

The figure displays a sequence logo for a protein sequence across 40 positions. The y-axis lists UniProt IDs, and the x-axis shows positions 1 through 40. Each box represents an amino acid at a specific position: black for hydrophobic, blue for polar, red for acidic, green for basic, and yellow for aromatic. The height of the box indicates the frequency of that amino acid at that position.

50 60 70 80

QUERY	UniRef90_H1XVB8	UniRef90_I2GHL0	UniRef90_K1KT74	UniRef90_UPI000475ED6D	UniRef90_W0MTR5	UniRef90_UPI00016C4C04	UniRef90_F4DQQ3	UniRef90_UPI00047D407C	UniRef90_F8EQT1	UniRef90_G0GP45	UniRef90_I3IFK5	UniRef90_A0YN15	UniRef90_UPI00047CA480	UniRef90_UPI00045EBDFE	UniRef90_UPI000373DC6F	UniRef90_E8R161	UniRef90_W8QYF8	UniRef90_UPI0002E07621	UniRef90_UPI00029A2895	UniRef90_UPI00037ACA6B	UniRef90_V4NXG8	UniRef90_B5IJ24	UniRef90_A5UW72	UniRef90_J3D1J0	UniRef90_UPI00030A645D	UniRef90_H0J9X6	UniRef90_J2LDN1	UniRef90_D2QGM9	UniRef90_UPI000466A3CB	UniRef90_UPI00046F41F2	UniRef90_T0MBW4	UniRef90_A4C166	UniRef90_F5LT12	UniRef90_W6RDL3	UniRef90_Q7UULO	UniRef90_UPI000467F628	UniRef90_UPI000469B6F6	UniRef90_UPI00036CD9B8	UniRef90_UPI00035EAB3F	UniRef90_B0T4Y9	UniRef90_W4LVM5	UniRef90_UPI0003664D61	UniRef90_A4A213	UniRef90_G8MGM4	UniRef90_B9XQ06	UniRef90_A7INE8	UniRef90_B2J136	UniRef90_UPI0003B402E3	UniRef90_A6UKA9	UniRef90_UPI00036D14E3	UniRef90_I0KAB9	UniRef90_A4FG85	UniRef90_J8VKK1	UniRef90_B3QGG3	UniRef90_R4XYZ8	UniRef90_Q0AL29	UniRef90_Q13GE6	UniRef90_UPI00037563A1	UniRef90_N4WXP1	UniRef90_UPI0003B57E37	UniRef90_UPI00037FE123	UniRef90_H0A8U9	UniRef90_UPI000248D685	UniRef90_K8RCZ0	UniRef90_K7J5D9	UniRef90_A4PIA7	UniRef90_U3QZL8	UniRef90_R4WP35	UniRef90_UPI0001745DC7	UniRef90_UPI000465E8A6	UniRef90_G6Y6W7	UniRef90_F8GQ21	UniRef90_UPI0003772DEC	UniRef90_G6ED66	UniRef90_UPI00035E494F	UniRef90_U1M3R9	UniRef90_L8LRN8	UniRef90_UPI00047C3811	UniRef90_B9NVV5	UniRef90_C0IN59	UniRef90_UPI0003B75AD1	UniRef90_V8QV14	UniRef90_UPI00037288C8	UniRef90_E4TN8	UniRef90_UPI0004010B1A	UniRef90_I0JJ15	UniRef90_X5YWE0	UniRef90_B1Y0K8	UniRef90_UPI0003B647A7	UniRef90_D8MV82	UniRef90_W4L6Y0
N G K P A G E I L R I D L K T G K K T V I C K P E V N G Y G G P A G C Q C D R	L G M V Q N L G M V Q N D P N D K I W K Y D V G G T L S V F M D K T D Q P N N K I L R W S Y T R N E I S V F M E D T D Q P N N K I I R W D A G T G A F S T F S D T D Q P T D R I M R W N E V T G E L S V Y R E H S T D Q P N D R I M R W D E I S Q S L A V Y R Q P S T D Q P N D R I L K W N A V D N T V S D F M K P S I Q L K N G R L H R F S D I P P N N A I M R W D E V S G E T S V F R Y P D A S Q G G T I I V Y K P Q T D K P Q S A Q L F L P T G S T G N G I S D I P E N K I Y Q W K P N E P V Q V F R Q P S G N A T D Q P N D R I V K W S A A N N S V S V F M E P S D I P W G R I I K V T P L G K V S V E A E Y D G E P N G S D I P P N N A L M R W D E T T G Q T S V F R K P S N N S S D I P P N N A V M K W K E G E G L S R F Y T G D Q T R G G E S G S N G L L L D R T D I P Y G R I F R I S P Q G E W S L V V E Y D G W P N G L K I H R S D I P P N N R I M R W D E T D G S V S V F R Q P A R N T N G H T V D R S D I P P N S R I V R L D A D G S T S E F L I S P S G K A N G L V F D A R S D I P Y G R I F R I S P A G E F A L V A E Y D G E P N G L K I A R R S D I P P N N R M L R W S E E T G A V S V F R Q P S D F A N G H T R D R S D I P P N R I L L R W C E D T E S V S V F R S P S D Y A N G H S R D R S D I P P N R Q Y R W H P V H G V S I W R E P S G H S N G L T L D H T D I P Y G R I F R I S Q E G E W E L V T E Y D G W P N G L K I D K D I P P N N R I V R W D E V S G R L D T Y R A Q S N F A N G L T R D R D I P P N N R I V M R Y D E A N E S W S V Y K A N S N Y A N G H A R D R I L Y K Y D P H L G N V S I Y M T K G T Y D I G E Y H Q P G S N G L A I D P T D I P F G R I V F R I D H A G E W E Q I A E Y D G W P N G L K I H R T D Q P N D K I I W K Y D T E G K L T V F M D K A G R S N G L Y F D K I S E Y N N G I L T R H L V G G R P N G I A I D Q E E G T I G Q V T P D G Q A R L Y L T L P E G S V G N G I R F N R D I P P N D R I V R Y D A K S G E L A D W L S P N G S I G N G I R F T R S D I P P N D R I V M M R W M P D G N V S V F R S P S S Y V N G N T R D R T D Q P N D R I I W K Y D I D G K L S L Y M D K C G R S N G L F F V A S D I P P G N E M F R I L G P D G K V A S F R K P S N M G S G R A N G T Y F D K T D Q P N D Q I I W K Y S T D G K L S L F F E K M G R S N G L Y F D K S D I P P N D R I L M R W D E T T G A T G V F R A G S G Y A N G G T I D R L T R V H P D G R K E T V A E V P G G P N G A A I G P S D I P P N N R I M L K W E E E T G V V S V F R K P S N Y A N G N T R D R I Q R G T I L S R I T P Q G E V R V V A E L G G G P N G V A I G P D I P P N R I M M K W K A G E G A S I F M E P S G Y T T G K E P N G L M L D A S D I P P N R I I M R W V E E G A P A T V F R Y P S N N A N G N T R D R S D I P P A E E L K Q W S A K N G L A T F R T N S H G A N G N C V D R D I V P N D R I L M R Y D E T N D V V S V F R A P S G N G N G N S V D L V D I Y N H R V H Q F N P A T G K D L F F D V G D V V G A I A T D I V A R G R I F R I T D G V F D V F A N Y D G E P N G L K V L P S D I P P N E R I M L R W S P E G G V S V F R Q P S N F A N G H T R D R S D I P P N N V I H R W T E K S G V Q V F L K P S G Y T G L G T S N G L T I D R S D I P P N D R I L L R W D E T T G V V G F V R A P A G Y T N G H T V D R T D I P P W G R I F R I S P D G T C E V G F K Y D G Q P N G M K F L N I R A Q Q L I T R V W P D G R K E V V V A K V P G G P N G A A L G P S D I V P N D R I L L R W D E I S N S V H V Y R T P S N H A N G N T R D R T D I V P E N Q A F R W S P E A G L E V F D P S G A A P E N D A N G L W Y G A D I P P W G R I F R I S P R G S F E L V H S Y D G E P N G L K I H Q L F C R Y T N G D T K R V K T G G Q P N S L I C N R V D I L E K K I Y I F N P V T N E N R L I Q L E Q Y V G V I V I P Q H T I G Q V T P E G V E S V F V E L P T G S G N G I R F N S S D I P P N D R I M L R W L P D V G T H V F R A P A G Y T N G H T R D R S D I P P N N R I I L R W D E E T G A T T V F R K P S N N A N G N T R D R D I E G M R I H H D P V Q G T N R S I Q L D Q R V G A A V P R T D I P P N E R I I L K W D A S T E R V S T W R A P S N K A N G M T R D R V D I N A Q K I I L R L D P V T G N I T S A Y L K D G P V G V V I P V S D I R G N R I I M K W D E A T G E T S V F R A S S N F S N G N T V D R T D I P N G R I I F R I D P K G D W D L V A E W D G E P N G M K F L G S D I P P N R I I M L R W A P G M G V G V Y R A P S N Y S N G N T R D R S D I P P N N A Q M R Y L P E D G H V S T L R I S N S N G N T F D T S D I P P N D R I I M L R W D E E T G A V A V F R R S A G H T N G N T L D R S D I P E S R M Y R R L A S G E I E P F R D P S H K A N G N T L D R T D I P P Y G R I I F R V S M Q G D W E L V A E Y D G E P N G M K R L V T I G K V T P D G K A E V W V K L P N K S T G N G I V F D K V D I L E K K V H I Y N P I T N E D K V I F L G Q M V G S V A P S E U H Q G T I I G K V L G K D K V E T L V T L K N G S G N G I R F D K S D I P A N T I I Y K L Q P E Q Q P E I F R K P S G N A N G N T F D K I Q R E T V S R V R P D G A V E V V A Q L G G G P N G L A V G P S D I P N Q R I I H R W T P D G E V T M F R D R S D F A N G N T L D A S D I P P N R I I M R W S E D D G H L S V Y R A P S N N S N G N T R D R D I P P N D R I V L R Y D E V S G R V D V W V S R P A G F E N G R S V D P S D I V P N N R I I M R W D P L T G Q S H A F R T P S N Y A N G N T R D R S D I I R N N R I I A R W Q P E G P E L T T Y T T G M S N G L T L D H T D Q P P N N R I I Y K Y A L N G E L S I F T D S S G R S N G L Y I D H S D I P P N N R I I M R W D E T D G S V S V F R N P S N Y T N G H T R D R V D I V G K K I H R Y D P V Q H E N T T V E L E Q Y P G T I Q P S D I P P N D R I I L R Y D E S D G S V S V F E T H C N N Q N G H T L D R S D I P F G R I I F R I D P A G E W E Q V A E W A G E P N G M K F L N I E A G C I I T R V K P D G T K Q T V A E P G G G P N G L A M G P D I L A P A L I H R F D P Q S G K H Q F P V A E D I G C F G L N A I E R Q T I L S R V S P N G D V S V V A E L D G G P N G A A I G P																																																																																										

QUERY	90	100	110	120
UniRef90_H1XVB8	D A N Q L F V A D M R L G L L V V Q T D G T F E E I A K K D S E G R R M Q G C			
UniRef90_I2GHL0	D G Y L Y A C D F G L G A I E R F D R N G S C Q I I E A G			F N R P N
UniRef90_K1KT74	Q G N I I A C A D D K N E L W A I N P T N K S V T V L L N D Y Q G K R L N G P N			
UniRef90_UPI000475ED6D	E G K L I A C A D M D N Q L W S I D D K G N A T V L V E S Y K G N L L N G P N			
UniRef90_W0MTR5	K G N L L V A C S D E E N Q V W S F D K K G N P T V L L V K D Y D G K L L N G P N			
UniRef90_UPI00016C4C04	Q G R L L V C E G S G R R V T R T E Y N G R I T V L L A D S F D G K P F N S P N			
UniRef90_F4DQQ3	A G A L W A C A D E K N E L W K I D V K T K E K T V V K E F G G K L L N G P N			
UniRef90_UPI00047D407C	Q G R L I A C E G S G R R I T R T E H D G S I T V L L A D T F E G K R F N S P N			
UniRef90_F8EQT1	Q G N L L A A C A D E K N E I W S I D V D K K V S V L V T D F D G K K F N G P N			
UniRef90_G0GP45	A G Y I W F C D S A Q N A V R R F D P V T L Q T E T I L R Q C G N E T L H N P N			
UniRef90_J3IFK5	Q G R L I S C E H D T R R I M C T E Y D G S V T V L L A D S Y Q G H R L N S P N			
UniRef90_A0YN15	D G F M Y V A D Y T G H N I V K I D P R S K A I S V H A H S D K M N Q P N			
UniRef90_UPI00047CA480	Q N R L I T A E H S N R R V S R T Q K D G E I V T L L V S E Y Q D K K L N S P N			
UniRef90_UPI00045EBDFE	E G N L L A C A D E K N Q L W Q I D T S N K E V T V L L I D D Y K G K K L N G P N			
UniRef90_UPI000373DC6F	D G R G F I T D H R H G I M L F D P A T G R V E P Y L E R A M Q R F K G V N			
UniRef90_E8R161	Q G R L L S C E H D T R R V T R T E Y D G T I T T L A D R F Q G K R L N S P N			
UniRef90_W8QYF8	E N R L V L C Q H G D R R I A R L N D D G K T F T T L A D R Y E N K R F N S P N			
UniRef90_UPI0002E07621	D G R R I F I A D Y K N G I L L L D P E T R Q I S P V L T H R R S E G F K G V N			
UniRef90_UPI00029A2895	E G R L V S C E H Q G R C S R T E P D G S V R I L V D R F E G K R L N S P N			
UniRef90_UPI00037ACA6B	A G H L Y A C Q Q G G R V V K I A L Q D G K I E A L A D R F D G Q P L N S P N			
UniRef90_V4NXG8	D G R L V I T D Y R R H G L M T L D P A T G K V T T L L E R R W S E R F K G V N			
UniRef90_B5IJ24	Q G R L I T C Q H G T R S V T R T E Y D G T I T T L A S H Y D G K R L N S P N			
UniRef90_A5UW72	Q G R L I S C E H A S R R R L T R T E H D G S I T V L L I D H F Q G R R L N A P N			
UniRef90_J3D1J0	E G R I I A C H G G R R V S R A E P G A E P V T L A D T Y G G K R L N S P N			
UniRef90_UPI00030A645D	D G R L V I T D Y R R H G L V Q L D A D T G E V S P L E T V G S E G F K G V N			
UniRef90_H0J9X6	N G D M L I A D Y A G H N V Y R Y S F D T K R L D V L A H N P D M N Q P N			
UniRef90_J2LDN1	Q G R L I A C C E G S T T H G L R T E H D G R I T V L L A D S F D G K P F N S P N			
UniRef90_D2QGM9	Q G R L L S C E H L T R R V T R T E Y D G S I T V L L A D N Y Y Y G K K L N S P N			
UniRef90_UPI000466A3CB	A G H L V L C Q H G N R R I I R D E I K G P M T V L S D G Y D G R K L N S P N			
UniRef90_UPI00046F41F2	D G R L V I F I T D Y R R H G L M L D P G S G H V R P F L E T V G S E S F K G V N			
UniRef90_T0MBW4	K G N I I I S C A D E K D E L W R I S P A G K V T V M L K D F N G S R L N G P N			
UniRef90_A4C166	T D L I W F C D S L N N E I R T Y N P A T S T V N T I V S H I D G M A L N L P N			
UniRef90_F5LTi2	D G H M Y V A D Y V R H R V Y R V P A G G D A P E V W A E D D R M N Q P N			
UniRef90_W6RDL3	A G E M L I A D Y K N H N V L K V D M V T K A V T V W A H G P G M N Q P N S A N			
UniRef90_Q7UULO	Q G R L I S C E H G G R R V T R T E F D G R I T V L L A E S Y N G K R L N S P N			
UniRef90_UPI000467F628	P N Q L I I A C A D A N N E M W S I N L N D K S H M V L V D S V D G R R F G G P N			
UniRef90_UPI000469B6F6	K G N L I V C A D E N N Q I W S I N L N K S K K I K V L F S D Y E G K K V N G P N			
UniRef90_UPI00036CD9B8	Q G R I I L T C Q H A T S S L T R T E A D G S I T T L A T H F D G K E L N S P N			
UniRef90_UPI00035EAB3F	K G N L I S S C A D E K N E L W S I T P T G K T T V L L L S D Y K G Q L F N G P N			
UniRef90_B0T4Y9	Q G R L I S C E Q G N R R V T R T E H D G T V T V L A D R W E G K R L N S P N			
UniRef90_W4LVM5	D G A I Y V T T N N G G S F Q F R I I D I A T G A V T T L Y T E C D D G K R L V G P N			
UniRef90_UPI0003664D61	Q G R L V T C E H G G R R V I R T E Y D G T I T V L L M D Q W Q G K P L N S P N			
UniRef90_A4A213	D G A A Y V T T N N G G S F R F R V D L A T G E V R T L Y T E C E G Q Q R L I G P N			
UniRef90_G8MGM4	D G N L I A C C H G D R N L V K F V D G K R V V L A D K Y D G K R F N S P N			
UniRef90_B9XQ06	Q G R R L L T C E S G G R R V T R T E H D G T I T V L L A D R F E G K R L N S P N			
UniRef90_A7INE8	K G K L L S C E H L G R R V A I T E K D G R I E T L V D Q Y E G K R F N S P N			
UniRef90_B2J136	E G R L V T C E Q Q G R R I T R T E H D G S I T A L V T H F E G K R F N S P N			
UniRef90_UPI0003B402E3	A G A D R L I T A L R R H L A F L N T R T G V I T P I L E I E G N L P D N R L L N			
UniRef90_A6UKA9	D G R L V L A D F R L Q F D A D T G E Y E V L V D R F H S E K F K G I L N			
UniRef90_UPI00036D14E3	Q G R L V S C E H G T R R V S R T E I D G S I T V L L A Q A Y N G K R L N S P N			
UniRef90_10KAB9	Q H R L L D C A S V L R A I I I R L S P D G K S Y K I V V D H Y Q G K R L N S P N			
UniRef90_A4FG85	Q G R L I A C E H G D R R I S A M P L N K G G K I T L A D R C Q G K R F N S P N			
UniRef90_J8VVK1	Q G R L V S C E Q G H R R V T R T E H D G S V V V L A D R W N G K R L N S P N			
UniRef90_B3QGG3	D G R L L V V A D H H K G M V I C D P A T Q S E T W F D R Y L L E P F L G C C			
UniRef90_R4XYZ8	D G K M Y I C N N G G F G W F H E Y I G G S I Q R V D L Q S G E V E T L F D K C			
UniRef90_Q0AL29	Q G R R L I T C E H R S S R R V T R T E H D G R I T V L L A D S H A G R P L N S P N			
UniRef90_Q13GE6	D D Q L Y V C O N H G T R S I E R L N L D L S R V T L I D R F E A Q R F N S P N			
UniRef90_UPI00037563A1	D G R L I F I A D Y K N G I M F D P V E K T V P V L E R V H L E R L R A V N			
UniRef90_N4WXP1	G D L W F C D S G Q N S I R C L R T A T G A I E T V I K E L L S G Q P L N M P N			
UniRef90_UPI0003B57E37	R S S D E A V L A L E N G F Y F L K Y D T E K V S P I D E P E S H L T N N R F N			
UniRef90_UPI00037FE123	E G F M F I A D Y T N H N V K V D M E T R E I S V H A H E P T M N Q P N			
UniRef90_H0A8U9	A G R L V S C E H G G R R V T R T E A N G A I S V L A T H F E G K R L N S P N			
UniRef90_UPI000248D685	Q G R F V T C E H L T R R V T R T E Y D G S I T V L L A D R Y N G K R L N S P N			
UniRef90_K8RCZ0	A G G E S L V L A L E H G F H L D L A T E Q L T K L T D P E A G Q P E N R F N			
UniRef90_K7J5D9	Q G R L I V C E H G T R R V T R T E Y D G R V T V L V A D Q F N G K P L N S P N			
UniRef90_A4PIA7	Q G R L D K L V V G C G R R V L V T W D G E N D T T S P P V D T D R T D T R I			
UniRef90_U3QZL8	Q G R L L T C E C A T R R I T R T E A D G R I T V L L A G G F D G K P F N S P N			
UniRef90_R4WP35	P Q S L L V T D Y R N G L M E V D L R A G N V R P Y L P R R N T E S F K G V N			
UniRef90_UPI0001745DC7	E G R L V S C E H G A R R V T R T E H D G S I T V I A S H F E G K R L N S P N			
UniRef90_UPI000465E8A6	H G R Q V S A E H G T R R V T R V A R Y E M D G T V T V L L A D T F D G K P F N A P N			
UniRef90_G6Y6W7	E G R L I T C E Q G N R R V T R T E H D G T V T V V A D R W Q G K R L N S P N			
UniRef90_F8GQ21	Q G R L V T C E H A T S R V T R A E P N G G V S V L A T H H G D R E L N S P N			
UniRef90_UPI0003772DEC	S G D F L I T D Y R N G L V R L Y A K S G T V T P F L E R N S E R F R G V N			
UniRef90_G6ED66	A G M M Y V A D Y V E H N V L K I D P A T K K I T V F A H E P K M N Q P N			
UniRef90_UPI00035E494F	D G A V Y V C N N G G F N W M R V D L A T G E F T T L Y D S C D G R P L R G P N			
UniRef90_U1M3R9	C G E M I L A L E K G F Y F L N P D T E E L Q A I C D P E S H L Q E N R F N			
UniRef90_L8LRN8	K G N M Y I A D Y V N H N V L T I A A K D L A Q G G E L A D K V K V F A H N A			
UniRef90_UPI00047C3811	I G S L I T A E H G N R R I S R T D K N G N I T L V D K Y Q E K K L N S P N			
UniRef90_B9NVV5	D G A L Y V C N N G G F L H D G G F N R M R R G V H P H Y T S G R I E			
UniRef90_C0IN59	Q G R L I T C Q H G T R S V V R T E P D G S L T T L A D S Y E G K R L N S P N			
UniRef90_UPI0003B75AD1	E G R L I S C E H D S R R V T R T E H D G S I T V L V I D K F E G K P L N A P N			
UniRef90_V8QV14	E G R F I S C Q H G N R R V V R T R E H D G A I R V L L A D A Y D D H R L L N S P N			
UniRef90_UPI00037288C8	Q G R L V S C E H L A R C V T R T E H D G R L T V L A D R F E G K R L N S P N			
UniRef90_E4TN8	Q G Q V L A A E H G G R R V V R V A D D G R R E V L A E Q F D G M R L N S P N			
UniRef90_UPI0004010B1A	N Q N L W A C A D G K N Q L W K F S L D G E K E I I L N P S G D L A F N G P N			
UniRef90_I0JJ15	Q G R L V S C E H G G R R V S R T E P D G S L T T L A D S Y E G K R L N S P N			
UniRef90_X5YWE0	R E D G E V I L A L Q N G F Y F Y N W M S E T L E P I T D P E K H L P G N R F N			
UniRef90_B1Y0K8	E G R V V A C D H R G R R I S R L E H D G R W Q S L V E V I D G K R F N S P N			
UniRef90_UPI0003B647A7	D R E L L V T D Y R N G L M A C D V I T G E V R P Y L D R R N S E R F K G V N			
UniRef90_D8MVB2	D G K L Y C C N N G G F D W V R D I E T G A V E V L Y K S G D H G C T L R G P N			
UniRef90_W4L6Y0	Q G G F V V A A L R S G R V C M L D D H G H I T Q R I A P N P G D A E R S R F N			

130 140 150 160

QUERY	C A F D Y E G N L W I T A P A G E V A P A D Y T R S M Q E K F G S I Y C F T T
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UniRef90_UPI00047D407C	D L W V D A K G G G I Y F T D P Y Y Q R P W W K H Q E P Q Q K S K R V Y Y L A P K
UniRef90_F8EQT1	D L A F D G S G N L V F T C P G T S R R E P T G Y V C V L T A
UniRef90_G0GP45	D I V V K S D G T I W F T D P P F G I S G F Y E G H K A T S E L P Q N V Y C L E
UniRef90_I3IFK5	D I A I A K S G V I Y A S D P K W A D N T G N L W M I A R S
UniRef90_A0YN15	D L V V K S D G S I Y F T D P P Y G I K S D Q E E L G F Y G V Y R L A S
UniRef90_UPI00047CA480	D L W V D K K G G I Y F T D P Y Y Q R D Y W K R T E M E L E K Q Q V Y Y L S P D
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UniRef90_A4C166	D L C V H P D G S V Y Y L S D P N W S N D T G Q L W R V R P
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UniRef90_Q7UULO	D C W V D T D G T I Y F T D P L Y K R P Y W K H T I P S P D N P R G V Y R L S P D
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UniRef90_A4A213	D L T I H S S G D I Y F T D P P Y G L P K N F D D P T R E Q E W C G V Y R L K K
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UniRef90_A7INE8	D I V V K S D G S V W F F S D P T Y G I D S D Y E G D A A P S E L G R Q N V Y R L
UniRef90_B2J136	D G K C D P Q G R F W F G S M C S L E K P Q A S L Y R Y D N
UniRef90_UPI0003B402E3	D L A V G R D G T V Y F T D Q G Q S T G L Q D P T G R V F
UniRef90_A6UKA9	D V V V R S D G T I W F T D P T Y G I V S D Y E G Y R S E P E Q A T R N V Y R L
UniRef90_UPI00036D14E3	D V V V G P D G A I Y F T D P T A D L P R G Q K Q E L S F K G V Y
UniRef90_J0KAB9	D V V A H S N G S Y Y F T D P P Y G L P K H D T D P S R E T K L F G V Y R I D P
UniRef90_A4FG85	D V V E R A D G S V W F T D P S Y G I D S D Y E G H R A E T E L G A C H V Y R V
UniRef90_J8VVK1	D L T I A K N G D I W F T D Q G Q S G W Q N P N G R L F R V A G T G
UniRef90_B3QGG3	G E H P L K G P N V F D K H G G L W F T D L G K R R A R D M D V G A A Y Y I K P
UniRef90_R4XYZ8	D V V V K S D G S I W F T D P P F G I V G H Y Q G E P A R Q E L P A N I Y R I D
UniRef90_Q0AL29	D L V V A R D G R I Y F T D P P Y G L E G D A S P L K E L A W N G V Y C L E P
UniRef90_Q13GE6	D L V F A S N G D L Y F T D Q G Q L S G L H P N P N G R V F C L R T
UniRef90_UPI00037563A1	D I F D D Q N N L I I T C P G P S E P G Q Q G Y V V V
UniRef90_N4WXP1	D G T C D A Y G R F W A G T M D K S Y A K E Q G A L Y C L D T
UniRef90_UPI0003B57E37	D L A I G A D G A I W F T D P A F G P N F S E G D L P P V Q V A R V Y R I D P R
UniRef90_UPI00037FE123	D V V V H R D G S I W F T D P N Y G I R D D Y E G H R A D Q E Q P C Q G V Y R I
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UniRef90_UPI000248D685	D G K C D E A G R F W A G T M N R K S S G P T G T L Y C L E P
UniRef90_K8RCZ0	D V V T R D G A V W F T D P P F G L V S D Y M G Q V G E P E L P A C V Y R L D
UniRef90_K7J5D9	D G K C D P A G R F W F L G T M A L E V N D A I E P D R G T F Y A V D Q
UniRef90_A4PIA7	D I V C T A D G A I W F T D P A F G P N F S E G D L P P V Q V A R V Y R I D P R
UniRef90_U3QLZ8	D L T L D S R G N V Y F T D Q G Q T G L H D P T G R V Y R L T R
UniRef90_R4WP35	D V I V D S K G T I W F T D P D Y G I L S D Y E G Y R A D S E I G R C N V Y R H
UniRef90_UPI0001745DC7	D V V V H P D G G V W F T D P D Y G I S M G D Y E G N K G E E R P N G L C F T P D
UniRef90_UPI000465E8A6	D A A V K S D G S I W F S D P D F G I T S D Y E G Y R A E S E I G S N N V Y R V
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UniRef90_F8GQ21	D L T F D S Q G N L Y F T D Q G Q T G L H D P T G R V Y R L T P
UniRef90_UPI0003772DEC	D I A I A A D G T L Y A S D P N W E K T G Q L W K I G T
UniRef90_G6ED66	D I V F D R D G G F Y F T D L G K T D G E K H D V G H L Y Y A T A D G K T I R R
UniRef90_UPI00035E494F	D G K C D P A G R F W A G T T E G I G I D G K G A L Y C L N T
UniRef90_U1M3R9	D K M N Q P N D L A I M D N G I L F A S D P N W Q T S A G N L W R I N K
UniRef90_L8LRN8	D L V V K S D G S I Y F T D P P F G I L S D Y E G Y R A D S E I G R C N V Y R H
UniRef90_UPI00047C3811	R L D L A T G E V R T L Y D R C G D H P L R G P N D I V F D R S G G F Y F T D F
UniRef90_B9NNV5	D V V E K S D G T V W F T D P T Y G I M S N Y E G Y A A T P E Q A A R C V F R L
UniRef90_C0IN59	D V V V S S D G A I W F T D F G N L G N Y E G H R I T P E L P T Q V Y R L D P R
UniRef90_UPI0003B75AD1	D V V A R S D G S V W F T D P S Y G I L T E Y E G H R G T E E L G S R N V Y R W
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UniRef90_UPI00037288C8	D I V V K S D D A I Y F T D P P Y A I Q P S V P G M P R P E G G W W T Q S I P G K
UniRef90_E4TN8	D V V W H K N G N L Y F T D P P Y G I L S E Y E G H Q S E I E Q D G C H V Y R F
UniRef90_UPI0004010B1A	D G K C D P A G R F W A G T M N L E E Q Q D K G A L Y R L D T
UniRef90_I0JJ15	D I V V K S D G T I W F T D P V Y G I D S H Y E G M I A R P E I G G S H V Y R F
UniRef90_X5YWE0	D L V F D S H G N V Y F T D Q G Q T G L H D P T G R L Y R L R P
UniRef90_B1Y0K8	D I V F D S H G G F W F T D H G K Q D F S T R C H D I V G I F Y G K T D G S H L
UniRef90_UPI0003B647A7	D G R V D R G R F W C G S L W E P Q D R N G G K L C R L D E
UniRef90_D8MV82	D L V F D A H G G F W F T D L G K T R Q R D M D R G F I C Y A K A D G S E C R Q
UniRef90_W4L6Y0	D L V F D A H G G F W F T D L G K T R Q R D M D R G F I C Y A K A D G S E C R Q

170 180 190 200

QUERY	D G Q M	Q V D T A F Q P N G I A V R H M N D G R P Y Q L I V A E T P T K K L		
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UniRef90_K1KT74	L S K D R M Q L F R V D E N L V K P N G I I G S A D G K R L F V A D I G D N K T			
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UniRef90_F8EQT1	T G E V R K M A E G L Y F P N G L A F S P D G T E L V I A E T Y R H R L W K G E			
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UniRef90_A0YN15	D G E L T L L V D D F V R P N G I A F S P D E T K L Y V N D S Q E G H I			
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UniRef90_UPI0002E07621	D P A V A T D F V K P N G I A F S P D E Q L L Y V V D T G A T H V E D G P R H I			
UniRef90_UPI00029A2895	S G K T T R V I D S L K R P N G I V L V S I D G K S L Y V A E P N E R Q L			
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UniRef90_A7INE8	D P S T G A L A A A M V T D R L Q P N F S P D E R T L Y V A D T G A S H A P E H P			
UniRef90_B2J136	D G S L H V M E T G L T I S N G L L G W S P D R K I F Y L T D S H Q Q K I			
UniRef90_UPI0003B402E3	R L L N P D G R L Q L L G G L P G N G L V L N R E E T E L Y V A T R G N			
UniRef90_A6UKA9	D P Q V V T D F N Q P N G I A F S P D E T I L Y V A D S G A S H D D R L P R H I			
UniRef90_UPI00036D14E3	R I A L L D G Q L Q L L T K E L E D P N G L A F S P D G T K L Y V D D S T E R N I			
UniRef90_J0KAB9	E G E V T V A I A D L V R P N G V A L S P D Q K T L Y V A Q S D E K Q P V I L A			
UniRef90_A4FG85	D P A T G D V R A V A Q D F D R P N G L A F S A D E R R L Y V A D T R R K H I			
UniRef90_J8VVK1	R L E L M D G I P S P N G I V L N K A E T A L Y L A V T R A N A V W R C P			
UniRef90_B3QGG3	G M T E I T E Q V F G T L P L N G I G L S P D E A T M Y A A E T P T G R L			
UniRef90_R4XYZ8	G V S G K L T V A A E G V N G P N G I A F S P D E K L L Y V I E S R A P R N I			
UniRef90_Q0AL29	D G Q C Y R L T D A M S F P N G V A L S P D E T W L Y V A Q S D P D A P I L R R			
UniRef90_Q13GE6	D G Q I D C L V D N V P S P N G I V L N H D E S A L Y V A V T R A N			
UniRef90_UPI00037563A1	Y S S T G S I D V I A E G L Y P N G I V F Y P D N Q T L L I A E T H Q Q R I W			
UniRef90_N4WXP1	N F K V V K K L N K V G I S N G I T W S P D N K F M Y Y I D T L T K K V C R F N			
UniRef90_UPI0003B57E37	D G N V T L L E T D M G T T N G I E V S P D E K M L Y V N E S A Q R N V			
UniRef90_UPI00037FE123	D G S T G D I T R V V E D F I Q P N G I C F S P D H S L L Y I A D S G G S H D E			
UniRef90_H0A8U9	G Q S G E V T L V A D D I P G P N G I A F S P D E S I L Y I V A S R A E P R E I			
UniRef90_UPI000248D685	N G T L R K A I D G V I C S N G L G W S P D G R T M Y Y I D S P T K Q V			
UniRef90_K8RCZ0	P Q S G Q L E C V A D D I E G P N G I A F S P D E R G L Y V V A S R A R P R T I			
UniRef90_K7J5D9	D L N L R K I I S P V S I S I S N G L L A W S L Q N D V V M Y Y I D S M S Y Q I W A			
UniRef90_A4PIA7	T R K T E A V L E D V P G P N G I C F S P D E K T L Y V V A S R H T P R Q I			
UniRef90_U3QZL8	E G R L E L L L A N V P S P N G I V L S P D E R F L F V A V T R G N C V			
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UniRef90_UPI000465E8A6	D P A T G E V R L V A D C F A A P N G I V F S H D E R Q L F V S D T R A G F I			
UniRef90_G6Y6W7	G A R L T L L L A D D F V I Q P N G I C F S L D E S R L F I N D T E R G H I			
UniRef90_F8GQ21	D G K L D V L D N A P S P N G V V L S P D E K V L F V A M T R G N S V W R V P			
UniRef90_UPI0003772DEC	D G K T T L I A E K M G T T N G I D L S P D G K I L Y V N E S E Q R N V			
UniRef90_G6ED66	V R E G M I T P N G V G I S P D Q K S V I V A E S H T S R V Y F I D T P T R K V			
UniRef90_UPI00035E494F	N L T V K K K V E H V S T S N G L A W S P D H K Y M Y F I D T P T R K V			
UniRef90_U1M3R9	Q G E T S L L E A N M G T T N G I E V S P D N I L Y V N E S V Q R K V			
UniRef90_L8LRN8	D G N L T L L L S D D F I R P N G I V F S P D E T K L Y V S D S E Q R N V			
UniRef90_UPI00047C3811	G K H R E R D R D Y G G L Y Y A L A D G S R I V E V A Y P M Y V S E T E T G R L			
UniRef90_B9NVV5	H P D T G A L V A V A A G F N Q P N F S L D E K T L Y V A E S G R S H D P D V P			
UniRef90_C0IN59	T G R A T V A A S G F G G P D G L A F S A D E K K L Y I V I D T G V Q T S I G R D			
UniRef90_UPI0003B75AD1	A P D A P L T I V C D S L T Q P N G I A F S P D E S L L Y V S D S E S R T I			
UniRef90_V8QV14	P D S G Q V T L V S D T V N G P N G I A F S P D E S Q L Y I V E S R A R P R N L			
UniRef90_UPI00037288C8	E Q S C N G V Y D L L V D D F A L P N G I A F S P D E S I L Y V D D S A R K Q I			
UniRef90_E4TN8	Q H D T V G H Q S V Y L L K N A E P I L L D S T L V Q A N G V V G N S E E N L L			
UniRef90_UPI0004010B1A	D P K V A T D F D K P N G I A F S P D E T L L Y V A D T G A S H D P N G P K H I			
UniRef90_I0JJ15	N L E V T E T K L N G L S I S N G I A W S P D H A Y M Y H I D T P T K Q V			
UniRef90_X5YWE0	N E A V I T D L V Q P N G I A F S P D E T I L Y V S D T G A S H V Q G L P R A I			
UniRef90_B1Y0K8	D G R L D L L L A N V P S P N G I A F S P D E R V L Y L A V T R G N Q V W R V P			
UniRef90_UPI0003B647A7	E E V I F P S N N P G I G L S P D G N T L Y A A E T Y T C R L M K F N I V A P			
UniRef90_D8MV82	H L T L T V Q A Q E D I K I G S I S N G I A F S P D S R W M Y Q T D T P N G G V L			
UniRef90_W4L6Y0	V I R A M V T P N G I G L S P D G S R L Y A A E T I P G R V W W W N L S E P G T			

210 220 230 240

QUERY	WS Y D I K G P A K I E N K K V W G H I P G T H E G G A D G M D F D E D N N L L	Y K Y Q I N P D G S L T N R Q L F V P K G S D G M I L D E E G N L Y	E Q G S D G M T L D A E G N L Y	D G I A L D V R G N V Y
UniRef90_H1XVB8	L I K F T V E S D G K L T H R R I F A E M P G G D P	Y E M P G G D P	E Q G S D G M T L D A E G N L Y	D G I A L D V R G N V Y
UniRef90_I2GHL0	Y K Y Q I N P D G S L T N R Q L F V P K G S D G M I L D E E G N L Y	Y E M P G G D P	E Q G S D G M T L D A E G N L Y	D G I A L D V R G N V Y
UniRef90_K1KT74	Y V Y D I E D G Y L R N R K V F C	P K G S D G M I L D E E G N L Y	E M G S D G M T I D Y R G N I Y	D G I A L D V R G N V Y
UniRef90_UPI000475ED6D	L I W A I A V N D N G T L G A R R K H I E G L E	Y A A I D G I K C	P K G S D G M I L D E E G N L Y	D G I A L D V R G N V Y
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UniRef90_UPI00016C4C04	W A Y Q V N D D G S L G Q R R K H I E A T D T G	A L D G I K C	E Q G S D G M T I D E Q G N V Y	D G I A L D V R G N V Y
UniRef90_F4DQQ3	Y S Y T I G K K G Q L S N S K K L F A N	M G S D G M T I D H L G N V Y	M G S D G M T I D H L G N V Y	D G I A L D V R G N V Y
UniRef90_UPI00047D407C	W N A D D A I W Q Y A K I G C E I G G P D G P	G G P D D G M A F G E D K N L Y	M G S D G M T I D H L G N V Y	D G I A L D V R G N V Y
UniRef90_F8EQT1	I L I A W D V E G N T L K N K R V Y L D	C G N G T A D G I A C	A L D G I K C	D E F G N L W
UniRef90_G0GP45	W K Y D I D K A T G A V K N K R L L I E F A D H G L D G M R S D V R G N L Y	C G N G T A D G I A C	D E F G N L W	D G I A L D V R G N V Y
UniRef90_I3IFK5	R V F D V K P D G T L S N G R I F A T Q K D P N K K V P D G M K V D S L G N V Y	F D G L R I D V H G N I V Y	D G I A L D V R G N V Y	D G I A L D V R G N V Y
UniRef90_A0YN15	Y S Y K M N T D G S L S D K T L F T N	L G S D G M T L D N K G N V Y	L G S D G M T L D N K G N V Y	D G I A L D V R G N V Y
UniRef90_UPI00047CA480	L M R D G T A S K	V G T F I Q L S G G G P D G L A I D E E D N L V	V G T F I Q L S G G G P D G L A I D E E D N L V	D G I A L D V R G N V Y
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UniRef90_UPI00037DC6F	M A Y D V N E D G T L A N G R V F A D V T E M V G R F P D G L L K V D I H G N L F	C G N G T A D G I A C	C D S A G N L W	D G I A L D V R G N V Y
UniRef90_E8R161	W R L P L Q A D G S T S K V G V F T P M A G G V S G A D G M A L D V D G N L F	F D G L R I D V H G N I V Y	F D G L R I D V H G N I V Y	D G I A L D V R G N V Y
UniRef90_W8QYF8	R R F K V G A D G R L G G G E V F A T C S H G L	F D G L R I D V H G N I V Y	F D G L R I D V H G N I V Y	D G I A L D V R G N V Y
UniRef90_UPI0002E07621	W Q Y Q L T A P G K L S A G K I I F T G D A T K D G G P D G M C L D Q H G N I V Y	F D G L R I D V H G N I V Y	F D G L R I D V H G N I V Y	D G I A L D V R G N V Y
UniRef90_UPI00029A2895	L M P D G T A S K V G F I Q L S G S	L G G P D G L A M D E Q D N L A	L G G P D G L A M D E Q D N L A	D G I A L D V R G N V Y
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UniRef90_V4NXG8	R R I L V Y D V I D G S R L A D G R V F C D M G P A M A D G L T C	R R I L V Y D V I D G S R L A D G R V F C D M G P A M A D G L T C	R R I L V Y D V I D G S R L A D G R V F C D M G P A M A D G L T C	D G I A L D V R G N V Y
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UniRef90_A5UW72	L H N K G V V G K V G V F A N L H G G M A G P D G L A L D T D S C	L H N K G V V G K V G V F A N L H G G M A G P D G L A L D T D S C	L H N K G V V G K V G V F A N L H G G M A G P D G L A L D T D S C	D G I A L D V R G N V Y
UniRef90_J3D1J0	W A Y D L D E Q G N V S N K R L F H E F P D Y G L	D G M R C	C D T E G Y L Y	D G I A L D V R G N V Y
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UniRef90_H0J9X6	W S Y D M G A D G V K L S N S K T A L V T A D D N G G L D F G K V D I D G N L W	W S Y D M G A D G V K L S N S K T A L V T A D D N G G L D F G K V D I D G N L W	W S Y D M G A D G V K L S N S K T A L V T A D D N G G L D F G K V D I D G N L W	D G I A L D V R G N V Y
UniRef90_J2LDN1	W R F A V K D D G T L S A G K V F F D M N Q T D D D E A D G I K V D T K G N I F	W R F A V K D D G T L S A G K V F F D M N Q T D D D E A D G I K V D T K G N I F	W R F A V K D D G T L S A G K V F F D M N Q T D D D E A D G I K V D T K G N I F	D G I A L D V R G N V Y
UniRef90_D2QGM9	L H K S G L V T K V G I F A H L H G S	L G G P D G L A L D T D S C	L G G P D G L A L D T D S C	D G I A L D V R G N V Y
UniRef90_UPI000466A3CB	Y R Y Q I E K D S K L T G Q Q L F T S	Q G A D G I T L D D D K G N L Y	Q G A D G I T L D D D K G N L Y	D G I A L D V R G N V Y
UniRef90_UPI00046F41F2	W D S K S L T W N N S E V F T E T T G G P V G P D G M A F D E L G R L Y	W D S K S L T W N N S E V F T E T T G G P V G P D G M A F D E L G R L Y	W D S K S L T W N N S E V F T E T T G G P V G P D G M A F D E L G R L Y	D G I A L D V R G N V Y
UniRef90_T0MBW4	W R Y D M P P G G G V R N R K T L F	H K F E D F G L D G M R C	H K F E D F G L D G M R C	D R A G N L Y
UniRef90_A4C166	W V Y D L T E A G A I S N K R L F I E F P D F G L D G M R C	W V Y D L T E A G A I S N K R L F I E F P D F G L D G M R C	W V Y D L T E A G A I S N K R L F I E F P D F G L D G M R C	D R A G N L Y
UniRef90_F5LT12	R V F D V V D G K K L L T N S R Y F C S I D S G V P D G F R F D V S G N L W	R V F D V V D G K K L L T N S R Y F C S I D S G V P D G F R F D V S G N L W	R V F D V V D G K K L L T N S R Y F C S I D S G V P D G F R F D V S G N L W	D G I A L D V R G N V Y
UniRef90_W6RDL3	Y R Y D I A E D G S L T N R K L F C	D M G S D G M A L D Q E R N L Y	D M G S D G M A L D Q E R N L Y	D G I A L D V R G N V Y
UniRef90_Q7UU0L	Y R Y A I G A D A K L S E R Q L I L N Q H S D G M T L L D S N G N I Y	Y R Y A I G A D A K L S E R Q L I L N Q H S D G M T L L D S N G N I Y	Y R Y A I G A D A K L S E R Q L I L N Q H S D G M T L L D S N G N I Y	D G I A L D V R G N V Y
UniRef90_UPI000467F628	R K F D I A E D G T A T G G D V W V E V T V E G E G H P D G M K I D S K G N V Y	R K F D I A E D G T A T G G D V W V E V T V E G E G H P D G M K I D S K G N V Y	R K F D I A E D G T A T G G D V W V E V T V E G E G H P D G M K I D S K G N V Y	D G I A L D V R G N V Y
UniRef90_UPI000469B6F6	Y K F A I N P D G S L Q E P Q L F I E Q G S D G M T I D N K G N I Y	Y K F A I N P D G S L Q E P Q L F I E Q G S D G M T I D N K G N I Y	Y K F A I N P D G S L Q E P Q L F I E Q G S D G M T I D N K G N I Y	D G I A L D V R G N V Y
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UniRef90_UPI00035EAB3F	I A A P G V L A E A A P L A P G N V V C T L P G Y Q L L D S L A V E A D G K V C	I A A P G V L A E A A P L A P G N V V C T L P G Y Q L L D S L A V E A D G K V C	I A A P G V L A E A A P L A P G N V V C T L P G Y Q L L D S L A V E A D G K V C	D G I A L D V R G N V Y
UniRef90_B0T4Y9	L A Y D V S A D G R Q L L N K R V H I D A G P G T P D G M R C	L A Y D V S A D G R Q L L N K R V H I D A G P G T P D G M R C	L A Y D V S A D G R Q L L N K R V H I D A G P G T P D G M R C	D V D G N L W
UniRef90_W4LVM5	V L S P G V V Q T V S P F Q P A R V V A N L P G C Q F L D S L A V Q A D G K V C	V L S P G V V Q T V S P F Q P A R V V A N L P G C Q F L D S L A V Q A D G K V C	V L S P G V V Q T V S P F Q P A R V V A N L P G C Q F L D S L A V Q A D G K V C	D G I A L D V R G N V Y
UniRef90_UPI0003664D61	Y P V N A D G S V G E G K I F F D A T N V G E K P G L P D G M A I D A A G N I W	Y P V N A D G S V G E G K I F F D A T N V G E K P G L P D G M A I D A A G N I W	Y P V N A D G S V G E G K I F F D A T N V G E K P G L P D G M A I D A A G N I W	D G I A L D V R G N V Y
UniRef90_A4A213	H H I V A F D V V D G A R L V P R V F A T I S P G V A D G F R V D T E G N I F	H H I V A F D V V D G A R L V P R V F A T I S P G V A D G F R V D T E G N I F	H H I V A F D V V D G A R L V P R V F A T I S P G V A D G F R V D T E G N I F	D G I A L D V R G N V Y
UniRef90_B2J136	R S I V A Y E T R P D G T A A N P R T F A T L P D G F Y D G F R C	R S I V A Y E T R P D G T A A N P R T F A T L P D G F Y D G F R C	R S I V A Y E T R P D G T A A N P R T F A T L P D G F Y D G F R C	D S F G N I W
UniRef90_UPI0003B402E3	Y A Y D F N S I T G N I T N R R I F V D L T H E S F Y P D G L T I D S E G H I W	Y A Y D F N S I T G N I T N R R I F V D L T H E S F Y P D G L T I D S E G H I W	Y A Y D F N S I T G N I T N R R I F V D L T H E S F Y P D G L T I D S E G H I W	D G I A L D V R G N V Y
UniRef90_A6UKA9	N I L R L Q L T Q F G D V T K A G V F I Q M S G G I G P D G M T I D A A G N L V	N I L R L Q L T Q F G D V T K A G V F I Q M S G G I G P D G M T I D A A G N L V	N I L R L Q L T Q F G D V T K A G V F I Q M S G G I G P D G M T I D A A G N L V	D G I A L D V R G N V Y
UniRef90_UPI00036D14E3	R A F D F I G G T L L S N S R V F A T I D N G I P D G I R I D T A G N L L W	R A F D F I G G T L L S N S R V F A T I D N G I P D G I R I D T A G N L L W	R A F D F I G G T L L S N S R V F A T I D N G I P D G I R I D T A G N L L W	D G I A L D V R G N V Y
UniRef90_10KAB9	Y P I L P D G T V G K G R L V Y N A L D L M K R G L K P D G L K V D E Q G N L W	Y P I L P D G T V G K G R L V Y N A L D L M K R G L K P D G L K V D E Q G N L W	Y P I L P D G T V G K G R L V Y N A L D L M K R G L K P D G L K V D E Q G N L W	D G I A L D V R G N V Y
UniRef90_A4FG85	R L F D V A D D G A L S G G E V F A T C	R L F D V A D D G A L S G G E V F A T C	R L F D V A D D G A L S G G E V F A T C	D R A G N L Y
UniRef90_J8VKK1	L V N G E V I V S K V G T Y I Q L S S G G S P D G L T I D E N D N L V	L V N G E V I V S K V G T Y I Q L S S G G S P D G L T I D E N D N L V	L V N G E V I V S K V G T Y I Q L S S G G S P D G L T I D E N D N L V	D G I A L D V R G N V Y
UniRef90_B3QGG3	W A F D L S G P G E V K P R D V I Y R C G L L G G Y Q M F D S L A V E A N G N V C	W A F D L S G P G E V K P R D V I Y R C G L L G G Y Q M F D S L A V E A N G N V C	W A F D L S G P G E V K P R D V I Y R C G L L G G Y Q M F D S L A V E A N G N V C	D G I A L D V R G N V Y
UniRef90_R4XYZ8	L V F Q V Q D D G V T L S R P D V L V N A G S G T P D G F R V D V D G N L W	L V F Q V Q D D G V T L S R P D V L V N A G S G T P D G F R V D V D G N L W	L V F Q V Q D D G V T L S R P D V L V N A G S G T P D G F R V D V D G N L W	D G I A L D V R G N V Y
UniRef90_Q0AL29	F A L Q D G R V S G S G D V I F D G T A Y A A G D P G P D G M A V T L S G H	F A L Q D G R V S G S G D V I F D G T A Y A A G D P G P D G M A V T L S G H	F A L Q D G R V S G S G D V I F D G T A Y A A G D P G P D G M A V T L S G H	D G I A L D V R G N V Y
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UniRef90_N4WXP1	Y N I V T G D I E N P I D I S F S V G Q G M P D G M T I D E E G M L W	Y N I V T G D I E N P I D I S F S V G Q G M P D G M T I D E E G M L W	Y N I V T G D I E N P I D I S F S V G Q G M P D G M T I D E E G M L W	D G I A L D V R G N V Y
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250 260 270 280

QUERY	V A N W G S S H I E V F G P D G Q Q P K M R I R C P F E K P S N L H F K P Q T K		
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UniRef90_G6Y6W7	A A A M N D G V H C Y D P D G T L I G K I R L P E T G S N I C F G P K R N		
UniRef90_F8GQ21	C T G P G G I H V F D A S G D L L G V I R T P E Y C A N F T F G D D L R		
UniRef90_UPI0003772DEC	V A N P G L G Y V W V L N H R A E P V E V I R S P G G S L T N L C F G G E G T		
UniRef90_G6ED66	I T R H G K G T V V K L I S P K G E V L K E Y D V L G A M P S N L C F G P D G K		
UniRef90_UPI00035E494F	V A T L I N G G I T V F D P E T R G T E H I A F P D P I V T N I C F G G D M R		
UniRef90_U1M3R9	I A H W G G S K V S R W N P L N G E Q L L S I S I P A K Y V T S C T F G G D L K		
UniRef90_L8LRN8	I A R Y G A G V I A V V S P K G K L L R E I K L K G Q F P T N V A F G G D G H		
UniRef90_UPI00047C3811	C T G P R G I W V F V S P S D L L G I E I P E P A N L A W G D D Y Q		
UniRef90_B9NNV5	V A T L I T G C I T V I A P D G T V L R Q V V L P D D P I V T N I C F G P D R R		
UniRef90_C0IN59	V S S A D S V Q C F A P G G Q M L G R I R V P P E V V S N L A F G P P R G T		
UniRef90_UPI0003B75AD1	I T L G S G D G V R C Y A P N G D L I G K I H I P P E T C A N L C F G G K K N		
UniRef90_V8QV14	I S T T E G V E I Y H P D G I L L G L R L P E T A A N L E F G P Q R N		
UniRef90_UPI00037288C8	C G W G M G G V R V F S Q Q G D L L G R I A L P E R C A N L C F G G P H R N		
UniRef90_E4TN8	V F C T G P G G V W V C R A N G E F L G R I I L P E E L P A N L G W G E D G S		
UniRef90_UPI0004010B1A	L T G N G V D I Y D K D G S F I Q H L D I P E D W T A N V C F G G D F D		
UniRef90_I0JJ15	T S A G D G V H C Y G P D G T L I G K I K V P E V V A N V C F G G D M N		
UniRef90_X5YWE0	I A H F G G A G V S R W D P E K G E C I E F I D V P A A N V T C C V F G G D M		
UniRef90_B1Y0K8	A S S A D A V R V Y A P D G T L I G R I L V P E I V S N L C F G P K R N		
UniRef90_UPI0003B647A7	V A N P G L G L A W V L N H R A E P E R V L R S C A G S S L T N I A F G P D R K		
UniRef90_D8MV82	V A T L H N G G I T A I S P D G S D V T H T P M P D A A T N I C F G G E L R		
UniRef90_W4L6Y0	V A T L H N G G I T A I S P D G S D V T H T P M P D A A T N I C F G G E L R		

290 300 310

QUERY	UniRef90_H1XVB8	UniRef90_I2GHL0	UniRef90_K1KT74	UniRef90_UPI000475ED6D	UniRef90_W0MTR5	UniRef90_UPI00016C4C04	UniRef90_F4DQQ3	UniRef90_UPI00047D407C	UniRef90_F8EQT1	UniRef90_G0GP45	UniRef90_I3IFK5	UniRef90_A0YN15	UniRef90_UPI00047CA480	UniRef90_UPI00045EBDFE	UniRef90_UPI000373DC6F	UniRef90_E8R161	UniRef90_W8QYF8	UniRef90_UPI0002E07621	UniRef90_UPI00029A2895	UniRef90_UPI00037ACA6B	UniRef90_V4NXG8	UniRef90_B5IJ24	UniRef90_A5UW72	UniRef90_J3D1J0	UniRef90_UPI00030A645D	UniRef90_H0J9X6	UniRef90_J2LDN1	UniRef90_D2QGM9	UniRef90_UPI000466A3CB	UniRef90_UPI00046F41F2	UniRef90_T0MBW4	UniRef90_A4C166	UniRef90_F5LT12	UniRef90_W6RDL3	UniRef90_Q7UULO	UniRef90_UPI000467F628	UniRef90_UPI000469B6F6	UniRef90_UPI00036CD9B8	UniRef90_UPI00035EAB3F	UniRef90_B0T4Y9	UniRef90_W4LVM5	UniRef90_UPI0003664D61	UniRef90_A4A213	UniRef90_G8MGM4	UniRef90_B9XQ06	UniRef90_A7INE8	UniRef90_B2J136	UniRef90_UPI0003B402E3	UniRef90_A6UKA9	UniRef90_UPI00036D14E3	UniRef90_J0KAB9	UniRef90_A4FG85	UniRef90_J8VKK1	UniRef90_B3QGG3	UniRef90_R4XYZ8	UniRef90_Q0AL29	UniRef90_Q13GE6	UniRef90_UPI00037563A1	UniRef90_N4WXP1	UniRef90_UPI0003B57E37	UniRef90_UPI00037FE123	UniRef90_H0A8U9	UniRef90_UPI000248D685	UniRef90_K8RCZ0	UniRef90_K7J5D9	UniRef90_A4PIA7	UniRef90_U3QZL8	UniRef90_R4WP35	UniRef90_UPI0001745DC7	UniRef90_UPI000465E8A6	UniRef90_G6Y6W7	UniRef90_F8GQ21	UniRef90_UPI0003772DEC	UniRef90_G6ED66	UniRef90_UPI00035E494F	UniRef90_U1M3R9	UniRef90_L8LRN8	UniRef90_UPI00047C3811	UniRef90_B9NVV5	UniRef90_C0IN59	UniRef90_UPI0003B75AD1	UniRef90_V8QV14	UniRef90_UPI00037288C8	UniRef90_E4TN8	UniRef90_UPI0004010B1A	UniRef90_I0JJ15	UniRef90_X5YWE0	UniRef90_B1Y0K8	UniRef90_UPI0003B647A7	UniRef90_D8MVB2	UniRef90_W4L6Y0	
T F V T E H E N N A V W K F E W Q R N G K K Q Y C E T L K F G I F	T L Y V T E D E T N A L Y R A R V P I A G L A L	T L F I T A S E S V Y T L P M R V K G V E	D L L F I T A E T A V Y G L K M K V K G I K	R L F M A S S H S L Y S V F V N A R G A	T L F I T A G T G L Y S L K M N I K G	R L F M A S S H G I Y S L F V N A R G A	T L F I T A M D S V Y T L E M T V H G V R	N L V I T E A E K G Q I L R	R L F M A S S T S I Y S L Y V N A Q G A K L	T V Y V T L Q E R G A I E T F R S E H A G R E	T L Y I T A S S G I Y R I R L N V E G V K P	T L F I T A M N T V Y T L D M N V S G V R	T L F I T E S K T G T I L T A D L P V P G R R M Y S H	R L F M A A S T S V Y S L Y V N T Q G A V L	T L Y I T S D M D F C R I R L N T K G	Q L Y I T D S S T G T I L V A D W Q S S G R P M F S H S	R L F I C G T T S L Y A V Y L N T R G A S R P G E P H A F	T L Y I T A R T S S V Y S L P M K V A G A P L	N L Y I T E S E T G C V L V A R L P V A G R V M A S H R	R L F M T A G Q S S L F A L Y V N T R G A	R L F I T A T A G Q S S V Y A L Y V E A Q G L P	T L Y I T A R T S S V Y R I R T R V P G L P	S L F I T E S E T A S I L R A E V P V A G P M Y S H	T V Y V T M M D Q G G N V E T F R A E R P G R	R L F M A G S H S S L Y S L Y V N I R G A	R L Y I T A A G S H S S V Y A I Y V E T R G A	T L Y I T A H T G L Y K I T T I N G G R M A H	R L F I V E S E T G S I L Q A D L S T P G L P M F S H	Q L F I T A S Q A V Y I L P M R V K G V E	L L I I T E A E K G Q I L S Y K T D L K G	T V Y V T L A D R G C F E V F E A P H P G A	T V Y V T V A D N G N V E K F R T D A P G R	R L F I T A T Q S L Y S I Y T T T N G A Q	C R V L S G	T L Y I T A K E A V Y T I P T R V S G L R	M L F I T A S K S I Y V I P V N A K G V E	D L Y I T S S T S L Y R I S V K S S G L P L F	D L F I T A S E S V Y V L D M Q V H G V Q	Q L Y I T A A T T S L Y T L R V T V N G A Q	D A W I T A S G T G K L Y K A R W P R A G L R L	R L F M A A S Q S S L Y A L Y V N T Q G A	D V W I T A S G T G K V Y R S R W P S P G L K L	T L Y I T T A D M Y L C R V K T K T S G V K	R L F V T T A S S L I A V Y V G Q R G A Q	T L F I T A R R S S L Y S I P V L V K G A K	R L F I T A Q T T S L Y A I Y V N A Q G A	T L Y I T T A S S G D L F A L Q T D V T G L P T Y A	T L F I T A M T E A D S G S I L S V E M E I S G	R L F I T A T T S L Y S I Y Y V T V T G A Q	T L Y I T A T T S V Y K L R T R A H G F V P Y L Q	T L Y I T A D M Y L C R I R T N V R G A	H R F M T A S S S V Y A L R V N F N G	R L F F T E S S T G T V Y K V E M P V A G R A I H A A T I	T A Y I T L S G K G E L I A M D W S R P G L P L	R L F M A S C T S I Y S L Y V N T Q G A P L	D L Y I T A Q D R L R I R L A V R G L Q	T L F I T E S E S G T I L K A A M P V P G R R M Y S	T L Y I T E T E N G Q I L S I R	E L Y I T T A R T G G L F R I K T D V K G S P C Y S	T C Y V T M A D R G N I E V F R A D L P G R	R L F I A A T T S I Y S V F V N T Q G A G	E L Y I T T A Q T T S I Y S L Y V R V S G A	R L F M A S C R S I Y S V F V N T Q G	E L Y I T T A R T G G L S E E Q L A Q Q P H A G G L F	R I F M A S T T S L Y A L F V N A R G A	T L Y I T T A H S G S L Y A I K L G V K G C P P	Q L F M A C H T S I Y R L T L A T Q G V P Q	T L Y I T D S T T G E I L K T V M S V P G V K N H	R L F I T A A T S S I Y S L H V G V R G A	R L F I T A S Q S L Y S V Y V N T R G A	R L F I T A E T S L Y S V V M G A T G	S L Y I A A S T S I Y R L R V R V P G L R L F	T L F M T E S T T G T I L C A D M S V G G A P V H G G R L A	T I Y V T E V A K Q R L V S F R V D A P G L	D A W I T A S G T G K L F K C R W P R P G L K L	D L Y I T D A S A G G V F R V K T N I R G C P T Y R F S V E V	T V F V T T M Q K R G A I E T F N V D I A G R	T L Y I T A K T S I Y S L R S K I P G	T A Y I T L S G T G R L V A M D W P E P G C P P	H R F I T A T S S V Y A L H V N A	R L F I C G S T S I Y A V Y V E T V G A	T L Y I T L Y V I R L T V E G C P	R L F M A S C T S V Y S L F V N T Q G	V L F V T A R T G S I Y R L Q T K T A G V L P	R L F I T A S R S I Y K V K T N V K	R L F I C S T T G R L A V Y L N T K G V Q	E L Y I T T A R K G G I F K L K T K V R G L P S Y	R L Y I T A Q T S I Y S I Y V N A	T L H A T E S V T G S V L R V A L D T P G L T L H R A	T A Y I T L S G T G R L V A M D W P E P G L K L	T L Y I T S S R S G D V F A V R V A V A G	T A Y I T L S E S G R L V S I P W P R P G L A L H

The figure displays a sequence logo for a protein sequence across 40 positions. The y-axis lists UniProt IDs, and the x-axis shows positions 1 through 40. Each position is represented by a box containing a colored amino acid, indicating its conservation and frequency. The colors represent different amino acid families: blue for Phe, Cys, Tyr, Trp; yellow for Ile, Val, Leu; green for Ser, Thr, Gly; red for Lys, Arg; purple for Asn, Gln; orange for Met; black for Pro; grey for Ala, Glu, Asp, Cys, His, Asn, Gln, Ile, Val, Leu, Ser, Thr, Gly, Lys, Arg, Met, Pro.

50 60 70 80

UniRef90_W0PD34	S D I P N N E Q [Q] R W S E E D G H V G R	G F R S P S G N S N G N T F D F
UniRef90_U1JVE5	Q Q G T I G K V T A Q G K A E T L L T L K	N G S I G N G I R F D K
UniRef90_D5WJV7	S D I P N N R M L R W A P G M G V G V F R A P S	N Y S N G N T R D R
UniRef90_A0NZE7	S D I P N N R L M R W D E T D G S V S V F R S P S N N A	N G N T V D T
UniRef90_I2EU26	D V P A N T I Y R W K K G E G V S V F L K P S G E P Y S D E P N G L I I N K	
UniRef90_G2IL92	I A R Q T I L T R V R P D G T V E I V	A H G G G P N G A A I G P
UniRef90_UPI00036AF3B4	E A G R I T R V T P D G R K V V V	A T P G G G P N G L A I G P
UniRef90_W0PG87	V S G R I L L R I L Y S D Q R Q E I V	A H G G G P N G L A I G P
UniRef90_M2B3A8	S D I P R N S I F R W S E N K G I E L F L Q P S G Y T G N T Y S N G L M L D A	
UniRef90_J3CRJ1	I D I P G K A V H K R V L A T W Q H Q R W D M P E	E P G S I V K H A
UniRef90_W0P5T3	T D I P F G R I F R V D P R G N W D L V V Q	W D G E P N G M K F I S
UniRef90_UPI000466592D	S D I P A N R Q L R Y L D D D G H I S	E Q F H K P S N E A N G S T F D F
UniRef90_UPI0004675358	D I T G C R I Y R Y R P E E N R L S F	C G T R G P V G C V F P T
UniRef90_G0J6E6	D I P A N T I L F K L E P T G E I V S Y R K P S Q N S	N G L T F D K
UniRef90_H5YIM0	S D I P P N N R M M R F D E T D S S V S V F R S P S F N S	N G N T T D R
UniRef90_UPI00035C5AB4	S D I P P S D R I L R W D E T S Y Q V S V F R S P S F N S	A G N T N G H T L D E
UniRef90_W9SAF1	A G V A D G R I L R W E G D G R G W S E F A A P E M E H V C G R P L G L R F H K	
UniRef90_UPI00047E3282	T D V P G N T I H K F K E G E G I T T W M S P S G H P S S Q G A N G L Y P F D	
UniRef90_UPI0003615211	S D I P P N N R M M R F D E T S G S V S V F R Q P S N N S	N G N T V D N
UniRef90_Q11BT7	I A G G T V L S F D P N G R R T V V A E V E	G G P N G L A F G P
UniRef90_W4QMQ9	V D I E K K K C F I Y D P P S S H H Q K S I Q L G Q M V G	A V A P P
UniRef90_UPI0003706D44	S D I P P N D E Q L R Y T E E D G H V S R F R A P S G N S	N G N T F D Y
UniRef90_U7HVV5	G T L G V I S S G R F Q A A L F L T L P	R G S V A S G L R F G P P
UniRef90_UPI0001746384	T D I P P N N R I H I Y D P A T G Q T T V H R E	N T G G A N G L M F T P
UniRef90_G7DF29	D I P P N N R I M K F D E K S Q G T S V F R A N A N Y A N G N A	R D R
UniRef90_UPI0003FCCB2A	V D I M G K N I H R Y N P G K Q T N Q T L	S A G Q E P G A V V V H K
UniRef90_R0FAC4	K D G T I G R L T Q A D G S A K A E V F V T L P	R K G S T G N G I L R F R
UniRef90_S9SCG9	S D I P P N E R I L R W T P G A G V S T F R Q P S	N F A N G H T R D R
UniRef90_UPI00047ACD97	T D M Q A G Y I W Q H D P K T G T T K I F R S P S	G M S N G I T F D A
UniRef90_Q1YER8	D I A R E T L A R L L P N G R V E T V A S L P	G G P N G V A I G P
UniRef90_UPI0003456E0A	T D I P H G R I I F R I L S S G E W D L V V Q	Y D G E P N G M K R F D
UniRef90_G8MG09	S D I P P N S R I M R W D E E T G A V S V Y R A Q S	N Y A N G N T R D R
UniRef90_A6LH85	V D I E G K T I L Y E Y I P D L Q N C R S Q W Q F D R M V S	T V V P
UniRef90_UPI0003FBFEC6	V D I L N G H I H E W A T E N K T M N T I N V G Q M I G A	M A V T A
UniRef90_B4WL16	S D V K G D R I M L R W H D G S V S V F R E P S H	F Q N G N A L D L
UniRef90_E8RKN9	V D I K Q K R I V H R Y D P D I G S H Q S F L A P S E P G F	L A P
UniRef90_Q737N6	V D I V E K Q L I C I F S P T V N T N R V I A L N Q Q I	G C V V P Y
UniRef90_K7SSM5	D I V A A K V H R F T P E T G A H K T W D A P D R L G F	L L P
UniRef90_Q064Z8	V D I E A S R V G F F D P V T G R N R F L V V P S H I	G A V V P M
UniRef90_A4FF98	V D I E R G T L S R V A A D G S V S V V A D C G G G P N G A A I G P	
UniRef90_Q6TLF6	V D I T G Q K V S R W S S L T K Q I E S M N T E K L V	G C V V P R
UniRef90_UPI000374A1A4	S D I P P N N R I I M R W T P D G V T T Y R A P S	N Y A N G H T R D R
UniRef90_M7YBH3	T D I P P N N A I I F Q V K D G Q S S I L Y Q P S G Y G G E V G A N G	L T L D P
UniRef90_G5ILW3	D I E G C K I H W F R P A D G S A G G I D T D D M A G C	L A L C R
UniRef90_J2L5J5	V D I L G R R I H R F D P A A G E R R S W S F D E E I S A	L A E R A
UniRef90_W7Z6C2	V D I E G Y K L I H I F N P D T E E N T S L P F A Q H V T	A V V K K
UniRef90_I4DLB5	D I F D R S I H K Y V P A K K H T R S V L D D L V A F I G K P N H F V V G I	
UniRef90_C6W6M6	V D I D G T I A Q L S K K G N A S F F V T L P K	G S T G N G I R F V D
UniRef90_UPI00036F36F6	V D I L R G D I H A F Y P G N N R F E T F N A G K L I G S	I A L R K
UniRef90_UPI000467B71C	V D I E E G T G I V N S I G E S S L F V K L P	T G S V G N G I R F D A
UniRef90_A0A010YSN0	V D I E G K Q L I R F Y Y P G D G R E E V Y E L P E R A	G A A V G F
UniRef90_M5FJD5	T D I P N D R I L R L D E T N D C V S V F R Q D	C G H P N G Q T V D P
UniRef90_V7EGX4	D I P P N R I I L R W T D E G L S T F R A P S	N Y A N G H T R D R
UniRef90_Q4SDF4	D I C G Q K I H R W D P N T D Q V S Q S M D T G D Q V	G F A V P R
UniRef90_UPI00047528F1	V D I L G R R I H R Y S P W E G Q R S W A F E E I S A V A E R A	
UniRef90_F2L9S3	S D I P P N R M M R W H P E T G A S V W R D	Q V E Y T N G H F R E A
UniRef90_UPI0004176B1F	V D I E K G N L I F E H H I A T N V T R T R H F P H R	L A V V L
UniRef90_U5C265	D I P P P N T I Y Q I P G E D G E P K V F L K P S G Y T G T T P R S N G L I M D P	
UniRef90_UPI00047DCC63	D I R L T R I Q P D G R A E T I A Q L P	G G P N G A A L G P
UniRef90_J9JXU7	D I H Q G K I I N R Y H P E S N S F F S A N I E G Y N D V T L L I P I E D	
UniRef90_A3HW30	V D I E E N G N L I F E H S P K S G D T N T I	N F P H R I T V V L
UniRef90_B5JJC7	S D I L P E N I V F Q W K P N I G V S I F F T G E S Y N G R E P G S N G L T F D L	
UniRef90_L9PI69	G F P S R I R K L D A A G R V S T V I E	D S G S N G L A V D N
UniRef90_W5KC58	V D I Y G L R I S R W S S L T N Q I E S M P T E A Y V	G C V V P R
UniRef90_Q0K7D4	S D I P P N D R I L R W S A A D G M S V W R T G	A G F T N G H A L E A
UniRef90_UPI0002630AAB	V D I V G R Q V H A V D I D S G R H T H A L P V P E	P I G W V L P R
UniRef90_UPI0002D5B8DC	D I P P N N V I K W K E G E G T S E F L D K P R G G K A G D E P N G L A V D A	
UniRef90_Q7CU97	D I L A P A I I F C L I S P S G K L I Q R F D M P A Q O I G C L G L	
UniRef90_UPI00047D22F7	S D I P G N R I I L Q W S A D T G E L T V Y Q T D V E	F A N G R T L A A
UniRef90_E0ULW2	S D I A H G N R I I L R L D G V T V L R D P S	D Y Q S G N Y R D K
UniRef90_I7A260	S D I I K G N K I C K W T P E Q G K E I F L D P S D S T	N G L T Y D L
UniRef90_G6XG87	D I A A A K V H R F T P S S G A L K T W D A P D R V A F	L L P
UniRef90_UPI0002376900	S D I P P N R M L R L D E R N G T V G V F R E P A N S	N G H T T D R
UniRef90_UPI0004755A66	V D I L K N Q I L H A L D V D G G Q R H S W A M P D Y I C W	L V A R R
UniRef90_B6RB14	V D I V F V N D V H R Y N A V T G Q D S R L I N L G D S V V S V I I P R	Q
UniRef90_U3ID81	D I P P G R R A C R W S P G S G Q L Q A V P L D A	P V S S V A L R
UniRef90_U4TZ48		
UniRef90_A1K03	S D E S K N C I Y R L F P D G H R D E L I R L	N S N G A N G G F A P
UniRef90_UPI0003B3B979	V D I R R Q T I L S R V Q P D G Q I E V I A A L	G D P D G N T F D R
UniRef90_UPI00046AE128	V D I P A K R I L H R W S L A D G K N Q S W Q A S Q M L A C	G G G P N G A A V G P
UniRef90_S6HMZ8	V D I K Q Q Q L F L E P E T R L T R K V H F S H P V T S V G K I N Q G Q E W L S	I A Q A E
UniRef90_J8Q8K4	S D M P G D V R R R W D A R R G V A E V K R	P S N K C C N G M T Y D A
UniRef90_A0A023XHB4	D I K Q R K I H N Y H P A T G E R F S F D A P D Q V T F L A P I V G A T	
UniRef90_B8H1Y9	V D I E A P A L I N N W D L A D G A T G T R P F P E	P L G W I I P R
UniRef90_B1M3M2	V D I I A P A L H R F D P I S G E H Q A W P V A E D I G C I G	L C K
UniRef90_D4HXL8	V D I I A P A L H R F D P I S G E H Q A W P V A E D I G C I G	L C K
UniRef90_G4MV14	D I P Y G R I I L R D G S K N V T V S	C K W D G E P N G L V G T A
UniRef90_B6QR96	D I P F G R I I F R I A P D K T W S L F A E	K I T S
UniRef90_B2JMN7	V D I Q A P A L H A F D P K T G Q D T M L P M P E N I G C	F S L
UniRef90_UPI0003633261	T D I T E R Q V Y R L V P E T G V L T R W P V A V E I S A L A L	R
UniRef90_UPI0002D7F3EE	V D I D G Q K L H C Y E E T S N A R S S L E E K T	G W V L P R
UniRef90_C5CS09	S D I P P N N R M L R W H A D T G M S V W R E G V E	F T N G H T R E A

	90	100	110	120
UniRef90_W0PD34	Q G R Q V A C E H G E R R V V R Y E H N G Q V T V L A D S F D N K G L N A P N D			
UniRef90_U1JVE5	Q G N M Y I A D Y V N H N V L K V T K S A L A Q G G D L S Q S V T V F A H			
UniRef90_D5WJV7	E G R L V T C E H G T R R V T R T E H D G S V T V L A S H Y E G K R L N S P N			
UniRef90_A0NZE7	Q G R L V S C E H G D R R L A E M P L K V G G K R T L A D N Y M G K R F N S P N			
UniRef90_I2EU26	M G N L V S C E H G D R R L A E M P L K V G G K R T L A D N Y M G K R F N S P N			
UniRef90_G2IL92	D G A V Y V V N N G G G Y V Q R V D L A T G A V T R L Y D N C D G K P N A P N			
UniRef90_UPI00036AF3B4	N G M L Y C C E H G D R R L A E M P L K V G G K R T L A D N Y M G K R F N S P N			
UniRef90_W0PG87	D G A V Y V V N N G G G F H Y V I D P A T G R V E V V L Y R S G D H G V T L R G P N			
UniRef90_M2B3A8	D G Y C Y V C C E H G D R R L A E M P L K V G G K R T L A D N Y M G K R F N S P N			
UniRef90_J3CRJ1	K G R L V M C E H G D R R L A E M P L K V G G K R T L A D N Y M G K R F N S P N			
UniRef90_W0P5T3	Q G G L V V A C E H G D R R L A E M P L K V G G K R T L A D N Y M G K R F N S P N			
UniRef90_UPI000466592D	T N R L V L T D Y K N G L M E V D T R K G E V K P Y F C R R N T E S F R G L N			
UniRef90_UPI0004675358	E G R Q I T A E R T R L V R Y E H N G S V T A L A E Q A N G K P L N G P N			
UniRef90_G0J6E6	A D H G G A G A G R S I I R L E K D L T G E R T L A E L D F P A Y L R F N			
UniRef90_H5YIM0	E G N L L I A E H S G R K I S K I S P E G N Y S T I V D N Y M G T K L N S P N			
UniRef90_UPI00035C5AB4	E G R L V T C E H F M M R R V T R T E H N G S I T V L A E Q F E G R R L N S P N			
UniRef90_W9SAF1	Q G R L V S C E H G N R R V T R T D H D G S I R V L A D G Y N G G R L N S P N			
UniRef90_UPI00047E3282	K T G E L Y I A D A Y L G L K V V G P D G G L A T D L V S E V E G Q Q P L R F T N			
UniRef90_UPI0003615211	D T H I I V P D H G N R T L Y K L N V E T Q A K T V L A E R F E G K R F N S P N			
UniRef90_Q11BT7	Q G R L V T C E H L T R R V T R T D F D G T V Q V I A D R F Q G K R F N S P N			
UniRef90_W4QMQ9	D G A L Y L C E H G D R R L A E M P L K V G G K R F N S P N			
UniRef90_UPI0003706D44	T E S G G L I T A L E S G F Y S Y N R E T T A F I S N P E E G M S D N R F N			
UniRef90_U7HVV5	Q G R Q V S C R H G H R D V V R Y E H D G R M T V L A A G V D G G A F N A P N D			
UniRef90_UPI0001746384	D G F L Y A A D H R G H N L L R I D P R D K S V R I W V H E P S M H Q P N			
UniRef90_G7DF29	T G A L L A C E M K A R R V T R E S N G E I Q T V V E K A G G K R I N Q S N			
UniRef90_UPI0003FCCB2A	Q G R L V T C E H S V T R R I T R E T K D G K I T V L A D K F E G K R L N A P N			
UniRef90_R0FAC4	N S E L I A A M Q H G F Y L I D F D E A V F T P I T D P E E H L P G N R F N			
UniRef90_S9SC9	D G V M Y V A D Y T G H K I L Q V N L Q T R A V S T F A S L P G S D G P N			
UniRef90_UPI00047ACD97	Q G R L I S C E H G G R R V T R T E P D G S I T V L A D R W G G R R L N S P N			
UniRef90_Q1YER8	E G R M V V A D C G G R R V T R T D M K T G K S V I L A N V Y N S R P L N S P N			
UniRef90_UPI0003456E0A	D G A A Y V C N N G G V Y S F V P F G D D H I T V P A P T R P N Y R G G S I Q R			
UniRef90_G8MG09	D A H L L I T D Y R N G L M L L D I A R G E V R P Y L E R R N T E R F R G V N			
UniRef90_A6LH85	Q G R L I T C E H G R I V R T E T Y D G R M T V L M D S F E G K P L N S P N			
UniRef90_UPI0003FBEC6	E T D S T V V V V A L Q N E I I R V N L T D G N T T S I A P I P D N N G K I R C N			
UniRef90_B4WL16	D G N Y V A A V H N G F V F I D R K T G T L N V I A N P E E H L P E N R F N			
UniRef90_E8RKN9	E G R I V I A C S H G D R A I V R Q A K E G Q W R V L V D R Y Q G K R L N S P N			
UniRef90_Q737N6	K N R G G F V V G C K T G L Y D F D P K A G T F T L L S H V E P G L P T N R L N			
UniRef90_K7SSM5	L D D V L L L A M E N G F Y S I N I K T E K L T H I D F P E P H L F D N R F N			
UniRef90_Q064Z8	V A N G T F L A G L R D G L H G F D P E S G D F E A G P E I E P E K P G N R F N			
UniRef90_A4FF98	S D G E L L A A T A Q G F V R L H P D S G V V S S L Q D P E E D D Q P G N R F N			
UniRef90_Q6TLF6	D G A V Y V C N N G G F D W H R D Q P D G G A V T D V C T S V G G H P L R G P N			
UniRef90_UPI000374A1A4	Q A G G Y V I A E G T R F A F V D W V K R S I T A V A E V N E K P N T R F N			
UniRef90_M7YBH3	Q G R L I S C E H G T R R V T R T E W D G S I T V I A G Q F E G K R L N S P N			
UniRef90_G5ILW3	Q G R L V L C Q H G D R R M A R M Q P A A T F A T L A D N F Q G Q R L N S P N			
UniRef90_J2L5J5	A G D G D I V A A I G H R L V R I T E D G A K S E L T E L I L P D Y V R F N			
UniRef90_W7Z6C2	H A P G L I V T L R R G F A L D P A T G G E P R Y L H Q P E L A L P G N R F N			
UniRef90_I4DLB5	E S G G L L A M K D G L Y S Y Y R D R L T P Y Y L H P D G G Q T V R F N			
UniRef90_C6W6M6	K R L I V E V V W D G Q D G T A K V I R T I A E K H N P E N R L N			
UniRef90_UPI00036F36F6	K N T F Y V A D F T G H N I L K V D M V T K D V S V F A N E P K M N Q P N			
UniRef90_UPI000467B71C	K G G L I A A L E D G F A F I D L V K K K I E Y I D D P E A H L P E N R F N			
UniRef90_A0A010YSN0	S D N M Y I A D Y T N H N I L F L K N G S K E V V V F A H D S T M N Q P N			
UniRef90_M5FJD5	S D R K V V L A A L E S G F A Y Y D L D T R E T T P I H D P E N R E D D N R F N			
UniRef90_V7EGX4	Q G R L L S C E H R H R R V S R T E H D G T I T I V A D Q W R G K R L N S P N			
UniRef90_Q4SDF4	Q G R L V S C E H G T R R V T R T E W D G T I T V L A D S F G G K P L N S P N			
UniRef90_UPI00047528F1	S S G G Y V A G V R V R N I V A V D W S S Q T M T P L V E V I D E D K P N N R F N			
UniRef90_F2L9S3	G G N G L I V T L R R G F A F F D P A S G Q L E H L I Q P E T D L P N N R F N			
UniRef90_UPI0004176B1F	D G S L L H C S H G Q R A L V R R D L N E T Q D E I V V D N Y H G R R L N S P N			
UniRef90_U5C265	E G Q R K L I L G L D R K L A R F D L D T G E L E W L C V E E N L P L H R F N			
UniRef90_UPI00047DCC63	D G M I Y V C N N G G M S F T P H G T G W V P G P V D P T S Y T G G R I E			
UniRef90_J9JXU7	K A D M F V V V G L G A S L G I V Q W S N T T S Q P K Y E K L I D E T P G N R L N			
UniRef90_A3HW30	E G K E E L I L G L D C K L A K Y H L E S K E L T W I A E V E Q E F P L H R F N			
UniRef90_B5JJC7	D G H L H L A Q H G D R R V A R L N P G R G R F A T I A A R Y D N K R F N			
UniRef90_L9PI69	D G N L L A A T H K Y K S V S R Y T L D G K R S E V A G K Y Q G N V F N S P N			
UniRef90_W5K5C8	R S G G Y I I G E G T R F A A V D W Q K R S I T T I K H V D T D K G N T R F N			
UniRef90_Q0K7D4	D G S L L H C S H G K R A I V R T H R S G G E D E L V V S H Y Q G R R L N S P N			
UniRef90_UPI0002630AAB	A A A D D F V A G F R S G F A F L D I D S G A I R P I G N P E P E R P Q N R L N			
UniRef90_UPI0002D5B8DC	Q G R L H L C E H G D R R V T R L E K D G K K T V L A D K Y L D K R L N S P N			
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UniRef90_UPI00047D22F7	D G S V I Q C S H G R A I R E R D G H L E T L I D R F G D H R L N S P N			
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UniRef90_G6XG87	T T K G T F L A G L P K G L H R F D P Q T G T F S E D A V I E P D Y P H N R L N			
UniRef90_UPI0002376900	Q G R L L S C E H L T R C V T R E H D G S I T V L A S H W Q G K R L N S P N			
UniRef90_UPI0004755A66	D G D G F M A G L R D G I A R V W L E P E L R I E Y L A R P F P A G S G L R M N			
UniRef90_B6RB14	K G G F V V S Q K T D L G L V D S W E S G K V T S I A K V I E A D A N M F N			
UniRef90_U3ID81	K S G G Y V V T L G T R F A A L N W K E Q Q V T T I A H V D K D K P N N R F N			
UniRef90_U4TZ48	P Q S R F N			
UniRef90_A1K03	N G D L V A V Q V A D T R V G V V H P P E R A R T L V E R F D G R R F G R P N			
UniRef90_UPI0003B3B979	Q H R L I V T A S V L R A V I R L S P D M K S Y D T L A D R Y N G Q R L N S P N			
UniRef90_UPI00046AE128	D G M I Y V C N N G G F V W Q R V D P A T G N F E T L Y E S C D G V P L R G P N			
UniRef90_S6HMZ8	N G S W I A G M E N G L F A L T P H A D G S L S R L L A S V T H A L P E M R F N			
UniRef90_J8Q8K4	T G N E L V I F D A E R K Q S R K I A A I P A K K W M R F N			
UniRef90_A0A023XHB4	E L N L L C E H A T S S L R E R P D G R R E V L A S H F Q G Q E L N S P N			
UniRef90_B8H1Y9	G F V V G L K T G I H R F H P A T G F S L L L E V E D A A L N N R P N			
UniRef90_B1M3M2	A G R R D F I V G L K T G I H R F H P A T G F S L L L E V E D A A L N N R P N			
UniRef90_D4HXL8	D G G L I A A L R S G V C F L I N K R G E I T G R I A T N P G D A P R S R F N			
UniRef90_G4MV14	D G K L L I A D Y K Q G L I S F D P A D G K V K P H L T R N L E R F K G P N			
UniRef90_B6QR96	D G R I L V A D H R Q G L V I E T D S G K A L V L V S G Y R G E R F R G L N			
UniRef90_B2JMN7	T E D D G F I A G M R T G I F L L D A K G Q V V R K L C A N P E N P A T S R F N			
UniRef90_UPI0003633261	U N W K E Q Q V T T I A H V D K D K P N N R F N			
UniRef90_UPI0002D7F3EE	C H N K D F V A G C E S G V Y F M D K S S G K M T F V M N P E P D Q V E N R F N			
UniRef90_C5CS09	D G A L L H C S H G R R A I V R T R F G P G F V E V V V D R Y Q G R R L N S P N			

130 140 150 160

UniRef90_W0PD34	I V V H P N D G S I W F T D P G Y G A L M E Y E G H R H P S S A D S V S P I Q K		
UniRef90_U1JVE5	D N R M D Q P N D L A S M D N G I L F A S D P N W Q A S S G N L W R I N T		
UniRef90_D5WJV7	D V V V D S S G N I W F T D P D Y G I L S D Y E G Y R A E S E I G R C N V Y R D		
UniRef90_A0NZE7	D V V V K S D G S V W F T D P S Y G I M M D Y E G D R A E S E I G A C H V Y R A		
UniRef90_I2EU26	D V V Q K S N G D Y Y F T D P P Y G L R L K E N D P S R E T T L F G V Y R V D K		
UniRef90_G2IL92	D I V F D A N G G M W F T C F G F D Y A K R C H D V V G V F Y A K A D G S F I		
UniRef90_UPI00036AF3B4	D I V F D A H G G F W F T D H G K D Y A K R C H D V V G V F Y A K A D G S F I		
UniRef90_W0PG87	D G N P H G P N D I V F D Q M G G F W F T D M G R A F H D R V R G A V Y Y A		
UniRef90_M2B3A8	D L V F D Q D G N I L Y F T D P P Y G L P E R A E D K R R E L D F C G V Y R V T K		
UniRef90_J3CRJ1	D G R C D A S G R F W C G T I Y E P R D R D G G T L Y C		
UniRef90_W0P5T3	D L T I S S L G D I Y F T D Q G Q T G L H D P T G R V Y R L R K		
UniRef90_UPI000466592D	D V V V H P N D G S I W F T D P G Y G A L S T Y E G Q R A N T G S Q P Y Q K E A		
UniRef90_UPI0004675358	D G K C D P W G R L W G T M A K D Q S H P G A L G G G S L Y C M S G		
UniRef90_G0J6E6	D V I V D S Q G A I Y F T D P P Y G R P K D A S D T L S F N G V Y K		
UniRef90_H5YIM0	D V V V K S D G S I W F T D P D Y G I D N D Y E G Q Q T K S E G A S N V Y R I		
UniRef90_UPI00035C5AB4	D V V V G S D G A I W F T D P A Y G I D S D Y E G H Q G E I E V G G C H V Y R I		
UniRef90_W9SAF1	D M D I D E D K D V I Y F T D T S M S F Q R R Q F M S S I L S G D K T G R L L K		
UniRef90_UPI00047E3282	D A V L S K T G I I Y F T D P P Y G L S D Q D K S E A K E I L S F N G V Y A L Y P		
UniRef90_UPI0003615211	D V V V K S D G S I W F T D P S Y G I M H D Y E G E Y G E E G G C H V Y R V		
UniRef90_Q11BT7	D L V F D R F G G F Y F T D M G K A R A R D D H G G V Y Y A T P		
UniRef90_W4QMQ9	D G K C D P A G R F W A G T M S L K G H K E K G A L Y C L E P		
UniRef90_UPI0003706D44	V V V H P D G S I W F T D P G Y G A L M E Y E G H R L L E S A S S P Q P L R K		
UniRef90_U7HVV5	D L T I A A D G G I Y A S D P D W K S G T G R V W Y V S P		
UniRef90_UPI0001746384	D L D L D G K G G Y Y F T D P N Y G Q K D D Q M E K E C V Y Y V D R		
UniRef90_G7DF29	D L V V K S D D S I W F T D P L F G N G E W E G K K E K A E Q A T T N V Y R I		
UniRef90_UPI0003FCCB2A	D G K C D P A G R F W A G T M A Y D K Q K D Q A A L Y C L E A		
UniRef90_R0FAC4	D L A L A P D G S F Y A S D P N W N D N S G R L W H V S H		
UniRef90_S9SCG9	D V V V R S D D S I W F T D P T Y G I L S D Y E G Y R A E P E Q T A R H V F R L		
UniRef90_UPI00047ACD97	D L I I D E K E R I Y F T D S R F F G H E P C G V Y R I D P D G L L Y R I I S		
UniRef90_Q1YER8	V D L T S G E V T L L Y D A Y E G K R L L A P D D I V F D A A G G F W F T D T G		
UniRef90_UPI0003456E0A	D L T F D S R G N I L Y F T D Q G Q T G L H D P T G R V Y R L S P		
UniRef90_G8MG09	D L V V R S D D S I W F T D P P M G W G H Y E G N K A E P E L P H S I Y R I D		
UniRef90_A6LH85	D G K C D P S G R L W G T M G F G A P K G A A S L Y C V W A		
UniRef90_UPI0003FBECF6	D G K C D P A G R F W A G T M P L S E D K P S G S L Y V L N K		
UniRef90_B4WL16	D L V V K S D D G T L W F T D P P F G L T Q P E E G C G G Q Q E Q S G S F V F R F		
UniRef90_E8RKN9	D G F V D A K G R L W F G S M D D E E K P T G R L Y R Y D A		
UniRef90_Q737N6	D G K C D P A G R F W A G T T D T Y G I N A A G S L Y C L N N		
UniRef90_K7SSM5	D G C V D P F G R V W F G T M D D G E E P T G S I Y R V V H		
UniRef90_Q064Z8	D G K C D P W G R F W A G T M A Y D F A A G A G S L W R V N P		
UniRef90_A4FF98	D L V F D T E G G F Y F T D H G K R R E R D S D R G G L Y Y		
UniRef90_Q6TLF6	D G K V D P A G R F F A G T M S M D M K P D V V D A A L Y N L Q P D H S V V R H		
UniRef90_UPI000374A1A4	D V I V S R D G A I W F S D P H Y G I M T D Y E G K S E Q E L P C A V Y R V D P		
UniRef90_M7YBH3	D V V F D R E G N M Y F T D P P Y G L E F N M D D P A K E L D F Q G V Y C L K T		
UniRef90_G5ILW3	D G K C D S Q G R L W G T M A K N Q E H P K A K G C S L I C I E D		
UniRef90_J2L5J5	D G K C D A Q G S F W A G T M D F C V V P T G A L Y R Y D P D G R C T C H D Q		
UniRef90_W7Z6C2	D A K C D P D G R L W A G T M A F D G K S K I G S L Y L L D Q E E N T T E L L T		
UniRef90_I4DLB5	D A K A D P R G R L F A G T M G Y E Y E P G K F Y H K K G A L Y R I D P P		
UniRef90_C6W6M6	D L A V T A S G H I F A S D P N W K E G T G Q I W H I T P		
UniRef90_UPI00036F36F6	D G K C D P M G R F W A G T M S L S E K P Q A G S L Y T L E K		
UniRef90_UPI000467B71C	D I A I S S N R T L Y A S D P N W K N G T G N L W M T S		
UniRef90_A0A010YSN0	D G K C D A A G R F W A G T M S L V G K D K Q G G F Y C L D R		
UniRef90_M5FJD5	D A V V T R D G A V W F T D P T Y G I L H D L D G A K A E P E V D G C H V Y R V		
UniRef90_V7EGX4	D V V V A Q D G A I W F T D P H Y G I M T D Y E G H K S P Q E P C S V Y R I A P		
UniRef90_Q4SDF4	D G K V D P F G R L L T G T M G L E V R P A E V E R H Q G S L Y S V A P		
UniRef90_UPI00047528F1	D G K C D A R G R F W A G S M D F E G R Q T S G S L Y R L S A D L A C V R M D G		
UniRef90_F2L9S3	D V V V K R D G T I W F S D P P Y G I L S D Y E G H Q A E Q E L P G R Y		
UniRef90_UPI0004176B1F	D G K V D A K G R I W G T L S T L F T E G A G S L Y R I G P		
UniRef90_U5C265	D G V F D K A G N I L Y F T D P P Y G L E G N V D D P P A R E L D F Q G V Y C L K T		
UniRef90_UPI00047DC63	R V D P E T G R V E L L H N H C G D V A L R H P N D L V F D A A G G F W F T D T		
UniRef90_J9JXU7	D G K A D A T G R L W V G S M G S E M E D N P G H Y Y K H R G S L F S V E L		
UniRef90_A3HW30	D G K V D P K G R I W G T L S T L F T E S A G S L Y R V G K		
UniRef90_B5JJC7	D L C F D S Q G N I L Y F T D P P Y G L A P E S I R E L D D C G V Y R V S H		
UniRef90_L9PI69	D M A M A R D G T L Y F S D P A F Q R D A A P G G Q D Q T R V Y R V A V		
UniRef90_W5K58	D G K V D P A G R F F A G T M G I E V R P A V V E M K Q G S L Y S L H P		
UniRef90_Q0K7D4	D I V V K R D G T L W F T D P P Y G I L S D R E G H R A D P E L R H N Y V F R Y		
UniRef90_UP10002630AAB	D A K V D A A G R I W A G S K D D Q D E Q A S G A L Y R L D A D L R W K R L L D D		
UniRef90_UPI0002D5B8DC	D L A I I H P N G D I Y F T D P P Y G L D K G A K R E L D F T G V Y R N A K D G		
UniRef90_Q7CU97	D G K V G P D G H F W G T R D E A D V P T G N A R L Y R		
UniRef90_UPI00047D22F7	D V I V H S D G S I W F T D P P Y G I T Q A H E G H L G T P E Y G G N Y V F R L		
UniRef90_E0ULW2	D L V V K S D G T I W F T D P T Y G I T E P N Q G G Y G G E Q P G C F V Y R F		
UniRef90_I7A260	D L V V K S D G S I I F F T D P D F N I P G G P K N K E L T F N G I Y R I S P S G		
UniRef90_G6XG87	D G C V D P Q G N A W F G T M D D N E K E P S G S I Y R V I		
UniRef90_UPI0002376900	D L V V H S D G G V W F T D P S Y G I L S D Y E G L R A E S E G A C H V Y R I		
UniRef90_UPI0004755A66	D A K A D R A G R I W A G S M H N T D Y A Q A I G L L F R L D A		
UniRef90_B6RB14	D G K V D A S G R L W G S C F C G N G A D P N K W L K L Q G S L Y S L D S		
UniRef90_U3ID81	D G K V D P A G R Y F A G T M A E E I R P A V L E R N Q G S L Y T L C P		
UniRef90_U4TZ48	D G K A D K Q G R V W G T M G F E N P Q T R S L D A N Q G M L Y K M T K		
UniRef90_A1K03	D L V V D K R G T V Y F T D S G I N A A R S A V Q N D G T P T D A V A P P A V Y		
UniRef90_UPI0003B3B979	D V T L G P D G A I Y F T D P T L D L V K G E R Q E T P F Q G V Y R L E T		
UniRef90_UPI00046AE128	D I V F D T E G G F Y F T D L G K S N A D Y V H H G A F Y Y		
UniRef90_S6HMZ8	D G R C D R Q G R F W A G T M L M N M A A G A P V G A M Y R Y D A		
UniRef90_J8Q8K4	D G K C D P F G R Y W G S M C E G N E T E V A S L Y V L N D K A H L I E A R D		
UniRef90_A0A023XHB4	D V C V H S S G A I Y F S D P W Y G R M P V Y G V R P R Q L G F Q G V Y R V M P		
UniRef90_B8H1Y9	D A T V D A Q G R L W F G T M H D G E E N N S G S L Y R M D L T G V I		
UniRef90_B1M3M2	D A K V D G A G R I W A G S M H Q A E T A V S G S L H R L D P		
UniRef90_D4HXL8	D G R V D P F G R F W C G S L W E P Q D R N G A K L Y R V		
UniRef90_G4MV14	D L L I D S R G N I L Y F T D Q G Q T G M T D Q T G K V Y R L S S		
UniRef90_B6QR96	D L T I G P N G W I Y F T D Q G Q S G L Q E P G G Y V Y R Y H L		
UniRef90_B2JMN7	D G R C D A H G R F W L G T L D E P K A G N A A A L Y C Y		
UniRef90_UPI0003633261	D G K C D P R G R F W C G S L H E V S D P G L R Q P I A S V Y R L D P T K G P E		
UniRef90_UPI0002D7F3EE	D G K C D R D G R I W A G R S H D P E T S A T G Y L Y		
UniRef90_C5CS09	D V V V K R D G S I W F T D P P Y G I V S D H E G H K A E S E L G R N H V F R F		

170 180 190 200

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UniRef90_D5WJV7	S A R V E L V S D E F V K P N G L A F S P D E S R L Y I A D S A A S H D D D A P		
UniRef90_A0NZE7	D P T T G V A T D F V K P N G L A F S A D E Q H F I A D T G G T H Q K N G P A		
UniRef90_I2EU26	A G K V T L I I E D L T R P N G L A F S P D E K T L Y V A Q S D P D R A Y L M A		
UniRef90_G2IL92	G S A I T R W R S E Q I S P N G I G S P D G R T L Y W A D S M Q R L W S L D		
UniRef90_UPI00036AF3B4	E E V I F P S M N P N G I G S P D G Q T L Y A A E T Y T C R L M K F N V T A P		
UniRef90_W0PG87	K I D G S E R Q A A F P V L T P N G I G L S P D L S V L Y V A E T T E T S R L		
UniRef90_M2B3A8	T G D M T L L T D S I A R P N G I G S P D E Q T L Y V A Q S D P Q E P I W M A		
UniRef90_J3CRJ1	F E R N A L R D A H H A V V T S N G V A F S A D Q R L M Y H A N T P A H R I H V		
UniRef90_W0P5T3	N G Q L D L L S N V P S P N G I V L S P D E K V L F V A A T R G N C V		
UniRef90_UPI000466592D	V Y R L D L A K T G Q P N G I A F S H D Y K V K Y V C D T G I T H Y P Q A K N I V		
UniRef90_UPI0004675358	G R S L G V Q G G F T P N G L A W S L D R S R F Y H V D T Q T R K		
UniRef90_G0J6E6	Y S K G E I H L I S D D L Y R P N G I A L S P D E R S L Y V A N S G Q P K Q F V		
UniRef90_H5YIM0	D P A V V S D R V Q P N G L A F S P D E K L L Y V A D T G A T H V D G P A T I		
UniRef90_UPI00035C5AB4	A P D G A L S I V A D D F R N P R N G L A F S N D G S L Y I S D T E E A T R V		
UniRef90_W9SAF1	Y N I S N K E V T I L L E G L A F A N G V A L S K D R S F V L V A E T T T C R I		
UniRef90_UPI00047E3282	D G A L A L V D N R L T R P N G I A L S P D E R T L Y V A N S D P D D A K W M A		
UniRef90_UPI0003615211	D P Q V V K V V A G D F E K P N G L A F S P D E R P L L Y V A D T G A S H L E N G P		
UniRef90_Q11BT7	D G R S I L E V A Y G F L T P N G I G S P D D S E L Y V A E T E T A R L		
UniRef90_W4QMQ9	N L S S C S K K L D H I S I S N G L A W S P D D N Q Y M M Y D T P T Q R V		
UniRef90_UPI0003706D44	E A K V A D D P V K P N G L C F S A D Y A K L Y V A D T G V S H Y P D A K S Q I		
UniRef90_U7HVV5	A G R A R I V A G D L G T T N G I T L S P N G G Q L Y V N E T V Q R R I V		
UniRef90_UPI0001746384	G G K V S Q V V D D C L K P N G I V L S L D K K T L Y V G D N G S N K V		
UniRef90_G7DF29	A K D G K I S A V L T D L V N P N G L A F S P D E K K L Y L V E W K G T P N R S		
UniRef90_UPI0003FCCB2A	D H T V A Q K V D N I G I S N G L A W N A E Q T S M Y Y I D T P T L Q V		
UniRef90_R0FAC4	D G E V H L L E A G M T T P N G L D V S P D G K H L Y V N E S M S R R V		
UniRef90_S9SCG9	D P V T G D L A P V V S D F V Q P N G L C F S P D E S L L Y I A E S G S S H D P		
UniRef90_UPI00047ACD97	D L A K P N G V A V S P D Q K T L Y V S D Y D D G L L D F R S K V E D M S H R R		
UniRef90_Q1YER8	Y Q E P D L L R T G S L Y Y G D I H G A P L K S P D G R T V Y V S D T I F G R L		
UniRef90_UPI0003456E0A	D G K L D T L L S Q C P S P N G L V L S P D E K V L F V A M T R G N C V W R V P		
UniRef90_G8MG09	G R T G E A S L V T A D L K G P N G L C F S P D E K L L Y V T E S R G V P N K L		
UniRef90_A6LH85	D G T V E T K L T K V T I S N G I V W S A N K K Y M Y Y N D T P T R K I		
UniRef90_UPI0003FBECF6	D R S I E K R E N N V T I S N G L A W D L K E K A F Y Y I D T P T L E V V Q Y N		
UniRef90_B4WL16	D P G T G E I N A V I T D M E R P N G L A F S P D E T L L Y V S D T S A V E R P		
UniRef90_E8RKN9	R G R V Y M D N D Y V I T N G P A V S P D G Q T L Y H N D T L L K K H Y A F D L D		
UniRef90_Q737N6	S F K V E K K V V S H V N T S N G I A W S P D Y T L Y Y I D T P T K K V V R F H		
UniRef90_K7SSM5	T E D G L D I T H H N E G Y I V S N G P A V S P C G R V L Y V C H S P K Q T I		
UniRef90_Q064Z8	D F S C L R Q R H G L T I P N G L A W S Q D R G T L Y F I D S P T R Q V L		
UniRef90_A4FF98	A T V D G S R V E E I A Y P L H D P N G V G L S P D G G R V Y V A E T M T G R V		
UniRef90_Q6TLF6	F D Q V H L S N G L D W S L D H R V F Y Y I D S L A F M V E A		
UniRef90_UPI000374A1A4	D G T I D K V I D D M A C P N G L A L S P D E S L L Y V A D T G R M F G S D		
UniRef90_M7YBH3	D G E L V L V D S I S R P N G I T F S P S Q D K L L V A N S D P K L A V W		
UniRef90_G5ILW3	N R V T A E Y P G Y T I P N G M A W D G E R F Y H D T S K G M I E E Y R		
UniRef90_J2L5J5	G F A V T N G P T W S A D G R Y L Y F N D T V N G R I		
UniRef90_W7Z6C2	G L A I S N G M A W D T A R G F Y H T E T I S N T T T V		
UniRef90_I4DLB5	D G K V H T L A E N I D I S N G L C F W D V E E K A F Y Y A D S F E Y A I R R		
UniRef90_C6W6M6	E G K V S L A V G N M G T T N G I D V S P D E K K L Y V N E S V Q R N V		
UniRef90_UPI00036F36F6	U M A I T K K I D G V T V S N G I A F S N D H S I F Y Y I D S P T S E V		
UniRef90_UPI000467B71C	N R K L V L V E K N M G T T N G I E V S P D G K K L Y V N E S I Q R N I		
UniRef90_A0A010YSN0	D L S V R H I F G D V S T S N G L G W S P D G T V M Y Y D T G T R K V		
UniRef90_M5FJD5	D P E V E A K I T D M V M P N G L A F S K D E S T L Y V V D S G K S H F E G G P		
UniRef90_V7EGX4	D G T I E A M I T D M A C P N G L A F S P D R L Y V A D T G R M F S S D P Q H I		
UniRef90_Q4SDF4	D L T V T K H L D Q V D I S N G M D W S S D H R T F F Y D S L A R S I V		
UniRef90_UPI00047528F1	G Y A V T N G P A W S A D N R T M Y F N D S A N G R V		
UniRef90_F2L9S3	V F R F D P R D G T L D V M T D L L I C P N G L A F S P D E S L L Y V S D		
UniRef90_UPI0004176B1F	D L V P A K M A D L T I S N G M A W T E D Q K T F Y F I D T P T R Q I		
UniRef90_U5C265	N G E L V L I D S L N S R P N G I A F S P D E T R L L V A N S D P K H A V W Y Q		
UniRef90_UPI00047DCC63	G K R M G R V F D L G V V Y Y D K P N G I G L S A D G G T L Y V T E T Y T G R L		
UniRef90_J9JXU7	D G T V N K R L S N V S I S N G L A W S S D N K E F Y Y V D T Y K F A V E S		
UniRef90_A3HW30	D L K P V K Q D Q L T I S N G M A W T E D N Q T F Y F I D T P T R E I		
UniRef90_B5JJC7	D G K I T L L S T E L E R P N G I A L S P D E K T L Y V A N S H G P R P I M A		
UniRef90_L9PI69	D G G V T V V D D T L I N P N G V S L S P K G D V L Y V N G M V G D H G V L R A		
UniRef90_W5KC58	D H S V V R H F D Q V D L S N G L D W S P D H R F F Y Y D S L K Y T V D A		
UniRef90_Q0K7D4	D P A V G A L I E E P N G L A F S P D E D V L Y V S D T S A L R D D G H H H I		
UniRef90_UP10002630AAB	G Y G V V A N G P T F C P E N K T L Y H T D S A A R T I		
UniRef90_UPI0002D5B8DC	K L S L I A K D L N P N G I T L S P D A K K L Y V T N G S K W V V F P V N E D G		
UniRef90_Q7CU97	V S S S G H V E R F I D G D M L T S N G L A W S P D E T R M Y H S D S S G L L L		
UniRef90_UPI00047D22F7	V P D G T L S L A V I T D M E E P N G L A F S P D R E K L L Y V S D T A S H N P D A P H H I		
UniRef90_E0ULW2	E P K V V T D M I R P N G L A F S P D E K L L Y V S D T A S H N P D A P H H I		
UniRef90_I7A260	S I Q L L D K L E L P N G I C F S P D E K K L Y V N D S R V H K I		
UniRef90_G6XG87	H T K D G L R V A R H D E G Y T V S N G P A V S P D G T V L Y V C D S P E Q T I		
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UniRef90_UP10004755A66	D L S L T V A D Q G Y H C N G P A F S L D G A T L Y H T D S F E G R T		
UniRef90_B6RB14	D G S V K K H I S N I T I S N G M D W T D D N S V M Y Y I D S V P R Q V W A F D		
UniRef90_U3ID81	D L S V V K H F D R V D I S N G L D W S L D H K T F F Y I D S L S Y S V D A		
UniRef90_U4TZ48	D T L I S P K V E V A P V N I S N G L C F W K C N K A N M Y Y I D S P T R K V V E		
UniRef90_A1K0303	R I S P A G A L Q R I A A D L E R P N G I Q L S P D E K V L Y V A N T W G E H V		
UniRef90_UP10003B3B979	K G S V T L L T H D L Q Q P N G L A F S P N G K F I Y I D D S A Q K N I		
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UniRef90_J8Q8K4	G M T I S N G L A W N E E L S L M Y F D T P T Q K V V		
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UniRef90_B8H1Y9	U A R M D R D C I T N G P C V S P D G K T F Y H T D T L E K T I		
UniRef90_B1M3M2	D L T W R R M D T S Y G V A N G P T F S R D G R I L Y H S D S A A R T V		
UniRef90_D4HXL8	D N Q L K L T E Q A D D I M S N G L A F T P D R L W M Y Q S D T P H G L Y R		
UniRef90_G4MV14	D G R L D T L V E N G A S P N G L V L S S V D E K F L F V A M T R S N Q V		
UniRef90_B6QR96	N S K I L L E R V L S N P S P N G L V L S D T T R L F V A V T R A N A I		
UniRef90_B2JMN7	G N G A L T K V D A G L L T S N G M A F S P D P D R W C Y H S D T P R F T I Y R H		
UniRef90_UP10003633261	R I D P D L S H S R W D G P Y C P N G P A I S L S D D S T L Y H V D T F G G T V		
UniRef90_UP10002D7F3EE	D P A T G A L R A V S D F I E E P N G L A F S P D E S I L Y V S D T S G H H H I		
UniRef90_C5CS09	D P A T G A L R A V S D F I E E P N G L A F S P D E S I L Y V S D T S G H H H I		

210 220 230 240

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UniRef90_U1JVE5	W R Y E L D E Q G N I S N K Q L F I S F T D F G L D G M R T D N Q G N L Y
UniRef90_D5WJV7	R R H I R V F D L A G G R L R N G R V L V G M K S G V P D G M R V D E H G N V W
UniRef90_A0NZE7	H I R K F E V A D D G K S L R G D V L A T C T N G F F D G F R L D R S G R I W
UniRef90_I2EU26	Y P V L K D G K V G K G K I F Y D M T P M V K Q G L K G L P D G L K I D K K G N
UniRef90_G2IL92	I L E P G V V A P E A G H D S G A I L T N L P G M Q W F D S L A V E A G G K V A
UniRef90_UPI00036AF3B4	G K V A A D A G P G G P G G I P L Y R P A G Y K F F D S L G M E A S G N I C
UniRef90_W0PG87	W S Y S I L E P G I L Q R E P W P S P H G L P G F Q R F D S L A V E D D G N I C
UniRef90_M2B3A8	F P L K S D G T L G Q R R V L G N A S E M K E F P G L P D G M A I H S D G T L F
UniRef90_J3CRJ1	Y D Y D L A T G H T S H C R L R Q F D S P D Y G G R P D G A V D S E G A Y W
UniRef90_W0P5T3	W R M P I Q A D S S I S K A Q G F F T S Y G A S G P D G L A M D Q D G R L L
UniRef90_UPI000466592D	U N Y D L N G D K L S N P R Q F I D M T L N G K S G F P D G L R V D L D G N V W
UniRef90_UPI0004675358	V D V Y E L D G P D R M S G R Q T A F H I P E E D G A P D G M C M D S Q G N L W
UniRef90_G0J6E6	K Y A I S K S G K I G K G K V F F D A S G L S G E G N P D G I K V D P E G N I F
UniRef90_H5YIM0	W S Y K V Q G N K V A E P S L F S T C P D G L Y D G F R C D I H G N I W
UniRef90_UPI00035C5AB4	F T V D G D K L T G G E L F A E C G C N G A F D G I R L D S E G R V W
UniRef90_W9SAF1	L R L W H G P N V G K V D V F A E L P G F P D N V R R N P K G E F W
UniRef90_UPI00047E3282	Y N L D E M P D E R K E I L N V T A D V K A G E P G L P D G M T V D Q K G N L Y
UniRef90_UPI0003615211	R H I R R F S V S E E G T L S G G E V F A T C T S G L F D G F R I D R T G R I W
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UniRef90_W4QMQ9	V R F N Y D I T N Q G I T N R T E L I I D K S D G S P D G M T I D Q E G M L W
UniRef90_UPI0003706D44	W V Y D V D G A A L K A P R T F A G M E M D G R T G F A D G V R C D E D G N V W
UniRef90_U7HVW5	R V F D V S A D G S L G N G R V L I E F P D H K L D G M R A D V D G N L Y
UniRef90_UPI0001746384	R A Y D I Q E N G T V N N G R D F A K M A E G Q T T G G D M T I D Q L G N V Y
UniRef90_G7DF29	I L W S Y N V G D D G A L S G K T L I D A A D Q A S L D G F R V D R D G N L W
UniRef90_UPI0003FCCB2A	S A F D Y D V K S G S I S N R R T I T F S G T E G R P D G M T I D A E G M L W
UniRef90_R0FAC4	W V Y D I D G G V R N R K R L L I A F S D F G M D G M R C D A D G N L Y
UniRef90_S9SC9G	A V P P V I R R F R V T E R G L S G G E V F A T L D C P D G I R C D M A G M N L W
UniRef90_UPI00047ACD97	U N Y D L A A D G T A K R Q K L V D Y S P Q N G A D G F V V D S S G N I F
UniRef90_Q1YER8	W A L D T G P G T V A A G P L P Q M P G P G Y Q W L D S L K V E A G G R V C
UniRef90_UPI0003456E0A	L Q S D G S V S K V G Q F F T S Y G P S G P D G L T V D V N G R L F
UniRef90_G8MG09	I H V F E V S A D G R G I G R G R V F Y D A G V G T V D G I R V D I D G N L W
UniRef90_A6LH85	I R F R Y D D S S G D I L Y D G V A V N I P E G T G S P D G M T I D C N D N L W
UniRef90_UPI0003FBEC6	Y E M A T G A I A D K R T I I R I P K E A G F P D G M T I D S E G M L W
UniRef90_B4WL16	Q M C H D I R V Y D I I N G R K A A N M R M F K P G Q P D G F C V D A K G N I F
UniRef90_E8RKN9	D H G D I H N K R L F A Q L D R D G K T G E H G E G Y M D G P V D S E G Q V W
UniRef90_Q737N6	Y N I C T G E I R N P D V I I F P E N D G L P D G M T I D K E G C L W
UniRef90_K7SSM5	Y A F D I D E N G D L S S Q R V F A T L T Q G Y P D G I V T D S E G M N L W
UniRef90_Q064Z8	A F P L T S S G D F S G E P I P C I T I P E D W D A V P D G M C I D A E G M L W
UniRef90_A4FF98	W Y W E I E A P G R L R A P G P G P H G F G G Y Q L L D S L A V D S E G N V C
UniRef90_Q6TLF6	F D Y D I Q T G G L S N R R T V Y K M E K D E G I P D G M C I D T E G K L W
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UniRef90_M7YBH3	Y E Y D L V A P G K V E N R R I F F D A T E Y V G K D G Y K G L P D G M K W
UniRef90_G5ILW3	M E E N G R L G G R K T A V S V N P A D G S P D G M S I D E E G N L W
UniRef90_J2L5J5	H A Y D F D A A A G T L S N K R L W L A F A A G D G V P D G M T T D A A G H L W
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UniRef90_C6W6M6	W A F D L A P D G T L S N K K L H H F E D G G M D G M R C D D V A G M L Y
UniRef90_UPI00036F36F6	V S Y D F D K R N G N I S N K K T I T I K K E D G Y P D G M T I D N E G M L W
UniRef90_UPI000467B71C	W V Y D I M D N G Q P V V N K R I F K T F K D F G L D G M R C D A K G N L Y
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UniRef90_V7EGX4	R V F D M V G G R P A N G R L F H T V S H G C A D G I R V D T D G N L W
UniRef90_Q4SDF4	D A F D Y E P T S G L G V N G R N V V Y H M E G G E G L P P D G M A V D V K G R L W
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UniRef90_F2L9S3	T S M V P Y E D K G F H N I R V F E V V N G R S L V R P R I F A T I A E G R G W
UniRef90_UPI0004176B1F	R E F D F D L D S G E I R Y R R V A A E V P E K L G S P D G M K M H P S G L F
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UniRef90_B5JJC7	F P I L G D G T L G E G V V L F D S T E L R A K G R R G G N D G L K A D L H G N 7
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UniRef90_W5K5C8	F D Y D I Q T G G I S N R R M V Y R L E K D E G I P D G M C I D Q E G M L W
UniRef90_Q0K7D4	V A F D V V A G R V L A N P P V F A V I A P G L P D G F R V D R R G W
UniRef90_UPI0002630AAB	Y A M D L A P D G S L G S K G R V W R F E D A W G Y P P D G M T T D A E G G C I W
UniRef90_UPI0002D5B8DC	T T G E A K L F V D P A Q W T A P K V K G G G V D G L K C D S Q G N I W
UniRef90_Q7CU97	Q V F D F D V Q T G R L G P A K R L H D F Q P D E G R P P D G A A T D S E G C Y W
UniRef90_UPI00047D22F7	M K F D V V A H P G G P T L E S G H V F E I S P G L A D G I R V D E D G R
UniRef90_E0ULW2	R V Y E V I E G R Q I A N G R V F A V I E P G E P D G F R I D A Q G N I F
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UniRef90_G6XG87	Y A F D V G E D G T L S G E R V F A R L E N G Y P D G V T D R D G N I W
UniRef90_UPI0002376900	R R F Q L G A D G R S L R G E V F A E C S N G L F D G F R L D T E G R L W
UniRef90_UPI0004755A66	Y A Y P L A A D G T L G A P R L W R Q F G D E G E G S P D G M T V D S E G C V W
UniRef90_B6RB14	F D I T A G A I S N K R T V A D F S S T E I P D M G Y P P D G M A I D T E G K L W
UniRef90_U3ID81	F D Y D I Q T G K I D N R R S V Y K L E K E S I P D G M C I D T E G K L W
UniRef90_U4TZ48	Y D F D E K G D I S N P R I A V D T K F P Y V T G N P D G M T I D Q D D N L W
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UniRef90_UPI0003B3B979	R R Y R F T N G V L S D G M V F A D E N V P G M R G V P P D G M K T D K K G N L Y
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UniRef90_S6HMZ8	W A F D Y D T D G T P H G R R L F D V D M T E H A G R P P D G A A V D A D G C Y W
UniRef90_J8Q8K4	F A Q T F N Q E T I S L R E A E P V I D L S S E K G Y P D G M T I D E S G N L W
UniRef90_A0A023XHB4	F D V N G D G S L S N A R V F A S G I R S E P G L P P D G M K C D Q H G N V W
UniRef90_B8H1Y9	Y A F D L A E D G L L S N K R V F V Q F A L G D D V Y P D G S V V D S E G Y L W
UniRef90_B1M3M2	Y A F D L A A D G A L T G K R P F L R F P D A W G W P P D G M T T D E S G N L W
UniRef90_D4HXL8	Y P L D A D T G E I G P F E V V R R F D P Q Q G G S P D G A A L D S E G Y Y W
UniRef90_G4MV14	W R L P L H D N G T T T K A G V F F Q S F G S A G P D G L A V V D E E G S L F
UniRef90_B6QR96	W R V P F V L D G G V S K V G V F L N L S G G G P D G L A V V D A E G G L I
UniRef90_B2JMN7	S Y D V D S G E V G P F E E W V K F E P T P T D R G R P P D G A S V D S E G F Y W
UniRef90_UPI0003633261	L A F D Y D L E S G D L A N E R V F A T V L P G K G R P P D G A T V D Q E G C L W
UniRef90_UPI0002D7F3EE	W A F D K H P D G T I S N R R F E R A R L D S K K E G F P P D G L T V D D N E N R V W
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250 260 270 280

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UniRef90_D5WJV7	T S A E D G V H C Y A P D G T L L G K M L I P E V V A N L T F G G N R N
UniRef90_A0NZE7	T S A A D G V H C I N R Q G T L I G K V H I P E I V S N V C F G G K L N
UniRef90_I2EU26	I F T T G P G G V L L S P D A K L L G R I D T G E A T A N C A F G N D G S
UniRef90_G2IL92	V A T L F N G G I T L V D P A D G S V E H I P V P D P I A T N I C F G G D M R
UniRef90_UPI00036AF3B4	I A T I G E C G S V V S P D A G E L L E F H Q A P E N Y C T N I A F G G D M M
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UniRef90_M2B3A8	A S G P G G I Y V M T P E G K L L G R I I T G G R T S N C T F D S D E K
UniRef90_J3CRJ1	C A M F E G G R V L R I S P Q G E I L Q E I Q L P A R C P T M V A F G G D L R
UniRef90_W0P5T3	V A N P G L A Y V W I L N Q R A E P V Q V L R G I A G H S I T N I A F G G D K K
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UniRef90_H5YIM0	T S A Q G S V F C Y A A D G T H I G T I P I G E I V A N V C F G P Q R N
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UniRef90_UPI00047E3282	A T G P G G V L L S P A G E R L G I R T G T A I A N C A F G D D G Y
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UniRef90_UPI0001746384	V T A Q E F V W I F D P A G K E V A K I K V P E N P A N C T F G R D N
UniRef90_G7DF29	C G W G S N G G V M V F N P E G K P L A F I K L P E E R C A N C F G P K N N
UniRef90_UPI0003FCCB2A	I A H Y G G W K V S R W N P G T S C L E E I E V P A S Q V T S C V F G G D L K
UniRef90_R0FAC4	I A R Y G A G Q I A V V S P Q G T L L R T V A L T G R K A S N V A F G G D G K
UniRef90_S9SC9G	S S A G D G V H I F A P D G T L L G K I R V P Q R V A N L T F G P R R N
UniRef90_UPI00047ACD97	A A V R D K A R V C Y V F P D G K E L A Y I P T S E I P T N V A F G E E S H
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UniRef90_UPI0003456E0A	I A N P G L G R A W G I N H R A E P E V I L I S P E G A S L T N L C F G P K R N
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UniRef90_UPI0003FBEC6	I A H W G G W Q V T R W N P K T G K Q L T S F K L P V S N I T S C T F G G E L N
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UniRef90_E8RKN9	V G L F F G W G K V H V Y A P D G T L I R K V N L P V S N V T K I A F G G D L K
UniRef90_Q737N6	I A H W G G S K I T R W N P S T G E R I L S I P I P A L Y V T S C T F G P N L T
UniRef90_K7SSM5	C G T W L G G R V A R F R P D G T E L P A I K M P V S N V T K V A F G G D L K
UniRef90_Q064Z8	I A L F G G G A V T R W D P A S G L L L E R L A L P C R Q V T S C C F G P N L D
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UniRef90_UPI000374A1A4	S S A A D G V H C I A P E G H L M G K I L V P E L V S N L C F G G R A K
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UniRef90_G5ILW3	V A M W G G G V C C Y H P T P G K E L P I V P V K N V S C V T F G D D L K
UniRef90_J2L5J5	I A H W G G A C V S C H D P V T A Q E L C R V P L P T S H V T N C A F G P D L R
UniRef90_W7Z6C2	V A L W G G A S V I K L N P D T G E V L E R I V V D A T N V T S C C T F G G D Y R
UniRef90_I4DLB5	V A N F D G H Q V K I K D P K K G K L L Q K I R I P A L Q V T S A T F G P N M D
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UniRef90_L9PI69	V T E H T D K R L R V F T P K G K Q I A T I K V D A N V T N A A F G G S G K
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UniRef90_UPI0002D5B8DC	A T G P G G V C V M A P D G T L L G R F L T G D R T A N L C F G G D Q Q
UniRef90_Q7CU97	S A G V Q A G R L N R F T P D G E L F E I Y K M P F K G P T M P C F G P E L K
UniRef90_UPI00047D22F7	V F V S S S A S G V Q V F S P E G L L G V I E V P E T V G N L T F G P E G T
UniRef90_E0ULW2	T S S S D S V Q V Y V A P D G T R L G K I P V P E T C T N M T F G P K G D
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UniRef90_UP10004755A66	I A Q W G G G V C R Y S A G G E L L D T I P V P V R N P A S C T F F G G D L K
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UniRef90_U4TZ48	I A L Y Y G G S V I K A N P R N Q L Q V V P I P A R D V T S V I W G P N L D
UniRef90_A1K03	V A S S V G V Q V F S P R A G E L G I L V I P K A P Q N L T W G G S R N
UniRef90_UP10003B3B979	V T G P G G I W V W S P A G K H L G T V L P H Q P A N L T F G G D L R
UniRef90_UP100046AE128	V A T L M R G G V S V P V D G P V E F M S V P G D P Y I T N L C F G G D M R
UniRef90_S6HMZ8	I C G N D A G L V H R F T P D G K L D R S M T V P V K K P A M C A F G G D L D
UniRef90_J8Q8K4	I A M W G G G V L C V N P Q K G E I I D R I E V E A D H V T S C T F G G Q N D
UniRef90_A0A023XHB4	V T A P G G V W V W S P A G K H L G T V L P H Q P A N L A W G P D F R
UniRef90_B8H1Y9	T A L W G G F G A V R F S P Q G D A V T R I E L P A P N V T K P C F G P D L K
UniRef90_B1M3M2	I A H W G G G R L S R F D P E G R L V R A I P L P A P N I T S C A F G P G L D
UniRef90_D4HXL8	A A M F D G G R V V R I D T R S G D I V D E I L L V P R W P T M V A F G P D L K
UniRef90_G4MV14	V C H P S L G S V F V V D A S G V P K A R I G T D G V N L T K C C F G P E H K
UniRef90_B6QR96	V A Q P G L G V L R F D A A G V L T H F V Q L P N S A P S N I A F D P E R H
UniRef90_B2JMN7	A A L Y E G G R V V R I S P D G K V V E T H P L A A R C P T M C T F F G G D L R
UniRef90_UP10003633261	S A H F A G S C I T R Y A P D G S I L Q V I D L P V A N V T S C C F G G D L D S
UniRef90_UP10002D7F3EE	L A H W G G S V T C F S P Q G E R L G F I E L P V P Q V T S C T F G P D L S
UniRef90_C5CS09	T S S A D S V Q V Y H P D G T R M A R I A V P E K V G N L T F G G D G N

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UniRef90_W0PD34
 UniRef90_U1JVE5
 UniRef90_D5WJV7
 UniRef90_A0NZE7
 UniRef90_I2EU26
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 UniRef90_R0FAC4
 UniRef90_S9SCG9
 UniRef90_UP100047ACD97
 UniRef90_Q1YER8
 UniRef90_UP10003456E0A
 UniRef90_G8MG09
 UniRef90_A6LH85
 UniRef90_UP10003FBFEC6
 UniRef90_B4WL16
 UniRef90_E8RKN9
 UniRef90_Q737N6
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 UniRef90_I4DLB5
 UniRef90_C6W6M6
 UniRef90_UP100036F36F6
 UniRef90_UP1000467B71C
 UniRef90_A0A010YSN0
 UniRef90_M5FJD5
 UniRef90_V7EGX4
 UniRef90_Q4SDF4
 UniRef90_UP100047528F1
 UniRef90_F2L9S3
 UniRef90_UP10004176B1F
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 UniRef90_UP100046AE128
 UniRef90_S6HMZ8
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 UniRef90_A0A023XHB4
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 UniRef90_B6QR96
 UniRef90_B2JMN7
 UniRef90_UP10003633261
 UniRef90_UP10002D7F3EE
 UniRef90_C5CS09

This figure displays a multiple sequence alignment of UniRef90 entries, spanning approximately 40 positions. The sequences are color-coded based on conservation levels, with black representing the most conserved residues and red representing the least conserved. The alignment shows a high degree of conservation across the entire set of entries.

50 60 70 80

UniRef90_UPI00036F6D60	D V M K N R C R W T A Q K G E P S G Y T A A V P R G K E L G S N G L A I N P
UniRef90_W2C586	V D E K R T L Y E F M P E K K K C R S W Q F D R K V T T V V P
UniRef90_G4FJH8	V D E A S R I I G L F D P A T G N N D N F L Y L P A H V G A V V P T S
UniRef90_F4QQ76	S D P N D R M L R W D E T T G G V G F R S P A N Y A N G T V D R
UniRef90_A0A034VU29	V D E A G K I L R Y D Y Q E D K V Y H S K V K E D V E L A S F I V P V E G
UniRef90_D6WJC9	D I F G Q A I H K Y V P S T N T H A K V V I E G G P V T M V I P V E G T T D K
UniRef90_UPI00036179C5	S D V P Q N K I Y E W N N L N G L S V H V S P A G Y T G T G I G S N G L T L D P
UniRef90_B4MG80	L D Y K Q N K T Y R T Q I E G E T L A G F V L P V E G N A Q E F A V G C
UniRef90_H0A5Y3	D I P N G R I F R V T P T Q W P V V A E Y D G W P N G L A T G P
UniRef90_G7IRH8	T G V A D G R I L F W N G L S W D F A Y T S P E T E D I C G R P L G L R F D K
UniRef90_L8H3T0	S D I Q N D R V L R V S P K T D A A K R L A G T K G S N K D G R A R G I A F D Q
UniRef90_A0A024FFP4	E E G T I G V V N S K G K A S F T K L P K G S G N G I R F D E
UniRef90_V7CXL3	T G V A D G R I L K W E G E K Q G W T E F A A P E L E H V C G R P L G L K F D K
UniRef90UPI000258DC30	V D I V A N K I Y R F D P V S Q N L T F A F I E S G T V G F V I P V A G S T N K
UniRef90_A0A023GBW8	V D A P V G D L C R L D V L T K D T S G V H L D G L V T V I P Y K
UniRef90_W8EWH7	D A P T R I Y R W S A A Q G K S T F L A G S G Y T G Y G K E P N G L A L D V
UniRef90_U2MH20	V D I S G G K N V M T P Q A R V A T V Y Q S S A R I G A L A L T D D
UniRef90UPI000362CCDB	T D I L A C E I H R Y H P A S G A H R V L R F P E E V G C F A L C E
UniRef90_M7XHU2	N G D P K K S S T V V M N P D G S Y R N I A Q G Q M Q T N G L Y P Y K
UniRef90_I2BXV2	V D I A A R Q A R L R L G G Q L Q V W Q L P E H V S A F I P
UniRef90_X6L2R7	I D M G R Q R L H T Y D P A T G R R R T V R V L D Q H I G A A K P
UniRef90UPI0003701D3F	I D L G A R L H T Y E P A T G R R R T V R V L D Q H I G A A K P
UniRef90UPI000382A21B	T D I P A R M L W R W S P S E R K A A S W V L P E Q A G C L A M R K
UniRef90_F6EY12	G V L E R D G M L R Q M G K A L A P N G V A V D R
UniRef90_A8PKQ3	V D I V A A T L Y R L N A D N S I N K F I M P S E I G S I A W S A
UniRef90_D5WGX2	V D I P A R K I V R G S L E T G R R T E W L L P E Q V A C I A F D H
UniRef90_U2RTY1	L D I K G R K V H R L T L D S G A R E S W E T P L R V T A L A P
UniRef90_W4LQ38	S D I P N E Q R L W I E E D G H V S R F R F P S G N S N G T F D F
UniRef90UPI00037DE2A9	V D I P K G R I I H A K G E D G G A E T F W D L P E P V G S F G L T A A D S
UniRef90_L8NL23	V D I P K G E L H R W D F K Q N S T R S W K A P Q M L A C I G P N G T F D F
UniRef90UPI0004756E84	V D I R P G R I T R V H P D G R T E T V A T P G G G P N G M A V G P
UniRef90_W7T056	V D I L G S A V H R Y D P G R G T D D V L P T P Q H V G A A K P
UniRef90_S9RYH2	V D I P A Q R I V R Q H V A L G V R T E W A L P E K V A C F A R H G G L V A G L
UniRef90_R7ZWB5	V D I E H G T L F S Y S F T D K H L Q T W H F P H L T V V L
UniRef90_W0AFH8	V D I A R N E L H R F D P A T G V D E T R C F A P I G C F A F R
UniRef90UPI00034FF681	V D I H G Q Q I L K L D A A S G N V T S R A I G Y G P V S L A V T V K D
UniRef90_Q1NH37	V D I I E Q R I H T V S L T D G P D S V K T L Q L D S P V G V T A D V E G F D P
UniRef90_R8BMV2	V D I A R G T L S K I N T L G E T E V I A D L G G G P N G A I G P
UniRef90UPI0003B5E4F3	T G V A D G R I L K W D P N H H R W T D F A A P E L E H V C G R P L G L R F N K
UniRef90UPI0002C2E8B0	V D I K N P G V W R Y H R D T R E H Y R V D A P E R I R G F I A L T P
UniRef90_I4YT10	V D I T V P K N T A Y L W T E N K G V T E F L T N H A P H S T N E G A N G L L L D A
UniRef90_C0BIZ1	V D I P A R Q L H R V T P A D G I H R Q W T F P E Q I A C F T F D A
UniRef90_V5UEX8	N D P P S N I L Y R W T R A Q G V T P F P L Q T S V P E G I R E P N G I A T A
UniRef90_Q1NHS3	V D I L Q C E I H R L D L E T Q H Q L W R M P S E I C I V P N R
UniRef90_K2D0F4	T G V A D G R I V L F W D G Q A W S D F A Y T S P K N E H I C G R P L G L R F D K
UniRef90_A0A059AA66	T G V A D G R I V L K W E G D G R G W T D F A A P E M E H I C G R P L G L R F D K
UniRef90_F6HK98	V D I P A R Q L H R A N V F M G T L E S W A M P S E P G C I G E A S G L V I A R
UniRef90UPI0004799BCD	V D I P A R Q L H R A N V F M G T L E S W A M P S E P G C I G E A S G L V I A R
UniRef90_W11TL6	S D V K G N K M F R W S E D D G V S V W R E N S H Y A N G N A L D N
UniRef90_N1M183	V D I L G P A L N R L S L H D G A V E R W V M P E P L G W V A E R
UniRef90_Q1QTT2	D L P R R Q I R W D E A S G T V S V L R E G V H S N G N T F D R
UniRef90_C7C5D6	V D S Q D G R V F S C N A Q G T A I K S W D V Q R K I G S M A L R Q
UniRef90_K4DAN7	T G I A D G R V V F W D G K W N D F A Y T S A N R S G I C G R P L G L R F D K
UniRef90_J3CBN9	I D I L T P R L F R Y D P A S G A Q R T W T F D E E I T A I A E R A
UniRef90_B4WC26	D I K G R G L H R Y T P A T G D T A S W D T P D Q I G F A L P A
UniRef90_A1VJR2	T T A N R V T R I A P D G A T S T F V E G S N G N G L G F T A R
UniRef90_M4SGC9	V D I V G H R L H R L A L G G S A V K W S W D F D P I G W A I E R
UniRef90_J1IKK1	V D I P T G E L Q R W N A T S Q G A Q A W K A P Q M L A C I A R T S
UniRef90_S9SX02	T D I P G R T L W C W N A S T G H C D A W T L P E M A G C I A M T S G G W V L A
UniRef90UPI000372324C	I D S L A G L I H A L A P A T G A T E Q F S V P A P I G S L A L R G
UniRef90_M0CNY6	L D I P E A D L Y R Y D P A D G S H E R V L D A E G A V G F T I Q
UniRef90UPI00036EBBE2	G G V Q P S A V L R Y T P P A T F E T F I A D S G S N G L A I T A
UniRef90_B7PYU7	I D A Y V H D V C R L D V A S Q E T I T K R I S A D G I V T F V I P Y R
UniRef90UPI00046EE326	D I N G S R V H R F I P A L G E A S H W A A P G R V A F L L P
UniRef90_D5QCP9	D I V G G S I H R H V P A T G A Q A S W K A P H R P G F L V P V A
UniRef90_U7DV55	I D V V G G R V Y R C T A D G R E V R T W E M P D T I G S M A L R R
UniRef90_E3DJZ3	S D V K R N Q V M S W S E K D G L K S W L S P A D Y Q N G H A V D A
UniRef90_A4AM06	D I P N N K V Y K L D S K N D T I T Y F T A K G F S G D E P G S N G L L L N P
UniRef90_Q8WF66	T G V A D G R I L F W N G T R W T D F A Y T S N N D C G R P L G L R F D K
UniRef90_E8WD18	V D I L S A R V H T Y D P S T G R R T V M A T G Q H V G A A K P R
UniRef90_L0G194	D I P R N K V Y K M T S E G D T S T Y L N R S G Y S G E G A Y S N A L L L D K
UniRef90_T11XB8	V D L F Q G D L C K L N P D D K T V E K K H F G D E T T T V I P V E N A
UniRef90_B1J18	V D I P A R Q L H R W Q P D G D H Q T W Q G D E M L A C I A R T E R G W I A G M
UniRef90_K4D2K2	T G V A D G R I L K W N G D S D G W V D F A A P Q M E H V C G R P L G L R F D T
UniRef90_X1XYM6	N D I Y G G S I H R Y D Y A E N K T Y N A T I D G F P V I S F I A P
UniRef90_A0A023D936	D I P Q A R I H R F E P G S G A H R T W N A P D R V A F V G F T I Q
UniRef90_V5II5	V D A F Q G D V C R L D V A T G K T S S V H F D G T V T F A I P Y R
UniRef90_M7Y0F6	S D I E G R R V L G W R A D G C V R V V V I D A T P F I Y E G W P N G L N G N T V D R
UniRef90_K5CYX3	D I P F G R I I R V S E D G R P E L V T Y E G W P N G L K I L R
UniRef90UPI0002E52996	T D I L E K Q I H R Y D L L T K K H H V L N F A E E V G S F A L R E S A G F
UniRef90_A0A014Q157	S D V K G N R M F R W Q R N G E L S L W R A N S N A R D G
UniRef90UPI00037FA27B	V D I L G R R L H A F D P A T G D H Q V W R L A G R P T S I G L R A
UniRef90UPI000360E055	D A H W Q R I Y R W A P D T R E A V I V R D I P L E P V N L V F D K
UniRef90_Q6J687	V D I S A M Q V H R L R P A D G V H A M W Q L P A E P G C I G R A F T A
UniRef90UPI0002F78027	T D I H A R S R L W S H D P H S G A T R S W S M P E R L C C F A P V K N
UniRef90_B0WKV8	N D I Y G G T I H R Y D Y A E N K T Y T A S V D G Y P V I S F I P V K N
UniRef90_E0VWR6	S I H R Y D P K E E K H E S A P V S V I P K D K P N E F A V T I P V K N
UniRef90_F7P1Q1	E G T I G K V S P E G E V S L A L T L P K G S G N G I R F D Q
UniRef90_J2L0V4	I D P P G R Q L H R C N V F M G T V E S W A M P S E P G S I A P A R
UniRef90UPI00036CA5FE	S D G F P A N L I A Y D G S E L T I A L E D S G S N G L A R D H
UniRef90_E6V182	L D I P P G R A V L R T R G D G T T S A T V E R W A L S T E P G C I G A P A R
UniRef90_B7GAS1	T D I N G K R Y H E L H P T K A Q F S T Y N V P K K L C S F G M P S S D T D R

UniRef90_UPI00036F6D60 Q G Q L V L C Q H G D R R V A V M E A P V A D P Q P T F V T A A G K K F N S P N
 UniRef90_W2C586 E T D H T V I V A L E N S I V R F D L N T Q Q K Q E I T P V D T K G G R L R C N
 UniRef90_G4FJH8 V G D L L A T A A G L M R M D P S S G A V T L L D P E V D R P G N R F N
 UniRef90_F4QQ76 Q G R L V T C E H G G R R V T R T E H D G S V T V I V D R F D S G R L N S P N
 UniRef90_A0A034VU29 Q S D K F V V G A G R R V L V V T W D G V S P T S K V D R V L F E V Q Q D E Q Y
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 UniRef90_UPI00036179C5 A G N L V V I C Q Q G D R A L S K L K E G S N S S N P R F E D Y E G K K F N S P N
 UniRef90_B4MG80 G R R V V I V N W D G V S P S A K V V R T L F E V Q S E F K A N R L N
 UniRef90_H0A5Y3 A D S M L V A D Y R H G L L T L D P A S G A I A P L L E T V A S E G F K G L N
 UniRef90_G7IRH8 K T G D L Y I A D A Y F G L M K V G P Q G G F A T S L A T E A E G V P F R F T N
 UniRef90_L8H3T0 R G R L V M C E S G G R V T R L E V D G R L T L V L A E K I D N K R L N S P D
 UniRef90_A0A024FFP4 N D N M Y V A D Y T S H N I I L L K K G T T K A L V Y A H D S T M N Q P N
 UniRef90_V7CXL3 K S G D L Y I A D A Y L G L K V V G S A G G L A T G V V T E V E G Q P L R F T N
 UniRef90_UPI000258DC30 F I T T S G T D F V L V S W D G E K N T T K C S A D S D R T E T R W N
 UniRef90_A0A023GBW8 S D P N L N V I T L D R Q L R M F D W T T S K S E V L T E V D S D K P T N K F N
 UniRef90_W8EWH7 Q G N L L L A E H G D R R V A V L P Q P G G K R T L T D A F E G R R Y N S P N
 UniRef90_U2MH20 R G N L I F T E D A R V A I L D P K Q G V V R T H S S A V H N Q A S Y R F N
 UniRef90_UPI000362CCDB N G G L I V A L R S A I W L A D E D G R L V R K V C D N P S N P A L A R F N
 UniRef90_M7XHU2 N G N L I V C D M M G H R V V I E M N T N G Q V L R V L A D R Y E G K P I D G P N
 UniRef90_I2BXV2 C Q R G D A L V T L S S G V Y R L D L A T E A L T L C V A D P Q T G N R G N
 UniRef90_X6L2R7 S G E I V L V G L D C G L A R L G D D G E I E H I A S A P H A D P A F R F N
 UniRef90_UPI0003701D3F R A N G G L V L N L R D G V A V L D P D G A F R W L H R E P V P G R R A N
 UniRef90_UPI000382A21B A G G L L L A M E Q G I G A L E R L P D A G Q A A L V A A V R H A A P G M R F N
 UniRef90_F6EY12 E G R V I V A N M G P G P L Q R Q I D V A T G A I E T L V S E L E G R Q L V A S N
 UniRef90_A8PKQ3 Q G G L I A A L R D R F A T I D T N T G S T Q T I A L P L H K M K K V M F N
 UniRef90_D5WGX2 A G T V L A G C E T G L F A V T L A H A S T A S G G E P L T A S L R K L A A P E
 UniRef90_U2RTY1 R K Q G G F I A G T E Q G L A F Y E P R T G R L E R L L N P E P E R T H N R C N
 UniRef90_W4LQ38 UniRef90_UPI00037DE2A9 Q G R Q I A C E H G N R R V A R Y E Y D G T V T V L L A D T F D G K P F N A P N
 UniRef90_L8NL23 R D D R L V V A M A S G V Y L F A P D T G K L D C L V E P E P G E
 UniRef90_UPI0004756E84 R G G W V A G M E N G F H L Q P C E D G S I S T L L A S V E H A Q A G M R F N
 UniRef90_W7T056 D G A L Y V C N N G G F E W Y R D Y T T G R I E R I D I A T G K V D R L Y D S C
 UniRef90_S9RYH2 R A A G G L V A N L K D G V A L L D A D G Q R W L V Y W E R E G V R G N
 UniRef90_R7ZWB5 E T G G L F A V A L P E P A D G A T P A Y A R K L A A P V F P V P G M R F N
 UniRef90_W0AFH8 E E G N H F V L A L D R K L A R F D P A T E K L D W L L E V E S D P T L R C N
 UniRef90_UPI00034FF681 R S G G L L L A M A D G C A T I A D F G A P P E P F G D Q V L K D L P D Y R F N
 UniRef90_Q1NH37 N P K L L L I S V R S E L Y L M P W P A G S A L R L L S S V D L G L P D N R C N
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130 140 150 160

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170 180 190 200

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

210 220 230 240

UniRef90_UPI00036F6D60	Y D L N S N G L L A N G R I F F D G S A I F Q K E H R T P D G K I N D K G V		
UniRef90_W2C586	R R Y R Y H Q H S G D I K N G I A V D I S E G T G L P D G M T I D R N D N L W		
UniRef90_G4FJH8	A F P L T S S G E I A A E P S I C V Q I P E D W D A V P D G M C I D A E G M L W		
UniRef90_F4QQ76	R V F D V J A E D W S L S G G D I F A D N G N Y D G L R V D T D G R V W		
UniRef90_A0A034VU29	Y D F D A G V P T K P K V V F D L R R P N P K D N I L P D G L T I D S D G N L Y		
UniRef90_D6WJC9	Y D N N L E K G E I C N R K V V F N L D V H D I P G V P D G M T M D T D G N L W		
UniRef90_UPI00036179C5	Y D I V G K G K I N N K R I F F D A T A L W I S K Q K P D G L K I D K N G N V F		
UniRef90_B4MG80	Y N F D T G V A S N P K V I Y N L R K T S P K D H I L P D G M T I D T E G N I Y		
UniRef90_H0A5Y3	W R F A L R D D A F V G K A N V F F R T P A G T S G P D G M A V D A K D R L F		
UniRef90_G7IRH8	C K Y W L K G D K A G T L E I L A I L P G F A D N V R V N E N G D F W		
UniRef90_L8H3T0	V V F E L K R D G T V V D A P P Y I V H D F D K G K G G D G L C I D S H G N L Y		
UniRef90_A0A024FFP4	W I Y D I S L D G S V K N K R L F A S F N D F G L D G M R C D E K G N I Y		
UniRef90_V7CXL3	L Q L W L R G P K A G Q V D I F A E L P G F P D N I R R N S E G H F W		
UniRef90_UPI000258DC30	Y D Y N L Q T G D I S N K R T I F D L Q K N N I L P G I P D G M T I D T D G N L W		
UniRef90_A0A023GBW8	F G F D A A N Q Q L S N R Q D F N S K D E Y K E C G Y P D G M T V D V N G K L W		
UniRef90_W8EWH7	Y P V R G N G K L G A G R V F F D M Q P L P R Q P E P D G L K L D R A G N V W		
UniRef90_U2MH20	I F R A A Y A P N G E L G A V M C F A E I P A E L G R P P D G I T L D R A G G L W		
UniRef90_UPI000362CCDB	I W R T P L D E C A E P G K R E V F R R F G P G E G M P D G A A M D V E G C Y W		
UniRef90_M7XHU2	W A Y D V Q A D G S I S N G R Q F A K V H T E D V L E D G M A I D K E G N I Y		
UniRef90_I2BXV2	Y Q H S L Q A D G Q L G A A Q A W F G P H T R G G P D G S A M D A D G Y I W		
UniRef90_X6L2R7	Y A Y D F D P V S G K V E N R R P F F G M N P A D G K P D G L T A M D P E G Y F L		
UniRef90_UPI0003701D3F	D V F D H E D G R I T G R R T L V A I E D G A G F P D G L T V D A D G C V W		
UniRef90_UPI000382A21B	W A Y D Y D A D A G R P G R R R V F I E K L P A G R P P D G A A V D A D G C Y W		
UniRef90_F6EY12	R E A D V V P N H Q A R D I R A M A T A E R A D L G Y C D G I A F D A R G N L W		
UniRef90_A8PKQ3	Y Q Y E F D K R R Q G S L G Q M Q V F A Q I P Q E E G P P D G L T V D S Q G Y L W		
UniRef90_D5WGX2	W A F D Y D V E T G E P R N R R V F A D L H H Y S G R P D G A A V D A D G C Y W		
UniRef90_U2RTY1	Y A F D L S A D G V P S R R R E F L R F E A P H G F P D G M T V D A E G G I W		
UniRef90_W4LQ38	S H Y P E A S P N I K V W D V V D G R A L R G G K E F T D G I R A D V D G N I W		
UniRef90_UPI00037DE2A9	D R W R L D P Q T G A I S E R T R I A D L E E E D G R P D G A A T D Q E G R Y W		
UniRef90_L8NL23	W A F D Y D T D S G T P R N R R L F V D M N Q H L G R P D G A A I D T D G C Y W		
UniRef90_UPI0004756E84	V S P G V L A P E P L P A V P G R Y V T A W A N K T F L D S L A I E A N G N I Q		
UniRef90_W7T056	D V F D Y D L A T G S A A D R R P L C T V E G T P G S P D G M C V D A D G C L W		
UniRef90_S9RYH2	W A F D Y D T E T G M P S R R R V F A D L H D Y V G P D G A A V D A D G C Y W		
UniRef90_R7ZWB5	R T F D F N P D T G Q I A Y R K D A V V V P E S L G T P D G M C M D E E G M L W		
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UniRef90_I4YT10	Y V L D A E G S R I G E P R P F V R F A E G W A H P D G M A V D A E G Y V W		
UniRef90_C0BIZ1	F D L V D G R L I N Q R V F F D A K S M G K K G M G L F D G L K V H S S G V L F		
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UniRef90_M7Y0F6	S A E D G R L S N R Q T F L N W N S H P S Y K D C G Y P D G M T H D A L G R L W		
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UniRef90_F7P1Q1	F D L E N G A L S N R R L F F D V T D Y L T D I K Y G P D G M T I D D N D D N L W		
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250 260 270 280

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UniRef90_W0AFH8	S A L F D G G R	V V R L I S P A G E	I V A E V A L P V S R P T M I V F G P E L K
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UniRef90_C0BIZ1	V C H W G A S R I	T R F A P D G S	V E R I V P V P T A Q V T K C A F G P D L T
UniRef90_V5UEX8	A T G P G G V	I L F T P P A G V	L D R E I V L P V S K P S M C A F G G D F D
UniRef90_Q1NHS3	T C A N D G S R	L L R F T P A G V	L D R E I V L P V S K P S M C A F G G D F D
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UniRef90_C7C5D6	S S V S G G D G	V S V T P P G G E R L A R I	L L P P E V C A N V C F G E D R N
UniRef90_K4DAN7	N A L V Y A G K L	V R Y T P D G E	V D R I D M P V K K V T S V M F G G N L D
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UniRef90_A1VJR2	V G L F N G W G	V A Q F S P E G E R I	G K I D M P V Q T V T K A A F G G D D L R
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UniRef90_M0CNY6	A A F W D G G R	A S Y D P E G T E	G R I V R T I D M P V R H P T S V C F G G D L D
UniRef90_UP100036EBBE2	UniRef90_B7PYU7	W A S Y D E G L	V Q F S P A G K R L G K I I P A K A T A N L A L C T D R N
UniRef90_UP100046EE326	C S T W S G G H	V H F V S P P S G A Q L	G E V D R I E V F P A K V K V S A V T F G P D Y D
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UniRef90_K5CYX3	V W S S E A G V	Q V Q V S A E G H R	G E V L R Q V I I P A A R T S L C C F G G N Y D
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UniRef90_UP1000360E055	L A A G Q V Q V F	S P D G R V D R V	G E V L R Q V I I P A A R T S L C C F G G N Y D
UniRef90_Q6J687	C A M Y E G G R	L L R I S P S G E	G E V L R Q V I I P A A R T S L C C F G G N Y D
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UniRef90_J2L0V4	UniRef90_UP100036CA5FE	V A M F E G G A Q L R F A P S G E I	G E V L R Q V I I P A A R T S L C C F G G N Y D
UniRef90_E6V182	N A V W G P G M	V Q R I N P D T G L V V F T V H M P T S Q V T C C C F G G D M D	G E V L R Q V I I P A A R T S L C C F G G N Y D
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UniRef90_G4FJH8	Q L F M T T A R R G G	L F Q A D V G V K G L P	
UniRef90_F4QQ76	R L F I T A T T S	V Y A V M L A V N G A R T F	
UniRef90_A0A034VU29	I L Y V T T S A K G T	T Y K I T L G A T G L P M	
UniRef90_D6WJC9	E L Y V T S A Q		
UniRef90_UPI00036179C5	M L Y V T		
UniRef90_B4MG80	I L Y V T T A A K G T	T Y K V T L N A K G Y P	
UniRef90_H0A5Y3	T L L I T E S D S G T	V L S V D I P V	
UniRef90_G7IRH8	A A V V K Y S P	D G K L L Q I L E D N E G K	
UniRef90_L8H3T0	T L Y V T A G G G I	Y Q A R M P I P G	
UniRef90_A0A024FFP4	K C Y I T I A D R G C	V E V V K L K	
UniRef90_V7CXL3	A V A V K L S E R G E I L E V L E D S E G K T L		
UniRef90UPI000258DC30	T L Y V T S S		
UniRef90_A0A023GBW8	E L Y V T S A W K G	L T S E Q L S A E P L A G S V F	
UniRef90_W8EWH7	T L Y F T A G S	F V C R V K T L V Q G	
UniRef90_U2MH20	T L F I T T A D S G D L F A I R P A I A G V P R H		
UniRef90UPI000362CCDB	T L Y I T T T R S G A I F T L E V A V A G K		
UniRef90_M7XHU2	T L Y I V S Y S K V F K I R T N K E G		
UniRef90_I2BXV2	T L Y I T S A A D G A V L A I E V D V P G K P	C H R F A G	
UniRef90_X6L2R7	T L F I T T A R I G		
UniRef90UPI0003701D3F	D L Y V T T T A R A G S L L V V P G A G K G L P Q		
UniRef90UPI000382A21B	T L F I T D A P D G A V Y A L R P G A R G L Q E		
UniRef90_F6EY12	D L H V V S R A S G V V V K A R T N V A G L P L		
UniRef90_A8PKQ3	T L Y V T S A S S G M I F S I E T G I K G L P E		
UniRef90_D5WGX2	T L F V T S I R D G H V F A L R P G V S G L P E		
UniRef90_U2RTY1	R L F V T T A R T D G L D A K A L E A Q P L A G G L F		
UniRef90_W4LQ38	R L F M T G S Q S I Y A V Y V E T Q G A		
UniRef90UPI00037DE2A9	T L F F T S L R R G L V F S L R V D V P G V P V H		
UniRef90_L8NL23	T L F F V T S I R P G D I G D Q P L A G G V F		
UniRef90UPI0004756E84	D A W V C L S T T G K L A K C R W P R P G L K H		
UniRef90_W7T056	D L Y V T T A R E G		
UniRef90_S9RYH2	T L F I T S I R D G H V F A V R P G V R G L A E		
UniRef90_R7ZWB5	R L L I T T A R S G G V F L A E M P M G G A N V F A V S I		
UniRef90_W0AFH8	T A Y V T T A S S G G I F A F D V E V P G L P E Y		
UniRef90UPI00034FF681	T L F F V T T S R V G		
UniRef90_Q1NH37	V A F V T T L G S S G K V I C I D W D V P G L P L		
UniRef90_R8BMV2	E L F I T T A G N G A L F R V D V G T T G L K P Y Q F K L A		
UniRef90UPI0003B5E4F3	T A Y I T A S Y E G L L E V P W S R E G L A L		
UniRef90UPI0002C2E8B0	A T A I K L S E K G D V L Q V L E D C E G K S M		
UniRef90_I4YT10	T L Y I T T A A I G H D P H I D P M A G H L F		
UniRef90_C0BIZ1	Y L Y L T S T N V L A R I K L K		
UniRef90_V5UEX8	T L F V T S I R D G H V F A V R C G V Q G L P E A P Y A G A L		
UniRef90_Q1NHS3	T L F L T S S D		
UniRef90_K2D0F4	T L L I T S A K R G N V F A L H C D A P G V P E		
UniRef90_A0A059AA66	G V V I K Y S Q E G K V M R I L E D S Q G K		
UniRef90_F6HK98	T A I K L S E E G Q V L E V L E D C E G K S M		
UniRef90UPI0004799BCD	T L Y L T T A R H G R V F S L R V D V P G L P		
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UniRef90_N1M183	R M F V S S A A D G G F Y E V D C G V R G L P		
UniRef90_Q1QTT2	R L L M T A S Q S I Y T L Y T G A R G		
UniRef90_C7C5D6	V L Y V T S M A Q P P L P R F P E D N Q L R G S L F		
UniRef90_K4DAN7	A V V V K Y S P E G K L L Q I L E D R D R Q G K		
UniRef90_J3CBN9	M L Y I T T A R T R N G L T A E Q Q A A E P L A G G L F		
UniRef90_B4WC26	D L Y M T T A T T L G G L Y R L R V K T P G L P Q N L I R L		
UniRef90_A1VJR2	T L Y Y A V G R G A A Y R L P V L T A G		
UniRef90_M4SGC9	R L F F V T S A A A G A L F E V D T G M C G L P P V S		
UniRef90_J1IKK1	T L F F V T S I R D G G V F A L N P G V T G L P E		
UniRef90_S9SX02	T L F F V T S I R S G A T F A V R P G V T G L P E		
UniRef90UPI000372324C	V L Y V T S I S R S H A L R D D H P D A G G L F		
UniRef90_M0CNY6	T A Y V T T A G A G L F A V D L G V G G V P E F R S R I E		
UniRef90UPI00036EBBE2	T L Y L T S G V S G G L Y Q T H L N V P G N P		
UniRef90_B7PYU7	V L Y V T S A W R G L S A T Q R E C Q P L A G A V F		
UniRef90UPI00046EE326	T A Y V T T A R S G G L F A F R A D K A G L P Q H H I V L S		
UniRef90_D5QCP9	T V F V T T A R T G G L F T F R V D V P G Q P Q A T F P A S G		
UniRef90_U7DV55	T L F F V T S M A R G S L I F A V R L G V Q G L P E		
UniRef90_E3DJZ3	W M Y V T A T N L V L R I P V R V K G		
UniRef90_A4AM06	T L F F I T A D D		
UniRef90_Q8VWF6	A V A V K Y S E E G K V L K V L E D S K G K		
UniRef90_E8WDI8	D L Y V S T A R T G		
UniRef90_L0G194	H L Y I T A H R D I L R V D L K		
UniRef90_T11XB8	Q F Y I T S A Y K G		
UniRef90_B1J18	T L F F V T S I R A G G G V F A F E L G V K G L E E		
UniRef90_K4D2K2	A T A I K L S E D G Q V L D V L E D L E S K T L		
UniRef90_X1XYM6	I L Y V T T A A K G A L F K V T L G V K G T P M Y		
UniRef90_A0A023D936	T A Y V T T A R R G G V F T F R V T V P G Q V Q R S F S M Q A G		
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UniRef90_M7Y0F6	R V F F I T S K A H L Y A L D L G V		
UniRef90_K5CYX3	V L F F I A D S A G S R V L A V E M P F A G		
UniRef90UPI0002E52996	T L F F I T S G R S G C I F T L Q T D V K G M		
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UniRef90UPI00037FA27B	T L Y V T T S A R E G A L F A L D V G V P G L P C H		
UniRef90UPI000360E055	T L Y I L T H A S L Y S V R M K S A G L		
UniRef90_Q6J687	T L Y I T S V S S G Y I L S L R V D V P G R		
UniRef90UPI0002F78027	T L F F V T T A H E G		
UniRef90_B0WKV8	E L F F V T T A A K G A L F R V T L G A V G T P M Y		
UniRef90_E0VWR6	E L Y V T S S S G G T L R I I H V G V K G R		
UniRef90_F7P1Q1	L L Y V T T M Q K R G A V E L I K L		
UniRef90_J2L0V4	T L Y I T T A D S G C V F S M Q V E V P G L P		
UniRef90UPI00036CA5FE	T L F F I T G A G S R G K R V I S T R V D T P G L P		
UniRef90_E6V182	T L F F V T S G R K G R V I S T R V D T P G L P		
UniRef90_B7GAS1	I L F F I T S A A E G G G L Y A A K V P Y K G R K E S R F R I T P D		

1 10 20 30 40

M S P K I E R L T E S F L L G E G P H W D V A T Q N L Y Y
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UniRef90_D6WKC7
UniRef90_D6EEK9
UniRef90_W4LJ76
UniRef90_D2ZJ50
UniRef90_UPI00036D9914
UniRef90_K9TYL8
UniRef90_B3PHK0
UniRef90_UPI0002F97632
UniRef90_UPI00046B02D4
UniRef90_A6C837
UniRef90_F6IN77
UniRef90_UPI0001CBF6A
UniRef90_A0A016XK17
UniRef90_K1KZJ8
UniRef90_UPI0002886991
UniRef90_UPI0002375198
UniRef90_S5UQM8
UniRef90_Q96XG1
UniRef90_UPI000407591D
UniRef90_UPI00046ADB1A
UniRef90_F3HEC6
UniRef90_UPI0002034D37
UniRef90_L2TS96
UniRef90_C5CU25
UniRef90_J0KHR6
UniRef90_K1Y1D8
UniRef90_B8LRD1
UniRef90_J2LD23
UniRef90_B4NCP8
UniRef90_TONEB0
UniRef90_L1ICE4
UniRef90_S2Y447
UniRef90_UPI00037CC290
UniRef90_UPI0003F49850
UniRef90_S6IK56
UniRef90_K2L0D4
UniRef90_UPI000376833B
UniRef90_B5JG16
UniRef90_UPI00031C8844
UniRef90_UPI00031FF693
UniRef90_UPI0002F193F4
UniRef90_G2GGB4
UniRef90_G8W9M9
UniRef90_Q3K8M4
UniRef90_W3XE23
UniRef90_H8L6N6
UniRef90_FQ04N2
UniRef90_X6EQQ1
UniRef90_B0UBF1
UniRef90_UPI0002F4FD6F
UniRef90_UPI0003B5625E
UniRef90_A6BZS0
UniRef90_UPI00031E7564
UniRef90_G9XJB4
UniRef90_S4NFG2
UniRef90_S8CGF0
UniRef90_UPI0002236A4C
UniRef90_M4SI83
UniRef90_UPI00046AE874
UniRef90_Q54ZP3
UniRef90_F4Q328
UniRef90_H2K6J5
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UniRef90_UPI000421941A
UniRef90_U5VEG7
UniRef90_UPI0003B61289
UniRef90_Q11P69
UniRef90_UPI00036E06E2
UniRef90_M0TMM7
UniRef90_UPI0001F2A43F
UniRef90_C1B6S7
UniRef90_U7NWK3
UniRef90_UPI00028A003D
UniRef90_S3XY80
UniRef90_F7VDZ2
UniRef90_A3UQ75
UniRef90_Q1NAK1
UniRef90_X5X085
UniRef90_F2AYB6
UniRef90_Y0KHQ2
UniRef90_UPI0003FA07F4
UniRef90_X6KWB4
UniRef90_E4RCD3
UniRef90_S0ANX8
UniRef90_A0A023D6U7
UniRef90_F6AEP8
UniRef90_UPI00037E5895

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

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 UniRef90_Q3K8M4
 UniRef90_W3XE23
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 UniRef90_C1B6S7
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 UniRef90_UPI00028A003D
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 UniRef90_F2AYB6
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 UniRef90_E4RCD3
 UniRef90_S0ANX8
 UniRef90_A0A023D6U7
 UniRef90_F6AEP8
 UniRef90_UPI00037E5895

50 60 70 80

This figure displays a multiple sequence alignment of UniRef90 proteins. The alignment is centered around positions 50, 60, 70, and 80. A color-coded grid indicates the conservation of amino acids at each position. The sequences are aligned by position, with gaps represented by dashes. Specific residues are highlighted with colored boxes, such as yellow for hydrophobic residues and blue for polar ones. The alignment spans from UniRef90_Q9BID6 to UniRef90_UPI00037E5895.

	90	100	110	120
UniRef90_Q9BID6	E G T D Q F A V G S G R R	V V I V Q W D G E T A K	V L K T L F E V Q T G D E R F	
UniRef90_D6WJC7	G K S G Q F I I S L D	K E L A I I N W D G Q S D K F S I D	G G P G T A Q N K F N	
UniRef90_D6EEK9	R A G G G L V L N L	L D K E L A I I N W D G Q S D K F S I D	G P G T A Q N K F N	R G N
UniRef90_W4LJ76	D N R L Y V S S G K A N S	V M R Y D A T T G D F V D A F V P E	E G R G G L T F P R	
UniRef90_D2ZJ50	R E N G G F I V A M R N A I	W L T D K H G L L R Q K V C D N P S N P H	L A R F N	
UniRef90_UPI00036D9914	D R P G T L V A A L G S K	V I L W Q P A S D T R T D F A T P E	P E P N W P K V R S N	
UniRef90_K9TYL8	D G S H I V A A	K N S V L Q L D A N G N P L K I	I A D R F N G K P L I Y P N	
UniRef90_B3PHK0	A G D L L A G T H K Y K S	V S R F N L L T G E R T S V A E A Y Q G N V	F N S P N	
UniRef90_UPI0002F97632	D S D R L L L A L R D R	L A F L S I P T G E I T T L Y Q I E F P	H P D T R F N	
UniRef90_UPI00046B02D4	D G M V Y V C	N N G G F I W Q R V D P E T G A F E T I Y D S C	C D G I P L R G P N	
UniRef90_A6C837	K G K M L A A C G A N G C	L A Q I T K N G K V K P I V E T F E G K K F N A P N		
UniRef90_F6IN77	D G S V L V A D N G G I	A F R R T E Q G L R V A G L P A D L A P G R I V R V A P		
UniRef90_UPI0001CBEF6A	S G T A L L A D S G T R I	L A R L D P V T R K K T P L A T A F E G H R F N S P N		
UniRef90_A0A016XK17	H V R G G L I C	G V Q G G L H R F D A R S G T F T L C L P V E A D L P G N R L N		
UniRef90_K1KZJ8	M G R L V L C	Q H G D R R M A R M Q P K A Q F V T L V D N Y Q G K R L N S P N		
UniRef90_UPI0002886991	D G A L V I A D S G S R A L	M L R M Y D F A S R K R T T L V D R Y R G K R F N S P N		
UniRef90_UPI0002375198	A D K K I V I G L R D G F Y	L L D T V I S S A L T L L A P L P P H D T R V L R L N		
UniRef90_S5UQM8	A G G G L V L N L R D G V G L	L L D P D G T F R W L H H E P V A G R R A N		
UniRef90_Q96XG1	A D E I I A T I R H G F Y I	I N F R T K N V N R I G E V E V D Y E E N R F N		
UniRef90_UPI000407591D	A A G G G L V V N L R D G I G L	Y D A D G A F R W L V H D A E P G R P R G N		
UniRef90_UPI00046ADB1A	A A G G A I V A L Q D G F	H A L D F D T G E L R H I V D P E P D R P G N R L N		
UniRef90_F3HEC6	E G R V I A A S H G E R A I	V R Q E A D G Q W R T L V D R Y Q G K R L N S P N		
UniRef90_UPI0002034D37	K S G D Y V I T L G T R F A A L	K L K W K E Q L V T T I A Q V D R D K A K N R F N		
UniRef90_L2TS96	D G R M L V V S M K D R K V	L V R Q E T D G S L V E	H A	
UniRef90_C5CU25	G R R V L I V N W D G I A	P V A K V V R T L F E V Q K E Y E S N R W N		
UniRef90_J0KHR6	N D G L V F F A T K D S I K	H L I F K N D E V K M L F		
UniRef90_K1Y1D8	S G G F L M G F A S G L	S W Y N L E T S E R R I C P Y E E G L P T R P N		
UniRef90_B8LRD1	A G G G L V L N L R D G V	G L V D P D D T F R W L H S E A V P G R R G N		
UniRef90_J2LD23	D G N V Y V S D N L N Y R I	Q K F T S D G S F I A Q W G T S G S G E G A F D Y L		
UniRef90_B4NCP8	D G M L A V A D Y K E G	V G V L L L D P S N G K I S K L I T R R N		
UniRef90_T0NEB0	D G R L Y V A G L G N	F K D T G N L T T Y K A D G S A P Q V I I A G		
UniRef90_L1ICE4	D Q G R L V V A A L K S D	I I L F D P K T G V R E K L A A V D G D N D M S R T N		
UniRef90_S2Y447	E G N L I T C E H G R R A I	S K T D K Q G N V Q I L V D K L E G K R F N S P N		
UniRef90_UPI00037CC290	D D N L I I L T A S K K	V F S L D P N T Q D S L I V I A L K G D A A K S R P		
UniRef90_S61K56	D G W L L L G L A S R L	A F F H P S T H T M V P V T A V E A E L P T R L N		
UniRef90_K2L0D4	D G G L I A G M H T G I	F S V R L Q D D G H A Q L S K L A Q P A G Q A D Q R F N		
UniRef90_UPI000376833B	D D G G M L V V G E D R L	S R L D P A S G A I E R L I M G F E A D N A A T R S N N		
UniRef90_B5JGI6	R A G G G L V L N L R D G V	G L L D P D G A F R W L H H D P V P G R R A N		
UniRef90_UPI00031C8844	K G G F I V A L R R S G I	W L T D A H G L L Q R K V C D N P S N P Q L A R F N		
UniRef90_UPI00031FF693	C A S G D A L V T L L S S	G V Y R L D L D P S P G L E P R F C I A D P Q P G N R A N		
UniRef90_UPI0002F193F4	E R I L V G A K H G	A A I L H R D S G R Y E Y L T K F Y V E D K E R I R G N		
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UniRef90_G8W9M9	D G S V Y H C E H G R R	C R C I S R S A P G Q G E P E P V V T H Y E G R R L N A P N		
UniRef90_Q3K8M4	F G D G F I I A G Y D N G	I V L T D A A G K T K T V L A Q D D E G Q K L L G P N		
UniRef90_W3XE23	D G A G A L V A L R G G	L F A L D F A S G A L D R L A A P P F D P R T H R F N E		
UniRef90_H8L6N6	L V V G L A D G I Y R	M A L D S G E F T P L L R P H P V N P D V R F N		
UniRef90_F0Q4N2	K K N L N I I L A L T D	G F F E L K Q N D K S M S F I N N P E S H V L E N R F N		
UniRef90_X6EQQ1	D G N L Y V A S S G T S	S Q I L R Y D G Q T G A I I G S G V F A S L P S Q S Q P R		
UniRef90_B0UBF1	D G N I Y I A D T L N H	R I Q K Y S A E G E F L T K W G S N G V G N Q F G A P Q		
UniRef90_UPI0002F4FD6F	D R P G T W I A A A G T	G I A L L S A D G T P E W L D R P E D H S S L P S R M N		
UniRef90_UPI0003B5625E	K N G D L Y I A D A Y F	G H G L M K V G R E G G L A T S L A T E A E G I P L G F T N		
UniRef90_A6BZS0	R S G T Y V V A V G K H	L G L L D W T T Q G Q V W Q L S Q L D R P N N R F N		
UniRef90_UPI00031E7564	D G G L M V G L Q S G L	H R F D P A T G T F D P H L A P E P H L P G N R L N		
UniRef90_G9XJB4	D A E R L F L T S E T A	F W T F D G N G E R E R R L C A F D A E N P L T R S N N		
UniRef90_S4NFG2	T N G E L L I A I R N G	I T S F N P H T K E F K V M A H P N T V A N N R Y N		
UniRef90_S8CGF0	N A Q P G E V V I A L Q	S G S I G L Y S Y N Y I T Q E K Y Q L A K P E		
UniRef90_UPI0002236A4C	D A P G T W I A A A G T	G I C L I R P D G T L H W L G Q P E S G A A I P M R M N		
UniRef90_M4S183	E G N I Y V A D S N N H	R I Q K F N A A G A F T T W G S F G T E L G Q F N S P K		
UniRef90_UPI00046AE874	A D G G L V L S L R D G	V A V T G Q D G T R R W L T E W P E Q G V R G N		
UniRef90_Q54ZP3	S G G F V V T N S N G I	W L D G K E E W Q L V A D S A E G K K C V L N		
UniRef90_F4Q328	D G R L L I A N L A R P	V V L R L L D A D G S V V S T H A D L S G G I A V G P L N		
UniRef90_H2K6J5	D P H Y L L G L A S H L	A F F D L A T G E T L H I V D V E P A L N T R V N		
UniRef90_J7IT66	K T G E L Y I A D A Y F	G L L K V G P E G G L A T P V T T E A E G I P L K F T N		
UniRef90_L8ES83	Q D N L I F T E D A S V	A I L D V I A E R K V V R Y S S P V H H R P S Y R F N		
UniRef90_UPI000379FB65	N G N L I A V C D M F G	H R L L E M T P N G R V V R T I A S K Y N G I A F D G P N		
UniRef90_UPI000360BCAF	D G K L L I A Q H G D R	R R I A E M Q A P L N A P K A D F K T F N G K R F S S P N		
UniRef90_F4CM14	G L V V A L R D R	C H A P A W G G P L A R L P D I P A T E R A N		
UniRef90_UPI000421941A	D P H Y L L G L A S H L	A F F D L A T G E T L H I V D V E P A L N T R V N		
UniRef90_U5VEG7	K I R L W D P A T G	W V E R K V V R Y S S P V H H R P S Y R F N		
UniRef90_UPI0003B61289	D G S I Y V A Q N G G Q	F P A H R W P G V T G G V Q A I S P D G L V R T I L S T		
UniRef90_Q11P69	T A D S L F A V G L Q	S G V H R F N P A D A S F A L H A P E G H M P G N R Q N		
UniRef90_UPI00036E06E2	D G G L L L V G	E D E R L S R L L D P A G G L E L P L C D F E A D N P R T R G N		
UniRef90_M0TMM7	T G L V V A A A A S G I	L R L P E N G E P E R L A N P E W V K E R R Q A G		
UniRef90_UPI0001F2A43F	D L G V V E C N H G T	R S L D K A P L V P F M A E M L I D F F E G G R L N S P N		
UniRef90_C1B6S7	Q G R Q I S C H F L	R R V I R W E H D G S V R V I A D H Y E G R P L N S P N		
UniRef90_U7NWK3	K G N L I W A A R H D R	K R L L S Y R Q G N G E K V I V A A T Y N G K L L N S P N		
UniRef90_UPI00028A003D	T A D S L F A V G L Q	S G V H R F N P A D A S F A L H A P E G H M P G N R Q N		
UniRef90_S3XY80	D G R L L L V S G R D	G L L R Q E A D G T L A T H A D L R S I S N S P W N E I		
UniRef90_F7VDZ2	P D Q L I A C A D A N N	E M W S I N L N D K S H K V L V D S V D G R R F G G P N		
UniRef90_A3UQ75	U K O K H Q 2	E M W S I N L N D K S H K V L V D S V D G R R F G G P N		
UniRef90_Q1NAK1	K G E L I S V Q N L K	P Q V G I I Y P A G K E K V L S N Q F D G K P F Q R P N		
UniRef90_X5X085	D G N G A V V A L L R	G R F H F L D F R T G D V D L I V D P E P D K P N N R L N		
UniRef90_F2AYB6	E A G G M V L A T K	S G F W F D P E T G E K T A I H A P E G H M P G N R Q N		
UniRef90_Y0KHQ2	L V A A A A S G I L	R Q E A D G T L A T H A D L R S I S N S P W N E I		
UniRef90_UPI0003FA07F4	D D G L I A F A T K	D S I K H L I K S G K V E T I F K M K F D E I V R F N		
UniRef90_X6KWB4	U T C H F L L V A	D S I K H L I K S G K V E T I F K M K F D E I V R F N		
UniRef90_E4RCD3	D S D R L L M A S E T A L S I F D L R N G A R E R	R U C A L E A E N P L T R S N D		
UniRef90_S0ANX8	R G E L L M A G G L	E L G F F D I E T E D Y R Q I I R L D		
UniRef90_A0A023D6U7	D D G L I A F A T K	D S I K H L I K S G K V E T I F K M K F D E I V R F N		
UniRef90_F6AEP8	T G R L L I V C	E D F F R R V V R W E H D G S V K V L A D H Y E G R P L N S P N		
UniRef90_UPI00037E5895	D S D R L L M A S E T A L S I F D L R N G A R E R	R U C A L E A E N P L T R S N D		

130 140 150 160

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UniRef90_D6WJC7	D G K C D S S G R L W A G T L N I D K E D E D K T L P L G T L Y S F D S K R G L		
UniRef90_D6EEK9	D A A V A P D G S L W A G T M R Y D E A R G G G T L T R Y T G D G T A E T V L D		
UniRef90_W4LJ76	G L V F G P N D D L F V I S S R D T D D V L R Y N G R T G D F M		
UniRef90_D2ZJ50	D G G T D S A G R F Y A G T F W	G P G D Y N G A M L	
UniRef90_UPI00036D9914	D G R P D P F G N L I L G T M F N N V A P D G S G V D I T D N Q A G S L Y R V D		
UniRef90_K9TYL8	D I T V D P Q G G F Y F T D S G	D S N P Q N P N G A V Y Y V N A	
UniRef90_B3PHK0	D L V L A N D G S L Y F T D P A F Q R	D A A P G G Q E K T S V Y R V D L	
UniRef90_UPI0002F97632	D G K C D P Q G R F W I G	S V S E V P G Q A A L Y R Y D P	
UniRef90_UPI00046B02D4	D I V F D A E G G F Y F T D L G K S N A E F V H H G A F	Y Y A K A D	
UniRef90_A6C837	D L V V H P G W V Y F T D P R Y H M S V F R Y D P K T K T V H R A T S D I T K		
UniRef90_F6IN77	D G A V E S L Y T Q C D G A A L N G P N F W F T D T G K L R P T G Q D P G A L Y		
UniRef90_UPI0001CBEF6A	D V V R R D D G V V F F T D P P Y G L K D L D K S P V K E L R F N G V Y R L D T		
UniRef90_A0A016XK17	D G H V D A E G A L W F G S M	D D A E S E V T G A L Y R V G A	
UniRef90_K1KZJ8	D V V F D G R G N M Y F T D P P Y G L E F N M D D P A K E L D F Q G L Y M L R N		
UniRef90_UPI0002886991	D L H I A R S G A V Y F T D P P Y G L V D G D T S P L R E L P H N G V Y R W T R		
UniRef90_UPI0002375198	D G R C D T A G R F W A G S V I T P R T A P D A A L W R L S A S G G G Y A V Q H		
UniRef90_S5UQM8	D A A V A P D G S L W A G T M R Y D E A T G G G T L S R L T G D G D V R T V L P		
UniRef90_Q96XG1	D G K C D A L G R Y W A G T M N M	K K S G P T G N L Y R F E P	
UniRef90_UPI000407591D	D A A V A P D G A L W A G T M R Y D E T E V G G S L T R V A P D G T A T R V L P		
UniRef90_UPI00046ADB1A	D G K V D G A G R F L C G S M	D M G E T D P T G T L W R L D P	
UniRef90_F3HEC6	D V V V D D S G N I W F S D P T F G V L N K A E S Y G G K P E Q G G E Y L Y R Y		
UniRef90_UPI0002034D37	D G K V D P A G R Y F A G T M A E E I R P	A V L E P R Q G S L Y T L C P	
UniRef90_L2TS96	D I W D L C G G H A N D M V V A E N G Q A Y V G N F G D M M A G A D H E L T T		
UniRef90_C5CU25	D G R C D R Q G R F W A G T M L Q D M A A G A R V G R L	Y S Y A	
UniRef90_J0KHR6	D G R C D R Q G R F L C G S M	D S V P Q	
UniRef90_K1Y1D8	D I A I S P K T E F	L Y A S D P N W K D S T G N L W L I K R	
UniRef90_B8LRD1	D L D I D E Q G I V Y F T D S S V V Y Q R R N F Q L A F S A E P S G R V L K Y		
UniRef90_J2LD23	D L T L A D G G W V W Y M T D Q G	Q S G L Q E T S G A V Y R W H F P	
UniRef90_B4NCP8	D A K T D P K G R F F G G T M	R Y I G D E F V H R H E L Y K W T A	
UniRef90_T0NEB0	D M E F E P D I R F N D G K C D M K G V L F A G T M D M N E K E P L G S L Y R L		
UniRef90_L1ICE4	D G K C D R E G N F V I G S Y N N N H R Q D K K N I A G L	W R L	
UniRef90_S2Y447	D A A V A P D G S L W A G T M R Y D E A P G G G T L S R I T G D G P P E V V L D		
UniRef90_UPI00037CC290	E G I A V D T T G	K V Y V A D S R N N R V Q K F S S	
UniRef90_UPI0003F49850	M E G W K G V N D L I F S S T G D L Y F T D Q G Q T G M S D P T G S V Y R L S P		
UniRef90_S6I5K6	N K N Y L V D D L V F D S T G G F Y F T D F K	G T S T E P T G G V Y Y V P A	
UniRef90_K2L0D4	D G K I G P D G A F F W V G T M D Q N	A D K Q P V A S L Y R V	
UniRef90_UPI000376833B	D L V V K S D G T I W F T D P P Y G I L S D A E G K K S P S E I I G C Y V Y C Y		
UniRef90_B5JGI6	D Q T A L L P G H R W R D A H D L F E A S T T T P S L H Y P A L D G R T Y V T G		
UniRef90_UPI00031C8844	D G A C D R Q G R F V F G T	L H E P A S G P K Q P V G G F W R L N H	
UniRef90_UPI00031FF693	D G R C D R Q G R F W S G V M C L D M S L A R A D G K L Y R Y D D A G L S A P M		
UniRef90_UPI0002F193F4	D A R V D R H G S L W L S S M G	R G A E D G A G S L Y R L H	
UniRef90_G2GGB4	D A A V A P D G S L W A G T M R Y D E A P G G G T L S R I T A D G T A E V V L D		
UniRef90_G8W9M9	D G G T D R D G R Y A G T F W G P G D F N G A L L L V R I D N D L S P Q V I Q		
UniRef90_Q3K8M4	E A R C D G Q G R L W L G T M Q N N I G E Q G E D L P L I R R S G G L F R I D P		
UniRef90_W3XE23	D G A V D P H G R F W L G S M T D	F G Y G P V Q P E G A L W L F H A	
UniRef90_H8L6N6	D V V V H R D G S I I W F T D P A Y G D T L A E G H V D E P G G A A N P Q G L L H		
UniRef90_F0Q4N2	D V A V A P D G A V W F T D P V F G I V M P A Q Q G A L A E P E L A H R S L I Y R F		
UniRef90_X6EQQ1	D I A L D G K G G A Y V S L S G P W E S G P I V G K I V H V A A D G K I R V L		
UniRef90_B0UBF1	A D C D P A G R L W I G T M F E P L P G T E A P P R P D H L Y A Y T R		
UniRef90_UPI0002F4FD6F	D G R T D R F G R F L C G S M G I H A D P Q G A L Y R V		
UniRef90_UPI0003B5625E	D G T V D M K G R F Y A G T M P I N G P N K N I G	A K G N L Y C L N P	
UniRef90_A6BZS0	F I T F G P D G N I L Y V G T T G L Q K R V Y Q I D F L	T G A V S T F V D	
UniRef90_UPI00031E7564	D A A V A P D G S L W A G S M R Y D E A P G G G S L I R V D A D G T V H T V L P		
UniRef90_G9XJB4	D V A T D S S G N V Y V V D T S N K	R I Q K F D S	
UniRef90_S4NFG2	D G V A D P A G R F W A G S M A Y D G T H G A G S L Y R T D P E G T V V R V L D		
UniRef90_S8CGF0	D L D V D D E G N V Y F T D S S T R Y R R R N F L Q L V F T A E N S G R L L K Y		
UniRef90_UPI0002236A4C	D G K V D P A G R F V A G T M P E P S G P	G V W E R G Q G S L Y T L Y A	
UniRef90_M4S183	D A T V A P D G Q L W F G S M D	D A E N A A T G R I Y R Y	
UniRef90_UPI00046AE874	D G R A D P W G G F W V G T M G	K E T E P G I A A I Y R Y Y	
UniRef90_Q54ZP3	D G K C D S Q G R F W V S T M S	L E Q D N P P K A S L F K	
UniRef90_F4Q328	T V I S T N R M N D G K C D P R G R F W V G S M S L K N G Q P R E A S L Y R I D S		
UniRef90_H2K6J5	D A A A D P S G R F W A G S M A F	D A S P D A G S L Y R V G T	
UniRef90_J7IT66	G I A V D S N G N V	Y V A D V E N D R V Q K F D S M G	
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UniRef90_UPI000379FB65	D A A L D N R P N D A T V D G A G R L W F G T M H D A E E T L T G A L Y R L D E		
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UniRef90_UPI000421941A	D G R C D R Q G R F V F G T K D	E G S P L Q A I G G F Y R L N R	
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UniRef90_UPI0003B61289	D L V I D A K G G I Y I T D P Q F T P G L E K T Q P G K Q K P N G E I I R I I E		
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UniRef90_UPI00036E06E2	D G K C D A H G R F W V G T V H E P	A S G P R Q P V A A L Y C I D A R Y	
UniRef90_M0TMM7	D I D E D G S I I Y F T D S S T N Y Q R R N F M Q L V F T G E P S G R L L K Y		
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UniRef90_C1B6S7	D P C F P N D L C F G P D G F L Y V T D P S R G P R R D D G R	L W R	
UniRef90_U7NWK3	D A R V D R H G S L W L S S M G	K G A E P G A G R L Y R L H	
UniRef90_UPI00028A003D	Q G N R F N D G R C D P A G	R L W V G T I D A D E S S P S A A L Y C	
UniRef90_S3XY80	D V V H P I E H T I W F T D P P Y G I L S E G Q Q G P G E M E Y G R S Y V F K L		
UniRef90_F7VDZ2	D V V V H P D G G I W F T D P G Y G D G F T E G H A D E P D P S G R I E A V L T		
UniRef90_A3UQ75	D L T V N S D G S V W F T D P P F G I Q G Y G P A K A E P E Q P V N G V Y R Y L		
UniRef90_Q1NAK1	D A C V A P D G A L W F	G T M D D A E A Q S S G Y F Y	
UniRef90_X5X085	V V I D G R G S S Y V N G G G S A	P A P G E H F G P G T I V L I T P	
UniRef90_F2AYB6	D C W V D T D G T I Y F T D P L Y K R P Y W K H T I P S D N P R G V Y R L		
UniRef90_Y0KHQ2	D L V L D K K G G I Y F T D L G I V P K P E D K A A E A A R P A V Y Y I T P		
UniRef90_UPI0003FA07F4	D G K V D R R G R F I A G S M	D T S E E G K N C G L Y R L D P	
UniRef90_X6KWB4	D G T T D G Q G R F W A G T M	K D G G A P E A R G T F Y R L D P	
UniRef90_E4RCD3	D G R M D R A G R F L C G S M G M L H A D P Q G A L Y R V S G		
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170 180 190 200

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

210 220 230 240

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UniRef90_W4LJ76	F R Y D G V T G A P L G M F V P P R V G G L G Q P L G L L F G N D G H L Y
UniRef90_D2ZJ50	I Y R T P L D E Q G E P G Q R E V F R R F K E G E G I P D G A A T D I E G C Y W
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UniRef90_UPI0002F97632	Y A Y D F E A K T G T I A N R R I L V D L S N E T V E P D G L A I D C Q G N L W
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UniRef90_K1KZJ8	E M D G T L S N R S L F Y D A T D Y V R K E G F K G L P D G L K V H T S G
UniRef90_UPI0002886991	M V Y D L D A R G L P T A R R V F L D A T M H G P L P D G M K V A A D G T L F
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UniRef90_UPI00046ADB1A	Y D Y D P E I I G T P S N S R T F A A L P D D R G G A P D G A T V D S E G Y V W
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UniRef90_L2TS96	S A F D I L P D G T L G A R R D W A S F G D L G D I V P D G L T M D A E G A V W
UniRef90_C5CU25	W S F D Y D T D T G T P H N R R L F A D M K P L P G R P D G A A M D A D G C Y W
UniRef90_J0KHR6	W T L D L H D D G S L G P R R L F V D M R E L P G R P D G G A I D A D G C Y W
UniRef90_K1Y1D8	W V Y D I K K D G T L K N K K L F L T F P D F G M D G M R C D S A G N L Y
UniRef90_B8LRD1	K R H W L K G P K T G T T D V F A I L P G H P D N V R T N E K G E F W
UniRef90_J2LD23	W R L P F L R D G G T S K V G V F L N L S G G G P D G L S V D A N G G L V
UniRef90_B4NCP8	F D F E T G V A T N P K V V F N L R K T S P K D H L L P D G L T I D S E G N L Y
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UniRef90_W3XE23	Y A D T A E G P A V S N E R I F F M Y N G Q G E P D G H R I D V E G N M W
UniRef90_H8L6N6	H A F D L D G S R I S R P R I F T D M K F Q G V Q M N P D G I R A D V Y G N L W
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UniRef90_J7IT66	D V F D Y D L D T G K A A N R R M F A E I T G T D G V P D G M C A D T D G G V W
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250 260 270 280

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A S G L G F T E G P A L L P S G E V G V
D L S P E L V T D N L G W P E G P T V M P D G S L V F V E S Y R S Q
R L G E G V V W I E Q E Q A L Y W
L V T E G L A F G E S P R W H D G R L W L C N W G T
E G P V F D L D N N L L Y F
T I L P V Q A V L G E G P V W G R E Q A V W F V E G P F H D K T R N E F R F
L P D G L I G P E S V A F D R H G A G P Y
Q L G E S P F W H P L E Q R L Y W
T V R T L A E G L T F G E G P R W D R G G R L W F S D F F S Q
N A A L H R V W D K G T W L E G P A W S S Q G R Y L L F S
P W T A V T A H R A T L G E A P F W D P E Q T L Y W V D I A A R Q
E G P V F D H E E N L L Y F
Q A E I L G S G F A W T E G P L W I E E E E M L L F S E
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Q Y T E G I V F D N A G N L Y F S Q
P E F R L L K D R C S I G E S P V W D D R R K V L F F
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G D L C R P W G V C V D Q A G R V V V
L S L L D P K A E V E V V S E G Y V W A E G P V W V P G G N A T A A T G Y L L F
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S G Q F S S P Y G V A I D S A G N V Y V V
D I I L V L D P S F G N L A R G G G W L E G P A W D S E G R F L L S
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G E S P F Y D H R T K T L S W
V D S R C T H G E G V L W C E Q R Q A L C W
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I T T V V T D R A F L E C P R W H D G R I W V
Q G R L S E G V S Y N P D N N S L S W
Q I Q G P E S V A F D A D G R V L F W D G E K K W
L D I P A P D P V V E K L A D G F Y G L G G A I D A Q G R L Y F I D R F F Q
M Q I E I E P V G T I R A A L G E C P I W D T E H R Q L W F
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G E G P L W S E R D N T L Y W
T L G E G A T W C D A T R A L Y W
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C A L G E G P L W H P D R E Q L F W
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R L T E G P V W D D R G E V I W D P R Q R C A F W
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G E G C V W H P Q Q N A A F W
A E S P V Y D E R R N C L F F
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P E S V A V D T Q G R L Y
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T K C T L G E G P L W H P E R Q T L L W
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G Q L C R P W G V C V D R E G Y V V V
D L V S G N A T I H R V W D Q G A W I E G P A W S A E G R Y L L F
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Q F T T H A E G L G F P E G P V Y M P D G S I A F V
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UniRef90_A0A031JH60	D I K G H K L H R F D P P G G V L D T I E A P E E P S W V I P L A G A A	
UniRef90_UPI00045EAABE	V D I D A G T V V E G L L H G N E I E T V R A M T V D T T V G A V V P S P	
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UniRef90_V7FUM8	L T I V G K D D K A R Q F A Y V T G A P N S C V L G S	
UniRef90_R9P10	V D I L K E T L H R Y Q P S S G E Q Q S W S Q K P M I S A V	L P T Q I P G
UniRef90_UPI000478E435	G E I V A I D A D G K C E I V L T V P A V	L P Y S I A W L P
UniRef90_UPI000365A1D0	V S I L D C L V Y C Y N P S T K E I L S V K L D S	P V S C V F F K
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UniRef90_Q2G9M6	S I R S V G M D G D V A V E L E L D D	R P S G L G W M P
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UniRef90_A4AT22	V S I L D H L V F C Y N P S T E I L S V K L D S	P V S C I F L L
UniRef90_G0J7B3	I P A N K V H F W K E G S S P K V Y L Q P A G L T S N E N R S N G L L L D P	
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UniRef90_V7ZEN0	V D I S E K R L L W R H H P Q S A H T R Y W T L P D R P G C I G L	M
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UniRef90_W0IRU5	T D V P E N K I L Y R W S E D A G L S V L L S P G S Y S G P A G A N G L Y A E P P	
UniRef90_X0Q4T7	V D I I K K Q L H T V S L A E G P P S S L K T L Q F D E A V T V T A D I D G R D P	
UniRef90_S6HIL0	D I I L A P A L V R L L H S G K I D R F D M P V A I G A L G L C R D H	
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UniRef90_F0G036	F D I I L A K K M F R K R L N S Q K I D Q W Q F N E H V S A A A W I D Q	
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UniRef90_A1W2E5	T D I L E G A R L W R H R C A D G S D L A Q W P M P E R L A C F A L T N	
UniRef90_F4W8D1	V D I I A G R A L W R S G A H G S D A Q C W P L P A E P G C I A P A R	
UniRef90_UPI0004668CBE	V D I V G Q K L R S R K E E K V F E W T F D V P V I S A L G W I D	
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UniRef90_UPI0004761BB3	T D I L G A T L Y A H D L A T G K T R R W A M P E P L A S F A L T A	
UniRef90_F2RHI4	V D I P D G L V H R A A L T H E A A T P D L V G T S T L R F G S A V G A V Q P C	
UniRef90_Q15Q05	T D I L G K Q F R Y R W D F D N K V T Q Y P C P E R L C S F G L T P E P	
UniRef90_J1L6E2	T D H Y N N R I Q K F D S S G T F I T T W S E P P G D S E F S Y P K G V A V D D	
UniRef90_Q7D0W3	F N I L E R E L H E L H L A S G R K T V H A L P F M G S A L A K I S	
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UniRef90_I7LNG3	D Y S N H C I R V F N S T G D Y V A T W G S G F W N G Q F D R P T G I A T D I	
UniRef90_KOZ4T7	S D V I G D R V W D F D P A S G E A T I H L E R P D H V N G R T I D L	
UniRef90_Q4L9R6	V F G G K I K F K V D I D T K K V S T A F Q S T K Q N P A A V K I H K	
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UniRef90_UPI00035D947C	T D R R R H Q R I Y S W S A E R K L S I V T L D P V N L A V D G S G N L L V L S S	
UniRef90_UPI00036D1F55	S G F E G G T I V R F H P D G T S P E V F A D T G G R P L G L R F H P	
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UniRef90_K5X7C9	V D I I S E K R V Y H V D T R N L E V T F E Q Y K P V T C L A L H H	
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UniRef90_A9MD24	D L L H G V I R S W N E K N G L N V L A K V D G S P N G M C L G P	
UniRef90_C3YTO6	D Q G N K R V Q I F D A E T G G S L C W F P V D G G R P Y G V D V D S	
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UniRef90_UPI00045EAABE	D G R L L V A G R D R L L V V E V D G H L T P G P A V L P S G S A G R L N			
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UniRef90_V7FUM8	D G A L Y V C Q N G G T V G P W R A P E M T V P S I Q R V R P G A G P E I L V T			
UniRef90_R9PI0	E S T T F V A T Y A D G V K L L R D G T V Y P L L D P E P Q			
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UniRef90_Q2G9M6	D G S L L F V A M N S R E V V R R G P D G T V A L H A D L S G V A S H T C N			
UniRef90_C7JDX3	Q G R Q T C E H F L R R V I R W E H D G S A H V V A D K F E G H S L N S P N			
UniRef90_S6HPW5	G D A L V T L S S G V Y R L D L D S P G L D P R L T L L C V V D P Q P G N R P N			
UniRef90_A4AT22	D R K K I M A A S K N G F F E V D F N T L Q K Q F S F Q M D I A N S V R Y N			
UniRef90_G0J7B3	Y G K L V L C Q H G D R R M A R M T A E L N A P E P V Y E E Y E G K P L N S P N			
UniRef90_V4NFP3	Q Q G G F I A G L L M S G F Y E L R L D P F I L K H I A N P F P H E P G N R L N			
UniRef90_A6C8D1	E G R M L G A Q A Y Q G H V M S Y A F G E S G P A D T I V V A E N P K W N Q P N			
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UniRef90_UPI0002F08A5E	Q G T H V A A L N S V V Q L N P D G E V I K V I R E F N G K P L L Y P N			
UniRef90_I4YYI0	S G R L V V A L E R T I A V F D P D A E S L D I I A E L P D E P S W H R L N			
UniRef90_F2U6P5	K L E G L I R C E H G R R V L G I T L A D D K H V V L A S S F E G H R F N S P N			
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130 140 150 160

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UniRef90_V7ZEN0	D V E A D N P L T R S N D G R A D R H G N F V F G T M D E H D D K A A R G A I Y		
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UniRef90_F2RHI4	D A A V D P A G R L L V G S M A Y D E S P G A G S L Y R L D G D G L V T L L D S		
UniRef90_Q15Q05	D G K V D R Q G R F W A G S V I E D D S V D V S T L A N D Q Q A K L Y R L D A		
UniRef90_J1L6E2	N G N F S F P K G V A I D G E G F V Y V A D S G N N R I Q K F D A N G T F I T K		
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UniRef90_Q7CTQ6	D G R V G P D G A F W V G T M H N V P L S E M K P Y G E L W R I T		
UniRef90_UPI0003B6D3E6	D A R V D P A G V L W F G T M Q N N V G P D G S T A Q V T E W Q G G L Y S L A A		
UniRef90_UPI000478BAB5	D G K V G P D G A F W V G T M H D V T A D R R P V A A L Y R V S P		
UniRef90_UPI00035D947C	W N G E F K D Q L D P E T Y Q F T T L A Q M F A R D M A L P K P R E Y V S P D		
UniRef90_UPI00036D1F55	D L D V D R A G R H V Y F T D A S S Q Y P W P H E L L D L L E H R G H G R V L R		
UniRef90_C3ZU69	L K K D S Y D R G I A V N M R T N H I L V T D A D Q R A V L V E R P		
UniRef90_J3LSV7	D L D L D D E G N V Y F T D S S I I H Y Q R R H F M Q L V F S G D P S G R I L L K Y		
UniRef90_W0JUS4	D V I A D P E G R V F C G T M P G E N D L G D L Y R V D P		
UniRef90_X5KNE5	D G S C D P V G R I L L V G T T G G N V D G L G E L F S V D A D G R V C R L L G D		
UniRef90_K5X7C9	D G G C D S K G R F F A G T L Y S P K H D I P G R L Y K Y D P		
UniRef90_X6KX75	D G R A D P Y G G F W I G T M G H A G E A G A G A I Y R Y H		
UniRef90_UPI00045E9724	F V L R D S R D R I I W L T I S T R I K N W M Q A M S P N V A D G Y V A L Y E N G		
UniRef90_H2UB04	D V A V N S E G K I L V S D T R N H R V Q L F T P		
UniRef90_UPI00046F6FB5	D V I A H P D G S I I W F T D P G Y G D S V A E G H A D A G E A N P D G R I R		
UniRef90_W6MJ64	D G S V D K D G N F W V G T M N D F S F G S V T P T G K L Y K S A K D D		
UniRef90_UPI0003FFB419	W A N G E F A D R I D P A T Y Q F P T L A D F F L L R A M A A P K P Q E Y V S P D		
UniRef90_C5D0R3	D G K C D A A G H F V L A G T M H V D R Q P G E A V V G G L Y R L R T		
UniRef90_A9MD24	G Q I L E T M T D D G V T P H R P N D I V P T P E G G A A F T D P Q N W E C L R D		
UniRef90_C3Y0T6	A V L R D G R M V V A D S K Q Q S C L L Q P D G S L I R E I G K G Q L Q F P Q		
UniRef90_M5FMC5	D L D I A P D G R I F F S E A T I R Y E M S E W A V D A L E G R G N G R L I C H		

170 180 190 200

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

210 220 230 240

UniRef90_J2PXV7	L E G G V L G Q R V P F T F P A E G D P D S W G S P D G M T F D A E G H L W
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UniRef90_N4UQ57	Y A W D Y N P A D G A L S N K R F Y A H D G P E P D G F R V V D T D G N V W
UniRef90_A0A031JH60	V G A D G H P G E A R L F A R I P D G M G Y P D G P V V D S A G T V W
UniRef90_UPI00045EAABE	Y D V A S R T A G T R R E H L R I T G G G L P D G L C L D T D G N L W
UniRef90_M2Y3S5	R R Y R F D G T R C E W D G W Q A A V P G G T P D G I A L D S Q G W L L W
UniRef90_V7FUM8	R R L K G D G S I E D L G R M P G D N P I L D G M T I A A D G S L L W
UniRef90_R9P10	S K L T D D G D A S T L E P W E I D R S F G N P D G I T I D A E Q H I W
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UniRef90_UPI0004664B3F	P L M D G R P D G S H R D L V S D A V I P D G L A V D C L G N I Y
UniRef90_A0A031I684	A T I D G D G R G A A T R F V T I E E G A G Y P D G S V V D A E E G C L W
UniRef90_G7X7N0	Y A F D F D A E T G N I S N R R V F F D G E P K E P D G F A I D E E G C L W
UniRef90_K3YLC7	M R Y W R G P K A G T S E L F T D L Q G Y P D N V R P D G K G G Y W
UniRef90_UPI00047CCDED	S N A M S R P R V F H Q F A P K P P G W K A G E P G Y P D G A A V D R E G N Y W
UniRef90_Q2G9M6	T A F D I A P D G S L S N R R T W A D T P S R S P D G I A L D A E G A V W
UniRef90_C7JDX3	N P N G L C F S P D F S R L Y V I S S G K Q P G G H G H D G D Q A V H H G N I W
UniRef90_S6HPW5	Y Q Y S V A A D G F L S P P E V W R G P H P R G G P D G S A M D A D G F V W
UniRef90_A4AT22	Y A Y D K E T G E V S F E S Y V I E F N G E G S P D G M C C M D H E G M L W
UniRef90_G0J7B3	Y S L D G A N G L T A G R V F Y D A S E V A S N E A G P D G L K K N D G T V I
UniRef90_V4NFP3	R L F V H F P D D W G S P D G M T T D A Q G G I I W
UniRef90_A6C8D1	R S F P I L A D G T V G E G R F F D P E T S R K D S P D G M S D A E G N L Y
UniRef90_A0A059IQV9	W R Q A L D A Q G W P R A E P E L F V E L A S K T H R P D G A V V D A D G R L W
UniRef90_A0A031J380	F R Y A L E Q G E L G A R E P F I T F P G D E S W G S P D G M T F D A E E G H L W
UniRef90_A3BTK1	F R Y W K G A K A G Q Y E L F A D L P G Y P D N V R R D A K G G Y W
UniRef90_A1WL09	T G A I G K R Q P W A H F A R K E P G Q P Y G G R P D G A A V D R Q G N Y W
UniRef90_F0BGQ9	L C C D Y D Q E T A Q T S N T R V F A T L D R D D A E P D G S I D A E E G Y L W
UniRef90_UPI0002F08A5E	U N I V D V L S P G K L G A S R V F A E Q G N Q I D N Q P D G I C L D K M G N L Y
UniRef90_I4YYI0	D R Y D F E P S S G G L A N R A R I T L D D A R G R P D G G A C D A E E G F Y W
UniRef90_F2U6P5	C K L D T S G H T K C K T F A E V K D A Y A K Y F G K P D G L K I D S E G R L W
UniRef90_UPI000263049A	L C C D Y D P D T A H T A N S R V F A E L D H A G A E P D G A V D A E E G H L W
UniRef90_UPI00026575AC	R I V V I R N D F H S A Q F L G Y E G T G N G E F T R P Q G V A V D S E G H I I
UniRef90_UPI0002558E0E	U N I V D V L S P G K L G A S R V F A E Q G N Q I D N Q P D G I C L D K M G N L Y
UniRef90_R1H373	F D Y D I T T G S F S N K R V F Y H V E E G E H G V P D G H A L D T E G H M W
UniRef90_B8GKB4	T P V P T T A A D I Y Q S V A K W S G S P S G A F S Y P Y G I A F D S A G N V Y
UniRef90_W5Y4E6	H A G D V A G G E V R N L R P F A D M M L D G H Q M T P D G M M R T D F G N L W
UniRef90_F8B435	R D R R V W S V Q V G T E P S Y E S I E T T I V R T T D F A P D G C V L D A E E G H I W
UniRef90_I0X8Z1	Y D Y D L A T G E I S N Q K V L F R P E E G K G N T D G M C I D A D D N L W
UniRef90_V7ZEN0	L C C D Y D A D S A Q T S N T R V F A T L D R D D A E P D G S I I D S E E G H L W
UniRef90_W9GTG3	D V F D V E H E E L T N R R V F H E A Q G T S P D G L T V D S E G N V W
UniRef90_L8DD66	N R S R W A T F G P E V P R S T V K D A M M A A Q V A P D G I G L D S E G A I W
UniRef90_W1QJ53	G L P D S T E T L F L P V S K I R S L I G I M G E L G P D G S C I D A S G N L Y
UniRef90_Q9C586	R R Y W L K G E K A G T T D V F A Y L P G H P D N V R T N Q K G E F W
UniRef90_J2WE08	I Y V T N G S E N R T Y S A L V A G D L K P F A D R G G E G V V S D A Q G R V Y
UniRef90_V8QXQ2	S S Y T M V A D G T L A D R R L F I N T D A Y D S G P D G C C F D S Q G G L W
UniRef90_W9R7D4	R R Y W L K G E K A G T S E V F A I L P G F P D N V R T N E K G E F W
UniRef90_I3U815	Y D Y D P E T G L P G N R R V F I E A L P A G R P D G A A I D Q D G C Y W
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UniRef90_X0Q4T7	G R R D F A R F G P L P T V R A I A D F L P G L S V T P P D G C C L D A D G A L W
UniRef90_S6HIL0	L D L Q A G W P L G E A E L F I D L R P Q N L N P P D G A C D R Q G N L W
UniRef90_V4PGL5	Y A F D V A A D G S L S N K R V F Y T F P K G V G L P P D G V T V D A Q D G I W
UniRef90_FOG036	F V C D Y D R A G G D V A N V R P F A R L T D A D G D P D G S T I D R D D G G L W
UniRef90_UPI00029A49BF	C H L H A P D T A D D S G P D G I R C D Q D G R I W
UniRef90_A1W2E5	A Q L E P L G A P R V L H R F A T R D E A V P Y G R P P D G A A V D V E G A Y W
UniRef90_F4W8D1	Y D Y N P N N G T I S N K K V F D L N R T N L K G L L D G M T I D T N G N I W
UniRef90_UPI0004668CBE	W R Q A L D R D G W P T G D R T I F D L R Q V A T S P D G A I F D A D G F L W
UniRef90_E6PH18	Y T E T T S A G R M T P T G T V T E F S V P T A S A E P L G I V A G P D G N L W
UniRef90_UPI0004761BB3	R C C D Y D P V T G A I S G D R V F A A V P G E A G E P P D G S C I D A D G Y L W
UniRef90_F2RH14	T L T D R R P P F A A L D R G V P D G L T V D A D G R V W
UniRef90_Q15Q05	F E E S E C G T P S Q L E H F F A T T G N A F P P D G S C I D N Q G Y L W
UniRef90_J1L6E2	Q K F D S N G T F I T K W G S Y G T G A G E F M D P Q P G V A T D P F G N V Y
UniRef90_Q7D0W3	L D A R T G L P T G K A E V F I D S T G I K G G G M D G S V C I D A E G H I W
UniRef90_V8A9C3	Q P G T N G V P A L T N Q R V F A D M T L G G H K L M P D G I K A D R L G N L W
UniRef90_U2ZWU6	W D E D S G T L A N R R E F V R A A P Q S I P D G A T V D A E G F M W
UniRef90_I7LNG3	Q K F D S A G T F I T A W G S E G T D S G Q F S S L V G I A V D S A G H V F
UniRef90_K0Z4T7	A M G R H H I R R Y L I D D W R V E D F V E V N P G V P P D G I K V D E H G N V W
UniRef90_Q4L9R6	Q L E D D G V T I A P F G A T P Y Y F T G H E G P D G S C I D S D D N L Y
UniRef90_L8G055	Y A Y D F D A A T G A I S S N P R V F W K L D T G S E P D G F A V D V E G Y I W
UniRef90_UPI000361C141	C D Y P S L E H Q R I F S N V V G D G A P D G A C V D A D D G F V W
UniRef90_UPI00037E0936	E D G T S V I D G R I G L H V N L G T Q S G G G S M S L D S I T I D N E G N I Y
UniRef90_Q7CTQ6	F F Y R V N G L F D E G V L V A Q M T E E T G R P P D G G Y C L D S S G T Y Y
UniRef90_UPI0003B6D3E6	G T F D S A Q S I L E S R E A F F A D F S R G L P D G S T I L D A E G Y L W
UniRef90_UPI000478BAB5	W R F D P A T G T L S E R L R L A M L D E A S G R P P D G G A A D V E G N Y W
UniRef90_UPI00035D947C	V F I A N S S E N K T Y S G L V I T D L K P F A D R G G E S V A T D G E G R V Y
UniRef90_UPI00036D1F55	H R L W L V G E R A G T L E V F A D N L P G Y P D N V R Y D G A G T F W
UniRef90_C3ZU69	Y Y V D E S G K F L F Q F G G E G R G E Q L K W P P G I C T D S S S G H I L W
UniRef90_J3LSV7	S R Y W L K G E K A G T V D L F A I L P G F P D N V R T N E K G E F W
UniRef90_W0JUS4	D T F D Y D R D T G E I S S N R Q P F V E T P T D D G V P P D G L T V D E D G F F V W
UniRef90_X5KNE5	Y V F D Y D V G S G R L G E C K E F A R I D P E L P G Y L D L G T D V D E A G N V W
UniRef90_K5X7C9	Y Y D D D G R L A N R R F V D A M A L G L P E N S F C D G L C V D S E G Y I W
UniRef90_X6KX75	Q R V A L D A E G W P K G T P F P W D L S G E G L P N P D G A V L D A Q G N L W
UniRef90_UPI00045E9724	P N G D L V D R E T F G P S D H G A F I D G I A F D A H G N L W
UniRef90_H2UB04	R R L V I R P D C Q S A R F L G S E G T G N Q F L R P Q G V A V D Q E N R I I W
UniRef90_UPI00046F6FB5	N P N G L C F S P D F S R L Y V I S S G R Q S G A G G H D G D L S V H A G N L W
UniRef90_W6MJ64	F T T G K L S N R E P H K I K E I L P G Y D S P E P D G F C M T E T G D I F V
UniRef90_UPI0003FFB419	V V L T N A S E N R T Y S G L V G A D L K V V A D R G G E S V A R D A A G N L Y
UniRef90_C5DOR3	W A W D Y D P D G P L R H K R M F A R T H E F D S G P D G A T V D A E G F V W
UniRef90_A9MD24	L V N L T R H R E I I R L P W I R G R I G T P E I F C T F P E S F A P D G M C L I W
UniRef90_C3YTO6	G H F D R Q F Q S S P E G V A L D A A G N L I W
UniRef90_M5FMC5	S R Y W F D G P D K G K H E I F R D N L P G Y P D N L N R G S D G T Y W

250 260 270 280

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UniRef90_N4UQ57	H A V Y G E G R	V L K I S P E	G K L I G E V R L P T K N I T C V Q F V G T	
UniRef90_A0A031JH60	UniRef90_M2Y3S5	V A L W G A G Q	V R C Y S P G G E V L H V V E V I A A P H T S S V A F G P E L D	
UniRef90_R9P10	V A G G T G D N	V V A F D P S G R	V A H E M N F G T G V L V T S S V C F A G R G T	
UniRef90_UPI000478E435	V T D L V G G G	I H V V A R D G T I K G F I K C	G G A P T N L A F D G E	
UniRef90_UPI000365A1D0	V A H Y N G A R	V S R Y T P E G K L E R Q I A I P A L N V T K C	A F G P N L S	
UniRef90_UPI0004664B3F	I A E W G G G C	V S K W N P N S G E	L E K I N L P C T N V T S C C F D N K S N	
UniRef90_A0A0311684	L T E H T R R R	R V R V V S P Q G E A I L A T I A V D A	N L T N A T F G G D R R	
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UniRef90_K3YLC7	S A I Y G G G K	V I R I S P E G K V I G E	I T F P T R N I T C P V F V G T	
UniRef90_UPI00047CCDED	V A L H R E K Y E L	P F G K D S H L V A I R I G S Q G E K L	Q E M T G P K D V R	
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UniRef90_C7JDX3	F A N A F A G E C	V C R I A E G G E V L D V V E T G A R N C A C M L G G P E G R		
UniRef90_S6HPW5	C G V S G P O C	G V F V F N P E G H L I G R I R L P Q S V S N L T F G P K R D		
UniRef90_A4AT22	N A R W D G S C	C L L R I A P D G Q V D R V I E L P V S R P T S C V F G G D L R		
UniRef90_G0J7B3	I A E W G G G R	V S R W N P K N G Q K M D E R K L P C P N V T S C C F D N H L N		
UniRef90_V4NFP3	A T G P G G I	W F F F G P S G S L L G R G K L L S E R V S N V A L N K K E N		
UniRef90_A6C8D1	I A H W G G G K	V S R F N P D A S I N F S I D L P A Q Q I T N V C F A G D L D		
UniRef90_A0A059IQV9	L S G R G G V	W V A S P Y G K S R G L I P V P E F C C S N V T F G G D G K		
UniRef90_A0A031J380	C A H Y G K G K	L T C H A P D G Q E V Q S I S V P A N R P T C P A F G A P G		
UniRef90_A3BTK1	V A C W G D G A	V R R F A P D G T L V R R I A L P A S Q I T N V T F G G D R D		
UniRef90_A1WL09	V G S T G R S Y V	Q R V A L Q L A P T G A V V L Q R I A T P V Q C P T M V C F G G D L R		
UniRef90_F0BGQ9	V A M Y E G A C	V L Q L A P T G A V V L Q R I A T P V Q C P T M V C F G G D L R		
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UniRef90_I4YYI0	V A H Y G M R Q I	V V L N K D G Q L I R R Y A S G N L T S N C A F S N E N N		
UniRef90_F2U6P5	S C G V S A G R	L I N R F S R E G E I V E T H P V P V P A T T M P C F G D D L K		
UniRef90_UPI000263049A	A T G P G G V	V R V Y D Q Q G N L Q G L L L T G R K T G N L V F S P E D N		
UniRef90_UPI00026575AC	N A Q W R A W Q	V V R Y R P D G S V E R R V A L P V K H P T C P A L G G D G G		
UniRef90_UPI0002558E0E	V S D S R N H R	V Q V F R P D G T F L C G V E P G Q M D R P A G V A I S P E G R S		
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UniRef90_W5Y4E6	C G A N G P O C	G V V V V Y N P H G H M I G R L R L P R G V S N L T F G P K R D		
UniRef90_F8B435	V A D A L N G R A C	V R I A P G G K V V D E V H A P G G G L Y S C T L G G D G R		
UniRef90_I0X8Z1	V A F W G G S R	L E Q R S T K D G S L L A T V K V D A K N V T S C C F G D D L S		
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UniRef90_W1QJ53	V A L W G G A S V	I K V N P E G D I V H R W T F P A Q R V S C V T L G P D L N		
UniRef90_Q9C586	V A L H C R R N Y	Y S Y P K L R M F I L R L P I T A R T H Y S F Q I G L R P H		
UniRef90_J2WE08	V A L N G Q V F	V Y A P D G K A I G R I D V P E R P L Q L L F G G P D G K		
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UniRef90_W4S4K8				
UniRef90_G2RBU7	H A V Y G E S R	V L K I T P A G Q L V G E V R I P T R N A T C C E L V G G G		
UniRef90_W0IRU5	S A G V S A G R I	N R I S P E G D I V E I Y M L P V A A P T T M P C F G P D L R		
UniRef90_X0Q4T7	V A D A V N G R	V L R V V R G G E I V D T I E P G A G V F A C M L G G A D G R		
UniRef90_S6HIL0	V A Q W G A S R I	A Q Y S A K Q G F L Q A I S I P T A Q P T C P A F G A T N F		
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UniRef90_A1W2E5	C A L Y E G A R	V L R L S P R G E V L A E L P T P L S C P T M P C V G P D G H		
UniRef90_F4W8D1	I T L F D G S V	P R V I G V R P K T G T I L C K V E L P V E N V I S A T F G P L L D		
UniRef90_UPI0004668CBE	V A C W A K S C	V C V A R Y T P N G R E D L R I E L P V S Q I T C P A F G G R N S		
UniRef90_E6PH18	F T E F S G N N I	G R I T P T G T V T E F P V P T A S A Q P L S I V A G P D H N		
UniRef90_UPI0004761BB3	N A Q W G A A L	V V R Y A P D G T V D R I L D T P A L Q P S C V A L G G P G D D		
UniRef90_F2RHI4	V A V W G G G E	V L A F T P D G A L H A R V E V P A A A H V T S C A F G P D L D		
UniRef90_Q15Q05	N A Q W G S A C	V C V K R Y S P S G T L D F T L P V D C Q Q P S C V S F G P D L N		
UniRef90_J1L6E2	V T D G Y G G R I	Q K F D I S G T F I A T W V S D D K G S P S C I A T D D A G N S		
UniRef90_Q7D0W3	N A R W G E G A V	D R Y D T D G N H I A R Y E V P G K Q T T C P A F G P D A S		
UniRef90_V8A9C3	V A A N G P O C	G V Y N P A G K M I G R L R P R S V S N L C F G G Q R D		
UniRef90_U2ZUW6	V A S T A N G A G E	L R R Y A P D G S L D R V V P M P S H K P T S V M F G P D L D		
UniRef90_I7LNG3	V V D H L N C R I	Q K F D S S G T F I K G S S D G Q L N N P S D I A I D T A G N		
UniRef90_KOZ4T7	S S C L	D G V V V F A P D G R E I G R I P V P E K V G N L C F G G E G T		
UniRef90_Q4L9R6	V A M Y G Q G R	V L V N F K R G Y P I G Q I L M P G R R S T H P Q F I I P G T N		
UniRef90_L8G055	Q A V Y G D G K	V L R I S P E G K T V G E I I L P T R N V T C C A F V G E		
UniRef90_UPI000361C141	N A E W G G G R	V V R Y N P D G R V D R V M S A P A K Q T C P V I G P S G D		
UniRef90_UPI00037E0936	Q S I Y Y G R G E I	M I W N S V G D L V I A T V I M K D D S G V T N V A I K P P G A K		
UniRef90_Q7CTQ6	S A G V S A G M I	N V F A E D G K Q T A I K M P V P H T T M P C F G P D F S S		
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UniRef90_UPI000478BAB5	S A G V S A G I L	N R F S P E G R L I E A H P F P V P A P T M P C F G S D L K		
UniRef90_UPI00035D947C	V A N G Q V F V	Y A P D G R E L G R L D V P E R P L Q L V F G G P D K R		
UniRef90_UPI00036D1F55	V A			
UniRef90_C3ZU69	V A D S G N E R	V Q I F T R H G E F V R T F R T G P G S Y P E S L T V G P E G Q		
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UniRef90_K5K7C9	S A R W G G S Q I	V R F T K D G N V D L V V K F P A L N V T A C C F G P T D D		
UniRef90_X6KX75	S A Q W G A G R V	V A C Y D P E G G F V R A L D L P T P Q T T C P A F G G D L S		
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UniRef90_UPI00046F6FB5	C G V G G P O C	G V F V N P E G H L I G R I R L P H G V S N L T F G P K R D		
UniRef90_W6MJ64	T A V W S T S R	L H F N P A G E L V E E F V F P A A R I S C V T F G G D F D		
UniRef90_UPI0003FFB419	V A N G Q V F V	Y A P D G R E G K P I R R I D V P E R P L Q V L I G G A D R R		
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UniRef90_A9MD24	V A G S V G D M I	A V V N L D G A P R G L V G T G H T D P T N L C L A D D		
UniRef90_C3YTO6	V G E H D G H	V R V F G P D W S Y L Q S V T K A D G N Y V S G L A L T P D G K		
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290 300 310

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UniRef90_N4UQ57	E L F I T T A S G G G L F R V D V G A R G L D F F
UniRef90_A0A031JH60	T V Y A T T A R K G L S A D E L A A Q P H A G D L F
UniRef90_UPI00045EAABE	R L L I T T A S A E L D P A G L S E H
UniRef90_M2Y3S5	T L I I T V A K G G S V V A I P A L H P G E P L
UniRef90_V7FUM8	T L W V T D A S A G R L W R L K V P G G G A P T Y
UniRef90_R9PPI0	T L Y V V S A R E G M S D Q Q L R D Y P L S G G V F
UniRef90_UPI000478E435	T L F I A A A R T G Q V L S I E A P A P G
UniRef90_UPI000365A1D0	T L Y V T T A K D G G G L Y Y I E L N
UniRef90_UPI0004664B3F	T L Y L T G A G S V W S L G L D V A G L P
UniRef90_A0A031I684	T A Y A T S A R K G N L F A F D P G V A G V P
UniRef90_G7X7N0	E L F I T T A K D G R L Y R V D V G I K G K P K N E F R L E G
UniRef90_K3YLC7	P T E V V I E R E D G K I Y
UniRef90_UPI00047CCDED	T L Y V T T A G N G H V V W T R V D V P G L P
UniRef90_Q2G9M6	H L F M L V A D T G A I L V V E V S R A G R P
UniRef90_C7JDX3	W L F M C A G D S L Y R L Q V N T Q G A A P
UniRef90_S6HPW5	T L F I T S A A D G A L L S I R V D V P G
UniRef90_A4AT22	L Y I T T A K S
UniRef90_G0J7B3	L L F A T A D S Y V L R I P L K
UniRef90_V4NFP3	R V F V T S A A
UniRef90_A6C8D1	T L Y F T C A N K V Y S L Q M K V K G
UniRef90_A0A059IQV9	T L Y L T S A R D G L T Y R L R V A A R G Q A E H
UniRef90_A0A031J380	R L Y V T S A A D G A L F E L D P G C A G L
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UniRef90_A1WL09	T L Y I T S A R A G R L F S T R V E V P G L
UniRef90_F0BGQ9	R L H V I S S R L D H S A E E L A R M P E A G G L F
UniRef90_UPI0002F08A5E	Y L F V T E E G L G G V F R L N L S T N
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 C L S G G L L A T A K D T I Y R I D H G E V T R V A G I P L P D D G N R R R F N
 Q N E L V L L Q S R S R V V S K M K A P L S A P K S D Y L P F N G Q K F N S P N
 D K R Q L I A T E T G L H V R D V A T G K L T L H T P I E A D N P V T R S N
 Q S G G F L V G I L R T V H A L T L E P F K L T P L F E I E A D K T D N R L N
 A G Q V V S G E H A G R R V I R R P T D P S A V E V I A E R S E G K R N S P N
 N G C V L V I A Q Y Q M I E L D L E S G L Q T L C T L P V P E G F R T N D
 E K E L I V G I G C Q L T R F D Q Q S N W Q L I G L A P H S R E G Y R N
 D T I L L I A S E T G L W R F D I G T G H R D L I C E L E A N N P D T R S N
 S G R L L V A L V S S F V F L D T D T G E L T N F V D V T H P A P P N M R L N
 K E T L L L A S D K G L S A Y N T S T H K Q T F L C S V E A D K P D N R S N
 D G R L L F V C M E S A L K K R L E K N K L V L H H A N L S Q Y S K H L C
 S G K I Y V A D S S N N A I K R M D A D G T N I V T L G T G F S
 D P D V L L V G L A T Q L A F F D L R S G A F T R I V D V I E P
 A G D V Y V T D S W N P R V Q K F N S T G F I T R W G S E G S G
 N G H H L A T A S D D G T A R I W D T T T G Q T L H W H P N G H H L A T A S R D
 D N Q I I V S S S D D Q T V R L W N S S T G Q C L R T W Q G Y T N S M R S V A W
 E S D R V A V A L Q T G V H I L D P K T G S L K L L C D P D G G R P D S R L N
 E N G G F I A A F R S G V Y T F E H L N A E L K P Y W L A T Y D Q K T T R F N D
 D G R I I V A D K D N H R I Q V F T K T G S Q Q F I T F G D R G S E D G Q F K Y P W
 D G R L L Y L S D F A H G E I V S L A P G G G D R R T F F S G E V D G A P M N P D
 K D S L L L A D E V G L H L D I E Q Q S L K L V V G F E H
 L A I G Q E L L T L A P G A P A P Q V V A R L P E G A V G R F N
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 E G N L W V V V G E A E S A D F A V V Q Y N K Q G R V L R K F D L Q E S E W Y R G V
 T Q S L Y Y V D F S P V G C A R R V V L G W S L A V A Q S G A H P V E V Q P E M
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 K T G E L Y I A D A Y K G L M K V G P D G G E A Q V V A T E A D G V P F H F L N
 A D N V Y I T D V Y N N R V Q K F T S A G T F I T Q W
 R Q E L F V C N F K I S A L I Q L D R S G K V V R S W D R V G R Y R L R T P N
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 D G R R L L S G S D D Q T L R L W D A E T G Q E I R S F T G H Q G G V L S F S P
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 V D G R L L L G L R T G L H T F D P A D G R L V P W L P I D E G H A E N R I N
 E R D V L L V G L A S H H L A L F D L R D G R F E R I V
 A T C D L Y I A D A Y F G L L V V G Q N G G V A K Q V A I S A E G V P F R F T N
 S G N L L V L L S S F G R R G T V Y S P D T Q V T V I A P T P V A P R A L P V N W
 D G R L F L S C L G D F K N S G S I V A T Q T D G S A L E E L I S E I
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 W V M E T E Q G E L V A G F A K G I Y K L I N S E D F S R E L L Y S I D
 A G G G W L L A A D G G G F T H L G A D G T A R A L I T L A G E G G G T
 D G R L L V V S M T D R R L L R L D T D G L T E V V D L H Q L A S S H C N
 D G E W L L A S G S Y D K T I K L W N S H T G L R T L K G H K N S I S S V T F S P
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 D G S V Y V A D A A N N R I Q K F S S A G V F Q K W G S E G S D D G Q F C Y P S
 D G S E L L G T A N G P V R R L P D G S I L K L P T R F D A D G V N A S F P
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 E R G G A L L A L A G G F Y F M D L A C G E L D L V A D P E P G V E S N R L N
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 I G Q F I I A D R Y N H R I Q V F D P S G R F L R A F G S Q G T A
 N G N V Y I A D R D N N R I Q K F N S S G G F L M K W G S I G G S G
 A G E H L V V S M N D R R L L R L A G G E L H A W A Q L G E L V P G P I N D M V
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130 140 150 160

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UniRef90_F7Y7S2	D S R V [■] H P C G A L W M G T M G
UniRef90_V4PSV5	D A K V D A K G R L W T G T M H M
UniRef90_Q5LQD3	E V V V R S D G S V W F T N P P Y G I N S D I E G Y P A E S E [■] G G C F V F C P
UniRef90_Q07Z85	G G V [■] C D N G L L W F S T M H K T S P L K F P G S I Y V I D Q
UniRef90_K8X3E2	D A K F D A K G R L W C G L M S E Q L I E N S G Y [■] Y S F D Q N G C W R T I D T
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UniRef90_A6VXT0	G R C D A K G R F L A G T M Y S P K D A F K G A L H Q F S D G K E N M I D Q A A
UniRef90_T1IM05	D V A A N S R C Q I L V C D S R N H R I Q L F T P
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UniRef90_UP100030B5AAD	D P L T H R S N D G R A D P W G G F W I S T M H R D A I E G E A A F Y R Y F Q G
UniRef90_Q2CJ62	D G K P D A M G R F W I G T A D P D G G T R A R L W
UniRef90_I7LNG1	D I A V D A A G N V Y V A D E I H T C I H P C I H K F D S
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UniRef90_J2JWN6	D G R V D A S G R L W I G T M D N E L H R P N G S L Y R V T G
UniRef90_UP100036D1282	D A A L A P D G A I W F T D P V F G I T V P D E G I Q A V P A Q S A R R V Y R I
UniRef90_UP10003B75246	Y V H L D A Q G R V W I T V S T R T T P R S D A Y R P N I A D G F V V L V D Q G
UniRef90_UP100034561F8	F V L S D S D Q G R I W F S V T T R Q V P W T R S [■] N E K T A D G Y V V G L I D E R
UniRef90_Q0C8R1	S V T F S P D G R I L L A S G S S D E T I R V W D P A I G S L Q R T L K G H T K S
UniRef90_A0A021XCB7	E G R V A P D G A F W V S T M Q S N L H P D G S L K N M D R N A G A I Y R I D
UniRef90_W2RSC8	R R F R A N D G G V D S R G R F W V E A F V D P T V G E P D R D G C L M R L D G
UniRef90_C3ZU06	A V D T R R N H I L I I Q T T G H W V N L H G E V L V F R P
UniRef90_B4GXG5	D K N R L N D A K A D P R G R F F G G T M R Y I G D E F E F R H G E L Y K W E A
UniRef90_S7ZIX8	D G N V D S H G R L W A G S M N D P K V K S P Q P E G T L Y R L D P
UniRef90_B9R181	D G K V G P D G A F W V S T M Q S N L H P D G S L K N M D R N A G A I Y R I D
UniRef90_E5WKV2	G I F P N L V Y P N Q V L P D G D G D L F I T D T S S T Y T R R F N G E I T M N A D A T G R L L K
UniRef90_I1NQZ4	G L D V D Q A T G D A Y F T D S S S T Y T R R F N G E I T M N A D A T G R L L K
UniRef90_B8GI56	G S Q G L E V G Q F N M P Y G D A V D S A G N V Y V T D L G N S R V Q K F T A
UniRef90_Q1ITZ9	F A V F D R E G N L Y F S D S G E F H G D D G F L F V L R P
UniRef90_M1W896	D G A A D P H G N F W L G S M T D F G L G E F Q P E A G S L Y R
UniRef90_UP10003AD27A8	D M V V D A E G R A Y V G N F G F D [■] M N G A P L E P A A L H R V D P
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UniRef90_D7TER5	A L D I D Q N T G V V Y F T D T S T I F Q R W A Y A I V M Q I G D K T G R L L K
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UniRef90_UP1000345F1D2	D L I A F D E A G N M Y I S D M S G H D E P A W E E K G R V V R L D H
UniRef90_M9RFM9	D G R T D R L G R F V V G G M N E V S G A A N S S V I
UniRef90_Q98F6	E G V V A P D G S F W V G T M E N N I G P D D R P R D I S R D A G R I Y R V D T
UniRef90_G0IUW1	D I A V H T D K G F Y F T D S I R H K G A V Y F V G W G G G A Y A V A T D I D F
UniRef90_UP10003683204	D G R R L L W S S D T G A A V R T L D G H W M G A T A I A F S P D G R L L A S A S
UniRef90_A6G8R5	D L V I S S A D V L Y F T D P D W Q S P N P N P Q A A E R
UniRef90_Z5XKV0	N E P Q Q N R L N D G K T S R Q G F G F G S M D S Q E Q A P S G K L Y R V G H
UniRef90_D2S8W1	E A D G G T R M N D A A C D P A G R F L A G T M A F D E R P G A G A L D L
UniRef90_X0SCB3	D M V V D Q Q G R A Y I G N F G F N M I K Q E P L A L A E I V
UniRef90_K9VG83	D G E W L W D K H T G E C L P T F T G H E N S I L S V A F S P D G E W L A S G S
UniRef90_A9GAC3	D G N R I L W D A S T G S E L P R L E G H T N W V R A M A W H P D N R R L A S A G
UniRef90_UP100035ED1AB	D G R A D P W G G F W I G T M G L K A E Q G A G S I Y R F H
UniRef90_H3RJJ4	D G R C D R A G N F V F G T M D D G F P A K V I G K F H R L
UniRef90_G0RJB3	D G A A D P N G K F W L G T M T D F G Q G P N Q P E G F L A R F D S
UniRef90_E7F959	D R N G H I I A V D N K A C C V F I F Q S N G K L V T K F G A R G T S D R Q F A
UniRef90_F6HYV0	D L D I H K N G S I F F T D T S K R Y N R M N H F F I L L E G E A T G R L L R Y
UniRef90_F6GTG0	A L D V D T E T G M V I Y L V D Y S S Q F S V N E F S V S L Q A H D M T G R L L M K
UniRef90_W2F1R8	D G V C D P A G R F W A G S M A Y D A A R G A G A L Y R V G P
UniRef90_A0RWR4	D A Q V T G L D F G D G G T R M Y I S G D Q G N G I H Q Y D L P A P Y N I
UniRef90_K9DKU5	P G A I A V D A N D N L F I T N S Y S T R R V A G D N T L M L E G Q S V V N N L
UniRef90_I3JDT8	K N G H I I T V D N K A C C V F I F Q S N G K L V T K F G A R G T S D R H F A E
UniRef90_UP10003B33287	W V A D T F N N R L V R F D N A G N V A A T A D G A L S R P R G A A A P D G T
UniRef90_A5VE48	E A K C D P Q G R V W A G T V D A A L S I G G G A L H R V D G E G R C V R V L E
UniRef90_A3GGF4	D G I V D P W G N L W I G V M N D F P V T F K E G V R P E G K L F R I D H K D L
UniRef90_D3PMJ7	F P L R D S K G R I W F S V T T R E E P W T K Q V N S K V S D G Y I G L I D Q K
UniRef90_D9UT10	D G G C D P A G S F Y C G S M A Y D A R R G A G S V H R L A P D G T T S V V H
UniRef90_J5QF62	D C D I A P D G R I Y F T D S T K R Y D A H D W A L D S I E N R P T G R L L V Y
UniRef90_UP1000378596A	D G G C D P S G R F W F G T M P Y G G E H G L G R L H R V D H
UniRef90_T2GBF1	D I A M G P D G S V Y V A D T N N Y R I Q K F S A A G V
UniRef90_UP1000467143A	N R R W N D A K V A P D G H L F L G S M P Y D W A Q S P N A C G L Y R L D K T
UniRef90_T0HL11	R T L L P V N W N N G E F R D Q L D H K S Y E F T T L A E M F A R D V G T P K
UniRef90_UP100047B42CE	D G K V D R Q G R E F L A G S M D I G E T Q P T G A L Y R L D P
UniRef90_A1T5E8	N V T E T A D G T V Y F T E S T T A F T V G N Y L G A I L E A R G R G A L H
UniRef90_K9QSN3	D D Q T V K L W T F P K Y L H T L T E H T S A I T S I A W S P D G Q T L A S G S
UniRef90_D6X308	D G R F N Y P W G I T T D A L G F I Y V C D K E N H R V Q V F Q S D G T F V G K
UniRef90_B8GHS3	D G Q F N Q P S G V A L D S A G N V Y T D K Q N N R I Q K F N S S G G F L M K
UniRef90_D3F381	V G P G G R A Y V G N F G S D L V G G E P F A P T V L V R V D P D G T E D L S F
UniRef90_V4SBM1	S L D I D Q S T G I V Y F T D S S S Q F Q R R N H S V I L S G D K T G R L L M K
UniRef90_A0A059MMK6	D M V V D A D G R A Y V T Q G F D L F D N A E P A S P L
UniRef90_V4PID9	D A K A D D R G R I W A G S M H K P I T R T T G N W H R L N T
UniRef90_I0IJ02	D L I A A G N G L F F T D P V Y G P R P G G G P A V E G V Y A I P L P A A S

170 180 190 200

UniRef90_U5EVU6	A K T E K F I V V K S K I S V S N G L A W N E K	L G K F Y Y I D T N D P E V K E	
UniRef90_KOETW0	G V T I S N G L G W S P	D G A T F Y Y A D S P T Q R V	
UniRef90_G7G3K7	T G E I T L L D D E L I Y P N G V A L S N D N K I L Y V A A S N K N K P A W Y Q		
UniRef90_F7Y7S2	K G D L R R L F S D I T V T N S I C F S Q D G A L A Y Y T D T S T G L L M R V I A		
UniRef90_V4PSV5	D L S V H Q M D A P Y L C T N G P A F S R D	G K R M Y H N E T S E G L V	
UniRef90_Q5LQD3	D P D G T L H A V A T E F D K P N E A F S P D E C	C R L F V A D S G A I R G A I	
UniRef90_Q07Z85	R L N I K C Q L L N Q I H I A N T F C W V T V N R V L I S D S L L Q L M		
UniRef90_K8X3E2	G F T I L I N G I D W	S Q D N K T M F V T D S I I K R V I	
UniRef90_R0FKH5	G E L R K L W S G L		
UniRef90_UP100035F2D66	S I P N S I C F S P D G S T G Y F T D T Q Q G R I		
UniRef90_M5H1D5	D T G C I T N S T C F S P D G Q Y L Y F S D S L S C Q L		
UniRef90_G4QF45	G V L T Q V V S D L T I P N G I C F D K S R A K A Y Y A D S K T Q K I		
UniRef90_G7W8B1	V R T P Q G E V S V A S G G M S F P N G S V I T P D G K T L I V A E T G L R L		
UniRef90_Q0B5V6	N N N A I K R M D A D G T N I V T L G S G F S Y P N G	V A V D S S G K I	
UniRef90_B8GF92	D L T L E R L A L P P A A I A N S I A F S P D G S K M Y F C D S L V R E I		
UniRef90_D1A9K8	T G E F I T K W G G Y G S G D G Q L S Y P R G I A L D S A G N V Y V V D T G N N		
UniRef90_UP100034C056E	H D G T A R I W D T T G Q T L H T G H T D W V S A L A W H P N G H H L A T		
UniRef90_I3X5G9	G Q D T V R L W D S L S G Q Q C L Q T L S G H D D W V W S V A W S P N G Q T L A S		
UniRef90_A6VXT0	N L K T S N G L A W S R D G R R M Y H S D S S L Q F L Q A		
UniRef90_T1IM05	W T S N G L A F S P D N T I M Y Y S D T	P N H V V	
UniRef90_V6KJC6	E G Q Y L K K Y G F G G H L W K N F D S P R G I C F N Q S D E V L V T D F N N H		
UniRef90_UP100030B5AAD	A G K L A A P N G V S F D V D Y Q G L W F S E L T E N R I S Y		
UniRef90_Q2CJ62	K L T K V I S N I T I P N G C C F S A D K H W V Y F T N S P T A Q I M R M K		
UniRef90_I7LNG1	R Y A A G Q R F A P M L D G V S M S N G L G W S G D G R A F Y Y A D S P T T T I		
UniRef90_UP10003644682	S G K F L T R W G I R G S G N G M F W K V A G I A A D D S G N V Y V T D C H S P		
UniRef90_U6ZGI3	W N R A N G G Y G S G L G E F R S P T R I A V D G T G N L Y V A D R D N H R I		
UniRef90_J2JWN6	A T L E T E T L N L P A V T I P N S I C F S P D G G T M Y Y S D S M Q G R I		
UniRef90_UP100036D1282	D G Q V T R L F D D V I V S N G I A F S P D N R T L Y F T D T R R Y C T		
UniRef90_UP10003B75246	D P A G E V Q G M T D A V G Q P N G I A F A P D G H T L Y V T E T S A A L D N A		
UniRef90_UP100034561F8	K A R I V A D N L G Y T N E C V V H P D G K R L Y V N E T F A R K L		
UniRef90_Q0C8R1	G I R I V A D G F V G T N E I R L D A R E E W L Y V A E T N A R R I		
UniRef90_A0A021XCB7	V L S V T F S P D G R L L A S G S S D K T I R V W D P A T G A L Q Q T L K G R I		
UniRef90_W2RSC8	V G G H V A Q L T P N E Y G I T N T M A W T Q D S R F F F A D T L A N E I V		
UniRef90_C3ZU06	F D G R K G K L T T V L E G V T I P N G I S W S E D D G T M F F T D S P R Q E V		
UniRef90_B4GXG5	F G T L V R T V G Q Q Q G M K H P Q Y I T V D G E G N I L V S D L R R N N		
UniRef90_S7ZIX8	G G Q V S I V K G D V G I S S N G L A W D E K A K K F Y Y I D T T D Y E V K S Y D		
UniRef90_B9R181	D L S V H E M L S P V T I P N G I S W G N A A D D T M G D Y M Y H S D T S P G W I		
UniRef90_E5WKV2	S Y K M T I G L G R Y G D K Q Y A G P Y D V Q S D S K G N V F V S D S F N H R I		
UniRef90_I1NQZ4	Y D A R T R R V T V L K T D L P Y P N G V A V S R D R T H L V V A H T V P C Q A		
UniRef90_B8GI56	N G T F I T E W G S S G S G D Q F N M P Y G I A V D S A D N V Y V A D L N N N		
UniRef90_Q1ITZ9	N G K L E K L L S D L S F P N G L S L S A D D K T L F V V Q S T E D N V		
UniRef90_M1W896	F H K Q D G S N E Q V V Q G L T I P N S I G W S P D N T L M Y Y T H S K V R E I		
UniRef90_UP10003AD27A8	G E V T E V A D D L W F P N G S A I T A D G V L V V N E T F G D R I		
UniRef90_C7RS72	H D R T L R L W D A E T G Q E I R S F T G H Q G G V A S V A F S P D G R R L L S		
UniRef90_G8MM28	V V I E P D G R A R V A A S G L D F P N G V V L K T D G G N T L V I A E S W S N R L		
UniRef90_UP10002FEEBE66	L D G A V M Q L E S I I R D L A V P N A I A F S P D G A R M Y F C D T I T R Q I		
UniRef90_C5AJ05	L N A D R S L E R L A L P P A A I A N S I A F S P D G A R M Y F C D T I T R Q I		
UniRef90_D7TER5	Y D P R T K E V T V L L R G L S F S N G V A L S E D K Y F V L V T E M T A A K I		
UniRef90_W0AGY7	G S L V L P A W R V F A Q G P S D H R G R R F S D P L D S Y G F I Q G K P G E R		
UniRef90_H0DJS8	Y Q T V T P I I Q N I A V A N G V A L S T D E R I L L W V T E T N A N R L H R I E		
UniRef90_C7ZCJ6	D R T P K V A A E N L V F P N A L V I T D D G K S L F V A E T F G Q G L		
UniRef90_UP1000345F1D2	E T A E P T V L A A E L P P P N G I S F T E D F S A L W V G L Y G A N E V		
UniRef90_M9RFM9	R I D G D L K V E T L L E G V A C A N S I C F T A D G K T M Y F A D T P E R E I		
UniRef90_Q986F6	A G I V E A L G A D R F G I T N T M V W T A D D T F I T A D T M K N Q I F R		
UniRef90_G0IUW1	P N G I V Y H K E K K C L Y V A E S Y K N R V L A I N L E L P Q S S P N Y L R V		
UniRef90_UP10003683204	A D K T V R L V D P A T G A T V R T L E G H G N W V S A V A F S P D G R L L A S		
UniRef90_A6G8R5	A Y Y V L P Q G Q G A V A F A P E V Q K P N G I V L S L D E G T V Y V A G T N G V		
UniRef90_Z5XKV0	G K A P E V V D Q H Y T I S N G P A V S K C G Q F L Y S T D S E K Q T I		
UniRef90_D2S8W1	D G T V T T V L D D L T V S N G I G W S P G G R T V Y L A D S G P G V V		
UniRef90_X0SCB3	L V T P D G D A R I V A K E M A F P N G S V I T L D G R T L I V A E T F G P R L		
UniRef90_K9VG83	Y D K T I K L W N S H T G E C L R T F T G H E N S V C S V A F S P D G E W L V S		
UniRef90_A9GAC3	D G N T V R I W D T G T G K E L T R L E G H N W V S A L A W H P S G D R L L A S		
UniRef90_UP100035ED1AB	Q G Q L K K L H E G I T I P N S I C F S P D R K F V Y F T D T S Q K K I L K Q D		
UniRef90_H3RJJ4	N A V T L S I E T L P I P E V A I P N S I C F S P D G G T M Y Y C D S M Q N R I		
UniRef90_G0RJB3	S K S K E E V L K D L V I P N G I G W S P D N K T M Y F T H S Q T R E V		
UniRef90_E7F959	E K S G S K C A E Q K F S K S G P G F S P H F V A V N N K N E I V V T D F H N H		
UniRef90_F6HYV0	D P P T R T T H L V L D G L A F P N G V Q L S G D Q S F L L F T E T T N C R L		
UniRef90_F6GTG0	Y D P E S K E L T V L L I G G L G G A A G M A I S K D G S F I L I T E T V T K R I		
UniRef90_W2F1R8	D L S V T V V R T G L T I P N G P A F T A D G R T M Y L A D S A A G R I D R H P		
UniRef90_A0ARWR4	T G A A R A G S Y N V G G E D G G P R G V A V S E D G R T M L V L G Q G T D R I		
UniRef90_K9DKU5	T G G S L F E P R G V A V D N N N N V F V F D L D R E I S R W N P N G V I G V N		
UniRef90_I3JDT8	K S G A N A I A L D T K I S K S G P V F S P H F V A V N N K N E I V V T D F H N H		
UniRef90_UP10003B33287	V F A T D S G G R L V R V S P D G A M A T V R T G L N R P A A V A V T P Q G T A		
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UniRef90_A3GGF4	S I T T M V D D T L I A N G L A F S E D G K K L F W T D S L T F T N W Q F D Y D		
UniRef90_D3PMJ7	G I R I V A E G F C G T N E I R F D A R E E W L Y V V E S T A R R I		
UniRef90_D9UT10	D A T I S N G L V W A P D G S E A H Y A D T G T G T V F R L		
UniRef90_J5QF62	D P K D G S T K T L L D G Y R Y T N G V C M A H D G E S L F F A E S W A C R V		
UniRef90_UP1000378596A	D G S V T T V V D G L T I P N G P A F T A D G T V Y V A D T M G D R I		
UniRef90_T2GBF1	F Q A K W G S S G N D D G Q F M G P E G A V A P D G T V Y V A D T M G D R I		
UniRef90_UP1000467143A	G K S L T R V L D G V W L S N G L A W S K D G K T M F Y I D T M A K S		
UniRef90_T0HL11	A Q E Y V I S P D G S L A L P A F R V W V Q Q G P I D H T G W R W S D G L N A N G F		
UniRef90_UP100047B42CE	D L S V H R L D S G M V V S N G P C W S P D G A T L Y F N D S A R G E I R A		
UniRef90_A1T5E8	R L E P H G R L T T V V D G L Y F A N G V T P T A D G S A L V F A E T Q G R R L		
UniRef90_K9QSN3	D D Q T V K L W D T N I Y Q C F H S L Q G H T G M V G L V A W S P D G C I L A S		
UniRef90_D6X308	F G S M G S K E G Q L E H P H Y I A V S N T R N V V V S D S N N H R I		
UniRef90_B8GHS3	U W G S E G S G D G Q V H W P S G V A V D N T G S V Y V V D S Y N H R I		
UniRef90_D3F381	P N G T V I T P D G R T L I V A E T Y A L R L T A F D V D S D G G L S N R R A W		
UniRef90_V4SBM1	Y D P A T K Q V T V L L I G N L S F P N G V A L S E D G N Y I L L A E T T S C R I		
UniRef90_A0A059MMK6	E P D G T P R Q V D E I D P L M G A N G I A I S E D G T R L Y T A E A F A N R I		
UniRef90_V4PID9	D K T V S H V D G P Y T I P N G P A F T A D H R Q V F H T D T D L R Q I		
UniRef90_I0IJ02	P P A E A T L V V G D L V R P N G V A V D P A G V G G L Y V A D E G A R K I H R Y		

210 220 230 240

UniRef90_U5EVU6	F D V D K D G N I S N E K I L I S F R D C A E K I L P D G M T I D A E G N L Y		
UniRef90_KOETW0	D A F D Y D L D T G T F T G R R T F A R F E D G D P D G L T V D A A G G W V W		
UniRef90_G7G3K7	Y Y L N S N G G V I S K S L F Y Q L P P I A K H G K G L P D G L K V H K S G I I		
UniRef90_F7Y7S2	C D P A T G L P A G E P K I F V D H R S A K G Y I D G S V L D R D G I L W		
UniRef90_V4PSV5	Y V F D M A A D G S L S G K R V F T K F A E D V G S P D G L T V D A D D G I L W		
UniRef90_Q5LQD3	F P I D D D L P H H V R V F D V D G V T L S N G R V F A V V A P G A P D D G F R Y		
UniRef90_Q07Z85	Y D V P Y H N G V L E W H N K I V F D D L S S T N A A H D G G A I D V F G Q I W		
UniRef90_K8X3E2	Y A Y D F D L S T G D V S H K R I F T Q F S S T D N A A H D G G A I D V F G Q I W		
UniRef90_R0FKH5	L K Q P L D H E G W P K G E P G V F A D P G S E G F N P D G S V V D A Q G G L L W		
UniRef90_UP100035F2D66	R R Y A Y H S S A G T L S E R T L F V D T T S L K S G P D G A T I D A D G N L W		
UniRef90_M5H1D5	Y R F D V D S T G S P I G E S V L F F D Y S S S A V S P D G A V I D S E G N M W		
UniRef90_G4QF45	T A F D I L E N G E L T N R R E W A A T G A R A P D G I C M N A D G Y I I W		
UniRef90_G7W8B1	Y V A D H G A K R M D A D G T N I V T L G T G F S N P N G V A V A D S S G K I Y		
UniRef90_Q0B5V6	L V C D Y G R A G V A G V R P F A R L T D A D G D P D G S T M D R D G G G L W		
UniRef90_B8GF92	R V Q K F T S T G T F T K W G E G S G A G E L N H P H G V A L D D D A G N V Y		
UniRef90_D1A9K8	A S H D G T I T R I W D T T T G Q T L H T L H G H T D P I W D L A W H P N G H H L		
UniRef90_UP100034C056E	G S N D Q T V R L W N P N T G Q C L Q T L S G H G D C V W S L A W S P D G Q T L		
UniRef90_I3X5G9	F E F D A A T G A I G R P Q R L R D F T A E E G R P D G G A T D A S G F Y W		
UniRef90_A6VXT0	Y Q F D Y D L E T G T A T N K R V F I Q F P H G N G R P D G A A V D S E G N Y W		
UniRef90_T1IM05	R I L I I M P D L Q T A R C I G S E G T G E L Q F R R P Q G I A V D G E G H I		
UniRef90_V6KJC6	L R L I D E Q G E V T S R H T A I R V D A G Q A Q T D S I A V D A D G N L Y		
UniRef90_UP100030B5AAD	L D Q D T G W P I A E P E L F I D H S E N F R E P D G A I V A A N G D M I		
UniRef90_Q2CJ62	A R F D F D M A R G T L G P R R N H L V L P A G Q L V D G L C V D A E G G C V W		
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UniRef90_U6ZGI3	F C C D Y H T F R N Q R F T E V E G G G A P D G S C I D A Q G Y L W		
UniRef90_J2JWNU6	W V F D F D L D D G V I R N R R M F A D Y S A S Q Q R P D G A C V D V S G G L L W		
UniRef90_UP100036D1282	E G A R A I L A F P V K W D R R L G E P R V V A D A G A P D G L A I D E A G R I Y		
UniRef90_UP10003B75246	V S F D I E E N G N L S S N K T T V A E F G L G T Y P D G L L T F D T E E G G I I W		
UniRef90_UP100034561F8	S R L R V R P D G S L G E R Q V H G P A D L G G F P D G F A I D A H G N L W		
UniRef90_Q0C8R1	F S P D G R L L A S G S T Y T A L Q R T L K G H T S W I P S L A F S P D G R L L		
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UniRef90_C3ZU06	C V H V Y N E N R Q F L F Q F G G E G S G E G Q L K H P R G I C T D R A G N I I		
UniRef90_B4GXG5	Y D F E T G V S S N P K V I F N L R K T S P K D H L L P D G L T I D T E E G N L Y		
UniRef90_S7ZIX8	F A F D F D A A T G T I S N R R V F F D V G G D S L E P D G F A I D A E G C L W		
UniRef90_B9R181	E C Y A F D A A T G S L G A K M L F A Q Q T N A T P D G A T V D A N G N Y W		
UniRef90_E5WKV2	L K Y N T N G S L V S K W G S M Y G T G G P F G F F V P R Q I A V V D R Y D N V Y		
UniRef90_I1NQZ4	F R Y W L R G T K A G E Y E L F A D L P G Y P D N V R R D T K G G Y W		
UniRef90_B8GI56	R V Q K F N S T G S Y L T Q W G M T G S G N G Q F D Q P C G V A V D R F G I V Y		
UniRef90_Q1ITZ9	L A V P V A G G K V T G K A R V Y V G S G L H S V P D G A A L D A T G N L Y		
UniRef90_M1W896	Y V L D Y D P S T G D A T N Q R L F Y R H P T S G E P D G F R I D V D G N L W		
UniRef90_UP10003AD27A8	S A F D V T G D G R L V N R R T W A R F G P L P T D R P D G A C L D A G G G L W		
UniRef90_C7RS72	G S F D Q T L R L W D A E T G Q E L R S F A G H Q S W V T S V A F S P D G R R L		
UniRef90_G8MM28	T A F V R D G D G A L S E R R V Y A D L G E R Q P D G L I C D H E G G I W		
UniRef90_UP10002FEEBE66	H C L A L D P R T G A L G P P Q V F V P A G V V P G K P D G A T V D A E G F L W		
UniRef90_C5AJ05	M V C D Y R P D G P V A K V R P F V A L A D A T G G P D G S T V D A E G G L W		
UniRef90_D7TER5	T R Y W L Q G Q K S Q L S D T F T Q L V G C P D N I Q R N I H G E F W		
UniRef90_W0AGY7	V Y L T N G S E N R T Y S G V V G A G G T V T G L K P F A E R A S D G A G R V Y		
UniRef90_H0DJS8	L L E D G K T I A P F G A K I P Y Y F T G H E G P D S C C I D S D D D N L Y		
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UniRef90_M9RFM9	L A F D Y D S K L S G R R V L T S F E G E P G L P D G S S V D A E G G V W		
UniRef90_Q986F6	Y H W D R V R S R I T D R R P F F S D F S R G L P D G S C M D A E G Y V W N C R		
UniRef90_G0IUW1	L A N L P Y N D Q N R A T G N L P D G M A I D A D G R L L		
UniRef90_UP10003683204	A S K D N T V R L W S P A T G A A V R T L E G H G D W V S A V A F S P D G R L L		
UniRef90_A6G8R5	F A Y P V N A D G S T G A G S Q V N G I F G G F D G M T K D C A G N L Y		
UniRef90_Z5XKV0	Y R F S L S A Q G E L S N K H A F I R F T D S M G Y P D G M T V D N D D H L W		
UniRef90_D2S8W1	H A F D Y D L G S G A F G D G R V L L R F D G D D G V A D G L T V D D E G C L W		
UniRef90_X0SCB3	T A F N I E P D G S L T G R R I W A E I E Q A V P D G I C D A E N A I W		
UniRef90_K9VG83	G S F D N N I K L W D R H T G C L R T F T G H E Y S L L S V A F S P D G Q C L		
UniRef90_A9GAC3	A G N D S M V R L W D T R T G K E L T R L E G H S N W V L A L A W H P D G N R L		
UniRef90_UP100035ED1AB	L D Q L T G W P L N E P S I L I N L K A Q G L H P D G S I C D S Q G Y I W		
UniRef90_H3RJJ4	M C C D Y P S L D H Q R V F T E T T G G D G A P D G S C V D A M G Y V W		
UniRef90_G0RJB3	F A F D Y A P E T G A V S N Q R L W Y R H E G P G E P D G F R V D V E G N V W		
UniRef90_E7F959	S V K V Y V S A D G E F L F K F G S H G E G N G Q F N A P T G V A V D V N G N I I		
UniRef90_F6HYV0	M K Y W L E G P K S G I V E L V A N L P G F P D N V R L N E R G Q F W		
UniRef90_F6GTG0	R K F W L Q G P K A T T S E I L K E F T V R P A N I K R N E E G E F W		
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UniRef90_A3GGF4	Y A T N T L S N R R P F I E A K K F F P D E A S P E P D G F T M T K D G H I Y		
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UniRef90_J5QF62	H R Y W L E G P K A G T A E C V I K D M P G Y P D N I N R A S D G N Y W		
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UniRef90_UP100047B42CE	Y D D P A S G A V S N R R I H V R V D P S V V G G A P D G S T V D A E G G C L W		
UniRef90_A1T5E8	S K Y W L T G P D A G N V T P L A V N L P A M P D N L S T G A D G R I L W		
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250 260 270 280

V A T F S T G K	V L K I N V K T R K	V E L E I K L P A Q Q I T S C A F G P N R D	
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UniRef90_K8X3E2	S V L F D G S A	I A R I S P N G D D I Q F C S L P V K R P T S C C F S E N G Q	
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UniRef90_A6VXT0	S A L Y Q G Q R	V V K I S P Q G K I L E E Y P V P A T Y P T M V A F G G E M T	
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UniRef90_Q986F6	V A G G G C L	V R V I S P D G V L D K V V E L P C S W P T S C T F G G E N D G	
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UniRef90_Z5XKV0	V A A W N G Y G	V Y R F S P R G E Q V Q F L R I P A P R V T S V A F V G E L E	
UniRef90_D2S8W1	T A L W G G G Q	V R R W S P D G E L L A V V E V P G A Q T S S C A F G P G R D	
UniRef90_X0SCB3	V A S P I S A E	V V Q R L H E G G E V T H R V K V L T Q A F A C M L G G S D R R	
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UniRef90_A9GAC3	A S A G D D Q T	V R L W D A G Q G E E L A R L E G H I N G V L A L A F H P L G N	
UniRef90_UPI00035ED1AB	N A Q Y G A S R	V A R Y S P E G W L D R V E E V P V S Q V T C P S L G G K F D	
UniRef90_H3RJJ4	N A E W G G N R	V V R Y R P D G T T D C I L P S P G I Q S T C P A L A L G E F T	
UniRef90_G0RJB3	H A V W G E G A	V L K I D P Q G R V I G R I A L P T R H I C V Q F V G T	
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UniRef90_K9DKU5	A A D A I N N L	V R R I T P E G S T T L R T G D L P G S L V R G I V T D G K G N	
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UniRef90_D3PMJ7	I T L I F L D	K L I A I T P E G G T L T P E I M A A C P W M A S L T F G P D L R	
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UniRef90_J5QF62	M A W L G M R	T P S F D L S L R H P A M R K R M T R R L P Q D E W L F P N I N	
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UniRef90_UPI00047B42CE	S A R V C Q G K	V V R H C P D G S V D R V I D M P V K N V T S V M F G P S L D	
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UniRef90_K9QSN3	A S G S A D Q T	I R L W D I K T S Q C W K I L Q G H T S A V A A V A W S P D G R	
UniRef90_D6X308	V A D S G N N R	I Q I F H P D G T F L R G I L G K E F K G L E G V A M T P N G H	
UniRef90_B8GHS3	V V D T G N D R	I R Q F N S S G G F I T T G G S F G H G D Q F W S P E G	
UniRef90_D3F381	V A D P V G D A	V L R V A E G G A I L D R V P T G E L G S Y A V A L G G N R R	
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UniRef90_V4PID9	V A H W G A G R	I T R F K M D A T E D F H I D L P A K Q I T S M T F A G D L N	
UniRef90_I0IJ02	V A L F E T G R	L V L S P D G E P L A I A D A G E R T S N V C L G H D Q R	

290 300 310

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

E I I V T G F E F I D G L T K D S Q G N I Y F C E Y R I R
A A I R T I G T Q L Q R P E C I L A Q R D G S L L T A D A R G G I
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P L S D A K V S Q L N E G A I G P E S F A F D S L G E G P Y
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C L L G E G P L W H P G R G E L F W
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P L P D G V T S A E S L A F D R R G Q G P Y
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T L E D H L S W V Q S V A F S P D G R L L A
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UniRef90_D8G6G1	S G S E D G T V K L W K T N L N S S G P Q C S P I T L L G H A G W V C S V A F S P P		
UniRef90_Q0TXM2	G P A V S V T M Y T F H N T Y D S V N C I D F S G		
UniRef90_UPI000440996A	S G A W D N T I R I W N T E S G Q C I S G P F E G H T D V V Y S V A F S P P		
UniRef90_B9V0U1	S G A V D R T V K I W D P A S G Q C L Q T L E G H T G S V S S V A F S P P		
UniRef90_UPI000372D7B9	D N T A R I W D T T T G E T L H T L T G H T S P V R G V A Y S P P		
UniRef90_Q5ATB2	D N T I K L W D L A T S E L Q Q S L E D H S R S V H A V A F S P P		
UniRef90_E4TH64	W D I T T G R E I K T F S G H T D Y V K S V A I S P		
UniRef90_UPI000428EE7F	D H T I M L W D I N S G E C L K V F Q G H D D G I R A I T V S P		
UniRef90_K9WA86	D R T I L R L W N A K T G Q C L K S L R E L S P R I V S I A Y S P P		
UniRef90_Q2HFK4	D R T V R L W D A A T G A H Q Q T L K G H S D S V S A V A F S P P		
UniRef90_Q7PTB5	A D S S N H R V Q V F D S N G L F V K E F G Q G N G D G E F D C L A G V A V N R		
UniRef90_B8MPL3	S G S M D R T L N L W N T S S G A L Q Q T F M G H S C V L T V A F L S		
UniRef90_C3ZG89	D L L Q N F R I Q V F T L Q G T F V R Q F P T A V P G K H M I L P Y D V A L D G		
UniRef90_Z9JV80	V D L L A G D V M S L R E D G S A E R R A T		
UniRef90_V4NHZ2	H R I Y R W S H A R A L E V V S D A A L D P V N L A V A D A		
UniRef90_N6WTN9	S D F Y S H A V S R I S A D G K M E T V C E V P G Q P S G L G W L P		
UniRef90_UPI000316538E	E G K I Y R I T P A G A V S D Y A T I P S S A A G L A F D R		
UniRef90_Q7ND85	H D R T V K L W N P A T G R C L A T L A G H G D W V V S A V A F A P P		
UniRef90_G4TUZ7	S G S A D N T I R L W D A E T G R P I G D P L R G H E D S I L A I A Y S P P		
UniRef90_D5W7G3	A F G P D G Q R V V T A S R D R T A R V W D V A T G S G H R G W V Y F A A F S P P		

	90	100	110	120
UniRef90_B5WAN0	D G N I V I A N F G T D A I E L M T R D G A S R T L Y D S I D G A P □ G K T N			
UniRef90_UPI0003B7943E	Q A G G F V V A T E R G F S L F D D H F E R E R S V P D V L G D D G T R M N			
UniRef90_UPI00035F6848	D E N V L L L A S E V N L F L Y D L N E R T E K H L I D L E K D K P E N R S N			
UniRef90_UPI0003488726	D G S L L A S G S E D R T V R L W D I K T G L V W S V A F S P N G D H T V R L W			
UniRef90_F4XNH8	D G N K I L S G G D D N S L R L W D T E S G H V T S I A F S P D G N K I L S G G			
UniRef90_D5ZY56	D G R L Y L S S D F A H G E I V S L A P D G S D R R T F F T G E V D G A R M R P D			
UniRef90_F2UD09	D G T R V V V S G S I D A T V R V W D A R T G E Q L T Q C E T S V G F S P D G T R			
UniRef90_R9WVZ5	N G R V I A A D S G T G R I Y D I S K G G T A S E S N L I F T G V P H P			
UniRef90_UPI00037388B8	D R A L F A C D S R Y R H A V F R L D L A D R S L A R F T A P G I Q V P N Y A V V			
UniRef90_UPI0004154409	K D R I Y V V S N M A D N G I Q E V D P A T G K A K Q I I M G K □ A L P G			
UniRef90_A0A024KGS2	D G R L L V V N A R R N L L E R E A D G T F A V H A			
UniRef90_UPI0004720EDC	D G R R I F H C E H G H R A I S C S R G A R N P M V V A T H A S G Q R □ N A P N			
UniRef90_A0A022L8A7	A G W L V G V D R R V V H V G D G V V S P L T G D I A G P G D Y M N			
UniRef90_W0HX82	E R R E L F F L L V S D Q G I L L Y H W E D C Q A P P A L L C P Y P			
UniRef90_UPI0001F29A83	T D E T I R I W D V R T M D C V F I L E G Q F S V I L C W S P D G S R L A S M D			
UniRef90_D7BXH8	D G R T L L A S G S E D T T V V R L W D V A T G K L R T T R T G			
UniRef90_S4XTS6	D G Q R I V T A A S Y D R T A R V W D A D G T G E L L V L R G H E N N A A A F S P			
UniRef90_B6TT85	Q S G D L Y Y V A D A Y I L G L L R V A A R G G L A Q V V A T E A A A G G P F N F L N			
UniRef90_UPI000225C14E	A G T T V Y Y V A D S Q N G V I R K I D T S T R V T S I L V A G S P G A L N A H V			
UniRef90_I1QC49	R T G D L Y I A D A Y A K M L M R V G P R G G E A E V L A A G A D G V P F N F V N			
UniRef90_F4FA67	A G Y D L V V A D T V N H L L R G V R L R G S G E V V T V A G T G R Q W R S T V			
UniRef90_A3VAF8	N L L F V A A S E T Q L F T F D V E T A K V N T V V Q L D A D N P A T R S N			
UniRef90_UPI0004571CC8	D G Y I I I A D R S R N N R I Q V F T P S G T F H K F G S A G A R S G Q F D R P A			
UniRef90_R5M1G3	Q D N L I V V T K Y I S P G Y K N D D T R N D N Q P L F G W R G G G □ W G F T			
UniRef90_UPI00034A0832	Q G N V T I A N I G T D R V E R L M R S G E M R V L L D K I D G R P M G K V N			
UniRef90_UPI000429554E	T G G G A V V A T E R G I A L G R A E D L S D L A E V V A L W D D P T V R T N S			
UniRef90_A9FTS8	A M R L W K V E S G H V L R V F E G H G N W V N S V V F S P D G R T L A S A S S			
UniRef90_UPI00031F473F	N G Q T L A S S S D H A V V R L W D T K T N W V Y S V V F S S D G Q T L A S S S			
UniRef90_B9IHS1	T H G D L Y I A D A Y A M G L F R V G P E G G L A T K I A T H A Q G I P F R F T N D			
UniRef90_R7RXE7	D D H S R I W D V S M G E E V Q K L R G H T D W V N S V A F S P D G I H S T D			
UniRef90_UPI00030C4D3B	D G T L L A S G S K D H T V R L W D V Q T Q L K T L T G H C S R L L K V I F A A			
UniRef90_G4TJH0	D G S L I V S G S E D R T I T R L W E V D T Q G T L R E P L R G H A G S V R A V T			
UniRef90_C5YSG3	R T G D L Y I A D A Y A H G L L K V G P A G G E A K V V A A K A D G G A F T F V N Y			
UniRef90_C3Y6V0	E G Q I F V A D Y I N A R I Q A F T I D G M F V N K F P T T T S G G Q K I F P Y			
UniRef90_UPI0002DB37A2	G G D R L L W D S T S G E C L H I S Q G H T N W V S S V A L S P N G A T L A S G S			
UniRef90_F4XZ35	D G K T L A S G G G D H V V R L W D T S T N E C L K T L H G H S N Q V F S V A F			
UniRef90_D7TY23	A T C D L Y I A D A Y F G L L V V G R K G G L A R Q L A T S E G I P F L F A N			
UniRef90_M7AF04	D G T Q L V V S M R D K R V L A V A A A N G T T S C H A D L S G L A R G A T N			
UniRef90_X5ZXH2	E R G G F V L G F P K S I V I T D P T F T D F S Q V A E I E P H L P Q T R I N			
UniRef90_UPI00021A5590	Q G L V Y V A D S Y N H R I Q K F S P D G K F V G Q F D N K G F G P G Q L N I P			
UniRef90_C5Z4T0	M T G D L Y I A D A Y A M G L M K V G P D G G E A Q V V T Q A D D D G K P F H F V N			
UniRef90_W1PP35	K S G D L Y I A D A Y H G L M M V G P Q G G I A T P L A T H A E G E P I L F A N			
UniRef90_B0C7J1	D G Q A L L T W E Q G R C R Q T W K A H E N W V V W S V S C R P D G Q V L A S G S			
UniRef90_A7RLP9	D G T L I V S D W D N H R V Q M F S P E G K F V K I I G R K G S E N G N F L H P S			
UniRef90_E8XU34	V L L T E K R N Q F L L V S V D G I H L Y E Y E Q K T R Q K L C			
UniRef90_I4FPF6	S G N I Y V A D T D N N R V Q V F N S S G V F Q S F G S Q G T V N G Q F Q G P Y			
UniRef90_A1WEN9	D G R L L V V S M R D R K L M R R E A D G R L L V H A D L S A L A G G H A N D M			
UniRef90_M4DHG6	K T G D L Y V A D A P L G L H V I P P A G G L A T K I A D S V D G K P F K F L D			
UniRef90_UPI0002DF116C	D G R V I A L A S S S Y T P U T V K L W D I A T G Q L L H T F P E H A M S V A F S P			
UniRef90_U4UYF1	D D Q L L M I A H E T S L L F N L K S R E S E K I V D L E A D D P I T R S N S			
UniRef90_UPI00034A77D5	D G Q T V A T G S W D R T V K L W Q L D G T L L E T L S G H T D S V N S V C F S			
UniRef90_H0B486	D G T R L V I A L R D G A A V V W R E D G H G T E A L S H V S W S P D G T R I A			
UniRef90_E3FYB2	D G T R I V T A S D D Q T A R I W G W D G H S V Q L L A T L Q G H R K M V R S K			
UniRef90_G6FZT5	D S K T L A S G S D D Y T I T R L W D I P S G L R T L E G H T G W V R S V A F S P			
UniRef90_F4XTC0	D G K T L A S G S A D H T V K L W Q V S D G S C L Q T C T G H T D E V F S V A F			
UniRef90_UPI000234FD50	D G G I V I V A D A D K G L L R V G L D K S V E L L T D A A E G L R F A L T D			
UniRef90_UPI0003644B1A	D D D T L L V A S A D G L Y R F T L S T G D S D L V A P L E A D N A V T R S N			
UniRef90_UPI0004653E53	D G R L L I C D S P R G L L A L D T A T G R I E T L V T S I A G R R L L T F C S			
UniRef90_E0ULM4	E D Q T I K I W D V E T L Q Y I K S L Q G H T H R V W S F S P D G Q T L L G S Q E			
UniRef90_S8CY33	K T G D L Y I A D A Y Y G L L V V G P E G G L A I P L S N N V H G K P L L F A N			
UniRef90_UPI0003B73A96	A G N L I V L S A L G R N V Y A F K P G T S A Q A L T V I P T A A A T T P A P			
UniRef90_G4N2N4	K P G S Y L C A Y Y Q G V A F M D E A T G R L Q V V K E I P T Q E R H L R R F			
UniRef90_D7BTU4	D G R T L L A T G S N D T A R L W D V T T G R P R T T L L T G H T K G V			
UniRef90_Q8TLB7	A G T R V Y V H D Y T D I F V I N P A T N T L M A P I I V G P S T Y G I A F T P			
UniRef90_UPI000371D8AF	D A D T L I V A T Q T A L I R F D L R D G S Q T P L C P L E A D N P V T R C N			
UniRef90_F7RNX3	K L G V L L M G L A S R L G F Y D L N T R I F T E V V V S S P G A A G T R I C G			
UniRef90_UPI00047E4C74	D G Q T L L A S G G D D Q T V R L W H I S S G F H T L Q G H I N W V N S V A F S S			
UniRef90_C5XON2	M T G D L Y I A D A Y A M G L M K V G P N G G E A Q V L A T Q A D G A P F R F A N			
UniRef90_C3ZU51	N G T L L W V V W G R G K T A H H V V Q Y S T D G T A M A G F D M K K S I Y F R G I			
UniRef90_Q2UTF4	T G G Q L L S I F Q G R P N I R H W H T D Y I H K L V W S P D G N Q L A S G S G D			
UniRef90_S7RLI7	D G K H V S G S D D N T I I R V W D A C T G Q A V G D P L K G H K A S V R S			
UniRef90_Q7Q9P3	Q G R I I I V V D K D N H R V Q V F S A G G G L F L K F G S Y G K E C G Q F Q Y P W			
UniRef90_D8G6G1	D G T T L L A S A S S D Y T I K L W D A S S G L K T L L G N P R W I R S I A F S P			
UniRef90_Q0TXM2	D N N L V V A V G M S E S Y I R V W A M D G S P L T S P D D L P N A Q P S S S R R			
UniRef90_UPI000440996A	D G K R V V S G F G D R T V R I W D V A T G Q V V C G L F E G H T H S V L S D D			
UniRef90_B9V0U1	D G Q R F A S G V V D D T V K I W D P A S G L Q T L E G H R G S V V S S V A F S P			
UniRef90_UPI000372D7B9	D G T R I A T A S R D N T A R I W D T T T G E T L H T A Y S P D G T R I A S D D			
UniRef90_Q5ATB2	D D K Q L L A S S S L D S T I K L W D S A T G E V R S V T F S P D G K L L N S Y D			
UniRef90_E4TH64	D G R Y I V S G S W D N T I K L W D I T T G R E H T H F V S V A F S I L D G R Y			
UniRef90_UPI000428EE7F	D G K M L A S G S E D Q T I K L W D V S T G T F Q G H F N E V Y S V T F N S Q G			
UniRef90_K9WA86	D G H I I A T S C Y D T S V K L W D A T T G W S W G V A I S P D G K T L A S S S			
UniRef90_Q2HFK4	D G K T L L A S A S D D I T V R L W D A A T G A H Q Q T A F S P D G K T L A S A S			
UniRef90_Q7PTB5	I Q G F E I A D A R Y N H R I Q V L D P A G E R L R S F G S Q G T T			
UniRef90_B8MPL3	D G R L L I V R L W D T G A L R Q T L E G H L V E S V A F S P D G R M I A S G S			
UniRef90_C3ZG89	K G N L W V V A I E S V E F A V Q Y D K Q G R V L R K F K L K A I K S A Q P K G V			
UniRef90_Z9JV80	R A G G G A V L A V E K G F A L E D P E G A V T V L P L W D A A I R M N			
UniRef90_V4NHZ2	S G H L M V L L S S D G P D A S V Y S L D P W T T P V A P H P E A L T A L P G N I			
UniRef90_N6WTN9	D G S M L I V S M L D H R V L R R W P D G R I D T H A D L S E F A T G H A N			
UniRef90_UPI000316538E	Q G N L L V V A G V A E D K I P T L Y R I K			
UniRef90_Q7ND85	D G R S R I V S G S S D R M I R L W D A D T G Q P H R N W V I S V A F S P D G L N			
UniRef90_G4TUZ7	D G R R I V T T S A D Q T A R V W N A A A G K Q Q A Q L S G H Q G T V L S A A F			
UniRef90_D5W7G3				

130 140 150 160

UniRef90_B5WAN0	F V L T D S K G R I W F T V T T R Q V P W T R S □ N E K T A D G Y V G L I D E H
UniRef90_UPI0003B7943E	D G G C D P Q G G S F Y C G T M A Y D E T P G A G A L Y R L D P D G R T Q R V F
UniRef90_UPI00035F6848	D G R A D P W G G F W I G T M G K N S E T E V G A I Y R Y F K
UniRef90_UPI0003488726	D P E G N C I R V L H G H T N R I W S V A F N P I F Q N G L G S I L V S G S
UniRef90_F4XNH8	D D N R L W D T E S G Q L I H T L Q G H T D F V N D I A F S P D G N K I F S G S
UniRef90_D5ZY56	D V A F D R D G N L Y V S D S D V W D A Q T G E Q L T Q C D G H T E S P D G T R V V S G S
UniRef90_F2UD09	V V S G S W D K T V R V W D A Q T G E Q L T Q C D G H T E S P D G T R V V S G S
UniRef90_R9WVZ5	Y G I I E Y Q G G I Y T T F S N N S M A G I A K I Q E G E K Y V R E K H T Y V T
UniRef90_UPI00037388B8	D R A R G R L Y V S D T R A P T D P G P S I W S Y D L A S G A G A V I
UniRef90_UPI0004154409	G I G V T T D N G K D T L H L A D V F A Y R T I D G A T G E V T E K A R M H A D
UniRef90_A0A24KG52	D L S N L S E R G C N E I V V A P N G D I Y V N N I D F E F P P G G E F R P G F I
UniRef90_UPI0004720ECD	D V I A L A N D G T V W F S E P T F G I E N P K Q G V P S R S E S G S V C C I G S
UniRef90_A0A022L8A7	D G G G D P S G R F W V G S Q S M P R D P H C T L W S V G P D
UniRef90_W0HX82	R D A A G T R P N E A A I A P D G S L W F S T M D V N E A A P L G G W Y R F
UniRef90_UPI0001F29A83	D N I K I W D T T S Q F K S □ T R G H D E L E S I T W S H D G V Q L V S L A E
UniRef90_D7BXH8	Q T D M V S S E A F S P D G R T L A S G G
UniRef90_S4XTS6	D G K R I V T A S E D G T A R V W N G H G A R V C S A E F S P D G K R I V T A S
UniRef90_B6TT85	G L D V D Q R T G D V Y F T D S S A T Y R R S D Y L L V V A M G D E T G R L X R
UniRef90_UPI000225C14E	D G T Y T T A R F A Y P T S V A V D S S S N L Y □ G D T L N H C I R K I A P
UniRef90_I1QC49	G I D V D Q A T G D V Y F T D S S T T Y P R R F N S E I M M N A D A T S R L L K
UniRef90_F4FA67	D D H A H D A L S V D L I S S P W D L A W Y D D K V V I A M A G H Q L W W F D P
UniRef90_A3VAF8	D G R A D P H G G F W I G T M G K F E P G V A A I F R Y Y
UniRef90_UPI0004571CC8	G V A C D Q S C R I □ V V A D K D N H R I Q V F T F
UniRef90_R5M1G3	Y V P K L Y S □ R P E N A D D S F Q V L P L V D M S Q V Q K P Q K V C Y L A N R
UniRef90_UPI00034A0832	F V L R D S K D R L W I T V S T R I N P W P D A I R S N L A D G Y I V L L D E
UniRef90_UPI000429554E	E G G C D P D G R F W I G S M S Y D K T P G A A S V H R W D G P G A
UniRef90_A9FTS8	D D M T V R L W E V E S G R A I L R V F E G H M V T S V A F R P D G R T L A S G S
UniRef90_UPI00031F473F	D A V R L W D T K T G E C F K I L Q G H T N W V Y S V A F S P N G Q I L A S G S
UniRef90_B9IHS1	S L D I D Q S S G A I Y T F D S S T Q Y Q R R D Y L S V V L S G D K S G R L M K
UniRef90_R7RXE7	K L V C I W D T T G E E V Q K L K G H T G W V N S V T F S S D G M H I V S G S
UniRef90_UPI00030C4D3B	D Q T R F W D L A S G D C I Q T I E T H V N W L L S A A L S P N G T T L A V G S
UniRef90_G4TJH0	F S P D G T R L A S G S D D D T I R L W E A H T G Q P V Q G P □ R G H
UniRef90_C5YSG3	G V D I D Q S T G D V Y F T D S S T S Y S T R R H N T D I M T N R D A S G R L M K
UniRef90_C3Y6V0	D V A M D G E G N L W W V V G H T E S Q T D Y C A V Q F S K D H T S S D L W Q F E
UniRef90_UPI0002DB37A2	G D Q T V W D T K S G E C L H I L Q G H T N W V S S V T F S P N G V T L A S S S
UniRef90_F4XZ35	S P Y G N W D C Q T Q G C L K T W Y G N T D W A M P I A F S S D G H T L A S G S
UniRef90_D7TY23	A V D I D Q K T G D V Y F T D T S T R F R F W G I A M E S G D N T G R L M R
UniRef90_M7AF04	D M L V D T A G R A W V G T F G F D Y A E □ E A D P A A D P L F G P G A N P P
UniRef90_X5ZXH2	D A A I D P Y G G I V L G T Y N E Q G R E P V G G L Y R I A P P
UniRef90_UPI00021A5590	D V E D Y V E Q S L □ K T G S P Q Q V L R S K K Q M M E
UniRef90_C5Z4T0	G L D V D Q A T G D V Y F T D S S A T Y P R R F N T E I M V N A D A T G R L L R
UniRef90_W1PP35	D L D I H R N G S I F F T D T S R R Y N R L N H F F I L L E G E D T G R L L R Y
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UniRef90_UPI0003B73A96	D R L T V L P G N L W V N F R S Q L D P A T Y R F T T L A E M F A R D V A L P K
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UniRef90_B9IHS1	L R Y W I K T S K A G A L E V F A Q L Q G F P D N I K R S P R G G Y W		
UniRef90_R7RXE7	G S N D E S V R I W D T S T G E E V L K L R G H T S R V N S V A F S P D G I H I		
UniRef90_UPI00030C4D3B	G S D D K T I R L W D M Q T R Q C L K T W Q E H T N Q V W Q V S F S P D G Q T L		
UniRef90_G4TJH0	R L W E A D T G Q P F G D P L R G H E V G I N A V A F S P D G S R I		
UniRef90_C5YSG3	F R F F I K G P K A G T Y E L F A D L P G Y P D N I R R D A K G G Y W		
UniRef90_C3Y6V0	Y V Y K Y N E R E Q L L V K F G G E G K G Q Q L S N P C G C S D D S G N I I		
UniRef90_UPI0002DB37A2	S S D D Q T V R L W D T K S G E Y L H T L Q G H E S N W V R S V A F S P N G V T L		
UniRef90_F4XZ35	G S T D N T I R L W D V S T G C I R T L H G H T D W V F S V A F S S D G K T L		
UniRef90_D7TY23	L R F W L E G P R S Q T R D V F A K L D G C P D N I E R N P K G E F W		
UniRef90_M7AF04	V G A D G A L G E R R T V V D L I S T A G V D G A A V L P D G I C V D A A D G I W		
UniRef90_X5ZXH2	R R F A L A P Q F A A L A E I R P L A G P N V A P G S P D G A T V D I E G G Y W		
UniRef90_UPI00021A5590	I A I D S Q G L M E S L W V T L V I K S L F L G Q L K E P H G Q V Y		
UniRef90_C5Z4T0	F R Y W L K G P K A G Q Y E L L A D L P G Y P D N V R R D A R G G Y W		
UniRef90_W1PP35	M R Y W L E G P K A G S M E L F A D L P G F P D N V R L N D K G Q F W		
UniRef90_B0C7J1	C G V D G T A N V W N I K T G D C L Q T F H E D N W I W S V V W S P D H R F I		
UniRef90_A7RLP9	V K F D A S G N H V M S F G T K G S G E G R L D R P A G I A I D P E G F I I		
UniRef90_E8XU34	F F S A N A R R I N P L K I S C F S S G D K I P D G S A L A Q N G W L I		
UniRef90_I4FP6	Q V F D D R G V F Q F A F G S Q G S Q G N G E F E S P Y G I A V D S R G Y I Y		
UniRef90_A1WEN9	A R A D W A K F G P L P E G S D L P A V K E Q I E V A P D G V A L D D A G A V W		
UniRef90_M4DHG6	K R Y W I T G P K A G S T E D V T S S V S N P D N I K R I G A T G N F W		
UniRef90_UPI0002DF116C	C S S D R T I R L W N A S T G E C I H I L S A H Q D W I W A T V F S P D G K T L		
UniRef90_U4UYF1	L D P K D G W P L G D P E V F I T L P E S D F R P D G A V V D A E G R I W		
UniRef90_UPI00034A77D5	F S P D G D G T V K L W R T D G T L L N T F G N G D W M T S V K F S P D G Q I L		
UniRef90_H0B486	L V I T G S R D R T I R L W D P F D A T E L A V H E E R V Q D V A W S P D G T C I		
UniRef90_E3FYB2	T A S E D H T A R L W D G R S Q G L L A T L K H E G S V V W S A A F S Q D G A R I		
UniRef90_G6FZT5	G N D D K S L K F W D I E T G E A Y K F L S G H T N R I R T I A M S Q D G S T I		
UniRef90_F4XTC0	G S N D H T V R L W D A R T G S C V S T H T G H S S G V Y S V A F S T D G K T L		
UniRef90_UPI000234FD50	S R Y H I K G D K E G M V E R F I D R L P G L P D N V R Y D G D G R Y W		
UniRef90_UPI0003644B1A	S D P D G W P E G E A E V W W D L S E K G P K V D G A V I D A A G N F W		
UniRef90_UPI0004653E53	S K Y W L T G P R A G S V T P L A V H L P A M P D N L S T G A D G R I W		
UniRef90_E0ULM4	S S S D R T I K I W D V F T G Q C L K T L R G H S H C V Y S I A I S R D N Q I L		
UniRef90_S8CY33	K Y F V E G P K M G R V E T L V N L P G F P D N I R R R S E G E L L Y		
UniRef90_UPI0003B73A96	F L S N E S E D R T Y S A R L G A G G A V T D L Q P F A D R V A S G P D G R V Y		
UniRef90_G4N2N4	Y R Y D F D V E T G S L A A N K H I F I D R R D S Y G E P D G M V V D T E G N L W		
UniRef90_D7BTU4	G S G D K T V R L W D M A T G R P R T I L S G R T D A V W A V A F S P D G R T L		
UniRef90_Q8TLB7	Y V A N N N T V S V I D T A T N N V I A T I P V G T S S R K I V I N P D G N R Y		
UniRef90_UPI000371D8AF	R C V A L A D D G W P Q G D P A V H I D L S A T D F R P D G A V V D A Q G N L W		
UniRef90_F7RNX3	C C C D Y P S L G N Q R I F V A L E G E G A P D G S C I D A K G Y L W		
UniRef90_UPI00047E4C74	C N N D Q T A R L W D I N S G E C I N I L Q G H T N W V N S V A F S S D G Q I L		
UniRef90_C5XON2	F R Y W L R G P K A G Q Y E L L A D L P G Y P D N V R R D A R G G Y W		
UniRef90_C3ZU51	Y V Y D E S G K F L F Q F G G L G S G E G Q L N R P A G I C T D S S G H I L		
UniRef90_Q2UTF4	V A L N G T A Q V W N P T T Q D Q L S I S G D G I K R A T D I A W S P D G S Q L		
UniRef90_S7RLI7	K Y S V Q S V A F S P D G K H I L S G M H I P D A M R V P S V A F S P D G Q H I		
UniRef90_Q7Q9P3	L L I D A T L S K V L A A K G H E G S A V H E F S R P S G I C C D D D D G R V I		
UniRef90_D8G6G1	G S C Q D Q T I K L W D I D T Q G C L Q T F W D H V S W V Q T V A F S P D G K F L		
UniRef90_Q0TXM2	G S N D R T A R L W S T D H I E P L R I Y V G H D A D V D C V A F S P D G N L Y V		
UniRef90_UPI000440996A	S G S Y D N T I R I W D V E S G N V V S G P L E G H E R D V N C F S P D G I R V		
UniRef90_B9V0U1	G A D D D T V K I W D P A S G Q C L Q T L E G H K G L V Y S V T F S A D G Q R L		
UniRef90_UPI000372D7B9	A S D D D T A R I W D T T T G E T L H T L T G S H T Y E V T S V A I S P D G T R I		
UniRef90_Q5ATB2	G S Y D D T I K L W D I S T G R E R T F K S H T Y E V T S V A I S P D G K L L		
UniRef90_E4TH64	G S H D C L M R L W D V S E G K C L K M F Q G H G A A I Q S V A F S P D G Q T L		
UniRef90_UPI000428EE7F	G S H D C L M R L W D V S E G K C L K M F Q G H G A A I Q S V A F S P D G Q T L		
UniRef90_K9WA86	G S A D D N T V K F W D V T T Q G C L K T L Q G H D S M V V I S V M F S S D G R H L		
UniRef90_Q2HFK4	W H R L S D D L H I R L W D A A T G A H Q Q T L K G H S D P V A F S P D G K T L		
UniRef90_Q7PTB5	Q I F D V V N G R V L T T F G G E G S E F Q G F K P R G V A V D D Q G Y I C		
UniRef90_B8MPL3	G S E D G T I K I W D T A T G A L Q Q N F E G R L E R V W S V A F S P D G R M L		
UniRef90_C3ZG89	C V C V C N E D G Q Q F L F Q F G G E G S G E G Q L K G P C G I C T D R A G N I I		
UniRef90_Z9JV80	V M D W D D A A G L V D R R P F A D V A S L G V D G H P D G L T L D A A G H V W		
UniRef90_V4NHZ2	V T I S N S S E G R I F S G K V G A H L K P L T D R G G E S V A V D A K G R L F		
UniRef90_N6WTN9	E L I D R R A W A A F G P R P R A E L L K Q L A V G P D G C C L D A E N H I W		
UniRef90_UPI000316538E	T Q R Q Q L L R I P I Q G D H T A G T P E R W L T N V N D D F A P D V N G T L Y		
UniRef90_Q7ND85	A G A D L S V K I W D A L S G Q C L R T L R E H T G S I R S V A F A P D G R L L		
UniRef90_G4TUZ7	S G S W D M T L R I W D A E T Q G Q L G D P L I G H E D D I N V F S P D G S R I		
UniRef90_D5W7G3	A A A D G T A R V W D A A T G K Q I A R F G G H Q R A V S S A A F S P D G Q R V		

250 260 270 280

UniRef90_B5WAN0	I T L L T E R L I A L T P D G E V L L A R Y E E H A P M M A S U T F G G D L R
UniRef90_UPI0003B7943E	V A L W Q G G Q V R R Y D G T G T T E V V E V P G T N T S A A T F G G D L G
UniRef90_UPI00035F6848	N A Q W G A S R I S K Y D L Q G N F K D H L S V Q A S Q T S C P A F G G S F S
UniRef90_UPI0003488726	A S G S E D R T I R L W N V D D S R C I H V L S G H T S R V W S V A F S L D G K
UniRef90_F4XNH8	L S R G D D N T V R L W D T G S Q G L L Y A L E G H K S Y V N D I A F S P D G K
UniRef90_D5ZY56	Q G L H G R P A M A V Y D R Y G E R L A T V E V P A E S A T N V A T P G G T
UniRef90_F2UD09	V S G S L D E T V R V W D A R T G E Q L T C E G H T R E V T S V G F S P D G T
UniRef90_R9WVZ5	I C E R G A G V I K R I H P N G G Y S R F A E P L G F R D C S C I R F T K D G K
UniRef90_UPI00037388B8	V S C Y E P S R V L R I P A G G G A A E I Y I E D A T A H P T N I A F D G A
UniRef90_UPI0004154409	V A E L G T K S L V R V S G E H G K D R T T L I G G L E G P V G L V G G S A G
UniRef90_A0A024KGS2	T S L G P R A V R V R E G G E I I E R I E L D R F C F A T M L G G E D G R
UniRef90_UPI0004720EDC	V W S S S G V G V E V F N S S G L H L A T V P T P H C S N C E F D H E Q N R
UniRef90_A0A022L8A7	V A V W D A S E V R R Y S P A G E L V E T I S L P A K R P T A V A L V I D R
UniRef90_W0HX82	N A R F G H G C L S R Y R R H G T L T L H V P L P V T Q P S C C A F G P G G T
UniRef90_UPI0001F29A83	A S A S A D S T I R V W N P T G N Q L S I S G D H I K R I T Y I A W S P P D G S
UniRef90_D7BXH8	A S G G A E G K I W L W D V A T G E L R A T L T G H T N A V G S V A F S P D G R
UniRef90_S4XTS6	V S A S A D R T V R V W N A D G T G R P L I L R G H E A D V F S A E F S P D G R
UniRef90_B6TT85	V A L S S G
UniRef90_UPI000225C14E	I G D T G H H N C I H K T Y P D G T T L L A S I D V P F N A P W Q I A T D P T T G
UniRef90_I1QG49	V A L N Q E K V R L D A T A A V A P P A K H L V G V R L D G D G V
UniRef90_F4FA67	L A D T Y N G A V R R Y D P A T D E V S T V A T D L A E P S D L A L T P D G A
UniRef90_A3VAF8	N A Q W N M G R V A R Y L P D G R F D Y A V E V P A R R A T C P A L G P D L K
UniRef90_UPI0004571CC8	V T D F N N H R L L V I H P D F Q S A R G T S N Q F L R P Q G V A I D Q E G R
UniRef90_R5M1G3	V V T D Q T G N V Y V A N G D T S K P I G T I E V P E R T S L L I S G D
UniRef90_UPI00034A0832	C A M F A D R L I A I D P G G G E I V A T G G T I A P W L T S V T F G P D L K
UniRef90_UPI000429554E	V A L N G G G A V R G Y D A E G R L S E T V E V P V R Q V T A C A F G G E G E
UniRef90_A9FTS8	A L E P N D T T V R L W E V E S G R V L R T L L G G H G K A V T S V A F S P P G G R
UniRef90_UPI00031F473F	A S G S D D G T I K L W D L K T G Q C C N T L Q G H H T N R V Y S V A F S P D S G
UniRef90_B9IHS1	V G I N S K S E L L L F S Y P W I G K V L L K L P D I T K F Q T A L A K Y R G G
UniRef90_R7RXE7	V S G S D D W S V R I W D A S T G V Q V Q R L E G H T S W V N S V A F S S D G T
UniRef90_UPI00030C4D3B	V S G G E D Q A V K L W D V A S G H C L T T I T S H R N W V V A I A F S P P D G R
UniRef90_G4TJH0	V S A S G D G M I R L W E A D T G Q L L G E L K G P Q L G V N A L A F S P P D G S
UniRef90_C5YSG3	V A L N
UniRef90_C3Y6V0	V A D S G N G R V E M F D K R G V F V R H V A M G M T R P C A V A M A T A G Q
UniRef90_UPI0002DB37A2	V S S S D D Q T V V R L W D T K S G E C L H L Q G H T S W V V S S V T F S P N G A
UniRef90_F4XZ35	A S G S A D H T V K L W D V S T G H C I R T F Q E H T D R L R S V A F S N D G K
UniRef90_D7TY23	V A Q N
UniRef90_M7AF04	V S D P V S G R A L R F D A A T G T L T E V V T T S Q P C F A V G F C G D D L R
UniRef90_X5ZH2X	S A R L R G G C V V R I D R N G H L T D H V D L P S M A P T C V A L G G N M R
UniRef90_UPI00021A5590	I A D R D N H R I Q V L N P D L T F S E G S A N G Q F Q Y P T D I A I D S Q G
UniRef90_C5Z4T0	V A L N Q E K R D A T A P P A K H V G R L G V D G A A V E E L T A G K G V
UniRef90_W1PP35	V A
UniRef90_B0C7J1	A Y S T A D G N I K F W D T K T W K L L Q T L T G H T A Q V T R D F S P S G R
UniRef90_A7RLP9	I S D F Q N H R V Q V H S P E G E F S E G N I E Q G F K P F S G I A L T L D G H
UniRef90_E8XU34	T A C C W G S K C L L R Q Q I N Q G E L L T T Q P V P V T Q P S C C T F G P D M T
UniRef90_I4FPF6	V T D T F N D R V Q V F D D R G V F Q S G T G N G E F S S P Y G I A V G S R G N
UniRef90_A1WEN9	L A D A G H R V L R V A R G G R V L Q E V S T G R A M R A Y A C A L G P D G R
UniRef90_M4DHG6	V A S V K N K V V V P T D P S A G K V L V Q T I S L
UniRef90_UPI0002DF116C	A S C S C S D D G T I K F W D V T T G E C L H E V A A N W I M S L A F S P D G R
UniRef90_U4UYF1	□ A H Y G H A K I T C H D A D G K L V D Q I K M P A N C I T C P A F G G D G T
UniRef90_UPI00034A77D5	A A S G A N A T V K L W R T D G T L L G S L S G H A D K V W D V C F S P D G E
UniRef90_H0B486	A S V S Q S D R T V V R L W D P D S A T Q T A V L G V H A D R V I S G L A W H P D G S
UniRef90_E3FYB2	V T A S S D G M A R I W D G R S G Q P L A T L Q G H Q G T V V R S A A F S P D G A
UniRef90_G6FZ75	A S G S D D D Q S I K L W D V Q T G Q L L K T L V D H T D R V L C V A F S P D G D
UniRef90_F4XTC0	A T G S G D H T V R L W D Y H T G C L K T L H G H T N Q I F S V V A F S P E G N
UniRef90_UPI000234FD50	I A L S A G R T L L W D M L M G S P L R
UniRef90_UPI0003644B1A	T A H W G A G Q V A C Y D A S G T F Q E A D L P A Q T T C P A F G G E G R
UniRef90_UPI0004653E53	C A M V T A D R L A A G P P L M R K L I W R L P E P E A V V V A V A F D P D
UniRef90_E0ULM4	I S G G G D Q I N L W D I N T G I C L K S L P K Q P K W I W A V R L S P D G Q
UniRef90_S8CY33	W C R T A A Q E L L V R R P W M R S V Y F R L P P M R Y L A R M A G M R M Y T
UniRef90_UPI0003B73A96	I A N G Q V F V Y D A A G R P D R I D V P E R P L Q L F G G K D G R
UniRef90_G4N2N4	I A V W A S S R V M V F S P E G R H M K D V F S A R N M A C T T W G G D N
UniRef90_D7BTU4	A T G G G R D G K A R L W D V T T G R P R T T L T G H T G G V G S V A F S P D G H
UniRef90_Q8TLB7	L V I N F G S N S V V S V I D T A T D N V I A N V P V G E Q P M G I A V T P D G K
UniRef90_UPI000371D8AF	N A Q W G A H R V A G Y A P D G T F L E S Y S F A A Q T S C P A F G G D L S
UniRef90_F7RNX3	N A E W G G S S R I V R Y S P T G K T D C L S S A A T Q M T C P V I G G S G N
UniRef90_UPI00047E4C74	A S G S A D Q T V R L W D I N S G E C I N L Q G H T S W V R A V A F S P N G Q
UniRef90_C5XON2	V A L N Q E R A R L D A T A P P A K H L V G V R L G V D G D
UniRef90_C3ZU51	V A D Y G N E R I Q F T R H G E F A R T V R T G S G S P E G L A V G P E G Q
UniRef90_Q2UTF4	A S V A L N G T A Q V W K P T T S D H L S I S G Y G I K R I T D I A W S P D G S
UniRef90_S7RL17	V S G S D D K T I T L W D A H T G K P I G D L K G H H N D C I T A V A F S P D G K
UniRef90_Q7Q9P3	V A D S K N Q R V L V F S P Q L E F L W A V E I R P S S R P S D V A L P D G R
UniRef90_D8G6G1	A S G S C D Q T V K F W E I D S G E C Q W T L S A H T N W V W A I A F S P N G D
UniRef90_Q0TXM2	F T G S C D R T V R M W H I S G G N C L R L F T G H T G N V T A I A C S P D G K
UniRef90_UPI000440996A	V S G S L D R T V R I W D V E S G Q M I G P F K G H G G S V Y S V T F S P D G R
UniRef90_B9V0U1	A S G A G D D T V K I W D P A S G Q C L Q T L E G H H R G S V V H S V A F S P D G Q
UniRef90_UPI000372D7B9	A T A S G D S T A R I W D T T T G E T L H T L T G H T D S P V W G V A Y S P D G T
UniRef90_Q5ATB2	A S S S Y G E T I K L W D P V T G E L L Q T L N D P D E S A G S V A F S P D G N
UniRef90_E4TH64	V S G S H D K T I R L W D I T T G R E I R T F R G H D D W V N S V A I S P D G R
UniRef90_UPI000428EE7F	A S G S E D R T V R L W D V T T G Q V L Q T F H G H R A A I R S V A F S P D G Q
UniRef90_K9WA86	A S G S H D R T V R L W D V S T G E C L H K V L Q G H D N W V W S V A F S L D G Q
UniRef90_Q2HFK4	A S A S S D D R T V R L W D A A T G A H Q Q T L K G H S D W V R A V A F S P D G K
UniRef90_Q7PTB5	V A D S G S N N R I Q I F H P D G S F L R G S G D A E F E K G L E G V A M S N G N
UniRef90_B8MPL3	A S G S E D G T V K L W D T A T G T Q Q T L D G H L E R A R A V A F S P D G R
UniRef90_C3ZG89	V A D A D N S R V I E M F D K T G K F L K H I T T D M T G P C A V A M T P Q G Q
UniRef90_Z9JV80	V A L H S G S A V I G L D G E G R L A E R I E V G A R Q V T A C A F G G D L R
UniRef90_V4NHZ2	V A N G Q I F V Y D A D G K P L G R I D T P E R P L Q L F G G A D Y Q
UniRef90_N6WTN9	I A D A F N Q R C I R V A P G G D I V D E V R T P D G Q F A C M L G G E D G R
UniRef90_UPI000316538E	A T T H V Y N S V V S I S P A G E V T T I A T A A E G V T A L A F G A D R T
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90 100 110 120

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

	130	140	150	160
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170 180 190 200

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UniRef90_R4YW8	D D G T I R V W D P N D G T E L G R L E G H T N T V L S V G W S P D G T R L V S		
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UniRef90_UPI0004775F17	A D K T V R L W N I R N G K C L K T L E E H T N W V S S V A W S P D G Q T L A T		
UniRef90_UPI0002D7BA12	G K S L Q K V D T N Y V I S V G P A I S K N G R I L Y S T E S S S R T I		
UniRef90_UPI000363032C	Y D K M V K L W E L S T G N C L K T L Q G H S S R L W S V A F S P D T H M L A S		
UniRef90_A5URP9	R D S T V R L W D A A S G Q L L R T L K G H G S S H G S S V W V A F S P D G R L		
UniRef90_J4H548	D D K T I R V W D G E T G V Q L L P A L E G H T E C V C C V V I S P D G R C I V		
UniRef90_J4GN04	Y D K T I R V W D T H T Q G H T L W V T S V A M S R D G W K I V S G S Y D N T I		
UniRef90_K9TJ23	N D K T L K V W N L A T G E E E R T L I G H G S W V S A L A I S P D G Q R V V S		
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UniRef90_UPI000237AC49	K G E L R P L V R D V T I S N A I C F A P D R A C A Y Y S D T L T K Q V M R		
UniRef90_UPI000462A57D	V T K F G S R G T S E R Q F A G T L D G P H F V A V V N N K N E I V V T D F H N H		
UniRef90_M5AMM6	A G D L H N A N G L V M S S D G K N L Y L V E T E D N R I		
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UniRef90_C2YQD8	V M K K T I G N D R N G N T Q Y A G P Y D V E R D K N G N V F V S D S F N H R I		
UniRef90_B9TA48	G K R A G M A D G A G A Q A L F D T P T G I A L G A S G A L Y I A D T G N S A I		
UniRef90_G4TW87	T V S F S P D C S R I A S G S P N G T I H W D A D T G Q Q L G K P F R G H E G		
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UniRef90_D5G207	W F T L S S A D R V G R V T D G E V T E Y P A P G A F P S A L T T G S D G A L		
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UniRef90_A0A023XWH2	D D R T V K V W E A E S G R R L R S L E G H T G S V L A V A V S P D G R T L V S		
	D T K T G V T R T E L R G L K F P N G I C V A S D G Q S I L F A E T F G C S I K		

210 220 230 240

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UniRef90_B3RJ53	R I Q L F S P D G L F L N K Y G F E G A L W K H F D S P R G V A F N N E D N I V
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UniRef90_A5URP9	L S L D N T I R L W D A A S G Q L V R T L E G H T S D V N S V A F S P D G R I L
UniRef90_J4H548	S G S D D K T I R I W D I Q T G V Q P A L K G H T R N I C C V A I S P D G R R I
UniRef90_J4GN04	R V W D V G T G Q Q L G P L K G H M D C I T S V A I S H D G R R I
UniRef90_K9TJ23	G S Q D S T L K V W N L A T G E E E R T F T G H G S G V S A L A I S P D G Q R V
UniRef90_I4FYG6	R I Q V F N S G G V F Q S A F G S T G S G D G Q F D D P V G I A V D S G G N I Y
UniRef90_B4CWX9	Y S Y Q I Q P D G T L K D K Q R Y Y H L F E P D D S G A D G M E V D S A G R I Y
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UniRef90_UPI000462A57D	S V K V Y S A D G E F L F K F G S H G E G N G Q F N A P T G V A V D S N G N I I
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UniRef90_D5SVV0	D F T I R L W D W A S E R Q L L C I G D D E I L D S Q P R C V A F S P D G S S F
UniRef90_C2YQD8	L K Y D T S G K V V G K W G S L F Y G S L P G Q F Y V P R Q I A T D R Y N N V Y
UniRef90_B9TA48	R K I G K D G T V S T V A A A K E D D R D S L L R S P V G I A A T T D G F L Y
UniRef90_G4TW87	W V N A I A F S P D G S Q I
UniRef90_D2B8D9	A D S D G A V H L H G V A E E R E R V E L A G H R G S V W P F A F R P G G G Q L I
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UniRef90_UPI000372E3BC	C V I Q T F T S E G Q F V S R F G T Y D K R D A R Y A V P H S V A V A S D G N I Y
UniRef90_UPI00036FC144	T S T D H T V N L W D S S T G T C L N S F Y G H E N W V W T I A F S P P D D R L L
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UniRef90_D8S7M3	R K Y W L R G E K M G S I E N F L D N L P A F P D N I H I N A G G N F W
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UniRef90_UPI000274597E	L K F G S N G E G N G Q F N A P T G V A V D S N G N I I
UniRef90_D2BFP8	E I G A G R I G R I T T G G R I D E F P L P D R G A R P H A I A V V D G H G D C W
UniRef90_UPI000333A77E	T S T D K T A K I I W N F E H S F P L H E L R G H K G C V R C S V F S A D S T L L
UniRef90_F3GED1	L I W A I A V N E D G T L G E R R K L I E G L D Y A A I D G I K C D E G G N L W
UniRef90_M4FQ81	S T A D G A V R I I W D A V T G L C L Q A F K C R R E S I C S L A F S P D G K L V
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UniRef90_S7PCF6	Q C F T D T K E F V R E I K H A S F G R N V F A I S Y I P G L L F V V N G K P H
UniRef90_K6WP44	R V W A A F G P E V P R T S V R D A M A A S Q V A P D G I C A G A D G T I W
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UniRef90_J9VZC5	F D Y D I T T G K L S N R R V F S N I D G Y G E P D G M C I D S E G G I W
UniRef90_E3J7Y1	G S D D D K T V R L W D V E T G A E H P A L D G Y A G W G N V V A F S P N G R L L
UniRef90_K9U0K8	S S S D R T V K L W Q T S T G E C L R T L C H T N W I R T V A F S S G G D M V
UniRef90_H1Q990	W C T L N Q G N R L T T D G H G T A Y P L P T E G A G P V G I A A G P D G A L W
UniRef90_D5G207	G A G D D T V K I W D P A S G Q C L Q T L E S H N G S V S S V A F S P D G Q R L
UniRef90_E5SWH0	Q V F D Q N G Q F Q A F G S E G H H E G Q F K Y P K G V A I D D Q E F I F
UniRef90_G7FMQ3	Y V L D L D V N T G E V A G T A K V F Y Q F N N D V D P D G C V I D S I G N L W
UniRef90_D2QC71	Q T T V Y S G V R E Q Y G S S P N G P I N S A R Y G L I T S L R F D S N D N L Y
UniRef90_M2QY11	S G S D D Q S V R M W M D M R T G K E I M K P T G H A N W V C S V S F P D G T Q I
UniRef90_Q3MB32	G S W D N T L R L W D V N G Q S I I G Q P L I G H E S G V Y S V A F S P D G Q R I
UniRef90_UPI0003782EC0	G C H D Q T V R L W D T N S G R C I K T L H G H O N F S S P D G R I L
UniRef90_H5S8A2	V T P P T G R C I D P D G G G P L Q T G D Q F F P Q A I A V D G A G N V Y
UniRef90_UPI000465330B	C D P A T G G L P V G E P K L F G D H R Q S P G D V D G S V V D R D G I L W
UniRef90_L8M8F0	T S S D K A I K I W N P I N G H C R K T L I G H N S T I R S A S W N L D G Q L L
UniRef90_A4S3V7	A C H D R V A R V Y A M D A P F P R R M F V G H L S N V D C V A W H P N C N Y V
UniRef90_G4TLB0	T A S W D M T M R I W D A E T G Q Q L G E P L R G H K D D V N V F S S D G S C I
UniRef90_A5VG07	G S D D R T V K W V E A E S G R L L R S L E G H T D W V R A V A V S P D G R T L
UniRef90_A0A023XWH2	R Y Y F A G S K K G K V E V V M D N L P G Y P D N I N L A S D G N Y W

		250	260	270	280
UniRef90_UPI00035F3B6D	V A F W L G S C V R C F D G K T G K Q I D E I K L P A Q K I T S C V F A G E L D				
UniRef90_UPI000427977B	V A N G Q I F V Y G P D G R E S G R I D V P D R P L Q I L F G G P D R R				
UniRef90_Q16MV8	I S D F E N H R L L L I D A T L T K V L G T A V H E F S R P S G I C O				
UniRef90_B3RJ53	V T D F N N H R L L V V N S D T A R F L G T E N G Q F L R P Q G V T I D P E G N				
UniRef90_UPI00037EE1E8	N A R R W G S G S V A C H A P D G R L L S R L T L P A S Q P S C P C F A G D L S				
UniRef90_Q4SFZ1	V A D W G N S R I Q V F D S T G S F I L I N T S A D P L Y G P Q G L A L T S D G H				
UniRef90_F4Y0E9	A S A S A D F T I T K I W D W P C T C				
UniRef90_G9KV27	V A D W G N S R I Q V F D S S G S F I L I N T S A E P L Y G P Q G L A L T S D G H				
UniRef90_G0HEP8	V A D A L G G P T L L L V A E G G E L L E T L T L D S P V F A C M A G G P D G K T				
UniRef90_M2RDA6	V S G S D D G T I R I W D A S T G R W L K A I E G H K K W V G S V A F S P D G Q				
UniRef90_K9QR02	A S G S A D C T V K V K L W D E S T G S F I L I N T S A D P L Y G P Q G L A L T S D G H				
UniRef90_Q9C040	V A D W G N S R I Q V F D G S G S F I L I N T S A E P L Y G P Q G L A L T S D G H				
UniRef90_B5HRW8	A T A G G D G T V R R L W D A S A R T D H G T F K D P T G A V T A V A F S P N G R R				
UniRef90_A0A017TJ16	V T A S H H D K T I R V W N A D G T G E P L V F R G H D A P V N T A A W S P D G Q				
UniRef90_UPI00037BCD3D	V A S Y V G E G A T G V W D L E A G K E L A K I P N S R K V S H G V S I D P D D K				
UniRef90_A0A022L0A1	V A M N S G S Q V L G L D S D G G V A E N I A V G A R Q V T A C T F G G D R A				
UniRef90_R4YWA8	V S G S G D G T I R I W D P N D G T E L G R L E G H T G E V R S V G W S P D G T				
UniRef90_C3ZU62	V A D R G N E R I V Q I F T R H G F V R T V R T G P V P R G L A V G P E G Q Q				
UniRef90_UPI0004775F17	A T G G S S D Q T V K V L W D A S D G K C L N T L Q G H R N W V Y S V A W S P D G Q				
UniRef90_UPI0002D7BA12	V A S W N G H G L Y R F N E K G S V S S F Y R L P A P R I T S L T F G D D L T				
UniRef90_A0A0363032C	I S S G N G N K T V K L W D T N T G Q C L K T L L R G H S N R V T S V A L S P N G Q				
UniRef90_A5UPR9	A S S G A R D S T V R L W D V A S G Q L L R P T L L E G H T D W V S V A V F S P D G R				
UniRef90_J4H548	V S G G S E D R T I V R V W D A R T G Q L L P A L L E G H T D E V W S V A V F S P D G R				
UniRef90_J4GN04	V S G G S D D K T V R V W D A B I T G E Q L L G S L K G H T E S V R S V A V I S Y D G R				
UniRef90_K9TJ23	V S G G C N D K T V L K V W N L A T G E E E R T L T G H G W S L S A V A I S P D G Q				
UniRef90_I4FYG6	V A D R D N H R V Q V F N S S G G V F Q S A F G G F G S G N P S A I I V G S G G P				
UniRef90_B4CWX9	V A T R L L G L Q V C D Q A G R V N C L I P T N G K V S N I V F G S G G P D F D				
UniRef90_UPI000237AC49	I A Q W G A S R V I A A Y T P A G Q F L K S V H F N A K H T S C P S F G G D L T				
UniRef90_UPI000462A57D	V A D W G N S R I Q V F D S S G S F I L I N T T A D P L Y G P Q G L A L T S D G H				
UniRef90_M5AMM6	I G Q S A P G K I I V V D K D A K L L R M L S V P S P S M P N F A F G P D E K K				
UniRef90_D5SVV0	V V G D D S G Q V S L Y D T R S G S I L E R F T G H A A R V N D V G F S A D G K N				
UniRef90_C2YQD8	V S D S V N H R I Q K F T N S G I A L A G V L P G F F Q P S G I A I D S K G N S				
UniRef90_B9TA48	I A S S G A H G R V A Q P T P Q G E A V L Q D V D H P A R A P R G I A L Y K D G S				
UniRef90_G4TW87	V S G G S D D K T V R L W E T D T G Q P L G E L R G H H N G W V R A V A F S P D G				
UniRef90_D2B8D9	A T S S S N D G T V R L W D T A T G Q C R R V L R G H H G R K I T S V R F S A D G S				
UniRef90_N7NC78	A S A G V D Q T L R L W A W P A G N C T A V L T G H T G W V R C V A F G P D G R				
UniRef90_R0HCT9	V				
UniRef90_B2AVF6	A S G S V D K T I K I W D A A S G T C T Q T L E G H R G S V L S V A F S P D G Q				
UniRef90_D0LXR3	V T A A D D G V A R V W A A D G R S S Q P R T L R G H H A D S L T S A S F S P D G R				
UniRef90_UPI000287FDDED	F T E W S S N G I G R I T P K G E I T S S P L P T A S S E P H G I T L G P D G				
UniRef90_C5XIC6	V A L N Q E K Q R L D V T P A T A				
UniRef90_A0DA29	A S G G S D D K S I R L W D V E S G Q Q Q K N L L E L H T Q E I Y S I C F S P D G N				
UniRef90_UPI000372E3BC	V L D T W N N H V Q I F G P Q G F L E G V E E G Q L R N P M A L A V A Q N G				
UniRef90_UPI00036FC144	A S G S F D D H T V R V W N R S T N S G I A L A G V L P G F F Q P S G I A I D S K G N S				
UniRef90_D0LUU9	I S A S T D Q S V R V W R A D G S R P P Q V L R G H H D D V V E S V A L S P D G G				
UniRef90_R4ZOP4	V S G S S D D G T I V R V W D P D E R T E L G R L E G H T H T N R V W V S V G W S P D G T				
UniRef90_G5ACK6	V G H Y D N G N K V S T G Q S D G I L K Q T M E I P G T E I T G V C L S A D E S D				
UniRef90_UPI0004723E09	V A M Y Q G Q R I M V F N P L G I P I G Q Y L L P G R R S T S M V I P R G T D Q				
UniRef90_K9U115	A T S D N N N Q K V K L W D T S T G Q C R K A L L Q G H T G W I R T V T F S P D G Q				
UniRef90_UPI00037CC0CF	A S G G G R G E I I W L K D P E T G E F T G R L V G H H M D N V H S V A F S P D G K				
UniRef90_UPI00037C255F	A S G S G D Q T V K L W D V S T K S S V R T F S G H P T K L V W S V A F S P Q G N S				
UniRef90_B8G940	V A V P A R Q Y I V L A S T G E E A L L G R D G V P T S P S G L A V A T N G S				
UniRef90_UPI00047E341F	S A V W G A S A V H R Y A P S G E L L A V V L P V P A V Q P T S V C L S P R Y R R				
UniRef90_I1JN76	V G I L Y S R R K I I Q W Y P W I G K V L L R L P L D I P K A Y S I R L S E Q G D Q				
UniRef90_K9PN54	A S S E D H T I R L W S V N T G E C L Q I L A G H N S R V Q A I A F S P D G Q				
UniRef90_A0A037ZLH4	I A M W G D A S L T G I A P D G T Q I L G R I P L A P H V T C P A A D G D G				
UniRef90_E2A9C5	V A D S R H N S I K A F N S V G S L I Y S Y K P G Q E E R P L G I A L H W D G R				
UniRef90_D8S7M3	I A L V S D R L W H S P L L K K L V S H L V L P D E S L Q S L A V D P D G R				
UniRef90_UPI00034C7E2A	A S G S E D Q T V R L W D I K T G K C L H T L E G H S K Q V Y V S V A F S P D G Q				
UniRef90_F2UCY0	A S G S S D D K T V R V W N A R N G K Q L T L C D G H T R G V F V S V F S S P D G T				
UniRef90_UPI000274597E	V A D W G N S R I Q V F D G S G S F I L I N T S A D P L Y G P Q G L A L T S D G H				
UniRef90_D2BFP8	F T E W G A N R V G R I T P D G R I D G Y G L P T P A S E P H G I A A G P D G				
UniRef90_UPI00033A77E	A T G D D N G E I R I W R V S G G E L H L V A T H G G W V I T D L C F S P D S K				
UniRef90_F3GED1	C G W G G G N G G V R V F N P Q G K A I H I S L P E R C A N I C F G G E G N				
UniRef90_M4FQ81	T S T F H S S T V Q Q V W N A A T G Q C L Q T L Q G H G G W V H S V A F S P D G R				
UniRef90_K9QMH3	A S G S C D C T I R L W D V V T G E C L E T L R G H T S W V Q S V A F S P H G E				
UniRef90_S7PCF6	F G D Q E P V Q G F V M N F S S G E I I D I V R K H F D M P H D I A A S E D G				
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UniRef90_UPI0003485F52	A S G S G D R T I K I W N Y H T G E C L Q T Y T P T H T N S V Y S I A F S P D S E				
UniRef90_Q6BA76	S A Q W G A S R V A Q Y D R N G H F V S E L K F D A K Q I S C P A M G G N M S				
UniRef90_K9Z911	A S G A G D H T I R L W D W Q Q G T C R K T L L H G H N S R L G A I A F R G D G Q				
UniRef90_K9XAJ7	A S G S E D R T I R L W D T Q T R Q H L T T L K G H A D A V F A V I F S P D G K				
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UniRef90_J9VZC5	T C R W A S G K I L R L T P D G E I D F P T A W I T C C I F G G N L D				
UniRef90_E3J7Y1	A T D C F D N T V R L W D P A S G A Q R A V L V G H T R P I S G A A F S P D G S				
UniRef90_K9UOK8	A S G S S D E Y T I R L W D V Q T G E C C R T L L A G H T N W R S V A F S P D G K				
UniRef90_H1Q990	F T E I G A G R I G R I T V D G A V T E Y P L P D P A A R P H A V T A G P D G				
UniRef90_D5G207	A S G A D D D T V K I W D P A S G Q C L Q T L E G H K G L V Y S V T F S A D G Q				
UniRef90_E5SWH0	V A D S G N S R V Q I F Y P D G R				
UniRef90_G7FQM3	L A V W G M G C I M C I S P D A E V I H T I K V N N L N P T C T A F G G K G E				
UniRef90_D2QC71	I I G E T G A G I V R K I A T D G S R L L G G Y K D G P F G S V E D L A F S P S G S				
UniRef90_M2QY11	I I S G G S D D G T I R V W D A R D E E A I K P L P G H T G S V M S V A F S P D G S				
UniRef90_Q3MB32	V S G S G W D N T L R L W D V N G Q P L G Q P L M G H K A A V I S V A F S P D G Q				
UniRef90_UPI0003782EC0	A S G G C H D R T V K I W D P A S G Q C L Q T L E G H K G L V Y S V T F S A D G Q				
UniRef90_H5S8A2	V S D T G N H R I Q K F D A N G K F L L G L A Q G Q F D V P R G L A F T K Q G				
UniRef90_UPI000465330B	N A C W G A S A V V N A Y A P D G K L V V R S I P P M V L Q P S C P A F G A E A D				
UniRef90_L8M8F0	A S A S D Q T I K I W N P I N Q C I T L T G H D G A T R A V A W S P N N Q				
UniRef90_A4S3V7	A T G G S A D R T V R V W D M F D G E C V R V F A G H A A G V R A I V F A P D G R				
UniRef90_G4TLB0	I S S G S L D T T I V R V W D M F D G E C V R V F A G H A A G V R A I V F A P D G R				
UniRef90_A5VG07	V S G S W D N T V K V W E A E S G R L R S L K G H T Q D S V V G A L A F S P D G R				

290 300 310

UniRef90_UPI00035F3B6D	K L I T S A V G N P G E Q I D L D	
UniRef90_UPI000427977B	T L F I L T H H	
UniRef90_Q16MV8	V I V A D S K N Q R V L I F	
UniRef90_B3RJ53	I I V A D S R N H R I Q V F	
UniRef90_UPI00037EE1E8	R L I V T S A A E G R	
UniRef90_Q4SFZ1	V A V A D S G N H K V Y R Y	
UniRef90_F4Y0E9	T L V S G S D D Q T V	
UniRef90_G9KV27	V V V A D A G N H C F K A Y R	
UniRef90_G0HEP8	D L F L C C A A T V R L A R I S T P H G G R P	
UniRef90_M2RDA6	R I V S G S G D S T R V W S A A D D G A G S T L T Q P K I A F	
UniRef90_K9QR02	M L A S A S A D E	
UniRef90_Q9C040	V V V A D S G N H K V Y R Y	
UniRef90_B5HRW8	T L A T A S D D N T A R L W D T T T G R V R H	
UniRef90_A0A017TJ16	R I V S A S D D G T A W I W P D P E P	
UniRef90_UPI00037BCD3D	F A F I S	
UniRef90_A0A022L0A1	T L F I T T S R E N	
UniRef90_R4YW8	R L V S G S N D G T I	
UniRef90_C3ZU62	L V V T G R D N H T V T V F P	
UniRef90_UPI0004775F17	T L A T G S S D Q T V R L W D V S T	
UniRef90_UPI0002D7BA12	S I A V T S A R T G	
UniRef90_UPI000363032C	L V A S G S E D Q T V R L W D A N T A	
UniRef90_A5URP9	L L A L W D A A S G Q L V R T L E G H T G R V L	
UniRef90_J4H548	L I V S G S K D K T I R V W D G E T G A Q L F	
UniRef90_J4GN04	R I V S G S A D K T R I W D A D M G Q Q G L P L E G H T	
UniRef90_K9TJ23	R V V I S G S E D K T L K V W N L A T G E Q M A C F T	
UniRef90_I4FYG6	I Y V M D A S N N R V Q V F Q P P V V G T P E P S	
UniRef90_B4CWX9	T I Y I S S A G G I Y K R K V	
UniRef90_UPI000237AC49	T L F C T S A R Q G	
UniRef90_UPI000462A57D	V V V A D S G N H C F K A Y R	
UniRef90_M5AMM6	V L Y V A A P W H G K V Y E V P	
UniRef90_D5SVV0	R L V S G S D D R T V	
UniRef90_C2YQD8	I F I A D S E N H R I Q K F	
UniRef90_B9TA48	F V T D G A T F R L H H D E P P P G A P S H S A T M	
UniRef90_G4TW87	L R I A S G Y S D G I I R L W E A E A G R P L G E P L R G H E F	
UniRef90_D2BBD9	M L A T S G N D G V V R I W E P R T G R R L	
UniRef90_Q7NCT8	Q L	
UniRef90_R0HCT9	R V	
UniRef90_B2AVF6	R V V T A S R D R S A W I W D L E G E G A P L	
UniRef90_DOLXR3	A L W T A L E T G T I A R L T P T K G	
UniRef90_UPI000287FDDED		
UniRef90_C5XIC6		
UniRef90_A0ADA29	T L	
UniRef90_UPI000372E3BC	I V Y I A D T G N H R V Q K F	
UniRef90_UPI00036FC144	T V A S G S F D Q T I R V W N P R T G	
UniRef90_D0LUU9	Y F V S A S W D G S I R M W P L A G S G Q P L	
UniRef90_R4ZOP4	R L V S G S A D G T I R V W D P E E R T E L G R L E G R T G G V W	
UniRef90_G5ACK6	Y L I V T E A S T N S I H R L P L	
UniRef90_UPI0004723E09	E L L I	
UniRef90_K9U115	T	
UniRef90_UPI00037CC00CF	T L A S G S R D R T R L W D V A T G E P K R T L T G H T D V V D	
UniRef90_UPI00037C255F	T L I W V V D R L G G R A A R F A L P A	
UniRef90_B8G940	V L V T T A A A D G R V L A A P A S V R G L P T A P Y R P Q I G	
UniRef90_UPI00047E341F	I L E I V N E K N G S I G R	
UniRef90_I1JN76	I L L	
UniRef90_K9PNS4	C I Y V T S A L Q G	
UniRef90_A0A037ZLH4	M A F T D Y G R N Y V R L V K L E H	
UniRef90_E2A9C5	P L	
UniRef90_D8S7M3	T L A S G S G D G T V F C L D T L T R G H T A A I R S V A F	
UniRef90_UPI00034C7E2A	R V V S G S R D N T V R V W D A G S G A Q L	
UniRef90_F2UCY0	V V V A D S G N H K V Y R Y	
UniRef90_UPI000274597E	T I W V A	
UniRef90_D2BFP8	M L	
UniRef90_UPI000333A77E	R L F M A S S H S L Y S V F V N A R G A	
UniRef90_F3GED1	Y W A S A S H D C T V R I W D A A T A Q P	
UniRef90_M4FQ81	I L	
UniRef90_K9QMH3	T V Y V G D A H T N T V W K F	
UniRef90_S7PCF6	V L F A C A A P S S S	
UniRef90_K6WP44	V L V S G S G D R T I K L W D T Q T H T K T L H G H T	
UniRef90_UPI0003485F52	I L F A T S A S D G K T F L I E V D C V G Q E E H	
UniRef90_Q6BA76	T L	
UniRef90_K9Z911	T L F	
UniRef90_K9XAJ7		
UniRef90_V4TE99		
UniRef90_UPI0003A1475B	T L A T G N V G G T V R L W D V R T A	
UniRef90_J9VZC5	E L Y V T S A A S D Y I	
UniRef90_E3J7Y1	L L A T C S H D T A R V W D P E A G V E R R A L V G H S G R I	
UniRef90_K9U0K8	T L	
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 S A A F S P D G R D N S G F R Y N V T D H N N G
 H W V R S I A F S P D G Q K F A S G S D
 W I W S V A F S P D G R F L A S S
 E T T T P G V R E V P V S D T F R Q G E S P R V D P R T G E L M W
 P E P E P T V L R F P G K A L L L P S G N F L V S D T T R H V
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 L W Q L H I N L I G
 G V A F S P D G R T V V T G G D
 T L L S G T P R G K N A V A F S P D G C W L A S G G G Q
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 V T D A D G G P R G V A V L G D G R T M L V
 I S F D P S G Q Y V A T A G N D K A
 V I D P L M T I S A G A S I R S V V I S S D G T R I V
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UniRef90_D6TRL0	V D G K A G S V W G L A L D G A Q A T S P L L N S Q A S G G N W P C H	L A L D A	
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UniRef90_K9WFC2	A N R I V N W D V Q T G E C I	K Q F Q G Y S D R I F S L A A F S P	
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UniRef90_A3IK50	T S G E S N D I K C F N S K G S L I Q T V K E K	T G N F P N D I A V D S S	
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UniRef90_M7U6H5	A D S S N H R V Q V F D S T G K F L K E F Y Y G N G E G E F D C L A G V A I N R		
UniRef90_E9GKU4		R P R G M A V S P	
UniRef90_UPI0003742C26	D L I N D K I Y T L D E N N T L G V F P L D P	A G V T N G M T K Y E	
UniRef90_UPI00046EC973	L V E L A A D G E T V V R R I G S G E R G L G P D S	F N E P Q G L A L L D	
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UniRef90_U9VS55	R K I T S D G V V T T F A G S G T G S V D G S G I A A E F N K P Y G V A F D S		
UniRef90_UPI000465522E	T G S G D G W I K R V W L N E S A S D T V V I E N W V R T G G R P L G I A L G R		
UniRef90_UPI00042B792E	S G S A D G T V R I W D A E S G Q V I Y D P F E E H T G L V Q S V A F S P		
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UniRef90_K6V8N5	S D R R N N R V Q V F N P D G S K F K F G R K G V G N G E F D L P A G I C V D V		
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UniRef90_G8YVC1	N D N V I I I C G K Y G V A E G N F I D K T I K Y F L R Y N H D D K Q Q R R L R			
UniRef90_UPI000478614A	Q D N L L V I I F R Y D P Q P G Y L V N G Q Q E T V S R L P D D N P M Y S G W			
UniRef90_S4XYT6	D G R R V V T G A Q D R T A R V W N A D G A G E P I V L R G H T A Q V D S			
UniRef90_D6TRL0	S G K W L V V S N Y G S G T V A V F P D D G S L G A M S E H I Q H H G S G P N P			
UniRef90_A7S37	K D W I G S G C I I R G E D W D D V R S A C R V H P L D D V H S T C R V H P L D			
UniRef90_G6FXB9	D G K L L I A S A S E D G T I K I W N V D T G E N L K T L T G H V G K I W S G E D			
UniRef90_K9WFC2	D G R L L I A T G S E D R C V R V W D V R T G Q L F K I L S G H T N E V R S V A F			
UniRef90_C5C545	D G W V A A S G R D L V H L R D D G H V D D A G G A V G S V R T V L A G I			
UniRef90_UPI000363D66F	D G A M W F T L G G A D A I G R I S V D G E T S L F R L P R A G S A P Y G I L W F			
UniRef90_S4NSV7	D G S V V V A D T V N H A L R R L E L L T T G E V T T W W Q G S P T S G P A R E V			
UniRef90_L0IUZ6	D G S L L I A S T E K R Q V L G Y D G D T V S T V V			
UniRef90_B0C7J8	D G R Y L A I A D Q D C K V R V W C A H T Y Q Q L W V G H E H Q N A V L S V S F			
UniRef90_B8M140	D G R L L A F S S L D Q T I K L W D P A T G T L K R T L E R R S			
UniRef90_UPI00034BC177	D G K L L A T S I D N E I W L W E V A N N Q I V T C N G H T A W V R S L L A F S P			
UniRef90_UPI0003830945	D G R T L A A G S Y R E G I T L W R T S D L E P R A H L K R P E D S S L A F T P			
UniRef90_W6LP9	D G R W L A S A G L D R S I R M W R V D S G Q C A I W S G H V G N A V I A F S P			
UniRef90_M5TTN3	R G R L L V A D T H Y Y R M L V F S P D G E L L Q D D Q I G S A D G E F A F V T			
UniRef90_UPI000479E166	D D R L L F V S D G K M H R V M I F N P K H E V E G Q I T E G L V D P V			
UniRef90_K7W4U6	T I K I W D V T T G K V L N T L K G H E G E V I S V G F S P D G Q Q L A S G S			
UniRef90_Q6AA90	D G T H L F A S A A G N H K I R T Y H F D C G K			
UniRef90_UPI0002D423AB	D G Q T L A S A G G F D Y T I K L W N V S T G W V W S V V F N S D G Q T L T S G S			
UniRef90_B8MEW8	N G T R V A S G S D D N T I K I W N A D G C L K T F N G H D E A V V R S V A F S P			
UniRef90_I1QVK8	D A G L V V A D A D I G L L K V S P D K A V E L L T D E A E G V K F A L T D			
UniRef90_M4CHY7	K T G E I Y V A D A L L L G I H I V S P A G G L A V K I A D G V D G N P F K S L N			
UniRef90_R7UCR7	D G S C L L T C S D D N C L R L F N T P Y E L Y E N R L T G I P D M T A V L K V			
UniRef90_G9NWX9	D G R Y L A L G A A G G S I R I W L D L E G H T A R I H S I A F S T R H L A S G S			
UniRef90_W5TGV3	D G R Y L L V V V Q D Q R R I L R Q D D S G L V V H A D L S D E V P S L L N D M W			
UniRef90_U6NGF8	R G R V L V A D R S N N R I Q I F D R D G G F A K F G C G G G T R S G Q F D R P A			
UniRef90_B0SDQ6	S G N L I I A D A Y K G L L S M D K A G K I T T L V S E Y K G V P F Q F T D			
UniRef90_E8V4X5	E G T L W I L A D A H H N R V R L V S P N G I I S T I A G S S G S G T V L R Q P V			
UniRef90_A0A011NIG6	A G L V W Y T G N G N G T I G R L D P K T G K L S E F K V P G G G D P H T I V L			
UniRef90_UPI00044185C9	Q G P G L I A C T T A L G F A L A E G D G R L T Y L A K P L P T A Y A V H R F N			
UniRef90_A0A024QUH8	U R T I V S T Q V A S G Q V L R I D P R S G T R T V L A T L T P G L D N C A F V			
UniRef90_C3YTI7	E G N I V V V V D R G N Q R V Q I F D A D T G Q F L Y S F P V E G E H P F D I D V			
UniRef90_L0J8R3	D G T R I I A T C G A D S T I R L W S P D K G L L S V A F S P D G S R I A S A S G			
UniRef90_A8YMC6	D G R Y L L A S G S S D N T I K I W E V A T E I V V W S V V Y S P D G R Y I A S G S			
UniRef90_U9W396	D G Q T L L A S A S W D Q T V K L W R P E G A L L L Q T H R D R V W S V T F S P E G			
UniRef90_UPI00034DAB50	D G R F L L A S G S D D S T I K L W E A N A G I R T F E G H T H W A L S I D F S P			
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UniRef90_K9WEN6	D G R I L L A S G N Y D Q T V K L W E V S T G Q V V W S V A F S P D G R I L L A S G S			
UniRef90_B2IVX2	N G Q Q L A S S S F D R T V K L W D V S G S R L W S V A Y H P N E Q Q L V S G G			
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UniRef90_B9S6S6	G N E V L V A D A F E G L L K I N G D G G I E L L T N E A E G I K F K L T D			
UniRef90_A3IK50	D D K T I K V W N L E T G E E I R T L K G G W I L S D S F S P D G Q T L V S D S			
UniRef90_K1Q712	D G D L L I Y T N G A T G T V Y K V K N R Q T E E L I			
UniRef90_N1MLR8	K G R I V T T Q V A S G Q V L R I D L V S G T R E V L A D L G P G G D R I F V S			
UniRef90_UPI0002DE2B30	D G K T L A S T N G D S T I K I W N V A T G I R T L N V H S Y S A N S V A F S P			
UniRef90_R7SF62	D G K K H I V S G S N D Q T I R I W S A T I G E Y V L G P L E G H S G W V H S			
UniRef90_A0A023IVH6	K T G D L Y F C D G Y L G I M K V G A D G G L A E K V V D M V E G G Q K I M F A N			
UniRef90_UPI00041ADD21	T A R I L W V V D D K K Y S G E L M R H D K S V I F A V L S P D A R S M V S A S S			
UniRef90_M7U6H5	R D K T I R L W N T K T G E L L K S L E G H S H W V S S F S P N G Q V L A S G S			
UniRef90_E9GKU4	I G Q Y I I A D R Y N H R I Q V F D P S G R F L R V F G S Q G T T			
UniRef90_UPI0003742C26	D G R I I I Y V A L S D F Q P I L E V P E D K I V A I E V A T			
UniRef90_UPI00046EC973	N R G I L Q A R H S R N R L T L D E N K N E K I L A T N Y N G K K L N S P N			
UniRef90_UPI000374F1E7	E D T V V V A D T V N H A L R A V D L R S G A V R Q W W R G S P T S G P A R E I			
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UniRef90_L9L8Z4	E D G T I K I L E L L N N R I F Q S K I G K A V Q H I Q F T A D G K T L I S S S			
UniRef90_M5EU41	A G N C F A C D L R H A A I F R W D A A T A H M			
UniRef90_U9VS55	D N T L I A T G G D S K L R L W R F H P S P D E H P S L N N I			
UniRef90_UPI000465522E	A G I L Y V A D T Y N S L I R K I T P D G V V T T F A G S G T A G Y S D G T G T			
UniRef90_UPI00042B792E	N N E V I V A D A Y K G L L N I S K D G A M E L L A D E A E E L K F K I T D			
UniRef90_UPI00044094B0	D G A H V V S A S S D K T I R I W D V E S G K E I S E P L E G H N G P V Y S			
UniRef90_C5DPG3	D G N D T Q V E E A K E G I A H G Q F G G S W K Y V V K Y S E S G L			
UniRef90_X8IY82	D G T R M C S G S H D K T I C I W D P H T N W V K S V S F S P N G P W L A S G S			
UniRef90_K6V8N5	E R G G G M I V A V E R G F A L V D P D G T L T R L P S V W E D P A L R M N			
UniRef90_B4M9N9	D N R I I V V W D K D N H R V Q I F T A T S G V F B L K F G S Y G K E Y G Q F Q Y P W			
UniRef90_I1F8C3	D G S I L I A D S S N N H R I Q K I S M N G I P A A S F P I G R S G T G V			
UniRef90_UPI0003830E4C	D G A L W F S E Y G T H R I G R I E A D G T T S S F A P P T A D G G P I A A G P			
UniRef90_UPI000366F40E	S T N T L W A C Q L T P V P D I T P V K R H T A L R S F D L T T G A P K I R W N			
UniRef90_L5M890	D G K L L A A G F D N S C I K L W S L R S K K L K A E P H Q V D V S R I I R L A C C			
UniRef90_UPI000350B05E	E V M I L L A I N Q N K Q H I Q L I N G N T D N I I M Q T E P Q E S L I C C C			
UniRef90_H0PYK0	D G K R L I A S A S L D T L T K I V W D T A S G K T Q L I R A W N A D G S R L A G F D			
UniRef90_B9JSF2	E R Q M L I A T E Q G I F I R A I A S G E L T L L T A L E P E R P G N R S N			
UniRef90_X6NP58	N G K M V V S C S N D T T V K L W D V E S G Q E M R T F Q G P D G N T I V S C S			
UniRef90_UPI00042B81A7	N D E L I V A D A F D K G L L N I S R D G E V E L L T D E A D G L K F K L T D			
UniRef90_B0DYW7	N G K H I L S R C G D N I I K V W D A L T G H T K V D H V R G H E D G I R S V A			
UniRef90_J9VN5	N A S S L I V V L P P A T K P T T S P T P V K R E Y D A V L D E T L D A K L V K			
UniRef90_R7YU04	D N I L L V A A G M S E S Y I R V W S L E G K A L L S I L P S G P N E P P P S S S			
UniRef90_A0RVT6	D G R F I F V S D T Q G A G G S V H G Y D L G A P Y D L A T H P Y V P G L D L D I			
UniRef90_C7RP16	D S T R L L I T A E D G T A R I W P L E A S E V V L H G H E G P L W R A A F S P			
UniRef90_UPI00037DB3D7	N D R S I K I W N A K T G R L V R N Y G H S S W V R T F S P N G K L L A S G G			
UniRef90_B0DZA3	D G T R I V S G S S D Y S V R V W D A S T G V E E L K E L T G H T			
UniRef90_D0LUU6	D G A H V V S A S M D K S A R I W H S S D E L V V L R G H L D Q V W S A D F S P			
UniRef90_R7WBL7	K F G D L Y V A Y A Y K G L L M R V G P G G G E A T L L V N A V D D L P L R F T N			
UniRef90_A0DE90	D D N Q I Y L W D I K T G Q Q K S C N H T G W V R S V C F S P D G T I L A S G G			
UniRef90_G4TW18	D G S Q I V S G G S F D G T I R L W D A D T G Q P E S V G F L P D G L R I V F S E			
UniRef90_E0UEV7	D G K R V I S A S W D K T L K V W K L E T G K V L I H T C V T P D G K R V I S M D			
UniRef90_UPI0002FC2104	T V K L W D V W N T G R C V S T L R G H S S R V V W S V A V N L N S G V I A S G S D			
UniRef90_V9XDH2	D G S V L V V S Q M D R T V V R I E P D G T Q S V H A D F S Q Y			

130 140 150 160

UniRef90_E6Q0J3	D A A G P D G N L W F T E A N N G V G R I T P S G A I T E F T A
UniRef90_UPI0003B3726C	D G N T L I S A S R D D T I G W D V T T G A L Q Q T L E E H R D N
UniRef90_UPI00047A7DE2	S D T T R L W N I H T G E C K T L Q G H T N T L R S A F S P N E Q N L I A
UniRef90_G8YVC1	S N D G A I D P W G H W V G V M T D F D T S A A E G Q V S A E G R L Y R I N C
UniRef90_UPI000478614A	G N S G W S A G Y S F N P N Q A D A S M K P M A R V I T A D V K R I E R V I H
UniRef90_S4XYT6	A A F S P D G R R V V T G A Q D R T A R V W N A D G A G E P I V L R G H D D R V
UniRef90_D6TRL0	E R Q E G P H A H S A T F T P D N R F L I V A D L G I D Q L V I Y A F D P V K G
UniRef90_A7SJ37	D V H S T C R V H P L D D V R S T C R V H P I D D V R S A C R V H P L D D V H S
UniRef90_G6FXB9	K T I K L W D S N T G N C L K T L T G H E N W V R S V A F C P N G Q R L V S G G
UniRef90_K9WFC2	A P Q Y S A R R T Q K N S G F R E H L L P I N P T P L S S E Y L L A S G S Y D G
UniRef90_C5C545	T P A D D R P L N D G V C A P D G A F W V G S Q T L P R R P E G A L Y R I G P
UniRef90_UPI000363D66F	T A P G A D R I G R L T T G G E I T E Y P L P S P G A F P A V I A A G P D G A L
UniRef90_S4NSV7	D L S S P W D V A H W Q G K V W I A M A G V H Q L W A Y D P A E G T V A V T A G
UniRef90_L0IUZ6	D L S D V V P A N L G D M V I L D D I G R A Y V G S Q A R E G G V I V R L D P D N
UniRef90_B0C7J8	S P D N Q N W N A E A G N C L Y T F H G H D S E V C A V A F S P D G Q L L A S G S S
UniRef90_B8M140	D P F S D F D P H D G Q N D Q T V R L W N A H T G Q C G H T S W V Q S L A F S P D G Q L L A S G S S
UniRef90_UPI00034BC177	D G K S S L L A L A S Y S S G I R S G I R V W N L Q L K R S T A S L G D G T A L R A
UniRef90_UPI0003830945	D G H W D R T V R L W R V A T G Q C M A T W T G H T G I I N A V A F S P D G H W
UniRef90_W6LPL9	D A V S D Q Q G N V Y I G E Y G A S D R I Q K F S A D G E F I A S W G G T G E E E
UniRef90_M5TTN3	G L A I D T T N R F L Y V V D T Q Q D Q V I V Y D A D T L K L R R G T G G K S
UniRef90_UPI000479E166	D D I K I W D V T T G K V L N T L K G H K G E V Y S V G F S P D G Q K L A S G S S
UniRef90_K7W4U6	L V E T S A I Q M P P V V I S P K L T K V N L Y P A G L A V T N D S K R L V V A D Q
UniRef90_Q6AA90	L D S T M R R W N V S T G E C F E T L R A H E N G I L S I S C S P D E Q M I G S S
UniRef90_UPI0002D423AB	D G K R I W D L S N D E C L K T F G H G G W V R S V A F P N G T Y L A S G S
UniRef90_B8MEW8	G V D V A G D G V I Y F T D A S H K H S L A E F M V M D V L E A R P H G R L M S S
UniRef90_I1QVK8	G L D V D P T T G I V Y F T S L S S H L S A Y Q M H L L L R L N D A T G K L Y K
UniRef90_M4CHY7	K E G T V Y D Y A W Y P L M S A D P D S C F F V S A C R D H P V H M W D A H
UniRef90_R7UCR7	D D A T V K I W D V T G K E H Q T L E G H K Y S V R S V A F S A D G Q Y L A S G
UniRef90_G9NWX9	V D A A G R A Y V G E M G F D A H E W F D S D P Q V A A N W F S G E A P A L D V
UniRef90_W5TGV3	G V T V N T R N N I V V A D K D N H R I Q V F D E N G
UniRef90_U6NGF8	D L D I A Q D G K I Y F S D A S I Y E Q K E Y Y D L L E A R P Y G R V F V Y D P
UniRef90_B0SDQ6	A L A F D V D G A L Y I A D A A D H R I R R V D E N G S I S T V A G T G D Q G Y
UniRef90_E8V4X5	D D D G S L W F T V Q H G Q R V G H L T P A S G R I V E Y P M S D N P Y G L A I
UniRef90_A0A011NIG6	D G A C C D V V N G R Y F A G T V C S K T P E I P G Q L Y R Y D P
UniRef90_UPI00044185C9	D G R L F V S N F T G S I T E I Q P G G A T T A V L P G G L N W P L D T V G T
UniRef90_A0A024QUH8	D S N G R I H V T S Y G E N F G I R C C L L D P S G I A I L T D G R I V V V D H
UniRef90_C3YTI7	D G T I Q L W D T A T A Q P V G Q P G H D G G V T R V V F S P D G H R I A S G G
UniRef90_L0J8R3	Y D K T I K I W E V A T G R E L R T L A V H T D L V S V Y S P D G R Y L A S G S S
UniRef90_A8YMC6	D E I A S A S W D Q T I K I W R P N G D L M H T L R G H R D R Y G I A Y S P D G
UniRef90_U9W396	D G T K L V A G S M D Q G V W L W E V N N E Q A F Q R W Q G H T N L V W S V N F
UniRef90_UPI00034DAB50	P H E Q I W D V T T G E C A R I F N I A I N W R L A I A L S H D G K I L A T G S S
UniRef90_UPI0002D9A337	D D Q T V V W E V N T Q G Q G L R I L Q G H A N K I G S V A F S C D N Q W L A T G S S
UniRef90_K9WEN6	D D H A T K L W N L Q I G R C T K T L K G H T N S V L S L A P P S P D S N Y L A S
UniRef90_B2IVX2	D D L T I R L W D T N T G N H C L T Y H G G H T S V I L D L A F S P D G Q Y L V
UniRef90_UPI000248452B	G V D I A E D G T I Y F T D A S Y K Y D L H D F M W D I L E G K P Y G R L M S S
UniRef90_B9S6S6	D D K T I K V W N L A T V I H T L K G H D G E V Y S V S I S P D G Q T L V S G S S
UniRef90_A3IK50	R L Q Q G W K P G Y L C V T S T G D L L V T M C S D D Y T Q S K V V R Y S G S T E
UniRef90_K1Q712	S I P G E I T E L L Q G H C G H S H H W V S S V A L S P N G Q V L A S G S S
UniRef90_N1MLR8	D G I K I W N J A T R Q E I R T L N G H S Y I V I S V A F S P D G K T L A S G S S
UniRef90_UPI0002D2E2B30	V A F S P D G K H I V S G S H D K T I K V W D A I G E S M L K S L E G H S G P
UniRef90_R7SF62	Q M D I D E E D D A I Y F N D S S D T Y H F G D V F F V F L C G E K T G R V I R
UniRef90_A0A023IVH6	D N K A M L W N V A T G N P G D P L R H D Q F L L S A I F S P K G H Y V A T I
UniRef90_UPI00041ADD21	S D K T S R L W N T A T G E L L Q G H C G H S H H W V S S V A L S P N G Q V L A S G S S
UniRef90_M7U6H5	D G K F S Y P W G V T T D A L G F I Y V C D K E N H R V Q V F Q S D G T F V G K
UniRef90_E9GKU4	N K V V I A E Y R V G S N P E R V A L N P E G T Q L W A A N
UniRef90_UPI0003742C26	D V I I S K N G D I Y F T D P S F G I S Q N G L V N E K S E L G F N G V Y K L S S
UniRef90_UPI00046EC973	D L S S P W D V A V F G G K V W I A M A G V H Q L W T Y D P R A G V V A V A A G
UniRef90_UPI000374F1E7	D G G V D A K G R F W I D R K A M A Y G P N K L P A S Y G E P I G R L W R Y D P
UniRef90_W9Y110	D D S V I Q V W N W Q S E E Y V F L Q A H Q E T V K N F R I L L K N S R L L S W S
UniRef90_L9L8Z4	E R F A S S G G I R V P N P Y P V D E A R G W L Y V S D S V G E D N R S G I F R Y
UniRef90_M5EU41	S L V W E K N G F P D W V R S V A F H P D Q E I V A C C S H A T T Y L Y D E R T
UniRef90_U9VS55	A A T F N H P R R L A F D S A D N L Y D T D N N L I R K I S P A G V V T T F A G
UniRef90_UPI000465522E	G V D V A E D G M I Y F T D A S H K H Y S L H E F A R D I L E G R P Y G R L L S F
UniRef90_UPI00042B792E	G V D V A E D G M I Y F T D A S H K H Y S L H E F A R D I L E G R P Y G R L L S F
UniRef90_UPI00044094B0	V A F S L D G M H I A S G S A D M T V M
UniRef90_C5DPG3	D S E R L K R L R S N D G N V H G E D L Y I G L I N D F D Q E T T D E G V I F K
UniRef90_X8IY82	G D G T V R I W S T H N W E I Q D D L L E G D S G L V N S V A Y S P N G S I L A
UniRef90_K6V8N5	E G A C C A P D G S M Y A G Q M A Y D K T K G A A A M F R I T P
UniRef90_B4M9N9	D V A V N S R R Q I V V T D S R N H R I Q Q F D S E G R
UniRef90_11F8C3	L E F K Y P T G I A V S P I K N R V Y I A D S K N H R V Q V L N S
UniRef90_UPI0003830E4C	D G A I W F T D R I G R I T M D G G I T E Y P A P G A F P S A M A A G P D G A M
UniRef90_UPI000366F40E	D N N T C C N D I A I G P D K A L Y I T D T A N G K I Y R L P A G A S T A E L Y L
UniRef90_L5M890	D I L E E E E E E E A E M K T L R G H C G P V Y S T R F L A D S S G L L L S C S
UniRef90_UPI000350B05E	C L S E D L K F A A V G Q E N G T V K V L Q L L D G K V L K C R A A Y K T S V Q
UniRef90_H0PYK0	G T A M V W D A T N G A V L Q T L R G H S G R V Q S A V F S P D G T Q L L T A G
UniRef90_B9JSF2	D G R V H P C G A L W I G T M G K T A A D G A G A I Y H V A
UniRef90_X6NP58	N D K T I R F W E V D S G K E I K V I T S H Q S S V N A V Q P N G K I I A S C Y
UniRef90_UPI00042B81A7	G V D L A D N G M I Y F T D A S Y K Y D S N D H L L D M L E G K P H G R F M S
UniRef90_B0DYW7	F S P D G K H I V S G S N D A T L R I W D A L T G L S V M G P L R G H D A M V T
UniRef90_J9VNL5	D G V I R F N D G G V D P D G R V W F G S M G I D E N K P E M P G K L F V W D K
UniRef90_R7YU04	R R L I G H S G P V Y A V S F S P S I A N P D P S G S G P S T S S Q Y L L S C S
UniRef90_A0RVT6	S A E D G Q A L A L E F S S D G T S L F V L G D A G N M L H E Y S L G A P Y A A
UniRef90_C7RP16	D G Q Q I V T A A R D G T A R L W R V H E K P V W S A E F S P D G R H V V T T S
UniRef90_UPI00037DB3D7	D D K R L W D L N T F T I K H V L K G H S N Q I R S V A F S P D G K I L A S S G
UniRef90_B0DZA3	D S V N S V T F S S D G T W V S G S R D E S V R V W D V S I G V
UniRef90_D0LUU6	D G Q R V V V S A S L D G S V R I W N G H E N E V L S T R F S P D G K R V V S G S S
UniRef90_R7WBL7	G V D I D Q V T G Q V Y F T D S S M K Y D R T H H E M V T R S G D S T G R L M R
UniRef90_A0DE90	D D Q S I C L W D V Q T E Q Q Q F K L I G H T S Q V Y S V C P N G Q T L A S G S S
UniRef90_G4TW18	W G E T I R L W N V D T G Q P L G E P L Q G H E G W P V G E P R G H R K P V T
UniRef90_E0UEV7	K T L K V W D L E T G K E L H S L T G H S G W V R A V C V T P D G K R V I S G S S
UniRef90_UPI0002FC2104	D Q T V K W D L N T S Q C F K S L H G Y C N G I W S V A F S P Q G N M V A S G S S
UniRef90_V9XDH2	A G G I G N D M I V T G K G D A Y V G N F G F A L G E E D P K T T R L V H V S A

170 180 190 200

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

210 220 230 240

UniRef90_E6Q0J3	P G A D R I G R I T P S G S V T E F T I	G Q S A G N S P F A I A A G P D G N	L W
UniRef90_UPI0003B3726C	S Y I	Y D M K Y S P D G S I L	
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UniRef90_S4XYT6	Q V Y D R T A R V W R A D G A G E P I V L	R G H D D R V Y A A A F S P D G E R I	
UniRef90_D6TRL0	Y D Y T V E D C H L E A R Q V L E T L	P P G T P E S A V A D I H F A P S G E W Y	
UniRef90_A7S37	T V F P H G L S C R F V K S F G I A G G	G D G G C F N L P H G V A T D P S D N I Y	
UniRef90_G6FXB9	G S D D N T V R I W D L Q T N Q C R N I L	Y G H D N R V W S V A F S L D G Q R I	
UniRef90_K9WFC2	S S S D R T V K L W E A S S G K C L K S L	W G H T Q Q I R T V A F S P D G K T L	
UniRef90_C5C545	E R F D V A G G V L S G R R T V A V	C D G G N P D G I A L D D D G C V W	
UniRef90_UPI000363D66F	L W F A E R I G R I S V D G A I E E F P	L P D P G C R P H A V V A A A G E E C W	
UniRef90_S4NSV7	W V H T A V G T G L F D F G H R D G A A G	Q A L L Q H P L G V T A L P D G S V A	
UniRef90_L0IUZ6	T A F T I G A D G A L S D R R I F A D G	L E G P P D G I C L D A Q G G V W	
UniRef90_B0C7J8	G S S D K T I K L W D V D E G T C Q H T L	H G H N N W I M S V A F C P Q T Q R I	
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UniRef90_UPI00034BC177	G S E D E T V R L W D V N G G K C L R V L	Q I H N W V L S I A L S P D G Q T L	
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UniRef90_W6LP9	W L A S G S G R F S D R H K E D D A V R	L W R L E N R Q C I V A F S P D G R L L	
UniRef90_M5TTN3	V R Y D L N D E T P Q M I G L W G D E	G K S P G K L H Y P Y D A I D R D G T V L	
UniRef90_UPI000479E166	E I F D A D G N F L S Q F G K A G D G P	G S F A R P K G I A V D S D G H I L W	
UniRef90_K7W4U6	G S A D K T I K I W D V T T G K V L N	L T K G H E S T V W S V G F S P D G Q K L	
UniRef90_Q6AA90	Q G G A D V A E V D I T K S Q P L A T	H K I N V G F H P N K S V L T P D G K S Y	
UniRef90_UPI0002D423AB	G S F D Q T V K L W D I K S G Q C L K T	L K G H T S A I W S I A C S P D G Q M V	
UniRef90_B8MEW8	G S K D N T V K L W D L N S E N Y I	D T F N E H N D H I S V A F S P D G T H V	
UniRef90_I1QVK8	S R Y H I N G D K A G T V D K F I G D	L P G F P D N I R Y D G E G R Y W	
UniRef90_M4CHY7	K R Y W I K G P K A G S S E D F S N S	P S S L H P P S S I R R I G S T G N F W	
UniRef90_R7UCR7	R V F D V S R P G R E C Q N R K T Y D	K Q D G Q G M I S C I S V N P S D Q S L Y	
UniRef90_G9NWX9	G Q S D H S V T I V Q W V T V G K E R	H I F D D Y E I N S V A L S A D G N Y L	
UniRef90_W5TGV3	A V F D I A P D G S L S R R E T W P L	G F Y P D G I G L D G A G A V V W	
UniRef90_U6NGF8	Q V F N E N G Q F I R K C G F D T A F	F Y K H L D S P R G V C Y L S D G Q L L	
UniRef90_B0SDQ6	Y U R F D V D G T V H T V A G D G S A S	G E G D G M A V H T P L A M P A D G N L F	
UniRef90_E8V4X5	Y E G D Q T V D G S A G E G D G M A V	H A L A P D G S L W	
UniRef90_A0A011NIG6	Y D Y D S S T G D I S N R R V H I D P	L A P D G S L W	
UniRef90_UPI00044185C9	T S G S G Q V A R Y R P A D N E T D Y	L A E G L P E Y P D G L C I D S E G G I W	
UniRef90_A0A024QUH8	V T S S G Q Q V A R Y R P A D N E T D Y	L A G F D Q L Y G V A L L S D G S P V	
UniRef90_C3YTI7	F S F D L E G N L L A F G N Q G E D	K D G Q F L G P N G I T L D P A G N I I	
UniRef90_L0J8R3	T S F D K T V R L W D P T T G Q P I	G Q P L H H H S A V A A V A F S P D G T R I	
UniRef90_A8YMC6	G S W D N T I K I W E V A T G R E L	R T L T G H S L G V Y S V T Y S P D G R Y L	
UniRef90_U9W396	S Q T I A S A S A D H S I R L W S I T	G Q P I H R G R V H N V A F S P D G K L L	
UniRef90_UPI00034DAB50	F S V D Q T A L I T G Q A D C L I R I	W D L S T Q G I A R T L S D H T D G T L I	
UniRef90_UPI0002D9A337	G S E D N T I K I W D V I E T G E C L	Q T L R E H Q Q R V W L V N L H P N N S T L	
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UniRef90_B2IVX2	L L A S G S A D Y W D W K L G T C L	Q T L R H G H T S W V W T V V F S P D G R Q L	
UniRef90_UPI000248452B	Y S G D D C C V R K W D V L K G F E I	Q T F E G H A H W V M D V A V S Q D S Q Y L	
UniRef90_B9S6S6	R K Y Y I Q G N K K G Q I E N F I S L	P G A P D N I H S D G H G F W	
UniRef90_A3IK50	G S S D K T L K V W N I E T G E V I R T	L T G H D D W V G S V S I S T D G Q T L	
UniRef90_K1Q712	V V V V Y Q D G K L R W R Y T G H P S	V T K N K P F E P W G I T T D S Q S H I L	
UniRef90_N1MLR8	T A S G D T A Q V W G T E S C I P V G	K P F E S H G H D R L M G V A A N A R G A L V	
UniRef90_UPI0002DE2B30	G S E D M T M R L W N T A T G E L L Q	K F P R G V A V D D Q G Y I V	
UniRef90_R7SF62	V V V V Y Q D G K L R W R Y T G H P S	T G E T S H T V T V I D A K E L R P V K H F L V G H R P R F V V F S Q D G K A Y	
UniRef90_A0A023IVH6	T A S G D T A Q V W G T E S C I P V G	K A G T R D I F A K L P G Y A D N I R R T E T G D F W	
UniRef90_UPI00041ADD21	T A S G D T A Q V W G T E S C I P V G	K P F E S H G H D R L M G V A A N A R G A L V	
UniRef90_M7U6H5	G S E D M T M R L W N T A T G E L L Q	K F P R G V A V D D Q G Y I V	
UniRef90_E9GKU4	Q V F D V N G K V I A S F G G E G A D E	G Q F K P R G V A V D D Q G Y I V	
UniRef90_UPI0003742C26	T G E T S H T V T V I D A K E L R P V K H F L V G H R P R F V V F S Q D G K A Y	I N L E N L E K F E I D Q N K F I K Q K E N A D G F A D G M A V D E S G N I F	
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UniRef90_W9Y110	S Y V P I L A D G T A G A R Q V V V E G	M H N V P D G V A F A A D G S L F	
UniRef90_L9L8Z4	D T N V R V W D W Q A R K R L F I L S	S A A V G H K N W A R A L I A F S P C G R Y L	
UniRef90_M5EU41	S A A V V V T T F A G S G A A D Y T D G	S F N Q P N G G G F D S S G N I L Y	
UniRef90_U9VS55	R K I T S N A V V V T T F A G S G A A D Y	T D G S F N Q P N G G G F D S S G N I L Y	
UniRef90_UPI000465522E	R R T I C E P V K C H A D R V W S V V F	S P D G T R L	
UniRef90_UPI00042B792E	R V W D I A S R R T I C E P V K C H A D	R V W S V V F S P D G T R L	
UniRef90_UPI00044094B0	R V W D I A S R R T I C E P V K C H A D	R V W S V V F S P D G T R L	
UniRef90_C5DPG3	T K H G F Q E R E K F I D V T Q Y S T D	P E P D G S C L S S N G E L F	
UniRef90_X8IY82	Y L V S G S N D C T I C I W N V H T G Q	L A F G P F R E H I Y A V S P D G H F F	
UniRef90_K6V8N5	D V F D W S A E G G L T G R R P F V E	I P D G G R P D G L V V D A E G G V W	
UniRef90_B4M9N9	Y L I D P D I N D I L S V K G H E G S G	F H E F N R P S G L C C D D E G R I I	
UniRef90_I1F8C3	R V Q K F N P D G V Y M C Q F G Q S E	G S E G S G S G Q L K Q P A G I A V D N A G L V Y	
UniRef90_UPI0003830E4C	A L W F T E I G A G Q I G R V T V D G	T V T E Y P L P D R Q A R P H P D G A L W	
UniRef90_UPI000366F40E	Y C I P V D A A G K P G Q P D D I W M D	Q L V K G P D G M R A A A N G K L F	
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UniRef90_UPI000350B05E	W S F D G T V K V W N I I T G K T E K D F	A C H H G G A V L S C A V S P D G S K F	
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UniRef90_B9JSF2	L D P A T G L P T G T P S V H I D G	R G K D G A V C L D A E G G G L W	
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UniRef90_UPI00042B81A7	C S H D N T V R L W N T M S G R Q I Q R F	N G H S D H V N G L H F S R D G E T I	
UniRef90_B0DYW7	R K Y Y I Q G N Q Q G Q L E K F V Q D	L P G F P D N I R Y D G D G H Y W	
UniRef90_J9VNL5	I I S G S N D R T I R V W D A L T G Q	S I M N P L I G H N S V A F S P D G R Y I	
UniRef90_R7YU04	S T T P P Y W S N K R T F P P A L D	A E N P T Q G A Y D G L C V D G V G N V W W	
UniRef90_A0RVT6	G S H D R T A R L W S T D L I E P L R	I F A G H D Q D V D V A W H P N G A Y V	
UniRef90_C7RP16	H Q F D M S E P F D P S T S T Y A G F	A D L H T F T G H D Q D V D V A W H P N G A Y V	
UniRef90_UPI00037DB3D7	S S L D D T V R L W P V G D H A Q P R	V L Q G H T G W V R A A A F S P D S R R L	
UniRef90_B0DZA3	G S D D R T V I I W D L N H S Y S T R	T L S G H S K Y V T S V A F S P D G R F L	
UniRef90_D0LUU6	W L V G H S L R V W D A S T G V Q L K	E L G A C H H Q D S V H A V R F S P D G S R I	
UniRef90_R7WBL7	T S A D Q T V R I W E L D G S R D P	V Q L R H N I V V S A S F S P D G Q R V	
UniRef90_A0DE90	L R H W I K G S K T G I C E P F V D	L P S Y L D N V R P E R W G G Y W	
UniRef90_G4TW18	G S L D E C I C L L D V K T G Q Q K S R	L Y G H E Y A V K S V C F S P D G T T L	
UniRef90_E0UEV7	W V V D F S P D W D V H T G Q L L R E	P L Q G H Q D S V H A V R F S P D G S R I	
UniRef90_UPI0002FC2104	G S G D N T V K L W D T K G I C L K T C	S G H S N R V V I S V A F N P E G S L L	
UniRef90_V9XDH2	Q E D G S L A N E R I W A Q D D S V	H P D G I A L D A D G G V W F G N A L T L	

250 260 270 280

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UniRef90_G8YVC1	S A M F H T G K V L R F D S R G Q C T H E Y E L P A A R I T S V T V G G K N D			
UniRef90_UPI000478614A	V A D G E I F V Y D K Y G K E Q R R I Q M E E R P I S L A I G G K Q N			
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UniRef90_B0C7J8	A S C S T D S T I K L W D G D S G E L L Q T L R G H R N W V N S L A F S P P D G S			
UniRef90_B8M140	A S G S S E D Q T I K L W D P A T G T L K Y T L V G H S H S V Q S V V A F S P P D G			
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UniRef90_M5TTN3	I C E Y G N Q R I Q R F T A E G E L V G V W G S P G H Q P W G V V I D S S S G R			
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UniRef90_B8MEW8	V S G S D D K K V K L W N I N S S L K T F E G H T N G L R S V A Y S P D G T			
UniRef90_I1QVK8	I I A I S A G R T L Q			
UniRef90_M4CHY7	I I A A T N Q T A V A K V D S N G E V I Q R I Y V P			
UniRef90_R7UCR7	A A G S S Y N R S I A V Y S E P R G E M I C L L Q G Q T G G V T H L A F S A D G T			
UniRef90_G9NWX9	A S G S S D G V I R I W D T T T G E E R R R L K G H S Y S V T S V A F S V E G R			
UniRef90_W5TGV3	V S D P V K S Q A R R V T F G G E E T G R V S T D Q T C I A C A V G G E D D R			
UniRef90_U6NGF8	I I T D F N N H R L A V L S S R D T P T E G S V E G M F C R P Q G V K V D P E G H			
UniRef90_B0SDQ6	V A L F			
UniRef90_E8V4X5	V A D T K S Q R I L V V E D D N G A V G I A V G N G E Q A A S I A Q G			
UniRef90_A0A011NIG6	V A Y Y G N G R L A R L D P A T R Q V T D S W P L P G K G A Y A V T V D G A G R			
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UniRef90_A0A024QUH8	V V E Q G T G R V L R L A G T D T E V L A T L D T P V G V T T S V A V T P Q G D			
UniRef90_C3YT17	V G N L R D G R V Q V F P D G T F I R T V A T V K G N E T G G L L A L T P D G			
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UniRef90_U9W396	A S S Y S D R T V R I I W R Q D G T L V T T L Y G H H N G A T W G V A F S P P D G Q			
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UniRef90_UPI0002D9A337	L S I S E D Q T I V K L W D I N S R R C L K T L E G Y S N W I L S L A F S P P D G Q			
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UniRef90_K1Q712	T A D S D N H C I H T L D Q N G Q F L R Y I D N F D L K D P T G L C V D N N D			
UniRef90_N1MLR8	F A E Q G T G Q V H V A E N G A V R A I A T G L D Q P M G V A V D G D			
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UniRef90_E9GKU4	V A D S G N N R I I Q V F T A D G			
UniRef90_UPI0003742C26	V S A E I G G T V V S V I D A K A H R V V E T I I S L G D S R P V E M A L S P P D G K			
UniRef90_UPI00046EC973	T T T S L G V S V F S K D A K L L G F I H L D E T P T N I S F G K G			
UniRef90_UPI000374F1E7	V S D T Y N H A L R R Y D P A T G Q V T T L A T D V R E P S D A V L V I G D S G			
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UniRef90_M5EU41	I I S C Y E P S R I Y R W R R G K G L E V V I E D P A A H P T N I A F K C D			
UniRef90_U9VS55	I I S S D D D Q T V V R I W D L D A Q I C V R I L R G H T D R V R S V A V S P P D G G			
UniRef90_UPI000465522E	V A D T F N N R I I R K I S A			
UniRef90_UPI00042B792E	I I A L V T E N T			
UniRef90_UPI00044094B0	UniRef90_C5DPG3	A S G S A D N T I R I W D A K S G K I I L E P F K G H T D V V N S V A F S P P D G K		
UniRef90_X8IY82	V S I L W G H S K V Q V F S T K D G A L L Q E I I L P T P R V S C C A V V G S			
UniRef90_K6V8N5	V S A A K D D T I R I W N T K T W H S R L L F R N T G V V N S V T F S P P D G S			
UniRef90_B4M9N9	V A V A N G G R V E H Y T V S G E L A E V V E V I G A R K V T A C T F G G E G D			
UniRef90_I1F8C3	V A D S K N Q R I I L V F N Q N L D F M W D I E V R P S I N P L M P T L D E K D R			
UniRef90_UPI0003830E4C	V T E Y G N H C V S I F T S D G S F V R V G I N E D Q F K N P Y G I C F D S D G			
UniRef90_UPI000366F40E	F T E W G R G G V G R I T T D G R I T A Y D L P R A D C E P H G I A A H D G			
UniRef90_UPI00042B792E	V A E N A S G K I I S V L T I I N G D K A V T V L K E G L K T P T A V E P A G D			
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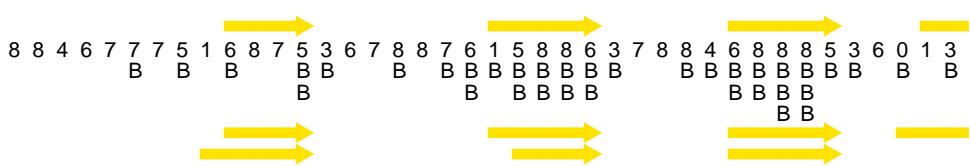
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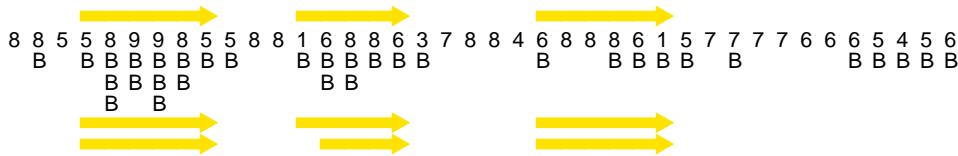
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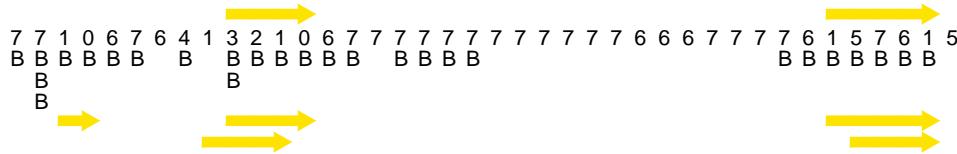
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 jhmm
 jpssm



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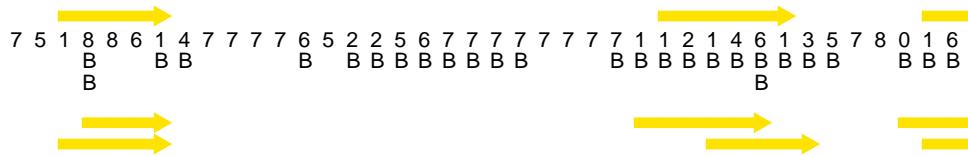
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P G K E E G Q F D R P N G I A V G D D G T Y V S D S N N L R V Q A L D Q N G K
S G K A E L K I N D L I V G N G L A F S P K G D S V F L S D T R H K C I
S D Q M G L T L G L D G T L F G S M N T T A S A V L G R V L R F S S T G G Y E L
I D K T I R L W D V Q S G Q E V K R M I G H S N V V K T V Q F S P N A Q T I V S
F E Q K V Y W A D S V E S S I H S I V K Y G D K E S R V D W S I F I E S S P K A
F V S A S L D K T L K L W A R D G T L K T T L S K H R A A V Q S V A I S P N S Q
V Y A T L P G R G E I F V A D A G G N S I V N P R S G D V R T V A V L P P Q R Y
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S V A V H M K T K M N E W M D F Q Q L S K D N V K L I I E Y W T R T L K I K L G
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S P S G H I M S D D L T V R L W Y L E S E E S L V I D V G T V R S V A F S P D
M N Q G E F D E P V G L A I D N E G L L Y V A D T W N Q R I Q V F
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 lupas_28
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 sol5
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 jhmm
 jpssm



lupas_21
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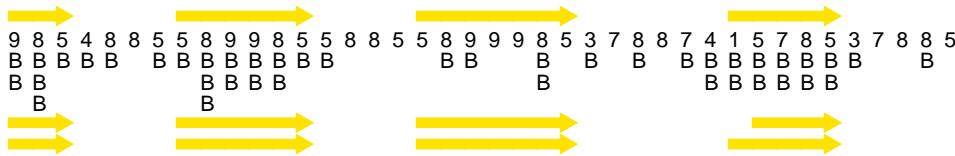
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A S G S S D W R V | V R R W S | L D R S | V L L T T L E G H R N W V | R A V A F S T D G K
V I D A F D F N | K V L I S P Q G K L L | R G V D D G T F N F P N G | I A | T K D K
V A I L E G Y R | L D R F S E R G E F V E S I E | L P | L A K P T M P C F G G Q G N
R K I H S D G R | V T T L A G A G D | G L R N L F A A F N Q | L G A V T V | D S A G N
V S G S D T G T | I R V W D V A S G S Q T T | I L Q G H K S G V | T D V R F S P N G Q
L I Y A N T T S I H R I Y A D G S G H M T I A K A G L N N I S T I E F D P | L E K
A S A A M D N T V K L W Q V D | L A K | F R T L I G H D R A I | R S I T T F S P D G K
V S S L P G G R | V F T V D P | P W S G E V | V N R V V A | D | L G P T S I A F S S S G D
C A S V G D N T | L R V W D A D T G R L V T Q L | S G H H N D K V S H | L K F S P D G E
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A A S S D D G M I | R V F D A D | I R Q V G A P V Q A H T G G I | W T V A F A A D G S
V S N N N G S G T V | S E V | D T T G K T V R E V V Q V | G S Q P R S M A M S P D G G
V S A G W D G T L | R V W D A A S G E S L R T L | R G H E G G V | V R S | C T F S P D G A
T A D Y Y N H C | H I M D Q D G Q F | L R F | D N C D | L E Y P | W G L C V D | N N D
I A L P S G
A S G S F D F T | I R V W D V Q T G E | C L | K V L Q G H T G A V F A | L A F T S G G Q
Y G Y S A P | V Q G F M L | N F S N G D | I L D T F | I P A R K P H | D I A A A D D G
I A D T G T Q R V R V V G R D T G D A V | P A G I A P | L N S P M G L | A V D G A G N
A S G N D D N S I Y L W D V K T | G Q Q K A K L | D G H S S Q V | S V C F S P D G T
V A T K | L G | V Q V F D R E A | R L R A M I E A P G A G V V N V M F A G S G Q
V S G S G D R T | I R I W D A K T G K A I | G K L | T G H E G W V S S | V A F S P D G K
V A
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lupas_21
 lupas_14
 lupas_28
 jnet
 conf
 sol25
 sol5
 sol0
 jhmm
 jpssm



The figure displays a sequence alignment of UniRef90 proteins, focusing on a specific region from position 290 to 310. The alignment shows the following sequence:

```

  290          300          310
  R | L | A S A G D D G S | L R | W E A A N G H P | L R V Y A M E P G
  T | L | V S T G Q D G T | L | Y | L W D V E K R
  L | L | A S A S T D G T | L | Y | L W D V E K R
  V | I | Y V A D K E N D R | V Q A I R L
  V | L | L V C S A Q
  I | Y A A D A A N H S I R K I | D M D R D G | P | D V L | E G G
  T | V S C S N D G T I | R I | W D | V K S A K E H S R S | L | T G
  M | V Y F A D H G R G | V I | E R V R T D G R G | L E V V | S
  S | L | V S A S D D Q T | L | M R
  L | L | Y I A E L F A D R I | S | V V S | W G G H | E A E E F | L S V
  R | I | V S S S D D S T | L | R | L | W D | L | R R E
  T | M | Y L A D Y D Y N | C |
  R | L | A T G S S D H
  I | W F
  L | L | F S G A R K D A E | L | L | C | W D | L | R R | P | G R | P | L | W S
  T | V | V S C S N D G T I | R | L | W K T | N T
  T | L | A S A S W D T A K | L | W S | V D | P | G T R
  A | L | Y | V G N Y G S S T | V | S K I | R T E
  W | L | V S A G E G R
  N | L | F | V S E H | L | N G N | V K K | I K
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  UniRef90_K2C7P3
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Conservation is indicated by color coding: Red for hydrophobic, Blue for polar, Green for aromatic, Yellow for conserved positions, and Black for non-conserved positions.