

QUERY	1	10	20	30	40																																						
UniRef90_UPI0001775CC5	S	L	T	D	G	E	W	H	L	V	N	V	W	G	K	V	E	T	D	L	A	G	H	G	Q	E	V	L	I	R	L	F	K	S	H	P	E	T	K				
UniRef90_UPI000333767C	S	L	T	K	T	E	R	T	I	I	T	S	L	W	D	K	M	S	V	Q	A	D	A	I	G	T	E	A	L	E	R	L	F	S	S	Y	P	Q	T	K			
UniRef90_UPI000328F10D	S	L	T	K	A	E	R	T	I	I	T	S	L	M	W	G	K	I	A	A	Q	A	D	A	I	G	T	E	A	L	E	R	M	F	A	S	F	P	T	K			
UniRef90_UPI00005EB63C	S	L	T	K	T	D	K	A	I	I	V	L	T	I	W	N	K	I	A	A	Q	A	D	S	I	G	T	E	A	L	E	R	L	F	A	S	F	P	Q	T	K		
UniRef90_P24291	L	S	S	A	A	D	K	A	N	V	K	A	V	W	E	K	A	G	N	V	G	K	Y	G	G	E	A	L	E	R	D	R	T	F	L	S	F	P	S	T	K		
UniRef90_P18978	L	S	S	A	A	D	K	T	N	V	K	G	T	W	S	K	I	A	G	N	H	S	A	E	Y	G	G	E	A	L	E	R	M	F	I	N	F	P	S	T	K		
UniRef90_H3ABR1	L	S	S	A	N	D	K	T	L	I	S	S	T	W	N	K	I	V	A	N	A	E	D	I	G	A	E	A	L	E	R	L	F	L	A	H	P	Q	T	K			
UniRef90_A1YZP4	S	L	S	D	K	D	K	A	I	V	K	A	F	W	A	K	I	S	P	A	K	A	E	D	I	G	A	D	A	L	A	R	T	L	T	V	Y	P	Q	T	K		
UniRef90_K7FZX0	L	T	A	E	Q	A	E	K	A	A	V	V	A	I	W	E	K	I	V	A	T	H	A	N	A	I	G	A	E	A	L	E	R	L	F	T	S	G	F	P	Q	T	K
UniRef90_Q7ZT86	L	T	A	E	E	Q	S	L	I	Q	K	V	W	E	K	T	A	S	H	R	D	E	I	G	G	E	S	L	E	R	L	F	T	S	G	F	P	S	T	K			
UniRef90_P18975	L	S	S	A	A	D	K	A	N	V	K	A	Y	W	E	K	I	G	S	H	A	G	E	Y	G	A	E	A	L	E	R	T	F	C	S	F	P	S	T	K			
UniRef90_UPI000331684E	F	T	A	E	E	K	A	A	V	A	S	L	W	G	K	I	V																										
UniRef90_C5HYH6	L	T	A	G	E	K	S	L	V	A	S	T	W	S	K	V																											
UniRef90_UPI00032B04A3	F	T	A	E	E	K	A	A	I	E	H	T	W	K	L	V																											
UniRef90_P15164	L	T	A	E	D	K	K	L	V	Q	Q	V	W	D	K	I	V																										
UniRef90_G1LJX4	S	L	T	K	A	E	R	T	I	I	L	S	W	D	K	I	V																										
UniRef90_P02054	L	S	T	P	E	E	N	G	H	V	T	S	L	W	G	K	V																										
UniRef90_P85081	S	L	T	K	D	K	E	T	V	T	S	D	L	W	G	K	I	V																									
UniRef90_Q4S4F1	S	L	T	K	T	D	K	A	A	V	K	A	L	W	N	K	I	V																									
UniRef90_P84653	S	L	T	E	K	D	K	A	A	V	R	A	L	W	G	K	I	V																									
UniRef90_P06467	S	L	M	K	N	E	R	A	I	V	M	S	M	W	E	K	I	V																									
UniRef90_Q98SE6	L	T	A	K	D	K	Q	T	V	K	A	F	W	A	K	I	V																										
UniRef90_P14520	S	L	T	A	K	S	K	I	V	K	A	F	W	G	K	I	V																										
UniRef90_L9L0J9																																											
UniRef90_I1VYK2	L	T	D	G	D	K	K	L	V	T	Q	I	W	E	K	A	T	Q	S	P	E	D	F	G	G	E	A	L	E	R	L	F	I	V	Y	P	Q	T	K				
UniRef90_C1FXX6	S	L	T	K	A	E	R	T	I	I	V	S	M	W	G	K	I	V																									
UniRef90_UPI000395677D	L	T	A	E	E	K	Q	L	I	T	G	L	W	A	K	I	V																										
UniRef90_P82316	F	S	D	A	E	R	D	A	I	A	A	L	W	G	K	I	V																										
UniRef90_UPI0001D37DC1	S	L	T	K	T	E	R	T	I	I	V	S	M	W	A	K	I	V																									
UniRef90_P01934	L	S	T	P	A	D	K	T	N	V	K	A	A	W	G	K	I	V																									
UniRef90_UPI0004436D5	S	L	T	D	K	D	K	A	A	V	K	A	L	W	A	K	I	V																									
UniRef90_Q8UW95	S	L	S	A	N	D	K	A	T	V	K	A	L	W	A	K	I	V																									
UniRef90_UPI00045D5A6F	L	S	S	A	A	D	K	A	N	V	K	A	A	W	G	K	I	V																									
UniRef90_B0M2T2	L	S	S	D	D	K	C	N	V	K	A	V	W	C	K	I	V																										
UniRef90_Q38IW1	L	S	E	A	E	K	A	A	V	L	S	I	V	W	A	K	I	V																									
UniRef90_P07407	L	S	S	P	A	E	K	S	N	V	K	G	V	F	A	K	I	V																									
UniRef90_UPI000350E148	L	T	A	E	D	K	K	L	I	T	Q	L	W	E	K	V	I	A	G	H	Q	E	E	F	G	S	E	A	L	Q	R	M	F	L	A	Y	P	Q	T	K			
UniRef90_H2TTY2	S	L	S	A	D	D	K	K	V	V	K	A	F	W	G	K	I	V																									
UniRef90_P80270	S	L	S	D	K	D	K	N	T	V	R	A	L	W	A	K	I	V																									
UniRef90_UPI0003958CC0	L	T	A	E	D	K	K	L	I	Q	Q	V	W	G	K	I	V																										
UniRef90_P08422	L	T	D	S	E	K	A	A	V	V	A	L	W	S	K	I	V																										
UniRef90_I3IZ07	S	L	S	A	K	D	K	N	T	V	K	A	F	W	A	K	I	V																									
UniRef90_G3PGV5	L	T	D	K	E	R	L	M	I	Q	D	S	W	A	K	V	I	Y	Q	S	C	D	D	V	G	V	A	I	L	V	R	L	F	V	N	F	P	S	S	K			
UniRef90_UPI00042BEF40	S	L	T	K	A	E	K	T	I	I	L	S	M	W	A	K	I	V																									
UniRef90_P84203	S	L	A	P	G	A	E	K	T	I	V	K	K	F	W	E	K	I	V																								
UniRef90_W5LAT4	S	L	T	A	K	D	M	A	T	V	K	T	L	W	G	K	I	V																									
UniRef90_P86391	L	T	A	E	E	K	Q	L	I	T	C	L	W	G	K	I	V																										
UniRef90_M3YX76	A	L	S	A	A	D	R	A	A	V	R	A	L	W	R	K	I	V																									
UniRef90_V5N6Q4	L	S	G	V	E	R	T	I	V	Q	D	T	W	A	R	V	I	Y	E	S	C	E	D	V	G	V	A	I	L	V	R	F	F	V	N	F	P	S	A	K			
UniRef90_P10777	S	L	S	D	K	D	K	A	A	V	K	A	L	W	S	K	I	V																									
UniRef90_S7Q7N2	S	L	S	D	G	E	W	Q	L	V	N	A	W	G	K	I	V																										
UniRef90_P02016	S	L	S	D	K	D	K	A	A	V	K	G	L	W	A	K	I	V																									
UniRef90_P02142	L	T	D	A	E	K	S	T	I	V	S	A	V	W	G	K	I	V																									
UniRef90_UPI00035A227A	L	T	D	A	E	K	A	L	I	V	T	G	L	W	G	K	I	V																									
UniRef90_P83478	S	S	S	E	R	S	T	I	V	S	T	L	W	G	K	I	V																										
UniRef90_P18990	L	T	G	E	E	K	S	A	V	T	A	L	W	G	K	I	V																										
UniRef90_P56250	S	L	S	A	T	D	K	A	R	V	K	A	L	W	D	K	I	V																									
UniRef90_I3IZ43	S	L	S	S	K	D	K	T	V	V	K	T	F	W	G	K	I	V																									
UniRef90_M4A902	S	L	S	G	K	D	K	T	V	V	K	S	F	W	D	K	I	V																									
UniRef90_Q9YGF7	S	L	S	A	K	D	K	A	I	V	K	A	F	F	G	K	I	V																									
UniRef90_K7F490	L	S	D																																								

QUERY	E	K	F	D	K	F	K	H	L	K	S	E	D	D	M	R	R	S	E	D	L	R	K	H	G	N	T	V	L	T	A	L	G	G	L	K	K	G	80				
UniRef90_UPI0001775CC5	T	Y	F	P	H	F							D	L	H	P	G	S	A	Q	L	R	A	H	G	A	K	V	A	A	A	V	G	E	A	V	K	N	V	D			
UniRef90_UPI000333767C	T	Y	F	P	H	F							D	L	H	P	G	S	A	Q	L	R	A	H	G	A	K	V	A	A	A	L	T	G	D	A	V	K	N	D			
UniRef90_UPI000328F10D	T	Y	F	S	H	M							D	L	S	H	G	S	A	Q	V	K	A	H	G	A	K	V	A	A	A	L	T	G	D	A	V	K	N	D			
UniRef90_UPI00005EB63C	T	Y	F	P	H	F							D	L	T	H	P	G	S	A	Q	L	K	A	H	G	A	K	V	V	S	A	I	T	G	D	A	V	K	N	D		
UniRef90_P24291	T	Y	F	P	H	M							D	L	T	H	P	G	S	A	D	I	M	A	H	G	A	K	V	A	D	A	L	T	T	K	A	V	G	H	M	D	
UniRef90_P18978	T	Y	F	S	H	F							D	L	T	G	H	G	S	A	Q	I	K	G	H	G	K	K	V	A	D	A	L	T	T	K	A	V	G	H	I	D	
UniRef90_H3ABR1	I	Y	F	S	H	M							D	L	S	P	G	S	S	M	L	R	A	H	G	A	K	K	V	M	G	T	I	E	G	S	I	K	S	I	D		
UniRef90_A1YZP4	T	Y	F	S	H	W	K						D	L	S	P	G	S	A	P	V	K	K	H	G	S	K	T	V	M	S	G	V	A	E	A	V	T	K	N	I	D	
UniRef90_K7FZX0	T	Y	F	P	H	F							D	L	S	P	G	S	A	Q	L	H	G	H	G	S	K	V	V	L	S	A	I	T	G	D	A	V	K	N	I	D	
UniRef90_Q7ZT86	T	Y	F	P	H	F							D	L	S		G	S	E	Q	I	R	S	H	G	A	K	K	V	V	A	A	L	T	S	T	A	V	K	N	I	D	
UniRef90_P18975	T	Y	F	P	H	F							D	L	S		H	G	S	A	Q	V	Q	A	H	G	A	K	K	V	A	D	A	L	T	T	K	A	V	G	H	I	N
UniRef90_UPI000331684E	R	F	F	D	N	F	G	N	L	S	S	V	S	A	I	M	G	N	P	K	V	K	A	H	G	A	K	K	V	M	T	S	F	G	E	A	V	K	N	I	D		
UniRef90_C5HYH6	R	F	F	T	S	F	G	D	L	S	S	A	S	A	I	M	G	N	A	K	V	Q	A	H	G	A	K	K	V	L	K	S	F	A	E	G	L	N	H	I	D		
UniRef90_UPI00032B04A3	R	F	F	D	N	F	G	N	L	S	S	A	S	A	I	M	G	N	P	K	V	K	A	H	G	A	K	K	V	L	S	A	F	G	E	A	V	K	N	I	D		
UniRef90_P15164	T	Y	F	P	H	F							D	L	S	P	G	S	A	Q	L	I	R	G	H	G	A	K	K	V	V	A	A	L	T	G	E	A	V	K	N	I	D
UniRef90_G1LJX4	T	Y	F	P	H	F							D	L	S	P	G	S	P	H	L	H	M	H	G	A	K	K	V	V	A	A	L	T	G	D	A	V	K	N	I	D	
UniRef90_P02054	R	F	F	E	S	F	G	D	L	S	S	P	D	A	I	M	G	N	S	P	K	V	K	A	H	G	A	K	K	V	L	S	A	F	S	E	G	L	H	I	D		
UniRef90_P85081	I	Y	F	L	H	W							P	D	L	S	P	G	S	P	S	V	K	N	H	G	K	N	I	M	S	G	I	A	T	A	V	T	K	I	D		
UniRef90_Q4S4F1	I	Y	F	S	K	W	G	D	L	S																																	
UniRef90_P84653	T	Y	F	T	H	W							P	D	L	S	P	G	S	Q	V	H	V	K	H	G	K	N	V	M	G	G	I	A	L	D	A	V	K	N	I	D	
UniRef90_P06467	T	Y	F	P	H	F							D	L	S	H	G	S	A	Q	L	R	A	H	G	A	K	K	V	M	T	A	V	G	E	A	V	K	N	I	D		
UniRef90_Q98SE6	T	Y	F	S	H	W	P	D	Q	S																																	
UniRef90_P14520	T	Y	F	A	S	W							S	D	L	S	P	G	S	A	A	V	K	H	G	K	T	I	M	G	G	I	A	E	A	V	K	N	I	D			
UniRef90_L9LQJ9	Q	Y	F	S	Q	F	K	H	M	E	E	P	L	E	M	E	R	S	S	P	Q	L	R	K	H	A	C	R	V														
UniRef90_I1VYK2	T	Y	F	P	H	F							D	L	Q	H	G	S	E	Q	V	R	A	H	G	A	K	K	V	A	T	A	L	G	N	A	V	K	N	I	D		
UniRef90_C1FFX6	T	Y	F	P	H	F							E	L	R	A	G	S	A	Q	L	R	A	H	G	A	K	K	V	A	A	A	V	G	E	A	A	G	S	N	I	D	
UniRef90_UPI000395677D	R	F	F	S	N	F	G	N	L	S	S	P	T	A	I	L	G	N	P	K	V	Q	A	H	G	A	K	K	V	L	T	S	F	G	E	A	V	K	N	I	D		
UniRef90_P82316	R	Y	F	S	K	F	G	D	M	S	S	V	A	A	L	S	G	N	P	K	V	A	A	H	G	A	K	K	V	V	L	G	A	L	E	K	G	V	K	N	I	D	
UniRef90_UPI0001D37DC1	G	Y	F	P	H	L	S	A	C	Q	D	A																															
UniRef90_P01934	T	Y	F	P	H	F							D	L	S	H	G	S	A	Z	V	L	K	H	G	A	K	K	V	A	K	A	L	T	B	A	V	K	N	I	D		
UniRef90_UPI00044436D5	T	Y	F	S	H	W	P	D	M	S																																	
UniRef90_Q8UW95	T	Y	F	S	H	W	T						S	L	S	P	G	S	A	P	V	K	K	H	G	A	K	K	V	V	A	G	I	G	L	A	V	K	N	I	D		
UniRef90_UPI00045D5A6F	T	Y	F	P	H	F							L	D	L	S	P	G	S	A	Q	V	K	A	H	G	A	K	K	V	A	D	A	L	T	H	A	V	K	N	I	D	
UniRef90_B0M2T2	I	Y	F	P	H	F							D	L	S	H	G	S	A	Q	I	R	A	H	G	A	K	K	V	F	A	A	L	H	E	A	V	K	N	I	D		
UniRef90_Q38IW1	T	Y	F	S	H	F							D	L	S	S	G	S	H	D	L	Q	V	H	G	A	K	K	V	L	G	A	I	G	E	A	A	Q	N	I	D		
UniRef90_P07407	T	Y	F	P	H	F							D	L	G	K	G	S	A	Q	V	K	G	H	G	A	K	K	V	A	A	A	L	V	E	A	V	K	N	I	D		
UniRef90_UPI000350E148	T	Y	F	P	H	F							D	L	H	P	G	S	E	Q	V	R	G	H	G	A	K	K	V	P	A	A	L	G	N	A	V	K	N	I	D		
UniRef90_H2TTY2	T	Y	F	S	H	W	K						E	L	T	P	S	N	D	V	K	I	H	G	A	R	I	M	T	G	V	S	T	E	A	I	G	K	M	D			
UniRef90_P80270	T	Y	F	T	H	W	T						D	L	S	P	S	T	S	V	K	N	H	G	K	N	I	M	V	G	V	S	L	A	V	S	K	M	D				
UniRef90_UPI0003958CC0	T	Y	F	P	H	F							D	M	S	Q	G	S	D	Q	I	R	G	H	G	A	K	K	V	V	I	A	L	T	N	A	I	K	N	I	D		
UniRef90_P08422	T	Y	F	S	H	F							D	V	S	H	G	S	A	D	L	Q	N	H	G	A	K	K	V	V	N	A	L	G	E	A	A	K	N	I	D		
UniRef90_I3IZ07	T	Y	F	S	H	W	K						D	L	S	P	R	S	A	P	V	K	K	H	G	A	T	V	M	A	A	V	T	D	A	V	K	N	I	D			
UniRef90_G3PGV5	Q	F	F	S	Q	F	K	D	I	E	E	P	E	E	L	E	S	S	G	Q	L	R	K	H	A	R	R	V	M	S	A	L	N	T	L	V	E	S	I	D			
UniRef90_UPI00042BEF40	T	Y	F	P	H	F							D	L	R	P	G	S	A	H	L	R	T	H	G	A	K	K	V	A	A	A	L	G	D	A	V	K	N	I	D		
UniRef90_P84203	I	Y	F	S	H	W							P	D	L	A	P	G	S	P	S	V	K	K	H	G	K	I	M	K	A	V	S	D	S	V	K	M	D				
UniRef90_W5LAT4	T	Y	F	A	H	W	A	D	V	S																																	
UniRef90_P86391	R	L	F	S	E	F	G	N	L	S	S	P	T	A	I	C	G	N	P	K	V	K	A	H	G	A	K	K	V	L	T	A	F	G	D	A	V	K	N	I	D		
UniRef90_M3YX76	T	Y	F	P	H	F							D	L	S	P	G	S	A	Q	V	K	A	H	G	A	K	K	V	A	D	A	L	T	L	A	V	K	N	I	D		
UniRef90_V5N6Q4	Q	Y	F	S	Q	F	R	E	M	D	D	P	E	E	M	E	R	S	S	Q	L	R	K	H	A	C	R	V															
UniRef90_P10777	T	Y	F	S	H	W							P	S	V	T	P	G	S	H	P	I	K	A	H	G	A	K	K	V	M	G	G	L	A	T	A	V	K	N	I	D	
UniRef90_S7Q7N2	Q	K	F	E	K	L	K	N	L	K	S	E	D	E	M	K	A	S	E	D	L	K	K	Q	G	A	T	V	L	T	A	L	G	G	V	L	K	K	I	N			
UniRef90_P02016	T	Y	F	A	H	W							A	D	L	S	P	G	S	G	P	V	K	K	H	G	A	K	K	V	I	M	G	A	V	G	D	A	V	K	N	I	D
UniRef90_P02142	R	Y	F	G	S	F	G	N	V	S	T	P	A	A	I	M	G	N	P	K	V	A	A	H	G	A	K	K	V	V	C	G	A	L	D	K	A	V	K	N	I	D	
UniRef90_UPI00035A227A	R	F	F	E	H	F	G	D	L	S	S	A	S	A	V	M	G	N	A	Q	V	K	A	H	G	A	K	K	V	I	H	S	F	A	D	G	L	K	N	I	D		
UniRef90_P83478	R	Y	F	G	K	F	G	D	L	S	S	V	A	A	I	V	G	N	A	G	A	K	H	G	R	T	V	L	Q	A	L	G	Q	A	V	N	N	I	D				
UniRef90_P18990	R</																																										

QUERY	H	H	E	A	E	L	K	P	L	A	Q	S	H	A	T	K	H	K	I	P	L	K	Y	L	E	F	I	S	E	A	I	H	V	L	H	S	K	H	P			
UniRef90_UPI0001775CC5	N	L	P	S	A	L	T	S	K	L	S	E	L	H	A	Y	V	L	R	V	D	P	V	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	V	R	L	P
UniRef90_UPI00033767C	N	M	Q	V	A	L	T	S	K	L	S	E	L	H	A	Y	V	L	R	V	D	P	V	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	V	R	L	P
UniRef90_UPI000328F10D	D	L	P	G	A	L	T	S	T	K	L	S	E	L	H	A	H	K	L	R	V	D	P	V	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P
UniRef90_UPI00005EB63C	N	V	G	S	A	L	T	S	K	L	S	E	L	H	A	Y	K	L	R	V	D	P	V	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P	
UniRef90_P24291	D	L	P	G	A	L	T	S	K	L	S	E	L	H	A	Y	K	L	R	V	D	P	V	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P	
UniRef90_P18978	N	L	P	D	A	L	T	S	E	L	S	E	L	H	A	H	K	L	R	V	D	P	V	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P	
UniRef90_H3ABR1	K	L	A	T	V	L	S	R	L	S	E	L	H	A	Y	N	F	M	V	D	P	V	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P		
UniRef90_A1Y2P4	K	L	T	N	G	L	L	T	L	S	E	L	H	A	F	Q	L	R	V	D	P	A	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P		
UniRef90_K7FZX0	N	L	T	T	G	A	L	T	S	E	L	H	A	Y	L	N	L	R	V	D	P	V	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P		
UniRef90_Q7ZT86	N	L	S	Q	A	L	T	S	E	L	S	E	L	H	A	Y	K	L	R	V	D	P	V	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P	
UniRef90_P18975	D	L	P	N	A	L	T	S	E	L	S	E	L	H	A	Y	K	L	R	V	D	P	V	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P	
UniRef90_UPI000331684E	D	L	K	D	A	F	A	K	L	S	E	L	H	C	D	K	L	H	V	D	P	E	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P		
UniRef90_C5HYH6	D	L	K	G	A	F	A	Q	L	S	E	L	H	C	D	K	L	H	V	D	P	E	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P		
UniRef90_UPI00032B04A3	D	L	K	N	T	F	A	H	L	S	E	L	H	C	D	K	M	H	V	D	P	E	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P		
UniRef90_P15164	N	L	S	Q	A	L	T	S	E	L	S	E	L	H	A	Y	N	L	R	V	D	P	V	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P	
UniRef90_G1LJX4	N	L	I	A	G	A	L	A	K	L	S	E	L	H	A	Y	L	N	L	R	V	D	P	V	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P
UniRef90_P02054	N	L	K	G	T	F	A	Q	L	S	E	L	H	C	V	A	L	H	V	D	P	E	N	F	K	F	L	S	H	H	C	L	L	I	S	L	A	H	L	P		
UniRef90_P85081</																																										

QUERY	A	E	F	G	A	D	A	Q	A	A	M	K	K	A	L	E	L	F	R	N	D	I	A	A	K	Y	K	E	L	G	F	H	G
UniRef90_UPI0001775CC5	A	D	F	T	A	E	T	H	A	A	W	D	K	F	M	S	Q	V	S	A	V	I	L	T	E	K	Y	R					
UniRef90_UPI000333767C	A	D	F	T	A	E	T	H	A	A	W	D	K	F	M	S	Q	V	S	A	V	I	L	T	E	K	Y	R					
UniRef90_UPI000328F10D	D	D	F	T	P	A	V	H	A	S	M	D	K	F	M	A	G	V	S	T	S	T	V	L	V	S	K	Y	R				
UniRef90_UPI00005EB63C	A	D	F	T	A	E	A	H	A	A	W	D	K	F	L	S	I	V	S	T	S	T	V	L	T	E	K	Y	R				
UniRef90_P24291	G	D	F	T	P	A	A	H	A	S	L	D	K	F	L	S	S	V	S	T	S	T	V	L	T	E	K	Y	R				
UniRef90_P18978	A	D	F	T	P	S	V	H	A	S	L	D	K	F	L	A	S	V	S	T	S	T	V	L	T	S	K	Y	R				
UniRef90_H3ABR1	A	D	F	T	P	E	A	Q	H	A	W	D	K	F	L	A	I	S	E	I	L	F	S	E	K	Y	R						
UniRef90_A1YZP4	N	D	F	T	P	E	V	H	A	S	M	D	K	F	L	S	A	L	I	A	L	A	L	S	E	K	Y	R					
UniRef90_K7FZX0	N	D	F	T	P	E	V	H	A	A	L	D	K	F	L	S	S	Q	I	A	S	V	L	T	E	K	Y	R					
UniRef90_Q7ZT86	K	E	Y	T	P	E	V	H	A	A	F	D	K	F	L	S	A	V	A	A	V	L	T	S	E	K	Y	R					
UniRef90_P18975	E	E	F	T	P	A	V	H	A	S	L	D	K	F	F	S	A	V	S	T	S	T	V	L	T	S	K	Y	R				
UniRef90_UPI000331684E	K	E	F	T	P	Q	M	Q	A	S	W	Q	K	F	L	T	S	A	V	A	S	A	L	A	H	K	Y						
UniRef90_C5HYH6	A	D	F	T	P	E	A	Q	A	A	C	Q	K	V	A	G	V	A	T	A	L	A	L	A	H	K	Y						
UniRef90_UPI00032B04A3	K	E	F	T	P	E	V	Q	L	A	W	Q	K	L	V	A	G	V	A	T	A	L	A	H	K	Y							
UniRef90_P15164	K	D	Y	T	P	E	L	H	A	A	F	D	K	F	L	S	A	V	A	A	V	L	A	E	K	Y	R						
UniRef90_G1LJX4	G	E	F	T	V	E	M	Q	A	A	W	D	K	F	L	T	G	V	A	V	V	L	T	E	K	Y	R						
UniRef90_P02054	N	D	F	S	P	Q	T	Q	A	A	F	Q	K	V	V	T	G	V	A	N	A	L	A	H	K	Y							
UniRef90_P85081	H	E	F	T	P	E	A	H	V	A	M	D	K	F	F	C	A	V	S	L	A	L	A	E	K	Y	R						
UniRef90_Q4S4F1	K	D	F	T	P	E	V	H	V	S	L	D	K	F	L	A	G	V	A	L	A	L	S	E	K	Y	R						
UniRef90_P84653	K	D	F	T	P	E	A	H	V	S	L	D	K	F	L	S	G	V	S	L	A	L	A	E	K	Y	R						
UniRef90_P06467	A	D	F	T	P	E	V	H	E	A	W	D	K	F	M	S	I	L	S	S	I	L	T	E	K	Y	R						
UniRef90_Q98SE6	T	D	F	T	P	E	V	H	V	S	L	D	K	F	L																		



UniRef90\_G8DP14  
UniRef90\_C3KJ57  
UniRef90\_G5E0T9  
UniRef90\_G3RZQ0  
UniRef90\_P07428  
UniRef90\_V5N4H6  
UniRef90\_U5KNU7  
UniRef90\_Q8AYQ6  
UniRef90\_P83273  
UniRef90\_Q7LZM6  
UniRef90\_P41331  
UniRef90\_P02132  
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UniRef90\_V3Z7S3  
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UniRef90\_Q8BYM1  
UniRef90\_UPI0001CBA21B

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UniRef90_G8DP14	R	H	F	S	T	F	G	D	L	S	T	T	A	A	I	L	G	S	E	K	V	A	A	H	G	K	T	V	M	G	G	L	E	R	A	V	K	S	L	M	D	
UniRef90_C3KJ57	R	H	F	T	N	F	G	N	L	S	N	A	A	A	I	Q	G	S	E	K	V	A	A	H	G	K	T	V	L	H	G	L	D	M	A	L	K	N	M	D		
UniRef90_G5E0T9	T	Y	F	S																																						
UniRef90_G3RZQ0	R	F	F	E	S	F	G	D	L	S	S	P	D	A	V	M	G	N	S	P	K	V	K	A	H	G	K	K	V	L	G	A	F	S	D	G	L	A	H	L	D	
UniRef90_P07428	T	Y	F	P																																						
UniRef90_V5N4H6	Q	Y	F	S	E	F	R	H	M	E	D	T	Q	E	M	Q	S	A	Q	L	Q	K	H	A	V	L	V	M	K	A	L	N	A	L	V	E	S	V	D			
UniRef90_U5KNU7	R	F	F	E	T	F	G	D	L	S	S	A	S	A	V	M	G	S	H	A	E	V	K	T	H	G	K	K	V	M	N	A	F	S	D	G	L	A	H	L	D	
UniRef90_Q8AYQ6	R	Y	F	G	S	F	G	N	L	S	N	A	A	A	I	A	S	N	P	K	V	A	A	H	G	K	V	V	L	G	G	L	E	K	A	L	K	N	M	D		
UniRef90_P83273	R	Y	F	G	S	F	G	N	L	S	N	A	A	A	I	M	G	S	P	N	V	A	K	H	G	T	L	I	H	G	L	D	R	N	G	V	K	N	M	D		
UniRef90_Q7LZM6	V	Y	F	S	H																																					
UniRef90_P41331	T	Y	F	P	H	F																																				
UniRef90_P02132	R	Y	F	S	S	F	G	N	L	S	N	S	A	D	A	V	F	H	G	N	E	A	V	A	A	H	G	K	V	V	T	S	I	L	G	E	A	I	K	H	M	D
UniRef90_P02139	R	F	F	A	S	Y	G	N	L	S	S	P	A	A	I	M	G	N	P	K	V	A	A	H	G	R	T	V	E	G	G	L	M	R	A	I	K	D	M	D		
UniRef90_P86919	R	Y	F	E	N	F	G	D	L	S	S	N	A	Q	A	I	I	H	N	E	K	V	Q	A	H	G	K	K	V	L	A	S	F	G	E	A	V	K	H	L	D	
UniRef90_H2ZWU1	S	Y	F	G	N	F	G	M	G	S	S	A	A	E	M	E	Q	S	A	Q	V	R	T	H	G	K	K	I	F	S	A	L	N	D	M	I	Q	N	L	D		
UniRef90_Q6Y239	R	H	F	S	S	F	G	N	L	S	T	N	A	A	I	L	G	N	S	K	V	A	E	H	G	R	T	V	M	G	G	L	D	R	A	V	A	I	Q	H	L	D
UniRef90_P08423	R	Y	F	S	S	F	G	N	L	S	N	V	S	A	V	S	G	N	V	K	V	K	A	H	G	N	K	V	L	S	A	V	G	S	A	I	Q	H	L	D		
UniRef90_UPI00039460B9	T	Y	C	S	H	W																																				
UniRef90_C1BYA0	T	Y	F	S	H																																					
UniRef90_H3A6U9	R	Y	F	K	S	F	G	D	L	S	S	S	K	A	I	A	S	N	P	K	V	T	E	H	G	L	K	V	M	N	K	L	T	E	A	I	K	H	L	D		
UniRef90_P07429	R	Y	F	S	S	F	G	N	L	S	S	I	E	A	I	F	H	N	A	V	A	T	H	G	E	K	V	L	T	S	I	L	G	E	A	I	K	H	M	D		
UniRef90_UPI0003ABC90C	R	F	F	E	S	F	G	D	L	S	S	P	D	A	V	M	G	N	S	P	K	V	K	A	H	G	K	K	V	L	G	A	F	S	D	G	L	N	L	D		
UniRef90_Q5QRU6	S	Y	F	T	H	F	K	G	M	D	S	A	E	E	M	K	Q	S	D	Q	V	R	G	H	G	K	R	V	F	T	A	I	N	D	M	V	Q	H	L	D		
UniRef90_P45720	R	Y	F	S	S	G	F	G	N	L	S	N	A	E	G	I	M	G	S	N	A	N	V	A	H	G	K	V	L	H	G	L	D	R	G	M	K	N	M	D		
UniRef90_P10783	T	Y	F	P																																						
UniRef90_UPI00026555D1	Q	Y	F	S	Q	F	K	H	M	E	D	P	L	E	M	E	R	S	P	Q	L	R	K	H	A	C	R	V	M	G	A	L	N	T	V	E	N	L	H			
UniRef90_P02010	T	Y	F	P	H	F																																				
UniRef90_Q6F3D3	T	Y	F	G																																						
UniRef90_C1BY22	R	Y	F	S	S	F	G	N	L	S	T	P	A	A	I	M	G	N	P	N	V	A	K	H	G	R	T	V	I	H	G	L	D	K	A	I	Q	N	L	D		
UniRef90_U3F869	T	Y	F	S	H																																					
UniRef90_H3B2L7	V	Y	F	K	N	F	K	N	I	S	T	M	E	E	M	Q	K	S	N	E	Q	I	R	I	H	G	L	R	V	M	N	S	L	N	D	S	A	L	K	N	L	D
UniRef90_P80946	R	H	F	A	N	F	G	N	L	S	T	A	A	A	I	M	N	N	D	K	V	A	K	H	G	T	T	V	M	G	G	L	D	R	A	L	Q	N	M	D		
UniRef90_UPI000328AF02	T	Y	F	S	H	M																																				
UniRef90_S9YCX3	T	H	F	H	H																																					
UniRef90_H3ARB7	D	V	F	F	L	F	R	D	I	D	D	F	H	Q	L	K	M	S	K	E	L	Q	A	H	G	L	R	V	M	S	F	I	E	K	S	V	A	R	L	D		
UniRef90_L8HVQ9	Q	G	R	D	S	S	L	G	S	S	Q	A	Q	K	Q	P	G	C	P	Q	L	R	K	H	A	C	R	V	M	G	A	L	N	T	V	V	E	N	L	H		
UniRef90_A0EZW4	R	Y	F	G	N	F	G	N	L	S	N	A	E	A	I	T	S	N	E	N	V	I	N	H	G	K	V	V	L	H	G	L	D	R	A	V	E	N	N	M	D	
UniRef90_G1PSU3	T	Y	F	P	H	F																																				
UniRef90_UPI0003C87102	R	F	F	D	N	F	G	N	L	S	S	E	S	A	I	I	G	N	P	K	V	Q	A	H	G	E	K	V	L	T	S	F	G	N	A	V	K	H	M	E		
UniRef90_K7FBN5	R	F	F	S	T	F	G	N	L	S	N	P	Q	A	I	Q	H	N	S	P	K	V	L	E	H	G	K	K	V	L	T	S	F	G	N	A	V	K	D	L	D	
UniRef90_C8YNP6	T	Y	F	S	H																																					
UniRef90_W5MLZ3	T	Y	F	T	N	V																																				
UniRef90_G5DZM8	R	Y	F	S	S	F	G	N	L	S	N	V	T	A	I	S	G	N	A	K	V	Q	G	H	G	K	K	V	L	S	A	I	G	D	Q	A	A	D	I	D		
UniRef90_Q5QSA9	D	V	F	F	L	F	R	D	V	E	D	L	E	R	L	R	T	S	R	E	L	R	A	H	G	L	R	V	M	S	F	I	E	K	S	V	A	R	L	D		
UniRef90_UPI00042BE50A	I	Y	F	K	H																																					
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UniRef90_UPI0001CF1E2C	Q	Y	F	S	Q	F	Q	D	M	E	D	P	E	E	M	E	K	S	S	Q	L	R	K	H	A	R	R	V	M	N	A	I	N	T	V	V	E	N	L	H		
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UniRef90_P10784	T	Y	F																																							
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D K A T I K R T W S I V T D L P S F G R N V F L T V F A Y K P E Y K  
D K A T I K R T W S I V T D L P S F G R N V F L T V F A Y K P E Y K  
E D Q I Q M I K D S W K V I R D D I A K V G I M F V R L F E T H P E Y K  
L V L K Y W G P V E A D Y A A Y G S L V L T R L F T E H P D T Q  
D F D M V L K F W G P V E A D Y S A H G G M V L T R L F T E N P E T Q  
S L S E D Q E L L E K S W N S I K V N I A N I G V V A F M N L F Q T H P E V K  
F T A E E A L V L K S W A A M K K N A G E L G L K F F L K A F E I A P S A A  
S Q A E L D V I Q G K W A A L D P E K F G G K A L A R M F V V Y P W T K  
L T D R Q M T L I E D T W S I V Q R D I S T V G L D M F S R M F E A F P G I K  
L R T F V I A F P S S K  
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H E L I R Q S W R V S R S P L E H G T V L F A R L F D L E P D L L  
S L T K A E R T V I L S M W D K I S T Q A D A I G T Q A L E R L F A S Y P Q T K  
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G M T E K Q E R L V Q N T W A I A R K D E V S A G V A I M I A L F K Q Y P E Y Q  
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D K A T I K R T W S I V N D L P S F G R N V F L S V F A A K P E Y K  
T P R T I E L V Q R S W A K V M P I S D A A S A L F Y D R L F E L D P S V R  
F T E E Q E A L V L K S W E A M K N S G E L G L K F F T K L L E I A P E A K  
G L T I R E K R L I V N S W E Q I K V N I K Q N G V A I F I G Y F I A Y P Y T Q  
A F S E E Q E A L V N S W N V M K Q H A A D T A L S F F L K I F E I A P S A T  
A L S A E D R A L V R A L W K L G S N V G V Y A T E A L E R T F L A F P A T K  
F T E E Q E A L V V Q S W N V M K K N S A E L G L K F L K I F E I A P T A K  
L T E R Q I K L V Q D T W R L L I P S Q K K T A M I F Y L K L F T L D P I F K  
S I T A E Q I Q L V Q D S F A K V P R I A D Q A A A L F Y A R L F E I A P Q V K  
I Q D T W R P V Y E N R E N A G V A V L I R E F S N F P S A K  
D K A T I K R T W A T V T D L P S F G R N V F L S V F A A K P E Y K  
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G L S D S E K S A V A S L W E K I A P Q T N K L G A E S M E R L F E K N H P E T K  
L T Q K K Y L L T K N W K I D R E V C A A G V E M F L K M L S T H P E Y K  
G F S E E K E A L V L K S W A I M K K D S A N L G L R F F L K I F E I A P S A K  
K E L V Q G T F G Q V A P I A D K A A E I F Y T K L F E K D P S L K  
L D A K E T Q L V R K T W A L G D R Q V E V G K S L F L R F F E E H P T S K  
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G F T D K Q E A L V R D S W E F M K Q D I P Q L S L R F F S L I L E I A P V A K  
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A L F A R R K G A I Q T T W V A V G D S L G E A T R L F Y E R L F D Q H P E V K  
M N Q T Q V Q L V Q S S F A K V A P I A E K A A E L F Y G R L F E I A P Q V K  
S L T T R D K Y Q I I K S W K G I A R D L H T T G V T M F L R M F Q E H D D L  
L S E A E K A A L L S L W A K A S G N V N A L G A E A L E R I L Y I  
A D F D M V L K Y G P V E A D Y N K H G G L V L S R L F A E H P D T L  
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D E D K A A I A R I W K N A D V E A I G G E T L G R L L V V Y P W T Q  
L T S N E L S L I S E S W K L V V P D L E H G L S F F L K L F E E Y P T Y Q  
T D A E R S A I T S L W G K I D V G E I G Q Q A L T E H L I M Y P W T Q  
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[illegible]

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



	1	10	20	30	40																																				
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UniRef90_V4HJT2																																									
UniRef90_Q9Y0D5																																									
UniRef90_B4WU25																																									
UniRef90_C1AE78																																									
UniRef90_M7XQB8																																									
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UniRef90_G3U1L0																																									
UniRef90_R1FSQ6																																									
UniRef90_J5JNA3	A	L	T	Q	S	Q	I	D	I	V	L	K	S	T	A	A	I	L	K	D	Q	G	D	R	I	T	R	I	F	Y	V	N	M	L	T	A	H	P	E	L	K
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UniRef90_F0SHM8	L	S	A	K	T	I	E	I	V	K	A	I	T	P	L	V	A	A	N	A	E	T	I	T	R	C	F	Y	Q	R	M	F	T	A	N	P	E	V	K		
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UniRef90_Q7T1A4																																									
UniRef90_Q93Y92																																									
UniRef90_UPI00047282F9	G	F	T	E	K	Q	E	G	L	V	K	E	S	W	E	V	L	K	Q	D	I	P	H	S	S	L	R	F	F	S	L	I	L	E	I	A	P	G	A	K	
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UniRef90_W2T026	L	Q	D	S	Q	R	Q	I	I	L	D	T	F	T	K	M	E	Q	S	P	I	K	T	G	L	K	L	V	K	M	F	A	E	Y	P	Q	Y	K			
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UniRef90_B3DUZ1	M	T	R	E	E	I	K	M	I	Q	K	S	W	L	R	V	I	D	K	M	D	E	A	G	L	L	F	Y	R	R	L	F	E	D	P	S	L	K			
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UniRef90_A0A058ZN65	M	N	D	S	E	I	T	L	L	Q	E	S	F	A	K	V	V	P	I	K	D	A	A	E	I	F	Y	A	D	L	F	E	T	A	P	E	V	K			
UniRef90_W5JRH5	G	L	T	K	A	Q	K	V	A	L	T	A	A	W	S	I	V	K	K	D	L	V	T	H	G	R	N	I	F	V	M	F	F	E	E	Y	P	E	K		
UniRef90_M7CUM7	L	S	P	E	S	R	S	I	L	D	A	T	L	P	A	V	E	A	H	A	N	D	I	T	D	V	F	Y	P	L	M	F	E	R	Y	P	E	V	K		
UniRef90_A5EFK6	M	T	P	S	Q	I	T	L	V	Q	E	S	F	A	K	V	A	P	I	S	D	Q	A	A	V	L	F	Y	D	R	L	F	E	V	A	P	P	V	R		
UniRef90_S9QGF4	L	T	Q	G	E	I	K	A	I	R	A	S	W	L	L	V	A	A	N	R	A	E	L	G	E	R	F	Y	K	N	L	F	R	A	A	P	E	V	R		
UniRef90_B6ZIV8	G	L	T	R	R	E	I	K	A	I	Q	K	S	W	A	P	V	N	A	N	S	F	A	T	G	S	E	L	L	R	R	L	F	N	T	Y	P	D	T	K	
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UniRef90_S3D2U5	L	T	K	S	Q	I	Q	T	I	K	A	T	V	P	V	L	A	Q	H	G	E	T	I	T	T	K	F	Y	A	D	L	L	F	E	V	A	H	P	E	L	K
UniRef90_Q07S70	M	T	P	D	Q	I	A	L	V	Q	Q	S	F	T	K	V	A	P	I	A	D	V	A	A	G	L	F	Y	G	K	L	F	D	I	A	P	E	V	R		
UniRef90_H0TDW5	M	T	P	A	Q	I	A	L	V	Q	D	S	F	A	K	V	A	P	I	S	D	Q	A	A	I	F	Y	D	R	L	F	E	V	A	P	Q	V	R			
UniRef90_Q800M1																																									
UniRef90_R7UHS6	L	T	P	E	E	I	V	L	V	R	V	I	T	W	E	Q	L	K	T	N	L	A	N	L	G	K	K	V	F	L	R	I	F	N	L	K	P	D	I	K	
UniRef90_I0JWG1	M	T	Q	E	R	I	K	L	I	V	Q	K	S	W	L	V	Y	V	M	D	K	A	D	E	A	G	R	L	F	Y	K	R	L	F	E	V	E	P	N	V	R
UniRef90_M1KNV4	L	D	E	R	T	I	I	K	S	T	V	P	V	L	K	T	H	G	E	N	I	T	G	R	F	Y	N	L	M	F	Q	D	H	P	E	L	L				
UniRef90_M5DQW7	L	N	T	H	Q	I	N	I	I	K	T	A	P	V	V	G	A	H	A	R	E	I	T	D	Y	F	Y	P	L	M	F	E	R	Y	P	E	V	I			
UniRef90_UPI00047C30DC																																									
UniRef90_UPI00037EC7DA	M	T	E	A	E	I	L	L	V	Q	K	S	W	T	A	I	Q	T	R	S	D	I	I	G	V	K	F	Y	T	K	L	F	E	V	Q	P	L	F	K		
UniRef90_B1ZVJ7	M	T	S	R	E	I	V	L	V	Q	E	S	F	S	K	L	A	P	I	A	D	Q	A	A	L	F	F	V	R	L	F	E	L	D	P	S	L	R			
UniRef90_F5UFD7																																									
UniRef90_S4XEM3	L	T	P	A	H	E	E	T	V	K	A	T	L	P	V	V	G	A	H	I	G	E	I	A	H	T	F	Y	K	G	M	F	S	A	H	P	E	L	L		
UniRef90_D6WV70	G	L	T	S	R	D	R	Y	V	I	Q	T	S	W	A	P	V	K	K	D	L	T	G	N	G	V	A	L	L	L	Y	F	E	K	F	P	A	T	K		
UniRef90_F6Q119	S	L	T	S	E	Q	V	V	L	L	R	S	S	W	Q	T	I	G	K	G	M	S	N	V	G	L	A	V	L	H	R	L	F	N	D	V	P	E	T	L	
UniRef90_Q7ZYZ5																																									
UniRef90_I1SRP1	T	D	F	E	K	A	T	I	Q	D	I	F	A	K																											
UniRef90_P02239	L	T	D	V	E	Q	V	A	L	V	K	S	S	F	E	E	F	N	A	N	I	P	K	N	T	H	R	F	F	T	L	V	L	E	I	A	P	E	L	R	
UniRef90_I0																																									

UniRef90\_UPI00035CA314 P L F K S 50 60 70 80  
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UniRef90\_E3QS00 R D L F N R G N Q A S G V Q Q K A L A G S I A A F A G M L L E H L G  
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UniRef90\_UPI00034D7B38

UniRef90_UPI00035CA314	D	L	V	P	V	V	Q	N	L	G	K	R	H	V	G	Y	G	V	L	P	E	S	S	Y	K	T	V	G	E	A	L	L	V	F	T	L	G	A	G	L	G	90		
UniRef90_U5DJ61	Y	L	S	E	A	L	K	G	L	G	A	R	G	H	V	Q	Y	G	A	L	P	E	S	H	Y	F	T	V	G	E	A	L	L	V	F	T	L	G	A	G	L	G	100	
UniRef90_D8MIW2	D	V	S	V	L	V	E	L	L	G	A	N	T	G	H	Y	Q	Y	D	A	L	P	E	S	H	Y	F	T	V	G	E	A	L	L	V	F	T	L	G	A	G	L	G	110
UniRef90_UPI0001CB9E5C	D	A	D	H	V	I	N	L	L	G	R	K	H	A	N	Y	G	V	V	K	P	E	F	I	S	D	I	A	E	E	P	F	L	A	S	V	K	K	L	L	G	120		
UniRef90_V4HJT2	A	L	V	P	V	L	Q	K	L	A	E	R	H	V	I	E	Y	G	V	V	K	P	E	F	I	S	D	I	A	E	E	P	F	L	A	S	V	K	K	L	L	G	90	
UniRef90_Q9Y0D5	D	L	S	N	K	F	V	K	L	S	Q	D	H	I	E	E	F	H	V	D	P	Q	Y	F	M	L	S	Q	T	I	L	L	D	E	V	L	E	K	R	N	G	100		
UniRef90_B4WU25	H	P	E	E	I	I	S	K	L	G	R	S	R	H	Q	Q	Y	G	V	V	K	A	E	D	Y	E	A	I	G	A	T	I	L	L	W	T	L	K	E	K	L	G	110	
UniRef90_C1AE78	Q	L	M	P	A	V	Q	K	L	G	R	K	H	A	T	Y	G	V	V	K	D	A	H	Y	A	L	V	V	G	E	A	L	L	W	T	L	E	Q	G	L	G	120		
UniRef90_M7XQB8	T	V	V	P	A	V	Q	D	L	G	R	K	H	A	T	Y	G	T	R	A	A	H	Y	A	L	V	V	G	E	A	L	L	W	T	L	E	Q	G	L	G	90			
UniRef90_G9DBN1	N	V	K	G	T	F	T	Q	L	S	A	L	H	S	D	K	L	H	V	D	P	S	N	F																	100			
UniRef90_G3UIL0	D	P	D	K	V	L	A	L	L	G	K	A	H	A	L	K	L	H	K	V	E	P	V	Y	F															110				
UniRef90_R1FSQ6	D	L	L	P	V	L	E	G	L	G	K	K	H	V	D	Y	G	V	V	P	A	H	Y	E	V	V	G	Q	A	L	L	V	D	T	L	A	L	G	L	G	120			
UniRef90_J5JNA3	R	L	T	S	A	V	E	R	I	A	H	K	H	A	S	L	F	V	R	P	E	Q	Y	A	I	V	V	G	E	S	H	L	V	D	G	A	E	V	L	G	90			
UniRef90_UPI0003776242	T	V	V	P	T	L	E	A	L	A	R	H	V	H	G	Y	G	V	R	D	E	H	Y	P	V	V	G	G	A	L	L	V	T	L	E	K	Q	L	G	100				
UniRef90_UPI0002FFFA2A	T	I	L	P	A	A	S	A	L	A	K	R	H	V	N	Y	G	A	R	P	E	H	Y	P	V	V	G	G	A	L	L	V	T	L	E	K	Q	L	G	110				
UniRef90_UPI0003F59B4B	D	L	P	S	V	L	S	A	L	A	K	R	H	V	G	Y	G	A	R	P	E	H	Y	P	V	V	G	G	A	L	L	V	T	L	E	K	Q	L	G	120				
UniRef90_F0SHM8	V	L	G	P	A	V	E	L	I	A	K	R	H	C	S	L	G	I	V	R	P	E	H	Y	P	V	V	G	G	K	N	L	V	E	A	I	Q	E	V	M	G	90		
UniRef90_T5AGV5	R	L	A	G	A	V	D	R	I	A	H	K	H	A	S	L	F	V	R	P	E	H	Y	P	V	V	G																	

	130	140	150
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UniRef90_U5DJ61	E G W T S E T E K A W T E A Y G V L I T A V M		
UniRef90_D8MIW2	S A W S P V A E E A W T Q A M K V I A V I F T S Y		
UniRef90_UPI0001CB9E5C	D R Y S S E K I E E I Y K L T I K F I L E H F I N G L K E		
UniRef90_V4HJT2	S D W N S E L R Q A W I D V F K V V A T V M K		
UniRef90_Q9Y0D5	G L S G E G K S G W H K V M T I I C M L K S K Y		
UniRef90_B4WU25	D D F T P E V K R A W E V A F Q F L A S K I M		
UniRef90_C1AE78	D A F T A D A R S A W A T A Y G A L A T V M		
UniRef90_M7XQB8	P D F T L E V R E A W V A T Y A L V A D V M K Q A A A E A		
UniRef90_G9DBN1			
UniRef90_G3UIL0			
UniRef90_R1FSQ6	D A F T P E L K A A W A E I Y G V V S S T M I K G		
UniRef90_J5JNA3	D A L T P E V A D A W K A A Y A Q L A D T V F I G R E R Q L		
UniRef90_UPI0003776242	E A F T P E V R N A W I A T Y V L I A D E T M K A A A R D A		
UniRef90_UPI0002FFFA2A	P A W T P D V A A A W T A A Y G T L S G Y M S E A A Y		
UniRef90_UPI0003F59B4B	E A A W T P E T A A A W T A A Y G T L S G Y M A E A Y		
UniRef90_F0SHM8	E A A T P E I L A A W G E A Y G L L A D V I Y E Q Q R E A G W N G		
UniRef90_T5AGV5	D G L T S D V A E A W V A A Y A Q L A D V F V R R E R E L		
UniRef90_K9Q0C7	D A W T E P V K G A W V N A Y G V I T E V M		
UniRef90_Q7T1A4	K D F T A E V H V S V D K F L Q C L A L A L S L K Y R		
UniRef90_Q93Y92	E E W N E E M K N A W G E A Y D Q L A E A I K A E M K		
UniRef90_UPI00047282F9	D D F T P E V K T A W A D T Y T V M A D V M K A A Y		
UniRef90_D5EQP6	D E F T A D C E A A W V K T Y T L A T T M K D A		
UniRef90_W2T026	G K L D Y E T K E A W T T L Y N V I A D L I E I Y R		
UniRef90_UPI00030E4F0A	D A A T D E I M N A W E E A Y G E I A S V F K E M Y E K A A W D G		
UniRef90_B9EAY0	D A A T P E I V E A W T E T Y G V I A D V F A T L Y D E A D W Q G		
UniRef90_Q8MM46	S A F T A E A R Q A W K N G L A A L V A G I A K N L K K		
UniRef90_D9V9Q0	P D W T P E V I E R A W A E A F T I V		
UniRef90_UPI000476306B	D A V T P E I A A A W S E V Y W L F A L Q L A R L Y R E A G		
UniRef90_D5UN67	E A V T A E V A Q A W T A L Y W Q L A E A L E A G Y R R A G		
UniRef90_UPI00045E9D13	P D F T P E T R E A W V E A T Y T L S S V M		
UniRef90_F9SX37	D S W T P E L R Q A W V D T F R T I A T V M K K Q		
UniRef90_B3DUZ1	S E W T K Q L E Q L W T Q A Y E A L A Q V M I E E H K K I		
UniRef90_F7A367	L N S N S A I L Q A W V K A Y G V L R N G I V R G M		
UniRef90_A0A058ZN65	E A F T P E V K S A W T T A Y G T L S S V M I E A Y P E		
UniRef90_W5JRH5	A H R S P T L E E A F E A F L G T V A E A		
UniRef90_M7CUM7	D A A T E E V L A A W G E A Y Q Q L A D I L I S A Y K Q G G W R G		
UniRef90_A5EFK6	E A W T P E V A E A W T A A Y G T L S G Y M S E A Y		
UniRef90_S9QGF4	E E M P N G A T D A W T K A Y Q A V A S A M		
UniRef90_B6ZIV8	R L D S D A T L S A W G K T V E F W Y K H T		
UniRef90_A9U5F4	D L W S P A L K Q A W A D A Y D A L A T T L K		
UniRef90_UPI000361056E	D A V T A E V A D A W G A L Y Q E L A D L L A Q R Y Q E F G W R G		
UniRef90_S3D2U5	D A A T P E I L D A W E T A Y W Q L A N I M M S K E K D L G W T N		
UniRef90_Q07S70	D E W T P D L A E A W T A A Y G T L S G Y M I E Q		
UniRef90_H0TDW5	D A W T P E V A E A W S A A Y G T L S S Y M A E A Y K E A		
UniRef90_Q800M1			
UniRef90_R7UHS6	D S M D S E V E C A W K K L L L F I I V Q Q R A G Y		
UniRef90_I0JWG1	K E W T K E L E Q A W T E A Y E A L S Q V M I E E H K K		
UniRef90_M1KNV4	D A A T P E I M Q A W E K A Y G V I A E A F K D M Y N E A G W Q G		
UniRef90_M5DQW7	D V V T I E E V A D A W G A A Y Q Q L A S L L A H A K R Q G G W R G		
UniRef90_UPI00047C30DC	A D W T P E V A Q A W L E I Y T T T S Q L M L E G		
UniRef90_UPI00037EC7DA	E H W N P E L E V A W G K A Y Q Y L S K L M I R A		
UniRef90_B1ZVJ7	P E F T P P V K A A W T Q F Y V V L A N A M		
UniRef90_F5UFD7	E D W T P E V K L A W T D A Y R A I T G L M		
UniRef90_S4XEM3	D A V T P E V A E A W D E V Y Q L M A D V L I T A E R D L		
UniRef90_D6WV70	S F M T K E E L E T W D K L L K V A F S V I I K Y		
UniRef90_F6Q119	K D L D A P V M Q A W A T A Y G V I		
UniRef90_Q7ZYZ5			
UniRef90_I1SRP1	E D F T P E V H V A L D K F L G A L S R V L S E K Y R		
UniRef90_P02239	D K W S E E L N T A W T I A Y D E L A I I I K K E M K D A		
UniRef90_I0GDU5	P H W T D E L E Q A W R K V Y G V V A Q R M		
UniRef90_F8K470	E A V T P E V A A A W D E V Y W L M A N A L A A L Y A E A G		
UniRef90_R7TS60	K S S D D R T E K I W S K F L A H V V Q I M R N G Y E D A		
UniRef90_I3CJ89	D A F T P E L K Q A W E N T Y N T L A E L M K K G		
UniRef90_E9GQN2	S T F N S E A Q Q A W K N G I A A L V A G I S K T L K		
UniRef90_Q7M455	Q T C T D Q H I Q A W W K L I D V V C A V L E E K		
UniRef90_D6YUM9	E D A T D D V I H A W S H A Y D F L A N I L T G R E K Q I G W E G		
UniRef90_UPI0002627209	P D W T D E V E R A W A E A F T I A R Q M Q E A		
UniRef90_G1LAM5	P A F T P A V R A A W S Q L Y G A V V Q A M S R		



		1		10		20		30		40																																
UniRef90_Q9M3U9	S	F	S	E	E	Q	E	A	L	V	K	E	A	W	E	I	M	K	E	D	I	P	A	L	S	L	Y	F	T	Q	V	L	E	I	A	P	A	A	K			
UniRef90_UPI0003F4CB53		L	S	S	D	H	A	E	T	V	R	A	T	V	P	A	V	A	A	H	G	V	E	I	T	G	T	F	Y	D	A	M	F	A	A	H	P	E	L	R		
UniRef90_UPI00037CA68F		L	D	E	K	T	I	E	R	V	L	K	S	S	V	P	V	L	E	E	H	G	E	T	I	T	T	R	F	Y	E	K	L	F	E	N	K	H	P	E	L	L
UniRef90_D8PFN9																																										
UniRef90_C5DS97		L	S	E	Q	D	R	N	I	I	K	A	T	V	P	V	L	E	Q	H	G	A	T	I	T	S	L	F	Y	K	N	M	L	N	E	H	E	E	L	R		
UniRef90_QOCEI5	S	L	T	P	Q	Q	K	E																																		
UniRef90_I7D426																																										
UniRef90_UPI0002557E95																																										
UniRef90_B7DQP2		L	S	R	K	D	K	D	I	V	A	S	T	V	P	V	L	E	Q	K	G	E	Q	I	T	R	R	F	Y	Q	L	F	E	S	H	P	E	L	L			
UniRef90_A6UK43		L	T	A	Q	T	I	A	T	V	K	S	T	I	P	L	L	E	S	A	G	V	A	I	T	D	H	F	Y	Q	R	M	F	R	L	N	P	E	L	K		
UniRef90_K7A9V9		G	L	T	K	S	Q	K	V	A	L	I	A	A	W	S	L	V	K	K	D	L	V	T	H	G	R	N	I	F	V	M	F	F	E	E	Y	P	Q	Y	L	
UniRef90_Q2MCN9		F	T	D	E	E	L	D	L	I	R	T	S	W	G	Q	V	M	K	G	T	K	E	V	G	I	Q	I	F	T	R	L	L	N	D	A	P	K	L	R		
UniRef90_H2ZPV1																																										
UniRef90_H9JFD7																																										
UniRef90_I0H8W0		L	S	D	K	S	R	P	V	L	I	A	A	T	L	P	V	V	G	E	H	I	E	E	I	A	N	R	F	Y	A	H	M	F	A	A	H	P	E	F	Q	
UniRef90_D2AQM5																																										
UniRef90_Q9U6L2		L	S	E	G	E	K	A	I	K	E	S	W	P	Q	I	Y	Q	N	F	E	Q	T	S	L	D	V	L	I	E	F	L	Q	K	F	P	E	A	Q			
UniRef90_A0A059MV11		L	S	A	E	S	K	E	V	R	A	T	L	P	A	V	G	A	A	I	G	D	I	T	P	L	F	Y	K	K	M	F	A	A	H	P	E	L	E			
UniRef90_E7FIH2		L	T	A	N	D	R	R	I	R	K	T	W	D	Q	A	K	K	D	G	D	V																				
UniRef90_UPI0001CBB478		L	T	V	E	Q	K	R	L	I	D	S	W	K	E	L	I	D	L	E	R	I	G	M	L	M	F	M	G	M	F	G	T	H	P	E	Q	T	R			
UniRef90_W7D677	A	I	T	E	E	Q	K	Q	I	V	K	S	T	A	P	L	K	E	H	G	K	E	I	T	S	I	F	Y	K	K	M	F	A	D	H	P	E	L	L			
UniRef90_UPI00047DF566		L	S	E	K	T	I	Q	I	V	K	S	T	V	P	V	L	E	K	H	G	V	E	I	T	K	R	F	Y	K	R	N	M	F	A	H	P	E	L	L		
UniRef90_E8WCH9		L	T	D	R	E	I	S	L	V	R	S	S	L	T	V	V	A	P	Q	A	T	E	M	T	V	Y	F	Y	A	L	L	F	A	R	Y	P	E	V	R		
UniRef90_V6I8G9		L	G	N	D	E	I	E	M	V	R	S	S	F	E	K	V	Y	T	N	K	D	E	V	A	S	L	F	Y	K	K	L	F	E	L	E	P	G	Y	K		
UniRef90_A0A024YLN8																																										
UniRef90_O80405	G	F	T	E	K	Q	E	A	L	V	N	S	S	W	E	L	F	K	Q	N	P	S	Y	S	V	L	F	Y	T	I	L	K	K	A	P	A	A	K				
UniRef90_M5TCL4		L	S	D	K	T	I	R	L	V	K	E	I	T	P	L	A	A	N	A	E	T	I	T	R	R	F	Y	E	R	M	F	E	S	N	P	E	V	K			
UniRef90_Q17155																																										
UniRef90_P41261		L	T	N	P	Q	K	A	A	I	R	S	S	W	S	K	F	M	D	N	G	V	S	N	G	Q	G	F	Y	M	D	L	F	K	A	H	P	E	T	L		
UniRef90_P56692		L	S	E	D	Q	E	H	Y	I	K	G	S	W	K	D	V		D	H	K	Q	I	T	A	K	A	L	E	R	V	F	V	V	I	P	W	T	T			
UniRef90_P02215	S	L	Q	P	A	S	K	S	A	L	A	S	S	W	K	T	L	A	K	D	A	A	T	I	G	A	T	L	F	S	L	L	F	K	Q	F	P	D	T	R		
UniRef90_R4TIK9																																										
UniRef90_K1QVD6		M	N	E	S	E	K	R	L	V	K	K	T	W	K	D	L	A	K	D	M	S	Y	N	G	I	R	V	F	E	R	L	F	E	L	N	P	D	L	K		
UniRef90_UPI00040BC6A2																																										
UniRef90_W7E6F8		L	T	E	N	Q	K	S	I	V	K	A	T	V	P	V	L	A	E	H	G	V	A	L	T	S	H	F	Y	E	R	M	F	A	Q	N	P	E	L	K		
UniRef90_T0RU19																																										
UniRef90_I2G908	S	L	T	D	R	E	V	E	V	I	V	N	Q	S	W	N	K	I	A	Q	E	L	V	V	G	L	Q	M	F	K	L	L	F	Q	R	Y	P	Q	Y	E		
UniRef90_C1EC08																																										
UniRef90_A0A058ZPU3		M	N	E	T	Q	I	D	M	I	K	A	S	F	A	K	V	A	P	I	A	E	T	A	A	D	I	F	Y	T	R	L	F	E	I	A	P	E	V	K		
UniRef90_UPI0002B4B1EC		L	S	E	R	E	I	A	I	V	K	D	S	W	E	K	V	R	T	K	W	V	D	I	C	G	I	A	F	S	R	W	F	T	T	Y	P	E	L	R		
UniRef90_M8E6D5		L	S	P	Q	T	I	A	I	V	K	S	T	V	P	V	L	E	V	H	G	K	A	I	T	T	R	F	Y	E	M	M	F	A	S	H	P	E	L	L		
UniRef90_UPI00031999E4	A	L	T	A	R	Q	V	T	L	I	T	N	S	F	R	K	V	E	P	E	S	L	Q	A	A	E	I	F	Y	D	T	L	F	S	Y	D	P	T	L	K		
UniRef90_UPI000347738D		L	S	A	Q	T	I	A	L	V	K	A	T	V	P	V	L	E	Q	E	H	G	E	A	I	T	R	H	F	Y	P	L	M	F	R	Q	Y	P	E	V	K	
UniRef90_UPI00036B765A		M	S	P	Q	Q	K	D	L	V	K	A	T	V	P	V	L	K	E	H	G	V	L	L	T	T	H	F	Y	N	R	M	F	T	H	N	P	E	L	K		
UniRef90_UPI00036A9B9D		L	S	E	P	Q	I	A	T	V	R	A	T	L	P	A	V	G	A	I	G	D	I	A	D	L	F	Y	R	K	L	F	E	D	A	H	P	E	L	L		
UniRef90_Q5AX11	S	L	S	P	E	Q	I	Q	L	I	V	K	A	T	V	P	V	L	E	H	G	T	T	I	T	K	V	F	Y	D	N	M	L	T	A	H	P	E	L	K		
UniRef90_G7Y3I3	S	L	T	D	A	Q	V	N	G	V	Q	S	S	W	M	L	L	K	I	H	I	E	K	L	G	V	I	V	F	L	G	L	F	E	E	H	S	D	F	R		
UniRef90_F7EB40		L	S	G	P	Q	K	E	L	I	R	E	S	W	Q	T	V	S	Q	D	Q	L	H	H	G	T	V	L	F	S	S	I	F	Q	L	K	S	W	S			
UniRef90_UPI00037706E8																																										
UniRef90_UPI000478B2A8		L	S	P	R	S	T	E	V	V	R	A	T	L	P	V	I	G	A	I	N	D	I	T	A	V	F	Y	P	R	M	F	A	A	H	P	E	L	L			
UniRef90_I1YEC9		L	D	N	R	T	I	E	I	V	K	S	T	I	P	L	L	E	D	A	G	V	E	V	T	D	H	F	Y	K	R	M	F	S	H	N	P	E	L	K		
UniRef90_U1KRK6		L	S	Q	R	T	I	T	L	V	K	Q	S	I	P	L	L	A	N	A	G	V	E	V	T	E	H	F	Y	Q	R	M	F	A	H	N	P	E	L	L		
UniRef90_UPI00020E3B04																																										
UniRef90_A0A023D9N3		L	D	D	R	T	R	A	I	I	V	K	A	T	V	P	A	L	K	A	H	G	T	A	I	T	T	E	M	Y	K	R	L	L	S	T						
UniRef90_C5QR69		L	T	E	K	E	K	S	I	V	Q	S	T	V	P	V	L	K	Q	K	G	V	E	I	T	T	S	H	F	Y	K	R	M	F	K	Q	H	P	E	L	K	
UniRef90_M1VB93																																										
UniRef90_UPI0002E92FA5		L	N	E	S	V	I	K	I	V	Q	S	T	W	S	Q	A	V	Q	Q	R	E	R	L	G	Q	V	F	Y	D	R	L	F	A	L	Y	P	E	L	Q		
UniRef90_UPI0002E92FA5	S	L	T	P	D	V	I	A	I	V	K	A	T	I	P	A	L	E	A	H	G	L	D	I	T	T	T	E	M	Y	K	R	L	L	E	D	Y	P	Q	L	L	
UniRef90_K7SC23		L	T	Q	K	T	K	D	I	V	K	A	T	A	P	V																										

[illegible]

UniRef90_Q9M3U9	K	G	E	V	T	L	K	Y	L	G	S	V	H	L	Q	K	G	V	I	D	A	H	F	A	V	V	K	E	G	V	L	R	T	V	E	K	G	V	G							
UniRef90_UPI000374CB53	P	F	Q	Q	I	V	M	S	R	I	G	H	K	H	A	S	R	S	L	G	I	R	P	E	Q	Y	T	I	V	G	R	K	Y	L	L	E	A	M	E	V	L	E				
UniRef90_UPI00037CA68F	N	I	L	P	I	M	S	K	Q	I	G	H	K	H	A	S	R	S	L	G	I	R	P	E	Q	Y	T	I	V	G	R	K	Y	L	L	E	A	M	E	V	L	E				
UniRef90_D8PFNF9	H	P	E	K	L	T	P	V	L	Q	D	M	G	A	R	H	Y	G	A	K	P	A	Y	Y	D	A	V	G	E	N	L	L	A	V	L	G	E	F	A	G	G					
UniRef90_C5DS97	D	L	S	V	L	Y	V	N	L	I	G	H	K	H	A	R	A	L	Q	V	I	K	T	A	D	Q	Y	P	I	V	G	E	H	Y	L	L	A	Q	A	I	K	Q	V	L	G	G
UniRef90_Q0CEI5	A	L	A	T	A	V	S	R	I	G	H	K	H	A	S	R	A	L	Q	V	I	K	T	A	D	Q	Y	P	I	V	G	E	H	Y	L	L	A	A	A	I	K	E	V	L	G	G
UniRef90_I7D426	E	L	V	T	F	L	G	Q	L	G	R	D	H	R	K	F	A	V	G	V	S	R	A	H	Y	D	A	V	G	V	A	L	L	A	A	L	K	R	F	L	K	G	G			
UniRef90_UPI0002557E95	D	I	P	A	L	L	P	V	A	A	D	L	A	R	A	H	Y	G	V	Q	P	E	Q	Y	P	I	V	G	E	S	A	L	L	R	T	L	E	A	G	L	G	G	G			
UniRef90_B7DQP2	D	I	H	S	T	V	M	R	I	A	E	K	H	A	R	A	L	G	V	Q	P	E	Q	Y	P	I	V	G	E	S	A	L	L	R	T	L	E	A	G	L	G	G	G			
UniRef90_A6UK43	S	L	S	A	V	L	K	D	I	A	S	H	K	H	A	S	R	A	L	G	V	Q	P	E	Q	Y	P	I	V	G	E	S	A	L	L	R	T	L	E	A	G	L	G	G		
UniRef90_K7A9V9	A	L	N	E	V	E	R	V	A	S	H	K	H	A	S	R	A	L	G	V	Q	P	E	Q	Y	P	I	V	G	E	S	A	L	L	R	T	L	E	A	G	L	G	G			
UniRef90_Q2MCN9	D	P	A	L	L	K	C	S	L	G	K	R	N	H	R	K	R	N	V	D	T	K	E	D	V	A	A	V	A	G	V	I	M	R	Y	S	L	K	A	L	E	N	G			
UniRef90_H2ZPV1	K	L	D	S	L	T	K	L	G	S	H	A	R	K	R	N	V	D	T	K	E	D	V	A	A	V	A	G	V	I	M	R	Y	S	L	K	A	L	E	N	G					
UniRef90_H9JFD7	D	L	D	N	F	F	Q	Y	I	H	Q	V	G	A	S	H	R	K	I	P	V	E	Y	S	F	W	K	I	A	P	F	L	M	A	V	E	S	T	L	G	G					
UniRef90_I0H8W0	Q	F	P	E	R	L	L	T	R	I	A	H	K	H	A	S	R	A	L	G	I	R	P	E	Q	Y	A	V	V	H	E	S	H	L	M	W	A	V	G	D	V	L	G	G		
UniRef90_D2AQM5	D	L	N	D	Y	L	G	Q	L	A	R	D	H	R	K	Y	G	V	Q	P	E	H	Y	P	A	V	A	V	G	S	A	L	F	V	A	M	R	F	N	A	G	G				
UniRef90_Q9U6L2	N	M	K	Q	Y	L	K	E	L	S	V	K	H	S	S	E	F	Q	V	D	P	K	M	F	K	E	L	S	A	L	I	F	V	A	M	R	F	N	A	G	G					
UniRef90_A0A059MV11	R	V	E	A	L	L	S	R	I	A	S	H	K																																	

		130	140	150
UniRef90_Q9M3U9	E K W S	E E M K G A W S	E A Y D Q L A A A I T E M K K	
UniRef90_UPI0003F4CB53	D A V T	P E V H A A W S	E V Y W L F A T L L A R L Y Q E A	
UniRef90_UPI00037CA68F	D Q A T	E E I L T A W E K A Y G V I A T A F I E M Y K N A G W S G		
UniRef90_D8PFN9	E A W T	P E V K Q A W T D A Y A A I K T I M L E G A K R V		
UniRef90_C5DS97	D A A T	P E I L S A W Q K A Y G V I A D V F A Q L Y K E A L W E G		
UniRef90_Q0CEI5	D A V T	P P V S D A W T A A Y Q Q L A E I F A G L Y H Q A G W A G		
UniRef90_I7D426	E K W T	A E V E S A W T S A Y G L I A K A M R E A		
UniRef90_UPI0002557E95	E D F T	P E V K A A W V T A Y T T L S G A M		
UniRef90_B7DQP2	S A A T	P E I L D A W A R A Y D Q I A D A F A E L Y K Q A G W H G		
UniRef90_A6UK43	D A V T	D D I I S A W A Q A Y G N L A D I L A S A E R P G G W T G		
UniRef90_K7A9V9	D A F T	P D V E Q A W T E A Y G A L A N I		
UniRef90_Q2MCN9	Q H K T	K T L E E A F G A F L G T V A A A		
UniRef90_H2ZPV1	L P S N S	S T L Q A W V K A Y G V M R N G I V A A M E		
UniRef90_H9JFD7	D R Y T	P N V E N I Y K I T I K F I L E T L I E G Y E K A G		
UniRef90_I0H8W0	D A V T	P E V A A A W D E V Y W L M A Y A L I H Q E R		
UniRef90_D2AQM5	G A W L	P A Y D E A W M T A Y N Y I A E V M I Q A		
UniRef90_Q9U6L2		A A Y E K L F S I I C T L L R S S Y D E		
UniRef90_A0A059MV11	E A V T	P E V A A A W D E L Y W L M A N T L I K L Y K A A G		
UniRef90_E7FIH2	S S F N A	E A R Q A W K N G M R A L V T G I T K N L K N A		
UniRef90_UPI0001CBB478	H S W N	P D V E S A W A Q L F K Y I S Y M M K K G M		
UniRef90_W7D677	D A A T	P E I L D A W G A A Y S I I A N I F I E V E Q E		
UniRef90_UPI00047DF566	D A A T	E D I L Q A W A A A Y G V I A N V F I E V Y K Q G G W A G		
UniRef90_E8WCH9	T A W N	D E V A A A W T Q A Y T V A A Q V M		
UniRef90_V6I8G9	E E F T	P K L K G L W T D I Y Q I V A K T A I E G S K Q		
UniRef90_A0A024YLN8	D A W T	P Q A E K A W T E A Y Q L I A D A M L A G		
UniRef90_O80405	E K W S	E E L S T A W E V A Y E G L A S A I K K A M		
UniRef90_M5TCL4	E G A T	D E I I E A V A E A Y G F L A D I F E A I Y H E G G W T G		
UniRef90_Q17155	K Y Y N R	E T A N A W K Q L V G V V Q A A L T		
UniRef90_P41261	N H M V	G G A K D A W E V F V G F I C K T L G D Y M K E L		
UniRef90_P56692	K T F R	P K E H A A A Y K F F R L V A E A L S S N Y		
UniRef90_P02215	G G A S G D	V K G A W D A L L A Y L		
UniRef90_R4TIK9	D D W T	P E V E D A W V T A Y G V I S K S M R E A A K E V G		
UniRef90_K1QVD6	E F S D	N L Q H S		
UniRef90_UPI00040BC6A2	E A A T	D E V I T A W E E A Y N V I A D V F K E M Y Q E A G W E G		
UniRef90_W7E6F8	E G A T	D E L I D A W G K A Y E Q L A N L L I E		
UniRef90_T0RU19	D E W T	P E L K S Q W T Q A Y T F I A E T M L E G		
UniRef90_I2G908	S M D K	D E V A F A W T K L M D A I A S N L S R G		
UniRef90_C1EC08	D A F T	P Q V K E A W T I V Y E A V A V T M K		
UniRef90_A0A058ZPU3	D A F T	P E L K E A W V G A Y T T L S G V M		
UniRef90_UPI0002B4B1EC	K D L D	L T L E S A W D S L F Q F I M D I L K Y G I R		
UniRef90_M8E6D5	D A A T	D E I I N A W A E A Y G V I A D A F I S V Y R E A G W R		
UniRef90_UPI00031999E4	D D F T	R E T R D A W V E L I H F V A D T M K A E M		
UniRef90_UPI000347738D	A A A T	D E I I A W G E A Y Q A L A D L I A A E A Q L G W R G		
UniRef90_UPI00036B765A	E A A T	P E L L E A W T V A Y T Q L A G L M S G R E Q Q I G W S G		
UniRef90_UPI00036A9B9D	D A V T	P E V A A A W D E V Y W L M A N A L I A		
UniRef90_Q5AX11	D A L T	P L L E A W A A Y W Q L A N I M A E L Y K S A G W T		
UniRef90_G7Y3I3	E Q W D	E D T A V G W E A V L A Y L N C A M		
UniRef90_F7EB40	D A F T	S D T R E A W S L L Y A N V V Q S M S R G		
UniRef90_UPI00037706E8	P A W T	P E V Q N A W V E A Y A R V A R T M I E A A R R A		
UniRef90_UPI000478B2A8	D A V T	E E V A A A W D E V Y W L M A N A L I E I E R R L		
UniRef90_I1YEC9	N E F S	D E V A E A W V K A Y G L L A N V L I G R E H E I G W T G		
UniRef90_U1KRK6	H Q F T	A E V E Q A W A E A Y A F L A D L F I T Q Y R Q A G W R G		
UniRef90_UPI00020E3B04	E E F T	L H I Q A S W Q		
UniRef90_A0A023D9N3	D A A T	P E I A E A W G K A Y W F L A D I L I G R E K Q I G W A G		
UniRef90_C5QR69	L D D S	H D L I K T W K K A Y Q E I A D V F I S V Y S Q M A W D G		
UniRef90_M1VB93	K H F S	E D M R K A W L D V I A Y W S S V M L E G A R E A		
UniRef90_UPI0002E92FA5	D V A T	D E V L Q A W E Q A Y G V I A K A F I D V Y E E A G W K G		
UniRef90_K7SC23	N A A T	P E I L D A W G R A Y W A L A D I L T S T Q A E G G W T G		
UniRef90_P39662	N A A T	D D I I S A W A Q A Y G N L A D V L S E L Y E R S G W K G		
UniRef90_UPI0004245EE8	D A V T	P E V A A A W D A V Y W I M A D V L I Q Y E K D L		
UniRef90_A1B2P2	D A A T	D E V L E A W G E A Y W F L A N I L I A R E R E G G W N G		
UniRef90_K6XNN0	D A A S	D E V L N A W G K A Y G Q L A E I L I N A E E Q V G W R G		
UniRef90_L8P8L0	E A V T	P E V A A A W D E V Y W L M A N A L K R L Y E E R G		
UniRef90_C5AB71	E A V D A	P T L D A W R A Y A Q L A Q I L A R L Y A Q A P W T G		
UniRef90_V9G8F0	D A A T	D E I L D A W K E A Y G V I S D A F I E M Y A Q A G W S G		
UniRef90_UPI00038C1CD5	P A F T	P A M R A A W S Q L Y G L V V A A M S R G W D G		
UniRef90_P41262	V E G S	T K N A W E D F I A Y I C R V Q G D F M K E		
UniRef90_C9Z355	D A V T	P E V G A A W E E V Y W L M A N A L A R L Y A E A G		
UniRef90_Q9RC40	D A A S	D D V L E A W R E A Y E L I A D V F K K M Y E E A G W R		
UniRef90_W7YHY6	D A A T	P E I L N A W A E A Y G I I A D A		
UniRef90_I0JTK3	D A A T	D E I I Q A W G E A Y G V I A D V F I R M Y K D V G W T G		
UniRef90_UPI0003F0E673	H H Y D	K Q T K Q S W T Q I F E F V I T R M A E G Y		
UniRef90_W3WSE3	P K M T	P E V R T A W T K A Y W L M A N M L A N R Y R E F G W R		
UniRef90_Q23761	A W G D	N V A A W T H A L D N V Y T A V		
UniRef90_A0A024YVR1	E A V T	P E V A Q A W D E V Y W L M A N A L V A		
UniRef90_G8X712	E S A T	A D L S A W T K A Y G Q L A Q L M E E M Y K K G G W K G		
UniRef90_C7YZV6	S A L T	T E I K E A W I A Y G Q L A D I F I K R Y E A A G		
UniRef90_W0ABT2	D A A T	D E I L A A W G E A Y W F L A D I L K A R A A E G G W E G		
UniRef90_A1ZE02	D A A T	P E V L G A W A E A Y G Q L A Q L L E R R Y R E V G F R G		
UniRef90_K1QT48	D V Y T	P D V R S S W R C V I D F M I E K I A E T M E E A		
UniRef90_F0YDX2	P Q L T	P E V K E A W L A V Y G I V K D T M		
UniRef90_A4BSQ2	D A L T	P E L A E S W E A Y W Q L A N L L I E R Y R Q L G W R G		
UniRef90_A0A016Q645	P T M T	T Q I R E A W T K A Y W M L A K M L A Q L Y R D F G W Q G		
UniRef90_UPI00036E555D	D A A T	P E I L D A W E A Y Y G K L A E I F K D M Y G Q A A W E G		
UniRef90_UPI0003779E48	D A V T	P E V G E A W S A V Y W L M A D V L I K H E K D L		
UniRef90_A1V0D2	D A V D A	D T L E A W R I A Y G Q L A A I L A N L Y E N A A W S G		
UniRef90_G0RFN2	P A M T	P S V Q I A W N K A Y W L L A K M L I G R E A Q L Y W Q G		
UniRef90_I3SPJ6	D K R S	E F S V A W E T A Y D E L A Y A I K K		
UniRef90_W1SD74	D A A T	D E I I D A W A E A Y N V I A D A F A E M Y D E A G W D G		
UniRef90_E5S1Z7	D R Y T	E N M A N I Y P K V F K L I L S T L V Q F C R E A		
UniRef90_R7YY07	S A H T	S E I H D A W A A Y W Q L A N L M T Q R Y K A A G W T N		
UniRef90_F6AEC5	E E I T	D E V I Q A W G V A Y G Q L A D I L L E Q V Y K E G G W R G		



UniRef90_C7MXK9	1	L	S	P	K	S	A	E	I	10	V	R	A	T	L	P	A	V	20	G	G	A	I	G	E	I	A	E	V	F	Y	R	K	M	F	T	A	H	P	E	L	L	40	
UniRef90_C4WSU4	S	L	S	P	L	Q	I	S	Q	L	R	K	D	T	S	W	S	V	A	A	Q	D	P	S	Q	I	A	S	A	F	V	I	R	L	F	K	T	A	H	N	P	E	Y	Q
UniRef90_D3D7N7		L	S	S	P	L	E	S	A	A	V	L	K	R	D	T	A	P	V	V	A	A	H	S	V	E	I	A	S	A	F	Y	R	L	F	K	T	A	H	N	P	E	Y	Q
UniRef90_UPI000382B6E6							D	A	D	A	L	K	R	E	T	W	A	Q	V	A	A	H	G	D	A	V	P	G	Y	F	Y	A	R	H	L	F	L	A	H	P	E	T	R	
UniRef90_UPI00047612D0												K	E	S	W	S	L	V	E	E	H	Q	D	K	V	I	A	G	Y	F	Y	A	R	V	F	L	S	A	H	P	E	T	R	
UniRef90_M5U5U8		L	S	E	Q	T	I	R	L	I	L	K	Q	V	T	P	A	V	A	A	N	Q	A	D	T	I	T	Y	K	F	Y	Q	R	M	F	A	G	N	P	E	V	K		
UniRef90_T1GN60		L	S	S	D	F	E	V	I	E	I	K	N	T	W	K	I	P	M	A	D	P	S	G	S	G	Q	A	L	L	L	K	F	A	E	R	Y	P	H	N	K			
UniRef90_G2TL16		L	S	S	D	F	E	V	I	E	I	K	N	T	W	K	I	P	M	A	D	P	S	G	S	G	Q	A	L	L	L	K	F	A	E	R	Y	P	H	N	K			
UniRef90_M1KHB2		L	S	D	E	K	T	I	E	I	V	K	S	T	V	P	V	L	K	T	Q	G	T	S	D	I	T	T	Y	F	Y	K	T	M	F	A	A	H	P	E	L	L		
UniRef90_UPI000478A6DA										L	V	R	Q	S	F	A	V	L	E	P	Q	H	D	Q	V	V	A	Q	F	F	Y	G	M	L	F	S	I	A	P	S	A	R		
UniRef90_N9Y857		L	D	Q	K	T	K	D	I	V	K	S	T	V	P	V	L	K	E	H	Q	G	E	E	I	T	T	T	G	F	F	Y	K	D	M	F	K	R	Y	P	E	V	K	
UniRef90_I2H241		L	S	E	E	T	R	T	I	V	K	A	T	V	P	A	L	V	E	A	K	G	V	E	I	T	T	T	T	F	Y	K	H	M	L	G	E	N	S	P	E	L	L	
UniRef90_J9ZAU4									E	A	I	K	K	S	V	D	V	L	A	P	H	G	E	T	K	V	T	T	E	Y	F	Y	N	L	F	R	K	Y	P	E	V	R		
UniRef90_W3X6Y2		L	T	P	S	Q	L	A	I	V	K	A	T	V	P	V	L	K	E	Q	Y	G	T	T	I	T	T	T	F	Y	K	N	M	I	G	A	H	P	E	L	L			
UniRef90_H2AQ54		L	S	A	E	T	R	T	I	V	K	A	T	V	P	V	L	K	E	Q	Y	G	T	T	I	T	T	T	F	Y	K	N	M	L	S	E	H	P	E	L	L			
UniRef90_E9EIN2						T	A	E	Q	I	A	I	V	K	S	T	A	P	L	K	E	S	G	G	R	A	I	T	D	A	F	Y	T	N	M	L	S	E	V	H	P	E	L	L
UniRef90_F2K5F7		L	S	R	E	E	R	A	L	I	R	S	T	V	P	V	L	L	E	S	G	G	E	A	L	L	T	T	H	F	Y	R	M	M	L	S	E	Y	P	Q	V	R	L	
UniRef90_K4RAU4		L	S	V	Q	S	A	A	T	V	R	A	T	L	P	A	V	G	A	N	L	D	A	I	I	T	T	R	F	Y	A	G	M	F	A	S	A	R	P	E	L	L		
UniRef90_F8FL46		L	S	S	Q	P	T	I	D	I	L	V	K	E	S	F	S	V	E	V	Q	H	A	E	R	A	T	T	A	Y	F	Y	G	R	L	F	A	E	N	P	E	L	L	
UniRef90_UPI00039BD3CD										L	V	K	E	S	F	S	V	E	V	Q	H	A	E	R	A	T	T	A	Y	F	Y	G	R	L	F	A	E	N	P	E	L	L		
UniRef90_M2V0F0		L	T	P	T	Q	V	Q	I	V	K	S	T	V	P	V	L	A	E	H	G	T	A	I	T	T	T	R	F	Y	H	D	M	L	E	A	N	P	E	L	L			
UniRef90_UPI000370B682		L	T	S	Q	S	S	A	E	I	V	T	A	T	L	P	A	V	Q	A	H	G	E	A	I	T	T	T	S	R	F	Y	Q	R	M	F	E	A	N	P	E	L	L	
UniRef90_A0A017S2W9	S	L	T	P	E	Q	T	A	E	I	V	K	A	T	V	P	V	K	E	H	G	N	T	I	T	T	T	V	F	Y	K	N	M	L	E	A	H	P	E	L	L			
UniRef90_C8XFI9		L	S	D	R	S	R	P	I	L	L	K	A	T	L	A	P	V	A	G	N	I	D	Q	I	A	A	R	R	F	Y	E	H	M	F	G	A	H	P	E	D	L	L	
UniRef90_K9ERN6										L	L	K	T	S	F	T	V	L	K	E	N	D	Q	S	A	F	S	D	L	F	Y	S	T	L	M	F	G	S	D	Y	P	Q	V	K
UniRef90_UPI00037EBD30		L	S	D	T	S	Y	P	V	I	V	K	A	T	L	P	V	L	G	E	N	I	Q	E	I	A	A	R	R	F	Y	A	H	M	F	G	E	H	P	E	L	L		
UniRef90_H3SBC5		L	T	P	R	T	I	E	I	V	V	K	S	T	V	P	V	L	E	A	H	G	R	Q	I	I	T	T	K	R	F	Y	A	M	M	F	E	N	P	E	L	L		
UniRef90_UPI0004284BBA		L	T	S	P	E	S	E	A	V	V	K	A	T	A	G	V	V	A	E	N	G	D	E	I	T	T	T	K	R	F	Y	A	R	M	F	E	A	R	P	E	L	L	
UniRef90_B8N5W0		L	T	P	Q	Q	I	Q	I	V	V	K	S	T	I	P	A	L	Q	D	H	G	V	A	I	T	T	T	T	L	F	Y	Q	R	L	L	Q	Q	Y	P	Q	L	K	
UniRef90_T0BM64		L	S	T	D	T	R	D	I	I	V	K	A	T	V	P	V	L	E	T	H	G	E	Q	I	S	S	I	T	K	R	F	Y	E	M	M	F	T	A	H	P	E	L	L
UniRef90_S3CB17	S	L	A	Y	A	Q	S	K	L	I	V	Q	G	T	L	P	A	L	R	E	H	G	E	Q	I	S	S	I	S	I	F	Y	A	T	M	L	N	E	H	P	E	L	L	
UniRef90_K9Y083	A	G	V	S	Q	K	T	I	E	I	V	K	S	T	A	P	V	I	K	E	H	G	K	T	I	T	T	T	R	M	Y	E	I	M	F	D	T	H	P	E	V	K		
UniRef90_UPI00047BCAEB		L	D	P	K	K	L	E	I	V	K	A	T	L	P	V	I	K	E	H	G	E	A	I	T	T	T	T	Q	F	Y	K	R	M	F	K	Q	N	H	P	E	L	L	
UniRef90_G7G771		L	S	D	K	T	I	E	I	V	K	S	T	V	P	V	L	A	Q	A	G	A	T	V	V	T	T	D	H	F	Y	K	R	L	F	S	H	N	P	E	L	L		
UniRef90_K9SG59						V	K	L	L	E	D	S	F	D	R	I	K	P	K	A	R	A	F	S	A	S	F	Y	H	N	L	F	E	M	Y	P	V	A	K					
UniRef90_N1PSX1	S	L	T	P	E	Q	V	E	I	V	R	S	T	A	P	V	L	Q	E	H	G	N	A	V	T	T	T	L	F	Y	N	T	V	L	E	E	H	P	E	M				
UniRef90_Q2SM91		L	D	S	N	T	I	A	T	I	V	K	A	T	I	P	V	E	S	G	G	V	A	I	T	E	H	F	Y	R	R	L	F	S	H	A	A	P	E	L	L			
UniRef90_A3VCL8		M	D	D	K	T	I	T	L	V	Q	E	S	F	A	K	V	E	P	L	K	A	T	A	A	E	L	F	Y	S	D	L	F	A	A	A	P	E	V	R				
UniRef90_UPI000360A237	G	L	D	A	H	T	I	K	V	I	K	S	T	V	P	V	L	E	T	E	G	V	H	I	T	K	R	F	Y	Q	T	M	F	A	A	H	P	E	L	L				
UniRef90_B0W547		L	T	E	S	G	K	Q	K	I	T	L	S	A	W	G	L	I	K	Q	D	L	D	L	H	G	R	N	I	M	L	L	I	F	R	E	H	P	D	I	Q			
UniRef90_V5YNC2		L	T	E	S	G	A	N	S	V	K	T	S	W	N	L	V	K	D	K	E	D	E	L																				
UniRef90_UPI0002DA83D1		M	N	D	E	T	I	H	L	L	E	T	S	F	A	E	V	A	A	I	R	E	P	A	A	A	L	F	Y	E	R	L	F	E	A	N	D	P	S	T	R			
UniRef90_UPI000255986B										V	Q	T	S	L	Q	K	V	L	Q	T	T	K	T	S	P	I	A	A	F	Y	A	Q	L	F	E	I	D	P	S	T	R			
UniRef90_Q6C8Y1		M	T	K	E	E	I	E	L	T	V	Q	K	L	W	S	D	L	M	S	D	P	E	S	L	I	E	Q	S	A	Y	G	T	P	T	A	L	F	Q	E	Q	F		
UniRef90_UPI00041ACC89		L	N	V	D	Q	I	L	G	L	I	K	S	T	S	W	G	L	I	V	A	K	A	Q	T	L	G	E	H	F	Y	S	E	L	F	R	I	H	P	E	Y	E		
UniRef90_E5WD91		L	D	T	K	T	I	E	I	V	K	S	T	V	P	V	L	E	K	H	G	E	D	I	T	T	T	K	T	F	Y	K	L	M	F	T	N	H	P	E	L	L		
UniRef90_UPI000255EBC8	A	L	S	P	E	H	A	E	T	I	R	A	S	L	P	A	V	G	A	N	I	Q	E	I	T	T	R	L	F	Y	S	T	M	F	S	K	H	P	E	L	L			
UniRef90_W3AE72		L	S	L	Q	T	R	S	I	I	V	K	S	T	V	P	V	L	A	E	H	G	T	A	I	T	T	T	V	F	Y	K	N	M	F	E	A	H	P	E	L	L		
UniRef90_UPI0001DE9587	S	L	R	E	A	E	K	T	V	M	L	Y	M	W	S	K	I	Y	T	Q	E	G	L	X	G	A	E	A	L	Q	M	L	F	P	S	D	P	E	L	L				
UniRef90_UPI000465C560		L	S	E	Q	T	V	A	I	V	K	A	T	V	P	V	L	N	A	H	G	L	D	I	V	N	E	M	Y	S	R	L	L	F	Q	N	P	E	I	R				
UniRef90_UPI000470FF35		L	D	D	A	T	R	S	I	V	K	A	T	V	P	V	L	E	A	H	G	V	A	I	T	T	T	T	E	M	Y	R	R	L	L	T	A	N	P	D	I	R		
UniRef90_K2HBC4		L	D	D	E	R	T	R	E	I	V	K	A	T	V	P	V	L	E	A	H	G	E	A	I	T	T	T	H	F	Y	K	R	M	L	T	E	R	P	E	L	L		
UniRef90_UPI000248C5DB		L	N	E	Q	T	I	R	I	V	Q	S	T	V	P	V	L	E	S	K	G	T	E	V	T	T	K	R	F	F	Y	E	L	L	T	E	H	P	E	L	L			
UniRef90_K9AYY9		L	T	S	E	E	K	D	I	I	Q	Q	T	V	P	V	L	Q	K	Q	G	T	E	I	T																			

		50	60	70	80
UniRef90_C7MXK9	R		D L F N R G S Q A V G E	Q Q Q A L A G S I A A F A T T L V	E Q P D
UniRef90_C4WSU4	S L	F K R L K N L S I D E L A S N	P Q F M S H A S K V	G A A L A S T I	D H L D
UniRef90_D3D7N7	R L F		N Q G N Q A N G D Q R R A L A A S V	V A Y A T Q L I	P Q A P
UniRef90_UPI000382B6E6	D L F	P V A M A A Q R D R L V K A		L G H M V S N V	D R V G
UniRef90_UPI00047612D0	D L F	P V Q M D L Q R S R L L R A		H A I V T A V I Q T L D D	P E K F D
UniRef90_M5U5U8	A F F		N Q A H Q Q S G Q Q P A A L A G A I	Y C A Y F A N I	D N L D
UniRef90_T1GN60	L K F	Q D F K D Q S L D Q Q L K T	C P K F K A H A S R I V	R T F N E A I I	N V L G
UniRef90_G2TLI6	N I F	N Q T N Q S Q G R Q Q T A L A N A V L		A A A S Y I	D H L E
UniRef90_M1KHB2	N I F	N Q T N Q K K K T Q R T A L S N A V I		A A A S N I	D R L E
UniRef90_UPI000478A6DA	E M F	P A N M Q V Q R S R L L R A		L V H I V Q M V	D R P D
UniRef90_N9Y857	N M F		D M S K Q K S G E Q P K A L A M T V L	A A A Q N I	D N L E
UniRef90_I2H241	D V F		N R T N Q K K G A Q P	T A L A T T V L A A A K N I	D L D
UniRef90_J9ZAU4	P M F	P D D M G P Q A K R L		L D S I V Y I A S N I	D N L D
UniRef90_W3X6Y2		H N I F N Q T G	Q T T G A Q P R A L A G A V F	S Y A S H V	D D L G
UniRef90_H2AQS4	N I F		N K I N Q K K G A Q P	T A L A T T V I A A A K N I	D L D
UniRef90_E9EIN2	N Y F		S L R N Q Q T G A Q Q L A L A N A V F	A Y A A Y I	D D L G
UniRef90_F2K5F7	P L F	N Q A H Q A S G D		Q P R A L A N G V L	M Y A R H I D Q L D
UniRef90_K4RAU4	R D L	F N R G N Q		A A G T Q R Q A L A G S I A A F A T Y L T D	H P D
UniRef90_F8FL46	H I F	N H		A N Q K Q G R Q Q T A L A N A V A A A Q N I	D L D
UniRef90_UPI00039BD3CD	A M F	P P A M D V		Q R D R L F G A L A R I V W S L D S	P D
UniRef90_M2V0F0	N I F	N N T H Q A T G	H Q A Q A L A G S L Y A Y A A N I		D N L G
UniRef90_UPI000370B682	N I F	N K G N Q A T G E Q P A A L A A S V V A Y A E H		L V D G G D E K S	D N L G
UniRef90_A0A017S2W9	A I F		N T T N Q V N G H Q P R A L A G A		L F A Y A S N I D N L G
UniRef90_C8XF19	D		G T F N R G N Q A E G T Q Q A A L A G S V	A T F A A A L V N T	P E
UniRef90_K9ERN6	P L F	A H T N M D E Q P K K L F A S			L V L V V E N L V K P D
UniRef90_UPI00037EBD30	D G L	F N R G N Q A D		G R Q Q Q A L A G S V A A F A G Y L V	N K P T
UniRef90_H3SBC5	N I F	N H		A N Q R Q A G R Q S Q A L A S A I Y A A A A H I	D R L E
UniRef90_UPI0004284BBA	R V F	N M A N Q V A G D Q A K A L A A S V V A Y A V H L I D			P F A P
UniRef90_B8N5W0	N I F		N T A H Q A T G E Q P A A L A H A V W	A Y A T N I E H P E	
UniRef90_T0BM64	N I F			N Q A N Q H Q G R Q Q T A L A N A V Y A A A V H I D	
UniRef90_S3CB17	N Y F		N S A N Q A N G R Q P R A L T S I I I A F A A N I S H T S		
UniRef90_K9Y083			S Q F D M A A Q A N G T Q H A K T A V Y S Y A T H I		D D L E
UniRef90_UPI00047BCAEB	N I F		N M A H Q I T G H Q P K A L A D A V		Y G A A A N I E D F S
UniRef90_G7G771	N I F		N M A N Q D T G R Q Q F A L F N A L A A Y A Q N I		D I D
UniRef90_K9SG59	P L F	A N T D M I A Q R E K L T K S			L V L V T S N L R S P D
UniRef90_N1PSX1		H N V F N Q T N Q V N N H	Q A R A L A G S		L Y A Y A S H I D D L G
UniRef90_Q2SM91	N I F	S S H Q H S G G Q Q V A L F N A			I A A Y A K H I E T P E
UniRef90_A3VCL8	P L F		K G N M N E Q G M K L M G T L A V V V N		G L H T L D
UniRef90_UPI000360A237	N I F	N H A S		Q K Q G R Q Q T A L A N A V	Y M A A L H I D R L E
UniRef90_B0W547	P Y F	D F S A D P N N T S L S E		N R A L Q A H S L N L I M A L G A L I E Y P K	
UniRef90_V5YNC2	A R F	P L F V S K N L E E I K T S A D F K T H A D K I V K A I S T Y I			N L L G
UniRef90_UPI0002DA83D1	S L F	G		G A D M K A Q G Q K L M A A L G F V V	G G L R
UniRef90_UPI000255986B	P L F	S T E N D Q Q L		K Q Q E T K F T L M L S A I V N S L T N L R D	
UniRef90_Q6C8Y1	Y T N	L M A S H A E L A S I F P S I K R Q S V A V A G V F G L A I S S L E R I E			
UniRef90_UPI00041ACC89	R L F		D S I D R S T Q A R K L T Y V I S L V V T K L D K L E		
UniRef90_E5WD91	N I F	N H A N		Q K Q G R Q Q K A L A N S V	Y A A A K Y I D N L E
UniRef90_UPI000255EBC8	A N T	F N R G N Q R S G E Q Q K A L A A S V A T F A A M L V D S S A P S			
UniRef90_W3AE72	N I F	N H A N Q K K		G R Q Q A A L A N T V	Y A A A V H I D N L E
UniRef90_UPI0001DE9587					C S R H F D
UniRef90_UPI000465C560	D M F	N Q S H		Q G L T D A Q P R A L T G A I L	A Y A S N I D N L G
UniRef90_UPI000470FF35	D L	F N M S H Q K D G E Q P R A L A L A V			L A Y A R N I D N L G
UniRef90_K2HBC4	N Y	F N M T H Q K D G K Q P R A L A N A V			Y A A A S H I D D L S
UniRef90_UPI000248C5DB	N V F	N H		T N Q K Q G R Q Q T A L A N A V Y A A A V H I D	
UniRef90_K9AYY9	N M F		N Q T N Q K R G F	Q S T A L A Q S V L A A A V N I D D L S	
UniRef90_R7TLW3	S A F	G P L R H M N K K D A G Y E D	V L R A H G I R V L S I V E Y K R H N M E		
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UniRef90_UPI000345A7DE	P L F	A H		V D P E S Q Q K K L L A S L V L	V V E N L R N G D
UniRef90_B7FYB0	Q F F	N E S N Q R A V P G L C P T T R Q S K T L G D A V V		Q Y A L N I D K L E	
UniRef90_Q9KMY3	H I F	N M T H Q K T G R Q S V A L F E A I A A Y A K H I			D N L A
UniRef90_D5UDE2	D G L	F N R G N Q A S G T Q R L A L A G S I A H F A Q A L V A T P E Q L			
UniRef90_Q6FL28	N I F		N R T N Q K I G A Q P	T A L A T T V L A A A K H I D	
UniRef90_B3GWE1	N I W	P Q F R T L Q D S A L L A S N E	L A N H C S V Y	M S G L K E I V E V M D	
UniRef90_UPI00034B7A69	P L F	E H T N M A K Q K T M L L N S			L V L V V D N L R S P D
UniRef90_P02233	G L F	S F L K D M A G V E D		S P K L Q A H A E Q V F G L V R D S A A Q L R	
UniRef90_K9YEZ7	P L F	A H V D M A K Q Q Q M L I S A			L N L V V K N L R K P N
UniRef90_B1HYZ6	N I F	N H T N Q E K		G R Q Q T A L A N T V	Y A A A V H I E N L E
UniRef90_UPI00023B2E8A	K L F	S F L K D S K V S		L E K N P K L K S H A M S N F V Q A C E S V V K V T	
UniRef90_A0A031JK19	D L F	N Q S H H G D A G S Q P R A L			T G A I L A Y A S N I D N L G
UniRef90_QORFT4	N L F	N Q G N Q A T G E Q R Q A L A A A I V A Y A G H L L A G P G S S S			
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UniRef90_UPI0003722A76	R N L	F N R G N Q A A G T Q R Q A L A G S I A A F A T R L V Q P A Q D R P Q D			
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UniRef90_W4ES07	N I F	N H A N Q A K		G R Q Q T A L A N T V	Y A A A V H I E N L E
UniRef90_G8B6P8	P F F			N E T D Q K L L R Q P R I L A F A L L N Y A K N I E	
UniRef90_UPI0003167A12	N I F			N Q A N Q K Q G K	Q Q L A L A N S I I A A A E H I E N L E
UniRef90_D3LRY7	D G V	F S R A N Q R N G E			Q A Q A L A G S I V K F A V H L L E N P G
UniRef90_W2EJ10	D L F	P V S M		A R Q R D R L V N A	L G H V V S N V D R V D
UniRef90_C7MRL2	D F F	P V T L Q A E N G R V V R A			L I R V L R L V N R P D
UniRef90_R9TZZ3	N I F		N Q T N Q K R G I	Q Q E A L A Y S V	Y A A G E N I D H L E
UniRef90_V9D8T9	N I F		N T S N Q R N G R	Q Q Q A L A G A	L Y V Y A A N I D N L E
UniRef90_U5LAU4	N I F	N H A N Q Q K		G R Q Q T A L A N T I	L A A A V Y I D N L E
UniRef90_UPI00037C46BB		V R N L F N Q S N Q G E G G R Q T K A L A Q A			I L A Y A Q N I D N L T
UniRef90_B2VWF1	N I F	N N T H Q			A T G H Q A Q A L A G A L Y A Y A A N I D
UniRef90_Q2IZ95	P L F	R D			D M A N L K R K F I S T L A V I V G S L D
UniRef90_UPI00046B07CD	N V F	N R A H Q V Q G D Q P K A L A A S V V A F A V H L I D			P D A P
UniRef90_K5W0S2	N N F	N H S K Q			Q R G D Q A E A L A R A V Y A Y A A Y I D
UniRef90_R7Z646	N I F			N I A H Q A T G A P A A L A H A V W	A Y A S N I E N L E
UniRef90_J3B4T0	N I F	N H			A N Q K Q G R Q Q T A L A N A V Y A A A L Y I D K L E
UniRef90_UPI0004142B3D	P L F			N Q A H Q A N G S Q P R A L A N G V L	M Y A R N I D R L E
UniRef90_V5YLS0	E K F	A A F R N T P		L I M L K G T P G F R S	H A S K I M G L F G A A V D A L G
UniRef90_UPI00036EF13D	A L F	G K N I R P			Q A T M L Q E A I F A V L E H L D
UniRef90_UPI000377B994					N T F N M G N Q A N G R Q K S A L A N A V L A Y A E N I E N P G

	90										100										110										120													
UniRef90_C7MXK9	T	L	P	E	T	M	L	D	R	I	A	N	K	H	A	S	L	G	V	T	R	D	Q	Y	R	I	V	H	T	H	L	F	A	A	I	A	E	V	L	G				
UniRef90_C4WSU4	K	L	E	K	L	T	N	R	I	G	A	H	K	H	A	S	K	Y	L	G	V	T	R	A	K	Q	Y	T	I	V	G	D	V	L	L	A	M	I	V	K	A			
UniRef90_D3D7N7	S	F	Q	P	V	L	E	R	I	L	A	H	K	H	A	S	R	K	F	G	T	V	A	G	H	Y	P	A	V	G	G	S	L	L	A	T	M	K	H	F	L	G		
UniRef90_UPI000382B6E6	D	E	V	P	Y	I	E	D	L	G	R	D	H	H	A	S	R	K	F	G	T	V	A	G	H	Y	P	A	V	G	G	S	L	L	A	T	M	K	H	F	L	G		
UniRef90_UPI00047612D0	E	Y																																										
UniRef90_M5U5U8	V	L	G	S	E	L	R	E	L	G	A	Q	K	H	C	S	R	K	F	G	T	V	A	G	H	Y	P	A	V	G	G	S	L	L	A	T	M	K	H	F	L	G		
UniRef90_T1GN60	A	L	H	E	I	F	S	K	V	A	A	H	K	H	H	A	S	R	K	R	G	I	S	K	A	S	Y	N	E	L	K	E	V	I	L	E	I	V	J	A	V	L	G	
UniRef90_G2TL16	T	I	L	P	I	V	S	K	Q	I	A	H	K	H	H	A	S	R	G	L	G	V	K	S	P	E	H	Y	P	I	V	G	K	F	L	L	I	A	I	K	E	V	L	G
UniRef90_M1KHB2	N	I	L	V	P	V	V	K	Q	I	S	H	K	H	H	A	S	R	S	L	G	V	K	S	P	E	H	Y	P	I	V	G	K	F	L	L	I	A	I	K	E	V	L	G
UniRef90_UPI000478A6DA	D	L	A	P	F	L	R	Q	L	G	R	D	H	H	A	S	R	K	F	G	V	V	S	K	A	S	Y	N	E	L	K	E	V	I	L	E	I	V	J	A	V	L	G	
UniRef90_N9Y857	V	L	A	P	A	V	E	R	I	G	R	D	H	H	V	D	A	A	K	V	L	K	A	E	S	H	Y	P	I	V	G	K	F	L	L	I	A	I	K	E	V	L	G	
UniRef90_i2H241	D	L	S	P	L	E	R	I	V	Q	R	I	G	Q	K	H	A	S	R	Q	L	K	P	D	Q	Y	Q	I	V	G	K	F	L	L	I	A	I	K	E	V	L	G		
UniRef90_J9ZAU4	K	L	V	P	Y	L	E	R	I	G	A	G	H	H	T	K	Y	N	T	R	P	E	H	Y	P	I	V	G	K	F	L	L	I	A	I	K	E	V	L	G				
UniRef90_W3X6Y2	R	L	R	A	L	V	E	R	I	A	H	K	H	H	V	S	A	A	K	V	L	K	A	E	S	H	Y	P	I	V	G	K	F	L	L	I	A	I	K	E	V	L	G	
UniRef90_H2AQ54	D	L	S	V	L	I	A	H	V	N	Q	I	G	H	K	H	A	S	R	Q	I	K	P	E	H	Y	P	I	V	G	K	F	L	L	I	A	I	K	E	V	L	G		
UniRef90_E9EIN2	K	L	G	E	A	V	E	R	I	V	N	K	H	H	A	S	A	L	F	I	L	K	P	E	H	Y	P	I	V	G	K	F	L	L	I	A	I	K	E	V	L	G		
UniRef90_F2K5F7	Q	L	G	D	L	V	A	K	L	V	N	K	H	H	V	A	A	L	Q	I	L	K	P	E	H	Y	P	I	V	G	K	F	L	L	I	A	I	K	E	V	L	G		
UniRef90_K4RAU4	D	R	P	D	A	M	L	A	R	I	A	H	K	H	A																													

	130	140	150
UniRef90_C7MXK9	D A V T E E V A A A W D E V Y W L M A D T L I A R Y A D A G		
UniRef90_C4WSU4	D S E P E L L D L W K S S L T S V L S I I I A A		
UniRef90_D3D7N7	D A V T P E I L A A W D E V Y W L F A C Q L A R I Y Q R A G		
UniRef90_UPI000382B6E6	D A W T P E L A A D W A E A Y G L I A T T M		
UniRef90_UPI00047612D0	E Q W S I E Y D Q A W A D A Y A V I A A R M M A G		
UniRef90_M5U5U8	D A A T D E I C A A V G E A Y G L L A D V I		
UniRef90_T1GN60	E M N D C Q K C A W E K L M E T I Y E L I S R		
UniRef90_G2TL16	D A A T E E V L Q A W A E A Y G S I A D V F I E V Y R E A G W E G		
UniRef90_M1KHB2	D G A A P E V I Q A W E K A Y G V I A D A		
UniRef90_UPI000478A6DA	D H W T D E V E R A W A E A Y T I M		
UniRef90_N9Y857	D S A T D E I E A W G Q A Y E E I A		
UniRef90_I2H241	D A A T P E I M N A W K E A Y G E I A N V F A E M Y R E Q A W P G		
UniRef90_J9ZAU4	A A W T P E L R E S W T A Y S V A S D V M F I K A A R		
UniRef90_W3X6Y2	D A V T A E V A D A W T A A Y G A L A D V M F I H R E K D I		
UniRef90_H2AQ54	D A A T P E I L Q A W A E A Y E E I A N V F K K M Y D E A A W D G		
UniRef90_E9EIN2	S A V T E E I K D A W I A A Y Q Q L A N I F I Q R Y S E E H G		
UniRef90_F2K5F7	A E I T P E V I A A W G A A Y N Q L A D L I L G A E A G		
UniRef90_K4RAU4	E A V T P E V A A W D E V Y W L M A N A L I E E S R E P G W R		
UniRef90_F8FL46	D A A T E E I L E A W K E A Y G V I A D V F A A E A G E G G W A G		
UniRef90_UPI00039BD3CD	D S W D H E I E A A W V S A Y T A A A N S M I R A		
UniRef90_M2V0F0	G A A T P E I L D A W G A A Y W Q L A N L M I S K E S Q L		
UniRef90_UPI000370B682	A A V T D E V A A W D E V Y W L L A C E L I A R Y T Q A G		
UniRef90_A0A017S2W9	D A L T P E I L D A W A A A Y W Q L A N		
UniRef90_C8XF19	D A V T H E V A A A W D E V Y W L M A Y A L I N Q E R		
UniRef90_K9ERN6	D D W T P E I S A A W T E A Y A A I T E I M L E G		
UniRef90_UPI00037EBD30	D A V T P E V A A W D E V Y W L M A N V L I N Q E R		
UniRef90_H3SBC5	D A A T D D I L E A W A E A Y G V I A D I F A A A E A E G G W E G		
UniRef90_UPI0004284BBA	D A V T P E V A A W D E V Y W L F A T Q Y L I A		
UniRef90_B8N5W0	D A A N D Q V L D A W K A A Y G E L A G L F S G L Y R Q A G W K G		
UniRef90_T0BM64	D A A T D E I L Q A W A E A Y Q V I A D A F I S V Y R E S G Q Q		
UniRef90_S3CB17	D A M T D D V R A A W T D A Y C V L A R M M A Q L Y K S F G W Q		
UniRef90_K9Y083	D A A T E E V M T A W A E A Y Q A L A G V		
UniRef90_UPI00047BCAEB	D A A T D D I M N A W A D A Y G V I A D V		
UniRef90_G7G771	E Q F T P D V E Y A W R E A Y G V L A A A L Y E K N K H G G W A G		
UniRef90_K9SG59	T A W T E E V K A A W V E A Y A A I T E L M L E G		
UniRef90_N1PSX1	D A C T P E I L D A W T A A Y W Q L A D I F I K R Y T E A G W T		
UniRef90_Q2SM91	D T F T P E I R D A W A K A Y Q F L A G V F I A K Y K Q G G W K G		
UniRef90_A3VCL8	P D F T S D V R A A W I E A Y G T L S V M K A A Y K E A		
UniRef90_UPI000360A237	E A A T P E I L D A W A K A Y G V I A D V F I E M Y Q E A G W E G		
UniRef90_B0W547	R Q S A S L P T A F N R L I E Q I A E A F E A A		
UniRef90_V5YNC2	G L T A D A E N A W N K A F E E M Y		
UniRef90_UPI0002DA83D1	A R F T P E L R K A W T E A Y D L V S T I M R E A		
UniRef90_UPI00025598B6	D D F T Q E T K K A W E D T Y G L I A S I I T E		
UniRef90_Q6C8Y1	D R F T L E V E T A W I K I Y S Y L A H K L		
UniRef90_UPI00041ACC89	A Q W N T A L A E A W E Q V L Y Q V A D A M K E H L K		
UniRef90_E5WD91	E A A T E E I D A W T K A Y G V I A D A		
UniRef90_UPI000255EBC8	D A V T P E V A E A W D R V Y W I M A D V L V S		
UniRef90_W3AE72	D A A T D D I L N A W A E A Y G V I A D A V E H K Y E E A G W		
UniRef90_UPI0001DE9587	E I F W A T A H A W D K F L S I M S R V L T E K		
UniRef90_UPI000465C560	D A A T E E V L E A W G E A Y W F L A N I L M A R		
UniRef90_UPI000470FF35	D A A T P E I L D A W G K A Y W F L A D I L I G R E K E I G W V G		
UniRef90_K2HBC4	D A V D E E V I D A W E L A Y G E I A S I E D E K Y K A S A W T G		
UniRef90_UPI000248C5DB	E A A T D E V L Q A W E T A Y G L I A D A F A E M Y A Q A G W E G		
UniRef90_K9AYY9	L E E S H P I I Q T W G K A Y G E I A D A F I Q V E K E I Y W D G		
UniRef90_R7TLW3	E K W N S T E K S W G E I I R F V T Y V M K E		
UniRef90_UPI000380C57E	D A A T D E I I G A W G E A Y G V I A Q V F I D I E K E		
UniRef90_UPI000345A7DE	D D W K P A V K Q A W V D A Y G A I T E L M		
UniRef90_B7FYB0	S A V T P E V A A W S E A V M A L G K I F I E Q Y N E A		
UniRef90_Q9KMY3	D A F T Q P V E E A W T A A Y F F L A Q V		
UniRef90_D5UDE2	D A V T P E V A A W D E V Y W L M A Y A L I H Q E R		
UniRef90_Q6FL28	D V A T P E I I T A W G E A Y D V F I S V E A K M Y K E A A W P G		
UniRef90_B3GWE1	D K L T D E I V N A Y H T L Y D V I G N L		
UniRef90_UPI00034B7A69	D G W T S D Y E A A W A G A Y D V I T D L M		
UniRef90_P02233	N N W S E L N T A W E V A Y D G L A T A I K K A M K T A		
UniRef90_K9YEZ7	D R W T A E T R Q A W T E A F D A I T K L M L D G Y		
UniRef90_B1HYZ6	D A A T D D I I N A W A E A Y G V I A D V F I Q V E E E L		
UniRef90_UPI00023B2E8A	K M W S P		
UniRef90_A0A031JK19	D A A T D E I L A A W G E A Y W F L A		



	1	10	20	30	40		
UniRef90_A6C6G4		V T A L	R E S F E L V A	P R A D Q L	A E R F Y E K L F E D Y P D L K		
UniRef90_N6W8E4	L	R Q D T V A I V	K Q T I P V L Q E S H G E T L	T R H F Y Q R M F E Q N Y P E V K			
UniRef90_S9X8F9	M	N D S Q K Q Y I	R D S S L P I L L E S S G V N L	T Q A F Y Q R M L E N Y P E V R			
UniRef90_Q7M424	A	L T E P Q K T A L	K D S W K L A G D M M K S	G A L L F G L L F K S H P E D T K			
UniRef90_F8I6Y7			V K A T V P L L A K G R A E E L	G T R F Y R H L F A E Y P E L Q			
UniRef90_W4QV28	L	N S N T I N I	K S T V P V L A E H G T A I L	T T R F Y Q M L F E N H P E L L			
UniRef90_UPI00032ABF5B	F	T E K Q E A L V	N S S W E A F K K N I P H A L	S L L F Y T L L L E K V P E S K			
UniRef90_I3EA62	L	S E K T I E I	V K S T V P V L E K H G E D I	T K H F Y A T M L K A H P E L L			
UniRef90_A4FQN9			L I R E S W A E V E P Q A D D V I	A R F F Y G M L F S L S P A T R			
UniRef90_UPI0004688A51	L	S A Q T I K V I	K S T V P V L E V H G Q A I I	T K R F Y Q N L F A A H P E L L			
UniRef90_UPI00046ED6C9	L	S K Q T R D I V	K S T A P V L A E H G T A I I	T S V F Y Q N L F A A H P E L L			
UniRef90_D7G3H0			V E T V K T S W Q K V L D R F G D I	A D S F Y S V L F A E V E P S V E			
UniRef90_P19363	G	L S G L E K N A I	L D T W G K V R G N L Q E V	G K A T F G K L F A A H P E Y Q			
UniRef90_X1ZVE5	L	K T E Q V A L L	K S S W Q Q V K R S P Y F L	G R Q I F L R V F E L N P E I K			
UniRef90_UPI0003B74153			D T A A L K R T W S A E T I G D E V	P L F F Y S H L F Y T H P E L R			
UniRef90_C3XHE5	L	D K Q T I E I V	K S T I P V L R T H G E T I	T K E F Y R L L F D E Y P Q V R			
UniRef90_UPI00047BB5FF			D I P A M R A S F S K A A A H G D Q V	P L W F Y S H L F L T H P E T R			
UniRef90_L5JQP5					Y R L F D L E P D I L L		
UniRef90_P11582	A	L S G D Q I G L V	Q S T Y G K V K G D S V G I		L Y A V F K A D P T I Q		
UniRef90_UPI00046972F1	L	D Q H T I Q V V	K S T I P L L V A A G P E L	T K H F Y Q R M F H H N P E L K			
UniRef90_UPI00037AE7B7			T A E S L A I V Q A T V G V V R E	Y G A D I T R K F Y S T L F A A H P E L T			
UniRef90_E7BQB5			T A A K A A I K D S W A G V	D L Q V A G N A F Y N Q L Q A A H P E D A Y			
UniRef90_V9XEY9	L	S S T S R S I V	E A T L P V V G A E I G T I	S R V F Y N R L F R A V P S L R			
UniRef90_H2T5Q8					G C F L L F R F F V N F P S A K		
UniRef90_A0A031MJ73						L M F E R Y P E V K	
UniRef90_K7LKG1	A	L S Q Q S K D I I	A A T L P V V R E H A A T I	T A V F Y P L M F E R Y P E V K			
UniRef90_F9DTV8	F	T E K Q E A L V	N S S F E A F K A N L P H H S	V V F F N S I L E K A P A A K			
UniRef90_Q0UPY5	L	D Q K T I H I I	K S T V P V L A E Q H G K T I	T T V F Y R N M F E A H P E L L			
UniRef90_U1EBY4	L	S P S Q V I I I	K S T V P V L A E Q H G E A I	T T A K F Y T D L L T A H P E L K			
UniRef90_A6CW45	L	T Q K E I S I I	K D T V P L L K E E G Q T I	T S K F Y K R L F E T H P E L K			
UniRef90_C1E0S6	L	N N N H I I	K L V S E S W K D I A V T I E G F	G E L L F K S L F R H D W D L			
UniRef90_B0WEP6							
UniRef90_A0A019TT11	G	L T N H Q K A A L	V G A W S L V K Q D M V S H	G V N V F I R L F E E H P K Y L			
UniRef90_R7Y0P2	L	T E Q E K D I I	K Q T V P L K E K G T E I	T S I F Y P K M F K A H P E L L			
UniRef90_Q6WKX1	L	S T Q S A T V V	K A T L P V I G A A I G D I	T P V F Y Q R M F A A H P E L E			
UniRef90_L2TRW9	G	F S E E Q E A L V	K E A W E L M K P N V Q E L	G L K M F F L S W A D V A G G A			
UniRef90_UPI00035FABE6							
UniRef90_L0W7Z5							
UniRef90_A0JSP7							
UniRef90_X2GRE8							
UniRef90_Y5NZL8							
UniRef90_G0NBS4							
UniRef90_Q8T7J9	S	F S A A Q V D T V	R S N W C S M T A D I D A A G	Y R I F E L L F Q R N P D Y Q			
UniRef90_G7K1Y9	S	F T E K Q E A L V	N S S W E S L K Q N P G Y S	V L F Y T I I F E K A P A T K			
UniRef90_P23216	L	T A D Q V A A L	K A S W P E V S A G G A Q L	G L E M F T K Y F H E N P Q M M			
UniRef90_Q9I0H4	L	S N A Q R A L I	K A T V P L V E T S G G E A L	I T H F Y R T M L G E Y P E V R			
UniRef90_UPI0003FF27C9	L	S E K S R P I I	E A T L P L V G S R L G A I	T P N F Y S R L F A A H P E L L			
UniRef90_V5YMG1	S	V D A G E A A L I	K S T W N Q V K T N E V D I		L Y A L F S A Y P D I Q		
UniRef90_M2XD60	L	S E S A R P I I	E A T A P V I A E R L P D I	A P K F Y Q S M F E A E P Q L I			
UniRef90_W7YVL1	L	G Q E T I K T I	K A T A P V L A E H G L A I	T T H F Y T L L L E Q H P E L W			
UniRef90_UPI00037CAF05							
UniRef90_I6ZHS6							
UniRef90_UPI00047ADCB	L	C A E K R A L I	K A T V P L L E S G G E A L	T A H F Y R L M L S E H P E V R			
UniRef90_I2GZK4	L	S E K S L P I I	E A T L P I V G E R M P G I	A K D F Y R R L F E A H P E L L			
UniRef90_A7ICZ3	L	P E Q V R T I I	K A T V P V L S T D R D A A A	L K T F Y K N M L N D H N E L R			
UniRef90_A0A059IUM5							
UniRef90_E2AF92	L	T E E T L A I I	E A T A P A V A A H V D Q I V	P C M Y R R L L A D P E I R			
UniRef90_G4ZN81	F	S A E E Y A L I	K K A V S G I E I N P Q F H	G N A C L R S F C E I Y P Q Y V			
UniRef90_G5EF00	M	S A N T I A I L	K A T A P V V K E H G T E I	T S N M Y R I M F S E F P E V Q			
UniRef90_UPI00047DE9BF	L	T P I D R E I L	N K S W G I V S K D M Q Q V	A V N I F Q M T F E Q A P D A K			
UniRef90_S7X5W1							
UniRef90_D9T2U6							
UniRef90_Q25217							
UniRef90_R7U3L1	G	L S A D E A N L	K S S W D H V K H N E A D I		L Y A V F K A Y P D I Q		
UniRef90_UPI00037DED22	G	L T K A Q I A A I	Q N N W A R I S N N L Q D F	G D T L F M R Y L T I Y P G D L			
UniRef90_X7EAF4	L	S Q K Q I Q L V	K Q T W I F L R E D P A I L	G D V F Y G Q L F I K Y P S L R			
UniRef90_W5XXL5	L	S P Q H I I	K A T I P L L A S A G P A I	T E Y F Y K R M F T H N P E L Q			
UniRef90_S3B1Y0	L	S Q K S A E T V	R A T L P A V A E A I D T V	T D L F Y R R L F A A H P E L E			
UniRef90_W9ADN1	L	D Q K T M D I	K S T V P V L A E H G E S I	T K H F Y S R L L E D H S E L K			
UniRef90_UPI00046EF76E							
UniRef90_UPI00035F1C6F							
UniRef90_UPI00040E3AFA							
UniRef90_H7F3M2	L	S T Q S K E I V	K A S A P L L Q E H G E K V	T Q T F Y H N L F Q A H P E L L			
UniRef90_C5DJ02	L	S E Q T R N I V	K A T V P V L E E H G T T I	T T V F Y R N M L S E H K E L L			
UniRef90_Q1QCV6							
UniRef90_M3A177							
UniRef90_A0A014M4M2	L	S L E S A A V I	R A T L P V V S E A L D E I	T A R F Y G T M F A E Q P E L L			
UniRef90_B2T8C8	L	S A E H R A I V	K A T V P L L E S G G E A L	T T H F Y D M L I S E Y P E V R			
UniRef90_L8MJ23	L	S S Q V R A I V	K S T V P L L E T G G E A L	T T H F Y K L M L S E Y P E V R			
UniRef90_UPI000464E2AB	M	N E Q Q K A L V	R A T V P V L R S S G V A L	T S H F Y R M F T H N P E L K			
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UniRef90_S5Z527	A	L H P K T I E I	V K S T V P V L E Q H G E Q I	T K R F Y Q L M F S N H P E L L			
UniRef90_B4K5Q6	M	N S D E L A M I	K K T W E I P V I A T P T D S	G A A I L T A F F N R F P S A L			
UniRef90_W0RNE9	M	T P E H A Q L V	R S T W P A V A A D V D A L	A S R F Y R H L F E L D			
UniRef90_W5WN66							
UniRef90_V6KZR8							
UniRef90_A1UBD9	L	D P Q H A E I	T A T L P V G A H I D E I	T T V F Y S R M F A A R P E L L			
UniRef90_F1YMN1	L	S S D T K L V I	E A T L P V V S A L P E I T	P R F Y D R M F T A R P E L L			
UniRef90_K4Z6M5	L	Q P R T I E I V	K S T V P V L A E H G P Q I	T A R F Y Q L M F S N H P E L L			
UniRef90_B2L5R1							
UniRef90_T1EP07	L	T E G E I Y N F	E K I W K H V Q K N L P E I	T T L F Y K D M M D T H P E L S			
UniRef90_N4VA48	G	L T Q E Q I D I V	K S T A P V L K V H G E T I	T T L F Y K D M M D T H P E L K			

UniRef90\_A6C6G4 R Y F T H T D 50 F S E Q R G K L I Q A L V L V L K S L E S P P  
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UniRef90\_S9X8F9 P Y F N K A H Q I S N P A H Q K A G T Q Q R A L A G A I C A Y A Q H I D N P A  
UniRef90\_Q7M424 K H F K H F D D A T F A T M D T G V G K A H G M A V F T G L G A F V S S I D  
UniRef90\_F8I6Y7 N V F N H A H Q A T L Q K Q K Q Q Q A L A S T V Y A A A Q Y I D N L T E R  
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UniRef90\_R7U3L1 D V F N M T H Q K T G R Q P A A L F N A I A A Y A T H I D N L E  
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UniRef90\_W5XXL5 R H L F N R G N Q A S G T Q R R A L A G S I A A F A T A L V T P G A Q  
UniRef90\_S3B1Y0 N V F N Q T N Q R K G D Q P K A L A N T V Y A A A N I D R L E  
UniRef90\_W9ADN1 R D L F N R G N Q A Q G E Q Q K A L A G A I A A Y A S L L V S E D A P  
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UniRef90\_UPI00035F1C6F N I F N E T H Q K K G K Q P M A L A N T L Y A A A V N I E R L E  
UniRef90\_UPI00040E3AFA N I F N E T H Q K K G K Q P M A L A N T L Y A A A V N I E R L E  
UniRef90\_H7F3M2 N I F N K T N Q S R G L Q P T A L A T T V L A A A K H I D N L E  
UniRef90\_C5DJ02 D L F P P A M D A Q R D R L F K A L L T A A R H A D D P A  
UniRef90\_Q1QCV6 D G L F N R G N Q A S G E Q R K A L A G S I A A F A Q A L L A A D P D  
UniRef90\_M3A177 P M F N L A N Q A S G A Q Q R A L A N G V L M Y A R H I D Q L E  
UniRef90\_A0A014M4M2 P L F N Q A H Q A S G D Q Q A R A L A N G V L M Y A R H I D Q L E  
UniRef90\_B2T8C8 N V F N Q G H Q N S G R Q Q E A L A G A V L A Y A E N I D D P S  
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UniRef90\_B4K5Q6 E L F P A S M D S Q R D R L F R A L T A A R L I D E P E  
UniRef90\_W0RNE9 R N L F N R G N Q A Q G A Q Q R A L A A S I A T Y A T H L V P N L P  
UniRef90\_F1YMN1 R D L F N R T N Q A T G G Q P Q V L A G A V A A F A R L Q L E P D A E  
UniRef90\_K4Z6M5 N V F N H A N Q R Q G K Q S M A L A N A V Y A A A A N I D  
UniRef90\_B2L5R1 T Y F P D F D F S E H S K H I L A H G K K V S D A L N E A C H L D  
UniRef90\_T1EP07 E K F D K F R G M K G E A L L E S V A L D V H G M V M N T M D E M S H M D  
UniRef90\_N4VA48 N V F S L R N Q A S G E Q P R A L A N S V L A Y A T Y I D D L P

	90	100	110	120																																							
UniRef90_A6C6G4	A	L	T	K	V	L	H	Q	L	G	K	E	H	G	E	M	G	I	Q	D	D	D	Y	P	P	V	T	D	T	L	L	L	R	V	L	A	E	F	A	E			
UniRef90_N6W8E4	A	L	T	G	D	A	V	E	F	Q	L	A	Q	K	H	V	S	L	G	I	R	K	A	E	H	Y	P	I	V	G	E	N	L	L	A	S	L	M	R	E	V	L	G
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UniRef90_Q7M424	D	D	A	C	L	A	K	K	T	L	S	R	N	H	T	A	R	G	I	T	A	D	D	F	K	L	L	G	Q	V	F	K	T	F	L	D	E	A	T	G			
UniRef90_F8I6Y7	Y	L	R	D	A	V	Q	T	L	A	H	K	H	R	S	L	E	V	I	K	P	A	D	H	Y	P	I	V	G	R	V	L	L	Q	T	F	L	A	E	S	L	G	
UniRef90_W4QV28	A	I	L	R	D	A	V	Q	T	L	A	H	K	H	R	S	L	E	V	I	K	P	A	D	H	Y	P	I	V	G	R	V	L	L	Q	T	F	L	A	E	S	L	G
UniRef90_UPI00032ABF5B	A	D	D	V	T	L	E	Y	L	G	S	V	H	V	Q	K	G	V	I	D	H	E	F	L	V	F	K	E	A	M	L	K	T	I	K	K	A	M	D				
UniRef90_I3EA62	K	I	L	P	D	V	K	L	A	H	K	H	R	S	L	E	V	I	K	P	A	D	H	Y	P	I	V	G	K	Y	L	L	A	A	S	I	K	K	A	M	D		
UniRef90_A4FQN9	D	L	L	P	D	V	K	L	A	H	K	H	R	S	L	E	V	I	K	P	A	D	H	Y	P	I	V	G	T	A	L	L	A	A	S	I	K	K	H	A	G		
UniRef90_UPI0004688A51	K	I	L	P	D	V	K	L	A	H	K	H	R	S	L	E	V	I	K	P	A	D	H	Y	P	I	V	G	F	L	L	M	A	I	K	D	V	L	G				
UniRef90_UPI00046ED6C9	N	I	L	P	D	V	K	L	A	H	K	H	R	S	L	E	V	I	K	P	A	D	H	Y	P	I	V	G	F	L	L	M	A	I	K	D	V	L	G				
UniRef90_D7G3H0	N	L	Q	E	L	V	P	D	L	L	Q	L	G	H	N	A	Y	K	V	R	K	E	H	F	P	V	V	G	E	A	L	L	A	T	L	G	L	V	L	G			
UniRef90_P19363	Q	F	V	Y	M	I	K	E	L	G	L	D	H	I	N	R	G	T	D	R										S	F	V	E	Y	L	K	E	S	L	G			
UniRef90_X1ZVE5	S	L	K	T	V	L	A	P	L	G	G	T	H	Q	S	V	E	G	F	N	K	N	N	L	E	I	F	L	K	A	M	L	L	V	L	R	Q	E	F	K			
UniRef90_UPI0003B74153	E	V	T	A	F	I	Q	Q	L	G	R	D	H	R	R	F	Q	V	I	A	E	H	Y	D	A	V	G	L	S	L	L	T	T	L	K	H	F	L	Q				
UniRef90_C3XHE5	T	I	H	S	Q	I	E	S	I	G	K	T	H	V	R	L	N	V	K	K	A	E	H	Y	P	I	V	G	A	C	L	L	K	A	I	E	N	V	L	Q			
UniRef90_UPI00047BB5FF	A	L	V	P	I	L	Q	S	I	G	R	D	H	R	K	F	G	A	L	A	A	H	Y	P	A	V	G	A	S	L	L	A	T	L	E	H	F	D	G				
UniRef90_L5JQP5	D	L	S	S	L	E	E	Y	L	A	G	Q	G	R	K	H	R	A	V	G	V	K	S	F	S	A	V	G	E	S	L	L	Y	M	L	E							

	130	140	150
UniRef90_A6C6G4	D Q W S E E L E E T W R Q A L K A V S T T M I E G		
UniRef90_N6W8E4	E A A T D D I I D A W A E A Y G V L A D I F I Q R E G E V G W Q G		
UniRef90_S9X8F9	E D V T P E F L E A W T I A Y G N L A K I L A E K Y Q S Q P W N G		
UniRef90_Q7M424	K K A T N E H K A A W D A L L T M L I K A		
UniRef90_F8I6Y7	P A A T P D T I T A W A T A Y E F I A D V		
UniRef90_W4QV28	D A A T D D I I N A W G D A Y G V I A D V F I S V E K E		
UniRef90_UPI00032ABF5B	D K W S E E L S C A W S I P Y D E L A A S I K K A M G W		
UniRef90_I3EA62	D A A T D E I I Q A W T E A Y G V L A D T F K E M Y E E A G W R		
UniRef90_A4FQN9	P A W T E S V E R A W A E A Y T V M		
UniRef90_UPI0004688A51	D A A T E E I I Q A W A E A Y G V I A Q V F I D V E K E		
UniRef90_UPI00046ED6C9	D A A T D D I I Q A W E E A Y G V I A D A		
UniRef90_D7G3H0	N E F T D E F V K Q S W A A V Y N L L S N I M I S		
UniRef90_P19363	D S V D E F T V Q S F G E V I V N F L N E G L R Q A		
UniRef90_X1ZVE5	S A L D V E V E V A W R K L L E F I V Y Q I H I G Y R S A		
UniRef90_UPI0003B74153	D Q W T P E L A S D W A A A Y G V I A T V M V Q A A E E A S W E G		
UniRef90_C3XHE5	E N A T K E I I Q A W E K A Y Q E I A N		
UniRef90_UPI00047BB5FF	D D W D D E L A A S W T E A Y G V I A D V M		
UniRef90_L5JQP5	P A F T P A V R A A W S Q L Y G A V V Q A V S R G W D G		
UniRef90_P11582	D Y T A A V E A A W G A T F D A F F G A V F A K M		
UniRef90_UPI00046972F1	D A V T P E V L G A W E K A Y G V L A N I F A Q I Y K Q G G W S G		
UniRef90_UPI00037AE7B7	E A A T P E I L A A W D E A Y W L L A C E L V A R E A		
UniRef90_E7BQB5	G K F T P A A K D G W T A L Y G L I S D G I C A		
UniRef90_V9XEY9	D A I T P Q V A V A W H E V Y T L M A N S L V E Q Y R R A G		
UniRef90_H2T5Q8			
UniRef90_A0A031MJ73	E A A S D A V L G A W G E A Y G Q L A D I L E Q R Y Q Q G G W R G		
UniRef90_K7LKG1	D K W S E E L S N A W E V A Y D		
UniRef90_F9DTV8	D A A T S E I I D A W A A A Y G V I A D A L E A K M A D G G W R G		
UniRef90_Q0UPY5	A A A T G E V L D A W G A A Y W Q L A D I M I A K Y K S T G W D G		
UniRef90_U1EBY4	L T D D S E V I Q T W G K A Y Q A I A D A F I E V Y S N M A W D G		
UniRef90_A6CW45	D A F T K E V E E A W T E A Y L F L A Q I F I D R E E E L G W R G		
UniRef90_C1E0S6	R G W T R E L G D A W T E T W A T V A A T M K		
UniRef90_B0WEP6			
UniRef90_A0A019TT11	L E E H D P V I Q A W A K A Y G V I A D V F I Q I E K E I		
UniRef90_R7Y0P2	D A V T P D V A S A W D E V Y W H M A G A L		
UniRef90_Q6WKX1	E K W S E E M G A A W A E A Y D K L A A		
UniRef90_L2TRW9	E A V T P E V A A A W D E V Y W L M A E T L I S M Y R A A G		
UniRef90_UPI00035FABE6	D A V I P E I A D A W G G L Y W E F A D R L M E A Y Q R L G W R G		
UniRef90_L0W7Z5	E A A T P A I I D A W A A A Y G V L A D I F I N R E Q Q I G W S G		
UniRef90_A0JSP7	E V I T P E I A E A W T E V Y W L M A D A L		
UniRef90_X2GRE8	D A A T D E I I E A W G K A Y G V I A D I F I S V Y K A A G W R		
UniRef90_Y5NZL8	L E D S H P I I Q T W K K A Y Q E I A D V		
UniRef90_G0NBS4	E M S F A E L D S A W R E V L R F I I D R M K V G Y S E S G		
UniRef90_Q8T7J9	K S G G S F D R A T W E A L F E S V A N G I		
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UniRef90_Q9I0H4	E Q I T D E V L E A W G A A Y Q Q L A D L L A S A Q A D G G W R G		
UniRef90_UPI0003FF27C9	D V I T A E I A A A W T E V Y W L M A N A L		
UniRef90_V5YMG1	F D A A T E T A W N D A F D Q M F G Y I L A K Y		
UniRef90_M2XD60	D A L T P E I A A A W T E V Y W L M A D A L		
UniRef90_W7YVL1	E D A T D S I L T A W E E A Y S V I A K L F I E T Y A E A G W Q		
UniRef90_UPI00037CAF05	D A A T P E I V G A W E Q A Y W E L A R I L A E K Y Q E G G W T		
UniRef90_I6ZHS6	S E V T D E V I A W A A A Y Q Q L A D I L I S A T E E A G W R G		
UniRef90_UPI00047ADCB A	D V I T E D I A G A W S E V Y W L M A H A L		
UniRef90_I2GZK4	P A A T P Q I I D A W T K A Y G E I A N V F K Q M Y K E A M W P G		
UniRef90_A7ICZ3	P R F S M E L R R A W S D A Y E V V A G V M I A A		
UniRef90_A0A059IUM5	E A A T P K V L A A W G E A Y W F L A D T L I A R E E Q I G W R G		
UniRef90_E2AF92	T Q M T A Q Q E A M S K F M D S V I K E L F V K M E		
UniRef90_G4ZN81	D A A T D E I I D A W K E A Y W F L A D L L I Q A E D N L G W A G		
UniRef90_G5EF00	F H K R N E M S F A W R E V L R F I I D R M K V G Y S E S G		
UniRef90_UPI00047DE9BF	D A A T D E I L D A W A D A Y G A I A D V F S E L Y K A A G W A G		
UniRef90_S7X5W1	E A A S L E I L E A W E I A Y N Q L A D L M A G I Y K D G G W T G		
UniRef90_D9T2U6	D G W N L E Y D Q A W R E A Y A G L S E R M L A G		
UniRef90_Q25217	W G D N V A A A W N H A L D N T Y A V V		
UniRef90_R7U3L1	S A A S G P T A D A W R V A V A N L M P A M R E E F		
UniRef90_UPI00037DED22	N D W N D D V K R A W K A C Y D A I T P S M L E		
UniRef90_X7EAF4	D A F T K D V E E A W V A A Y G Q L A D I		
UniRef90_W5XXL5	A D V T P D V A E A W D A V Y W L M A D V L		
UniRef90_S3B1Y0	D A A T E D V V A A W D E V Y W L M A Q A L T A A Y A E R G L A		
UniRef90_W9ADN1	D A A T D D I I E A W A K A Y G V I A D V F I S V E K E		
UniRef90_UPI00046EF76E	E A A T P E V V D A W T E V Y W D M A N T L I A A E R E L		
UniRef90_UPI00035F1C6F	A V W N D E V E G A W V R A Y T A I S Q I M		
UniRef90_UPI00040E3AFA	E S P Q E E V I Q A W A E A Y G I I A N V E K E M Y E E A G W S G		
UniRef90_H7F3M2	D G A T A Q I M E A W E K T Y S E I A Q V F A E M Y Q A E N W K G		
UniRef90_C5DJ02	D A A T E D I I N A W A E A Y G A I A D V E A D L Y R K A A W S G		
UniRef90_Q1QCV6	D A A T D D I I T A W A E A Y D E I A S I I E H G Y E Q A M W Q G		
UniRef90_M3A177	R T W S P A A E A A W V R V Y T V V S Q T M I D A A A E		
UniRef90_A0A014M4M2	D A V T A E V A S A W D E V Y W L M A G A L I A Q Y Q E A		
UniRef90_B2T8C8	A E I T D A V I E A W A A A Y Q Q L A D L L S E K M R E A G W R G		
UniRef90_L8MJ23	E E I T D E V I A W A E A Y N L L A G L L I G A E E E V G W R G		
UniRef90_UPI000464E2AB	D A A T P E L I D A W S A A Y D L F I N I E S D L Y Q Q A G W T G		
UniRef90_G2IXZ0	E A A S D E L L E A W R L A Y G Q L A D L L I G A E Q Q L G W S G		
UniRef90_S5Z527	D A A T D E V M A W A E A Y E A I A S V		
UniRef90_B4K5Q6	N L D D S Q Q E T W T K L V D H V Y S I I F K S I N E E G		
UniRef90_W0RNE9	T A F T P E V H D A W A E A Y T L V A S V M R R A		
UniRef90_W5WN66	K A W T T Q V E R A W A E A Y T I M A R S M Q E A		
UniRef90_V6KZR8	D T W N D E A E A A W V R A Y T A I S Q T M I D A A A E		
UniRef90_A1UBD9	A D V T A P V A E A W D A V Y W M M A R T L R H L Y A E A G		
UniRef90_F1YMN1	D A V T P E V A A A W D E L Y W E M A D V L A E L Y R A A G		
UniRef90_K4Z6M5	D A A T D D I I Q A W A E A Y G V I A D V F A D M Y K E A G W S		
UniRef90_B2L5R1			
UniRef90_T1EP07	G I N Q N A L K L T R K V I R F I I T G I T K G F K D		
UniRef90_N4VA48	D A L T P E I		



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UniRef90\_Q5DGY4  
UniRef90\_S6B7W3  
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UniRef90\_G8C1Y5  
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UniRef90\_A7C3E4  
UniRef90\_T1GF38  
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UniRef90\_A7RY39  
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UniRef90\_G8B7N6  
UniRef90\_S9SWB7  
UniRef90\_K0KNH3  
UniRef90\_R7UCZ3  
UniRef90\_U4T4Y7

	90	100	110	120
UniRef90_X7XP18	Q Y D S V L A D R I	A H K H A S L G I V	A E Q Y P I V V Y E H L F A A I A E V L G	G
UniRef90_B5WH75	A L G P L K L M T R I	V S K H H V A R Y Q V P Q I G L I S S V S G D Q L L W G A I E S V L G	K	
UniRef90_Q5DGY4	D I E L L A T V T E R I	L A N A E D H K N R G V T K D Q F T E F R T A I T E G Y F C H V L G	K	
UniRef90_S6B7W3	N I E T L V T V K L	A E D H K N R G V T K D Q F T E F R T A I T E G Y F C H V L G	K	
UniRef90_UPI00035A020E	K L V P M L V K L	A E D H K N R G V T K D Q F T E F R T A I T E G Y F C H V L G	K	
UniRef90_R4XTP3	V L A P V V T R I A V H K H V S	L G I E R K T A E H Y P I V V S G K H L L A S T I R E V L G	G	
UniRef90_E1SVJ2	V L T A A V E R I A K K H T T G	F L I E P A Q Y A I V V G K S H L L A T L R R E L G	G	
UniRef90_A0A022T2H4	D I V T A L F K L G K R H A R G	L G I N R V S F E L M G E V F S K T I N E R L G	G	
UniRef90_G8C1Y5	A I D I Y M E K L G K R H A R G	L G I N R V S F E L M G E V F S K T I N E R L G	G	
UniRef90_M2T559	V L R D A V E R I A Q K H V G	L Q I L P E H Y P S V W A N S L L A A I K E V L G	G	
UniRef90_A7C3E4	A L E G A L D N I A R H H V	K T S I L P E H Y P S V W A N S L L A A I K E V L G	G	
UniRef90_T1GF38	T L H E I F E K V A V S H H K R G I	S K E S H N Q L K E V I I E T L V G V		
UniRef90_F4NCQ6	D L S V L M P A V L E Q I G H K H R	N Q V Q P A Q Y D I V G K Y L L L A I K E V L G	G	
UniRef90_A7RY39	N I Q A F S A Y L E D L G A R H N			
UniRef90_Q17156	N L R C V V D K F A V N H R R K	I S A S E E F G W I M K P I R E G V L M E R M G	G	
UniRef90_L7LC87	Q Q K F I V D R V I A H K H A S	L G V I T D A Q Q Y Q I V G H H L L F G A I V E I V L G	N	
UniRef90_S9TXC2	A L G F I V E R I A Q K H A S	F Q I T D A Q Q Y Q I V G H H L L F G A I V E I V L G	N	
UniRef90_I5CB11	Q L G G L V S Q I V N K H V A	L N I L P E H Y P I V V G G C L L R A I I R E V L G	G	
UniRef90_J2W0D0	A L V P V E R I A Q K H	G Y N I L P E H Y P I V V G G C L L R A I I R E V L G	G	
UniRef90_W6FSH9	E M R E M L H N M A R S H K P R K L T	K T H F N E F A P I L L E T F E K K V		
UniRef90_UPI000349B039	A L G E V F D T L G A R D V E Y G A L A I	H Y P A V G D A L L A T F E Q Y L Q		
UniRef90_L9PA49	Q L G P L V S T I N K H V S	L Q I Q R E H Y P M V G A S L L K A I R E V L G	G	
UniRef90_UPI00022601B5	N L G G M V E R I T N Q K H V G	L N I L P E H Y P I V V G K A L L G A I R E H V L G	G	
UniRef90_Q5YNI4	K L L P F L A Q L G R D H H R K Y G V R R E H Y A A V G A D S L L K A A V R R R C A G	G		
UniRef90_UPI0003AD3F17	A L V P L M Q Q L G R D H H R R F G I V A E H Y P H V G A S L L A T L R A H F S G			
UniRef90_D9WHF6	R P D A M L T R I A H K H A S	L G V S P A E H Y P I V V G H R H L S A A I A E V L G	G	
UniRef90_S9RC72	D L A P L F I D Q I V M K H V G	L Q I K A E H Y P I V V G N C L L A T M Q E M L G	G	
UniRef90_UPI000363B44A	A L G P L V G Q I V H K H V S	L Q I L P E H Y P I V V G Q C L L R A I R E V L G	G	
UniRef90_E0VLE5	N L D G F F I L H Q V H R K I L P G F K P D Y F L K I	E Q P F L Q A V K D T L G		
UniRef90_V5YND8	A I Q T L V S E L G N N H K S R G	V S K A Q F N E F R T A I T E Y A S T H		
UniRef90_UPI00026C6E69	P S P A A L L S R I G H K H V S	L G I T E D Q Y E I V H E H L M A I V I E V L G		
UniRef90_O96457	K F D D V W K K L A Q T H H E K K	V E R R S Y N E L K D I I E V C S C V		
UniRef90_UPI0003AAB814	A F G A Y L G A L G R D H H R K F H V L	P E Q Y I T V G R C L I A A L R E A C S		
UniRef90_S6EG67	A L E N Y L N G L G K R H A R I L G I	E V P H F E V M G V A F L K T L Q D R F G		
UniRef90_X1WTL0	N L E V L L P A V E K I A Q K H T N I	Q P E Q Y A I V G E N L A T I K E L M N		
UniRef90_D0MG72	A L Q A A I R R M V L S H A R A G V	Q A V H Y P I V V W E C L R D A I K E V L G	G	
UniRef90_C4ZL31	V L A P V I L A N K H A S	V G I R A E H Y P I V V G K L A S I R E V L G	G	
UniRef90_A0A024YR31	V L A P Y L C R L G T G H R K Y G T M P G H Y P A V G	E A L V G A L A R F A T		
UniRef90_V5YME9	A V Q S T V E A F A V R H H N R G	V T K D Q F N E F R T A F F S Y I L S S H		
UniRef90_E4NEB0	K L T G Y L A A L G R D H H R K F Q A A P E H Y A V G	A S L I J A A L K H F S G		
UniRef90_H5UE51	R Q R F I L D R I A H K H A S	L G V T A E Q Y A V V H E L F A A I V D V L G	G	
UniRef90_E5G622	G H A A L L K P L S S S H A T K H K I	P I I N F		
UniRef90_UPI000371B894	V L S T A V E R I A Q K H T G	F S I Q P E Q Y A I V G G T H L L E T I K E V L A P		
UniRef90_Q73B49	V I I P V V K Q L G H K H R S	L G I K A E H Y P I V V A N A L L P A I S K E V A G		
UniRef90_F6IGG7	A L T A P V M R M A A R H V E S	T G V K A E H Y P I V V A N A L L P A I S K E V A G		
UniRef90_N9B9T5	K L A K A V E R I T T K H V S	L N I Q P E Q Y A I V G E N L A T I K E S E V L N		
UniRef90_K9PXW7	T L T H A L G G L G T R H V	K Y G V L P E H Y P I V V G R T L L K A M A I A L D		
UniRef90_Q25216	N I Q N I V S K F G A D H N A R G	V T K A Q F G E F R T A L F A Y L Q A H V S		
UniRef90_L7LLG7	R I A H K H A S L G	I V A D Q Y P I V H E H L F A A I V D V L G	G	
UniRef90_UPI0003B75FFB	T L V P I V E R I A H K H	I G Y H I L P E H Y A Y V A R A L L G A I A E V L G	G	
UniRef90_UPI00037E05FB	R T D T Y L R Q L G R D H H K F S V	E P E H Y A V K S A L L R A L R Y Y A R		
UniRef90_R1F7K1	K L T G A L E I A H K H C G	L G V K P R H Y S I V H Q N L M E S I H V M G		
UniRef90_L1T199	N M K Q Q V S C L G L R H K H A S	K Y R V R P H H I P L M G		

		130	140	150
UniRef90_X7XP18	G A V T A D V	A K A W S E F Y W L M A D E L I A R E K A L		
UniRef90_B5WH75	P D V T D A V	I E A W G V A Y Q Q L A D T L M S A E R K A G W R G		
UniRef90_Q5DGY4	E E W S D E L	A V T W K T V L D Y L		
UniRef90_S6B7W3		W G D N V A A A F N Q A F D N V Y A T I F A R		
UniRef90_UPI00035A020E	Q D L S P E V	T Q A W T R L L T A L V G V		
UniRef90_R4XTP3	E A A T D E L	V D A W A A A Y G Q L A D M L A R L Y V E S G W T G		
UniRef90_E1SVJ2	E A V T D E L	V I E A W G K A Y G V L A Q I F A A L Y Q Q A G W Q G		
UniRef90_A0A022T2H4	Y Q Y S E E D	N N T W N K V L D T M L T Y I V L G Y		
UniRef90_G8C1Y5	E Y H T L E I	Q K A W S K L Y I Y L A N R I I A		
UniRef90_M2T559	G A A T D E I	L N A W G E A Y W F L A D I L I G R E A Q L G W R G		
UniRef90_A7C3E4	D A A T D E V	M T A W G E A Y W F L A N V L I E R E Q K L Y Q S G		
UniRef90_T1GF38	Y D L N D F Q	K G A W E K V M E S I F N V I		
UniRef90_F4NCQ6	N A A T P D I	M T A W A E A Y K A I A D I F I S V Y K D A Q W D		
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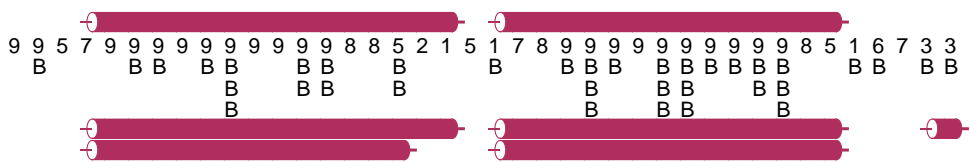
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S L S A A Q K D N V K S S W A K A S A A W G T A G P E F F M A L F D A H D D V F  
L L Q S N P L V K  
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