

QUERY	M	N	Q	E	L	E	S	L	N	M	A	F	A	R	A	R	E	H	H	E	F	M	T	V	E	H	L	L	L	A	L	L	S	N	P	S	A					
UniRef90_U4TIR3	M	L	S	K	D	L	E	M	L	N	L	A	F	K	V	A	R	E	H	H	E	F	M	T	V	E	H	L	L	L	S	L	D	N	T	A	A					
UniRef90_F7NXI0	M	L	N	K	D	L	E	L	T	N	L	A	F	R	F	A	R	E	K	R	H	E	F	M	T	V	E	H	L	L	L	A	L	D	N	P	A	A				
UniRef90_H2FXX6	M	L	N	K	D	L	E	S	T	N	D	A	F	N	E	A	R	R	S	R	H	E	F	M	T	V	E	H	L	L	L	A	L	L	D	N	P	S	A			
UniRef90_I2JMK1	M	L	S	K	D	L	E	T	T	L	S	Q	A	F	K	S	A	R	S	R	H	E	F	M	T	V	E	H	L	L	L	A	L	A	D	N	E	A	A			
UniRef90_B4SIN9	M	F	S	K	D	L	E	H	T	I	G	Q	C	Y	K	R	A	R	E	R	H	H	E	F	T	V	E	H	L	L	L	A	L	L	D	N	P	S	A			
UniRef90_Q3JV78	M	I	A	Q	E	L	E	V	S	L	H	M	A	F	M	E	A	R	Q	A	H	E	F	T	V	E	H	L	L	L	A	L	L	D	N	P	T	A				
UniRef90_UP10002556BDB	M	L	N	R	E	L	E	V	T	L	N	L	A	F	K	E	A	R	T	K	R	H	E	F	M	T	V	E	H	L	L	L	A	L	L	D	N	E	A	A		
UniRef90_F3LCB4	M	L	S	K	E	L	E	Q	T	L	N	D	A	F	T	H	A	R	S	K	R	H	E	F	M	T	V	E	H	L	L	L	A	L	L	D	N	D	S	A		
UniRef90_UP100040142D	M	L	N	K	E	L	E	K	T	L	N	E	A	F	I	F	A	R	E	H	R	H	E	F	M	T	V	E	H	L	L	L	A	L	L	D	N	K	E	A		
UniRef90_G4E6Y5	M	L	N	K	E	L	E	F	T	L	N	M	A	F	K	A	R	E	K	R	H	E	F	M	T	V	E	H	L	L	L	A	L	L	D	N	P	T	A			
UniRef90_D5QHP5	M	L	S	R	N	L	E	Q	T	L	H	R	A	L	T	L	A	S	E	R	R	H	E	F	T	V	E	H	L	L	L	A	L	L	D	D	P	D	A			
UniRef90_G2FE62	M	L	S	K	E	L	E	F	T	L	N	Q	A	F	I	R	A	K	E	K	R	H	E	F	T	V	E	H	L	L	L	A	L	L	E	N	P	A	A			
UniRef90_G2LKS1	M	F	T	K	D	L	Q	T	A	T	A	V	N	E	A	M	A	R	G	H	E	Y	L	T	L	E	H	H	V	L	F	A	L	L	D	D	P	T	S			
UniRef90_D5CQ39	M	I	A	Q	E	L	E	V	S	L	H	J	A	F	V	E	A	R	Q	K	R	H	E	F	T	V	E	H	L	L	L	A	M	L	D	N	P	S	A			
UniRef90_G1XX39	M	L	S	R	N	L	E	Q	T	L	H	R	A	L	T	L	A	Y	N	E	R	R	H	E	F	T	V	E	H	L	L	L	A	L	L	D	E	Q	D	A		
UniRef90_UP100040A0359	M	L	N	K	E	L	E	T	L	N	D	A	F	R	I	A	R	D	H	R	H	E	L	M	T	V	E	H	L	L	L	A	L	L	D	N	P	E	A			
UniRef90_S7U457	M	L	S	K	R	L	E	N	V	L	T	T	A	V	R	E	V	K	R	R	H	E	F	L	T	L	E	H	L	L	Y	A	M	Q	D	D	S	G				
UniRef90_Q3J8G5	M	L	S	R	D	L	E	T	S	L	H	N	A	F	K	D	A	R	E	R	M	H	E	F	L	T	V	E	H	L	L	F	A	M	L	D	N	P	A	A		
UniRef90_W4LEZ5	M	L	T	R	E	L	Q	T	I	N	R	A	A	H	E	M	Q	R	R	H	E	Y	L	T	V	E	H	L	L	Y	A	L	I	D	D	R	T	G				
UniRef90_I1XKY4	M	L	S	K	E	L	E	Y	T	L	N	M	A	F	N	D	A	R	A	K	H	H	E	Y	L	T	V	E	H	L	L	Y	Y	L	L	E	N	P	S	A		
UniRef90_K2BNJ7	M	L	N	R	E	L	E	Y	T	L	N	M	A	F	N	D	A	R	A	K	H	H	E	Y	L	T	V	E	H	L	L	Y	Y	L	L	E	N	P	S	A		
UniRef90_F6IFD4	F	A	Q	S	L	E	K	T	L	H	S	A	L	S	H	A	S	E	R	S	H	E	Y	A	T	L	E	H	L	L	A	L	I	D	D	P	D	A				
UniRef90_Q0AQ59	F	S	S	D	L	E	D	S	L	H	R	A	L	G	Y	A	N	E	R	G	H	E	F	A	T	L	E	H	L	L	A	L	V	D	D	Q	D	G				
UniRef90_S5YV14	F	S	T	S	L	E	Q	A	I	H	A	A	L	A	L	N	D	A	R	E	R	M	H	E	F	L	T	V	E	H	L	L	F	A	M	L	T	D	E	P	D	A
UniRef90_E6VZ47	M	L	S	K	E	L	E	G	A	T	A	V	N	E	V	K	R	R	H	E	F	L	T	E	H	L	L	Y	A	I	S	T	G	E	Q	G						
UniRef90_S7VKA1	M	I	S	K	E	L	S	A	T	G	F	A	V	R	E	A	K	R	R	H	D	H	V	C	V	E	H	L	L	Y	A	I	L	H	D	D	F	G				
UniRef90_B5EMZ9	M	I	D	K	P	L	E	Q	S	I	N	Q	A	F	Q	I	A	R	Y	G	H	E	Y	A	S	V	E	H	L	L	A	L	L	D	N	P	D	G				
UniRef90_UP10003B6AC3A	M	L	S	K	S	L	E	E	T	R	R	A	M	T	N	A	S	S	L	K	H	E	F	A	T	E	H	L	L	F	A	L	L	E	D	Q	D	A				
UniRef90_C6XH91	F	S	E	N	L	E	K	V	L	H	Q	A	L	V	L	A	N	E	R	N	H	E	Y	A	T	L	E	H	L	L	A	L	I	D	D	S	D	A				
UniRef90_UP100039F3535	M	L	S	E	E	L	Q	K	A	D	A	A	F	V	S	A	R	M	E	G	H	E	L	L	T	V	E	H	L	L	A	L	L	S	D	T	H	V				
UniRef90_G7QKN3	M	F	T	E	K	A	Q	K	A	I	N	S	Q	N	M	A	E	L	G	H	N	Y	V	G	T	E	H	L	L	G	V	K	E	G	S	A						
UniRef90_A3DGD1	M	L	S	R	Q	L	E	V	S	L	R	L	A	V	S	M	A	R	Q	K	R	H	E	F	L	T	V	E	H	L	L	L	A	L	L	D	N	D	S	A		
UniRef90_V2UXT2	M	F	A	K	L	E	Q	T	L	H	N	A	L	A	I	S	R	R	H	E	Y	A	M	L	E	H	V	L	L	A	L	I	D	D	E	H	A					
UniRef90_O8WCF1	M	I	S	R	E	L	V	V	F	K	L	A	L	R	E	A	E	V	R	R	H	D	M	V	C	V	E	H	V	L	Y	A	M	S	H	D	N	W	A			
UniRef90_D6PE56	M	F	T	K	D	L	E	M	C	L	M	A	A	Q	S	E	A	I	D	R	R	H	E	Y	L	C	V	E	H	I	L	Y	A	L	L	H	N	D	A	G		
UniRef90_UP1000288BBC9	M	F	S	T	D	L	E	K	T	L	E	A	L	H	I	E	A	S	K	Y	H	H	E	F	I	T	L	E	H	L	L	Y	G	L	T	F	N	E	K	T		
UniRef90_B0S9H8	F	T	E	R	A	K	V	L	E	A	Q	E	E	A	R	R	F	N	H	Y	I	G	T	E	H	L	L	Y	G	L	T	F	N	E	K	T						
UniRef90_B9L031	F	T	E	R	A	K	V	L	E	A	Q	E	E	A	R	R	F	N	H	Y	I	G	T	E	H	L	L	Y	G	L	T	F	N	E	K	T						
UniRef90_D0L1L1	M	L	S	K	A	L	E	T	T	L	S	R	V	F	D	R	S	R	Q	R	Y	E	F	V	T	L	E	A	L	T	H	A	L	L	E	D	P	D	A			
UniRef90_UP100036B222	M	I	T	P	R	G	K	R	V	L	E	L	A	V	E	S	R	R	L	G	H	N	Y	V	G	T	E	H	I	L	Y	G	L	I	R	E	G	E	A			
UniRef90_J3VU01	F	S	E	K	A	Q	K	V	L	Y	Q	A	Q	E	E	A	R	S	L	Y	H	N	Y	V	G	T	E	H	I	L	Y	G	L	I	R	E	G	E	A			
UniRef90_K9VLF3	F	T	E	Q	A	I	K	A	M	L	A	Q	E	E	A	R	R	L	G	H	N	Y	V	G	T	E	H	I	L	Y	G	L	I	R	E	G	E	A				
UniRef90_B1ZUY9	F	T	P	R	A	Q	V	Q	L	A	L	A	R	K	E	A	D	R	F	H	H	N	Y	V	G	T	E	H	I	L	Y	G	L	I	R	E	G	E	A			
UniRef90_F8EXX9	M	I	S	R	H	V	Q	A	I	N	A	A	Y	N	E	A	K	V	R	N	H	E	Y	L	T	P	E	H	V	L	Y	A	A	L	F	E	V					
UniRef90_E6W3W8	M	I	S	K	A	L	N	Q	V	L	S	A	A	F	Q	D	A	K	E	R	G	H	E	Y	L	T	D	H	E	V	L	Y	V	L	L	D	T	T	V			
UniRef90_R9PJ29	M	F	T	E	R	A	Q	K	V	L	Q	Q	M	Y	E	Q	A	Q	S	Q	R	H	E	M	V	G	L	E	H	I	L	Y	S	A	A	E	S	D	V			
UniRef90_UP10003F758A2	M	I	A	E	S	L	E	T	T	L	Q	Q	M	Y	E	Q	A	Q	S	Q	R	H	E	M	V	G	L	E	H	I	L	Y	S	A	A	E	S	D	V			
UniRef90_M1E6F4	F	T	E	K	A	K	I	I	L	A	Q	E	E	A	K	R	L	G	H	H	N	F	G	H	D	Y	I	G	T	E	H	I	L	Y	G	L	I	A	E	G	T	A
UniRef90_R6N727	F	T	Q	K	A	N	K	N	L	S	I	E	S	A	Q	N	F	G	H	D	Y	I	G	T	E	H	I	L	Y	G	L	I	K	E	G	S	A					
UniRef90_X1S545	F	T	E	R	A	K	V	I	F	L	A	R	E	E	A	R	R	L	D	H	D	L	G	T	E	H	I	L	Y	G	L	I	R	E	G	E						

50 60 70 80

QUERY	R E A L E A C S V D [REDACTED]	L R Q E L E A F I E Q T T P [REDACTED]	V L P A S E E E R D T Q P
UniRef90_U4TIR3	A S V L Q V C G A D L [REDACTED]	L R H S L S Q F I L D E T T P [REDACTED]	P S N D Y D C D T Q P
UniRef90_F7NXI0	G E A L K S C G A N I D [REDACTED]	R L D L S H F I D S T T P [REDACTED]	P E D D A D R D T Q P
UniRef90_H2FXX6	R E A L L A C G A D L [REDACTED]	R R E T Y S F I E Q T T P [REDACTED]	P L I V G D D E I E T Q P
UniRef90_I2JMK1	V K V L V A C G A D L [REDACTED]	L K G E L K E F I V E A T T P [REDACTED]	R I P E T D V E R D T Q P
UniRef90_B4SIN9	Q A V L K A C G A D A E [REDACTED]	R Q E L E Q A I E A S V S R L [REDACTED]	A E D D G R D T Q P
UniRef90_Q3JV78	A E V L R A C A A N I E [REDACTED]	R Q N L R N F I H D N T P T [REDACTED]	V P G T D D V D T Q P
UniRef90_UP10002556BDB	A S V L R A C A G N L D [REDACTED]	K D L L R H D L L E F I D S T T P [REDACTED]	L H D E E R E T Q P
UniRef90_F3LCB4	S S V L K A C G S D V S S L [REDACTED]	D K L L R R D L L E F I V D T T T P [REDACTED]	L F A V S E E E R E T Q P
UniRef90_UP100040142D	K D A L K A C C G A N I E [REDACTED]	D K L L R R D L L E F I V D T T T P [REDACTED]	L P K D P R D T Q P
UniRef90_G4E6Y5	M N V L K S C G V N M E [REDACTED]	R K Q L L A D F I Q A N T P R L S [REDACTED]	A S D R T V D P K P
UniRef90_D5QHP5	V T V F R A C C D A D L [REDACTED]	D K L L R H D L L E F I V D T T T P [REDACTED]	L A G L P E G E E R D T Q P
UniRef90_G2FE62	C E V L R A C C D A D L [REDACTED]	D K L L R H D L L E F I V D T T T P [REDACTED]	L P K D P R D T Q P
UniRef90_G2LKS1	A D I L R A C C G G D L [REDACTED]	D K L L R R D L L E F I V D T T T P [REDACTED]	L P K D P R D T Q P
UniRef90_D5CQ39	A H V L R A C C G A D I E [REDACTED]	D K L L R R D L L E F I V D T T T P [REDACTED]	E V D T Q P
UniRef90_G1XX39	L A V L R A C C G V T V E [REDACTED]	D K L L R R D L L E F I V D T T T P [REDACTED]	R S E D A K P
UniRef90_UP100040A0359	S K A L R A C C G L E F T [REDACTED]	D K L L R R D L L E F I V D T T T P [REDACTED]	L I S S T E A E S E T Q P
UniRef90_S7U457	Q D I L S G C G A D T K K L [REDACTED]	R H Q L L E R F F I D H M E V L P E S [REDACTED]	H P T E V V Q
UniRef90_Q3J8G5	A A V L R A C C G A N L E [REDACTED]	Q D I L S G C G A D T K K L [REDACTED]	T V F L N E T T P L L S T E D G R D T Q P
UniRef90_W4LEZ5	S D V L R A C C G G D G A S [REDACTED]	Q D I L S G C G A D T K K L [REDACTED]	P D H I D Y A P D H
UniRef90_I1XKY4	L A V L K A C C G V D I N T [REDACTED]	Q D I L S G C G A D T K K L [REDACTED]	A E D S D R E T Q P
UniRef90_K2BNJ7	A A I L R G C N A N L E R L [REDACTED]	Q D I L S G C G A D T K K L [REDACTED]	D E K K Q N D T Q P
UniRef90_F6IFD4	A Q V M Q A C G V D L L G D L [REDACTED]	Q D I L S G C G A D T K K L [REDACTED]	P A P P
UniRef90_Q0AQ59	A A V M M K A C D V D L L R A T [REDACTED]	Q D I L S G C G A D T K K L [REDACTED]	D A K P
UniRef90_S5YV14	V K V M Q A C O N V D L N E L [REDACTED]	Q D I L S G C G A D T K K L [REDACTED]	V D D D E
UniRef90_E6VZ47	E A I L E A C G A E M D K L L [REDACTED]	Q D I L S G C G A D T K K L [REDACTED]	T E T E V I Q
UniRef90_S7VKA1	I E I I R N C G G N I E N L L [REDACTED]	Q D I L S G C G A D T K K L [REDACTED]	P E G K E Y V F Q Q
UniRef90_B5EMZ9	M D V L S A C G A D R T H S V E [REDACTED]	Q D I L S G C G A D T K K L [REDACTED]	T V N T Q P
UniRef90_UP10003B6AC3A	I E V L K A C S V N V K T V E D D I [REDACTED]	Q D I L S G C G A D T K K L [REDACTED]	L T E A D T Q P
UniRef90_C6XH91	A I V M L S C V N V D L K V L K N N L [REDACTED]	Q D I L S G C G A D T K K L [REDACTED]	K N G F R V E C K P
UniRef90_10XRS9	A E A L S S S G A D T E K L E V A L [REDACTED]	Q D I L S G C G A D T K K L [REDACTED]	P E S F G E I E P E Y
UniRef90_G7QKN3	A E V L L A C G A D L D Q L R S E L [REDACTED]	Q D I L S G C G A D T K K L [REDACTED]	S G G R R G G V M I L
UniRef90_A3DGD1	A R V L Q S Q G V T E E K V R E I E E L I G R [REDACTED]	G E M M G Q P L D F	
UniRef90_V2UXT2	V N A L K S C G A E I T T L R K E L E E Y V E K H T P K L S E N S E Q A P H P		
UniRef90_C8WCF1	S Q V M A G C G V D L A E L K R S L T T Y L D T E L D A L K I E G N S D P S P		
UniRef90_D6PE56	M E I L R H C C G A D I D D D L R I R L E T Y L G E Q V Q V P E D R D Y Q I E Q		
UniRef90_UP1000288BBC9	L N V I R S C G G D T T L L I K Q D L L E D F F S Q Q E E F D G N K L P R Q		
UniRef90_B0S9H8	K E V L V N V G C D L D L L R K E L L E Y F E D D L L S S I A V P N L K I Q P K Y		
UniRef90_B9L031	A R V L Q S M G V Q L P K V R S A V E F F I I G R G E S T V V G E I G L		
UniRef90_D0L1L1	A R V L Q S M G V Q L P K V R S A V E F F I I G R G E S T V V G E I G L		
UniRef90_UP100036B8222	A Q V L L A C G A D L N Q I K S G M E N Y F E Q K V P V V Q N M E P T Q		
UniRef90_J3VU01	S R V L K S C G V T Y E D I R S K V V E S L I G M G N V P G D V V G Y		
UniRef90_K9VLF3	A K V L L D M G L N L K E A R N E I V E N I I G R G S G F L P P E I P F		
UniRef90_B1ZUY9	V S V L Q K M G L D L E T V R S A V E K Q V G T G Q E S K T Q G S L P Y		
UniRef90_F8EXX9	Q Q V L L A C G A D L N Q I K S G M E N Y F E Q K V P V V Q N M E P T Q		
UniRef90_E6W3W8	S Q V I R E C C N G N L E I L K N Q L L N E F L G T L E C L P E G T R E D P V Q		
UniRef90_R9PQ29	K E A L V I A C G A N L N Q L N Q E L L S S F I I E Q T T P V I P E D D G E R E T Q P		
UniRef90_UP10003F758A2	S G M L A H C G A D T A A Q L E D S I R E N T P V L P A E Q R Y T E P E P		
UniRef90_M1E6F4	N K V I N S M D I E P Q D I L R R E V E R L I G R G G T L I S E I P F		
UniRef90_R6N727	A A A L E E C G V T A E A L I E K E I A N V D G R G I Q T S L S P D S F		
UniRef90_X1S545	A A A L Q N L A I D L A Q V R V E V E K A V V G R G G G A L F L G Q I P F		
UniRef90_UP10003689BCE	A Q V L E V L G A D L N R T R Q V V I Q L L S G Y Q P A P P A G E E I P W E R F		
UniRef90_UP10003762419	A R V L L S S L S V D L L S K V R S A V E F F I I G R G E K P A Q G E G L		
UniRef90_UP10003698D8B	L E A L H A C H A N I P L L Q K Q L R S F I I E D N T P T L P E G D S T D A Q P		
UniRef90_UP100047B972A	A Q A L R N Q G I R L E D I R Q K I I E S L I G R G A M P T E V V G Y		
UniRef90_G1UPF9	R I I L E G S G A S V A V L R E Q L E E G F F R T E L E V V D Q P G K Y E V T Q		
UniRef90_B9XND9	F T V L S Q L G M S F E A V R L E V E K H L P M G P E Q S I T E T I P Y		
UniRef90_D6ZJ48	A R A L E T M G I S L E A V R A Q V I E I I G E G E Q P T T G H I P F		
UniRef90_A4J0X6	A R A L E Q M M N I N A D K V K T T V E Q I V E I G N E A V S G E I P P		
UniRef90_10IBA9	A N V L K N L D V D L R R V R L E V E K E L V K S G P D M V T M G K L P Q		
UniRef90_UP1000365812B	A K A L E S M G I S L S L N D V R R E V E E I I G Q G T Q P H T G H I P F M M F E R F		
UniRef90_E6Y2A6			
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UniRef90_M4RD31	A K A L A S K G V N L Q D T R K Q V E E M I G K G N A S P N G H I P F		
UniRef90_V4F8K1	I I A I I I S K L N A S P Q K I I E K E L D N Y L K K Q P S I G G T G A G Q I Y L		
UniRef90_A9B4C3	I I A V L G R L S V N V E S V I A R V E R E L D K S P K V V Y N G Y P Q Q S V Y V		
UniRef90_E0XYF0	V T V L T N L G L N L E T V K Q S V E D Y V A T S G G T M T L G E V P F		
UniRef90_E6SLG0	A K A L Q S L G I V N L E E Q V R A E V E K I I G R G N G P I Q G E I G Y		
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UniRef90_X1E723	V A V L R Q L G V N V D K V I E V E V E R L V G K G E Y Y Q V G E I A F		
UniRef90_E7RK85	A K A L E A I I E V N T Q L I E E G V K E L V G V G E K E V G P I V H Y		
UniRef90_S0EUV1	V T I L L Q K L G V N V P V L E R Q L L E A E I E K L P K V S G S A E H G S T I I P F		
UniRef90_X0SXZ9	A T V L L Q K L S I D L A K I R I A V E K S V V G S G G S L T L G E I P F		
UniRef90_Q1YI53	A A V M Q G C S V D L D I L R R N L T T Y I D S E L S N L V T G H D E D S K P		
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UniRef90_M2XXX4	V K V L L E N L G V D L E Q I H E H V E E S V R K G K A T I A L G E L P Y		
UniRef90_UP10003764164	P Q I L S K L G T E P G R Y S G A L L E A E I K K L P S V S G P G A R P D Q I V V		
UniRef90_UP10003B30E06	A K A L D Q M D I S L E A V R E Q V V E E M I G P Q T A P T A H I P F		
UniRef90_R7GFQ6	A K A V L E N Q E V E P Q K I I L D K I D E L I G R E D K T E E T L G F		
UniRef90_W1TKE0	A K A L E M A N L S L E G V R D Q V I E L G K G E N D S K D H I P F		
UniRef90_A3DES0	R D I I I E N C G G K V E D I K K D L L E F F R N N M P I V E N H E P I E		
UniRef90_E3CVG4	A Q V L G A F G L D L E E L R G Q I V E S T V G K G Q P R E R P V D L P L		
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QUERY		90	100	110	120
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UniRef90_UP10003B6AC3A	T	A G F Q R V V V Q R A V I H T Q S S G R N E A T G A N I L V A I M F S E R D C Y A			
UniRef90_C6XH91	T	S S F Q R V V V Q R A V L H V Q S T G R G I V T G A N I L V A I F S E P D S H A			
UniRef90_UP100039F3535	T	L S F Q R V L Q R A I Y H V Q A A G K K Q V S T L N V L V A I F S E K D T H A			
UniRef90_10XRS9	T	I G A Q R V L Q L A A F H V Q S T E K K K L D G G Y V L A S I F R E D Q S H A			
UniRef90_G7QKN3	T	E E M E R T L R K A W E E A K K R R N E F I T L E H I L L A L T Y D S V I A			
UniRef90_A3DGD1	T	P R T K R V L E L S Y R E A R R M G H N Y I G T E H I L L G M K E G E S V I A			
UniRef90_V2UXT2	T	E S F D R I I L Q R A I F H V Q S S G S R A V E V E G A D V L V A M Y S E R D T F F A			
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UniRef90_B9L031	T	P R A R K V I E Y A V D E A R R L G H Y I G T E H L L L G L V R E G E G I A			
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UniRef90_I3VU01	T	P R V K R I F E T A L N E A R Q L G H N Y I G T E H I L L G L I Q D D E G V A			
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UniRef90_B1ZUY9	T	V G F Q S V L E R A V L Q S Q S A Q K K E L D V A D I L V S I Y D E E R N Y C			
UniRef90_F8EXX9	T	V A F Q R V V Q R V I I H Q S A G K E F A D T T D L L A A M F M E N H S M G			
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UniRef90_R9PQ29	T	I G F Q R V M Q R A M I H V Q S A G K R E V Y P A D V L V A V L D E K D S Y A			
UniRef90_UP10003F758A2	T	P R A K R V L E L S W E E A R L L G H N Y I G T E H I L L G L I R E A E G V A			
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UniRef90_UP10003762419	T	P R A K K V V E L A V D E A R R M H T Y I V G T E H I L L G L I R E A E G V A			
UniRef90_UP10003698D8B	T	L G F Q R V I Q R A V M H A A D K A R R Q V T G A H I L L V S I F S E K D A H A			
UniRef90_UP100047B972A	T	P R A K R V L E L S F A E A R R L G V N Y I V G T E H I L L G L I R E G D G V A			
UniRef90_G1UPF9	T	D G V Q R V L E R A N H S A G R D T V E L G D I L A I M D E D E S Y A			
UniRef90_B9XND9	S	P R T N V L K S L A A R E A K A L D H T Y V G T E H I L L G L I R E G D G V G			
UniRef90_D6ZJ48	T	P R A R K V L E F S M R E A L Q L G H N Y I G T E H I L L G L I R E G D G V A			
UniRef90_A4JOX6	T	P R A K K V L E L A V E E S R S M G H N Y V G T E H I L L G L I R E G E G V A			
UniRef90_10IBA9	T	P R A K K V L E Y S I E E A R N L H N Y V G T E H I L L G L I R E H E G V A			
UniRef90_UP1000365812B	T	P R A K K V L E L S L R E G L Q M G H K Y I G T E F I L L G L I R E G E G V A			
UniRef90_E6Y2A6	T	E K A I K V V M L A Q Q E E S R R L G H N F V G T E Q I L L G L I R E A T G I A			
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UniRef90_F5XFA8	T	S M V L D Q F G R N L T Q A A R E N K L D P V			
UniRef90_R1CPP3	T	P R T K V F E L S V M E A R N L G H N Y V G T E H I L L G L I K E G E G V A			
UniRef90_M4RD31	T	P H A K Q V L E L S L R E A L Q L G H S Y I G T E H I L L G L I R E G E G V G			
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UniRef90_E0XYF0	T	P R A K Q I V L E V A A N E A K E M K T Q F V D V E H E L L I A I L K D K E G V A			
UniRef90_E6SLG0	T	P R A K K V M E L A P E E A R L L G H N Y V G T E H I L L G L I R E G E G V A			
UniRef90_H1XSP2	S	R R A N E I L N N A F N E A R A L K D E F F V S T E H E L L I A I S E E K D G E A			
UniRef90_X1E723	T	P R A K K V L E L A S Q E A S Q L K N N Y I G T E H I L L G L I K E G S G V G			
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UniRef90_S0EUV1	S	P R L R N V F N I A F S E A E R M Q D E Y V S T E H E L L I A I V A D G Q S G A			
UniRef90_X0SXZ9	T	P R S K K V L E L A M D E A R K L K H G Y I G T E H I L L G L I R E E E G V A			
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UniRef90_M2XXX4	T	P T L T Q R A L V T A D E H A K R M Q D E Y I S V E H I F L A L M D E P S S G V			
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UniRef90_UP10003B30E06	T	P R A K K V L E L S L R E A L Q M N H S Y I G T E H I L L G L V R E G E G V A			
UniRef90_R7GFQ6	T	P R T K R V I E N A F I E A K K L G Y N Y I G T E H I L L I G L I R E A D S I A			
UniRef90_W1TKE0	T	P R A K K V L E L S M R E A L Q L G H N Y I G T E H I L L G L I R E G E G V A			
UniRef90_A3DES0	S	L G I N S V M Q A T A Y Q C I A A G R E Y I R Q G D I I V A L Y G E K E S F A			
UniRef90_E3CVG4	S	P R A K R V L D L S M R E A R G M G V N Y V G T E H I L L G L L A E G E G V A			
UniRef90_F8ADD3	S	P N L K Q V L E R A M R I A A E M R D D Y V S T E H E L L I A I L E S N T P S			
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QUERY

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130 140

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

	1	10	20	30	40
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UniRef90_H8KSP2	F S P R V K D V I	S Y S R E E A L R L G H D Y I V G T E H I L L L G L I R E G D G			
UniRef90_B7IF77	F S E E S A E V F V	M A Q E E A K E L G H S Y V G T E H I L L L A I L K D N K I			
UniRef90_UPI0001E2F662	F T E K A Q E V I	S S S Q E I A I R L G H Q Q V G T E H I L L L A M L N Q D D G			
UniRef90_A1BDB6	F S N R V Q D V I	R L S R E E A L R L G H D Y I V G T E H I L L L G L I R E G E A			
UniRef90_W5WGT2	F T D R A R H V I	V E T Q E E A R R A G H N Y I V G T E H I L L L G L L C E P E A A			
UniRef90_E4RJE7	F T E R A R K V L	S I A E Q E E A L K L K H S Y V G T E H I L L L Y G L I A E G Q A			
UniRef90_D4TCB9	F T S E A L R V I	M L A Q E E E A R R L G H N F V G T E H I L L L G L I G E G T A			
UniRef90_T0E7T4	F T K S A Q S V I	D S A I Q S A R D M G H Q V V G T E H I L L L G L V R D S T S			
UniRef90_E1WXD1	M M S K K L E E I I	I N Q A I Q I A N E K K H E Y L T L E T V L L I S M L D D D Q V			
UniRef90_A6TWL6	F T E R A Q K V I	V L S Q Q A Q A Q L G H N Y V G T E H I L L L G L I D E G E G			
UniRef90_R6QKJ5	F T Q K S V E A L	Q D C E K L A Y E Y G N Q E I D Q E H I L L L R S L I D D S L I			
UniRef90_UPI0003778696	F S P R A R S V L	N Y A V D E A R Q L G N N F V N T E H I L L L A I I R E G E G G			
UniRef90_T0E088	M T Q R V Q K S L	N D A F S E A V K N H N Q Q V D T I H I L L Y A L I D Q E D G			
UniRef90_U4UX78	F S P T L E H A I	H S S L A L A N D R Q H E F A T L E H I L L L A L L D E P D A			
UniRef90_UPI000379029C	F T A R A I K V L	E L A Q Y E A R A L E H N Y V G T E H I L L L G L I H E G E A			
UniRef90_Q311D8	F T E K S Q Q A L I	G E A Q N V A V R A G H Q E V D V E H I L L L A L V V I Q E H G			
UniRef90_K2B449	F S D R A N R A I	Q I A A E E A V V S R N K K H I D T E H I L L L G I L E E D P V V			
UniRef90_V5WGU6	S G E V Q D I L	N S A Y Q E A L S W Q H E F L T P E H I V L Y A A L N F P Y P			
UniRef90_F0JKT8	F T R K T Q E A V	S E A Q N L A I R S G H Q Q I D C E H I L M H A L V E N G L A			
UniRef90_F7KRQ8	F T Q K S L Q A V	Q D C E K V A L E Y G N Q E I E Q E H I L L Y A L L D D S L I			
UniRef90_A0A037Z5W0	L T L K V Q Q S I	N E A Q L I A V K Y N H Q Q I D V V H L F S A L I S Q E D G			
UniRef90_UPI00041EB4D8	F S N R V K E V I	S L I S R E E A L R L G H D Y I G A E H I L L L A M I R E G E A			
UniRef90_U2NLE9	M T K R V Q Q S L	N D A H V A A V K F N H Q N L D V I H L F Y A L V N D N D G			
UniRef90_C6KJ41	F T E K A I K V V	M L S Q E E S R R L G H N F V G T E H I L L L G L I G E G V I A			
UniRef90_G9WPY2	F T Q K S V E S I	I N N S Q K I A M D H G N Q A L E Q V H I L L L S I L E V E D I			
UniRef90_L7W7Q5					
UniRef90_UPI000365F8D8	F S S K V R D V I	Q F S R E E A L R L G H D Y I G T E H I L I L G I L G D G V A			
UniRef90_W1UTA2	F T D D A Q K V L T	T L A Q E A A L E L G H D Y V G T E H I V L I L G I L T K N S V A			
UniRef90_S9PEM5	F S E D T R R V L T	T S A V E A A Q Q A G A P A I D T E H I L L V A I A R D P R G			
UniRef90_C6W7M5	F S N R V K E V I	I S M S R E E A L R L G H D Y I G A E H I L L L G M I R E G D G			
UniRef90_J0PY23	F T P S L E E V L	H R A L T I A V Q A R H E Y A T L E H I L L L A L L D D T D A			
UniRef90_B9DY82	F T E R A Q K V L I	T Q E A Q E E A Q A L Q H G Y V G T E H I L L L G V L E D D G I A			
UniRef90_UPI00040FA1B0	M L D K P L E H S L D L A F R I	A Y E K S N E F M T L E H I L L L A L L E N D E I			
UniRef90_F7YXS2	F S E K S A Q V F V	I E A Q N E A K E M G H S Y V G T E H I L L L A I L K Q E S A			
UniRef90_T3BVD9	M T L R V Q Q S K L	S N E A Y N E A V K N H N Q Q V D V I H L F S A L I N Q E D G			
UniRef90_C6LJT0	F T Q K S L Q A I	I N D L E K V A Y E Y G N Q E I E E E H I L L Y A L M N Q E D I			
UniRef90_E2CDK5	T E R A R G F I	Q S A Q T F A L G Q G H Q Q F T P E H I L K V L L D D A E E G			
UniRef90_K9TG74	F T P R G K S I L	E M S L R E A S Q L G Q Q Y I T A T E H I L L L A L T Q E G V I A			
UniRef90_K2P2W7	F S P R V K D V I	A Y A S K E E A L R L G H D F I G T E H I M L G L L R D G N A			
UniRef90_X1R7D6	F T E Q S Q E A L	A A S Q E L V R Q H H S Q W D V E H I L L L A L L Q Q Q A G			
UniRef90_G9PXN0	F T E R G K R V F	Q L A H K E A L R M G H E V I G T E H I L L L G L L Y D N D G			
UniRef90_D4DP96	M I S D A M E R I L	Q E L Y A D A R A R S F E L I T L E Q L L L A L M E Q S D V			
UniRef90_R6QZ55	F T E K A N S A I	N L A I E S A Q D L G F T Y I G S E H I L L L G L L K D G V A			
UniRef90_C4XI3	F T Q K S Q Q A I	G E A Q A V A V R M G Q Q V D A E H I L L Y A L L D Q G L V			
UniRef90_B8IY92	M I T Q R L A T V L	N D A Q N E A K R M K D E Y V S V D H I F A A L T E V P P S			
UniRef90_A0A023HCl1	F T E G A I K V I	M I S Q E E A R R M G H N F V G T E Q L L L G V I G Q G I Q G			
UniRef90_R9M4K2	F T P K A N A A I	N C A I E E A S A L G H T Y I G S E H I L L L G L L V I E G S G G			
UniRef90_UPI000289FE7C	F S E K S Q K A I	G E Q Q E A R E Q K H S Y I G S E H I L L L G I I R E G T G G			
UniRef90_X2H5L6	L T N K F Q Q A L	A D A Q S L A L G K D N Q Y I E P V H I V L S A M L N Q E S V			
UniRef90_D0MF86	F T V K A Q E A V	Q R A L E I A A Q K N H Q A I E P P H I L K A L L S E P T A			
UniRef90_K9ENW9	F T N A A I A V I	M Q A Q E E A R R L G H N F V G S E Q L L L G I V K E G S A			
UniRef90_F0R9X4	F T I K S Q E S L	Q Q A Q L L A Q E G L G N Q F I E N E H I F K A L I D E N V M			
UniRef90_UPI0003B575F8	L L S G R A K D S I	M L S Q E I A R Q L G E R Y V D D T E H I L L L A L V E G S P V			
UniRef90_R6ZN55	F T Q K S L E A V	Q R T E K L A Y E Y G N Q Q I D Q E H I L L Y S L L D D S L I			
UniRef90_UPI000399F617	F T P R G R R V L	E L S M R E A L Q I G H N Y V G T E H I L L L G L I R E G E A			
UniRef90_W5X2S6	F T E R A R K V V	F Y Q A Q E E A Q K F G E G Y V S T E H I L L L G L I R E S D A G			
UniRef90_R6GK42	L T Q K A L E A L	Q S A Q N L A L E N N N V Q M P E H I L L Y A L I D Q Q N Q G			
UniRef90_C4FM95	F T E K A R K V I L	T A R E H A L K Y K N N Y L G S E H I L L L A L L D E D D V			
UniRef90_A0L8H5	M I S K H E T S L	N K A L Q L A H A R R H Q F A T L E H I L L L A L L D N P E V			
UniRef90_G2IDJ1	M I T E R A R K V I	S Y S G D A L K L G H G F I G T E H I L L L G L I D E D G P A			
UniRef90_E8UAV9	M F T P D L Q A A L	T R A L H A D S F G H D L V T L E H I H A L T E E L T V			
UniRef90_K1TKR9	M I T I K A Q E A L	Q A A L N L A R E R G Q Q A V E P L H I L S V L I R E D D A			
UniRef90_UPI00040CC749	F S P V L E E T I	H R A L T L A T E R K H E L A T L E H I L L L A L L D D K D A			
UniRef90_UPI00040F3AEC	M V S R E A G K T L	T E A G L I A K K M E D E Y V S I E H I L L L A I F K S K S I			
UniRef90_L0DAM0	M I T L K S Q E A V	V Q R A Q E L A K E R G H Q R L E P M H I L L L A L L D Q G V I			
UniRef90_J5UEV3	M I T Q K S Q E A V	L Q A Q N T A L N N S N Q E I D S I H I L L K A L L E Q D N G			
UniRef90_W9VJ7	F T S K L Q E A L	S D A Q S I A V G K D H N Y I E P I H I L L V I A F L E D D G S I			
UniRef90_C0G24	F T E K A Q V A L	K E A Q D I S V R K S H Q T V D A E H I L L Q S I L L E Q E N G			
UniRef90_U2SB99	L T P R A K R V V	E L A M E D S M R G G Y N Y V G T E H I L L L A G I L L E R E G N A			
UniRef90_A3J5N8	F S P R V R D V I	T F S K E E A L R L G H D F I G T E H I M L G I L R D G N A			
UniRef90_K2AHN5	F S E R A K K V V	S S A A Q K A A E L L G A K K V V D T E H I L L L W G I T E E G E A G			
UniRef90_12K794	M I S I A L N D V F	K A A V G Y A K E N R H E Y L T V E H I V F L S I V K S P A G			
UniRef90_B2IWQ9	F T E K A W E A L	V R T P E I A K Q F Q H Q Q I E S E H I M L A L L E E G L A			
UniRef90_UPI00037B5DD2	L T I K S Q E A L	Q S A Q N M A V E Y G H A D T T Q E H I L L Y A L L D D S L I			
UniRef90_R9JLQ9	F T Q K S I E A V	N Q C E K L A M E Y G N Q E I L E Q E H I L L Y A L L D D S L I			
UniRef90_R5IR84	T P Q A K E A L S	L A V G M A E S L N H G Y V G T E H I L L L I G L L Q E G T A			
UniRef90_Q2BLT7	F T A K L Q E A L	A D A Q S L A V G L D H N Y I E P V H I L L S L V A Q E G G			
UniRef90_D8K1X4	F T E K A Q Q A I	F A A Q R L A E D S R H A Q I I E S E H I L L S L V A Q E G G			
UniRef90_UPI0002889237	F T E R A R N V L	M Y A N D E S R E F K H G Y V G T E H I L L L A V L K E D D D G G			
UniRef90_UPI000375942C	F S Q Q V K D V I	S Y S K E E A L R L G H D Q I G T E H I L L L I G I I R D G E G G			
UniRef90_S1RLE5	L F T P K A K E V L	M L A Q E E A K Y F K H Q T I G S E H I L L L A L V K E G I Q A			
UniRef90_UPI000479E34D	L T T K F Q E A L	A D A Q S L A V G R D H Q F I E P V H I V L A A L L N Q E T A			
UniRef90_L0DWZ1	L T T K F Q E A L	A D A Q S L A V G R D H Q F I E P V H I V L A A L L N Q E T A			
UniRef90_UPI0004064F03	L S K E A M E A I	Q K A L A M A S E N N Y E Y V T P E M I V L L M I L D D P S F			
UniRef90_J3JAW3	L F T P S A K N V L	V L A Q E Q A K Y F R H H A V G T E H I L L L A L V I E T D G			
UniRef90_A0A011MNA3	F S N R V K E V I	S L S R E E A L R L G H D Y I G T E H I L L L G L I R E G E A			
UniRef90_F3ZWB4	F T Q K S V E A V	N Q C E K I A Y D C Q N Q E I D Q E H I L Y S L L E D S L I			
UniRef90_E5VY78	F T D R A K G F L	Q S A Q T V A R N S H Q R I A P E H I L L K A L L E D E Q A			
UniRef90_A5VB11	F S E Q T L E L L	Q R A A E K A H E L R S E L D T E H I L L Y A L A D T D V C			
UniRef90_F0G4H2	F T R R A I K A I	E F A Q Y M A R D L A Q D Y I G T E H I L L G L L H E R E A			
UniRef90_UPI00041EF2F2	F T Q K S V E A V	N Q C E K I A Y D C Q N Q E I D Q E H I L Y S L L E D S L I			

50 60 70 80

UniRef90_UPI00035C7351	A Q A L V S L G G D L G G I R S R L L G L M S T R R R R E P A T A R G T F E R F		
UniRef90_H8KSP2	I A I L K G M G I D T Y K L R K T I E D A V K G T S G T T V N L G N I P L		
UniRef90_B7IF77	K S I L E N Y G I T Y T K I R N E V I S I V G M G M R G F I M S P Q M		
UniRef90_UPI0001E2F662	P K L V S Y M G I N T Q I Y I N D L E K E L E R L P K V Y G S G A T S M Y A		
UniRef90_A1BDB6	A R I L L K N L K I D L Y R L K Q K I E D S T H P K V P A T Q M G N V P L		
UniRef90_W5WGT2	A K A L T E Q G I T A E Q L R N S V K V V L G P A K E N V P G H I P F		
UniRef90_E4RJE7	A R A L I D N G I S R D I V E N K I E D M I G K G Q N E V K G S I G L		
UniRef90_D4TCB9	A K V L T D L G V T L K D A R R E V E K I I G R G S G F V P E I P F		
UniRef90_T0E7T4	C K I L L K Q L G V D S E Y L S Q K I I D I Y G I G I N D N S D D I F L		
UniRef90_E1WXD1	I E V L N D L G A D V D Q I Q T D L V E F L E E L R K L A S E N G I K Y Q P E I		
UniRef90_A6TWL6	V A A L K N L G V A S D Q L K K K V V S Y V G T G E N S G E L L G F		
UniRef90_R6QKJ5	V G V L T G L G V D L D Q V R E Q V M A L L N P Q T Q Q P T V R V T F E R F		
UniRef90_UPI0003778696	P R I I E K M G I S V E G L K A S V K T E L L K L P Q I Q G E A A S S Q G V V A		
UniRef90_U4UX78	E R I V L L A C D V S I P S L R E T L V E Y L D E D L T S L I T E D G A E A A P		
UniRef90_UPI000379029C	A R A L M S L G I D L A T V R N R V E A M I G P E N D N A G N A F V Y		
UniRef90_Q311D8	I R L L D K A G V R P Q A F A A V E A M I G R K P A V S G P G S A Q G Q I F V F		
UniRef90_K2B449	N K I F E H L K L N T I D L K N Y T E E N I P D K K Q S T P E G E K E I D L		
UniRef90_V5WGU6	R E V I S H C G G E P D E L R E Q L K E F F L M E N T P T V I E N S E P L S		
UniRef90_F0JKT8	G Q I L R K G V A P D A Y L G A I D A E I A K M P S V S G S G A R P D Q V M V		
UniRef90_F7KRQ8	L K L L M E K M G I D K N A M V N R V E E A I I R K R T K V Q G G Q Q Y V G		
UniRef90_A0A037Z5W0	P N I L G K I G I N I K L L N E E T N K E L L D K M P K V L G E G A Q S S G V Y A		
UniRef90_UPI00041EB4D8	V M V L K K M G I S L E D L K A E V E R A T A G T A N F N I R N L T N L P L		
UniRef90_U2NLE9	P N L F E K M M I N I N I L L R N E E L E K V I D K M P K V L G S G A S S S G V Y A		
UniRef90_C6KJ41	Y K V L R S L G V T L R E A R T E V E R I I I G R G S G F V A V E I P F		
UniRef90_G9WPY2	A K L L Q K M G I S P D S F T R A V E E R I I N A L P K V S G G Q Q Y F		
UniRef90_L7W7Q5		E C F L K R I N S I H D E R S D M D D N F	
UniRef90_UPI000365F8D8	V R I L K N L D C D L F K L K K T I E D T V R G T G G S V Q V G N I P L		
UniRef90_W1UTA2	A K A L E E L G I V T E D I F E A V E D H V G R G N K K A T S I Y M		
UniRef90_S9PEM5	Q E V L T T R L K M D P A R V A Q R A E A E M R R G K R P M E R P E L		
UniRef90_C6W7M5	V A I L K K L L G V S L L D D V R Q T I E Q A T K G A A T N N V K N L Q N I P L		
UniRef90_J0PY23	N S V I Q A C Q V D V E E L L R E R L T N Y I H S E L D M Q I R A N E D T K P		
UniRef90_B9DY82	K N F L N M M N I T I E T V R S F I E E Y E G R G E I D L Y N K E I P L		
UniRef90_UPI00040FA1B0	K N I L L A C S V D I V S L H I E L S E F L D T N P S L S D I Q S E K L E V Q P		
UniRef90_F7YXS2	S E S L A E M G I T Y S R A K N E V I S I V G M G M R G M T S S P Q M		
UniRef90_T3BVD9	P N I I E K M M I S I D S L R N T V N F E I D K L P K V Y G E G A D S Q G V S A		
UniRef90_C6LJ70	K K L I I E K M E I Q P Q Y F A N A V I S A L L E K R T K V S G G Q P Y I L		
UniRef90_E2CDK5	A G L V A K A G G D V Q M L R Q G I E N A L S K M P K V S G G A G Q L Y L		
UniRef90_K9TG74	F K I L L E N L G V S L L E R V R A E V I K R V G E N P A P A G A		
UniRef90_K2P2W7	I D I L S A L S V D L D H L R R K V E I L S P S N L S V G V S A N D K R N L H L		
UniRef90_X1R7D6	L N L I L K E L G I D V E A V K Q S V V A A L E R S P K V T Y E A A Q I Y A		
UniRef90_G9PXN0	T K I L L A D Y D L T P E V L V K E I E Q F A G V G T P R Y G Q I D L P M		
UniRef90_D4DP96	Q Q V L E A A L H V D L D V L S G Q L V V S S I Q D N T P T L P P N L M D K E T Q P		
UniRef90_R6QZ55	Y N A L T E A G A S A D K L E E L I K S E I I G L G E Y I T L S P D D F		
UniRef90_C4XII3	P R I L D K A G Y N Q S A Q Y L A E L E R G L S R L P K V S G P G A Q P G Q V Y V		
UniRef90_B8IY92	T E V F K E Y K I T R A S F V A A M E D M R G G A R V I T S A N P E D T F E A		
UniRef90_A0A023HCl1	A R A L K K A K V S I K K A R K E I E M Y I G R G T G F V A S E I P F		
UniRef90_R9M4K2	V A V L L K C D V T A D K V R E L L I K T V G R G I Q S V L S P S D I		
UniRef90_UPI000289FE7C	A H I L S K G I D Y K K A K E A T L D I V S S G Q G P V V S S I A Y		
UniRef90_X2H5L6	K P L L A A A G A N V A M L Q Q E L N Q A I D R L L P Q V Q G V G G E V I P		
UniRef90_D0MF86	V S I L K R L G A S L E L L N T K A D Q A L A K L P V V H G A S V S G Q Y V G N		
UniRef90_K9ENW9	A R V L S D F G V N L A N S R A E V E S I I G R G S G N G P T E I P F		
UniRef90_F0R9X4	U P F L K K L N V N V A L L T Q I V D K E L Q S L I V D R L G R L G L S T G Y T G Y I Y I M M		
UniRef90_UPI0003B575F8	M D I F T L A G Y D P I K V K K F I R E H V D R D L G R L G L S T G Y T G Y I Y I		
UniRef90_R6ZN55	L K L L T K M G V Q E N Q F L N E V Q G A I E K L P K V S G G Q V Y F		
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UniRef90_W5X2S6	A R V L E K L G V S L Q R I R A E E V E K Q L P R G D A R P S Q D M T L		
UniRef90_R6GK42	L Q L I K K M G K S P D A L L S G L D A L I S K P A V S G S G R E P D K V Y V		
UniRef90_C4FM95	V L V L S K F G L S P E K V K K T L L S Q I P R G T H T G E I L F		
UniRef90_A0L8H5	V D I L I P C G C D M Q Q L N M E L I A E H L E Q H I P L S A D A A P S I D I T P		
UniRef90_G2IDJ1	Q K I L I N S F D V Y Y D D I F K E I R T I L S P G E I E I K N S E I P L		
UniRef90_E8UAV9	R G A L A A L G A D P V I E V R A D L E A F E F Q L E G N G E P P E L		
UniRef90_K1TKR9	T F L L G R V G V N V R G L R D E V Q R S V G S L P R V E G G N G E Q Y Y F		
UniRef90_UPI00040CC749	A A V I L T A C D V D I L T P L R A D D V T R Y L D E D L A S L A V E D F E E A R P		
UniRef90_UPI00040F3AEC	A Q I L K D Q G V T E K D L T A A L I N E L R K G K V T S Q S A E D T Y N S L		
UniRef90_L0DAM0	R S L L T Q L G I N P G Q L L I K A T G E G L N A L P K V S G G E T T L G		
UniRef90_J5UEV3	I K I L S L M N I N V S S L I S D V D D M V N K L P K V S G S S I S N V Y A		
UniRef90_W9VIJ7	R P L L S Q A G A Q L P Q L T R K I I A E A L L D K L P Q V K N P D G D I R A		
UniRef90_C0GC24	P K I L S K A G G N I E T L S S R L N Q S L D K I P A V S G A G S T Y M		
UniRef90_U2SB99	V R I L L R T A G V D A R H Y T Y T A L M Q K L G E M P R S Q A A D		
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UniRef90_B2IWQ9	S S I F N K A G V N V Q K L H E R T I D F I N R Q P K V S G A S S G S V Y I G H		
UniRef90_UPI00037B5DD2	P R L L Q S L N V N P D E L R V L L E R H I A Q Q A R V S G P G A A A G Q A Y A		
UniRef90_R9JLQ9	L K L V E K M E I N K E Y F V G R V L K A L E K R V K V Q G G Q P F V		
UniRef90_R5IR84	A R V L L E E N G V E E S E K V V I E L V S Q L I S P N T S V Q M A E N A A Y		
UniRef90_Q2BLT7	A Q L L V Q A G A D L N L R K Q A I Q A E L N G M A R V S N P D G E L R F		
UniRef90_D8K1X4	V Q L L G K M G N Q P S A I A D K L Q G E L E K L P K A Y G V T Q V F M		
UniRef90_UPI0002889237	K N I L L N D F N I N Y D N V K N L I E A Y V G Y G N I E M S E N E I A L		
UniRef90_UPI000375942C	K A I L L E A L N V D L D E M R Q K I I E N L N P A K E T P G N N I K N L S L		
UniRef90_S1RLE5	G K T L L R E M N I Q E N D I R E E I E H Y T G F G M V K H Y P D N Y F L P Y		
UniRef90_UPI000479E34D	V M L I K K L G L N F S L V Q Q I L E K E L L L S F P K V E G G D L Q		
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UniRef90_UPI0004064F03	S E A Y E S C G G D L V A L S K N L I M S Y R K Y I D K T S G R E P E L		
UniRef90_J3JAW3	I K T L R Q L S I T D D D I R E E I E R F T G Y G T S A E T Q S D T Y L P Y		
UniRef90_A0A011MNA3	V G V L K K L G V P M D A L R G E I E K I S K G T A T H E I K N L A N I P L		
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UniRef90_E5VY78	S G L I K A A G G D P A V A M R A T D A A L A K I P A V S G S G A Q A T P G L		
UniRef90_A5VB11	A A L L K E L K L S P Q D I K S Y I D E H A H T G N A A A D Q S L D K L S I		
UniRef90_F0G4H2	A R A M G A L G M S F E Q A A A Q V K R I A S Q E A E Y P S D N P Y Y		
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UniRef90_H8KSP2	T K Q A E K V L K I T Y L E A K I F K S E V I G T E H L L L S I I L R D E D N I A			
UniRef90_B7IF77	T P R A K R V T E L A Y E E A K S L G E N K I K P I H F L G I I L R E G E G I A			
UniRef90_UPI0001E2F662	T R R F N E I L I R A E D E A K F K F D D Y T G V E H I Y I A L L K E K D T P S			
UniRef90_A1BDB6	T K Q A E K V L K I T Y L E A K I C K S N I G T E H L L L S I I L K G E D N I A			
UniRef90_W5WGT2	T P G A K K V V L E L T V R E A L R L G H N Y V G T E H I I G L I V A E D E S V A			
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UniRef90_D4TCB9	T P K V K S L F E Q S F R E A H G L G H N Y I N T E G V E H I I G L I T D A G E G V A			
UniRef90_T0E7T4	S P R S K D I L D S A F L Y A D K F N K E L V G T E H I I G L I S Q E S N S I A			
UniRef90_E1WXD1	S L S L Q R V I I Q R A A I H V Q S S G K R H M G I N I L V S M F Q E K E S F A			
UniRef90_A6TWL6	T P R T K R V F E L S F A E T R S L N Q S Y I G T E H I I G L I R E G E G I A			
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UniRef90_UPI0003778696	T D R A K R L I V L S Q D E A R M L G H N Y I G P E H I I G L I H G L G V A			
UniRef90_T0E088	T R K L N E V L I K S E E I S K E F N D L Y I S V E H I V F L A L L I E E K H S N I			
UniRef90_U4UX78	T A A F Q R V I I Q R A L I H V Q S S G R T E V T G A N V L V V A M F A E R E S N A			
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UniRef90_K2B449	S P R L K S V V L Q T A F Q E A Q S L H H N Y V G P E H I I M L L A L L K E Q E G L A			
UniRef90_V5WGU6	S A S F N H V F E R A V L V H S H H V N K D T I E P G D I L V S L F D E P E S H G			
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UniRef90_F7KRQ8	T Q R F E E V F V K G E K I A K D F K D S Y I S V E H I I F V M L A M M D D K N G I V			
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UniRef90_L7W7Q5	T K Q A E K V L R I T Y L E A K L Y K S D T I G T E H I I G L I S L L R D D E N I A			
UniRef90_UPI000365F8D8	T P R V K Y V L E L L A V Q M A N R M N H N Y V G T E H I I G L I L L S D G S G V A			
UniRef90_W1UTA2	S P H A K R A L E L A Y E E A Y A L G H S Y V G P E H I I G L I L L G L L Q E G E G T A			
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UniRef90_J0PY23	T P R T K R V L L Q R A I F H V Q S S G K T E V S A S N V L V A I I F S E Q E S Q A			
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UniRef90_UPI00040FA1B0	T P R A K R I I E L A Y E E A K Y L G S E K I I Q P E H I I G L I R E G E G I A			
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UniRef90_E2CDK5	S Q A T A R L F E Q A E K I A E K A G D S Y V T V E R F L I A L V V M D A E S E A			
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UniRef90_K2P2W7	T R Q A E R A L K T T F L E A K L F Q S P S I N T A H L L L C I L R N E N D P T			
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UniRef90_G9PXN0	S P R A K C V M D L A M R E A R R R M G V N Y I G T E H I I F L A V L A E G E G M A			
UniRef90_D4DP96	T L G F Q R V V M Q R A I V H A Q S V E K R E V Q P V D V L V A L M S E K D C P A			
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UniRef90_B8IY92	L T K Y A R D L V E A A R Q G K			
UniRef90_A0A023HCl1	T P R A K R V L E M A V Q E G K D L G Q N F V G T E H I I L I I A I L A E P D G V A			
UniRef90_R9M4K2	T P R C K R I I L E Q A L M Q T R R M S G V Q A A G T E H I I L I I N L L K E S E S Y A			
UniRef90_UPI000289FE7C	T P R T K R I I F E L A F D I S K D L G E V T V S T E H I I L I I G L I L R E G Q G V A			
UniRef90_X2H5L6	S Q E F V R V L N L C D K I A L Q K N G D S Y I S S E H I I L I I F L I A A L D E K G S L			
UniRef90_D0MF86	S E L K K V F D R A L A E A S L L K D E Y V S T E H I I L I I A L A E S Q T D V			
UniRef90_K9ENW9	T P K V K Q V F E Q A F Q E A R K L D H P Y I E P E H I I L I I S L T Q N I E S V A			
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UniRef90_W5X2S6	T P R A K R V I I D L A Y E D E A R N L N N Y I G T E H I I L I I G L I R E G D G L A			
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UniRef90_G2IDJ1	T P R T K K V V I E S S I I D E A K L G H N V H S P E H I I L I I A I I N E P D G V A			
UniRef90_E8UAV9	T L A V Q R V L L H R A V V L Q R L A A G D T P A D G V R V L A E L L D E E D S P A			
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UniRef90_J5UEV3	S R K L S E L L S N A Q I E S K N F G D E Y V S V E H I I F L F L A M F K E K R T I			
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UniRef90_UPI000375942C	T K Q A E R A L K T T F L E A K L F K S P T V N T I H L L L C I L R N E N D P I			
UniRef90_S1RLE5	S P R V K Q I I A Y A N D E A K R S G A E K I G T E H I I L I I G L L R D E E I L A			
UniRef90_UPI000479E34D	S R E A S K T L N E A S I I A K K M E D E Y V V S L E H I I F L F I A L L K S K S K I			
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UniRef90_J3JAW3	A P K A K Q I I L S Y A G Q D E A K R M G A M K I G T E H I I L I I G L L R E D D I L A			
UniRef90_A0A011MNA3	T K A S E K V L K I T Y L E A K I F K A Q L I G T E H I I L I I G L L R D A D N L A			
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UniRef90_A5VB11	D N D L A R V L L D Q A E Q I A Q K A G D S Y V T V E R M L L A L T L A T T S P A			
UniRef90_F0G4H2	S P R V K K A V Q F A F Q A S R D L G H S Y I G P E H I I L I I G L A S V P D S I			
UniRef90_UPI00041EF2F2	T P R A K R V M E G A F E E A Q S L G H N Y I G T E H I I L I I S L L E E T E G A A			

130 140

UniRef90_UPI00035C7351	A V I E G M G I A P E D L R R E V
UniRef90_H8KSP2	S Q V L N Q F N V N Y E
UniRef90_B7IF77	V H I L R K M G I D D Q M L R R E L S
UniRef90_UPI0001E2F662	H S I F K R Y G I N L E K F M A A L S
UniRef90_A1BDB6	S Q I L E Q F G V S R D E L L S I T S G G T
UniRef90_W5WGT2	A K V L F S G Y D R E A
UniRef90_E4RJE7	V R I L M D L N S D I K N I K E E V
UniRef90_D4TCB9	A K V L K C S L G I E L Q T V
UniRef90_T0E7T4	C K I L E K K G V N K D K V T N A I S
UniRef90_E1WXD1	L Y S I Q K H G I E R F D V V R Y I A H G
UniRef90_A6TWL6	A K V L I E L G V D R E E V I K I I S A G S
UniRef90_R6QKJ5	A Q I F R T F G I N R D S F L K A L
UniRef90_UPI0003778696	A K A L E S M G I A R S D V E E I I G R G
UniRef90_T0E088	G K I F K Q F N I T K N S F L E V L S
UniRef90_U4UX78	A F F L Q D L G M T R Y D A V N F I S H G
UniRef90_UPI000379029C	A K V L I S L G A D I D I V R E
UniRef90_Q311D8	G R V F A Q F G L T Q E K L L G V L T
UniRef90_K2B449	N M I L A K H G L T E E K L K Q I I
UniRef90_V5WGU6	R Y F L E Q A G V E R I G L L E I I S H
UniRef90_F0JKT8	G R V N K Q F G L D K N K V L L A A L
UniRef90_F7KQR8	K T I I F R E M G V K R D D F L Q V L S
UniRef90_A0A037Z5W0	G N I L K N F S I T K E A F L N V L A
UniRef90_UPI00041EB4D8	T Q I L E K K A G V S Y D K V K D L L
UniRef90_U2NLE9	G E I L L R K F N I D K N N F L K V L
UniRef90_C6KJ41	V R V L L Q Q G L E R T E V L M Q I S
UniRef90_G9WPY2	R E L F K E F G I T K E K F L S A L S
UniRef90_L7W7Q5	I E I L T N S V D L D N L
UniRef90_UPI000365F8D8	A Q I L L Q Q F S I S Y D A V R E E L
UniRef90_W1UTA2	A A I L L Q S M D V R T N D V V D A I R N
UniRef90_S9PEM5	S E I L L R E L G V K R E A V K E A L A P G
UniRef90_C6W7M5	T Q I L L H K F N V N Y E E M L E Y Q S S G S
UniRef90_J0PY23	A Y F L Q E M G M T R Y D A V H F I S H G
UniRef90_B9DY82	F T I L L N N L G A D F N K L R K Q L
UniRef90_UPI00040FA1B0	A Y F L K K S S L S R L D V V N Y I S H G
UniRef90_F7YXS2	V H V L R K M G A D L G I A L R R I I
UniRef90_T3BVD9	G K I L L K Q Y N I N K N D F L N I L S
UniRef90_C6LJT0	K E I I F R E F G I T R E R F L Q A L S
UniRef90_E2CDK5	G K L L K Q A G L T P N S V N E A I
UniRef90_K9TG74	
UniRef90_K2P2W7	T K L L N K L K I D Y D N A K E
UniRef90_X1R7D6	A S I L L H R F G I D Q E K V Y R A L
UniRef90_G9PXN0	A R I L L A S H G L E L D E C R R F V A
UniRef90_D4DP96	V Y F L Q L Q S V S R V I E I L R Y L A H G
UniRef90_R6QZ55	V R F L G E M G V R A N D L I E N L
UniRef90_C4XI13	G Q V N K A L G I D K N R I L A A L T
UniRef90_B8IY92	
UniRef90_A0A023HCl1	M R T L E K K L R V D V P K L R N
UniRef90_R9M4K2	V R F L R Q L S I D P E S V V K Q L T
UniRef90_UPI000289FE7C	I L V L K R L G I D I M S L E N D I
UniRef90_X2H5L6	S D I L L K K S G I T K D R L L N Q A V S
UniRef90_D0MF86	G Q A L L R E Q G V T K E K I L N V L
UniRef90_K9ENW9	Y R V L T N L G V D P T Q V
UniRef90_F0R9X4	S Q I L L K D Q G V T E K D L N A A I A
UniRef90_UPI0003B575F8	A R I L L N K L G I T K D E A V K A V
UniRef90_R6ZN55	K E L F K L Y N I T R E G F L Q A L S
UniRef90_UPI000399F617	V Q A L L E R L G I S M Q D L R E
UniRef90_W5X2S6	G R V
UniRef90_R6GK42	R S L L F R E R G I T K D D F V
UniRef90_C4FM95	G R V L R G F G I D E Y T V R R E I
UniRef90_A0L8H5	V Y F L A K Q N I N K L D V Q S M I A H G
UniRef90_G2IDJ1	Y K I L L D K K G V S V V K I W N
UniRef90_E8UAV9	R Y A L L E S R G V T R V D V L A W I S H G
UniRef90_K1TKR9	A D L L K R A G A T E K E L V E A I
UniRef90_UPI00040CC749	V Y F L Q E R D M T R Y D A V N Y I S H G
UniRef90_UPI00040F3AEC	
UniRef90_L0DAM0	Q S L L E A M G I T E K D I L Q A L
UniRef90_J5UEV3	S D I F S K F G I K R Q D F M Q
UniRef90_W9VIJ7	S R V L L K E A G V D R E K L L A A I
UniRef90_C0GC24	S K L L S E S G V T R A S F M E A M T
UniRef90_U2SB99	
UniRef90_A3J5N8	T K L L S K L K I D Y E T V K E
UniRef90_K2AHN5	A Q T L L S R F G V T L E R A Q K I I S
UniRef90_I2K794	V Y L M K K E G I A R V D I L E V I S H
UniRef90_B2IWQ9	K G L F Q E F G L D E K K L R N I I S
UniRef90_UPI00037B5DD2	Q R W F H Q N Q K V D H S R V L E A L S
UniRef90_R9JLQ9	K E I I F R E Y G I T R E R F L R V L S
UniRef90_R51R84	S R L L N T M T G I S V Q K L
UniRef90_Q2BLT7	G K L L L R D A G V T L Q R L E Q V I T
UniRef90_D8K1X4	G R I I L R E A G I T K D R L Y Q A L T
UniRef90_UPI0002889237	Y T I I I V N L G A D P K L Y K D I
UniRef90_UPI000375942C	T K L L M N K L D I D Y N T V K E E
UniRef90_S1RLE5	S R I I M L N L G L S L S R M R Q L L
UniRef90_UPI000479E34D	A Q I L K D Q G A T E K D L M S A I
UniRef90_L0DWZ1	A E I L K R A G V T P G A L E K A V
UniRef90_UPI0004064F03	V Y Y M E Q D G L T E A D L L Q E L S Y
UniRef90_J3JAW3	A R I L T N L G L S L S K T R Q M I
UniRef90_A0A011MNA3	T Q I L N K F D V N Y E T V K E M L
UniRef90_F3ZWB4	E F V D L D K N T V R N E I
UniRef90_E5VY78	K E I I F R G Y G I T R D R F L E V L S
UniRef90_A5VB11	G K A L A E A G V R A E A L N A A I
UniRef90_F0G4H2	G T I L L K K Y G V T P E A L R Q
UniRef90_UPI00041EF2F2	V E V L E L M G V N P D A L Q D E V

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 UniRef90_UPI0002483864
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 UniRef90_R7C937
 UniRef90_F0RNA5
 UniRef90_I0IRT5
 UniRef90_A6NWT6
 UniRef90_A0A023D074
 UniRef90_D9WEA4
 UniRef90_H6LDPO
 UniRef90_C0QYZ1
 UniRef90_F8L6J1
 UniRef90_E6U566
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 UniRef90_C7XVQ1
 UniRef90_S0J7H5
 UniRef90_D1C7P7
 UniRef90_Q0EYP5
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 UniRef90_R7B7D7
 UniRef90_R6TMA8
 UniRef90_G4L1Z0
 UniRef90_B7S119
 UniRef90_UPI00047115DC
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 UniRef90_R5XS07
 UniRef90_R5KZ01
 UniRef90_D8IT51
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 UniRef90_M7MHE1
 UniRef90_G1Y3S5
 UniRef90_K4IN37
 UniRef90_UPI00035D93D2
 UniRef90_W7UN74
 UniRef90_UPI00036E7E71
 UniRef90_J7L459
 UniRef90_TOMIA7
 UniRef90_R7HQ49
 UniRef90_Q98G96
 UniRef90_E7NQQ1
 UniRef90_R6R2S0
 UniRef90_Q1N6L9
 UniRef90_UPI00036AD273
 UniRef90_K5YQR2
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 UniRef90_M1N507
 UniRef90_UPI0003614A82
 UniRef90_F0R0H0
 UniRef90_I6SX25
 UniRef90_B8KX23
 UniRef90_D0KJB1
 UniRef90_G5H7Y3
 UniRef90_L1PYL7
 UniRef90_V7I2K1
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 UniRef90_X1M8U2
 UniRef90_S1SNF9
 UniRef90_D7A5C2
 UniRef90_R5ISK5
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 UniRef90_G7SV22
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 UniRef90_UPI0003768F93
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 UniRef90_W5TAF9
 UniRef90_U5QFY4
 UniRef90_Q3APE9
 UniRef90_UPI0002D96D01
 UniRef90_R5D609

1 10 20 30 40

This sequence alignment shows a multiple sequence alignment of 100 protein sequences. The sequences are represented by boxes of amino acids, with each box containing a single letter representing an amino acid. The alignment is color-coded: blue for hydrophobic residues, red for polar residues, and green for aromatic residues. The alignment is centered around a central column of amino acids, with positions 1, 10, 20, 30, and 40 indicated at the top. The sequences are highly conserved, with many identical amino acids appearing in the same positions across all sequences. Some mutations are present, such as a change from a hydrophobic residue to a polar residue at position 10.

UniRef90_UPI0004025FD8 50 60 70 80
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 UniRef90_UPI000409F8BB
 UniRef90_UPI0002483864
 UniRef90_W0JE66
 UniRef90_R7C937
 UniRef90_F0RNA5
 UniRef90_I0IRT5
 UniRef90_A6NWT6
 UniRef90_A0A023D074
 UniRef90_D9WEA4
 UniRef90_H6LDPO
 UniRef90_C0QYZ1
 UniRef90_F8L6J1
 UniRef90_E6U566
 UniRef90_U1WK82
 UniRef90_M0S7A5
 UniRef90_F8WXF4
 UniRef90_C7XVQ1
 UniRef90_S0J7H5
 UniRef90_D1C7P7
 UniRef90_Q0EYP5
 UniRef90_V8C405
 UniRef90_UPI00037A2924
 UniRef90_UPI00040EB35
 UniRef90_R7AZQ0
 UniRef90_R6KG42
 UniRef90_UPI000361B633
 UniRef90_R7B7D7
 UniRef90_R6TMA8
 UniRef90_G4L1Z0
 UniRef90_B7S119
 UniRef90_UPI00047115DC
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 UniRef90_Q47X99
 UniRef90_C7JBX9
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 UniRef90_R7HQ49
 UniRef90_Q98G96
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 UniRef90_R6R2S0
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 UniRef90_B8KX23
 UniRef90_D0KB1
 UniRef90_G5H7Y3
 UniRef90_L1PYL7
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 UniRef90_R5LG35
 UniRef90_S8GN11
 UniRef90_H3KD34
 UniRef90_Q2G4G3
 UniRef90_UPI00047DC469
 UniRef90_UPI00036954B2
 UniRef90_X1M8U2
 UniRef90_S1SNF9
 UniRef90_D7A5C2
 UniRef90_R5ISK5
 UniRef90_UPI0003B72E07
 UniRef90_R9JB92
 UniRef90_G7SV22
 UniRef90_UPI00046F565C
 UniRef90_D2U018
 UniRef90_V1CHG6
 UniRef90_UPI0003768F93
 UniRef90_R6S8Q5
 UniRef90_C7M8M5
 UniRef90_UPI00031D1A93
 UniRef90_S1NFU5
 UniRef90_W5TAF9
 UniRef90_U5QFY4
 UniRef90_Q3APE9
 UniRef90_UPI0002D96D01
 UniRef90_R5D609

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UniRef90_R2SKE0	S P R A K Q I F A Y A G D E A K R L G A P N I G T E H I L L G L L R D E D I L A			
UniRef90_UPI000409F8BB	S E Q A K E M L Q R A A E R A V Q F G K A E V D T E H I L L H H E L S E S E V V			
UniRef90_UPI0002483864	T P R S K R V L D I A L E E S R Q L G H N Y V S T E H I L L F L S M L R K A S P E I			
UniRef90_W0JE66	T S E L N D V F K R S E E E A N N L K D E Y I S V E H I F L T M I K Y P N R E V C D A			
UniRef90_R7C937	D L N K V L I Y A E N E A K A M G D E Y I S V E H I F L S M L R K A S P E I			
UniRef90_I0IRT5	T P R A R R V M E L A T A E A R G G A A V T S T E H I L L G L L R E G D G V A			
UniRef90_A6NWT6	S R S T G D L L D R A Q E E A K T F K D D F V S V E H I L L G L L A M I G G S G T E			
UniRef90_A0A023D074	T P R C K K I I E L A L A Q S A R L G C S Y V G T E H I L L G L L Q E G D G V A			
UniRef90_D9WEA4	S P R A K E I I L S I A G D E A K R T N S T K I G T E H I L L G L L R N D D I L S			
UniRef90_H6LDP0	T P E T K R A L E D A Q R E S V Q L G T D Y I G P E H I L L G L M G Q Q G T I A			
UniRef90_C0QYZ1	S S D T D K V L N Q S Y K E A K K L D D Q Y I S V E C I L L A L Y S L K K S N A			
UniRef90_F8L6J1	D K Y C R D L T A L A E A E			
UniRef90_E6U566	T G K V K K V F E Y A N E E A A S L N H N Y V G T E H I L L A L L R Q T D G V A			
UniRef90_U1WK82	T R R Y S T L L L H A Q D E S K K F K D E Y T G V E H I Y I A L L K E K G T P S			
UniRef90_M0S7A5	S S G V V N N I L L K A E D E A K A M H D E Y I S V E H I F L G I L E V V Q S V L			
UniRef90_F8WXF4	S P Q A K H V L E L S L K E A R Q L G H N Y V G L E H I L L I G I L R G V E G I A			
UniRef90_C7XVQ1	S R E S N S A L D K A M D Y A K K M G D Q Y V S I E H I L L L G I L A T K S S A			
UniRef90_S0J7H5	S P K M R E V L S V A G Q L A Q Q L G T N Q I G T E H I M L A L L G D S N I L S			
UniRef90_D1C7P7	G Q N L N K V L V S A E D E A K R M G D E Y V S V E H I F L T L L K Y P N Q A L			
UniRef90_Q0EYP5	G A G L R R V L E R A E Q E A R A F G D E Y I S T E H I L L A A L E A P N A P A			
UniRef90_V8C405	T Q R L Q Q L L V H A G D E A T K L K D E Y I S V E H I L L L A F I D E G K T D A			
UniRef90_UPI00037A2924	S P R F Q F L L K S S E Q E C G R L H T E Y V G T E H I L L L A M I R D V D C V A			
UniRef90_UPI00040EAB35	T P L I K K S L E Q A M R E S K R Y G D G R I T P A H T E Y V G T E H I L L L G L L A F T E S S A			
UniRef90_R7AZQ0	S R E S G K T L N E A S I L A K K M S D E Y V S E H I L L A A L F K S K S N A			
UniRef90_R6KG42	T P G A R A V L Q A S Y D E A V F F K A P L I G T E H I L I I A I I K D G K S T A			
UniRef90_UPI000361B633	S P M A A K I L K M C L E A R L L K S A T A D T E H I V L L A I L K D G N N L A			
UniRef90_R7B7D7	S R Q A Y A V L A T A E E R A K E L G D E Y I S T E H I L L V G L A T G P S H V			
UniRef90_R6TMA8	S M A L V I S L L D K A V K I A E K L G D S Y V A T S E H I L L L A L S E E N D A A			
UniRef90_G4L1Z0	S P R L E Y T L E E S K E E A I R F Q S E A I G T E H I M L L A I L R E P D S V A			
UniRef90_B7S119	T P R A K R V V E L A V I E D S A R R G G Y S F V G T A H I L L A G L L R E G N N M A			
UniRef90_UPI00047115DC	S Q D L G R I L N V T D K L L A Q Q G G D T Y I S S E L V L L A M L E S K N K A			
UniRef90_UPI0003B743AB	K S T E K V L K I V Y L E A R S L N E Q T I S T O G T D T E H I L L L A L L K D Q N S L V			
UniRef90_Q47X99	T T E A R R A L E Q A V E E A K I L G H A Y V G P E H I F I G L A K E R R L G L A			
UniRef90_C7JBX9	S A A S G R I L N L C D K H A Q K M S D K F I S S E M F L L A V I D D K G P L			
UniRef90_R5XS07	T P E L V R I L D N A E Q T A Q K A G D S F V A Q D R L L V V A I A A S D T P A			
UniRef90_R5KZ01	S P R F Q Y I I L E D S A R E A A H F H M D I V G T E H I L L L S M R E I D S V A			
UniRef90_D8IT51	T P R A K R I I I E N S T K E S K R L G Q N Y V G T E H I L L L S M R E I D S V A			
UniRef90_UPI00047BE8C9	G R E L V A I L N L A D K E A Q K H G D Q F V A S E M V L L G L V D D K S D A			
UniRef90_M7MHE1	S R Q L I V A V N T A N R A R Q L E D E Y V S T E H I L L L V G L A A D G G P V			
UniRef90_G1Y3S5	S R E A G K T L E E N A A L V A K K M K D D Y V S E H I L L L A I F K S K S N S K I			
UniRef90_K4IN37	S R E L A K V F D S A L Q L A Q K K M N D E Y V S E H I L L L A I F K S K S N S K I			
UniRef90_UPI00035D93D2	S R E A G K T V N E A S I I A K K M N D E Y V S E H I L L L A I F K S K S N S K I			
UniRef90_W7UN74	T S R A K K T L E E L A L R E A T Q L H H N E V G T E H I L L L A L V R E G G G I G			
UniRef90_UPI00036E7E71	S A E C D R V L T A A E G L I A S N M K D E Y V S E H I M L L I D S K D R D V			
UniRef90_J7L459	S R Q L I V S L N T A A Q R A Q Q M E D E Y V S E H I M L L I D S K D R D V			
UniRef90_TOMIA7	S R E A G K T L E E N A A L V A K K M K D D Y V S E H I L L L V G L A A D G G E A			
UniRef90_R7HQ49	T A R A K K T L E V S Q G Q E A R A L K S K D I V D T E H I L L L A L L K D E E G V A			
UniRef90_Q98G96	T P L L R K V I Q N A I I D S K E N N D G E V T S E H I F F M L E E G E G I A			
UniRef90_E7NQQ1	A Q P L A K V F S T A E E L A K K A G D S F V T V E R L Q A L T M E K S A K T			
UniRef90_R6R2S0	A P I L G K I F A N A E K I L A D K L K D E Y V S C E H I L L L A M S D A D D G T			
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130 140

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UniRef90_W0JE66	A V V L N V V G A T K D K I L K S L
UniRef90_R7C937	K K I F K E F N I D R E R F L Q A L S
UniRef90_F0RNA5	Y R I L Q E I S R D
UniRef90_I0IRT5	S K L L K G A G L D R E K V M K A L T
UniRef90_A6NWT6	A R V I A D S G V D A R R L
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UniRef90_D9WEA4	S A V L G S Y G L H L Q A V R D G I
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UniRef90_E6U566	R S L F T N H G I T R K A F V A A M
UniRef90_U1WK82	T Y V L E N Y G V D P S N I
UniRef90_M0S7A5	S Q I M K D A G V S E N E L Q Q A I S
UniRef90_F8WXF4	S R I L L N S L N V D
UniRef90_C7XVQ1	K E M F R E Y G I T R E R F L Q A L A
UniRef90_S0J7H5	V K A L Q R L G V N R D R V L M A L L S
UniRef90_D1C7P7	G R I C A D Q G L T R E R F L Q A L
UniRef90_Q0EYP5	T R I I L I T L N V N L Q K L F Q D I
UniRef90_V8C405	V R I I S K L G L V R R R V L E L I
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UniRef90_R6KG42	A S I L L A E H S I T P Q K L L E A
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UniRef90_UPI00047BE8C9	A Q M L L K D Q G A T E K A L L L A S I
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UniRef90_G1Y3S5	A Q V I L K D Q G V T E K A L L E S A I
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UniRef90_UPI00035D93D2	S Q I L L G T F N I N K D S F L S A L
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UniRef90_I6SX25	T R M M I I N [G I I S L T K V R Q S L
UniRef90_B8KX23	S A A F E S A G I T E V S L L A A I
UniRef90_D0KB1	V D I I L K K A G V T Q Q N V T N A I
UniRef90_G5H7Y3	G R I I L K D A G V K E K E M I A A I
UniRef90_L1PYL7	V G I I L R N H N I I R A N D I V D T I
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UniRef90_UPI00031D1A93	A Q A L K N Q Q G V I S E K E L E K A I I
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UniRef90_Q3APE9	S R I V I L D S H N I D R E E A R R L V
UniRef90_UPI0002D96D01	S P I I L R D A G F N R D A M I L K V L A
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UniRef90_UPI0003614A82	A R I I L R L Y R V T R E D V L R A L S
UniRef90_F0R0H0	S Q I I L E E N E V T Y Q K I
UniRef90_I6SX25	T R M M I I N [G I I S L T K V R Q S L
UniRef90_B8KX23	S A A F E S A G I T E V S L L A A I
UniRef90_D0KB1	V D I I L K K A G V T Q Q N V T N A I
UniRef90_G5H7Y3	G R I I L K D A G V K E K E M I A A I
UniRef90_L1PYL7	V G I I L R N H N I I R A N D I V D T I
UniRef90_V7I2K1	K K I I L F A N F G I I S R D S F L A M L
UniRef90_UPI0003B5C21A	M R I V F V Q E G I I S P S E V E K Y I I
UniRef90_R5LG35	Y N V I L T S L G I I E L N S L K Q E I I
UniRef90_S8GN11	R N I I L L E M Y G V T Y Q K V Y D Q L S
UniRef90_H3KD34	G R I I A K E A G L T R A A L E A A I I A
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UniRef90_UPI00036954B2	UniRef90_X1M8U2
UniRef90_S1SNF9	A K V I L T N L G A G L N K V R S A V
UniRef90_D7A5C2	A R I I L L G A Q G
UniRef90_R5ISK5	G K I I L A K A D A T P Q K I I N A A I
UniRef90_UPI0003B72E07	K G I I L F R P Y Q I I T K E A C I Q A L
UniRef90_R9JB92	G I I I L K A N G A T K A I I L E K A I I
UniRef90_G7SV22	V R I I L N T M G I I S L Q K V
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UniRef90_D2U018	R A A I L E R Q G V T R I D L L N Y I L S H G
UniRef90_V1CHG6	D T I I L K T M G A N K A N I I E K A I I
UniRef90_UPI0003768F93	G K K I L K D Y G I I E K E S F M K A L
UniRef90_R6S8Q5	Y E I I L N A F K I I N Y E M V
UniRef90_C7M8M5	A E I I L E S Q E V T Y R K V M D
UniRef90_UPI00031D1A93	A Q A L K N Q Q G V I S E K E L E K A I I
UniRef90_S1NFU5	K A I I L F Q D L G I I S E A K L K Q V I
UniRef90_W5TAF9	C Q Y I L N K Q Q G I I T E K E V R S A I
UniRef90_U5QFY4	A Q A L S G A K L
UniRef90_Q3APE9	S R I V I L D S H N I D R E E A R R L V
UniRef90_UPI0002D96D01	S P I I L R D A G F N R D A M I L K V L A
UniRef90_R5D609	G R I I L R E A G L I Q R K P L E V A I I

1 10 20 30 40

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UniRef90_E1R1B3	L T Q R A Q R I L T Y A Q E E A K R F H S D Q L L P E H I I L A L L K D G E G
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UniRef90_R9IHQ6	F T [] K A Q E A V Q E A V N L A Q R A G Q Q T I E P V H L L A G V L A K G V A
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UniRef90_10DRQ6	F T E K A K A S L I Q S A Q M K A L G A G H Q I F M P E H L L K V M L E D E S G
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UniRef90_D7BL24	F T [] K A Q E A V N K A S E I A M G F Q H Q Q S I E P A H L L K G I L D E N I A
UniRef90_H8KV02	F T E K A Q E A A L N L A L E S A R D L G H T Y V G T E H I L I G L L R E G S A
UniRef90_E6U6R3	T E K A Q E A L K L A R K T A R T L K [] N Y V G T E H I L M G L I K T E V A
UniRef90_UPI0003F98C7B	T T K T Q E A L Q Q A L Q K A S A N G N P D I R P A H L L N A I L T Q E E E A
UniRef90_UPI0003770AF4	F T S K F Q Q A A L A D A Q S L A [] G R D H Q F I E P [] H L M Y S L T Q S S V
UniRef90_U1L0Q8	T P S A K R V L V I A Q S E A K H F K H Q A V G T E H I L L A L T D N S V A
UniRef90_M5J5N1	F T E K A W A A I L S A Q Q L A Q K R R H Q Q L E T E H I L L Q A L L E D G L A
UniRef90_A5GJR0	T Q K V M A A F Q D A Q Q T A A L H Y N Q E I T S V H L L M I G L T K D P E G
UniRef90_E2ZB38	T Q K S Q E A I I N D S Q S I A I K N S N P E V N E I H L L A Y S L V S D S N V
UniRef90_FOGUH8	T A S A E K V L E N A G K E A V S R G M S Y V G T E H I L L A L I K T G V A
UniRef90_R5SG71	F T E K A W E A I V K S Q E V A R R S Q H Q Q L E V E H I L L M A L L E Q E E G
UniRef90_L8MW81	L T Q A V Q D A L A E A Q Q I A V T R K H Q E I D V A H I L F K F L I Q H G Q G
UniRef90_J2ZS13	L T S K F Q M A I A D A Q S L A [] G R D H Q F E P V H I L M M Q A L L D Q G S T
UniRef90_UPI000361C5AE	F S N D T T Q V L N R A Q D F A T R M G D E F V S V E P L L L A L L S N S T A
UniRef90_D0GPU8	T [] K A Q E A I Q K S G E I A V G N Q Q Q A I E P G H L L K A L L D E N V V
UniRef90_N9BM73	F T E K A W E A I T H T P E T A K Q Y Q Q Q Q I E S E H I L M K A L L E D G L A
UniRef90_UPI000479EEF6	L T N Q F Q V A I A D A Q S L A L G Q D H N F I I E P V H L L K A L L D Q G A V
UniRef90_K2JYN9	M F T D K A R S A M V L A A R E A I S F R H Q A V G T E H I L L L G L V I E Q E G
UniRef90_R6E240	L T S R F Q Q A L S D A Q S L A V G R D H N L E P V H L L V I A L L D Q G S T
UniRef90_M7N339	F T E K A W E A I A H T P D I A K Q Y E Q Q Q L E S E H I L M K A L L E D G L G
UniRef90_K9RCM5	M T L R V Q N A L N E A F N I A V S N N N Q Q L E P I H L L S A L M V Q E D G
UniRef90_U4TM26	M T E R L Q Q A F L R A Q T L A T Q N Q H Q E I D D V H I L F L A L L E D E N V
UniRef90_D0BNL6	M F T E K A R R V I F F A R Y E A S Q F G S P Y I D T E H I L L L G L R E D K A
UniRef90_UPI0003F8E4CE	F T T K S Q E A L S A A A M N A S T A G N P Q V E P P H F K A L L M D D G V A
UniRef90_D4TP13	T T K T Q Q A L Q D A L Q T A S S N G N P D I R P A H L L A A I L D Q Q D A
UniRef90_R5J410	T I K S Q E V V Q Q A Q Q L T Q T Y G H Q Q I D S E H I L F K A I I D V D D N
UniRef90_I3E7N7	F T D R T R T V V K L A V E Q A R T E G A A E V G T E H I L L S G M L A E G G A
UniRef90_Q1IKM6	F T D R A K V V V L I K A Q N E A R N L G H E E V T S L J H L L T G L M A E W E A
UniRef90_UPI00047E7293	F T S K F Q M A I I S D A Q S L A L G Q D H Q Y I E P T H I L M V A L L I N Q D T I
UniRef90_UPI0003B58098	F T D R A Q G F L S Q A R T V A I R M N H Q Q I E P E H I L L K A L L E D E Q A
UniRef90_B1I1Q7	L D E R M Q E L V Q Q A A E R L S Q R R Q N L L K P E H I L V L Y E I L Q D E N I
UniRef90_A9DZB5	L S G R A K D A I L L S Q E I I A R Q L G E R Y V D T E H I L L L A M V E G S P I
UniRef90_D2B5G0	F T S K F Q S A I A E A Q S L A [] G R D H Q F E P V H I L M L A L M N Q E S I
UniRef90_UPI000374DA38	L T E S A K A A L A Y A Q E T A M E A G S D V V G T E H I L L L G I A S Q P K G
UniRef90_B5FAR0	F T E K A W E A I V R T P D I A K Q H S H Q Q I E T E H I L M N S L L Q E G L A
UniRef90_UPI0003812110	T K E V A D I L N L T F D E A I R E H H E Y V T P E L L L Y E I A A R D T F
UniRef90_B7IGG8	L F T E S A K N V L A I T Q N E V K Y F K Q K F V S S E H I L L L A L V T E G I A
UniRef90_F0S2V8	L T N Q L Q T A L S D A Q S L A I G K D H Q Q F I E P L H I L L S A M V E Q G S V
UniRef90_F7RYP6	F T P R A R N V I V Q A Q N K A H E A G N T E I T P D H I L L V I A M F T D P E A
UniRef90_W1TWZ2	L T A K F Q Q A L Q E A Q S L A L A K D N G Y L E A A H V L K A L L D D T D M
UniRef90_B7JZT8	F T Q K S L E A I Q N A Q S M A V E Y G N P Q M D Q H Q I L L V T L L D E G L I
UniRef90_E7GQ54	L F T E S A R Q A M L Y A A E H A Y Y L R H Q A V G T E H I L L L G L A R E E R G
UniRef90_F3Y8E6	T T K T Q Q A L L T S A L Q A T T A G N P Q I T P A H I L L M A L L N D G I A
UniRef90_UPI000367533C	T E R S R G F V Q S A Q S L A V R E G H Q Q F S T L H I L V L K V L L D D N E A
UniRef90_G8RJQ1	T T R A Q G F V Q Q A A L S L A T R E G N P Q I Q P E H I L V L K V L L D D E Q G
UniRef90_G4CJM8	L L T E S S H E L L N A A R K A G E D G T S D L D T E H I L L W A A T Q V D P S
UniRef90_R6Q7T9	F T E K A W E A I V R T P D I A K Q N S H Q Q I E S E H I L M K A L S E E E G A
UniRef90_H3NID1	F T E K A W S A I V Q S Q D V A R R H Q Q Q Q I E T E H I L L L S L L D Q E G G
UniRef90_V5X8Z0	T Q K S I E A I Q N T E N I A R E Y G N P E I T D K H I L L K A L L E E E G T
UniRef90_A0A023XS17	F T E K A W Q A V V K T A D I A K Q N K H Q Q I E S E H I L L K A L L E E E G G
UniRef90_UPI0001D2D562	F T [] K A Q E A V Q Q A A V N I A Q Q Q N G Q Q S I E P V H I L L K G V I E K G K D
UniRef90_F2RG93	L L T S R F Q Q A L A D A Q S L A V G R D N P A I E P P H I L L S A L L D Q D G G
UniRef90_T2JLD3	L T E S A K N V L A I T Q N E V K Y F K Q K F V S S E H I L L L G L A R E E R G
UniRef90_Q2JH84	F T E K A W Q A V V K T A D I A K Q N K H Q Q I E S E H I L L K A L L E E E G G
UniRef90_E0NIV4	T Q K S I E A I Q N T E N I A R E Y G N P E I T D K H I L L K A L L E E E G T
UniRef90_L8M3K2	F T E K A W Q A V V K T A D I A K Q N K H Q Q I E S E H I L L K G V I E K G K D
UniRef90_R5PH94	F T [] K A Q E A V Q Q A A V N I A Q Q Q N G Q Q S I E P V H I L L S A L L D Q D G G
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50 60 70 80

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UniRef90_R6BFK1	N Y I F Q K L L G M N G N Q I A M L L Q Q E M Q H L P R V Q G A G Q P Y L
UniRef90_UPI00034D1596	S E I L T S V G V S L E K A R I E V E K I I G R G K G Y T P L D I P Y
UniRef90_F9Z9W8	A Q L L K D S G L T E K E T K E A I A E L R K G S K V N S Q S A E E S Y D A L
UniRef90_A1WAP6	R A L L Q R A G A N V P G L L A A A E A A V K R L P Q V Q G Q D Q V Q G
UniRef90_D1B6J2	A Q V L K M A G G L D L D E I R E Q V E R V V G V G E P K E K A V D L P L
UniRef90_I3CC19	S H L L M R V G T N I N Q L R S G L T E I L D R L P T T S G R E G E L H I
UniRef90_J4F062	R T L L S R S G A D P D R L Q A D L L A G Q L T R G E P T G Q A P A L L
UniRef90_R8ANM7	R P L L T S A G I D V A A V R A E L L N Q E L D R I P K V E G I G G D V Q L
UniRef90_C7N7S9	S Q A L S Q V G V T Y D K A R D V V A E M K K G E A S D Q S A D Q A E S H L Y F
UniRef90_R5J090	I E I L S K L K T N L T D I K K Q I E T I L K A D A D D F L P D A E V P L
UniRef90_UPI000467C156	A Q V L E M N G L R E E D V R K V V G E L V S R V G D E P F S G R P K E
UniRef90_R5V3W9	P Q L L F E K V G V S K E T A V R D L E Q Q I N Q L P S V T G S G R K A D S V Y I I
UniRef90_H8GND2	K P L L A Q I G A N T A G L R A E L L G Q A L N R F P T V S G T G G D V Q I I
UniRef90_E1R1B3	Y R A L Q V I K V D P E E L Q I E L E K S I P R K H A G F I L G D V P P
UniRef90_E3I0T0	S R L L T A V G A D V A L I R A I T D T V N N R M S S L A V P D G R P P N F
UniRef90_UPI0002C2F350	Q F V V R A M A S S A G R G Q I T Q Q D F
UniRef90_UPI00035C2145	P F I L K K L N V N I S L V N Q I L E K D L E S L P K V S G G E I L M F
UniRef90_S3AW67	Q D L I A A V E A D Q A A L R S A A E R R L A A L P S V Q G S T V S R P Q A
UniRef90_K2FCG8	P V I L K K N G Q D I E K I K G E A E F E A K K Y P K A T S A V L G Q I F I
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UniRef90_R9IHQ6	A E V L N E N H L E E K R L L E L I E E L I S P G E R T I V L D A D G Y
UniRef90_UPI000469F172	N F I F Q K L L G V N G N G V E A A L Q Q E I A H L P K V Q G G Q P Y F
UniRef90_W9R8X7	A K V L K S M G I N L K D A R V E V E K I I G R G S G F V A V E I P F
UniRef90_R9L59	K Q V L Y V N G A T I D K V K R L I E D Y I G F G D I D I S V G E M L L N P R T
UniRef90_K1MIW6	I N V L R E A G A T Y D V L L K E L E M I H G R T A M P R T A G E I V I P Y
UniRef90_V2QAS2	R P L L Q K L L G V N L D M T A A E I K S I I L D S L P K V S G S M Q P T L
UniRef90_10H870	R Q L L T Q R L L G A D P D R L V D E V R Q Y L T P A R A A G P G L S L
UniRef90_UPI0003663007	F Q L L T C L L G V N L E N V K Q E E E K I I G R G K G L T P V D V P F
UniRef90_10DRQ6	R P L L T T I G V N A G Q L Q Q K I E D A L A R L P Q V Q G V A G D V Q P
UniRef90_Q73IE4	Q D L I I N A C G G G N V Q S I I S D A V D S A I I K K L P V I E G P G S G G L Q L
UniRef90_A6VBS8	K P L L M Q V G F D I A A L R S G L N K E L D A L P K I Q S P T G D V N L
UniRef90_UPI0003657D39	N T L L S K L G A N S G A I T K V V D S V I E R L P K V Q G S S V T G Q Y L S N P
UniRef90_W7CV01	K R V Y E V A E V D V K K L Q A V V Q A E I E K L P S V T G S N V Q Y G Q A M
UniRef90_D7BL24	R A L L L D A V G A D A A Q I S Q R A K A H V A T L P G M Q G Q S A A Q P Q A
UniRef90_H8KV02	T Y L L K K L L N V N V Q R L E T G L D E Q I Q S F P K V T G S G I Y L
UniRef90_E6U6R3	A K V L L E Q H G V Q A D A V E K L V I A E S V P G R G A H P S H V T A Q S L
UniRef90_UPI0003F98C7B	S R I L I D N G I N E D K M M D V I R D L I V E G G N L T L D K E G F
UniRef90_UPI0003770AF4	R P V L Q A T G V D P D T V A K E A E A I V D G Y P K A E G Q N L A N P N F
UniRef90_U1L0Q8	R A L L L A Q A G V N A D E M M T K V S A E I D K L F K V D G V G G D V Q L
UniRef90_M5J5N1	G K A L K Q F S L F P L D I R E E I E Y I V N Y G N L D R S Q R Y D Y L P Y
UniRef90_A5GJR0	S R I L I E K A G V T P A A L Q S S I V D S H L T Q Q P A L Q S P P E S V Y L
UniRef90_E2ZB38	A S I I F S D O C K T D L P L L R A K I L E Q M L K K L P S V Q G S S N I Y P
UniRef90_FOGUH8	S Q I L K T M N V D Y T S Y K N A I T K K L D A M P T L E G G S D I Y P
UniRef90_R5SG71	S Q I L K T M N V D Y T S Y K N A I T K K L D A M P T L E G G S D D P R P
UniRef90_L8MW81	A E V L L R E N A V N A E S L V E E M I Q E M D K S A A G V L T K E K G D F
UniRef90_J2ZS13	A N I I F T A M S V P M A R A R R Q V E E F L R R Q P R V A S P E Q L Y L
UniRef90_UPI000361C5AE	R K I I Y E K V G V D L N Q F E A R I I D Q L L D E A P A V E G N V K Y G Q S M
UniRef90_D0GPU8	R G L L T T K A D V N V N V Q L R S K L L G Q E L L E R L P S V T G G D A G N V Q I
UniRef90_N9BM73	P N I L L K K M G I D R T S I Q N D I D D E V S K L L P K V T G D G V G D V Q L
UniRef90_UPI000479EEF6	L S L L L Q Q S G A R L P E I K Q K L E Q A L K D A P T I S N P T G D V N L
UniRef90_K2JYN9	A G L I I E R A G G R S K E A L L A T E A A L A K L P K I S G G N A Q L Y L
UniRef90_R6E240	R P L L T M I G A D F S A L L R G Q L A K A L L E A L P T V S G A G G E V Q L S P Q
UniRef90_M7N339	S R I L L K D A G I T E S E L L R K A I I Q E L R Q G Q K V E S Q S G D E N F Q A L
UniRef90_K9RCM5	P Y L L L K K L N V N R L Q L D N A L D E L I K G Y P K V Q G S S S Q P Y L
UniRef90_U4TM26	A P T F T K V G A N P Q K I K E R T E E F I K S Q P K V Q G S S S S V Y L
UniRef90_D0BNL6	R P I L L Q N A G V S V S Q L D Q G V N G L L D R L P K V V D H S G Q V H V
UniRef90_UPI0003F8E4CE	I A L L L R E R G L T A E L V R Q E I E A L T G Y G S N R K E I D P Y L M P Y
UniRef90_D4TP13	R P L L L Q A Q A G V N V T A E L R Q R L G E A L I E R L P K V V S G Q E G N L S V
UniRef90_R5J410	N A I I F T K A G T N I K K I T D Y T E Q F I I R Q P K V S G T S T S V Y L
UniRef90_I3E7N7	L S I I I D K M G I D R T S I Q N D I D D E V S K L L P K V T G D G V G N V T A
UniRef90_Q1IKM6	H S I I E L K L Q L S S N D F K N K L L E N L L A K K P Q V I G S G V E Q G K V Y I
UniRef90_UPI00047E7293	T N R F L L R Q H S S V E S I R K Q L E G H T T I R E K V S T S V D L P L
UniRef90_UPI0003B58098	V A L L K A A G A G P D D I S V Q A S S A I K A L P A S S G S S V A Q P Q F
UniRef90_B1I1Q7	A P V L L K A T G V D P Q Q V L K E T R D L V A S Y P K A E G A N M A N P N F
UniRef90_A9DZB5	H I L L G R L E V T P A A L E R L R E E L K R K P R V S G A G T G Q V Y V
UniRef90_D2B5G0	V F L L K K L N V N V T L L E Q I L E S T L I N S F P K V Q G G N I M L
UniRef90_UPI000374DA38	L H V L R A M E I D P E Q V R R E L D R L A P A E P A A G P G G S P L R F G G S
UniRef90_B5FAR0	G Q A I I E A T G V T K K T V V S D A V S A S L P Q S G E P K L Y H L P Y
UniRef90_UPI0003812110	R P L L T L L N V D V T Q L R S K L L T E I L D K T P K V T G I G G D V Q L
UniRef90_B7IGG8	A G L I I A R A D G D A R R A T A E V D A A L A K I P S V I S G S G A Q T P P G L
UniRef90_F0S2V8	Q K I I F E A L N V P T E E I E D R L E E L I E S Q Y G V Y Y G S S S G V Y M
UniRef90_F7RYP6	L D I F T L A G F D P V I R A K R F L R E Q V D R V G R L G L P S S Y T G Y I Y I
UniRef90_W1TWZ2	R P L L L Q L Q L G V N I A T F R A E L T K I L D A A Q V Q G T G G D V Q I
UniRef90_B7JZT8	G K V L N V E N V G F T L E K G R A M L L G N R P A N P S S D I G M
UniRef90_E7GQ54	T S V F N K A D I S V Q V R L R D K T T E E F I R R Q P K V V S N P G E S V Y L
UniRef90_F3Y8E6	R E A F E N C O G G D T D M L R D N L R E Y M E Q N L A S D A G S D D D L R P E M
UniRef90_UPI000367533C	U R F L Q L Q L G V N I A T F R A E L T K I L D A A Q V Q G T G G D I L M
UniRef90_G8RJQ1	R P L L L S Q A G A S I T R L R E E A I N D A L N A L S S V Q G G S G D I L M
UniRef90_G4CJM8	V K L L Q A G Q N V D A T K V C E E V T L P P R S E G D L P A L T P F
UniRef90_R6Q7T9	S A L L V K I A G G N V M Q I K R A A V Q Q Q L D S L P Q V S G Q G G E M M P
UniRef90_H3NID1	P Q L L M Q K M V N V N V N G L L Q Q A A E N E V K K L P R A T G G Q T Y V
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UniRef90_A0A023XS17	A P L L E A V G V E P A T I R A E A E R M L G R L P S V S G S T S Q P Q L
UniRef90_UPI0001D2D562	U R F L Q L Q L G V N I A T F R A E L T K I L D A A Q V Q G T G G G Q P Q L
UniRef90_F2RG93	A G L I I D R A G G N S R A I L L K A T E D A L N K V P K V S G G G A G Q I Y L
UniRef90_T2JLD3	R A L L L S R I I G V D P E A L A A Q L D E V L P R E S R E P S A E P G L
UniRef90_Q2JH84	T S I I F N K A N K L S V P K L R E Q T E A F I R R Q P K V V S N P G E S V Y L
UniRef90_E0NIV4	P R V L L S Y M G V N S D D L R E T K A E I E R L P K M R G G S I I H P
UniRef90_L8M3K2	T S I I L N K A D I S V S Q V R D K V D R F I D S Q A K V K N L G D S I V Y L
UniRef90_R5PH94	V T V F Q K L G V N V A Q Q I D T L V A S E I Q H L P R V Q G G N G V V Y L
UniRef90_UPI0003744CB4	S T I L L Q N A G V N V D L L R S K L A Q A I D R L P R L G E A T G E V N V

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 UniRef90_I4F062 G R | L | G G A | R | V | T | P | E | G | L |
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 UniRef90_C7N7S9 V | D | V | L | K R M D | V | N | L | D | D | L | R | A A | V
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F	T	E	K	A	W	E	A	I	V	R	T	I	D	I	A	K	Q	N	K	Q	Q	I	E	V	E	H	L	M	K	A	L	L	E	E	G	L	A		
F	T	E	K	A	W	E	A	I	V	R	T	I	D	I	A	K	Q	N	K	Q	Q	I	E	V	E	H	L	M	K	A	L	L	E	E	G	L	A		
F	T	E	K	A	W	E	A	I	V	R	T	I	D	I	A	K	Q	N	K	Q	Q	I	E	V	E	H	L	M	K	A	L	L	E	E	G	L	A		
F	T	E	K	A	W	E	A	I	V	R	T	I	D	I	A	K	Q	N	K	Q	Q	I	E	V	E	H	L	M	K	A	L	L	E	E	G	L	A		
F	T	E	K	A	W	E	A	I	V	R	T	I	D	I	A	K	Q	N	K	Q	Q	I	E	V	E	H	L	M	K	A	L	L	E	E	G	L	A		
F	T	E	K	A	W	E	A	I	V	R	T	I	D	I	A	K	Q	N	K	Q	Q	I	E	V	E	H	L	M	K	A	L</td								

50 60 70 80

UniRef90_K9U5E1	S S I F N K A G V N V T K L R D R T E Q F I K R Q P K L S G S V S S V Y L
UniRef90_E1VYN5	V A L L K T A G M D V D A L S V K A S A V I N A L P S T S G S S V A Q A Q F
UniRef90_W9QX74	R R T F A K A G V D N T S V L Q A T D D F I S K Q P K V I G D T S G P I M
UniRef90_B3ERM3	Y K I L F A G I P M E E L R I A L E K E Q Q E H E E D M I L D N G Q V N G I K L
UniRef90_B4WPJ7	P R I F Q K L G V S V E D M R S Y T Q D F I D K Q P K V I S N S E S V Y I L
UniRef90_B9JP40	G G L I D R S G G N S R A I L S T E D A L V K L P K V T G A G A G Q V Y L
UniRef90_K9T253	T S I F N K A N V N V Q R L R E R T D E F I R R Q P K V A N I G D V Y L
UniRef90_D5US68	A P L L K A V G V D P V I T V R N R A Q E L V D R K P K A S G S T T Q P Q L
UniRef90_D1Y107	V A A L A L K E A G L A A E D V A R E I L A L R P P A A P Y A Q P V D L P L
UniRef90_A8I972	R R I I L S K A G S D A T R L L D R V D A Y I R R Q P T V S G D S G Q V L
UniRef90_Q7CU92	A S L I I E R A G G D A K E A R L A N D A A L A K L P K V S G G N G G L S L
UniRef90_R5C4V2	S S I L K D A G M S E K E L R T A I N E L R Q G S K V T S Q S S E D T Y Q S L
UniRef90_W7V9W2	R D L V R R A G A D P D T L V I N A L G G R G E G A P R G E V P P N L S L
UniRef90_E6PJ11	A R V L A N L G V D P A K V R V Q T T S L L G S E G Q T P V P K G K S K T P T L
UniRef90_W4PV00	V T L L F Q K L G M N G Q Q V A L V A E R Q T E S L P K V S G G E P Y L
UniRef90_F8KRW5	Q S F L R Q M D V D I L E A K Q M V Q T Y L V E N V P P M D A Q S K R P V Y
UniRef90_A8LPP0	A N L I I A R A G G D A A R V R E A L A A A L D K L P K V S G D G A Q T Y L D Q Q
UniRef90_V4LGK7	R R I I F S K I I G V D N T K V L E A T E K F I Q R Q P K V Y G E A A G S M L
UniRef90_F3NQ76	R R M L S R A G A D P D D L A T E E I D E R S G P V H T G E S P P P T S V A L
UniRef90_R1GGW1	P R L L A L A Q T G A D V D A L R A A V E V E L G R G R P K V T G P G A Q P G Q V Y V
UniRef90_Q8XZ0	A N L I I A R A G V N A K G L E I A L D N A I K R L P Q V Q G G E Q V Q V
UniRef90_W1N2H9	K A L V Q K A G G D A N R L R D A L V G Q I D D L P K V G Q F D G E V Q P
UniRef90_UP100036E61BC	V P P L L E A V G A D W R A L R T R T E E L L A G L P K A Q G A T V G A P S S
UniRef90_F8N6H0	V T V F Q K L L G V N A M Q I E S L V Q Q E L K H L P R V E G G Q P Y F
UniRef90_M5DST8	K D V L L R R C S V N V P E E K T L R G V L K D Q P P R V S S P D G N I Q I
UniRef90_UP100037DFA99	S M I Y E R L G L T K D Q F Q L E L D K I I L D Q K P Q V T G Q G V Q G G Q Y L
UniRef90_Q6H795	A G G F L I S S G I N I E R A R E E C R G I I L T P G A P S P S G S G L E M D I P F
UniRef90_F9D4D8	N F V F Q K L L G V N G T Q I E N L V Q Q E L L H L P R V E G G Q P Y F
UniRef90_Q04P2J2	V A I I K I I N N L N L N E L R K E V E R R T R E A S G A L L M D V A G G
UniRef90_UP1000465107F	P R L L Q K M G I P V E S V T R D I L K K E L E K R P K I S G P G I E P G K I Y I
UniRef90_B5YFY8	C K I I L K K I I G I D L G R I I K A E L E R E E L K A Q K T N Q Y D L S P I
UniRef90_D8DVM8	I T I I F Q K L L G I N G T A I E Y A V Q Q E I I N H L P K V Q G G Q P Y L
UniRef90_G9PWL5	P R L L F D K M N V P V E S V L A N A V E N E L S K K P R V S G A G Q E T G K I Y V
UniRef90_J7LAY9	R E L L V E R T D A D A K P L E D V I D Q A V A Q A P R A V R G S A R L
UniRef90_C8WPR7	S A I I K R I G A E P F Q L Q A N V D A E I I Q R M P K V I S G N P G M M S G V P
UniRef90_R7KRT3	S T I L L Q R A G V S V V Q R L V Q E V E D T V R R L P K V S G T G G D I Q P
UniRef90_B0CAW9	N K I I L N K A K V D F E Q I L Q Q L T A F A E R Q T K V A E G T A L F L
UniRef90_D5XDE6	P R F L E H A G V N V G A L A A A G V E G G L L K I P V V T G Y E G S L Y A
UniRef90_K9Z4D2	T S I I F N K A D I S L T R L R D R T D E F I I N R Q P K V K N V S D S V Y L
UniRef90_R6HMN2	Q K A L A E C C T P E E L S Q S I S E Y L S K E V E R V P Q E I E Y E L E I
UniRef90_B8E2M7	C K I I L Q K I I G V D L R K I I K T E L E K I L R N R K T D Q Y E I S P V
UniRef90_K9YLK9	V S I I F N K T D A G I S R I L Q E K T E Q F I I N S Q P K V K N I G E S V Y L
UniRef90_B9I443	P N G F L I G S G I K I D K A R E V V K S I W Q R E V S K G E R G V S H S D V P F
UniRef90_G1WIF2	S V I I E R I I G A D P K Q L I A R A T Q Q A V D S A P K V S G E A Q I G L
UniRef90_V8G3Q7	A S L L S R A G V Q V P A L Q A K L K K A I D G F P K V E G G A E V Q I
UniRef90_D6S3Z9	G K I I L R Q W N V T S G D V R R E I E R Y T G Y G S A S K S S Y M E M
UniRef90_UP1000219627C	S R I I L L A I D V V N L Q D M R R A I L R K I L G I T D V R K Q M K Q Q E K Q Q A
UniRef90_T1BW48	A P L L T Q A G V N V P V L R Q R V N E A L E R L P R V S G Q E G N V N A
UniRef90_Q7UM33	I T L L E K I N N V D V P K L K S L L T S E L E K L P H A S G M G Q A R V
UniRef90_UP1000471BA8F	R A L L V Q K A G G D V D R L K E Q L K Q Q V E N L P S M S Q F D G N V G M
UniRef90_K9STD2	T S I I F N K A N V S V E K L R D R T E E F I N R Q P K V T G S N A A S G Y L G R
UniRef90_W8A3T5	V K V I I E A K G V S T D A V R R V A A A A L P A A T G D P V P A I I P F
UniRef90_Q1WTT6	A E I I Y K K A G L D I Q A F E N F I D G E L D K V S V V E G G N V Q Y G Q S I
UniRef90_U2MXY6	S R I I L K D A G C T E K E M R A A I N E L R Q Q G Q V K S Q S G D E N Y Q S L
UniRef90_D2Z3Z6	P S I I F D R M D V P I E P V R T S L R D A L L S K K P R I S G G G Y D P E K I Y V
UniRef90_E5BEK3	P K V I L E K M G L N I H F I Y Q E I G N E L E K M P R V Q G G S E Q E I S L
UniRef90_F5Y187	R A L L L Q R A G V N V P G L Q A A A E A A M H K R P Q V Q G Q E Q V Q V
UniRef90_I5B5M3	V S I I F N K I I G V N P R A A V Q L V S S A L D N M V K V S G G K P Y L
UniRef90_UP100034A0C05	T S V I L N K L G A D V Q R L R D R T G D Y I I N R Q P K I S G A G S S V Y L
UniRef90_UP10003B7953B	A N L I I T R A G G D A G A V V R N A V D Q A V I A K L T R V T G G G G Q V Y V
UniRef90_D0LIP3	P R L L G K V G A D L S A L Q Q S L E R S F E K L P R A Q G A A I D V S M
UniRef90_H7ELE1	Y E M L Q N L G V N V L I S L Q L M L E Q F V S G S G V I P T S K G L G V L Q P
UniRef90_UP1000463557B	R S L L S R A G V Q L Q P L Q A A V T Q A M D R L P K V Q G T D G N V Q V
UniRef90_UP100035FD43D	E I I G K S M G V T R Q A A Q K R F V T K E S S A A P D D P S Q G F G R F
UniRef90_UP10003767D3D	V K A V T E Q G V T V D A V R E A A R A A L P P A V E D A P E L V P Y
UniRef90_U5DCJ8	T S I I F N K A N I S I V Q R L R E R T S D F I I A R Q P K I S S G N S S V Y I
UniRef90_UP10004668722	P R L L E R A G V D V G G L L R E R R L Q G Q E L L L R L P R V T G A N T G A Y V T Q R
UniRef90_UP10001E8972B	L T V L L Q K I I D T Q A L Q L D L K T L L K S K P E V S G A T S D A Y I
UniRef90_R5KLQ7	A P V L L Q E N G V T I Q S I I I N I L S Q I P L A H L P K V Q G G E P Y F
UniRef90_D6Z7Z0	A P L L L R A S G A D P R T V T E Q A R A A V V A A L P T V H G G A S A P R L
UniRef90_I9KQ84	G P P L L E R A A V V N V G A L K D A V D G A I H R L P K V E G V T E I Q V
UniRef90_R5JSX3	H S I I L S E N K A T M Q N V L A V Y K D L V K V I P K G T G S R K G E Y
UniRef90_A6FJX4	S N L I I R R A G G T P E R V V Q A L D L A L G K I P Q V S G D A G Q T Y M D Q Q
UniRef90_R7HZ09	A D S F A D C G G D V N Q L R G S L E T Y M R E N I E T I T T G K A E
UniRef90_D1Y0F6	N Y V F Q K L L G I N T Q N V E N A V Q S E L L A H L P K V Q G G E P Y F
UniRef90_R5Bi90	C A A L Q E L G I D L D R M K A D I D H A V F K D K A I P F E K F S S I H P
UniRef90_I7ERD5	S N L I I T R A G G T P E Q V V Q A L E L A V A S K L P R V Q G N S A D I Y L D G Q
UniRef90_R6TAG5	C A V L L R H E V T A Q R I I E Q I E Y I I G R G T P C R L T K N D I
UniRef90_T1DSC3	G Q L L K D M G V T H E Q L E A A V L E L R K G A K V T S Q S A E D T Y Q S L
UniRef90_UP1000466A774	S R I I L I D N G I I D E N R M M D M I I R D L I V P D S N V R T L D K D G F
UniRef90_F7PV63	K R L I F D L N N Y D L S A F I K E L T I I L D K P Q V K G T N T G Q V Y I
UniRef90_K9V0L8	S S L I F N K A G V S V P K L R D R T D E F I S R Q P K I T G S G G N V Y L
UniRef90_UP100038306B0	A K A I I V A Q G V L L D A V R Q E A A A A L P P A A D S M P A L V P F
UniRef90_UP10003C12E59	R A L I I E S A G G R P A A V D D L L A R P P K V E G G S G Q L Y I
UniRef90_R6CKH5	V Y A L I E S L Y V D I Y Q V Q Q T L S E L L H D K A E E T Q A R V F G V V F
UniRef90_D4ZBK0	H P L L I T Q A G I L V L V S S L R L M I S Q E I E R L P Q V D G A G G D I Q L
UniRef90_I2EPM2	T F F L L K K V D A K K E N I Q P K L E N I V A A Y P K V S G N N N G Q V Y L
UniRef90_B4RG64	R A L I I Q S A G G R P D A A D K A V D D L L G R P P K V E G G S G Q L Y M K P E
UniRef90_S9QWU1	U N I T R A G G T P E Q V V Q A L E L A V A S K L P R V Q G N S A D I Y L D G Q
UniRef90_G9WJL1	S K V L I Q D Y N V T D D D I R E I E Q F T G Y G S H E N V T A G F L A Y
UniRef90_U5BK00	V T L L F K K S G I N K Q I V S K K L E D I L K S Y P K I S G Q Q A Y L
UniRef90_UP100041DB054	P G I L Q L V G V T P G T V S A E T E R R L D E M P S A S G P S V S E P S M

	90	100	110	120
UniRef90_K9U5E1	G R S L D T L L D R A D A Y R Q E F A D E Y I S I E H L L L A Y A K D D R F G			
UniRef90_E1VY5N	S R Q L L Q V V N N A Q E T A T E M G D T Y V S T E H L L L I A L A S D Q T K A			
UniRef90_W9QX74	G T H L L S S D D N A R K N K K E M G D D F V S V E H L L L I A L L Q S D K R F G			
UniRef90_B3ERM3	T H E L E S S L L K L T Q Q Y A K A L K S E A I G T E H L L L I A L A L K N A D V H			
UniRef90_B4WPJ7	G K H T S T L L D R A D S Y R Q K L E D D F I S V E H L V F G F V G D E H F G			
UniRef90_B9JP40	A P E T A R L F T A A E Q A A E K A G D S F V T V E R L L Q A L V A D K H G E A			
UniRef90_K9T253	G R G L D L S L M D R A E A F R K E F G D D Y I S I E H L I L A Y A K D A R F G			
UniRef90_D5US68	S R E S L A S I T T A A Q K L A T E M G D Q Y V V S T E H V L V Y G L S E A			
UniRef90_D1Y107	S D R A R G V L N A A I H L A R E L H S S Y V G T E H L L G V L S A P E C T A			
UniRef90_A81972	G R N L E A L V N R S M E L Q A K W G D Q F V V S I E H L V A A M A E D G R F G			
UniRef90_Q7CU92	T A P L A K V F S T A E D L A K K A G D S F V T V E R L L Q A L A I E S S A S T			
UniRef90_R5C4V2	E K Y A I A N L I D A A T P A A K R A L L D A H Q L S R A M G A N Y G P E H I L M A L P L F P E S P A			
UniRef90_W7V9W2	D T Y G R D L T Q L A S R E T N E V L Q K A T Q Y S K E M G D E F V S L E H L L L A L L T V R S S V S			
UniRef90_E6PJ11	D K E L T Q I F Y A L G D Y T K E S Y H K V L D V Q D F L L V M L Q E S G C Y S			
UniRef90_W4PV00	T A K V L D E A E K L A T K A G D S F V P V E R I L T A L A V T K S G A			
UniRef90_F8KRW5	G R D L E G L F Q R A R Q Y K K D L G D S Y V S V E H L V L A F A D D K R F G			
UniRef90_A8LPP0	T P A V K R A L L D A H D M A R A S G A G Y I G P E H V L S A L A A N P D S A A			
UniRef90_V4LGK7	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_F3NQ76	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_R1GGW1	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_Q8XZR0	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_W1N2H9	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90UPI00036E61BC	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_F8N6H0	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_M5DST8	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
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UniRef90_Q6H795	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_F9D4D8	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_Q0P4J2	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
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UniRef90_B5YFJ8	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_D8DVM8	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_G9PWL5	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_J7LAY9	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_C8WPR7	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_R7KRT3	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_B0CAW9	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_D5XDE6	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_K9Z4D2	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_R6HMN2	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_B8E2M7	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_K9YLK9	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_B9I443	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_G1WIF2	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_V8G3Q7	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_D6S3Z9	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90UPI000219627C	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_T1BW48	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
UniRef90_Q7UM33	T R R L A G L L D A A E R E A R R L K D E Y V S V E H L V L A L A E E G T S A A			
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 F N Q D L N E V L N Q A L N V A L D L N H A L C T T E H V V L V I L E H E S G
 P E T L T I L R A K E E A R R L G R N I V G T E M F L L G I I G E G T G
 L T E A V T K A I S Q A Q Q I A V T R K Q Q N T V H A H L F K F L V Q P G E A Q
 F T S Q F Q A A L A Q S Q S L A N S Q D N Q F I E P L H I L A S L L M P E Q
 T I K A Q E A V Q K A T E I A G A N Q Q Q A I E T G H L L K G L L F Q S D E N A
 F T E K A W D A I V K S Q D V A R R F K N Q F I E V E H L A A L L E D G □ A
 F T E M A W Q A I V A S P D V A K E S K Q Q I V E T E H L M K A L L E N G L A
 T I K S Q E A I Q R A Q Q L A Q G L G Q Q D I Q V E H I F K G I V D N N V L
 F S A H S R K A L E L A V R E A L R L A H T F V G T E H L L L G L L A E G D A
 F S Q E S S D V L Y H A T N E V K R Q G □ N Y R S I D H V C G L L K D D N I
 L T A K F Q Q A L Q D A Q S □ A G Q D A G Y L E A V F I L K A L M N D D N D C
 T T K S Q E A I S G A M Q A A A A A G N P Q I E P A H L V L V E L L S Q P D G
 M T T T M Q E A I G S A Q Q I A V H R Q N Q E I D I A H L L W K V F M G H G H
 L L S E R A M E L V A E A R D I A G A E G S E E L D A R H L A A A T R N E S T
 A V D A R A Q Y K Q Q V V E T E H L M K A L L E Q K D A
 A S Q A L E K K A A Q D A A S C H Q K Y I G T E H L I L G L L A Q P D S S
 F T S E A R Q A V K L A Q Q N A R R L N H H L V G T E H V V L L G L L D Q P E S S
 F T K G L T N A L T T A Q S □ A T G K D H T A I D A I H I L A V V L L E D S A N
 F T A L V R N A L T A G Q N T A L N A N H Q R L T E H V V L L A M L G D E N V
 F T D K T Q E A L A S A I A L A T E R S H V N V Q P I H I A L A L L D D C L F
 F T K D A R Q T V V D A Q A Q A R D □ L G H G R I G T E H V V L L A L L D A D D G
 F T P R A K N V V V A S Q N E A N A G N A E I A P A H L V V G L L T E K E G
 F T E R A I K A V M L A Q Q E A K A L R R P E V G V E H I V M G L V A E E A K
 T D R A R H V I V E A Q Q V A I D H R S P G I D T V H L L L G L L S E P A A
 F T A E A R R V V V L A Q E E A R E L R H R N I G T D H M L L G L L R E G I □ A
 I S D A V S E A L E K K A F E L A K S L K N P Y V S E N H F L K C L L E N T E F
 R E A L Q T A L G I A S D A Q A G A V E P V H L L A A L L G E R N I
 F T D T A W E A I T K S Q D I V R A Y Q Q Q Q L E V E H L I I A L L E E P T A
 F T Q R A R N T V M A A L N E A R A A G N A E L R P E H L L L G L L H E P D A G
 F S R P A R E V V V A T A R Q E A E A L G H R H F G T E H L L L A L V S G T G G
 F T E M A W E G L I N A Y D A A R E S N Q Q I V E S E H L M K A L L E Q K D A
 F S E E V K S L L E A S Q Q Q A V M N Y N Q E V G T V H L L S A M M S E P D S
 F T A K A W D A I V E A Q D V A R R C H Q Y M E V E H V V I I A M L D Q E E E A
 A R K E A D R L S S Q A I C P E H I L L G V L H D D S A
 F T D R A Q E S □ A A I Q L A K D Y A H A Q V H P A H I A F A L L N E G T A

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

50 60 70 80

UniRef90_E8UCQ1	T S L L A Q A G V R V N Q L Q T K L N L A L K N P K V E G A D E I Q I
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UniRef90_K7YN07	L A N L I K C G A D P N V L L D Q A E E T L N K I P R V E G D I T N E V Y M
UniRef90_C1F1A3	V P V L E K V G V P T A Q L R T K V E E A I A K L P K V S G A S A Q P G I A
UniRef90_R9KZ63	S N A F A R C G G D I K R L E G D L K G Y L D R Y M E E V N D A E H T P E L
UniRef90_Q28K58	S T L I G R S G G T P A R V R E S L D A T M A K L P V V T G D G A Q V Y M
UniRef90_UPI00036E02E4	A P L L T A V G V D P G A V V R R E L V P L L R G L P S A T G A T V S S P Q L
UniRef90_F5IVR5	L A I L K D F G I D L I E L K D S I D N N I L K Q K E D A Y P N S E I V L
UniRef90_B8HPK6	G A I L A R V G A D Q N L M L K R L A D F T K Q Q P R V P D T S Q L Y L
UniRef90_UPI000372BF2F	R T V M M N R A G A D P A D V V A A V D Q R L P Q S R P G E A V S A P A L
UniRef90_Q118T1	A S L F S K V G V S T T K I Q E Y T D S F I K R Q P K V K N I P N N I Y L
UniRef90_V4VD13	P N G F L E S G I T I D K A R E A V V S I W H S T N Q N D T D D A A A K M P F
UniRef90_UPI000237B93B	V T R F L F N K M G A G Q V L P V L N K M I E S Y P K V S G G E P Y L
UniRef90_M3E331	T G V L S S L G V T K A A A E E Y L T K M L A Q Y V E T S S E E E P T R
UniRef90_X0P2G2	R S L M Q Q S G A D P D A L A A E I D R N A G S G P L Q K S V A V
UniRef90_D4ZZZ2	N S L F N K A G I S V A K V R E S T E N F I N R Q P K I K G N S T N V Y L
UniRef90_Q9LL10	R R V F T K T G L D N T S V L Q A T D D F I P K Q P K V T G D T T G P V I
UniRef90_S3DZ17	N S I L T M D I D I F Q M N S R L N F F I L E N V S K A S S I D N E L K F
UniRef90_K9SFM3	A S I F T K A G I S V Q M L R D R A E A F I N S Q A K I S G S S N S S V Y L
UniRef90_D3EP37	S R I I L E Q K I N I T E L T Q Y V E T F T D D Q Q P K L I I L D Q L Y L
UniRef90_E4SKM9	G K I L L R S W G L T P T A V R E E I E R Y T G Y G S A P K A S Y M E M
UniRef90_J6H314	L T L L S K L A I Q R A R L E E S L Q R M L S A L P K V S G G E P Y L
UniRef90_E8RB67	V P V L Q K M G V T P S V V L S E T N Q L I N A L P K V S G S G A G Q T Y A
UniRef90_U9VN71	D T I L T K A N L D P E L L L Q E L E T F A Q R Q S R S R A S A D S S L Y L G Q
UniRef90_C9RMJ0	S E T L K A L K V N L T E L S E T I Q R A L I S T N L M T V I G G D S H G G L L T F
UniRef90_UPI0004680DC0	G A T L R E L G V T P T D V L E E I E R L T G Y G N A V V A P G A S G Y L P Y
UniRef90_C4L2B6	I A L L F Q K M E I N V S E I E G E V A L S L S R N A P K L Q N P T T P M I
UniRef90_Q02BQ1	A S I L T R A G V N V D A L K R R I E G E L D R L P K V S G S A A G I D Q I Y V
UniRef90_D8RGM6	G T S R L E S P V T L S A K D F
UniRef90_U2KST0	G S V L S G M G V D V E A Y A K E I F T A I D R L P S Q D G G N L Y P
UniRef90_Z4WVD4	D F L L F S K L A I Q R A R V V E E A N N T A L S Q L P K V S G G E P Y L
UniRef90_UPI00047256E5	E Q I Y R E A G V N V Q G L N A I D A A L E A E P V V E G A S A Y G Q S M
UniRef90_UPI0003B6F7A0	H H I Y Q K A T D D I L S G L L T S V V D Q L L D E I S V V E G T S V Q Y G Q S M
UniRef90_D4LCE1	A A V L Q Q G Q R I K A R S V Y Q Q I V Q T A G K G E A T C V T E A C Y
UniRef90_D1PLK4	P Q L L T K L G A D P N A F A Q A A L Q K V I E A L P R V T G S G R D P E K V Y I
UniRef90_UPI00042B51FD	P N G F L L G S G I K I D K A R E A V R S I W Q S S N P D S G E D T G S R D V P F
UniRef90_M4ZU17	P F F L L K K L K L D Q S S I I I G L D R I I S S Y P K I L S S G P L A L H F
UniRef90_E0UHA4	T R I F N R A E I D Q I R L K Q Q L E T F A S R Q P K I P S V E L Y L
UniRef90_UPI00036BCD9C	Q N L F K R M N I D E Q N V K F E L E K K V R E D E L S E P I I T S E L V L
UniRef90_M2YS69	M R A L L A Q H V S P D A V R R A V G E A L P P A T G D V P D L I P Y
UniRef90_UPI00034783E7	S A A L I D R A G G D S K I A R L A N D E A I K K L P K S S G G N G Q L S L
UniRef90_UPI000472777F	A S S L I D R A G G D S K I A R L A N D E A I K K L P K S S G G N G Q L S L
UniRef90_W7WAH1	K A L L L E R A G A N T A A L R T A M D V A L N G L P Q V Q G G G Q G V Q P
UniRef90_E6PXA4	S P I L Q K I G V A R E K L E S E S H V I E S R L P K V A G A E G Q P G L
UniRef90_O34209	A E I L A K A G V A V A N L R Q P L E D F A R R Q P R N A S G T Q L Y L
UniRef90_D4Z6P2	S G L I I K A A G G D A G V A L R E T D A A L A R V P V V I S G S G A Q Q T P G L
UniRef90_Q0ARZ4	G N L I I K A A G G R L R Q V Q D G V D Q A L A A I P R V D A A D A K L Y L A P E
UniRef90_K2EBG9	U V V I I F K K L N V N V I E Q L K T E V Q E M I N A I P K Q I K E E D H N I G Q V
UniRef90_G7DWH7	U N I F V E R A G G D S V K L N R A Y Q K A L V R L P S Q E P P D D Y S P
UniRef90_UPI00036A20A4	K S V V A S S L I S N S E G N V D E I A L F L G S L L E K Q V K V K G N V Q P F A
UniRef90_K9WL14	A S S L I S N S E G N V D E I A L F L G S L L E K Q V K V K G N V Q P F A
UniRef90_B9XY88	A N I L T K V V T V D V A R F K Q Q L E A F A N R Q P K V G T V D Q L Y L
UniRef90_R5KAA0	E K I I I G A L E R D Y D K L K Q I L K D Y L L Q Y V P L K S D P A K M P A R
UniRef90_G9ZSF9	V D V L A E L E I T I K I D A R T I V E N M I G F G N E Y F E K E I V F
UniRef90_W0DTY7	R Q I Y S D L G L K L A D V D Q E L D D E I D K I A T V I E G S N I S Y G Q A L
UniRef90_W8ESN5	G H L L R L A G V D V N A L N Q T V Q A K L K T L P Q V S G T G G E V Q L
UniRef90_K9W4W7	V F V V A K K L G A N L N I L T P R L D A L V A A Y P K V S G G S P Y L
UniRef90_A9TAU3	T R L L S R A N V D V S S L K T Q L E T F A S R Q P K V G T V D Q L Y L
UniRef90_J4X290	R R I I F A K A G V D N T S L L Q A T E R F I Q R Q P K V L G D T S G S M L
UniRef90_C6WC8	P F I I L K K L Q V N T T L L N Q A V E K A L A S Y P K V Q G G Q M S L
UniRef90_K2A7V3	A R V L L D S T G V E R D A A E R Y V V I A E I T S A I N R G P R S
UniRef90_X2H511	A R V L L D S T G V E R D A A E R Y V V I A E I T S A I N R G P R S
UniRef90_F2UX88	Q K K L N E L G V D L E K I N S A V C K S I R L T P G S H S V I G L I D N P G T
UniRef90_K8Z965	V A A L L A A V C P D A A A R Q A V G A S A R R I L T Q L P A G S S M T Q P Q P
UniRef90_S5VD95	R S F Y E D L G V N V D A F E Q K I D D Q Q L D A L P V V S G N V Q Y G Q V M
UniRef90_M0U2K1	R R L L T E S G T D P D R L R E Q L G T T G N G G E R T E P T T L
UniRef90_C0EWV5	R R I I F T K G S I D N S S V L R A T E E F I S Q Q P K I V G D T S G P I L
UniRef90_D2BOT7	L S V L Y E N G L N Y E N F L E A V L G E S A A L G D N A N Q T F L G Y
UniRef90_V2TUG0	A E A L L E S I I G I D L I S A I I R D R V E A A F G P G A G H R G G L I S G R H I P F
UniRef90_D5BTH2	I S L L L Q Q A G A R P E L K E K L T H A L N N A P T T A T P G D V N L
UniRef90_F4RPA9	R S L I I G R A G G D G A A L R A A L E A K L A T M P V V T G S G A G Q L Q M
UniRef90_UPI00040B7CD9	S N I I L D K A G A D P K E L T R A L N K R L V R E P S Q D P P P D N V G F
UniRef90_UPI000372E317	T A A L L R S I I G I D L D A V R R A A E D S F G E G A L D A A P G E R G R R K G H
UniRef90_K9ZG97	T R F L L S D G R T E Q Q V R D A A Q A L P P A S E G Q S P A L I P Y
UniRef90_C1EC57	K G G W L L G T G V T I D S A R E K A K E I V S F D K D R A A R R T S T S E V P F
UniRef90_UPI00037C6A8B	L A A G A I I I G V S L E A V K T A A E A K L P E P V D S A P D P M P F
UniRef90_UPI000365880B	A R A L L G A L V V D H E S A L A E V V A G T A G R R K R L F K P Q G H I P F
UniRef90_W8JLW3	Y L I I L K D I Q S N P K L L I S A I D E A L T R E P T I V D G G N L P K P
UniRef90_R7DQ01	S V I I I E R I G A G A D A S S L A A A A Q K A I D G A P K V S G D G A Q I G L
UniRef90_K9ZG97	T G I I L A R G D V I D S N R L K Q L E A Y T Q R Q P K V G K S D Q L Y L
UniRef90_UPI0004783B6C	A K A I I V A Q G V L L L D A V R Q A A T A R P E A V E D V P E L V P Y
UniRef90_W7WSM3	A D A L L K S V G I D L D A V L S R I T E S F G D A L R K A V P G R R R G R V G V
UniRef90_D7LK49	R R V F A K A G I D N S S V L Q A T D L F P S K Q P T V S D T G G Q R L G S S L
UniRef90_G4Q766	H Y V L K S L H E E N D F S R D L D H L V K A V P S V K G T D Q L S M
UniRef90_UPI0002F02AAF	H K I I L A K A N L D C D L L L D E L E T F A K R Q A R V R P G L D S N L Y L G Q
UniRef90_R6VLV5	A E F L K H L N I N Y T S L K E T V E H R I I D E Y R Y E S A S D S E I S L
UniRef90_M2QY90	S S V V Q K A G G D P A V F K R A L Q R I I V R L P S Q S P P D E V T L
UniRef90_E3J0G7	H I V Q K G H S G P F G R E Q A M F E R F
UniRef90_G8X7B9	A Q I L K D Q G V T E K G L E S A I A E H I R K G E R V T S A S A E E T Y N S L
UniRef90_U3U754	H I L L K T A G I D V S N L S I N L E K S L N Q L P K V E G T A G D H S
UniRef90_D3IKB4	S I A L Q A S G G N T T R L M A Q L D N V V G K M E K V P T E W F H V P E N
UniRef90_E4T073	I T L L F G K L G V N A S A L E A V V V D S L I A G L P R V S G G E P Y L
UniRef90_W8GXG8	T S L M R R A G A D T S A V A D A V E L R L P Q S R D T S G F A T P A L

	90	100	110	120
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UniRef90_H6R528	D P E A K K V L E L T F R E A L R L G H N Y I	G T E H I L L A L L E Q E N G S G		
UniRef90_K7YN07	S P E V V N V L T K S E E I A N K S G D R Y V T	V E R L L Q A I I I V S Q D E S		
UniRef90_C1F1A3	A T L N K V F D Q A F K E A E N F K D D Y V S T	E L A M A A Q K N D G A		
UniRef90_R9KZ63	S E A M S E V L V R A W E S A Q N S G K A V A E	L S H I V H A I Y Q L E D S Y A		
UniRef90_Q28K58	D K Q L G K V L D E A E K L A T K A G D S F V	P V E R L L T A L A M V K S G A		
UniRef90_UPI00036E02E4	S Q Q A L R A I T H A Q K L A T E M G D E Y V	S T E H I L L L V G L A A E G G D	V A	
UniRef90_F5IVR5	S K S T E K I L K M S I L E A R L T K S Q E T D	S E H I L L L V G L A A E G G D	V A	
UniRef90_B8HPK6	G R Y L D L L D Q A E A A R Q T Q G D G F I S	V E H I L L L V G L A A E G G D	V A	
UniRef90_UPI000372BF2F	T G A V K T A L F E A H Q L S R A L G S T Y I	D P E H I L F F T L A A D Q T R A	P	
UniRef90_Q118T1	G R S L D A L L D N A E A K Y R Q E Y K D E Y I	S I E H I L I L A Y L K D D H F G		
UniRef90_V4VD13	S I S T K R V F E A A V E Y E S R S R G Y N F I	A P E H I A L G L F T V D D G S A		
UniRef90_UPI000237B93B	S R D A N D S L Q K A I N F A K E M G D Q F T S	I E H I L L M G I L K S S D Q V		
UniRef90_M3E331				
UniRef90_XOP2G2	T P A V K R A L L G A H E L A R G T G A S Y	I G P E H V L E A L A A N P D S A A		
UniRef90_D4ZZZ2	G R T L D T L L D N A E A Y R Q Q Y G D E Y I	S V E H I L L L A Y A K D A R F G		
UniRef90_Q9LLI0	G S H L S S L L D N A R K Y K K E M G D E Y V	S V E H I L L L A F H S D K T F G		
UniRef90_S3DZ17	S S S I G R L F N L C Y N L I A K K R Q D S Y I	S P E V F L L A A I O E D N G V L		
UniRef90_K9SFM3	G D S L L D K L L F D R A E N E R K A F G D D F	I S I E H I M I L P Y G E D D R F G		
UniRef90_D3EP37	G R N L L D F L L D K A N V L C I E W N D K Y I	A V E H I L W I S F T E D K R L G		
UniRef90_E4SKM9	S P R L S L A L L D Y A K R Q A D Q G G Y K E I	Q T N V L V L G I T A S E Q V L S		
UniRef90_J6H314	S S D A T K V L L D K A E D I A T E M K D E Y V	A L E H I L F L A L A E V D T S V A		
UniRef90_E8RB67	S P A F R T L L D Q S F K T A A N M Q D E Y V	S Q E H I L F L T M L A D R S L K V		
UniRef90_U9VN71	S L D R M L D Q S E A A R Q L L Q D D I S V	E L L L G G F A E D E R I G		
UniRef90_C9RMJ0	T G Q C K A V L Y N A A K I A K E E G V Q F I	G P E H I M L A I L Q Q T D S P A		
UniRef90_UPI0004680DC0	S P K A K Q V L D V A R G E A Q Q V N A M K I	G T A H I L L L A L L R D D D I I A		
UniRef90_C4L2B6	S A S L L N V L T T A E R E A T G M N D E Y V	S V E H I L L L G L L L N S S Q A		
UniRef90_Q02BQ1	T P R L N K L L T Q A E D E A K K L K D E Y V	S V E H I V L L A V D		
UniRef90_D8RGM6	T N M A W Q A V V S A V I E V A Q T S R Q Q V	E T E H I L L K A L L E Q K N G L A		
UniRef90_U2KST0	S T R Y T R V L L K A E D E A Q S D G E S K I	A L E H I Y M A L M K E K S G E S		
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130 140

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

50 60 70 80

UniRef90_D9UEP3	T D L L A A V G A D Q S A V R A G A E R L L G A P S V S G S T V A P P Q P
UniRef90_W8AAL0	S Q L L L K Y G A T A D N L R E A F T A V R G N A R V T S P D P E G Q Y Q A
UniRef90_UPI0003B2FC98	R D A V A R L G A D P A A I A R A A E S R L P A A G P A A D V D G A V V A G
UniRef90_F7XX32	A Q I I I S L G S K T E L I V S K L K E S L A K I P S V S G S G A S H P Y V
UniRef90_UPI00044149C8	A G A I Q K A G G D T A A V Q R A I Q K L I V R L P A Q E P A P E E T S
UniRef90_C8XC66	P G L L R A V G V D P A V V K T R N D A L L G R L P R V S G S T V A Q P S L
UniRef90_F4KK53	R D V V E Y V A T K A G A Y M H Q I E Q S V A Q Q L E R L P H V S G G E P Y L
UniRef90_F2NS82	M P L V E R I G L Q P S S L Q K N L E N L D K Y P V V V K G Q T Q M S L S S S A
UniRef90_UPI000365F3C5	R E L L A R T D T D L A P L E D V V G Q A V A Q A P R S V R G G A A R L
UniRef90_R5H976	I K I F K N Y N I S Y E A L L D E L S I N L E I S K A K S P N I V P N F
UniRef90_UPI0002E14673	A K A I A Q A Q G V T P D A V R E A A L A A L P A A S T E V P E L V P Y
UniRef90_C1A8H4	V P V L Q R V G V N V T S V R A A A E L E A G R Y A K Q S D A Q P T F
UniRef90_W8VXR7	P F I F K K L N I N L N V N Q L I D S Q I D S F P K V E G G D V Q F
UniRef90_U1ST47	A S I L L E K T G A D R A R I G A R T R N A L V A L P R T E G A A A Q P R T
UniRef90_C2CJ78	N K A L E K S G A N Y D L F R S I V I N N G R G T C Q R P A T E F
UniRef90_K5Y6R8	A S V I T R A G G D F N N V K R D L R K L I V R L P V Q T P A P L E A S L
UniRef90_T1XN68	A K V I L E S F N I T E D K V E E V E K L I G H G Q D H V G T L H Y
UniRef90_G1W9N7	H V L F E R L K I D E S S V K R A L E S Q V K T G D T D A T Q V D S E I V L
UniRef90_R4LSF0	K A I L V R R A G A D P D A L L A E L L E R G T A A A G P R T E R V A V L
UniRef90_UPI00036C0081	L A S R R S L T A Q A I H N E I S K R T P P P K E P T P T S V D L P L
UniRef90_G8TFE0	E Y L L K K K N N N V T V N L L E N E K L Q E S I N K L P K T S G D A A Q S V
UniRef90_C7RF24	V T M L E E F S V D K D N L T D E I T K A I I G K L R S N D G L S K L Y F
UniRef90_L8NZR1	T R L L Q A T G V S P E T V H R S V G T R L S M G A S Q A A E R I A W
UniRef90_P63287	A P L L E A V G V E P A T V R A E T Q R L L D R L P Q A T G A S T Q P Q L S R E
UniRef90_R7MDW3	S K I F K S Y D V T Y E K L A E I L Y L T N L E E A D M T S S I P F
UniRef90_D4TF46	V T I I L T R A E I D P I R L Q E Q L E A Y T K R Q P K V G K T D Q L Y L
UniRef90_J9F7P1	P G L L Q K Q G I D T G A F A A E S K K L V E A L P H V T G S G R E P G K I Y I V
UniRef90_W6KI27	A G L I A A A G G D A K A A R K D C A A E L D K L P K V E G A G A G Q M Y V
UniRef90_Q54EV3	K S I F E K A G G D V P K I D A G F K R L L A K Q P V Q N P V P P E I S P
UniRef90_UPI00029B29D8	V K M L E H L K V D V E Y V R D N E K Q I K E H T P L N N N N Q L P L
UniRef90_F3ZTM6	N F I I L Q K L G V N K D F V I Q Q T E S K V K S L P K V T G G N P T L
UniRef90_C9LKK9	A D L L R S T G V S I E A L R D A E H Q F T V S V E T L D A V S D N I I L N E
UniRef90_S3XBS8	A P L L A K I G V D A N Q I D A Q A Q A A I K S L P S S S G S S V A Q P T L
UniRef90_R5V413	K I I L E S Y H V T A N L F Q E E L I E L F G Q K Q T Q P F Y M E Y
UniRef90_F0F808	P E I L F S R W K V D I D S L K K D I E R K I Q E Q A A D P L T P V A D M L L N D
UniRef90_H1QTY0	E G V L S S G L G L G K E A T E G Y V T E A L A Q F I K V T E N G G E D G P
UniRef90_M6FU13	P L L I S K L N L N P K S F L E K T E D A L R R L P K V G G T S D V G F
UniRef90_U9VYT9	A K I I L Q H L G V N L V Q L R K A I I Q A I N E E S A V P V G N G Q E
UniRef90_UPI000345C240	A R A L R E H G A S A P D L R T A A Q Q A A V P T R R P R A G R A F F G D H I P F
UniRef90_C3WBR8	P R I V E E K L D L N L N Y I I Q G Q L E N E I S K F S R I E G N N L G D V T L
UniRef90_H2BTY2	P F L L K K L N I N V N L F N Q I D L N T L T S F P K V S G G D I I L
UniRef90_W2V066	Y D V L E R S K I D M K K L K D K V V N F L S N D M S G L S V D Y S S S A I R V
UniRef90_W4KP90	A S V I Q K A G G D P I V V K R A I Q K L I V R L P A Q S P P D E V T L
UniRef90_Q82EH8	A K A V T A Q G A P P D S V R R A A T A A L P P S A D T V P E L I P Y
UniRef90_M5E8S0	K S I C D K T G V S V P A L E S K L R A A L N K P Q Q S P A P D D V S L
UniRef90_M0SZR1	T A K P E R A S A E K M P K W
UniRef90_Q1LTR3	Y Q L L Q Y A G V N T A R L S L A V E Q A C K Q L P H Q Q I N S N N G N L P P
UniRef90_K0P649	T F L I L K Q L Q V A L T P L E E A L D K L I Q T Y P K A S G Q Q P Y L
UniRef90_U2S495	C K T L N K Y G V Y Y D D F R K D V L D F Y E T E L E G T D F R N V L M K I D Y
UniRef90_R5TOH2	F E V L N D L E I T T M R D A R V V V E N L V G Y G N E Y F D R E I T F
UniRef90_D9RW54	P E L F N Q W K V D I D N I K K E I E R R L Q E E T P D T S Y V P D M L L
UniRef90_R5DMC6	□ K I F K S Y D I T H E K L V K E I G K Y I S L T G G K T V Q N Q T L P F
UniRef90_X1MHS8	U N I I L E K G R Y D Y D L F K K V V V N R N L V R I P Q Q Q P A P A E I T P P
UniRef90_B3L4X1	S E V L N N L G I N L A K I P K E I E V S I N Q P N I E S G E I G L
UniRef90_UPI0003C766C6	S N L L K E N S V N A S N L K Q Y L D T A L E Q T R A G P L D N K S K I A Y
UniRef90_P31539	V R A I A A Q G V T P D A V R S A A T G A L P P A A D E P P S L V P Y
UniRef90_D3BG38	Q N L I E K G R Y D Y D L F K K V V V N R N L V R I P Q Q Q P A P A E I T P P
UniRef90_E4TAH3	T T I F E K A G G D I N K I E N G T K R L L Q T L P V Q R P P P Q D I S P
UniRef90_UPI0001BC2AFA	A R E I L Q N L Q V D L T Q I R K I E A L N S L S S N V F P P K E M E V I P F
UniRef90_R9N6W0	S N L V T K V G A D P R T V L A A V R S T I D G F P T V S G Q T V A Q P G L
UniRef90_S3XYE8	K S I C T K A G V D T K I F E D K L R T A I R K I P S Q E P P P D D I S L
UniRef90_A5GSF0	T A V L T D T G V H I G A L K E R I T Q E I Q R L P R L T G S T D Q K P V F
UniRef90_UPI00040AF8F5	V R I L E F K A G A N A D L L R Q V E L Y L Q R Q S L S T A P D N V Y L
UniRef90_D1VYE2	F V V L R E F G V D P D A F A D A V A Q L V P A P R D V P Y A E A S S V V P Y
UniRef90_F8NT54	N F I F Q K L G V N P S Q I Q Q L V Q S E I A H L P K V S G G Q P Y F
UniRef90_A5B483	S S V I Q K A G G D P A I I K R G L Q K I I V R L P A Q N P P P D E V T L
UniRef90_R7LWT9	T A K P E R T S S E K V P K W
UniRef90_L7LEN6	A I V L N E L E I N I R D A R M V V A Q I V G S D N E Y S D D I V Y
UniRef90_L8JEY2	I A L L K A V G V D P A H M I A E A K A L V S R A P V V S S T S A Q P Q L
UniRef90_M7EJF0	L E V L N S L L P D H A A K R K A M M D Q I Y Q R H P Q P T V N V E K V A T
UniRef90_S1R5M0	V A H I A L L D I D L D E Y E D A T M L V I R R K P I K V A Q L N Q V L P T
UniRef90_R6F733	A N F Y K D L G I N V D E F E A K V D Q E L D K I S T V E G S N V S Y G Q S F
UniRef90_A8RF26	A S A S E L L P H D A S W L I T Q L E K E F L S M E V V P E T Q K Y V I E G
UniRef90_G0RQE2	S R I L S S Q G M Y Y F Q L K E D L M I L F G L K D Q S I G E I Q M
UniRef90_D7FMK6	R Q A I E R A H G D P Q L V D R A L K K N L V R L P S Q D P P P E Q V S L
UniRef90_S9UEK6	Q R I L Q K A G V D T S R F S S D L D S F L L S K Q G R V S D T S S K S M
UniRef90_X0Z7Q0	S R V L R K C O N V H N S D I N K H V L E A I N A K V E Q I P S T P A P A Q P R P
UniRef90_F5XKU3	V P I L Q K I G V D I D Q L K T N L T Q H L N S L P K V Q V G G V V G Q I Y L
UniRef90_K2E520	A P L L A A V G A D P A V V D A A A Q G A I T K L P T T S G S S V S Q P N V
UniRef90_I8DSY1	V Y H V L L Q K A R V N I A K L Q S A L I N D A L E R L S K V I E G T P G E V H I
UniRef90_UPI00034C3ECD	A R I L L A T A G V R F E N G A R V I Q Q L V P L G Q E P P A E K M S F
UniRef90_Q016K4	S T I L L T T A S V P L P R F Q K L T E D F L R A Q P K V A N P E Q L Y L G R
UniRef90_R6WTT0	R R V A G A L P L I D R L L D Q L E G F L A E Q P M A R G E D L F V G E
UniRef90_M5BKY5	K Y I L L Q S L H L D E N A F S K D A K A L V Q K I P G V K G Q D R Q L M M G T G
UniRef90_A0A034UAL5	V A V I I S K A G G D I A A V N R A V Q K Q L V R L P S Q D P P P D E T T F S T A
UniRef90_X0GKD6	A A L L Q A V G A D P G V V R R G A Q D L A D Q L P T T A D P S V V P Q L
UniRef90_U6MDX7	S T I L L Q R L G V D A K R I R L E V E K H V Q S G T E V I S T
UniRef90_Q7RS02	H R V L S S R A G V S V E K L T E E V E R H L E R Q P R M A L G F G D Q K V L
UniRef90_T0RXG6	Q R I I L K E A G I D T D L L S H D I D V Y L K K Q P K M P S G F G E Q K I L G R
UniRef90_L8PIL2	R R V A E K A Q A D A T I L N D I T T H L Q K L P T Q S P A P D H I S I
UniRef90_UPI000378206B	A K A I T T Q G V L L D S V R Q A A T A A L P E A A D E V P E L I P Y
UniRef90_I1H7G8	V R A L T A R G A D A A R V R E A A A A A L P P G A D E L P E I A P Y
UniRef90_I1H7G8	A K I L L R A N G I T L L T V R D A A A E V L G K S E M F Y F S P M H P P L

90 100 110 120

UniRef90_D9UEP3	D R E T [■] A A V Q D A G S R A R E L G D E Y L S T E H L L L G L A A R G G Q A
UniRef90_W8AAL0	[■] E K Y S T D L T A A A R E G K L D P V I G R D H E I
UniRef90UPI0003B2FC98	S V Q R A L F H A F Q V A R A A G S T Y V D P D H L F F A L V L A Q D A P A
UniRef90_F7XX32	A A D T A K A L R C A E E L A T K Y G D S F V T T E H L L L A L L K D P N M
UniRef90UPI00044149C8	G P A M Q R L L R E A Q S L P K S M N D S Y I A Q D H L L L A L L K D P N M
UniRef90_C8XC66	A R A V A N V L T G A E E Q I M R A A G D E Y L S T E H L L L A L L K D P N M
UniRef90_F4KK53	S N Q T N Q V L T Q S E Q I A S E M G D Q Y I A V E H F L A L L K V P S D A
UniRef90_F2NS82	Q K V L A K A E K E M A S L K D Q F L S T E H V F L A M I Q A D D D N V
UniRef90UPI000365F3C5	T P A A K R T F L D A L Q I A R A T G S S S I T T P E H F L A L A V N P D A P V
UniRef90_R5H976	S H H V K N I L K H T L D I A N K S G N P S I L Y E H F L A V I N D K N S N N
UniRef90UPI0002E14673	G P A A K K V I E L T F R E A L R L G H N Y I G T E H I L L A L L E H E H G E G
UniRef90_C1A8H4	S R E L T Q V V D A A E R E A K T L G D E Y Y V S T E H L L L V A L S D A K G T D S
UniRef90_W8VXR7	S R E T S R V L N N A I S I A T K M D D E Y Y V S M E H L L L S I F D G S S R T
UniRef90_U1ST47	S R A L L M A V V A D A G D R A A K A G D Q Y V S T E H L L L L I A T A A S D S E A
UniRef90_C2CJ78	S K N V R D I F E R A R Q I A M K R K S S M A S E E D I L L S I N D D D S F T
UniRef90_K5Y6R8	S G L M V K V L R E A Q R I Q K T M H D S Y I A Q D H L L L L A L L K D D S I
UniRef90_T1IXN68	T P R A K K V I E L S M D E A R K L H H N F V G T E H I L L L G L I R E N E G V A
UniRef90_G1W9N7	D Q Q A S N I L L R L A V L E A R V L H E E V E V Q H L L L L A I L H D S D N G A
UniRef90_R4LSF0	T P P A A K R A L L D S L Q I S R A L G A S Y V G P E H L L L L M G L G I N P D S A A
UniRef90UPI00036C0081	S H E S K R V L A Y G G E E S Q A L A S R I D V E R L I L G L L R E P D S F A
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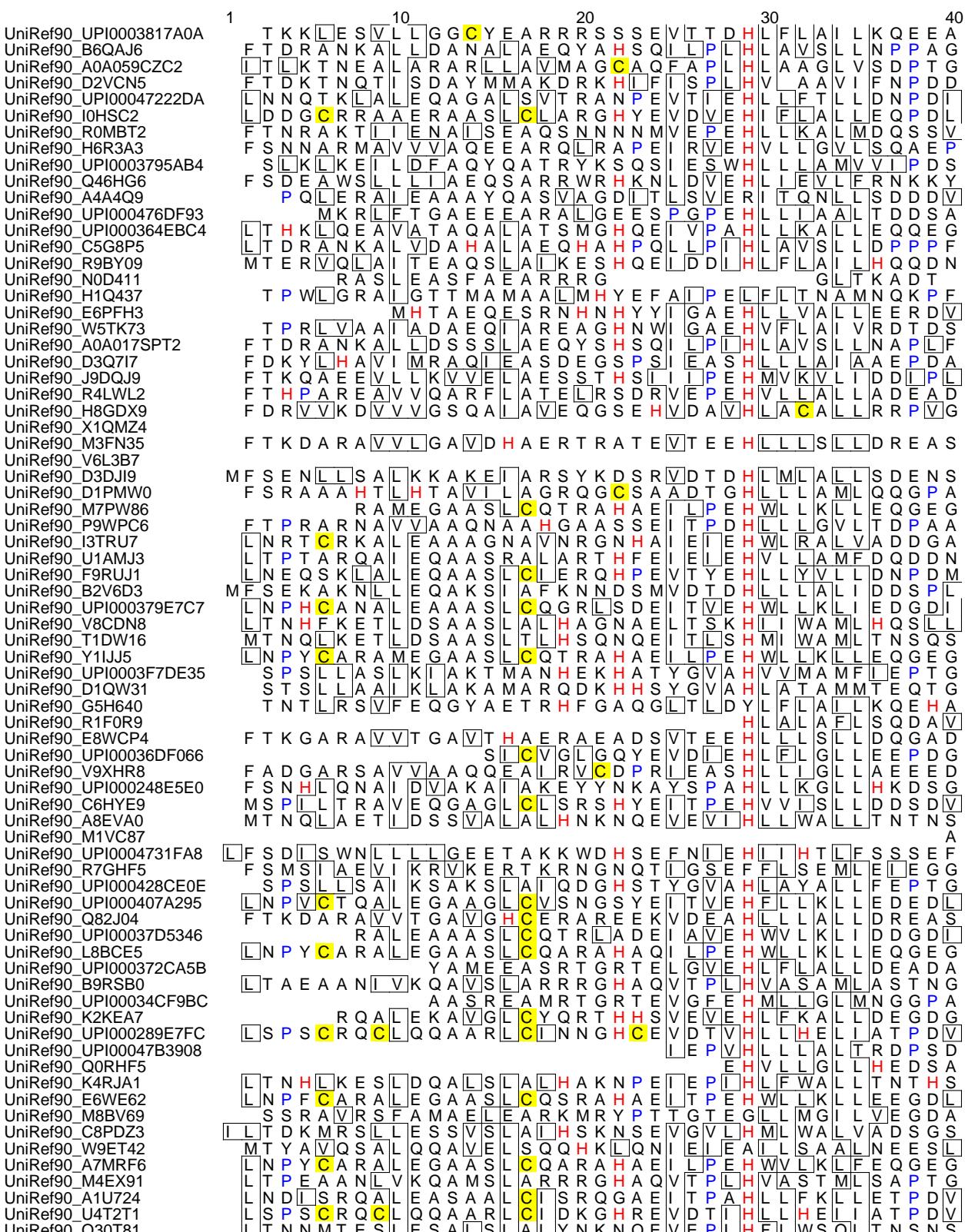
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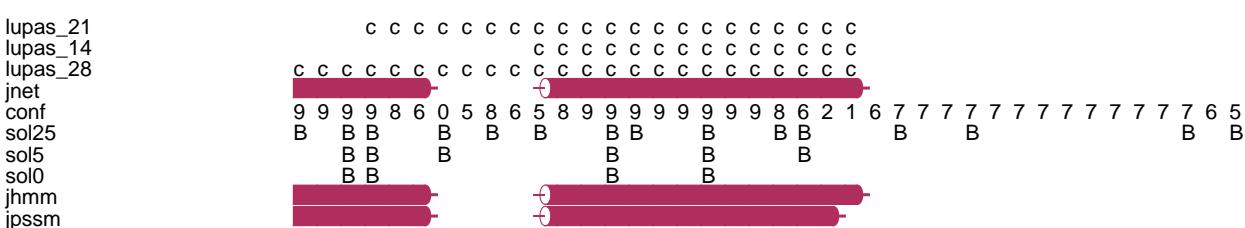
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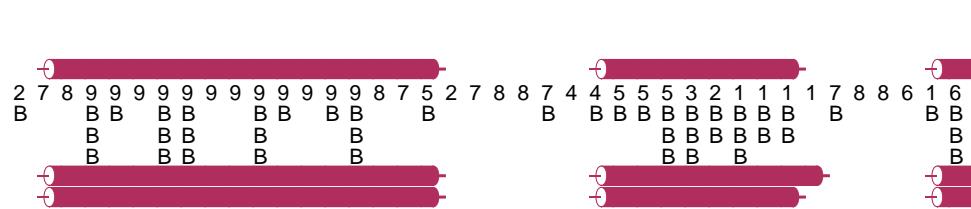


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