

QUERY

UniRef90_UPI0003056505
 UniRef90_K9XYL4
 UniRef90_E5WLK3
 UniRef90_C6HVT5
 UniRef90_C0ZT17
 UniRef90_E0RJB4
 UniRef90_UPI000345DFA7
 UniRef90_Q2BPI9
 UniRef90_UPI0003B50B8E
 UniRef90_B8FH70
 UniRef90_UPI0003671A65
 UniRef90_F2F1P6
 UniRef90_C4ZB04
 UniRef90_V5V3N0
 UniRef90_K9Z2W3
 UniRef90_E015K8
 UniRef90_UPI0003B57D77
 UniRef90_K9YNF9
 UniRef90_UPI00036F266F
 UniRef90_UPI000307BBC5
 UniRef90_G8TU81
 UniRef90_U6SNM8
 UniRef90_UPI0003B2F53D
 UniRef90_D5XFJ7
 UniRef90_Q0G5M6
 UniRef90_TOBN77
 UniRef90_T0B661
 UniRef90_R6SQT4
 UniRef90_UPI00036F62F9
 UniRef90_A0A015LP17
 UniRef90_B1HRE9
 UniRef90_F3KBK7
 UniRef90_UPI0003B6511D
 UniRef90_U4WNM8
 UniRef90_UPI00047AAC39
 UniRef90_G7WDK1
 UniRef90_UPI0004795E73
 UniRef90_M1WQB3
 UniRef90_UPI00037D59E8
 UniRef90_UPI0003676823
 UniRef90_UPI00034594E2
 UniRef90_K2LZ29
 UniRef90_UPI0003B476E4
 UniRef90_I0S68
 UniRef90_S0G3H3
 UniRef90_J9ZGD5
 UniRef90_D9QVW2
 UniRef90_S9P015
 UniRef90_G8PPP8
 UniRef90_R6LR99
 UniRef90_R5HA92
 UniRef90_Q318L8
 UniRef90_N9VSH0
 UniRef90_UPI000347FFF9
 UniRef90_C6L9S7
 UniRef90_I5B077
 UniRef90_F6CSU3
 UniRef90_I4A6S6
 UniRef90_B7K1P8
 UniRef90_U9W319
 UniRef90_R6BXF9
 UniRef90_K9YC93
 UniRef90_TOCKR8
 UniRef90_A2C4V2
 UniRef90_R6S830
 UniRef90_O87697
 UniRef90_R4YN31
 UniRef90_A0NRP3
 UniRef90_U7A710
 UniRef90_UPI0004632CD2
 UniRef90_R6CXL0
 UniRef90_UPI000369A951
 UniRef90_F0JIY0
 UniRef90_R7NA21
 UniRef90_K6D874
 UniRef90_UPI00037555D5
 UniRef90_H1PTF7
 UniRef90_A9KP90
 UniRef90_E0MLL5
 UniRef90_C7LVZ1
 UniRef90_C3WE53
 UniRef90_UPI00047BBB62
 UniRef90_UPI000373E49F
 UniRef90_I5AQX9
 UniRef90_B9JXB3
 UniRef90_R5NS37
 UniRef90_UPI000303D109
 UniRef90_C6BYZ6
 UniRef90_B0NJA8
 UniRef90_UPI0002892DA6
 UniRef90_R6WJ70

1 10 20 30 40

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

QUERY	E	D	A	L	A	S	I	D	G	K	R	D	E	P	G	L	R	Q	L	A	T	L	L	E	R	P	V	H	F	L	A	P	A	V	L	H	D	Y	E							
UniRef90_UPI0003056505	S	V	K	A	I	A	S	I	D	L	K	K	D	E	K	G	L	L	E	L	A	T	K	Y	N	W	S	F	I	T	Y	T	P	T	E	L	N	E	I							
UniRef90_K9XYL4	A	I	A	G	I	A	T	I	D	L	K	K	D	E	K	G	L	L	E	L	C	Q	S	W	N	L	P	L	R	T	F	S	A	Q	L	S	P	I	D							
UniRef90_E5WLK3	S	V	K	A	V	A	S	I	N	L	K	K	N	E	A	G	L	L	E	L	A	R	R	G	L	P	L	Y	F	F	S	R	S	Q	L	E	E	V	E							
UniRef90_C6HVT5	A	I	R	A	F	G	S	I	D	L	K	K	D	E	E	G	L	L	Q	L	A	A	R	R	G	L	P	L	Y	F	F	V	W	Y	S	P	E	E	L	N	Q	V	E			
UniRef90_C0ZT17	S	V	K	A	L	A	T	I	E	E	L	K	K	D	E	A	G	L	L	Q	A	V	C	E	K	Y	G	W	P	F	V	W	Y	S	P	E	E	L	N	T	V	Q				
UniRef90_E0RJB4	S	V	R	N	I	A	T	I	D	L	K	K	N	E	D	I	G	L	L	Q	A	K	K	W	N	L	P	L	Q	I	T	F	T	S	E	E	L	N	S	V	S					
UniRef90_UPI000345DFA7	A	I	A	S	L	A	T	I	D	L	K	K	N	E	D	I	G	L	L	Q	A	K	K	W	N	L	P	L	Q	I	T	F	T	S	E	E	L	N	S	V	S					
UniRef90_Q2BPI9	Q	V	S	S	I	S	S	I	D	L	K	K	N	E	D	I	G	L	L	Q	A	K	K	W	N	L	P	L	Q	I	T	F	T	S	E	E	L	N	S	V	S					
UniRef90_UPI0003B50B8E	S	V	K	D	I	A	S	I	D	L	K	K	D	E	E	G	G	L	L	E	F	A	G	E	K	G	L	E	I	R	F	Y	S	T	D	E	L	D	Q	V	K					
UniRef90_B8FH70	S	L	A	R	I	V	S	V	D	L	K	K	D	E	P	G	G	L	L	Q	A	E	D	L	D	V	P	I	H	F	T	W	S	K	A	S	L	D	S	T	M	E				
UniRef90_UPI0003671A65	Q	I	Q	S	I	N	S	I	D	L	K	K	D	E	Q	G	G	L	L	Q	A	E	D	L	D	V	P	R	F	H	T	W	S	K	A	S	L	D	S	T	M	E				
UniRef90_F2F1P6	S	V	K	A	A	T	I	D	L	K	K	D	E	Q	G	F	L	L	Q	V	T	A	R	N	W	Q	F	I	T	Y	T	P	S	E	E	L	N	S	V	E						
UniRef90_C4ZB04	D	I	D	M	A	S	I	D	V	K	K	D	E	P	G	I	K	E	F	C	E	R	N	R	I	E	F	V	T	Y	T	A	D	E	L	M	A	V	Q							
UniRef90_V5V3N0	A	I	A	G	L	A	S	I	D	R	K	K	D	E	V	G	F	L	L	Q	C	V	A	K	A	H	D	W	P	S	R	W	F	S	A	Q	E	L	N	L	I	D				
UniRef90_K9Z2W3	A	I	A	S	L	A	T	I	D	L	K	K	D	E	V	G	F	L	L	Q	E	A	R	G	L	P	L	K	T	F	T	S	E	E	L	N	E	M	E							
UniRef90_E015K8	S	V	R	C	A	T	I	D	I	K	K	D	E	Q	G	G	L	L	Q	D	C	R	K	Y	G	W	R	L	E	A	Y	T	P	E	E	L	N	E	V	E						
UniRef90_UPI0003B57D77	Q	V	A	A	I	T	S	I	D	V	K	K	D	E	V	G	F	L	L	Q	A	A	N	L	H	K	P	Y	R	T	F	S	A	A	Q	L	N	T	V	E						
UniRef90_K9YNF9	A	I	A	L	C	T	I	D	I	K	K	D	E	V	G	F	L	L	Q	D	W	Q	L	E	L	K	T	F	E	A	Q	E	L	D	G	V										
UniRef90_UPI00036F266F	A	I	A	G	I	A	T	I	D	L	K	K	D	E	V	G	F	L	L	Q	D	R	Y	D	F	P	L	T	F	A	A	E	V	L	R	S	H	S								
UniRef90_UPI000307BBC5	S	V	R	A	I	S	T	I	D	L	K	K	D	E	E	G	G	L	L	Q	V	A	R	Y	G	W	P	V	T	Y	S	A	E	E	L	N	R	M	E							
UniRef90_G8TU81	S	V	R	N	L	A	T	I	D	L	K	K	D	E	V	G	F	L	L	Q	R	Y	D	F	P	L	T	F	A	A	E	V	L	N	R	M	S									
UniRef90_U6SNM8	S	V	K	A	C	S	I	D	L	K	K	D	E	E	G	G	L	L	Q	A	Q	Y	N	W	D	F	I	C	Y	S	A	D	E	L	N	K	M	S								
UniRef90_UPI0003B2F53D	D	I	S	A	C	S	I	D	I	K	K	D	E	E	G	G	L	L	Q	A	Q	Y	N	W	D	F	I	C	Y	S	A	D	E	L	N	K	M	S								
UniRef90_D5XFJ7	S	V	R	A	I	S	V	I	D	L	K	K	D	E	V	G	F	L	L	Q	R	Y	D	F	P	L	T	F	A	A	E	V	L	N	K	M	S									
UniRef90_Q0G5M6	S	L	A	A	V	A	S	V	D	L	K	K	D	E	P	A	I	T	H	A	V	A	E	H	F	G	V	P	A	R	F	T	A	D	R	L	E	A	E	R						
UniRef90_TOBN77	S	V	R	N	V	A	T	I	D	V	K	K	D	E	P	G	L	L	Q	R	F	C	R	R	Y	N	V	P	L	V	T	Y	S	A	E	E	L	N	A	V	E					
UniRef90_T0B661	S	V	K	A	L	C	T	I	D	L	K	K	D	E	V	G	F	L	L	Q	R	A	N	K	Y	Q	W	P	L	I	F	T	Y	S	A	E	E	L	N	T	V	E				
UniRef90_R6SQT4	S	V	K	L	A	A	S	I	D	L	K	K	D	E	V	G	F	L	L	Q	R	C	T	Y	C	E	K	D	I	P	F	Q	T	F	S	K	E	E	L	E	Q	A	E	E		
UniRef90_UPI00036F62F9	S	V	A	C	I	A	T	I	D	L	K	K	D	E	A	G	L	L	Q	A	S	K	F	G	W	P	L	V	A	Y	E	P	D	Q	L	N	T	V	E							
UniRef90_A0A015LP17	S	V	R	N	V	A	T	I	D	L	K	K	D	E	E	G	G	L	L	Q	A	S	K	F	G	W	P	L	V	A	Y	E	P	D	Q	L	N	R	V	E						
UniRef90_B1HRE9	S	V	K	A	L	C	T	I	D	L	K	K	D	E	Q	F	L	L	Q	D	R	Y	T	K	Y	W	F	V	T	Y	S	P	S	E	L	N	E	I	V	E						
UniRef90_F3KBK7	E	L	N	S	I	N	S	I	D	L	K	K	D	E	T	G	F	L	L	Q	E	A	T	M	S	K	I	P	F	Q	T	W	D	K	E	Q	G	T	V	E						
UniRef90_UPI0003B6511D	S	V	R	N	V	A	T	I	D	L	K	K	D	E	P	G	L	L	Q	A	V	C	R	K	Y	G	W	R	L	D	T	Y	T	P	N	E	L	N	M	V	T	E				
UniRef90_U4WNM8	S	V	R	N	I	A	T	I	T	L	K	K	D	E	E	G	G	L	L	Q	A	D	K	H	R	L	P	I	H	F	Y	T	S	A	D	D	L	N	A	I	V	E				
UniRef90_UPI00047AAC39	S	V	K	G	A	T	I	D	L	K	K	D	E	E	G	G	L	L	Q	A	V	C	R	K	Y	Q	W	P	L	T	E	P	L	E	N	A	V	N	K	A	E	T				
UniRef90_G7WDK1	S	V	A	C	I	A	S	I	D	L	K	K	D	E	E	G	G	L	L	Q	A	V	C	R	K	Y	Q	W	P	L	T	E	P	L	E	N	A	V	N	K	A	E	T			
UniRef90_UPI0004795E73	S	V	A	C	I	A	S	I	D	L	K	K	D	E	Q	F	L	L	Q	D	T	K	Y	W	F	V	T	E	P	S	E	L	N	E	I	V	E									
UniRef90_M1WQB3	A	I	A	G	I	A	T	I	D	L	K	K	D	E	V	G	F	L	L	Q	R	C	H	R	N	L	L	L	L	T	Y	S	A	E	V	L	N	A	E	T	V	A				
UniRef90_UPI00037D59E8	A	I	A	G	I	A	S	I	D	L	K	K	D	E	V	G	F	L	L	Q	R	C	H	R	N	L	L	L	L	T	Y	S	A	E	V	L	N	A	E	T	V	A				
UniRef90_UPI0003676823	A	I	A	G	I	A	S	I	D	L	K	K	D	E	V	G	F	L	L	Q	R	C	H	R	N	L	L	L	L	T	Y	S	A	E	V	L	N	A	E	T	V	A				
UniRef90_UPI00034594E2	S	V	K	A	I	A	S	I	D	L	K	K	D	E	V	G	F	L	L	Q	R	C	H	R	N	L	L	L	L	T	Y	S	A	E	V	L	N	A	E	T	V	A				
UniRef90_K2LZ29	A	I	A	C	V	T	S	I	D	L	K	K	D	E	A	V	H	F	L	Q	R	C	H	R	N	L	L	L	L	T	Y	S	A	E	V	L	N	A	E	T	V	A				
UniRef90_UPI0003B476E4	D	I	Y	A	L	A	S	I	D	L	K	K	D	E	A	V	H	F	L	Q	R	C	H	R	N	L	L	L	L	T	Y	S	A	E	V	L	N	A	E	T	V	A				
UniRef90_I0IS68	U	I	R	F	A	T	S	I	D	L	K	K	D	E	E	G	G	L	L	Q	E	A	R	F	N	L	P	I	E	Y	T	R	E	E	L	S	Q	I	D	S	V					
UniRef90_S0G3H3	S	I	R	A	I	A	T	I	D	L	K	K	D	E	P	G	I	L	E	A	Q	R	L	C	V	P	L	T	Y	F	Y	D	S	D	T	L	N	Q	V	S						
UniRef90_J9ZGD5	S	V	A	F	G	A	T	I	D	L	K	K	D	E	V	G	F	L	L	Q	R	C	H	R	N	L	P	I	E	Y	T</															

QUERY

UniRef90_UPI0003056505
UniRef90_K9XYL4
UniRef90_E5WLK3
UniRef90_C6HVT5
UniRef90_C0ZT17
UniRef90_E0RJB4
UniRef90_UPI000345DFA7
UniRef90_Q2BPI9
UniRef90_UPI0003B50B8E
UniRef90_B8FH70
UniRef90_UPI0003671A65
UniRef90_F2F1P6
UniRef90_C4ZB04
UniRef90_V5V3N0
UniRef90_K9Z2W3
UniRef90_E015K8
UniRef90_UPI0003B57D77
UniRef90_K9YNF9
UniRef90_UPI00036F266F
UniRef90_UPI000307BBC5
UniRef90_G8TU81
UniRef90_U6SNM8
UniRef90_UPI0003B2F53D
UniRef90_D5XFJ7
UniRef90_Q0G5M6
UniRef90_TOBN77
UniRef90_T0B661
UniRef90_R6SQT4
UniRef90_UPI00036F62F9
UniRef90_A0A015LP17
UniRef90_B1HRE9
UniRef90_F3KBK7
UniRef90_UPI0003B6511D
UniRef90_U4WNM8
UniRef90_UPI00047AAC39
UniRef90_G7WDK1
UniRef90_UPI0004795E73
UniRef90_M1WQB3
UniRef90_UPI00037D59E8
UniRef90_UPI0003676823
UniRef90_UPI00034594E2
UniRef90_K2LZ29
UniRef90_UPI0003B476E4
UniRef90_I0IS68
UniRef90_S0G3H3
UniRef90_J9ZGD5
UniRef90_D9QVW2
UniRef90_S9P015
UniRef90_G8PPP8
UniRef90_R6LR99
UniRef90_R5HA92
UniRef90_Q318L8
UniRef90_N9VSH0
UniRef90_UPI000347FFF9
UniRef90_C6L9S7
UniRef90_I5B077
UniRef90_F6CSU3
UniRef90_I4A6S6
UniRef90_B7K1P8
UniRef90_U9W319
UniRef90_R6BXF9
UniRef90_K9YC93
UniRef90_TOCKR8
UniRef90_A2C4V2
UniRef90_R6S830
UniRef90_O87697
UniRef90_R4YN31
UniRef90_A0NRP3
UniRef90_U7A710
UniRef90_UPI0004632CD2
UniRef90_R6CXL0
UniRef90_UPI000369A951
UniRef90_F0JIY0
UniRef90_R7NA21
UniRef90_K6D874
UniRef90_UPI00037555D5
UniRef90_H1PTF7
UniRef90_A9KP90
UniRef90_E0MLL5
UniRef90_C7LVZ1
UniRef90_C3WE53
UniRef90_UPI00047BBB62
UniRef90_UPI000373E49F
UniRef90_I5AQX9
UniRef90_B9JXB3
UniRef90_R5NS37
UniRef90_UPI000303D109
UniRef90_C6BYZ6
UniRef90_B0NJA8
UniRef90_UPI0002892DA6
UniRef90_R6WJ70

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

QUERY

UniRef90_UPI0003056505 A K R S D D R A S I A L A R L L T E R

UniRef90_K9XYL4 E K K K S G N V T I S V A R I N F E E

UniRef90_E5WLK3 A K Q I S G A V T V A I A Q P E Q E

UniRef90_C6HVT5 E K K K S G N V T I S I A R V H F E E

UniRef90_C0ZT17 T K K K S G N T T I S V G L M P Y H E

UniRef90_E0RJB4 E K K K S G N M T L S V A R V S Y D

UniRef90_UPI000345DFA7 P K Q K K K G A V T V A I A R S N L E

UniRef90_Q2BPI9 N K L K T T K A T C A I A R

UniRef90_UPI0003B50B8E R K T V Y E G V T I A A A E

UniRef90_B8FH70 P K Q A S K T A T V A I A A M P F

UniRef90_UPI0003671A65 N K Q K S R R A T C A I A R

UniRef90_F2F1P6 E K K K S G N A T I S I A R I T F D E

UniRef90_C4ZB04 K K H K Y D R V T V A A A R Y P

UniRef90_V5V3N0 P K Q I Y G A V T I A I A Q S E R E

UniRef90_K9Z2W3 P K Q I F G A V T V A I A L S N L E

UniRef90_E015K8 E K K K S G N V T I S I A R V R F

UniRef90_UPI0003B57D77 N K Q K T P R A T C S I A R S Y P K

UniRef90_K9YNF9 P K Q I K G A V T V A V A Q S A L E

UniRef90_UPI00036F266F S K Q I F K G V T I A I A Q A E T E

UniRef90_UPI000307BBC5 E K K K S G N V T I S V A V I P Y

UniRef90_G8TU81 E K V K H G N V T V S V C L V P P D R

UniRef90_U6SNM8 V K K K S G N V T I S V A L I P Y

UniRef90_UPI0003B2F53D N K H K N K Q A T C A I A R

UniRef90_D5XFJ7 P K T S G K G V T V A I A E

UniRef90_Q0G5M6 P K Q K S R R V T A A L A K A P

UniRef90_T0BN77 E K R K S G N V T V S V C L V P Q K

UniRef90_T0B661 T K K K S G N V T I S V A L W E E R K

UniRef90_R6SQT4 H K T A H E G V T V A V A

UniRef90_UPI00036F62F9 E K V A S G N V T I A L A R V D F

UniRef90_A0A015LP17 E K R K S G N V T I S V A R V

UniRef90_B1HRE9 E K K K S G N A T I S V A R Y Q F

UniRef90_F3KBK7 P K Q K K G R V T C A V A R A Y L K E

UniRef90_UPI0003B6511D T K K K A G N V T I S I A Q V P F

UniRef90_U4WNM8 A K Q K S G N V T L S I A L V N

UniRef90_UPI00047AAC39 E K K K S G N V T I S I A

UniRef90_G7WDK1 P K T K G Q G V T V A I

UniRef90_UPI0004795E73 P K A K T K K S T C A I A R A A

UniRef90_M1WQB3 P K Q I F G A V T V A V A Q G K Q E

UniRef90_UPI00037D59E8 K K K K N G N V T V A I A E I K T

UniRef90_UPI0003676823 S K Q I F G A V T V A V S Q S N L E

UniRef90_UPI00034594E2 V K K K S G N V T I S V A V I P N E

UniRef90_K2LZ29 P K H K T K K S T C A V A

UniRef90_UPI0003B476E4 P K Q V R D G M T I A I A R

UniRef90_I0IS68 E K V K S E N A T M A V A R W

UniRef90_S0G3H3 T K Q K T R Q V T I A I A R

UniRef90_J9ZGD5 H K T K S V N A T I A I A E W

UniRef90_D9QVW2 K K T K L D G V T V A V A E

UniRef90_S9P015 R K Q I Y R S M T F A V A R I P H

UniRef90_G8PPP8 E K Q K T A N A T I A I A K A

UniRef90_R6LR99 P K Q C M N R V T I A V A E

UniRef90_R5HA92 R K C K G D G V T L A V A Q I P F Q

UniRef90_Q318L8 P K S K S G A V T I A I A E

UniRef90_N9VSH0 R K Q A G D G V T V A A A

UniRef90_UPI000347FFF9 T K Q V F K G C T I A V A R A S R E

UniRef90_C6L9S7 K K T A G D G V T V A A A

UniRef90_I5B077 P K T A S R K V T L A A A A M P F

UniRef90_F6CSU3 N K I K N A K A T C A L S R

UniRef90_I4A6S6 P K Q K W N G V T V A I S K A

UniRef90_B7K1P8 S K Q I E G T V T I A I A Q S K V E

UniRef90_U9W319 T K Q V F G A C T V A V A R A T Q

UniRef90_R6BXF9 K K R A A N G V T V A L A

UniRef90_K9YC93 S K Q I Q G A V T I A I A R S P R E

UniRef90_T0CKR8 K K H K Y K G I T F S I G R L D I

UniRef90_A2C4V2 N K Q I Y G A V T I A L A E V E

UniRef90_R6S830 R K Y A R D G V T V A L A

UniRef90_O87697 V K K K S G N V T I S V A L I P Y D

UniRef90_R4YN31 N K H K N A K A T C A I A R

UniRef90_A0NRP3 E K Q K T D N A T C A I A R S P

UniRef90_U7A710 P R Q K S A V A T L A L A V C P

UniRef90_UPI0004632CD2 K K Q P H H G V T V A L A

UniRef90_R6CXL0 Q K T A R D G V T V A V A

UniRef90_UPI000369A951 P K A K T A N A T V A V A R V A F

UniRef90_F0JIY0 T K E K T S T V T L A V A R S N

UniRef90_R7NA21 G K T A D N G V T V A I Y R V A Q K N

UniRef90_K6D874 V K K K S G N V T I S V G I L A N E K

UniRef90_UPI00037555D5 P K R K S K K A T L A V A R S N T

UniRef90_H1PTF7 N K F I Y N G M T V S I

UniRef90_A9KP90 K K F A E N G V T V S I A R

UniRef90_E0MLL5 P K I K S A R A T A A L A R

UniRef90_C7LVZ1 P K T I N G N V T V A I

UniRef90_C3WE53 Q K Y I L Q S G I T I S I

UniRef90_UPI00047BBB62 V K K K S G N V T L S V A V I P F E

UniRef90_UPI000373E49F A K H K S K R A T C A V G Q A P

UniRef90_I5AQX9 R K T S R D G V T L A

UniRef90_B9JXB3 P K I K S K G V T A A L G R S A Q

UniRef90_R5NS37 R K Q A Q D G V T V A L A

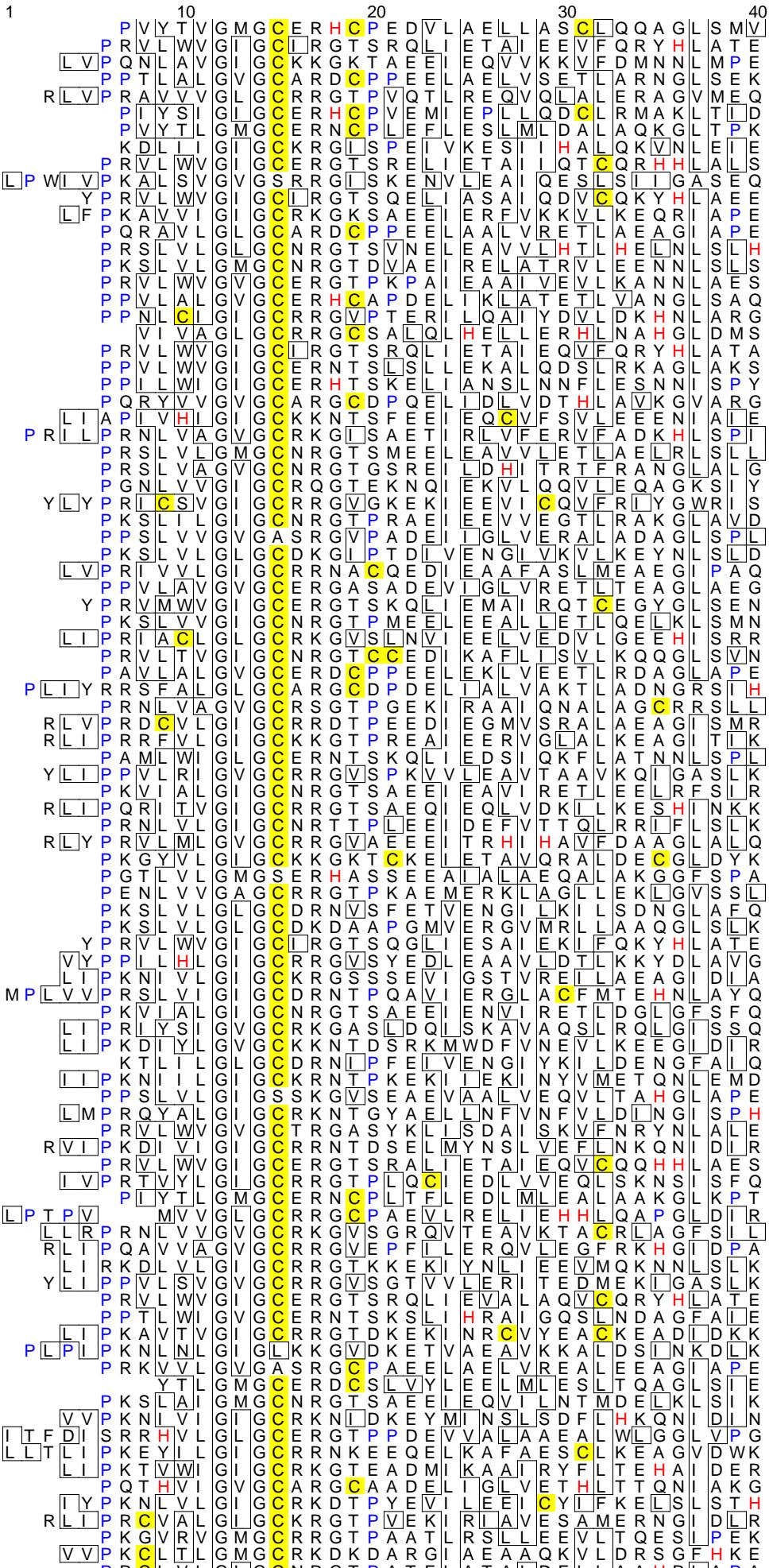
UniRef90_UPI000303D109 T K K K S G N V T I S V G I L S F E

UniRef90_C6BYZ6 P K T K S A R V T A A I A K

UniRef90_B0NJA8 E K Q V D D G V T V A V A R I I F E

UniRef90_UPI0002892DA6 V K R K S G N T T I S V A A N F E E

UniRef90_R6WJ70 R K Y A E D G V T A A L A R



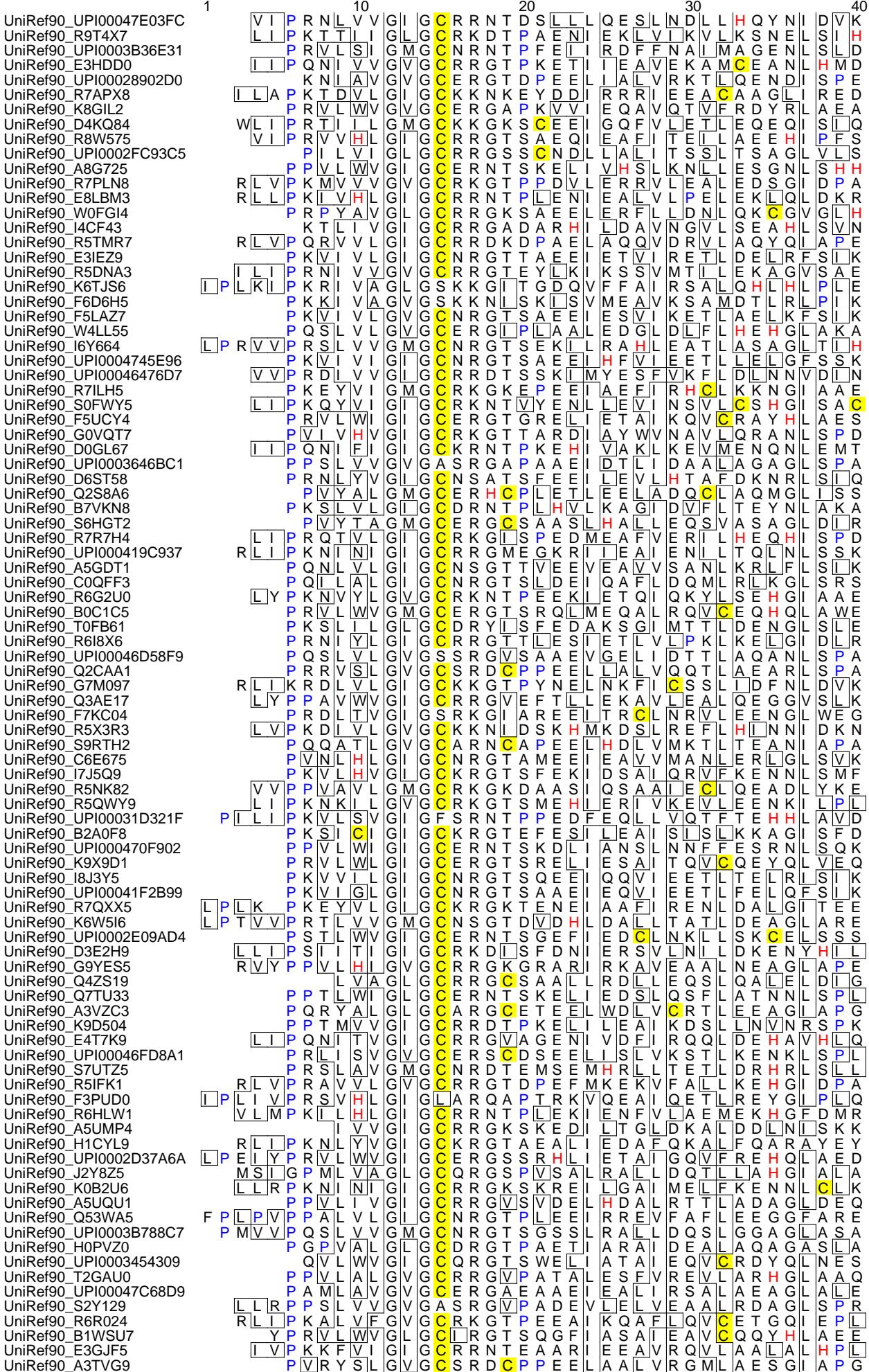
	50	60	70	80
UniRef90_I2JP99	H S L N S I D I K A D E M G L I S L A A K H R L A F Q T W S V P Q L T T V E			
UniRef90_B7KC23	A A G L G T I E I K G D E I G L L I E Y I E Q K Q Y P F K T T F S A E V L K S I N			
UniRef90_C4Z7Q2	A A V A A S V D R K K A D E Q G I I E F A R K F K V P Y R T Y T P E A L R E L			
UniRef90_W6K5M9	S I A L V A S L D L K M D E P A V L A L A D R L D V P A R F T F T G A A L E E Q T			
UniRef90_C0D1C2	A V A C V A S I D L K R E E Q G I I E L A R E H N W E F I T Y S A E E L M Q V			
UniRef90_F3LGK5	D I S A I N S I D I K A D E V G I I E C A K I H D K P F H T Y S V D E L T T V E			
UniRef90_X7E6Q4	D I H S L N S I D I K A D E T N L V L A E K Y N W P F N T Y N A E E L A S M E			
UniRef90_I3IGK4	Q V R L S T I D I K S E E P G L L Q A S E L G I P L R V I S A C E I A T C V			
UniRef90_B4W2J2	A I A G I A T I D I K A S E V G L V E F C Q A H D F P L R T F P A K V L R S V T			
UniRef90_W0EB70	S V S G I F S I D L K Q Q E A G I I E A A Y E M G V P F Q T F S A T E I Q T V E D			
UniRef90_A3IT50	A I A G I A T I D I K A D E V G I I Q Y C Q E K Q P L L T Y S A D V L N T I D			
UniRef90_S0J6U1	S V C L A S A D R K K E E G G I A F A E K Y R I P F Y T F S A E E I A Q V			
UniRef90_U2YHW4	A V Q A M A S D L K K E E P A I L N V S R V I G A P L R L F T A T E L E A E A			
UniRef90_W4EC68	S V R N V A T A G I K G D E A G I L A L C A K Y S W E L V L Y T P E Q L N T V E E			
UniRef90_W2BQE1	S V T A L T S V D A K D D E Q G F I D F A A E L G V P F V T F S A D E L A K V E N			
UniRef90_K9W5C8	A I A G I A T I D I K A D E Q G I I E L C S D R N L P L Q T F P A S V L N S V N			
UniRef90_K2MPV1	N V A C V V S I D L K A D E A A V H A L A D H L G V P V D F Y S K E E I T A L K			
UniRef90_C0GDW8	S I A R L C S I D A K K D E L G L G A A K Q L G V P V D F Y S K E E I T A L K			
UniRef90_K6B8A2	D I T A L A S I D L K S E E P G L L A L A R Q L A V P L V F F N A A Q L V Y W D			
UniRef90_E0UB60	A I A G I A T I D I K K D E T G L L E Y C E K Q L P L K T F A A E V L G G I E E			
UniRef90_A9BCK7	S I A G F A S I E I K S D E P A L T S L I S K E A L P I K F F T K E D L S K I			
UniRef90_UPI0004732530	S I A G F A T I D I K K D E K G I L E L A K G K N L P I K F F T K E D L S K I			
UniRef90_B9R106	A V A C V A T I I D L K A D E A A M N A L A A H L D A P L R L F P A E T L E L E K			
UniRef90_N1ZNG0	A I E A V V A T I I D L K Q N E K G L L T F C Q S Y Q K Q L N I F S T E E L S A V K Q			
UniRef90_F5YLB9	R V R S I C T D L K Q D E P G L L F E S F L G A Q F C C F S A E E I S N G L Q			
UniRef90_UPI000374B9B3	S V R N L A T A I K G D E A G L L A L C G K Y G W E L V L Y S P E Q L N T V A			
UniRef90_D8F453	S L K C L T T I E A K R D E E G L L T A A R E L G V P R L F F S P P E I N A V Y			
UniRef90_C8W688	S I K C F C T D V D I R A N E P G L T G L A D F K I P L L V F S R E E I R Q A Y			
UniRef90_UPI00046476EB	Q I F A L A S I D R K A D E E G I L A F V K K H G L P F L T Y T A E E L I N M V E			
UniRef90_D5WT74	S V A A V A T I D R K K D E A G I L V A M C R D R G W P L I A Y T P D E L N E M P			
UniRef90_F8B4E8	A V R H L A T V E A K R D E A G I V V A A A R A F G W P L V V H P A A A L A A V D E			
UniRef90_M6DSZ9	S I K A I A S I V D A K K E E P A F L E I S E K Y G W E F R T F S P E K L D Q V E			
UniRef90_UPI0003B37302	A I C R V V C S I D L K A N E P G L L A F C A T H G W T L K T F P A E T L A A Q			
UniRef90_W9H8X8	A V A A L C S I D V K M D E P A I H A A A A L G V P V R F F G A A R E E E E A			
UniRef90_F4XTE7	A I A G I A T I D R K A D E V G I V Q L C Q E R H W P L R T F P A D V L R S V T			
UniRef90_UPI000471A4AB	S V R N L A T I D L K K D E E G L L A L C O A K Y R G W E L T V Y T P A E L N T V T			
UniRef90_F0S242	A I A G I A T I D I K K D E E G L L R E L A A R E L G V P R L F I A F T A R E K L N G S V C			
UniRef90_KONQU0	S I F R F A T S D I I K K D E I G L L A L S Q E M K I Q I D F Y D K N K L N S V K			
UniRef90_UPI00040352A1	A V A L V A S V D I I K M D E V A V H H M A R H L G V P V A R F F T P D R L E T E T			
UniRef90_A3JV10	E V A M V G S I D I K S D E A A I H A V A R H L G V P V A R F F D A D E L N S V T			
UniRef90_R4KLN7	S L R A L A T I E Q C T D I I K K D E E G L L Q V A A E L K L P L A C F S R E Q M L N P			
UniRef90_M9SKL8	N V R A A S I D I K K D E A G L L A F A S K H S L P I T F Y T S E E L L N A V P			
UniRef90_M4YM04	S I R A C A S I D I K K D E E G L L S F A A E H R L P I T F Y T S E E L L N A V P			
UniRef90_A2BYQ0	S I A G Y A T I D I K K D E Q A F L K I S R E N K L P I T F Y T S E E L L N A V P			
UniRef90_G2FZQ2	A V A G Y S I D I K K D E E G L L T E T A R F L R V P F Q T F S T E E L L Q S V E			
UniRef90_UPI000248C559	S V K A V C T I D I K K D E E G L L A V C A K Y G W P L E C Y T P G E L N K V E			
UniRef90_R7FY26	S I V G R I A S I N L K K D E E G L L T F C N K Y N I E P E F Y P A E E L K K V E			
UniRef90_A1AU03	U V K T I A T A T A K R D E P G L L A F A Q R H G L E I C F Y D S Q E E L D R V A D			
UniRef90_M1WV62	S V G G L A S V T A K A D E P G L L Q A A E R L N P I T F Y T S E E L L E T I D			
UniRef90_UPI00046563C7	D I Y A F G S I D L K A K E A G I L D F S A K Y R I P F V T F T S E M L S G A K			
UniRef90_H4F5R1	S L A A V V C S I D V K K D E A A A I H A V A R H F N V P A R F F T T A A V L E A E T			
UniRef90_F0YXJ0	Q I K A L A S I D L K K D E S G L L E L V A E E C N V P F I T Y S A E E L K E V E			
UniRef90_V6I4Z7	S V K T I A S A D L K K D E A F L L R I S K K Y G W E F V C Y T P Q E L D R V S			
UniRef90_D8PF10	S V K A I A T I D D K K D E P A F L L A L A E R Y R W P M H I P F T P A E H D V V			
UniRef90_T2JB68	A I A G I A T I D I K K D E V G I V E Y C Q E K Q Y P L L T Y S S D V L N T I D			
UniRef90_D3LSL0	A I R D L R T I I D I K L A E P G L L C A L A A A R K W P L H G Y S A G Q L Q N V E			
UniRef90_W7V0Z1	A I R I E A A T I D I K K D E A G I L E F C G S I D V P L R F C T A E E L L K G V E			
UniRef90_A9D3E3	S I A S L V S I D I K K D E A G I L E A A A K L N R P I T F Y T S E E L L N A V P			
UniRef90_U1W9I8	S V K A V G T I D I K K D E E G L L A V C R K Y G W E F V C Y T P Q E L N T N E			
UniRef90_L0F401	S I L G L Y S I D I K K D E A G I L E T A H H L G V P F R T F S A Q Q I L Q E L V E			
UniRef90_J5GHV8	A V K A V G S I D I K K D E A G I L K E L A D R L G S V F N T F S K D E L N G V S E			
UniRef90_M3G2P3	S V R A L A T I D I K K D E E S A F L K L S Q Y G W E L I F F S P E E D R V S E			
UniRef90_U2PV55	S I K R A A S A W V K S D E I G L L E A M I E L N I P I E F F E K E K I L E V V E			
UniRef90_UPI00037C0092	S V C A V A T A D I K A A E P G I V A F A A S R R L P V I A Y T A D E L A A M D			
UniRef90_H2JDF9	A I E A I A S I D I K K D E N A I R S L S A D W K I P F H T Y S A N E L A E L L			
UniRef90_D3EP06	S I A G I A S I V D I I K K D E V G I V K Y C Q L K Q L P L F T Y P V K T L N K V D			
UniRef90_T3D8S0	A I N M I G S I E I D I K K D E K A I I D L S K V L Q I Q F K T F S I D E L S K V D			
UniRef90_K9WC63	A I A G I A T I D I K K D E V G I I E V C R E R N W P L C I F P A D I L R G V N P			
UniRef90_K4LC18	A I A G I A S I D I K K D E T K E Q G L L D F A K N K L P L H F F S S D E L L S V P			
UniRef90_F2JUV0	D I Q S L C S I D I K K D E T N L I A L A H K Y G W T F T Y S V D E L T T M T			
UniRef90_UPI00041B99FB	D V T A L A S I D I K K D E P G L L E L A R Q L D V P L V F F H A A E L V S W E			
UniRef90_K8DYN3	S L R G L A T V D I I K K D E P G L L R E A A Q Y L R V P L L E V S R Q Q I E A L H			
UniRef90_C5EU34	S V K A L A T I D I K K D E E G L L A L A Q K R G W T L R F Y S A A E L G D V			
UniRef90_W6RSS9	A I K N I S S I D I K K D E E G L L R K A A Q S L G V D F Q T F S A A E L K V V			
UniRef90_I4D6G3	A I S G I Y S I D I K K D E E G L L R K A A Q S L G V D F Q T F S A A E L Q A I N S			
UniRef90_K9T4G1	A I A G I A T I D I K K D E A G I L E Y C R D R N L P L K T F P A E I L R Q V S			
UniRef90_Q3AUT3	A I A G I A T A D R K A D E P A L L D L C H D Y D W P L R T Y K A E Q L A V I N D V E			
UniRef90_S2YCF7	A I R V A S I D I K K D E P G L L E F A K E L K I S P V F F S K S Q I E K I E			
UniRef90_M2B5W5	A V K A I A S I D I K K D E G A I L E L A R D M G A P L R L F R A E Q I E L E A K E			
UniRef90_A0A017HV92	A V A A V G T I D I K K D E G A I L E L A R D M G A P L R L F R A E Q I E L E A K E			
UniRef90_A3Y662	A V I D S I N S I D I K K D E V N L I A L A K Y N K P F K T W S I D E L S P M K			
UniRef90_UPI00047665C0	Q I D S I N S I D I K K D E V N L I A L A K Y N K P F K T W S I D E L S P M K			
UniRef90_UPI00037BE6EF	S V K A I C T I D I K K D E L G L V E V A N K Y D W E F V Y Y S P Q E L N K V			
UniRef90_UPI0003B31514	A I K E I G S I D I K K D E V A I N L S E Y L N I P F K T F T A D E L S K V E			
UniRef90_R6NJJ2	E L A A I A S I D I D G R A G E P A I I E A A R H F G V P M L F F S A A R L E E E T			
UniRef90_D4J6T6	Q I R A I A S I D I D K K D E K A I L K L A A E H G L P F F V F D A E T L S R V E			
UniRef90_E2CF41	S V A G I A S I D I K K D E T A M N A L A D H L G V P F R V F D A K T L E T E A E			
UniRef90_UPI0004786D1E	S I A K I A T V D I K K D E K G L L M V A N H F K V P I E I P R E A L L E V E			
UniRef90_D7GPA8	S V F A A S I D I K K D E Q G L L I D F A K E L Q V P F L T F S S E E L L N G Q E			
UniRef90_F4XEY2	A V S A L C T I D I K K D E P G L L Q E L A R E W N V P L L T Y S A Q E L A Q V S			
UniRef90_R7CMV8	A F E Q I A S I D I K K D E K G L L S L S Q D W Q I P F V T Y T E E E L K Q V			
UniRef90_D6Z407	A I H N L A S I D I K K D E P G L L E L A S R R W P L V F Y S K D E L N Q V A			

90 100 110 120

UniRef90_I2JP99	G L S Q R S D Y V F A T V G V Y G V A E S A A L Y A A Q D Y A G D S P E L L L		
UniRef90_B7KC23	V P N P S T V V D Q E V G T P S V A E A S A L C A A K T H F S S N P [V] L I V		
UniRef90_C4Z7Q2	G D F S S S A F V N E Q I G V D N V C E R S A C A A S G G G R K L A		
UniRef90_W6K5M9	P R L A T P S E V V F V N E Q I G V D N V C E R S A C A A S G G G R K L A		
UniRef90_C0D1C2	P G E F S E S G F V R E T V G V D C V C E R A A V A A A G D G R L I L		
UniRef90_F3LGK5	S L Q A P S D Y V F N T V G V Y G V A E S A A L Y S A K K S T N S [V] P E L I L		
UniRef90_X7E6Q4	P L L S T K S D Y I F N T V G V Y G V A E S A A L L A A Q N E A G S E P E L I L		
UniRef90_I3IGK4	K E Y S K S D F V K E K I V G V G G V C E P A A L A L I A G R K T Q L I L		
UniRef90_B4W2J2	V P T P S T V V D Q A V G S P S V A E A A A L V C S E R F S A C S E R L L V		
UniRef90_W0EB70	Q R R L S Q S E F V K E K I V G V D G V C E A A S L L G T R H G E L I L		
UniRef90_A3IT50	V P N P S D I V K E E V G T Y S V A E A A A V Y G A N Y W F S S Q G N L L V		
UniRef90_S0JU61	P G T F T S S E F V K Q T M G I E N I C E R A A V K A A M E R S R R E P A L L Q		
UniRef90_U2YHW4	P R L A T P S D V V F A E V G C H G V S E G A A L A Q A G P D A T L V V		
UniRef90_W4EC68	L D H P S E V V F R A T G A Y G V C E P A A L L S S G A H S G N G R L L Q		
UniRef90_W2BQE1	T P N Q S Q H A L E A V G T G S V S E A S A L S Y [P] S H V A G S E L I I		
UniRef90_K9W5C8	V P N P S K V V A A E V G T P S V S E A A A L L S A A K C Q S G N G R L L V		
UniRef90_K2MPV1	P R L A N P S D L V F A E T G C H G V A E G A A L A T [I] G S N G T L I I		
UniRef90_C0GDW8	V P Y H V S S F V H Q N M G V G A V C E P T A M L A A G N G R L L V		
UniRef90_K6B8A2	L H L T H R S A N V L Q H T G C H G V A E G S A L A L A A A Q L G D G S A G L V I		
UniRef90_E0UB60	V P N P S E I V S Q E E V G T K S V S E A A S A L S A V S P Q K A A L I V		
UniRef90_A9BCK7	V P N P S S A V Q K E I G I F S V S E A E A S C L L A A G K G A K L K L		
UniRef90_UP10004732530	I V P N P S A T V F K A T G A Y G V C E P A A L L S S G E G S K L L K		
UniRef90_B9R106	H V P H P S D V V K N H M G V S S V C C E A T A L L K S H G T R L L V		
UniRef90_N1ZNG0	U P I 0 0 0 4 6 4 7 6 E B E E V S A S D F V L E K T G V D N V C E R A A L C S A Q G R E G R L L V		
UniRef90_F5YLB9	G D F T A S D F V L E K T G V D N V C E R A A L C S A Q N G K I I V		
UniRef90_UP1000374B9B3	G T F T S S D Y V K E V T G T D N V C E R A A L V A G G G K G H L I V		
UniRef90_D8F453	L E Q P P S A T V F K A T G A Y G V C E P A A L L S S G A K E L V L		
UniRef90_C8W688	H V P H P S D V V K N H M G V S S V C C E A T A L L K S H G T R L L V		
UniRef90_UP100046476EB	P G V F Q H S D F V Q E K I G V G G V C E P V T L L A C P Q A R L I S		
UniRef90_D5WT74	E E V S A S D F V K K T T G T D N V C E R A A L L L A G G G S L I H		
UniRef90_F8B4E8	M R H P S E T V Y R Y T G A Y G V S E P A A M R A A G T D R L L V		
UniRef90_M6DSZ9	V P H P S E V V R A A V G T P S V A E A A S L L D G G G T S T G T A E L V V		
UniRef90_UP10003B37302	G I S E I S K A A S E Y V G T R S V S E A A A L L L S G S E K L L V		
UniRef90_W9H8X8	P G H F T P S D F V V A Q T T G V D N V C Q R S A V A G S G G R L L T		
UniRef90_F4XTE7	P R L A N P S D L V F R E V G C H G V A E G A A L A A S G G T L L V		
UniRef90_UP1000471A4AB	V P N P S D V V A A E V G T P S V A E A A A L C G A R G L A T N L Q P L L V		
UniRef90_F0S242	L P H P S E T V Y K Y T G A Y G V C E P A C L G S S G A D G W L L		
UniRef90_KONQU0	G E F T E S P F V R Q V A G I G N V C C E R A A V L L S G N G K L I V		
UniRef90_UP100040352A1	T I Q T P S K M V E K H L G V K S V C E A A A I L S A G N G Q L I V		
UniRef90_A3JV10	P R L A N P S K L V F Q E V G C H G V A E P A A L L A S G S Q G T L V V		
UniRef90_R4KLN7	P R L A N P S E V V R A E V G V A G V S E G A A L V M A G V S G A L V I		
UniRef90_M9SKL8	S Q A L Q R S D F V V Q K N M G V P G V S E P V A L L A T R K G E L I I L		
UniRef90_M4YM04	P G E F S K S G F F V Q S V T A V D C V C E R S A V K A S R G G R I I I L		
UniRef90_A2BYQ0	G E F S K S D F V V R S V T S V D C V C E R S A V K A S R D G R L L V L		
UniRef90_G2FZQ2	V P N P S N I V L N E I G T P S V A E A A C I L L A A G E G A K L L G		
UniRef90_UP1000248C559	R E Q L S R S R S K F V S E K I G V D G V C E P A C L G T Q M G Q L V L		
UniRef90_R7FY26	M P M E E P S D T V V F K F T G A Y G V S E P A A K R Y T G A E R L L A I L		
UniRef90_A1AU03	G E F S V S T F V V K K V T G V D N V C E R S A V Y T G G T L R I		
UniRef90_M1WV62	V P S R P S K H A M A A I G A I G V A E P A A L L A S G G G R L L L		
UniRef90_UP100046563C7	T P N P S G T V L R R M G V E S V S E A A A I I L S D N G K L L V		
UniRef90_H4F5R1	G D F E A S Q F V V K E T T G V D N V C E R A A V L L T G N K G E L V L V		
UniRef90_F0YXJ0	P R L A N P S D V V V A F E V G C H G V A E G A A L A A V R K Y A P A G E M Q		
UniRef90_V6I4Z7	A V S S H S E F V V E K I T G V D N V C E R A A R K Y A P A G E M Q		
UniRef90_D8PF10	E I E T P S E V V K N F V G T K S V S E A S S I L A S G A G S L L L		
UniRef90_T2JB68	P G I E H P S E I V V K R Y V G S R G V A E P A A L L V A G A H T L L V		
UniRef90_D3LSL0	K V P N P S E V V V K E E V G T P S V A E A A A I Y G A N Y W F N Y G G S L L V		
UniRef90_W7V0Z1	G S I A S S A F V R R T V G V D N V C E R A A L V H L K N G I L R V		
UniRef90_A9D3E3	G D F E A S D F V V E T T G A D N V C E R A A V F C S G G K L L V		
UniRef90_U1W9I8	G V E N P S A V V E R C I G V T S V A E A A C I L H A A E R T K L L V		
UniRef90_L0F401	M N I E E P S D T V V F K F T G A Y G V S E P A C L K R Y S G L K K L A I L		
UniRef90_J5GHV8	E K F L S S S D Y V V K E M I G V D G V C E R A A S L L G T K E G E L I I L		
UniRef90_M3G2P3	G E F N E S F V V Q K T V G V G N V C E R S V L L I Q C N N L I M		
UniRef90_U2PV55	Q V R S P S E I V K G G T T G T K S V S E A A S L L A S G A D S L L L		
UniRef90_UP100037C0092	N L V E E R S E F V V K N Q I G V Y G V S E P C A Y L A S S R K G N F L V		
UniRef90_H2JDF9	V P N P S E V V R A A V G T P S V S E A S A L L A A R T M G R K A E L V A		
UniRef90_D3EP06	P G D F S K D F V K E I T G V D N V C E R A A V K A N N G R L V V		
UniRef90_T3D8S0	V P N P S A I V K Q E L L G T A S V A E A S A L Y S S N Y F D N K T V L L V		
UniRef90_K9WC63	N L F D K S D F V V K K N V G V Y S V A E P V A Y L L S K G N L I V		
UniRef90_A4LC18	G K Y T E S E F V V S S I T G V G N V C E R A A L M V S A G G G L I S		
UniRef90_F2JUV0	D K Y T E S E F V V E Q T V G I G N V C E R A C M A E G G R L L F		
UniRef90_UP100041B99FB	P L L S T H S E Y V V Y K T V G V Y G V C E P V I E L S S A E I I I I		
UniRef90_K8DYN3	L H M T H R S A Q T L N T T G C H G V A E G T A L A A S L G D G T A A L A I L		
UniRef90_C5EU34	G Q Y T P S E F V V K E R I I G V G G V C E P A A L I A G G T G R L Q L		
UniRef90_W6RSS9	G G T F T E S A F V V E Q T V G I G N V C E R A C M A E G G R L L F		
UniRef90_I4D6G3	D K Y T E S E F V V F K N T V G V K A V C E P V I E L S S A E I I I I		
UniRef90_K9T4G1	Q E Q L T R S N F V V M E K I G V D G V C E A A S I L G G K G R P P I P N P L I V		
UniRef90_Q3AUT3	P V P T P S E A V V Q R E M G T A S V A E A A A L L T A G E G G R L L T		
UniRef90_S2YCF7	G S F T S S A F V V K E T T G V D N V C E R S A L L A S G D G K L I I L		
UniRef90_M2B5W5	D N F E K S E F V V K K T V G V Y N V S A P S A F L L G G K L I I L		
UniRef90_A0A017HV92	P R L A T P S E I V F S E V G C H G V S E G A A L L A A G E G G R L L T		
UniRef90_A3Y662	R L L S T H S D Y V V F N T V G V Y G V C E R A A M A C R D N G R L V V		
UniRef90_UP100047665C0	K I E Q P S D T V V Y K Y T G A H G V S E P A V H L L S R L Y T R A D E L V L		
UniRef90_UP100037BE6EF	H I L Y E K S Q W V V Q N V G V H S V A E P V A H L L S N G N L I I I		
UniRef90_UP10003B31514	P R L K N P S D I V F A R V G C H G V A E S A A L L A A C G R N A E L A V		
UniRef90_R6NJJ2	P G T F D T S A F V V A R Q V G V D N V C E R A A M A C R D N G R L V V		
UniRef90_D4J6T6	U R R L K N P S D V V F E E V G C H G V S E G A A L A A V G Q D G E L L V L		
UniRef90_E2CF41	K A F E S S E F V R K T I G V G A V S G P C S F L A S G R G K L I I L		
UniRef90_UP10004786D1E	P G D F Q E S E F V V R K T T G T G N V C E R S A V V A A C L G V R A S E C R I I I		
UniRef90_D7GPA8	G D F T S S P F V V E Q V T G V D N V C E R A A L A S D G T L L R		
UniRef90_F4XEY2	P G E F T P S P F V V K K T I G V D N V C E R S A V V L L A S G N G R L L Q		
UniRef90_R7CMV8	G L K P A P A V L K A T G A G G V S E P A A L L S S G N Q Q L M I		
UniRef90_D6Z407			

130

UniRef90_I2JP99	S K Q K N A K A T C A	A R A Y P K
UniRef90_B7KC23	P K Q I S G A V T V A	A Q S E I E
UniRef90_C4Z7Q2	G K T A D N G I T V A	V Y K M
UniRef90_W6K5M9	E K T K T A N A T C A	A R I G T
UniRef90_C0D1C2	G K Q A A N G V T V A	L A
UniRef90_F3LGK5	S K Q K N T K A T C A	A R A
UniRef90_X7E6Q4	N K I K N A K A T C A	A R
UniRef90_I3IGK4	T K Q K Y P G V T I A	I A R E N F
UniRef90_B4W2J2	K K Q I V G A V T V A	I A V A E Q E
UniRef90_W0EB70	P K Q K Q S G V T V A	I
UniRef90_A3IT50	N K Q I H E A V T I A	I A Q S E L E
UniRef90_S0J6U1	K K T A E H G M T L A	L A E
UniRef90_U2YHW4	P K R K S A N A T C A	L A I A P
UniRef90_W4EC68	P K L K S G N V T I A	V A R I
UniRef90_W2BQE1	D K Q K T P N V T V A	V A R L K P
UniRef90_K9W5C8	T K Q I F G A V T V A	I A Q A E Q E
UniRef90_K2MPV1	S K Q K S K R A T C A	I G
UniRef90_C0GDW8	T K Q K M E G I T V A	V A E
UniRef90_K6B8A2	E R Q K S T H A T F A	L A T S P
UniRef90_E0UB60	P K Q I M G A V T I A	I A Q S D L E
UniRef90_A9BCK7	E K Q I F G A T I A	I A E
UniRef90_UPI0004732530	E K R K S G A V T I A	I A E
UniRef90_B9R106	E K Q K T A N A T C A	I T R A
UniRef90_N1ZNG0	S K R A K N G V T V A	L A
UniRef90_F5YLB9	P K T A F E G V T L A	V
UniRef90_UPI000374B9B3	K K K K S G N A T I A	I A K V H Y D
UniRef90_D8F453	P K T K S P N V T L A	V A L A
UniRef90_C8W688	P K T K Q N G V T I A	I A E
UniRef90_UPI00046476EB	R K E T F E D M T L A	V V Q M E
UniRef90_D5WT74	D K I V S G N V T L S	V A R K A F
UniRef90_F8B4E8	P K Q V S A H A T V A	V A R
UniRef90_M6DSZ9	T K Q K Y K N L T V A	I A R I P F
UniRef90_UPI0003B37302	R K Y V F P G V T M A	L A E Q P F
UniRef90_W9H8X8	P K R K S A R A T C A	I G L A P
UniRef90_F4XTE7	P K Q I V G A V T V A	I A Q S P V E
UniRef90_UPI000471A4AB	E K K K S G N L T L S	I A R I P F
UniRef90_F0SZ42	P K R V Q N G V T L A	V A Q
UniRef90_KONQU0	P K K K N K D V T I A	V A
UniRef90_UPI00040352A1	T K H K S R G A T C A	V A R A I
UniRef90_A3JV0	E K T K T A N A T C A	L A R I S Q D
UniRef90_R4KLN7	A K Q K Y Q G I T V A	L A E
UniRef90_M9SKL8	R K Y A G D G V T V A	I A R
UniRef90_M4YM04	R K F A G E G V T A A	I A E E E F
UniRef90_A2BYQ0	E K K K F G A V T I A	V A R
UniRef90_G2FZQ2	P K I K G Q G V T V A	I
UniRef90_UPI000248C559	V K K K S G N V T I S	V G L L A F G K
UniRef90_R7FY26	R K Q A E N G V T A A	F A R V K F E
UniRef90_A1AU03	Q K V K S P N V T L A	V I A E I P
UniRef90_M1WW62	E K T K T K T V T L A	V A R
UniRef90_UPI00046563C7	G K Q A R D G V T V A	I A R
UniRef90_H4F5R1	E K I K S K G A T A A	I A R A
UniRef90_F0YXJ0	S K I K L D G I T Y A	V I K E N T K
UniRef90_V6I4Z7	P K Q K Y K N L T V A	I S R I P F
UniRef90_D8PF10	S K Q R Y R S M T L A	V A R I P F P K
UniRef90_T2JB68	T K Q K S D N V T V A	I A Q S Q L E
UniRef90_D3LSL0	R K Q R Y K G I T I A	I G Q E N F
UniRef90_W7V0Z1	H K R A R E G V T V A	A A E I P
UniRef90_A9D3E3	P K H K Y K N M T L A	V C R R D F
UniRef90_U1W9I8	T K R K S G N V T I S	V G V L A
UniRef90_L0F401	P K L K L N G V T V A	I S K
UniRef90_J5GHV8	G K T A K D G I T L A	I G R
UniRef90_M3G2P3	T K Q K Y K N L T I A	V S R I P H P K
UniRef90_U2PV55	K K V K L G E V T I S	I
UniRef90_UPI00037C0092	A K T A S A M A T V A	V A R I T P
UniRef90_H2JDF9	P K C S W D G I T A A	L S K
UniRef90_D3EP06	S K I K F N N V T I A	I A Q S D I E
UniRef90_T3D8S0	E K H K Y K G I T F S	V G R I
UniRef90_K9WC63	P K Q I F G A V T V A	I A Q S E R E
UniRef90_K4LC18	R K V S G N G V T I A	L A Q
UniRef90_F2JUV0	P K I K N A K A T C A	L A R A N T E K
UniRef90_UPI00041B99FB	S R Q K N A Q A T F A	L A S S P
UniRef90_K8DYN3	A K Q K L G P V T V A	I A E A
UniRef90_C5EU34	G K E A G G G V T V A	A A V E P F K
UniRef90_W6RSS9	N K I K R D G I T L A	I G R V I
UniRef90_I4D6G3	P K T K G Q G V T V A	I S I A N
UniRef90_K9T4G1	P K Q I V G A V T V A	I A L S E L E
UniRef90_Q3AUT3	S K R I H G A V T I A	I A E
UniRef90_S2YCF7	R K T A V D G V T A A	L A
UniRef90_M2B5W5	D K F K H E G V T V S	V A E
UniRef90_A0A017HV92	A K R K S R N A T C A	L A V A A
UniRef90_A3Y662	P K Q K N A K A T C A	I A R
UniRef90_UPI00047665C0	V K K K S G N T T I S	V G V I E F
UniRef90_UPI00037BE6EF	E K H K Y N G I T F S	V G R V N I
UniRef90_UPI0003B31514	P K I K S A H A T A A	I A R M R L Q K
UniRef90_R6NJN2	Q K R A E N G M T L A	I A K
UniRef90_D4J6T6	R K E I M P G I T L A	A A
UniRef90_E2CF41	E K Q K T T N A T C A	I A R A
UniRef90_UPI0004786D1E	E K H R N K G I T I S	I A E M
UniRef90_D7GPA8	H K E A E D G V T V A	A A A
UniRef90_F4XEY2	K K T A K D G V T V A	V A L A
UniRef90_R7CMV8	R K T G E N G V T T A V	V A R I H F E
UniRef90_D6Z407	R K Q K W R N V T L A	L A R A N F



50 60 70 80

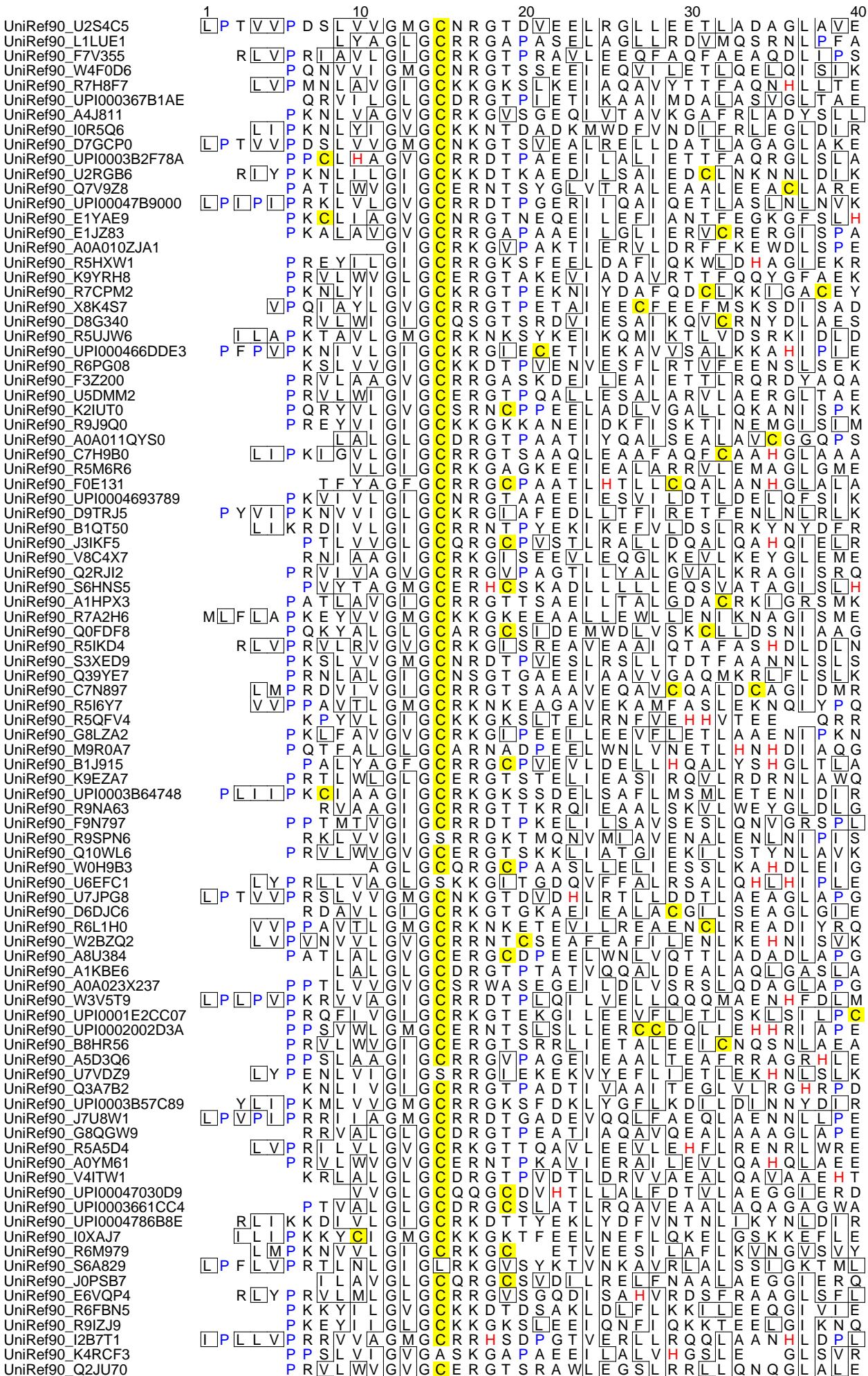
UniRef90_UPI00047E03FC	S K Q L G S I D K H D E K A I D L A S N L G I E F T T I C A K E I S K V D	
UniRef90_R9T4X7	S V K S A A S I D L K M N E P G I L N F C K K Y G L E S E F F S K E E E L E C V E	
UniRef90_UPI0003B36E31	S L V S I A T T E I K K D E K G G L R L S E T L G V P I K F Y D K T S L N S V E	
UniRef90_E3HDD0	S I R I F A T V D L K G D E K G L L E T V K H Y G R E L T V I S R D K I L P I E	
UniRef90_UPI00028902D0	R V A V V V S L D D L K A D E P A V H A V A K N L E C F A R F F D A A T L E A L T	
UniRef90_R7APX8	N I C A L A S I D I K A D E A G L L E A A Q V M R V P F V V F T A E E L R K V V T	
UniRef90_K8GIL2	A I A G I A T L D L K K D E P G F L E F V K K Y G L D F L T Y P K E V L K E V	
UniRef90_D4KQ84	A V T A L A T I D L K K D E P G F L E F V K K Y G L D F L T Y P K E V L K E V	
UniRef90_R8W575	A I R R V A S I D I K Q D E L G L C M F C K Q H N L P F V T Y S A P A L A Q A	
UniRef90_UPI0002FC93C5	D V R A L A S L D I K Q N E P G L I Q L A A H L S L P L A V F R A D Q L M A Y E	
UniRef90_A8G725	S I A G F A T I D I K K D E K G L L E L E Q C Q E R H L P L R C Y S A D D L S K I L A V K	
UniRef90_R7PLN8	A V K A L S T I D I K A G E A G V S Q L A G R Y G W E L R T F T A G E L N S V A	
UniRef90_E8LBM3	S V V A I A S V D L K K D E Q G L L A F A K K Y N F A A N F Y S A D E L N S V A	
UniRef90_W0FGI4	E L R A L G S I D I K K D E P G L A A L S Q K L G L P C V T Y S A E E L K A A S	
UniRef90_14CF43	D V R R L A S A D L K K D E P G L T D A A R T L G I P L R F V S S Q E L N D S	
UniRef90_R5TMR7	S I C K I A S I D I D L K T H E R A I C Q L A E T W K V P F V T F S A E T L Q M	
UniRef90_E3IEZ9	S V K A V C T I A L K K D E P G L L E V V R K Y G W E F I Y Y T P E E L N N V N	
UniRef90_R5DNA3	N V N C V A S I N K K A D E K G I I E L A E E L Q A D F I T Y T A D E L M E V E	
UniRef90_K6TJS6	R L D A L A T A D V K K N E K G I I D A A S K S G L P L E I V Q L N E I A D F K K	
UniRef90_F6D6H5	R L D C A T A E M M K K D E A G I I D L A S E L G I S L K I I P K K V L K E F K	
UniRef90_F5LAZ7	S V K A L C T I D L K K D E P G L L A V V E K Y G W E F A T Y S P Q T L K N S V	
UniRef90_W4LL55	S I T A L A S L D L K K D E A A I I V D L A Q Q H G W Q T F F Y S A E E L A H V	
UniRef90_I6Y664	S V V A A L T S V D A K A R E G G L I I R L A K H L G V P F V C Y E A A E L A G L E	
UniRef90_UPI0004745E96	S V K A I C T I D L K K D E E G G L L Q V N E R V N E F C T Y T A K E L S K V D E	
UniRef90_UPI00046476D7	S I A K V G S I E I K K D E K A I N D L A K H L E V P F D T F S S E D I S K V D E	
UniRef90_R7ILH5	Q V Y A L A S I D I K K E E Q G F L S W S R K E K V P F Y T Y S A V E L L R I E Q E	
UniRef90_S0FWY5	E V G A M A S I D I K K D E K A L I I M L A K H L K I P F Y T Y S A R E L S E V Q E	
UniRef90_F5UCY4	A I A G I A T I D T K K D E K G E V G G L L E L C Q E R N W P L K T F A A D I L S S V E	
UniRef90_G0VQT7	A I A D V S S S D D V K R G E A G G L L A F A K A Q Q W P L H F F T A D E L N A V E	
UniRef90_D0GL67	S I K T A A S A W V K A D E T G G L L E A M E E L N P I K F F D K E E I L K V E	
UniRef90_UPI0003646BC1	A V S H L A T V T A K A D E A G G L L Q V A A R R G W P L V V H T A E E E L A G V T	
UniRef90_D6ST58	S I N L L A T I R E K T G E P G G L L Q L S K H L Q R P L I G I T R H I L D L V	
UniRef90_Q2S8A6	S I Q T L A S I D I K K D E A G G L L E L A R R R G W M Y Q T W S P T H L S A F E	
UniRef90_B7VKN8	S V S A F A S I A L K K D E K G I I E L S S E S Q I P F H T Y S A E Q L D G V E	
UniRef90_S6HGT2	Q I S A I A S I D I K H D E V G G L I I A L A K D L N I I P F Y C Y E V A L L K T V E	
UniRef90_R7R7H4	S L L A I A S I D I L K K D E K E E P C M I I S R K Y Q I P F H T Y D A H T L S Q V R E	
UniRef90_UPI000419C937	G I K A I G T I E V D L K K D E I G I E A C N H F N C P L K I F T L E E I N S V A T	
UniRef90_A5GDT1	S L K C I A S A S A K R D E A G G L L Q F A G K Y S V P I R F F E S E E I N S V A T	
UniRef90_C0QFF3	S I F T I G T T E V D L K K D E Q G G L L S L A H T L G R D I K F Y D K P T T N S V T	
UniRef90_R6G2U0	Q I I L A A S I D I L K K D E K H D E V G G L I I A L A K D L N I I P F Y C Y E V A L L K T V E	
UniRef90_B0C1C5	A I A G V A T I D L K K D E K A D E V G G L L D C Q Q A N W P L K C Y S P E D I K A V A T	
UniRef90_T0FB61	S V R A I A S I D I D R K H D E Q A F L I I E A C N H F N C P L K I F T L E E I D R A T	
UniRef90_R618X6	T I V G V A S V D D L K K D E A G G L L N F A A K Y N W E I I S F F T A E E L Q N A A D	
UniRef90_UPI00046D58F9	S V S E S I A T V T A K S D E D G G L L T A A A E R G W P V R C H T P E E I K A Q D E	
UniRef90_Q2CAA1	A I H A V S S V D D L K K D E P A V V I I A A Q A L N C P F K T F N R E K I K T V E	
UniRef90_G7M097	A V V A I A S I D I K K D E K A N E E G I V K L A Q K L N C P F K T F N R E K I K T V E	
UniRef90_Q3AE17	G V A G I A S I D I D L K K D E T A L L E E L A A K Y G L K T K F F T R E E I L E V N	
UniRef90_F7KC04	R I A R L A S V S S V D D L K K D E P G G L L Q F E E A L A R R F N W P V R P F L T Y T P E E I L E R V	
UniRef90_R5X3R3	A I K A I G S I E I K K D E Q A I I D L A N Y L G V P F K I F T V T V E I A Q V D	
UniRef90_S9RTH2	A L K A I Y T T D L K K D E K A D E P A V V H A L S R A L D P V R V F D A A A L E A E T	
UniRef90_C6E675	S V K C L A T A R A K E D E E G G L L L A F A A R L G V P L I F F D N E E I L N G V A E	
UniRef90_I7J5Q9	S I K S I G T L D I D K K D E E G G L L L R F A K E K K L P V I F F S R E E I K K V E	
UniRef90_R5NK82	A L H S I A S I D I D L K K D E K E E P G G L L S L A E S W H L L F E T F T E E E I L K T V K E	
UniRef90_R5QWY9	G I R K M T S I D I D L K K D E E G G L L T E F S Q K W N L P F E T F T S E E Q L Q K A E	
UniRef90_UPI00031D321F	S V A Q L A T I D I K Q G G D L A L R T F A T S H G W P V V Y F S A K E N T V V	
UniRef90_B2A0F8	S I R A L A S V D D K K S C E V G G L L Q A A R Y L N I I N S Y F Y S T Q V L K E N	
UniRef90_UPI000470F902	S I A G F A T I D I D K K N N E K G I I E L V K E K N L P L K F F S K E D I S K M	
UniRef90_K9X9D1	A I A G F A T I D I D K K D E K A D E V G G L L C R D R N F P L Q T F S A D D V L R S V T	
UniRef90_I8J3Y5	S V K G I A T I N L K S D E Q G G L L D T V A R F N W D F T C Y T P E Q L N E V T	
UniRef90_UPI00041F2B99	S V K A I C T I D I D K K D E E G G L L E I V G K H G W E F V Y Y S P D Q L N G	
UniRef90_R7QXX5	D V A G I F S I D I D R K K D E A G I V G W A A H Q A V P Y H T F S A E V L K Q O S	
UniRef90_K6W516	S V A A L T T D L K K D E K A D E G G L L Q Q L A R A L G S L E H H P A E R L A A Q D	
UniRef90_UPI0002E09AD4	S I A G L A T V D D I D K K D E K A D E V G G L L D I S N A K N W P I K F F K N E E L H T V D	
UniRef90_D3E2H9	S L N A I A S I D I D K K D E K A N E K G I I E F A R K Y N P F N T Y S A E E L R E V N	
UniRef90_G9YES5	A I K D F N T I D I K K D E A G G L L E A A E S F G V P L R L Y S A E E L R E V N	
UniRef90_Q4ZS19	R V T A L A S I D I D K K D E E G G L L E L A G Q L A V P L V C Y F N A A Q L V A W E	
UniRef90_Q7TU33	S I A G F A T V D D L K K D E K A I I E I S K E K N L P I K F F T S E E E L S S I N	
UniRef90_A3VZC3	A V A C V A S I D I D L K K D E G A M N V V A R R L G V P F R L F S A V E V L E G Y A	
UniRef90_K9D504	UniRef90_E477K9	S V A A A A S I V V D D L K K D E P G G L L D T V A R F N W D F T C Y T P E Q L N E V T
UniRef90_UPI00046FD8A1	S V G G I F S I D I D K K D E H A V H E V A R Y F G V T A R F F D A K T L E A E K R	
UniRef90_S7UTZ5	S V S T L A S V D D L K K D E T G G L L I A L G E S G L G I P L V F F D R E A L L G R V R	
UniRef90_R5IFK1	A V K A I A S I D I D V D V K Q D E P A V V L G C L H Q P C E Q R F Y T P E Q L N Q V	
UniRef90_F3PUD0	A I A S I S T I D A D K K N E P V V K A L K R K Y N P V F R Y T A E E L S R I V	
UniRef90_R6HLW1	C V K G S I A S V D D L K K D E A G G L L A F A K H N V P V K F Y T A A E L Q Q A K V	
UniRef90_A5UMP4	R L S K L A S G E I K K D E E T G G L L D L S K M L N I P V N F V E M D K L T L F K	
UniRef90_H1CYL9	Q V A S L A S V D D L K K D E K A D E G G L L D F A M H H H L P I H Y K A E E L R K V T S	
UniRef90_UPI0002D37A6A	A I A G I A T I D I D K K D E V G G L L V E L C Q E R H P W L K T F A A D D V L R T V S	
UniRef90_J2Y8Z5	Q V Q A L A S I D I D L K K D E P G G L L L E L A S Q L A P L C I F S V E Q L S A Y Q	
UniRef90_K0B2U6	S I V N K I G T I D I D K K D E E G G L L E I T S K E L N C S M E V F T K K D I E K V Q	
UniRef90_A5UQU1	C V G A G A T A D I D K K D E P G G L L V E I A G R L N V P L H V V S R S E I T A L D	
UniRef90_Q53WA5	S L R V L A T A E E L K K D E A G G L L D L A A E L G V P L I T Y P A E V L N A V	
UniRef90_UPI0003B788C7	S V V A A I T S V D D L K K D E A G G L L E L A A R H G W V L T F H P P A E V L G V	
UniRef90_H0PVZ0	D V R A V A S I D I D K K D E A G G L L E L A A R H G W V L T F H P P A E V L G V	
UniRef90_UPI0003454309	A I A G I A T I D T K K D E A G G L L V E L C R L Y H W C L K T F P A E V L S T I S	
UniRef90_T2GAU0	S L L G L A S I E A K K D E P G G L L R L A E A L G V P V F Y P A A D L A G V	
UniRef90_UPI00047C68D9	A V A T L V S V D D L K K D E A G G L L Q Q A A Q S L G L P V R V F D P V A E T E A E T E	
UniRef90_S2Y129	S V V A A I T V D D L K K D E A G G L L V E A A A R L G V P V L T Y P A E E L A E I E	
UniRef90_R6R024	A L G L A S I D I D K K D E E R G L L G F C R E K A P F Q T F T A K E L M Q A E V	
UniRef90_B1WSU7	A I A G I A T I D I D K K D E V G G L L V Q Y C Q E K Q Y P L L T Y S A D L N T I N Q	
UniRef90_E3GJF5	S V K A F A T I G L K K D E A G G L L V H A A C K T F D A E L K V V P D D F V K M V Q	
UniRef90_A3TVG9	A I S A V H S I D I D K K D E P G G L L R L A E T L G L P F R L F S A E L V E A T E	

90 100 110 120

UniRef90_UPI00047E03FC	Y L F D K S E F V K K N V G V Y C V A E P V A H I L S	N G N L I I
UniRef90_R9T4X7	G D F S E S P F V K S I T G V G N V C E R A A L K A S A	D G K L I Q
UniRef90_UPI0003B36E31	T I E N P S K M V E K H L G V K S V C E A A A I L A A A	N N G K L I V
UniRef90_E3HDDO	D N F E G S D F V K K S I G V K S V C E A P C A F L A S E	S K G K F I T
UniRef90_UPI00028902D0	P K L K N P S E I V F Q E V G C H G V A E G A A L A A V	G D S G I L L V
UniRef90_R7APX8	P G D Y T P S Q F V E N T T G V D N V C E R A A V V A A S	G G G R L A V
UniRef90_K8GIL2	P V P N P S Q I V E A K V G T P S V A E A A A I L A S Q S L N A P I S P L R V	
UniRef90_D4KQ84	P G T F S G S A F V S Q T V G V D N V C E R A A L A A C R K E D K E K G R L L L	
UniRef90_R8W575	P G S F T T S N F V Q K T V G V D N V C E R S A V L S S C	G G T I L L R
UniRef90_UPI0002FC93C5	P R L S H R S A I A F E H S G C W G V A E S A A L A M A E Q L G N E P A R L L L	
UniRef90_A8G725	I V P N P S I L V Q K S I G S P S V A E A S C L L A A	G E E S K L L E
UniRef90_R7PLN8	G E F E E S E F V R T A V G V G N C E R S A V K D S K	C T A G G G I L L L
UniRef90_E8LBM3	G D F T P S A F V Q S V V G V S N C E R S A V K D S K	G G R L L L L
UniRef90_W0FGI4	P G D F T P S A F V Q E V T G V D S V C E R A A V L A S	G G T L A V
UniRef90_I4CF43	P R V F E E S D F V R E K V D L P A V A E P C A L L A	G R R T T L L L I
UniRef90_R5TMR7	P G A Y A L S D F V K Q T T G V G N C E R A A V A A L E E Q K R K N P K W I C	
UniRef90_E3IEZ9	I E Q P S E T V Y R Y T G A Y V S E P A A K L Y S G A E K L E L	
UniRef90_R5DNA3	G E F E P S M T V Y N H V G A D N V C G R S A C R A S C	D G E C L V
UniRef90_K6TJS6	H S D C T P S Q L V Q R K F G V Q G V C E P V S L L	R A G V N S R L L I L
UniRef90_F6D6H5	H P D C T S K S D F V M E K F G V P G C E P S A L I A A	G T N S Q L I Y
UniRef90_F5LAZ7	P T E Q P S E A V Y K Y T G A Y V S E P A V K V Y T G V N Q L D L	
UniRef90_W4LL55	P G V K R P S E V V E A C V G T P G V S E P A A L K A A A	T D Q L L L V
UniRef90_I6Y664	V P T P S E V V A S E V G T P S V S E A S V I	R R G A E L I V
UniRef90_UPI0004745E96	M H I E E P S E T V Y K Y T G A Y S V S E A A A K R Y L Q S N S	L V L
UniRef90_UPI00046476D7	E L L Y E R S E F V K R N V G V Y V S V E P V A H L M S	D G N L L I L
UniRef90_R7ILH5	G E F H G S E F V K K Q T G V D N V C E R A A L R A C A G K G K L L Q	
UniRef90_S0FWY5	G S F S Q S D F V R E T T G V D N V C E R A A V K A G N G R L T A	
UniRef90_F5UCY4	V P P N P S N I A A K A V G T P S V A E A A A L C A V E N L T A D E G E L L V V	
UniRef90_G0VQT7	P G D F T A S D F V K E R V G T D N V C E R A A V L A S H Q	G T L L I V
UniRef90_D0GL67	D L I E D R S N Y V K Q T I G V Y G V S E P C A F L A S S G K G K F L V	
UniRef90_UPI0003646BC1	V P H P S E V V R A A V G T P S V A E A A A C L L S A S A G A G T A A E L V V	
UniRef90_D6ST58	P D V P N P S L M V Q R H M G V K S V C E A A A I M A A D K G T L M V	
UniRef90_Q2S8A6	G Q L T Q K S D I V F R E T G V Y G V S E A A A A L A S A A Q L S G A P A E L L A L	
UniRef90_B7VKN8	G I I E N P S E Y V K K I T G V S S V S E A A A A L K H A K R D Q L L V	
UniRef90_S6HGT2	Q Q L Q T P S E Y Y V Y K T V G V Y G V A E S A A L I S A E R C V A Q G A E L L L	
UniRef90_R7R7H4	G Q F S S S A Y V K T V T G V D N V C E R A A L A C S G A D T L T L	
UniRef90_UPI000419C937	D Q F P K S Q F V K K T I G V Y V S V E P S A Y I L L G G K M L T	
UniRef90_A5GDT1	A P S P P S S H S I K A I G A V G V A E P A A L L A S G G G T M L L	
UniRef90_C0QFF3	T I E N P S K M V E K H L G V K S V C E A A A I L A S N N G N L I V	
UniRef90_R6G2U0	G T F T P S A F V S K I T G V D N V C E R S A S L A G D G G A F I M	
UniRef90_B0C1C5	V P T P S D V V K A E V G T P S V A E A A A A L K A A Q Q F T L L A	
UniRef90_T0FB61	G I V S P S A M A T K H V E T R S V C E A A A L L G A G T D F L I I V	
UniRef90_R6I8X6	G E F S S S D F V K S V V G V S N V C E R S A V L L A A N N G S I I S	
UniRef90_UPI00046D58F9	V P H P S T V V E N A V G T P S V S E A A A L C H G D E L I V	
UniRef90_Q2CAA1	P R L A T P S E V V F A E V G C H G V S E A A A A L Q A G P E A E L A V	
UniRef90_G7M097	D N Y D K S E F V F K T L G V T G V C E P C V E L E A G A K V I I	
UniRef90_Q3AE17	K K N L Q Q S S K V L T K V G V G N V C E A A A I K K A G M G N L I L	
UniRef90_F7FKC04	P G T F H G S S F V E K T V G V D N V C E R A A V L L G S G G E L L V	
UniRef90_R5X3R3	Y L Y S K S E W V V K N V G V Y S V A E P C A H L L S E G S G G E L L V	
UniRef90_S9RTH2	P R L Q N P S D V V F A E V G T H G V S E A A A A L A G A G N M I I	
UniRef90_C6E675	V P S P P S A H A M A A I G A R G V A E P A A L L A S G D K A T L L I A	
UniRef90_I7J5Q9	E N F P K S P W V Y R N F G I Y S V A E P C A Y I L L S G G G T L L I L	
UniRef90_R5NK82	G E F T P S K F V K K I T G V D N V C E R S A V L L A S G Q G T L I R	
UniRef90_R5QWY9	G D F S A S V F V S K I T G V D N V C E R S A I L G S I G G V L L I	
UniRef90_UPI00031D321F	L H Q A T H N P H V F H V T G A M A V A E P A A I L A A Q G D D L I V	
UniRef90_B2A0F8	M N S S R E S E F V T K Q M G V G G I C E P A A R T L A G T E E L L M	
UniRef90_UPI000470F902	I V P N P S N V Q N E I G A P S V A E A S C L I A A G E E S K L L E	
UniRef90_K9X9D1	V P N P S K I V D A E V G T P S V A E A A A L C A A K A Q N L L V	
UniRef90_I8J3Y5	I E D P S Q T V Y K Y T G A Y G V S E P A A K L A S G A S A L E L	
UniRef90_UPI00041F2B99	A K I L E A P S D T V Y K Y T G A Y G V S E P A V R L Y T G A E Q L A L	
UniRef90_R7QXX5	G A F A S D D F V K K T V G V D N V C E R S A L A G C E S Y G G G E L I L	
UniRef90_K6W516	V P T P S A V V D G H V G P S V S E V S V L A H G A A L V V	
UniRef90_UPI0002E09AD4	V P N P S N I V F K E I G T F S V A E A A S L L A C G N E G G H L L I	
UniRef90_D3E2H9	G D F T K S E F V K S V V E V D N V C E R S A V I E S N G N L I R	
UniRef90_G9YES5	G N F T T S D F V R Q N V G V D N V C E R A A L A G A V T G K L I V	
UniRef90_Q4ZS19	L H L T H R S A Q V F Q S T G C H G V A E G S A L A A Q L G D G T A T L L I	
UniRef90_Q7TU33	T P N P S N V V L N E I G T P S V A E A S C C M I A A G Q G S K L L K	
UniRef90_A3VZC3	G Q L A T P S E V V F A E V G C H G V S E G A A L L A C G G Q L V V	
UniRef90_K9D504	A S H I E E S N F V K Q T I G V G N V C E T T A L Q A K S Q T L L Q	
UniRef90_E477K9	Q N F T S S A F V K S Q V G V S G V C E P A A F I A A G R A G E F I S	
UniRef90_UPI00046FD8A1	D R L I N P S S V V F S E V G C H G V S E G A A L A A A G R T G M L I I	
UniRef90_S7UTZ5	T I I A T P S A M V E K H I G V K S V C E A A A I L A A R N G A L I V	
UniRef90_R5IFK1	P G D F K E S A F V K K Q I G V G N V C E R S A C A A G G K L L V	
UniRef90_F3PUD0	H V P H P S K T V M K H M G T P S V S E A A A L L S A G R G L L M	
UniRef90_R6HLW1	G D F T P S A F V K S I A G V D N V C E R S A V L L A S G G C L K L	
UniRef90_A5UMP4	S E D I H E S E F V K S K F G V G S V S E A S A L I T A G F D S K L I Y	
UniRef90_H1CYL9	E D F G L P S K F V E N T I G V G N V C Q S A A L M E S M K G K T L L	
UniRef90_UPI0002D37A6A	V P N P S Q V V E K E V G T P S V A E A A A L C A A D E V R L E V	
UniRef90_J2Y8Z5	E R L S H R S E I A F Q R T G C H G I A E S A S L A L A D Q M G A M P A T L L V	
UniRef90_K0B2U6	N K F N R S K F V E S K V G V T S V C E P C A Y I L L G S E M I I	
UniRef90_A5UQU1	A A R F S P S A A V T H F D L P G V A E P C A M I A G G G D L L V	
UniRef90_Q53WA5	Q R I P N P S E A V F R H T G L W G V A E A A V L A E G A R L L V	
UniRef90_UPI0003B788C7	Q K V P N P S D A P L A V V G T S S V A E A S V L A H G A H L V V	
UniRef90_H0PVZ0	V P N P S E T V R R Y T G T P S V S E A A A L L A A G T D L T Q L L V	
UniRef90_UPI0003454309	I P N P S P I I A K V T G T P S V A E A A A L C A G L D L S Q T S T Q L L V	
UniRef90_T2GAU0	P V P T P S A V V L A R M G V P S V A E A A A V R L A D A S S L I V	
UniRef90_UPI00047C68D9	P R L A N P S E V V L R E I G C H G V A E A A A L A A A G P Q G R L L V	
UniRef90_S2Y129	V P N P S G A P L A A V G T P S V A E A A A L A A R G G E L L V	
UniRef90_R6R024	G A F T S S A F V S R V T G A D N V C E R S A F L A A G D G G K L L I V	
UniRef90_B1WSU7	V P H P S E V V K Q K E V G T P S V A E A A A I Y G A N Y W T H E K S L L V	
UniRef90_E3GJF5	S R F E G S P F V F K T T G L Y A V S E P C G Y V A S G F G E C L L	
UniRef90_A3TVG9	P R L A T P S E V V F A E V G C H G V S E G A A L A G A G P E G V L V Q	

130

UniRef90_UPI00047E03FC E K H K Y R G I T I S V G R V
 UniRef90_R9T4X7 K K V A E N G V T V A L
 UniRef90_UPI0003B36E31 P K K K N R D V T L A V A
 UniRef90_E3HDD0 E K M R Q A G V T V S I
 UniRef90_UPI00028902D0 P K V K S G R A T C G I A E
 UniRef90_R7APX8 R K Q V G N G I T L A V A K
 UniRef90_K8GIL2 P K Q I F G A V T I A V A Q A A Q E
 UniRef90_D4KQ84 K K K A K D G M T L A I A E
 UniRef90_R8W575 K K T A R D G M T A A L A
 UniRef90_UPI0002FC93C5 T R Q K S S V A T F A L A
 UniRef90_A8G725 E K R I S G A V T I A V A E
 UniRef90_R7PLN8 H K R A G E G V T V A A A
 UniRef90_E8LBM3 R K T S L N G V T L A V A
 UniRef90_W0FGI4 R K V A K D G M T F A L A K
 UniRef90_I4CF43 R K Q I R N G V T V A V A R
 UniRef90_R5TMR7 R K Q A G N G V T V A L
 UniRef90_E3IEZ9 V K K K A G N V T I S V A L L
 UniRef90_R5DNA3 P K T V E N G V T V S V Y R
 UniRef90_K6TJS6 K K T V Y D G V T V A I A V S N F K
 UniRef90_F6D6H5 K K T A F N G V T V A V A
 UniRef90_F5LAZ7 V K K K S G N V T I S V G R L
 UniRef90_W4LL55 E K Q V D K R M T F A I A R L G T
 UniRef90_I6Y664 P K T K C P D A T C A I G R V P
 UniRef90_UPI0004745E96 V K K K S G N V T I S V G V L E H K E
 UniRef90_UPI00046476D7 N K H K Y S G I T F A L G R L
 UniRef90_R7ILH5 E K Q A E H G M T L A I A K
 UniRef90_S0FWY5 C K Y S R N G I T V A I A Q
 UniRef90_F5UCY4 P K Q I F R G V T V A V A V C P I E
 UniRef90_G0VQT7 T K Q S R R G I T V A V A
 UniRef90_D0GL67 K K I R L G G L T L S I
 UniRef90_UPI0003646BC1 A K Q V S A H A T V A V A R
 UniRef90_D6ST58 P K I K S G N V T V A V A
 UniRef90_Q2S8A6 P K H K N R R A T C A V A R
 UniRef90_B7VKN8 P K W K F K N M T L S C T R I E Y D E
 UniRef90_S6HGT2 A K Q K S K V A T C A I G R
 UniRef90_R7R7H4 H K T I D S G K T L A I A M A P I Q
 UniRef90_UPI000419C937 G K I K I D G I T I S V A K
 UniRef90_A5GDT1 K K V K S G N V T L A I A E C L I
 UniRef90_C0QFF3 P K M K Q G N V T L A V A R
 UniRef90_R6G2U0 R K Q A A E G V T A A
 UniRef90_B0C1C5 T K Q I F G A V T I A I A Q A E Q E
 UniRef90_T0FB61 P K R K Y K N L T V A V A R I P F
 UniRef90_R618X6 S K C S L N G V T L A V A E A D I
 UniRef90_UPI00046D58F9 P K Q R S A M A T V A V A R R L P
 UniRef90_Q2CAA1 A K R K T A N A T C A I A L A P
 UniRef90_G7M097 S K I K H N G M T L A I G V L E
 UniRef90_Q3AE17 P K K I F P K V S V A L A E A
 UniRef90_F7KC04 G K R A G S G V T I A I A R
 UniRef90_R5X3R3 E K Q K F K G I T F S A G R V N
 UniRef90_S9RTH2 P K H K T K N A T C A I A L A P Q
 UniRef90_C6E675 K K V K D G N V T L S I A Q
 UniRef90_I7J5Q9 N R K I D G V T V A V V S K
 UniRef90_R5NK82 K K T G R D G V T T A L A R I R F E
 UniRef90_R5QWY9 K K Q V R D G V T I A C A Q
 UniRef90_UPI00031D321F R K V K S E R V T M A V G L L N
 UniRef90_B2A0F8 K K L T H K G V T V A L A R A
 UniRef90_UPI000470F902 E K R I F K N V T I A V A E
 UniRef90_K9X9D1 A K Q I F G A V T V A I A L A E Q E
 UniRef90_I8J3Y5 V K K K S G N V T I S V G L I S H E
 UniRef90_UPI00041F2B99 V K K K S G N V T I S V G I I S F E
 UniRef90_R7QXX5 K K Q A R D G I T L A V A K I
 UniRef90_K6W516 P K Q K T G D A T C A I G R I P
 UniRef90_UPI0002E09AD4 E K N I F G A V T I A I A E S K Q Q
 UniRef90_D3E2H9 R K D T G A G V T V A L A M I N P
 UniRef90_G9YES5 R K Y I R D G V T V A V A
 UniRef90_Q4ZS19 E R Q K S A Q A T F A L A
 UniRef90_Q7TU33 E K K I F G A V T I A V S E
 UniRef90_A3VZC3 E K R K T A N A T C A L S R
 UniRef90_K9D504 K K T V Y P R T T V A I A Q V
 UniRef90_E477K9 R K K S K E G I T V A I
 UniRef90_UPI00046FD8A1 P K V K S K R A T M A A A
 UniRef90_S7UTZ5 P K Q I T P N V T A A V A R
 UniRef90_R5IFK1 E K Q A G D G I T L A A A
 UniRef90_F3PUD0 P K K K G T N Y T V A A A
 UniRef90_R6HLW1 R K T A H D G V T L A V A E E P L
 UniRef90_A5UMP4 K K T A F D G V T I A L A
 UniRef90_H1CYL9 P K T K F A S A T V A I A
 UniRef90_UPI0002D37A6A P K Q I F G A V T I A V A E A E K E
 UniRef90_J2Y8Z5 T R Q K A L K V T L A L A Q V
 UniRef90_K0B2U6 S K K I F N G I T I A V V S R
 UniRef90_A5UQU1 P K R A F R R C T V A V A
 UniRef90_Q53WA5 E K T K R G N L T L A L G
 UniRef90_UPI0003B788C7 D K Q R T R E A T C A I G R I P P
 UniRef90_H0PVZ0 E K H K I R G A T V S V A R M P
 UniRef90_UPI0003454309 P K T I F G T V T V A V A K I
 UniRef90_T2GAU0 P K Q I G P G M T C A V A
 UniRef90_UPI00047C68D9 E K H K S R R A T C A V A E A P
 UniRef90_S2Y129 P K R K S A R A T C A V V R R P
 UniRef90_R6R024 G R Q A G N G V T A A L A R I R F E
 UniRef90_B1WSU7 T K E I T E A V T I A I A Q S E L D
 UniRef90_E3GJF5 E K Q K C G G I T L S V W K M
 UniRef90_A3TVG9 P K R K S A N A T C A L A V S P



UniRef90_U2S4C5
 UniRef90_L1LUE1
 UniRef90_F7V355
 UniRef90_W4F0D6
 UniRef90_R7H8F7
 UniRef90_UP1000367B1AE
 UniRef90_A4J811
 UniRef90_I0R5Q6
 UniRef90_D7GCP0
 UniRef90_UP10003B2F78A
 UniRef90_U2RGB6
 UniRef90_Q7V9Z8
 UniRef90_UP100047B9000
 UniRef90_E1YAE9
 UniRef90_E1JZ83
 UniRef90_A0A010ZJA1
 UniRef90_R5HXW1
 UniRef90_K9YRH8
 UniRef90_R7CPM2
 UniRef90_X8K4S7
 UniRef90_D8G340
 UniRef90_R5UJW6
 UniRef90_UP1000466DDE3
 UniRef90_R6PG08
 UniRef90_F3Z200
 UniRef90_U5DMM2
 UniRef90_K2IUT0
 UniRef90_R9J9Q0
 UniRef90_A0A011QYS0
 UniRef90_C7H9B0
 UniRef90_R5M6R6
 UniRef90_F0E131
 UniRef90_UP10004693789
 UniRef90_D9TRJ5
 UniRef90_B1QT50
 UniRef90_33IKF5
 UniRef90_V8C4X7
 UniRef90_Q2RJI2
 UniRef90_S6HNS5
 UniRef90_A1HPX3
 UniRef90_R7A2H6
 UniRef90_Q0FD8
 UniRef90_R5IKD4
 UniRef90_S3XED9
 UniRef90_Q39YE7
 UniRef90_C7N897
 UniRef90_R516Y7
 UniRef90_R5QFV4
 UniRef90_G8LZ2
 UniRef90_M9R0A7
 UniRef90_B1J915
 UniRef90_K9EZA7
 UniRef90_UP10003B64748
 UniRef90_R9NA63
 UniRef90_F9N797
 UniRef90_R9SPN6
 UniRef90_Q10WL6
 UniRef90_W0H9B3
 UniRef90_U6EFC1
 UniRef90_U7JPG8
 UniRef90_D6DJC6
 UniRef90_R6L1H0
 UniRef90_W2BZQ2
 UniRef90_A8U384
 UniRef90_A1KBE6
 UniRef90_A0A023X237
 UniRef90_W3V5T9
 UniRef90_UP10001E2CC07
 UniRef90_UP10002002D3A
 UniRef90_B8HR56
 UniRef90_A5D3Q6
 UniRef90_U7VDZ9
 UniRef90_Q3A7B2
 UniRef90_UP10003B57C89
 UniRef90_J7U8W1
 UniRef90_G8QGW9
 UniRef90_R5A5D4
 UniRef90_A0Y6M1
 UniRef90_V4ITW1
 UniRef90_UP100047030D9
 UniRef90_UP10003661CC4
 UniRef90_UP10004786B8E
 UniRef90_I0XAJ7
 UniRef90_R6M979
 UniRef90_S6A829
 UniRef90_J0PSB7
 UniRef90_E6VQP4
 UniRef90_R6FBN5
 UniRef90_R9IJZ9
 UniRef90_12B7T1
 UniRef90_K4RCF3
 UniRef90_Q2JU70

50 60 70 80

S | V | A | A | L | C | S | A | D | V | K | V | G | E | R | G | I | R | L | A | A | E | L | G | V | P | Y | R | V | F | D | A | A | T | L | D | A | Q | D |
 A | L | V | G | L | A | S | I | D | L | K | R | Q | E | P | G | L | L | Q | L | A | A | D | L | G | L | P | L | H | F | F | S | A | V | Q | L | A | A | F | T |
 A | I | V | R | A | S | I | D | L | K | K | A | G | E | P | G | L | L | E | F | C | G | A | H | G | W | P | L | Q | T | Y | T | A | E | E | L | A | G | A | P |
 S | V | K | A | L | C | T | I | D | L | K | K | D | E | Q | G | F | L | Q | T | V | A | K | Y | G | W | D | F | K | Y | Y | T | P | T | E | L | N | I | A | T |
 R | I | G | V | I | A | S | I | D | R | K | A | Q | E | Q | G | I | I | S | F | A | K | Q | M | K | V | P | Y | R | T | Y | A | A | Q | E | L | E | Q | Q |
 D | V | Q | S | A | A | S | I | D | K | K | S | D | E | V | G | L | L | Q | V | C | E | G | F | G | W | E | C | T | W | Y | A | A | R | E | L | A | K | V | D |
 S | L | K | S | L | A | T | V | D | L | K | M | Q | E | P | G | L | L | Q | A | A | S | Y | F | R | V | P | L | I | E | V | T | R | E | Q | I | K | N | L | S | A | S | D |
 A | V | K | S | I | G | S | I | D | L | K | R | D | E | D | A | V | K | N | L | A | N | R | L | N | V | P | F | L | T | F | T | K | D | E | L | N | S | A | S | D |
 S | I | A | A | L | V | S | V | D | A | K | A | G | E | L | G | L | L | I | K | L | A | D | E | L | G | V | P | Y | V | T | Y | P | A | D | R | L | A | E | Q | D |
 S | L | A | G | L | A | S | I | E | A | K | A | D | E | P | G | L | L | L | A | A | E | R | L | G | A | P | L | T | F | F | T | T | D | Q | L | A | E | I | Q |
 S | V | K | K | I | A | T | V | D | V | K | E | N | E | K | G | L | I | E | A | T | K | S | L | N | L | D | L | E | I | I | S | R | E | E | I | K | K | I | Q |
 A | I | A | G | L | A | T | I | D | I | K | Y | D | E | P | G | I | I | E | A | G | T | F | F | N | A | K | K | V | I | I | P | N | E | M | V | Q | M | V | Q |
 G | I | K | A | L | A | T | I | G | L | K | A | E | E | P | G | I | I | E | A | G | T | F | F | N | A | K | K | V | I | I | P | N | E | M | V | Q | M | V | Q |
 S | L | K | C | L | V | S | I | V | N | K | N | D | E | P | G | L | L | L | S | A | A | K | K | M | D | V | P | V | I | F | L | V | S | D | E | L | K | T | I | K |
 S | I | G | A | L | A | S | I | A | A | K | R | D | E | A | G | I | I | Q | Q | A | A | R | L | G | A | R | T | I | F | Y | E | A | D | E | L | A | A | V | A |
 A | L | A | A | C | A | S | I | D | L | K | K | E | E | G | G | I | C | Q | L | A | A | S | K | G | V | P | Y | Y | T | Y | P | A | V | V | L | E | E | T |
 L | V | R | A | A | S | I | D | L | K | K | E | E | G | G | I | C | W | C | M | A | N | R | L | R | W | C | M | A | N | R | L | P | F | L | T | Y | S | A | E | E | L | K | Q | V | K |
 S | I | A | G | L | A | T | I | E | L | K | G | D | E | V | G | I | L | A | L | A | E | T | N | N | Y | P | L | K | L | Y | S | A | A | D | L | N | Q | V | S |
 Q | V | V | S | L | A | S | V | D | L | K | A | D | E | K | G | L | L | D | F | A | R | H | M | N | L | P | I | H | F | Y | R | P | E | E | L | K | I | T |
 A | I | C | L | V | C | S | I | D | L | K | K | D | E | E | G | G | I | S | F | C | K | K | H | G | L | E | F | K | T | F | S | A | K | V | L | S | A | V | E |
 T | T | A | G | I | A | T | I | D | T | K | A | D | E | V | G | I | L | E | L | C | Q | G | R | N | W | Q | L | K | T | F | S | A | K | V | L | S | N | S | I | V | Q |
 D | I | Y | A | L | A | S | V | D | V | K | E | K | E | P | G | L | Q | E | L | A | Q | H | L | R | V | P | F | V | V | S | A | G | E | L | K | K | V | S |
 UniRef90_UP1000466DDE3
 UniRef90_R6PG08
 UniRef90_F3Z200
 UniRef90_U5DMM2
 UniRef90_K2IUT0
 UniRef90_R9J9Q0
 UniRef90_A0A011QYS0
 UniRef90_C7H9B0
 UniRef90_R5M6R6
 UniRef90_F0E131
 UniRef90_UP10004693789
 UniRef90_D9TRJ5
 UniRef90_B1QT50
 UniRef90_33IKF5
 UniRef90_V8C4X7
 UniRef90_Q2RJI2
 UniRef90_S6HNS5
 UniRef90_A1HPX3
 UniRef90_R7A2H6
 UniRef90_Q0FD8
 UniRef90_R5IKD4
 UniRef90_S3XED9
 UniRef90_Q39YE7
 UniRef90_C7N897
 UniRef90_R516Y7
 UniRef90_R5QFV4
 UniRef90_G8LZ2
 UniRef90_M9R0A7
 UniRef90_B1J915
 UniRef90_K9EZA7
 UniRef90_UP10003B64748
 UniRef90_R9NA63
 UniRef90_F9N797
 UniRef90_R9SPN6
 UniRef90_Q10WL6
 UniRef90_W0H9B3
 UniRef90_U6EFC1
 UniRef90_U7JPG8
 UniRef90_D6DJC6
 UniRef90_R6L1H0
 UniRef90_W2BZQ2
 UniRef90_A8U384
 UniRef90_A1KBE6
 UniRef90_A0A023X237
 UniRef90_W3V5T9
 UniRef90_UP10001E2CC07
 UniRef90_UP10002002D3A
 UniRef90_B8HR56
 UniRef90_A5D3Q6
 UniRef90_U7VDZ9
 UniRef90_Q3A7B2
 UniRef90_UP10003B57C89
 UniRef90_J7U8W1
 UniRef90_G8QGW9
 UniRef90_R5A5D4
 UniRef90_A0Y6M1
 UniRef90_V4ITW1
 UniRef90_UP100047030D9
 UniRef90_UP10003661CC4
 UniRef90_UP10004786B8E
 UniRef90_I0XAJ7
 UniRef90_R6M979
 UniRef90_S6A829
 UniRef90_J0PSB7
 UniRef90_E6VQP4
 UniRef90_R6FBN5
 UniRef90_R9IJZ9
 UniRef90_12B7T1
 UniRef90_K4RCF3
 UniRef90_Q2JU70

50 60 70 80

	90	100	110	120
UniRef90_U2S4C5	A P T V S E V V R A E V G T G S V	V S E A S V L A A	G A R L L V V	
UniRef90_L1LUE1	P R L S H R S A I A F Q H S G C Y G V	V A E S S A L A L A E Q L G G G L A A L R V	G G R L V I	
UniRef90_F7V355	G E Y T A S E F V S R I T G V D N V	C E R S A V L A S A	R L Y T G S D D L A L	
UniRef90_W4F0D6	I E A P S D T V F K Y T G A Y G V S E	P A V R	G G G E K I V	
UniRef90_R7H8F7	A G T F T A S S F V K G Q M G V D N V	C E R S A C A A S	K A G G S K G D L L V	
UniRef90_UP1000367B1AE	V Q Y T Q S D F V K E Q I G V G G V C E	P A A I T A S	G M G Q I K V	
UniRef90_A4J811	G D F F E S E F V R K T V G V G N V C E	P A R A V C I Q C N N	L I V	
UniRef90_I0R5Q6	A P N P S A V V E R E I G S G S V S E A	S V L A	R G A E L I V	
UniRef90_D7GCP0	R V P S P S A L V R K H M G V D S V C E	A A A M L A S	R G S L I V	
UniRef90_UP10003B2F78A	D Q F E G S N F V E K N I G V R A V S E	P V A L L A S S Q	E G H F I E	
UniRef90_U2RGB6	V P N P S P I V D S E V G T P S V A E A	A S I L A A	G E R G I L K F	
UniRef90_Q7V9Z8	S R F E A S E F V F K T T G L Y A V S E	P C G F V A S	G F G K C L L	
UniRef90_UP100047B9000	P P H E S D L V E K K H I G V K S V C E	A A A A M F V S	S G G R L L V	
UniRef90_E1YAE9	V P H P S A T V Q H M G T G S V C E A A	A I L A S	G N K K L L V	
UniRef90_E1JZ83	G E F T S S S F V K Q V T G V D N V C E	R A A L A C V K E L G G	G K L L V	
UniRef90_A0A010ZJA1	G D F Q E S S F V R E K T G V D N V C E	R A A M K A A	N E E G T F L	
UniRef90_R5HXW1	V P N P S P I V V A Q E V G T S S V A E	A A A A I K A A T L E T A G E T S L V	V V	
UniRef90_K9YRH8	D E Y L E K S S F V E K T I G V G N V C	Q S A A L M E S A	K G R T I L	
UniRef90_R7CPM2	G E F S G S D F V R K I T G V D N V C E	R S A I C	G S G G V I V N	
UniRef90_X8K4S7	V P N P S K I V A Q S I G V P S V A E A	A A A A C A S A S I C	G S K K N L L V	
UniRef90_D8G340	G D F T A S A F V S R T V G V D N V C E	R A A V V A A A	D G G S L L I	
UniRef90_R5UJW6	G S F T V S D F V R A V T G A D N I C	E R S A V V K C S	G G E L I I L	
UniRef90_UP1000466DDE3	G E F S H D F V F T V G T D C V C E R A	R A V V A	G G G K L I I V	
UniRef90_R6PG08	A P G A S P R V K D K V G T A S V S E A	S A S A L L A A	G P G A Q L L I	
UniRef90_F3Z200	P V P N P S E V V A E A V G T P S V A E	A A A A L Q A A G D G A E L L V		
UniRef90_U5DMM2	P R C A T S S E V V F A E I G T H G V	A E N A A L A	C G G A K V S L A E	
UniRef90_K2IUT0	G T F T K S V F V K N Q V G V D N V C	E R A A V V K A C	G E G G K L I C	
UniRef90_R9J9Q0	V P N P S E T V R R Y T G S P S V S E A	A A A A A L L V A	G A D K A D L I I V	
UniRef90_A0A011QYS0	P G Q F T P S A F V R S V T G V D N V C	E R A A V V L A A	G G T I I I L	
UniRef90_C7H9B0	G S F R E S D F V R R T T G V G N V C	E R A A V V L A A	G P Y E A F L A V	
UniRef90_R5M6R6	P L L S H R S A A A H A H T G C W G V	A E S T A L A L A D R Q Q G S	P R L L L	
UniRef90_F0E131	I I S A P S D T V F K F T G V G N V C	E R A A V V L A A	K R Y L G H N H E L	
UniRef90_UP10004693789	N K F P I S D F V F H T V G V G S V A	R P S A Y L A S N A G E E		
UniRef90_D9TRJ5	D K Y E K S E F V F K T L G V Y S V C	E P C V D L	S G A E I V I	
UniRef90_B1QT50	P Q L S H H S D I A F E R T G C Y G V	A E S A A L A L A E Q L A Q A P A K L L I		
UniRef90_J3IKF5	S V V S D S D F V V K K V T G V D N V C	E R A V	R T Y V P D G K L I C	
UniRef90_V8C4X7	E R H P S R S Q T V A A R V G L T G V	C E P A A V V L A	G G D G E L L W	
UniRef90_Q2RJI2	T Q L Q N P S D Y V F K K T V G V Y G V	A E S A A L V L S A R S E A S R G S E L	M L	
UniRef90_S6HNS5	K H R L E T S R F V E E K I G V G N V C	E P A A L C G G Q T Q T L L L		
UniRef90_A1HPX3	G E F Q K S S F V V K E Q I G T D N V C	E R A A I R A C E	G E G T I I I Y	
UniRef90_R7A2H6	P K L A N P S E V V F A E V G C H G V	S E A A A A L A L S	G G S L L V V	
UniRef90_Q0FDF8	G E F T E S P F V Q G V T G I G N V C	E R A A M L G A E	R R L L V V	
UniRef90_R5IKD4	A P N P S Q H A A D A V G T P S V S E A	S V L A A	G A K L I V	
UniRef90_S3XED9	V P S P S A H A A L I G A T G V A E P A	V V L A S	N G G R L L L	
UniRef90_Q39YE7	P G A F S D S E F V K E T T G V G N V C	E R A A V V A A G G A L L T S		
UniRef90_C7N897	G E F T A S S F V S R T V G V D N V C	E R S A L K K A A Q R R G G E	H C R L I Q	
UniRef90_R516Y7	G S F S E S D F V K E T T G V G S V C	E R A A V V C L	G K G R L L L Q	
UniRef90_R5QFV4	G S F S S S G F V R A V T G V D N V C	E R A A I L A S	N H G K L I M	
UniRef90_G8LZA2	P R L A N P S D V V F E E V G C H G V	I S E G A A A L A V A G S A A T L	M V	
UniRef90_M9R0A7	P Q L S H R S A V A F A H S G C W G V	V A E S A A L A L A H H E R G N A A	L V V	
UniRef90_B1J915	P A V P N P S D I V T Q A V G T P S V	A E A A A A L L A A H S Q E L	L V V	
UniRef90_K9EZA7	G D F S S S E F A F E V T G T A D N V C	E R A V V M A Y	G C K R L I L	
UniRef90_UP10003B64748	G R M A G S G F V L E V T G V D N V C	E R A A A R C T T A L L L A Q	R C C M P Q G R L L Q	
UniRef90_R9NA63	E A Q I I E S N F V K Q T I G V G N V C	E Q C A M I A A	G Q E L L L Q	
UniRef90_F9N797	S D D C D S R S E F V V Q K K F G I D G V	C E Q C A M I A A	G E G G K L I H	
UniRef90_R9SPN6	V P N P S D I V A A E V G T P S V S E A	A A A A A L A A K Q Q		
UniRef90_Q10WL6	P Q L T H R S R P K A F Q H T G C H G V	S E A A A A L A L A S Q L G K S P V T	L V I	
UniRef90_W0H9B3	H P D C T P S P L V Q H E F G V Q G V C	E P A S L I T A	G S G S H L I L	
UniRef90_U6EFC1	V P T P S D V V A R E V G T P S V S E A	S V L A	Q G A D L V V	
UniRef90_U7JPG8	P G S F S E S E F V V Q K V T G T G S V	C E R A A M A A S	G W E R S A L A V	
UniRef90_D6DJC6	G E F T P S A F V R T I T G V E N V C	E R S A V V L A S	G N G S L I R	
UniRef90_R6L1H0	G E F H H S D F V E K T T G A D N V C	E R S A	A G I G A K K F I L	
UniRef90_W2BZQ2	P R L A T P S E V V F R E V G C H G V	V S E G A A A A A L A A A G S D A	V L I V	
UniRef90_A8U384	V P V P N P S E T V R K Y T G T P S V S E	A A A A A V V L A	S G A E L V A	
UniRef90_A1KBE6	Q R F P A S D F V V Q R T V G V G S V	S Q P V A W L M S E	G K L V G	
UniRef90_A0A023X237	R P V P N P S E A A L A R A V G T P S V	S V A E A A V V L A		
UniRef90_W3V5T9	G D F T A S E F V R S V T G V D N V C	C E R A A Y L A S D A	G E F V L	
UniRef90_UP10001E2CC07	V P V P N P S A V V A A E L G T A S V A E	S A A S A L A L A A L A A		
UniRef90_UP10002002D3A	G D F T A S E F V R S V T G V D N V C	C E R A A Y L A S D A	G E F V L	
UniRef90_B8HR56	P V P N P S P I V E Q A V G T P S V S A	V A L C A A Q Q L S R L T	G P E A T L L A	
UniRef90_A5D3Q6	E R Y P R E G D F V R R Q M G V G N V C	E T T A A L A S V	P E G T L V F	
UniRef90_U7VDZ9	D M F H G S E F F V K K E I G V K A V S	E P C A Y L T S S K	D G K F I E	
UniRef90_Q3A7B2	G R M F H S A S D M V M K T I G A D N V C	E P A A L L A	G R R T Q L I L	
UniRef90_UP10003B57C89	I G D F D H S D M V M K T I G A D N V C	C E R A V Q A Y G C R	Q L A L	
UniRef90_J7U8W1	A Q F P E S E F V V K K T T G V G S V S R	P V A W L M S	K G C L I G	
UniRef90_G8QGW9	P V P N P S E T V R K Y T G T P S V S E A	A A A A A L L A A	G T D M S R L L I	
UniRef90_R5A5D4	P G E F T S S A F V R Q V T G V D N V C	E R S A V A V A V S	G G S L V A	
UniRef90_A0Y6M1	V P T P S E I V Q S E V G T P S V A E A	A A A A A L Q A A Q V Q P L L V		
UniRef90_V4ITW1	V P N P S D K V R Q Y T G T A S V S E A	A A A A A L L A S	G R D D G C L L I	
UniRef90_UP100047030D9	Q R L S H K S D I V F A H T G C Y G I V A	E S A A A L A L A E Q L G N A P A R L L I		
UniRef90_UP10003661CC4	P V P N P S E T V R R Y T G T P S V S E A	A A A A A L L A A G W P G P P T P A L L L		
UniRef90_UP10004786B8E	D K Y D K S E F V F K T L G V T G V C	E P C V D L A	G A E V I I	
UniRef90_I0XAJ7	E P Q F S E S D F V Q E V T G V V S R I	C E R S A L A C A	G E G G Q L L I	
UniRef90_R6M979	U N L F T A S E F V V K K T V G V D N V C	C E R A V V C A V	G A K I T E	
UniRef90_S6A829	N M F T K S E F V V K K T V G V S N V C	S A P C A Y L L	G G K I L L	
UniRef90_J0PSB7	D R L S H K S E T V F A H T G C Y G I A E	S A A A A L A L A E Q L S Q S P A T L L I		
UniRef90_E6VPQ4	V P N P S P A V E Q R M G V G S V S V A	E S A A A A M L A A	G G G P L V M	
UniRef90_R6FBN5	P G E F H G S G F V K T Q V G V D N V C	E R A A L L K A A	G T G G W I L L	
UniRef90_R9IZJ9	G S F Q S S A F V V K E Q V G V D N V C	C E R A A L K A C Q	E G G Y L I S	
UniRef90_12B7T1	H Q V P G S A F V V Q R I T G V G N V S	T A A W H L C Q	G D F I G	
UniRef90_K4RCF3	V P N P S A H P L A A V G T P S V A E A	A S A L L	R D G G E L L V	
UniRef90_Q2JU70	P V P H P S E A V R Q A V G T P S V A E A	A A A A L L A A Q R W S G G R A T L V C		

130

UniRef90_U2S4C5	P K R K S R N A T C A L G R □ P
UniRef90_L1LUE1	E R I V R D D M T L A L A W L □ P
UniRef90_F7V355	R K Q A G S G V T F A L A
UniRef90_W4F0D6	V K K K S G N T T I S V A V I S H D E
UniRef90_R7H8F7	A K T A C D G □ T V A V Y K I □
UniRef90_UPI000367B1AE	E K Y K Y K G A T V S I □
UniRef90_A4J811	P K Q K □ G P V T V A I A E A
UniRef90_I0R5Q6	K K T A R E G M T V A I G R
UniRef90_D7GCP0	E K H K S A E A T C A I G R I □ P
UniRef90_UPI0003B2F78A	P K T R I □ P T A T L A V A
UniRef90_U2RGB6	M K A R Y N G I T V S I □
UniRef90_Q7V9Z8	Q K H I Y G S V T I A I A E A □
UniRef90_UPI00047B9000	E K Q K L G G I T L S V □
UniRef90_E1YAE9	P K L K T R N V T L A I A
UniRef90_E1JZ83	P K T A T K R A T A A V A
UniRef90_A0A010ZJA1	K K Q A A D G V T A A V A
UniRef90_R5HXW1	R K Q A E N G I T I A I V K
UniRef90_K9YRH8	S K Q I F G A V T V A V A R S P R E
UniRef90_R7CPM2	P K T K Y V G V T V A A A
UniRef90_X8K4S7	R K M A K N G V T M A I A T A P L
UniRef90_D8G340	P K Q □ F G A V T V A I A S A E T E
UniRef90_R5UJW6	H K Q A M D G V T I A V A K
UniRef90_UPI000466DDE3	R K I A A D G V T V A A A E K P L
UniRef90_R6PG08	K K Q S C N G V T I A V G
UniRef90_F3Z200	P K R I M G N V T V A V A V A □ S P Q
UniRef90_U5DMM2	P K Q I E R G A T I A I A Q A V Y E
UniRef90_K2IUT0	P K I K S A M A T A S L A
UniRef90_R9J9Q0	P K V A E N G M T I A I A
UniRef90_A0A011QYS0	E K H K L R G A T I S I A R I □
UniRef90_C7H9B0	P K Q A G N G V T F A L A □ R P F
UniRef90_R5M6R6	E K Q A E G G V T G A L A
UniRef90_F0E131	P K Q V L G P A T L A L A
UniRef90_UPI0004693789	V K K K S G N V T L S I G □ L L
UniRef90_D9TRJ5	A Y L K K N G I T L A V A
UniRef90_B1QT50	S K I K H E G M T L A I G
UniRef90_J3IKF5	P R Q K Y A Q A T L A L A S A A A
UniRef90_V8C4X7	P K Y R K E K M T V A L V E E P
UniRef90_Q2RJI2	P K I K C R G V T I A L A R V
UniRef90_S6HNS5	A K Q K S K V A T C A I G R
UniRef90_A1HPX3	P K T V Y P N V T V A I A E V
UniRef90_R7A2H6	H K H A G R G M T I A I A R I K F E K
UniRef90_Q0FD8	E K K K T V N A T C A I A K
UniRef90_R5IKD4	R K C A G N G V T I A V
UniRef90_S3XED9	E K T K T P E A T I A V G R I □ A P
UniRef90_Q39YE7	K K I L K S G N V T L A I A E I □ P
UniRef90_C7N897	K Q A Q D G V T V A L A V R P
UniRef90_R516Y7	R K Q A A D G V T A A L W R □ H F E
UniRef90_R5QFV4	R K I A E D G M T L A V A E R I □ P E K
UniRef90_G8LZA2	G K R A R D G V T V A I A E
UniRef90_M9R0A7	E K C K T A T A T C A I A H □ P
UniRef90_B1J915	T R Q T L G A A T L A L A
UniRef90_K9EZA7	T K Q V F K G C T I A V A R A D Q
UniRef90_UPI0003B64748	K K T A R D G M T L A L G □ M D T
UniRef90_R9NA63	P K R V M D G M T F A L
UniRef90_F9N797	H K T I F P R T T V A I A R V H Y K
UniRef90_R9SPN6	K K I A M D G V T V A V A
UniRef90_Q10WL6	
UniRef90_W0H9B3	Q R Q K N A R A T F A L A
UniRef90_U6EFC1	R K I A Y N G V T V A I A V S P
UniRef90_U7JPG8	T K H K T P E A T I A I G R I □ P
UniRef90_D6DJC6	R K K T A R G V T A A L A
UniRef90_R6L1H0	K K T G R E G V T T A L G
UniRef90_W2BZQ2	G K K S K D G M T I A M G
UniRef90_A8U384	P K R R S E R A T C A V A E A P
UniRef90_A1KBE6	E K H K L R G A T L S L A R I □ P Q
UniRef90_A0A023X237	E K R K S P M A T C A V G R L □ P
UniRef90_W3V5T9	R T L R Q Q G V T I T L G
UniRef90_UPI0001E2CC07	R K T V E R G I T I A V A
UniRef90_UPI0002002D3A	E K Q I S R
UniRef90_B8HR56	P K Q I F F G A V T L A I A Q A G T E
UniRef90_A5D3Q6	P K L R L G R V T V A L A E A
UniRef90_U7VDZ9	I K A K K D G M T I S I Y R F □ Y E K
UniRef90_Q3A7B2	P K T I I K N V T V A I A R
UniRef90_UPI0003B57C89	K K T A R D G M T I A L G
UniRef90_J7U8W1	Q T C K T R G □ T I T L G
UniRef90_G8QGW9	E K H K L R G A T V S I A L L □ P
UniRef90_R5A5D4	R K F A A E G V T M A A A V K P I
UniRef90_A0YM61	S K Q I Y R A V T V A I A I A Q Q E
UniRef90_V4ITW1	E K H K L R H A T V S I A R M I □
UniRef90_UPI00047030D9	T R K K T A Q A T F A L A C A
UniRef90_UPI0003661CC4	E K H K H R N A T V S V A L M N T
UniRef90_UPI0004786B8E	S K I K H E G M T L A I G
UniRef90_I0XAJ7	K K T V A D G M T L A V A Q R N P K
UniRef90_R6M979	K K T A L N G T A L A L G R □ N T E
UniRef90_S6A829	D K F K Y E G V T V S I
UniRef90_J0PSB7	T R K K T A Q A T F A L A C A
UniRef90_E6VQP4	E K T K T E N V T L A V A R
UniRef90_R6FBN5	G K Q A Q D G M T V A V A E
UniRef90_R9IZJ9	S K H A E H G M T I A V A K
UniRef90_12B7T1	E P L R E Q G V T I A L G R □ P
UniRef90_K4RCF3	P K R K S A M A T C A V V R R P
UniRef90_Q2JU70	P K Q I F G A C T L A I A R A A R E

1 10 20 30 40

UniRef90_A8MG29	P K N L N I G I G C R K G I E G E R I I A A I Q N T L Q I N E L S E H																																																															
UniRef90_UP10002F12CFF	P T L L A V G F G C R Q G C S A S T L Q A L L E Q S L Q V Y R I D L K																																																															
UniRef90_G5HLC7	L L R L V P K A V T V G V G C R R G V E V H A L E H R V R E C L D R H G I D P A																																																															
UniRef90_UP10002EEDC6B	P P T L W L G M G C E R N T N K F I Q D S L K Q F L D D N E I S V L																																																															
UniRef90_R6E977	L I P Q N L A V G I G C R R G T E E A A I E S G L R E I L E E H G C R M E																																																															
UniRef90_C0BZB2	P R I V A G V G C R K G T E K G Q L S A G L A E V L E A N K I L P G																																																															
UniRef90_C7QGL0	P K S L V V G V G C R S R G V T A D E V L D A V D R A L A A A N L S P A																																																															
UniRef90_F2NFE4	P R S L I A G V G C H R G T P S L E I L D H I Q E V F R Q A G L S L L																																																															
UniRef90_UP100046EBF6D	L V P K R V V L G V G C R R D T P F A T L H P L L L Q K F A E L H I D P L																																																															
UniRef90_UP1000368BD47	P A V L H L G V G C R K N C D P T G V W E S I T R T L T A E K L L S P H																																																															
UniRef90_W3ASZ0	K R V Y V G I G A R K G V S E D V M K A Y D N C L K S A G I E P S																																																															
UniRef90_R6JV71	L V P M D L F V G L G C R R G K T S G Q I R K A V S S T C D K N D M L M E																																																															
UniRef90_U5VIL2	L Y A G F G C R Q G C P A A T L D T I L L R Q A L D A H G L P L T																																																															
UniRef90_Q0ID50	P A L L W L I G C E R D T S L N L V Q R A V R S A L E E A G L A E D																																																															
UniRef90_UP100037F87D1	L L I P R R L V L G V G C R R G V A G E A V C R A V Q Q A L A G A G R R M E																																																															
UniRef90_U2SE02	L V P R V A V L G V G C R R G T S Q E T L E A A F S A L C R E T G L W P E																																																															
UniRef90_G2TCV0	R P V P R V L T L G V G C S G C P A A E L E D L V W T T L G A H G L S A E																																																															
UniRef90_UP100034B9C6E	P R I I L W I G I G C C R E R G T P R T L I E R A I Q Q T C Q A N H L A E A Q																																																															
UniRef90_R7ELW6	M P M I V P C V V H L G I G L A R L A P V R K V E K E I M N T L K E Y G I M P Q																																																															
UniRef90_F6B828	P N L N V A G V G C R R G V G P E Q I I R A V K T A F K R G G F S L L																																																															
UniRef90_UP1000412A627	L P S V V P R S L V V G M G C N S G T D V D H L E V L L D D V L A E A S L A P G																																																															
UniRef90_K7RQY4	R I H I L G I G C R R G T G K D T V N A V K S S A C A E A H I T L D																																																															
UniRef90_D4H1Y8	P R F L W V G I G C Q R G T S W Q L M A R A I Q Q V F L E H R L E E S																																																															
UniRef90_K9PDI0	V P R M V H L G I G L A R Q A P V K E V T E E I L D R L K E Y G I P R Q																																																															
UniRef90_R6L2F4	P R K L V A G V G C R R G V K A E Q V T L A I E E T V K E A G F S L L																																																															
UniRef90_C9RCU4	Y L Y P K Y V I G I G C K K G K K A H E I E Q H I I K V L E Q E K I D I E																																																															
UniRef90_UP10003B435FF	V I P K A V T L G M G C R K N K D P E G I E K A A D I C Y C L E Q G D I F P Q																																																															
UniRef90_R5XPE3	P P T L V V G V G A S R G A P V A E V L G L V E E T L R G A G L S A A																																																															
UniRef90_F3NQW4	UniRef90_M9VF97	UniRef90_E6SSV2	UniRef90_F5LGR4	UniRef90_E8WQC2	UniRef90_UP10002002EF5	UniRef90_F6CHV1	UniRef90_UP1000347AD68	UniRef90_UP100047A0807	UniRef90_K9ZNZ8	UniRef90_W6LY82	UniRef90_K2R316	UniRef90_UP10004767767	UniRef90_UP10003A95080	UniRef90_R5XIM7	UniRef90_R7DBH6	UniRef90_G2SX00	UniRef90_UP100037E4737	UniRef90_H1D5P7	UniRef90_S6EQ10	UniRef90_E3PXF1	UniRef90_A8M4X1	UniRef90_UP10003B6111E	UniRef90_UP100047C5CF4	UniRef90_R5HC29	UniRef90_UP10001C36F30	UniRef90_A9WIP4	UniRef90_B2JRU6	UniRef90_R7L0S1	UniRef90_E5BH86	UniRef90_L8LXH7	UniRef90_W1JAR9	UniRef90_E2ZJM4	UniRef90_UP10003745664	UniRef90_UP10003665AD6	UniRef90_UP10004785BB3	UniRef90_B2TPG1	UniRef90_I4DHA3	UniRef90_K9VGP0	UniRef90_L0D988	UniRef90_S2K86	UniRef90_UP100037B0DBA	UniRef90_E1L541	UniRef90_U5CLW3	UniRef90_B3EBR7	UniRef90_C6PWW5	UniRef90_J2LNT5	UniRef90_M1PIU8	UniRef90_Q0TR66	UniRef90_UP100029ACD9	UniRef90_V6AVF6	UniRef90_I3VYP0	UniRef90_B0TIJ9	UniRef90_S0KYK2	UniRef90_I0I590	UniRef90_D9SP01	UniRef90_G9F055	UniRef90_K4LRP5	UniRef90_R5C913	UniRef90_C4GBG7	UniRef90_A9GMA5	UniRef90_UP10003784AFA	UniRef90_Q2WAM3	UniRef90_D1PMC8	W L V P Q N V V L G A G G C R K G T D C L A L E S A L E A L P L P E Q

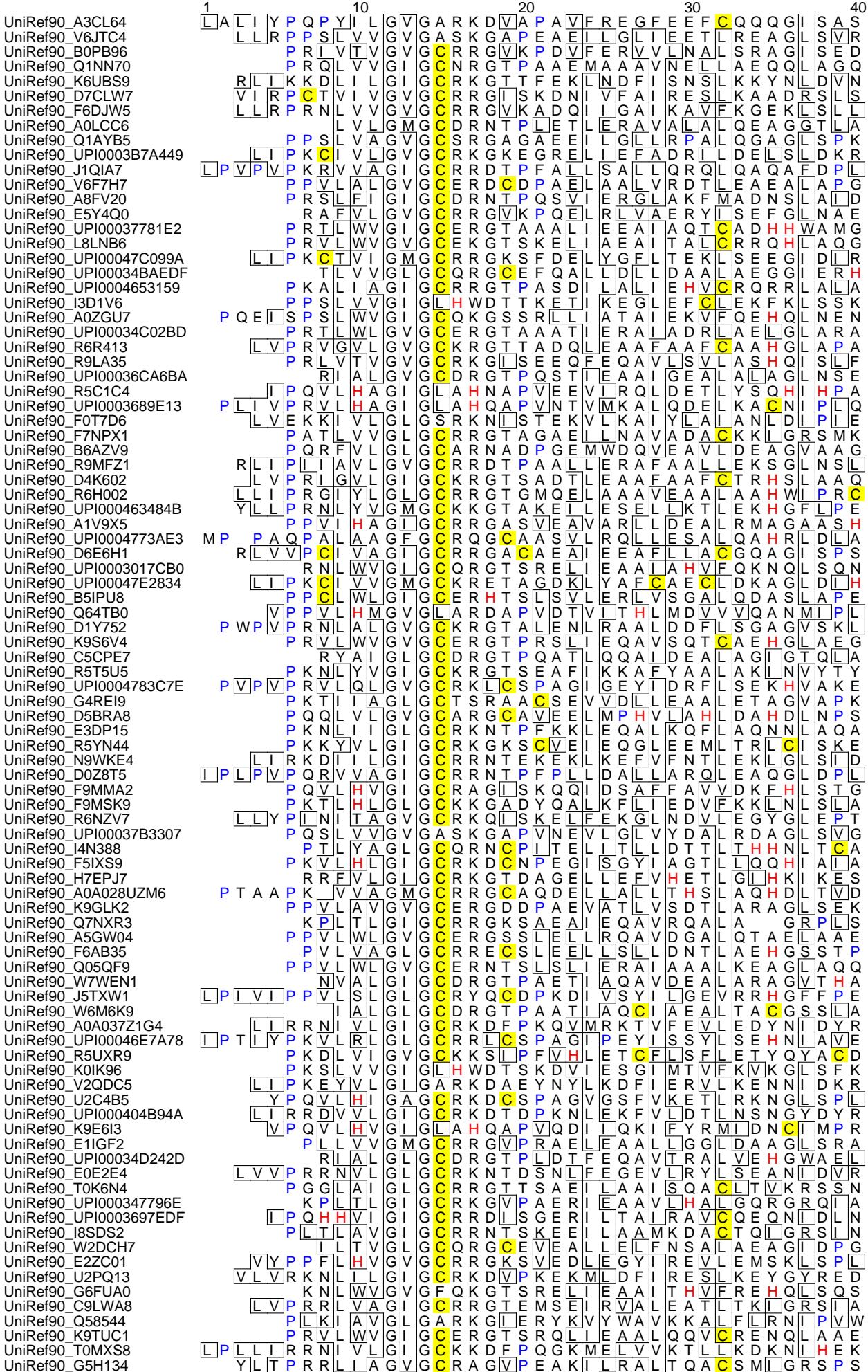
		50	60	70	80
UniRef90_A8MG29	S	I K S F G T V E V K K D E A G I L S A V A H F N K P L R I F T I D E I R E V E			
UniRef90_UPI0002F12CFF	A	L K G L A S I N D K Q H E P G L L E L A Q R L S L P L L F F S A A E I L A P Y E E			
UniRef90_G5HLC7	S	V K T L A T I D V K R D E A A V L A L A R D R G W E L A F Y S A C E L S G V K			
UniRef90_UPI0002EEDC6B	S	I A G I A T V D L K K G E K A I L D I A K D N Q W P I Q F I T A K R L L K E N			
UniRef90_R6E977	Q	V A A I L A S I H L K Q D E P G M I G L A E K L H V P F R C Y S A E E L M K T			
UniRef90_C0BZB2	Q	L A A F A S I E L K K K E E P G L L E A A T R R G W P I H F H P A K E L S T V S E			
UniRef90_C7QGL0	S	V A H L A S V D A K S N E P G L L E A A T R R G W P I H F H P A K E L A P I V			
UniRef90_F2NFE4	S	L K A L A T I A A K K D E P G L K E A A R R L E V E L L W Y T A E E L E H V			
UniRef90_UPI00046EBF6D	A	L R A I G S I T L K Q D E A A L Q Q L A H C Y R V P F Y V F T P E A L L R V H E			
UniRef90_UPI000368BD47	S	L A S V S T I D L K Q D E P L V H D I A R K A G I P L H V Y T A D D L K E I E			
UniRef90_W3ASZ0	A	V A A L V S V D R K A D E P G I L F D A R E L K V P Y K T Y S A Q Y N T I R			
UniRef90_R6JV71	R	I A G V V V S V D R K A D E P G I L F D A R E L K V P Y K T Y S A Q Y N T I R			
UniRef90_U5VIL2	A	L G G I A S I P T K A D E P G L R Q L C A R L G P L T V F D S V Q Q P F E			
UniRef90_Q0ID50	A	V A G I S S I D R K G D E R A L Q E L A Q L H H W P F R L H T A T A L D G V			
UniRef90_UPI00037F87D1	A	V I K A L A T V D L R S G E P A L E Q T A A W L G V P L L I A Y D R R E I I M R A R			
UniRef90_U2SE02	A	V V L A T I D L K A A E P G L L F C A S R G W P L A A Y S T S Q L M A V E			
UniRef90_G2TCV0	A	L S C V A T I L D R K G A G P A V R A L A R R L D R P R L R F P A Q V L E R E T			
UniRef90_UPI00034B9C6E	A	I A G I A T I D L K A D E V G L L E F C Q S R N L S L R C F S S E S L R A V D			
UniRef90_R7ELW6	S	I A S I S T I K A K S D E P V V K A L Q K K F P V Y F Y T A E E L T E I E			
UniRef90_F6B828	S	L K A L A T V D I K M Q E P G L Q Q A A A Y L R V P L L E V T K E Q I A A L A			
UniRef90_UPI000412A627	A	L K A L C S D L L K K D E A G I K D L S E A L Q I T F F T F S S D E L M E Q E			
UniRef90_K7RQY4	S	V S A L L S H E V K A G E L G L V K L A H R L G V E Y R T F S A E E L A G Q D			
UniRef90_D4H1Y8	S	I R M M S S A W L K K D E A G I I E A A Q E L E L Y L R F I P E S Y Y K N D S			
UniRef90_K9PD0	A	I A G I A T I D T K A S E V G L V A L C R L R H W P L K I F P A E T L Y T V S			
UniRef90_R6L2F4	A	I A S I A T I A D A K R D E P V V V K S L Q K E Y D V C F Y T A E E L L A A			
UniRef90_C9RCU4	A	L K A L A T V T L K Q G E K G L E E A A V S L G L T L R Y F S P E E L A E V E			
UniRef90_UPI0003B435FF	D	C I A I T S V D I K K D E E G I I E F S E K Y N I P F K T Y D V E T L R K Q K			
UniRef90_R5XPE3	U	V E R L A S I S I K K N E P G L L A L A E N K K P F L T F E G E E L M K V Q			
UniRef90_F3NQW4	S	L A E L A T V D A K A D E P G L L G A A E R L L G V P L V T Y S A A E L A E V D			
UniRef90_M9VF97	S	V T R L V S H E V K A G E L G L V K L A N Q L G V E Y R T E S A E E L A A Q D			
UniRef90_E6SSV2	A	I A S I S T I D A K K G E P V V K A L K K K F P I H F Y T T V D D L N G K I E			
UniRef90_F5LGR4	S	V K T V C T I N L K A D E E G L L A V C G K Y G W P L V T Y T P E E E L N H V S			
UniRef90_E8WQC2	S	V K C L A S A Q A K A D E E G L L A L A Y A E K K A P V F F S S E E E L N H V S			
UniRef90_UPI0002002EF5	A	V A G L A S A D R K A D E P A L L Q L A E Q N G W P L R C F S S A A L S A V			
UniRef90_F6CHV1	S	L R A L A T V N L R V Q E R G L Q L V A R E R M G I P L F S F T R E Q I R S I Q			
UniRef90_UPI000347AD68	E	I S G I A T I E S K A A E I G L L K D F C R V Y N L P L K T F S A E K L A S A V			
UniRef90_UPI00047A0807	S	V K A V T S I I D I K E K E L G L I E L S K R L N A E F V I T F S A E K L M E Q E			
UniRef90_K9ZNZ8	D	I A G I A T I I E S K A L E V G G L R E F C H I H N F P L K T F T A E F L S S V			
UniRef90_W6LY82	E	L R A L A S I I E L K Q D D E L G G L H Q L A E T T L Q V P I H F Y S A A A L N E Y G			
UniRef90_K2R316	R	L D A L A T A D V K Q Y E K G I I D T A S K S G L N I E I V S L N E A E F N S			
UniRef90_UPI0004767767	A	I A K I V T I D T K A E E V G L A E L C Q K R Q W A L K T F A A E V L R S I S			
UniRef90_UPI0003A95080	A	I I K H A T V D I K E N E E G L I K A A E F L E V E L K I I S R E E I K K K V			
UniRef90_R5XIM7	E	I L A F A S I I D L K K E E P G A I K K L S E N Y Q I P F L T Y S A E K L S H A E			
UniRef90_R7DBH6	A	V E K L T S I I S I V K K D E V G G L Q K L A E D W R I P F I T F E E E E L S H A E			
UniRef90_G2SX00	A	V A G I A S V D V V G G L L A L A E Q L A V P F L T Y P A G R L Q C V D			
UniRef90_UPI00037E4737	A	I A G I A T I D I K S D E V G G L V E L C Q K R N L P L K T F T S D I L S K R V Q			
UniRef90_H1D5P7	S	V K H A T V D I V K K E E A G L I R A S E M L G K N L V I I G R E E I K R V Q			
UniRef90_S6EQ10	S	V K S I A S I I D I K K N E K A I I L N L S N T L N S E I K F F T K E E I A K V Q			
UniRef90_E3PXF1	Q	K I K T I A S I I E L K Q D D E V G G L C Q K R N L P L K T F T S D I L S K R V Q			
UniRef90_A8M4X1	S	L R C L A S A D I K A D E V G G I R T T A D T L R I P L V T W S A A E L A A V E			
UniRef90_UPI0003B6111E	S	L K A L V S I D K K A D E Q G Q L I E L A E R L G I P F M T Y S A E F L M E Q			
UniRef90_UPI00047C5CF4	S	I K L L S S V D I K K D E Q G Q L I E L A E R L G I P F M T Y S A E F L R N L D			
UniRef90_R5HC29	A	V Q K L C S I I D L K K E E P G G L I F C A E H G I L L E T Y D A E T L R N L D			
UniRef90_UPI0001C36F30	R	C T A A T I A D L K A D E Q C I N E F C H F H S I P L R T Y T A D E L M K A E			
UniRef90_A9WIP4	C	V A T I A T A D L K A D E A G I S D L A R Q L G V P L T I V T T A Q I Q T L D			
UniRef90_B2JRU6	A	L G A V A T V D M K K A G E P G G L V A F C A R H A L P L R T F T R E Q I A A L D			
UniRef90_R7L0S1	R	V K A L C T I A T D I K K D E L G G L T F C H N H P I P Q F Y S A A E L M A V K			
UniRef90_E5BH86	S	V K H A T V D I V K K D E L G G L V Q A A K T L E K E L I I I S R E E I K K V			
UniRef90_L8LXH7	A	I A G V A T I I D I K A D E K G G L L K V C R D R N L P L Q T F S V N Q L A E C			
UniRef90_W1JAR9	A	L K A V V G S I I E L K Q D D E V G G L Q L T Q E R Q L P F Q T F S V N Q L A E C			
UniRef90_E2ZJM4	C	T A A S I I D L K Q N E A G I L T F C H S W P V Q F F T A E Q L R A A E			
UniRef90_UPI0003745664	Q	V A G L A S A D S R R D E P A M A L V A A R L A V P S V F F D A K T L E R E T			
UniRef90_UPI0003665AD6	A	V S H A S V T V K A D E V G G L E V S R R R G W P L V V H P P Q V L A A V A			
UniRef90_UPI0004785BB3	A	L A A L A T V T L K V D E P G G L L A L A E R Y R L P L Q V F S A E E L R A R A			
UniRef90_B2TPG1	A	V K K I V S I I D V K K D E K A I I I D L S N T L G C D F E T F S V D E I R T V Q			
UniRef90_I4DAH3	S	A L A C I A S A T I L K Q D D E P G G L L A L S E K Y S P F L C Y E S E E L I N S A S			
UniRef90_K9VGP0	A	I A G I A T I D T K A G E V G G L E L C Q A R N W P L Q T F A A D I L S S V E			
UniRef90_L0D988	S	L A A L A T V T L K V D E P G G L L A F A A A R Q Q L P L V A F P P D Q L A H Q E			
UniRef90_S2KV86	A	L H G I A S I I S L K A D E P G G L Q Q L A R R L G P L V L F D A S Q L Q A F E			
UniRef90_UPI00037B0DBA	A	V A G L A T I I D R K K N E E D A I L Q L A R R H G W P L R F Y T A E E E L Q A R V			
UniRef90_E1L541	S	V T A A S V I V K Q D E V G G L L E A V N E L G W T I H F Y T Q E E I A P V E			
UniRef90_U5CLW3	S	V K S I A T I I D L K K D E E A I L K L R E A L E V P V V F Y T K E E I K E V E			
UniRef90_B3EBR7	Q	R L L A S A D L K A D E K G G L L E A A S R L D I P L R I I P S D E I R K I H			
UniRef90_C6PWW5	A	V K A V A T V E I K K D E K A I I I K L K E Y L E C E L K I I F S E E I R K I H			
UniRef90_J2LNT5	D	R E V A V T I I D L K A E E P G G L L T F C H A A N E L P L R V I A A S D V A A R			
UniRef90_M1PIU8	S	I R N F A S I I D L K S D E E G G L L Q Y A S K M G R P I R F Y T K E E I N R V D Q			
UniRef90_Q0TR66	A	V L K I G S I V D L K K E E K A I I D L S E Y L N C P F E T F S K D E I K S V Q			
UniRef90_UPI00029ACD9	S	A S L G L T V E L K K D E P A F L K L S E K W D L P L R C H F S G D E I N R Y			
UniRef90_V6AVF6	S	L A C L S S L K K P Q E V V G L R E A A V E L D V P V V Y F D R D E L A K I S			
UniRef90_I3VYP0	S	C L T A I A S A W V K A E E P A I I A L A K A T Y D V P F R T F S A D E I I Q A A S			
UniRef90_B0TIJ9	U	B O T I J A S A W V K A E E P A I I A L A K A T Y D V P F R T F S A D E I I Q A A S			
UniRef90_S0KYK2	S	S K K I V S I D L K Q Q E A G I C Q L A E W L E I P F E T Y S A A E L L T V S			
UniRef90_I0I590	S	S L A A L A T A E P K A D E P G G L R Q L A D A L Q V P L H V I P A S R L Q Q L H			
UniRef90_D9SP01	S	G T I A T I A L K E K E I A N T L C H E K Y K A D L Y I A D Y E E I I E T I H			
UniRef90_G9F055	S	I N S V S V E I K K D E T A I K E L S K F L R C P F I T Y S L E E I I K K V			
UniRef90_K4LRP5	S	V A V L A S H E K V D E V G G L L E V A R K F G W G L T L V F F G A G V L G R I V E			
UniRef90_R5C913	A	L G R A A S I C L K A E E E G G I Q Q W C H E S A D L P Y E T Y T R E E L L T V			
UniRef90_C4GBG7	E	V Y A L A T V D R K A K E E K A L L A L H R R E G I E L F T R S P E E L M A V Q			
UniRef90_A9GMA5	S	V K A C I A S T V V K K D E E A L L A L S A R R G W P L V T F T P E E I D A T E			
UniRef90_UPI0003784AFA	D	A C I A S T V V K K D E E A L L A L S A R R G W P L V T F T P E E I M Q M I D			
UniRef90_Q2WAM3	S	I A C V V A S I D L K A D E A A V H A L A A E L G V P A R F F S P A E L E A E A			
UniRef90_D1PMC8	A	I C A V A S I D L K A K A E P G G L L E F C R N H G W P L Q T Y S A A E L K S V Q			

	90	100	110	120
UniRef90_A8MG29	N Q F D Q S Q F V K D T I L G V Y S	V S E P C A Y L L	G G E I R S	
UniRef90_UPI0002F12CFF	A R L S H R S D L A F E R T G C H	G V A E S A A L A L A E R L G	P A P A S L L I I	
UniRef90_G5HLC7	G E F R E S D F V R R T V G V G N	C E R A C L A	K G G G L A F	
UniRef90_UPI0002EEDC6B	V P N P S Q V V F D E I G S Y S	V A E A S C L I A A	G K D G K L L V	
UniRef90_R6E977	G E V E E S S E F V R S V T G V D N	V C E R A A R A C A	P D G K P V F	
UniRef90_C0BZB2	A V V S S H S E F F V E R V T G V D N	V C E R A A A L	R F C Q D G E L I Q	
UniRef90_C7QGL0	V P N P S P T V Q A A V G T P S	V A E A A A R H T A P N R	P P S T L I V	
UniRef90_F2NFE4	P V P H P S A Q V T R H V G A K S	V S E A A A L K A	G Q G E L L I I	
UniRef90_UPI00046EBF6D	H R F P C S D F V R Q T V G V G C	V S Q P A A C L L L E E Y G G	G K I I I G	
UniRef90_UPI000368BD47	V P N P S E K V T E V T S V P G	V A E A C A L K S A	R N T R L L L V	
UniRef90_W3ASZ0	G D F A A S A F V Q S V T G V S	N V C E R A A Y A A S K N G Q E	K V L V	
UniRef90_R6JV71	G E F T A S G F V K D K V G V D N	C E R S A C A A S K	D K R C I V	
UniRef90_U5VIL2	P L L S H R S P T V F A H S G C	V A E S A A L A L A T H H H G S	A R L L V V	
UniRef90_Q0ID50	P V P T P S K V V A A E M G T G S	V A E A A A L L S A	G D K G Q L K L	
UniRef90_UPI00037F87D1	P G E F S F S P Y V E Q K I G V G G	V C E P V S L L A C Q Q	G R L L L	
UniRef90_U2SE02	G T F T A S E F V R R V T G T D N	C E R S A A L A A	G G A I I W T	
UniRef90_G2TCV0	P R L A S P S P A V F R A V G C H	G V A E A A A L A A A G E S A I L I I V		
UniRef90_UPI00034B9C6E	V P N P S I V V A A E V G T P S	V A D A S N L S E L E S N S A	L H S H L L V	
UniRef90_R7ELW6	V P H P S K T V M K H M G T P S	V S E A A A L L S A	N N S R L L V	
UniRef90_F6B828	G Q Y I Q S D F V R E S I G V G G	V C E P A A I T A S	G Q G T I K L	
UniRef90_UPI000412A627	G D F S S S F A L E V T G A D N I	C E R S V S M A Y	G C K R I I L	
UniRef90_K7RQY4	A P N P S A T V A R E V G T G S	V A E A S V L A E	K A E L I I V	
UniRef90_D4H1Y8	N Y C F T A Y D A P M K H F G I P	G V N A E L L I I L		
UniRef90_K9PDI0	V P N P S Q I T A Q V M G T P S	V A E A A A L C A A Q R R E G	V N P V L L V	
UniRef90_R6L2F4	T D V P H P S K T V M K H M G T P S	V S E A A A L L S S	G N S E L I I M	
UniRef90_C9RCU4	K S W S D P S A F V K E K V G V G N I	C T T S A L A A A	G G K R L L L V	
UniRef90_UPI0003B435FF	G D F E E S E F V K E T I G V G N V	C E T S A L A Y V N S E F F	G N S E I I I C	
UniRef90_R5XPE3	G E F T P S A F V K S V T G A D N	C E R S A V L G A A	K G K L I I K	
UniRef90_F3NQW4	V P N P S K A P L V A A L G T P S	V A E A A A L L	R G G E L L L V	
UniRef90_M9VF97	V P T P S D V V A R E V G T P S	V S E A A A V L C	Q G A E L L L V	
UniRef90_E6SSV2	V P H P S K T V M K H M G T P S	V S E A A A L L S S	G N N K L L L V	
UniRef90_F5LGR4	M P M N Q P S P T V F K Y T G A Y G	V S E P A V Q R Y I G A S	V P L A L	
UniRef90_E8WQC2	V P S P P S E H A F N A I G A R G V	V A E P A A L L A S Q	G G K L L L	
UniRef90_UPI0002002EF5	P V P N P S A V V E A E L G T A S	V A E A A A L L A C	G P K A Q L R S	
UniRef90_F6CHV1	K P N L I H H S S F V Q G K I G V G G	V C E P V A L L A A	A P Q A K L I I L	
UniRef90_UPI000347AD68	C V P N P S K F V K E R M G T L S	V A E A S A I L A A G E I T S I G V G L L I		
UniRef90_UPI00047A0807	G D F S S S D F V K N I T G A D N I	C E R S V S M A Y G S E	K L L I I	
UniRef90_K9ZNZ8	C V P N P A K I V V E G L V G T P S	V A E A S A I L A A K E I A A D G V R L L V		
UniRef90_W6LY82	D R L S S R K S E I V V F R E T G C Y G	V A E A A A L A H A E R L I H H Q A E L L I I		
UniRef90_K2R316	H D D C S H S P L V Q R E F G V Q G	C E P V S L I K A	G I K S R L I I L	
UniRef90_UPI0004767767	V P H P S P I V E K E A G T P S	V A E P A A I C G A F S D T A S E A Q N F I		
UniRef90_UPI0003A95080	S M F E G S D F V Q T N I G V R A V	V S E P V A F L S S S Q	N G R F I A	
UniRef90_R5XIM7	C V S S S S E F F V A S V T G V D N	C E R R A A	K Y C C P D G R M I L	
UniRef90_R7DBH6	G E F T P S E F F V K K I T G V N N	V C E R S A V L G A E Q	G R L I K	
UniRef90_G2SX00	G T F T S S S G F V A Q Q V G V D N	V C E R R A A V C A A	G E G G R L L L V	
UniRef90_UPI00037E4737	V P N P S K V V E K E V G T P S	V A E A A A A L C A A Q C K T L L I		
UniRef90_H1D5P7	H S F E G S D F V E R N I G V R A V	V S E P V A Y L L S S R	T G H F L E	
UniRef90_S6EQ10	D N Y E G S D F V E A T V G V R S	C E P V V E L L	G G K I I I V	
UniRef90_E3PXF1	T D T I E A S D F V K S I A G V V S S	V A E A S A Y K L S	K G K I I I L	
UniRef90_A8M4X1	V P N P S E V V R A A V G T P S	V A E A A A A L L	G G D A E L L V V	
UniRef90_UPI0003B6111E	G G D F A H S D L V M E A T G A D N	V C E R A V A A Y	G Y D K M V L	
UniRef90_UPI00047C5CF4	E N F D V S E F V V R R T I G V G G	V S E P C Y G I S S H	N G R C L M	
UniRef90_R5HC29	G E F T A S F V S Q V T G V D N	V C E R S A M A G S Q	N G K I I I L	
UniRef90_UPI0001C36F30	G E F E S S S F V L E T V G A D N I	V C E R S A V L C S	G G Q L V I	
UniRef90_A9WIP4	P T A F S P S A A S R F D I P G	V A E P C A T L V A Q	G P L L V	
UniRef90_B2JRU6	A R T N A S H A V R E H M G V D G	V C E P C A L L A T Q	N G R L L L V	
UniRef90_R7L0S1	G Q F T S S E F V L K T T G A D N I	V C E R S A M V M	G K S L L V	
UniRef90_E5BH86	D K F E G S D F V E K N I G V R A V	V S E P A A Y L S S S R	K G Q F L E	
UniRef90_L8LXH7	V P T P S T V V N Q E V G T P S	V A E A S A I A A A K L F D E Q N I K L L V		
UniRef90_W1JAR9	Q A F P V S E F V R K T V G I G C	V S Q P V A W L M S Q	G H L V G	
UniRef90_E2ZJM4	P G S F T S S A F V Q S V T G V D N	V C E R S A V L A A	G G T L V F	
UniRef90_UPI0003745664	P R I K N P S D V V F A R V G C H	V A E A A S A L A A		
UniRef90_UPI0003665AD6	V P H P S E V V R A A V G T P S	V A E A A S L L A A G A T G G V P A R L L V V		
UniRef90_UPI0004785BB3	A D L P L S P S A A T A R L D L P	G V A E P C A L L A A G S R A	D G A E I I I L	
UniRef90_B2TPG1	E K F E G S N F V L K S V G V T S	V C E P C V Y L	G A S R L L V	
UniRef90_I4DHA3	C Q A P N P S A N A R R L V G V W G V	V A E P A S L L A S		
UniRef90_K9VGP0	V P N P S N I A L K E V G T P S	V A E A A A L C A		
UniRef90_L0D988	A G I E T P S E R V R S K I G I P	V A E P S A L R A S	G A S R L L V	
UniRef90_S2KV86	Y A L S H R S P L A Y S H S G C	V A E S T A L A L A H R E L G S A R L R V		
UniRef90_UPI00037B0DBA	P V P N P S E T V R Y R M G T P	V A V A E A A A L L A A R G G I G D L L L		
UniRef90_E1L541	E Q D L K E S T F V V K G T I G V G	V C E T T A L L A A K S Q	T L I I Q	
UniRef90_U5CLW3	S K F P V S D F V F Q T V G V G S	V S R P S A Y L A S	G R G R E L L V Y	
UniRef90_B3EBR7	A R R F G H S D F V Q A K V R L P	V A E P A A L L A	G R R T Q L L L	
UniRef90_C6PW5W	H K Y L G G D F V E K T I G V R A V	V C E P C V E L M	G A E L I T	
UniRef90_J2LNT5	G W V T A P S E W V Q K N V G V	V C E P C A L I A S	P R G V L A L	
UniRef90_M1PIU8	T V V S S S A I V L A A T G A K G V	V A E P A A V L A A G	C T P Y L G K L I I	
UniRef90_Q0TR66	D E F E G S D F V E K S V G V R A V	V S E P A V L L M	N G N I I I V	
UniRef90_UPI00029ACD9	K V P N P S E R V R E M T G S A G	V A E A S A M H L A N N	T L L I I	
UniRef90_V6AVF6	I P N P S Q M V Q M A Y E G T P S	V S E A A A L K A S Q	G E L I I V	
UniRef90_I3VYP0	D K F P I S D F V F H T V G V G S	V A R P S A Y L A S N K G K E		
UniRef90_B0TIJ9	H R E I G G S L F V A D A I G V K A V	C E P T A L L	T H P Q A R L L L	
UniRef90_S0KYK2	E K Y P Q S A F V K K V T G V G S	V C L A A A D L A S	N G K V V T	
UniRef90_I01590	P A S F T A S A A Q E K L G L P	V A E P C A V L V A	N G P L L I A	
UniRef90_D9SP01	Y E I E T S E F V K S V T G V G S	V A E A S A Y I A S	N K G K I I L K	
UniRef90_G9F055	H K F K G S E F V V R K T I G V G S	V C E P S I E L	K G G K I I I K	
UniRef90_K4LRP5	N P G L A D S E F V R Q Q M G V G	V C E T A A L A A V	P V G E L L V L	
UniRef90_R5C913	P G E F T S S E F V R G I T G V D	V C E R S A A A K A	G N A G R L L I Q	
UniRef90_C4GBG7	G D F H H S D F V M Q T L G C D N	V C E R A A L L L A K D L S S E E A Q	L L V	
UniRef90_A9GMA5	G I E N P S E T V K K H V G A R G V	V A E P A A L R A A G A R R L L		
UniRef90_UPI0003784AFA	L Y N L D I S P F V T K Q I G I G N	V C E A A V L I A S Q S	K K I I L L	
UniRef90_Q2WAM3	P R L A N P S D V V F A E T G C H	G V A E G A G A L A A A G A D A T L	L V V	
UniRef90_D1PMC8	G D F T A S D F V E K I T G V D N	V C E R A A V R A S	G G T L L I Y	

130

UniRef90_A8MG29
 UniRef90_UP10002F12CFF
 UniRef90_G5HLC7
 UniRef90_UP10002EEDC6B
 UniRef90_R6E977
 UniRef90_C0BZB2
 UniRef90_C7QGL0
 UniRef90_F2NFE4
 UniRef90_UP100046EBF6D
 UniRef90_UP1000368BD47
 UniRef90_W3ASZ0
 UniRef90_R6JV71
 UniRef90_U5VIL2
 UniRef90_Q0ID50
 UniRef90_UP100037F87D1
 UniRef90_U2SE02
 UniRef90_G2TCV0
 UniRef90_UP100034B9C6E
 UniRef90_R7ELW6
 UniRef90_F6B828
 UniRef90_UP1000412A627
 UniRef90_K7RQY4
 UniRef90_D4H1Y8
 UniRef90_K9PDI0
 UniRef90_R6L2F4
 UniRef90_C9RCU4
 UniRef90_UP10003B435FF
 UniRef90_R5XPE3
 UniRef90_F3NQW4
 UniRef90_M9VF97
 UniRef90_E6SSV2
 UniRef90_F5LGR4
 UniRef90_E8WQC2
 UniRef90_UP10002002EF5
 UniRef90_F6CHV1
 UniRef90_UP1000347AD68
 UniRef90_UP100047A0807
 UniRef90_K9ZNZ8
 UniRef90_W6LY82
 UniRef90_K2R316
 UniRef90_UP10004767767
 UniRef90_UP10003A95080
 UniRef90_R5XIM7
 UniRef90_R7DBH6
 UniRef90_G2SX00
 UniRef90_UP100037E4737
 UniRef90_H1D5P7
 UniRef90_S6EQI0
 UniRef90_E3PXF1
 UniRef90_A8M4X1
 UniRef90_UP10003B6111E
 UniRef90_UP100047C5CF4
 UniRef90_R5HC29
 UniRef90_UP10001C36F30
 UniRef90_A9WIP4
 UniRef90_B2JAR6
 UniRef90_R7L0S1
 UniRef90_E5BH86
 UniRef90_L8LXH7
 UniRef90_W1JAR9
 UniRef90_E2ZJM4
 UniRef90_UP10003745664
 UniRef90_UP10003665AD6
 UniRef90_UP10004785BB3
 UniRef90_B2TPG1
 UniRef90_I4DHA3
 UniRef90_K9VGP0
 UniRef90_L0D988
 UniRef90_S2KV86
 UniRef90_UP100037B0DBA
 UniRef90_E1L541
 UniRef90_U5CLW3
 UniRef90_B3EBR7
 UniRef90_C6PWV5
 UniRef90_J2LNT5
 UniRef90_M1PIU8
 UniRef90_Q0TR66
 UniRef90_UP100029ACD9
 UniRef90_V6AVF6
 UniRef90_I3VYP0
 UniRef90_B0TIJ9
 UniRef90_S0KYK2
 UniRef90_I0I590
 UniRef90_D9SP01
 UniRef90_G9F055
 UniRef90_K4LRP5
 UniRef90_R5C913
 UniRef90_C4GBG7
 UniRef90_A9GMA5
 UniRef90_UP10003784AFA
 UniRef90_Q2WAM3
 UniRef90_D1PMC8

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



50 60 70 80

UniRef90_A3CL64	E S K I V S I D V K K D E A A I L A L A E E E L G C P F E T F S K E E L S V A
UniRef90_V6JTC4	S V T E L A T V D A K S E E P G V A A A G R L G V P L V I T Y S A G E E L A A V V E
UniRef90_B0PB96	A V C R L A T I D L K Q D E A C Q A F C A S R S L P L E C V P A S D L A A V E
UniRef90_Q1NN70	A I R N L A T I D L K R D E P G L A E H L E C S F K T F S R E E I K T V Q E
UniRef90_K6UBS9	A V N T I V S V D D V K A N E E G I I R L A E H L E C S F K T F S R E E I K T V Q E
UniRef90_D7CLW7	A V K C L A T I E E L V K R Y E T N V E A A A D D L G L P L E F V T A E D I A R V E
UniRef90_F6DJW5	S L Q A L A T I V D D V K M K E P G L A Q A E Y F K V P L V E V G R E E I E A L S
UniRef90_A0LCC6	D V Q R L A T I E A K R D E L A L C Q L A Q K W G W P L D L H S A E E A L A A V
UniRef90_Q1AYB5	S L C A L A S V E E A K R G E R G L E A A E S L G V T L R L F P A Q R L A R
UniRef90_UP10003B7A449	S V L A V T S I D D L K S K E V G I I E L A E S L G A E F K T F S Q E L M Q Q E
UniRef90_J1QIA7	A L R A I G S I S L K Q D E K G L Q L A E S L R V P F E I F T A Q A L R E H E
UniRef90_V6F7H7	A I A C L A S V D D K I D E R A V L D L A R S L G V P A R F F T A A R L N E E A
UniRef90_A8FV20	A I A E L A S I D D L K A D E A G I I A A A N R L N R P F N T F N P Q T L E K V V
UniRef90_E5Y4Q0	N I A G I A T C T V K E D E P A I I L G L G E A W Q V P V A S H S A E E L D A V
UniRef90_UP100037781E2	A I A G V A T V D L K A D E A G I L G V C Q Q R G W T L R C F S P G Q S Q V N
UniRef90_L8LNB6	A I A G L A T I D L K A D E P G L V S L S Q E W S P L V T F T A A Q L Q G I
UniRef90_UP100047C099A	S L K A L V S I D D K K K D E E G I I R L S E Q L K I P F I T Y S P E V L M E Q E
UniRef90_UP100034BAEDF	R T A L A S L D R K Q D E P G L L A L A Q W L N L P L H C F S A A H L A M Y D
UniRef90_UP10004653159	S I I A L A S I E A K R D E A G I L E A A R T L N L D I L F Y R A D E L A G V S S
UniRef90_I3D1V6	S I A K L V S I K K P D V Q G I I D L G E E M G P V E Y V N R E D A E I S S
UniRef90_A0ZGU7	A I A G L A T I D N K A D E A G I L G L C R L C P K T F T A D L S T V S
UniRef90_UP100034C02BD	A V A G L A S I A L K A D E A G I L A V A R Q Y Q W P L R W F E A A E L A R A T
UniRef90_R6R413	G I R G A A S I D L K Q D E P G L A A F C C A A H G W P I T F Y T A R Q L Q A V E
UniRef90_R9LA35	A V R Q I A T I D R K S Q E P C I R A F C G K Y S P L E T V S A Q T L V Q T E
UniRef90_UP100036CA6BA	Q I S G L A S I T L K A D E Q G L C A A A H H W P Q F Y T P P E E L A S V E
UniRef90_R5C1C4	A I S D F A T I C E K R E E P V V Q G L Q S R F P V H F Y T A E E L K A V D E
UniRef90_UP10003689E13	A I A S F S T I D A K R E E P V V V K S L E G K W E L R F Y T A G E E L K N F T
UniRef90_F0T7D6	R I N T L T T G E M K K N E H G I L E A A K T I I N K P L I S E S E L K I S E
UniRef90_F7NPX1	S I A M L A T I T V A K E D E I G L A A A Q Q I E P V E F Y S N E E L Q E I S S
UniRef90_B6AZV9	A V A A V A S I D D L K G D E P A M I E V A K R L G K P L R F S A E E L E A E S
UniRef90_R9MFZ1	A F Y K A C S I D D L K R E E P G L L A F C Q N R G L P L E T F S A A Q A L R D V E
UniRef90_D4K602	A V T A A A S I I D D L K Q N E P G L L A F C Q A R G W P V R F Y S A A Q R S L
UniRef90_R6H002	A V A G A S I I D D L K A D E P G L L A W A R E E Q P L P L T F Y T A E E A L R Q A E
UniRef90_UP1000463484B	Q I C A L G S I I D D L K K E E Q G L L A E S L D V G F C T F G A E E L K K I S E
UniRef90_A1V9X5	S L A A L D T V D I K G D E P A L H A V A A A R D V R L H C H A A A S L A A L S E
UniRef90_UP10004773AE3	A V T G A S I I D G K R H E P G L L E L A R Q L Q P L L V F F N S T A L Q P Y E
UniRef90_D6E6H1	A V R E A A T I I D V K A H E E G G L L A F C R A R N I S L A T Y S A E E L R R I E
UniRef90_UP10003017CB0	A N A G I A T I D N K A D E V G L V E L C R E N N W L F K T F T A E I L C T V S E
UniRef90_UP100047E2834	S V K A I V S A D I K S E E P G L Q D L S K W L D A D F T F S S A T L M E Q E
UniRef90_B5IPU8	A V A G L A S I I D R K A D E P A L H A S H Q W P L R W L P A S E L R R I E
UniRef90_Q64TB0	A I R T V S S I I E E K K D E P V K L L A E A Y Q T R L Y T A S Q L S K I E
UniRef90_D1Y752	S L Y A L A S I I D D L K K D E E G G L L A R E L K V P F L T F P A V E L R G V
UniRef90_K9S6V4	A I A G L A T I I D D L K A D E V G L V E L S R D R P W P L R C F S A E E L R G V
UniRef90_C5CP7	Q V A A A A S I I D D L K A D E P G L L A A A H G W A L R F Y S A A Q L A E V E
UniRef90_R5T5U5	Q V A S L S S V N L K A D E K G L L D F A K H I D R P I H F Y T V V E E L R E T E D
UniRef90_UP10004783C7E	A I A G I S S I I E E L K K D E P L L Y D L S Q R Y N V P L Q I Y T A S E L E G I D
UniRef90_G4REI9	A L A A L A T I H T H A R T P A L L E A A D H F G V P L R T F T R R E L D R E K
UniRef90_D5BRA8	A I A A V V S V D I K A D E P A I K A L A A H L D V P F L V Y D V A R L E A E T
UniRef90_E3DP15	S I K G L A T I I D I K K D E E A F K K L S E D L N I D F F C F R P E E L K K I E
UniRef90_R5YN44	E I A A I A S I I D D V K E N E E G I I L A L A Q K M R V P F V F T A G Q R E V P
UniRef90_N9WKE4	S V K V I G S I I D D L K K D E E A I L N L G K I L N A E L K F F T K D E L A K V H
UniRef90_D028T5	A L K A I G S A A L K R D E P G L Q L A R W R P F H T F T T D A L R A H E
UniRef90_F9MMA2	S V K A L H T I D I K K D E V G L S E F A S S W H P I Y Y H S A E M L K K V K E
UniRef90_F9MSK9	S I K D M A S I I D I K K D E E A F K K L S E D L N I D F F C F R P E E L S L L E
UniRef90_R6NZV7	Q L K Q L A S I I D L K K E E P A I L A Y A Q K Y K V P F A T Y P A E Q L E K I T
UniRef90_UP100037B3307	N I A E L A T V D A K A E E P G I V Q A A Q R L R V P L V T Y S A E E L A A V Q E
UniRef90_I4N388	D L A G L A T I I D L K A N E P A L I E L A R T L N L P L T F S A A Q L A P F E
UniRef90_F5IXS9	S V S S I S T I I D I K K D E P L R E L Q S Y L G I V P V H Y N A E E L K D E
UniRef90_H7EPJ7	R I E K I A T I I D I K K N E P A I L S L A E L L N V P L I F F T A E E L G A Q T
UniRef90_A0A028UZM6	N L A A G L A S I A H H K R D E P G L H E L L A T R L K L E L R F F S P N D L T P Y Q E
UniRef90_K9GLK2	A V A C V C S I I D L K A D E A A V R A V A M G P A R F T A E E L E R E T E
UniRef90_Q7NXR3	D V R E A A T I I D L K A D E A G L L E F C R R H A L P L R V I A R E D V A A R
UniRef90_A5GW04	A V A G L A S I I D V K N D E P A L Q V L A S E R N W P L K F F S A D E L K A Q S H
UniRef90_F6AB35	E L T A L A S S D H K A S E P G L Q M A A H L N L P I H F L P A E V L A G Y H
UniRef90_Q05QF9	U V A G L G S T I D R K G D E T A L E L T N Q R E W P L R L H T A E E L D A I T
UniRef90_W7WEN1	D V V A V A S I I V D L K D A G G L L A F A R R G R W T V Q F H P A A R L A Q V E
UniRef90_J5TXW1	S I H H L A T I I D L K K D E P L H E L A A T L Q L T P E I Y T A A D L A D V E S E
UniRef90_W6M6K9	E V V A V A S I I D L K A D E A G F A E L L A A A Y G W R I R Y Y S A A E L A A V S Q
UniRef90_A0A037Z1G4	A V K S I G T V E I K K D E K K I D L S S F L N C D L N F S I E D I R P I Q S D
UniRef90_UP100046E7A78	A V K S I S T I I E L K K D E E P L H T L A E Q W G P T N I Y T A Q E L E K V D
UniRef90_R5UXR9	S I K A M A T I I S R K Q A E P A I L Q L C E T Y H I P L Q I V P D A D I R A C
UniRef90_K0IK96	S I R N I S S I I N R G A K V K G L E E F S K Q Y G I P I E I Y D K D K L A S V N
UniRef90_V2QDC5	K I L A I S I I D I K K D E K K L S S K Y L N V P F V T Y S A K Q L T D M Q
UniRef90_U2C4B5	A V K S V S T I I E L K K D E P L H T L A E Q R L A V P I K F F S P K D L A G I E
UniRef90_UP1000404B94A	S V C K I G S V D V K K D E E T A I E L S K R L N C D F L T F D R D S I N S V N S
UniRef90_K9E6I3	A V K C I A T I N E K R D E P V I Q E L A R A R Y Q I H Y Y S A D E L K E V S N
UniRef90_E11GF2	N L A A L A T V E Q K A Q E A G F I L E A E A L G L R L E I V T A Q M H L N
UniRef90_UP100034D242D	Q V V G M G S I I D L K A D E P G M L A L A C D R G W P L R F F T P Q A A A V
UniRef90_E0E2E4	S I G R V G T I I D L K K D E A C I L D F C R K Y G I K S D F F S P K D L A D H Q
UniRef90_T0K6N4	S V A I G S T I V V K E D E P G L L A A A R Q L A V P I K F F S P K D L Q A D
UniRef90_UP1000347796E	E V R E V A T V D V K A N E P G L L E F C R K H G L P L R V F A R A T L A A R
UniRef90_UP10003697EDF	S V K S L A S A W V K S D E V G L L Q T G K I L N P I D F Y E Q Q E L Y A I A
UniRef90_I8SDS2	S I S I G S T I V K Q D E E G G L L S A I Q Q L N V P S I F V N E Q L Q E I E
UniRef90_W2DCH7	Q I N A L A S I I A H K R D E P G M I A L A N A N L P L Q C F D A Q Q L L P Y E
UniRef90_E2ZC01	S V A D V N T V D V K A D E K G L I E C A E R F G V P L R T Y S P G E L M K V E
UniRef90_U2PQ13	S V L K I S T I D L K S K E E A I L I N I S Q V F S V P L E I H S R G E V R K I E
UniRef90_G6FUA0	A I A G L A T I D T K A D E V G L V E L C R E R N W L L K T F C A E L R T V
UniRef90_C9LWA8	D V S L A S T E A K A D E A G L L A L S A K L K R D I R F H S N E K M Q E I D
UniRef90_Q58544	R V D A F A T I E D K K H E R G I E T V V N K F K P L I I F K R E E I N E I D
UniRef90_K9TUC1	A I A G I A T I D L K A D E V G L V E L C H A Y D F P L R T F P A E I L S A I S E
UniRef90_T0MXS8	A V G T I A T V S I I K K D E E P A I S L S K N L G V E I N T P T P E E I K P I E
UniRef90_G5H134	F I D A F A S T E V V K R D E A G L L A A V R T L G R E I Q F P N E A L A M D

90 100 110 120

UniRef90_A3CL64	D R Y P Q S E F V K K T V G V G S V A L A S A D L A S Q		G Q V L T
UniRef90_V6JTC4	V P N P S E A P L A A V G T P S V A E A A A L V		R G G E L L L V
UniRef90_B0PB96	G H F T P S S F V K D V T G V D N V C E R A A V Y A S H		G R L I A
UniRef90_Q1NN70	I P L P T N S A T V H R A T G A G G V A E P A A L I S S		G A A Q L L I
UniRef90_K6UBS9	D K Y E K S E F V E K T L G I T G V C E P C I D L A		G A K V I V
UniRef90_D7CLW7	K R F S F S R L V K S K V G V G S V C E P A A Y L		S G R E P E L V L
UniRef90_F6DJW5	G Q F A P S D F V K Q S I G V G G V C E P A A M T A S		G Q G K I I I
UniRef90_A0LCC6	K V P N P S P V V L K Y M G T P A V A E A A A L L S G G N	P G W A A L L V	
UniRef90_Q1AYB5	Q P A P N P S R A V E R A V G T P S V A E A A A V L A C		G A T L L V
UniRef90_UP10003B7A449	G E F S A S Q F V R E T T G A D N V C E R S V L A Y G C R		R M I M
UniRef90_J1QIA7	H R F P A S D F V R Q T A V G G S V S G P A A W L M S Q		G Q L V G
UniRef90_V6F7H7	P R L K N P S D I V L K E I G C P G V A E G A A A A A G P E A E L V V		
UniRef90_A8FV20	G V E T P S E T V K R C I G V V S V A E A A C L H A S		G R S E L L I
UniRef90_E5Y4Q0	P V S A P S E K V R E K V R G T A S V C E A A C L L S A G Y G S I P Q P T L Y A		
UniRef90_UP100037781E2	P V P T P S A V V E R E V G T P S V A E A A A R C A A Q P E D P H S G P L L V		
UniRef90_L8LN6	V P N P S Q V V Q Q A V G T P S V		
UniRef90_UP100047C099A	G D F E H S D R V L E A T G A D N V C E R A V A A Y	G C K K I V L	
UniRef90_UP100034BAEDF	D R L S H R S A V A F A H T G C Y G I A E S A A L A L A E Q L G G A P A R L L V		
UniRef90_UP10004653159	V P H P S A V V A K H M G V G S V C E A A A I L A	T G G G R L L A	
UniRef90_I3D1V6	A P N P S E T V R E F E G T A S V S E A A A I K V S		
UniRef90_A0ZGU7	V P N P S P V V E R A V G T P S V		
UniRef90_UP100034C02BD	V P N P S P V V E R A V G T P S V		
UniRef90_R6R413	G H F T P S A F V R S V T G V D N V C E R A A V C A A	D G P L Q V	
UniRef90_R9LA35	G Q F T G S A F V R T V G V D N V C E R A A V A C	G G G E L L F	
UniRef90_UP100036CA6BA	V P N P S A T V L R H T G T P S V S E A A A A L L A A R A D M S Q L I L		
UniRef90_R5C1C4	V P T P S E V V Q K H M G T P S V S E A A A L L A S E S	G C L V L	
UniRef90_UP10003689E13	V P T P S P T V M K H M G T P S V C E A A A I L S A	G N A Q L V M	
UniRef90_F0T7D6	N P D M N D S E F V K S K F G I G G C E P S S L I E A	G T K S R L I L	
UniRef90_F7NPX1	R H Q L K V S G F E D K I G V G N V C E A A A A L L A	G R T S R L L L	
UniRef90_B6AZV9	S R L E N P S E V V F A E V G C H G S E G A A L A M V	G A D G F L R V	
UniRef90_R9MFZ1	G R F S P S A F V Q S V T G V D N V C E R A A V V L	G S G G A L I V	
UniRef90_D4K602	P G Q F T P S P F V Q R V T G V D N V C E R A A V V L D A	D G S L F Y	
UniRef90_R6H002	G D F P S E F V K T V T G V D N V C E R A A V V L A A	G G G R L R I	
UniRef90_UP1000463484B	T V S A A S E F V R R I T G V D N V C E R A A K K M C	P T G Q L V Q	
UniRef90_A1V9X5	V P N P T P K A A E V L I G T G P V G V C E A A A A I L	G S G G G R L L V	
UniRef90_UP10004773AE3	S R L S H R S S L T F V A H T G C H G V A E S A A L A L A E Q Q Q P P A S L L I		
UniRef90_D6E6H1	G S V P S P D F V R A T V G V D N V C E R A A L A L A	D G G K L I F	
UniRef90_UP10003017CB0	V P N P S Q L I Y K H I K T P S V		
UniRef90_UP100047E2834	G E F S S S D F V K S V T G A D N I C E R A V I A Y G C H	K L L V	
UniRef90_B5IPU8	P V P N P S A V V E A E M G T A S V A E A A A L C A A E S T H		
UniRef90_Q64TB0	V P T P S E V V N K H M G T P S V S E A S A L L S S	G G G P L L L	
UniRef90_D1Y752	P G Q F S H S E K V L D V A G V D N V C E R A A V V L A S D L	G P L L R	
UniRef90_K9S6V4	P V P T P S E V V A A E V G T P S V A E A A A L V A A R Q A Q A P E P Q L R V		
UniRef90_C5CPE7	P V P H P S E T V R R H T G T P S V S E A A A L L A G G G L P M A A L V V		
UniRef90_R5T5U5	V E N I E I L S K F V E K T I G V G N V C Q S A A L R E S M	G G K T L L	
UniRef90_UP10004783C7E	V P N P S D K V A S V T S V P G V S E A S A L K A S E M	G I L L I L	
UniRef90_G4REI9	K R L A T P S A T V E A A I G V A G V C E A V A I K A	G T L I V	
UniRef90_D5BRA8	P R I L A N P S E V V H A E I G A H G V	A E A A A A L A A S G I N G R L L V	
UniRef90_E3DP15	A D L I A K S D F V K K T I G V	S A A A A P A A I L A S K S G Q L L I I	
UniRef90_R5YN44	G E Y S S S G F V A A E K V G V D N V C E R A A V V	G A G D E L L V	
UniRef90_N9WKE4	H K Y E G S D F V E K T T G V R C V S E P V V E L L	G G K I I I R	
UniRef90_D0Z8T5	Q R F P I S P F V R R T V G V G S V S G P A A W L L S H	G Q L V G	
UniRef90_F9MMA2	G S K S S S F V T Q T V G V D N V C E R A A L C	G I E G K L I I V	
UniRef90_F9MSK9	D R V Q G S S F V K K T V G V D N V C E R A A A L K L	G G E L L I I	
UniRef90_R6NZV7	E V V S A T S R F V K Q V T G V D N V C E R A A	R T A D A D G E L L C	
UniRef90_UP100037B3307	V P N P S D A P L A A L G T P S V I A E A A A L V L		
UniRef90_I4N388	P Q L S H K S A L A F T H T G C H G V A E S A A L A L A	G P G S Q L L L V	
UniRef90_F5IXS9	V P N P S D K V K E V T V A G V G N V C E R S V A L	D G G P L I L	
UniRef90_H7EPJ7	H G N F S D S E F V R K T V G V G N V C E R S V A L	S G A F L A A	
UniRef90_A0A028UZM6	S A D T A S L L T R A A T G S P A V A E P C A L A L A T R L G G S	A Q L L G	
UniRef90_K9GLK2	P R L Q T P S E V V F A E V G C H G V S E G A L A A G P E A T L I V		
UniRef90_Q7NXR3	G W T G A P S D W V R Q N V G D V G C E P C A L I A S	P R G R L L V	
UniRef90_A5GW04	V P N P S A V V A A E V G C P S V	A E A A A L C A A G S G A E L R L	
UniRef90_F6AB35	G R L T D T S T K A L Q L T G T P S V A E A S A L A L V E Q L S D R P A R L W I		
UniRef90_Q05QF9	P V T P S P V V Q A E M G T G S V	A E A A A L R A A G P E A Q L R L	
UniRef90_W7WEN1	P V P N P S E T V R R H I G T P S V S E A A A L L A S A P M S A L L V		
UniRef90_J5TXW1	V A N P S K K V H E V T G V W G V A E S T A R Y A A S L	G S L V L	
UniRef90_W6M6K9	V P N P S E T V R R Y T G T P S V S E A A A L L A A	G V D S S Q L L I	
UniRef90_A0A037Z1G4	H K F E G S D F V E K T I G V R T C E P C V E L	Q G A K L I T	
UniRef90_UP100046E7A78	I P N P S A K V E E V T S S P S V S E A S A L Q S S E F	G L L I L	
UniRef90_R5UXR9	G N L F E A S A F V Q Q V T G L P S V S E A C S Y L A A	G K G T I L T	
UniRef90_K0IK96	V P N P S Q T V V Q K F E G T P S V S E A S S L L S S	K G E L V V	
UniRef90_V2QDC5	G D F T S S N F V K K I T G V D N V C E R A A V	K C F N G S E I I I V	
UniRef90_U2C4B5	V P H P S D K V Y E V T V G V Y G V A E S C A I H A S E	G G R L L L I	
UniRef90_UP1000404B94A	C D Y E K S E F V F K T L G V Y G V C E P V I Y L M N S Y V T		
UniRef90_K9E6I3	V P N P S P V V E K H M G T P S V S E A A A S L S A	N G G E L L L V	
UniRef90_E1GF2	P S D F S P S A A S E H L D L I G V A E P A A L L V A	G G E L L L V	
UniRef90_UP100034D242D	P V P N P S E T V R R H T G T P S V S E A A A L L V A G A R G P E A	L L L	
UniRef90_E0E2E4	D I Y E K S E F V F K K V T G V Y S V A Q P A C H I L A	G G N L L L G	
UniRef90_T0K6N4	Q Y D L S L S N F V K E K I G V G N V C E P A A I L A	G K S N N L L I L	
UniRef90_UP1000347796E	P W V T K A S D W V M Q N V G L D G V C E P C A L V A S	P R G E L L V	
UniRef90_UP10003697EDF	K Y N L R E S A Y V V K K T L G I G N V C E A A A L C T V K	K G R I K V	
UniRef90_I8SDS2	T Y Q L E E S N F V K K E I G V G N V C A A A A L A	G Q S N K L L L	
UniRef90_W2DCH7	G R L S H R S A V V F A H T G C Y G I A E S A A L A L A E Q L A N A P A R	L L I	
UniRef90_E2ZC01	P G I F T T S D F V R S Q V G T D N V C E R A A A A A A K E S V P		
UniRef90_U2PQ13	H F L K C D F D V R K S I G V G A V A E P C V Y L	S G G E I V V	
UniRef90_G6FUA0	C V P N P S Q L I H Q Y I A T P S V	A E A A A L C A A E R K S L L V	
UniRef90_C9LWA8	A Y G L S E S P F V K K N I G I G N V A E A A A L A S V	P A G R L A L	
UniRef90_Q58544	K I D L E K S E F V Y K H L G V Y G V S E P A S I L A V K K L T N K D I K L I L		
UniRef90_K9TUC1	U P N P S P V V E R E V G T P S V A E A A A L C A C L D L P E T K P K L L V		
UniRef90_T0MWS8	H K Y K T S D F V R K T I G V G A V C E P V I E L C	K G R V I H	
UniRef90_G5H134	Q Y G L T E S D F V R Q T I G V G N V S E A A A L C A A	G K E G G R M A L	

130

UniRef90_A3CL64
 UniRef90_V6JTC4
 UniRef90_B0PB96
 UniRef90_Q1NN70
 UniRef90_K6UBS9
 UniRef90_D7CLW7
 UniRef90_F6DJW5
 UniRef90_A0LCC6
 UniRef90_Q1AYB5
 UniRef90_UP10003B7A449
 UniRef90_J1QIA7
 UniRef90_V6F7H7
 UniRef90_A8FV20
 UniRef90_E5Y4Q0
 UniRef90_UP100037781E2
 UniRef90_L8LN6
 UniRef90_UP100047C099A
 UniRef90_UP100034BAEDF
 UniRef90_UP10004653159
 UniRef90_I3D1V6
 UniRef90_A0ZGU7
 UniRef90_UP100034C02BD
 UniRef90_R6R413
 UniRef90_R9LA35
 UniRef90_UP100036CA6BA
 UniRef90_R5C1C4
 UniRef90_UP10003689E13
 UniRef90_F0T7D6
 UniRef90_F7NPX1
 UniRef90_B6AZV9
 UniRef90_R9MFZ1
 UniRef90_D4K602
 UniRef90_R6H002
 UniRef90_UP1000463484B
 UniRef90_A1V9X5
 UniRef90_UP10004773AE3
 UniRef90_D6E6H1
 UniRef90_UP10003017CB0
 UniRef90_UP100047E2834
 UniRef90_B5IPU8
 UniRef90_Q64TB0
 UniRef90_D1Y752
 UniRef90_K9S6V4
 UniRef90_C5CPE7
 UniRef90_R5T5U5
 UniRef90_UP10004783C7E
 UniRef90_G4REI9
 UniRef90_D5BRA8
 UniRef90_E3DP15
 UniRef90_R5YN44
 UniRef90_N9WKE4
 UniRef90_D028T5
 UniRef90_F9MMA2
 UniRef90_F9MSK9
 UniRef90_R6NZV7
 UniRef90_UP100037B3307
 UniRef90_I4N388
 UniRef90_F5IXS9
 UniRef90_H7EPJ7
 UniRef90_A0A028UZM6
 UniRef90_K9GLK2
 UniRef90_Q7NXR3
 UniRef90_A5GW04
 UniRef90_F6AB35
 UniRef90_Q05QF9
 UniRef90_W7WEN1
 UniRef90_J5TXW1
 UniRef90_W6M6K9
 UniRef90_A0A037Z1G4
 UniRef90_UP100046E7A78
 UniRef90_R5UXR9
 UniRef90_K0IK96
 UniRef90_V2QDC5
 UniRef90_U2C4B5
 UniRef90_UP1000404B94A
 UniRef90_K9E6I3
 UniRef90_E11GF2
 UniRef90_UP100034D242D
 UniRef90_E0E2E4
 UniRef90_T0K6N4
 UniRef90_UP1000347796E
 UniRef90_UP10003697EDF
 UniRef90_I8SDS2
 UniRef90_W2DCH7
 UniRef90_E2ZC01
 UniRef90_U2PQ13
 UniRef90_G6FUA0
 UniRef90_C9LWA8
 UniRef90_Q58544
 UniRef90_K9TUC1
 UniRef90_T0MXS8
 UniRef90_G5H134

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

UniRef90_A6FFK4
 UniRef90_R5LHP4
 UniRef90_R7B5B5
 UniRef90_I4GAX3
 UniRef90_UPI0004622124
 UniRef90_W2C9R6
 UniRef90_A4EF61
 UniRef90_UPI00016C0DCC
 UniRef90_UPI00046D14D2
 UniRef90_C7P147
 UniRef90_O27459
 UniRef90_F2KS01
 UniRef90_G7Q9B4
 UniRef90_V6UU53
 UniRef90_UPI000477B036
 UniRef90_U5P3L5
 UniRef90_G8UMV0
 UniRef90_C7RS75
 UniRef90_UPI0003712398
 UniRef90_UPI0003778A0C
 UniRef90_Q1JZX7
 UniRef90_G7LLK0
 UniRef90_UPI000468CE7E
 UniRef90_R5JJZ2
 UniRef90_R9KEL3
 UniRef90_UPI0003B37130
 UniRef90_W8UD56
 UniRef90_UPI00037952B9
 UniRef90_H3SCT5
 UniRef90_UPI000287CE0B
 UniRef90_W6RBT7
 UniRef90_A7C564
 UniRef90_U2KAN6
 UniRef90_E3GZK0
 UniRef90_N0CN70
 UniRef90_I4KCA2
 UniRef90_R7DSW9
 UniRef90_UPI000382008B
 UniRef90_R6GY19
 UniRef90_K9SLF7
 UniRef90_C4KCE4
 UniRef90_G5IHX8
 UniRef90_U1T668
 UniRef90_E8REQ9
 UniRef90_Q2NE00
 UniRef90_UPI00037DE038
 UniRef90_W8U9T7
 UniRef90_D3P9V0
 UniRef90_UPI00047957FD
 UniRef90_A6UAA2
 UniRef90_UPI00045E5F60
 UniRef90_UPI0002DC6A98
 UniRef90_F8DQ07
 UniRef90_U7UTJ4
 UniRef90_A6NSF3
 UniRef90_A3VBB9
 UniRef90_K9P7Q4
 UniRef90_W1TWE6
 UniRef90_D1AJF7
 UniRef90_UPI00029A06B5
 UniRef90_C3JS4
 UniRef90_F4KKT2
 UniRef90_D9PYR5
 UniRef90_L0LN15
 UniRef90_D4F6J1
 UniRef90_UPI0004629FD4
 UniRef90_B8G7Z3
 UniRef90_A3Z8T5
 UniRef90_UPI00037686E6
 UniRef90_R5VJ17
 UniRef90_A1WWQ0
 UniRef90_UPI00037E115F
 UniRef90_Q7P611
 UniRef90_UPI00035C35CA
 UniRef90_R5RED4
 UniRef90_U2K6W7
 UniRef90_UPI00046EC18D
 UniRef90_I2MW86
 UniRef90_E1QJT0
 UniRef90_G1WJS5
 UniRef90_G5GF11
 UniRef90_B1G316
 UniRef90_X5D7B0
 UniRef90_F3ZW49
 UniRef90_UPI0003749395
 UniRef90_R2PAD0
 UniRef90_R6X1F6
 UniRef90_B5ZSG9
 UniRef90_UPI0003692B0E
 UniRef90_F8X4A1
 UniRef90_D7E5H8
 UniRef90_UPI000237B5ED

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

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

UniRef90_A6FFK4
 UniRef90_R5LHP4
 UniRef90_R7B5B5
 UniRef90_I4GAX3
 UniRef90_UPI0004622124
 UniRef90_W2C9R6
 UniRef90_A4EF61
 UniRef90_UPI00016C0DCG
 UniRef90_UPI00046D14D2
 UniRef90_C7P147
 UniRef90_O27459
 UniRef90_F2KS01
 UniRef90_G7Q9B4
 UniRef90_V6UU53
 UniRef90_UPI000477B036
 UniRef90_U5P3L5
 UniRef90_G8UMV0
 UniRef90_C7RS75
 UniRef90_UPI0003712398
 UniRef90_UPI0003778A0C
 UniRef90_Q1JZX7
 UniRef90_G7LLK0
 UniRef90_UPI000468CE7E
 UniRef90_R5JJZ2
 UniRef90_R9KEL3
 UniRef90_UPI0003B37130
 UniRef90_W8UD56
 UniRef90_UPI00037952B9
 UniRef90_H3SCT5
 UniRef90_UPI000287CE0B
 UniRef90_W6RBT7
 UniRef90_A7C564
 UniRef90_U2KAN6
 UniRef90_E3GZK0
 UniRef90_N0CN70
 UniRef90_I4KCA2
 UniRef90_R7DSW9
 UniRef90_UPI000382008B
 UniRef90_R6GY19
 UniRef90_K9SLF7
 UniRef90_C4KCE4
 UniRef90_G5IHX8
 UniRef90_U1T668
 UniRef90_E8REQ9
 UniRef90_Q2NE00
 UniRef90_UPI00037DE038
 UniRef90_W8U9T7
 UniRef90_D3P9V0
 UniRef90_UPI00047957FD
 UniRef90_A6UAA2
 UniRef90_UPI00045E5F60
 UniRef90_UPI0002DC6A98
 UniRef90_F8DQ07
 UniRef90_U7UTJ4
 UniRef90_A6NSF3
 UniRef90_A3VBB9
 UniRef90_K9P7Q4
 UniRef90_W1TWE6
 UniRef90_D1AFJ7
 UniRef90_UPI00029A06B5
 UniRef90_C3JS4
 UniRef90_F4KKT2
 UniRef90_D9PYR5
 UniRef90_L0LN15
 UniRef90_D4F6J1
 UniRef90_UPI0004629FD4
 UniRef90_B8G7Z3
 UniRef90_A3Z8T5
 UniRef90_UPI00037686E6
 UniRef90_R5VJ17
 UniRef90_A1WWQ0
 UniRef90_UPI00037E115F
 UniRef90_Q7P611
 UniRef90_UPI00035C35CA
 UniRef90_R5RED4
 UniRef90_U2K6W7
 UniRef90_UPI00046EC18D
 UniRef90_I2MW86
 UniRef90_E1QJT0
 UniRef90_G1WJS5
 UniRef90_G5GF11
 UniRef90_B1G316
 UniRef90_X5D7B0
 UniRef90_F3ZW49
 UniRef90_UPI0003749395
 UniRef90_R2PAD0
 UniRef90_R6X1F6
 UniRef90_B5ZSG9
 UniRef90_UPI0003692B0E
 UniRef90_F8X4A1
 UniRef90_D7E5H8
 UniRef90_UPI000237B5ED

50 60 70 80

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

90 100 110 120

UniRef90_A6FFK4	D L S T K S D Y V Y S V V G V Y G V A E S A A L F D V Q Q I T Q Q Q G E L I L		
UniRef90_R5LHP4	G S F S M S E F V Q S T V G V D N V C E R S A S V G G N T L L I I		
UniRef90_R7B5B5	G T K F A E S P F V R K T V G V G N V C E R A A V V M G V R R I Y R E R E D L R V		
UniRef90_I4GAX3	V P N P S A I V N K K E G T P S V A E A A A L K M G H T L L V		
UniRef90_UPI0004622124	T P T V A S A L S Q A T T G S P A V A E P C A L A L A R M G A F A H L L G		
UniRef90_W2C9R6	V P N P S Q K V F D T T G V W G V S E S T A Q R A S G F G P L V M		
UniRef90_A4EF61	P R L Q T P S D V V F A E V G A H G V S E A A A L A Q A G D A G F L V		
UniRef90_UPI00016C0DCCC	P G E F T S S X F V Q S V T G V D N V C E R A A V V R G S D G P L L L		
UniRef90_UPI00046D14D2	V P T P S E R V R R A V G T P S V A E A A A L A A S P G G R L A L		
UniRef90_C7P147	V V N P S E V V V M S K L G V H S V S E A S A M L L S R N Q E L L L		
UniRef90_O27459	Q N T L S F S D F V Y E K F G V G S V C E A A A L S S A G K D S K L V I		
UniRef90_F2KS01	V V S P S R A E D I G L R S V A E A C A L Y C S K E K Q L L I F		
UniRef90_G7Q9B4	A P N P S E R V A K H M G V G S V C E A A A M L A S G N G K L L I		
UniRef90_V6UU53	P L L S Q R S T I A Y A Q T G C W G V A E S A A L A L A G R S G T E P R L R V		
UniRef90_UPI000477B036	V P N P S E V V R A E V G T A S V A E A A A L H G A A G A G R G A E L V A		
UniRef90_U5P3L5	D K Y P Q S E F V K K T V G V G S V A L A S A D V A S G G Q V I T		
UniRef90_G8UMV0	V P N P S Q K V F E T T G V Y G V S E A A S Q K A A K G T T L V L		
UniRef90_C7RS75	V P N P S E T V R R Y T G T P S V S E A A A L L A A G A G R N H L L I		
UniRef90_UPI0003712398	D K Y P Q S A F V K K T V G V G S V A L A S A D V A S G G Q V I T		
UniRef90_UPI0003778A0C	E Y Q L E Q S N F V S Q Q I G V G N V C E A A A W L Q N Q Y K Q G K L L I I		
UniRef90_Q1JZX7	T R P F G H S E F V A S H V Q L P A V S E P A A L L A G R R T S L L L		
UniRef90_G7LLK0	R R F P A S E F V R R T L G V G S V S Q P V A W L M S G G N L I I G		
UniRef90_UPI000468CE7E	Q R F P A S E F V R A T V G V G S V S Q P V A W L M S A G K L V G		
UniRef90_R5JJZ2	D L Y E R S D F V K K T V G V S S V A E P S C H I L C E G N L I Q		
UniRef90_R9KELE3	G T F Q E S P F V L S Q V G V G N V C E R A A L K A C E E L W E P K G T L A L		
UniRef90_UPI0003B37130	G D F E E S D F V K S K V G V G N V C E R A A V L G A G Q G A M L V K		
UniRef90_W8UD56	H R F P A S S F V R E T V G V G S V S G P V A W L L S Q G N L I S G		
UniRef90_UPI00037952B9	G V H E P S A A A R E H L G V D G C E P C A L L A V A A G C T A H L I A		
UniRef90_H3SCT5	G K Y P V S E F V R Q T V G V K V G N V A L S A A D L A S G G R V L L T		
UniRef90_UPI000287CE0B	N K Y E T S E F V R K T I G V G A V S A P A V E L S N A R V L I		
UniRef90_W6RBT7	P R L K N P S A I V F A R V G C H G V A E S A A L A V G P H A E L I V		
UniRef90_A7C564	Y R D F P V S L F V Q A Q V N L P A V A E P A A L L A G R N T Q L L I L		
UniRef90_U2KAN6	Y P F A A S A F V Q Q V T G L P S V S E A S A Y L A S G C G K V L T		
UniRef90_E3GZK0	K N Y P S D S K F V R K K F G I G S V C E P A A L H V A G K N S Q L I L		
UniRef90_N0CN70	R V P N P S D A A D R A V G T P S V A E A A A L I E A D E L V V		
UniRef90_14KCA2	H R L S H R S A L A F A H T G C Y G V A E S A A L A L A E H L S N G P A R L L I		
UniRef90_R7DSW9	I P T P S D A V F E K T G T H S V S E A S A I L A S G G K I S T		
UniRef90_UPI000382008B	V P N P S A V V M R Y M G T P S V G E A A A L I C A N S D Q H H I V		
UniRef90_R6GY19	Q L G I A T S E F V A S Q T G V L S V S T A C S Y L A S G K G E I L R		
UniRef90_K9SLF7	V P N P S T V V A Q E V G T P S V A E P D I L E E T E P E E A N K P K L L V		
UniRef90_Q2NE00	V P N P S E T V V R Y T G T P S V S E A A A L L A A G T A L A T P G A L R V		
UniRef90_UPI00037DE038	G E F L E S D F V R E T T G T G S V C E R A A V W D A M R Q Y T S P A P L L V		
UniRef90_G5IHX8	P E K T G S P L I R S V T G S P A V A E P C A L A L A S R L G K A A R L L G		
UniRef90_U1T668	G V S T S A T V Q R A I G A K G V A E P A A L L G A G P G A I L L V		
UniRef90_E8REQ9	N E E C S K S D F V M K Q F G V K G V C E P T C L I A N D N S H L I F		
UniRef90_UPI00037DE038	G R I L A N P S E V V L S E V G V P G V A E G A A L A A G P D G R L L V		
UniRef90_W8U9T7	G D F A E S G F V R A S V G V G V C E P C G F I A S G G G R M L L		
UniRef90_D3P9V0	L Y C F N E S T A K K Y L G I K S V I A E P S A L L A A R N P I L V L		
UniRef90_UPI00047957FD	T H Q L H E S D F V K K R I G L V C E A A A F C S V A A R G G R I A L		
UniRef90_A6UAA2	P R L K N P S K V V F A H T G C H G V A E G A A L S G A G S D A V L L V		
UniRef90_UPI00045E5F60	P V P N P S E T V R K Y M G T P A V A E A A A L L A A N A T M Q A L L L		
UniRef90_UPI0002DC6A98	P Q L S H H S A I A Y E Q T G C F G I A E S A A L A L A E Q L A G T P A S L L V		
UniRef90_F8DQ07	V N Y P E S A F V L K T V G V G N V A C A A A D Y A S G E R N A T G G T L L L		
UniRef90_U7UTJ4	G S I S P S D F V V Q A T V G V D N V C E R A A L R R S S G G G Q L V I		
UniRef90_A6NSF3	G E F T P S D F V K G V T G V D N V C E R S A V M G E D A V L S A		
UniRef90_A3VBB9	P R L A N P S D V V F A E V G C H G V A E A A S L A S A G E D A V L S A		
UniRef90_K9P7Q4	V P H P S E A V A R E M G T P S V A E A A A L Q Q A A S H L A G T A P R L L V		
UniRef90_W1TWE6	Q Y H L E E S S F V K V N T I G V G N V C E T A A L L K T K R S Q L L L		
UniRef90_D1AJF7	G K I H K E S E F V K A Q T G V S A V S E P C A Y L A S E K N G G F I A		
UniRef90_UPI00029A06B5	Q R L S H R S A V A Y Q H S G C Y G V A E S A A L A L		
UniRef90_C3JS4	V P H P S Q K V Y E T T G V W G V A E A S A L A S S Q K G R L L I		
UniRef90_F4KKT2	V P N P S E R V A T A T G S T S V S E A S A L A A S Q G G L L L I I		
UniRef90_D9PYR5	T H S F S D F V N E K F G V G S V C E A A A L K S A G T G S R L V I		
UniRef90_L0LN15	P R L K N P S E I V F A L L V G C H G V A E A A A L A A G P D S E L V L		
UniRef90_D4F6J1	H R F P A S A F V R R T L G V G S V S A P A A W L L S Q G H L L G		
UniRef90_UPI0004629FD4	D K Y P C D F V K K T V G V G S V A L A S A D L A S D G Q V L T		
UniRef90_B8G7Z3	P E S F S P S A A G R F E L P G V A E P C A V V A A H G P L L A		
UniRef90_A3Z8T5	V P N P S E V V E A E M G T A S V A E A A A L L A A G E Q G R L R Q		
UniRef90_UPI00037686E6	P V P N P S E V V M K Y M G T P A V A E A A A L K A A N A E L T D L L V		
UniRef90_R5VJ17	L P H P S E K V Y E V T G V Y G V A E S V A L K S A E N T D L L I I		
UniRef90_A1WWQ0	P V P H P S E V V R H H T G T P A V A E A A A L C R A H A D S A D L I I I		
UniRef90_UPI00037E115F	P V P N P S A T V E E K E V A T P S V A E A A A L P N P Q I P A P P P Q P L L A		
UniRef90_Q7P611	N Q F E G S D F V E K T I G V R A V S E P V A L L S S A G N G K F L V		
UniRef90_UPI00035C35CA	V P N P S E T P K Q A V G T K S V A E A A A L H C A S L K H K A R L I V		
UniRef90_R5RED4	V P T P S E V V D K Y M G T P S V S E A S A L L T A G G G P L L I L		
UniRef90_U2K6W7	V L S P S Q K V F E V T G V W G V A E S T S R Y A A G L G S I V L		
UniRef90_UPI00046EC18D	D R T Q T V S K H S L A Q T S T P S L S E A A A L V V A A G K G S E L I V		
UniRef90_I2MW86	V P H P S D K A L A A A G T P S V A E A A A A L V D G G E L L V		
UniRef90_E1QJT0	T P N Q S A A A L R C L G T A S V C E A A A I L A A G G G E L L C		
UniRef90_G1WJS5	G S F S S S P F V E S V T G V D C V C E R A A A C A S G S G R L L I		
UniRef90_R5GF1	G S F D D S E F V K K T V G V G N V C E R S C M L V Y G D M L F		
UniRef90_B1G316	H V A E P S A A A R E H L G V D G V C E P C A L L A S I H A A A H T P Y L V A		
UniRef90_X5D7B0	V P N P S E K V E V V T G S A G V A E A A A M H L A E N G G E L L L		
UniRef90_F3ZW49	H L F S S S A F V S S K V G V G N V A Q S C A Y L D S M L G E L L L		
UniRef90_UPI0003749395	T P N Q S P K T V Q T F E G T A S V S E A A A L K S S G G E L L V		
UniRef90_R2PAD0	K K Y P Q S D F V K K I T G V G S V S L A A A D L A S N G Q V V T		
UniRef90_R6X1F6	P V P H P S S T V K K A T G S G S V A E A A A L L S A E G G P L L V		
UniRef90_B5ZSG9	P R L K N P S E I V F A R V G C H G V A E S A A L A A G P D A E L L L		
UniRef90_UPI0003692B0E	V P T P S A A P L A A V G T P S V A E A A A L T A A G P G A E L L V		
UniRef90_F8X4A1	V A N P S E K V E E V T V A G V A E S S A I K S A G G G F L L I L		
UniRef90_D7E5H8	V P N P A K I I A Q I V G T P S V A E A A S I L A A T E I S S Q M R L L V		
UniRef90_UPI000237B5ED	V P N P S E V V R A E V G T P S V A E A A S I L H A A A E L G A G A P E L V V		

130

UniRef90_A6FFK4
UniRef90_R5LHP4
UniRef90_R7B5B5
UniRef90_I4GAX3
UniRef90_UPI0004622124
UniRef90_W2C9R6
UniRef90_A4EF61
UniRef90_UPI00016C0DCC
UniRef90_UPI00046D14D2
UniRef90_C7P147
UniRef90_O27459
UniRef90_F2KS01
UniRef90_G7Q9B4
UniRef90_V6UU53
UniRef90_UPI000477B036
UniRef90_U5P3L5
UniRef90_G8UMV0
UniRef90_C7RS75
UniRef90_UPI0003712398
UniRef90_UPI0003778A0C
UniRef90_Q1JZX7
UniRef90_G7LLK0
UniRef90_UPI000468CE7E
UniRef90_R5JJZ2
UniRef90_R9KEL3
UniRef90_UPI0003B37130
UniRef90_W8UD56
UniRef90_UPI00037952B9
UniRef90_H3SCT5
UniRef90_UPI000287CE0B
UniRef90_W6RBT7
UniRef90_A7C564
UniRef90_U2KAN6
UniRef90_E3GZK0
UniRef90_N0CN70
UniRef90_I4KCA2
UniRef90_R7DSW9
UniRef90_UPI000382008B
UniRef90_R6GY19
UniRef90_K9SLF7
UniRef90_C4KCE4
UniRef90_G5IHX8
UniRef90_U1T668
UniRef90_E8REQ9
UniRef90_Q2NE00
UniRef90_UPI00037DE038
UniRef90_W8U9T7
UniRef90_D3P9V0
UniRef90_UPI00047957FD
UniRef90_A6UAA2
UniRef90_UPI00045E5F60
UniRef90_UPI0002DC6A98
UniRef90_F8DQ07
UniRef90_U7UTJ4
UniRef90_A6NSF3
UniRef90_A3VBB9
UniRef90_K9P7Q4
UniRef90_W1TWE6
UniRef90_D1AJF7
UniRef90_UPI00029A06B5
UniRef90_C3JSB4
UniRef90_F4KKT2
UniRef90_D9PYR5
UniRef90_L0LN15
UniRef90_D4F6J1
UniRef90_UPI0004629FD4
UniRef90_B8G7Z3
UniRef90_A3Z8T5
UniRef90_UPI00037686E6
UniRef90_R5VJ17
UniRef90_A1WWQ0
UniRef90_UPI00037E115F
UniRef90_Q7P611
UniRef90_UPI00035C35CA
UniRef90_R5RED4
UniRef90_U2K6W7
UniRef90_UPI00046EC18D
UniRef90_I2MW86
UniRef90_E1QJT0
UniRef90_G1WJS5
UniRef90_G5GF11
UniRef90_B1G316
UniRef90_X5D7B0
UniRef90_F3ZW49
UniRef90_UPI0003749395
UniRef90_R2PAD0
UniRef90_R6X1F6
UniRef90_B5ZSG9
UniRef90_UPI0003692B0E
UniRef90_F8X4A1
UniRef90_D7E5H8
UniRef90_UPI000237B5ED

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

UniRef90_R6HY19
UniRef90_K9RM98
UniRef90_R6ZY46
UniRef90_U2CKR3
UniRef90_R7FAK5
UniRef90_UPI0003B336AF
UniRef90_E4RK37
UniRef90_U2CVT3
UniRef90_UPI00036B2347
UniRef90_K9QL04
UniRef90_A8L872
UniRef90_F6BCJ8
UniRef90_U2SQX8
UniRef90_A6TJF0
UniRef90_I0L552
UniRef90_Q47FE8
UniRef90_A9DBT4
UniRef90_F0KDW5
UniRef90_UPI0004749DE6
UniRef90_R5B6Q7
UniRef90_K9TEV9
UniRef90_UPI0003107D98
UniRef90_H0ULN0
UniRef90_E5CEQ4
UniRef90_S7VDH9
UniRef90_Q3AMS7
UniRef90_B4WSK3
UniRef90_R7RPY1
UniRef90_M3FOU9
UniRef90_Q7TTT0
UniRef90_S6J2J7
UniRef90_R6B5M7
UniRef90_C7D640
UniRef90_A2SNT1
UniRef90_D3S1D6
UniRef90_F4BUR3
UniRef90_D3UM95
UniRef90_I2ISX9
UniRef90_F3ZUV2
UniRef90_F7JF59
UniRef90_UPI00040F1773
UniRef90_N6ZZN6
UniRef90_A0RYY2
UniRef90_C4XGG5
UniRef90_UPI00047E2978
UniRef90_D1A9W4
UniRef90_X0VFV5
UniRef90_Q1IAT1
UniRef90_J3CJ68
UniRef90_B5SC77
UniRef90_R4X2E4
UniRef90_F2LU86
UniRef90_F0Q117
UniRef90_L0M133
UniRef90_G2JAK9
UniRef90_A0A011RPR0
UniRef90_E8U433
UniRef90_A5GP19
UniRef90_UPI0002EC9ABB
UniRef90_Q8PY68
UniRef90_R5G1M0
UniRef90_UPI00036BD287
UniRef90_E7RVM6
UniRef90_F8ACB5
UniRef90_T1CN98
UniRef90_G3J1R1
UniRef90_F7UKE8
UniRef90_N6VXA2
UniRef90_W6EQR2
UniRef90_UPI0004682E1C
UniRef90_I3XZN0
UniRef90_M5QGW0
UniRef90_G8MEN4
UniRef90_G9RQE0
UniRef90_K6DKK7
UniRef90_UPI000475E4E3
UniRef90_A0Q340
UniRef90_UPI000360531D
UniRef90_U5RR5
UniRef90_UPI000374B976
UniRef90_K9V3X6
UniRef90_F9ZBN4
UniRef90_W6R436
UniRef90_A6VHH9
UniRef90_K9RPZ2
UniRef90_B3QW12
UniRef90_Q7MXH7
UniRef90_N2J116
UniRef90_A6LAW7
UniRef90_A0A023BU19
UniRef90_C7LYE1
UniRef90_Q7NHI9

1 10 20 30 40

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

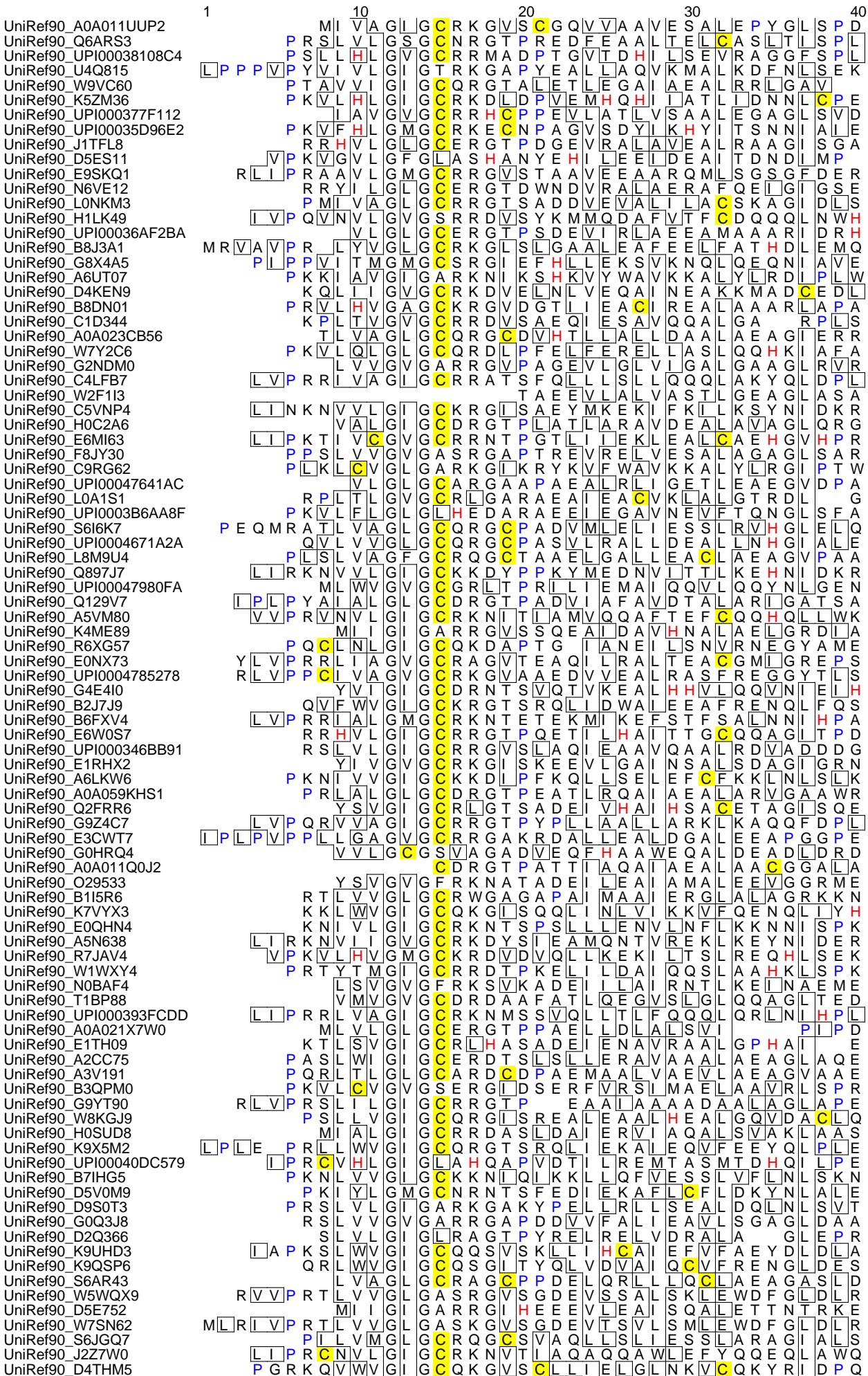
		50	60	70	80
UniRef90_R6HY19	S	A S L N T I E L K K D E P L L E I L H R R W D T E T H Y P A E E L K D I T			
UniRef90_K9RM98	A I G I V A T I D I K S D E V G L L E L C R E R N L P I T F S S K I L S T V E				
UniRef90_R6ZY46	S V K A V V T I E I K K E E Q A I V E L A Q N L K A E F K I F T I D D I R N C				
UniRef90_U2CKR3	S V T T M A T I Q R K K R E P A I L A L C E K Y G F Q L E I V P D D D A I L S V S				
UniRef90_R7FAK5	S V R K I A T I E T K K D D D E F R K F S E L G I E V V Y F A K C D D I L S V S				
UniRef90_UP10003B336AF	S V K I I A T I D L K K D E K G L D F A E K N K L D E I V D R T E E L E K I A				
UniRef90_E4RK37	R I A R F A S I S L K E K E A G G L L E L A F A E R A P F L T F T A Q E L E A V P				
UniRef90_U2CVT3	A I A G L L A S I D L K A D E A G G L V S L L C A E R Q W P L R C F T A E Q L K A I				
UniRef90_UP100036B2347	A I A G I A T I D T K A S D I A L G E L L C Q L H N W L L Q T F S A E K L A T V A				
UniRef90_K9QL04	A I V T H L A S I V T A K A D E V G L L E V A R R R G W P L V V H P P Q A A V V T				
UniRef90_A8L872	R V D A F A T I D L V K K D E K G L L E T V G N F K K P L F I F R S R N E V N E V Y				
UniRef90_F6BCJ8	R V D A F A S T A A K R A E Q G G L L A A A E E C G C T I Q F Y E N Q P M R E I E				
UniRef90_U2SQX8	UniRef90_A6TJF0	S I E K F V T V E V K K E E K A I I E A S A H F N V P L E I I D I E T T I K K S Q			
UniRef90_I0L552	S L R C L A S A D I D V K A D E V G L L E V A Q Q H G W M I D F H P P A A A L A A V D E				
UniRef90_Q47FE8	D V A G V A S I D L D K A D E V G L L E V A Q Q H G W M I D F H P P A A A L A A V D E				
UniRef90_A9DBT4	S V G L V A S I I D V K A D E V A V H H R H F G C P V R V F D A A T I E A E T				
UniRef90_F0KDW5	A V K T I S S I I D I K A N E K A I I S E V L K A D F K T F T K E E I K T V Q				
UniRef90_UP10004749DE6	A I A G I A T I D I K S H E V G L L E V L C K E R N L P L K T F S C D V L S K V				
UniRef90_R5B6Q7	A I V S V C S I D L K K D E P L A E L A H E Y T K E A P L T P S Q L S A I D				
UniRef90_K9TEV9	A I A G I A T I D I K A D E V G L L E L L C Q G R H W P L K T F P S E L K S V T A				
UniRef90_UP10003107D98	S F S A I A S I V I D I K K N E P A I K Q L A E K L N C P F I T Y T A D Q L R E V A				
UniRef90_H0ULN0	S I V R V A S I V D L D K K N E P G L L A L A E S L S A A P Q F P S A D G L M A L L				
UniRef90_E5CEQ4	A V K S I S T I I E L L K K D E P L A E L H T Q F N S E L H I Y K A E E L A D I S				
UniRef90_S7VDH9	A L C G L A S A D V K A D E P G L A A E A A R R L G L D L T F F P A E A L A G V D				
UniRef90_Q3AMS7	A V A G M V S A A R K S D E P A L Q H L S Q T R A W P F R T F A E H A L A S I V D				
UniRef90_B4WSK3	A I A G V A T L S L K A D E V G L L E L T Q D N W P L K C F D A A T E L K T V N				
UniRef90_R7RPY1	S I K Q I A F S E L L K K D E E E A L W G L K E R L K V P L I F T T K D E I I N R I D				
UniRef90_M3F0U9	A V A A L L A T V D T K A D E P G V V Q A A V V R L G V P L V T Y S A R E E L I A A V A				
UniRef90_Q7TTT0	A V A G L L A S I I D R K A D E P P A L M E L G E Q R Q W P F R T Y T D A T A L L A S V E				
UniRef90_S6J2J7	UniRef90_R6B5M7	Q V R G L L A S I I D L K R E E P P G L L Q L A E Q K A L P L T C F S S S Q L T P Y A			
UniRef90_C7D640	S I I T I S T I I N V K R D E P V K S L L Q K E Y E V F V F S S E Q I A A T M D				
UniRef90_A2SNT1	A V A C V A S I I D L L K A D E P P A I L S V A A R L G V P F R V F T A A E E A				
UniRef90_D3S1D6	D V A S V A S I I T L K A D E P P G L L V L A A Q R G W D I V F F Y R P D E L A A V				
UniRef90_F4BUR3	D V V A F A T A A E L L K R N E K G G L I E F A D K L K K P L I F L K K E E E L N S V K				
UniRef90_D3UM95	D L A F L A T A A W L K A D E P P G L L L E A A K S L D R E I V F L S R E E E L N S S Q K				
UniRef90_I2ISX9	A F A E I H S I S L K E Q E P A I R H L A E K W E M K F I V H S A E E L Q T V A				
UniRef90_F3ZUV2	E I A T V A S I I D T K A H E A G G L L E F C A R H A L P L T F F S S E Q I A A A L				
UniRef90_F7JF59	A I Q D I S S I I D I K K D E P P L L K E L S E Y F G L P I Y I Y S A E E L E D D V N				
UniRef90_UP100040F1773	Q I E A L V S I I D L L K K E E P A V V S L A A K Y K V P F L T Y S A E E M N E V E A				
UniRef90_N6ZZN6	S V V S L S T I I D L L K K E E P L L A D L Q Q S F G V E L H I Y S G E E L N E V A				
UniRef90_A0RYYY2	E V T A A A S I I T L K A D E A G G L L E V A A A A G W A L H F Y D A E R L A G V T				
UniRef90_C4XGG5	S V A R L A S I I K R Q P D P E G L G E Y A R E A G I P L E Y V D R D K L A E I D				
UniRef90_UP100047E2978	A I I Q V V A S I I E A K R H E P G L L E A A R R L G A V F V F S A D E L S G I S E				
UniRef90_D1A9W4	S V R C V A T I I D L L K A D E E G G I I A A A R E R G W P V R T Y P A A T I A Q V A				
UniRef90_X0VFV5	A V A G I F S I I D L L K S D E P A M H A L A T H L A R P I R F F D A P R L L E A E R				
UniRef90_Q1IAT1	C L R G I V A S I I T P K A R E P P G L L L A L A E R L G L P F V C F D A P H L G F E				
UniRef90_J3CJ68	UniRef90_R0Q117	UniRef90_L0M133	UniRef90_G2JAK9	UniRef90_AOA011RPR0	UniRef90_E7RVM6
UniRef90_B5SC77	Q V R E V V A T I I D I K A K D E A G G L L A F C A R Y R H E L P L R V I A Q A D V A A R				
UniRef90_R4X2E4	D I V A C V A S I I D A K R D E A G G L L A F C A R Y R H E L P L H F F S A E E V K				
UniRef90_F2LU86	D V R L I S T C W H K A N S K S L L D A S E L E G G L Q V R F F L P K F Y E N E				
UniRef90_F0Q117	UniRef90_L0M133	UniRef90_G2JAK9	UniRef90_AOA011RPR0	UniRef90_E7RVM6	UniRef90_F8ACB5
UniRef90_E4RK9	A L K A I V G S I I A L K K D E P P A I F L A R H G W P L R W Y A A A R L A T V				
UniRef90_A5GIP9	A V R E I V A T I I D L L K A D E P P G L L L Q V V I E N G W R C S F Y P A A V L				
UniRef90_UP10002EC9ABB	S V D R I A S I I D V K A H E T A V H Y L G K I V G K Q P F Y S A R E E L S K T A				
UniRef90_Q8PY68	E I T A F A S A K L L K E N E R G L E A G E F L G I P V N F L P D E V L				
UniRef90_R5G1M0	S I A S I N S I I E L V K R G E P I E G L G E K L G V P Q Y Y S A D Q L E E I E				
UniRef90_UP100036BD287	S I D A F A T I V V D V K K D E K G I L D A V K K F K K E F I L I N R D K I L N E V Y				
UniRef90_E7RVM6	D V R A V V A S I I D L L K A D E V A M Q E L Q R Q R G H T I H F Y P A T W L A Q V				
UniRef90_F8ACB5	S I K K L A T I I E R K K A K S P G F K A L A Q R L N A E A L A V T P K K I N V I I				
UniRef90_T1CN98	UniRef90_G3J1R1	UniRef90_F7UKE8	UniRef90_N6VXA2	UniRef90_W6EQR2	UniRef90_UP10004682E1C
UniRef90_G3J1R1	S V A T V N T I I T L K Q D E P L P T L L K A F N S H K Q I F S A E E L E G I S				
UniRef90_F7UKE8	E V R E I V T V I I D L L K A N E P G L L D F C A R H A L P L R V L A S A T V A A R				
UniRef90_N6VXA2	A I A G L L A S I I V H L K A D E V G M Q Q F A Q K Y D L P F F T F P P E Q I A A Q A				
UniRef90_W6EQR2	R I S A F S T I I E N K R D E I V G I I E V V N K F K K P F L I F D K D E I I N K Y N				
UniRef90_UP10004682E1C	S S K T H F A T G W V K A E E K G L L E A V N Y F E R E L K I E K E E E L R A V Q V				
UniRef90_I3XZN0	S S H T A T A T V D I L K K D E P P L E L K E W Y G I P S V I Y T G E E E L K S I E				
UniRef90_M5QGW0	A I G A L L A S F E A K A D E A G G L L E F S A H Y A I P L H F F T H E E I I S R A T				
UniRef90_G8MEN4	A V H A L L A S I I D L L K R D E A G G L I R L A A Q L N L A Y E V V L S A Q Q L I A P F A				
UniRef90_G9RQE0	A I A V I V A S I I D A K R E E A G G L L A F C E R H R V P L A F F T A D E I A Q V E				
UniRef90_K6DDK7	A F Y K V C S I I D L K R D E P P G L S A F C A A H G F A F T P F S A A Q L Q G V				
UniRef90_UP1000475E4E3	A I I G I V A T I I D G K A D E P P G L V I E L C S D R H W I L Q T F S P Q Q L Q G V				
UniRef90_A0Q340	T I A G I V A T I I D R K S D E I G V E Y C R D H A L S L R C F S A D R L I S T I A				
UniRef90_UP1000360531D	A V K S I V A T V E I I K K N E E A A L K M V D E L K C D F N V F K V K D I M K K V E				
UniRef90_U5RRRL5	A R G A I V A T A E D R A N E P S I I E K A A A A F G L V P V G M S P A E M I K K V				
UniRef90_UP1000374B976	A V K Y I S T V E I I K A K E E A A L K L A E Y F K C D L K I L Y S I E D I K K V				
UniRef90_K9V3X6	S V T C V A S I I D K K A D E V A L T E F C H K Y K P L K T F T A E L L N S V				
UniRef90_F9ZBN4	A V K V V T T I I E L K K D E P M V A D L V R N L S A K M Q I Y R P E E L N S V				
UniRef90_W6R436	A V K G A I V A T A E D R A N E P S I I E K A A A A F G L V P V G M S P A E M I K K V				
UniRef90_A6VHH9	R I D S F S T V S I I K K D E S G I I L K T A E R F G K S L F I F E I D E I N E I Y				
UniRef90_K9RPZ2	A L I G I V A S I I D R K Q N S Q A L Q D L A Q A W Q L E L Q F F S K E Q L N S V L V A				
UniRef90_B3QW12	S I H S I G A S I S L K S A E P A F L K L A E T L G L V P F T S A E E L N K V V Q P V E				
UniRef90_Q7MXH7	A G R I G I V A T I I D K I A E E P L V A D L V H R L P L H I Y T Q G Q D L Q P V E				
UniRef90_N2J116	D N G F A S I I A L K H D E V G M L A L A E T L N V I P I R F F E A D T L N R Y E				
UniRef90_A6LAW7	A L A D V N T I I D L K K C E P V L T L L A Y V M E C P F H T Y T S E E L K D I I A				
UniRef90_A0A023BU19	S I Y A I V G S A T I I D K I N E E Q A Y L D F A A Y Y N I P F I T Y T G E E E L N T I A				
UniRef90_C7LYE1	A V A V A L A T I I D R R R L H P A L G A L P I V G Y V E A A V V L R E V V A				
UniRef90_Q7NHI9	A V A G I A S L L D I K A D E A G G L L A V A V A E R H G W P V R F F D A A T L A R C				

90 100 110 120

UniRef90_R6HY19	V P H P S E K A F E V T G V Y G V A E S T A L K S S G E G T L V L			
UniRef90_K9RM98	V P N P S Q V V E K E V G T A S V A E A A A I V A A N Q Q S D N A A S L Q I			
UniRef90_R6ZY46	I P H P S Q S K V Y E V T G V Y G V A E S A A L K S S G G G E W L L			
UniRef90_U2CKR3	H K Y K G S D F V E K N V G V R A V C E P C V E L Y G A R L I T			
UniRef90_R7FAK5	G H I F E E S A F V Q Q I T G L P A V A E A C S Y A S D C G D A L T G	G Q K S E L I V		
UniRef90_UPI0003B336AF	H L I K N P S A Y A E K Y V G V P S V S E A C A L L L A G K N I M	G K G N L I M		
UniRef90_E4RK37	A D L I E K S K F V K K I T G I A A A A A P A A I L S S			
UniRef90_U2CVT3	G K F E A S G F V R K T V G V D N V C E R A A V L G S G G G R L L V			
UniRef90_UPI00036B2347	P V P N P S T V V E Q A V Q T P S V A E A A A I L A A A K N T Q L G T K L L V	G S G G G R L L V	R V	
UniRef90_K9QL04	V P N P S A I I T K T T G T P S V A E A A A I L A A A K N T Q L G T K L L V	G S G G G R L L V	R V	
UniRef90_A8L872	V P H P S E V V R A A V G T P S V A E G A T A G E S T G V P A V T A Q L V V			
UniRef90_F6BCJ8	K N D L E K S D F V F K T I G I V Y G V S E P V S I L G V K K L A N K N I E L L			
UniRef90_U2SQX8	A Y G L M E S P F V V K R T I G I G N V C E A A A L C C A G T H G G R F A L			
UniRef90_A6TJF0	T S L F E T S A F V E K T I G V G A V S G P C A Y I G S Q G G H M L M			
UniRef90_I0L552	V P H P S E V V R A A V G T P S V A E A A A I L L G P D G R P D D A T L L V			
UniRef90_Q47FE8	V P T P S E T V R K Y T G T P S V S E A A A L A A L A A R A D Q T H L I I			
UniRef90_A9DBT4	P R L K K P S D L V F A E V G C H G V A E G A A L A A A G A G G E L V I T	S N G Q I V F		
UniRef90_F0KDW5	E I Y E G S D F V E K N V G V R S V C E P C V K L S N G Q I V F			
UniRef90_UPI0004749DE6	C V P N P S K V V T K Q V G T R S V A E A A A V C A A S D L E G L G V K L L V			
UniRef90_R5B6Q7	V P N P S E K V K V E V T G V W G V A E S S A I Y D S D F G M L L I V			
UniRef90_K9TEV9	V P T P S K G V A Q K I G T P S V A E A A A I V A A Q G W T S S E T L L V			
UniRef90_UPI0003107D98	G K Y P V S E F V R Q T V Q V G N V A L S A A D L A S G G R V L T			
UniRef90_H0ULN0	G N F S R S E W V I S N V G V D C V C E R A A M A V S G G G R L L V E			
UniRef90_E5CEC4	V P N P S E K V K V E V T G V D G V A E S S A I R A S D Y G R L L M			
UniRef90_S7VDH9	V P T P S A R V R Q A V G T P S V A E A A A L L A R S F G T S E E L L C			
UniRef90_Q3AMS7	V P N P S E V V R K E M G T A S V A E A A A L L A A G E Q G H L I Q			
UniRef90_B4WSK3	V P N P S K V V E Q V V Q T P S V A E A A A L T A A D S T Q L Q V			
UniRef90_R7RPY1	C E R D D F V Y K S V G V N A V S E P C A R L L G G R L I V			
UniRef90_M3F0U9	V P H P S D V P L S A V G T P S V A E A A A L V G G E L L V			
UniRef90_Q7TTT0	V P T P S D V V L A E M G T A S V A E A A A L L A A G E G A V L R Q S K V I			
UniRef90_S6J2J7	L Q L S H R S E I I A Y E R T G C Y G V A E S A A L A A E R L A Q S P A K L L I			
UniRef90_R6B5M7	V P H P S S K T V M E H M G T P S V S E A A A L L S S G N S Q L I M			
UniRef90_C7D640	G R L A T P S D V V F A V G C H G V C E G A A L A A G G A E A E L S V			
UniRef90_A2SNT1	P V P N P S E V V R R Y T G T P S V S E A A A L L A A E A D D G A P A L L V			
UniRef90_D3S1D6	V G K S K A E L V G L N S V A E A A A V Y I S K K K E L L I			
UniRef90_F4BUR3	P S T P S R A E D L G L A G V A E P A V L A L A K R L I I L			
UniRef90_D3UM95	E K Y P T S E F V K K T V Q V G N V A L S S A D I G S S G N V I S			
UniRef90_I2ISX9	P I A E P S S A V R E H L G V C E P C A L L A A A A F H A H R A R L L V			
UniRef90_F3ZUV2	V P N P S E E K V K E V T Q S P S V S E A S A I R S A H D G I L L V			
UniRef90_F7JF59	E V S S A S S F V K K I T G I D N C E R A A V T Y C K K H C E Y F E L L I A			
UniRef90_UPI00040F1773	V P H P S E E K V K D T V T G T S S V A E A S A I L V S K G T L L V V			
UniRef90_N6ZZN6	V P N P S A T V R R Y T G T P S V S E A A A L L A A G S L A A D P G A L L V			
UniRef90_A0RYYY2	V P N P S E I V A A Y E G T A S V S E A A A I L V S K G T L L V V			
UniRef90_C4XGG5	V P H P S A M A A K H M G V E S V C E A A A I L A A N R G R L V A			
UniRef90_UPI00047E2978	V P N P S E K V E E V T S V Q G V S E S T A L K S A D G G Q L V I			
UniRef90_D1A9W4	V P N P A E V V R A E V G T P S V A E A A A L H A A R R C G R D A E L L V V			
UniRef90_X0VFV5	A R L T A P S E V V Y R E V G C H G V A E G A A L A A V G G A A G A L I V			
UniRef90_Q1IAT1	A Q L T Q R S A A A A Y A Q T G C W G V A E S A A L A L A G Q A L T P P R L H I			
UniRef90_J3CJ68	A W V G K G S D W V M Q N V G V E G V C E P A A L I A C P R G R L L A L			
UniRef90_B5SC77	G W T A A P S A W V R K H V G D V G V C E P C A L I A S P R G R L L I V			
UniRef90_R4X2E4	A P G G A V S H R A S K Q F N V D G V C E P C A L L A G N A D T L L I V			
UniRef90_F2LU86	L Y R F E R S L A E K Y I G I K N V A E A S A L I A S F N P T L I L			
UniRef90_F0Q117	P V P N P S E T V L R Y R M G T P S V S E A A A L L A A G A A D A S A L L V			
UniRef90_L0M133	H Q F T S S D F V R Q T V G V G S V S G P S A W L L S E G N S G			
UniRef90_G2JAK9	P W T V Q P S I W V R D H I G L D G V C E P C A L L A S V R G R L A V			
UniRef90_A0A011RPR0	V P H P S E T V R R H T G T P S V S E A A A L L A A A N A E P S L L L I			
UniRef90_E8U433	P W V T A P S A W V Q R T T G A V G C E P C A L L G S P R A R L I T			
UniRef90_A5GP9	P V P T P S A V V E A I G T A S V C E P C A L L A E A A A L L A A G E G A Q L L Q			
UniRef90_UPI0002EC9ABB	I H Y P Q S A F V K K T V G V N A E S S E L A S G N R V I G			
UniRef90_Q8PY68	P P S S S Q A S R F G L K G V A E P A A L A L S E K H E L I C			
UniRef90_R5G1M0	V P N P S N K V N E V T S S P S V S E A S A L L A S N G G V L V I			
UniRef90_UPI00036BD287	K N D L I K S D F V F K T I G V Y G V S E P V S V L G V E K L A D K N I R L L			
UniRef90_E7RVM6	P V P N P S E T V R K Y T G T P S V S E A A A L L V A G D V A Q A L A H A V			
UniRef90_F8ACB5	T Q A G L K D S M A K K H T E V R A V A E P A A L S G S Q G D R L L I			
UniRef90_T1CN98	V S N P S D K V R E V T G V D V S E S C A I A A G K G R L L I			
UniRef90_G3J1R1	P W V T K A S D W V Q Q N V G L P G V C E P C A L I A G A R G R L L I V			
UniRef90_F7UKE8	V P N P S E V V L Q E V G T P S V A E A A A L T A A Q M Y S Q G G K L I A			
UniRef90_N6VXA2	I Y D L E K S D F I F K K N I N V Y G V A E P C S I L L G V K K L T N N K I Y L M L			
UniRef90_W6EQR2	D K F C G S D F V E K T I G V R S I S A P S A Y V S S S K K G V F L L			
UniRef90_UPI0004682E1C	V P N P S A P V V E E V T G S S G V S E A S A M L S A G T D H L L L			
UniRef90_I3XZN0	G N F S P S K A T Q F F G L Q G V A E P S A L L G S S Y Q E L V I			
UniRef90_M5QGW0	P Q L S Q R S A R A F A L T G C F G V A E S A A L A L A E Q L G G A P A R L L I			
UniRef90_G8MEN4	A P R T A I S Y H A Q A M N V D G V C E P C A L L A G N A D T L I A			
UniRef90_G9RQE0	G R F S S S G F V Q S V T G V D N V C E R S A V L G S G G T L L Y C			
UniRef90_K6DKK7	K V P N P S M V V Q Q K T A T P S V A E A A A L Q A A G V S T L L I			
UniRef90_UPI000475E4E3	V P N P S V Q V V A M T T H T P S V A E A A A M C A A Q T Q L L I V			
UniRef90_A0Q340	H N Y K G S E F V V K S V I G V R A V A E P C V E L T G A T L I T			
UniRef90_UPI000360531D	A R V T T R S G R I V E A S R G V G S V A E A A A L A M A G D G G T L L I			
UniRef90_U5RRRL5	H H N Y K G S D F V E K T I G V R A V C E P C T E L T G A S L I T			
UniRef90_UPI000374B976	P R A V T K S S R V L A L F G V P S V A E T A A L A G A G P G S Q L V L			
UniRef90_K9V3X6	Y V P N P S Q T T K K T V G S H V A E A A A I L A A Y S L T G A N H S I L V			
UniRef90_F9ZBN4	V P N P S G K V F E V T G A C S V S E A T A L K S A G N T K L L L			
UniRef90_W6R436	A M T T G S A L T Q A A T G S P A V A E P C A L A L A A R L G T S P C L L G			
UniRef90_A6VHH9	S K M L N R S D F V F K T I G T Y G V C E P C A I L G I L K L T G E T K N I V L			
UniRef90_K9RPZ2	W T P H P S E K V V F T Q V Q A G S V A E A A A L L G A K S A Q L I I			
UniRef90_B3QW12	S V P N P S E R V F E K V G L Y S V S E A A A L L S E N E A W L V			
UniRef90_Q7MXH7	V P N P S E K V V F A V T G C Y G V S E A A S A R K V A D M G S L V I			
UniRef90_N2J116	N Q L T Q R S A I V F R E T G C Y G V A E A A A L A M A E Q V T G G P A E L I I			
UniRef90_A6LAW7	P V P N P S E K V V F E V T E S P S V S E A A S A Y A A H G G P L L V			
UniRef90_A0A023BU19	UniRef90_A0A023BU19	V P N P S E V V K K V V G V Y G V S E A A A L L M A G Q S S W L V		
UniRef90_C7LYE1	V P T P S P I V E R A V H T P S V A E A A A L R L A G P D A T L V L			
UniRef90_Q7NH19	P V P N P S Q A V A D C V G T P S V A E A A A L A G E A L Q L Q A A P K R V F			

130

UniRef90_R6HY19	E K Q K G N H F T F A [A
UniRef90_K9RM98	S K Q [Y G A V T V A I A Q S Q K E
UniRef90_R6ZY46	E K Q K G E L V T F A V A L A A
UniRef90_U2CKR3	E K L N C E G M T L C I G E V E
UniRef90_R7FAK5	K V R Y P G V T F A
UniRef90_UPI0003B336AF	P K T K F A G L T F A V A
UniRef90_E4RK37	D K R K F S G I T L A V
UniRef90_U2CVT3	P R Q
UniRef90_UPI00036B2347	S K Q [V S G A V T V A I A Q A E R E
UniRef90_K9QL04	P K N I F G V V T V A V A E
UniRef90_A8L872	A K Q V S A H A T V A V A R
UniRef90_F6BCJ8	R K F K K N G V S I A I
UniRef90_U2SQX8	G K T K F E K V T V A L
UniRef90_A6TJF0	E K E K G D G I T L S I A E V
UniRef90_I0L552	G K
UniRef90_Q47FE8	E K H K [L R G A T V S I A R [P
UniRef90_A9DBT4	E K R K S R R A T C A I A R A P T
UniRef90_F0KDW5	S K M K [N G M T L C I G
UniRef90_UPI0004749DE6	S K Q [F G V V T V A V A Q A E K E
UniRef90_R5B6Q7	P K Q K C K D F T F A V A
UniRef90_K9TEV9	P K Q [V G V V T V A I A Q A E R E
UniRef90_UPI0003107D98	P R F A A C G I T M A M G
UniRef90_H0ULN0	G K W K G S G V T F A L A R [L G G E
UniRef90_E5CEQ4	E K Q K G N N F T F A V A
UniRef90_S7VDH9	T K K T C P R A T A A V A L A R P K
UniRef90_Q3AMS7	P K R I N G A V T V A I A E A A L
UniRef90_B4WSK3	Q K Q V T G A V T I A I A Q A Q S E
UniRef90_R7RPY1	K K F K K D G I T I S V
UniRef90_M3F0U9	P K R K S A G V T C A V A
UniRef90_Q7TTT0	R H A A T G A V T V A V A E A
UniRef90_S6J2J7	R R Q K Y A Q A T L A M A
UniRef90_R6B5M7	P K C K G E N Y T V A
UniRef90_C7D640	A K S K T G T T C A L A R C E
UniRef90_A2SNT1	E K H K F R G A T V S I A
UniRef90_D3S1D6	P K R V Y G G V T V A I A R
UniRef90_F4BUR3	P K K A Y G R V T V A I G E
UniRef90_D3UM95	P R F A E T G V T F A A G K L
UniRef90_I2ISX9	R K T V H A G V T V A I A
UniRef90_F3ZUV2	E K Q K G N D F T F A L A
UniRef90_F7JF59	G K S I E T A M T A A I A R R N I
UniRef90_UPI00040F1773	E K Q K G S H F T F A V A
UniRef90_N6ZZN6	E K H R L R G A T V S I A R M P
UniRef90_A0RYY2	E K Q K F P G L T V A V A R [E
UniRef90_C4XGG5	P K T K
UniRef90_UPI00047E2978	E K Q K G N D F T F A V A
UniRef90_D1A9W4	P K R K S A A A T V A V A R [T P K
UniRef90_X0VFV5	P K A K S A R A T C A I A R A A Q
UniRef90_Q1IAT1	P R Q T L A G A T L A L A
UniRef90_J3CJ68	G K T A L D G G V T V A V
UniRef90_B5SC77	P K T A L D G G V T V A V V E D N P
UniRef90_R4X2E4	P K T I D G G G V T V A I A M M
UniRef90_F2LU86	K K T V F D G V T V I A I A R
UniRef90_F0Q117	E K H R L R G A T V S I A R [P P
UniRef90_L0M133	E T L L R E Q G G V T I T L G V A
UniRef90_G2JAK9	A K T A L D G V A V A V A E D A P E
UniRef90_A0A011RPR0	E K H K L R G V T V S I A R [P Q
UniRef90_E8U433	P K T T L N G V A V A V A
UniRef90_A5GP9	S K R I L G A V T V A I A E A A Q
UniRef90_UPI0002EC9ABB	D R F S A D E I T F A L S R [T I K E
UniRef90_Q8PY68	R K K V Y G R V T I A I A R
UniRef90_R5G1M0	E K Q K G N D F T F A L A
UniRef90_UPI00036BD287	K K F K K D G V S V S I A
UniRef90_E7RVM6	P D H A P A R V P V P P S H A P Q E
UniRef90_F8ACB5	P K Q K Q D G V T I A V A E [P P
UniRef90_T1CN98	P K Q K G S H F T F A L A
UniRef90_G3J1R1	P K T A L N G V A V A V
UniRef90_F7UKE8	E K Q H N Q A V T V A I A K G E R E
UniRef90_N6VXA2	K K I K Y D G V T I A I
UniRef90_W6EQR2	E K N K N C G I T I S I
UniRef90_UPI0004682E1C	S K Q K G N D F T F A V A
UniRef90_I3XZN0	P K K V Y K H [T L A G A
UniRef90_M5QGW0	T R Q N S S A A T F A L A C A
UniRef90_G8MEN4	P K T I Y C G V T V A I A R A
UniRef90_G9RQE0	K K Q A G G G V T
UniRef90_K6DKK7	P K K I S Q A V T I A I A K S T F
UniRef90_UPI000475E4E3	P K Q V I Q G V T I A I A E
UniRef90_A0Q340	E K I L K L D G V T L C I G V L N
UniRef90_UPI000360531D	P R I I A S P A V T C A L A
UniRef90_U5RRRL5	N K I K A N G M T L C I G E V
UniRef90_UPI000374B976	P R V S A D G V T C A I A
UniRef90_K9V3X6	P K Q I Y S T V T I A V V Q [H Q
UniRef90_F9ZBN4	E K Q K G N D F T F A V A
UniRef90_W6R436	E K T R S A S A T C A L A T F D R E
UniRef90_A6VHH9	N K M K K D G V S V S I A
UniRef90_K9RPZ2	P K Q I Y R T A T L A I S Q V G H D
UniRef90_B3QW12	E K Q K C S L A
UniRef90_Q7MXH7	E K Q K G N D F T F A V A Q
UniRef90_N2J116	P K H K
UniRef90_A6LAW7	E K Q K G N E Y T F A V A
UniRef90_A0A023BU19	E K T K
UniRef90_C7LYE1	P K R [D G P V T V A V A
UniRef90_Q7NHI9	K A A G A G A C T V A A A V A I Q E



90 100 110 120

UniRef90_A0A011UUP2	L R S L T R S T A S L S A A G T P S V S E T A A L L A A A G Q K S R L L G	
UniRef90_Q6ARS3	H L Q T S A A A A L K A V G A I G V A E P C A L L G A R Q N T L F C	
UniRef90_UPI00038108C4	V P H P S E R V D E A T G S A S V S E A S A L T S S G G G E L V I	
UniRef90_U4Q815	N R F P C S P F V K K T V G A G C V A R P A A Y M A S R G G D E L	
UniRef90_W9VC60	G V P N P S A R V A E E V G T A S V C E A A A L L A S N A P Q L L V	
UniRef90_K5ZM36	V V P N P S A K V K E V T Q S S S V A E A A A I Q S A G G G F L L L	
UniRef90_UPI000377F112	H R L S H K S E A A R R V H G T P G V A E A A A L A S L E Q Q G G S A R L L L	
UniRef90_UPI00035D96E2	K T P N P S Q K V E E V T S S P S V S E A S A I N S A Q D G L L V I	
UniRef90_J1TFL8	P R L R N P S E I V F A R V G C H G V A E A A A L A A L G M D A E L V L	
UniRef90_D5ES11	V V P N P S E T V E K H V G T P S V C E A A A I L G S N H G K L L I L	
UniRef90_E9SKQ1	G S F A E S E F V R G V T G V G N C E R A A L A G A G M R G K K A V L A A	
UniRef90_N6VE12	P R L K N P S E L V F A H V G C H G V A E A A A L A A A G D L A E L A L	
UniRef90_L0NKM3	P L T Q T V S R H S L A K T S S P S L S E A A A L A G V D G P A V L L V	
UniRef90_H1LK49	A H Y E Q S A F V A K T V G V G N V A N A A S E F A S G S R T V N	
UniRef90_UPI00036AF2BA	A R L K N P S E I V F A L T G C H G V A E A A A L A A A G Q A S S L I V	
UniRef90_B8J3A1	P V P H P S S A A A G R R F G L P S C E A A A L L A A R K D S G S E A R L L L	
UniRef90_G8X4A5	P L N P S E I V M S K L G V Y V S A E S S A M L L A Q N N E L I L	
UniRef90_A6UT07	R N D L L A K S D F V Y K T I G V Y G V A E P V S I L G V K K I S I N D I E L I L	
UniRef90_D4KEN9	D K Y K L P S N F V K K Q I G I G N V C Q A A I L A Y N E R A K I I I L	
UniRef90_B8DN01	P V P H P S P K A A E V L G V G V G V A E A A A L L S A R Q A G D A A V L L V	
UniRef90_C1D344	P F V T R A S E W V Q N V G L A G V C E P C A L L A S P R G Q L I V	
UniRef90_A0A023CB56	S R L S H K S A V A F A H T G C H G V A E A S A A L A L A E H L A D A P A H L L V	
UniRef90_W7Y2C6	I P N P S A K V S Q V T G S Y G V V A E A A A M H L S D N G L L V	
UniRef90_G2NDM0	P V P N P S R A A R A A V A T G S V A E A A A L G S G G A G A G G S A E L L V	
UniRef90_C4LFB7	H L F P S S D F V R Q T I G V G S V S Q P V A W L M S D G H L V G	
UniRef90_W2F1I3	V P N P S E V V R E A V G T P S V A E A A A L A D G G D L V V	
UniRef90_C5VNP4	D N Y E G S D F V K S V I G V R A V A E P S V E L A G A V P I T	
UniRef90_H0C2A6	V P H P S E T V R R H T G T P S V S E A A A L L A A G T T E A S A L C V	
UniRef90_E6M163	N R F D G S D F V E K T T G L R C V S E P A G Y A A S G F G D C I A	
UniRef90_F8JY30	V P N P S A A P L A A V G T P S V A E A A A L A A A P G G E L L V	
UniRef90_C9RG62	D L N I E R S N F V F E H L G V Y G V S E P V S I L A V K K L A N G N I D L I L	
UniRef90_UPI00047641AC	G R L A N P S D V V F A E V G C H G V A E G A A L A A A G P D A V L S V	
UniRef90_L0A1S1	P W V T R P S A W V E R H V G A V G V C E P C A L L A S R A T L L V	
UniRef90_UPI0003B6AA8F	A R L L A N S F A A N T S L G T P A V A E P A A M F A A G E K A R L L I	
UniRef90_S616K7	A Q L T H R S L T A F E H T G C Y G V A E S A A L A L A E Q L G Q T A A T L R I	
UniRef90_UPI0004671A2A	E R L S H R S Q I A F E R T G C Y G V A E S A A L A L A E Q L G Q G P A W L V L	
UniRef90_L8M9U4	A R L N Q P S E R V R A L A G S A G V A E A A A L A L A D R L G Q G P A W L V L	
UniRef90_Q897J7	H H E F E G S D F V E K T I G V R S V S E P C V K L Q G G K N I S	
UniRef90_UPI00047980FA	V P N P S A G V G I A V G T A S V A E A A A L E A A G V K T L L V	
UniRef90_Q129V7	P V P N P S E T V R Q Y T G T P S V S E A A A L L A G A G G V A L P M T A L L V	
UniRef90_A5VM80	Q N Y P E S A F V K K T V G V G N V A C A A A D Y A S G E R N V T	
UniRef90_K4ME89	A P S D S Q A K R F G L T G V A E P A A L A L S E K K E L I L	
UniRef90_R6XG57	V P N P S D K V F E V T G C H G V A E P S A L L A A S R N G S L V V	
UniRef90_E0NX73	D Y G L T E S D F V R K T I G V G N V C E A A A L C A A G A E G G R M A L	
UniRef90_UP10004785278	G P F T P S V A E R H L D L P G V A E P C A A T A G P L L A	
UniRef90_G4E4I0	V P N P S S T V Q R Y M A T P A V A E A A A L L G A Q T T M E N L I L	
UniRef90_B2J7J9	C V P N P A T I T D H K V G T P S V A T Q A S L L T A S P F G S T E A R L L V	
UniRef90_B6FX4V	Y M F D K S E F V K K N T G V Y S V A Q P S A Y L L S G N V I S	
UniRef90_E6W0S7	F H F I A H D G P M R H L G I P G V A E P S A L L A A A N P R L L L	
UniRef90_UPI000346BB91	H P D L A R S P A A L D H V G V A A V C E P C A L L A A R G R L V A	
UniRef90_E1RHX2	P E S P S R A Q D K L G L P G V A E P A A L A L S K R K E L I I M	
UniRef90_A6LKW6	H L F E C S S F V K K T F G I C G V S R H S A Y L E S K G K E M L F	
UniRef90_A0A059KHS1	UniRef90_Q2FRR6	V P N P S E T V R R H T G T P S V S E A A A L L A A G R A D D L R A H L I L
UniRef90_G9Z4C7	H R F P A S S F V R N T V G T G S V S G P A A W L L S Q G Q I A G	
UniRef90_E3CW77	UniRef90_E0QH4	G P F S P S A A Q R H F H V P G V A E P C A A A L G S P L G
UniRef90_G0HRQ4	G P T P S R S K E L I G W P G V I A E P C A A A L L G S E H D L L A	
UniRef90_A0A011Q0J2	UniRef90_O29533	V P N P S E T V R R H T G T P S V S E A A A L L A A G S D S R H L L V
UniRef90_B115R6	UniRef90_K7VYX3	I R R L F S E S R C A R K Y F D V G G V I A E A C A I Y A S N S G E L I L
UniRef90_E0QHN4	UniRef90_A5N638	V P N P N T I T K L V G T S S V A E P C A F L I A A R N G R I I L
UniRef90_A3V191	UniRef90_R7JAV4	Y Y E S L P N E F V V E N I T V G V S S V S T A M I L M S D D N I I I G
UniRef90_B3QPM0	UniRef90_W1WXY4	H K Y K G S K F V E G H I G V K A V C E P C V E L S G G K I L V
UniRef90_G9YT90	UniRef90_N0BAF4	V P T P S A V V V E S N I G I P S V S E A A A A I K A S G D G L L V L
UniRef90_T1BP88	UniRef90_O29533	K E E L K E S N F V K G T I G V G N C E
UniRef90_UP1000393FCDD	UniRef90_A0A021X7W0	V Q E T T K A V K I I G V K N V A E A C A I Y S S S S G E L L L
UniRef90_E1T0H9	UniRef90_A2CC75	P V P N P S E T V R R Y M G T P A V S E A A A L L A A G V G L E G L I L
UniRef90_A3V191	UniRef90_B3QPM0	A Q F P Q S E F V Q Q T V G V G C V S Q P A A W L L S D G C L L G
UniRef90_G9YT90	UniRef90_W8KGJ9	A R L A N P S E R V F A I T G C H G V A E A A A L A L A G D S G R L V V
UniRef90_H0SUD8	UniRef90_H0SUD8	R V T H P S S A A A R E H A G V D G V C E P C A L L G A L H A A R E N A Q L I V
UniRef90_K9X5M2	UniRef90_UP100040DC579	V P T P S A A A V A K A M G T Y S V A E A A A L L A A S D K G T L L Q
UniRef90_B71HG5	UniRef90_D5V0M9	P R L A T P S D V V F A E V G T H G V A E A A A L A Q A G A Q A T L L I
UniRef90_D59OT3	UniRef90_D95OT3	G L V P N P S D V V F R K T V G H S V S E A S A A L L S G E N W W L V
UniRef90_G0Q3J8	UniRef90_D2Q366	G D F T P S A F V R G I T G V D N V C E R A A A A A G G R I I I V
UniRef90_D2Q366	UniRef90_K9UHD3	D R A F T R S D L V Q R L K G V P S V A E T A A L A A G R N A R L V V
UniRef90_K9QSP6	UniRef90_W7SN62	W V P N P A K L I E K T V G T P S V A E A A A I L A A S R L I P L E S S I L V
UniRef90_S6AR43	UniRef90_W5WQX9	S V P N P S A T V Y K Y M S T A S V C E A S A L L S R S Y G R L L M
UniRef90_W5WQX9	UniRef90_D5E752	S L F E G S E F V K K I I G V G S V A R P V G Y L E S N M G K E L I F Y
UniRef90_D5E752	UniRef90_J2Z7W0	N R F P L S E F V K Q R I G V G S V A R P S A F L I A S N G G E E L
UniRef90_W7SN62	UniRef90_D4THM5	R V P H P S G T V G A A V G T P S V A E A A A L I E A D E E L V V
UniRef90_S6JGQ7	UniRef90_D4THM5	Q P V P T P S E R V D H L A G T A S V A E A A A V I L S G A D L V V
UniRef90_J2Z7W0	UniRef90_D4THM5	V P R P S Q L V S A L V G T A S V A E A A A L C A A H T D I L L V
UniRef90_D4THM5	UniRef90_D4THM5	V P N P S P V V V E R E T G T A S V V E A A A L L F A A G E M A E G R T V E L V V
UniRef90_S6JGQ7	UniRef90_J2Z7W0	V P N P S P V V V E R E T G T A S V V E A A A L L A L A Q E Q L A G A P A T L R I
UniRef90_J2Z7W0	UniRef90_D4THM5	E H Y P Q S A F V K K T V G V G N V V A A A S A E V A S Q G L A L T
UniRef90_D4THM5	UniRef90_D4THM5	S Q L S H R S N I A L E H T G C H G V A E S A A L A L A Q E Q L A G A P A T L R I

UniRef90_A0A011UUP2
UniRef90_Q6ARS3
UniRef90_UPI00038108C4
UniRef90_U4Q815
UniRef90_W9VC60
UniRef90_K5ZM36
UniRef90_UPI000377F112
UniRef90_UPI00035D96E2
UniRef90_J1TFL8
UniRef90_D5ES11
UniRef90_E9SKQ1
UniRef90_N6VE12
UniRef90_L0NKM3
UniRef90_H1LK49
UniRef90_UPI00036AF2BA
UniRef90_B8J3A1
UniRef90_G8X4A5
UniRef90_A6UT07
UniRef90_D4KEN9
UniRef90_B8DN01
UniRef90_C1D344
UniRef90_A0A023CB56
UniRef90_W7Y2C6
UniRef90_G2NDM0
UniRef90_C4LFB7
UniRef90_W2F1I3
UniRef90_C5VNP4
UniRef90_H0C2A6
UniRef90_E6M163
UniRef90_F8JY30
UniRef90_C9RG62
UniRef90_UPI00047641AC
UniRef90_L0A1S1
UniRef90_UPI0003B6AA8F
UniRef90_S616K7
UniRef90_UPI0004671A2A
UniRef90_L8M9U4
UniRef90_Q897J7
UniRef90_UPI00047980FA
UniRef90_Q129V7
UniRef90_A5VM80
UniRef90_K4ME89
UniRef90_R6XG57
UniRef90_E0NX73
UniRef90_UPI0004785278
UniRef90_G4E4I0
UniRef90_B2J7J9
UniRef90_B6FXV4
UniRef90_E6W0S7
UniRef90_UPI000346BB91
UniRef90_E1RHX2
UniRef90_A6LK6
UniRef90_A0A059KHS1
UniRef90_Q2FRR6
UniRef90_G9Z4C7
UniRef90_E3CWT7
UniRef90_G0HRQ4
UniRef90_A0A011Q0J2
UniRef90_O29533
UniRef90_B115R6
UniRef90_K7VYX3
UniRef90_E0QHN4
UniRef90_A5N638
UniRef90_R7JAV4
UniRef90_W1WXY4
UniRef90_N0BAF4
UniRef90_T1BP88
UniRef90_UPI000393FCDD
UniRef90_A0A021X7W0
UniRef90_E1TH09
UniRef90_A2CC75
UniRef90_A3V191
UniRef90_B3QPM0
UniRef90_G9YT90
UniRef90_W8KGJ9
UniRef90_H0SUD8
UniRef90_K9X5M2
UniRef90_UPI00040DC579
UniRef90_B7IHG5
UniRef90_D5V0M9
UniRef90_D9SOT3
UniRef90_G0Q3J8
UniRef90_D2Q366
UniRef90_K9UHD3
UniRef90_K9QSP6
UniRef90_S6AR43
UniRef90_W5WQX9
UniRef90_D5E752
UniRef90_W7SN62
UniRef90_S6JGQ7
UniRef90_J2Z7W0
UniRef90_D4THM5

130

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

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

UniRef90_UPI00036BA1B0
UniRef90_B3EC15
UniRef90_H8IAR2
UniRef90_D7A4J6
UniRef90_UPI0002FD7531
UniRef90_UPI0003754100
UniRef90_A3CSU4
UniRef90_A0A010ZGY3
UniRef90_E1R8K1
UniRef90_A3YHU8
UniRef90_B6WVX0
UniRef90_V6J5K1
UniRef90_W0JKK9
UniRef90_UPI00047E3BC9
UniRef90_G8PEL1
UniRef90_D5VTD4
UniRef90_P21635
UniRef90_UPI00036725E3
UniRef90_L0L0A2
UniRef90_UPI00037EF0E3
UniRef90_W81P9
UniRef90_U3HBI4
UniRef90_UPI00029B09CB
UniRef90_A2SSE2
UniRef90_W5J3Y8
UniRef90_U3B9Q0
UniRef90_R7MZ02
UniRef90_UPI0003730A4D
UniRef90_UPI0002492B0D
UniRef90_G7WL53
UniRef90_B4S8C6
UniRef90_UPI00036FF5F4
UniRef90_W6N5G9
UniRef90_UPI000364C870
UniRef90_E8W341
UniRef90_UPI000468D7F5
UniRef90_D5QB49
UniRef90_UPI000377AE9
UniRef90_J5ULM9
UniRef90_UPI00036F07BF
UniRef90_L9XYL0
UniRef90_I4ERR3
UniRef90_UPI00031E8C82
UniRef90_B9LWZ4
UniRef90_F3B197
UniRef90_F8AMG6
UniRef90_M3J6N7
UniRef90_Q0RJD9
UniRef90_S8GY28
UniRef90_B2IFH1
UniRef90_S2KYK4
UniRef90_S7TFM7
UniRef90_M0DTM5
UniRef90_A6X044
UniRef90_L7EIJ6
UniRef90_D228F1
UniRef90_K2E235
UniRef90_K0VF20
UniRef90_Q8YTH0
UniRef90_G0LKC5
UniRef90_A6UQN6
UniRef90_UPI00036D09B6
UniRef90_K8M0C7
UniRef90_G6EXG6
UniRef90_UPI000422471D
UniRef90_UPI00037AA1AF
UniRef90_W4UBU0
UniRef90_H0RTL7
UniRef90_UPI00047020D9
UniRef90_B8GJ6
UniRef90_A1VP86
UniRef90_A5EGH2
UniRef90_UPI00029B3ECB
UniRef90_I7KZX6
UniRef90_A0A024YID6
UniRef90_UPI0004651DE3
UniRef90_D7DUL4
UniRef90_T0MBM8
UniRef90_W9D3M9
UniRef90_UPI000467BCC2
UniRef90_C9KJ47
UniRef90_UPI0003797098
UniRef90_I3TPC3
UniRef90_H6RWX6
UniRef90_B2S6D8
UniRef90_UPI000368E027
UniRef90_L8E197
UniRef90_UPI000475E6FC
UniRef90_A717N4
UniRef90_UPI00037119B2
UniRef90_F2J5F3
UniRef90_F9UA44

10 20 30 40

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

UniRef90_UPI00036BA1B0 S | V | A | E | L | A | T | V | A | A | K | S | E | E | P | G | I | V | G | A | A | G | R | L | G | V | P | L | V | T | Y | S | A | E | E | L | A | A | V | A
 UniRef90_B3EC15 S | I | R | S | L | G | S | I | D | L | K | A | A | E | P | A | F | V | E | L | S | G | K | L | Q | I | P | F | C | C | F | S | A | E | D | L | S | R | V | D
 UniRef90_H8IAR2 E | V | M | A | F | A | T | T | D | R | K | R | H | E | K | G | L | I | D | A | I | H | S | L | G | A | N | L | V | F | L | D | D | D | E | T | I | N | A
 UniRef90_D7A4J6 E | I | S | L | M | A | T | P | A | L | K | G | G | E | A | G | I | I | K | A | A | L | D | D | G | L | L | L | V | M | V | P | Q | Q | Q | L | E | A | A | G
 UniRef90_UPI0002FD7531 A | I | A | G | I | A | T | L | D | V | K | A | K | E | T | G | I | L | A | L | C | D | R | R | H | F | P | L | Q | T | F | T | R | Q | Q | L | Q | G | I |
 UniRef90_UPI0003754100 S | V | R | A | V | A | T | V | D | V | K | A | D | E | E | G | I | L | R | A | A | R | E | R | G | W | E | V | L | T | F | P | A | E | E | L | A | A | V | E
 UniRef90_A3CSU4 E | V | L | V | Y | A | T | T | A | K | K | R | G | E | A | G | I | L | D | A | V | A | N | L | G | G | N | L | V | F | L | D | D | G | T | L | N | A | Q | E
 UniRef90_A0A010ZGY3 S | A | A | A | V | A | S | I | E | Q | K | R | D | E | A | A | I | A | G | L | A | E | F | Y | N | I | P | F | E | T | F | S | A | K | E | L | M | A | L
 UniRef90_E1R8K1 D | V | R | I | A | A | T | I | G | K | K | C | L | E | P | G | I | L | E | A | L | A | D | L | D | I | P | L | S | R | V | S | A | R | E | I | S | R | F | S
 UniRef90_A3YUH8 A | V | A | G | L | A | S | I | I | D | R | K | G | D | E | P | A | L | L | E | L | A | R | S | H | Q | W | P | L | R | L | F | S | A | E | D | L | A | A | V | T
 UniRef90_B6WXV0 A | L | A | A | L | A | T | V | T | E | K | A | Q | E | P | A | L | Q | E | L | S | R | R | L | G | L | P | L | L | T | F | D | A | A | E | L | A | A | V | T
 UniRef90_V6J5K1 H | L | H | G | I | A | S | I | D | L | K | A | H | E | P | G | I | L | H | A | L | S | H | L | A | L | P | L | L | F | Y | P | A | P | H | K | R | F | E |
 UniRef90_W0JKK9 D | V | E | F | V | G | T | A | T | R | K | E | D | E | E | G | I | L | E | A | A | D | E | L | D | D | L | G | V | V | V | F | D | K | E | T | L | D | H | E |
 UniRef90_UPI00047E3BC9 A | R | A | S | L | F | T | H | V | D | K | R | D | E | M | G | L | V | E | A | A | R | T | L | G | L | T | L | N | F | L | D | A | N | V | L | R | L | A | S | D
 UniRef90_G8PEL1 S | I | Q | K | I | T | S | I | D | I | Q | Y | E | P | A | V | Q | Y | L | A | Q | T | L | N | T | E | L | V | F | I | N | S | A | E | E | L | K | T | V | D |
 UniRef90_D5VTD4 R | I | D | I | I | G | T | I | N | L | R | K | R | E | V | R | E | G | C | K | R | F | N | R | E | I | L | T | F | T | K | K | E | E | L | N | A | V | K
 UniRef90_P21635 D | L | R | L | V | A | S | I | D | A | R | A | E | E | P | A | I | L | A | A | A | Q | H | F | A | V | P | A | A | F | Y | D | A | A | T | L | E | A | E | A
 UniRef90_UPI00036725E3 S | V | L | A | Y | A | T | T | D | K | K | V | Q | E | P | G | I | L | G | L | E | G | I | T | S | L | G | G | N | L | V | F | I | P | D | E | E | I | N | A | Q | D |
 UniRef90_L0L0A2 D | I | D | M | F | A | S | S | T | L | K | E | N | E | T | G | L | L | E | A | V | N | V | L | G | K | E | I | K | F | L | S | E | E | E | I | N | L | Y | E |
 UniRef90_UPI00037EF0E3 A | L | A | A | V | A | S | I | Y | T | R | K | N | E | P | A | V | L | V | A | V | A | H | F | S | V | P | A | V | F | F | T | A | A | R | L | E | G | E | T |
 UniRef90_W812P9 D | I | G | F | V | A | S | I | L | D | A | R | R | G | E | P | A | I | H | A | A | E | E | H | F | A | V | P | A | V | F | F | D | A | A | T | L | E | A | E | A |
 UniRef90_U3HBI4 D | L | S | A | L | A | S | V | D | S | K | A | D | E | P | G | I | Q | A | L | A | L | T | L | R | L | P | L | A | L | P | A | A | Q | L | A | A | C | E |
 UniRef90_UPI00029B09CB S | L | A | R | L | A | A | P | V | F | R | K | G | E | P | A | I | S | A | L | A | K | I | L | G | V | E | L | V | W | I | S | A | Q | D | M | A | E | R | Q |
 UniRef90_A2SSE2 S | V | T | L | F | A | T | T | I | K | K | F | H | E | K | G | I | L | H | E | G | I | A | T | L | A | G | N | L | F | I | D | D | D | E | T | I | N | K | Q | I |
 UniRef90_W5J3Y8 A | L | N | A | L | A | S | S | E | A | K | A | L | E | G | G | L | R | D | L | S | R | Q | L | R | L | P | L | E | L | L | D | A | Q | R | L | L | A | P | Y | E |
 UniRef90_U3B9Q0 E | L | V | G | L | A | S | S | A | H | K | R | G | E | P | G | I | Q | A | L | A | E | R | L | V | L | P | L | E | Y | V | A | A | E | A | L | L | A | F | A |
 UniRef90_R7MZ02 Q | V | A | A | F | A | S | I | D | R | K | K | D | E | E | G | I | L | W | M | S | S | H | Y | G | I | P | F | V | T | Y | S | A | E | E | L | L | Q | Q | V | E |
 UniRef90_UPI0003730A4D D | V | N | F | V | A | S | I | L | D | V | R | A | E | E | P | A | I | L | A | I | H | A | G | R | H | F | S | V | P | V | R | F | F | D | A | A | T | L | A | A | E | S |
 UniRef90_UPI0002492B0D S | I | N | T | I | C | S | I | D | L | K | K | N | E | P | A | I | Q | Y | L | A | K | T | L | N | A | Q | T | F | H | S | A | E | E | L | S | V | I | D |
 UniRef90_G7WL53 E | I | R | A | I | A | T | A | E | I | K | R | D | E | P | G | I | S | E | A | A | E | R | L | G | R | P | V | V | Y | L | D | E | E | V | L | N | A | Q | S |
 UniRef90_B4S8C6 S | V | T | A | L | A | T | V | D | F | K | V | Q | E | P | A | F | Q | T | L | T | R | E | L | G | I | G | L | H | G | Y | D | A | Q | A | L | E | A | V |
 UniRef90_UPI00036FF5F4 E | I | A | T | A | L | L | D | T | K | A | D | H | P | A | L | Q | A | F | C | S | R | H | G | I | A | L | R | A | F | C | A | A | D | I | N | A | C | F |
 UniRef90_W6N5G9 UniRef90_UPI000364C870 S | I | A | G | V | H | S | I | E | L | K | K | D | E | A | L | I | A | D | V | A | S | K | L | G | V | K | R | S | F | Y | S | S | E | R | L | A | E | I | E |
 UniRef90_E8W341 D | V | V | A | L | A | T | L | D | T | R | A | D | E | P | G | I | T | G | A | A | A | R | L | G | V | P | V | R | S | Y | P | A | K | A | L | A | Q | V |
 UniRef90_UPI000468D7F5 Q | I | Q | N | A | S | F | V | A | K | A | D | E | Q | G | L | L | E | F | A | Q | K | H | N | F | N | I | K | F | F | D | K | K | I | N | N | L | D |
 UniRef90_D5QB49 L | I | A | I | P | D | F | R | A | D | C | T | A | L | H | A | A | A | Q | Q | A | G | L | P | L | H | V | V | P | Y | R | D | L | L | A | A | Q |
 UniRef90_UPI000377AE9 Q | V | A | T | V | A | S | I | T | L | K | A | D | E | P | A | M | L | Q | L | A | A | L | Q | A | W | P | I | R | F | F | T | P | Q | Q | L | A | V | I | E |
 UniRef90_J5ULM9 S | V | T | K | I | G | S | I | D | I | K | R | N | E | Q | G | I | I | K | L | A | E | K | K | L | G | V | E | F | T | T | F | T | S | D | E | I | I | A | S | R |
 UniRef90_UPI00036F07BF G | V | R | A | L | A | T | V | E | A | R | A | E | P | G | I | V | G | A | A | R | L | G | L | P | L | V | I | A | Y | P | P | G | V | L | A | S | V |
 UniRef90_L9XYL0 D | V | E | F | V | A | T | A | T | R | K | E | D | E | P | G | I | L | L | A | A | A | D | E | L | G | L | G | V | V | A | F | D | K | E | T | L | L | A | H | E |
 UniRef90_I4ERR3 L | A | T | L | D | A | R | S | T | E | P | G | I | R | E | A | A | A | R | R | G | W | P | L | T | G | H | P | A | A | A | L | A | T | V | L | Q | N | I | N |
 UniRef90_UPI00031E8C82 A | I | K | G | V | A | T | L | I | N | S | K | A | N | E | T | G | L | I | E | Y | C | S | V | R | N | L | P | L | V | F | F | T | T | E | Q | L | E | E | F | E |
 UniRef90_B9LWZ4 D | V | D | F | V | A | T | G | T | R | K | A | G | E | D | G | I | Y | E | A | A | Q | E | L | D | L | G | V | V | L | F | E | K | E | D | L | K | K | V | E |
 UniRef90_F3B197 A | I | K | A | V | G | S | I | D | I | K | K | D | E | K | R | A | I | V | E | L | S | N | S | L | S | V | P | F | Y | T | F | T | K | D | E | I | S | E | I | Y |
 UniRef90_F8AMG6 R | V | N | A | F | A | T | V | D | V | K | K | D | E | K | G | I | L | E | T | A | K | R | F | K | K | K | L | F | I | F | D | R | K | D | I | S | E | I | Y |
 UniRef90_M3J6N7 S | V | I | A | T | I | S | T | K | Q | G | D | P | V | W | A | K | F | A | Q | H | Y | G | S | E | L | L | F | F | D | A | E | R | I | L | E | E | E | T |
 UniRef90_Q0RJD9 A | V | R | L | L | A | T | V | D | A | R | R | D | E | P | G | I | V | A | A | A | D | H | H | R | W | P | I | A | A | Y | P | P | H | R | L | A | T | V | D |
 UniRef90_S8GY28 A | I | V | D | F | S | T | I | V | E | K | Q | C | E | P | V | V | Q | E | L | Q | K | T | Y | A | F | R | F | F | P | A | E | D | L | E | K | M |
 UniRef90_B2IFH1 A | P | A | G | L | F | T | I | D | K | R | E | E | T | G | I | L | E | A | A | A | K | L | G | L | P | L | A | F | L | D | R | A | T | L | A | K | A | A |
 UniRef90_S2KYK4 A | L | R | A | I | G | S | A | V | V | K | K | D | Q | P | V | L | H | Q | L | A | E | C | C | W | R | V | P | F | E | L | F | S | A | S | E | L | N | R | H |
 UniRef90_S7TFM7 A | V | G | G | L | A | S | I | D | L | K | A | D | E | P | G | I | L | G | L | T | E | A | A | R | T | L | G | A | P | L | T | F | Y | D | A | A | R | L | S | R | V | A |
 UniRef90_M0DTM5 D | V | E | F | V | A | T | A | T | R | K | D | D | E | E | G | I | L | L | A | A | A | A | T | R | D | V | E | V | V | A | F | D | K | E | T | L | L | E | F | E |
 UniRef90_A6X044 R | P | D | A | I | A | T | L | S | T | K | C | G | E | L | A | W | N | E | L | A | A | H | Y | E | C | A | L | C | F | D | F | D | A | E | R | I | L | E | K | E | T |
 UniRef90_L7EIJ6 A | V | K | Y | V | A | T | V | E | I | K | K | N | E | R | A | I | L | E | L | N | Q | F | L | K | S | E | L | K | I | F | T | K | D | D | I | R | E | I | Q |
 UniRef90_D228F1 S | L | G | E | I | R | T | S | T | V | K | S | R | E | K | G | L | L | S | S | E | E | L | G | V | P | L | T | K | L | E | D | D | E | E | I | I | R | S | I | D |
 UniRef90_K2E235 D | V | K | I | I | A | S | F | D | A | S | D | E | V | A | L | Q | L | F | S | E | K | Y | K | I | P | L | A | F | Y | A | K | D | E | I | N | Q | L | N |
 UniRef90_K0VF20 E | L | A | A | V | A | S | I | E | S | R | R | E | E | A | A | I | L | A | V | A | H | F | S | V | P | A | V | F | D | A | P | R | L | E | E | E | T |
 UniRef90_Q8YTH0 I | I | V | G | I | A | T | I | D | T | K | V | S | E | L | G | L | V | E | F | C | R | L | F | Q | L | P | L | K | T | F | P | A | E | M | L | A | N | V | A |
 UniRef90_G0LKC5 D | V | D | F | I | A | T | L | G | T | R | K | E | T | E | P | G | I | L | L | A | A | A | A | N | D | I | N | V | G | V | I | S | F | C | K | E | T | L | F | E | F | E |
 UniRef90_A6UQN6 R | I | D | F | I | S | T | V | D | A | K | K | N | E | D | G | I | L | K | T | T | E | K | F | K | K | N | I | I | F | E | N | N | E | I | N | E | L | Y |
 UniRef90_UPI00036D09B6 A | P | E | L | I | A | T | T | T | V | K | K | D | E | A | G | L | R | E | V | A | E | K | R | R | I | R | P | Y | E | R | G | F | L | Q | M | V | D |
 UniRef90_K8M0C7 S | V | K | A | I | D | S | V | D | L | K | K | D | E | P | A | F | L | S | L | F | L | K | Y | D | W | E | L | I | T | F | S | P | E | E | L | D | R | V | S | Q |
 UniRef90_G6EXG6 D | I | A | L | P | A | F | K | Q | Q | D | Q | N | V | I | D | L | I | S | L | S | T | F | P | I | H | F | I | A | Q | E | I | L | L | A | L | Q |
 UniRef90_UPI000422471D D | I | V | T | V | A | S | I | E | T | K | A | D | E | A | G | L | L | E | F | C | A | R | H | G | F | P | L | Q | L | F | S | R | E | R | I | A | A | M |
 UniRef90_UPI00037AA1AF E | L | A | A | L | A | V | T | V | T | A | K | A | R | E | P | G | I | L | D | D | A | A | R | L | G | V | P | V | L | R | A | Y | P | A | D | V | A | L | V |
 UniRef90_W4UBU0 S | V | T | R | L | V | S | H | E | V | K | A | G | E | P | G | I | L | G | V | L | K | L | A | N | Q | L | G | V | E | Y | R | T | E | S | A | E | A | L | A | A | H | D |
 UniRef90_H0RTL7 E | I | D | V | V | A | T | A | A | D | K | L | Q | E | P | G | V | I | D | A | A | Q | R | L | G | R | P | L | R | G | I | A | Q | N | D | L | A | A | V | A |
 UniRef90_UPI00047020D9 A | V | A | G | V | A | S | I | L | D | R | K | G | D | E | P | G | I | L | L | C | Q | R | K | W | P | L | K | V | F | T | A | A | R | L | A | A | V | A |
 UniRef90_B8GJ16 D | V | R | C | Y | A | T | T | V | Q | K | R | D | E | A | G | L | I | D | G | V | F | A | M | G | G | D | L | I | F | L | D | D | Q | T | I | N | A | E | S |
 UniRef90_A1VP86 D | V | A | A | A | S | I | D | L | K | A | D | E | P | G | I | L | A | L | A | Q | H | G | W | R | M | T | F | Y | T | P | G | Q | L | A | A | V | A |
 UniRef90_A5EGH2 D | I | A | V | I | A | T | A | A | D | K | R | D | E | A | G | I | V | E | A | A | K | R | L | R | R | P | L | V | I | G | V | A | A | A | E | L | A | A | V | A |
 UniRef90_UPI00029B3ECB E | V | V | A | M | A | T | V | E | A | K | K | A | G | E | P | G | I | V | E | A | A | S | L | G | V | P | L | R | A | H | P | A | E | A | L | A | A | V |
 UniRef90_I7KZX6 E | V | L | V | Y | A | T | T | A | K | K | R | G | E | A | G | I | L | Q | G | I | F | D | L | G | G | N | L | V | F | L | D | D | D | M | I | N | A | W | E |
 UniRef90_A0A024YID6 A | V | T | A | L | A | T | V | D | S | K | A | A | E | A | G | I | L | T | G | A | A | E | R | F | G | V | P | V | L | G | Y | P | A | A | R | L | A | A | V | T |
 UniRef90_UPI0004651DE3 Q | V | R | C | L | A | S | I | D | A | K | C | N | E | A | G | I | L | A | F | A | A | R | H | A | L | P | L | R | F | F | S | V | A | S | L | L | A | R | D |
 UniRef90_D7DUL4 R | I | N | S | F | S | T | V | E | V | K | K | N | E | K | G | I | L | K | T | V | S | K | F | K | K | P | L | N | I | Y | S | V | D | E | L | N | Y | I | D |
 UniRef90_T0MBM8 A | I | R | S | I | S | T | K | I | D | K | E | G | N | M | G | L | K | Q | L | A | T | D | L | C | K | P | V | N | Y | Y | T | P | E | M | L | N | K | N | S |
 UniRef90_W9D3M9 A | V | R | R | M | A | T | V | E | A | R | R | D | E | P | G | V | I | V | A | A | R | H | G | W | R | M | T | F | Y | T | P | G | Q | L | A | A | V | A |
 UniRef90_UPI000467BCC2 N | L | T | A | L | A | S | A | T | L | K | A | D | E | E | G | I | L | T | A | A | A | A | L | D | D | L | P | L | A | L | F | T | P | Q | Q | L | T | A | C | E |
 UniRef90_C9KJ47 A | I | T | S | L | G | S | T | V | F | K | R | E | E | R | G | L | H | E | A | A | A | E | L | R | R | P | L | Y | F | T | P | E | R | I | Q | R | I | E |
 UniRef90_UPI0003797098 S | I | G | E | L | V | S | I | S | R | K | A | K | D | E | P | G | I | L | A | E | K | L | G | V | Q | S | V | L | V | D | E | D | A | L | Q | R | N | I |
 UniRef90_I3TPC3 A | V | A | L | A | T | I | D | L | K | A | D | E | A | G | I | L | A | A | A | A | A | R | G | L | P | V | R | V | F | P | A | A | R | L | A | E | E | T |
 UniRef90_H6RWX6 A | P | V | R | L | S | T | L | D | A | R | I | R | E | R | G | I | Q | E | A | A | A | R | R | G | W | P | L | V | G | H | P | A | S | A | L | A | R | V |
 UniRef90_B2S6D8 R | P | D | G | I | A | T | L | S | T | K | R | G | N | P | A | W | V | Q | L | A | V | H | Y | G | C | E | L | R | F | F | D | A | S | R | L | E | D | E | T |
 UniRef90_UPI000368E027 A | V | L | A | L | V | T | V | T | A | R | A | D | E | P | G | I | V | A | G | A | L | L | G | L | P | L | V | A | R | T | A | R | E | I | A | A | V |
 UniRef90_L8E197 A | V | T | A | L | A | T | V | D | T | K | A | S | E | P | G | I | L | A | E | A | R | R | L | G | V | P | L | L | T | Y | P | A | A | V | L | A | A | V | S |
 UniRef90_UPI000475E6FC Q | V | A | A | V | A | S | I | E | L | K | A | D | E | A | G | I | L | A | E | L | A | A | H | G | W | Q | I | L | F | Y | S | A | A | Q | L | A | A | I |
 UniRef90_A717N4 E | V | M | L | F | A | T | T | A | K | K | C | S | E | T | G | I | L | D | A | V | A | S | I | P | A | P | L | I | F | L | D | D | D | T | I | N | A | Q | V |
 UniRef90_UPI00037119B2 S | L | A | A | C | V | A | S | I | L | D | L | K | A | D | E | A | A | M | A | A | L | A | A | H | F | G | V | P | L | R | V | F | G | A | A | T | L | E | A | E | T |
 UniRef90_F2J5F3 A | L | A | A | C | V | A | S | I | L | D | L | K | A | D | E | A | A | M | A | A | L | A | A | H | F | G | V | P | L | R | V | F | G | A | A | T | L | E | A | E | T |
 UniRef90_F9UA44 Q | I | C | C | I | A | S | I | D | R | K | G | D | E | P | A | I | L | A | L | A | D | L | R | V | P | F | R | L | F | T | A | E | A | L | S | G | V | S |

90 100 110 120

UniRef90_UPI00036BA1B0	[V] P N P S G A P L A A V G T P S [V] A E A A A L A G G G E L L V		
UniRef90_B3EC15	G A P N P S G T V M R K I G V P S V A E A A S A L L A G S S G	R R K E W I A	
UniRef90_H8IAR2	Q P V E K P S K A I M L G L R G V A E P C A L A I S	I I M	
UniRef90_D7A4J6	A R V V T H S E R V V A L M G V P S V A E A S A L A V A	G R R S T L I G	
UniRef90_UPI0002FD7531	R V P T A S G V V Q Q K V G I P S V A E A A A L C A A G G E G A R L L V		
UniRef90_UPI0003754100	V P N P S E T V R A E V G T P S V A E A A L H A A G A V G G A P E L V A		
UniRef90_A3CSU4	A P S P S R A P L I G L A G V A E P A A L A I A K R	K V L V L	
UniRef90_A0A010ZGY3	P G E F T P S P A A L A A V G A D N V C E R A A I A A S	R G G Y M V R	
UniRef90_E1R8K1	G A F L P S A A A R H I G I P A V A E P C A L L A A R Q	G S L I A	
UniRef90_A3YUH8	P V P S P S Q A V L R E M G T A S V A E A A A L L A S S P Q P E L L L		
UniRef90_B6WXV0	T P H P S T A A G E R F G C T S V C E A A C L L A A R Q L G T T G A T		
UniRef90_V6J5K1	A L L S H R S A V A V Y A H S G C W G V A E S A A L A M A D Q	Y N G D T Q L L I	
UniRef90_W0JKK9	G P T P S R S K D L I G W P G V S E A S A I A	G G A E N E L V L	
UniRef90_UPI00047E3BC9	N R A A T R S M R V M Q L F G L P S I A E T A A L A G A	G P N A M L I L	
UniRef90_G8PEL1	Q N Y A G S D F V R K T V G V G N V A S S S A	H F Q T Q H H V V V	
UniRef90_D5VTD4	R Y N L E R S E F V Y K H V G T Y G V A E P S A L L G L E S L K I K G K L I L K		
UniRef90_P21635	S R L A N P S E I V F A Y T G C H G V A E G A A L V G A	G R E A V L L I V	
UniRef90_UPI00036725E3	A P T P S R A S I L G L K G V A E P A A L A I S	R K K E L L I M	
UniRef90_L0L0A2	A P S G S Q A N R F G L T G V A E P S A L A L S K	K K E L L I L	
UniRef90_UPI00037EF0E3	P R L K N P S E I V F A R V G C H G V A E A A A L A A A G A S A E L A V		
UniRef90_W812P9	P R L Q N P S A I V F A H T G C H G V A E G A A L V G A	G S A S V L L V	
UniRef90_U3HBI4	G R L S G L S A I A L R E T G S P G I V A E A A A A L V Q A E A L A G R P A R L L V		
UniRef90_UPI00029B09CB	V E C E T H S A V A F E K T G F S S V I A E A C A L A G A	G S K S R L L I L	
UniRef90_A2SSE2	P L T S S R A G M I G L C H G V A E P C A L A L S K	T G T L I L	
UniRef90_W5J3Y8	Q R L T S T S E R A R Q V T G S P A V A E P S A L A A A A R L G R A Q L L G		
UniRef90_U3B9Q0	G Q A E A K P L T R Q V T G S P A V A E P S A L A A A A R L G R A Q L L G		
UniRef90_R7MZ02	G T F H A S E F V K S Q V G V D N V C E R A A L R F S G P D G I L I T		
UniRef90_UPI0003730A4D	A R L Q N P S D I V F A H T G C H G V A E G A A L A G A G P E A I L L V		
UniRef90_UPI0002492B0D	V N Y P S S E F V K K T V G V G N V A S S S A		
UniRef90_G7WL53	P T T E S R A R D L G L V G V A E P A A L A L S E	R L I M	
UniRef90_B4S8C6	G G V P N P S E T V F Q K V G I H S V I S E A A S A L L A	G H E E W I V	
UniRef90_UPI00036FF5F4	D R H P T R S A A A A L A H V G V A G V C E P C A L A A Q	D G T L L V	
UniRef90_W6N5G9	H K F Q G S D F V E K T I G V K S V C Q P C T Y L L	S G V I E Q L T	
UniRef90_UPI000364C870	V P N P S A K V E Q V T S S A S V S E A S A L Y A S S G T L L V		
UniRef90_E8W341	R V P H P S A V S L T A V A T G S V I A E A A A L M	D G G E L L V	
UniRef90_UPI000468D7F5	I D F S F S K Q A T K F F G L Q G V A E P S A V L I S H Y	K E L I I	
UniRef90_D5QB49	P R C V T R S A R A L A A C G V A S V A E G C A I A M A G D G A R L V L	C V	
UniRef90_UPI000377AE9	V P N P S N T V R K Y T G T P S V S E A A A L L A G G Q L L G P M H A L		
UniRef90_J5ULM9	Y Y K N I P N D F V K S I T G V D S V S L S C A K M L S E D	N I I A	
UniRef90_UPI00036F07BF	P V P H P S G L V R A R T G T P S V A E A A A L A W A N G G E L L V		
UniRef90_L9XYL0	G P T P S K S K E L I G W P G V S E S S S A L A G G R E Q E L V V		
UniRef90_I4ERR3	P V P A P S A R V A A A V G T P S V A E A A A L L D G G Q L L V V		
UniRef90_UPI00031E8C82	V P N P S K I V A S K V K T P S I A E A A A M I A A S V D T L Y V		
UniRef90_B9LWZ4	G P T P S R S K E L I G W P G I A E A S A I A G G R D H E L L A		
UniRef90_F3B197	G E F N E S D F V K E T V G V G N V C E R A V L I Q C D	K L I L	
UniRef90_F8AMG6	K D D L I K S D F V F K T I G V Y G V S E P V S I L G V K K L N D N H I N	L V L	
UniRef90_M3J6N7	P K L K H P S D V V F A M V G C H G V A E S A A L A A T G D D A E L L I		
UniRef90_Q0RJD9	V P H P G A A P Q A A L G T P S V A E A A C L L P D P N A A P R P	V L L	
UniRef90_S8GY28	P R A K T R S E R V Q S L F N L P S I A E T A A L A G A G E D S H H L L		
UniRef90_B2IFH1	Q H L S A P D F V R Q K M E H S C V S Q P V A W L M S D G Q L V G		
UniRef90_S2KYK4	A P N P S A R V E Q A T G S A S V		
UniRef90_S7TFM7	G P T P S K A K Q L I G W P G V A E A S A I A G G A D H E L V T		
UniRef90_M0DTM5	P R L E N P S E T V F E T I G C H G V A E A A A L A A T G P N G F L V V		
UniRef90_A6X044	H Q Y K G S D F V E K S I G I R A V C E P C V E L S G A D I F T		
UniRef90_L7EIJ6	G N F S A S A A T A H F D L P G V I A E P C A A S A G R L I G		
UniRef90_D228F1	E D F S E S K A Q F E F F D I K G V A E P T A V L D I A P F K T L F I		
UniRef90_K2E235	P R L K N P S E I V F I S V G C H G V A E S A A L A A L G A D A E L V L		
UniRef90_K0VF20	P C K Y Q L R E S P F V R K T I G V G N V A E A A A L A A A A G A S G G S M A		
UniRef90_Q8YTH0	G P T P S R S K E L I G W P G I A E A S A I A G G R N H E L L V		
UniRef90_G0LKC5	S K F P K K S E F V Y N T I G A Y G V S E P C A I G A L S F K N E K V D L L I		
UniRef90_A6UQN6	R Y Q L R E S P F V R K T I G V G N V A E A A A L A A A A G A S G G S M A		
UniRef90_UPI00036D09B6	G P T P S R S K E L I G W P G I A E A S A I A G G R N H E L L V		
UniRef90_K8M0C7	C I Q S P S K V V K N F V G T K S V T K P Q A		
UniRef90_G6EXG6	P K C S Q F S K L I S Y H H T G L G A V A E A C A L A L I N K N G R L L I		
UniRef90_UPI000422471D	R V M E P S K A A R E H L G V G G V S E P C A I H E P S A A T A E S A A Q L I V		
UniRef90_UPI00037AA1AF	P V P H P S G A A L A A L G T P S V A E A A A L V A L V G G Q L L V		
UniRef90_W4UBU0	V P T P S D V V A R E V G T P S V S E P R C C A		
UniRef90_H0RTL7	D L A I T R S D R V Q R L K G V P S V A E T A A L A A A G R N P R L I L		
UniRef90_UPI00047020D9	P V P N P G S L M V A R Q V G T P S V A E A A A L A A A A G G G A A G T G A R L L A		
UniRef90_B8GJ6	P P S R S G A D R I G L V G V A E P A A L A L S T K R E M I M		
UniRef90_A1VP86	P V P N P S E T V R K Y T G S P S V S E A L L A A S A M G P V L P A T A L L V		
UniRef90_A5EGH2	D R A V T Y S D L V H R L K G V P S I A E T A A L V A A G R H A R L I L		
UniRef90_UPI00029B3ECB	A R V P E S S D A A L A A V G T P S V A E A A A L V E A A R H G A S G E L L V		
UniRef90_17KZX6	V K T P S R A S L I G L V G V A E P A A L A V S K R K E L V L		
UniRef90_A0A024YID6	V P H P S E A V R D A T G T P S V A E A A A L V A G G E L L V		
UniRef90_UPI0004651DE3	S A L P I P T S V A H R H V G L D N I C E R A A R A A C P E G I L A L		
UniRef90_D7DUL4	L F D L E H S E F V Y K T I G T Y G V S E P C A I L D V I N H L D L N D D L I L		
UniRef90_T0MBM8	K D L S E V V Y V R A T G A Y S V A N A S A R T A S S E G K E V		
UniRef90_W9D3M9	V P H P G A A A H A A L G T P S V A E A A A C L I L P P A T A M P Q P V L L V		
UniRef90_UPI000467BCC2	P R L D R T C E T V R T A I G A A S V A E A A A L Q A E A Q A G A P A R L L V		
UniRef90_C9KJ47	Q Y G L R E S D F V R Q T I G I G N V C E A A A A L Q A E A Q A G A P A R L L V		
UniRef90_UPI0003797098	P A P S P S P C A E K H L G L P G V A E P V L L A R G Y T L L V		
UniRef90_I3TPC3	P R L A T P S D Y V V R A T V G V A G V A E A A A L A A G P A G E L I V		
UniRef90_H6RWX6	P P V P T P S D Q V A A A V G T G S V A E A A A L L D G G P L V V V		
UniRef90_B2S6D8	P R L N S P S Q E T F K A V G C H G V A E A A A L A A A G P N G H L V V V		
UniRef90_UPI000368E027	P P V P H P C E R V R A A V G T P G V A E A A A R L G P R S G A P L G E L L V		
UniRef90_L8E197	P P V P H P S H A P L A A A G T P S V A E A A A L T A A G G P G P A E L V V		
UniRef90_UPI000475E6FC	P P V P N P S E T V R R H T G T P S V S A A A A L L A A G P G G G S L L L		
UniRef90_A717N4	P R T P S K A K R L G L I G V A E P C A L A V S K R H R E L I M		
UniRef90_UPI00037119B2	P R L A T P S D V V F R E T G C H G V A E G A A L A A G G E G G E L L L		
UniRef90_F2J5F3	P R L A T P S D V V F A E V G C H G V I S E G A A L A A V G P D G A L A V		
UniRef90_F9UA44	V P N P S R T V Q R I M G T P S V S E A A A L L A S G A S A L L L P K Y R Y		

130

UniRef90_UPI00036BA1B0	P K R K S R R A T C A V V R R P
UniRef90_B3EC15	E K R K C A
UniRef90_H8IAR2	E K K A Y G N V T I A I A R
UniRef90_D7A4J6	P R F V L G P V T C A L A R
UniRef90_UPI0002FD7531	P K Q I I K Q A T L A V A
UniRef90_UPI0003754100	A K S K
UniRef90_A3CSU4	V K Q T Y G G V T V A I A R
UniRef90_A0A010ZGY3	L K T K Y P G V T F A L A R
UniRef90_E1R8K1	P L Y R R D G V T V A I A R
UniRef90_A3YUH8	K K R I E G A A T L A V A Q A
UniRef90_B6WXV0	
UniRef90_V6J5K1	T R Q S L G P A T L A I A
UniRef90_W0JKK9	E K V G Y E N V T V A I I G K
UniRef90_UPI00047E3BC9	P R M S E G G A S C A I A
UniRef90_G8PEL1	D Q F H E N Q I T M S I G R
UniRef90_D5VTD4	K L R V R G V T V A I A
UniRef90_P21635	Q K I L V S A H A T A A L A
UniRef90_UPI00036725E3	K R R V I G N V T V A I A R
UniRef90_L0LOA2	R K K V Y G R I T I A I A E
UniRef90_UPI00037EF0E3	A K I K S A H A T A A L A Q
UniRef90_W812P9	A K L T S S H A T A A I A
UniRef90_U3HBI4	E K R R S A N A T C A L A
UniRef90_UPI00029B09CB	A R Q S N R D V T C A L A
UniRef90_A2SSE2	K K T V Y G R V T I A I G R
UniRef90_W5J3Y8	P K R R S A N A T C A L A M A P
UniRef90_U3B9Q0	P R L R S A N A T C A L A R I D S E
UniRef90_R7MZ02	G K Q A E D G I T A A I V K
UniRef90_UPI0003730A4D	P K I R S A H A T A A I A
UniRef90_UPI0002492B0D	
UniRef90_G7WL53	P K K A Y G R V T V A L G E
UniRef90_B4S8C6	E K Q K
UniRef90_UPI00036FF5F4	A G Q A H G G V T V A V A
UniRef90_W6N5G9	D K L K L N G M T L C I G
UniRef90_UPI000364C870	E K Q K G A L V T F A L A M E P
UniRef90_E8W341	P K R K S G S A T C A V A R
UniRef90_UPI000468D7F5	K K E V Y Y Q K V T I A G A
UniRef90_D5QB49	P R I A Y R R I T C A I A R
UniRef90_UPI000377AE9	E K H R Y R G A T V S I A L L P
UniRef90_J5ULM9	E N F K G N G I T L S A G
UniRef90_UPI00036F07BF	P K R K S A R V T C A V A R V
UniRef90_L9XYL0	E K S S H D E V T V A I I G R
UniRef90_I4ERR3	G K T V H G R V T V A V A
UniRef90_UPI00031E8C82	P K Q I K G A V T L A V A
UniRef90_B9LWZ4	E K E R Y D A V T V A V G R
UniRef90_F3B197	K K T A K D G M T V A I I G R
UniRef90_F8AMG6	K K F K K N G V S I S I
UniRef90_M3J6N7	G K T T S E C A T A A I A
UniRef90_Q0RJD9	P K R T S R R A T L A V A R
UniRef90_S8GY28	P K I K G E K W T L A A A
UniRef90_B2IFH1	P R I A R G F A T C A I A E
UniRef90_S2KYK4	N T L R Q Q G I T I T L G
UniRef90_S7TFM7	
UniRef90_M0DTM5	E K T S Y E S V T V A V G R
UniRef90_A6X044	E K T V S G R A T A A L A V A
UniRef90_L7EIJ6	E K I S L S G M T L C M G K I
UniRef90_D228F1	P R S A E R G T T V A L G H R P
UniRef90_K2E235	R K K I Y Q N I T I A A A
UniRef90_K0VF20	G K I K S A H A T A A I A G I G L Q K
UniRef90_Q8YTH0	P K R I F G V V A I A V A Q V
UniRef90_G0LKC5	E K L K Y D A V T V A V G Q
UniRef90_A6UQN6	K K M K K N G V S V S I A
UniRef90_UPI00036D09B6	G K T K F E K V T V A L
UniRef90_K8M0C7	
UniRef90_G6EXG6	P K M I Y N K I S F S I A
UniRef90_UPI000422471D	G K T V C A G V T V A I A
UniRef90_UPI00037AA1AF	P K R K S R M A T C A V A R R P
UniRef90_W4UBU0	
UniRef90_H0RTL7	P R I A N A S A T C A L A Q
UniRef90_UPI00047020D9	P K R A S G A T C A V A L A
UniRef90_B8GJ16	E K K V Y G R V T I A I A R
UniRef90_A1VP86	E K H K H R G A T V S L A R C N
UniRef90_A5EGH2	P R M A N A S A T C A L A E
UniRef90_UPI00029B3ECB	P K R K S A R V T C A V A V A H G E
UniRef90_I7KZX6	A K Q A Y G S V T V A I A R
UniRef90_A0A024YID6	P K R R S L S A T C A V A T A E
UniRef90_UPI0004651DE3	R K S V F G S V T V A V
UniRef90_D7DUL4	P K L R N N G T T V S I
UniRef90_T0MBM8	A K E I I N N V T I S V
UniRef90_W9D3M9	P K R A G R R A T V A I A R
UniRef90_UPI000467BCC2	G K R R S D Q A T C A L A F I P V E
UniRef90_C9KJ47	G K T R F E K V T V A L
UniRef90_UPI0003797098	P K T V Y P E V A L A G R K P
UniRef90_I3TPC3	A K R K S P R A T C A V A L A P
UniRef90_H6RWX6	R K T V H G R V T V A V A
UniRef90_B2S6D8	G K I A S A R S T A A L A M V P T
UniRef90_UPI000368E027	T K T R G V G A T V A V A R
UniRef90_L8E197	G K R K S A R A T C A V A R A R T
UniRef90_UPI000475E6FC	E K H K G K H A T V S I A R I
UniRef90_A717N4	N K K V F S K V T I A I A R
UniRef90_UPI00037119B2	P K R K S
UniRef90_F2J5F3	P K R K S
UniRef90_F9UA44	R G A D G K H A T V A L A L W I

1 10 20 30 40

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

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

50 60 70 80

UniRef90_D5WH71	Q G T L A T I D T K A N E A G L L E F C S R H Q L P L Q L F S R E Q I A A A P	
UniRef90_T2RW52	S V R A F A T V E G K A D E D G V V E A V Q D L G L P L L V Y P A A T I A E V E	
UniRef90_E2PXM4	S L A E L A T V A A R A A E P G V V A A A R R L A V P V V A H G A D R L A R V	
UniRef90_UPI0002D919B7	Q V A V A A S L E A K Q D E A A F L S L A A R H G W P L R W Y A A A Q	
UniRef90_UPI0002D4E6A6	R L D A L A T G K L K Q H E D A I F Q A G R Q L R R A I I I G D A E L A E A G	
UniRef90_UPI000479023C	D L A L I V S L D T R S E E P A I H A A A Q H F A V P L R F F D A A T L E A E G	
UniRef90_J3CEA5	L L A G V F T I D Q R L M E P A V N S V A R W L G L P L K A F D A D T L E Q E T	
UniRef90_A8LLB4	A V A S L N T L G L K A D E P A M H A L A A E L G V P L R V F T A A E L E A E A	
UniRef90_A0B5H1	E V R V I A T S E I K S C D P E I S R A A A K L G V S V V Y L P D D A L N A Q K	
UniRef90_UPI000466B695	A L F T I E S K R D E K G L H D A A R Q L N P L V F L P H K M L L A R K	
UniRef90_W6WCH2	S V S I L A T G E I K R H E P G M I E L A E R L G P L R I L D A A A L K H A E	
UniRef90_G2HAW3	A I A A L A S A D L K N E P G L R Q A A A A L G P L H F F D A A S L A A A V	
UniRef90_UPI000361E01B	A L S A L A T A S L L K R D E P G I L A A A R R D P L L V M D D A A L A A A A	
UniRef90_W5YK69	L V A V P A L R Y R E A G L Q A A L V R L G T L R A V T P D E L A T A Q	
UniRef90_J5C6K3	R L D A L A T V P R K R D E P G L T D A A T A L G P L V I A D D A A L Q A A A	
UniRef90_Q3IT84	D V E F V A T A T R K E G E A G L Y E A A E I G V G V C F D K E T L D H E	
UniRef90_H1HS61	A L F S L A S D L K R E E T A V L A L A E D F A V P A V F T T A E E L R A V	
UniRef90_H1YX42	D V L A Y S T T V L K R D E A G L T E A V R T L S G N L V F V S D E E N	
UniRef90_G2P6E7	G V A E L A T V E A K A G E A G L L T A A E R L G V P L C G Y P A E V L A S V E	
UniRef90_V6JMB1	S V G E L A T V D A K A D E P G I V G A A A E L G V P V R T Y P A G V L A S V D	
UniRef90_S0AU09	A I R S I S T T I K E G N T D L K V L A G D N C M L N Y Y P P E K L N N E S	
UniRef90_UPI0003F81286	V V G L F T I E D K R G E A G L N E A A E S L G P L V F L S R G A L A A V V	
UniRef90_G210E7	L V A V P A F R Y R E A G L Q A A M A R L G L E L R A I T P D E L L A A Q	
UniRef90_H0J6Z0	A L T A L A T V D R R V E E N A L Q H L A Q R W Q P L Q G F S A E R L A Q Q E	
UniRef90_B1YBB2	R V A V A S L K P V A L K A A E L G V K A V L Y S P E E R R A A S	
UniRef90_UPI000471C78D	A P D Y I A V P D F K R G D D M P H L A S A W G A E L L W I G R A Q L Q Q V Q	
UniRef90_B3CDT6	A I K E V A T I D V K R N V E V I K K L Q K L V D V R F Y T A E E L S Q V E	
UniRef90_UPI00035C7B8D	S V T A L A T V D G K A G E P G L V T A A E R L G V P L V T Y D A R T L A A V D	
UniRef90_K2MB13	V L S A L A T V P R K E G E P A F R E V A H R L G L P L I V P D E D A L R D A A	
UniRef90_D3RU87	V V C L A S H A R K S D E P A L L E L A R R R G W P L R F Y P A E V L A G V A	
UniRef90_UPI0003B6EE72	A V A A L A T V K E K L Q E P A L L A L A E R R M G V P L H G F E A A D L A R C	
UniRef90_UPI0003B728D2	D V A A V A S A D K A D E P A I L Q L A A A L G V S A R F L S A D V L K A V T	
UniRef90_D6M2X0	D V R A V A T V D R R A G E P A L A A L A A R L G V P V R A Y P P D V L K A R V Q	
UniRef90_H0A8P1	P I T H I A A P H F R H G T A A L H A V A A M L Q P L L W V E R R A L E A V Q	
UniRef90_S3BA65	D V T A L A T V L A R A A E P G L L V V A A A R L G V P L R G Y G A A A L A S V A	
UniRef90_D7CI80	E V V E L A T V E G K A D E P G L V V A A A R L G V P L V F L P L E A L K A R K	
UniRef90_UPI00037DF583	R L S L C T L E S K A E E P G V V Q E A A R M L G V P V R A Y A P H E L A A V S	
UniRef90_F3ZMK6	R V R A V A T V D R R A E P A V V V A L A A R L G V P V R A Y P T D A L D A M A	
UniRef90_UPI00037B7983	P I A L I A T E A S K S D E D G L Q E A A R R L G V R V A T Y P T D A L D A M A	
UniRef90_H1G0F5	A V G G L A T I A Q R D E P A I V L V T R H H G W D I Q A F S A E A L S R V	
UniRef90_X4XJ0	A L K A I G S V T L K K G E P G L I Q L A S C C R V P F K T F T A E A L R E F E	
UniRef90_F2LDI3	D I A R V A T L D A K A A E P G L V C C A R H G W P L V I A R E A I A P D A	
UniRef90_V5SSB5	D I A V I A T E T S K A N E P G I C E T A H R L G V T L V S F T T D E F Q S V A	
UniRef90_L0HEQ5	E V F V Y A T T T K L G E T G L V E G V G A L S G N L I F L D D D T I N A Q A	
UniRef90_C4WKU3	D A I A T L N A R G E P V W A E L S H Y D C A L C F F D A A R L I E Q E T	
UniRef90_UPI00036C95D6	A V R A V A T V D R R A C E P G L R T A L R E Y F R P L L G Y A S E V L S C V T	
UniRef90_V4R3P5	A I S C F A T L T D R T A L P A F R Q N H E A M L A A A R F F S L P V A V D L L T L A S A Q	
UniRef90_UPI000470CB04	K P D A L A T A A F K A D E P A F C Y C E A E K L G V P V L V A V T T A K L E S V A	
UniRef90_J5PS95	H I R L A T C W H K K D D K A L K E A L D N L G L K T V F L P K F R Y S S D V	
UniRef90_UPI0003B567B1	A L S A L A T P A L K K D D E D A I A A A G R A L N P V I V V D D A A L L A A S	
UniRef90_H8L528	Q L T V L A T L D R K A A S P A L Q S V C Y R Q H G L D L R A I S T G Q L Q T F S	
UniRef90_H2C639	R V K G I A S I K E R A K S V A D K L N G L P F R L F S V D E L N S L D	
UniRef90_W8GY77	A L D D C L C T L D R K A A D P A V R D A A A A L D V P V R G F A A G E I L A A I Q	
UniRef90_I3Y9K4	E V C C T A S H A D K A D E A A L L A A S I R G W P L R L F P A E I L A A I Q	
UniRef90_T1VMV2	R I V V L A T A T G K A A S A A L L A A A D E L N V P I V G F E P D V L G R V Q	
UniRef90_UPI000361C86E	E V V E L A T V D A K A G E P G L V V A A A R L G V P L R T H P A E V L A R I E	
UniRef90_UPI00047B32CB	A L S A L A T T E F K R N E E A I F A A G R K L D P V I V V D V V E E I A S G G	
UniRef90_D1JAD3	E V K G I C T V D F K N T E S L R E V S A K F G I P I L F F S R D E I N S V N	
UniRef90_UPI00047164E6	H S F A V P P F R Q N H A A V Q A V A Q L F S P I A V D L L A L A S A Q	
UniRef90_E9SY74	S V R V L A T L D R K T E L P P F R Q N H E A M L A A A R F F S L P V A V D L L T L A S A Q	
UniRef90_M1T15	R V L K I A S V R E V V E E V S K S L N I P F Q K I D W E T I N S F N S	
UniRef90_Q30WH1	A L A S L A S V E A K R A E P A M H E A S R R L G V P V I F F S S A A L A A S	
UniRef90_Q6L2V7	A I K R I A T I D K S G S A P L N D L I K K I K C D A I F Y K N E E L N F N S	
UniRef90_U4Q129	R L A T A P L K S R E A G L A A E A K T L S S L E I V A Q H R L D A V I E T F N	
UniRef90_K1W268	A I I G I A T L D L K A G E A A I G A L A A H F G V P L L A F G A T R I L E Q E T	
UniRef90_F9VNN1	R V K V I S S I R E K V K I V A D E L G I T F R L V T R D E I E T F N	
UniRef90_UPI0004773EEE	A V A I A T L D L K A G E A A I G A L A A H F G V P L L A F G A T R I L E Q E T	
UniRef90_G8ARL2	A R R A L A A P M R K R N E A G V A A E A R L L L A P L R F V D D S A L A A V Q	
UniRef90_UPI00046FBB04	A P Q G L A V P A F R Q H H A A M L G V S Q F F A P L P I T V V D L L A S V Q	
UniRef90_H0UMW2	A L L E I G T W E G K R S S K E L L A R A A K D L G C G V R F F G S D E I R D A S	
UniRef90_D4LSG3	A V S Q I A S I S L K K E E Q G I L A A D W N I P F C T F G E A E I L R Q F D	
UniRef90_UPI00036E1F31	R V K A V G S V R K E A E E V V K K I A D E F G N V R F R L F S D E I L N N F M	
UniRef90_D0KUU2	R I G I A S I R E E V V K K I A D E F G N V R F R L F S D E I L N N F M S	
UniRef90_HOTFQ1	UniRef90_UPI00042690A8	S I G V V A T E S A K A E E A G I I A V A R R L G R P L V G I V A S E L A G V S
UniRef90_UPI000471B148	H V D V L A S A D V K A D E G A I L A L A A A R G W R F V T F P A A A L A A Q	
UniRef90_D1B7N6	P I V R V A S H T K Q G H P L A A A A H L N C E C V T F A S E H L A A Q	
UniRef90_F4B858	A L R R L G T W E G K G S R S L M E A G S L G A E V V R F R Q G E I L N S F K	
UniRef90_J0QSW0	Q V E V I S S V R E K V V R K V A E K L G V P K F R L S I D E V I L N S F K	
UniRef90_H8FW49	K V T A L A T L K S K E D H P I I Q S L S S V L S V S L L S F D V Q D L E N Q T	
UniRef90_M7YU57	A L T G T G L A S D R R D R D E A A L C A L A A D L N P I C Y F S A E R L E R E T	
UniRef90_G5RH63	D L A V V A T A A D R A V E P A I R D A A A S F G L S P C P V A A E A L E A R D	
UniRef90_L0GZM8	A L K A I G S V T L K K G E P G I I Q L A S C C R V P F E K E T L R A R K	
UniRef90_V4Y5J4	R L D A L A T A A F K G D E P G L V A A A R H L G P L L A I E P A A L A A V A	
UniRef90_J7QA67	D V E F I A T A T R K E D E E G G L L E A A E E L D L G G V V F P A A E L L D H E	
UniRef90_H5UXU7	D C A R L C A L E S K A Q E A G L H D A A R E L G L E L V F L P L A A L R A R K	
UniRef90_UPI00037FD220	A L L A A L A T V D G K A D P Q V Q A F A D G L G V P V R A L P A E T L D A Q A	
UniRef90_UPI00036D1738	E I G C L A T D R R G S E P G L I I V A A E E L R V P I V V F P A A E L L A K V	
UniRef90_UPI00036CB663	D L T V I A T A A D R A G E P A I R D A A A F G L V P T A I P A T A M I A V D	
UniRef90_W5TMT4	S I R R C L A T D R R G D A E P Q V Q A F A D G L G V P V L G F G S A E L A G V D	
UniRef90_J0S9Y1	D V L V Y A T T E K K R D E V G L T R A V A D L G G V L V F L P D A V L N R E T	

UniRef90_D5WH71
UniRef90_T2RW52
UniRef90_E2PXM4
UniRef90_UPI0002D919B7
UniRef90_UPI0002D4E6A6
UniRef90_UPI000479023C
UniRef90_J3CEA5
UniRef90_A8LLB4
UniRef90_A0B5H1
UniRef90_UPI000466B695
UniRef90_W6WCH2
UniRef90_G2HAW3
UniRef90_UPI000361E01B
UniRef90_W5YK69
UniRef90_J5C6K3
UniRef90_Q3IT84
UniRef90_H1HS61
UniRef90_H1YX42
UniRef90_G2P6E7
UniRef90_V6JMB1
UniRef90_S0AU09
UniRef90_UPI0003F81286
UniRef90_G210E7
UniRef90_H0J6Z0
UniRef90_B1YBB2
UniRef90_UPI000471C78D
UniRef90_B3CDT6
UniRef90_UPI00035C7B8D
UniRef90_K2MB13
UniRef90_D3RU87
UniRef90_UPI0003B6EE72
UniRef90_UPI0003B728D2
UniRef90_D6M2X0
UniRef90_H0A8P1
UniRef90_S3BA65
UniRef90_D7CI80
UniRef90_UPI00037DF583
UniRef90_F3ZMK6
UniRef90_UPI00037B7983
UniRef90_H1GOF5
UniRef90_X4XJ0
UniRef90_F2LDI3
UniRef90_V5SSB5
UniRef90_L0HEQ5
UniRef90_C4WKU3
UniRef90_UPI00036C95D6
UniRef90_V4R3P5
UniRef90_UPI000470CB04
UniRef90_J5PS95
UniRef90_UPI0003B567B1
UniRef90_UPI00040EBBBB
UniRef90_H8L528
UniRef90_H2C639
UniRef90_W8GY77
UniRef90_I3Y9K4
UniRef90_T1VMV2
UniRef90_UPI000361C86E
UniRef90_UPI00047B32CB
UniRef90_D1JAD3
UniRef90_UPI00047164E6
UniRef90_E9SY74
UniRef90_M1T15
UniRef90_Q30WH1
UniRef90_Q6L2V7
UniRef90_U4Q129
UniRef90_K1W268
UniRef90_F9VNN1
UniRef90_UPI0004773EEE
UniRef90_G8ARL2
UniRef90_UPI00046FBB04
UniRef90_H0UMW2
UniRef90_D4LSG3
UniRef90_UPI00036E1F31
UniRef90_D0KUU2
UniRef90_HOTFQ1
UniRef90_UPI00042690A8
UniRef90_UPI000471B148
UniRef90_D1B7N6
UniRef90_F4B858
UniRef90_J0QSW0
UniRef90_H8FW49
UniRef90_M7YU7
UniRef90_G5RH63
UniRef90_L0GZM8
UniRef90_V4Y5J4
UniRef90_J7QA67
UniRef90_H5UXU7
UniRef90_UPI00037FD220
UniRef90_UPI00036D1738
UniRef90_UPI00036CB663
UniRef90_W5TMT4
UniRef90_J0S9Y1

90 100 110 120

V A S P S	A A A R A H L G I D G V C E P C A L L A A S A T	A Q N A R L I I
V P N P S	S D A V E T E L G T P S	V A E A A A L H A V A E H G A A E L V V
R P H P S	S E R V L R A L G T A S	V A E A A A L A A G G E L L V P K R V S R
P V N P S	E T V L R Y M G T P S V S E	K R A R T H S E L S L E A T G A P S L S E
P R L L N P S	K Q V F E L V G C H G V A	A A A A L A A A G P G S R L L G
P R L L N P S	K Q V F E L V G C H G V A	E R L Q S P S E I V F A H T G C H G V A
P R L L N P S	K Q V F E L V G C H G V A	P R L L N P S E T V L R Y M G T P S V S E
P R L L N P S	K Q V F E L V G C H G V A	P R L L N P S K Q V F E L V G C H G V A
P L T P S R A S M	L G L S G V A E P A V L A L A Q	A R L A T P S E V V F A E V G C H G V A
D E L L T T R S	P R V E A L T G V G S V A E A A A L V G A	P L T P S R A S M L G L S G V A E P A V L A L A Q
A R T K T V S	K H S L A Q T A T P	D E L L T T R S P R V E A L T G V G S V A E A A A L V G A
P V P H P S	P K A A E V L V A E V G V A E G C A L A A A	A R T K T V S K H S L A Q T A T P S L S E A A A L A A G E A S E L I V
S R T L S Q S	Q A S L E A A G T P S V S E A A A L A A A A G A D A A L L G	P V P H P S P K A A E V L V A E V G V A E G C A L A A A
P R C V T R S	S A R A Q A A L G V A S V A E G C A L A A A	S R T L S Q S Q A S L E A A G T P S V S E A A A L A A A A G A D A A L L G
A H C L T R S	D H A L S A T G L P S A S E A A A L A V C	P R C V T R S A R A Q A A L G V A S V A E G C A L A A A
G P S P S R	A K E L I G W P G I A E A S A I A	A H C L T R S D H A L S A T G L P S A S E A A A L A V C
P G N F E S S A	F V E K T T G V G	G P S P S R A K E L I G W P G I A E A S A I A
D E C P E S S D S	R A Y D K V G L K G V A E P S A L S L S K S K K I I L K K	P G N F E S S A F V E K T T G V G
V P N P S A A P L	T A V G T A G V A E A A A L L A A G P G G E L L V	D E C P E S S D S R A Y D K V G L K G V A E P S A L S L S K S K K I I L K K
V P N P S A A P L	T A V G T A G V A E A A A L L A A G P G G E L L V	V P N P S A A P L T A V G T A G V A E A A A A L L A A G P G G E L L V
V P N P S A A P L	T A V G T A G V A E A A A L L A A G P G G E L L V	V P N P S A A P L T A V G T A G V A E A A A A L L A A G P G G E L L V
V T R S A A V Y R A T G A Y S V S N A S A	R I S S S G G K E L V	V P N P S A A P L T A V G T A G V A E A A A A L L A A G P G G E L L V
D R I V T P S	P L A L A R F G V P S V A	V T R S A A V Y R A T G A Y S V S N A S A
P R C V T R S	S A R A Q A A L G V A S V A E G C A L A A A	D R I V T P S P L A L A R F G V P S V A
G I A A P S	S A V A L Q H T G S P S V	P R C V T R S S A R A Q A A L G V A S V A E G C A L A A A
P C L S P P S	S Q K A L E A V G L P G V A E I L A A L K A A	G I A A P S S A V A L Q H T G S P S V
P G C H T	T A S A T V M R H V G V A S V A E A C A L A G A	P C L S P P S S Q K A L E A V G L P G V A E I L A A L K A A
UniRef90_B3CDT6	V P N P S T T V Q K Y M G T P S V C E A A A L L S S H H	P G C H T T A S A T V M R H V G V A S V A E A C A L A G A
UniRef90_UPI00035C7B8D	V P P S P S G A A L A A V G T P S V A	V P N P S T T V Q K Y M G T P S V C E A A A L L S S H H
UniRef90_PRCLT	T T S S A S L R A T G A G G S A S E A A A L A C G P V G R L L G	V P P S P S G A A L A A V G T P S V A
UniRef90_VPTPS	G R V A G E V G A P S V	P R C L T T T S S A S L R A T G A G G S A S E A A A L A C G P V G R L L G
P T P N P S A A A G R R F S Q P S V C E A A A L L A A A Q I F P T G P R L L L	V P T P S G R V A G E V G A P S V	
V P T P S A V V A A H V G T P S V S E A A A A L A A A A V P D P T R A R L L V	P T P N P S A A A G R R F S Q P S V C E A A A A L L A A A Q I F P T G P R L L L	
V P P G P S A A V R A A L G T A S V A E G C A L A V A	V P T P S A V V A A H V G T P S V S E A A A A L A A A A V P D P T R A R L L V	
P R C P T R S E A A L R A T G L A S V A E G C A L A V A	V P P G P S A A V R A A L G T A S V A E G C A L A V A	
R V P H P S G F A R T A V G T P S V A E A A A A L L A G G G G P G G A P A L L V	P R C P T R S E A A L R A T G L A S V A E G C A L A V A	
V P P S P S E T A L T T V V G T P S V A E A A A A L L A G G G G P G G A P A L L V	R V P H P S G F A R T A V G T P S V A E A A A A L L A G G G G P G G A P A L L V	
G A A P T H S P R V Q A M F G V G S V A E A A A A L A V G A	V P P S P S E T A L T T V V G T P S V A E A A A A L L A G G G G P G G A P A L L V	
V P R P S R A P R A A L G T G S V V A E A A A A L A E A A G G R G R L L V	G A A P T H S P R V Q A M F G V G S V A E A A A A L A V G A	
G S V L T Q S A A A A L E H K G T R S V A E A A A A L L A A G V N G R L L V	V P R P S R A P R A A L G T G S V V A E A A A A L A E A A G G R G R L L V	
H H F P G S G X V E S A	G S V L T Q S A A A A L E H K G T R S V A E A A A A L L A A G V N G R L L V	
P P G T A P S S A A F A R F G V E G V C E P C A L A A A	H H F P G S G X V E S A	
S R I L T V S P A A L K H K S T P S V A E	P P G T A P S S A A F A R F G V E G V C E P C A L A A A	
G T G P S R	A T R L G L G V A E P C A L A T S	S R I L T V S P A A L K H K S T P S V A E
P R L K N P S D A V F R A V G C H G V A	R T K T L V M	G T G P S R A T R L G L G V A E P C A L A T S
V A S P S G S V R S A L G T A S V A E A A A A L R A A S E L G D A R P H L V L	P R L K N P S D A V F R A V G C H G V A	
H R I V T H S P E V E R L Y G V G S V A E A V A L I A A	V A E A A A A L R A A S E L G D A R P H L V L	
P R C I T H S E R A R I T M G F G S I A E G C A L A A L	H R I V T H S P E V E R L Y G V G S V A E A V A L I A A	
E K K L L T R S E R V K D A V G T A S V A E A A A A A A G R N A R L A G	P R C I T H S E R A R I T M G F G S I A E G C A L A A L	
Y C V D E T A A K K H L G I K S V A E M S A L I A S F	E K K L L T R S E R V K D A V G T A S V A E A A A A A A G R N A R L A G	
P R T L L S S S S L S Q K L A G T P S V S E A A S A L A A A A G A G A K L L G	Y C V D E T A A K K H L G I K S V A E M S A L I A S F	
T A G L L S S A A S R H L G L P G V A E P C A L I A A	P R T L L S S S S L S Q K L A G T P S V S E A A S A L A A A A G A G A K L L G	
H D C L T P P S D K L R E E G I R G V A E A S A L L M M A	T A G L L S S A A S R H L G L P G V A E P C A L I A A	
V A N P S D R V H S A T G S P S V A E A A A A V L	H D C L T P P S D K L R E E G I R G V A E A S A L L M M A	
V P N P S S R A A S A A G T P S V A E A A A A L L A D G R E L L V	V A N P S D R V H S A T G S P S V A E A A A A V L	
V P P S P S T R V E H A I G T A S V A E A A A A L L A S G G P L L V	V P N P S S R A A S A A G T P S V A E A A A A L L A D G R E L L V	
V P H P S G A P L C A V G T G S V A E A A A A L A G G G Q L L	V P P S P S T R V E H A I G T A S V A E A A A A L L A S G G P L L V	
A N L F S P A G R S Q D V A G T P S V S E A A S A L A V A	V P H P S G A P L C A V G T G S V A E A A A A L A G G G Q L L	
V Q S K S A A M A A F N L K G V A E P C A I L G A T R N N T	A N L F S P A G R S Q D V A G T P S V S E A A S A L A V A	
P R C L T H S E R A R I T M G F G S I A E G C A L A A L	K C E F V K	V Q S K S A A M A A F N L K G V A E P C A I L G A T R N N T
V P N P A V T V D A V G T P S V A E A A A A L L A S D	G P Q A Q L L M G	P R C L T H S E R A R I T M G F G S I A E G C A L A A L
D E C L T P P S E K L L E E L G L K G V A E I S A F I A	G G P S A K L L I L	V P N P A V T V D A V G T P S V A E A A A A L L A S D
T G I I N G D V Y K Y I G A Y G S V S T A S A Y L S S	N H G K M L I	D E C L T P P S E K L L E E L G L K G V A E I S A F I A
S K T L L T F S R A S F E R S G L P V S E T	A A A A A G E N A R L V A	T G I I N G D V Y K Y I G A Y G S V S T A S A Y L S S
K V P N P S M V V Q Q K I I T T P S V	A A A A A L E A A G V S T L L V	S K T L L T F S R A S F E R S G L P V S E T
D E C L S P Q S E K L K E I G L K G V A E V S A L I A	G G K E A K L L L	K V P N P S M V V Q Q K I I T T P S V
P R I L A T P S A R V F V A A V G C H S V C E G A A L A A A G P G G	H L V L	D E C L S P Q S E K L K E I G L K G V A E V S A L I A
D R V Q T R S A R V E A A V G I A S V A E A A A A A G P G S T L L L	G G K E A K L L L	P R I L A T P S A R V F V A A V G C H S V C E G A A L A A A G P G G
P R C L T H S E V A R I A T G F G S I A E G C A L A A L	G P N A R L L G	D R V Q T R S A R V E A A V G I A S V A E A A A A A G P G S T L L L
M G M T L T A S A A E R H L G L P G V A E P C S A L M G R P L G G	G P N A R L L G	P R C L T H S E V A R I A T G F G S I A E G C A L A A L
G T F E E S E F V K K	G T G A K L L G	M G M T L T A S A A E R H L G L P G V A E P C S A L M G R P L G G
H E C L S P A S E T L S S L G L Q G V A E A V A L L M A	G P R G K L L V	G T F E E S E F V K K
N P C L T P P S K T L L I E V G L K G V A E I S A L I A	G G R N S K L L I L	H E C L S P A S E T L S S L G L Q G V A E A V A L L M A
H L A A T N S A R V V Q H L K G V P S I A E T	A A L A A V G A H R A L L L	N P C L T P P S K T L L I E V G L K G V A E I S A L I A
V P V P T P S A T V V A A H V G T P S V A	E A A A L L A A G D G S E L M I	H L A A T N S A R V V Q H L K G V P S I A E T
R G I N S P S R T V I R Q L A T P S V A E A A A A L A A L R A L G F A N P Y L V V	G P N A R L L G	V P V P T P S A T V V A A H V G T P S V A
G Q V V T R S A R I E G L R G V G S	A A E A A L L A A G P E S R L L A L	R G I N S P S R T V I R Q L A T P S V A E A A A A L A A L R A L G F A N P Y L V V
H H F P G S G F V R K T V G V G S V S G P A A W L L S Q	G Q L L L G	G Q V V T R S A R I E G L R G V G S
A A C P T R S A R V V L A A V G H A	G K N A K L L I L	H H F P G S G F V R K T V G V G S V S G P A A W L L S Q
G P S P S K S K E L I G W P G I S E A S A I A	G K N S Q L L L	A A C P T R S A R V V L A A V G H A
P R I L R H P S D E V R G V A G T P S V A E A A A A L A A G P D A E L V V	G G R E Q E L L L	G P S P S K S K E L I G W P G I S E A S A I A
A T A A T H S P R V Q A M F G V G S V A E A A A A L A V L G A	G P N S R L V A	P R I L R H P S D E V R G V A G T P S V A E A A A A L A A G P D A E L V V
P V T P P S D V V A D A V G T R S V A E A A A A L A A G G E L L V P K R A A R G	G A R L V V	A T A A T H S P R V Q A M F G V G S V A E A A A A L A V L G A
P V P H P S D E V R G V A G T P S V A E A A A A L A A A A D G T L L I V	G P N S R L V A	P V T P P S D V V A D A V G T R S V A E A A A A L A A G G E L L V P K R A A R G
S R V P T R S Q R I E A S R Q V G V G S V A E A A A A L A A A A G E K G T L L V L	G P N S R L V A	P V P H P S D E V R G V A G T P S V A E A A A A L A A A A D G T L L I V
P V P T P A V R A A E A I G T P S V A E A A A A L A A C A R W C D R P R L L V L	G P N S R L V A	S R V P T R S Q R I E A S R Q V G V G S V A E A A A A L A A A A G E K G T L L V L
P P S P S R A G L I G L S G V A E P A V L A L A Q R R E L V L V	G P N S R L V A	P V P T P A V R A A E A I G T P S V A E A A A A L A A C A R W C D R P R L L V L

130

R K T V L A G □ T V A I □ A V A N
 UniRef90_D5WH71
 UniRef90_T2RW52
 UniRef90_E2PXM4
 UniRef90_UPI0002D919B7
 UniRef90_UPI0002D4E6A6
 UniRef90_UPI000479023C
 UniRef90_J3CEA5
 UniRef90_A8LLB4
 UniRef90_A0B5H1
 UniRef90_UPI000466B695
 UniRef90_W6WCH2
 UniRef90_G2HAW3
 UniRef90_UPI000361E01B
 UniRef90_W5YK69
 UniRef90_J5C6K3
 UniRef90_Q3IT84
 UniRef90_H1HS61
 UniRef90_H1YX42
 UniRef90_G2P6E7
 UniRef90_V6JMB1
 UniRef90_S0AU09
 UniRef90_UPI0003F81286
 UniRef90_G210E7
 UniRef90_H0J6Z0
 UniRef90_B1YBB2
 UniRef90_UPI000471C78D
 UniRef90_B3CDT6
 UniRef90_UPI00035C7B8D
 UniRef90_K2MB13
 UniRef90_D3RU87
 UniRef90_UPI0003B6EE72
 UniRef90_UPI0003B728D2
 UniRef90_D6M2X0
 UniRef90_H0A8P1
 UniRef90_S3BA65
 UniRef90_D7CI80
 UniRef90_UPI00037DF583
 UniRef90_F3ZMK6
 UniRef90_UPI00037B7983
 UniRef90_H1G0F5
 UniRef90_X4XI0
 UniRef90_F2LDI3
 UniRef90_V5SSB5
 UniRef90_L0HEQ5
 UniRef90_C4WKU3
 UniRef90_UPI00036C95D6
 UniRef90_V4R3P5
 UniRef90_UPI000470CB04
 UniRef90_J5PS95
 UniRef90_UPI0003B567B1
 UniRef90_UPI00040EBBBB
 UniRef90_H8L528
 UniRef90_H2C639
 UniRef90_W8GY77
 UniRef90_I3Y9K4
 UniRef90_T1VMV2
 UniRef90_UPI000361C86E
 UniRef90_UPI00047B32CB
 UniRef90_D1JAD3
 UniRef90_UPI00047164E6
 UniRef90_E9SY74
 UniRef90_M1T15
 UniRef90_Q30WH1
 UniRef90_Q6L2V7
 UniRef90_U4Q129
 UniRef90_K1W268
 UniRef90_F9VNN1
 UniRef90_UPI0004773EEE
 UniRef90_G8ARL2
 UniRef90_UPI00046FBB04
 UniRef90_H0UMW2
 UniRef90_D4LSG3
 UniRef90_UPI00036E1F31
 UniRef90_D0KUU2
 UniRef90_H0TFQ1
 UniRef90_UPI00042690A8
 UniRef90_UPI000471B148
 UniRef90_D1B7N6
 UniRef90_F4B858
 UniRef90_J0QSW0
 UniRef90_H8FW49
 UniRef90_M7YUS7
 UniRef90_G5RH63
 UniRef90_L0GZM8
 UniRef90_V4Y5J4
 UniRef90_J7QA67
 UniRef90_H5UX7
 UniRef90_UPI00037FD220
 UniRef90_UPI00036D1738
 UniRef90_UPI00036CB663
 UniRef90_W5TMT4
 UniRef90_J0S9Y1

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

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

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

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

UniRef90_W8AX31
 UniRef90_UP100040DF5B4
 UniRef90_UP1000475DBC1
 UniRef90_X5QL8
 UniRef90_G1UXA7
 UniRef90_UP10004659F68
 UniRef90_G4RJI4
 UniRef90_H0E503
 UniRef90_E1VN24
 UniRef90_UP10003A6D8AC
 UniRef90_A8IKS0
 UniRef90_B8IUS1
 UniRef90_Q9HKE1
 UniRef90_M2WX04
 UniRef90_UP1000365242F
 UniRef90_C3JM32
 UniRef90_B8EQF5
 UniRef90_C5AGM1
 UniRef90_R5E6X4
 UniRef90_E4N070
 UniRef90_W7DRZ8
 UniRef90_A4YIH9
 UniRef90_UP100037D5221
 UniRef90_K7SZ75
 UniRef90_UP10002DBE79F
 UniRef90_Q97A68
 UniRef90_A9CHC6
 UniRef90_S6D5C9
 UniRef90_I4YWT3
 UniRef90_W7KQ23
 UniRef90_UP1000369806B
 UniRef90_UP10004686BFA
 UniRef90_D5RL28
 UniRef90_K0K9N6
 UniRef90_B0R5V6
 UniRef90_UP10002FA75C1
 UniRef90_E1QNKO
 UniRef90_UP1000464757F
 UniRef90_A0A031LQP7
 UniRef90_E3I5L0
 UniRef90_UP100047580AA
 UniRef90_UP100035CF996
 UniRef90_U2AP81
 UniRef90_N0AAA0
 UniRef90_U5EA32
 UniRef90_B7KPG7
 UniRef90_UP10003C77805
 UniRef90_A0A022MGF5
 UniRef90_W7W489
 UniRef90_UP1000376D8A6
 UniRef90_D9WC72
 UniRef90_A7IKG5
 UniRef90_UP1000473E62A
 UniRef90_F4FYR8
 UniRef90_UP1000376268A
 UniRef90_UP10004706177
 UniRef90_S9S7B7
 UniRef90_Q07PH2
 UniRef90_B1Z9Z5
 UniRef90_A3SMM3
 UniRef90_U5W6N7
 UniRef90_A2S2W3
 UniRef90_W0DXZ4
 UniRef90_Q6N819
 UniRef90_M5EUR0
 UniRef90_H7EYS4
 UniRef90_UP1000375489E
 UniRef90_M8BIC5
 UniRef90_D6BBQ4
 UniRef90_UP100031E5449
 UniRef90_B7L3J8
 UniRef90_UP1000475B0EF
 UniRef90_UP1000380C09A
 UniRef90_UP10004704F02
 UniRef90_U2B9J1
 UniRef90_D3P682
 UniRef90_UP100036F6D78
 UniRef90_Q31L02
 UniRef90_UP1000463D8E7
 UniRef90_Q5YSB2
 UniRef90_Q0BUE0
 UniRef90_F7V9X7
 UniRef90_M3B3A3
 UniRef90_UP10003076A32
 UniRef90_UP100046A8722
 UniRef90_UP10003A57150
 UniRef90_UP100035C21AE
 UniRef90_F4CJH5
 UniRef90_UP100036B9249
 UniRef90_10HCB1
 UniRef90_UP10004697CEB
 UniRef90_H9KIW7

50 60 70 80

The sequence alignment shows the conservation of amino acids at positions 50, 60, 70, and 80 across a large number of UniProt entries. The alignment is presented in a grid where each row represents a protein sequence and each column represents a position in the sequence. The color of each cell in the grid indicates the conservation of that specific amino acid at that position. A legend at the bottom right provides a scale from black (most conserved) to white (least conserved).

90 100 110 120

UniRef90_W8AX31	T P V P N P S K R [V] A S A I G T A S	V A E A A A I S A S	G G G E L I I
UniRef90_UP100040DF5B4	H [L] T I T P S P A A A A R F G [P] S V A	E A A A A L A A F A G K A R L I V	
UniRef90_UP1000475DBC1	P G V A V S A T A R A A F G T A S	V A E A A A L L G A V A P Y G G A A R L L V	
UniRef90_X5QL8	T T S R S D [S] Q E H A G T P S V	S E A S A L A A A A G K G A K L L G	
UniRef90_G1UXA7	T P T P S E A A G R R F H Q P S V C E A A	A L L A A R A D G H S G R L L L	
UniRef90_UP10004659F68	V P N P P A T R A E A A A I G T P S V A	E A A A L K A A G G D R L L A V	
UniRef90_G4RJI4	C L S P S R A V E A L G V P	G V A E P A A L A V A	G R G G R L L Y
UniRef90_H0E503	V P T P S A V V A A A V G T P S V	S V A E A A A L L V A G D G D P L A A R L L V	
UniRef90_E1VN24	D Q L Q T H S P V S L R V T G F G S A A E A A A L A A L G A L P C A N S R L L G		
UniRef90_UP10003A6D8AC	T P N P S E V A G R R F K Q P S V C E A S A L L A A R A D G H S A R M L L		
UniRef90_A8IKS0	E R T Q T H S E R V V A L L R I P S	A A E T A A L A C G L N A H H L L G	
UniRef90_B8IUS1	R R A V T R S A R I E T L R G V G S	L A E A A A L A A A G P E G R L V L	
UniRef90_Q9HKE1	P E M L T H S D K A R D V F G V P	G V A E P C A I R S L G P G S K I F L	
UniRef90_M2WX04	A P V P N P S V R V A A A V G T P S V	S V A E A A A I L A S	G G G E L V A
UniRef90_UP1000365242F	V P N P S P V A S V G D A V G T P S V	S V A E A A A L A V A R Y L G A G V G R L V L	
UniRef90_C3JM32	V P P S P S P R V E N A V G T A S	V A E A A A I L A S	G G G R L V L
UniRef90_B8EQF5	P R A Q T R S V K V E A L F G L P	P S L A E T A A L A G A G A G A R L	
UniRef90_C5AGM1	A D Q R A P V S A V Q A R F G I D G V	C E P C A R A A A	P N G T L L V
UniRef90_R5E6X4	A N Y S G K D N I G D I F N I D Y A S E R C A V	R G S H G G K L V I	
UniRef90_E4N070	V L V P P G G S A R V L A A V G T P S V	A E A A A L A S A G P G A R L L L A	
UniRef90_W7DRZ8	P Q C Q S Y S P M A A H H I G L G A V A E A C V L A M M	G Q N D H L L I	
UniRef90_A4YIH9	Q S T P S R V A R D R F G I D G V	C E P S L E A L G T R I V	
UniRef90_UP100037D5221	P V P G G S A R V L A A V G T P S V	A E A A A L A G G G T L L	
UniRef90_K7SZ75	V E C E C T H S A I A F E K I G F S S	V A E A C A L A G A	G P K S R L L V
UniRef90_UP10002DBE79F	P R C P T H S A A S L R A T R G L A	S V A E A A A A L A L A G P G G R L V L	
UniRef90_Q97A68	V S L L S H S E E A E E K L G I P	G S A E P S A L L S L	G P G S R I I Y
UniRef90_A9CHC6	A E T M T F S Q A S L D H S G S P S	V S E A A A A L A A A G A G A R L	
UniRef90_S6D5C9	A Q C Q T V S A R S M Q H T G V A S V	S E A C A L V A A	G P Q G K L I V
UniRef90_I4YWT3	Q R V R T Q S A R S I A A H G V G S V A	E A A A L A A A G P R S E L V L	
UniRef90_W7KQ23	Q S T P S E V A R K Y L G V D G V	C E P S I E A L	G G N L V L K R
UniRef90_UP1000369806B	V P N P S A V V R R L T G T G S V A	E A A A I L A A R E L	G G G A E L L V V
UniRef90_UP1000468B6FA	I T P T Q S Q R V L D Q F G T G S L	C E A A A L V A A A	G P N A Q L I A
UniRef90_D5RL28	G R C P C P S R S E A S L R A T G I A	S V A E G G C A L A	Q G G R L V L
UniRef90_K0K9N6	P V P N P A E L A I G I P S V A E A A A A L R G A M E	L G G G R V E I A V	
UniRef90_B0R5V6	G P T P S R S S K E L I G W P G I A E A S A L A	G G R D N E L L A	
UniRef90_UP10002FA75C1	R G I T T S A S K P V L Q H V G S S S	V A E A A A A L V A A G E G A R L L V	
UniRef90_E1QNKO	H G C A T P P S D E L R R L G V R G V A	E L A A L A A G G T S L L L	
UniRef90_UP1000464757F	G E T L T T R S E I S L A I A G S S S V	S E A A L A A A G E G A R L L L	
UniRef90_A0A031LQP7	S P C I T P S G E K L K S L G V P G V S E A I A L	T L G G K S S R L L I	
UniRef90_E3I5L0	P G G L T L S A R V L A E K G V P S V A	E A A A L A A A G P G A R L L L	C
UniRef90_UP100047580AA	E E V L T E S A R A R T T A G V G S V A	E A A A L A V A G E G A R L L L	
UniRef90_UP100035CF996	L A A S A P S A A A A L A R F G V V A E P C A R L A A	P R G R L L G	
UniRef90_U2AP81	A R L A H F A A A V R A R F G I D G V	C E P C A L L A A	P N G A L I V
UniRef90_N0AAA0	T P Q R S P R V V R A V G T P S V	A E A A A A L L V G	
UniRef90_U5EA32	A R V V T R S G R I E A S R G V G S V A	E A A A A L A C A G P A A H L V L	
UniRef90_B7KPG7	R V P H P S G A A L L A A A G T A S V		
UniRef90_UP10003C77805	T P T L T D S T A V R A L R G T G S T A	E A A A A A L A V A L K H G G P A A K L L H	
UniRef90_A0A022MGF5	R V P G P S A A V V R A A V G T P S V	A E A A A L L A A G P G A R L V A	
UniRef90_W7W489	V P N P S M A A L T A V G T P G V A E A	A A L L A A G P G G E L L V	
UniRef90_D9WC72	N R T K T R S E R V I A L L R V P S	S A A E T A A L A A G G A R A R L L L G	
UniRef90_A7IKG5	I V P K P S I V V Q N E I G T P S V A E A S C L I A A	G E E S K L L	
UniRef90_UP1000473E62A	Q S T P S R V A K E R F G I E G V C E P	S L D A L G A K V I L K R	
UniRef90_F4FYR8	A E V V T R S A R I E R L R G V G S	S L A E A A A L A G A G P R S R L A L	
UniRef90_UP1000376268A	T P T R S A R I E A L L F A T G S I	A E A T A L L A A A G P A A E L L	
UniRef90_UP10004706177	P R L R H P S D A V F A A T G C H G V	V A E A A A L A A A G P A A E L L	
UniRef90_S9S7B7	P Q V T T R S P I S L A Q R G V G S V C E A	S L A A A A G R D A Q L V V	
UniRef90_Q07PH2	A R V V T R S S R I T A S R G I G S V	A E A A A L A G A G P Q A R L L L	
UniRef90_B1Z9Z5	T D T H S P A S Q A A R G T G S V	A E A A A L A L A G P Q A R L L L Q	
UniRef90_A3SMM3	V P H P S E T V A R R S G T A S V A	E A A A L L A A G P G A S L V L	
UniRef90_U5W6N7	A R L A A P S A A A A R A R F G V D G V	C E P C A C L I A A	P N G A L I V
UniRef90_A2S2W3	V P G G S A R V A T A V A T P S V	E A A A T L A A G D G R V L L	
UniRef90_W0DXZ4	A R I T T S S A V V A H H R G V G S V C E	A A A A L A A A G P T A R L I V	
UniRef90_Q6N819	A P L L S H S D L S Q R L A G T P S V	S E A S A L A A A G A G G A K L L G	
UniRef90_M5EUR0	A A L S E T S P L S K S L T G S A G L	A E A S A L A Q A Q E S L S D G K A K L L C	
UniRef90_H7EYS4	T E T N S A M S E R F R N T G S V	S E A C A L V A A G S E A E L I V	
UniRef90_UP1000375489E	S K T M T F S Q A S L D H A G S P S V	A A L A A A G E N A R L V A	
UniRef90_M8BIC5	T P H P S S T A L A A L G V A S V	E A A A A A L A G G G E L L	
UniRef90_D6BBQ4	R V P H P S D F S R A A V G T P S V	A E A A A A L L A C G G G G G T T	
UniRef90_UP100031E5449	V R V P T R S P R I E Q L R G V G S L A	E A A V L A A A G V E A R L I L	
UniRef90_B7L3J8	G G V L T T E S P R V R A T A G V G S V A	E A A A L A A A G E G A R L L L	
UniRef90_UP1000475B0EF	T P T Q S N L V M E K F G T G S V A	E A A A L A A A G P R A R L I S	
UniRef90_UP1000380C09A	V L C P T V S K K S F H S N G F A A V	E A E G C A L A G A	G P G A W L R A
UniRef90_UP10004704F02	S A T G A N A L V Q S V T G S P A V A E	P C A L A L A A R L G A T P R L L G	
UniRef90_U2B9J1	D R V H T R S S T V L A A V G L A	S V A E A A A L A A A G S G S R L L L	
UniRef90_D3P682	V A V P N P S E T V R A R T G T P S V	A E A A A L R S A H T L G R A V V L L V	
UniRef90_UP100036F6D78	V P H P C S R V A E Q M Q T A S V	A E A A A A L A A I Q P Q A G I L L L L	
UniRef90_Q31L02	A S C G K M A E M C	S G G K L I I	
UniRef90_UP1000463D8E7	V P N P S S G V A A A V	G A A G V A E A A A I L A A A G G R L L R	
UniRef90_Q5YSB2	H R C V T P S A A A L R A T G L T S	V I A E A A A L A A A G P Q A Q L I L	
UniRef90_Q0BUE0	T P T R S E R I M L R F T G C I	A E A T A L A L A G A G F G G A R L M V	
UniRef90_F7V9X7	V P H P S A V A G A A V G T P S V	A E A A A A L L A A G A G T V L L V	
UniRef90_M3B3A3	V P H P S A P L A T G T A S V	E A A A L V A A G P H A R L V A	
UniRef90_UP10003076A32	I T P T Q S Q R I Q D R F G T G S L A	E A A A L V A A G P H A R L V A	
UniRef90_UP100046A8722	A A L S T E S A R S R A V A G V G S V A	E A A A L V A A G D G A R L L L	
UniRef90_UP100035C21AE	R V P G P S T A A A A A V G T P S V	A E A A A A L L A A G P G A E L V A	
UniRef90_F4CJH5	V P H P G D R A R E A T G A G S V	A E A A A A L L A A A E L A G P G D E L R V	
UniRef90_UP100036B9249	S Q N N T A D A A V	G S A L A A T T G R L V M	
UniRef90_10HCB1	V P N P S A A A E A A T G	T A G V A E A A A L L A A G P G G V L L A	
UniRef90_UP10004697CEB	I T P T Q S Q R I Q D R F G T G S L A	E A A A L A A A G P K A Q L V V	
UniRef90_H9KIW7	S Q C Q S Y S N R I Y E L T G F G A V	S E A C L L A I M H K K D H L L I	

130

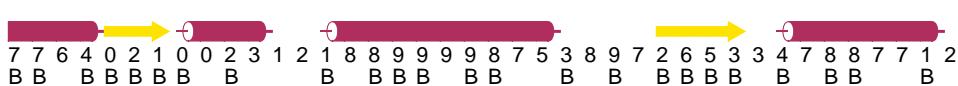
UniRef90_W8AX31
 UniRef90_UPI00040DF5B4
 UniRef90_UPI000475DBC1
 UniRef90_X5QL8
 UniRef90_G1UXA7
 UniRef90_UPI0004659F68
 UniRef90_G4RJI4
 UniRef90_H0E503
 UniRef90_E1VN24
 UniRef90_UPI0003A6D8AC
 UniRef90_A8IKS0
 UniRef90_B8IUS1
 UniRef90_Q9HKE1
 UniRef90_M2WX04
 UniRef90_UPI000365242F
 UniRef90_C3JM32
 UniRef90_B8EQF5
 UniRef90_C5AGM1
 UniRef90_R5E6X4
 UniRef90_E4N070
 UniRef90_W7DRZ8
 UniRef90_A4YIH9
 UniRef90_UPI00037D5221
 UniRef90_K7SZ75
 UniRef90_UPI0002DBE79F
 UniRef90_Q97A68
 UniRef90_A9CHC6
 UniRef90_S6D5C9
 UniRef90_I4YWT3
 UniRef90_W7KQ23
 UniRef90_UPI000369806B
 UniRef90_UPI000468B6FA
 UniRef90_D5RL28
 UniRef90_K0K9N6
 UniRef90_B0R5V6
 UniRef90_UPI0002FA75C1
 UniRef90_E1QNKO
 UniRef90_UPI000464757F
 UniRef90_A0A031LQP7
 UniRef90_E3I5L0
 UniRef90_UPI00047580AA
 UniRef90_UPI00035CF996
 UniRef90_U2AP81
 UniRef90_N0AAA0
 UniRef90_U5EA32
 UniRef90_B7KPG7
 UniRef90_UPI0003C77805
 UniRef90_A0A022MGF5
 UniRef90_W7W489
 UniRef90_UPI000376D8A6
 UniRef90_D9WC72
 UniRef90_A71KG5
 UniRef90_UPI000473E62A
 UniRef90_F4FYR8
 UniRef90_UPI000376268A
 UniRef90_UPI0004706177
 UniRef90_S9S7B7
 UniRef90_Q07PH2
 UniRef90_B1Z9Z5
 UniRef90_A3SMM3
 UniRef90_U5W6N7
 UniRef90_A2S2W3
 UniRef90_W0DXZ4
 UniRef90_Q6N819
 UniRef90_M5EUR0
 UniRef90_H7EYS4
 UniRef90_UPI000375489E
 UniRef90_M8BIC5
 UniRef90_D6BBQ4
 UniRef90_UPI00031E5449
 UniRef90_B7L3J8
 UniRef90_UPI000475B0EF
 UniRef90_UPI000380C09A
 UniRef90_UPI0004704F02
 UniRef90_U2B9J1
 UniRef90_D3P682
 UniRef90_UPI00036F6D78
 UniRef90_Q31L02
 UniRef90_UPI000463D8E7
 UniRef90_Q5YSB2
 UniRef90_Q0BUE0
 UniRef90_F7V9X7
 UniRef90_M3B3A3
 UniRef90_UPI0003076A32
 UniRef90_UPI00046A8722
 UniRef90_UPI0003A57150
 UniRef90_UPI00035C21AE
 UniRef90_F4CJH5
 UniRef90_UPI00036B9249
 UniRef90_10HCB1
 UniRef90_UPI0004697CEB
 UniRef90_H9KIW7

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

	1	10	20	30
UniRef90_J2LFC6	M	I	F	A G F G F R R S A T M A S
UniRef90_M6TLR7	S	R A A L E Q A W D G D G V		
UniRef90_G6E8A3	M	I V A G F G F R Q G A T	L Q S L E N A	L A L A Q Q F S P
UniRef90_T2IUG0	V V V G I G A T S T A S	V A D C L A V L R D V	V P T	
UniRef90_UPI0003754159	R V A L G I G F R A G V	D A A V R A A L A A Y	P D A	
UniRef90_B3DOL6	V I Y P R S V A V A I G A	A A D L P S T V R A A L Q Q A N V A V Q		
UniRef90_UPI0003813A68	P L R L F V G F G S K T G	V S P Q E I I A E A V R A L L N V I R A E		
UniRef90_Q8ZZB6	M I V A G L G F S S S A T	L V S L R A A F D L A S K G K		
UniRef90_UPI000237A2CC	M I V A G L G F S S S A T	L V S L R A A F D L A S K G K		
UniRef90_A0A024EBG4	M I V A G L G F S S S A T	L V S L R A A F D L A S K G K		
UniRef90_UPI000428FF3E	M I V A G L G F S S S A T	L V S L R A A F D L A S K G K		
UniRef90_UPI0002000396	M I V A G L G F S S S A T	L V S L R A A F D L A S K G K		
UniRef90_H5YFW1	V A G L G F K R D V T	L A S L R E A L R A A	G G P E	
UniRef90_Q0FSL6	M I V A G L G F R A G V	S A Q S L A D A L A	L T G A	
UniRef90UPI0003125729	M K V Q R I K V A G F G F R S E A P	L T S L D Q L I E Q Y G T		
UniRef90_C6WDM9	R V I P R T L V I G I G A S A G V	T S D V L V S G A L A K L A A D G R D L R		
UniRef90_A0A024KA5	M I C A G F G A R K G V S R E A	V L A L A D A A L T S L K E A G Q E A N		
UniRef90UPI000469FT6A	M I V G V G A R P G T A P E	E A V T A A I T A A L A A A G A D P G		
UniRef90_G8S456	M I V A G F G F Q S A A T A A S L	R D A L S E T G S Q T		
UniRef90_Q161Q9	L G V G V A T A C	C P A E H L A I L A Q T T L A E A G G D P T		
UniRef90_H6SJ3	G I G C S S N A T P E D	L T L I H A S I P T F P A		
UniRef90_E8X6S5				
UniRef90_S3JCV3				
UniRef90UPI00026CDB37	M I V A G F G F R A G A P	L E S L R A A L M L A Q Q S H P		
UniRef90UPI000477B210	R L V P G V G F A S A C	A A E E L E G L I R E T L A A A G I E A		
UniRef90_K2HD50	M I V A G F G F R S S G A V	C L A D A L A R A G G A P D		
UniRef90_A0A034U6M8	V V V G I G V R P G T T A E R	I V R V L A D A L T H E I T R D		
UniRef90_C9CVE7	M M I A G F G F S N R A T E	E A S L A A E A D A L T A A A G A D P G		
UniRef90_A0A037ZHR9	M I V A G F G M R N G T N A T S L	R D A L R G A A G A H		
UniRef90_Q217J6	R L V I G L G F R N E A P A	A S I G E V L E A A R A Q A G G A A D		
UniRef90_U4V2L4	M I V A G F G M R A D V T E A S L	L Q D A L D Q T G Y		
UniRef90UPI0002559991	M I V A G F G Y R G A T T P E A	L A E A L H L A A G A R		
UniRef90_S0HCC1				
UniRef90_U3A4J3	I A P M I V A G F G F R Q G T	G L A S L R D A L A L A Q E G		
UniRef90_B9NNS5	A G L G F S S S A T	C A S L R A A F D M A S R G	Q	
UniRef90_K0F3H6	L V V G I G V R P G T S A E R	I V R V V R E V V G E S		
UniRef90UPI00036A1CDC	P A T V A I G V S F L N P	K G G S E E I A L V Q Q M L A D A E L A P A		
UniRef90_A0A037XBF5	P M I V A G I G L R A D A T E	A D L H A A L A L T R R		
UniRef90_B9KSJ4	M I V A G I G L G F R E S A T	E E L A A L G D		
UniRef90_S2KJX6	M I V A G F G F R R	E A L L A S L I D A L E R I E K H H G		
UniRef90_L8DQE0	R V V V G I G A R M G V D A	A D V V M R V I S T V L Q Q N W		
UniRef90UPI000463E977	R I Y P R N V A V A I L G	A G A T D V A V A I G D A L G H A G L A L Q		
UniRef90UPI00028A2FC9	M I V A G F G Y R S G T A L P	S C E A A L A L A Q V G H P P		
UniRef90UPI0003F72903	M I V A G F G F R T G A T P E S	L R D A L G R A G G Q A D		
UniRef90_W1N519	V V V G F G F R S G A S L	S A L D A L L D R L V E Q Y G		
UniRef90_Q138E2	V V I V G V G F R S A A R A S S I	T D V I E A A R R A I A P W		
UniRef90_I2BKZ1	L I Y P Q N V Y V T	C P G A Q L A E R V T R A L Q E A G V A V Q		
UniRef90_W1JQR3	V A G F G F R Q D V T	L A A L R D A L L A A G G P D		
UniRef90_Q2IV81	R I V I G I G F R A A A P	Q A S I I A E V I A A A R G A A M P A		
UniRef90_A3X5A5	V A G I G L G F R A S A T	L A D L R Q A L D L L Q A		
UniRef90UPI00036A46F3	M I V A G F G F R Q A A Q	L A S L N E A L E R L E T Y Y G		
UniRef90_F3KVV3	V I A G I G L R Q Q A S	V Q A L R Q V L S V A L E A G Q Q P L		
UniRef90UPI00034AF6D0	P A T V A I G M S G T E E D T	A V A L I Q Q L L V D A E L A P A		
UniRef90_N6WZG3	V A G F G Y R K G A R V	D S L A E A L A L A V E A H G		
UniRef90UPI000288E4C7	M I V P R S V L A A V S A D L P	A L A E R V R A A L Q D A G I A Q Q		
UniRef90_F8JCE2	M I V A I G I G A N S R A E Q	R D F A A L N D A R Q S A G G A		
UniRef90UPI00026CACB5	V I V A G F G F R G N A E L A S C	E A A A L A L Q A H G H P P		
UniRef90_X7F7K1	M I V A G F G F R G G A S E G S	L A D A L A Q A E R A T G A R A Q		
UniRef90_J3FEP5		D A I R D A L Q Q A G V A I Q		
UniRef90_A0A058ZJ77	I A G I G F R A D A P V A S L	R E A L E M V G P A D G		
UniRef90_F6F1C6	M I V A G F G F R Q S A S L	R E A L E M V G P A D G		
UniRef90UPI0003F6441C	V A G F G F R R A A E L A S L R E A	L A A A G G A E		
UniRef90_A0A031JAM4	M I V A G F G F R R L E A D V F S L	I S A Y Q Q A R E G V P P		
UniRef90UPI00035DF30D	M N V A G F G F R R Q A T R E S L	E Q A L D Q L I A E Y G P I D		
UniRef90_A2VQF0	R V A L G I G F R A G V T A A Q L	D A A I R A A L A R Y P A A		
UniRef90_J2MSC5	R I Y P R N V V V A I S A G A S P	A I G E A L R E A G L A V Q		
UniRef90UPI000363A8F9	M I A I G V G A N S K A Q A D D F	A A A L A S V C A E T G G		
UniRef90_NOBF81	L I Y P R N V V V A I V S A G V	T N V A T A V R E A L H Q V K V A T Q		
UniRef90_J2R9B0	A G I G F R G A A S V A S L	R D A L A R A N P D G L		
UniRef90_A9DXC1	M I V A G F G Y R S G A D	L A S L R D A L A M A S A Q T R		
UniRef90UPI00037D0752	V A G I G F R R D A S V A S L	S L R E A L L R A A G G A E G L A A L		
UniRef90UPI00041DBC2F	M I V A G F G C G A T R E S	F R S A L A A A G V R P D		
UniRef90_F3X2E9	M I I A G F G F R S E V S	E E A L M E A L E J A G G L R A		
UniRef90_X6L4G9	M I V A G F G F R A A A T P A S	L R D A F D K A Q G A A R A		
UniRef90_11AXS0	L I Y P R S V A V A V S A Q	L D D L P N A V R A A L Q Q A G V A Q Q		
UniRef90_K0WXR4	C L V L G I G L R A Q A R A S D	V Q A L W L R A Q A A L P A L Q		
UniRef90UPI00047D7707				
UniRef90UPI000474EC92				
UniRef90_J3IHN8	L I Y P R S V L L A V	S A S V A D L P Q A I I R A A L R Q A R V A V Q		
UniRef90_X7EEN2	M I V A G F G F R Q S A T R E S L	V D A L L R R A W V A P G		
UniRef90_Q4KIY1	L I Y P R S V L V A	I A E A V R A L L H Q R A I A V Q		
UniRef90_W8SPR8	M I V A G F G F R G G A T R E S	L A Q A L A L A A G A R		
UniRef90_K9NDA1	R I Y P R N V L V A V	A G E V A D A S A A I R Q A L R Q A G I A V Q		

50 60 70 80

UniRef90_J2LFC6	L A G L A T L E D K I E P A A	E L A R L L S L P L I P I A P Q W R T T A L	
UniRef90_M6TLR7	R V T L L A T A A D K A A S P E L A R L A A	V L G L P L T G V S A Q V L A R I A	M I F F S P E E L D R V S
UniRef90_G6E8A3	A L A C L V A P D T E M A N P V L H E A A	C A R R G W P L V I A F E P A Q L A C A Q	R K Q Y P L L T Y S S D V L L N T I A
UniRef90_T2IUG0	T F T I V A L S T L E S K D A Q M L P V A E S L G V T L	H L W S A E E L A A V T	
UniRef90_UPI0003754159	Q P A V V A T L A A K S R A R A L R T L C	P L T G V S A Q V L A R I A	
UniRef90_B3DOL6	A L A C L V A P D T E M A N P V L H E A A	C A R R G W P L V I A F E P A Q L A C A Q	
UniRef90_UPI0003813A68	R V E A V A V A S I R P E V Y Q V A E L L G A R P L L F K P D E L S D E K		
UniRef90_Q8ZZB6	T V D A L A T V A D K D G H A A L V A L A E V T D L P V	H F V P A H D L A G	
UniRef90_UPI000237A2CC	S L A C L L A S D L H M A N P A L R D A A L E L G V P L R F A S V S G G V S E L		
UniRef90_A0A024EBG4	A V D A L A T L D G K A G Q L A P L A R K L A L P L M A V G V E R		
UniRef90_UPI000428FF3E	R V R A V A V A T V D V R R A D A P A V V A L A A R L L G V P V R A Y A P H E		
UniRef90_UPI0002000396	G L A A M A T V S D R A D A E A L K Q L A R E C G I P I K A I T A E M L A G I D		
UniRef90_H5YFW1	A P D A L A T A E D K A A H P A F R A L A H A L N L P V H A L P A A A L L		
UniRef90_Q0FSL6	I D Q L A S A H S M L P V Q Q L G Q L R S L E V I A V A D A E L S S A S		
UniRef90_UPI0003125729	A V R A F A T L D R K T E E P G I V D A V E D W G F P L L G Y P G E E L		
UniRef90_C6WDM9	A V A I V A S S E R K A G S P V L D A V A G Y F G A E L R F I A D A D L		
UniRef90_A0A024KA5	R L D A L A T V P R K R D E P G L T D A A T A L G L P L V I A D D A A L		
UniRef90_UPI000469F7A6	A V T A V A T L D R R A G L V R G W P V R A F T A A D L A G Q D E		
UniRef90_G8S456	T V D A I A T I I D D K A C A K G F R T L A A D M S P I I A V S A P V I R E		
UniRef90_Q161Q9	A L S A L A T L A A K G A H P A I R A L A L A W D R P L L G F A P E I L D A		
UniRef90_H6SJ3	T I L A T I N R R A E I A R T V A E A L G I N N L L Y P A E V L A K I		
UniRef90_E8X6S5			
UniRef90_S3JCV3			
UniRef90_UPI00026CDB37	A V T H L A T V Q G K L A H M R Q L A H R C R V P F E T F S A E A L R E H E		
UniRef90_UPI000477B210	E A R Q L A A P A H K R D S H M L A R V A R G L E L P L I G V D A A D L A A Q E		
UniRef90_K2HD50	R L A T A A A K V R A P A I R A L A E R L D L P L I G V D A A D L A A Q E		
UniRef90_A0A034U6M8	A I E C L A T I D R R A V E A G I Q G A A V E L A V R V Q A F S A T E L A E V T		
UniRef90_C9CVE7	R P D R V T L R A K A D S P V F R A F A L A Q N L T V E T L D E D Q I A G V A		
UniRef90_A0A037ZHR9	T V Q A L A T L E S K A A M A L P A D V L N L P L I T L S P D A L Q R V A		
UniRef90_Q217J6	T I L A V P D D K S V H A G L V N A A L A A G L P I E P I I A A E A M W D A D		
UniRef90_U4V2L4	A P D A I A T V A D K A E F D A F Q A F A C A Q K L P I Q K I S Q D S L D Q A Q		
UniRef90_UPI0002559991	S V D A I A P A D K A E A P A F R S F A K S R S L P I L H L V S P E A L E A A E		
UniRef90_S0HCC1	T V D A K A A E P G L R D A A R R L G V P L R A F P A A E L A V V		
UniRef90_U3A4J3	Q P A A T H L A T A A D K A A A L M P L A E G L G L P L R G L S P E E I A S V A		
UniRef90_B9NN5	R V E A L A L A T V V S K D D H A A L A A F A K A T G L P L H F I P T G D L T G		
UniRef90_KOF3H6	A I K C L A T I D R R A M E S G M Q G A A V E L A V P V Q A Y T A G E L A E V T		
UniRef90_UPI00036A1CDC	R P D T L A T L A I K V T P A L R R F A D S L G L P L I E L S E A D I A D I P		
UniRef90_A0A037XBF5	A P E L L A T L E A R A A L P A F R A L A L R L G L P V R A L P E A A A L A G I A		
UniRef90_B9KJS4	A V D R L A A T Q T M W P L V E A L G Q A R G L A V I P V A D A A L P T A T		
UniRef90_S2KJX6	Q V E A I A S I D R R K A E L V A A V A A S M G V R G L T Y S A E Q L S A V		
UniRef90_L8DQE0	S L A C L L A A D S D M T R A E L H E A A S T L G V P L R F V S A S D D I E G G		
UniRef90_UPI000463E977	V T A L A A P D D K T D L L A P L A E R L L G L A L F A I P A E A L T D V P		
UniRef90_UPI00028A2FC9	R V A T L A D K A A S E A F R A F A A S Y H T K V K P E A L R D		
UniRef90_UPI0003F72903	A I D R L A V A D S M W P L V A R L G E A R G V A V I P V A E A A L P Q		
UniRef90_W1N519	R P T A L A T P A D K A D H A A L L E A A S A A S L P V R P I D E T A L L R Q S A		
UniRef90_Q138E2	S L A C L L A S D L Q M A D A S L H E A A S A L G V P L R F A A L T P V A D I S		
UniRef90_I2BKZ1	G L A A V A T I S D K A D A Q A L K Q L A H E C G V P I K A I P A E A L L A G		
UniRef90_W1JQR3	Q P T H L A V P D D K A V H P P L I A A A T E A L G L P C L A I S T A A I R S A A		
UniRef90_Q2IV81	Q P D A L A S L Q A K A V A E P L K T L A T E L E G L P L I A L A E E D I A G E Q		
UniRef90_A3X5A5	A V D R L A A T Q T M W P L V Q A L G R T R G I A V I T V D D D A L P T A T		
UniRef90_UPI00036A46F3	R L C L A S A A D K C E H P A L Q L A R E S A L P L R A V A L D Q L P L Q A		
UniRef90_F3KV3	S V A A I F A P I T T A A N P V I H A V A N S L G V P A R F T T S N Q L E R D L		
UniRef90_UPI00034AF6D0	D I D C L V A G S R K R G A V E A L G L R R N L Q V K L V D E G V F K E I S		
UniRef90_N6WZG3	S L A C L L A A D T Q M A S P A L H E A A G Q L G V P L R F V A S G V S V E A L		
UniRef90_UPI000288E4C7	D V V A T S E G A A F A S Y V R E A A R Q Q A S L S Y H A I T L E S M R A R N		
UniRef90_UPI00026CACB5	L T A L A A P D D K A E M L A P L A E R L L G L P A R P V D S A A L L A A Q Q		
UniRef90_X7F7K1	S L A C L V A A D T Q M A S P A L R E A A L E L A V P L R F V A P A S D I V E L		
UniRef90_J3FEP5	S L A C L L A D T Q M A S P A L R E A A L E L A V P L R F V A P T E A Q I Q G Q N D		
UniRef90_A0A058ZJ77	I D A L A T L D R K A A Q L A P L A R K L A L P L I A P A D R L A		
UniRef90_F6F1C6	G L A A L A T L E E K A N A P A F L A L A K E L G L P V A A V P S A D A A A R I V		
UniRef90_UPI0003F6441C	V T H L A T V A D K A Q A L A A E L A L A N L L D L P V I A V P P E R L A Q V		
UniRef90_A0A031JAM4	Q L J A A R A R S M L P L V Q A L G S N L N I L V I G V P D E A L P S A T		
UniRef90_UPI00035DF30D	E P A L V A T L A D K A C A R A L R T L C A R R G W P L V A F E A A Q L A S P E		
UniRef90_A2VQF0	A L A C L L A A D S D M A R P E L H E A A S A L N V P L R F A P A N E V G Q W L		
UniRef90_J2MSC5			
UniRef90_UPI000363A8F9			
UniRef90_N0BF81	D V I A T L E N A P F A N L L K A A A S G Q S I A Y R E L S L A E L R E R N		
UniRef90_J2R9B0	S L A C L L A A D T E M A N P A L R E A A L E L G V P L R F A S A E A G I G E R		
UniRef90_A9DXC1	K I D A L V T E A A K A R A T V F R D F A Q E L L G V P G L G I T T E D L A R M		
UniRef90_UPI00037D0752	P V D A L A G P R S K A S L L A R L A E A L A L P L I V L E P E A L L A G M A		
UniRef90_UPI00041DBC2F	A T M S D K A D A Q A L T S L A Q E L L G L A I R S I P A E A L L A E I E		
UniRef90_F3X2E9	R L A V P E D R A A V I A G F A E G E G L S V L P I A A D R L S R M D		
UniRef90_X6L4G9	E K I A T A A G D K A V A T A F V A L E R L G L P V V A V P Q E A L L E A Q A		
UniRef90_I1AXS0	T H I A T A A D K V T A P A F R A L A D A L G L P A L G V A P S D C A Q T		
UniRef90_K0WXR4	S L A C L L A A D T E M A S A R L R E A A L E L G V P L R F V A A Q K D L G E L		
UniRef90_UPI00047D7707	R F C L A C M A V L Q G K E Q H P A L R A W R A A L P F D T A L V A P G Q D L P G		
UniRef90_UPI000474EC92	V L A V P D W R A D L P A V A A A R L M G L P L A P V V S R A A M Q A V E		
UniRef90_J3IHN8	S L A C L L A A D T E M A N P T L R E A A L E L G V P L R F V A S A A S D A S E L		
UniRef90_X7EEN2	P A S L A T A T V K A A H P A L A A L A A D L G I V G V E A M P A D A L A S Q T		
UniRef90_Q4KIY1	S V A C L L A A D R D M A D R A L H Q A A A Q L G V P L R F L P A A D S V A E L		
UniRef90_W8SPR8	R V A M L A T A E D K A Q T A V F S G F A R A V G L P V Q P V D A A T L S G Q E		
UniRef90_K9NDA1	S V A C L L A A D S E M A G S T L R E A A L E L S V P L R F V S A A G A A		



	90	100	110	120
UniRef90_J2LFC6	P L L S H T S A A H T A R G T G S V A E A C A L T A A G G A S A R L I A			
UniRef90_M6TLR7	Q V R S P S E T V K N F T G T K S V S E A A S L L A S G A N S			
UniRef90_G6E8A3	T P T Q S D A S L A S H A T G S V A E A A A I Y G A N Y W F N Y G G S			
UniRef90_T2IUG0	K V P N P S E V V K E E V G T P S V A E A A A I Y G A N Y W F N Y G G S			
UniRef90_UP10003754159	V T E P S A R T R A A T G T P S V A E A A A L R A T E	G R L V L		
UniRef90_B3D0L6	R A A S P A S A A A L A R F G V A G V A E P C A Q L A A P H G R L L A			
UniRef90_UP10003813A68	A R S A V P P E A T I I A T V N N A A V A V T E Q P L D L T Q V G R P R G R L L A			
UniRef90_Q8ZZB6	C L S P P N Q I A L K R L G I G N V A E A A A A L K A A G P G G E L L V			
UniRef90_UP1000237A2CC	Q R T L T C S P R S R A T Y G T S S V A E A S A L A A A G H G A R L I S			
UniRef90_A0A024EBG4	A R D T A P N A T V V A A D T G I A I A V A S Q P L E V A Q I G R A R G R L L A			
UniRef90_UP1000428F3E	Q P V A T R S P A S M A A H G T G S V A E A T A L A A S G P E G R L L A			
UniRef90_UP10002000396	P V P R P S R A P R A A L G T G S T P T Q S K L I A E K F G T G S V A E A A A A L A A A G P R A R L I A			
UniRef90_H5YFW1	Q P A T T R S P A S A S L A A R G T G S T L T H S V R S M Q A R G T G S V A E A V A L I G A G P G A R L L I G			
UniRef90_Q0FSL6	P V P N P V E L A I G I P S V A E A A A L R G A A E L A G G R V E I A A R S F G R L L A			
UniRef90_UP10003125729	T H C L T R S E Q A R S A T V P S P S G R V A E L A G T P S V A E A A A A L R A A G P G A V L I L			
UniRef90_C6WDM9	Q V T H T Q S A A S Q A A R G T G S V A C R A V A E G G A A L A G A G P G A K L L A			
UniRef90_A0A024KAA5	Q P I Q T P S A R V Q V A Q I G P S V A E A A A A L A A G P G A K L L V			
UniRef90_UP1000469F7A6	P S T L T T S Q A S L A H T G T P S I A V S G P V A W I L L S Q G N L S G			
UniRef90_G8S456	H R F P A S S F V R E T V G V G S V S G P V A W I L L S Q G N L S G			
UniRef90_Q161Q9	I T P T H S A A S L A A Y A S G S V A E A S A L C Y A A G N G A R L L L A			
UniRef90_H6SJ3	G A L R T E S A R A R A V A G V G S V A E A A A L A A A G N G A R L L L I			
UniRef90_E8X6S5	T L T H G A A S R A A H G T G S V A E A A A L A A A G R G A R I T G P R A V			
UniRef90_S3JCV3	V P K P D S R T A A A V G T P S V A E A A A L L A S A G G P L V V V			
UniRef90_UP100026CDB37	T P T L S P R I H A R F N T G S V A E A C A L V I A A G G A R L I Q			
UniRef90_UP1000477B210	T P T Q S A A S L A A H G S G S V A E A A A L I A A G P G A S L W S			
UniRef90_K2HD50	A D I T T R S R A A S A K H R G V G S V C E A A A L A A A G D G A R L V V V			
UniRef90_A0A034U6M8	T H T Q S Q S A L Q H R S T R G T G S V A E A A A L A S L A P G A R L L S			
UniRef90_C9CVE7	R V P A P S A A A R D A V G T P S V A E A A A L V A A G P D A R L V L			
UniRef90_A0A037ZHR9	T Y T H S P A S L A A R A T G V A E A S A L A A A G P G A R L L I G			
UniRef90_Q217J6	Q R T L S C S A R S R A T Y G T G S V A E A A A L A A A G Y G A R L I S			
UniRef90_U4V2L4	V P K P D S R T A A A V G T P S V A E A A A L A S A G G P L V V V			
UniRef90_UP10002559991	T R T V M S Q N N T A D V A V G A A L A A S S R V A G R G A K L T T			
UniRef90_S0HCC1	T P T R S A R I E E R F G T G S I A E A A A L V A A G P G A T L L M R			
UniRef90_U3A4J3	T I T R S R H S L Q A R G T G S V A E A V A F L J A A G P G A E L L G			
UniRef90_B9NN55	P T A T N S Q R V Q D A V G T S V A E A A A L V A A G P G A E L L M V			
UniRef90_K0F3H6	L S E A L G Q P A A I R V M G S L A I A V A E Q P L D S Q R I G R P R G R L A V			
UniRef90_UP100036A1CDC	T R T S S K P S L E A R G T G S V A E A A A L A I G E G A R L I T			
UniRef90_A0A037XBF5	V R T A T H S T Q S R T V R Q T G G S V A E A C A L A A A G P N A R L L A			
UniRef90_B9KSJ4	A A T I T H S R H S L K A R G T G S V A E A V A L I A A G D G A E L L G			
UniRef90_S2KJX6	G L V A T S S P L V V Q H R G V G S V C E A A A L A A A G P A A R L L V P R L I			
UniRef90_L8DQE0	I T V I A E Q P L D L S Q V G R P R G R L A V I G L G P G A E L L M V			
UniRef90_UP1000463E977	T N T P T Q S I R I A E K F G T G S V A E A A A L A A A G P A A R L A V T R L I			
UniRef90_UP100028A2FC9	D R I A T D S P R V A R A R G V G S V C E A A A L A A A G P A A R L A V T R L I			
UniRef90_W1N519	T L T C S P R I K A R F A T G S L A E A A A A L V G A Q A R S G A R A R L L I A			
UniRef90_Q138E2	T I T C S R H S L R A R G T G S V A E A V A L L I S A G P G A A L L L G			
UniRef90_12BKZ1	A R P S A H V P A R Y G A R S V A E A A A L A A A G P A A V L A G G R H V			
UniRef90_W1JQR3	S Q G Y S P A K V A E A T Q S P Q V A I A S Q P I D P T I Q P Q G R L A I			
UniRef90_Q21V81	T M T Q S E A S L R E K G T G S F A E A V A L A G A G R D A R L L L G			
UniRef90_A3X5A5	A R Q A V P S G A S F H A G E G L T L A V A P Q P L D P Q Q I G R A R G R L A V			
UniRef90_UP100036A46F3	G D C L T R S E R S L S L F G V A S I A E A A A L A A A G P G S R L I A			
UniRef90_F3KVV3	T P T R S P P S L P A R G T G S V A E A A A L A A A G E G G A R V I A			
UniRef90_UP100034AF6D0	V P T R S A A S I A A R G T G S V A E A A A L A A A G P G A R L L A			
UniRef90_N6WZG3	V R D A V P D A R I I T T S R D I A I A V A E Q P L D V S Q V G R P R G R L A V			
UniRef90_UP1000288E4C7	T L T Q S P R I Q A R F G T G S L A E A A A L A A A G P G A R L L L G			
UniRef90_F8JCE2	Q P T L T H S S A S L A A H G A G S V A E A A A L A A L G P E A R L L A T			
UniRef90_UP100026CACB5	T L T R S E R I M A D F G T G S I A E A V A L S S A A G A G S R L L T			
UniRef90_X7F7K1	H T L T V S T A A Q A A R G V G S V A E A S A L A A F E G A A A A L A G G			
UniRef90_J3FEP5	T L T L H S A Y S L R E K G T G S V A E A V A L L A A G H G A R L L L G			
UniRef90_A0A058ZJ77	L A A S G P S D A A L A R F G V E A V A E Q P V D P Q R I G R L R G R L A V			
UniRef90_F6F1C6	D E L F T R S P R V E A L T G V G S V A E A A A L V G A G A G S R L L L G			
UniRef90_UP10003F6441C	I T P T Q S A R I E D R F G T G S L S E A A A A L A A A G P G R L A V L V A			
UniRef90_A0A031JAM4	T P T R S A A S L A A H G T G S V A E A A S A L V V A A G A G S R L L T			
UniRef90_UP100035DF30D	T V T H S E L L I S A R F G T G S V A E A A A L A A A G P G A R L I I V			
UniRef90_A2VQF0	T P T R S D L S L H R G V G S V A E A V A L L A A G H G A R L L L G			
UniRef90_J2MSC5	T L T R S S R A S L A E R G T G S V A E A V A P A V A P N A A G S G A A L L L G			
UniRef90_UP1000363A8F9	A R E A I P G A I A E Q P L D I A Q I G R P R G R L A V I G L G P G A E L L M V			
UniRef90_N0BF81	Q P V A T Q S P R L L A R Y G T G S V A E A V A L G G A A G P A S A L L L G			
UniRef90_J2R9B0	Q P V A T Q S P R L L A R Y G T G S V A E A V A L G G A A G P A S A L L L G			
UniRef90_A9DXC1	A R Q A L P Q A T I S S A N G L A I A L A E H P L E V A Q I G R Q R G R L A V			
UniRef90_UP100037D0752	Q P V A T Q S P R L L A R Y G T G S V A E A V A L G G A A G P A S A L L L G			
UniRef90_UP100041DBC2F	T L T R S S R A S L A E R G T G S V A E A V A P A V A P N A A G S G A A L L L G			
UniRef90_F3X2E9	A R Q A L P Q A T I S S A N G L A I A L A E H P L E V A Q I G R Q R G R L A V			
UniRef90_X6L4G9	V E T Q S R A S L K E R G V G S V A E A A A L F A A G E G G G R L M A			
UniRef90_I1AXS0	T L T R S S R A S L A E R G T G S V A E A V A P A V A P N A A G S G A A L L L G			
UniRef90_K0WXR4	A R Q A L P Q A T I S S A N G L A I A L A E H P L E V A Q I G R Q R G R L A V			
UniRef90_UP100047D7707	T L T L H S P R S W A A H G T G S V A E A A A L A A L G P G A R L L L G			
UniRef90_UP1000474EC92	A Q Q A V P Q L L P P L K V G E D A V A V A S Q P L D P E Q I G R P R G R L A V			
UniRef90_J3IHN8	T A T Q S Q A S Q A A R G T G S L A E A A A L A A A G P G A R L I A			
UniRef90_X7EEN2	S E L V H H A I R P V S I V G D D V V A I A V A E L E P S Q I G R P R G R L A V			
UniRef90_Q4KIY1	A R E A I P G A I A E Q P L D I A Q I G R P R G R L A V I G L G P G A E L L M V			
UniRef90_W8SPR8	A Q Q A V P Q L L P P L K V G E D A V A V A S Q P L D P E Q I G R P R G R L A V			
UniRef90_K9NDA1	S E L V H H A I R P V S I V G D D V V A I A V A E L E P S Q I G R P R G R L A V			

130

UniRef90_J2LFC6	P R V I S R L A S C A I A E		
UniRef90_M6TLR7	T K Q K Y K N L T V A I S R P H P K		
UniRef90_G6E8A3	V R H I S R M A T C A I A Q		
UniRef90_T2IUG0	T K Q K S D N V T V A I A Q S Q L E		
UniRef90_UPI0003754159	A K T S A R G V T V A A A L L		
UniRef90_B3DOL6	P K T R D G V T V A L A		
UniRef90_UPI0003813A68	R K R A F G G I T V A I A A A S P		
UniRef90_Q8ZZB6	P R Q I S D D A T C A V A		
UniRef90_UPI000237A2CC	P R S S D R L A S C A L A E S P		
UniRef90_A0A024EBG4	T R V V S R T A T A A I A E		
UniRef90_UPI000428FF3E	P R Q I S R M A T C A I A T G D P E		
UniRef90_UPI0002000396	P R I I S R Q A T A A L A L A E		
UniRef90_H5YFW1	E K V K G		
UniRef90_Q0FSL6	G K R K S A N A T C A I G S I A P		
UniRef90_UPI0003125729	P K R I F G G V T V A I A		
UniRef90_C6WDM9	P R V K S G K A T C A L A		
UniRef90_A0A024KA5	P R R S A G L A T C A L A L L E		
UniRef90_UPI000469F7A6	P R Q T G H L C T C A V A T I P		
UniRef90_G8S456	E T L L R E Q G V T I T L G		
UniRef90_Q161Q9	P R H I S P D A T C A I A E G P L		
UniRef90_H6SJ3	P R R L S S P R A S C A V A V V E I		
UniRef90_E8X6S5	S Q S G R A T C A L A E		
UniRef90_S3JCV3	P R C V D G V V I A I A E C		
UniRef90_UPI00026CDB37	R R T T D G L A T V A L A E M I		
UniRef90_UPI000477B210	P R H V S G D A T C A I A		
UniRef90_K2HD50	S R I V S A		
UniRef90_A0A034U6M8	T R K I S N D A T C A I A		
UniRef90_C9CVE7	P R V I S R S A T C A L A E		
UniRef90_A0A037ZHR9	G K R V S G T A T C A L A		
UniRef90_Q217J6	P R H V S R M A T C A L A		
UniRef90_U4V2L4	P R H I S D D A T C A V A		
UniRef90_UPI0002559991	P K		
UniRef90_S0HCC1	Q Q Q S S D F S C A I A I A P L		
UniRef90_U3A4J3	□ R V A S P N A T V A I A E		
UniRef90_B9NN5	T R R I A G P V T I A V A		
UniRef90_K0F3H6	P R L I S A D A T A A V A R A P L		
UniRef90_UPI00036A1CDC	UniRef90_UPI00028A2FC9	P R H I S R R A T C A I A E G P	
UniRef90_A0A037XBF5	P R V I S H D A T C A L A Q V T P		
UniRef90_B9KSJ4	P R M I S A D A T A A L A R		
UniRef90_S2KJX6	S Q D R L A T A A V A I		
UniRef90_L8DQE0	P A V K A E L A R C		
UniRef90_UPI000463E977	T R V V S R T A T A A I A E		
UniRef90_UPI00028A2FC9	S S D R Q A T A A V A I A E		
UniRef90_UPI0003F72903	P R I V T A N A T A A L A E		
UniRef90_W1N519	P R L I S R R A T V A A A R		
UniRef90_Q138E2	S A D G S A T A A I A		
UniRef90_I2BKZ1	P R H I S R R A T C A I A E		
UniRef90_W1JQR3	P R M V S R M A T C A V A E V A		
UniRef90_Q2IV81	P R R T V G N V T I A A A Q S A D E R		
UniRef90_A3X5A5	R R Q I S R R A T C A I A Q		
UniRef90_UPI00036A46F3	P R T V S G A A T C A L A R		
UniRef90_F3KV3	UniRef90_UPI00034AF6D0	P R K I S G M A T A A I A E	
UniRef90_UPI00034AF6D0	P R F L S P D A S C A L A E S P F		
UniRef90_N6WZG3	UniRef90_UPI000288E4C7	P R A V S R M A T A A I A E	
UniRef90_UPI000288E4C7	UniRef90_F8JCE2	P R H I S R D A T C A I A	
UniRef90_UPI00026CACB5	UniRef90_UPI00035DF30D	P R M V S D	
UniRef90_X7F7K1	UniRef90_J3FEP5	P R R I I G N I T V A A A K	
UniRef90_J3FEP5	UniRef90_A0A058ZJ77	E R V V S G D A T A A I A E	
UniRef90_F6F1C6	UniRef90_UPI00037D0752	P R H I S P D A T C A L A E	
UniRef90_UPI0003F6441C	UniRef90_UPI00041DBC2F	A R A V S R M A T A A I A E	
UniRef90_A0A031JAM4	UniRef90_F3X2E9	P R V I S R M A T C A I A Q	
UniRef90_UPI00035DF30D	UniRef90_X6L4G9	P R V V S R S A T C A L A E	
UniRef90_A2VQF0	UniRef90_I1AXS0	A R R I S R M A S C A L A A A S H E	
UniRef90_J2MSC5	UniRef90_K0WXR4	UniRef90_UPI00047D7707	P R L V A D D A T L A A A
UniRef90_UPI000363A8F9	UniRef90_N0BF81	P R L A E A G A T C A V A E	
UniRef90_N0BF81	UniRef90_J2R9B0	P A V K	
UniRef90_J2R9B0	UniRef90_A9DXC1	P R S V S G R A T C A I A	
UniRef90_A9DXC1	UniRef90_UPI00037D0752	P R V I S G D A T C A I A E	
UniRef90_UPI00037D0752	UniRef90_UPI00041DBC2F	P R V I S R M A T C A I A E	
UniRef90_UPI00041DBC2F	UniRef90_F3X2E9	P R V I S R M A T C A I A Q	
UniRef90_F3X2E9	UniRef90_X6L4G9	P R V V S R S A T C A L A E	
UniRef90_X6L4G9	UniRef90_I1AXS0	P R V I S G D A T C A I A E	
UniRef90_I1AXS0	UniRef90_K0WXR4	P R V I S G D A T C A I A E	
UniRef90_K0WXR4	UniRef90_UPI00047D7707	P R V I S G D A T C A I A E	
UniRef90_UPI00047D7707	UniRef90_UPI00047EC92	P R V I S G D A T C A I A E	
UniRef90_UPI00047EC92	UniRef90_J3IHN8	P R V I S G D A T C A I A E	
UniRef90_J3IHN8	UniRef90_X7EEN2	P R V I S G D A T C A I A E	
UniRef90_X7EEN2	UniRef90_Q4KIY1	P R V I S G D A T C A I A E	
UniRef90_Q4KIY1	UniRef90_W8SPR8	P R V I S G D A T C A I A E	
UniRef90_W8SPR8	UniRef90_K9NDA1	P R V I S G D A T C A I A E	

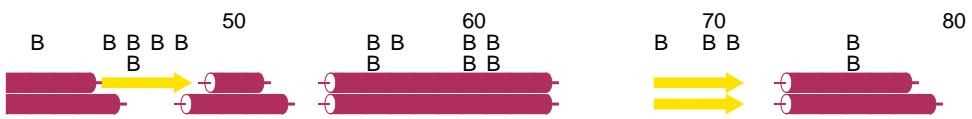
lupas_21
lupas_14
lupas_28
jnet
conf
sol25

9 8 6 0 7 8 5 5 8 9 9 9 8 5 4 7 8 9 9
B B B B B B B B

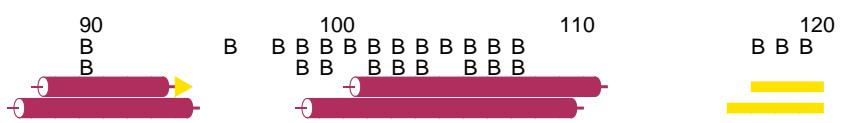


sol5
sol0
jhmm
jpssm

sol5
sol0
jhmm
jpssm



sol5
sol0
jhmm
jpssm



sol5
sol0
jhmm
jpssm

