

QUERY	1	10	20	30	40																																											
UniRef90_E8T5U2	P	R	L	L	V	N	D	D	G	I	F	R	S	S	P	E	G	L	N	A	L	R	E	A	L	K	S	S	F	L	G	R	V	V	V	V	A	P	D	D	R	R	N	R	L	S	G	
UniRef90_D3SMY0	P	P	P	E	L	L	T	N	D	D	G	G	F	S	P	P	G	G	L	K	Q	R	A	L	R	E	E	L	K	K	F	L	G	R	V	V	V	V	A	P	D	D	S	N	R	L	S	G
UniRef90_M7MKF4	P	P	L	L	V	T	N	D	D	G	I	T	A	P	P	G	G	L	R	Q	A	L	I	E	V	M	K	K	E	L	L	G	D	V	V	V	V	A	P	D	D	S	P	Q	Q	S	G	
UniRef90_UPI00029B4CD7	P	L	L	V	T	N	D	D	G	V	H	A	K	G	G	I	R	A	L	K	Q	V	L	T	D	A	L	A	S	A	Q	I	A	E	E	V	V	V	A	P	D	D	R	R	N	R	L	S
UniRef90_E1ST03	P	L	L	V	T	N	D	D	G	V	H	A	K	G	G	I	R	A	L	K	Q	V	L	T	D	A	L	A	S	A	Q	I	A	E	E	V	V	V	A	P	D	D	S	P	Q	Q	S	G
UniRef90_I1E1A2	P	R	L	L	V	T	N	D	D	G	V	H	A	K	G	G	I	R	A	L	K	Q	V	L	T	D	A	L	A	S	A	Q	I	A	E	E	V	V	V	A	P	D	D	S	P	Q	Q	S
UniRef90_UPI0004204ABD	P	L	L	V	T	N	D	D	G	V	H	A	K	G	G	I	R	A	L	K	Q	V	L	T	D	A	L	A	S	A	Q	I	A	E	E	V	V	V	A	P	D	D	S	P	Q	Q	S	
UniRef90_C0BIB0	P	L	L	V	T	N	D	D	G	V	H	A	K	G	G	I	R	A	L	K	Q	V	L	T	D	A	L	A	S	A	Q	I	A	E	E	V	V	V	A	P	D	D	S	P	Q	Q	S	
UniRef90_D3S9U1	P	R	L	L	V	T	N	D	D	G	V	H	A	K	G	G	I	R	A	L	K	Q	V	L	T	D	A	L	A	S	A	Q	I	A	E	E	V	V	V	A	P	D	D	S	P	Q	Q	S
UniRef90_UPI00040A80C3	P	R	L	L	V	T	N	D	D	G	V	H	A	K	G	G	I	R	A	L	K	Q	V	L	T	D	A	L	A	S	A	Q	I	A	E	E	V	V	V	A	P	D	D	S	P	Q	Q	S
UniRef90_B5EMV2	P	R	F	L	L	S	N	D	D	G	V	H	A	R	G	L	R	A	L	A	S	R	A	L	T	E	C	L	G	G	E	V	V	V	V	A	P	D	D	R	R	S	G	G	G			
UniRef90_N9VL10	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_U3CB43	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_UPI00038193BF	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_UPI000379808F	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_UPI0003B6660E	P	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_Q8GDQ1	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_R9PP32	T	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_W0E1C3	I	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_A6D319	I	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_UPI000471AC54	I	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_UPI00037BCE6B	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_C7RSH4	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_J1FHJ8	P	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_T0MT05	P	P	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	S	P	Q	Q	S					
UniRef90_I3C2U0	P	P	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	S	P	Q	Q	S					
UniRef90_UPI00041E34F6	P	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	S	P	Q	Q	S						
UniRef90_G0LAE3	P	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	S	P	Q	Q	S						
UniRef90_A0A024HDQ4	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_F5T242	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_UPI00028A19D5	P	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	S	A	Q	Q	S						
UniRef90_W6LPR9	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	S	A	Q	Q	S						
UniRef90_V5PT25	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_UPI000474FBB0	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_V4J CZ6	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_UPI00047EF625	N	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_UPI00047159BE	P	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_C9RBW7	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_K1JK59	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_UPI00046E6942	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	E	E	R	S	A						
UniRef90_UPI00036C62D6	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	K	D	R	S	A						
UniRef90_W0TRN2	R	L	L	V	T	N	D	D	G	V	H	A	R	G	L	R	R	V	L	A	E	E	L	K	Q	Q	A	S	D	I	V	V	V	A	P	D	D	R	N	R	R	S	G					
UniRef90_F7RWL8	R	L	L	V	T	N	D	D																																								

QUERY	V	G	H	S	L	T	F	T	E	50	K	M	R	K	I	D	T	D	F	Y	T	V	I	D	G	T	P	A	70	V	H	L	G	Y	R	V	I	M	80						
UniRef90_E8T5U2	V	G	R	A	S	L	T	H	R	P	L	R	I	C	Q	V	D	E	N	F	W	T	V	A	V	D	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M				
UniRef90_D3SMY0	V	G	H	A	S	L	T	F	N	S	M	L	R	I	R	R	V	D	E	N	F	W	T	V	A	V	D	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M			
UniRef90_M7MKF4	M	G	H	A	S	L	T	T	N	S	M	L	R	I	R	R	V	D	E	N	F	W	T	V	A	V	D	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M			
UniRef90_UPI00029B4CD7	M	G	H	A	S	L	T	T	T	D	T	L	R	A	Q	Q	L	L	E	N	G	F	M	A	V	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M		
UniRef90_E1ST03	A	S	N	S	L	T	T	L	T	N	P	L	R	A	Q	Q	L	L	E	N	G	F	M	A	V	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M		
UniRef90_I1E1A2	A	S	N	S	L	T	T	L	T	N	P	L	R	A	Q	Q	L	L	E	N	G	F	M	A	V	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M		
UniRef90_UPI0004204ABD	M	G	H	A	S	L	T	T	I	N	N	T	L	T	L	D	K	L	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_C0BIB0	M	G	H	A	S	L	T	T	L	V	N	S	R	H	C	H	K	L	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_D3S9U1	A	S	N	S	L	T	T	L	V	N	S	R	H	C	H	K	L	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M		
UniRef90_UPI00040A80C3	M	G	H	A	S	L	T	T	L	A	K	P	L	R	L	R	D	K	V	E	G	V	E	M	Y	K	S	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_B5EMV2	A	S	N	S	L	T	T	L	D	R	P	L	R	R	M	R	T	G	L	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M
UniRef90_N9VL10	A	S	N	S	L	T	T	L	E	V	P	L	R	R	M	S	L	M	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_U3CB43	A	S	N	S	L	T	T	L	E	N	P	L	R	R	V	D	E	L	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_UPI00038193BF	A	S	N	S	L	T	T	L	D	R	P	L	R	A	T	Q	L	C	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_UPI000379808F	A	S	N	S	L	T	T	L	R	D	P	L	R	R	V	K	Q	L	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_UPI0003B6660E	T	G	H	S	L	T	T	L	N	N	T	L	R	Y	L	N	E	L	S	D	F	K	E	L	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M		
UniRef90_Q8GDQ1	T	G	H	G	L	T	T	V	H	Q	P	L	R	V	E	K	L	P	D	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M
UniRef90_R9PP32	A	S	N	S	L	T	T	L	E	N	P	L	R	V	I	V	H	L	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_W0E1C3	A	S	N	S	L	T	T	L	D	V	P	L	R	V	R	R	R	P	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_A6D319	A	S	N	S	L	T	T	L	E	Q	P	L	R	V	I	N	K	L	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_UPI000471AC54	A	S	N	S	L	T	T	L	E	Q	P	L	R	V	I	N	K	L	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_UPI00037BCE6B	A	S	N	S	L	T	T	L	D	T	P	L	R	V	W	P	V	R	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_C7RSH4	A	S	N	S	L	T	T	L	D	R	T	L	S	L	R	R	E	A	A	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_J1FHJ8	M	G	H	A	S	L	T	I	D	G	R	T	L	S	L	R	D	E	L	G	I	E	A	Y	E	C	S	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_T0MT05	M	G	H	A	S	L	T	I	T	I	G	R	P	L	R	L	D	R	D	L	G	V	E	M	Y	K	S	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_I3C2U0	M	G	H	A	S	L	T	T	V	N	S	P	L	R	L	I	N	H	D	T	V	I	L	E	G	Y	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M
UniRef90_UPI00041E34F6	M	G	H	A	S	L	T	T	V	D	N	V	L	R	C	N	P	D	T	Q	L	E	G	Y	S	C	S	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_G0LAE3	Q	G	H	A	S	L	T	I	D	N	T	L	F	S	K	E	H	G	A	R	E	E	Y	S	C	S	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M		
UniRef90_A0A024HDQ4	A	S	S	S	L	T	T	L	D	R	P	L	H	A	Q	L	E	N	G	F	H	E	M	S	C	S	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M		
UniRef90_F5T242	A	S	N	S	L	T	T	L	E	N	P	L	R	L	E	Q	L	S	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_UPI00028A19D5	M	G	H	A	S	L	T	I	N	N	T	L	T	L	E	K	V	D	D	P	E	Y	A	C	S	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M			
UniRef90_W6LPR9	A	S	N	S	L	T	S	L	K	Q	N	P	L	Y	V	T	R	H	A	S	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M
UniRef90_V5PT25	A	S	N	S	L	T	L	K	Q	R	P	L	S	V	V	T	K	A	A	N	S	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M
UniRef90_UPI000474FBB0	A	S	N	S	L	T	L	E	S	S	L	R	T	T	F	D	Y	P	N	G	D	I	A	V	Q	M	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M				
UniRef90_V4J CZ6	A	S	N	S	L	T	L	N	P	L	R	T	T	T	T	L	D	N	G	F	H	E	M	S	C	S	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M		
UniRef90_UPI00047EF625	T	G	H	A	S	L	T	I	H	N	P	L	R	V	E	K	L	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M		
UniRef90_UPI00047159BE	K	G	H	A	S	L	T	I	G	E	P	L	R	L	Y	E	S	T	E	F	D	E	Y	E	C	S	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M		
UniRef90_C9RWB7	A	S	N	S	L	T	T	V	H	R	P	L	R	L	E	S	T	E	A	G	D	F	R	G	W	V	L	D	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_K1JK59	A	S	N	S	L	T	T	V	N	R	P	L	T	V	V	E	H	Q	D	G	D	S	L	Y	V	L	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M			
UniRef90_UPI00046E6942	T	G	H	A	S	L	T	L	H	K	P	L	R	L	E	P	V	K	D	V	E	A	Y	S	V	N	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M				
UniRef90_UPI00036C62D6	A	S	N	S	L	T	L	E	M	P	I	R	A	Y	Q	A	D	S	G	F	I	K	V	E	D	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M					
UniRef90_W0TRN2	A	S	N	S	L	T	L	E	M	P	I	R	A	H	N	T	D	S	G	F	I	R	V	E	N	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M					
UniRef90_F7RWL8	A	S	N	S	L	T	L	H	S	P	L	R	V	E	Q	L	E	N	G	F	H	E	M	S	C	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M			
UniRef90_Q0A7L4	A	S	N	S	L	T	L	D	Y	P	L	R	V	H	G	T	G	P	H	R	Y	R	V	E	N	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M					
UniRef90_G8TDR2	M	G	H	A	S	L	T	I	G	Q	P	L	R	L	A	A	V	D	G	V	E	A	Y	Q	C	S	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M		
UniRef90_Q3ADI0	T	G	H	G	L	T	T	V	H	R	P	L	R	A	F	D	I	T	F	K	N	S	K	V	R	D	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M				
UniRef90_F4L2D9	Q	G	H	A	S	L	T	L	E	Q	P	L	R	V	E	K	V	A	D	G	V	E	A	Y	E	C	S	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M	
UniRef90_D8IZW0	S	S	N	S	L	T	L	D	R	P	L	W	V	E	Q	A	A	N	G	F	H	E	M	S	C	S	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M		
UniRef90_UPI0002F791C7	A	S	N	S	L	T	L	N	R	P	L	S	V	R	Q	A	A	N	G	F	H	E	M	S	C	S	S	S	G	T	P	A	D	S	V	H	L	G	Y	R	V	I	M		
UniRef90_Q13Z72	A	S	N	S	L	T	L	S	R	P	L	S	V	L	R	A	S	N	G	F	H	E	M	S	C	S	S	S	G	T	P	A	D	S	V	H	L								

QUERY E E K K P D L V L V 90 N N E G P N L G G E D I T Y S G T V V S G A M E G R I L L G I P P
UniRef90_E8T5U2 K G Q K P D L M V V S G G I N N E R G P N L G G E D I T Y S G T V V S G A M E G R I L L G I P P
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QUERY	WT	A	A	E	E	F	G	W	H	A	E	E	G	T	D	Y	W	A	V	L	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M			
UniRef90_E8T5U2	WI	G	G	E	E	F	D	W	L	P	E	E	P	G	T	D	Y	W	A	V	K	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_D3SMY0	WI	T	A	E	E	F	G	W	L	P	E	E	P	G	T	D	Y	W	A	V	K	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_M7MKF4	WL	T	G	K	F	V	N	L	D	H	E	D	D	D	T	D	E	W	A	V	L	E	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_UPI00029B4CD7	WL	T	G	K	F	V	N	L	D	H	E	D	D	D	T	D	E	W	A	V	L	E	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_E1ST03	WL	G	P	P	G	G	E	Q	D	A	G	E	G	T	D	F	H	A	V	L	E	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_I1E1A2	WY	G	S	L	G	P	E	L	D	A	G	E	G	T	D	F	Y	A	V	L	E	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
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UniRef90_N9VL10	WI	G	P	P	G	A	R	Q	D	A	G	E	G	T	D	F	A	V	L	E	R	R	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
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UniRef90_UPI00038193BF	WV	G	P	P	G	S	E	Q	D	A	G	E	G	T	D	F	D	A	V	L	R	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_UPI000379808F	WV	G	P	P	G	L	E	A	D	A	G	E	G	T	D	F	H	A	V	L	R	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_UPI0003B6660E	WL	T	G	E	F	V	N	H	D	K	G	N	D	T	D	E	W	A	V	L	E	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_Q8GDQ1	WM	A	G	E	V	K	D	V	D	A	G	E	G	T	D	F	R	A	V	L	N	E	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_R9PP32	WL	G	P	P	G	E	K	Q	D	A	G	E	G	T	D	F	H	A	V	L	E	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_W0E1C3	WV	G	P	A	G	P	E	Q	D	A	G	E	G	T	D	F	H	A	V	L	A	R	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_A6D319	WL	G	P	P	G	K	E	Q	D	A	G	E	G	T	D	F	Y	A	V	L	E	H	G	H	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_UPI000471AC54	WL	G	P	P	G	L	E	L	D	V	G	E	D	T	D	F	Y	A	V	L	E	S	Q	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_UPI00037BCE6B	WI	G	P	P	G	D	A	E	D	V	G	A	G	T	D	F	D	A	V	L	V	R	R	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_C7RSH4	WV	G	A	A	G	E	V	N	Q	D	A	G	E	G	T	D	F	Y	A	V	L	Q	N	N	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_J1FHJ8	WMT	G	S	G	F	A	N	H	D	K	G	E	D	T	D	E	W	A	V	L	V	N	N	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_T0MT05	WM	T	G	R	F	E	L	E	D	R	G	E	D	T	D	S	Y	A	V	L	S	K	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_I3C2U0	WL	T	G	K	F	V	N	Q	D	K	G	E	D	T	D	E	W	A	V	L	S	A	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_UPI00041E34F6	WL	S	G	A	F	I	N	R	D	K	G	E	D	T	D	V	W	A	V	L	E	A	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_G0LAE3	WL	T	G	E	F	E	L	L	D	K	G	E	D	T	D	E	W	A	V	L	A	H	N	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_A0A024HDQ4	WI	A	A	A	G	D	V	E	D	G	G	E	G	T	D	F	H	A	V	L	M	R	R	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_F5T242	WI	G	P	A	G	E	E	E	D	A	G	E	G	T	D	F	D	A	V	L	E	R	R	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_UPI00028A19D5	WL	K	G	E	F	V	N	Q	D	K	G	E	D	T	D	E	W	A	V	L	Q	R	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_W6LPR9	WV	G	P	A	G	P	E	Q	D	A	G	E	G	T	D	F	H	A	V	L	R	A	R	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_V5PT25	WI	G	P	A	G	P	D	A	R	D	S	E	G	T	D	F	H	A	V	L	A	H	D	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_UPI000474FBB0	WL	G	P	P	G	E	K	H	D	V	G	P	E	D	T	D	F	A	V	L	E	Q	Q	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_V4JCZ6	WY	G	T	L	G	T	E	S	D	A	G	E	G	T	D	F	H	A	V	L	K	E	K	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_UPI00047EF625	WL	S	G	R	L	V	K	T	E	N	K	E	S	D	T	D	V	W	A	V	L	D	R	N	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_UPI00047159BE	WM	A	G	D	F	I	N	F	D	T	E	E	D	T	D	V	W	A	V	L	D	R	N	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_C9RWB7	WM	A	G	E	P	L	E	L	D	E	S	E	G	T	D	V	W	A	V	L	S	R	E	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_K1JK59	WL	G	A	A	G	K	P	A	D	A	N	E	G	T	D	F	W	A	V	L	S	H	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_UPI00046E6942	WL	T	G	E	A	I	E	T	S	Q	E	D	D	T	D	I	A	V	L	S	Q	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_UPI00036C62D6	WV	G	P	P	G	V	E	Q	D	A	G	E	G	T	D	F	Y	A	V	L	N	R	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_W0TRN2	WV	G	P	A	G	P	E	Q	D	A	G	E	G	T	D	F	H	A	V	L	R	R	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_F7RWL8	WY	G	L	V	G	P	Q	R	D	D	G	P	E	D	T	D	F	A	V	L	R	R	E	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_Q0A7L4	WL	T	G	P	P	G	S	E	E	D	A	G	E	G	T	D	F	Y	A	V	L	R	R	E	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M
UniRef90_G8TDR2	WL	T	G	E	F	V	N	F	D	K	G	E	D	T	D	V	W	A	V	L	K	N	N	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_Q3ADI0	WM	S	G	E	A	V	N	Y	E	N	G	Q	D	T	D	T	A	V	L	A	R	K	E	I	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_F4L2D9	WL	T	G	R	F	V	N	E	D	G	E	N	T	D	D	I	W	A	V	L	E	N	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_D8IZW0	WI	G	P	A	G	A	R	D	G	A	E	G	T	D	F	H	A	V	L	A	R	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M			
UniRef90_UPI0002F791C7	WI	G	P	V	G	L	V	S	D	S	A	A	D	T	D	F	G	A	V	L	E	Q	H	A	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_Q13Z72	WI	G	P	A	G	S	A	R	D	A	S	E	G	T	D	F	H	A	V	L	A	N	E	G	Y	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M	
UniRef90_X4ZD48	WI	G	P	V	G	L	A	S	D	A	S	E	G	T	D	F	H	A	V	L	A	E	G	A	V	S	V	T	P	L	H	L	L	D	L	T	N	Y	K	V	M		
UniRef90_UPI000255B2FF	WL	T	G	E	F	E	L	L	D	K	G	E	D	T	D	I	F	A	V	L	N	N	N	Y	V	S	V	T	P	L	H	L	L	D	L	T							

QUERY	K S I K Y L E D
UniRef90_E8T5U2	E E L K K V E
UniRef90_D3SMY0	R S L Q E
UniRef90_M7MKF4	T T L N T W D
UniRef90_UPI00029B4CD7	K D L N D W
UniRef90_E1ST03	A P L T Q W F N
UniRef90_I1E1A2	D R L Q T W L E
UniRef90_UPI0004204ABD	S Q L N N W
UniRef90_COBIB0	Q Q L N T W
UniRef90_D3S9U1	D T V G R W L E
UniRef90_UPI00040A80C3	Q T L N S W D
UniRef90_B5EMV2	E G L S Q W L
UniRef90_N9VL10	S N L E A W L
UniRef90_U3CB43	L S M D K W L
UniRef90_UPI00038193BF	E G L R D W L
UniRef90_UPI000379808F	D Q L S T W L N
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UniRef90_W0E1C3	E T L D Q W L D
UniRef90_A6D319	G A M E R W
UniRef90_UPI000471AC54	S Q L Q H W L E
UniRef90_UPI00037BCE6B	E Q I A G W L
UniRef90_C7RSH4	S L V R D W L
UniRef90_J1FHJ8	A T L N E W D
UniRef90_T0MT05	P E L N S W
UniRef90_I3C2U0	Q D L N T W
UniRef90_UPI00041E34F6	Q K L N S W E
UniRef90_G0LAE3	Q Q L N G W
UniRef90_A0A024HDQ4	N G L Q D W
UniRef90_F5T242	D G V A N W L
UniRef90_UPI00028A19D5	K R I N T W D
UniRef90_W6LPR9	G P L T E W L
UniRef90_V5PT25	G V V H D W L
UniRef90_UPI000474FBB0	D V V S T W L E
UniRef90_V4JCZ6	E R L A T W L
UniRef90_UPI00047EF625	K K L N N
UniRef90_UPI00047159BE	K Q L K T W
UniRef90_C9RBW7	E E L K K W
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UniRef90_UPI00036C62D6	N S I R K W L
UniRef90_W0TRN2	A S L K D W L E
UniRef90_F7RWL8	E R V Q K W L D
UniRef90_Q0A7L4	D Q V A G W
UniRef90_G8TDR2	D K L E K
UniRef90_Q3ADI0	N E L K T W
UniRef90_F4L2D9	D E L Q S L E
UniRef90_D8IZW0	A N L K K
UniRef90_UPI0002F791C7	S H L K A W A E
UniRef90_Q13Z72	P A A R D W
UniRef90_X4ZD48	D L V G Q W A N
UniRef90_UPI000255B2FF	Q T L N N W
UniRef90_UPI00042A41D6	S L L N E W
UniRef90_Q26FZ5	S E L N T W D
UniRef90_UPI0003826504	S D M K T W L D
UniRef90_A7BTE7	E N L K K W L
UniRef90_Q4QML8	L S L Q N W L E
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UniRef90_UPI000300DC64	R D V Q D W L D
UniRef90_G8X6V0	Q E L N N W K
UniRef90_Q39VS1	T T L K T W D
UniRef90_B6J4X6	D Q L A S W
UniRef90_F3KQY6	S
UniRef90_UPI00026C7D51	D Q L A S W L N
UniRef90_W5Z156	S P L R E W V E
UniRef90_R8AMZ4	D T L T E W M E
UniRef90_E4RU46	A E I K G L E D
UniRef90_K9SFM0	N P V R G W A E
UniRef90_W8F4P4	R E M Q T T W D
UniRef90_H8XQD9	Q H L N S W
UniRef90_D4H772	D Q L K D T E
UniRef90_W6EBD0	E T L K E W
UniRef90_Q5E331	G M I T D W L
UniRef90_H5SFE8	E A L H A W
UniRef90_J9ZAE6	S R L R E M E
UniRef90_E8RBW4	A Y L E R
UniRef90_W4T4W6	K T L E E
UniRef90_A5G4S8	A A L K R W D
UniRef90_F5REM6	G Q I R D W L
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UniRef90_E8N117	E S L R Q W
UniRef90_K2DUA6	E R M S D W
UniRef90_A2SF75	P A W G S W L E
UniRef90_U5QCF1	G Q L E S W D
UniRef90_UPI000375866F	V G T E Q W L N
UniRef90_UPI000463CB2E	E K L K N
UniRef90_I3Z9D8	N Q M N E W D N
UniRef90_I0GJ21	G K L K K L L
UniRef90_UPI0003A8F768	D H L G Q W L E
UniRef90_M2YFI5	A A L E S
UniRef90_UPI00036BAF67	E Q M Q Q W

	1	10	20	30	40																																										
UniRef90_U1L9J6	P	L	L	S	N	D	D	D	G	I	V	N	A	K	G	I	E	V	L	Y	H	A	L	S	Q	I	A	E	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G				
UniRef90_U3Q5F8	P	L	L	V	T	N	D	D	D	G	I	L	A	P	G	I	R	A	L	I	H	A	L	S	N	L	A	E	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G			
UniRef90_UPI0003604099	R	I	L	L	V	A	N	D	D	D	G	I	F	S	P	G	K	A	L	A	F	A	L	R	E	L	L	A	G	E	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_C3XM69	R	I	L	L	V	A	N	D	D	D	G	I	F	S	P	G	K	A	L	A	F	A	L	R	E	L	L	A	G	E	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_K2BLH4	R	I	L	L	V	A	N	D	D	D	G	I	F	S	P	G	K	A	L	A	F	A	L	R	E	L	L	A	G	E	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_UPI00047B01F5	R	V	L	L	V	S	N	D	D	D	G	I	F	S	P	G	K	A	L	A	F	A	L	R	E	L	L	A	G	E	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_D3PDR1	R	V	L	L	V	S	N	D	D	D	G	I	F	S	P	G	K	A	L	A	F	A	L	R	E	L	L	A	G	E	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_D9SF49	R	I	L	L	V	A	N	D	D	D	G	I	F	S	P	G	K	A	L	A	F	A	L	R	E	L	L	A	G	E	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_UPI0003B2E383	R	V	L	L	V	S	N	D	D	D	G	I	F	S	P	G	K	A	L	A	F	A	L	R	E	L	L	A	G	E	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_F0IHNO	P	L	L	L	T	N	D	D	D	G	I	T	A	P	G	I	K	R	T	L	A	E	A	L	R	Q	A	G	E	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G			
UniRef90_S0EXV3	R	I	L	L	V	A	N	D	D	D	G	I	Q	A	A	G	H	A	A	R	R	A	L	G	R	I	G	E	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G			
UniRef90_UPI000479E105	P	L	L	L	V	S	N	D	D	D	G	I	H	A	P	G	A	A	L	H	E	A	L	K	E	I	A	G	K	V	R	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_A1ZHC6	P	L	L	L	V	S	N	D	D	D	G	I	T	A	P	G	I	R	T	L	V	M	L	M	K	E	L	G	D	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_M7MWY8	P	L	L	L	V	S	N	D	D	D	G	I	T	A	P	G	I	R	T	L	V	M	L	M	K	E	L	G	D	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_C7PSL1	P	L	L	L	V	S	N	D	D	D	G	I	T	A	P	G	I	R	T	L	V	M	L	M	K	E	L	G	D	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_K9DE02	R	I	L	L	V	A	N	D	D	D	G	I	L	A	P	G	I	Q	A	L	A	D	A	L	S	P	I	L	A	G	D	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_S4W7I2	P	T	F	V	T	N	D	D	D	G	I	H	A	P	G	I	Y	A	L	W	D	A	L	Q	S	D	L	G	A	N	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_C5CUL9	P	L	L	L	V	S	N	D	D	D	G	I	F	S	P	G	I	Y	A	L	W	D	A	L	Q	S	D	L	G	A	N	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_D0KY77	P	L	L	L	V	S	N	D	D	D	G	I	F	S	P	G	I	Y	A	L	W	D	A	L	Q	S	D	L	G	A	N	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_G5H821	P	L	F	L	T	N	D	D	D	G	I	N	A	K	G	F	R	N	L	J	D	T	V	R	T	P	L	G	R	I	T	A	V	A	P	D	R	K	N	C	Q	S	G				
UniRef90_A1VQF4	P	L	L	L	V	S	N	D	D	D	G	I	Q	A	S	G	V	A	L	Y	E	A	L	K	T	A	D	V	E	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G			
UniRef90_B0C6V3	R	I	L	L	V	S	N	D	D	D	G	I	F	S	P	G	I	R	T	L	A	E	A	L	K	T	A	D	V	E	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_A4J5D2	R	I	L	L	V	S	N	D	D	D	G	I	Y	A	D	G	I	G	Q	L	R	K	A	M	E	T	I	A	E	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_UPI0003813D0E	P	L	L	L	V	S	N	D	D	D	G	I	H	A	P	G	I	K	L	F	N	D	E	L	N	K	H	F	T	D	V	N	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_K8GQF6	P	L	L	L	V	S	N	D	D	D	G	I	D	S	K	G	I	A	V	L	E	E	A	L	E	G	L	G	E	I	Y	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_C6HZU9	P	L	L	L	V	S	N	D	D	D	G	I	D	S	K	G	I	A	V	L	E	E	A	L	E	G	L	G	E	I	Y	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_Q1NYG1	P	L	L	L	V	S	N	D	D	D	G	I	D	S	K	G	I	A	V	L	E	E	A	L	E	G	L	G	E	I	Y	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_A0MYU9	P	L	L	L	V	S	N	D	D	D	G	I	F	A	P	G	I	R	S	L	A	N	H	L	A	D	V	G	H	E	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_C0QR53	R	V	L	L	V	S	N	D	D	D	G	I	Q	S	E	G	L	L	S	L	R	K	K	L	N	E	N	F	E	V	I	T	V	T	P	D	R	K	N	C	Q	S	G				
UniRef90_K9YRJ6	R	I	L	L	V	S	N	D	D	D	G	I	F	A	P	G	I	R	T	L	A	D	T	L	A	K	A	G	H	D	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_A4BS47	R	L	L	V	S	N	D	D	D	D	G	I	Q	A	C	G	I	I	E	L	A	Q	A	L	R	E	V	A	D	V	T	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_A0LHG0	R	I	L	L	V	S	N	D	D	D	G	I	Y	A	K	G	I	E	T	L	Y	L	A	L	I	E	E	H	D	V	T	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_UPI00036855C4	P	L	L	L	V	S	N	D	D	D	G	I	F	S	P	G	I	R	A	L	Y	K	E	L	A	K	F	S	E	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_A7HLM0	N	I	L	L	V	S	N	D	D	D	G	I	T	A	P	G	I	L	C	A	A	R	Y	L	S	K	E	H	Y	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G		
UniRef90_B8F7G3	N	I	L	L	V	S	N	D	D	D	G	I	H	A	H	G	I	Q	F	L	A	K	A	L	R	E	A	G	H	K	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_B4VRT1	P	H	L	L	V	S	N	D	D	D	G	I	F	A	L	E	G	R	T	L	A	D	T	L	A	Q	A	G	H	D	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_B4S461	P	H	L	L	V	S	N	D	D	D	G	I	F	A	L	E	G	R	T	L	A	D	T	L	A	Q	A	G	H	D	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_A3Y5Q7	R	I	L	L	V	A	N	D	D	D	G	I	D	A	K	G	I	Q	T	L	N	Q	Y	L	S	E	K	Y	E	T	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G	
UniRef90_I3YLX3	N	I	L	L	V	S	N	D	D	D	G	I	D	S	K	G	I	A	A	A	V	E	V	A	R	G	E	F	G	R	V	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G
UniRef90_I2F5L3	N	I	L	L	V	S	N	D	D	D	G	I	D	S	K	G	I	A	A	A	V	E	V	A	R	G	E	F	G	R	V	V	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G
UniRef90_Q2NVM2	P	H	L	L	V	S	N	D	D	D	G	I	H	A	P	G	I	Q	Q	L	A	E	A	L	R	T	L	A	F	V	Q	I	V	V	V	V	V	A	P	D	R	K	N	C	Q	S	G
UniRef90_K9VZH0	P	H	L	L	V	S	N	D	D	D	G	I	F	A	L	E	G																														

	50										60										70										80																				
UniRef90_U1L9J6	A	S	N	S	L	T	L	L	N	P	L	R	T	H	Q	Y	D	N	G	F	S	V	N	S	G	T	P	S	D	D	V	V	Q	L	L	A	L	I	N	K	L	L	L								
UniRef90_U3Q5F8	V	G	H	G	L	T	F	R	R	P	L	R	F	K	K	H	T	E	S	A	G	F	Y	R	V	D	D	G	S	P	T	A	D	D	D	V	V	K	V	L	A	G	L	S	N	D	L	L	L		
UniRef90_UPI0003604099	V	G	H	G	S	L	T	F	R	R	P	L	R	F	K	K	H	T	E	S	A	G	F	Y	R	V	D	D	G	S	P	T	A	D	D	D	V	V	K	V	L	A	G	L	S	N	D	L	L	L	
UniRef90_C3XM69	C	G	H	G	M	T	L	T	R	R	P	L	R	F	K	K	H	T	E	S	A	G	F	Y	R	V	D	D	G	S	P	T	A	D	D	D	V	V	K	V	L	A	G	L	S	N	D	L	L	L	
UniRef90_K2BLH4	A	S	N	S	L	T	L	D	R	P	L	R	A	H	A	I	A	E	N	D	F	V	Y	S	T	E	G	T	P	T	D	D	D	V	V	H	L	V	L	A	L	L	T	G	L	L	L	L			
UniRef90_UPI00047B01F5	A	S	N	S	L	T	L	D	M	P	L	R	V	E	Q	I	A	E	N	D	F	V	Y	S	T	E	G	T	P	T	D	D	D	V	V	H	L	V	L	A	L	L	T	G	L	L	L	L			
UniRef90_D3PDR1	V	G	H	A	I	T	L	S	D	P	L	R	V	E	Q	I	A	E	N	D	F	V	Y	S	T	E	G	T	P	T	A	D	D	D	V	V	H	L	V	L	A	L	L	T	G	L	L	L			
UniRef90_D9SF49	A	S	N	S	L	T	L	D	R	P	L	K	L	R	K	A	A	S	G	E	Y	Y	Y	V	V	K	G	T	P	T	D	D	D	V	V	H	L	V	L	A	L	L	T	G	M	L	L	L			
UniRef90_UPI0003B2E383	A	S	N	S	L	T	L	D	Q	S	L	R	A	K	P	L	H	G	N	E	V	Y	S	V	A	G	T	P	T	D	D	D	V	V	H	L	V	L	A	L	L	T	G	M	L	L	L				
UniRef90_F0IHN0	M	G	H	A	I	T	T	T	S	S	L	R	F	C	R	V	L	H	T	D	S	V	G	Y	R	C	C	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	H	A	G	M	L	L		
UniRef90_S0EXV3	V	G	H	S	I	T	L	H	K	S	P	L	R	L	T	A	I	D	E	G	A	E	G	F	A	C	C	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	Y	E	V	V	M	L	L
UniRef90_UPI000479E105	A	S	N	S	L	T	L	H	N	S	L	R	V	Q	L	V	E	N	G	F	F	Y	E	V	C	C	G	T	P	T	A	D	D	D	V	V	H	L	V	L	A	L	L	T	G	A	K	H	H	L	L
UniRef90_A1ZHC6	M	G	H	A	I	T	V	G	N	S	L	R	L	D	K	V	E	N	G	F	A	Y	E	V	C	C	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	K	H	H	V	L	L	L	
UniRef90_M7MWY8	M	G	H	A	I	T	V	G	N	S	L	R	L	D	K	V	E	N	G	F	A	Y	E	V	C	C	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	K	H	H	V	L	L	L	
UniRef90_C7PSL1	K	G	H	A	I	T	L	G	V	P	L	R	L	D	Q	V	A	E	N	G	F	F	A	W	C	C	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	A	R	D	K	G	L	L	L
UniRef90_K9DE02	A	S	N	S	L	T	L	D	R	P	L	R	V	E	Q	I	A	E	N	D	F	V	Y	S	T	E	G	T	P	T	D	D	D	V	V	H	L	V	L	A	L	L	T	G	L	L	L	L			
UniRef90_S4W7I2	V	G	H	A	I	T	L	A	D	P	L	R	V	E	R	T	A	N	G	F	Q	G	F	A	V	N	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	A	G	L	L	L	L		
UniRef90_C5CUL9	K	S	N	A	L	T	L	A	A	P	L	R	Y	V	H	K	A	H	N	G	F	F	R	Y	V	T	G	T	P	T	A	D	D	D	V	V	H	L	V	L	A	L	L	T	K	O	G	L	L	L	L
UniRef90_D0KY77	A	S	N	S	L	T	L	S	R	P	L	R	P	R	L	V	E	P	D	V	W	A	V	D	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	A	L	L	L	L	L				
UniRef90_G5H821	M	S	H	A	I	T	M	T	R	P	L	Y	L	T	K	V	E	E	E	E	I	Y	A	C	S	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	A	F	D	S	L	L	L	L	
UniRef90_A1VQF4	K	S	N	A	L	T	L	H	S	P	L	M	Y	V	Q	T	A	E	N	G	F	F	R	Y	I	N	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	A	L	L	L	L	L		
UniRef90_B0C6V3	T	G	H	G	L	T	L	H	Q	P	L	R	A	E	Q	A	Q	S	N	G	F	F	A	W	A	C	C	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	A	L	L	L	L		
UniRef90_A4J5D2	C	G	H	G	I	T	V	T	R	P	L	R	A	E	K	S	G	H	A	K	G	W	V	I	D	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	L	S	Q	L	L	L	L		
UniRef90_UPI0003813D0E	A	S	N	S	L	T	L	L	N	P	L	R	T	Q	Q	L	D	Q	S	N	G	F	T	S	V	N	G	T	P	T	A	D	D	D	V	V	H	L	V	L	A	L	L	T	G	L	L	L	L		
UniRef90_K8GQF6	T	G	H	G	L	T	L	H	Q	P	L	R	A	E	V	V	S	N	G	F	F	T	S	V	N	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	L	L	L	L	L				
UniRef90_C6HZU9	A	S	H	A	L	T	L	H	K	P	L	R	I	S	E	L	E	S	P	R	H	F	A	V	S	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	L	L	L	L	L				
UniRef90_Q1NYG1	A	S	H	A	L	T	M	R	R	P	L	N	V	R	Q	L	E	S	D	D	V	A	Y	A	C	C	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	L	L	L	L	L			
UniRef90_A0YMU9	T	G	H	G	L	T	L	H	H	P	L	R	A	E	R	K	V	E	S	V	F	A	W	A	C	C	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	L	L	L	L				
UniRef90_C0QR53	T	S	H	S	L	T	F	T	R	P	L	K	I	E	K	L	E	E	N	F	Y	I	V	D	G	T	P	T	A	D	D	D	V	V	H	L	V	L	A	L	L	T	G	Y	H	I	L	L	L		
UniRef90_K9YRJ6	T	G	H	G	L	T	L	H	Q	P	L	R	V	A	E	K	L	E	E	N	F	Y	I	V	D	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	L	L	L	L	L				
UniRef90_A4BS47	S	S	N	S	L	T	L	D	Y	P	L	R	V	A	R	L	A	G	D	V	Y	R	V	E	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	L	L	L	L	L	L				
UniRef90_A0LHG0	V	G	H	A	I	T	W	L	D	P	L	R	V	K	P	V	H	F	F	G	H	A	L	T	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	A	V	A	E	L	M	L	L	L	
UniRef90_UPI00036855C4	M	G	H	A	I	T	L	T	Q	P	L	K	V	R	K	L	E	E	D	N	E	M	Y	A	V	S	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	A	T	D	V	I	F	L	L
UniRef90_A7HLM0	V	G	H	G	I	T	L	T	R	P	L	W	A	R	K	L	E	D	N	E	M	Y	A	V	S	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	A	T	D	V	I	F	L	L	
UniRef90_B8F7G3	A	S	S	C	L	T	L	V	D	P	L	R	V	H	K	F	E	N	G	D	Y	T	V	I	A	G	T	P	T	A	D	D	D	V	V	H	L	V	L	A	L	L	T	G	L	L	L	L	L		
UniRef90_B4VRT1	T	G	H	G	L	T	L	H	D	P	L	R	A	E	A	V	E	D	T	I	F	H	W	S	C	S	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	L	L	L	L	L			
UniRef90_B4S461	M	G	H	A	M	T	L	G	V	P	L	R	L	E	A	S	Y	E	K	N	F	G	H	T	V	S	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	A	L	L	L	L			
UniRef90_A3Y5Q7	A	S	N	S	L	T	L	T	R	T	L	Q	P	K	Q	V	A	K	G	Q	F	S	V	D	G	T	P	T	A	D	D	D	V	V	N	L	A	L	L	T	G	S	E	V	L	L	L	L			
UniRef90_I3YXL3	M	S	Q	A	I	T	M	Y	N	P	L	C	V	K	K	E	E	G	L	E	V	Y	A	F	S	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	A	F	D	Y	L	L	L		
UniRef90_I2F5L3	T	G	H	A	I	T	L	R	T	P	L	W	A	K	Q	V	K	V	G	N	G	Y	A	I	N	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	L	L	L	L	L				
UniRef90_Q2NVM2	V	S	N	S	L	T	L	D	A	P	L	R	M	Q	T	H	P	N	G	D	I	A	L	L	S	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	L	L	L	L	L				
UniRef90_K9VZH0	T	G	H	G	L	T	L	H	D	P	L	R	A	E	V	V	E	R	S	K	N	F	H	W	A	C	C	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	L	L	L	L			
UniRef90_B3QL36	M	S	H	A	M	T	L	G	E	P	L	R	I	R	E	Y	R	S	M	N	R	F	Y	V	S	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	L	L	L	L	L				
UniRef90_Q8DI06	T	G	H	S	L	T	V	F	D	P	L	R	A	E	V	S	D	R	F	H	W	A	C	C	S	G	T	P	T	A	D	D	D	V	V	K	L	A	L	L	T	G	L	L	L	L	L				
UniRef90_UPI0003955DA5	A	S	N	S	L	T	L	E	N	P	L	R	V	R	E	L	G	P	Q	R	Y	A	V	I	Q	N	G	T	P	T	A	D	D	D	V	V	H	L	V	L	A	L	L	T	G	L	L	L			
UniRef90_UPI000255A118	A	S	N	A	L	T	L	D	R	P	L	R	A	E	R	H	S	S	G	Y	F	G	I	N	G	T	P	T	A	D	D	D	V																		

		90	100	110	120																																					
UniRef90_U1L9J6	D	F	T	P	D	L	V	V	A	G	I	N	N	G	A	N	L	G	D	D	T	L	Y	S	G	T	V	A	A	A	S	E	G	R	F	L	G	L	P			
UniRef90_U3Q5F8	P	R	K	P	D	L	V	V	A	G	I	N	H	G	S	N	L	G	D	D	T	L	Y	S	G	T	V	A	A	V	T	E	A	S	L	E	G	L	P			
UniRef90_UPI0003604099		G	R	P	D	L	V	V	S	G	I	N	L	G	S	N	M	G	E	D	V	L	H	S	G	T	V	A	A	A	L	E	G	A	S	L	E	G	L	P		
UniRef90_C3XM69	D	G	V	K	P	D	L	V	V	S	G	I	N	L	G	S	N	M	G	E	D	V	L	H	S	G	T	V	A	A	A	M	E	G	V	L	H	G	L	P		
UniRef90_K2BLH4	H	E	M	P	D	M	V	V	S	G	I	N	A	G	A	N	L	G	D	D	I	F	Y	S	G	T	V	A	A	A	M	E	G	R	F	L	G	L	P			
UniRef90_UPI00047B01F5	F	D	V	E	P	D	L	V	V	S	G	I	N	N	T	A	N	L	G	S	D	D	V	I	Y	S	G	T	V	A	A	A	M	E	G	R	F	L	G	L	P	
UniRef90_D3PDR1	T	T	K	P	D	L	V	V	S	G	I	N	H	G	A	N	L	G	S	N	V	I	Y	S	G	T	V	A	A	A	T	E	G	A	M	L	G	V	T	P		
UniRef90_D9SF49	D	Y	Q	P	D	M	V	V	S	G	I	N	A	G	A	N	L	M	G	D	D	T	I	Y	S	G	T	V	A	A	A	T	E	G	Y	L	L	G	L	P		
UniRef90_UPI0003B2E383	A	A	D	P	D	L	V	V	S	G	I	N	N	T	S	N	L	G	S	D	D	V	I	Y	S	G	T	V	A	A	A	M	E	G	R	C	L	L	G	L	P	
UniRef90_F0IHNO	A	N	R	K	P	D	L	V	V	S	G	I	N	H	G	A	N	L	G	S	N	V	I	Y	S	G	T	V	M	S	A	A	V	E	A	G	I	D	G	L	P	
UniRef90_S0EXV3	S	G	R	C	P	D	L	V	V	S	G	I	N	A	G	A	N	L	G	W	D	V	V	Y	S	G	T	V	A	G	A	R	E	G	A	V	L	G	L	P		
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UniRef90_C7PSL1	H	R	L	P	D	L	V	V	S	G	I	N	H	G	A	N	H	S	L	N	V	L	Y	S	G	T	M	S	A	A	M	E	A	A	I	E	G	L	V	P		
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UniRef90_S4W7I2	D	T	K	P	D	L	V	V	S	G	I	N	N	M	G	S	N	T	G	N	N	V	I	Y	S	G	T	V	S	A	A	T	E	G	T	I	L	N	I	P		
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UniRef90_A1VQF4	G	Y	R	P	D	L	V	V	S	G	I	N	N	G	S	N	M	G	D	D	T	L	Y	S	G	T	V	G	A	A	M	E	G	Y	L	F	E	G	L	P		
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A L A V S L V G N Q H F A T A A Q V V L J A L L K D T H T L N M P S G V L L N
S L A F S L A S H T S R D F F S H A A A V A A G L I E Q Y D L L A A P E V C L N
S I A F S L A S Y G S H D F F Q P G A E F A V S L L R F L E T N P L P A S M L L N
A I A I S Q V C Q N G W E F E L A K D T I V K L A T R I L N N P L D E R K F L L N
S I A V S Q E G D E T F R F D V G A Q Y A A R V I A A E V L R H H P L P E T I L L N
S I A F S L G S Y S R E F V Q G A V E F A Q R L I H T L E K H G L P P E A M L L N
A I A I S M G T H E P Q Y Y E T G A R V A V M L V E K L R R E G S P G D Q L L N
S I A F S Q E V S E E E R F E E A A R L A V P I A K W V L E Q G L P S G I L L N
A I A V S L N S Q G N N H F F E T A A K V V G R L L Q N D L L H P L A P S R T V L N
A V A F S L N S H D D R H W P T A A E K A A W Q L L E R L T A A P P V R P V L L W N
S L A V S L A G S L N E N H L T A A R V A V D M V I R F R E K Q I Q S P L L L N
A I A V S L C G S T H F A T A A E V V K Q V V L G F D K T Q P L P R N R I L L N
S I G F S Y D F E E D A D F S A P M A V A R E V I P Q I L K N G L P P K G V C L N
S L A V S Y D N F K P D D I A H A R F A V E I M E S M P W Q S L P P R C V L N
S I A F S L S H T S H N F Q P A A D F A C R L L Q Q L P Q Q A I T P A V L L N
S I A I S Q V Y S D D V P W E T A E A H A P G V I R T L T A L G W P E S E L M N
A I A V S L A S Y D Y R D F S F S G K L I K E L V S A F G N R L D Q S S V L L N
S I A I S Y D A N G D H E Y K I A A N Y M A D F I K N Y M E N D D L P Q S S V L L N
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S I G F S L D Y R E D A D F F S P L R S C V R T L L L R V L K E G L P D G V C L N
S I A F S L A S Y T S Q E F G P A V D F A V T L L S Q L E K Q P L P K P V L L N
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UniRef90_UPI0002DEC5BE	R	L	L	L	S	N	D	D	D	G	I	N	A	R	G	L	K	V	L	E	E	T	A	R	S	F	D	F	D	I	W	I	C	A	P	E	S	E	E	R	Q	S	G			
UniRef90_N9AJQ6	R	N	L	L	S	N	D	D	D	G	I	F	A	P	G	L	Q	V	A	L	A	Q	S	L	K	A	L	G	R	V	V	V	V	A	P	E	S	E	E	R	Q	S	G			
UniRef90_W3RES8	R	L	L	L	S	N	D	D	D	G	I	N	A	R	G	L	K	V	V	E	D	T	A	K	Q	L	S	D	D	W	V	V	V	A	P	E	S	E	S	D	Q	S	G			
UniRef90_R5CQ87	P	L	L	L	S	N	D	D	D	G	Y	H	A	K	G	L	N	S	L	I	D	M	L	S	D	L	G	D	I	L	V	C	A	P	E	S	S	A	R	R	S	G				
UniRef90_G1W8R3	P	F	L	L	S	N	D	D	D	G	Y	H	A	N	G	L	K	T	L	V	S	F	L	K	N	Q	A	D	D	L	L	V	C	A	P	E	S	S	A	R	R	S	G			
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UniRef90_E7FYT7	P	L	V	L	L	T	N	D	D	D	G	Y	E	A	R	G	L	L	A	L	K	D	A	L	E	E	V	A	V	M	V	V	V	A	P	K	N	E	K	S	A	G	A			
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P T I L L T N D D D G V N S S G G I L A A K K A A E K L G E T L V V V A P A T Q P R S G
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V L L T N D D G I F A K G L S L L V S N L A D F A D L Y I V A P K T E Q S G A
I L L T N D D G I F A P G M T L L V S N L A D F A D L Y I V A P K T E Q S A
P T V L V T N D D G I D A P G L R A L V S L L T N R F H V L V C A P D S E K S A
P R V L I T N D D G I A A P G L L G A L V Q A L T R R G G R C N V C A P D S S K S G
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UniRef90_UPI00036B0830		N	V L I T N D D G	V Y S S A N L R A L Y D A L K T S	A G H D V I S A P A G E Q S S G
UniRef90_Q6CC87		V	L I T N D D G P	Y S P Y F H Y L V K A I E K Y W	H V T V V L P D T Q R S W
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UniRef90_E9CZ94		I	L V V N D D G P	S S P Y V H S L V H T L Q S S	G H I V V V L P H R Q R S W
UniRef90_C1G129		I	L V V N D D G P	S S P Y V H S L V H T L Q S S	G H I V V V L P H R Q R S W
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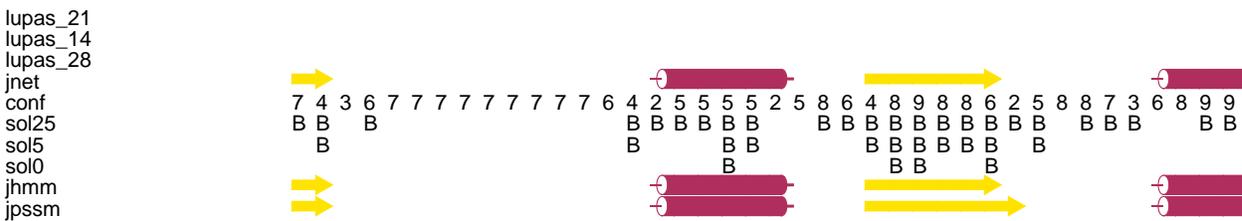
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