

QUERY	1	10	20	30	40																																					
UniRef90_UPI00042AEA04	H	W	G	H	D	G	P	E	H	W	H	K	D	F	P	I	A	K	G	E	R	Q	S	P	V	D	I	D	T	H	T	A	K	Y	D	P	S					
UniRef90_F1R454	H	W	G	Y	G	N	N	G	P	E	H	W	H	K	D	F	P	I	A	N	G	E	R	Q	S	P	V	D	I	D	T	K	T	A	Q	Y	D	P	A			
UniRef90_Q92051	H	W	G	Y	D	K	H	N	G	P	E	D	K	W	G	E	S	P	I	A	N	G	S	R	Q	S	P	V	D	I	D	K	S	T	T	T	Y	D	E	K		
UniRef90_Q3Y546	H	W	G	Y	G	P	A	D	G	P	E	S	W	A	E	S	F	P	I	A	N	G	P	R	Q	S	P	I	D	I	V	P	T	Q	A	Q	H	D	P	S		
UniRef90_I3JGP6	H	W	G	Y	G	E	E	N	G	P	A	E	W	H	K	D	F	Q	I	A	K	G	E	R	Q	S	P	I	D	I	Q	P	G	E	A	T	Y	D	A	T		
UniRef90_UPI00029DA733	H	W	G	Y	K	P	N	N	G	P	Q	K	W	V	E	N	F	P	I	A	D	G	V	R	Q	S	P	I	D	I	V	P	G	E	A	T	Y	D	A	G		
UniRef90_UPI0003F1181D	H	W	G	Y	G	T	T	G	P	E	Q	W	S	K	L	Y	P	I	A	A	N	G	N	N	Q	S	P	V	D	I	D	K	T	S	E	T	K	H	D	T	S	
UniRef90_UPI0000E38790	H	W	G	Y	G	K	H	N	G	P	E	Q	W	H	E	L	F	P	I	A	K	G	E	R	Q	S	P	V	D	I	D	T	K	A	K	H	D	P	A			
UniRef90_C7FPZ1	H	W	G	Y	S	K	H	N	G	P	E	H	W	K	T	F	P	L	A	D	G	E	R	Q	S	P	V	D	I	D	T	A	A	V	K	H	D	P	A			
UniRef90_UPI0002BD04BD	H	W	G	Y	A	E	D	N	G	P	Q	K	W	A	E	N	F	P	L	A	N	G	P	R	Q	S	P	V	D	I	D	V	G	D	A	R	C	H	D	A	S	
UniRef90_F6PGF8	H	W	G	Y	E	E	A	D	G	P	S	H	W	H	K	L	Y	P	I	A	R	G	D	R	Q	S	P	I	D	I	V	S	R	K	A	V	Y	D	P	S		
UniRef90_UPI0003C28505	H	W	G	Y	G	Q	E	D	G	P	S	E	W	H	K	L	Y	P	I	A	Q	G	D	R	Q	S	P	I	D	I	V	S	S	Q	A	V	Y	D	P	T		
UniRef90_K9IH28	H	W	G	Y	G	C	D	N	G	P	A	H	W	C	K	E	F	P	V	A	E	N	G	E	R	Q	S	P	I	D	I	K	T	R	S	A	K	Y	D	P	S	
UniRef90_A8KC11	H	W	G	Y	A	E	H	N	G	P	V	H	W	E	L	F	P	I	A	E	G	D	R	Q	S	P	I	D	I	E	K	N	T	R	S	E	V	K	Y	D	S	S
UniRef90_G1NGT0	H	W	G	Y	G	E	D	N	G	P	S	A	H	W	K	D	Y	P	I	A	E	G	N	R	Q	S	P	I	D	I	V	P	S	E	A	V	F	D	A	K		
UniRef90_F6ZUY9	N	W	G	Y	D	S	H	N	G	P	D	Q	W	H	K	L	Y	P	I	A	E	G	N	R	Q	S	P	I	D	I	V	K	T	E	E	T	K	Y	D	P	S	
UniRef90_G1NGS2	N	W	G	Y	D	R	E	N	G	P	E	H	W	H	E	N	Y	P	M	A	K	G	D	K	Q	S	P	I	D	I	E	N	S	A	K	D	V	R	H	D	S	S
UniRef90_F7BGW4	N	W	G	Y	D	R	E	N	G	P	E	H	W	H	E	N	Y	P	M	A	K	G	D	K	Q	S	P	I	D	I	E	N	S	A	K	D						

[illegible]

QUERY	L	D	G	T	Y	R	L	I	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	K	K	K	Y	A	A	E	L	H	L	V	H	W	
UniRef90_UPI00042AEA04	L	N	G	T	Y	R	L	I	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_F1R454	L	N	G	T	Y	R	L	I	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_Q32051	I	T	G	I	Y	R	L	R	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_Q3546	L	P	N	P	Y	R	L	K	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_I3JGP6	I	S	G	L	Y	R	L	K	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_UPI00029DA733	I	S	D	S	Y	R	L	F	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_UPI0003F1181D	L	D	G	T	Y	R	L	I	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_UPI0000E38790	L	T	G	T	Y	R	L	I	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_C7FPZ1	I	S	G	T	Y	R	L	K	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_UPI0002BD04BD	L	D	G	P	Y	R	L	K	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_F6PGF8	L	D	G	P	Y	R	L	K	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_UPI0003C28505	L	D	G	T	Y	R	L	I	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_K9IHZ8	L	T	G	R	Y	R	L	K	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_A8KC11	L	E	N	M	Y	R	L	K	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_G1NGT0	L	T	G	A	Y	R	L	R	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_F6ZUY9	L	K	A	T	Y	R	L	N	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K	Y	A	A	E	L	H	L	V	H	W
UniRef90_G1NGS2	L	T	G	A	Y	R	L	R	Q	F	H	F	H	W	G	S	L	D	G	E	G	S	Q	H	T	V	D	N	K	K	K										



QUERY	130																				140																				150																				160																			
UniRef90_UPI00042AEA04	N	T	K	Y	G	D	F	G	K	A	V	Q	Q	P	D	G	L	A	V	L	G	I	F	F	L	K	I	V	G	S	A	K	P	G	L	Q	K	V	V	D	V	L																																						
UniRef90_F1R454	N	T	K	Y	G	D	F	G	K	A	V	D	K	P	D	G	L	A	V	L	G	I	F	F	L	K	I	V	G	S	A	D	N	P	K	G	L	Q	K	V	L	D	A	M																																				
UniRef90_Q92051	N	T	K	Y	P	N	F	G	E	A	A	S	K	P	D	G	L	A	V	V	G	V	F	F	L	K	I	G	A	D	N	P	R	L	Q	K	V	L	D	A	L																																							
UniRef90_Q3Y546	N	S	K	Y	K	S	F	A	E	A	A	S	K	S	D	G	L	A	V	V	G	V	F	F	L	E	A	G	A	E	N	P	R	L	Q	K	V	L	D	T	L																																							
UniRef90_I3JGP6	N	T	K	Y	A	S	F	S	E	A	A	S	K	A	S	D	G	L	A	V	V	G	V	F	L	K	I	V	G	G	E	A	N	P	N	L	Q	K	V	L	D	A	F																																					
UniRef90_UPI00029DA733	N	S	K	Y	S	S	L	A	E	A	A	S	K	A	D	G	L	A	V	I	G	V	L	M	K	V	G	E	A	N	P	S	K	L	Q	K	V	L	D	A	L																																							
UniRef90_UPI0003F1181D	N	T	K	Y	G	D	F	G	K	A	V	Q	Q	P	D	G	L	A	V	L	G	I	F	F	L	K	I	V	G	S	A	R	P	G	L	Q	K	V	V	D	V	L																																						
UniRef90_UPI0000E38790	N	T	K	Y	G	E	F	G	E	A	A	S	Q	P	D	G	L	A	V	V	G	V	F	F	L	K	I	V	G	S	D	N	H	V	G	L	Q	K	V	L	D	A	F																																					
UniRef90_C7FPZ1	N	T	K	Y	S	S	F	G	E	A	A	S	K	P	D	G	L	A	V	V	G	V	F	F	L	K	I	V	G	S	A	R	P	G	L	Q	K	V	V	D	A	F																																						
UniRef90_UPI0002BD04BD	N	K	K	Y	S	T	F	G	E	A	A	S	A	P	D	G	L	A	V	V	G	I	F	L	E	T	G	D	E	H	P	S	M	N	R	L	T	D	A	L																																								
UniRef90_F6PGF8	N	K	K	Y	K	T	F	A	E	A	A	A	P	D	G	L	A	V	V	G	I	F	L	E	T	P	R	F	R	C	A	G	E	W	T	P	R	Q	A	L	F																																							
UniRef90_UPI0003C28505	N	T	R	Y	G	T	F	S	E	A	V	K	H	P	D	G	L	A	V	L	G	I	F	L	K	V	G	N	E	A	K	P	E	I	Q	K	V	V	D	A	L																																							
UniRef90_K9IHZ8	N	S	N	Y	S	S	F	V	E	A	A	H	E	P	D	G	L	A	V	L	G	V	F	L	E	Q	I	G	E	F	N	P	Q	L	Q	K	V	V	D	A	L																																							
UniRef90_A8KC11	N	A	N	Y	K	S	F	S	E	A	A	A	A	P	D	G	L	A	V	L	G	I	F	L	E	T	G	D	E	H	R	A	L	H	Q	I	T	D	A	L																																								
UniRef90_G1NGT0	N	V	K	Y	G	K	F	A	E	A	V	K	H	P	D	G	L	A	V	V	G	I	F	M	K	V	G	S	A	K	P	E	I	Q	K	V	V	E	A	L																																								
UniRef90_F6ZUY9	N	S	D	Y	S	S	F	A	E	A	S	K	N	P	D	G	L	A	V	V	T	V	F	I	K	V	G	S	S	H	P	G	L	Q	R	V	V	E	A	L																																								
UniRef90_G1NGS2	N	P	K	H	G	N	F	A	G	A	L	K	Q	P	D	G	L	A	V	V	G	V	F	L	K	V	G	N	A	R	P	G	L	Q	K	V	I	D	V	L																																								
UniRef90_F7BGW4	N	T	K	Y	G	K	F	G	E	A	V	K	H	P	D	G	L	A	V	L	G	V	F	L	K	V	G	N	A	R	P	G	L	Q	K	V	I	D	V	L																																								
UniRef90_S9WC05	N	S	K	Y	N	S	F	A	S	A	L	K	K	P	D	G	L	A	V	I	G	I	F	L																																																								
UniRef90_G1KPK2	N	D	K	Y	A	S	F	V	E	A	A	C	E	A	D	G	L	A	V	M	A	V	F	L	K	I	G	E	A	N	P	Q	L	Q	K	V	I	T	D	F	L																																							
UniRef90_H3CKX1	R	L	A	Q	S	E	T	F	G	D	Q	S	L	S	K	R	T	A	C	F	S	G	V	F	Q	K	I	V	G	S	A	N	P	R	L	Q	K	V	V	D	A	L																																						
UniRef90_G1KXA5	N	T	K	Y	G	S	F	G	E	A	V	K	H	P	D	G	L	A	V	V	G	V	F	L	K	I	V	G	S	A	C	P	G	L	Q	K	V	I	T	D	A	L																																						
UniRef90_G3W4E6	N	T	K	Y	E	S	F	K	V	A	V	T	K	D	D	G	L	A	V	V	G	V	F	L	Q	V	T	G	H	D	K	R	P	E	L	Q	K	V	I	T	D	N	A	M																																				
UniRef90_I3J4Q6	N	A	K	Y	K	T	Y	G	E	A	S	T	A	P	D	G	L	A	V	L	G	I	F	L	E	T	G	D	D	H	R	W	L	H	M	I	T	D	V	L																																								
UniRef90_Q0IIV4	N	T	K	Y	A	S	M	A	E	A	V	K	H	C	D	V	L	A	V	V	G	V	F	L	K	V	G	E	A	N	P	R	L	Q	K	V	V	D	A	L																																								
UniRef90_UPI00045DD5CC	N	S	K	Y	Q	T	F	Q	E	A	V	L	H	G	S	D	G	L	A	V	I	G	V	F	L	K	I	G	A	R	S	E	P	E	L	Q	K	V	V	D	V	L																																						
UniRef90_G3WAT6	N	T	K	Y	K	T	Y	C	D	A	L	H	S	D	G	L	A	I	V	G	V	F	L	T	I	L	G	N	S	E	P	E	L	Q	E	V	I	D	A	L																																								
UniRef90_UPI00038C5254	N	P	K	Y	E	N	Y	K	E	A	A	V	I	G	E	D	G	L	A	V	I	G	V	F	L	K	I	G	A	R	S	E	T	L	Q	R	V	V	D	A	L																																							
UniRef90_UPI0003314EAB	N	S	E	K	Y	S	F	A	E	A	V	S	Q	A	E	D	G	L	V	V	I	S	V	L	M	K	I	G	R	E	N	I	H	L	Q	T	R	I	V	D	A	L																																						
UniRef90_UPI0003FOAE5E	D	A	R	Y	R	S	Y	G	E	A	A	L	G	A	E	G	L	A	V	I	A	V	F	L	K	I	G	V	T	R	H	A	G	L	Q	T	R	V	E	A	L																																							
UniRef90_UPI000333A6A7	N	P	M	Y	Q	S	Y	Q	D	A	V	V	G	E	K	G	L	A	V	I	A	V	F	L	E	L	G	T	T	H	Q	A	L	Q	P	L	V	D	I	L																																								
UniRef90_F6QBV2	N	T	K	Y	E	S	M	Q	N	A	V	N	K	C	D	G	L	A	V	V	G	V	L	I	E	V	S	H	P	M	P	Q	A	L	E	K	I	T	N	I	L																																							
UniRef90_UPI0002742662	N	S	K	Y	R	N	Y	Q	E	A	V	I	G	E	N	G	L	A	V	I	G	V	F	L	K	I	G	A	R	P	H	Q	A	L	Q	K	V	V	D	I	L																																							
UniRef90_M3WS40	N	P	K	Y	N	T	F	G	E	A	L	K	Q	P	D	G	L	A	V	V	G	I	F	L	K	I	G	R	E	K	G	E	F	Q	L	F	L	D	A	L																																								
UniRef90_S9W715	N	S	K	Y	S	S	F	A	E	A	A	S	Q	A	E	D	G	L	A	I	V	G	V	L	M	K	V	G	P	A	N	P	K	L	Q	K	V	L	D	A	L																																							
UniRef90_W5M7A4	N	A	D	K	Y	S	F	E	E	A	V	M	E	D	D	G	L	A	V	V	A	V	F	L	K	I	G	A	R	H	E	E	L	Q	E	L	V	A	V	L																																								
UniRef90_E1BAD9	N	A	K	Y	Q	N	Y	T	D	A	V	T	G	A	D	G	L	A	V	V	G	V	F	L	K	I	G	A	R	H	E	E	L	Q	E	L	V	A	V	L																																								
UniRef90_K7G965	Y	S	K	Y	S	N	Y	A	E	A	L	R	N	Y	D	G	L	A	V	L	G	I	F	L	Q	V	E	T	P	K	P	E	M	K	R	I	L	E	E	I																																								
UniRef90_UPI0002C66F8F	N	S	K	Y	R	S	Y	R	E	A	V	L	N	G	D	S	G	L	A	V	I	G	V	F	L	K	I	G	T	H	H	E	G	L	Q	K	V	L	E	V	L																																							
UniRef90_G1KY16	C	S	K	Y	S	N	Y	L	D	A	C	R	K	N	D	G	A	A	L	L	A	M	F	L	K	V	K	N	P	K	P	E	M	K	R	I	L	E	E	L																																								
UniRef90_G3H2Q3																																																																																
UniRef90_F6QLE4	N	P	K	Y	S	S	L	A	E	A	I	S	E	A	D	A	L	A	V	I	G	V	F	L	K	I	G	E	A	N	P	K	L	Q	K	V	V	D	A	L																																								
UniRef90_D2GWM4	N	S	K	Y	R	S	Y	K	E	A	L	T	G	E	N	G	L	A	V	I	G	V	F	L	K	I	G	A	N	P	K	L	Q	K	V	V	E	V	L																																									
UniRef90_L9J9B1	N	T	K	Y	G	D	F	G	K	A	V	Q	H	P	D	G	L	A	V	V	G	V	F	L	K	I	G	N	A	N	P	G	I	Q	K	V	L	D	V	L																																								

QUERY		170	180	190	200
UniRef90_UPI00042AEA04	D S I	K T K G K S A A F T N F D	P R G L L L	P E S L D Y W T Y	P G S L T T T P P L L L
UniRef90_F1R454	D A I	K S K G K Q T P F N F D	P S V L L L	P S S L D Y W T Y	L G S L T T T P P L L L
UniRef90_Q92051	D D I	K S K G R Q T T F A N F D	P S K T L L	P A S L D Y W T Y	E G S L T T T P P L L L
UniRef90_Q3Y546	N I I	R S K G A K V D F L D Y D	P S V L L L	P K S L D F W T Y	L G S L T T T P P L F Y
UniRef90_I3JGP6	D T I	K S K G K Q T S F A N F D	P S T L L L	P G S L D Y W T Y	D G S L T T T P P L L Y
UniRef90_UPI00029DA733	Q A I	K T K G K R A P T F N F D	P S T L L L	P S S L D F W T Y	P G S L T T H P P L L Y
UniRef90_UPI0003F1181D	D S V	K T K G K S V D F S N F D	P S S L L L	P D N L D Y W T Y	P G S L T T T P P L L L
UniRef90_UPI0000E38790	D S I	K A K G K S A A F T D F D	P T G L L L	P E K L D Y W T Y	P G S L T T T P P L Q L
UniRef90_C7FPZ1	A A I	K Y K G N Q T T F M D F N	P A I L L L	P K S L D Y W T Y	D G S L T T T P P L L L
UniRef90_UPI0002BD04BD	Y M V	R F K G T K A Q F S C F N	P K Y L L L	P A S R H Y W T Y	P G S L T T T P P L T S
UniRef90_F6PGF8	S A V	S S Q G T K A A F T N S F N	P K C L L L	P M N L S Y W T Y	P G S L T T T P P L L S
UniRef90_UPI0003C28505	D A I	Q T K G K R A A F T S Y D	P T G L L L	P A S L D F W T Y	P G S L T T T P P L L L
UniRef90_K9IHZ8	D S I	K E K G K Q T R F T D F D	P V C L L L	P S W D Y W T Y	P G S L T T V P P L F Y
UniRef90_A8KC11	Y M V	R F K G S L A E F T K G F N	P K C L L L	P N S L E Y W T Y	P G S L T T T P P L L Y
UniRef90_G1NGT0	N S I	Q T K G K Q A A F T N F D	P T G L L L	P A C R D Y W T Y	P G S L T T T P P L H Y
UniRef90_F6ZUY9	E L I	A A K G K Q A A F T N F D	A S T L L L	P A S M D Y W T Y	Q G S L T T H P P L L L
UniRef90_G1NGS2	D N I	K T K G K E A P F Q H F D	P S L L L L	P K S R D Y W T Y	H G S F T T P P C E
UniRef90_F7BGW4	E S I	K T K G K E T V F T N F D	P T G L L L	P A S R D F W T Y	P G S L T T T P P L L L
UniRef90_S9WC05		K G K E A P F T N F N	P S S L L L	P A C R D Y W T Y	Q G S F T T T P P C E
UniRef90_G1KPK2	D A I	K A K G K Q H R F T N F D	P S C L L L	P R S L D Y W T Y	L G S L T T T P P L L L
UniRef90_H3CKK1	D A I	K S K G K Q T T F S N F D	P A T L L L	P E S L K Y W T Y	D G S L T T T P P L L L
UniRef90_G1KXA5	D S I	K H K G K R A A F T N Y D	P T S L L L	P A C R D Y W T Y	L G S L T T T P P L L L
UniRef90_G3W4E6	S N I	R T K G G E N I A F T N F N	P A C L L L	P E S L D Y Y T Y	P G S L T T T P P L L L
UniRef90_I3J4Q6	Y T V	K Y K G S I T D F K G F N	P K C L L L	P S S L H F W T Y	L G S L T T T P P L H L
UniRef90_Q0IIV4	K L I	P N K G N E A P F T D Y D	P S V L L L	P N S L D F W N Y	K G S L T T T P P L L L
UniRef90_UPI00045DD5CC	D K I	K Y K G D T R A A L S S F	P A A L L L	P S C P D Y W T Y	P G S L T T T P P L T L
UniRef90_G3WAT6	D A I	K Q R N M H A V E T D F N	P A C L L L	P D N L D F W T Y	S G S L T T P P L L L
UniRef90_UPI00038C5254	P D V	K H K D T Q V T V G P F D	P S E L L L	P A C R D Y W T Y	P G S L T T P P L L A
UniRef90_UPI0003314EAB	H A I	K T K G K T I P F T N F N	P S C L L L	P S S L D Y W T Y	F G S L T T S P P L C
UniRef90_UPI0003F0AE5E	P E I	K H K D A R V A L G P F N	P A A L L L	P S C Q D Y W T Y	T G S L T T T P P L A
UniRef90_UPI000333A6A7	P Q I	K H K D T Q V A L S P F D	P S C L L L	P A C R D Y W T Y	A G S L T T T P P L A
UniRef90_F6QBV2	D K I	Q T K G K A E A T F N D F N	P Q D L L L	P N S L E F Y T Y	P G S L T T T P P L S A
UniRef90_UPI0002742662	P E I	K H K D A R A A V G P F D	P S C L L L	P T S R D Y W T Y	T G S L T T T P P L A
UniRef90_M3WS40	D K V	K T K G K E A P F T N F D	P S C L L L	P A C R D Y W T Y	H G S F T T T P P C E
UniRef90_S9W715	K S V	K T K G K S A P F T N F D	P S V L L L	P S S L D Y W T Y	F G S L T T H P P L H
UniRef90_W5M7A4	P T V	R H K D S V V E F T R F D	A A C L L L	P T C Q D Y W T Y	P G S L T T T P P L T S
UniRef90_E1BAD9	P D I	K H K D A R A A L G P F Q	P S C L L L	P A C Q D Y W T Y	P G S L T T T P P L L S
UniRef90_K7G965	N G I	K T K G K E A P F S N F D	P S I L L L	P K S W D Y W T Y	H G S F T T E P P C D
UniRef90_UPI0002C66F8F	P E I	R H K H A R A P V G P F E	P S C L L L	P T C R D Y W T Y	P G S L T T T P P L T
UniRef90_G1KY16	D A I	K T K G K E V P F P N F D	P S I L L L	P Q N R N Y Y T Y	Q G S F T T T P P C E
UniRef90_G3H2Q3	N S V	K T K G K R A P F T N F D	P S C L L L	P S S L D Y W T Y	F G S L T T H P P L H
UniRef90_F6QLE4	H A I	K T K G K Q A P F T N F D	P S T L L L	P S S L N F W T Y	F G S L T T H P P L Y
UniRef90_D2GWM4	P E I	K H K G A R S A V G P F Q	P A R L L L	P A C R D Y W T Y	A G S L T T P P L S
UniRef90_L9J9B1	D S I	K T K			
UniRef90_UPI0003F11B94	D K V	K T K G K D A P F T R F D	P S C L L L	P A C R D Y W T Y	H G S F T T T P P C E
UniRef90_UPI0004419178	D S I	K A K G K S A A F T N F D	P R G L L L	P E S L D Y W T Y	P G S L T T T P P L L L
UniRef90_P07452	S A V	K T K G K K A S F T N F D	P S T L L L	P S S L D Y W T Y	S G S L T T H P P L H
UniRef90_V9L9U2	P A V	K Y K D S T V E F S N F D	P S C M L L	P S C L D Y W T Y	P G S L T T T P P P O T
UniRef90_A2IBE0	H E V	R Y K D Q K T S V P F N	V R E L L L	P Q Q E Q F F R Y	N G S L T T T P P C Y
UniRef90_UPI0003834B4A	P A V	K H K D T V I E F D V I D	P S C L M L	P S C P D Y W T Y	A G S L T T T P P L T
UniRef90_C1C1R3	D K I	K Y K G Q Q T V L A S V D	P S C K F L	P K A K D F W T Y	E G S L T T T P P L Y
UniRef90_UPI0003C1A27B	G N V	K Y A G E K V V V P P F	D V R L L L	P R L D H Y Y R Y	N G S L T T T P P C Y
UniRef90_K7J542	P K I	E K V G S E I R L K D S L R L E	P D D R M Q N Y	F T Y	N G S L T T T P P C S
UniRef90_UPI00020355EA	N S I	Q T K G K Q A S F T N F D	P T G L L L	P A C R D Y W T Y	P G S L T T T P P L H
UniRef90_S4RL19	P S V	A N Q V T T R T V Y M F N	L D N L L L	P N M S K Y Y R Y	S G S L T T T P G C G
UniRef90_F6WLX6	P S V	R Y K D A L T E F N Y F D S	C L L L	P S C G D Y W T Y	S G S L T T T P P L T
UniRef90_UPI0003F0E227	Q K I	R F N G D S C A V E G G F D	P S L L L L	P D N I L D Y W T Y	Q G S L T T T P P C Y
UniRef90_V4AHB6	S E V	Q Y K D K S I N I K Q E Y N	P L L L L L	P D N I L N K Y W T Y	L G S L T T T P P L C
UniRef90_Q9XZG6	P Q V	Q N I G D K Q D L K V P F N	L L L L	P S N T N D Y W T Y	S G S L T T T P P C Y
UniRef90_H2TXA2	T R S	K L F L F L I Q I G N K N E S	L Q K V L D K F G T		K G S L T T T P P L L L
UniRef90_UPI000388DB35	K N I	Q Y A G Q K V S I P P F N	V H E L L L	P G Q G H Y F R Y	N G S L T T T P P C S
UniRef90_UPI0004419260	P S I	K Y K D S L V E L E E F D A S C	L L L L	P S C P D Y W T Y	S G S L T T T P P L L S
UniRef90_UPI0002C43030	Q N I	K Y P G Q S T T L A G V D I	H D L L L L	P N L H D Y Y T Y	L G S L T T T P P O T
UniRef90_UPI0003AF79C1	D K I	K T K G K E A P F N N F N	P S C L L L	P A C R D Y W T Y	H G S F T T T L C P T
UniRef90_H3CSL2	I G I	K Y K G D E K V P V G F N	I R S L L L	P A Q L D Y Y R Y	D G S L T T T P P C Y
UniRef90_UPI000386F695	E N I	K Y K G Q T A Q M E P L L S	S L L L L L	P P E E D Y Y R Y	E G S L T T T P P O H
UniRef90_F1NAI5	R N I	S H A G Q A V D L A S T F R L	L G T L L L	P H S R Y Y R Y	Q G S L T T T P D C S
UniRef90_UPI00039469B1	K N I	E S K G S A R V D P L L S	S L L L L L	P P E E D Y Y R Y	Q G S L T T T P P O Y
UniRef90_U3U9G8	K K V	N A C G T C S V K N S F N	P S V L L L	P S T S E F Y T Y	H G S L T T T P P O N
UniRef90_B7T143	P K V	K K A G S S E P I E F D M R	S V M P K D L T	D Y Y T Y	D G S L T T T P P L L L
UniRef90_A0A023EQM0	G N I	T N A H K S T T F T S P P S	L L L L L L	H D T L H Y Y T Y	D G S L T T T P P C S
UniRef90_UPI0003F14225	K N V	S G L G L S A K L A S T F P L A	S V L L L L	P S S P Y Y R Y	P G S L T T T P G C Q
UniRef90_UPI0001DEB1F3	K N V	S E R G V S V N L A S T F P L A	S L L L L L	P G S R Y Y R Y	S G S L T T T P G C Q
UniRef90_Q8CIB5	Q H V	K Y K G Q Q V L I P G F N	I E E L L L	P E S P G Y Y R Y	E G S L T T T P P O Y
UniRef90_W5NCG8	D A V	K Y K G Q N V Q V P A F N	I Q E L L L	P K R L D Y Y R Y	D G S L T T T P P O Y
UniRef90_V9KZE8	E K V	S H Q G D K V W L S S T F Q L N S	I L L L	P K S Q Y Y R Y	Q G S L T T T P N C S
UniRef90_UPI00032A0E1F	K Y I	S Q P K T N V T L V G V S L	D M F I L L	P N R T K Y F R Y	K G S L T T T P D C A
UniRef90_F6XBZ7	K N V	S L K G E F I E L D S T F P L E	M L L L	P H D Y Y R Y	Q G S L T T T P D C S
UniRef90_A3FFY1	P F I	S H K G Q I T V T N V P R	P E T F L L	P K N G S Y Y T Y	S G S L T T T P P C Y
UniRef90_G1QEP0	C S I	K T K G K S A P F T G F H	P W G L L L	P K T G F H P W G	L L L L P G N L K F W F
UniRef90_R7V5W2	P E V	T E D G S M A E M T G K F	P L R A C L L L	P E D D Y Y R Y	P G S L T T T P D C N
UniRef90_UPI0003EBD747	E D V	R D L G Q S T V L S S L D V	Q D M L L L	P D L R F Y Y T Y	P G S L T T T P P C T
UniRef90_D6WET4	P R V	E Y K G Q R A K I V P L N	P G L F I L L L	P E E S G Y Y T Y	Q G S L T T T P P C S
UniRef90_K1QPX3	Y Q I	A H K A D H V N L T T F P L S	S G L L L L	P D D L K Y Y R Y	H G S L T T T P P O S
UniRef90_U3JQR2	E N I	K T K G K E A P F L H F D	P S I L L L	P K S R D Y W T Y	H G S F T T T P P C E
UniRef90_UPI0004444774	E S V	A S K N V S F S L P S I	S L A Q L L L L	P E Q S Y Y R Y	K G S L T T T P P O F
UniRef90_R7V8T6	S S V	Q Q P L G K E N I I D V A S	G D L N H D	T E E F F R Y	S G S L T T T P P O F
UniRef90_S7PKC8	H E I	R Y K G Q K T S V P P F S	V E L L L L	P E L A Q F F R Y	N G S L T T T P P C H
UniRef90_UPI0003F0B8BC	K N I	K Y A G K S T T L T G L D I	R D M L L L	P N N H N Y Y T Y	L G S L T T T P P O T
UniRef90_Q5I053	D R V	K T A G Q K T C P F T E	F L D L L L	P K D L N Y W T Y	M G S L T T T K P Y F
UniRef90_UPI000333CCB4	K N I	R Y P G Q S T T L S G F D I	L K D M L L	P R N Q D Y Y T Y	H G S L T T T P P C T

QUERY	210	220	230	240
UniRef90_UPI00042AEA04	E C V T W I V L K E P I S V S S E Q V L K F R K L N F D G E G E P E E L M V D N			
UniRef90_F1R454	E C V T W I V L K E Q S P I T V S S A Q M S V F R S K L N F S T G E G E K A C C M V D N			
UniRef90_Q32051	E S V T W I V L K E P I S V S P A Q M A K F R S L L L F S S E G E T P C C C M V D N			
UniRef90_Q3Y546	E S V T W I V F K E P I P A S S K E Q L A R F R S L L L F S S E G E T S E N C C M V D N			
UniRef90_I3JGP6	E S V T W I V C K E P I T A S S G Q M A K F R S L L L F S S A D G A A P D C C M V D N			
UniRef90_UPI00029DA733	E S V T W I I C K E S I S V S S E Q L A Q F R S L N C N G E G D E A V P M Q H N			
UniRef90_UPI0003F1181D	E C V T W I V L K R E P I S I S S E Q L M K F R S L N F S S G E G E P E E A M V D N			
UniRef90_UPI0000E38790	E C V T W I V L K R E P I S I S S E Q L M K F R S L N F S S G E G E P E E A M V D N			
UniRef90_C7FPZ1	E S V T W I V C K Q P I S I S S E Q M A K F R S L C Y F S A K G E D E C C C M V D N			
UniRef90_UPI0002BD04BD	E S V T W I V L R E P I S I S S E Q M E K F R S L L F T T E E E D E R I H M V D N			
UniRef90_F6PGF8	E S V T W I V L K E P I T I S S E K Q V S E F R S L L F T A E E E D E K V R M V D N			
UniRef90_UPI0003C28505	E C V I W H L K R E P V Y V S P E Q M C K L R G L C F S A E G E P V C H F L V D N			
UniRef90_K9IHZ8	E S V T W I V L K R E P I S I S S S Q Q L C K F R T L L C F S A E G E A A T F L L S N			
UniRef90_A8KC11	E S V T W I V L K E P I Y V S S E K Q M G K F R T L L L F N G E E E E D N R M E N N			
UniRef90_G1NGT0	E C V I W H L K E P I T V S S E Q M C K L R G L C F S A E G E P V C R M V D N			
UniRef90_F6ZUY9	E C V T W I V F K E P I S A S S E Q L A F R R I L L S A E G E E A C C P L V D N			
UniRef90_G1NGS2	E C I T W I V L R E P I L E V S P D Q M A R L R S L S K N G E E P M C P L V D N			
UniRef90_F7BGW4	E C V T W I V L R E P I T L S S E Q M S K L R S L L Y F N C E G E T P C K M V D N			
UniRef90_S9WC05	E C I V W I V L K E P M T V S S D Q G T R L N L L L C T G E G E E A A C C L L K N			
UniRef90_G1KPK2	E S V I W I V L K E P I N V S S E Q L S K F R N L L L C T G E G E E A A C C L L K N			
UniRef90_H3CKX1	E S V T W I V L K E P I S V S S P A Q M A M F R A L L L F T G E N E S E D P C C M V D N			
UniRef90_G1KXA5	E C V T W I V M K E P I L N I S S K E Q M E K L R C L C F G N D E N E S H C A M V D N			
UniRef90_G3W4E6	E C V T W I V L K E P I C L S H A Q M K E F Y C L Y F T G V G E P E K H M M C N			
UniRef90_I3J4Q6	E S V I W I V L K R E P I E V S S E N Q Q L G M L R S L L F T F E E E D N Q K R M E N N			
UniRef90_Q0IIV4	Q C V L W H L R E P I A V S S E N Q Q L S Q L R S L L F F N A E G D T P C C C M V D N			
UniRef90_UPI00045DD5CC	E S V T W V I H K Q P V E V A P E Q L S A F R T L L F S A L G E E D K V M V D N			
UniRef90_G3WAT6	E C V V W I V L R E P I N I T K E Q L S K F R S L L Y S T T K G E P Q R H M V E N			
UniRef90_UPI00038C5254	E S V T W I I Q K M P I E V A P S Q L A A F R T L L F S T G R G E E E A M V D N			
UniRef90_UPI0003314EAB	E S V T W M I C K M P I I S P C Q L A Q F R S L L L S N A E C E T V I P I W N N			
UniRef90_UPI0003F0AE5E	E S V T W I I Y K Q P I E V A P D Q L S A F R T L L F S S V P G E E E R P M E N N			
UniRef90_UPI000333A6A7	E S V T W I I H K R P I E V A P S Q L S S F R T L L F S S A K G E E E A M V D N			
UniRef90_F6QBV2	E C V T W I V L N K P I L T V S H E Q M S K F Y N L Y F T S E G E A S K H M V N N			
UniRef90_UPI0002742662	E S V T W M I Q K Q P I E V S P S Q L S A F R R L L F T A V I G E K E K M M V N N			
UniRef90_M3VWS40	E C I V W I V L K E P M T V S S D Q M A K L R S L L F S S A E N E P V P L V G N			
UniRef90_S9W715	E S V I W I V L K E S I S I S S S E Q V T R F P N E C L A T S Y S I S E P K F C A			
UniRef90_W5MTA74	E S V A W I V M K Q P I E V S H D Q L A V F R S L L F T A E E V Q K S M V N N			
UniRef90_E1BAD9	E S V T W I I H K K P I E V A Q D Q L A A F R S L L F S S V P G E E E K S M V N N			
UniRef90_K7G965	E C V T W I V L R E P I I V S P D Q I A K L R S L S V N G E T Q P F R P L V D N			
UniRef90_UPI0002C66F8F	E S V T W I I Q R K P I E V A Q S Q L A A F R T L L F S A L I G E E E K K M V N N			
UniRef90_G1KY16	E C V T W I V L K E P I I V S E E Q M A K F R T L L S C S N A A N E P F S P L E D N			
UniRef90_G3H2Q3	E S V T W F I C K E S I S V S S P E Q L A Q L R S V L S N A E G E A A V P I L T N			
UniRef90_F6QLE4	E S V T W I V C K E S I S V S S S E Q L A Q F R A L L F S N V E G D N P V P I Q H N			
UniRef90_D2GWM4	E S V T W I V I Q K Q P I S V S S S E Q L A A F R S L L L F S S A L I G E E E R S M V D N			
UniRef90_L9J9B1	E S V T W I V I Q K Q P I S V S S S E Q L A A F R S L L L F S S A L I G E E E R S M V D N			
UniRef90_UPI0003F11B94	E C I V W L V L K E P M T V S S S D Q M A K L R S L L L S S A E N E P P P Q I R G S			
UniRef90_UPI0004419178	E S V T W L V L K E P I S I S S S E Q L A Q F R S L L L S N A E G E A A V P I L H N			
UniRef90_P07452	E S V T W I V C K D P I S I S S S E Q L A Q F R S L L L S N A E G E A A V P I L H N			

250

QUERY	WR	P	A	Q	P	L	K	N	R	Q	I	K	A	S	F	
UniRef90_UPI00042AEA04	WR	P	A	Q	P	L	K	N	R	K	I	K	A	S	F	
UniRef90_F1R454	Y	R	P	P	Q	P	L	K	G	R	V	V	R	A	S	F
UniRef90_Q92051	Y	R	P	P	Q	P	L	K	G	R	K	V	R	A	S	F
UniRef90_Q3Y546	Y	R	P	P	Q	P	L	G	G	R	T	V	R	A	S	F
UniRef90_I3JGP6	Y	R	P	P	Q	P	L	K	G	R	T	V	R	A	S	F
UniRef90_UPI00029DA733	N	R	P	T	Q	P	L	K	G	R	T	V	R	A	S	F
UniRef90_UPI0003F1181D	C	R	P	H	Q	P	L	K	N	R	Q	I	R	A	S	F
UniRef90_UPI0000E38790	WR	P	V	Q	P	L	K	K	R	Q	I	R	A	F	F	
UniRef90_C7FPZ1	Y	R	P	P	Q	P	L	K	G	R	A	V	R	A	S	F
UniRef90_UPI0002BD04BD	F	R	P	P	Q	P	L	K	G	R	V	V	K	A	S	F
UniRef90_F6PGF8	F	R	P	P	Q	P	L	K	G	R	V	V	Q	A	S	F
UniRef90_UPI0003C28505	WR	P	C	Q	P	L	K	R	R	G	V	R	A	S	F	
UniRef90_K9IHZ8	H	R	P	L	Q	P	L	K	G	R	Q	V	R	A	S	F
UniRef90_A8KC11	Y	R	P	P	Q	P	L	K	G	R	M	V	R	A	S	F
UniRef90_G1NGT0	WR	P	C	Q	P	L	K	S	R	E	V	R	A	S	F	
UniRef90_F6ZUY9	H	R	P	T	Q	P	L	K	G	R	E	V	R	A	S	F
UniRef90_G1NGS2	WR	P	L	Q	P	V	K	G	R	I	V	R	A	S	F	
UniRef90_F7BGW4	WR	P	C	Q	P	L	K	N	R	E	I	R	A	S	F	
UniRef90_S9WC05																
UniRef90_G1KPK2	F	R	P	P	Q	P	L	R	G	R	E					
UniRef90_H3CKK1	Y	R	P	P	Q	E	L	K	G	R	C	V	R	A	S	F
UniRef90_G1KXA5	WR	P	C	Q	P	L	K	G	R	D	V	R	A	S	F	
UniRef90_G3W4E6	WR	P	V	Q	P	L	Y	D	R	T	I	K	R	S	F	
UniRef90_I3J4Q6	F	R	P	P	Q	P	L	K	G	R	R	V	R	S	S	F
UniRef90_Q0IIV4	F	R	P	P	Q	P	L	K	S	R	H	V	R	A	S	F
UniRef90_UPI00045DD5CC	Y	R	P	L	Q	P	L	M	D	R	K	V	H	A	S	F
UniRef90_G3WAT6	WR	P	C	Q	P	L	Q	G	R	Q	V	R	R			
UniRef90_UPI00038C5254	Y	R	P	L	Q	P	L	L	D	R	E	V	R	A	S	F
UniRef90_UPI0003314EAB	C	R	P	P	Q	P	L	K	G	R	R	V	R	S		
UniRef90_UPI0003F0AE5E	Y	R	P	L	Q	P	L	M	G	R	T	V	R	A	S	F
UniRef90_UPI000333A6A7	F	R	Q	P	Q	P	L	M	S	H	K	V	C	S	S	F
UniRef90_F6QBV2	WR	P	V	Q	N	L	S	G	R	K	I	R	R	S	F	
UniRef90_UPI0002742662	Y	R	P	L	Q	P	L	L	N	R	K	V	R	A	S	F
UniRef90_M3WS40	WR	P	P	Q	P	L	K	G	R	V	V	R	A	S	F	
UniRef90_S9W715	A	R	P	A	Q	P										
UniRef90_W5M7A4	F	R	T	Q	Q	P	L	K	Q	R	T	V	R	S	S	F
UniRef90_E1BAD9	Y	R	P	L	Q	P	L	M	N	R	K	V	R	S	S	F
UniRef90_K7G965	WR	P	P	Q	P	R	H	F	R	M	V	R	A	S	F	
UniRef90_UPI0002C66F8F	Y	R	P	L	Q	P	L	M	N	R	K	V	R	S	S	F
UniRef90_G1KY16	WR	P	L	Q	P	L	N	Q	R	M	I	R	T			
UniRef90_G3H2Q3	H	R	P	T	Q	P	L	K	G	R	T	V	T	A	S	F
UniRef90_F6QLE4	Y		P	T	Q	P	V	K	G	R	T	V	R	A	S	F
UniRef90_D2GWM4	Y	R	P	L	Q	P	L	M	N	R	K	V	R	S	S	F
UniRef90_L9J9B1	WR	P	A	Q	P	L	K	N	R	Q	I	K	A	S	F	
UniRef90_UPI0003F11B94	I	R														
UniRef90_UPI0004419178																
UniRef90_P07452	N	R	P	P	Q	P	L	K	G	R	T	V	K	A	S	F
UniRef90_V9L9U2	F	R	Q	Q	Q	P	L	M	N	R	V	V	R	A	T	I
UniRef90_A2IBE0	Y	R	V	P	Q	P	L	N	Q	R	T	I	F	A	S	F
UniRef90_UPI0003834B4A	F	R	P	L	Q	P	L	M	N	R	T	V	R	S	S	F
UniRef90_C1C1R3	F	R	P	P	V	A	L	G	S	R	V	V	Q	G	N	
UniRef90_UPI0003C1A27B	F	R	A	P	Q	P	L	N	H	R	T	V	Y	A	S	F
UniRef90_K7J542	F	R	P	V	Q	P	L	A	D	R	L	V	L	H	N	
UniRef90_UPI00020355EA	WR	P	C	Q	P	L	K	S	R	E	V	R	A	S	F	
UniRef90_S4RL19	F	R	P	V	Q	K	L	N	S	R	I	V	Y	A	S	F
UniRef90_F6WLX6	F	R	P	L	Q	P	L	M	N	R	T	V	H	S	S	F
UniRef90_UPI0003F0E227	Y	R	P	T	Q	E	L	N	G	R	E	V	T	S	T	F
UniRef90_V4AHB6	Y	R	P	P	L	P	L	G	N	R	Q	L	R	A	S	F
UniRef90_Q9XZG6	Y	R	P	V	M	D	G	S	G	R	N	V	R	A	S	F
UniRef90_H2TXA2	Y	R	P	P	Q	P	L	K	G	R	S	V	R	A	S	F
UniRef90_UPI000388DB35	Y	R	A	P	Q	P	L	N	Q	R	V	V	F	S	S	F
UniRef90_UPI0004419260	F	R	P	L	Q	P	L	M	D	R	T	V	R	S	S	F
UniRef90_UPI0002C43030	Y	R	R	T	Q	P	L	N	N	R	V	V	E	A	N	F
UniRef90_UPI0003AF79C1	WR	P	P	Q	P	I	K	G	R	I	V	K	A	S	F	
UniRef90_H3CSL2	Y	R	K	P	Q	P	L	E	G	R	V	V	L	V	S	F
UniRef90_UPI000386F695	F	R	P	V	Q	L	L	N	E	R	K	V	Y	W	S	
UniRef90_F1NAI5	F	R	P	P	Q	P	L	R	S	R	K	V	F	S	S	
UniRef90_UPI00039469B1	F	R	P	A	Q	P	L	N	G	R	E	V	L	W	S	
UniRef90_U3U9G8	C	R	P	V	M	P	L	G	G	R	P	V	A	A	S	F
UniRef90_B7T143	Y	R	P	P	C	P	V	H	S	R	T	V	A	A	S	F
UniRef90_A0A023EQM0	F	R	P	L	Q	P	L	G	D	R	V	V	L	Y	N	
UniRef90_UPI0003F14225	F	R	P	Q	Q	P	L	R	G	R	R	V	V	A	S	
UniRef90_UPI0001DEB1F3	F	R	P	Q	Q	P	L	R	G	R	R	V	S	A	S	
UniRef90_Q8CI85	F	R	Q	V	Q	K	F	D	E	R	L	V	Y	I	S	F
UniRef90_W5NCG8	Y	R	K	L	Q	D	G	D	D	R	R	I	L	V	S	F
UniRef90_V9KZE8	F	R	S	P	Q	P	L	N	G	R	R	V	S	A	S	
UniRef90_UPI00032A0E1F	Y	R	P	V	Q	P	L	N	G	R	E	V	Y	Y	S	
UniRef90_F6XBX7	F	R	T	P	Q	P	L	K	G	R	K	V	W	A	S	
UniRef90_A3FFY1	Y	R	P	P	C	P	L	C	D	R	V	V	R	K		
UniRef90_G1QEP0	WR	P	T	Q	P	L	H	C	R	Q	V	R	A	S	F	
UniRef90_R7V5W2	F	R	P	V	Q	P	L	K	S	R	K	V	K	T	S	
UniRef90_UPI0003EBD747	Y	R	T	A	Q	P	L	N	G	R	V	V	E	A	N	F
UniRef90_D6WET4	F	R	P	T	L	P	L	G	K	R	E	I	R			
UniRef90_K1QPX3	F	R	P	T	Q	H	L	N	H	R	F	V	Y	A	S	
UniRef90_U3JQR2	WR	P	P	Q	P	L	K	G	R	I	V	R	A	S	F	
UniRef90_UPI0004444774	F	R	P	V	Q	P	L	N	G	R	L	V	Y	R	S	
UniRef90_R7V8T6	Y	R	P	T	Q	P	L	E	G	R	N	V	M	R	S	F
UniRef90_S7PKC8	Y	R	V	P	Q	P	L	N	Q	R	K	V	L	A	S	F
UniRef90_UPI0003F0B8BC	Y	R	K	T	Q	P	L	N	N	R	L	V	Q	A	N	F
UniRef90_Q5I053	H	R	P	V	Q	P	L	D	H	R	V	V	R	S	S	
UniRef90_UPI000333CCB4	Y	R	L	T	Q	P	L	N	D	R	V	V	Q	A	N	F



	1	10	20	30	40																																								
UniRef90_B4LEI5	F	G	Y	G	G	H	G	P	E	H	W	G	D	D	Y	Q	R	C	S	G	K	F	Q	S	P	I	N	I	D	V	L	N	V	T	K	K	K	F							
UniRef90_UPI000333C0D3	H	W	T	Y	E	G	P	H	G	Q	D	D	W	F	A	S	Y	P	E	C	G	G	N	A	Q	S	P	I	N	I	D	I	Q	T	D	A	A	T	F	N	P	E			
UniRef90_D3TM95	W	G	Y	T	E	Q	N	G	P	D	K	D	W	F	M	E	S	F	P	E	C	A	T	G	M	R	A	Q	S	P	I	V	D	I	N	T	G	I	C	K	R	G	R	D	E
UniRef90_F7ADM5	H	W	T	Y	E	G	P	H	G	Q	D	H	W	P	A	T	Y	P	E	C	G	S	N	A	Q	S	P	I	N	I	D	I	Q	T	E	R	V	T	F	D	S	E			
UniRef90_V4AH85	W	G	Y	E		N	D	G	A	A	T	W	K	D	T	F	A	T	P	E	C	G	L	N	S	Q	S	P	I	N	I	D	I	Q	T	E	G	V	V	F	N	E	D		
UniRef90_A7RRH8								G	P	D	H	W	A	N	R	Y	P	A	C	N	G	L	N	S	Q	S	P	I	N	I	D	I	V	T	S	S	V	M	Y	D	S	S			
UniRef90_Q9MZ30	W	T	Y	V	G	A	D	G	E	R	S	W	F	K	K	Y	P	S	C	G	G	A	L	Q	S	P	I	N	I	D	I	L	H	G	S	D	T	L	Q	R	F	D	A	S	
UniRef90_I3KDY3	W	T	Y	D	G	P	Q	Q	G	D	H	W	S	E	R	Y	P	Y	C	N	G	G	A	L	Q	S	P	I	N	I	D	I	F	K	S	D	L	L	R	F	D	P	T		
UniRef90_H2ZGZ4	W	G	Y	D	S	C	F	G	P	D	D	W	N	K	E	Y	P	I	A	K	G	K	R	Q	S	P	I	N	I	D	I	K	I	S	Q	L	K	H	R	E	Y				
UniRef90_K1RCM3	N	W	G	Y	D	N	K	R	G	P	D	T	W	K	N	F	P	E	G	L	G	R	Q	Q	S	P	I	N	I	D	I	Q	T	D	K	V	C	Y	L	D	Q	E			
UniRef90_K7FS21	H	A	G	T	S	P	H	A	D	V	A	Q	W	A	S	M	F	P	D	C	G	G	Q	M	Q	S	P	I	N	I	N	D	T	S	T	S	T	S	V	S	L	E			
UniRef90_I3K4L4	W	C	Y	Q	S	Q	N	V	P	E	N	W	N	H	V	N	S	A	C	G	G	Q	K	Q	S	P	I	N	I	N	I	V	T	R	K	T	F	K	D	D	R				
UniRef90_Q6R4A1	W	C	Y	Q	S	Q	V	G	P	D	G	W	P	T	V	A	G	A	C	C	E	G	K	A	Q	S	P	I	N	I	N	I	V	T	R	R	T	L	P	E	R				
UniRef90_B5SU02	W	T	Y	R	D	P	E	G	P	D	T	W	K	H	H	Y	K	D	C	E	G	H	E	Q	S	P	I	N	I	N	I	V	P	K	D	T	F	F	E	P	G				
UniRef90_G3H655	W	G	Y	T	C	E	N	G	P	A	T	W	L	E	K	F	P	Q	A	R	G	T	R	Q	S	P	I	N	I	D	I	V	T	S	R	V	K	S	G	A	S				
UniRef90_Q2F607	W	G	Y	T	E	N	G	P	A	T	W	L	E	K	F	P	Q	A	R	G	T	R	Q	S	P	I	N	I	D	I	V	T	S	R	V	K	S	G	A	S					
UniRef90_A0A023F836	W	G	Y	T	E	N	G	P	A	T	W	L	E	K	F	P	Q	A	R	G	T	R	Q	S	P	I	N	I	D	I	V	T	S	R	V	K	S	G	A	S					
UniRef90_UPI00034FBB57	W	C	Y	D	E	E	C	A	P	S	H	W	Y	L	H</																														



	50	60	70	80
UniRef90_B4LEI5	P Y P D Y F N F D K P K S V K L T N N G H T V L V T M D F E P G K E P R I R G G			
UniRef90_UPI000333C0D3	L P A L Q P H G Y E Q P G T E L L V N N P G Y C W R V D V D P S L K Y L E Q			
UniRef90_D3TM95	L P A L Q K W R Y V P E H T K S L V N N P G Y C W R V D V D P S L K Y L E Q			
UniRef90_F7ADM5	L P A V Q P H G Y D Q P G T E L L V N N P G Y C W R V D V D P S L K Y L E Q			
UniRef90_V4AH85	L G T V T L T Y G S I A M N M S N T G Y T A K V V F N G D L Y V E P T N L Y L G G			
UniRef90_A7RRH8	L G K L Q F N N F D R I P I M V S R N N G H A F Q V V F N M T P N L F Y V H G G G			
UniRef90_Q9MZ30	L T P L E F Q G Y N V K Q F N L T N N G H S V R L N L P P D P D M Y L Q G G			
UniRef90_I3KDY3	L R P I E V Q N Y N N E Q L T L T L G N N G H S V R L N L P P D P D M Y L Q G G			
UniRef90_H2ZGZ4	P K L E I L C Y D C R D I T T V K N T G T T A K F I S A A K N S Y I K G G P			
UniRef90_K1RCM3	L N P L Q F S Y G V C Q G A K V H E N N G R S L K L D I N Q Q S E V T G G P			
UniRef90_K7FS21	L Q P V E L A Y G R L D P R R L E N N G H S A Q V Q I L P T V S T I S R A S G			
UniRef90_I3K4L4	L T P L K F N Y E E L D F R S T I I N N G H S A Q V Q I L P T V S T I S R A S G			
UniRef90_Q6R4A1	L T P F T F T Y Q E A F H S L I T N N G R T V Q V Q I L P A T A K V H G G D			
UniRef90_B5SU02	L A D L V V N Y E K S V S A K L I T N N G R T V Q V Q I L P A T A K V H G G D			
UniRef90_G3H655				
UniRef90_Q2F607	L P P L K W R Y S V N H P R S I V N P G Y C W R V D D E N G Y D S E L K G G P			
UniRef90_A0A023F836	L R A L T W K Y G N N H A Y R I V N T G Y G W R V D D E N G Y D S E L K G G P			
UniRef90_UPI00034FBB57	L G P I V V E G D A T S E G E L T N N G H S V E V T L L P T S K Y T L S G A G			
UniRef90_M4ABZ3	L T P L Q Y D Y Q E A D V L L K N N G H T V Q L D L P P G I V I S G G Q			
UniRef90_A0A026VYY7	P S L K L V G I D N P C S S F V T N N G H T V V L K T N D S K A A T L Y G G P			
UniRef90_G1MPV7	L P P I R P M G Y D H P T F S L T N N G H T V V L A L P P T L H L E I S D G G			
UniRef90_R7TB34	L G N I T F T G Y S A T T Y I L E N D G H T A K V G F Q S S T S M S I S D G G			
UniRef90_I3NG33	L Q P F I F Q G Y N P G W S L E N D G H T V V L H M D T Q N G L I W G A G L			
UniRef90_UPI0002063705	P K L Q F S D T E N S H V A Y M I N N G H T V M I R S F D P D L P T I S G G P			
UniRef90_E7F742	M Q Q L E L T G Y E D I R G S F L M K N N G H S V E I Q L P T S M K I T K G F P			
UniRef90_Q5M8Z5	L R L T P S Y V C R D C E V I N N G H V V Q I L K L S K S V L K G G P L P			
UniRef90_O93587	L K P L S L K Y D P P T A R S I L N N G H S F Q V T F I D D T D S S T L K D G P			
UniRef90_U5END8	L A P L K W K Y V P E N T R S L V N P G Y C W R V D V N G Q G S E L T G G P			
UniRef90_B3M7V5	P K L E F H N F N E P K A M L V T N N G H T V V L K M S F N E G K P R V K G G P			
UniRef90_M3W976	L K A L K L T G Y K S Q Q F P M T N N G H T A Q I S L P P T M R M T A A D G			
UniRef90_M3XUB4	L K P L T I S Y D P T C L A E V W N N G S S F L V E F E D S T D K S V I E G G P			
UniRef90_K1QSG0	L K P F Q I N Y S T T K N A E V S N T G S S I K V Q I K E V S E I K G G P			
UniRef90_V9KKB5	L V P I T V E G Y N A D L L T L S N N G H T V Q L Q I L P D T M S I T S G			
UniRef90_UPI000395709A	L Q L Q L G G Y D G S L Q G H F R M T N T G H S V Q I D L P T L N I S R G L P			
UniRef90_E4Y355	L S P L E Y S Y P D N F K Y M V N D G K N I R I H W R G E T A L S G G P			
UniRef90_UPI00038EE974	L G P F I F Q G Y P P G P W T L E N D G H T V V Q V A L D G S D S L L E G G P			
UniRef90_T1FN58	F R P L K F Q Y V P K N S K T I L N N G H T V V Q V A L D G S D S L L E G G P			
UniRef90_UPI00045E44EB	L G P F I F Q G Y P P G P W T L E N N G H T V R L N L D G S R R L E M R G A G L			
UniRef90_UPI0003D0B559	L A P L R V S Y D A A S Q R Y L W N T G Y F F Q V E F D D S C E E S G I S G G P			
UniRef90_A7SKA8	L G E L Q F V N F D T I P I S L K N N G H A F Q V N M F D S A G T F T V S G G G			
UniRef90_L5LY78	L P L R V S Y D A A C R Y A W N T G Y L F Q V E F D D A I E G A G I S G G P			
UniRef90_S4RNX9	L A P L C L S Y L T C R E C E V L N D G H S L H I H I R S K S V T T G G P F			
UniRef90_UPI0003B5AEF7	L R P I E V R N Y K K E Q L T L R N N G H S L Q L S L P P T M Y V S G			
UniRef90_UPI0003C26141	L L P L E L I G Y N M S T T D L T N N G H S V R V G L P P T M Y I R N			
UniRef90_UPI000443176D	L K P L K I Y Y D P S C C L H V R N T G Y F F E V V F D D S T D R S G I S G G P			
UniRef90_UPI00022F4F82	L Q P L E L L G Y E L Q P L S L N N G H T V Q L T L P P G L K M A L G P G			
UniRef90_UPI0003871112	L R L E L S G Y D G P D F T M T N N G H S V Q L D L P P T M R I S R G			
UniRef90_V9KZL8	L G P I E L E G Y E D P W F T L A N N G H T V E M A L P P S S L G I T A P			
UniRef90_L9L516	L K R L N L T G Y D V Q V G E M I N N G H S V Q I S L P P T M R M T A P			
UniRef90_UPI00042C6FB3	L V P L G F Q G Y S N Q Q F V L T N N G H S V K V K L P K D M H I Q G			
UniRef90_Q8MPH8	T S A L V A S Y N P A A S N T L T N T G L S F Q V S V D G T L S G G P			
UniRef90_Q4VPE4	L T S F N L T G Y D D T M S L T N N G H T V V L N V N T A N A T K M S G G G			
UniRef90_Q4CT9	L T P I F E G Y D D D M K W T I T N N G H S V Q V T L K G D I A I K G G D			
UniRef90_UPI0003C29182	L Q P I H L S G Y N S E Q L T L K N N G H T V V L Q L P A T L T M S G S N G			
UniRef90_B3RKE2				

	90	100	110	120																																								
UniRef90_B4LEI5	R	K	T	D	Y	Q	F	E	Q	F	H	F	H	W	G	E	N	D	T	V	G	S	E	D	L	I	N	N	Q	S	Y	P	A	E	L	H	V	V	M	R				
UniRef90_UPI000333C0D3	F	P	R	R	Y	V	T	A	Q	F	H	L	H	W	G	Q	N	S	T	G	K	G	S	E	E	H	Q	I	N	S	E	A	T	A	G	E	L	H	V	H	Y			
UniRef90_D3TM95	F	D	N	I	Y	K	L	E	Q	F	H	C	H	W	G	C	E	N	S	T	G	K	G	S	E	E	H	Q	I	N	S	E	A	T	A	G	E	L	H	V	H	Y		
UniRef90_F7ADM5	L	P	R	N	Y	V	A	V	Q	L	H	L	H	W	G	R	K	Q	P	G	G	S	E	E	H	T	Q	V	D	N	S	E	A	T	A	G	E	L	H	V	H	Y		
UniRef90_V4AH85	L	P	A	K	Y	K	L	D	Q	F	H	F	H	W	G	S	A	N	T	N	G	G	S	E	E	H	T	I	V	D	N	G	N	A	T	P	M	E	V	H	F	Y		
UniRef90_A7RRH8	L	G	A	N	F	T	T	A	Q	F	H	M	H	L	G	E	A	D	T	T	R	G	A	E	E	H	T	I	V	D	N	G	Q	R	N	A	A	C	I	H	I	V	N	Y
UniRef90_Q9MZ30	L	L	P	S	R	Y	T	A	T	Q	L	H	L	H	W	G	S	N	D	P	A	G	S	E	E	H	T	I	V	D	G	G	K	Q	Y	A	A	E	L	H	I	V	H	Y
UniRef90_I3KDY3	L	L	H	N	Q	T	T	A	A	Q	L	H	F	H	W	G	S	S	R	P	A	G	S	E	E	H	T	I	V	N	N	K	Q	Y	A	A	E	L	H	V	V	H	Y	
UniRef90_H2ZGZ4	L	L	E	G	T	Y	N	L	V	Q	F	H	F	H	W	G	A	V	D	C	A	G	S	E	E	H	T	I	V	N	N	G	R	P	Y	A	A	E	L	H	V	V	H	Q
UniRef90_K1RCM3	L	R	D	R	F	H	F	E	Q	F	H	L	H	W	G	S	T	N	D	K	G	S	E	E	H	T	I	V	N	G	Q	L	Y	A	A	E	L	H	V	V	H	Y		
UniRef90_K7FS21	Y	P	Q	E	Y	R	A	S	Q	L	H	L	H	W	G	S	P	E	G	P	G	S	E	E	H	T	I	V	D	G	G	R	R	Y	D	G	E	L	H	V	V	H	Y	
UniRef90_I3K4L4	L	P	D	E	Y	K	A	V	Q	F	H	L	H	W	G	A	N	G	G	P	G	S	E	E	H	T	I	V	D	G	G	E	Q	Y	P	M	E	L	H	V	V	H	M	
UniRef90_Q6R4A1	L	A	V	P	Y	K	A	I	Q	L	H	L	H	L	G	K	D	G	G	P	G	S	E	E	H	T	I	V	D	G	G	E	R	Y	P	M	E	L	H	V	V	N	I	
UniRef90_B5SU02	L	L	T	S	H	F	R	A	L	Q	M	H	F	H	W	G	S	E	N	S	R	G	S	E	E	H	Q	V	D	D	G	G	R	K	F	P	L	E	I	H	V	H	Y	
UniRef90_G3H655	L	E	G	P	Y	R	L	K	Q	L	H	F	H	W	G	K	K	H	D	V	G	S	E	E	H	M	V	D	D	G	G	K	S	F	P	S	E	L	H	V	H	W		
UniRef90_Q2F607	N	N	D	V	Y	K	L	Q	Q	W	H	C	H	W	G	A	L	N	G	E	G	S	E	E	H	T	V	V	D	D	G	G	R	S	Y	A	A	E	L	H	L	V	H	W
UniRef90_A0A023F836	L	T	G	V	Y	K	L	E	Q	F	H	L	H	W	G	S	S	D	E	G	S	E	E	H	T	V	V	D	D	G	G	K	S	Y	A	A	E	L	H	L	V	H		

		130	140	150	160
UniRef90_B4LEI5	S	L	D	Y	K
UniRef90_UPI000333C0D3	D	S	D	Y	A
UniRef90_D3TM95	N	S	K	Y	N
UniRef90_F7ADM5	D	A	D	S	F
UniRef90_V4AH85	K	D	S	L	G
UniRef90_A7RRH8	N	T	K	Y	P
UniRef90_Q9MZ30	N	S	D	Y	P
UniRef90_I3KDY3	N	S	D	Y	P
UniRef90_H2ZGZ4	N	T	K	Y	A
UniRef90_K1RCM3	N	L	K	Y	G
UniRef90_K7FS21	N	P	S	Y	Q
UniRef90_I3K4L4	K	K	A	Y	S
UniRef90_Q6R4A1	K	K	E	Y	N
UniRef90_B5SU02	N	A	K	Y	P
UniRef90_G3H655	N	K	K	Y	S
UniRef90_Q2F607	N	S	K	Y	H
UniRef90_A0A023F836	N	C	K	Y	S
UniRef90_UPI00034FBB57	N	S	L	Y	I
UniRef90_M4ABZ3	K	A	N	Y	N
UniRef90_A0A026VYY7	K	E	D	Y	K
UniRef90_G1MPV7	D	A	R	Y	A
UniRef90_R7TB34	R	N	S	Y	A
UniRef90_I3NG33	N	K	K	Y	Q
UniRef90_UPI0002063705	K	K	Q	Y	P
UniRef90_E7F742	N	S	K	Y	G
UniRef90_Q5M8Z5	N	S	T	Y	R
UniRef90_O93587	G	T	P	N	T
UniRef90_U5END8	N	T	K	Y	K
UniRef90_B3M7V5	N	L	E	Y	P
UniRef90_M3W976	N	S	K	Y	K
UniRef90_M3XUB4	N	A	R	F	E
UniRef90_K1QSG0	N	K	K	Y	A
UniRef90_V9KKB5	A	A	K	Y	G
UniRef90_UPI000395709A	N	S	N	Y	S
UniRef90_E4Y355	N	P	K	Y	G
UniRef90_UPI00038EE974	S	T	K	Y	Q
UniRef90_T1FN58	N	C	E	Y	S
UniRef90_UPI00045E44EB	N	T	R	Y	R
UniRef90_UPI0003D0B559	N	S	M	Y	E
UniRef90_A7SKA8	N	T	K	Y	P
UniRef90_L5LY78					
UniRef90_S4RNX9	N	A	T	Y	K
UniRef90_UPI0003B5AEF7	N	S	D	Y	P
UniRef90_UPI0003C26141	N	S	D	Y	P
UniRef90_UPI000443176D					
UniRef90_UPI00022F4F82	S	T	A	F	S
UniRef90_UPI0003871112	N	S	D	Y	S
UniRef90_V9KZL8	N	A	K	Y	K
UniRef90_L9L516	N	S	K	Y	K
UniRef90_UPI00042C6FB3	N	S	D	Y	P
UniRef90_Q8MPH8	N	A	K	Y	A
UniRef90_Q4VPE4	K	A	S	A	G
UniRef90_Q4FCT9	N	E	K	Y	S
UniRef90_UPI0003C29182	N	T	R	Y	D
UniRef90_B3RKE2	N	M	R	Y	K
UniRef90_UPI0003D0E55B	N	S	N	Y	S
UniRef90_UPI0001DEA19A	N	S	D	Y	P
UniRef90_F2X4U0	K	E	E	F	N
UniRef90_H2SZN4	K	H	H	Y	T
UniRef90_P08060	N	S	K	Y	N
UniRef90_UPI000331641C	N	S	D	Y	P
UniRef90_V4BHF8	K	Q	S	Y	G
UniRef90_A0A023GPD8	N	A	K	Y	G
UniRef90_F4WZM6	K	E	D	Y	K
UniRef90_UPI0003941685	N	A	E	Y	P
UniRef90_G6D8Z4	K	E	V	Y	K
UniRef90_UPI000383AE2B	N	S	K	Y	N
UniRef90_T1FNV0	N	L	N	Y	D
UniRef90_A0A023FLX9	N	V	D	K	Y
UniRef90_K1P7Z9	N	S	E	Y	R
UniRef90_F7CQH3	N	S	D	Y	A
UniRef90_UPI0004418E8E	N	S	R	Y	P
UniRef90_UPI0003504242	N	T	K	Y	E
UniRef90_B4N3T1	N	L	E	Y	R
UniRef90_W5MKX7	N	S	K	Y	A
UniRef90_UPI0003597C50	N	S	K	Y	S
UniRef90_UPI0003EC2A8A	D	D	Q	F	S
UniRef90_H9GI16	N	S	R	Y	P
UniRef90_UPI0002657328	Q	A	A	E	P
UniRef90_W5UF12	K	E	Q	Y	T
UniRef90_H0VSR1	N	S	K	Y	E
UniRef90_B3RXW0	N	K	T	Y	K
UniRef90_J9K0P1	N	T	D	Y	D
UniRef90_M3YUH5	K	E	K	G	T
UniRef90_H2M394	N	S	E	Y	P
UniRef90_E9FWT4	N	A	E	Y	A
UniRef90_UPI00038F08F4	N	V	K	Y	E
UniRef90_H3FHA2	K	E	G	L	N
UniRef90_E9FXL3	N	E	K	Y	G
UniRef90_C4VWW84	N	D	K	Y	N
UniRef90_M7BYJ1	N	T	K	Y	G
UniRef90_B4M267	N	S	Q	Y	A

UniRef90_B4LEI5	D	K	I	S	H	K	G	Q	S	A	E	L	A	Q	P	L	P	L	N	K	F	L	E	Y	D	T	Y	F	T	Y	T	G	S	L	T	T	P	P	C	A		
UniRef90_UPI000333C0D3	H	E	I	R	H	K	K	D	Q	R	T	S	V	P	G	F	N	L	R	L	K	L	P	Q	M	G	Q	T	F	F	Y	N	G	S	L	T	T	P	P	C	S	
UniRef90_D3TM95	R	F	I	R	H	K	K	D	Q	R	T	S	V	P	Y	G	C	D	P	A	K	L	P	S	V	T	F	W	T	Y	N	G	S	L	T	T	P	P	C	S		
UniRef90_F7ADM5	E	K	I	R	D	H	K	G	Q	T	T	L	V	P	P	F	D	V	G	L	L	P	P	E	M	G	E	F	Y	R	Y	N	G	S	L	T	T	P	P	C	S	
UniRef90_V4AH85	A	N	I	T	D	P	S	G	S	S	E	V	T	Q	Q	L	E	D	L	L	P	S	K	L	N	T	F	Y	R	Y	N	G	S	L	T	T	P	P	C	S		
UniRef90_A7RRH8	E	N	V	T	K	V	G	N	V	S	D	L	Q	E	F	S	L	G	S	L	L	P	S	K	A	N	T	D	F	F	R	Y	K	G	S	L	T	T	P	P	C	S
UniRef90_Q9MZ30	R	Y	V	K	Y	K	G	Q	N	V	R	I	P	G	F	N	I	E	E	L	L	P	P	E	K	P	E	Y	R	Y	N	G	S	L	T	T	P	P	C	S		
UniRef90_I3KDY3	N	G	I	K	Y	R	D	Q	N	V	K	V	P	G	F	N	I	R	A	L	L	P	P	T	R	L	D	Y	R	Y	D	G	S	L	T	T	P	P	C	S		
UniRef90_H2ZGZ4	Q	N	I	Q	D	G	H	T	E	A	E	V	M	G	H	P	E	L	R	L	L	P	N	E	I	G	S	Y	A	C	Y	G	G	S	L	T	T	P	P	L	S	
UniRef90_K1RCM3	S	R	L	V	E	A	H	T	S	V	A	L	D	E	E	F	D	K	L	L	K	D	D	L	T	R	Y	W	T	Y	P	G	S	L	T	T	P	P	L	L		
UniRef90_K7FS21	P	E	V	Q	E	K	G	K	K	T	T	V	D	G	F	D	S	I	K	G	L	L	P	T	S	S	R	Y	Y	R	Y	N	G	S	L	T	T	P	P	C	Y	
UniRef90_I3K4L4	Q	N	I	Q	A	T	N	G	N	T	S	L	S	P	I	S	D	A	Q	L	L	P	P	S	E	K	N	Y	Y	R	Y	K	G	S	L	T	T	P	G	C	E	
UniRef90_Q6R4A1	N	S	I	N	M	P	S	S	N	T	T	L	S	D	S	V	S	L	D	M	F	L	P	P	N	M	T	S	Y	F	R	Y	N	G	S	L	T	T	P	P	C	E
UniRef90_B5SU02	D	K	A	R	Y	K	G	N	E	V	I	L	S	D	S	L	Q	P	F	S	F	L	P	H	D	A	Q	Y	T	Y	R	G	S	L	T	T	P	G	C	F		
UniRef90_G3H655	Y	M	V	R	F	K	D	T	K	A	Q	F	N	Y	F	N	P	K	C	L	L	P	T	S	L	Q	Y	W	T	Y	P	G	S	L	T	T	P	P	L	S		
UniRef90_Q2F607	P	F	V	Q	H	K	G	D	K	V	T	F	C	P	L	D	P	A	K	L	L	P	T	S	T	K	T	A	Y	W	T	Y	P	G	S	L	T	T	P	P	C	T
UniRef90_A0A023F836	P	E	I	E	H	K	G	Q	S	A	D	I	F	C	F	L	N	I	N	N	F	L	P	N	N	P	H	Y	W	T	Y	L	G	S	L	T	T	P	P	C	N	
UniRef90_UPI00034FBB57	S	Q	V	A	Y	S	G	Q	K	T	S	V	Q	A	N	L	R	K	F	L	P	A	K	I	G	Y	F	K	Y	N	G	S	L	T	T	P	T	C	S	A		
UniRef90_M4ABZ3	K	R	I	V	R	P	S	S	N	A	T	L	P	G	I	S	L	E	M	L	L	P	P	Q	S	S	Y	F	R	Y	D	G	S	L	T	T	P	G	C	A		
UniRef90_A0A026VYY7	P	D	V	E	A	V	G	K	E	K	T	L	K	E	P	L	L	E	R	I	L	T	T	M	Q	N	Y	T	T	Y	N	G	S	L	T	T	P	P	C	L		
UniRef90_G1MPV7	G	S	I	R	A	G	Q	T	T	S	L	I	P	S	F	S	V	Q	E	L	L	P	T	E	R	D	R	Y	Y	R	Y	N	G	S	L	T	T	P	P	C	L	
UniRef90_R7TB34	S	N	I	P	D	S	G	Q	N	F	T	M	S	G	F	A	L	G	D	L	L	P	D	T	S	K	Y	F	R	Y	S	G	G	L	T	T	P	P	C	Y		
UniRef90_I3NG33	K	N	V	S	I	P	G	V	S	V	N	M	T	S	T	F	L	L	P	S	P	L	G	L	L	R	Y	Y	R	Y	S	G	S	L	T	T	P	G	C	E		
UniRef90_UPI0002063705	L	N	I	A	E	V	D	S	N	I	T	L	N	D	N	T	I	L	G	K	L	I	S	P	N	N	Y	F	T	Y	K	G	S	L	T	T	P	P	C	L		
UniRef90_E7F742	A	N	I	K	Y	V	G	K	S	M	S	I	S	N	C	N	F	N	L	S	M	L	S	E	N	S	H	F	Y	Y	K	G	S	L	T	T	P	P	C	F		
UniRef90_Q5M8Z5	Q	D	I	F	Y	K	G	K	S	M	I	L	P	C	L	N	P	N	T	L	L	P	D	P	R	D	Y	W	V	Y	E	G	S	L	T	T	M	P	P	C	S	
UniRef90_O93587	V	P	S	R	P	K	A	S	R	P	P	S	L	A	S	T	P	P	A	C	S	P	G	A	W	T	T	G	S	K	K	A	P	G	P	L	P	L	C	W		
UniRef90_U5END8	P	F	V	T	H	K	G	D	R	V	T	L	K	P	L	D	P	G	S	F	L	P	A	T	P	A	Y	W	T	Y	L	G	S	L	T	T	P	P	C	S		
UniRef90_B3M7V5	P	Q	I	E	R	K	G	Q	S	V	K	I	L	T	R	T	F	L	R	Q	Y	K	L	P	A	T	S	N	Y	T	Y	T	G	S	L	T	T	P	P	C	S	
UniRef90_M3W976	N	N	I	R	Y	P	G	Q	S	T	V	L	S	D	L	D	I	R	D	M	L	P	N	V	H	H	Y	Y	S	Y	K	G	S	L	T	T	P	P	C	T		
UniRef90_M3XUB4	P	S	I	K	E	H	K	E	Y	I	L	K	K	G	F	L	K	P	N	G	I	L	P	G	C	S	S	F	F	F	A	G	G	I	P	L	P	K	V	T		
UniRef90_K1QSG0	S	K	I	Q	E	A	G	S	V	K	L	D	D	F	S	P	S	C	M	L	G	K	L	D	H	Y	W	T	Y	L	G	S	L	T	T	P	P	L	F			
UniRef90_V9KKB5	E	D	I	T	E	E	G	S	K	V	S	I	L	P	S	G	F	D	I	K	N	L	P	R	Q	G	H	Y	F	R	Y	S	G	S	L	T	T	P	P	C	D	
UniRef90_UPI000395709A	A	R	I	R	F	A	G	Q	S	T	L	S	P	S	L	D	I	Q	A	M	L	P	K	N	S	H	F	Y	R	Y	D	G	G	L	T	T	P	P	C	S		
UniRef90_E4Y355	P	T	L	S	K	F	N	E	K	Y	I	F	E	N	F	N	V	G	N	L	I	P	K	N	S	D	F	I	C	Y	D	G	G	L	T	T	P	P	C	T		
UniRef90_UPI00038EE974	K	N	V	S	S	P	G	V	L	V	N	L	T	S	T	F	P	L	A	S	L	L	P	G	S	H	Y	Y	R	Y	S	G	S	L	T	T	P	G	C	E		
UniRef90_T1FN58	P	K	L	I	Y	S	G	E	S	A	E	L	D	G	F	D	P	A	S	L	L	P	K	H	T	D	Y	W	T	Y	S	G	S	L	T	T	P	P	C	Y		
UniRef90_UPI00045E44EB	L	K	N	V	S	R	R	G	E	S	P	G	L	S	V	E	I	A	S	T	F	P	L	A	S	R	Y	Y	R	Y	S	G	S	L	T	T	P	G	C	E		
UniRef90_UPI0003D0B559	P	E	V	R	H	K	D	T	Q	V	T	M	G	P	F	D	P	S	C	L	L	P	A	C	A	R	D	Y	W	T	Y	P	G	S	L	T	T	P	P	C	A	
UniRef90_A7SKA8	G	S	V	T	K	V	N	T	S	D	E	F	Q	P	A	K	L	G	D	L	L	P	A	T	N	K	N	F	Y	Y	Q	G	S	L	T	T	P	P	C	Q		
UniRef90_L5LY78	P	E	I	K	H	K	D	A	R	V	A	L	S	P	F	E	P	S	C	L	L	P	T	C	R	D	Y	W	T	Y	P	G	S	L	T	T	P	P	C	T		
UniRef90_S4RNX9	Q	E	I	Q	Y	K	G	K	A	K	T	I	V	P	S	L	N	P	N	T	L	L	P	D	P	R	D	Y	W	V	Y	E	G	S	L	T	T	P	P	C	C	
UniRef90_UPI0003B5AEF7	N	G	A	K	Y	K	N	F	E	V	R	V	P	G	F	N	I	R	E	L	L	P	A	R	L	D	F	Y	R	Y	D	G	S	L	T	T	P	P	C	F		
UniRef90_UPI00003C26141	Q	N	V	K	Y	K	G	Q	S	A	Q	V	P	G	F	N	I	Q	E	L	L	P	P	N	M	N	E	Y	Y	R	Y	E	G	S	L	T	T	P	P	C	Y	
UniRef90_UPI000443176D	P	E	I	K	H	K	D	T	H	V	A	L	N	R	F	D	P	S	C	L	L	P	S	C	Q	D	Y	W	T	Y	E	G	S	L	T	T	P	P	C	T		
UniRef90_UPI00022F4F82	E	E	I	A	E	E	G	T	K	I	E	I	P	G	L	D	V	S	A	L	L	P	D	L	S	R	Y	Y	R	Y	N	G	S	L	T	T	P	P	C	S		
UniRef90_UPI0003871112	A	K	I	R	F	A	G	Q	S	T	K	L	F	S	L	N	V	Q	A	M	L	P	P	E	N	S	H	F	Y	R	Y	Q	G	S	L	T	T	P	P	C	S	
UniRef90_V9KZL8	Q	Y	I	K	Y	K	G	Q	K	I	M	I	P	T	F	S	V	Q	R	L	L	P	P	E	Q	L	D	Y	Y	T	Y	H	G	S	L	T	T	P	P	C	T	
UniRef90_L9L516	V	N	V	K	Y	P	G	Q	S	T	I	L	T	G	L	D	V	Q	D	M	L	P	E	D	H	H	Y	Y	Y	K	G	S	L	T	T	P	P	C	T			
UniRef90_UPI00042C6FB3	E	D	V	K	Y	K	G	Q	E	V	S	I	P	G	F	S	L	E	E	L	L	P	K	R	P	E	Y	Y	R	Y	N	G	S	L	T	T	P	P	C	Y		
UniRef90_Q8MPH8	P	S	V	P	T	K	G	D	T	A	T	I	P	P	G	G	F	D	C	L	L	P	P	D	Q	S	K	Y	W	Y	Y	P	G	S	L	T	T	P	P	C	F	
UniRef90_Q4VPE4	T	E	V	L	Y	K	N	G	E	T	N	I	A	M	N	F	A	H	T	M	P	E	D	W	S	S	Y	Y	R	Y	N	G	S	L	T	T	P	T	C	D		
UniRef90_Q4FCT9	K	T	V	P	Q	P	G	D	S	K	P	L	E	P	F	L	L	K	E	M	L	P	D	Q	K	K	Y	Y	R	Y	H	G	S	L	T	T	P	G	C	F		
UniRef90_UPI0003C29182	E	E	V	S	E	E	D	D	T	L	V	A	G	F	N	I	A	G	L	L	P	N	L	S	R	Y	F	R	Y	N	G	S	L	T	T	P	P	C	Y			
UniRef90_B3RKE2	K	Y	V	R	Y	Q	G	Q	S	H	S	F	S	G	L	K	I	R	S	I	L	P	I	D	D	R	F	F	A	F	Y</											



	210	220	230	240
UniRef90_B4LEI5	E K V V W I D F Y Q P I D I S E Y Q L N H F R L L T A N D E D H L K N N			
UniRef90_UPI000333C0D3	Q S V L W T V F K T R V I E V S S R D Q L E K K L Q E T L F A N D E S E L L K A Q N			
UniRef90_D3TM95	E C V I W T V F N T R V I E V S S R D Q L E A M R D L N C Y S D E P S E L N G K V I A Q N			
UniRef90_F7ADM5	Q S V L W T V F H R K K A Q I S S M G Q L E K L Q E T L F S T E E T P S Q S L V I Q N			
UniRef90_V4AH85	E T V V W T V F E D T T K I S S Q Q Q L E K L Q E T L F S S E E D G G Q N Q S L V I Q N			
UniRef90_A7RRH8	E S V T W T V F E D T K T I S S H D Q L M K L R S I M E K D G G V H K I L T D N			
UniRef90_Q9MZ30	P S V L W T V F R N P V T I S S Q E Q L L A L S L T A L Y S F T R A D D P A P M I N N			
UniRef90_I3KDY3	P S V L W T V F R N P I T I S S R K Q Q L L A L A T A L Y S S N A G D S A P M P N N			
UniRef90_H2ZGZ4	E C V Q W I N F H E P I T M S E H Q I N Q F R S L H S T K E G E P H R P L V D N			
UniRef90_K1RCM3	E S V T W I L F Q E P V E I S S Q Q Q M D A L R K L K F P E G G Q C M M D N			
UniRef90_K7FS21	Q T V N W T V F N Q T V L S S Q Q Q I S L L E T T L Q G D H E E L L Q N N			
UniRef90_I3K4L4	E S V I W T L F N E N P I P L S I E Q L Q A F S K L Q F N D G K Q M T G N			
UniRef90_Q6R4A1	E A V V W T V F N T I P L S R Q Q L D A F S R L Q F A D G K P M V G T			
UniRef90_B5SU02	E S V Q W F V F N H T F P I S S Q A Q L D K F R D L F D S E K Q D T K K P L V D N			
UniRef90_G3H655	E S V T W I V L R E P I R I S S E R Q M E K F R S L L F T S E D D E R I H M V N N			
UniRef90_Q2F607	E S V I W L L F K E P V Q V S A E Q Q L S L M R K L C A S C G G V E A M E L L H N			
UniRef90_A0A023F836	E S V I W I V F K D S I N V S E E Q Q L N I Y R Q M K S V G R E E T V E P L R S N			
UniRef90_UPI00034FBB57	E N V T W L V A G N V Q P I S L S Q Y T Q I I S N L Y F S G A A N P V P M L D N			
UniRef90_M4ABZ3	E A V V W T L F E S T I P L S G S Q L S A F W Q L Q F P E G E E M V I N			
UniRef90_A0A026VYY7	E I V T W I D F K T H Q Q I S H E Q L A A F R D L R T P E G N K L T H N			
UniRef90_G1MPV7	Q S V L W T V F Q Q P V R I S S A A Q L E Q L Q Q S L Y A T A V D E P E R L E D N			
UniRef90_R7TB33	E S I V W T V F N E P V S I S M T Q M D A L R T L N Y E D G S T M Q D N			
UniRef90_I3NG34	P S V L W T V F E N A V S I G R V Q V A Q F Q T V P Q A G M G L H P E P L T D N			
UniRef90_UPI0002063705	E I V Q W I D F V I E P Q Y L S H E Q L A V F R K I Q S S D G R N L T H N			
UniRef90_E7F742	E S V M W T V F D T P I T L S S H N Q I R K L E S T L M D N K T L W N D			
UniRef90_Q5M8Z5	E G V T W I L F R Y P L T V S Q T Q L E E F R R L R T H I K G A D D G L M A D N			
UniRef90_O93587	R A S P G L S A R E P I L S V S A E Q M A K F R S L L F S A E G E A E C M V D K			
UniRef90_U5END8	E C V I W I F K E P L E V A H E Q L V A F R N M K C F D K T F E T G L V I N N			
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UniRef90_M3W976	E N V Y W F V L A S P I M F S R A Q G W K L E N S I L D H Q N K T L H N			
UniRef90_M3XUB4	P C T A F P T M P S E V P R K D E L E Q F R T L L F T S E G E K E K R M V D N			
UniRef90_K1QSG0	E S V T W T L F S D V I E I S Q A Q M D A L R S L K F N N G K C K M M D N			
UniRef90_V9KKB5	Q T V N W T I F K D T I Q I S S Q L Q L H R L K S S L R T S D N Q I L S C N			
UniRef90_UPI000395709A	E S V I W T I F H S P I V V T H T Q I Q L L E N S L L D G H N R T L R N D			
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UniRef90_T1FN58	E S A R F V I F K E P I Q I S E D Q L N S F R Q L R S H A D D E S F G K I L Q N			
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UniRef90_UPI00042C6FB3	P T V L W T V F R N P V E I S S Q Q L M D L E T A L Y C T R V D D P S P M I N N			
UniRef90_Q8MPH8	E S V T W I V Y K D P I Q L C E N Q L A A L R K I T G C Q N N			
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UniRef90_Q4FCT9	E A V I W T V F E E P I R L S K G Q L D A F S E T L F Y N A S Q H K A L N			
UniRef90_U				

250  
UniRef90\_B4LEI5 F R P T Q P L N N R V V Y F N  
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G P S N W S A A F P I C N L T R Q S S P I N I K S N V Q T A S N P  
W C Y Q S Q T D S R W A A L F P R C G G L R Q S S P I N I V T N K V H F S S A  
W T Y E G A L D E A H W P Q H Y P A C G G Q R Q S S P I N L Q R T K V R Y N P A  
H W C Y E I Q Q G P A D W T G D C K K T H Q S S P I N L V T T E A K M N P D  
H W E Y E G E N G P A A W G K M Q P C S L G R R Q S S P V H I T D A D T L V G P A  
D S N G P A H W K E L A P A C G G P T Q S S P V N I D L R L V Q R D Y A  
W T Y E G A L D Q A H W P K E Y P A C G G K R Q S S P I N L Q T R K V H Y N P S  
E P S K S P S N W H T L S E S C L G M Y Q S S P I N I D R E M T I Y N P D  
W S Y A G T V N Q K N W G K K Y P A C N G P K Q S S P I N I D E G L T Q V N V N  
H W C Y E I Q L G P S Q W G E D C Q K N R Q S S P I N I V T T K A Q V D P D  
H W T Y E G A L D Q M H W P T K Y P A C G G K Q Q S S P I D I Q R R N V R F N P D  
F S L P G S D G Q A H W P E R Y P D C G W Q A Q S S P L D I Q T R H L V Q Y D P S  
W D Y A A N G P A T W A K S F P A A G A Q K Q S S P I D I N P G S A A K E S  
G P I H W K E F F P I A D G D R Q S S P V E I K T E E A R Y D S S  
W S Y G G Q T G P D H W A K N F P Q C G G K R Q S S P I N I M T S R L H H V T W  
W T Y D G I S G P A F W G L I N P C N K G R R Q S S P V N I E P T Q L L F D P N  
W T Y D G K N G I N D W Y Q L Y P K C K G Q F Q S S P I N I D T R L V D Y N S S  
Y D Y G E K N G P H T W V L R F P N A G G T K Q S S P I N I N T M S M R L D E S  
W S Y A G T L N Q K N W G K K Y P S C N N A K Q S S P I N I D E N I T Q V K E Q  
W C Y D S Q N G P T H W K E M A P A C G G P G Q S S P I N I N L H R V Q Q D P T  
F S Y N E K N G P T N W Y R I A P Q C G G R Y Q S S P I M L N T S S A M Y V R N  
H F G Y T R P D D W L A D F I C S G P R Q S S P I N I E L Q D V K M M E S  
W T Y E G I S G P E Y W G I V N P C G R G K K Q S S P I N I E L D L L L F D P K  
H W R Y G G P H S P K Y D E V S P A C A G R F Q S S P V D I R P E L T A F C P A  
H W C Y Q I Q L G P A Q W G G E C Q K S Q Q S S P I D I V T S N K A R L D Y N  
H W C Y E I Q A K A S S N Y T C L E P E C Q K N R Q S S P I N I V T S L A Q L D H K  
H W C Y E V Q A E S S N Y P C L V P V C Q K D R Q S S P I N I V T T K A K V D K K  
H F D Y T N P Q K W E E H E S N C A G Q H Q S S P I N I N T D E V I V T N Y  
G Q T E W S Q H F P A C G G S S Q S S P V D V A T T R T R F D P G  
H W T Y E G P H G Q D H W P A S Y P E C G N N A Q S S P I D I Q T D S V T F D P D  
H W A Y E G E G G P E N W G K L R P C D T G K R Q S S P I D I R D G F R V D  
W G Y S G N N G P A N W A T V N T S C G A N S Q S S P I N I V S A S A T Q E T F  
W T Y S G I S G P E F W G V L N P C S R G R S Q S S P I N L Y P E L L L F S F H  
W E S V D L V P G G E R Q S S P I N V R W R N S V Y D P G  
D K N G P S N W Y R I D A R C G G R Y Q S S P I N L N T S S A L V V N R  
W G L N W P A Y A N G D Q Q S S P V N I N S R T A T F D E T  
W T Y S I D D G P P N W G I V A P A C S G T Y Q S S P I N I V S K E S L F V R R  
Q W C Y Q R Q K D P S S W E T E F P R C G G L H Q S S P I N I V T R K V H V T N N  
N W G Y E G N H G P E H W G E F A S C A Q G K N Q S S P I D I Q S A V Q A E  
W S Y S G A L N Q T S W G K K Y P A C A N G A K Q S S P I N I D E D L T Q V N V N  
G P S R W G S Y N T C D K G R F Q S S P I D I N P A R M I E D P N  
H W C Y Q I Q V K P S N Y T C L E P S C Q N N R Q S S P V N I V T A K T Q L D P N  
W T Y A D Q G A N W E A P D C S G S A Q S S P I D I T G D F K H E D H  
H F S Y D D P N K W K E H N S L C A G E H Q S S P I N I D T R K S K T A K F  
Y S Y G P N G E S E W G N M Y P E C N G T M Q S S P I P L S A M T A R P G F E  
P S F W G L V N S C S V G K R Q S S P I N I E T S H M I F D P F  
G L L G Q T E W S E H F P D C G G A S Q S S P V D V A T I Q T R F D P G  
H W S Y E G N T G P A H W A E L D A C A N G T E Q S S P V D I E L T Q T K V D K T  
H W C Y E I Q L G P S N W T G S C Q K N R Q S S P I D I V T S K A K E D Q T  
H W C Y S S C L G P E K W G G S C Q Q N L Q S S P I N I V T T K A K V N S N  
W T Y K D Q M N W P R L F P T C G T R R Q S S P I D I Q P K E T V L A S F  
W S Y E G D T A P N K W A S L D P C S K G T A Q S S P I N I D L E D V M L D K N  
H W S Y S G D T G P H A W G R L K P C A T A G K R Q A P I N I E T S S T L L G P A  
Y W A Y S G T Y G P E H W V T S S E K C G G S H Q S S P I D I I D H Q A H V G D E  
W T Y D G I S G P G Y W G L M N P C K G R R Q S S P I N V E P E K L L F D P H  
W K G L A S T P Q G A R Q S S P I N I C W R D S V Y D P K  
W T Y E G I S G P D F W G R L N P C S M G R R Q S S P I N I E P Q H L L F D P N  
W G Y A D H N G P D H H E L Y P I A K G D N Q S S P I E L H T K D I K H D P S  
W G Y W G K Y G P K T W S E L C A T G R R Q S S P I N I V T E D A I R I D L  
W G Y E G N H G P A H W G E F A S C A K G Q N Q S S P I N I E S A T E A K  
G P C W A E E W K Y C A D R S Q S S P I D L D S G I A L K L A D  
N W K Y T G N S G P Q F W E E N S K C G E N K Q S S P I N I E T K S V L P D K Q  
P A F W G L I N P C N R G R R Q S S P V N I E P D K L L F D P N  
W D Y S V Q N G P S T W V S K F P M A A G S R Q S S P V N I E T D K V E S D H S  
P S F W G L V N S C S V G K R Q S S P V N I E T R R L T F D P F  
W T Y H G P T G P R H W C S L F D T C C G R S Q S S P L N L R K H D V T L K Q N  
H W S Y E G Q T S P S H W G D L S P C K I G H R Q S S P I D I E A A Q K A D  
F G Y R G A L G P D K W G G L C P C S K G K H Q S S P I N I V K D D V V Y D P T  
W C Y E A H C G P N T W L S I G H C G G K R Q S S P I N I L S H D S I L N S K  
W S Y S A S E G E D L W P Q E Y P A C G G H R Q S S P I D L Q Q N K V R F N P A  
W T G P V S V P G G T R Q S S P I N I Q W R D S I Y D S R  
H W T Y E G A E G P E H W G E L A E A I G K N Q S S P V N L D S K A E V E A E  
Q W C Y D S Q D G P S H W K E L A T C G G D K Q S S P V N I D R R R L H R D G G  
Y W A Y S G T Y G P D T W A A F P E C Q E R N Q S S P I N I A D Q D T K V S M E  
H W S Y V G E T S P E H W A E I N S D C G G K F Q S S P I N I V S L N A I V D T N  
F G Y S K P D Q R R W S K A H Q S C A G A H Q S S P I A I H S H R A V Y M P A  
W I S T G P L D Q R N W G R K Y P T C N G A K Q S S P I N I D D D L T Q V N V N  
H W S Y E G L G G P Q N W H K L K P C G K G K M Q S S P I A I R D D D T L K G P A

	50	60	70	80
UniRef90_M3XJ23	L S I K P E G Y D Q E K K L T V L N N N G H T V Q L N L P D S M T I I H D S F			
UniRef90_B0WFA1	V P P F L F L S G Y D Q E K K L T V L N N N G H T V Q L N L P D S M T I I H D S F			
UniRef90_Q7SYW3	L K E F D L Y G V S I R K K L T V L N N N G H T V Q L N L P D S M T I I H D S F			
UniRef90_H9GLZ6	L L P F F H F E K Y N A E Q W H I V N N N G H T V Q L N L P D S M T I I H D S F			
UniRef90_UPI0002C66426	L G P F S F S Y D Q K H Y K V E N N N G H T V Q L N L P D S M T I I H D S F			
UniRef90_UPI000443EE4A	L Q P F E L M G P L P E L R L R N N N G H T V Q L N L P D S M T I I H D S F			
UniRef90_GBQPH9	L P P E F S Y R P T S R M L V D N N N G H T V Q L N L P D S M T I I H D S F			
UniRef90_H2Z000	V K F Q K S V L T T P S S M L L N N N G H T V Q L N L P D S M T I I H D S F			
UniRef90_UPI000443D80B	L P H F S F I G H T D I N I T V E N K G H S A H F A L P E F R S A S G L S G R L			
UniRef90_F7GGG0	L K G L K L T G Y E T Q E G E F P M V N N G H T V Q I S L P S T M R M T A D G			
UniRef90_UPI000359E6B6	L K P F T F H Y D Q K K K W V V K N D G H S V K M M L G D G S F I A G G D			
UniRef90_UPI0001D55185				
UniRef90_UPI00036D6A4F	E P L Q L R Y M P S T A S V V N N G H T V Q V D L D P A S P N T L T V R G			
UniRef90_UPI0003D09E65	L K P F I L R H Y D S D P W I L E N D N G H T V Q L R V H S C N C P A I R A G A G			
UniRef90_H0WS17	L K A L I N L T G Y D T Q E G E F S M V N N G H T V Q I S L P P T M H L R A P D C			
UniRef90_T1E193	L R P L S W T Y V P K A C K S M V N T G E S W K V I V E G Q D S C L T G G F			
UniRef90_K1QLS9	I N N F L F W Y D P K A P F Y V F N N G H T V Q V I N L T I G P Y Y V A N G G			
UniRef90_UPI00045431F1	L K K L K F Q G W D K V A A E I H N T G K T V E I N L T N D Y R L S G G G			
UniRef90_W5PUV4				
UniRef90_UPI0002C5494A	L G H F S F S Y D K K Q K W K V Q N N G H S V M V L L E G E A S I T G G G			
UniRef90_H2TBA0	M L Q L K L S G Y N A Q R G D F L M N N N G H T V Q I S L P P T M M I T E G L P			
UniRef90_W8PC05	L G P I E P E G Y R S G S L T L T N N G H T V Q L S L P E N L R L H S G G			
UniRef90_A8JX25	V G A L S V N Y K A G N N T L T N T G L S F A V S L D G S L S G G P			
UniRef90_UPI0003F13719	L Q P L S I Q Y D P R S A R I I S N N G H S F S V D F D D T E D K S V L R G G P			
UniRef90_B7QEN3	M G P L R F N N Y H P I V N N G H T G R T E P M V S G T P D D R E V Y V E G N S			
UniRef90_K1QML6	L P Q E F I N Y D P A F L H L R N N G H T A S M T I D D V Y L R G S N L G E			
UniRef90_E9ISZ9	L Q P L H L D K H R I N G V L A N T G H S V V F A V E D E N D T R H P V N I G G P			
UniRef90_T1K4A8	M K I D F I G F K L Y Q A F I E N N G H T V Q L G V E E S T K P V L T G S A V			
UniRef90_G4VP62	L T P I N V D F N L Q N Q T L H V K D H N F S V E V K G N A V L S G G P			
UniRef90_UPI0003EAB0DE	F Q K L N F E G W T S D K T F I H N D G K T V A V N L D G E Y Y I S G G G			
UniRef90_UPI00042C3427	L G P F I F Q G Y P P G L W L E N D G H T V L L R T D T C Q I L L E M Q G L			
UniRef90_B0WFA3	K R P L Q L V G Q T P Q A L R L Q N D G H S A K F T Y V W N E D R P Y I R G G P			
UniRef90_K7IYD1	K R P P L G R Y G Y P K K M T I T N N G H S V Q L S V W P A R D T P T V Y G G P			
UniRef90_E9FXN1	P E F V F H N D L V F P E R L E N N G H T V E L K I Y E S Q G I S F I T G G G			
UniRef90_T1FZE7	L D Q P I Y I D S Q L K V T M T N T G H H L M A K I Y E S P N I T N V N I G G P			
UniRef90_S9Y3G2	L R P L E F E L R P L P E L R L L N N G H T V Q L S L P P G L E M A L G P			
UniRef90_UPI00038713C4				
UniRef90_H0WAL8	L G D F S F S Y D K K H S R L V Q N N G H S V M V S L E P D V T I N M L Q G G A			
UniRef90_UPI0003F1204F	L K P F S F S Y D K K H M W T V Q N N N G H S V M V S L E N K A S I I A G G G			
UniRef90_P22748	L G R F F F S Y D K K Q T W T V Q N N N G H S V M M L E N K A S I S G G G			
UniRef90_E9FXM9	P K F I F Q N Y D L V F P E S L E N N G H T V E L K I D N E D D L P S I S G G G			
UniRef90_H2UM88	L T P L T Y D Q H G H K P F T L H N N N G H T A V V E L P D W M G L S G L P			
UniRef90_UPI00045D6423	L P A L Q P H G Y D Q S P G T E L H N N G H T V Q L S L P S T L Y L G G			
UniRef90_A0A011Q316	L E A I E F N Y R Q S P F R V V D N G H T I Q V E V S G N S S T L Y I R L			
UniRef90_C3YR32	S A F S F T G Y D A V P N M T M S N N G H S V V V S L T P A S T A I S V S G G G			
UniRef90_UPI00026578A7	L K P F R L E S V K T S A T M I N T N G H S D I L L Q L E S A S V N L T G G P			
UniRef90_UPI0004422673	L E L L T V S Y D L T T C L R V W N N R Y S F L V L E D S A D N S G E S Q T C			
UniRef90_W5JEJ7	K R P L R L A G Q T P D S L R L Q N D G H S A K F T Y N W G N E R P V L S G G P			
UniRef90_C3XTT7	L R P L I S Y C L C R E W E L S N D G H A V V Q V P K P K T V T S G G P			
UniRef90_X1Y3H5	K L P L E L D G N L P G A M K V E N E G T S V K F T P Q W N G R T R P A R G G P			
UniRef90_H2LB46	L P P L I F G Y T D I I N I T V E N K G H S A H F A L P P S V R L T G G A			
UniRef90_H2IMF6	L A K L E L D Y N G K A I A L T N N G H T L Q T S L E G D N N L L V			
UniRef90_G1KFX3	L K D L K F D Y N G K E T S K I F N T G K T V E I K L I N E Y F V T G G G			
UniRef90_K1QUN4	L Q P L N I T N E K I D G V L M N T G H D I R I S L N K S H G S Q I N I G G P			
UniRef90_Q95323	L G R F S F S Y N M K H Q W V V Q N N G H T V M V L L E N K P S I A G G G	</		



		90	100	110	120																																					
UniRef90_M3XJ23	E	Q	L	Y	R	A	A	Q	L	H	F	H	W	G	S	K	G	E	P	G	S	E	H	M	V	D	G	K	R	F	P	A	E	L	H	V	V	H				
UniRef90_B0WFA1	L	D	G	E	F	Q	F	N	H	L	H	F	H	W	G	S	T	S	D	K	G	S	E	H	E	V	N	G	Q	R	F	P	L	E	M	H	L	V	F	F		
UniRef90_Q7SYW3	L	S	G	T	Y	D	A	I	Q	F	H	F	H	W	G	S	E	E	F	K	G	S	E	H	T	I	D	G	E	K	Y	P	M	E	L	H	I	V	H	R		
UniRef90_H9GLZ6	L	S	S	G	K	Y	K	A	M	Q	F	H	F	H	W	G	N	D	A	E	F	K	G	S	E	H	T	I	D	G	E	R	Y	P	M	E	L	H	I	V	H	I
UniRef90_UPI0002C66426	L	A	T	Q	Y	R	A	Q	Q	L	H	L	H	W	S	K	M	M	N	E	K	G	S	E	H	S	L	D	G	H	R	F	A	M	E	M	H	I	V	H	Q	
UniRef90_UPI000443EE4A	L	R	E	Y	R	A	L	Q	L	H	L	H	W	G	T	P	G	S	P	G	S	E	H	T	R	V	N	G	K	R	F	D	A	E	I	H	I	V	H	L		
UniRef90_G8QPH9	L	G	K	T	Y	D	L	V	Q	V	H	F	H	W	G	T	R	P	S	E	R	V	N	G	K	A	F	D	M	V	A	H	L	M	V	H	R	R				
UniRef90_H2Z000	Y	D	F	Q	F	T	A	M	Q	F	H	F	H	W	G	S	S	F	T	G	S	E	H	T	V	D	S	T	R	Y	F	G	E	M	H	I	V	H	Y			
UniRef90_UPI000443D80B	L	P	G	H	Y	R	A	A	Q	F	H	F	H	W	G	E	R	G	T	P	G	S	E	H	T	I	D	G	E	R	F	P	M	E	L	H	I	V	H	I		
UniRef90_F7GGG0	T	V	I	I	A	Q	M	H	F	H	W	G	A	S	S	K	I	R	G	S	E	H	T	I	D	G	I	R	H	V	I	E	L	H	I	V	H	Y				
UniRef90_UPI000359E6B6	L	P	A	Q	Y	Q	A	V	Q	L	H	L	H	W	S	Q	E	F	D	K	G	S	E	H	S	I	D	G	K	H	F	A	M	E	M	H	I	V	H	E		
UniRef90_UPI0001D55185	L	E	N	H	Y	R	L	K	Q	F	H	F	H	W	G	A	V	N	E	A	G	S	E	H	T	R	V	D	G	H	A	Y	P	A	E	L	H	L	V	H	K	
UniRef90_UPI00036D6A4F																																										
UniRef90_UPI0003D09E65	P	S	S	E	Y	R	L	L	Q	L	H	F	H	W	G	S	P	G	H	K	G	S	E	H	S	V	D	E	K	H	G	S	M	E	M	H	M	V	H	M		
UniRef90_H0WS17	T	K	Y	I	A	Q	Q	M	H	F	H	W	G	G	S	S	E	A	N	S	G	S	E	H	T	V	D	G	A	R	H	M	S	E	I	H	L	V	H	Y		
UniRef90_T1E193	L	E	H	S	Y	K	L	V	Q	F	H	C	H	W	G	K	C	E	A	N	S	G	S	E	H	T	V	D	G	A	K	Q	F	A	A	E	L	H	L	V	H	W
UniRef90_K1QLS9	L	S	S	V	Y	S	T	A	Q	F	H	F	H	W	G	A	E	N	S	F	G	S	E	H	Q	I	D	G	Q	S	F	P	L	E	M	H	I	V	N	Y		
UniRef90_UPI00045431F1	L	E	T	I	F	K	A	S	K	F	M	F	H	W	G	K	C	N	M	S	G	S	E	H	S	L	D	E	G	Q	K	F	P	L	E	M	Q	I	Y	C		
UniRef90_W5PUV4	L	S	E	S	Y	R	L	R	Q	F	H	F	H	W	G	T	D	C	G	S	E	H	L	V	D	G	A	T	F	S	A	E	L	H	L	V	H	W				
UniRef90_UPI0002C5494A	L	P	G	Q	Y	R	A	T	Q	L	H	L	H	W	S	E	V	P	D	G	G	S	E	H	T	I	D	G	R	R	F	A	M	E	M	H	I	V	H	E		
UniRef90_H2TBA0	G	K	Y	T	A	V	Q	M	H	L	H	W	G	W	D	L	E	A	S	G	A	E	H	T	I	D	G	I	R	Y	M	A	E	L	H	I	V	H	Y			
UniRef90_V8PC05	L	P	S	L	Y	S	A	V	Q	L	H	F	H	W	G	S	N	S	R	G	S	E	H	T	R	V	D	G	Q	A	F	P	A	E	L	H	I	V	H	F		
UniRef90_A8JX25	L	G	S	E	F	K	A	S	F	H	F	H	W	D	K	S	S	A	A	G	S	E	H	T	I	G	G	K	A	Y	A	S	E	V	H	I	V	H	Y			
UniRef90_UPI0003F13719	L	A	G	T	Y	R	L	R	Q	F	H	L	H	W	G	R	S	D	D	H	G	S	E	H	T	R	V	S	G	V	C	F	A	A	E	V	S	P	W	S		
UniRef90_B7QEN3	L	S	G	K	Y	Q	F	A	Q	L	H	F	H	W	G	A	N	S	R	G	S	E	H	T	F	S	G	T	T	Y	P	L	E	M	H	L	V	H	F			
UniRef90_K1QML6	L	S	Y	R	Y	R	A	V	E	I	H	F	H	W	G	P	D	N	G	V	G	S	E	H	V	I	D	N	H	R	H	P	L	E	V	H	I	V	H	Y		
UniRef90_E9ISZ9	L	S	Y	R	Y	Q	F	H	E	I	H	L	H	F	G	A	D	D	R	I	L	G	S	E	H	T	V	D	G	H	A	F	P	A	E	L	Q	I	F	G	F	
UniRef90_T1K4A8	D	N	K	I	Y	V	F	A	Q	L	H	F	H	W	G	T	D	S	L	L	G	S	E	H	S	I	N	S	T	F	Y	P	L	E	G	H	L	A	F	Y		
UniRef90_G4VP62	L	T	S	E	Y	K	L	T	Q	F	H	L	H	W	G	S	G	N	N	W	G	S	E	H	M	I	N	G	I	S	C	P	A	E	L	H	C	V	F	I		
UniRef90_UPI0003EAB0DE	L	R	S	R	Y	K	A	G	R	I	T	F	H	W	G	K	C	N	A	S	G	S	E	H	G	L	D	G	Q	K	F	P	L	E	M	Q	I	F	C	F		
UniRef90_UPI00042C3427	P	P	P	A	Y	R	A	L	Q	L	P	Y	H	W	G	P	N	G	R	A	G	S	E	H	S	L	D	G	Q	H	R	P	M	E	M	H	V	V	Q	M		
UniRef90_B0WFA3	L	K	T	K	Y	F	F	E	Q	F	H	F	H	W	G	S	N	D	T	L	G	S	E	H	V	L	D	Y	H	R	F	P	M	E	L	H	L	V	F	Y		
UniRef90_K7IYD1	L	T	G	L	Y	E	L	A	Q	V	H	F	H	W	G	A	D	N	D	A	G	S	E	H	T	I	A	N	H	S	F	P	L	E	M	H	M	V	H	W		
UniRef90_E9FXN1	L	T	D	R	Y	N	F	V	Q	L	H	F	H	W	G	S	F	S	G	S	E	H	T	R	I	D	G	E	Q	Y	P	A	E	L	H	M	V	H	Y			
UniRef90_T1FZE7	L	S	Y	Q	Y	R	I	S	E	V	I	F	H	V	G	K	D	D	R	D	G	S	E	H	S	I	Q	N	V	S	F	P	A	E	I	Q	L	V	G	Y		
UniRef90_S9Y3G2																																										
UniRef90_UPI00038713C4																																										
UniRef90_H0VAL8	L	D	G	V	Y	R	L	A	Q	F	H	V	H	W	G	S	C	E	A	G	R	P	G	S	E	H	T	L	D	G	V	K	Y	D	A	E	L	H	I	V	H	L
UniRef90_UPI0003F1204F	L	A	T	L	Y	Q	A	T	Q	L	H	L	H	W	S	E	D	L	N	N	G	S	E	H	A	L	D	G	E	R	F	A	M	E	M	H	I	V	H	Q		
UniRef90_P22748	L	T	T	H	Y	L	A	K	Q	L	H	L	H	W	S	E	V	L	N	N	G	S	E	H	S	L	D	G	K	R	F	A	M	E	M	H	I	V	H	E		
UniRef90_E9FXM9	L	P	A	P	Y	Q	A	K	Q	L	H	L	H	W	S	D	L	P	Y	K	G	S	E	H	S	L	D	G	E	H	F	A	M	E	M	H	I	V	H	E		
UniRef90_H2UM88	L	D	D	R	Y	N	F	A	Q	L	H	F	H	W	D	E	G	L	L	G	S	E	H	T	I	N	R	Q	K	Y	S	A	E	L	H	L	V	H	Y			
UniRef90_UPI00045D6423	W	L	J	T	A	V	Q	M	H	L	H	W	G	S	G	G	P	S	H	G	S	E	H	T	I	N	G	L	S	A	D	A	E	L	H	L	V	H	Y			
UniRef90_UPI00045D6423	L	P	R	K	Y	V	A	A	Q	L	H	L	H	W	G	Q	K	S	P	G	G	S	E	H	Q	I	N	S	E													
UniRef90_UPI00045D6423	H	G	K	T	Y	D	L	I	Q	F	H	F	H	W	G	S	D	L	T	V	G	S	E	H	T	I	D	G	N	S	Y	P	A	E	L	H	I	V	H	Y		
UniRef90_UPI00026578A7	L	T	G	S	Y	I	A	A	Q	F	H	F	H	W	G	S	D	L	T	V	G	S	E	H	T	I	D	G	R	R	F	F	P	A	E	I	Q	L	L	G	F	
UniRef90_UPI0004422673	L	Q	Y	S	Y	V	I	S	Q	I	R	I	H	H	G	D	S	S	Q	G	S	E	H	S	I	G	R	R	F	F	P	A	E	I	Q	L	L	G	F			
UniRef90_UPI0004422673	L	K	T	K	Y	V	F	E	Q	F	H	F	H	W	G	S	N	S	S	D	V	G	S	E	H	V	L	D	Q	R	R	Y	P	L	E	I	H	L	V	F	Y	
UniRef90_UPI0004422673	E	G	H	E	F	E	L	C	H	L	R	F	H	W	G	R	E	D	D	R	G	S	E	H	T	V	N	F	K	A	F	P	M	E	L	H	L	L	H	W		
UniRef90_UPI0004422673	L	K	N	K	Y	I	F	E	Q	F	H	F	H	W	G	P	D	N	T	V	G	S	E	H	T	L	D	G	K	Q	F	P	L	E	V	H	L	V	F	Y		
UniRef90_UPI0004422673	L	P	G	Y	R	A	A	Q	F	H	F	H	W	G	K	G	R	P	G	S	E	H	T	I	D	G	E	R	F	P	M	E	L	H	I	V	H	I				
UniRef90_UPI0004422673	D	G	K	S	F	N	L	K	Q	F	H	F	H	W	G	T	P	S	E	N	H	V	N	G	K	S	Y	P	L	E	A	H	Y	V	H							
UniRef90_UPI0004422673	L	E	G	V	F	K	A	S	K	I	M	F	H	W	G	K	C	N	I	S	G	S	E	H	S	I	D	G	Q	K	Y	P	L	E	M	Q	I	Y	C	Y		
UniRef90_UPI0004422673	L	S	Y	K	Y	T	I	Y	Q	I	K	L	H	L	G	T	E	N	D	K	G	S	E	H	K	V	A	G	K	A	F	P	A	E	I	Q	L	L	A	Y		
UniRef90_UPI0004422673	L	S	T	R	Y	Q	A	T	Q	L	H	L	H	W	S	R	A	M	D	R	G	S	E	H	S	F	D	G	E	R	F	A	M	E	M	H	I	V	H	E		
UniRef90_UPI0004422673	E	D	D	P	Y	M</																																				

	130	140	150	160
UniRef90_M3XJ23	A D K Y G S L E K E A A N K S P D G L A V L G V F L F E V S R T N P F Y E K L F S Y L			
UniRef90_B0WFA1	N K T Y G T L E G A M P S P N G L A V L G V L F E Q L D S R N T N V T Y P W L T S M			
UniRef90_Q7SYW3	R K T A K A D T G G T P S R N D L A V L G F F Y E E T S N T N T D Y E P L W T S L			
UniRef90_H9GLZ6	K E N Y A S L E D A L Q Q G N G V A V L G F F I E V G S K Y N N E N Y A P L L S Q L			
UniRef90_UPI0002C66426	N G T S S N K T E A Q N S Q D E I A V L A F I V Q A G S E E N G A Y E Q L L S H L			
UniRef90_UPI000443EE4A	S N A F A K V I E A A L D R P G G L A V L A F L Q E G A P S E E N G A Y E Q L L S H L			
UniRef90_G8QPH9	S D D N Q L A V V A V L L E K G A Q D N A A F V I Q T L W N Y I			
UniRef90_H2Z000	D T A H A D I N A A I N K P Q G L A V I A F F L K A D S D N A A F Q K I L Q P I			
UniRef90_UPI000443D80B	K E P Y S S L I E A A E H D M A G I A L L A L F F E E T D D H P H L D T I L A A L			
UniRef90_F7GGG0	N S K Y K S Y E A Q D A P D G L A V L A A F M V E V Y P E M T Y Y S F I S H L			
UniRef90_UPI000359E6B6	K A T S S N K A Q D S Q D G K N A V A F M V E V Y G D E M N Q F Q P L V E A L			
UniRef90_UPI0001D55185	N S K Y Q N Y Q E A V V G E N G L A V I G V F L K L G A H H Q T L Q R L V D I L			
UniRef90_UPI00036D6A4F	N D Q N Q L A V V A V L M D P G P T S A F I N K V W T Y M			
UniRef90_UPI0003D09E65	N T K Y Q S M G H A R S Q P D G L A V L A V L V E E D K D N T F S A I V S G L			
UniRef90_H0WS17	N S K Y Q S Y D I A K D A P N G L A V M A A F I E V K D H N T Y Y D D F I S H L			
UniRef90_T1E193	N D L Y N S V I E A A S P K G A A V I G I F F Q V V G K H N E E L A K I T D I L			
UniRef90_K1QLS9	D S N Y A S L I S Q A M T E P G G L A V I G V L F R V V G K D E D N Q A E P I T N A M			
UniRef90_UPI00045431F1	D D Q F S S F E E A V K E K G K L R A L S I L F E V V G L E D N M D Y K V I N G V			
UniRef90_W5PUV4	N S K Y P S F A D A A S Q A D G L V I V A V L M K V G Q A N P N L Q K V L D A L			
UniRef90_UPI0002C5494A	K A K G T S R N E A Q D A K D E T A V L A F L V E V G S E E N D F Q P L V E A L			
UniRef90_H2TBA0	N S D Y K S F I E A R D K P D G L A V L A F F Y D G S L C S G K N I V P P L W K			
UniRef90_V8PC05	N S K Y A N L S V A K H Q P D G L A V L G I F L V Q S V I E N P A Y N H I L G H L			
UniRef90_A8JX25	N S K F S S V A D A A N V D G G L A V L A I F V Q P G A A N A E I N K L V D V L			
UniRef90_UPI0003F13719	S P L C L Q A R D T D A P C L G P R R S R Y C F Q I G E F N P Q L Q K I T D I L			
UniRef90_B7QEN3	N Q N Y G S A P Q A M K R R D G F L V V A V L F E I S R E N N P A F Q T I V D A			
UniRef90_K1QML6	N T K Y K T L S H A K Q Q P D G L A V I G V F A D I S E E K N H A F E L I M A L			
UniRef90_E9ISZ9	N S Q Y N N F S D A L H R A Q G I V A V S L L L Q V V G D S N P E L R T F T Q Q L			
UniRef90_T1K4A8	R K E Y E S F D K A L N Y S D G L V V V S I F F K H D E E S N H A L D R L I K G I			
UniRef90_G4VP62	N T K Y A T M E T A T Y S D G L S V V G I F F Q L G K S S N N N N A L K R L C			
UniRef90_UPI0003EAB0DE	E A H Y D N I D E A I K G G G K I T A L S V L F E V P S E E N E N Y Y P I N G V			
UniRef90_UPI00042C3427	N T R Y Q S I G E A R V H P D G L A V L A V L L T D Q D S D N A N F S A V X S G			
UniRef90_B0WFA3	N G L Y S S F E D A R N E V D G L V V V G M F Y E I Y D R F N E Q L N T W T R F			
UniRef90_K71YD1	K K A Y Q N I S E A I K H D D G I A V L G Y L L S L D K N A N M G I E R M R T F F			
UniRef90_E9FXN1	N S K Y G T F T E A L S Y E D G L A V F G I M I E L Q S R D N T A F R H L E Q F			
UniRef90_T1FZE7	N S D Y G N L S Q A L S S T N G V I I A L L V Q I N S G S E V E K I T Q H V			
UniRef90_S9Y3G2	S T A F A N V D E A L G R P P G G L A V L A A F L Q E G P E E N S A Y E Q L			
UniRef90_UPI00038713C4	K E K Y G K F A E A V K H P D G L A V L G I F M K I V G N A R P E I Q K V V D A L			
UniRef90_H0WAL8	K G I E G G A Q N A K Q I A V L A F L V E E G S E H N D G F R K L V D E A L			
UniRef90_UPI0003F1204F	K D K S G N K K E D Q N P Q D E I A V L A F L V E A G S K N D G F Q P L V D A L			
UniRef90_P22748	K E K G T S R N E A Q D P E D E I A V L A F L V E A G T Q V N E F Q P L V E A L			
UniRef90_E9FXM9	N T K Y G S F D N A V P H A D G L A V L G I L I D L Q A R D N I A F R H L E Q F			
UniRef90_H2UM88	N S E Y P N M S A A M T Q R D G L A V L A I L I T G E E T N P A Y D S I L N Y L			
UniRef90_UPI00045D6423		A T V A E V G E T K N I A Y E H I L S H L		
UniRef90_A0A011Q316	S	E E G K L A V L A V L L E K G M E N P L I Q A V W N N L		
UniRef90_C3YR32	S S A Y G S L G D A L A S G S D T A V L G F F L E S S S S D N A A A P I I S N L			
UniRef90_UPI00026578A7	N S D H R N S F T E A M N A R S E G L V G M L R I G N V S D N A A A P I I S N L			
UniRef90_UPI0004422673	A I Q F E S F E D A A L E S D G L A M V G I F F K L G K H H K E L Q K L V D T M			
UniRef90_W5JEJ7	N G L Y G S F Q E A S G Q V D G I A V V G L F Y E I Y K H N E Q L N T W T F F L			
UniRef90_C3XTT7	N T S Y N S L A D A M G K R D G I V I M S V I V Q I G R E N A G V K N F T D H L			
UniRef90_X1Y3H5	N G L Y K S F D E A K A E V D G I A V I G F L Y D V I P N S A D Y S F N I W S N			
UniRef90_H2LB46	K E P Y S S L A E A Q H D M A G I A V L A F L F E E T D N H P H L D T V I A A L			
UniRef90_H2IM16		A D E Q G N L A V V A V F F E E G D A N P A D L D K L D K V		
UniRef90_G1KFX3	D P N R F D I D K A V E G N G R L R V L S I L F E V G L E D N D Y N T I I			

	170	180	190	200
UniRef90_M3XJ23	Q A V S E E G D Q H E I L P P F D L D R G L L P D D H E R Y F F R Y N G S L T T P P Q F			
UniRef90_B0WFA1	A N V R L T A G T T Y K L P S N P T D A L I G S D T R T K V Y F R Y N G S L T T N P P P C Y N			
UniRef90_Q7SYW3	E A I R L K A G T T V K N F P A N L T D A L I P D K E K V Y F R Y N G S L T T T P P P C O N			
UniRef90_H9GLZ6	S E I P R F N G N N K D M P P F L R L D L S L I P K A A D D F Y R Y T G S L T T T P A C O N E			
UniRef90_UPI0002C66426	S D I P R P G M N T T M K K F D L D L S L I P K E L R N Y F R Y Y L G S L T T T P G C O E A			
UniRef90_UPI000443EE4A	E E I T E E G S E T W I P G L D D V S T L L P S D L S Y F R Y Y L G S L T T T P P P C O A S			
UniRef90_G8QPH9	P L E K N Q E V L P P D A A V D L N Q L L P K E K R G Y Y T Y M G S L T T T P P P O S S			
UniRef90_H2Z000	S A G M N K N A Q K T L T P F P I S D L L P K E I T G Y Y T Y M G S L T T T P G C O Y E			
UniRef90_UPI000443D80B	G Q V K N N G S K T V I L P N F R L S Y I I P E L I H S Y Y R Y Y V G S M T T T P G C O E T			
UniRef90_F7GGG0	A N I K Y P G Q T T T L T G L D I R D M L P K N K H Y Y F R Y Y D G S L T T T P P C O O T			
UniRef90_UPI000359E6B6	S H I S T P N T N T T M K E S C L Q D M L P K K E H Y Y F R Y Y L G S L T T T P N C O D			
UniRef90_UPI0001D55185	P E I K H K D A R A A V G P F N P S S L L P A C R D Y W T Y A G S L T T T P P L T			
UniRef90_UPI00036D6A4F	P L D N Q D R G V Q M P P G A L N V A D L L P S D L R Y Y Q F L G S L T T T P P C O T E			
UniRef90_UPI0003D09E65	K N V S S P G V S V N L T S T F A L A S L L P S L R Y Y R Y Y L G S L T T T P G C O E T			
UniRef90_H0WS17	A N I K Y A G Q S T T L T G L D I K D M L P D L A H Y F S Y N G S L T T T P P C O T			
UniRef90_T1E193	H E V A R K G D E S L P K L I D P A A L L P D D V H D Y W T Y E G S L T T T P P C O F			
UniRef90_K1QLS9	K A V Q D P E D H S K V K L P I K N F L L P E D T T K F Y R Y N G S L T T T P G C O F			
UniRef90_UPI00045431F1	D S V S R F G K Q A L L E P F V L L N L L P S N S T D Y Y T Y N G S L T S S P P C O T			
UniRef90_W5PUV4	K T V K T K N K K A P F T N F D P S V L L P S C P D Y W A Y F G S L T T H P L H			
UniRef90_UPI0002C5494A	S S V P R P K M N T M M K E F D L L P K K E K L R Y Y R Y Y L G S L T T T P G C O Y			
UniRef90_H2TBA0	C P L K R T L C C F F L H S L D M R S M L P E N N H F F R Y Y Q G S L T T T P P C O Y			
UniRef90_V8PC05	D S I L Y A E G E V T V A P F S V R E L L P A K H G Y Y R Y Y S G S L T T T P P C O Y			
UniRef90_A8JX25	P S C G S N G A S A A I L G G F N A L L P G D K A S Y W Y Y P G S L T T T P P C O S			
UniRef90_UPI0003F13719	D S I K E K G K Q T R F T N F D P S S L L P P S W D Y W T Y Y P G S L T T V P P L			
UniRef90_B7QEN3	L S R V R T E E A N G V E L P N P D L L P A I S S E Y Y R Y N G S L T T T P P C O S			
UniRef90_K1QML6	D Q V T E Y N Q R T I V T G I R P I D M L P N D T S Y Y H Y A G S L T T T P P C O Y			
UniRef90_E9ISZ9	D K I K Y G G Q A M E I K R F G V R E L L P D T K H Y M T Y D G S T T M P A C O H			
UniRef90_T1K4A8	Q K I P R Y R D K S L I P G F G N F S L P S N L N N F Y K Y S G S L T T T P P C O L			
UniRef90_G4VP62	S T K K G E S K D I Q P M L D L N T L P N D L S R Y Y T Y S G S L T T T P P C O N			
UniRef90_UPI0003EAB0DE	N S V S R Y G K N A V L E S L N L M S L L P N S T K Y F I Y N G S L T T T P P C O T			
UniRef90_UPI00042C3427	K N V S A R G A S V N L A S T F P L S L L G A S G L S R F Y R Y A G S L T P C G			
UniRef90_B0WFA3	L Q E V I T P E S T F T I Q F I D T F P L Y E E W P Y F S Y E G S L T T T P P C O L			
UniRef90_K71YD1	S K I L K P R Q S T D I D P F P L S L F D L D K E G Y V I T Y Y L G S L T T T P P C O S			
UniRef90_E9FXN1	D N I I D P S N S D T L K Y S V P L S D L L P D N T D F F R Y N G S L T T G D C N			
UniRef90_T1FZE7	D Q L I F K G N T L E L D D W S L F N L L P F E S N Y I T Y E G S L T T H P C O F			
UniRef90_S9Y3G2	L S H L G E I A E E G L D V S A L L P S D L S R Y F R Y Y E G S L T T T P P C O A			
UniRef90_UPI00038713C4	N S I Q T K G K Q A S F T A N S D L T G L L P A C R D Y W T Y Y P G S L T T T P P L			
UniRef90_H0WAL8	D K I P K P G M N V T M E A S F D T D L L P Q E K H Y F R Y Y Q G S L T T T P T C D			
UniRef90_UPI0003F1204F	T G I P L P N N A T T M T E L E L L L P K Q E K L R H Y F R Y Y L G S L T T T P T C D			
UniRef90_P22748	S N I P K P E M S T T M A E S S L L D L L P K E R H Y F R Y Y L G S L T T T P T C D			
UniRef90_E9FXM9	D K I I D P S R T I Q F S V P L V D L L P D S T E S F F R Y N G S L T T T P G C O N			
UniRef90_H2UM88	S R V R H A D Q K V N I P A F D I Q S L L P K D R R Y F R Y N G S L T T T P P C O H			
UniRef90_UPI00045D6423	H E I S H K D Q K T S I P F D N L R E L L P Q Q E Q Y F R Y N G S L T T T P P C O S			
UniRef90_A0A011Q316	P L E K N E Y V S S T G P D D D V A Q L L P Q D R S Y Y T Y M G S L T T T P P C O S			
UniRef90_C3YR32	Q N V N D S G D S Y Q F T E F S L D L P S S K T N F F R Y Y S G S L T T T P T C O N			
UniRef90_UPI00026578A7	S K V Y R D Q R A S I E R E D V S R L F P N T K E Y M T Y S G S L T T Q P S C N			
UniRef90_UPI0004422673	A S I T H E D M L V E F G S F D P S C L M P T C P D Y W T Y S G S L T T P S L S			
UniRef90_W5JEJ7	Y N V V Q P N S E Y T I S F I D T F P L Y D I E W P Y F S Y E G S L T T T P P C L			
UniRef90_C3XTT7	E D I Q Y K G K S K T I F N P A A F L P D P A L R E Y W T Y E G S L T T T P P C Y			
UniRef90_X1Y3H5	P Q V R Q P H S K A Q L S Y S K S F S L A H M G W P F Y S Y S G S L T T T P P C O L			
UniRef90_H2LB46	G L V Q			

	210	220	230	240
UniRef90_M3XJ23	Q S V T W T V	F N N T I Q I	S Q D Q L L S	Q L E N T L K M K H Q Q L L S Q N
UniRef90_B0WFA1	E T V T W M V	M R N T R L P	V R E D Q Q L A T F	R A L L Q S Y G Q P L V N N
UniRef90_Q7SYW3	E T V T W T V	F K R T I K V	S Q Q Q L R A F	F Y N S L N F T T E N Q R M V E N
UniRef90_H9GLZ6	E N V V W T L	F E K P I	E L Q L Q G Q I	Q E F W M Q L Y F G T T K N D S W I V D N
UniRef90_UPI0002C66426	E K V V W T V	F K E P I	Q L H E D Q Q I	Q F A F S E K L Y Y D N G Q K Q K M T D N
UniRef90_UPI000443EE4A	Q G V I W T V	F N Q T V R L	S A Q Q L A K Q L H T	L S S S L W G P D A S R L Q L T
UniRef90_G8QPH9	E G V L W L V	F M Q D P V	Q V Q V S A Q Q I A I F	S R L Y L R N N
UniRef90_H2Z000	E S V V W T I	F K Q D P I	Q I S S A A Q V N V F A T I	L K T K E N T A P T P V I N N
UniRef90_UPI000443D80B	Q A V A W T V	F H R M L S I	S S S R Q L R D A I	L V K Q C H R F W T G Q P M K N I
UniRef90_F7GGG0	E N V H W F V	L A D F V K L	S R T Q V W K L	E N S L Y D H D N K T I Q N D
UniRef90_UPI000359E6B6	E T V I W T V	F K E P I	K L H K D Q Q L K F	S K E L L Y D D E N K S L T M K D N
UniRef90_UPI0001D55185	E S V T W I I	Q K E P V	E V A P S Q L S A F R S	L L F S A L G E E K M M V N N
UniRef90_UPI00036D6A4F	E G V L W L V	L K T P V	T L S S E Q L R L F	S Q K L F P N N
UniRef90_UPI0003D09E65	P A V L W T V	F E N T V P I	G H A Q V V Q F Q A V	P Q T G P G L H P R P L T D N
UniRef90_H0WS17	E N V H W F V	M A D Y V K L	S K E Q I L K L	E S S L L D H R N K T I R N D
UniRef90_T1E193	E S V T W L V	F K Q P V	E L S S E E Q L E K F K S	L Q S S T N E P V H G K I T E N
UniRef90_K1QLS9	E S V I W T V	F E D K Q T L	S H R Q M E F F R K L	L L Q S H
UniRef90_UPI00045431F1	E T V D W I V	F K D T I S I	S E N Q L A S F	C T M Q Q S G Y V M L M D Y L Q N N
UniRef90_W5PUV4	E S V T W I I	F K E T I S V	S A E Q L A Q F R S	L A N A N E G D K E V C I K Q N
UniRef90_UPI0002C5494A	E M V V W T V	F Q E R I Q L	H R D Q I L T F	S K K L Y A E D K E T L R M T D N
UniRef90_H2TBA0	E S I L W T V	F D T P I	T L S H N Q I R K L	E S T L M D L D N K T L W N D
UniRef90_V8PC05	Q S V L W T V	F R Q P A R I	S A T Q L E K L	Q K S L Y S T K D T P S E L L V S N
UniRef90_A8JX25	E T V T W I V	F Y K D A I S	M S E D Q L A A F R N	V T P C
UniRef90_UPI0003F13719	E S V T W I V	L K Q P I	K I S S Q Q L A A F R A L	L C T S P G
UniRef90_B7QEN3	Q A V I F N I	L T N E V P I	S E Q Q M E Q F R L	K R A G S Q D D S P L L V D N
UniRef90_K1QML6	E S V S Y Y I	M H E N G I K I	T Q D Q Q I N R L	R H L K R D H H T N K A N Q Y I R Y N
UniRef90_E9ISZ9	E T T T W I I	L N K P I	Y I T K Q Q A K E L	R Q L M Q G D E K Q P N A P L A N N
UniRef90_T1K4A8	E I V T W L I	I A E P V	N I S E G Q T E I F R	H M I S S K T G E Y A Y L N H N
UniRef90_G4VP62	E C V T W I V	L D E P V	V M T I S E G Q T E I F R	H M I S S K T G E Y A Y L N H N
UniRef90_UPI0003EAB0DE	E K V Q W I V	F K H T V S I	S E D Q L E V F	C T M Q Q A G Y V M L M D Y L Q N N
UniRef90_UPI00042C3427	P V V L W T V	F E D T V P I	G R A Q V A Q F R I	V V A Q A P S S R P A P L T E N
UniRef90_B0WFA3	E T V T W I V	S A K P L L I	T A K E I R E F R R I	R T R S S G G L M M N N
UniRef90_K71YD1	E S V I W L I	S V R I K D V	T I D E L E S F R K L	Q L D N H D D
UniRef90_E9FXN1	E D V I W T V	F D T P I	A I S E R Q L A K F R	S L R L R D E N H G N E L V E N
UniRef90_T1FZE7	E T V T W V I	M N R P I	Y M S E N Q L A K L	R S L R S G S E E N P K G P L V D N
UniRef90_S9Y3G2	Q G V I W T V	F N Q T V K L	S A K Q L H T	L S D S L W G P D D S R L Q L N
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UniRef90_H0WAL8	E T V V W T V	F K E R I Q L	H K D Q I L A F S	Q K L Y Y D H L K K L K M T D N
UniRef90_UPI0003F1204F	E T V V W T V	F K E P I	Q L H K D Q I L A F S	Q K L Y Y D H L K K L K M T D N
UniRef90_P22748	E K V I W T V	F R E P I	Q L H R E Q I L A F S	Q K L Y Y D K E Q T V S M K D N
UniRef90_E9FXM9	E D V I W T V	F E T P I	A I S V R Q L A K F R	L L N D E N G M P L R K N
UniRef90_H2UM88	Q S V T W T L	F H E R V Q I	S N A Q L L K M E T T	T L Y S S R S A D A D K M Q D N
UniRef90_UPI00045D6423	Q S V L W T V	F Y R R S Q I	S M E Q L E K L Q G T	L F S T E E P S Q L L V I Q N
UniRef90_A0A011Q316	E G V L W L V	L R Q A Q Q I	S E Q F A I F T R L Y	R H N
UniRef90_C3YR32	E V V V W T V	F Q E T I K I	S Q S Q L N T L V A G A Y	F T S G Q A A A V M E N N
UniRef90_UPI00026578A7	E G V R W I V	I N K A L H I	S R D Q I S S L R K L	M Q G D I L N P K A S L S N N
UniRef90_UPI0004422673	E S V T W I I	K K Q P I	E A D H R D Q L E Q F R T L	L F T S E G E K E K R M V N N
UniRef90_W5JEJ7	E T V T W I V	A T K P L L V	T E K E M N Q F R R L	R S T T G L L V N N
UniRef90_C3XTT7	E N V Q W I I	F R Y P L T I	S H V Q M E F F R R L	R C H A K G Q P P P L C D N
UniRef90_X1Y3H5	E T V T W L V	A S K R L A V	T E R E M K F R A T L	L
UniRef90_H2LB46	H A V A W T V	F H R T L S I	S S R Q L D A I L K Q C	R F W T G L P M T D I
UniRef90_H2IMX6	E G V R W L V	L K D P Q T I	S A E Q I A T F	E Q A M G E N
UniRef90_G1KFX3	E S V E W I I	F K D T V N I	S E N Q L S V F	C T M Q Q S D Y V M M M D Y L Q N N
UniRef90_K1QUN4	E T A T W V I			



250  
UniRef90\_M3XJ23 F R V P Q S L H G R K V L A S F  
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UniRef90\_H9GLZ6 F R P T Q P L G D R T V F K S  
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UniRef90\_UPI000443EE4A F R A T Q P L N G R V V E T S F  
UniRef90\_G8QPH9 A R P V Q P S N G R L I K E S  
UniRef90\_H2Z000 Y R P V Q G L N G R T V R  
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UniRef90\_T1E193 C R P V Q P L N G R I I R  
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UniRef90\_UPI00045431F1 F R E Q Q Y N L P R Q V F S S Y  
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UniRef90\_B7QEN3 Y R P V L P L N G R Q V F R S F  
UniRef90\_K1QML6 Y R P S Q P L Y E R K V Y C S  
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UniRef90\_G4VP62 F R P I C P I G S R S V R C S F  
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UniRef90\_UPI00042C3427 F R P Q Q P L G V R R V V A S  
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UniRef90\_K7IYD1 Y R P T Q P L N D R P I Y  
UniRef90\_E9FXN1 V R L T Q L L H D R V V  
UniRef90\_T1FZE7 N R G S Q P L N R R P L R T N I  
UniRef90\_S9Y3G2 F R A T Q P L N G R I I E A S F  
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UniRef90\_UPI00026578A7 F R P L Q P L N N R V V Y T N I  
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UniRef90\_W5JEJ7 Y R P V Q K L N N R R V F  
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UniRef90\_Q95323 V R P V Q S L G Q R Q V F R S  
UniRef90\_E4XVW1 Y R V L Q P R N E R D I  
UniRef90\_E9FXL0 V R P T Q H E H D R I V T Y S  
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UniRef90\_V9KXX9 F R P V Q L L N N R C I R T N I  
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UniRef90\_F8FGR8 H R P V Q P L N Q R T V V S N  
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UniRef90\_E5RQ31 F R P V Q P L N D R I V R S S F  
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UniRef90\_UPI00026587DC F R P V Q P L Y R R V V R T N I  
UniRef90\_B6A7R3  
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UniRef90\_E0VXZ0 F R P P Q P L H H R P I R T N I  
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UniRef90\_I3BNI7 N R P V Q P L D A R V V  
UniRef90\_H0ZF36  
UniRef90\_F1Q4V8 F R P L Q S L D N R E V F K S  
UniRef90\_UPI000464CB90 Y R N E Q P L N G R E V K  
UniRef90\_Q7QKJ5 Y R A L Q P I G N R R V F  
UniRef90\_H2ZXN2 F R E Q Q Y Q F V G Q V L S S Y  
UniRef90\_A0A016XEC4 A R P L Q P R N S R T I R

	1		10		20		30		40																																	
UniRef90_G3N8Z9		GS	HG	P	Q	S	WA	A	S	Y	P	E	C	A	A	R	N	Q	S	P	V	D	I	S	D	E	Q	A	P	V	S	E	E									
UniRef90_E4X681		WG	Y	T	Q	Q	G	N		E	W	G	D	S	V	L	A	C	N	G	D	R	Q	S	P	I	D	I	P	K	K	Y	S	A	A	D	E	F				
UniRef90_D3PJZ7																																										
UniRef90_E1G722		N	W	D	Y	E	G	E	C	G	P	K	Y	W																												
UniRef90_UPI0002A4C3B1		F	P	F	T	G	I	Y	G	P	E	G	W	E	S	A	F	P	E	C	R	E	K	N	Q	S	P	I	N	I	V	D	K	D	A	K	V	S	T	E		
UniRef90_F6WI07																																										
UniRef90_C4SGU0		H	W	G	Y	E	G	Q	E	D	P	A	H	W	G	K	I	S	P	C	E	T	G	K	N	Q	S	P	V	N	I	Q	G	A	L	K	T	Y	N	S	L	
UniRef90_UPI000298B0C3		W	S	Y	S	G	T	L	N	Q	H	S	W	G	R	L	Y	P	S	C	T	G	A	R	Q	S	P	V	D	I	D	E	T	F	T	Q	V	R	K	R		
UniRef90_Q31FD6		H	W	Y	F	G	E	E	G	P	Q	Y	W	G	E	L	A	P	C	K	T	G	K	N	Q	S	P	I	N	L	K	P	Q	T	A	V	G	T	T	S		
UniRef90_A0A026WEW3		F	G	Y	A	H	Q	N	G	P	H	T	W	K	D	L	Y	P	D	S	S	G	S	Y	Q	S	P	I	N	I	T	R	L	A	I	V	V	I	Q	P		
UniRef90_F1S1C3		H	W	C	Y	Q	T	Q	L	G	P	D	K	W	G	S	S																									
UniRef90_G7NFD4																																										
UniRef90_I3BW91		H	W	G	Y	T	G	D	T	G	P	E	N	W	A	Q	L	T	P	S	C	S	G	K	N	Q	S	P	I	N	L											
UniRef90_UPI00045725A1		W	S	Y	I	G	N	L	N	Q	N	A	W	G	N	R	Y	P	I	C	D	G	I	K	Q	S	P	I	N	I	D	D	G	F	T	Q	A	H	V	A		
UniRef90_UPI0003C35813		N	W	T	Y	D					N	A	P																													
UniRef90_F6UPK3		H	W	C	Y	E	I	Q	Q	G	P	S	L	W	G	D	D																									
UniRef90_UPI0003166223		N	W	S	Y	E	G	T	T	G	P	E	H	W	G	E	L	K	P	C	L	N	G	Q	E	Q	S	P	I	N	I	K	T	E	Q	I	K	H	K	N	D	
UniRef90_R7UH28																																										
UniRef90_A0A026X185		W	E	Y	W	G	K	Y	G	P	K	N	W	G	V	G																										
UniRef90_D5CAD1		H	W	T	Y	E	G	K	S	G	P	E	N	W	G	E	L	S	T	C	K	T	G	K	F	Q	S	P	I	D	I	R	N	A								
UniRef90_B0X4Z9		W	R	Y	P	G	P	D	G	P	E	N	W	G	G																											
UniRef90_UPI00046D6B51		W	D	Y	S	S	Q	N	G	P	S	K	W	V	E	K	F	P	M	A	A	G	S	R	Q	S	P	V	N	I	E	T	D	R	V	E	S	D	H	E		
UniRef90_UPI0003061EF9		H	W	G	Y	S	G	E	S	G	P	E	N	W	A	K	L	T	P	A	C	G	G	K	N	Q	A	P	V	D	L	S										
UniRef90_E9FX49		H	W	I	Y	G	K	S	N	K	G	T	S	W	N	K	W	Y	A	S	C	G	G	K	Q	S	P	I	N	I	N	P	R	S	S	V	R	K	T	F		
UniRef90_A2VD39		W	C	Y	N	P	L	C	N	T	T	W	P	E	L	S																										
UniRef90_Q64444		W	C	Y	E	I	Q	T	G	P	E	K	W	P	G																											
UniRef90_A7S2D8																																										
UniRef90_UPI00031A116A		W	S	Y	S	G	H	T	G	P	E	H	W	G	D	L	A	P	C	K	N	G	K	S	Q	S	P	I	D	I	V	S	N	E	T	K	F	D	S	T		
UniRef90_A0A059A2E1		F	A	Y	A	G	P	Q	G	P	S	H	W	G	S	L	S	P	C	A	Q	G	Q	R	Q	S	P	V	N	L	V	R	N	A	T	V	L	N	K	N		
UniRef90_UPI0002234B81		W	T	Y	E	G	A	L	D	Q	E	H	W	P	S	Y	Y	P	A	C	G	G	K	R	Q	S	P	I	N	I												
UniRef90_H3MBN4		H	W	G	Y	E	G	E	G	S	D	P	E	H	W	G	A	L	S	E	C	L	S	G	M	N	Q	S	P	I	N	I	D	T								
UniRef90_B0XGA9		Y	F	T	Y	G																																				
UniRef90_H3CY18		W	S	Y	A	G	T	L	N	Q	N	H	W	A	K	K	F	P	S	C	S	N	A	K	Q	S	P	I	D	I	E	E	N	L	A	Q	V	Q	R	Q		
UniRef90_F1QTX6		W	C	Y	N	N	P	A	C	N	P	W	N	I	A	P	Y	C	S	N	G	S	Q	S	P	I	N	I	D	I	V	T	A	Q	V	G	N	P	N			
UniRef90_D0Z011		W	G	Y	G	E	A	N	G	P	E	H	W	G	E	V	A	P	C	A	T	G	V	N	Q	S	P	I	N	I	T	K	A	T	Q							
UniRef90_B6BNC3		H	W	G	Y	T	G	H	E	A	P	E	N	W	G	N	L	S	A	C	K	S	G	K	S	Q	S	P	I	N	I	T	S	S	V	I	T	V	E	S	K	S
UniRef90_UPI000444821D		W	S	Y	A	G	G	L	N	Q	K	H	W	A	K	K	F	P	L	C	S	S	A	K	Q	S	P	I	N	I	N	E	D	L	A	P	V	K	L	Q		
UniRef90_Q27504		H	W	S	Y	D	D	E	C	G	P	N	R	W	P																											
UniRef90_G4VIP7		W	H	Y	K	E	M	G	G	P	S	H	W	G	D	V	W	P	A	C	Y	G	K	M	Q	S	P	I	S	I	S	T	K	H	L	L	Y	D	P	N		
UniRef90_K8B3E4		H	W	S	Y	E	G	E	G	A	P	E	H	W	G	E	L	A	P	C	Q	K	G	M	N	Q	S	P	I	D	I	D	N	T	L	K	A	H	V	V	P	
UniRef90_A6DCH2		W	S	Y	S	G	K	T	G	P	E	Y	W	G	D	L	K	K	C	K	I	G	K	N	Q	S	P	I	D	I	K	T	S	T	Q	T	F	N	T	N		
UniRef90_B1XY18		H	W	S	Y	Q	G	D	A	G	P	A	A	W	A	S	L	K	P	C	G	N	G	Q	R	Q	S	P	I	E	L	R	D	G	I	K	V					
UniRef90_T1IM50		N	Y	R	P	V	H	N	Q	K	K	W	C	E	L	S	D	S	C	C	G	K	Y	Q	S	P	I	E	L	W	D	N	E	R	K	T	Q	M	T			
UniRef90_E9G343																																										
UniRef90_I3Y9R0		H	W	G	Y	S	G	T	E	G	P	E	H	W	G	E	L	D	P	C	Q	T	G	K	N	Q	A	P	I	D	I	R	P	D	E	V	K	L	D	P	R	
UniRef90_H2S427		W	C	Y	H	G	H	C	D	P	S	E	H	W	H	L	H	S	K	C	G	E	R	Q	S	P	V	N	I	E	K	K	S	V	V	D	S	Q				
UniRef90_UPI0004419F9C																																										
UniRef90_J9NXZ2		W	C	Y	D	S	Q	D	G	P	T	H	W	K	E	M	A	P	A	C	G	G	P	A	Q	S	P	I	N	I	D	L	H	L	V	Q	Q	D	P	A		
UniRef90_UPI0002063ED7		W	S	Y	S	G	E	H	G	P	T	Y	W	P	G	L																										
UniRef90_F7CPH5		W	S	Y	S	G	E	V	N	Q	K	E	W	P	T	Y	F	R	S	C	G	G	E	E	Q	S	P	I	D	I	Q	T	D	K	V	T	V	D	T	S		
UniRef90_F6THJ0																																										
UniRef90_J6UHL3		H	W	G	Y	D	G	D	H	G	P	A	H	W	G	E	L	D	K	C	G	A	G	A	Q	S	P	I	D	I	G	P	T	I	R	A	E	L	P	E		
UniRef90_H2TVI0		W	C	Y	T	G	A	H	T	P	S	H	W	G	D	I	A	A	F	C	S	E	K	R	Q	S	P	I	D	I	V	S	S	L	V	K	T	N	H	S		
UniRef90_UPI0003837241		W	G	Y	E	E																																				
UniRef90_H2M0K9																																										
UniRef90_W5KAG6		Y	T	G	S	L	N	Q	K	N	W	G	K	F																												
UniRef90_UPI000464929E																																										
UniRef90_V7W112		H	F	E	Y	E	G	V	E	G	P	E	F	W	D	S	L	W	T	D	C	G	G	N	T	Q	S	P	I	N	I	E	D	S	S	A	I	E	N	Q	G	
UniRef90_UPI0004419F9C		H	W	E	Y	S	G	E	A	G	P	A	F	K	W	A	S	L	T	P	E	C	A	G																		

	50	60	70	80
UniRef90_G3N8Z9	Y Q Q L K F N A E S S N Q T T M K N T	G K T V A V L L K D D	Y F V R G A G	
UniRef90_E4X681	K A F E L S N F D E E Q T W T M K N T	G K T V A V L L K D D	S E L N M K T	
UniRef90_D3PJZ7	S P I T F M N Y D V A H T N F S M K N T	G K T V A V L L K D D	S E L N M K T	
UniRef90_E1G722	E P L K F T L N E Y D V K L T G E V N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_UF000244C3B1	L R P F Q F G Y N V T H T L P I T N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_F6M107	L E L A F Q Q G K Q Q I V N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_C4SGU0	Y Q N L Q F E G W T A E S S T I H N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_UPI000298B0C3	L P G F D V Y Y R E T A L K I I N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_Q31FD6	S E L L Q W S N F N P L S M T I T N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_A0A026WEW3	L G D F H F S Y D T K Q K W A I Q N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_F1S1C3	L R P L E F E L P L L P E L R L R N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_G7NFD4	L R P L E F E L P L L P E L R L R N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_I3BVW91	L R P L E F E L P L L P E L R L R N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_UPI00045725A1	F R S L R F E G W E T K T G D I H N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_UPI0003C35813	M A P L K F G Y Y D A G N I T I K N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_F6UPK3	L G F H S F S Y D Q K Q Q W D V E N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_UPI0003166223	N K N P L Q M S Y Q P I S F S I K N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_R7UH28	L T A F D W S N Y G A I P W E L I N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_A0A026X185	G A L K F H R Y D F A F S S T L V N T	G K T V A V L L K D D	S E L N M K T	
UniRef90_D5CAD1	L P L E M N F H T A E K L V N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_B0X4Z9	P E F I F D S Y D S P D S A Y I V N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_UPI00046D6B51	S K P L R W K Y P A T A S R K L V N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_UPI0003061EF9	L T P L Q L S Y S A G A S N V N L G Y T	G K T V A V L L K D D	S E L N M K T	
UniRef90_E9FX49	P K F R F H N Y G N I D R M I L M N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_A2VD39	L T Q F N F T G F D A N T F I S M A N	G K T V A V L L K D D	S E L N M K T	
UniRef90_Q64444	L T P F I L G Y D Q K Q W P I K N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_A7S2D8	L P P V K V H Y D P F T K G K I T N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_UPI00031A116A	L A P I D F R Y Q R G T A K I V N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_A0A059A2E1	L K P L T R D Y R P A N A T L V N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_UPI0002234B81	L P L E T H Y I D G P I T I N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_H3MBN4	P K R L Q T L V N V N P T K V T I K N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_B0XGA9	H Q E L T F E G W D Q P R T S I K N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_H3CYI8	L T Q F I L T G F D A N T F S I T N S	G K T V A V L L K D D	S E L N M K T	
UniRef90_F1QTX6	L L P L R L D Y Q G K V T Q L V N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_D20Z11	L E K I G F D Y S T G I S S V I N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_B6BNC3	Y Q K L R F D G W E S M T T T I K N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_UPI000444821D	D G I K F V N Y D H P I Q G D I V N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_Q27504	L V P L K I S G D K Q I D V E V V N T	G K T V A V L L K D D	S E L N M K T	
UniRef90_G4VIP7	L K T H Y V D G P S L I V N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_K8B3E4	L K P F K L Y L G K G Y E V I N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_A6DCH2	L D A V Q Y D Y R P S R F T V I D N	G K T V A V L L K D D	S E L N M K T	
UniRef90_B1XY18	P F V I N I Y S V L P K T V A I E N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_T1M50	L N I K R L T W K Y P K T I E L L N T	G K T V A V L L K D D	S E L N M K T	
UniRef90_E9G343	L P P G F H Y S P G G S D E I L N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_I3Y9R0	L K S F T F T D D K H A I E Y I N T	G K T V A V L L K D D	S E L N M K T	
UniRef90_H2S427	Y Q E L G F D N E S N K T W M K N T	G K T V A V L L K D D	S E L N M K T	
UniRef90_UPI0004419F9C	L G P F I F Q G Y H P G P W T L E N D	G K T V A V L L K D D	S E L N M K T	
UniRef90_J9NXZ2	G E L K F I R Y D F A F E C K I T N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_UPI0002063ED7	L K P L Q L K N F G L Q H G K M S N T	G K T V A V L L K D D	S E L N M K T	
UniRef90_F7CPH5	L P P L R L S M T G T T V S T M H N T	G K T V A V L L K D D	S E L N M K T	
UniRef90_F6THJ0	L K I D W S K G V E K I V N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_J6UHL3	L G S F T F L N F G S Q Q K S V I N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_H2TV10	L L D L N P N Y V V Q R D C E V I N D	G K T V A V L L K D D	S E L N M K T	
UniRef90_UPI0003837241	L Q L E G W H K P T T D S T I H N N	G K T V A V L L K D D	S E L N M K T	
UniRef90_H2M0K9	L K P L V M K Y D P R T Q Q I W N N	G K T V A V L L K D D	S E L N M	

	90	100	110	120																																						
UniRef90_G3N8Z9	L	P	G	R	F	K	A	E	K	M	E	F	H	W	G	S	H	S	N	G	S	G	S	E	H	S	I	N	G	R	R	F	P	V	E	M	Q	I	Y	L	Y	
UniRef90_E4X681	L	P	G	E	Y	T	F	A	Q	F	H	F	H	W	G	S	D	H	G	S	G	S	E	H	T	I	L	E	G	K	Q	F	F	S	E	V	H	L	V	H	F	
UniRef90_D3PJZ7	L	S	N	D	T	Y	T	L	A	Q	F	H	F	H	W	G	S	D	M	K	Y	G	S	E	H	T	I	L	E	G	K	Q	F	F	S	E	V	H	L	V	H	F
UniRef90_E1G722	F	D	Q	A	Y	R	L	V	Q	Y	H	F	H	W	G	L	H	D	N	E	S	G	S	E	H	T	I	L	A	G	L	H	Y	P	A	E	L	H	V	H	F	
UniRef90_UFI0002A4C3B1	L	P	G	R	F	K	A	E	K	L	E	F	H	W	G	P	V	N	G	S	G	S	E	H	T	I	L	D	G	R	R	F	P	V	E	M	Q	I	Y	L	Y	
UniRef90_F6W107	L	S	G	V	Y	K	A	K	Q	L	H	F	H	W	G	S	A	G	V	A	G	S	E	H	T	I	V	D	G	R	R	F	L	M	E	L	H	V	H	R		
UniRef90_C4SGU0	D	D	D	T	F	T	L	Q	Q	F	H	F	H	A								P	S	E	N	E	I	D	G	K	Q	F	P	L	E	A	H	F	V	Y	K	
UniRef90_UPI000298B0C3	L	S	S	R	F	R	V	L	G	R	I	T	F	H	W	G	H	C	N	T	T	P	S	E	H	S	L	N	G	R	T	Y	P	L	E	M	Q	I	Y	C	H	
UniRef90_Q31FD6																																										
UniRef90_A0A026WEW3	L	T	G	A	Y	D	F	F	N	I	L	F	H	W	G	P	S	N	E	E	G	S	E	H	T	L	D	Y	V	R	Y	P	M	E	L	Q	V	I	H	T		
UniRef90_F1S1C3	L	A	A	R	Y	R	A	K	Q	L	H	L	H	W	S	N	V	L	D	M	G	S	E	H	T	S	F	D	G	E	R	F	A	M	E	M	H	I	V	H	E	
UniRef90_G7NFD4	P	G	R	E	Y	R	A	L	Q	L	H	L	H	W	G	A	V	G	R	P	G	S	E	N	T	V	E	G	H	R	F	P	A	E	I	H	V	H	I			
UniRef90_I3BW91																																										
UniRef90_UPI00045725A1	L	T	S	R	Y	K	V	G	K	I	T	F	H	W	G	C	N	A	S	E	G	S	E	H	T	L	I	D	G	R	Q	N	F	P	M	E	M	Q	I	F	C	Y
UniRef90_UPI0003C35813	L	H	S	K	Y	E	A	V	G	V	H	F	H	W	G	S	T	N	S	K	G	S	E	H	M	I	D	D	R	R	F	D	V	E	M	H	I	V	H	K		
UniRef90_F6UPK3	L	N	A	Q	Y	R	A	Q	Q	L	H	L	H	W	S	N	K	M	D	R	G	S	E	H	T	F	D	D	R	R	F	D	V	E	M	H	I	V	H	Q		
UniRef90_UPI0003166223	G	N	N	R	Y	T	L	K	Q	F	H	F	H									T	P	S	E	H	T	F	I	E	G	K	P	A	M	E	L	H	V	H	Q	
UniRef90_R7UH28	L	D	G	I	Y	K	A	V	H	A	S	L	S	W	G	S	E	D	H	I	G	S	E	H	T	I	L	D	G	R	G	F	P	A	E	L	Q	I	V	H	Y	
UniRef90_A0A026																																										



	130	140	150	160
UniRef90_G3N8Z9	N D D F E T S L I G A A I K E R R I I A A I A V F F E E G Q K S D N P A V E P I I Q G L			
UniRef90_E4X681	K S E Y D S I I G N S V D K S D N L A V L G F F I E E D A S V I E S G P L D D F F Q			
UniRef90_D3PJZ7	N T K Y G T I I E A A V N K S D N L A V L G V F F I E E D A S V I E S G P L D D F F Q			
UniRef90_E1G722		E G L T D P N K L A V I G V F F I E E D A S V I E S G P L D D F F Q		
UniRef90_UPI0002A4C3B1	N S D F D S L G A A L R Q R M I A A M A V F F F Q V G R D Y H A A D A I I H G L			
UniRef90_F6W107	R N A M K E E N I S S N E D L A V L G F F E E S E N D N E N Y T A L I N T I			
UniRef90_C4SGU0	D K E G A L V V L A L M F Q E G K A D A Q L A N A W Q Q M P T A V D Q M A V L N			
UniRef90_UPI000298B0C3	D P D F Q T L D E A L M G G R V A A L A V L F E S L E E D N E N F Q P V T D A I			
UniRef90_Q31FD6		K D G D G N L A V I A I L F Q E G E E N E T L A K L M S F I L		
UniRef90_A0A026WEW3	K R G I K S P M D A I T K D G I V I V S F F L Q I E N H V D N P Y L D H I V S N L			
UniRef90_F1S1C3	K E S G T S K N K N Q D H K D D I A V L A F M V E G C K K N N N F Q P L V E A L			
UniRef90_G7NFD4	S T A Y A R V I E A L G R P G G I A V L A A F Q E G P E E N S A Y E Q L L S H L			
UniRef90_I3BW91	D S T N D I A V V A L M F E E G A A N P E L E K V W A E M P A D A D T V D A L			
UniRef90_UPI00045725A1	A E R F N S F A D A V E G E T K A L A V L F E I S P E D N D Y D S V L S G V			
UniRef90_UPI0003C35813	N V L Y P T L E E A T K H V D G L T V L G V M F K V D R I Y P G L N M I F N R L			
UniRef90_F6UPK3	K Q N G T S R I K T A E D P D E I A V L A F M V Q A G S K N D G F Q P L V E V L			
UniRef90_UPI0003166223	N D Q G Q L A V F G I L I K E G Q V N E G F A E L W E N I			
UniRef90_R7UH28	S L A A G S Y D E A L H V I E K G I A I M S F L F R S P V D N R V I Y D Q L L H L			
UniRef90_A0A026X185	D Q Q Y A N F S N A A Q Y E N G I V V V A V L F E L S N Y D N E D L M S I M V S			
UniRef90_D5CAD1	S K E G D V A V V A V M F E V G P E N S A L N P L L A R L			
UniRef90_B0X4Z9	Q S R Y A S V I E Q A S S H K A G I A V L A V L F H V D E H P N E A I Q L I L N S			
UniRef90_UPI00046D6B51	N S K Y K T F A E A K A P D G L A V L G V F L K V I G K A H A E M D K I A R L L			
UniRef90_UPI0003061EF9		A D K D G N L A V L A L M F K T G E H N A A L A R L W D N P		
UniRef90_E9FX49	N T K Y G S F A D A T A H S D G L A V L G I F L K I G P G E N P Y F R P V V D Q			
UniRef90_A2VD39	H S K Y N S A A L A A N D S S A L A V L G F F I E G T N E A S G W G V L T S F L			
UniRef90_Q64444	K L T S S K E D S K D K F A V L A F M I E V G D K V N G F Q P L V E A L			
UniRef90_A7S2D8	N S D L Y K D A A S A M S S D N K D G L C V L G			
UniRef90_UPI00031A116A	N E K G Q L A V V G V L F E I G A A N K A L A P V E S S L			
UniRef90_A0A059A2E1	A S D D D F A V V A V L F A L G D P D P L I S K I K N K L D E L A E D			
UniRef90_UPI0002234B81	N S K Y K S Y N I A K D A P D G L A V I A A F C E V Q D N N T Y Y S E L I S Q L			
UniRef90_H3MBN4	N A Q G A I T V V A V M F D Q G A E N S E L N K L W I T			
UniRef90_B0XGA9	N Q D Y K T V D E A Q F Q E N G I A V L G Y F F A N S T K A K N Q R W I D S L Q			
UniRef90_H3CYI8	Q P Q S S S L D E S I K A G S G R I A A L A V L F F E I S S E D N S N Y A I V D G V			
UniRef90_F1QTX6	H S T Y D S A A L A A N D S S A L A V L G F F I E G T D W D I F T S F L S N I P			
UniRef90_D0Z011		A D D K G K L A V I S V M F E I G P R A N S D L D A L L		
UniRef90_B6BNC3		A T E D G S L A V I A L M F E D G T E N P F I K K V W A K T		
UniRef90_UPI000444821D	E A H Q F S L D E T I Q S S G R I T A L A V L F E T S T E D N M N Y P I I S G I			
UniRef90_Q27504		G V E D P G K L A V V G V F L Q L G E G K A L S N E E R V L		
UniRef90_G4VIP7	N F I Y Q N F S N A L S K P N G L A V L S V L F K I G D Q S S A D E A L L S T A			
UniRef90_K8B3E4	N A A G E L A V V A V M F K T G A A N A E L E K L W Q A L			
UniRef90_A6DCH2		L D K N G N I T V L A V M Y K I G K E N K S L N K M Q A V L		
UniRef90_B1XY18	D P Q G R L A V V A V L L Q Q G R Q H P L V Q L V W N S L			
UniRef90_T1IM50	K S K F S N L T E A I G E K D A L A V L G V L Y W I D N R N P S L D Q I T S R L			
UniRef90_E9G343	N T K Y G S F N E A L K Y G D G L A V L G V F L K V G K E N P E L N K L C E L T			
UniRef90_I3Y9R0	D Q D G N L L V I A V M F D E G D E N A A L I V P W A G M P E T V D R K T H L			
UniRef90_H2S427	K R K D L T L D E A V K T H D G L A V L G F F I E V T V I S P W K T L T S Y L			
UniRef90_UPI0004419F9C	N D F D S F G T A I Q E K R I I G T M A V F F Q V Q R D N P A L E P I I H G L			
UniRef90_J9NXZ2	N T R Y Q S I I E A R S H P D G L A V L A V L L E R D T D N A N F S A L V S G L			
UniRef90_UPI0002063ED7	K E Q Y G N T S A A S K H E N G I A V V A T L F E L D N E D N M E I T P I L K A			
UniRef90_F7CPH5	C S K Y P T Y D V A K T K P D G L L V L A I L L K A E K H N P A Y E H F L H L			
UniRef90_F6THJ0	N Q D Y S N V T E A S R N P N G L A V I S L F L N V A D N S N S F L N R M L N R			
UniRef90_J6UHL3	N D A G L A V V G V L M E T G D K N P L F A E V I D E M			
UniRef90_H2TV10	K K G L T V Q E A T A D S E G I A V L G F F L N A T E D G P A S E P V S A L T			
UniRef90_UPI0003837241		E V G K E H L G L K A I T D V L		
UniRef90_H2M0K9	N P D F Q S L D D A V E Q G G R V A A L A V L F E V N N L E E N E N F A I L K A I			

	170	180	190	200
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UniRef90_E4X681	N L V G D A V G K Q V E V K F S M S D L L P A K L D N Y F Y R Y L G S L T T P P C N			
UniRef90_D3PJZ7	K D I Q S G A E T K Q V D V K F G L A L D E K L L P A K L D N Y F Y R Y L G S L T T P P C N			
UniRef90_E1G722	N K I I D P A E K S Q P L E Q E I L D D D K L L P P K N R S Y F W R Y T G S L T T P P C S			
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UniRef90_F6W107	V T I P H K G D T T C L N L T L Q E F I P E S P K D Y Y R Y Q G S L T T P P C S			
UniRef90_C4SGU0	K P I P H K G D T T C L N L T L Q E F I P E S P K D Y Y R Y Q G S L T T P P C S			
UniRef90_UPI000298B0C3	N T V S R F G K S G S L E A F S L R S L L P N K T D K Y F I Y N G S L T T A P P C S			
UniRef90_Q31FD6	P Q T L K K Q E I H E S V K I H P A K F F P A D K K F Y K Y S G S L T T P P C S			
UniRef90_A0A026WEW3	W R I T C P G S K V Y I P P F I S E W M F P F D R N Y Y T Y N G S L T T P P C S			
UniRef90_F1S1C3	T Y I P R P N M N T M M N Q S F S I S D L L P K K H Y F R Y L G S L T T P P C S			
UniRef90_G7NFD4	E E I A E E G S E T Q V P G L D V S A L L P D L S R Y F R Y L G S L T T P P C A			
UniRef90_I3BW91	D T Q V D A S K S A A L K P F V P L N L L P N S T D Y Y R Y N G S L T T P P C S			
UniRef90_UPI00045725A1	D S V S R Y G K S A A L K P F V P L N L L P N S T D Y Y R Y N G S L T T P P C S			
UniRef90_UPI0003C35813	P D L V E M D S N S T L P G G N M T L G H I N T K T F F Y T Y T G S L T T P P C A			
UniRef90_F6UPK3	S E I P K P E M R T T M K E S I S L W D L L P Q R S H Y F R Y L G S L T T P P C Q			
UniRef90_UPI0003166223	P T I T V K Q D D V Q N V I D I Q R I L L P L P K K S Y F R Y T G S L T T P P C T			
UniRef90_R7UH28	E R I P Y K D E K V I V R L P L L S L L P L N L N N Y F R Y S G T F T S P P C T			
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UniRef90_D5CAD1	P K E K D H E I S L D K H L D L R P L F A D L H Y Y F S Y G S L T T P P C T			
UniRef90_B0X4Z9	T S P I K A K V D D R Q P S L H L N D L L P K D R T Y F R Y E G S L T T P P C A			
UniRef90_UPI00046D6B51	P Y V S H K D D C I E I N E P I D S S W Q V D D N G Y W T Y L G S L T T P P C N			
UniRef90_UPI0003061EF9	P A D G Q T Q I A P M A S V S E L L P D D L D Y Y R F S G S L T T P P C T			
UniRef90_E9FX49	L G Q N H D E T I L T N L V S F K D L L P K Q T T S F Y R Y S G S L T T P P C Q			
UniRef90_A2VD39	R N I T Y S G N A T V D I M M N S L L E G V N K T K Y Y R Y R G S L T T P P C N			
UniRef90_Q64444	P S I S K P H S T S T V R E S S L Q D M L P P M Y T Y F R Y N G S L T T P P C D			
UniRef90_A7S2D8	L E V K E D A F L L N I C T C T I H L F F S C V L E C W T Y P G S L T T P P C S			
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UniRef90_UPI0002234B81	Q N I R H P G Q S T T L A G L D I K D M L P E N H D Y Y T Y L G S L T T P P C T			
UniRef90_H3MBN4	M P E K A E G S N A K I S T Q M D L N A L L P A D K Y Y W R F S G S L T T P P C S			
UniRef90_B0X9G8	S I K K T G S S Y T F V H P Q Y M N L V G S D L R P Y F S Y D G S L T T P P C Y			
UniRef90_H3CYI8	R A V S R Y G K S A Q V S A F T L G G L L P N T E K Y F T Y S G S L T T P P C S			
UniRef90_F2QTX6	N S G N T Y T D I M D Q I T M N S L L E G V N K T K Y Y R Y Q G S L T T P P C N			
UniRef90_D0Z011	N E I P E K G Q T I E I Q D L T P G A L L P R D R E Y Y Q F N G S L T T P P C T			
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UniRef90_K8B3E4	P E H T D A S Q P L T T A I D N K L L L P Q D K T Y Y R F S G S L T T P P C S			
UniRef90_A6D3CH	P T K V G E E N K V M G N L N P M E L L P K N K A Y Y R F N G S L T T P P C S			
UniRef90_B1XY18	P L E Q N D E T A P V P L D L N M L L P E D R R Y Y T Y M G S L T T P P C S			
UniRef90_T1IM50	R Y V K Y N G Q S T Q I K S F S L R K L I P A S T T Y F Y W G S L T T P P C D			
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UniRef90_J9NXZ2	K N V S E R G V P A N L A P T F P L A S L L P G S R Y Y R Y A G S L T T P P C Q			
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UniRef90_F7CPH5	S K I R H V G Q S T N L T S L N L K G M M P N T N M E T Y N G S L T T P P C T			
UniRef90_F6THJ0	E T L T R R N E A T Y I Q D L S I E D L Y P D T F G F L T Y Q G S M T I P P C Y			
UniRef90_J6UHL3	P R E A G K S A A L D G D L H G E D L L P K A R S Y Y R Y T G S L T T P P C S			
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UniRef90\_B5DYL3  
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UniRef90\_K9NT61  
UniRef90\_U6PI84  
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UniRef90\_I0HMP7  
UniRef90\_V5SFX3  
UniRef90\_W8ADY5

250  
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UniRef90\_E4X681 F R N V Q A L N G R D V S F  
UniRef90\_D3PJZ7 Y R D I Q K L N E R K V Y  
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UniRef90\_G7NFD4 F R V T Q P L N G R V I E A S F  
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UniRef90\_H3MBN4 N R P V Q P L N G R V V  
UniRef90\_B0XGA9 Y R P I Q T L N D R E I  
UniRef90\_H3CYI8 Y R E Q Q R F M G Q V F S S Y  
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UniRef90\_K8B3E4 N R P V Q P L H G R V V  
UniRef90\_A6DCH2 N R P V Q P L N A R V I  
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UniRef90\_F1QLX7 Y R P Q Q S L N K R T V Y  
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UniRef90\_G3NYN9 H R T T Q A L N G R S V F A S  
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	1	10	20	30	40														
UniRef90_T1G2I2	WTYEG	ISG	PQYWS	LNN	C	AKGKR	QSS	P	I	N	I	D	P	R	E	L	Y	D	N
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UniRef90_H5V5N0	HWSY	EGHS	SS	PE	H	WGE	L	SE	C	Q	A	G	K	N	QSS	P	V	N	I
UniRef90_E4SR0	QWGY	TGT	TG	PE	H	WGD	L	SK	S	K	N	G	K	E	QSS	P	I	N	I
UniRef90_Q7LZP1																			
UniRef90_U6HBY0																			
UniRef90_B0WFA2																			
UniRef90_F0V1B0																			
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UniRef90_U4UA19	H	W	S	Y	D	H	E												
UniRef90_J3HJ03																			
UniRef90_H2U7M3																			
UniRef90_V3ZJX8																			
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UniRef90_F4W4B9																			
UniRef90_A0A026WAC8																			
UniRef90_I2FLL8																			
UniRef90_A0A034WLW9	Y	N	Y	G	A	A	N	G	P	N	N	W	G	M	L	S	P	C	
UniRef90_I3LA69	F	D	Y	E	H	Q													
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UniRef90_C1BPC8																			
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L P P L N K I V D Y K E S Q L R S L I L N N G H T I L Q V N Y Q Q G S T L N T L N  
L A P L N L N N Q E S E A Q V E N N G H T I L Q V N Y Q Q G S T L N T L N T I D G L V  
L K P L D L D Y D P A Y V L T S V E N A G H D A L L F A F V I F G V I T F S G G P  
N G Q L E F S G Y Q P T Q V N V T N N G H T A V Y S F N F P E P V V A R G G P  
L G Q L Q F D Y Q Q R A I A I L N N G H T I Q T T L E G R N T L S I T I D G  
L K A L N F D Y R Q F I L V H V L T N I G W N I S F R A D N I R A I L S I Y G G A  
L Q T L A R K Y S I A N A T L N N G F N I G V H F W E N S G G T A I I D G  
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L K Q F S F T G F N G F N F T V K N N G H T A S I L R V S G N M S V S G G G  
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UniRef90_H5WIY7																																										
UniRef90_G2E1B1																																										
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UniRef90_B0WFA2	E	V	Q	T	A	G	T	S	Y	T	L	P	S	E	P	T	A	F	N	L	I	G	A	R	R	K	P	Y	F	S	H	E	G	S	L	T	T	T	P	P	Y	S		
UniRef90_F0V1B0	P	E	G	S	E	Q	R	M	P	L	I	S	E	P	E	T	G	S	L	P	A	S	R	K	D	D	Y	N	F	E	G	S	L	T	T	T	P	P	C	T				
UniRef90_UPI0001924B51	E	K	V	P	Y	M	N	T	A	S	F	M	V	D	P	Y	L	L	L	P	K	N	T	N	H	Y	F	T	Y	P	G	S	L	T	M	P	P	L	T					
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UniRef90_Q2W9U0	P	A	K	A	G	E	A	A	T	A	T	S	M	L	D	A	S	M	L	P	K	D	P	V	T	F	R	Y	F	I	A	G	S	L	T	T	T	P	P	C	T			
UniRef90_UPI0001FE6E02	S	T	I	A	A	L	A	E	A	G	A	A	V	S	V	P	A	E	W	L	P	A	S	T	E	Q	Y	F	H	Y	P	A	G	S	L	T	A	P	P	C	Y			
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UniRef90_H2U7M3	D	T	I	T																																								

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50 60 70 80

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A K W P L I N T Y Q P T T F S V Q N N G H T I Q A D V H G S T G S T I R L A G V  
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M E P L H R N Y T A A N A T L V D N I F N I A L R C G D A A G A V S I  
L G T F T F T N Y S S K L L L L N N P G H T V E V Q L A S G V T L S G G G  
L Q F N Y N P S T L R I F N N G H T I G V N Y D N G S M L T L  
L G K L H I N Y Q P S N A T L N R N G H N I M L E W L A G T S Y L Q I  
L R L I H L D K H K V S G M L H N T G Q S L V F R V D K D T K Q H V N I G G P  
L G R L N R D Y N P S N A T L K N R G H D I M L K F E D G A G T I K I N G  
L G S L L L D Y A A V P L A V R N T G H S I Q L D L H D G G R M W T G G  
L I T I D W K G G T I L N N G H T I Q V K A A P G G T L R R G D  
L G I L Q R D Y K P A P A V L L N R G H D V M V Q W N G D A G N I N I N G  
Y Q K L S F D G W T T N R T T I K N D G K T V T I N V D G D F Y V S G A G L R  
L G E L K K F Y K P Q N A T V K N R G H D I E V K W E A D A G S I I N G  
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UniRef90_B3P7Q7	L P G N F E A Q S V H F H W G S G N S K	T P S E H T T I V D G R R Y D L E E L H M V H Q		
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UniRef90_UPI00032AD2E2	Q Y A L K Q F H W H	S P S E H T T I V N G R R L D L E E L H M V H Q		
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UniRef90_UPI00032ABA01	K N Y S L K Q L H W H A	P A E H W A H D R R H Y E A E L H M V H L		
UniRef90_UPI00032EDE8C4	P L P A Y R A L Q L H F H W G G P R R G	G S E H S L L D E G H W Y P L E Q M H V L H M		
UniRef90_W7ZMJ3	P Y T L A Q F H F H	T P S E H T T I V D E D E H F E M E L H L V H H		
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UniRef90_G2E3S5	N G H T E Y A L K Q Y H F H	T P S E N H V D R G K A F P M E A H L V H E		
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UniRef90_W4W7P6	Q N Q T F E M E E V H F H W G L K N N R	G A E H V L N G I R Y S M E T H I I H Y		
UniRef90_A9NP26	K R F T L K Q Y H F H	T P A E H T I V D G K Q H P L E I H L V H Q		
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UniRef90_V7CZU1	M	D	I	P
UniRef90_V4NF13	P	T	D	G
UniRef90_B3P7Q7	P	R	I	V
UniRef90_UPI0004433D31	T	R	I	T
UniRef90_UPI00032AD2E2	R	A	I	S
UniRef90_A0A016S773	T	H	Q	K
UniRef90_UPI00032ABA01	N	R	A	G
UniRef90_UPI00032EDE8C4	K	N	V	S
UniRef90_W7ZMJ3	P	N	T	E
UniRef90_U5EYJ1	A	E	P	I
UniRef90_B3M085	P	K	I	V
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UniRef90_G2E3S5	P	E	Q	P
UniRef90_M3C8M9	P	A	E	E
UniRef90_W4W7P6	P	D	V	Q
UniRef90_A9NP26	M	A	I	A
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UniRef90\_A0A022RDX7 L G D L Q R N Y T S A P A V L E N R V D V A V V W R G N A G N I T I N G  
UniRef90\_UPI00042B2F3D L G Y L D Y S Y L P A E A S M V N R G H D I E V K F M G N A G R V V I N G  
UniRef90\_B9G1C9 L N T F R V E Y E K S G E F K A V N T G N G L W L R R E G N S E L A I S F L P  
UniRef90\_H3E9S4 L Q N A H F T Y E S T G E F K A V N D G N S I W L M R E G N S S E L A I S F L P  
UniRef90\_O02637 P R I L F E N Y D E K L N S T L I N K G Y T V K M A I P R N G R K P F I T G G L  
UniRef90\_B4LVZ6 L K I L D Y K Y Q P T M F K V T R K D Q S V Q A V A E T T K G R A D S K M T L  
UniRef90\_W7D3S0 L Q P I E I S Y Q Q I P L R I V N N G H T I Q I N T N P G N Y I V D G  
UniRef90\_B7JY43 H A P L T Y G G D C S K F K L K K L E D L Y K W Q I D G D E H C T V K S I N F  
UniRef90\_G4Z520 L K S I S I S Y N S A I A K E I V N I G H F F T V  
UniRef90\_UPI0002739A1D L R R I K I T F P G E S S S T L K N N G H T L Q L S I G K N K P K L V A F D S S  
UniRef90\_UPI0002B40E47 W M D R D Y C N V Q I N L P P T M Q I T N G L P  
UniRef90\_UPI0004548739 Q P K I Y Y K N K A S D V G Y E E V N T P Y T K E Y E G E Y S S I Q V L D A S G  
UniRef90\_A0B144 D A L K F Q K Y Y V Q K N L E M V N N G H S I Q I D F D D V L V M E G G G  
UniRef90\_B4GYZ4 L G K L R R D Y N P A P A I V K N R G H D I L I R W E T D A G K I T I N G  
UniRef90\_UPI0002B46FEB I P R L K P N Y K N A P A M I V N R G H D I K L Q W E T D A G S I N I D G  
UniRef90\_M1AEL9  
UniRef90\_H7CE94  
UniRef90\_B4N9V3  
UniRef90\_F8CH20  
UniRef90\_T1G0X2 Q D A P S F H Y G T S R V R M T N N G H T V Q F T Y D V G S T L Q V G G  
UniRef90\_B9IH33 W Q A S R E N S N F E P L E I D Y S S M G G S N V T G G P Y  
UniRef90\_D3UGG4 L G K L R R D Y Q A A P A A V K N R G H D I T V I W K G D A G K I T I  
UniRef90\_H3GIU0 P F A M Q Y I K G D A K V I N K G Y T I Q A K Y K N A G G V D F  
UniRef90\_B9G0Z0 K S P L N F T G K C S Y N L T E P A E P L E V D V I G G N C V A N V  
UniRef90\_A0A015JWN9 L G D L N Y T Y R N A N A T V V N R G H D I M V R F D G G D A A A G G L V  
UniRef90\_UPI0003ACA2A2 P P S P K F D D A C D V E S I H N G N T V E I S S G K E E V P L P A E I T I  
UniRef90\_Q9V9Y7 L Q L L G F E L P P F P E L R L R N N G H T G E G S G G G A S G G R R L S G G E  
UniRef90\_G4Z5L0 I P V T S N G R K P F I T G G R  
UniRef90\_I1GXD3 R S P L S F S G Q C S Q Y N L T E P H E P L E V D V I G G S C V A T V  
UniRef90\_UPI00046C18CC R Y G R L S Q H Y R P A P A T M V N R G H D I M V R F D G D A G G L L I D G L  
UniRef90\_D8SY70 L P G L R A H Y Q S S V C S I A S S Q Y I F K V F I A G A H C T L P L  
UniRef90\_UPI00036473C4 Q P T I T S S P T V G E S V D T G H T V Q L V P E S G A S V E W D G  
UniRef90\_E4YVE6 L Q F T L T N Y E K P H K W T V K N T G H G V K L E P A V E D M K F T G G D  
UniRef90\_B3MIQ8 V M E W G H Y N D M P M G T R I E N S G H T L L L R A A F R H V T P Y I G G A D  
UniRef90\_A3INB7 N I E T Y Y Q A T P L V I N N N G H T I E V N Y K P G S Y V L I N G  
UniRef90\_H9JYV5 L P P L Y M T N Y W S D I G T M T N T G R T V V I E I D D R S L P Y L R G G P L



		90	100	110	120
UniRef90_UPI00046DA01F		Q Y F L K Q S H W H	S P S E H S I N G K R Y D M E L H M V Y Q		
UniRef90_H2TB97	G K Y T A V Q M H L H W G G W D L E A	S S G A E H T I D G I R Y M A E L H M V Y H Q			
UniRef90_M5W7K1	T D Y I L R Q L H W H	S S P S E H S I N G Q R Y D L E L H M V H R			
UniRef90_B3KUB4	L Q S R Y S A T Q L H W G N N D P	H G S E H T V S G Q H F A A E L H I V H Y			
UniRef90_UPI00036AEAD4	D G K P Y K L V Q F H F H	T P S E H T I H G R H F P A E A H F V H R			
UniRef90_Q4VUS8	P E E Q Y H L D S T W H W G T E P M N G	S S E H T I G G V G Y A G E L H L I H R			
UniRef90_K2K7G1	R D V L D S G W S A Y N L R H I D I R V	P A E H R L D G R E F A A E L Q L V H Q			
UniRef90_UPI0003769350	R R Y E L T H Y E F H	T P S E H H K D G F A Y P A E L Q L V H E			
UniRef90_Q9M501	Q V E Y Q L K R I F H F H	S S P S E H A L S G G E R Y D L E V Q M V H T			
UniRef90_I3JAU3	L S G Q Y Q T V Q F H F H W G N S S V	P P S E H T V D G G K R Y P M E L H I V N T			
UniRef90_U5CTF7	K S N M T K E L Y W H L	P P S E H T I N G E R F P L E V Q L Y H E			
UniRef90_K7MY87	N E T Y Y N L I Q L H W H	T P S E H T L N G T K F D L E L H A V H K			
UniRef90_K3X310	K T F S L L Q F H M H M	P P S E H T I N G K N L A G E A H F V H Q			
UniRef90_H2TG38	L P D V Y H T I Q L H F H W G G P A T N	G S E H T V D R R R Y P M E M H I V N M			
UniRef90_D8LB10	Q G E T Y N L I Q L F H H	S S P S E H V L G G A E H A M E I H L V H L			
UniRef90_J3MT25	T Y H L R Q L H W H	T P S E H T I D G R R Y D M E L H M V H L			
UniRef90_Q29CG6	L K T V Y L A Q Q L H F H W G S E K S Q	G S E H T I D S Q R Y D G E L H I V H K			
UniRef90_E9J2H8	L T D T Y D F F N L F H W G P S N D E	G S E H T L D Y I R F P M E L Q L I H I			
UniRef90_K9H2S2	E G A R Y R M T G F H F H	H P S E H T V E G R G F P L E I F M H E			
UniRef90_L5LBZ1	L T G R Y R L R Q F H L H W G S T D D H	G S E H V V D G V R Y A A E L H V V H W			
UniRef90_B3MIJ7	L L A S Y T F L E L R F H W G W C N S E	G S E H T I N H R K F P L E M Q V M H R			
UniRef90_U5EM87	T S F T L T Q Y F H F L	P S E H T V A G A E T A M E L H L V H T			
UniRef90_G4ZY17	N G A S Y N M L I Q F H M H V	P S E H T L N G E H L G G E V H F V H S			
UniRef90_A6QR76	A Y L L R Q F H F H W G D Q P G C	G S E H L V D G S S Y D A E L H F V H S			
UniRef90_UPI00037614DF	R E K Y Q L I Q F H F A	P S E H T I S G V S Y P L E V H F V H S			
UniRef90_UPI0004627793	F P F P L Q A A Q L H L H W G S Q P G	G S E H T V D G H R F A G E L H V V H Y			
UniRef90_K4D3H5	T N Y P L Q Q A H W H	S S P S E H T V N G R R Y D M E M H M V H L			
UniRef90_Q28XJ3	L L A S Y T F V I E V R F H W G W C N S E	G S E H T F N H R K F P M E M Q V M H R			
UniRef90_UPI000258EF23	L A G K Y M F A Q V F H W G E N E M E	G S E H S V D D A R M P M E L H A V H F			
UniRef90_F7D650	L P A R F S A A E L H M H W G N N D P	R G S E H T I A G K H F A A E L H I V H Y			
UniRef90_UPI0003B7B83B	Y N F L Q F H F H	S G S E H T L D G R R Y P L E V H L V H A			
UniRef90_UPI0002B4CE2A	R T R Y F L Q Q I H W H	S P S E H T I N G R R F A L E A H L V H Q			
UniRef90_W5KQS8	L K Y K Y R L V Q I R F H W G S K T T N	G S E H T L N N R R F P M E M Q L V G V			
UniRef90_K0EWN3	A E F E L A Q F H F H L	P S E H T V D G A G T A M E L H L V H K			
UniRef90_UPI00038702E5	L P G V Y R L R Q L H F H W G S S D D H	G S E H V V N G V R Y A G E L H L L H W			
UniRef90_A7IHH9	K T Y T L R Q F H F A	P S E H A L N G E R T A M E A H F V H D			
UniRef90_I1FAY4	N H K R F K L L Q F H F H W G E K Y S R	G S E H T V D G R S Y N G E I H F V F S			
UniRef90_UPI0002C2FDB8	T D Y W L D Q C H W H	S P S E H T I N G N R F D L E L H M V H R			
UniRef90_L9KS04	S E M V F K A S K I T F H W G K C N M S	G S E H S L E G Q K F P L E M Q I Y C			
UniRef90_UPI00047CA52B	T D F T L K Q L F H V	P S E H T V N G K R F P M E A H L V H A			
UniRef90_B4K4I9	L K G R Y V A E G V F H F H W G S P V T R	G S E H V I D R R R F D V E M H I V H R			
UniRef90_H2VUP4	P N A K F E L A Q F A H W G C N S K E	G S E H L L N G K Q L S G E V H F V F W Y			
UniRef90_H9KT35	L E G N Y V F A Q V F H W G E N E M R	G S E H F V D G A S M P M E L H V V H Y			
UniRef90_S8DIB9	T K F A L R Q C H W H	T P S E H K I G G K S L S M E L H L V H N			
UniRef90_E2REV6	L P G R F K A E K V E F H W G H S N G S	S G S E H S I N G R R F D V E M Q I F F Y			
UniRef90_UPI0002B41D4E	T D Y L L Q Q A H W H	S P S E H T L N G R R Y P L E V H L V H Q			
UniRef90_B4LVZ5	L P G S F E A Q S V F H F H W G S P N S K	G S E H T L N Y E R Y D V E M H I V H K			
UniRef90_UPI0002D7A275	T E Y R L L Q F H F H	T P S E H Q F N H R P Y P M E M H L V N Q			
UniRef90_Q65RJ8	K V Y T L K Q F H F H	S P S E N T I D G Q Y L P L E G H F V H			
UniRef90_UPI0002653FF3	L G G T Y V A D Q V F H F H W G F S N E Q	G S E H V L D R R K Y P A E M H I V H R			
UniRef90_B4JY83	L G S D Y V V E Q I H M H W W	S E H T I N D I R Y P L E V H I V H R			
UniRef90_UPI00038ED93F	P S P A Y R A L Q L H F H W G S P G R T	G S E H S L E Q R S S M E M H V V H I			
UniRef90_D7SL11	T K Y E L K Q C H W H	S P S E H T V N G K R F D L E L H M L H E			
UniRef90_H9GDF9	L P S I Y S G V Q M H L H W G S K R P	G S E H Q V D G Q A F C Q I I Q F K A D			
UniRef90_UPI00046B97C8	R E Y R A L Q L H L H W G S A G R P	G S E H T V G G H R F P A E V H V V H L			
UniRef90_T1FY70	L P G T Y L L A G V H G Q W G S D D S R	G S E H T F K S R Q Y P L E L H L I H Y			
UniRef90_A0A022RDX7	N T E Y P L R Q A H W H	S P S E H T I N G R R Y D M E L H L V H L			
UniRef90_UPI00042B2F3D	T V Y Y V V N C H W H	S P S E H T F N R T R F A M E L H L V H Q			
UniRef90_B9G1C9	K A Y K L K Q L H W H	T P S E H T V N G R R Y D M E L H L V H D			
UniRef90_H3E9S4	E E Q Y H L D A I N W H W G T E P M N G	S S E H S I G G V G Y A A E V H L Y H R			
UniRef90_O02637	E E Q Y H L D A V N F H W A T E P M N G	S S E H T I G G V G Y A G E M H L I H R			
UniRef90_B4LVZ6	L K G K Y V A D G V F H F H W G S P E S	R G A E H L I E R T R H D V E M H I V H R			
UniRef90_W7D3S0	G G K D Y L L K E I N H H	T P S E H E L D G K K F D A E L Q L K H V			
UniRef90_B7JY43	E K F D L L Q F H F H	H P S E H S L K R E T Y P M E L H L V H Q			
UniRef90_G4Z520	D E R E Y S L A Q F H M H A T	S E H A L D N Y H Y D A E I H F V H K			
UniRef90_UPI0002739A1D					
UniRef90_UPI0002B40E47	T S K E Y N L Q Q I H F F E D K D N Q A N E	P K H F S Y S S L F S K L H L I H W N			
UniRef90_UPI0004548739	G T Y T A V Q L H F H W G G Q S S E T S	G S E H R I D G K A F D L E V H F V F Q			
UniRef90_A0BI44	L V V R Y Y A K Q F H I H	T P S E H T M D G M R H I A E L H I V H Y			
UniRef90_B4GYZ4	L A H E Y E L E Q I H L H W W	S E H T I N S V R Y P L E V H I V H R			
UniRef90_UPI0002B46FEB	T K Y K L S Q C H W H A	P S E H S F N G I R Y D L E M H L V H T			
UniRef90_M1AEL9	T E Y R L Q Q C H W H	T P S E H K V D G K C A M E A H M V H Q			
UniRef90_H7CE94					
UniRef90_B4N9V3	L K G R Y Q A E G F H F H W G S P K S R	G S E H S I S E R R F D V E M H I V H R			
UniRef90_F8CH20	N T Y H L A Q F H F H	T P S E H T K D G V E Y P L E V H L V H T			
UniRef90_T1G0X2	R H Y N F L L E Q I H M H W G E S D K N	T N G S E H Y V N G K G Y S A E L H F V H W			
UniRef90_B9IHX3	N D T D Y Q L Q Q C H W H	S P S E H T F N G S R H D L E L H L V H Y			
UniRef90_D3UGG4	D G Q H Y G F V I E L H F H L	P A E N L I N G K P H N L E M H L V H K			
UniRef90_H3GIU0	D S A A Y N M A Q F H L H A	P S E H T L D G K A L D G E I H F V H K			
UniRef90_B9G0Z0	I N G T Y R L R Q V H W H A	P S E H A V D G R R Y D M E L H M V H L			
UniRef90_A0A015JWN9	D G E K Y E L R Q Q F H F H	T P S E H R I G G R H F E V E Q H L V F K			
UniRef90_UPI0003ACA2A2	S G R S A G A R Q W G W P H G R A R P	P G L E M A L P G R E Y R A L Q L H L H W			
UniRef90_Q9V9Y7	L K G R Y Y A D G L H F H W G S Y K S R	G S E H L I N K R R F D A E I H I V H R			
UniRef90_G4Z5L0	N S A S Y K M A Q F H L H A	P S E H T V D G K A H D G E I H F V H K			
UniRef90_I1GXD3	N Y R L R Q M H W H	S P S E H A L D G R R Y D L E L H M L H Q			
UniRef90_UPI00046C18CC					
UniRef90_D8SY70	N R A T Y T L T D F H F H I	P S E H T V D G T R F P L E L H L V H K			
UniRef90_UPI00036473C4	T E F T L A Q T F H F H V	P S E H T V E G E A T A A E F H L V H T			
UniRef90_E4YVE6	F S E E Y T L A Q L H F H W G D R T H	Q G S E H T F N G T R Y F S E V H F V H Y			
UniRef90_B3MIQ8	L L G R F E F R E I R F R W S W F N S	S G S E H T F D N R H F P L E M Q L H V			
UniRef90_A3INB7	Q K Y E L K Q F H F H	T P S E H S L N G K K S M E L H L V H Q			
UniRef90_H9JYV5	S K D E F Q F M N V Q F R W G A E N S	C G A E H S I N G I W Y S M E A Q V M H W			

	130	140	150	160
UniRef90_UPI00046DA01F	S P D P K V E S	N T A V V V	G V L Y Q I G R	P D A F L S K L T R D I
UniRef90_H2TB97	N S D Y K S F I E A R D K	P D G L A V L A	A F F Y D D G M T	F D N T K Y S F I S N L
UniRef90_M5W7K1	A K N N V A V V G F L Y E	I G G K P N F L	F S E V D T K M T	D V K N V Q L G V I
UniRef90_B3KUB4	N S D Y P D A S T A S N K S	E G L A V L A V	A V L I E M G S F N	P S Y D K I F S H L
UniRef90_UPI00036AEAD4		K A A D G T L A V V	G V M F A E G S N N E	H L D P I W S A
UniRef90_Q4VUS8	N T R F P T M E L A L K Q	P N G V L A I A	A I F L E S H D E N	P A I T P F I E L L
UniRef90_K2K7G1	R A D	G H V A I L	S V L M D E G R P	N R G I A D R V L A A L
UniRef90_UPI0003769350		K D G E G N V V V V	A V L F R E G R D E	H E L A T V L E N L
UniRef90_Q9M501	S	Q D Q R A V I A	A I M F R F G S D	P F L P D L E D F I
UniRef90_I3JAU3	K S I Y N N I P Q A A T D S T	G A I L S F F I E V M S	S Q M E E S W R N L T S Y L	
UniRef90_U5CTF7	S K D G N I S M L S I L Y Q Y	G G P D F L	S Q M E E Q L K E L A E D	
UniRef90_K7MY87	S S K	G E F A V I G I L L Y K I	G S P D P F F S K L L A N D I	
UniRef90_K3X310	E D G G S N L L V I G M F I D K	A N T K L K G S E N Q Q	H P W I D T V W N T	
UniRef90_H2TG38	K G V Y P N V T A A L G D P	T G L A V L G V F L D V I S R R Q Q	P T R S L N V H F H	
UniRef90_D8LB10	K Q N T T	D G L L V V G I M F E V S D Y G Q N	V E L E P M W N	
UniRef90_J3MT25	N	A Q N Q A A V I G I L Y V L G N P D S	S L L E E L R Q Y I R V	
UniRef90_Q29CG6	N I A Y E S N Q E A V L H P	D G F V V L A V M L R E S	P A M N E I C K E V K L L	
UniRef90_E9J2H8	K H G I K S L T D A I A K D G	I V I A S F F L Q I N D A D N	P Y L D H V V S N L	
UniRef90_K9H2S2	D E L I G G G F A I A A	V F V R S G A L N P T L	Q T I F Q A M	
UniRef90_L5LBZ1	N S D Y P S F V E A A H E P	D G L A V L G V F L Q I G R	C N P H L K Q V T D I L	
UniRef90_B3MIJ7	A G S G V I P R T C T S S	Y D L L M I G Y V F E L S A H N	P F L D P L V Q N L	
UniRef90_U5EM87	D A H	G R L A V L A V L L R A Q E A P	A P L S A I L A A A	
UniRef90_G4ZY17	N A D S S A L L V I	T G V F F K A V Q G A S D	P W V V S V L D A L	
UniRef90_A6QR76	K E S P T S N V P N A P D Q F	A V L G V L L K R S K G Q G G G E	V W E A L K N V	
UniRef90_UPI00037614DF	A P S	G R L A V V G V F F K V G K E N L E	F Y Q K I L D N A	
UniRef90_UPI0004627793	D S R F G S F K E A A K E P	G G L A V L A A F L Q V G S E E N	P Y Q H L E H L	
UniRef90_K4D3H5	N E N A T N	K I V V I G V L Y K I G K P	D R F L D S K L I R N I	
UniRef90_Q28XJ3	A S S G M S R S C T S S	Y D L L T I A Y M F E L S A H N	P F L D P L V Q N L	
UniRef90_UPI000258EF23	K D E Y S N L D A A L R R	D G V T V A V Y F F K L Q D P	N P F I E I V R S L	
UniRef90_F7D650	N S R Y P D A A T A F D K P	D G L A V L A V L I E V G P F N	P S Y D K I F S Q F	
UniRef90_UPI0003B7B83B	S D D	G R L A V I G I M F A R G E H N	P L L D D L I N V I	
UniRef90_UPI0002B4CE2A	S Q N G N Y A V I G V V Y N I	G R R P D Y L L S		K M K E N L
UniRef90_W5KQS8	A P G Y K D V K S A L N Q Q S G V A M I	G V F I D I G P V N N V H F K I S D A V		
UniRef90_K0EWN3	N	G A G L A V L G V L Q A G A G P S	P L D Q I L A A A	
UniRef90_UPI00038702E5	N P K Y S N Y L D A V R R T	D G I A V L A I F L Q V E T P K	P E M K R L E E I	
UniRef90_A7IHH9	A P G	G G L L V V G V F I K P G A T N A A F S E V M A S A		
UniRef90_I1FAY4	G N D N	R G V K K H V L A V F L N S D R T	L T Q V S L K W R R L	
UniRef90_UPI0002C2FDB8	I P G P N V	G N N V V V A Y L Y K T G K P	D M F L S Q V S Q D I	
UniRef90_L9KS04	D D R F S S F E E A V K G K G K L R A L S	I L F E V G M E E N L E Y K I I D G V		
UniRef90_UPI00047CA52B	D A Q G H L A V V A V L F G K G V		S N P W L E R V W P Y	
UniRef90_B4K419	S T R Y E D L T E A L N H I	D G V A V L G V M F K I H R A Y	P G L R K I E N A V	
UniRef90_H2VUP4	N T N Y M S F N E A V E K P	D G L A V V G V F L K E G K Y N D N Y	H G L I D T V	
UniRef90_H9KT35	K E E Y E T L D L A L R R P	N G V T I I V Y F C K N E P N E F	M E G I V K N L T	
UniRef90_S8DIB9	N S Q	G E V A I G I L Y L E I G R S D	P F L R K I R D K I	
UniRef90_E2REV6	N P D D F D S F Q T A I S E N R I	A M A F F Q V S P R D N S	F L D P I H G L	
UniRef90_UPI0002B41D4E	S S N P N A K	Y P I A V V G F F Y K I G R P D S	F L S K L N R K I	
UniRef90_B4LVZ5	N T R Y K T V G E A S M F A D G L A V L	G V M F K A V P R L S S Q H R I F N Q L		
UniRef90_UPI0002D7A275	D	K D G H L L V L G L M I Q Q G H E N K Q M T Q L W K H L		
UniRef90_Q65RJ8		A K D G G I V V A V L Y E I G G E N A Q L A D I W A G M		
UniRef90_UPI0002653FF3	H E Q S L I G D S I F H T P G G V A A I	G V F I E I G E K N A F E K L V K H L		
UniRef90_B4JY83	N K I Y P N I T M A A N D D D G I T V L	A V L Y H V S N T P N E I G S I I K S L		
UniRef90_UPI00038ED93F	S T K Y Q S M G E A R C H P D G L A V L A V L L E Q E Q D N S	N F S A I V S V L		
UniRef90_D7SL11	T S G K T S V V G I M Y K I G R A D S F L S T L T D H L E A L S D S			
UniRef90_H9GDF9	N L D L Y S C E A A P S P R G V A A C L L Q V F H S L A C S F S L H F S F P P S			
UniRef90_UPI00046B97C8	S T A F A T V D E A L G R P G G L A V L A F L Q E G L E E N S A Y E Q L L S H L			
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UniRef90\_UPI00046DA01F A S M T D K K L E R S V G V I D P A E I E L D G K N Y Y R Y I G S L T T P P C Y  
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UniRef90\_B3KUB4 Q H V K Y K G Q E A G F V P G F N I E E L L P E R T E Y Y R Y R Y M G S L T T P P C Y  
UniRef90\_UPI00036AEAD4 P S Q P G S A S V A F N L D M K K L L P T N R A S Y R Y R Y Q G S L T T P P C Y  
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UniRef90\_K3X310 L G D V D Q T V E V N H S Y A D L L K D K M D E G N V F N Y P G S L T T P P C S  
UniRef90\_H2TG38 S N S Q G Q T T K I K P F A L L D L L P R H N M S Q Y Y R Y R Y G S L T T P P C S  
UniRef90\_D8LB10 V M D L N Q D T A E E Q F M A A A Y S L L P A T P S F T T Y S G S L T T P P C T  
UniRef90\_J3MT25 T N Q K D K E V V V T G V D P N V A K G Q D T V Y Y R Y R Y M G S L T T P P C T  
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UniRef90\_U5EM87 P D R V G A T R T L S N I D L P R A F L P D N R A Q F R Y E G S L T T P P C T  
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UniRef90\_UPI00047CA52B V P A K V D G T T A I A T P V S A A D L L P A N R A Y Y R Y D G S L T T P P C T  
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UniRef90\_H2VUP4 R K A T G N T T P I S M P K D F A L L P T T D K R D F V T Y L G S L T T P P F N  
UniRef90\_H9KT35 V I R T A H S S V R I L I P A N L T G I L K P F S T D Y F L Y W G S I T T P I N I  
UniRef90\_S8DIB9 E R I T K S G T S L G E I D P W E I K F G S R K Y Y R Y K G S L T T P P C K  
UniRef90\_E2REV6 K G V V H H E K E T F L D P F V L R D L L P A S G S Y Y R Y T G S L T T P P C S  
UniRef90\_UPI0002B41D4E K A L N E K K E I K A G I N P R W I K N G M K Y Y R Y I G S L T V P P C T  
UniRef90\_B4LVZ5 P L I T E Y Q S T M V N G R L T L L G N I T I T G R F Y S Y N G S L T T P D C A  
UniRef90\_UPI0002D7A275 P T Q H G Q E A P L A A A L A P D L A Q L P A G S H H L F Y H G S L T T P P C T  
UniRef90\_Q65RJ8 P E K A G E K V K L K A K F N P A T L I S S K Q S Y Y S F E G S L T T P P C T  
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UniRef90\_D7SL11 S D Q E R D V G V V D P R H I K I G S R K Y Y R Y M G S L T T P P C T  
UniRef90\_H9GDF9 R L R T G P E Q E I Q I D A F D V R D L L P A H G H Y F R Y N G S L T T P P C Y  
UniRef90\_UPI00046B97C8 K E V A E E G F M L H  
UniRef90\_T1FY70 G S V K E S G R S V Q V K I K P F L L L P Q E K G S F F R Y R Y P G S L T T P P C S  
UniRef90\_A0A022RDX7 S M I D K N D D E E I T V G K I D P D K I K L R S K M F Y R Y M G S L T V P P C T  
UniRef90\_UPI00042B2F3D E N V E R V P L G K I D P E S I G L P G R K Y Y R Y M G S L T T P P C S  
UniRef90\_B9G1C9 R R I A D K D K S E P I G V V D P Q L A K S P D A V Y Y R Y M G S L T T P P C T  
UniRef90\_H3E9S4 P N V T Y K G N E V R V N Q Y D A N V L F P S P E K F W Y E G S E T V E P F R  
UniRef90\_O02637 P Q V I Y K G S E C K L C S F D A N T F F P K T K E F W M Y E G S E T D P F R  
UniRef90\_B4LVZ6 P N I V E Y H G E T E L L G P L T L G Q D L N T H H F Y T Y K G S L T T P G C N  
UniRef90\_W7D3S0 N D S K N G S T T D M K K I V S T L G L I P Q D S T F Y V Y D G S L T T P A T T  
UniRef90\_B7JY43 P S H K I P E K L I D N V R V S L E D L L P K N P S I Y R Y F G S L T T P P C S  
UniRef90\_G4Z520 S S D D F D V K E S G I N Y A D L L N G L V A K S H L F N Y N G S L T T P P C S  
UniRef90\_UPI0002739A1D V S I K T K I N I P K I A N F D P F Y L L L L Q S L D Y W T Y F G S L T H P S L H  
UniRef90\_UPI0002B40E47 E K F Q S N D I L K S L L P E D I Y G E S G T N N Y F S Y R G S L T T P P C T  
UniRef90\_UPI0004548739 A N I K Y A G Q T A N L T S I D V L S M L P N I D D F Y R Y H G S L T T P P C S  
UniRef90\_A0BI44 F D Q N M T G E V E S F D L N D F F Q K M T D S T Y Y H Y D G S L T T P P C S  
UniRef90\_B4GYZ4 L E E L E G L H T Y A G S L T T P P C A  
UniRef90\_UPI0002B46FEB K S I G K K E E K E I G I V N P G D I K F G G R K Y Y R Y I G S L T V P P C T  
UniRef90\_M1AEL9 K T V D D K G K L K L G L V D P Q Q L G V K A E P F Y R Y I G S L T V P P C T  
UniRef90\_H7CE94 E C L K S K G A K S E F K D F S P C S L L P S C L Q Y W T Y L G S L T T P P C C  
UniRef90\_B4N9V3 S N V V K Y K S E S E I S G S I S L L G D L D T R N F F T Y K G S L T T P D C N  
UniRef90\_F8CH20 P R H A G E H S Q P A G A L I N A S S L L P F N K A F Y K Y A G S L T T P P C T  
UniRef90\_T1G0X2 K H K N T K T H T D K H T Q T H T N S Q P E D T S K F W T Y Q G S L T T P P C Y  
UniRef90\_B9IHX3 N H V D H R E R E M G I V N P G D I K F G S R K Y Y R Y V G S L T V P P C T  
UniRef90\_D3UGG4 P S K K G G Y K I L K D V D I H D I L P E K K H Y Y F M G S L T T P P C T  
UniRef90\_H3GIU0 T E H A D A I V V N L K S Y S T L V K Q T C K T G A I F N Y P G S L T T P P C D  
UniRef90\_B9G0Z0 I E V A D Q K D K E K I V N V D P N V A K E H D I V Y R Y M G S L T T P P C T  
UniRef90\_A0A015JWN9 D K V E L K K L L K D V D G I T K S F T Y S G S L T T P P C T  
UniRef90\_UPI0003ACA2A2 E I I T E E D S E T W I P G L D V S A L L P D L S R Y F R Y E G S L T T P P C A  
UniRef90\_Q9V9Y7 P I E D S N A T V F G Q S L L D Q L I G G V S H R D F F T Y E G S L T T P L C D  
UniRef90\_G4Z5L0 A H A K H A E I T V Q L K Y S S L I R K S K T D G I Y N Y P G S L T T P G C D  
UniRef90\_I1GXD3 E D R R K G S A E E I D Y E V D P R R V R R S D E Y Y R Y T G S F T T P P C T  
UniRef90\_UPI00046C18CC Q D I Q Y K G K S K T I P C F N P N S L L P D P R D Y W V Y E G S L T I P P C S  
UniRef90\_D8SY70 E G N A T I N L S N Y I N L H D G G Y Y R Y L G S L T T P P C S  
UniRef90\_UPI00036473C4 N V I T E T K E T V F W S P N H L V D V E N I K T A P F Y R Y E G G L T T P T C D  
UniRef90\_E4YVE6 V A V Q T A G Q A V E V P P F P L S L M M P F F S R F Y S H G S L T T P P C H  
UniRef90\_B3MIQ8 S E K Q G I Q E V K N K T I N G A N F I V N N P T Y F H Y Q G S L T T P P C S  
UniRef90\_A3INB7 S K I K T I G S Q T N I S Y C L L W M L E G C H S Y Y T Y K G S L T T P P Y Q  
UniRef90\_H9JYV5

	210	220	230	240
UniRef90_UPI00046DA01F	E G V I W L M S K Q F G T V S R E Q I D L L R V S V Y D Y A E T			N
UniRef90_H2TB97	E S I L W T V F D K Q P I T L S H N Q V I R K L E S T L M D L D N K T			L W N D
UniRef90_M5W7K1	E G V T W T V I N K D Q V L T S V S K S Q V I N L L Q S T V V F D Y A M M			N
UniRef90_B3KUB4	P T V L W T V F R N P V Q I S S Q E Q L L A L E T A L Y C T H M D D P S P M I N N			N
UniRef90_UPI00036AEAD4	E I V D W T V L Q T P M S V S K T Q I A A F R A L F			G D N
UniRef90_Q4VUS8	E T V Q W L V F R S A V P I S S Y Q L D R L R E V R S G G Y D E E R E T P M E P			P
UniRef90_K2K7G1	E R V D W F V L R R P L T L S A V E Q A R L L R E A V G G			T G N
UniRef90_UPI0003769350	E G V Y W M V F D Q P L E A S V S Q L Q R L Q			D Y L G N N
UniRef90_Q9M501	E D I T W T V I K K L G T V S P K Q V L M L K Q A V N E N S M			N N
UniRef90_I3JAU3	E A V V W T V F K E P I K V S K D I L D L S T T V H F N N S T S Q L M T N V			N
UniRef90_U5CTF7	E N V T W N I L G K V R E F S K E Q E I A L K A			P L E K G Y L Q N
UniRef90_K7MY87	E G V V W T I V K K V R T V S S E Q L S A L K G A V H H G Y E E			N
UniRef90_K3X310	E I V D W W V V K S P L R V S S D S L A S F K E K L A T L E E T D E G E G			
UniRef90_H2TG38	Q A V V W T L Y E V P V Y L S W S Q L A Q F T S Q I F A T E E Q V T P L Q N N			
UniRef90_D8LB10	E G V R W L L M S E P N Y M S T W Q L D N Y R R A V A L H E G S K V S E V G A T			
UniRef90_J3MT25	E G V I W T I V R K V H T V S L S Q L A L L K A A V L A G Y E			N N
UniRef90_Q29CG6	E T V D W F V P K D S L D I S P K E I W Q N F W Q L			K D R S G K R L I N T
UniRef90_E9J2H8	E I V T W I V Q Q E P I A I S			
UniRef90_K9H2S2	E A V R W L V F T H P I E A A P E Q I E A F A R L F P			M N
UniRef90_L5LB21	E S V T W I L K Q P I S I S S Q Q			
UniRef90_B3MIJ7	Q G T E W F I F P E S L A I S S D F Q L R H F R L L L G S			D G I S P I T R N
UniRef90_U5EM87	E G V A W L V L R E P S P V A V A D V D R Y R R L F P H S			
UniRef90_G4ZY17	E I V D W W V V K K P V D V S T A D L E R L Q S Q L R E L H I T D D			G K N
UniRef90_A6QR76	E V V Q W F V F H Q I L S V P D D V V Q R W S T L			P S E S P L P F N
UniRef90_UPI00037614DF	E G V D W Y V L R R P I T V S S K A Q I A Q F E A L Y S G			N
UniRef90_UPI0004627793	Q T V N W T I F N Q T L R L S P Q Q I T V L E D T L R			G D G D H P L H G N
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UniRef90_F7D650	P C I L H N C F M N R E S V Q K K P L F C L R H D P L D M K G K P R E E V G R N			
UniRef90_UPI0003B7B83B	E I V D W T V F E T P I T A S A D Q F A V F E T L F P H S			
UniRef90_UPI0002B4CE2A	Q N V L W T I V R K V R T V T T E Q V K L L R V A S H H D D S N T			N
UniRef90_W5KQS8	Q T V D W I V L E N P V L I S S E Q Y L A F V T H L Y Y S D D S D Q K L L E E N			
UniRef90_K0EWN3	E G V S W T V L E R P V A V G S A G V D R Y R M L F A H S			
UniRef90_UPI00038702E5	E C I T W I L R E P I V I S S D Q			
UniRef90_A7IHH9	E V V D W N V Y A T P I S V A E A D I A A F R A I F P			M N
UniRef90_I1FAY4	E N V Q W I V L K P I N V P E A F L D T L R S L			K T E D S Q S L K K N
UniRef90_UPI0002C2FDB8	E G V T W I I H K K L T V S R K Q M E L L R E A V H D Y A E L			N
UniRef90_L9KS04	E V D W I V F K D T V S L S E S Q L A V F C T M Q Q S G Y V M L M D Y L Q N N			D N
UniRef90_UPI00047CA52B	E H V R W L V M K Q P V A A S D A E V A L V H R A I G H			
UniRef90_B4K419	E A V T W T V F A D P L P I S L A D I S K I W L L			Q D S N G N L I R N N
UniRef90_H2VUP4	E C V I W T L F T E P V E V S Y G Q L N V L R N I I P A			N
UniRef90_H9KT35	H N I L W I C R E P I G L T T K Q I A E F R T L H			D E K G V P I L S N
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E G Q H N S E V D A M L N K V Q A I Q Q Y E G D P L C I G E P E S E C P H H A S  
A E D E H S V E P A V V V A V Q L A A S D A A N T S A T R A L N H I M I D G P L  
N A R Y G D A V T A K R S P R G L A V A E D G D E T D D V Y I E H K D K D C G A  
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N N S G D N L V V G C L F S I T T D E N K F S K N E T A M  
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A D E Q Q L K N S T G P S N S V V G F L I E V D N S A P S P F L D N V F A H L  
K E D Y K S I Q Q A V K H S D G L T V L A F F Y E D R H K H P A Y D D M T S A L  
D A R N N I L V V G R W I E V G A S N A A L E P I F S D L  
T P D K S T A V V S F L V D F G V P N L L L S S V F Q N V  
S Q T G K I A V I G L Y N I G Q P D Y F L S T M R Q H L  
S E D E R Y A V V A F L Y N I G A S D P F L L S L D K Q L  
A E D K S L S V V G F P I E L H G K N S D F V A K V F D K V  
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N L L P N E D K N A V P Q Y L V I G I L F K E G K S K F I N D F L A I P K Q  
S P N G E K L V V A L F I T T G G A G G T L Q D K V L A T V P E E C  
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N D D G D I A V I S S M I E A G A E N Y D V S K I W R N I  
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K T D D P K A K S K V R P K G A S A T R L T G R Q I M V M L L P I D F A D  
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D G N S N T A V I G N L Y Q I G N P D P F L L M L E P F I  
Q A Q D G R L A V V A V F F K E G K E N A A F Q D V L  
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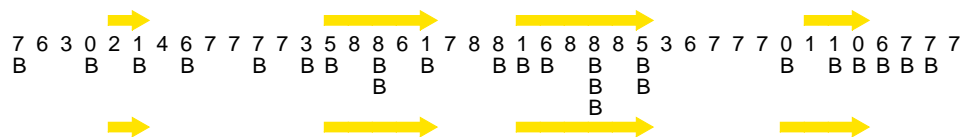
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