

QUERY	1	10	20	30	40
UniRef90_O78310	A	T	K	A	V
UniRef90_V5G5W5	A	K	K	A	V
UniRef90_K7YB19	U	T	K	A	V
UniRef90_G3VNM4	A	V	K	A	V
UniRef90_L7UK81	A	K	K	A	V
UniRef90_C6ZRL9	S	V	K	A	V
UniRef90_T2B4T7					
UniRef90_M4AT47					
UniRef90_UPI000328B494	T	R	A	V	C
UniRef90_Q000H3					
UniRef90_A0A016SN38	S	N	R	A	V
UniRef90_E3TBQ4	S	M	K	A	V
UniRef90_B7PUC4	S	I	K	A	V
UniRef90_B6CHW7	A	I	H	A	V
UniRef90_T1JA19	V	K	A	V	C
UniRef90_G3LY18					
UniRef90_K4AF55	V	K	A	V	V
UniRef90_E9CIP4	T	K	L	V	A
UniRef90_Q52JH6	S	V	K	A	V
UniRef90_C5NS97	A	I	K	A	V
UniRef90_Q7QDP9					
UniRef90_K7IY65	T	K	A	V	C
UniRef90_UPI0003C2ADDD	A	L	K	A	V
UniRef90_D5G966	V	K	A	V	V
UniRef90_G9C5D1					
UniRef90_U5DDV0					
UniRef90_F8R8R2					
UniRef90_Q6B7T1	M	K	A	V	C
UniRef90_L8GDC4	A	T	K	A	V
UniRef90_M4PSX3	S	I	K	A	V
UniRef90_E5RZT8					
UniRef90_U5EW44	A	R	A	V	C
UniRef90_UPI0004621924	S	K	A	V	T
UniRef90_C1C4J6	M	K	A	I	C
UniRef90_Q9AR80					
UniRef90_G5BEA6	A	T	K	A	V
UniRef90_C3ZM91	S	L	K	A	V
UniRef90_O48654					
UniRef90_Q7XYL9	V	K	A	V	C
UniRef90_A0A016SM91	S	N	R	A	V
UniRef90_P24669					
UniRef90_M0U200					
UniRef90_E0W322	A	K	A	V	C
UniRef90_Q176T4	S	K	K	A	I
UniRef90_A0A023NFG9	V	K	A	V	C
UniRef90_P28755	V	K	A	V	C
UniRef90_Q8GZP2					
UniRef90_I3V7W8	A	K	S	A	I
UniRef90_Q5KIW7	V	K	A	V	A
UniRef90_A0A034WMM4	M	E	A	I	A
UniRef90_Q9C0N4	V	K	A	V	A
UniRef90_D6PYE6					
UniRef90_Q751L8	V	K	A	I	A
UniRef90_D8R9M4					
UniRef90_UPI000455E905					
UniRef90_H2YL26	A	I	E	A	V
UniRef90_Q6C662	V	K	A	V	C
UniRef90_C1LNY3	M	K	A	V	C
UniRef90_UPI00044324E5					
UniRef90_L7XA69	V	K	A	V	A
UniRef90_C4WTR6					
UniRef90_F1N8Q1					
UniRef90_H9BEW2	A	K	A	V	C
UniRef90_G8BH83	V	K	A	V	A
UniRef90_C8CBN9					
UniRef90_Q63Z77					
UniRef90_I1C456	V	N	A	V	A
UniRef90_M1HJ40					
UniRef90_G4T8J7					
UniRef90_E2BYV3					
UniRef90_D4PBQ4					
UniRef90_UPI0002B4D054	A	L	K	A	V
UniRef90_A7TG62	V	K	A	V	A
UniRef90_M7SKN2	V	K	A	V	A
UniRef90_M7ASH7					
UniRef90_M4CD52					
UniRef90_B0B552	V	N	A	V	A
UniRef90_H2LVF3					
UniRef90_M1HQD7					
UniRef90_F0UXR6	V	K	A	V	A
UniRef90_G0W995	V	K	A	V	A
UniRef90_G3MNP1	A	K	A	V	A
UniRef90_H2WL43	S	N	R	A	V
UniRef90_R4FMI6					
UniRef90_C1FI38					
UniRef90_I1FBW5	A	R	A	V	C
UniRef90_A7S2P2					
UniRef90_E9SNE8	A	S	A	V	C
UniRef90_P81926	S	I	K	A	V
UniRef90_D8RT63					
UniRef90_B3MFB5					

QUERY	H	G	F	H	V	H	Q	F	G	D	N	T	Q	G	C	T	S	A	G	P	H	F	N	P	L	S	K	K	H	G	G	P	K	D	E	E	R	H	V	G		
UniRef90_O78310	H	G	F	H	V	H	Q	F	G	D	N	T	Q	G	C	T	S	A	G	P	H	F	N	P	L	S	K	K	H	G	G	P	K	D	E	E	R	H	V	G		
UniRef90_V5G5W5	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	I	S	T	G	A	H	F	N	P	N	N	M	T	K	H	G	A	P	E	D	E	C	N	R	H	V	G
UniRef90_K7YBI9	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	T	S	A	G	A	H	F	N	P	Y	N	G	K	N	H	G	G	P	Q	D	S	E	R	H	V	G	
UniRef90_G3VNM4	H	G	F	H	V	H	E	F	G	D	N	T	Q	G	C	T	S	A	G	A	H	F	N	P	H	S	K	K	H	G	G	P	D	D	S	E	R	H	V	G		
UniRef90_L7UK81	H	G	F	H	V	H	A	F	G	D	N	T	N	G	C	T	S	A	G	P	H	F	N	P	H	N	Q	T	H	G	G	P	T	D	S	V	R	H	V	G		
UniRef90_C6ZRL9	H	G	F	H	V	H	A	Y	G	D	N	T	N	G	C	T	S	A	G	P	H	F	N	P	E	G	K	E	H	G	A	P	T	D	E	V	R	H	V	G		
UniRef90_T2B4T7	H	G	F	H	V	H	V	F	G	D	N	T	N	G	C	I	S	A	G	P	H	F	N	P	E	N	L	S	H	G	G	P	D	D	E	V	R	H	V	G		
UniRef90_M4AT47	H	G	F	H	V	H	A	F	G	D	N	T	N	G	C	I	S	A	G	P	H	F	N	P	F	T	K	N	H	G	G	P	T	D	V	E	R	H	V	G		
UniRef90_UPI000328B494	H	G	F	H	V	H	A	F	G	D	N	T	Q	G	C	T	S	A	G	P	H	F	N	P	R	S	R	K	H	G	G	P	T	D	E	E	R	H	V	G		
UniRef90_Q000H3	H	G	F	H	V	H	A	F	G	D	N	T	N	G	C	I	S	A	G	P	H	F	N	P	F	L	K	T	H	G	G	P	G	D	E	V	R	H	V	G		
UniRef90_A0A016SN38	H	G	F	H	V	H	Q	Y	G	D	S	T	N	G	C	I	S	A	G	P	H	F	N	P	F	N	K	T	H	G	G	P	K	D	E	V	R	H	V	G		
UniRef90_E3TBQ4	H	G	F	H	V	H	A	F	G	D	N	T	N	G	C	I	S	A	G	P	H	F	N	P	F	K	K	T	H	G	G	P	D	D	E	V	R	H	V	G		
UniRef90_B7PUC4	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	I	S	A	G	P	H	F	N	P	L	G	K	E	H	G	A	P	T	D	T	N	R	H	V	G		
UniRef90_B6CHW7	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	T	S	A	G	G	H	F	N	P	H	G	K	E	H	G	A	P	T	D	E	N	R	H	V	G		
UniRef90_T1JA19	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	I	S	A	G	P	H	F	N	P	F	N	C	H	A	G	P	T	D	V	Q	R	H	V	G			
UniRef90_G3LY18	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	I	S	A	G	A	H	F	N	P	F	G	K	T	H	G	A	P	T	D	E	N	R	H	V	G		
UniRef90_K4AF55	H	G	F	H	V	H	A	L	G	D	T	T	N	G	C	M	S	T	G	P	H	F	N	P	A	G	K	E	H	G	A	P	E	D	D	E	N	R	H	V	G	
UniRef90_E9CIP4	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	I	S	A	G	P	H	F	N	P	A	G	K	T	H	G	A	P	E	D	E	N	R	H	V	G		
UniRef90_Q52JH6	H	G	F	H	V	H	E	F	G	D	A	T	N	G	C	M	S	A	G	P	H	F	N	P	F	G	K	T	H	G	A	P	E	D	E	N	R	H	V	G		
UniRef90_C5NS97	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	T	S	A	G	P	H	F	N	P	L	G	K	D	H	G	A	P	A	D	A	D	R	H	V	G		
UniRef90_Q7QDP9	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	M	S	T	G	A	H	F	N	P	Y	A	K	T	H	G	G	P	D	A	E	E	R	H	V	G		
UniRef90_K7IYG5	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	I	S	A	G	P	H	F	N	P	L	A	K	E	H	G	G	P	T	D	S	V	R	H	V	G		
UniRef90_UPI0003C2ADDD	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	I	S	A	G	A	H	F	N	P	Y	G	K	K	H	G	G	P	D	D	E	E	R	H	V	G		
UniRef90_D5G966	R	G	M	H	I	H	E	F	G	D	N	T	N	G	C	T	S	A	G	A	H	F	N	P	F	G	K	S	H	G	A	P	S	D	E	E	R	H	V	G		
UniRef90_G9C5D1	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	M	S	A	G	A	H	F	N	P	H	S	K	D	H	A	G	P	E	D	A	D	R	H	V	G		
UniRef90_U5DDV0	H	G	F	H	V	H	A	F	G	D	T	T	N	G	C	M	S	T	G	P	H	F	N	P	W	K	K	D	H	G	A	P	T	D	E	E	N	R	H	V	G	
UniRef90_F8R8R2	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	T	S	A	G	A	H	F	N	P	H	S	K	E	H	G	A	P	E	D	E	N	R	H	V	G		
UniRef90_Q6B7T1	H	G	F	H	V	H	A	F	G	D	T	T	N	G	C	V	S	A	G	A	H	F	N	P	K	G	V	D	H	A	G	P	N	D	P	I	R	H	V	G		
UniRef90_L8GDC4	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	V	S	A	G	G	H	F	N	P	F	G	K	K	H	G	G	P	D	D	E	E	R	H	V	G		
UniRef90_M4PSX3	H	G	F	H	V	H	Q	F	G	D	T	T	N	G	C	I	S	A	G	P	H	F	N	P	F	R	K	T	H	G	S	P	N	D	T	E	R	H	V	G		
UniRef90_E5RZT8	H	G	F	H	V	H	E	W	G	D	N	S	M	G	C	I	S	A	G	A	H	F	N	P	F	G	K	T	H	G	G	P	T	S	T	V	R	H	V	G		
UniRef90_U5EW44	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	T	S	A	G	P	H	F	N	P	H	G	K	D	H	G	G	P	T	S	E	V	R	H	V	G		
UniRef90_UPI0004621924	R	G	F	H	I	H	A	S	G	D	L	S	N	G	C	L	V	S	A	G	P	H	F	N	P	F	S	R	T	H	G	A	P	T	D	K	N	R	H	V	G	
UniRef90_C1C4J6	H	G	F	H	V	H	T	Y	G	D	N	T	D	G	C	L	V	S	A	G	P	H	F	N	P	Q	G	K	T	H	G	G	P	D	D	E	V	R	H	V	G	
UniRef90_Q9AR80	H	G	F	H	V	H	S	M	G	D	T	T	N	G	C	L	V	S	T	G	P	H	F	N	P	W	K	K	D	H	G	A	P	E	D	E	N	R	H	V	G	
UniRef90_G5BEA6	H	G	F	H	V	H	E	F	G	D	N	T	K	G	C	T	S	A	G	P	H	F	N	P	L	S	K	K	H	G	G	P	K	D	E	E	R	H	V	G		
UniRef90_C3ZM91	H	G	F	H	V	H	E	F	G	D	T	T	N	G	C	T	S	A	G	S	H	F	N	P	A	K	K	N	H	G	G	P	Q	D	A	E	R	H	V	G		
UniRef90_Q48654	H	G	F	H	V	H	E	F	G	D	T	T	N	G	C	M	S	T	G	P	H	F	N	P	Q	K	K	T	H	G	A	P	E	D	E	V	R	H	V	G		
UniRef90_Q7YXL9	H	G	F	H	V	H	Q	F	G	D	Y	T	N	G	C	V	S	A	G	A	H	F	N	P	F	K	N	K	S	H	G	G	P	L	D	Q	E	R	H	V	G	
UniRef90_A0A016SM91	R	G	F	H	V	H	Q	Y	G	D	L	S	R	G	C	V	S	A	G	P	H	F	N	P	F	N	K	T	H	G	G	P	M	D	R	N	R	H	T	G		
UniRef90_P24669	H	G	F	H	V	H	A	L	G	D	T	T	N	G	C	M	S	T	G	P	H	F	N	P	L	G	K	E	H	G	A	P	T	D	D	E	N	R	H	V	G	
UniRef90_M0U200	H	G	F	H	V	H	E	Y	G	D	T	T	N	G	C	I	S	T	G	A	H	F	N	P	N	K	M	T	H	G	A	P	E	D	E	V	R	H	V	G		
UniRef90_E0W322	H	G	F	H	V	H	E	F	G	D	N	T	N	G	C	T	S	A	G	A	H	F	N	P	F	N	R	D	H	G	G	P	D	A	A	V	R	H	V	G		
UniRef90_Q176T4	H	G	F	H	V	H	E	R	G	D	L	S	D	G	C	T	S	T	G	G	H	F	N	P	D	K	V	T	H	G	G	P	A	D	Q	V	R	H	V	G		
UniRef90_A0A023NFG9	H	G	F	H	V	H	Q	F	G	D	G	T	N	G	C																											

QUERY	D	L	G	N	V	T	A	D	K	N	G	V	A	I	V	D	P	L	S	L	S	G	E	Y	S	I	I	G	R	T	M	V	V	H	E	K								
UniRef90_O78310	D	L	G	N	V	T	A	D	K	N	G	V	A	I	V	D	N	Q	L	S	L	S	G	E	Y	S	I	I	G	R	T	M	V	V	H	E	L							
UniRef90_V5G5W5	D	L	G	N	V	E	A	N	G	N	G	V	A	K	E	K	I	S	K	L	S	L	T	G	E	H	S	V	I	G	R	T	V	V	V	H	G	D						
UniRef90_K7YB19	D	L	G	N	V	T	A	N	K	E	G	V	A	E	V	S	K	D	L	L	I	S	L	T	G	P	L	S	V	I	G	R	T	M	V	V	H	E	K					
UniRef90_G3VNM4	D	L	G	N	V	K	A	D	K	D	G	V	A	T	V	S	M	K	D	P	L	I	Q	T	S	G	P	M	S	V	I	G	R	T	M	V	V	H	E	K				
UniRef90_L7UK81	D	L	G	N	V	T	A	D	K	D	D	G	V	A	E	I	D	I	V	D	S	K	M	V	T	T	L	F	T	G	E	Y	S	V	I	G	R	T	M	V	V	H	E	K
UniRef90_C6ZRL9	D	L	G	N	V	T	A	G	D	D	G	V	A	K	V	D	I	V	D	S	L	V	T	T	L	T	G	E	Y	S	V	I	G	R	T	M	V	V	H	E	K			
UniRef90_T2B4T7	D	L	G	N	V	T	A	D	E	Q	G	V	A	S	F	C	F	K	D	R	L	V	S	L	S	L	T	S	G	P	H	S	V	V	G	R	S	V	V	V	H	E	K	
UniRef90_M4AT47	D	L	G	N	V	T	A	D	E	N	G	A	K	I	D	I	K	D	S	F	E	I	K	L	S	L	S	G	P	G	N	S	I	I	G	R	T	M	V	V	H	E	K	
UniRef90_UPI000328B494	D	L	G	N	V	T	A	D	E	N	G	M	A	K	I	S	I	E	D	S	E	I	K	L	S	L	S	G	E	P	H	S	V	I	G	R	T	L	V	V	H	E	K	
UniRef90_Q000H3	D	L	G	N	V	E	A	N	G	D	G	V	A	T	F	E	I	Q	D	N	Q	L	H	K	L	S	G	E	R	S	I	I	G	R	T	L	V	V	H	E	K			
UniRef90_A0A016SN38	D	L	G	N	V	E	A	G	A	D	G	V	A	H	F	E	I	T	D	H	M	V	K	L	S	L	T	H	G	H	S	V	V	G	R	S	L	V	V	H	E	K		
UniRef90_E3TBQ4	D	L	G	N	V	T	A	D	S	E	G	T	A	L	I	H	I	V	D	K	Q	L	S	L	T	G	Q	H	S	V	I	G	R	T	M	V	V	H	E	K				
UniRef90_B7PUC4	D	L	G	N	V	T	A	G	D	D	G	V	A	K	V	A	L	T	D	S	Q	L	S	L	T	S	G	P	H	S	V	I	G	R	S	V	V	V	H	A	D			
UniRef90_B6CHW7	D	L	G	N	V	A	G	E	D	G	K	A	V	I	N	M	K	D	S	Q	L	V	K	L	T	S	G	P	Q	D	S	V	I	G	R	T	L	V	V	H	V	D		
UniRef90_T1JA19	D	L	G	N	V	C	A	D	E	K	G	I	A	K	L	I	K	D	S	V	I	V	K	L	T	T	G	Q	N	S	I	I	G	R	T	M	V	V	H	E	D			
UniRef90_G3LY18	D	L	G	N	V	T	A	D	E	S	G	V	A	K	F	E	V	T	D	S	Q	L	N	L	T	T	G	P	N	S	I	I	G	R	T	V	V	V	H	E	L			
UniRef90_K4AF55	D	L	G	N	V	T	A	G	A	D	G	V	A	N	I	H	I	V	T	D	S	Q	L	P	L	T	T	G	P	N	S	I	I	G	R	A	V	V	V	H	A	D		
UniRef90_E9CIP4	D	L	G	N	V	E	A	G	A	D	G	I	A	K	F	T	I	T	D	N	L	I	Q	V	T	S	G	V	N	S	I	I	V	G	R	S	V	V	V	H	A	D		
UniRef90_Q52JH6	D	L	G	N	V	L	A	N	A	D	G	V	A	D	I	K	I	D	D	R	I	S	L	T	T	G	V	R	S	I	I	V	G	R	T	I	V	V	H	A	G			
UniRef90_C5NS97	D	L	G	N	V	I	V	A	T	A	N	K	A	K	V	E	I	D	S	I	E	D	S	L	T	S	G	A	N	N	V	I	G	R	T	L	V	V	H	A	D			
UniRef90_Q7QDP9	D	M	G	N	I	V	A	D	E	N	G	E	A	K	V	E	D	L	T	A	T	Q	I	A	L	T	S	G	A	L	N	V	V	G	R	S	L	V	V	H	A	D		
UniRef90_K7IYG5	D	L	G	N	V	E	A	D	S	D	G	V	A	K	V	S	I	T	D	K	Q	I	Q	L	Q	G	A	H	N	I	I	G	R	T	L	V	V	H	A	D				
UniRef90_UPI0003C2ADDD	D	L	G	N	V	T	A	K	G	G	V	A	E	I	S	I	V	D	S	H	I	S	L	T	L	G	P	N	S	V	I	G	R	T	V	V	V	H	D	K				
UniRef90_D5G966	D	L	G	N	I	Q	T	D	A	G	N	A	E	G	S	V	E	D	S	L	I	K	L	I	G	P	E	S	I	L	G	R	T	I	V	V	H	G	G					
UniRef90_G9C5D1	D	L	G	N	V	E	A	G	G	D	G	V	A	K	V	N	I	T	D	S	V	I	S	L	T	G	D	H	N	V	I	G	R	T	L	V	V	H	A	D				
UniRef90_U5DDV0	D	L	G	N	I	Y	A	G	H	D	D	G	V	A	E	V	L	I	K	N	S	Q	L	P	L	T	S	G	P	N	S	I	I	V	G	R	A	V	V	H	A	D		
UniRef90_F8R8R2	D	L	G	N	V	T	A	G	D	D	G	V	A	N	L	D	I	T	D	K	Q	L	S	L	T	T	G	P	H	S	V	I	I	G	R	T	V	V	V	H	A	D		
UniRef90_Q6B7T1	D	L	G	N	L	V	A	D	E	S	G	R	V	N	C	T	F	T	D	K	I	I	S	L	T	T	G	P	H	S	V	I	I	G	R	A	M	V	I	H	E	L		
UniRef90_L8GDC4	D	L	G	N	V	V	A	D	E	T	G	V	A	R	T	T	I	K	D	R	L	V	T	L	G	N	G	P	H	S	V	I	I	G	R	T	M	V	V	H	A	D		
UniRef90_M4PSX3	D	L	G	N	I	L	A	D	E	S	G	M	A	K	F	D	F	S	K	F	I	R	L	T	L	N	G	P	H	S	V	I	I	G	R	A	L	V	V	H	N	D		
UniRef90_E5RZT8	D	L	G	N	I	L	A	G	S	D	G	V	A	K	I	D	I	A	D	D	Q	I	K	L	T	G	A	H	S	V	I	I	G	R	T	M	V	V	H	I	Q			
UniRef90_U5EW44	D	L	G	N	V	V	A	D	S	G	S	V	A	K	V	D	I	A	D	K	Q	I	S	L	N	G	P	L	S	V	L	G	R	A	V	V	V	H	A	D				
UniRef90_UPI0004621924	D	L	G	N	I	E	S	D	S	K	G	V	A	T	F	S	F	E	D	T	F	I	S	L	N	G	P	L	S	V	I	V	G	R	A	V	V	V	H	A	G			
UniRef90_C1C4J6	D	L	G	N	V	T	S	A	G	G	V	A	D	I	N	I	K	D	K	L	I	S	L	K	G	E	H	S	V	I	I	G	R	T	A	V	V	H	E	K				
UniRef90_Q9AR80	D	L	G	N	I	T	A	G	E	D	G	V	A	E	L	S	I	Q	D	W	K	I	P	L	K	G	P	H	S	V	I	G	R	A	V	V	V	H	A	D				
UniRef90_G5BEA6	D	L	G	N	V	T	A	G	T	D	G	V	A	E	V	S	I	E	D	S	L	I	S	L	F	G	P	N	S	I	I	G	R	T	M	V	V	H	E	K				
UniRef90_C3ZM91	D	L	G	N	V	E	V	G	D	D	G	V	A	T	I	N	I	T	D	S	Q	L	Q	L	T	G	P	N	S	V	I	V	G	R	A	V	V	V	H	A	G			
UniRef90_Q48654	D	L	G	N	I	A	G	P	D	G	K	V	E	V	T	I	T	D	A	Q	I	S	L	S	G	P	Q	N	S	V	I	V	G	R	A	F	V	V	H	E	A			
UniRef90_Q7YXL9	D	L	G	N	I	I	A	G	D	D	G	V	A	D	V	S	I	K	D	Q	Q	I	S	L	I	G	E	N	S	I	I	G	R	S	L	V	V	V	H	E	K			
UniRef90_A0A016SM91	D	L	G	S	I	V	V	G	A	D	G	V	A	R	F	N	I	T	D	Y	M	V	K	I	H	G	K	N	S	V	I	V	G	R	A	V	V	V	H	A	G			
UniRef90_P24669	D	L	G	N	V	T	V	G	T	D	S	T	V	E	F	S	I	L	T	D	S	Q	L	P	L	S	G	P	H	S	V	I	V	G	R	A	V	V	V	H	A	D		
UniRef90_M0U200	D	L	G	N	I	V	A	N	S	E	G	R	S	L	H	F	V	D	S	Q	L	P	L	S	S	G	P	N	S	V	V	V	G	R	A	L	V	V	H	E	L			
UniRef90_E0W322	D	M	G	N	I	V	A	N	N	Q	G	V	A	T	V	K	L	S	D	T	V	M	S	L	S	G	Q	T	S	I	I	G	R	T	V	V	V	H	A	D				
UniRef90_Q176T4	D	L	G	N	V	V	A	D	E	N	G	I	A	K	T	S	F	S	D	T	V	V	T	S	L	E	V	G	R	S	V	V	G	R	A	I	V	V	H	A	G			
UniRef90_A0A023NFG9	D	L	G	N	I	T	A	D	E	N	G	V	A	K	I	D	I	T	D	K	L	V	T	L	V	G	R	D	S	V	I	V	G	R	T	I	V	V	H	A	K			
UniRef90_P28755	D	L	G	N	I	E	A	S	G	D	G	A	T	K	V	E	I	S	D	K	L	I	T	L	F	G	E	N	S	I	V	G	R	T	I	V	V	H	A	D				
UniRef90_Q8GZP2	D	L	G	N	V	N	V	G	D	D	G	A	N	F	T	I	V	D	S	K	H	I	P	L	S	G	P	H	S	V	I	A	G	R	S	V	V	V	H	E	G			
UniRef90_I3V7W8	D	L	G	N	I	V	S	D	D	Y	G	N	A	D	V	N	I	E	D	S	Q	L	P	L	D	G	P	N	S	I	I	G	R	A	L	V	V	H	E	Q				
UniRef90_Q5KIW7	D	L	G	N	V	Q	T	N	G	C	G	V	A	M	V	D	I	S	D	K	V	I	S	L	T	F	G	P	H	S	V	I	I	G	R	S	M	V	V	H	A	G		
UniRef90_A0A034WMM4	D	L	G	N	I	E	A	D	A	N	G	I	V	D	T	T	F	T	D	S	K	L	S	L	T	F	G	K	R	T	I	V	G	R	G	L	V	V	H	E	L			
UniRef90_Q9C0N4	D	L	G	N	V	K	T	D	G	N	G	V	A	S	V	N	I	S	D	K	S	L	S	L	T	F	G	K	R	T	I	V	G	R	T	I	V	V	H	A	G			
UniRef90_D6PYE6	D	L	G	N	V	T	A	G	D	D	G	V	A	K	I	S	V	K	D	V	H	I	P	L	N	G	A	D	S	I	I	G	R	A	V	V	V	H	A	D				
UniRef90_Q751L8	D	M	G	N	V	L	A	D	A	N	G	V	A	V	G	S	A	K	D	P	L	I	K	I	F	G	P	T	S	I	I	G	R	T	L	V	V	H	A	G				
UniRef90_D8R9M4	D	L	G	N	V	V	A	D	A	N	K	G	N	V	D	E	V	I	V	D	S	Q	L	P	L	S	G																	

QUERY	P	D	D	L	G	R	G	G	N	E	S	T	K	T	G	N	A	G	S	R	L	A	C	G	V	I	G	I	A	K			
UniRef90_O78310	K	D	D	L	G	K	G	G	H	E	L	S	T	T	G	N	A	G	S	R	L	A	C	G	V	I	G	I	T	K			
UniRef90_V5G5W5	P	D	D	L	G	K	G	G	H	E	L	S	K	S	T	G	N	A	G	A	R	L	A	C	G	V	I	G	I	T	K		
UniRef90_K7YBI9	E	D	D	L	G	K	G	G	N	E	E	S	L	K	T	G	N	A	G	G	R	L	A	C	G	V	I	G	I	T	K		
UniRef90_G3VNM4	P	D	D	L	G	K	G	G	N	E	E	S	E	K	T	G	N	A	G	P	R	L	A	C	G	V	I	G	I	A	K		
UniRef90_L7UK81	E	D	D	L	G	K	G	G	N	E	E	S	L	K	T	G	N	A	G	G	R	L	A	C	G	V	I	G	I	T	Q		
UniRef90_C6ZRL9	E	D	D	L	G	K	G	G	H	E	L	S	K	T	T	G	N	A	G	G	R	S	A	C	G	V	I	G	I	T	Q		
UniRef90_T2B4T7	E	D	D	L	G	R	G	N	D	E	E	S	K	K	T	G	N	A	G	G	R	L	A	C	G	V	V	G	I	T	Q		
UniRef90_M4AT47	A	D	D	L	G	K	G	G	N	E	E	S	L	K	T	G	N	A	G	G	R	L	A	C	G	V	I	G	I	A	Q		
UniRef90_UPI000328B494	E	D	D	L	G	K	G	G	N	E	E	S	T	K	T	G	N	A	G	S	R	L	A	C	G	V	I	G	I	A	K		
UniRef90_Q000H3	E	D	D	L	G	K	G	E	D	E	E	S	T	R	T	G	N	A	G	S	R	L	A	C	G	V	I	G	I	A	K		
UniRef90_A0A016SN38	T	D	D	L	G	K	G	K	K	E	E	S	L	K	T	G	N	A	G	A	R	S	A	C	G	V	I	A	I	A	E		
UniRef90_E3TBQ4	E	D	D	L	G	K	G	G	N	E	E	S	L	K	T	G	N	A	G	G	R	L	A	C	G	V	I	G	I	A	K		
UniRef90_B7PUC4	P	D	D	L	G	K	G	G	H	E	L	S	K	T	T	G	N	A	G	A	R	L	A	C	G	V	V	G	V	T	K		
UniRef90_B6CHW7	E	D	D	L	G	R	G	G	H	E	L	S	K	T	T	G	N	A	G	G	R	L	A	C	G	V	I	G	I	T	K		
UniRef90_T1JAI9	P	D	D	L	G	K	G	G	H	E	L	S	K	T	T	G	N	A	G	A	R	V	A	C	G	V	I	G	I	A	K		
UniRef90_G3LY18	V	D	D	L	G	K	G	G	H	E	L	S	K	T	T	G	N	A	G	G	R	L	A	C	G	V	I	G	I	C	K		
UniRef90_K4AF55	P	D	D	L	G	K	G	G	H	E	L	S	K	S	T	G	N	A	G	G	R	I	A	C	G	M	F	T	V	S			
UniRef90_E9CIP4	I	D	D	L	G	K	G	G	H	E	L	S	K	T	T	G	N	A	G	G	R	L	A	C	G	V	I	G	V	A	K		
UniRef90_Q52JH6	K	D	D	L	G	K	G	G	N	E	E	S	L	K	T	G	N	A	G	G	R	L	A	C	G	V	V	G	I	T	K		
UniRef90_C5NS97	P	D	D	L	G	K	G	G	H	E	L	S	K	T	T	G	N	A	G	A	R	I	A	C	G	V	I	G	I	A	K		
UniRef90_Q7QDP9	P	D	D	L	G	V	G	G	H	E	L	S	K	T	T	G	N	A	G	A	R	L	A	C	G	V	I	G	I	C	K		
UniRef90_K7IYG5	P	D	D	L	G	K	G	G	H	E	L	S	K	T	T	G	N	A	G	G	R	L	A	C	G	V	I	G	I	T	K		
UniRef90_UPI0003C2ADDD	E	D	D	L	G	K	G	E	N	E	E	S	T	K	T	G	N	A	G	G	R	L	A	C	G	V	I	G	I	A	K		
UniRef90_D5G966	T	D	D	L	G	K	G	D	N	V	E	S	K	K	T	G	N	A	G	P	R	P	A	C	G	V	I	G	I	S			
UniRef90_G9C5D1	P	D	D	L	G	R	G	G	H	E	L	S	K	T	T	G	N	A	G	A	R	V	A	C	G	V	I	G	I	A	K		
UniRef90_U5DDV0	P	D	D	L	G	R	G	G	H	E	L	S	K	A	T	G	N	A	G	G	R	V	G	C	G	V	I	G	I	L	T	K	
UniRef90_F8R8R2	P	D	D	L	G	K	G	G	H	E	L	S	K	T	T	G	N	A	G	G	R	L	A	C	G	V	I	G	I	T	K		
UniRef90_Q6B7T1	E	D	D	L	G	R	G	G	H	E	L	S	K	T	T	G	N	A	G	G	R	L	A	C	G	V	I	G	W	S	E	K	
UniRef90_L8GDC4	E	D	D	F	G	K	G	G	T	E	D	S	L	T	T	G	H	A	G	A	R	L	A	C	G	V	I	G	I	L	S	K	
UniRef90_M4PSX3	P	D	D	L	G	K	G	G	F	E	D	S	K	T	T	G	N	A	G	G	R	L	A	C	G	V	I	G	I	T	N		
UniRef90_E5RZT8	E	D	D	L	G	K	G	G	D	E	E	S	L	K	T	G	N	A	G	A	R	V	A	C	G	V	I	G	I	A	N	K	
UniRef90_U5EW44	P	D	D	L	G	V	G	G	H	E	L	S	K	T	T	G	N	A	G	A	R	I	A	C	G	V	V	G	I	C	K		
UniRef90_UPI0004621924	T	D	D	L	G	R	G	G	D	E	E	S	L	K	T	G	N	A	G	A	R	A	A	C	G	V	I	G	I	A	Q		
UniRef90_C1C4J6	E	D	D	L	G	K	G	G	D	N	E	S	L	I	T	G	N	A	G	G	R	L	A	C	G	V	I	G	I	C	Q		
UniRef90_Q9AR80	R	D	D	L	G	R	G	G	H	E	L	S	K	T	T	G	N	A	G	G	R	V	A	C	G	V	I	G	I	L	T	K	
UniRef90_G5BEA6	E	D	D	L	G	K	G	G	N	E	E	S	T	K	T	G	N	A	G	S	R	L	A	C	G	V	I	G	I	A	Q		
UniRef90_C3ZM91	E	D	D	L	G	K	G	G	F	E	D	S	L	T	T	G	H	A	G	G	R	L	A	C	G	V	I	G	I	T	K		
UniRef90_Q48654	E	D	D	L	G	K	G	G	H	E	L	S	L	S	T	G	N	A	G	G	R	L	A	C	G	V	V	G	I	T	T		
UniRef90_Q7YXL9	E	D	D	L	G	K	G	G	N	D	E	S	L	K	T	G	N	A	G	P	R	V	A	C	G	V	I	G	I	T	T		
UniRef90_A0A016SM91	T	D	D	L	G	R	G	R	R	A	E	S	L	R	T	G	N	A	G	A	R	I	A	C	G	V	I	G	I	A			
UniRef90_P24669	P	D	D	L	G	K	G	G	H	E	L	S	K	S	T	G	N	A	G	G	R	L	A	C	G	V	V	G	I	L	T	K	
UniRef90_M0U200	E	D	D	L	G	K	G	G	H	E	L	S	L	T	T	G	N	A	G	G	R	L	A	C	G	V	V	G	I	L	T		
UniRef90_E0W322	P	D	D	L	G	L	G	G	H	E	L	S	K	T	T	G	N	A	G	G	R	V	A	C	G	V	I	G	I	A	K		
UniRef90_Q176T4	V	D	D	F	G	K	T	N	H	P	D	S	L	K	T	G	N	A	G	G	R	L	A	C	G	V	I	G	I	L	A	K	
UniRef90_A0A023NFG9	E	D	D	L	G	K	G	G	N	E	E	S	T	K	T	G	N	A	G	A	R	F	A	C	G	V	I	G	I	L	A	K	
UniRef90_P28755	P	D	D	L	G	K	G	G	H	E	L	S	K	T	T	G	N	A	G	A	R	L	G	C	G	V	I	G	I	C	K		
UniRef90_Q8GZP2	R	D	D	L	G	K	G	G	H	E	L	S	K	T	T	G	N	A	G	D	R	I	A	C	G	V	I	G	I	L	T	K	
UniRef90_I3V7W8	E	D	D	L	G	G	L	G	G	H	K	D	S	K	T	G	N	A	G	A	R	L	S	C	G	V	I	G	I	L	A	K	
UniRef90_Q5KIW7	T	D	D	L	G	K	G	G	N	E	E	S	L	K	T	G	N	A	G	A	R	L	A	C	G	V	I	G	I	A			
UniRef90_A0A034WMM4	T	D	D	L	G	K	G	T	H	P	D	S	K	K	T	G	N	A	G	G	R	L	A	C	G	V	I	G	V	I	A	K	
UniRef90_Q9C0N4	T	D	D	F	G	K	G	G	N	A	E	S	L	K	T	G	N	A	G	A	R	A	A	C	G	V	I	G	I	S	N		
UniRef90_D6PYE6	P	D	D	L	G	R	G	G	H	E	L	S	K	S	T	G	N	A	G	A	R	V	A	C	G	I	I	G	I	L	T	K	
UniRef90_Q751L8	K	D	D	L	G	R	G	G	N	E	E	S	L	K	T	G	N	A	G	P	R	P	A	C	G	V	I	G	I	A	N		
UniRef90_D8R9M4	E	D	D	L	G	K	G	G	H	E	L	S	P	T	T	G	N	A	G	G	R	L	A	C	G	V	V	G	I	L	T		
UniRef90_UPI000455E905	T	D	D	L	G	R	G	G	N	E	D	S	L	K	T	G	N	A	G	G	R	A	A	C	G	V	I	G	I	L	T	K	
UniRef90_H2YL26	E	D	D	L	G	L	G	G	F	E	D	S	K	T	T	G	H	A	G	G	R	L	A	C	G	V	I	G	I	T	T		
UniRef90_Q6C662	E	D	D	L	G	K	G	G	H	A	D	S	L	K	T	G	N	A	G	P	R	P	A	C	G	V	I	G	I	L	T	K	
UniRef90_C1LNY3	E	D	D	L	G	R	G	G	H	D	L	S	K	V	T	G	N	A	G	G	R	V	A	C	G	V	I	G	I	L	A		
UniRef90_UPI00044324E5	E	D	D	L	G	R	G	G	H	P	L	S	K	I	T	G	N	S	G	E	R	L	A	C	G	V	I	G	I	A	R	S	
UniRef90_L7XA69	P	D	D	L	G	R	G	G	H	E	L	S	K	T	T	G	N	S	G	A	R	V	A	C	G	V	I	G	I	L	T	K	
UniRef90_C4WTR6	T	D	D	M	G	R	G	G	F	T	D	S	L	T	T	G	H	A	G	S	R	V	A	C	G	V	I	G	I	L	T	K	
UniRef90_F1N8Q1	S	D	D	L	G	R	G	G	D	N	E	S	K	L	T	G	N	A	G	P	R	L	A	C	G	V	I	G	I	A	K		
UniRef90_H9BEW2	P	D	D	L	G	A	G	G	H	E	L	S	K	T	T	G	N	A	G	A	R	I	A	C	G	V	I	G	I	L	A	Q	
UniRef90_G8BH83	T	D	D	Y	G	K	G	G	F	E	D	S	K	T	T	G	H	A	G	A	R	P	A	C	G	V	I	G	I	L	S	E	K
UniRef90_C8CBN9	V	D	D	L	G	K	G	G	H	E	L	S	K	T	T	G	N	A	G	G	R	L	A	C	G	V	I	G	I	L	A	K	
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UniRef90_A0A016R9Y9	V D D L G R G A Q A E S	L R T T G N A G A R L A C G V I G I A		
UniRef90_Q8ELY4	P D D Y	K S Q P S G D A G D R I A C C G V I G		
UniRef90_UPI000360F4E6	E D D F	E S Q P S G D A G A R I A C G V I G I T E		
UniRef90_S4P4K3	A D D M G L G S T P A S	K V D G D S G T P V A C C G I I A R S		
UniRef90_UPI0003637DFA	P D D Y	V S Q P A G N S G K R V A C C G V I A L		
UniRef90_R7U1B7	E D D L G L G G D S G S	L T T T G N A G A R L G C C I I		
UniRef90_F7S187	A D D L S	S Q P V I G N A G A R I A C C G V I		
UniRef90_Q7T5N2	E D D C G R G N N K E S	K I I T G N S G G R L A C C G V I G V S		
UniRef90_B6S6T3	E D D L G L G D N A G S	K I I T G N S G S R L G C C G V I G V T K		
UniRef90_UPI00040AAAF7C	I D D M	K S Q P S G N A G D R I G C G E I A L L E N		
UniRef90_Q9BLY4	A D D L G R G G N D Q S	L I D G N S G E R I A C C G I I A R S		
UniRef90_Q0G5E7	A D D Y	E S Q P A G D A G D R V A C G V I G		
UniRef90_G0QU71	Q D D M G Q G E S K I S	L V N G N S G S V V A C C G I I G I A S		
UniRef90_Q47BV8	P D D Y	K S Q P T G N S G K R V A C C G V I A		

1 10 20 30 40

UniRef90_G3ID79 MYA I C Q V Q P S A S V T G L V L F K Q L S P S S R L E A D L E G F P A Q G
UniRef90_A3WTG9 A N S A K A L L K N E G A D V G K V E L I Q V N D G V L F K A T L K G L E P A G E
UniRef90_F2NQ03 T S G S S V Q G T V R F T Q T D Q G L R I V J A E V S G L E P N Q
UniRef90_K0IAC5 N T A N G T V T F V Q T G D G V Q V S G E V R G L K P G E
UniRef90_UPI0001CBB87A P I E G S I H V K Q T G G E V E I T L D L S G F S N S R
UniRef90_GOCP50 A T A E L K N S G E G V G T V E F D K T A A G T K I T V S A K G L T P G F
UniRef90_UPI000380DE61 A M A E L N G E G Q T V G T A E L E Q T D A G V L I R L E A S G L E Q G T
UniRef90_L5KWR8 A P S A T A R L E P T N S T Q G T V R F V Q S G D A V R V S G T V S G L K P G E
UniRef90_A1W7K8 V N M I N S A G D S I G T V K L T E Q S K G V K L K L D L E G L P P G E
UniRef90_E3ICS0 A T C E V K P S S N V T G Q V L F R Q S Y P N G K L E A D L N G F P S G S
UniRef90_M7BHM5 V S L K N K D G D V V A T A T L T E D E G V H V A L E G E K L P A G T
UniRef90_A0A024PPP8 V K A V A V L N S S E G V K G T I N F T Q E G D G T V T G S L C G L K P G L
UniRef90_A9PK47 N A D G S E L G T A E F N E T D G A V E I G V E L S G M E P G F
UniRef90_M1MWF5 V S L K D K D H V V A T A T L K Q V K S G V H I K L N G E N L P G T
UniRef90_UPI00036548C5 R A V A Q L Q S T N T A T G T V S F T K S G D K V V V K G E V R G L K P N E
UniRef90_UPI00047C05A1 V D L K D A D G Q T T S G F V H F Q Q N G D R V R A S L E G L P G L
UniRef90_Q126T0 N G A S V G T V E L T Q T A H G V L I T G D L S S L P G V
UniRef90_A4G3E1 A T K V V D S T G N E I G T A E L T E T E A G V R I R L L Q G L S P G E
UniRef90_UPI0003072ED8 G D F K P H G T V N F T Q I G D K V L V N A N I S G L E P N E
UniRef90_UPI00036F9E86 K S G T N T G G T V T F T Q Q A G G V M M V A S V T G L P P N T
UniRef90_Q46T43 S G T V Y F T K H G S N L R V T G S V S G L P K K
UniRef90_G4M0N2
UniRef90_B3MZC0
UniRef90_UPI0003707163 S S T A V L V A T S G S S V S G S L K F R E P K D R V H I S G T V E G L T P G K
UniRef90_F3BEA6 S G Q G S L G T I T L T E N D N G V V E T P S L K K G L T P G Q
UniRef90_O66602 L I N T E G E V I G K A E L I E T N S G V L I K L N A K G L P P G E
UniRef90_Q0W949 Q A T A V L K A E G K D V G I A R F T E V S P G V Q I N V S V D G L P P G R
UniRef90_B0DKC5 K A V A V M K G P S N V T G T I T F T T T A H S L T I V G N L T G L D P S Q
UniRef90_UPI00035C52AE A V A K L D A K S G T Q G T V T F T Q R G D R V L V K A D V S G L P P G H
UniRef90_UPI00042B4F29 V K A V A V L S G S S S E G T I F F T Q E G D G T T V T G N I S G L K P G
UniRef90_UPI0003A17226 K S G S N V T G N V T F T E K N G E V F M K A S V A G L S A G N
UniRef90_B6TIS2 V K A V A V L K S S D G V K G T I F T Q E G D
UniRef90_Q9RYV4 S A T A A L R D G A G Q V V G S A R F V Q Q G A G V Q V T V D V R G L T P G M
UniRef90_UPI00037A4966 T A T A A L R D E A G Q V L G T A T F R Q M G M G V Q V T V E T R G L T P G Q
UniRef90_K6E811 V E M F N A V G D S L G T V T L A E Q S S G V K M T V N L K G L P A G E
UniRef90_B4J8D7 A V A L V N T T G P V Q G A V R F T T I T A K V D G L A P G L
UniRef90_A0A024F593 K A Q A V L K T G S K L K G I H F T E G D G E M K I E T M V E G I K P G P
UniRef90_UPI00035E23C1 V D L K N A D G D S I G K I T F E E Q A E G I K L K G E V K G L P P G E
UniRef90_D5BD80 K S D S N L S G E V V F T Q K N G E V T M E A T I M G L S E G K
UniRef90_B9M3A5 I V D T T G K S V G T A T F A E K K G G V E V T I K A S G L P P G K
UniRef90_C4WM47 A L P T G Q G K E I G T V T I S Q M D A G L F K T N L R G L P A G E
UniRef90_F9DS28 I I N T D G E E I G E A K L T A D N G G V S I E V K A S G L T P G E
UniRef90_D3NXJ6 D A Q G K P L G T I T F T K F P H G I L V H G Q L S D G L P P G W
UniRef90_I8TCV5 A S S A T A T L S P T E T A Q G T L K F E A G D G V K V S G S L S G L K P G E
UniRef90_V2UY97 N G I G A S I G T V S F R Q T P Q G L I T P A L W K L S P G E
UniRef90_D0LRE4 I E G E V S F K E A G D G I E L H L N V Q G L D E A G K
UniRef90_F6GF08 A E K A V K V K K S D S N V K G N V F T Q E D G K V E M T A I L E G L P P G E
UniRef90_I3DUM3 V E M F N T V G D S L G K I K I T E Q A S G V K L K V N L D G L P P G E
UniRef90_D3SLG5 V K A H A L I N Q K G E K I G T A E F L Q T N G G V L I K L R A S G L P P N E
UniRef90_UPI0004421C4C K S G P H V T G Q V L F R Q S H G Q L E V I F L L A G F P T G T
UniRef90_G8XAD3 K S D S Q V S G T A T F S E K N G I T M V A N I S G L A P G E
UniRef90_UPI00040D950B S K S V D M Y N A S G D M L G T I T F N E Q S G G V N L K V K L E G L A P G F
UniRef90_V6SGY4 K S D T K T K G T V T F S E K N G T V T F T A N I S G L T P G M
UniRef90_UPI000366EF70 V Q M M D A K G K S I G T I T L T Q Q E D G V L A Q I N V S N L P A G K
UniRef90_UPI0002741D79 M K A V R V L K G N N P V Q G T I T D Q Q E D G P V M V K G C I T R L T E G K
UniRef90_C0ILX6 K V G G T I T F T Q E N E P T Q V D V K I E G L T P G E
UniRef90_Q91EZ6 M R V L G V L Y N L P K G N
UniRef90_B0C9Q2 A L A I L A P T N Q V S G S V K F R Q I E D K V T I A V N L K G L Q P S V
UniRef90_D3EFB6 V K L Y N A A G K P V G S A T L E Q I H D K V K V K I S A S G L T P G K
UniRef90_UPI0002D844F3 V D L M D T N E E Q V A T A T L E G E S G V N I V L E G E N L P P G E
UniRef90_D5UC63 V S L V D A T G A Q V G T V S L D E D D D A L E I E V A V D G L D P G F
UniRef90_UPI00037F2EDA V R L Y N V D N D A V G T A T F K E Q E D M A S V Q I E V E G L E Q G L
UniRef90_UPI00041692B2 I V D S T G N G I G S A E L T E T E T G V R I R L Q L K G L E P G E
UniRef90_UPI000477A9FE K S N S N V Q G E V V F T E E N G T V S M K A T L S G L S A G E
UniRef90_F5LCW3 I E L K N G E S V V G T A K F T Q E N K G V R V Q V Q A T K L V P G E
UniRef90_D8DD97 S Q V T G T V Q F F P Q P D G V R V K G R V E G L A P N E
UniRef90_D5DR14 V D L T N T S G K K V G E A T L S E A K N G V Q I K L T A Q G L S P G R
UniRef90_UPI000478D834 M L N S D G D S L G T A E L S E Q S D G V Q V K L S L E G L E P G L
UniRef90_A6H0D0 K S Q S N V A G T A N F I E K N G T V T M V A N L S G L T P G E
UniRef90_UPI00047624EB N A I G T V K I E Q T E Y G T V F T P N L T G L M P G E
UniRef90_A7THC1
UniRef90_UPI00032B0BB4 V S G I I V F K Q Q G P D A K L E A D L E G F P A E A
UniRef90_M1SHB6 K G A G K V I G T I D I Q E T D Y G L L F T P A L N G L P P G V
UniRef90_UPI000479BF59 K S G S N V I G T S V T F T E E N G E V M M K A N L T G L S E G E
UniRef90_UPI000463BC34 A K A V F L D T R G Q E A G T A A L T A T P T G V L I E V E A T G L P A G Q
UniRef90_UPI00036CCFE5 S G S Q V R G S V Q F S D T A E G L R V T G E I T G L S P G A
UniRef90_N0AWG7 V E M F N S V G D S I G T I K V Q E Q S S G V K L S G L S G L P P G E
UniRef90_E5WFF81 V E M F N A A G D S L G T I K V Q E Q A S G V K L S G L S G L P P G E
UniRef90_I7J5B8 A Y A K I K G S P S I K G L V I F Y Q T D D G V L V Y N V E G L P P
UniRef90_W4F4Y0 V N S E G K S I G E A V L T E T E E G V N I G I A L Q G L E P G E
UniRef90_UPI00047A7A6E V N L V N A E G K S A G Y A T L M Q V V D G V K V R V Y A S G L A P G K
UniRef90_UPI0002C2E045
UniRef90_UPI00047E6882 L V D A K G T K V G T A E F A A K N G V E V S V E V T G L P P G F
UniRef90_H6RIB2 K A V A K I K S G S S V S G T V T F I E K A G I V V M K A A L S G L S Q G N
UniRef90_E4TA86 K S N T N T K G T A T F T Q K A K T V T L N I D V H N L T P G K
UniRef90_UPI00047BC622 V P I I N T A T G T V I G K A L T S A E G V K V R L E A K G L S E G K
UniRef90_C6CSI4 A F I D T K G N Q I G T V V L T E E K D G V H L K L E A K G L T P G V
UniRef90_UPI0002C68E1F V T G L V L F R Q L A P G A R L E A D L E G F P A E A
UniRef90_A7HHQ2 A I L K A G G K E V G T A T F S G E G A R K V D V V A G L T P G K
UniRef90_F9YSI0 K S D S N V S G T A V F T Q K G D K V M L T V H V S G L T A G E

	50	60	70	80
UniRef90_G3ID79	R A I H V	H Q F G D L S	Q G Q E S T G	P H Y N P T S V Q H
UniRef90_A3WGTG9	H A F H I	H E V G K D C S	P D F K S T A	G G H F N P T D N K K A
UniRef90_F2NQ03	H A F H I	H E V G K D C S	P D F K S T A	G G H F N P T D N K K A
UniRef90_K0IAC5	H A F H I	H E V G K D C S	P D F K S T A	G G H F N P T D N K K A
UniRef90_UPI0001CBB87A	H A F H I	H E V G K D C S	P D F K S T A	G G H F N P T D N K K A
UniRef90_G0CP50	H A F H I	H E V G K D C S	P D F K S T A	G G H F N P T D N K K A
UniRef90_UPI000380DE61	H A F H I	H E V G K D C S	P D F K S T A	G G H F N P T D N K K A
UniRef90_L5KWR8	H A F H I	H E V G K D C S	P D F K S T A	G G H F N P T D N K K A
UniRef90_A1W7K8	H A F H I	H E V G K D C S	P D F K S T A	G G H F N P T D N K K A
UniRef90_E3ICS0	H A F H I	H E V G K D C S	P D F K S T A	G G H F N P T D N K K A
UniRef90_M7BHM5	R A I H I	H E K G D L S	N S Q D S T G	P H Y N P F N V N H
UniRef90_A0A024PPP8	H A F H I	H E K G D L S	N S Q D S T G	P H Y N P F N V N H
UniRef90_A9PK47	H A F H I	H E K G D L S	N S Q D S T G	P H Y N P F N V N H
UniRef90_M1MWF5	Y G L H I	H Q L G T C S	P D P A D T G	D F M S A G S H I G
UniRef90_UPI00036548C5	H A F H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_UPI000047C05A1	H A F H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_Q126T0	H A F H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_A4G3E1	H A F H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_UPI0000471DD24	H A F H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_W0RJS0	H A I H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_UPI0003072ED8	K A I H I	H E V G S C D S	P D F K T A G	S H F N P T N K Q H
UniRef90_UPI00036F9E86	H A F H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_Q46T43	H A F H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_G4M0N2	L G V H I	H E Y G A L G	N E C N D A S	G H F N P F N S D H
UniRef90_B3MZC0	G H V H I	H E F G D N T	N G C M S A G	P H F N P Y G K K H
UniRef90_UPI00033707163	H A F H I	H E V G S C D S	P D F K T A G	S H F N P T N K Q H
UniRef90_F3BEA6	H A F H I	H E V G S C D S	P D F K T A G	S H F N P T N K Q H
UniRef90_O66602	L A F H I	H E R G E C T	P F F K S A G	K H F N P Y G K K H
UniRef90_Q0V949	H A F H I	H E V G S C D S	P D F K T A G	S H F N P T N K Q H
UniRef90_B0DKC5	R G L H I	H E F G D A T	D G C A S A G	L H F N P F N K T H
UniRef90_UPI00035C52AE	H A F H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_UPI00042B4F29	H A F H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_UPI0003A17226	H A I H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_B6TIS2	H A I H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_Q9RYV4	H G M H V	H E Y G R C T	P G F G A A G	G H F D P S M S R N
UniRef90_UPI00037A4966	H G M H V	H E Y G R C T	P G F G A A G	G H F D P S M S R N
UniRef90_K6E811	H A I H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_B4J8D7	H A F H I	H E S G D V S	E G Q A S V G	H F N P R K S P
UniRef90_A0A024F593	H A F H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_UPI000035E23C1	L A M H I	H D K G K C P	P D F A S A G	D H F N P T D K K S
UniRef90_D5BD80	H A I H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_B9M3A5	H G M H I	H E N G K C P	P G F A T A G	A H F N P T G R K H
UniRef90_C4WM47	H A F H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_F9DS28	H G I H I	H E K G V C T	A P D F K A S	A G H F N P T G K E
UniRef90_D3NXJ6	H G I H I	H E N G A C T	P D F K A A G	G H F N P A Q G S Q
UniRef90_I8TCV5	H A F H I	H E K G D C S	P D P A D T G	D F M S A G S H I G
UniRef90_V2UY97	H A F H I	H E N A S C S	M G A A L A A	G H F N P D N T A N
UniRef90_D0LRE4	H A F H I	H E T G D C S	S A P D F K S	A G G H F N P A Q G S Q
UniRef90_F6GF08	H A I H I	H E K A D C S	S D G K S T G	A G H F N P T G E P
UniRef90_I3DUM3	H A M H I	H E T G K C P	P D F K S A G	K H F N P T D N K Q
UniRef90_D3SLG5	L A I H I	H E V G K C P	P D F M S A K	G H F N P Y K K K H
UniRef90_UPI0004421C4C	R A I H I	H Q H G D L S	N G C D S V G	H F N P W K V N H
UniRef90_G8XAD3	H A I H I	H E K A D C S	S D G T S T G	G H F N P T F K K H
UniRef90_UPI00040D950B	H G I H M	H E Y A K C S	P D F K S A G	K H F N P T F K K H
UniRef90_V6SGY4	H A I H I	H E K S D C S	A D G S S A G	G H F N P T F K K H
UniRef90_UPI000366EF70	H A F H I	H E Q S P L K	N D F A T A G	S H F N P A G K E H
UniRef90_UPI0002741D79	L R F H V	H Q F G E N T	H G C T R A G	L H F T A H S Q S
UniRef90_Q0ILX6	H A F H I	H E F G D N T	N G C T S A G	E H F N P Q N K Q H
UniRef90_Q9I1E26	H G M H V	H E Y G D T N	S G C T S A G	E H F N P Q N K Q H
UniRef90_B0C9Q2	H A W H I	H E F G D A S	S D G K A M G	G H F N P T E G K H
UniRef90_D3EFB6	H A F H I	H E N A I Q		

	90	100	110	120
UniRef90_G3ID79	D F G N F M V	R D G R L W K H R T G L N	V S L A G P H S I L G R A V V V H A G	
UniRef90_F3WGTG9	D L P N I E A M P	A S D G E R L K F E V V N T A V L	D L D K G P N S S V D G R A I V V V H A A	
UniRef90_A2NQ03	D L G N L E A G A	S E D G R A R Y E R T M A D L S	L D E K G L A S V L D G L S L I V V V H A N	
UniRef90_K0IAC5	D L P S L K A D K Y	G V A A F S F V S K S I S V	L V G G S P T D S I V G K G L I V V H R D	
UniRef90_UPI0001CBB87A	D L G N I E S D E N G	N V K T V I R D D V V S L	L V G S P S I L L G R A F D V H V G	
UniRef90_GOCP50	D L P S L L V N A D G	T G H L E V V T D A I S D E	D L L F G S A D G T S L I V V H E G	
UniRef90_UPI000380DE61	D L P N L E V G K D G	A Q T E V I A D Q V I T L	K Q L L S E A G T A T V V H A K	
UniRef90_L5KWR8	D L G N V T A G K D G	V A H V F I E D S T I R V	S G S G D H F I V G R T I V V H A N	
UniRef90_A1W7K8	D L P S L R A D G N G	V A T F N F E S R S I R V	S G A T D I I V G R G L I V V H A N	
UniRef90_E3ICS0	D L P N I I Y S K E	D G T V N T E L T A P N V T L	G T P L T K D G T A I V I V H A G	
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[illegible]

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UniRef90_O09164	R	A	I	H	V	H	E	F	G	D	L	S	S	Q	G	C	D	S	T	A	G	P	H	Y	N	P	L	S	V	N	H			P	H	P	H	P	G			
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UniRef90_UPI00036128F3	H	G	I	H	I	H	E	M	G	K	C	E	P	D	F	K	S	A	G	G	H	F	N	P	T	S	K	E	H	G	F	N	N	P	N	G	E	H	A	G		
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UniRef90_UPI00037CCAD1	H	A	V	H	I	H	A	K	A	L	C	E	P	D	F	K	T	A	G	G	H	F	N	P	T	E	N	K	Q	H	G	T	L	L	N	P	M	G	H	H	A	G
UniRef90_E6X7U0	H	A	I	H	I	H	E	T</																																		

UniRef90_UPI0003700DF6	D	L	G	N	I	V	A	N	A	E	G	V	A	D	V	D	V	M	A	P	G	I	T	L	M	G	K	S	S	I	G	E	R	S	I	V	I	H	A	N			
UniRef90_UPI00034F9E33	D	F	G	N	F	V	P	K	D	G	R	L	W	K	Y	Q	A	G	L	P	A	S	T	L	M	G	P	H	S	I	I	V	G	R	A	V	V	V	H	E	Q		
UniRef90_H3AB12	D	F	G	N	F	V	P	K	D	G	R	L	W	K	Y	Q	A	G	L	P	A	S	T	L	M	G	P	H	S	I	I	V	G	R	A	V	V	V	H	E	Q		
UniRef90_UPI00047E51A2	D	S	D	N	L	S	A	N	D	Q	G	V	A	A	V	D	N	L	L	R	G	A	T	L	D	G	P	T	D	I	L	V	G	R	A	V	V	V	H	A	D		
UniRef90_H2KTR7	D	L	G	N	L	K	T	D	R	N	E	G	V	M	Q	F	D	V	V	Y	W	G	A	T	D	D	P	S	R	G	F	I	G	L	A	L	V	V	V	K	N	G	
UniRef90_O09164	D	F	G	N	F	V	V	R	N	G	Q	M	L	W	R	H	R	V	G	L	T	A	S	L	D	A	G	P	H	A	I	L	G	R	G	L	V	V	V	H	A	G	
UniRef90_A9BWP6	D	L	P	S	L	R	S	D	A	Q	G	M	A	S	I	D	F	V	S	R	G	L	A	T	D	Q	P	N	S	V	V	I	R	G	R	G	L	V	V	H	K	D	
UniRef90_UPI0002659B36	D	W	G	N	F	E	V	T	G	I	P	F	M	L	V	F	N	D	P	V	A	R	L	T	G	D	I	A	I	L	N	R	S	I	V	I	V	I	H	K	G		
UniRef90_U2Z2A8	D	M	P	N	I	Y	A	D	A	E	M	E	V	N	A	D	M	F	T	D	R	L	S	M	S	T	L	F	D	E	D	G	S	A	V	I	V	I	H	V	N		
UniRef90_UPI0001E2C6BD	D	F	P	V	L	F	S	N	H	G	I	A	R	M	C	F	F	T	D	K					F	K	V	K	D	I	L	G	R	A	V	I	V	I	H	N	N		
UniRef90_A2U0P1	D	I	G	N	L	E	A	D	S	E	E	G	S	I	Q	K	E	L	T	A	S	E	R	V	T	L	S	G	C	E	D	D	I	L	G	H	A	I	V	I	H	A	G
UniRef90_I0JIH5	D	L	P	A	L	Y	V	T	S	D	G	K	A	M	Y	P	V	L	A	P	R	I	K	L	S	K	L	S	E	I	L	K	G	K	A	L	M	V	I	H	A	G	
UniRef90_UPI00046A142D	D	L	P	A	L	Y	V	T	S	D	G	K	A	M	Y	P	V	L	A	P	R	I	K	L	S	K	L	S	E	I	L	K	G	K	A	L	M	V	I	H	A	G	
UniRef90_Q5ZT17	D	L	P	A	L	Y	V	T	S	D	G	K	A	M	Y	P	V	L	A	P	R	I	K	L	S	K	L	S	E	I	L	K	G	K	A	L	M	V	I	H	A	G	
UniRef90_V8NDX7	D	F	G	N	F	H	P	K	G	G	N	I	Q	K	F	K	S	S	L	K	A	T	L	S	F	G	P	Q	T	I	L	G	R	S	L	V	I	V	I	H	E	Q	
UniRef90_UPI00036128F3	D	L	A	N	L	V	V	G	S	N	G	K	G	E	V	Q	F	V	N	T	A	V	N	T	L	N	S	L	F	K	E	G	G	T	S	L	V	I	V	I	H	A	D
UniRef90_UPI00047D5971	D	M	P	N	L	I	V	G	D	G	S	V	K	A	E	L	M	A	P	N	V	S	L	K	D	L	F	T	K	K	G	T	S	I	V	I	V	I	H	A	G		
UniRef90_UPI00037CCAD1	D	L	Q	N	V	S	I	G	E	G	H	V	G	H	A	S	F	K	L	D	Y	L	S	I	D	P	P	N	S	I													

			130			140		150
UniRef90_UPI0003700DF6	E D D F		S D P A G N S G A R V	A C G Y I				
UniRef90_UPI00034F9E33	E D D L G R G D T P A S	V E N G N A G P R L	A C C V V	G				
UniRef90_H3AB12	M D D L G K G N N K A S	L E N G N A G N R L	A C C V I	G I S S				
UniRef90_UPI00047E51A2	P D D Y A	T Q P T G N A G A R L	A C G V I					
UniRef90_H2KTR7	E D D L G L G H N E R S	S T T G N S G E R L	T C A V I	G R A R				
UniRef90_O09164	E D D L G K G G N Q A S	L Q N G N A G R R L	A C C V V	G T S S				
UniRef90_A9BWP6	P D D Y	T T Q P T G N S G A R L	A C A V I	T R				
UniRef90_UPI0002659B36	V D D Y G R G N T S A S	K I N G N A G P R L	A C C V I					
UniRef90_U2Z2A8	P D T Y	Q A E A G A G D R I	A C G V I	T L R Q				
UniRef90_UPI0001E2C6BD	P D D Y	R T Q P A G N S G K R L	A C G V I					
UniRef90_A2U0P1	T D D F	K S Q P S G A A G A R V	G C G E I					
UniRef90_I0JIH5	A D D	Q E S Q P S G D A V A R I	A C G E I					
UniRef90_UPI00046A142D	G D N H A	D E P K P L G G G D R L	A C G V I					
UniRef90_Q5ZT17	G D T Y S D N P	P Q G G G G D R I	A C G V I					
UniRef90_V8NDX7	E D D L G K G S N E	G S L L H G N A G P R L	A C C I I	G T C K				
UniRef90_UPI00036128F3	P D D M	H T N P A G N S G D R I	G C A V I					
UniRef90_UPI00047D5971	K D D	G M T Q P A G D S G K R V	A C G E I					
UniRef90_UPI00037CCAD1	P D D M	K T D P T G N A G N R I	A C G V I					
UniRef90_E6X7U0	V D D F	T S Q P S G D A G A R V	S C G I I					
UniRef90_A0A023Y8Y3	A D D Y	K T Q P T G N A G A R L	A C A V I	K A A				
UniRef90_U9TC78	P D D L R K Q N N P	E S L S G N A G R R L	M C G I I	G L T				
UniRef90_UPI0002D7DCB7	P D D Y I	S Q P S G D A G D R I	A C G V I	G				
UniRef90_UPI00026CA702	A D D L	M T D P S G N S G A R I	A C G V F	A A S				
UniRef90_C1DN45	G D N H A	D S P A P L G G G G A R V	A C G V I					
UniRef90_I0JQ12	V D D	G M S Q P S G N S G E R I	A C G E I	T L				
UniRef90_A5FAL1	T D D F	T T Q P T G N A G G R V	A C G I I					
UniRef90_H2BW96	V D D F	T S Q P S G N A G T R V	G C G T I					
UniRef90_UPI0003B4D02A	A D D Y	E S Q P S G D A G R R I	A C A V I					
UniRef90_N8Y6E1	G D N Y	S D Y P K P L G G G G A R I	A C G V I					
UniRef90_UPI000415657F	P D D F	T S Q P S G A A G P R I	G C G E I	T L				
UniRef90_W0SB97	P D D Y	K S Q P A G N S G K R V	A C G V I					
UniRef90_K9SD91	E D D F G	Q P V G N A G D R I	G C G T I	V I S S				
UniRef90_M9M8C4	A D D Y	V T D P A G N S G D R I	A C G A I					
UniRef90_K7SIS3	A D D Y	K S Q P L G S G A R V	A C G V I					
UniRef90_Q007T6	E D D L G R G G N Q A S	L E N G N A G R R L	A C C V V	A L C				
UniRef90_F4R1J8	A D D H S	S Q P L G G A G D R V	A C A V I					
UniRef90_UPI00037703F5	P D D L	M T D P S G N S G G R I	A C G V F	T A A				
UniRef90_C0ZUF8	A D N F G P A P D Q Q T	L D T G D A G G R V	A C G V I	T K S				
UniRef90_B8JKE9	K D D L G R G G N V I G S	L L N G N A G G R L	A C C V I	G L				
UniRef90_E9GJD0	E D D L	T P N T N P G P R V	G C G T I					
UniRef90_UPI000248DE53	A D D F	R T D P A G N A G G R I	A C G V I					
UniRef90_K1RAH2	R D D E G T G T N S A S	L Q N G N A R T P I	A C C T I	G R A S				
UniRef90_M3ZU58	R D D L G L G G D I G S	L L H G N A G R R L	A C C V I	G M S S				
UniRef90_E7RVI2	K D D L	H S Q P T G D A G G R A	A C A V I					
UniRef90_Q1YM12	T D D Y S	S Q P S G D A G N R I	A C G V V					
UniRef90_A0A024F6V2	A D D Y	K S Q P A G D A G D R I	A C G E I					
UniRef90_S5THS6	A D N Y A N G V D E D T	L S T G D A G S R L	A C G V L	G				
UniRef90_M3DXU6	E D D	Q I T D P S G D S G D R V	A C G V I					
UniRef90_UPI000225B075	Q D D	G V S Q P S G N A G A R I	I C G E I					
UniRef90_M8DDZ8	P D D Y	R T Q P A G N S G K R L	A C G I I					
UniRef90_A1TQD3	E D D Y	K S N P A G N S G G R V	L C G V I	E P A Q				
UniRef90_I3YZS1	T D D F	T T Q P T G D A G G R V	A C G I					
UniRef90_N2IWU8	G D N	H S D H P K P L G G G G A R M A	C G V I					
UniRef90_K2A0E0	G D N Y	S D T P E K L G G G G K R M A	C G V I					
UniRef90_UPI0003604E91	A D D Y	K T Q P T G N A G G R L	A C G V I					
UniRef90_UPI0003B57609	P D D Y	R S D P A G M S G A R E R	C G V I					
UniRef90_B9TY06	V D D L G K G G H E	F S K T T G N T G A R						
UniRef90_B8CW95	P D D Y	R S Q P A G N S G P R F A	C G V I					
UniRef90_I0WGG7	V D D F	V T Q P T G D A G G R V	S C G G I					
UniRef90_N9RM00	G D N Y	S D S P K P L G G G G D R I	A C G V I					
UniRef90_L0NN28	A D D Y	R S Q P S G S S D D R I	A C A I I					
UniRef90_K5Z1Y6	G D N H A	D H P Q P L G G G G A R V A	C G V I					
UniRef90_N6WYT7	P D N Y	S D E P E P N G G S G P R V A	C G V I					
UniRef90_UPI0002B4AD5E	D V D L	K T S K H S D A G E S I A	C G I I	A R S				
UniRef90_C3KV44	P D D Y	R S Q P S G N A G R R L	A C G I I					
UniRef90_UPI0002E2A190	P D D Y	E S Q P S G N A G N R I	A C A V I					
UniRef90_C6XCH3	A D N Y	S D Q P K P L G G G G A R V A	C G I I					
UniRef90_I3KAV4	I D D L G R G G D A G S	L L H G N A G R R L	A C C I I	G V S S				
UniRef90_A1JJR9	G D N Y A	D H P M P L G G G G A R M A	C G V I					
UniRef90_UPI0004261BFB	G D N M	S D H P K P L G G G G E R Y A	C G V I					
UniRef90_W5X2N9	K D D L	K S Q P A G N S G P R E A	C G I I					
UniRef90_E8UAL5	A D D Y A	T D P S G K S G A R V L	C G R I					
UniRef90_V8C9U8	G D N	H S D H P A P L G G G G A R V A	C G V I					
UniRef90_UPI000360DAE0	E D D L	T S Q P S G A A G A R V	S C G I I					
UniRef90_UPI00037719A6	E D D F	S D P A G N S G A R V A	C G V I					
UniRef90_UPI0003734606	P D D Y	T T Q P L G G A G A R I	A C A V I					
UniRef90_U9SNA9	K D D E G K G D N K Q S	K I D G N S G P G I I	A G I I	A R S				
UniRef90_UPI0003B44DAA	P D D L	K T D P A G N S G K R V A	C G V I					
UniRef90_C3YDS5	E D D F G H G G H E M S	P V D G N S G V R L	A C C V I	G R T S				
UniRef90_G7LK61	G D N Y A	D S P E K L G G G G A R L	A C G V I					
UniRef90_B4EW24	G D N Y	S D N P E A L G G G G A R M A	C G V I					
UniRef90_UPI0002C443B6	E D D L G R G G N Q A S	V E N G N A G R R L	A C C V V	G V C				
UniRef90_UPI0003B6F52C	A D D Y	R S Q P S G N A G A R L	A C G V I	R V S R				
UniRef90_K6W9V5	P D N F A N G A D E E	T R K A G D A G Q R V A	C A V I					
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UniRef90_UPI00047CF02C	A D D Y	T T Q P A G N A G P R L	A C G V I	T R T				
UniRef90_A0A031K796	V D D Y	T S Q P S G N A G G R I	A C A V I	A A A K				
UniRef90_B9JC81	S D D Y	R S Q P V G G A G K R L	A C A V I					
UniRef90_H6R549	A D N F G S G P D E S T	L A T G D A G G R V A	C G V I					
UniRef90_K6X7F2	G D N Y A	D S P K P L G G G G E R V A	C G V I					
UniRef90_W0VDK1	E D D L	K T Q P T G N S G K R L	A C G V V	E L K K				
UniRef90_UPI00035C4091	A D D F	T S Q P S G D A G A R I	G C G V I	L L S E				

1 10 20 30 40

UniRef90_UPI0003B60578 A L A N F V G D G K E N G R A T L T A A S G G V L I E L E V S G L P S N R
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UniRef90_UPI0003484B14 T G T G A S I G K T V T E N S H G L I E T P E L A G L P P G I
UniRef90_A3TWS1 I N A D G A S E I G K A T L T G T P A G L L I E L D L R A D L P P E W
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UniRef90_X6L383 T A Q A S L V G A D G E T L G E A T L T Q G P A G V L I H L R A E G L T P G A
UniRef90_B0RLV5 S G S L V S G R V V L V P A L R G I R L T G T V G G L R P G A
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UniRef90_UPI00036B5C76 G V G D S I G T V T V E E S D Y G L M L T P D L S G L S P G M
UniRef90_UPI000262B30C A Q A V L A P A S G S L V S G K L S L V A A P G G V R I T G T L G G L Q P N R
UniRef90_E3BPX8 G S N Q V V G D V T I T Q S E Y G T V F T P N L K G L T A G V
UniRef90_UPI00021A7635 N V T G E L T L V Q E N N L I E I T G K V Y G L T P G I
UniRef90_UPI000465C211 N T A A G T V T F V Q R G E V V K V S G S I S G L K P G E
UniRef90_UPI000370F3D2 A A Y A V I K G G P N L R G I C F F S D L G N G T E I F V E V S G L P P G P
UniRef90_H8H0U3 G T A Q G T V T L R Q M G M G V Q V R V E A R G L K P G Q
UniRef90_J3E2W3 D G P G K S I G T I S I E Q N P Y G T L L T P D L K D L P P G V
UniRef90_B1LE68 A T K D V T M V D S D G K E R G K I T I Q K T P Y G L L F T P D L H S L P A G I
UniRef90_E9CI70 A V S I L L E R D G D V I G V V R F V Q I S E N C V I E G T L D G L S K G E
UniRef90_A2TP84 K S D S K A S G S V V F K E E D G V V K F T A V I G G L S D G E M
UniRef90_G2INQ0 A T A Q L R A E G A M A G T A R V S Q M G D G L E I R L A V E N L P S G E
UniRef90_A0A014Q6C8 A T A E L Q P T N T V T G K V H F M Q K H G V K V S G Q I S G L K P A G E
UniRef90_D3HKF2 I Y T T N G T S A G K V V F E D S Q Y G L L I K P Q L T G L P A G I
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UniRef90_UPI00047C9B13 T N E S A G T I E I S Q S D Y G V V F T P Q L S G L S A G V
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UniRef90_K5UFG8 D G V G E S I G T I T V R D H E E G V L F E P D L E G L D T G L
UniRef90_N6WVF0 Q G I G A I I G K V T I S E T P W G L Q F T P E L S G L P P G I
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UniRef90_UPI00035E1763 K S D S K V S G K V I F T E S E G M V N M V A E L T G L D E G E
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UniRef90_E9CI70	H	G	L	H	I	H	E	Y	G																																					

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

[illegible]

	90	100	110	120																																										
UniRef90_L7EI94	D	F	P	V	L	F	S	N	S	N	N	L	T	K	M	S	F	F	T	S	K	F	K	V	R	D	I	L	N	R	S	I	V	I	H	E	S									
UniRef90_UPI00047A3441	D	L	Q	N	V	L	F	I	G	S	N	G	T	G	S	A	T	F	H	V	D	Y	L	S	K	L	P	L	F	A	N	G	T	A	I	M	I	H	E	K						
UniRef90_A0KX36	D	L	P	P	L	F	I	G	S	N	G	T	G	A	S	Q	A	V	L	A	P	R	L	S	K	L	M	G	P	L	F	A	N	G	T	A	I	M	I	H	E	K				
UniRef90_E6WVP58	D	M	D	N	L	A	S	N	A	E	G	V	A	V	V	D	R	L	H	L	H	G	V	T	L	G	G	A	N	D	I	A	G	R	A	V	I	V	H	E	K					
UniRef90_K2BDZ7	D	L	P	A	L	Y	V	V	A	D	G	S	A	T	L	P	L	L	A	P	R	L	S	K	L	L	G	H	G	L	K	D	I	Q	N	G	R	A	L	M	I	H	E	K		
UniRef90_Q5GR13	D	W	G	N	I	E	C	D	M	K	G	E	A	T	H	V	A	D	M	N	D	T	I	T	S	L	L	V	G	P	H	S	I	I	G	R	G	I	V	I	H	E	K			
UniRef90_C0N950	D	L	P	P	L	Y	V	D	E	K	G	N	A	S	Q	P	V	L	A	P	R	L	S	K	L	T	F	A	S	L	D	I	K	N	K	A	L	M	I	H	E	K				
UniRef90_I3D7X5	D	L	P	A	L	Y	V	N	P	D	G	T	A	T	N	P	V	L	A	P	R	L	S	K	L	P	R	I	K	S	L	S	Q	V	K	G	H	A	L	M	I	H	E	K		
UniRef90_Q8ZQF7	D	L	P	A	L	Y	V	N	Q	A	G	N	A	D	Y	P	V	L	A	P	R	L	S	K	L	P	R	I	K	L	K	S	I	S	Q	V	K	G	H	A	L	M	I	H	E	K
UniRef90_M5PA34	D	L	P	N	I	E	V	G	A	D	G	K	V	D	V	I	V	N	A	P	R	L	S	K	L	P	R	I	K	L	K	S	I	S	Q	V	K	G	H	A	L	M	I	H	E	K
UniRef90_UPI00034BCC07	D	L	P	L	Y	V	V	A	A	D	G	T	A	A	Q	P	V	L	A	P	R	L	S	K	L	P	R	I	K	L	K	S	I	S	Q	V	K	G	H	A	L	M	I	H	E	K
UniRef90_A0A021W476	D	M	D	N	L	N	S	D	A	E	G	V	A	K	V	D	A	H	A	S	G	V	T	L	L	G	G	A	N	D	V	I	A	G	R	A	L	V	I	V	H	E	K			
UniRef90_G7UUY9	D	M	D	N	L	V	A	D	A	E	G	I	A	H	V	D	T	Q	L	A	G	V	T	L	L	G	G	A	M	D	I	L	G	R	A	L	V	I	V	H	E	K				
UniRef90_W5NNF4	D	F	G	N	F	T	P	K	G	K	G	K	I	H	K	M	K	S	N	S	K	A	T	M	F	G	P	E	S	V	L	G	R	A	V	I	V	H	E	K						
UniRef90_UPI00045E7506	D	L	P	K	L	V	V	G	A	D	G	K	A	T	A	S	V	V	A	P	R	L	S	K	L	P	R	I	K	L	K	S	I	S	Q	V	K	G	H	A	L	M	I	H	E	K
UniRef90_UPI000248578D	D	L	P	A	L	L	V	N	G	S	D	G	T	A	H	M	T	V	T	T	D	R	V	T	R	D	N	L	L	L	D	D	D	G	S	A	L	V	I	V	H	E	K			
UniRef90_A0A031MDK9	D	L	P	A	L	Y	V	N	S	D	G	T	A	D	Y	P	V	L	A	P	R	L	S	K	L	P	R	I	K	L	K	S	I	S	Q	V	K	G	H	A	L	M	I	H	E	K

		130	140	150
UniRef90_L7E194	P D D Y	R T Q P S G N S G K K I A C G T I		
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UniRef90_Q5GR13	H D D L G T G G D	Q G S L A T G N A G A G R L A C G T V	A W S	
UniRef90_C0N950	G D N Y	S D E P A P L G G G G A R L A C G V I		
UniRef90_I3D7X5	G D N	H S D H P T A L G G G G A R M A C G V I		
UniRef90_Q8ZQF7	G D N H E D H P N	P L G G G G A R I A C G V I		
UniRef90_M5PA34	Q D D	D L T N P S G N S G G R M V C G		
UniRef90_UPI00034BCC07	G D N	H S D H P A P L G G G A G R V A C G V I		
UniRef90_A0A021W476	Q D D Y	K S Q P A G N A G A R V A C G V I	K V V Q	
UniRef90_G7UUY9	P D D Y A	T Q P A G K S G A R V A C G V I		
UniRef90_W5NNF4	E D D M G K G G N A G S L L H G N A G K R L A C G V I		G I	
UniRef90_UPI00045E7506	G D N Y	S D E P E L L G G G K A R I A C G V I		
UniRef90_UPI000248578D	P D N Y G D G P D	K D T L K T G D A G G R Q A C G T		
UniRef90_A0A031MDK9	G D N H A	D S P E P L G G G A G R S A C G V I		
UniRef90_B9DYU1	P D D Y	R T Q P S G A S G N R L A C G V I		
UniRef90_M7NIR1	P D D Y	K T D P A G K S G A R I A C A		
UniRef90_V8R768	G D N	H S D M P K P L G G G G D R M A C G V I		
UniRef90_X7FIR5	G D N	H S D H P Q P L G G G G E R Y A C G V I		
UniRef90_I1CUL7	E D D L L P	S S T D G H S G D G I L C G I I	A R S	
UniRef90_R5F088	A D D F	T S Q P S G N S G T K I L G C G V I	E K A	
UniRef90_K0F953	A D N F G N G P D D T T L A T G D A G G R V A C G V I			
UniRef90_G1PZ14	E D D L G L G G N A A S V Q N G N A G R R I A C G V V		G L C	
UniRef90_UPI00041B732B	V D D Y A	S Q P A G N S G A R I A C G V I		
UniRef90_W0AZ81	G D N	H S D S P A P L G G G G A R L A C G V I		
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UniRef90_F5Y0Z9	P D D Y	Q T Q P T G N A G P R L A C A V I	Q K A	
UniRef90_B4RGX5	A D D H	K T Q P L G G A G A R V A C A V I		
UniRef90_T0HCD0	P D D Y	T S Q P A G N A G G R I A C A V I	S K P K	
UniRef90_Q8ENY5	Q D D	G M S Q P G G D S G T R I V C G E I		
UniRef90_A1U409	G D N Y	S D S P Q P L G G G G A R V A C G V V		
UniRef90_D2BZY0	G D N Y A	D T P K E L G G G G M R I A C G V I		
UniRef90_H2KTR6	Q D D L G L G G N E R S R I D G N S G E R L A C S V I		G R R Q	
UniRef90_C6ADS7	A D N	Q S D K P L P L G G G A G R L A C G I		
UniRef90_UPI00037D8618	P D N L A H G P D E R T D A T G D A G D R I A C G I V L		A K A	
UniRef90_UPI00042B960D	E D D L K S	T T A D G N S G D G I L C G I V A R S		
UniRef90_UPI00046FEB18	G D N F	S D Q P K P L G G G G D R I A C G V I		
UniRef90_UPI00047150F0	P D D Y	Q T Q P L G G A G D R V A C A V L A		
UniRef90_D4PAS2	A D D L			
UniRef90_R9N01	R D D F	T S Q P S G D P G P M I G C G E I	R R T	
UniRef90_H2MYT0	I D D L G Q G G D V G S L L H G N A G R R L A C C V I		G M S S	
UniRef90_F9S7E4	G D N	H S D H P A P L G G G G A R V V C G V I		
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UniRef90_UPI000237E33E	P D D Y	R T Q P L G G A G D R V A C G V I		
UniRef90_UPI00036CD2C7	A D N F A H G P D E E T L R T G D S G E R Y A C G V V		G	
UniRef90_B5X798	A D D L G Q G G D T G S L L H G N A G R R L A C C T I		G M S S	
UniRef90_UPI0004650F14	A D D Y	Q S Q P A G N A G A G R V A C G I		
UniRef90_UPI00031D66C4	A D D	N V S D P A G N A G A G R V A C G V		
UniRef90_UPI0003B763E8	P D D Y	K T D P S G N S G A R L A C G V		
UniRef90_V4PMV0	A D D Y	T S Q P L G N A G P R V A C A V I		
UniRef90_D0D1T3	A D D Y	E S Q P S G D A G G R I A C G V		
UniRef90_H5WCJ0	P D N F G H G P D A D T E A T G D A G D R I A C G I V		P A Q	
UniRef90_Q8FMZ1	G D S Y	T D Q P L G G G G A R L A C G V V		
UniRef90_A0A017RR89	P D D Y	K T Q P A G G A G K R L A C G V I		
UniRef90_J6IXR2	G D D Y D D M S S	A G G R I		

1 10 20 30 40

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UniRef90_X7ZW09 P D G T Q V A T A K F E F D P G Y V T I T V R T T G L T P G F

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UniRef90_UPI0002DCA471 G I E E S I G T L A I E H T D H G V L F T P S L S D L E P G V

UniRef90_UPI0004574C2C N T D G S I I G N V Q F Y E K D K S V I M E A F F E G V P G G F

UniRef90_UPI0004794798 V A T A V L L D N T G A P T G E A R L F A Y D E T V E L A V T V Q G L A P G E

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UniRef90_UPI00034B4673 K G P S E I G S V S L A D S K Y G L V L T P A L K G L P G V

UniRef90_A9I3N3 Q A M A W V T G N S K A S G L V K F Y H T P G G V L V E A E F F G L P N D F

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UniRef90_D6Y650 Q A G A V L N G E G G A A G M I T F Q Q L P Y N I K V T I N I T G L P P G K

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UniRef90_G0Y291

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UniRef90_V4FIV1 Q G V G Q S I G T V V I D E T E G G L K F T P H L K A L P P G E
UniRef90_E6Y8N7 S A A V S E F K G P D I F G V R L A Q V N E L A R I E A N F S G L S P G K
UniRef90_E4X0B5 S G H G S I K G A V N L M S T E K G T V V L D A G D N K E G M
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UniRef90_K9QGS9 K A Q A Q I T G P G I T G T L K A V Q N T E S V W V A V E L K G L T P G L
UniRef90_F3WWH4 A P S A T A T L R G T G A D A G R A T A T E V A G G L R V T L D A M N V P A G M
UniRef90_A0A010Q4X3 G N D I G T V Q F S E V A N G V L I E A E V H D L D A G F
UniRef90_R7B1N4 A T A K I R G S S D I V G M A E F Y Q T E M G T L V V T E V S G L P Q N D
UniRef90_X5KNW2 T A D G T S V A T A E I Q F A D G F A T V T V E T T K L T P G F
UniRef90_G4HZW8
UniRef90_UPI00047B8E53 N E I T G T L I L T Q E N S P V R I R G A I Q G L T P G L
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UniRef90_E5YSP7 T A S G L T P G K
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UniRef90_U5GT17 S A A V A E F K G P E I F G V V R F A Q V N D L A R I E A N F T G L S L G K
UniRef90_V9XG37 D G E S A G T V S F A E N G G D V E V T I E V E G L E P G Y

	50	60	70	80
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UniRef90_H8GZR0	H G M H V H T N P V G D A A P G P D A T A G G H F F D P Y N T G N H A T P T T P H A G			
UniRef90_M3HLS8	R G F H V H T F Q V N T A N G C T S A G G H F F D P Y N T G N H A T P T T P H A G			
UniRef90_Q23785	H A L I H T Y G N I S N D W I S T G P P F K P A G A D			
UniRef90_B0NJA4	Y G F H I H E G G S C T G S Q D E F A D A K S H Y N P E G V P H P R H A G			
UniRef90_UPI00037DCFCDC	Y G L H V H A T G L C T G D S T A P T G D P G T T G A F L S A G G H E H P G H R G			
UniRef90_Q9VBK8	H A L H I H T F G D L S D G C K S T G G G Q F			
UniRef90_Z5XJR0	H G M H I H S V G K C E A D S V A P G N F L S A G G H L Q V G R T E H P A S G			
UniRef90_U5QPK5	H P M H I H A V G K C E A D F V R S A G F L L G D H K M M K G S M A M E T P A S G			
UniRef90_F5Z0L7	H G M H I H A V G K C E A D S V A P G G F L S A G G H F Q A P G H N E H P Q S G			
UniRef90_X5DUC2	Y G M H V H A V G V C E A D D P E T G S G D F L S A G G H L G A D G H D H P H G G			
UniRef90_V4NUQ2	H G V H F H A K G D C T A K F Q N S T G G H V F H D S A A T H G L L N P A S N D S G			
UniRef90_K4AG99	H G F H I H V F G D T T N G C S T G G H F F N P N K P H G A P F D D E R H V G			
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UniRef90_G2IS73	H G M H I H T I G E C K P D F T S A G P H I N P T S A Q H G T Q N P A G P Q G			
UniRef90_X7ZA63	H G L H I H S V G K C E A D S V A P G D F N S A G G H Y Q A P G H T G P A S G			
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UniRef90_B8J4J1	H G M H V H E N P S C A P A E K D G G G H F D P D K T G R H E G P G K H G H K G			
UniRef90_C0Z5X5	F G F H L H E H G L C T V G N D K E P F T A A G S H W N P T Q Q S P H G N H V G			
UniRef90_E4WT88	H G I H V H E V K Y I H T G S N D G A G Q K G A N G H F G L D Q Q S H F A A N			
UniRef90_L8WXV1	H G I H V H E F G D L T S G N C A S V G A H F N P E K K N H G G P Q A A E R H V G			
UniRef90_B8JGQ9	H G I H F H A V A N C S D K F E L S K G H V N H D S S K H G L L N P E G P D E G			
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UniRef90_Q3AY79	H G F H L H S N P S C E A A L N S E G G H F W D P D N S G T H L G P F A S			
UniRef90_W5JTB1	H A V H V H A F G D M R E G C K S T G P H F			
UniRef90_Q5FPS9	H G I H F H E K R S C A A K F T S A G A H V H P V A H G L L R A D A N D A G			
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UniRef90_UPI0004781C9C	H G L H V H S V G V C D P N A Q A S G G H F F G P F T S E V P V E A N S H P Y H L G			
UniRef90_L8GQF8	Y A M H V H Q S G D L T N G S A G T H F A G A G S A T H G C P S L E T R H E G			
UniRef90_V4A439	H G L H V H E Y G D M S D S C N S L G G H F N P D N K A E H G G P P H K E T R H G G			
UniRef90_A5P9Y9	H G F H L H T T G R C E D P D F K S A G G H L N P A D R E H H G S L N P Q G K H L G			
UniRef90_UPI00047DB27C	H A I H V H E K G D C S A D A S A G G H F F N P T G S A H G R A G T A T H H A G			
UniRef90_A0A034WEU0	H A L H I H T Y G D L R D G C K S T G G Q F			
UniRef90_B2A7C9	H G F H L H E I G T C K E G N P E D P F Q A A A G G H W D P D N Q P H G N H A G			
UniRef90_R6XLN7	Y G F H I H E G A S C T G K Q S D S F A N T G G H Y N P G N K S H P Q H A G			
UniRef90_G5IF08	F G F H V H E G D R C L G N A S D P F A Q T K G H Y N P G N C E H P E H A G			
UniRef90_UPI0004571848	H A I H I H E Y G E R F E S C E S T G P H F F N P Y N R K H			
UniRef90_J2UWJ4	H G F H V H E K A A C G P G M Q A A G G H F D P E K T G R H A G P Y G D G H L G			
UniRef90_G2JBQ7	Y G F Q I H E Y G N C S V R D A R S A G D V F A L V K R L G K S T T D D P E G			
UniRef90_D5W4L7	H A L Q V H E R G D C N A A D G S S A G D P V F S P A A E R L K A G A R V E G			
UniRef90_V4V3H4	H G F H I H V Y G D M A H F C Q S T G D H F N P F R K H H G G P E D W L R H A G			
UniRef90_S0J3H4	F G F H I H E G H S C T G D S S D P Y A N A G A H Y N P A L C P P A H E G			
UniRef90_A6BFJ6	F G F H I H E G N A C T G D S S Q D P F A D T K G H Y N P E K E E H P P R H A G			
UniRef90_O61681	H G F H V H E F G D H T N G C M S S G P H F N P Y Q K E H G A P T D E N R H L G			
UniRef90_R9N622	H G F H I H T G S A C T E N E Q G E F S S A G G H Y N P A D T L P A H A G			
UniRef90_E4YRQ3	H G F H V H A N A A T S N S C K D A G G H F K W N D D E L H G A S T D N R H A G			
UniRef90_A5V4K3	H A V H V H T T G T C T P D F T S A G G H W N P G K K Q H G H D N P A G A H M G			
UniRef90_B9D1X4	H G F H V H Q N A D C G A T E M K A G G H W D P T D T K K H F A W D D N G H K G			
UniRef90_UPI000465595D	H G L H V H A V G K C E P T G G A P G S F L S A G G H F Q A P G H S E H P Q S G			
UniRef90_UPI000348ED39	H A I H V H E			

	90	100	110	120																																					
UniRef90_D9QLP2	D	L	P	N	I	F	A	S	A	D	G	S	V	S	A	E	L	F	T	S	R	A	R	I	E	W	L	W	D	A	D	G	S	A	I	V	I	H	A	N	
UniRef90_H8GZR0	D	L	P	M	V	T	A	S	A	D	G	G	V	A	Q	A	T	F	V	T	R	K	L	T	L	R	G	L	T	G	A	L	N	R	S	V	V	L	H	A	M
UniRef90_M3HLS8	D	L	G	N	I	T	A	S	D	S	E	G	I	A	T	F	E	I	V	T	K	T	I	L	P	L	S	G	T	N	S	V	I	G	R	G	I	V	V	H	
UniRef90_Q23785	F	L	E	N	I	T	V	T	S	E	G	I	A	T	F	E	I	V	T	K	T	I	L	P	L	S	G	T	N	S	V	I	G	R	G	I	V	V	H		
UniRef90_B0NJA4	D	L	P	P	L	M	S	H	N	G	I	A	W	M	E	V	Y	T	G	R	F	Y																			
UniRef90_UPI00037DCFCDC	D	L	P	G	L	L	V	T	E	E	G	A	G	F	L	T	V	T	D	R	F	Y	V	D	L	P	V	A	E	E	V	I	G	R	T	I	V	I	H	S	G
UniRef90_Q9VBK8	F	L	G	N	V	D	T	K	D	D	G	S	I	S	A	V	F	Q	S	I	L	Q	L	F	G	I	A	N	G	I	V	G	R	S	I	V	I	H	S	K	
UniRef90_Z5XJR0	D	L	T	P	L	L	I	R	K	D	D	G	S	G	K	L	V	A	T	T	D	A	F	T	D	L	L	D	L	K	Q	Q	G	S	A	L	I	I	H	A	G
UniRef90_U5QPK5	D	L	P	E	L	L	V	G	A	D	G	T	G	K	A	E	V	L	N	P	E	I	S	L	D	D	G	S	A	L	I	I	H	A	D						
UniRef90_F5Z0L7	D	L	T	S	L	L	Q	V	R	N	D	D	G	S	A	L	L	V	T	T	D	A	F	T	R	Q	E	L	L	D	D	G	G	S	A	L	I	V	H	E	D
UniRef90_X5DUC2	D	L	P	A	L	L	V	N	E	N	G	E	G	R	M	T	V	T	T	D	R	I	E	D	S	D	L	L	D	D	G	G	S	A	L	I	V	H	E	A	S
UniRef90_V4NUQ2	D	L	T	N	I	Y	V	H	K	D	G	T	V	K	A	E	I	Y	S	S	F	V	V	L	P	A	L	K	D	A	D	G	T	A	V	V	I	H	A	S	
UniRef90_K4AG99	D	L	G	N	I	V	A	N	K	D	G	V	A	E	V	F	I	R	D	L	Q	V	W	L	S																
UniRef90_UPI00040A9976	D	M	P	N	A	V	A	D	A	Q	D	N	L	S	Y	A	Y	T	N	E	R	V	T	L	V	K	L	L	D	A	D	G	S	S	L	M	I	H	I	N	
UniRef90_G2IS73	D	L	P	M	L	T	A	D	A	R	G	E	A	S	L	K	F	T	A	H	T	S	L	T	A	L	L	F	D	L	D	G	A	S	F	V	V	H	A	D	
UniRef90_X7ZA63	D	L	T	S	L	E	E	R	S	D	K	T	A	K	L	V	T	T	S	N	S	F	T	A	A	D	L	L	R	N	G	S	G	T	A	L	I	H	A	D	
UniRef90_F1A5U0	D	L	G	N	I	C	A	S	A	F	K	N	A	Y	N	T	T	T	N	Y	I	S	I																		
UniRef90_V6M880	D	L	P	V	L	L	S	N	S	G	Y	A	R	M	N	F	F	T	N	R	F																				
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D D Y A

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

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

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

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R D D G T S T S A T G N A G G R I A V A A L G I
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F D D L H T Q P S G N S G E K I A C G E I
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G D N Y H D H P D P L
E D K S S T G
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E D K S D A G I A A A V I A R S
G D N Y H D H P Q A L G G G A R R M V C G V I
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T D D Y K S Q P S G N S G P R V G C G V I
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P D D F H T Q P S G N S G M K I A C G M I
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A L D P Y A S A P H N V G A L A C G V I R R
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1 10 20 30 40

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UniRef90_A2IBH0 T S D G Q A V A D A T I D F S S G Y A T V T V E T V G L S P G L

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UniRef90_Q9BKB9 S A A V C I L E T H N K I R G L A R M I Q V S K S T L V D L T I N G L S P G K

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		50	60	70	80																																								
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UniRef90_W6TXM2	V	A	V	H	F	H	E	H	G	D	C	A	D	M	G	N	N	T	A	G	H	W	N	P	T	N	E	A	H	G	K	W	G	S	A	A	Y	H	S	G					
UniRef90_L8HHC8	H	G	F	H	I	H	Q	Y	G	D	L	S	N	D	G	T	S	A	G	A	H	W	N	P	T	N	E	A	H	G	K	W	G	S	A	A	Y	H	S	G					
UniRef90_L8N810	H	M	I	H	I	H	Q	Y	G	N	G	K	D	A	P	D	F	P	M	H	G	N	H	G	A	N	E	H	E	K	H	E	G	E	K	N	P	N	P	A	G				
UniRef90_E4WUD1	H	G	F	H	V	H	A	S	N	D	P	S	D	K	A	A	T	G	M	G	H	F	S	S	A	P	D	Q	I	H	G	P	P	T	N	D	R	H	A	G					
UniRef90_UPI00047AD264	F	G	L	H	I	H	E	F	G	A	T	C	T	G	T	N	A	D	P	F	A	D	V	G	S	K	A	H	Y	N	P	E	R	T	A	H	P	R	H	T	G				
UniRef90_F2WS22							H	E	F	G	D	N	T	G	T	C	M	S	S	G	P	H	F	N	P	F	G	K	A	H	G	A	P	T	D	E	I	R	H	V	G				
UniRef90_G7CHQ4	H	G	I	H	I	H	S	V	G	K	C	E	P	D	G	G	A	P	G	D	F	L	S	A	G	G	H	L	H	L	A	G	D	G	E	G	H	P	A	G					
UniRef90_R7GRP4	H	A	L	H	I	H	E	G	T	D	C	G	G	T	D	F	S	D	S	G	K	G	H	L	H	S	Q	G	Q	L	H						P	D	H	I	G				
UniRef90_W0GTK8	H	G	F	H	I	H	S	T	G	S	C	E	V	G	E	T	D	E	G	G	H	W	D	P	D	E	T	G	Q	H	L	G	P	F	G	N	G	H	R	G					
UniRef90_R7T6K0	H	G	I	A	I	H	Q	Y	G	D	L	S	E	G	C	T	N	L	G	D	H	F	N	P	L	N	V	N	H	G	G	R	L	Q	S	P	F	H	V	G					
UniRef90_K7WG90	H	G	F	H	I	H	T	F	G	D	T	T	K	D	D	T	S	A	G	G	H	Y	N	P	E	D	V	D	H	G	L	P	T	A	E	V	R	H	V	G					
UniRef90_UPI00045E709B	H	G	I	H	F	H	Q	V	A	N	C	T	D	K	F	L	D	S	A	G	K	H	V	N	H	D	K	A	H	G	L	L	N	P	N	G	P	D	Q	G					
UniRef90_G4MGK1	H	A	L	T	V	H	E	R	G	D	C	I	A	V	N	L	D	A	S	P	V	F	A	L	S	S	D	R	R	K	A	V	S				R	L	D	G					
UniRef90_M7N0Z8	H	A	L	H	I	H	E	G	S	C	E	D	P	E	T	A	Q	D	G	S	S	E	K	Y	C	T	I	P	M	G	T	P	W	G	R	P	Q	Y	L	G					
UniRef90_R7FFV3	F	A	M	H	I	H	S	G	A	S	C	T	E	T	A	Q	D			A	F	A	D	A	G	G	H	W	E	L	Q	P	A	E	H	P	Q	H	T	G					
UniRef90_E3BKP8	H	G	F	H	I	H	S	N	P	S	C	H	S	A	V	I	N	G	G	G	H	Y	D	P	Y	G	A	G	K	H	G	P	W	A	I	N	S	H	L	G					
UniRef90_M0ZXA2	H	A	W	S	I	N	E	F	G	D	L	T	R	G	A	A	S	T	G	K	L	Y	S	P															P	L	G				
UniRef90_G9YX59	Y	A	C	H	I	H	A	F	G	D	C	C	T	R	G	A	D	V	A		F	H	C	A	G	P	H	Y	D	P	E	G	R	E	H	P	N	H	A	G					
UniRef90_D6WRL1	Y	K	L	T	V	N	E	C	G	D	I	S	Q	G	C	E	S	V	G	G	V	Y	Q	P	L	Q	D	G	E	G	R	P	Y						G						
UniRef90_T1HTW6	H	G	L	H	I	H	E	C	G	D	I	S	K	G	C	E	S	V	G	D	H	L	T	K	G	N	R	R	H	G	G	P	E	D	D	D	N	N							
UniRef90_E5KIH7																				G	P	H	F	N	P	H	S	K	T	H	G	G	P	D	D	E	I	R	H	V	G				
UniRef90_D5P7Q8	H	G	M	H	V	H	E	F	G	K	C	E	P	N	S	V	P	P	G	N	F	L	S	A	G	G	H	Y	N	A	P	G	H	T	G	K	P	E	S	G					
UniRef90_R7QQ00	H	G	F	H	V	H	T	Y	G	D	V	S	V	S	D	G	S	S	T	G	G	H	F	T	Q	N	E	I	E	H	G	L	P	D	D	E	I	R	H	W	G				
UniRef90_C1FJ18	H	A	I	N	I	H	E	N	G	N	V	E	C	A	D	G	S	C	G	A	S	W	N	P	Q	D	R	P	H	G	G	P	N	S	L	K	K	H	I	G					
UniRef90_H6MXW2	H	A	M	H	I	H	S	G	S	T	C	N	T	A	D					K	F	V	S	A	G	G	H	L	Q	V	D	G	H	T	G	H	P	S	S	G					
UniRef90_A9XAN4	R	G	M	H	I	H	T	F	G	D	N	T	N	G	C	T	S	A	G	P	H	F	N	P	G	N	K	T	H	G	A	P	E	D	A	N	R	H	V	G					
UniRef90_E2PKA6	H	G	F	H	V	H	E	K	F	P	S	C	A	P	G	E	K	D	G	G	G	H	Y	D	P	G	N	T	H	H	L	G	P	E	G	H	G	L	G						
UniRef90_I1J0T0	H	G	W	S	I	N	E	F	G	D	L	T	K	G	A	E	S	T	G	K	V	Y	N	P	P	D	Y	I	C	E	K	P						L	G						
UniRef90_Q1JUB0	H	G	I	H	A	H	T	F	G	K	S	L	G	I	Q	N	C	E	N	V	I	G	E	R	L	F	D	A	D	K	R	E	H				E	K	L	A	G				
UniRef90_A1UKU5	H	G	L	H	I	H	T	F	G	R	C	E	P	S	P	A	P	A	G	D	F	A	S	S	D	G	E	H	F	Q	A	E	G	N	T	G	M	P	A	S	G				
UniRef90_R7NMT6	F	A	F	H	I	H	S	G	E	E	C	I	G	D	K	T	D	L			F	K	N	A	G	T	H	Y	N	P	N	N	C	K	H	P	Y	H	A	G					
UniRef90_A0A044UAH2	H	A	L	I	I	H	Q	A	G	D	L	S	D	S	C	A	N	L	G	P	I	M	A	S	D	K	K	F	N									V	I	S	A				
UniRef90_A0A059MMD2	R	G	V	H	V	H	E	V	G	K	C	E	T	N	S	T	A	P	G	N	F	L	S	A	G	G	H	L	Q	A	G	G	N	T	S	I	P	E	S	A					
UniRef90_UPI00036EAD22	R	G	F	H	I	H	A	K	G	S	C	D	V	P	A	G	A	A	G	G	H	W	D	P	D	N	T	N	A	H	G	P	W	D	T	T	G	H	K	G					
UniRef90_K9H2D6	H	G	F	H	V	H	E	N	A	S	C	Q	P	S	Q	N	D	V	G	E	H	W	D	P	E	G	T	G	T	H	R	G	P	T	G	D	G	H	L	G					
UniRef90_F0ZNV1	H	S	L	V	V	H	A	Q	F	G	N	L	T	S	G	C	D	N	V	G	E	P	Y	I	S	N	K	G	S	N	K	G	N	K	C	R	E	I	N	K					
UniRef90_E9HZI6	H	G	L	H	I	H	A	G	T	T	L	G	N	Q	C	E	S	V	G	P	Q	F	T	P	A	E	K	Y	D	S	E	R	S	V	S	Y	I	L	G	N					
UniRef90_D8S967	H	G	W	S	I	N	T	Y	G	D	L	T	R	G	A	A	S	T	G	A	I	F	N	P	Q	Q	Q											D	T	E	P	L	G		
UniRef90_UPI0004149692	H	G	L	H	I	H	T	G	T	V	C	E	P	A	S					F	E	S	A	G	G	H	Y	Q	A	P	G	H	T	G	K	P	E	S	G						
UniRef90_A9U2J0	V	G	W	S	I	N	E	Y	G	D	L	T	R	G	A	A	S	T	G	R	I	Y	C	G	V	T	E	T								P	A	A	D	G	T	P	A	G	
UniRef90_W4YR39	H	S	L	R	V	H	Q	Y	G	D	L	S	D	G	C	A	S	C	G	N	I	F	D	A																	R	P			
UniRef90_A0A016SPC1	H	A	V	L	I	H	Q	F	G	D	L	S	D	G	C	S	R	L	G	P	P	F	L	F	R	G														G	M	G	T	P	
UniRef90_V3ZYZ6	H	G	L	H	V	H	E	Y	G	D	M	R	G	H	C	S	S	A	G	R	I	F	N	P	Y	Q	M	A	H	G	G	R	Q	S	A	V	R	R	L	G					
UniRef90_A0A058Z122	L	G	L	H	I	T	E	F	A	L	K	E	D	N	V	D	N	L	G	N	V	W	S	P	V	R	N	A	Q	H	G	C	H	R	S	T	D	P	R	A	G				
UniRef90_A0A051UHA1	H	D	M	H	I	H	K	V	G	K	C	E	P	N	S	V	A	P	G	D	F	L	S	A	G	D	H	F	Q	A	G	P	G	H	T	G	P	A	S	G					
UniRef90_A0PNK5	H	G	V	H	I	H	K	V	G	K	C	E	A	N	S	A	G	P	T	G	G	P	V	G	D	F	L	S	A	G	G	H	L	Q	P	G	Q	S	S	G					
UniRef90_Q6RV39																																													
UniRef90_Q2Q4R5	R	G	M	H	V	H	E	F	G	D	N	T	N	G	C	T	S	A	G	P	H	F	N	P	F	G	K	D	H	A	G	P	D	D	A	D	R	H	V	G					
UniRef90_X7Z9K7	H	G	V	H	I	H	Q	A	G	K	C	E	P	N	S	P	S	G	G	A	P	G	D	F	L	S	A	G	G	H	F	Q	V	P	G	G	Q	S	S	G					
UniRef90_V5G1T8	Y	W	A	T	V	R	E	N	G	V	I	C	D	P	R	G	A	E	T	T	G	I	W	E	S	L	K	N	K	V	L	G	S	E	E	K	E	P	R	G					
UniRef90_G7GY5	H	G	M	H	I	H	A	N	G	V	C	D	P	S	G	A	E				P	F	S	S	A	G	H	L	Q	V	G	R	T	E	H	P	S	S	G						
UniRef90_A2IBH0							H	A	L	G	D	T	T	N	G	C	M	S	T	G	P	H	F	N	P	A	G	K	E	H	G	A	P	K	D	E	V	R	H	A	G				
UniRef90_A8PM32	H	A	I	L	I	H	Q	A	G	D	L	S	N	S	C	A	N	L	G	P	I	M	A	S	D	K	K	F	N	V	S	A	I	F	G	N									
UniRef90_UPI0003692AD3	H	A	E	H	I	H	Q	V	G	K	C	E	G	D	F	T	S	A	G	G	H	F	Q	V	E	G																			
UniRef90_F4PXA7	H	G	L	H	I	H	T	Y	G	D	I	N	P	T	V	A	S	Q	G	G	H	W	K	L	T	T	Q	T	H	N	L	P	N	D	A	S	R</								

	90	100	110	120
UniRef90_D8JX49	D L P F L I T A T D K G G I N V V V S A P H L T L L A	D V I S G R A L M I H E G		
UniRef90_W6TXM2	D I G N I Q L D S K G H G S V V T D R N W S L E	D I V K N S L V D R G I V H G D		
UniRef90_L8HHC8	D L G N I Q S F H T G L G W Y N F T D A N W I P	D I V K N S L L G T S I L I H A G D		
UniRef90_L8N810	D L P N I V V V K K D G K G K L N A L L P R L S L D	D N K P N S L L G T S I L I H A G		
UniRef90_E4WUD1	D L G N L F V N D G N A I I N I F D R I A S L S L D	D E F F I G N R T G I V L H A L		
UniRef90_UPI00047AD264	D L P P L I N S N G N A L M A V L V S S F S L A	D I M G R T G I V L H S G		
UniRef90_F2WS22	D L G N V E A D G L S V A K V S L T D S V I S L T	D L N I G R T L V L H A D		
UniRef90_G7CHQ4	D L T A L Q V R E D G E A L L V T T S D A F T K E	D L T R D G G T A L I L H E K		
UniRef90_R7GRP4	D L P V I L A G H G Y A W A N Y T A R F T	D P Q M V L G R T A L V I L H H Q		
UniRef90_W0GTK8	D L S R L V V V D G D G K T N S V V A P R L S	T A D L K G K A L V I L H A G		
UniRef90_R7T6K0	D L G N I H V N L D D G T A E Y D Q T S E L I S Q L	D R Y T V V G R S V V I H E L		
UniRef90_K7WG90	D L G N I E V G D D Q T A E Y D Q T S E L I S Q L	D V V G R S V V I H A D		
UniRef90_UPI00045E709B	D L P N I Y A N A D G N A E V S S T T G L T D K D G	D G V R S P G G F A L V I H A S		
UniRef90_G4MGK1	E L G N I H A D T T G A A T G F I V A T D V S L D G	D V R S L I S R A L M L H R E		
UniRef90_M7N0Z8	D I G N I E I G S D G K G S L S L Q T D L W A L G	D A L D V M G K V L M V H A E		
UniRef90_R7FFV3	D L P A L L S N D G Y A W F A V Y T N R F S	P A Q A V G K T V I I H A D		
UniRef90_E3BKP8	D L P L T H V D I D G N I E H P V L A P R I K L	H E I R N R A L I I		
UniRef90_M0ZX2	D L V T L E V D E K G E A F Y T G P K E K L R V A	D I I R G R A I A V Y A T		
UniRef90_G9YX59	D L P V L L S S G G R A L S L V Y T G R	F Q P G Q V L G R S V V L H A L		
UniRef90_D6WRL1	D L G V F K T G N E G R A T F K K E D N V L N L P	E I I G R S L V V I N S G		
UniRef90_T1HTW6	D L G N V S A N S S G I A D I S I E D K H L S L K G P H S	I I G R T M V I H E T		
UniRef90_E5KIH7	D L T S L E V R S D S G I A Y I V S T T D A F T R D V L V G	G E G K A L M L H H G D		
UniRef90_D5P7Q8	D L T S L E V R S D S G I A Y I V S T T D A F T R D V L V G	G E G K A L M L H H G D		
UniRef90_R7QQ00	D L T S L E V R S D S G I A Y I V S T T D A F T R D V L V G	G E G K A L M L H H G D		
UniRef90_C1F1J8	D L G N V I T A N D S G A V E D T F K D Q Y A I L K N M F	N V A G R S I V V R Q G		
UniRef90_H6MXW2	D L V I S I N I L S D G S G S T T T S T S Y A V D L S Q	I A N K T I I I H E N		
UniRef90_A9XAN4	D L G N I E T D G Q V N S N G T V I T D K H V R I	I G P E S V I G R Y R R C H V G		
UniRef90_E2PKA6	D L P R L S A N A D G K V D E T V V A P H	L K K L A E I K G R S I M V H V G		
UniRef90_I1J0A0	D L G T L E A G E N G E A Q F S G S K E K M K	V V D I L G R S I A L Y A T		
UniRef90_Q1JUB0	H L G N V K T G V P S R T D I S L I S S L V S L F	E D H S V L N Q V L V V H A L		
UniRef90_A1UKU5	D L P P L L V R S D G A G K L V V T T D A F T E D	D L K G P D G S S I L L H Q G		
UniRef90_R7NMT6	D M P L M G T D G K A F S M F M T D R	F T V N E G S G K T V I I H L		
UniRef90_A0A044UAH2	I F G N V K A D G F K N A T I I D R E I D W P Q D I S	L I G R S L V I H K L		
UniRef90_A0A059MMD2	D L G A V V V R E G S G S L V V T A E A F T L D	D L Q G G D G T S V I H Q E		
UniRef90_UPI00036EAD22	D L P A L Y V A D D G T I T Y P V V A P R I T	D L N E I K G L S M M I H V G		
UniRef90_K9H2D6	D L P A L E A D E D G S I D Q V V T A P R I	D D M S R L A E H A L I V H A G		
UniRef90_Q2ZNV1	I I G T S L V K G D G K A E F R V L S S E K Y	E F W D L I G R S I V L H S Q		
UniRef90_E9HZ16	I K T Y S G V P S R T D V S L I S S L V S L F	E P R N I L G R A V V I H Q L		
UniRef90_D8S967	D L G A L V A D E T G R A D F A G T K T G L R V T	D L I G R A L A I Y A T		
UniRef90_UPI0004149692	D L I D L D V L K N G T A T A S Y T T E A F K L T	D V A G R A L I L H E S		
UniRef90_A9U2J0	D F G V L E V N S E G N A E Y S G T K E N L	Q V R D L I G R A L V V Y G D		
UniRef90_W4YR39	F L H G E K A G E Q K V	W D V I G R S M V V G A G		
UniRef90_A0A016SPC1	S L G D V V A D D S T A S F T R V V D W	P I V D V I G R S I A I		
UniRef90_V3ZY26	D F G N V R E D A E G N I F Q T F E I P N T S I I G	P L T I V G K A L V I K S G		
UniRef90_A0A058Z122	D L G N V R T S D S G T V K E S F V L P G V N I F R	I N T L L G R A I V I H N A		
UniRef90_A0A051UHA1	A L P S L Q V R N D G S G T L M T T T D A F A M Q D	L L T G Q K T A I I I H A G		
UniRef90_A0PNK5	D L T S L Q V R S D G S G T L V T T T D A F T M D	D L T S G Q K T A I I I H A G		
UniRef90_Q6RV39	D L G N V T A G D D G V A K I D I K D K M L A L S	G E L S I L L G R T L V I T H A D		
UniRef90_Q2QA4R5	D L			
UniRef90_X7Z9K7	D L T S L Q V R G D G S G T L V T T T D A F T M D	D L V S G E K T A I I I H A G		
UniRef90_V5G1T8	I F G T V D V D A K G K G N V F L D R P V A	V W E L I G R S M V I S K D		
UniRef90_G7GXY5	D L V S I Y I A G E N G G T T T S S E A V T L E Q	I I K G K A L V I H A G		
UniRef90_A2IBH0	D L G N V T A G E D G T V V F T L V D K Q I P L S G	P H S I I G R A V V V H A D		
UniRef90_A8PM32	I V K A N G T A D V T I D R E I D W P Q D I S	I I G K S L V I H K L		
UniRef90_UPI0003692AD3	I L V P I F V D A N G K G Q T V T T D A F			

UniRef90_D8JX49 G D N Y T D H P 130 E N G G G K G R I A C G V V 150
UniRef90_W6TXM2 T D D Y T T Q P T G N S G P R V G C G I I
UniRef90_L8HHC8 V D H G S G A G C D Q A G T A G K R L L T G V I G V A N
UniRef90_L8N810 A N G N S T I P N V D Y K T R I A C G V I
UniRef90_E4WUD1 R D D G N P E R D P T S T G A A G A R L A C C S I
UniRef90_UPI00047AD264 P D D F S T Q P T G A S G E K L A C G Q I
UniRef90_F2WS22 Q D D L G K G G H E F G D N T P A R E R W
UniRef90_G7CHQ4 A D N F A P P P D Q I T L S T G D A G D R V V C G V I
UniRef90_R7GRP4 P D D F R S Q P S G N S G S K L A C G V I Q R
UniRef90_W0GTK8 G D T Y
UniRef90_R7T6K0 T D D L G K G G D S D S S T N G H S G S A I A C
UniRef90_K7WG90 P D D G G Q P T G N A G K R L A Q G V L G Y
UniRef90_UPI00045E709B P D D F I T Q P I G G A G A R I A C A
UniRef90_G4MGK1 P L D P Y A N A P H N V G P A L D C G V I R R
UniRef90_M7N0Z8 P E D F A L E C D P N H T N H P T N P K I A C G
UniRef90_R7FFV3 P D D Y R T Q P A G N A G A R I A C G T I
UniRef90_E3BKP8 D S L G D N H S D L P T L S N A D N K R V I C G I I
UniRef90_M0ZXA2 E D K T D P G
UniRef90_G9YX59 P D D Y R S Q P T G A A G G R I A C G V I
UniRef90_D6WRL1 E K R L V C G I I A R S S
UniRef90_T1HTW6
UniRef90_E5KIH7 E D D L G K G G N E E S L K T G N A
UniRef90_D5P7Q8 Q D A G S S E Q P T G A S G T R I G F C V I G Y A N
UniRef90_R7QQ00 A D D F T T Q S D D G G A G K I L A Y G T I
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