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Q N N L V G V I P P E L G A C T G L T V L D L S M N G L I G H I P A S L G N L T P
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T N H S G P F P P S I G N L K R L I R F R A G Q N M I S G S L P P Q E I I G G C E
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G N Q L L N G S P Q P Q E I G D L K L L Y E L A L Y T N N L E G S I P I Y L G N L S
N N L F S T F P D G L I A S L T D I R V L D L Y N N N L T G P I P A A L P N L T
S N T F S G P I P S S L K T C I S L V K I D L E S N K L T G D I S Q H F G V Y P
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UniRef90_T1L7T5	N L Q L L A L S N N T L T G L I P K T L E N L T Q L N T L Y L Y G N Q L S G P			
UniRef90_I1GVZ5				
UniRef90_W5B9G2	K I F L S L G S N R I I G N I P P G V K A C K T L T Q L R L G V N L L T G S			
UniRef90_D7FH90	E L T H L N L W D N K L T G T I P E A I G A L T K L N E L K L Y S N K I L T G F			
UniRef90_UPI0002B46744	N L Q I L N L A N N T L S G E I P V E L G E L Q G Q L L Y L N M G N Q L K G S			
UniRef90_Q32QW7	N L E T L W I Q Q N Q L Q A L P			
UniRef90_N1QT90	N L N A L G L S D N R L L S G P I P E E L G Q V Q T L Q V L Y L Q K N R L N G A			
UniRef90_K3XV18	Q L E N L I L K N N Q L V G A I P S T L S Q L P N L K I L D L A Q N K I L T G E			
UniRef90_I1HCE6	S L E V L R A G G N N L L Q G A L P A E I G N C L Q N L E T T L A I Y T A L L S G P			
UniRef90_Q2VGX3	Q L V T L D L N G N Q L S S V P A D V F H Q L V K L E K I W L K N N K L T A L			
UniRef90_H2LK47	Y L E E L Q L S H N K I R V L G E R I F D G L G H L E V L E Q H N Q V Q E A			
UniRef90_M8B7H5	S L Q V I D L S N N A M S G Y L P E E L G Q L D S I L N N N I L V G E			
UniRef90_Q9LP24	S M T N L A L S Q N K L T G S I P S S L I G N L K K N L T L L S L F Q N Y L T G G			
UniRef90_M5XJ2A	S L V I L D L S T N N L L S G L I P P N L I G N L K S S I I D L E L S Y N N L S G L			
UniRef90_J3MIL9	A L E E L D L E E I Y S N D I P T S L R A L Q S L R I I R A G L N D L S G P			
UniRef90_D8QU71	N L T Y V E E L S G N R F T G S L P L A M G K V T S L Q M I D L H G N Q L S G S			
UniRef90_U5CXZ0	L A D M I E L T D N Y L S G K I P S R I S A S V V L G E L I I S N N L F T G S			
UniRef90_A0A059AQY0	N L T Y L H L S G N Q F L S E S S V P S E I G N L K S L A H L D L S S N N F S G E			
UniRef90_K4A556	R L V R L D L Q F N Y L N G S I S S E I I A H D S L Q T L			
UniRef90_E9CCF2	A L T Y L D L Y A N P I T S I P A G T F T G V T A L T Y L S L S S N Q I T S I			
UniRef90_K3YPF4	S E M H L N L S S N G F T G S V P S A I A V F P K L K S L V L D T N S F N G T Y			
UniRef90_UPI0003D29ACC	S F K R V R L D N N S F T G N L S D A F G I H P H L Y F I N L S E N D F Y G E			
UniRef90_Q6XAT2	Q L E F L N L K N N Q L T G P I P A T L T Q I P N L K T L D			
UniRef90_V4SIW9	S L S L L D L E G N R F S G E I P E F L G D I R G L K S L T L A A N L F S G S			
UniRef90_T1MEF8	N L Q G L Y L A H N N L S G S I P V V L E N L T A L S K L D V S F N N L Q G G V			
UniRef90_M4DH52	N L E I I L D L H E N N I G H E F P T W L L T G L T S L I V L D I S G N G L T G E			
UniRef90_UPI00042B7410	K L L E N L L D F N R I L N G S I P S K I G D L K T L R V R L R H S N F L E G L			
UniRef90_A5BMU7	F L R H L W I D D N N P F K G T L S L G N L P I A L E S F T A S A C Q F R G T			
UniRef90_I1PXE7	N L L T Y L A L N N N N F T G V I P A A V S K L K N L K V F T L N C N Q L T G T I			
UniRef90_G7K4S2	K L L Q S L L L W Q N N M V G A I P E E L G N C C R E L S E I D L S E N L L T G S			
UniRef90_T1L826	M L T D L L I H Q N M V G P I P E E I G R L V N L Q I L Q L S N N T L T G M			
UniRef90_M3YVX4	R L R R H L H E R N Q L R G L A A R T F L H T P G L A S L G L G N N L L G R L			
UniRef90_M4FCU2	R L L Y R L N L S F N L L S G P L P V M I P R S H T L T F L D L G H N N L S G S I			
UniRef90_F2DYS7	N L L Y Y I D L S G N S F A G E G L P E H W A Q L K S S L L Y L N L			
UniRef90_M0Z706	S I Q K L R I Y N N K L L S G S L P Q E F G D L I G L V A L G L S K N S F S G P			
UniRef90_UPI0003D778B3	S I N G T L D F S I N N I L T G N I P P N I S S C V N L N S F N A Y G N K L N G T			
UniRef90_F2DLX7	G L Y D L N L A N N S L E G P I P P E I G N C S D I E I L E L G S			
UniRef90_UPI0002337054	S L V A L S L S N N R I T G T I P P E I G N C S D I E I L E L G S			
UniRef90_B9NDR4	S L V G L S L A N N K L H G P I P L E M N N L T H L K Q F H L S D N E F T G H			
UniRef90_K4BTU0	S F K R V R F D N N G F T G N L S E A F G I H P E F L K F I D L S D N D F H G E			
UniRef90_U5DBL4	E L T N L Y L Y S N Q L S G E I P V E L G N L K G L E R I L L W Q N N L L S G K			
UniRef90_H3AUB2	N L I E L E V T G N P L S S N L N G T F H N L K H K K L M I E N N F S G G			
UniRef90_C5YSY9	P L N F I D V S T N A L L S G P I P P D M C K Q G T M L K L L M I E N N F S G G			
UniRef90_K3ZJ70	N L A S V H M Y Q N M L S G R L P A T L F G K N C P L V F I D T S D N R L L S G			
UniRef90_K4BFN3	N L S T L N L S G N K F S G S I P V V I E N L Q Q L S V N L L S K N D F S G T			
UniRef90_T1L7T2	S L R V L E L S S N R I L T G H I P A S L G N T M L N I L A H Q T M V S G P			
UniRef90_M5VPA4	E L Q Y L Y L H M M N S L L D S S I P S E L L G L C T S L T Y L D L T S N H L E G K			
UniRef90_D7KLX7	S M I D L E L S Q N N Q L T G S I P P S S F G N F T K L E S L D R D N H L S G T			
UniRef90_B9RRZ6	S L Q F L T L T A S N Q L V G Q I P R E L G Q M R S L K W I Y L G Y N N L S G E			
UniRef90_V7BJL9	N L S K L D L S I N N L T G P I P F G F Q Y L T K M K Q L Q L F D N S I L S G I			

130 140 150 160

QUERY	G P G L F R G L A A L Q Y L Y L Q D N A L Q A L P D D T F R D L G N L T H L F L		
UniRef90_H9GRS9	S T Q L F R G L F S L Q Q Y L Y L Q D N N L L Q N L Q D D T F V D L A N L T Y L L F L		
UniRef90_K3XZD7	I P A E I G K L T A L R M L Y L W A N Q L T G S I P P A I G G C V S L E S L D L		
UniRef90_UPI00042BAF85	S Y A F N R V P S L R R L D L G E L K K L E Y I S E G A F E G L Y N L K Y L L N L		
UniRef90_F6SE86	I P K E I G N L T S L V I G L Y L Y S N K L T G S I P K E I A S I K T L D D L T F		
UniRef90_UPI000462F792	P H D L F H K L Y S L Q F L Y L Q E N Q L H F L H D D L F S L V N L T H L F L		
UniRef90_I3JC07	L P Q E V G N L K N L K S L F L D N N H L S G P I P S T L Y H L N Q L A T L C L		
UniRef90_V4TGH2	V P E G F S S L I S L Q Y Y L N L T A N L F H G T I P M T Y G F L Q S L A V L S I L		
UniRef90_A0A059BUU8	P R S I C S N N T N L E Q L V L S G T Q L S G E V P A E I S R C Q S L K Q L D L		
UniRef90_M4DAD6	I S P Q L G F L T S L S V L A L S S N N F R G P I P P S I G N L R N L T T L Y L		
UniRef90_F6HK89	I P V S I T E M K D L E M I D F S S N E L V G T I P A N I G K S N L F A L G L		
UniRef90_B9EYY2	L P P L E V G N N L V L L E Q L I Y G N K L S G E I P H T I G N C K V M E I L Y M		
UniRef90_C5XDA6	I P R E F F G K L T S L V N L L L Q N N Q I S G N I P M E L G S L T K L D Y L D L		
UniRef90_M1B03	R P H A F A G S L G L R R L F L K H N G I T A V D E Q G L W G G L A E L L E L D L		
UniRef90_F1PYM4	I P P G L K A C R T L T Q L R L G G N M L T G S L P V E L S L Q N L T S L E M		
UniRef90_K3ZQ75	P C C L F D T M P H L R E L D M G M R N S L L A T L P D G I F V N L T S L G K L I L		
UniRef90_UPI00035A03C7	I P D G L S R C R A L T Q L D L A N N S L S G A I P P G L G E L G N L T G G L L L		
UniRef90_W5BIM6	P K E L G N C T N L E I L A L Y Q N N E L T G N I P R E I G N L S V A I E I D F		
UniRef90_G71651	I P S E F G S L T D L E Y L D M S R N S F N E S L P S V L G G L V E L N Y L N L		
UniRef90_M5XRS8	W S K F S M P S E L Y L S F F L N E L T A E F P H F I T N C R N L T F L D L		
UniRef90_U5GME3	I P K S L A K M S N L Q N L D L S M M N M L T G G V P E E F G S M N Q L L Y M V L		
UniRef90_B9GYH2	I P E S I G N C T E L L T S L L Y L Y Q N T L S G G I P P Q L G Q L K K L Q T V L L		
UniRef90_Q628S8	S N E A F E G G L S R Y L N L G M C N L R E V P K L S P L V R L E E L E L		
UniRef90_S4S1M1	F G I I C N F K Q E V V I E F R Y V K L W G N I P T N F S S L V T L K K L F		
UniRef90_UPI0002B49F1F	I P T E I S K C R S L Q E L N L S N N T L T G L I P D S L F H L V E L T T V L Y I		
UniRef90_M4E8K7	E P Y S F S G L S S L K L L Q L E G N L L K E I H P H T F I T V S L L G S F W T		
UniRef90_G3Q418	P P E L G N L A T L R E L Y L G Y F N S F T G G I P P E I G N F K E L I V M S L		
UniRef90_UPI0002C34595	I P P A L S K L S N L E E L T L D S N H L S G E I P P E I C S L A N L Y S L N L		
UniRef90_M0XK02	P E E I F S L K K L S K L L L G N S L T G G L P P N L A N C Q S L V R L R L		
UniRef90_T1MG76	I P R E L L G Q L T Q L H K L D L S I N N L T G T I P L E F Q N L T Y L V D L Q L		
UniRef90_F2DL38	I P R E L L G N C I K L Q R L D L S R N S F T G N L P E E L G K L V N L E L L K L		
UniRef90_A0A059BU22	P E S K L F K G A P V Q W F I H N K M L C G I V E G L P P C N N T T W		
UniRef90_E9C392	S G T A F T G L T A L T S L S L G P N Q I E F V N P N V F Y G L T S L R L V H L		
UniRef90_D8LC76	I P R E L L G K L T L L E R L Y L E R N A V V G S I P A E L S R C L A L E E E L Y L		
UniRef90_C3ZIA0	F Q Q L S K D T D N L G R L S L Q G T Q L T N L T A D M F E G L S S L Y W L D L		
UniRef90_D7FZM2	P A T I G K L L S S V R V L A L S H N Q L T G A I P P E I G L R S S L V A L A L		
UniRef90_A0A059DFL6	P L E L G N T F P S L S D V D F S E N S F T G Q L P P D L C S G F A L Q Y L A V		
UniRef90_UPI0003D7627F	I P P T L L G R L I S K L E N L H L S S N S L V G N I P S T I G H L T Q L T T L A I L		
UniRef90_T1L7T5	I P Q E L L G R L V H L Q S L D L S S N D L S G R I P I S I T N L T K M K T L F F L		
UniRef90_U1GVZ5	I P V E L L S A M Q N L S A L E M N Q N R F S G P I P P E V G K F R S I L E R L I L		
UniRef90_W5B9G2	I P E T L L G A L K E L L T I L G L G R N K L T G S I P E A L G N M G S L E F L V L		
UniRef90_D7FH90	I P V S L A Q L G N L Q N L D L S M N K L T G G I P P E E L G N M G S L E F L V L		
UniRef90_UPI0002B46744	A G V F D Q L V E L D E L L Y L S K N Q L K S L P P R V F D S L T K L T Y L S L		
UniRef90_Q32QW7	I P P S L G N L T M L T F T Y L Y R N Q H T G Q I P V E L G T L L S S L I E F D L		
UniRef90_N1QT90	I P R L I Y W N E V L Q Y L Y G L R G N H L E G S L S P D M C Q L T G L W Y F D V		
UniRef90_K3XV18	I P P E L G E C S S L Q N I Y L Y E N S L S G S I P P Q L G K L G K L K S L L L		
UniRef90_I1HCE6	P E G V F D R L V N L Q R L W L N N N Q L T S P L T G V F D R L V N L K E L H L		
UniRef90_Q2VGX3	Q M G S F T G L S H V A V I N L S G S C F S S L P D Q M F K G L S K L H S L H		
UniRef90_H2LK47	I P A Q L I A N C F S L N L L N L S Y N S F S G H V P F A K N F S K F P V I E S F L		
UniRef90_M8B7H5	I P P K L G N I E S M I D L E L S S N N K L T G S I P S S L G N L K N L T I L Y L		
UniRef90_Q9LP24	I P P N I G N L I K L N T L Y L H S N Q L S G L I P K E I I G N L K S L V D L E L		
UniRef90_M5XJ2A	I P V E L S E C A S L A V L G L A Q N N L V G P L P G E L L S R L K N L T T L I L		
UniRef90_J3MIL9	I P T T F G G L L G N L Y K L D S F N R L D G S I P P A L G S L G D V V L L K L		
UniRef90_D8QU71	I P S S I S N L T G L Q T L S L E G N Q F S G E I P Q G I G E L L Q Q L S K L N L		
UniRef90_U5CXZ0	I P V E F G H L T A L I Y L D L Y N N S L S G T I P P S I G N L S N N L T Y L N L		
UniRef90_A0A059AQY0	UniRef90_K4A556	M L S G N K L T G K I P D V F T G T Q G L L E L H L	
UniRef90_E9CCF2	P A G A F T D L T A L R S L F L Y A N I T S I S A N A T S L T A L T Y L H L		
UniRef90_K3YPF4	P A S A I A K L N E E T L T L A D N P F P G L I P P D E F		
UniRef90_UPI0003D29ACC	I L S S N W G K C K S L T D L R V A R N N I S G S I P P E I G N L K G L Q G L I L L		
UniRef90_Q6XAT2			
UniRef90_V4SIW9	I P A S F R N L P G L E N L N L A R N Q L T G E I P R L Y W N E V L Q Y L G L		
UniRef90_T1MEF8	P N E G V F R N I T Y L A V A G N V N L C C G G T P Q L H I A P C		
UniRef90_M4DH52	F P A K I G S F T A L Q Q E L R A A N N S F V G E I P P T T I G E C R S L R V V D F		
UniRef90_UPI00042B7410	V P E E I G N L K A L T L L N L Y E N E L S G P I P P Q I C N C F N L E K L D L		
UniRef90_A5BMU7	I P T G I G N L T N L I E L D L G A N D L T R S I P T T L I G R L L Q K L Q R L H I		
UniRef90_I1PXE7	P A A L G E L T S L E T L K L E V N Q F T P G E L P G S F K N L T S L K T V W L		
UniRef90_G7K4S2	I P I S F G K L L S N L I Q Q G L Q L S V N Q L S G G I I P P E I S N C S S L I Q L E V		
UniRef90_T1L826	I P K T L G N L S Q L N T L L Y G N Q L S G P I P Q E L L G R L V H Q S L Q L		
UniRef90_M3YVX4	D E G L F Q G L L A G L W D L N L G W N S L A V L P D A A F H G L A G L H E L V L		
UniRef90_M4FCU2	P D F L V N G S H P L K K L N L D H N L F S G A V P L S L C K Q S M L E E V S L		
UniRef90_F2DYS7	L P A N I C S G G K L R Y L D A A F N M F N G P I P S S L K T C T S L A R I D L		
UniRef90_M0Z706	I P T E L L G K L N F L I K L I L A Q N Q L S G Q L S P K L G S L A Q L E H D L		
UniRef90_UPI0003D778B3	I P R S L R L K L E S M T S L N L S S N H L S G P I I P E L L S R I N N L D I L D L		
UniRef90_F2DLX7	I P Q E V C H G G V L E N L T V A N N Y F S G S I P P K S L K T C T S L H R L R L		
UniRef90_UPI0002337054	I L S S N W G K C K N L T T F C L A R N N I S G S I P P E I G N I K G G L L G L D L		
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UniRef90_U5DBL4	I P E T Y A S C K T L Q R F R V S K N S L S G E V P E G L W A L P N V N I I I D L		
UniRef90_H3AUB2	I P A T L L C A S R K L K Q L M L N N E F E G T I P V E L A Q C W T L V R V R L		
UniRef90_C5YSY9	I P P S I I G Q L R Y I Q H D L S N N S L N S S I P P S E I L G C A N N L T Y L A L		
UniRef90_K3ZJ70	I P R G V A N S S E L T E L L D I N F T G F L P E N I C K G G K L Q N F S L		
UniRef90_K4BFN3	I P N E I I G R L V N L Q Q G L Q L S N S S L S G M I P K T L G N L T Q L N D L Y L		
UniRef90_T1L7T2	I P P G L L H S P L W V V D F S D N N L T G R I P L H C R N S S L M L L N L		
UniRef90_M5VPA4			
UniRef90_D7KLX7			
UniRef90_B9RRZ6			
UniRef90_V7BJL9			

		170	180	190	
UniRef90_H9GRS9	H G N R I	S S V P E R A F R G L H S	D R L L L H Q N Q R V A H V P H A F R D L		200
UniRef90_K3XZD7	H G N K I	K T L S E N V F R G L L D R L L L H Q N Q R V S V V H R R A F R D L			
UniRef90_UPI00042BAF85	S Q N A L	T G P I P R S L F R L P R L S K L L M I D N T L S G E I P P E I G N C			
UniRef90_F6SE86	G M C N L	D M I R P G S F Q G L T S L R K L W L M H A Q V S T I E R N A F D D L			
UniRef90_UPI000462F792	G M C N L	R D M P N G S F H G L R S K K L W I M N S Q I N T I E R N A F D D L			
UniRef90_I3JC07	S S N N F	V F V S D F E K E H G V Y E M K M A Y Y L Y			
UniRef90_V4TGH2	H G N R I	I R T L T E N V F R G L V N L D R L L L H D N R I R Q V N R R A F R D L			
UniRef90_A0A059BUU8	G Y N K L	A G P V T K E V G N M K N L D R L L L H N G N N L T G S I P S T I G Y L			
UniRef90_M4DAD6	S G N N I	S G P V P V E L G N C S Y L E V L E R S R N R L K G P I P S R F S G L			
UniRef90_F6HK89	S N N S L	T G S I P P E A L F Q L V E L T D L L Y L H N N T L E G K L P S P S I S N M			
UniRef90_B9EYY2	H T N K L	L S G S I P Q E I G L L T S L N D L E L L A T N S L T G S I P P S I S G N L			
UniRef90_C5XDA6	A Y N K L	H G P I P D S I S N L S R L Q T L E L S N N Q L T S A V P M G L W G L			
UniRef90_M1B103	G N S F Q G S I	P V T F K N M V G L T V L N L M D N K L N G S I P S I S P S I S N M			
UniRef90_F1PYM4	T A N R L	L N G S I P T F I G D Y H H F H L L S N S N K F G Q N I P K E I G G I			
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UniRef90_M5XRS8	S N N K F	F S Q A I P F Q L G K L V Q L S Q L L D I S H N S L E G Q M P S K I S N M			
UniRef90_U5GME3	S L N K F	T F G Q I P E I Y T N L G K L E A L L N L Y N N S F Q G P I S S N I S K I			
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UniRef90_Q6Z8S8	W Q N Q L	V G T I P P E I G N C K E L V L I D L S L N E L T G P I P R S F G G L			
UniRef90_S4S1M1	S G N R I	E I L R P G S F Q G L A N L R K L W I M H S E V R L V E R N A F D E L			
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UniRef90_M4E8K7	N N C S	R G T L S P S I S N L T N Q E F G P S H N A L E G K L P K E I G F L			
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UniRef90_UPI0002C34595	C N N N L	S G S I P S E L G N L K S L V K L Y L H Q N N F S G S I P A T L G D L			
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UniRef90_T1MG76	S S N Q L	S G S V P T L I G K L S N L A Y L D I F G N R L S G L I P E E L G A C			
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UniRef90_V7BJL9	A A N H	Y G N I P T G I L N C K S L A Q L L I L G N R L T G S F P L E L C K L			

210 220 230 240

QUERY	G R L M T L Y L F A N N L S A L P T E A L A P L R A L L Q Y L R L N D N P W V C D
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UniRef90_K3XZD7	T S L V R F R A S G N H L A G A I P P E V G K L G N L S F L D L S S N R L S G A
UniRef90_UPI00042BAF85	K S L E E L N L S H N N M S L P H D L F T P L H R E R V H L N H N P W H C N
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UniRef90_W5B9G2	T K L Q R L D L S R N S F T G L P K E L G T L V N L E E Q L K L S D N S L N G T
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UniRef90_K3YPF4	T E L T T L A L Y S N K L H G E I P A W V W K L P K L E R L Y L Y A N S F T G G
UniRef90_UPI0003D29ACC	T K L L D Y L D L S D N R L L N G S I P P F I G D Y Q H L F H L N L S N N K F G Q K
UniRef90_Q6XAT2	T S F E I L L D V S Y N Q I T G V I P Y N I G F L Q V A T L S L Q G N K L T G R
UniRef90_V4SIW9	L K L T T L D L S K Q N F S G E L P I E L A G L P N L Q V I A L Q E N K L S G N
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UniRef90_M4FCU2	H N L T V L N L K R N K I I N G P I P E R I G N I S G I R Q L D L S E N N F T G G L
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 C P H T C I C D N S K R H V A C R H Q N L T G V P D T I P E L T Q R L D L Q
 I E I D L S E N H L I T I P K E L G S N L S L L H L F
 C P Q T C V C D N S R R H V A C R H Q N L T E V P T A I P E L T Q R L D L Q
 S N N N V V S S I P S V L S N N L M Q L Q L D
 N L Q N L T K L E L S I N Q F S G L P Q N I C Q K L T W F A A G
 N L H R L K S L I L S N N N F N E I P S S L L S K L E V L S L Y
 A I P N E I G S S L R N I D L S
 T S I S L R G N S F R Q V P D W I L T N L E S L D L S
 L K S V D L Q G M G L P A N F P Y L N T L V L S
 C P S N C S C L G P F F E C R R G L T E I P R D L P T W V E I L D I S S
 R S L I E L D L S D N N L T S I P Q D I L S S L S V L A L S
 C P S R C S C S G T K V L C Y S K G L T S V P T G I P A R T T L L N L K
 S W T K L T S L Q I Q N N H F T E I P P E I G T D L N Y L F L Y
 C P K S C V C H V S L A E V H C T F R Y L T A I P D H F P A A V E R I N L Q
 S L Q Y L D L S H N A L T S L E I P P E L L Q N L T K I L L I
 E I P R E I G S K L R Q L E L F N L T K L N N I S
 S L T N L K R L L L W Q N N L T Q I P E G N C S D L K V I D L A
 C N W F G I Q C N P R T Q R V T E I L L N S
 H S L Q Q L N L S D N S L S N I P G E L F S S L T A L N L S
 P C P R A C V C A A E S R H S S C E G R G L Q A V P R G F P N G T Q L L D L R
 G L T H I E L D N N E I T S I P S G N L S N L T L L F L W
 C S N N L V T S D L S S M M N L T G V S I G G L V N L V Y L S
 N L S S L V V L H L H N N R I Q S L G I N S L H S L E T L D L N S
 L T V N D L L S S N K F S E I P E S I P N G L Q A L N L S
 L R H D L L S Q N L L S A I P A T L P D S L T T L D L R
 C P Q P C I C D N A R R H V S C R N Q N L T E V P S A I P P H L T H D L R
 T L K L E S N N L S N L P E E I L T N L S T L S
 F S P S L I H V S F S N N S F S E L P H E L C S G L E E L T V N
 A I P T D I G N L L Q Q L M L G
 T E I D F S E N C L S E I P S E F S N N L T L L Y L F
 L V S L D L S H N N L G N L P Q E I L R R L R F L N L G
 P C L T G I T C Y L N Q V T N I S L Y E F G F T S I S P A L L K S L E Y L D L S
 S L R T L D L S L N S F S S I P L S F G T L L E E L M L S
 S Q L R V L N L M C N R L T E V P P A A V G A A L E V L E E L M
 S K L Q S L D L S S N N K I T G L S S D F W S S L K A L N L S
 N L L E T I V F L Y K N N F E K I P P E M I T S L K L L D L S
 L R V R V Q C S D L G L E S S I P K D L P P D T T L D L Q
 E C D P A T S R V L R L S D L N F L L S S I P R G L L P A L Q S L S L Q
 S S T L L Q I S L S Y N Q I T Q I P D S I L L S S L Q R L Q I D
 N L S T L Q S L K C G G Q G L S R I P S W L L R K L D F L E L T
 L R E L Q L S V N Q L S G I P S E I C T A L N H L E V V D
 N A V H I D F S E N Q L T G I P R E L G P N L V V L H L F
 P G I C K N L V V A N V S

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

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

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

50 60 70 80

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UniRef90_UP100042AFF99	A N N F S G R V P F S L G N L Q F L R K L D L S M N Q F T G A L P E S M A N C F
UniRef90_S8CCU9	S A N L S G E I I P A E F G E Y A E L V R I D V S D N A I S G G I P A E I C R L S
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UniRef90_H9KSC7	N N K L T T L G K E M L N G F S H R T L K L V D N P L S C D C H G Q H T K C A
UniRef90_I3NCF2	R N H F P S V P R A A F P G L G H L V S L H L Q H C G I A E L E A G A L A G L G
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UniRef90_L7MIL9 H | T D L L A H N A I P Q L T S D L K K L P Q L R N L D L S F N K I T S I

UniRef90_F6HVC1 K | D T L D L H S N Q L F G S I P R E V G F L R S L F A L D S S N N K L T G S

UniRef90_M0U9Q7 L H W K A T L R S R Q S L R S W N L N S S P C N W T G V T

UniRef90_D2KY39 K | K E L H N Q N Q L Q S L P D G V F D T L T S L T H L A L N E N Q L Q S L

UniRef90_M7BAA2 K | K H S L H E N S S C S R I R P Q T F S S L S C L R R L F Q H N T I S M I

UniRef90_A0A022PQG0 N L S I L N L F S S N L T G T I P S T I G D L S L L Q I L D I N T N Q L T G P I

UniRef90_A0A059BV77 Q L V A F N V S S S N R L S G S I P L E L G N C I R L Q R L D L S R N R F S G S

UniRef90_H2LN81 S I Q V L K I S H N K L K E I N K E T F K G L D R L L K L Y

UniRef90_A0A059AWF8 N L S F L D L S D N R L T G S I P E E I G N C T A L G M L D L S N N G L G G A

UniRef90_F6GZV3 E L V L L G L A D T G I S G Q I P Y S F G Q L K K L K T L S I Y T A N L T G E

UniRef90_M0W956 S L F H S L A D N F L Y G S I P Q E I G S L Y N L E L L D L S S N N L S G S I

UniRef90_A0A059BT49 S L E I I A L P S N N I T G A V P G S I G S L N N L T G L Y L Q N N K I S G F

UniRef90_B9SJH8 G L K Q L E L D N N N R F S G E I P A T I G Q L K E L S L F F A W Q N Q L H G S

UniRef90_W1P8D6 S L R A V V D F S G N N L T G E I P D Q F F K Q C G S L R Y V S F A R N N F Y G P

UniRef90_D8RP31 Q L V E L L S L I E N Q L D G E I P E E L G K L R Q L R Y L R L Y R N K L T G N

UniRef90_J3MBX4 R | E R L L Y L S D N L L S G E I P P S I L G V I P R L G L V D L S R N R I L T G G

UniRef90_H9KSC7 S P I H L K D R N I A D V Q V H E F K C S G P V E R T G S E C S A E P Q C P H P

UniRef90_I3NCF2 R | L Y L Y L S D N Q L S G L S A A A L E G A P H L G Y L Y L E R N R F L Q V

UniRef90_M1BJN1 K L N K L L L S S N N L S G P I P P E I G N C S S L I R L R A N D N K L T G S

UniRef90_UPI0003D72F83 E L Y Q L H G G N K L L S R S I P T C I G N L T S L R T L S L G S N E L I S V

UniRef90_M4DZ84 A L R S F N I L C N K L S G P L P E E I G D L H N L E E L V A Y T N N L T G P

UniRef90_UPI000388A2EC K | L H T L S L N G A T D I R E F P D L K G T T S L E I L T L T R A G I H L L

UniRef90_A5ASG7 Q S F L I D E Y A S E D S Y T Y P K V A T W K S H G E G R D C C S W H G V E C D

UniRef90_J1LUJ1 T L K T L R L A Y N T F D P G P I P N D L G N L K N L E E L W L A G C N I V G P

UniRef90_G5BVC8 A L A T L N L A H N A L V Y P A M A F Q G L R R A R C L Q L A H H C P G D P E

UniRef90_W1NZV5 N L K L F L A Y E N K L T G K I P E N F G L F S E R I L N L H S N H L E G P

UniRef90_B9H4J1 K L T T L D L S K Q N L S G E L P I E I F G L P S L Q V V A L E E N K L L S G V

UniRef90_V4TZ12 R | D F I R L S G N Q F V G E I S P D W G E C R N L S N L Q D R N R I S G G

UniRef90_W9RT36

UniRef90_C5WY62 G L V N L I V K A N S L E G S I P A S M G N L K K L S V L D L S S N N L S G V I

UniRef90_UPI00042B3C73 R M R Q L Q L F D N S I L T G P I P R G L G I Y S P L W V V D F S D N R L S G R

UniRef90_A0A059ATL7 Y Y N D F Q G G I P Y E F G N L L N L N H L D L S S S C G L E G P

UniRef90_U5DF22 G L Q T L L N L R F N S L G G Q I P E K I G K L Q N L K E I E A N R L T G S I

UniRef90_M0ZKF3 H | L Q T L L L G N G F S G N V P L E L S N C S L L E Y L D L S G

UniRef90_UPI00032A5177 K L R H I D F S G N L F S G P I S P L V S A L S S V H L D L S S N N L L T G T V

UniRef90_A9S4Y2 D L T V F F G W D N K F E G S I P S A L A G C R S L Q A L D L S H N S L T G S L

UniRef90_UPI00023B227E A L A K L I M F G N G F S G E I P A A L A L S C D S L V R V R L Q G N R I N G S

UniRef90_I1HW96 S L Q V L K L D H N G F E W N I P L G I L N C Q S L V S M D L S F N R F N G T V

UniRef90_M5VVE7 Q L S V L K L E L W N N S F S G H L P S D L G K N S P L Q W L D I S S N S F S G E I

UniRef90_F6Q8B1 K L L E R L Y L S K N Q L K E L P I I K M P K S Q L Q E L R A H E N E I T K L

UniRef90_I1HVC8 T L R F L M L S G N A F S G P V P L G L S N S A L L H L N V S N Q L S G T P D

UniRef90_N1QTZ4 N L L A T L D L S S N N L T G H I P R A I S N L T L L N S I L S Y N Q L S G A I

UniRef90_V4KKH7 A L L N Q F N V H G N N L L S S G S I P L A L R N L R S L T Y L N L S S N N F K G K

UniRef90_D8QT38 S L T D L D L S S N S L S S G S I P E E I A S I R G L A L I H L W N N S L T G A

UniRef90_F6I583 N L N Q A L D L S S Y N H L S S G S I P K Q I F G L K N L T K F L D L H S N G L I S S

UniRef90_UPI0002C2FD5D Y M D E L Q L F D N H L E G K I P P L L G A N S N L S I L D M S A N K L E G S

UniRef90_UPI0002C2FC8C E F S A S E N D L S G A I P L P S I F N G T C S L V S L D L S V N N F S G D

UniRef90_A9SBP9 MW

UniRef90_W1NJA9 S | T F L S L Q N N S L S G P V P D T W G G I R Q L Q L L N L E H N S L S G P

UniRef90_B9ESX4 T L L F V L D L S T N R L L N G S I P K E I L E L P S L S W Y L D L S Y N S L S G P

UniRef90_C5XCR8 F L R L L N L S Y N S L H G E I P A S V G S L R R L R R L H L S G N M I T G V I

UniRef90_D0VMS4 N L M N L D L S R N K L T G V I P P T I S N A T K L Q F L I L Q E N E L E G S

UniRef90_M4C8M7 S L E I L H L F S N N L S G K I P E G L T S L P R Q V L Q L W S N K F S G E

UniRef90_K7FNT2 K L M T L R L K S N Q L K I V P P G I F T G L P T I L D L S E N K I V I F

UniRef90_UPI000350E9BB N L R R I W F N C N Q L S G N L N F A L S K C R S L D T I N I A N N T F T G M L

UniRef90_W5GEK2 K L I Q L V L H N N S L S G G L I P P S L G N L S Q L S I L S A Y H G N L E G P I

UniRef90_W4Y4C5 T V E R M R L N N N K L Q S L P E L S F S R M E N L Y K L D

UniRef90_A0A059B1L8 N L Q A L D L S H N S L T G G I P P G L F Q L K N L T K V L L I S N D I S G T I

UniRef90_F6H520 N L K I L S F P M N N L T G S I P A T I F N I S S L L N I S L S Y N S L S G N L

UniRef90_UPI0001FE59C1 A L T F L Q L D A N Q I T S I S A G A F T D L G A L T T I L S I N T T S I

UniRef90_C5Z5E9 E L T Q L S L G G N D L A G E I P P S V L S N I T G L T V L D F T T S G L H G E

UniRef90_UPI00046B9174 R | L V L V L N L A S N R L S A L P Q E A L F G A L G A L V T L N L A H N A L V Y L

UniRef90_B6SY66 G L Q V L D L G E N L L S V L H P A L F G N L T S L H L L D L S R N R Q F L D S E

Sequence alignment grid showing UniRef90 entries against a reference sequence. The reference sequence is at the top, followed by UniRef90 entries grouped by their first few letters. Yellow boxes highlight specific residues or motifs.

	100	105	110	115	120	125	130	135	140	145	150	155	160																											
UniRef90_T1MSK3	L	S	H	S	W	G	E	C	H	G	L	S	M	L	R	A	S	E	N	G	I	T	G	V	I	P	P	S	I	G	K	L	S	Q	L	R	I	L	D	V
UniRef90_S8DLN7	I	P	S	V	L	S	N	M	I	S	L	R	A	F	N	F	S	Y	N	D	L	S	G	P	I	P	D	T	D	F	N	R	A	P	G	N	S	F	L	
UniRef90_V4U5V1	I	P	S	V	G	N	T	L	T	S	N	L	S	N	Q	I	S	G	R	P	Q	E	V	G	N	L	K	N	V	T	L	Y	L							
UniRef90_UPI0002ADAED6	E	G	G	Q	L	C	A	M	C	F	S	P	K	K	L	Y	K	H	E	I	H	K	L	K	D	L	T	C	L	K	P	S	I	P	R	Q	N	R		
UniRef90_B8A2F3	I	P	P	G	L	G	L	S	S	E	S	Q	V	L	N	L	H	S	N	S	L	E	G	S	I	P	S	S	L	F	E	R	G	N	L	Q	V	L	I	
UniRef90_W5B4S9	I	P	P	E	L	T	N	C	G	R	Q	F	L	D	M	S	T	N	K	F	G	D	V	Q	Q	I	F	G	N	F	T	S	L	K	Y	L	V			
UniRef90_A5AEJ7	I	P	K	E	L	G	T	L	Q	L	E	L	K	L	S	E	N	K	F	S	G	N	I	P	A	A	L	G	N	L	S	H	T	E	L	Q				
UniRef90_M8B684	Q	H	F	E	I	E	K	L	S	N	L	G	Y	L	D	I	S	G	N	R	L	S	G	S	I	P	E	E	L	G	A	C	M	K	L	Q	S	L	K	
UniRef90_A0A022RGD1	I	P	A	D	F	S	Y	L	S	R	L	Q	R	L	D	L	G	K	N	S	L	T	G	A	I	P	E	S	I	T	N	C	S	L	V	S	L	L		
UniRef90_W1NT85	I	P	P	S	L	S	K	L	T	S	L	Q	D	L	D	S	Q	N	F	S	G	R	I	S	N	I	P	S	E	L	G	Q	L	S	N	Q	I	L	N	
UniRef90_J1KRM0	I	P	T	E	L	G	N	C	S	S	L	T	I	F	T	A	N	N	K	L	N	G	S	I	P	S	E	L	G	Q	S	N	Q	I	L	N				
UniRef90_V4TMT9	P	E	F	G	Q	Y	S	F	N	S	T	S	F	T	G	N	P	H	C	G	S	Y	L	N	P	C	N	Y	S	S	T	P	I	H	N	Q	N			
UniRef90_A0A059D401	V	P	S	S	I	F	S	I	S	K	L	Q	S	F	I	A	S	D	N	R	L	T	G	E	I	P	D	Q	F	Q	D	C	P	S	L	S	V	L	D	
UniRef90_O82318	A	E	L	G	Q	L	V	N	E	I	L	K	L	S	D	N	R	L	T	G	E	I	P	H	S	F	G	D	L	T	R	L	M	E	L	Q	L			
UniRef90_W5MTU9	P	R	G	F	T	K	L	Q	V	N	F	N	L	D	S	N	N	N	Q	G	N	I	N	T	W	D	M	P	Q	L	E	M	L	D	Q	W	L	Q		
UniRef90_W5DY06	M	R	M	I	E	M	P	Y	A	Y	Q	C	V	Y	G	A	C	N	K	N	P	S	G	H	W	E	A	D	Q	M	G	S	E	D	D	D	D	D		
UniRef90_UPI00032B1E6C	P	D	M	A	F	Q	G	L	L	R	V	R	W	L	Q	L	S	H	N	A	L	S	V	L	A	P	E	A	L	G	P	A	L	R	R	L	S	L		
UniRef90_I1KU79	I	P	I	N	L	C	Y	Q	K	Q	F	L	S	G	N	R	I	A	Q	V	A	T	G	G	I	P	R	Q	I	G	L	K	N	L	N	F	L	D		
UniRef90_F6HP05	V	P	S	S	L	W	S	L	N	R	L	V	V	N	L	S	S	N	R	L	F	G	N	I	P	V	E	V	G	S	M	T	I	T	K	L	M	L		
UniRef90_M3WVA9	P	A	M	A	F	P	G	T	Q	A	L	R	W	L	Y	L	S	G	N	R	I	T	G	G	I	P	R	Q	I	G	L	K	N	L	N	F	L	D		
UniRef90_A5AU91	P	P	E	I	G	N	C	S	S	L	V	R	M	R	L	G	N	R	I	T	G	G	I	P	R	Q	I	G	L	K	N	L	N	F	L	D				
UniRef90_UPI00046E25E1	I	P	L	E	I	F	N	A	T	Q	I	H	E	L	D	L	S	L	N	V	L	G	N	I	P	R	Q	I	G	L	K	N	L	N	F	L	D			
UniRef90_UPI00042B0FF9	L	S	D	I	F	D	H	L	P	K	L	K	S	L	Y	L	S	W	N	Y	F	S	G	S	I	P	D	F	K	C	Q	E	L	E	E	L	M	L		
UniRef90_G7JZ57	I	P	S	S	L	G	N	C	S	K	L	Q	A	L	D	L	S	R	N	S	L	T	G	S	I	P	S	G	L	F	Q	L	Q	N	T	K	L			
UniRef90_UPI00042AFF99	S	P	L	L	A	S	R	V	S	S	Y	Q	I	L	D	L	S	S	N	A	L	S	G	E	I	P	S	N	L	G	V	L	S	S	L	I	L	F	N	M
UniRef90_S8CCU9	P	R	S	V	G	R	L	R	N	L	Q	V	F	R	A	G	N	Q	N	T	G	E	I	P	W	E	I	G	N	C	T	E	L	V	M	F	G	L		
UniRef90_D8QWS9	U	P	E	I	G	H	L	Q	K	L	R	I	R	G	G	N	A	G	P	S	H	E	I	G	N	C	S	T	M	F	G	L	L	T	M	F	G	L		
UniRef90_L7MIL9	P	A	G	V	F	T	N	S	N	L	Q	R	L	F	L	S	S	N	K	I	S	I	K	N	G	S	L	E	N	L	T	S	L	Q	T	L	Q	L		
UniRef90_F6HVC1	I	P	T	S	I	G	N	L	V	N	L	T	T	L	H	I	S	K	N	Q	L	S	G	S	I	P	H	E	V	G	W	L	K	S	L	V	S	L		
UniRef90_M0U9Q7	C	N	Y	P	V	A	G	R	G	Q	L	Q	F	L	S	L	C	R	N	Q	I	V	G	A	I	P	P	S	L	S	N	L	T	S	L	S	L			
UniRef90_D2KY39	P	D	G	V	F	D	K	L	T	S	L	T	H	L	E	L	D	L	K	H	N	R	L	T	H	S	P	N	M	F	V	G	L	N	N	L	T	S	L	
UniRef90_M7BAA2	E	D	S	L	N	D	L	H	D	L	E	L	D	L	K	H	N	R	L	T	H	S	P	N	M	F	V	G	L	N	N	L	T	S	L	S	L			
UniRef90_A0A022PQG0	P	D	S	F	S	N	L	T	S	L	T	S	V	Y	T	N	N	L	S	G	L	P	D	L	G	Q	N	I	P	Q	L	T	S	V	F	L	S	L		
UniRef90_A0A059BV77	L	P	K	E	L	G	M	L	V	N	L	E	L	K	L	S	D	N	R	L	T	G	Q	I	P	S	T	L	G	N	R	L	T	E	L	Q	L			
UniRef90_H2LN81	L	P	N	S	L	S	S	L	T	K	L	Q	I	L	D	V	S	L	N	R	L	T	A	Q	I	P	P	S	F	G	L	S	S	L	I	L	F	N	M	
UniRef90_A0A059AWF8	I	P	P	E	I	G	N	C	S	S	L	V	N	L	T	H	I	S	G	E	I	P	A	E	L	G	V	M	S	L	Q	D	L	D	V	L	V	L		
UniRef90_F6GZV3	R	G	S	I	A	R	C	L	K	R	F	L	K	L	S	H	N	N	F	D	G	N	I	P	A	E	L	G	V	M	S	L	Q	D	L	D				
UniRef90_M0W956	I	P	Q	E	V	G	M	L	K	S	N	L	Y	F	L	Q	N	R	I	A	G	R	I	P	S	S	I	G	N	M	S	L	Q	D	L	D				
UniRef90_A0A059BT49	I	P	A	E	S	M	N	C	E	K	L	Q	A	L	D	L	S	H	N	N	F	D	G	N	I	P	A	E	L	G	V	M	S	L	Q	D	L			
UniRef90_B9SJH8	I	P	A	E	G	M	L	K	S	N	L	Y	F	L	Q	N	R	I	A	G	R	I	P	S	S	I	G	N	M	S	L	Q	D	L	D					
UniRef90_W1P8D6	V	P	R	S	L	T	S	C	S	S	I	V	S	L	N	F	S	N	H	L	S	G	S	I	P	E	D	I	W	S	L	N	T	L	R	D	L			
UniRef90_D8RP31	V	P	G	S	L	S	N	C	S	G	I	E	L	V	S	N	F	E	N	F	S	G	I	P	E	S	Y	G	L	S	K	V	K	L	L	Y				
UniRef90_J3MBX4	I	P	A	T	S	N	L	T	Q	L	R	L	V	L	H	R	N	H	N	H	L	A	G	V	I	P	P	S	A	L	Q	N	L	T	R	M	L			
UniRef90_H9KSC7	C	R	C	P	T	H	L	E	D	T	T	C	G	S	I	N	P	E	E	L	P	S	I	P	K	A	F	S	P	R	Y	K	R	M	L	L	Y			
UniRef90_I3NCF2	U	P	T	S	I	G	N	C	S	S	L	T	K	L	Q	I	D	E	N	F	S	G	K	I	P	P	S	A	L	Q	N	L	T	R	M	L				
UniRef90_M1BJN1	U	P	E	P	E	R	A	E	P	R	V	S	P	R	A	P	E	A	E	A	V	P	C	P	R	T	C	V	C	P	G	S	R	H						
UniRef90_UPI0003D72F83	I	P	A	S	I	L	S	S	G	K	L	E	V	L	I	T	L	N	Q	L	N	G	S	I	P	V	E	I	N	C	S	L	V	R	L					
UniRef90_M4DZ84	I	P	D	T	S	I	N	L	T	R	G	V	L	S	D	N	E	L	T	F	G	N	S	I	P	V	E	I	N	C	S	L	V	R	L					
UniRef90_UPI000388A2EC	P	R	G	M	C	Q	Q	L	P	S	R	V	L	E	L	S	H	N	Q	I	E	E	L	P	S	F	H	R	C	Q	R	L	E	E	I	G	L			
UniRef90_A5ASG7	H	L	A	S	I	G	Q	L	S	R	L	S	N	L	D	N	S	N	Q	F	S	G	K	I	P	S	A	L	Q	N	L	H	K	E	L	H	M	L		
UniRef90_I1LUU1	I	P	E	S	L	G	S	L	N	I	T	A	T	N	L	D	N	T	N	L	S	G	N	I	P	E	L	G	V	M	S	L	Q	D	L	D				
UniRef90_G5BVC8	P	A	K	I	W	T	I	T	G	V	E	L	D	I	G	G	N	T	A	L	S	G	T	I	P	P	A	I	G	N	C	S	L	V	R	L				
UniRef90_W1NZV5	P	G	L	F	Q	L	Q	N	L	T	K	L	I	S	N	D	I	S	G	S	I	P	V	E	I	N	C	S	L	V	R	L								
UniRef90_B9H4J1	I	P	E	G	F	S	L	V	S	L	Q	Y	L	N	T	S	N	F	F	T	G	E	I	P	A	N	Y	G	F	L	T	S	L	V	R	L				
UniRef90_V4TZ12	I	P	D	G	F	A	F	P	K	I	R	L	E	A	G	N	E	I	H	G	R	V	S	D	F	L	A	S	S	S	L	F	V	D	V	D	V			
UniRef90_W9RT36	M	D	C	L	D	W	K	M	P	S	K	V	N	E	L	V	H	C	N	T	W	G	V	W	C	N	S	K	G	F	E	V	K	L	N	D	Y			
UniRef90_UPI00032B227E	P	R	E	V	M	N	L	P	S	L	S	Y	L	D	L	S	D	N	L	E	G	P	L	P	S	E	V	G	N	S	F	V	D	V	D	V	D	V		
UniRef90_I1HW96	T	Y	I	T	C	S	P	Q	G	F	V	T	D	I	N	I	Q	S	V	P	L	E	T	N	L	S	S	F	H	S	L	K	R	L	V	D	V	D	V	
UniRef90_F6I799	I	P	P	H	L	C																																		

170 180 190 200

UniRef90_T1MSK3	S S N K L E G H P P E G N M T F N L S L G N N L R G S P Q E I A S L
UniRef90_S8DLN7	G N T G L C
UniRef90_V4U5V1	A Y N N L V G P P K E V G N L K N D S L L L N R N N L T G P P S T I G Y L
UniRef90_UP10002ADAED6	R S I E E E Q E P E E D G D S Q L I L E K F Q L P Q W S V S L N M T D E H G N M
UniRef90_B8A2F3	T L N R L N G T I P D T I G R C R G L S N V R I G D N L L S G A I P A S S V G D A
UniRef90_W5B4S9	H N N Y T G G V A S G V L R P L L A R L D L S F N Q F T G E L P P E M A D M
UniRef90_A5AEJ7	G G N L F S G E I P P E L G A L S S L Q I M N L S Y N N L L G R I P P E L G N L
UniRef90_M8B684	N D N N F S G S L P G A I G N L A G L Q I M D V S N N N L S G V L P Q Q L G K L
UniRef90_A0A022RGD1	D S N H L S G S I P D T I S K L T A L T E L D L S S N D L T S A P A N L S S I
UniRef90_W1NT85	S G N N F T G R L P E E L G N L T K L E N L D L R G S F F E G E I P K S F G N L
UniRef90_I1KRM0	A N N S L S G E I P S Q L G D V S Q L V Y M N F M G N Q L E G A I P P S L A Q L
UniRef90_V4TMT9	G N
UniRef90_A0A059D401	S N N R F S G N I P V S I A S C K K L V K L N L R N N R L T G G I P R A I S T M
UniRef90_M4EB29	G G N L L S G S I P P L E L G K L T S L Q I S N M S H H N N L S G A I P D S L G N L
UniRef90_O82318	L S V N K F F G E L P D F S R S K R L K K L D L S R N K I S G V V P Q G L M T F
UniRef90_W5MTU9	H K R T V A M F P R H D S N
UniRef90_W5DY06	S T N K L T G V L P T E L C A G G R L E T F I A L G N S L F G G I P G G L A G C
UniRef90_UP100032B1E6C	H H N E L Q A L P G A A L S Q A H G L A R L E L G Y N P L T Y A G E E D G L A L
UniRef90_J1KU79	G D N L T G S L P V L E Y E H N L T A L E L Y Q N Q F S G I N P G G Q L
UniRef90_F6HP05	S Q N Q F S G H I P S T M Q G L G G V E L L S S K N R L Q G P I P R E F G N L
UniRef90_M3WVA9	D R N Q L R E V P T G A L E G L P A L L E L Q L S G N P L E A L P D G A F R S V
UniRef90_A5AU91	S R N R L L S G S V P D E I E S C T E L Q M V D L S T N K L N E S I P N I L V D L
UniRef90_UP100046E25E1	S G N K L L S G R I P L E F G S L N D E Y L D L S T N K L N E S I P N I L V D L
UniRef90_UP100042B0FF9	S I N L L E G A I P K E I G N L T M K I L Y L G S S N N L K G E I P Q Q I D N L
UniRef90_G7JZ57	L S N D I S G S I P S E G S C K S I R L R L G N N R I T G S I P K T I G N L
UniRef90_UP100042AFF99	S R N H L F G S I P S S I G E L K T T E V I D L S D N W L N G S I P S E I G G A
UniRef90_S8CCU9	A A T A V V S G S L P S S I G M L R K L Q T L A A Y T A M L S T G S I P E E I G N C
UniRef90_D8QWS9	A V T N I S G P I P T F G R L K S L E S L L Y G A A L T G S I P D E L C E C
UniRef90_L7MIL9	N N R N R L S T I P K N L F L N L K S L K Q L E L D K N R I R S I E G L S F K G L
UniRef90_F6HVC1	S D N K I T G S I P A S I G N L T V L Y L S D N K I N G S I P P E M R H L
UniRef90_M0U9Q7	K D D N K L T S V I P K E L G R L H K L M Y L D I L G V N R L S G S I P F S L G N L
UniRef90_D2KY39	N Q N Q L Q S L P D G V F D K L T S L T H L A L N Q N Q L Q S L P D G V F D K L
UniRef90_M7BAA2	S S N Q L L E I S H N A F S P L Q R L F W L D L S S S N Y L E M L D N S T I T P L
UniRef90_A0A022PQG0	S N N S F S G E I P S G I C S G L F D Q F T V N G N G F S G L L P Q C L K N C
UniRef90_A0A059BV77	G G N L F S G G I P F E F G H L T A L Q I A N V S H N N L T G S I P E Q L G N L
UniRef90_H2LN81	E S N H L R Q N S F G P I P S W L K R C S N L Q M L D L S G N G F S G T I P V E L C Q I L
UniRef90_A0A059AWF8	R Q N S F S G P I P S W L K R C S N L Q M L D L S G N G F S G T I P V E L C Q I L
UniRef90_F6GZV3	W Q N N L A G S I P A T L G N C L G L T V I D F S L N S L T G E I P M S F A N L
UniRef90_M0W956	S D N S F V G A I P S Q L S G L S M L D T L N L S H N E L L N G S I P A S F G S L
UniRef90_A0A059BT49	F N N D L I G S I P V E I I G M L G S L S E L D L S S N N Y L S G S I P R T L G N L
UniRef90_B9SJH8	L S N E F S G E I P S D I G N C V G L I R R L G S S N N F T G Q I P P E I G F L
UniRef90_W1P8D6	S G N E L T G N I P V G I G S F N L R T V N L R K N Q I S G N L P E D I G K C
UniRef90_D8RP31	W G N R L L T G S I P S T L S N C I T E L L V Q L L D G N S L T G P I P P E E L G N L
UniRef90_J3MBX4	S H N M L R G K I T P E D L S E L S L G L S L Y L N L S S N N L E G T I P A T I G K M
UniRef90_H9KSC7	S H N M L R G K I T P E D L S E L S L G L S L Y L N L S S N N L E G T I P A T I G K M
UniRef90_I3NCF2	S G N K I T E L P S G L F Q G L T N Q L L L N A N E I S C I R T D L F R D L
UniRef90_M1BJN1	S G N R I T Q V S P G A L G T A R E L E K Y L D R N Q I R E V P T G A L E G L L
UniRef90_UP10003D72F83	H S N S I S G N L P E N L N Q L G I L Q F I D V S D N L I E G T L S P S F G S L
UniRef90_M4DZ84	S M N N F S G A I P T T I G G L A Y L Q Y L L G H N K L E G S I P N P I G D L
UniRef90_UP1000388A2EC	A Q N L I S G E I P Q E F S N L K G L Q E V I L W Q N K F S G S I P K E I G N L
UniRef90_A5ASG7	Q H N R I H E I R A D T F G Q L A A L R S I D L S W N Y I Q S I H P E A F A T L
UniRef90_I1LUJ1	S Q V N I S S T V P V I L A N L S S L R S I L S L E N C G L H G E F P M G I F K S
UniRef90_G5BVC8	E N A L S G A I P R A A F A N L T N I E R F D A S T N E I T G T I P E E L C G L
UniRef90_W1NZV5	S V C E G R G L Q A V P R G F P S D T Q L D L R R N H F P S V P R A A F P G L
UniRef90_B9H4J1	G G N K L V G S I P S G I G N L T S L T Y F E A D S N Y F S G S I N P E F A K C
UniRef90_V4TZ12	S R N Y I S G M I P A E L G N C S S L E M L E L R F N H L R G S I P G D I S R L
UniRef90_W9RT36	S N N H L T G E I P K S I S N L T E L A Y L D L D S N N K L T G D V P Q E L L G R F
UniRef90_C5WY62	S N M N L S G R M S D H I Q G L T G S S L N I N C C N G F E A S P K T L S S N L
UniRef90_UP100042B3C73	S R N R L S G M I P D P A I S N C V V L S E I L L M D G N L L Q G N I P P V F G D M
UniRef90_A0A059ATL7	Y D A N L T G T I P V D I G Y C T E L T I I K L S S S N S L V G S I P A G I G R L
UniRef90_U5DF22	G S N R L T G S F P S A M C K L E N M S S I E L L G Q N K F S G P I P P E I G F C
UniRef90_M0ZKF3	S S N A N L T G E I P Q E F S N L K G L A L L N L F M N K L H G S P D F I A E L
UniRef90_UP100032A5177	S F N E L R G H M P L S L P C K L Q L L S L S S V N K F D G P I H S E I G H L
UniRef90_A9S4Y2	S S N N L L T G E I P D S L F E I P S L E E V S L H S N L L S G L I P N N I G N L
UniRef90_UP100023B227E	G G N S R F E G P I P A E L S K C T A L E K L D L G N E F S G K I P E S I L G Q L
UniRef90_I1HW96	Q D N K I T G E I P K E V G F L T N S F L D L S Q N R L S R G V P D E I G N C
UniRef90_F6I799	S S R N R L Q G T L P A G F V P S L Q S F M A E N L I S G G I P D E F Q E C
UniRef90_M5VVE7	R N Q F Q G S V M A V F Q E P L Q D S K N H F Q G H I S Q V H S N S F N N W
UniRef90_F6Q8B1	Q N N L L S S G T I P I G L G K L Q R L E L H L D G N K I T K V D V N S L K G L
UniRef90_I1HVC8	S D T N I T S I P Q D L P P S L T E L H L D G N K I T K V D V N S L K G L
UniRef90_N1QTZ4	S G N R F S G A I P A D I G L C P H S R I D L S S S N A F D G A L P G G S I G A L
UniRef90_V4KKH7	S Y N R L T G Q I P A A I K K C S M L M V L N L Q G N L L L N G T I P S E L L G E L
UniRef90_D8QT38	S R N H L N A Q L T G E I P K E V G F L T N S F L D L S Q N R L S R G V I P T E L L G Q L
UniRef90_F6I583	S S N N L L S G E I P R N L C R G G R L W R L M L F Q N S F S G G I P P E E L G Q L
UniRef90_UP10002C2FD5D	G G N R H L T G S I P M E L Y T L S A L E V F Q N R F F S G P I P P E I G R F
UniRef90_UP10002C2FC8C	G G N S F S R V I P P E A L L N L V F L D L S R N N F G G D Q E I F G K L
UniRef90_A9SBP9	S C N G L L S G V V V S S Q I G A L T N L Q W V D L S V N Q L L S G M I P W S F F K L
UniRef90_W1NJA9	S S S N S L S G N I P L P L S T N L K G L N I G N N S F S S T P E A I N K L L
UniRef90_B9ESX4	D K N S F E G G I P Q Q S L T N L K G L N I L N L T M N K L S G R I P D T I G R I
UniRef90_C5XCR8	D N N S I T T G T I P P S S L G N L S R L A V L S L P R N F L E E G P I P A T I G N N
UniRef90_D0VMS4	Y A N R L L Q M A P L D I G H T L P N Q I T L R G H I S Q V H S N S F N N W
UniRef90_M4C8M7	F S N S L L H H V I P P S S L G N L S R L A V L S L P R N F L E E G P I P A S L G N I L
UniRef90_K7FNT2	E R C N L T G V P Q Q L A Q R H V E L R F K V L S I R A L H H Y A F Q R L L
UniRef90_UP1000350E9BB	G G N N L L S G K I P T T I S A M K N L Q E L N L S S S N S I L S G T I P A E I S R L L
UniRef90_W5GEK2	S Y N S L S G P L P N E V G F S L L S N N R L V L S G N R L S G K I P D S I Q N C
UniRef90_W4Y4C5	S Y N Q L V K I D R K V F R G A S L N R D L R H H N N Q I L C I M S G S F R P L
UniRef90_A0A059B1L8	Y G N R L L S G K V P D E L G C T E L Q M D L S N N T L E G P I S E S L L S S L
UniRef90_F6H520	S Y N E F T G S I P K G I G N L V E L Q R L S F R N N N L I G E I P Q S L F N I
UniRef90_UP10001FE59C1	Q V N L I T S I S A N A F S D L T T L V G Y Y L N R N P F T T L P P G I F K G L
UniRef90_C5Z5E9	S Y N S L T G P V P R K L F G E S L T E L Y I D E N L S G S D V G F M A D L S G C
UniRef90_UP100046B9174	H H N E L Q A L P G A A L A Q A R G L A R L E L G H N P F T Y A G E E D G L A L L
UniRef90_B6SY66	S M N N L A G V V P P G F G R L Q K L M T L D L S Q N G L P E E I A S C

210 220 230 240

UniRef90_T1MSK3	K N L E Y L D L S S N N L S G Q L G G S V G Q C L K L R L L N L S H N Q L N G S
UniRef90_S8DLN7	N L L E I L D L S H N R L D G P I P S S I G N L T D L T S L V L S S N Q L S G R
UniRef90_V4U5V1	V N L
UniRef90_UP10002ADAED6	A S L T Y F E A S T N D L S G G I P A Q L A Q C A N L T L L N L A Y N R L A G E
UniRef90_B8A2F3	K S L K Y L M L A E N N F S G T I P P V Y G R L A E L Q A L D L S N N T L L S G G
UniRef90_W5B4S9	I L L E F L L N N N H L S G E I P S T F G N L L S S L M G C N F S Y N D L T G P
UniRef90_A5AEJ7	E M L E F L L N L S H N Q F N S S I P S S F A S M V S L S L D V S D N D L E G P
UniRef90_M8B684	P A L Q H L N L S A N N L D G E I P D A L A S R F S D P S V Y A M N R N L L C G
UniRef90_A0A022RGD1	K K L R F L L G L S G N N L L T G P I P V E L G Q L S N L E T M I I G Y N A F E S S
UniRef90_W1NT85	G N L Q N L D L S T N K L S G G I P E E L G N M G E L A Y L V L S G N N L N C V
UniRef90_I1KRM0	
UniRef90_V4TMT9	
UniRef90_A0A059D401	P T L A I L D L S N N S L A G Q I P E V I G S S P T L E T F N V S Y N K L V G S
UniRef90_M4EB29	Q M L E I L L Y L N D N K L L S G V I P A S I G N L M S L L I C N I S N N N L A G T
UniRef90_O82318	P E I M D L D L S E N E I T G V I P R E L S S C K N L V N L D L S H N N F T G E
UniRef90_W5MTU9	
UniRef90_W5DY06	P S L T R I R L G E N Y L N G T I P A K L F T L Q N Q L T Q V E L H H N N L L S G E
UniRef90_UP100032B1E6C	P A L R E L A L L D Q G A L Q A L D P R A F V H C P R L R T L R L Q G N P L L C
UniRef90_I1KU79	R N L E R L R L S A N Y F E G Y L P P E I G N L P Q L V T F N V S S N R F S G S
UniRef90_F6HP05	L S L E S L D L S W N N N L S G A I P R S L E A L V S L K Y L N V S F N K L E G E
UniRef90_M3WVA9	Q S L R H L F L N S S G G L E Q I S P R A F S H L S Q S L E L I D L S S G N P F H C
UniRef90_A5AU91	S G L Q V L D V S V N R L L T G Q I P P A S F G R L V S L N K L I L S R N S L S G S
UniRef90_UP100046E25E1	F R L R H Y L N L S S N N K L L A Q A I P P F K L G K L V Q L L N D L N L S H N L L E G K
UniRef90_UP100042B0FF9	L N L E Y L S L P E C Q L T G A I P P V D E I R S C V Q L Q M I D F S S N N L L E G S
UniRef90_G7JZ57	R N L N F L D L S G N R N L S A P V P D E I R S C V Q L Q M I D F S S N N L L E G S
UniRef90_UP100042AFF99	V S L K E L S L Q R N F L S G K V P T Q I V N C S S L T T L I L S Q N N L L S G S
UniRef90_S8CCU9	T Q L Q N L Y L Y Q N Q A I P G P I P E T V G Q L L G N L R S V L L W Q N R I E G T
UniRef90_D8QWS9	T A L Q N L H L F Q N K L T G T I P V N L G Q L T Q L R R L L W Q N E L T G G
UniRef90_L7MIL9	E A L L E S L L R K N K L I S H L S D G A F Y Y L S K I Q T L N L D Y N N I T A V
UniRef90_F6HVC1	T R L R S L E L S E N H L T G Q L P H C L G G C N S L T S L K S N N N I S G M
UniRef90_M0U9Q7	T K L Y H D L L Y Q N Q L L T G V I P P Q E L K N L I N L Q S F L L S E N Q L L S G S
UniRef90_D2KY39	T S S T L T L D A L N Q N Q L Q S L P D G V F D K L T S L T H L L N K N Q L Q S L
UniRef90_M7BAA2	A N L R Y L S I I R N N S L L E T F S V G S L G P S P V L E Q L W L E G N K W H C
UniRef90_A0A022PQG0	S G L R R V R L E D N R F S G N V S D A F G V H P L L D F V S L S R N Q F T G Q
UniRef90_A0A059BV77	Q M L E S L Y L N D N Q L L V G E I P N M I G E L L S L L V C N L S N N N L V G M
UniRef90_H2LN81	S S V K T I H L S D N L L T T L P T D I F S G C Y Q L E N I F L H G N P W K C
UniRef90_A0A059AWF8	K S L E I L S W N S L S G M I P P E I I S A L N K L S V L D I S H N Q L G G N
UniRef90_F6GZV3	G A L L E E L L L S D N N I I S G K I I P P F I G G S F S R M K Q L E D N N L L S G E
UniRef90_M0W956	E S S L T S I I D V S Y N E E L E G P V P Q S R L F F M R A P L R C F M H N K M L C G V
UniRef90_A0A059BT49	T N L G F L Y F Y G N Q L S G H I P P E E V G G I R A L I H F E L S S N D L T G S
UniRef90_B9SJH8	R N L S F L E L S D N Q F T G D P R E I G Y C T Q L E M I D L H G N K L Q G V
UniRef90_W1P8D6	L L L N S M D F S E N S L T G T V P V S L L Q R L L S L T S L K L G K N S I T G L
UniRef90_D8RP31	T K L Q I L S I H S N I L S G V I P E S V A N F S S L H S L W S H E N R F S G S
UniRef90_J3MBX4	V M L Q V L N L L S S N R L L S G D I P P Q L G G C V A L E Y V N L S G N A L D G G
UniRef90_H9KSC7	T S L T L L S L Y D N N I R S L A N G T F A N L R S I E T Y L L A R N P F I C
UniRef90_I3NCF2	P A L L E L Q L S G N P L R A L Q D G N F R R N L R Q L E L I D L S G N P F H C D
UniRef90_M1BJN1	T S L T K L V L G K N R F S G P I P T Q L G S C M K L Q L I D L S G N Q L L S G E
UniRef90_UP10003D72F83	I S L E Y L D L S S N N L S G P I P V S L E K C L L Y L K D L Y L S F N N L L E G E
UniRef90_M4DZ84	T R L E E L A L Y V N S F V G P I P P S E I G N M K S K K L Y L Y Q N Q L L N G T
UniRef90_UP1000388A2EC	H S L T K I D L L T D N Q L V T L P L D G L G G T H L K L Q G N P A L S E Q
UniRef90_A5ASG7	P S S L E L L D L M S N R Y L T G H L P E F H N A S H H K Y L D L Y W T S F S G Q
UniRef90_I1LUJ1	K K L E S L I I L Y A N K F E G S L P E T I V K S Q N L Y E L Y K L F F N N S L T G S
UniRef90_G5BVC8	G H L V S L H L Q H C Q L S G L G A A A L E G V P H L G Y L Y E R N R F L Q V
UniRef90_W1NZV5	S N L T L L A L S N G F T G T L P P E L G N L L N L Q E L I I V S G N S L L I G D
UniRef90_B9H4J1	S R L K R L D L G E D A L T G E I I P E D I H R C S S L S S S L L D L N H L S G R
UniRef90_V4TZ12	D K L L S L N L S H H D L S G E I I P S N S L G N L F V L Q Y L D L S S S N S L S G T
UniRef90_W9RT36	T S S T R T I D L V S Q N Y F V G K F P T G Q G S S A V L T V N A S S S N N F S G F
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A	E	T	S	I	S	G	N	L	P	P	S	I	G	M	L	E	N	A	I	T	L	N	L	N	L	S	G	S	I	P	P	A	N	F	G	N	L			
A	E	T	S	I	S	G	N	L	P	P	S	I	G	M	L	E	N	A	I	T	L	N	L	N	L	S	G	S	I	P										

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UniRef90_UPI0002C34D5E	P V E I G C Y L F K L E N L S L A E N L T G Q L P V S I P I D I G K L K S I E G I D F			
UniRef90_UPI0003D75638	L P S S L W E M D S L I F L N V T R N S I Q G E L P I D I G K L K S I E G I D F			
UniRef90_M1BM62	P D N Q S F I L P M L Q V L D L S E N Q I Q G I P R K A F R G A V E I K N L Q L			
UniRef90_I3JR59	L P K E I G N L T N L T Q L N L S S N Q L K V L P K E I G N L T N L T L D L N			
UniRef90_M8BUP4	P Q E I G L L R S L T S I D L S T N N F I G P I P S S I G N L S K L S L L Y L			
UniRef90_K9WFB6	L P T T I T S L G N L Q Y L A L F D N N F T G T I P P D L G K G L S L T D A A F			
UniRef90_UPI00023B318E	I P V S L S Y C S T L T H L N L S S N Q L S G R L P R D I W F L K S L K S L D F			
UniRef90_W5G2T6	N N F S G P E Q E P V Y E E L L M S E N R L A G N I P S S F F A F C G R F K A F M			
UniRef90_Q9LZV7	R R G A L A G L S N L T S L N L H N N Q I D V L E D Y A F K H L T N L T D L D L			
UniRef90_D8SCE8	V P N T I G N F S K L S Y L D L S F N Y L S G S I S I S L G K L A K I T N L K L			
UniRef90_H9JW76	V P A E L G D L A A L R V L W L A G H C N L V G H I P A S L G R L R N L T D L D L			
UniRef90_UPI0002A4A33F	L P P E L G N L K N L T F L E I S V N H L S G G L P P A F A G M C A M R E F G L			
UniRef90_R7VYS6	I P S T F S K L I S L I T L K L E S N V L N D I L P P E L G F L R N L T F V L D L			
UniRef90_F6HCK1	P G C F D N L A N T L L I V L K L N R R N R I S A I P P K M F K L H Q L Q H E E L			
UniRef90_V7ADQ3	I P P R Q K H L E S L V G L N L S K N H L S G P I P S E L S Y L K K L A K L D F			
UniRef90_A0A022PUQ1	I P P L R F S H L P E I T Y V D L S G N G F T G G I P T D I S Q A S N L Q Y F N V			
UniRef90_A0A022R1D0	L P P P Q V C K S G K L V N F S A A F N S F T G P I P R S L R D C P S L Y R V R L			
UniRef90_D8RRP0	I I P V E L G N L T Q L G V L V L D S N K L T G E V P V E F G K L E Q L F N L S L			
UniRef90_B9G7K5	I P Q S F G N L T N L R V F R A G Q N A I S G N L P S E I G G C I N L E I L G L			
UniRef90_A8W3R7	Q E I F G R F T Q V K Y L V L H E N S Y V G G I N S S K I L T L P N L S R L D L			
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UniRef90_I1LNV1	P E E F P V H C R L K F L G L Y R N Q I A G E L P K S L L G K L E M V Q E I D F			
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UniRef90_A9SBY2	I P A E I G N L S N L H S L D L S M N K L L G P I P N Q I G D I S D L Q N L N L			
UniRef90_Q9BTN0	S P D A W E F C Q K L L S E L D L T F N H L S R L D D S S F L G L S L L N T L H I L			
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UniRef90_I1M7V4	P S W F G T S I T K L R K L L L G A N D L V G T I T P S L G N L T S S L Q N I T L L			
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UniRef90_K3Y4X3	P T G L G K L Q S L M F L S L G D N K L S G D I P P E D L F D C G N L R K L N L			
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UniRef90_V4TBZ8	I P E T S L K M M R Y I S F G A N K L S G E I P F S I Y L S W L S D F Y F			
UniRef90_UPI000350EF31	P S N Q F S L P V L R K L L E Q N F A G G I P L E L S A C Q R L Q T L S L			
UniRef90_G3IAV6	S P G L F H N N R N L Q R L Y L S S N H I S Q L P P G I F M Q L P Q L N R L T L			
UniRef90_W5BAP9	P P E V L S I P S L T K I L N L S S N S L S G S I P T R I G Q L N S L G T I D L			

170 180 190 200

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UniRef90_M1BM62	D Y N H I S C I E D G A F R A L R D L E V L T L N N N N I S R L S V A S F N H M			
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UniRef90_K9WFB6	Y G N K L S G F I P Q E F E L L R S L I V L E L G S N N L T G P I P S F V G N L			
UniRef90_UPI00023B318E	G N N S F S G E L P Q S L C H G L A L Q N F T A N H H N N F S G T L P P C L K N C			
UniRef90_W5G2T6	S H N F L Q G D I P D G L L G G L Y D L R H I N L S R N W F S G D V P S D I G R C			
UniRef90_Q9LZV7	D N O I S G E L S G Q D I I G G C K S L V Q F S A S N N L I E A L P K E L L G T L			
UniRef90_D8SCE8	S H N E I V A V A S S A S L A Q L F N L R R L D L S H N F L R S L S A E P L K S L			
UniRef90_H9JW76	D R S N L L T S I P T E A A L T Q L Q S L T V I R M F R L T I S S L P N N A F R R L			
UniRef90_UPI0002A4A33F	H S N Q L F G H I P P R E I G N L V N L Q R L Y L G N N S L S G F I P R E I G F L			
UniRef90_G7IC10	S T N A L T G P I P P E I T G L A S A V Q I E L Y N N S L S G A I P K G F G K L			
UniRef90_I1HDR5	E M M G L T E I P S V L F T S W P E L I S F Q V Q Y N F F T G R I P K E E F G M A			
UniRef90_A2Z8E8	S S N Q F T G S I P P Q I G Q F H H L S L L R L R N N L L T G P I P E E L G Y C			
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UniRef90_R7VYS6	S K N S E L L G G M L P A K I W S L P L L Q N F S A S S S C K I S G H I P A F Q V C			
UniRef90_F6HCK1	E H N S L T G F A D Q D F G V Y P N L T F M D F S H N R M K G N L T A N W G A C			
UniRef90_V7ADQ3	S N N Q L S S G E I P T A V G R I L T K L Q H D D L S G N K F G G N I P E E L G N C			
UniRef90_A0A022PUQ1	A Q N R I L G G N L P K E I L G M L K W L T D L I L W D N Q F S G F I P K E E L G N C			
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UniRef90_M4DHE0	D T N L L S G E I P K E L C D A R A L S Q L T L N R N M F S G S V G T F S K C			
UniRef90_D8RRP0	S Y N N L L T G E V P D F F A S M P N L Q K L L Y L D D N H F A G E L P A S I G E L			
UniRef90_B9G7K5	S N N L L F S G S I P R S L P A C K N M L F D F S R N N L S S Q G I P D E E V G G M			
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UniRef90_M3X588	S S N Q I S S E I P C S I E K L T Q R S L H L N N N S L H G H L P S S L K N C			
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UniRef90_G7IC18	U R L T K F P E H L P S F K G L S H K K I I N L S N N K I S E I E D G A F E G A			
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 UniRef90_J3LSY5
 UniRef90_V7AYC6
 UniRef90_A5C1G0

50 60 70 80

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

		90	100	110	120
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UniRef90_M0RNQ7	N	T G L N L S G N K L N G S I P A S I G S L H R M Q L V L G N N S L S G H V			
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UniRef90_F2EE18	S	Q O S L N L A G N N A G N I P P S L G A S A Y L S Y V N L A N N S L R G V			
UniRef90_K4A1X3	Y	T F L Q L S V N N I S G L L P P S L Y N L S S L N Y F Y T A D N N L H G R I			
UniRef90UPI00033181C8	S	L E S L S F Y D N Q V R V P R R A L A Q V P G L K F L D			
UniRef90_D8RB18	S	R S L R L H D N Q T G G V P P E I G N L S S S F Q G L F L Q R N K L E G V			
UniRef90_Q01129	K	E R L S L S K N H K E L P E K L P K T L Q E L R L H D N E I T K L K K			
UniRef90_B7ZZL3	Q	V T L Y L D R N T G G V L P K S I G D L P S G L E V L F L S A N G I S G T			
UniRef90_G7KU23	S	E N L Q I F D N D F I G Q L P H N I C I G G N L K F L G A L N N H F T G R V			
UniRef90_B9ICP8	S	L T N D L S S N K L T G I I P F I R N L T S S T L I T N L S F N N L T G T			
UniRef90_M1C6F5	N	L V E L E M D G N E L S G S I P E C L G N L G M L L Y L S L G S N E F S P K			
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N	Q	N	L	S	Q	G	S	P	A	S	G	L	N	C	N	I	C	N	R	L	T	E	L	L	S	Q	N	N	L	S	G	P	I	P	K	E	V	L	S	I	
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C P A T C W C Y N D E V H I L D C N R R R L S E V P D G I S S N I T G L S L V C D W Q G V T C I G L G P R A Q I R T L L S G L R E L Y L D H N S L G V I P A G I L T S L G V L Y L N S L K W I Y F G H N N L S A I P R E L F N S L N H L D L V R E L S E L H L G D N N V R S L P E G L G S E L Q V L D V S S C P E K C T C D E A Y V N C Y F K E L D R P D R I P P D T E L L I L N Q L S N L L V L D L S S N S F S E I L T A M P N S L E S F H L A S S S I C N V S S L Q V L I L S Y N K L T S V I P P C L A N L R I L D L E N N S L T R L P S K I L P N I Q E L I I L L E S M K N L Q L K S N K I R A L Q D G V F H N I E T I D L A S F L R L L N L A D N S F S S I P Q G M L F R L Q Y L N M S C P A N C E C D T E T Q H A T C E G R G H T R I P R G F P A K T Q L L D L H N L S R L R Y L N M S D N L L G A I P V V L S S S L S I L D L S C P P R C D C T A K L K A V S C F G K R L A A L P D G I P M D T K I I L D L R C P T G C T C T H E R S C S V L C D R T G L L Q V P S E F P P S L R Q L S L S E R L I Y F Q L S S N K L T S I P L G I F S G I N Y F Y V G T N C T Q L V N L R L D A N I L Q G V L P S A V A G L S K S I E V L L L R N L H E L V E L Y L D N N E L E S L P I S L L S S L E M L N I Q R R L I A L D L S S N R L S H I P D Q L L N S L R R I H L Q V L R L S S N N R F S G V P N D L L K L L T E L D L S S E A I T T L S L S S N R L S Y L P P S L P I S L E R L H L Q N L L Y M D L S S N K L D S I P L N L P T L S N V L N L S S P L E S V H L S S N N S F S G Y F P S L I K N L E S L D L G S S C I A N L T S L V K M D L S S N N S I S N I P D E I I L P G L Q T L M L S S L K V L M L Q N N H L R Q V P M E N L R S L Q S L H L H N L I R L H L Y D N N F E Q I P P G I A T G L T E F V V F S I P K D I G N N L Q V L D L A H L G Q L S E L H L S M N Q L T P I P A S I L S A L S Y L L L M R C K N P V L E D L N L S S N N V I I G K L P N L S S S L R Y L D L S S C N A Q Q Q S V I A L D L S N L G L R T I P P D L G N L L V S L D L S S D L P V G I E A L V L S V T C S H R R P A R V V A L R L N P C N P R I T C T A G N V T E I N F Q N Q N F T T V P T T I F P N L K S I L N L S S C I C L A N H V V S I V L K S Q N L S T L P T E L L P Y L Q E I D L S S Q N K L T E I P D G M L S K M K N L D L S S C N S T Y L Q V L D F S S N N K L N S I P L C L E N L T V L N L G S Q N Q L T K P E N L C N G G K L L V V Y G S L S N L K E L L H D N D L K Q I P I T L L S N L K Y L N L E H L Q R V T K L N L T S L K L S S P H I G N L S F L R E L L L Y N S W N Q T T N F C T W N G I T C G R K L P N R V V A I N L D N L S F L R V L W L S R N S F T Q I P G E I L S R L R R L N L A T C V D N L S I T L T C E N Q I F G K I P E E I G G N N L E E L Y M N N L S F L R V I I L E N N S F H E I P P Q I G N L L R L R L L S F P N T F H G S E V I T T L S L S S N Q L S Y L P P S L P A S L E R L H L Q G N S F R V I S L H G N K L T K V P P S L C T Y L I L L D L Q P C D N L P L L Q I Y L S N N K L S K I P S N L S S Q L Q I S I S S V C Q L G S L Q S L D V S D N Q L S S I P N E F M Q S L K L L N F S S S S L Q N L D L S C D L N Q A F V V K L D L S R L Q L R G T L V S E L K A L K R L D L S L D L S R N S I Q E L Q Y T V F P S I Q Y I L N L N P T N L E I I D L G N L V H L D L S I N T F D S F T R D V K K D L Q H L R D S V L D L S Y N K L T E I P F N I G Y L V A T L S L Q P S N I S L L L T L S D L S N N N L V G A I P Y Q L L P R I V G L Y L L G F P R L K S I L H I G S C D N L P L L Q I Y L S N N K L S K I P S N L S S Q L Q I S I S S S L D S N L E V L L L W V C Q L G S L Q S L D V S D N Q L S S I P N E F M Q S L K L L N F S S S S L Q N L D L S C D L N Q A F V V K L D L S R L Q L R G T L V S E L K A L K R L D L S L D L S R N S I Q E L Q Y T V F P S I Q Y I L N L N P T N L E I I D L G N L V H L D L S I N T F D S F T R D V K K D L Q H L R D S V L D L S Y N K L T E I P F N I G Y L V A T L S L Q P S N I S L L L T L S D L S N N N L V G A I P Y Q L L P R I V G L Y L L G F P R L K S I L H I G S E V Y L N S N Q L T G P I P A L P K K L I Y L D L S C P S G I V C N G V N V A G V V L D H Q G L S A V D L S V F S N L T K L S M S V Y Y C S R R H V H R V T K L L N L F E V Y L N S N Q L T G P I P A L P K K L I Y L D L S

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G N N F Y G A I P A S L S R L R S L A A L D L G S N G F N G S I P P Q L G G L S S			
D N S L F G P I P V G I G N L T G L G E L Y L N D N S L S G G P V P I E I G K L S S K			
D N N L S G Q Q I P P S S L G N L T N L Q Y L F L Y E N K L T G L L P R S I F G L L			
F [V P L F G H I P P E I G N L D K K L E N L T I V N N N L T G V L P M E L A A L T			
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F N E L R S L P D A W G S R L R R L Q T L S L Q H N N I S S L A P N S L A G L S			
E N Q F S G S I P K Y L [C E K R K L L L N L L A L S N N F S G E V P D S Y A D C K			
N N K I T N L K N G A F A K L S K L K T L F L E E N K I K N I E T R V F N N V T			
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T N N L S P V S M I M S T T L R V L D L S S N G L T G E L P I V T G			
N N L I S K V P R G A L S R Q T Q L R E L Y L Q H N Q L S G L D A T T F S K L R			
M N F L S G P I P Q I G R L I T V A S I D F S S N Q L F G G I P S S F S N C L			
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A N R L E G N I P P S F G N N S L L T T L I L L K N N L S G I P A S L F N G P S			
N N R I H S L G K K C F D G L H S L E T L D L N Y N N L D E F P T A R T L S			
A N Q F T G E V P Q E L G T N C I L E R F D V S T N S L S G N V P P N L C S G Q			
W N S F T G T L P S S L G R L K N L H Y F N V Y N N D L G G P I P S T I G N L T			
G N M L D G L V P A T V G N M N S L R G L N I A E N H L Q G D L E S T V S N C R			
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N S S S H C T W P E I T C Q E G S I T E L N L V N L N I N Y S I P P F I C D L K			
S N N T G P L P K E F V W L R F L E E L N L G G S Y F T G E I P R S Y G S F L			
N N Q L T G E I P K S I G F L Y E L L S L H L E E N Y L K G D I N E D L T N L W			
C N Q L T S L P A D I G Q L T S L W E L R L D G N R L T S V P A E I G Q L T			
R N N F H C P V P V E V D Q L T S L Q S S N L Q Y N L F S G Q I P P S F G N L N R			
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A T G L A G P L S P A I G N L T F L R T L D L G T N S L H G G P A S L G C L R			
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S N V I T H I R K D F S G L Q V L E R L T K T L D L S N N N I G G N I P P S L A N C R			
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G N R I Y G R I P A S I R H L R S L L A L L N I S Y N Y V S G E P P E I G E L T			
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S Q G L I G S L S S H V G N L S F L R R I D I R N N S F N G R I P Q E I G L L R			
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N L N L S G T I S P K I R F L T T L T H L N V S G N G F D G T F Q P A I F Q L T			
L N K L S G V I P S N L G N L R N L S K L D L G Y N N L G G T I P S S L G N L T			
I N S F G G P I P S N L S R C S N L E T L N L M Y N Q L V G G I H S D L G S L T			
S C Q L G P K F P Q W L K N Q S H L T I V I L N N A R I S E A I P N W F W Q L T			
S N N F S G D I P A S F G R L P S L K V L L L S Q N L L N G S I P S F C N L T S			
N N L I S K V P R G A L S L Q T H L R E L Y L Q H N Q L S G G L D A T T F S K L S			
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R N S F S G Q I P R E I S E R F L R G L A L G V V N N L N G M I F F F I T S L T			
N N Y L S G N I S D C I S N A L K L K I L E L S Q N S F T G L I P N T L G N L S			
K N E L V I S L P T F N G F A G L E V L D F S S N N L N G N I N L Q F D E L V			
Y N N I R N L E L K A F D G L P N L L Y L N I S N N Q I T S L Q M G F F R F T P			
N N A F S G T I P S A F G N L S E L E F L D L S L N K F G G V I P R E L G S L K			
F N K L T L L T K G T F D R L P V L K R L E I S S N A L E E V Q S L T F Q N L N			
L N K L T G E T Y S S I S N C P S L R V M W L E G N N L L R G S I P E S I K N F S			
H T E L T T L T E G T F A D L K S L V D L N M S S C S L K V I N R N I F K G L T			
G N K F L G H I P S V I G L M Q A L T V L D L S C N M L S G P P P I L G N L T			
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N N H F G G E L P R S I A D L T Q L K Y L T L G G N L I H G S I P E G I W N V T			
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Detailed description: This figure is a sequence logo representing the conservation of amino acids across a set of protein sequences. The x-axis marks positions 130, 140, and 150. The y-axis lists UniProt IDs grouped by their first four letters: UniRef90, UniRef90_13KBX3, UniRef90_A9RY43, UniRef90_T1MV61, UniRef90_M0T5H5, UniRef90_UPI0042B5778, UniRef90_K7LP78, UniRef90_A0A022R7P0, UniRef90_B4MRV8, UniRef90_V4VPE6, UniRef90_X1WX59, UniRef90_I1IIR5, UniRef90_W5EVX2, UniRef90_T1M172, UniRef90_V7BBW5, UniRef90_B9FTX7, UniRef90_B3NPW3, UniRef90_T1N5W7, UniRef90_F8V1H0, UniRef90_I3JP50, UniRef90_V4NI21, UniRef90_H2LJZ1, UniRef90_E0D310, UniRef90_UPI004436483, UniRef90_B8B442, UniRef90_A0A059BC6, UniRef90_Q53K07, UniRef90_T1LG93, UniRef90_A2X2F3, UniRef90_M8CXA0, UniRef90_B9SB23, UniRef90_UPI00333BAB9, UniRef90_I1K4C2, UniRef90_N1QRD0, UniRef90_C5YD76, UniRef90_UPI003F128D6, UniRef90_U3JF22, UniRef90_K7M261, UniRef90_A9T890, UniRef90_I1R115, UniRef90_A3BPZ3, UniRef90_G1M650, UniRef90_A0A059CM5, UniRef90_B9H072, UniRef90_V7C1P7, UniRef90_C1EBH5, UniRef90_A5BQC8, UniRef90_I1Q9H1, UniRef90_W1NFZ3, UniRef90_I1I6I6, UniRef90_R7W1S6, UniRef90_UPI0046DB4BB, UniRef90_Q7FZR1, UniRef90_I1LV96, UniRef90_W5HX99, UniRef90_H3CQ50, UniRef90_A0A022QDB6, UniRef90_R0FC31, UniRef90_U5GDS1, UniRef90_A0A059BLL3, UniRef90_UPI0042B86DB, UniRef90_UPI0002C3178C, UniRef90_A0A022RMH1, UniRef90_M1C4U7, UniRef90_K4B544, UniRef90_UPI00032ABAE8, UniRef90_A0A059BQ20, UniRef90_A0A059BBN3, UniRef90_W9S195, UniRef90_M5W3U5, UniRef90_Q6P3Y9, UniRef90_K4ASD8, UniRef90_UPI0046E0668, UniRef90_M1A1P5, UniRef90_A0A022RNX1, UniRef90_M4CYE3, UniRef90_UPI0042B9597, UniRef90_V4V712, UniRef90_K1R631, UniRef90_A0A059CD43, UniRef90_V4S755, UniRef90_X1Y0E3, UniRef90_A0A059CVV4, UniRef90_W4Z2A7, UniRef90_K7KIA5, UniRef90_UPI00234F8CF, UniRef90_M5XQ28, UniRef90_Q8L7L6, UniRef90_F6HY4, UniRef90_A5B301, UniRef90_M8BL74.

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UniRef90_A9RY43 H S N N F S E N I P V L R Q R N P V L Q N L D L S S N N Q L T G E V P W A F D S L

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UniRef90_M0T5H5 S S N Q I S G E I P S S I E N L I W L E S F H L N N N K H G L P S S L K N C

UniRef90_UP100042B4EAA A D N N L L S G T I S P C L G N F N R L S I L D L Q S N S F H G T I L E T F R E D

UniRef90_K7LP78 N T N S L S G R I P K S L S K K T L R L L K L Y S N A Y E E G G I P P E F G T M

UniRef90_A0A022R7P0 S N N K L S G L I P R S L G T C V S L E G V Y L Y D N L F E G Q I P N E L S S L

UniRef90_B4MRV8 S N N A L T R I G A K T F K E L Y F L Q I L D M R N N S I G H I E E G A F L P L

UniRef90_V4VPE6 T N N N F S G K I P S A L G A L R Q L S S L H L E E N A L T G S I P N E M G D C

UniRef90_X1WX59 N E N K V E N I R T G V F F N N L T S L E T L T L D H N K I H K L D L E M F K G L

UniRef90_I1IIR5 G S N S P Q A L G N L L S S L R F L G L G G N T L G D N K R G I I P P N A F S T L

UniRef90_W5EVX2 S C N L L M E N I P D E L T Y L K G L R F L N L S S N D L S S G S I P E R I I G S L

UniRef90_T1M172 P N N T L S G H I P P E L G R L S R Y L N L S F N T L S G T I P F S I G T L

UniRef90_V7BBW5 Q N F K A M K N V I Q Y K G G E Q Y K K M P L M S N A S K S E I D E S V T V T

UniRef90_B9FTX7 D Y N Y L T G N I P P T I G Y L H N L V F L L S F A Q N R L S G Q I P G T I G N L

UniRef90_B3NPW3 S A A A P F K A L R K L R R L D L H G N N L K Q S S K A M S G L

UniRef90_T1N5W7 A F N R I E G R I P D E L A E L G G L E I L Y L G S N L L A G M F P P A I L N L

UniRef90_F8V1H0 G N S F S G N L R A D F G N L P N R T V I L G T N Q F T G A I P T T L A N I

UniRef90_I3JP50 L S S N N N L T Y I A K G A L D S D S L S T L H L D S N Q L T E V P T H A L V E T

UniRef90_V4NI21 S T N N H L T G N I P P S S F G K L R N L L W L S L F K N S L G N Y F L G A L A N C

UniRef90_H2LJZ1 E R C N L T S I S S Q S L S Y L H N L V S L R R L R Y L S I S A L E D Q N F R K L

UniRef90_E0D310 S N N K L Q S L P V G V F D Q L E N L Q D L R L T T N Q L K S L P P R V F D S L

UniRef90_UP10004436483 G G N S L S T V S R A W F E R D L V E L V E L D R N R I R Y I E E G A F E N L

UniRef90_B8B442 G G N K L S G T I P S S L G N L S S L L D L S L T R N N L T G S I P D S L G H I

UniRef90_A0A059BCE6 S N N N L I L V N P A H N N L S S G S I P Y Q V G S S L

UniRef90_Q53K07 T I T N L T G S I P D D I G R L H R E L L D L G N N A L S G V I P A S I G G N L

UniRef90_T1LG93 S C N S F N G S I P K E L I F T L S D L S E G D L S H N Q L S G E I P M E I G E L

UniRef90_A2X2F3 T N N N L T G T I P E S I G N L V N L D E L D M E N N L L M G S L P A S L G N L

UniRef90_M8CXA0 A G N S F V D N V P E W L A Q L S R L T Y L T I G G N D H S G S I P G V L R N L

UniRef90_B9SB23 S S N Q L L D G P L L T D F L T L P T L Q E H L E N N N G A I E F S P P S N N E

UniRef90_UP1000333BAB9 Y G N R L L Q R V P P G L P R R L W A L L M P H N H V A A L G A R D L A S M

UniRef90_I1K4C2 G N R K L C L Y F P C M P H G H

UniRef90_N1QRD0 S S N F L L S G E I P A Q L V N H Q A L R F L N L S R N N L S G G I P K N I I G S L

UniRef90_C5YD76 S Y N R L L S G N V P D L L Y N V S S L I S F N I S N N R L A G K I P S D I G S L

UniRef90_UP10003F128D6 D L S Y N N L L E D L P S F S V C Q K L L Q K D L R H N E I Y E I K V D T F Q Q L

UniRef90_U3JF22 Q G S R I R E I S S G A F R G L K L S V Y Y L T D N Q I S V I K P G A F S D L

UniRef90_K7M261 H L A L L K F K E S I I S S D P Y G I M K S W N S S I H F C K W H G I S C Y P M H

UniRef90_A9T890 Q N N K L L S G R L L P P D L G N I T S I H R I D A S G N N F H G V I P P E L S R L

UniRef90_I1R115 E S N K L L S G E I P S T L L Q G Q C Q N L Q D L A L Q N N M L G N I P E H L S Q L

UniRef90_A3BPZ3 S G N S L L A G S V P S N A G M L K N A E K L F L Q S N K L S G S I P K D M G N L

UniRef90_G1M650 R R N H F P S V P G A A F P G L G R L L S H L Q H C G I T E L E A G A L A G L

UniRef90_A0A059CMM5 Y Q S E Y D G T Y P E E I F G L S D L E E R L R Y E N D K F V P S Q N F T A L

UniRef90_B9H072 F M N Q F T G E I P V S Y T N L K A L K A L D L S V N Q L S G A I P E G L S S L

UniRef90_V7C1P7 I I L N S N K F E G V I P T F L S H V G I L D L S E N K F S N L N I L L C E N T

UniRef90_C1EBH5 G K N E L L A S V P A E I G Q L L T A L R E L R L D G N R L T S L P A E I I G Q L

UniRef90_A5BQC8 T Y N S L L S G D I P P S S M C N L S A L R G R L R L S G N Q F I P G I P S N L S K C

UniRef90_I1Q9H1 S D N N F T G V V P A S I G K L A K L T L L N L E M N N Q E W E F M D N L L A N C

UniRef90_W1NFZ3 S Q N Q L E G E L P L L S I S S C K E L Q T L M L S Y N N R F E G S V P K D L V L L

UniRef90_I1I6I6 S H D T T P C E W K G V Q C K M N N V A H L N L S Y Y G V S G S I G P E I G R I

UniRef90_R7W1S6 S N N Q L L V G S I P P G L G S I Q S M R F F N L F G N N L S G V L P P S L Y N W

UniRef90_UP100046DB4BB S R N K L L S G E I P K T I G S C I L L E N H L E G N E F E G T I P Q S L E N L

UniRef90_Q7FZR1 E E M N L L G I E I S V V F E N M T D L K H V D L S V N N L T G R I P D V L F G L

UniRef90_I1LV96 Q G S G F S G P I P S G I S F L N N L T D L R I S D L K G P D S L F P Q L K N L

UniRef90_W5HX99 S F N K F S G K L P N E I A S M T S I E S L V L A N N N F S G K I P P S Y G R L

UniRef90_H3CQ50 S M N Q L T E V P L A L Q D S L K G L I K L S L A G N P L G D L R V E D F E K L

UniRef90_A0A022QDB6 D A Q P R R N H L R F A F L N S L N F Y Y Q D T V S V T M K G L E L E L V K I L

UniRef90_R0FC31 G H N Q L L V G K L L P R S L V R I S S L E V L N V E S N K I N D T F P F W L G S L

UniRef90_U5GDS1 S S N R L L N G S I I P K A I F S L S S L L S T L N L S S S N Q L T G S F P Q E I K G L

UniRef90_A0A059BLL3 M N S L L S G T I I P Q T F L L R S K F L R S L D L S Q N Q F E G T L P Q T L L A N C

UniRef90_UP100042B86DB N N N L L T G Q L S S S A T F D Q L L K Q Y L R N N H L S G T I P L S L F K C

UniRef90_UP10002C3178C Y A N R L L S G N I I P P S I I Y N I I S S L L L N F T I I S R N Q F Q G S I P P S F R T L

UniRef90_A0A022RMH1 A K N K I I S G L I I P Q F I G N L T S S L R R L S L R S C D L N G E I P E S L A Q L

UniRef90_M1C4U7 T F N K L L E G A L I P D S M G N L P S K F F L L V G N Q L T G K V P T S V L N S

UniRef90_K4B544 A N N S I I V G K M P N N I G R L K S L Q Y L D L S G N L F N S S P P E V V G E L

UniRef90_UP100032ABAE8 A G N A L L E G S L I T P Q L L G L S E L Q H E I G Y N T F S G T P V E L T M L

UniRef90_A0A059BQ20 S N N L L L V G E I I P S G L L G G C T S L T S L L R M G G N F F H G S I P Q S M R S L

UniRef90_A0A059BBN3 A C N Q L L R G S V L N D V D T S P S Y F L S I V Y N L F T G M I P S T L T N A

UniRef90_W9S195 S G N S L L S G R G I I P L S I G K L T N L Y T L V I S N N Q L T G E I P S F W D N M

UniRef90_M5W3U5 F T N H L F G E I P E S I A N L S S L R Y L D L S L N A F T G K L S E K I I A G M

UniRef90_Q6P3Y9 H L Y G N K L E R V P P A L P R H Q A L V M P H N H V A A L G A R D L V S A

UniRef90_K4ASD8 H S N E L L N D T F P K W L L G G L R N L K I N L R S N K L Y G P I R T D D N F F

UniRef90_UP100046E0668 N D N N L L K G S I I P S S L Q G L Q R N L T N I S L A S N T L S G S V P P S I Y N L

UniRef90_M1A1P5 S A N R L L V G K V P R E L L G K L K N L K L L E L F Y N L L D G E I P A E L L G N L

UniRef90_A0A022RNX1 Y N K M S G S V F P E V L C D D L D S L V Y L Y L N Q N N F S G T I P D C L G N V

UniRef90_M4CYE3 S H H C N W T G I T C T R A P S L Y V S S I I N L Q S L N L S G E I S D S V C N L

UniRef90_UP100042B9597 S Q N E L L S G S I I P S I A T I G R L Q N V Q G L Y L N A N K L Q G G P I P Y S V C H

UniRef90_V4V712 S A N N L L D G R L I P T S L A S I I T T L S S R F A A N Q N K F S G P V P G G I T R F

UniRef90_K1R631 S Y N F I I Q N I T D Y M F N G L S S L R Y L N L Q N N L I A I L D G F S F S T L

UniRef90_A0A059CD43 S S N N S L L I G E I I P P Q V G R L R R L L L L Q I D N N S L S E E I P R N V S G C

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UniRef90_X1Y0E3 S Y N Q L L K S L D R Y T F E E L S S L K T L Q I Q G N S I I A A I G E G T E N E T

UniRef90_A0A059CVV4 Q Q N R I I S G S I I P N C I G N L L S S L Q K F L V S S N N M T S V I P V S L W S L

UniRef90_W4Z2A7 S S S G I V E L L A G D A F Q N K S R I T R I D L L N D N G I K S F N T S L F D G T

UniRef90_K7KIA5 H G N K L L S G T I V P S A F H S L E S M T Y L N L S S S N N L Q G G S I P I E L S R I

UniRef90_UP1000234F8CF A W N M F S G G I I P K P E L G N V I N L V F M D L S W N M F S G G I I P K E L L G N I

UniRef90_M5XQ28 S N N R L L T G T I I P I E I F G I S S L S V Y R I S N N S L T G S L P S E V G D L

UniRef90_Q8L7L6 D T N H F V G K I I P S S L L G N L S H T S I D L L H K N N F V G E I P F F S L L G N L

UniRef90_F6HLY4 H G N M L L S G S H L D E E F L R F S S A I H V D F S G N N S G L Q K Q N F L S S G I

UniRef90_A5B301 H L Y N S L L S E G S I I P E E I I G R T S D Q L Q L G F N R L T G T I P S S L Y N L

UniRef90_M8BL74 S C N S L L T G E I I P T Y I I T S L A A L M N L N L S S N N Q L S G Q I P S M I G A I

UniRef90_F6H514
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UniRef90_T1M V61
UniRef90_M0T5H5
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UniRef90_K7LP78
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UniRef90_V4VPE6
UniRef90_X1WX59
UniRef90_I1IIR5
UniRef90_W5EVX2
UniRef90_T1M172
UniRef90_V7BBW5
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UniRef90_B3NPW3
UniRef90_T1N5W7
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UniRef90_V4NI21
UniRef90_H2LJZ1
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UniRef90_T1LG93
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UniRef90_I1K4C2
UniRef90_N1QRD0
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UniRef90_K7M261
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UniRef90_A3BPZ3
UniRef90_G1M650
UniRef90_A0A059CMM5
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UniRef90_V7C1P7
UniRef90_C1EBH5
UniRef90_A5BQC8
UniRef90_I1Q9H1
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UniRef90_R7W1S6
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UniRef90_M1C4U7
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UniRef90_Q6P3Y9
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UniRef90_X1Y0E3
UniRef90_A0A059CVV4
UniRef90_W4Z2A7
UniRef90_K7KIA5
UniRef90_UP1000234F8CF
UniRef90_M5XQ28
UniRef90_Q8L7L6
UniRef90_F6HLY4
UniRef90_A5B301
UniRef90_M8BL74

	210	220	230	240
R N L N I L S L T S S G L S G P I P T E I F N I S S L Q E I H L S N N S F S G S	S N L E L L D L S G N S L I G Q I P C A L S K M K S L L K W I Y F G Y N N L S G E	R M L R I L R V S Q N A V G I I G P D A W E F C Q K L E E E L D L S G N H L T L E	T T L K L L R I L A N N L T G G I P D F L G S M S Q L R I L E L L G S N P L G G P	G N L Q D L R I L A N N L T G E I P I E I G S L A N C Y K L E E M M D V G D N K I N G T
S T P T T L Y L S S N N N L T G E I P I E I G S L A N C Y K L E E M M D V G D N K I N G T	C G L R N I I N F N G N K L E G G S L P R S L A N C Y K L E E M M D V G D N K I N G T	E S L R F L D L S S C N L S G E I P P S L A N L T N D T L F L Q M N F L T G S	M G L T D L D L S R N N L S G S I P P S L G D L D Q N L N L S F N S F Q G R	Y N L H T L N L A E N R L H T L D N K I F N G L Y V L T K L T L N N N L V S I E
A R I V D L L A R N R L S G N I P R S L S L L S S L N A I N S G N K I L T G S	I K L D S L D L S H N I I R I P P G T F D S L T S L S V L M L S Y N K I S N L	P N L K R L F M E F N Q F D G H I P P S S I A N S S G M S L Q L S A N I F S G I	E L L E F L D L S S N D L S G G I P P S S I S N L L S L G M L N L S N N H L W G R	H N L S S I D L G N N R L S G E I P P P L G S S R A L E S V L T N N L L D G E
T K A I R L N F S H N K L S G L I P K S I G Y L T N E S L D L S S N M F N G R	V Q L N E I L N L D G D N N L S G S I P E S I H H C A Q L K T L N A H N S L H G T	N N L E I L N L G S N A A L A S I Q V N A F E H M L R L N K L V F K S L N F I C D	S S L T G L G F N T N M L S G E V P P S D L G N S P N L Q I L S L A Q N L F H G L	H N L S S I D L G N N R L S G E I P P P L G S S R A L E S V L T N N L L D G E
P N L Q E L N L S G S N S V H W V G P N A F Q P L R C D	T Q L Q H D V G I N N L G G Q L P V S I A N S T Q L T E L S D E N L I S G S	G S L R G L E I D H W P F L E Y I S P H C Q G L N L S W L A I T H T N I T S V	T Q L T L L N L D Y N Q L Q S I P E G I F K T L T N L Q T L S T H Q L Q S I	T S L G R F D I S S N F N L T G S I P L N F G E L R N R L R L Q I L S L A Q N L F H G L
P T L E L L N L N V N K L T G H V P P S S I F N L L S S L K S L A M A N N S L T G E	R S L E E L D L S Y N K L L T G L I P A S I S G G L C L R L A Q L R I E A A N S F H G Q	R T R L G V L R L A V N Q L S G Q I P A D L Q G L H R S I L Q N N G L L T G S	T R L G P L R I S Y N Q L S G Q I P P S T L G Q C V Q L E S L H M E G N R R L H G R	T S L V A L H L S N N N F S G S I P V T L G N L T K L T I L L S T S N K L L T G P
T S L L R V L D I S F C N L S G N I P A E L G E M S Q L T D L S L T S N K L L T G P	S N I L V I D L S H N Q L D G Y F P D R F G S L T G L Q V L S L A G N N L S G S	L G L A E L N L A Y N R S T H L H H Q A F H H L T R C L D L A G N Q L T R V	T S L L R V L D I S F C N L S G N I P A E L G E M S Q L T D L S L T S N K L L T G P	L G L A E L N L A Y N R S T H L H H Q A F H H L T R C L D L A G N Q L T R V
K N V E S L D L S W N K L S G R I P P S I S D L L C L S L L N M S N N L L S G E	P N L V S L I M R G N A F T E E V P A S L N N I S M L Q V I D L S S S N S L L R S S F	L S L R S L N L L A W N K N I A I I H S K A F S T L P S L K K L L G S S N R L L R S S F	S D L T Y L L D K N K I P D L S K G L L S P L V N L F I L H L G S S N K I R E L	Q R V V E L L N L H G Y Q L Y G P I L P Q L G N L S F L R I L K L E N N N S F N G K
N N L D T L L A G N S F N G S I P P S E L G K F C L S N L I Q L N L S R N E L E G V	K S L Q T L D F S R R N N L S G E I P K F I I G N F T M L S Y L N L S F N M F T G E	T K L E H L V L S S N N Q L L S S T V P P S I L F H L S S L I Q L D L S H N F F S D V	D S L I Y L Y L S D N Q L L S G L S A A A L E G A P R R L G Y L Y E R N R F L Q V	T K L E H L V L S S N N Q L L S S T V P P S I L F H L S S L I Q L D L S H N F F S D V
K K L R F F S M A Q T N L I I G G I P E T I G N M E A L E H E L D L G R N R L L T G E	K E L N R L S F L K N Q N L T G E I P P P G L G E L P Y L D T D L R W N N N L T G V	K E L N R L S F L K N Q N L T G E I P P P G L G E L P Y L D T D L R W N N N L T G V	T D M F T L D L S N Q N I A G Q L P D C W H E L L S S L R F L D L R W N N N L T G V	T D M F T L D L S N Q N I A G Q L P D C W H E L L S S L R F L D L R W N N N L T G V
A S L K K L L L G C N Q L T S L P A D I G Q L T S L W E L R L D G N R R L L T S V	G E L Q I L S S A F N K F T G G S P R S I L G S L T K L T M I L S L A A N S L L S G T	G E L Q I L S S A F N K F T G G S P R S I L G S L T K L T M I L S L A A N S L L S G T	G E L Q I L S S A F N K F T G G S P R S I L G S L T K L T M I L S L A A N S L L S G T	G E L Q I L S S A F N K F T G G S P R S I L G S L T K L T M I L S L A A N S L L S G T
T E L Q V L S L E K N Q M E G Q V P S S I L G N I S Q L Q Y L G L N R R L L T G V	T E L Q V L S L E K N Q M E G Q V P S S I L G N I S Q L Q Y L G L N R R L L T G V	T E L Q V L S L E K N Q M E G Q V P S S I L G N I S Q L Q Y L G L N R R L L T G V	T E L Q V L S L E K N Q M E G Q V P S S I L G N I S Q L Q Y L G L N R R L L T G V	T E L Q V L S L E K N Q M E G Q V P S S I L G N I S Q L Q Y L G L N R R L L T G V
P K I K V L N L L G V N S L T G T I P I S P L L G N L S T L E Q I W L A A E N F L L H G D	K Y L E Q L D L S S N N H I S G L I P P E L G N C T V L T T L D L S S N N S L L S G V	K Y L E Q L D L S S N N H I S G L I P P E L G N C T V L T T L D L S S N N S L L S G V	K Y L E Q L D L S S N N H I S G L I P P E L G N C T V L T T L D L S S N N S L L S G V	K Y L E Q L D L S S N N H I S G L I P P E L G N C T V L T T L D L S S N N S L L S G V
S L M G A F E V G Y N K L H G N I P D D I G S F P K L Y Y L G L G H N Q F T W G T	R G L E E I I D F S Y N N L S G R I P F G I L G N F P K L K H L N L S H N D F E G E	R G L E E I I D F S Y N N L S G R I P F G I L G N F P K L K H L N L S H N D F E G E	R G L E E I I D F S Y N N L S G R I P F G I L G N F P K L K H L N L S H N D F E G E	R G L E E I I D F S Y N N L S G R I P F G I L G N F P K L K H L N L S H N D F E G E
T S L Q T L V L R S C N L V G M A P E Y E I L G N V T T L R S I L D L S F N K L L T G S	T S L Q T L V L R S C N L V G M A P E Y E I L G N V T T L R S I L D L S F N K L L T G S	T S L Q T L V L R S C N L V G M A P E Y E I L G N V T T L R S I L D L S F N K L L T G S	T S L Q T L V L R S C N L V G M A P E Y E I L G N V T T L R S I L D L S F N K L L T G S	T S L Q T L V L R S C N L V G M A P E Y E I L G N V T T L R S I L D L S F N K L L T G S
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UniRef90_F6H514	L P I C E H L P N L K G L Y L A I N Q L S G S T P R E I G N L S K I L E L G R N S
UniRef90_UP100042B5778	I P E L A D L V S L N H L Y L V Y N N L S G Q I P G N L T N L Q Y L F L F G N K
UniRef90_I3K BX3	E T A F K G L D F L E S M N L G E N S I S H G V F S G L S S L R T L D I R N N E
UniRef90_A9RY43	I P G F G N L K K L K V S L S S N R F N G S V P S S L I G L I V L E L S S N Q
UniRef90_T1M V61	I P P L G R L Q M L Q R L D L T S N G L V S T I P P
UniRef90_M0T5H5	I P P A I G A M K S L E T L D L S F N K L S G V I P Q S F S S L N H L N L S Y N N
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UniRef90_A0A022R7P0	V P T T G V F K N T S T I S L E G N G N E L C G G I L E L
UniRef90_B4MRV8	S Q A F R N C S D L K E L D L S S N Q L V E V P E A V Q D L S M L D G E N Q
UniRef90_V4VPE6	I P D N L M K L K L S S I D L S E N Q L S G S V P L D F
UniRef90_X1WX59	K N A F A N L S K L Q T L F L H E N N I R G V F N N L T S L E I L T D H N K
UniRef90_I1IIR5	P P E I G R L R N L S R L D F A V N L L E A K E P K D L S Q L Q V L A L G F N K
UniRef90_W5EVX2	I P T G S Q L Q T L T D P S I Y G N N L L C G F P L S V
UniRef90_T1M172	I P P L A N S S S S L T T L L A Q N Q L Q G F I P D K L S G L E I L D L S Y N N
UniRef90_V7BBW5	I P E L T N L N F L E L V M N L S S N N Q L V G E I P Q G K Q F A T F S N E S
UniRef90_B9FTX7	I P V H I F F S L S E H L D L S H N Y L S G G I P Q E L I N L N K L S I S N N R
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H L Q T L F L T G P V P S D F E Q T E L D T S D L D L S G N S Y L T L D
N I L S L D L S E N F I T G Q M P E T F D R L Y T L E Y L N V S Y N N L S G I V
E L Q V L E M Y T N A L S G E I P S Y F D K M T Q L Q K I H L N S N S F Q G R
E L W T L S A S N N Q L G G L V F F G M K K L S I G F A M H L Q N N K F E
N L K Y L N L Y Q N Q I S G S I P K T F G K L Q S I Q E L Y I N H N K L S G S
K L H I F D I S S N N L S G P L P T G F L N S L E A M M A S D Q N R I Y M T S N
S L R T L C I A N N N L T G Q M P D F R K L H N L V Y F L I Q Y N H L G S G T E
R L R R L D D A A C R L F S V P E R L L L L G L R H L R S L S L Q G N R V R V V
R L E E L L R L G K N N L T G T I P P A L S N W T G L R Y L D L R S N S F V G D L
S L Y H L R L G C N L L S G S I P E S I G N A I R L A Y L E L D D
S L M H L D L R N N Q I T G G I P Q D F G K L T M L S R A M L G R N Q L T G T
S L L W L N L V R N R I S G K I P P E M A S M G R N P S T F V K N R S N P S L
N L V S L D L S N S Y A L E D E R T F E T M L Q N L T N L E A G E I P D
G L W S V Q L A I N Q L T G E I P P T I F N I S G I F Y F N V G D N Q L R G E H
N L K Y L D L G A N N F S G H I L P D I G H L M K L Q T L M L D N N E I L S S K
S L T H L N L T S S N K L Q D V Q A L G F S D W V N G L E V L D L S A N E I I A L
K L R R L L S V D N N Q L V Q L N G N V F G D H P S F N V I S F E N N I S M L E
K L L K V D I T M N K F G G M L S C I G N L S T T L H T F V A W G N Q I N G E
R L E Y L L S L A G N D L Q G R I P P R E L G N L T N L R E L Y L G Y Y N A F E G G
S S W T I N S S N G S T H G F C S W T G V K C S H V K A L R L Q G L G L S G T
N I S S D L S S N R I G S I R S G A F V N V M K L Q K L D L H G N Q L S A F
S L Y I L D L S Q N K L I G A I P K F T A G S L R F L Y L Q Q N D L S G F
G L V H L D L S Y N S L T G P I P A R I G E L R S L Q G L D L
S L N L D L G S C K L T G A I P P E L G H L M K L Q T L M L D N N E I L T G P
N L K V L F L N N Q L T T L P K E I E K L Q K L E S L G L D D N N Q L T T L P Q
K L R I L Y L T G K L P R K V T S V N L I E I D V S S N N L T G E
Q L E A L L R K N R L T S P L G I E S L A N L R K L D L K A N N I S Q I T T

130 140 150 160

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UniRef90_W5BK68	P G S L G Q C K G L L E L N L S R N N L N G S I P V K L F A N P P F S L G L D F
UniRef90_A0A058ZSA8	L T K S L F L L P K L E T L K L G Y N D L L E G V L P K I H P S N T L L E L S I I
UniRef90_UPI0002BC9CC4	L D Y T F K E M T S L Q R L Q A E E N D L V F I S Q R A F F G L H N L Q E L N I I
UniRef90_UPI000298E716	I P S S I G N I T S L Y G L N L A Q N N E G T I P S V L G N C Q L L Q M L L Y L L
UniRef90_A0A022QGD5	I P P S I S S L S N L T E L R I S D L N G G V S Q F P Y L R N M T S L D K L L M L
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UniRef90_I1IL07	A I A N L T N L T Q L D D L L N N K I T Q I P E A I A N L I N L T Q L D L
UniRef90_T1N2S3	I P E E L A N L T N L Q E I D L S A N K F F G K L P P K Q I G E M K N L V V F Q L
UniRef90_K9W0B0	I P P E E G N L Q N L Q F M D F G K N K L S G S I P A S L G N L F S L N W L D L
UniRef90_G7JRB4	I P P Q L C H L T R I Q I L D L S M N N I S G T I P K C L N L I V L A Q K G N
UniRef90_A2YEE8	M N F P A G H V N S T F V L N L A Q N N L S S P V P D A F L N M S S I V D L N L
UniRef90_UPI00046D9834	U N T A L K E A N M L K E L D V S S N A L E G P V G P S
UniRef90_UPI00034FD962	I P D E F G K L S K M S N L L G E N M L L S S R V P D A I F N L S L L N Q M A L
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UniRef90_I11ZF5	L P R Q F A N L P S L H Y L D V A H N N I S G R I P S
UniRef90_M4DWT3	I P E E I G Q F P N M W G L L L G G N R L S G G I P A T L F N Q S F L Q I L D L
UniRef90_M7Z141	P A G V F N R L T Q L T T E L Q I N Q L K G V P R G A F D N L K S L T H I W L
UniRef90_I1IIQ4	I L P V Y P T L S H Q Y R Q P F A F P K L D L
UniRef90_Q2VGN5	U N F P A G H V N S T F V L N L A Q N N L S S P V P D A F L N M S S I V D L N L
UniRef90_W5GF01	I P S F I G N I T R L D I L F L E N N K F E G T I P L S L S I N C T S L R Y L T T
UniRef90_UPI0002B44A58	R L L W I L Q R Q H A L H F G E Q Q P T C A A P E G I R G K Q F K E F H D T V L
UniRef90_R0HZ18	I P V Y F V G L A R Q Y R T V T S L P A L I N F R A N I F T G V
UniRef90_H3B9F5	T Y T L R P S G G N E V T F L F G T I I K G V R R Y Y P E I N D D L S F I D L
UniRef90_J3L9Q1	R R A P P G G G G G H E T L N N N P L Q R V G P G D F A N M L H L K E L G L
UniRef90_W9QWE7	P P V I G R L S P G L M Q L H L Q L N R I F G P I P A N I A N L T N L N T L N L
UniRef90_W5N44	P P T L A E Q S G M A T K T M F T S T L A Q N L W Y L R N D E M S I S Q C H
UniRef90_M8CVT0	P A G F L Y L P R L N L L E L Q N N L L S G P V P P T L T G S E S Q L A Q L N L
UniRef90_UPI0003EA89B4	R S S K I I H P F P K L R I I D L A N N D F T G P L P K G I I K N L K A M M N L
UniRef90_W5AAS3	D S E M F K G L T K Y L K T L N N N N I S E V K N G V F A N L S N L Q I L F L
UniRef90_UPI00042B67F5	U P I V F N R L N S R L Q A L G V T L N P R L S A L P E G A F R G L S E L Q V L A L
UniRef90_9JLMG8	P Y D V G D K L P N L L G F N F C F N K F T G K I P G S L L H N L T N I Q I I R M
UniRef90_UPI00045E30FD	G I T C S L M H Q R V T E L N L A G Y Q L H G S L L S P Y L L G N L T F L I N L N L
UniRef90_V4U6H7	P L P D F P S C S L S Q L L I H Q N R F S G S L P I S L G N C H N L S A F Y A
UniRef90_G7K5E8	F Y L P T T H I L L T N C S N L A Q N Y L T G T L P F I G N L T R M K W L T F
UniRef90_K4BI23	S R K M D P N A F S I D V N Y V D E A L F T G K K Q K Y A R I I L G L L L A I D L
UniRef90_UPI0003D24591	L E Q L P W R K I I I L D L L I S N N N L S G E I S D L I C N V S Y L E V L D M
UniRef90_UPI00042B6BF5	I P S T L G F L T K L E K L Y L S A N S L S G L I P S E I G Q C T S L I E L E E L
UniRef90_UPI00042B545A	P H T L N M I P S L R V I S L P A C L L D T A N Q S L P H L N L T K L E K L L D L
UniRef90_I1I234	L S V I R T W G N Y I E T V D L T S N R L T G T W P N E T T Q F L R L T S L R I
UniRef90_I1PAT0	P K W M G N M S S L E E I I M A N N H L G G S I P V E F C Q L N L K I L K L L D
UniRef90_UPI00042B7EB5	N G V L C N A G N V A G V V L D N L G L S A D P D L S V F S N L T K L V K L L S M
UniRef90_I1MG48	L P E S I G N C N S L S F S V A N N R L S G E V P S G L W T S L K L T L L M L
UniRef90_W9QYP6	H N I P G L A C P E C P G G M R F E M I I K G S R L P F A Q Y F N G L T L F D L
UniRef90_D8RS55	I P S S I L A N V S S L T T L N F G T N T L S G V I P D E F G R L R K L E E L D I
UniRef90_W9R306	I P K K I G K L H R L Q Y L D M S Y N N L S G Q I I P T T L G A S I S F L V L
UniRef90_M0SIM1	U P E E I S N L R N L L T N L D I S E N N F E G E L P Q A I G N L V N L M Y L V A
UniRef90_M0TLJ2	I P T S F W S L R D R L L V L S L S S N N F L T G N L P L E V G N M K S I T T L D L
UniRef90_A5ACY0	E I G K L Q N L Q E L N L S H N Q L Q A L P K E I G K L R N L K I L Y L S
UniRef90_M6V423	I P S S F Q K L K N L M Y L Y L A G N N F H G H I P S H I H K C Q N L M E F D L
UniRef90_A0A059BIA4	I P E G I G N L V N L Q H L Q V D G N F L D G K I P E S I G N L R I I A E L Y L
UniRef90_W514C8	R P N V F S E L K L S E V L D L S N N H I S A I N P A A F T G L E N I K K I V L
UniRef90_UPI0002658400	I P A S L G Q H L G I V R L D L S S S N R L T G E I P D A V A G I V Q M S L N L
UniRef90_C7J6J1	L P N A L F T T S S L I A I C L Q Q N S F V G S I P S V T A I S P P I K Y L Y L
UniRef90_M0W6T2	L D P S N L T K L E H A L G H N Q L S S T V P P S L F H L D R L I I L L D L
UniRef90_Q5VQ44	S S S L N K L V Q N R T K L L R W V N M S L V V P N S L K N L S S S L S I L S F
UniRef90_U7E0M6	P S S M G Q L S A L S E L D L S S N S L K G N I T E A H F S K L T D L T L L D I
UniRef90_M0U2H0	I P K S I G G C R N N L L D L W I D T N K L N G S I P R E I L Q I P S L L A F L D L
UniRef90_F8V1G3	G T L P R N L S G A L V I M D L H D N S L S G E L D T S F W N L S K L Q V L D L
UniRef90_A5LGG3	I P Q E F G D L I N L V A G L G A N N S L S G P L P T N I C S G G R L Q Y L Y L
UniRef90_W5ABA9	N Y Y G F A D I Y A Y S V E M T W K G S E F E F A K V Q G I L R V L D L
UniRef90_U7E0N0	Q L V G S L P S Q L I G H L S R L K F M D V
UniRef90_F6HW77	U n i f o r m a t i o n : G D L T F T N S T E L K W L S M M E N H F G G T L P T S I S N T S T K L E K F W F
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UniRef90_UPI00032AF97E	G A M D F S G L A D L A V F D V A S N N F T G T M P P S I I Y S C T A M T A L R V
UniRef90_I1GWG0	I P S S I S G L Y R L A D F D L S V N Q I S G V I P A E L G S M P V L S T L N L
UniRef90_Q53LR8	I R S A T S K C L P V Y R W L P A S Y P E F D Y V E L M M M S Q K N C L T M W N
UniRef90_F6HBA8	S I G N F S S L K Y L N L Q C Q F S G S I P D S I G N L T L I T E L D L S
UniRef90_M0ZCG8	I P P S L S N A S S L Q Y I Y F N Y N S L H G P M P P N L G R L K A L R G M F L
UniRef90_K4DC62	V P K T L S N C S Q L V N L I L D R N Y L S G G I P T E L Q R L R K L V Q I Q A
UniRef90_A0A058ZXJ4	D H I T S D P Y N V L G D W N T R T N F C N W T G V S C S K S R Q R V T Y L N L
UniRef90_D8SEH9	T D F F S R F P T L G S V N L E S N N L S F L P P G I F N N L A E L E E F L R L
UniRef90_W1PV14	I P E E I K L V N L E I I L N M D L N K L S G V I P S N F G N L Q N L V I A L A L
UniRef90_N6T159	I P M E F G K L V N L V H M D L S T C E L D G S I P K E F G S L S S S L D T L F L
UniRef90_C3YSM8	I S P F L G N L T R I L H A L D L S D N K L E G Q P T S L G N C V A L R R I L N L
UniRef90_A0A059BZ85	K G E Y F N T G T G I E E L D I S D N Q L S Y L F P S S F R I H P R L R E I R A
UniRef90_A0A022QZA0	I P F E L S E G S K L Q L L D L R E N K L S G K I P N W M D K L I S E L R V L L L
UniRef90_W5AJY2	N S L G S I P D S A F A P L G N L L Y L H L
UniRef90_Q9VAD1	I P E D F G N L K N L S L L F M Y A N Q L T A T I P A S I A M L P N L R D I R L
UniRef90_G7JP53	C N L Q G E I P S S L G N L S R L T H V D L
UniRef90_F2FEF5	I D V S R I A K I D V V D L S R N V L R D F P H L H V L Q A A N A K I T K L D L
UniRef90_UPI000234F2DE	E I G Q L Q N L K V L F L N N N Q L T T I P Q E I G H L Q N L Q D L Y L
UniRef90_M6ZM52	I P A P L D N L T E L A I L M L D K N M L V G S V P R T I G N I N S L V H L D L
UniRef90_G3WBD3	U n i f o r m a t i o n : E I G Q L Q N L K V L F L N N N Q L T T I P Q E I G H L Q N L Q D L Y L
UniRef90_M8CKJ9	I P E D F G N L K N L S L L F M Y A N Q L T A T I P A S I A M L P N L R D I R L
UniRef90_M4D14	I D V S R I A K I D V V D L S R N V L R D F P H L H V L Q A A N A K I T K L D L
UniRef90_A8P8G3	I D V S R I A K I D V V D L S R N V L R D F P H L H V L Q A A N A K I T K L D L

170 180 190 200

UniRef90_M0ZHC6	S W N Q F S G D I P S I L G R A Q S I V Y L S L A H N R L Q G T I P E S L S N L		
UniRef90_V4S465	D S N E L T S I P S I L W N L K D I L Y L D F S S N N N L L G D I P T T I Q G L		
UniRef90_W5BK68	S H N N L T G E L P S E L L G T H G V G D G P T S L H M N K F H G Q I P A R W Q L		
UniRef90_A0A058ZSA8	S S N N L S G T I P S Q L G G C I A L E Y N L S G N I L E G P L P S S I G Q L		
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UniRef90_A0A058ZUFI	S D I F G G I S T L E F L A D M R N L T T L V L R N N N I H G T I P P Y V S N N		
UniRef90_I1IL07	D E N K I H G P I P W T I G N L T E N Y F S L R K N A F S G R L P I T F G N L		
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UniRef90_K9W0B0	L N N K I T Q I P E A I A K L T N L T Q I L S D N K I T Q I P E A I A K L		
UniRef90_G7JRB4	Y D N S F S G Q I P A G F G K M E N L T G F S V Y R N S F N G T I P E D F G R F		
UniRef90_A2YEE8	G N S N L V G T I P P S L G G G P Y L S T F I L A R N K L V G N I P P S L G N L		
UniRef90_UPI00046D9834	S S R I I Q H S Y T A Q L E V A Y I L K Y E E A S L T W K G V S S K Y K S T L		
UniRef90_UPI00034FD962	N D M S L T S L P N D F G S L V S L Q S L E L R E N L L K S L P E S I L K N L		
UniRef90_V7BCV2	G Y N N L T S L P N W L V N L D A L V N L N L S G N P F K R I E A S V I S L		
UniRef90_G6DSX9	E L N M L S G T I P S H M G N L P N L Q R L F L G G N M L E G F I P D S L G N A		
UniRef90_I1IZF5	F R N S L F G S V P R S L F M I P M S I M V N L R E N Q F K S E F R N T S S S		
UniRef90_M4DWT3	S L G R L K A M T G E S E G S K N N Y S H D S I M T V T K D Q E R Q Y T L D F A		
UniRef90_M7Z141	G F N M M T G K P S N F G D T L P S L T W L G L S S N K L E G H V P V S L G K I		
UniRef90_I1IIQ4	S S N P W D C A C S D I L Y L S G W L G Q H		
UniRef90_Q2VGN5	S S N K F T G E I P P S T L Q G Q K S L R S L N L S F N N L T G Q I P E S T C N L		
UniRef90_W5GF01	D S S G V G S G G I P P S F S R L R N L Q I V W A S D N E F T G R I P D F I G N W		
UniRef90_UPI0002B44A58	G P N N L H G T I P E S I I M G M Q S L V E L D M S G S S L T G S L P E D I G G L		
UniRef90_R0HZ18	S Y Y F T C R K P R I R D K K L Q H		
UniRef90_H3B9F5	I P P K I G E L K A L T R L D F S S N Q L Q G E I P P S I C N L		
UniRef90_J3L9Q1	S N N N F G G E I P E V L G D L N G L Y A L D L S N N N N L T G G I P S A L A N L		
UniRef90_W9QWE7	N N M E L V S I D K F A L V N L P E L T K L D I T T N N R L S F I H P R A F R H L		
UniRef90_W5N44	S H N L L N G S I P Q G I T N M R Q L E R H L S N N L L S G D I P S S L G M I		
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UniRef90_UPI0003EA89B4	S S N N L L S G P L P A A L A N L S A L Q T L L V S N N C L A G A V P P E V G E L		
UniRef90_W5AAS3	S V I Q Q S S L Q Y M Q G R Y Y Y Y H V N L T V K G F Y S E E F P E I I		
UniRef90_UPI00042B67F5	H R N K I E N I D T G A F Y N L T S L K I L H D Y D N N I H K L D L E M F K G L		
UniRef90_39LMG8	H S S N N L I S L P Q G L L H G L R S L R E V V S L R N N R L R L Q V L P R A L F R N L		
UniRef90_UPI00045E30FD	A H N L L E G T V P P P G L L G N L P F L K M Y N I G F N K I V G S G D E S L T T N S		
UniRef90_V4U6H7	Q N N S F S G E I P P Q E F G Q L L Q L Q Q L Y L L N N S F T G E I P I N L L T Y C		
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UniRef90_K4B123	G I N A L L S G E I P P K E I G L T E L L S L S S T N N F S G P L P S E L L G N L		
UniRef90_UPI0003D24591	S N N R L L T G E I P P E E I T S L R Q L V A L N L S R N F L L S G K I P W K I I G Q L		
UniRef90_UPI00042B6BF5	S H N N F N G I I P H C F G E L K R L W I L N L R M N K L H G T I P S T F A R G		
UniRef90_UPI00042B545A	Y S N Q L L K G V I P P S E L G N L R N L K K L Y L F D N N N L I G E V P M D I W K I		
UniRef90_M0RQW1	S N K F E H S I S S G W F W K A T S L K Y N L Q G N R L Y Y Q Q F P D A L G N M		
UniRef90_I1I234	S D N L L A G E L I P T V I G T Y P E I S I D L S L N Q L H G P L P G N L L F T A		
UniRef90_I1PAT0	L S A N D I S G S L P S C F S P L L I S Q V H L S K N K L Q G Q L T T N A F R N S		
UniRef90_UPI00042B7EB5	S N N S I S G T L P D N I A D F K S L E F L D I S S N N L F S S S L P L G I G E L		
UniRef90_I1MG48	N N N S F T G E L P E K F T L S L L L N I S N N R F S G N I P T G E S S W		
UniRef90_W9QYP6	S S N N L L E G A I P D D I G L L V G M K Y N L S F F N G L T G S I P P L A L T R L		
UniRef90_D8RS55	T I N N I T G T I P N S I L Y N I T S L V N L A V A S N D R G E I P Y D V G D K L		
UniRef90_W9R306	K G N N L L N G I I P L R M G Q L S R N L K I I V D L L S S N S S T G N I T E A F L N L		
UniRef90_M0SIM1	A D A G L L S G S I P A Q L G N C K N L K I I D L S F N F F F S G P L P G S L A N L		
UniRef90_M0TLJ2	S K N L L I S G Y I P R R I G E L Q N L V N L S S Q N K L L Q G S E F G D L		
UniRef90_A5ACY0	H N Q L Q A L P K E I E K L V N L R K L Y L S G N Q L Q A L P K E I G K L		
UniRef90_M6V423	S N N N L L S G S I I F P V I N T L V N L V L S H N H L N G A L P A E V G K M		
UniRef90_A0A059BIA4	S N N G L L S G P I P P M L G N L T A L I T L D D L S Q N V N L A C P I P S S L G S C		
UniRef90_W514C8	R A N H F R A V P T E S F I Y L G H K S L D D L G S N A L S M V D E S A F Y H L		
UniRef90_UPI0002658400	S R N L L L G G R L P R G L S R L Q M A E V I D L S W N N N T G A I F P E L G A C		
UniRef90_C7J6J1	R K N H L S G G I I P P S S L L G N M S S L V H L R L A E N Q F V G S I P E S L G Y I		
UniRef90_M0W6T2	S Q N F F S G E I P V D I G N I K Q I N Y M D I Y M N R F V G S L P D S I G H L		
UniRef90_Q5VQ44	G N C G L R G E F P A N I L F L P N L E F L N L G G N V V G L T G S F P P S S N V S		
UniRef90_U7E0M6	S Y N S L L N V I L P N D W W F S D F S K V I D L S N N S F V G P I P L S F A N T		
UniRef90_M0U2H0	S N N V L L T G S F P E E V G K L E L L V G L A A S D N N K L S S G R I P Q T L G G F		
UniRef90_F8V1G3	S G N H L T G S I I P Q K I C S L A S I E I L D L S N N N L L S G S I P R C A S		
UniRef90_A5LGG3	Y A N N L L S G A I I P P T F G N L L T S L T H L N L G R N N N F R G E I P K E L L G N L		
UniRef90_W5ABA9	U N R Q I I H G S I I P T D I G N L V N L E S L E M G E N S L T G N I P T E I Q K L		
UniRef90_U7E0N0	F G N N M F N G P I P R S L T K C T S L V E I S L L Q R N Q L L T G D I S Q H F G V Y		
UniRef90_F6HW77	S S N S L S T G E I P P K L I G K L Q Q L N L S H N Y L T G H Q S S L R L I L		
UniRef90_UPI00046DF86E	T H A N N L L S G Q I I A P E I I G N L R Q L Q F L S L T V N A F T N I S F W N L R G C		
UniRef90_UPI00032AF97E	D S N R L L S G S I I P A S L L S N T G L N I L N L S R N S L E G K L P D V F G S K		
UniRef90_I1GWG0	R I L L M G Y E I I P V T S P L R T A L G Y V Q L S S G N L L N G E I P S T I S A M		
UniRef90_Q53LR8	Y N H F T G R I I P P S T I S K F K H T R L L D L S S S N F S G E I P D V F S N L		
UniRef90_F6HBA8	A F N Q L Q Q D D F N F S S S S N C S R L D H I I W V D S D N F L E G R L P D S I G N L		
UniRef90_M0ZCG8	G Y N N F S Q L L S P E F K E H A F P S L T Y L A L N Q N Q I L T G T I P K S L A Y L		
UniRef90_K4DC62	T H T G L Q G T L T P H I G N L R Q L R V L A L L R N N S L L Q G S I P P E I G R L		
UniRef90_A0A058ZXJ4	E K N R L L E S L D A N L F Q D L R N A W S I Q L G Y N N I K T L P D G I F R A T		
UniRef90_D8SEH9	G G N N L L G G T I I P P S P L L G N L T K L M A L L D S H G N N N F H G K I P S Q L S N C		
UniRef90_W1P1V4	S S N N L L S G A I I P P A M G N L S K L V V L N I R N N N I S G T I P P S F A D L		
UniRef90_N6T159	T H T G L Q G T L T P H I G N L R Q L R V L A L L R N N S L L Q G S I P P E I G R L		
UniRef90_C3YSM8	S S N N C L V A M P P E I L F Q S S R Q L T H L Y L H N N S L S V L A P G L L E G L		
UniRef90_A0A059BZ85	E K N R L L E S L D A N L F Q D L R N A W S I Q L G Y N N I K T L P D G I F R A T		
UniRef90_A0A022QZA0	G G N N L L G G T I I P P S P L L G N L T K L M A L L D S H G N N N F H G K I P S Q L S N C		
UniRef90_W5AJY2	H V N R L L N G G I I P P K E L G N L T S L V N L D L S L N G F S G E I P Y E L V S L		
UniRef90_Q9VAD1	S V N S L L S G A I I P P A M G N L S K L V V L N I R N N N I S G T I P P S F A D L		
UniRef90_G7JP53	F E N K L L S G E I I P P E R L R K H S P L G I I E V C N N N L L S G P L P E S L C A N		
UniRef90_F2FEF5	F E N K L L S G E I I P P E R L R K H S P L G I I E V C N N N L L S G P L P E S L C A N		
UniRef90_UPI000234F2DE	S S N N L L T G G V P I P A T F S G L K S T F L A L N Q N N F T G S L P G Y V V G N L		
UniRef90_M6ZM52	V S N Q L L T I L P K E I G Q L Q N L Q M L D L G N N N Q L I T I P K E I G R L		
UniRef90_G3WBD3	E A N R I I R F L L G K N A F A H L G K L R F L L N L S A N S L L Q Q L G G R V V F Q H		
UniRef90_M8CKJ9	E A N N K F S F F P A E I L S T L Q Y L E H I D L S H N Q L K T I E E L D F A R L		
UniRef90_M4D14	G G N N L L G G T I I P P S P L L G N L T K L M A L L D S H G N N N F H G K I P S Q L S N C		
UniRef90_A8P8G3	S N N N L L A S L R S D T F I A L Q S L R V L R L S R N K I E T E E K N A F Q G L		

210 220 230 240

UniRef90_M0ZHC6	[S] L E T L D L S S N N L S G M I P K S L E A L R Y L R H F N V S V N E L E G E		
UniRef90_V4S465	K S L Q F L S L G H N R L L Q G S I P P N S F D D L L K Y L N L S F N R L L E E E		
UniRef90_W5BK68	A S T L Q I N L S H N D L S G A V P E L F G Y L P K L E Q L D L S Y N N L E G A		
UniRef90_A0A058ZSA8	P H L R A L D V S S N H L I G V I P Q S L Q A S P T L K Q L F L N F S F N S F S G N		
UniRef90_UPI0002BC9CC4	T Q I T E L L L W G N R F T G H I P S T I S K L K H L T Q L V L S D N S L E G A		
UniRef90_UPI000298E716	H N L T S L V I S S C N S A I P Y P A L R H L V Y L R F L D L S Y N P I T V I		
UniRef90_A0A022QGD5	Q K L E R I Q L H Y N N F S G N I P E S F G N L S S V R S F S F A A N N F Q G K		
UniRef90_M0ZKC6	V N L G Y L D I S E N K L S G K L P S T L S S C I K L E N Y V Q E N M F E G V		
UniRef90_UPI00042B8F89	A K M E Y L Y L T N N S L N G P I P G W I K S A N G K S P I D L S Y N N F S M D		
UniRef90_A0A058ZUFI	K K L E E H D L S F N N L N G S I P D S I I F T L D S L S H L F L G S N K L S G A		
UniRef90_I1IL07	T Q L N A L D L S S N N F T G S I P P S G L F N I P T L S R I T W L N L S H N N I L E G S		
UniRef90_T1N2S3	R Y L E E V L D L G D N F F V D V V P I W L A K L S R I T W L N L S R S N K I I T Q I		
UniRef90_K9W0B0	T N L T Q L D L H S N K I T Q I P E A I A K L T N L T Q L D L R S N K I I T Q I		
UniRef90_G7JRB4	S P L K S I I D L S E N Q F S G F F P K Y L C E K R K L T L L A L Q N N F S G N		
UniRef90_A2YEE8	S S I L T E L N F A R N N L T G I P H S L G N I Y G L N S L R L T E N M L T T G T		
UniRef90_UPI00046D9834	G L V K S I D L S S N N K L T G E I P E I I T D L V G L V S L N L S R N Q L T G Q		
UniRef90_UPI00034FD962	T N L Q R L D L G D N E I E E L P G F I G E L P A L E E I I W L D H N K L I Q Y L		
UniRef90_V7BCV2	T N M C S L R S L D L S S S M P I N Y S G C G R Y N L E E V L V L R G S G I K K D R		
UniRef90_G6DSX9	T N L T L L N L H N N Q I D V L E D Y A F K H L T N L S H L D L S H N E I V		
UniRef90_I1IF5	S D L Q H S L A Y N H F R G Q I P S S L G K L M K L R K L G L D T N N L E A N		
UniRef90_M4DWT3	S M L Q L L N L G Q N K F D G P I L N F T T K F P N L E H L D L H D N N F V G S R		
UniRef90_M7Z141	N P I V L I D L S C N S L T G H I P E E L S F L K G L Q T L N L S G N Q L D G R		
UniRef90_I1IIQ4	S G L E T L D L S F N N F S G H V P I S L G N L S G L T L L N L R F N K F N G S		
UniRef90_Q2VGN5			
UniRef90_W5GF01	T S L Q V L D L S N N N L T G A I P A A L D S L H F L A A F N V S D N D L E G P		
UniRef90_UPI0002B44A58	T R L T S L R F Q G N S F T G P I P S T F S N L T S L T E L R I G D S N G S S S		
UniRef90_R0HZ18	K H L I R L S V A R N K L S G Q L P H S G N C F T M E I I A L Q G N N F D G A		
UniRef90_H3B9F5			
UniRef90_J3L9Q1	T N L Q M L D L S I N H L I G P I P E G L N K L N F L S E L N I S N N D L E G P		
UniRef90_W9QWE7	K R L E S L D L S Q N K L S G R I P P V L E Q L S F L Q Y F N V S H N N L A G P		
UniRef90_W5N44	P Q M E T L M L N N N A L L S A L H Q Q T V E S L P N L Q E V G L H G N P I R C D		
UniRef90_M8CVT0	P W L G H V N F S Q N R L L T G A I P P S I V Q C V M M Q N L D L S Y N N M L Q G Q		
UniRef90_UPI0003EA89B4	E S M V F P L D L S F N Q L N S T I P P M E L G N M H Y L V I L D L S T N K L S G P		
UniRef90_W5AAS3	R L L V K L D L S G N E L S G P I P E A I G R C G Q L T Y I D L S T N K L S G Q		
UniRef90_UPI00042B67F5	S K L L T S I D L L S N N N F H G E I P S V S G K L L S S L L R G L D L S H N S L S G Q		
UniRef90_J9LMG8	R R K L R K L F L D H M V R L I T P G T F D S L T S L S L Q L D H N P L T C D		
UniRef90_UPI00045E30FD	S S L E K V Q L D T N Q L E T L P G D V F G A L P R L T E V L L G H N P W R C D		
UniRef90_V4U6H7	T R L N F L A F D G N Q F E G E I P E S I G N L S N L S K L Y M G G N R F Y G K		
UniRef90_G7K5E8	S N L I D L I L G G N K L T G K I L I E I G S L L K N L H S F A L F G N N L L N G Q		
UniRef90_K4B123	U R K L Q E L V L S I N N F N G S I S E K I G G C H Q M T Y I D L S D N K L S G Q		
UniRef90_UPI0003D24591	T K L T Q I Y L D S A G V S G P I P L T L P I N F Y L E K L W T S D N A F T G R		
UniRef90_UPI00042B6BF5	R Q L Q S L L D L S R N N F S G S I P P S S L S E I T F L S T I D L S Y N Y L S G K		
UniRef90_UPI00042B545A	C R L K N L L N L N A N Q L E G P I T R S S I L N C G S L Q V L D L G N N K I N A T		
UniRef90_M0RQW1	P N L T S I L I Y N N N I S G E L P S E I C E L L N R R L R N I S L Y N N Q F T G V		
UniRef90_I1I234	T A L Q V L D L S F N S K M R T R N L K N L C S L E I L Y L K N N D I I G D		
UniRef90_I1PAT0	V K L T Y L N L S S G N S F A G T L P L P N S Q T S N S F I V D L S N N S L N G S		
UniRef90_UPI00042B7EB5	N L L V T L D L S N N H L T G N I P N W I G K L S Q L S Y L L N N N H F E G E		
UniRef90_I1MG48	R S L Q N L S L A G N N F S G P I P D S I I S E M A S I K S L D L S R N S F S G M		
UniRef90_W9QYP6	R N I V I F D A G N N L L T G T I P H E L F T L S H F I E L L S G N Q L T G D		
UniRef90_D8RS55	V K L E S L D L S S N K L L Q G T I P A Q I S D L S Q L G S F N V S H N H L S G		
UniRef90_W9R306	P N L L V F N F C F N K F T G R I P G S L H N L T R I R V I R V A H N L L E G N		
UniRef90_M0SIM1	T S L L G L I I A S N Y L N V M L P N D W L P P F F S A K T I D L S F F S G N L P		
UniRef90_M0TLJ2	P F L T S F S A D A N Q L S G E I I P P K I L G N N P L V T L E L S Q N N F S G M		
UniRef90_A5ACY0	L S L E S M D L L S R N N L S G S T I P K S L E A F Q Y L K Y L N F S N K L L Q E E		
UniRef90_M6V423	Q N L Q G L D L G N N N P L K T L P K D I G K L K S L Q T L C L D N K Q L E S L		
UniRef90_A0A059BIA4	D H V T L L D I I S G N N M F S G E I I P S T L G D C H Q G N L F I L R M R D N Q F Q G S		
UniRef90_W514C8	P V D T L L S L A F N Q L V G S I P K E I F I L S T L S S M Q L Q G N N K L T T G T		
UniRef90_UPI0002658400	P S S L E E L E L D K C G I A Q I D P A A F T G Q L K Q V K S L N L Q Y N N V Q S F		
UniRef90_C7J6J1	A E L Q V L D L S H N S L T G V L P P S S L D G L E S I E R I L D V S D N S L T G E E		
UniRef90_M0W6T2	P T L E T L T L D I N N L L S G P V P L S L F N M S S S L T V L L A I A K N S L V G K		
UniRef90_Q5VQ44	Q M L G Y L N L S V N E F H D S I P D P S F S N L S G S L Q I L D I S H N N I S S G T		
UniRef90_U7E0M6	S S L E D L A L F D T K I S L S D N D F I I N N K S L L K N L Y L S S N C N I S S N		
UniRef90_M0U2H0	S N L A I L S L S H N N I N G S F P S F F C N F N Y L Q V L D L S N N N L S G E R		
UniRef90_F8V1G3	L S L E F L Y L Q G N S F E G A I P D I S R I L V I S S N V D F S R N N L S G R		
UniRef90_A5LGG3	A S L S L N L Y Y G N S L S G N I S D D L F N T S N L M Y I L D M R H N K L T G N S		
UniRef90_W5ABA9	P Q L K R M S F A S N R R F Y G Q V P P N L D A C T S T K N T I L R L L A Q N M I T G S		
UniRef90_U7E0N0	N N L E S L D L S S N N L L T G R I I P Q L V D L T F L Q V L D L S H N R L E G P		
UniRef90_F6HW77	H N L V S L R L S E N Q F S G Q I P N S L Y N I S S S F L S S D N S F S G N L P		
UniRef90_UPI00046DF86E	H N L V S L R L S E N Q F S G Q I P N S L Y N I S S S F L S S D N S F S G N L P		
UniRef90_UPI00032AF97E	S S S L A E L Y I S M S S A L S G S I P P S S L G N L T K Y R I L F R N P W R C D		
UniRef90_I1GWG0	S G L L A L L V S Y N F Y G E A M P D A G W V G D H L S S V R L E N C D L S G Q		
UniRef90_Q53LR8	T N M E V L N L S A N S F S G E I I P S T L V L L S K L C Y L D L H G N N F S G V		
UniRef90_F6HBA8	T Y F I G L D L S Y N N L K K Q I P K S L S S A A Y I G H L D L S H N H L C G S		
UniRef90_M0ZCG8	K N I I S L L L D G N R L L S G H L P S E I I G W M Q L V A L N L S S D N S F S G Q		
UniRef90_K4DC62	Q K I L R Y I L D F F N N S F I I G P F P A S I I L S T R L E H I G L G L S S N S L L S G P		
UniRef90_A0A058ZXJ4	S S S V Q V I S M S S N N P M C G T I P S G I G N L F N L S V L D L S S N S L L G G H		
UniRef90_D8SEH9	T S S L Q V L K L A S N K F S G S I I P D M F H N L T Q L Q F M G V A G N N L T G A		
UniRef90_W1PV14	S R L Q V L R L S V Q N Q L E G K I I P P S S G Q C K K L Q R I L S Y N R L E G S		
UniRef90_N6T159	D Q L K V L L D L S H N E L S W V N R D T F S G L V R L V V L N L A N N Q L D I D		
UniRef90_C3YSM8	T R L H F L H L N D N A L L S S L P K D I F S P L S K L M G I E L E N N Q L T V I		
UniRef90_A0A059BZ85	T S S L Y Y L D L S H N N L S G T I I P P Q L I G L T S T L T I L D I S D N L L V G E		
UniRef90_A0A022QZA0	K E I K L L N L F M M R N F H G S I P D F V A G Y P K L E T I L W M N N F T G K		
UniRef90_W5AJY2	A T V T V E N I I R R N S V H G Q I I P P W L G N L T A K D I L N M G G N M M S G D		
UniRef90_Q9VAD1	P R L R V L L V A N N Q L D M V S E M A F H N S T Q L Q I L D L A H H N N L D I G		
UniRef90_G7JP53	S F G M R Q Y V H N D D D D G P I I H P W I G N S E N M T G I L D L S C N K L T G V		
UniRef90_F2FEF5	R D L Q Y L I M E N N P M G V P L P E P L G G I A R L Q O E L R L A N S G Y S G S		
UniRef90_UPI000234F2DE	S S Q L Q I F L A S G I G A I P Q S I I M M M K N L Q W L D L S E N N N L F G S		
UniRef90_M6ZM52	Q N L Q T L Y L S N N Q L T T I P K E I G Q L Q N L Q E L Y L S S N N Q L T T I		
UniRef90_G3WBD3	P R L G L L S L S A N Q L A H L A P E A F V G L G A L R E L R L E G N R I L R		
UniRef90_M8CKJ9	G K L Y D L V F D N D S L S G E L P E N L G D C V L L N N I M L Y N N C F S G E		
UniRef90_M4D14	S R L L N L L E L R Y N N H L E G E I P T S I G N L K E L R W R F R L E Y N K L C G N		
UniRef90_A8P8G3	F A I L R F I D L S R N R R L A V L H A L T F S S L T S L Q N L S T R N L L T L E		

250 260 270 280

UniRef90_M0ZHC6	P S G G C F S N F S A E S F R Q N P E L C G		
UniRef90_V4S465	P R G G P F T K F S S K S F I G N D L L C G S P		
UniRef90_W5BK68	P T S G I F E N S X A V V L D G N K G L C S N S S R L A		
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 T F N G T I P V E I S L L G D L E V L N I S

S L R R L D L S Y
 P S H L F N N T P S L R F L D A A M N R L S E I P A D L F P R L E S S L H L S Y
 P L T Y I D F G N N S L S P V P T G L L T M L E V L S L Q
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 L Q I L D L S
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 G N L S Q L A F L S L I
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 I G N L S F L I S L D L Y
 S P C I A N L T T L T R L Q L S D N S L G S I P S E I G Q L L N N L S
 Q L R I L Y L E N N R L T E I P D E N W K K L I V L N L D
 C S R R H E R V T M L D L G S L K L I S P S I G N L S F L R V L N L R
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130 140 150 160

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

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U n i R e f 9 0 _ F 2 D U 1 7	S V N D L A G E I P A T L A K L T N L	R L L N L F R N H L R G G I P G F V A D L	
U n i R e f 9 0 _ M 5 W G 4 4	S R N S L S G S I P L S C G N L S Q L	E F M F I S N N H L S G E I P H F W N N I	
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U n i R e f 9 0 _ V 4 T 5 8 1	G N N N L L Q G E I P D E I I G N L Q N L	L Q L L F H N K L T G H I P S A I F N L	
U n i R e f 9 0 _ K 3 Y Z 2 4	S N N N L L H G Q L S P R I G N L K D L	V F L S L S V S N F T N T N Q I L K N C	
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U n i R e f 9 0 _ B 4 N 5 1 0	S S N Q W S C E C S Y L S R F R T Y L	A Q H	
U n i R e f 9 0 _ D 8 S 9 Q 1	V H N N L T G A I P E S L S L L V S L	D T L F L Y S N S L S G P I P P Q L G Q L	
U n i R e f 9 0 _ U 5 G 2 X 6		N G G N L E T L L I L N N N L I T G S I P Q S I G N C	
U n i R e f 9 0 _ C 5 Y T A 1	G G N S F V V G P I P A E L G N L T M	S S L D L S S V C N L T G S I P A S L G N L	
U n i R e f 9 0 _ J 1 L 9 A 9		D D Q G R P G L D L L	
U n i R e f 9 0 _ W 9 S E Z 0	S T N K F S G E L P K N L C Y R K N L	S T L I T F S N H L S G T L P S S L S E C	
U n i R e f 9 0 _ A 0 A 0 5 9 B S 0 1	D F N Q L T G K I P E Q V G S L S S N L	R F S L Y R N D L I G G L P P S S M G N L	
U n i R e f 9 0 _ U P I 0 0 0 4 6 D B E 6 7	Q N N S L S S E I P Q E I G R L R R L	Q N L Q L D N N S L S G E I P P S N L L S G G C	
U n i R e f 9 0 _ T 1 L R G 4	S K N N L L Q G E I P P S A I G R L S R L	R H L I L S N N S L L H G D V N T G L K N C	
U n i R e f 9 0 _ F 6 H B W 0		P N K N I L P Q D N H I L I G N L P E W L G K L	
U n i R e f 9 0 _ U P I 0 0 0 3 4 F D 8 F 7	S G N N L L K S V P Y G L P K N E L L R	L K D D N I D S S I P Q D S L T G M	
U n i R e f 9 0 _ D 8 T 7 X 7	T N N S L E G E I P K E M D G S K S L	Y V M E L L A S N S F S G K L P G R I G R N	
U n i R e f 9 0 _ A 0 A 0 2 2 R R L Y 3	R S C D F S G E I P E S L S Q L V R L	R L L N L G D N N I T G T I P L G L F N I	
U n i R e f 9 0 _ D 7 L A 2 5	S N S S I T G K I P E G I K N L V H	R N N E L S D N Q I S G E I P P K G I V H L	
U n i R e f 9 0 _ U P I 0 0 0 2 C 3 6 B E 6	G M N L F S G T I P P S I Y N L L S S I Q H I S V I G N Q L H G T L L P S G L G H F		
U n i R e f 9 0 _ F 6 G U N 6	S N D F S G E V P T T F P K E T R F L	A L G G N K F S S G G L P L N L T N L	
U n i R e f 9 0 _ U P I 0 0 0 3 5 0 D 4 1 5	V T I T F K D A A L S I T K I L R A F K V I	D L L S N N S F E G S I P P S S I G R L L	
U n i R e f 9 0 _ K 7 L F A 3	G E N K L E G N I P S S I G N C Q M L Q Y L Y R Q N N N L R G T I P L E I F N L		
U n i R e f 9 0 _ U P I 0 0 0 3 F D 0 F 0 A	U n i R e f 9 0 _ U P I 0 0 0 3 D 7 1 C 8 D	K S N Q L Q L L T V H N V T Q L V T L E V S H L S F T Q D I K E N G L N I Y G L L	
U n i R e f 9 0 _ Q 6 X 1 D 9	S S N S F S G Q I P P S S F S N L Q Q L H H L D L Q F N S F V G K I P A S I L N N I V		
U n i R e f 9 0 _ U P I 0 0 0 3 E A B A 9 F	S N N S N N S I P L D I G K S L L G F A S F F S V A N N G I T G I I P E S I C D V		
U n i R e f 9 0 _ M 1 B I X 0	S N N R L R S L A R N G F A G I I K L R E L H E H N Q L T R I N L A H F P R L		
U n i R e f 9 0 _ A 0 A 0 5 9 D 7 K 6	S S S M E A P R Y M R E I V R I L Y L Y T V I	D L L S S S N K F G G Q I P S I M G D L L	
U n i R e f 9 0 _ W 5 G J U 1	R N N S F I G E I P L E I G N L Y R L K Y I L G L G N N S F S G Q I P A N I S G C		
U n i R e f 9 0 _ U P I 0 0 0 3 V 7 C Q G 2	Y N K L T G V I P S E I G N L P L N L V S L L D L L N Y N H L T G S S L P S S L G N L L		
U n i R e f 9 0 _ A 0 A 0 5 9 B R T 9	S S S N Q L D G D I P P S S F S N L C Q L L Q H H L D L Q F N S F V G K I P A S I L N N I V		
U n i R e f 9 0 _ A 2 W K Z 8	S S N N L S G A I P P Q L Q M G L P S L I T N L S H N H L I G V L P T E V G N L L		
U n i R e f 9 0 _ L 9 L C H 6	G N N Q I G G G S F P C W M H L P K L L Q V L V L K S S N K F Y G R L G P T L T K L L		
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U n i R e f 9 0 _ K 7 J A V 1	A G N E L M G P F P P T F A N L V A L V N L N L S R N N N L I G K I P S K I I G K L		
U n i R e f 9 0 _ A 0 A 0 5 8 Z X 7 4	S Y N A L L S K I D A Q V F R G L G Q L Q V L N L S R N K I Q G S I P P S Y I G Q M		
U n i R e f 9 0 _ F 6 G X W 6	G F N H I S G T L P S R I E N L I N L E V L S V W S N N I S G N I P S E I G N L		
U n i R e f 9 0 _ D 7 P J Y 6	S S N N F L E G E I P E G I G S L Y S L R A I I N L G K N K F S G R I P D S I G S C		
U n i R e f 9 0 _ B 5 D L N 5	S S S N N F I G Q V P T S L G R L G M L S F L N L Q A N K L S W E F I G G L S N C		
U n i R e f 9 0 _ Q 1 E N U 6	S H N R I I A L D P K V F D R N K R L Q T V D L S H N H I H A I S G V F S N L		
U n i R e f 9 0 _ V 7 B 2 I 0	S D L K G G I G S F P Q L Q N M R N M T K L V L R N L S I S G E L P D Y I G E M		
U n i R e f 9 0 _ K 3 Z N 9 2	N G N M L S G S L P D E L G N L L N I N R F Q V D E N Q L S S G S I P E S L A N M		
U n i R e f 9 0 _ K 7 L 1 S 6	M N N N L E G N I P D E F A R L R G L Q E L H L G K N K L S G R F P Q L V L N L		
U n i R e f 9 0 _ U P I 0 0 0 3 D E C 2 5 6	S S N H F S G E I P Q E I E N L F G L V S L N L S R N N N L I G K I P S K I I G K L		
U n i R e f 9 0 _ I 1 K X N 4	S R N S L L Y S D I P D S F R N L Q D L G I L D L H S N R L I A G T I A S A F D I Q		
U n i R e f 9 0 _ B 9 F 2 S 9	P P N N L L Q G T E G A N V V K L G K L A T L D D L G E N N N F S G N I P E S I I G Q L		
U n i R e f 9 0 _ S 8 E 4 Z 3	G N N Y L L S G G I P P S D I G K L S M M S R A L L S R N Q L T G P I P A S L S S G I L		
U n i R e f 9 0 _ W 4 Z L K 1	E N N R L L K G S S L P F S L G N L T R L A S L Y A E G N N F E G R L P T S L G S L		
U n i R e f 9 0 _ G 7 K T S 9	R N C S L E G A I P D F S S I		
U n i R e f 9 0 _ W 9 S I M 8	E A S G L E E G P L P L N I S Q L T K L E D D L R I S D M R S P G Q N F P M I R S M		
U n i R e f 9 0 _ M 1 B W K 7	S H N A L L T G S L P K V I T Q F P K I T V D L S F N Q L N G P L L T S L L T L		
U n i R e f 9 0 _ C 3 Y O E 9	A S N R L R R I P K A L R K L T T S L S H L V L R N C R I S G N L E A V F S I F		
U n i R e f 9 0 _ U P I 0 0 0 3 E A E 1 1 A	G D I V N G S S S L A F I S N L T S L S H L V L R N C R I S G N L E A V F S I F		
U n i R e f 9 0 _ E 4 T M X 0	G N G K L L F V E I P D D L L G T L T N L T F F A I G T V A N R G E F P E G F Y Q L		
U n i R e f 9 0 _ U P I 0 0 0 4 5 7 4 D 7 4	T G T N L L T Y V E P N A L A A V Q G L Q K L F D E N K L S L D S T I V P T E A L R G L		
U n i R e f 9 0 _ B 9 I L 4 7	F S N R L L S G K I P P S S L G N L S V L Y L D D N K L K D T I P A S L L G G C		
U n i R e f 9 0 _ B 7 G 0 B 0	G A N L L F G P I P T Q F G A L T K L E R L V I G P N F F S G T I P S E I I G E L		
U n i R e f 9 0 _ U P I 0 0 0 3 D 6 F 5 A 8	S S N Q I T G Q L P P S S L G D C S K L L K R L L S V S F N E L L T G R I P P Q N I G N L		
U n i R e f 9 0 _ F 2 U R B 2	R N A Q L L S V L D S D L F L N A Q N L T E V V F T N N D L T S L P A T L F Q N H		
U n i R e f 9 0 _ W 5 B K 4 4	A N N G F S G G P L P A S L A D V S T L A R L D D L R N N S F S G E L P H G V R R W		
U n i R e f 9 0 _ W 5 G W 1 1	S R G N L L E G E I P P P E V G L Q M E L S Y L H L E A N N L T T G K I P D S L G N L		
U n i R e f 9 0 _ B 9 S 5 2 3	A F T G S L S F S F L C T V M D S G M T Y L D L S D N S L S G G L P D C W A Q F		
U n i R e f 9 0 _ W 5 E D Z 5	A H N N I S G C I P W L L S N L K A M R V K Y M P V I T K G Q T R D Y T L G V F		
U n i R e f 9 0 _ G 9 C 3 5 0	A N C A L L G T I P P W L Q S L K S V L D I S W N N L H G K I P P W L G N L		
U n i R e f 9 0 _ K 3 X Q U 2	S L S D I V D Y G Y N I D G V T D V V A Y T D S S L V I M K G Q Q L E F T S G I		
U n i R e f 9 0 _ M 1 C 3 V 8	S S N E L L V G G V P B E E I A E M R G L K S S L N L S R N D L N G T V V E R I G Q M		
U n i R e f 9 0 _ W 9 R B C 3	S A G F F K S D A I K L F R N L E V L D L G N V S G E L P S F G P L		
U n i R e f 9 0 _ U 5 F V Y 9	S N N N L F T G E I P K M I G K L K A L Q Q L N L S H N S L T G Q I Q S S L G N L		
U n i R e f 9 0 _ A 0 A 0 5 9 C D F 5	S N I L F Q G P I P Q N L L G K Y M S I L F F L S L S S N S R I T G G L P E F L L E N M		
U n i R e f 9 0 _ M 1 B 3 F 1	Q N N R I V G G I P P P E L G K L S N L R Q L T F D N N N N L I I G Q I P E A I F N I		
U n i R e f 9 0 _ M 0 U T H 5	Q N N L N L G H I P P E L F S P L S T I T T C I V S Y N N L E G P I P P E V S N L		
U n i R e f 9 0 _ T 1 H J 8 1	S S N K L L Q K V E A G T F D E N K N L L A I R L D G N Y L T E I N G L F G K L		
U n i R e f 9 0 _ F 2 E 4 E 0	S N N S L L V C E V P K S L T E L K G L M L Y V K H N R S T S G R Q Y N Q L S N F		
U n i R e f 9 0 _ N 0 A 0 T 6	E G N T W N C R C E D A D L L E A W L R		
U n i R e f 9 0 _ M 4 D F D 2	S E N N L L E G E I P S D V A K L I T Q I T S L L L Q I N N F S G V F P P A I Y N L		
U n i R e f 9 0 _ A 2 Y E G 3	T S S N N L L T G E I P K P L F N S S S L T A I Y L D E N S F V G Y I P P V T A T S		
U n i R e f 9 0 _ M 5 W G Y 7	P S C S L S I S F P L T L S S N F T S L V L V L D L S G N K F T S T V P P W L F N L		
U n i R e f 9 0 _ U P I 0 0 0 4 6 D B C 3 C 0	S G G P I S F F S Y M Y G S S E K Y M E N A I L V T K G R E A K Y D K I L S L V		
U n i R e f 9 0 _ A 5 A K D 5	F P P F S T O V I D L S H N Q L K G R I P S L L F G E Y I Y L G S N S L T G P P		
U n i R e f 9 0 _ U P I 0 0 0 4 2 B 0 0 1 3	R E N E I S G V I P P A S I F N L S N I K R L Y I A T N Q I Q G R L P P D L G T M		
U n i R e f 9 0 _ A 0 A 0 5 9 B S X 6	S Y N K L L T G P I P P S S I S K C L L G R L S L A V N S F H G K I P Q A L G T L		
U n i R e f 9 0 _ J 3 L 9 Q 0	T E N S L L R D I A K A F R K S S R N L T T L L I G R N F W G M P Q D E A I E S F		

210 220 230 240

UniRef90_W5H4M3	S K I L T A L R L S Y N P F H G Q L S E K I G N L K S L L F L S L A N N S L T T N T		
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UniRef90_M3XGB5	H N I L E T L D L N Y N E L Q E F P V A I R T L G R L Q E L Q I M D L A Y N R L E G P		
UniRef90_V4RKK0	K V L L E I N L S K N N L S S D I P A T I G G L K D L Q I M D L A Y N R L E G P		
UniRef90_G3HD02	E A I T T L S L S S N Q L S Y L P P S L P A S L E R L H L Q N N L I S K V		
UniRef90_F2DU17	P D L E V L Q L W E N N L T G S L P P G L G R N G R L R N L D V T T N H L T G T		
UniRef90_M5WG44	P L L F I V D M S D N S L S G T I P R S L G S L T L M F M L I L S S S N K L T G T		
UniRef90_S8DQK2	P D L E V L S L W K N N F T G T I P T N L G R Y Q S L S Y L D L S S S N K L T G T		
UniRef90_F2UJL1	T N L R L L T M H E N E L T S L P P N I F Q A A T S I Q F L Y L T S S N R L L N L S		
UniRef90_G7KY75	R G L A I L Q L D N N N F S G N I P S T Y E N L P R L V K L S L R N C S L Q G A		
UniRef90_V4T581	S T V N L I T L A A N E L S G H L P S T A G N S Q N M E I L D L S E N R L I G T		
UniRef90_K3Y224	R N L T S S L L I G T N F K G E A M P E D I D G F Q N L Q V L S S N C S L S G K		
UniRef90_W4XUG2	S Q L T W L N L Q G Q N Q L I E L Q R Q G V F R G A P S L R V L T L S R N K I S I V		
UniRef90_E1ZY04	I S L V N L D L S F N A L T R I D A Y V F K H L T S L Q I L K E N N N I D T L		
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UniRef90_D8S9Q1	S G L V S L D L S I N S L S G E I P A E L G D L L G L E L L N L F G N R L T G S		
UniRef90_U5G2X6	T N M I W V S L S S N R L L T G E I P A G I G N L V D L L A V L Q M G N N S L T G Q		
UniRef90_C5YTA1	S E F G Y M A L D G N Q N Q L V G T I P S A L C D M N S L F L I S V S E N R L Q G D		
UniRef90_I1L9A9	L K A Q H F H M G S N K L T T G T I P E E L F N S S H L K H L F D H N Q L E G G		
UniRef90_W9SEZ0	T S L T Y I R I E K N E Y S G K I P D D G V W S L P L Y H L Q M E N N R F G D S		
UniRef90_A0A059BS01	S S L L E V L Q L T R T N N F G G S I P P V L C H L Q A F Y V V E N K L L S G P		
UniRef90_UPI00046DBE67	S Q L L I L L L G F N F L V G R I P E E L G T L S K L R V L A I H R N N L T G V		
UniRef90_T1LRG4	T S L L E T I E I D S N R R L L T G E I P A P W L G D L L S S L K V I D L N K N N F G I		
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UniRef90_UPI00034FD8F7	□ K L K E F Y L S S N N K L L S S F Y S G A W A E L S S S Q I L D L S S N Q L S Y L		
UniRef90_D8T7X7	S P L I I Q L S Y N Q L S G E I P P E E I G L M R S L L I L D V A H N N L S G R		
UniRef90_A0A022RLY3	S T M E N I G L D F F N N L L H G I P P S N I G P N L S S Y L G R G T Q V R G K		
UniRef90_D7LA25	R N L R Q L E Y Y N N Y L T G K L P P F G F R N L T N W N F D A S N N S L E G D		
UniRef90_UPI0002C36BE6	P N L Q V F R F Q M M N L L F S G T I P S T I S N A S H L Q F G S F N H F T G E		
UniRef90_F6GUN6	S K L L E R L E L Q D N N N L T G E I L P N F L S Q I S T L Q V L N L R N N S F Q G L		
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UniRef90_UPI0003F0DF0A	P N L R Y F Y L N S N S D I T L L P E T I V N F P E I Y N M G L R F N K L L T H L		
UniRef90_UPI0003D71C8D	T Q L L A Y L D L S S N S F S G Q I P P S S F S N L Q Q L R H L D L R F N S F V G K		
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UniRef90_M1BIX0	I L A V H T L N L S H N G L L Q G H I P Q S F G D L L S S V V E S L D L S G N Q I S G E		
UniRef90_A0A059D7K6	K N L L E D L I L G F N M L L V G E V P I A I A S M S K L K G V S I H F N N L S R N E		
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UniRef90_V7CQG2	R G L E T L N L L S S N N Q L S S G T I P V E L Q N L Q V L R L L N F S Y N D L E G D		
UniRef90_A0A059BRT9	R T L L T A L D I S D N L L V G E I P P S S L G H C T S T S L R M G V N F F H G S S		
UniRef90_A2WKZ8	Q H L R I L D I A S N N N F S G I L P P D E W G T Y H I T Y L F V S S N N R F H G S S		
UniRef90_L9LCH6	H K L V R L D M T S N R L H K L P P D G L F K P P T P L T V S F G G N P L H C N		
UniRef90_A0A059DDF6	M M N R C L S L T S N N F T G T I P P L E A Q L L A S L E V L E L S S N A L S G E		
UniRef90_K7JAV1	U N F R W L R W L S L S H N R L L V R F E A A H S R G L A Q L N Q L L D D N K L L Q F V		
UniRef90_A0A058ZX74	N K M K V L L D F S Q N N F S G Q I P E S I G N L R M L I K L S L S D N N N L S G S S		
UniRef90_F6GXW6	L L L R L L D L S E N L F S G G L P P E S M Q R L R M C N Y L S L R G N L L T G E		
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UniRef90_B5DLN5	P Q L R E V F F L S E N N I L E L P A D A F T N S T N V D V I L E A N A I H □ D		
UniRef90_Q1ENU6	K A L N S L L D V S F N N L L S G P I P G T Y A A T S S L N F M Y L L S N N N L L N G K		
UniRef90_V7B2I0	I N V K H L H L N N N S F S G Q L P P S T L S K L L S N L M H L L V D N N N L L S G N		
UniRef90_K3ZN92	S N L V V F S V A S N Y L S G D V P P S D L G S L P S L K Y M S L G G N F F H G H		
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UniRef90_UPI0003DEC256	T S L L E S L D L S R N Q L T G S I P P L S L T Q I Y D L G V L D L S H N H L T G K		
UniRef90_I1KXN4	Q S L L K F V D L L S A N N F S S G I I E I G G Q C G I Q F L N L S H N H L L K G R		
UniRef90_B9F2S9	N R L L E E L H L N N N K M F G S I P P S T L S N C T S L K T I D L N S N N F S G E		
UniRef90_S8E4Z3	Y R L L A D V D L S M N R R L T G P I P P K Q I F Y L S S L T N L D L S D N Y F V G T		
UniRef90_W4ZLK1	Q E I T T A N F S N N M M F T G P I P P K Q I F Y L S S L T N L D L S D N Y F V G T		
UniRef90_G7KTS9	R N L L T Y L D L S W N Q F T G P I P P S K K L A D N M T T F D L S H N K L L N G S		
UniRef90_W9SIM8	G S L L T R L V L R N C N I S G E I P P S Y F W T M K N Q D T V D F S Y N K L V G E		
UniRef90_M1BWK7	P T I E E L H L Q N N N A L V G N I P D F A P S A T P N L R V L D L S H N Q L A G S		
UniRef90_C3Y0E9	R G P A V I D L R D N R L L E Q L D P D V F S S T Q H V R L D L A G N P W R C D		
UniRef90_UPI0003AE11A	P T L L T L D L S F N N I T G Q V P Q S I L N L G A L L Q F L F L G N N S L K G S		
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UniRef90_UPI0004574D74	H V L L D E L K L S R N P I P R Q I H P P N L K Q F R S S L D T I I N L S S N N P L N C		
UniRef90_B9IJ47	K N L L V S S L G L R S R N K L L N G S I P E Q L P F G T S S L F S L D L S H N Q F T G S T		
UniRef90_B7G0B0	L E L V E F R M P T N F F F N G T I P T E F G K L T K L T V L D L S S N N L V D G T		
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UniRef90_F2URB2	P A L F R L F L D D N R I L K T I D E A L F Q H C P S L Q H L H S N N L L T T L		
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UniRef90_W5GW11	T K L L S F L L V L A T N Q L L S G P V P T T L G N I A S L G I L S L L G N N L E G N E		
UniRef90_B9S523	K Q L L V I L N F E N N N D L L S G S I P P S S M G F L Y N I L Q T L H L R N N S F T G E		
UniRef90_W5EDZ5	S Q V V N L Y L D L S C N S L T G Q I P P E E I S L L I G T S L T S L N L S S N N H F T G K		
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UniRef90_K3XQU2	M Y L L V N F D L L S C N S L T G Q I P P E E I I G K L P A L K N I L N L S W N H L S G I		
UniRef90_M1C3V8	K M L L E S L D L M S R N Q L L S G V I P P Q G Q L A N L T F L S V L D L S S N N H L S G R		
UniRef90_W9RBC3	P N L L R V L R L L G K N Q L F G I L P P E E L M E S S P L V E L D L S S N N G F T G S R		
UniRef90_U5FYV9	T N L L E S L D L S S N N L L T G R I P T Q L L G G L T F A I L L S H N Q L E G R		
UniRef90_A0A059CDF5	Q C I E V I D L A N N N I L S G N I P P S I G N C S T L F S L E V L D L Q Q N N S L L S G L		
UniRef90_M1B3F1	S S L L E V I G F T L L N N I L S G R I P T T T G H L P P N L K V L E L G V N Q L E G E		
UniRef90_M0UTH5	K Q L L V D L Q I S S N K I L S G N I P P S T L S E C Q E L Q I L L M D K N F L L T G N S		
UniRef90_T1HJ81	P N L L V W L N L I S E N N I L Q W F D Y A Q I P T G Q L Q W L D I H S N Q I L T G N S		
UniRef90_F2E4E0	P P S L F L N D N G L L N G T I W P E F G N L K E H V L D L S S N N F M S G S		
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UniRef90_M4DFD2	S S L L G A L S L A N N H F S G C L R S D F G G L P N L R L L N V G G N D L T G S		
UniRef90_A2YEG3	P P L Q Y L Y L G G N M L S G T I P P S S L G N L S S L L D L S T E N N L I G S		
UniRef90_M5WGY7	T K L L E N L D L S Y N S L T G K L P D S L G Y L K S S L R Y L N L S D N N S L E G N E		
UniRef90_UPI00046DB3C0	N S L L D L S D N M I S G E I P Q E V T S L T S L R F L N L S R N H L I G E		
UniRef90_A5AKD5	P Q I E I L A V E D N Q F I G S F P D P S I S N A S N S L V H L T A G E N K L L S G P		
UniRef90_UPI00042B0013	P Q I E I L A V E D N Q F I G S F P D P S I S N A S N S L V H L T A G E N K L L S G P		
UniRef90_A0A059BSX6	R G L L Q E L D V S H N D L L F G E I P P S F L A Q L T D D M Y L N L S S N N K L L E G E		
UniRef90_J3L9Q0	E S I R Y L S I Y H C S L I G N I P P L W L S K L K N I E S I L D L S S N N Q I L T G A		

250 260 270 280

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UniRef90_F6GW00	I P R G N Q F D T F G N D S Y N E N S G L C G F P L S	
UniRef90_M3XGB5	I P E K A F M G N L Q T I H F Y D N P I Q F V G R S A F Q Y L P L H T L S L N	
UniRef90_V4RKK0	I P S F G D L I S L E L V N L S N N K I S G S I P E K L F Y L R E L N L S F N K	
UniRef90_G3HD02	P R A L S L Q T Q L R E L Y L Q H N Q L T A T T F S S K L S S L E Y L D L S H N Q	
UniRef90_F2DUI7	P P D L C A G G R L E M L V L M D N A F F G P I P E S L G A C K T L R L S K N F	
UniRef90_M5WG44	V P S F K N C T Y L N I L D L G D N K F S G S I G E S M P C L Q I L S L R S N S	
UniRef90_S8DQK2	I P P L C A S S N K L K N L I L Q M N D L F G P I P P E L S S C S T L R L A Q N Y	
UniRef90_F2UJL1	P V H F A G M S T L Q V L L D L E N N H L Q S F H A E I P S T T L T L N H N P	
UniRef90_G7KY75	L P D F S L I P R L T Y L D L S W N Q F T G P I P K L A E N M T T V D L S H N K	
UniRef90_V4T581	I P S I T N A S R L Y A L D L S F N Y F S G H I P N T F G K L R H L	
UniRef90_K3YZ24	I P L L S K I K K L Q V L L L H T N Q L S G P I P K S L K S L F H L D I S S N K	
UniRef90_W4XUG2	P D A F S G F N R L H R L M M S D N N L R D G I F R I L R T L E M L D L R N N S	
UniRef90_E1ZY04	L D G F A S L I N L H T L T L S H N K I V R F E P P H L A A L Q Q L F L D S N R	
UniRef90_B4N510		
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UniRef90_U5G2X6	I P E L L G K C R S L I W L D L N S N N L T G P L P P E L A D Q	
UniRef90_C5YTA1	F S F L S A L S N L S Y L D I S M N R F V G S L T E N	
UniRef90_J1L9A9	I P S L S T V S T L E V V R F D K N A L T G G V P A N L S N L S E I Y L S H N N	
UniRef90_W9SEZ0	I P S L S N A S E M T L Q I S N N I F S G D L P T K L T E L V T L D L G E N Q	
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UniRef90_UPI00046DBE67	P H T L S N L L S S L E S L S A S S N N L N G T V P D H L T N I T Y L G L S E N T	
UniRef90_T1LRG4	P S S L T N L L S E V Q E L Y F F K N Q L E G A I P E R L G S L A Y I D L G E N R	
UniRef90_F6HBW0	I P S L G N L H H L K E M R L D G N N L L N G S L P D S F G Q L S T L D V S F N G	
UniRef90_UPI00034FD8F7	P S D L P E T L E Y L Y L Q S N K I P K E S R N L	
UniRef90_D8T7X7	I P E L G N L E G M Q V L D L S E N A L H G S I P A S L S Q L T F L N V S Y N N	
UniRef90_A0A022RLY3	I P S I G N L V G L T S L D L S S N S L E G G S I P P S I G N L N I L N L A E N R	
UniRef90_D7LA25	I L S E L L R F L K N L V S G L F E N L T G E I P K E F K S L A A L S L Y R N Q	
UniRef90_UPI0002C36BE6	UniRef90_UPI000350D415	V P S L A R V V S S L V R L D G D I L N F L S C L I N C T S Q L L D I S G N N
UniRef90_F6GUN6	I P S I F N L S S N L R I L D V S S N N L T G E I P K E S R N L	
UniRef90_UPI000350D415	I P E F T S L T S L S V L N L S Y N N L T G R I P Q G N Q I L S F P S S S	
UniRef90_K7LFA3	I P T I R E C T M L E Y L Y Q G N S L Q G I I P S S L K S L Q R L D L S R N R	
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UniRef90_X1XZN0	E	R Y I N V Q S G S L I E L A P P Y F R G L I S E T V H T G S A S L T R L			
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UniRef90_R0I7K9					
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UniRef90_M1CRK0	N	C R S L Y L D H N L D G V I P D S I G N L S T T I M E F Y L D S C E I R S Q			
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UniRef90_Q4VSU4	Q	R I I D L S S N G F S G H L P M S L F K K F E V M K I T S E N S G T R E Y V			
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130 140 150 160

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UniRef90_W4ZMB5	P A T F G N L T E L I S L D L S S N L L S G Q I P E E V M S I S T L A L S L N L
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UniRef90_Q9LJW7	V P S S I G N L S H L T T L E L S F N R F F G Q F P S S I G G L S H L T T L N L
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UniRef90_C5YQH4	V D D E F A A K S L G R I T I F D N Y N L T G S I P E V F G H L E N L T H L F L
UniRef90_X1XZN0	E A G L L N D L P K L T L I D L S E N G I S W V H L R T F V G P S L K T M Q L
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UniRef90_K7LUD8	I P L P Q I C H L K I I H P L D L S L N N L S G Q I L K C I K N F T S M A Q K T C
UniRef90_M0RF08	I P V S V G H M T R L A D L D L A E N R I S G D I P A S L I G F M P V L S S L Y L
UniRef90_R0I7K9	N N S L K T N S S L F R L E S L S S L D L
UniRef90_Q2YE65	P Q G I F D H L T K L T I L W L S Y N E L Q R L P E G A F D F L E K L K M L Q L
UniRef90_A0A059BIT6	E R V P M Q V T S M L P A L L H L S L S G C G L H N F H M S S N H F A N S T H L
UniRef90_A0A059BCD5	I S R S I G N L S L L Q Q L S L K D N V L S G G G I P E E L S R L K R L T F F Q L
UniRef90_A0A059AXH7	L F S F L K N K K D L K S L R L G Y N I I G D D S S S G F I E N N L E S L I L
UniRef90_E0VC85	A D R A F V G L V S L Q I L N A S S N S L T A L P P E L F Q S T R D I K E I H L
UniRef90_M1DEZ7	F H I S K N Q L N G S I P R E I G Y L R S L T R L A L
UniRef90_E7F0F5	L N H N R R L R S I S P G A F K G L D R L L R L H H L
UniRef90_M1CRK0	I P L G I G N L S N L N T L S L T H N D L T G S V I P T A L C
UniRef90_W9RW99	Y M G D T S N Y Y Q D S V T V A Y K G L D T V L V K I I T T F M S I D L
UniRef90_A5ALJ4	T K Y M M G D M V G P R N D T H I K M M I K G M R R E Y K N I P Y N L M N I D L
UniRef90_UPI000388CE9E	E P A W F Q T L G E L E W L D V S N N R L Q A L P P N C F Q N L S N L K S L D L
UniRef90_B8AB17	R L V T G L S Y L K V L Q L G G C G L S L P H E P T A H S N I S S L E I L D L S
UniRef90_V4U3V4	I P Q W L R S C S K L Q L V D L S W N Q L S G T I P V W F G D F Q D L F Y L D L
UniRef90_A0A058ZW0	I P P S F G N L L S S L Q V F S L A Y A N N L G G T I P E N L G Q R N L N Y L S L
UniRef90_F6GYQ2	S E Q H F L K L S K L E Y L R M G S N C F H L N V S P N W V P P F Q V K Y L F L
UniRef90_N1QTG8	P A W F W V A F S R T N F I D L S D N E I T G T L P A T I E F M S T Q K M V L S
UniRef90_UPI0003D73946	L S P Y V G N L S F L R Y I N I A S N G F N G E I P H Q I G R L I S L E R L I L
UniRef90_K7KBV2	I P K D Y K F P P Q L E R L D M Q S N F L K G L T D Y H F A N M S K L D I L E L
UniRef90_S3TP8	E I G Q L Q N L Q S L Y L S T N R L T T L P N E I G Q L Q N L Q S L Y L G
UniRef90_M1CS93	P S S I C N S S Y L E V L E L S N N S L N G I V P P C L A E K S S T L K V L N L
UniRef90_M7ZAN6	I P P E L M H S T S L A Y L D L S N N H L N G S V P T E I G S L I N L I Y L D L
UniRef90_M0T5H2	T P T F L E Q M T N L A T L K L S I N L L E G P I P R E I P W C W Q I I Y I N L
UniRef90_T1LEY6	I P G W I T S L S N L F Y M D V S S N N L T G E I P P S T L M E M P M L K S T D N
UniRef90_A0A059C2U7	F P H I L L A N F S S L K S L V L R N C G L H G E F P V V S I F Q L P K L E V L D I
UniRef90_E2BUY5	K D E K A S H H S N L H K I N L R N N Q L K G N I I L G N Y G N L T H D V S E N
UniRef90_W4ZMN2	L T S L A N C S R L F S V G L Q L N N L S G I L P N S I S N L S Q K L E T L K A
UniRef90_M0ZT22	P D S I G T L S S L T R L Y L Y G C Q F S G R I P P D S I G N L T Q I R Y L N F
UniRef90_UPI0001983A62	V P Q W L R N S S K L Q L L D L S W N R L S G T L P P W I G D F Q F L F Y L D F
UniRef90_K4AT12	D R S T F V G L I R L V L L N A H N K L S K L E P I F T D L Y T L Q I L N L
UniRef90_UPI00032976D5	P N K L K S N Y L E Y F N I R L S Y N K L Q G E I P D W M F S T S I V R L D L S
UniRef90_M0ZNQ1	I P D Q I C A L H S L Q I L D P G A D R A I P K C L S N L
UniRef90_UPI00042B4EE5	U P K D A L H S L P N L K F L D L N K N P I V R V Q E G D F Q D F L H L E E L S M
UniRef90_W5LSE1	L I C C K M E E P Y W L E T L H L A D N H L S G E I P D C W M N W P N M V S V D L
UniRef90_G8Z973	D N A R D G F E N L R V L A I E Y C L L S G E I P F W I A E L A N L E M L F L
UniRef90_K3YQC5	P A Q V I R N A A N L M Y L D L S G N N I S E I N N F E L M N L P F L R E L L R V
UniRef90_H2VWZ6	P K P F L T G C S S L L L K L S H N Q L Q G K V F P G Y S N L T D L V I A L L L
UniRef90_B2BXR6	P S C I G N L T G M A L D M D S E R Y E G N V L V T T K G T E Y L Y E S T L Y L
UniRef90_UPI0003D77076	P S S L K N C Q N L L L D L S T N N L S G Y I P P E I M C L S S L S I Y L D L
UniRef90_A0A058ZVB8	P D T L G N L K K L K V L E L S Q N A G M R G P I P S S F G Q L S S L E E L S V
UniRef90_UPI0002B4A827	U G D T S Y H Y T N S F I V T T K G L E L P R V L T T E I I I D L
UniRef90_D8SS55	F S Y V F T P K M E L V E K G T K Q T Y T F T L D Q V N L I D L
UniRef90_Q4VSU4	P G E S L Y S D S Y S P E E S W L S D P G T N T S Q F R R G I I D Y M Y G M D L
UniRef90_M1BMZ6	P D T L G N L K K L K V L E L S Q N A G M R G P I P S S F G Q L S S L E E L S V
UniRef90_M4ETC8	U G D T S Y H Y T N S F I V T T K G L E L P R V L T T E I I I D L

170 180 190 200

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

210 220 230 240

UniRef90_M0TI49	T S F Q K L D L S F N N L T G Q L P Q S S L F N L N L S H L F L G N N N L S G S		
UniRef90_W4ZMB5	V A L Q F L H L K G N N L L H G Q I P K E L M A L R G L E E L D L S N N N L S G P		
UniRef90_K7M260	P N L Q G I S I G G N N L F S G P I P I S I T N A T V P Q V L S F S G N S F T G Q		
UniRef90_Q9LJW7	S Q L T R L D L S S N N N F F G E L P G W L W T L P N L F Y V N L S Y N T F I G F		
UniRef90_B4J769	F T V Y Y L D L S N C A I G A L G H R T F S T M P H L T T L K L A W N N I		
UniRef90_C5YQH4	S D L V S V N A D N N K L T G A I P E G L C S K G Q F V S L S A R G N H L N G S		
UniRef90_X1XZN0	P S L K E L Y L N D N G I T E I F H G A F H R T P S L K L V H L E N N Y L R R V		
UniRef90_M7ZBY7	T A L A M L V I S Y N N F T G G I P P S I T S C V N L V W V S L S A N R L T G V		
UniRef90_K3YYD3	S M L T T L D L S S N K L T G A I P P E I G Q L K A L V S L N I S F N N I L T G P		
UniRef90_M0UGR5	A T L P K L T L Q S N Y I S G T I P L E I G N L S E I S L L Y L D N N L F T G P		
UniRef90_KOIE77			
UniRef90_W5FGT6	T S L Q M L D L S M N S L S G P L P S E L N R L E M L M S A N F S H N Q F S G A		
UniRef90_V4T043	L L T A V I L S S N R F D G E I P T S I S N L K G L Q I L S L A D N S L H G H		
UniRef90_W1PPW5	S T L K L R S C N I T K F P D F I K T Q E R L K Y L D L S D N L L E G A		
UniRef90_Q2VGR9			
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UniRef90_K4CB63	E K L T R L E L Y N N Q L T T V P E G V F D N L K S L T H I W L F N N P W D C A		
UniRef90_M0TF18	V M L S M L D L S N C R F N G T L P P T I G N L T E L D H V G I S D N N F T G S		
UniRef90_Q2VG9	S K L D Y L D L T G N S L T G T V P P S V G N L T R L T G L L I A Q N Q L L Q G N G		
UniRef90_A0A022RN94	N L T N L S L S Y N D F E G A L P T G G V F K S A I S T S V V G N K K L C G G		
UniRef90_M0UGR2	P Q L Q V L N L A S N K I K L V A A G C F R K N V N L K L L R M D G N E I I T N F		
UniRef90_A0A058ZWM7	R T L V Y L L M A G N Q L S G H I P D C W Q R M E N L T F L D L S S N N L T G R		
UniRef90_G6DC7	S N L S I L S F A Q N N L F G H I P E F V G N L V K L T N L F L H G N S F S G S		
UniRef90_M0RW04	S S L K Y L D I S L N S L R T I E D D A L E G L D S L Q T L I I R D N N I L L V		
UniRef90_A3A4G6	F S L N V L N I S Y N N L L A G V V P		
UniRef90_B3LYV9	I Q L T A I D L S S N R F E G G I P D A L G D L K E L Y L L N L S N N F L T G R		
UniRef90_M0XQT7	T S I K S L D L S F N R L E S K I P R A F K R L R H R S V N L S G N K K L S Q E		
UniRef90_B9IG9	S G L Q G L Y L S H T Q L L T S L P E G V F S G L R S G L K Y L Y L S H N Q L L T S L		
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UniRef90_L1IVX1	K S L Q V L D L S Q N K L L S G M V P K Y L E G L A L E H F L N L S F N D F E G G		
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UniRef90_UPI0003D25F23	A K L E R F D V S R N G L T G T I P T G L G L L S K L Q W L D L S I N K L G G K		
UniRef90_UPI00032ABEF7	Q V L S F L D L S S N N L L N G T I P Q S L G Q L Q Y L S S L D L S A N S L G G T		
UniRef90_A0A022R4Q6	Q K L R R L T L S R N N L E V L P P G F L H L H N L S K L T L Y R N P L K S L		
UniRef90_A0A058ZXG1	H Y L D F F L L L S S N N F F E G T I P P S L L G M P F F S F L D L S G N N L L S G A		
UniRef90_U319M1	S R V T S L D L S G I K L R T L P S Q A F A G L S A L P E E L D L S N M R I T T V		
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 I P T L A A C K S L E W L A L D D N Q L S G N V P L A L T Q L S Y L T L R N N Q
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 P P G F S K L Q K L A I L Q L N K N Q L S G R V P A E L G N L I W L D L N S N G
 I P S I C N L T N L Q V L D L S N N N L T G A I P S E L E N L H F L N V S N N N
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 V S E I H F L S K L W F L D I S K N H L
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 I P S I G K L T S L D F L D L S R N Q I L V D S I P S S L T K L S V L D L S H N K
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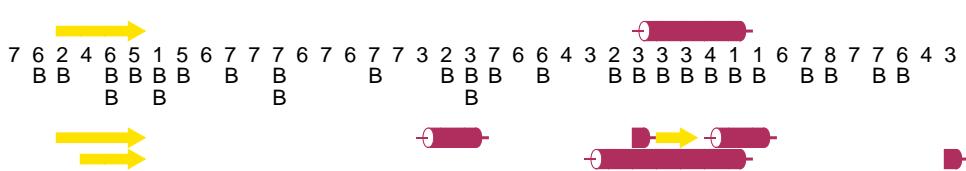
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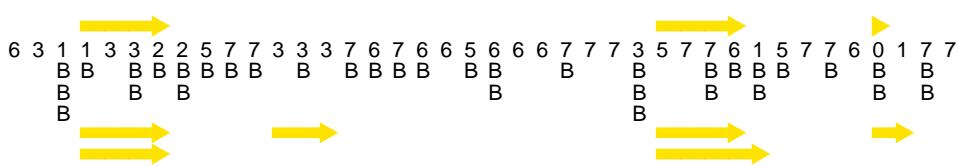
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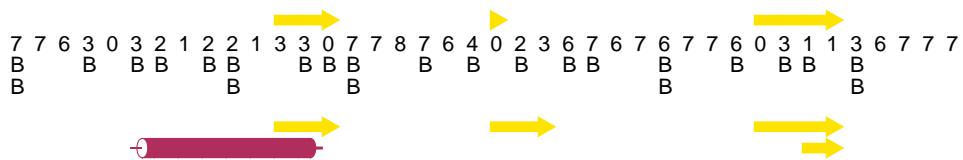
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