



QUERY	V	A	E	T	M	G	N	Y	H	P	H	G	D	A	S	I	Y	D	S	L	V	R	M	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F		
UniRef90_F6B3U8	V	A	G	K	V	M	Q	D	F	H	P	H	G	D	M	A	I	Y	D	S	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_E6JAY4	V	A	D	T	M	G	N	Y	H	P	H	G	D	S	A	I	Y	E	T	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F		
UniRef90_R7D844	V	G	E	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	E	T	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_Q3A8P8	V	G	E	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	A	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_R5GGF3	V	G	E	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	E	S	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_Q03I55	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	A	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_F5WQN6	V	G	E	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	S	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_H5WX55	V	G	D	V	L	M	G	N	Y	H	P	H	G	D	S	A	I	Y	D	A	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_R6AWV9	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	A	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_B0TAN1	V	G	D	V	L	M	G	R	Y	H	P	H	G	D	S	A	I	Y	D	A	T	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_Q5HJZ0	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	E	A	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_S6CE2	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	E	T	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_UPI00041BE09A	V	G	D	V	L	A	K	Y	H	P	H	G	D	S	A	I	Y	D	A	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F		
UniRef90_D2BQL6	V	G	E	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	E	A	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_Q1NV33	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	E	A	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F
UniRef90_G2DVZ1	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	T	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_S7TB88	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	A	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_UPI000366BF9E	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	S	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_B5JSE9	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	T	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_F7NQC7	V	G	E	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	A	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_C0G167	V	G	E	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	A	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_R5DLZ6	V	G	E	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	E	A	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_F1T5R0	V	G	E	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	A	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_V5C915	V	G	E	V	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	T	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F		
UniRef90_A0B8Z5	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	T	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_A0A023WZQ3	V	G	E	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	T	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_C9MZF4	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	G	A	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_D1PRM5	V	G	A	V	L	G	S	Y	H	P	H	G	D	A	S	V	Y	D	A	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F		
UniRef90_R9LB38	V	G	S	V	L	M	G	R	Y	H	P	H	G	D	A	S	V	Y	D	A	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_UPI00047CB2A7	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	A	A	I	Y	E	T	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_C9R598	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	T	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_K2AN04	V	G	E	V	L	M	G	K	Y	H	P	H	G	D	A	P	V	Y	E	A	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_UPI000468C0F0	V	G	D	I	M	G	K	Y	H	P	H	G	D	A	S	A	I	Y	E	A	S	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F
UniRef90_U5FAU4	V	G	E	V	L	M	G	K	Y	H	P	H	G	D	T	A	V	Y	D	A	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_I4CB96	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	A	A	V	Y	D	S	T	I	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F
UniRef90_U1KTG4	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	I	Y	D	T	I	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_UPI0003765E11	V	G	E	V	L	M	G	L	Y	H	P	H	G	D	S	A	I	Y	D	T	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_UPI0004721B02	V	G	D	T	I	M	G	K	Y	H	P	H	G	E	S	A	V	Y	D	A	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_LOGVU5	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	T	A	V	Y	D	T	I	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_V4J458	V	G	E	V	L	M	G	K	Y	H	P	H	G	D	S	A	A	Y	D	T	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_F6CVE7	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	V	Y	D	T	I	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_UPI00036233A2	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	T	A	V	Y	D	T	I	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_A6W3W0	V	G	D	V	L	M	G	H	Y	H	P	H	G	D	T	S	I	Y	D	A	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_A9KCT7	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	V	Y	D	T	I	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F		
UniRef90_B2ZA27	V	G	E	V	L	M	G	K	Y	H	P	H	G	D	S	S	V	Y	D	A	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_UPI000375CAE4	V	G	E	V	L	M	G	K	F	H	P	H	G	D	S	A	I	Y	D	T	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_B3PII5	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	S	A	V	Y	D	T	I	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_W0B9Z7	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	T	A	V	Y	D	T	L	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_R7PRJ8	V	G	D	V	L	M	G	K	Y	H	P	H	G	D	T	A	V	Y	E	S	A	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_K9EFK9	V	G	D	V	L	M	G	H	Y	H	P	H	G	D	A	A	I	Y	D	T	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_C0R046	V	G	E	V	L	A	R	Y	H	P	H	G	D	A	A	V	Y	G	T	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F		
UniRef90_UPI0002F0CE43	V	G	D	V	L	M	G	K	F	H	P	H	G	D	S	S	V	Y	E	A	M	V	R	L	A	Q	P	W	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_Q3BV10	V	G	D	V	L	M	G	K	Y																																	

QUERY G S P G N D P P A A M R Y T E A R L T P 100 A M E M L R E I V D F F P N Y  
UniRef90\_F6B3U8 G S I D G D D P P A A M R Y T E A R M A K I L T A M E M L V R R D I D K E N T V D D F F A P N Y  
UniRef90\_E6JAY4 G S R G D G D S A A A M R Y T E Y C K M T K P A M E M L L R R D I D K K N T V D D F F W Q P N Y  
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UniRef90\_R5GQF3 G S P G D D D P A A A M R Y T E Y C A R M S K I L T A M E M L L R R D I D N K E N T V D D F F S P N Y  
UniRef90\_Q03I55 G S I V D G D G A A A M R Y T E A R M S K I L T A M E M L L R R D I D N K E N T V D D F F I D N Y  
UniRef90\_F5WQN6 G S I D G D G P A A A M R Y T E S R R L D P L T A M E M L L R R D I D E E K N T V D D F F S P N Y  
UniRef90\_H5VX55 G S P G N D D P A A A M R Y T E A R R M S K I L T L T S Y I L L R D I D D K N T V D D F F K P N Y  
UniRef90\_R6AWV9 G S I V D G D D P A A A M R Y T E A R R M S K I L T L T S Y I L L R D I D D K N T V D D F F Q P N Y  
UniRef90\_B0TAN1 G S I D G D D P A A A M R Y T E L R M A K I L T L T S Y I L L R D I D D K N T V D D F F K P N Y  
UniRef90\_Q5HJZ0 G S M D G D G A A A M R Y T E A R L D K P A M E M L L R R D I D N K E T V D D F F I Q P N Y  
UniRef90\_S6C8E2 G S I D G D D S A A A M R Y T E S R M S Q I I A M E M L L R R D I D N K E T V D D F F G P N Y  
UniRef90\_UPI00041BE09A G S I D G D S A A A M R Y T E A R M S K I I A M E M L L R R D I D N K E T V D D F F M D N Y  
UniRef90\_D2BQL6 G S M D G D G A A A M R Y T E A R L R T R I I D Q E S L L R D I D N K E T V D D F F Y P N Y  
UniRef90\_Q1NV33 G S I V D G D D P P A A M R Y T E A R M S K I I A M E M L L R D I D D K E T V D D F F I P N Y  
UniRef90\_G2DVZ1 G S I V D G D D P P A A M R Y T E V R M K R I I S E S L L D D I D D K E T V D D F F I P N Y  
UniRef90\_S7TB88 G S I D G D D A A A M R Y T E I V R M A R L L A E E F L G D I D D K E T V D N W R A N Y  
UniRef90\_UPI000366BF9E G S I V D G D S A A A M R Y T E I V R M A R L L A E E F L G D I D D K E T V D D F F W G P N Y  
UniRef90\_B5JSE9 G S I V D G D A P A A M R Y T E V R M A K L L A H E M L A D I D D K E T V D D F F V D N Y  
UniRef90\_F7NQC7 G S I V D G D S A A A M R Y T E V R M S K I I A E E M L A D I D D K E T V D D F F T P N Y  
UniRef90\_C0G167 G S I V D G D D R A A A M R Y T E V R M S K I I A T E E M L A S E I H K K E T V D F F R P N F  
UniRef90\_R5DLZ6 G S I V D G D G A A A M R Y T E A R M H K I L T Q S E M L A D I D C E T V E F F E P N F  
UniRef90\_F1T5R0 G S I D G D P P A A M R Y T E S R L T H A A M Q M L R D I D D K E T V D D F F Q D P N Y  
UniRef90\_V5C915 G S I V D G D P P A A M R Y T E A R L L A K I I A G E M L A D I D D K E T V D D F F V P N Y  
UniRef90\_A0B8Z5 G S I V D G D P P A A M R Y T E V R L S K I I A G E M L A D I D E K D T V D D F F V P N Y  
UniRef90\_A0A023WZQ3 G S I V D G D E A A A M R Y T E A R L A R M A T E E M L R D I D N A D T V D D F F Y R P N F  
UniRef90\_C9MZF4 G S I D G D D P A A A M R Y T E A R M A K I I T E E M L A D I D G K D T I D Y R K N Y  
UniRef90\_D1PRM5 G S I V D G D P P A A Y R Y T E A R M S K I I A C E M L T D I D E K D T I D W D P N F  
UniRef90\_R9LB38 G S I V D G D P P A A Y R Y T E S R M S R M S L S E M L T D I D D K E T V D N F T P N Y  
UniRef90\_UPI00047CB2A7 G S I D G D P P A A Q R Y T E A R L S K I I A V E M L T D I D D K E T V D D F F M P N F  
UniRef90\_C9R598 G S I V D G D A P A A M R Y T E A R M T K I I A H E L L A D L D D K E T V D N F F V P N Y  
UniRef90\_K2AN04 G S I V D G D P P A A M R Y T E A R L A H I L T E T L Y D L D D K E T V D D F A D N F  
UniRef90\_UPI000468C0F0 G S I D G D P P A A M R Y T E A R M S K I I A M A V E M L R D I D N K D T V D L V P N Y  
UniRef90\_U5FAU4 G S M D G D G A A A M R Y T E A R M S K I I A M E M L L R D I D N K E T V D D F F G P N Y  
UniRef90\_I4CB96 G S I V D G D S A A A M R Y T E V R M D R I I C Q A L L A D L D E K E T V D D F F V D N Y  
UniRef90\_U1KTG4 G S I V D G D S A A A M R Y T E V R M A R I I A H Q L L L A D L D E K E T V D D F F V D N Y  
UniRef90\_UPI0003765E11 G S P G N D P P A A A M R Y T E C K M A P L A M E M V R R D I T E N T V D D F T P N Y  
UniRef90\_UPI0004721B02 G S I V D G D P P A A M R Y T E V R M A R I I A H H D L L A D D I D D K E T V D D F F V P N Y  
UniRef90\_LOGVU5 G S I V D G D A P A A M R Y T E V R M A R I I A H H T L L L A D D I D D K E T V D D F F V P N Y  
UniRef90\_V4J458 G S I D G D A P A A M R Y T E A R M T R I I D R E I V A D I D D K Q T V D D F T P N Y  
UniRef90\_F6CVE7 G S I V D G D S A A A M R Y T E A R M E K I I A H H L L M D I D E K E T V D D F F V P N Y  
UniRef90\_UPI00036233A2 G S I V D G D S P A A M R Y T E V R M S K I I A H S L L L I D I D D K E T V D N F S P N Y  
UniRef90\_A6W3W0 G S P G N D P A A A P R Y T E C R M A P L A M E M V R D I D E E T V D D F F S P N Y  
UniRef90\_A9KCT7 G S I V D G D A P A A M R Y T E L R L S R F A H A L M A D I D D K E T V D D F F A P N Y  
UniRef90\_B2ZA27 G S I V D G D N A A A M R Y T E A K M N K I I A A E M L R D I D N K D T V D N F I P N F  
UniRef90\_UPI000375CAE4 G S I D G D A A A A M R Y T E C R L E R L S N D L L A D I D D K E T V D D F F Q P N Y  
UniRef90\_B3PII5 G S I D G D N A A A M R Y T E T R M A K I I A H H D L L M A D I D D K E T V D D F F S P N Y  
UniRef90\_W0B9Z7 G S I V D G D A P A A M R Y T E V R M S K I I A H A L L A D L D E K E T V D D F F S P N Y  
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UniRef90\_K9EFK9 G T P G D L G A A A P R Y T E A R M A P L A L E M V R D I D K E T V D D F F M E N Y  
UniRef90\_C0R046 G S I D D D P P A A M R Y T E A R M T R F A E E M L N D I D E K E T V K F V P N F  
UniRef90\_UPI0002F0CE43 G S I V D G D G P A A M R Y T E A R M R K I I A D E V M A D I D D K E T V D D F F R P N F  
UniRef90\_Q3BV10 G S I V D G D S A A A M R Y T E S R M S R L A H E L M A D I D D K E T V D D F F Q P N Y  
UniRef90\_D9SML3 G S I V D G D G A A A M R Y T E A R M D K M A N E M V R D I D N K N T V D D F F P N Y  
UniRef90\_UPI00040E67A5 G S I D G D S A A A M R Y T E V R M S K I I A E A L L Q D I D E K E T V D D F F V P N Y  
UniRef90\_UPI00047D3D9D G S I V D G D S P A A M R Y T E A R L N K L S E E T L L D I D D K E T V D D F F Q L N F  
UniRef90\_UPI00047E6ED7 G S I V D G D S P A A M R Y T E A R M S R L S L E L L L R D I D D K E T V D Y I L P N F  
UniRef90\_G0VM75 G S I V D G D S A A A M R Y T E V R M A K I I T G E M L R D I D D K E T V D D F F M P N Y  
UniRef90\_C7H086 G S I E G D G A A A M R Y T E A R M S H L A L Q M L R D I D D K E T V D D F F V P N F  
UniRef90\_D1YWG1 G S I V D G D S A A A M R Y T E V R M A K I I A D E M L D D I D D K E T V N F V P N F  
UniRef90\_UPI0003B65BD1 G S I V D G D P P A A M R Y T E I R M A R I I A H E L L A D L D D K E T V D D F F V P N Y  
UniRef90\_UPI0003B4C2CB G S M D G D A P A A M R Y T E V R M A K I I A H H E L L T D I D E K E T V D D F F M P N Y  
UniRef90\_UPI0002E6BC82 G S I D G D P P A A M R Y T E A R L T K V A H H E L L E D I D D K E T V D D F Q P E Y  
UniRef90\_UPI00036380BD G S I V D G D N A A A M R Y T E C R L D R L T S E I L S D L D D K E T V D D F F Q P N Y  
UniRef90\_R6ER32 G S I V D G D G A A A M R Y T E A R M T P L A L Q M L R D I D E K E T V D D F F T P N F  
UniRef90\_W8ULX2 G S I V D G D S A A A M R Y T E A R M S K I I A H E L L L A D I D D K E T V D D F F V P N Y  
UniRef90\_R5QN94 G S M D G D S A A A M R Y T E A R L A K V A H S L I D D I D D K E T V D D F F M P N Y  
UniRef90\_E6W0A6 G S I V D G D S A A A M R Y T E V R L K R I S D E L I T D I D E K N T V D F F Q S N Y  
UniRef90\_D4YKU2 G S A G N D G A A A P R Y T E C K M A P L S L E M V R D I D E E T V D D F Q D N Y  
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UniRef90\_UPI0004719DB8 G S I D G D D P A A M R Y T E A R M S K I I A A E M L A G I D N K E T V D D F F V D N Y  
UniRef90\_UPI000429E42E G S I V D G D S P A A M R Y T E A R L K K F A E E M L A D I D N K E T V D D F Q L N F  
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UniRef90\_E4RNH2 G S I V D G D S A A A M R Y T E A R M S S I T T E L L R D I D N K E T V D D F T P N F  
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UniRef90\_E8T2L0 G S I D G D S A A A M R Y T E A R L S K I I A L E L L K D I D E K E T V D D F F K P N F  
UniRef90\_D9SF67 G S I V D G D N A A A M R Y T E L R M A K I I A H E L L A D I D D K E T V D D F F G P N Y  
UniRef90\_G8TF15 G N Q D G D G P A A M R Y T E A R L D R L A E F M L M D I D D K E T V D D F F Q P N F  
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UniRef90\_UPI000344B664 G S P G N D P A A A M R Y T E C K L A P L A M E M L R D I D E K D T V D D F F Q A N Y  
UniRef90\_UPI00036C414A G S M D G D S A A A M R Y T E A R M D K V S A E M L A D I D D K E T V N F F R P N Y  
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UniRef90\_C6X523 G S M D G D P P A A M R Y T E A K L K I I S A D E L L A D I D D K E T V D D F Q N N F  
UniRef90\_UPI00047BCB4B G S I D G D P P A A M R Y T E C R L D K S A E S M L S D I D D K E T V D D F F Q E N Y  
UniRef90\_R5TU16 G S I V D G D S P A A M R Y T E A R L K K I I G E E M M Q D I D D K E T V D D F F T N N Y  
UniRef90\_R5JAX0 G N I E G Y G A A M R Y T E S R L A K I I S L E L L R D I D N K E T V D D F T T N Y  
UniRef90\_I4YMX1 G S I V D G D P P A A M R Y T E S R L A K A A M P L L D I D D K E T V D D F T P N Y







QUERY S Q Q G T A D A Y K T T G R R G S I I R M R G V V V E V E E E D S N R G R T S V I V I T E E L P Y  
UniRef90\_F6B3U8 R D D G G I R K D A Y R T T G R R G S I I K I R A G Q A T S I E E E E T E K N G N G R T S A V I V I T E E L P Y  
UniRef90\_E6JAY4 D D D G G I R K D A Y R T T G R R G S I I R M R A G Q A T S I E E E E T E K N G N G R T S A V I V I T E E L P Y  
UniRef90\_R7D844 S D D G G I R K D A Y R T T G R R G S I I R M R A G Q A T S I E E E E T E K N G N G R T S A V I V I T E E L P Y  
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UniRef90\_R5GGF3 H K G G I R E K A Y R T T G R R G S I I T L M R A K V V N T E E E E T E K N G N G R T S A V I V I T T E L L P Y  
UniRef90\_Q03I55 K S G G I R K A Y R T T G R R G S I I V V M R A K V V D I E E E E T E K N G N G R T S A V I V I T T E L L P Y  
UniRef90\_F5WQN6 R S G G I K S D A Y F E T T G R R G S I I V V M R A K V V D I E E E E T E K N G N G R T S A V I V I T T E L L P Y  
UniRef90\_H5WX55 T Q Q G I S R D A Y F T T G R R G S I I R M R A K V V E I E E E E T E K N G N G R T S A V I V I T T E L L P Y  
UniRef90\_R6AWV9 D V G G I R H A Y F T T G R R G S I I L V R A K S E I E E E E T E K N G N G R T S A V I V I T T E L L P Y  
UniRef90\_B0TAN1 R E G G I R R A Y T T G R R G S I I I M R A K A R I E E E E T E K N G N G R T S A V I V I T T E L L P Y  
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UniRef90\_S6C8E2 K K G G I R D A Y E T T G R R G S I I T I R A K C E L E E E E T E K N G N G R T S A V I V I T T E L L P Y  
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UniRef90\_D2BQL6 K S G G I R R A Y E T T G R R G S I I T L R A S R H I E E E E T E K N G N G R T S A V I V I T T E L L P Y  
UniRef90\_Q1NV33 R A G G I R R A Y E T T G R R G S I I L L R A S R H I E E E E T E K N G N G R T S A V I V I T T E L L P Y  
UniRef90\_G2DVZ1 I R G G I R E A Y R T T G R R G S I I C V M R A R T T T E E E Q E K R S G R R E A I V I V T T E L L P Y  
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UniRef90\_UPI000366BF9E A R E G I R E A Y R T T G R R G S I I V Y M R A R A S V E E E E T E K N G N G R T S A V I V I T T E L L P Y  
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UniRef90\_C0G167 R E G G I R R A Y R T T G R R G S I I K I R A K T Q L E E E E T E K N G N G R T S A V I V I T T E L L P Y  
UniRef90\_R5DLZ6 L N D I K Q A Y R T T G R R G S I I K M Q A V A N F E E E E T E K N G N G R T S A V I V I T T E L L P Y  
UniRef90\_F1T5R0 T D G G I R D A Y T T T G R R G S I I T I R A S K V H V E E N G E R G G N G R R Q I V I V T T E L L P Y  
UniRef90\_V5C915 Y S G G I Y S A Y T T T G R R G S I I T L R A R S C H F E E D V E D V E G G N G R R Q I V I V T T E L L P Y  
UniRef90\_A0B8Z5 R S G G I E S A Y S T T G R R G S I I T I R A R S E I E E E E T E K N G N G R T S A V I V I T T E L L P Y  
UniRef90\_A0A023WZQ3 L S G G I K S A Y E T T G R R G S I I R V V A G R V E I E E E E T E K N G N G R T S A V I V I T T E L L P Y  
UniRef90\_C9MZF4 K Q G G I Y D A Y A T T G R R G S I I R V V A G R V E I E E E E T E K N G N G R T S A V I V I T T E L L P Y  
UniRef90\_D1PRM5 R S G G I R A A Y A T T G R R G S I I T L R G R A G E I V E E K K N G R Y E I L I V T T E L L P Y  
UniRef90\_R9LB38 R A G G I R A A Y A T T G R R G S I I M L R A R A G E I E E E E T E K N G N G R T S A V I V I T T E L L P Y  
UniRef90\_UPI00047CB2A7 Y E G G I K E A Y A T T G R R G S I I V V R A K T E I E E E Q E M N S A T K R E R I V V V K E I L P Y  
UniRef90\_C9R598 R K G G I E E A Y K T T G R R G S I I Y V R A R A E I E E E T D E K G K R E S I V V N E I L P Y  
UniRef90\_K2AN04 I S E G I T A A Y A T T G R R G S I I L M R G K A D I E E E E T E K N G N G R T S A V I V I T T E L L P Y  
UniRef90\_UPI000468C0F0 R S G G I R K A Y E H G K G T I L R A K K V D V V I E E E T K K A G A K F E Q I I V T T E L L P Y  
UniRef90\_U5FAU4 R S G G I R Q A Y E T T G R R G S I I I T R S K Y H V E E E M G N G K N R I V V V T T E L L P Y  
UniRef90\_I4CB96 R R G G A I D A Y T T T G R R G S I I V Y T M R A K T E V E E E N E A G K T G K E T I V V V T T E L L P Y  
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UniRef90\_LOGVU5 V R G G I R E G Y R T T G R R G S I I F M R A R T H T E E E E K K D E R H E K I V V T T E L L P Y  
UniRef90\_V4J458 R N G G I R E A Y E T T G R R G S I I L L R A K T H I E E E E K K D E R H E K I V V T T E L L P Y  
UniRef90\_F6CVE7 R A G G I I E A Y K T T G R R G S I I Y M R A R A H H I E E E D M K E K D N R E Q I V E T T E L L P Y  
UniRef90\_UPI00036233A2 R A G G I I D A Y N T T G R R G S I I Y M R A R A H H I E E E D M K E K D N R E Q I V E T T E L L P Y  
UniRef90\_A6W3W0 H R G G I S D A Y R T T G R R G S I I T M R A V V E S E E E E Q G G R T S C L V V S E L L P Y  
UniRef90\_A9KCT7 R N G G I V A Y K T T G R R G S I I Y V R A K T E I E E E E T E K S S R R L I V V A H E L L P Y  
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UniRef90\_UPI000375CAE4 L H G V H E G Y R T T G R R G S I I V V M R A R T H I E E E D M E K G N R Q I I V D E I L P Y  
UniRef90\_B3PII5 R A G G I V E A Y R T T G R R G S I I V V M R A K A E I E E E T D D K S G R E Q I I V T T E L L P Y  
UniRef90\_W0B9Z7 R A G G I I Q A Y R T T G R R G S I I L I R A K I D I E I E E T D D S S G R Q A I I I T T E L L P Y  
UniRef90\_R7PRJ8 R K G G I E K A Y H T T G R R G S I I T L R A K T F I E E E E M S H G K N R I V V T T E L L P Y  
UniRef90\_K9EFK9 T R G G I E E A Y R T T G R R G S I I T M R A V V E V E E E E T E L H G R T A C L V I V S D L L P Y  
UniRef90\_C0R046 K E G G I K E A Y T T G R R G S I I K L R A R L E V E E E E T K R D R E A I V V K E I L P Y  
UniRef90\_UPI0002F0CE43 Y E G G V R E A Y E T T G R R G S I I V M R A K T E I E E E H T S T G R E A C I V V V T T E L L P Y  
UniRef90\_Q3BV10 T A G G I A A Y E T T G R R G S I I R I R A K A D V E E E V A D N G R E A I V V T T E L L P Y  
UniRef90\_D9SML3 K S G G I R E A Y E T T G R R G S I I V V V R A N A T I E E E E A D G G R H K I I V T T E L L P Y  
UniRef90\_UPI00040E67A5 T K G G I R E A Y H T T G R R G S I I V I R A K A E I E E E H D K R N G R D V I I T T E L L P Y  
UniRef90\_UPI00047D3D9D Y Q G G V K E A Y A T T G R R G S I I V I R A K T D V E E E D D K N G R E K I V I T T E L L P Y  
UniRef90\_UPI00047E6ED7 K E N I A H A Y R T T G R R G S I I V K V R A R A Y I E E E L A K G R Q Q I I I T T E L L P Y  
UniRef90\_G0VM75 R D G G I I K A Y S T T G R R G S I I K M R S C A T I E E E P M N K G K E H R I V V T T E L L P Y  
UniRef90\_C7H086 R A G G I R E G Y L T T G R R G S I I K I R A S T I D I E E E Q T E K K G K E Q L V V S T E L L P Y  
UniRef90\_D1YWG1 R E G G I R K D A Y L T T G R R G S I I K I R A K A E I E E E E T E K K G G R N V I L V T T E L L P Y  
UniRef90\_UPI0003B65BD1 A Q G G I R Q A Y T T G R R G S I I Y L R A C S H I E E E T K D S G R Q S I V I V T T E L L P Y  
UniRef90\_UPI0003B4C2CB T K G G I K E A Y A T T G R R G S I I K L R A R A H I E E E E R E G S R A S A I V I T T E L L P Y  
UniRef90\_UPI0002E6BC82 R S G G I Y N A Y S S T G R R G S I I I M R G R V H I E E E A R N D R E A I V I T T E L L P Y  
UniRef90\_UPI00036380BD A A G G I I E A Y K T T G R R G S I I Y V R A K A A I E E E E T E D N G R E T I I I T T E L L P Y  
UniRef90\_R6ER32 K S S V L R E A Y R T T G R R G S I I K A V V R A V A E E E E T S H G K R Q I I V T T E L L P Y  
UniRef90\_W8ULX2 R R G G I R E A Y R T T G R R G S I I Y I R A R A E V E E E A D K T S G R E T I I V H E I L P Y  
UniRef90\_R5QN94 Y A G A K S A Y L T T G R R G S I I V M R A K C T I E E E L H K D K E A I I V H E I L P Y  
UniRef90\_E6W0A6 K Q G G I I D A Y R T T G R R G S I I R M R A R A Q I E E E T S K S G R T C L V V T T E L L P Y  
UniRef90\_D4YKU2 R K G G I E D A Y R T T G R R G S I I T Q R A V V E V E E E E L Q G R T C L V V T T E L L P Y  
UniRef90\_I5B470 T K G G I F E A Y D T T G R R G S I I T L R A K V E V E E E N K K G Q E T I V V T T E L L P Y  
UniRef90\_UPI0004719DB8 T K G G I Y D A Y E T T G R R G S I I P V R S K C E I E E K E S L S N G R K E I I I T T E L L P Y  
UniRef90\_UPI000429E42E Y S G V I Q D A F E T T G R R G S I I V M R A K A E I E E E S Y G N D R E R I I V N E I L P Y  
UniRef90\_C0VY08 K T A I E Q V Y R T T G R R G S I I I Q R A V V N I E E E S Q N R Q C L V V T T E F P Y  
UniRef90\_F0SUH4 T E G G I Q K A Y T T G R R G S I I K I R A K A I E E E I E K N N K M Q I I V T T E L P F Y  
UniRef90\_E4RNH2 R G S I Y K A Y K T T G R R G S I I L T V R A K T R I E E E D L K V N N R K Q I I V D E L L P Y  
UniRef90\_U1MQH3 T K G G I E E A Y R T T G R R G S I I T M R A V V T V E E E E L Q G R T A L I V T T E L L P Y  
UniRef90\_UPI0003656636 R A G G I V E A Y K T T G R R G S I I Y V R A K A D V E E E E Q T R N K E S A I V T T E L L P Y  
UniRef90\_X5MNE0 R S G G I N T A Y R D G R R G S I I V V M R G K V H I E E E Q T R N K E S A I V T T E L L P Y  
UniRef90\_E8T2L0 P E E L P K I Y K K G R R G S I I T I R A K H T I E E E V R K R S E A I V I T T E L L P Y  
UniRef90\_D9SF67 L A G V K E G Y R T T G R R G S I I M R A R C H F E E D D L P S K G R E T I I V D E L L P Y  
UniRef90\_G8TF15 M E G V R A G M H T T G R R G S I I V V L R G K L T V E D T K P S G R E T I I V D E L L P Y  
UniRef90\_P48369 R A G G I V Q A Y R T T G R R G S I I Y V R A K A E I E E E V D D K R R E T I I V H E L L P Y  
UniRef90\_UPI000344B664 A R G G I E A Y R T T G R R G S I I T M R A V V E I D E E D S R G R Q V I V V T T E L L P Y  
UniRef90\_UPI00036C414A A G G I R Q A Y E T T G R R G S I I I V R S R S H I E E E I R S G D R Q W A I V T T E L L P Y  
UniRef90\_D4YHA6 K S G G I R K A Y E T T G R R G S I I I V R A K L D I E E E L S S G K E R I I V H E I L P Y  
UniRef90\_N9U0F1 K E G G I I K A Y E T T G R R G S I I I V R A K S E I E E E L K N G K S A I I V T T E L L P Y  
UniRef90\_C6X523 Y D G G I R D A F H T T G R R G S I I V L R A K I N F E E E E V G N R S A I I V T T E L L P Y  
UniRef90\_UPI00047BCB4B R G G G I R S A Y Q T T G R R G S I I L M R G K V T M E T G A R D R E V I V V T T E L L P Y  
UniRef90\_R5TU16 I S G V I R E A Y E T T G R R G S I I V M R A K A E I E E E S H P T H D K I I V R D E L L P Y  
UniRef90\_R5JAX0 N S G G I K K A Y E T T G R R G S I I T I R S K A T I E E E E K N G R H Y I I I D E L L P Y  
UniRef90\_I4YMX1 R S G V K S A Y T T G R R G S I I V M R A K S E V E E E V R K D R E A L I F T E L L P Y

QUERY	250	260	270	280
UniRef90_F6B3U8	Q	A	S	S
UniRef90_E6JAY4	V	E	N	D
UniRef90_R7D844	N	Q	D	R
UniRef90_Q3A8P8	K	L	D	V
UniRef90_R5GQF3	A	A	D	G
UniRef90_Q03I55	K	Q	D	L
UniRef90_F5WQN6	N	L	D	R
UniRef90_H5VX55	K	V	D	V
UniRef90_R6AWV9	A	R	D	G
UniRef90_B0TAN1	K	D	D	L
UniRef90_Q5HJZ0	N	K	D	D
UniRef90_S6C8E2	K	K	D	D
UniRef90_UPI00041BE09A	A	R	D	D
UniRef90_D2BQL6	E	L	D	D
UniRef90_Q1NV33	V	V	D	D
UniRef90_G2DVZ1	N	N	D	D
UniRef90_S7TB88	K	K	D	D
UniRef90_UPI000366BF9E	A	A	D	D
UniRef90_B5JSE9	K	K	D	D
UniRef90_F7NQC7	N	K	D	D
UniRef90_C0G167	K	K	D	D
UniRef90_R5DLZ6	A	A	D	D
UniRef90_F1T5R0	N	K	D	D
UniRef90_V5C915	K	K	D	D
UniRef90_A0B8Z5	A	A	D	D
UniRef90_A0A023WZQ3	N	K	D	D
UniRef90_C9MZF4	K	K	D	D
UniRef90_D1PRM5	A	A	D	D
UniRef90_R9LB38	N	K	D	D
UniRef90_UPI00047CB2A7	K	K	D	D
UniRef90_C9R598	A	A	D	D
UniRef90_K2AN04	N	K	D	D
UniRef90_UPI000468C0F0	K	K	D	D
UniRef90_U5FAU4	A	A	D	D
UniRef90_I4CB96	N	K	D	D
UniRef90_U1KTG4	K	K	D	D
UniRef90_UPI0003765E11	A	A	D	D
UniRef90_UPI0004721B02	N	K	D	D
UniRef90_LOGVU5	K	K	D	D
UniRef90_V4J458	A	A	D	D
UniRef90_F6CVE7	N	K	D	D
UniRef90_UPI00036233A2	K	K	D	D
UniRef90_A6W3W0	A	A	D	D
UniRef90_A9KCT7	N	K	D	D
UniRef90_B2ZA27	K	K	D	D
UniRef90_UPI000375CAE4	A	A	D	D
UniRef90_B3PII5	N	K	D	D
UniRef90_W0B9Z7	K	K	D	D
UniRef90_R7PRJ8	A	A	D	D
UniRef90_K9EFK9	N	K	D	D
UniRef90_C0R046	K	K	D	D
UniRef90_UPI0002F0CE43	A	A	D	D
UniRef90_Q3BV10	N	K	D	D
UniRef90_D9SML3	K	K	D	D
UniRef90_UPI00040E67A5	A	A	D	D
UniRef90_UPI00047D3D9D	N	K	D	D
UniRef90_UPI00047E6ED7	K	K	D	D
UniRef90_G0VM75	A	A	D	D
UniRef90_C7H086	N	K	D	D
UniRef90_D1YWG1	K	K	D	D
UniRef90_UPI0003B65BD1	A	A	D	D
UniRef90_UPI0003B4C2CB	N	K	D	D
UniRef90_UPI0002E6BC82	K	K	D	D
UniRef90_UPI00036380BD	A	A	D	D
UniRef90_R6ER32	N	K	D	D
UniRef90_W8ULX2	K	K	D	D
UniRef90_R5QN94	A	A	D	D
UniRef90_E6W0A6	N	K	D	D
UniRef90_D4YKU2	K	K	D	D
UniRef90_I5B470	A	A	D	D
UniRef90_UPI0004719DB8	N	K	D	D
UniRef90_UPI000429E42E	K	K	D	D
UniRef90_C0VY08	A	A	D	D
UniRef90_F0SUH4	N	K	D	D
UniRef90_E4RNH2	K	K	D	D
UniRef90_U1MQH3	A	A	D	D
UniRef90_UPI0003656636	N	K	D	D
UniRef90_X5MNE0	K	K	D	D
UniRef90_E8T2L0	A	A	D	D
UniRef90_D9SF67	N	K	D	D
UniRef90_G8TF15	K	K	D	D
UniRef90_P48369	A	A	D	D
UniRef90_UPI000344B664	N	K	D	D
UniRef90_UPI00036C414A	K	K	D	D
UniRef90_D4YHA6	A	A	D	D
UniRef90_N9U0F1	N	K	D	D
UniRef90_C6X523	K	K	D	D
UniRef90_UPI00047BCB4B	A	A	D	D
UniRef90_R5TU16	N	K	D	D
UniRef90_R5JAX0	K	K	D	D
UniRef90_I4YMX1	A	A	D	D

QUERY	E	L	K	R	D	A	V	A	K	290	V	V	I	L	N	N	N	N	L	Y	K	H	T	300	Q	Q	T	S	F	G	A	N	M	310	L	V	D	N	G	V	P	R	T	320
UniRef90_F6B3U8	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_E6JAY4	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_R7D844	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_Q3A8P8	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_R5GGF3	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_Q03I55	V	L	R	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_F5WQN6	D	V	L	R	R	D	A	V	A	K	V	V	I	L	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_H5WX55	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_R6AWV9	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_B0TAN1	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_Q5HJZ0	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_S6C8E2	D	V	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_UPI00041BE09A	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_D2BQL6	E	V	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_Q1NV33	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_G2DVZ1	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_S7TB88	D	L	K	K	G	S	I	A	E	I	V	L	N	N	S	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L			
UniRef90_UPI000366BF9E	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_B5JSE9	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_F7NQC7	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_C0G167	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_R5DLZ6	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_F1T5R0	D	L	K	S	G	A	V	P	Q	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_V5C915	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_A0B8Z5	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_A0A023WZQ3	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_C9MZF4	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_D1PRM5	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_R9LB38	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_UPI00047CB2A7	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_C9R598	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_K2AN04	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_UPI000468C0F0	D	L	R	R	D	A	R	S	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L		
UniRef90_U5FAU4	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_I4CB96	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_U1KTG4	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_UPI0003765E11	V	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_UPI0004721B02	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_LOGVU5	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_V4J458	D	L	K	K	D	E	Y	A	D	I	V	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L		
UniRef90_F6CVE7	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_UPI00036233A2	D	I	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_A6W3W0	I	L	R	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_A9KCT7	E	V	L	S	R	D	A	V	A	K	V	V	I	L	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_B2ZA27	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_UPI000375CAE4	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_B3PII5	E	V	L	K	K	T	E	S	G	D	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_W0B9Z7	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_R7PRJ8	E	L	R	S	D	V	N	P	Q	I	M	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L			
UniRef90_K9EFK9	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D	N	G	V	P	R	T	L	
UniRef90_C0R046	E	L	K	R	D	A	V	A	K	V	V	I	L	N	N	N	N	L	Y	K	H	T	Q	Q	T	S	F	G	A	N	M	L	A	L	V	D								



QUERY	R	L	D	Q	L	R	Y	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	330	340	T	Y	R	L	R	K	A	A	350	A	H	I	L	V	R	G	L	V	K	360				
UniRef90_F6B3U8	N	L	A	L	Q	L	R	Y	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_E6JAY4	A	L	N	R	H	L	Q	L	R	Y	Y	V	D	H	H	Q	Q	K	D	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_R7D844	S	L	A	L	R	Q	L	R	Y	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_Q3A8P8	S	N	L	K	D	E	F	L	R	Y	Y	V	D	H	H	Q	Q	K	D	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_R5GGF3	S	S	G	L	K	E	I	F	L	R	Y	Y	V	D	H	H	Q	Q	K	D	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_Q03I55	N	L	R	L	Q	L	R	Y	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_F5WQN6	N	L	R	L	D	Q	L	R	Y	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_H5WX55	N	L	R	L	D	Q	L	R	Y	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_R6AWV9	N	L	R	L	R	D	M	L	Y	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_B0TAN1	N	L	R	L	R	D	M	L	Y	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_Q5HJZ0	N	L	R	L	K	E	A	L	F	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_S6C8E2	S	L	N	L	K	E	A	L	F	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_UPI00041BE09A	N	L	R	L	R	D	M	L	H	L	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_D2BQL6	S	L	N	L	K	E	I	L	V	D	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_Q1NV33	N	L	R	L	R	E	M	L	V	D	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_G2DVZ1	N	I	N	I	K	Q	Q	T	L	E	N	F	L	R	H	R	R	K	T	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_S7TB88	N	I	N	I	K	Q	Q	T	L	E	N	F	L	R	H	R	R	K	T	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_UPI000366BF9E	A	L	N	L	K	R	E	T	L	D	F	F	L	R	H	R	R	K	T	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_B5JSE9	N	L	K	Q	Q	V	L	E	A	F	I	A	H	H	R	R	K	T	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_F7NQC7	N	L	N	L	R	R	E	M	L	G	H	Y	V	D	H	H	Q	Q	K	D	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_C0G167	N	L	R	R	E	M	L	G	H	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_R5DLZ6	N	L	F	E	V	L	S	E	F	V	E	H	H	R	Q	V	E	I	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_F1T5R0	N	L	T	L	R	E	M	L	Y	D	A	F	I	D	H	H	R	R	K	T	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_V5C915	N	L	T	L	R	E	M	L	Y	D	A	F	I	D	H	H	R	R	K	T	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_A0B8Z5	T	L	K	E	T	L	E	Q	Y	I	N	Y	R	A	F	E	V	I	E	R	R	R	T	R	F	E	L	E	Q	A	E	K	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_A0A023WZQ3	S	Y	K	E	A	L	R	Q	H	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_C9MZF4	N	L	K	Q	V	L	E	R	Y	I	D	F	Q	M	E	V	I	T	R	R	R	T	R	T	A	F	D	L	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_D1PRM5	S	L	K	Q	V	L	E	R	Y	I	D	F	Q	M	E	V	I	T	R	R	R	T	R	T	A	F	D	L	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_R9LB38	P	L	K	E	M	L	T	H	Y	I	E	F	Q	G	G	E	V	I	T	R	R	R	T	R	V	K	D	L	R	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_UPI00047CB2A7	N	L	K	E	I	L	T	S	Y	I	E	F	Q	G	G	E	V	I	T	R	R	R	T	R	V	K	D	L	R	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_C9R598	N	L	K	Q	L	I	E	A	F	V	L	H	H	R	R	K	T	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_K2AN04	T	S	L	K	E	M	L	S	E	E	F	V	L	K	H	R	R	K	T	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_UPI000468C0F0	N	L	T	L	K	E	V	L	S	Y	L	K	H	Q	E	V	I	R	R	R	T	R	T	S	Q	F	E	L	R	R	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K	
UniRef90_U5FAU4	G	I	K	E	M	L	Q	H	Y	V	D	H	H	Q	Q	K	D	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_I4CB96	N	L	K	E	M	L	Q	G	F	V	D	H	H	Q	Q	K	D	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_U1KTG4	N	L	K	E	M	L	E	A	F	V	D	H	H	Q	Q	K	D	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_UPI0003765E11	R	L	D	Q	F	I	S	H	W	V	K	H	H	Q	Q	K	D	V	V	V	V	V	Q	R	R	T	A	F	R	L	D	E	A	E	K	A	A	H	I	L	V	R	G	L	V	K
UniRef90_UPI0004721B02	N	I	N	I	K	Q	M	L	D	A	F	M	R	R	R	R	D	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_LOGVU5	N	L	K	Q	M	L	E	H	F	I	Q	H	H	R	R	K	T	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_V4J458	N	L	K	Q	M	L	E	H	F	I	Q	H	H	R	R	K	T	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_F6CVE7	N	L	K	K	E	V	L	E	A	F	V	L	H	H	R	R	K	T	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_UPI00036233A2	N	L	K	K	E	V	L	E	A	F	V	L	H	H	R	R	K	T	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_A6W3W0	P	I	H	A	F	L	K	H	W	I	A	H	H	Q	Q	K	D	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_A9KCT7	N	L	K	Q	L	I	S	A	F	L	Q	S	F	Q	R	K	E	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_B2ZA27	N	L	K	Q	V	L	S	N	Y	I	Q	S	F	Q	R	K	E	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_UPI000375CAE4	N	L	K	Q	M	L	E	C	F	L	A	H	H	R	R	K	T	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_B3PII5	N	L	K	D	M	L	E	A	F	L	K	H	H	R	R	K	T	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_W0B9Z7	N	L	K	E	I	L	E	Y	F	I	K	H	H	R	R	K	T	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_R7PRJ8	N	L	K	Q	M	L	Y	Y	L	K	H	H	Q	Q	K	D	V	V	V	V	V	V	T	R	R	T	T	K	K	A	A	E	R	A	A	H	I	L	V	R	G	L	V	K		
UniRef90_K9EFK9	S	L	K	D	G	F	V	R	H	W	V	T	D	H	H																															





QUERY	G	I	V	R	D	E	L	A	E	I	V	D	R	H	G	D	D	R	R	T	R	I	A
UniRef90_F6B3U8	G	I	V	R	D	E	L	A	E	I	V	D	R	H	G	D	D	R	R	T	R	I	A
UniRef90_E6JAY4	A	V	I	G	D	E	L	R	E	I	V	K	K	K	F	A	D	P	R	R	T	R	I
UniRef90_R7D844	G	V	I	K	E	E	M	R	E	I	S	R	K	F	G	D	D	K	R	R	T	K	I
UniRef90_Q3A8P8	G	V	I	R	Q	E	L	L	E	I	K	E	K	Y	G	D	A	R	R	T	Q	I	A
UniRef90_R5GQF3	K	I	V	G	D	E	L	D	E	I	V	A	K	Y	F	G	D	D	R	R	T	K	I
UniRef90_Q03I55	E	I	I	Y	K	E	L	L	E	I	Q	E	R	F	G	D	D	R	R	T	E	L	M
UniRef90_F5WQN6	T	I	I	K	D	E	L	L	E	I	K	T	K	F	G	D	D	R	R	T	S	E	I
UniRef90_H5VX55	A	V	I	R	A	E	L	Q	E	I	V	D	K	Y	F	A	D	D	R	R	T	Q	I
UniRef90_R6AWV9	G	V	I	K	D	E	M	L	E	I	R	R	R	F	A	D	P	R	R	T	E	I	T
UniRef90_B0TAN1	D	I	I	K	K	E	I	S	E	I	K	E	K	F	A	D	P	R	R	T	E	I	T
UniRef90_Q5HJZ0	Q	L	V	R	D	E	L	T	E	I	R	D	R	F	A	D	D	R	R	T	E	I	T
UniRef90_S6C8E2	Q	V	I	K	E	E	L	Q	E	I	K	K	K	Y	N	T	P	R	R	T	R	L	T
UniRef90_UPI00041BE09A	G	V	I	R	E	E	L	L	E	I	K	Q	R	F	A	D	E	R	R	T	S	V	I
UniRef90_D2BQL6	K	I	I	R	E	E	L	E	E	V	R	R	E	T	F	A	D	D	R	R	T	E	L
UniRef90_Q1NV33	K	I	I	R	E	E	F	E	A	I	K	R	E	T	Y	G	D	D	R	R	T	E	I
UniRef90_G2DVZ1	E	V	I	R	E	E	L	J	A	V	R	D	Q	F	G	D	D	R	R	T	E	I	I
UniRef90_S7TB88	G	V	I	R	D	E	L	A	E	I	R	A	K	T	F	A	T	P	R	R	T	V	I
UniRef90_UPI000366BF9E	K	I	I	H	D	E	L	V	T	I	R	A	Q	F	A	N	P	R	R	T	E	I	L
UniRef90_B5JSE9	E	V	V	R	D	E	L	V	E	L	R	D	S	Y	G	D	E	R	R	T	E	I	I
UniRef90_F7NQC7	Q	I	I	R	E	E	L	L	D	V	K	K	R	F	G	D	D	R	R	T	V	I	T
UniRef90_C0G167	Q	I	I	K	D	E	M	G	E	L	R	K	K	Y	G	D	D	R	R	T	A	V	I
UniRef90_R5DLZ6	D	I	I	K	K	E	L	L	E	D	K	E	K	Y	G	D	D	R	K	T	Q	I	L
UniRef90_F1T5R0	E	V	I	K	E	E	L	T	E	I	S	T	R	F	S	D	D	K	R	R	T	Q	I
UniRef90_V5C915	E	I	I	R	E	E	L	V	A	I	K	E	E	F	G	D	D	R	R	T	E	I	S
UniRef90_A0B8Z5	D	I	I	K	N	E	L	R	E	L	D	E	I	Y	G	D	D	R	R	T	E	I	L
UniRef90_A0A023WZQ3	G	V	I	K	D	E	L	A	E	I	K	A	A	Y	A	D	E	R	K	T	Q	I	T
UniRef90_C9MZ4	G	V	I	K	E	E	A	L	K	L	K	E	D	F	G	D	D	R	R	T	E	I	A
UniRef90_D1PRM5	R	I	V	K	T	D	L	Q	T	L	A	D	K	Y	G	D	E	R	R	T	S	I	E
UniRef90_R9LB38	Q	I	V	K	D	E	L	S	V	M	R	E	K	Y	A	D	E	R	R	T	E	I	V
UniRef90_UPI00047CB2A7	D	I	I	K	R	E	L	S	E	I	K	E	K	F	A	D	E	R	R	T	V	I	T
UniRef90_C9R598	E	V	I	R	E	E	L	E	Q	I	R	E	Q	F	N	D	P	R	R	T	E	I	T
UniRef90_K2AN04	E	V	A	K	G	E	L	L	K	I	K	E	R	F	G	D	D	R	R	T	R	V	I
UniRef90_UPI000468C0F0	K	I	I	Y	D	E	L	L	D	I	Q	E	K	F	G	D	P	R	R	T	E	I	R
UniRef90_U5FAU4	Q	I	I	K	D	E	L	T	E	V	K	N	R	F	G	D	P	R	R	T	E	I	A
UniRef90_I4CB96	D	I	I	V	T	E	L	Q	Q	T	K	D	N	F	G	D	P	R	R	T	E	I	L
UniRef90_U1KTG4	E	V	I	R	E	L	V	E	I	K	E	N	F	G	D	E	R	R	T	E	I	T	A
UniRef90_UPI0003765E11	A	I	I	S	T	E	L	G	E	I	V	A	K	Y	G	D	E	R	R	T	R	L	V
UniRef90_UPI0004721B02	E	V	V	R	E	E	L	L	E	V	K	E	Q	F	A	D	A	R	R	T	E	I	E
UniRef90_L0GVU5	Q	V	I	R	D	E	L	V	A	I	R	D	Q	F	G	D	A	R	R	T	E	I	A
UniRef90_V4J458	A	T	I	K	E	E	F	E	H	I	R	E	T	Y	G	D	E	R	R	T	E	I	V
UniRef90_F6CVE7	E	V	I	R	E	E	L	E	E	V	R	E	M	F	G	D	V	R	R	T	E	I	L
UniRef90_UPI00036233A2	E	V	I	R	E	E	L	E	D	V	K	A	F	G	D	E	R	R	T	S	E	I	A
UniRef90_A6W3W0	Q	I	V	G	D	E	L	A	E	L	V	E	R	Y	G	D	E	R	K	T	Q	I	L
UniRef90_A9KCT7	E	V	I	R	E	E	L	T	A	V	K	E	F	G	D	D	R	R	T	V	I	I	
UniRef90_B2ZA27	G	V	I	K	D	E	L	L	Q	I	K	T	K	Y	G	D	E	R	R	T	S	I	I
UniRef90_UPI000375CAE4	A	I	I	D	Q	E	L	R	A	I	R	E	Q	F	G	D	P	R	K	S	E	I	V
UniRef90_B3PII5	E	V	I	R	A	E	L	E	Q	V	T	A	D	F	G	D	A	R	R	T	E	I	A
UniRef90_W0B9Z7	Q	V	I	R	D	E	L	L	E	M	K	A	Q	F	G	D	G	R	R	T	E	I	A
UniRef90_R7PRJ8	G	V	I	K	A	E	L	L	A	E	K	E	R	F	N	D	A	R	R	T	S	E	V
UniRef90_K9EFK9	T	I	I	S	E	E	L	Q	T	I	V	D	K	Y	G	D	D	R	R	T	Q	I	L
UniRef90_C0R046	A	V	I	K	D	E	L	K	K	I	S	E	K	Y	G	D	D	R	R	T	S	E	I
UniRef90_UPI0002F0CE43	K	I	I	K	D	E	L	L	E	I	S	E	K	Y	G	D	E	R	R	T	E	I	V
UniRef90_Q3BV10	Q	V	I	R	D	E	L	L	N	I	R	E	E	Y	G	D	D	R	R	T	E	I	V
UniRef90_D9SML3	N	V	I	R	D	E	L	N	E	I	K	G	R	F	G	D	E	R	R	T	A	I	E
UniRef90_UPI00040E67A5	E	V	I	E	E	E	L	T	D	I	R	D	N	F	G	D	A	R	R	T	E	I	R
UniRef90_UPI00047D3D9D	E	I	I	K	N	E	L	F	E	I	K	T	K	Y	A	D	G	R	R	T	E	I	V
UniRef90_UPI00047E6ED7	N	V	I	K	E	E	M	S	A	L	K	D	N	Y	A	D	E	R	R	T	E	I	T
UniRef90_G0VM75	E	I	V	K	T	E	L	L	D	A	K	K	K	F	G	D	E	R	R	T	Q	I	V
UniRef90_C7H086	N	V	I	K	E	E	L	L	E	L	K	E	K	Y	A	D	E	R	R	T	Q	I	V
UniRef90_D1YWG1	D	I	I	K	N	E	L	L	E	L	R	A	K	Y	G	D	G	R	R	T	I	I	I
UniRef90_UPI0003B65BD1	E	V	I	R	E	E	L	V	A	L	R	D	Q	F	G	D	E	R	R	T	E	I	L
UniRef90_UPI0003B4C2CB	K	V	I	E	D	E	L	L	A	I	K	K	E	F	A	D	E	R	R	T	E	I	I
UniRef90_UPI0002E6BC82	Q	I	V	K	D	E	L	A	Q	V	R	D	E	F	G	T	P	R	R	T	E	I	L
UniRef90_UPI00036380BD	R	V	I	R	D	E	L	T	E	I	K	T	Q	Y	G	D	A	R	R	T	V	I	Q
UniRef90_R6ER32	G	V	I	K	D	E	L	L	E	I	R	D	K	W	G	D	D	K	R	T	K	I	K
UniRef90_W8ULX2	E	V	I	R	E	E	L	V	A	I	K	E	Q	Y	N	D	A	R	R	T	E	I	T
UniRef90_R5QN94	G	I	M	R	D	E	L	V	A	I	K	D	E	Y	A	T	P	R	R	T	S	K	I
UniRef90_E6W0A6	D	I	I	R	T	E	L	H	E	I	R	E	K	Y	A	D	P	R	R	T	I	I	I
UniRef90_D4YKU2	E	I	V	S	E	E	L	D	A	V	V	Q	R	Y	G	D	D	R	R	T	K	I	L
UniRef90_I5B470	G	L	I	K	D	E	L	A	E	L	N	D	E	F	G	D	D	R	R	T	R	I	V
UniRef90_UPI0004719DB8	D	L	I	V	D	E	L	N	E	I	K	Q	K	F	N	D	N	R	R	T	K	I	D
UniRef90_UPI000429E42E	K	I	I	K	D	E	L	L	E	I	L	T	K	F	G	D	E	R	R	T	S	I	T
UniRef90_C0VY08	A	I	V	G	E	E	L	A	E	I	V	E	R	F	G	D	E	R	R	T	A	I	V
UniRef90_F0SUH4	E	I	I	K	T	E	L	G	E	I	R	V	K	Y	N	D	P	R	R	T	S	I	T
UniRef90_E4RNH2	N	I	V	K	K	E	I	L	E	I	K	D	K	Y	N	D	K	R	R	T	K	I	M
UniRef90_U1MQH3	Q	I	I	V	D	E	L	R	E	I	V	D	R	H	G	D	D	R	R	T	E	I	M
UniRef90_UPI0003656636	G	V	I	K	T	E	L	L	E	V	K	E	E	F	G	D	D	R	R	T	E	I	M
UniRef90_X5MNE0	G	I	I	R	D	E	L	Q	A	V	R	D	E	F	A	T	P	R	R	T	E	I	M
UniRef90_E8T2L0	R	L	I	K	E	E	M	A	Q	I	I	E	K	F	G	D	Q	R	R	T	K	I	V
UniRef90_D9SF67	A	I	I	G	D	E	L	V	A	V	K	T	Q	F	G	D	D	K	R	R	T	E	V
UniRef90_G8TF15	D	I	I	K	T	E	L	A	E	V	K	E	K	F	G	D	V	R	R	T	E	I	T
UniRef90_P48369	E	V	I	R	D	E	L	L	A	V	R	E	Q	Y	G	D	E	P	P	E	I	S	A
UniRef90_UPI000344B664	S	I	I	R	D	E	L	G	E	I	V	E	K	Y	G	D	D	R	R	T	H	I	V
UniRef90_UPI00036C414A	E	V	L	R	G	E	L	D	A	V	R	A	E	F	A	D	E	R	R	T	E	I	I
UniRef90_D4YHA6	Q	I	I	Y	D	E	L	T	E	I	E	S	K	F	G	D	D	R	R	T	E	L	M
UniRef90_N9U0F1	D	L	I	K	E	L	Q	E	L	K	N	I	Y	G	D	D	K	R	K	S	E	I	I
UniRef90_C6X523	E	I	I	K	A	E	L	L	E	M	K	E	K	Y	G	D	E	R	R	T	E	I	S
UniRef90_UPI00047BCB4B	G	I	V	K	D	E	L	A	A	V	R	E	E	F	A	T	P	R	K	T	Q	I	V
UniRef90_R5TU16	K	V	I	K	D	E	L	L	E	V	K	E	K	Y	G	D	D	K	R	R	T	E	V
UniRef90_R5JAX0	E																						



	1	10	20	30	40																																																
UniRef90_E4KWZ1	V	A	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_C2CJK5	V	A	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_UPI0003B674A6	V	Q	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_UPI000287E68D	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_F9Z7F0	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_A8TKW9	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_K1Y4V5	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_K0AWF9	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_UPI00046AE272	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_UPI0004712FB1	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_G4L3L6	V	A	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_R6B572	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_W9DTR5	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_M4V716	V	G	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_UPI000225A8DB	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_F9D5B6	V	A	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_U2KH67	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_A0A023D2C7	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_W0FNNH8	V	D	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_A1AJX6	I	G	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_I9KVG3	V	G	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_W1Q1D6	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_A0A011NW35	V	G	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_R8Y6D7	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_I4D686	L	Q	R	A	V	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_D5BQS8	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_R5GFY2	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_Q3SK89	V	G	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	Q	G	L	L	L	A	S	N	G	P	Y	R	K	S	A	R	R	L	V			
UniRef90_J9DIK3	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	F	S	M	N	E	E	N	G	Y	D	F	N	K	P	Y	R	K	S	A	R	R	L	V	
UniRef90_K2DWU9	I	T	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	F	S	M	N	E	E	N	G	Y	D	H	T	R	K	P	Y	R	K	S	A	R	R	L	V
UniRef90_Q0BYK4	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	F	A	M	N	E	E	N	G	Y	D	P	D	K	P	Y	R	K	S	A	R	R	L	V	
UniRef90_C1A5L6	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	A	M	N	E	E	N	G	Y	D	P	D	K	P	Y	R	K	S	A	R	R	L	V		
UniRef90_D4J4X4	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	A	M	N	E	E	N	G	Y	D	P	D	K	P	Y	R	K	S	A	R	R	L	V		
UniRef90_R5ST55	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	A	M	N	E	E	N	G	Y	D	P	D	K	P	Y	R	K	S	A	R	R	L	V		
UniRef90_J0WSD1	I	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	T	M	F	E	N	G	L	M	P	E	K	G	Y	R	K	S	A	R	R	L	V			
UniRef90_E6MIN2	I	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	F	A	M	N	E	E	N	G	Y	D	H	T	R	K	P	Y	R	K	S	A	R	R	L	V
UniRef90_F9Y6C0	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	F	A	M	N	E	E	N	G	Y	D	P	D	K	P	Y	R	K	S	A	R	R	L	V	
UniRef90_UPI000360ED43	V	A	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	F	S	M	N	E	E	N	G	Y	D	P	D	K	P	Y	R	K	S	A	R	R	L	V	
UniRef90_W3ALA1	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	S	L	Q	T	E	G	V	T	P	D	K	K	Y	T	K	S	A	R	R	L	V			
UniRef90_B8GGZ1	I	G	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	A	M	W	E	E	N	G	Y	D	P	D	K	K	Y	T	K	S	A	R	R	L	V		
UniRef90_I0K0S6	I	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	A	M	H	E	L	G	L	A	P	N	R	K	H	L	K	S	A	R	R	L	V			
UniRef90_UPI000365AC0A	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	G	M	S	D	L	G	L	A	Y	N	K	S	H	K	S	A	R	R	L	V				
UniRef90_UPI00028834C3	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	A	M	S	E	L	G	M	S	P	D	K	P	Y	R	K	S	A	R	R	L	V			
UniRef90_R5A978	V	A	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	S	M	N	E	M	N	L	D	P	N	K	G	Y	R	K	S	A	R	R	L	V			
UniRef90_B4R9P6	V	S	R	A	L	P	D	V	R	R	D	D	G	G	L	K	K	P	V	V	H	R	R	R	R	I	L	L	Y	F	S	M	N	E	Q	G	H	T	P	D	R												

	50										60										70										80												
UniRef90_E4KWZ1	V	G	D	V	M	G	K	Y	H	P	H	G	D	S	S	I	Y	E	A	T	V	R	L	A	Q	D	F	N	T	R	Y	T	L	V	D	G	Q	G	N	F			
UniRef90_C2CJK5	V	G	D	V	M	G	K	F	H	P	H	G	D	S	S	A	I	Y	D	A	L	V	R	L	A	Q	D	F	S	T	R	Y	P	L	V	D	G	Q	G	N	F		
UniRef90_UPI0003B674A6	V	G	E	V	I	G	K	Y	H	P	H	G	D	S	S	A	V	Y	D	A	M	V	R	M	A	Q	D	F	S	S	Q	R	Y	E	L	V	D	G	Q	H	G	N	F
UniRef90_UPI000287E68D	V	G	E	V	I	G	K	Y	H	P	H	G	D	S	S	A	V	Y	D	T	M	V	R	M	A	Q	D	F	S	S	Y	R	Y	E	L	V	D	G	Q	H	G	N	F
UniRef90_F9Z7F0	V	G	E	V	L	G	K	Y	H	P	H	G	D	S	S	A	V	Y	M	A	M	V	R	M	A	Q	D	F	S	S	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_A8TKW9	V	G	D	V	M	G	K	Y	H	P	H	G	D	S	S	A	V	Y	D	A	M	V	R	M	A	Q	D	F	S	S	M	R	L	P	L	V	D	G	Q	G	N	F	
UniRef90_K1Y4V5	V	G	E	V	L	G	K	Y	H	P	H	G	D	S	S	V	Y	E	A	M	V	R	M	A	Q	D	F	S	S	L	R	Y	M	L	V	D	G	Q	G	N	F		
UniRef90_K0AWF9	V	G	E	V	L	G	K	Y	H	P	H	G	D	T	A	V	Y	D	A	M	V	R	L	A	Q	D	F	S	T	R	Y	M	L	I	D	G	H	G	N	F			
UniRef90_UPI00046AE272	V	G	D	V	M	G	K	Y	H	P	H	G	D	S	S	A	I	Y	D	A	L	V	R	M	A	Q	D	F	S	S	M	S	L	P	L	V	D	G	Q	G	N	F	
UniRef90_UPI0004712FB1	V	G	D	V	M	G	R	Y	H	P	H	G	D	S	S	A	I	Y	D	A	M	V	R	L	A	Q	D	F	S	S	M	R	L	P	L	V	D	G	Q	G	N	F	
UniRef90_G4L3L6	V	G	D	V	M	G	K	Y	H	P	H	G	D	S	S	A	I	Y	E	A	M	V	R	M	A	Q	T	F	S	S	Y	R	Y	V	L	V	D	G	H	G	N	F	
UniRef90_R6B572	V	G	D	V	L	G	R	Y	H	P	H	G	D	S	S	V	Y	D	A	M	V	R	M	A	Q	D	F	S	S	L	R	Y	P	L	I	D	G	Q	H	G	N	F	
UniRef90_W9DTR5	V	G	D	V	L	G	K	Y	H	P	H	G	D	S	S	V	Y	D	S	L	V	R	M	V	Q	D	F	S	S	L	R	Y	P	F	I	D	G	Q	G	N	F		
UniRef90_M4V716	V	G	D	V	I	G	K	Y	H	P	H	G	D	V	A	V	Y	D	T	M	V	R	M	A	Q	D	F	A	M	R	F	P	L	I	D	G	Q	G	N	F			
UniRef90_UPI000225A8DB	V	G	D	V	M	G	K	Y	H	P	H	G	D	S	S	V	Y	D	A	M	V	R	M	A	Q	D	F	S	S	L	R	Y	P	L	I	D	G	Q	G	N	F		
UniRef90_F9D5B6	V	G	D	V	L	G	K	Y	H	P	H	G	D	S	S	V	Y	G	A	L	V	R	M	G	Q	E	W	N	M	R	Y	K	L	V	D	G	Q	G	N	F			
UniRef90_U2KH67	V	G	D	V	L	G	S	Y	H	P	H	G	D	A	S	V	Y	D	A	L	V	R	L	G	Q	D	F	S	S	L	R	Y	P	L	I	H	P	Q	G	N	F		
UniRef90_A0A023D2C7	V	G	D	V	M	G	K	Y	H	P	H	G	D	S	S	V	Y	D	A	M	V	R	M	A	Q	P	F	W	S	M	R	V	P	L	I	D	G	Q	G	N	F		
UniRef90_W0FNNH8	V	G	D	V	L	G	K	F	H	P	H	G	D	S	S	V	Y	D	A	M	V	R	L	A	Q	D	F	S	S	L	R	Y	P	L	I	E	G	Q	G	N	F		
UniRef90_A1AJX6	V	G	D	V	I	G	K	Y	H	P	H	G	D	T	A	A	Y	D	T	I	V	R	M	A	Q	D	F	S	N	I	R	Y	T	L	V	D	G	Q	G	N	F		
UniRef90_I9KWG3	V	G	D	V	I	G	K	Y	H	P	H	G	D	S	S	A	I	Y	E	A	T	V	R	M	A	Q	D	F	S	S	L	R	Y	M	L	V	D	G	Q	G	N	F	
UniRef90_W1Q1D6	V	G	D	V	M	G	K	Y	H	P	H	G	D	S	S	A	I	Y	E	A	M	V	R	M	A	Q	P	F	S	S	Y	R	E	L	V	D	G	H	G	N	F		
UniRef90_A0A011NW35	V	G	D	V	I	G	K	Y	H	P	H	G	D	T	A	V	Y	D	T	I	V	R	M	A	Q	E	F	S	S	L	R	Y	M	L	V	D	G	Q	G	N	F		
UniRef90_R8Y6D7	V	G	D	V	I	G	K	Y	H	P	H	G	D	S	S	V	Y	E	T	L	V	R	M	A	Q	D	F	S	S	L	R	Y	P	L	V	D	G	Q	G	N	F		
UniRef90_I4D686	V	G	D	V	C	M	G	K	Y	H	P	H	G	D	S	S	I	Y	E	S	A	V	R	M	A	Q	D	F	W	A	L	R	Y	P	L	V	D	G	Q	G	N	F	
UniRef90_D5BQS8	V	G	D	V	M	G	N	Y	H	P	H	G	D	S	S	I	Y	E	A	M	V	R	M	A	Q	D	F	S	S	M	R	L	P	L	V	D	G	Q	G	N	F		
UniRef90_R5GFY2	V	G	D	V	M	G	K	Y	H	P	H	G	D	S	S	V	Y	L	A	L	V	R	L	A	Q	D	E	F	S	S	M	R	Y	T	L	V	D	P	H	G	N	F	
UniRef90_Q3SK89	V	G	D	V	I	G	K	Y	H	P	H	G	D	T	A	V	Y	D	T	M	V	R	M	A	Q	D	F	S	S	L	R	Y	P	L	I	D	G	Q	G	N	F		
UniRef90_J9DIK3	V	G	D	V	I	G	K	Y	H	P	H	G	D	Q	S	V	Y	D	A	L	V	R	M	A	Q	S	F	S	S	M	R	L	P	L	I	D	G	Q	G	N	F		
UniRef90_K2DWU9	V	G	V	I	A	K	Y	H	P	H	S	T	E	A	V	Y	D	S	L	V	R	M	A	Q	T	F	S	S	L	R	L	P	L	V	D	S	Q	G	N	F			
UniRef90_Q0BYK4	V	G	D	V	I	G	K	Y	H	P	H	G	D	S	S	V	Y	D	A	L	V	R	M	A	Q	P	F	S	S	M	G	V	P	L	V	D	G	Q	G	N	F		
UniRef90_C1A5L6	V	G	D	V	L	G	K	Y	H	P	H	G	D	S	S	V	Y	D	A	L	V	R	M	V	Q	T	F	S	S	L	R	Y	P	L	V	D	G	Q	G	N	F		
UniRef90_D4J4X4	V	G	D	A	M	G	K	Y	H	P	H	G	D	S	S	V	Y	G	A	L	V	R	N	M	A	Q	D	F	S	T	R	Y	P	L	V	D	G	H	G	N	F		
UniRef90_R5ST55	V	G	D	V	M	G	N	Y	H	P	H	G	D	A	S	I	Y	D	A	L	V	R	L	S	Q	D	F	S	S	L	R	Y	P	V	V	D	G	H	G	N	F		
UniRef90_J0WSD1	V	G	A	V	L	A	R	Y	H	P	H	G	D	A	S	V	Y	D	A	L	V	R	L	A	Q	D	F	S	S	M	R	Y	M	L	V	D	G	H	G	N	F		
UniRef90_E6MIN2	V	G	E	V	L	G	K	Y	H	P	H	G	D	S	S	V	Y	D	A	M	V	R	M	A	Q	D	F	S	T	R	Y	M	T	V	I	E	N	G	Q	G	N	F	
UniRef90_F9Y6C0	V	G	D	T	M	G	K	Y	H	P	H	G	D	S	S	I	Y	D	A	L	A	R	M	A	Q	D	F	S	S	M	S	L	Q	L	I	E	G	Q	G	N	F		
UniRef90_UPI000360ED43	V	G	D	V	I	G	K	Y	H	P	H	G	D	Q	S	I	Y	F	A	L	V	R	M	A	Q	E	F	S	S	M	R	L	M	L	A	D	G	Q	G	N	F		
UniRef90_W3ALA1	V	G	E	C	M	G	K	F	H	P	H	G	D	S	S	I	Y	G	A	L	V	Y	M	G	Q	P	F	S	S	M	R	H	V	L	V	D	K	Q	G	N	F		
UniRef90_B8GGZ1	V	A	G	T	M	G	K	Y	H	P	H	G	D	A	S	I	Y	D	T	L	V	K	M	A	Q	P	F	W	S	Y	R	I	P	L	V	D	G	Q	G	N	F		
UniRef90_I0K0S6	V	G	E	T	M	G	N	F	H	P	H	G	D	Q	A	I	Y	P	T	L	V	H	M	A	Q	P	W	A	M	R	E	V	L	I	D	G	Q	G	N	F			
UniRef90_UPI000365AC0A	V	G	E	V	L	G	K	Y	H	P	H	G	D	S	S	V	Y	D	T	M	V	R	M	A	Q	D	D	F	S	L	R	Y	P	L	V	D	G	Q	G	N	F		
UniRef90_UPI00028834C3	V	G	E	V	I	G	K	Y	H	P	H	G	D	S	S	V	Y	E	S	M	V	R	M	A	Q	D	F	S	S	L	R	Y	M	L	V	D	G	H	G	N	F		
UniRef90_R5A978	V	G	D	T	M	G	K	Y	H	P	H	G	D	S	S	I	Y	Q	A	M	V	R	M	A	Q	N	F	S	S	M	R	Y	M	L	V	D	G	H	G	N	F		
UniRef90_B4R9P6	V	G	D	V	M	G	K	Y	H	P	H	G	D	V	A	V	Y	D	A	M	V	R	M	A	Q	P	F	S	S	M	N	L	P	L	I	D	G	Q	G	N	F		
UniRef90_C6XJ15	V	G	D	V	I	G	K	Y	H	P	H	G	D	Q	S	V	Y	D	A	L	V	R	M	A	Q	N	F	S	S	M	G	L	P	L	L	V	D	G	Q	G	N	F	
UniRef90_A0A011AA33	V	G	E	T	M	G	K	Y	H	P	H	G	D	A	S	I	Y	D	T	M	A	R	L	S	Q	D	F	S	S	M	R	Y	Q	L	V	E	G	Q	G	N	F		
UniRef90_M7NV77	V	G	D	V	I	G	K	Y	H	P	H	G	D	S	S	V	Y	D	A	M	V	R	M	A	Q	D	F	S	N	Y	R	Y	M	L	V	D	G	H	G	N	F		
UniRef90_UPI000368439E	V	G	D	T	M	G	D	F	H	P	H	G	N	L	A	I	Y	D	A	L	V	R	L	A	Q	D	F	S	S	M	R	Y	P	L	I	D	G	Q	G	N	F		
UniRef90_Q2IW32	V	G	D	V	I	G	K	Y	H	P	H	G	D	Q	S	V	Y	D	A	M	V	R	M	A	Q	D	F	S	S	M	R	V	P	L	I	D	G	Q	G	N	F		
UniRef90_H2CFZ0	V	G	E	V	I	G	N	F	H	P	H	G	D	G	A	V	Y	D	T	M	V	R	M	A	Q	D	F	V	M	K	M	P	L	V	E	G	Q	G	N	F			
UniRef90_U5DLH0	V	G	E	V	L	G	K	Y	H	P	H	G	E	T	S	I	Y	D	A	L	V	R	M	A	Q	D	F	S	S	M	R	E	L	I	D	G	H	G	N	F			
UniRef90_C3XD38	V	G	E	V	M	G	K	Y	H	P	H	G	D	Q	S	I	Y	D	T	L	V	R	M	A	Q	D	F	S	S	L	R	Y	T	L	V	D	G	Q	G	N	F		
UniRef90_UPI000426A3E7	V	G	Q	V	M	G	L	Y	H	P	H	G	D	T	A	V																											

		90	100	110	120																																												
UniRef90_E4KWZ1	G	N	I	D	G	D	G	A	A	A	M	R	Y	T	E	V	R	M	T	K	L	A	E	E	M	L	R	D	I	N	K	E	T	V	D	F	F	V	P	N	F								
UniRef90_C2CJK5	G	S	L	D	G	D	G	A	A	A	M	R	Y	T	E	A	R	M	S	K	I	S	M	E	M	M	R	R	D	I	N	K	D	T	V	D	F	F	M	P	N	F							
UniRef90_UPI0003B674A6	G	S	V	D	G	D	S	P	A	A	M	R	Y	T	E	A	R	M	S	K	I	S	M	E	M	M	R	R	D	I	N	K	D	T	V	D	F	F	Q	P	N	F							
UniRef90_UPI000287E68D	G	S	V	D	G	D	S	P	A	A	M	R	Y	T	E	A	R	M	A	K	K	I	T	E	D	M	L	V	D	I	D	K	D	T	V	D	M	M	D	N	F								
UniRef90_F9Z7F0	G	S	M	D	G	D	S	P	A	A	M	R	Y	T	E	A	R	L	F	R	K	K	I	A	E	G	L	R	S	D	I	D	K	D	T	V	D	D	Y	R	P	N	F						
UniRef90_A8TKW9	G	S	V	D	G	D	S	P	A	A	M	R	Y	T	E	A	R	M	S	K	I	A	L	E	M	L	R	D	I	G	K	D	T	V	D	F	R	L	N	F									
UniRef90_K1Y4V5	G	S	V	D	G	D	S	P	A	A	M	R	Y	T	E	A	R	M	S	K	I	A	L	E	M	L	R	D	I	G	K	D	T	V	D	F	R	L	N	F									
UniRef90_K0AWF9	G	S	V	D	G	D	S	P	A	A	M	R	Y	T	E	A	R	M	S	K	I	A	L	E	M	L	R	D	I	G	K	D	T	V	D	F	R	L	N	F									
UniRef90_UPI00046AE272	G	S	M	D	G	D	N	A	A	A	M	R	Y	T	E	V	R	M	D	K	P	A	A	Y	L	L	A	D	I	D	K	E	T	V	D	N	F	Q	D	N	F								
UniRef90_UPI0004712FB1	G	S	M	D	G	D	N	A	A	A	M	R	Y	T	E	A	R	L	E	K	A	A	E	S	L	L	I	D	D	I	D	K	E	T	V	D	K	E	T	V	D	F	F	N	N	F			
UniRef90_G4L3L6	G	S	V	D	G	D	G	A	A	A	M	R	Y	T	E	A	R	M	S	R	L	S	V	E	M	L	R	D	I	N	K	D	T	V	D	D	F	I	G	N	F								
UniRef90_R6B572	G	S	I	D	G	D	G	A	A	A	M	R	Y	T	E	A	R	M	S	K	I	A	E	M	L	R	D	I	E	K	E	T	V	D	E	F	F	M	P	N	F								
UniRef90_W9DTR5	G	S	V	D	G	D	S	P	A	A	M	R	Y	T	E	V	R	M	D	K	I	A	E	D	E	M	L	L	D	I	D	E	K	E	T	V	A	T	R	P	N	F							
UniRef90_M4V716	G	S	V	D	G	D	S	P	A	A	Q	R	Y	T	E	V	R	M	T	R	L	A	E	E	L	L	A	D	I	E	K	E	T	V	P	F	G	P	N	F									
UniRef90_UPI000225A8DB	G	S	M	D	G	D	S	P	A	A	E	R	Y	T	E	A	R	L	S	R	A	A	H	E	L	L	E	D	I	D	R	K	E	T	V	D	D	Y	F	P	N	F							
UniRef90_F9D5B6	G	S	V	D	G	D	S	P	A	A	M	R	Y	T	E	C	R	L	S	K	M	G	E	H	I	L	M	D	D	I	D	E	K	E	T	V	D	D	M	D	N	N	F						
UniRef90_U2KH67	G	T	V	D	G	D	S	P	A	A	Y	R	Y	T	E	A	K	M	A	K	I	A	E	S	T	M	V	E	D	I	K	K	E	T	V	D	F	F	I	P	N	F							
UniRef90_A0A023D2C7	G	S	V	D	G	D	S	P	A	A	M	R	Y	T	E	A	R	L	A	K	S	A	F	L	L	D	D	I	D	R	K	E	T	V	D	D	F	Y	P	N	F								
UniRef90_W0FNH8	G	S	V	D	G	D	G	A	A	A	M	R	Y	T	E	A	R	L	Q	K	L	T	M	H	L	L	D	D	G	I	D	R	K	E	T	V	D	D	F	Y	P	N	F						
UniRef90_A1AJX6	G	S	I	D	G	D	R	P	A	A	M	R	Y	T	E	I	R	L	R	Q	L	S	H	E	L	L	A	D	I	D	K	E	T	V	G	M	A	P	N	F									
UniRef90_I9KWG3	G	S	V	D	G	D	N	A	A	A	M	R	Y	T	E	L	R	L	S	K	I	A	H	E	M	L	A	D	I	D	K	E	T	V	D	D	F	G	K	D	N	F							
UniRef90_W1Q1D6	G	S	V	D	G	D	G	A	A	A	M	R	Y	T	E	A	R	M	S	K	I	A	M	E	M	L	K	D	I	N	K	D	T	V	D	D	F	G	K	D	N	F							
UniRef90_A0A011NW35	G	S	V	D	G	D	N	A	A	A	M	R	Y	T	E	V	R	M	A	R	I	G	H	E	L	L	A	D	I	D	K	E	T	V	D	D	F	G	P	N	F								
UniRef90_R8Y6D7	G	S	I	D	G	D	S	P	A	A	M	R	Y	T	E	V	R	M	T	K	L	A	H	E	L	L	A	D	I	D	E	K	E	T	V	D	D	W	E	D	N	F							
UniRef90_I4D686	G	S	V	D	G	D	N	A	A	A	M	R	Y	T	E	V	R	M	T	P	L	A	Q	L	M	T	Q	D	I	D	D	K	E	T	V	D	D	K	N	T	V	L	F	K	A	N	F		
UniRef90_D5BQS8	G	S	V	D	G	D	P	A	A	A	M	R	Y	T	E	S	R	L	A	R	A	A	E	S	L	L	R	S	D	I	D	K	E	T	V	E	F	A	Q	N	F								
UniRef90_R5GFY2	G	S	V	D	G	D	N	A	A	A	M	R	Y	T	E	S	R	L	A	P	L	A	H	E	M	L	S	D	I	N	K	E	T	V	D	D	M	V	G	P	N	F							
UniRef90_Q3SK89	G	S	V	D	G	D	N	A	A	A	M	R	Y	T	E	S	R	V	R	M	A	R	L	A	H	E	L	L	A	D	I	D	K	E	T	V	D	D	K	E	T	V	D	F	F	G	P	N	F
UniRef90_J9DIK3	G	S	I	D	G	D	P	A	A	A	M	R	Y	T	E	V	R	M	A	K	P	A	H	S	L	L	E	D	I	D	R	K	E	T	V	D	D	F	Q	D	N	F							
UniRef90_K2DWU9	G	S	M	D	G	D	P	P	A	A	M	R	Y	T	E	A	R	L	S	R	P	A	F	F	L	M	A	D	I	D	K	E	T	V	D	D	F	F	Q	D	N	F							
UniRef90_Q0BYK4	G	S	I	D	N	D	P	P	A	A	M	R	Y	T	E	S	R	M	T	K	V	T	T	H	L	L	A	D	I	D	D	K	E	T	V	D	D	F	Q	D	N	F							
UniRef90_C1A5L6	G	S	M	D	G	D	N	A	A	A	Y	R	Y	T	E	A	R	L	T	R	M	A	V	E	M	L	T	D	I	D	K	E	T	V	D	D	F	A	P	N	F								
UniRef90_D4J4X4	G	S	M	D	G	D	G	A	A	A	M	R	Y	T	E	A	R	L	S	K	I	S	M	E	M	M	A	D	I	N	K	D	T	V	D	D	F	F	Q	D	N	F							
UniRef90_R5ST55	G	S	I	D	N	D	P	P	A	A	M	R	Y	T	E	A	R	L	K	K	I	S	L	E	M	L	Q	D	I	D	D	K	E	T	V	D	D	M	V	P	N	F							
UniRef90_J0WSD1	G	S	V	D	G	D	P	P	A	A	Y	R	Y	T	E	A	R	L	G	K	P	A	V	R	M	L	T	D	I	E	K	E	T	V	D	D	F	R	P	N	F								
UniRef90_E6MIN2	G	S	V	D	G	D	G	A	A	A	M	R	Y	T	E	A	R	L	M	S	R	I	S	L	E	M	L	R	D	I	N	K	E	T	V	D	D	F	Q	D	N	F							
UniRef90_F9Y6C0	G	S	M	D	G	D	S	P	A	A	M	R	Y	T	E	A	R	L	A	K	V	A	S	F	M	L	A	D	I	D	D	K	E	T	V	D	D	F	Q	D	N	F							
UniRef90_UPI000360ED43	G	S	I	D	G	D	M	P	A	A	M	R	Y	T	E	V	R	L	A	K	P	A	M	A	L	L	A	D	I	D	E	D	T	V	D	D	F	Q	D	N	F								
UniRef90_W3ALA1	G	S	D	D	G	D	S	P	A	A	M	R	Y	T	E	A	K	M	S	K	L	A	G	E	M	L	A	G	I	D	N	K	D	T	V	D	D	F	F	M	P	N	F						
UniRef90_B8GGZ1	G	S	I	D	G	D	S	P	A	A	M	R	Y	T	E	A	R	L	T	R	Y	A	E	L	L	A	D	I	L	D	K	K	T	V	D	D	F	T	P	N	F								
UniRef90_I0K0S6	G	S	I	E	G	D	P	P	A	A	M	R	Y	T	E	A	R	L	S	P	A	G	A	L	L	M	A	D	I	M	E	K	D	T	V	D	D	F	V	P	N	F							
UniRef90_UPI000365AC0A	G	S	M	D	G	D	S	P	A	A	M	R	Y	T	E	A	R	L	R	R	I	S	D	E	L	L	A	D	I	I	G	K	D	T	V	D	D	F	A	F	N	F							
UniRef90_UPI00028834C3	G	S	I	D	G	D	S	P	A	A	M	R	Y	T	E	A	R	L	S	K	M	A	M	E	L	L	R	D	I	N	K	E	T	V	D	D	F	G	P	N	F								
UniRef90_R5A978	G	S	I	D	G	Y	G	A	A	A	S	R	Y	T	E	A	R	M	S	K	I	T	A	E	M	L	A	D	I	E	K	D	T	V	D	D	F	V	P	N	F								
UniRef90_B4R9P6	G	S	V	D	N	D	P	P	A	A	M	R	Y	T	E	V	R	L	M	T	R	A	A	M	A	L	L	A	D	I	D	K	E	T	V	D	D	F	K	D	N	F							
UniRef90_C6XJ15	G	S	M	D	G	D	P	P	A	A	M	R	Y	T	E	V	K	R	K	V	A	N	H	L	L	A	D	I	D	D	K	E	T	V	D	N	F	Q	E	N	F								
UniRef90_A0A011AA33	G	S	I	D	G	D	P	P	A	A	M	R	Y	T	E	A	R	L	H	A	L	G	E	E	M	L	T	D	I	N	E	E	T	V	D	W	G	P	N	F									
UniRef90_M7NV77	G	S	V	D	G	D	A	P	A	A	M	R	Y	T	E	A	R	M	S	K	I	S	A	E	L	L	R	D	I	N	K	D	T	V	D	D	Y	P	N	F									
UniRef90_UPI000368439E	G	S	V	D	G	D	P	P	A	A	E	R	Y	T	E	A	R	L	S	K	I	A	Q	F	L	L	D	D	I	D	D	K	E	T	V	D	D	F	K	P	N	F							
UniRef90_Q2IW32	G	S	V	D	G	D	A	P	A	A	M	R	Y	T	E	A	R	L	T	K	I	A	Q	L	L	L	D	D	I	D	D	K	E	T	V	D	D	Y	Q	D	N	F							
UniRef90_H2CFZ0	G	S	I	D	G	D	N	A	A	A	Y	R	Y	T	E	A	R	L	T	R	A	A	E	E	L	L	R	D	I	D	D	K	E	T	V	D	D	F	S	P	N	F							
UniRef90_U5DLH0	G	S	V	D	D	D	P	P	A	A	M	R	Y	T	E	C	R	L	R	A	I	S	S	D	S	L	Q	D	I	E	S	E	T	V	D	D	F	A	D	N	F								
UniRef90_C3XD38	G	S	I	D	G	D	A	P	A	A	M	R	Y	T	E	C	R	L	D	R	I	S	E	E	M	L	A	D	I	D	K	E	T	V	D	D	F	V	P	N	F								
UniRef90_UPI000426A3E7	G	S																																															

	130	140	150	160
UniRef90_E4KWZ1	D E N E K E P T I V L L P	A S R R F P N L L V N G S S G I	A V G M A T N N M A P H N N M	N G E E D
UniRef90_C2CJK5	D E E E E P T V V L L P	S S R R F P N L L V N G S S G I	A V G M A T N N M A P H N N L	L L G G E E D
UniRef90_UPI0003B674A6	D D G S E E P V V V L L P	S S R R F P N L L V N G S S G I	A V G M A T N N M A P H N N L	L L G G E E D
UniRef90_UPI000287E68D	D D G S E Q E P V V V L L P	S S R R F P N L L V N G S S G I	A V G M A T N N M A P H N N L	L L G G E E D
UniRef90_F9Z7F0	D D G S L K E P T V V L L P	S T R R F P N L L V N G S S G I	A V G M A T N N M A P H N N L	L L G G E E D
UniRef90_A8TKW9	D D E T T E E P T S V L L P	P A E A Y P N L L V N G S S G I	A V G M A T N N M A P H N N L	L L G T E E D
UniRef90_K1Y4V5	D D E S L Q E P T V V L L P	P A K A P P N L L V N G S S G I	A V G M A T N N M A P H N N L	L L G T E E D
UniRef90_K0AWF9	D D E T L N E P K V V L L P	S R F F P N L L V N G S S G I	A V G M A T S I I P P H N N L	L L S T E E D
UniRef90_UPI00046AE272	D D G K D R E P T S V L L P	P A R F P N L M L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_UPI0004712FB1	D D G S D R E P S T V L L P	P A R Y P N L M L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_G4L3L6	D D D T E K E P E V V L L P	P A R F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G T E E D
UniRef90_R6B572	D D D R L Q E P T V V L L P	P A K F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L T T E E D
UniRef90_W9DTR5	D D G S L E E P V V V L L P	P A K L P N L L L V N G S S G I	A V G M A T N M A P P H N N L	L L T T E E D
UniRef90_M4V716	D D D S L E E P L I L L P	P A K Y P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G T E E D
UniRef90_UPI000225A8DB	D D D S T V E P K V L L P	P A K F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_F9D5B6	D D D T L K E P S V V M P	T K F P N L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_U2KH67	D D E S T V E P T V V L L P	P A K F P N L L L A N G S S G I	A V G M A T N M P P H N N L	L L R G E E D
UniRef90_A0A023D2C7	D D E S E D E P R V V L L P	P A A F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L P T E E D
UniRef90_W0FNNH8	D D E T L Q E P S V V L L P	P A A F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L T G T E E D
UniRef90_A1AJX6	N D E L L E P T V V L L P	P S K F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L T G E E D
UniRef90_I9KWG3	D D G S E T E P L V L L P	P T R F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L C G E E D
UniRef90_W1Q1D6	S Q E E K E P V T L L P	S R R F P N V L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_A0A011NW35	D D G S E E E P L V M P	P A R I P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L T G T E E D
UniRef90_R8Y6D7	D D G S E R E P Q V V V P	P T R F P N L L L V N G S S G I	A V G M A T N M A P P H N N L	L L M T G E E D
UniRef90_I4D686	D D Q R L K E P V V V L L P	P S F P N L L L V N G S S G I	A V G M M S N I I P P H N N L	L L M T K E E D
UniRef90_D5BQS8	D D E T Q L E P T V V L L P	P S E Y P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L P K E E D
UniRef90_R5GFY2	D D D S T L E P S V V L L P	P S R F P N L L L V N G S S G I	A V G M A T N M A P P H N N L	L L L K T E E D
UniRef90_Q3SK89	D D G S E Q E P S V V L L P	P T K F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L T G E E D
UniRef90_J9DIK3	D D N S E R E P V V V L L P	P A R F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L T G E E D
UniRef90_K2DWU9	D D E S T V E P T V V L L P	P S R F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_Q0BYK4	D D G K E K E P V V V L L P	P A Q F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_C1A5L6	D D D R L E E P R V V L L P	P A G F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L R R E E D
UniRef90_D4J4X4	D D E T E K E P S V V L L P	P S R Y P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L R T E E D
UniRef90_R5STS5	D D D R L K E P S V V L L P	P A K F P N L L L V N G S S G I	A V G M A C N I I P P H N N L	L L T T E E D
UniRef90_J0WSD1	D D D R L K E P S V V L L P	V R F P N I L L L V N G S S G I	A V G M A T N I I P P H N N L	L L M C G E E D
UniRef90_E6MIN2	D D G S E Q E P V V V L L P	P S R F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L L G G E E D
UniRef90_F9Y6C0	D D G K D K E P T V V L L P	P A R F P N M L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_UPI000360ED43	D D G S E K E P S V V L L P	P A Q F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_W3ALA1	S S N E Y D E P E V V L L P	P A K F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G R E E D
UniRef90_B8GGZ1	D D S S T E E P T V V L L P	P S K V P N L L L V N G S S G I	A V G M A T N M P P H N N L	L L P P R E E D
UniRef90_I0K0S6	D D E T K M E P A V F P	P A A F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L S T E E D
UniRef90_UPI000365AC0A	D D D T L K E P T V V L L P	P A R F P N L L L V N G S S G I	A V G M A T N M L P P H N N L	L L P H N N L
UniRef90_UPI00028834C3	D D G E E K E P T V V L L P	P S R R F P N L L V N G S S G I	A V G M A T A I I P P H N N L	L L G G E E D
UniRef90_R5A978	D D E N E K E P T V V L L P	P A R I P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_B4R9P6	D D G S E Q E P V V V L L P	P S R R F P N L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_C6XJ15	D D G S E K E P I V V L L P	P A R F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_A0A011AA33	D D E S L E E P L V V L L P	P S R V P N L L L V N G S S G I	A V G M A T N M P P H N N L	L L G G E E D
UniRef90_M7NV77	D D G Q E K E P S V V L L P	P S R F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_UPI000368439E	D D D R L E E P S V V L L P	P A K F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_Q2IW32	D D G S F N E P Q V V L L P	P A K F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_H2CFZ0	D D D T K Q E P K V V L L P	P A G L P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L P D G E E D
UniRef90_U5DLH0	D D G S Q Q E P T V V L L P	P S R L P Q L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_C3XD38	D D G K E K E P S V V L L P	P T R L P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L V G E E D
UniRef90_UPI000426A3E7	D D G S H E T E P S V V L L P	P A A F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_F7PT51	D D G S E R E P Q V V L L P	P S R F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_K9E947	D D G T E S E P D I L L P	P A R F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L K E E E D
UniRef90_A6GXM8	D D D T L Y E P K V M P	T K V P T L L L V N G S S G I	A V G M A T N M P P H N N L	L L T T E E D
UniRef90_R7GLN5	D D G E F K E P N V V L L P	P S R N V P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L P S H N N L
UniRef90_UPI0003B49AE5	D D G K D R E P I V V L L P	P A Q F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_F6IPQ1	D D G A E N E P Q V V L L P	P A R Y P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_G2DVD9	D D G S E H E P L V V L L P	P T R F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L P D G E E D
UniRef90_S4TLL1	D D E T K K E P V V V F P	P A K F P N L L L C N G S S G I	A V G M A T N I I P P H N N L	L L N R E E D
UniRef90_R5ZAK8	D D G D G Q E P V V V L L P	P A R F P N L L L I N G S S G I	A V G M A T N I I P P H N N L	L L P S H N N L
UniRef90_H7E1I9	D D S T K E P T V V L L P	P A Q F P Y L L L C N G S S G I	A V G M A T N M P P H N N L	L L R R E E D
UniRef90_D5MLW1	D D E T L E E P T L L L L P	P A A L P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L S E E E D
UniRef90_UPI0003B78AE1	D D E T E K E P T V V L L P	P S R Y P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L S G E E D
UniRef90_F9QCW5	D A T E K E P T V V L L P	P S K F P N L L L V S G S G I	A V G L A T E I I P P H N N L	L L S E E E D
UniRef90_E4XU22	D D G S Q E E P T V V L L P	P S A F P N F L L V N G S S G I	A V G M A T N L A P H N N L	L L G G E E D
UniRef90_G8QYU0	D D D S L Q E P T V V L L P	P A S F P F L L L A N G S S G I	A V G M A T N M A P P H N N L	L L L Q E E D
UniRef90_H3NQ77	D D E E V E P K V L L P	P A R F P N L L L V N G S S G I	A V G M A T N M A P P H N N L	L L M A P H N N L
UniRef90_F21195	D D D T E L E P V V V L L P	P A Q Y P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_A8YW46	D D D T E N E P V V V L L P	P A R I P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_UPI0004795F11	D D E S T Y E P S V V L L P	P T R L P N L L L I N G S S G I	A V G M A T N I I P P H N N L	L L S T E E D
UniRef90_Z4XCR9	D N Q F M Q P D V L L P	P A A F P Q L L L V N G S S G I	A V G M A T N I I P P H N N L	L L S T E E D
UniRef90_E0UQ42	D D G T L K E P S V V M P	T R V P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L P T E E D
UniRef90_Q11UG4	D D D S L Q E P S V V L L P	P S K V P N L L L V N G S S G I	A V G M A T N M A P P H N N L	L L T T E E D
UniRef90_UPI00047A155A	D D E S L L E P T V V L L P	P A R I P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L T T E E D
UniRef90_M1PZK8	D D G S L K E P E V V L L P	P A R L P N L L L V N G S S G I	A V G M A T N M P P H N N L	L L S R E E D
UniRef90_S0ET77	D D Q S R Q E P I V F P	P A K F P N L L L C N G S S G I	A V G M S T S I P P H N N L	L L S R E E D
UniRef90_UPI00035D39BA	D D E T A E E P R V V L L P	P A A F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L P T H N N L
UniRef90_D8J640	D D D R L E E P E V V L L P	P A A F P N L L L V N G S S G I	A V G M S T N I V P P H N N L	L L R G E E D
UniRef90_R6M8J9	D D E T S K E P R V V L L P	P S R F P N I L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_UPI00021973BD	D D D T E K E P K V V L L P	P A R F P N L L L V N G S S G I	S A G Y A T E I I P P H N N L	L L G G E E D
UniRef90_D0LNR4	D D D K E L E P T V V L L P	P T K V P N L L L V N G S S G I	A V G Y A T E I I P P H N N L	L L G G E E D
UniRef90_Q04AP4	D D D T A Y E P T V V L L P	P A R F P N L L L V N G S S G I	S S G Y A T E I I P P H N N L	L L G G E E D
UniRef90_R6VSY2	D D D T R E Q V V V L L P	P S R Y P N L L L V N G S S G I	A V G M A T S I I P P H N N L	L L G G E E D
UniRef90_F7RYR4	D D G T E F P E V V L L P	P T R F P N L L L A N G S S G I	A V G M A T N I I P P H N N L	L L T T E E D
UniRef90_F4DIY4	D D E T K H E P T V F P	P A K F P N L L L C N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_Q1MQ89	D N S L E E P I V L L P	P T K V P N L L L L N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_P57277	D D G T E Y E P E I L L P	P A K L P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L N G E E D
UniRef90_M2U8T8	D D G S E S E P A V L L P	P A R F P N L L L V N G S S G I	A V G M A T N I I P P H N N L	L L G G E E D
UniRef90_D4YDW1	D D D T A E E P T V V L L P	P A G F P N L L L V N G S S G I	S A G Y A T E I I P P H N N L	L L G G E E D



	S	I	D	G	I	A	Y	L	D	N	170	D	E	L	S	I	180	E	L	N	Q	I	I	K	G	P	D	F	P	T	G	A	Q	I	M	G	200					
UniRef90_E4KWZ1	A	I	D	A	C	I	A	Y	M	K	D	P	E	V	I	S	I	D	D	L	I	S	E	L	N	Q	I	I	K	G	P	D	F	P	T	G	A	Q	I	M	G	
UniRef90_C2CJK5	T	I	Q	A	I	F	R	I	M	D	D	P	D	D	V	I	S	I	D	D	L	I	S	E	L	N	Q	I	I	K	G	P	D	F	P	T	G	A	Q	I	M	G
UniRef90_UPI0003B674A6	V	I	D	A	V	L	F	R	L	S	K	N	P	E	V	I	S	I	D	D	L	I	S	E	L	N	Q	I	I	K	G	P	D	F	P	T	G	A	Q	I	M	G
UniRef90_UPI000287E68D	A	I	D	A	C	I	A	Y	I	D	N	N	P	E	V	I	S	I	D	D	L	I	S	E	L	N	Q	I	I	K	G	P	D	F	P	T	G	A	Q	I	M	G
UniRef90_F9Z7F0	V	V	D	A	C	I	A	M	L	D	N	N	P	E	V	I	S	I	D	D	L	I	S	E	L	N	Q	I	I	K	G	P	D	F	P	T	G	A	Q	I	M	G
UniRef90_A8TKW9	V	V	N	A	I	C	A	Y	I	D	N	N	P	E	V	I	S	I	D	D	L	I	S	E	L	N	Q	I	I	K	G	P	D	F	P	T	G	A	Q	I	M	G
UniRef90_K1Y4V5	V	I	D	G	I	V	A	M	I	D	N	K	D	I	T	T	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
UniRef90_K0AWF9	V	I	D	A	C	I	A	L	L	E	N	P	D	L	S	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
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UniRef90_G4L3L6	V	I	N	G	I	T	M	K	L	I	D	D	D	N	V	T	D	E	Q	L	L	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
UniRef90_R6B572	V	I	N	A	T	M	M	I	E	N	P	E	V	I	S	I	D	D	L	I	S	E	L	N	Q	I	I	K	G	P	D	F	P	T	G	A	Q	I	M	G		
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UniRef90_M4V716	V	I	D	A	C	C	C	A	L	I	E	N	P	A	L	L	E	V	J	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
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UniRef90_F9D5B6	V	I	A	A	V	A	A	Y	I	D	N	P	D	L	S	P	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
UniRef90_U2KH67	I	A	A	V	A	A	Y	I	D	N	P	D	L	S	P	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
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UniRef90_W0FNNH8	V	I	N	G	V	I	C	M	I	D	N	P	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
UniRef90_A1AJX6	V	I	D	G	I	A	V	I	N	N	P	D	L	A	H	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
UniRef90_I9KWG3	L	V	D	G	C	L	H	L	R	N	P	E	A	S	V	D	E	L	L	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
UniRef90_W1Q1D6	T	I	D	A	L	S	L	M	K	N	P	D	V	S	V	D	E	L	L	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
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UniRef90_R8Y6D7	V	V	N	A	C	L	A	Y	A	D	N	P	N	L	S	I	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
UniRef90_I4D686	V	V	A	G	L	I	Q	I	H	P	D	T	T	V	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
UniRef90_D5BQS8	V	I	A	A	C	E	A	Y	V	N	N	P	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
UniRef90_R5GFY2	V	L	E	G	A	L	A	Y	I	D	K	P	E	R	G	D	E	S	V	I	S	A	E	L	M	E	Y	V	K	A	P	D	F	P	T	G	A	Q	I	M	G	
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UniRef90_J9DIK3	V	V	N	A	T	L	A	L	I	E	N	P	E	L	D	D	N	E	L	L	T	T	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
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KSGIK EAYE TTRG RGS K I T V R A V A E I K S F K N N R R K I V I T T E E L P  
RKGIG KRAYR TTRG RGS I I M I V R A V A E I K S F K N N R R K I V I T T E E L P  
RGGIV REAYE TTRG RGS V V I V R P K T S I V V E E E L Q D N G N G K K Q S K L V V I T T E E L P  
YSGIV REAYE TTRG RGS V V I V R P K T S I V V E E E L Q D N G N G K K Q S K L V V I T T E E L P  
RSGIG KEAYE TTRG RGS V V I V R P K T S I V V E E E L Q D N G N G K K Q S K L V V I T T E E L P  
QGGIL KEAYE TTRG RGS V V I V R P K T S I V V E E E L Q D N G N G K K Q S K L V V I T T E E L P  
KENL R KAYE TTRG RGS V V I V R P K T S I V V E E E L Q D N G N G K K Q S K L V V I T T E E L P  
RSGA R KAYE TTRG RGS V V I V R P K T S I V V E E E L Q D N G N G K K Q S K L V V I T T E E L P  
RSGA I N A L T TTRG RGS V I M R G K V D I S E E M A N G N G K K Q S K L V V I T T E E L P  
KSGIT RRAYE TTRG RGS I T V R A V A E I S E E M A N G N G K K Q S K L V V I T T E E L P  
REA I K S A Y E TTRG RGS V T Q V R A V A E I S E E M S N G N G K K Q S K L V V I T T E E L P  
KGGIL QAYE TTRG RGS I T Q I K A K T E I S E E T T K K D H E E I V V I T T E E L P  
RAGIG LEAAYE TTRG RGS I V M R A K K A H T E T S V D D K S K E A I V V I T T E E L P  
QQGGV LKDAFETTRG RGS I V M R A K K A H T E T S V D D K S K E A I V V I T T E E L P  
RKGIG KQAFETTRG RGS V I V R R F N I E E T S D D K K S R R E S I V V I T T E E L P  
RRGIG RLAAYE TTRG RGS I P V R A R T N V E E D D K K N D R R K S A I V V I T T E E L P  
YSGIG RDAAYE TTRG RGS I Q I R A K A H F E E E A A K K N S E R Q I I V V I T T E E L P  
RSGIG RDAAYE TTRG RGS I Q I R A K A H F E E E A A K K N S E R Q I I V V I T T E E L P  
VSGGV RDKAYE TTRG RGS I V I V R R A K T H F E E E Q D M A H D H G K Q R I V V I T T E E L P  
KSGIG RDKAYE TTRG RGS I V I V R R A K T H F E E E Q D M A H D H G K Q R I V V I T T E E L P  
LAGV R EGYRTTRG RGS V I M R G K V H F E E E L E K G N N R Q I I V V I T T E E L P  
KSGIV LDAYE TTRG RGS I H I M R G K Y H F E E E D E D E K K G K N I T I V I T T E E L P  
TDGIG L S A Y K TTRG RGS V T M R G K A V I E E E Q G K K G K G K N I T I V I T T E E L P  
RHGIG R EAYE TTRG RGS I I M R A R A E I V E E Q T N A K D R E S I I V I T T E E L P  
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L S G V R D G Y R TTRG RGS V V M R G K A E V E E E D L D G Q K H E Q A I V I T T E E L P  
RRGIG L S A V M TTRG RGS V V M R G K A E V E E E D L D G Q K H E Q A I V I T T E E L P  
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QSGS R K A L M TTRG RGS V I M R S K T E I E E E E A K K N D R R E A I V V I T T E E L P  
RAGIT A D Y Q D TTRG RGS I I M R A R A V I E E E K E S N G K S Q I I V V I T T E E L P  
KNGIG N Q A Y TTRG RGS L K V R A V T D I E E E M P A N G R H K I V I T T E E L P  
KGGIG K A Y TTRG RGS I C V R A R A E I E E E D A N G R Y K I V I T T E E L P  
RSGIG R A A Y TTRG RGS I T V R A R A E I E E E E K N G R F K I V I T T E E L P  
KSGIG R K A Y E TTRG RGS I K I M R A R S H V E E E N M T K K D R Y A I V I T T E E L P  
RSGA R K A Y E TTRG RGS V I L M R G R V E I E E E T V R K K E R E A I V V I T T E E L P  
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RKGIG I E S A Y TTRG RGS I K L R A V C H E E E A M Q E T N K T H K I V I T T E E L P  
TEGIG I S A Y H TTRG RGS L K L T V R G V A E I E E E D V E T N G K P K I V I T T E E L P  
KGGIG V S Y F TTRG RGS L K V R G E V H F E E E L R G G K S A I I I D E I I P  
YQGGV K D A F TTRG RGS V V T M R A R A E I E E E T D N N D R K A R I I I D E I I P  
RGGIL R Q A Y TTRG RGS I I V R S T A E I E E E T E N N G R E R I I V I T T E E L P  
RSGA R Q A G L M TTRG RGS V I M R S K S I E E E E V R K N G R E A I V I T T E E L P  
RAGS R S G L M TTRG RGS V I M R S K S I E E E E V R K N G R E A I V I T T E E L P  
REGIT I D A Y R TTRG RGS L V V R G R V D I E E E D G R K G K K E S T I I T T E E L P  
RSGIL R R A Y E TTRG RGS I L T R A K K V E I E E E A P N G R K E D A I L V I T T E E L P  
RAGAL L A A Y H TTRG RGS I I M R A K V E I E E E T V R K K D R R E A I V I T T E E L P  
RAGIT R L A Y H TTRG RGS I V M R G K V E I E E E T V R K K D R R E A I V I T T E E L P  
GEGIL K Q A Y TTRG RGS I R I R A K L T V E E E Q L R R K G D R E A I V I T T E E L P  
RAGIL K A D A Y S TTRG RGS I T M R G V A T L E E E R G R P D R E A I V I T T E E L P  
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LDGIG T R D A Y A TTRG RGS F R I R A T S K I E E E Q V S A R N G K S T I V I T T E E L P  
L S G G I R R A Y E Y TTRG RGS I V M R A K H E I V E H R V I V E I I I D E I I P  
VSGGV R K A Y E TTRG RGS I K L R A K S R I D V D Q K G K E R I I I D E I I P  
YEGV R K A Y E TTRG RGS I V M R A K V G F E E E E V D G N R K K C I I V I T T E E L P  
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RSGA R N G L L K G R G S V I M R A R T S F E E E T M R N G R E A I V I T T E E L P  
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MGGV R E G Y K TTRG RGS V V M R G K T H I E E E P I G K N G R E R I I V I T T E E L P  
YRGV K E A F H TTRG RGS I I L R G V I R V E E D M N P D R R Q R L V I T T E E L P  
RSGV R K H Y F E TTRG RGS V K V R G R Y H I E E E Q T K D G R T S I V I T T E E L P  
REGF R K A Y R TTRG RGS I V I R S K F D I E E E T S R T G R E S I V I T T E E L P  
RTGIT R D A Y L TTRG RGS L I R M R A K A F V E E E K S R G A R E A I V I T T E E L P  
TSGIT N E A Y R TTRG RGS I K V R A V T D I E E E P M H A G K N R I V I T T E E L P  
I D A I Y S A Y R D TTRG RGS L P M R S N C H I E E E E F T S G K S R I V I T T E E L P  
IRGIT E E Y F R TTRG RGS M R L R G K V E I E E E E N E N G K S F I V I T T E E L P  
MKGIG K D A F TTRG RGS I V M R S C Y E I E E E E N E N G K S F I V I T T E E L P  
K K P I I D A Y K TTRG RGS V I K L R A E A H I E E E E Y K S K H I V I T T E E L P  
QNDI I P G Y E K G R G S I K I R G E I E E E E G S K D K K I I V I T T E E L P  
RGGI Y R A Y E S G K G N I V V R A K T N I E E E E K S G R E R I I V I T T E E L P  
RSGI R A A Y K TTRG RGS F L M R A K C H I E E E N L T Q G R Q A I V I T T E E L P  
LEGIG K E A Y E TTRG RGS A F K T R A K V Q I E E E R V T A R K M G I V I T T E E L P  
KKGIG M D A Y E TTRG RGS I K V R A K T H I E E E K K G N S T G K E V I V I T T E E L P  
YQGGI R S A F E TTRG RGS I L V L R S S T L E E E T T S T G K E Q I V I T T E E L P  
RAGI R A Q T Y N TTRG RGS F I M R A K V G T E N I S G G R Q Q A I V I T T E E L P  
TAGI R S A Y M TTRG RGS P I R M R A V A E I E E E Q E L K K D G R N A I V I T T E E L P  
TRGV R E A Y R TTRG RGS I I M Q A N L Q I E E E P M K G G R N A I V I T T E E L P  
RSGI R A A F E TTRG RGS V P V R A R A S V E E E E R K K D R E A I V I T T E E L P  
REA I H S A Y E TTRG RGS L R T V R A E F E R E E Q A D K R N T I V I T T E E L P  
NSGIG R K A Y E TTRG RGS I I R V R S R A E I E E E E H N N H N T I V I T T E E L P  
KDGIG K E A Y Q TTRG RGS V F L R S K T T I Q E E I R G H K S Q I V I T T E E L P  
RGGIG R A A H T LTRG RGS A V I V R A R T Q F E E E T V R K E R K A I V I T T E E L P  
KKGIL R D A Y K TTRG RGS I Q V I R A K T H I E E E M A N G R T R I V I T T E E L P  
RASI R Q A Y K TTRG RGS C I I R A R T E I E E E E M A N G R T R I V I T T E E L P  
RQGGI L D A Y R TTRG RGS I Y I R A R A D I V T E N T E K H R D S I V I T T E E L P  
H E G I C S T Y H TTRG RGS I K V R A R L H I E E E E N T E K H R D S I V I T T E E L P  
GQGL Y D A Y T K G R G T V K V R G K V E I E E E R K K G A Q S I V I T T E E L P  
KSGIG L E S A Y R TTRG RGS I Y I R A R A Q N Q V I E E E K N K K N K R E I V I T T E E L P  
QGGIL Q E A Y TTRG RGS V I M R A R S K V I E E E K N K G G K R A L V I T T E E L P  
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290 300 310 320  
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K R D V Q A N E V I V L N N Q L F Y K R L T P L Q Q T S F F G I I N N L A L V N A N G R P E I L L  
E V L K R D A I S A N V V L N N T L L K H T A L Q Q T S F F G V V N N L A L V H G R R P P Q V L L  
D I K K R D A I G E V V L N N T Q L Y K R Y T Q L Q Q T S F F G V V N N L A L V N R R R P P V I Q M  
K L K G T V A N V V L N N T Q L Y K R Y T Q L Q Q T S F F G V V N N L A L V N R R R P P V I Q M  
E I K R D A N A N I V V L N N L Y K Y T Q L Q Q T S F F S I I M L A L V N D G Q R P K E T L  
E E L K R D A E V V L M N N Q L F R F T P M Q Q T S F F G C A N N M L A L N G G R P P E T L  
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G L K K D A N A R V V L N N Q L Y K K T Q M Q T T F F G V I I N L A L V D D Q Q P R I L L  
E L T R G T A N A N V V L N N Q L Y K H T Q M Q T T F F G I I N L A L V D D D P P R E L  
I L K R G E N S S V V L N N R L Y K F T Q L Q V S F F G I I N M L A L L D K N R Q P V V F  
U P I 0 0 0 2 2 5 A 8 D B L K R D A V A D V V L N N Q L Y R K T S L Q Q T S F F G V V N N L A L V N H R P E Q M  
F 9 D 5 B 6 E D L K R D A V N A K V I L N N K L F K M T A L Q Q T S F F G V V N C I A L V P N K R H K L L  
U 2 K H 6 7 E L K R G A I A K V I L N N Q L F S K T A L Q Q T S F F S V V N N L A L V K G R R P K E L L  
A 0 A 0 2 3 D 2 C 7 E L K R D A T P D V V L N N Q L Y R F T P L Q Q T S F F A V N C L A L D D D G K P Q V L  
W 0 F N H 8 E L K R D V Q Q V V L N N M L Y K H T P M Q E N F F G A N N M L A L V D D G K P Q V L  
A 1 A J X 6 E V K R D D N P E V V L N N L L Y K L T Q M Q T S F F G I I L A L V H N R Q P P R I L L  
I 9 K W G 3 E L K R G E T P E V V L N N N L Y K L T Q L Q Q T T F F G M N M V A L I V D D G Q P R I L L  
W 1 Q 1 D 6 E V R R D T S A N V V L N N N L Y K Y T A L Q V T F F G F N M L A L I D K G V P K I M  
A 0 A 0 1 1 N W 3 5 E L K R G E V A E V V L N N C L Y K Q T Q L Q D T F F G M N M V A L V D D G Q P R I L L  
R 8 Y 6 D 7 D D L K R G E N A E V I V N N L F L N T Q L Q E N S F F S I I N M L A L C L D T P G T P K L M  
I 4 D 6 8 6 C K R K E A D P L E V V L N N N L Y K Y T Q M E E T F F G I I N L V I T P G T P K V L  
D 5 B Q S 8 E V K R D A A G D V V L N N K L Y R H T R L Q Q T S F F P V N M L A M N A A G R S P I Q M  
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J 9 D I K 3 E L K R E A V P E V V L N N Q L Y R F S S L Q Q T S F F G A N N M L A L L N G G K P P E L L  
K 2 D W U 9 E L K K D A S P E V V L N N R L Y A Q T P L Q Q T T F F G V V N M L A L L K A G G R P P Q Q M  
Q 0 B Y K 4 E L K R D A S A D V V L N N Q L Y R F S Q L Q Q T S F F A V N N M L A L L N G G R P P E L M  
C 1 A 5 L 6 E L K R D A I P R V V L N N Q L Y K H T A M Q S T F F G V I M L A L V P D P H K V L  
D 4 J 4 X 4 E L K K D A N P N V V L N N Q L Y K H T Q L Q Q S T Y Q S M L M L A L V D N N Q P K M I  
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E 6 M I N 2 E L K R D T N A T I V V L N N Q L Y K H T Q L Q Q D T F F G A N N M L A L V D D G Q P K V L  
F 9 Y 6 C 0 E L K R D A T A D V V L N N Q L Y R F S P M Q I S F F G A N N M L A L L N G G R P P E T L  
U P I 0 0 0 3 6 0 E D 4 3 E L K R D A V A D V V L N N Q L Y R F S Q L Q Q A T T F F G V N M V A L I N G G K P P E L M  
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C 6 X J 1 5 E L K R D A S P E V V L N N Q L F R Y T Q L Q Q T S F F G M N M L A L L N S R G R P P E L L  
A 0 A 0 1 1 A A 3 3 E L Q R D A D P N V V L N N Q L Y T R T Q L Q Q S T F F G V I N L A I V D N G E T R E L  
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Q 1 1 U G 4 E D L K R D A I A N V V L N N N L F K K Y S Q L Q Q S S F F S V N N M L A L V K G R P M T L  
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M 1 P Z K 8 E L S R G V N P N V V L N N Q L Y K H T Q M A T T F F G V I N L A L V D D G K P K E L L  
S 0 E T 7 7 E L R R D V V P N R I V L N N F L K H T A L R Q T F F G A I M L A L V D N E P R I L L  
U P I 0 0 0 3 5 D 3 9 B A E V K R D A N P E I V L N N Q L Y R F T R L Q T S F F P V Q M L A L N G G R P P E Q M  
D 8 J 6 4 0 D L K R G A N A D V V L E N N Q L L E H H L E R T F F G V I N L A L V D D G Q P Q V L  
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U P I 0 0 0 2 1 9 7 3 B D E L K R D V D A N G I L N N Y L F K N T D L Q V S Y N F N M V A I A N M S P Q Q V  
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F 7 R Y R 4 E L K R G E S G E V M L N H L Y Q N T Q M Q V A F F G F N M L A L D K N Q P R L T M  
F 4 D I Y 4 E L K K G S E V M L N N R L Y K N T D V Q T T F F G A N N M L A L D K N P R T M  
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M 2 U 8 T 8 D L K R D A T P D V V L N N Q L Y S H T P A Q S S F F A F N M L A I R G G R P P E L L  
D 4 Y D W 1 E L K K D A S S D A I L N Y F Y K N S D L Q I N Y N F N M V A I I N D Q R P E L V



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UniRef90_UPI000376EBF0	V	G	D	V	M	G	K	Y	H	P	H	G	D	S	A	V	Y	D	A	L	V	R	M	T	Q	D	F	W	S	M	R	L	P	L	V	D	G	H	G	N	F		
UniRef90_S9LI55	V	G	N	V	M	G	N	F	H	P	H	G	D	S	S	I	Y	D	A	M	V	R	M	S	Q	D	F	W	K	N	R	E	T	L	V	D	M	H	G	N	F		
UniRef90_K9EDZ2	V	G	N	V	I	G	N	Y	H	P	H	G	D	S	S	I	Y	D	A	M	V	R	L	S	Q	D	F	P	W	K	M	R	H	P	L	V	D	M	H	G	N	F	
UniRef90_UPI000376665D	V	G	D	V	M	G	K	L	H	P	H	G	D	S	S	I	Y	D	A	L	V	R	L	A	Q	P	F	S	M	R	L	P	L	V	D	G	H	G	N	F			
UniRef90_D8GPS9	V	G	D	L	L	G	K	Y	H	P	H	G	D	S	S	I	Y	D	A	M	V	T	L	A	Q	D	F	T	T	R	M	P	I	V	D	G	H	G	N	F			
UniRef90_UPI0003B31FF1	V	G	D	T	M	G	K	Y	H	P	H	G	D	S	S	I	Y	D	A	L	V	N	M	A	Q	D	F	L	R	Y	P	L	V	D	G	H	G	N	F				
UniRef90_UPI000360DA4A	V	G	D	V	M	G	N	Y	H	P	H	G	D	S	A	V	Y	D	S	M	V	R	M	A	Q	D	F	S	M	R	L	L	V	D	G	H	G	N	F				
UniRef90_R5XE38	V	G	A	V	L	G	R	Y	H	P	H	G	D	S	A	V	Y	D	A	M	V	R	L	A	Q	T	F	S	M	R	Y	L	V	D	G	H	G	N	F				
UniRef90_B0R4D5	V	G	D	T	M	G	D	Y	H	P	H	G	D	S	P	I	Y	D	A	L	V	R	M	A	Q	D	F	S	M	R	Y	P	L	V	D	G	H	G	N	F			
UniRef90_UPI00046A1629	V	G	N	V	M	G	N	Y	H	P	H	G	D	S	S	I	Y	E	A	M	V	R	L	S	Q	D	F	W	K	L	R	E	P	L	V	D	M	H	G	N	F		
UniRef90_K1MKP7	V	G	D	V	M	G	K	Y	H	P	H	G	D	S	A	V	Y	D	A	M	V	R	M	A	Q	P	F	S	Y	R	E	M	L	V	D	G	H	G	N	F			
UniRef90_H6Q5V6	V	G	N	V	I	G	K	Y	H	P	H	G	D	S	A	V	Y	D	T	I	V	R	M	A	Q	D	F	S	L	R	Y	T	L	V	D	G	H	G	N	F			
UniRef90_B7IDD3	V	G	E	V	M	G	K	Y	H	P	H	G	D	S	A	V	Y	D	T	I	V	R	M	A	Q	D	F	W	T	M	R	Y	K	L	V	D	G	H	G	N	F		
UniRef90_M4SEK4	V	G	D	V	M	G	N	Y	H	P	H	G	D	S	A	V	Y	M	A	L	A	R	L	A	Q	D	W	S	M	R	V	P	L	V	D	G	H	G	N	F			
UniRef90_G9WFX9	V	G	N	V	M	G	N	Y	H	P	H	G	D	S	S	I	Y	D	A	L	V	R	M	S	Q	D	F	S	W	K	M	R	E	P	L	V	D	M	H	G	N	F	
UniRef90_W2D2P1	V	G	E	V	L	G	K	Y	H	P	H	G	D	S	S	I	Y	F	A	L	V	R	L	A	Q	D	F	N	S	M	R	Y	T	L	V	D	G	H	G	N	F		
UniRef90_UPI0003B6ADB3	V	G	N	V	M	G	N	L	H	P	H	G	D	S	S	I	Y	E	A	L	V	R	M	S	Q	D	F	W	K	L	R	V	P	L	V	D	M	H	G	N	F		
UniRef90_R7KC71	V	G	D	V	I	G	N	Y	H	P	H	G	D	S	S	I	Y	E	A	M	V	R	M	S	Q	D	F	S	K	S	R	Y	P	L	V	D	M	H	G	N	F		
UniRef90_U4KRN7	A	G	E	V	M	G	K	Y	H	P	H	G	D	S	S	I	Y	E	A	M	V	R	M	S	Q	D	F	K	M	G	V	T	L	V	D	M	H	G	N	F			
UniRef90_UPI0003669FB2	V	G	D	V	I	G	K	Y	H	P	H	G	D	S	A	V	Y	D	T	I	V	R	M	A	Q	P	F	S	L	R	Y	T	L	V	D	G	H	G	N	F			
UniRef90_Q49XE9	V	G	E	V	I	G	Q	Y	H	P	H	G	D	S	S	I	Y	D	A	M	V	R	L	S	Q	D	F	G	W	K	L	H	V	L	V	D	M	H	G	N	F		
UniRef90_C7M9I4	V	G	E	V	L	G	K	Y	H	P	H	G	D	S	A	V	Y	D	T	M	V	R	M	A	Q	D	F	W	S	L	R	Y	M	L	V	D	G	H	G	N	F		
UniRef90_M1XKV1	V	G	D	T	M	G	N	Y	H	P	H	G	D	S	A	V	Y	D	A	L	A	R	M	A	Q	D	F	S	L	R	Y	P	L	V	D	G	H	G	N	F			
UniRef90_L0D7I2	V	G	E	T	M	K	R	Y	H	P	H	G	D	S	S	I	Y	P	T	L	A	R	M	A	Q	D	F	W	N	M	R	H	L	L	V	D	G	H	G	N	F		
UniRef90_B5IAL1	V	G	E	V	M	G	K	Y	H	P	H	G	D	S	A	V	Y	N	T	L	A	R	M	A	Q	D	F	S	M	R	Y	L	V	D	G	H	G	N	F				
UniRef90_D4YNL7	V	G	D	V	M	G	K	L	H	P	H	S	D	V	A	I	Y	D	A	L	V	R	L	S	Q	D	F	V	M	R	V	P	L	V	D	G	H	G	N	F			
UniRef90_X5H566	I	G	E	V	I	G	K	Y	H	P	H	G	D	S	A	V	Y	D	A	L	V	R	M	A	Q	D	F	S	L	L	V	P	L	V	D	G	H	G	N	F			
UniRef90_UPI0004712E1B	T	G	D	V	M	G	K	Y	H	P	H	G	D	S	S																												





	130	140	150	160
UniRef90_V2YI1	D E T R K E P P K T L	L P S R F F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_R7HJM3	D G Q R E K E P V V L	L P S R F F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_U7UNP3	D D E R E L K E P T T V L	L P S R F F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI0004245562	D D E S E L K E P P T V L	L P S R F F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_Q8XIP7	S D S E M E P P K V L	L P A R Y P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_G2S092	D A S E K E P P A Y L	L P G Y F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_R5HSA9	D V T R K E P P K V L	L P S R F F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI00032AADB	D N S Q K E P P S V L	L P A R F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI0003829373	D D G K Q Q K P P A V L	L P A R Y P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
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UniRef90_T0GGH8	D D T K E Q P P D V L	L P A N F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_D4JWQ7	D D G K Q D E P P T V L	L P V K F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_K9Q432	D G S Q Q E P P V V L	L P A R V P Q L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_I4BU81	D E T L K E P P L V L	L P S L L P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
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UniRef90_I6XRS5	D D G K D T E P P E V L	L P A A F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_A9SV22	D G S Q N E P P A V L	L P A R L P N V L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_Q4UKM1	D G S E E E P P S V L	L P A M F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI00036280E0	D N S Q Q E P P V V L	L P A Q L P T L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_K2DAM6	S G T A Q E P P I W L	L P S L L P N L L L N G A T G I	A V G M A T Q I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_X0QKM8	D D T E K E P P T V L	L P A R F P N L L V N G A T G I	S A G Y A T E I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
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UniRef90_UPI00037C6CC2	D G S E S E P P Q A L	L P S A F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI00036B3172	D D T A Y E P P V V L	L P A R Y P N L L V N G S S G I	S A G Y A T E I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_G2KTP9	D D T A Y E P P T V L	L P A R F P N L L V N G A T G I	S A G Y A T E I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_D2U4I6	D G T E Q I P P D V M	L P T R F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI0002E10C91	D G S E R E P P K V L	L P A R F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI000376EBF0	D G S E Q E P P Q V L	L P A R F P N L L V N G A G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_S9LI55	D D T E K E P P T V L	L P A A F P N L L V N G A T G I	S A G Y A T D I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_K9EDZ2	D D T T E E P P T V L	L P A R F P N L L V N G S S G I	S A G Y A T D I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI000376665D	D G Q E T E P P V V M	L P S A F P N L L V N G T S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_D8GPS9	S G S E K E P P E V L	L P A R Y P N L L V N G A F G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI0003B31FF1	D E T E K E P P T V L	L P A R F P N L L V N G T T G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI000360DA4A	D E S Q L E P P S V L	L P A E F P N M L V N G A G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_R5XE38	D D R L K E P P S V L	L P T R F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_B0R4D5	D D R L T E P P A V L	L P S S F P N L L V N G S S G I	A V G M S T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI00046A1629	D D T E Y E P P T V L	L P A R F P N L L V N G A T G I	S A G Y A T E I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_K1MKP7	S Q E E R E P P V V L	L P A R F P N L L V N G A G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_H6Q5V6	D D T E Y M P P E I M	L P T K F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_B7IDD3	D G S L K E P P E V L	L P S K F P N L L L A N G S T G I	A V G M T T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_M4SEK4	D G S L Q E P P Q V L	L P S R F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_G9WFX9	D D T R Y E P P T V L	L P S R F P N L L V N G S S G I	S A G Y A T E I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_U2D2P1	D D T L Q E P P T V L	L P T R F P N L L V N G A G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI0003B6ADB3	D D T E Y E P P T V L	L P A H F P N L L V N G A T G I	S A G Y A T D I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_R7KC71	D D S L K E P P T V L	L P A R F P N L L V N Y G A Q G I	S A G Y A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_U4KRN7	D D E L E P P T V L	L P A K F P N L L V N G A G I	S S G Y A T K I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI0003669FB2	D G S E Q I P P V V L	L P T K V P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_Q49XE9	D D T T L E P P M V L	L P A R L P N L L V N G S S G I	S A G Y A T D I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_C7M9I4	D D S R E E P P I V L	L P T R F P N L L V N G S A G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_M1XKV1	D D R L T E P P A V L	L P A A L P N L L V N G A S G I	A V G M S T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_L0D712	D E K H Q E P P R V L	L P G K F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_B5IAL1	D G T L K E P P V V L	L P A R F P N L L V N G S S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_D4YNL7	D N S L T Q P P E V L	L P S A F P N L L V N G A S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_X5H566	D T S E N E P P V V L	L P A K F P N I L V N G A G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI0004712E1B	D G T L S E P P V V V	L P A K F P N L L V N G A G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_A5GRY6	D G S Q Q E P P T V L	L P A R V P Q L L L N G S A G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_B3TAI1	D D T E T E P P T V L	L P A R L P N L L L N G S D G I	A V G M A T K I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_G4L8L2	D D T E E E P P T V L	L P A K F P N L L V N G S T G I	S A G Y A T E I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_D0BKA5	D D T E E E P P T V L	L P A R F P N L L V N G A T G I	S A G Y A T E I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_U7D827	D E S T E E P P K V L	L P A K V P Q L L L N G S T G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_UPI000344E555	D G Q E T E P P E V L	L P A A F P N L L V N G A S G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_W7C8J4	D D T S S E P P T V L	L P A R F P N L L V N G S S G I	S A G Y A T D I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_J5VYS4	D D S T V E P P T V L	L P A R F P N L L V N G S A G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_H0QM31	D N Q L T Q P P E V L	L P A A F P N L L V N G T T G I	A V G M A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_R6BM53	D D Y S Y E P P T V L	L P A Y F P N L L V N G S T G I	S A G Y A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
UniRef90_W4F2F5	D D D Q D M E P P T V L	L P A R F P N L L V N G S T G I	S A G Y A T D I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
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UniRef90_D2MM14	D D T D I E P P T V L	L P V S F P V M L V N G A T G I	A A G Y A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
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UniRef90_R7MHU7	S D E D L E P P T V L	L P A H F P N L L V N G S T G I	S A G Y A T N I P P H N M R G E E	E E E E E E E E E E E E E E E E E E
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A I N A V V S Y M R N E D D I S I E E T V T E L M Q D L K G P D F F P T T G A I I I L G G  
I I D G L V A Y I D N N R D I T P E L M Q Y I T A P D F F P T T G A I I I L G G  
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V V S A L K A Y I D N N D I S I D E L L D N H I L G P D F F P T T G G A L M T N  
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V A A G V Q W Y L E H P E A T R E E L L E A V L T R V H G P D F F P T T G G A Q I L G  
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T I E A V V S V I R N P D I T P E L L K I M P G P D F F P T T G G G I I I L G  
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I V D G L V A L I D R P D L S D E K L F Q L I P G P D F F P T T G G G E I I G  
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V C D A V V A W I D N P C I E L D E L L E I P A P D F F P T T G A T I C  
I V D A L L Y L I D H P D A D V D E L L E F V K G P D F F P T T G G T I I G  
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U N I R E F 9 0 \_ F 6 F W G 6 E L K R E A M S E I V L N N L Y K S T N M E V T F G V I L L A I H N K E P K V F  
U N I R E F 9 0 \_ U P I 0 0 0 4 6 A A 2 6 0 D Y K K D A N V E I I N N Y L L K N T H L Q V N Y N F N M T A I H N K R P V R L  
U N I R E F 9 0 \_ U 2 E F P 0 I L K Q N T N S N I L L N Q L F Q Y T S L Q T Y F N V N N I A L V N G K P V Q L  
U N I R E F 9 0 \_ M 4 Z S W 1 E P R T R A E P D H L M E M L F K N T E L E I R F G L N M N V L D D N T P R V M  
U N I R E F 9 0 \_ K 2 L U F 5 E P R N R V D T D A L M N H L F A T T D L E K T I R V N L N M I I D D G K P Q V K  
U N I R E F 9 0 \_ A 4 B A P 5 D L K K G A D S Q L M L N Y L L K T S D L Q Q S Y N Y N M V A I L K H R P V L S  
U N I R E F 9 0 \_ U P I 0 0 0 4 7 0 9 8 4 0 T L K S G F N P E A V L H Q L Y K H T P M E D S F G I N N V A L V N G G P R T L  
U N I R E F 9 0 \_ S 3 X U Q 5 U N I R E F 9 0 \_ U 4 W G S 9 E L K K E A D A Q A I L H Y L Y K N T D L Q Q I F Y N Y N N V A I H E G T K Q M  
U N I R E F 9 0 \_ U 4 W G S 9 E L K R D A S P E L V L N Q L Y A H T R L E T S F G V I N L A L V D S K P K T L





UniRef90_V2YI1	A	Q	D	N	I	D	E	V	I	H	I	R	N	S	Y	D	N	A	K	E	R	L	M	S	R	F	G	L	S	S	E	D	V	Q	Q	A	A	I	L	L								
UniRef90_R7HJM3	A	L	D	N	I	D	D	R	V	I	K	I	R	R	S	S	A	D	D	E	A	R	K	E	G	L	M	S	R	F	G	L	S	S	E	D	V	Q	Q	A	A	I	L	L				
UniRef90_U7UNP3	A	L	D	N	I	D	D	R	V	I	S	E	L	V	R	R	S	S	A	D	D	E	A	R	K	E	G	L	M	S	R	F	G	L	S	S	E	D	V	Q	Q	A	A	I	L	L		
UniRef90_UPI0004245562	A	L	D	N	I	D	D	R	V	I	S	E	L	V	R	R	S	S	A	D	D	E	A	R	K	E	G	L	M	S	R	F	G	L	S	S	E	D	V	Q	Q	A	A	I	L	L		
UniRef90_Q8XIP7	A	I	G	I	M	D	E	V	I	A	T	I	R	R	S	S	A	K	T	T	E	E	A	K	Q	Q	L	L	T	S	E	D	R	F	G	L	S	S	E	D	V	Q	Q	A	A	I	L	L
UniRef90_G2S092	V	L	S	N	V	D	E	V	I	E	I	K	E	S	A	K	S	T	T	E	E	A	K	Q	Q	L	L	T	S	E	D	R	F	G	L	S	S	E	D	V	Q	Q	A	A	I	L	L	
UniRef90_R5HSA9	A	L	D	N	I	D	D	R	V	I	K	I	R	R	S	S	A	K	T	T	E	E	A	K	Q	Q	L	L	T	S	E	D	R	F	G	L	S	S	E	D	V	Q	Q	A	A	I	L	L
UniRef90_UPI00032AADB	G	F	N	N	L	D	R	V	I	R	I	R	E	A	S	S	N	T	I	J	A	A	E	G	L	L	R	N	E	F	N	L	S	S	E	D	V	Q	Q	A	A	I	L	L				
UniRef90_UPI0003829373	A	L	D	N	I	D	D	R	V	I	A	T	I	R	R	S	S	A	S	A	D	E	V	A	R	E	A	L	K	E	L	L	D	I	D	D	V	Q	Q	A	A	I	L	L				
UniRef90_A0A023DXN9	A	L	C	H	I	D	E	V	V	A	T	I	R	R	S	S	A	K	N	R	E	A	L	E	A	L	V	A	K	T	W	N	V	D	S	L	I	H	Q	I	L	L						
UniRef90_T0GGH8	A	L	E	N	I	D	E	V	I	K	V	I	R	R	S	S	K	N	A	A	E	E	A	K	E	Q	L	M	L	R	F	V	L	S	S	E	D	V	Q	Q	A	A	I	L	L			
UniRef90_D4JWQ7	A	L	D	N	I	D	D	R	V	I	S	I	L	R	R	S	S	K	S	V	A	E	G	K	E	R	L	M	E	R	F	G	L	S	S	E	D	V	Q	Q	A	A	I	L	L			
UniRef90_K9Q432	A	L	S	N	L	D	D	V	I	A	L	L	R	R	R	A	A	D	S	A	T	A	R	T	E	L	E	M	E	G	Y	E	L	S	S	E	D	V	Q	Q	A	A	I	L	L			
UniRef90_I4BU81	A	L	D	V	I	D	E	I	T	L	I	R	R	G	S	Q	D	I	Q	S	A	K	V	G	L	L	T	E	T	F	G	F	T	S	E	D	V	Q	Q	A	A	I	L	L				
UniRef90_UPI00031F7ADF	A	I	S	V	L	D	D	Q	L	I	T	T	I	R	R	S	S	K	D	K	A	E	A	K	S	R	L	I	E	G	Q	F	G	F	T	S	E	D	V	Q	Q	A	A	I	L	L		
UniRef90_I6XRS5	A	I	V	D	I	D	E	V	I	A	T	I	R	R	S	S	K	D	A	A	E	A	R	T	E	L	M	E	G	A	F	D	L	S	S	E	D	V	Q	Q	A	A	I	L	L			
UniRef90_A9SV22	G	L	S	N	L	D	D	G	V	V	K	I	R	R	S	S	A	K	N	D	T	A	Q	A	S	E	G	L	M	Q	K	G	F	N	V	T	E	P	A	Q	A	A	I	L	L			
UniRef90_Q4UKM1	A	V	S	N	I	D	D	E	V	I	R	I	K	A	S	N	N	G	P	N	A	A	K	M	E	L	M	A	R	S	W	F	T	S	E	D	V	Q	Q	A	A	I	L	L				
UniRef90_UPI00036280E0	A	L	D	R	L	D	D	V	I	D	L	L	R	K	N	A	P	D	G	T	T	A	K	M	E	L	M	Q	N	R	C	E	F	S	E	A	Q	A	A	I	L	L						
UniRef90_K2DAM6	A	V	D	N	I	D	D	E	V	I	D	T	I	R	K	S	K	D	S	D	A	A	R	E	N	L	M	K	K	F	K	L	S	S	E	D	V	Q	Q	A	A	I	L	L				
UniRef90_X0QKM8	A	L	S	I	L	D	D	K	V	I	K	T	I	R	R	S	S	K	D	K	E	S	A	K	V	K	L	Q	A	D	Y	G	F	S	S	E	D	V	Q	Q	A	A	I	L	L			
UniRef90_U1WQI5	A	I	D	I	V	D	D	D	L	V	D	R	I	R	R	S	S	E	N	A	Q	A	K	E	R	L	L	D	R	F	S	L	T	T	D	T	Q	T	Q	Y	I	L	L					
UniRef90_UPI00037C6CC2	A	L	V	D	I	D	E	V	I	R	I	R	R	A	S	E	N	A	Q	A	K	E	R	L	L	D	R	F	S	L	T	T	D	T	Q	T	Q	Y	I	L	L							
UniRef90_UPI00036B3172	A	L	N	I	L	D	D	E	V	I	A	A	I	R	R	S	S	K	N	R	K	D	A	R	D	N	L	Q	W	M	E	G	F	T	T	E	R	Q	Q	A	A	I	L	L				
UniRef90_G2KTP9	A	L	S	I	L	D	D	E	V	I	S	T	I	R	R	S	S	K	N	R	K	D	A	R	D	N	L	Q	M	S	E	Y	D	F	T	T	E	K	Q	A	A	I	L	L				
UniRef90_D2U4I6	A	L	A	N	I	D	P	I	I	E	L	I	R	Q	S	T	P	N	E	A	K	L	A	L	L	J	A	R	P	W	L	T	T	E	P	Q	A	Q	A	A	I	L	L					
UniRef90_UPI0002E10C91	A	L	D	H	I	D	D	A	I	Q	L	I	R	Q	S	K	T	A	D	E	A	R	E	G	L	M	T	H	Y	Q	L	T	S	E	D	V	Q	Q	A	A	I	L	L					
UniRef90_UPI000376EBF0	A	V	T	N	L	D	D	E	V	V	K	I	R	G	S	A	V	E	A	V	E	K	E	A	T	L	G	D	T	Y	T	L	S	E	D	V	Q	Q	A	A	I	L	L					
UniRef90_S9LI55	V	L	S	I	L	D	D	E	V	I	A	L	I	R	R	S	E	N	K	A	D	A	K	E	N	L	K	V	S	Y	E	F	S	S	E	A	Q	A	A	I	L	L						
UniRef90_K9EDZ2	A	I	S	I	L	D	D	D	L	I	Q	T	I	R	R	S	E	N	K	A	N	A	K	E	N	L	I	Q	A	Y	G	F	S	S	E	D	V	Q	Q	A	A	I	L	L				
UniRef90_UPI000376665D	A	L	L	N	I	D	D	E	V	I	Q	V	I	R	R	S	S	D	D	S	A	N	A	K	R	L	L	M	D	V	F	D	L	T	E	Q	Q	A	A	I	L	L						
UniRef90_D8GPS9	A	L	G	I	M	D	E	I	I	K	T	I	R	R	S	S	K	S	K	K	D	A	A	S	N	L	M	E	Q	F	D	F	T	Y	P	Q	A	A	I	L	L							
UniRef90_UPI0003B31FF1	A	L	D	N	I	D	D	E	V	I	S	I	L	R	R	S	S	A	T	T	Q	A	A	K	S	R	L	M	D	R	F	G	L	T	S	E	D	V	Q	Q	A	A	I	L	L			
UniRef90_UPI000360DA4A	A	L	T	S	I	D	D	E	V	I	D	L	L	K	T	S	P	E	V	A	R	S	R	L	L	C	S	L	S	W	F	S	P	L	I	Q	A	K	A	I	L	L						
UniRef90_R5XE38	A	I	D	I	V	D	E	I	I	A	T	I	R	S	C	K	G	K	S	E	A	K	L	A	L	M	E	K	F	G	F	D	D	P	Q	A	T	A	I	L	L							
UniRef90_B0R4D5	A	L	E	N	A	D	D	E	V	I	E	L	I	R	Q	D	A	E	N	K	D	R	S	D	A	K	E	T	L	K	S	A	F	D	F	S	Q	D	Q	A	D	H	I	L	L			
UniRef90_UPI00046A1629	A	L	S	I	L	D	D	E	V	I	E	T	I	R	R	S	S	K	N	K	S	D	A	K	L	N	L	L	J	V	D	K	F	E	F	T	E	Q	Q	A	A	I	L	L				
UniRef90_K1MKP7	A	L	D	H	I	D	E	I	I	H	I	I	R	R	S	S	H	D	G	D	T	A	K	D	K	L	L	J	S	Q	Y	H	L	T	E	V	Q	A	Q	A	I	L	L					
UniRef90_H6Q5V6	A	L	L	N	V	D	D	T	V	I	N	L	V	K	K	S	T	S	L	E	E	A	Q	K	R	L	L	T	S	Y	T	W	M	T	K	N	Q	A	A	I	L	L						
UniRef90_B7IDD3	A	S	R	S	I	D	D	E	V	I	S	V	I	K	K	S	E	D	Q	N	S	A	H	E	L	L	I	D	I	D	M	F	N	F	T	E	T	Q	A	K	A	I	L	L				
UniRef90_M4SEK4	A	V	T	N	L	D	D	E	V	V	R	I	R	G	S	S	S	P	A	E	A	R	A	A	L	L	L	A	R	E	W	L	S	D	A	Q	V	R	A	I	L	L						
UniRef90_G9WFX9	M	L	S	I	L	D	D	E	V	A	T	I	R	R	S	S	S	R	K	Q	A	K	D	N	L	L	V	K	K	F	D	F	S	S	E	Q	A	Q	A	A	I	L	L					
UniRef90_W2D2P1	A	S	D	H	I	D	D	E	V	I	A	L	I	R	R	S	S	P	Q	Q	A	I	D	R	L	L	R	E	R	F	E	L	S	E	V	Q	A	R	A	I	L	L						
UniRef90_UPI0003B6ADB3	A	M	S	I	L	D	D	V	I	A	T	I	R	R	S	S	K	D	R	K	D	A	K	Q	N	L	V	A	Q	Y	D	F	S	S	E	N	E	Q	A	A	I	L	L					
UniRef90_R7KC71	C	L	S	I	L	D	D	E	V	I	K	T	I	R	R	S	S	K	N	K	S	D	A	K	E	N	L	V	K	E	Y	A	F	S	Y	E	Q	A	E	A	I	L	L					
UniRef90_U4KRN7	M	V	D	I	V	D	D	E	V	I	K	T	I	R	R	S	S	K	N	K	S	N	S	K	D	N	L	L	I	K	Q	F	A	F	T	D	L	Q	A	E	A	I	L	L				
UniRef90_UPI0003669FB2	A	L	A	N	I	D	P	V	I	A	L	I	K	A	S	P	T	A	A	E	A	K	E	K	L	L	L	A	Q	A	W	L	S	E	A	Q	A	Q	S	I	L	L						
UniRef90_Q49XE9	A	L	S	I	L	D	D	E	V	I	K	L	I	R	R	S	S	K	N	K	K	D	A	K	D	N	L	V	A	E	F	D	F	T	E	A	Q	A	E	A	I	L	L					
UniRef90_C7M9I4	V	M	A	T	E	D	T	M	G	K	A	I	E	I	R	A	S	K	H	H	D	P	K	D	L	L	J	A	E	F	D	L	T	D	V	Q	A	E	A	I	L	L						
UniRef90_M1XKV1	A	L	D	N	V	E	R	V	V	E	L	V	R	D	S	E	D	R	D	A	A	M	A	G	L	L	R	E	A	Y	D	L	S	E	A	Q	A	E	H	I	L	L						
UniRef90_L0D712	A	L	S	Y	I</																																											

UniRef90\_V2YI1 D M R L T A L Q G L N R E K L E A E Y K E L E E R V I A Y F N E L L A S E T M L R  
UniRef90\_R7HJM3 D M R L K R R L T G L E K S K L E E E I A K E L E K L V K E L N E S L L A S E E K I L R  
UniRef90\_U7UNP3 D M R L K R R L T G L E R E R E K L D N Q E Y N D L I M A L L I A E K L E E S L L A S E N K D K L D  
UniRef90\_UPI0004245562 D M R L K Q R R L T G M E R E K L I Q E Y K D I M A L L I A E K L E E S L L A S E N K D K R M  
UniRef90\_Q8XIP7 E L M L Y R R L T G L E K V F Q K E H K E L S K K I K A L R K K L L A N E N E S V L L  
UniRef90\_G2S092 E M R L Q R R L V G L E R E K L W E E M Q S L Q E R L T E Y L D K L L L N N S K E R Q N  
UniRef90\_R5HSA9 E M R L R R R L T G L E R E K L A E L K T I E L L R A L L L N N S K E R L L  
UniRef90\_UPI00032AADB D M S L R R R L T G L R E S D N F V A E N K S L V E Q I S K L E E L L S S S R K N L L  
UniRef90\_UPI0003829373 Q M Q L R R R L A A G L S Q K E I Q D D E Y D E L M A R N I A E Y D R L E S S P  
UniRef90\_A0A023DXN9 S L R L H R R L T A G M G S Q E L S D D E Y D E K L M A S N I A E F Y L G L R D D A K I E  
UniRef90\_T0GGH8 E M R L Q R R L T S L E V Q K V I S D E L E E V R L L I L D L K D L L S N S P A R R V S K  
UniRef90\_D4JWQ7 Q M R L R R R L T G L E R D K V I S E E L A E I M E K I N D F L D L L S S R D E R V V D  
UniRef90\_K9Q432 Q M Q L R R R L T A L E A D K I Q A E H E D L Q L K I T D L E D I L S A R R E R V K D D  
UniRef90\_I4BU81 D M R L Q R R L T N L E R N K K L E E E L K Q L Q D I E K Y R T I L D N P S A K L D A  
UniRef90\_UPI00031F7ADF N L Q L R R R L T N T D I T S L E K E A D E L K A A R I T E L L S S I L A D D D T K L A N  
UniRef90\_I6XRS5 D M Q L L R R L T T K Y S T L E L N A E A D E L A A R I D E L L Q R L L E S K T H R V L L  
UniRef90\_A9SV22 A M P L R R R L T S L E S G K L K E E H D A L T A E I T D L K Q L L E S K T H R V L L  
UniRef90\_Q4UKM1 E M R L R R R L T A M E R K N K L E E E D L K N L A T A E I T E Y L N L G S R T R L L  
UniRef90\_UPI00036280E0 A M P M R R R L T G M E R Q N K L E Q Q E F D E L T Q R G E V L Q R L G D R H H L M  
UniRef90\_K2DAM6 D M Q L R R R L A A L E R Q K I E D E L K L V R Q M T A Y L E D L L A H P E K I L L  
UniRef90\_X0QKM8 V L Q L Y R R L T N T D V T E L Q T K E H D Q L S S K D I T R Y T D L L A H P A S K I A  
UniRef90\_U1WQI5 D M R L Q A L T G L S I E R L T D E Y N E L S S S K D I E E L R A I L G D E N A S K I L  
UniRef90\_UPI00037C6CC2 D T P L R R R L T R F D R L E L E Q E K E E L S T E I A R L T R I L E S D A R K L R N D  
UniRef90\_UPI00036B3172 T L Q L Y R R L T N T D I T N Q L L K E K E H A A L E K R I A V L E G S I L S S A R K L  
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UniRef90\_D2U4I6 D L R L Q R R L T S L E H D K L L D E Y R E L L K Q L A A L L Y L L A T S P E  
UniRef90\_UPI0002E10C91 D M R L T G  
UniRef90\_UPI000376EBF0 D L R L H R R L T A L G R D E I G D E L K E L A G S I A E L L E I L G N R A R L Y  
UniRef90\_S9LI55 T L Q L Y R R L T N T D I V T L R E E E E E L R Q Q I T M L K A I I L S D E R T M Y  
UniRef90\_K9EDZ2 S L Q L Y R R L T N T D I K D L Q A E A K D L A Q G A I L T Y Q D L L T N S K A S L D  
UniRef90\_UPI000376665D D T P L R R R L T R Y D K L E L D A E K E T L T G E I A K L L T L L S S E K A K L R  
UniRef90\_D8GPS9 E L M L Y R R L T G L E I D S F E K E H E K L L K V I K K L T K I L L S E S E K E I L L  
UniRef90\_UPI0003B31FF1 E M R L K A L T G L E R N K L E E D E T H A Q L I K Q Q I A E W K A L L A D E N L  
UniRef90\_UPI000360DA4A E L R L Q R R L T G M E R N K L L E K E T A E E L S Q Q I N E Y L D I L S N K E K L T  
UniRef90\_R5XE38 N F Q L G Q L A G L E I E K I T N E L A E L K E K I A D Y E D I L A N E S Q R V F  
UniRef90\_B0R4D5 R M Q L G S L T S M E A A D I E S E Y E D V T A R I E R L E E I L L G S N P  
UniRef90\_UPI00046A1629 S L Q L Y R R L T N T D V T S L Q K E A A E L E N N I A K F E E L L S N  
UniRef90\_K1MKP7 D M R L V R L T G  
UniRef90\_H6Q5V6 D L R L H K R L V K L E Q K K L I T D E Y K N L T Q K S Y Y L K Q I L I K Y P K K V L L  
UniRef90\_B7IDD3 D L R L H G R L T A L G L E S K K L I D D E Y N D L V N K M K V E K E L I L G N D R A R L Y  
UniRef90\_M4SEK4 D L R L H R R L T A L G L R D E I G D E L A K L A T S I G E L L H I L G N D R A R L Y  
UniRef90\_G9WFX9 T L Q L Y R R L T N T D V T A L Q Q R E H D Q L L Q Q I N E F N L I L N E P R E L L  
UniRef90\_W2D2P1 E M R L Y R R L T G L E Q E K L R A E Y E E I E K L I A R L K E I L E N E N D R L L  
UniRef90\_UPI0003B6ADB3 T M Q L Y R R L T N T D V T Q L E N E S A E L K D K I A E Y E L I L A E P K E L R  
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UniRef90\_U4KRN7 T L Q L Y R R L S S T D I D V E L I K E S N E L D E R I L W L K D V L S D E Q K L L  
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S V V R E E L L E L K K Q F G D A R K T E I I  
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A L V S S E L D E M A E R F G T P R R T V L L A  
Q I I E K E A L V L K K E Y G T P R R T  
E L L K E E L I K V K K E E F A T P R L T S I  
K S L K K D L R A L K R K F G D K R L T R I V  
K V I K E E L L K V K D K Y A D D R R T R V  
K L I K K E A L G V K K Q Y V S P R K T Q I  
A I I N E E L T E I K G Y G D E R R R T E I T  
K V V S N E L A A V A K K Y G T E R R R T V L L  
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Q V V S G E L A D V A K K Y G T P R R T V L L  
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N L I Q N E L D E V L K K I D I R R R T E I T  
D I I K S E S Q E I V N K F D D D R R T E I  
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K V L K K E L Q E I D K S Y S N P R K S E V Q A  
Q V I R D E F Q E I I D K Y G D E R K T D I V  
K V L R G E L K A I K K T Y A T P R R S Q I  
K V M K E E L K K V K S E Y N G T E I T E V  
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E V I T E E L E A V R D E F G D D R M T E I T S  
N V I K E E L T E I R N R F K Q G R L S S I E A  
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D V I K D E L E A V K A S Y D D E R R T G I V  
D L I R A D M R E L K S K Y A N P R R S V I  
G V I K E E L F E L K N L Y G D K R R T D I  
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Q V M K Q E L R E L K K K Y A T P R L T E I Q A  
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R I V S K E L A E V A K K Y G T P R R T L L  
A V L K Q E L T E I K K S Y K T P R L T E I Q A  
Q L I R E E L L E I K E K Y G D E R R S E I I  
E L V S G E L G E I A E K Y G T P R R T V L L  
S V I K D K L R S I K K E Y A D P R R T T I  
S V I R K E L Q D V R K R F A E P R R S  
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K A M K K D L R Y L K K K H G D A R R T R I  
K I I K K E L N I V K K Y G D L R R T E I  
Q T I K K E L R Q I K K K F A D P R R T V I  
K L L E K E L L E I K K K Y G D E R R T V L  
K A L K K E L R S F K K K Y G D N R R T K I I  
K L V S T E L A E V A K K H G T P R R T V L L  
T L V L K E L R E M V D A Y G R D R R T R I V S  
K E I V E R L R E V K Q F A I P R R S E I T  
G V V S A E M G E V A K A Y G T P R R T V L L  
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T V I T N E L L N D V K K N Y K S Q R R T  
K I I K K E L L E I Q K K Y K D K R R T Q I  
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K T I K T E L L E V Q K Q L Q S P R K T E L E A  
R V V S A E L Q A V A E E H G T P R R T L L  
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	50										60										70										80														
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UniRef90_I7ZCM7	V	G	D	V	I	G	K	Y	H	P	H	G	D	S	A	C	Y	E	A	M	V	T	M	A	Q	D	D	F	N	Y	R	Y	P	L	V	D	D	G	Q	G	N	W			
UniRef90_K8GPT7	V	G	D	V	L	G	K	Y	H	P	H	G	D	Q	A	V	Y	D	A	L	V	R	M	V	Q	D	D	F	S	S	R	Y	P	L	V	D	D	L	A	G	H	G	N	F	
UniRef90_A0A033V433	V	G	N	V	I	G	N	Y	H	P	H	G	D	S	S	V	Y	E	A	M	V	R	M	S	Q	D	D	W	K	L	R	H	V	L	I	E	M	H	G	N	N				
UniRef90_K1X190	V	G	D	V	L	G	K	Y	H	P	H	G	D	S	S	V	Y	E	A	M	V	R	M	A	Q	D	D	F	S	M	R	Y	T	L	V	D	D	G	Q	G	N	F			
UniRef90_K9YVW8	V	G	D	V	L	G	K	Y	H	P	H	G	D	Q	A	V	Y	D	A	L	V	R	M	V	Q	D	D	F	S	T	R	Y	P	L	V	D	D	L	A	G	H	G	N	F	
UniRef90_UPI000479DFCE	A	G	E	V	M	G	K	Y	H	P	H	G	D	S	S	I	Y	D	A	M	V	R	M	S	Q	D	D	E	F	S	T	R	Y	P	L	V	D	D	L	A	G	H	G	N	F
UniRef90_UPI0002EAB6C6	V	G	R	T	M	E	R	Y	H	P	H	G	D	M	S	I	Y	D	T	L	V	R	L	A	Q	D	D	W	V	L	R	Y	K	L	V	H	G	Q	G	N	F				
UniRef90_J6J583	V	G	D	V	I	G	K	Y	H	P	H	G	D	T	S	V	Y	D	A	M	V	R	L	A	Q	D	D	F	A	Q	R	Y	P	L	V	D	D	G	Q	G	N	F			
UniRef90_D5V0S3	V	G	D	V	I	G	K	Y	H	P	H	G	D	T	S	V	Y	D	A	L	V	R	M	A	Q	D	D	F	S	M	R	E	P	L	I	D	D	G	Q	G	N	F			
UniRef90_E8RSX2	V	G	E	V	M	G	N	F	H	P	H	G	D	Q	S	I	Y	D	A	L	V	R	M	A	Q	D	D	W	F	A	Q	R	Y	P	M	V	D	D	G	Q	G	N	F		
UniRef90_R5SNV7	V	G	D	T	M	G	K	Y	H	P	H	G	D	S	S	I	Y	D	A	L	V	H	M	T	E	E	F	S	L	S	I	P	L	I	D	D	G	H	G	N	F				
UniRef90_UPI00037ECA09	V	G	D	V	I	G	K	F	H	P	H	G	D	Q	S	I	Y	D	A	L	V	R	L	A	Q	D	D	F	A	Q	R	Y	P	L	V	D	D	G	Q	G	N	F			
UniRef90_K9XQ85	V	G	D	V	L	G	K	Y	H	P	H	G	D	Q	A	V	Y	D	A	L	V	R	M	A	Q	D	D	F	S	T	R	Y	P	L	I	D	D	G	H	G	N	F			
UniRef90_V4RAP1	V	G	D	V	I	G	K	F	H	P	H	G	D	Q	A	V	Y	D	A	M	V	R	L	A	Q	D	D	F	S	V	R	Y	P	L	V	D	D	G	Q	G	N	F			
UniRef90_UPI000361B5C5	V	G	D	V	I	G	K	Y	H	P	H	G	D	V	A	I	Y	D	T	L	V	R	M	A	Q	D	D	G	F	S	M	R	Y	P	L	I	E	G	Q	G	N	F			
UniRef90_A0A011VN80	V	G	E	V	M	G	K	F	H	P	H	G	D	Q	S	I	Y	D	A	L	V	R	L	A	Q	D	D	G	F	S	M	R	Y	P	L	V	D	D	G	Q	G	N	F		
UniRef90_Q0C3T5	V	G	D	V	M	G	N	Y	H	P	H	G	D	S	S	I	Y	D	T	L	V	R	L	A	Q	D	D	F	N	Y	R	Y	P	L	V	D	D	G	Q	G	N	F			
UniRef90_UPI000255A8E4	V	G	D	V	L	G	K	F	H	P	H	G	D	S	A	C	Y	E	A	M	V	L	M	A	Q	D	D	F	S	Y	R	Y	P	L	V	D	D	G	Q	G	N	W			
UniRef90_Q47WK0	V	G	D	V	L	G	K	F	H	P	H	G	D	S	A	C	Y	E	A	M	V	L	M	A	Q	D	D	F	S	Y	R	Y	P	L	V	D	D	G	Q	G	N	W			
UniRef90_X5LB10	V	G	D	V	L	G	K	F	H	P	H	G	D	S	A	C	Y	E	A	M	V	L	M	A	Q	D	D	F	S	Y	R	Y	P	L	V	D	D	G	Q	G	N	W			
UniRef90_R5QWA6	V	G	N	V	I	G	N	Y	H	P	H	G	D	T	S	V	Y	D	A	M	V	R	L	S	Q	D	D	E	W	K	I	R	A	P	L	I	D	M	Q	G	N	N			
UniRef90_Q0FAB4	S	G	D	T	M	G	D	F	H	P	H	G	D	A	A	I	Y	D	A	M	A	R	L	A	Q	D	D	F	S	V	R	Y	P	M	V	D	D	G	Q	G	N	F			
UniRef90_I7C1Y2	V	G	D	V	L	G	K	F	H	P	H	G	D	S	A	C	Y	E	A	M	V	L	M	A	Q	D	D	F	S	Y	R	Y	T	L	V	D	D	G	Q	G	N	W			
UniRef90_V2USW1	V	G	D	V	L	G	K	Y	H	P	H	G	D	S	A	C	Y	E	A	M	V	L	M	A	Q	D	D	F	S	Y	R	Y	T	F	I	D	D	G	Q	G	N	W			
UniRef90_K2HAW8	V	G	T	V	I	G	N	Y	H	P	H	G	D	S	S	V	Y	E	A	M	V	R	L	S	Q	T	D	W	K	V	R	Y	P	L	I	E	M	H	G	N	N				
UniRef90_B8HNL0	V	G	D	V	L	G	K	Y	H	P	H	G	D	Q	S	V	Y	E	A	L	V	R	M	V	Q	D	D	F	S	S	R	Y	P	L	V	D	D	G	H	G	N	F			
UniRef90_W9VIR1	V	G	D	V	L	G	K	F	H	P	H	G	D	S	A	C	Y	E	A	M	V	L	M	A	Q	D	D	F	S	Y	R	Y	P	L	V	D	D	G	Q	G	N	W			
UniRef90_A7HX51	V	G	D	V	I	G	R	Y	H	P	H	G	D	Q	S	V	Y	D	A	L	V	R	L	A	Q	D	D	F	S	V	R	Y	P	L	V	D	D	G	Q	G	N	F			
UniRef90_C0D091	V	G	D	T	M	G	K	Y	H	P	H	G	D	S	S	I	Y	E	T	L	V	V	L	A	Q	D	D	E	F	K	K	G	M	T	L	V	D	D	G	H	G	N	F		
UniRef90_R6R0N2	V	G	D	T	M	G	K	Y	H	P	H	G	D	S	S	I	Y	E	T	L	V	V	M	A	Q	D	D	E	F	K	K	G	Q	P	L	V	D	D	G	H	G	N	F		
UniRef90_UPI0003674B6C	V	G	D	V	I	G	K	Y	H	P	H	G	D	Q	S	V	Y	D	A	M	V	R	L	A	Q	D	D	F	A	V	R	F	P	L	V	D	D	G	Q	G	N	F			
UniRef90_G4R626	V	G	D	V	I	G	K	F	H	P	H	G	D	Q	S	V	Y	D	A	L	V	R	M	A	Q	D	D	F	A	V	R	Y	P	L	V	D	D	G	Q	G	N	F			
UniRef90_M1YMM4	I	G	E	V	L	G	K	F	H	P	H	G	D	T	S	Y	D	S	M	V	R	M	A	Q	D	D	F	A	M	R	Y	P	L	V	D	D	G	K	G	N	F				
UniRef90_G9ZY17	V	G																																											



		130	140	150	160																																														
UniRef90_H8N0U2	D	G	T	R	D	E	P	V	V	L	P	A	R	V	P	Q	L	L	M	N	G	T	G	I	A	V	G	M	A	T	N	M	L	P	P	H	H	L	L	G	E										
UniRef90_F9EHB4	D	Y	T	L	T	E	P	G	V	L	P	A	S	L	P	N	L	L	V	N	G	S	G	I	A	V	G	M	A	T	N	M	A	P	P	H	H	L	L	L	G	E									
UniRef90_UPI0003686E19	D	N	Q	F	T	Q	P	G	V	L	P	A	A	F	P	N	L	L	V	N	G	S	G	I	A	V	G	M	A	T	N	M	A	P	P	H	H	L	L	L	G	E									
UniRef90_C5B4N9	D	N	S	C	K	E	P	V	V	L	P	A	A	F	P	N	L	L	V	N	G	S	G	I	A	V	G	M	A	T	N	M	A	P	P	H	H	L	L	L	G	E									
UniRef90_R6WUPO	D	D	T	M	K	E	P	V	V	L	P	C	R	F	P	N	L	L	V	N	G	A	T	G	I	A	V	G	F	S	T	N	I	L	P	P	H	H	L	L	L	G	E								
UniRef90_K0D9N7	D	D	T	T	Y	E	P	T	V	L	P	A	S	R	F	P	N	L	L	V	N	G	A	T	G	I	S	A	G	Y	A	T	N	I	L	P	P	H	H	L	L	L	K	R	E						
UniRef90_U1QRD8	D	N	K	L	E	E	P	T	V	L	P	A	A	F	P	N	L	L	V	N	G	A	T	G	I	A	V	G	M	A	T	N	M	V	T	P	P	H	H	L	L	L	R	E							
UniRef90_UPI00037BE4C8	D	G	T	M	D	E	P	K	V	L	P	A	S	R	A	P	N	L	L	V	N	G	S	G	I	A	V	G	M	A	T	D	I	L	P	P	H	H	L	L	L	V	R	E							
UniRef90_V8C8F7	D	D	T	Q	K	F	E	P	D	V	L	P	A	R	F	P	N	L	L	V	N	G	S	G	I	A	V	G	M	A	T	N	M	A	P	P	H	H	L	L	L	R	I	D	E						
UniRef90_U2XJT8	D	G	S	Q	Q	E	P	V	V	L	P	A	A	F	P	N	L	L	V	N	G	T	T	G	I	A	V	G	M	A	T	N	M	A	P	P	H	H	L	L	L	L	L	E							
UniRef90_B1XQN0	D	G	S	Q	Q	E	P	V	V	L	P	V	Q	L	P	P	L	L	L	N	G	S	S	G	I	A	V	G	M	A	T	N	M	A	P	P	H	H	L	L	L	L	L	E							
UniRef90_I3I6G9	D	G	T	L	E	E	P	L	V	L	P	P	A	R	V	P	N	L	L	V	N	G	T	T	G	I	A	V	G	M	A	T	D	I	L	P	P	H	H	L	L	L	R	G	E						
UniRef90_G2SXD1	D	E	T	E	K	E	P	E	V	L	P	P	A	R	V	P	N	L	L	I	N	G	A	T	G	I	A	V	G	M	A	T	S	I	P	P	H	H	L	L	L	F	G	E							
UniRef90_UPI00037C0717	D	D	T	A	N	E	P	T	V	L	P	A	R	F	P	N	L	L	V	N	G	S	T	G	I	S	A	G	Y	A	T	D	I	L	P	P	H	H	L	L	L	L	G	E							
UniRef90_R6XRM3	D	D	E	E	L	E	P	T	V	L	P	P	S	K	F	P	N	L	L	V	N	G	S	G	I	S	A	G	Y	A	T	S	I	P	P	H	H	L	L	L	P	F	G	E							
UniRef90_B9QV00	D	D	G	E	D	K	E	P	L	V	L	P	A	G	F	P	N	L	L	G	N	G	S	G	I	A	V	G	M	A	T	S	I	P	P	H	H	L	L	L	A	F	F	G	E						
UniRef90_R6G0F1	S	D	S	D	F	E	P	K	V	L	P	A	A	F	P	N	L	L	V	N	G	T	F	G	I	A	V	G	L	A	T	N	I	L	P	P	H	H	L	L	L	L	L	G	E						
UniRef90_B4W7D2	D	D	Q	D	E	E	P	V	V	L	P	P	A	G	F	P	N	L	L	A	N	G	S	G	I	A	V	G	M	A	T	S	I	P	P	H	H	L	L	L	V	A	F	G	E						
UniRef90_W9HDT2	D	D	G	E	G	E	P	L	V	L	P	P	S	A	F	P	N	L	L	A	N	G	S	Q	G	I	A	V	G	M	A	T	S	I	P	P	H	H	L	L	L	A	F	G	E						
UniRef90_I7ZCM7	D	G	M	R	D	E	P	R	L	L	P	P	A	R	L	P	N	L	L	V	N	G	T	S	G	I	A	V	G	M	A	T	D	I	L	P	P	H	H	L	L	L	T	R	E	N	E				
UniRef90_K8GPT7	D	D	N	S	Q	Q	E	P	T	V	L	P	P	A	Q	L	P	N	L	L	V	N	G	S	T	G	I	A	V	G	M	A	T	N	I	L	P	P	H	H	L	L	L	N	R	E	E				
UniRef90_AA0033V433	D	D	T	A	M	E	P	T	V	L	P	P	A	R	Y	P	N	L	L	V	N	G	S	T	G	I	S	A	G	Y	A	T	D	I	L	P	P	H	H	L	L	L	L	L	R	E					
UniRef90_K1X190	D	A	S	T	Q	E	P	T	V	L	P	P	T	R	L	P	N	L	L	N	G	S	V	G	I	A	V	G	M	A	T	N	I	L	P	P	H	H	L	L	L	L	L	G	E						
UniRef90_K9YVW8	D	N	S	Q	Q	E	P	V	V	L	P	P	A	Q	L	P	N	L	L	V	N	G	S	G	I	A	V	G	M	A	T	N	I	L	P	P	H	H	L	L	L	L	L	L	G	E					
UniRef90_UPI000479DFCE	D	D	E	E	L	E	P	T	V	L	P	P	A	K	F	P	N	L	L	I	N	G	S	K	G	I	S	A	G	Y	A	T	N	I	L	P	P	H	H	L	L	L	L	L	G	E					
UniRef90_UPI0002EAB6C6	D	G	K	Y	R	E	P	L	V	L	P	C	R	V	P	N	L	L	I	N	G	S	D	G	I	A	V	G	M	A	T	E	I	L	P	P	H	H	L	L	L	V	K	E	E						
UniRef90_J6J583	D	G	S	E	D	E	P	V	V	L	P	P	G	A	F	P	N	L	L	A	N	G	S	Q	E	G	I	A	V	G	M	A	T	A	I	L	P	P	H	H	L	L	L	A	N	E	E				
UniRef90_D5V0S3	D	D	T	L	K	E	P	S	V	L	P	P	T	R	V	P	N	L	L	M	N	G	S	E	G	I	A	V	G	M	A	T	A	K	I	L	P	P	H	H	L	L	L	A	N	E	E				
UniRef90_E8RSX2	D	G	Q	D	E	E	P	V	V	L	P	P	A	A	F	P	N	L	L	A	N	G	A	T	G	I	A	V	G	M	A	T	S	I	L	P	P	H	H	L	L	L	V	A	E	E					
UniRef90_R5SNV7	D	D	E	S	E	K	E	P	L	V	L	P	P	A	T	L	P	N	L	L	I	N	G	T	T	G	I	A	V	G	M	A	T	N	M	L	P	P	H	H	L	L	L	P	A	G	E				
UniRef90_UPI00037ECA09	D	D	G	E	A	E	P	C	V	L	P	P	S	A	F	P	N	L	L	A	N	G	S	Q	G	I	A	V	G	M	A	T	S	I	P	P	H	H	L	L	L	V	A	F	G	E					
UniRef90_K9XQ85	D	N	S	Q	Q	E	P	V	V	L	P	P	V	Q	L	P	N	L	L	N	G	S	C	G	I	A	V	G	M	A	T	N	I	L	P	P	H	H	L	L	L	V	L	S	E	E					
UniRef90_V4RAP1	D	D	G	E	E	R	E	P	V	V	L	P	P	G	A	F	P	N	L	L	A	N	G	S	A	G	I	A	V	G	M	A	T	N	I	L	P	P	H	H	L	L	L	A	S	E	E				
UniRef90_UPI000361B5C5	D	D	S	E	L	E	P	S	L	L	P	P	A	S	F	P	N	L	L	A	N	G	S	A	E	G	I	A	V	G	M	A	T	S	I	P	P	H	H	L	L	L	A	S	E	E					
UniRef90_AA0A11VN80	N	E	E	D	E	E	P	V	V	L	P	P	G	A	F	P	N	L	L	A	N	G	S	S	G	I	A	V	G	M	A	T	S	I	L	P	P	H	H	L	L	L	A	S	E	E					
UniRef90_Q0C3T5	A	E	N	D	E	E	P	V	V	L	P	P	A	G	F	P	N	L	L	A	N	G	A	T	G	I	A	V	G	M	A	T	S	I	L	P	P	H	H	L	L	L	V	A	R	E	E				
UniRef90_UPI000255A8E4	D	G	T	I	N	E	P	E	V	L	P	P	A	R	L	P	N	L	L	V	N	G	G	T	G	I	A	V	G	M	A	T	D	I	L	P	P	H	H	L	L	L	V	R	E	E					
UniRef90_Q47WK0	D	G	T	M	Q	E	P	K	T	L	P	P	A	R	L	P	H	I	L	L	N	G	I	T	G	I	A	V	G	M	A	T	D	I	L	P	P	H	H	L	L	L	V	R	R	E	E				
UniRef90_X5LB10	D	G	R	V	Y	Q	E	P	T	V	L	P	P	S	R	F	P	N	L	L	A	N	G	S	T	G	I	A	V	G	M	A	T	S	I	L	P	P	H	H	L	L	L	L	L	L	Q	E	E		
UniRef90_R5QWA6	D	D	T	E	Y	E	P	T	V	L	P	P	A	A	F	P	N	L	L	V	N	G	S	T	G	I	S	A	G	Y	A	T	D	I	L	P	P	H	H	L	L	L	L	L	L	Q	E	E			
UniRef90_Q0FAB4	D	G	R	L	T	E	P	S	V	L	P	P	A	S	F	P	N	L	L	A	N	G	S	T	G	I	A	V	G	M	A	T	N	I	V	L	P	P	H	H	L	L	L	L	L	L	L	G	E	E	
UniRef90_I7C1Y2	D	G	S	L	Q	E	P	P	A	V	L	P	P	A	R	L	P	N	L	L	L	N	G	T	T	G	I	A	V	G	M	A	T	D	I	V	L	P	P	H	H	L	L	L	L	L	L	L	R	E	E
UniRef90_V2USW1	D	D	T	L	E	E	P	T	V	L	P	P	A	R	F	P	N	L	L	V	N	G	S	T	G	I	S	A	G	Y	A	T	D	I	L	P	P	H	H	L	L	L	L	L	L	L	R	E	E		
UniRef90_K2HAW8	D	D	T	L	E	E	P	T	V	L	P	P	A	R	F	P	N	L	L	V	N	G	S	T	G	I	S	A	G	Y	A	T	D	I	L	P	P	H	H	L	L	L	L	L	L	L	L	R	E	E	
UniRef90_B8HNL0	D	N	S	Q	Q	E	P	V	V	L	P	P	S	Q	L	P	N	L	L	N	G	S	C	A	G	I	A	V	G	M	A	T	N	I	L	P	P	H	H	L	L	L	L	L	L	L	A	R	E	E	
UniRef90_W9VIR1	D	G	T	L	E	E	P	K	V	L	P	P	A	R	L	P	N	L	L	M	N	G	S	T	G	I	A	V	G	M	A	T	D	I	L	P	P	H	H	L	L	L	L	L	L	L	A	R	E	E	
UniRef90_A7HX51	D	G	E	D	S	E	P	T	V	L	P	P	G	A	F	P	N	L	L	A	N	G	A	A	G	I	A	V	G	M	A	T	S	I	L	P	P	H	H	L	L	L	L	L	A	A	G	E	E		
UniRef90_C0D091	D	E	T	E	K	E	P	E	V	L	P	P	V	R	V	P	N	L	L	I	N	G	A	E	G	I	A	V	G	M	A	T	S	I	L	P	P	H	H	L	L	L	L	L	L	L	A	A	G	E	E
UniRef90_R6R0N2	D	E	T	E	K	E	P	E	V	L	P	P	V	R	I	P	N	L	L	V	N	G	A	D	E	G	I	A	V	G	M	A	T	S	I	L	P	P													



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A S I A E S Y R T T G R G G S F R L R A K W E V E K L G Q G T W R I V V T T E M P P Y  
P H D L L K I Y S T T G V G Q V R A R A R W E K E E E D E G V I V I T T H L L P H  
T R G I W D A Y T T G K K G K I V V R G S V A Q I E E K I Q T G R G R I V V T T E L L P P Y  
L D G I K K A Y K T T G K G K I V V R R A K V E I E E K I Q T G R G R I V V T T E L L P P Y  
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410 420 430 440

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

	450	460
UniRef90_H8N0U2	A V I H D E L T G L K A A Y T D K R R T R I	L
UniRef90_F9EHB4	G V V S R E E L A A V V E E F G T P R R R T V L L	L
UniRef90_UPI0003686E19	A L V S A E E L A E V A E V H G P D D R R R T E L L	L
UniRef90_C5B4N9	G V V R R R E L E E I K A A F P D D G R R R T A I L	L
UniRef90_R6WUPO	S K I K S D L L D V K K R F K S P R K S E I I	L
UniRef90_K0D9N7	D V I R D E L T A L T K T Y S S P R Q S V I Q A	
UniRef90_U1QRD8	G V V I D S M N K A V E Q W G D D R R S L L L	L
UniRef90_UPI00037BE4C8	T L I K K E L Q A V V D E Y G D D R R S P I V S	
UniRef90_V8C8F7	E L I K E E L A E L K D K F S T P R R R T Q I	L
UniRef90_U2XJT8	A Q V A R E L L E A A A E T Y G T P R R R T L L L	L
UniRef90_B1XQN0	K A L K R E L R S L K R K F A D P R R R T R L	L
UniRef90_I3I6G9	N L V R K E L L Q L A E A F G D E R R S P I V A	
UniRef90_G2SXD1	K V I T R E L E A Y K K E Y G R P R R T V I	L
UniRef90_UPI00037C0717	S V I I K E	
UniRef90_R6XRM3	K T V I A E L S R V K E I I D C P R K T L I	L
UniRef90_B9QV00	T K I S K E I G E I A K V Y G P E R R T	
UniRef90_R6G0F1	K V V K T E L K E I T D K Y R N P R R T M V V	V
UniRef90_B4W7D2	K A I S K E L E A V R K A L I S P R R R T T I	L
UniRef90_W9HDT2	K A I A K Q I A E T R K R F G K A R R T V I	L
UniRef90_I7ZCM7	Q L I A K E I K E D A K T Y G D E R R C P I N A	
UniRef90_K8GPT7	K A L K K D L R S L K K Q F G D E R R T K I L A	L
UniRef90_A0A033V433	K V I K N E L R A V R	
UniRef90_K1X190		
UniRef90_K9YVW8	K A L K K E L R S L K R R F G N E R R T R I V	V
UniRef90_UPI000479DFCE	D V I K E E L L E T K D K I N V K R K T V I	L
UniRef90_UPI0002EAB6C6	A E V R Q D L E D V R K K Y G D A R K T E L	L
UniRef90_J6J583	E K I S E E I A K V R E T F G P K R R T	
UniRef90_D5V0S3		
UniRef90_E8RSX2	K R I D E Q L T E V R K Q L L S A R R R T T	
UniRef90_R5SNV7	D V I K N R L R A Y K K Q F N A P R H T E L	L
UniRef90_UPI00037ECA09	E I V G D Q L K D L R K A F G Q K R R T D I	L
UniRef90_K9XQ85	K S L K K E F R A L K R K Y G D Q R R T R I V	V
UniRef90_V4RAP1	R R V G E E V R S I R D R F G P R R R T V I L	L
UniRef90_UPI000361B5C5	K V I N N E I K K V K E Q F	
UniRef90_A0A011VN80	N T I A W E I Q T L R R D F G P P R R T	
UniRef90_Q0C3T5	T R V S K E L K A A R D E F	
UniRef90_UPI000255A8E4	N L V R E E V E S T A E E F G D E R R S P L	L
UniRef90_Q47WK0	T L M K K E I L A A A E Q Y G D D R R S Q L V	V
UniRef90_X5LB10	A I V R D E L A E I V E K H G D D R R T R I V	V
UniRef90_R5QWA6	Q V I T K R L K E I K Y P M P R L T Q I	L
UniRef90_Q0FAB4	E R I I N E L R E T R K V F G K N R R T E L	L
UniRef90_I7C1Y2	K L V R S E L I K D A E T Y G D D R R S P I V A	V
UniRef90_V2USW1	A L I I D E L K S D A K T F G D D R R S Q I V A	V
UniRef90_K2HAW8	K E L K K D L R S I K K T Y K D D R M T V I	L
UniRef90_B8HNL0		
UniRef90_W9VIR1	R L I R E E I A A D A E K Y G D D R R S P L V	V
UniRef90_A7HX51	A R V A D E I K E V K A L F G P K R R T K	
UniRef90_C0D091	Q V I K D D L E A I K K E F A L P R K T Q I	L
UniRef90_R6R0N2	A V I I E D L K K I K R E Y A K P R R T V V	V
UniRef90_UPI0003674B6C	I A V G D K L S E I K E K F G P E R R T	
UniRef90_G4R626	G V I T T E I G E L K K T Y G D D R R T Q F A A	A
UniRef90_M1YMM4	Q E V K A E L K E I T D K Y S D K R R T Q	
UniRef90_G9ZY17	N K I A E E I E K T R E K Y G E E R R T T L	L
UniRef90_I0IBH7	G I L L E D V S T M R D K Y A N P R R T Q I T	T
UniRef90_H5SDW4		
UniRef90_Q07XV3	T L V K K E L I Q D G E T Y G D N R R S P I I	I
UniRef90_R4YWH2	A V I R E E L A D I R S R F A V D R R S	
UniRef90_C6XIU3	T E V K R Q L K I A R E V F D P E R R S K	
UniRef90_E3I6K3	D R I S A E I K G I K K Q F G K K R K T V T A A	A
UniRef90_UPI0003652A42	K L V K K E L T A D A E K Y G D E R R S P V V	V
UniRef90_Q83G39	A I L I D E L K K V A Q R L P S P R R T L L E S	S
UniRef90_C4KAV4	K L I L K E I Q D D A K K Y G D D R R T	
UniRef90_Q3ANP5	D A M V T E L K G L K R F S T P R R T R L V	V
UniRef90_UPI00047CE01C	K L L V R E I E A D A K Y G D E R R S P L V	V
UniRef90_B9JCW3	Q T V A W E I G E V K K K F A K A R R T Q	
UniRef90_A3Y7F8	K L I S E E I Q E A V D A H G D E R R T P I V	V
UniRef90_J3UZG1	D W I R K E L I E I S Y K Y G D K R K T K I T A	A
UniRef90_G9ELC9	N L V K D E I I K D R D A F G D V R R S P I I	I
UniRef90_UPI0003B5D948	A Q I A T Q L K E V R N L F G K Q R R R T E I	L
UniRef90_K9H320	K T I A G Q L R D T K K F G K Q S R R T E I	L
UniRef90_R5ZS38	N V I I E E M N A A L E I I K S D R L T T I	I
UniRef90_K5YPU3	A K I A E E I A E V Q A K F G A A R R T K I S A	A
UniRef90_G6EZ40	K K I T Q E L K E G H K Q F G S Q R R T L I	L
UniRef90_A5Z3F7	K T I K K D L K A I K K E Y A L P R K T L I	L
UniRef90_R4U177	S V I V D Q L T L I K T K F N T L R R T	
UniRef90_R6C216	Q V I I N E L N Q I K K E Y S K P R K T E I T	T
UniRef90_F3L3G5	T L I K K E L L A V A E Q F G D E R S S P L V A	V
UniRef90_UPI00047EA266	D K V A E Q V K A V R E A Y G P K T E I G A	A
UniRef90_F7YV04		
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UniRef90_L0EXJ1	K K I A H E I N E V K K L F L K K R R T M L I	I
UniRef90_A1ST91	T L V K K E I Q A D A L K Y G D D R R S P L I	I
UniRef90_R7HI46	S V I K E D L R K I K K E Y G P R R T E I	L
UniRef90_T0GB41	T R L K K D L A D L R K R Y S P D R R S	
UniRef90_UPI0002F3AA35	K T V A W E V R E V K K T F G P E R R T	
UniRef90_UPI0004651DF4	A V I I E D L N R L K K E Y G V K R R T L L	L
UniRef90_UPI0003F5AE03	S K V G E Q L R K V R D I F G P K R R T Q	
UniRef90_E1ZR44	Q V V T S E A E E L A A K F G T P R R T H I I	I
UniRef90_S9QTT7	K R I S E Q L R E T K K A F A K D	
UniRef90_B0NAD1	E V I M A D L D K I K K E F A R K R R T	
UniRef90_U3TZ25	N L L K K E L L A D S Q T Y D D D R R S P L	L
UniRef90_R5DP74	K V I K E D L M K I K K E Y A V D R R T V I	L



	1	10	20	30	40																																						
UniRef90_I6ZI50	T	S	R	A	L	P	D	L	R	D	G	L	K	P	V	H	R	R	L	L	Y	S	A	Y	E	E	K	M	F	S	D	T	R	F	R	K	S	A	T	L			
UniRef90_UPI0003B363BB	V	A	R	A	L	P	D	L	R	D	G	L	K	P	V	Q	R	R	L	L	Y	D	M	Y	E	L	G	L	R	Y	D	K	P	F	Y	R	K	K	S	A	R	L	
UniRef90_UPI0003B34748	T	A	R	S	L	P	D	L	R	D	G	L	K	P	V	Q	R	R	L	L	Y	W	A	M	S	Q	L	K	L	D	S	P	N	S	G	A	F	K	K	S	A	R	T
UniRef90_COQET9	L	D	R	A	L	P	Y	L	G	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	S	R	L	R	L	L	T	S	S	T	G	G	F	L	K	S	A	K	T	
UniRef90_V9WDX6	M	H	R	A	L	P	D	A	R	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	S	R	L	R	L	L	T	S	S	T	G	G	F	L	K	S	A	K	T	
UniRef90_Q4PK96	L	D	R	A	L	P	N	L	R	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	S	E	L	R	L	L	D	D	A	G	A	S	K	Y	K	K	S	A	R	T
UniRef90_C6XHT3	L	D	R	A	L	P	N	L	R	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	S	E	L	R	L	L	D	D	A	G	A	S	K	Y	K	K	S	A	R	T
UniRef90_D4XVG2	M	H	R	A	L	P	D	V	R	D	G	L	K	P	V	H	R	R	L	L	Y	A	M	S	E	L	R	L	L	T	S	D	K	P	Y	K	K	S	A	R	V		
UniRef90_J1JVU4	M	H	R	A	L	P	D	V	R	D	G	L	K	P	V	H	R	R	L	L	Y	A	M	S	E	L	R	L	L	T	S	D	K	P	Y	K	K	S	A	R	V		
UniRef90_R5GNX3	M	H	R	A	L	P	D	V	R	D	G	L	K	P	V	H	R	R	L	L	Y	A	M	S	E	L	R	L	L	T	S	D	K	P	Y	K	K	S	A	R	V		
UniRef90_UPI00046FE4D4	L	D	R	A	L	P	S	L	R	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	S	E	L	R	L	L	T	S	A	S	A	K	Y	K	K	S	A	R	T	
UniRef90_UPI000473CC76	V	G	R	A	L	P	D	A	R	D	G	L	K	P	V	Q	R	R	L	L	Y	F	A	M	S	E	L	R	L	L	T	S	A	S	A	K	Y	K	K	S	A	R	V
UniRef90_P47446	L	D	R	A	L	P	D	A	R	D	G	L	K	P	V	Q	R	R	L	L	Y	G	M	F	Q	M	G	L	L	T	P	T	T	P	Y	K	K	S	A	R	A		
UniRef90_E6QR37	G	R	A	L	P	D	V	R	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	R	E	M	G	L	L	T	H	H	S	N	F	V	K	K	S	A	R	V		
UniRef90_I4IBJ1	V	G	R	A	L	P	D	V	R	D	G	L	K	P	V	H	R	R	L	L	Y	A	M	H	E	L	R	L	L	T	P	D	R	P	F	R	K	S	A	R	V		
UniRef90_UPI00042023B4	M	S	R	S	L	P	D	V	R	D	G	L	K	P	V	H	R	R	L	L	Y	A	M	H	Q	L	R	L	L	D	P	T	S	G	F	K	K	S	A	R	V		
UniRef90_UPI0003FD4C58	M	S	R	S	L	P	D	V	R	D	G	L	K	P	V	H	R	R	L	L	Y	A	M	H	Q	L	R	L	L	D	P	T	S	G	F	K	K	S	A	R	V		
UniRef90_L8XZ32	D	R	A	L	P	H	V	I	G	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	S	E	L	R	L	L	S	A	V	S	K	H	K	K	S	A	R	T		
UniRef90_R7A2Q3	L	S	R	A	L	P	E	I	G	D	G	F	K	P	S	H	R	K	L	L	Y	T	M	Y	K	M	G	L	L	T	G	Q	R	T	K	K	S	A	N	T			
UniRef90_R8AT51	M	D	R	A	L	P	E	I	G	D	G	L	K	P	V	Q	R	R	L	L	Y	S	M	S	E	L	R	L	L	N	A	A	K	Y	K	K	S	A	R	T			
UniRef90_V4ZTU5	G	R	A	L	P	D	A	R	D	G	L	K	P	V	H	R	R	L	L	Y	A	M	S	E	A	G	V	L	L	T	A	N	A	G	H	R	K	K	S	S	T		
UniRef90_L2F995	M	D	R	A	L	P	N	I	A	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	S	E	L	R	L	L	T	A	N	A	G	H	R	K	K	S	A	R	T	
UniRef90_U2YGR6	M	D	R	A	L	P	N	I	A	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	S	E	L	R	L	L	T	A	N	A	G	H	R	K	K	S	S	T		
UniRef90_UPI0004108F83	S	R	A	L	P	D	A	R	D	G	L	K	P	V	H	R	R	L	L	Y	F	S	M	N	E	Q	G	Y	R	P	T	H	A	Y	V	K	K	S	S	R	V		
UniRef90_UPI00036CCD41	S	R	A	L	P	D	V	R	D	G	L	K	P	V	H	R	R	L	L	Y	A	M	Y	L	N	L	L	L	G	S	K	L	Q	P	K	K	S	A	R	V			
UniRef90_G4ENR9	D	R	A	L	P	D	I	R	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	N	E	L	K	I	H	D	K	P	Y	K	K	S	A	R	T					
UniRef90_UPI00047541E7	S	R	A	L	P	Q	V	E	D	G	M	K	P	V	Q	R	R	L	L	Y	A	M	N	E	L	R	L	L	T	A	T	A	K	P	V	K	K	S	A	R	T		
UniRef90_UPI000364F01E	G	R	A	L	P	N	V	E	D	G	M	K	P	V	Q	R	R	L	L	Y	A	M	R	E	M	G	L	L	L	T	A	T	A	K	P	V	K	K	S	A	R	V	
UniRef90_D4M7I5	V	G	R	A	L	P	D	V	R	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	S	E	L	R	L	L	R	H	N	S	A	Y	K	K	S	A	R	I		
UniRef90_UPI0003B64A5A	Q	R	A	L	P	D	V	R	D	G	L	K	P	V	Q	R	R	L	L	Y	F	S	M	N	D	L	R	L	L	Q	Y	N	K	S	Y	K	K	S	A	R	V		
UniRef90_F3SZD6	R	A	L	P	D	V	R	D	G	L	K	P	V	Q	R	R	L	L	Y	F	A	M	S	S	G	N	L	L	T	Y	D	K	N	Y	K	K	S	A	K	T			
UniRef90_Q4A6Z3	N	R	A	L	P	D	V	R	D	G	L	K	P	V	H	R	R	L	L	Y	S	M	Y	A	L	R	L	L	D	F	D	K	K	F	K	K	S	A	R	T			
UniRef90_A0A011PLV3	G	R	A	L	P	D	V	K	D	G	L	K	P	V	Q	R	R	L	L	Y	F	A	M	R	E	L	R	L	L	S	A	T	A	K	P	V	K	K	S	A	R	V	
UniRef90_V2ZEK3	L	S	R	A	L	P	E	I	G	D	G	F	K	P	S	H	R	K	L	L	Y	T	M	Y	Q	M	K	L	L	T	A	G	G	R	T	K	K	S	A	N	T		
UniRef90_UPI00046411B1	T	A	R	A	L	P	S	L	A	D	G	Q	K	P	V	Q	R	R	L	L	F	A	M	R	E	M	G	L	L	K	S	P	K	H	V	K	S	A	R	V			
UniRef90_UPI0002556458	D	R	A	L	P	H	I	S	D	G	L	K	P	V	Q	R	R	L	L	Y	M	Y	D	M	N	E	L	R	L	S	A	T	S	K	Y	V	K	S	A	R	T		
UniRef90_X0U744	V	S	R	A	L	P	E	I	D	G	F	K	P	S	H	R	K	L	L	Y	T	M	Y	K	M	G	L	L	T	G	A	R	T	K	K	S	A	N	T				
UniRef90_R9M160	V	S	R	A	L	P	E	I	D	G	F	K	P	S	H	R	K	L	L	Y	T	M	Y	K	M	G	L	L	T	G	A	R	T	K	K	S	A	N	T				
UniRef90_R7KRH7	V	S	R	A	L	P	E	I	D	G	F	K	P	S	H	R	K	L	L	Y	T	M	Y	K	M	G	L	L	T	G	A	R	T	K	K	S	A	N	T				
UniRef90_UPI0002D7A363	T	S	R	A	L	P	D	V	R	D	G	L	K	P	V	Q	R	R	L	L	Y	G	M	Y	N	D	R	L	L	T	G	D	R	P	A	K	K	S	A	R	T		
UniRef90_UPI0003C180C1	M	H	R	A	L	P	D	V	R	D	G	L	K	P	V	H	R	R	L	L	Y	A	M	R	Q	L	R	L	L	D	P	T	T	T	A	K	K	S	A	R	V		
UniRef90_R1CCZ8	M	S	R	A	L	P	D	L	R	D	G	L	K	P	V	H	R	R	L	L	Y	A	M	S	E	L	R	L	L	D	P	T	T	T	A	K	K	S	A	R	V		
UniRef90_U1MSK7	V	G	R	A	L	P	D	V	R	D	G	L	K	P	V	H	R	R	L	L	Y	F	A	M	S	E	L	R	L	L	P	T	T	T	A	K	K	S	A	R	V		
UniRef90_M4R905	M	D	R	A	L	P	F	I	G	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	S	E	L	R	L	L	T	A	N	A	G	H	R	K	K	S	A	R	T	
UniRef90_C8NBL7	L	D	R	A	L	P	H	I	G	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	S	E	L	R	L	L	T	A	N	A	G	H	R	K	K	S	A	R	T	
UniRef90_K9DXM0	G	R	A	L	P	D	V	S	D	G	Q	K	P	V	Q	R	R	L	L	Y	A	M	N	E	L	R	L	L	G	P	T	A	K	P	R	K	S	A	R	V			
UniRef90_A3UC93	T	Q	R	A	L	P	D	A	R	D	G	L	K	P	V	H	R	R	L	L	Y	A	M	R	L	L	K	L	L	S	P	D	T	A	F	K	K	S	A	R	V		
UniRef90_B8ERL4	M	G	R	A	L	P	D	A	R	D	G	L	K	P	V	H	R	R	L	L	Y	G	M	Q	I	L	R	L	L	D	P	G	T	A	F	K	K	S	A	R	V		
UniRef90_I4EQ20	G	R	A	L	P	E	V	A	D	G	Q	K	P	V	Q	R	R	L	L	Y	A	M	H	E	M	G	L	L	R	A	D	S	K	P	V	K	S	A	R	V			
UniRef90_I9W961	S	R	A	L	P	D	V	C	D	G	Q	K	P	V	Q	R	R	L	L	Y	F	A	M	N	E	M	G	L	L	G	P	D	A	K	P	V	K	S	A	R	V		
UniRef90_B1JWA4	L	D	R	A	L	P	H	I	G	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	S	E	L	R	L	L	T	A	N	A	G	H	R	K	K	S	A	R	T	
UniRef90_W6LYW1	V	S	R	A	L	P	D	L	R	D	G	L	K	P	V	H	R	R	L	L	Y	S	M	Y	E	K	G	I	T	H	E	K	A	Y	R	K	S	A	K	S			
UniRef90_A3SWF3	M	D	R	A	L	P	F	I	G	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	S	E	L	R	L	L	T	A	N	A	G	H	R	K	K	S	A	R	T	
UniRef90_F9QB78	M	D	R	A	L	P	F	I	G	D	G	L	K	P	V	Q	R	R	L	L	Y	A	M	S	E	L	R	L	L	T													

	50	60	70	80
UniRef90_I6ZI50	V G A V M G G Y H P H G D S S I Y G A L V R L A Q D F S M R Y P L L V E G Q G N F			
UniRef90_UPI0003B363BB	V G D T M G K Y H P H G D S S I Y D C L V V M T Q D F K K A I P L L V D G G H G N F			
UniRef90_UPI0003B34748	V G D V L G K Y H P H G D S A Y E A M V R L A Q D F A L R Y P L L V E D G G Q G N F			
UniRef90_COQET9	V G D V L G K Y H P H G D S A Y E A M V L L A Q D F P F S R Y P L L V D G G Q G N W			
UniRef90_V9WDX6	S G D T M G D F H P H G D A A I Y D A M A R L A Q D F N V R Y P L L V D G G Q G N F			
UniRef90_Q4PK96	V G D V I G K F H P H G D S A Y E A M V L M A Q D F S F K Y P L L V D G G Q G N F			
UniRef90_C6XHT3	V G E V I G K L H P H G D S V Y D S L V R L A Q P F V Q R Y P L I S G Q G N F			
UniRef90_D4XVG2	V G D V I G K Y H P H G D T S V Y D A M V N M S Q W W K N G I A L L D M H G N V			
UniRef90_J1JVU4	V G D V M G K F H P H G D T S I Y D A L V R L A Q D F A V R Y P L L V D G G Q G N F			
UniRef90_R5GNX3	V G D T M G K Y H P H G D S S I Y E A L V V M E Q D F K K G M P L L V D G G H G N F			
UniRef90_UPI00046FE4D4	V G D V L G K F H P H G D S A Y E A M V L M A Q S F S Y R Y P L L V D G G Q G N W			
UniRef90_UPI000473CC76	V G D V L G K Y H P H G D Q A V Y D A L V R L V Q N F S T K Y P A L L D G G H G N F			
UniRef90_P47446	V G E I M G K Y H P H G D S S I Y D A L I R M S Q S W K N N W T T V S L H G N N			
UniRef90_E6QR37	V G E V L G K F H P H G D S S A Y D A M V R L A Q N F S L R Y P L L V D G G Q G N F			
UniRef90_I4IBJ1	V G D V L G K Y H P H G D Q S V Y E A L V R M V I Q D F S S R Y P L L L S G H G N F			
UniRef90_UPI00042023B4	V G D V I G K Y H P H G D A S V Y E A L V R L A Q D F A V R F P L L V E G Q G N F			
UniRef90_UPI0003FD4C58	V G D V I G K Y H P H G D S A C Y E A L V L M A Q P F S Y R Y P L L V D G G Q G N F			
UniRef90_L8XZ32	V V G Q T M R L N P H G D A A I Y E T M V R L A R G C L H P Y V D S K G N F G K			
UniRef90_R7A2Q3	V V G Q T M R L N P H G D A A I Y E T M V R L A R G C L H P Y V D S K G N F G K			
UniRef90_R8AT51	V G D V L G K Y H P H G D S A C Y E A M V L M A Q P F S Y R Y P L L V D G G Q G N W			
UniRef90_V4ZTU5	V G E T M G N Y H P H G D S A I Y E A L A R M A Q E F S M R H P L L V D G G Q G N F			
UniRef90_L2F995	I G D V I G K Y H P H G D S A C Y E A M V L M S Q P F S Y R Y P L L V D G G Q G N F			
UniRef90_U2YGR6	V G E T M G D Y H P H G D S A I Y D T L V R M A Q P F S M R E P L L V D G G Q G N F			
UniRef90_UPI0004108F83	V G D V M G K Y H P H G D V A I Y D A M V R L A Q D F S L N S P L L V D G G H G N F			
UniRef90_UPI00036CCD41	V G D V I G K F H P H G D Q S V Y D A L V R L A Q D F S L R Y P L L V N G O G N F			
UniRef90_G4ENR9	V G E V I G K Y H P H G D S S I Y E A M V R M S Q E W K N N I P L L D M Q G N K			
UniRef90_UPI00047541E7	V G E V I G K F H P H G D Q S A Y D A L V R L A Q D F S L R Y P L L V D G G Q G N F			
UniRef90_UPI000364F01E	V G D V I G K L H P H G D S S V Y D A M V R M A Q D F S L R Y P L L V D G G Q G N F			
UniRef90_D4M7I5	V G E T M G K Y H P H G D S S I Y D T M V R L A Q D W S L R Y C L V D G G Q G N F			
UniRef90_UPI0003B64A5A	V G D V I G K Y H P H G D S S I Y E A L V R M A Q D W K M G E P L L V E M H G N K			
UniRef90_F3SZD6	V G D V I G Q Y H P H G D S S V Y D A M V R L S Q D W K L R H V L I E M H G N N			
UniRef90_Q4A6Z3	V G D V I G K Y H P H G D T S V Y N A M I N L A Q W W K M N I P L L S M H G N I			
UniRef90_A0A011PLV3	V G D V I G K Y H P H G D T S A Y D A M V R V A Q P F M L R Y P L L V D G G Q G N F			
UniRef90_V2ZEK3	I V G Q T M K L N P H G D Q A I Y D T M V R L S R G Y L H P L V D S K G N F G K			
UniRef90_UPI00046411B1	V G D V L G K W H P H G D S S V Y D A M V R M A Q N F T L R Y P V V D G G Q G N F			
UniRef90_UPI0002556458	V G D V L G K Y H P H G D S S C Y E A M V L M A Q D F S Y R Y P L L I D K Q G N W			
UniRef90_X0U744	V V G Q T M R L N P H G D S A I Y E T M V R L A R G C L H P Y V D S K G N F G K			
UniRef90_R9M160	I V G Q T M K L N P H G D A A I Y E T M V R M A K G N L H P Y V D S K G N F G K			
UniRef90_R7KRH7	V G D V M G K Y H P H G D G S I Y E T M V R M A Q A W V M R L P L V H G Q G N F			
UniRef90_UPI0002D7A363	V G D V I G K Y H P H G D T A V Y D A L V R L A Q D F A Q R Y P L L I D G G Q G N F			
UniRef90_UPI0003C180C1	V G D V I G K Y H P H G D T A V Y D A L V R L A Q D F A Q R Y P L L I D G G Q G N F			
UniRef90_R1CCZ8	V G E V I G K F H P H G D S S V Y D A L V R M A Q P F S L R A P L L V D G G H G N F			
UniRef90_L1MSK7	V G D V I G K Y H P H G D S A V Y D T L V R M A Q P F S L R Y M L V D G G Q G N F			
UniRef90_M4R905	I G E V I G K Y H P H G D A A S Y G A M V L M A Q P F S Y R Y P L L V D G G H G N F			
UniRef90_C8NBL7	V G D V I G K Y H P H G D S A C Y E A M V L M A Q D F A Y R Y P L L V D G G Q G N F			
UniRef90_K9DXM0	V G D V L G K L H P H G D Q S V Y D A L V R M A Q D F A S R Y P L L V D G G Q G N F			
UniRef90_A3UC93	V G D V I G R F H P H G D Q A V Y E A L V R L A Q D F A S R Y P L L V E G Q G N F			
UniRef90_B8ERL4	V G D V M G S F H P H G D Q A I Y D A L V R L A Q D F S S R Y P L L V D G Q G N F			
UniRef90_I4EQ20	V G D V L G K F H P H G D Q S A Y D A L V R L A Q D F S L R Y P L L I D G G Q G N F			
UniRef90_I9W961	V G D V L G K Y H P H G D Q S A Y E A L V R L A Q D F S L R Y P L L I D G G Q G N F			
UniRef90_B1JWA4	V G D V L G K Y H P H G D S A C Y E A M V L M A Q D F S Y R Y P L L V D G G Q G N W			
UniRef90_W6LYW1	V G D V M G S Y H P H G D S A I Y D A L V R M A Q D F S M S L P L L I D G G Q G N F			
UniRef90_A3SWF3	V G D V L G K F H P H G D S A C Y E A M V L M A Q P F S Y R Y P L L V D G G Q G N W			
UniRef90_F9QB78	V G D V L G K Y H P H G D S A C Y E A M V L M A Q P F S Y R Y P L L V D G G Q G N W			
UniRef90_C9P113	S G D V M G N Y H P H G D A A I Y D A M A R L A Q D F A V R Y P L L V D G G Q G N F			
UniRef90_A6FMY1	V G E I L G K Y H P H G D S S A Y E A L V R M A Q D F T L R Y P L L I D G G Q G N F			
UniRef90_C1D9X7	V G D V L G K F H P H G D S A C Y E A M V L M A Q D F S Y R Y P L L V D G G Q G N W			
UniRef90_U4TI0	V G D V I G K Y H P H G D Q S V Y D A M V R L A Q S F A L R V P L L V D G G Q G N F			
UniRef90_UPI0003B3791C	I V G Q T M K L N P H G G A I Y D T M V R L S R G Y L H P F V D S K G N F G K			
UniRef90_R6MXA9	V H N C M G K Y H P H G D V A I Y D A M V R L A Q D F S L N V P L V D S K H G N F			
UniRef90_UPI00035E873E	I V G R T M Q L N P H G D A A I Y E T M I R L A R G N L H P Y V E S K G N F G K			
UniRef90_R5MN38	I V G Q T M R L N P H G D A A I Y E T M V R L A R G N L H P Y V D S K G N F G K			
UniRef90_K1ZJE0	I V G Q T M R L N P H G D A A I Y E T M V R L A R G N L H P Y V D S K G N F G K			
UniRef90_R5H390	I V G Q T M R L N P H G D A A I Y E T M V R L A R G N L H P Y V D S K G N F G K			
UniRef90_A0A024IBX7	V G D V L G R F H P H G D Q A A Y D A L V R M A Q D F A Q R Y P L L I D G Q G N F			
UniRef90_J9DB99	V G E I L G K Y H P H G D S S A Y E A M V R M A Q N F T L R Y P L L I D G I G N F			
UniRef90_F0EW91	V G D V L G K Y H P H G D Q S V Y D A L V R M A Q S F S L R Y P L L I D G E G N F			
UniRef90_K1KGQ6	I V G R T M Q L N P H G D A A I Y E T M I R L S R G N L Y P Y V E S K G N F G K			
UniRef90_R6RFC4	V G E V I G K Y H P H G D S A V Y E S M V R M A Q D F N Y R Y M L V D G H G N F			
UniRef90_Q7OCL7	V G E V L G K Y H P H G D S A V Y G T M V R M A Q D F N Y R Y L L V E G H G N F			
UniRef90_F9EJR9	I V G Q T M R L N P H G D M A I Y E T M V R L S R G N L H A Y V D S K G N F G K			
UniRef90_E6U4I4	L V G K V L E I H N H G D S S V Y D A L A K L T N Q N S L L H P F I E G E S F			
UniRef90_UPI0004737416	V G E V M G K Y H P H G D Q A I Y D A L V R M A Q P F T L R L P L L V D G H G N F			
UniRef90_UPI000362B785	V G D V I G K Y H P H G D S S V Y E A M V R L A Q P F T L R Y P L L I D G Q G N F			
UniRef90_B5ABQ1				N F
UniRef90_Q8GDZ7	V G D T M G K Y H P H G D S S I Y E G L V N M A Q N W K L P I P L L V D P H G N F			
UniRef90_D5HG21	I V G S T M H L N P H G D Q A I Y D T M V R M R G N L V P F V D S K G N F G K			
UniRef90_J9CWX4	C S A V T G N L H P H G G A S M Y G A A L M A A D F Q R V K V I D G Q G A F			
UniRef90_A4T3N2	I V G Q T M K L N P H G D S A I Y E T M V K L S R G N L H P Y I D S K G N F G K			
UniRef90_K4IUR2	V G D V L G K Y H P H G D S A C Y E A M V L M A Q P F S Y R Y P L L V D G Q G N W			
UniRef90_D6GS45	V G D V L G K Y H P H G D S A C Y E A M V L M A Q P F S Y R Y P L L V D G Q G N W			
UniRef90_K0JZB4	V G D V L G K Y H P H G D Q S A Y D A L V R L A Q G F S M R Y P L L I D G G Q G N F			
UniRef90_A8TBZ2	V G D V I G K Y H P H G D S A A Y E A L V R Q A Q D F T L R Y P L L I D G Q G N F			
UniRef90_U3TNN6				
UniRef90_Q9ZAF9	V G D V L G K Y H P H G D S A C Y E A M V L M A Q P F S Y R Y P L L V D G Q G N W			
UniRef90_UPI000464DF9C	V G D V L G K Y H P H G D Q S A Y D A L V R L A Q G F S M R Y P L L I D G G Q G N F			
UniRef90_T0Y9J9	V G D V I G K Y H P H G D S A A Y E A L V R Q A Q D F T L R Y P L L I D G Q G N F			
UniRef90_UPI00037C73AF				
UniRef90_R5UZR0	T M Q Y H P H G D A S I K D A L V Q L G Q K D L L I D C Q G N W G N I L			
UniRef90_D5EPM8	V I G N T M K Y H P H G D A S I C D A M V Q L G Q K D L L I D T Q G N W G N T F			
UniRef90_N1NJR9				

UniRef90\_I6ZI50 G S I D D G D S P A A M R Y T E A R L S K L G E K F L E G I K E D P V D F V P N Y  
UniRef90\_UPI0003B363BB G N I E G D G A A A M R Y T E A R L S T A T A I R L M A S G L D E G T V D F L P N F  
UniRef90\_UPI0003B34748 G N I D D G D N A A A M R Y T E A R L S T Y A D I L L M A S G L D E G T V D F L P N F  
UniRef90\_COQET9 G A P D D D P K F A A M R Y T E A R S R L S T Y A D I L L M A S G L D E G T V D F L P N F  
UniRef90\_V9WDX6 G N I D D G D N P A A S R Y T E A R M T F V A E A M L S E G L S E N A V D F R D N F  
UniRef90\_Q4PK96 G S Q D D D P K F A A M R Y T E A S K L T K F A K L L L D D G L K A G E D A V D F R D N F  
UniRef90\_C6XHT3 G N I D D G D S P A A A M R Y T E A R M T Q V A E L L L L D D G V L K A G E D A V D F R D N F  
UniRef90\_D4XVG2 G S L D D N D P A A A M R Y T E A R M T S K I C N Y M L D D D L K K N T V S F F P N F  
UniRef90\_J1JVU4 G N I D D G D N A A A M R Y T E A R M T E V S T L L L L D D G L S E N A V D F F R P T Y  
UniRef90\_R5GNX3 G S I E G D G A A A M R Y T E A K L Q K F T Q E Y L L A D M D K N V V D F F Q S N F  
UniRef90\_UPI00046FE4D4 G S P D D P K F A A M R Y T E A S R L S R F S E L L L S E E L G Q G T V N W S P N F  
UniRef90\_UPI000473CC76 G S V D D G D P P A A M R Y T E T E T R L S L P I A H K F L S E E I G S D T V N F S N N F  
UniRef90\_P47446 G S V D D G D N A A A M R Y T E T E T R L S L Y G F E L L L K D I D K K L V V N F S N N F  
UniRef90\_E6QR37 G S R D G D N S A A M R Y T E A R L L T P I S A V L L S E L D M G T V D M I P N F  
UniRef90\_I4IBJ1 G S I D D G D P P A A M R Y T E T E T R L A G I G D Q V L L G G I S S E A I V N F S S N F  
UniRef90\_UPI00042023B4 G S V D D G D N A A A M R Y T E A R L L T K V A Q L L L G G I S S E A I V N F F R P T Y  
UniRef90\_UPI0003FD4C58 H A F V I T D G F V S H N T E S R L L D P L A Q D M L R D I E E E T V D F S D N F  
UniRef90\_L8XZ32 G S L D N D P K F A A M R Y T E S K L S K Y A D V L L K E T D N E A T V D F W Q P N F  
UniRef90\_R7A2Q3 A Y S R D M S Y A A S R Y T E V K L D P I C N E L F R D I D K E T I D F V P N F  
UniRef90\_R8AT51 G A P D D P K F A A M R Y T E S R L S K M A D V L L G E L G Q G T V D F Q P N F  
UniRef90\_V4ZTU5 G S V D D G D P P A A M R Y T E A R M A P I A E E L L L A D I D R D T V D F V G N Y  
UniRef90\_L2F995 G S P D D P K F A A M R Y T E A K L S N Y A N T L L T E L G Q G T V D W H D N F  
UniRef90\_U2YGR6 G S V D G D P A A A M R Y T E A R M S P I A E E L L L A D I D M D T V D F E G N Y  
UniRef90\_UPI0004108F83 G S P D D G P A A S R Y T E A R M S P E A M L L V L G E L D G E T V D F F R P N Y  
UniRef90\_UPI00036CCD41 G N I D D G D N A A A M R Y T E A K L T E I S E L L L L E N I D E E T V D F F K S T Y  
UniRef90\_G4ENR9 G S L D D G D G P A A M R Y T E C R L S L F G E L M L E D I D K D T V K F I P N F  
UniRef90\_UPI00047541E7 G S R D G D G A A A M R Y T E A R L T P I A E L L L L G E L D A G T T D F I P N Y  
UniRef90\_UPI000364F01E G S R D G D G A A A M R Y T E S R L T P I A E L L L L S E I D M G T V D F V P N Y  
UniRef90\_D4M715 G S V D D G D R A A A M R Y T E A R L H E L G E L M L A D I D E D T V E W G P N F  
UniRef90\_UPI0003B64A5A G S I D D D P A A A M R Y T E A K L S K I S S L M L Q D L I E K N T V S F A P N F  
UniRef90\_F3SZD6 G S I D D N D P P A A M R Y T E A K L S Q L S E L L R D I N E K E T V S F I P N Y  
UniRef90\_Q4A6Z3 G S I D D D K Q A A M R Y T E V K L A K I A N Y I I G D I K K K T V K F I P N F  
UniRef90\_A0A011PLV3 G S R D G D N A A A M R Y T E A R L D P I A E L L L A E L G E G T V D F Q P N Y  
UniRef90\_V2ZEK3 V Y S R D M A W A A S R Y T E A R L D P I C A E L F R D I D Q D T V D F V D N Y  
UniRef90\_UPI00046411B1 G S L D G D S A A A M R Y T E A R L L P I S D L L L S E I D E D T V D F Q R N Y  
UniRef90\_UPI0002556458 G P D E P K S F A A M R Y T E A R L S K F S E L L S D L K L N C T T Y V P N F  
UniRef90\_X0U744 G S V D D G D P P A A M R Y T E I R M H E I A E E F L A D V E K E T V D F V S N Y  
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R S G A R K A Y L E G R G S V I M R A K T R V E E R K D R F A I V I D E I C Y  
K S E I K K I Y Q Q G R G S I K M R A S W K K E D G E I V I H A L P H  
P S D L E K I Y Q T G R G S L K M R A V W H K E G S D I V I S A L P H  
R E N I A Q A Y R T G R G A F R L R C K W E V E D L G R G Q W Q I V V T T E I P Y  
S D D I R A A Y E S G R G S V R R A R A Q W E V E K L A R G Q W R V I V S E L P Y  
P A E I Q K I Y E H G I G S I K Q R A I Y H K E N G D V V I T T A L P Y  
R A S I A E S Y L T G R G S F R L R A R W S V E D Q G R G T W T I I I S E I P Y  
R N A L K Q V Y A T G R G G V I K V R A R Y S Y D Q S A N C I D V T T S I P Y  
L D E V R K A Y E T G R G S V R M R A N V E T G P L E R G R Q A C I T V T T E I P Y  
E D K M N E I F R T G R G S F K I R A K Y S Y D K K N N G A F K I I V S E I P Y  
I E A L K N A Y A T G R G S I V V R G K T E I V E G K K G A F K I I V S E I P Y  
E A E M K N I Y R T G T G A V K V R A V Y N Y D P D A R C I E V T S E I P Y  
P A G T A D A Y R T G R G S L K V R A R W K I E E D L A R G Q W Q M V V T T E I P Y  
M Q G V R N A Y E T G K G S V V M R A R T E I E S G P G H D S I V I V T T E I P Y  
A K D V R Q I Y E T G K G S L R V R A R Y E I L D K M A R G Q W R V I V S E L P P  
R S T L R D I Y R T G R G K L T V R A R Y H F E D L A R G Q W Q L V I D E L P P  
K E E F D K I Y R T G R G S V K V R A K Y S Y D K K Y N C I D I T T Q I P Y  
R S G I R K A Y E S G R G S I T I R A K A E I E E E T S S G K E R I V T T E I P Y  
R A G I I E A Y K T G R G K I K V R G K V D I E E E L K N G K S N I V S E I P Y  
D A D L R S V Y E T G R G S L R V R A R Y Q L D K A G R F I E I L T T E I P Y  
K K E M K Q I F D T G K G S V T L R A K Y R V D D G N Y I E I Y E I P Y N T S T  
L E G I R D A Y L T G R G S F R T R A T A R I E S I T P R R K G I V V T T E I P Y  
R E T V R A A Y K E G R G A F R M R A N Y E I E A L A R G Q W Q I V V T T A L P Y  
K S G I R A A Y E T G K G R I V V R A K A E I E E E N G R H K I I V T T E I P Y  
R E G I R Q A Y L T G R G S V I M R A K A R I E K M N G G K M R I L V H E I P Y  
P E E L R N V Y A T G R G S I K V R A R K V E V R D L G Y G R K S I C I T T E I P Y  
D D E M R I Y E T G R G S V R I R A V Y D Y V K G D G N M L E I T T R I P P  
T D G L R E Y I T T G R G S L F T V R G T V S V I E D G K N C I T T E I P P  
N D N L V K A Y K T G K G S V V I R A R Y H I E E R T E D R N A I I V T T E I P Y  
E E E M K S I Y E T G R G S F K L R G K Y R Y L K K E Q L I E I Y E I P Y  
L D E V R K A Y E T G R G S V R M R A K V E T L E G S R G R Q A I T I T T E I P Y  
Q A D I E K I Y R T G R G S I K M R A V W H K E G S D I V I T T S L P H  
A D E I K K A Y E T G K G S V V R S R T E I E E L K G G K Q Q I V I T T E I P Y  
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G G I A D V S E Y N N G K R G G V K V R A R M E A R K N T L A I T T E I P Y  
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G L Q K I L S S Y I S H R K D I I I E R S K F D K A K A E K R L H I V E G L I R  
N L L E I L S E W L V L R R D T V R R R L N Y R L E K V L K R L H I M L E G F L V

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

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L Q R S I P S M V D D G L K P G G Q Q R K I L F C S F K R N F V K Y A K V A Q F S G Y  
R S I P S V L D D G L K P G G Q Q R K V L Y G C C I K K R L T S E I K V A Q L A G Y  
R S I P S V L D D G L K P G G Q Q R K V M F A C C F K R N L T K D Q K V V E L A G Y  
R S I P S L V D D G L K P G G Q Q R K I L F T C C F K R N D K R E V K V A Q L A G S  
R S I P S L V D D G W K P G G Q Q R K I L Y A C F K R K L K A E L K V A Q L A G Y  
L Q R S I P S M V D D G F F K P G G Q Q R K I L F C S F K R N L V K E T K V A Q F S G Y  
Q R S I P S V V D D G L K P G G Q Q R K I L H T M K Q M D D G R Y H K V A N I I T G Q  
R S I P S V L D D G L K P G G Q Q R K I L Y T C F K R N L V K D M K V V E L A G H  
R S I P S L V D D G F F K P G G Q Q R K I L Y G C C Y K R N L S E I K V S Q L A G Y  
S R A L P D T R D D G L K P V V Q Q R R I L Y A M Q Q L G L S H A G P F R K S A R V  
R S I P S V V D D G L K P G G Q Q R K I L Y T C C F K R R N L R K D M K V V E L A G H  
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U n i R e f 9 0 \_ I 1 M J Q 7 G V T T T K L M D S I V K A N D Q G K I K I K K V T D N T A A E V E V L  
U n i R e f 9 0 \_ G 8 T E 7 6 T Q D Y K E F L E S I V S A E N D K S K D P F V Q G C D S H S P Q F A H F M V Y  
U n i R e f 9 0 \_ S 8 D 1 A 8 H Q W T Q D F K E K L E D I I K A E K T P S F I K D Y T E Y N T P E T V H F I I  
U n i R e f 9 0 \_ M 3 B 3 2 4 R M W T D D F K A K L E E I I K A E K V P S F I K D Y K E F N D H K T V H H M I I  
U n i R e f 9 0 \_ A 7 E 9 F 0 R S W T Q D F K D R L E E I I K A E K V P S F I K D Y K E Y N T H T K V H F I I  
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U n i R e f 9 0 \_ F 4 W E K 4 G Q T T S S V I A S I L S A N E K G K I K I R K V E D N T A A K V E I L V  
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U n i R e f 9 0 \_ M 7 B E 6 2 R T W T Q T Y K E Q V L E P M L N E K T P P S L I T D Y K E Y H T D T T V K F V V  
U n i R e f 9 0 \_ G 1 N A T 9 G T W T Q V Y K E N T L E P M L H K Q K A V I S D Y K E Y N T D T V R F V V S  
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U n i R e f 9 0 \_ K 7 U Y E 6 S T T T S L I D S I L K A N E K G K I K I K K I E D N T A A Q V E I L I  
U n i R e f 9 0 \_ H 1 G W N 7 R M W T D D F K A K L E E I I K G E K A P F I K D Y K E Y N D H K S V H F L V Q  
U n i R e f 9 0 \_ N 1 J K N 9 G T W T H P Y K E T V L E P M L N D K Q P A T I T D F K E Y H T D T T V R F V I  
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U n i R e f 9 0 \_ U P I 0 0 0 2 9 A C 0 0 B R V W T Q A Y K E A V I E P M L H E K V P S I I T D Y K E Y H T D T T V R F L V  
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U n i R e f 9 0 \_ U 6 M R N 9 R T W T Q D F K D K L E E I I K G D K T P S F I K D Y K D Y N T H T K V H F V I  
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UniRef90\_E1KRA8  
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UniRef90\_I2GHU9  
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S V S D V L R R H S V D T T K H L L Q L R R E L L E I K R K G E L L R E E S L L H Y A S L E K I  
P I V S D V L R R Q S S A D D T V A L L K L E L E I R R K A G E L L E E S L L H Y V S L E K I  
T V S D V L R R Q S S V E D R T K T L L R K E L E I R R K A G E L L E E S L L H F A S L E K I  
S G V K D I I A T W H K S R C A L L I S R Y S A E C G S R I L M E S L H I L D G F L T  
T V N D I L R Y N T Q Q T V D L L K Q E L E I R R R G E L L E E K L L F S S L E R I  
G V T D I L K Y N T Q Q T V H L L R R E L E I E I K R R G E L L E E K L L F Y G S L E K I  
T V S A V L K Q S V D N T L D L L R Q R E L E I Q I Q K G E L L E E S L L H F C S L E K I  
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N L N L T S Y V E H L V S D L K T K T L E T Y D V E K H K L R L E I V L G F L K

D V D S I L K L H A E K L Q E Y L R I E L E L E R D R F K E K L F A K T L E Q I  
A V E E V L R R N T D R L V A N L R E L E L E L G R L E D K W H A R K L E Q I  
T V S E E V L R R S T D R T V S L L K K Q E L E I E L S E L L E M Q W H F A S L E K I  
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G V N E I L A H N T Q Q T K E L L K R E L E I R K G E L L E M E K I L F S S L E K I  
U N I R E F 9 0 \_ A 6 K W X 2  
K V E E V L K K A T D N T L S R L L R Q R E L E I H K K S E L L E E N L H F A S L E K I  
U N I R E F 9 0 \_ A 1 Z X 5  
G V S D I L K L N T E H T V K L L E W E L A N E L K H L E D K W H M T T L E K I  
U N I R E F 9 0 \_ C 9 R L W 5  
N V E I M E E Y Y H Y R L L K M Y T E R K K H W Y H A D Y R K L K N Q Y R F I T  
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T V S D V L K K S V D N T L R L L K Q E L E I R K G E L L E V L E N L H F A S L E K I  
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G V T E M L K Q R S T D Y T V E L L R A E L E V Q L R G E L L E E Q W H F A S L E R I  
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N L Y D M L K Y Y L L H Q E E V V T R R T K F D L N K A E E R A H L L E G L M I  
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D V N E L L R S T F K T V D L L K R E L E I R K G E L L E D K W H Y S S L E K I  
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U N I R E F 9 0 \_ Q 8 G S C 4  
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F I E E R I Y K E R G F E T A K T M D G K L E P F K K N F I R E V K R E D I L  
I Q K K I L E I I S F L Q K N Q N I E E I K N F F K K N F Q L N D Y Q I Q H I L  
F I E E R I Y K D K E Y E Q S S T V D E A V A H I D K R R L E P F K P S F V R L L L  
F I E E R I Y K D K Q F E E S E T M E L V I A H V H R R A L Q P F D D D V K K L L L  
F I E E R I Y K D K K F E N A P D M D A A C A H I D E R L T P Y K D D I L R L M  
F I E E R L Y K D R A F E Q A K D M D A A V S H I D S R L E P Y K P Q F A R L M  
I L A D I D E V I K T I K S S K T R E T A Q N N L R K K W K L S V P Q A Q A V L  
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F I  
F F E E K I Y K E L E K R Y A T W E K V L D G I T E A F K P F R K Q L R R D I T  
F I K S V V D V V S N R K K A D L F L E L K N K G F T P F P K K K Q A A  
F V K M I I D  
F V T E I I E N K L I V S K K K K P  
M I I D G K F V I S K K P K A Q L V R E L K E K G F K P F E I A A N S Y D Y L L

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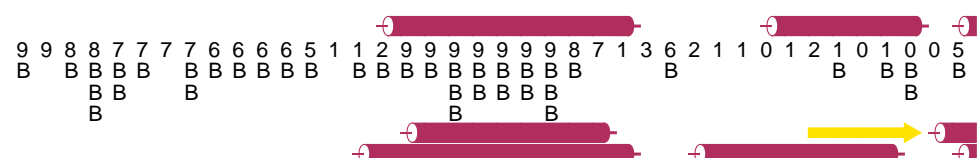
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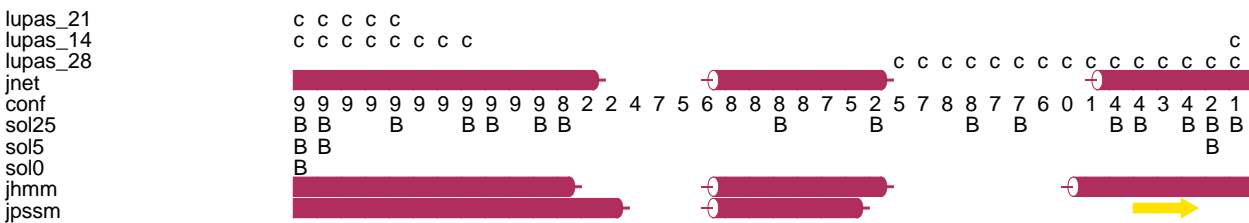
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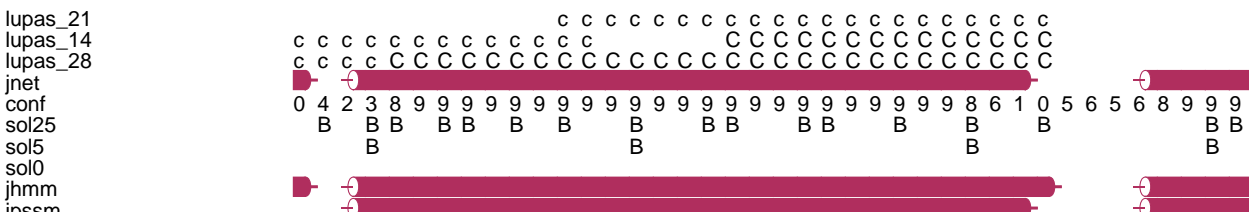
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