C L V I L G D D L S R V N K E A C L A G  
F P S L Y M E V I E I A M T Y T L F G L I S L L C L N D H K F F S D V D R K E I C R F  
Q Y T P N D S N R M T L G F F F I V G G L D L L G F L H A L S E S E R R A Y A N W  
Q Y T P N D S N R M T L G F F F I V G G L D L L G F L H A L S E S E R R A Y A N W  
Q Y T P N D S N R M T L G F F F I V G G L D L L G F L H A L S E S E R R A Y A N W  
T E H M R V S G L Y V G V G A M A L L N R E E E M D P S E I V I E W  
G G G Y K Q Q A H L A C T Y A A A C L R L R E R W C T I N K D K R M Q L Y R T  
Q A E V N N R L A V A A T L A G S R T T S V I P A S D S D D A T S A T F M P E V  
Q A E V N N R L A V A A T L A G S R T T S V I P A S D S D D A T S A T F M P E V  
P Y N D S C H V T A D Y S A L I L L V L G D N L D R L N R Q A I I E G  
A T G P R S E A Q G G T T Y C S I A C F S L A S R L D S L P T P Q D L  
A T G P R S E A Q G G T T Y C S I A C F S L A S R L D S L P T P Q D L  
A T G P R S E A Q G G T T Y C S I A C F S L A S R L D S L P T P Q D L  
V P H D G Y Q T H A L I I F G A T L S A A A V G Y H N L M D R E I V I H S H  
R G H P Y D S G H I A M T Y T G L S C L V I L G D D L S R V N K E A C L A G  
R G F T G D P A N V P A T F F A L V I L L I L G E D D L V R V R R R E C L A W  
M G C K Y Q W G H L A M T Y T S L A V L V T L G D D L S R L D R K S I V D G

UniRef90\_G3GVU4  
UniRef90\_W7MBC2  
UniRef90\_A3M018  
UniRef90\_GOUPA7  
UniRef90\_GOUPA7  
UniRef90\_C4YLV6  
UniRef90\_U6FSY5  
UniRef90\_B5RUX8  
UniRef90\_R0JX23  
UniRef90\_UPI0004560CD2  
UniRef90\_UPI0004560CD2  
UniRef90\_M9MEJ8  
UniRef90\_UPI0001D37FA4  
UniRef90\_UPI0001D37FA4  
UniRef90\_B9ESW2  
UniRef90\_G3B0C5  
UniRef90\_U110L1  
UniRef90\_G8YD88  
UniRef90\_A0A059ESQ3  
UniRef90\_G0WFF5  
UniRef90\_E9F6L1  
UniRef90\_H8ZFA4  
UniRef90\_F2SH46  
UniRef90\_H3CLM1  
UniRef90\_R9XAY9  
UniRef90\_P32434  
UniRef90\_W0TH86  
UniRef90\_A2RBD5  
UniRef90\_G8BFW6  
UniRef90\_J9DQA0  
UniRef90\_M2WKW5  
UniRef90\_M2WKW5  
UniRef90\_I2GZ86  
UniRef90\_G2R7G3  
UniRef90\_V6LLD5  
UniRef90\_H8X5Z6  
UniRef90\_S0B2Q7  
UniRef90\_G0VEV9  
UniRef90\_A9UTQ4  
UniRef90\_G4VIK6  
UniRef90\_C4M2T2  
UniRef90\_A0A059AA13  
UniRef90\_C8VFH7  
UniRef90\_G3AHL8  
UniRef90\_G8BVJ7  
UniRef90\_I1N555  
UniRef90\_B9WLT5  
UniRef90\_Q4P3G5  
UniRef90\_A5D9X0  
UniRef90\_K4E821  
UniRef90\_K4E821  
UniRef90\_G0TXI2  
UniRef90\_E3KZA6  
UniRef90\_E3KZA6  
UniRef90\_R9P9I7  
UniRef90\_C5KFZ2  
UniRef90\_A0DAT9  
UniRef90\_J7S258  
UniRef90\_UPI00042C7A5A  
UniRef90\_M0SEU2

170 180 190 200  
V Q S L Q K E D G S F A G D I W G E I D T R F S F C A V A T L A L L G K L D A I  
L N M L Q Q R K D G S F G Q V F W G E R D M R H S Y L A S C I R W M L G W V D E D L  
L Q A L S Q T K E G G E N F K G S F F A S E E A H G A Y T Q C G L A A S L R H L V K Y D T D L  
V A S C C Q T H E G G G F C G K F A S E E A H G A Y T Q C G L A A L L L M G K P H M C  
L K C K Q V K D G G F V P T Q Y C P F D L R V C Y M A L L T R H L M K Y D T D L  
I K T L Q S V N G V N G V S L F Q C P E D V R F L F S A V A S A Y I L D M L E D Q L  
V S K C Q Q V T K G A F K G Y P F G E V D L R H C Y I A A S T R K L C D R I L N D F  
L V Y K M Q R P P E G S F G G D V H G G N D S R F G Y M A T A L S L R W I L R D G I P D  
L P P V S S P R P S R V L E R L G G G N L A M T Y T A L L S L A I L D D F A R L  
L A S L K Q P D G S F L V H A N G E V D V R A G Y C V V C I T T L L G L S S P D  
I R R S M S Y D N G L A Q G A G L E S H G G S T F C G I A S L C L M G K L E E V  
L R R S M S Y D N G L A Q G A G L E S H G G S T F C G I A S L C L M G K L E E V  
R T T Q F P S T N M K D P C F H N G S H L A S T Y S A L A I C S M L K D W T G M  
V Q S C Q Q W K K G C F A G T P F H G G S D L R L C Y M A V A I R R L K Y D Q D F  
L P K V Q R Q D G S F G E S I F E G G S D L R F C C C A A G V R H I L K D V Q D F  
V L K Q C Q H S C G A F S G E P F F G S E D D N R L V C C I L S L R K M C K R D T D  
L L S H L N E E G S C K S E D D N R L V C C I L S L R K M C K R D T D  
V S K C Q D K D G S F V S S C P V D S N D L R F C Y I A V A L Y L L C G C N E Y I  
L H D L R H E L G A N C S Q S H E S H G E A G Y A Y C A I A A L Y M L D R D P A S S E  
L I T E M K V K N G F T M Y S D G E I D P R S I Y C A V A T Y S L L H S D T S K E  
L N S M Q R E D G S F G G S I D G A R D L R F C C C A A G T R Y I L L D T G S D T  
L S S Q L N L V V T H S T C S V T V H H  
V S R C Q L P D G S F C P S P T D S H D L R F C Y I A V A L L Y L H G C R T P V  
V E L C K T S Q G G H F R V P S C S D Q D M R Q L Y M A T T I A S L L D F S L S  
V S R C Q L R D G S F V S F L R E G D H D L R F C Y I A V A L L Y L R L V G C R T Y I  
L R M Q R D N G S F G G K L R E G G D L R F C C F A A G T R Y I L D G I K D I  
L K C Q V D K G G F V P F Y F G E P D L R Q C Y M A L L V R Q L L D M K E D I  
V T R C L K T L L P H H Y T G N E S N R M Y L A F F I I S A L D L L D S W H T M  
W T R C L K T L L P H H Y T G N E S N R M Y L A F F I I S A L D L L D S W H T M  
V R N C Q L R D G S F V S S I L D D S K D L R Y T Y M A L S I L Y L M G S R S K I  
L R R L Q R A D G S F G W F I L G G G Y D M R Y C Y L A A A R W M L G W V E D I  
L H T R L K R K S G G F G A S E T G E T D T R T Y A V L T I I Y L N N I Q E E D  
L I R C Q V N K G G F V P F Y F G E P D L R V C Y M A L L V R K L L D D E D F V  
L P N L F K P K G V F A T S D E C E H D V R F V Y S L C A V C Y L L N D W S I  
V S A C Q E E N G S F M S A L N F D S D L R F C Y I A V T L L Y L C G S R T Y I  
V W S R L L P S G A Y Y G N D P S D T D T R F S Y C A L A T L A L Y L D K L Q S I  
L S A M Q C E P G L F A G D I C G E R D M R F V F S A V A S C Y I L D G K L P S I  
T L F R K E C K G V F A T S E E G E Y D I R F I Y S L C A T C Y L L N D W G N I  
M R N L Q Q S D G S F M I H I L G A G E R D L R F L Y C A A A C F M L N N W N G M  
L R K M Q R P N G S F G E V L G A G G D L R F C C F A A G T R Y I L D G I E D I  
L Q L C Q T K T G E F K G E Q Y G D S D L R C Y I A L A I R H L V D R K H D I  
L S Q C Q V P N G G F V S S L D S F T D L R Y C Y I A V A I L Y F T G C R T R A  
S K T S Q F P N D E N G V L I H N S H L A S T Y C A I S L K I V G Y L S N L  
L C K C Q I N N G G F V P T Q F G E P D L R V C Y M A L L I R H L M K Y D N N I  
I S S L K Q P D G S F L V H V N G E V D V R A G Y C V I C I T T L L G L S T P K  
V S S C Q I R D G A F R G V A F G E V D M R T T Y M A V G I G R L C N I D D L  
V A S C Q T H E G G G F C G L N A S E A H G A Y T Q C G L A A L L L M R S P H L C  
V A S C Q T H E G G G F C G L N A S E A H G A Y T Q C G L A A L L L M R S P H L C  
D D E A L T H E G G F G G R L A H I P H I A A T Y A V S A L C M L G R L Q S L  
L V S C Q T Y E G G I C A D P T G E A H G G Y S M C A L T C D F L L Q G L P S L  
L V S C Q T Y E G G I C A D P T G E A H G G Y S M C A L T C D F L L Q G L P S L  
I S S L K Q P D G S F L V H T N G E V D V R A S Y C V I C I A T L L G L S T P T  
R R N L E C S I G V M D R G F A E G I R S I H E D K K H K G F K P S  
V R S L V Q E D G N I R S S A N S D A D I R M L Y S A L A Y L D L L N D T S E  
I K C C Q K S N G A F V S V L N Y H H D L R F C Y I A V S I L Y L L G D R S H I

UniRef90\_P18898  
UniRef90\_S9UXK4  
UniRef90\_S9UXK4  
UniRef90\_H2AQW2  
UniRef90\_C4JXR7  
UniRef90\_C4JXR7  
UniRef90\_J5S5B5  
UniRef90\_A4I281  
UniRef90\_A4I281  
UniRef90\_K0E2G0  
UniRef90\_E3KUP5  
UniRef90\_E3KUP5  
UniRef90\_J7G644  
UniRef90\_Q5DGK6  
UniRef90\_Q7S4G5  
UniRef90\_F6WSX2  
UniRef90\_C5DMR4  
UniRef90\_J3K3U8  
UniRef90\_J3K3U8  
UniRef90\_J3K3U8  
UniRef90\_DORMJ0  
UniRef90\_U6GJQ4  
UniRef90\_A4HF02  
UniRef90\_A4HF02  
UniRef90\_U6IQR5  
UniRef90\_U5H741  
UniRef90\_U5H741  
UniRef90\_U5H741  
UniRef90\_C6LV97  
UniRef90\_UPI0003EE345A  
UniRef90\_D4AXV1  
UniRef90\_B4I187

V S K C Q R P R G S F V S C L D Y K T D L R F C Y I A V A I L Y I C G C R S K E  
L A A R Q C F E G G F N G R T N K L V D S C Y S Y W I G G S H A L Y  
L A A R Q C F E G G F N G R T N K L V D S C Y S Y W I G G S H A L Y  
V G A C Q L T D G S F V S F L D Y K H D L R F C Y I A V A I L Y I A G C R S E I  
I Y H C Q L S S G G F R G F T G T K F G S A A T A D N E I W D P A  
I Y H C Q L S S G G F R G F T G T K F G S A A T A D N E I W D P A  
V S R C Q L P R G S F V S C L D Y N T D L R F C Y I A V A I L Y I C G C R S T I  
A E R S S R P V M G F G G A T H Q E P H I A S S Y A A C C A L A M L S W Y D D L  
A E R S S R P V M G F G G A T H Q E P H I A S S Y A A C C A L A M L S W Y D D L  
L R K M Q R P N G S F G E V L G G G D L R F C C F A A G T R Y I L D G I E D I  
L K S C R R Y E G G Y G Q A P H F E A Q G G T T Y C A L A S F A L L S R L T E E E  
L K S C R R Y E G G Y G Q A P H F E A Q G G T T Y C A L A S F A L L S R L T E E E  
L K K L R S K N G F R C S F I G E S D P R S V F C L L V I S S L F N I L T K N  
M Q C L D E P G L F A G D I C A G E R D M R F V F S A V A S C Y I L N G L D Y I  
L R A L Q R E D G S F G E V I A G S Y D M R Y C Y I A T A I R W I L G W V E D F  
L R A L Q R E D G S F G E V I A G S E N D M R F V Y C A S C I C Y M L N N W S G M  
L V S K C H K P T G G F A A S L D D P D D L R H T Y M A T A L L Y L M G C R N A S  
V Y H C Q L S S G G F R G F T G T K F G D D D Q R T A A N E A W D P A  
V Y H C Q L S S G G F R G F T G T K F G D D D Q R T A A N E A W D P A  
V Y H C Q L S S G G F R G F T G T K F G D D D Q R T A A N E A W D P A  
V M Q C E H P D G G F S G N V G H D R H L L Y T V H A L L I L A M L G A L D R I  
L K A L K S P C G G F R L H R D G E V D M R G A Y C A I A V A S L F N I L T E D  
I D G P S R P V I G F G G A R H Q E P H I A S S Y A A C C A L A I L S W Y E D L  
I D G P S R P V I G F G G A R H Q E P H I A S S Y A A C C A L A I L S W Y E D L  
I K S L Q H L I N N A S L F C P E F D P R F I F S A V A S A Y V L D L D Q L  
L R S L V H P L A G F Q G R L S K P P D A C Y S F W A V A S L S L I S P L  
L R S L V H P L A G F Q G R L S K P P D A C Y S F W A V A S L S L I S P L  
L R S L V H P L A G F Q G R L S K P P D A C Y S F W A V A S L S L I S P L  
L T K C F N K Q G C F C S D D Q S E N D V R V S Y T C V S V G Y C Y N L L G D K  
L R A L Q L E D G S F C A V I P G S E N D M R F V Y C A S C I C Y M L N N W S G M  
L K S M Q R E D G S F G G S I D G A R D L R F C C C A A G I R Y L R G E D D I  
V A A V Q K P E G S F S A C I D G E D D M R F V Y C A A T I C Y M L D Y W G D V

UniRef90\_G3GVU4  
UniRef90\_W7MBC2  
UniRef90\_A3M018  
UniRef90\_G0UPA7  
UniRef90\_G0UPA7  
UniRef90\_C4YLV6  
UniRef90\_U6FSY5  
UniRef90\_B5RUX8  
UniRef90\_R0JX23  
UniRef90\_UPI0004560CD2  
UniRef90\_UPI0004560CD2  
UniRef90\_M9MEJ8  
UniRef90\_UPI0001D37FA4  
UniRef90\_UPI0001D37FA4  
UniRef90\_B9ESW2  
UniRef90\_G3B0C5  
UniRef90\_U110L1  
UniRef90\_G8YD88  
UniRef90\_A0A059ESQ3  
UniRef90\_G0WFF5  
UniRef90\_E9F6L1  
UniRef90\_H8ZFA4  
UniRef90\_F2SH46  
UniRef90\_H3CLM1  
UniRef90\_R9XAY9  
UniRef90\_P32434  
UniRef90\_W0TH86  
UniRef90\_A2RBD5  
UniRef90\_G8BFW6  
UniRef90\_J9DQA0  
UniRef90\_M2WKW5  
UniRef90\_M2WKW5  
UniRef90\_I2GZ86  
UniRef90\_G2R7G3  
UniRef90\_V6LLD5  
UniRef90\_H8X5Z6  
UniRef90\_S0B2Q7  
UniRef90\_G0VEV9  
UniRef90\_A9UTQ4  
UniRef90\_G4VIK6  
UniRef90\_C4M2T2  
UniRef90\_A0A059AA13  
UniRef90\_C8VFH7  
UniRef90\_G3AHL8  
UniRef90\_G8BVJ7  
UniRef90\_I1N555  
UniRef90\_B9WLT5  
UniRef90\_Q4P3G5  
UniRef90\_A5D9X0  
UniRef90\_K4E821  
UniRef90\_K4E821  
UniRef90\_G0TXI2  
UniRef90\_E3KZA6  
UniRef90\_E3KZA6  
UniRef90\_R9P9I7  
UniRef90\_C5KFZ2  
UniRef90\_A0DAT9  
UniRef90\_J7S258  
UniRef90\_UPI00042C7A5A  
UniRef90\_M0SEU2  
UniRef90\_P18898  
UniRef90\_S9UXK4  
UniRef90\_S9UXK4  
UniRef90\_H2AQW2  
UniRef90\_C4JXR7  
UniRef90\_C4JXR7  
UniRef90\_J5S5B5  
UniRef90\_A4I281  
UniRef90\_A4I281  
UniRef90\_K0E2G0  
UniRef90\_E3KUP5  
UniRef90\_E3KUP5  
UniRef90\_J7G644  
UniRef90\_Q5DQK6  
UniRef90\_Q7S4G5  
UniRef90\_F6WSX2  
UniRef90\_C5DMR4  
UniRef90\_J3K3U8  
UniRef90\_J3K3U8  
UniRef90\_J3K3U8  
UniRef90\_DORMJ0  
UniRef90\_U6GJQ4  
UniRef90\_A4HF02  
UniRef90\_A4HF02  
UniRef90\_U6IQR5  
UniRef90\_U5H741  
UniRef90\_U5H741  
UniRef90\_U5H741  
UniRef90\_C6LV97  
UniRef90\_UPI0003EE345A  
UniRef90\_D4AXV1  
UniRef90\_B4I187

210 220 230 240  
N V I E K A I I E F V L S C M N F D G G G F G C R P G S E S H A G Q V I  
N I D E M I A H I N R G Q T Y D G G G V L A E F S S Q H V E S H A G Y A Y C A I I G A L S  
D T K A L T D F L A R L R I D Y F E G G G L S F T K H V E S H L G F Y A C G I G A C H L K  
Y I A T L R G W L A R Q L S F E G G G F N G R T N K L V D S C Y A H W V G A S H V  
N Y A T L R G W L A R Q L S F E G G G F N G R T N K L V D S C Y A H W V G A S H V  
D L I S L Q F F L V D R I N I N G A F G S S T I M D E A S H L G F T Y C C A I A S L K  
N L D A F E K F L V D S I T Y E N G A F G S L P K M E A H A G L T F C C A I A S L K  
N E Q D L A S F V L E R S V N F N G G L S S E N K F T E A S H S G L T F C C G I A T L R  
D V D A F V L K C H R G S E C Y Q R D D G S F A P S V G H E Y D C R F L F C C A F A V C W  
D R A A I L L A H L S S C Q Q R D D G S F A P S V G H E Y D C R F L F C C A F A V C W  
L F E G M A A F I A S C C Q Q T F E G G L A A A S Q N K P E A H G G Y T Y C C A A A S H L  
F S E K E L N R I K R I M R Q Q N G Y H G S P N K L V D S C Y S F W V E A T L K  
D K E K A K Q Y I L S C Q S S D G G F G L V P G S E S H S G G T F C C A V A M L C  
D V P A L T V R Y I T A C Q Q T Y D G G G F S E G P G H E S H S G L T Y C C A I A S L K  
D V D S C I Q Y V L R Q R S M N D D G G F S S D K G W T E S H S G L T F C C A I A S L K  
D K D K I N F I L Q C S Y N D D G G F G M N K G A E S H A A Q V Y C C I A I S L R  
D V E K M L R Y I K E Q Q C D M G G Y G T Y G E P H A G Y T S C A L S A L Y  
D R D A L I H L H R S Q T N Y L V E Q E Q Q D E S D E E G D A N Y V I Q A K L G A L S  
L F G D T V E L L K S L Q T Y E G G F A A A P F N E S N A G L T Y C A L G T L S  
D A E K L I D Y V Q A C Q T Y E G G F A E S P F N E S N A G L T Y C A L G T L S  
I K Q A I S H C E D R T Q R M H K G F N F E L G N V L T P A Y M I W A C  
D V I E Q L V D Y V L T T Q R C I G G A F G A F G E A H A G Y T S C A L S L L S  
D P L C S I Q Y I K S C Q R Y E G G F S L L P Y G E A H A G Y T S C A L S L L S  
D V V G G V V E F I Q A S R E C S Y D G G G E C D E A P H A G Y T S C A L S L L S  
D V D K L A A F V Q A C Q A Y D G G M G E A P F C E A H A G H T Y C C A M G A L T  
D L K S L K E F I L G R L N G N G G F S S R L M D E A H L G F T F C C A I A S L K  
N L Q K L V E F M L K C C Q N E D D G G F G A L P N C E S H A A N T F C V I S S L R  
T K E Q E V D W I Y H C Q H P K G G F R M W P G T D A N V P A T Y F A L S A L L  
T K E Q E V D W I Y H C Q H P K G G F R M W P G T D A N V P A T Y F A L S A L L  
D V D L A V K N I L N S H Q T L L G A F G E Y N E P H A G Y T S C A L S A L Y  
D T R G L A N Y I L N S Q T Y D G G F A G S S Q N E E P H A G Y A Y C A I A S L S  
F L G L T V I F L K K K L Q N F G G F A G Q E D F G E A H A S F T Y C C A I T G L E  
N L K S L Q E F I L S R L N V N D G F S S R V L D R E A H L G F T F C C A I A S L K  
D K T K L F D F I L S C R S Y D F A F G Q V P L R E S H G G S T F C C A I A S I S  
D T E K L V E F I S S Q K C N V G G F G Q Y G E P H A G Y T S C C A L S A L K  
N V R Q A G E F V L A C C Q N D D G G F G L R P G C E S H A G Q T F C C V A S L Q S  
N C E N V A D F I A K C Q T Y Q G G F A N L P Y L E A H A G A T Y C C A I V A S L S  
N K E L L F E F I M S C R S Y D F A F G Q M P K R E S H G G S T Y C C A I Q S L S  
D R E K A K E Y I L N C C Q S Y D G G F G L S P G S E S H G G A A Y C C A I A S L R  
D V G K L V A F I V S C Q A Y D G G M A E G P Y C E A S H S H T Y C C A I A S L T  
D S K A A L D F I L L E R C N S N G G F S S Q V L N E A H L G F T F C C A V A S L K  
N F D K H I H F M K S Q E C M N G G Y G E Y L E A H A G Y T S C C A L S L K  
D S E T I V T S M R N L Q Q P D G S F I S I H G G E T D L R F V Y C A A T I C F  
D V I S L Q K F I L D R I N I N G G F S S T I M D E A S H L G F T F C C A V A S L K  
L F D G M A P F I A S C Q T Y E G G L A A A P L G E A H G G Y T F C C A A A S S L  
D V P S I I G Y V T S R V S L S G G L S S S P Y C E P H A G F T F C G L A T L K  
K Y A A L R R W L A R Q L K F E G G F N G R T N K L V D S C Y S Y W V G A S H M  
K Y A A L R R W L A R Q L K F E G G F N G R T N K L V D S C Y S Y W V G A S H M  
P R A A I K R W L S L R C E D G S F R M H V G G E V D I R A S Y C V S V V T  
D Y D S C L R W A A H M Q G L P G G F R G R T N K L V D G C Y G W W C G S A L T  
D Y D S C L R W A A H M Q G L P G G F R G R T N K L V D G C Y G W W C G S A L T  
L F G G M A S F V A S C Q T Y E G G I A A A S Q P E A H G G Y T Y C A A S H F  
L D D C V C S F L S A C H T P T G G F A G G P G Q L S H L A C T Y A A V A S L V  
F Q Q T V G K F I L M C C Q N Q D G A F G L R P H L E S H S G A S Y C A I A S L K  
N V G K L M E Y I L M A Q R C D V G G F G E F G E P H A G Y T S C C A L S A L K  
M E A H G G Y T F C C G L A A L V  
D F D K L L G Y I M S C Q T Y E G G I A G E P G S E A H G G Y T F C C G L A A L V  
K V C E S M Y R L L D L H E G T V L C A R D V V F L D H A Q L V D G T L L  
K V C E S M Y R L L D L H E G T V L C A R D V V F L D H A Q L V D G T L L  
N V D N L L K F I K S Q E C D F G G F G Q Y G E P H A G Y T S C A L S A L T  
N L P A T F F A L V T L L L  
N L P A T F F A L V T L L L  
D T R K L I E Y I M A Q R C C G G A F G A H N E P H A G Y T S C A L S T L A  
P R A A I K R W L L T L R N E D G S F R V H G G G E S D I R A S Y C A A V I T T  
P R A A I K R W L L T L R N E D G S F R V H G G G E S D I R A S Y C A A V I T T  
D V G K L V A F I V S C Q A Y D G G M A E A P Y C E A H Y D S W R V  
E A D Q T V R W L V D R Q G E L A Q S P G I P A G G R S S P P G L G S N K  
E A D Q T V R W L V D R Q G E L A Q S P G I P A G G R S S P P G L G S N K  
L F K K M I F E I N Q I N S F D G G F S C D K S R E S H G A L S F C L L G S C I  
N C E N V A S F I A K C L T Y Q G G F A N L P D L E A H A G A T Y C A V A S L S  
D T E A L A R Y I L N S Q T Y D R G F A G N S Q D E A H A G Y A Y C A I A A L T  
D M K A I T Y I L R S M  
E F E P L F S H F E Q K A C V S G G F G Q Y G E P H A G Y T S C A L S I L E  
N L P A T F F A L V T L L L  
N L P A T F F A L V T L L L  
N L P A T F F A L V T L L L  
E R D E C A K Y V A S L Q Q P D G G F G N L P G C E S H G G H I F T A V G A L S  
L K H N I T N Y V A S C Q T Y E G G I A G E A D C E A H G G Y S Y C C G L A A L A  
P R A A I K R W L L T L R N E D G S F R V H G G G E S D I R A S Y C A A V M T T  
P R A A I K R W L L T L R N E D G S F R V H G G G E S D I R A S Y C A A V M T T  
D L D T F E N F M M G C L R T Y E G G F G S S P K L E A H A G I T Y C V L A S L K  
F E T S E P S R G S E P I P S A R K W Y N  
F E T S E P S R G S E P I P S A R K W Y N  
F E T S E P S R G S E P I P S A R K W Y N  
T L E Q L I A Y F L Q A Q A Y D G G C S N N F G G E S H G A Y T F C S L A G L Y  
D M K K A I N Y I R R S M S Y D N G L A Q G A G L E S H G  
D A E R L I D Y V Q A C Q T Y E G G F A E S P F N E S N A G L T Y C A L G T L S  
N K E T M F Q F I T R S L R Y D Y G F S Q E L E G E A H G G T T F C A L A A L H

UniRef90\_G3GVU4  
 UniRef90\_W7MBC2  
 UniRef90\_A3M018  
 UniRef90\_GOUPA7  
 UniRef90\_GOUPA7  
 UniRef90\_C4YLV6  
 UniRef90\_U6FSY5  
 UniRef90\_B5RUX8  
 UniRef90\_R0JX23  
 UniRef90\_UPI0004560CD2  
 UniRef90\_UPI0004560CD2  
 UniRef90\_M9MEJ8  
 UniRef90\_UPI0001D37FA4  
 UniRef90\_UPI0001D37FA4  
 UniRef90\_B9ESW2  
 UniRef90\_G3B0C5  
 UniRef90\_U110L1  
 UniRef90\_G8YD88  
 UniRef90\_A0A059ESQ3  
 UniRef90\_G0WFF5  
 UniRef90\_E9F6L1  
 UniRef90\_H8ZFA4  
 UniRef90\_F2SH46  
 UniRef90\_H3CLM1  
 UniRef90\_R9XAY9  
 UniRef90\_P32434  
 UniRef90\_W0TH86  
 UniRef90\_A2RBD5  
 UniRef90\_G8BFW6  
 UniRef90\_J9DQA0  
 UniRef90\_M2WKW5  
 UniRef90\_M2WKW5  
 UniRef90\_I2GZ86  
 UniRef90\_G2R7G3  
 UniRef90\_V6LLD5  
 UniRef90\_H8X5Z6  
 UniRef90\_S0B2Q7  
 UniRef90\_G0VEV9  
 UniRef90\_A9UTQ4  
 UniRef90\_G4VIK6  
 UniRef90\_C4M2T2  
 UniRef90\_A0A059AA13  
 UniRef90\_C8VHF7  
 UniRef90\_G3AHL8  
 UniRef90\_G8BVJ7  
 UniRef90\_I1N555  
 UniRef90\_B9WLT5  
 UniRef90\_Q4P3G5  
 UniRef90\_A5D9X0  
 UniRef90\_K4E821  
 UniRef90\_K4E821  
 UniRef90\_G0TXI2  
 UniRef90\_E3KZA6  
 UniRef90\_E3KZA6  
 UniRef90\_R9P9I7  
 UniRef90\_C5KFZ2  
 UniRef90\_A0DAT9  
 UniRef90\_J7S258  
 UniRef90\_UPI00042C7A5A  
 UniRef90\_M0SEU2  
 UniRef90\_P18898  
 UniRef90\_S9UXK4  
 UniRef90\_S9UXK4  
 UniRef90\_H2AQW2  
 UniRef90\_C4JXR7  
 UniRef90\_C4JXR7  
 UniRef90\_J5S5B5  
 UniRef90\_A4I281  
 UniRef90\_A4I281  
 UniRef90\_K0E2G0  
 UniRef90\_E3KUP5  
 UniRef90\_E3KUP5  
 UniRef90\_J7G644  
 UniRef90\_Q5DGK6  
 UniRef90\_Q7S4G5  
 UniRef90\_F6WSX2  
 UniRef90\_C5DMR4  
 UniRef90\_J3K3U8  
 UniRef90\_J3K3U8  
 UniRef90\_J3K3U8  
 UniRef90\_DORMJ0  
 UniRef90\_U6GJQ4  
 UniRef90\_A4HF02  
 UniRef90\_A4HF02  
 UniRef90\_U6IQR5  
 UniRef90\_U5H741  
 UniRef90\_U5H741  
 UniRef90\_U5H741  
 UniRef90\_C6LV97  
 UniRef90\_UPI0003EE345A  
 UniRef90\_D4AXV1  
 UniRef90\_B4I187

L L L D R P L D F N R D G L L H F L A S R P F A Y L A G F N G R W N K K A D T C Y  
 L L L G R Y E F G S D T F Q K T V N W L V H R Q V D F H A G F F N G R E N K K F G D R C C Y  
 L L L R K L M S C T T N E V C I I T A R E M L L L D H A Q F F S W R K Y K R A D R V D  
 L L L N R Y P L E K L K S T K E W L T H R Q V D Y P G G F F N G R E N K K L S D T C C Y  
 L L M D R L D K V Q R D K L I K E W L L C R Q R R S R C W D G S F G Q S E T Q E G H G G S  
 L L E Y D F T K N I Q W T K K W L V H R Q Q I D Y N G S F N G R E N K F G D T C C Y  
 F L L N R L P L S I D V D R A I G F L R R S R C W D G S F G Q S E T Q E G H G G S  
 M L D D W S A I D V D R A I G F L R R S R C W D G S F G Q S E T Q E G H G G S  
 A L S L L T S L D Q E A L L R W A T A Q Q G T E G G G F R G R T N K L V D G C C Y  
 L L K I F Q Y T N F E K N R N Y I L S S Q D C L A G G F A K W P D S H P D A L H  
 L L K I F Q Y T N F E K N R N Y I L S S Q D C L A G G F A K W P D S H P D A L H  
 L M G E P S S I D V R L L L E W C L Q R Q A A D D G G F G R R N K S S D S C C Y  
 L L D N L P E A D S H R Q T L N W V H R Q R H E D F G G F N G R V N K S S D S C C Y  
 L L G R S P E L S L D D C T R W V L S R Q T T Y L G S P H A S P P K T P S P V R  
 L L G Y D F S R N F S T R V D W L V H R Q V E Y E G A F N G R E N K F G D T C C Y  
 S F N Y L D C F D K S L T R Q W L S L R Q N N T G G L T G R P D K L E D V C C Y  
 L L D R I D E E E L J E K S I T W L L H R Q I C D H G G F Q G R E N K F G D T C C Y  
 L S H H C A H V G Y N G R W N K K A D T C C Y  
 L L G V D V S E D S L L R N W L L Q R Q D E I N K G F T G R T N K L S D S C C Y  
 F L G C L R P E D K E R L L S W L V Y R Q T T F I E Q E E A E S D K P V I T G L S  
 F Y G F S F L P S P F H H Q L L Y L L W P Q L K N L C G F F Q K L P D L C C Y  
 L I L G K L D S L D E E R T V S W L V H R Q V S D H H G G F Q G R E N K A A D T C C Y  
 L I L K M C V P K V I E R L I R W L A S R Q L S S G G L N G R E N K K A D T C C Y  
 L L G E L D Q L D R E R T V R W L V D R Q V R E D G G F N G R E N K K L A D T C C Y  
 F L S R M A K D Q K P N E F E S L V R W L D L R C A G F N G R C N K F A D T C C Y  
 L L N F P I E D L K T T Q N W L L H R Q I D Y P G A F N G R E N K K L G D T C C Y  
 V L G L L N L I D T D K V A D N I V F R Q Q T D G G F N G R I N K K L P D V C C Y  
 V V G D D M K V K R R E T L D W L R H M Q R P D G S F D G V V E G G L D P R F  
 L L N R L S E S F K S K T I S W L V F R Q Q L S N E G G F Q G R P N K F A D T C C Y  
 L L D R P L E R D M P G L I H W L V F R Q Q F A Y H V I A C N G R C N K V A D S C C Y  
 I L K R L G Y F N E R R L L K F L V F R Q Q I T G G F N G R T N K H E D G C C Y  
 L L K F P V I E L A N S Q N W L L H R Q I F Y P G S F N G R E N K L G D T C C Y  
 L L M G L D R K L T V D E L N V Q W L V N Q K S Y L G G F F Q G R E N K F A D T C C Y  
 L L D S L D R L S I E K S I T W L V Q R Q V S N H G G F F Q G R E N K F A D T C C Y  
 C G L L E K A N R D T L K G F L L R R Q Q A D G G F N G R P E K A S D D G C C Y  
 L I D K L E S V S R D L L I K G W L L N L Q E E F G F H G R V I G K P D D T C C Y  
 L M G M I N R L D I E L V Q W L V Q K S Y L G G F S G R I N K P A D T C C Y  
 L M G M I N R L D I E L V Q W L V Q K S Y L G G F A K S P G V L P D L Y N  
 F L N R P G S H Q F E S L V R W L V S S R Q T N E L E G L S E A V N E L S D L N N  
 L L E Y P L I E K L I E S T K H W L V R Q Q V D Y P G G F N G R E N K L S D T C C Y  
 L L G C L T E S F R W K T T W L L D R R Q Q D D H G G F Q G R E N K F A D T C C Y  
 M L D N W S G M D K E T K D Y I L R C Q Q G T D G G F Q G R P N K S S D T C C Y  
 L L N Y P L I E N L Q I S T K E W L I H R Q V D Y P G G F N G R E N K L S D T C C Y  
 S L S L L D Q L D R A L T R W A T A Q Q I P F E G G F N G R T N K L V D G C C Y  
 L L D Y D F G S A T S N T L R W L V S R Q V N Y D G A F N G R D N K F A D T C C Y  
 L M R L L G Q T E T P R C L T L L D H A Q L I D T T S M C P R D D D A W R  
 L M R L L G Q T E T P R C L T L L D H A Q L I D T T S M C P R D D D A W R  
 L L Q I D G V L E E K A R F V A S C Q T H E G G F A C G D H A S E A H G A Y  
 L L Q A L M S T D L E Q G C S D L L D R Q A L Q E G G L R D K P C T P P D L Y H  
 L L Q A L M S T D L E Q G C S D L L D R Q A L Q E G G L R D K P C T P P D L Y H  
 V L E S S A H L N R D S L I R W A T A Q Q T P F E G G F R G R T N K L V D G C C Y  
 I V G A Y R V V N R P A L Y R F L I T S M K D R S T G G F R V H E N G E T D M R G  
 I L K L E I L P Y E S L I E W L V N R Q C K L T G G F M A G R E N K V A D S C C Y  
 L L G Q L D Q L P K E E T I F W L S R Q T S G E G G F Q G R E N K F A D T C C Y  
 I L K K E R F L N L K S L L Q W V T G R Q M R F E G G F Q G R C N K L V D G C C Y  
 L I N E A D R L D L P S L V D W V A S R Q G V E C G G F Q G R V N K L V D G C C Y  
 L L E K L S D K F K E D T I T W L L H R Q Q S D D G G F Q G R E N K F A D T C C Y  
 Q V Q E D S S A Q W E K A E H R A H H Q Q T L V E Q F L S S S D S K E A D K V V  
 Q V Q E D S S A Q W E K A E H R A H H Q Q T L V E Q F L S S S D S K E A D K V V  
 L L Q K L T T D F K E N T I E W L L Q R Q E N D H G G F Q G R E N K Y A D T C C Y  
 L G D D L T R V K R K E C L R W L R R M Q R Q D G S F N G A T E G G N D L R F  
 L G D D L T R V K R K E C L R W L R R M Q R Q D G S F N G A T E G G N D L R F  
 L L S S L A E L S R E D T I T W L L H R Q V S C H D G G F Q G R E N K Y A D T C C Y  
 L L G L D D P T T F D Q T A R F V A A C Q Q T H E G G F T C S P T S E A H G A Y  
 L L G L D D P T T F D Q T A R F V A A C Q Q T H E G G F T C S P T S E A H G A Y  
 P L V S P G S H Q F E F L V R W L V A S R Q T N E L G G E E D G S N S P A N D V Q  
 P G E T V D R A S L D G H P S F T R R T V A G F Q G R I G K P L D A C C Y  
 P G E T V D R A S L D G H P S F T R R T V A G F Q G R I G K P L D A C C Y  
 F F S T K N Y S L S N F K I W F L E K L K Y F D S G I Q G R P N K L I D S C C Y  
 L I N K L E S V S R N L L I K W L L N L Q N E G F H G R I G K P D D T C C Y  
 L L D R P L T S D L P G L I H W L A S R P F V Y L E P P P S A D Q D P D T C C Y  
 L L K I F Q Y T N F E K N R N Y I L S T O D R L V G G F A K W P D S H P D A L H  
 L I S D R W D I F Y D K T I E W L L Q R Q P E D D G G F Q G R E N K F A D S C C Y  
 L G D D L T R V R R K E C L R W L R T M Q R E D D G S F N G Q I E G G S D L R F  
 L G D D L T R V R R K E C L R W L R T M Q R E D D G S F N G Q I E G G S D L R F  
 L G D D L T R V R R K E C L R W L R T M Q R E D D G S F N G Q I E G G S D L R F  
 L G F A L Q Y V D D E L L G W W L C E R Q C D S G G L G G R P E K Q A D V C C Y  
 I A G E A S A L D L E G L L H W A K R Q K G F E G G F E G R T Q K L A D S C C Y  
 L L G L D D P E T F D Q T A R F V A A C Q Q T H E G G F T C S A T A S E A H G A Y  
 L L G L D D P E T F D Q T A R F V A A C Q Q T H E G G F T C S A T A S E A H G A Y  
 L M N R L D K V K R Q K I N W L L S R Q N G G F N G R R H K D A D A C C Y  
 P S M D R E W L L S C C Q H A V Y G G I A R E S G A M P D V Y H  
 P S M D R E W L L S C C Q H A V Y G G I A R E S G A M P D V Y H  
 P S M D R E W L L S C C Q H A V Y G G I A R E S G A M P D V Y H  
 I L L D K L G E R R V L D L L L Y I H T K Q T N Q G G F A G R N N K L V D G C C Y

F L G C L R P A E Y E R L I S W L V Y R Q T T F I E Q E E T E E D K P V I T G L S  
 L S G Q L H R L D V I E R M K R W L I F R Q M D G F P G T P

UniRef90\_G3GVU4  
 UniRef90\_W7MBC2  
 UniRef90\_A3M018  
 UniRef90\_G0UPA7  
 UniRef90\_G0UPA7  
 UniRef90\_C4YLV6  
 UniRef90\_U6FSY5  
 UniRef90\_B5RUX8  
 UniRef90\_R0JX23  
 UniRef90\_UPI0004560CD2  
 UniRef90\_UPI0004560CD2  
 UniRef90\_M9MEJ8  
 UniRef90\_UPI0001D37FA4  
 UniRef90\_UPI0001D37FA4  
 UniRef90\_B9ESW2  
 UniRef90\_G3B0C5  
 UniRef90\_U110L1  
 UniRef90\_G8YD88  
 UniRef90\_A0A059ESQ3  
 UniRef90\_G0WFF5  
 UniRef90\_E9F6L1  
 UniRef90\_H8ZFA4  
 UniRef90\_F2SH46  
 UniRef90\_H3CLM1  
 UniRef90\_R9XAY9  
 UniRef90\_P32434  
 UniRef90\_W0TH86  
 UniRef90\_A2RBD5  
 UniRef90\_G8BFW6  
 UniRef90\_J9DQA0  
 UniRef90\_M2WKW5  
 UniRef90\_M2WKW5  
 UniRef90\_I2GZ86  
 UniRef90\_G2R7G3  
 UniRef90\_V6LLD5  
 UniRef90\_H8X5Z6  
 UniRef90\_S0B2Q7  
 UniRef90\_G0VEV9  
 UniRef90\_A9UTQ4  
 UniRef90\_G4VIK6  
 UniRef90\_C4M2T2  
 UniRef90\_A0A059AA13  
 UniRef90\_C8VFH7  
 UniRef90\_G3AHL8  
 UniRef90\_G8BVJ7  
 UniRef90\_I1N555  
 UniRef90\_B9WLT5  
 UniRef90\_Q4P3G5  
 UniRef90\_A5D9X0  
 UniRef90\_K4E821  
 UniRef90\_K4E821  
 UniRef90\_G0TX12  
 UniRef90\_E3KZA6  
 UniRef90\_E3KZA6  
 UniRef90\_R9P9I7  
 UniRef90\_C5KFZ2  
 UniRef90\_A0DAT9  
 UniRef90\_J7S258  
 UniRef90\_UPI00042C7A5A  
 UniRef90\_M0SEU2  
 UniRef90\_P18898  
 UniRef90\_S9UXK4  
 UniRef90\_S9UXK4  
 UniRef90\_H2AQW2  
 UniRef90\_C4JXR7  
 UniRef90\_C4JXR7  
 UniRef90\_J5S5B5  
 UniRef90\_A4I281  
 UniRef90\_A4I281  
 UniRef90\_K0E2G0  
 UniRef90\_E3KUP5  
 UniRef90\_E3KUP5  
 UniRef90\_J7G644  
 UniRef90\_Q5DGK6  
 UniRef90\_Q7S4G5  
 UniRef90\_F6WSX2  
 UniRef90\_C5DMR4  
 UniRef90\_J3K3U8  
 UniRef90\_J3K3U8  
 UniRef90\_J3K3U8  
 UniRef90\_DORMJ0  
 UniRef90\_U6GJQ4  
 UniRef90\_A4HF02  
 UniRef90\_A4HF02  
 UniRef90\_U6IQR5  
 UniRef90\_U5H741  
 UniRef90\_U5H741  
 UniRef90\_U5H741  
 UniRef90\_C6LV97  
 UniRef90\_UPI0003EE345A  
 UniRef90\_D4AXV1  
 UniRef90\_B4I187

C W W V G G T L  
 S W W C T A S L A L I S T S H L K  
 E Y V A A T P L P P F S V D Q A T S K F L D E E V G D F Y F N Q R R L Q V Y I L L  
 E Y V A A T P L P P F S V D Q A T S K F L D E E V G D F Y F N Q R R L Q V Y I L L  
 S W W C T G S L R N I D V N F L K  
 T F W V G A S L R M L D A H Q Y  
 S W W C S A S L K V L  
 T F V K L G S Y P S A C Y A Y W T C V P L Q I L D H L H I V D P Q P I R K W L L  
 T Y C A V A A L A L A N R L D E L D E V D E S A A P P T A S S R A E L E R W L L  
 T Y C A V A A L A L A N R L D E L D E V D E S A A P P T A S S R A E L E R W L L  
 G W F S G G L F T V L S A M V E A K L I E E A S N A G A S D G H A S R  
 A Y F G I C G L S L M E E T E I C K V H P A L N V S  
 A Y F G I C G L S L M E E T E I C K V H P A L N V S  
 A F W L G G V L K I I G A Y R F L D H G A L R S F L L  
 S W W S L G S L E I L N H L D L S N L S A A A Q F L L  
 M Q I V A A P I N L W A G F N G R T N K I A D T C Y C F W N T A A L R R Y L L  
 S W W C T A S L Y L L D P V Y L D L V D L S K A T K Y L L  
 S Y W T F S S L Y M L G S D E F I D K E K L I E F V Y  
 V F W C L N S L K I L E P I H W K D L C D T S L A K K Y L E  
 C W W V A G T L A M V D S F H A V N I P S R Q Y L L  
 N F W V G A S Y R M L G L G I I S N S G L A E Y T F  
 L H D A I A S L P S L C Y C F W V T G S L A M L D Q L G L V D P Q A N R R Y L L  
 S W W V L A S L K I I G K L H W I D K A K L R T F I L L  
 A F W C M N S L E I L E A S S L V D N G P M E S Y L Q  
 A Y W V L S S L K L L D A L P F I D G G E L E K Y L L  
 A F W C L N A L L I C P D D W R Q L V D L G R V Q S Y L M  
 S F W N L A T L D I F Y  
 S W W S T G S L Y L M D S S N L S L L N I S Q A E K F L L  
 S Y W A Y M C L V M M D K G D Y I G T N E L R T F I Y  
 G Y C A T G A R R I L R G D V D D G P L S I D G V V V E D I D V D K H V K C V  
 G Y C A T G A R R I L R G D V D D G P L S I D G V V V E D I D V D K H V K C V  
 A F W C M N S L K L L T D D W K N L I D T S A V L N Y L K  
 T W W V G A A L A N L G R G D L L D W P A L R R F L L  
 N F W V G A S L C I L K K Q S L V N M E L F N I W V K  
 S W W C T G S L F L I N P K N L S L L D I P P A E R F L L  
 T Y W I G A T L K T L G C E A L I D K K F V L A F V E  
 V F W C L N S L Q I L T P D W Q T L C N T S L V R D F L L  
 Y A W W V L A T M A I L G P S V L G A I D K A A A I K A L  
 T F W V C A S L K I  
 N Y W I G S T L K T L G Y E H L I D K K F V L A F T E  
 S Y Y G L A A F S I L G E A G L K P  
 S I D A L P I L W A G F N G R C N K Y A D T C Y S F W N A E R N R R Y L L  
 C W W C T G A L Y I M N S D N I E F V N L S R A E E Y L L  
 V F W C L N S L K I L S P D N W K S L C E I N I A K E F L M D K  
 A F W I G A V L R L G G C K F V D S K A L R G F L L  
 S W W C T G S L Y N I N C N F I K L V D L N K A K N Y L N  
 G W F S G G G L  
 S W W C T A S M H L M N S D Y L G L T N I R E A T K F L L G  
 T A H V E A Y L H A P S Q S A W K Q Q T V T Q S V G D F Y F N Q R R L L L Y V L  
 T A H V E A Y L H A P S Q S A W K Q Q T V T Q S V G D F Y F N Q R R L L L Y V L  
 T Y C G I A A L I L M K R P Q F C N Y A M L R R F L A  
 T Y Y I L G A L S I M Q H T Q K H S F Q R I Q E L K Q N F  
 T Y Y I L G A L S I M Q H T Q K H S F Q R I Q E L K Q N F  
 G W F S G G G L A M V E S D L I E S Q A H E S S P T P S N L  
 C Y C A I A V A R M M K L L L T P E L E E G V V G Y I K  
 S F W L G W T L K M L G L D L L D K E R L L E S F L Q  
 V F W C L N S L Q C L T P E W T Q F T R T D L A R S F L L  
 S F W Q A G L L P L L H R A L H A Q V D P A L S M S R W M F H Q Q A L Q E Y I L  
 S F W Q G G A L P I L H K Q L E S S F M E K Q T E C G P L F Q S I A L Q Q Y I L  
 A F W C L N S L H L I T K D W K S L C Q T E L V T N Y L L D  
 T Q R A E M A Q S I L N R S T A S P T N K E D D I N G D L F H Q V K L Q Q Y I V  
 T Q R A E M A Q S I L N R S T A S P T N K E D D I N G D L F H Q V K L Q Q Y I V  
 A F W C L N S L Q I L R K D W K L C N A D L T K K Y I K  
 C C C A T G I R Y I L R G E D T A Y L K D I D D I D V S K L V T Y V E  
 C C C A T G I R Y I L R G E D T A Y L K D I D D I D V S K L V T Y V E  
 A F W C L N S L Q L L T K D W K L L C Q T E R T K N Y L L D  
 T Q C G L A A L L M K Q P H M V H Q A S L R R W L A  
 T Q C G L A A L L M K Q P H M V H Q A S L R R W L A  
 S L S G I D A L P S I W A G F N G R C N K Y A D T C Y S M V D A E R N R R Y L L  
 S F W C T A G L T I M S S R Y S S P R S P N M S T P E V L Y D P H A N I Q F L L  
 S F W C T A G L T I M S S R Y S S P R S P N M S T P E V L Y D P H A N I Q F L L  
 I F W L G A S I V L S I N I P F E L L N V L F  
 T F W V C A S L K L L N C H H L V N K D A T V R F V T  
 F W W V G G A L A N L G R L D S L V D R E A A R R F L L  
 A Y F G I C G L S L M E E S G I C K V H P A L N G S  
 G F W C A N S L S I L K A P H K V G D A Y Q N G L S E Y L L N K  
 C C C A A G I R Y M L R G K D A E Y L K D V D D I D I R R L A T Y V E  
 C C C A A G I R Y M L R G K D A E Y L K D V D D I D I R R L A T Y V E  
 C C C A A G I R Y M L R G K D A E Y L K D V D D I D I R R L A T Y V E  
 S W W N I S S L I M I G K L D W I S K E K L I Q F I L  
 S F W  
 T Q C G L A A L L L M K Q P H M V H Q T S L R R W L A  
 T Q C G L A A L L L M K Q P H M V H Q T S L R R W L A  
 T F W V G A S L R M L E V Q Q Y V E K E T L L K F I C  
 T Y L S L A A  
 T Y L S L A A  
 T Y L S L A A  
 T Y W M M G S L Y L L V G D G Y L E D F M V I D A N A L Y R Y V L  
 L D N A I A S L P S L C Y C F W V T G S L A M L D Q L G L V D S Q A N R R Y L L

UniRef90\_G3GVU4  
 UniRef90\_W7MBC2  
 UniRef90\_A3M018  
 UniRef90\_GOUPA7  
 UniRef90\_GOUPA7  
 UniRef90\_C4YL6  
 UniRef90\_U6FSY5  
 UniRef90\_B5RUX8  
 UniRef90\_R0JX23  
 UniRef90\_UPI0004560CD2  
 UniRef90\_UPI0004560CD2  
 UniRef90\_M9MEJ8  
 UniRef90\_UPI0001D37FA4  
 UniRef90\_UPI0001D37FA4

N[V]Q N G M[V]G G F S K D P S A T P D P F H S F[L]G I A S L A L W R Q N E A G D  
 K C C Q N K H G G L M D K P K Y P N D P Y H T C Y S I S G M S S A Q N  
 K C C Q N K H G G L M D K P K Y P N D P Y H T C Y S I S G M S S A Q N  
 N K T Q N Q V G G F G R D P D S T P D P M H S Y L A L A S L S L W N H  
 S T Y D P L V G G F T K A P D D S V D L L H S Y M T L A G L S C L F K N P A S T  
 R K T Q S P L G G F G K D S E S F P D P F H S F L G L S C L S L  
 D K T Q H A V G G F G K V T G D P P D M Y H S F L G L M V I A M F G E P G  
 S R Q Q S G T G F N G R L E K P V D T C Y S F W C G A A L Q I L G Q H H H I D  
 S R Q Q S G T G F N G R L E K P V D T C Y S F W C G A A L Q I L G Q H H H I D  
 T H D W N G M L T V P S A P V V H A T P A D A A S S G A G S W K T E S

UniRef90\_B9ESW2  
 UniRef90\_G3B0C5  
 UniRef90\_U110L1  
 UniRef90\_G8YD88  
 UniRef90\_A0A059ESQ3  
 UniRef90\_G0WFF5  
 UniRef90\_E9F6L1  
 UniRef90\_H8ZFA4  
 UniRef90\_F2SH46  
 UniRef90\_H3CLM1  
 UniRef90\_R9XAY9  
 UniRef90\_P32434  
 UniRef90\_W0TH86  
 UniRef90\_A2RBD5  
 UniRef90\_G8BFW6  
 UniRef90\_J9DQA0  
 UniRef90\_M2WKW5  
 UniRef90\_M2WKW5  
 UniRef90\_I2GZ86  
 UniRef90\_G2R7G3  
 UniRef90\_V6LLD5  
 UniRef90\_H8X5Z6  
 UniRef90\_S0B2Q7  
 UniRef90\_G0VEV9  
 UniRef90\_A9UTQ4  
 UniRef90\_G4VIK6  
 UniRef90\_C4M2T2  
 UniRef90\_A0A059AA13  
 UniRef90\_C8V FH7  
 UniRef90\_G3AHL8  
 UniRef90\_G8BVJ7  
 UniRef90\_I1N555  
 UniRef90\_B9WLT5  
 UniRef90\_Q4P3G5  
 UniRef90\_A5D9X0  
 UniRef90\_K4E821  
 UniRef90\_K4E821  
 UniRef90\_G0TXI2  
 UniRef90\_E3KZA6  
 UniRef90\_E3KZA6  
 UniRef90\_R9P9I7  
 UniRef90\_C5KFZ2  
 UniRef90\_A0DAT9  
 UniRef90\_J7S258  
 UniRef90\_UPI00042C7A5A  
 UniRef90\_M0SEU2  
 UniRef90\_P18898  
 UniRef90\_S9UXK4  
 UniRef90\_S9UXK4  
 UniRef90\_H2AQW2  
 UniRef90\_C4JXR7  
 UniRef90\_C4JXR7  
 UniRef90\_J5S5B5  
 UniRef90\_A4I281  
 UniRef90\_A4I281  
 UniRef90\_K0E2G0  
 UniRef90\_E3KUP5  
 UniRef90\_E3KUP5  
 UniRef90\_J7G644  
 UniRef90\_Q5D GK6  
 UniRef90\_Q7S4G5  
 UniRef90\_F6WSX2  
 UniRef90\_C5DMR4  
 UniRef90\_J3K3U8  
 UniRef90\_J3K3U8  
 UniRef90\_J3K3U8  
 UniRef90\_DORMJ0  
 UniRef90\_U6GJQ4  
 UniRef90\_A4HF02  
 UniRef90\_A4HF02  
 UniRef90\_U6IQR5  
 UniRef90\_U5H741  
 UniRef90\_U5H741  
 UniRef90\_U5H741  
 UniRef90\_C6LV97  
 UniRef90\_UPI0003EE345A  
 UniRef90\_D4AXV1  
 UniRef90\_B4I187

Y C Q S P Y G G F T K F Y D Q F P D L Y H S Y Y G L A A  
 L N Q D H R I G G J A K E F D S S P D P Y H T F L S I C S L A L I K D K V D F E  
 E K T Q H I V G G F G K G V H E P D P M H A Y F G L A A L A T I G  
 K T Q S R L I G G F S K A G G P D P L H T F T A I F S L A L L W K T  
 K C H E Y G F A D R P G N Q F E D L F H T M Y A L S A L S L L K E K G I A E  
 R T Q N T I I G G F S K N D E D D P D L Y H T C L G I A A L K L I D G S F D G V  
 D V T Q H R I G G F S K A G G P D P L H T F T A I F S L A L L W K T  
 C N C Q D E N G G V K N I P E S H A D V Y H T A Y A L I G L Y I V N E N D F N Y  
 E K T Q H M I G G F G K T A G E P D L L H S Y L G L A S L G L F F G E G A E E  
 A C Q D E E T G G F A D R P G D M V D P F H T L F G V A G L S L L G  
 Q T Q N S L V G G F A K T D E D D P D I Y H T F L G I A A L G L I A G T F D G A  
 L H A Q H A L G G F S K T P G E F P D V L H S A L G L Y A M A Y Q D D K S F P K  
 D Q T Q N K I G G W A K N D Q D P D L Y H T M M G I A A L K L I D

D C T Q N I V G G F A S R P E A T P D P M H S C L A L A S L S L W N H R K Y N L  
 S C L D D D G G F C D R K G N E P D L F H T L Y A L M S L S L L G D K N L D  
 E L A E S F D G G I A D Q P F H E P H A G Y T F C S L G C L K F V G  
 E L A E S F D G G I A D Q P F H E P H A G Y T F C S L G C L K F V G  
 T T Q N T L I G G F S K N D D D D P D V I Y H T C L G I A A L K L I D G S F D G S  
 D K M A H R V G G F G K H P G D P P D V Y H G C F G L A V L A V M G E P G L N R  
 C C Q D F E T G G F R D K P G I S S D R F H N C Y V L T G W C L N  
 N C T Q N I G G F S S R S E A T P D P M H S C L A L A S L S L W D H  
 S C V S K K Y G G V S K N G D S I P D P M H T F C S L T G L S L I G  
 N R T Q N L T G G F S K N D E D D P D L Y H T C L G I A S L K L I D E S F N G V  
 F R L Q T P A G G F S P R P D E S P D L F H T H F A I A A L G V L G H

N C V S K R F G G I G K N Q E A L P D P M H T F C S L T G L S L I G  
 Q K T Q H L V G G F G K S V G E L P D L L H S Y F G M V S L A F Q G E Q G L D S  
 Y R V Q N E F G G F G K D I E S N P D P F H S Y L A I A S L S L W N K  
 T Q D K L L G G F S K T D V D D P D I Y H T Y L G L A S L G L L D G S L N G E  
 S C Q Y K Y G G F G K F P G E Y P D L Y H S Y G V T A F S L L E E S A L K S  
 Q T Q N Q L F G G F S K D P Q S I P D P M H S Y L A L A S L S L W D H  
 R T Q N R L L G G F G K S H E S R P D P L H S F L A L A S L A L W S G A D S T  
 S C C Q D K E G G L M D K P G C L N D A Y H T C Y S L S G M S T A Q Y I P N E R  
 S C C Q D K E G G L M D K P G C L N D A Y H T C Y S L S G M S T A Q Y I P N E R  
 A R Q L R F E G G F N G R T N K L V D S C Y A H W

R C Q T W E G G L A G E P G L E A H G G Y G F C G L A A A T M L G  
 H C Q S I Y G G F S K Y P Q S M P D P I H T L H S L L G I T  
 Q T Q N S V V G G F S K N D E D D P D L Y H T C L A I A G L R L T E G K F N G E  
 M C C Q C P T G G L L D K P G K S R D F Y H T C Y C L S G L S I A Q H F G S G A  
 L C S Q V L E G G F K D P G K Q R D F Y H S C Y C L S G L S V S Q Y S C S K D  
 R T Q K T L T G G F S K N D E D A D L Y H S C Y C L S A A L A L I E G K F N G E  
 Q C A Q N L E G G L R D K P P M S A D P Y H T C Y A M S G F S A S Q N L H  
 Q C A Q N L E G G L R D K P P M S A D P Y H T C Y A M S G F S A S Q N L H  
 R T Q C T L T G G F S K N D A D A D L Y H T C L G F A A L E L I E G N F N G V  
 K C Q A Y D G G F A Q A P W L E A H A G L T Y C A L G T L S F L G Y A P A S E  
 K C Q A Y D G G F A Q A P W L E A H A G L T Y C A L G T L S F L G Y A P A S E  
 R T Q N T L T G G F S K N D E D A D L Y H S C L G N A A L A L I E G K F N G E  
 A R Q L N Y E G G F N G R T N K L V D S C Y S H W  
 A R Q L N Y E G G F N G R T N K L V D S C Y S H W  
 Q K T Q H L V G G F G K S P G K S I S H R S T S F V L T D I S  
 R C Q S S Q W G G I A R S P G D H P D V Y H T Y L A L A S L S L S A H P S D P S  
 R C Q S S Q W G G I A R S P G D H P D V Y H T Y L A L A S L S L S A H P S D P S  
 F C F K L E F K G F C D Q I G K A P D L Y H T F Y S I S G L S L S F F H K K K  
 R C W N D V I G A F T K T P D Q L C D P L H T Y L S I S G L S C L C S S D S L T  
 E K M Q H R I G G F G K S P G S P D L Y H S F F G L A I L G L M G D E G G K V

T Q N L L L G G F A K N D N E D P D L Y H T C L T L A A L S M M S G E F D G T  
 K C Q S Y D G G F A Q A P W L E A H A G L T Y C A L G T L S F L D  
 K C Q S Y D G G F A Q A P W L E A H A G L T Y C A L G T L S F L D  
 K C Q S Y D G G F A Q A P W L E A H A G L T Y C A L G T L S F L D  
 A C Q D P E D G G I A D R P E M W L M C S T R F S Q N H

A R Q L N C E G G F N G R T N K L V D S C Y S Y W  
 A R Q L N C E G G F N G R T N K L V D S C Y S Y W  
 S T Y D P I V G G F M K S P G D S V D H L H T Y M A L S G L S C L Q N P D S N S

R C S Y D P D G G M R D K P G V P S D A Y H N M Y T T A G L K L V D L D V N K T  
 E K T Q H M I G G F G K T A G E P P

UniRef90\_G3GVU4  
 UniRef90\_W7MBC2  
 UniRef90\_A3M018  
 UniRef90\_G0UPA7  
 UniRef90\_G0UPA7  
 UniRef90\_C4YLV6  
 UniRef90\_U6FSY5  
 UniRef90\_B5RUX8  
 UniRef90\_R0JX23  
 UniRef90\_UPI0004560CD2  
 UniRef90\_UPI0004560CD2  
 UniRef90\_M9MEJ8  
 UniRef90\_UPI0001D37FA4  
 UniRef90\_UPI0001D37FA4  
 UniRef90\_B9ESW2  
 UniRef90\_G3B0C5  
 UniRef90\_U110L1  
 UniRef90\_G8YD88  
 UniRef90\_A0A059ESQ3  
 UniRef90\_G0WFF5  
 UniRef90\_E9F6L1  
 UniRef90\_H8ZFA4  
 UniRef90\_F2SH46  
 UniRef90\_H3CLM1  
 UniRef90\_R9XAY9  
 UniRef90\_P32434  
 UniRef90\_W0TH86  
 UniRef90\_A2RBD5  
 UniRef90\_G8BFW6  
 UniRef90\_J9DQA0  
 UniRef90\_M2WKW5  
 UniRef90\_M2WKW5  
 UniRef90\_I2GZ86  
 UniRef90\_G2R7G3  
 UniRef90\_V6LLD5  
 UniRef90\_H8X5Z6  
 UniRef90\_S0B2Q7  
 UniRef90\_G0VEV9  
 UniRef90\_A9UTQ4  
 UniRef90\_G4VIK6  
 UniRef90\_C4M2T2  
 UniRef90\_A0A059AA13  
 UniRef90\_C8VFH7  
 UniRef90\_G3AHL8  
 UniRef90\_G8BVJ7  
 UniRef90\_I1N555  
 UniRef90\_B9WLT5  
 UniRef90\_Q4P3G5  
 UniRef90\_A5D9X0  
 UniRef90\_K4E821  
 UniRef90\_K4E821  
 UniRef90\_G0TXI2  
 UniRef90\_E3KZA6  
 UniRef90\_E3KZA6  
 UniRef90\_R9P9I7  
 UniRef90\_C5KFZ2  
 UniRef90\_A0DAT9  
 UniRef90\_J7S258  
 UniRef90\_UPI00042C7A5A  
 UniRef90\_M0SEU2  
 UniRef90\_P18898  
 UniRef90\_S9UXK4  
 UniRef90\_S9UXK4  
 UniRef90\_H2AQW2  
 UniRef90\_C4JXR7  
 UniRef90\_C4JXR7  
 UniRef90\_J5S5B5  
 UniRef90\_A4I281  
 UniRef90\_A4I281  
 UniRef90\_K0E2G0  
 UniRef90\_E3KUP5  
 UniRef90\_E3KUP5  
 UniRef90\_J7G644  
 UniRef90\_Q5DYGK6  
 UniRef90\_Q7S4G5  
 UniRef90\_F6WSX2  
 UniRef90\_C5DMR4  
 UniRef90\_J3K3U8  
 UniRef90\_J3K3U8  
 UniRef90\_J3K3U8  
 UniRef90\_DORMJ0  
 UniRef90\_U6GJQ4  
 UniRef90\_A4HF02  
 UniRef90\_A4HF02  
 UniRef90\_U6IQR5  
 UniRef90\_U5H741  
 UniRef90\_U5H741  
 UniRef90\_U5H741  
 UniRef90\_C6LV97  
 UniRef90\_UPI0003EE345A  
 UniRef90\_D4AXV1  
 UniRef90\_B4I187

S C L P D L D G V D E A L V

N S T E P T P A Q L G N S F N K L H L G E A V A S D L V E Q  
 K S C E K Y N Y E G E E N L Q E M D E T L V I T K K S R E F L N S H I Q  
 A A S D I G W I L S A V S P V G G I S H K A K K H L E S L  
 A A S D I G W I L S A V S P V G G I S  
 S V D A E G A D E S E D D V D D L S P L

S G L D V L L T A P T S A V E F L D S L  
 S S H Q S L H F K G E T Q L Q P I D A S L V I S K R S  
 V D P G L C V  
 L C I P S S I S S E L T S I N R  
 F D V G L C C S K E T V R K I  
 V L G M P V  
 G E E G E E L D A V D P M L C A S R R V R R H L D S L P  
 D E Q I K P V N P V L C M P E D I V Q R  
 L C V P K N V  
 V N A D I  
 G E L D G V L C M P T S I V

D E I D P V F V V S R N V L D R L N P

L C I P K Y V S D T  
 L D G A L A V P V G T V K I I  
 E K Y G L D E I D P V F V M P K R S L D

L C I P  
 E S V A P M D P C F C V P R T A L Q R Y R R

V D S A L C A T H R T V R R L H S L  
 E K F G L K E V H P V L V I S Q E S Y N Y F K R  
 L C I P  
 L C S E L  
 E K F A L Q E I N P I L L T I T K E S Y Q F F K D

T T P D Y N L D S V D D A L  
 D D Y E I V L A V S Q E R L P P L N P I F N I C Q S R V L A A L R  
 D D Y E I V L A V S Q E R L P P L N P I F N I C Q S R V L A A L R

L C I P L A L S D  
 M L H D V V L G V P E N A L L V L H  
 A S V P P V L G P Y A N L L E S V H P L Y N V V L N K Y Y K S H E F F S  
 L C I P

L C I  
 S S K S  
 S S K S  
 L C I P

K I P D L E R R A P A D Q L P R H D P F L N V P V Q A S E W I S K C F A P Q Q D  
 K I P D L E R R A P A D Q L P R H D P F L N V P V Q A S E W I S K C F A P Q Q D  
 K I Y D T N T S C Q K Y G L Q K I N P I Y G I R E R K I  
 E S V E L M D Y E S S S L L T V H P E L N V P E K S H Q R L K Q  
 R G F D A G L A V P R E T V G V I

L F L P R K V A D T

P E Y Q G I R Q I H P T F A I P T D I V E K L Q

Q L V R I L D Q L V Q N D L V P I V P E L N I P L S A F L R L K

K Y S P E L L A E Q R E L F V R H D P L F N I P I K S A D T M K E S F P S



UniRef90\_G3GVU4  
UniRef90\_W7MBC2  
UniRef90\_A3M018  
UniRef90\_G0UPA7  
UniRef90\_G0UPA7  
UniRef90\_C4YLV6  
UniRef90\_U6FSY5  
UniRef90\_B5RUX8  
UniRef90\_R0JX23  
UniRef90\_UPI0004560CD2  
UniRef90\_UPI0004560CD2  
UniRef90\_M9MEJ8  
UniRef90\_UPI0001D37FA4  
UniRef90\_UPI0001D37FA4  
UniRef90\_B9ESW2  
UniRef90\_G3B0C5  
UniRef90\_U110L1  
UniRef90\_G8YD88  
UniRef90\_A0A059ESQ3  
UniRef90\_G0WFF5  
UniRef90\_E9F6L1  
UniRef90\_H8ZFA4  
UniRef90\_F2SH46  
UniRef90\_H3CLM1  
UniRef90\_R9XAY9  
UniRef90\_P32434  
UniRef90\_W0TH86  
UniRef90\_A2RBD5  
UniRef90\_G8BFW6  
UniRef90\_J9DQA0  
UniRef90\_M2WKW5  
UniRef90\_M2WKW5  
UniRef90\_I2GZ86  
UniRef90\_G2R7G3  
UniRef90\_V6LLD5  
UniRef90\_H8X5Z6  
UniRef90\_S0B2Q7  
UniRef90\_G0VEV9  
UniRef90\_A9UTQ4  
UniRef90\_G4VIK6  
UniRef90\_C4M2T2  
UniRef90\_A0A059AA13  
UniRef90\_C8VFH7  
UniRef90\_G3AHL8  
UniRef90\_G8BVJ7  
UniRef90\_I1N555  
UniRef90\_B9WLT5  
UniRef90\_Q4P3G5  
UniRef90\_A5D9X0  
UniRef90\_K4E821  
UniRef90\_K4E821  
UniRef90\_G0TXI2  
UniRef90\_E3KZA6  
UniRef90\_E3KZA6  
UniRef90\_R9P9I7  
UniRef90\_C5KFZ2  
UniRef90\_A0DAT9  
UniRef90\_J7S258  
UniRef90\_UPI00042C7A5A  
UniRef90\_M0SEU2  
UniRef90\_P18898  
UniRef90\_S9UXK4  
UniRef90\_S9UXK4  
UniRef90\_H2AQW2  
UniRef90\_C4JXR7  
UniRef90\_C4JXR7  
UniRef90\_J5S5B5  
UniRef90\_A4I281  
UniRef90\_A4I281  
UniRef90\_K0E2G0  
UniRef90\_E3KUP5  
UniRef90\_E3KUP5  
UniRef90\_J7G644  
UniRef90\_Q5DGK6  
UniRef90\_Q7S4G5  
UniRef90\_F6WSX2  
UniRef90\_C5DMR4  
UniRef90\_J3K3U8  
UniRef90\_J3K3U8  
UniRef90\_J3K3U8  
UniRef90\_DORMJ0  
UniRef90\_U6GJQ4  
UniRef90\_A4HF02  
UniRef90\_A4HF02  
UniRef90\_U6IQR5  
UniRef90\_U5H741  
UniRef90\_U5H741  
UniRef90\_U5H741  
UniRef90\_C6LV97  
UniRef90\_UPI0003EE345A  
UniRef90\_D4AXV1  
UniRef90\_B4I187

P  
P

1

10

20

30

40

UniRef90\_A9BLD5  
 UniRef90\_M7ZRD0  
 UniRef90\_E6R1L5  
 UniRef90\_E6R1L5  
 UniRef90\_E2LVW3  
 UniRef90\_E2LVW3  
 UniRef90\_A8B8E5  
 UniRef90\_M3AVC5  
 UniRef90\_Q7RN02  
 UniRef90\_G3NWT8  
 UniRef90\_A5E0V9  
 UniRef90\_J3QEZO  
 UniRef90\_J3QEZO  
 UniRef90\_M1C5Z1  
 UniRef90\_Q4DKD8  
 UniRef90\_G8JRR9  
 UniRef90\_Q4XLM9  
 UniRef90\_Q4XLM9  
 UniRef90\_A0A059A981  
 UniRef90\_W7B8K4  
 UniRef90\_W7B8K4  
 UniRef90\_W7AJL7  
 UniRef90\_W7AJL7  
 UniRef90\_B3LCD9  
 UniRef90\_B3LCD9  
 UniRef90\_B3LCD9  
 UniRef90\_C9SB05  
 UniRef90\_Q5DCU2  
 UniRef90\_L2GKW8  
 UniRef90\_G4TTX9  
 UniRef90\_E4N8V4  
 UniRef90\_W4ZF40  
 UniRef90\_M8C3V0  
 UniRef90\_V6LJ00  
 UniRef90\_V6LJ00  
 UniRef90\_F2TW34  
 UniRef90\_B6AGA2  
 UniRef90\_Q5CUL5  
 UniRef90\_S7ZAG3  
 UniRef90\_S7ZAG3  
 UniRef90\_S7ZAG3  
 UniRef90\_Q5KK97  
 UniRef90\_W7JS69  
 UniRef90\_U5G2B3  
 UniRef90\_I1BZ17  
 UniRef90\_A0A022UJT2  
 UniRef90\_V5BGA3  
 UniRef90\_Q3KIG2  
 UniRef90\_Q3KIG2  
 UniRef90\_G4UY58  
 UniRef90\_I7IG05  
 UniRef90\_I7IG05  
 UniRef90\_H2YT30  
 UniRef90\_J3I JW7  
 UniRef90\_J3I JW7  
 UniRef90\_Q23AR6  
 UniRef90\_Q23AR6  
 UniRef90\_G1MUD7  
 UniRef90\_Q1I4N1  
 UniRef90\_Q1I4N1  
 UniRef90\_F0VRK6  
 UniRef90\_F0VRK6  
 UniRef90\_F0VRK6  
 UniRef90\_J7TEZ2  
 UniRef90\_C2QNS9  
 UniRef90\_H8Z9X0  
 UniRef90\_Q4UGC3  
 UniRef90\_L0AY11  
 UniRef90\_UPI0004407415  
 UniRef90\_UPI0004407415  
 UniRef90\_Q2GM66  
 UniRef90\_UPI000408C4EE  
 UniRef90\_UPI000408C4EE  
 UniRef90\_V4ZRC6  
 UniRef90\_V4ZRC6  
 UniRef90\_V4ZRC6  
 UniRef90\_I0WM15  
 UniRef90\_I3EJM7  
 UniRef90\_Q0UX45  
 UniRef90\_UPI00035CDB01  
 UniRef90\_UPI00035CDB01  
 UniRef90\_UPI00035CDB01  
 UniRef90\_Q4N9E3  
 UniRef90\_Q5CDL6  
 UniRef90\_M7BPR7  
 UniRef90\_W2DAK2  
 UniRef90\_W2DAK2  
 UniRef90\_B5VIH4  
 UniRef90\_J7MGR7  
 UniRef90\_U5VHQ7  
 UniRef90\_U5VHQ7  
 UniRef90\_U5VHQ7

L L D L F S P L P A E P Y L S E G F Q  
 L L D L F S P L P A E P Y L S E G F Q

S D A R M A Y I A S V I S H M I  
 S D A R M A Y I A S V I S H M I

I Q I L F L I N  
 I Q I L F L I N

G F S P C N K K W L Y E P N V I S T L S A I  
 G F S P C C N K K W L Y E P N V I S T L S A I  
 L N G F S P C S K S S L Y E A N V I S T L S A I Q  
 L N G F S P C S K S S L Y E A N V I S T L S A I Q

Q I L F L I N  
 Q I L F L I N  
 V L F L L N  
 V L F L L N

E A H A T S F A I L T L R N  
 E A H A T S F A I L T L R N

T P T S T V L V Q E D S P E T K R P G Q F T V Q E R R N E E I F Q

UniRef90\_A9BLD5  
UniRef90\_M7ZRD0  
UniRef90\_E6R1L5  
UniRef90\_E6R1L5  
UniRef90\_E2LVW3  
UniRef90\_E2LVW3  
UniRef90\_A8B8E5  
UniRef90\_M3AVC5  
UniRef90\_Q7RN02  
UniRef90\_G3NWT8  
UniRef90\_A5E0V9  
UniRef90\_J3QEZO  
UniRef90\_J3QEZO  
UniRef90\_M1C5Z1  
UniRef90\_Q4DKD8  
UniRef90\_G4JRR9  
UniRef90\_Q4XLM9  
UniRef90\_Q4XLM9  
UniRef90\_A0A059A981  
UniRef90\_W7B8K4  
UniRef90\_W7B8K4  
UniRef90\_W7AJL7  
UniRef90\_W7AJL7  
UniRef90\_B3LCD9  
UniRef90\_B3LCD9  
UniRef90\_B3LCD9  
UniRef90\_C9SB05  
UniRef90\_Q5DCU2  
UniRef90\_L2GKW8  
UniRef90\_G4TTX9  
UniRef90\_E4N8V4  
UniRef90\_W4ZF40  
UniRef90\_M8C3V0  
UniRef90\_V6LJ00  
UniRef90\_V6LJ00  
UniRef90\_F2TW34  
UniRef90\_B6AGA2  
UniRef90\_Q5CUL5  
UniRef90\_S7ZAG3  
UniRef90\_S7ZAG3  
UniRef90\_S7ZAG3  
UniRef90\_Q5KK97  
UniRef90\_W7JS69  
UniRef90\_U5G2B3  
UniRef90\_I1BZ17  
UniRef90\_A0A022UJT2  
UniRef90\_V5BGA3  
UniRef90\_Q3KIG2  
UniRef90\_Q3KIG2  
UniRef90\_G4UY58  
UniRef90\_I7IG05  
UniRef90\_I7IG05  
UniRef90\_H2YT30  
UniRef90\_J3IJW7  
UniRef90\_J3IJW7  
UniRef90\_Q23AR6  
UniRef90\_Q23AR6  
UniRef90\_G1MUD7  
UniRef90\_Q1I4N1  
UniRef90\_Q1I4N1  
UniRef90\_F0VRK6  
UniRef90\_F0VRK6  
UniRef90\_F0VRK6  
UniRef90\_J7TEZ2  
UniRef90\_C2QNS9  
UniRef90\_H8Z9X0  
UniRef90\_Q4UGC3  
UniRef90\_L0AY11  
UniRef90\_UPI0004407415  
UniRef90\_UPI0004407415  
UniRef90\_Q2GM66  
UniRef90\_UPI000408C4EE  
UniRef90\_UPI000408C4EE  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6  
UniRef90\_I0WM15  
UniRef90\_I3EJM7  
UniRef90\_Q0UX45  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_Q4N9E3  
UniRef90\_Q5CDL6  
UniRef90\_M7BPR7  
UniRef90\_W2DAK2  
UniRef90\_W2DAK2  
UniRef90\_B5VIH4  
UniRef90\_J7MGR7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7

50 L Q V L K S H E F F K K F F S K I N Y F S F S G N Q L Q 80  
R D F S G I H I P K L K G W I Q K C K T S E L P D G Y A T Q E V I N H  
R D F S G I H I P K L K G W I Q K C K T W E G G Y A S R  
G W I Q K C K T W E G G Y A S R

UniRef90\_A8B8E5 Q D L S M  
UniRef90\_M3AVC5 D L A E P V V L D Q A R H I R Y W R R C L K T L P H H Y T G N E S N R  
UniRef90\_G3NWT8 F L R D R H V R F F Q R T L Q V L P E R Y A S L E T T R  
UniRef90\_A5E0V9 M S L N H V R H E K F F N R C L I A L P A Q A A S E D S N K  
UniRef90\_J3QEZO M A E H D R L A Q P S H I R Y A L R H L R M L P P P Y Q A D D S N R  
UniRef90\_J3QEZO M A E H D R L A Q P S H I R Y A L R H L R M L P P P Y Q A D D S N R  
UniRef90\_M1C5Z1 E L D S I P I P M F F D R N R H I C Y L E M M L E L L P S P Y Q S Q E I N R  
UniRef90\_Q4DKD8 M E L L V Q K H L K F I G R H L T L L P S F H V Q Q Q H S R  
UniRef90\_G4JRR9 R T S E N D I S T K T L L E I Y N F I N L L F D E D K G F Y H F S L K S F D  
UniRef90\_Q4XLM9 R T S E N D I S T K T L L E I Y N F I N L L F D E D K G F Y H F S L K S F D  
UniRef90\_Q4XLM9 F D R E R H V K F L E M M Y H M L P R P Y Q S Q E I N H  
UniRef90\_A0A059A981 R T S E N D I S T K T L L E I Y N F I N L L F D E D K G F Y H F S L K S F D  
UniRef90\_W7B8K4 R T S E N D I S T K T L L E I Y N F I N L L F D E D K G F Y H F S L K S F D  
UniRef90\_W7B8K4 R T S E N D I S T K T L L E I Y N F I N L L F D E D K G F Y H F S L K S F D  
UniRef90\_W7AJL7 K I S E E D I S T K M I L E I Y N F V Y F L F D E D K G F Y H F S L S S A R  
UniRef90\_W7AJL7 K I S E E D I S T K M I L E I Y N F V Y F L F D E D K K G F Y H F S L S S A R

UniRef90\_B3LCD9 A D P A E Q A P L D K E R H L R Y W Q R C Y R S L P T Q Y T S H D S I R  
UniRef90\_B3LCD9 Y F K R C L G V L P N S M V S L D S I R  
UniRef90\_C9SB05 E K H I E F I K K T M K C R D F L Y I I T E Q D R  
UniRef90\_Q5DCU2 P K A V L E R A H V A C S I R F L R Q L P R S A I D N D Q A R  
UniRef90\_L2GKW8 T L S I K R H V R F F R M C L Q A L P S S Y S S L D T S R  
UniRef90\_G4TTX9 L S A L N Q L I P E L T F A A L Q D L S T I Q G F K S D N F I E E V D S R  
UniRef90\_E4N8V4 L S A L N Q L I P E L T F A A L Q D L S T I Q G F K S D N F I E E V D S R  
UniRef90\_W4ZF40 N N N R E L I F N M S I H E E Y L K N L F R E K E L K Y F N T Q T N S  
UniRef90\_M8C3V0 K F D L E L H K K Y L I F V T N D A I N S Y D S L S S V F  
UniRef90\_V6LJ00  
UniRef90\_V6LJ00  
UniRef90\_F2TW34  
UniRef90\_B6AGA2  
UniRef90\_Q5CUL5  
UniRef90\_S7ZAG3  
UniRef90\_S7ZAG3  
UniRef90\_S7ZAG3  
UniRef90\_Q5KK97  
UniRef90\_W7JS69  
UniRef90\_U5G2B3  
UniRef90\_I1BZ17  
UniRef90\_A0A022UJT2  
UniRef90\_V5BGA3  
UniRef90\_Q3KIG2  
UniRef90\_Q3KIG2  
UniRef90\_G4UY58  
UniRef90\_I7IG05  
UniRef90\_I7IG05  
UniRef90\_H2YT30  
UniRef90\_J3IJW7  
UniRef90\_J3IJW7  
UniRef90\_Q23AR6  
UniRef90\_Q23AR6  
UniRef90\_G1MUD7  
UniRef90\_Q1I4N1  
UniRef90\_Q1I4N1  
UniRef90\_F0VRK6  
UniRef90\_F0VRK6  
UniRef90\_F0VRK6  
UniRef90\_J7TEZ2  
UniRef90\_C2QNS9  
UniRef90\_H8Z9X0  
UniRef90\_Q4UGC3  
UniRef90\_L0AY11  
UniRef90\_UPI0004407415  
UniRef90\_UPI0004407415  
UniRef90\_Q2GM66  
UniRef90\_UPI000408C4EE  
UniRef90\_UPI000408C4EE  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6  
UniRef90\_I0WM15  
UniRef90\_I3EJM7  
UniRef90\_Q0UX45  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_Q4N9E3  
UniRef90\_Q5CDL6  
UniRef90\_M7BPR7  
UniRef90\_W2DAK2  
UniRef90\_W2DAK2  
UniRef90\_B5VIH4  
UniRef90\_J7MGR7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7

A D P A E Q A P L D K E R H L R Y W Q R C Y R S L P T Q Y T S H D S I R  
Y F K R C L G V L P N S M V S L D S I R  
E K H I E F I K K T M K C R D F L Y I I T E Q D R  
P K A V L E R A H V A C S I R F L R Q L P R S A I D N D Q A R  
T L S I K R H V R F F R M C L Q A L P S S Y S S L D T S R  
L S A L N Q L I P E L T F A A L Q D L S T I Q G F K S D N F I E E V D S R  
L S A L N Q L I P E L T F A A L Q D L S T I Q G F K S D N F I E E V D S R  
N N N R E L I F N M S I H E E Y L K N L F R E K E L K Y F N T Q T N S  
K F D L E L H K K Y L I F V T N D A I N S Y D S L S S V F

UniRef90\_Q5KK97 M N L Y L S L H E Q Y F I N T I K K K L S G K E E H E S I L  
UniRef90\_W7JS69 M A L R K D R Q I K Y F L R C L K T L P H P Y T S N D S N R  
UniRef90\_U5G2B3  
UniRef90\_I1BZ17  
UniRef90\_A0A022UJT2  
UniRef90\_V5BGA3  
UniRef90\_Q3KIG2  
UniRef90\_Q3KIG2  
UniRef90\_G4UY58  
UniRef90\_I7IG05  
UniRef90\_I7IG05  
UniRef90\_H2YT30  
UniRef90\_J3IJW7  
UniRef90\_J3IJW7  
UniRef90\_Q23AR6  
UniRef90\_Q23AR6  
UniRef90\_G1MUD7  
UniRef90\_Q1I4N1  
UniRef90\_Q1I4N1  
UniRef90\_F0VRK6  
UniRef90\_F0VRK6  
UniRef90\_F0VRK6  
UniRef90\_J7TEZ2  
UniRef90\_C2QNS9  
UniRef90\_H8Z9X0  
UniRef90\_Q4UGC3  
UniRef90\_L0AY11  
UniRef90\_UPI0004407415  
UniRef90\_UPI0004407415  
UniRef90\_Q2GM66  
UniRef90\_UPI000408C4EE  
UniRef90\_UPI000408C4EE  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6  
UniRef90\_I0WM15  
UniRef90\_I3EJM7  
UniRef90\_Q0UX45  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_Q4N9E3  
UniRef90\_Q5CDL6  
UniRef90\_M7BPR7  
UniRef90\_W2DAK2  
UniRef90\_W2DAK2  
UniRef90\_B5VIH4  
UniRef90\_J7MGR7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7

M N L Y L S L H E Q Y F I N T I K K K L S G K E E H E S I L  
M A L R K D R Q I K Y F L R C L K T L P H P Y T S N D S N R

UniRef90\_H8Z9X0 P Y L D V H R H L R Y W K M C I R P L P H V Y L S N E S N R  
UniRef90\_Q4UGC3 S P T I L H T L H A M Q I L V I L S E D I G D Y W A A T H S K  
UniRef90\_UPI0004407415 S P T I L H T L H A M Q I L V I L S E D I G D Y W A A T H S K  
UniRef90\_UPI0004407415 F E R K K H I R F F T R I L Q I L P S R Y A I L D T S R

H T E Y L N E K A E E K E V E E Q E I Y Q D I  
H T E Y L N E K A E E K E V E E Q E I Y Q D I

UniRef90\_UPI0004407415 P L G F R S D T S N Q  
UniRef90\_UPI0004407415 K H T K F I L Q C I T E K T R L F C L S E P M R  
UniRef90\_UPI0004407415 S F  
UniRef90\_UPI0004407415 H  
UniRef90\_UPI0004407415 H  
UniRef90\_Q2GM66 D H A N G D T A T E P T L D I D R H L K Y W K M C L Q P L P N H Y L S N E G V R  
UniRef90\_UPI000408C4EE  
UniRef90\_UPI000408C4EE  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6  
UniRef90\_I0WM15  
UniRef90\_I3EJM7  
UniRef90\_Q0UX45  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_Q4N9E3  
UniRef90\_Q5CDL6  
UniRef90\_M7BPR7  
UniRef90\_W2DAK2  
UniRef90\_W2DAK2  
UniRef90\_B5VIH4  
UniRef90\_J7MGR7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7

P L G F R S D T S N Q  
K H T K F I L Q C I T E K T R L F C L S E P M R  
S F  
H  
H  
D H A N G D T A T E P T L D I D R H L K Y W K M C L Q P L P N H Y L S N E G V R

UniRef90\_UPI00035CDB01 S L E H V S D S S S D S L D I E T D T E Y L E K I V T N E K L I G F N S I L N I  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_Q4N9E3  
UniRef90\_Q5CDL6  
UniRef90\_M7BPR7  
UniRef90\_W2DAK2  
UniRef90\_W2DAK2  
UniRef90\_B5VIH4  
UniRef90\_J7MGR7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7

S L E H V S D S S S D S L D I E T D T E Y L E K I V T N E K L I G F N S I L N I  
E R L D F L K E R H V R F F Q R C L Q I L P E R Y S S L E T S R  
K K H R K F F E R H L Q L L P S S H Q G H D V N R  
N E K S F

UniRef90\_A9BLD5 S W F Y F W F I N A A D I I G K I E T S K K K I K E T L K F L L R K G Y L  
UniRef90\_M7ZRD0 L T L A Y F A V A G L S L L R E L D R V N K D Q I A K W I L S F Q V Q F Y G F  
UniRef90\_E6R1L5 P G V I Y C S L A A L S L I S D S D D R I F Q T D I L R W L M S R Q L G G F  
UniRef90\_E2LVW3 M T Y T A L L S L A I L R D D F S R L D R R G L V E F L R A C Q T E N G S F  
UniRef90\_E2LVW3 M T Y T A L L S L A I L R D D F S R L D R R G L V E F L R A C Q T E N G S F  
UniRef90\_A8B8E5 S M Q L Y W L Y C T L A I I S P Q T A E K F H Q S V A N T L Q S W V S P H S S V  
UniRef90\_M3AVC5 M Y L A F F I L S A L D L L D Q V T N P Q E Q K D Y I D W L Y H C Q H P A G G F  
UniRef90\_Q7RN02

UniRef90\_G3NWT8 L T I I F F A L S G L D V L D A L D V I D R N T M I E W I Y S L Q V S R C G F  
UniRef90\_A5E0V9 L A I I Y F C H G L K L L N F N F L K E E L R H Y E N Y I W D N F D E Y A T F  
UniRef90\_J3QEZO I T F A F F A L G S L A L L G G L L A P A E R S D Y I H W V F R R W N P I G G F  
UniRef90\_J3QEZO I T F A F F A L G S L A L L G G L L A P A E R S D Y I H W V F R R W N P I G G F  
UniRef90\_M1C5Z1 L T L A Y F V V C G L D I L R S L D R V D K E G V I N W V L S L Q A S N G Q F  
UniRef90\_Q4DKD8 I L L L Y F S L G R D L L G V D W R K D D R D K L F E E M R R C Y D E T G G F  
UniRef90\_G8JRR9 L A I V Y Y S I V G S N C L G Q D I I S K Y G S T T W L T T S D G T R I S G F  
UniRef90\_Q4XLM9 M R F V F C S L S S I Y F I N L L L S K S N N Q K C I N W I L N C L N V D G G F  
UniRef90\_Q4XLM9 M R F V F C S L S S I Y F I N L L L S K S N N Q K C I N W I L N C L N V D G G F  
UniRef90\_A0A059A981 L T L A Y F V I S G L D I L D A L D R V H K D A V A D W V L S F Q A D N G Q F  
UniRef90\_W7B8K4 M R F V F C S L S S I Y F I N L L L S K S N N Q K C I N W I L N C L N A D G G F  
UniRef90\_W7B8K4 M R F V F C S L S S I Y F I N L L L S K S N N Q K C I N W I L N C L N A D G G F  
UniRef90\_W7AJL7 M R F M F C S L S V L H F F L S L L L K K N N D K R C A H W I L T C L N L D G G F  
UniRef90\_W7AJL7 M R F M F C S L S V L H F F L S L L L K K N N D K R C A H W I L T C L N L D G G F  
UniRef90\_B3LCD9 A I Q V L F L L N K I S E E D I S T K M I N F V Y F L F D E K K G F  
UniRef90\_B3LCD9 A I Q V L F L L N K I S E E D I S T K M I N F V Y F L F D E K K G F  
UniRef90\_B3LCD9 A I Q V L F L L N K I S E E D I S T K M I N F V Y F L F D E K K G F  
UniRef90\_C9SB05 M A L G F F I A A F D I L S H A L D P S D R A K I R K W V L S Q Q H V G G G F  
UniRef90\_Q5DCU2 I V V L F F A T G G L A L L D A L D N L D K N E L I E F I Y S H Q N K S G G F  
UniRef90\_L2GKW8 M A T V Y W A N S L K M L K D P L F E Q I R P Q V I Q F V Y S C L K T N G G F  
UniRef90\_G4TTX9 P V L A F Y C L A T L D L L G G V S D A I S E N E Q A D W R T W L W E Q Q K G F  
UniRef90\_E4N8V4 T A Q T F S V L H V L D L L A L D E P V P N T P G V L T G V F A T Q N P D G G F  
UniRef90\_W4ZF40 L T V A F F A L S G L D V L N S D V I E S E K Q D I I N W I Y S L Q V S R C G F  
UniRef90\_M8C3V0 L T L A Y F A V A G L S L L R E D R E Q V N K D Q I A K W V H S F V G Q F Y G F  
UniRef90\_V6LJ00 L T L F T I I A L E A L C T Q F N F V L D D K I V E F L I S C I N D D G G A  
UniRef90\_V6LJ00 L T L F T I I A L E A L C T Q F N F V L D D K I V E F L I S C I N D D G G A  
UniRef90\_F2TW34 I M L T H F A V S G L D I L D R L G D E A K K Q G I I D W L Y S Y S R G Y C G F  
UniRef90\_B6AGA2 I F L C Y W F L S S Y T L I N M N I K D N E K C E L K I D E D L I N Q E I N G Y  
UniRef90\_Q5CUL5 I H G I Y W V L C C S D L I Q F N I C D Q L H N A R N K F L H L L K K C E K F Y  
UniRef90\_S7ZAG3  
UniRef90\_S7ZAG3  
UniRef90\_S7ZAG3  
UniRef90\_Q5KK97  
UniRef90\_W7JS69 L S A I F W V L S S I S L I N K K R E T I D E V L I T G F S P C N K K N V Y  
UniRef90\_U5G2B3  
UniRef90\_I1BZ17 M T L A F F C L G A L S L L G N N V S E Q N K R D W I D W I Y A Q Q V A V C G F  
UniRef90\_A0A022UJT2 M T L A Y F T L A G L D L L G A L I S A S E R A G Y V N W L Y H C Q V P T G G F  
UniRef90\_V5BGA3 H A V I R M R R C Y D T E T G G F  
UniRef90\_Q3KIG2  
UniRef90\_Q3KIG2  
UniRef90\_G4UY58 L A L A Y F I V N S V T L L T P P I S R E D K R A M R K W V L H H Q H P T G G F  
UniRef90\_I7IG05 M L I N F L K L Q I L S N G S V S R T T Y E G D I Q S N N I Q R N K L S S I K N  
UniRef90\_I7IG05 M L I N F L K L Q I L S N G S V S R T T Y E G D I Q S N N I Q R N K L S S I K N  
UniRef90\_H2YT30 L T V A F F A L S G L G V L D A L I P D K D K Q E I I E W I Y F N C R D I I Y F  
UniRef90\_J3JW7  
UniRef90\_J3JW7  
UniRef90\_Q23AR6 Q T I V F C A L S C L K I L G D N L H L V S R P H I L A T L K R L Q N S N G Q M  
UniRef90\_Q23AR6 Q T I V F C A L S C L K I L G D N L H L V S R P H I L A T L K R L Q N S N G Q M  
UniRef90\_G1MUD7 L Y F L S F P E S N L N R C G F R S Y L G I P F N P S K G D  
UniRef90\_Q114N1  
UniRef90\_Q114N1  
UniRef90\_F0VRK6  
UniRef90\_F0VRK6  
UniRef90\_F0VRK6  
UniRef90\_J7TEZ2  
UniRef90\_C2QNS9 N F S A M H V L S D L A V L D M E I E G A E L L A D S I F S S Q N P D G G F  
UniRef90\_H8Z9X0 I S T L Y W A I G S L F L L E E F R E I Q K L S E T V R F T M A C Q N V D G G F  
UniRef90\_Q4UGC3 G S F W S I S A L T I S E P I S Q S N L I S L L K L N S C F N I N T F  
UniRef90\_L0AY11 I C G S F W S I C G L K I L G E N I P D E C L A K I L A K L K R C I S T A K G F  
UniRef90\_UPI0004407415 L I M T Y T A L L S L A I L R D D F S Q L D R Q G L I G L L R A T Q K D D G S F  
UniRef90\_UPI0004407415 L I M T Y T A L L S L A I L R D D F S Q L D R Q G L I G L L R A T Q K D D G S F  
UniRef90\_Q2GM66 M T L A Y F I V N S I R I L L N P L I P P S D H R R L R Q W V L S H Q Q P G G G F  
UniRef90\_UPI000408C4EE D I P A Y L A W L R S T E S G L  
UniRef90\_UPI000408C4EE D I P A Y L A W L R S T E S G L  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6 C S C C V G F  
UniRef90\_V4ZRC6 C S C C V G F  
UniRef90\_V4ZRC6 C S C C V G F  
UniRef90\_I0WM15 S Y I C Y Y I L T E L S L G G P D I L A P M K K I L C E Y I S Q C V N L D G G I  
UniRef90\_I3EJM7  
UniRef90\_Q0UX45  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_Q4N9E3  
UniRef90\_Q5CDL6  
UniRef90\_M7BPR7 L T I A F F A L S G L D M L D S L D V V N K D D I I E W I Y S L Q W T S Q R Y  
UniRef90\_W2DAK2  
UniRef90\_W2DAK2  
UniRef90\_B5VIH4 M A I I F Y S I S G L S I F D V N V S W M R K H Y I K T V L D D T E N T I S G F  
UniRef90\_J7MGR7 I C G S F W A I S G L S A S K W N I N Q E D L K K I L R R L R N C T N T V K G F  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7

UniRef90\_A9BLD5  
 UniRef90\_M7ZRD0  
 UniRef90\_E6R1L5  
 UniRef90\_E6R1L5  
 UniRef90\_E2LVW3  
 UniRef90\_E2LVW3  
 UniRef90\_A8B8E5  
 UniRef90\_M3AVC5  
 UniRef90\_Q7RN02  
 UniRef90\_G3NWT8  
 UniRef90\_A5E0V9  
 UniRef90\_J3QEZO  
 UniRef90\_J3QEZO  
 UniRef90\_M1C5Z1  
 UniRef90\_Q4DKD8  
 UniRef90\_G8JRR9  
 UniRef90\_Q4XLM9  
 UniRef90\_Q4XLM9  
 UniRef90\_A0A059A981  
 UniRef90\_W7B8K4  
 UniRef90\_W7B8K4  
 UniRef90\_W7AJL7  
 UniRef90\_W7AJL7  
 UniRef90\_B3LCD9  
 UniRef90\_B3LCD9  
 UniRef90\_B3LCD9  
 UniRef90\_C9SB05  
 UniRef90\_Q5DCU2  
 UniRef90\_L2GKW8  
 UniRef90\_G4TTX9  
 UniRef90\_E4N8V4  
 UniRef90\_W4ZF40  
 UniRef90\_M8C3V0  
 UniRef90\_V6LJ00  
 UniRef90\_V6LJ00  
 UniRef90\_F2TW34  
 UniRef90\_B6GA2  
 UniRef90\_Q5CUL5  
 UniRef90\_S7ZAG3  
 UniRef90\_S7ZAG3  
 UniRef90\_S7ZAG3  
 UniRef90\_Q5KK97  
 UniRef90\_W7JS69  
 UniRef90\_U5G2B3  
 UniRef90\_I1BZ17  
 UniRef90\_A0A022UJT2  
 UniRef90\_V5BGA3  
 UniRef90\_Q3KIG2  
 UniRef90\_Q3KIG2  
 UniRef90\_G4UY58  
 UniRef90\_I7IG05  
 UniRef90\_I7IG05  
 UniRef90\_H2YT30  
 UniRef90\_J3IJW7  
 UniRef90\_J3IJW7  
 UniRef90\_Q23AR6  
 UniRef90\_Q23AR6  
 UniRef90\_G1MUD7  
 UniRef90\_Q1I4N1  
 UniRef90\_Q1I4N1  
 UniRef90\_F0VRK6  
 UniRef90\_F0VRK6  
 UniRef90\_F0VRK6  
 UniRef90\_J7TEZ2  
 UniRef90\_C2QNS9  
 UniRef90\_H8Z9X0  
 UniRef90\_Q4UGC3  
 UniRef90\_L0AY11  
 UniRef90\_UPI0004407415  
 UniRef90\_UPI0004407415  
 UniRef90\_Q2GM66  
 UniRef90\_UPI000408C4EE  
 UniRef90\_UPI000408C4EE  
 UniRef90\_V4ZRC6  
 UniRef90\_V4ZRC6  
 UniRef90\_V4ZRC6  
 UniRef90\_I0WM15  
 UniRef90\_I3EJM7  
 UniRef90\_Q0UX45  
 UniRef90\_UPI00035CDB01  
 UniRef90\_UPI00035CDB01  
 UniRef90\_UPI00035CDB01  
 UniRef90\_Q4N9E3  
 UniRef90\_Q5CDL6  
 UniRef90\_M7BPR7  
 UniRef90\_W2DAK2  
 UniRef90\_W2DAK2  
 UniRef90\_B5VIH4  
 UniRef90\_J7MGR7  
 UniRef90\_U5VHQ7  
 UniRef90\_U5VHQ7  
 UniRef90\_U5VHQ7

NKNF F S S E T 130 L L S L Y S A L L S F S C F E K L E F K N Q R A F Q I T I Y S  
 C G S P G H N S H L A S T Y S A L A T L K I V G Y D V L N L D S N V L L L S  
 Q G R P G K L E D V C Y S F W C I F V L L V L G R E D L I D H D A N K A F  
 Q Q R P G K L E D V C Y S F W C I F V L L V L G R E D L I D H D A N K A F  
 T T V P S G D T D L R T L Y C A F A I S I L S G E K L V V K F A Q K T D S Y H  
 T T V P S G D T D L R T L Y C A F A I S I L S G E K L V V K F A Q K T D S Y H  
 A P H S G Y Q T H V L I L F G A T L S A A T A R H Y S L M S R E V V R S Y  
 R M W P G D P A N V P A T F F A L S A L L A A G D D L E R V R R K E T L I W  
 E S N V I S T S A I Q I L L F L N R T D D E N D I S T K T E I Y N F  
 R G H P Y D S G H V A M T Y T G L C S L L L L G D D L S R V N K Q A C M A G  
 R G D R Y D Y G N L T A C L F A V Y I L M I L E S D F K K M D W K K L L N Y  
 G G A P N D Q P H L T H T Y T A L L I L A L L L T L P S A Y D R L D L P K L L Q F  
 G G A P N D Q P H L T H T Y T A L L I L A L L L T L P S A Y D R L D L P K L L Q F  
 Y G F H G N C S H L A S T Y C A L S I L K T L G Y L S D F S L L D S M S I K S F  
 C P V P N T S A T L S M T H C A L Q I L N L C D F L P K A E W A Y K E K V M S F  
 L G S G T M D D V G L I P T I H L P S S L L F A N A H E F F D T L D K E S L C  
 S K F P G S E S H A G T T F C A V N S L N L K D N N N R S C L I R S K L I R W  
 S K F P G S E S H A G T T F C A V N S L N L K D N N N R S C L I R S K L I R W  
 Y G F H G N G S H A S T T F C A V N S L N L K I V G Y N L S N I D S E S M L T S  
 S K F P G S E S H A G T T F C A V N S L N L K D N N N R S F L I R S K L I R W  
 S K F P G S E S H A G T T F C A V N S L N L K D N N N R S F L I R S K L I R W  
 S N V P G S E S H A G T T F C A I N S L N L L G N Y L S D N G L L R G K L I R W  
 S N V P G S E S H A G T T F C A I N S L N L L G N Y L S D N G L L R G K L I R W  
 Y H F S Q F D G D I R F M F C A L S V L H F L S L L L K K R N V H I E R C A H W  
 Y H F S Q F D G D I R F M F C A L S V L H F L S L L L K K R N V H I E R C A H W  
 Y H F S Q F D G D I R F M F C A L S V L H F L S L L L K K R N V H I E R C A H W  
 S G A P S H T S I A A T Y F A L L L L A L V G D R G A F A G V D R V G I L R W  
 R G S S Y D G S H V I T M V Y S A L A S L L L L G D D L S R V D R R G T L V G L S  
 G P N P E Y S S N V V S T F N A L Q L L F L Y N V P R D P L D K L D R A G L V K Y  
 R G S P Y D P P F L I M T Y A A I L S L A I L G G A D H P G F D R D A C V A F  
 G E Q P G L P S E T T T Y C A V L T A V V L G G A D H P G F D R D A C V A F  
 R G H P Y D W G H V A M T Y T G L A S L L L L G D D L S R V N M P A I V A G  
 C G S P C H N S H L A S T Y S A L A T L K I V G Y D V L N L D S K V L L S  
 G A V P N A I S H A A Q V Y C V C G L K I L N T F S R L S E A Q I S G F S I F  
 G A V P N A I S H A A Q V Y C V C G L K I L N T F S R L S E A Q I S G F S I F  
 R G S P S D C A N I L M T F C A L C S S I L G D S L D R V L R A A I V S S  
 L M S P N T S A H L A T L S G L Q V L K I L G V N N Y V S N V L D K I I L F  
 S L N P F D F P S L A S I L S G I L K T L L N N K I T E D N K Y E L T A F

UniRef90\_U5G2B3  
 UniRef90\_I1BZ17  
 UniRef90\_A0A022UJT2  
 UniRef90\_V5BGA3  
 UniRef90\_Q3KIG2  
 UniRef90\_Q3KIG2  
 UniRef90\_G4UY58  
 UniRef90\_I7IG05  
 UniRef90\_I7IG05  
 UniRef90\_H2YT30  
 UniRef90\_J3IJW7  
 UniRef90\_J3IJW7  
 UniRef90\_Q23AR6  
 UniRef90\_Q23AR6  
 UniRef90\_G1MUD7  
 UniRef90\_Q1I4N1  
 UniRef90\_Q1I4N1  
 UniRef90\_F0VRK6  
 UniRef90\_F0VRK6  
 UniRef90\_F0VRK6  
 UniRef90\_J7TEZ2  
 UniRef90\_C2QNS9  
 UniRef90\_H8Z9X0  
 UniRef90\_Q4UGC3  
 UniRef90\_L0AY11  
 UniRef90\_UPI0004407415  
 UniRef90\_UPI0004407415  
 UniRef90\_Q2GM66  
 UniRef90\_UPI000408C4EE  
 UniRef90\_UPI000408C4EE  
 UniRef90\_V4ZRC6  
 UniRef90\_V4ZRC6  
 UniRef90\_V4ZRC6  
 UniRef90\_I0WM15  
 UniRef90\_I3EJM7  
 UniRef90\_Q0UX45  
 UniRef90\_UPI00035CDB01  
 UniRef90\_UPI00035CDB01  
 UniRef90\_UPI00035CDB01  
 UniRef90\_Q4N9E3  
 UniRef90\_Q5CDL6  
 UniRef90\_M7BPR7  
 UniRef90\_W2DAK2  
 UniRef90\_W2DAK2  
 UniRef90\_B5VIH4  
 UniRef90\_J7MGR7  
 UniRef90\_U5VHQ7  
 UniRef90\_U5VHQ7  
 UniRef90\_U5VHQ7

E A N I I S T L S A I Q I L F L L N K T D E N S L S T K T E I Y N F  
 R G S P Y D S S H V I A N T Y T A L L V A L L L L G D D L S R V N K H A L E T  
 R G F T G D P A N V P A T F F A L L V A L L L L E D D L A R V R R K R A L L E T  
 C P V P N T S A T L S M T H C A L Q I L N L C D F L P K A E W A Y K E K V M S F  
 G F R A D K T W Q V F S G L H V I S D L H A L G G L Q I E N K A S L I D C  
 G F R A D K T W Q V F S G L H V I S D L H A L G G L Q I E N K A S L I D C  
 C G T S S L V F P L Y D T Y A G L A N I D E A A G G E N V F E G V N R V G T L R F  
 S A L C G D I R D V A S L F G T V N L L H K L T G G I D Y S N E F I L P K T V E W  
 S A L C G D I R D V A S L F G T V N L L H K L T G G I D Y S N E F I L P K T V E W  
 S F C N Y D C S H L A M T Y T G L A S L L L L G D D L R R V N K H A C L E G  
 T W Q V F S G L H V I S D L H A L E I E N K A S L I D C  
 T W Q V F S G L H V I S D L H A L E I E N K A S L I D C  
 R S C D S Q E S D L R Y T Y S S L V V S Q L L Q D D L S R V N K H A L E T  
 R S C D S Q E S D L R Y T Y S S L V V S Q L L Q D D L S R V N K H A L E T  
 V S H P Y D S G H I A M T Y T G L S C L L L L G D D L S R V N K D A L L A G  
 G F R A D R C W Q V F S A L H V I S D L Y A L K A D I E D S A S L V T C  
 G F R A D R C W Q V F S A L H V I S D L Y A L K A D I E D S A S L V T C  
 A P H P S Y P A T C L S T L S A V Q I L V L L G G G P S N L P K Q L L I R I Q R F  
 A P H P S Y P A T C L S T L S A V Q I L V L L G G G P S N L P K Q L L I R I Q R F  
 A P H P S Y P A T C L S T L S A V Q I L V L L G G G P S N L P K Q L L I R I Q R F  
 G E Q A G V V S E L F T T Y C V I T S A F I V K Q P N Y N L K K C L D F  
 G E Q P N H P S E V F T T Y C V I T S A F I V K Q P N Y N L K K C L D F  
 G A K P G Y P S N P L F T L S A L Q I L Y I L G K S P A P P T P D N H K E K E  
 S Y N N L Y S D N I Q S T L Y A I E I N Y L L R D H L L L T S S D L I P I N Y  
 R Q Y D N E E F Y T A S T L Y A V Q I Y H L L E K T G T D E N S E M I R S I L M F  
 S A V P G Q E A D I R M V Y T A F A I C A M L D D W T G V D V S R A L A F  
 S A V P G Q E A D I R M V Y T A F A I C A M L D D W T G V D V S R A L A F  
 A P S S T L D P A N P S A T T G L A N L P A T L F E R A F E G V D R V Q T L R W  
 G Y G L T P Y P A P L G T A Q T F S V L H V V S D L M A L N I P H R E K L L A G  
 G Y G L T P Y P A P L G T A Q T F S V L H V V S D L M A L N I P H R E K L L A G  
 A P H P S Y P A T S L S T L S A L Q I L F L L G G G P S T L P P H L L N K I Q R F  
 A P H P S Y P A T S L S T L S A L Q I L F L L G G G P S T L P P H L L N K I Q R F  
 A P H P S Y P A T S L S T L S A L Q I L F L L G G G P S T L P P H L L N K I Q R F  
 G W Q P D R T P S V F G T H H S I A N L K V L G G G A V R N P Q G V A G W  
 G A M P G S E S H A A Y T F S G V S S L F S L G E I G L I S I Q E T A T L

UniRef90\_UPI00035CDB01  
 UniRef90\_UPI00035CDB01  
 UniRef90\_UPI00035CDB01  
 UniRef90\_Q4N9E3  
 UniRef90\_Q5CDL6  
 UniRef90\_M7BPR7  
 UniRef90\_W2DAK2  
 UniRef90\_W2DAK2  
 UniRef90\_B5VIH4  
 UniRef90\_J7MGR7  
 UniRef90\_U5VHQ7  
 UniRef90\_U5VHQ7  
 UniRef90\_U5VHQ7

P Q I F S A L H V V S D F S V L G I D V E H E D A L I A G  
 P Q I F S A L H V V S D F S V L G I D V E H E D A L I A G  
 P Q I F S A L H V V S D F S V L G I D V E H E D A L I A G  
 N Y

UniRef90\_U5G2B3  
 UniRef90\_I1BZ17  
 UniRef90\_A0A022UJT2  
 UniRef90\_V5BGA3  
 UniRef90\_Q3KIG2  
 UniRef90\_Q3KIG2  
 UniRef90\_G4UY58  
 UniRef90\_I7IG05  
 UniRef90\_I7IG05  
 UniRef90\_H2YT30  
 UniRef90\_J3IJW7  
 UniRef90\_J3IJW7  
 UniRef90\_Q23AR6  
 UniRef90\_Q23AR6  
 UniRef90\_G1MUD7  
 UniRef90\_Q1I4N1  
 UniRef90\_Q1I4N1  
 UniRef90\_F0VRK6  
 UniRef90\_F0VRK6  
 UniRef90\_F0VRK6  
 UniRef90\_J7TEZ2  
 UniRef90\_C2QNS9  
 UniRef90\_H8Z9X0  
 UniRef90\_Q4UGC3  
 UniRef90\_L0AY11  
 UniRef90\_UPI0004407415  
 UniRef90\_UPI0004407415  
 UniRef90\_Q2GM66  
 UniRef90\_UPI000408C4EE  
 UniRef90\_UPI000408C4EE  
 UniRef90\_V4ZRC6  
 UniRef90\_V4ZRC6  
 UniRef90\_V4ZRC6  
 UniRef90\_I0WM15  
 UniRef90\_I3EJM7  
 UniRef90\_Q0UX45  
 UniRef90\_UPI00035CDB01  
 UniRef90\_UPI00035CDB01  
 UniRef90\_UPI00035CDB01  
 UniRef90\_Q4N9E3  
 UniRef90\_Q5CDL6  
 UniRef90\_M7BPR7  
 UniRef90\_W2DAK2  
 UniRef90\_W2DAK2  
 UniRef90\_B5VIH4  
 UniRef90\_J7MGR7  
 UniRef90\_U5VHQ7  
 UniRef90\_U5VHQ7  
 UniRef90\_U5VHQ7

L P K P K E L F R V N Q T Y S S L N S L L S P Y P S D S L H I V N Y A A A V E F  
 P D L W C T Y A A I R S L A W V D D Q L Q S V D R P Q I C R Y  
 P D L W C T Y A A I R S L A W V D D Q L Q S V D R P Q I C R Y  
 V G S H A T T N L P N T L F A L S L M L M L R D Y E F E T L D K R S L A R F  
 C E F T D Q E T N I Q S T L Y A I Q I Y Y M V K R L K Q L D D E E V E C V V N Y  
 G L A N G Q P D L W C T Y A A I R S L A W V E R L D A V D S L A L Q R Y  
 G L A N G Q P D L W C T Y A A I R S L A W V E R L D A V D S L A L Q R Y  
 G L A N G Q P D L W C T Y A A I R S L A W V E R L D A V D S L A L Q R Y

UniRef90\_A9BLD5 UniRef90\_M7ZRD0 UniRef90\_E6R1L5 UniRef90\_E6R1L5 UniRef90\_E2LVW3 UniRef90\_E2LVW3 UniRef90\_A8B8E5 UniRef90\_M3AVC5 UniRef90\_Q7RN02 UniRef90\_G3NWT8 UniRef90\_A5E0V9 UniRef90\_J3QEZO UniRef90\_J3QEZO UniRef90\_M1C5Z1 UniRef90\_Q4DKD8 UniRef90\_G8JRR9 UniRef90\_Q4XLM9 UniRef90\_Q4XLM9 UniRef90\_A0A059A981 UniRef90\_W7B8K4 UniRef90\_W7B8K4 UniRef90\_W7AJL7 UniRef90\_W7AJL7 UniRef90\_B3LCD9 UniRef90\_B3LCD9 UniRef90\_B3LCD9 UniRef90\_C9SB05 UniRef90\_Q5DCU2 UniRef90\_L2GKW8 UniRef90\_G4TTX9 UniRef90\_E4N8V4 UniRef90\_W4ZF40 UniRef90\_M8C3V0 UniRef90\_V6LJ00 UniRef90\_V6LJ00 UniRef90\_F2TW34 UniRef90\_B6AGA2 UniRef90\_Q5CUL5 UniRef90\_S7ZAG3 UniRef90\_S7ZAG3 UniRef90\_S7ZAG3 UniRef90\_Q5KK97 UniRef90\_W7JS69 UniRef90\_U5G2B3 UniRef90\_I1BZ17 UniRef90\_A0A022UJT2 UniRef90\_V5BGA3 UniRef90\_Q3KIG2 UniRef90\_Q3KIG2 UniRef90\_G4UY58 UniRef90\_I7IG05 UniRef90\_I7IG05 UniRef90\_H2YT30 UniRef90\_J3IJW7 UniRef90\_J3IJW7 UniRef90\_Q23AR6 UniRef90\_Q23AR6 UniRef90\_G1MUD7 UniRef90\_Q114N1 UniRef90\_Q114N1 UniRef90\_F0VRK6 UniRef90\_F0VRK6 UniRef90\_F0VRK6 UniRef90\_J7TEZ2 UniRef90\_C2QNS9 UniRef90\_H8Z9X0 UniRef90\_Q4UGC3 UniRef90\_L0AY11 UniRef90\_UPI0004407415 UniRef90\_UPI0004407415 UniRef90\_Q2GM66 UniRef90\_UPI000408C4EE UniRef90\_UPI000408C4EE UniRef90\_V4ZRC6 UniRef90\_V4ZRC6 UniRef90\_V4ZRC6 UniRef90\_I0WM15 UniRef90\_I3EJM7 UniRef90\_Q0UX45 UniRef90\_UPI00035CDB01 UniRef90\_UPI00035CDB01 UniRef90\_UPI00035CDB01 UniRef90\_Q4N9E3 UniRef90\_Q5CDL6 UniRef90\_M7BPR7 UniRef90\_W2DAK2 UniRef90\_W2DAK2 UniRef90\_B5VIH4 UniRef90\_J7MGR7 UniRef90\_U5VHQ7 UniRef90\_U5VHQ7 UniRef90\_U5VHQ7

F L R K I K K K K V Y R C S A Y G E S D S R S F F C V L V I S S F N I L T K N  
M K K L Q Q P D G G S F M T H I G A Y E T D L R F V Y C A A A I C S M L K D W S G M  
L L S A Q S P L G G G F G K E P E D Y P D P Y H S Y L A L A A L S I S L N R F F G E E  
L L S A Q S P L G G G F G Q Y P H C E A S S G G P T Y V A I A S L H L Y P R L N P E E  
Q T Y E G G G Y G Q Y P H C E A S S G G M R V A Y T C V S V G Y I L R N L L E D K  
I R Q M Q R P D G G S F G G E L H G S G M D M P R Y G Y C A A G V R Y I L R N G V E D I  
L R A L M F D E D G G S F Y H F L H F G D G D M R F V I F C C S L S Y F I L D D W S G M  
V T R C Q R K N G G S F S Q S V F G S E M D L R Q C Y I A L I L R K L I G I T T D I  
V R N C C Q R P N G S F G S F P D S P E D I R F V Y C A V A I A L A I V R V D T V I  
V R N C C Q R P N G S F G S F P D S P E D I R F V Y C A V A I A L A I V R V D T V I  
M K N L Q Q H D G G S F M I H S G A E T D L R F V Y C A A A L S S M L E N W S G I  
V M S C K H I R S H G A F Q A A P L G S E V D I R F T Y S A L V S M A L L K K P Q L  
I G K C Q R L R N G S F V S T A P L D D S N D L R Y C Y I A L S L L T I M G C K T Q G  
L C D D R Y E N Q G G I N G R V S K S H D V C Y S W W V L S S L V S L K C C N L S L  
L C D D R Y E N Q G G I N G R V S K S H D V C Y S W W V L S S L V S L K C C N L S L  
M R N L Q Q S D G G S F M I H I G A E R D L R F L Y C A A A I C F M L N N W N G M  
L C D D R Y E N Q G G I N G R V S K S H D V C Y S W W V L S S L V S L K C C N L S L  
L C D D R Y E N Q G G I N G R V S K S H D V C Y S W W V L S S L V S L K C C N L S L  
L C D D R Y D N L G I N G R V G K D H D V C Y A W W V L G S L V A L K T N L T E  
I L T C L N L D G G F S N V P G S E S H A G T T F C A I N S L K L L R L R G G G E E  
I L T C L N L D G G F S N V P G S E S H A G T T F C A I N S L K L L R L R G G G E E  
L R R L Q R E D G G F G G A I L C A E R D M R L C Y L A A T I R W C L N G W V E D I  
A M Q C L D E P G L F A G D I L C A E R D M R F V F S A V A S C Y I L S G L D Y I  
L L S L Q N L S G A F T F D A Y G E D I D T R F D C C A I L S L H L L S I M K D I  
L H S C Q R E D G G F K L Y P S S E E D L R M T Y C A F A L C A M L D D D W S A L  
L R S C Q R P E G G F G N A P S G F P E D A W H S H L A T L T L V A L D D A R P E  
K A L Q L E D G S F S A L E N G E N D M R F V Y C A C C I S Y M L Q D W S G I  
M K K L Q Q P D G G S F M T H I G A E T D L R F V Y C A A A L S S M L K D W S G M  
L L Q L Q T S L G G F C G R Q N K L P D A C Y C M W A A A T L K V L G V R F N E  
L L Q L Q T S L G G F C G R Q N K L P D A C Y C M W A A A T L K V L G V R F N E  
L K H Y Q K E D G S F T A H S T G G E N D M R F V Y C A C A L C T L L D D W S G V I  
I S S L C H F R G K Y T F D S I K R Q F D V R F I Y S T L L V Y Y L S N Y P D L K  
I K S L I A L R G N N S K N C L R Q F D V R F I Y S T L L V Y Y L S N Y P D L K  
M L L A Y L T L G G L D V L G V L T L L E E  
M L L A Y L T L G G L D V L G V L T L L E E  
M L L A Y L T L G G L D V L G V L T L L E E  
V I F L F D E E K G Y S V Q Y K F D G S D A R M A Y I A S V I S H I I Q D D P S G I  
V L S L Q Q K E N G G Q F S V G F H G S H S D N M R F M F C C S L C T L Y I L N K L F K E  
L R H L Q Q E D D G S I A P T S A G S E R D V R F I Y C C A S S I S Y I L N D W S G L  
L R S M Q R E D D G S F A G S I D G A R D L R F C C C A S A G I Y I L R G E D D I  
V M S C H S F R G A F Q A A P G A E V D I R F T Y S A L V S M A L L K P Q P L  
I R A S Q N T D G G F A E Q P G H L S D V F A T Y C A V L S L R V L G A L P N  
I R A S Q N T D G G F A E Q P G H L S D V F A T Y C A V L S L R V L G A L P N  
L K S L Q R E D D G S F G E F I A G G Y D M R Y C Y I A T A I R W I L G W V E D F  
I I S C K N D D D G G Y G L R P G E E S H I I G A C C F C A S A I S K I K I I R D F T  
I I S C K N D D D G G Y G L R P G E E S H I I G A C C F C A S A I S K I K I I R D F T  
I K A L Q L P D G S F K S Y D G G E N D M R F I Y C A C C V C T M L D D F S A I  
I K S S Q N A D D G G F A E Q P G H L S D V F A S Y C A V L S L R V L G A L P N  
I K S S Q N A D D G G F A E Q P G H L S D V F A S Y C A V L S L R V L G A L P N  
I L S C Y N E Q G G F G L N P N M E S H G G S T F C A I A A L S I L N K L Q L I  
I L S C Y N E Q G G F G L N P N M E S H G G S T F C A I A A L S I L N K L Q L I  
L R A L Q L E D G S V H Q A S G G A S G I W R C L F H C S E R S C Y R Y W T S  
I Q A S Q N P D G G F S E Q P G Q L S D V F A T Y C A V I S L R L L G S A P R  
I Q A S Q N P D G G F S E Q P G Q L S D V F A T Y C A V I S L R L L G S A P R  
L T R L Q D P T G A F K N R C C T S E P D I R F A M C A V A C F Q L T Q L L T G E  
L T R L Q D P T G A F K N R C C T S E P D I R F A M C A V A C F Q L T Q L L T G E  
L T R L Q D P T G A F K N R C C T S E P D I R F A M C A V A C F Q L T Q L L T G E  
V K S C C Q N S D G G F G N A P G F P S D V W H T N L G V L A L H V L G V E P D  
L K S C Q N S D G G F G N A P G F P S D V W H T N L G V L A L H V L G V E P D  
E I S D T R R P G S F T V Q I E E S D N T S Q S S S N E L S L K G G R P E K  
I K S L Y N P E G Y F H I P H Y T D L R S T M S S L C A L K L N Y Y E T Q  
I K L L N D K A G F F Y N S L N Y K H D L R H T M S S L C T F V L T N E L R I  
A R G C M S Y E G G F G Q A P G N E P S M P F S Y H A L Q Q L I A S S Y L A L M  
A R G C M S Y E G G F G Q A P G N E P S M P F S Y H A L Q Q L I A S S Y L A L M  
L R R L Q R A D G S F G W F V G G G Y D M L Y C Y I A V A V R W M L R G D V D L  
I Y A T Q N P D G G F G E Q P G L L S E A F T T Y C A V L T A T V L K G E E Y  
I Y A T Q N P D G G F G E Q P G L L S E A F T T Y C A V L T A T V L K G E E Y  
L A R L Q D Q N G A F N N Q C N D E P D M R F A M C A V A S L Q L T Q L L T K V  
L A R L Q D Q N G A F N N Q C N D E P D M R F A M C A V A S L Q L T Q L L T K V  
L A R L Q D Q N G A F N N Q C N D E P D M R F A M C A V A S L Q L T Q L L T K V  
L R S T Q A N G A F G E Y P G G P A D V L N T Y L A V N A L D L L G D N D F G  
I G L L Q T N S G I S G R V D K I E E I C S T F W G Y S T L A I M G V P G Y D I  
I Q S A Q N R D G G F S E Q P G L P S E V F T T Y C A A L T G V I L Q R P E F  
I Q S A Q N R D G G F S E Q P G L P S E V F T T Y C A A L T G V I L Q R P E F  
I Q S A Q N R D G G F S E Q P G L P S E V F T T Y C A A L T G V I L Q R P E F  
I K S L Y N P D N S F N T H S N D Y T D V R S T M S A L C A F N L T H K L L N F  
G A E L K L S F G P G I S H P Y D S G H I A M T Y T G L S C L V I L G D L S R V  
I E S R L N R D G G Y A W S K G M P S D A W A T F Y C T E T L N D L G A Q E R G  
I E S R L N R D G G Y A W S K G M P S D A W A T F Y C T E T L N D L G A Q E R G  
V S K C Q R P R G S F V S C L D Y K T D L R F C Y I A V A I L Y I C G C A Q S R K E  
A K Q L Y D K I G C F Y N S T P F G A D L R H T M A A L C T I N L C K I E N E M  
I Q S R R N R D G G F A W S K G M P S D A W A T F Y C T Q T L Q D L G I A V D R  
I Q S R R N R D G G F A W S K G M P S D A W A T F Y C T Q T L Q D L G I A V D R  
I Q S R R N R D G G F A W S K G M P S D A W A T F Y C T Q T L Q D L G I A V D R

UniRef90\_A9BLD5 WK D I L L L F Y N K C S L D G G Y G C D K L E E S H G A L T Y C E I J A S F T  
UniRef90\_M7ZRD0 D K E K A K E Y L L N C Q S Y D G G F G M V P G L E S H G R Q C I S L P G Y F M  
UniRef90\_E6R1L5 D K E N  
UniRef90\_E6R1L5 D K E N  
UniRef90\_E2LVW3 E V I Q K S V H W L I H N Q S S C G G F S G R T N K E A D A C Y C F W C G A T L K  
UniRef90\_E2LVW3 E V I Q K S V H W L I H N Q S S C G G F S G R T N K E A D A C Y C F W C G A T L K  
UniRef90\_A8B8E5 A L E P L I S Y F L Q A Y D G G C S N N F G G E S H G A Y T F W C L A G L Y  
UniRef90\_M3AVC5 D V D G F V R C I R L A E S Y D G G I A D Y A Y H E P H A G Y E Y C S L G A L N  
UniRef90\_Q7RN02 N T Q K C I N W I L N C F N V D G G F S K F P G S E S H A G T T F C A V N S L N  
UniRef90\_G3NWT8 D I Q K A L E Y I R G S L  
UniRef90\_A5E0V9 D T N L L K C F I L N R L D Y N G G F C H H N L D E P H L G F T F C A V A S L K  
UniRef90\_J3QEZO D V D S T E R F L S S C R R Y E G G Y G Q A P H C E A Q G G T T Y C A L A S F A  
UniRef90\_J3QEZO D V D S T E R F L S S C R R Y E G G Y G Q A P H C E A Q G G T T Y C A L A S F A  
UniRef90\_M1C5Z1 D K E K A K E Y I T N C Q S Y D G G F G L T P S S E S H V S Q V V P L F V R L H  
UniRef90\_Q4DKD8 T L Q E A V A I W R C W A H E G A F G A V P G A E A H G G M T F C A V A S L A  
UniRef90\_G8JRR9 D V E K L L Q F I E T R K C T G G A F G D Y N E P H A G Y T N C A L S S L K  
UniRef90\_Q4XLM9 N V N I L I N Y I L K C Q D K D N G  
UniRef90\_Q4XLM9 N V N I L I N Y I L K C Q D K D N G  
UniRef90\_A0A059A981 D R E K A K E Y I L N C Q S Y D G G F G L S P G S E S H V A Q V V L H I V P S H  
UniRef90\_W7B8K4 N V N I L I N Y I L K C Q D K D N G G F S R  
UniRef90\_W7B8K4 N V N I L I N Y I L K C Q D K D N G G F S R  
UniRef90\_W7AJL7 N V N I L I T F I L T C C Q  
UniRef90\_W7AJL7 N V N I L I T F I L T C C Q  
UniRef90\_B3LCD9 N R G K L I R W L C C D R Y D N G I N G R I G K D H D V C Y A W W V L G S L V  
UniRef90\_B3LCD9 N R G K L I R W L C C D R Y D N G I N G R I G K D H D V C Y A W W V L G S L V  
UniRef90\_B3LCD9 N R G K L I R W L C C D R Y D N G I N G R I G K D H D V C Y A W W V L G S L V  
UniRef90\_C9SB05 N V D A L L G H I R Q G Q T Y D G G V A E S S Q H E A H A G A Y Y C A V A S L Y  
UniRef90\_Q5DCU2 N C E N V A S F I A K C Q T Y G G G F A N L P D L E A H A G A T Y C A V A S L S  
UniRef90\_L2GKW8 D Y S K G I A L C S N C A A D G M E H K I C Q Y L S P D N R L D R R H L S E P I  
UniRef90\_G4TTX9 D L D K A A Y E G G Y G Q E P H N E A H G G P D L R H R H P R S  
UniRef90\_E4N8V4 R E D D L V A Y I L S C R N Q D G G Y G N R P G S S D T F A T F R A I G A I  
UniRef90\_W4ZF40 N K D K A V Q F I Q N S L  
UniRef90\_M8C3V0 D K E K A K E Y I L N C Q S Y D G G F G M V P G S E S H V I L L C  
UniRef90\_V6LJ00 D I L Y S F V T E C Q D Q S G G I A D R Q G N P P D L F H S H Y V C S F L G  
UniRef90\_V6LJ00 D I L Y S F V T E C Q D Q S G G I A D R Q G N P P D L F H S H Y V C S F L G  
UniRef90\_F2TW34 N T A A I K Q Y I F S D Q N P D G G F A Q G P G L E A H G G S T Y C A V A S L S  
UniRef90\_B6AGA2 Q I S K L V T F L S D L Q N P D G G F G R R P N E E A H A G H T F C A V A S I A  
UniRef90\_Q5CUL5 R I S E L T K L L V N M Q N K D G G F G K R Y K D E S H A G Y T F C A V S S I A  
UniRef90\_S7ZAG3 E R Q G Y I D W L Y H C Q V P S G G F R G F P G R T S D N G A F F A L V N L L M  
UniRef90\_S7ZAG3 E R Q G Y I D W L Y H C Q V P S G G F R G F P G R T S D N G A F F A L V N L L M  
UniRef90\_S7ZAG3 E R Q G Y I D W L Y H C Q V P S G G F R G F P G R T S D N G A F F A L V N L L M  
UniRef90\_Q5KK97 N M P K L K D W I R T C N T W E G G Y A S R P G I E A Q G G T T Y C S L V A L S  
UniRef90\_W7J569 N N N K C I H W I N C F N I D G G F S N L P G S E S H A G T T F C A I H S L K  
UniRef90\_U5G2B3 D S K L I S M S I R N L Q Q P D G S F L P I H G A E T D L R F I Y C A S P I C Y  
UniRef90\_I1BZ17 D L E K T L E H I Y Q A C Q S Y E G I A Q C P K N E A H G G S T F C G T A A L S  
UniRef90\_A0A022UJT2 D A E K L I H Y V Q A C Q S Y E G G F A E S P F N E S N G M W T  
UniRef90\_V5BGA3 T L Q E A V A F I W R C W A H E G A F G A V P G A E A H G G M T F C A V A S L A  
UniRef90\_Q3KIG2 D I G G C V R Y L Q A C Q N P D G G F G D V P G F G S D I W H T N L A V L S L H  
UniRef90\_Q3KIG2 D I G G C V R Y L Q A C Q N P D G G F G D V P G F G S D I W H T N L A V L S L H  
UniRef90\_G4UY58 D T E A L A R Y I L N T L T L L D R P A L A R Y I L N T L T L L D P H K  
UniRef90\_I7IG05 D T V S M C K W L K A R Q R T N G G I S G H G D K A P D V C Y S Y W L L A T L A  
UniRef90\_I7IG05 D T V S M C K W L K A R Q R T N G G I S G H G D K A P D V C Y S Y W L L A T L A  
UniRef90\_H2YT30 N Q A T A T N F I M K S L  
UniRef90\_J31JW7 D V E G C V R Y L Q A C Q N P D G G F G D V A G Y V S D I W H T N L A V L S L H  
UniRef90\_J31JW7 D V E G C V R Y L Q A C Q N P D G G F G D V A G Y V S D I W H T N L A V L S L H  
UniRef90\_Q23AR6 N K T K L I H W L V S R Q Q L L R E S K A S L E E A Q Q I Q V E I I S E A E Y N  
UniRef90\_Q23AR6 N K T K L I H W L V S R Q Q L L R E S K A S L E E A Q Q I Q V E I I S E A E Y N  
UniRef90\_G1MUD7 V V E K S L P Y P K S I H P H L S C R G D G L A S L G G S T F C I I A S L C  
UniRef90\_Q114N1 N E Q A C I A Y L R Q C Q Q A D G G F G N V P G Y Q S D I W H S N L A A L S L H  
UniRef90\_Q114N1 N E Q A C I A Y L R Q C Q Q A D G G F G N V P G Y Q S D I W H S N L A A L S L H  
UniRef90\_F0VRK6 V T S G N T C K D D A V S S T E G G C T Q V K R I K T H W C C L P S Q W  
UniRef90\_F0VRK6 V T S G N T C K D D A V S S T E G G C T Q V K R I K T H W C C L P S Q W  
UniRef90\_F0VRK6 V T S G N T C K D D A V S S T E G G C T Q V K R I K T H W C C L P S Q W  
UniRef90\_J7TEZ2 F P E K L I Q Y L V S A Q N E D G G F A V F P N L S E V F S T F R A V G T L V  
UniRef90\_C2QNS9 D M D A C I A Y V C A C Q K E D G S Y A V P G S I S D T F S T F R A V G T L V  
UniRef90\_H8Z9X0 T L N S V M A Y L E K I V T D E K G I G F N S Y L D M R Y I C S Y H L L A Q L A  
UniRef90\_Q4UGC3 D L D R I Y K F L R S H F N S D G G L I S L S K N A Q S H V A G A F C C I G S L V  
UniRef90\_L0AY11 N F D L F F K F I K S H F N Q D G G V S L V P G G Q S H A A A F C L I G I F I  
UniRef90\_UPI0004407415 L I T S L I H K L L S S P C P E S G F A L Y P F I L G S L G P T Y C A L A T L A  
UniRef90\_UPI0004407415 L I T S L I H K L L S S P C P E S G F A L Y P F I L G S L G P T Y C A L A T L A  
UniRef90\_Q2GM66 D V G A L E R Y I L G S S Q T Y D G G F A G S S K E E P H A G Y A Y C A I A A L S  
UniRef90\_UPI000408C4EE D T Q Q C G A F L E A C Q H P E G A F G N A P G Y P G D A W H S N L A T L A L L  
UniRef90\_UPI000408C4EE D T Q Q C G A F L E A C Q H P E G A F G N A P G Y P G D A W H S N L A T L A L L  
UniRef90\_V4ZRC6 R E T G N T S K E R T K S G I E G G S G Y A K K H K T H D C S N G S C A N S S D  
UniRef90\_V4ZRC6 R E T G N T S K E R T K S G I E G G S G Y A K K H K T H D C S N G S C A N S S D  
UniRef90\_V4ZRC6 R E T G N T S K E R T K S G I E G G S G Y A K K H K T H D C S N G S C A N S S D  
UniRef90\_I0WM15 D R D A C I V Q Y L R A C Q N D D G G F G V V P G F I S D L F H T N L A A V A L H  
UniRef90\_I3EJM7 D S S A L R N F I V S C E C V E G G Y S D R P N G T P T L L Y T F Y A V S C L A  
UniRef90\_Q0UX45 D V D S F V T C V R A A E S Y D G G I S E A P Y H E A H G G F T C A V A A L Y  
UniRef90\_UPI00035CDB01 N I P A C I D F V N R S Q H A D G G F G N T P G Y V S D V W H T N L A V L T  
UniRef90\_UPI00035CDB01 N I P A C I D F V N R S Q H A D G G F G N T P G Y V S D V W H T N L A V L T  
UniRef90\_UPI00035CDB01 N I P A C I D F V N R S Q H A D G G F G N T P G Y V S D V W H T N L A V L T  
UniRef90\_Q4N9E3 D L D R I Y R F L R S H F N S D G G I S L S K N G Q S H V A G A F C S I G S L V  
UniRef90\_Q5CDL6 M Q N K D G G F G K R Y K D E S H A G Y T F C A V S S I A  
UniRef90\_M7BPR7 N K D A C L A G L R A L Q L E D G S F C A V E G S E N D M R F V Y C A S C I C Y  
UniRef90\_W2DAK2 T Q K T E S W L D S L W D G A Y A M C A G Q G A D V W A T H Y A V R T L I  
UniRef90\_W2DAK2 T Q K T E S W L D S L W D G A Y A M C A G Q G A D V W A T H Y A V R T L I  
UniRef90\_B5VIH4 D F D K M L G Y I M S Q Q C Y N G A F G A H N E P H S G Y T S C T L A L L S  
UniRef90\_J7MGR7 N V E L I Y R R L K E H F N D D G G I A L Q V G G E S N V A G C F C C I G S M I  
UniRef90\_U5VHQ7 S E E T A H W L H S L F D G E Y A M C P G Q T A D V W A T H Y A L R T L I  
UniRef90\_U5VHQ7 S E E T A H W L H S L F D G E Y A M C P G Q T A D V W A T H Y A L R T L I  
UniRef90\_U5VHQ7 S E E T A H W L H S L F D G E Y A M C P G Q T A D V W A T H Y A L R T L I

UniRef90\_A9BLD5 F F S N R D S V L H P N F E N W V L K K L K P F E F G G Q G R P T K L P D T C Y 250 260 270 280  
UniRef90\_M7ZRD0 E R Q A A D G G F Q G R R N K P S D T C Y  
UniRef90\_E6R1L5  
UniRef90\_E6R1L5  
UniRef90\_E2LVW3 I L G A G H L V D Y S A L S K F V A D C Q F K F G G I A K S P G E G P  
UniRef90\_E2LVW3 I L G A G H L V D Y S A L S K F V A D C Q F K F G G I A K S P G E G P  
UniRef90\_A8B8E5 I L D R L G E R R V L D L L L Y I H A K Q T N Q G G F A G R N N K L V D G C Y  
UniRef90\_M3AVC5 F L G R L  
UniRef90\_Q7RN02 L L K D T N K L I R S K L I R W L C D R Y E N Q G I N G R V S K N H D V C Y  
UniRef90\_G3NWT8 L L D V F Q Y T N F D K N R S F I L S T Q D R L V G G F A K W P D S H P D P L H  
UniRef90\_A5E0V9 L L D Y P V N E L E K T R N W L L H R Q T L F P A G F N G R N N K R S D T C Y  
UniRef90\_J3QEZO L L G R L E S S Q T D S T A R W L V D R Q  
UniRef90\_J3QEZO L L G R L E S S Q T D S T A R W L V D R Q  
UniRef90\_M1C5Z1 L S D  
UniRef90\_Q4DKD8 L A G A M S S L T R S H H H L L L R Y C T A R L S G G Y Q G R P Q K E C D T C Y  
UniRef90\_G8JRR9 L L D K L D L L S K H D T I D W L V H R Q V S D H G G F Q G R E N K Y A D T C Y  
UniRef90\_Q4XLM9  
UniRef90\_Q4XLM9  
UniRef90\_A0A059A981 L C D  
UniRef90\_W7B8K4 V Q Q N D N Y I K K S E N F N Y Y D K E N I S H K K P D L F H  
UniRef90\_W7B8K4 V Q Q N D N Y I K K S E N F N Y Y D K E N I S H K K P D L F H  
UniRef90\_W7AJL7  
UniRef90\_W7AJL7  
UniRef90\_B3LCD9 A T N L T E L F N V K I L I T F I L M C Q D K E K G G F N V S G N K P A D L F H  
UniRef90\_B3LCD9 A T N L T E L F N V K I L I T F I L M C Q D K E K G G F N V S G N K P A D L F H  
UniRef90\_B3LCD9 A T N L T E L F N V K I L I T F I L M C Q D K E K G G F N V S G N K P A D L F H  
UniRef90\_C9SB05 M L D S  
UniRef90\_Q5DCU2 L I N K L E S V S R N L L I K W L L N L Q N E G F H G R I G K P D D T C Y  
UniRef90\_L2GKW8 D Q S F L Q D V D I D I T L R H L V E C F N Y D G G V G Q F K G S E S H A A Q  
UniRef90\_G4TTX9 S F P V I T P R I V P R P S K R R E R R Q V P T S V C S R P S S E R R R C V G Y  
UniRef90\_E4N8V4 A L G L R P R H S E R S V R W L R G L Q T A G G F R Y R T D G A E S F V G  
UniRef90\_W4ZF40 L L K V F N L I D F R W N R Y L I S T E D T G M G F A K W P D F H P D A L H  
UniRef90\_M8C3V0  
UniRef90\_V6LJ00 Q M G V L  
UniRef90\_V6LJ00 Q M G V L  
UniRef90\_F2TW34 M  
UniRef90\_B6AGA2 I I S Y H F S I E L K R L E R W L L Q R I N Y F P T H F S G R P G K E C D I C Y  
UniRef90\_Q5CUL5 I I K E I T K F N F N R L N R W L L K R I I A S E S H F N G R I G K K C D V C Y  
UniRef90\_S7ZAG3 L G D D L A R V K R K E C L E W L P S L Q R E D G S F G G T I E G N R D L R Y  
UniRef90\_S7ZAG3 L G D D L A R V K R K E C L E W L P S L Q R E D G S F G G T I E G N R D L R Y  
UniRef90\_S7ZAG3 L G D D L A R V K R K E C L E W L P S L Q R E D G S F G G T I E G N R D L R Y  
UniRef90\_Q5KK97 L M S D F D K I F Q T D T L R W L V S R Q L G G F Q G R P G K L E D V C Y  
UniRef90\_W7JS69 L Y F S Y N P I M K K T L R W L C E R Y D N F G I N G R V G K D H D V C Y  
UniRef90\_U5G2B3 M L E D W S S M D R V K T K E C L L K C Q S Y G G G F G M I P G S E S H G G G  
UniRef90\_I1BZ17 L M G K L D E V N R D E L V K W C L F R Q Q G G F Q  
UniRef90\_A0A022UJT2  
UniRef90\_V5BGA3 L A G A I S S L T R S R H H L L L R Y C T A R L S G G Y Q G R P Q K E C D T C Y  
UniRef90\_Q3KIG2 A L E A K A P D E Q G V M A F A L R C R S A D G G F A N K P G Y P P D A F S  
UniRef90\_Q3KIG2 A L E A K A P D E Q G V M A F A L R C R S A D G G F A N K P G Y P P D A F S  
UniRef90\_G4UY58 S P L L H S S I D L P G L I H W L A S R P F V Y L E P P P S A D Q D P D T C Y  
UniRef90\_I7IG05 L T N G N C E I N L D K L A K F I N S C A S P R G G F S K Y P E N S P D P Y H  
UniRef90\_I7IG05 L T N G N C E I N L D K L A K F I N S C A S P R G G F S K Y P E N S P D P Y H  
UniRef90\_H2YT30 I L G I F D L V D F K E N E N F V L S T Q D I I V G G F A K W P Q I N P D A L H  
UniRef90\_J3IJW7 A L G A R A P D E Q A V Q A F A L R C R T A D G G F A N K P G Y P P D A F S  
UniRef90\_J3IJW7 A L G A R A P D E Q A V Q A F A L R C R T A D G G F A N K P G Y P P D A F S  
UniRef90\_Q23AR6 E Q K K L Q E Q N Q K C Q Q S N K Q N Q Q I L D I V G F Q G R V C K F P D S C Y  
UniRef90\_Q23AR6 E Q K K L Q E Q N Q K C Q Q S N K Q N Q Q I L D I V G F Q G R V C K F P D S C Y  
UniRef90\_G1MUD7 L M G K L E E V F S E K E L S R I R W C V M R Q N G Y H G R P N K P V D T C Y  
UniRef90\_Q1I4N1 V L G A Q A N Q P Q A L L D F I L A C C R H A D G G F G N R P G N P P D T F S  
UniRef90\_Q1I4N1 V L G A Q A N Q P Q A L L D F I L A C C R H A D G G F G N R P G N P P D T F S  
UniRef90\_F0VRK6 T V A D P G Y I D I D Q L F E W L T R C C Q N L D G G F G G C A P G C E S H G G T  
UniRef90\_F0VRK6 T V A D P G Y I D I D Q L F E W L T R C C Q N L D G G F G G C A P G C E S H G G T  
UniRef90\_F0VRK6 T V A D P G Y I D I D Q L F E W L T R C C Q N L D G G F G G C A P G C E S H G G T  
UniRef90\_J7TEZ2 L A D I E P N K E R V I S W L Q S M Q D V N E G G F H I S E N K P I S F V G  
UniRef90\_C2QNS9 A L G K Q P P N S N K T I K W L Q D C Q T D Q G G F L Y K P G Y S D T V G  
UniRef90\_H8Z9X0 L G G P E M F I L P M K R L C S Q C I N I D G G I G P M P G C E S H A A N  
UniRef90\_Q4UGC3 L I E R I N S H K R I S W L L E R M S I N G G I N G R V G K S N D I C Y  
UniRef90\_L0AY11 L I D R L H K I S K I R I V T W L L G R I S V S G G V S G R V G K S N D I C Y  
UniRef90\_UPI0004407415 L A P E L S K E E R K R T E R W L V Q Q Q Q A E E T G F S G R T E K E G D A C Y  
UniRef90\_UPI0004407415 L A P E L S K E E R K R T E R W L V Q Q Q Q A E E T G F S G R T E K E G D A C Y  
UniRef90\_Q2GM66 L I D R P L T R N M P A L L H W L A S R Q F V Y L  
UniRef90\_UPI000408C4EE A L G R R P L R E D D L V A Y F V S C R N A D G G Y G N Q P G H P S D S F A  
UniRef90\_UPI000408C4EE A L G R R P L R E D D L V A Y F V S C R N A D G G Y G N Q P G H P S D S F A  
UniRef90\_V4ZRC6 N W F R G C I D R N K L F D W I T Q C C Q N L D G G F G C A P G C E S H A G T  
UniRef90\_V4ZRC6 N W F R G C I D R N K L F D W I T Q C C Q N L D G G F G C A P G C E S H A G T  
UniRef90\_V4ZRC6 N W F R G C I D R N K L F D W I T Q C C Q N L D G G F G C A P G C E S H A G T  
UniRef90\_I0WM15 T L K A D P R S T D A C V D Y L L R S R T G D G G Y G Q R V G T P A D V Y S  
UniRef90\_I3EJM7 V L D N K S V M D I  
UniRef90\_Q0UX45 F L D R L P L P N I P H T L K W L V S R Q T A Q W V G V N G R C N K V A D T C Y  
UniRef90\_UPI00035CDB01 L V G L G H Q I A R R S S L V N Y L L N C R N R D G G Y G N Q P G L T S D V F A  
UniRef90\_UPI00035CDB01 L V G L G H Q I A R R S S L V N Y L L N C R N R D G G Y G N Q P G L T S D V F A  
UniRef90\_UPI00035CDB01 L V G L G H Q I A R R S S L V N Y L L N C R N R D G G Y G N Q P G L T S D V F A  
UniRef90\_Q4N9E3 L I N R I N S L S H N R I H T W L L E R I S I N G G M N G R V G K S N D I C Y  
UniRef90\_Q5CDL6 L I K E I T K F N F N R L N R W L L K R I I A S E S H F N G R I G K K C D V C Y  
UniRef90\_M7BPR7 M L N N W S G M D L K A I E Y I R R S M S Y D N G L A Q G A G L E S H D A L H  
UniRef90\_W2DAK2 N V C H G E V K E P A E L L D W L S G L Q C E S G G L S W S P N K A D V R A  
UniRef90\_W2DAK2 N V C H G E V K E P A E L L D W L S G L Q C E S G G L S W S P N K A D V R A  
UniRef90\_B5VIH4 S L E K L S D K F K E D T I T W L H R Q V S H G  
UniRef90\_J7MGR7 L I K R L N S L S I R R L V L W L L E R I S I S G G V S G R V G K S K D I C Y  
UniRef90\_U5VHQ7 E V C A G K V A E V Q A L Y T W L G G L Q C A N G G L S W S A D N H A D T R A  
UniRef90\_U5VHQ7 E V C A G K V A E V Q A L Y T W L G G L Q C A N G G L S W S A D N H A D T R A  
UniRef90\_U5VHQ7 E V C A G K V A E V Q A L Y T W L G G L Q C A N G G L S W S A D N H A D T R A



UniRef90\_A9BLD5  
UniRef90\_M7ZRD0  
UniRef90\_E6R1L5  
UniRef90\_E6R1L5  
UniRef90\_E2LVW3  
UniRef90\_E2LVW3  
UniRef90\_A8B8E5  
UniRef90\_M3AVC5  
UniRef90\_Q7RN02  
UniRef90\_G3NWT8  
UniRef90\_A5E0V9  
UniRef90\_J3QEZO  
UniRef90\_J3QEZO  
UniRef90\_M1C5Z1  
UniRef90\_Q4DKD8  
UniRef90\_G8JRR9  
UniRef90\_Q4XLM9  
UniRef90\_Q4XLM9  
UniRef90\_A0A059A981  
UniRef90\_W7B8K4  
UniRef90\_W7B8K4  
UniRef90\_W7AJL7  
UniRef90\_W7AJL7  
UniRef90\_B3LCD9  
UniRef90\_B3LCD9  
UniRef90\_B3LCD9  
UniRef90\_C9SB05  
UniRef90\_Q5DCU2  
UniRef90\_L2GKW8  
UniRef90\_G4TTX9  
UniRef90\_E4N8V4  
UniRef90\_W4ZF40  
UniRef90\_M8C3V0  
UniRef90\_V6LJ00  
UniRef90\_V6LJ00  
UniRef90\_F2TW34  
UniRef90\_B6AGA2  
UniRef90\_Q5CUL5  
UniRef90\_S7ZAG3  
UniRef90\_S7ZAG3  
UniRef90\_S7ZAG3  
UniRef90\_Q5KK97  
UniRef90\_W7JS69  
UniRef90\_U5G2B3  
UniRef90\_I1BZ17  
UniRef90\_A0A022UJT2  
UniRef90\_V5BGA3  
UniRef90\_Q3KIG2  
UniRef90\_Q3KIG2  
UniRef90\_G4UY58  
UniRef90\_I7IG05  
UniRef90\_I7IG05  
UniRef90\_H2YT30  
UniRef90\_J31JW7  
UniRef90\_J31JW7  
UniRef90\_Q23AR6  
UniRef90\_Q23AR6  
UniRef90\_G1MUD7  
UniRef90\_Q114N1  
UniRef90\_Q114N1  
UniRef90\_F0VRK6  
UniRef90\_F0VRK6  
UniRef90\_F0VRK6  
UniRef90\_J7TEZ2  
UniRef90\_C2QNS9  
UniRef90\_H8Z9X0  
UniRef90\_Q4UGC3  
UniRef90\_L0AY11  
UniRef90\_UPI0004407415  
UniRef90\_UPI0004407415  
UniRef90\_Q2GM66  
UniRef90\_UPI000408C4EE  
UniRef90\_UPI000408C4EE  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6  
UniRef90\_I0WM15  
UniRef90\_I3EJM7  
UniRef90\_Q0UX45  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_Q4N9E3  
UniRef90\_Q5CDL6  
UniRef90\_M7BPR7  
UniRef90\_W2DAK2  
UniRef90\_W2DAK2  
UniRef90\_B5VIH4  
UniRef90\_J7MGR7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7

290 300 310 320  
L F W V G G I S I C S F L F P L E C F N V L I F N R E R  
A F W A  
A A L S I Y P P P L D M N G S V R T S W E F D A F D P L L N A R H E T  
A A L S I Y P P P L D M N G S V R T S W E F D A F D P L L N A R H E T  
T Y W M M G S L Y L L V G D G E F E D F M V I D A D A L Y K Y V L  
S W W V L S S L V S L K C N L S K L L N V N I L I N F I L  
A Y L G L C G L S L I G E P G L R K V H P A L N I T Q R A F Q H  
S W W C T G S L F L I N R S N L T L F D R D A A E K Y L E  
S H W L G S T L R I L Q T Q E H D F V F P V D V L P I F R F M G  
A F W C L N S L N I L E S M S L V D N L K L K E Y L L  
S F F A I S A L S I I Y  
S F F A I S A L S I I Y  
T F F A L C A I S L I Y H N F  
T F F A L C A I S L I Y H N F  
T F F A L C A I S L I Y H N F  
T F W V C A S L K  
T F C A L S S L R S L G H L E A I D K L K T V D F L M Y R I N L E K L Q E F I F  
C I T R G A G L Q R I K N Q M H V I A S G A I L G H G D L V N T S A N A D F L L  
S Y H A I G G L Y M L G A R P A D T G A C V R W I T  
A Y L G L C G L S M M G E E G L A P I H P A L N I S Q R A A D H  
S W W I M S C F K I L S Q I T N S R F F S V A S L P T N G K R I I Q G I I  
S W W V F A S L K I V K N I T I N R N I D C S S I I N S K I L K I L I N G I L  
C C C A S G I R Y I L R G P Y G K G V D D V P D I D V S G L I T F I E  
C C C A S G I R Y I L R G P Y G K G V D D V P D I D V S G L I T F I E  
C C C A S G I R Y I L R G P Y G K G V D D V P D I D V S G L I T F I E  
S F W C G G A L S L T P G K V L G R D D L I D H D A N K S F L L  
T Y C A V A S L H L M G F I E H D V Q S K S A A S S I I D I P  
S H W I G S T L R I L Q T Q E H D F V F P V D V L P I F R F M G  
V Y R V V S T L F I L N R R I V D A E Q T V A W L Q  
V Y R V V S T L F I L N R R I V D A E Q T V A W L Q  
F W W V G G A L A N L G R L D S L V D R E A A R F L L  
S F K S L V A L S F I G R I L S S L C C  
S F K S L V A L S F I G R I L S S L C C  
S Y M G V C G L A L M S L H S L I Q P V D P T L N S E R A R L H M Q T L H E Q W A  
V Y R V V S T L F I L N K R I V D A Q Q T V A W L Q  
V Y R V V S T L F I L N K R I V D A Q Q T V A W L Q  
T I W I G A S L Q I L G Y K Q F I A S Q N I L R F L K  
T I W I G A S L Q I L G Y K Q F I A S Q N I L R F L K  
S F W V G A T L K L N L F Q Y T N F E K N R N Y I L  
T Y R A L S L L H A L D R E L V D A K A T V A W L Q  
T Y R A L S L L H A L D R E L V D A K A T V A W L Q  
T F C A V A S L C L I G R L P Q L P S V A R Q S L E G W L G E R Q A Q R  
T F C A V A S L C L I G R L P Q L P S V A R Q S L E G W L G E R Q A Q R  
T F C A V A S L C L I G R L P Q L P S V A R Q S L E G W L G E R Q A Q R  
S Y H A I A A L Y M L G E L P I N T E K I K I W F G  
S Y C A I A A L Y M L G E L P P D V E K C K E W I A  
I W W C L S T L F L L V K Y D K P V K L F N Q T V I A R I S R F V E  
I W W S L A T L M L I Q K N Y R K K I V I F R D D S V P L Q I Y N F I L  
S F W C G A A L R I L R S G A L G G Q D S S Q D E E S D F V E R L T H A R F L S  
S F W C G A A L R I L R S G A L G G Q D S S Q D E E S D F V E R L T H A R F L S  
T F R V V D T L I A L G L R P P N L E Q T V A W L R G L Q  
T F R V V D T L I A L G L R P P N L E Q T V A W L R G L Q  
T F C A I A S L S L I E R L P Q L P A S A R L S V E G W L  
T F C A I A S L S L I E R L P Q L P A S A R L S V E G W L  
T F C A I A S L S L I E R L P Q L P A S A R L S V E G W L  
I Y R A A G T L A L F G L D L P D R D R A I D W L R  
A Y W V S A P L K L L G Y M D I I E Q K P I R K W L L  
T F R A V S T L L A L G L V P P Q A D V T R S W I K A L Q  
T F R A V S T L L A L G L V P P Q A D V T R S W I K A L Q  
T F R A V S T L L A L G L V P P Q A D V T R S W I K A L Q  
I W W S L A T M F M L V K Y Y K K S V K L F N Q T V I A R I T R F I G  
S W W V F A S L K I V K N I T I N R N M D C S S I I N S K I L K I L I N G I L  
A Y F G I C G L S L M E E S G I C K V H P A L N V S  
C F Y G V M A W K A L S Q Q G A W V P T W D M D R L V Q W M Q  
C F Y G V M A W K A L S Q Q G A W V P T W D M D R L V Q W M Q  
M W W N L A T L T L I R G N H R K A T R L F N E N V A R K M L E F I A  
C F Y G V M A A R A L A S Q G L P A P D W N I D K L I G W L Q  
C F Y G V M A A R A L A S Q G L P A P D W N I D K L I G W L Q  
C F Y G V M A A R A L A S Q G L P A P D W N I D K L I G W L Q

UniRef90\_A9BLD5 K T D G F S D Q <sup>330</sup> G K <sup>340</sup> P D L Y H S C Y S C G L A L C N F V W K K K <sup>350</sup> <sup>360</sup>

UniRef90\_M7ZRD0  
UniRef90\_E6R1L5  
UniRef90\_E6R1L5  
UniRef90\_E2LVW3  
UniRef90\_E2LVW3  
UniRef90\_A8B8E5  
UniRef90\_M3AVC5  
UniRef90\_Q7RN02  
UniRef90\_G3NWT8  
UniRef90\_A5E0V9  
UniRef90\_J3QEZO  
UniRef90\_J3QEZO  
UniRef90\_M1C5Z1  
UniRef90\_Q4DKD8  
UniRef90\_G8JRR9  
UniRef90\_Q4XLM9  
UniRef90\_Q4XLM9  
UniRef90\_A0A059A981  
UniRef90\_W7B8K4  
UniRef90\_W7B8K4  
UniRef90\_W7AJL7  
UniRef90\_W7AJL7  
UniRef90\_B3LCD9  
UniRef90\_B3LCD9  
UniRef90\_B3LCD9  
UniRef90\_C9SB05  
UniRef90\_Q5DCU2  
UniRef90\_L2GKW8  
UniRef90\_G4TTX9  
UniRef90\_E4N8V4  
UniRef90\_W4ZF40  
UniRef90\_M8C3V0  
UniRef90\_V6LJ00  
UniRef90\_V6LJ00  
UniRef90\_F2TW34  
UniRef90\_B6AGA2  
UniRef90\_Q5CUL5  
UniRef90\_S7ZAG3  
UniRef90\_S7ZAG3  
UniRef90\_S7ZAG3  
UniRef90\_Q5KK97  
UniRef90\_W7JS69  
UniRef90\_U5G2B3  
UniRef90\_I1BZ17  
UniRef90\_A0A022UJT2  
UniRef90\_V5BGA3  
UniRef90\_Q3KIG2  
UniRef90\_Q3KIG2  
UniRef90\_G4UY58  
UniRef90\_I7IG05  
UniRef90\_I7IG05  
UniRef90\_H2YT30  
UniRef90\_J3IJW7  
UniRef90\_J3IJW7  
UniRef90\_Q23AR6  
UniRef90\_Q23AR6  
UniRef90\_G1MUD7  
UniRef90\_Q1I4N1  
UniRef90\_Q1I4N1  
UniRef90\_F0VRK6  
UniRef90\_F0VRK6  
UniRef90\_F0VRK6  
UniRef90\_J7TEZ2  
UniRef90\_C2QNS9  
UniRef90\_H8Z9X0  
UniRef90\_Q4UGC3  
UniRef90\_L0AY11  
UniRef90\_UPI0004407415  
UniRef90\_UPI0004407415  
UniRef90\_Q2GM66  
UniRef90\_UPI000408C4EE  
UniRef90\_UPI000408C4EE  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6  
UniRef90\_I0WM15  
UniRef90\_I3EJM7  
UniRef90\_Q0UX45  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_Q4N9E3  
UniRef90\_Q5CDL6  
UniRef90\_M7BPR7  
UniRef90\_W2DAK2  
UniRef90\_W2DAK2  
UniRef90\_B5VIH4  
UniRef90\_J7MGR7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7

A K W M T E F  
A K W M T E F  
R C S Y D P D G G M R D K P G V P S D A Y H N M Y T T A G Y S L D K D K T R Y S  
K C Q D K D N G G F S D K E N K Q P D L F H S F F A I S A L S L I Q H Y K N K K  
N T Q N S M L G G F S S V P E S T P D P M H T Y L A L A S L S L W D H K  
N C V D S E H G G L R K D F D M R A D I V H A S L G L S G L  
F K T Q N M L G G F A K N N E D D P D L Y H T F L G L A A L S L I D G T F D G L  
S C E G D E G G F S D R P G N E P D L Y H L M F S L A S L S L L G N K K L D N  
K C Q F K F G G L R K D P E S S P D P Y H T Y L G L A S L T L L S R E E  
A R Q S A D G G F S R A P G A P  
E H Q N T R T G G F Q R L P F D L N D P L H T F L S I A T I S L L  
C H Q N N I Y G G F Q K S P F N H S D P L H T F L S I S A L S L I F N S D S K K  
R C Q N Y D G G M G E S P F R E S H S G H T Y C A V G S L H F L H Q G R G K  
R C Q N Y D G G M G E S P F R E S H S G H T Y C A V G S L H F L H Q G R G K  
R C Q N Y D G G M G E S P F R E S H S G H T Y C A V G S L H F L H Q G R G K  
S A Q S P L G G F G K E P D D Y P D P Y H S Y L A L A A L S L S L N R F G E D  
K C Q D K V N G G F S R L G K Q T D Q F H S F S L C A L S L I Y Y  
Y V R Q A A E G G F Q G R A N K P S D T C Y A F W V G A V L R F S G  
N C V D S E H G G L R K D F D M R A D I V H A S L G L S  
S L Q L A N G S F H Y R P G K A V S L V G T Y M A I A A M Y L L D  
S L Q L A N G S F H Y R P G K A V S L V G T Y M A I A A M Y L L D  
E K M Q H R L G G F G K S P G S P D L Y H S F F G L A I L G L L G D E G G K V  
V A R K H K E  
K L Q Q P N G S F H Y R P G K A V S L V G T Y M A I A A M Y L L D A P H Y L Q  
K L Q Q P N G S F H Y R P G K A V S L V G T Y M A I A A M Y L L D A P H Y L Q  
L C E N G K G G F K K S P E L I E F C P V H T H F S I L G L V L L N K F  
L C E N G K G G F K K S P E L I E F C P V H T H F S I L G L V L L N K F  
S T Q D R L V G G F A K W P D S H P  
G L Q Q A D G P F L Y R P G K A V S L V G S Y M A V A G L Y L L D E P R D K Q  
G L Q Q A D G P F L Y R P G K A V S L V G S Y M A V A G L Y L L D E P R D K Q  
G G L N G R P G K D A D S C Y C W W I L A T A S I M D  
G G L N G R P G K D A D S C Y C W W I L A T A S I M D  
G G L N G R P G K D A D S C Y C W W I L A T A S I M D  
N H Q A K D G G F S K H P S D T T D S L H A S Y M L  
N H Q G P D G G F S R V E G T P S D  
Q S Q N S D G G F S A N K S H E N S D P Y H S F T A L L S I A L L N Q F H N K Y  
N S Q N K D G G F S S N T S C S K D P Y H S F T A L L A L L I D E F V D G A  
R C Q F R L G G L A K A P G A H P D P Y H T P S N S S S S L P P D S R H D T E  
R C Q F R L G G L A K A P G A H P D P Y H T P S N S S S S L P P D S R H D T E  
T E A G G F R Y R E G G P E S F V G S Y H A I A S L Y V M G E P A D I A  
T E A G G F R Y R E G G P E S F V G S Y H A I A S L Y V M G E P A D I A  
G A R Q L P G G G L N G R P G K S A D S C Y C W W I L A T A N I L G  
G A R Q L P G G G L N G R P G K S A D S C Y C W W I L A T A N I L G  
G A R Q L P G G G L N G R P G K S A D S C Y C W W I L A T A N I L G  
G T Q G P N G G F R H D T A S R E S L I A T Y H A V A A L F L L G  
D K T Q H I V G G F G K V T G D P D M Y H S F L G L M V L A M F G E P G L Q S  
T E D G G F R Y R E Q G A E S F V G S Y H A I A A L Y I L D F P V S R E  
T E D G G F R Y R E Q G A E S F V G S Y H A I A A L Y I L D F P V S R E  
T E D G G F R Y R E Q G A E S F V G S Y H A I A A L Y I L D F P V S R E  
E S Q N S D G G F S A N K S H E N S D P Y H S F T A L L A T A L L N Q F H N Q Y  
C H Q N N I Y G G F Q K S P K D H S D P L H T F L S I S A L S L I F N S D S E K  
A Q Q L E C G G F R S E A A D T P C L W A T Y R T T A T L A A L G  
A Q Q L E C G G F R S E A A D T P C L W A T Y R T T A T L A A L G  
I S Q N E D G G F S N K S S T V S D P Y H S F T A I L S I S L L R E Y L S  
A A Q T D S G G F R S E A A D V P C L W A T Y R A T A S L A V L Q A E P L G R  
A A Q T D S G G F R S E A A D V P C L W A T Y R A T A S L A V L Q A E P L G R  
A A Q T D S G G F R S E A A D V P C L W A T Y R A T A S L A V L Q A E P L G R

UniRef90\_A9BLD5  
 UniRef90\_M7ZRD0  
 UniRef90\_E6R1L5  
 UniRef90\_E6R1L5  
 UniRef90\_E2LVW3  
 UniRef90\_E2LVW3  
 UniRef90\_A8B8E5  
 UniRef90\_M3AVC5  
 UniRef90\_Q7RN02  
 UniRef90\_G3NWT8  
 UniRef90\_A5E0V9  
 UniRef90\_J3QEZO  
 UniRef90\_J3QEZO  
 UniRef90\_M1C5Z1  
 UniRef90\_Q4DKD8  
 UniRef90\_G8JRR9  
 UniRef90\_Q4XLM9  
 UniRef90\_Q4XLM9  
 UniRef90\_A0A059A981  
 UniRef90\_W7B8K4  
 UniRef90\_W7B8K4  
 UniRef90\_W7AJL7  
 UniRef90\_W7AJL7  
 UniRef90\_B3LCD9  
 UniRef90\_B3LCD9  
 UniRef90\_B3LCD9  
 UniRef90\_C9SB05  
 UniRef90\_Q5DCU2  
 UniRef90\_L2GKW8  
 UniRef90\_G4TTX9  
 UniRef90\_E4N8V4  
 UniRef90\_W4ZF40  
 UniRef90\_M8C3V0  
 UniRef90\_V6LJ00  
 UniRef90\_V6LJ00  
 UniRef90\_F2TW34  
 UniRef90\_B6AGA2  
 UniRef90\_Q5CUL5  
 UniRef90\_S7ZAG3  
 UniRef90\_S7ZAG3  
 UniRef90\_S7ZAG3  
 UniRef90\_Q5KK97  
 UniRef90\_W7JS69  
 UniRef90\_U5G2B3  
 UniRef90\_I1BZ17  
 UniRef90\_A0A022UJ2  
 UniRef90\_V5BGA3  
 UniRef90\_Q3KIG2  
 UniRef90\_Q3KIG2  
 UniRef90\_G4UY58  
 UniRef90\_I7IG05  
 UniRef90\_I7IG05  
 UniRef90\_H2YT30  
 UniRef90\_J3IJW7  
 UniRef90\_J3IJW7  
 UniRef90\_Q23AR6  
 UniRef90\_Q23AR6  
 UniRef90\_G1MUD7  
 UniRef90\_Q1I4N1  
 UniRef90\_Q1I4N1  
 UniRef90\_F0VRK6  
 UniRef90\_F0VRK6  
 UniRef90\_F0VRK6  
 UniRef90\_J7TEZ2  
 UniRef90\_C2QNS9  
 UniRef90\_H8Z9X0  
 UniRef90\_Q4UGC3  
 UniRef90\_L0AY11  
 UniRef90\_UPI0004407415  
 UniRef90\_UPI0004407415  
 UniRef90\_Q2GM66  
 UniRef90\_UPI000408C4EE  
 UniRef90\_UPI000408C4EE  
 UniRef90\_V4ZRC6  
 UniRef90\_V4ZRC6  
 UniRef90\_V4ZRC6  
 UniRef90\_I0WM15  
 UniRef90\_I3EJM7  
 UniRef90\_Q0UX45  
 UniRef90\_UPI00035CDB01  
 UniRef90\_UPI00035CDB01  
 UniRef90\_UPI00035CDB01  
 UniRef90\_Q4N9E3  
 UniRef90\_Q5CDL6  
 UniRef90\_M7BPR7  
 UniRef90\_W2DAK2  
 UniRef90\_W2DAK2  
 UniRef90\_B5VIH4  
 UniRef90\_J7MGR7  
 UniRef90\_U5VHQ7  
 UniRef90\_U5VHQ7  
 UniRef90\_U5VHQ7

V C F F K N K K K R N S L F K I N P V Y G I R E K K V G A I L L K

P E L L A E V E A Q K E L F M R H D P L F N I P A G S A S A M R N F F S  
 S D K Y D I F G D Q L I Q L N D V H S S F A M P V  
 R F E L T E I E P L L V I S K E V Y E

L L H V D S H C V S K L R P P H P V Y G C S W S T V R N  
 L C I

I D P G F A I M N L S A F E T L D A S L N T T F T T R K W L R D H L W S N T

S S L E F Y E P T E P E S L I K I D P I S V I S E K Y L N K  
 I P S S P L L S P G S R S F E S L  
 I P S S P L L S P G S R S F E S L  
 I P S S P L L S P G S R S F E S L  
 K E S N F R L K A L N V R W N V S T E T A E W L Q T

G L L L H V D S H Y V S K L R P P H P V Y G C S W S T V R N

R G F D A G L A V P R E T V G V I

A S K D W I A A H Q K  
 A S K D W I A A H Q K

G V T D W I  
 G V T D W I

N I H E I E P L F A I P I  
 K F S R I D P L F A L P  
 G D G K L K R E R E S W N L A R L D P L I N A S V E T A R W A C E R I S G K V S  
 G D G K L K R E R E S W N L A R L D P L I N A S V E T A R W A C E R I S G K V S

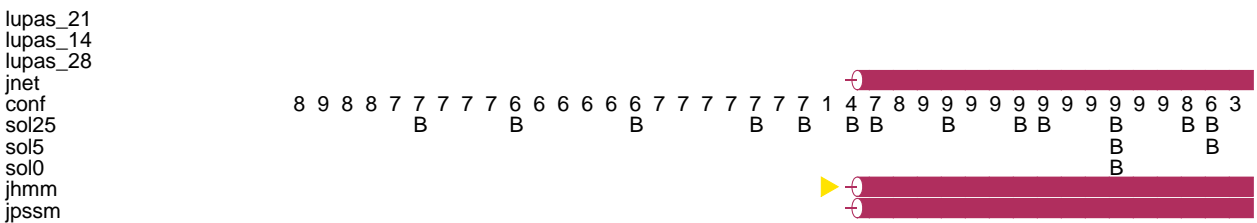
A C R S W I A A  
 A C R S W I A A

V D E A L C I  
 Q C I R W I S A  
 Q C I R W I S A  
 Q C I R W I S A  
 N I H E I E P L F A I P I  
 S S L E F Y E P T E P E P L I K I D P I S V I S E K Y L N K

S E  
 S E  
 S E

UniRef90\_A9BLD5  
UniRef90\_M7ZRD0  
UniRef90\_E6R1L5  
UniRef90\_E6R1L5  
UniRef90\_E2LVW3  
UniRef90\_E2LVW3  
UniRef90\_A8B8E5  
UniRef90\_M3AVC5  
UniRef90\_Q7RN02  
UniRef90\_G3NWT8  
UniRef90\_A5E0V9  
UniRef90\_J3QEZ0  
UniRef90\_J3QEZ0  
UniRef90\_M1C5Z1  
UniRef90\_Q4DKD8  
UniRef90\_G8JRR9  
UniRef90\_Q4XLM9  
UniRef90\_Q4XLM9  
UniRef90\_A0A059A981  
UniRef90\_W7B8K4  
UniRef90\_W7B8K4  
UniRef90\_W7AJL7  
UniRef90\_W7AJL7  
UniRef90\_B3LCD9  
UniRef90\_B3LCD9  
UniRef90\_B3LCD9  
UniRef90\_C9SB05  
UniRef90\_Q5DCU2  
UniRef90\_L2GKW8  
UniRef90\_G4TTX9  
UniRef90\_E4N8V4  
UniRef90\_W4ZF40  
UniRef90\_M8C3V0  
UniRef90\_V6LJ00  
UniRef90\_V6LJ00  
UniRef90\_F2TW34  
UniRef90\_B6AGA2  
UniRef90\_Q5CUL5  
UniRef90\_S7ZAG3  
UniRef90\_S7ZAG3  
UniRef90\_S7ZAG3  
UniRef90\_Q5KK97  
UniRef90\_W7JS69  
UniRef90\_U5G2B3  
UniRef90\_I1BZ17  
UniRef90\_A0A022UJT2  
UniRef90\_V5BGA3  
UniRef90\_Q3KIG2  
UniRef90\_Q3KIG2  
UniRef90\_G4UY58  
UniRef90\_I7IG05  
UniRef90\_I7IG05  
UniRef90\_H2YT30  
UniRef90\_J3IJW7  
UniRef90\_J3IJW7  
UniRef90\_Q23AR6  
UniRef90\_Q23AR6  
UniRef90\_G1MUD7  
UniRef90\_Q1I4N1  
UniRef90\_Q1I4N1  
UniRef90\_F0VRK6  
UniRef90\_F0VRK6  
UniRef90\_F0VRK6  
UniRef90\_J7TEZ2  
UniRef90\_C2QNS9  
UniRef90\_H8Z9X0  
UniRef90\_Q4UGC3  
UniRef90\_L0AY11  
UniRef90\_UPI0004407415 P  
UniRef90\_UPI0004407415 P  
UniRef90\_Q2GM66  
UniRef90\_UPI000408C4EE  
UniRef90\_UPI000408C4EE  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6  
UniRef90\_V4ZRC6  
UniRef90\_I0WM15  
UniRef90\_I3EJM7  
UniRef90\_Q0UX45  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_UPI00035CDB01  
UniRef90\_Q4N9E3  
UniRef90\_Q5CDL6  
UniRef90\_M7BPR7  
UniRef90\_W2DAK2  
UniRef90\_W2DAK2  
UniRef90\_B5VIH4  
UniRef90\_J7MGR7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7  
UniRef90\_U5VHQ7

	1	10	20	30	40
UniRef90_A7AVB5					
UniRef90_B1J81					
UniRef90_B1J81					
UniRef90_B1J81					
UniRef90_B9JQM6					Y Y A
UniRef90_B9JQM6					Y Y A
UniRef90_B9JQM6					Y Y A
UniRef90_D9XGM7					
UniRef90_D9XGM7					
UniRef90_D9XGM7					
UniRef90_F2HHA6					
UniRef90_M5TU55					
UniRef90_E7NHH9					
UniRef90_F7VVU4					
UniRef90_B0EHD4					
UniRef90_U6N6C5					
UniRef90_F5XM01					
UniRef90_F5XM01					
UniRef90_M2XTM3					
UniRef90_M2XTM3					
UniRef90_M5T2T9					
UniRef90_M5T2T9					
UniRef90_U6KQM9					
UniRef90_Q98RL5					
UniRef90_UPI000262E458					
UniRef90_UPI000262E458					
UniRef90_UPI000262E458					
UniRef90_V6LCQ9					
UniRef90_I3EEF4			Y N D E G	V	S T Q S S
UniRef90_M5RXN6				V	D A M N
UniRef90_L0DMM4				L	N A T
UniRef90_E8QWB3					K
UniRef90_M5UB00					
UniRef90_J3IWW2					
UniRef90_J3IWW2					
UniRef90_M5T1G8					
UniRef90_A6C4Z9					
UniRef90_A6C4Z9					
UniRef90_A3ZZG6					
UniRef90_X1SGR0					
UniRef90_UPI00016C3E50					
UniRef90_UPI000466D077					
UniRef90_UPI000466D077					
UniRef90_D2QYU9					
UniRef90_P33247					
UniRef90_UPI00036E73C1					
UniRef90_UPI00036E73C1					
UniRef90_L0DLZ8					
UniRef90_Q468T2					
UniRef90_H8I5H4					
UniRef90_H8I5H4					
UniRef90_D5SVY3					
UniRef90_UPI00029AED58					
UniRef90_UPI00029AED58					
UniRef90_E8V1Y5					
UniRef90_K2RT95					
UniRef90_F0SFU1					L A
UniRef90_UPI0002EE7378					
UniRef90_UPI0002EE7378					
UniRef90_K7SFV5					
UniRef90_D1Z1G6					
UniRef90_UPI000476EF56					
UniRef90_UPI00046A3621				S	L E Q
UniRef90_J9HMR6				L	E R E
UniRef90_K1VPR4				V	Q E N Q G
UniRef90_A0A023B925					
UniRef90_M3AUJ6					
UniRef90_UPI00036E4B03					
UniRef90_UPI00047AB198					
UniRef90_X1TFQ4					
UniRef90_G0IZG8					
UniRef90_C7JBC2					
UniRef90_A4FIP2					



```

UniRef90_A7AVB5
UniRef90_B1J81
UniRef90_B1J81
UniRef90_B1J81
UniRef90_B9JQM6
UniRef90_B9JQM6
UniRef90_B9JQM6
UniRef90_D9XGM7
UniRef90_D9XGM7
UniRef90_D9XGM7
UniRef90_F2HHA6
UniRef90_M5TU55
UniRef90_E7NHH9
UniRef90_F7VVU4
UniRef90_B0EHD4
UniRef90_U6N6C5
UniRef90_F5XM01
UniRef90_F5XM01
UniRef90_M2XTM3
UniRef90_M2XTM3
UniRef90_M5T2T9
UniRef90_M5T2T9
UniRef90_U6KQM9
UniRef90_Q98RL5
UniRef90_UPI000262E458
UniRef90_UPI000262E458
UniRef90_UPI000262E458
UniRef90_V6LCQ9
UniRef90_I3EEF4
UniRef90_M5RXN6
UniRef90_L0DMM4
UniRef90_E8QWB3
UniRef90_M5UB00
UniRef90_J3IWW2
UniRef90_J3IWW2
UniRef90_M5T1G8
UniRef90_A6C4Z9
UniRef90_A6C4Z9
UniRef90_A3ZZG6
UniRef90_X1SGR0
UniRef90_UPI00016C3E50
UniRef90_UPI000466D077
UniRef90_UPI000466D077
UniRef90_D2QYU9
UniRef90_P33247
UniRef90_UPI00036E73C1
UniRef90_UPI00036E73C1
UniRef90_L0DLZ8
UniRef90_Q468T2
UniRef90_H8I5H4
UniRef90_H8I5H4
UniRef90_D5SVY3
UniRef90_UPI00029AED58
UniRef90_UPI00029AED58
UniRef90_E8V1Y5
UniRef90_K2RT95
UniRef90_F0SFU1
UniRef90_UPI0002EE7378
UniRef90_UPI0002EE7378
UniRef90_K7SFV5
UniRef90_D1Z1G6
UniRef90_UPI000476EF56
UniRef90_UPI00046A3621
UniRef90_J9HMR6
UniRef90_K1VPR4
UniRef90_A0A023B925
UniRef90_M3AU6
UniRef90_UPI00036E4B03
UniRef90_UPI00047AB198
UniRef90_X1TFQ4
UniRef90_G0IZG8
UniRef90_C7JBC2
UniRef90_A4FIP2

50 60 70 80

A Y I L S R R N R D G G F A W S G M P S D
A Y I L S R R N R D G G F A W S G M P S D
A Y I L S R R N R D G G F A W S G M P S D
T R V F R E I L K L P V P N L H R L A E W L S R L Q R G D G G L A W N I K T T D
T R V F R E I L K L P V P N L H R L A E W L S R L Q R G D G G L A W N I K T T D
T R V F R E I L K L P V P N L H R L A E W L S R L Q R G D G G L A W N I K T T D

E E P Q Q E E W P Y L D V H R H L R Y W K M C I R P L P H V Y L S N E S N R
N F I I R G L T Q L P D A F Q N V E I G R

D R D R L V S W L R A L Q A P D G G L G W S P E H S D
D R D R L V S W L R A L Q A P D G G L G W S P E H S D
T H H P A A W K R L E Q E H
T H H P A A W K R L E Q E H

E F C R D G H I A F S Y L L L Q K Q F E M N D H G R
N K K P T L L D K D R H L K Y T I K Q M N K P L N I A Y S A L I P W
F R S R H A N W L K N C Q R D D G G F A G R E G E S D
A Y L E R L S R P D G Y A W E D Q D K S H

P A E L R S R H A Q W L R K Q Q R D D G G F A G R E G D S D
A Y I Q S R R N R D G G F A W S G M P S D
A Y I Q S R R N R D G G F A W S G M P S D
R D T H A T W L R R C Q R D D G G F A G R E G E S D

R D R H T Q F I A A R Q Q A D G G F G G R E G P S D
P E E Q R A R N V Q Y L L D A Q N P D G G F S G R E G G S D

P E G F R Q R Q I E F L D R S H R S D G G F G G R M G G S D
D V I D D

Y L Q K R Q L E D G G F N A L L D Y G E

Q R H A R F I E S R Q Q D D G G F G G R V E A S D

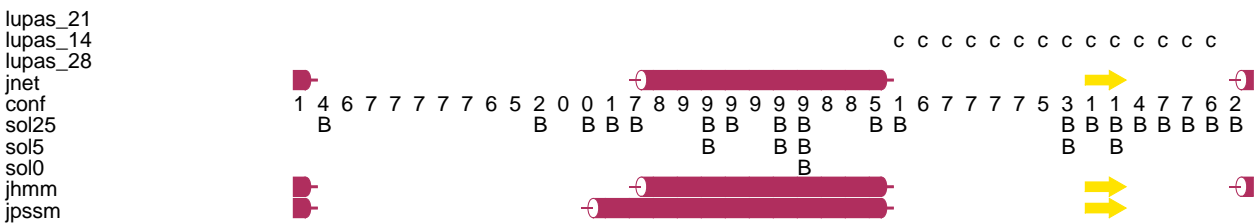
Q H L Q S G L S S T P T D R W E R H R E F I L K H Q C D D G G F R G R E G D S D
P M I V R Q R H L S W L L E Q Q N P D G G F S G R E G G S D
P M I V R Q R H L S W L L E Q Q N P D G G F S G R E G G S D

T Y R N V T D I E R L V L T L S A L G K F A G Y D L I E K L Y Q H E R M T H Q G
D V I D D

D T D D

L H D K I Y E Y I N E T V Q S S G G F S P T N T S T N
E G D P R D Y E G N S D T K
E G D P T N A E A I E R A R
P P G F W G W S G S R

```





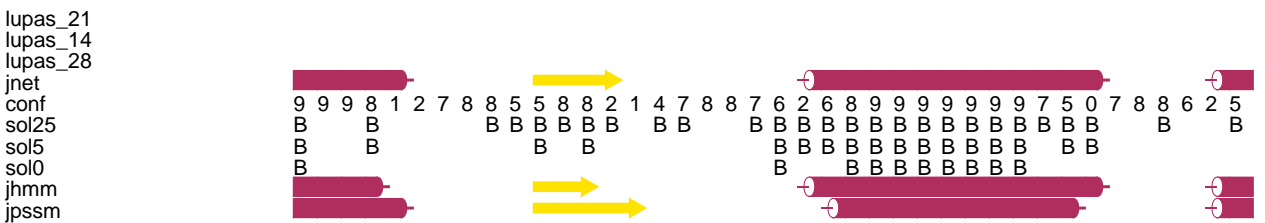




UniRef90\_A7AVB5  
UniRef90\_B1J811  
UniRef90\_B1J811  
UniRef90\_B1J811  
UniRef90\_B9JQM6  
UniRef90\_B9JQM6  
UniRef90\_B9JQM6  
UniRef90\_D9XGM7  
UniRef90\_D9XGM7  
UniRef90\_D9XGM7  
UniRef90\_F2HHA6  
UniRef90\_M5TU55  
UniRef90\_E7NHH9  
UniRef90\_F7VVU4  
UniRef90\_B0EHD4  
UniRef90\_U6N6C5  
UniRef90\_F5XM01  
UniRef90\_F5XM01  
UniRef90\_M2XTM3  
UniRef90\_M2XTM3  
UniRef90\_M5T2T9  
UniRef90\_M5T2T9  
UniRef90\_U6KQM9  
UniRef90\_Q98RL5  
UniRef90\_UPI000262E458  
UniRef90\_UPI000262E458  
UniRef90\_UPI000262E458  
UniRef90\_U6LCQ9  
UniRef90\_I3EEF4  
UniRef90\_M5RXN6  
UniRef90\_L0DMM4  
UniRef90\_E8QWB3  
UniRef90\_M5UB00  
UniRef90\_J3IWW2  
UniRef90\_J3IWW2  
UniRef90\_M5T1G8  
UniRef90\_A6C4Z9  
UniRef90\_A6C4Z9  
UniRef90\_A3ZZG6  
UniRef90\_X1SGR0  
UniRef90\_UPI00016C3E50  
UniRef90\_UPI000466D077  
UniRef90\_UPI000466D077  
UniRef90\_D2QYU9  
UniRef90\_P33247  
UniRef90\_UPI00036E73C1  
UniRef90\_UPI00036E73C1  
UniRef90\_L0DLZ8  
UniRef90\_Q468T2  
UniRef90\_H8I5H4  
UniRef90\_H8I5H4  
UniRef90\_D5SVY3  
UniRef90\_UPI00029AED58  
UniRef90\_UPI00029AED58  
UniRef90\_E8V1Y5  
UniRef90\_K2RT95  
UniRef90\_F0SFU1  
UniRef90\_UPI0002EE7378  
UniRef90\_UPI0002EE7378  
UniRef90\_K7SFV5  
UniRef90\_D1Z1G6  
UniRef90\_UPI000476EF56  
UniRef90\_UPI00046A3621  
UniRef90\_J9HMR6  
UniRef90\_K1VPR4  
UniRef90\_A0A023B925  
UniRef90\_M3AUJ6  
UniRef90\_UPI00036E4B03  
UniRef90\_UPI00047AB198  
UniRef90\_X1TFQ4  
UniRef90\_G0IZG8  
UniRef90\_C7JBC2  
UniRef90\_A4FIP2

170 180 190 200

I Y R M G Y Y K K S L M P L V T E N A D I R H T T S A V L S T S I M K I A E W I  
L E G L Q C C A N G G L S W S A D F A R D D T R A C C F Y G V M A A R A L G L P A P H  
L E G L Q C C A N G G L S W S A D F A R D D T R A C C F Y G V M A A R A L G L P A P H  
I F E R Q R T E E G F A R W E N Y E V S D V W A N F S A V G A L Q A L N V I N D G G  
I F E R Q R T E E G F A R W E N Y E V S D V W A N F S A V G A L Q A L N V I N D G G  
V M G L R G P S G A F V R W E G Y D E D V W A S F C A V G T L K A L G A P L A P P  
V M G L R G P S G A F V R W E G Y D E D V W A S F C A V G T L K A L G A P L A P P  
V M G L R G P S G A F V R W E G Y D E D V W A S F C A V G T L K A L G A P L A P P  
I K K T K S K R S F Y K N Y T K G G S D A R L N Y C T L V I C S L Y N I L T P Q  
W K R L E Q E H R D F G A D V S D F V D V R F Q L K V F T C R A L L G M S L D D E  
V S K C Q R P R G S F V S C L D Y K T D L R F C Y I A V A I L Y I C G C R S K E  
L K S L Q R E D G S F G E F I A G G Y D I M R Y C Y I A T A I R W I L G W V E D F  
T L F R R K E Y K G V E A T S E E G E Y D I R F L Y S L C A T C Y L L L N D W G N I  
L R E R Q L P E G S L Q G R P G K R G D S C Y T F W V T A A L L L M G K Q P L K  
L D A R R L P S G G Y E R W L G G V A D V W A C F S V V G A L A V D R P L P A A  
L D A R R L P S G G Y E R W L G G V A D V W A C F S V V G A L A V D R P L P A A  
V I D R R R S S D G A F V R W A G Y D V D V W A S F C A I G S L R A M G A D T G P  
V I D R R R S S D G A F V R W A G Y D V D V W A S F C A I G S L R A M G A D T G P  
L D G R R R E N G S F N N T P G G E G H V L N T L W G L E A L E S L G R E D E  
L D G R R R E N G S F N N T P G G E G H V L N T L W G L E A L E S L G R E D E  
L R E R Q L P E G S L Q G R P G K K G D S C Y T F W V T A A L L L M G K Q P L K  
I K K S S K K Y K N F Y D Q N E V L E A R I Y S Y L F S S I L D L F N E L  
L T D L Q N A D G G F G Y W E G R G S D M V S T A A A V E T A A L L D E L G P P  
L T D L Q N A D G G F G Y W E G R G S D M V S T A A A V E T A A L L D E L G P P  
I I S C Q L Q N G S F Q A S P N S Y T D V R D I G L A L I S L Y L L K I R Y N I  
I K E M R V P N G F T M Y A D G E I D P R S I Y C A V A T Y S I L H S E D K N  
L A K L R T Q D G A K T P E G R A G S T Y T F L S V L C H E L M E V P V P  
V Q S W K R P R Y P V Q Y E K H G Y P I F R E L M A F L G R K L L M G L P L N D  
V H A C D Q T S G G F A P T P G G T P D P N T T S V G L M V W A D L R I L D P A  
L S T L R C C D D G G F A K T P E G R A G S T Y Q T F L T V L C H E L M D V P V A  
L E G L Q C C A N G G L S W S A D F A R D T R A C C F Y G V M A A R A L G L P A P Q  
L E G L Q C C A N G G L S W S A D F A R D T R A C C F Y G V M A A R A L G L P A P Q  
L G T L R C C A N G G F A K T P E G R A G S T Y T F L T V L C H E L M D V P V P  
I L S Q Q Q P D G G F S G R E G G S D L Y Y T G F A V R S L G I L G G V K P D  
I L S Q Q Q P D G G F S G R E G G S S D L Y Y T G F A V R S L G I L G G V K P D  
L E K L R E D D G G Y A G E L G S A S T Y H T F L V L L C L Q L L E R P I V  
L H F F Q A K N A Y A G K I T I E S N Y F G M L T Y S T M G Y L D S E  
L E T F R S P D G G Y G K T P A A L Y G S T Y T F L V T L C L Q L L G R P C P E  
L L E L V N S D G G F G T Y R Y G D S E V G V T G S A V S A L E P L G R D H A A  
L L E L V N S D G G F G T Y R Y G D S E V G V T G S A V S A L E P L G R D H A A  
L E S L R R E D G G Y A G P E G T A S S T Y H T F L V L L C L E L L E I P P R  
L K R E Q K P D G S W F G R W G V N Y L Y G T G A V V S A L K A V G I D T R E  
L V K H Q K S D G S W N G N A A H T I F A V M A L K R A E V V E Y W Q A Q  
L V K H Q K S D G S W N G N A A H T I F A V M A L K R A E V V E Y W Q A Q  
V K S C R D S G G F A P T P G G K P D V R T T A V G L M A V A E L L T A D E E  
R E E V K T S F D K F A N Q P I D S N D L E E V L Y L A K V A N L G I E L N  
V R S F Q N D D G G F I S V Y S A W C T L K A L K A L G A S  
V R S F Q N D D G G F I S V Y S A W C T L K A L K A L G A S  
L E E L R R P D G G Y A K S M E G V S S S T Y H S F L A A L A Y E L V G O S P P  
L Y S M V Q A Q G G F R S R D G G E G A L G S T Y F L V A L C Y E L I G Q T L P  
L Y S M V Q A Q G G F R S R D G G E G A L G S T Y F L V A L C Y E L I G Q T L P  
L A M L Q E P F Y N T Y F E K N A Y P T F M A L R L R K Y M I S A D K N L  
I Q K L Q K D Q G V F Y N I F N E E I T V P N S Y L A Y Y H T V I F H I L K L D  
L D S L R R D D G G Y A G P E G K L S S T Y Q T F L V V V T H D L F G R P V P E  
L E T Y R H A D G G Y T K V P G G S S G S T Y T T F L V A L A L E L L N K T I P  
L E T Y R H A D G G Y T K V P G G S S G S T Y T T F L V A L A L E L L N K T I P  
L R K E Q E K E G C W F G R W G T N Y G T W S V L C A L N I A G I S Y D D P  
V R S F Q R A D G S Y N S P Y S A W C A L K A L K I M D S E  
L R A E Q E K N G S W F G R W G T N Y G T W S V L C A L N I A G V P H D D A  
L S T E Q Q A N G G Y R Q D M V E S S E S I A Q V V I G L T A L G I D P V G E  
L K R E Q K P D G S W Y G R W G V N Y L Y G I G A V V P A L K S V G D M K E P  
I H S V Q R P D G S W Y G S W G L C F T Y A T M F A L E S L A I A G Y E N S E  
L S L C Y C P Q K C F T G S P F G E P H A G Y V F C T A S A T V L S D V S F L  
L A D I Q H S S G A W T F S P A D Q T D V E T F F A L E A L H L T D P A R Y A  
I L K E Q E S D G S W F G R W G V N Y L Y G T F L V L R G L E A I G M W N H E  
I L K E Q E S D G S W F G R W G V N Y L Y G T F L V L R G L E A I G M W N H E  
L K S F Y D N Y Y F F K G D D F Q E L P L Y T T S F F A L F S A W N E N M P A  
L R K E Q E K D G S W F G R W G T N Y L Y G T W S A L C A L N A A G V S H D D  
L G R A Q R P D G S F E S V W Y R M H T A G T S A V L R T L A K A G A A D G E





UniRef90\_A7AVB5  
UniRef90\_B1J811  
UniRef90\_B1J811  
UniRef90\_B1J811  
UniRef90\_B9JQM6  
UniRef90\_B9JQM6  
UniRef90\_B9JQM6  
UniRef90\_D9XGM7  
UniRef90\_D9XGM7  
UniRef90\_D9XGM7  
UniRef90\_F2HHA6  
UniRef90\_M5TU55  
UniRef90\_E7NHH9  
UniRef90\_F7VVU4  
UniRef90\_B0EHD4  
UniRef90\_U6N6C5  
UniRef90\_F5XM01  
UniRef90\_F5XM01  
UniRef90\_M2XTM3  
UniRef90\_M2XTM3  
UniRef90\_M5T2T9  
UniRef90\_M5T2T9  
UniRef90\_U6KQM9  
UniRef90\_Q98RL5  
UniRef90\_UPI000262E458  
UniRef90\_UPI000262E458  
UniRef90\_UPI000262E458  
UniRef90\_U6LCQ9  
UniRef90\_I3EEF4  
UniRef90\_M5RXN6  
UniRef90\_L0DMM4  
UniRef90\_E8QWB3  
UniRef90\_M5UB00  
UniRef90\_J3IWW2  
UniRef90\_J3IWW2  
UniRef90\_M5T1G8  
UniRef90\_A6C4Z9  
UniRef90\_A6C4Z9  
UniRef90\_A3ZZG6  
UniRef90\_X1SGR0  
UniRef90\_UPI00016C3E50  
UniRef90\_UPI000466D077  
UniRef90\_UPI000466D077  
UniRef90\_D2QYU9  
UniRef90\_P33247  
UniRef90\_UPI00036E73C1  
UniRef90\_UPI00036E73C1  
UniRef90\_L0DLZ8  
UniRef90\_Q468T2  
UniRef90\_H8I5H4  
UniRef90\_H8I5H4  
UniRef90\_D5SVY3  
UniRef90\_UPI00029AED58  
UniRef90\_UPI00029AED58  
UniRef90\_E8V1Y5  
UniRef90\_K2RT95  
UniRef90\_F0SFU1  
UniRef90\_UPI0002EE7378  
UniRef90\_UPI0002EE7378  
UniRef90\_K7SFV5  
UniRef90\_D1Z1G6  
UniRef90\_UPI000476EF56  
UniRef90\_UPI00046A3621  
UniRef90\_J9HMR6  
UniRef90\_K1VPR4  
UniRef90\_A0A023B925  
UniRef90\_M3AUJ6  
UniRef90\_UPI00036E4B03  
UniRef90\_UPI00047AB198  
UniRef90\_X1TFQ4  
UniRef90\_G0IZG8  
UniRef90\_C7JBC2  
UniRef90\_A4FIP2

250 260 270 280

```

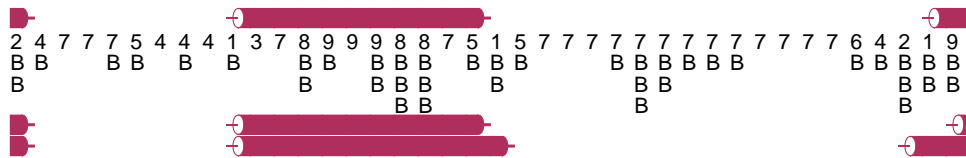
V T E T M T T V P R V K L K S W L L K R L T A F G G V S G R V G K A E D V C Y
A L Q A Q P L G R Q R C A E W I D A L R G P T G A F V R W A G Y D G E D V W A
A L Q A Q P L G R Q R C A E W I D A L R G P T G A F V R W A G Y D G E D V W A
A L Q A Q P L G R Q R C A E W I D A L R G P T G A F V R W A G Y D G E D V W A
V D N V E T D S V E R L S V W L Q R A H M P W E D G V V M Y M P G R G A E I R C
V D N V E T D S V E R L S V W L Q R A H M P W E D G V V M Y M P G R G A E I R C
V D N V E T D S V E R L S V W L Q R A H M P W E D G V V M Y M P G R G A E I R C
P A S S R P D E V R W L E G C Q L P N E G G V M Y M P G R G S E V R C
P A S S R P D E V R W L E G C Q L P N E G G V M Y M P G R G S E V R C
P A S S R P D E V R W L E G C Q L P N E G G V M Y M P G R G S E V R C
F F L K R D F Q F F N F F G N S L F Q K K K K F D F S V Q G R L Y K I T D F C Y
L L G R E D E K R E E T A E W I Q S C Q Q P S G G G F R W C P E P E D L A Y
L L E K L S D K F K E D T I T W L L H R Q Q S D D G G F Q G R E N K F A D T C Y

R N D K G Q E T T K S F T E N C V S K R F G G I S K N Q E A M P D P M H
L M G A E P E R T A E L Q A W L R A A Q T P Y E G G V M Y M P G R G A E V R C
L M G A E P E R T A E L Q A W L R A A Q T P Y E G G V M Y M P G R G A E V R C
L T A A P D D P R Q E Q W R A W L A G C R L P N E G G V M Y M P A R G S E V R C
L T A A P D D P R Q E Q W R A W L A G C R L P N E G G V M Y M P A R G S E V R C
L L Q S Q P T D A E A L I G W I H S C F N E D G G F G D R P G W R S N P V A
L L Q S Q P T D A E A L I G W I H S C F N E D G G F G D R P G W R S N P V A
S R G P A S T S S N D K G I Q E T T K Q E S G E K G N G T C N P L P D P F H
E S F S F T E K N K N Q L F N Y V L N H N Q S F F N F G Y A G E G R K N K T V D T C Y
L L G P A P P A E A R E A V G A L L D R H R V R G G G Y A G E G N R V P D L L S
L L G P A P P A E A R E A V G A L L D R H R V R G G G Y A G E G N R V P D L L S
L L G P A P P A E A R E A V G A L L D R H R V R G G G Y A G E G N R V P D L L S
M L Q R L Y S F N H R R I V N R L V N L Q Q F L L A G R P N K P P C L C Y

T L G H L D P T E Q T N T I E F L L E M Q G D E G G L A A N T I P F A D L L S
I L G R V E E R K Q E A V I A W I L Q A C Q T T S G G F T Y Q P D D D V E D P F H
I L G Q S P E E L D R D R V I A W I L Q A C Q T T S G G W S D G S S P E A P S T
T L G F L D T G A E Q D T A E F V A D M Q G D E G G F N T R L P F A D L L S
A L Q A Q P L G R Q R C A E W I D G L R G P S G A F V R W A G Y D G E D V W A
A L Q A Q P L G R Q R C A E W I D G L R G P S G A F V R W A G Y D G E D V W A
T L G R L D P G H H T E T A D F V A D M Q S D E G G F N T R L P F A D L L S
L Q T A P A N W N S E I S C S L E R L R T A D G G Y A K S E Q G L G S T Y H
L Q T A P A N W N S E I S C S L E R L R T A D G G Y A K S E Q G L G S T Y H
L T D G L D Q E V A D G A L T D F L L E M Q N D E G G L R A N P I A D L L S
M W F Q T T P V N L N K T T N Y L A Q L Q N P D G G F R I G D D V D Y L L S
I L G E L D D S A K A E T A T F L S A L P S P F E G G L R A N P A A D L L S
H Y R S G P P D E L R E S V E R Y F R R T Q N P D G G W G Q R P G D R S D V L S
H Y R S G P P D E L R E S V E R Y F R R T Q N P D G G W G Q R P G D R S D V L S
I L G A L T P D L A E P T I D Y L L E M Q T D E G G F R A N P I A D L
A G G R A E S E A A R R G V Q Y L V E T Q R P D G G W
Q L D F D R E S E L T K A A D W L A N R I W S M D Q G L R S R S S V L V T S
Q L D F D R E S E L T K A A D W L A N R I W S M D Q G L R S R S S V L V T S
R M G V E L D K R E A V L A A L R A G Q R S D G A W S K P S D L L E A
E L G S C P V D K K G C I S W L Q E G Q I T D G G F I I R R G P V H D L Y S
M T G R R R E L C K D I A G D V L R Y E R G D G S F G Q P G G S S L M S
M T G R R R E L C K D I A G D V L R Y E R G D G S F G Q P G G S S L M S
M Y G E I T P A L K S D V A G F L S D V K A S D G G Y L A N S R I P F P D G L S
L H S T I G K H L R D D V L A F L R D V R S G E G G F Q A N T I P F A D T L S
L H S T I G K H L R D D V L A F L R D V R S G E G G F Q A N T I P F A D T L S
D L G Q Q V H L P A D G I A W L R S C Q L E T G G F L G R C E N M I Y
F I D P S L I K N D K Q I M G F I Q E C L T G E G G F T F I P G I Y P P Y
L L G A V D A D P L T A D V R D F L K D V Q Q D D G G V I A N T I P F G D A L L S
I L G T L D D T T K L G V S G Y L P A L K S D F E G G I R A N P T A D L L S
I L G T L D D T T K L G V S G Y L P A L K S D F E G G I R A N P T A D L L S
A V G R R N S E A V K R G I N F L M S R Q D E
L I G R P G L C D D I A A A V L E Y R M P D G S F G R S D P G I I S
A V G R R D T E A V I E K G M A Y L A Q A Q D E H
A Y E R
A G R V Q A D A V S R G V A Y L V R T Q R S D G G
Y G R C P D T A A I R R G C Q L I M S R Q R P D G S W L Q
H P E S V Q Q R A H N T K L W L R K R V Q N Y D D L C N G R P G K R G D V C Y
H P S R Y T A Q I N R A T R F I T S H Q R Q D G G F D
S A G D T R S D S V A K G V R W L L E R Q R A
A A G D T R S D S V A K G I R W L I E R Q H E D G S W D E L V P G R N
G F G S L D L N E E
L I G E D T P M A E E M V D R V L A D Q K E D G S W S L N P P D W D
A A G R R D D P A V T R G I A W L A D Q Q D A N G E W H E D P
A A G A E P E A V R S G V D W L L E H R L P T G G W P A A N V N E Y V

```

lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm







UniRef90\_A7AVB5  
 UniRef90\_B1J81  
 UniRef90\_B1J81  
 UniRef90\_B1J81  
 UniRef90\_B9JQM6  
 UniRef90\_B9JQM6  
 UniRef90\_B9JQM6  
 UniRef90\_D9XGM7  
 UniRef90\_D9XGM7  
 UniRef90\_D9XGM7  
 UniRef90\_F2HHA6  
 UniRef90\_M5TU55  
 UniRef90\_E7NHH9  
 UniRef90\_F7VVU4  
 UniRef90\_B0EHD4  
 UniRef90\_U6N6C5  
 UniRef90\_F5XM01  
 UniRef90\_F5XM01  
 UniRef90\_M2XTM3  
 UniRef90\_M2XTM3  
 UniRef90\_M5T2T9  
 UniRef90\_M5T2T9  
 UniRef90\_U6KQM9  
 UniRef90\_Q98RL5  
 UniRef90\_UPI000262E458  
 UniRef90\_UPI000262E458  
 UniRef90\_UPI000262E458  
 UniRef90\_V6LCQ9  
 UniRef90\_I3EEF4  
 UniRef90\_M5RXN6  
 UniRef90\_L0DMM4  
 UniRef90\_E8QWB3  
 UniRef90\_M5UB00  
 UniRef90\_J3IWW2  
 UniRef90\_J3IWW2  
 UniRef90\_M5T1G8  
 UniRef90\_A6C4Z9  
 UniRef90\_A6C4Z9  
 UniRef90\_A3ZZG6  
 UniRef90\_X1SGR0  
 UniRef90\_UPI00016C3E50  
 UniRef90\_UPI000466D077  
 UniRef90\_UPI000466D077  
 UniRef90\_D2QYU9  
 UniRef90\_P33247  
 UniRef90\_UPI00036E73C1  
 UniRef90\_UPI00036E73C1  
 UniRef90\_L0DLZ8  
 UniRef90\_Q468T2  
 UniRef90\_H8I5H4  
 UniRef90\_H8I5H4  
 UniRef90\_D5SVY3  
 UniRef90\_UPI00029AED58  
 UniRef90\_UPI00029AED58  
 UniRef90\_E8V1Y5  
 UniRef90\_K2RT95  
 UniRef90\_F0SFU1  
 UniRef90\_UPI0002EE7378  
 UniRef90\_UPI0002EE7378  
 UniRef90\_K7SFV5  
 UniRef90\_D1Z1G6  
 UniRef90\_UPI000476EF56  
 UniRef90\_UPI00046A3621  
 UniRef90\_J9HMR6  
 UniRef90\_K1VPR4  
 UniRef90\_A0A023B925  
 UniRef90\_M3AUY6  
 UniRef90\_UPI00036E4B03  
 UniRef90\_UPI00047AB198  
 UniRef90\_X1TFQ4  
 UniRef90\_G0IZG8  
 UniRef90\_C7JBC2  
 UniRef90\_A4FIP2

370

380

390

400

R L T S F V L S C  
 R L T S F V L S C  
 R L T S F V L S C

K V I K T N V Y S L I S E L K K I N P L Y G I R E S T L I F F L S  
 A S Q T V V V K P P Q D L

L L A Q F V F G C R D E E  
 L L A Q F V F G C R D E E

E R F R S S S S I K K I F F P K I S P I Y M L R E S T

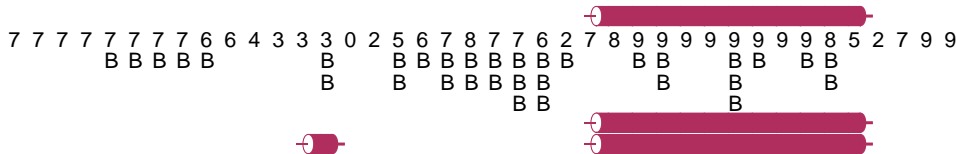
S P R P V R R L A P S L P V F T I Q I E A  
 L D H L P A V

G L V E T V G F V P

I R P

T A A A G Y L C D V Q Q P N G A F N A P P D T Y

lupas\_21  
 lupas\_14  
 lupas\_28  
 jnet  
 conf  
 sol25  
 sol5  
 sol0  
 jhmm  
 jpssm



UniRef90\_A7AVB5  
UniRef90\_B1J81  
UniRef90\_B1J81  
UniRef90\_B1J81  
UniRef90\_B9JQM6  
UniRef90\_B9JQM6  
UniRef90\_B9JQM6  
UniRef90\_D9XGM7  
UniRef90\_D9XGM7  
UniRef90\_D9XGM7  
UniRef90\_F2HHA6  
UniRef90\_M5TU55  
UniRef90\_E7NHH9  
UniRef90\_F7VVU4  
UniRef90\_B0EHD4  
UniRef90\_U6N6C5  
UniRef90\_F5XM01  
UniRef90\_F5XM01  
UniRef90\_M2XTM3  
UniRef90\_M2XTM3  
UniRef90\_M5T2T9  
UniRef90\_M5T2T9  
UniRef90\_U6KQM9  
UniRef90\_Q98RL5  
UniRef90\_UPI000262E458  
UniRef90\_UPI000262E458  
UniRef90\_UPI000262E458  
UniRef90\_V6LCQ9  
UniRef90\_I3EEF4  
UniRef90\_M5RXN6  
UniRef90\_L0DMM4  
UniRef90\_E8QWB3  
UniRef90\_M5UB00  
UniRef90\_J3IWW2  
UniRef90\_J3IWW2  
UniRef90\_M5T1G8  
UniRef90\_A6C4Z9  
UniRef90\_A6C4Z9  
UniRef90\_A3ZZG6  
UniRef90\_X1SGR0  
UniRef90\_UPI00016C3E50  
UniRef90\_UPI000466D077  
UniRef90\_UPI000466D077  
UniRef90\_D2QYU9  
UniRef90\_P33247  
UniRef90\_UPI00036E73C1  
UniRef90\_UPI00036E73C1  
UniRef90\_L0DLZ8  
UniRef90\_Q468T2  
UniRef90\_H8I5H4  
UniRef90\_H8I5H4  
UniRef90\_D5SVY3  
UniRef90\_UPI00029AED58  
UniRef90\_UPI00029AED58  
UniRef90\_E8V1Y5  
UniRef90\_K2RT95  
UniRef90\_F0SFU1  
UniRef90\_UPI0002EE7378  
UniRef90\_UPI0002EE7378  
UniRef90\_K7SFV5  
UniRef90\_D1Z1G6  
UniRef90\_UPI000476EF56  
UniRef90\_UPI00046A3621  
UniRef90\_J9HMR6  
UniRef90\_K1VPR4  
UniRef90\_A0A023B925  
UniRef90\_M3AUJ6  
UniRef90\_UPI00036E4B03  
UniRef90\_UPI00047AB198  
UniRef90\_X1TFQ4  
UniRef90\_G0IZG8  
UniRef90\_C7JBC2  
UniRef90\_A4FIP2

lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm