

QUERY	1	10	20	30	40																																												
UniRef90_UPI00041B9436	MK	V	L	L	L	E	K	V	I	K	E	N	L	L	G	G	K	L	G	D	T	V	N	V	A	D	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	E	A	T	S			
UniRef90_S6CFS2	ME	V	L	L	L	L	K	V	A	K	L	L	L	L	G	G	Q	L	G	D	K	V	N	V	K	D	K	D	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	F	R	A	N
UniRef90_UPI0003B4518A	MK	V	L	L	L	L	Q	R	I	V	A	K	L	L	G	G	K	L	G	D	V	N	V	K	D	K	D	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	L	P	E	A	T	
UniRef90_A5WFZ1	MQ	V	L	L	L	L	Q	R	I	V	A	K	L	L	G	G	K	L	G	D	V	N	V	K	D	K	D	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	L	P	E	A	T	
UniRef90_E6SL16	MK	V	V	L	L	L	L	L	L	V	D	K	G	L	L	G	G	R	K	A	G	E	V	V	K	D	D	D	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	L	L	A	R	E	A	T	
UniRef90_A6G1R2	Q	V	L	L	L	L	T	N	D	V	A	K	L	L	G	G	R	K	A	G	E	V	V	K	D	D	D	D	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	L	L	A	R	E	A	T	
UniRef90_A0A021W7D6	MQ	L	L	L	L	L	Q	R	I	V	A	K	L	L	G	G	K	L	G	D	K	V	N	V	K	R	A	P	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	P	A	T	
UniRef90_D0LPW2	MQ	L	L	L	L	L	Q	R	I	V	A	K	L	L	G	G	K	L	G	D	K	V	N	V	K	R	A	P	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	P	A	T	
UniRef90_UPI00035E164A	MQ	L	L	L	L	L	T	E	R	V	A	K	L	L	G	G	Q	A	G	E	L	V	V	K	R	A	P	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	L	A	S		
UniRef90_UPI0003720B5A	MK	V	L	L	L	L	K	E	D	V	E	K	L	L	G	G	Q	A	G	E	L	V	V	K	R	A	P	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	L	A	S		
UniRef90_UPI00036D55F1	MN	V	L	L	L	L	E	K	I	A	R	N	L	L	G	G	D	L	G	D	S	V	V	K	A	E	G	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	L	A	S		
UniRef90_C7R8X8	MN	V	L	L	L	L	E	K	I	A	R	N	L	L	G	G	D	L	G	D	S	V	V	K	A	E	G	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	L	A	S		
UniRef90_Q1IHW5	ME	V	L	L	L	L	K	Q	D	V	E	K	L	L	G	H	Q	G	D	T	V	V	K	V	A	E	G	G	Y	A	R	N	N	F	L	L	P	K	K	L	A	L	E	A	T				
UniRef90_UPI0002FE27D8	ME	V	L	L	L	L	E	K	V	A	K	L	L	L	G	G	S	Q	L	G	D	T	V	V	K	R	A	D	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	L	A	T	
UniRef90_N6W2N1	ME	V	L	L	L	L	E	K	V	A	K	L	L	L	G	G	S	Q	L	G	D	T	V	V	K	R	A	D	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	L	A	T	
UniRef90_UPI000237B72C	MK	I	L	L	L	L	T	A	D	V	A	T	G	L	L	G	E	S	G	D	T	V	V	K	V	K	D	G	Y	A	R	N	N	F	L	L	P	R	S	L	A	L	V	J	A	T			
UniRef90_E0MLF1	MD	V	L	L	L	L	E	R	V	A	K	L	L	L	G	H	L	G	D	T	V	V	K	V	K	D	G	Y	A	R	N	N	F	L	L	P	K	N	E	K	A	L	V	L	A	T			
UniRef90_UPI00036E4427	MQ	V	L	L	L	L	E	R	V	A	K	L	L	L	G	G	A	M	G	E	V	V	K	V	K	D	G	Y	A	R	N	N	F	L	L	P	P	K	E	G	K	A	L	V	L	A	T		
UniRef90_D9SHH0	MQ	I	L	L	L	L	M	E	K	V	T	N	L	L	G	S	L	G	D	V	V	N	V	K	N	D	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	L	A	T			
UniRef90_UPI00047D3E33	MK	L	L	L	L	L	T	Q	E	V	P	G	L	L	G	S	L	A	G	D	V	V	N	V	K	D	D	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	F	A	L	V	A	W	T		
UniRef90_C7MPK2	MK	L	L	L	L	L	T	Q	E	V	P	G	L	L	G	S	L	A	G	D	V	V	N	V	K	D	D	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	F	A	L	V	A	W	T		
UniRef90_Z9JIW2	ME	L	L	L	L	L	Q	K	V	A	K	L	L	L	G	S	L	E	G	D	K	V	T	V	K	S	G	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	P	A	T		
UniRef90_Q0EY97	MQ	L	L	L	L	L	E	R	V	A	K	L	L	L	G	G	N	V	G	D	E	V	S	V	R	A	P	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	S	P	A	T	
UniRef90_Q0I4E8	MQ	V	L	L	L	L	E	R	V	A	K	L	L	L	G	G	N	V	G	D	E	V	S	V	R	A	P	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	S	P	A	T	
UniRef90_UPI00046D42C4	MK	V	L	L	L	L	K	E	T	V	P	N	L	L	G	T	V	G	D	V	V	T	V	V	R	D	G	Y	A	R	N	N	F	L	L	P	K	G	L	A	L	V	L	A	D	S			
UniRef90_A0P6N0	MQ	I	L	L	L	L	E	K	V	A	N	L	L	L	G	G	A	L	G	D	V	V	D	V	K	D	D	G	Y	A	R	N	N	F	L	L	P	E	G	K	A	L	V	L	A	T			
UniRef90_K1ZIK7	ME	V	L	L	L	L	E	K	V	A	N	L	L	L	G	G	A	L	G	D	V	V	D	V	K	D	D	G	Y	A	R	N	N	F	L	L	P	E	G	K	A	L	V	L	A	T			
UniRef90_A4BM04	ME	V	L	L	L	L	E	K	V	A	N	L	L	L	G	G	A	L	G	D	R	V	N	V	R	D	G	Y	A	R	N	N	F	L	L	P	Y	G	K	A	L	V	P	A	T				
UniRef90_R7IPD0	MQ	V	L	L	L	L	E	N	I	H	H	L	L	L	G	G	A	L	G	D	V	V	K	V	K	D	D	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	L	A	L	V	L	A	T		
UniRef90_M4RPP2	K	I	L	L	L	L	T	E	N	I	H	H	L	L	G	G	A	L	G	D	V	V	K	V	K	D	D	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	L	A	L	V	L	A	T		
UniRef90_N6VG02	MD	I	L	L	L	L	E	R	I	P	H	L	L	L	G	G	Q	L	G	D	L	V	S	V	K	N	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	L	A	T			
UniRef90_A4XQ00	ME	V	L	L	L	L	E	K	I	A	N	L	L	L	G	G	N	V	G	D	K	V	N	V	K	A	G	Y	A	R	N	N	F	L	L	P	Y	E	K	L	A	V	L	A	T				
UniRef90_F0WA30	L	L	L	L	L	L	K	E	D	I	K	L	L	L	G	G	N	R	G	D	E	V	N	V	K	A	G	Y	A	R	N	N	F	L	L	P	Y	E	K	L	A	V	L	A	T				
UniRef90_K9DZP7	MQ	V	L	L	L	L	E	K	V	T	N	V	L	L	G	N	L	G	D	V	V	K	V	K	D	G	Y	A	R	N	N	F	L	L	P	Q	K	M	A	R	R	A	T						
UniRef90_E6JBU3	MK	L	L	L	L	L	T	A	D	V	D	K	L	L	G	A	P	L	G	D	I	V	E	V	K	G	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	M	A	L	V	L	A	T			
UniRef90_UPI000262505F	MK	V	L	L	L	L	E	R	I	N	K	L	L	L	G	G	A	L	G	D	V	V	K	V	K	D	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	L	A	T			
UniRef90_A0LAG5	ME	V	L	L	L	L	E	K	I	G	K	L	L	L	G	N	L	G	E	V	V	K	V	R	S	G	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	L	A	T			
UniRef90_I0HSR9	MQ	V	L	L	L	L	E	K	V	A	K	L	L	L	G	N	L	G	D	V	V	K	V	R	S	G	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	L	A	T			
UniRef90_L8D6E4	MQ	V	L	L	L	L	D	K	I	A	N	L	L	L	G	N	L	G	D	Q	V	A	V	K	S	D	G	Y	A	R	N	N	F	L	L	P	R	G	K	A	L	V	L	A	T				
UniRef90_J4UZ55	MK	I	L	L	L	L	D	K	I	Q	R	L	L	L	G	E	L	G	D	T	V	E	V	N	S	G	Y	A	R	N	N	F	L	L	P	Q	K	K	A	A	F	A	S						
UniRef90_Q2RM68	MK	V	L	L	L	L	A	D	V	A	K	L	L	L	G	N	R	G	D	L	V	E	V	S	E	P	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	L	A	L	V	L	A	T			
UniRef90_F3Z3G1	MK	I	L	L	L	L	T	R	A	D	V	D	N	L	L	G	V	L	G	D	E	V	A	V	K	P	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	L	A	L	V	L	A	T			
UniRef90_Q31FW7	MN	V	L	L	L	L	E	K	V	Q	N	L	L	L	G	S	L	G	E	Q	V	A	V	K	S	G	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	P	A	T			
UniRef90_R6UND2	MK	V	L	L	L	L	E	K	V	K	K	L	L	L	G	N	K	K	G	D	T	V	E	V	S	D	D	G	Y	A	R	N	N	F	L	L	P	N	K	N	L	A	V	L	A	T			
UniRef90_B2UAG7	MQ	I	L	L	L	L	E	K	V	V	N	L	L	L	G	N	L	G	D	V	V	R	V	K	S	D	D	G	Y	A	R	N	N	F	L	L	P	N	K	Q	A	L	V	L	A	T			
UniRef90_K2M5D6	ME	V	L	L	L	L	Q	R	V	E	K	L	L	L	G	G	Q	M	G	D	V	V	T	V	K	P	G	H	A	R	N	N	F	L	L	P	K	G	M	A	L	V	L	A	T				
UniRef90_UPI000376C7A6	ME	V	L	L	L	L	E	K	V	E	K	L	L	L	G	G	Q	M	G	D	V	V	R	V	K	S	G	G	Y	A	R	N	N	F	L	L	P	Q	Q	G	K	A	L	V	L	A	T		

QUERY P A N L K A L E A Q K Q
 UniRef90_UPI00041B9436 P A N I E R F E A R R R
 UniRef90_S6CFS2 P E N I K M F E E R R R
 UniRef90_UPI0003B4518A D A N I K S F E A R K
 UniRef90_A5WZF1 P A N V E K F E A R R
 UniRef90_E6SLI6 R E V L N Q L Q Q Q
 UniRef90_A6G1R2 K A N M R Q L E H H R R
 UniRef90_A0A021W7D6 A S N L A D F E T R R R
 UniRef90_D0LPW2 S R N V K Q L E H D R R
 UniRef90_UPI00035E164A H A N Q K V F E R R R E
 UniRef90_UPI0003720B5A K S T T A E L E L R M R
 UniRef90_UPI00036D55F1 E A N I A A F E E R K
 UniRef90_C7R8X8 K D N L K H F E E R R
 UniRef90_Q1IHW5 A A N K A V I E Q M K
 UniRef90_UPI0002FE27D8 D G N K K H F E T Q R
 UniRef90_N6W2N1 E T N V K E F E A R R
 UniRef90_UPI000237B72C K G A Q K Q I E T I R R
 UniRef90_E0MLF1 K A N Q S Y F D G Q R
 UniRef90_UPI00036E4427 D G N M A R F E A Q R E
 UniRef90_D9SHH0 T A N M A E F E V R R
 UniRef90_UPI00047D3E33 K G G Q K Q I D D I R R
 UniRef90_C7MPK2 A G N L K Q L E Q R R H
 UniRef90_Z9JW2 E A N V A A F Q A K R
 UniRef90_Q0EY97 N G N R R I F E R R R
 UniRef90_Q0I4E8 Q A N I E Y F E S R R
 UniRef90_UPI00046D42C4 P R N V K A I E H Q R R
 UniRef90_A0P6N0 E A N K A E F E G R R
 UniRef90_K1ZIK7 P A N I A K F E A R R
 UniRef90_A4BM04 S E N I K D F
 UniRef90_R7IPD0 K A A L A E F E T R R
 UniRef90_M4RPP2 K G A A A Q I E A M K R
 UniRef90_N6VG02 E T N K K Y F E T Q R
 UniRef90_A4XQ00 A E N V A A F E A R R
 UniRef90_F0WA30 P E N Q K T H K I N K E
 UniRef90_K9DZP7 A S A V A E F E A K R
 UniRef90_E6JBU3 P G A E R Q I E S I K R
 UniRef90_UPI000262505F Q R N L E E F A E R K
 UniRef90_A0LAG5 S E N K S V F E A Q R
 UniRef90_I0HSR9 D V A I K E F A E R R
 UniRef90_L8D6E4 Q A N I E S F E A R R
 UniRef90_J4UZ55 K S N I A E V E A R K E
 UniRef90_Q2RM68 A G R L K E L D L E K
 UniRef90_F3Z3G1 G S N R K Q F E L E S K
 UniRef90_Q31FW7 K E N I A E F E A R R
 UniRef90_R6UND2 K K S M E I L D E Q
 UniRef90_B2UAG7 D S A I K E F E A R R
 UniRef90_K2M5D6 K A N L A V F E A K K
 UniRef90_UPI000376C7A6 K D N M A V F E R Q R
 UniRef90_Q489T8 E A N V E H F E A R R
 UniRef90_A6W0Y6 K A N L A S F E E R R
 UniRef90_K2CLT8 G D N L K Q F E E K R
 UniRef90_W0TRC5 S D N L A V F E Q R R
 UniRef90_UPI000225C071 K A N L E F F Q G Q K
 UniRef90_D9S182 P G N
 UniRef90_B2GJD5 R G A E K Q I E S I K Q
 UniRef90_UPI000311EC03 K A N V E H F E A R R
 UniRef90_I7LCF7 E G A I K Q A D E I R R
 UniRef90_L7LCE5 R G A E K Q V E G I R R
 UniRef90_F7CQQ7 P E N K K I F E A E
 UniRef90_UPI000262D1A6 E A N V A E F E T R R
 UniRef90_UPI00047C745B P A A K K M L A E
 UniRef90_E1QHQ2 K K N M A A V E A E R K
 UniRef90_UPI00036BC5C9 D A N R K I V E Q E R Q
 UniRef90_W7ID07 K G A E K Q V Q V I R R
 UniRef90_UPI0003695FBE A A N R E V F E A Q R
 UniRef90_S9PDB7 E Q N V R Q L E H E R
 UniRef90_UPI0004676EB6 A A N M N K L E G A Q
 UniRef90_UPI0002D2DA55 A A N L K R F D E E R
 UniRef90_M1ZD30 E S N L K Q M A A K
 UniRef90_K2A448 Q E S I H L F E H R
 UniRef90_UPI0003B64651 E R N R R Y L E H Q K R
 UniRef90_UPI00035DCB4C E A N I A A F D Q Q K
 UniRef90_F8GK24 E Q A I A E F Q S K R
 UniRef90_BOPF95 A Q A L G E M K A K Q
 UniRef90_A8U1U1 D A N R K V F D E R R
 UniRef90_G4T061 A S K I A E F E A R R
 UniRef90_B0JQ94 K G A I K Q A E F R K E
 UniRef90_UPI00045E7A4C K A N K E R F E T M K
 UniRef90_X0SIE0 K A N V K T V E A D K Q
 UniRef90_F8F3J4 E R N L K I F E A R
 UniRef90_A2SG02 E T A V K E F E A K R
 UniRef90_UPI000368FB08 P A A K K M L
 UniRef90_V6KZ91 K G G E K D V E Q I R R
 UniRef90_A5CY78 K G R M K A L G D R Q K
 UniRef90_F1ZDC3 D A N R K I F E A N R
 UniRef90_W8VRU0 P G A K K Q L A E
 UniRef90_R4I0F5 K K N I D L F E A R
 UniRef90_UPI0003B49AB3 R D N I N T M E Q N E K
 UniRef90_S7TL76 P S N L K R F E L E R K
 UniRef90_R6HYX0 E A N V A Y F E K Q K
 UniRef90_UPI00040F5355 P S N I K M M E E I Q R
 UniRef90_G8SFP5 K G A E K Q V A V I K R

	1	10	20	30	40																																											
UniRef90_Q1YRP9	M	E	V	I	L	L	E	K	V	G	K	L	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T					
UniRef90_UPI0003681DD0	M	E	V	I	L	L	D	K	V	G	K	L	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T					
UniRef90_L8Y382	L	E	L	L	L	L	Q	D	E	E	E	E	N	L	R	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T				
UniRef90_C4K4M9	M	E	V	I	L	L	D	E	I	E	E	E	N	L	R	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T				
UniRef90_A0A011NRZ6	M	Q	I	I	L	L	M	E	K	V	A	N	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T		
UniRef90_R5FXL8	M	K	I	I	L	L	K	E	D	M	P	N	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T		
UniRef90_UPI0003B6D65D	M	Q	V	I	L	L	L	Q	D	V	K	T	N	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_UPI00046EFAE0	M	Q	I	V	L	L	I	Q	D	V	K	T	N	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_L1QN25	M	K	V	V	L	L	L	E	R	V	E	N	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_K0CBM2	M	Q	V	I	L	L	L	E	R	V	E	N	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_B6JGW6	M	E	V	I	L	L	L	E	R	V	E	N	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_B8J3A8	M	K	L	L	L	L	R	A	D	V	E	N	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_F5YVP8	M	K	L	L	L	L	T	A	E	V	D	H	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_E6PS22	M	Q	I	I	L	L	L	E	K	V	T	N	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_R5VLH6	M	K	V	I	L	L	N	Q	R	V	K	S	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_G4RG13	M	K	V	I	L	L	L	E	R	V	G	R	M	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_G2DFS7	M	D	I	I	L	L	L	Q	K	V	D	N	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_D5MK07	M	K	I	V	L	L	L	E	Q	V	E	K	S	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T
UniRef90_UPI0003B516BC	M	E	V	I	L	L	L	E	R	V	E	N	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_Q1YIF3	M	D	V	I	L	L	L	E	R	I	A	K	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_Q04HQ3	M	K	V	I	F	L	L	Q	D	V	K	S	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_UPI0003656681	M	K	L	L	L	L	T	A	P	V	E	H	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_R1ATR2	M	K	V	I	L	L	K	D	V	E	K	S	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_S6AHH7	M	Q	L	L	L	L	L	E	K	V	V	N	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_B8G019	M	K	V	I	L	L	K	A	D	V	K	A	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_G2LJA2	M	E	L	L	L	L	K	E	N	V	E	H	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_B3QVR4	M	K	I	L	L	L	R	K	E	V	S	S	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_F0NZ67	M	N	V	I	L	L	K	Q	D	V	E	S	G	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T
UniRef90_K1E4B9	M	K	V	I	L	L	T	H	E	V	S	G	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_V6IX99	M	K	V	I	F	L	L	K	D	V	K	S	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_UPI00037A3188	M	E	V	I	L	L	K	E	D	I	Q	S	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_X0SFF0	M	K	I	L	L	L	T	R	D	V	P	N	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_R5K1R3	M	K	V	I	L	L	L	E	Q	V	K	S	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_Q3JEJ4	M	E	V	I	L	L	L	E	Q	V	V	N	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_UPI000255AC10	M	E	L	L	L	L	K	Q	D	V	Q	D	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_UPI0004143494	M	E	I	L	L	L	T	E	N	V	P	S	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_UPI0003B38D3E	K	I	L	L	L	L	T	K	S	V	A	N	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_A3DHN0	M	K	V	I	L	L	K	E	D	V	K	G	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_U5DT79	Q	V	V	L	L	L	R	H	D	V	K	K	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_C0XQX5	M	K	L	L	L	T	A	A	V	D	K	K	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_D1A8E7	M	K	L	L	L	L	T	A	Q	V	S	G	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_G0VND0	M	K	V	I	L	L	L	L	E	Q	V	K	S	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T
UniRef90_A9GXK9	V	V	L	L	L	L	T	E	D	L	H	N	V	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T
UniRef90_C5WCH5	M	Q	V	I	L	L	L	D	K	V	A	K	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_U4TU81	M	K	V	I	F	L	L	E	Q	V	V	R	G	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T
UniRef90_B2T3N6	M	Q	I	L	L	L	L	E	K	V	V	N	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_B3E6H6	M	K	L	L	L	L	K	E	N	I	E	H	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_R6UJC4	M	K	V	I	L	L	L	Q	D	V	K	K	L	L	L	G	G	N	L	G	D	K	A	V	V	K	S	G	F	G	R	N	N	Y	L	I	V	P	Q	G	K	A	V	F	A	T	T	
UniRef90_UPI0003691BAF																																																

UniRef90_Q1YRP9
UniRef90_UPI0003681DD0
UniRef90_L8Y382
UniRef90_C4K4M9
UniRef90_A0A011NRZ6
UniRef90_R5FXL8
UniRef90_UPI0003B6D65D
UniRef90_UPI00046EFAE0
UniRef90_L1QN25
UniRef90_K0CBM2
UniRef90_B6JGW6
UniRef90_B8J3A8
UniRef90_F5YVP8
UniRef90_E6PS22
UniRef90_R5VLH6
UniRef90_G4RGI3
UniRef90_G2DFS7
UniRef90_D5MK07
UniRef90_UPI0003B516BC
UniRef90_Q1YIF3
UniRef90_Q04HQ3
UniRef90_UPI0003656681
UniRef90_R1ATR2
UniRef90_S6AHH7
UniRef90_B8G0I9
UniRef90_G2LJA2
UniRef90_B3QVR4
UniRef90_F0NZ67
UniRef90_K1E4B9
UniRef90_V6IX99
UniRef90_UPI00037A3188
UniRef90_X0SFF0
UniRef90_R5K1R3
UniRef90_Q3JEJ4
UniRef90_UPI000255AC10
UniRef90_UPI0004143494
UniRef90_UPI0003B38D3E
UniRef90_A3DHN0
UniRef90_U5DT79
UniRef90_C0XQX5
UniRef90_D1A8E7
UniRef90_G0VND0
UniRef90_A9GXK9
UniRef90_C5WCH5
UniRef90_U4TU81
UniRef90_B2T3N6
UniRef90_B3E6H6
UniRef90_R6UJC4
UniRef90_UPI0003691BAF
UniRef90_R6A6F7
UniRef90_V7I5Z2
UniRef90_E8T4E1
UniRef90_S6CCW1
UniRef90_I3VIF3
UniRef90_UPI0003B47C0D
UniRef90_B8KW97
UniRef90_E6VU48
UniRef90_C7NGT4
UniRef90_UPI0003B4E719
UniRef90_R6HDN0
UniRef90_UPI0004708594
UniRef90_A1B0F6
UniRef90_Q21LV8
UniRef90_UPI0003B39A0B
UniRef90_R5JJQ7
UniRef90_D9SPB6
UniRef90_T1BK42
UniRef90_D4MAQ7
UniRef90_Q67J52
UniRef90_K9RXA3
UniRef90_D6Z2S3
UniRef90_UPI00016C04B0
UniRef90_S3EIH7
UniRef90_C5CD93
UniRef90_F0RJS7
UniRef90_X4RAM3
UniRef90_B9KYY4
UniRef90_UPI0003B35DFC
UniRef90_Q73M35
UniRef90_J1FMG3
UniRef90_UPI000422C037
UniRef90_G0HI78
UniRef90_C9LYM3
UniRef90_B8GNS5
UniRef90_A5EXM9
UniRef90_UPI0003B3DFA0
UniRef90_UPI0002FEE556
UniRef90_H8KXR6
UniRef90_R7KR74
UniRef90_R7XSR8
UniRef90_U2K4J5
UniRef90_R6IP38

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

	1	10	20	30	40																																																		
UniRef90_Q9RY49	MQ	V	I	L	L	E	P	S	R	L	L	G	G	K	D	R	S	A	K	G	F	E	V	V	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T						
UniRef90_F4KTB1	MQ	V	I	L	L	K	E	D	I	S	D	K	L	L	G	G	K	D	R	S	A	K	G	F	E	V	V	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T			
UniRef90_UPI00046CFD00	MK	V	I	L	L	N	S	E	D	V	V	K	N	G	S	L	L	G	G	K	D	R	S	A	K	G	F	E	V	V	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T
UniRef90_R6GRJ5	MK	V	I	L	L	L	K	E	D	V	V	K	N	G	S	L	L	G	G	K	D	R	S	A	K	G	F	E	V	V	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T
UniRef90_X5A7C2	MK	V	I	F	I	K	D	V	V	K	N	G	S	L	L	G	G	K	D	R	S	A	K	G	F	E	V	V	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T		
UniRef90_K1LTN2	MD	I	L	L	T	K	D	V	V	E	N	G	S	L	L	G	G	K	D	R	S	A	K	G	F	E	V	V	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T		
UniRef90_C0QQX0	MK	V	I	L	L	T	K	D	V	V	E	N	G	S	L	L	G	G	K	D	R	S	A	K	G	F	E	V	V	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T	
UniRef90_C0E9D0	MK	V	I	L	L	Q	T	D	V	V	K	N	G	S	L	L	G	G	K	D	R	S	A	K	G	F	E	V	V	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T	
UniRef90_G5H2N5	MK	V	I	L	L	Q	T	D	V	V	K	N	G	S	L	L	G	G	K	D	R	S	A	K	G	F	E	V	V	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T	
UniRef90_R5ELN0	MK	V	I	L	L	Q	T	D	V	V	K	N	G	S	L	L	G	G	K	D	R	S	A	K	G	F	E	V	V	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T	
UniRef90_V9F4P2		V	L	L	K	E	D	V	V	S	N	L	L	G	G	F	R	G	D	E	V	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T									
UniRef90_U6B7A0	ME	V	I	L	L	Q	N	L	E	S	N	L	L	G	G	P	M	G	K	T	V	V	K	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T							
UniRef90_R6C9K2	MK	V	I	L	L	Q	D	E	K	K	L	L	G	G	K	T	V	V	K	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T											
UniRef90_X8IU05	MQ	V	I	L	L	K	K	D	V	V	K	G	A	G	G	K	A	G	D	V	V	V	K	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T							
UniRef90_UPI00046F6304	MQ	V	I	L	L	K	E	K	I	A	N	L	L	G	G	E	L	G	S	L	V	N	V	K	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T						
UniRef90_F0R4N3	ME	I	L	L	K	E	D	V	V	A	N	L	L	G	G	K	K	N	D	L	V	V	K	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T							
UniRef90_K2DZL8	MK	V	I	L	L	Q	E	K	V	V	N	L	L	G	G	N	V	G	D	Q	V	N	V	V	R	A	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T										
UniRef90_D5HF17	MK	V	I	L	L	Q	D	V	V	K	S	L	L	G	G	K	K	G	A	M	V	E	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T								
UniRef90_R7CRA9	MK	V	V	L	L	Q	D	V	V	K	M	L	L	G	G	K	K	G	D	V	V	V	N	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T										
UniRef90_O67830	MK	V	V	L	L	V	K	D	V	E	G	L	L	G	G	F	F	G	D	V	V	N	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T											
UniRef90_W0JDD7	MR	V	V	L	L	E	D	I	E	N	L	L	G	G	R	A	G	D	V	L	D	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T											
UniRef90_Q0SP52	MK	V	I	L	L	K	E	D	F	I	N	L	L	G	G	R	A	G	D	V	L	D	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T										
UniRef90_F4CDE8	ME	L	L	L	L	K	Q	D	I	K	L	L	L	G	G	E	K	D	D	V	T	V	V	K	N	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T											
UniRef90_D1NHC6		L	L	L	D	K	I	V	H	L	L	L	G	G	V	G	D	Q	V	V	V	V	K	S	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T												
UniRef90_C147N5	ME	V	I	L	L	R	N	A	V	D	K	L	L	G	G	H	P	G	D	I	V	N	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T										
UniRef90_UPI0003B6D93C	MK	V	I	L	L	Q	R	D	V	P	K	V	L	L	G	G	K	G	G	E	I	V	N	V	A	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T										
UniRef90_K1ZBR9	MK	I	L	L	L	E	D	V	K	T	L	L	L	G	G	K	M	K	G	E	L	V	K	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T							
UniRef90_R6VC04	ME	V	I	L	L	J	A	D	V	K	T	L	L	G	G	K	K	G	E	L	V	N	V	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T							
UniRef90_UPI00037B9ADB	MK	V	I	L	L	Q	Q	D	V	K	L	L	L	G	G	K	K	G	D	I	V	E	V	S	V	S	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T							
UniRef90_UPI0002E351DB	Q	L	V	L	T	Q	E	D	V	S	K	L	L	G	G	S	A	G	D	V	L	V	V	A	P	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T											
UniRef90_UPI0003B40536		K	V	L	L	T	Q	E	I	P	G	L	L	G	G	S	A	G	D	V	D	V	V	R	N	G	H	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T											
UniRef90_G5GIJ5	MK	I	V	L	L	I	E	D	V	K	S	L	L	G	G	R	K	G	E	V	V	V	S	V	S	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T								
UniRef90_A9BH65	MK	V	L	L	L	E	D	V	A	K	L	L	L	G	G	K	K	R	G	E	V	I	K	E	V	S	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T						
UniRef90_S2S115	MK	V	I	F	T	Q	D	V	R	G	K	L	L	G	G	N	R	G	Q	V	K	E	V	S	D	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T										
UniRef90_UPI00047A781A	MK	V	I	F	L	K	D	V	K	G	Q	L	L	G	G	K	K	G	E	I	K	E	V	S	V	S	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T							
UniRef90_J2Z250	MK	V	I	F	L	K	D	V	R	G	K	L	L	G	G	K	K	R	G	E	I	K	E	V	S	D	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T									
UniRef90_E3PVX7	MK	V	I	F	L	K	D	V	K	G	T	A	L	L	G	G	K	K	G	E	M	K	E	V	S	D	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T									
UniRef90_I4F5M0	K	L	L	L	T	Q	E	V	T	G	L	L	L	G	G	S	A	G	D	T	V	V	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T										
UniRef90_D2NQ87	K	I	L	L	T	Q	E	V	T	G	L	L	L	G	G	A	A	G	D	V	V	T	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T										
UniRef90_F0T2X2	MK	V	I	L	L	K	E	D	I	K	A	L	L	G	G	A	K	G	K	V	C	V	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T										
UniRef90_U1QVW0	K	V	I	L	L	D	S	V	N	G	L	L	L	G	G	S	A	G	D	V	V	V	V	S	A	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T											
UniRef90_T1I2I1	V	I	L	L	T	E	R	V	E	G	L	L	L	G	G	S	A	G	E	I	V	P	V	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T										
UniRef90_B2IHD4	MD	V	I	L	L	E	R	V	A	K	L	L	L	G	G	H	M	G	E	I	V	R	V	K	N	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T											
UniRef90_I0IA53	V	K	V	L	L	V	K	D	V	P	E	L	L	G	G	N	A	G	E	V	I	N	V	A	G	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T											
UniRef90_UPI0003B61A49	MK	V	I	L	L	R	E	D	V	K	S	L	L	G	G	S	A	G	E	I	D	V	K	T	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T												
UniRef90_G4QDZ5	ME	I	L	L	L	D	K	V	A	N	L	L	L	G	G	G	L	G	D	Q	V	T	V	V	K	S	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T										
UniRef90_W3ALE7	MK	V	I	L	L	K	D	V	K	S	L	L	L	G	G	K	K	G	D	I	V	E	V	S	V	S	V	K	D	G	Y	A	R	N	N	Y	L	L	P	Q	Q	G	L	A	V	S	A	T							
UniRef90_A8F7L9	MK																																																						

UniRef90_Q9RY49 R T N M K T L E A Q
UniRef90_F4KTb1 K T N V A S I D D I K R
UniRef90_UPI00046CFD00 K G G Q K A V D Q L R R
UniRef90_R6GRJ5 P Q A L N E L N N A K K
UniRef90_X5A7C2 E G N M K T L E N Q
UniRef90_K1LTN2 P K N R A L L E A R K E
UniRef90_C0QQX0 E S H I K H V
UniRef90_C0E9D0 A Q A M T E K K N R D E
UniRef90_G5H2N5 S E N V N V A K A Q
UniRef90_R5ELN0 P D A V N T M R
UniRef90_V9F4P2 D A N R E K Y K V D K E
UniRef90_U6B7A0 K E N K S F F E A Q R
UniRef90_R6C9K2 S K N L N D L K L Q K
UniRef90_X8IU05 P S N L A R L K R E K
UniRef90_UPI00046F6304 E K N
UniRef90_F0R4N3 P A A K K M L
UniRef90_K2DZL8 E S N I I A F E A R R
UniRef90_D5HF17 P K N M N D F K L R K
UniRef90_R7CRA9 R Q N L N T A A Q R Q E
UniRef90_O67830 E G N I K H I Q
UniRef90_W0JDD7 K E N V K L I E E K R
UniRef90_Q0SP52 K H N V E I F N Q K R R
UniRef90_F4CDE8 P S A K K V L A E
UniRef90_D1NHC6 K A N I E H F E A R R
UniRef90_C1A7N5 Q G N R K R I A F E K
UniRef90_UPI0003B6D93C G G F L K E H Q S R A Q
UniRef90_K1ZBR9 E H S I R Q Q D E K K K
UniRef90_R6VC04 A Q N K N D L K L Q K K
UniRef90_UPI00037B9ADB A E N L N V A N A K K
UniRef90_UPI0002E351DB P G I L K Q V
UniRef90_UPI0003B40536 Q G A Q Q Q V E Q L R
UniRef90_G5GIJ5 A Q N L N T L K L Q K
UniRef90_A9BH65 G G Y L K H I E E S K K
UniRef90_S2S115 P Q A M S A L R G Q Q R
UniRef90_UPI00047A781A D G A K K S L D Q M
UniRef90_J2Z250 K Q A M S Q L H G Q Q R
UniRef90_E3PVX7 A S S I N D L N Q Q K
UniRef90_I4F5M0 R G A E K Q V
UniRef90_D2NQ87 Q G G E K Q V E S I
UniRef90_F0T2X2 S G N I Q D L T H K Q K
UniRef90_U1QVW0 K R A A A Q I E Q L Q R
UniRef90_T1I211 P S N L A K L E E
UniRef90_B2IHD4 E A N
UniRef90_I0IA53 R G A L K Q A E Q I K
UniRef90_UPI0003B61A49 E S N I K I Y G R E K
UniRef90_G4QDZ5 K A N
UniRef90_W3ALE7 N K N L N T L K L Q K Q
UniRef90_A8F7L9 E G E I K R I R N E K
UniRef90_R7TNU1 P E N L A K W A E I R K
UniRef90_F4KM35 E S A K K M L
UniRef90_R7BRR0 Q Q N I Y V A E Q R
UniRef90_E9UP03 R G A E S Q V E S I K
UniRef90_Q3B6M4 E G T L K A L E T E K K
UniRef90_G0IXU4 S S N
UniRef90_C6V3U2 K E N L A I L E S S K E
UniRef90_D4M0U1 G K N L N D L
UniRef90_N6XB22 K G A Q K Q I D E I
UniRef90_F8E5K4 E A N L K K L E S R K
UniRef90_DOWHE0 K G N L K Q L E Q R R
UniRef90_UPI000375D274 D A T M N L A K Q Q K
UniRef90_F9UEK8 D A N
UniRef90_D3PAC4 P A N I K K L E E K K
UniRef90_A1AWV1 K T N L A K F K L I K
UniRef90_A8SIM3 K E N L E I W E K E Q
UniRef90_E4T0A1 E S A K K M L
UniRef90_H0J061 K E N
UniRef90_U2SDY7 R G A A K Q I E G I Q R
UniRef90_R6GRF6 A N E L H V L
UniRef90_I4VNB6 A A N L E A F E Q
UniRef90_R7K9J8 T A N V N I L N H K K K
UniRef90_X8K287 K A N L R S L E K Q K
UniRef90_R5Q9R0 A G A K K L L E Q Q K E
UniRef90_R5BQT3 P A N L N N A K Q Q Q
UniRef90_D4MS08 A K N L N D L K L Q K
UniRef90_I4AK70 A S N R K S V A E T E R
UniRef90_R6BET6 A K N I N D L K L K K
UniRef90_R9MDG4 A D A L N
UniRef90_F8IEC8 P Q A
UniRef90_UPI00036771AC P S A R K V V A E
UniRef90_C4GC55 P K N L N D L K L R T K
UniRef90_V6Q340 N A S M S E
UniRef90_S7V2S1 P A N R K R L E F E K K
UniRef90_H7F730 S K N M S A L R G Q
UniRef90_A9KFL8 P E
UniRef90_UPI000441F922 P E N K K L F E E E N R
UniRef90_R5IFQ3 E S A K K V L A E
UniRef90_C3XYT4 P E N R Q M F Q D R K
UniRef90_E1R293 K E T V A I F E S R R E
UniRef90_R6SP64 G K N L N D L K L K K
UniRef90_E1WXH1 E S N T K Q L N H Q Q K
UniRef90_K9UPD1 P G I L K Q A E K R R E
UniRef90_G2LM45 K K N I E S F E A Q R

UniRef90_C7XXJ1 K A A L S E V Q G Q E R
UniRef90_H9UKK2 S A S L A V I E S R
UniRef90_UPI0002629748 K G G Q R Q L D Q I R
UniRef90_M8DGU3 E A N M K T L D A Q Q R
UniRef90_UPI00038223ED D G N
UniRef90_UPI000345E482 P G
UniRef90_A0A059E0A8 D R N
UniRef90_UPI00035F8C80 A A N V A E F
UniRef90_Q38ZR4 T A A V S A L K G Q Q H
UniRef90_X5E2T3 E S A K K V L A E
UniRef90_O83099 R F T V A R F K Q R Q Q
UniRef90_R7NKL1 N K A M N E L K N
UniRef90_UPI00021971A2 K Q A I S E L K A Q Q H
UniRef90_G5HAH4 E S A K K V L A E
UniRef90_POA499 P S A L R R V E R L Q E
UniRef90_I0R1M3 R G G E K Q V T Q L R
UniRef90_R6TVE9 N A I M S E V R S K E E
UniRef90_UPI00047D9212 S S A K K V L A E
UniRef90_R6CJ71 A K N L N E L A G K K
UniRef90_C8X261 P A N
UniRef90_T0RVA5 E S N K K Q H D H T Q K
UniRef90_B1XN09 P G I L R Q V
UniRef90_R6N7F6 A Q A M N E Y R N
UniRef90_D7CK98
UniRef90_UPI00036D5B0D K G A E R N V R T I R R
UniRef90_I3I62 P A N V K Q I E K E K
UniRef90_C6D824 D G N L K T L E V Q
UniRef90_UPI00046E6BAE S K N
UniRef90_R6P2L4 S R T L N D L K L Q N K
UniRef90_K9TLH2 P G
UniRef90_J0X034 E K A G K Q I E Q M Q R
UniRef90_S5MDD5 K D D V S H L N V R
UniRef90_I4C328 P Q N L N L Y R T I I E
UniRef90_J4UUC0 A A N
UniRef90_UPI00045E8BB4 K G A E K Q I A G I R
UniRef90_Q9WZW7 E G
UniRef90_V4JP01 E S N
UniRef90_C0ARR0 K K K H R V F R
UniRef90_J9P0T0 P E N K K L F E E E K
UniRef90_R9KQG6 G E N M N N L K L Q N Q
UniRef90_F8KT16 N E V I N K Y K A
UniRef90_E1IIF2 K G
UniRef90_Q7VQN7 K K N L A I F K K Q Q H
UniRef90_UPI0003B47707 Q K N
UniRef90_UPI00041509B8 Q T N L K K L E A H N E
UniRef90_A0M0D9 P S A R K V L S E
UniRef90_D3R211 S A N I N S Y
UniRef90_UPI000470FD37
UniRef90_F0RVP3 K T N Q A I F A S R
UniRef90_R6ZA35 K D N L L K L Q A K K
UniRef90_UPI000050FBC1 A G A E K H V N A L R K
UniRef90_A8UWG6 E G N V K H V
UniRef90_D0YTW9 K G S Q T V I D R L K
UniRef90_X0RTI8 N S N V K G L E A Q K K
UniRef90_D3L2Z4 T E
UniRef90_E7GFL2 E H G K E I V
UniRef90_B4RAE8 G A N
UniRef90_UPI0003B4D93C T Q N I A A T K G K
UniRef90_UPI00047B4101 D S N L H I L N R K T E
UniRef90_B7IDU7 P A
UniRef90_X0T4Y9 P T V T K Q V E A R
UniRef90_K2FNQ1 P A N I T H A K Q E
UniRef90_D8GJX2 Q S N L H I L
UniRef90_V8C9Y7 N E V I N K Y K A E Q K
UniRef90_R7GFW7 A E N L S K L K A K N E
UniRef90_A8ZRQ0 P A N R R R M E Q M R
UniRef90_G5G9X3 K S A
UniRef90_K9PGG4 P G
UniRef90_T2RDK5 N T E L K E L K E K Q
UniRef90_Q5U4L3 P E N K K M F E E E K R
UniRef90_A6DQM2 Q A V L K Q I E A R R
UniRef90_UPI00031A8AED P G
UniRef90_A5USF4 R G
UniRef90_S3KQS0 A A T V A F F E S R
UniRef90_R4KQZ3 K G
UniRef90_R6BR90 P S A
UniRef90_G2KTA5 K A A I A K V K A V Q R
UniRef90_E7C1C3 D D Y I K D F
UniRef90_I1F7C9 H E N C K L F
UniRef90_B0SB37 D G N T K A A I H Q K R
UniRef90_UPI000248E7F1 V S A K K V L A E
UniRef90_Q74M23 S S N L N T L K R V Q K
UniRef90_F5R8X1 P E N L A V F E A R R
UniRef90_F6DQT1 E G
UniRef90_J9BT79 A D N L N A F R L K E K
UniRef90_R7BLJ1 A K N M N D L K L Q K
UniRef90_A3UJ76
UniRef90_X1E197 S P A T S L L E V Q R K
UniRef90_D2R6N6 D H H K R M V D K H K
UniRef90_P75540 K K S L Q D L K K Q Q E
UniRef90_Q890J8 K A A I N T L
UniRef90_J9H5W0 K G G E G Q I E G I K R

UniRef90_Q0AQD4 MK L V L L E R V V E N L G V I G D V V S V R P G F A R N F L L P Q G K A 40
UniRef90_UPI000468E821 MK V I F Q K D V V K G V G K K G G E V K E V V R E G Y F R N F L L A P K K L A V E A S
UniRef90_UPI0003060C1F Q I L L L L E D V V L H L G G R Q Q G E I V V E V R A K A G Y A R N F L L P P R N N L A I T L P S
UniRef90_K0YZH6 K V V L N V D V V L N L G G V T G D V V T V T R A G Y A R N F L L P P R N N L A I S K W T
UniRef90_W9EEP0 MQ V I F L E D V V R G K G K R G G E I K K M P A G Y A Q N N Y L L F K N Q L A E P A T T
UniRef90_Q30QS9 MK I L L L K D V V K T G L G K A G E V K E V K D D G Y A G R N F L L I A K G F A K H A T
UniRef90_A6DBH0 MK V L L L K D V V K G L G K A G E V K E V K D D G Y A R N N Y L L I A K G F A K H A T
UniRef90_UPI00036B104B MK L I L L T R E V V A G V T G S A G D V V T V K D D G F A R N F L L P R G N A I A W S
UniRef90_W7CW72 MK V L L L K D V V K S G T G K K G E I K E V P P D G Y A H N F L L K K G V A Q E A N T
UniRef90_K2FAL6 Q L L L L K D V V D S L G G K K G E I V T T A R P P G Y M R N F L L F P Q Q G L A V V A N T
UniRef90_B5YIM4 MK V I L K E D V V H G L L G R A G G Q T I N V K D G Y A R N N Y L L P R G L A L I A D
UniRef90_D6S3K2 MK V I F V Q N V V R K R G K R S G E V K E V P P D G Y A Q N N Y L L P K R G L A K E A N T
UniRef90_B7KAD1 V Q V V L T K N V V N K L G G K K S G D L V E V A P P G Y A R N N Y L L P Q Q G L I A N I A T
UniRef90_G8PQX6 MK V I L L E R V V A K L L G Q M G D T V T V K D D G Y A R N N Y L L P Q A K A
UniRef90_UPI00020D9F3E MK V V F L E D V V K G R G K K G E V K E V P D D G Y A G N F L L I K N K K A E P A T
UniRef90_D3UJH1 MK V L L L E N V K G L G V I G D I C E V K D D G Y A Q N F L L I A K G K A K H A T
UniRef90_UPI00036A127B M N I I L K K N V E S L L G A V G E I V K V A D G Y A R N F L L F P K G F A I Q A N T
UniRef90_C7LKB7 MK I I L K K K I V E N L G K K K N D L I E V K P G Y A R N N Y L L F P R K K A I L E A T T
UniRef90_B2V6V8 MK V V L T K K D V L G W G T I G D V V A V K K G F A R N N Y L L P K K G L A L E L T T
UniRef90_B3EEB5 MK I I L R K D V V A A L G D A G D V V A V K N G Y A R N N Y L L P Q G M A I R A T T
UniRef90_R6GUR5 MK V I L K Q D V I R S K K K K G Q M I E V A E D G Y A R N F L L P K G D A I P A T
UniRef90_K1RL23 MK V I L K Q D V I K S L G K K D E I H E V S D G Y A R N F L L F P R G L
UniRef90_UPI0004188E2E M E V L L L E K I A G L L G N L G D K V S V R P G Y G R N F L L I P Q G K A
UniRef90_Q3Z914 MK V A F L K D V P G R K T G D V K E V N D D G Y A R N N Y L L P N K L A M P A S
UniRef90_W6A8U3 MQ V I L L Q D V K N Y G K K D Q V V E V S D G Y A R M N Y L L P K K L A V K A S
UniRef90_B8F154 MK V I L T E N I D S L G L I G S E V A V A D G Y A R N N Y L L P K K K A V L A T T
UniRef90_I5B2J2 MK V I L K E T I D T L J A G S E C K V A E G Y A R N N Y L L P Q G K A V L A T T
UniRef90_C1MPK3 V E I C L L K D V E G L G R D G E V V S V K P G R A R N H L P Y K F A Y S S
UniRef90_S3XCH4 MK V L L K D V K S L L G K A G E I K E V K D G Y G H N F L V A R G Y A K I A T T
UniRef90_M1WWT9 Q L V L L N K N I N K L K F G E I V E V T P G Y A R N N Y L L I A N N K A L V P A T
UniRef90_J9YVL3 MK V I L L E N I K R L L G S I G E I I E I T L G Y G N F L I K E K K A L L J A N
UniRef90_UPI00035CF8E1 MK V I L L E D I K N K G G N K N D I I E I T L G Y G N F L I K E K K A L L J A N
UniRef90_B1H014 MK V I L K S D I A N G L G G E I K E V S A G F A R N N Y L I P K S L V M E A N
UniRef90_F7XU16 M E V I L L E K I S G L G I G A V V K V K E G F A K N Y L I P R K K V L R V T
UniRef90_X0XQD4 MK I I L K Q N I E K I L G G Q V G D V V V E V S N G F A R N F L L P Q G K A I S F T
UniRef90_UPI000424443E E V I L L Q R I V E H L L G Q M G E L V D V K P G Y A R N F L L P Q G K A
UniRef90_A0A016TPW7 L K V I L L Q D I E G V L G H Q G F D V D V D R R L A R S N L L P T R K A V Y A S
UniRef90_U2SVQ0 K V I L K E T I K G V L G K K D E I V E V K D G Y A R N F L L F S Q N K A I P A T T
UniRef90_UPI000361B618 E V I L R T K I D N L G K E A D V V K L K A G Y A R N F L L I P Q G K A Y E A T
UniRef90_UPI0003B4346E MK V I L T E D V K N V L G K K G D V V V E L K D T Y A R N F C I I G K K L G V E A T
UniRef90_B4F278 MQ I I L L D K V A N L L G S L G D Q V N V K S G Y A R N N Y L I P Q G K A
UniRef90_K0P2G7 M E V I L K T A Y K T L G K N K A G D V V S V R A D Y A R N F L I P E G I A V V A N
UniRef90_K2FH04 MK V V L L Q N V K K L L G K A G D A V N V S A D G Y A S N F L F P K K L A Q I A T
UniRef90_A8ETF6 MK V L L I K D V K S L L G K A G E I K E V A D G Y A G N F L I G K G L A L H A T T
UniRef90_B1ZQK5 E I L L L K P V E N L G G E G D Q V V R A G Y A R N F L L P N G F A V P L T T
UniRef90_A0A023G6H1 V I L L T Q F V E G L G G N G D I V S V R P F Y A G L T Q L V I P G L A M V V T
UniRef90_A8IYS1 K I I L I S D I P N V V G K E G E I K T V P V G Y W R N F L L P N G M A K I A S
UniRef90_R5ECN5 M E V I L L E D V K N V L G K K G E I V K V N D D G Y A R N N Y L L K K K Q A L E A T
UniRef90_D4KBZ6 MK V I L K Q D I K G I L G K K D E I H E V S D G Y A R N N Y L F P R K L A A V A D
UniRef90_C6HVT1 V I L K Q K I D N L L G E A G D L V S V S A G Y A R N F L L P N Q L C V L A G
UniRef90_R7G1M1 MK V V L L A D V R G S Q K K K D Q V I D V S E G Y A R N F L L P K K L A I V A D
UniRef90_Q7XYP2 V I L L K E D V K G S G K K G D I T A V K P G F W R N F L P N G I A T Q P T
UniRef90_A5P856 M D I I L L Q R I E K L L G T I G D V V T V K D G Y A R N F L L P Q K K A
UniRef90_I3BQU7 M E V I L L K K V E N L G A L G H I V V R P G Y A R N F L L P Q G K A
UniRef90_R7LXQ3 MQ V I L K K E I Q N L L G E V G D I I N V K D D G Y A R N F L L P Q G A A E I A T
UniRef90_A0A017PL81 Q L L L L E D V D G L G R S G D I V T A R P G Y F R N N Y L I P Q K K A I I A G
UniRef90_UPI0004048A01 E A I L L K K D F I T L G Y E G D I C E V K D G Y A R N N Y L I P R K L A A P A S
UniRef90_R5LE24 M E V I L K K D F I T L G Y E G D I C E V K D G Y A R N N Y L I P R N I A V I K N
UniRef90_R5G6K0 MK I I L V K D V K G K G K A G D I I D I P S G H A N Y L I K N K L A I V A S
UniRef90_D5XDQ7 MK V I L M E D V K K K L G K K G D I V N V A E D G Y A R N F L F P R N L A
UniRef90_R5MSC8 MK V I L L K D V K K K Q K K K D D I V E V S D G Y A G M N Y L I K N G L A V A A T
UniRef90_B5YEW5 K V L L L K D V K N L G K K G Q I I D V S D G Y A R N N Y L F P K G L A Q E V N
UniRef90_R6W187 MK V I L L S D V K G T G K K G Q I L E V S D G Y A R N F C L K K K L A V E A T
UniRef90_UPI00036184BB MQ V I L L Q R I G R L G Q M G D V V N V K D D G Y A R N F L L P Q K K A
UniRef90_R7HHK2 MK V I L L K D V K S Q G R K D D I I N V S D G Y A R N N Y L I K N K L A V A Y T
UniRef90_T2M6K6 L K M L L L E D V E G L G R M K E D V V Q V K R A L G R N N L P N K L A I Y A T
UniRef90_Q8D2U4 MQ I I L L K K I I N K N G N I G D V I K V K A G Y A R N F L F P K K I A I J A S
UniRef90_UPI00047956FE MQ V I L L E K V A K L L G N L G D I V K V A K G Y A R N F L L P Q K K A
UniRef90_W0GKE7 MK V I L L K D V K G K K G K V N D I I N V A D G Y A K N F L I K E H L A I P A T
UniRef90_UPI00046A61E8 MK V I F L K D V R K G K G K G E V K N V A T G Y A Q N F L I K N N E A I E A T
UniRef90_UPI0003670C57 MK V I L E K N V K G L G K K G E L V E A S D G H A R N N Y L I P R G L A K K A N
UniRef90_UPI0003824FA8 M E V I L L E K V D N L L G G L G D R V K V R A G Y A R N N Y L L P Q G K A
UniRef90_I4B8K5 M R V I L K Q D I L P T L G R A G D I K E V K D D G Y A R N F L F P R G L V M N A T
UniRef90_E8U546 M N V I L L E P G R L L G Q V G E V V K V K P G Y A R N F L I P Q G L A L P A T
UniRef90_UPI00037DDBB8 Q L V L T Q D D V S K L G R M G D V L E V A P G Y A R N N Y L V P Q G K A T N V N
UniRef90_UPI000478A1AC MK V I F L K D V K K G Q G K K D E V K E V A S D G Y A R N N Y L V P N G L V K L A T
UniRef90_R6BEY1 MK V I L L K D V K K Q G K K D D V I N V S D G Y A Q N F L L I K N G L A I K Y T
UniRef90_U7VGS9 Q V L L T A D V A G Q G R K G E I V S V S E G Y A K N F L I P K N N K G I V A T
UniRef90_UPI000337AA5 V P L L F S L A E L G G V R G D L V S V S K S V A R N N Q L F P Q N G L A V Y A S
UniRef90_R5Z859 MK V T L L K D V R K L L G K K D E V M E V S D G Y A R N N Y L I K N H L A I Q Y T
UniRef90_Q5FG29 V I L L K E S V R N L L G K A G D V T K V K P G Y A R N Y L L A Q K K A V R A T
UniRef90_D5EJK5 Q V L L L Q P I K G L G A G D V T V R A G Y A R N F L L P R K I A L P I T T
UniRef90_R4UA65 MK V L L I K D V K G K G K A N D I I E V S D G Y A K N F L L K Q N L A I P T T
UniRef90_J9Z1D4 K V V V L E K F K K N W E I G S V T V S D G Y A R N N Y L I P N G K A K I A T
UniRef90_T0K0U8 MK V I L Q Q E V K K L G K K G D I I E V S K E G Y A R N N Y L I P Q K L A V M
UniRef90_UPI00047E31B2 MK V I L L K D V K G T L G K K G E M K E V S D G Y A R N F L L A K K L A V I A
UniRef90_U2UVJ1 MK L I L L K D V K S L L G K K G D V V E V N E G Y A R N N Y L I P S K A G I L A D
UniRef90_K9U3N7 V Q L V L T Q D I L K L G K K G D L V D V A P G Y A R N N Y L I P K K A V P V T
UniRef90_R5Q7J6 MQ V I L L E K I T H L G D L G D I V K V A K D G Y G R N F L I P Q G H A
UniRef90_UPI00034D1A25 K V I L T H E V I S L G S A G D V V D V A P T G Y A R N N Y L V S Q G Y G L H W T
UniRef90_Q7V9J9 V K V V L K E D I L S L G S A G D V V E V A K P G Y A R N F L L P S Q Q K A L A V T
UniRef90_J6UFB1 MQ V I L L E R V V G K H G Q M G D V I R V A R D G F A R N F L L P Q G K A

UniRef90_Q0AQD4
 UniRef90_UPI000468E821 E S N L T S H K M K E K
 UniRef90_UPI0003060C1F E H N M K R L D K F K
 UniRef90_K0YZH6 P G A Q R Q I D Q M Q
 UniRef90_W9EEP0 K A A T S R V K A Q Q K
 UniRef90_Q30QS9 A E L A Q H K E D E R
 UniRef90_A6DBH0 P E
 UniRef90_UPI00036B104B L G G E K Q I Q S L R R
 UniRef90_W7CW72 A A S I S T L K A K E K
 UniRef90_K2FAL6 E N T L R K Q E R L R K
 UniRef90_B5YIM4 E K N
 UniRef90_D6S3K2 K G N L N T L K
 UniRef90_B7KAD1 P G
 UniRef90_G8PQX6
 UniRef90_UPI00020D9F3E G K N V G A V K G R
 UniRef90_D3UJH1 N E V I R K H Q A Q M R
 UniRef90_UPI00036A127B D K N K K L I E K
 UniRef90_C7LKB7 I S S I K E L N N
 UniRef90_B2V6V8 E E N K R F I D N I
 UniRef90_B3EEB5 E G
 UniRef90_R6GUR5 A D A M N T M R
 UniRef90_K1RL23
 UniRef90_UPI0004188E2E
 UniRef90_Q3Z914 A S V T S E I A A K Q
 UniRef90_W6A8U3 Q E S I N L L K S K I K
 UniRef90_B8F154 E A N R K V V E L K R
 UniRef90_I5B2J2 P A N R K V M E Q A R
 UniRef90_C1MPK3 P E R L A E A A K K R E
 UniRef90_S3XCH4 N E V L R Q Y E A A K K
 UniRef90_M1WWT9 P G
 UniRef90_J9YVL3 K E N V A E V E K I K
 UniRef90_UPI00035CF8E1 D K N I K K I E K D K Q
 UniRef90_B1H014 D L N L K I W K R E R
 UniRef90_F7XUJ6 A Q N K E V F E Q Q K
 UniRef90_X0XQD4 I G N F K Q I E Y L K K
 UniRef90_UPI000424443E
 UniRef90_A0A016TPW7 P F D L E Y Y A K V K E
 UniRef90_U2SVQ0 P E N I N K L N S K N E
 UniRef90_UPI000361B618 A Q N L Q H T E D L K K
 UniRef90_UPI0003B4346E S T N L N N L K
 UniRef90_B4F278
 UniRef90_K0P2G7 A T N K K L F E N A K Q
 UniRef90_K2FH04 P D A L K R V E K
 UniRef90_A8ETF6 T D V L N K H K A E Q K
 UniRef90_B1ZQK5 T A N R K Q V E S L K K
 UniRef90_A0A023G6H1 P E N L K L R D E M K
 UniRef90_A8IYS1 E G I L N Q I R A K K E
 UniRef90_R5ECN5 G K N L N D L K L K K
 UniRef90_D4KBZ6 A S A V N M A R G K
 UniRef90_C6HVT1 K S E I A A L E
 UniRef90_R7G1M1 N K V M N E I K G K E E
 UniRef90_Q7XYP2 A E Y M E Q L R V E E E
 UniRef90_A5P856
 UniRef90_I3BQU7
 UniRef90_R7LXQ3 A G A
 UniRef90_A0A017PL81 A G T L R L Q A K L K E
 UniRef90_UPI0004048A01 K G L L R E A E
 UniRef90_R5LE24 A G N L K T L A Q M Q K
 UniRef90_R5G6K0 T D N L N E Y K K K S E
 UniRef90_D5XDQ7
 UniRef90_R5MSC8 K T S T K I L
 UniRef90_B5YEW5 E G M L E H L R L Q
 UniRef90_R6W187 A S A L N E N A Q K K
 UniRef90_UPI00036184BB
 UniRef90_R7HHK2 D T S K K I L D K Q
 UniRef90_T2M6K6 P E N L
 UniRef90_Q8D2U4 E K N L K F F E K K R K
 UniRef90_UPI00047956FE
 UniRef90_W0GKE7 E H N L Q K L Q A
 UniRef90_UPI00046A61E8 K A N I A K L
 UniRef90_UPI0003670C57 E G N V H N L
 UniRef90_UPI0003824FA8
 UniRef90_I4B8K5 V R S V K E
 UniRef90_E8U546 T S N
 UniRef90_UPI00037DDBB8 P G
 UniRef90_UPI000478A1AC E
 UniRef90_R6BEY1 D G S S E R L K K E
 UniRef90_U7VGS9 P E E L K K I E N K K
 UniRef90_UPI0003337AA5 P E N R K L F E E E K
 UniRef90_R5Z859 S G S S K
 UniRef90_Q5FG29 K E N L K L L E E Q
 UniRef90_D5EJK5 Q A N K K Q M D A
 UniRef90_R4UA65 N A N V Y K L N E
 UniRef90_J9Z1D4 K Q N I E D I K L I E E
 UniRef90_T0K0U8
 UniRef90_UPI00047E31B2
 UniRef90_U2UVJ1 A K N L N
 UniRef90_K9U3N7 A G V L K
 UniRef90_R5Q7J6
 UniRef90_UPI00034D1A25 R G G E A Q V
 UniRef90_Q7V9J9 P S V L K Q V E Y R
 UniRef90_J6UFB1

UniRef90_D6YVM4
UniRef90_A6CAL8
UniRef90_Q6MS27
UniRef90_UPI00038298B4
UniRef90_H5WRB6
UniRef90_M7P4P1
UniRef90_R9K7S2
UniRef90_I0AH51
UniRef90_S7KKD3
UniRef90_Q74FE1
UniRef90_M6ZRZ5
UniRef90_E3E2G9
UniRef90_J4C381
UniRef90_E6X030
UniRef90_D1AJH3
UniRef90_UPI0003B317E9
UniRef90_Q5F922
UniRef90_UPI0004014865
UniRef90_K8ERR0
UniRef90_Q2IA87
UniRef90_P25864
UniRef90_K8YZQ3
UniRef90_Q5GSD4
UniRef90_A2BZ59
UniRef90_G4KX87
UniRef90_B6STU4
UniRef90_UPI00037235EE
UniRef90_D1CD55
UniRef90_G8LRZ1
UniRef90_K2B6P3
UniRef90_D4G857
UniRef90_A8NGN1
UniRef90_B8HS22
UniRef90_A8XFP4
UniRef90_D3B775
UniRef90_Q6MAT5
UniRef90_R5TH23
UniRef90_B7FFD2
UniRef90_UPI00032AD335
UniRef90_D9QUK7
UniRef90_J3JXJ6
UniRef90_Q7NAM4
UniRef90_V6DF40
UniRef90_UPI000369D776
UniRef90_M1A333
UniRef90_X1MI14
UniRef90_UPI00036C59AE
UniRef90_Q92FQ7
UniRef90_R5Y9F3
UniRef90_X1IFS7
UniRef90_Q8RI10
UniRef90_A3Y9A7
UniRef90_R6M8U7
UniRef90_R7FP18
UniRef90_M9PR02
UniRef90_I7A5D1
UniRef90_L0AV56
UniRef90_C4LAB6
UniRef90_K0D7L2
UniRef90_D1GJP2
UniRef90_M0U2W6
UniRef90_Q6YRK2
UniRef90_B4DC29
UniRef90_Q00V90
UniRef90_B4N7Z1
UniRef90_A0A023DWN2
UniRef90_Q3AG23
UniRef90_D5ADP1
UniRef90_K1XWK6
UniRef90_R2RR56
UniRef90_B9E913
UniRef90_C7GYV7
UniRef90_UPI0004686806
UniRef90_E6W4V8
UniRef90_E8LHX1
UniRef90_R5SV35
UniRef90_D7N881
UniRef90_F2E5B0
UniRef90_K2E2K9
UniRef90_W4F8X0
UniRef90_UPI000377BF84
UniRef90_R6XJ95
UniRef90_N2B5W0
UniRef90_R5JBY2
UniRef90_M7XPI9
UniRef90_F0GYD5
UniRef90_J7F819
UniRef90_B9SCL1
UniRef90_UPI000248D411
UniRef90_A5DYK1
UniRef90_B1C8P3
UniRef90_U4KS89

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

UniRef90_D6YVM4 K N A L R M L Q E E R Q
 UniRef90_A6CAL8 D H N K W M V V Q H Q K
 UniRef90_Q6MS27 N N S L Q T L K
 UniRef90_UPI00038298B4 Q A N K K R L D A L K
 UniRef90_H5WRB6
 UniRef90_M7P4P1 P Q N L K Y L E Q N K K
 UniRef90_R9K7S2
 UniRef90_I0AH51 K G N
 UniRef90_S7KKD3 A G T L A K L Q E Q R
 UniRef90_Q74FE1
 UniRef90_M6ZRZ5 E G N T K A A L H Q K K
 UniRef90_E3E2G9 A S N I S V L N G Q K Q
 UniRef90_J4C381 W Y N I D Q Y
 UniRef90_E6X030 P K V V E E W
 UniRef90_D1AJH3 E E N I K K L Q N K A E
 UniRef90_UPI0003B317E9 K E N L E L V N K K K
 UniRef90_Q5F922
 UniRef90_UPI0004014865
 UniRef90_K8ERR0 E E N V E K A L K E K
 UniRef90_Q2IA87 P E M L K Q I A E Q Q
 UniRef90_P25864 P
 UniRef90_K8YZQ3 H D N K
 UniRef90_Q5GSD4
 UniRef90_A2BZ59 P S
 UniRef90_G4KX87
 UniRef90_B6STU4 P E
 UniRef90_UPI00037235EE K A S
 UniRef90_D1CD55
 UniRef90_G8LRZ1 P G T I K N I H E I
 UniRef90_K2B6P3 P E K L K Y I A D K
 UniRef90_D4G857 Q E N I D M I Q K E
 UniRef90_A8NGN1 P F N L Q Y Y A E M K E
 UniRef90_B8HS22 P G
 UniRef90_A8XFP4 P F D L K Y Y A D M K
 UniRef90_D3B775 H E S R K K Y E E
 UniRef90_Q6MAT5 K N T L R M Q E R L K
 UniRef90_R5TH23 N K S V N E A K G K
 UniRef90_B7FFD2 A
 UniRef90_UPI00032AD335 D K F A Y L L T E Q R K
 UniRef90_D9QUK7
 UniRef90_J3JXJ6 P E N I I K Y K R E
 UniRef90_Q7NAM4 E R G Q K R L D L K
 UniRef90_V6DF40 D K N V K A F S N R
 UniRef90_UPI000369D776 S G N K R T I D A L K
 UniRef90_M1A333 D K Y R H L M E D Q R K
 UniRef90_X1MII4 P G N I R Q W E E R
 UniRef90_UPI00036C59AE K G N L K Q L E
 UniRef90_Q92FQ7 N A A L S T L S A Q K K
 UniRef90_R5Y9F3 E K S L S E L K
 UniRef90_X1IFS7
 UniRef90_Q8RI10 P E
 UniRef90_A3Y9A7
 UniRef90_R6M8U7 K S S S D R L D A E
 UniRef90_R7FP18 E N S L G D Y K K E K
 UniRef90_M9PR02 N G L L K K L K
 UniRef90_I7A5D1
 UniRef90_L0AV56 W Q N I D L Y A D P K
 UniRef90_C4LAB6
 UniRef90_K0D7L2 K K N I E Y L K Q M R K
 UniRef90_D1GJP2 H N V I H Q F E L E Q K
 UniRef90_M0U2W6 P
 UniRef90_Q6YRK2 K T N L A A I K Q S Q
 UniRef90_B4DC29 P A
 UniRef90_Q00V90 E E K V A R A R E R
 UniRef90_B4N7Z1 P E N I E K Y A K
 UniRef90_A0A023DWN2 A E K L E K V R I Q S E
 UniRef90_Q3AG23
 UniRef90_D5ADP1 D H Y A Y L I R E Q Q K
 UniRef90_K1XWK6 P E L I K R E A E K T K
 UniRef90_R2RR56 K G N I S V L A G Q Q K
 UniRef90_B9E913 P G N
 UniRef90_C7GYV7
 UniRef90_UPI0004686806
 UniRef90_E6W4V8
 UniRef90_E8LHX1
 UniRef90_R5SV35 K T S N E I L N N E I K
 UniRef90_D7N881 N I D K F
 UniRef90_F2E5B0 P K
 UniRef90_K2E2K9 Q A A I S Q L D G Q
 UniRef90_W4F8X0 Q A
 UniRef90_UPI000377BF84 E E A K R A Y
 UniRef90_R6XJ95
 UniRef90_N2B5W0 K G S S K V L S K Q K E
 UniRef90_R5JBY2
 UniRef90_M7XPI9
 UniRef90_F0GYD5 T G I L N Q
 UniRef90_J7F819 P
 UniRef90_B9SCL1
 UniRef90_UPI000248D411
 UniRef90_A5DYK1 E N S I N E L R E Q R R
 UniRef90_B1C8P3
 UniRef90_U4KS89 D V S L D A L K K A Q E

50

UniRef90_UPI0002658785 P E A L K W A E T L Q E
UniRef90_F4P7F4
UniRef90_R9XWL9 K G T L K H V N
UniRef90_E4TIR3
UniRef90_U9UA18 K G K N K L L Q S E
UniRef90_R4ZYN1 S K S A N V L D N E L K
UniRef90_U6GLK0 W S N
UniRef90_N9QYC6 S R T E R L L N Q R K Q
UniRef90_E3H9D5
UniRef90_Q24C33 P G V R E R L
UniRef90_A7ANQ7 R A E L I G L T L Q K
UniRef90_E3BS47 S S N L N I Q K R L E K
UniRef90_UPI00021A716A P E N L K K Y
UniRef90_F9QE78 E A
UniRef90_UPI00046F173B P A A L S K L E G Q K
UniRef90_R6TK73 P E N M K A L D D E K H
UniRef90_X1C6T9 M G N F K Q L E Y L K K
UniRef90_G0HIM3
UniRef90_R7MI80 D R S K D L L K T Q L K
UniRef90_A5K2N8 Y E N V D C Y A D R E K
UniRef90_M7THR6 R F R F K E L
UniRef90_A7EML0 P G
UniRef90_F5W066 S Q A L G E L R G K Q K
UniRef90_W4Q2K6
UniRef90_E1PT93 D K
UniRef90_F4X831 P E N L K K Y
UniRef90_W5UTJ5 K E N E L F L K Q K
UniRef90_G0S0J9 A E R F K E L
UniRef90_I2G390
UniRef90_D1J8I0 K Q T L A N L D R V K
UniRef90_UPI0003F9207E A G N M K T L
UniRef90_U4L8H0
UniRef90_W8DV12 T G R L K H Y K
UniRef90_V4MDS2
UniRef90_Q9P801
UniRef90_P82180
UniRef90_T1HCB0 P E A L E K S K L I R E
UniRef90_E3DS62
UniRef90_Q3DGN5 T Q A L G E L K G K Q
UniRef90_F7Z738 P A N
UniRef90_E3JRN7
UniRef90_UPI00041440F9 K G N V K S L
UniRef90_UPI00045608A0
UniRef90_N1PGZ0 L P E L R T L K A
UniRef90_L8FSG3 Q A Q L K E
UniRef90_E0TJL2 N S V R K K I
UniRef90_UPI00034577F9
UniRef90_G7YWA7 K D R V K Y F R S L S K
UniRef90_W1YIL6 A T N V N N A K Q K Q E
UniRef90_A3LYC0 K

lupas_21
lupas_14
lupas_28
jnet
conf 7 8 9 9 9 9 9 8 7 2 8 9
sol25 B B B
sol5
sol0
jhmm
jpssm