

QUERY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				
UniRef90_K5Z6K9	E	D	P	E	V	L	F	K	N	K	G	C	V	A	C	H	A	I	D	T	K	M	V	G	P	A	Y	K	D	V	A	A	K	F	A	G	Q	A	G	A				
UniRef90_D3SLS7	D	M	G	E	S	L	F	K	N	K	G	C	A	A	C	H	S	I	D	T	K	K	V	G	P	A	Y	K	D	V	A	A	K	F	A	G	Q	A	G	A				
UniRef90_UPI00037CB549	K	D	M	K	A	L	F	K	N	K	G	C	A	A	C	H	S	I	D	T	K	K	V	G	P	A	Y	K	D	V	A	A	K	F	A	G	Q	A	G	A				
UniRef90_S6BAA6			G	L	G	L	A	Q	A	N	N	C	M	S	C	H	R	V	A	D	R	K	V	V	G	P	A	F	S	T	I	A	Q	R	F	A	G	N	D	P	E	A		
UniRef90_W2DCR9	E	D	A	S	A	L	F	K	N	K	G	C	L	G	C	H	Q	V	I	D	S	A	K	V	L	G	P	A	Y	K	D	V	A	A	K	N	A	G	D	A	G	A		
UniRef90_A9AHH2	D	D	G	A	S	A	L	F	K	N	K	G	C	L	G	C	H	Q	V	I	D	S	A	K	V	L	G	P	A	Y	K	D	V	A	A	K	N	A	G	D	A	G	A	
UniRef90_Q1LIH3			D	G	L	T	E	L	A	T	S	K	N	C	M	A	C	H	S	V	D	K	K	L	V	G	P	S	F	H	D	I	A	R	R	Y	A	P	R	G	D	A		
UniRef90_P15452					E	Q	L	A	K	Q	K	G	C	M	A	C	H	S	V	D	K	K	L	V	G	P	A	Y	K	D	V	A	A	K	Y	K	G	R	K	D	A	A		
UniRef90_UPI000421FCAF					Q	A	L	A	Q	S	K	N	C	M	A	C	H	S	V	D	K	K	L	V	G	P	S	Y	K	E	D	V	A	T	K	Y	A	G	Q	K	D	A		
UniRef90_B2U919					D	M	Q	A	L	A	D	K	S	C	F	S	C	H	S	H	T	K	L	V	G	P	A	F	A	D	V	V	A	A	K	Y	K	G	D	A	D	A		
UniRef90_UPI0003717598					G	K	K	L	I	E	A	S	D	C	K	A	C	H	S	V	N	K	K	S	I	V	G	P	A	Y	A	D	V	A	R	K	Y	K	G	N	G	T	A	
UniRef90_A0A031MEI0					E	E	E	L	F	Q	S	K	V	C	V	A	C	H	T	V	D	T	K	L	V	G	P	A	M	K	E	D	V	A	A	K	Y	G	E	Q	A	D	G	
UniRef90_W7WJRJ1					E	A	L	A	K	S	K	N	C	M	A	C	H	S	V	D	D	K	K	L	V	G	P	A	Y	K	E	D	V	A	A	K	Y	A	G	N	A	K	A	A
UniRef90_W0E7Q2					E	L	A	Q	Q	S	G	C	L	V	C	C	H	Q	V	D	S	K	I	L	V	G	P	A	Y	R	D	V	A	A	K	Y	R	G	Q	A	D	A		
UniRef90_B1Y814					E	L	A	Q	K	S	G	C	M	A	C	H	S	V	D	D	K	K	L	V	G	P	A	F	K	E	D	V	A	A	K	Y	A	G	Q	K	D	A		
UniRef90_C6WTI6					E	L	A	Q	K	S	G	C	L	V	C	C	H	Q	V	D	S	K	I	L	V	G	P	A	Y	R	D	V	A	A	K	Y	R	G	Q	A	D	A		
UniRef90_B1YR73					D	G	L	K	V	A	R	S	N	A	C	M	G	C	H	S	V	D	R	K	L																			

QUERY	E	A	E	L	A	Q	R	I	K	N	G	S	Q	G	V	W	G	P	I	60	M	P	P	N	A	V	S	D	D	E	A	Q	T	L	A	K	W	V	L	S	80			
UniRef90_K5Z6K9	A	T	M	L	A	G	K	I	K	N	G	S	Q	G	T	W	G	S	P	I	P	M	P	P	N	A	V	S	T	D	D	E	A	K	I	L	A	E	W	V	L	S		
UniRef90_D3SLS7	V	D	E	L	A	K	R	I	K	N	G	S	Q	G	V	W	G	S	P	I	P	M	P	P	N	A	V	S	T	D	D	E	A	K	R	A	L	A	Q	W	I	L	S	
UniRef90_UPI00037CB549	A	D	Y	L	A	K	S	I	V	N	G	S	R	G	R	W	G	S	P	V	P	M	P	R	Q	A	N	V	S	D	E	A	R	A	L	A	Q	W	I	L	S			
UniRef90_S6BAA6	L	D	R	L	V	A	K	V	K	S	G	T	A	G	V	W	G	Q	I	P	M	P	P	N	N	V	S	D	E	A	T	R	L	V	K	W	I	L	S					
UniRef90_W2DCR9	D	K	T	L	A	D	H	I	K	N	G	T	Q	G	N	W	G	S	P	I	P	M	P	P	N	N	V	S	D	E	A	Q	A	L	T	L	A	Q	W	I	L	S		
UniRef90_A9AHH2	A	D	Y	L	A	K	S	I	V	K	G	S	V	G	V	W	G	N	V	P	M	P	A	N	Q	V	S	T	T	A	E	A	L	T	L	A	Q	W	V	L	S			
UniRef90_Q1LI3	A	A	Q	L	S	Q	S	I	L	K	G	S	S	G	K	W	G	S	P	I	P	M	P	P	N	Q	V	S	E	A	E	A	N	T	L	A	K	W	V	L	S			
UniRef90_P15452	V	D	Y	L	A	G	K	I	K	K	G	S	G	V	W	G	S	P	V	P	M	P	A	N	Q	V	S	T	E	D	A	E	A	K	Q	L	A	Q	W	I	L	S		
UniRef90_UPI000421FCAF	A	D	K	L	A	A	K	I	V	K	G	S	G	V	W	G	S	P	V	P	M	P	A	N	Q	V	S	T	E	A	E	A	K	K	L	V	A	W	V	L	S			
UniRef90_B2U9I9	P	A	R	L	A	A	K	V	R	E	G	G	K	G	V	W	G	R	T	P	M	P	A	H	N	L	K	S	E	D	E	A	K	Q	L	V	A	W	V	L	S			
UniRef90_UPI0003717598	V	E	T	L	T	K	K	V	I	N	G	G	S	G	V	W	G	E	T	P	M	A	A	H	N	Q	V	S	T	E	A	G	D	A	S	E	M	V	K	Y	I	L	S	
UniRef90_A0A031MEI0	K	E	H	I	M	A	S	I	Q	N	G	S	G	I	W	G	P	I	P	M	P	P	N	Q	V	S	T	E	E	E	A	G	K	L	A	D	W	I	L	S				
UniRef90_W7WRJ1	A	D	M	L	A	T	K	V	I	K	G	S	G	V	W	G	A	I	P	M	P	A	N	Q	V	S	T	E	A	E	A	K	K	L	V	A	W	V	L	S				
UniRef90_W0E7Q2	K	A	K	L	V	A	K	V	K	G	G	S	G	V	W	G	A	I	P	M	P	P	P	N	A	V	S	T	D	T	D	I	D	T	L	V	T	W	V	L	S			
UniRef90_B1Y814	V	A	K	L	S	D	K	V	I	K	G	G	A	G	V	W	G	P	I	P	M	P	A	N	A	I	T	S	D	E	A	E	A	K	T	L	V	T	W	V	L	S		
UniRef90_C6WTI6	E	A	K	L	V	E	K	V	K	K	G	S	G	V	W	G	S	P	M	P	M	P	A	N	Q	V	S	T	D	A	D	I	K	T	V	V	E	W	I	L	S			
UniRef90_B1YR73	V	V	K	L	S	K	K	V	K	D	G	G	S	G	V	W	G	A	I	P	M	P	A	H	P	L	S	T	D	A	D	L	R	S	V	L	E	W	V	L	S			
UniRef90_W6X5Q5	V	V	Y	L	T	R	K	I	M	E	G	S	A	G	V	W	G	P	V	P	M	P	A	N	Q	V	S	T	D	Q	D	E	A	M	S	L	V	A	W	I	L	S		
UniRef90_A6SVP8	E	D	K	L	V	Q	K	V	L	K	G	S	G	T	W	G	A	V	P	M	P	A	N	Q	V	S	T	E	A	E	A	R	T	L	V	S	W	I	M	T	L	S		
UniRef90_E6QNF8	Q	A	R	L	E	K	K	V	R	S	G	G	A	G	S	F	G	S	M	P	P	A	P	L	V	S	T	D	D	S	I	K	L	V	T	V	A	W	I	L	S			
UniRef90_UPI0004769F9B	V	N	Y	L	T	E	K	I	I	N	G	S	G	V	W	G	E	T	A	M	S	A	P	L	V	S	T	E	D	D	D	V	H	Q	I	L	V	T	W	I	L	S		
UniRef90_UPI00036E21D6	E	S	G	L	A	A	R	I	R	N	G	G	S	G	A	W	G	D	V	P	M	P	P	Q	Q	V	S	T	D	A	D	V	D	A	L	V	K	W	I	L	S			
UniRef90_UPI0003706AB2	P	A	K	L	A	R	K	V	K	D	G	G	S	G	V	W	G	M	I	P	M	P	A	H	Q	M	S	T	D	A	D	I	R	A	V	V	D	W	V	L	S			
UniRef90_J2KP82	V	N	Y	L	S	G	K	I	K	A	G	G	Q	G	V	W	G	A	I	P	M	P	S	Q	A	L	V	S	A	A	E	S	A	Q	I	S	Q	W	L	A	L	S		
UniRef90_UPI00037D4586	A	A	K	L	A	E	K	I	Q	K	G	S	G	V	W	G	T	M	P	M	P	A	N	Q	V	S	T	E	E	A	A	K	T	L	A	A	W	V	L	S				
UniRef90_Q3SFD3	E	D	K	L	V	A	K	V	K	A	G	G	K	G	V	W	G	Q	I	P	M	P	P	N	Q	V	S	T	E	D	E	A	H	T	K	I	V	A	W	V	L	S		
UniRef90_W0V283	E	D	K	L	A	A	K	V	M	K	G	S	G	A	W	G	A	I	P	M	P	A	N	Q	V	S	T	E	A	E	A	K	K	L	V	K	W	V	L	S				
UniRef90_H1S226	A	A	L	V	A	Q	N	I	R	A	G	G	A	G	K	W	G	Q	V	P	M	P	A	Y	A	L	S	T	E	K	E	D	L	Q	S	L	A	G	W	I	L	S		
UniRef90_E5AMP1	P	A	R	L	V	K	K	V	V	Q	G	G	A	G	V	W	G	P	I	P	M	P	S	Q	P	L	S	T	E	A	E	A	K	V	L	V	D	W	V	L	S			
UniRef90_D7W1D8	I	D	H	L	A	K	K	V	I	D	G	G	K	G	V	W	G	D	I	P	M	T	P	S	P	L	S	T	E	K	E	N	A	K	V	L	V	D	W	V	L	S		
UniRef90_M7Y1P5	A	A	Y	L	V	N	K	I	Q	K	G	S	G	V	W	G	E	T	A	M	P	A	N	P	L	K	N	D	D	A	R	K	V	V	A	Y	I	L	S	L	S			
UniRef90_Q46WP1	T	G	K	L	M	Q	S	I	R	S	K	G	S	G	K	W	G	Q	V	P	M	P	A	F	Q	L	S	T	D	D	A	D	L	K	L	A	T	W	V	L	S			
UniRef90_S9ZT53	E	A	M	L	V	T	K	V	Q	K	G	G	V	G	A	W	G	K	V	P	M	P	P	N	Q	V	S	T	D	N	D	A	E	A	K	A	L	V	H	W	V	L	S	
UniRef90_UPI00037BF7BD	R	E	M	L	A	A	K	I	I	D	G	G	A	G	N	W	G	Q	I	P	M	T	P	H	P	L	S	T	E	A	E	D	A	A	T	M	V	D	Y	I	F	T	L	S
UniRef90_R7ZWQ2	E	A	H	L	I	N	K	I	M	K	G	G	S	G	I	W	G	E	T	M	M	P	A	N	Q	V	S	T	E	K	E	D	A	K	K	I	A	Y	I	M	S	L	S	
UniRef90_UPI000422B5A5	T	N	Y	L	V	G	K	I	I	N	G	S	G	V	W	G	E	H	A	M	S	A	H	P	L	S	T	E	Q	A	D	A	K	R	M	V	D	Y	I	L	S			
UniRef90_B5Jl83	V	A	H	L	T	N	K	I	L	S	G	G	G	G	V	W	G	E	V	P	M	P	A	H	P	L	S	T	E	S	D	L	L	K	V	V	E	Y	V	R	S			
UniRef90_UPI00047EC72C	E	A	L	L	A	T	K	V	I	L	K	G	G	A	G	V	W	A	P	I	P	M	P	A	N	Q	V	S	T	D	A	E	A	K	T	L	V	K	W	I	L	S		
UniRef90_A6EGA8	T	A	Q	L	N	N	K	I	I	S	G	G	H	A	G	D	V	D	M	P	D	M	A	H	P	L	S	T	E	K	A	E	L	K	Q	I	V	N	W	I	L	S		
UniRef90_E6UW17	V	D	T	L	A	T	K	I	V	K	G	S	G	V	W	G	S	P	V	P	M	P	A	N	Q	V	S	T	E	A	D	A	K	K	L	A	A	W	V	L	S			
UniRef90_UPI0004718089	T	E	R	L	V	N	K	I	I	N	G	G	A	G	V	W	G	E	H	A	M	S	A	H	P	L	S	T	E	K	E	N	T	R	K	L	V	E	Y	I	L	S		
UniRef90_UPI0003F6DC37	V	T	Y	L	I	G	K	I	I	N	G	G	A	G	V	W	G	E	H	G	A	M	S	A	H	P	L	S	T	E	D	A	D	A	R	R	M	V	N	Y	I	L	S	
UniRef90_K8R4W1	S	T	M	L	E	K	K	V	K	N	G	G	A	G	V	W	G	S	I	P	M	P	S	H	P	M	N	D	A	D	I	K	T	V	V	S	W	I	L	S				
UniRef90_A0A024IG42	E	T	Y	L	A	G	K	I	K	S	G	G	G	G	V	Y	G	A	V	P	M	P	P	Q	Q	L	S	T	E	K	D	A	E	A	L	A	I	A	R	W	I	L	S	
UniRef90_UPI0003A41508	E	A	R	L	A	A	K	V	L	K	G	S	T	G	A	W	G	P	V	P	M	P	A	N	Q	V	S	T	E	A	D	A	R	I	L	A	K	W	V	L	S			
UniRef90_I0K9Z0	F	G	A	L	A	A	K	I	I	T	G	G	G	G	V	W	G	E	Q	A	M	S	A	H	Q	V	S	T	E	K	E	E	A	E	D	M	V	K	Y	I	M	S		
UniRef90_J4YPP2	A	A	L	L	L	G	K	I	K	N	G	G	A	G	T	W	G	S	P	V	P	M	P	P	P	L	S	T	E	A	E	D	A	K	K	V	V	D	W	I	L	S		
UniRef90_V5ABY2	V	D	Y	L	S	A	K	I	L	S	G	G	V	G	V	W	G	S	P	V	P	M	P	A	N	Q	V	S	T	E	K	E	N	A	A	L	M	A	K	W	I	L	S	
UniRef90_G0EZH4	H	A	A	L	A	A	R	K	V	K	A	G	G	Q	G	A	W	G	S	V	P	M	P	P	Q	Q	I	P	D	S	D	V	Q	A	M	V	G	W	I	L	S			
UniRef90_UPI0004692960	A	D	K	L	A	V	K	I	Q	K	G	S	Q	G	V	W	G	P	I	P	M	P	P	N	A	V	S	T	E	D	A	D	A	K	T	L	A	Q	F	I	L	S		
UniRef90_I9KT96	A	A	T	L	V	A	K	V	K	A	G	G	S	G	V	W	G	P	V	P	M	P	A	N	P	L	S	T	E	D	A	D	A	K	V	V	I	D	W	V	L	S		
UniRef90_UPI00047EBD60	E	A	M	L	V	G	K	V	M	K	G	S	N	G	V	W	G	T	M	A	M	P	P	S	N	L	S	T	E	A	E	A	K	K	L	V	A	W	V	L	S			
UniRef90_C5ABL7	A	D	Y	L	A	Q	S	I	V	K	G	S	V	G	V	W																												

QUERY	Q K
UniRef90_K5Z6K9	Q K
UniRef90_D3SLS7	L K
UniRef90_UPI00037CB549	L
UniRef90_S6BAA6	L
UniRef90_W2DCR9	L K
UniRef90_A9AHH2	L
UniRef90_Q1LIJ3	L
UniRef90_P15452	I K
UniRef90_UPI000421FCAF	Q K
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UniRef90_W7WRJ1	L K
UniRef90_W0E7Q2	L
UniRef90_B1Y814	Q K
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UniRef90_E6QNF8	Q K
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UniRef90_R4XKS7	L
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UniRef90_V5UD25	
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UniRef90_C6XU46	V K
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UniRef90_D2QBR9	L
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UniRef90_Q01T86				Q	G	A	L	V	Y	Q	A	N	H	C	G	N	C	H	M	V	N	G	I	G	V	G	P	P	L	N	G	N	L	S	K	R		E	G	R	S	W	V	
UniRef90_M4V651	E	R	G	A	K	Y	F	Q	T	R	A			C	A	S	C	H	N	V	D	N	P	K	I	G	P	S	L	Y	Q	R	W	G	K	E	A	T	V	P	F	D	T	
UniRef90_UPI0004744DC8				N	A	L	A	L	Y	K	K	Q		C	L	S	C	H	A	A	D	S	G	K	V	G	P	G	L	Q	E	I	G	S	K	L								
UniRef90_C5CLF7				Q	G	K	R	L	Y	R	W	N		C	A	G	C	H	A	Q	G	G	G	M	G	P	A	L	I	D	D	Q	W	R	Y	G	S	E	P					
UniRef90_UPI00047559C2				K	G	A	L	F	K	T		H		C	V	S	C	H	A	L	E	Q	D	G	I	G	P	K	L	G	G	I	T	R	L	L	S							
UniRef90_H5SI24				K	G	K	A	L	A	E	K			C	A	A	C	H	G	A	D	G	N	A	P	A	P	N	F	P	R	L	A	G	Q	Y								
UniRef90_E8PQ47	E	K	G	K	S	I	Y	E	A	N			C	V	A	C	H	Q	A	N	Q	Q	G	M	P	P	A	F	P	A	L	A	G	N		P	N	L	K	D	T			
UniRef90_Q0FJS8	D	R	G	F	E	F	Q	E	E	G			C	G	A	C	H	T	I	A	Q	G	P	V	G	P	D	L	T	H	L	A	A	R	E	K	L	G	A	G	T			
UniRef90_K5YQT7				K	G	E	A	L	F	R	T	A		C	N	A	C	H	S	I	A	P	G	L	A	G	P	T	L	A	G	L	A	S	R	Y	K	G	S	A	D	S		
UniRef90_UPI000225B139												N		C	A	A	C	H	G	A	D	S	G	G	A	G	P	N	L	Q	A	V	A	N	Y	S								
UniRef90_UPI00035F8BAD				E	G	Q	K	I	A	E	V	K		C	T	S	C	H	K	M	D	E	K	L	V	G	P	G	W	K	G	I	T	D	R	H					T			
UniRef90_I0WBX6				R	G	K	E	L	W	E	S	N	N	C	M	G	C	H	T	I	E	G	G	Y	A	P	E	L	T	K	V	V	E	R	R						G			
UniRef90_W1S2D5				G	A	A	L	F	D	A	Q	G		C	G	G	C	H	A	V	R	G	T	T	I	G	P	D	L	S	R	F	E	R	R	T	I	L	P	P	T			
UniRef90_UPI0003661A24				R	G	K	E	V	F		N	N		C	T	A	C	H	K	M	D	K	K	F	V	G	P	A	I	S	G	V	T	K	R	R	S							
UniRef90_UPI00036EB371				G	K	R	I	F			N	N		C	A	A	C	H	G	S	D	A	K	G	G	F	P	N	L	T	D	T	D	W	L	Y	G	G	S	P				
UniRef90_UPI000471BC21				G	E	T	V	F	K		N	N		C	A	Q	C	H	A	I	D	E	R	V	V	G	P	G	L	K	G								A	T	D	R	N	N
UniRef90_UPI00047AC3D9				N	G	A	Q	L	Y	K	Q		A	C	A	V	C	H	Q	D	N	G	K	G	V	A	G	A	F	P	P	L	A	G	S	P	I	V	N	D	V	D		
UniRef90_UPI00037C0106				K	G	M	A	L	F	E	D	I	G		C	H	G	C	H	A	V	D	L	D	K	V	G	P	S	L	A	K	V	G	S	K					V	N	S	
UniRef90_I4AJP3				K	G	K	Q	L	F	E		N	D		C	R	Q	C	H	A	I	H	K	K	I	V	G	S	A	L	A	G	S	E	S	R	W					G	N	
UniRef90_S4Y9R7				R	G	R	E	L	Y	E	A	K	G		C	G	T	C	H	A	F	T	G	A					G	L	T	A	V	A	P	R	H	A	R	D	R	M	E	
UniRef90_G8AJA9				E	G	K	R	L	F	E	W	F																																

[illegible]

UniRef90_K4KNC8	
UniRef90_B1FXS3	M
UniRef90_UPI00031DABA0	Q K
UniRef90_UPI000470AF40	L
UniRef90_G7SPZ7	
UniRef90_UPI0003758DDB	K K
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UniRef90_I4X5C6	M K
UniRef90_UPI000399CB9F	L
UniRef90_K7R2R1	
UniRef90_W0AC90	L R
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UniRef90_G7ZAV6	L K
UniRef90_D5WPZ6	Q K
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UniRef90_E1VR52	
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UniRef90_F8FPX1	L
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UniRef90_UPI00047BC5BD	L K
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UniRef90_UPI000471BC21	
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UniRef90_UPI00037C0106	
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UniRef90_M6CAU0	
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UniRef90_K0CYU2	
UniRef90_K0W479	L R

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UniRef90_F0SPD6	E	A	G	L	K	V	T	N	M	F	G	C	T	Q	C	H	S	L	D	S	K	K	V	G	P	S	F	K	G	H	F	G	K	M	G	P	V	K	M	D		
UniRef90_A7BUA8	D	G	A	T	L	T	M	S	K	G	C	I	A	C	H	G	A	N	G	K					P	S	F	R	P	T	L	S	T	Y	P	L	I	A	G	N	D	
UniRef90_I2QJF1	D	G	Q	K	L	T	Y	K	G	S	C	L	T	Q	C	H	G	D	L	P	G	I	G	P	E	L	K	D	L	K	A	K	Y	P								
UniRef90_UPI0002DBA2F9	E	A	G	E	A	L	T	Y	K	Q	S	C	L	G	C	H	G	D	N	L	Q	G	N	G	P	N	L	Q	Q	V	G	K	K	Y	S							
UniRef90_A3U3Z7	R	G	Q	A	V	F	R	D	E	G	C	G	A	C	H	T	V	R	G	Q	V	G	P	D	L	T	H	I	G	S	R	L	S	L	G	A	G	T				
UniRef90_UPI0003B4DBE6					L	V	F	S	K	N	C	V	A	C	H	T	I	G	Q	G	R	I	G	P	D	L	K	G	V	T	S	R	E	Y								
UniRef90_X2GWA2	D	G	K	A	I	F	A	M	K	S	C	V	S	C	H	G	E	L	Q	G	M	G	P	A	L	N	N	V	G	S	R	L	S	E	Q	E	I	L				
UniRef90_K6DNR5	G	E	S	I	Y	K	N	N			C	L	A	C	H	G	A	E	G	A	G	G	P	N	L	Q	K											T	K	M	D	
UniRef90_UPI0003B52E1D	G	A	K	L	Y	T	K	K	A	N	C	N	T	C	H	T	L	D	S	A	L	V	G	P	S	Y	L	Q	V	F	D	D	G	T	S	T	V	I	D			
UniRef90_Q89HD1	Q	R	G	K	A	F	A	R	A	N	C	A	R	C	H	A	I	D	R	V	K	I	A	P	L	R	T	L	H	R	N	Y	P	I	A	T	L	G				
UniRef90_U5BSR8	K	G	K	E	L	Y	N	N			C	A	S	C	H	K	P	D	G	K	G	V	S	G	I	F	P	A	L	L	G	N	E	V	V	E	G	D				
UniRef90_V5BDM4	K	G	E	D	L	Y	R	F	R	C	A	S	C	H	S	L	G	K	D	G	L	G	P	G	L	Q	G	V	A	K	V	R	E									
UniRef90_V8QR58	G	Q	A	G	F	K	V	C	F	A	C	H	G	M	D	G	K	G	G	A			P	N	L	T	D	S	V	W	L	G	G						S	S		
UniRef90_I1XFW6	E	G	K	H	L	W	E	A	N	N	C	V	G	C	H	S	I	M	G	E	G	A	P	E	L	M	N	V	F	D	R	Y	G	N	G	D	E	F				
UniRef90_Q3SLX5	E	R	G	Q	K	V	Y	E	S	N	C	A	A	C	H	Q	A	D	G	K	G	L	A	G	S	F	P	A	I	S	G	S	K	V	A	T	G	P	I			
UniRef90_Q26HW2					L	F	K	A	N		C	A	S	C	H	K	Q	L	Y	K	A	V	G	P	A	L	H	E	V	S	Q	K	Y							D		
UniRef90_F4AVS9	G	E	A	L	F	K	A	N			C	A	A	C	H	K	L	Y	K	P	M	T	G	P	L	L	H	Q	V	S	E	K	Y									
UniRef90_UPI0003057221	E	S	G	K	L	V	E	K	Y	N	C	A	S	C	H	G	K	D	N	S	P	I	D	P	S	Y	P	K	L	A	G	Q	H									
UniRef90_UPI00029B4767	E	D	G	L	A	I	Y	N	S	R	C	S	V	C	H	Q	A	A					G	I	G	P	L	S	G	R	I	G	K	I	A	G	S	P	E	G		
UniRef90_V6F0L7	G	K	H	V	W	E	K	H	S	C	I	N	C	H	T	L	M	G	E	G	A	P	E	L	G	N	V	W	V	R	F	G	G	K	E	D	A					
UniRef90_UPI00041B9B87	K	G	K	K	L	F	K		L	N	C	G	M	C	H	A	L	E	G	V	I	I	G	P	A	L	K	G	I	T	Q	K	H	S								
UniRef90_E6PQL1	D	T	G	K	A	L	F	E	Q	R	C	A	Q	C	H	T	I	G	K	L	V	G	P	D	L	K	G	I	E	A	S	R	K	T								
UniRef90_F7TB81	R	G	Q	Q	G	Y	Q	T	Y		C	L	A	C	H	G	A	D	G	K	G	G	A	P	N	L	T	D	E	I	W	L	Y	G					S	S		
UniRef90_Q2JNK7	G	A	S	L	F	A	L	N			C	A	A	C	H	G	E	E	A	D	G	V	G	P	S	L	R	G	V	S	S	R	S	D	R							
UniRef90_G2LI70									K	N	C	A	A	C	H	G	E	Q	G	E	G	A	G	P	K	L	V	G	V	A	K	K	P	G	R					S		
UniRef90_J2SGR5	G	K	E	I	F	T	T	N			C	A	A	C	H	R	A	D	A	G	G	I	G	P	N	L	T	D							K	H	W	I	L	G	G	
UniRef90_E7RUR7	Q	R	L	F	L		N	N			C	A	Q	C	H	G	A	D	A	R	G	S	F	P	N	L	T	D	G	D	W	L	H	G	G	D	A					
UniRef90_A8FFA4	P	E	R	L	Y	K	Q	N			C	L	S	C	H	G	E	N	E	G	G	A	G	P	A	L	K	G	V	G	D	K	L	E								
UniRef90_G2INU1	R	G	A	A	L	F	L	S	S	G	C	A	A	C	H	T	I	A	N	G	L	A	G	P	D	L	T	H	V	G	T	R	T	I	L	P	N	N				
UniRef90_UPI0003484220	Q	G	E	K	I	Y	V	Q	Q		C	A	S	C	H	E	A	D	G	R	G	Q	P	P	A	Y	P	P	L	A	S	N	Q	S	I	Q	M	H	S			
UniRef90_K9UN05	G	H	A	F	Q	I	N				C	S	G	C	H	G	L	D	A	S	G	V	G	P	S	L	R	D	I	S	K	R	K	S	P	H	S					
UniRef90_S6GE38	D	S	E	A	I	A	R	A	K	P	C	I	A	C	H	G	T	D	G	T	G	V	A	P	N	L	T	D	N	V	W	L	Y	G	G				S			
UniRef90_E6QM80	E	G	R	H	L	F	E	T	E	G	C	R	G	C	H	K	L	N	G	G	S	I	G	P	D	L	T	E	E	G	A	N	H	R					S			
UniRef90_F5Z8J4	G	Q	V	A	M	Q	Q	Y	N	S	C	S	C	H	V	I	D	G	I	A	V	G	P	L	N	N	M	V	N	R	R	G	T	L	P	T	T					
UniRef90_E3I2K1									Q	R	G	D	C	L	S	C	H	K	I	D	Q	G	G	I	G	P	A	L	D	G	I	G	G	R	Y	S						
UniRef90_Q934G0	E	S	G	R	H	I	F	A	N	A		C	G	A	C	H	G	F	N	A	E	G	S	T	P	G	L	P	D	L						R	R	S	D	K	L	D
UniRef90_U1HCV4	G	K	K	I	F	A	E	N			C	T	S	C	H	G	E	D	G	K	G	V	G	P	N	L	T	D	K	I	W	L	Y	G	S	D						
UniRef90_I9VWV2	G	R	T	L	Y	E	A	Y	G		C	A	G	C	H	D	P	G	A	T	V	K	A	P	S	L	V	G	L	Y	A	D	G	R	T	V	T	A	D			
UniRef90_L0GXN3									N		C	S	A	C	H	G	S	G	G	Q	Q	N		P	G	Y	P	I	L	A	D	D	Y	W	Q	Y	G	G	T			
UniRef90_UPI000415018E	R	G	R	D	V	F	L	S	K	P	C	V	M	C	H	Q	I	S	G	R	V	A	P	E	L	T	H	I	G	S	R	E	T	T	L	P	L	T				
UniRef90_F5Z892	K	G	K	A	L	Y	A	S	N		C	S	S	C	H	G	Q	Q	G	Q	G	V	A	P	A																	
UniRef90_UPI000366D52C	R	G	K	T	L	F	G	V	N		C	R	S	C	H	G	A	D	L	R	G	G	G	P	E	L	T	H	V	G	S	R	R	G	T	L	E	N	T			
UniRef90_I2DYG5	R	G	R	R	L	F	T	E	R		C	A	G	C	H	A	V	D	A	T	G	A	G	P	E	L	T	H	V	G	S	R	R	G	T	L	E	N	T			
UniRef90_S2KM14									Q	N	N	C	A	T	C	H	G	A	N	Q	G	G	Y	G	P	N	L	T	D	D	A	W	L	Y	G	G	Q	P				
UniRef90_K6DE07	K	G	Q	D	I	F	N	Q	S		C	I	G	C	H	A	V	E	T	A	R	L	A	P	S	N	L	S	N	F	G	E	R	S	R	L	I	D	H	N		
UniRef90_UPI00040B1703	G	Q	E	I	F	D	G	K	G		C	Y	S	C	H	K	P	D	Q	K	V	I	G	P	S	I	Q	E	I	A	N	I	Y	K	A	K	K	G	N			
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UniRef90_E8YSJ2	G	A	K	L	F	E	E	R			C	S	G	C	H	A	V	G	S	K	A	A	G	P	D	L	T	H	V	M	S	R	R	G	T	L	V	N	S			
UniRef90_U5LAV7	Q	G	Q	E	I	F	N	N	S		C	I	G	C	H	A	V	E	Q	A	R	Q	A	P	N	L	N	A	F	G	E	R	D	R	I	L	D	H	N			
UniRef90_E8TPG0	G	A	D	L	F	L	K	R	P		C	V	M	C	H	R	I	A	G	G	T	V	A	P	D	L	T	H	I	A	S	R	Q	T	L	A	A	G	T			
UniRef90_C5D4R6						F	Y	Q	Q	T		C	S	G	C	H	G	Q	N	E	G	G	A	G	P	A	L	K	G	V	Q	R	L	S								
UniRef90_I4YY34	Q	R	G	Q	T	F	A	Q	T	N		C	S	Q	C	H	A	I					G	K	V	G	P	F	R	T	L	H	T	R	Y	Q	I	E	D	L	A	
UniRef90_UPI00036AD885									R	Q	N		C	A	G	C	H	G	D	Q	M	Q	G	I	G	P	A	L	R	Q	I	G	N	R	L				I			
UniRef90_UPI000415E193									K	S	N		C	A	S	C	H	G	A	D	S	G	G	N	G	P	D	L	T	Q	V	G	S	K	L	S						
UniRef90_W0N437	E	E	A	E	R	R	A	R	T	L	M		C	G	G	C	H	I	D	G	P	L	G	P	N	L	T	R	F	A	P	M	Y	S	D							
UniRef90_Q82TA4	R	G	K	H	V	W	E	R	N	A		C	I	N	C	H	S	L	L	G	E	G	A	P	E	L	G	N	V	W	V	R	Y	G	G	R	D	H	A			
UniRef90_Q01RA3	K	E	G	A	Q	T	L	V	R	F	G		C	G	S	C	H	T	I	A	H	G	R	V	G	P	T	L	E	G	I	A	S	H	T	G	E	L	S	N	Q	
UniRef90_I3EAX9	D	P	Q	K	I	F	N	Q	K		C	S	S	C	H																											

	50	60	70	80
UniRef90_F0SPD6	E Q Y V I R E S I L E P N A K V G Y E P R M P S F Q M R D E W I D A V I A Y I K S			
UniRef90_A2BUA8	K D Y I V A A I I K S G A R K N G Q S A M M K S P F L V N D Q Q E I L S A I A D W L K S			
UniRef90_I7QJF1	R N E L A A Q I I F D E N T K R N Q S A T M M P P P F L G L T E K E E E A N K V A E W L S T			
UniRef90_UPI0002DBA2F9	K E E L S E I I V N G R G S L M M P M P K G L L E T E K E E E A N K V A E W L S T			
UniRef90_A3U3Z7	L D D L A T W V A H T D A L K P E V R M P S Y D L T G D E D Q V R D D V I Q Y I L K K			
UniRef90_UPI0003B4DBE6	G W L K N M I K D P V A M I K Y K T R M P V G M G L T G D E D Q V R D D V I Q Y I L K K			
UniRef90_X2GWA2	D L D L A T W V A H T D A L K P E V R M P S Y D L T G D E D Q V R D D V I Q Y I L K K			
UniRef90_K6DNR5	L D A I I K Q V T N G K G M P P F K L L S S A D R E I L K S A V A E Y V K K T T			
UniRef90_UPI0003B5E1D	D N Y I R S S I L E P T Q I V A G Y G V M P T Y Q L L S S A D R E I L K S A V A E Y V K K T T			
UniRef90_Q89HD1	E A L A E G I Y T G H A D M P A F E L L S P D Q I I H A I L T N Y I L K T Y Q			
UniRef90_U5BSR8	T E A L L K L I T S G S E G T Q T D Q R M P S F A L L S D D Q V I E A L I D Y I V W G			
UniRef90_V5BDM4	K A W L R R W I K E P D K N R Y N K I L M P N L R L L N D D A Q V I E A L I D Y I V W G			
UniRef90_V8QR58	R D T I V N T I L H Q R G Q V I M P A Q K L L T D E D Q V I E A L I D Y I V W G			
UniRef90_I1XFV6	K G F M R G W M A A Q P L N V P G R R Q M P Q F K L L T D E D Q V I E A L I D Y I V W G			
UniRef90_Q3SLX5	A D H I A L V L N G R P G T A M A A F A K Q L L S D A D I I D A V I T Y Y			
UniRef90_Q26HW2	R E W L Y K W I S N S A A N E Y N Q T A M N S A F Q L L S N V D I D N I L A Y			
UniRef90_F4AVS9	R E W L Y K W I S N S A A N E Y N Q T A M N S A F Q L L S N V D I D N I L A Y			
UniRef90_UPI0003057221	Q D Y L Q H A L L V S Y R R G N D G N A I M S A Q P L L S D R D I L N D I A A Y I L H S			
UniRef90_UPI00029B4767	K A Y L I H V L L N G I H G V S Y M G Y M P S F K L L S D R D I L N D I A A Y I L H S			
UniRef90_V6F0L7	R E A L K A W M K G Q P S G V E S Y R Q M P Q F K L L S D R D I L N D I A A Y I L H S			
UniRef90_UPI00041B9B87	L E W L V S F I K A G D P E E Y N K V V M T S F S L L S P E E D I I K A I F A Y I A S			
UniRef90_E6PQL1	D W L L Q F I Q S P Q R V I Q S G M V M P D Q A L L S S T E I I R G I L T Y Y			
UniRef90_F7TB81	E A S I V R T I L E G R E N H M P A H G L T V Q I K I L T A W V W G			
UniRef90_Q2JNK7	E F I I Q Q V T G G S K T P P M P Q F Q P D P Q E M A D I L S Y I K T T			
UniRef90_G2L170	K E E I A G L I E N P S A Y G A S K M P P Q M V S A A A D R V A I A D Y I H			
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UniRef90_E7RUR7	E T I V E T I T E G R H G I M P A Q A A S P A D I I E N T A Q Y I L S			
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UniRef90_G2INU1	P G T L N G W I A D S Q A I K P A N R M P A H Q F S G E E L R A L M S E V W S K			
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UniRef90_E3J2K1	E G Q L R Q I L V D A K K Y Y F P D A I M P S L R L N A A E V E D L I A Y I L K T			
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UniRef90_U1HCV4	E D T L V E T I T N G R A G V M P A G R L D P V I T V K A M A V I V H S			
UniRef90_I9WVW2	E T W L R E K I L T N G A E G Y K Q V M P S F A I P E D E L G R L I D F V K S			
UniRef90_L0GXN3	P A K L V E T I T G G R Q G S M P A H L L S P A A E I L D Q L I A G F V T A S			
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UniRef90_UPI000366952B	E A E V S E I I M N G K N A M P P Y K L S D E D E V Q A L V K Y Y F S			
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UniRef90_UPI00036AD885	P A Q I E T V I R R G A P G M P P F E L D Q K Q I R L L V D Y L A S			
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UniRef90_A7BUA8	L
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UniRef90_A3U3Z7	L R
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UniRef90_X2GWA2	Q K
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UniRef90_UPI0003B52E1D	L
UniRef90_Q89HD1	L
UniRef90_U5BSR8	L
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1 10 20 30 40
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I Y A K T H C A R C H A I T G G K V G P P F R T L H L R Y P I E T L G
C A R C H A I N R N G R G V N S R D M S V Q P R D H S D A
F A E S N C A R C H A I G R T G D A P F R S L H V R Y P I E S L A
K L F A E K T C N A C H G A E G K K L M P N Y P K L A G Q N A A Y
L F Q Q S H C A A C H G A D R G G M G P A L P E N L E R L R
G A R L Y D S H C V A C H R A D G S G F P P G Y P L A G N R A L T T E I
G E Q M V Q A S C I G C H G G D S G G A G P A L T S L E G K Y S
Q G K V L F E A N C V V C H G P D A K G I G P N L T D D I W L F G G D R D A
K Y A T C A A C H G A D G K G N G G A F P N L A I L L H A F K K G D
E S G R K L Y A E H C T G C H G A D A R G T A P S L Q G G N R R L R Q R S
K G T K L Y A G C I A C H G A K G G G I G P S F K G S T S D Y I A T S
A E A L Y K N T C A G C H G Q T E G A V G P N L Q K I G G T L S
D K G A E L F Q S T C A S C H G P D G R G M A P N L R E Y D
E G L R L V R A H G C G A C H A I P R G R S G G S L A G V G A R P G R L P N Q
D G G K L F S Q V C A V C H Q E S G K G V V G A F P S L I G S E I V N D E N
Q G F A L F Q K N C L A C H R L N G A G V G P D L N I P Y N P T E Y F A
A E G L Y A Q N C S T C H G Q N L E G L G D S F P A L A N I G S K L D
D A P T V F K Q N C S S C H G Q N L E G L A P A L T Q V G S K Y S
R G M F L Y A E R E S Y C H N I L N G Q G T G P D M S N M V K K G R S
G K S I Y D A N C A A C H A S D G G G I G P N F T D E Y W I H G G S I N D
E G E K V A G L K C I A C H K L D E Q L I G P G W K G V T Q R R T
G K E I Y A K E G C I T C H Q A D G N G L P P L S G T E W V T G S
Q R G I N V F N T A G C L Y C H K I D Q G G I G P N L T N V Q N R L L S
A E E V F E S N C A S C H G A D S G G Q G P D L T Q V G S R R L S S
D G A A L Y T A K M C Q T C H G A E G K A P I M A M Y P K N G Q N
G K E L F L A N C A S C H N A N M K A T G P A L G D V E A R W A E F P
G K A V F T S N C V A C H N D K G Q G V G P N L T D E Y W L H G G K V N N
E E G K K L A K K C V A C H T F E K G G V G P N L W D T L G K N K A H L G D
E E G D A L F K I N C V G C H G I T A R G V G P N L P S I S K R L N D K
G E Q V F A N S C I L S C H A V T G G G V A P N L A A F G D R N R V L E H S
E R G I P A M I R N G C G G C H E I A Q G T V G P S L R G V A Q R Y A A G T T S
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N G E T L F E A K C A S C H N F K Q D G I G P Q L G G L K G V V I D A
Q Q G Q E I F N T S C I A C H A V T T G G V G P N L A T F G D R N R V M E K T
E G A A L F T A A G C S G C H S P A S V H A P Q L D G V Y G R G R S V V J A D
E R G Q E L F A A N C A A C H S G E N A G G T G P L I H R V Y E P N H G D
G S A L F L D N C A A C H G G D R N Q G A P N L T D A I W L Y G G D P
G E A V Y N G I C L A C H G G D G A G S L P G V P D L T E V A A P L S Q D
K G F A C H G G M D A K G G A P N L T D N V W L Y G G S R G V
D A P A L Y Q Q H C A S C H G A Q R G L M G P A L P E S L E R T R
K G E A T F N Q Y C A M A C H R P T K R L I G P A M A G L T D Y R T
D G K A L F A A N C Q A C H A Q E N G E G L P G A F P P L K G S Q T V L G D D
N G E I Y Q K S C I T C H A A D G A G T G P N T G P A L W G E D S F N D
D G E A L Y T Q K M C Q T C H G A E G K A I M G A Y P K I N G Q N K D Y
E E G K K I Y F Q Q C A G C H G V L R K G T G K N L E P D K L K A A G K N
E G K T L Y E R H C V A C H G V E S G S L G P L R N A Q L W T S L G P H A
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R G K L V W E Q N N C V G C H T L L G E G A A P E L G N V V G R R G G E E G F
D A A R L Y T E N C A A C H G G D R G A I G P A L P Q N L G R L K R D E A V
K K G N C L A C H A N E H G E V G P E L N G V A D R W S
G R L F L N T C S Q C H G S D A K G G P G F P N L T D N D W L H G G S
E K I Y S S K C K M C H K I D K K V G P G F A M M N S D
G K A V F D K F N C A S C H G A D A K T V D P A Y P I L L A G Q H A
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G A K I Y D A Q C A S C H G K T G R G K T P A F P P L A G N Q S I Q M T S
R Q G N C L G C H Q V T S G E I G P S L D G V A E R W D
G E R L F L N N C A Q C H G S D A K G A P N L T D N D W L W G G E P
E Q G E Q L F L L N C A G C H G I A Q G L V G P N L H K V D N R K N N R
K K G K A L A T S G G C A S C H G G D M R G S G A E F P S I A G R S P T A
K G K A V F A R C M A C H A V D P G V L G P S L G G I V G R P S G A A P G
A K S A S C V A C H G A Q G K V S V P M Y P N L A G Q N A M Y
G E R L F L T Y C A Q C H G S D A R G G F P N L T D K D W L Y G G E P D
D A G K A V Y T Q N C V A C H G Q N G G V V G P N L T D D Y W L H G G K
G Q Q V F A D N C V S C H G E D A K G M A P N L T D G I W L Y G G D A N T
Q R G E R L Y Q Q H C I A C H G P D G T L P P P L D G T A H T W H P Y W
E N G A R L A K T L C T S C H A S D R P V Q A P S F S G V A N R P N Q T
G V R L F A N N C S V C H A G A D G G G G F P N L T D K D W L Y G G S P
G H R L A Q A W C Q S C H A I E P H M A G P S F Q S I A D R K G T T A L S
Q D C G A C H G L T K G G L G S P L T P Q A L S G K P M
K K N C T S C H G Q N E G A V G P N L Q H I G K E L S
A E E V F Q A N C A S C H G Q Q G G S G P G L T Q V G T K Y S E
K G K E I M Q Q C V A C H G A D G N S S A S I Y P K I A G Q H A
E D A V A I Y K Q R C M Q C H G N E M Q G L A P S L Q K V G E R L S
R G K R L V V J E Y G C L G C H K Y R N R G L G P D I T H V G D K G Q G E R T V
R G K R V W E T H A C I N C H S L H G E G A A P E V G N V M T R W G V T E D A
E K G M N I F R Y S N C V R C H M V G T R G V G P N L T T I A K T L S
E G K K E F A E R C V A C H G A D G K G I G P D L T R K Q F K Y G R T A P D
D E G A V L F K Q R C A C H S T E A G G A G P N L S G I V G R N A G T G A D
D A Q K L Y E Q K C S S C H A G A N E G G V G P A L D K I G A N L S Q E D I
I A Q D N C A T C H A I G T S G G A P F R T L H N S Y P
S A C A C H G V D G K G G A P N L A D D I W L H G W G E Q A
D H G R V L V N R W C V S C H G T D Q K Q A A P F A T I A K N P D F D
R G K A A T Q R L G C G A C H A I P Q G T T G P A L T N F A D R G G K L P N R
R G K A V Y T L N C V A C H M A D G G G I G P N L V D K Y W I L G G G
G Q R L F S Q N C S Q C H G S D A R G G F P N L S D D D W L Y G G S P
C A S C H G A T A G P V F P L A D W A G H F A Q N D E G
G Q Q L F T G T C S V C H Q A D G K G M T N V F P P L A K S D Y L V K Q D

UniRef90_M7Y245	I	N	D	I	F	K	V	I	K	Y	G	V	P	E	K	G	M	I	P	W	Q	D	Q	L	S	P	E	Q	I	Q	Q	V	V	A	S	F	I	L	T							
UniRef90_H0RR70	E	A	L	A	E	G	I	V	T	G	H	L	P	A	M	P	A	M	P	A	Q	F	E	L	M	D	P	E	E	I	N	D	L	L	S	Y	L	K	S							
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UniRef90_Q2J0C4	E	A	F	A	E	G	I	Y	T	G	H	S	D							M	P	A	F	E	L	M	D	P	D	E	I	N	D	L	L	V	A	Y	L	K	S					
UniRef90_G8QJW0	A	E	Q	M	K	D	I	K	S	G	A	R	N	N	G	Q	T	A	A	M	K	G	F	L	V	N	D	E	A	D	I	K	A	L	L	A	D	Y	L	K	S					
UniRef90_G8QIS6	K	A	E	A	L	K	T	I	R	E	G	R	A				A	T	Q	M	P	A	F	Q	L	N	S	D	E	A	D	I	K	A	L	L	A	D	Y	L	K	S				
UniRef90_W0V472	A	V	N	P	I	R	I	V	L	N	G	G	A	G	N	P	R	P	Y	G	M	P	A	F	G	L	N	S	D	E	A	D	I	K	A	L	L	A	D	Y	L	K	S			
UniRef90_UPI000347EE7E	Q	E	E	L	A	D	I	V	L	M	K	G	M	G						M	P	P	V	N	D	N	E	V	A	D	A	I	A	Q	Y	I	L	R	A	S						
UniRef90_D5VD27	V	Q	T		S	I	R	H	G	R	A	G	V							M	P	E	W	Q	T	K	L	G	N	E	R	I	M	L	L	A	A	Y	I	R	S					
UniRef90_D0KWJ0	K	A	Y	L	R	K	H	G	L	G										P	Q	A	A	G	N	L	S	D	A	D	I	K	A	L	L	A	A	Y	I	R	S					
UniRef90_UPI0003762BED	I	E	Q	L	R	T	V	I	G	H	G	I								P	A	A	G	N	L	S	D	D	E	E	I	N	D	L	L	V	A	Y	I	R	S					
UniRef90_UPI0002881C40	L	N	E	Y	K	N	K	I	E	R	G	P	Q	S	V	L	M	Y	A	A	Q	M	A	A	G	L	S	D	S	D	I	K	E	L	L	A	A	Y	I	R	S					
UniRef90_V6MA27	K	D	Q	V	L	E	V	L	K	N	G									K	G	M	P	P	G	L	V	T	K	G	N	D	E	A	D	I	K	A	L	L	A	D	Y	L	K	S
UniRef90_A6Q5G2	D	T	V	I	T	H	V	L	E	N	G	K	H	G	V	I	G	K	M	P	A	F	K	G	R	L	T	P	V	I	Q	Q	K	A	V	A	T	Y	L	R	A	S				
UniRef90_L1QFW3	P	A	V	M	A	A	F	V	R	D	A	P	S	L	L	P	D	T	G	M	P	P	M	R	L	S	T	E	T	E	A	R	D	I	A	A	Y	I	R	A	S					
UniRef90_G2EAG5	S	E	K	L	I	R	V	I	Q	G	Y	D	A	R	S	D	Y	G	V	M	P	G	F	Q	L	N	S	D	E	A	D	I	K	A	L	L	A	D	Y	L	K	S				
UniRef90_V7E026	G	D	F	L	K	R	Y	I	R	D	P	S	M	R	H	W	P			Q	A	K	M	P	A	F	V	N	D	E	A	D	I	K	A	L	L	A	D	Y	L	K	S			
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UniRef90_M8																																														

UniRef90_M7Y245	L
UniRef90_H0RR70	L
UniRef90_UPI00038167E8	
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UniRef90_G8QI56	
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UniRef90_V6MA27	K K
UniRef90_A6Q5G2	L
UniRef90_L1QFW3	L
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UniRef90_K1LAM2	L
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UniRef90_U1JTQ6	V K
UniRef90_H6L978	
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UniRef90_A3V7G1	L
UniRef90_A5GF98	L
UniRef90_S6AD07	
UniRef90_UPI00047141D4	L
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UniRef90_W1Z7D0	V K
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UniRef90_A6GPJ1	Q K
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UniRef90_K6YMM7	L
UniRef90_E4U7J5	
UniRef90_I4VWG7	

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UniRef90_H1H7F7	D	G	K	N	L	Y	M	N	N	C	A	A	C	H	Q	A	N	G	E	G	L	S	G	A	F	P	P	L	K	N	S	A	I	V	T	G	D	N			
UniRef90_I8I476	Q	Q	G	A	K	L	F	E	S	N	C	A	G	C	H	G	T	D	A	R	G	A	F	P	N	L	R	D	R	D	W	L	Y	G	G	S	A				
UniRef90_UPI00040FC976											C	A	S	A	C	H	G	A	D	G	K	G	G	A	P	N	L	T	D	N	I	W	L	Y	G	G	S				
UniRef90_H0FCU4		G	S	K	L	Y	L	Q	Q		C	A	Q	C	H	Q	P	D	G	K	G	S	G	S	A	W	P	A	L	A	S	N	P	T	V	T	A	P	S		
UniRef90_B8EHY7		G	E	G	V	L	F	A	N	N	C	Q	A	C	H	Q	G	N	G	E	G	V	A	D	A	F	P	P	L	A	K	S	D	Y	L	N	A	D	K		
UniRef90_UPI00046E9A95		N	G	R	S	L	Y	E	E	N	C	A	S	C	H	S	V	N	G	R	G	T	G	P	P	F	F	L	H	K	V	Y	E	S	S	H	H	S			
UniRef90_E5AL17	E	Q	G	K	Q	I	Y	N	D	Q	C	A	Q	C	H	A	E	N	G	L	G	Y	P	P	H	F	P	P	L	A	N	N	Q	S	V	Q	M	Q	S		
UniRef90_Q88GA2		D	G	Q	K	V	F	T	Q	G	G	C	L	G	C	H	G	P	D	G	N	G	I	A	A	F	P	R	L	A	G	L	P	A	G						
UniRef90_I3Z5N7	E	K	G	K	A	I	L	D	M	K	C	T	A	C	H	Q	F	D	G	K	V	V	G	P	G	F	E	G	V	T	N	R	R	R							
UniRef90_A5GRX7	E	H	G	S	K	L	F	L	I	N	C	A	G	C	H	G	I	A	Q	G	V	G	P	N	L	H	G	V	S	Q	R	K	N	D	S	A					
UniRef90_UPI00030B2353	E	Q	G	A	A	V	F	A	S	V	C	A	A	C	H	S	P	D	G	T	G	G	A	P	D	L	T	D	D	A	W	L	Y	R	G	Q	P	L			
UniRef90_F8ET59		N	G	Q	A	L	Y	S	N	N	C	A	S	C	H	G	E	N	G	G	G	S	P	P	S	L				Y	N	N	T	T	T	G	A	E	R		
UniRef90_R0FL92		N	G	K	R	L	F	Q	G	A	C	A	A	C	H	G	P	T	L	F	G	V	R	P	S	L	R	V	N	T	N	L	H	S	D	T	P	D	N		
UniRef90_P00090		K	G	E	A	V	F	K	Q		C	M	T	C	H	R	A	D	K	N	M	V	G	P	A	L	G	G	V	V	G	R	K	A	G	T	P	D	P		
UniRef90_W0TKI9		G	K	R	L	F	M		T		C	T	A	C	H	G	K	D	G	K	S	I	M	P	A	Y	P	K	I	A	G	Q				N	K	E	Y		
UniRef90_UPI00036705EA	E	A	G	A	E	I	F	A	E	Q	C	V	S	C	H	G	E	D	A	R	G	L	A	P	D	L	T	D	G	Y	W	L	Y	G	G	D					
UniRef90_UPI0002376318	E	R	G	R	A	V	Y	A	A	H	C	S	S	C	H	S	V	A	L	H	G	D	G	P	A	H	V	G	V	V	G	R	R	A	G	A	L	K	D		
UniRef90_UPI000403DDFA									A	Q	T	C	V	S	C	H	G	D	Q	Q	G	V	V	G	P	N	L	T	K	V	G	S	R	Y	S						
UniRef90_M7MMH9		R	G	K	V	L	W	E	A	N	N	C	M	G	C	H	T	I	L	G	E	G	A	A	P	E	L	T	K	V	I	E	R	R				G			
UniRef90_X1YKQ5	E	K	G	K	K	L	F	V	I	Q	R	C	A	Q	C	H	T	V	E	A	G	G	V	G	P	N	L	H	G	I	F	G	R	K	T	G	Q	A	A	G	
UniRef90_X6KVP6	E	A	G	A	E	V	F	A	I	N	C	T	S	C	H	G	D	D	G	T	G	G	A	P	N	L	T	D	A	I	W	L	Y	G	G	D					
UniRef90_D7CV79		G	E	G	V	Y	T	A	N		C	A	S	C	H	Q	A	N	Q	Q	G	L	P	G	A	F	P	P	L	A	G	H	V	P	D	L	A	L	A		
UniRef90_D0IAD6		G	Q	R	L	F	I	Q	N		C	A	Q	C	H	G	S	D	A	R	G	G	F	P	N	L	T	D	K	A	W	L	Y	G	G	E	P				
UniRef90_X7EKZ8		G	G	E	L	F	E	Y	N	C	A	S	C	H	G	E	D	A	R	G	M	A	P	N	L	T	D	A	I	W	L	Y	G	S	D	D	A	T			
UniRef90_W0TR11		G	K	K	L	A	T	K	G	N	C	L	A	C	H	Q	I	E	G	G	N	I	G	P	P	L	I	G	M	K	A	R	F	P				D			
UniRef90_E0UFF2		R	G	Y	E	I	F	Q	I	N	C	A	G	C	H	G	Q	Q	A	D	G	V	G	P	S	L	H	H	V	P	K	R	K	S	K	V					
UniRef90_UPI00037E8A53		D	G	E	A	L	F	A	Q	A	S	C	G	A	C	H	A	A	G	I	A	G	A	P	A	T	G	D	K	A	A	W	P	A	R	L	A	K	G		
UniRef90_I0H0V5	Q	E	G	K	A	L	F	D	N	S	C	I	S	C	H	G	R	D	G	Q	G	V	G	P	S	L	I	G	V							G	S	A	S	V	
UniRef90_G2DRT8		G	K	T	V	Y	D	S	N	C	L	A	C	H	G	A	E	G	K	G	V	E	G	A	F	P	P	L	A	Q	S	D	Y	L	L	K	D	P			
UniRef90_L7UAE9		G	R	Q	L	Y	E	K	Y	A	N	C	A	T	C	H	R	A	D	A	P	E	A	P	A	Y	T	A	P	A	R	R	R	A	P	D	R	M	S		
UniRef90_G8PPW0											C	L	A	C	H	A	N	D	H	G	E	I	G	P	Y	L	E	G	I	G	D	T	Y	S							
UniRef90_UPI0003B443A4	E	E	G	E	R	L	F	V	A	N	C	A	T	C	H	G	I	N	A	E	G	A	G	P	S	L	V	G	V	G							A	A	S		
UniRef90_B8KR17											C	V	A	C	H	G	T	E	A	K	G	G	A	P	N	L	V	N	G	I	W	L	Y	G	G			T			
UniRef90_A0A011QAJ2		K	G	Q	E	A	F	N	S	V	G	C	S	G	C	H	G	P	D	A	K	G	M	A	P	N	L	T	D	K	I	W	L	Y	G			S	A		
UniRef90_W8KQU2	E	R	G	Q	A	I		S	T	P	C	I	A	C	H	Q	A	D	G	N	S	V	N	P	A	W	P	K	I	A	G	K					D				
UniRef90_B5GUX3	E	E	G	K	K	L	Y	T		V	G	C	A	S	C	H	G	T	D	G	E	G	T	G	P	S	L	V	G	V	G						S	A	A		
UniRef90_UPI00035FE1D9		G	E	R	L	F		N	N	C	A	V	C	H	G	T	D	A	R	G	G	F	P	N	L	T	D	K	D	W	L	Y	G	G	E	P					
UniRef90_J1JYZ4		K	G	E	Y	I	A	R	A	S	D	C	V	A	C	H	T	A	N	E	N	K	V	G	T	P	F	G	T	V	Y	K	K	F	G	I	G	D	W	S	
UniRef90_UPI00031DF5CF	D	S	A	E	Q	I	F	K	K	S	C	A	G	C	H	A	N	D	S	G	A	T	G	P	D	L	R	K	V	G	G	K	Y				D	A	A	D	
UniRef90_S0FRD0		K	G	E	V	L	F	E	E	Y	C	M	G	C	H	H	Q	T	I	E	A	F	A	P	S	F	G	E	I	A	G	N	R					D			
UniRef90_UPI000474D90A			A	V	I	A	K	R	W		C	A	S	C	H	V	V	S	S	D	Q	T	A	P	S	F	Y	D	I	A	Q	R	R	T	D	K	K	Q	I		
UniRef90_B1LSH1											C	S	S	C	H	Q	P	D	G	K	G	I	E	G	A	V	P	A	L	A	G	N	T	S	V	Q	S	D	G		
UniRef90_E0UUV1		G	K	K	L	W	E	A	N	D	C	V	G	C	H	T	L	I	G	E	G	A	A	P	E	L	M	N	V	F	Q	R	R	G	G	D	E	G			
UniRef90_D2QS51	E	G	Q	L	L	Y	T	R	Y		C	S	H	C	H	G	A	T	G	K	G	D	G	P					V	A	A	Q	Y	K	G	V	P	N	Y		
UniRef90_I4N7Z8						A	K	A	A	V	C	G	A	C	H	G	P	D	G	N	S	M	A	P	N	F	P	K	L	A	G					Q	G	D	R	Y	L
UniRef90_C8RWM6						L	Y	V	D	N	G	C	N	A	C	H	G	D	D	G	K	G	G	A	P	N	L	T	D	A	I	W	L	Y	G	G	D				
UniRef90_B7A5L3	K	D	G	K	S	V	Y	Q	A	R		C	A	A	C	H	G	A	G	E	G	G	V	G	P					R	L	Q	G	N	P	K	A				
UniRef90_K9DB36		R	G	E	Q	V	Y	A	A	N	C	V	A	C	H	Q	A	N	Q	K	G	V	P	A	A	F	A	A	L		D	G	S	P	N	V	L	G	D		
UniRef90_W4LVG2		Q	G	K	A	L	F	T	A		C	G	A	C	H	Q	M	Q	R	Q	G	I	G	P					R	L	N	S	N	T	F	L	A	A	S		
UniRef90_I4X7Y1	Q	Q	G	E	E	L	F	G	A	D	G	C	I	Q	C	H	A	V	S	G	A	G	G	T	P	N	L	A	T	F	G	D	R	N	R	Y	L	E	H	N	
UniRef90_I4ALN8		D	G	K	E	L	F	T	T	Y	C	A	C	H	G	A	E	G	K	G	V	G	A	V	Y	N	G	V	A	G	R	Y	K	T	L				N		
UniRef90_A3WP12	E	V	G	Q	R	L	F	I	Q	N	C	S	Q	C	H	G	S	N	A	G	R	G	P	N	L	T	D	D	W	L	Y	G	G	T	P	H					
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