

QUERY	1	10	20	30	40
UniRef90_V4SGD2	S	D	L	I	T
UniRef90_B9RFD8	S	D	L	I	E
UniRef90_W1NV71	A	A	L	I	E
UniRef90_P83326	A	D	I	V	L
UniRef90_Q8GT41	S	K	A	M	S
UniRef90_UPI00023B20B8	T	Q	A	I	S
UniRef90_A0A022PV26	T	D	L	I	R
UniRef90_UPI00042B683B	S	Q	A	I	T
UniRef90_V7AS88	T	Q	A	I	S
UniRef90_UPI00042B86AB	T	D	L	I	R
UniRef90_W1Q0T1	S	Q	A	I	T
UniRef90_B9IDR8	T	Q	A	I	S
UniRef90_UPI0002C31D42	T	K	F	I	K
UniRef90_F6H6V9	K	A	I	Q	A
UniRef90_M5X820	T	Q	A	I	S
UniRef90_M4CL06	S	K	D	V	K
UniRef90_A0A059B6N6	D	L	I	K	K
UniRef90_Q9FK05	T	Q	A	I	S
UniRef90_UPI0002C31547	S	D	F	I	R
UniRef90_F6H777	T	Q	A	I	S
UniRef90_I1LB85	K	A	V	K	T
UniRef90_W1P6V9	K	A	I	K	T
UniRef90_UPI00023B22D8	S	D	D	V	K
UniRef90_W9S1C5	T	K	A	I	Q
UniRef90_B9RR57	D	L	V	H	S
UniRef90_A0A059C3V2	S	S	D	V	K
UniRef90_K4CUX1	A	D	L	I	N
UniRef90_M0S3X6	V	Q	D	F	C
UniRef90_G7I4A4	T	Q	A	I	S
UniRef90_B9GPD9	S	D	E	V	M
UniRef90_A0A058ZWW3	T	E	F	I	K
UniRef90_G7LDE9	L	I	R	N	S
UniRef90_M9VF16	A	N	F	I	R
UniRef90_UPI0002C2E4BB	A	N	D	I	K
UniRef90_F6I393	T	F	I	E	A
UniRef90_UPI00042B7510	S	D	V	I	Q
UniRef90_G7J6V7	T	Q	A	I	S
UniRef90_B9RR26	A	D	L	I	S
UniRef90_A5BDK7	D	F	I	R	S
UniRef90_K4C5Y2	S	Q	A	I	S
UniRef90_V4S7Y6	T	R	F	I	R
UniRef90_A0A059C466	S	R	V	V	K
UniRef90_S8ELC4	T	Q	A	M	S
UniRef90_UPI0002BC803B	A	I	L	K	A
UniRef90_B9T3X5	S	I	L	K	S
UniRef90_V4S6Q0	N	L	I	N	Q
UniRef90_V7BW13	T	N	S	V	K
UniRef90_Q9M3B0	S	Q	A	I	S
UniRef90_U5D6Q2	S	A	V	L	R
UniRef90_B0L3S3	N	A	V	L	K
UniRef90_F6HXK8	K	A	V	L	K
UniRef90_D7U9X3	K	A	V	L	K
UniRef90_G7KXH8	K	A	V	L	K
UniRef90_A5ATJ7	K	A	V	L	K
UniRef90_K4AWP5	T	K	S	V	E
UniRef90_W9RDL0	T	Q	A	I	S
UniRef90_M5XQ31	T	K	A	I	S
UniRef90_I1JKR7	N	D	V	K	L
UniRef90_B9IKC0	S	R	V	I	K
UniRef90_UPI00042B00DB	A	A	Y	I	V
UniRef90_A9NQ46	A	E	F	I	R
UniRef90_V7ANF1	K	D	I	Q	S
UniRef90_UPI00023B3317	T	L	I	Q	A
UniRef90_UPI0002B4ABE9	S	N	G	I	D
UniRef90_UPI00042B23EC	T	D	F	I	R
UniRef90_B9MVC0	N	L	I	P	E
UniRef90_A0A059DKA4	T	D	F	I	R
UniRef90_B9SRK2	T	K	S	V	A
UniRef90_M0T0F7	K	A	V	L	K
UniRef90_M5XI14	K	A	V	L	K
UniRef90_V7AZH5	A	I	L	K	A
UniRef90_UPI00032A7056	T	N	S	M	K
UniRef90_V7AY87	D	L	I	R	S
UniRef90_A0A022QWL6	A	A	I	K	S
UniRef90_M0U7A5	A	S	V	E	K
UniRef90_I1PAH2	K	S	I	K	S
UniRef90_V4SD84	A	T	N	I	T
UniRef90_B0LVF5	T	E	F	I	R
UniRef90_B9MT53	N	L	I	S	A
UniRef90_A0A059BEU0	S	D	F	R	A
UniRef90_A5BHN8	I	K	A	L	E
UniRef90_A5X523	S	K	A	V	L
UniRef90_UPI0002B4D718	A	S	L	I	R
UniRef90_R0G3V8	S	N	F	I	K
UniRef90_B9R9Q7	S	K	S	I	K
UniRef90_B9HXR2	K	A	I	K	A
UniRef90_UPI0002B4D09E	A	I	V	K	S
UniRef90_I1UYB4	K	A	V	L	K
UniRef90_B9N4L3	D	L	V	K	S
UniRef90_M1B227	D	F	I	K	T
UniRef90_B9R9Q9	D	F	I	K	T

QUERY	T	Q	A	R	A	T	Q	T	L	K	K	L	Q	S	I	L	D	G	G	60	V	P	R	S	K	L	A	Y	R	C	V	D	E	Y	E	S	A	I	L	80				
UniRef90_V4SGD2	T	L	A	N	A	N	E	I	Q	K	Y	I	S	E	I	L	K	K	D	G	K	D	P	F	L	Q	Q	C	L	K	D	C	S	E	N	L	Q	D	A	I	L			
UniRef90_B9RFD8	A	S	L	N	G	V	K	L	H	K	K	I	D	Q	L	S	K	S	N	K	D	E	F	L	Q	Q	C	L	K	D	C	S	E	N	L	Q	D	A	I	L				
UniRef90_W1NV71	S	L	G	K	A	T	D	T	K	K	Y	I	A	G	L	T	N	Q	A	T	D	P	K	L	K	G	R	Y	E	T	C	S	E	N	L	Q	D	A	I	L				
UniRef90_P83326	A	Q	A	S	A	K	Q	T	S	K	I	I	A	G	L	T	N	Q	A	T	D	P	K	L	K	G	R	Y	E	T	C	S	E	N	L	Q	D	A	I	L				
UniRef90_Q8GT41	A	I	Q	H	G	S	K	L	Q	T	F	I	A	G	L	T	N	Q	A	T	D	P	K	L	K	G	R	Y	E	T	C	S	E	N	L	Q	D	A	I	L				
UniRef90_UPI00023B20B8	A	H	A	N	A	T	D	T	S	K	F	H	I	A	G	L	T	N	Q	A	T	D	P	K	L	K	G	R	Y	E	T	C	S	E	N	L	Q	D	A	I	L			
UniRef90_A0A0222PV26	T	L	Q	K	I	G	R	A	L	S	F	A	A	E	I	N	N	L	D	M	D	P	H	V	R	S	A	Y	D	D	C	L	E	L	L	D	H	S	V	D				
UniRef90_UPI00042B683B	A	L	E	R	A	E	R	A	Q	S	H	T	Y	L	L	G	S	P	K	C	Y	R	N	K	R	E	K	S	A	W	A	D	C	L	E	N	L	Y	E	L	T	I	L	
UniRef90_V7AS88	T	L	Q	H	F	S	K	A	L	Y	T	S	A	A	I	S	S	A	T	M	D	P	R	V	R	S	A	Y	L	D	C	L	E	N	L	L	D	D	S	V	D			
UniRef90_UPI00042B86AB	V	R	R	N	L	T	N	T	R	S	Y	V	E	E	L	L	K	N	K	K	D	P	F	V	R	S	C	L	H	D	C	F	N	L	Y	S	D	A	I	P				
UniRef90_W1Q0T1	T	L	H	R	V	G	K	A	F	S	A	A	A	E	L	N	G	L	E	M	D	T	R	V	R	S	G	A	Y	D	D	C	L	E	N	L	L	D	D	S	M	Q		
UniRef90_B9IDR8	T	L	Q	H	F	S	K	A	L	Y	L	S	S	A	I	S	S	Y	V	N	M	E	T	R	V	R	S	A	F	D	D	C	L	E	N	L	L	D	D	S	I	D		
UniRef90_UPI0002C31D42	S	L	S	R	V	R	K	A	E	S	F	V	T	K	L	T	K	R	G	I	K	P	R	E	Y	R	A	V	K	D	C	L	E	N	M	G	D	G	V	D				
UniRef90_F6H6V9	A	I	N	Q	I	S	S	A	L	Q	N	S	T	T	L	R	D	L	E	K	D	P	R	T	S	K	G	A	Y	D	D	C	L	E	N	M	D	Y	S	I	D			
UniRef90_M5X820	T	L	Q	H	L	S	K	A	L	Y	L	S	S	I	S	S	S	Y	L	Q	M	D	P	H	S	R	S	K	G	A	Y	D	D	C	L	E	N	L	L	D	D	S	I	D
UniRef90_M4CL06	A	L	E	R	A	T	L	A	K	S	H	T	S	T	L	G	P	K	C	Y	R	D	T	R	E	K	A	A	W	E	D	C	L	E	N	L	Y	D	V	T	V	S		
UniRef90_A0A059B6N6	T	L	A	N	A	T	D	T	L	S	Y	M	E	A	L	T	Y	Q	A	E	D	P	Q	L	E	R	S	A	Y	L	D	C	L	E	N	L	Y	I	P	V	V	Y		
UniRef90_Q9FK05	T	L	Q	K	F	S	K	A	L	Y	T	S	A	A	I	S	S	A	T	M	D	P	R	V	R	S	A	Y	L	D	C	L	E	N	L	L	D	D	S	V	D			
UniRef90_UPI0002C31547	S	L	S	N	A	K	R	M	A	A	Y	V	I	S	N	L	S	R	H	G	S	D	H	R	S	A	A	A	L	H	D	C	F	S	N	F	D	D	A	V	E	D		
UniRef90_F6H777	T	L	Q	R	F	G	K	A	L	Y	V	S	S	E	L	A	N	L	Q	M	D	T	R	V	R	S	A	A	Y	E	D	C	L	E	N	L	L	E	S	V	E	D		
UniRef90_I1LB85	T	I	K	K	M	G	N	G	L	K	V	S	T	D	F	M	H	E	V	E	N	D	P	R	S	K	M	A	L	E	T	C	L	Q	L	M	N	L	S	I	D			
UniRef90_W1P6V9	A	L	E	K	V	K	K	V	A	G	Q	S	A	L	L	K	E	V	E	K	D	P	G	T	R	Q	A	L	S	I	C	D	E	I	M	D	Y	A	I	D				
UniRef90_UPI00023B22D8	A	L	E	H	A	M	I	A	H	G	D	T	F	S	L	G	S	K	C	Y	R	N	E	R	E	K	A	A	W	N	D	C	L	E	N	L	Y	D	H	T	I	L		
UniRef90_W9S1C5	A	I	D	H	L	S	A	A	I	R	N	S	T	L	K	E	L	K	A	C	R	N	E	R	T	N	Q	A	L	S	N	D	C	L	E	N	L	L	K	Y	A	I	D	
UniRef90_B9RR57	S	L	G	R	A	S	K	V	S	K	Y	L	S	S	L	S	S	G	L	K	T	R	K	E	R	V	A	L	S	D	C	V	E	Q	I	S	D	S	V	D				
UniRef90_A0A059C3V2	A	L	E	R	A	Q	M	A	H	S	N	T	H	S	L	G	S	K	C	Y	R	N	E	R	E	K	A	V	W	A	D	C	L	E	N	L	Y	E	H	T	I	L		
UniRef90_K4CUX1	S	L	K	N	M	Q	S	H	D	L	V	D	T	L	L	K	Q	A	T	D	P	K	L	K	T	R	Y	S	S	C	L	E	N	Y	N	D	G	I	D					
UniRef90_M0S3X6	T	V	K	H	I	N	D	A	I	D	H	S	T	V	L	S	E	A	A	K	D	P	S	T	S	E	A	L	E	N	C	R	E	L	L	D	Y	A	I	D				
UniRef90_G7I4A4	T	H	R	H	L	S	K	A	L	F	A	S	S	G	L	S	Y	T	V	A	N	P	R	V	R	S	A	A	Y	E	D	C	L	E	N	L	M	D	E	S	M	D		
UniRef90_B9GPD9	A	L	D	R	A	M	Q	G	K	V	N	T	Y	S	L	G	S	K	C	Y	R	N	G	L	E	K	A	A	W	E	D	C	L	E	N	L	L	E	D	S	I	L		
UniRef90_A0A058ZWW3	T	L	D	G	A	L	S	A	S	N	M	V	S	R	L	S	N	G	G	L	S	K	R	E	A	R	A	V	I	D	C	V	E	T	M	S	D	S	V	D				
UniRef90_G7LDE9	T	R	H	N	V	T	N	T	Y	I	K	E	L	L	K	K	T	R	D	P	F	I	K	E	C	L	K	D	D	C	L	E	N	L	V	I	S	D	A	I	T			
UniRef90_M9VF16	S	L	S	R	A	R	S	A	A	D	F	V	G	K	L	T	K	R	G	I	K	K	R	E	F	L	A	V	K	D	C	L	E	N	M	G	D	G	V	D				
UniRef90_UPI0002C2E4BB	A	L	D	R	A	M	H	A	H	T	N	F	L	S	L	G	S	K	F	V	N	P	R	A	K	A	A	W	D	D	C	L	E	N	L	Y	D	L	T	I	Q			
UniRef90_F6I393	S	L	A	K	N	T	R	T	R	A	Y	V	M	E	V	A	S	N	F	K	D	G	R	T	H	Q	D	I	S	D	C	L	E	N	L	Q	I	N	D	G	V	D		
UniRef90_UPI00042B7510	A	I	K	S	N	A	T	S	I	S	S	L	V	I	S	K	L	K	N	L	D	N	P	T	R	S	C	L	E	D	C	S	E	L	Y	S	D	A	Q	P				
UniRef90_G7J6V7	T	L	Q	H	L	S	K	A	L	Y	T	S	A	S	I	S	S	T	G	I	N	P	Y	I	R	A	A	Y	T	D	C	L	E	N	L	L	D	N	S	V	D			
UniRef90_B9RR26	S	I	A	Y	G	E	E	T	L	A	H	V	I	D	L	K	S	K	A	T	N	E	T	L	S	S	C	L	G	D	C	V	Q	E	Y	N	D	A	V	G	D			
UniRef90_A5BDK7	S	L	S	R	A	R	E	H	M	A	S	Y	V	A	N	L	S	R	Q	G	S	A	P	R	T	A	A	A	L	H	D	C	V	F	S	T	F	G	D	A	I	D		
UniRef90_K4C5Y2	T	L	Q	R	F	G	R	A	F	Y	M	A	S	D	I	N	S	L	V	M	D	K	H	T	R	S	A	Y	E	S	C	L	E	N	L	L	E	D	S	V	Y	D		
UniRef90_V4S7Y6	S	L	S	R	A	Q	S	A	K	S	F	V	T	K	L	R	K	R	N	L	K	H	R	E	Y	E	A	A	D	C	L	E	N	L	D	E	M	G	D	T	V	D		
UniRef90_A0A059C466	A	L	E	S	A	Q	L	A	R	T	H	M	Y	S	L	G	S	G	C	R	D	E	R	E	K	A	A	W	A	D	C	L	E	N	L	Y	E	H	T	V	H			
UniRef90_S8ELC4	T	L	Q	R	V	G	S	A	L	N	S	V	S	E	M	S	Y	L	E	M	D	S	I	V	R	S	A	H	T	D	C	L	E	N	L	L	D	D	S	V	D			
UniRef90_UPI0002BC803B	V	L	D	R	A	L	R	A	Q	L	N	T	Y	S	L	G	P	K	C	Y	R	N	E	R	E	K	N	A	W	A	D	C	L	E	N	L	Y	E	N	S	I	N		
UniRef90_B9T3X5	T	T	T	A	V	E	H	N	F	T	V	E	K	L	L	A	K	K	G	L	T	K	R	E	K	T	A	L	H	D	C	L	E	T	I	D	E	T	L	D				
UniRef90_V4S6Q0	V	L	G	N	A	S	D	T	L	N	Y	I	E	G	L	I	K	A	P	D	P	Q	Q	E	R	A	L	A	N	C	A	E	L	Y	I	P	V	V	Y					
UniRef90_V7BW13	A	L	S	E	V	S	K	A	A	D	Y	L	S	D	F	N	G	V	A	K	D	N	R	T	K	E	A	F	K	N	C	R	E	L	L	D	L	A	V	D				
UniRef90_Q9M3B0	T	L	H	L	F	S	H	A	L	Y	S	S	A	S	L	S	F	V	D	M	P	P	R	A	R	S	A	Y	D	C	V	E	L	L	D	D	S	V	D					
UniRef90_U5D6Q2	C	L	A	K	A	K	D	A	S	Y	I	S	S	L	A	Q	G	K	T	M	K	R	E	V	A	A	L	S	D	C	R	E	N	F	D	D	V	L	D					
UniRef90_B0L3S3	A	I	N	A	V	K	K	G	Q	A	H	T	R	S	L	F	S	R	D	L	D	S	R	Q	R	G	A	L	H	D	C	M	E	M	Y	D	D	T	L	D				
UniRef90_F6HXK8	T	V	T	A	V	E	H	N	Y	F	T	I	E	K	L	D	K	N	L	T	K	R	E	K	A	A	L	N	D	C	L	E	T	I	D	E	T	L	L	D				
UniRef90_D7U9X3	A	M	E	H	L	S	A	A	K	N	S	T	L	L	Q	E	L	N	K	D	P	R	A	S	Q	A	L	Q	N	C	E	D	L	V	N	Y	A	I	D					
UniRef90_G7KXH8	T	I	A	K	I	S	E	G	L	K	K	T	H	L	L	Q	E	A	E	K	D	E	R	T	K	Q	A	L	D	T	C	K	Q	V	M	Q	L	S	I	D				
UniRef90_A5ATJ7	T	M	K	E	I	K	S	M	N	L	S	E	K	L	V																													

QUERY	N	L	E	E	A	F	E	H	L	A	S	G	D	G	M	G	M	N	M	K	V	S	A	A	L	D	G	A	D	T	C	L	D	V	K	R	L	R	S					
UniRef90_V4SGD2	E	I	K	D	S	T	A	A	V	A	D	S	R	S	Y	N	D	V	N	T	W	V	T	A	A	M	T	D	S	Q	T	C	E	D	G	F	K	E	K	P	G			
UniRef90_B9RFD8	Q	V	N	L	N	D	S	T	A	A	V	A	D	S	R	S	Y	N	D	V	N	T	W	V	T	A	A	M	T	D	S	Q	T	C	E	D	G	F	K	E	K	Q	D	G
UniRef90_W1NV71	N	L	N	G	Q	A	K	Q	F	L	T	S	G	D	Y	A	S	L	N	I	Y	A	S	A	A	F	D	G	A	G	T	C	E	D	G	F	E	G	K	P	N			
UniRef90_P83326	S	V	L	G	E	A	T	A	D	F	K	S	K	D	Y	A	S	A	N	V	K	M	S	A	A	L	D	D	S	V	T	C	E	D	G	F	E	G	K	K	G	D		
UniRef90_Q8GT41	Q	I	E	D	S	L	V	A	L	T	A	K	G	F	H	D	V	D	A	V	W	K	A	A	I	A	D	V	D	T	C	E	D	G	F	K	E	K	P	D	W			
UniRef90_UPI00023B20B8	Q	F	S	R	S	L	T	S	V	A	A	G	S	T	Q	D	V	I	T	W	L	S	A	A	L	T	N	Q	D	T	T	E	G	F	D	E	L	N	G	V				
UniRef90_A0A022PV26	R	L	N	K	T	V	D	S	T	S	I	K	L	N	K	D	D	A	Q	T	W	L	S	T	A	L	T	N	L	E	T	R	T	G	F	I	E	L	G	V				
UniRef90_UPI00042B683B	A	L	A	R	S	L	S	T	S	V	S	L	G	A	V	G	S	D	A	N	T	W	L	S	T	A	L	T	N	L	E	T	A	E	G	F	K	E	K	E	G			
UniRef90_V7AS88	S	T	K	E	A	I	E	D	Y	K	S	Q	H	Y	D	D	A	N	I	D	V	S	A	V	M	D	A	A	T	T	T	A	E	D	G	F	K	E	K	E	G			
UniRef90_UPI00042B86AB	E	L	Y	D	S	L	G	S	V	K	R	A	S	F	A	D	V	S	T	W	L	S	A	A	L	T	N	Q	D	T	C	E	D	G	F	K	E	K	E	G				
UniRef90_W1Q0T1	A	L	S	R	S	L	S	T	V	A	G	G	S	P	A	D	V	V	T	W	L	S	A	A	L	T	N	Q	D	T	C	E	D	G	F	K	E	K	E	G				
UniRef90_B9IDR8	Q	I	G	Q	S	M	R	E	L	G	H	W	H	M	S	N	V	Q	T	W	V	S	A	A	L	T	D	E	T	T	L	D	G	F	S	G	R	G	N	G				
UniRef90_UPI0002C31D42	D	L	R	N	S	F	N	K	L	G	V	F	D	J	E	D	L	K	I	W	L	S	G	A	L	T	T	Y	Q	E	T	L	D	G	F	S	E	N	T	T	G			
UniRef90_F6H6V9	A	L	S	R	S	L	T	S	V	A	P	G	A	Q	D	V	L	T	W	L	S	G	A	L	T	N	Q	D	T	C	E	D	G	F	S	E	N	T	T	G				
UniRef90_M5X820	K	I	N	E	T	M	D	P	N	V	K	C	S	K	T	D	A	Q	T	W	L	S	T	A	L	T	N	L	D	T	C	E	D	G	F	L	E	L	G	V				
UniRef90_M4CL06	T	L	P	Q	A	I	V	A	F	N	K	T	Q	Y	G	F	A	E	Y	G	V	S	D	A	G	M	T	N	Q	D	T	E	N	D	F	S	K	S	K					
UniRef90_A0A059B6N6	A	L	T	R	A	L	S	V	G	D	E	S	H	S	D	V	M	T	W	L	S	S	A	M	T	N	H	D	T	C	E	D	G	F	D	E	I	E	G					
UniRef90_Q9FK05	Q	I	R	D	S	L	S	Q	M	K	T	F	Q	M	S	N	V	Q	T	W	M	S	A	A	L	T	D	Q	E	T	T	D	G	F	Q	D	V	I	P	T				
UniRef90_UPI0002C31547	Q	L	S	R	S	L	T	S	V	A	G	G	S	T	Q	D	V	L	T	W	L	S	A	A	M	T	N	Q	D	T	C	E	D	G	F	D	D	T	S	G				
UniRef90_F6H777	E	F	K	R	S	L	E	R	M	G	K	F	D	L	N	N	L	R	V	W	L	S	G	A	I	T	Y	Q	E	T	C	E	D	G	F	K	T	V	N	S				
UniRef90_I1LB85	E	L	K	N	S	I	D	Q	V	G	G	F	D	L	E	N	L	R	S	W	L	S	A	A	L	T	Y	Q	E	T	C	E	D	G	F	K	E	N	T	T	S			
UniRef90_W1P6V9	K	L	N	K	T	L	D	P	N	T	R	C	T	Q	A	D	A	Q	T	W	L	N	T	A	L	T	N	L	Q	T	C	E	D	G	F	I	D	L	G	V				
UniRef90_UPI00023B22D8	D	L	K	E	S	F	D	R	I	G	P	F	E	Y	D	D	L	K	I	W	L	S	G	A	I	T	Y	E	Q	T	C	E	D	G	F	E	N	T	T	G				
UniRef90_W9S1C5	E	L	S	N	T	L	N	E	L	K	R	W	Q	M	N	N	A	Q	T	W	V	S	A	A	L	T	N	E	E	T	C	E	D	G	F	E	Q	V	R	K				
UniRef90_B9RR57	R	L	N	R	T	I	V	H	D	C	H	D	E	A	Q	T	W	L	S	T	A	L	T	N	L	E	T	C	E	D	G	F	R	A	D	N	F	S	E	L	G	V		
UniRef90_A0A059C3V2	D	L	R	S	L	P	G	F	L	K	S	K	D	Y	A	Q	N	I	H	A	S	A	A	F	D	D	S	T	C	E	D	G	F	E	D	I	P	A	R					
UniRef90_K4CUX1	D	L	R	R	S	V	D	R	L	K	D	F	S	V	D	L	K	I	W	L	S	A	T	I	T	Y	Q	E	T	C	E	D	G	F	E	G	T	T	T	G				
UniRef90_M0S3X6	A	I	R	S	S	M	D	S	L	M	A	G	S	T	E	D	V	M	T	W	L	S	T	A	L	T	N	Q	D	T	C	E	D	G	F	E	D	T	S	G				
UniRef90_G7I4A4	W	L	T	K	T	T	S	S	K	C	T	D	Y	D	A	Q	T	W	L	S	T	A	L	T	N	L	E	T	C	E	D	G	F	T	E	F	G	M						
UniRef90_B9GPD9	E	L	R	Q	S	L	V	A	M	K	T	L	D	M	S	D	M	R	T	W	V	S	A	A	L	T	D	E	D	T	C	E	D	G	F	Q	E	R	K	K				
UniRef90_A0A058ZWW3	T	F	R	E	A	I	R	D	Y	K	A	K	R	Y	E	C	N	I	K	L	S	S	I	D	D	S	T	C	E	D	G	F	K	Q	K	N	D							
UniRef90_G7LDE9	R	L	S	Q	S	V	R	E	L	G	T	W	H	M	S	S	V	Q	T	W	V	S	T	A	L	T	D	E	N	T	C	E	D	G	F	D	G	R	K	N				
UniRef90_M9VF16	K	L	N	T	T	V	N	P	S	T	K	C	T	Q	E	D	T	Q	T	W	L	S	T	A	L	T	N	L	E	T	C	E	D	G	F	S	E	L	G	V				
UniRef90_UPI0002C2E4BB	R	L	A	Q	S	L	I	E	L	R	T	W	R	M	S	N	I	E	T	W	V	S	A	A	L	T	D	A	T	T	C	E	D	G	F	S	E	L	G	V				
UniRef90_F6I393	N	L	E	I	G	G	Q	A	V	E	S	K	D	Y	G	T	A	K	T	V	I	S	A	A	L	D	A	P	V	T	C	E	D	G	F	K	E	R	E	G				
UniRef90_UPI00042B7510	A	L	A	R	A	L	T	S	S	S	S	T	E	D	V	L	T	W	L	S	A	A	L	T	N	Q	D	T	C	E	D	G	F	A	D	T	S	G						
UniRef90_G7J6V7	D	L	Q	E	A	A	D	A	L	K	V	K	S	L	E	N	V	K	T	L	V	S	S	A	M	T	D	S	D	T	C	E	D	G	F	K	E	M	E	G				
UniRef90_B9RR26	Q	I	R	G	S	L	T	K	Q	M	R	Q	F	Q	M	G	N	V	Q	T	W	M	S	A	A	L	T	N	E	D	T	C	E	D	G	F	E	D	A	P	A			
UniRef90_A5BDK7	L	L	S	R	S	L	T	S	V	A	P	G	N	N	D	V	Q	T	W	L	S	A	A	L	T	N	Q	D	T	C	E	D	G	F	A	D	V	G	N	K				
UniRef90_K4C5Y2	R	L	S	K	S	V	Q	E	L	N	H	W	H	M	S	N	V	E	T	W	V	S	A	A	L	T	N	E	D	T	C	E	D	G	F	G	G	K	G					
UniRef90_V4S7Y6	H	L	N	R	T	I	N	L	R	Q	C	T	Q	D	M	Q	T	W	L	S	T	A	A	L	T	N	L	Q	T	C	E	D	G	F	V	I	E	L	G	I				
UniRef90_A0A059C466	L	L	Y	Q	S	L	S	S	T	D	G	A	S	T	E	D	V	L	T	W	L	S	A	A	L	T	N	Q	D	T	C	E	D	G	F	I	Q	E	L	K	G			
UniRef90_S8ELC4	K	I	K	S	T	V	D	P	N	T	K	C	H	A	D	A	Q	T	W	L	S	T	A	L	T	N	L	E	T	C	E	D	G	F	K	A	G	F	E	L	G	V		
UniRef90_UPI0002BC803B	E	L	H	K	A	M	D	L	K	S	Q	H	A	D	L	K	T	L	L	S	S	A	I	T	N	Q	E	T	C	E	D	G	F	E	S	H	D	G	A					
UniRef90_B9T3X5	E	L	P	Q	A	I	D	A	L	S	K	G	H	F	G	F	A	N	Y	C	I	A	D	A	G	K	Q	A	D	A	C	E	K	G	F	S	G		S					
UniRef90_V4S6Q0	H	L	N	S	S	L	T	S	G	E	K	F	S	F	Q	D	D	L	E	T	W	L	S	A	A	G	T	Y	Q	Q	T	C	E	D	G	F	E	D	G	K	A			
UniRef90_V7BW13	A	L	S	R	A	L	S	S	V	V	S	S	K	P	Q	D	V	T	W	L	S	A	A	L	T	N	H	D	T	C	E	D	G	F	D	G	V	G	S					
UniRef90_Q9M3B0	L	L	H	R	S	L	R	V	L	R	K	L	S	A	V	D	V	Q	T	W	V	S	A	A	L	T	N	E	D	T	C	E	D	G	F	R	G	V	S	S				
UniRef90_U5D6Q2	E	L	H	D	T	S	D	L	H	N	K	H	A	A	D	L	E	T	L	L	S	A	A	L	T	N	Q	F	T	C	E	D	G	F	T	L	C	K	G					
UniRef90_B0L3S3	E	L	H	V	A	M	D	L	D	T	K	H	A	A	D	L	K	T	L	M	S	A	A	M	T	N	Q	E	T	C	E	D	G	F	S	A	D	K	H					
UniRef90_F6HXX8	D	L	K	K	S	F	N	Q	V	G	D	F	D	Y	S	D	I	K	I	W	L	S	A	V	I	T	Y	Q	E	T	C	E	D	G	F	E	N	T	T	G				
UniRef90_D7U9X3	E	F	Q	R	S	L	E	R	F	S	N	F	D	L	N	S	L	K	V	W	L	S	G	A	I	T	Y	Q	E	T	C	E	D	G	F	E	N	T	T					
UniRef90_G7KXH8	E	L	Q	E	S	F	S	V	G	E	S	D	L	Q	T	L	M	N	W	L	S	A	V	V	S	Y	Q	Q	T	C	E	D	G	F	V	I	E	P	R	T				
UniRef90_A5ATJ7	E	L	R	G	S	I	A	R	I	E	N	F	D	F	D	L	K	S	W	L	S	A	V	V	A	Y	E	E	T	C	E	D	G	F	S	E	Y	S	A					
UniRef90_K4AWP5	A	L	S	R	S	L	T	S	I	S																																		

QUERY	V	D	S	S	V	V	N	N	S	K	T	I	K	N	L	C	G	I	A	L	V	I	S	N	M	L	P	R	N			
UniRef90_V4SGD2	F	K	S	P	L	T	T	Q	M	N	A	K	F	S	Q	L	C	C	S	I	S	L	T	T	S	N	L	L	A	G	K	
UniRef90_B9RFD8	V	K	S	P	L	T	D	D	N	T	K	F	S	Q	L	C	C	S	I	S	L	T	T	M	S	N	L	L	A	G	K	
UniRef90_W1NV71	P	N	P	L	Q	L	Q	R	N	E	D	L	E	N	K	L	C	C	S	I	T	L	A	I	V	K	L	L	I	P	G	
UniRef90_P83326	I	P	T	Q	L	H	Q	A	N	E	D	L	E	N	K	L	C	C	S	I	D	I	V	L	V	I	S	N	L	L	A	G
UniRef90_Q8GT41	I	V	S	P	V	T	T	K	E	N	K	D	V	V	Q	L	T	A	I	S	L	A	I	T	K	L	L	L	L	L	L	L
UniRef90_UPI00023B20B8	Y	E	S	M	L	T	H	R	N	I	L	F	K	Q	L	C	C	S	I	N	N	A	L	A	I	T	H	D	L	L	L	L
UniRef90_A0A022PV26	V	K	N	Q	M	S	H	R	L	K	D	L	S	E	L	V	S	N	S	N	A	L	A	I	L	L	L	L	L	L	L	L
UniRef90_UPI00042B683B	P	D	Y	I	L	P	M	M	S	N	N	V	S	E	N	L	V	S	N	S	N	T	L	A	I	L	N	K	L	L	L	L
UniRef90_V7AS88	V	K	D	Q	M	S	N	N	K	D	L	S	E	L	V	S	N	S	N	S	N	A	L	A	I	L	L	L	L	L	L	L
UniRef90_UPI00042B86AB	V	V	S	P	L	T	K	R	N	N	T	F	Q	L	S	A	I	S	I	S	I	V	N	M	L	R	M	N	L	L	L	L
UniRef90_W1Q0T1	V	K	E	K	M	E	M	H	L	K	D	L	S	E	L	V	S	N	S	N	A	L	A	I	L	L	L	L	L	L	L	L
UniRef90_B9IDR8	V	K	N	Q	M	T	G	R	L	K	D	L	S	E	L	V	S	N	S	N	A	L	A	I	L	L	L	L	L	L	L	L
UniRef90_UPI0002C31D42	I	K	V	A	I	R	R	V	N	D	V	A	Q	V	T	S	N	A	L	A	L	V	N	R	F	L	L	L	L	L	L	L
UniRef90_F6H6V9	D	A	G	E	M	K	A	L	L	K	S	A	G	E	L	T	S	N	G	L	A	M	I	D	L	L	L	L	L	L	L	L
UniRef90_M5X820	V	K	S	E	M	D	T	R	L	R	D	L	S	E	L	V	S	N	S	N	A	L	A	I	L	L	L	L	L	L	L	L
UniRef90_M4CL06	T	D	I	V	L	P	L	M	S	N	N	V	S	S	L	I	C	N	A	L	A	I	L	N	K	L	L	L	L	L	L	L
UniRef90_A0A059B6N6	V	S	S	P	L	G	N	R	N	K	L	V	S	E	L	C	D	V	A	V	A	I	L	K	M	L	L	L	L	L	L	L
UniRef90_Q9FK05	V	K	D	Q	V	I	G	A	V	K	D	L	S	E	M	V	S	N	S	N	A	L	A	I	L	L	L	L	L	L	L	L
UniRef90_UPI0002C31547	V	K	S	E	V	V	K	R	S	E	K	V	K	V	T	S	N	A	L	A	L	V	N	C	V	A	L	L	L	L	L	L
UniRef90_F6H777	V	K	D	Q	M	V	E	K	L	R	D	L	S	D	L	V	S	N	S	N	A	L	A	I	L	L	L	L	L	L	L	L
UniRef90_I1LB85	A	G	N	K	M	K	N	L	K	S	T	H	M	S	N	S	N	A	L	A	I	T	S	E	L	A	L	L	L	L	L	L
UniRef90_W1P6V9	K	A	G	Q	M	K	K	V	M	K	T	A	T	K	L	T	S	N	T													

	1		10		20		30		40
UniRef90_UPI0002B486E4					D F C L Q S L	A A A P G T A D L Y E L G A L S I K L V			
UniRef90_UPI00046DF54B	S H L V	R S S C	S H A S Y P N L C I H S L	A S T Y A G P A N P R D L A Q A A V N L V					
UniRef90_V4T9Y9			A K N L D S Y E F C V A S L	L N P Q R S Q N A T L Q E L V I T L S L G L					
UniRef90_J3NA69	S P V V V	K T M C	D K T D H A D L C E S S L	I G Q P P A Q L D G L G V L I T L A M D A					
UniRef90_A0A022RYE1	K A V V	H A I C	S P T D Y K E T C E S S L	S G A N T T D P K E L I K V A F N A					
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UniRef90_I3T947			S S T T Y P R L C V Y T S L	H A D S I Q T N H V L L T C T A L N V					
UniRef90_A0A022QJB8	T S F I	R T S C	R A T T Y P S V C V Q V S L	Y T H A A K K S P K Q L V I T T A L N V					
UniRef90_Q8LE11	D I V	H S C	H A S Y P S L C V E R T L	S S Y S G P T N R R D L A Q A A I K I					
UniRef90_UPI00032A796A	K A V	Q T I C	H G P T D Y K K E C V E T L	I A E A E A T D P K E L I K I A F N V					
UniRef90_B9GZR0			N Q L C Q P S D Y K E A C T K T L	S S V N S T D P K E F V K H A I L A					
UniRef90_C5X6E1	K S V	K A F C	P T T D Y K Q T C E A E L	S K A A G N A T P S D L A K V I F G V					
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UniRef90_V7D1N5	D N V	R E A C	S V T R Y Q S L C V H S L	S H F S N T A S P S K W A R A G V S V					
UniRef90_B9GXZ7	A T S L	K A V C	S V T Q Y P A S C F S S I	S A T G N T T D P E V L F K L S L R V					
UniRef90_R0HGZ4	K A I	K E V C	A P T D Y K K T C E D T L	R K D A D T D P L E L V K T A F N V					
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UniRef90_W9R5H1	A T I	R M T C	R Q N L D Y E F C V T N S L	E S S P Y S R D L H Q L G L S F N L					
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UniRef90_B9HTM8	A D L I	Q E T C	Q K T R Y P A D C V K T L	K S N P S T A D A K G L V H I M L E A					
UniRef90_UPI00032A9FAA	T E F I	R S S C	N T T L Y P D I C V Y T S L	S R Y A N A Q N P G Q L A R V A I S V					
UniRef90_V7C1C2	A E F V	K S S C	R A T R Y P V L C V H S L	A S V I H R S D R Q L A M T A L S V					
UniRef90_W1NLC8			S S I K A L C N L A T R Y P D S C F S S I	S P N V N H L D P E S L F K L S L E V					
UniRef90_UPI000350C10F	K S I	K S F C	Q P V D Y K E T C F S A L	E A T A G N A T P T D L A K V I F K V					
UniRef90_UPI000189D3CD	A S L	K A V C	D V T Q Y P N S C F S S I	S P A D S N T T D P E L F K L S L R V					
UniRef90_S8CB52	D L V	R N S C	V H A S Y P D L C V R T L	S A Y A G A N A P R E L A Q A A V K F					
UniRef90_S8C0Y0	N A V	R A V C	S S T S Y R E T C E T S L	S Q V N T T D P K E L L K Y A M E V					
UniRef90_K7LFL6	T V F I	R T S C	S S T Y K P R L C V S S L	H A D L I Q T N R V V L T G T A L N V					
UniRef90_K4DHW2	T K S V	Q A M C	S P T Q Y K E T C A K S S L	G S A K N T T N R P K E L I K A A F D N					
UniRef90_Q9STY5	N F I	Q A S C	K A T T Y P T V C V N S L	T G Y A N S T S P R R L A E T A L N V					
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UniRef90_Q9STY5	V K N S V R A R I L N L G R G T S S N A L A L I N A F A K	
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UniRef90_J7HYD0	I R K V L I D G E K Y E R M C S N A L A M I K N M	
UniRef90_F6HGZ1	D K K I L M D G Q M Q A F R L S N V L A M I K N L	
UniRef90_M5WII0	S N D E M K T L L K T S M R L S S N G L A M V	
UniRef90_A0A059CM65	Y D S S L S Q R N K R F F K L C S N F L A I S R L L I	
UniRef90_S8C6H7	N T R E I I Q R K R I S H A S N A L A M V R K L K R	
UniRef90_M5VKT0	E K S V V L Q K N E A F R Q L C N N V L A V V K A L P	
UniRef90_B9TZ91	P A G Q K M K E I S T S S Q L T S N G L A M V T G L	
UniRef90_K7KZN7	V R K A L E K G Q V H V E H M C S N A L A M T K N M	
UniRef90_M4DBM1	L K R L I R E H I L R V A Q D T S N A L A L I N V F A	
UniRef90_V4U3U3	A V S P L T K R N Y D A F Q L S V I S L S I I N M L K	
UniRef90_UPI0002B4336F	V V F P F L E N N Y I T K L I S N S L A M N C	
UniRef90_A5BLC4	L K K A V R A R I V K I A H M T S N A L A L I N S Y A	
UniRef90_K4BIG2	N S D Y I L M S N N V S E L I C N T L A L N	
UniRef90_F6HHS0	L K K T V Q R H I N K V A R L T S N A L A L V N K Y A	
UniRef90_Q42534	V R K A L L K G Q V H V E H M C S N A L A M I K N M	
UniRef90_UPI0002C372A0	E V Y P L K R E N D H F C Q N I S L A F I N L A Q D	
UniRef90_G7JUF5	D A S K K M H L L T S S H M S N V L A I V S N F A	
UniRef90_A0A022RC18	D A T E K M K E L L K T M E M T S N G L A M V T	
UniRef90_B9HIL3	D E S P L T D R N K L I S L C D V A V A I I N L Q K	
UniRef90_I1MUW8	D A N S V R P V V D A S Q V T S N A L A L V N R F A	
UniRef90_U7DYN8	V R K A L L K G Q T H V E K M C S N A L A M I R N M	
UniRef90_M4F497	V K I F V R E R I L V I A H L T S N A L A L V N H F A	
UniRef90_UPI0002C308D8	V K A D V K R K I T N A A R V T S N A L Y M I N R L	
UniRef90_UPI0002B49E07	D T G E M T K L L E T S K E L T I N G L G M V S	
UniRef90_M5X9H1	R P S P L T K N N D D V K N L A L I G S E I V L I L	
UniRef90_D7L5Y5	E P N P L A D V A D K L T K M V S N C A I S T L I K G	
UniRef90_O04887	P E Y V L P L L S N S V T K L I S N T L S L N K	
UniRef90_M4FF22	I T Q S L K S A M S R S T E F T S N S L A I V A K I L	
UniRef90_UPI0002B4B018	M K E D V C A K A E K V K K H T S N A L A L V N S F	
UniRef90_UPI0002C33B48	E K D T I E K Y L K T S T E L T S N S L A I V S W I S K	
UniRef90_UPI00042B42CE	D K A S V H D H L K Y S E L T S N S L A I I T W I S K	
UniRef90_UPI0002B42C44	V K L D V K R R I L K V A K V T S N A L F M I N R L	
UniRef90_B9RR25	H T N E V R Y A M S N S T E F T S N S L A I A S I V L	
UniRef90_UPI00042B224D	M A S P L S D R N K L L H S L S D V A V A I V K I L L K	
UniRef90_UPI0002B4A7B5	D K N K L K E G Q M E V E H M C S N A L A M I K N M	
UniRef90_V4SD93	N G K V V R A Q I V K I A H M T S N A L A L I N S Y A	
UniRef90_Q9ZNU5	I K T T V C D R L E E V K R L T S N A L A L V N S Y A N	
UniRef90_UPI0002B40CC4	V L Q D L Q T A M A N S T E F T S N S L A I V T K I L G	
UniRef90_UPI0002B40B14	I K A E I R R R I T L V A Q I T S N A L A L V N R F A	
UniRef90_S8CYW1	V V S P L T K R N G D A V Q L T S A M A L S I I	

	1		10		20		30		40																																
UniRef90_Q9SI74	D	Y	I	K	T	S	C	N	I	T	L	Y	K	T	I	C	Y	N	S	L	S	P	Y	A	S	T	S	N	P	Q	K	L	A	V	I	A	L	N	S	V	
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UniRef90_V4JX66			L	R	S	S	I	C	S	V	T	R	F	P	E	S	C	F	S	S	I	S	A	P	S	N	T	T	S	D	P	E	L	F	K	Q	A	L	S	K	V
UniRef90_M0SR59		N	F	I	S	S	S	C	G	A	T	R	F	P	E	S	C	F	S	S	I	S	S	A	Y	A	T	T	R	S	P	V	Q	L	A	Q	A	L	S	V	
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UniRef90_M0U402	S	K	S	V	S	A	F	C	A	K	T	D	Y	Q	A	E	V	C	E	R	T	I	G	S	A	I	G	S	S	P	K	E	V	I	Q	A	S	F	Q	A	
UniRef90_UPI00042B8E95	D	L	V	S	N	A	C	S	H	T	Q	F	Y	A	V	C	V	V	S	T	L	K	S	D	P	Q	S	S	D	I	R	G	L	A	D	I	A	L	N	V	
UniRef90_A3BNN5	K	S	V	K	A	F	C	Q	P	T	D	Y	Q	Q	T	C	E	E	L	L	G	K	A	A	G	N	S	S	P	T	D	L	A	K	A	M	F	A	V		
UniRef90_R0GAQ8	K	A	V	K	D	V	C	A	P	T	D	Y	R	K	T	C	C	F	S	S	I	I	Q	N	G	Q	T	T	D	P	E	M	E	L	V	K	T	A	F	S	A
UniRef90_Q9LUL8	A	A	S	L	K	T	V	C	S	V	T	N	Y	P	V	S	C	F	S	S	I	S	P	L	S	N	T	T	D	P	E	V	I	F	R	L	S	L	Q	V	
UniRef90_Q9LUL8	A	A	S	L	K	T	V	C	S	V	T	N	Y	P	V	S	C	F	S	S	I	S	P	L	S	N	T	T	D	P	E	V	I	F	R	L	S	L	Q	V	
UniRef90_V4JZ18	S	D	V	K	T	V	C	S	K	A	K	N	Y	P	V	S	C	F	S	S	I	S	P	L	S	N	T	T	D	P	E	V	I	F	R	L	S	L	Q	V	
UniRef90_I1JB27	K	A	V	K	A	V	C	H	P	T	N	Y	E	K	E	C	S	E	S	S	I	L	I	A	G	A	G	T	T	D	P	K	E	L	V	K	I	F	F	N	I
UniRef90_UPI0003EAA911		L	S	T	V	C	S	V	T	R	Y	P	G	R	C	C	E	Q	S	L	G	P	V	V	N	T	A	D	P	E	S	V	L	R	A	A	L	Q	V		
UniRef90_B9RPW2	S	T	S	V	K	A	V	C	D	V	T	L	Y	K	D	S	C	Y	S	S	L	A	P	F	N	A	K	P	K	P	N	P	E	E	L	F	K	L	S	Q	V
UniRef90_V7BN13	D	L	V	D	Q	L	C	K	K	T	F	Y	D	L	C	C	S	S	L	L	H	A	S	F	A	K	P	K	P	D	L	K	G	V	A	L	L	M	V	N	
UniRef90_UPI00042B8E76	T	E	F	I	K	T	S	C	G	A	T	S	Y	P	D	L	C	C	F	T	T	F	S	S	Y	A	S	Q	A	S	P	K	I	L	A	S	K	S	L	S	L
UniRef90_A0A058ZSV3	D	I	V	S	D	T	C	Q	K	S	V	N	Y	D	Y	C	V	S	K	A	L	G	S	D	P	K	T	A	D	V	Q	G	L	G	L	I	A	L	N	L	
UniRef90_B9HEP8	K	L	I	V	Q	E	T	C	K	N	T	K	Y	D	L	C	V	S	S	L	S	L	K	T	N	A	T	S	T	D	T	K	G	L	A	L	I	M	I	G	V
UniRef90_A0A022QDR0	A	D	F	I	K	A	E	C	R	A	T	R	Y	P	A	L	C	V	Q	C	L	S	N	Y	T	T	T	L	T	H	R	Q	L	A	Q	A	A	L	S	V	
UniRef90_W9QN86	S	M	V	E	S	V	C	S	K	T	D	Y	K	T	A	C	T	E	Q	T	L	S	P	L	S	H	T	A	D	Y	K	D	I	J	K	A	A	V	Q	A	
UniRef90_A5CBR6	A	E	F	I	K	T	S	C	R	T	N	T	Y	P	Q	L	C	C	S	S	L	L	S	Y	A	S	K	T	S	P	K	I	L	A	D	T	A	L	S	I	
UniRef90_B9RZT6	D	L	I	N	R	T	C	K	K	T	P	Y	Y	D	L	C	C	V	S	S	L	Q	S	N	S	Q	S	A	D	V	K	G	L	A	S	T	M	A	N	I	
UniRef90_UPI0002C35304	N	L	I	S	E	T	C	K	K	A	L	S	Y	K	F	C	L	T	S	L	Q	A	A	P	N	S	A	D	L	R	Q	L	G	L	I	S	M	K	L		
UniRef90_UPI00032A9D7E		F	I	R	T	S	C	S	S	T	T	Y	P	R	L	C	C	Y	A	S	L	V	K	H	A	N	S	T	N	R	F	L	L	T	D	T	A	L	N	V	
UniRef90_J3MPD8	K	S	V	K	A	F	C	Q	P	T	D	Y	Q	Q	T	C	E	A	E	L	Q	A	A	A	N	G	S	S	P	T	D	L	A	K	A	I	F	A	V		
UniRef90_A0A022RNY7	K	A	I	S	S	I	C	E	T	T	T	Y	Q	Q	T	C	C	M	N	S	L	A	G	H	A	N	S	T	N	P	K	D	L	J	E	V	A	F	Q	A	
UniRef90_UPI00015CB173	T	E	F	I	R	T	A	C	G	T	T	T	Y	P	Q	L	C	C	F	T	S	L	A	A	H	A	S	Q	T	N	P	K	L	A	S	T	A	L	S	V	
UniRef90_G7JK56	N	F	I	K	S	S	C	R	A	T	R	Y	P	D	V	C	V	Q	T	L	L	G	Y	A	N	N	E	N	E	Q	K	L	A	I	V	A	L	T	V		
UniRef90_Q9FJR7	T	L	I	R	N	S	C	K	K	A	T	K	Y	P	E	N	L	C	V	T	S	L	E	T	N	P	Q	A	K	T	A	K	D	L	A	G	L	V	M	A	S
UniRef90_Q94FS5		I	K	S	S	C	S	C	T	L	Y	P	E	N	L	C	V	H	S	V	L	S	D	I	K	T	T	T	D	V	V	D	L	S	L	N	A	T	I	A	
UniRef90_D7TF24	S	T	S	I	K	A	V	C	D	V	T	L	Y	P	D	S	C	C	Y	N	S	L	A	P	K	S	Q	L	K	P	E	D	L	F	N	M	S	M	E	V	
UniRef90_M4EE09		F	I	A	T	S	C	Q	R	E	T	T	Y	P	L	L	C	V	H	T	S	L	A	S	Y	I	R	H	K	N	D	Q	D	L	A	Q	T	A	L	T	I
UniRef90_K3XZB9	S	D	F	I	R	K	S	C	C	R	E	T	Q	Y	P	S	V	C	V	Q	S	L	L	A	S	Y	P	Q	P	S	P	R	E	L	A	R	A	A	L	S	V
UniRef90_A0A022RIR7	N	L	I	T	T	T	C	K	P	N	I	N	Y	T	F	C	V	V	T	T	S	L	Q	A	A	A	A	S	A	T	L	Q	G	L	G	T	I	S	V	R	L
UniRef90_W5AUF9	K	S	V	K	S	L	C	A	P	T	L	Y	K	E	S	C	E	K	T	S	L	T	S	A	S	G	T	E	N	P	K	E	V	F	A	T	V	A	K	S	
UniRef90_A0A022S5J5	S	G	Y	V	R	D	A	C	S	V	T	R	Y	R	D	L	C	V	H	S	L	A	P	F	S	N	T	A	N	P	I	R	W	A	R	A	G	V	S	V	
UniRef90_B9RU29		L	I	Q	Q	T	C	K	N	T	K	H	Y	D	L	C	V	S	T	L	K	S	N	S	S	K	A	D	T	K	G	L	A	L	I	M	V	A	A		
UniRef90_M5XV94	K	A	I	E	T	I	C	Q	T	S	S	Y	K	E	T	C	Q	S	S	L	E	K	A	A	G	T	S	D	P	K	E	L	I	K	T	G	F	Q	V		
UniRef90_V4U0U8	S	N	L	I	E	R	V	C	Q	T	S	S	E	D	K	N	L	C	Y	S	T	Y	N	N	A	Q	K	A	D	L	N	G	L	A	M	I	G	L	N	Q	
UniRef90_A0A022QK12	K	A	V	K	T	V	C	A	S	T	D	Y	K	Q	T	C	E	D	S	L	L	K	D	N	H	T	A	Q	P	Q	D	I	L	R	A	S	F	A	V		
UniRef90_UPI00032A5069	S	D	L	I	K	K	V	C	D	Q	T	P	N	K	D	L	C	L	E	V	L	S	E	P	T	S	A	T	L	H	Q	K	L	A	M	I	S	L	K	V	
UniRef90_W1NFC3		F	I	K	T	A	C	E	T	T	L	Y	K	D	L	C	V	H	S	V	L	S	G	Q	V	E	T	Y	S	L	K	K	L	A	R	A	A	L	S	V	
UniRef90_V4LAL1	S	R	Y	V	K	N	A	C	S	V	T	R	Y	K	N	L	C	V	R	T	S	L	W	F	A	A	K	N	N	S	S	K	W	A	R	A	G	V	A	V	
UniRef90_M0SRL9	S	S	S	I	K	A	A	C	G	A	T	L	Y	Q	E	Q	C	V	R	D	L	S	G	N	G	S	T	L	D	P	V	K	I	F	Q	L	A	V	Q	I	
UniRef90_S8DZE7		I	D	T	L	C	S	G	A	T	D	Y	K	K	A	C	C	V	D	T	L	R	S	G	N	S	T	S	D	P	K	E	L	M	E	I	A	F	R	A	
UniRef90_B9HW40		T	S	C	C	D	Q	T	P	F	P	E	A	C	C	N	Y	F	I	D	T	N	I	S	K	T	P	P	F	A	L	R	D	Q	S	L	S	T	I	V	
UniRef90_UPI00042B8DE3	T	F	I	E	S	S	C	Q	T	T	R	Y	P	A	L	C	C	I	K	S	L	S	A	N	S	R	I	R	N	A	Q	Q	L	A	C	V	A	L	T	S	
UniRef90_B9S005	S	M	A	V	A	A	F	C	N	Q	T	D	H	K	H	R	C	V	D	S	V	F	S	R	N	Q	S	A	T	P	K	D	F	L	A	A	A	I	N	A	
UniRef90_S8CQ64	T	K	N	V	A	T	I	C	A	A	T	T	F	Q	K	S	C	V	D	T	L	S	P	N	N	A	S	A	T	P	K	D	F	L	A	A	A	I	N	A	
UniRef90_B6UCK8		V	S	T	V	C	A	F	T	Y	P	E	K	C	E	Q	S	L	K	H	V	S	D	T	S	S	P	E	D	V	F	R	D	A	L	N	V				
UniRef90_K7MBA4		S	V	K	D	L	C	S	H	T	D	Y	P	D	V	C	V	S	T	I	T	P	F	L	G	Q	N	D	L	M	N	V	L	E	A	A	I	K	A		
UniRef90_M4D7A6	S	D	F	I	R	T	S	C	N	T	T	L	Y	P	D	L	C	V	S	S	L	S	N	F	S	S	S	V	D	P	A	L	L	R	A	A	L	S	V		
UniRef90_V4LWJ6	A	D	I	K	A	I	C	G	K	A	K	N	P	S	F	C	S	S	Y	M	K	S	N	P	K	T	A	D	L	R	T	L	A	N	I	T	F	G	S		
UniRef90_W9S6H9	D	L	V	S	S	T	C	K	K	T	L	Y	V	Q	L	C	C	I	S	L	R	S	D	P	G	S	S	D	L	R	T	L	A	N	I	T	F	G	S		
UniRef90_C5XDK5	K	S	I	K	A	M	S	Q	T</																																

UniRef90_Q9SI74	T	L	S	A	K	S	A	S	K	F	V	K	N	L	S	H	G	G	L	T	R	L	E	V	V	A	V	A	D	C	V	E	E	I	G	D	S	V	T				
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UniRef90_V4JX66	I	D	E	L	D	S	V	S	D	I	L	P	L	N	R	G	G	T	S	R	D	R	K	S	A	L	L	R	V	C	G	N	E	L	F	A	D	S	V	T			
UniRef90_M0SR59	S	L	T	S	R	A	R	Q	S	T	A	F	I	T	K	L	N	R	G	G	T	S	R	D	R	K	S	A	L	L	R	V	C	G	N	E	L	F	A	D	S	V	T
UniRef90_Q8L8T0	T	L	S	R	A	Q	S	T	A	F	I	T	K	L	N	R	G	G	T	S	R	D	R	K	S	A	L	L	R	V	C	G	N	E	L	F	A	D	S	V	T		
UniRef90_M0U402	A	I	A	D	E	I	Q	A	T	F	H	L	S	N	N	V	S	L	K	A	N	D	P	M	N	K	A	A	F	N	I	C	R	Q	L	L	E	D	A	V	D	D	
UniRef90_UPI00042B8E95	S	I	A	Y	G	M	E	T	L	S	H	L	S	N	N	V	S	L	P	G	N	Y	T	P	F	A	S	G	A	L	N	I	C	R	Q	L	L	E	D	A	V	D	D
UniRef90_A3BNN05	T	S	E	K	I	S	K	A	L	S	E	S	S	T	L	E	E	L	K	N	Y	D	K	R	T	S	G	A	L	S	D	N	C	K	E	L	L	E	Y	A	V	D	D
UniRef90_R0GAQ8	T	M	K	Q	I	T	D	V	A	K	K	S	Q	T	M	M	E	L	Q	K	D	P	R	T	R	M	A	L	S	D	Q	C	T	E	L	M	D	Y	A	I	V	D	D
UniRef90_Q9LUL8	V	I	D	E	L	N	S	I	V	E	L	P	K	K	L	A	E	E	T	D	D	E	G	L	K	S	A	L	S	V	C	E	H	L	L	D	L	A	I	V	D	D	
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UniRef90_V4JZ18	A	S	K	D	A	L	D	A	Q	K	Q	F	D	S	L	A	K	S	A	S	D	P	R	S	K	N	V	Y	T	Q	C	S	E	N	Y	Q	D	A	I	V	D	D	
UniRef90_I1JB27	T	I	T	D	E	I	G	D	K	L	K	E	T	N	L	H	E	I	E	E	E	P	R	A	K	K	A	L	D	T	Q	C	K	K	L	M	D	L	S	I	V	D	D
UniRef90_UPI0003EAA911	A	L	D	E	V	A	S	A	F	N	R	S	E	Q	V	A	K	D	D	D	G	K	I	T	K	K	S	A	I	Q	M	C	K	K	L	L	N	D	S	S	E	S	E
UniRef90_B9RPW2	A	L	D	E	V	A	S	A	S	Q	Y	F	I	N	L	G	G	L	N	D	N	N	M	I	N	A	A	L	K	D	C	Q	D	L	L	D	L	A	I	V	D	D	
UniRef90_V7BN13	T	L	V	A	N	A	T	D	T	L	S	Y	I	E	G	L	K	Q	T	P	D	R	E	L	E	Q	A	L	A	F	D	C	A	V	E	S	Y	I	P	L	V	D	D
UniRef90_UPI00042B8E76	I	L	N	T	A	T	S	A	S	K	F	L	T	E	L	S	K	S	D	P	E	Q	E	A	A	A	L	Q	D	C	A	V	E	I	E	S	D	S	V	D	D		
UniRef90_A0A058ZSV3	L	E	S	S	V	T	S	T	G	S	D	I	Q	Q	L	L	K	Q	K	Q	D	P	Y	V	H	Q																	

	90	100	110	120																																												
UniRef90_Q9SI74	S	L	Q	D	S	I	R	E	L	D	S	I	N	Y	K	D	V	E	T	W	V	S	A	A	L	T	N	D	T	C	M	D	G	F	S	L	V	K	A									
UniRef90_UPI00032A782C	R	E	L	H	Q	S	S	L	V	G	V	L	M	R	K	T	Q	M	G	D	L	N	T	W	I	S	A	A	L	T	D	E	D	T	C	L	F	D	S	Q	G	E	K	K	A	Q		
UniRef90_V4JX66	R	E	L	N	D	T	S	L	V	G	V	L	M	R	K	T	Q	M	G	D	L	N	T	W	I	S	A	A	L	T	D	E	D	T	C	L	F	D	S	Q	G	E	K	K	A	Q		
UniRef90_MOSRS9	R	E	L	N	D	T	S	L	V	G	V	L	M	R	K	T	Q	M	G	D	L	N	T	W	I	S	A	A	L	T	D	E	D	T	C	L	F	D	S	Q	G	E	K	K	A	Q		
UniRef90_Q8L8T0	R	E	L	N	D	T	S	L	V	G	V	L	M	R	K	T	Q	M	G	D	L	N	T	W	I	S	A	A	L	T	D	E	D	T	C	L	F	D	S	Q	G	E	K	K	A	Q		
UniRef90_MOU402	E	L	N	A	A	F	S	E	T	H	A	R	S	T	D	D	I	K	T	W	L	S	A	A	V	I	S	T	Y	S	Q	Q	T	C	S	D	G	F	I	T	S	G	R	E	P	E		
UniRef90_UPI00042B8E95	N	L	Q	K	E	S	A	Q	A	L	R	T	K	S	Y	T	T	V	N	T	L	V	S	A	A	A	M	T	Y	S	Q	Q	T	C	E	G	G	F	G	E	M	T	P	G	T			
UniRef90_A3BNN5	D	L	K	T	S	F	E	E	K	L	G	G	K	F	E	F	H	N	L	R	I	W	L	S	A	A	A	I	S	T	Y	H	E	E	T	C	L	E	D	G	F	Q	G	E	T	T	Q	G
UniRef90_R0GAQ8	R	V	N	E	T	V	S	A	L	N	A	A	T	I	D	D	L	L	T	W	L	S	A	A	A	V	T	Y	H	E	E	T	C	L	L	D	A	L	D	E	I	S	H	P	S			
UniRef90_Q9LUL8	R	V	N	E	T	V	S	A	L	N	A	A	T	I	D	D	L	L	T	W	L	S	A	A	A	V	T	Y	H	E	E	T	C	L	L	D	A	L	D	E	I	S	H	P	S			
UniRef90_Q9LUL8	R	V	N	E	T	V	S	A	L	N	A	A	T	I	D	D	L	L	T	W	L	S	A	A	A	V	T	Y	H	E	E	T	C	L	L	D	A	L	D	E	I	S	H	P	S			
UniRef90_V4JZ18	E	F	D	D	A	L	K	A	L	A	D	N	D	S	G	S	L	N	I	K	V	S	A	A	A	M	T	Y	H	E	E	T	C	L	N	S	E	L	P	S	V	I	K	P	S			
UniRef90_I1JBZ7	E	L	T	R	S	L	D	G	I	N	E	F	N	L	N	V	K	V	W	L	S	G	A	I	T	Y	Q	Q	T	C	L	L	D	G	F	E	N	T	T	S	P	S	E					
UniRef90_UPI0003EAA911	D	L	R	G	M	A	G	E	Q	V	T	E	H	L	N	D	R	T	W	L	S	A	A	G	S	Y	Q	Q	S	T	C	L	D	G	F	K	E	A	N	L								
UniRef90_B9RPW2	R	L	N	S	S	L	S	S	A	N	D	V	S	A	D	D	F	R	S	W	L	S	A	A	G	S	Y	Q	Q	S	T	C	L	D	G	F	K	E	A	N	L							
UniRef90_V7BN13	Y	L	P	Q	A	A	D	A	I	D	S	Q	G	R	F	G	F	A	S	Y	C	S	D	A	L	K	E	V	S	T	C	L	D	K	F	S	G	T										
UniRef90_UPI00042B8E76	E	L	K	R	S	I	G																																									

		130	140
UniRef90_Q9SI74	V	K D L V R R H V V V E V A R L T S N A L A L T N M Y A	
UniRef90_UPI00032A782C	R	K Q L L Q N R V L K V Y K T S N A L A L V N K L	
UniRef90_V4JX66	N	K T E L K S A M S R S T E F T S N S L A L V S K I L	
UniRef90_M0SR59	V	R G T I R G E I V K A V Q L T S N A L S L I N G L S G	
UniRef90_Q8L8T0	I	K N S V R A R I M N V G H E T S N A L S L I N A F A K	
UniRef90_M0U402	L	Q S T M K D G L S T A T K V T S N A I A I V D E L	
UniRef90_UPI00042B8E95	N	E P L Q T Q R N Q Y F Y K L C S N F L A I T T L L	
UniRef90_A3BNN5	D	A A D K M K S A L N S S Q L T E D I L A V V D Q F	
UniRef90_R0GAQ8	N	A G E M K K A L K T A I E L T H N G L A I I S	
UniRef90_Q9LUL8	T	N S K L K S G M V N S T E F T S N S L A I V A K I L	
UniRef90_Q9LUL8	T	N S K L K S G M V N S T E F T S N S L A I V A K I L	
UniRef90_V4JZ18	S	P Q L L Q M V S D I D N L S G I V L V I S N M L P K N	
UniRef90_I1JB27	D	A G K K M K D L L T I M H M S S N A L A I V T D L A	
UniRef90_UPI0003EAA911	L	K E A M D K V L Q N S T E L S S N A L A I I T R L	
UniRef90_B9RPW2	K	S T A Q N Y L K N T T E L T S N S L A I I T W I Y K	
UniRef90_V7BN13	T	Q A P L G E R N D I V Q K L V D L A S A I K L L L K	
UniRef90_UPI00042B8E76	V	K A T V R S Q I E K V A H M T S I A L A F V N R Y A G	
UniRef90_A0A058ZSV3	V	T S P L T K Q N G D A T Q L S Y I E L A I	
UniRef90_B9HEP8	L	P S E L A R R E D G L K H I C D V V L G M I D H L	
UniRef90_A0A022QDR0	V	K A A I R R R V L N C A Q V T S N A L A L V N R F A	
UniRef90_W9QN86	Q	G Q L K G T L Q N A T A L T D N A L A I V S	
UniRef90_A5CBR6	V	K T I V R G Y I L L H V A Q M T S V A L A L I N N Y A	
UniRef90_B9RZT6	V	K L P L T E M N R V M Q N L C N V S V A L I K I L L K	
UniRef90_UPI0002C35304	L	V S P L T K R N N E T F Q L C I I A L S I I N M	
UniRef90_UPI00032A9D7E	I	K T I V Q V K I V Q V A Q L T S N A L A L I N K L A	
UniRef90_J3MPD8	A	A K M R T A L N S S Q E L T E D I L A V V D Q F	
UniRef90_A0A022RNY7	E	S G Q K M K D A L K I S E L T S N A L A M V	
UniRef90_UPI00015CB173	V	R T V V N A R I V N I A H M T S N A L A L I N S Y A	
UniRef90_G7JK56	L	K A A I G A K V V G V S Q V T S N A L A L E H M	
UniRef90_Q9FJR7	S	P V T K E N D N L Y Q M I L T P L A F T N M L K	
UniRef90_Q94FS5	D	K K V L A A G Q T N V G R M C S N S L A M V E N I	
UniRef90_D7TF24	L	R S S V L E F L K N S T E F S S N S L A I T E I S K	
UniRef90_M4EE09	V	K R L I R L K V V H V A Q V T S N A L A L V N H F A	
UniRef90_K3XZB9	V	D A I R G K V E V A Q V T S N A L A L V N K	
UniRef90_A0A022RIR7	V	D S P L S E R N D D V F Q L S A V A L S V M R L L	
UniRef90_W5AUF9	L	K A D M Q G I L R N A T E L S S N A L A I T N S L	
UniRef90_A0A022S5J5	R	V R Y I V N R V S N V T C M T S N A L A L I N K L A	
UniRef90_B9RU29	L	P Q E I A R R E Q G L E H I C D V V L G I V D V L	
UniRef90_M5XV94	E	A G E M K G F L K T A Q E L T S N G L A M V S	
UniRef90_V4U0U8	V	D A K D R M R D L L T L S Q M S S N A L A M	
UniRef90_A0A022QK12	E	K T S M Q K M L K T F R E L G S N A L A I V S Q	
UniRef90_UPI00032A5069	D	D D V L S K R S V A F R Q L C N I A V A V S K I L A K D	
UniRef90_W1NFC3	V	K D V I A G K I G D L A Q L T S N A L S L V N H F	
UniRef90_V4LAL1	E	S S I R R R A T K C M Q L C S N A L A L N K L A	
UniRef90_M0SRL9	V	K T V V J E S L A N S T K F A S N A L A I F N E F	
UniRef90_S8DZE7	D	A G D R M R D L L T L S Q M S S N A L A M	
UniRef90_B9HW40	V	S E S L P N M L R N F T K L L S N T L S L N K A I I	
UniRef90_UPI00042B8DE3	M	K A T I K G K V M N V E Q L T S N S L A L F H R Y A	
UniRef90_B9S005	H	K P M S D G L V N A T E L T S N A L A I V S A I	
UniRef90_S8CQ64	I	R S A V S D G I L N A T Q L T D N A L A I V	
UniRef90_B6UCK8	L	K E A M D K V L Q N S T E L S S N A L A I L T R L	
UniRef90_K7MBA4	V	A S P M A H S E G M V S I T A S I C L S I A S L I P	
UniRef90_M4D7A6	R	K D E V C A R V D D V K K L T S N A L A L V N R	
UniRef90_V4LWJ6	D	P S T V K N S G D F Q N I C G I V L V I S N M M	
UniRef90_W9S6H9	F	R S L T E Q N K Y F S R L C S N F L A I T T L	
UniRef90_C5XDK5	K	A K V K E S F T D G K E L T S N A M A L I E K	
UniRef90_W1NZV2	Q	A Q I P A K L A K N V S Q L T C N A L A I N K	
UniRef90_K4CIF7	Q	V K L L L N K V T N V S Y M T S N A L A L V N K L A	
UniRef90_UPI00042B6A9E	K	S P I S G S N K A V H D L S A I V A S I A Q L L L	
UniRef90_W9RGG9	I	K S N V R G H I M N V A H M T R N A L A L V N H Y A	
UniRef90_A0A022RDJ3	I	G T V V Q A L Q N S T E F T S N S L A I T S I E G H	
UniRef90_V4KM81	V	K S N L A Q D M K N I F K L T S N S L A M I T D L	
UniRef90_B9SAR6	I	S R Q L L N R V S R I T Y L T S N A L A L V N K L A	
UniRef90_UPI00042B36F9	S	D F S T P I T S N N I S Q L I S N S L A V N G V F L	
UniRef90_W1PZU9	L	K A T M R D G L A N A T V M T S N A L A I I T E I S K	
UniRef90_UPI00042B8172	D	F K T V R R Q V V K V A H L T S I A L A F V N R Y A	
UniRef90_R0IBW8	D	N S T V C S R V D A V K K L T S N A L S L V N R Y A	
UniRef90_A0A059C3J8	L	D N V L P L M S N N I S K L I S N A L S	
UniRef90_W9RV57	L	K A D L A R L F K A S K E F T S N S L A L V T	
UniRef90_M5XUJ1	R	Q S P L T D R N N V I V R F A K F T G E I I A I L	
UniRef90_A0A059C4E9	L	K T S I R S R V L N V A Q V T S N A L A L V N R Y A	
UniRef90_F6HGZ3	L	K T N M E K T F K S A K E L T S N A L A L V S K	
UniRef90_Q9FJ21	K	L S Q D M Q K I K T S R E L T S N G L A M I T N I	
UniRef90_K7MZI8	V	R D R F E E G L L E I S H H V I S N S L A M L K K L P	
UniRef90_I1H6C4	D	A A K M K K A L N A S Q L T E N I L S I V D E F	
UniRef90_I1K0Z5	E	A S P L T Q E N Y N L F Q L C G I A L C I I H L	
UniRef90_E4MY66	T	V N E I K K E M V M A N Q M L S I S L A I V S E M K K	
UniRef90_UPI00042B0A6F	T	K E E V K A A M Q N S S E Y A S N S L A I V A K I L	
UniRef90_M5XX56	L	Q K M K D G L L N A T Q L T S N A L A I A S S I	
UniRef90_S8DIN6	D	T G E M K K L L K T V G E L T S N G L D M V T D L	
UniRef90_M0RSK8	Y	P A I E R R L Y H V S H L V I S N S L A M A	
UniRef90_M4CNP4	P	N T T T F G E T K S S T E M T S N A L A I I T W L G K	
UniRef90_V7BH80	V	R D R I E K K L L E I S H H M S N S L A M L K K V P G	
UniRef90_UPI00042B159C	L	K T D I K S T L N S S Q E L T S N S L A M A R Q L S S H	
UniRef90_B9SAU4	V	R K T I K N S L Y N I S R H V I S N S L A M L K K I P G	
UniRef90_Q8GS16	I	R E E L M E G Q M H V F H M C S N A L A M I K N M	
UniRef90_Q9FHN4	S	D T P I V S N T K I S H L T S N C L A V N G A L L	
UniRef90_I1UYB7	T	V E Q V R A S R N S T E F A S S N S L A I V S K L L	
UniRef90_V4MF37	N	D V E L S Q R N E V F L K L C K N A L V I N K M L	
UniRef90_B9ICT8	V	K D T I R S Y I V T V A Q L T S I A L A I I N S I	
UniRef90_K7MJT1	T	Q A P L S D R N D I M Q K L V D V A A I I K L L L N	
UniRef90_M7Z6L8	V	S S P L A D E D S K F S K E C S L A L A V T N T F	

	1									10										20										30										40				
UniRef90_B9RZP7		Q	L	K	K	I	C	D	K	T	D	Y	P	S	L	C	L	S	S	L	T	P	F	T	G	K	T	E	I	I	S	V	L	R	M	A	I	D	A					
UniRef90_B9HVF6	S	T	S	V	K	A	V	D	V	T	L	Y	K	D	S	C	C	Y	N	S	S	L	A	S	K	P	D	Q	L	Q	P	E	E	L	F	K	L	A	I	Q	V			
UniRef90_V4U6S1		N	F	I	K	T	S	C	N	Q	T	P	Y	P	A	L	C	C	Y	K	Y	L	S	S	H	A	S	T	T	D	S	V	K	L	C	N	T	A	L	T	V			
UniRef90_G7L9T8							S																																					
UniRef90_M4DZV3		T	L	I	R	D	S	C	K	P	N	L	K	Y	D	F	C	C	L	V	S	L	E	Q	D	P	Q	S	T	S	L	S	G	L	V	L	A	S	T	N	N			
UniRef90_K4CYV6		T	F	V	E	T	Q	C	R	K	T	R	Y	P	E	A	C	C	T	N	T	F	L	S	N	Y	P	T	S	Q	D	P	Q	E	I	V	H	A	A	L	K	V		
UniRef90_B9GEY3		K	A	V	S	T	L	C	Q	P	T	Y	K	E	A	C	C	T	N	T	S	A	V	N	S	T	D	P	K	E	L	I	K	G	G	I	L	A						
UniRef90_Q9FVF9		A	L	L	T	S	S	C	S	N	T	R	H	P	D	L	C	F	S	S	L	A	S	A	P	V	H	V	S	L	N	D	V	I	K	A	S	I	N	V				
UniRef90_V7CAL9		N	L	I	E	E	T	C	K	Q	T	P	H	H	N	L	C	I	Q	Y	L	S	S	D	P	R	S	A	D	I	A	G	L	A	L	I	M	V	N	V				
UniRef90_11M0H1	S	N	S	V	K	S	V	C	D	L	T	L	Y	K	G	A	C	Y	S	S	I	G	P	H	G	P	V	R	P	E	K	L	F	L	L	S	I	E	V					
UniRef90_M0ZL18	T	S	T	I	S	A	V	C	N	T	T	F	Y	P	K	L	C	Y	S	S	L	S	P	Y	A	A	K	G	N	P	Q	D	I	Y	K	M	S	V	L	V				
UniRef90_B9N3P0					K	T	S	C	N	T	T	F	Y	P	K	L	C	Y	S	S	L	L	V	I	Y	A	S	T	T	N	P	K	L	A	K	T	A	L	N	V				
UniRef90_11L0X0		N	N	V	E	M	L	C	N	S	T	E	Y	K	E	T	C	K	S	L	L	E	K	A	S	S	N	A	D	T	K	E	L	I	K	A	A	F	N	A				
UniRef90_W1NLA3					S	A	C	K	T	T	L	Y	P	I	A	C	E	S	S	M	A	S	F	A	Q	T	S	N	P	V	R	L	F	E	H	S	V	R	Y					
UniRef90_Q9SG77	S	V	S	V	K	A	V	C	D	V	T	L	H	K	E	K	C	F	E	T	L	G	S	A	P	S	S	L	N	P	E	E	L	F	R	Y	A	V	K	I				
UniRef90_K4BK71		D	L	I	D	E	L	C	S	N	K	T	D	V	K	K	V	Y	A	L	R	E	D	P	R	S	A	K	P	E	G	L	M	A	I	V	I	D	I	L				
UniRef90_C5XR11		S	D	V	V	K	D	T	C	S	P	Q	V	N	Y	T	L	C	C	Y	S	L	S	S	D	P	K	S	A	D	L	H	E	L	A	M	I	S	A	K	L			
UniRef90_A0A022PT20		S	S	S	I	S	K	A	V	C	S	S	T	L	Y	P	D	S	C	Y	N	S	L	M	P	E	S	G	N	L	K	P	Q	D	I	Y	K	L	S	V	Q	V		
UniRef90_M4FAD5		T	A	V	S	I	L	C	S	S	T	D	Y	K	Q	E	C	C	A	S	L	E	T	V	K	S	P	D	P	R	N	L	R	A	F	D	L							
UniRef90_M0T4I8		T	E	F	I	R	A	R	C	V	L	T	R	Y	P	D	L	C	F	T	S	L	S	S	Y	A	S	A	V	S	P	V	Q	L	A	R	L	A	T	N	V			
UniRef90_K4AVT5		S	K	S	I	A	S	V	C	S	Q	T	D	F	K	K	S	V	N	S	L	S	S	N	N	Q	S	A	T	P	K	E	F	L	L	K	A	L	E	V				
UniRef90_M1DLF9		D	L	I	V	D	V	C	Q	T	S	N	F	K	K	V	C	C	V	N	A	L	R	A	D	P	S	A	D	K	K	G	L	V	R	I	L	A	L	Q	Q			
UniRef90_S8CPF5					I	M	S	I	C	D	T	T	D	Y	Q	Q	T	C	C	L	D	S	L	A	G	H	N	S	S	D	P	K	A	L	I	E	V	A	I	Q	S	V		
UniRef90_I11QC3		S	K	T	I	T	L	L	K	Q	T	D	F	Q	V	T	C	Q	E	S	L	S	A	N	A	S	T	T	S	P	K	D	V	V	R	T	A	V	Q	V				
UniRef90_A3BZ49		S	K	S	I	K	M	M	C	A	Q	T	D	F	A	D	S	C	A	T	S	I	A	A	N	A	S	V	S	P	K	D	I	I	R	T	A	V	D	V				
UniRef90_V4N3I3		N	L	I	Q	D	S	C	K	K	A	A	K	Y	D	F	C	C	V	Q	S	L	E	A	D	P	Q	S	K	T	A	T	T	L	E	G	L	V	I	A	S			
UniRef90_M0TV44		T	E	F	I	R	K	C	A	A	T	L	Y	P	G	L	C	Y	T	S	L	S	G	Y	A	N	Q	Q	S	T	V	E	L	A	H	V	A	K	E	V				
UniRef90_K7MJS6		T	S	L	L	E	Q	I	C	A	R	Q	S	P	H	Y	H	L	C	V	M	T	S	L	R	S	S	I	K	A	D	I	A	G	F	A	H	L	T	L	E	I		
UniRef90_R0F010		S	L	L	Q	D	S	C	K	K	A	L	N	Y	D	F	C	C	V	N	S	L	E	E	N	P	R	S	K	T	A	R	G	L	V	M	P	S	T	K	N			
UniRef90_M5XKR0		T	E	F	I	K	T	S	A	T	T	Y	P	K	L	C	L	C	L	T	S	L	S	S	H	A	S	T	T	S	P	K	L	M	A	G	A	V	L	N	V			
UniRef90_V4LER5		S	V	S	V	K	A	V	C	D	V	T	L	H	K	D	K	C	F	E	T	V	G	S	A	P	S	S	L	N	P	E	Q	L	F	R	Y	A	V	K	I			
UniRef90_I1QJ56		S	K	I	I	K	A	M	C	A	Q	T	D	Y	K	D	A	C	E	K	S	L	A	K	A	A	A	N	L	P	K	D	V	V	R	V	S	V	A	V				
UniRef90_V4MBP3		K	L	I	Q	T	L	C	C	N	R	T	L	Y	K	P	S	C	E	K	T	L	K	N	G	T	K	T	S	D	P	R	S	L	L	K	S	S	I	E	A			
UniRef90_A0A022RSN7			F	I	R	S	S	C	R	A	T	T	Y	P	A	V	C	V	Q	S	L	S	P	H	A	T	T	K	S	P	Q	G	L	V	T	T	A	L	T	V				
UniRef90_B9SP63		S	K	L	I	T	S	C	A	R	T	P	Y	P	E	V	C	N	Y	F	L	Q	T	Q	Y	Q	T	G	T	T	F	S	F	R	D	Q	S	L	L	V				
UniRef90_M4CAJ0		T	K	A	V	K	A	V	C	A	P	T	D	Y	K	E	I	C	L	K	S	L	I	D	A	S	P	N	S	T	E	P	L	E	I	K	L	A	I	N	V			
UniRef90_UPI0002C33ED6			H	S	T	C	Q	N	T	L	Y	K	D	L	C	V	C	S	T	L	S	I	T	S	F	P	S	S	K	T	V	P	Q	I	I	S	S	T	V	N	K			
UniRef90_K4BKF2	A	D	S	L	K	I	V	C	A	V	T	Q	H	P	G	S	C	C	F	S	S	L	N	S	T	S	T	K	P	D	P	E	Q	F	L	N	L	S	L	Q	A			
UniRef90_V5B7V0		A	S	V	L	E	D	T	C	K	S	F	A	K	D	Y	D	Y	I	K	F	F	S	K	D	S	A	T	A	D	K	R	G	L	A	I	A	S	K	L				
UniRef90_V4L857		T	L	I	Q	D	S	C	K	K	A	K	Y	D	F	C	C	V	Q	S	L	E	A	D	P	Q	S	A	T	A	D	S	K	L	E	G	L	V	I	A	S	M	K	N
UniRef90_V7ACT2		T	N	N	I	D	W	W	S	Q	T	P	Y	P	D	P	C	K	Y	Y	M	K	Q	Q	S	H	H	H	H	K	S	E	F	R	A	I	L	T	H	L				
UniRef90_A0A022S0S8					L	K	K	I	C	E	Y	T	D	H	P	A	D	C	F	S	V	T	P	K	G	K	G	A	D	A	N	T	V	L	E	V	A	V	K	A				
UniRef90_UPI00032A64CD		S	N	L	I	F	K	S	C	N	P	N	L	S	Y	D	F	C	V	A	S	L	L	K	S	K	S	K	L	E	D	L	V	G	L	S	I	R	L					
UniRef90_M4EKY3		N	F	I	V	S	S	C	R	T	T	R	Y	P	K	L	C	I	K	C	L	A	A	F	A	S	K	H	N	E	N	R	L	A	R	T	A	L	A	V				
UniRef90_A0A022QXC4		A	F	I	Q	S	Q	C	Q	T	T	L	Y	P	D	L	C	L	I	R	S	L	S	N	F	T	T	T	L	S	H	R	K	L	A	Q	F	A	V	K	V			
UniRef90_G7JB10		A	T	L	I	K	S	T	C	K	N	T	K	Y	N	L	C	F	S	L	S	K	S	N	P	S	A	D	T	K	G	L	A	V	I	M	V	G	I					
UniRef90_W9QR39		S	D	L	V	R	T	S	C	V	H	A	N	Y	P	T	L	C	L	R	T	L	A	A	Y	S	G	P	A	T	P	R	D	L	A	K	A	A	V	N	V			
UniRef90_I1K5N1							S	C	N	E	T	P	Y	P	R	V	C	K	H	Y	I	E	S	A	L	D	A	P	P	S	Y	S	F	H	D	M	A	L	K	V				
UniRef90_I3T7D3		N	L	I	L	Q	S	C	K	Q	N	L	S	Y	D	F	C	C	V	S	L	N	D	A	S	N	K	T	N	L	E	D	L	V	G	M	S	I	Q	L				
UniRef90_M0S049		S	L	V	G	E	T	C	K	Q	N	V	D	F	T	F	C	C	S	Q	S	L	R	S	A	A	G	S	A	D	L	H	G	L	A	I	T	S	L	K	L			
UniRef90_UPI0002B4981C		K	E	I	K	N	W	C	S	Q	T	P	Y	P	A	P	C	E	E	F	L	K	T	K	A	T	T	K	K	T	P	I	E	F	E	L	I	V	E	T				
UniRef90_M4E0A2		D	L	I	D	K	I	C	R	V	T	P	F	I	D	L	C	E	A	S	L	R	P	T	P	S	P	S	D	P	K	S	L	A	S	A	M	A	S	V				
UniRef90_M4CU10	S	G	Y	V	Q	N	A	C	S	V	T	H	Y	Q	N	L	C	V	Q	S	L	A	P	F	S	A	K	N	S	P	S	K	W	A	R	A	G	V	S	V				
UniRef90_I1J130																																												
UniRef90_B9HN41		N	L	I	E	K	T	C	K	Q	T	P	Y	Y	D	L	C	V	R	S	L	S	S	P	R	S	T	A	D	T	R	G	L	A	I	A								

		50	60	70	80																																					
UniRef90_B9RZP7	A	I	K	Q	T	E	V	A	I	S	A	A	Q	K	I	V	N	S	S	N	P	E	T	A	S	I	L	Q	D	C	L	E	T	Y	T	D	A	I	D			
UniRef90_B9HVF6	A	K	N	E	L	S	K	A	S	Q	H	F	S	K	L	Y	N	G	V	K	D	N	M	T	I	T	A	L	E	N	C	Q	E	L	L	S	D	A	I	D		
UniRef90_V4U6S1	N	L	K	A	A	N	K	T	S	A	L	V	T	S	M	A	K	K	G	L	R	K	P	A	E	K	A	V	L	E	D	C	N	E	E	L	D	D	C	I	D	
UniRef90_G7L9T8	T	L	D	Q	A	I	E	A	H	K	L	V	S	T	M	L	K	N	G	F	K	D	K	H	A	K	S	A	W	E	D	D	C	L	E	L	E	D	T	I	D	
UniRef90_M4DZV3	A	A	S	K	I	I	N	V	K	G	L	V	E	I	L	K	K	K	Q	A	K	P	G	T	E	P	A	L	R	T	C	L	E	L	Y	D	D	A	N	D		
UniRef90_K4CYV6	S	L	V	R	A	L	H	T	K	T	Y	L	D	N	V	L	K	K	M	K	A	K	D	H	Q	A	L	K	E	D	C	L	D	E	I	Y	D	D	G	I	S	
UniRef90_B9GEY3	I	S	D	S	L	K	K	S	N	L	T	K	D	L	K	N	S	D	E	P	R	A	K	M	A	L	N	D	C	K	E	L	L	Q	D	A	S	E				
UniRef90_Q9FVF9	T	C	T	S	V	L	R	N	I	A	A	V	N	K	A	L	S	T	R	T	D	P	R	S	R	S	A	L	K	D	C	V	E	T	M	S	T	S	L	E	D	
UniRef90_V7CAL9	I	K	T	K	A	N	N	A	L	D	K	I	H	Q	L	L	Q	G	S	P	E	P	A	Q	K	E	A	L	I	S	C	A	D	R	Y	K	A	L	E	D		
UniRef90_11M0H1	A	L	A	E	A	S	R	A	V	E	Y	F	N	G	L	L	I	N	V	D	N	K	T	M	E	G	F	K	N	C	H	E	L	L	G	L	A	V	D			
UniRef90_M0ZL18	A	L	N	E	L	S	G	A	S	D	N	F	L	K	S	F	K	N	I	N	D	P	A	A	A	K	A	I	Q	S	C	H	E	L	L	S	L	A	F	D		
UniRef90_B9N3P0	S	L	I	N	T	N	S	T	S	R	L	M	I	R	V	S	K	P	G	L	E	P	R	V	V	A	A	T	L	D	C	V	E	E	V	G	D	S	A	I	D	
UniRef90_11L0X0	S	A	V	E	L	L	N	H	I	K	N	S	T	L	Y	K	E	L	A	K	D	N	M	T	R	Q	A	M	D	I	C	K	E	V	F	D	Y	A	I	D		
UniRef90_W1NLA3	A	M	D	R	A	V	S	A	R	D	L	A	L	N	L	T	N	T	G	M	G	K	F	T	Y	S	G	M	N	D	C	L	E	L	L	E	D	S	I	G		
UniRef90_Q9SG77	T	I	A	E	V	S	K	A	I	N	A	F	S	S	S	L	G	D	E	K	N	I	T	M	N	A						A	E	L	L	D	L	T	I	D		
UniRef90_K4BK71	S	Q	K	N	A	T	F	A	C	N	L	V	S	T	L	L	K	G	T	T	D	P	K	L	K	S	R	Y	T	L	C	L	G	N	Y	N	K	A	S	D		
UniRef90_C5XR11	V	R	S	G	A	V	G	M	E	A	K	M	A	E	L	S	R	K	E	R	P	S	R	R	R	S	C	L	E	A	C	M	G	V	Y	H	N	S	L	Y		
UniRef90_A0A022PT20	A	M	H	E	L	S	K	A	S	E	I	S	S	G	S	G	Y	F	N	I	T	D	N	R	T	A	A	V	E	A	C	H	Q	L	F	D	L	A	L	D		
UniRef90_M4FAD5	A	I	L	S	I	R	S	G	I	N	M	T	D	I	E	S	R	A	D	A	D	V	I	R	T	R	D	A	L	N	S	C	K	E	L	L	M	D	F	A	I	D
UniRef90_M0T4I8	T	L	T	R	L	R	A	L	R	A	H	V	L	R	R	A	G	A	G	A	A	G	R	E	A	A	A	L	R	D	C	A	E	Q	L	G	D	A	A	D		
UniRef90_K4AVT5	A	I	Q	E	V	R	I	G	L	D	R	S	T	Y	I	L	G	K	E	A	H	D	P	L	Q	K	M	A	T	D	D	C	K	E	L	L	E	Y	A	I	D	
UniRef90_M1DLF9	C	L	T	K	T	K	S	I	Y	N	E	V	A	N	L	I	G	E	Q	A	K	E	H	V	L	I	Q	C	L	Q	I	C	K	E	N	Y	D	L	A	I	D	
UniRef90_S8CPF5	S	I	N	H	I	E	E	A	V	K	N	S	T	A	I	H	D	A	E	K	T	P	R	G	R	L	A	L	E	T	C	R	E	L	A	N	R	A	V	D		
UniRef90_I11QC3	I	G	E	A	I	S	Q	A	F	D	R	A	D	L	I	M	S	N	D	P	R	V	K	A	A	V	A	D	C	K	E	F	F	E	Y	A	K	D				
UniRef90_A3BZ49	A	V	D	Q	A	F	D	R	A	D	L	I	M	S							N	D	P	R	V	K	A	A	V	A	D	C	K	E	F	F	E	Y	A	K	D	
UniRef90_V4N3I3	T	K	N	A	A	S	Q	T	I	N	V	V	E	K	I	L	R	S	S				H	G	I	E	M	P	L	Q	D	C	I	E	L	Y	T	D	A	N	D	
UniRef90_M0TV44	T	L	A	R	L	R	S	T	A	F	H	V	A	A	L	R	R	N	A	T	E	G	P	E	R	G	A	L	R	D	C	S	E	Q	L	D	D	A	A	E		
UniRef90_K7MJS6	V	N	A	N	A	S	I	T	L	E	H	I	P	K	F	H	G	Q	N	T	E	D	P	K	L	K	M	A	L	K	D	C	L	V	S	Y	N	T	I	V	K	
UniRef90_R0F010	A	L	S	K	T	T	S	M	K	E	T	V	Q	K	I	L	K	E	N	K	E	K	Y	S	E	K	P	L	R	D	C	L	E	L	Y	S	D	A	K	R		
UniRef90_M5XKR0	T	L	S	S	A	K	S	T	S	A	V	M	L	K	L	S	Q	S	G	L	K	P	K	E	V	G	A	M	R	N	D	C	L	E	E	L	S	D	S	I	V	D
UniRef90_V4LER5	T	I	A	E	V	T	K	A	L	N	A	F	S	S	S	R	R	D	N	T	T																					
UniRef90_I1QJ56	I	G	D	A	I	E	K	A	F	D	K	S	S	A	I	V	S	D				D	P	R	V	K	A	A	V	A	D	C	K	E	I	Y	E	N	A	K	D	
UniRef90_V4MBP3	V	N	D	D	L	R	K	V	F	E	K	V	L	K	L	K	T	E	N	G	D				E	K	D	A	I	A	Q	C	K	L	V	D	E	A	K	K		
UniRef90_A0A022RSN7	S	V	D	R	A	R	S	A	K	V	F	V	A	N	L	A	K	R	G	L	K	P	R	E	R	A	A	L	K	D	C	L	E	E	V	T	D	S	V	D		
UniRef90_B9SP63	T	M	N	Q	A	I	K	A	H	Q	M	V	S	S	M	N	F	K	S	F	D	K	K	A	K	L	A	W	D	D	C	M	E	L	Y	E	D	T	V	D		
UniRef90_M4CAJ0	T	I	E	S	I	N	Q	G	L	K	K	I	D	V	K	P	K	T	D	E	D	P	E	A	K	D	A	F	E	L	C	E	K	L	M	F	D	A	I	D		
UniRef90_UPI0002C33ED6	T	M	Y	E	V	I	A	S	N	S	N	C	T	G	I	K	K	H	N	K	D	E	N	K	L	A	Q	K	A	D	D	C	L	E	L	F	D	D	T	V	A	
UniRef90_K4BKF2	T	V	K	E	L	T	G	I	S	S	L	P	K	T	L	S	K	I	N	H	P	G	T	V	S	A	L	K	D	C	L	S	L	F	D	D	A	L	S			
UniRef90_W5B7V0	T	G	A	A	A	K	S	I	G	K	H	I	Q	A	L	K	A	S	E	K	D	K	H	I	Q	S	G	L	N	D	C	R	D	L	Y	S	Q	A	V	D		
UniRef90_V4L857	A	A	S	Q	T	I	N	V	K	G	I	V	E	K	L	S	D	S	K	T	S	L	G	I	E	M	A	L	T	D	D	C	L	E	L	Y	T	D	A	N	D	
UniRef90_V7ACT2	A	L	N	R	A	M	I	M	R	R	K	A	R	E	F	G	H	K	G	I	T	K	K	Q	K	S	V	F	R	D	C	L	K	L	Y	D	N	T	V	F		
UniRef90_A0A022S0S8	G	Q	T	L	A	K	S	A	Y	A	V	K	S	L	A	K	P	G	T	P	D	V	L	S	T	L	K	D	C	K	D	G	Y	E	T	V	V	D				
UniRef90_UPI00032A64CD	T	K	S	N	G	T	N	I	S	I	S	I	S	K	L	K	N	Q	T	H	G	E	Y	V	R	A	C	L	Q	D	C	F	D	L	Y	N	D	S	L	S		
UniRef90_M4EKY3	T	L	V	R	V	R	S	T	T	V	Y	V	A	K	L	T	R	A	R	K	R	R	E	Y	L	A	V	K	D	C	V	E	N	L	G	D	G	L	G			
UniRef90_A0A022QXC4	S	L	K	A	A	E	S	T	R	A	Y	I	T	G	V	A	N	H	L	N	Q	T	K	D	K	G	Y	L	R	E	C	L	D	R	I	N	D	G	V	D		
UniRef90_G7JB10	G	M	T	N	A	T	S	T	S	Y	L	S	S	K	S	L	T	T	N	N	T	T	L	K	S	V	L	K	E	C	A	D	K	Y	N	Y	A	G	D			
UniRef90_W9QR39	S	L	J	A	R	A	S	R	V	S	E	Y	L	N	R	M	S	S	G	S	S	S	K	R	Q	R	A	A	L	S	D	C	V	E	Q	I	G	D	S	V	E	
UniRef90_I1K5N1	T	M	E	Q	A	T	E	A	Y	K	L	V	S	N	M	L	N	N	F	K	D	K	R	A	K	A	S	A	W	E	D	C	L	E	L	Y	E	N	T	L	Y	
UniRef90_I3T7D3	T	K	S	N	G	T	N	M	L	P	L	I	K	E	L	K	N	S	D	D	Y	V	K	A	C	L	Q	D	C	F	D	L	Y	K	D	S	L	S				
UniRef90_M0S049	A	V	A	N	A	T	S	A	A	T	R	A	K	A	L	L	K	N	G	L	S	R	Y	Y	K	S	C	L	D	A	C	R	E	V	Y	A	D	A	A	S		
UniRef90_UPI0002B4981C	A	L	E	R	A	V	S	A	H	K	N	A	L	S	L	G	P	K	H	C	R	N	S	K	E	K	X	A	W	T	D	C	V	D	L	Y	D	Q	I	T		
UniRef90_M4E0A2	V	L	G	N	M	T	D	L	G	Y	I	Q	S	L	R	H	S	H	D	P	A	A	E	R	A	L	A	Q	C	A	D	C	A	E	L	Y	R	P	V	K		
UniRef90_M4CU10	A	L	S	D	N	K	D	V	L	R	S	L	I	R	M	R	S	A	F	G	K	R	D	R	V	A	L	S	D	C	R	E	L	L	Q	D	S	L	D			
UniRef90_I1J130	T	G	A	T	A	A	S	T	V	K	R	I	H	A	L	K	A	S	D	K	D	K	T	R	E	G	L	S	D	C	A	D	V	Y	S	Q	A	V	D			
UniRef90_B9HN41	I	N	A	R	A	T	H	T	L	K	R	I	N	K	L	Q	H	R	Q	D	T	N	M	K	R	A	L	Q	S	D	C	A	S	R	Y	D	A	I	E			
UniRef90_W9SIF3	T	I	T	E	A	K	S	A	V	Q	Y	L	I	K	L	K	R	Q	E	N	G	A	R	N	S	A	A	L	S													

	90	100	110	120																																	
UniRef90_B9RZP7	N	F	H	S	A	E	E	A	L	P	E	K	D	I	G	T	I	N	T	M	L	S	A	A	V	A	D	Y	E	T	C	N	D	E	S	G	
UniRef90_B9HVF6	H	L	D	N	K	A	L	E	A	G	H	G	V	N	V	M	D	L	R	T	W	L	S	A	A	S	G	T	C	Y	Q	T	C	D	E	S	G
UniRef90_V4U6S1	E	L	R	N	K	A	S	N	V	L	K	E	D	N	N	L	N	D	K	L	T	W	Q	S	A	S	A	A	M	T	N	C	D	E	S	G	
UniRef90_G7L9T8	Q	L	K	R	S																		S	A	S	A	A	T	N	C	D	E	S	G			
UniRef90_M4DZV3	S	L	K	E	S																		S	A	S	A	A	T	N	C	D	E	S	G			
UniRef90_K4CYV6	Q	L	T	N	S	V	I	E	L	K	N	S	D	D	Y	R	S	N	V	Q	T	W	L	S	T	S	A	A	T	N	C	D	E	S	G		
UniRef90_B9GEY3	Q	L	Q	V	D	T	L	S	K	V	G	S	D	H	A	D	D	Y	R	T	W	L	S	S	A	I	L	A	Y	N	C	D	E	S	G		
UniRef90_Q9FVY9	E	L	H	V	A	L	A	E	L	A	L	Q	K	G	S	D	P	K	F	A	E	D	G	A	N	D	A	A	T	N	C	D	E	S	G		
UniRef90_V7CAL9	D	V	A	Q	A	I	A	A	L	Q	K	G	S	D	P	K	F	A	E	D	G	A	N	D	A	A	T	N	C	D	E	S	G				
UniRef90_I1MOH1	H	L	N	D	S	T	L	A	S	G	E	T	S	L	S	A	F	E	D	D	L	R	T	W	L	S	A	A	G	T	Y	Q	Q	T	C	D	
UniRef90_M0ZL18	E	L	Q	R	S	M	E	E	L	I	G	S	K	A	M	S	D	V	E	K	T	W	V	S	A	A	L	T	S	D	Q	Q	T	C	D		
UniRef90_B9N3P0	G	V	F	Q	K	S	I	E	T	L	D	K	F	E	F	F	D	L	K	V	W	L	S	T	G	S	A	L	T	S	D	Q	Q	T	C	D	
UniRef90_I1L0X0	Q	L	F	D	S	L	D	E	R	K	R	P	S	P	D	I	H	T	W	L	S	S	A	S	A	L	T	S	D	Q	Q	T	C	D			
UniRef90_W1NLA3	N	L	N	N	T	L	T	S	S	S	N	G	D	V	D	D	I	R	T	W	L	S	S	A	A	G	T	Y	Q	Q	T	C	D	E	S	G	
UniRef90_Q9SG77	I	V	A	K	M	P	D	L	K	S	K	R	D	Y	A	G	L	S	A	N	A	S	A	A	T	V	D	A	P	S	I	T	C	D	E	S	G
UniRef90_K4BK71	D	L	N	A	S	I	L	Q	N	M	K	S	E	A	F	D	D	L	R	T	W	L	S	S	A	A	G	T	F	Q	Q	T	C	D	E	S	G
UniRef90_C5XR11	D	L	K	R	T	R	D	T	F	K	G	F	L	F	D	D	L	R	T	W	L	S	S	G	S	V	T	T	N	Q	Q	T	C	D	E	S	G
UniRef90_A0A022PT20	Q	V	G	K	T	A	A	E	L	F	R	A	W	R	V	S	N	A	Q	T	W	M	S	A	A	L	T	N	E	D	T	C	D	E	S	G	
UniRef90_M4FAD5	E	L	Q	A	S	F	S	S	V	G	D	S	S	L	H	T	L	K	N	W	L	S	A	V	F	S	Y	Q	Q	T	C	D	E	S	G		
UniRef90_M0T4I8	D	A	T	T	A	I	K	D	F	D	A	N	D	I	F	G	A	K	I	S	A	S	A	V	I	T	G	P	D	E	T	C	D	E	S	G	
UniRef90_K4AVT5	D	L	N	R	T	L	S	G	M	D	A	K																									

	130	140
UniRef90_B9RZP7	G S S P M T S Y G E K L V N M T S N S	C L V I A S L I K
UniRef90_B9HVF6	L E A N T A H D Y S I L K N S S E L T S N S	L A L I I T W I S K
UniRef90_V4U6S1	V E A T K I K K S I V D L S R K I T S N S	L A L I I T R W L S K
UniRef90_G7L9T8	H L N Y F P S M L S N F T K L L S N S	L S I S N T L L
UniRef90_M4DZV3	A K S P V T T N E N N L F Q K I L L I	P L A F T N M L
UniRef90_K4CYV6	V K A T I V K A K V L N V A Q V T S N A L	A L F N G F A
UniRef90_B9GEY3	L K A Q V L Q N S T D Y G S Q L T D N V L	N L M L A G L S Q
UniRef90_Q9FVF9	V R K T L E T G P V R V E K M C G N A L	G M I
UniRef90_V7CAL9	K S P L T N E N N V M H D V A A T T G A	I V R Q L L L
UniRef90_I1M0H1	L K T S V V N L K N S T E F T S N S	L A I V T W L N K
UniRef90_M0ZL18	N S A I R K N L N N S T R Y T S N S	L A L I S S L
UniRef90_B9N3P0	V T A I V K R H I R R I A R L T S N A L	A L V N R Y A
UniRef90_I1L0X0	K A G E K M A K A M N A S E L S S N A L	D M I N F I S G
UniRef90_W1NLA3	L K D L M D A R A L G L M Q D I L S N T L A	L I
UniRef90_Q9SG77	M R P F G E S H L K N S T E L T S N A L	A I I T W L G K
UniRef90_K4BK71	E V P K L R E A S D N L R G L I D V L T	V L V G F L L
UniRef90_C5XR11	L E P P M K A E S K R L F Q Q A A I T L	A I I S L L
UniRef90_A0A022PT20	E L N A F V H E N K N S T E Y T S N S	L A I I T
UniRef90_M4FAD5	I A A E I M E M V R K G Q H L T S N G L	A I A S N L
UniRef90_M0T4I8	I R T D V C R R V G R V I Q Y T S N A L	A L V N S L
UniRef90_K4AVT5	I Q K T I K S T S L N A T Q L T D N V L	A M V D A M
UniRef90_M1DLF9	R T S P I K S K S E D L M N F V D L T L	S L V N Q F
UniRef90_S8CPF5	D A N R M R Q V L R E S M E M T S N V L	T M V
UniRef90_I1IQC3	F R T K V K D S F V K G K E L T S N A L	A L I E Q
UniRef90_A3BZ49	F R D K V K E S F N N G R E F T S N A L	A L I E K
UniRef90_V4N3I3	P S P V T T N E N N S V Q K I L L I	P L A F T N M L
UniRef90_M0TV44	V K A D V C H R V R K V E K F T S N S	L A L I H S L
UniRef90_K7MJS6	A T S P L R D T N R Y V Q N L C A I A	I S I A K K L
UniRef90_R0F010	M K S P F T K D N D V I Q M L I L I	P L A F T N M L K
UniRef90_M5XKR0	L K T A V R G R I V N I A Q L T S N A L	A L I N R Y A
UniRef90_V4LER5	L K T F G E S D L K N A T E M T S N A L	A I I T W L G K
UniRef90_I1QJ56	L K D K M S D A M E S G K E L T S N A L	A L I
UniRef90_V4MBP3	V K T D I R K N F N S S Q V L T S N S	L A V V K S L
UniRef90_A0A022RSN7	V K T S I R A R M T N V A Q V T S N A L	A L C N K F A G
UniRef90_B9SP63	H L E S M P I M L S N L S M L L S N S	L A V N K
UniRef90_M4CAJ0	N T L M I D M R K I F K L T S N S	L A M V T E L
UniRef90_UPI0002C33ED6	V K A E L E S R L N T C K H F S N A L	V M L K K I R G
UniRef90_K4BK72	L L G E V K A R V Q K A K E Y M S N T L	A I L S N M P N
UniRef90_W5B7V0	V K S P L V K S A E D S E F T K E V S I S	A L V I T N S L
UniRef90_V4L857	H Q S P V P T N E N D V S I Q K I L I S	L A F T N M L
UniRef90_V7ACT2	Q D F M A P T T E R C N V T E I L S N G L	F V N W A F L K
UniRef90_A0A022S0S8	V S P L T G Y A Q M L T N M T S N S	C L A I S E L L L
UniRef90_UPI00023A64CD	E T S P L T K E N H V Y F Q L N V I S	L A F I E M I R Q
UniRef90_M4EKY3	V K S A I R R R V V V H V A R V T S N A L	A L V N R F A
UniRef90_A0A022QXC4	T K A M I K A K V L N L Q Q L T S I A L	A L L F N R F A
UniRef90_G7JB10	Y P P E L A T R E N G L K H I C D Y A M G	I I D N L I N
UniRef90_U9JQR39	I K A D V R R K I T N I A K V T S N A L	I Y M I N R L
UniRef90_I1K5N1	H L N Y F P S M L S N F S E L L S N S	L Y I S K A M
UniRef90_I3T7D3	K T S P L T W E N H V Y F Q L N V M C	L A F V Q M L N Q H
UniRef90_M0S049	L A S P L A E E D G D L M Q L A V I A L	A L A V R L
UniRef90_UPI0002B4981C	S A F G Y P L T A N N V S K L I S D G L	S V N K
UniRef90_M4E0A2	D D E S L T A R N K Q V K N L C D V I S	A I S V I K S L M K
UniRef90_M4CU10	K S A M I R R R V T T S M Y M S S I A L	A L L N K L A A N
UniRef90_I1J130	V K S P L T A E N S E F F K E A T L A L	S V T S E L
UniRef90_B9HN41	K S P L A D M N R V V H D V S I V A S I	V
UniRef90_W9SIF3	E V R I R S R V S R A S C V I T S N S	L A L A N K L A
UniRef90_M1AVJ7	L K T V V R G K I V E V A H M T S	
UniRef90_W9SGC6	S P L T E M N K L V H D V A A I A A M T R	I L L L
UniRef90_UPI0002C35FE3	S D F V L P L M S N N V S K L I S N T L S	I N N
UniRef90_W9SL32	L P Y P L A R R E D G L K R I C D V V L G	I I D N L
UniRef90_UPI00042B8A02	K S P I S D S N K V V N Q L S V L V Q S	I A S L L L
UniRef90_B9HSW8	K S P L T N L N R E V H D T S V V A S A I	T R L L L
UniRef90_M1DF75	R I S P I K S K D D L M N F I D L T V S L	M N Q F
UniRef90_V7C8E0	N S P L T N Q N N A M H D V A A V T A	I V R L L L
UniRef90_R0GPR0	L K S P V T T E N N V L F Q K I L L I	P L A F T N M L
UniRef90_B9SS19	V V S P L T T E N N F F H L S D I A L	C I T I R W L
UniRef90_V7CBW4	V I S P L R N T N R Y V Q N L C S I T I S	I I N L I Q
UniRef90_R0FRD3	I K N S V Q T R I V N L G R I T C N A L	A L V N A F A K
UniRef90_M0SY85	L I G P V V R Y N V S D L V S N C L A I	N R
UniRef90_M4CAZ6	Q E S K T F G E S K N A T E M T S N A L	A I I T W L G K
UniRef90_V4MRL9	E A A V I M E R V R K G Q I L T S N G L	A I A S N L
UniRef90_F6HZ64	I R S S I E G P L R N I S H V S N S	A L M L K K I P G
UniRef90_J3M0U0	E A S P L I A E D E E F S K E S A I A L	A V T S A L
UniRef90_A0A022QB87	L P P E I A V R E D G L K R I C D V V L	G I I D N L
UniRef90_W5FNU0	L P R L M S K Y D S E	

UniRef90_UPI0002C31EFE 1 S K L V E Q M C G S T D Y K D K C K E V F S K D P L S K D P R E L I K A I L S G
UniRef90_M5X0K1 T Y V K T A C N T T T D Y P L I C Y K S T S S K D S K S G N V Q K V L C T Y A I S Q V
UniRef90_M1BZ58 N I I K K I C C N T T T D Y P L I C C T T I L S S A P F M R G S K D N V Q K V L C T Y A I S Q V
UniRef90_M8A1Q3 S P L V K S M C A R T T S Y P Y E E A S I A R L P E T A N L L G V L T L A I D A
UniRef90_UPI00042B3E7E N L I E R T S C R T T T Y P D L V I R V S L K T N P E S A N D L V K K L A R I M V D S
UniRef90_S8CSK3 S C R T T T Y P D L V I R V S L K T N P E S A N D L V K K L A R I M V D S
UniRef90_UPI0003D750A3 E I K K I C H S T D Y P S L C L T F V A P F K H S D P L S M L E M A I R A
UniRef90_UPI0002B45213 T L I K Q K T C N T T Y Y K L C M S S I A R L S A D F P A T A D T K G L A V I M A S I
UniRef90_K4D6U4 S N Y I K S K C N I T T Y P S L C N T L L P Y A S Q T N P I K L C D T A L D I V
UniRef90_B9IBX9 A Y I E N A C C K T K T L Y P S L C I Q Y L S V S A N S Q T P Q Q L A Q A A L S V
UniRef90_M4DZX9 N L I Q D S C K K A S N P D F V K T L E G N P Q S K G A K S L A D L V M A S
UniRef90_UPI0002C32856 A D L I E D T C N K T S Y A K L C V S V L P R S E T A T A D V K G L V Q I A V E Y
UniRef90_M4F5C8 A L A E K I C E K S E D K A F V A S L T S R S E T A T A P K L G V I A L S V
UniRef90_UPI00042B8DA6 D I I N K T C K S V V N Y T F C S A S L Q P V S H V T N L Q G L A I V A M E L
UniRef90_Q9FJR8 S L I R D S C K K A L K Y D F C V K S L L E E N P Q S K T A K G L V F V S T K N
UniRef90_A0A022QPE1 A F I E I Q C Q Q T L Y P D L C I R S L S N F T A N L S L R Q L A Q V L R V
UniRef90_B9GKL5 A E S I K T V C D V T L Y P S S C F T S I L S S L S T K P D E V I F K V L S Q V
UniRef90_C5YLR7 S K S V K M M C S Q T D Y K D A C E K S L S K A A A A A N P K D M V R A A V A V
UniRef90_M4EK53 I D Q W C Y K T P Y D P C K R Y F N D F R P P T Q L S D F R V M L V E A
UniRef90_A9RW28 V C Q A T S Y P A T A C Q T L A S R G N Y T A D S K G V T R Y S L Q S
UniRef90_V7B398 T S V E I L C H S T E Y A K T C K K S L L A K V P R N A D T R A L V K A A I N A K
UniRef90_W9S3W6 E I Q S D C H F T R Y P C V Q T L A A R P G S Y H Y T D V I S A L V N K
UniRef90_M8C2H1 A S T L D D T C K K D I G Y D Y C I K F F Q S A S T A D R R G L V V I A T K M
UniRef90_B9EVS6 D L V D Q V C K K T P Y Y D L C N S T L A P D L H T K S L P D V I C G T V N R D
UniRef90_UPI00032A7796 D L V Q A L C S L T D Y R D L C N S S I S S N S Y S G L H D R P D L I M Y S I Q A
UniRef90_U5D1Z1 S Y V E H A C S V T R Y R D L C I R S L S A S F S S T A S P S R W A R A G V S V
UniRef90_M0ZNR8 D L I N S T C K A N I N Y N F V T S L Q A I P I T N L Q G V G I V A M E L
UniRef90_A0A022Q429 K S S C S N T L Y P E L C Y S A I A D S L D G K S K K D V I L S L N V
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UniRef90_UPI00042B59CE S K S V A A I C S P T Q F K Q A C V D T L G S N N E S A V P K R F I Q A A I H V
UniRef90_K3Z9E7 A D I V R S L C L K T D Y P D L C V T S S I S K Q L Q A P D V L R D A M A A V R A
UniRef90_I1JBF5 S P M I L K F C C T G T E N P T L C A E T I I A P Y T G T F D P I Q A L E T E I N A
UniRef90_V7D0M6 S S E I L D F C C R S T E N P T L S E T I A P F M Q M D P I K A L E I E M E A
UniRef90_S8CAH5 F V E D A C C R S T L Y P S I C N R S L S R Y A S K H S R R R I G A I G V
UniRef90_A0A022QYW0 N Y I K T S C N S T T Y P P E L C C C N S T T S P T P Q S T F D E S L T L V S I S L
UniRef90_V7BRW3 L I E H T C K Q T P Y Y G L C C V T S L S K S D P R S K D V Q A I A L I M V D I
UniRef90_V4S1H4 L I E H T C K Q T P Y Y G L C C V T S L S K S D P R S K D V Q A I A L I M V D I
UniRef90_M5XB92 A D I V R S L C V K T D Y P D L C T S A L I T A K Q P Q R L D G A G V L R L A M S A
UniRef90_C5YPT0 E T I C K S T P H P S V C T S V L P H K N A N V Y D F G R F S A V Q Y
UniRef90_M8B5B4 S T A I K A V C D V T M Y K D T C Y D S L S S N S Q I Q F E E L F K L A I K V
UniRef90_UPI0002C33E9C S T A I K A V C D V T M Y K D T C Y D S L S S N S Q I Q F E E L F K L A I K V
UniRef90_V4T329 S D F I K T S C G T T L Y P K L C I E T L L S P Y S N S T S P M E L A N S A L T V
UniRef90_B9N4K8 S S I R S F C I T T P Y P E V C F N S L N V S I P N P N S N S Y F L Q S I Q V
UniRef90_K4BIE8 K F I K D K C C N S T T Y P K V C Y K S L Y P Y A S K R N S V T L T K L S I H V
UniRef90_R0HQJ7 S D M I E Q T C K S I F N Y N F C V S S L N S S P S P T A D T K G L A A I M V G V
UniRef90_I1MHL3 T T T I E S T C K T T N Y Y R L C V S A L K S D P R T A D T K G L A A I M V G V
UniRef90_I1L5Q8 S T I R T I C C N F T R F P D A C V S S M T A N P P E S D P K A L L K L M V E V
UniRef90_V4KVL8 D L V D Q V C K K T P Y Y D L C I S T L Q S N P Q N T D T K G I A F I A V N D
UniRef90_W9QPU4 E V A G L C S H T D Y P F L C I Y A S T T Y G Q S I D A S L A M H I K M
UniRef90_UPI00032A9CE0 S A A L S S L C S D A D F P Q L C E E I T K G A S D P K S A T Q M A I R A
UniRef90_M0TSN4 A Q L V A K T C K N T P Y P S A C P Q F L Q A D P S S A D V T G L A I M V D V
UniRef90_C5XIT6 S Y I K A S C N S T T Y P S I C Y K T L F P Y A T K A D P L K L C N V S L S V
UniRef90_UPI0001982A3E S A Q I R A L C M A T P Y P D L C V S S L S S K V P P S P N P S Q I I H S A V Q F
UniRef90_I3SWH8 V T A I C M A T P Y P S A C E T A L S S A A A R G A A N D P F A A S V Q F
UniRef90_C6T4C5 A D F I R A S C N A T L Y P D L C F S S L S R Y A A S H A L A R V A V A L
UniRef90_M4CYV4 T T Y V K T A C N S T T Y P T M C Y N C S S Y S S T S D P I K C T T S L N L
UniRef90_I1P4X6 S A I K T I C N V T R Y P N S C F T S I S S Y S S T K P D P E T I F K T S L E I
UniRef90_I1L2V6 T S F I K A K C S A T R Y P A L C V Q S L S V Y A S T K S P K Q L A H T A L T V
UniRef90_Q8LEH1 A S L K S L C S V T R Y P E T C F S S L N E S D S K L N P E S I L E L S L R V
UniRef90_M5VPW3 K F I K D Q C C N A T T Y P M E C F Y K A L S P Y A S K R N H V T L T K L S I N V
UniRef90_Q9MAH8 S L S I E D A C K Q T T K Y D L C M A T L S P D R S T A D A V G L T R A A I L A
UniRef90_F4JCN4 K I I E T L C C S T T L Y K V S C E N T L K K N S T E K G S P T T F L K A A I E A
UniRef90_V7AER0 K F I L Q C C R R T R Y P S L C A E S V L K K P E I I A K L D L F G L T K Y L I N Y
UniRef90_M7YY73 V K L V C S S T D Y K E K C A E K A M E D D P K L T T A S P Q K L A H A A L K V
UniRef90_G3LM27 A I V S A A C K A T F Y Q T A C Q S A L E S S T N G A V P Q D L F D L V S V Q F
UniRef90_M4C8L3 V K L V C S S A D Y K E K C E K A V E K D P K L Q H P K D L L K V Y L K T
UniRef90_R0FIK8 P E I L K F C S G T E H A A E A T I A P Y L A G E D P L K A L E M E I N A
UniRef90_I1LYB4 D I I T E T C N P N Y N Y T L C V A S L S A D P S T T N L H G L A G I S A K L
UniRef90_F2EGS7 S R Q V Q E Q C G F T R Y P A L C V R T L A G S G S A D I L S A L V N K
UniRef90_F6I4A4 I T W W C N H T P H P S T C M Y H M S H S H H F S L S Q F R I M S I Q L
UniRef90_G7JS35 D I I A E T C N Q N V D Y A L C V A S L S A D P A G A D L R G L A L I S A R L
UniRef90_I1L7N8 T N F I K T K C N I T T N P S L C V K T L M P A Y A S T T N P R I L C K E A L K V
UniRef90_A0A059CN46 Q V S S I C N Q S K K P S F C F A L L N S K P S K A N L V S L T Q Y T I D T
UniRef90_B9IA92 D I I A E T C N Q N V D Y A L C V A S L S A D P A G A D L R G L A L I S A R L
UniRef90_F2EI42 T N F I K T K C N I T T N P S L C V K T L M P A Y A S T T N P R I L C K E A L K V
UniRef90_M1AQK8 Q V S S I C N Q S K K P S F C F A L L N S K P S K A N L V S L T Q Y T I D T
UniRef90_I1MI21 K F I K N Q C C N S T T Y P N V C Y K S L S P Y T S K T N F T L T K I S I Y L
UniRef90_B9HV5 S L E E A C E Q T A H E D L V E T L S A D P S T A D T T G L A R L A I Q A
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	50	60	70	80
UniRef90_UPI0002C31EFE	A S D E A K S A F S K A S E V	S F D K F E E E K K A F E D	C K T L F D D A K E	
UniRef90_M5X0K1	T L K A K N A S S V V S K R L Y	K N G L T P P R S T K G V L	I E N I K D S I L Y	
UniRef90_M1BZ58	S D A F A K L G F A T F K R A S	E N G V T T P P R S T K G V L	I E N I K D S I L Y	
UniRef90_M8A1Q3	V R A K I V E A K N A A T D V S	K D P H D K L S K G A I K D	I E N I K D S I L Y	
UniRef90_UPI00042B3E7E	V L K N A S D T L D L I V S E L	Q D G L S D P A R E R A A A R	S S C A E R Y S V I I G	
UniRef90_S8CSK3	S L Q R S R S A K A F V S N L V	Q D G L S D P A R E R A A A R	S S C A E R Y S V I I G	
UniRef90_UPI0003D750A3	T S S Q I R L T I A A A D K L V	H A H T S N N N K A A V S R L	H C K D S Y R D A L D	
UniRef90_UPI0002B45213	G A A N A T A T A S Y L S Q L V	H A H T S N N N K A A V S R L	H C K D S Y R D A L D	
UniRef90_K4D6U4	A I D S A K N T S H M V S E L V	G K K G I T K Y E T A A I V R	D D C I S D L K D A V I D	
UniRef90_B9IBX9	S L Y K A L Q T R T F M L K V V	K K A R K S K D Y Q A V R	K D D L D Q I G N S V D	
UniRef90_M4DZX9	T K N A A T K T T S L K A M L V	S G K K F A K D S E M P L R	D D C I S D L K D A V I D	
UniRef90_UPI0002C32856	L Q A Y V K D T L A L S E K L F	K E E K N P S V K G G L R L R	C C L E D Q Y A L G L H	
UniRef90_M4F5C8	A S T N A S D T S F Y I K K L K	Q R N L E P S S L E D T L D D	D D C S K N Y S D A V A	
UniRef90_UPI00042B8DA6	A L Q N A T N T L S I I K E L V	N N E T G P S S L E A C L L	S D C S L L Y S D G V V	
UniRef90_Q9FJR8	A V S K T T S L K G M V D K I L	K E D K Y E T V I E R A P L L	D D C S L L Y S D G V V	
UniRef90_A0A022QPE1	T L A N A E S T K T Y V A D V A	K D L N D V T K S Y R F A K E	D D C L D Q I G N S V D	
UniRef90_B9GKL5	S I A E L K N L S Y L S S F		N D V N S Q A A V A K D	
UniRef90_C5YLR7	I G D A L A D A F N R S E V I		K S D D P R V K A A V A K D	
UniRef90_M4EK53	A M H R A I S A R D A L A S S S	L N C T D D G Q K Q A V F G D	D D C I D L V L G E T I M	
UniRef90_A9RW28	A E T G V N S T L S I L R L N R		T N P N V T A A L E V C	
UniRef90_V7B398	T A V E L L S H I K N S T L Y R	D L G K D N M T R Q A A V E I	C C K E L F E Y A A H	
UniRef90_W9S3W6	T I E E S S T S D D F S T L N S	Q L G A E A A K S A T G D	D C E A L M S L S V L K	
UniRef90_M8C2H1	T R A E A A N R K R I D A L K A	S V D K K K V S G R L S D	D C R M Y T A A A K	
UniRef90_B9EVS6	T K D A V A A T S Y N C H Y I	N S K L T P R D R L A I S D	C C M E L L D T T M D	
UniRef90_UPI00032A7796	I V S N V D T L N F T E G L I K	N T S D V G L E K K L D F D	C C A E T Y I P L V K	
UniRef90_U5D1Z1	A D S V A V A R M A I E L A Q T	I G E G R T R W A L S D	D C D L L T L R Y A Y E	
UniRef90_UPI0002C35339	T L G E T K I V T R Y L I T L K	K N G M K G K F G V A L R S	D C C M E C F D N A I T	
UniRef90_M0ZNR8	A L E N A T N T I S I E K L S S	K E F D F A M N C L R D D	C C L E L Y A D A I T	
UniRef90_UPI00022Q429	T T A A V R R N Y F A I G G A K	S G N L T E R E K S A L L H D	D C L E T I G E T L D	
UniRef90_UPI00032AD11C	I K T K A N S S L N K I K H L I	K G T H E P N K K E A L N S	C C G G R Y R A I V E	
UniRef90_UPI00042B59CE	T L Q E L Q A A L N K S G S I F	G S A S D K T V K M A K D D	D C D E L L Q Y A V D	
UniRef90_K3Z9E7	K A G E A K A A A A A L A N		D P K T Q P L A R G P L H D	
UniRef90_I1JB5F	T L E K A E E I A G N I K K M L	D D T T T K N A M D A L L G I	C C Q S Q Y D N I L D	
UniRef90_V7D0ME	T L N Q S M K V S N I S E L T	N P N D R R A R G A L D I	C C K S Q Y K S I A Q	
UniRef90_S8C4H5	S L E R S R S V K A F I G R L A	G P N L R P R E C A A V R D	C C L E M A A G S D	
UniRef90_A0A022QYW0	T L L Q A E N A H K K I M D L S	S L F N D D L S K L A S V D	C C L D L Y E D T I Y	
UniRef90_V7BRW3	A Y K A A K A S T I S K I L	K K N N T G I A E V V E D	C C L S N V K D S I G	
UniRef90_V4S1H4	I K A K A G G A L Q H I E K L		K Q K Y P A L R V P L S A	
UniRef90_M5XB92	I Q I N L K D T F S E A S K L Y	K E A T E R V I K E C F Q I	C C S E E Y G V A I H	
UniRef90_C5YPT0	V R A K A E A K A A A G A L A	D P K T Q P L A R N P L Q D	D C V E S F D D I A Y	
UniRef90_M8B5B4	T E T E V T T M S A N C S A L	H G R S L T S R D H L A V M	D D M E L L D T T M D	
UniRef90_UPI0002C33E9C	S F V Q S Q K L L D I N K Y L	Q S S L S Q L E I Q A L V E D	C C K S L L S N A L E	
UniRef90_V4T329	A S N E L S K A S D K V F S D	H N G T S D M N N A L G N	C C R E L L S M A S L	
UniRef90_B9N4K8	A I S N G N A L Y H R V N S L	L L K T S D M Y T T R S L T	G C S T N Y K D A V G	
UniRef90_K4BIE8	S L K G A K S T T N K I A K M S	K E S L G P A E A H A L T	D C V E N M E D S V D	
UniRef90_R0HQJ7	L F K K A K A T L D Y A K R V	M D S K T P M V K E A M S V	C C V E N M E D S V D	
UniRef90_I1MHL3	A I Y E T T K L L N F N N V R	P S N I K E K M Q K G A I	Q D R E L H Q S T L A	
UniRef90_I1L5Q8	A L K A A K S A N S T L T K L	S K G K L T H G E T S V I A	D C R E N I D E T L D	
UniRef90_D7MJW8	A L D N A T A T A T I G Q L L	I S D D G G F R K A L V R	D C L E L Y E D A A D	
UniRef90_V4KVL8	G M T N A T A T A T Y L G N I	T A A A N D V L K G V L K	D D S D K Y A L A A D	
UniRef90_W9QPU4	A I T E T S K L S A L E S M N S	G D A A T R D C R D L V E	E A L S	
UniRef90_UPI00032A9CE0	I V S N V S G T V N F I E S M	N K T K D K V L E Q N L Q Y	C C D E R Y I P L V K	
UniRef90_M0TSN4	T V D H T T Q T A K A I A S T	F A N P T T T P Q V K Q A L		

	90	100	110	120																																											
UniRef90_UPI0002C31EFE	E	L	E	Q	S	V	Y	Q	V	G	K	M	R	I	G	L	N	S	W	L	S	A	V	I	S	Y	G	Q	T	C	L	D	G	F	P	D	G	D	G	V							
UniRef90_M5X0K1	E	L	K	Q	S	V	S	M	S	R	Q	L	Q	L	D	D	L	K	T	W	V	S	A	V	I	T	D	D	I	S	D	C	T	E	D	G	F	D	G	V	K	V					
UniRef90_M1BZ58	N	Y	E	E	A	L	E	A	L	K	R	G	D	K	G	T	A	G	S	A	L	S	A	A	I	T	T	D	I	S	D	C	T	E	D	A	F	F	E	V	G						
UniRef90_M8A1Q3	E	F	D	S	A	L	T	A	L	K	R	G	D	K	G	T	A	G	S	A	L	S	A	A	I	T	T	D	I	S	D	C	T	E	D	G	F	F	L	D	R	P	Q	P			
UniRef90_UPI00042B3E7E	D	V	P	E	I	L	E	A	L	E	T	G	D	Y	K	F	A	E	R	G	T	N	D	A	A	M	E	A	N	S	D	C	C	E	E	V	E	F	F	S	G	R	G	P			
UniRef90_S8CSK3	R	V	S	S	S	I	R	E	L	E	T	G	D	Y	S	T	N	L	Q	T	W	M	S	A	A	I	T	D	Y	N	S	D	C	C	E	M	D	G	F	F	S	G	R	G	P		
UniRef90_UPI0003D750A3	N	L	Q	N	A	M	D	A	I	P	D	R	D	F	G	T	I	N	S	M	L	R	A	A	A	V	T	D	F	S	D	C	C	E	D	D	A	F	V	I	G	M					
UniRef90_UPI0002B45213	A	L	R	E	S	L	K	D	L	G	D	E	T	F	D	Y	A	Y	M	H	V	S	A	A	I	S	D	A	N	S	D	C	C	E	L	D	G	F	F	K	S	D	R	N	M	P	
UniRef90_K4D6U4	E	L	K	E	T	L	G	A	M	K	D	F	Q	W	D	N	A	K	T	Y	A	S	A	A	V	I	S	D	A	N	S	D	C	C	E	L	D	G	F	F	K	S	D	R	N	M	P
UniRef90_B9IBX9	Q	L	S	E	S	V	R	E	L	H	R	H	L	S	N	V	E	T	F	V	S	A	A	I	S	D	A	N	S	D	C	C	E	L	D	G	F	F	K	S	D	R	N	M	P		
UniRef90_M4DZX9	S	L	N	E	A	M	T	S	V	K	S	R	K	N	K	T	A	K	V	G	M	S	A	A	M	D	A	P	S	T	C	C	E	T	N	D	A	F	K	E	R	K	P	G			
UniRef90_UPI0002C32856	R	V	G	D	T	I	N	F	L	N	S	G	D	Y	R	N	A	H	D	I	V	L	T	V	A	D	D	A	S	T	C	C	E	N	D	A	F	K	E	R	K	P	G				
UniRef90_M4F5C8	Q	L	D	D	S	L	A	A	L	L	A	N	A	F	L	D	V	D	I	F	W	L	N	T	A	I	S	D	G	E	A	T	C	C	E	E	G	A	L	S	E	R	A	G			
UniRef90_UPI00042B8DA6	T	L	V	D	T	V	G	A	F	L	T	G	Y	G	N	A	D	A	W	V	S	A	A	I	M	Q	G	T	A	T	C	C	E	E	G	A	L	S	E	R	A	G					
UniRef90_Q9FJR8	L	L	N	Q	S	L	D	T	V	K	S	R	D	Y	K	T	A	T	M	L	M	S	A	A	M	D	A	P	G	S	T	C	C	E	E	T	K	F	K	S	G	R	M	K	A		
UniRef90_A0A022QPE1	Q	L	S	N	S	C	I	K	E	T	Q	M	W	H	A	S	N	V	K	T	W	M	S	A	A	I	T	D	A	S	T	C	C	E	V	D	G	F	F	S	G	R	M	K	A		
UniRef90_B9GKL5	K	L	N	D	S	L	S	A	M	E	V	G	K	V	N	D	I	R	T	W	L	S	A	A	M	T	D	Q</																			

		130	140																										
UniRef90_UPI0002C31EFE	K	S	K	I	T	K	T	L	E	A	T	K	E	L	T	S	N	S	L	A	M	I	S	L	L				
UniRef90_M5X0K1	V	K	T	A	I	R	N	S	I	V	N	A	A	R	L	A	S	N	A	L	S	L	I	D	S	L	I		
UniRef90_M1BZ58	V	I	T	P	M	S	G	Y	S	D	R	M	T	K	M	T	S	N	C	L	A	I	G	S	Q	L			
UniRef90_M8A1Q3	L	K	P	V	L	G	G	Y	E	K	V	L	A	E	L	S	N	V	L	A	I	N	A	N	A	K	K		
UniRef90_UPI00042B3E7E	G	K	S	P	L	T	H	M	N	K	V	V	H	D	V	S	V	V	A	A	S	I	V	K	I	L	L		
UniRef90_S8CSK3	V	S	D	S	V	R	V	W	M	V	N	S	I	Q	V	A	S	N	A	L	A	L	C	N					
UniRef90_UPI0003D750A3			A	Q	Y	S	N	Y	D	G	H	L	T	K	M	V	I	N	C	V	A	I	A	S	L	V	P		
UniRef90_UPI0002B45213	V	S	Y	P	L	G	R	E	E	G	L	K	R	I	C	R	V	V	L	G	L	D	L	L					
UniRef90_K4D6U4	V	K	A	K	I	S	D	A	I	S	Y	V	T	K	L	A	S	N	A	L	A	F	I	N	H	L			
UniRef90_B9IBX9	N	K	S	M	I	K	A	K	V	L	N	V	A	Q	T	A	S	N	A	L	A	L	F	H	R	Y	A		
UniRef90_M4DZX9	Q	K	S	P	F	T	K	D	N	D	V	L	T	Q	T	I	S	I	C	L	A	L	T	T	M	L	K		
UniRef90_UPI0002C32856	T	G	T	L	L	K	D	R	N	S	Q	V	T	N	S	T	R	L	A	M	E	M	I	Q	I	L			
UniRef90_M4F5C8	N	D	A	E	L	A	R	R	N	T	N	F	L	K	L	C	K	D	A	L	L	I	N	T	I	L			
UniRef90_UPI00042B8DA6	L	V	S	P	L	T	K	E	N	Y	S	L	F	Q	L	C	D	V	L	L	C	I	M	N	L	L			
UniRef90_Q9FJR8	V	K	S	P	F	T	K	E	N	D	V	L	F	Y	M	V	L	I	P	I	A	F	T	S	M	L			
UniRef90_A0A022QPE1	K	R	A	M	I	K	A	K	V	L	N	L	Q	A	T	S	I	S	L	A	L	F	N	R	F	A			
UniRef90_B9GKL5	K	L	D	E	I	K	A	K	I	E	R	S	K	E	F	L	S	I	S	L	A	I	I	A	K	M			
UniRef90_C5YLR7	L	K	K	Q	M	T	A	T	M	E	S	G	K	E	L	T	S	N	A	L	A	I	I	E	K				
UniRef90_M4EK53	S	D	G	P	I	V	S	K	T	E	I	S	N	L	M	S	N	C	L	A	V	N	G	A	L	L			
UniRef90_A9RW28	E	D	G	K	I	E	Q	D	S	A	H	T	Q	E	L	L	S	N	A	L	A	F	I	N	A	L	A		
UniRef90_V7B398	K	A	G	A	K	M	N	K	V	L	N	T	S	E	L	T	S	N	A	L	D	M	I	D	V	I	S	G	
UniRef90_W9S3W6	L	A	S	Q	I	S	K	K	M	S	Y	L	T	E	S	S	N	A	L	A	L	T	N	R	I				
UniRef90_M8C2H1	V	V	S	P	L	A	A	E	D	A	E	F	S	K	G	C	S	I	A	L	A	I	T	T	M	L			
UniRef90_B9EVS6	V	R	H	Y	M	E	S	S	I	H	H	V	S	R	M	V	S	N	S	L	A	M	A	K	K	L	P	G	
UniRef90_UPI00032A7796	T	T	S	P	L	S	D	R	N	V	T	I	Q	K	L	F	D	I	A	S	A	L	N	L	L	L	N		
UniRef90_U5D1Z1	V	R	D	R	V	T	G	V	L	R	N	G	T	E	M	S	R	N	S	L	A	M							
UniRef90_UPI0002C35339	Q	L	K	S	L	K	N	R	V	L	R	A	T	H	F	T	S												
UniRef90_M0ZNR8	E	L	T	L	L	A	K	E	N	Y	N	L	F	Q	L	S	D	I	S	S	C	I	I	K	Q				
UniRef90_A0A022Q429	D	R	H	L	V	G	G	Q	V	V	R	V	E	K	L	C	S	N	S	L	A	M	I						
UniRef90_UPI00032AD11C	K	Q	S	P	L	S	D	N	I	A	M	Q	D	V	A	A	I	T	A	T	I	V	K	Q	L	L			
UniRef90_UPI00042B59CE	L	Q	Q	L	S	N	C	L	L	N	A	S	Q	L	T	S	N	A	L	A	I	V	N	S	I	S	Q		
UniRef90_K3Z9E7	L	T	P	V	M	A	K	Q	D	A	E	L	A	K	L	A	S	N	C	L	A	I	A						
UniRef90_I1JBF5	V	D	M	P	F	P	E	D	N	T	K	L	F	Q	L	S	G	N	C	L	A	V	M	D	G	I	V	N	N
UniRef90_V7D0M6	V	T	I	P	F	A	D	D	S	L	G	V	F	Q	L	G	G	N	C	L	A	I	M	D	S	M	V	N	N
UniRef90_S8C4H5	L	A	S	M	I	R	V	R	V	T	K	L	A	K	V	T	S	N	A	L	A	L	C	N					
UniRef90_A0A022QYW0	L	S	F	S	M	M	L	M	S	D	D	F	S	K	Y	L	S	N	S	L	A	I	N	K					
UniRef90_V7BRW3	D	S	S	E	I	R	K	V	V	L	D	V	A	R	K	T	S	N	A	L	Y	F	I	N	N				
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UniRef90_G7JBH5	S	Y	Q	N	L	K	T	A	E	S	L	L	N	S	I	L	H	A	S	S	N	H	T	R	T	T	L	A	K	S	C	L	Q	V	F	K	Y	S	Q	H		
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UniRef90_R0HDV7	T	L	Y	G	A	V	K	A	K	S	D	T	Y	S	L	G	P	Q	F	G	S																					
UniRef90_W9QF11	S	V	S	Q	A	R	K	F	K	S	L	I	E	K	Y	L	R	N	K	L	S	V	P	A	V	R	A	L	E	D	C	L	R	Q	L	A	G	L	N	L	D	
UniRef90_Q0J8J3	A	A	A	N	A	S	G	A	A</																																	

	90	100	110	120
UniRef90_R0H1R9	R	T	L	E
UniRef90_V4U664	T	V	N	N
UniRef90_UPI00032A9A95	N	F	E	N
UniRef90_A0A059DAL4	T	L	P	Q
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UniRef90_B6TSG0	H	L	N	G
UniRef90_C5YLK0	A	L	S	A
UniRef90_D5AD1	L	I	L	K
UniRef90_I1JQT2	T	J	K	E
UniRef90_C7IX66	L	L	R	Q
UniRef90_M0RVZ5	Q	L	R	S
UniRef90_I3SUC3	Q	L	E	D
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UniRef90_Q0J8J3	A	L	A	A
UniRef90_F2DJQ8	F	L	S	A
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UniRef90_M7YS16	L	F	D	K
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UniRef90_B9SGW4	L	L	A	M
UniRef90_W9RWY7	D	I	P	K
UniRef90_M1BJQ8	D	L	R	G
UniRef90_F6HGZ2	S	L	Q	R
UniRef90_V7B2B6	R	L	D	Q
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UniRef90_S8C167	L	L	S	K
UniRef90_A5ASV1	A	Y	T	K
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T I C K S T P D P S Y C R S V L P N Q T T N V Y N Y G R F S V R K
S I E E A C R K A V S Y E H C V S S L A S D G R S A D L H K L A V V A A R M
L L H Q L C S T P P F R D F C I S W L S S D P R T L D V N G L L S S I I Q K
D I A A A C N A T R F P D Q C A S S I S Q S P Q N P T S L Q I I Q A A L Y L
D I K V S C A A T P D D V C L R A L Q A D S D S K T P R D L A E A A L R A
S E I S N I C S K G T N A S F C V F L S S S T A T D H S S L T N F L I N Y
F I V S A C H G T R Y P E V C V S S I A A D P R S T S P D Q I I S L A I D L
Q T I C K K A K D P S F C L N F L K S K P G G V D L N S L L K Y T L G V
C R T S S D F K I C V D S L R A D P S S A D K K G L V H I L L Q Q
A L C K P T T N P V V C F K T I L P H V I T A N A Y T A L E I E I I
V S A I C Q S T P Y P S A C E T A L S S P G P A R D A N D P F A A S V Q F
A D L I G N V C Q S T N P S L C N E T L S S D P R T A D L R G L G Q L V E N
S N H L S D V C I K K S K S P R F C L Q V L G L N P H R S T Y E L T R E A I N L
A N L V E E T C K K T Q N Y N L C K C L N S D P S T S D N G L A L I M V N T
S S P I D Q A C K A T R F P D T C K A S L S N K T H P S D P S P L L Q L A L N V
S T A C N D T T D P T F C R S V L P P H G T S D L Y T Y G R F S V A K
S A A C N A T T D P T F C R S V L P P H G T S D L Y T Y G R F S V A K
D S I C Q S T P D P S S C K G L V Q S N K S A N V Y D Y G R S S L K K
Q I Q E E C S F T R Y P S L C L Q T L R G L R D D S V H I V S A L V N K
T Y I E S S C E R T L Y P E S C V R Y L S S N S T T G G P Q R L A H I A L S V
D L C M A T L S A D P S S K A C S T R V A I Q A
D L C A G A N Y A A L C H S V V G R E K S P Y V A A E A T V N R
I S S L C E H T P H P A T C E S T L L S S S S S T L E V A F L Q S V H S
I C S H T P F P N V C K C T A G R H A A K I D A Q A V L N M Q V D A
S T I C K S T P D P K Y C K S V F P H S Q G N V Q Q Y G R F S I R K
D L C A S S P D T S C L A S P R A H L T R P G P A Q V L R A I V A R
V D E A C K Q T K Y P E L C V K S L S S A K P E A K L T G L A E L S L A Q
A D L I S N I C S K A Q N P S L C N K T L K S D S R T A N L R G L G Q I I L E K
Y N F C V S E L R K H I R S A D T W G L A K I A A N M
A L V Q S T C N A T T Y Y D L C V A A L D P A S S T A D L R G L C A A N A S A
D I C K E V H Y K T L C G T L T T L P G V M T P Q G L D A A L R V
E S I C N Y T P H A D F C K C I L P P N K F T T M F D Y G R I A V H R
S R I Q S L C Q T T P Y P A A C L D S L K S V S I T I N P S S L A L R S L Q A
I N R I C R Q V E E F E F C S Q T F H Q N S G S A D Y I G L T E I A N N Q
E V C K G T R D P P Q C E A S L S G L P K S A A V P E T I D F A L S I
D I K A I C K R T P H Y P L C V I T L K S N A S N D I S G F V R V A L K V
T S F P S K A C K N T P Y P S A C Q T L F K D S I T P R N K Q A L F D R S V A H
I Y K L C K N T T Y P L C L C F Q Y L S P I S V T E N P K R V A R A A L L V
I K N S C R G T T Y P K L C L K S L A R H A S K A D P K L L A H A A L N T
S V C F K V M E S I P N P A D Y S N I A K C L V N Y

	50	60	70	80
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UniRef90_D7TF25	C	L	K	Q
UniRef90_R0GCM8	A	L	S	N
UniRef90_C5YUW6	A	A	E	K
UniRef90_V4LEJ0	T	I	S	S
UniRef90_I1HEX6	V	Q	K	N
UniRef90_I1LB84	S	L	S	I
UniRef90_J3L8R5	L	R	S	G
UniRef90_F2DAV9	A	A	D	A
UniRef90_M5VIT6	S	L	S	Q
UniRef90_W9SN02	A	Y	I	D
UniRef90_M4F5C2	S	L	T	Q
UniRef90_UPI0002C34712	A	F	S	N
UniRef90_K7U1T1	A	A	A	N
UniRef90_I1HDY8	F	E	I	H
UniRef90_F2DF13	A	A	S	N
UniRef90_S8C6L3	S	I	S	A
UniRef90_W5FYH3	A	K	Q	A
UniRef90_A0A022QET5	L	R	T	A
UniRef90_V7AWP8	S	S	S	N
UniRef90_UPI0003D77454	A	V	I	T
UniRef90_R0HJ03	I	K	A	L
UniRef90_G7IVH5	N	L	K	V
UniRef90_UPI00042B4771	S	T	A	Q
UniRef90_K3XFW7	T	L	G	E
UniRef90_K4C0Z2	A	L	L	E
UniRef90_O65011	S	L	V	N
UniRef90_V4U019	A	I	S	E
UniRef90_W1P2G2	S	V	Q	K
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UniRef90_Q9SIC6	S	K	M	Q
UniRef90_B9GST8	L	H	K	G
UniRef90_B8BA42				
UniRef90_V7CKW5	S	L	F	R
UniRef90_V4V6S2	A	V	S	N
UniRef90_K7VH19	A	I	T	A
UniRef90_C5YEN5	I	E	A	T
UniRef90_M1BY50	A	L	E	Q
UniRef90_M7ZEH1	A	T	N	T
UniRef90_B9SAU3	S	L	S	Q
UniRef90_A9RUS3	G	L	E	G
UniRef90_A5BYP8	S	I	A	N
UniRef90_J3MXQ9				
UniRef90_A2ZSC3	S	L	A	N
UniRef90_V4M3P9	T	R	A	F
UniRef90_A4PU24	A	T	D	N
UniRef90_UPI00042B1478	S	L	S	Q
UniRef90_K3Y2D7	A	A	D	H
UniRef90_R0HB17	T	Q	T	V
UniRef90_UPI0002B4B6E7	S	S	D	N
UniRef90_B6TGE0	A	T	T	A
UniRef90_R0JUP5	N	F	Q	K
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UniRef90_G7JFU8	L	R	T	D
UniRef90_M1D9N0	C	L	S	K
UniRef90_V4SD95				
UniRef90_V7BSF5	T	R	E	L
UniRef90_K3ZHX2	A	M	A	R
UniRef90_A0A022QE54	A	K	A	A
UniRef90_UPI0003D28F8F	T	L	A	N
UniRef90_UPI00032ABC88	I	K	L	K
UniRef90_UPI0002C31697	S	F	N	G
UniRef90_W5A228	S	L	A	S
UniRef90_K7UUE2	S	L	A	G
UniRef90_F6HZ63	S	I	A	T
UniRef90_UPI0003D76CA7	T	V	I	S
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UniRef90_UPI00046D9E57	L	I	S	E
UniRef90_K7KJK8	M	E	Q	S
UniRef90_UPI0002C355C7	T	V	A	K
UniRef90_I1HKS4	F	A	R	T
UniRef90_D7KBC2	S	L	S	Q
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UniRef90_M8BXI0	G	V	N	N
UniRef90_M4CFT0				
UniRef90_W5CZ29	T	A	S	A
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UniRef90_UPI00042B00F3	S	L	F	T
UniRef90_M0U080	A	I	S	Q
UniRef90_A0A022RLC9	T	I	K	E
UniRef90_UPI0002B4613F	V	Y	T	K
UniRef90_S8CTP9	S	S	R	N
UniRef90_A2Q682	V	A	T	R
UniRef90_W9RVA6	S	I	S	E
UniRef90_B9RD89	S	L	I	R
UniRef90_UPI00042B81BF	T	F	F	A
UniRef90_K4FZQ6	D	S	R	K

UniRef90_B9FD13	R	L	R	Q	S	A	A	E	M	S	A	W	R	L	M	N	V	Q	T	W	A	S	A	A	L	T	D	A	S	T	C	L	D	S	L	A	T	P	G	I					
UniRef90_D7TF25	Y	L	Q	T	S	S	G	E	I	K	S	A	R	K	Y	K	K	F	H	T	S	I	S	D	R	A	K	T	I	P	R	V	C	Y	E	M	G	L	V	D	R	N	S		
UniRef90_R0GCM8	S	L	T	K	S	L	E	Y	I	K	S	R	K	Y	K	K	F	H	T	S	I	S	D	R	A	K	T	I	P	R	V	C	Y	E	M	G	L	V	D	R	N	S			
UniRef90_C5YUW6	T	L	E	E	T	E	K	I	V	A	T	G	T	Q	V	D	L	N	T	K	L	S	D	R	A	K	T	I	P	R	V	C	Y	E	M	G	L	V	D	R	N	S			
UniRef90_V4LEJ0	R	L	G	Q	A	M	E	A	L	K	R	H	N	K	H	D	V	K	T	W	L	S	A	A	M	T	F	Q	G	S	C	K	C	K	R	G	S	L	I	D	F	S	R	E	
UniRef90_I1HEXJ6	Q	L	T	D	A	T	M	A	L	A	D	A	G	A	Y	K	E	S	L	A	L	V	S	A	A	G	Q	A	E	V	K	L	C	K	Q	R	G	S	L	I	D	F	S	R	E
UniRef90_I1LB84	F	L	S	N	V	L	Q	A	L	A	S	E	V	Y	D	L	Q	T	L	L	S	A	A	I	L	T	N	Q	Q	T	C	L	D	E	D	F	G	F	K	E	V	P	L		
UniRef90_J3L8R5	D	L	G	N	A	V	A	A	M	E	A	S	W	Y	G	D	A	K	T	A	M	S	A	A	I	V	D	A	P	V	T	C	E	D	E	F	G	F	K	E	V	P	L		
UniRef90_F2DAV9	L	L	R	Q	S	A	A	E	L	G	S	G	R	V	G	S	N	V	Q	T	W	A	S	A	A	I	L	T	D	A	E	T	C	E	D	S	L	I	A	T	Y	A	G		
UniRef90_M5VIT6	F	L	N	K	T	S	K	T	L	S	N	L	K	A	D	D	V	Q	T	S	W	L	S	A	A	I	L	T	D	N	Q	Q	T	C	E	D	S	L	I	A	T	Y	A	G	
UniRef90_W9SN02	E	L	K	N	S	W	R	A	M	K	Y	Q	T	V	E	N	V	K	S	W	L	S	A	A	I	L	T	D	N	Q	Q	T	C	E	D	S	L	I	A	T	Y	A	G		
UniRef90_M4F5C2	Y	L	T	T	S	F	K	T	L	S	F	S	K	A	D	D	I	Q	T	L	L	S	A	A	I	L	T	D	N	Q	Q	T	C	E	D	S	L	I	A	T	Y	A	G		
UniRef90_UPI0002C34712	A	L	K	E	A	K	E	K	V	I	R	S	G	D	Y	G	A	L	Q	N	S	A	A	N	A	A	A	D	F	H	V	C	R	V	E	Q	L	E	F	R	R	Q	K	P	
UniRef90_K7U1T1	A	L	A	A	A	G	D	S	I	A	Q	Q	D	Y	D	V	A	S	V	H	V	S	A	A	A	A	E	Y	Q	Q	V	C	R	V	E	Q	L	E	F	R	R	Q	K	P	
UniRef90_I1HDY8	T	L	G	A	A	K	R	A	I	V	F	K	D	A	V	T	I	R	A	M	M	S	M	A	A	A	Q	D	Y	M	Q	G	C	R	D	E	K	F	R	R	Q	V	G		
UniRef90_F2DF13	A	L	A	A	A	R	G	S	I	A	Q	Q	D	Y	D	A	A	V	Y	L	V	G	A	A	A	E	Y	P	Q	V	C	R	D	E	K	F	R	R	Q	V	G				
UniRef90_S8C6L3	Y	L	N	Q	T	S	Q	V	L	P	Q	Q	D	A	D	E	V	A	Q	T	L	S	A	A	I	L	T	N	T	Q	T	C	E	D	S	L	I	A	T	Y	A	G			
UniRef90_W5FYH3	H	L	S	G	L	C	R																																						

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

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

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

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

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

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 40

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

	50	60	70	80
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UniRef90_M4E735	L M K R T M Q A K D M A K K E P K G D G G V A V C L E L L D D T V L			
UniRef90_B9RQR1	L I E H V Q N A L S F A L K L R K K S T S S E I L T A I N I S I D I Y V E I I E			
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UniRef90_B4FJN3	T A V K A A M E M K L D N A I K S G S G N P M M S S L K T C K E S Y A S L V D			
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UniRef90_I1HGZ2	S L G R A R S A K V M F A R A K Q Q S K F G N P M A S I L S C G E N Y D D L V N			
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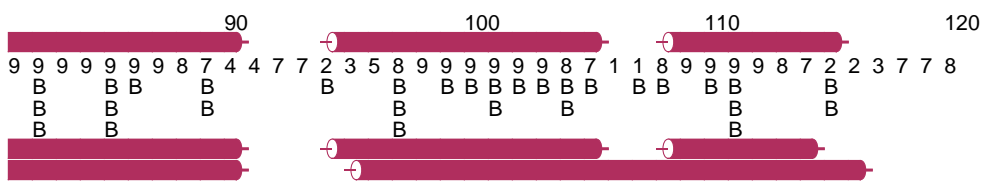
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UniRef90_M7ZFQ1	V N T V Q N A A D E L R K T G T N C L F L S T L I	
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