

QUERY	1	10	20	30	40																																					
UniRef90_UPI0003B503EB	K	V	L	V	R	H	G	Q	S	E	W	N	E	K	N	L	F	T	G	W	V	D	V	K	L	S	A	K	G	Q	Q	E	A	V	E	A	G	G	Q			
UniRef90_UPI0003B6888B	T	K	L	V	L	V	R	H	G	E	S	E	W	N	K	L	N	L	F	T	G	W	T	D	V	E	L	S	E	D	K	G	R	S	E	E	A	A	A	A	G	K
UniRef90_W5SNX7		K	L	V	L	V	R	H	G	E	S	E	W	N	K	E	N	F	T	G	W	T	D	V	K	L	S	E	K	G	R	S	E	E	A	A	A	A	G	K		
UniRef90_B5JSU3		K	L	V	L	V	R	H	G	Q	S	E	W	N	K	E	N	R	F	T	G	W	K	D	V	E	L	T	D	Q	G	R	E	E	A	K	R	A	G	Q		
UniRef90_E6UBQ8		K	L	V	L	I	R	H	G	Q	S	E	W	N	K	E	N	K	F	T	G	W	T	D	V	E	L	S	E	A	G	V	E	E	A	K	K	A	G	K		
UniRef90_A5DVC8	P	K	L	V	L	V	R	H	G	Q	S	E	W	N	E	K	N	L	F	T	G	W	V	D	V	K	L	S	E	T	G	R	K	E	E	A	K	R	A	G	E	
UniRef90_W6MM60	P	K	L	I	L	V	R	H	G	Q	S	E	W	N	E	K	N	L	F	T	G	W	V	D	V	Q	L	S	A	V	G	R	K	E	E	A	A	R	A	G	E	
UniRef90_Q54NE6		K	L	V	L	I	R	H	G	E	S	T	W	N	K	E	N	K	F	T	G	W	T	D	V	D	L	S	E	E	K	G	V	I	Q	Q	A	H	E	A	G	K
UniRef90_Q12F50		K	L	V	L	I	R	H	G	E	S	T	W	N	K	E	N	R	F	T	G	W	T	D	V	D	L	T	E	T	G	I	Q	Q	A	K	D	A	G	K		
UniRef90_D3BMD5		K	I	V	L	L	R	H	G	E	S	V	W	N	Q	E	N	R	F	T	G	W	T	D	V	D	L	S	A	K	G	V	E	E	A	K	K	G	G	E		
UniRef90_Q5P7N4		K	I	V	L	L	R	H	G	E	S	T	W	N	K	D	N	R	F	T	G	W	T	D	V	D	L	T	E	E	K	G	V	E	E	A	R	G	A	H		
UniRef90_K2GLG8	T	K	L	V	L	V	R	H	G	Q	S	T	W	N	Q	E	N	R	F	T	G	W	E	D	V	D	L	T	D	D	Q	G	R	A	E	A	A	R	A	G	E	
UniRef90_F4GQG9		K	L	V	L	M	R	H	G	E	S	Q	W	N	L	E	N	R	F	T	G	W	T	D	V	D	L	T	D	T	G	R	E	Q	A	F	Q	A	G	K		
UniRef90_UPI00035F2EE1		K	I	V	L	F	M	R	H	G	E	S	T	W	N	L	S	N	R	F	T	G	W	T	D	V	D	L	T	E	K	G	I	A	E	A	R	A	A	G	K	
UniRef90_J6GR92		R	I	V	L	I	R	H	G	E	S	T	W	N	K	E	N	R	F	T	G	W	T	N	V	D	L	S	E	K	G	V	I	E	E	A	K	K	A	G	A	
UniRef90_B5F050	T	K	L	V	L	V	R	H	G	E	S	Q	W	N	K	E	N	R	F	T	G	W	Y	D	V	D	L	S	E	K	G	V	E	E	A	K	A	A	G	K		
UniRef90_UPI00037F5B06		K	I	V	L	L	R	H	G	L	S	E	W	N	K	L	N	L	F	T	G	W	E	D	V	D	L	T	E	E	Q	G	I	E	E	A	R	E	A	G	R	
UniRef90_UPI00036B338E		K	V	V	M	I	R	H	G	E	S	E	W	N	K	L	N	L	F	T	G	W	T	D	V	D	L	S	E	R	G	V	I	Q	E	A	D	A	G	K		
UniRef90_E7NUE3		K	L	V	L	V	R	H	G	E	S	E	W	N	K	L	N	L	F	T	G	W	T	D	V	E	L	S	E	K	G	M	E	E	A	K	E	G	G	K		
UniRef90_A0A010ZHV5		K	L	V	L	I	R	H	G	E	S	T	W	N	K	E	N	R	F	T	G	W	Q	D	V	P	L	S	E	E	K	G	L	A	E	A	R	A	A	G	G	
UniRef90_G4T4G2		K	L	V	L	I	R	H	G	Q	S	V	W	N	L	E	N	R	F	T	G	W	T	D	V	D	L	S	D	Q	G	R	A	E	A	R	A	A	G	K		
UniRef90_U2WCQ1	T	L	V	L	I	R	H	G	E	S	E	W	N	L	E	N	R	F	T	G	W	T	D	V	D	L	T	E	K	G	I	S	E	A	K	S	A	G	R			
UniRef90_I4F433	T	L	I	L	L	R	H	G	E	S	E	W	N	K	A	N	L	F	T	G	W	V	D	V	P	L	S	S	E	K	G	R	A	E	A	R	G	G	E			
UniRef90_Q23F09		K	I	V	L	L	R	H	G	E	S	V	W	N	K	E	N	R	F	T	G	W	K	D	V	Q	L	S	P	K	G	I	E	E	A	A	R	S	A	G	K	
UniRef90_I1W8V3		K	L	V	L	L	R	H	G	Q	S	E	W	N	K	T	N	Q	F	T	G	W	V	D	V	P	L	T	E	K	G	R	E	E	A	K	N	G	G	K		
UniRef90_E4RIV4		K	I	V	L	F	V	R	H	G	E	S	E	W	N	L	A	N	K	F	T	G	W	T	D	V	D	L	T	E	E	Q	G	I	K	E	E	A	A	A	G	E
UniRef90_R5PI75		K	I	V	L	L	R	H	G	E	S	T	W	N	K	E	N	R	F	T	G	W	T	D	V	D	L	T	E	K	G	I	E	E	A	V	K	A	G	N		
UniRef90_D2Z878		K	L	V	L	L	R	H	G	E	S	V	W	N	K	E	N	R	F	T	G	W	T	D	V	P	L	S	E	D	G	V	K	E	A	H	R	A	G	R		
UniRef90_E2MV10		K	L	I	L	L	R	H	G	Q	S	E	W	N	A	S	N	Q	F	T	G	W	V	D	V	A	L	T	D	K	G	R	A	E	A	V	R	A	G	E		
UniRef90_F3ZCU8		K	L	I	L	L	R	H	G	E	S	E	W	N	A	T	N	Q	F	T	G	W	V	D	V	N	L	T	E	K	G	E	K	E	A	L	R	A	G	E		
UniRef90_B1MHP2	T	L	I	L	L	R	H	G	E	S	Q	W	N	A	K	N	L	F	T	G	W	V	D	V	D	L	T	E	K	G	R	S	E	A	Q	R	G	G	E			
UniRef90_F0JH11	T	L	V	L	I	R	H	G	Q	S	A	W	N	L	E	N	R	F	T	G	W	T	D	V	D	L	T	E	E	Q	G	V	I	E	E	A	V	D	G	A	K	
UniRef90_UPI00036A310F		T	L	V	L	L	R	H	G	E	S	V	W	N	A	K	G	L	F	T	G	W	V	D	V	D	L	S	A	A	G	E	E	E	A	R	R	G	G	D		
UniRef90_Q8A8R2	R	I	V	L	L	R	H	G	E	S	L	W	N	K	E	N	R	F	T	G	W	T	D	V	D	L	S	E	K	G	V	E	E	A	C	K	A	G	D			
UniRef90_W7D648		K	L	V	L	I	R	H	G	Q	S	E	W	N	K	L	N	L	F	T	G	W	H	D	V	D	L	S	E	E	Q	G	V	E	E	A	K	R	A	G	E	
UniRef90_F7K5C0		K	L	V	L	V	R	H	G	E	S	I	W	N	K	E	N	L	F	T	G	W	T	D	V	D	L	S	E	T	G	E	K	E	A	A	D	A	G	R		
UniRef90_C2BG76		K	L	V	L	V	R	H	G	Q	S	E	W	N	L	A	N	K	F	T	G	W	V	D	V	D	L	S	D	K	G	V	E	E	A	K	E	A	G	R		
UniRef90_F8N8P0	R	I	V	L	I	R	H	G	E	S	Q	W	N	L	E	N	R	F	T	G	W	T	N	V	D	L	T	E	E	K	G	K	Q	E	A	L	D	A	G	K		
UniRef90_F9ZIJ3		K	I	V	L	L	R	H	G	E	S	T	W	N	Q	E	N	R	F	T	G	W	T	D	V	D	L	T	P	N	G	I	Q	E	E	A	Q	N	A	G	Q	
UniRef90_E2SMS6		K	L	V	L	I	R	H	G	E	S	E	W	N	K	E	N	L	F	T	G	W	T	D	V	D	L	S	E	K	G	H	E	E	A	K	Q	A	G	I		
UniRef90_UPI000373D562		K	L	I	L	L	R	H	G	Q	S	E	W	N	A	S	N	Q	F	T	G	W	V	D	V	D	L	T	E	E	Q	G	R	A	E	A	R	K	A	G	Q	
UniRef90_UPI000380A27B		T	L	V	L	L	R	H	G	E	S	E	W	N	A	L	N	L	F	T	G	W	V	D	V	R	L	T	E	K	G	I	A	E	G	K	R	A	G	E		
UniRef90_T1BM82		K	L	V	L	L	R	H	G	Q	S	V	W	N	L	E	N	R	F	T	G	W	T	D	V	E	L	S	P	A	G	L	L	E	A	V	E	A	G	R		
UniRef90_F4PX73		T	L	V	L	V	R	H	G	E	S	T	W	N	K	E	N	K	F	T	G	W	T	D	V	E	L	S	E	E	Q	G	V	T	E	A	H	E	A	G	K	
UniRef90_U2UQL7		Q	L	V	L	L	R	H	G	E	S	E	W	N	K	L	N	L	F	T	G	W	T	D	V	D	L	S	E	Q	G	R	A	E	A	R	Q	G	G	Q		
UniRef90_UPI0003705B7F	T	L	I	L	L	R	H	G	Q	S	E	W	N	E	K	N	L	F	T	G	W	V	D	V	G	L	T	E	E	K	G	R	A	E	A	A	R	G	G	Q		
UniRef90_C7NK56	T	L	V	L	L	R	H	G	Q	S	L	W	N	E	K	N	L	F	T	G	W	V	D	V	D	L	T	E	E	K	G	R	A	E	A	R	R	G	G	E		
UniRef90_Q6NJL2		K	L	I	L	L	R	H	G	Q	S	E	W	N	A	S	N	Q	F	T	G	W	V	D	V	N	L	T	E	K	G	E	A	E	A	K	R	G	G	E		
UniRef90_UPI00036C4C0D		K	L	V	L	L	R	H	G	Q	S	D	W	N	E	K	N	L	F	T	G	W	V	D	V	D	L	T	E	K	G	R	E	E	A	V	R	G	G	E		
UniRef90_F2UIE8	T	V	V	F	V	R	H	G	Q	S	V	W	N	L	E	N	K	F	T	G	W	V	D	V	P	L	S	S	E	E	Q	G	V	I	E	A	Q	E	A	G	K	
UniRef90_F5S9K5		E	L	V	F	I	R	H	G	L	S	E	W	N	A	K	N	L	F	T	G	W	R	D	V	K	L	S	E	Q	G	I	A	E	A	T	A	A	G	Q		
UniRef90_UPI0002D8435D		K	V	I	L	L	R	H	G	Q	S	E	W	N	E	K	N	L	F	T	G	W	V	D	V	P	L	T	E	E	Q	G	R	A	E	A	I	R	G	G	E	
UniRef90_UPI00035FE6CD		K	L	V	L	L	R	H	G	Q	S	Q	W	N	L	E	N	R	F	T	G	W	T	D	V	D	L	T	A	Q	G	I	A	E	A	G	N	A	G	K		
UniRef90_UPI00039B7BD4		K	L	I	L	V	R	H	G	Q	S	E	W	N	K	S	N	Q	F	T	G	W	V	D	V	D	L	T	E	E	Q	G	E	Q	E	A	A	N	A	G	K	
UniRef90_A0A011T8W0	T	L	I	L	L	R	H	G	Q	S	E	W	N	K																												

QUERY	L	L	K	E	K	G	V	N	V	L	V	D	Y	T	S	K	L	S	R	A	I	I	Q	T	A	N	I	A	L	E	K	A	D	R	L	W	I	P	V	N	R		
UniRef90_UPI0003B503EB	I	L	K	E	E	G	Y	V	F	D	V	A	F	T	S	Y	L	K	R	A	I	I	R	T	L	N	W	I	A	L	E	E	M	D	R	L	M	W	I	P	V	I	K
UniRef90_UPI0003B6888B	I	L	K	E	E	G	Y	V	F	D	V	A	F	T	S	Y	L	K	R	A	I	I	R	T	L	N	W	I	A	L	E	E	M	D	R	E	W	I	P	V	I	K	
UniRef90_W5SNX7	V	L	K	Q	E	G	Y	S	F	D	I	A	F	T	S	V	L	V	R	A	N	D	T	L	N	I	I	L	R	K	L	G	Q	S	Y	I	P	D	V	E	K		
UniRef90_B5JUS3	Q	L	R	E	A	G	Y	S	F	D	V	V	F	T	S	V	L	K	R	A	I	I	R	T	M	W	T	I	L	D	E	M	D	L	M	H	L	P	V	E	R		
UniRef90_E6UBQ8	V	L	K	E	A	G	Y	D	F	D	V	A	F	T	S	Y	L	K	R	A	I	I	R	T	L	N	N	V	L	A	E	S	E	M	D	R	E	W	I	P	V	I	K
UniRef90_A5DVC8	L	I	K	E	A	G	I	K	L	P	D	V	L	H	T	S	K	L	S	R	A	I	I	Q	T	A	D	I	A	L	E	S	A	D	Q	L	W	I	P	V	K	R	
UniRef90_W6MM60	L	L	K	E	S	G	L	K	P	D	E	V	L	Y	T	S	K	L	T	R	A	I	I	Q	T	A	N	I	A	L	E	A	A	D	R	L	Y	I	P	V	H	R	
UniRef90_Q54NE6	R	L	L	K	A	G	F	T	F	D	L	A	Y	T	S	V	L	K	R	A	I	I	R	T	L	W	I	A	L	E	E	L	N	L	Y	W	I	P	V	S	R		
UniRef90_Q12F50	L	L	K	A	E	G	Y	D	F	D	L	A	Y	T	S	V	L	K	R	A	N	T	R	T	L	W	H	V	L	D	E	M	D	R	T	W	I	P	V	V	N		
UniRef90_D3BMD5	T	L	K	E	H	E	G	F	T	F	D	L	A	Y	T	S	V	L	K	R	A	N	K	T	L	D	I	V	L	E	E	L	D	S	L	W	I	P	V	E	H		
UniRef90_Q5P7N4	L	L	K	E	A	G	F	E	F	D	V	A	Y	T	S	V	L	K	R	A	I	I	R	T	L	W	T	I	L	D	G	M	D	Q	M	W	I	P	V	I	R		
UniRef90_K2GLG8	L	L	K	E	Q	G	F	E	F	D	L	A	Y	T	S	V	L	K	R	A	I	I	R	T	L	W	I	A	L	D	A	M	D	S	M	H	T	P	T	G	L		
UniRef90_F4QGQ9	V	L	K	E	S	G	Y	T	F	D	L	A	Y	T	S	V	L	K	R	A	I	I	R	T	L	W	I	T	M	D	E	M	D	M	M	Y	L	P	V	K	N		
UniRef90_UPI00035F2EE1	I	L	K	E	N	G	F	H	F	D	I	A	Y	T	S	Y	L	K	R	A	I	I	K	T	L	N	Q	I	L	D	V	M	D	L	Q	W	I	P	V	E	K		
UniRef90_J6GR92	L	L	K	E	E	G	F	S	F	D	I	A	Y	T	S	V	L	K	R	A	I	I	R	T	L	N	W	N	V	L	D	E	L	D	Q	A	W	I	P	V	E	K	
UniRef90_B5F050	L	L	K	E	E	G	F	K	F	D	V	A	F	T	S	V	L	K	R	A	I	I	K	T	L	N	Y	A	L	D	E	M	G	D	L	W	V	P	T	N	K		
UniRef90_UPI00037F5B06	K	L	K	E	E	G	Y	T	F	D	V	A	F	T	S	V	L	K	R	A	I	I	K	T	L	N	I	V	L	E	Q	M	D										

QUERY	S	W	R	L	N	E	R	H	Y	G	D	L	Q	G	K	D	K	A	Q	T	L	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P	
UniRef90_UPI0003B503EB	N	W	R	L	N	E	R	H	Y	G	D	L	Q	G	K	D	K	A	Q	T	L	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P	
UniRef90_UPI0003B6888B	T	W	K	L	N	E	R	H	Y	G	D	L	Q	G	K	D	K	A	Q	T	L	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P	
UniRef90_W5SNX7	S	W	R	L	N	E	R	H	Y	G	D	L	Q	G	K	D	K	A	Q	T	L	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P	
UniRef90_B5JSU3	S	Y	R	L	N	E	R	H	Y	G	D	L	Q	G	L	N	K	A	E	T	A	A	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P
UniRef90_E6UBQ8	S	W	R	L	N	E	R	H	Y	G	D	L	Q	G	L	N	K	S	E	T	A	T	K	Y	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P	
UniRef90_A5DVC8	S	W	R	L	N	E	R	H	Y	G	D	L	Q	G	L	N	K	A	E	T	A	A	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P
UniRef90_W6MM60	S	W	R	L	N	E	R	H	Y	G	D	L	Q	G	K	D	K	A	Q	T	L	A	A	Y	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P	
UniRef90_Q54NE6	Q	W	R	L	N	E	R	M	Y	G	S	L	Q	G	L	N	K	S	E	T	A	A	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P
UniRef90_Q12F50	S	W	R	L	N	E	R	H	Y	G	D	L	Q	G	L	N	K	S	E	T	A	A	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P
UniRef90_D3BMD5	S	W	R	L	N	E	R	M	Y	G	D	L	Q	G	L	N	K	S	E	T	A	A	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P
UniRef90_Q5P7N4	S	W	R	L	N	E	R	H	Y	G	D	L	Q	G	L	N	K	A	E	T	A	A	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P
UniRef90_K2GLG8	N	W	R	L	N	E	R	H	Y	G	D	L	Q	G	L	N	K	A	E	T	A	A	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P
UniRef90_F4QGQ9	S	W	R	L	N	E	R	H	Y	G	D	L	Q	G	L	N	K	A	E	T	A	A	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P
UniRef90_UPI00035F2EE1	D	W	R	L	N	E	R	H	Y	G	D	L	Q	G	L	N	K	A	E	T	A	A	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P
UniRef90_J6GR92	S	W	R	L	N	E	K	H	Y	G	M	L	Q	G	L	N	K	A	E	T	A	A	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P
UniRef90_B5F050	S	W	K	L	N	E	R	H	Y	G	D	L	Q	G	L	N	K	A	E	T	A	A	K	K	F	G	E	E	K	F	N	T	Y	R	R	S	F	D	V	I	P	P
UniRef90_UPI00037F5B06	S	W	R	L	N	E	K	S	Y	G	A	L	Q	G	L	N	K	A	E	T	A	A	K	K	F	G	E															



QUERY	130	140	150	160
UniRef90_UPI0003B503EB	P	P	P	P
UniRef90_UPI0003B6888B	E	A	L	P
UniRef90_W5SNX7	M	P	P	P
UniRef90_B5JSU3	P	P	P	P
UniRef90_E6UBQ8	M	A	L	P
UniRef90_A5DVC8	P	P	P	P
UniRef90_W6MM60	P	P	P	P
UniRef90_Q54NE6	P	P	P	P
UniRef90_Q12F50	P	P	P	P
UniRef90_D3BMD5	P	P	P	P
UniRef90_Q5P7N4	P	P	P	P
UniRef90_K2GLG8	P	P	P	P
UniRef90_F4GQG9	N	P	P	P
UniRef90_UPI00035F2EE1	P	P	P	P
UniRef90_J6GR92	T	P	P	P
UniRef90_B5FO50	P	P	P	P
UniRef90_UPI00037F5B06	P	P	P	P
UniRef90_UPI00036B338E	P	P	P	P
UniRef90_E7NUE3	P	P	P	P
UniRef90_A0A010ZHV5	P	P	P	P
UniRef90_G4T4G2	P	P	P	P
UniRef90_U2WCQ1	P	P	P	P
UniRef90_I4F433	P	P	P	P
UniRef90_Q23F09	P	P	P	P
UniRef90_I1W8V3	P	P	P	P
UniRef90_E4RIV4	P	P	P	P
UniRef90_R5PI75	P	P	P	P
UniRef90_D2Z878	P	P	P	P
UniRef90_E2MV10	P	P	P	P
UniRef90_F3ZCU8	P	P	P	P
UniRef90_B1MHP2	P	P	P	P
UniRef90_F0JH11	P	P	P	P
UniRef90_UPI00036A310F	P	P	P	P
UniRef90_Q8A8R2	A	P	P	P
UniRef90_W7D648	P	P	P	P
UniRef90_F7K5C0	P	P	P	P
UniRef90_C2BG7C	P	P	P	P
UniRef90_F8N8P0	H	D	L	P
UniRef90_F2ZIJ3	P	P	P	P
UniRef90_E2SMS6	P	P	P	P
UniRef90_UPI000373D562	P	P	P	P
UniRef90_UPI000380A27B	P	P	P	P
UniRef90_T1BM82	P	P	P	P
UniRef90_F4PX73	P	P	P	P
UniRef90_U2UQL7	P	P	P	P
UniRef90_UPI0003705B7F	P	P	P	P
UniRef90_C7NK56	P	P	P	P
UniRef90_Q6NJL2	P	P	P	P
UniRef90_UPI00036C4C0D	P	P	P	P
UniRef90_F2UIE8	P	P	P	P
UniRef90_F5S9K5	P	P	P	P
UniRef90_UPI0002D8435D	P	P	P	P
UniRef90_UPI00035FE6CD	P	P	P	P
UniRef90_UPI00039B7BD4	P	P	P	P
UniRef90_A0A011T8W0	P	P	P	P
UniRef90_UPI0003B443AA	P	P	P	P
UniRef90_B7GEI2	P	P	P	P
UniRef90_UPI0003679AD8	P	P	P	P
UniRef90_E8R0W2	P	P	P	P
UniRef90_V4AT30	P	P	P	P
UniRef90_E0QM57	P	P	P	P
UniRef90_R1EV79	P	P	P	P
UniRef90_R9GMN7	P	P	P	P
UniRef90_V5SK32	P	P	P	P
UniRef90_E3H517	P	P	P	P
UniRef90_R5FX26	P	P	P	P
UniRef90_E1VSZ7	P	P	P	P
UniRef90_R4M0Y7	P	P	P	P
UniRef90_R6YSM7	P	P	P	P
UniRef90_J3VU46	P	P	P	P
UniRef90_UPI0004646169	P	P	P	P
UniRef90_W6K3Z8	P	P	P	P
UniRef90_E4LAE2	P	P	P	P
UniRef90_W9BRX0	P	P	P	P
UniRef90_S9T6A6	P	P	P	P
UniRef90_I7JXK2	P	P	P	P
UniRef90_W4G541	P	P	P	P
UniRef90_L1QCY8	P	P	P	P
UniRef90_D3QHL3	P	P	P	P
UniRef90_B8C3J4	P	P	P	P
UniRef90_X5A4J2	P	P	P	P
UniRef90_K8Z9K6	P	P	P	P
UniRef90_Q74LL9	P	P	P	P
UniRef90_C5BYN5	P	P	P	P
UniRef90_L8FDX3	P	P	P	P
UniRef90_K0KQ56	P	P	P	P
UniRef90_A7GPN5	P	P	P	P
UniRef90_D2Q1C6	P	P	P	P
UniRef90_D4W3F7	P	P	P	P
UniRef90_UPI000255C5A2	P	P	P	P
UniRef90_F0YNT0	P	P	P	P

QUERY	Y	W	Q	D	V	I	A	K	L	V	G	K	T	S	M	I	A	A	H	G	N	S	L	R	G	L	V	K	H	L	E	G	I	L	S	D	A	D	I	A	K		
UniRef90_UPI0003B503EB	C	W	H	E	V	I	A	P	K	S	G	K	R	T	V	I	A	A	H	G	N	S	L	R	A	L	V	K	F	L	D	G	I	L	S	D	A	D	I	V	G		
UniRef90_UPI0003B6888B	Y	F	L	E	E	I	K	K	A	G	M	G	K	R	V	I	A	A	H	G	N	S	L	R	A	L	V	K	Y	L	D	N	L	S	D	P	D	E	L	L	E	K	
UniRef90_W5SNX7	Y	W	T	D	K	I	A	K	A	E	G	K	K	V	I	V	V	A	H	G	N	S	L	R	A	L	V	K	Y	L	D	N	M	S	T	P	D	D	E	L	L	K	
UniRef90_B5JSU3	F	W	Q	D	R	I	V	P	R	S	G	Q	T	P	L	V	V	A	H	G	N	S	L	R	A	L	V	K	Y	L	D	D	N	M	T	P	D	E	A	L	L	G	
UniRef90_E6UBQ8	Y	F	E	E	E	I	K	Q	Q	I	G	R	V	V	I	V	A	H	G	N	S	L	R	A	L	V	K	Y	F	D	G	I	L	S	D	E	E	E	E	I	L	N	
UniRef90_A5DVC8	Y	W	Q	D	E	I	A	G	D	A	G	K	V	V	I	V	V	A	H	G	N	S	L	R	A	L	V	K	H	L	E	G	I	L	S	D	E	E	E	E	I	A	G
UniRef90_W6MM60	Y	W	Q	D	T	I	A	D	A	G	K	T	V	L	I	A	A	H	G	N	S	L	R	G	L	V	K	Y	L	E	G	I	L	S	D	A	D	I	A	G			
UniRef90_Q54NE6	L	W	N	D	T	I	A	P	T	I	G	Q	K	V	L	I	A	A	H	G	N	S	L	R	A	L	V	K	Y	L	D	N	I	S	A	D	D	S	K	I	V	S	
UniRef90_Q12F50	F	W	N	E	S	M	A	P	K	A	G	K	R	V	V	V	A	A	H	G	N	S	L	R	A	L	V	K	Y	L	D	N	I	S	E	S	S	D	I	V	G		
UniRef90_D3BMD5	F	W	T	E	T	V	A	P	S	I	K	Q	G	K	K	V	I	I	H	G	N	S	L	R	A	L	I	M	Y	L	D	K	I	V	S	E	S	S	D	I	V	G	
UniRef90_Q5P7N4	Y	W	E	T	V	I	V	P	N	A	G	R	R	I	L	I	A	A	H	G	N	S	L	R	A	L	I	K	Y	L	D	N	I	S	D	E	S	E	D	I	V	G	
UniRef90_K2ZLG8	Y	F	D	A	E	I	A	P	Q	A	G	K	Q	V	L	I	V	A	H	G	N	S	L	R	A	L	V	K	H	L	D	N	V	S	D	E	S	E	D	I	L	K	
UniRef90_F4GQG9	F	W	N	E	S	I	A	P	R	A	G	R	R	V	L	V	A	A	H	G	N	S	L	R	A	L	I	K	H	L	D	G	I	L	S	D	D	E	I	V	H		
UniRef90_UPI00035F2EE1	V	W	D	E	D	I	A	P	R	A	G	K	K	I	L	I	S	A	H	G	N	S	L	R	G	I	I	K	M	L	D	G	I	L	S	D	D	N	D	I	V	G	
UniRef90_J6GR92	Y	W	E	D	K	I	F	P	M	Q	H	D	D	V	I	V	A	A	H	G	N	S	L	R	G	I	I	K	V	L	K	G	I	L	S	D	E	D	E	I	V	E	
UniRef90_B5F050	Y	W	N	D	T	I	L	P	R	M	G	E	R	V	I	I	A	A	H	G	N	S	L	R	A	L	V	K	Y	L	D	N	M	S	E	D	E	I	L	E			
UniRef90_UPI00037F5B06	F	W	F	S	D	I	A	P	K	Q	G	K	S	V	I	I	A	A	H	G	N	S	L	R	S	L	V	Q	Y	L	D	G	L	S	E	G	A	E	E	I	L	K	
UniRef90_UPI00036B338E	Y	W	A	D	A	I	A	P	K	E	G	K	K	V	L	I	V	A	H	G	N	S	M	R	A	I	V	K	Y	L	D	K	M	S	S	D	E	E	I	A	K		
UniRef90_E7NUE3	Y	F	E	E	Y	I	K	K	D	M	G	K	R	V	L	I	A	A	H	G	N	S	L	R	A	L	I	K	Y	F	E	H	L	S	D	E	E	E	I	I	G		
UniRef90_A0A010ZHV5	Y	W	E	K	V	V	A	P	D	S	G	K	K	L	I	I	A	A	H	G	N	S	L	R	A	L	V	K	Y	L	D	D	V	S	E	K	D	I	L	E			
UniRef90_G4T4G2	Y	W	H	S	V	L	E	P	T	I	G	K	R	V	L	I	S	A	H	G	N	S	L	R	A	L	I	K	Y	L	D	D	N	L	S	E	K	T	E	I	T	E	
UniRef90_U2WCQ1	Y	Y	E	K	E	I	L	P	E	M	R	C	R	V	L	I	A	A	H	G	N	S	L	R	A	L	I	M	Y	F	E	K	L	T	E	E	E	I	V	S	G		
UniRef90_I4F433	Y	W	Y	D	A	I	V	P	D	A	G	Q	N	V	L	V	A	A	H	G	N	S	L	R	A	L	V	K	H	L	D	G	N	M	G	S	D	D	E	I	V	G	
UniRef90_Q23F09	F	W	Y	D	Q	I	V	P	S	A	G	K	N	V	L	V	V	A	H	G	N	S	L	R	S	I	V	K	H	V	D	N	V	S	D	D	E	Q	D	I	I	G	
UniRef90_I1W8V3	Y	F	E	A	E	I	E	P	E	D	G	K	T	V	L	I	A	A	H	G	N	S	L	R	A	L	V	K	M	L	D	G	I	L	S	D	E	E	E	E	I	A	K
UniRef90_E4RIV4	F	W	E	K	T	I	V	P	K	E	G	R	K	I	L	I	S	A	H	G	N	S	L	R	A	L	I	K	Y	L	D	N	I	S	D	E	E	E	I	S	S		
UniRef90_R5PI75	Y	W	K	E	V	I	V	P	T	L	Q	H	F	D	Q	V	V	A	H	G	N	S	L	R	G	I	I	K	Y	L	K	N	I	P	D	D	E	E	I	V	K		
UniRef90_D2Z878	Y	W	N	E	V	I	A	P	R	S	G	E	K	V	L	I	V	A	H	G	N	S	L	R	A	L	V	K	Y	L	D	R	I	P	D	D	D	I	P	G			
UniRef90_E2MV10	E	E	E	L	P	R	L	K	A	G	E	T	V	M	V	I	A	A	H	G	N	S	L	R	A	L	V	K	H	L	D	N	I	S	D	Q	D	I	A	A			
UniRef90_F3ZCU8	Y	W	Y	D	A	I	V	P	D	A	G	H	T	V	L	V	A	A	H	G	N	S	L	R	A	L	V	K	H	L	D	Q	I	L	S	D	Q	D	I	A	A		
UniRef90_B1MHP2	E	E	A	I	V	P	E	L	R	A	G	K	T	V	L	V	A	A	H	G	N	S	L	R	A	L	V	K	Y	L	D	G	I	L	S	D	E	E	E	I	V	G	
UniRef90_F0JH11	Y	W	F	E	T	I	A	P	R	A	G	R	R	V	L	I	V	A	H	G	N	S	L	R	G	L	V	K	Y	L	D	T	M	S	D	E	A	I	T	Q			
UniRef90_UPI00036A310F	Y	W	Y	D	Q	I	V	P	E	A	G	S	T	V	L	V	V	A	H	G	N	S	L	R	A	L	V	K	H	L	D	G	V	S	D	E	D	I	A	G			
UniRef90_Q8A8R2	Y	W	K	C	I	I	F	P	A	L	M	Y	K	D	S	V	V	A	H	G	N	S	L	R	G	I	I	K	H	L	K	G	I	S	D	T	D	I	A	S	N		
UniRef90_W7D648	Y	W	M	D	T	I	A	P	E	I	G	K	R	V	V	I	A	A	H	G	N	S	L	R	A	L	V	K	F	L	E	G	I	L	S	D	D	E	E	I	M	E	
UniRef90_F7K5C0	Y	Y	N	D	V	I	A	K	S	M	G	K	R	V	L	V	A	A	H	G	N	S	L	R	A	L	V	Q	Y	F	E	N	L	P	K	E	E	I	V	D			
UniRef90_C2BG76	Y	Y	F	D	S	I	A	P	E	E	G	E	T	V	L	V	A	A	H	G	N	S	L	R	A	L	A	K	H	L	E	K	I	S	D	D	D	I	M	D			
UniRef90_F8N8P0	F	W	E	C	E	I	F	P	K	L	K	D	N	I	V	A	A	H	G	N	S	L	R	G	I	V	K	Y	L	K	G	I	S	D	K	D	I	S	G				
UniRef90_F9ZIJ3	Y	W	N	T	T	I	A	P	Q	I	Q	A	D	K	S	V	I	I	H	G	N	S	L	R	A	L	V	K	Y	L	D	N	V	S	D	K	D	I	L	N			
UniRef90_E2SMS6	Y	F	N	D	V	I	K	Q	D	M	G	K	R	V	I	I	A	A	H	G	N	S	L	R	A	L	V	K	Y	F	D	K	I	S	E	E	D	I	V	N			
UniRef90_UPI000373D562	Y	F	E	E	V	I	L	P	R	A	K	A	G	E	Q	I	V	I	H	G	N	S	L	R	A	L	V	K	Y	L	D	N	I	S	D	E	D	I	A	E			
UniRef90_UPI000380A27B	Y	W	E	E	T	I	S	R	D	A	G	K	T	V	L	V	A	A	H	G	N	S	L	R	A	L	V	K	H	L	E	D	I	L	S	D	D	D	I	A	G		
UniRef90_T1BM82	L	W	E	Q	V	M	A	P	M	S	G	R	Q	V	L	V	V	A	H	G	N	S	L	R	A	L	I	K	H	L	G	R	H	T	R	E	E	I	M	E	G		
UniRef90_F4PX73	F	W	N	E	T	V	A	P	A	I	K	N	N	K	K	V	I	I	H	G	N	S	L	R	A	L	V	K	L	L	D	N	I	V	S	D	D	E	I	V	G		
UniRef90_U2UQL7	Y	Y	K	E	T	I	E	K	D	M	G	R	R	V	L	V	A	A	H	G	N	S	L	R	A	L	V	K	Y	L	D	D	N	I	S	P	K	E	I	V	T		
UniRef90_UPI0003705B7F	W	D	S	E	I	T	E	D	R	S	G	K	T	V	L	L	A	A	H	G	N	S	L	R	A	L	V	K	K	L	D	G	I	S	D	E	D	I	A	K			
UniRef90_C7NK56	Y	W	A	E	E	I	V	P	D	A	G	R	T	V	L	V	T	A	H	G	N	S	L	R	A	L	V	K	E	L	D	G	I	S	D	A	D	I	A	E			
UniRef90_Q6NJL2	K	E	E	L	P	R	V	K	N	G	E	T	V	L	I	A	A	H	G	N	S	L	R	A	L	V	K	H	L	D	N	I	S	D	A	D	I	A	E				
UniRef90_UPI00036C4C0D	E	Q	E	I	V	P	D	L	Q	A	G	R	T	V	I	V	A	A	H	G	N	S	L	R	A	L	V	K	H	L	D	G	I	S	D	E	D	I	A	A			
UniRef90_F2UIE8	Y	W	N	E	T	I	V	P	M	S	G	K	R	V	L	I	A	A	H	G	N	S	L	R	A	L	I	K	H	L	D	N	I	P	E	D	V	I	T	K			
UniRef90_F5S9K5	F	W	E	D	Q	I	A	P	A	G	K	R	V	L	V	A	A	H	G	N	S	L	R	A	L	A	K	H	L	E	G	I	L	S	D	D	D	I	M	A			
UniRef90_UPI0002D8435D	Y	W	E	S	D	I	A	P	D	A	G	K	T	V	L	I	A	A	H	G	N	S	L	R	A	L	V	K	H	L	D	G	I	L	S	D	A	D	I	A	S		
UniRef90_UPI00035FE6CD	Y	W	K	D	T	I	V	P	Q	L	K	K	N	I	I	C	A	A	H	G	N	S	L	R	A	L	I	K	Y	L	D	N	M	S	E	N	S	I	L	E			
UniRef90_UPI00039B7BD4	V	D	V	I	L	P	Q	L	A	G	R	N	V	M																													

QUERY	210	220	230
UniRef90_UPI0003B503EB	L N I	P P G T I L V F E L D E N L K P S K P S Y Y L D P E A	
UniRef90_UPI0003B6888B	L V N I	P T G I L P L V Y E E F D D N F K V I K H Y Y L G D P E E A	
UniRef90_W5SNX7	L N I	P T G I L P L V Y E E L D D K D L K P I K H Y Y L G D E D E	
UniRef90_B5JSU3	L N I	P T G V L P L V Y E E L D D D L R K P I K R E F L G D P D	
UniRef90_E6UBQ8	L V N I	P T A T P L V Y E E F D D E F N V I K R E Y L C D P D	
UniRef90_A5DVC8	L N I	P T G I L P L V Y E E L D D E L K K P T K P A Y Y L D P E	
UniRef90_W6MM60	L N I	P T G I L P L V Y E E L D D E H L K P T K P S Y Y L D P E	
UniRef90_Q54NE6	M D I	P T G I L P L V Y E E L D D E N L K P I K H Y Y L A D E S E	
UniRef90_Q12F50	L N I	P N G I L P L V Y E E L D A N L R P I K H Y Y L G D S E	
UniRef90_D3BMD5	L N I	P T G I L P L V Y E E L D D A N L K P I K S Y Y L A D A D T	
UniRef90_Q5P7N4	L N I	P T A Q L P L V Y E E L D A N L R P I R S Y Y L A D A D T	
UniRef90_K2GLG8	L N I	P T G I L P L V Y E E L D D D N L K P I K S G Y L G D	
UniRef90_F4QGQ9	L N I	P T G Q L P L V Y E E L D D D L R P I R H Y Y L G D P	
UniRef90_UPI00035F2EE1	L N I	P N G Q L P L V Y E E L D D E N L K P I R H Y Y L G D	
UniRef90_J6GR92	L N I	P T A V L P Y V F E E F D D E L R L V K D Y Y L G D P E A	
UniRef90_B5F050	L N I	P T G V L P L V Y E E F D D E N F K P I K H Y Y L G N A D E A	
UniRef90_UPI00037F5B06	L N I	P T G V L P L V Y E E L D A D L K P I K S Y Y L G D Q E E A	
UniRef90_UPI00036B338E	T N I	P T G I L P L V Y E E L D D S L K P I K H Y Y L A D E E A	
UniRef90_E7NU03	V N I	P T G V L P L V Y E E F D K D F K V I D K R Y L G D Q E	
UniRef90_A0A010ZHV5	L N I	P T G V L P L V Y E E L D E D L R P L K H Y Y L G D S E	
UniRef90_G4T4G2	L N I	P T G V L P L V Y E E L D D N L R V I Q H Y Y L G G S E A	
UniRef90_U2WQCQ1	V N I V	P T G T P L V Y R L D D E G K V I E K S Y L G D Q E A	
UniRef90_I4F433	L N I	P T G V L P L R Y D L D A D L R P T Q P G Q Y L D P D E A	
UniRef90_Q23F09	I N I	P T S V L P L T Y E E F D A N F K P I R N Y Y L A D P E E	
UniRef90_I1W8V3	V N I	P T A I L P L V Y E E L D E N F K P I K K G E Y L D P E E	
UniRef90_E4RIV4	L N I	P T G R L P L V Y E E F D E E M N V L D S Y Y L G D Q E E	
UniRef90_R5PI75	L N I	P T A V L P Y V F E E D D T L K L Q K D Y Y L G D P E	
UniRef90_D2Z878	V N I	P T G I L P L V Y E E L D E E L K P Q N H Y Y L G D	
UniRef90_E2MV10	L N I	P T G I L P L V Y D F D A E G K V L N P G T Y L D P E A	
UniRef90_F3ZCU8	L N I	P T G I L P L A Y D L D A D F Q V P K K G T Y L D P E A	
UniRef90_B1MHP2	L N I	P T G I L P L A Y D L D E N L K P V T P G V Y L D P E	
UniRef90_F0JH11	L N I	P T G L L P L V Y E E L D N D L T P L R H Y Y L G D P E	
UniRef90_UPI00036A310F	L N I	P T G I L P L R Y D L D D N F R P T D P G T Y L D P E	
UniRef90_Q8A8R2	L N I	P T A V L P Y V F E E F D D R L V L V K D Y Y L G N P E	
UniRef90_W7D648	V E I	P T G V L P L V Y E E L D D E L K F T N K Y Y L G E P E A	
UniRef90_F7K5C0	V N I	P T G I L P L V Y E E F D E A G K F I K K E Y L G D P E A	
UniRef90_C2BG76	L E I	P T G Q L P L V Y E E L D D E L N V I K K Y Y L	
UniRef90_F8N8P0	L N I	P T A T P Y V F E E F D D N L N L V K D Y Y L G D	
UniRef90_F9ZIJ3	C N I	P T G I L P L V Y E E L D N L K P I R N Y Y L G N D P	
UniRef90_E2SMS6	L N I	P T G I L P L I Y E E F D A L G N P V R H Y Y L G D Q	
UniRef90_UPI000373D562	L N I	P T G I L P L V Y E E L N A D G S V V N P G T Y L D P E	
UniRef90_UPI000380A27B	L N I	P T G I L P L R Y E L D D E N L R P I G A G E Y L D P	
UniRef90_T1BM82	L N I	P T G I L P L I Y E L D D D Q G A V L D H Y Y L G D P D	
UniRef90_F4PX73	V E I	P T G I L P L V Y E E L D E N L K P I R S H Y Y L A D E	
UniRef90_U2UQL7	V N I	P T G V L P L V Y E E F D E A F K V V R H Y Y L G D Q A A	
UniRef90_UPI0003705B7F	L N I	P T G I L P L V Y E E L D D S F S P I T P G R Y L D P E A	
UniRef90_C7NK56	L N I	P T G I L P L V Y E E L D D G N F R P I T P G R Y L D P E A	
UniRef90_Q6NJL2	L N I	P T G I L P L V Y E E L D E A G T V L N P G T Y L D P E A	
UniRef90_UPI00036C4C0D	L N I	P T G I L P L Y Y E L D E N L R P V A G G E Y L D P E A	
UniRef90_F2UIE8	I D V	P T G V L P L V Y E E F D E D M K P I K R S Y L L N D	
UniRef90_F5S9K5	L E I	P T G Q L P L V Y K L D D N L K V I E K F Y L	
UniRef90_UPI0002D8435D	L N I	P T G I L P L I Y E E L D E N L V P V K A G T Y L D	
UniRef90_UPI00035F66CD	L N I	P T G I L P L V Y E E L D D D L T T K T H Y Y L G D S E T	
UniRef90_UPI00039B7BD4	L N I	P T G M L P L V Y E E I G E R G A V L N P G T Y L D P E	
UniRef90_A0A011T8W0	L N I	P T G I L P L V Y R L G E D L M P L E P G A Y L D P E	
UniRef90_UPI0003B443AA	L N I	P T G I L P L Y Y E L D E N F A P V R G G R Y L D P E A	
UniRef90_B7GEI2	L N I	P T G V L P L V Y E E L D E E L K P I R H Y Y L G D Q E	
UniRef90_UPI0003679AD8	V E I	P N F P L V V F E E F D D K L N V Q N E Y Y L G	
UniRef90_E8R0W2	L N I	P T G I L P L V Y Q L D E N L K P Q G S R Y L G D	
UniRef90_V4AT30	L N I	P T G I L P L V Y K L D D K L K P L E H F Y V A D E E	
UniRef90_E0QM57	L N I	P T G V L P L I F E I D E N L K I T K	
UniRef90_R1EV79	L E V	P T G I L P L V Y E E L D D D L K P I L S G R F L A D P E A	
UniRef90_R9GMN7	L E I	P T G I L P L V Y E E L D D D L K I R S H Y Y L A D P E A	
UniRef90_V5SK32	L N		

	1	10	20	30	40																																				
UniRef90_K6W9H9	T	L	V	L	L	R	H	G	E	S	E	W	N	A	K	N	L	F	T	G	W	V	D	V	E	L	S	D	K	G	R	A	E	A	V	S	G	G	E		
UniRef90_P96121	K	L	V	L	I	R	H	G	E	S	E	W	N	R	L	N	L	F	T	G	W	T	D	V	P	L	T	P	R	G	E	E	A	Q	E	S	G	G	R		
UniRef90_S2YFL9	T	L	L	L	L	R	H	G	E	S	A	W	N	S	K	N	L	F	T	G	W	I	D	V	D	L	T	D	P	R	G	E	E	Q	A	R	D	S	G	T	
UniRef90_C5RAS5	K	L	V	L	I	R	H	G	Q	S	E	W	N	A	L	N	L	F	N	G	W	V	D	T	K	L	T	D	K	G	I	A	Q	A	K	T	A	G	Q		
UniRef90_B4GFT2	K	V	V	M	V	R	H	G	E	S	E	W	N	K	K	N	L	F	C	G	W	F	D	A	R	L	S	S	E	K	G	L	Q	E	A	C	S	A	G	V	
UniRef90_U2U7Q7	Q	L	V	V	V	R	H	G	E	S	E	W	N	K	L	N	L	F	T	G	W	T	D	V	D	L	T	D	T	D	G	R	A	E	A	A	A	G	G	K	
UniRef90_A5DW5	K	L	I	I	L	R	H	G	E	S	Q	W	N	H	E	N	K	F	C	G	W	I	D	I	P	L	T	D	D	K	G	K	D	E	A	K	Y	A	G	E	
UniRef90_T1A9F6	Q	L	I	L	V	R	H	G	E	S	L	W	N	A	A	H	R	F	T	G	W	Q	D	V	D	L	S	E	R	G	V	T	E	A	H	R	S	A	S		
UniRef90_E6XEE8	K	L	I	L	V	R	H	G	K	S	L	W	N	V	K	N	V	F	T	G	W	T	D	I	L	A	T	E	F	G	I	N	E	A	E	T	A	G	Q		
UniRef90_UPI0003330F24	K	L	V	L	I	R	H	G	E	S	A	W	N	L	E	N	R	F	T	G	W	Y	D	A	D	L	S	P	A	G	H	E	A	K	R	G	G	Q			
UniRef90_UPI0003A365C8	K	L	I	L	L	R	H	G	E	S	Q	W	N	L	E	N	R	F	T	G	W	K	D	V	S	L	T	E	L	G	I	Q	E	A	I	S	S	A	N		
UniRef90_E0RKY6	Q	V	V	L	V	R	H	G	Q	S	V	Y	N	R	K	N	L	F	T	G	W	T	D	V	D	L	T	E	Q	Q	G	T	H	E	A	I	E	A	G	R	
UniRef90_X6P0R7	T	L	V	F	V	R	H	G	Q	S	V	W	N	A	T	N	Q	F	T	G	W	V	D	C	D	S	D	L	G	V	K	E	A	Q	E	A	K	R	G	A	
UniRef90_J9JT11	K	I	V	M	I	R	H	G	E	S	D	W	N	K	K	N	L	F	C	G	W	Y	D	A	S	L	S	S	K	G	V	E	E	A	I	S	A	G	K		
UniRef90_M5JA13	K	L	V	M	I	R	H	G	E	S	E	W	N	A	K	N	L	F	N	G	W	V	D	T	K	L	S	P	V	G	I	E	Q	A	K	T	A	G	K		
UniRef90_H3BB55	K	L	V	L	I	R	H	G	E	S	T	W	N	Q	E	N	R	F	C	G	W	F	D	A	D	L	S	S	E	T	G	I	E	A	K	R	G	A	Q		
UniRef90_G2LPG4	K	V	V	L	I	R	H	G	Q	S	I	W	N	E	L	N	K	F	T	G	W	Y	D	A	T	L	S	E	N	G	K	N	E	A	K	S	A	A	I		
UniRef90_E6X3H6	K	L	I	L	L	R	H	G	E	S	V	Y	N	L	N	L	F	T	G	W	T	D	V	A	L	S	S	E	K	G	I	A	E	A	Q	K	A	G	Q		
UniRef90_UPI0003599943	R	L	V	L	V	R	H	G	E	S	T	Y	N	R	A	N	L	F	T	G	W	H	D	A	L	S	S	D	T	G	V	K	E	A	I	Y	S	G	Q		
UniRef90_B4NI30	R	L	V	V	I	R	H	G	E	S	E	F	N	L	E	N	K	F	C	G	W	H	D	V	S	L	S	S	P	N	G	S	E	A	C	D	I	A	A	D	
UniRef90_UPI000381E70C											W	N	A	E	G	L	F	T	G	W	V	D	V	D	L	S	S	A	K	G	E	G	E	A	T	R	G	G	D		
UniRef90_D4YF28	K	L	V	F	I	R	H	G	Q	S	E	L	N	L	Q	N	V	F	T	G	W	L	D	P	A	L	S	P	L	G	V	I	E	A	K	A	G	L			
UniRef90_C2ET64	K	L	V	I	V	R	H	G	Q	S	Q	A	N	R	D	N	L	F	T	G	W	T	D	V	P	L	T	E	K	G	I	E	Q	G	Q	M	V	G	D		
UniRef90_UPI00038BB9D0	K	L	V	L	I	R	H	G	E	S	A	W	N	L	E	N	R	F	T	G	W	Y	D	A	D	L	S	T	P	A	G	H	E	A	K	R	G	G	Q		
UniRef90_I7K064	K	L	V	L	V	R	H	G	E	S	I	A	N	A	E	N	V	Y	T	G	W	N	D	V	P	L	T	D	D	K	G	I	R	Q	A	R	K	A	G	E	
UniRef90_G9WHZ0	K	L	V	L	I	R	H	G	Q	S	T	A	N	R	D	N	V	F	T	G	W	S	D	A	P	L	T	D	D	K	G	I	A	Q	A	H	I	A	G	R	
UniRef90_U2V841	T	L	V	V	M	R	H	G	E	S	T	W	T	A	Q	N	R	F	A	G	W	A	D	I	P	L	T	T	E	R	G	R	D	Q	A	R	H	A	G	E	
UniRef90_UPI0003F4ACDC	K	L	I	L	V	R	H	G	K	S	L	W	N	I	A	N	V	F	T	G	W	T	N	V	D	L	A	P	E	G	I	V	E	A	N	I	Q	A	G	E	
UniRef90_D8UBI2	T	L	V	L	L	R	H	G	E	S	V	W	N	L	A	N	R	F	T	G	W	T	D	V	D	L	T	D	Q	G	R	R	Q	A	A	L	G	G	A		
UniRef90_A6Q3H2	K	L	V	L	I	R	H	G	E	S	V	W	N	A	K	N	L	F	T	G	W	I	D	V	L	S	S	E	K	G	K	A	E	A	K	K	A	G	E		
UniRef90_S4R5G0	T	L	V	L	V	R	H	G	E	G	S	W	T	R	E	N	R	F	C	S	W	V	D	Q	P	L	S	A	D	G	E	A	E	A	R	K	C	S	R		
UniRef90_T1P9G3	K	V	V	I	L	R	H	G	E	S	E	F	N	K	L	N	L	F	C	G	W	H	D	A	P	L	T	D	D	K	G	L	E	D	A	S	K	I	A	A	
UniRef90_UPI000249304C	K	L	V	L	L	R	H	G	Q	S	L	A	N	K	V	N	E	Y	T	G	W	S	D	S	P	L	T	E	Y	G	I	K	A	C	H	E	A	G	K		
UniRef90_UPI0003C105E2	K	L	V	L	I	R	H	G	E	S	T	W	N	Q	E	N	R	F	C	G	W	F	D	A	D	L	S	S	E	T	G	A	Q	E	A	K	R	G	A	Q	
UniRef90_N1ZfV0	T	R	F	Y	L	I	R	H	G	E	T	E	W	N	A	R	G	I	Y	Q	G	L	T	D	I	P	L	S	S	E	E	G	E	K	Q	A	L	C	L	G	K
UniRef90_W7M1F8	K	L	I	L	L	R	H	G	E	S	T	A	N	E	K	N	L	F	T	G	W	K	D	V	G	I	T	Q	S	G	R	V	E	A	I	Q	A	G	A		
UniRef90_UPI0002195AC1	K	L	V	L	V	R	H	G	E	S	T	A	N	R	D	N	E	F	T	G	W	T	D	V	P	L	T	T	A	K	G	K	T	Q	A	H	Q	V	I	G	Q
UniRef90_C5F969	K	L	V	L	L	R	H	G	E	S	I	A	N	Q	K	N	T	Y	T	G	W	S	D	V	G	L	T	T	A	E	G	K	A	Q	A	E	T	A	G	E	
UniRef90_F9ZK10	T	K	L	V	L	L	R	H	G	E	S	L	W	N	R	D	K	K	F	T	G	W	S	D	V	A	L	S	P	K	G	E	Q	E	A	E	Q	A	A	Y	
UniRef90_G0UH78	K	L	I	L	M	R	H	G	E	S	T	A	N	M	Q	N	T	F	T	G	W	T	D	A	A	L	T	D	D	T	G	R	A	Q	E	A	K	A	A	G	Q
UniRef90_D8LCP0	T	Q	V	V	L	L	R	H	G	M	S	T	F	N	K	L	N	L	F	T	G	W	C	D	V	P	L	T	T	E	E	G	R	Q	E	A	L	E	A	G	K
UniRef90_C0QQ87	P	K	L	V	L	V	R	H	G	Q	S	V	W	N	L	Q	N	R	F	T	G	W	V	D	V	P	L	T	T	E	K	G	K	E	E	A	Y	K	A	G	E
UniRef90_M7A711	T	L	L	L	M	R	H	G	E	S	E	W	N	A	S	N	R	F	T	G	W	V	D	V	A	L	T	D	D	K	G	K	A	E	A	V	R	A	G	Q	
UniRef90_E3DP32	T	E	L	Y	L	L	R	H	G	Q	T	D	W	N	K	Q	S	I	F	Q	G	Q	T	D	I	E	L	N	E	T	G	I	A	E	A	K	K	A	A		
UniRef90_I7L980											H	G	E	S	I	A	N	R	D	N	V	Y	T	G	W	N	D	V	S	A	K	G	I	Q	Q	A	K	S	A	G	K
UniRef90_A0DSL2	K	L	V	L	I	R	H	G	E	S	L	A	N	K	T	N	S	V	F	G	W	L	D	V	D	L	S	S	T	K	G	V	Q	E	A	C	H	A	A	L	
UniRef90_UPI000287D4EA											E	W	N	E	Q	N	L	F	T	G	W	K	D	P	G	L	T	E	L	G	I	K	E	A	K	N	A	G	S		
UniRef90_UPI000315B877	T	E	L	L	L	I	R	H	G	E	T	D	W	N	A	E	K	R	L	Q	G	H	L	D	I	P	L	N	A	E	G	R	R	Q	A	A	A	L	G	R	
UniRef90_UPI0003B32448	K	L	V	L	V	R	H	G	E	S	D	W	N	L	E	N	R	F	T	G	W	V	D	V	P	L	S	S	P	K	G	E	Q	E	A	N	A	G	E		
UniRef90_R6BDA4	T	I	L	Y	L	I	R	H	G	E	T	A	G	N	S	E	G	R	F	Q	G	I	V	D	N	P	L	S	N	E	S	G	M	Q	Q	S	Q	M	L	G	
UniRef90_G8PLA1	K	L	V	L	V	R	H	G	Q	S	E	W	N	L	K	N	L	F	T	G	W	K	N	P	D	L	T	T	E	Q	G	V	E	E	A	T	A	A	G	K	
UniRef90_UPI00035E4C28	K	L	I	L	L	R	H	G	Q	S	Q	W	N	L	E	N	R	F	T	G	W	K	D	V	P	L	T	T	N	K	G	V	N	E	A	T	I	A	G	K	
UniRef90_G2KV03	K	L	V	L	M	R	H	G	E	S	V	A	N	Y	N	H	T	F	T	G	W	S	D	V	S	L	T	T	D	E	G	R	R	E	A	H	E	A	G	R	
UniRef90_UPI00037EE1EC	T	K	I	V	L	I	R	H	G	E	T	A	W	N	A	V	R	R	L	Q	G	H	I	D	I	P	L	N	L	E	G	E	R	Q	A	R	A	L	J	A	E
UniRef90_U5QHL5	T	R	V	L	L	V	R	H	G	E	T	E	W	N	R	E	R	R	F	Q	G	I	D	V	P	L	S	T	N	A	Q	G	Q	W	Q	A	E	Q	A	A	
UniRef90_K8GS33	T	R	V	I	L	V	R	H	G	E	S	T	F	N	V	E	R	R	V	Q	G	F	L	D	S	T															



UniRef90_K6W9H9	L	L	K	A	A	D	V	L	P	D	V	V	H	T	S	F	L	R	R	A	I	N	T	A	N	A	A	L	N	A	A	D	R	H	W	I	Q	V	K	R		
UniRef90_P96121	V	L	Q	E	A	G	F	D	F	D	L	C	V	H	T	S	F	L	K	R	A	I	R	T	A	N	F	V	L	Q	A	A	D	R	H	W	I	Q	V	K	R	
UniRef90_S2YFL9	L	L	R	S	A	G	F	L	P	R	S	V	H	T	S	F	L	K	R	A	I	V	R	T	A	R	N	F	A	L	A	A	D	R	H	W	I	Q	V	K	R	
UniRef90_C5RAS5	L	L	A	K	E	G	L	I	Q	F	D	V	A	Y	T	S	V	L	T	R	A	I	T	T	L	H	A	A	L	T	E	A	A	D	Q	L	W	I	P	E	V	K
UniRef90_B4GFT2	A	L	K	K	A	K	M	E	F	D	V	A	Y	T	S	L	L	T	R	A	I	Q	E	T	L	A	A	A	L	S	A	S	H	K	T	I	P	I	C	K		
UniRef90_U2U7Q7	A	L	K	E	A	G	M	E	F	D	V	C	H	T	S	L	L	T	R	A	I	H	E	T	L	N	I	I	L	S	D	E	M	D	R	A	W	L	D	H	K	
UniRef90_A5DWD5	L	L	K	K	N	N	L	S	P	I	D	L	Y	T	S	K	L	R	S	I	E	T	G	F	I	L	L	K	V	L	G	K	P	W	I	D	H	E	K			
UniRef90_T1A9F6	L	L	K	A	E	G	L	N	P	Q	L	A	F	T	S	V	L	T	R	A	I	E	R	T	F	L	V	L	L	D	D	L	E	R	W	I	D	H	E	K		
UniRef90_E6XEE8	L	I	K	S	N	L	I	D	I	C	F	S	S	Y	L	K	R	A	I	R	T	A	W	I	L	L	E	T	A	E	M	M	H	V	D	C	R	Y				
UniRef90_UPI0003330F24	A	L	R	G	T	E	R	G	G	L	R	R	G	P																												
UniRef90_UPI00034365C8	N	L	I	K	K	N	I	Q	I	S	T	V	Q	T	S	I	L	K	R	A	I	D	T	A	K	I	V	A	E	L	I	K	F	P	T	E	K	I	Q	Y		
UniRef90_E0RKY6	I	L	K	E	A	G	Y	T	F	D	L	A	F	A	S	V	L	K	R	S	I	R	T	L	Y	H	I	L	D	E	L	D	H	L	W	I	P	V	Q	K		
UniRef90_X6P0R7	A	L	K	K	A	H	F	Q	F	D	I	M	Y	T	S	Y	L	K	R	A	I	K	T	G	N	I	L	E	T	L	D	Q	L	W	I	P	V	Q	K			
UniRef90_J9JT11	T	L	K	Q	R	C	Y	E	F	D	V	A	Y	T	S	V	L	K	R	A	E	D	T	C	N	I	L	N	L	V	D	P	K	N	S	C	I	T	H	K		
UniRef90_M5JAI3	M	L	A	E	A	G	I	D	F	D	Q	A	Y	T	S	V	L	T	R	A	I	E	T	L	D	L	T	L	F	E	A	G	Q	M	F	I	P	E	E	K		
UniRef90_H3BB55	A	L	K	D	A	G	Y	E	F	D	I	C	Y	T	S	V	L	K	R	A	I	R	T	L	W	F	V	L	D	G	I	D	Q	M	W	I	P	V	V	R		
UniRef90_G2LPG4	A	L	K	K	N	K	F	S	F	D	Y	A	Y	T	S	V	L	K	R	A	I	Y	T	L	R	Y	I	L	D	E	L	N	Q	N	W	I	L	P	V	K	K	
UniRef90_E6X3H6	I	L	K	A	H	N	L	L	P	D	L	C	F	T	S	W	L	K	R	A	I	H	T	A	Q	L	A	L	R	E	L	D	W	E	Q	I	D	C	I	K		
UniRef90_UPI0003599943	L	L	K	R	H	G	F	D	F	D	I	A	F	T	S	V	L	K</																								



[illegible]

UniRef90\_K6W9H9  
UniRef90\_P96121  
UniRef90\_S2YFL9  
UniRef90\_C5RAS5  
UniRef90\_B4GFT2  
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UniRef90\_E6XEE8  
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UniRef90\_X6P0R7  
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130 140 150 160

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

	170	180	190	200
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UniRef90_S2YFL9	Y W H E A V K V P Q M G Q R T V L V V A H G N S L R A L V K A H L E S R L S D E T Q I L M E			
UniRef90_C5RAS5	F W D S D I S K K A G K R N V V I G A H G N S L R A L V K A H L E S R L S D E T Q I L M G			
UniRef90_B4GFT2	Y W N D V I V P Q E G K R V L V A A H G N S L R A L V V K M Q L E E G L S D E E A I I M G			
UniRef90_U2U7Q7	Y F E Q E I L K P E A G K R V L I A A H G N S L R A L V V K M Q L E E G L S D E E A I I M G			
UniRef90_A5DWD5	E I M D S H Q M V Q L N K T V L I V T H G S V V R S L I K Y L E N K V V G D E D I I S K			
UniRef90_T1A9F6	Y W R S R I L P S L T G D V A C V I A H G N S L R A L I K E F L L D Q V G D E D I I S R			
UniRef90_E6XEE8	Y F F E A I A P L E L G K R V L I S A H G N S L R A L I K E F L L D Q V G D E D I I S R			
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UniRef90_UPI0003A365C8	W N E Y F N Q K N T S G N H L I V A H G N S L R A I I V K H L E N G L S S E E A I I M E			
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UniRef90_X6P0R7	Y W E S D I L K H G K R T V L V A A H G N S L R A I L K Y L D N I D E T I I P N			
UniRef90_J9JT11	Y W D N V I V P Q I L G C R I I V A A H G N S L R A I I K K H L E N I T D E G I M G			
UniRef90_M5JA13	F W N E K I S A D A G K K N V V I A A H G N S L R A L A K H L E Q I S D E E A I I M E			
UniRef90_H3BB55	S W R E R G S P K K K K I E K C L L A H G K L F F L L L F L N A G M S T D E E A I I M E			
UniRef90_G2LPG4	Y W K T V I V P Q L K K N K K I V I A H G N S L R A L I Q Y L N N I T N K D I I K			
UniRef90_E6X3H6	Y F Y E A I A P Q L D K T V L V S A H G N S L R A L I T M A I L E Q L S P E E I V K			
UniRef90_UPI0003599943	F W Y D H I A P A I G K R V L I A S H G T L R A L I T H H L G A L S N T D C S D			
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UniRef90_UPI000381E70C	Y W Y D A I V P D A G R T V L V T A H G N S L R A L V K H L D D I S D D A I S E			
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UniRef90_G9WHZ0	F W Q A F V T P C L G E T V L V V T H G S V V R S L I K V I E N I S A D E E I R T			
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UniRef90_A6Q3H2	Y F Y E E I V P A A Y D T V M I A A H G N S L R A L I M Y L E S I A P E N V S K			
UniRef90_S4S5G0	Y W E G S I V P R A G K N V L V S A H G N S V R A I I K H I E N I S D A D A I L H			
UniRef90_T1P9G3	L W E Q E I V P K N G Q R V L V V A H G T V V R A L M K Y I E N I S D D D I M K			
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UniRef90_C5F969	Y W T A E L A P R L G K N Q L I V A H G S T L R A L V K F M E D I S D A G I N K			
UniRef90_F9ZK10	Y W Q D T I A P P R Q G K H V L I V S H R N T L R A L M M L L D H L T P A Q V M K			
UniRef90_G0UW78	Y W D K N V A P D A G A N N E L I V A H G S S L R V L V K Y L D D Q V A D E L D Q			
UniRef90_D8LCP0	W E S D V V P D R A G K R V L V V A H A N T L R S L V K R R L D D V E E D A I R N			
UniRef90_C0QQ87	I L G D I I D G H D V L V V A H G N S L R S I V M Y L E K L S P E E I I K			
UniRef90_M7A711	E E V I A A D L R A G K T V L V V A H G N S L R S I V M Y L E K L S P E E I I K			
UniRef90_E3DP32	F F N Q I I E K N K G D K I L V V T H G G V I K L Y L S V V L G S E L A D F W Q			
UniRef90_I7L980	Y Y I D H I A P E A G R D Q L I V A H G S S L R A L I K K I E D I S D T D I V K			
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UniRef90_UPI000476BA12	P	R	L	L	L	L	V	R	H	G	E	T	Q	W	N	R	E	S	R	F	Q	G	Q	I	D	V	P	L	N	E	N	G	R	A	Q	G	R	R	V	A	Q		
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UniRef90_Q07UT3		L	V	L	V	V	R	H	G	Q	S	D	W	N	L	K	N	L	F	T	G	W	K	D	P	L	T	E	T	Q	G	V	A	E	A	K	A	A	G	Q			
UniRef90_L8LT88		T	R	V	I	L	A	R	H	G	Q	S	N	Y	N	V	Q	K	R	I	Q	G	R	S	D	E	S	V	L	T	A	K	G	Q	Q	D	A	Q	I	L	G		
UniRef90_K9SXX2		T	R	V	L	L	V	R	H	G	E	S	T	S	N	S	A	G	M	V	Q	G	R	G	N	S	P	L	T	E	Q	K	G	Q	Q	Q	A	K	L	A	G	L	
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UniRef90_C1CVZ0	T	E	F	W	V	V	R	H	G	E	S	T	W	N	M	D	G	R	Y	Q	G	Q	T	D	V	P	L	T	S	H	V	G	V	L	Q	A	S	L	A	E			
UniRef90_K9YW58	T	K	V	I	L	V	R	H	G	Q	S	T	Y	N	V	E	Q	I	Q	G	R	C	D	S	V	L	T	E	K	G	C	E	D	A	Q	K	V	G	V				
UniRef90_S5DVJ3	Q	I	Y	F	V	R	H	G	K	T	E	W	N	L	A	S	R	F	Q	G	H	G	D	S	P	L	L	P	Q	S	L	K	E	D	I	K	K	L	G	E			
UniRef90_B2IEV6		L	V	L	V	R	H	G	Q	S	T	W	N	L	K	N	L	F	T	G	W	K	D	P	L	T	E	T	E	K	G	I	L	G	E	A	Q	A	A	G	R		
UniRef90_A8IGZ9		L	V	L	V	R	H	G	Q	S	E	W	N	L	K	N	L	F	T	G	W	R	D	P	N	L	T	D	Q	G	V	S	E	A	R	R	A	G	A				
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UniRef90_F6EEJ9	T	R	L	L	L	L	V	R	H	G	E	T	Q	L	S	I	E	R	R	Y	S	G	R	G	D	H	A	L	T	P	E	G	H	R	Q	A	R	F	A	E			
UniRef90_R7MTE5		K	L	Y	I	A	R	H	G	K	T	M	F	N	T	I	G	R	A	Q	G	W	S	D	S	P	L	T	T	P	F	G	E	G	I	R	E	L	G	V			
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UniRef90_UPI00037Z6S6	T	T	L	F	I	T	R	H	G	Q	T	L	W	N	T	Q	K	R	M	Q	G	W	K	D	S	P	L	T	S	E	L	G	I	K	A	K	S	L	S	K			
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UniRef90_D8PPM2	P	R	L	F	L	I	R	H	G	E	T	E	W	S	L	N	G	R	H	T	G	R	T	D	I	P	L	T	A	R	G	I	E	Q	I	K	E	K	A	Q			
UniRef90_A4G1U3	T	E	I	L	L	L	V	R	H	G	E	T	D	W	N	V	E	K	R	L	Q	G	H	H	D	I	D	L	N	R	E	G	V	R	Q	V	A	A	L	G	R		
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UniRef90_I7LE23	Y	L	K	T	T	K			F	K	A	I	Y	S	S	P	L	Q	R	A	F	N	T	A	Q	E	L	S	W	T	M	N	A	G	L	S	V	I						
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UniRef90_A2BPZ6	Y	L		R	N	I	S	F	N	K	A	F	S	S	S	M	H	R	P	F	E	T	A	Q	I	L	Q	N	R	K	D	L	K	I				E	R					
UniRef90_UPI00047CD4D6	R	L	K	R	S	E	N	I	H	I	N	S	I	Y	S	S	D	L	K	R	A	F	E	T	A	K	T	I	H	S	C	L	N		N	V	T	T	F	K	K			
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UniRef90_E2ZD03	G	L	K	D	V	P	I	D	V	F		Y	S	S	P	L	Q	R	S	F	M	T	A	S	F	C	A	E			L	H	G	N	T	V	A	K						
UniRef90_F4XZ75	G	T		A	L	S	S	L	S	F	D	A	I	Y	C	S	P	L	Q	R	A	K	Q	T	A	D	I	L	S	Y	L		P	N	P	P	Q	L	Q	P				
UniRef90_UPI00047972A2		F	L	K	D	V	A	V	D	F	A	V	S	S	P	M	L	R	P	K	E	T	A	E	I	L	L	Q	N	H	P		G	V	K				L	E	L			
UniRef90_K9RG14		A	L	K	N	I	S	F	D	A	I	Y	C	S	P	L	K	R	A	K	Q	T	A	E	I	H	H	E	I	K	A	N	L	D	N	T	Q	K						
UniRef90_Q47IH2	W	L	K	Q	A	G	I		I	A	L	Y	S	S	S	D	L	K	R	A	W	T	T	A	L	A	I	G	A	E	L	G	L	Q	P				T	A				
UniRef90_Q113B2	F	L	K	D	V	H	L	D		F	A	V	T	S	S	P	M	L	R	P	K	E	T	A	E	I	L	L	E	H	H		P	D	V	I	E	L	K					
UniRef90_UPI000476BA12		F	L	K	S	V	K	L	D		F	A	V	T	S	P	M	L	R	P	K	E	T	A	E	I	L	L	E	H	H		P	D	V	I	E	L	K					
UniRef90_UPI000411819B	S	C	K	L	R	D	Y	P	V	D	V	C	F	T	S	M	L	F	R	A	M	E	T	A	T	E	C	D	E	I	C	A	G	K	I	P	V	F	K	H				
UniRef90_UPI00036F70C3	R	L	A	S	R	M	N	G	R	Q	P	I	Y	S	S	D	L	Q	R	A	Q	Q	T	A	Q	I	P	T	A	S	A	L	G	L	P	L	Q	L	C	T				
UniRef90_UPI00047A83DC	R	M	S	S	C	R	V	D		R	I	Y	S	S	N	L	S	R	A	V	Q	T	A	N	Y	I	S	Q			V	V	K	K	D	V	V	V						
UniRef90_Q07UT3	K	L	K	T	Q	G	F	V	E	D	V	A	F	T	S	A	L	T	R	A	Q	H	T	L	D	L	M	L	T	E	L	G	Q	T	G	L	P	T	T	R				
UniRef90_L8LT88	E	T	L	K	D	Y	P		L	T	A	I	Y	C	S	P	L	Q	R	A	M	G	T	A	E	I	I	S	N	S	R	E	H	P	L	R	V	Q	P					
UniRef90_K9SXX2	A	L	A	N	L	A	I	D		T	A	Y	C	S	P	L	V	R	A	N	Q	T	A	N	L	I	L	E	N	R	S	I	N	L	N				T					
UniRef90_R5HUW1	K	I	A	E	E	G	I	K	A	D	E	I	L	Y	S	P	L	I	R	A	S	E	T	A	R	Y	I	S	E	I	T		G	I		P	R	R	V	P				
UniRef90_C1CVZ0	R	L	T		G	L	H	K	F	D	A	V	Y	T	S	S	D	L	I	R	A	S	Q	T	A	D	A	V	A	E	R	L	A	G	A	P	V	V	Q	P				
UniRef90_K9YW58	V	L	R	Q	L	D	V	A	T	F		Y	C	S	P	L	Q	R	A	K	Q	T	A	E	I	Q	S	C	F	D	V	T	P		S	L	E	V						
UniRef90_S5DVJ3	H	L	K	G	T	R		F	R	G	I	F	A	S	S	P	L	D	R	A	F	N	T	A	Q	G	I	D	N	A	M	N	A	N	L	P	V	V	I					
UniRef90_B2IEV6	G	L	K	A	K	G	L	A	F	D	I	A	F	T	S	S	A	L	T	R	A	Q	H	T	L	K	L	I	L	G	E	L	G	T	P	D	V	T	T	R				
UniRef90_A8IGZ9	L	L	A	A	E	G	L	S	F	D	V	A	Y	T	S	A	L	T	R	A	Q	R	T	C	Q	L	V	L	E	E	M	G	L	T	G	L	R	T	I	A				
UniRef90_E8U7E6	R	L	T	A	Q	T		F	D	A	V	Y	T	S	S	D	L	A	R	A	Y	D	T	A	Q	A	V	A	E	R	L	S	G	P		P	E	V	R	I				
UniRef90_F6EEJ9	R	L	A	R	Q	R	G	R	I	A	A	V	V	S	S	P	L	T	R	A	Q	Q	T	A	H	A	V	A	E	G	L	G	V	D	V	H	V	Q						
UniRef90_R7MTE5	G	L	K	A	A	G	I	P	F	K	A	A	Y	S	S	D	S	G	R	T	I	Q	T	M	D	I	L	R	E	T	G	L	E	T	I	P	Y	K	R					
UniRef90_Q3ALQ7		S	L	E	D	V	S	L	Q	A	I	Y	S	S	P	L	Q	R	A	A	A	T	T	A	S	L	L	E	T	K	G	G	Q	S	P	A	P	V	F					
UniRef90_UPI0002ECEB1C	K	G		L	Q	D	I	S	F	D	A	A	F	S	S	P	S	K	R	A	Y	D	T	A	E	I			L	V	G		H	Y	L	T	I	E	K					
UniRef90_K9P2T1		A	L	A	E	L	A	F	T	A	I	Y	S	S	P	L	Q	R	A	S	A	T	A	V	A	L	L	A	S	H	G	S	P	L	A	P	V	F						
UniRef90_C3C210	I	L	K	K	N	E	Y	T	F	D	V	A	Y	T	S	S	D	L	K	R	A	I	R	T	L	W	I	V	L	H		E	M	D	L	A	W	V	P	H	K			
UniRef90_ROH5X8	R	L	A	K	E	P	K	I	S	Y	V	Y	S	S	S	D	L	K	R	A	F	E	T	A	Q	I			A	A	K	C	G	K	L	E	V	L	T					
UniRef90_S0J9D7	L	G	L	Q	D	I	D	F	S	E	A	V	S	S	S	D	S	G	R	A	I	E	T	M	R	I	L	L	S	E	H	P	D	G	P	M	P	Y	R	V				
UniRef90_T0ZGQ1	Q	L	I	E	E	K	L	T	V	D	I	A	F	T	S	S	V	L	K	R	A	I	R	T	L	W	L	M	L	D	E	M	D	R	M	W	I			P	V	E	R	
UniRef90_A9WDJ8	R	L	A	N	E	G	V	T	F	S	A	I	Y	T	S	S	D	L	A	R	A	Y	Q	T	A	W	E	I	G	A	L	R			V	P	V	Q	L					
UniRef90_U3CG82		L	L	E	Q	F	E	I	H	K	A	Y	V	S	S	P	L	Q	R	A	V	D	T	S	D	I		V	L	E	G	R	D	V	E	V	T							
UniRef90_A0A023BBQ4	R	L	K	E	F	C	I		A	R	I	F	T	S	S	V	L	Q	R	S	I	M	S	A	E	I	V	C	A	V	T	G	Q	S	P		P	V	E	S				
UniRef90_UPI00037Z6S6	R	M	A	N	T	N	I	D		Y	I	Y	T	S	S	P	I	G	R	A	F	K	T	A	E	I	V	R	G	C			R	D	I	K	M	I	K					
UniRef90_V4RW71	R	L	A	K	E	F	K	I	S	V	I	Y	S	S	S	D	L	K	R	A	L	E	T	A	Q	T	I	A	N	R	C	G	G	L	K			V	I	E				
UniRef90_M9VIC9	V	I	A	G	M	D	P		V	A	I	V	S	S	P	L	V	R	A	R	V	T	A	E	T	I	G	R	A	A	G	L	E	V	G	F								
UniRef90_UPI00046A9068	W	L	A	H	Q	P	I	D		A	I	Y	S	S	S	D	L	S	R	A	Y	E	T	A	K			E	I	A	A	Y	H	S	I	E	V	Q	K					
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UniRef90_A4G1U3	A	L	L	D	E	P	L	D		A	I	F	S	S	S	D	L	K	R	A	L	G	T	A	Q			G	I	A	I	P	R	G	M	S	V	Q	L					
UniRef90_K8GME8	S	C	K	L	R	N	Y	R	V	R	V	C	F	T	S	M	L	F	R	A	I	E	T	A	T	E	V	D	D	I	C	D	G	R	I	P	L	K	H					
UniRef90_U2HTX1	Q	L	L	D	Q	K	I	D		M	A	F	S	S	S	K	L	L	R	A	R	T	L	A	I	M	L	E	E	M	D	Q	V	T	I	P	I	M	I					
UniRef90_C4GM97	A	I	A	Q	A	Q	I	P	F	A	A	A	Y	C	S	S	P	L	T	A	A	T	A	Q	I	L	Q	H	A	R	Q	P	H	I	T	P	V	A						
UniRef90_UPI0003465383	G	L	R	E	A	Q	L	P	F	A	K	A	F	S	S	D	S	G	R	T	I	Q	T	M	S	I	L	E	E	L	G	L	T											



	90	100	110	120
UniRef90_U5QM61	D E A L N E R H Y G E L Q G L N K A E T A A K F G A E T V Q R W R R G F E			
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UniRef90_UPI0002E76556	D K N L L E I V D L H K W S G L T E S K D I K S K Y K P E S Y L I W K N D P E K L E			
UniRef90_UPI0003004853	L D E L S E I S H G L W E G K L E T E D I K S T W P K D S M L N K W H Q E P E N V I M			
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UniRef90_K9Z3H3	M E K L R E I N L P E W E K W K E D V K R E F P E A Y R T W K E K P D E L K M			
UniRef90_E2ZD03	D E R L T E I N H G L W E G R L A G D I E A E Y P D E F A A W H T K P H T V Q M			
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UniRef90_K9SXX2	H E N L R E I N L P L W E G L T F G E V R S K Y P E Q Y N N W H A P E Q L E M			
UniRef90_R5HUW1	E P R L I E Q N F G K W E G T P R N G A D F K K A K E I F A C N Y E			
UniRef90_C1CVZ0	D Y A L R E I N V G E L A G L V I A D I R A R F P E Y L E A L A Q D S W T T R			
UniRef90_K9YV58	S D L L Q E I V D L P L W E E M K K E E V V S R Y P E E Y D C W K N R P H D F K M			
UniRef90_S5DVJ3	D E R L R E F N L G D M E G M K F A E A E K K F P E E Q M D N F W N H P D			
UniRef90_B2IEV6	E Q A L N E R D Y G D L S G L N K D D A R A K K W G E E Q V H V W R R S Y D I S P			
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UniRef90_E8U7E6	D A G L R E I D V G E L A G R D R A T L E Q D Y P A Y L A A L R T D P W R T R			
UniRef90_F6EEJ9	D G F I E T D F G E W E G L T F A E A A E R D P E L F Q			
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UniRef90_R0H5X8	D R D L R E R H L G D M Q G V V Y Q E A S K F C P E A Y A K F S S N R T D V			
UniRef90_S0J9D7	D K R I R E W F G S L E G A Y D A E M W G V I P R V L N F Q N Y D E M I D R D			
UniRef90_T0ZGQ1	S W R L N E R H Y G A L Q G L D K A Q T V E R H G E A Q V K I W R R S Y D I P P			
UniRef90_A9WDJ8	L P A L R E I D V G A W S G L T T A E V R A R F A D D W E Q M I R			
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UniRef90_V4RW71	D E L R E R H L G D L Q G L V F R E A A K Y C P I A Y Q A F L S G K			
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UniRef90_A4G1U3	H K G L R E R C F G A L E G L L H P E I H A R Y P D E Y A A W K R R D I D A N Y			
UniRef90_K8GME8	D V D D V D W H G W D K Y N G D P E Q E L P V Y T V P A L D E R Y Y G E L Q G L			
UniRef90_U2HTX1	T A C L N E R S Y G M L E G L N K A E T V L K Y G E A Q V Q E W R R S F D V			
UniRef90_C4GM97	L D D L R E Y H F G S F E R Q P S R H I H Q E L G Y D S T E D W L A D Y R S G K			

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130 140 150 160

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K Y D P S I I N G E S Y P E V I N R G K D F A  
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P E G E S I E D V S K R S L K A W Q S I C K N  
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L L S T P E G Q R E H F P V L S L Y E Q A Q Q  
P E G E S I K D V S Q R S V E A F D K I C  
D I W K K T P H Q L I I E N G E S L Q D V Q K R V M K  
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PSLDNGSVTVVA YENG  
LRV DNTS V L V F N I R P G  
FEIEGASVTKI I V T KENRM I E Y  
LRLDNA S L S V L N L G E GGR P  
DK I L N T S V N V F H L Y D G D K W T I Q V W H L D Q  
MDL DNGS V T R L S YENG  
Y H I G N T S I T I L E I G Y K V K T V N D M R H L E A E  
IDPENATLI Q I E K D D N G S V V V K  
FELPSAV P I V Y N I T Q N R T I A G K S I L M D P D  
P I H P T S L T K V E I K D N V R K V I M H  
GKVLNTS I N I F R L T E K N K W V L K T W  
FGLGN C S W T V L D  
FAI GNTS L T T I D F N D  
LNV E P G G I A V L S Y N H H  
FDVLNAS I N R V S W D  
VELGTAI P I I Y D I D S T G Q V T N K  
REMATGL P L C Y E M K D  
RSVPNASATLLRYN  
GLQNGSVTVVDYEN D T F T I  
IVLDNCAV L K F T Y E D G  
HGLSNTS L T I L E T D D E G K T F K K  
YAPANCALSI IEFNAQ P R I V  
GGLANTSTTI L E T K D G K N  
LELSTGI P L L Y I F K E G  
LEI DNGGVMVVDVDENGTWT  
GRVLNTS I N I F H I S D G D R W T I K T W  
V K V D N C G V C E I E L H K G  
ITLATGI P R V Y E F T S D M K L H A V H Y L  
FKLDNGSIT K M V V T D D G F I  
C K I H N T S V S V I L V S D S G R C I V K M  
WFLNNGSVTRGIL H D D G S F E I V D Y N V D A E  
WF L S N A A I N R I L W T P D G L T L V D T R H L D D E A  
LEQSN P A A L S I L E F T S G L R V  
IKQGNNGAVSVI DY P QG  
IQQSN CC I NVL N F T  
WE L G N A S I N R L L W T P E G  
MALENGSVTTLT Y E K G T F T I  
YDIGN C H I L K F E Y D D N  
LELSTGI P M L Y I F K G G K F I R R G  
LKL DNA S F S I L N I  
KL L N A S V N V V H Y R E E K W I I D S W  
WALDNTA I N R L L W T P E G F T L V D T Q H L N G D A  
LELSTGI P M L Y I F K E G R F I R R G  
LAQGN T A V S V V D F W G D Q S P Y N R I C I L N D  
LEL P T G K P I V Y E W T E  
WQLGNAA L N H L L W T P E G  
ISVKNGAVTQL ELA A D  
INVE P G G I A T L S Y N H N  
IGFTN C S A L I F D Y Q D G  
FDI AN C A L N W I A H D A G G W R I E R  
VDI P N G I P L V I E L D N N F K F L R K Y Y L D P E  
Y A Q P N A S Y S V E D L I D G  
FVL DNA S V T V L T Y E N G L F K V E R  
H V P Y N C S V S I L E G D G D G

	1		10		20		30		40																																
UniRef90_H1PUY5	E	I	Y	F	I	R	H	G	E	T	L	W	N	T	L	K	L	F	Q	G	R	S	D	S	P	L	T	E	L	G	I	S	Q	A	E	K	L	S	E		
UniRef90_U7UFJ2	R	I	I	L	I	R	H	G	E	T	Q	W	N	T	L	E	G	R	Y	Q	Q	G	E	D	T	A	L	S	E	K	G	V	Q	Q	G	H	L	V	A	E	
UniRef90_A9WI66	R	L	I	L	V	R	H	G	E	T	P	W	N	T	L	Q	T	L	Q	Y	Q	Q	H	A	P	I	P	L	N	E	R	G	R	E	Q	A	R	R	A	G	
UniRef90_W6KBN0	P	E	M	I	L	L	R	H	G	E	T	Q	W	N	R	A	R	R	Y	Q	Q	G	Q	D	S	P	L	T	L	T	G	I	G	Q	V	R	R	A	I	E	
UniRef90_R5QU37	T	L	Y	L	M	R	H	G	Q	T	L	F	N	A	R	K	K	I	Q	Q	W	C	D	A	P	L	T	E	L	G	I	K	Q	A	K	I	A	G	K		
UniRef90_W7DCE4	T	F	Y	F	V	R	H	G	K	T	E	W	N	L	A	R	R	M	Q	Q	W	G	D	S	P	L	T	E	E	G	I	H	Q	A	I	A	T	G	E		
UniRef90_J3JPK9	T	L	Y	L	M	R	H	G	E	T	L	F	N	K	Q	K	R	V	Q	Q	W	C	D	S	P	L	T	E	T	G	I	G	Q	A	Q	Q	A	R	D		
UniRef90_I7IVC5	T	E	V	Y	L	V	R	H	G	E	T	M	F	N	Q	L	N	K	V	Q	Q	W	S	D	S	P	L	T	V	K	G	I	N	D	L	K	V	T	A	R	
UniRef90_R6EM37	K	I	Y	L	V	R	H	G	E	T	D	W	N	Q	A	G	L	L	Q	Q	G	T	D	I	A	L	N	A	Q	G	L	E	Q	A	H	D	A	E			
UniRef90_R5JXH8		F	Y	F	T	R	H	G	Q	T	V	W	N	V	E	N	K	I	C	G	A	T	D	I	A	L	T	E	L	G	H	Q	A	V	Q	L	A	G	E		
UniRef90_U5PP58		I	F	L	I	R	H	G	E	T	F	F	N	K	F	R	R	V	Q	Q	W	S	D	S	P	L	T	Q	T	G	L	S	Q	S	R	K	I	A	E		
UniRef90_UPI0003784A85	T	K	I	Y	L	M	R	H	G	E	T	L	F	N	T	Q	K	R	V	Q	Q	W	C	D	S	P	L	T	A	K	G	I	E	Q	A	K	I	A	H	A	
UniRef90_UPI000360CADA	P	R	I	Y	L	V	R	H	G	E	T	A	W	S	L	S	R	R	A	T	G	R	A	D	I	P	L	T	D	R	G	E	R	D	A	Q	E	L	G	A	
UniRef90_G7VKE5	K	L	Y	V	V	R	H	G	Q	T	I	F	N	T	L	N	K	V	Q	G	W	A	D	T	P	L	T	K	K	G	E	K	D	G	Q	E	A	G	K		
UniRef90_UPI000379FC75		L	L	L	V	R	H	G	E	T	E	W	S	R	D	G	R	F	T	G	R	T	D	L	P	L	T	T	G	V	G	I	E	Q	A	R	A	L	A	P	
UniRef90_A5TWJ7	E	I	Y	F	V	R	H	G	Q	T	V	W	N	V	E	K	R	F	Q	G	L	S	D	S	P	L	T	E	L	G	I	T	Q	A	K	I	A	L	G	E	
UniRef90_UPI0002FFA769	T	L	Y	L	V	R	H	G	Q	T	Y	F	N	I	Y	N	K	L	Q	Q	W	S	N	S	P	L	T	D	K	G	L	A	D	A	K	S	A	G	E		
UniRef90_D5DCI5		L	Y	L	I	R	H	G	Q	T	D	W	N	K	N	K	L	I	Q	Q	G	H	A	D	I	P	L	N	E	A	G	K	Q	Q	A	K	R	V	A	E	
UniRef90_F3YB18	T	K	L	Y	L	V	R	H	G	K	T	M	F	N	T	I	G	R	T	Q	G	W	S	D	T	P	L	T	K	E	G	V	E	I	H	Y	L	V	G	K	
UniRef90_F4C6I3		T	V	Y	L	L	R	H	G	E	T	A	Y	N	A	D	G	R	Y	C	G	L	T	D	I	G	L	T	E	R	G	V	E	Q	A	K	R	V	A	F	
UniRef90_A5V214	T	S	V	W	L	V	R	H	G	Q	T	T	L	N	K	R	R	Y	Q	Q	G	L	A	D	S	P	L	T	S	F	G	M	Q	Q	A	E	A	L	A	R	
UniRef90_UPI00047BBB8E	T	T	L	L	L	V	R	H	G	Q	T	T	Y	S	A	E	H	R	Y	C	G	H	S	D	I	A	L	T	E	V	G	E	Q	Q	A	E	D	S	A	A	R
UniRef90_K3ZP30	E	V	V	L	V	R	H	G	Q	T	D	W	N	V	S	R	I	T	Q	G	R	I	D	Q	E	L	N	E	T	G	R	Q	Q	A	A	K	V	A	R	E	
UniRef90_F4L8Q4	T	E	I	W	F	I	R	H	G	E	T	D	W	N	R	Q	R	R	L	Q	Q	W	Q	D	I	P	L	N	E	S	G	R	E	Q	A	R	L	L	A	E	
UniRef90_E3GAQ8		Q	V	Y	L	V	R	H	G	E	T	D	W	N	A	E	R	R	L	Q	Q	S	D	S	P	L	T	T	E	K	G	E	Q	Q	A	W	Q	V	G	E	
UniRef90_W4CSX9	T	T	I	F	L	T	R	H	G	Q	T	E	W	N	V	Q	H	R	M	Q	G	H	M	D	S	E	L	T	A	L	G	V	Q	Q	A	E	W	L	S	R	
UniRef90_UPI0002C369ED	E	I	M	V	I	R	H	G	E	T	A	W	N	A	D	G	R	I	Q	Q	G	H	L	D	V	E	L	N	D	A	G	R	K	Q	A	A	A	V	A		
UniRef90_G5HLA2	K	I	Y	L	I	R	H	G	Q	T	D	W	N	V	E	G	K	I	Q	G	R	Q	D	I	P	L	N	A	A	A	G	K	M	Q	A	Q	A	L	A	K	
UniRef90_UPI00036EC86A	P	I	L	V	F	I	R	H	G	E	T	D	W	N	A	E	G	R	F	Q	Q	G	R	D	I	P	L	N	A	R	G	R	L	Q	A	Q	R	N	G	R	
UniRef90_Q07HS4	P	T	I	Y	Y	I	R	H	G	Q	T	D	W	N	A	T	G	R	F	Q	Q	G	T	Q	D	I	P	L	N	D	N	G	R	A	Q	A	V	A	A	G	G
UniRef90_R5A6K0	T	T	L	Y	I	V	R	H	C	Q	S	A	G	N	Q	G	R	F	Q	Q	G	F	D	G	P	V	N	E	N	M	G	E	K	Q	L	E	L	L	S	L	
UniRef90_UPI00036E3A52	T	L	L	L	L	R	H	G	Q	S	V	L	N	A	Q	D	R	F	T	G	L	L	D	P	P	L	S	A	T	G	E	D	E	A	A	R	A	G	A		
UniRef90_D6Y3R9	T	S	L	L	L	I	R	H	G	E	T	P	F	S	V	E	K	R	F	S	G	V	G	D	P	S	L	T	P	N	G	M	A	Q	A	E	A	L	A	R	
UniRef90_D9SNY6	K	L	L	L	L	R	H	G	E	T	E	C	N	K	K	G	V	Y	M	G	S	T	D	V	P	L	N	T	E	T	G	I	R	Q	G	E	I	L	R	E	
UniRef90_I1CYF0	T	R	L	L	L	L	R	H	G	Q	T	P	M	S	V	D	R	Y	S	G	A	G	D	V	R	L	N	T	E	L	G	T	R	Q	A	E	A	A	K		
UniRef90_R9KY97	R	L	Y	M	L	R	H	G	E	T	E	W	N	V	K	K	R	F	Q	Q	G	S	D	I	P	L	N	N	E	G	R	K	I	A	R	I	T	A	E		
UniRef90_R6FJY8		I	Y	F	T	R	H	G	Q	T	V	W	N	V	E	K	I	C	G	A	T	D	S	P	L	T	E	L	G	H	K	Q	A	I	E	L	G	E			
UniRef90_H3SK85	T	T	L	Y	L	T	R	H	G	Q	T	E	W	N	V	E	E	R	M	Q	G	H	K	D	S	P	L	T	S	L	G	V	L	Q	A	E	W	L	Q	Q	
UniRef90_X5R2J5	P	L	V	Y	I	V	R	H	G	Q	T	A	W	N	A	E	A	G	R	L	Q	Q	G	A	D	I	D	L	N	E	L	G	R	E	Q	A	S	R	N	G	R
UniRef90_UPI0003774169	P	Q	L	V	L	L	R	H	G	Q	T	E	W	S	A	S	G	Q	H	T	G	R	T	D	L	P	L	T	E	D	G	E	R	Q	A	R	S	A	G	A	
UniRef90_I4D861	K	I	L	L	T	R	H	G	Q	T	V	W	N	T	E	G	R	V	Q	G	R	L	D	S	P	L	T	T	E	K	G	L	I	Q	A	R	S	L	A	L	
UniRef90_W3Y5N6	T	L	Y	I	V	R	H	G	E	T	D	W	N	K	A	E	R	K	Y	Q	G	I	T	D	V	P	L	N	E	N	G	L	A	Q	A	K	A	C	G	E	
UniRef90_J2L5U8		I	Y	V	I	R	H	G	Q	T	D	W	N	A	E	R	R	L	Q	Q	G	K	D	I	P	I	N	A	I	G	R	E	Q	A	K	Q	N	G	A		
UniRef90_B1B9M6	T	T	I	Y	L	T	R	H	G	Q	T	E	W	N	L	N	K	R	L	Q	Q	W	K	N	S	P	L	T	E	L	G	I	S	Q	A	K	A	L			
UniRef90_W4M916	R	L	L	L	T	R	H	G	E	T	H	W	N	A	A	A	R	F	Q	G	H	S	D	V	P	L	N	E	R	G	Q	Q	Q	A	A	A	L	A	Q		
UniRef90_D3QEF8		L	Y	L	M	R	H	G	Q	T	L	F	N	L	K	G	R	I	Q	G	S	S	D	S	P	L	T	D	L	G	V	Q	Q	A	A	A	G	H			
UniRef90_UPI0003D29061		L	I	L	T	R	H	G	E	S	M	W	N	E	K	N	L	F	T	G	C	V	D	V	P	L	T	T	K	G	V	D	E	A	I	E	A	G	K		
UniRef90_S4Y073	T	K	L	M	L	I	R	H	G	E	T	D	D	N	R	A	Q	V	F	Q	Q	G	A	G	R	G	L	N	A	R	G	R	E	Q	A	R	L	A	A		
UniRef90_X0MZ42	T	D	F	L	L	V	R	H	G	E	T	V	W	H	A	E	N	R	Y	A	G	R	S	D	V	P	L	T	D	R	G	R	E	Q	A	R	T	L	A	H	
UniRef90_J7S191	R	V	F	L	V	R	H	G	Q	T	D	H	N	V	K	K	L	I	Q	G	H	R	D	I	P	L	N	V	D	G	V	K	Q	S	H	S	L	G	E		
UniRef90_G9PZS2	T	S	I	Y	L	I	R	H	G	E	T	C	A	G	N	K	E	N	R	I	R	G	C	M	D	F	P	L	N	E	N	G	V	L	Q	A	H	A	L	A	K
UniRef90_A2SCK3	T	R	I	V	A	V	R	H	G	E	T	A	W	N	V	D	T	R	I	Q	Q	L	D	I	P	L	G	L	N	E	N	G	R	W	Q	A	G	R	V	A	Q
UniRef90_UPI00037412CD	E	F	W	F	V	R	H	G	E	T	D	W	N	R	E	R	R	L	Q	Q	W	Q	D	I	P	L	N	D	T	G	L	S	Q	A	A	R	L	A	R		
UniRef90_G7M4R3		L	Y	L	M	R	H	G	Q	T	L	F	N	I	R	R	K	L	Q	Q	W	C	D	S	P	L	T	E	L	G	I	A	Q	A	K	V	V	G	Q		
UniRef90_I3E070	T	L	Y	I	T	R	H	G	E	T	V	W	N	A	E	N	R	M	Q	Q	G	R	L	D	S	S	L	T	D	K	G	K	L	H	A	Q	L	L	G	R	
UniRef90_D7GCX1	T	R	L	V</																																					

		50	60	70	80
UniRef90_H1PUY5		K L K D I E F T D F Y S S	P M G R T I Q T T K I I M G D R K Q E I K F I L		
UniRef90_U7UFJ2	G L R Q V P I D V C I S S	P L R R S Y L T C T F C A D L H R L Q V V K			
UniRef90_A9WI66	R L R L V R S G A V I F S S	D L P R A W E T A E I I G S H V N L Q P V A M			
UniRef90_W6KBN0	R D H I N E G T G A D L W S S	P L P R A R Q S I S I F C D Q L D L D Y G S V R F			
UniRef90_R5QU37	Y F K D N N I V F D H A Y S S	T S E R A C D T L E L V C D L G D R D L E V R T			
UniRef90_W7DCE4	A L R G D V D F T A V Y S S	P S K R T V D T A S Y I L G D R D L E V R T			
UniRef90_J3JPK9	Y F Q R Q G I L F D R A Y S S	T Q E R A T D T L K V I T D I L G D R D L E V R T			
UniRef90_I7IVC5	N L S Q V H F D R M Y S S	D L K R A I D T V H L M K D A N E V S E L G K I K			
UniRef90_R6EM37	R L K K V P F E I A F C S	P L I R A K R T A E I I G D R K I T L T T			
UniRef90_R5JXH8	Q I V A Q G I R I D K I L Y S	P L I R A A E T A R H I S E V T G I P R Q M			
UniRef90_U5PP58	Y F L V N G I K L E A V F S S	D S G R A I E T S E T I V E E L N I Q T P H N K			
UniRef90_UPI0003784A85	W F E G K G I R F E E V Y S S	T Q E R A C D T A K I V A P S Q N V T Q			
UniRef90_UPI000360CADA	T Q L Q G L S F V Q V L T S	P L Q R A Q R T A A L A G F D D C A Q F			
UniRef90_G7VKE5	R L K N V A F D V A F S S	D T S R A M H T A E Y I L L A E N I H E H T K L Q I			
UniRef90_UPI000379FC75	V L A G R R I A T V L C S	P L Q R A V R T A E I L A L P G R R G T V L			
UniRef90_A5TWJ7	K L K D I K F D K F Y S S	D L K R A N D T A K Y I K G N R E Q E V E I			
UniRef90_UPI0002FFA769	R L A N V S F A A A Y C S	D T T R A Q Q T A A T I T E N N V S N V K Q P I S			
UniRef90_D5DCI5	R F R D I H I D V I Y T S	D L L R A Q E T A R E I A A A A K V E K I E V			
UniRef90_F3YB18	G L K E I P F I N A Y S S	D S G R A M Q T A Q I I L G E H P A S T I P Y Q T			
UniRef90_F4C6I3	F L K D T P I E A V Y A S S	P L Q R A F T T A A L A I E G K I Q I Q K			
UniRef90_A5V214	R L R R I P F T V A F V S P T	G R T R A T A T V I L R G R T T T V I E			
UniRef90_UPI00047BBB8E	A V A E R G V I D L V V S S	P L Q R C Q V T A K K I A E K T G A E L E T			
UniRef90_K3ZP30	R L S E E A K P A A V Y S S	D L K R A S E T A Q T I A A H C C V S D S D L V I			
UniRef90_F4L8Q4	R L R D T A S E H P F A Y S S	D L K R A H D T A A S L S A A L Q L R V R T			
UniRef90_E3GAQ8	R A R T L G I T H I I A S	D L G R T R R T A E I I A D A C G C A V A F			
UniRef90_W4CSX9	G M R T E Q L D V I Y A S S	P S P R A L R T A E I I R G E R S T P L K T			
UniRef90_UPI0002C369ED	N R L S K D P K I S L V Y S S	D L K R A Y E T A Q I I A A R C G G L N V I T			
UniRef90_G5HLA2	G M E N R P I T A I Y S S	P Q L R A M E T A Q A I A A A Q N V P I H T			
UniRef90_UPI00036EC86A	V L L E R M P E G F D F V A S	P L E R T R Q T M E I A R G A M G L D P S A Y R L			
UniRef90_Q07HS4	K R E G R D P A S L A Y V A S	P L C R A R V T M E L L R G A L D L P P D Y A T			
UniRef90_R5A6K0	R F R N E H L D A I Y S S	P L T R A Y K T A Q A I D R F H D L P I Q T			
UniRef90_UPI00036E3A52	L L A S A S F F P A V V Y T S	T L S R T R D T A R I V L D V L G G P D V P V I P			
UniRef90_D6Y3R9	R L A G E R V D A I V S S	P L K R A R Q T A E I A I A A R T G L A V E I			
UniRef90_D9SNY6	K L K D V R F D K I I T S	P Y S R A Y K T A E I I A Q E N Q I E I			
UniRef90_I1CYF0	R I A A M E D E V V H V V S S	P L L R A T Q T A Q K V A D A L G T R V I E T			
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UniRef90_R6FJY8	K I K S E N L Q I D E I L C S	P L S R A D T A K H I A E I T G V P L R V			
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L P L L V I E I G Y G N W E G R R A E D I L T T D R E L Y E S W W Q H P A T V A P  
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UniRef90\_A5CT63 I E V D N A S P I E F S I E E  
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UniRef90\_E6ZV93 F E M D A G G M V V L G Y A H H  
UniRef90\_UPI00047EAC53 E M L D N A S V T K L M W E N D  
UniRef90\_K0VNI9 S F I H G T S L T I V E S T D Q G D V V  
UniRef90\_UPI0003B642DD F V L D T T S I S V L G Y E H D L E P V I R R W  
UniRef90\_C0VZF7 L K L D T A H L S V L S L Y K G D H V I  
UniRef90\_D3PVY4 F H L D N C H W A V L E  
UniRef90\_A0A023CU78 F G M E N C H W A D L R L E H T G  
UniRef90\_H5XB80 G G L A N T S T I L E T S N G  
UniRef90\_A4VTP7 L H L D L A S L S V V D F Y G D G N  
UniRef90\_UPI0004757385 G G L D N A S V T I L E T S D F E N F T E L A W  
UniRef90\_V7I945 L G L S N C C W S V L  
UniRef90\_UPI0003703B6C P V V K Q T S I S L V K F D D D  
UniRef90\_UPI00036098C5 M H V D V S S V T R V D V F S D G R S F N D T H H L E  
UniRef90\_F4RA59 I D N T A I T R V R Y D  
F V V D T G S V T V G Q Y Y H G L

UniRef90_J7LG19	T	R	L	T	L	R	H	G	R	T	P	L	S	V	E	R	R	F	A	G	R	G	D	I	P	L	T	E	E	G	H	A	Q	A	E	A	A	A	R					
UniRef90_I5BTJ7	P	L	K	I	Y	L	I	V	R	H	G	Q	T	A	W	N	V	E	R	F	A	Q	R	D	T	M	P	L	N	A	E	T	G	Q	V	A	Q	A	E	R	N	G	A	
UniRef90_UPI0003B5E34C			K	I	Y	L	V	R	H	G	Q	T	N	L	K	A	K	L	M	Q	G	R	T	D	M	P	L	P	N	A	E	T	G	Q	V	A	Q	A	H	K	R	E	A	
UniRef90_J9E7X0				V	L	F	R	H	G	Q	T	V	Y	N	A	E	N	G	R	F	C	G	T	S	D	V	P	L	T	A	L	G	E	W	Q	Q	A	R	C	A	A	Q		
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UniRef90_UPI000289CFA7	T	K	L	Y	I	T	R	H	G	E	T	E	W	N	K	L	I	G	K	M	Q	G	W	N	D	S	P	L	P	T	T	E	L	G	K	V	I	Q	A	Q	W	L	R	D
UniRef90_F4K9Y6			R	V	V	L	V	R	H	G	Q	S	T	W	N	E	E	G	R	I	Q	G	S	S	V	L	P	L	T	T	K	K	G	E	S	Q	A	E	I	S	R	Q		
UniRef90_A9VRU1	T	T	V	Y	V	T	R	H	G	E	T	E	W	N	V	A	G	R	M	Q	G	R	K	N	S	A	L	P	L	T	T	E	N	G	M	I	Q	A	K	Q	L	G	E	
UniRef90_W8T4K7			R	F	F	I	V	R	H	G	Q	T	K	W	N	T	Q	L	K	T	Q	G	Q	D	S	S	L	P	L	D	E	I	G	M	I	Q	T	Q	K	L	A	K		
UniRef90_UPI00036BA093	T	R	L	L	L	L	R	H	G	Q	T	A	L	S	I	E	Q	R	Y	S	G	R	G	N	D	P	L	P	T	T	E	T	G	L	A	Q	A	Q	A	A	E	A		
UniRef90_UPI000374AE7A	T	K	L	C	I	T	R	H	G	E	T	N	W	N	I	F	G	I	L	Q	G	W	L	D	V	P	L	P	L	T	N	E	T	K	G	R	I	Q	A	E	L	A	E	
UniRef90_L7KSR9	T	R	F	I	L	L	R	H	G	Q	T	A	L	S	V	E																												

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UniRef90\_I4M2L4  
UniRef90\_R8BFV9  
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UniRef90\_F3S548

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UniRef90_I5BTJ7	D E R L L M E L N D F G D W Q G F T Y A E L E A A D P G C T A G R S S D K W G F V P			
UniRef90_UPI0003B5E34C	D E R L L M E L N D F G D W Q G F T Y A E L E A A D P G C T A G R S S D K W G F V P			
UniRef90_J9E7X0	E P A F R E V G F G S W E G L T R A E V N K R Y P D M Y A Q W L A D P A D V N I			
UniRef90_K5Y631	E E A R E W D Y G E F E G L R T A E I L E R S P G W N G W T D G Y P G G E S V			
UniRef90_H0UHKK7	C P E L C E I S F G K W E T C T R D E I L A S S W A D A Y A S W G E D P D S V I T P			
UniRef90_UPI0002F5C436	H E G L R E S D F G W G E G R T L A E L A A D D P E R V H A F Q			
UniRef90_M3HII3	D E D V R E W E Y G D Y E G L K T A E I R K L R K D K G L H E W S I W R D			
UniRef90_I7K8R5	D E R L R E I N F G I F E G L S Y N S I L E R F Q K E V M E W N K D F V N Y K I			
UniRef90_G7U8W4	D D R L L E I D V G R W S G Q R A A D L R R N D P E Y A			
UniRef90_F9P7K5	D K R I R E W C F G S F D G A Y G G E L F Y G V I P R V L N T D D Y K E L S			
UniRef90_UPI000289CFA7	S L D L R E I R L G V W Q G L T Q E E I L S E L N K E N H Y N Y W N K P E K Y I T			
UniRef90_F4K9Y6	D Y D L R E I D L Y S F Q G L L K K E G K E K F G E A F K Q W Q E D P A N F I			
UniRef90_A9VRU1	D E C F Y E I N M G I W E G Q T I A D L E M Q Y P E E V H L F W N E P H			
UniRef90_W8T4K7	L P D L R E I D F G E W E G L T I E D I L K K S Y E E E F K M W R K E P			
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UniRef90_UPI000374AE7A	E G L K E R N F G L I G Q Q P K S E L A A S H P G L Y Q R E L L R R N			
UniRef90_L7KSR9	H P G L I E N D F G E W E G L T F V E A A E R H P E I H R K W L S D			
UniRef90_V8A436	E P R F T E Q S M G E W H N L P H Q E L P L K L			
UniRef90_R5K8U5	E P R L K E Q N F G R F E S T P R N G A E F M E A K S H F L D H Y D			
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UniRef90_H0X2B4	S E G I I E T D F G D W E G L T F A E A A E R D P Q L H R E W L G N T E I A P P			
UniRef90_J9HNX4	L A C L R E H R F G Q A E G L R Q E S D R R F P			
UniRef90_X2H5L1	E A L R E T C F G E Y E G D L D P N M W G P A G K H L G Y P S H K E L M E			
UniRef90_UPI0004782F9D	D S A L R E T Y A G V W Q G L T H E E I V E R H G D E Y A A W K R G E P V R R G			
UniRef90_R2SSL3	N I G F R E K N F G S F E G L S N D M N I A V A K A L N L D Y P E D S D E L W			
UniRef90_W4WU71		M N K A E T A A K Y G E K Q V K I W R R S F D V P P		
UniRef90_G5JYN7	T K V L R E W D L G N E W E G Q K L S V A I Y P Q M N A F R H N L A Q F D N			
UniRef90_UPI00031804BB	H D G L R E I G L G E W E G L N Q E E I K A L S A E Q H N F W N A P H L Y A P			
UniRef90_D2RCG0	C D S A L E W D Y G A A E G R T R A D I S K L S G V E A W D V W K H G P K V L P			
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UniRef90_UPI00046859EF	D K R L Y E A D Y G S W D G L S E A E L K V K Y P E V F E D E N N Y L L P N Y T K			
UniRef90_B0PAC0	E R G L M E I D G G A F E G V P F A E L P A R Y P E E N A R W D N T P W L F K			
UniRef90_C7XUN3	D S R L V E F D Y G S W D G Q K I E D L D Q Y P E Y F H D P V I Y F S Q S W K V			
UniRef90_E3IB21	E E Q L R E I H L I G D W E G K T H E E I K E M D P I A F D H F W N H P H L Y T			
UniRef90_I0H0L2	M E D L L E C D F G A W E G R T F A E V Q E Q W P A E M S A			
UniRef90_B8BJ46	D S D L R E I D L Y S F Q G L L K N E G K E R Y G V I Y R Q W Q K N A A N F S I			
UniRef90_F8LUK3	D K R L R E W D F G S F D G K D L N S V F N D I V K V N I R D K S N L L L E D			
UniRef90_R5RNW5	L K G L K E N F Y G Q L E G E S E R L N C H L T P K D C E T F Y			
UniRef90_G2R2B7	G E P F C E G R R C E A K I E V T E D I R E W D Y G D Y E G I T T P Q I K E L R			
UniRef90_UPI00047BF339	L K G L K E M F Y T Y E G E S E D L N K T P K D C E T F Y			
UniRef90_F2RLZ2	D E D L C E W D Y G G Y E G L T T A R I Q R D R P S W S L W R D G V A P Y A D G			
UniRef90_UPI0004680EF9	L K G L R E M S F G K F E G E H E			
UniRef90_E4UXW3	T E R L A E W D Y G D Y E G L V S A D I Q R M R K E R G L D K E R N W N I W			
UniRef90_U2Q904	L P E L N E I H F G E W Q G M T F K E T F L K F P K E A H N Y F Y D V K N Y N A			
UniRef90_W4BFU6	D P R L R E M G G Q V E G T E E E R L A K Y G A D W			
UniRef90_D3L5C5	E K G L M E I D H G K W E R L H V E E V K R L Y P E S F E M W H K E P			
UniRef90_H3BC66	W K V L N E I D A G V C E D M T Y E E I G E T Y P E E Y A L J R D Q D K Y Y R Y			
UniRef90_D9VNE6	E P D L H E W D Y G G Y E G V T T A E I Q R T R P D W S L F Y R R F F P R A T S			
UniRef90				



	130	140	150	160
UniRef90_J7LG19			P G G E S F A E V A R R V G A	
UniRef90_I5BTJ7	P G E A A		E S Y E T L A E R V K P	
UniRef90_UPI0003B5E34C		P A M T L Y W A L P E I F K A P	K T V E T V A S M V E R A S	
UniRef90_J9E7X0	P		G G E D I G Q R Q Q E V L T	
UniRef90_K5Y631	E E L Q S R V D S V I E K V R A Y H R Q Y Y E E G T			
UniRef90_HOUKK7	P D G E S F L S V R E R A A G V L R R			
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UniRef90_I7K8R5	P N G E S L K D L Y I R T E E F I K S L D			
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UniRef90_F9P7K5	L P E L A	N G L V E V D T A G W A E P W E Q L S S R I L D G F T		
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UniRef90_R6GXD2	R N G E E F K R A K Q D F V C R Y E			
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UniRef90_Q03PJ6	S I G K A K D F L K E A D P F H Q A E N N A E			
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UniRef90_HOR2B4	S G E S F Y A V E Q R V V A A R			
UniRef90_J9HNX4		N G A P D R E P P E A L Q A R V T Q		
UniRef90_X2H5L1	D F G K G K I R L N K I M D A I A A V E K S			
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UniRef90_R2SSL3	D F L K E Q L T E E E L A N K V A E V D P T Q T A E T Y N E M H Q R V S K V M P			
UniRef90_W4WU71	P S M E S D H K Y Y D I I V K D A R Y A D P D E F P K F E S L K L T I E R T L P			
UniRef90_G5JYN7	S M F N A		E S V Y S V T Q R I S	
UniRef90_UPI00031804BB	T S K		G E T F E D L T E R V S P	
UniRef90_D2RCG0	S H M V S D A K E V L P S G E T V D V H R T S G E S L Q E V S D R T Q K I I D M			
UniRef90_N1Q9R5	K K A G L D E H W D I W R D G C P G G E S P R Q I T E R L D V L I Q E I R E R F			
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UniRef90_B0PAC0			A P G G E S M R H V F E R M Q M	
UniRef90_C7XUN3	S G G E R Y Q Q		A Q T R L K	
UniRef90_E3IB21				
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UniRef90_B8BJ46	D G H Y P V R E L W D R A Q N C W		P G G E S F Q A V A K R V R G	
UniRef90_F8LUK3	V A N Y L Y			
UniRef90_R5RNW5		E N D V L N E V E S W E N L K K R I W L		
UniRef90_G2R2B7	K Q Q G L D P N W D I W R D G C P G G E S P T E R L D R L I K E I R E K W H A P			
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UniRef90_E8RF44					M	F	L	V	R	H	G	E	T	Y	Y	N	R	E	D	R	I	G	G		D	S	D	L	T	T	D	K	G	L	E	Q	A	H	A	L	A	E			
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UniRef90_E6PDR8				E	L	L	L	V	R	H	G	E	T	L	A	W	N	S	G	R	F	Q	G	R	S	D	I	P	L	T	S	D	H	G	R	R	Q	A	E	V	L	G	D		
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UniRef90_W6AE06				V	Y	L	V	R	H	G	K	T	M	F	N	T	S	R	R	V	Q	G	W	S	D	T	P	L	T	T	N	E	G	I	E	V	A	Q	F	L	G	R			
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UniRef90_R2PJJ3				R	L	Y	L	T	R	H	G	E	T	L	F	N	Q	L	H	R	I	Q	G	A	S	D	S	P	L	T	T	E	K	G	I	A	Q	A	K		A	A	R		
UniRef90_A0QET1				T	R	L	L	L	R	H	G	E	T	E	L	S	V	Q	R	Y	S	G	R	G	N	P	A	L	T	T	E	T	G	R	R	Q	A	D	A	A	A	R			
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UniRef90_D9WYD6			P	T	L	L	L	V	R	H	G	R	S	T	A	N	T	E	G	L	L	A	G	W	T	P	V	A	L	T	D	G	R	G	A	E	Q	A	A		A	L			
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UniRef90_I1D096	V F F R N C A L T T V	R W D G E G Q	
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UniRef90_R2PJJ3	F R N L S T I V M D F D		
UniRef90_A0QET1	L H L D L A S L S I A E F Y S D G		
UniRef90_B1LVP0	L V L G T A S V S V L G Y E H D T E P V L R A W N G		
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UniRef90_R6VG04	F G L E N C S I T Q L H Y D E D Q N G F Y L D		
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UniRef90_D7WT13	A P I H G T S V T V I E		
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UniRef90_L0MB31			
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UniRef90_C8TER3	I A M P T G A V S I V E L		
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UniRef90_E0UAB4	I G M P V A A L T I V T M T E Q G P L I E I M		
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UniRef90_E8W017	F Q L A T G A V S R L G T E H G K P V V		
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UniRef90_UPI000361B16A	L P L S N C C W S V L Q		
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UniRef90_F5ZHX0	M S N C S I L E F T Y D K D F Q V Q S V Y N P Y D Q E		
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UniRef90_UPI0003B63D82			
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UniRef90_X0RS82	I E Q Y S T A L N I I D Y Y D		
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UniRef90_W1QB50	L L L D A G G V G V L S Y Q H N		
UniRef90_W7DXC2	Q Q L E N A S V T K I I Y E D G		
UniRef90_I2MYN1	I A L A P T S L S V L G W		

		1		10		20		30		40																																		
UniRef90_I4ERW5		T	L	L	L	V	R	H	G	Q	T	S	E	W	N	A	A	G	L	M	Q	Q	G	Q	T	H	V	P	L	T	E	L	G	H	Q	Q	A	A	R	A	A			
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UniRef90_W9EJX7		R	L	Y	F	I	R	H	G	K	T	T	W	N	V	L	Q	S	R	Y	Q	Q	G	A	G	D	S	P	L	L	J	A	T	S	Y	S	E	I	R	Q	A	G		
UniRef90_C7MQ76	T	D	L	I	L	V	R	H	G	E	T	I	W	H	H	D	N	R	Y	T	G	R	S	D	T	V	P	L	T	E	R	G	H	R	Q	A	E	A	F	A	R			
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UniRef90_W7AUU8		I	Y	L	V	T	R	H	G	K	T	M	L	N	Q	E	K	R	V	Q	Q	G	F	A	D	S	P	L	V	T	Q	S	G	T	E	V	A	K	Q	L	G	K		
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UniRef90_W9C0B5																																												
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UniRef90_L0QJH8		T	V	L	L	V	R	H	A	R	S	T	S	N	T	T	G	V	L	A	G	R	S	D	V	D	L	D	E	K	G	R	E	Q	A	A	G	L	I	D				
UniRef90_R2QDA3	T	T	F	Y	F	V	R	H	G	E	T	I	S	N	R	Q	R	R	F	L	N	G	A	T	D	S	P	L	T	K	E	G	V	E	A	T	E	R	L	A	E			
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UniRef90_V5RRZ7	P	I	M	Y	I	F	R	H	G	Q	T	E	D	N	A	N	F	I	F	S	G	W	R	D	S	A	L	T	E	E	G	K	E	Q	A	L	E	L	A	K				
UniRef90_P52086		R	L	W	L	T	R	H	G	E	T	Q	A	N	I	D	G	L	Y	S	G	H	A	P	T	P	L	T	A	R	G	I	E	Q	A	Q	N	L						
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UniRef90_W3X8Z7	T	T	I																																									

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

	1	10	20	30	40																																						
UniRef90_T0F4W7	L	Y	I	F	R	H	A	E	T	D	W	N	A	E	G	R	L	Q	G	Q	L	N	T	P	I	S	V	T	G	Q	N	Q	L	K	S	I	S	D					
UniRef90_F1KWF1	L	Y	L	T	R	H	G	E	S	E	Y	N	R	A	G	R	I	Q	G	Q	R	K	D	I	P	L	S	D	N	G	S	K	Y	A	T	A	L	L	E				
UniRef90_R6NQ26						M	R	H	G	E	T	D	W	N	K	K	L	V	Q	G	R	K	D	I	P	L	S	D	N	G	S	K	Y	A	T	A	L	L	E				
UniRef90_UPI000416A3B8	P	R	L	L	A	R	H	G	Q	T	E	W	S	V	N	G	N	H	T	G	R	T	D	I	P	L	L	G	T	G	R	A	G	A	K	L	L	E	G				
UniRef90_UPI0002492AFA	R	L	F	L	A	R	H	G	Q	T	Q	L	N	V	E	R	K	F	Y	G	S	N	D	I	V	L	N	S	T	G	E	K	Q	A	K	E	L	A	A				
UniRef90_UPI00036BFC81			V	L	L	R	H	G	Q	T	P	M	S	V	E	K	R	F	S	G	N	V	E	A	A	L	T	D	T	G	L	Y	Q	V	A	A	A	A	D				
UniRef90_R6K7E4			L	Y	I	M	R	H	G	K	T	D	W	N	E	L	H	K	L	Q	G	H	T	D	I	P	L	N	A	N	G	I	J	A	M	A	E	N	A	K			
UniRef90_UPI0004643CB1			V	L	L	R	H	G	Q	T	V	W	S	E	T	G	Q	Y	T	G	R	T	D	I	P	L	T	D	Q	G	R	E	Q	A	K	E	A	G	Q				
UniRef90_A1A196			L	H	L	V	R	H	G	Q	T	F	F	N	R	Y	N	G	R	L	Q	G	W	S	N	S	P	L	T	D	A	G	L		A	D	A	D	K	A			
UniRef90_UPI0004445F94			T	I	Y	L	C	R	H	G	E	S	E	F	N	L	G	K	I	G	G					E	S	S	L	T	R	G	R	Q	F	A	Q	A	L	R	S		
UniRef90_UPI000372603C	T	M	L	Y	I	T	R	H	G	E	T	E	W	N	V	E	K	R	M	Q	G	R	K	N	S	N	L	T	E	T	G	L	Q	A	K	Q	L	G	K				
UniRef90_C5GQE8	P	R	C	F	I	T	R	H	G	E	T	E	W	S	L	N	G	K	H	T	G	T	T	D	I	P	L	T	E	D	G	E	K	R	V	K	T	T	G	H			
UniRef90_R3TS71			K	L	Y	F	T	R	H	G	K	T	Q	W	N	K	E	K	R	F	Q	G	M	G	D	S	P	L	L	S	E	S	Y	E	E	I	K	A	L	G			
UniRef90_UPI000465CCF2	T	R	F	L	L	R	H	G	Q	T	P	L	S	V	D	R	R	Y	S	G	R	G	N	P	E	L	T	E	L	G	R	A	Q	A	A	G	A	E					
UniRef90_R9NX11			R	V	L	I	V	R	H	G	E	T	R	E	N	V	E	R	I	Q	G	Q	L	D	T	D	L	N	A	R	G	R	Q	Q	A	D	V	T	G	Q			
UniRef90_UPI0003B3D2A1	T	T	F	Y	L	A	R	H	G	Q	T	R	W	N	I	E	Q	R	I	Q	G	Q	L	D	S	S	L	T	K	I	G	K	Q	Q	A	L	Q	L	A	T			
UniRef90_E3GNF1	K	Y	I	L	V	R	H	V	E	T	F	G	N	A	E	H	R	L	N	G	H	T	E	S	D	Y	T	D	F	G	V	K	M	K	E	M	L	V	D				
UniRef90_W0RMK6	T	R	L	Y	L	A	R	H	G	A	T	Q	L	T	A	E	D	R	F	S	G	D	I	G	V	D	L	S	D	E	G	R	W	Q	A	T	Q	L	G	D			
UniRef90_UPI00040FB4F5	T	M	I	A	F	V	R	H	G	V	T	D	W	N	K	E	Q	R	A	Q	G	T	L	D	I	P	L	N	S	E	G	K	E	Q	A	L	L	R	A	N			
UniRef90_B5WKZ6			L	L	L	I	R	H	G	Q	S	E	A	N	A	K	R	L	L	T	S	T	D	K	D	G	L	T	E	L	G	R	R	Q	S	I	D	L	A	A			
UniRef90_UPI00046AF723	T	N	L	Y	F	V	R	H	G	K	T	Q	F	N	Q	A	G	R	L	Q	G	A	M	D	S	P	L	L	P	Q	S	I	A	D	A	K	K	T	G	K			
UniRef90_G5KHI6			K	L	Y	F	V	R	H	G	K	T	K	W	N	E	G	R	F	Q	G	N	G	D	S	P	L	L	E	E	A	K	E	I	K	E	L	G					
UniRef90_Q0C833	Q	I	W	I	T	R	H	G	E	S	K	D	N	Q	S	G	R	I	Q	G							D	S	D	L	S	E	N	G	H	R	Y	A	K	A	L	A	R
UniRef90_L5N8C4	K	V	L	L	T	R	H	G	V	T	S	W	N	K	E	K	R	A	Q	G	S	A	D	I	P	L	D	E	S	E	G	K	A	Q	A	R	M	L	A	A			
UniRef90_A9TCS8	T	V	V	L	V	R	H	G	L	S	S	W	N	E	E	G	R	V	Q	G	S	S	D	K	S	V	L	S	D	V	G	K	L	Q	A	I	R	V	R				
UniRef90_G8PTY7	T	R	L	Y	L	L	R	H	G	N	T	K	G	D	V	V	T	R	V	G	G	R	T	D	I	P	L	S	V	S	G	L	E	Q	A	E	K	L	S	E			
UniRef90_UPI0001C36F1C						M	R	H	G	R	T	D	W	N	D	L	H	K	M	Q	G	R	T	D	I	P	L	N	D	C	G	R	E	M	A	E	K	A	R	E			
UniRef90_H0GN66																																											
UniRef90_S7TW43	T	V	H	L	L	R	H	G	Q	T	E	V	Q	R	P	W	R	F	L	G	Q	R	D	V	P	L	T	E	K	G	L	A	Q	A	A	A	W	R	E				
UniRef90_A0A059G7L8			L	Y	L	V	R	H	G	E	T	E	L	N	R	Q	K	V	Y	Q	G	K	D	S	N	L	T	E	R	G	E	A	S	Q	A	L	S	M	G	E			
UniRef90_C6J4K3						W	L	V	R	H	G	L	T	A	W	N	T	E	R	R	Y	Q	G	H	S	D	P	L	P	E	R	G	E	A	S	G	L	T	E	L	R	R	
UniRef90_V2YET7	R	I	Y	I	I	R	H	G	E	T	H	E	N	R	A	G	I	M	Q	G	Q	L	D	T	S	L	N	D	E	G	I	A	Q	A	L	V	A	A					
UniRef90_I9NRZ2			I	W	L	S	R	H	G	E	S	E	F	N	L	T	G	K	I	G	G					D	A	N	L	S	P	R	G	E	Q	Y	A	L	J	A	L	P	D
UniRef90_R0E3X4			I	Y	L	C	R	H	G	Q	T	F	H	N	R	E	G	R	L	Q	G	R	S	E	S	D	L	T	P	L	G	R	A	Q	A	A	A	M	G	D			
UniRef90_D7GDV6	P	R	F	V	L	M	R	H	G	E	T	D	W	N	T	K	N	Q	Y	Q	G	S	S	D	I	P	L	N	A	V	G	R	A	Q	A	G	A	A	G				
UniRef90_UPI0003C776B0	T	L	L	L	V	R	H	G	R	S	T	A	N	T	A	G	V	F	L	A	G	R	T	P	G	V	T	L	D	E	R	G	E	A	Q	A	E	A	L				
UniRef90_I4D0V1			I	Y	L	V	R	H	G	Q	T	D	W	N	L	F	K	V	L	N	G	C	T	D	T	E	L	N	Q	T	G	I	E	A	K	L	Q	A	K				
UniRef90_UPI00041F0AA0			F	Y	I	A	R	H	G	K	T	L	M	N	T	L	D	K	V	Q	G	W	C	D	S	P	L	T	N	D	E	G	I	K	V	J	A	E	Y	L	G	K	
UniRef90_K0EZ28	T	V	L	L	L	R	H	G	V	S	T	S	N	T	A	R	T	L	A	G	R	T	D	S	V	E	L	T	E	R	G	E	E	Q	A	R	A	V	A	E			
UniRef90_W4G9U1			I	W	L	S	R	H	G	E	S	M	Y	N	T	Q	G	L	I	G	G					D	S	P	L	P	W	G	V	K	Y	A	Q	L	D	K			
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UniRef90_UPI00046ADC14	Q	L	Y	L	V	R	H	G	L	T	L	W	N	K	E	K	R	Y	L	G	H	T	D	L	T	L	L	L	E	E	G	K	E	T	L	R	H	F	G	E			
UniRef90_W9YKT9																																											
UniRef90_D4H8N4			L	Y	L	V	R	H	G	Q	T	Y	F	N	L	D	N	R	I	I	G	G					D	S	E	L	T	E	R	G	I	R	Q	G	A	D	L	A	K
UniRef90_UPI00046EE2CD			I	Y	L	I	R	H	G	E	T	D	L	N	R	K	G	I	V	Q	G	S	V	N	S	P	L	N	E	W	G	K	A	Q	A	E		A	F				
UniRef90_V2YH24	T	L	Y	L	I	R	H	G	E	P	L	T	N	Q	R	R	T	C	G	Y	A	Q	D	V	P	L	S	P	E	G	R	R	Q	A	E	A	L	J	A	L			
UniRef90_UPI000361B0BB	E	L	W	L	V	R	H	G	R	T	S	W	N	R	E	R	R	Y	Q	G	H	S	D	V	A	L	L	D	D	E	A	S	G	L	E	E	L						
UniRef90_R6ITR0			F	Y	I	F	R	H	G	Q	S	S	Y	N	L	E	G	R	I	Q	G	H	T	N	S	V	L	T	N	Q	G	I	D	E	A	H	N	A	A	S			
UniRef90_X1P3K3	T	V	I	L	V	R	H	G	E	T	D	W	N	Q	I	R	R	I	Q	G	N	S	D	I	Q	L	N	K	R	G	K	Q	Q	A	E	S	V	A	S				
UniRef90_M2CE21	K	L	F	V	V	R	H	G	E	T	D	W	N	S	K	M	M	A	C	G	V	S	E	A	L	L	T	E	K	G	K	N	Q	A	K	E	L	A	E				
UniRef90_G3AJI4			I	W	L	S	R	H	G	E	S	E	F	N	V	T	G	Q	I	G	G					D	S	N	L	S	T	R	G	W	R	Y	A	K	L	P	E		
UniRef90_E8WI30	T	R	I	H	L	I	R	H	G	E	V	E				R	S	H	C	Y	N	G	H	F	D	V	R	L	T	P	R	G	E	Y	M	K	R	L	K	P			
UniRef90_E6KPN1	R	I	V	L	L	R	H	G	Q	T	D	F	N	L	L	Q	R	R	F	Q	G	R	I	D	M	P	L	N	E	A	G	R	E	V	G	M	F	A	S	A			
UniRef90_UPI00046EAAA4	T	L	Y	F	A	R	H	G	E	T	L	L	N	T	L	D	H	V	Q	G	W	A	D	S	P	L	T	E	E	G	Q	R	I	A	R	Y	L	G	A				
UniRef90_D1NTV3	T	L	T	I	V	R	H	G	E	T	A	Y	N	N	Q	H	R	F	Q	G	R	I	D	I	P	L	D	E	T	G	L	W	Q	V	A	Q	T	G	H				
UniRef90_V9WLT7	R	L	A	L	L	R	H	G	H	T	D	W	N	R	A	G	R	I	Q	G	R	S	D	I	P	L	D	D	T	A	R	A	E	L	S		A						



	50	60	70	80
UniRef90_T0F4W7	K L K D R E I D	I L Y S S D	L L R A R Q T V	S P L A S E L M I P L F F
UniRef90_F1KWF1	F F K K E H V D D	L R I W S S	Q K V R T A Q T A	K E L A S L A A H I E Y W K A L
UniRef90_R6NQ26	S Y G M R Q Y Q I	D L A Y T S	P L R R A K E T A E	I L L E G R N I P L Y E
UniRef90_UPI000416A3B8	R L H W A D L P G	L E V R T S	P L V R A S E T C E	L A G F G E Q A E P
UniRef90_UPI0002492AFA	A F A G H L K F D	A V Y C S G L	Y R T Y Q T A F	A C V K D T L T I K K M
UniRef90_UPI00036BFC81	R L R E E P F D A	V I S S P L	K R A R Q T A D	I L L R D A D A L G R D Y L I
UniRef90_R6K7E4	E Y K N V H F D V	C Y C S P L	T R A R Q T A D	I L L R D A D A L G R D Y L I
UniRef90_UPI0004643CB1	R L A K A F P D P	C I F S S P L	Q R A R Q T A E	L A G F S D P A P
UniRef90_A1A196	A A K L R D I E F	A A A Y C S D T	T R A Q V T A Q	R I N E A A G H V R P S L V S
UniRef90_UPI0004445F94	F L E E Q K I V D	L K V W T S	Q L K Q T I Q T A E	C L G V T Y E D R D I P I V T
UniRef90_UPI000372603C	R M K D M A L D	V I Y S S P S	E R A M H T A E	Q L I K G D R D I P I V T
UniRef90_C5GQE8	D R L I V P K H L A	H I Y V S P R	Q R A R Q T L E	L L E I G C K E P L P W L Q E
UniRef90_R3TS71	V Y L K D V P F E	K I Y S S T S	K R A R D T A K	G I L S E L R Y P V E I I Y T
UniRef90_UPI000465CCF2	R L A A Q G G I D	V V S S P L	R A R A T A E A	A A Q A L G L S V Q I
UniRef90_R9NX11	F L S T T H I D	R I I A S P L	R R A A D T A K	A I H K Y Q R Q S T R H Q E P
UniRef90_UPI0003B3D2A1	Q C L S L N I N	K I L T S S L	G R A V Q T A A	I C S E L L H V K H T V
UniRef90_E3GNF1	E L V N T K I P	F D E I Y V S P L	I S R A Y K I G E	A V A E R L D R S F T P
UniRef90_W0RMK6	R L H E H R V D	A I Y C S P Y	S R T R D T A R	L I A E R L G D G P D A I A T
UniRef90_UPI00040FB4F5	R F K N E H	W D K V I Y S S	D L S R A R E T	G E T I A N T L H I P F S T
UniRef90_B5WKZ6	T L E R F A F Q	P S R I Y C S P	W T R A R Q T A E	L L F G E S S P M T F
UniRef90_UPI00046AF723	A L A T V D F A	K V F S S P Q	K R A L D T G K	Y I V E Q F K K P V I E I T
UniRef90_G5KHI6	Y Y L K D I A F	D A V F S S D L	K R A Q N S A E	I L M S E N R Y P K E I S C
UniRef90_Q0C833	F I D E Q R K L	W E S L Q R Q K	D I M Q Q F P	P R P G D S T P P N P S Y
UniRef90_L5N8C4	R L K G E K W D	V L C A S P L	L R A V E T A E	I I Q Y S V G A P V F Y T
UniRef90_A9TCS8	D S L S Q L D F	D R C F A S P L	I T R A K T S A E	L I W E G R E K P L V I L D T
UniRef90_G8PTY7	H F A E L G V V	F D M A F C S P	L Q R T K Q T A	Q I A L K T Q A E E V D L K V
UniRef90_UPI0001C36F1C	E Y K D V N F D	I C Y C S P	L S R A R E T A E	I L L K G R D I P I I Y
UniRef90_H0GN66	P L T R V P	F A R V Y C S D	L L R C R Q T A E	A A L D G R A V I E V T Y
UniRef90_S7TW43	R R T I L A	G R P F Q F H A S D	L R R C L E T A	W A R P D L L D K V H I
UniRef90_A0A059G7L8	E L E G V N F A	A V Y A S D L	R R C L E T A	W A R P D L L D K V H I
UniRef90_C6J4K3	T A L I E N V P	I T E A F S S H	L K R A A D T A	K A I L D F H P G V Q L C Q
UniRef90_V2YET7	L L R E S G I P	K G A K L T V W	T S T L K R T N	Q T A R H L V K E M G Y H K L E
UniRef90_I9NR22	M L F R D P	A D W R I V A S	P L R R A R D T	A E I G A R L G L S V T T
UniRef90_R0E3X4	W I A H L N P	V A I W A S P L	R A L D T A R A	V A S F T G Q Q V N V
UniRef90_D7GDV6	P A R L A G V P	F D A L A V T S	P L E R C R E T	L A P L A A R P G L A L H T
UniRef90_UPI0003C776B0	N L S V S F	D T C F C S P	Q K R A R Q T C	E I I Y K G A I V L
UniRef90_I4D0V1	G F K D I S	F D A Y C S D	L R R T R Q T A	Q T V L K A K G Q P D L L V T E
UniRef90_UPI00041F0AA0	R L A G L P I	E R I V H S P L	R R C R Q T V A	P L A E K F G L E P V F
UniRef90_K0E2Z8	F I Q A H Y P	D D T R V W T S	T M T R T G Q T	V E R I A A H G R V V V K W K Q L
UniRef90_W4G9U1	Y L K D E E	F D V I Y S S D	L R R T M K T T	E E V L R F H P G Y E I I P E P
UniRef90_UPI0004712A74	K V A L A E	I K W S R M Y C S	D L R R C I E T	A E Y L F P A Q L N K M I R
UniRef90_UPI00046ADC14	G R L I D P S	K I A K V I C S	P R K R A Q R T	L E P D A E I K Q A V K S K T E T
UniRef90_W9YKT9	H F R N T D I	H Y I F T S T K	K R T M A I	A Y E I K K E I P D V E I V P
UniRef90_D4H8N4	F N A Y Q H I	P F D K I Y T S	D L I R T H Q T	V N S F L K I L G I P H E S
UniRef90_UPI00046E2CD	W A Q G K E I	Q A V Y A S D L	L R C R Q T A D	I L A G E Y T P V Y L
UniRef90_V2YH24	E R E L E G V S	F S T V Y C S D	L L R C R Q T L	T R V R P D L A G K A V Y
UniRef90_UPI000361B0BB	L L Q D K K I	E I V V S S P L	R R A K Q T G S	I V S K M I K V P L Q Y
UniRef90_R6ITR0	R L K Q E A I	Q A I Y S S P L	R A L N T A Q A	I A R H H Q V E V K I
UniRef90_X1P3K3	R L A A E Q D K	N K I I Y V S P L	K R A V A T A A	I E K A L G I K A K I
UniRef90_M2CE21	L V P D A Q H	T N L T V W T S	T L K R T Q Q T	A S F L P Y K K K L Q
UniRef90_G3AJI4	R L N P D L I	S A L Y T S D L	H R T V R G G E	I L G P Y L G V E P V Q
UniRef90_E8WI30	P R R S Y D D G	G V R L V S S P L	G R A L D T A R	I I F E I A G Y P C D G P R I
UniRef90_E6KPN1	G L K D I P	F D S V Y S G D	S G R Q R S T L	E I L L Q T S G K T R L I T P T E
UniRef90_UPI00046AAAA4	Y V H D H T D	C H P V V S S D	L T R A M Q T A	H A F A D A L G L Q V H
UniRef90_D1NTV3	Q T L P A P	W D Q A S L W S S P	L K R A A E T A	E L V A G R A P K T
UniRef90_V9WLT7	L T E R L C	D N Q L L F V S S P	L V R A R Q S A	T E I L A A H M G R H E D T L Q V
UniRef90_E0MS98	S R G F R A	N V Y V F T S E	L Q R A H E T C	E A G H R Q D T W S P E R I R R
UniRef90_R1DRT5	F L K E Q E I	V D L K V W T S	Q L K R T I Q T A E	A L G V P Y E Q
UniRef90_UPI000462BBD7	R K S V G D	D R P L T V W T S	T L K R T I Q T A E	A R H L P K H Y N Q L Q
UniRef90_S3CW21	E V Q Q N H	P I D H I C S L	I R A Q Q T A A	P F A E L F S L T P S I
UniRef90_M4U7E7	Q L A S T S L D	A L I H T D	M R R S R D T A	G I I A Y G R E L A M E T
UniRef90_E8XTW4	T I S G E S K E	H L T V W T S	T L I R T Q E T A	Q F L P Y P K K K V V
UniRef90_J7RWH9	K A D F D P	D V V V T P L	Q R T S Q T A K	I V F P H A K L V V
UniRef90_R6Q7T4	V L G S R T D I	D A I V A S P L	R A Q Q T A A A	T A G S L G L P V T T
UniRef90_L8DN71	C A L G N I	T F D A V Y S S P	L Q R A I H T A	S I I G N T P P D K I L I
UniRef90_UPI000423E436	T N L R H I	D F D A I Y S S D	S G R V Y Q T R D	C I I K G Y G R D L P K Q A
UniRef90_UPI000362B455	W A E D F A	P D A L W S S P	M L R A R Q T I	T P T A Q A L A L T P V L
UniRef90_UPI000382C5D9	A L K D L I	V D R P I C S D	L S R A H A T A	Q A F A D V L D G A E V H D
UniRef90_F6CA18	A L A G Q T	F D A V I C S D L	A R V X T A A	P W L A A S G Q A V R A
UniRef90_P71430	L E V N L P	K N L D A L V V S P	R L R A R E T A	S I L N E G L N L Q A E I
UniRef90_J2S5G9	H I Q A L N L	P S L Q V W T S	T L Q R T K A T	S A H I N A P K Q H
UniRef90_D6VWWD8	K I K E E G	V L F D A V Y V S P	L Q R A R Q T A E	A I C N E R G M E A Q V
UniRef90_S9VE09	I S Y L S S I	K F A K I Y S S P	L T R C L Q T I	A P F M Q S N R K I D F Q I
UniRef90_UPI0003605D93	G R L A D I	P L A A I V S S P	L E R C R E T R R	P D G P Q A A G G V Q P V A V
UniRef90_I8QN84	I T D N I G	D A P L T V W T S	T L R R T I Q T A E	V I N S F L N A D L P Y P K L T
UniRef90_A8NUH5	K L K E F N I	E R I F S S S I	R R A I Q T A E	V I N S F L N A D L P Y P K L T
UniRef90_X0USA2	N L E K L P	L A A V Y A S D	L S R A K Y P A	E L L A Q K K D L P L I V
UniRef90_UPI0003B43B17	G W L G S E	R S F D R V F T S P	L I R A Q R S A	Q V V L G E L G R L A E Q V Q V
UniRef90_A6G1K1	G W L G S E	R S F D R V F T S P	L I R A Q R S A	Q V V L G E L G R L A E Q V Q V
UniRef90_T1D680	G K Q S V G	D G R K L T V W T S	P L T R A R Q T	A A P F R V P V E I
UniRef90_UPI000364EEB2	D L W G D I	H Y P T E L V A S P	M V R T Q M T A	G E I G A R L G L E P R T
UniRef90_K2S464	Y F E K K N I	E H V Y I S D L	T R T R Q T Y N	A I F D K H I S A S V
UniRef90_UPI0002E063E2	W F A A L P	H Q R P V L H S P	Y V R A T E T A	N I L M Q R L E R D E L L C V R
UniRef90_I7IKC9	K V K K D F	P P D F I W A S	T L K R A R E T A	E T L G E T I G C P V Q L
UniRef90_K9DC83	N L P A G I	D A L I V S P R	L R A Q Q T A Q	L N Q A L N L E L V T
UniRef90_U1X8D6	Y L Q H A T	A R F D A I V S S D	L S R A L A T A	E A I R G A L G I T A I E T
UniRef90_UPI0004759E4C	Y F E N E D	L D D F R V W S S	Q K I R A A Q T A A	H L K D L A G H T E F W K C L
UniRef90_T0PTX5	Y M S T Q N	L Q D L K V W T S	R L K R T V Q T A E	A S S D V A I E Q
UniRef90_E3NKD2	L R P I	P F V K A F S S	D R E R A I E T A	R R I I A G H Q P Q A L I K L
UniRef90_UPI0002654752	P L L K G W	N F A A V W T S	P R K R A V R T A	E L A G L P V T A V K
UniRef90_G7UYL4	P L L K G W	N F A A V W T S	P R K R A V R T A	E L A G L P V T A V K
UniRef90_UPI00042326D1	P L L K G W	N F A A V W T S	P R K R A V R T A	E L A G L P V T A V K

	90	100	110	120
UniRef90_T0F4W7	D S R L R E V N L G E A Q G M L I S E I D A K F G E D T W T N W K S L E A K W E			
UniRef90_F1KWF1	D D R L R E I S D A G V C E G L T Y E D I Q R Y P R Q A Q D R A R D K Y H F R F			
UniRef90_R6NQ26	D Q R L Q E I S F G S Y E G M S C V D K T K E E N L A F Q K F F Q D T G N			
UniRef90_UPI000416A3B8	W D A R L M E W D Y G A Y E G M T P A A I K A T R P D W F I			
UniRef90_UPI0002492AFA	P G L D E K G F G K W E A L D A D E I Q A Q Y P V E W Q K W L D Q P F D Y V P			
UniRef90_UPI00036BFC81	D E D L R E T D F G A W E G L T F A E V R E R F P D E L N A W L A D P A V P P P			
UniRef90_R6K7E4	D D R L R E M G F G E Y E G I Q G Y T D D A G Y N V N T L F H N P A G Y I P			
UniRef90_UPI0004643CB1	M D G L L E W D Y G P A E G H R P Q D V V A S L G R D W K L W I D G P H A L G I			
UniRef90_A1A196	D M H F R E Q F Y G Y F E G Q D M S V A W T A A G G P H G A K N Y N D I V R K Y			
UniRef90_UPI0004445F94	D A G M C E E M T Y A E I K E Q Y P E E F A L R D Q E K F L Y R Y			
UniRef90_UPI000372603C	D V H L Y E I D M G V W E G H T Q V E L Q K K Y A K D F D L F W N A P H R Y			
UniRef90_C5GQE8	R Q K T P S R T E A R V E I T E A I R E W D Y G D Y E G M K S A E I R E L R A K			
UniRef90_R3TS71	D D L R E L G L G S L E G Q K I E K K M H G E N L H N L R H L E K Y D P			
UniRef90_UPI000465CCF2	D H D L R E T D F G A W E G L T F R E A M A A D P E L H R T W L G D P S T P P			
UniRef90_R9NX11	D D R L K E R A F G V L E G K V Y N G S K K P E D T E G I E R M E P F S E R L			
UniRef90_UPI0003B3D2A1	V R G I E E R N F G L W Q G R L T P E M Q S H H D Y T E I T			
UniRef90_E3GNF1	D D R L K E F N F G I F D G L T A D E A I A L D K K M W D R W M D			
UniRef90_W0RMK6	R D G L R E I S H G R W E G L T R R E V E A R Y A D E Y S A W E Q D P F T			
UniRef90_UPI00040FB4F5	D G R L R E I S Y G R L E G T N H K E R E A K W G A N W			
UniRef90_B5WKZ6	D A R L A E T H P G I Y G S W L E E D F N Q A F P D F N R N I R N R			
UniRef90_UPI00046AF723	L P A L K E F N F G A W D G D L V S E H I N D K L W Q T F K T D P D N F D			
UniRef90_G5KHI6	H K E L R E W Q L G R L E G A K I S T I S A I Y P H Q M D A F R H N L A K F D A			
UniRef90_Q0C833	V P R D R P R N F C V W S S M M K R S I Q T V D Y Y N E E D Y D V K Q M K M L D			
UniRef90_L5N8C4	D E R L K E V D G G Q I E G T T E E E R V A R W G K E W			
UniRef90_A9TCS8	L R E A N L H F L E G M L N S E A R E Q Y P E L F R S W R E D P L N F N V			
UniRef90_G8PTY7	L P F L V E I D Y G P D E N K P E E E V R A R I G E D A L R A W E E E G V P P N			
UniRef90_UPI0001C36F1C	D D R L M E M S F G I Y E G T A N S F K I P G C P I N V L F Q T P E K Y T T P V			
UniRef90_H0GN66	T W R L N E R H Y G A W Q G Q R K P D I L K E Y G K E K Y M I R R D Y N G K P			
UniRef90_S7TW43	L P G L R E I D L G A W D G L T A D E V R E R F P G E F D M R G A D M A T H R P			
UniRef90_A0A059G7L8	D W R I A E I D I G D W S G L T A D E I T A A C P G A F D G P G Q F D W G F R			
UniRef90_C6J4K3	D P R L R E M N F G Q W E G Q T Y E M L K D D E R Y R A W I D D P Q A I T P P G			
UniRef90_V2YET7	L K E F S E R H L G G L Q G K L L S E K R A F L A T F P G G I D S A A E A A E A			
UniRef90_I9NRZ2	W K A L D E L D S G V C D G L T Y E E I Q S R Y P E D F A A R D E D K Y N Y R Y			
UniRef90_R0E3X4	D E R L V E I D V G E W S N R L R E D V R G E N P H L V G D D A W G F H A P G G			
UniRef90_D7GDV6	D P R L A E L D Y G D F E G W T W E Q I E K V E P G L A A W R D G E S D G R W S			
UniRef90_UPI0003C776B0	E E R I T E C D Y G D W S G R K L A E L A D E P L M D V V Q H H A S A A A F P G			
UniRef90_I4D0V1	D E R L A E I N C G E F			
UniRef90_UPI00041F0AA0	M F G F R E A C F G S Y E A G F N H R M W G D A A L Y M H Y T R L E D M Y N D I			
UniRef90_K0EZ28	D D R L I E V D Y G D W T G R P I G E L L E E P L W K V V Q R H A S G A V F P G			
UniRef90_W4G9U1	D D R L I E I D A G I C D G M T Y E Q V A T Q Y P D E Y R A R Q T N K L			
UniRef90_UPI0004712A74	L L R E R F L A G W Q G K P F P K N W N E V D L P E			
UniRef90_UPI00046ADC14	T P L L R E L H F G L W E G K T Y E E L K E D Q T Y R L W L D D Q T R F S P P Q			
UniRef90_W9YKT9	T E D I G E W G Y G D Y E G L T E Q I R Q L R K Q R G L D T D R P W D I W R			
UniRef90_D4H8N4	F E E F D E I N T G D C D S I T Y D E L R L N F P E L Y E A R S K D K Y N F T Y			
UniRef90_UPI00046E2CD	Y A G L N E I S W G V R E G K E P N T S D S T Y			
UniRef90_V2YH24	E D D L R E V D T G A W T G L T F E E I K A R W P A E Y E R			
UniRef90_UPI000361B0BB	D S R L R E M N F G Q W E G Q T Y E M L K N N L L Y R A W I D D P V S V T P P G			
UniRef90_R6ITR0	D D R F T E V N V G I A E G L H Y T K A Q Q K F G D L Y R Q W R S A D P K Y I D			
UniRef90_X1P3K3	D P A L K E I D A G E L E G T T I S D I G K R L D E L L V S E A E G K P I F K			
UniRef90_M2CE21	D D R L K E I N F G			
UniRef90_G3AJI4	W K A L D E L D A G E C D G M T Y E E I E Q K F P E D F K A R D D D K Y E Y R Y			
UniRef90_E8WI30	V P A L R E L N C G E W E G L S V A E I I Q E O R P D E W A A			
UniRef90_E6KPN1	D E R L T E R F Y G R F E G K T Y E E I D A Q E P Q A S R Q Y			
UniRef90_UPI00046EAAA4	L P G L R E S F F G S Y E G L R N E E M R D A S A R V L C L R D S Q A			
UniRef90_D1NTV3	D K R L R E R C F G D W E G E S V E D V A V R F P Q D F E S W R D G G G G E M R			
UniRef90_V9WLT7	S P A L I E M N W G D W E G Q H G K E L K S D P A S G F R D I E H W G W H Y R P			
UniRef90_E0MS98	E D R L R E L S M G R W E G L T S Q Q V K D R F Y K E R K G R K T N R W T F			
UniRef90_R1DRT5	D A R L N E R H Y G A V Q G Y R K D D L A A H G E E I R G W R R S M H G K P			
UniRef90_UPI000462BBD7	W K I L N E I D A G V C E E M T Y E E I Q R K Y P E E F A L R D Q D K Y L Y R Y			
UniRef90_S3CW21	W K A L D E L D S G V C D G M T Y A E I K E A Y P E D F A A R D D D K Y N Y R Y			
UniRef90_M4U7E7	D S R V I E Q D L G K Y A G K T Y A E L E D E P K Y C H D R N L R W N W			
UniRef90_E8XTW4	Q P L L Q E M G F G E W E M R H H K E L E A S Q A E G Y Q A W C			
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	170	180	190	200																																						
UniRef90_T0F4W7	W	I	Y	R	M																																					
UniRef90_F1KWF1		I	M	E	L	E	R	Q	T	N	V	L	L	V	S	H	Q	A	V	L	R	C	I	L	A	Y	F	D	E	R	P	L	D	L	L	P	F					
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UniRef90_G8PTY7																																										
UniRef90_UPI0001C36F1C	S	L	C	E	V	V	V	R	L	K																																
UniRef90_H0GN66																																										
UniRef90_S7TW43																																										
UniRef90_A0A059G7L8																																										
UniRef90_C6J4K3																																										
UniRef90_V2YET7																																										
UniRef90_I9NRZ2																																										
UniRef90_R0E3X4																																										
UniRef90_D7GDV6																																										
UniRef90_UPI0003C776B0	G	V	A	A	L	V	G	W	D	Y	P	E	I	W	K	L	A	S	M	G	N	C	C	Y	T	E	V	I	R	E	F	D	A	W	R	V	E	R	F	N		
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UniRef90_K0EZ28	A	L	K	E	I	A	A	K	E	Q	D	K	T	L	L	V	I	A	H	G	M	S	I	T	C	L	L	H	N	L	G	G	K									
UniRef90_W4G9U1																																										
UniRef90_UPI0004712A74	R	L	D	R	P	V	L																																			
UniRef90_UPI00046ADC14	F	L	S	L	L	K	E	R	H	E	G	Q	K	V	F	A	M	S	H	G	G	L	I	R	A	F	W	T	V	L	H	N	L	D	N	D	S	Y	S	R		
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UniRef90_UPI00046E2CD	V	L	E	T	I	L	S	R	P	H	E	R	N	I	L	I	A	M	H	G	R	A	M	R	V	L	L	T	T	M	M	G	Q	P	L	V	E	M	D	G		
UniRef90_V2YH24	T	I	A	R	L	L	A	Q	S	Q	G	N	L	G	V	V	A	H	G	G	I	N	R	G	W	L	C	R	L	L	G	R	S	P	D	Q	V	M	A			
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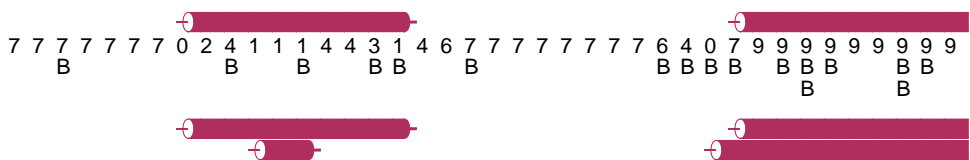
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