

QUERY  
 UniRef90\_H6BNY4  
 UniRef90\_G1X9E1  
 UniRef90\_A0A017S7U6  
 UniRef90\_M3ITF1  
 UniRef90\_UPI0004561676  
 UniRef90\_F0XH62  
 UniRef90\_D8QBR0  
 UniRef90\_U5H8L1  
 UniRef90\_J3PQJ7  
 UniRef90\_S2JAJ4  
 UniRef90\_F4NWR7  
 UniRef90\_S3E3G4  
 UniRef90\_C5Z469  
 UniRef90\_A0A059LRR8  
 UniRef90\_A6RG92  
 UniRef90\_UPI00042B4249  
 UniRef90\_V4MAN6  
 UniRef90\_F9G8U7  
 UniRef90\_Q9XIV9  
 UniRef90\_V4KRP2  
 UniRef90\_A0A059ADL1  
 UniRef90\_V1WNWE4  
 UniRef90\_UPI0002B48494  
 UniRef90\_B9HL06  
 UniRef90\_M0S889  
 UniRef90\_B9GT82  
 UniRef90\_UPI00002C2E4D4  
 UniRef90\_W9XJV9  
 UniRef90\_G7J2Y6  
 UniRef90\_C5YYA1  
 UniRef90\_S3CAJ1  
 UniRef90\_M5E7S8  
 UniRef90\_B9VSG0  
 UniRef90\_B9S775  
 UniRef90\_M0SLK9  
 UniRef90\_K3ZV96  
 UniRef90\_UPI0002B45AD5  
 UniRef90\_I1JL02  
 UniRef90\_W9QU60  
 UniRef90\_B9SUW3  
 UniRef90\_K4ASJ6  
 UniRef90\_A0A059DIB3  
 UniRef90\_G7K821  
 UniRef90\_V7CFB3  
 UniRef90\_M0RM11  
 UniRef90\_K3ZJ91  
 UniRef90\_I1LVP1  
 UniRef90\_S2J0H4  
 UniRef90\_B9HDA0  
 UniRef90\_Q5K4K5  
 UniRef90\_B9SES8  
 UniRef90\_C5Z0N8  
 UniRef90\_P0CP57  
 UniRef90\_UPI0002C343D6  
 UniRef90\_P27337  
 UniRef90\_R0FFJ1  
 UniRef90\_I1PSQ3  
 UniRef90\_G7KH18  
 UniRef90\_M0XL59  
 UniRef90\_G7IJT4  
 UniRef90\_A9UWF4  
 UniRef90\_W1P4L3  
 UniRef90\_D7TTP0  
 UniRef90\_J4UEF4  
 UniRef90\_K3XJT3  
 UniRef90\_UPI0002C37311  
 UniRef90\_V4U4D0  
 UniRef90\_A0A022QC06  
 UniRef90\_F6HG25  
 UniRef90\_M0WUS0  
 UniRef90\_K3Y878  
 UniRef90\_C9WF06  
 UniRef90\_K3Y8E5  
 UniRef90\_G8XWY6  
 UniRef90\_K7MB32  
 UniRef90\_Q43791  
 UniRef90\_K3YIH4  
 UniRef90\_A9P263  
 UniRef90\_UPI0002B45BD8  
 UniRef90\_C5YY99  
 UniRef90\_W8PVX4  
 UniRef90\_I1MSF0  
 UniRef90\_M4F9T5  
 UniRef90\_I1I6C5  
 UniRef90\_M0ZAA4  
 UniRef90\_W5F9K5  
 UniRef90\_J3M3R2  
 UniRef90\_A0A059DJ19  
 UniRef90\_UPI0002BCB2D8  
 UniRef90\_P93547  
 UniRef90\_UPI00042B90A6

QUERY	Y	G	P	V	L	V	R	L	A	W	H	T	S	G	T	W	D	K	H	D	N	T	G	G	S	Y	G	T	Y	R	F	S	K	K	E	F	N	D	P	S		
UniRef90_H6BNY4	Y	G	P	V	V	L	R	L	A	W	H	T	S	G	T	W	D	K	H	D	N	T	G	G	S	Y	G	T	Y	R	F	S	K	K	E	F	N	D	P	S		
UniRef90_G1X9E1	Y	G	P	V	V	L	R	L	A	W	H	A	S	G	T	Y	D	A	A	T	K	T	G	G	S	N	G	A	T	M	R	F	F	P	E	A	D	H	G	A		
UniRef90_A0A017S7U6	Y	G	P	V	V	L	R	L	A	W	H	A	S	G	T	Y	D	K	E	T	G	T	G	G	S	N	G	A	T	M	R	F	F	P	E	A	D	H	G	A		
UniRef90_M31TF1	Y	G	P	Q	L	L	R	L	A	W	H	V	S	G	T	Y	D	K	S	E	T	N	T	G	G	S	Y	G	A	T	Q	I	F	A	P	E	E	F	N	D	P	E
UniRef90_UPI0004561676	Y	G	P	V	L	V	R	L	A	W	H	A	S	G	T	Y	D	K	N	T	G	N	T	G	G	S	N	G	A	T	M	R	F	F	A	P	E	S	F	H	G	A
UniRef90_F0XH62	Y	G	P	V	L	L	R	L	A	W	H	A	S	G	T	Y	D	K	A	T	G	T	G	G	S	N	G	A	T	M	R	F	F	A	P	E	A	Q	H	G	A	
UniRef90_D8QBR0	Y	G	P	V	V	L	R	L	A	W	H	A	S	G	T	Y	D	K	D	T	N	T	G	G	S	N	G	A	T	M	R	F	F	A	P	E	A	L	H	G	A	
UniRef90_U5H8L1	Y	G	P	V	L	V	R	L	A	W	H	A	S	G	T	Y	D	K	T	T	G	N	G	G	S	N	G	A	T	M	R	F	F	A	P	E	A	N	H	G	A	
UniRef90_J3PQJ78	Y	A	P	V	L	L	R	L	A	W	H	A	S	G	T	Y	D	K	E	S	K	T	G	G	S	N	G	A	T	M	R	F	F	A	P	E	S	K	H	G	A	
UniRef90_S2JAJ4	Y	G	P	V	L	V	R	L	A	W	H	A	S	G	T	Y	D	K	E	T	K	T	G	G	S	N	G	A	T	M	R	F	F	A	P	E	S	K	H	G	A	
UniRef90_F4NWR7	Y	G	P	V	L	L	R	L	A	W	H	A	S	G	T	Y	D	K	N	T	G	T	G	G	S	N	G	A	T	M	R	F	F	A	P	E	S	G	A	H	G	A
UniRef90_C3E3G4	A	G	P	V	L	V	R	L	A	W	H	A	S	G	T	Y	D	A	E	T	D	T	G	G	S	N	G	A	G	M	R	Y	E	A	E	G	G	D	P	A		
UniRef90_S5Z469	M	G	A	S	L	L	R	L	F	F	H	D	C	F	V	Q	G	C	D	A	S	I	L	L	D	D	S	G	A	G												
UniRef90_A0A059LRR8	Y	G	P	L	L	V	R	L	A	W	H	T	S	G	T	W	D	K	N	K	K	T	G	G	S	N	G	A	T	M	R	F	S	P	E	S	N	W	G	A		
UniRef90_A6RG92	A	G	P	V	F	V	R	L	A	W	H	S	S	G	T	Y	D	K	E	T	D	T	G	G	S	N	G	A	G	M	R	Y	E	G	E	K	N	D	P	A		
UniRef90_UPI00042B4249	M	G	A	S	L	L	R	L	F	F	H	D	C	F	V	N	G	C	D	G	S	I	L	L	D	D	S	G	A	G	M	R	Y	E	G	E	K	N	D	P	A	
UniRef90_V4MAN6	M	A	A	S	L	L	R	L	H	F	H	D	C	F	V	Q	G	C	D	G	S	I	L	L	D	D	S	G	A	G	M	R	Y	E	A	E	K	G	S	N	P	A</

[illegible]



QUERY	P	K	I	P	W	R	C	G	R	V	D	T	P	E	D	T	P	D	N	G	R	L	P	D	A	S	K	D	A	Q	N	H	I	R	Q	I	F	F	Q	R	M					
UniRef90_H6BNY4	P	K	I	V	P	W	R	P	G	R	S	Q	D	R	D	V	A	S	A	C	C	T	P	D	D	A	S	K	D	A	Q	N	H	I	R	Q	I	F	F	Q	R	M				
UniRef90_G1X9E1	P	V	I	P	W	R	P	G	R	S	Q	D	R	D	V	A	S	A	C	C	T	P	D	D	A	S	K	D	A	Q	N	H	I	R	Q	I	F	F	Q	R	M					
UniRef90_A0A017S7U6	P	A	I	P	W	R	P	G	R	S	Q	D	R	D	V	A	S	A	C	C	T	P	D	D	A	S	K	D	A	Q	N	H	I	R	Q	I	F	F	Q	R	M					
UniRef90_M3ITF1	P	K	I	E	W	R	P	G	R	V	D	D	N	T	A	A	H	P	P	N	G	R	L	P	D	A	S	K	D	G	K	Y	V	R	E	I	F	F	S	R	Q					
UniRef90_UPI0004561676	P	K	I	P	W	R	P	G	R	K	D	G	T	A	E	Q	C	C	T	P	D	D	G	R	L	P	D	A	S	K	D	G	S	D	H	L	V	R	N	I	F	F	Y	K	M	
UniRef90_F0XH62	P	K	V	P	F	R	P	G	R	T	D	K	D	F	A	Q	C	C	T	P	D	D	G	R	L	P	D	A	S	K	D	G	S	D	H	L	V	R	N	I	F	F	Y	K	M	
UniRef90_D8QBR0	P	K	I	P	W	R	P	G	R	V	D	G	T	A	E	K	A	T	P	D	D	G	R	L	P	D	A	S	Q	G	A	D	H	L	V	R	N	I	F	F	Y	R	M			
UniRef90_U5H8L1	P	T	I	P	W	R	A	G	R	K	D	G	N	V	E	S	C	C	P	P	D	D	G	R	L	P	D	D	G	D	K	G	A	D	H	L	R	H	I	F	F	Y	R	M		
UniRef90_J3PQ78	P	K	I	P	W	R	P	G	R	K	D	G	V	P	E	S	C	C	P	P	D	D	G	R	L	P	D	D	G	D	K	G	A	D	H	L	V	R	N	I	F	F	Y	R	M	
UniRef90_S2JAJ4	P	T	I	A	W	R	P	G	R	E	D	A	F	E	T	S	C	C	P	P	D	D	G	R	L	P	D	A	S	K	K	E	D	H	L	V	R	N	I	F	F	Y	R	M		
UniRef90_F4NWR7	P	D	I	P	W	R	A	G	R	K	D	E	T	S	V	A	C	C	P	P	D	D	G	R	L	P	D	A	S	Q	S	H	D	H	L	V	R	N	I	F	F	Y	R	M		
UniRef90_S3E3G4	P	E	I	P	W	L	G	R	T	D	Y	V	D	S	K	P	P	R	G	R	L	P	D	D	G	R	L	P	D	D	A	G	K	G	A	D	H	L	R	N	I	F	F	Y	R	M
UniRef90_C5Z469	P	T	W	N	V	P	L	G	R	R	D	S	T	T	A	S	A	S	A	N	S	N	L	P	D	D	A	S	T	A	S	L	G	T	L	I	S	L	F	F	S	R	Q			
UniRef90_A0A059LRR8	P	H	I	R	W	R	A	G	R	S	D	V	D	E	N	I	V	I	L	P	D	L	P	D	D	A	S	T	A	S	L	G	T	L	I	S	L	F	F	S	R	Q				
UniRef90_A6RG92	P	D	V	P	W	R	P	G	R	T	D	F	V	D	D	S	K	P	P	R	G	R	L	P	D	D	A	S	T	A	S	L	G	T	L	I	S	L	F	F	S	R	Q			
UniRef90_UPI00042B4249	P	N	W	D	V	K	L	G	R	R	D	A	R	T	A	S	Q	A	P	A	N	N	I	P	P	P	T	S	N	L	N	R	I	L	I	S	R	F	N	A	L					
UniRef90_V4MAN6	P	S	W	V	V	P	L	G	R	R	D	S	R	S	A	S	L	S	S	N	N	N	I	P	P	A	P	N	N	T	F	Q	T	I	L	I	S	R	F	N	R	Q				
UniRef90_F9G8U7	P	E	I	D	W	V	P	G	R	T	D	F	V	D	D	S	K	P	P	R	G	R	L	P	D	D	A	S	Q	G	A	D	H	L	R	N	I	F	F	Y	R	M				
UniRef90_Q9XIV9	P	N	W	N	V	K	L	G	R	R	D	S	R	T	A	S	Q	S	A	A	N	G	I	P	P	P	A	T	S	N	L	N	R	I	L	I	S	S	F	S	A	V				
UniRef90_V4KRP2	P	T	W	T	V	L	L	G	R	R	D	G	T	A	N	S	A	G	A	N	T	S	L	P	P	S	P	F	E	G	L	N	N	I	L	I	S	K	F	S	A	V				
UniRef90_A0A059ADL1	I	N	Y	A	V	P	A	G	R	R	D	G	L	V	S	L	K	D	E	P	Q	D	L	P	P	P	F	F	F	N	A	Q	Q	L	I	E	A	N	F	A	R	K				
UniRef90_W1NWE4	P	F	Y	K	V	R	L	G	R	K	D	K	V	S	M	A	S	H	V	A	G	N	L	P	L	P	S	M	S	I	S	Q	M	A	N	I	F	E	S	K						
UniRef90_UPI0002B48494	P	N	W	A	V	P	L	G	R	K	D	S	R	T	A	S	E	S	G	N	N	N	L	P	G	P	S	S	S	S	L	S	T	L	I	S	M	F	N	A	Q					
UniRef90_B9HL06	P	S	Y	A	V	K	L	G	R	R	D	S	T	T	A	S	R	T	L	A	N	E	L	P	P	A	F	F	E	S	L	E	S	L	I	S	R	F	Q	K	K					
UniRef90_M0S889	P	S	W	V	V	A	L	G	R	R	D	A	R	T	A	S	I	S	A	A	V	N	L	P	P	P	A	S	A	S	A	Y	T	L	M	S	T	F	A	A	K					
UniRef90_B9GT82	P	D	Y	D	V	P	L	G	R	R	D	G	L	N	F	A	T	R	S	A	D	N	L	P	P	P	F	F	D	N	A	D	T	I	L	I	S	L	S	L	A	A	K			
UniRef90_UPI0002C2E4D4	P	S	W	T	V	Q	L	G	R	R	D	S	T	T	A	S	S	A	N	T	N	I	P	P	A	P	T	L	N	L	S	A	L	I	L	T	S	S	F	S	N	K				
UniRef90_W9XJV9	P	E	I	A	W	R	G	R	T	D	F	T	D	E	S	C	P	P	R	G	R	L	P	D	D	G	T	K	G	A	D	H	L	R	W	I	F	F	Y	R	M					
UniRef90_G7J2Y6	P	S	W	N	V	G	L	G	R	R	D	S	I	T	A	S	R	S	D	A	N	N	L	P	P	A	P	F	L	N	L	S	A	L	K	T	N	F	A	N	Q					
UniRef90_C5YYA1	P	R	W	R	V	L	L	G	R	R	D	G	T	T	N	V	S	Q	A	N	N	L	P	P	S	P	F	D	T	L	A	K	I	Q	E	K	F	R	N	V						
UniRef90_S3CAJ1	P	D	V	P	W	Q	G	R	T	D	F	V	D	D	S	K	P	P	R	G	R	L	P	D	D	A	A	Q	G	A	D	H	L	R	H	I	F	N	R	M						
UniRef90_M5E7S8	P	K	I	P	W	R	P	G	R	E	D	M	P	E	E	S	T	P	P	D	G	R	L	P	H	A	P	L	G	A	D	H	L	R	D	V	F	H	R	M						
UniRef90_B9VSG0	P	T	Y	R	V	P	L	G	R	R	D	G	L	T	F	A	T	R	N	V	T	N	L	P	G	P	R	S	N	V	T	A	L	I	K	A	F	Q	S	K						
UniRef90_B9S775	P	F	W	S	V	P	L	G	R	R	D	G	T	A	S	Q	K	A	N	E	N	L	P	I	P	F	E	S	L	E	N	I	T	A	K	F	V	A	Q							
UniRef90_M0SLK9	P	Y	W	D	V	P	L	G	R	R	D	S	L	G	A	S	I	Q	S	N	N	N	L	P	P	A	P	N	N	T	F	Q	T	I	L	L	A	K	F	K	L	K				
UniRef90_K3ZV96	P	S	W	T	V	P	L	G	R	R	D	S	T	T	A	S	L	S	T	N	T	D	L	P	S	P	A	S	S	L	S	T	L	I	L	A	F	K	A	R	K					
UniRef90_UPI0002B45AD5	P	S	W	E	V	P	L	G	R	R	D	S	R	G	A	S	L	S	N	N	D	I	P	P	A	P	N	N	T	F	Q	S	T	L	I	L	T	K	F	K	R	Q				
UniRef90_I1JL02	P	S	W	K	V	R	L	G	R	R	D	S	T	T	A	S	R	E	A	A	D	S	I	P	P	A	P	F	F	S	L	S	E	L	I	T	N	F	K	N	H					
UniRef90_W9QU60	P	S	W	T	V	Q	L	G	R	R	D	A	T	T	A	S	Q	S	A	A	S	N	I	P	P	A	P	T	T	N	L	S	G	L	I	T	A	F	S	N	K					
UniRef90_B9SWU3	I	N	Y	A	V	P	A	G	R	R	D	G	R	V	S	N	V	D	E	A	Q	N	L	P	P	P	F	F	F	N	A	Q	Q	L	I	T	D	N	F	A	R	K				
UniRef90_K4ASJ6	P	T	W	Q	V	L	L	G	R	R	D	S	L	T	A	N	R	S	G	V	D	S	I	P	T	P	F	F	E	S	L	D	V	M	R	P	Q	F	T	N	K					
UniRef90_A0A059DIB3	P	Y	W	T	V	L	L	G	R	R	D	S	T	T	A	N	Q	G	L	A	N	V	S	I	P	S	P	F	D	S	Y	A	N	I	T	S	K	F	Y	N	L					
UniRef90_G7K821	P	F	W	A	V	P	L	G	R	R	D	G	T	T	A	S	E	S	D	A	N	N	L	P	S	P	F	F	E	P	L	E	N	I	T	A	K	F	I	S	K					
UniRef90_V7CFB3	P	F	W	S	V	P	L	G	R	R	D	G	T	T	A	S	E	S	E	A	N	N	L	P	S	P	F	F	E	P	L	E	D	I	T	T	K	F	I	S	K					
UniRef90_M0RM11	P	S	W	T	V	Q	L	G	R	R	D	A	T	T	A	S	Q	S	A	N	T	D	I	P	P	A	P	F	H	D	L	S	K	L	I	S	L	F	V	S	K					
UniRef90_K3ZJ91	P	N	W	N	V	K	V	G	R	R	D	S	M	T	A	S	F	S	G	A	N	N	L	P	P	P	T	S	G	L	A	N	L	T	S	L	F	A	A	Q						
UniRef90_I1LVP1	P	F	Y	N	V	E	L	G	R	R	D	G	R	I	S	T	A	S	V	Q	R	H	L	P	D	D	A	A	L	G	K	D	H	V	L	I	D	V	F	R	M					
UniRef90_S2J0H4	P	H	I	E	W	T	G	R	R	D	K	A	N	T	C	P	P	L	G	R	L	P	D	D	A	A	P	F	M	D	L	P	D	L	I	I	N	F	K	K	H					
UniRef90_B9HDA0	P	T	W	A	V	Q	L	G	R	R	D	S	T	T	A	S	K	T	T	A	N	N	L	P	D	D	V	D	D	S	I	N	V	L	K	S	K	F	K	E	K					
UniRef90_Q5K4K5	P	F	Y	D	V	P	T	G	R	R	D	G	R	V	S	K	M	S	L	A	K	N	L	P	D	D	V	D	D	S	I	N	V	L	K	S	K	F	K	E	K					
UniRef90_B9SES8	P	S	W	S	V	P	T	G	R	R	D	G	R	I	S	K	S	S	Q	A	S	N	L	P	S	P	F	D	S	I	A	A	Q	K	K	F	A	A	K							
UniRef90_C5Z0N8	L	G	Y	Q	V	P	S	G	R	R	D	G	R	V	S	N	A	T	Q	T	N	N	L	P	P	P	P	F	F	N	A	T	Q	L	V	D	R	F	A	S	K					
UniRef90_P0CP57	P	Q	I	P	W	E	P	G	R	L	D	Y	V	E	H	R	G	D	V	S	N	R	L	P	D	D	G	A	L	G	A															

QUERY	N	M	N	D	R	E	V	V	A	L	M	G	A	H	A	L	G	K	T	H	L	K	N	S	G	Y	E	G	P	W	G	A	S	N	N	V	E	T	N	E		
UniRef90_H6BNY4	G	F	N	D	Q	E	M	V	A	L	S	G	A	H	A	L	G	R	C	H	V	D	R	S	G	F	D	G	P	W	T	F	S	P	T	V	L	T	N	D	E	
UniRef90_G1X9E1	G	F	N	D	Q	E	I	V	A	L	S	G	A	H	A	L	G	R	C	H	V	D	R	S	G	F	D	G	P	W	T	F	S	P	T	M	L	T	N	D	E	
UniRef90_A0A017S7U6	G	F	N	D	Q	E	I	V	A	L	I	G	A	H	A	L	G	R	A	H	A	D	R	S	G	F	D	G	P	W	D	F	S	P	T	V	F	T	N	E		
UniRef90_M3ITF1	G	F	N	D	Q	E	T	V	A	L	I	G	A	H	A	V	L	G	R	C	H	T	H	N	S	G	F	D	G	P	W	G	P	S	F	N	Q	F	T	N	E	
UniRef90_UPI0004561676	G	F	N	D	Q	E	I	V	A	L	S	G	A	H	A	L	G	R	C	H	K	D	R	S	G	F	D	G	P	W	T	F	H	S	P	I	S	N	F	T	N	E
UniRef90_F0XH62	G	F	N	D	Q	E	I	V	A	L	L	G	A	H	A	V	L	G	R	C	H	I	K	N	S	G	F	D	G	P	W	T	F	S	P	T	V	L	T	N	D	E
UniRef90_D8QBR0	G	F	N	D	Q	E	I	V	A	L	S	G	A	H	A	L	G	R	C	H	R	D	R	S	G	F	E	G	P	W	T	F	S	P	I	T	L	T	N	D	E	
UniRef90_U5H8L1	G	F	N	D	Q	E	I	V	A	L	S	G	A	H	A	L	G	R	C	H	T	D	R	S	G	F	E	G	P	W	Q	F	H	S	P	T	S	F	N	D	E	
UniRef90_J3PQJ8	G	F	N	D	Q	E	I	V	A	L	L	G	A	H	A	L	G	R	C	H	T	D	R	S	G	F	E	G	P	W	T	F	S	P	T	T	F	S	N	D	E	
UniRef90_S2JAJ4	G	F	N	D	Q	E	I	V	A	L	A	G	A	H	A	L	G	R	C	H	P	D	R	S	G	F	E	G	P	W	Q	E	F	A	P	T	V	F	S	N	E	
UniRef90_F4NWR7	G	F	N	D	Q	E	I	V	A	L	S	G	A	H	A	L	G	R	C	H	T	D	R	S	G	Y	D	G	P	W	S	F	S	P	T	T	F	S	N	A		
UniRef90_S3E3G4	G	F	N	D	Q	E	I	V	A	L	S	G	A	H	A	L	G	R	C	H	S	D	R	S	G	F	E	G	Q	W	I	N	N	N	P	T	R	F	S	N	Q	
UniRef90_C5Z469	G	L	S	A	R	D	M	T	A	L	S	G	A	H	T	I	G	Q	A	R	C	T	T	F	R	S	R	I	Y	G	D	T	N	I	N	A	S	F	A	A		
UniRef90_A0A059LRR8	G	F	N	D	Q	E	I	V	A	L	S	G	G	H	T	I	G	R	C	H	T	D	R	S	G	F	T	G	P	W	T	F	A	P	T	T	F	S	N	M		
UniRef90_A6RG92	G	F	N	D	Q	E	I	V	A	L	S	G	A	H	T	I	G	R	T	H	M	D	R	S	G	F	E	G	P	W	V	I	N	N	N	P	T	R	F	S	N	Q
UniRef90_UPI00042B4249	G	L	S	T	R	D	M	V	A	L	S	G	S	H	T	I	G	L	A	R	C	T	S	F	R	P	R	I	Y	N	E	S	N	I	D	S	S	F	A	Q		
UniRef90_V4MAN6	G	L	D	V	T	D	L	V	A	L	S	G	S	H	T	I	G	F	S	R	C	T	S	F	R	Y	N	Q	N	G	D	G	R	P	D	M	T	L	E	Q		
UniRef90_F9G8U7	G	F</																																								

QUERY	F	Y	L	N	L	L	N	E	D	W	K	L	E	K	N	D	A	N	N	E	Q	W	D	S	K	S	G	Y	M	M	L	P	T	D	Y	S	L	I	Q	D	
UniRef90_H6BNY4	Y	Y	R	L	L	L	E	E	K	W	D	W	K	K	W	N	G	P	A	K	Q	Y	Q	D	V	K	T	K	S	M	M	L	P	T	D	M	A	L	V	K	D
UniRef90_G1X9E1	Y	Y	K	L	L	V	E	E	K	W	N	W	K	K	W	N	G	P	A	Q	Y	Q	D	V	K	T	K	A	L	M	M	L	P	T	D	M	A	L	V	K	D
UniRef90_A0A017S7U6	F	F	R	L	L	V	E	E	S	W	N	K	K	K	W	N	G	P	A	Q	Y	F	T	D	K	S	T	Q	T	M	M	L	P	S	D	I	A	L	V	K	D
UniRef90_M3ITF1	F	Y	T	T	L	L	G	N	K	W	H	V	K	N	W	K	G	K	K	Q	Y	E	D	D	E	T	N	E	F	M	M	L	P	S	D	I	A	L	V	K	D
UniRef90_UPI0004561676	Y	F	N	L	L	V	N	E	K	W	N	M	R	K	W	N	G	P	A	Q	Y	F	E	D	K	S	T	K	S	M	M	L	M	T	D	M	A	L	V	K	D
UniRef90_F0XH62	F	Y	K	L	L	L	E	A	K	W	E	W	K	R	W	N	G	N	K	Q	Y	V	D	S	A	T	H	T	M	M	L	P	T	D	M	A	L	V	T	D	
UniRef90_D8QBR0	Y	F	R	L	L	F	E	D	E	T	W	V	W	R	K	W	D	G	P	K	Q	L	Q	D	K	S	T	R	S	M	M	L	P	T	D	Y	V	L	V	I	D
UniRef90_U5H8L1	Y	Y	K	L	L	L	N	E	K	W	Q	F	K	K	W	K	G	P	I	Q	Y	E	D	K	S	T	K	S	M	M	L	T	T	D	M	A	L	V	T	D	
UniRef90_J3PQ78	Y	Y	R	L	L	F	E	D	E	K	W	Q	P	R	K	W	S	G	P	Q	Y	E	D	K	S	T	K	S	M	M	L	T	T	D	M	A	L	V	I	D	
UniRef90_S2JAJ4	Y	F	K	A	I	S	T	R	K	W	V	K	D	L	K	N	G	P	G	W	Y	E	W	K	N	N	T	D	V	M	M	L	P	A	E	I	A	M	Y	N	D
UniRef90_F4NWR7	Y	F	K	L	L	F	S	E	K	W	V	D	K	K	W	T	G	P	K	Q	A	I	D	K	A	T	G	T	M	M	L	P	T	D	L	A	I	T	N	D	
UniRef90_S3E3G4	Y	F	R	L	L	M	S	M	Q	W	K	K	T	L	K	N	G	V	E	Q	F	V	N	Y	D	E	D	M	M	L	P	T	D	L	A	I	T	Q	D		
UniRef90_C5Z469	A	L	R	Q	Q	T	C	M	D	V	Q	T	P	T	R	F	D	T	D	Y	T	N	L	S	Q	R	G	L	F	H	S	D	Q	E	L	F	N	G			
UniRef90_A0A059LRR8	F	F	T	E	L	K	N	N	K	W	S	K	K	R	W	K	G	P	L	Q	Y	E	D	K	S	G	E	L	M	M	L	P	T	D	M	A	L	I	W	D	
UniRef90_A6RG92	Y	F	K	L	L	T	T	L	D	W	K	P	T	T	L	S	N	G	N	F	K	F	N	F	V	D	P	R	D	M	M	L	P	T	D	M	A	L	I	S	D
UniRef90_UPI00042B4249	T	R	Q	R	N	C	P	R	T	T	Q	T	P	T	F	F	D	N	N	Y	F	K	N	L	I	N	R	R	G	L	L	H	S	D	Q	Q	L	F	N	G	
UniRef90_V4MAN6	S	F	A	A	N	L	R	Q	R	C	P	R	S	G	R	F	D	N	S	Y	F	R	N	L	V	Q	N	M	G	L	L	N	S	D	Q	V	L	F	S	S	
UniRef90_F9G8U7	Y																																								

QUERY	P	K	Y	L	S	I	V	K	E	Y	A	N	D	Q	D	K	F	F	K	D	F	S	K	A	F	E	K	L	L	E	D	G	I	T	F	P	K	D	A	P	280		
UniRef90_H6BNY4	P	S	F	R	K	K	Y	V	D	E	I	A	K	D	N	D	R	F	F	K	D	F	S	A	A	F	V	K	L	L	E	L	G	V	P	F	F	K	S	D	E	S	E
UniRef90_G1X9E1	R	E	F	F	K	K	W	V	E	D	I	Y	A	K	D	N	D	A	F	F	F	K	D	F	S	D	A	V	V	K	L	L	E	L	G	V	P	F	F	K	Q	S	E
UniRef90_A0A017S7U6	K	E	F	F	K	K	H	V	E	R	Y	A	K	D	N	D	V	F	F	K	E	F	S	D	A	F	V	K	L	L	E	L	G	V	P	P	F	A	S	K	A	E	
UniRef90_M3ITF1	S	Y	F	L	K	Y	V	K	M	Y	A	N	D	Q	D	L	F	F	F	K	D	F	A	K	A	F	A	K	L	L	E	L	S	N	G	V	P	K	P	A	D	N	G
UniRef90_UPI0004561676	P	S	F	F	K	K	H	V	Q	R	Y	A	K	S	E	D	E	F	F	K	D	F	R	S	A	F	A	K	L	L	E	L	S	N	G	V	P	K	P	L	E	G	G
UniRef90_F0XH62	K	K	F	R	P	T	V	E	K	Y	A	A	D	N	A	A	F	F	S	D	F	S	A	A	V	S	K	L	L	E	L	G	V	P	P	Y	A	A	G	T	E		
UniRef90_D8QBR0	K	S	F	K	K	Y	A	K	Q	Y	A	D	D	Q	D	L	F	F	K	D	F	A	N	V	S	R	L	F	L	E	L	G	V	P	P	S	E	A	Q	F	T	K	
UniRef90_U5H8L1	K	A	F	R	P	Y	T	E	Q	Y	A	K	D	E	N	K	F	F	A	D	F	S	N	V	F	A	K	L	L	E	L	G	V	P	P	E	N	A	G	E	K		
UniRef90_J3PQ78	K	S	F	R	N	W	A	K	K	Y	A	T	D	E	K	V	F	D	D	F	S	K	A	F	S	K	L	L	E	L	G	V	P	P	E	N	A	G	E	K			
UniRef90_S2JAJ4	K	E	F	K	K	Y	F	D	L	Y	A	K	D	E	K	F	F	F	D	F	A	A	V	F	A	K	L	L	E	L	G	V	P	P	F	K	G	D	E	P			
UniRef90_F4NWR7	R	V	F	K	K	Q	A	E	L	I	Y	A	K	D	E	G	K	F	F	E	D	F	A	K	A	V	F	K	L	L	E	L	G	V	P	P	F	K	P	D	T	P	
UniRef90_S3E3G4	K	A	F	I	K	Y	V	E	L	I	Y	A	K	D	E	K	E	A	F	F	A	A	F	T	K	V	F	A	K	L	L	E	L	G	I	T	R	D	A	D	G	N	
UniRef90_C52469	G	S	Q	D	A	L	V	R	Q	Y	S	A	N	P	S	L	F	F	N	S	D	F	M	A	M	I	K	M	G	N	L	G	V	L	T	G	T	A	D	G	N		
UniRef90_A0A059LRR8	K	K	F	K	P	F	V	D	L	Y	A	D	D	G	D	K	F	A	D	D	F	A	E	A	F	A	K	L	L	E	L	G	V	P	P	F	E	K	N	A	G	E	
UniRef90_A6RG92	P	E	F	S	K	W	V	M	A	Y	A	A	D	P	K	E	L	F	F	S	D	H	F	A	K	V	F	A	K	L	L	E	L	G	I	L	K	R	D	A	Q	G	R
UniRef90_UPI00042B4249	G	S	T	D	S	I	V	R	G	Y	S	N	N	P	K	S	F	S	S	D	F	V	T	G	M	I	K	M	G	N	L	S	P	L	T	G	S	S	G	E	N		
UniRef90_V4MAN6	N	D	S	R	E	L	V	K	K	Y	A	E	D	Q	G	E	F	F	R	Q	F	A	Q	S	M	I	K	M	G	N	L												



290  
QUERY S P F I F K T L E E Q G L  
UniRef90\_H6BNY4 D R I V F K T Y S E Q E  
UniRef90\_G1X9E1 E K W V F K V V E  
UniRef90\_A0A017S7U6 D R F V L K A S E  
UniRef90\_M3ITF1 K P M Y F K T L E E Q D  
UniRef90\_UPI0004561676 R P F E F A T T A E Q E  
UniRef90\_F0XH62 G K I V F K N L E E  
UniRef90\_D8QBR0 E P W L M K N A D E K D  
UniRef90\_U5H8L1  
UniRef90\_J3PQ78 A P M T L K T L D E Q G I  
UniRef90\_S2JAJ4 K V Y H F K R T T E  
UniRef90\_F4NWR7 A H V F K R I  
UniRef90\_S3E3G4 I  
UniRef90\_C5Z469 I R R N C R V V N S  
UniRef90\_A0A059LRR8 E G R V  
UniRef90\_A6RG92 I  
UniRef90\_UPI00042B4249 I R K N C R R V N  
UniRef90\_V4MAN6 I R K N C R K I N S  
UniRef90\_F9G8U7 I  
UniRef90\_Q9XIV9 I R K N C R R L N  
UniRef90\_V4KRP2 I R Q D C K V I N G Q  
UniRef90\_A0A059ADL1 I R R K C  
UniRef90\_W1NWE4 V R R R C D E V N  
UniRef90\_UPI0002B48494 I R K N C R V V N  
UniRef90\_B9HL06 I R R I C S A V N  
UniRef90\_M0S889  
UniRef90\_B9GT82 I R A S C S V R N S  
UniRef90\_UPI0002C2E4D4 I R T D C K K V N  
UniRef90\_W9XJV9 V G R V V N Q D N L D G  
UniRef90\_G7J2Y6 I R T N C R K I N  
UniRef90\_C5YYA1 I R K N C R R V N S K G  
UniRef90\_S3CAJ1 T G H I L N T D N E K G  
UniRef90\_M5E7S8  
UniRef90\_B9VSG0 V R A N C S A R N  
UniRef90\_B9S775 I R R K C G S V N  
UniRef90\_M0SLK9 I R M N C R K L N H Q  
UniRef90\_K3ZV96 I R R N C R R V N  
UniRef90\_UPI0002B45AD5 I R K N C R K V N R K  
UniRef90\_I1JL02 I R V N C R N V N  
UniRef90\_W9QU60 I R T N C R K V N  
UniRef90\_B9SWU3 I R T Q C S V V N  
UniRef90\_K4ASJ6 I R T D C K R V N  
UniRef90\_A0A059DIB3 I R C N C R K V N K  
UniRef90\_G7K821 I R K N C R A V N  
UniRef90\_V7CFB3 I R A N C R A L N  
UniRef90\_M0RM11 I R L N C R T V N  
UniRef90\_K3ZJ91 I R K N C R R I N  
UniRef90\_I1LVP1 I R F D C T R P N  
UniRef90\_S2J0H4  
UniRef90\_B9HDA0 T R L N C R K V N  
UniRef90\_Q5K4K5 I R R A C N A V N  
UniRef90\_B9SES8 I R K V C S K F N  
UniRef90\_C5Z0N8 I R R N C R V I N  
UniRef90\_P0CP57 A R L A K K A A E E  
UniRef90\_UPI0002C343D6 V R V N C R V V N  
UniRef90\_P27337 I R L S C S R V N S  
UniRef90\_R0FFJ1 I R S N C R V V N S K  
UniRef90\_I1PSQ3 I R L N C R V I N  
UniRef90\_G7KH18 I R K Q C R S V N  
UniRef90\_M0XL59 I R L S C R V I N K  
UniRef90\_G7IJT4 I R K Q C N F I N K K  
UniRef90\_A9UWF4  
UniRef90\_W1P4L3 V R K N C R R I N S  
UniRef90\_D7TPP0 I R K D C R F V N  
UniRef90\_J4UEF4  
UniRef90\_K3XJT3 I R K N C R R L N  
UniRef90\_UPI0002C37311 I R K N C R V V N  
UniRef90\_V4U4D0 I R K H C A F V N  
UniRef90\_A0A022QC06 I R K T C A F I N  
UniRef90\_F6HG25 I R E F O N A I N  
UniRef90\_M0WUS0 V R R R C T A V N Q M G  
UniRef90\_K3Y878 I R R N C R A I N  
UniRef90\_C9WF06 I R R N C A A F N  
UniRef90\_K3Y8E5 V R R H C A F V N  
UniRef90\_G8XWY6 V R T N C R R T N  
UniRef90\_K7MB32 I R K Q C N F V N K K  
UniRef90\_Q43791 I R K Q C N F V N  
UniRef90\_K3YIH4 I R R V C T A F N  
UniRef90\_A9P263 I R V N C R K V N S  
UniRef90\_UPI0002B45BD8 I R R H C S F V N  
UniRef90\_C5XXY9 I R A D C R V V N S  
UniRef90\_W8PVX4 V R A D C R K I N  
UniRef90\_I1MSF0 I R K N C R V I N S  
UniRef90\_M4F9T5 I R R D C  
UniRef90\_I1I6C5 I R R N C S A R N  
UniRef90\_M0ZAA4 I R E K C F V V N  
UniRef90\_W5F9K5 I R R D C T A F N  
UniRef90\_J3M3R2 I R Q Y C N K V N  
UniRef90\_A0A059DJ19 I R F N C R K V N  
UniRef90\_UPI0002BCB2D8 I R K N C R V I N  
UniRef90\_P93547 I R A N C S V R N  
UniRef90\_UPI00042B90A6 I R A N C R V I N



UniRef90\_I1NHR7  
UniRef90\_E9BQG1  
UniRef90\_Q5W5I2  
UniRef90\_K7ZW11  
UniRef90\_K9USP7  
UniRef90\_UPI00032A9E96  
UniRef90\_I1P6Z9  
UniRef90\_Q94DM2  
UniRef90\_MOYQ04  
UniRef90\_D7U2P4  
UniRef90\_UPI0002C2E177  
UniRef90\_Q0JEQ2  
UniRef90\_V4SQC7  
UniRef90\_B9IDG3  
UniRef90\_I1MP39  
UniRef90\_V7BR19  
UniRef90\_K7UD01  
UniRef90\_I1HZ53  
UniRef90\_F2DZM1  
UniRef90\_Q0VYC8  
UniRef90\_M4DNB9  
UniRef90\_C5WRN7  
UniRef90\_Q0D3N0  
UniRef90\_MORR04  
UniRef90\_I3T2D8  
UniRef90\_C4QZP5  
UniRef90\_D8R9L0  
UniRef90\_A0A022PT28  
UniRef90\_Q9XFC0  
UniRef90\_B9SM73  
UniRef90\_Q9FX85  
UniRef90\_G7IJV0  
UniRef90\_UPI0002BCAD5E  
UniRef90\_Q8GZS1  
UniRef90\_B3VT95  
UniRef90\_V7ARS1  
UniRef90\_M7ZP10  
UniRef90\_K4DH07  
UniRef90\_UPI0002B41E69  
UniRef90\_W8PWH3  
UniRef90\_M4CA55  
UniRef90\_Q5ZFT79  
UniRef90\_I1GQL7  
UniRef90\_V7BLL7  
UniRef90\_I1NJ70  
UniRef90\_M7YT16  
UniRef90\_A0A022Q0L3  
UniRef90\_Q4A3Y8  
UniRef90\_S2JVZ4  
UniRef90\_Q2A989  
UniRef90\_M4DBT3  
UniRef90\_C5XIY1  
UniRef90\_I1M883  
UniRef90\_C5XI20  
UniRef90\_V4T378  
UniRef90\_G7IJT9  
UniRef90\_M8BUA8  
UniRef90\_I110G1  
UniRef90\_Q9M4Z3  
UniRef90\_A3LQQ1  
UniRef90\_M0Z810  
UniRef90\_V4UK69  
UniRef90\_V7BSE4  
UniRef90\_P48534  
UniRef90\_M8AA24  
UniRef90\_V7BEK0  
UniRef90\_B6THG0  
UniRef90\_D8Q91  
UniRef90\_A0A059C780  
UniRef90\_P19135  
UniRef90\_M5XMU7  
UniRef90\_I3SIA8  
UniRef90\_M0YF2  
UniRef90\_A2Q4B7  
UniRef90\_K4BUB5  
UniRef90\_M4DY92  
UniRef90\_A0A022R876  
UniRef90\_B6T173  
UniRef90\_I3T3A4  
UniRef90\_V7BKL4  
UniRef90\_I1J9L0  
UniRef90\_J7IER7  
UniRef90\_C5X3D2  
UniRef90\_UPI0002C32994  
UniRef90\_Q9AS12  
UniRef90\_UPI00042B2358  
UniRef90\_P84516  
UniRef90\_M4CQD4  
UniRef90\_K3XJB5  
UniRef90\_UPI000009D270  
UniRef90\_UPI0002B4308D  
UniRef90\_Q9SC55

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

	UniRef90_I1NHR7	UniRef90_E9BGQ1	UniRef90_Q5W5I2	UniRef90_K7ZW11	UniRef90_K9USP7	UniRef90_UPI00032A9E96	UniRef90_I1P6Z9	UniRef90_Q94DM2	UniRef90_M0YQ04	UniRef90_D7U2P4	UniRef90_UPI00002C2E177	UniRef90_Q0JEQ2	UniRef90_V4SDC7	UniRef90_B9IDG3	UniRef90_I1MP39	UniRef90_V7BR19	UniRef90_K7UD01	UniRef90_I1HZ53	UniRef90_F2DZM1	UniRef90_Q0VYC8	UniRef90_M4DNB9	UniRef90_C5WRN7	UniRef90_Q0Q3N0	UniRef90_M0RR04	UniRef90_I3T2D8	UniRef90_C4QZP5	UniRef90_D8R9L0	UniRef90_A0A022PT28	UniRef90_Q9XFC0	UniRef90_B9SM73	UniRef90_Q9FX85	UniRef90_G7JUV0	UniRef90_UPI0002BCAD5E	UniRef90_Q8GSZ1	UniRef90_B3VT95	UniRef90_V7ARS1	UniRef90_M7ZP10	UniRef90_K4DH07	UniRef90_UPI0002B41E69	UniRef90_W8PWH3	UniRef90_M4CA55	UniRef90_Q5ZF79	UniRef90_I1GQL7	UniRef90_V7BLL7	UniRef90_I1NJ70	UniRef90_M0YT16	UniRef90_A0A022Q0L3	UniRef90_Q4A3Y8	UniRef90_S2JVZ4	UniRef90_Q2A989	UniRef90_M4DBT3	UniRef90_C5XIY1	UniRef90_I1M883	UniRef90_C5XI20	UniRef90_V4T378	UniRef90_G7JUT9	UniRef90_M8BUA8	UniRef90_I1I0G1	UniRef90_Q9M4Z3	UniRef90_A3LQQ1	UniRef90_M0Z810	UniRef90_V4UK69	UniRef90_V7BSE4	UniRef90_P48534	UniRef90_M8AA24	UniRef90_V7BEK0	UniRef90_B6THG0	UniRef90_D8QQ91	UniRef90_A0A059C780	UniRef90_P19135	UniRef90_M5XMU7	UniRef90_I3SIA8	UniRef90_M0YYF2	UniRef90_A2Q4B7	UniRef90_K4BUB5	UniRef90_M4DY92	UniRef90_A0A022R876	UniRef90_B6T173	UniRef90_I3T3A4	UniRef90_V7BKL4	UniRef90_I1J9L0	UniRef90_J7IER7	UniRef90_C5X3D2	UniRef90_UPI0002C32994	UniRef90_Q9AS12	UniRef90_UPI00042B2358	UniRef90_P84516	UniRef90_M4CQD4	UniRef90_K3XJB5	UniRef90_UPI000009D270	UniRef90_UPI0002B4308D	UniRef90_Q9SC55
V	A	P	G	L	L	R	L	F	F	H	D	C	A	I	S	Y	D	G	C	D	A	S	L	L	I	T	S	N	A	Y	N	P	H	A	E	R	D	A	D	L	E	G																																																		
L	G	P	S	L	L	R	L	A	H	F	H	D	C	A	F	V	Q	G	C	D	G	S	V	L	L	N	S	T	S	A	S	M	R	F	K	P	E	Q	T	T	P	P																																																		
Q	A	A	G	L	L	R	L	A	H	F	H	D	C	A	F	V	Q	G	C	D	G	S	V	L	L	N	S	T	S	A	S	M	R	F	K	P	E	Q	T	T	P	P																																																		
I	A	A	G	L	L	R	L	A	H	F	H	D	C	A	F	V	Q	G	C	D	G	S	V	L	L	N	S	T	S	A	S	M	R	F	K	P	E	Q	T	T	P	P																																																		
L	A	A	G	L	L	R	L	A	H	F	H	D	C	A	F	V	Q	G	C	D	G	S	V	L	L	N	S	T	S	A	S	M	R	F	K	P	E	Q	T	T	P	P																																																		
Q	A	A	G	L	L	R	L	A	H	F	H	D	C	A	F	V	Q	G	C	D	G	S	V	L	L	N	S	T	S	A	S	M	R	F	K	P	E	Q	T	T	P	P																																																		
M	A	A	G	L	L	R	L	A	H	F	H	D	C	A	F	V	Q	G	C	D	G	S	V	L	L	N	S	T	S	A	S	M	R	F	K	P	E	Q	T	T	P	P																																																		
L	A	A	G	L	L	R	L	A	H	F	H	D	C	A	F	V	Q	G	C	D	G	S	V	L	L	N	S	T	S	A	S	M	R	F	K	P	E	Q	T	T	P	P																																																		
I	A	A	G	L	L	R	L	A	H	F	H	D	C	A	F	V	Q	G	C	D	G	S	V	L	L	N	S	T	S	A	S	M	R	F	K	P	E	Q	T	T	P	P																																																		
I	G	A	S	L	L	R	L	A	H	F	H	D	C	A	F	V	Q	G	C	D	G	S	V	L	L	N	S	T	S	A	S	M	R	F	K	P	E	Q	T	T	P	P																																																		
C	A	P	I	M	L	R	L	A	H	F	H	D	C	A	G	T	Y	D	K	A	T	K	T	G	G	P	N	G	S	I	R	F	P	Q	E	Y	S	H	A	A	D	P																																																		
T	V	A	T	I	R	L	L	A	H	F	H	D	C	A	F	V	Q	G	C	D	G	S	V	L	L	N	S	T	S	A	S	M	R	F	K	P	E	Q	T	T	P	P																																																		
V	A	A																																																																																										

	90	100	110	120																																									
UniRef90_I1NHR7	N	L	S	L	G	D	A	F	D	I	L	I	V	K	I	K	A	C	P	G	V	S	C	S	D	I	L	V	A	Q	A	T	R	D	L	V	K	M	V	G	G				
UniRef90_E9BQG1	N	K	G	L	D	I	P	F	R	K	A	L	E	P	K	I	K	K	Y	G	Q	L	S	C	S	D	I	L	V	W	V	L	A	A	Y	V	A	I	E	Y	M	G	G		
UniRef90_Q5W5I2	N	L	S	L	R	Q	A	F	R	K	I	I	N	D	I	K	K	Q	H	V	E	A	A	C	C	A	D	I	L	W	V	L	A	A	R	D	S	V	I	E	A	M	A	G	G
UniRef90_K7ZW11	N	L	N	G	L	R	G	F	E	V	I	D	N	A	K	T	Q	L	E	A	T	C	C	A	D	I	L	L	A	L	A	A	R	D	T	V	V	L	T	R	G				
UniRef90_K9USP7	N	N	R	G	Y	E	V	I	D	A	A	K	A	E	V	E	K	K	C	P	G	V	S	C	S	A	D	I	L	V	A	M	A	R	S	T	Y	V	F	A	A	G	G		
UniRef90_UPI00032A9E96	N	G	G	L	Q	T	I	D	N	I	R	A	L	V	H	K	E	C	K	G	R	I	V	S	C	S	A	D	I	L	T	V	L	A	G	R	D	A	V	F	A	S	G	G	
UniRef90_I1P6Z9	N	T	S	L	R	G	F	E	V	I	D	S	A	K	A	C	F	G	V	S	C	S	C	S	A	D	I	V	L	A	F	A	A	R	D	A	L	A	V	V	I	G	G		
UniRef90_Q94DM2	N	K	T	L	R	K	A	F	D	A	D	L	R	D	L	R	D	E	R	E	C	S	C	S	C	A	D	I	V	T	L	A	A	R	D	S	V	L	L	A	G	G			
UniRef90_M0YQ04	N	R	G	F	G	F	V	D	R	V	K	A	V	K	A	C	P	D	T	V	S	C	S	C	S	A	D	I	V	L	I	J	A	R	D	A	V	W	L	S	K	G			
UniRef90_D7U2P4	N	N	N	P	S	L	R	G	F	Q	V	I	N	K	A	K	A	C	P	E	T	V	S	C	S	A	D	I	L	A	F	A	A	R	D	G	A	L	K	V	I	G			
UniRef90_UPI0002C2E177	N	N	N	S	L	R	G	F	E	V	V	D	R	I	K	A	K	V	E	K	A	C	C	C	A	D	I	L	A	A	A	A	R	D	S	V	L	H	L	G	G				
UniRef90_Q0JEQ2	N	A	G	I	K	I	A	I	D	L	L	E	P	M	K	Q	K	H	P	K	I	T	Y	A	D	I	L	Y	Q	L	A	A	G	V	V	A	I	E	V	T	G	G			
UniRef90_V4SQC7	N	L	G	F	D	T	V	V	K	A	K	Q	A	V	E	Q	F	L	E	N	T	V	S	C	C	A	D	I	L	L	A	T	R	D	V	I	A	L	S	G	G				
UniRef90_B9IDG3	N	N	P	S	L	R	G	Y	E	V	V	D	A	R	A	F	K	L	E	A	E	C	C	C	A	D	I	L	L	A	F	A	A	R	D	S	F	D	L	S	G	G			
UniRef90_I1MP39	N	R	G	L	R	T	I	D	D	L	R	N	V	V	H	N	E	C	G	R	I	V	C	C	A	D	I	L	T	V	L	A	A	R	D	A	V	Y	L	S	G	G			
UniRef90_V7BR19	N	N	N	S	I	R	G	L	D	V	V	N	L	I	K	S	C	Q	P	G	T	V	S	C	C	A	D	I	L	T	I	A	A	R	D	I	G	S	I	L	G	G			
UniRef90_K7UD01	N	R	G	F	E	V	I	D	R	I	V	K	E	N	J	K	S	C	Q	C	P	G	V	S	C	S	A	D	I	V	L	A	A	R	D	A	V	L	L	A	R	G			
UniRef90_I1HZ53	N	V	N	S	V	R	G	Y</																																					

	130	140	150	160
UniRef90_I1NHR7	P	F	Y	P
UniRef90_E9BQG1	P	T	I	P
UniRef90_Q5W5I2	P	F	Y	P
UniRef90_K7ZW11	L	G	W	Q
UniRef90_K9USP7	P	V	Y	D
UniRef90_UPI00032A9E96	P	D	Y	P
UniRef90_I1P6Z9	N	A	Y	Q
UniRef90_Q94DM2	P	W	Y	D
UniRef90_M0YQ04	P	F	W	A
UniRef90_D7U2P4	I	N	Y	T
UniRef90_UPI0002C2E177	P	S	W	Q
UniRef90_Q0JEQ2	P	T	I	D
UniRef90_V4SQC7	P	S	Y	S
UniRef90_B9IDG3	I	S	Y	D
UniRef90_I1MP39	P	N	F	A
UniRef90_V7BR19	P	G	W	L
UniRef90_K7UD01	P	Y	Y	G
UniRef90_I1HZ53	P	S	W	D
UniRef90_F2DZM1	P	S	W	P
UniRef90_Q0VYC8	P	D	Y	D
UniRef90_M4DNB9	P	S	W	R
UniRef90_Q5WRN7	P	Y	W	R
UniRef90_C2D3N0	P	S	W	T
UniRef90_M0RR04	P	S	W	T
UniRef90_I3T2D8	P	F	W	F
UniRef90_C4QZP5	P	K	I	D
UniRef90_D8R9L0	P	H	W	K
UniRef90_A0A022PT28	P	K	W	N
UniRef90_Q9XFC0	P	T	I	E
UniRef90_B9SM73	P	D	Y	N
UniRef90_Q9FX85	P	F	W	P
UniRef90_G7IJV0	P	D	W	E
UniRef90_UPI0002BCAD5E	P	T	W	E
UniRef90_Q8GZS1	P	D	W	K
UniRef90_B3VT95	P	V	I	P
UniRef90_V7ARS1	L	G	Y	D
UniRef90_M2DP10	P	Y	Y	Q
UniRef90_K4DH07	P	S	W	E
UniRef90_UPI0002B41E69	P	S	W	V
UniRef90_W8PWH3	F	D	Y	D
UniRef90_M4CA55	P	S	Y	V
UniRef90_Q5ZF79	P	T	I	T
UniRef90_I1GQL7	P	T	W	T
UniRef90_V7BL7L	S	S	W	T
UniRef90_I1NJ70	Q	K	W	E
UniRef90_M7YT16	P	Y	W	R
UniRef90_A0A022Q0L3	P	S	W	N
UniRef90_Q4A3Y8	P	R	W	E
UniRef90_S2JVZ4	P	H	I	P
UniRef90_Q2A989	P	F	Y	E
UniRef90_M4DBT3	P	R	F	S
UniRef90_C5XIY1	L	F	Y	Q
UniRef90_I1M883	P	N	W	E
UniRef90_C5XI20	V	D	F	A
UniRef90_V4T378	P	F	Y	E
UniRef90_G7IJT9	P	N	W	K
UniRef90_M8BUA8	L	G	Y	Q
UniRef90_I1I0G1	P	Y	Y	M
UniRef90_Q9M4Z3	P	N	W	E
UniRef90_A3LQQ1	P	E	I	P
UniRef90_M0Z810	P	S	W	G
UniRef90_V4UK69	P	Y	Y	Q
UniRef90_V7BSE4	P	S	W	E
UniRef90_P48534	P	E	V	P
UniRef90_M8AA24	P	E	Y	R
UniRef90_V7BEK0	P	F	Y	P
UniRef90_B6THG0	P	A	Y	K
UniRef90_D8Q091	P	E	I	P
UniRef90_A0A059C780	P	Y	Y	Q
UniRef90_P19135	P	C	W	E
UniRef90_M5XMU7	P	R	H	K
UniRef90_I3SIA8	L	V	Y	K
UniRef90_M0YYF2	P	S	W	N
UniRef90_A2Q4B7	P	K	Y	N
UniRef90_K4BUB5	P	Y	W	E
UniRef90_M4DY92	P	S	W	E
UniRef90_A0A022R876	P	E	V	P
UniRef90_B6T173	L	E	Y	E
UniRef90_I3T3A4	P	T	W	Q
UniRef90_V7BKL4	I	N	Y	A
UniRef90_I1J9L0	P	R	W	E
UniRef90_J7IER7	V	H	W	D
UniRef90_C5X3D2	G	R	A	N
UniRef90_UPI0002C32994	P	R	H	D
UniRef90_Q9AS12	V	T	Y	K
UniRef90_UPI00042B2358	P	F	Y	A
UniRef90_P84516	P	S	Y	K
UniRef90_M4CQD4	P	S	Y	S
UniRef90_K3XJB5	V	S	Y	Q
UniRef90_UPI000009D270	V	S	Y	Q
UniRef90_UPI00002B4308D	P	A	W	K
UniRef90_Q9SC55	P	V	W	D



	170	180	190	200																																										
UniRef90_I1NHR7	G	F	T	V	K	E	M	V	A	L	T	G	A	H	T	L	H	C	K	E	F	I	H	R	I	Y	N	F	S	K	T	S	D	A	D	P	M	M	H	P						
UniRef90_E9BQG1	G	F	N	D	Q	E	T	V	A	L	S	G	A	H	T	L	C	G	C	H	I	K	F	S	G	Y	H	G	L	Y	N	S	T	H	D	K	N	S	T	D	N	S				
UniRef90_Q5W5I2	G	L	T	F	T	R	D	L	V	V	L	A	G	G	H	T	I	G	T	A	G	C	C	G	V	F	R	D	R	L	F	S	G	T	N	N	T	D	P	N	V	N	Q			
UniRef90_K9USP7	G	F	T	A	Q	E	M	V	A	L	S	G	A	H	T	L	G	V	A	H	C	C	S	T	F	F	K	N	R	L	Y	S	G	T	V	D	D	P	N	L	D	S				
UniRef90_UPI00032A9E96	N	L	D	V	T	D	V	A	L	S	G	A	H	T	L	F	G	R	A	H	C	C	S	T	F	F	N	R	L	Y	S	T	P	V	V	D	P	T	M	D	K					
UniRef90_I1P6Z9	G	L	T	Q	A	E	M	V	A	L	S	G	A	H	T	I	G	V	I	A	H	C	C	S	T	F	F	N	R	L	Y	S	T	T	Q	C	Q	Q	Q	G	Q					
UniRef90_Q94DM2	K	L	D	A	H	D	L	V	V	L	S	G	A	H	T	I	V	G	I	A	H	C	C	S	T	F	S	D	R	L	Y	N	F	T	G	M	D	P	T	L	E	P				
UniRef90_M0YQ04	N	L	D	A	K	D	L	V	V	L	S	G	A	H	T	I	G	T	S	A	H	C	C	S	T	F	S	D	R	L	Y	N	F	T	G	M	D	P	T	L	E	P				
UniRef90_D7U2P4	G	L	S	L	R	D	E	M	V	T	L	S	G	A	H	S	I	G	M	S	H	C	C	S	T	F	S	K	R	L	Y	S	T	H	A	H	D	S	M	R	R					
UniRef90_UPI0002C2E177	G	L	S	L	R	D	L	V	A	L	S	G	S	H	T	L	I	G	L	A	R	C	T	S	F	R	A	R	L	Y	K															
UniRef90_Q0JEQ2	G	L	S	D	K	D	L	V	A	L	S	G	G	H	T	L	G	K	A	R	P	E	R	S	G	F	D	G	A	W	T	K	D	P	L	K	F	D	N	S						
UniRef90_V4SQC7	G	L	D	Q	T	D	M	I	A	L	S	A	G	H	T	I	V	G	F	S	H	C	S	K	F	I	Y	N	F	S	G	T	N	S	Q	N	S	Q	D	P	T	L	N	K		
UniRef90_B9IDG3	G	L	S	Q	E	E	M	V	T	L	S	G	G	H	T	L	G	R	S	H	C	T	S	F	F	R	Y	N	F	S	G	T	N	S	Q	D	P	T	S	L	D	A				
UniRef90_I1MP39	N	L	D	V	T	N	V	A	L	V	I	G	A	H	T	L	G	R	A	H	C	H	T	T	F	Y	N	R	L	S	P	L	D	N	P	M	T	C	P	S	T					
UniRef90_V7BR19	G	L	N	T	T	D	L	V	A	L	S	G	A	H	T	F	G	R	A	H	C	C	A	N	T	F	N	Y	N	L	S	N	N	T	G	N	P	D	A	T	L	N	T			
UniRef90_K7UD01	G	F	T	V	Q	D	M	V	A	L	S	G	G	H	T	L	G	V	A	H	C	C	A	N	T	F	N	Y	N	L	S	N	N	T	A	E	T	D	T	L	D	A	P	L	G	S
UniRef90_I1HZ53	G	L	T	P	R	D	M	T	A	L	S	G	A	H	T	L	V	G	S	A	Q	C	M	N	F	R	D	H	I	W	K	E	T	N	L	D	V	S	F	A	N	S				
UniRef90_F2DZM1	G	L	G	L	K	D	L	V	V	L	S	G	A	H	T	L	G	T	A																											

UniRef90_I1NHR7	K	L	V	Q	G	L	R	S	V	C	Q	N	Y	T	K	D	S	S	M	A	A	F	N	D	V	R	S	P	G	K	F	T	S	D	S	L	A	V	D					
UniRef90_E9BQG1	N	F	F	T	K	N	L	D	E	D	W	V	L	N	P	K	V	E	K	M	Q	L	M	D	R	A	T	K	M	M	L	P	S	D	D	V	S	L	L	D				
UniRef90_Q5W5I2	N	F	A	K	N	L	Y	L	T	C	P	T	P	N	V	F	D	N	K	Y	F	N	V	D	L	N	E	T	Q	T	L	F	T	S	D	D	Q	S	L	Y	T	D		
UniRef90_K7ZW11	L	F	L	T	Q	L	Y	T	Q	C	P	Q	N	T	T	F	D	N	S	Y	F	I	N	L	S	R	G	R	G	V	L	E	S	D	D	H	V	L	W	T	D			
UniRef90_K9USP7	G	F	A	K	Q	L	A	K	T	C	C	S	T	R	N	I	F	D	N	V	Y	F	N	G	P	Q	R	K	A	Q	G	V	L	E	S	D	D	Q	T	L	F	A	S	D
UniRef90_UPI00032A9E96	T	L	A	K	N	L	K	S	T	C	P	N	P	T	I	F	D	N	K	Y	F	L	D	L	M	N	K	A	Q	G	V	L	F	T	S	D	D	Q	T	L	I	N	D	
UniRef90_I1P6Z9	P	A	A	G	M	V	P	M	D	A	V	T	P	N	A	F	D	T	N	K	Y	A	A	I	V	A	N	R	G	L	L	S	S	D	D	Q	A	L	L	A	D			
UniRef90_Q94DM2	W	F	A	G	H	L	K	V	T	C	P	T	P	N	T	F	D	N	K	Y	Y	V	D	L	Q	N	R	Q	G	V	L	F	T	S	D	D	Q	G	L	E	F	N	D	
UniRef90_M0YQ04	H	Y	M	M	K	L	T	S	C	C	G	S	F	K	T	F	D	L	D	Y	F	K	L	V	S	K	R	R	G	L	F	H	S	D	G	A	L	L	T	H				
UniRef90_D7U2P4	K	Y	V	S	F	L	R	T	K	C	H	P	P	G	R	L	D	N	K	Y	Y	K	E	L	E	K	H	R	G	L	L	N	S	D	Q	T	L	M	S	S				
UniRef90_UPI0002C2E177	V	F	A	K	S	L	Q	S	N	C	Q	T	P	T	Y	F	D	N	L	Y	Y	K	N	L	L	K	E	K	G	L	L	H	S	D	D	Q	E	L	F	N	G			
UniRef90_Q0JEQ2	Y	F	I	E	L	L	K	E	N															S	E	G	L	L	K	L	P	T	D	K	A	L	V	E	D					
UniRef90_V4SQC7	T	Y	A	T	E	L	Q	Q	M	C	N	T	P	K	T	F	D	N	S	Y	F	K	N	L	Q	Q	G	K	G	L	F	T	S	D	D	Q	V	L	Y	T	D			
UniRef90_B9IDG3	T	Y	A	A	S	L	K	Q	K	C	P	Q	A	S	T	D	N	S	Y	F	R	D	I	L	A	N	R	G	L	F	T	S	D	D	Q	T	L	F	T	S	N			
UniRef90_I1MP39	Y	S	R	N	T	A	N	L	D	I	C	R	T	P	K	V	F	D	N	K	Y	Y	I	N	L	M	N	R	Q	G	L	F	T	S	D	D	Q	D	L	F	T	D		
UniRef90_V7BR19	V	Y	L	A	T	L	R	Q	I	C	P	Q	P	D	Q	F	D	N	K	Y	Y	S	N	L	Q	Q	L	N	G	L	L	Q	S	D	D	Q	E	L	F	S	T			
UniRef90_K7UD01	S	L	G	A	T	C	P	T	T	F	D	R	T	S	T	S	F	D	T	V	Y	F	R	E	L	Q	M	R	R	G	L	L	S	S	D	D	Q	T	L	F	S	E	S	
UniRef90_I1HZ53	L	R	R	S	T	C	P	F	D	V	Q	T	E	L	V	F	D	N	G	Y	Y	K	N	L	A	V	R	K	G	L</														

UniRef90\_I1NHR7 P R T K P L V E L Y A N D Q Q A F F K D F A D A M E K L S V F R V K T G D K G E 250 260 270 280

UniRef90\_E9BQG1 P G Y R K Y V E L Y A K N D Q R F N K D F A N A F K K L T E L G T K

UniRef90\_Q5W5I2 T R T R D I V K S F A L N Q S L F F N K Q F V L S M L K M G N L G V V L T G S E G E

UniRef90\_K7ZW11 P A T R P L V Q Q L M S P R G N F N A E F A R S M V K R M S N I G V V L T G A N G E

UniRef90\_K9USP7 A R T R N K I N A Y A F N Q A M F F L D F Q Q A M V K M S T L D V K E G S K G E

UniRef90\_UPI00032A9E96 K R T K G L V N D F A V N N Q L F F E K F V D A F L K V S Q L D V L T G N Q G E

UniRef90\_I1P6Z9 Q T T A A Q V V G Y F V N N P D S F Q T D F A A A M V K M G S I G V L T G N A G T

UniRef90\_Q94DM2 A T T K P I V T K F A V D Q S A F F Q D Q Y V Y S V V K M G M L E V L T G S Q G Q

UniRef90\_MOYQ04 P V T R A Y V Q R H A T G K E E F F A D F A A A M V K M G N A N D V L T G S Q G E

UniRef90\_D7U2P4 Q S T A W M V R N N A R H G S T F W A K F A A A M V H K K L M G S I D V L T E T Q G E

UniRef90\_UPI0002C2E177 T P A D A M V K L Y A S N T F A F F Y D F A N S M V K M G N I K P L T G S Q G E

UniRef90\_Q0JEQ2 P T F R R Y V E L Y A K D E D A F F R D Y A E S H K K L S E L G F T P P R S A F

UniRef90\_V4SQC7 G R S K P A V D R W A S S P A D F Q T A F I T A I T K L G R V N V K T G S D G N

UniRef90\_B9IDG3 T A T A S Q V N S N S R S P L G W K R K F A A A M V K M G Q I E V L T G N T G E

UniRef90\_I1MP39 K R T K G L V E A F A H D Q N T L F F E K F V D G M F I R M S Q L D V L T G N Q G E

UniRef90\_V7BR19 P D T P I V N S F S S N Q N T F F F D N F R A S M I K M G N I G V L T G A E G E

UniRef90\_K7UD01 P E T R G I V N M F A M N Q A Y F F Y A F Q Q G M L K M G Q I D L K E G D D G E

UniRef90\_I1HZ53 G S Q A A L V N Q Y S N N N K L F F D D F V V A M K K M G S I G T L T G N A G Q

UniRef90\_F2DZM1 A T T E E Y V R R V A T G K G A F F R D F S E S M I K M G N V G V L T G N D G D

UniRef90\_Q0VYC8 R R T R G I V T D F A I N Q T L F F E K F V Y A M I K M S Q L N V L T G N Q G E

UniRef90\_M4DNB9 P D T P L V R E Y A D G T Q K F F D A F V E A M N R M G N I T P L T G T Q G E

UniRef90\_C5WRN7 T E T T P L V A R F A D S Q T E F F K S F A T A M I K M G N I A P L T G M G Q

UniRef90\_Q0D3N0 G S T D N T V R N F S S N T A F F N S A F T A A M V K M G N I S P L T G T Q G Q

UniRef90\_MORR04 G P A D A L V R L Y S K N G E A F F N R D F A A A M V K M G S I N P L T G S A G E

UniRef90\_I3T2D8 E D T K P L V R F Y S E N E R F F L M E F A Y A M V K M G N I N P L T G S E G E

UniRef90\_C4QZP5 P S F A K W V K I Y G E D E K L F F D E F S Q D F A K L L E L G V D R D S D G I

UniRef90\_D8R9L0 P A T K S A V H L Y S G D S S Q F F E D F G R A M I K L G G L T P L T G K E G E

UniRef90\_A0A022PT28 Y R T R W I V E A F A R D R G L F F W E F A A S M V R L G N V G V V I E D G E

UniRef90\_Q9XFC0 P A F R P Y V E L Y A K D E D A F F R D Y A V S H K K L S E L G F T P S G S K S

UniRef90\_B9SM73 A R T R A I V T S F A A N E T L F F Q K F V L S M I R M G Q M D V L T G N Q G E

UniRef90\_Q9FX85 P T A A A L V K S Y S E N P Y L F S R D F A V S M V K M G N I G V M T G S D G V

UniRef90\_G7IJV0 P D T I A I V N S F S S N Q T L F F E A F K A S M I K M G N I G V L T G T Q G E

UniRef90\_UPI0002BCAD5E G Q T D N L V K K Y S T N L G S F S K D F A E S M I K M G N I K P L T G N Q G Q

UniRef90\_Q8GZS1 A D T I S T V N S F S T N Q T L F F E A F K V S M I K M G N I S V L T G N Q G E

UniRef90\_B3VT95 P E C K A L V E T Y A S D Q A K F F E D Y A K A H Q K L S E L G

UniRef90\_V7ARS1 A E T A S Q V K Q N A R D G Y Q W A S K F A D A M V K M G Q I S V L T G N A G E

UniRef90\_M7ZP10 P R S R G T V N Y Y A S N Q G T F F Y D F T V A M T K L G R V G V K T A A D G E

UniRef90\_K4DH07 S R T K R L V S K Y A N S Q D E F F K A F A N S M I K M S S I N G V K T A A D G E

UniRef90\_UPI0002B41E69 S D T V G L V N R F A K K Q G E F F K S F G Q S M I K M G N I T P L T G N K G E

UniRef90\_W8PWH3 P A T A S E V K S N A R S P S G W K K K F A A A M V K M G Q I E V L T G N K G E

UniRef90\_M4CA55 P S T S G V V F Q Y A A N N E L F K R Q F A I A M V K M G S V D V L T G F A G E

UniRef90\_Q5ZF79 P E F R R Y V E L Y A K D E A F F K D Y A E S H K K L S E L G F T P

UniRef90\_I1GQL7 D T T K G Y V Q R V A A A G G T F F R D F G E S M V K M G N V G V L T G V Q G E

UniRef90\_V7BLL7 G S T D S Q V T A Y S T S S S F Y A D F S S A M V K M G N L S P L T G S S G Q

UniRef90\_I1NJ70 N G T N D Q V N R Y S R N M G N F K K D F A D A M F K M S M L T P L T G S N G Q

UniRef90\_M7YT16 D S T A P I V N M F S G N Q S A F F Q S F V A S M I N M G N I S P L T G S M G E

UniRef90\_A0A022Q0L3 S A T L P I V N M F S G N Q S A F F Q S F V A S M I N M G N I S P L T G V N G E

UniRef90\_Q4A3Y8 H I T Q N L V Q Q F I S N Q L T F F S K K F A R A M V K L S Q V E V K T G N E G E

UniRef90\_S2JVZ4 P F L E Y T K L Y A E D Q D R F F E D F K S A M K L I S L G K D R K D G E

UniRef90\_Q2A989 N G T R P F V D L Y A D N Q T A F F E D F A R A M E K L G M V G V K G D K D G E

UniRef90\_M4DBT3 R S T R G I V S S F A Q N N A L F R K R F A E A M V K M G T I K V L T G R S G E

UniRef90\_C5XIY1 A T L A P L A N A F A D E T L W K Q K F A A A M V K M G N I D V K T G T D E

UniRef90\_I1M883 N E T R E L V K K Y A Q D E S L F F E Q F S M S M I K M G N L R P L T G F N G E

UniRef90\_C5XI20 N D T A A L V D L Y A R N R T L W A S R F A S A M V K M G H L D V L T G T Q G E

UniRef90\_V4T378 E N T K Q I L E S Y V S A V G F K A D F A K A M V K M G N L G V K T G S E G E

UniRef90\_G7IJT9 S D T I S I V N K F S A D K N A F F D S F E A A M I K M G N I G V L T G K K G E

UniRef90\_M8BUA8 A T M K S L V N D S F V R S E A A F R T R F A R S M L K M G Q I E V L S G T Q G E

UniRef90\_I110G1 P E T Q M L V N T F A M N Q A Y F F Y A F Q Q G M Y K M G Q I D L K E G T Q G E

UniRef90\_Q9M4Z3 H A S M Q L V K Q Y A E N M E L F F D H F S K S I V K M G N I S P L T G M Q G E

UniRef90\_A3LQQ1 P E Y L R W V I V Y S R D E Q A Y F R D F A A T F G K L L E L G I

UniRef90\_M0Z810 G P V D S I A Q Q Y A G N G G A F S A D F I T A M E K M G N I S P L T G S N G E

UniRef90\_V4UK69 P R T K S L V Q E L G K D K Q K F F Q A F A V A M E K M G S I G V K R G R K G E

UniRef90\_V7BSE4 A E T P I V N S Y I D N Q T L F F E H F I A S M I K M G N I G V L K K P E G E

UniRef90\_P48534 S V F R P L V E R K Y A A D E D V F F A D Y A E A H L K L S E L G F

UniRef90\_M8AA24 A T T R P I V E R F A R S Q R D F F D Q F G V S M V K M G Q I K V L T G D Q G Q

UniRef90\_V7BEK0 P R T K P F V D V Y A K D Q Q A F F K D F A D A M V K L S V F D V K T G K Q G E

UniRef90\_B6THG0 A T T R P I V T R F A V D Q D A F F D Q F V Y S Y V K M G Q V N V L T G S Q G Q

UniRef90\_D8QQ91 P S F R P L V E L Y A K D E E A F F K D Y T E A H L K L S E L G F

UniRef90\_A0A059C780 P R T R P V V Q D M A K D K Q K F F E S F G A A M E K M G M I G V K R G R K G E

UniRef90\_P19135 P D T V K I V N L F A A S Q N Q F F E S F G Q S M I N M G N I Q P L T G N Q G E

UniRef90\_M5XMU7 P R T K A M V I S M A A S A D S W T Q R F V R A M I K M G R I N V L T G E N G E

UniRef90\_I3SIA8 S E S D K L V K L Y S R S L A F A R D F K A S M I K M G N L K L L T G R Q G E

UniRef90\_M0YF2 G S Q D S L V R K Y S G N G K I F A G D F A K A M V K M G G L L P A A G T P T E

UniRef90\_A2Q4B7 K S T S T F V S N F A S N G D K F V K S F A T A M I K M G K V G V L V G N E G E

UniRef90\_K4BUB5 K K T Q Q L V K I Q Y A E N A I F F H F S K S M V K M G N I S P L T E L K G E

UniRef90\_M4DY92 S K T R A Y V L Q Q A R G S T F F H D F G V S M V K M G R I G V L T G R T G E

UniRef90\_A0A022R876 P S F R P I V E K Y A A D E D A F F A D Y A E A H L K L S E L G F

UniRef90\_B6T173 P W T A G I V Q F N A A V E K A W Q V R F V K A M V K M G K V Q V L T G D E G E

UniRef90\_I3T3A4 G S Q D A L V K S Y A A N N A A F R D F A A A M V K M S K I S P L T G T N G E

UniRef90\_V7BKL4 P S T R P M L I T N A K H S S V W A R K V A K A M V H M G S I D V L T G S Q G V

UniRef90\_I1J9L0 D L T G K I V W A Y A S N E K L F F A S F A K S M I K M G N I N V L T G N E G E

UniRef90\_J7IER7 S E T K A Y V T S H A K G E A S F L K D F G V S M V N M G R I G V L T G N A G E

UniRef90\_C5X3D2 S K T A A S V A L N A I V P G L W E Q K F K V A M V K M A S I G V K T G T N G E

UniRef90\_UPI0002C32994 P G T Q E I V N Q M A S N E A W T K R F I K N M I K M G R S V L T R D E G E

UniRef90\_Q9AS12 A T L R A S V D E F V K S E T R W K S K F V K A M V K M G G I E V K T G T Q G E

UniRef90\_UPI00042B2358 G L S R L T V S G F A S N A T L F R T R F A Q A M V K M G R I Q V L V G K A G E

UniRef90\_P84516 A R T R A L V D K F A R S Q R D F F D Q F A F S V V K M G Q I K V L T G T Q G Q

UniRef90\_M4CQD4 R Q T R G V V A R Y A N N A Y F R D Q F V R A M I K M G A V D V L T G S A G Q

UniRef90\_K3XJB5 T A M A A L V S S F A A N E T L W K E K F A A A M V K M G R I Q V Q T G T C G E

UniRef90\_UPI000009D270 P Q M A A L V S S F A S N E T L W K E K F A A A M V K M G R I Q V Q T G T C G E

UniRef90\_UPI0002B4308D D E T K P L V E A Y S N T T L F F S D F V K A M I K M G N M S P L T G S N G Q

UniRef90\_Q9SC55 S K T A A Y V K F Y T T H T Q A F F Q Q F A V S M L K M S N L S P L T G T R G E

UniRef90\_I1NHR7 V R N R C D Q F N S 290  
UniRef90\_E9BQG1 I R N N C  
UniRef90\_Q5W5I2 I R R V C S A V N  
UniRef90\_K7ZW11 V R K D C R K I N  
UniRef90\_K9USP7 I R A K C N V V N S K  
UniRef90\_UPI00032A9E96 I R T N C R  
UniRef90\_I1P6Z9 I R K R C S V S N  
UniRef90\_Q94DM2 I R K K C S V V N  
UniRef90\_M0YQ04 I R R S C H V V N  
UniRef90\_D7U2P4 I R I N C R K V N  
UniRef90\_UPI0002C2E177 I Y K S C Q K  
UniRef90\_Q0JEQ2 I R R D C S A F N  
UniRef90\_V4SQC7 I R A N C R V I N S  
UniRef90\_B9IDG3 I R A K C N V I N N K  
UniRef90\_I1MP39 I R L Q C N F V N  
UniRef90\_V7BR19 I R H T C R V I N S  
UniRef90\_K7UD01 I R R N C R L V N  
UniRef90\_I1HZ53 I R K K C Y V L N  
UniRef90\_F2DZM1 I R S N C S  
UniRef90\_Q0VYC8 I R L N C K V V N S  
UniRef90\_M4DNB9 V R R D C R V V N  
UniRef90\_C5WRN7 I R L N C S K V N  
UniRef90\_Q0D3N0 V R L N C R R A N  
UniRef90\_M0RR04 I R K N C R V V N S  
UniRef90\_I3T2D8 A R K K F  
UniRef90\_C4QZP5 I R R S C R  
UniRef90\_D8R9L0 V R T N C R V V N  
UniRef90\_A0A022PT28 G P K D  
UniRef90\_Q9XFC0 I R A N C S A R N S  
UniRef90\_B9SM73 I R G K C  
UniRef90\_Q9FX85 V R T H C N F V N  
UniRef90\_G7IJV0 I R V N C R K V N  
UniRef90\_UPI0002BCAD5E I R K H C  
UniRef90\_Q8GZS1  
UniRef90\_B3VT95 I R T N C R V V S S  
UniRef90\_V7ARS1 I R R D C R S C E D A G V  
UniRef90\_M7ZP10 V R L D C R  
UniRef90\_K4DH07 I R L N C R R V N  
UniRef90\_UPI0002B41E69 I R A N C R V I N S  
UniRef90\_W8PWH3 I R R N C R A F N  
UniRef90\_M4CA55  
UniRef90\_Q5ZF79 I R R K C Y V I N K  
UniRef90\_I1GQL7 I R T N C R A V N  
UniRef90\_V7BLL7 I R Q N C R L V N  
UniRef90\_I1NJ70 V R R N C R V V N  
UniRef90\_M7YT16 I R S N C R R V N  
UniRef90\_A0A022Q0L3 I R R V C N R I N  
UniRef90\_Q4A3Y8  
UniRef90\_S2JVZ4 V R R K C D H F N K L D V  
UniRef90\_Q2A989 I R K N C R V F N  
UniRef90\_M4DBT3 I R L N C S V V N  
UniRef90\_C5XIY1 V R K N C R R V N  
UniRef90\_I1M883 I R K F C N R V N  
UniRef90\_C5XI20 I R R V C A A V N  
UniRef90\_V4T378 I R K H C N F V N S K S V  
UniRef90\_G7IJT9 I R R N C R V I N  
UniRef90\_M8BUA8 V R K S C R V V N S  
UniRef90\_I1I0G1 I R Q N C R R I N  
UniRef90\_Q9M4Z3  
UniRef90\_A3LQQ1 I R N N C R K P N  
UniRef90\_M0Z810 K R K D C  
UniRef90\_V4UK69 I R T Q C N F V N  
UniRef90\_V7BSE4  
UniRef90\_P48534 V R R N C S A R N  
UniRef90\_M8AA24 V R T R C D Q F N  
UniRef90\_V7BEK0 V R A N C S A R N  
UniRef90\_B6THG0  
UniRef90\_D8QQ91 R R R D C S S  
UniRef90\_A0A059C780 I R S N C R R L N  
UniRef90\_P19135 I R K N C R A F N  
UniRef90\_M5XMU7 V R R N C R K I N  
UniRef90\_I3SIA8 V R L N C R K V N  
UniRef90\_M0YYF2 I R K N C R V F N K  
UniRef90\_A2Q4B7 I R K N C R R V N  
UniRef90\_K4BUB5 I R K M C R V P N  
UniRef90\_M4DY92  
UniRef90\_A0A022R876 I R E K C F V V N  
UniRef90\_B6T173 I R K N C R V V N  
UniRef90\_I3T3A4 V P  
UniRef90\_V7BKL4 I R R N C R F V N  
UniRef90\_I1J9L0 I R K V C S K I N  
UniRef90\_J7IER7 I R T N C R V V N  
UniRef90\_C5X3D2 I R L N C R E F N K E  
UniRef90\_UPI0002C32994 V R L N C R V V N K  
UniRef90\_Q9AS12 I R R N C R V F N  
UniRef90\_UPI00042B2358 I R T N C S A R N A A G  
UniRef90\_P84516 I R R N C R R F N  
UniRef90\_M4CQD4 V R L N C S V V N  
UniRef90\_K3XJB5 V R L N C G V V N  
UniRef90\_UPI000009D270 I R N N C G I V N S  
UniRef90\_UPI0002B4308D I R K N C R K M N  
UniRef90\_Q9SC55



1 10 20 30 40

UniRef90\_M4E2Z8 L S L S Y Y D K I C P N F E K I V D T K V R E W T K T D P S

UniRef90\_F2E9F5 N A K L S P T F Y I K S C P N L F Y I V F I L K A S L T D S V K M A K S P I

UniRef90\_V7BSE8 A Q L S Q N F Y S S S C P N V E S I V S Q A V T N Q A M A S D P R

UniRef90\_M0SKX8 Q L S A G F Y S A S C P T V H G V V R Q V M S Q A V M N D T R

UniRef90\_V7CWS6 L S P D Y Y K A T C P Q A D E I V S V L K K A I A K E Q R

UniRef90\_D8QSH1 A Q L R V G F Y N T T C P N A E A I V S E V V Q S Y Y Q N D N T

UniRef90\_I1HZ47 Q L T D D F Y D G C C P H A E D I V K A R V S A A M K A E P R

UniRef90\_Q9LDY1 N A Q L S T T F Y A S T C P N V S I V R T V V Q Q V M N S D S R

UniRef90\_M4EXL4 Q L S E N F Y A A T C S N L D E V K R E V S R T L F T V P P D G G R R

UniRef90\_F2DK78 A Q L Q T G F Y A S S C P N A E S I V K S E V S K A T Q Q D S R L P

UniRef90\_UPI00032AC3D1 A Q L Q V G F Y N T T C P N A E A L V R Q A V T A A F A N N S G

UniRef90\_C5WRN4 K K V N S C P Q L E T I S R D I T W G R V A S N P T

UniRef90\_M4D993 A Q L N S D F Y K E S C P S L F H V V R R V V H R A V A R E P R

UniRef90\_W9S7Y4 F Y R R S C P R A Q K I V R E A V R N A T S K N P G

UniRef90\_K3YU78 S S Q A Q L T P D F Y N T T C P N A S N I I L G V L Q N A F N S D I R

UniRef90\_W9SAJ4 S S D A Q L Q M N F Y A K S C P K A E K I I S D H I E K H I H N G P S

UniRef90\_D8SSH0 A Q L V E N F Y G S N C P N L E Q I V T Q S V Q T K F A Q T F V

UniRef90\_I1HF23 Y R E T C P H A E I I R E T A R I I R A S P D

UniRef90\_A5JW29 A S L Q Y N F Y G S S C P N A E Q T I S N V V Y G L I D A D P S

UniRef90\_B9RSX7 Q L D S N F Y R S R C P A L E P I S A A V A R Q I R K D P T S

UniRef90\_R0GN22 Q L S P T F Y D T S C P G Y Y Y K T C P K A E S I R K T T Y R S R A P T

UniRef90\_W5C9H3 S T E A Q L Q M G F Y S S S C P N A E R I A Q D Y V N R H I H N A P S

UniRef90\_M0XHU1 A Q L R R D F Y A D V C P N V E S I V R S A V T K K F K Q T F V

UniRef90\_Q0ZA67 S S E S K L T L D Y Y K K T C P G L Q Q T I R Q V I T D K Q I A S S T T

UniRef90\_D8T9L5 Q L V K N F Y K S T C P N V E Q I V T Q A V R N K F S Q T I I

UniRef90\_M4ER86 A L V A M S P L V A A L T Q N Y Y A S I C P N L E N I V R G S V Q R S Q S P I

UniRef90\_UPI0002B43459 A E L D G V A Y Y D F R C P D A L A I V Q G V H A A M Q R D A R

UniRef90\_J3MI04 T P A T Q G G A L R K D F S C P Q A E T I V N Q T I H T I F N R D P T

UniRef90\_W9R3K3 A Q L R L N Y Y G S S C P S A E S V R S V I S Q R L Q Q S F A

UniRef90\_I1Q861 A A T T S R A Q D P S R L S L S Y Y S K T C P T A E E I V R A E M A C A A N P R

UniRef90\_K3YCH7 F Y K N S C P R A D D I V F E Q M T E I F K T K P T A Q D G N

UniRef90\_M0T947 A S Y Y D K T C P D A Q N I V R T V M E R S V A A N P R

UniRef90\_D8S7T0 P H F Y D N V C P Q A L P T I K S V V L H A I L R E K R I

UniRef90\_UPI00042B25E8 S T E A Q L K M G F Y N T S C P K A E K I V Q G F V N Q H I H N A P S

UniRef90\_J3MP38 N I S V H A S D F P L T L D Y Y A K T C P T V F D M V R K E S E C A S N P R

UniRef90\_B9HHF1 Y T L S C P M A E I V K N T V N A A L Q A D P T

UniRef90\_UPI0002B4505D G K S Y P D Y Q K A V E K A K K K L R G F I A E K R

UniRef90\_V4SDJ6 Y D H T C P Q L E A V T K A V K K A M S N D K T

UniRef90\_A0A059D8L8 L G S V N A T L S K D Y Y Y S S C P K L L D T V K C T V E S A K E P R

UniRef90\_UPI0002B4A722 L S F S Y Y R Q T C P D L E A I I N R K V K E W I D K D Y T

UniRef90\_J3MH57 M S P A F Y D A S C P E L Q S V V R R G M A Q A V Q K E A R

UniRef90\_A9SAB1 P P T F Y N T S C T Q A L A I I K T V A A A I A T D R S

UniRef90\_S8E7Q0 P S A G L K P N F Y G S S C P N A E Q I V Q T I I Y K E A E K N P I

UniRef90\_B4FQA9 A S L F F N F Y G A S C P A A E I V K H N V E V A V L K D P R

UniRef90\_M4FRL9 F Y E T S C P L A E H I V Q S I T W T Y V A S S S D P T I P

UniRef90\_M0SC94 Q L S P S F Y R K S C P Q A E Q I V K T T I Q Q H V S S R P E

UniRef90\_A9TX19 Q L S P S F Y K S C P N L A S I V R A G M T S A V Q T E R R

UniRef90\_J3MEL0 F Y K H S C P P A E V I V R D A V R N A L L V N P G

UniRef90\_Q40372 Y A K S C P Q L E Q L V G S V I S Q K V A A W I K K D P T

UniRef90\_A9PAV3 A Q L T L D Y Y A K T C P Q F D S I V R D I S Q Q K Q T E F A

UniRef90\_W9QW15 Q L V E N F Y T S T C P N V E F I V A Q A V T K F T Q T I T G

UniRef90\_W9RCB0 K R L R C Q F L V K L K D V T A K F I S R T P S

UniRef90\_Q45W81 N A Q L S S Q F Y S K T C P N V T V I A R G V I Q R A S R V D V R

UniRef90\_W9S0U2 N G Q L R K D F Y K S S C P Q A E Q I V Q N I T W K R V A S N S T

UniRef90\_UPI00042B0A87 Q L R Q D Y Y A S C P N V E A I V Q A A V A L K V Q Q T P V

UniRef90\_UPI00032A9090 F Y E S C P H L E H I V K E I S D Q V M A V A P S

UniRef90\_B9GQQ9 P V V A A G L S W G F Y D T S C P S V E G I V R W H V T E A R D I G

UniRef90\_F6HGE3 A Q L D E K F Y D G S C P G V H R I V R R V L K E A H Q A D V R

UniRef90\_M7Z2E8 S A Q L S P T F Y Q N T C P N V S I V G Q V L Q Q A L Q K D S R

UniRef90\_M0WWF3 V N P S E S R L S V N Y Y Q K S C P R F S Q I M Q D T I K Q I T S P T

UniRef90\_M0S4I5 C P Q A E A V V K G V V A N A I A Q N P G

UniRef90\_M4CMA8 S V T S F A S D P D L K K A R E D I R Q L L K T T F D K Q I T S P T

UniRef90\_B9HB89 V S S A L Q V G F Y A K K C R A A E S I V Q Q E V S F S T D R S

UniRef90\_UPI00042B4E8B Y H K T C H N A E K I V R E V V I E D A V K A N P G

UniRef90\_I3SL83 F Y A S S C P K V I E D I V T E V V A R L S K Q D P T

UniRef90\_M7ZT03 F Y N Q T C P S A E E A V R D Q V T S E I G L D R T I

UniRef90\_K4A2D7 P I T Q S K L I P Y N K C P K F E D I V K Q V T D K Q K T T P S

UniRef90\_M0RFS6 H F Y A R S C P R A E A L V R R A V R R R A A H D R S

UniRef90\_UPI00032A4F67

UniRef90\_UPI00032AA3BC

UniRef90\_K4CIK2

UniRef90\_I3SGC2

UniRef90\_H6UYB2

UniRef90\_V4LEA3

UniRef90\_M1C3C1

UniRef90\_W5W142

UniRef90\_C5X3C9

UniRef90\_F2CTF4

UniRef90\_K9P2L3

UniRef90\_I1PR60

UniRef90\_I1H7Q3

UniRef90\_A9NN21

UniRef90\_A5BLQ3

UniRef90\_I1H556

UniRef90\_C0KKI3

UniRef90\_W1PLY5

UniRef90\_K4D7T6

UniRef90\_M8B936

UniRef90\_UPI0002C3409D

UniRef90\_I1Q6R6

UniRef90\_G7LEQ9

UniRef90\_C5WV87

[illegible]

		90	100	110	120																																					
UniRef90_M4E2Z8	L	R	G	F	E	L	I	E	D	I	K	S	E	L	E	K	S	C	P	G	V	S	C	A	D	I	L	T	A	A	S	R	S	A	T	Y	Q	L	G			
UniRef90_F2E9F5	Q	T	I	L	D	A	K	A	A	V	D	S	D	P	Q	R	Y	K	V	S	C	A	D	I	L	I	A	L	A	A	R	E	S	V	F	Q	S	G	G			
UniRef90_V7BSE8	N	R	G	L	D	V	I	N	I	K	T	A	V	I	E	K	S	C	P	G	K	V	S	C	A	D	I	L	A	L	A	A	R	Q	S	M	G	T	V	L	G	G
UniRef90_M0SKX8	N	L	N	S	L	R	G	F	D	V	I	D	G	I	E	K	A	C	P	G	D	T	V	S	C	A	D	V	L	A	I	A	A	R	D	S	V	V	L	L	G	G
UniRef90_V7CWS6	G	D	G	F	D	T	V	I	K	A	K	Q	A	V	E	A	S	C	P	G	V	V	C	A	D	I	L	S	L	A	T	R	D	V	I	S	L	L	G	G		
UniRef90_D8QSH1	N	L	G	F	D	A	V	I	K	A	K	A	A	V	E	S	K	C	P	G	V	V	C	A	D	I	L	A	L	A	S	T	R	E	L	V	L	L	G	G		
UniRef90_I1HZ47	N	A	G	S	T	F	G	F	D	V	I	D	S	I	K	T	Q	V	E	A	A	C	C	A	D	I	L	A	I	A	A	R	D	S	V	N	L	L	G	G		
UniRef90_Q9LDY1	N	K	N	S	I	R	G	F	E	V	I	D	E	I	K	A	C	P	H	T	V	S	C	A	D	I	L	A	L	A	A	R	G	S	T	V	L	L	G	G		
UniRef90_M4EXL4	N	L	N	S	L	R	G	F	E	V	I	D	S	I	E	K	A	C	C	P	E	T	V	S	C	A	D	I	L	A	M	A	A	R	D	S	V	V	V	S	G	G
UniRef90_F2DK78	L	R	G	F	E	V	V	N	A	A	R	A	A	L	E	Q	S	C	P	E	T	V	S	C	A	D	I	L	A	F	A	A	R	D	S	V	N	I	T	G	S	
UniRef90_UPI00032AC3D1	N	K	T	L	R	G	F	D	I	T	D	A	K	E	E	C	P	E	T	V	S	C	A	D	I	L	A	I	A	T	R	D	A	V	A	L	A	N	G			
UniRef90_C5WRN4	N	L	N	S	L	R	G	F	E	V	V	D	A	I	K	A	D	L	E	K	A	C	C	A	D	I	L	A	I	A	A	K	Y	G	V	L	L	S	G	G		
UniRef90_M4D993	N	S	G	L	K	I	A	L	D	L	E	D	V	I	K	T	K	H	P	K	I	S	Y	A	D	I	L	Y	Q	L	A	G	V	V	A	E	V	T	G	G		
UniRef90_W9S7Y4	N	A	N	S	A	R	G	Y	D	V	V	D	N	I	K	S	C	S	G	V	V	S	C	A	D	I	L	A	L	A	A	E	S	S	V	S	L	S	G	G		
UniRef90_K3YU78	N	F	N	S	L	R	G	F	D	V	I	D	R	I	K	D	E	V	E	R	N	C	C	A	D	I	L	A	L	A	A	R	A	V	A	L	E	G				
UniRef90_W9SAJ4	N	N	G	L	D	I	A	V	R	L	L	E	P	I	K	E	Q	F	P	I	I	S	Y	A	D	F	Y	Q	L	A	G	V	V	A	E	V	T	G	G			
UniRef90_D8SSH0	N	N	N	S	L	R	G	F	E	V	I	D	T	I	K	A	S	L	E	S	S	C	C	A	D	I	L	A	I	A	A	R	D	S	S	V	I	T	G	G		
UniRef90_I1HF23	N	N	N	P	S	L	R	G	F	D	V	I	A	A	A	K	A	L	V	E	Q	S	C	C	A	D	I	L	A	F	A	A	R	D	S	V	I	N	T	G	T	N
UniRef90_A5JW29	N	A	G	L	K	V	A	L	D	L	A	P	I	K	K	D	F	P	R	T	V	C	A	D	I	L	F	Q	L	A	S	V	V	A	I	E	Y	A	N	G		
UniRef90_B9RSX7	N	R	G	F	D	V	I	D	D	I	K	A	K	L	E	E	E	C	P	G	Q	I	C	A	D	I	I	A	L	A	A	R	D	A	V	S	F	Q	F	G		
UniRef90_R0GN22	S	N	N	S	L	R	G	F	E	V	I	D	K	L	K	F	K	V	E	K	I	C	C	A	D	I	L	A	I	A	T	A	R	D	S	V	L	L	L	G	G	
UniRef90_W5C9H3	N	F	P	S	L	R	G	F	E	V	I	D	A	A	K	E	C	P	G	R	V	S	C	A	D	I	L	A	F	A	A	R	D	A	S	F	F	L	L	S	R	
UniRef90_M0XHU1	N	N	G	S	A	R	G	Y	D	V	V	D	A	K	A	A	L	E	D	A	C	C	A	D	I	L	A	L	A	A	E	I	S	V	E	L	S	G	G			
UniRef90_Q0ZA67	N	N	N	S	A	R	G	F	E	V	V	D	A	M	K	A	C	P	G	I	V	S	C	A	D	I	L	A	I	A	S	E	Q	S	V	N	L	S	G	G		
UniRef90_D8T9L5	N	R	N	S	A	R	G	F	E	V	I	D	E	I	K	A	A	L	E	K	E	C	C	A	D	V	L	A	I	A	A	R	D	S	V	V	L	T	G	G		
UniRef90_M4ER86	N	L	T	L	R	G	F	G	F	V	E	R	I	K	E	C	P	K	T	V	S	C	A	D	I	L	A	I	A	T	A	R	D	A	V	V	A	T	G	G		
UniRef90_UPI0002B3459	N	L	G	F	D	T	V	V	K	A	K	Q	A	V	E	N	V	C	P	G	V	S	C	A	D	I	L	A	L	A	T	R	D	V	N	L	A	G	G			
UniRef90_J3MI04	N	K	T	L	R	G	A	R	V	K	D	K	L	E	K	A	C	P	A	T	V	S	C	A	D	I	L	L	A	L	M	A	S	D	A	V	V	L	A	K	G	
UniRef90_W9R3K3	N	S	G	I	P	G	Y	A	A	I	D	A	K	A	C	P	G	V	V	S	C	A	D	I	L	L	A	L	A	A	R	D	A	V	V	L	T	K	G			
UniRef90_I1Q861	L	R	G	Y	D	A	V	N	K	I	K	A	A	V	E	A	V	C	P	G	K	V	C	A	D	I	L	A	F	A	A	R	D	S	V	A	K	S	G	R		
UniRef90_K3YCH7	N	N	G	S	V	R	G	F	E	V	I	D	A	I	K	A	V	C	P	E	K	V	C	C	A	D	I	L	A	I	A	A	R	D	S	V	V	I	L	Q	R	
UniRef90_M0T947	N	Q	S	L	D	G	F	Y	V	I	D	A	A	K	A	C	P	E	T	V	S	C	A	D	I	V	A	L	V	A	R	D	A	V	S	L	V	S	Q			
UniRef90_D8S7T0	N	V	S	L	R	Q	F	D	V	I	L	E	E	T	K	K	C	P	G	V	V	S	C	A	D	I	V	A	L	A	A	R	D	S	T	V	Q	T	G	G		
UniRef90_UPI00042B25E8	N	L	I	S	L	R	G	F	H	V	I	D	A	V	K	A	C	P	G	V	V	S	C	A	D	T	L	A	L	V	A	R	D	S	V	M	I	Y	G			
UniRef90_J3MP38	N	K	N	S	L	R	G	F	N	V	I	D	S	I	K	T	Q	L	E	G	M	C	C	A	D	I	L	A	V	A	A	R	D	S	V	V	A	L	G	G		
UniRef90_B9HHF1	N	R	G	F	D	F	I	D	K	V	K	S	L	L	E	A	A	C	P	A	V	V	C	A	D	I	V	A	L	V	A	R	D	A	V	V	A	T	G	G		
UniRef90_UPI0002B4505D	N	L	S	L	A	K	A	K	A	A	V	D	A	V	P	G	C	K	N	K	V	S	C	A	D	I	L	V	M	A	T	R	D	V	I	S	L	A	R	G		
UniRef90_V4SDJ6	N	V	S	L	H	A	F	Y	V	I	D	N	A	K	K	Q	V	E	A	L	C	C	A	D	I	L	A	L	A	A	R	D	A	V	V	L	S	G	G			
UniRef90_A0A059D8L8	N	L	S	L	G	D	G	F	E	V	T	T	R	A	K	E	C	P	D	I	V	S	C	A	D	I	L	A	L	A	A	R	D	L	V	T	M	V	G	G		
UniRef90_UPI0002B4A722	N	L	G	F	D	T	V	V	K	A	K	Q	A	V	E	A	A	C	P	G	R	V	C	A	D	I	L	A	L	A	A	R	D	V	V	L	A	A	G	G		
UniRef90_J3MH57	N	Q	S	L	K	P	A	K	A	A	V	D	S	D	P	Q	C	K	N	K	V	S	C	A	D	I	L	A	L	A	T	R	D	S	V	F	L	S	G	G		
UniRef90_A9SAB1	N	L	N	S	A	R	G	F	E	I	D	E	I	K	Q	Q	L	E	D	A	C	C	A	D	I	V	A	A	A	A	R	D	A	V	F	L	S	G	G			
UniRef90_S8E7Q0	N	G	P	F	V	R	G	F	E	I	D	E	I	K	T	Q	L	E	A	Q	C	C	A	D	I	L	A	F	S	V	R	D	S	L	V	F	T	G	V			
UniRef90_B4FQA9	H	S	G	I	N	K	A	K	A	A	V	E	A	L	P	G	C	A	G	K	V	S	C	A	D	I	L	A	M	A	A	R	D	V	V	S	L	L	G	G		
UniRef90_M4FRL9	N	A	G	L	K	T	A	R	D	F	L	E	P	V	K	S	K	F	P	W	I	S	Y	S	D	L	W	I	L	S	G	V	C	A	I	L	Q	E	M	L	G	
UniRef90_M0SC94	N	V	N	S	L	Q	G	F	E	L	V	D	R	I	K	Q	K	L	E	A	E	C	C	A	D	L	A	I	A	A	R	D	A	T	I	L	V	T	G	G		
UniRef90_A9TX19	N	G	R	L	E	G	F	D	A	V	D	K	I	K	A	A	L	E	G	E	C	C	A	D	L	A	F	A	A	R	D	G	V	R	L	T	G	G				
UniRef90_J3MEL0	N	A	S	L	A	G	F	D	V	K	E	E	L	E	K	K	A	P	A	T	V	S	C	A	D	V	L	A	L	A	S	R	D	A	V	A	M	L	G	G		
UniRef90_Q40372	N	I	N	S	I	R	G	F	S	V	V	D	E	I	K	A	A	V	D	K	V	C	C	A	D	I	L	A	T	A	A	R	D	S	V	A	I	G	P	Q		
UniRef90_A9PAV3	N	R	G	F	D	F	I	D	R	V	K	R	L	V	E	A	E	C	P	G	I	V	C	A	D	I	L	T	L	V	A	R	D	S	I	V	A	T	G	G		
UniRef90_W9QW15	N	R	N	S	L	K	G	Y	D	I	D	K	I	K	N	M	V	E	S	E	C	C	A	D	I	L	T	L	A	A	R	D	A	V	I	L	V	G	G			
UniRef90_W9RCB0	N	R	G	Y	D	V	I	D	A	K	D	Q	L	E	Q	C	P	G	V	V	C	A	D	I	L	L	A	M	A	A	R	D	A	V	F	F	A	G	G			
UniRef90_Q45W81	N	A	G	L	D	I	A	V	R	L	L	E	P	I	K	E	Q	F	P	T	L	S	Y	A	D	F	Y	Q	L	A	G	V	V	A	E	I	T					
UniRef90_W9S0U2	N	I	S	L	H	A	F	Y	V	I	D	N	A	K	K	A	V	E	A	L	C	C	A	D	I	L	A	I	A	A	R	D	A	V	A	L	S	G	G			
UniRef90_UPI00042B0A87	N	Q	N	S	A	R	G	Y	E	V	I	D	N	I	K	A	N	V	E	K	A	C	C	A	D	I	L	T	L	A	A	R	D	A	V	Y	F	A	G	G		
UniRef90_UPI00032A9090	N	K	N	S	A	R	G	F	E	V	I	D	K	I	K	S	C	P	G	V	I	S	C	A	D	I	V	T	I	A	A	R	D	S	V	E	I	L	G	G</		

UniRef90_M4E2Z8	P	Y	W	P	N	A	Y	G	R	R	D	S	T	N	S	Y	A	R	D	V	E	K	V	P	S	G	R	R	D	I	L	T	G	L	E	T	F	Q	S	Y						
UniRef90_F2E9F5	P	N	Y	T	V	E	L	G	R	Y	K	D	G	T	K	A	N	R	T	L	N	N	V	T	L	P	H	P	S	R	D	I	D	S	L	N	A	F	S	T	L					
UniRef90_V7BSE8	G	P	A	W	A	V	L	L	G	R	R	K	D	G	T	A	N	R	T	L	A	N	Q	N	L	P	P	P	F	T	D	V	L	D	S	L	K	A	F	A	N	L				
UniRef90_M0SKX8	P	T	W	V	V	E	L	L	G	R	R	D	G	V	T	A	S	L	S	A	M	A	T	N	L	P	P	P	P	T	D	V	L	A	T	V	I	Q	K	F	A	N	L			
UniRef90_V7CWS6	P	S	F	K	V	E	L	L	G	R	R	D	G	V	T	A	S	L	S	K	A	S	R	V	E	N	L	P	K	A	N	S	F	N	T	S	L	F	A	S	K	H				
UniRef90_D8QSH1	P	S	W	E	V	R	L	L	G	R	R	D	G	T	V	S	K	A	S	R	V	E	N	L	P	K	M	P	N	M	T	D	V	L	A	E	L	T	S	L	F	A	S	K		
UniRef90_I1HZ47	P	S	W	A	V	P	L	L	G	R	R	D	A	T	A	P	N	S	G	A	T	D	N	L	P	G	P	P	D	S	T	D	L	A	A	R	L	V	A	F	A	A	K	H		
UniRef90_Q9LDY1	P	Y	W	E	V	L	L	G	R	R	K	D	S	K	A	Y	M	K	L	A	N	K	N	L	P	P	P	P	N	S	T	V	L	P	T	L	V	I	S	I	F	Q	K	L		
UniRef90_M4EXL4	P	N	W	D	V	E	V	L	L	G	R	R	D	G	R	T	A	S	T	Q	A	A	T	T	S	L	P	S	P	P	N	S	T	V	L	P	T	L	V	I	S	I	F	Q	K	L
UniRef90_F2DK78	N	F	Y	Q	V	P	S	S	G	R	R	D	G	L	L	S	T	D	A	G	A	F	T	L	P	G	P	P	F	V	N	V	A	A	G	A	V	L	T	G	F	E	M	R	K	
UniRef90_UPI00032AC3D1	K	V	Y	R	V	L	T	G	R	R	D	G	L	L	S	N	A	N	C	T	D	E	G	R	L	P	S	P	P	F	F	D	P	I	N	T	I	T	N	K	F	N	D	V		
UniRef90_C5WRN4	P	D	Y	D	V	L	L	G	R	R	D	G	L	V	A	N	Q	S	T	G	A	N	N	L	P	S	P	P	F	F	D	P	I	N	T	I	T	N	K	F	N	D	V			
UniRef90_M4D993	P	D	I	S	F	V	P	L	G	R	R	D	G	L	V	A	N	C	T	D	E	G	R	L	P	S	P	P	F	F	D	P	I	N	T	I	T	N	K	F	N	D	V			
UniRef90_W9SY74	P	S	W	D	V	R	L	L	G	R	R	D	S	L	T	A	N	R	A	E	K	A	N	T	L	P	S	P	P	A	N	S	E	G	L	K	N	I	T	N	K	F	N	D	V	
UniRef90_K3YU78	P	T	W	P	L	L	L	L	G	R	R	D	S	T	T	A	N	M	T	E	A	N	N	L	P	S	P	P	N	S	N	L	L	D	E	N	I	T	G	K	F	H	N	K		
UniRef90_W9SAJ4	P	E	I	P	F	H	P	L	G	R	R	D	K	P	L	P	P	P	G	E	G	R	L	P	S	P	P	D	A	T	K	G	S	D	H	L	R	D	V	I	G	T	M	K		
UniRef90_D8SSH0	P	S	W	D	V	R	L	L	G	R	R	D	S	T	T	A	S	L	S	G	A	N	S	L	P	S	P	P	A	F	T	V	N	Q	L	I	I	T	G	F	A	R	K	M		
UniRef90_I1HF23	S	F	Y	Q	V	P	S	G																																						



[illegible]

UniRef90_M4E2Z8	K	Y	A	D	F	L	R	R	K	C	R	W	P	V	V	F	D	N	Q	Y	Y	I	N	L	Q	N	N	M	G	V	L	T	T	D	A	E	L	V	K	D			
UniRef90_F29EF5	S	F	D	A	Q	L	R	Q	Q	C	S	K	Q	N	F	D	N	Q	Y	Y	Q	N	H	L	Q	N	N	G	R	G	L	L	G	T	D	D	Q	V	L	T	D		
UniRef90_V7BSE8	N	Y	L	A	T	L	R	Q	Q	C	P	Q	N	D	Q	F	D	N	K	Y	Y	Q	N	H	L	Q	N	N	G	R	G	L	L	G	T	D	D	Q	V	L	T	D	
UniRef90_M0SKX8	I	F	L	Q	S	L	R	Q	Q	L	C	A	T	P	A	T	F	D	N	Q	Y	Y	V	N	L	L	S	G	E	G	L	L	P	S	D	D	Q	V	L	V	I	N	G
UniRef90_V7CWS6	T	Y	A	Q	T	L	M	A	G	C	P	R	N	P	D	F	D	N	Q	Y	Y	Q	N	L	L	V	S	G	K	G	L	L	T	S	D	D	Q	V	L	F	S	D	
UniRef90_D8QSH1	Y	A	A	E	L	R	Q	A	C	P	R	T	P	D	L	F	D	N	A	F	F	K	N	T	L	Y	G	R	G	L	L	T	S	D	D	Q	A	L	F	S	N	D	
UniRef90_I1H247	G	D	A	S	L	A	P	L	D	A	L	P	S	N	Q	F	D	N	G	Y	Y	R	S	L	M	S	G	A	G	L	L	R	S	D	D	Q	E	L	F	N	N	D	
UniRef90_Q9LDY1	M	F	Y	S	T	L	A	S	T	C	P	R	P	S	K	F	D	N	T	Y	Y	K	L	L	I	E	S	G	R	G	L	L	R	S	D	E	V	L	W	R	D		
UniRef90_M4EXL4	D	F	L	E	S	L	A	Q	L	C	P	V	T	P	S	T	F	D	N	Q	Y	Y	V	N	L	L	S	G	E	G	L	L	P	S	D	D	Q	A	L	V	Q	D	
UniRef90_F2DK78	Y	Q	A	L	L	E	A	L	C	P	A	N	T	G	Q	F	D	N	N	Y	Y	K	L	V	Q	L	N	L	G	L	H	F	S	D	D	Q	A	L	I	R	N	D	
UniRef90_UPI00032AC3D1	F	Y	F	N	P	L	I	G	N	K	T	C	Q	T	P	F	E	F	D	N	G	F	Y	N	Q	I	V	E	N	R	G	L	L	E	I	D	Q	Q	L	A	L	D	
UniRef90_C5WRN4	S	L	A	S	S	L	Q	T	L	C	Q	S	A	D	T	F	D	N	H	Y	Y	Q	N	L	L	T	Q	R	G	L	L	S	D	D	Q	G	L	F	S	S			
UniRef90_M4D993	Y	F	V	L	A	L	K	E	D																																		
UniRef90_W9SY74	S	Y	L	A	A	L	Q	Q	T	C	P	Q	N	D	T	F	D	N	K	Y	F	T	N	L	H	D	N	N	R	G	L	L	S	D	D	Q	E	L	F	T	S	R	
UniRef90_K3YU78	G	V	V	G	K	T	A	S	L	D	V	H	T	P	E	V	F	D	N	R	Y	Y	G	N	L	T	K	D	G	L	L	H	S	D	D	Q	V	L	T	S	R		
UniRef90_W9SAJ4	Y	F	T	E	L	L	S	G	E																																		
UniRef90_D8SSH0	G	F	L	K	S	L	Q	S	A	C	P	Q	G	T	T	F	D	N	Q	Y	Y	S	N	L	L	G	R	G	L	L	N	S	D	D	Q	V	L	S	T	T	D		
UniRef90_I1HF23	F	T	L	V	T	T	E	I	D	L	S	T	P	V	V	L	D	N	N	Y	Y	R	L	L	P																		

UniRef90_M4E2Z8	P	R	T	A	P	L	V	K	A	F	A	E	Q	P	T	F	R	H	Q	F	A	V	S	M	A	K	L	V	N	V	G	V	I	T	G	E	D	G	E	280			
UniRef90_F2E9F5	E	R	S	R	G	T	V	D	Y	F	A	S	N	Q	Q	I	F	Y	D	F	S	V	A	M	T	K	L	G	R	N	V	G	V	K	T	A	D	G	E				
UniRef90_V7BSE8	P	D	T	I	P	I	V	N	Y	F	A	S	N	Q	N	T	F	F	Y	D	F	R	A	M	I	K	L	G	R	N	V	G	V	K	T	A	D	E					
UniRef90_M0SKX8	G	E	V	G	S	L	V	Q	A	Y	A	M	D	P	V	L	F	Y	E	D	F	A	V	S	M	V	R	K	L	G	R	N	L	A	P	P	P	G	S	E	A	E	
UniRef90_V7CWS6	A	A	S	Q	P	T	V	V	R	F	A	N	N	A	A	D	F	F	N	E	A	F	V	A	A	L	R	K	L	G	R	V	G	I	K	T	G	N	E	G	E		
UniRef90_D8QSH1	S	S	A	R	P	T	V	N	L	F	A	G	S	N	A	P	D	F	F	A	F	A	V	A	M	D	K	L	G	L	G	I	G	V	K	T	G	T	G	E			
UniRef90_I1H247	G	A	V	D	S	L	V	R	L	Y	G	S	N	A	N	A	F	S	A	D	F	A	A	S	M	I	T	L	G	N	I	S	P	L	T	G	S	T	G	E			
UniRef90_Q9LDY1	P	Q	L	I	A	G	L	V	R	S	Y	A	E	N	E	P	L	F	F	E	H	Y	V	N	S	I	T	K	M	G	N	I	N	P	L	T	G	Y	D	G	E		
UniRef90_M4EXL4	P	G	T	R	E	I	V	E	T	Y	A	A	D	Q	S	V	F	F	E	D	F	K	N	A	M	V	K	M	G	N	I	G	I	T	G	T	G	S	E	G	E		
UniRef90_F2DK78	A	T	L	K	A	F	V	D	A	F	A	A	N	E	T	L	W	K	D	K	F	I	A	M	I	K	M	G	N	I	I	A	P	K	T	G	T	G	Q	Q			
UniRef90_UPI00032AC3D1	P	S	S	S	D	L	V	W	S	Y	A	R	N	E	T	L	R	F	W	D	N	F	E	I	A	M	R	K	M	G	N	I	I	G	V	L	V	G	T	N	E	G	E
UniRef90_C5WRN4	A	A	T	K	A	L	V	Q	A	Y	S	A	N	S	Q	R	F	F	Y	D	F	G	R	S	M	V	K	M	G	N	I	S	P	L	T	G	S	A	G	Q			
UniRef90_M4D993	P	E	F	R	Q	Y	V	E	L	Y	A	K	D	E	A	F	F	D	Y	A	E	S	H	K	K	L	S	E	L	S	I	G	F	T	P	T	S						
UniRef90_W9S7Y4	S	V	T	V	S	I	V	N	S	L	S	S	D	Q	S	A	F	F	D	S	F	A	Q	S	M	I	N	M	G	N	I	S	P	L	T	G	S	K	G	E			
UniRef90_K3YU78	D	D	V	K	A	F	V	E	E	Y	K	S	N	Q	D	T	F	F	R	D	F	A	S	A	M	K	R	M	S	E	L	G	V	L	T	G	T	N	G	Q			
UniRef90_W9SAJ4	P	V	F	R	P	L	V	E	K	Y	A	A	D	E	D	A	F	F	V	D	Y	A	E	S	H	L	K	L	S	E	L	G	F										
UniRef90_D8SSH0	V	G	T	R	N	F	V	K	A	Y	S	S	D	Q	S	K	F	F	S	N	F	A	A	G	S	M	I	N	M	G	N	I	S	P	L	T	T	P	N	G	I		
UniRef90_I1HF23	G	T	L	N	A	F	V	N	Q	F	I	A	D	E	T	L	W	K	Q	K	F	A	A	M	I	K	M	G	N	I	E	S	P	K	T	G	A	Q	G	E			
UniRef90_A5JW29	P	Q	A																																								

UniRef90\_M4E2Z8  
UniRef90\_F2E9F5  
UniRef90\_V7BSE8  
UniRef90\_M0SKX8  
UniRef90\_V7CWS6  
UniRef90\_D8QSH1  
UniRef90\_I1HZ47  
UniRef90\_Q9LDY1  
UniRef90\_M4EXL4  
UniRef90\_F2DK78  
UniRef90\_UPI00032AC3D1  
UniRef90\_C5WRN4  
UniRef90\_M4D993  
UniRef90\_W9S7Y4  
UniRef90\_K3YU78  
UniRef90\_W9SAJ4  
UniRef90\_D8SSH0  
UniRef90\_I1HF23  
UniRef90\_A5JW29  
UniRef90\_B9RSX7  
UniRef90\_R0GN22  
UniRef90\_W5C9H3  
UniRef90\_M0XHU1  
UniRef90\_Q0ZA67  
UniRef90\_D8T9L5  
UniRef90\_M4ER86  
UniRef90\_UPI0002B43459  
UniRef90\_J3MI04  
UniRef90\_W9R3K3  
UniRef90\_I1Q861  
UniRef90\_K3YCH7  
UniRef90\_M0T947  
UniRef90\_D8S7T0  
UniRef90\_UPI00042B25E8  
UniRef90\_J3MP38  
UniRef90\_B9HHF1  
UniRef90\_UPI0002B4505D  
UniRef90\_V4SDJ6  
UniRef90\_A0A059D8L8  
UniRef90\_UPI0002B4A722  
UniRef90\_J3MH57  
UniRef90\_A9SAB1  
UniRef90\_S8E7Q0  
UniRef90\_B4FQA9  
UniRef90\_M4FRL9  
UniRef90\_M0SC94  
UniRef90\_A9TX19  
UniRef90\_J3MEL0  
UniRef90\_Q40372  
UniRef90\_A9PAV3  
UniRef90\_W9QWI5  
UniRef90\_W9RCB0  
UniRef90\_Q45W81  
UniRef90\_W9S0U2  
UniRef90\_UPI00042B0A87  
UniRef90\_UPI00032A9090  
UniRef90\_B9GQQ9  
UniRef90\_F6HGE3  
UniRef90\_M7Z2E8  
UniRef90\_M0WWF3  
UniRef90\_M0S4I5  
UniRef90\_M4CMA8  
UniRef90\_B9HB89  
UniRef90\_UPI00042B4E8B  
UniRef90\_I3SL83  
UniRef90\_M7ZT03  
UniRef90\_K4A2D7  
UniRef90\_M0RFS6  
UniRef90\_UPI00032A4F67  
UniRef90\_UPI00032AA3BC  
UniRef90\_K4CIK2  
UniRef90\_I3SGC2  
UniRef90\_H6UYB2  
UniRef90\_V4LEA3  
UniRef90\_M1C3C1  
UniRef90\_W5W142  
UniRef90\_C5X3C9  
UniRef90\_F2CTF4  
UniRef90\_K9P2L3  
UniRef90\_I1PR60  
UniRef90\_I1H7Q3  
UniRef90\_A9NN21  
UniRef90\_A5BLQ3  
UniRef90\_I1H556  
UniRef90\_C0KKI3  
UniRef90\_W1PLY5  
UniRef90\_K4D7T6  
UniRef90\_M8B936  
UniRef90\_UPI0002C3409D  
UniRef90\_I1Q6R6  
UniRef90\_G7LEQ9  
UniRef90\_C5WV87

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



UniRef90\_I1H4A0  
UniRef90\_A9S830  
UniRef90\_MOYU86  
UniRef90\_K3ZV64  
UniRef90\_I1QPQ0  
UniRef90\_M8ADW2  
UniRef90\_M4CUD7  
UniRef90\_V5T8Q7  
UniRef90\_M1APA9  
UniRef90\_F8DDY4  
UniRef90\_B9V0I2  
UniRef90\_K3ZSI3  
UniRef90\_M1BPU6  
UniRef90\_W1PEJ5  
UniRef90\_UPI0003B7B688  
UniRef90\_UPI00032A4DC6  
UniRef90\_V7CUY8  
UniRef90\_J3MPT3  
UniRef90\_I1R303  
UniRef90\_I1QE45  
UniRef90\_T1NF35  
UniRef90\_UPI00032AD26A  
UniRef90\_W5AX51  
UniRef90\_I4X2W3  
UniRef90\_K3ZVG6  
UniRef90\_F2CTB8  
UniRef90\_UPI00032AA43D  
UniRef90\_Q5QEB4  
UniRef90\_F2DQN2  
UniRef90\_V4L293  
UniRef90\_J3LB83  
UniRef90\_B3FES6  
UniRef90\_I1PR65  
UniRef90\_W9RDE8  
UniRef90\_UPI000403A469  
UniRef90\_A0A059BPS7  
UniRef90\_L7LRG2  
UniRef90\_Q42593  
UniRef90\_Q1H8N1  
UniRef90\_D8RAM7  
UniRef90\_B5Y3E9  
UniRef90\_B6TZQ7  
UniRef90\_K3ZCF5  
UniRef90\_UPI0004169C6B  
UniRef90\_U2ZA47  
UniRef90\_K3Z7Z9  
UniRef90\_T0T4R4  
UniRef90\_K9P2Y0  
UniRef90\_B4F6E8  
UniRef90\_W5J2I5  
UniRef90\_A3XG37  
UniRef90\_K4BMM9  
UniRef90\_V4VSV1  
UniRef90\_K0RDY1  
UniRef90\_W9RTL4  
UniRef90\_UPI0003D28713  
UniRef90\_D4GSA2  
UniRef90\_V4UCD8  
UniRef90\_P0C0L0  
UniRef90\_A9SS95  
UniRef90\_UPI0003D75B4B  
UniRef90\_G7JKV1  
UniRef90\_R7WBM9  
UniRef90\_U5GQS0  
UniRef90\_W5A1N3  
UniRef90\_S8DW81  
UniRef90\_K4CJ27  
UniRef90\_C5X749  
UniRef90\_W1Z033  
UniRef90\_H3GCG7  
UniRef90\_W5H3G4  
UniRef90\_G7INV1  
UniRef90\_M0RVD5  
UniRef90\_W8SSL1  
UniRef90\_A5C5U0  
UniRef90\_B9EVN7  
UniRef90\_M0WRZ6  
UniRef90\_M7YWK9  
UniRef90\_Q5U1R7  
UniRef90\_F2DWM4  
UniRef90\_UPI00035F18B  
UniRef90\_M0TTR1  
UniRef90\_D8UCP0  
UniRef90\_H2EQQ6  
UniRef90\_B4FB95  
UniRef90\_T1UMQ8  
UniRef90\_UPI000368FD44  
UniRef90\_R4SZJ4  
UniRef90\_D8RLX7  
UniRef90\_M0NCB6  
UniRef90\_B9RP42  
UniRef90\_I1Q2M5

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

UniRef90\_I1H4A0  
UniRef90\_A9S830  
UniRef90\_M0YU86  
UniRef90\_K3ZV64  
UniRef90\_I1QPQ0  
UniRef90\_M8ADW2  
UniRef90\_M4CUD7  
UniRef90\_V5T8Q7  
UniRef90\_M1APA9  
UniRef90\_F8DDY4  
UniRef90\_B9V012  
UniRef90\_K3ZSI3  
UniRef90\_M1BPU6  
UniRef90\_W1PEJ5  
UniRef90\_UPI0003B7B688  
UniRef90\_UPI00032A4DC6  
UniRef90\_V7CUIY8  
UniRef90\_J3MPT3  
UniRef90\_I1R303  
UniRef90\_I1QE45  
UniRef90\_T1NF35  
UniRef90\_UPI00032AD26A  
UniRef90\_W5AX51  
UniRef90\_I4X2W3  
UniRef90\_K3ZVG6  
UniRef90\_F2CTB8  
UniRef90\_UPI00032AA43D  
UniRef90\_QSQEB4  
UniRef90\_F2DQN2  
UniRef90\_V4L293  
UniRef90\_J3LB83  
UniRef90\_B3FES6  
UniRef90\_I1PR65  
UniRef90\_W9UDE8  
UniRef90\_UPI000403A469  
UniRef90\_A0A059BPS7  
UniRef90\_L7LRG2  
UniRef90\_Q42593  
UniRef90\_Q1H8N1  
UniRef90\_D8RAM7  
UniRef90\_B5Y3E9  
UniRef90\_B6TZQ7  
UniRef90\_K3ZCF5  
UniRef90\_UPI0004169C6B  
UniRef90\_U2ZA47  
UniRef90\_K3Z7Z9  
UniRef90\_T0T4R4  
UniRef90\_K9P2Y0  
UniRef90\_B4F6E8  
UniRef90\_W5J215  
UniRef90\_A3XG37  
UniRef90\_K4BMM9  
UniRef90\_V4VSV1  
UniRef90\_K0RDY1  
UniRef90\_W9RTL4  
UniRef90\_UPI0003D28713  
UniRef90\_D4GSA2  
UniRef90\_V4UCD8  
UniRef90\_P0C0L0  
UniRef90\_A9SS95  
UniRef90\_UPI0003D75B4B  
UniRef90\_G7JKV1  
UniRef90\_R7WBM9  
UniRef90\_U5GQS0  
UniRef90\_W5A1N3  
UniRef90\_S8DW81  
UniRef90\_K4CJ27  
UniRef90\_C5X749  
UniRef90\_W1Z033  
UniRef90\_H3GCG7  
UniRef90\_W5H3G4  
UniRef90\_G7INV1  
UniRef90\_M0RVD5  
UniRef90\_W8SSL1  
UniRef90\_A5C5U0  
UniRef90\_B9EVN7  
UniRef90\_M0WR26  
UniRef90\_M7YWK9  
UniRef90\_Q5U1R7  
UniRef90\_F2DWM4  
UniRef90\_UPI00035F518B  
UniRef90\_M0TTR1  
UniRef90\_D8UCP0  
UniRef90\_H2EQQ6  
UniRef90\_B4FB95  
UniRef90\_T1UMQ8  
UniRef90\_UPI000368FD44  
UniRef90\_R4SZJ4  
UniRef90\_R8LX7  
UniRef90\_M0NCP6  
UniRef90\_B9RC42  
UniRef90\_I1Q2M5

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

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

		90	100	110	120																																					
UniRef90_I1H4A0	N	L	S	L	A	K	K	A	A	V	D	A	V	P	R	C	R	N	K	V	S	C	A	D	V	L	A	L	V	T	R	D	A	I	A	L	A	G	G			
UniRef90_A9S830	N	F	S	L	R	G	F	E	A	V	D	A	K	A	E	L	E	K	Q	C	C	A	D	I	L	A	F	A	A	R	D	S	I	E	L	T	G	G				
UniRef90_MOYU86	N	K	N	S	L	R	G	F	E	A	V	E	A	A	C	P	N	T	V	S	C	A	D	I	L	A	F	A	A	R	D	S	I	E	L	T	G	G				
UniRef90_K3ZV64	N	L	G	L	E	V	I	D	A	K	A	E	R	S	C	P	G	T	V	C	A	D	I	V	A	L	A	T	R	D	A	V	A	L	T	G	G					
UniRef90_I1QPQ0	N	L	S	L	R	S	F	D	V	V	D	E	I	K	R	C	P	G	V	V	S	C	A	D	I	V	M	A	A	R	D	A	V	A	L	T	G	G				
UniRef90_M8ADW2	N	F	S	T	L	R	G	F	E	A	L	D	N	L	P	P	V	F	N	L	D	Q	L																			
UniRef90_M4CUD7	N	A	S	L	R	G	F	E	V	I	E	S	A	K	N	V	L	E	F	C	C	A	D	I	V	L	A	A	R	D	A	V	E	A	L	G	G					
UniRef90_V5T8Q7	N	S	S	A	R	G	Y	E	V	I	A	Q	A	K	Q	R	V	K	Q	L	C	C	A	D	I	L	A	I	A	A	R	D	S	V	A	M	L	G	G			
UniRef90_M1APA9	N	G	S	V	R	E	Y	G	L	I	D	Q	I	K	S	C	P	N	T	V	S	C	A	D	I	L	A	I	A	T	R	D	A	V	A	L	A	G	G			
UniRef90_F8DDY4	N	A	N	L	D	K	A	R	R	V	L	P	V	K	K	Y	G	R	K	L	S	W	A	D	I	L	V	L	A	G	N	V	A	L	E	S	M	G	F			
UniRef90_B9V0I2	H	Q	G	L	R	G	M	D	V	V	E	S	A	K	Q	Q	L	E	S	E	C	P	C	A	D	I	V	V	L	A	S	R	D	A	L	A	F	T	G	G		
UniRef90_K3ZSI3	N	R	G	F	E	V	I	D	A	K	A	A	L	E	A	A	C	P	G	V	V	S	C	A	D	I	V	G	R	D	A	T	F	F	L	S	G	N	A			
UniRef90_M1BPU6	N	K	N	S	L	R	G	F	E	V	I	D	A	K	A	L	E	A	A	C	C	A	D	I	V	A	F	A	A	R	D	S	S	Y	K	V	G	R				
UniRef90_W1PEJ5	N	F	G	I	R	R			R	E	A	I	D	M	V	K	R	C	P	T	Q	V	S	C	A	D	I	L	I	A	A	R	E	S	V	A	F	A	G	G		
UniRef90_UPI0003B7B688	N	G	N	L	D	K	A	R	R	L	L	W	P	I	K	K	Y	G	R	K	L	S	W	A	D	I	L	I	A	G	N	G	A	L	E	S	M	G	F			
UniRef90_UPI00032A4DC6	N	I	D	S	L	R	G	F	W	M	I	D	N	L	K	E	A	V	D	K	A	C	C	A	D	I	L	I	A	A	R	D	S	V	S	I	G	P	N			
UniRef90_V7CUIY8	N	R	S	I			G	G	F	S	V	I	E	S	A	K	R	C	P	G	T	V	S	C	A	D	I	L	A	I	A	A	R	D	A	V	E	L	T	G	G	
UniRef90_J3MPT3	N	K	S	L	R	G	F	E	V	I	D	R	I	K	Q	A	L	E	M	Q	C	C	A	D	I	V	A	L	A	A	R	D	A	V	L	M	A	G	G			
UniRef90_I1R303	N	L	S	L	R	G	F	N	V	I	D	A	K	R	C	P	A	T	V	S	C	S	D	I	L	V	L	A	A	R	D	A	V	T	F	T	G	G				
UniRef90_I1QE45	N	Q	S	L	D	G	F	Y	V	I	D	A	A	K	E	C	P	G	V	V	S	C	A	D	I	L	A	L	A	A	R	D	A	V	S	M	A	A	G			
UniRef90_T1NF35	N	F	S	L	R	G	F	E	V	I	D	A	K	A	V	L	E	R	V	C	P	R	V	S	C	A	R	D	A	A	F	F	L	S	S	S	L					
UniRef90_UPI00032AD26A	V	R	G	F	D	V	I	R	A	K	A	Q	L	E	S	C	P	G	V	V	C	A	D	I	V	A	L	A	A	R	D	A	I	M	A	N	G					
UniRef90_W5AX51	N	K	S	L	R	G	F	E	V	I	D	A	V	K	A	A	L	E	A	Q	C	C	A	D	I	V	L	A	L	A	A	R	D	S	V	Y	M	A	G	G		
UniRef90_I4X2W3	N	V	N	L	D	K	A	R	R	L	L	W	P	I	K	K	Y	G	N	K	I	S	W	A	D	I	L	L	T	G	N	V	A	L	E	S	M	G	F			
UniRef90_K3ZVG6	N	V	G	S	L	R	G	F	G	V	I	D	N	I	K	A	C	P	Q	T	V	S	C	A	D	I	L	T	V	A	A	R	D	S	V	V	A	L	G	G		
UniRef90_F2CTB8	N	K	D	S	L	R	G	F	E	V	I	D	E	A	K	A	I	E	A	A	C	C	A	D	I	V	A	F	A	A	R	D	A	S	Y	F	D	R	R			
UniRef90_UPI00032AA43D	N	E	S	L	K	G	F	D	V	I	E	A	I	K	A	C	P	G	V	V	S	C	A	D	I	L	V	L	A	A	R	E	S	V	V	L	A	G	G			
UniRef90_Q5QEB4	N	R	N	I	Q			G	Y	N	V	I	D	D	A	K	T	E	L	E	R	V	C	C	A	D	I	L	T	L	A	A	R	D	A	T	V	L	T	G	G	
UniRef90_F2DQN2	N	A	G	L	V	N	A	L	K	L	V	Q	P	I	K	D	K	Y	P	S	I	T	Y	A	D	L	F	Q	L	A	S	A	T	A	I	E	E	A	G	G		
UniRef90_V4L293	N	R	G	Y	E	V	G	D	A	K	T	A	L	E	R	K	C	P	G	V	V	C	A	D	I	V	L	A	L	V	A	A	R	D	A	V	S	V	I	K	G	
UniRef90_J3LB83	N	V	N	S	V	R	G	D	V	I	D	Q	I	K	R	N	V	E	L	V	C	C	A	D	I	T	A	L	A	A	R	D	S	T	A	L	I	G	G			
UniRef90_B3FES6	N	L	S	L	A	K	A	K	A	V	D	G	V	P	Q	C	K	N	K	V	S	C	A	D	I	L	A	L	A	T	R	D	V	I	G	L	S	G	G			
UniRef90_I1PR65	N	L	T	L	Q	R	A	L	Q	L	V	D	D	I	R	A	K	V	H	A	A	C	C	A	D	I	S	A	L	A	T	R	D	A	V	V	S	G	G			
UniRef90_W9RDE8	L	R	G	F	E	V	M	D	E	I	K	A	E	V	K	K	C	P	R	T	V	S	C	A	D	I	L	T	A	A	A	R	D	A	V	A	T	T	G	G		
UniRef90_UPI000403A469	N	A	G	L	D	K	A	R	R	I	L	W	P	V	K	K	K	Y	G	M	A	S	W	A	D	L	Y	I	L	A	G	N	V	A	L	E	E	M	G	L		
UniRef90_A0A059BPS7	N	R	G	F	D	R	I	D	T	I	K	Q	E	L	E	D	H	C	P	G	V	V	C	A	D	I	V	L	V	L	A	T	R	E	G	I	L	A	G	G		
UniRef90_L7LRG2	N	A	S	L	D	K	A	R	R	I	L	W	P	V	K	K	Y	G	R	K	L	S	W	A	D	I	L	V	L	T	G	N	V	A	I	E	S	M	G	L		
UniRef90_Q42593	N	A	G	L	D	K	A	N	A	L	K	L	I	Q	P	L	K	D	K	Y	P	N	I	S	Y	A	D	L	F	Q	L	A	S	A	T	A	I	E	E	A	G	G
UniRef90_Q1H8N1																																										
UniRef90_D8RAM7	N	N	N	S	V	R	G	F	E	L	I	D	E	A	K	T	R	L	E	A	V	C	C	A	D	I	V	A	V	A	A	R	D	S	S	V	I	L	G	G		
UniRef90_B5Y3E9	N	A	G	L	D	T	A	V	V	W	L	E	P	L	K	Y	K	K	D	G	L	S	Y	A	D	L	Y	T	L	S	G	V	A	S	I	K	Q	M	N	G		
UniRef90_B6TZQ7	P	R	A	L	Q	L	I	D	D	I	R	A	K	V	H	A	A	C	P	T	V	S	C	A	D	I	T	A	L	A	T	R	A	A	V	V	A	S	G	G		
UniRef90_K3ZCF5	L	R	G	Y	D	A	V	N	K	I	K	A	A	V	E	S	D	C	P	G	V	V	C	A	D	I	L	A	F	A	A	R	D	S	A	V	V	S	G	G		
UniRef90_UPI0004169C6B	N	G	N	L	D	K	A	R	F	L	L	W	P	I	K	K	Y	G	N	K	I	S	W	A	D	L	M	I	L	T	G	N	C	A	L	E	S	M	G	F		
UniRef90_U2ZA47	N	V	N	I	D	K	S	R	R	L	L	W	P	I	K	K	Y	Q	Q	K	I	S	W	A	D	L	F	I	L	A	G	N	V	A	L	E	S	M	G	F		
UniRef90_K3Z7Z9	N	A	S	L	Q	R	A	L	Q	L	I	E	N	I	R	A	K	V	H	A	A	C	C	A	D	I	I	A	L	A	T	R	D	A	V	S	L	A	G	G		
UniRef90_T0T4R4	N	G	N	L	D	K	A	R	R	L	L	W	P	I	K	K	K	Y	G	K	I	S	W	A	D	L	M	I	L	A	G	N	C	A	L	E	S	M	G	F		
UniRef90_K9P2Y0	S	F	G	M	R	N																																				
UniRef90_B4F6E8	N	V	G	S	L	R	G	F	G	V	I	D	N	I	K	E	A	V	E	R	E	C	C	A	D	I	L	V	L	S	A	R	D	G	I	V	A	L	G	G		
UniRef90_W5J2I5	N	V	S	L	D	K	A	R	R	L	L	W	P	I	K	K	Y	G	Q	K	I	S	W	G	D	L	M	V	L	A	G	N	V	A	L	E	S	M	G	F		
UniRef90_A3XG37	N	A	N	L	D	K	A	R	L	L	L	W	P	I	K	K	K	Y	N	K	L	S	W	A	D	L	L	I	L	A	G	N	C	A	H	E	S	M	G	L		
UniRef90_K4BMM9	N	E	S	L	K	G	F	D	V	I	D	I	K	A	C	P	G	V	V	S	C	A	D	I	V	V	L	A	A	R	E	S	I	V	L	S	G	G				
UniRef90_V4VSV1	N	W	G	L																																						
UniRef90_K0RDY1	N	A	G	L	E	V	A	R	S	F	L	E	P	V	K	K	M	F	P	E	L	S	S	D	L	W	I	L	A	S	Y	V	G	L	E	H	T	G	G			
UniRef90_W9RTL4	N	I	N	S	L	R	S	Y	E	V	I	D	E	A	K	E	A	V	E	K	A	C	C	A	D	I	L	I	M	A	A	R	D	A	V	A	L	T	G	G		
UniRef90_UPI0003D28713	N	R	G	F	S	F	I	D	G	V	K	K	A	L	E	A	E	C	P	G	V	V	C	A	D	I	V	A	L	V	A	A	R	D	S	V	V	T	G	G		
UniRef90_D4GSA2	N	V	N	L	D	K	A	R	R	L	L	W	P	I	K	K	Y	N	K	I	S	W	G	D	L	I	V	L	A	G	N	V	A	L	E	S	M	G	F			
UniRef90_V4UCD8	L	R	G	F	E	M	I	D	I	K	A																															

UniRef90\_I1H4A0 P A Y A V E L G R 130 S T A A S 140 V P G L A P P S S T L D Q L T A L F G S N 160  
UniRef90\_A9S830 K R W E V P A G R R D N V S I N A E A E A M L P S P Q L N V Q Q L T D S F T R K  
UniRef90\_MOYU86 I N I A M P A G R Y D G R E S F A E T E T D Q L P N P F S N T A Q L Q E S F T A K  
UniRef90\_K3ZV64 R L W Q V E T G R R D S R F S F A E T D T K L P N P E Y V F P L R R D S F A R R  
UniRef90\_I1QPQ0 P F W D V R L G R E D S L T A S Q E D S D N I P S P R A N A T T L I K L F A G Y  
UniRef90\_M8ADW2 S F A A K G L T A E D M V L S A G A H T I G V S H C S S  
UniRef90\_M4CUD7 P V V A I P T G R R D G T V S A G A N V P N I I D T D F T V D K M I N I F S S K  
UniRef90\_V5T8Q7 M P Y A V R L G R R D A K T A N F T G A T Q L P A P F D D L N T Q L R K F S A K  
UniRef90\_M1APA9 L N Y S I P T G R R D G L V S D P S Q V N L P G S I T V P Q A I Q T F Q S K  
UniRef90\_F8DDY4 E T Y G F A G G R E D E W E P D E A V D W G P E T E W  
UniRef90\_B9V0I2 P S F D V P T G R R D G K T S N I R D A D V L P D V K D S I E V L R S K F A A N  
UniRef90\_K3ZSI3 V D F D M P A G R Y D H V S L D S A A I A N L P P P F A S L K E L K D M F A A K  
UniRef90\_M1BPU6 I Y Y D V Q A G R R D G M S V D E M V T L S G A H S I G I A H C  
UniRef90\_W1PEJ5 P R I R V P L G R R D S T T A S N R R A D T I P S S T V S V D N M L R I F M S K  
UniRef90\_UPI0003B7B688 K T F G F A G G R E D V W E P D E D V Y W G P E D T W  
UniRef90\_UPI00032A4DC6 Y W Y K V L L G R R D A K I A S K D A D L N L P T Q N F N Y S Q L V S N F K S K  
UniRef90\_V7CUI8 P M I Q I P T G R R D M K V S A S N V R P N I L D T S F T M D E M I K R F S N K  
UniRef90\_J3MPT3 P Y Y V V P L G R R D G T R S N A A D T V A L P P P F L N A T E L A Q L F A T H  
UniRef90\_I1R303 P L V P V S L G R L D G L V S L A S N V R A N I I D T G F S V D A M A R F S A K  
UniRef90\_I1QE45 N I W Q V P T G R L D G R V S S A A E A V N L P S S F A D F A K L K E Q F G S K  
UniRef90\_T1NF35 I D Y K M P A G R F D R V S L E T E A L Q F L P P P F F N L T Q L V D S F K A K  
UniRef90\_UPI00032AD26A P A Y Q V P T G R R D G L V S K K S L A D D M P D V S D S I Q L K A K F L N K  
UniRef90\_W5AX51 P Y Y D V P T G R K D G S L S R A D D T S A L P A A T L K A A E L I K V F V D H  
UniRef90\_I4X2W3 K T F G F G A G R E D V W A P E E D V Y W G N E K E W  
UniRef90\_K3ZVG6 P S W T V L L G R R D S T S F P N Q N T D L P A P Q S S L R N L I D A F G N K  
UniRef90\_F2CTB8 I N I Q M P G G R Y D G R E S F A N E T D Q L P G P F S N L T A L Q E S F G A K  
UniRef90\_UPI00032AA43D P F Y P L Y T G R R D G S N S F A D I E T Y E L P S P Y A D L S Q T L A S F K S R  
UniRef90\_Q5QEB4 A S W K V P T G R R D G L V S L V A E A G P L P G P R E N V S E Q I R K L D E I  
UniRef90\_F2DQN2 P K I P M K Y G R V D V T G P E Q C P P E G D A G P S A P A D H L R V V F Y R M  
UniRef90\_V4L293 P W W P V P L G R R D G R V S K L S E V N L P S P F A D V N A L K Q D F F A K  
UniRef90\_J3LB83 P S W A V P L G R R D S T T A S L S I N T D L P G P A S D L A T L I T G F G N K  
UniRef90\_B3FES6 P S Y S V E L G R L D G S S T S T S V N G K L P K S T F N L N Q L N S L F A S H  
UniRef90\_I1PR65 P S Y A V S L G Q K D S L A P A P V R N Q L P G P G T S S V Q A L L D K F G S K  
UniRef90\_W9RDE8 R Y R T V D Y G R K D G F I S N A E A E S L P M G R E S T D L I E F F Q S L  
UniRef90\_UPI000403A469 P V V G Y G G G R E D V W E P E N V I W G S E G T W  
UniRef90\_A0A059BPS7 P F Y P L F T G R R D S I Q S Y Y A D A M E I P K P D D N V F R T L H L F G L R  
UniRef90\_L7LRG2 P T Y G Y A G G R V D A W E P D E D I Y W G P E Q T W  
UniRef90\_Q42593 P D I P M K Y G R V D V V A P E Q C P E E G R L P D A G P P D H L R D V F Y R M  
UniRef90\_Q1H8N1 K W F E V E T G R R D G V V S L K S E A Q N I P P P T M P V S Q A I Q L F A K K  
UniRef90\_D8RAM7 L F Y Q V P T G R Y D R V S N R T L A N E R L A S P F E N I D Q L R K R F A N V  
UniRef90\_B5Y3E9 P T I P W G S G R V D A M S P I V V T P D G R L P N A D V G P H L R D V F Y R M  
UniRef90\_B6TZQ7 P S Y P V P L G Q R R D S L A P A P E D D V N P S P T T A S V P E L L A A F R G R  
UniRef90\_K3ZCF5 F S F A M P S G R R D G T V S N F E V L Q N I P S P I F K L Q E L I K N F A A K  
UniRef90\_UPI0004169C6B K T F G F A G G R E D V W E P E Q D V N W G N E K E W  
UniRef90\_U2ZA47 R T F G F A G G R E D T W E P D Q D V N W G A E M Q W  
UniRef90\_K3Z7Z9 P S F A M P Q G R D S F R P A S D D E I T L P S P F E D V G N L L G N F T S K  
UniRef90\_T0T4R4 K T T G F A G G R E D V W Q P E E D I Y W G L E T E W  
UniRef90\_K9P2Y0 P Y I P L K S G R R D G R K S R A N I L E Q L P D H N D S M S L V L E R F S N I  
UniRef90\_B4F6E8 P S W T V P L G R R D S T T A S A S L A N S L P G P S S S R S Q L E A A F L K K  
UniRef90\_W5J2I5 R T F G F G A G R E D V W E P D N D V N W G D E K T W L V H  
UniRef90\_A3XG37 N M F G F A G G R E D V W E P E E V I Y W G A E T E W  
UniRef90\_K4BMM9 P F Y P L K T G R R D G S S F A E D A T F E L P S P Q D D L S K I I V S F S S K  
UniRef90\_V4VSV1 P S Y P V F T G R R D G M T S T K E S V D L P S P S I S W K E S L A C F Q S K  
UniRef90\_K0RDY1 P V I D F T P G R V D H L D D S Y W S E M S C P S H L D D C H V R N E V F Y R M  
UniRef90\_W9RTL4 P D W Q V K L G R L D S L A N Q E L S N D I P S P R S N A S Y L I D F K K Y  
UniRef90\_UPI0003D28713 P Y W K V P T G R R D G R I T S N A S E A A N I P S P T S S V I S S L Q T S F A S K  
UniRef90\_D4GSA2 E T F G F A G G R A D D Y V G D K A P S W G P E D E W E M  
UniRef90\_V4UCD8 E Y W D V F P G R K D G R V S I G K E A D I V P M G H D N V T T L L E F F Q S M  
UniRef90\_P0C0L0 P K I P M I Y G R A D V D G E E C P P E G R L P A A D P P S P H L R E V F Y R M  
UniRef90\_A9SS95 P N F A M P T G R R D G R V S R A D N V N L P G P T V S V A D A T R I F N A Q  
UniRef90\_UPI0003D75B4B P D I P F H P G R R D K A E P Q E G R L P D A K Q G N D H L R Q V F G A Q  
UniRef90\_G7JKV1 P D W E V R L G R L D S L T A S Q D N S S N I P S P R T N A T A L I T L F Q K Y  
UniRef90\_R7WBM9 P S W T V P L G R R D S T T A S L S L A N S L P A P S F D V A N L T A N F A A K  
UniRef90\_U5GQS0 G W Y P V Q T G R R D G R V S S A Q N V K L P S P S I P I Q A I A F N S K  
UniRef90\_W5A1N3 P W Y G V E T G R R D G N V T V A E Y A E N L A P P D S N I V D V K T F F S V K  
UniRef90\_S8DW81 P F Y P V F T G R R D I T S F Y Q L A N E Q L P N P Q N E L F K T L N S F S L K  
UniRef90\_K4CJ27 P S Y P V F L G R R D G V E S K A E W I D Y P S P S M S W E E G L A Y F E S K  
UniRef90\_C5X749 P A Y Q V E T G R R D N V S R K E D A V R S L P A D G N V T V L T Q Y F A A Q  
UniRef90\_W1Z033 P A Y Q V E T G R R D N V S R K E D A V R S L P A D G N V T V L T Q Y F A A Q  
UniRef90\_H3GCG7 V T I D F L G G R T D A E N G N G D E I L A P R E Y N T T L I A V R D N I R I  
UniRef90\_W5H3G4 P N Y T V E L G R Y D R R K N S M D R S V R L P H P G D N L D N L A F F S T L  
UniRef90\_G7INV1 L S W Q V L T G R R D G R V S Q A S D V N N L P A P S D S V D V Q K K F A A K  
UniRef90\_M0RVD5 K L W K V K T G R R D G T I S Q R S E A S D L P S P A S N F S V L A G Q F A N K  
UniRef90\_W8SSL1 A G F D V R G D A T D A Q T D A D S F D P L E P L A D G F R N W L K Q D Y A V S  
UniRef90\_A5C5U0 P T W T V Q L G R R D S T T A S F S T A N S L P A P T S D L D A L I S L F S N K  
UniRef90\_B9EVN7 V R F D V P A G R L D G L V S S A N E A Q E L P E P T F T I R Q L I D S F A R K  
UniRef90\_M0WRZ6 P Y Y D V L L G R R D G L K A N Q S G A D N L P S P F E P I S S I V Q K F A D V  
UniRef90\_M7YWK9 I H F D V P A G R L D G H V S S A A E A Q E L P D S T F T V Q Q L I D N F A R K  
UniRef90\_Q5U1R7 P S W A V P L G R R D A L S P S R S A V T D L P G P E A D I S A L V S A F A A K  
UniRef90\_F2DWM4 P Y I P I P T G R E D N R S S A A D V A P N T P K P D A S V A D L I A F F G K F  
UniRef90\_UPI00035F518B K T F G F A F G R E D V W H P E K D I Y W G S E Q D L M M  
UniRef90\_M0TTR1 P S W S V P L G R R D G L V S S A S D A T S L P P T D S V A V Q R Q K F A D K  
UniRef90\_D8UCP0 K G I R F C P G R S D A D P N E P A P V Y P P R T M N K I A Q L M D N G I V  
UniRef90\_H2EQQ6 P S W N I L L G R R D S T T A S S A A N S N I P G P G L N L N A L I S A L A N K  
UniRef90\_B4FB95 P S W R V A T G R R D G T V S A M Q E A D D I P K H T M T F P Q L A S L F A S K  
UniRef90\_T1UMQ8 P K V P W R G G R K D R Q A K D S P P D G R I P N P R N G A D H L R K V F Y R M  
UniRef90\_UPI000368FD44 P K V P W R G G R K D R Q A K D S P P D G R I P N P R N G A D H L R K V F Y R M  
UniRef90\_R4SZJ4 K T F G F G F G R V D T W E P E E I F W G P E D T W  
UniRef90\_D8RLX7 P S W T V E F G R R D N P S S A S V A A V I P S P N L T A T Q L I E S F Q K R  
UniRef90\_MONCB6 E T F G F A G G R E D A F I S N E A V E W G P E T D W  
UniRef90\_B9RP42 P T I P V L L G R R D S G E P D A E G K L P E E S L G A S S L K Q C F Q R K  
UniRef90\_I1Q2M5 P S W G V L L G R K D S L T A S I D M N K D L P N P K D S L A E L I R M F E H T



UniRef90\_I1H4A0  
UniRef90\_A9S830  
UniRef90\_M0YU86  
UniRef90\_K3ZV64  
UniRef90\_I1QPQ0  
UniRef90\_M8ADW2  
UniRef90\_M4CUD7  
UniRef90\_V5T8Q7  
UniRef90\_M1APA9  
UniRef90\_F8DDY4  
UniRef90\_B9V012  
UniRef90\_K3ZSI3  
UniRef90\_M1BPU6  
UniRef90\_W1PEJ5  
UniRef90\_UPI0003B7B688  
UniRef90\_UPI00032A4DC6  
UniRef90\_V7CUI8  
UniRef90\_J3MPT3  
UniRef90\_I1R303  
UniRef90\_I1QE45  
UniRef90\_T1NF35  
UniRef90\_UPI00032AD26A  
UniRef90\_W5AX51  
UniRef90\_I4X2W3  
UniRef90\_K3ZVG6  
UniRef90\_F2CTB3  
UniRef90\_UPI00032AA43D  
UniRef90\_Q5QEB4  
UniRef90\_F2DQN2  
UniRef90\_V4L293  
UniRef90\_J3LB83  
UniRef90\_B3FES6  
UniRef90\_I1PR65  
UniRef90\_W9RDE8  
UniRef90\_UPI000403A469  
UniRef90\_A0A059BPS7  
UniRef90\_L7LRG2  
UniRef90\_Q42593  
UniRef90\_Q1H8N1  
UniRef90\_D8RAM7  
UniRef90\_B5Y3E9  
UniRef90\_B6TZQ7  
UniRef90\_K3ZCF5  
UniRef90\_UPI0004169C6B  
UniRef90\_U2ZA47  
UniRef90\_K3Z7Z9  
UniRef90\_T0T4R4  
UniRef90\_K9P2Y0  
UniRef90\_B4F6E8  
UniRef90\_W5J2I5  
UniRef90\_A3XG37  
UniRef90\_K4BMM9  
UniRef90\_V4VSV1  
UniRef90\_K0RDY1  
UniRef90\_W9RTL4  
UniRef90\_UPI0003D28713  
UniRef90\_D4GSA2  
UniRef90\_V4UCD8  
UniRef90\_P0C0L0  
UniRef90\_A9SS95  
UniRef90\_UPI0003D75B4B  
UniRef90\_G7JKV1  
UniRef90\_R7WBM9  
UniRef90\_U5GQS0  
UniRef90\_W5A1N3  
UniRef90\_S8DW81  
UniRef90\_K4CJ27  
UniRef90\_C5X749  
UniRef90\_W1Z033  
UniRef90\_H3GCG7  
UniRef90\_W5H3G4  
UniRef90\_G7INV1  
UniRef90\_M0RVD5  
UniRef90\_W8SSL1  
UniRef90\_A5C5U0  
UniRef90\_B9EVN7  
UniRef90\_M0WR26  
UniRef90\_M7YWK9  
UniRef90\_Q5U1R7  
UniRef90\_F2DWM4  
UniRef90\_UPI00035F518B  
UniRef90\_M0TTR1  
UniRef90\_D8UCP0  
UniRef90\_H2EQQ6  
UniRef90\_B4FB95  
UniRef90\_T1UMQ8  
UniRef90\_UPI000368FD44  
UniRef90\_R4SZJ4  
UniRef90\_D8RLX7  
UniRef90\_MONCB6  
UniRef90\_B9RP42  
UniRef90\_I1Q2M5

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

UniRef90\_I1H4A0  
UniRef90\_A9S830  
UniRef90\_MOYU86  
UniRef90\_K3ZV64  
UniRef90\_I1QPQ0  
UniRef90\_M8ADW2  
UniRef90\_M4CUD7  
UniRef90\_V5T8Q7  
UniRef90\_M1APA9  
UniRef90\_F8DDY4  
UniRef90\_B9V012  
UniRef90\_K3ZS13  
UniRef90\_M1BPU6  
UniRef90\_W1PEJ5  
UniRef90\_UPI0003B7B688  
UniRef90\_UPI00032A4DC6  
UniRef90\_V7CUIY8  
UniRef90\_J3MPT3  
UniRef90\_I1R303  
UniRef90\_I1QE45  
UniRef90\_T1NF35  
UniRef90\_UPI00032AD26A  
UniRef90\_W5AX51  
UniRef90\_I4X2W3  
UniRef90\_K3ZVG6  
UniRef90\_F2CTB8  
UniRef90\_UPI00032AA43D  
UniRef90\_Q5QEB4  
UniRef90\_F2DQN2  
UniRef90\_V4L293  
UniRef90\_J3LB83  
UniRef90\_B3FES6  
UniRef90\_I1PR65  
UniRef90\_W9RDE8  
UniRef90\_UPI000403A469  
UniRef90\_A0A059BPS7  
UniRef90\_L7LRG2  
UniRef90\_Q42593  
UniRef90\_Q1H8N1  
UniRef90\_D8RAM7  
UniRef90\_B5Y3E9  
UniRef90\_B6TZQ7  
UniRef90\_K3ZCF5  
UniRef90\_UPI0004169C6B  
UniRef90\_U2ZA47  
UniRef90\_K3Z729  
UniRef90\_T0T4R4  
UniRef90\_K9P2Y0  
UniRef90\_B4F6E8  
UniRef90\_W5J2I5  
UniRef90\_A3XG37  
UniRef90\_K4BMM9  
UniRef90\_V4VSU1  
UniRef90\_K0RDY1  
UniRef90\_W9RTL4  
UniRef90\_UPI0003D28713  
UniRef90\_D4GSA2  
UniRef90\_V4UCD8  
UniRef90\_P0C0L0  
UniRef90\_A9SS95  
UniRef90\_UPI0003D75B4B  
UniRef90\_G7JKV1  
UniRef90\_R7WBM9  
UniRef90\_U5GQS0  
UniRef90\_W5A1N3  
UniRef90\_S8DW81  
UniRef90\_K4CJ27  
UniRef90\_C5X749  
UniRef90\_W1Z033  
UniRef90\_H3GCG7  
UniRef90\_W5H3G4  
UniRef90\_G7INV1  
UniRef90\_M0RVD5  
UniRef90\_W8SSL1  
UniRef90\_A5C5U0  
UniRef90\_B9EVN7  
UniRef90\_M0WR26  
UniRef90\_M7YWK9  
UniRef90\_Q5U1R7  
UniRef90\_F2DW44  
UniRef90\_UPI00035F518B  
UniRef90\_M0TTR1  
UniRef90\_D8UCP0  
UniRef90\_H2EQQ6  
UniRef90\_B4FB95  
UniRef90\_T1UMQ8  
UniRef90\_UPI000368FD44  
UniRef90\_R4SZJ4  
UniRef90\_D8RLX7  
UniRef90\_MONCB6  
UniRef90\_B9RP42  
UniRef90\_I1Q2M5

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

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

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

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

D F L S E M R R N C G D S Q T F D T H Y Y Q S L L R R G R G L L Y A D Q Q L M A D

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

G P T K K Q S L D V V T P D A F D N G Y F V A L R N V H G V L H S D Q G L A G H

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

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

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

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

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

UniRef90\_I1H4A0 S R T R P T V D A W A S S S A A F D R A F V T A I T K L G R I G V K T P S Q G N 250 260 270 280  
UniRef90\_A9S830 W S T K L P T M F N V L S T T S F T S F A D S M L T M S Q I E V K T G S E G E  
UniRef90\_M0YU86 T E T I K E V K E N A N M P E A W E R K F E R A M E N M G K I E V K T I G N A E  
UniRef90\_K3ZV64 D E A A R L V D E M Q D L G K F L A A F A A S I Q K M G A M D V L T G S Q G E  
UniRef90\_I1QPQ0 N A T R L A V R K F G E D Q G A F F R A F V E G M I K M G E L Q N P R K G E  
UniRef90\_M8ADW2 P A T T Q M V R D S A N I P G S Q W E A K F N K A M V K M G A I E V K T G F Q G E  
UniRef90\_M4CUD7 D R T R K I V E I L A N D E L P S F L E R W T E S F M K M S V I G V R V G E E G E  
UniRef90\_V5T8Q7 R A T A D L V R S Y S M D V S L F I R D F N N A M H K L G E L P P S P G A Q L E  
UniRef90\_M1APA9 R S T A G I V T T F S S N P N A F Q Q A F A N A L I K L G N T Q V L V G K S G E  
UniRef90\_F8DDY4 T A T V G V V D A Y S S M L S T F F E D F A D A M V K M G S I G V L T G A A G E  
UniRef90\_B9V0I2 D Q T A G M V R D N A F K P G L W E R K F K A A M V K M G R A G V K N S T D G E  
UniRef90\_K3ZSI3 P T T A K L V N Y N A R F G S I W S R K F A A M I H M G T L D V L T G R N G E  
UniRef90\_W1PEJ5 P R T A P I V D R F S R D S D Y F F F T F S S A F V K L S T V G V P T G K Q G Q  
UniRef90\_UPI0003B7B688 S Q S D K L V R F Y S R N P H A F A R D F K A S I I K M G N I E P L T G I F G E  
UniRef90\_UPI00032A4DC6 N R T R K L V E D L A N D Q Q F F F E S W G Q S F M K L T S I G V K T G D E G E  
UniRef90\_V7CUIY8 P E T K R L V N M F A M N Q A Y F F F A F Q Q G M L K M G Q L N L K E G T I G E  
UniRef90\_J3MPT3 A T T R A T V E A F A R S E G S F F A S W A A S F A R L T S L G V R T G A D G E  
UniRef90\_I1R303 R E A A A T V R V M A S S R Q A F F R R F G V S M V R M G N V G V L T G A A G E  
UniRef90\_I1QE45 G K T A T K V M E N A F N P G S W E K K F A K A M V K M A I E L K T A A N G E  
UniRef90\_T1NF35 I V T K S V I D S Y F G N P P S F E A D F V Q S I V K M G Q I G V K T G S N G A  
UniRef90\_UPI00032AD26A P E T A M Y V N Q F A E S P D A F F E T F V Q G M G R M G Q L D L N P D G N  
UniRef90\_W5AX51 G S T D S T V R N F A S N A A A F S S A F T T A M V K M A N I Q P L T G T Q G Q  
UniRef90\_I4X2W3 T E T I T Q V T E N A N V A G A W E R K F E S A M E N M G K I G V K T M G D A E  
UniRef90\_K3ZVG6 E K T K Y W V Q Q Y A S N P T L F H Q H F A I A M M K L S D H R V L T M P M G Q  
UniRef90\_F2CTB8 L R T Q P F V R R L L D S E A Y F K V E F G K A M V K M S L I G V K T P K E S E  
UniRef90\_UPI00032AA43D P A F K V Y A E K Y A A D E E A F F K D Y A E A H A K L S S V G A K F  
UniRef90\_Q5QEB4 V E T K H Y I Q T Q V E S G A S F D K D F S E S M V K L G F V E I L T G T Q G E  
UniRef90\_F2DQN2 G S Q D A L V Q Q Y S A S P A L F A A D F A A M I K M G N I S P L T G A A G Q  
UniRef90\_V4L293 S R S Q P K V R T W A K N K A A F N Q A F I T A M T K L G R V G V K T G K N G N  
UniRef90\_J3LB83 R I T A P I V R Q F A A D K A A F F R Q F A K S M V K L S Q V P R T D R N V I G E  
UniRef90\_B3FES6 P R T S Y I V K T L A Y D Q S T F F L Q F K K S M K K L G N V Q V L T G N E G E  
UniRef90\_I1PR65 E R T A S V V R A Y A S D G S A F R L D F A R A M M K M S S L G I L S G S D G Q  
UniRef90\_W9RDE8 P S F K N Y A E K Y A E D V A A F F K D Y A E A H A K L S N L G A K F D P P  
UniRef90\_UPI000403A469 P G T R G L V K G L A Y N P N K F L N Q F G P A M V K M A R I G V L T G H G E  
UniRef90\_A0A059BPS7 S E T S G L V R N L A Q D P N L F K V L F A E S M I N M G N A A W K T R A N G E  
UniRef90\_L7LRG2 K S F A K Y V K E Y A S N P K K F D Y D F T V A F Q K L E E L G  
UniRef90\_Q42593 P T T A P I V R F A G S K D A F F A Q F A T S M V K L S K V P R K P P G N G E  
UniRef90\_Q1H8N1 S Y T A A K V A N N S A D A A T W M G Q F A A A L V K M G R I Q V L T G T A G Q  
UniRef90\_D8RAM7 P R T A G I V R D F A A N Q T A F F H Q F A K S M V K L G N I K G A A G E  
UniRef90\_B5Y3E9 K R T K P H V K K M A K N Q D Y F F K E F S R A I T I L S E N N P L T G P K G E  
UniRef90\_B6TZQ7 T T P P T T L S A T L R P T R A F S S A F T T A M I K M G N I A P L T G T Q G Q  
UniRef90\_K3ZCF5 E E T K T W V Q A Y A S D V S L F H K D F G T T M M K L S N L G V L T A P M G Q  
UniRef90\_UPI0004169C6B N N T L Q I V D E F A A G F E D F R K A L A L S M S R M G S I N V L T G K Q G E  
UniRef90\_U2ZA47 P N F R Y H L E Q Y A A D E E K L K H D F G V A F K K L T E L G Y G F  
UniRef90\_K3Z7Z9 E K T K P F V K K F S G D Q K R F F E A F V E G M I K M G D L Q S G K P G E  
UniRef90\_T0T4R4 A T T K S F I N E L V Q S L K Q F Y V E F G L A M E K M G K I E V K T G S A G E  
UniRef90\_K9P2Y0 K R T E P I A K A L A S M P S F L Y G Q F G A S M K K F G K V N V L S G D E G E  
UniRef90\_B4F6E8 S S F K I H A E K Y A E D Q D A F F E D Y A E A H A K L S N L G A K F  
UniRef90\_W5J2I5 R T T A R V N V L A S P R S T F T A A F A A S L I R L G N V R V I E G S G G E  
UniRef90\_A3XG37 P V I F R P L V E K Y A A D E D A F A D Y A E A H L K L S E L G F  
UniRef90\_K4BMM9 P Q T K G F V S L F S E D Q S E F F K A F V E G M L K L G D L Q S D K P G E  
UniRef90\_V4VSV1 G R T A G L V R T Y S S A S A Q F N R D F A A M V R M G N I S P L T G A Q G Q  
UniRef90\_K0RDY1 S N T R F S V A R I A E S N D F S F Q F G R A M I K L G A V D V K I G K D G E  
UniRef90\_W9RTL4 A A T R D Y V E R M A N S P D E Y Y Q D F A A M V K M G R T D V L P D H L I G E  
UniRef90\_UPI0003D28713 E E T E S W V R R Y A S D T T L F Q T D F G R A M I K L S L Q N A T S S T G Q  
UniRef90\_D4GSA2 S D T G E L V D E Y A K S L E L F R R G F A L S I S R M G L K V L T S K N G E  
UniRef90\_V4UCD8 S F T A P Y V T L M A T N D S Y F F H D F S V S M V K M G R I A V R T G N D G E  
UniRef90\_P0C0L0 P I Y R K I I E R F N N D F E Y F S D V I F A R A W F K L T H R D L G P K A C Y L  
UniRef90\_A9SS95 P E L K E A V Q L F A S E E N V F K A V F S S A W A K  
UniRef90\_UPI0003D75B4B E R S R G T V D F Y A A N Q G T F F S D F A V A M T K L G R V R V K T A A D  
UniRef90\_G7JKV1 A S T K T F V Q R Y L G L R G T F N V E F G N S M V K M S N I G V K T G V D G E  
UniRef90\_R7WBM9 Q R S A K L V G K L L H P G D F D D F K N S I T R M G A I G V L T G T D G E  
UniRef90\_U5GQS0 S I M R S Y A E V Y A Q D Q E K F V K D F V A V W T K  
UniRef90\_W5A1N3 N S T D S M V E T Y S N D S T T F T D V A S A M V K M G N L S P L T G T D G E  
UniRef90\_S8DW81 D E A R G H V H E Y A D N A A L W D H D F A A S L L K L S K L P M P A G S K G E  
UniRef90\_K4CJ27 N E T K A L V E T Y S E D G E Q F F S D F G A S M V K M G S I P L P E S A G E  
UniRef90\_C5X749 T E A R G H V H E Y A D N A T L W D G D F A D S L K L S K L S M P A G S K G G  
UniRef90\_W1Z033 G P V D S V V Q L Y S N A A F S S D F A A S M I R L G N I G P L T G S T G E  
UniRef90\_H3GCG7 G D T S A Y V M R N A T A T A E F F A D F A A S F V N M S K I G A L T H H K G Q  
UniRef90\_W5H3G4 D A T H D I V G N Y A G N L R R F A Y E F S K A M I K L S S V G  
UniRef90\_G7INV1 A V L S A I A Q E F A T D A T A F Y T A F A S A W N K M  
UniRef90\_M0RVD5 G S T N A Q V N T Y S S N S A T F F T D F A N A M V K M D N L S P L T G T N G Q  
UniRef90\_W8SSL1 A A A R A D V E G V A A G P E E F F Q L F A R S M A R L A A L Q V K T G A E G E  
UniRef90\_A5C5U0 P D Y R K I S E K F Y K D P E Y F S E V F A R A W F K L T H R D I G P K E R Y I  
UniRef90\_B9EVN7 S D L A G F V R E F A D N Q K A F F T A F A N G M I K M G R L S P L T G G H G E  
UniRef90\_M0WRZ6 D E C L R W I K K Y A D D Q N T F F K D F K S A Y I K L V N S G A R W K S  
UniRef90\_M7YWK9 G E T G D L V K T Y A M N G N V F F A D F T R A M V K M G N I R P K W W T P A E  
UniRef90\_Q5U1R7  
UniRef90\_F2DWM4  
UniRef90\_UPI00035F518B  
UniRef90\_M0TTR1  
UniRef90\_D8UCP0  
UniRef90\_H2EQQ6  
UniRef90\_B4FB95  
UniRef90\_T1UMQ8  
UniRef90\_UPI000368FD44  
UniRef90\_R4SZJ4  
UniRef90\_D8RLX7  
UniRef90\_MONCB6  
UniRef90\_B9RP42  
UniRef90\_I1Q2M5

UniRef90_I1H4A0	I R R N C
UniRef90_A9S830	I R R N C R A V N
UniRef90_M0YU86	I R K V C S R V N
UniRef90_K3ZV64	I R R N C R V V N
UniRef90_I1QPQ0	I R R N C R V A N
UniRef90_M8ADW2	I R R N C R V V N
UniRef90_M4CUD7	I R R S C S S V N
UniRef90_V5T8Q7	I R D V C S R V N
UniRef90_M1APA9	V R K N C R A F N
UniRef90_F8DDY4	
UniRef90_B9V0I2	V R K V C S K F N
UniRef90_K3ZSI3	I R K K C
UniRef90_M1BPU6	I R R D C H F V N
UniRef90_W1PEJ5	I R N Q C S Q L N
UniRef90_UPI0003B7B688	
UniRef90_UPI00032A4DC6	I R T N C S K V N
UniRef90_V7CUY8	I R R F C S S T N
UniRef90_J3MPT3	V R R S C R I I N
UniRef90_I1R303	V R R T C S R V N
UniRef90_I1QE45	I R K N C A L I N
UniRef90_T1NF35	I R R N C R E V
UniRef90_UPI00032AD26A	I R R V C S S F N
UniRef90_W5AX51	V R L N C R L L N
UniRef90_I4X2W3	
UniRef90_K3ZVG6	I R R L C W R V N S
UniRef90_F2CTB8	I R K V C W R V N
UniRef90_UPI00032AA43D	I R R S C S K V
UniRef90_Q5QEB4	I R K V C T A V N S
UniRef90_F2DQN2	
UniRef90_V4L293	I R K R C A F V N
UniRef90_J3LB83	I R R N C R A V N S
UniRef90_B3FES6	I R R D C S V F N
UniRef90_I1PR65	I R R S C F R T N
UniRef90_W9RDE8	I R T N C N F L N S
UniRef90_UPI000403A469	
UniRef90_A0A059BPS7	I R K N C S S N L D Q
UniRef90_L7LRG2	
UniRef90_Q42593	E G I V I E N V P E K
UniRef90_Q1H8N1	I R K T C S S V N
UniRef90_D8RAM7	I R R K C S A V N
UniRef90_B5Y3E9	
UniRef90_B6TZQ7	I R R
UniRef90_K3ZCF5	V R K Y C N V V
UniRef90_UPI0004169C6B	
UniRef90_U2ZA47	
UniRef90_K3Z7Z9	I R R N C F R T N K
UniRef90_T0T4R4	
UniRef90_K9P2Y0	I R K Q C N L A N K
UniRef90_B4F6E8	I R L S C S K V N S
UniRef90_W5J2I5	
UniRef90_A3XG37	
UniRef90_K4BMM9	I R K D C R K V S
UniRef90_V4VSV1	I R R N C R C T N
UniRef90_K0RDY1	
UniRef90_W9RTL4	I R R N C R V A N R R P L
UniRef90_UPI0003D28713	I R K H C A A V N
UniRef90_D4GSA2	
UniRef90_V4UCD8	I R T N C N F V N S
UniRef90_P0C0L0	
UniRef90_A9SS95	I R K I C S R I N
UniRef90_UPI0003D75B4B	
UniRef90_G7JKV1	V R K N C R V V N
UniRef90_R7WBM9	I R L S C S R V N
UniRef90_U5GQS0	I R K R C A A V N S
UniRef90_W5A1N3	V R A T C C S
UniRef90_S8DW81	V R L N C S R V N
UniRef90_K4CJ27	I R Q D C K F T N K
UniRef90_C5X749	I R A T C
UniRef90_W1Z033	G K D V P S
UniRef90_H3GCG7	
UniRef90_W5H3G4	
UniRef90_G7INV1	I R K I C S A F N
UniRef90_M0RVD5	I R N K C S
UniRef90_W8SSL1	
UniRef90_A5C5U0	I R T N C R A I N
UniRef90_B9EVN7	I R N K C S S I N
UniRef90_M0WRZ6	I R C N C R V P N
UniRef90_M7YWK9	I R K K C S
UniRef90_Q5U1R7	V R L N C R K V N S
UniRef90_F2DWM4	I R R H C S A V N
UniRef90_UPI00035F518B	
UniRef90_M0TTR1	
UniRef90_D8UCP0	
UniRef90_H2EQQ6	I R T N C R K T N
UniRef90_B4FB95	V R R N C A V V N
UniRef90_T1UMQ8	
UniRef90_UPI000368FD44	G P D A P Q
UniRef90_R4SZJ4	
UniRef90_D8RLX7	I R A S C
UniRef90_M0NCB6	
UniRef90_B9RP42	
UniRef90_I1Q2M5	V R L K C S V A N



1 10 20 30 40

UniRef90\_I1J3Q4 A A L S P D F H A A N C P Q L E S I V S S V Q T A L R N E I A

UniRef90\_W5A9Q7 S L R P G F Y L E T C P G A E A I V R E V I R Q A M I R E P R

UniRef90\_W1PIZ0 M V K S Y P V V S A E Y L E A V E K A R Q K L R A L I A E K N

UniRef90\_M0X2A2 Y R K S C P A E S I I F R E V Q R Y F K K D P T

UniRef90\_A9S3T7 P V P V G P T G Y D V K A V K A K I A A S G L

UniRef90\_K2K343 F Y N S C P Q A E S E V L S V V S K H F A T D H S

UniRef90\_M0SYV4 A H G Q L S P T F Y A S T C P N L E A I V R S V M N T T V A S E K R

UniRef90\_M7YT28 Q L S T G Y Y D G S C P Q V H D T V R L I I Q Q E L A A V I P G

UniRef90\_K4AJE5 Q L S T G Y Y D G S C P Q V H D T V R L I I Q Q E L A A V I P G

UniRef90\_A0A059CXF7 P M G R D F D Y A S A F A S L D L N A V I A D L K A L M T D S Q S D W A D F G H

UniRef90\_Q3SWP3 F Y D E S C P D A E G I V S S T V R E L Y L A N P N

UniRef90\_Q5U1S5 K M S A D Y Y S K T C P R A D R I I A D V L A Q K Q I S N P T

UniRef90\_Q67VC4 Y R E S C P T A E K I L A K A I R D E I Y N V T P S

UniRef90\_O81755 A L L Q E E I G K V L S K G

UniRef90\_A0A022PV38

UniRef90\_U7DUG9

UniRef90\_K3ZW73

UniRef90\_B4V6Y4

UniRef90\_A0A022QB00

UniRef90\_E0XTC9 P I P T G N S D F D V E L V K E K I L A S D L S I Q E

UniRef90\_F2VPS3

UniRef90\_UPI00037EA1F7

UniRef90\_F3WXA6 P L G P D F D Y A A E F A K L D F E A L K R D I K Q F L T S S V D W S D Y G N

UniRef90\_B1M869 S L P T E D D G L S Y G F H D H K C P A L L N N V S T A V R N A R D P G

UniRef90\_I1HGL8 K G K C A G D V E A A V Q G V V R A R F A R E A P

UniRef90\_J3MWI4 P V V D D E Y L K E I D K A R R E L R A F I T S N Q

UniRef90\_I1J8J7

UniRef90\_E0ZLC2

UniRef90\_W5BIG8 S A Q L S S T Y Y D K S C P S L S K I Q A G V A A A V A S D R R

UniRef90\_UPI00036E06B5 P M D E G F D Y A K E F A T V D L D Q L A A D V D E C L T T S Q D W A D F G T

UniRef90\_W4ZW69

UniRef90\_D7T6L2 E Y L R I K E E I S K V V T K G

UniRef90\_UPI00042B5E3B P L G A D F N Y R A A L K D L D V D A L K A D L R A L M N D S Q D W A D W G S

UniRef90\_E3F414 A T A Q L R P D H Y A G V C P D L E S I V R G A V S R S M A H S P V

UniRef90\_I1I4X9 L K S A R E D I R E L K T T Y

UniRef90\_B8AJE7 F Y D E S C P A A E R I V E Y V R Q H V R R V I P T

UniRef90\_J3L9T5 N F Q Q L K Q D I K A L L V D S K D W A D Y A N

UniRef90\_UPI00037B76D9

UniRef90\_W5F2D9

UniRef90\_M0RM09

UniRef90\_A0A059DB10 P P Q K L Q W H Y Y R N S C R D A E R Y V S T Q V E F Y W K L D R S

UniRef90\_K7USX8 L A Y N F Y Q S S C P S A E S I V R S V T W A Q V A A D P A

UniRef90\_C5YWW2 Y S G S C P R A E D I V K E Q V T Q L Y H K H G N

UniRef90\_E2J5C1 A T L S P T F Y D V I C P K A A A A I R N I V R T A V S R E R R

UniRef90\_Q5XXE3 K G K C A N D V E A V V Q G I V R A R F A R D A P

UniRef90\_I1QMW9 T N V P A K D S Q Q C A S D P C C I W E Y I K R D M K F H G D S G R C T K

UniRef90\_U7PVH4 S S E L S T S F Y V S T C P D L P Q I V R S V I H S E F S N N S R

UniRef90\_D8SEE2

UniRef90\_UPI0003D26832 P L G A D F D Y A E A V A S L D Y E A L K A D I R S F L H T S V E W S D Y G H

UniRef90\_X7F8G4 Y G K T C K G V E N V I K H V I K A L K Q N R R

UniRef90\_J3KZ02 N L P Q K G S P A C A A D T C C I W K Y I A N D M T N T F K S G R C T D

UniRef90\_N4VVO

UniRef90\_M1C7W9

UniRef90\_C1E545

UniRef90\_I1B008 P I P E G S T A Y N V E A V K A Q I A A T G I

UniRef90\_B8AQ79 C P H A E A I V K G V V I A A A L H R D P G

UniRef90\_M7ZDX1 A A Y V D V E G T V R T E V E N A S N P G

UniRef90\_E5A4C7 P D K C C V C K D V S A E L T R R F K E S N C N D

UniRef90\_UPI000350DA12

UniRef90\_B9FVK2 L A Y N F Y R T S C P N A E S I V Q R V T W A Q V A A N Q A

UniRef90\_I1HEC9 P D F H A E T C P Q L D G V R A A V Q A A L T R E I A

UniRef90\_R7W736

UniRef90\_UPI0002C3674C A A E G S V P D L G S A E C S A D K C C V W K H V A E I M P T F R D A N G C T D

UniRef90\_H1V4U6 A A S G N L P D L G S S D C N A D K C C V W Q H V A A D L M P T F R D D N G C T

UniRef90\_A0A010QMF6

UniRef90\_X0H203 A Q L S S T F Y D R T C P N L T T I R T T I R Q A I S S E R R

UniRef90\_M1B7R0 A Q C S N G R T A S H A C C V W F D V L D D I Q E N F D G G E C G E

UniRef90\_U3KYQ1 A V M K R A T C A D G R T T A N A C C V L F P I L D D I Q E A F D G A E C G E

UniRef90\_B9VR21 A A V T R A A P T S E A A V C S D A C C A F I P L A Q D L Q Q T I F Q N E C G E

UniRef90\_UPI0004418034

UniRef90\_A0A059CA93

UniRef90\_B9S0N8

UniRef90\_X5GE19 K H G N

UniRef90\_I3S6A4

UniRef90\_UPI0004408994 A C P D G K A S N E A C C V F F A L R D D L Q N N L F Q N E C G E

UniRef90\_J3LVF4 V E G T V R T L V E A A I K G D P R

UniRef90\_M5XW30 S F Y S A S C P S A E L M V R N T V R S A S D I D P T I P

UniRef90\_W4K3N7 T A T N A A C C A L F A V R D D I Q T N L F D G G E C G E

UniRef90\_UPI0003511491 F Y N T S C P N A E A L V R Q A V T A A F A N N S G

UniRef90\_M0ZW68 L S S N Y Y A K T C P Q A E D V M K V V K E E A Q K D R R V P

UniRef90\_H1W3L9 A T C H A R S C P P V W N K V A A D L R S S F A G C P S

UniRef90\_R7T0F0 A L A T V A S A A P S R T C S D V C C E F L P L A E A L Q T Q V L M G D C G E

UniRef90\_V4K8K9

UniRef90\_I1HM83 D V E S T V R M I V A K A M E G K P R

UniRef90\_J3M3Q9 K K S I E A T V R E V V E K A R R P A

UniRef90\_K4L9N8 V F S D L S D D F Y H H I C P T I K R V V E D A V R K E R R

UniRef90\_UPI0004408145 T C P D A C C A F F A L R D D L Q Q N L F D G E C G E

UniRef90\_Q206Y8

UniRef90\_A5JW32 Q N F T Q N R A

UniRef90\_M0Z7D4 K G L A V G Y Y N K T C S R A E D I V R E V V R D A N P G I

UniRef90\_D8U094

UniRef90\_W5C2X3

UniRef90\_I1J3Q4      50      60      70      80  
UniRef90\_W5A9Q7      L A A G L L R L F F H D C F P Q G C D A S V Y L K G R G T      E Q S M G P  
UniRef90\_W1PIZ0      N A A S V M R L Q F H D C L V      N G C D A S L L L D D T P S M L G E K T A A P  
UniRef90\_MOX2A2      C S P L M L R L A W H S A G T F D V N G S K T G G P F G T M K K P A E Q A H A A  
UniRef90\_A9S3T7      V A P G L L R L I F H D C F V R G C D A S V L L S G      R R S E R A S A I  
UniRef90\_K2K343      T A S E M V A T A W D S A R T Y R G S D M R G G T D G A R L R L A P Q K D W E G  
UniRef90\_M0SYV4      V T A A F L R M Y F H D C F V R G C D A S I L I      A P T K K K T E R S A G P  
UniRef90\_M7YT28      M G A S L L R L H F H D C F V E G C D G S V L L D N T A T T P A I S E K N A F G  
UniRef90\_K4AJE5      V L A G L L R L H F H D C F V N G C E G S L L L D G T A      K L S E K E A N P  
UniRef90\_A0A059CXF7      G K L L R L L F H D C F V E G C D A S V L I R G N G T      E Q N D P A  
UniRef90\_Q3SWP3      Y G G L M V R M A W H S A G T Y R I T D G R G G A G G G Q Q R F A P L N S W P D  
UniRef90\_Q5U1S5      V A A A L V R L F F H D C F I H G C D A S V L L D R I N G D K S E R E A A P  
UniRef90\_Q67VC4      T A A G V L R L F F H D C F V G G C D A S V L V      A S T A A R S E R D A D V  
UniRef90\_O81755      V A P I I R L L F H D C F I E G C D A S V L L D A D E A H T S E K D A S P  
UniRef90\_A0A022PV38      R A A G L L R L V F H D A G T F D D G D K T G G M N G S I I Y      E L D R P E  
UniRef90\_U7DUG9      A G L I R L F F H D C F T      R G C D A S I L L D P T S D N Q Q P E K F G I P  
UniRef90\_K3ZW73      L N S T T N N Q A E R D S F P  
UniRef90\_B4V6Y4      M I E T A W A S A S T F R G S D M R G G A N G A R L R L A P Q K D W E A  
UniRef90\_A0A022QB00      T M R F K A E Q A H G A  
UniRef90\_E0XTC9  
UniRef90\_F2VPS3  
UniRef90\_UPI00037EA1F7  
UniRef90\_F3WXA6      Y G P Q M I R M A W H S A G T Y R I A D G R G G A G T G L Q R F A P I S S W W D  
UniRef90\_B1M869      I T A G L L R L T F N D C F P Q G C D A S I L L T G P N S E Q D I L      P Q  
UniRef90\_I1HGL8      I V A Y L L R M Q F H E C A V N G C D G G L L I D G P G T      E K T A A P  
UniRef90\_J3MWI4      C A P L M L R L A W N D A A T Y D A R N R A G G P N G S      I R T D K E L K H E A  
UniRef90\_I1J8J7      L D D N S T F T G E K T A L P  
UniRef90\_E0ZLC2      M A A S L L R L H F H D C F V Q G C D A S V L L N E T S V G G N      E R G A F G  
UniRef90\_W5BIG8      Y S G F M I R M A W H S A G T Y R L A D G R G G A G M G M Q R F A P L N S W P D  
UniRef90\_UPI00036E06B5  
UniRef90\_W4ZW69  
UniRef90\_D7T6L2      M Q F H D C      F V R G C D A S I L L D R V G T D Q T E K D A R P  
UniRef90\_UPI00042B5E3B      K A A G V L R L V F H D A G T F E M A E N S G G M N G S I V Y      E L E R P E  
UniRef90\_E3F414      Y V G M F A R V A W H A A G S Y R T A D G R G G A N T G N Q R F A P L N S W P D  
UniRef90\_I1I4X9      A A P A T L R L F F H D C A V R G C D A S I L R P D G G D E W R S P D G L T L K  
UniRef90\_B8AJE7      C H P I M V R L G W H D S G T Y D K N I E E W P Q A D G S L R F D A E L S H G A  
UniRef90\_J3L9T5      V A A A L L R L H Y H D C F V R G C D A S I L L N S T G N G G A A E K D A A P  
UniRef90\_UPI00037B76D9      Y G P Q M I R M A W H S A G T Y R I A D G R G G A G Q A M Q R F A P I N S W W D  
UniRef90\_W5F2D9      M A A S L L R L F F H D C F V Q      G C D A S V L L A G N E R N A F G  
UniRef90\_M0RM09      M G A S L L R L F F H D C F V N G C D A S V L L D T A T F T G E K N A G P  
UniRef90\_A0A059DB10      L A P K P I R M L Y A D C F V T G C D A L I L      S D R P Y S E K T A P Q  
UniRef90\_K7USX8      L P A R L L R L H F H D C F V K G C D A S I L L D N A      Q S E K T A A P  
UniRef90\_C5YWW2      T A V S W L R A L F H D C F V R S G C D A S L L D P T A A T G G A S E K A S P R  
UniRef90\_E2J5C1      M A A S L V R L H F H D C F V Q G C D G S V L L D E T A T I R      S E K F S F A  
UniRef90\_Q5XXE3      D V R K S I R L Q W H D A N A F S H T G S G G G A D G S I L L A H A I E L A Y P A  
UniRef90\_I1QMW9      I V A Y L R M Q F H E C A V N G C D G G L L I D G P G T      E K A A S P  
UniRef90\_U7PVH4      H A R A A V R L G F H D A A S W E K G D T F G G A D G S I V L A N      E L T R A E  
UniRef90\_D8SEE2      S A A S I L K L H F Q D C F A      G G C D G S L L L Q R G D G R S A  
UniRef90\_UPI0003D26832      Y G P Q M N R M T W H S A G T Y R I A D G R G G S S E G L Q R F A P I N S W W D  
UniRef90\_X7F8G4      T G A A L V R L L F H D C F V R V R C D G S V L L D K S Y E N P H P E K E A P V  
UniRef90\_J3KZ02      L A R A A V R L G F H D A G G W S K F T G D G G A D G S I I L S P D E M N R G E  
UniRef90\_N4VVV0  
UniRef90\_M1C7W9      A P A V L R L V F H D A G T F R T A T N D G G M N A S V R Y      E L S R P E  
UniRef90\_C1E545      P A A E L I A T A W D S A R T F R G S D R R G G A N G A R I R L A P Q K D W A G  
UniRef90\_I1B008      V G A G L I R M L F H D C F V E G C D A S V L L D P T P A N P Q P E K L A P P  
UniRef90\_B8AQ79      V G A A L I R L V F H D C W V N G C D G S V L L D Q T P S G S N T E K K A I N  
UniRef90\_M7ZDX1      N A R A A I R M G F H D A G A W D K N S P S G G A D G S L L M D F G E I N R P E  
UniRef90\_E5A4C7      V F E G C D G G L L I D G P G      T E K T A G P  
UniRef90\_UPI000350DA12      L P G R L L R L H F H D C F V K G C D A S I L L D T A G S      P E K T A I P  
UniRef90\_B9FVK2      I A A G L V R I Y F H D C F P Q G C D A S I L L N N T A A R      E T A L G P  
UniRef90\_I1HEC9  
UniRef90\_R7W736      P A R A S I R L G F H D A A G W S K G T G D G G A D G S I V L A P E E I G R P A  
UniRef90\_UPI0002C3674C      D A R A A I R L G F H D A A G W S L N T G D G G A D G S I V L A P E E I G R P L  
UniRef90\_H1V4U6  
UniRef90\_A0A010QMF6  
UniRef90\_X0H203      M A A S L I R L H F H D C F V Q G C D A S L L      L D E T P T I V S E K T A L P  
UniRef90\_M1B7R0      E V H E S L R L T F H D A I G F S K F G G G G A D G S I M A H S E I E T N F H A  
UniRef90\_U3KYQ1      E V H E S L R L T F H D A I G F S P T K G G G G A D G S I V T F D E E T A F H A  
UniRef90\_B9VR21      D A H E V I R L T F H D A I S Q S Q G P R A G G G A D G S M L L F P E P N F A A  
UniRef90\_UPI0004418034  
UniRef90\_A0A059CA93  
UniRef90\_B9S0N8  
UniRef90\_X5GE19      T A V S W V R R S F H D C V V K S C D A S L L L E T M N G I R S E Q E S E R S G  
UniRef90\_I3S6A4  
UniRef90\_UPI0004408994      E V H E V V R L T F H D A V G F S N F T G G G A D G S I L L F G D T E T N F A A  
UniRef90\_J3LVF4      L G P A L L R L V F H D C W V N G C D G S V L L D T T P F N G S E K A A G R  
UniRef90\_M5XW30      G K L L R L L F H D C F V E G C D A S V L L Q G T G T      E R S D P A  
UniRef90\_W4K3N7      E V H E S L R L T F H D A I G F S T T K N V G G G A D G S I S T F S E T N F H A  
UniRef90\_UPI0003511491      I A P G L I R L H F H D C F V R G C D A S V L L K V N P G G G S T E R D A P P  
UniRef90\_M0ZW68      A T L L R M H F H D C F L R G C D A S I L L S S K G K N T A E K D A P P  
UniRef90\_H1W3L9      E A R Q A M R A A F H D C F P G S C D G S L L L A N E C L D R E E  
UniRef90\_R7T0F0      D T H E L L R L T F H D A I A I R S N A S A G G G A D G S M L I F P E P A F F A  
UniRef90\_V4K8K9      L F P H F S F T Q R K Y P I N G T K N R G C S T K C A A S D A  
UniRef90\_I1HM83      V G A A L V R L L F H D C W V H G C D G S V L L D T V P Y G S G S G E K D A E N  
UniRef90\_J3M3Q9      V G P A L V R L V F H D C W V N G C D G S V L L E K T P Y S S S T E K A A V N  
UniRef90\_K4L9N8      M G A S L L R L H F H D C F V N G C D A S I L L D E T S T I N      S E K T S R A  
UniRef90\_UPI0004408145      D V H E S L R L T F H D A I G F S L S G G T G A D G S M I I F K D I E P N F A A  
UniRef90\_Q206Y8      D C F V D G C D G S L L L D D T S T      F V G E K T A V P  
UniRef90\_A5JW32      M A A M C L H S A F H D C W      N G C N G A L F L P E E I V R P E  
UniRef90\_M0Z7D4      M A G L I R L F F H D C F V R G C D A S V L L D Q V D P N S P T E K F G V P  
UniRef90\_D8U094      L R L V F H D A G T F S F P P G N G G L N A S I Q Y      E L D R P E  
UniRef90\_W5C2X3      M G A S L V R L H F H D C F V D G C D G S V L L A D T G S      F V G E Q G A P

UniRef90\_I1J3Q4  
UniRef90\_W5A9Q7  
UniRef90\_W1PIZ0  
UniRef90\_MOX2A2  
UniRef90\_A9S3T7  
UniRef90\_K2K343  
UniRef90\_MOSYV4  
UniRef90\_K7YT28  
UniRef90\_M4AJE5  
UniRef90\_A0A059CXF7  
UniRef90\_Q3SWP3  
UniRef90\_Q5U1S5  
UniRef90\_Q67VC4  
UniRef90\_O81755  
UniRef90\_A0A022PV38  
UniRef90\_U7DUG9  
UniRef90\_K3ZUW7  
UniRef90\_B4V6Y4  
UniRef90\_A0A022QB00  
UniRef90\_Q0XTC9  
UniRef90\_F2VPS3  
UniRef90\_UPI00037EA1F7  
UniRef90\_F3WXA6  
UniRef90\_B1M869  
UniRef90\_I1HGL8  
UniRef90\_J3MWI4  
UniRef90\_I1J8J7  
UniRef90\_E0ZLC2  
UniRef90\_W5BIG8  
UniRef90\_UPI00036E06B5  
UniRef90\_W4ZWV69  
UniRef90\_D7T6L2  
UniRef90\_UPI00042B5E3B  
UniRef90\_E3F414  
UniRef90\_I1I4X9  
UniRef90\_B8AJE7  
UniRef90\_J3L9T5  
UniRef90\_UPI00037B76D9  
UniRef90\_W5F2D9  
UniRef90\_MORM09  
UniRef90\_A0A059DB10  
UniRef90\_K7USX8  
UniRef90\_E2JYW2  
UniRef90\_C5YWC1  
UniRef90\_Q5XXE3  
UniRef90\_I1QMW9  
UniRef90\_U7PVH4  
UniRef90\_D8SEE2  
UniRef90\_UPI0003D26832  
UniRef90\_X7F8G4  
UniRef90\_J3KZ02  
UniRef90\_N4VVO0  
UniRef90\_M1CVW9  
UniRef90\_C1E545  
UniRef90\_I1B008  
UniRef90\_B8AQ79  
UniRef90\_M7ZDX1  
UniRef90\_E5A4C7  
UniRef90\_UPI000350DA12  
UniRef90\_B9FVK2  
UniRef90\_I1HEC9  
UniRef90\_R7W736  
UniRef90\_UPI0002C3674C  
UniRef90\_H1V4U6  
UniRef90\_A0A010QMF6  
UniRef90\_X0H203  
UniRef90\_M1B7R0  
UniRef90\_U3KYQ1  
UniRef90\_B9VR21  
UniRef90\_UPI0004418034  
UniRef90\_A0A059CA93  
UniRef90\_B9S0N8  
UniRef90\_X5GE19  
UniRef90\_I356A4  
UniRef90\_UPI0004408994  
UniRef90\_J3LVF4  
UniRef90\_M5XW30  
UniRef90\_W4K3N7  
UniRef90\_UPI0003511491  
UniRef90\_MOZW68  
UniRef90\_H1W3L9  
UniRef90\_R7T0F0  
UniRef90\_V4K8K9  
UniRef90\_I1HM83  
UniRef90\_J3M3Q9  
UniRef90\_K4L9N8  
UniRef90\_UPI0004408145  
UniRef90\_Q206Y8  
UniRef90\_A5JW32  
UniRef90\_MOZ7D4  
UniRef90\_D8U094  
UniRef90\_W5C2X3

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

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

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

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

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

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

UniRef90\_I1J3Q4 P S Y S V P Q G Q M D S L T P A A Q N D G L P S P R T S S V S A L A K A F R D K  
UniRef90\_W5A9Q7 I V F A M P S G R L D G R V S N A T E A A N L P S P A N F N L T Q L I T R F A S K  
UniRef90\_W1PIZ0 P S W E V E L G R K D S A R A F Y D E V G R I P S P N A T Y T V T L D A F A R R  
UniRef90\_MQX2A2 P V I P F H P G R E D K P Q P P E G R L P D A T K G S D H L R Q V F K Q M  
UniRef90\_A9S3T7 K G W R V I A G R R D G R I S N K E P E Q N I P T A F A S V N E L V S T F A Q Q  
UniRef90\_K2K343 P F S P G R G D A T D E M T D A E S F E P L E P I H D G Y R N W L K Q D Y Q L M  
UniRef90\_M0SYV4 P N Y D I P T G R R D G L V S N K D V R L P G S L T V S G A F Q D F S K  
UniRef90\_M7YT28 P T W T V P L G R R D P P P F A N L V T N P P D G S D L I A S D L I A R F Q R K  
UniRef90\_K4AJE5 A D I L A L A A K A S V E L M R N L G G A H T Y T I G R A H Y Q S I  
UniRef90\_A0A059CXF7 P A V Q I P T G R K D G R V S A A S N V R P N I V D T F T I N E M I K L F S S K  
UniRef90\_Q3SWP3 K P L G F A G G R V D E W E P Q E L F W G P E G A W  
UniRef90\_Q5U1S5 P S Y P V L T G R S D S A R A F Y D E V G R I P S P N A T Y T V T L D A F A R R  
UniRef90\_Q67VC4 P Y Y P L R L G R K D G L S S P S A P D E I P H A N L T V S R L V A V F A A K  
UniRef90\_O81755 P F Y P L E T G R K D S A A A Y R D F A H E L P A P D A T L S V I L Q R F S F R  
UniRef90\_A0A022PV38 P K I P V Q L G R L D A T V P D P V G K L P E E T L V A A T M K Q V F Q K K  
UniRef90\_U7DUG9 Y D I P K G R K D G R R S K I E D T L N A P A P T F N A S E L V R V F G L R  
UniRef90\_K3ZW73 I N F D M P A G R Y D N V S L A S E T L P N L P P P F A G L Q Q L E K M F A D K  
UniRef90\_B4V6Y4  
UniRef90\_A0A022QB00 P V P L G R R D N V S N S T E T L F N L P P P F F N I T Q L K A S F A S K  
UniRef90\_E0XTC9 V E V P F M G G R G D E H T D A E S F E V L E P H A D G F R N Y Q K T E F S V T  
UniRef90\_F2VPS3 P D V P F H P G R E D K P E P P V E G R L P D A T K G S D H L R D V F K Q M  
UniRef90\_UPI00037EA1F7 H T V G K C H G N G K A E N L G A D V E G A  
UniRef90\_F3WXA6  
UniRef90\_B1M869 P T Y G F A A G R L D A W E A D N A T Y W G P E V V E M  
UniRef90\_I1HGL8 P R Y E V P L G R R D S I A P A R R Q D V E L P R P D F D V H Q L V Q S F R S R  
UniRef90\_J3MWI4 Q A Y P V R T G R R D S G R Q S A R S D V V L P A P E N F F G K L G L S P F D T V  
UniRef90\_I1J8J7 P T I E F L P G R K D S M E S S A E G L L P D V K Q G A S I I R N I F S R M  
UniRef90\_E0ZLC2 P T W T V L L G R R D S A T A S S A A N N I P S P A S N L S A L I S S T F A H  
UniRef90\_W5BIG8 P S W E V K L G R R D S T T A S V A Q N Q D L P P P F L D V A G L N A S F A G K  
UniRef90\_UPI00036E06B5 T T F G F A G G R P D V F E P D N E T Y W G P E N Y W  
UniRef90\_W4ZW69 I N Y R V P S G R R D G H V S I A D E N N N V P P T D E V A Q L V A S F K R K  
UniRef90\_D7T6L2 T P W D V L T G R R D N V S L A S E V N G N I P S P F S D F S T L K Q L F V K K  
UniRef90\_UPI00042B5E3B P K I P V A L G R L D S A E P D P E G K L P Q E S L D A S G L K Q S F Q R K  
UniRef90\_E3F414 K T F G F A F G R Q D I W A P E K D T Y W G N E K E W  
UniRef90\_I1I4X9 P N Y E V E L G R Y D G T A S T E S S V T V P H G D F D L D R L N A F F S G L  
UniRef90\_B8AJE7 P M K Y G R V D V T A A E Q C P P E G R L P D A G P R D H L R E V F Y R M  
UniRef90\_J3L9T5 P S W R V P T G R R D G T V S S M Q E A A E I P S P A M S F P E L A G L F A T K  
UniRef90\_UPI00037B76D9 P T F G F G G R R D A W E P D R S T Y W G P E F W G K P V D Q V P A S T H H  
UniRef90\_W5F2D9 P S W T V S L G R R D S D T A S E T L A N R L P A P S L S V T D L I T R F A A K  
UniRef90\_M0RM09 P S W T V A L G R R D A T T A S Q S A A N N L P G P G S S L S Q L I A A F A T K  
UniRef90\_A0A059DB10 L S Y P V L A G R R D G M S S S V A S V D L P L I G A T L I G D R C S L T S N Q E A  
UniRef90\_K7USX8 A S W Q V E T G R R D G P S L A S D A L G A L P S P F A G F G G L L A G F A S R  
UniRef90\_C5YWW2 R A V R M R T G R R D S E H Y A E V E R D I P N H N D S V S A V L A R F A A V  
UniRef90\_E2J5C1 P T W T V K L G R R D S T T A N R A L A D R I P N S F H D L P V L I A R F A A K  
UniRef90\_Q5XXE3 A P R L T F L A G R P N A S R A A D D G L V P A P W S A D T L S A R M A D A G  
UniRef90\_I1QMW9 Q P Y A V R T G R R D R R Q S R A S D V V L P A P D S T A A Q S V A F F R K L  
UniRef90\_U7PVH4 L G P R I R S Y V G R K D S S Q A T N K G R M P D V H A S A E N L V A L F Q N K  
UniRef90\_D8SEE2 P S W T V E F G R R D S P A T V A A A M E A I P S P N L T A T Q L I E R F Q R R  
UniRef90\_UPI0003D26832 P F W K V L L G R R D G L V A N F S S N G L P A P F D H L N T I I S K F Q D V  
UniRef90\_X7F8G4 P I Q G F A F G R E D A W E A D R A T Y W G P E G W N G  
UniRef90\_J3KZ02 V H F D V P A G R L D G F V S S A D E A Q R L P D S T M T V Q Q L A D N F A A K  
UniRef90\_N4VVO0 G P R I R T Y I G R K D S S Q N C P E S M L P P V T G S A D F L I E L F E N K T  
UniRef90\_M1C7W9 P R I D V P L G R R D N P P N S S L A D S S L P S N L G V N D M L Q L F A Q I  
UniRef90\_C1E545 P V I E V P L G R L D A D K A D P E G R M P G E S L T G V E Q R D V F G A M  
UniRef90\_I1B008 I P V P F T P G R G D A T Q E Q T D V E S F E P L E P L A D G F R N W Q K E E Y  
UniRef90\_B8AQ79 V S F D M P S G R L D G R Y S N A S R A D F L P P P T F N L G Q L V A N F A A K  
UniRef90\_M7ZDX1 I A Y S V P S G R K D G I V S S A A A D A I P Q S T F E F Q Q L K D N F A K K  
UniRef90\_E5A4C7 K G P R V R T F I G R Q D A T R A P D G L L P D V H D D Q K L I A F E N K  
UniRef90\_UPI000350DA12 P A Y A V R T G R R D R Q S R A S D V R L P G A D Y T A A Q T T A Y F S M L  
UniRef90\_B9FVK2 F V I P V P A G S R D N V S S A F S V F S S I P S P F F D A G E L V Q S F A A K  
UniRef90\_I1HEC9 A S W Q V E T G R R D G P V S S A G N T G S L P S P S A G F G G L V Q S F A A K  
UniRef90\_R7W736 V T S G G P W G L G D  
UniRef90\_UPI0002C3674C Y S Y E V L L G R R D A T T T S N D A N R N L P P P F F N F P Q L L S N F Q S H  
UniRef90\_H1V4U6 P G G P R I K T F V G R K D S S V A A P D G L L P D P P R D N A D K L I E L F G N K  
UniRef90\_A0A010QMF6 G P R I K T F V G R K D S S V A A P D G L L P D P K D P A D K L I E L F G N K T  
UniRef90\_X0H203 P I I P Y R P G R S D R D A V A C A P D G R L P N A T K G A A H L R E I F G R M  
UniRef90\_M1B7R0 P S W T V K L G R R D S T T A S H T L A T D L P G P F D P S R L I S G F A N K  
UniRef90\_U3KYQ1 G P R L Q F L A G R A N F S L P S P D L L V P E P S D S V D A I L A R A A D A G  
UniRef90\_B9VR21 A P R L N F L L G R P P A T A A S P N G L I P E P F D T V T D I L A R M G D A G  
UniRef90\_UPI0004418034 A P Q E F M A G R P N H T I A A V D G L I P E P Q D S V D K I L A R F Q D A G N  
UniRef90\_A0A059CA93 L S Y D V E T G R R D G N V S L N E A N N L V P P N A N I T T L K A D F A M K  
UniRef90\_B9S0N8 P R I E M K T G R R D S K E S Y A V L E S I P N H N D T M S L V L D R F Q S V  
UniRef90\_X5GE19 P R I E M K T G R R D S K E S Y I S E V E L S A H N V G R V H C V N L V R F K S  
UniRef90\_I3S6A4 S Y Y E V E L G R F D G R S K D S D V N G K L P E P G F N L N Q L N T L F K H H  
UniRef90\_UPI0004408994 P Q L Q F L A G R P N A T A P A Q D G T V P E P Q D S V D D I L A R F S D V  
UniRef90\_J3LVF4 I N Y T V V T G R R D G V V S A A A A T L P D S V F K I G Q L K D N F A A K  
UniRef90\_M5XW30 P V V Q I P T G R R D G K V S A A S N V R P N I V D T F T M D E M I K L F S S K  
UniRef90\_W4K3N7 A P R L E F F F G R P T A I A P A A D L T V P E P F D T V D S L L A R F S D A G  
UniRef90\_UPI0003511491 F Y Y Q V P A G R R D G N I S R Q D A D A N L P G P N S T A H N L T D G F G R K  
UniRef90\_M0ZW68 P Y W N V P K G R K D G R I S R A S E T T L L P K P T F N I S Q L Q Q S F H Q  
UniRef90\_H1W3L9 P R V Y F F V G R K D S A L P N A E G T L P T Q D S D A A S Q L T A F K K K  
UniRef90\_R7T0F0 A P Q E F L A G R P N A T A P A I D G L I P E P Q D N I T K I L A R F D D A G G  
UniRef90\_V4K8K9 N I E E W P Q R G L R F E A E L K H A A N A D A G P S P A D H L R D V F Y R M  
UniRef90\_I1HM83 I V Y A V K R G M D G V V S S A A D A D A L P S T F K I K Q L K D N F K A R  
UniRef90\_J3M3Q9 V T Y D V A T G R K D V V S A A A D A D A L P E P T F E F A Q L K D N F A R K  
UniRef90\_K4L9N8 P S W K V K L G R R D S T T A S T A A N D X I P T P F M D L P A L I X N F  
UniRef90\_UPI0004408145 P R L Q F L A G R P N A T F P A D D N T V P L P Q T T L L S R M E D A G F S P A  
UniRef90\_Q206Y8 P S W T V R L G R R D S K T A S R A N T S I P P T S N L S A L I S F S A Q  
UniRef90\_A5JW32 P E V P V Y Y G R L D R N V P D P A G L I P E P T M S L S A L I S A F N A I  
UniRef90\_M0Z7D4 V Y F D M P A G R Y D G V S S S N E T L P N L P P F A T V D Q L K A N F A S K  
UniRef90\_D8U094 P D I A L A L G R V A A A S P D P P D R M P G E N F T A E Q L K A N F A A K  
UniRef90\_W5C2X3 P T W P V L L G R R D S T T A S K T N A E N L P P P T F D L Q N L T T S F A N K



UniRef90\_I1J3Q4  
UniRef90\_W5A9Q7  
UniRef90\_W1PIZ0  
UniRef90\_MOX2A2  
UniRef90\_A9S3T7  
UniRef90\_K2K343  
UniRef90\_MOSYV4  
UniRef90\_K7YT28  
UniRef90\_M4AJE5  
UniRef90\_A0A059CXF7  
UniRef90\_Q3SWP3  
UniRef90\_Q5U1S5  
UniRef90\_Q67VC4  
UniRef90\_O81755  
UniRef90\_A0A022PV38  
UniRef90\_U7DUG9  
UniRef90\_K3ZUW7  
UniRef90\_B4V6Y4  
UniRef90\_A0A022QB00  
UniRef90\_E0XTC9  
UniRef90\_F2VPS3  
UniRef90\_UPI00037EA1F7  
UniRef90\_F3WXA6  
UniRef90\_B1M869  
UniRef90\_I1HGL8  
UniRef90\_J3MWI4  
UniRef90\_I1J8J7  
UniRef90\_E0ZLC2  
UniRef90\_W5BIG8  
UniRef90\_UPI00036E06B5  
UniRef90\_W4ZWV69  
UniRef90\_D7T6L2  
UniRef90\_UPI00042B5E3B  
UniRef90\_E3F414  
UniRef90\_I1I4X9  
UniRef90\_B8AJE7  
UniRef90\_J3L9T5  
UniRef90\_UPI00037B76D9  
UniRef90\_W5F2D9  
UniRef90\_MORM09  
UniRef90\_A0A059DB10  
UniRef90\_K7USX8  
UniRef90\_C5YWW2  
UniRef90\_E2J5C1  
UniRef90\_Q5XXE3  
UniRef90\_I1QMW9  
UniRef90\_U7PVH4  
UniRef90\_D8SEE2  
UniRef90\_UPI0003D26832  
UniRef90\_X7FGG4  
UniRef90\_J3KZ02  
UniRef90\_N4VVO0  
UniRef90\_M1CVW9  
UniRef90\_C1E545  
UniRef90\_I1B008  
UniRef90\_B8AQ79  
UniRef90\_M7ZDX1  
UniRef90\_E5A4C7  
UniRef90\_UPI000350DA12  
UniRef90\_B9FVK2  
UniRef90\_I1HEC9  
UniRef90\_U7PW736  
UniRef90\_UPI0002C3674C  
UniRef90\_I1V4U6  
UniRef90\_A0A010QMF6  
UniRef90\_X0H203  
UniRef90\_M1B7R0  
UniRef90\_U3KYQ1  
UniRef90\_B9VR21  
UniRef90\_UPI0004418034  
UniRef90\_A0A059CA93  
UniRef90\_B9S0N8  
UniRef90\_X5GE19  
UniRef90\_I356A4  
UniRef90\_UPI0004408994  
UniRef90\_J3LVF4  
UniRef90\_M5XW30  
UniRef90\_W4K3N7  
UniRef90\_UPI0003511491  
UniRef90\_MOZV68  
UniRef90\_H1W3L9  
UniRef90\_R7T0F0  
UniRef90\_V4K8K9  
UniRef90\_I1HM83  
UniRef90\_J3M3Q9  
UniRef90\_K4L9N8  
UniRef90\_UPI0004408145  
UniRef90\_Q206Y8  
UniRef90\_A5JW32  
UniRef90\_M0Z7D4  
UniRef90\_D8U094  
UniRef90\_W5C2X3

UniRef90\_I1J3Q4  
UniRef90\_W5A9Q7  
UniRef90\_W1PIZ0  
UniRef90\_MOX2A2  
UniRef90\_A9S3T7  
UniRef90\_K2K343  
UniRef90\_MOSYV4  
UniRef90\_K7YT28  
UniRef90\_M4AJE5  
UniRef90\_A0A059CXF7  
UniRef90\_Q3SWP3  
UniRef90\_Q5U1S5  
UniRef90\_Q67VC4  
UniRef90\_O81755  
UniRef90\_A0A022PV38  
UniRef90\_U7DUG9  
UniRef90\_K3ZUW7  
UniRef90\_B4V6Y4  
UniRef90\_A0A022QB00  
UniRef90\_E0XTC9  
UniRef90\_F2VPS3  
UniRef90\_UPI00037EA1F7  
UniRef90\_F3WXA6  
UniRef90\_B1M869  
UniRef90\_I1HGL8  
UniRef90\_J3MWI4  
UniRef90\_I1J8J7  
UniRef90\_E0ZLC2  
UniRef90\_W5BIG8  
UniRef90\_UPI00036E06B5  
UniRef90\_W4ZWV69  
UniRef90\_D7T6L2  
UniRef90\_UPI00042B5E3B  
UniRef90\_E3F414  
UniRef90\_I1I4X9  
UniRef90\_B8AJE7  
UniRef90\_J3L9T5  
UniRef90\_UPI00037B76D9  
UniRef90\_W5F2D9  
UniRef90\_MORM09  
UniRef90\_A0A059DB10  
UniRef90\_K7USX8  
UniRef90\_C5YWW2  
UniRef90\_E2J5C1  
UniRef90\_Q5XXE3  
UniRef90\_I1QMW9  
UniRef90\_U7PVH4  
UniRef90\_D8SEE2  
UniRef90\_UPI0003D26832  
UniRef90\_X7FGG4  
UniRef90\_J3KZ02  
UniRef90\_N4VVO0  
UniRef90\_M1CVW9  
UniRef90\_C1E545  
UniRef90\_I1B008  
UniRef90\_B8AQ79  
UniRef90\_M7ZDX1  
UniRef90\_E5A4C7  
UniRef90\_UPI000350DA12  
UniRef90\_B9FVK2  
UniRef90\_I1HEC9  
UniRef90\_U7PW736  
UniRef90\_UPI0002C3674C  
UniRef90\_I1V4U6  
UniRef90\_A0A010QMF6  
UniRef90\_X0H203  
UniRef90\_M1B7R0  
UniRef90\_U3KYQ1  
UniRef90\_B9VR21  
UniRef90\_UPI0004418034  
UniRef90\_A0A059CA93  
UniRef90\_B9S0N8  
UniRef90\_X5GE19  
UniRef90\_I356A4  
UniRef90\_UPI0004408994  
UniRef90\_J3LVF4  
UniRef90\_M5XW30  
UniRef90\_W4K3N7  
UniRef90\_UPI0003511491  
UniRef90\_MOZV68  
UniRef90\_H1W3L9  
UniRef90\_R7T0F0  
UniRef90\_V4K8K9  
UniRef90\_I1HM83  
UniRef90\_J3M3Q9  
UniRef90\_K4L9N8  
UniRef90\_UPI0004408145  
UniRef90\_Q206Y8  
UniRef90\_A5JW32  
UniRef90\_M0Z7D4  
UniRef90\_D8U094  
UniRef90\_W5C2X3

UniRef90\_I1J3Q4  
UniRef90\_W5A9Q7  
UniRef90\_W1PIZ0  
UniRef90\_MOX2A2  
UniRef90\_A9S3T7  
UniRef90\_K2K343  
UniRef90\_MOSYV4  
UniRef90\_K7YT28  
UniRef90\_M4AJE5  
UniRef90\_A0A059CXF7  
UniRef90\_Q3SWP3  
UniRef90\_Q5U1S5  
UniRef90\_Q67VC4  
UniRef90\_O81755  
UniRef90\_A0A022PV38  
UniRef90\_U7DUG9  
UniRef90\_K3ZUW7  
UniRef90\_B4V6Y4  
UniRef90\_A0A022QB00  
UniRef90\_E0XTC9  
UniRef90\_F2VPS3  
UniRef90\_UPI00037EA1F7  
UniRef90\_F3WXA6  
UniRef90\_B1M869  
UniRef90\_I1HGL8  
UniRef90\_J3MWI4  
UniRef90\_I1J8J7  
UniRef90\_E0ZLC2  
UniRef90\_W5BIG8  
UniRef90\_UPI00036E06B5  
UniRef90\_W4ZWV69  
UniRef90\_D7T6L2  
UniRef90\_UPI00042B5E3B  
UniRef90\_E3F414  
UniRef90\_I1I4X9  
UniRef90\_B8AJE7  
UniRef90\_J3L9T5  
UniRef90\_UPI00037B76D9  
UniRef90\_W5F2D9  
UniRef90\_MORM09  
UniRef90\_A0A059DB10  
UniRef90\_K7USX8  
UniRef90\_C5YWW2  
UniRef90\_E2J5C1  
UniRef90\_Q5XXE3  
UniRef90\_I1QMW9  
UniRef90\_U7PVH4  
UniRef90\_D8SEE2  
UniRef90\_UPI0003D26832  
UniRef90\_X7FGG4  
UniRef90\_J3KZ02  
UniRef90\_N4VVO0  
UniRef90\_M1CVW9  
UniRef90\_C1E545  
UniRef90\_I1B008  
UniRef90\_B8AQ79  
UniRef90\_M7ZDX1  
UniRef90\_E5A4C7  
UniRef90\_UPI000350DA12  
UniRef90\_B9FVK2  
UniRef90\_I1HEC9  
UniRef90\_U7PW736  
UniRef90\_UPI0002C3674C  
UniRef90\_I1V4U6  
UniRef90\_A0A010QMF6  
UniRef90\_X0H203  
UniRef90\_M1B7R0  
UniRef90\_U3KYQ1  
UniRef90\_B9VR21  
UniRef90\_UPI0004418034  
UniRef90\_A0A059CA93  
UniRef90\_B9S0N8  
UniRef90\_X5GE19  
UniRef90\_I356A4  
UniRef90\_UPI0004408994  
UniRef90\_J3LVF4  
UniRef90\_M5XW30  
UniRef90\_W4K3N7  
UniRef90\_UPI0003511491  
UniRef90\_MOZV68  
UniRef90\_H1W3L9  
UniRef90\_R7T0F0  
UniRef90\_V4K8K9  
UniRef90\_I1HM83  
UniRef90\_J3M3Q9  
UniRef90\_K4L9N8  
UniRef90\_UPI0004408145  
UniRef90\_Q206Y8  
UniRef90\_A5JW32  
UniRef90\_M0Z7D4  
UniRef90\_D8U094  
UniRef90\_W5C2X3

UniRef90\_I1J3Q4  
UniRef90\_W5A9Q7  
UniRef90\_W1PIZ0  
UniRef90\_MOX2A2  
UniRef90\_A9S3T7  
UniRef90\_K2K343  
UniRef90\_MOSYV4  
UniRef90\_K7YT28  
UniRef90\_M4AJE5  
UniRef90\_A0A059CXF7  
UniRef90\_Q3SWP3  
UniRef90\_Q5U1S5  
UniRef90\_Q67VC4  
UniRef90\_O81755  
UniRef90\_A0A022PV38  
UniRef90\_U7DUG9  
UniRef90\_K3ZUW7  
UniRef90\_B4V6Y4  
UniRef90\_A0A022QB00  
UniRef90\_E0XTC9  
UniRef90\_F2VPS3  
UniRef90\_UPI00037EA1F7  
UniRef90\_F3WXA6  
UniRef90\_B1M869  
UniRef90\_I1HGL8  
UniRef90\_J3MWI4  
UniRef90\_I1J8J7  
UniRef90\_E0ZLC2  
UniRef90\_W5BIG8  
UniRef90\_UPI00036E06B5  
UniRef90\_W4ZWV69  
UniRef90\_D7T6L2  
UniRef90\_UPI00042B5E3B  
UniRef90\_E3F414  
UniRef90\_I1I4X9  
UniRef90\_B8AJE7  
UniRef90\_J3L9T5  
UniRef90\_UPI00037B76D9  
UniRef90\_W5F2D9  
UniRef90\_MORM09  
UniRef90\_A0A059DB10  
UniRef90\_K7USX8  
UniRef90\_C5YWW2  
UniRef90\_E2J5C1  
UniRef90\_Q5XXE3  
UniRef90\_I1QMW9  
UniRef90\_U7PVH4  
UniRef90\_D8SEE2  
UniRef90\_UPI0003D26832  
UniRef90\_X7FGG4  
UniRef90\_J3KZ02  
UniRef90\_N4VVO0  
UniRef90

UniRef90\_I1J3Q4 Q P A V K Q N L D V V T P D L F D N G Y F M A L V N G Q G V F T S D M A L T K D  
UniRef90\_W5A9Q7 R L D R V V Q L D A K T P L Q L D N Q Y Y K N I G T N E V L F N S D Q A L L D R  
UniRef90\_W1PIZ0 V Y R D R L D N L C P T P Q L F D N Q Y F K D L V R M R G F L N S D Q V L F S G  
UniRef90\_M0X2A2 Y F T E L L S G D K E G L L Q L P S D K T L T I D  
UniRef90\_A9S3T7 S S P T S L V M D R K S V H K F D T E Y F R N I R A G Y G L M T S D Q G L Y R E  
UniRef90\_K2K343 F V N L T D M A Y T W K P A G R N L Y E I V E R K T G K T K W T A D L V F G S N  
UniRef90\_M0SYV4 L K K D P T A F L D Q N T S F V V D N Q Y Y N Q L V N K G V M Q I D Q E L A S D  
UniRef90\_M7YT28 G L K A N C P Q N G P A N D T F D N K Y Y A D L T N L R G L L H S D Q V L Y P N  
UniRef90\_K4AJE5 I E L D P D T P D T F D N R Y Y V N L L G K R G L L R S D H A M F S A  
UniRef90\_A0A059CXF7 N Y A E E L M R R C P T S L S F D N Q Y Y R N L L L H K G L F Q S D S V L V K D  
UniRef90\_Q3SWP3 I D A D M V E E M R A V C D G D G A A P M E M G Y Y R Q G R L R S D Q Q L T A  
UniRef90\_Q5U1S5 A L A K R L Q E A C M T P G R F D N M Y F V N L R R G L G L L A T D Q E L Y G D  
UniRef90\_Q67VC4 G F L Q E L K T K C P F D E N F G T R Y F R R L M Q N K G L M S S D Q Q L M G S  
UniRef90\_O81755 Y Y K L L L E K P W S A S G G M S D M I G L P S D R S L G E D  
UniRef90\_A0A022PV38 D F S K T L S K T C M T R N N F D N F Y F Q A L Q R K S G V L F S D Q T L Y N N  
UniRef90\_U7DUG9 F A A G L Q A N C S S A N G A D N N Q Y Y Q N V L D R K V L F T S D A A L T S K  
UniRef90\_K3ZW73 Y L D N L L R Y E W E L T T S P A G A K Q W T P R H A P M M L T T D L A L R V D  
UniRef90\_B4V6Y4 N Y V A R L K T R C S A T D T F D T E Y Y T L V A K R R G L F T S D A A L L A D  
UniRef90\_A0A022QB00 F F T T L L D M N V E W K P S G K N S Y E A K D R V S G E K V R T D L V F G S N  
UniRef90\_E0XTC9 Y F K E L L S G E K E G L L Q L P S D K A L L S D  
UniRef90\_F2VPS3 Y F H L L L S Y E W E K T L S P A G A K Q W D I R R N P M M T D A D M A L K I D  
UniRef90\_UPI00037EA1F7 Y I D N L L N F D W V K T K S P A G A T Q W V P R H A P I M F T T D M A L K D D  
UniRef90\_B1M869 R L L D N C T V N V T T P M K F D N K Y F T N L Y R G I G V L S S D M A L L L D  
UniRef90\_I1HGL8 F V Y K T W V C P D T P A S D N N V V F L D D Q W S A V Q A A D Q N L Y S D  
UniRef90\_J3MWI4 Y Y K K I L L S K D L S S R L P I E D A L L T D  
UniRef90\_I1J8J7 S V K S S C P S D L A T P T T F D N K Y Y T D L G N R K G L L H S D Q Q L F S G  
UniRef90\_E0ZLC2 K L K L N C P T T P P N P D L F N N D F F I N L Q S E K G L L H S D Q V L Y N A  
UniRef90\_W5BIG8 S Y A A E L R R R C P P P R V F D N Q Y F K N V L A R K V P L T S D Q T L L T S  
UniRef90\_UPI00042B5E3B T Y I E S L K A Q C P N P A N F D S S Y F N I L V Q N K G L F Q S D A A L L T D  
UniRef90\_UPI00036E06B5 Y F K I L M E K P W K S S A G M S S M I G L P S D H A I V E D  
UniRef90\_E3F414 G F A A R L R G A C A T P T R F D N A Y Y E N L R R G R G V L G S D Q A L H D D  
UniRef90\_I1I4X9 P G G Q S W T V E W K F D N S Y F K D I K E Q R D Q D L L V L P T D A A L F E D  
UniRef90\_B8AJE7 Y A A N L R E R K C R T H L T F D L G Y Y R A V L K H R G L L R S D A A L V I T D  
UniRef90\_J3L9T5 S R K A T C P Q L T T T P D M F D N A Y F V N L K L N K G L L H S D Q V L Y T G  
UniRef90\_UPI00037B76D9 M R E Q Y L D P D S G S S Y S F S K S F Y S G V L N H R V V L G I D Q Q I T A N  
UniRef90\_W5F2D9 A Y A R A L M S S C P N P S P F D S G F Y A R V R Q G Q G T L A S D A A L A Q N  
UniRef90\_M0RM09 Y L R G R C M N D R A T P M V L D N M Y K N L L A R R G L L L V D Q R L A D D  
UniRef90\_A0A059DB10 F A R M R R R G C P P N S F D N N Y F R N L Q Q R K G L L N S D Q V L F N W  
UniRef90\_K7USX8 F F V E T Q A R G T V C P G A L H K G E A L S S S P H E L R L Q S D G A L A R D  
UniRef90\_C5YWW2 Y A F V Y K T W V C P N A A S D G N V V F L D D Q W R G V L C D Q N L Y G D  
UniRef90\_E2J5C1 L F Y G E T K S A T V P P R V F R F P S D I A L S K H  
UniRef90\_Q5XXE3 F A P D R L T N L D P S P T T F D N L Y F R A L L A N Q S L L F S D Q Q L L Q  
UniRef90\_I1QMW9 T L V S E L Q N L C N S T N L F D N H Y F K N L I N G R G L L E S D Q I L F S S  
UniRef90\_U7PVH4 E Y A T V A R F M P G F T S R V R K I S D F L D N T Y Y H N F H S D W Q L L T N  
UniRef90\_D8SEE2 F Y K E T L G S A P A R V F R F A S D V V L A K D  
UniRef90\_UPI0003D26832 E F E L Y L K L S C P K T L T F D N H Y F I N A I N G R G V L R I D A E I P F H  
UniRef90\_X7F8G4 Y Y K T L L K Q P W A D T T K T K E E L D M A S H I G L T S D K N L A V D  
UniRef90\_J3KZ02 L T D M A Y S W H P V E G G T Y E I R N R K T G E V A Y T A T R A D L V F G S N  
UniRef90\_N4VVO E K Q A L V A D I E A Q K N S Q N T Q D Y H H A N L Q N R V L F K S D W V M R T D  
UniRef90\_M1C7W9 D V E F Y N D T L N N A A G S S A T Q K V F V L P S D K A L S K H  
UniRef90\_C1E545 V A S V Y K K Y V C P N V P S S D S N M V F L D D Q W R V L P C D Q N L Y N D  
UniRef90\_I1B008 F A Y A K R L I T S C P N P F K F D G T Y Y S N L L N K Q G V L A S D A A L T Q N  
UniRef90\_B8AQ79 N P D R L Q N L D V V T P D L F D N G Y Y K A L G F N Q G V F T S D M A L I K N  
UniRef90\_M7ZDX1 S L K Q G C P S N D S T T A S F D T D H F K A L L E K K G L L H S D Q E L F D G  
UniRef90\_E5A4C7 L F Y Q E T L N A S P G D I V T F P S D I A L S K D  
UniRef90\_UPI000350DA12 F Y G Q T L A G A P A E V V T F P S D T V L S K D  
UniRef90\_B9FVK2 F Y R L L I E E E W Q W K K W D G P A Q Y E D K A T K T M M L P T D M V L I R D  
UniRef90\_I1HEC9 F F L E V L L K G D V I P G N G I N E G E V M S P Q G E F R L Q S D F V L S Q D  
UniRef90\_R7W736 F F E T Q L R G T A F P G V G N Q G E V E S P L A G E I R I Q S D H D L A R D  
UniRef90\_UPI0004418034 I F L E V L L K G T G F P G S P N N T G E V A T D T G E M R L Q S D F A L A R D  
UniRef90\_A0A059CA93 N Y I A R L K L K C K P N D Q F D I K Y F D L I P K R R G L F T S D A A L L D D  
UniRef90\_B9S0N8 D Y A E Y L K G R C P T P D P N F Y Y K N L L K H K G L L S V D Q Q L A S D  
UniRef90\_X5GE19 Y A E Y I K G R C P T F D P D P F F M Y Y K N I L N H E G L F F I D Q Q L A F D  
UniRef90\_I3S6A4 K Y A A Q L K S M C P R H A F D N V Y F K N L Q K G K G L F T S D Q V L F T D  
UniRef90\_UPI0004408994 I F L E V L L K G V G L P F N E T S S I P I P D S G E M R L Q S D F A L A R D  
UniRef90\_J3LVF4 A Y K A A L F N I R D M D A G F R N A S G F D N T Q N M V L L R S D W E L L N A  
UniRef90\_M5XW30 A Y A E E L M R Q C N T S F A F D N H Y Y Q N L L A H R G L F Q S D S V L L S D  
UniRef90\_W4K3N7 F F E T Q L R G T L F P G T G G N Q G E V E S P L A G E I R L Q S D S E L A R D  
UniRef90\_UPI0003511491 T F Q E M T P T S L G S D V A L S N S  
UniRef90\_M0ZW68 I F L D V L L K G V G F P G L N N N T G E V S S P L P L S N G T S D F G L A H D  
UniRef90\_H1W3L9 A G G Q S W T V K W K F D N S Y F K D I K E K R D E D L L V L P T D A A L F E D  
UniRef90\_R7T0F0 N D P I E F N N I R D M D K Q F Q N S Y Y K A N L Q N R V L F R S D W E L R N D  
UniRef90\_V4K8K9 R A A L S A D V G R Q K M S Q N T P N Y Y H N N L Q N R V L F K S D W V M R T D  
UniRef90\_I1HM83 L L K G V G I P F G V N N T D G A E V D S P I P Q S G E M R L Q S D F A L A R D  
UniRef90\_J3M3Q9 S F A M S L R R K C Q T P F C F D K L Y Y D N L L K K G L L H S D Q E L F K G  
UniRef90\_K4L9N8 N H Y Y K E L I D G D F E G K L G T D I E L L D D  
UniRef90\_UPI0004408145 S L R E Q C K S D T K T P N K V D N K Y Y K N V L S H E V L F D S D A A L M K A  
UniRef90\_Q206Y8 Y Y R A L L R R P W T N P N D S M A S M I G L P S D H V L P D D  
UniRef90\_A5JW32  
UniRef90\_M0Z7D4  
UniRef90\_D8U094  
UniRef90\_W5C2X3

UniRef90\_I1J3Q4 R A T A P I V R Q F A R S K D A F F Q Q F A K S M A K L A A S P R P G G N V G E 250 260 270 280  
UniRef90\_W5A9Q7 S D T A A L V G Q Y A A N R K L W S Q K F A D A M V K M G Y A D V L T G P G E  
UniRef90\_W1PIZ0 G R T R E H V L R F S R D Q T A F F E A F K A G M V E L G R L P P Q A A M G S E  
UniRef90\_M0X2A2 P V F R P L V E K Y A A  
UniRef90\_A9S3T7 D F T R P I V D A N L N Q R A F V N R F A E A M F K L Q F I Q P L E A P D G E  
UniRef90\_K2K343 S L L R A Y A E V Y A Q D K E K F V K D F V A A W T K M M N A G  
UniRef90\_M0SYV4 S S T A S V V S G L A S D E A G F L Q K F A D A L V K L G N V E V L M G T G G N  
UniRef90\_M7YT28 N Q T Q K I V L K Y K G D N A F F A D F A A M I K M G N L S P P N G T V G Q  
UniRef90\_K4AJE5 E S T G P I V G Q F A S S Q A D F F Q S F A T A M V R M G N I A P L T R S M G E  
UniRef90\_A0A059CXF7 N R T R E K V E N F A N D Q D S F F A S W A Q S F L K L S V V E V K T G N A G E  
UniRef90\_Q3SWP3  
UniRef90\_Q5U1S5 G S T V R V R V Y A A G E E V F R E D F A H A M V K L A A L E P L T G S P G H  
UniRef90\_Q67VC4 A R T R P H V R Y A A N E T A F F A D F A R A A R R L S H H G V K N G A N G E  
UniRef90\_O81755 E V T E M V V R Y A A S D P L L F R R E F A M S M K L S S Y N V L T G P L G Q  
UniRef90\_A0A022PV38 D E L K W I S K Y A D D Q N L F F E D F K N V Y V K L V N S G A K W R S  
UniRef90\_U7DUG9 P I T K S I V K G Y A M N Q A K F F L D F Q Q A M V K M S L L D V K E G S Q G E  
UniRef90\_K3ZW73 D M T N N L Q K F E E A M V K M S R I E V K T A A T G E  
UniRef90\_B4V6Y4 P V I Y A P I A K S F H E N P D K L A D A F G K A W Y K L L H R D M G P L S R Y L  
UniRef90\_A0A022QB00 S E T R A Y V T S H A T P Q G S F L K D F A K S M V K M G K I G V L T G S Q G E  
UniRef90\_E0XTC9 S Q L R A I A E V Y A E D N D K F V N D F I S A W N K V M N  
UniRef90\_F2VPS3 P A F R P L V E K Y A A D E D A F F A D Y A E A H L K L S E L G F  
UniRef90\_UPI00037EA1F7 P E Y R K I S E R F H Q D P A Y F S E V F A R A W F K L T H R D M G P K S R Y L  
UniRef90\_F3WXA6 P A F R K I L E S W Q K N P D L F A Q A F A R A W F K L T H R D L G P R G R Y L  
UniRef90\_B1M869  
UniRef90\_I1HGL8 V N T R S K V K D F A G D Q E W F F R Q F S N S M S K L A H R Q G A K G N N A E  
UniRef90\_J3MWI4 G S T K W I V D L L L A N S D Q F H L L F P Q A L I K L G E V G V L T G A Q G E  
UniRef90\_I1J8J7 Q S F R R H V E E Y S K D E N S F F K E Y A M S H K K L S E L G  
UniRef90\_E0ZLC2 G S T R S Q V T T Y S A N Q N T F F T D F A A M V K M G N I S P L T G T S G Q  
UniRef90\_W5BIG8 G A T E G I V N G F A S S Q A A F F S A F A S A M V K M A N L S P L T G S Q G Q  
UniRef90\_UPI00036E06B5  
UniRef90\_W4ZW69 P R T A G I V A F H A S V E K A W R A K F A A A M V K M G N V E V L T G H E G E  
UniRef90\_D7T6L2 K A S S K T V Q Q L R K P R A F L D E F G K S M K K M A A I G V L T G K A G E  
UniRef90\_UPI00042B5E3B D E L R W I T K Y A D N Q N I F F K D F K N A Y I K L V N S G A R W K S  
UniRef90\_E3F414  
UniRef90\_I1I4X9 A R S R G K V E L Y A G D E D A F F D D F A A A M M R L G R V G V R M A G N G E  
UniRef90\_B8AJE7 P S F K V Y A E K Y A E D Q E A F F K D Y A E A H A K L S D L G A K F  
UniRef90\_J3L9T5 A A A R A D I A G V V D S P E V F F Q V F G R S M A T L G A V Q V K T G S E G E  
UniRef90\_UPI00037B76D9  
UniRef90\_W5F2D9 G A T E D I I D G F A S N Q D A F N N A F A A A M V K M G N I S P L I F P Q G Q  
UniRef90\_M0RM09 G T Q D A L V Q Q Y S T N A A A F A A D F A A A M V K M G N I S P L T G S S G E  
UniRef90\_A0A059DB10 N D S S Q I A E E F N A S F E D F R K M F A L S M S R M G N I K V L P G K G G E  
UniRef90\_K7USX8 A A A A L L M A D L S T P A S F Y A A F S M S M K K M G R V D V L T G T N G Q  
UniRef90\_C5YWW2 P R T A P F V A R M A A D N A Y F H D R F A A A L L T M S E Y N P L G D G E G E  
UniRef90\_E2J5C1 S F G S D R Q H R Y S K G R R F L L Q N L L Q P M V K M G D I S P L T G I N G I  
UniRef90\_Q5XXE3 P R T A P T W K R F A E D Q V E M A R Q F A N A M A K L S V V G  
UniRef90\_I1QMW9 G S T K W I V N L L A N S D L F P S L F P Q A L I K L G E V N V L A G A Q G E  
UniRef90\_U7PVH4 E S T A A T W N T F A A G Q A A W N D F A R E Y I R M S M L G V  
UniRef90\_D8SEE2 S D L V G F V K E F A A N Q Q T F F T A F A A G M I K M G  
UniRef90\_UPI0003D26832 D D T K T L V E T Y S N S S K F F F N D F V N S M I K M G N I S P L T G S N G Q  
UniRef90\_X7F8G4  
UniRef90\_J3KZ02 Q T S L D K V H E Y A N N G T L W N E D F S D S L L R L S K L P M P E G S K G E  
UniRef90\_N4VVV0 S R I S K E F Q A F A G G Q S H W N E D Y A R E Y I R L S L L G V  
UniRef90\_M1C7W9 P L T A L Y V Q F A G A D Q D A F F K A F S S A F V K L S T Y G V L T G S Q G M  
UniRef90\_C1E545 E P S L D Y I R A Y A A D Q D K F F A D F S K V Y V K M T T M G A K F  
UniRef90\_I1B008 S V L R A Y A E V Y A D N A E K F A R D F V A A W V K  
UniRef90\_B8AQ79  
UniRef90\_M7ZDX1 I K A G D M A E Y M N N A T K W N N D F A A T M V K L S K L P A E G S T H Y E  
UniRef90\_E5A4C7 P K L T D E W K S F V G D Q Q K W N E D Y A K A Y V R L S L L G V K  
UniRef90\_UPI000350DA12 G P T K R I I D Q L A T N N G L F L S A F G Q V L A K L S E V G V L T G T Q G E  
UniRef90\_B9FVK2 D E A R G H V R E Y A D N A A L W H D F A A S L K L S K L P M P V G S K G E  
UniRef90\_I1HEC9 A A A A M V A N L T N S I N F Y A A F A M S M K K M G R V D V L T L K N G Q  
UniRef90\_R7W736 K T T A P I V K Q F A A S K E A F F A Q F A K S M T K L A S V P K P A G N V G E  
UniRef90\_UPI0002C3674C S D S D N L V Q H Y A N N P K D F A V D F G A S L I K M G N M K P L T G S G G E  
UniRef90\_H1V4U6 P R S A P A F R A F A N Q A P L W G A Y A R Q Y L R L S L L G V  
UniRef90\_A0A010QMF6 P R S A P A F Q A F A N A P L W G G A Y A K Q Y L R L S L L G V  
UniRef90\_X0H203 K K F R P Y V E M Y A K D N N A F F K D F S A V I L G L F E L G V P F V R G T E  
UniRef90\_M1B7R0  
UniRef90\_U3KYQ1 P R T A C E W Q S F I T D Q D R M V A K F T A A M A K M A T I G  
UniRef90\_B9VR21 S R T A C E W Q S F V N N Q A F K L Q S A F K A A M D K L A T L G  
UniRef90\_UPI0004418034 S R T A C F W Q S F V N Q Q E F M A S F K S A M A K L A V L G  
UniRef90\_A0A059CA93 S E T K A Y I D L Q I K G G S T F F K D F G V S M V N M G R I G V L T G T A G E  
UniRef90\_B9S0N8 P I T S P F V E R M A A D N G Y F Q D Q F S R A V L L L S E N N P L T G E E G E  
UniRef90\_X5GE19 P T T T P F V E K M A A D N G Y F H D Q F V R A I Q L L F E I N P L T N D Q G E  
UniRef90\_I3S6A4 S R S K A A V N A F A S S N K I F H A N F V A A M T K L G R V G V K N S H N G N  
UniRef90\_UPI0004408994 S R T A C E W Q S M V D N Q Q L M M N N F R S A M M K L A V I G  
UniRef90\_J3LVF4 T D T R R K V S V L G N A T R W E M E F A A A M A K L S N L P A E G T R F E  
UniRef90\_M5XW30 D R T R K L V E S F A Q D Q  
UniRef90\_W4K3N7 S R T A C L W Q A N V N Q Q T H M A N S F A A A M A K L A V L G  
UniRef90\_UPI0003511491  
UniRef90\_M0ZW68  
UniRef90\_H1W3L9 R E T K N I W K G F G A S Q T R W N S A F K L A M A K M S I M G  
UniRef90\_R7T0F0 P R T A C F W Q G F V N E Q E F M A Q S F K A A M A K L A V L G  
UniRef90\_V4K8K9 P S F K N Y A E K Y A E D P A A F F K D Y A E A H A K L S N L G A K F D P P  
UniRef90\_I1HM83 T D T G A A L D E F G D N A G K W F L A F G Q A M A K L S D I P A D G P R F E  
UniRef90\_J3M3Q9 G D A A S D L A E Y R D N A T K W D V D F S A A M S K L S K L P A E G T H F E  
UniRef90\_K4L9N8  
UniRef90\_UPI0004408145 Q R T A C E W Q S M V N N Q Q L M M S N F Q S A M A K L A V V G  
UniRef90\_Q206Y8 G S A D P F V K K Y A N N T S A F F K D F A G A  
UniRef90\_A5JW32 N T M R S L V Q Q Y A N D Q Q Q F F D D F T T V F G K  
UniRef90\_M0Z7D4 D D T S A A V R A N A K D N G V W E E  
UniRef90\_D8U094 P E C L P Y I E R Y A E D Q D A F F A D F A A A Y V K L T S L G V P  
UniRef90\_W5C2X3

UniRef90\_I1J3Q4 I R R S C  
 UniRef90\_W5A9Q7 I R K V C S R V N  
 UniRef90\_W1PIZ0 V R Q N C R H V N  
 UniRef90\_M0X2A2  
 UniRef90\_A9S3T7 I R R R C Q  
 UniRef90\_K2K343  
 UniRef90\_M0SYV4 I R K K C  
 UniRef90\_M7YT28 I R T N C R L V N  
 UniRef90\_K4AJE5 V R R N C R V V N  
 UniRef90\_A0A059CXF7 V R Q S C S L I N  
 UniRef90\_Q3SWP3  
 UniRef90\_Q5U1S5 V R I R C S K  
 UniRef90\_Q67VC4 V R R R C D A Y N  
 UniRef90\_O81755 V R T S C S K  
 UniRef90\_A0A022PV38  
 UniRef90\_U7DUG9 V R A D C R K I N  
 UniRef90\_K3ZW73 I R R T C R A V N S K  
 UniRef90\_B4V6Y4 G P W I P E P Q L W Q D  
 UniRef90\_A0A022QB00 I R K T C G F I N  
 UniRef90\_E0XTC9  
 UniRef90\_F2VPS3  
 UniRef90\_UPI00037EA1F7 G A D V P  
 UniRef90\_F3WXA6 G K D I P E T Y N W Q D  
 UniRef90\_B1M869  
 UniRef90\_I1HGL8 I R N H C  
 UniRef90\_J3MWI4 V R R F C N R F N  
 UniRef90\_I1J8J7  
 UniRef90\_E0ZLC2  
 UniRef90\_W5BIG8 V R T V C S  
 UniRef90\_UPI00036E06B5  
 UniRef90\_W4ZW69 I R E K C F A V N  
 UniRef90\_D7T6L2 I R K Q C G V V N  
 UniRef90\_UPI00042B5E3B  
 UniRef90\_E3F414  
 UniRef90\_I1I4X9 I R R D C R  
 UniRef90\_B8AJE7  
 UniRef90\_J3L9T5 I R R N C A V V N S  
 UniRef90\_UPI00037B76D9  
 UniRef90\_W5F2D9 V R R I C S R A N  
 UniRef90\_M0RM09 I R S N C R R V N  
 UniRef90\_A0A059DB10 I R K N Y R  
 UniRef90\_K7USX8 I R K Q C R Q I N  
 UniRef90\_C5YWW2 I R R H C R F V N S  
 UniRef90\_E2J5C1 I R W C C S A L N  
 UniRef90\_Q5XXE3  
 UniRef90\_I1QMW9 I R K D  
 UniRef90\_U7PVH4  
 UniRef90\_D8SEE2  
 UniRef90\_UPI0003D26832 I R T N C R V V N  
 UniRef90\_X7F8G4  
 UniRef90\_J3KZ02 I R K K C S V S N  
 UniRef90\_N4VVO  
 UniRef90\_M1C7W9 I R R H C N A L S  
 UniRef90\_C1E545  
 UniRef90\_I1B008  
 UniRef90\_B8AQ79  
 UniRef90\_M7ZDX1 I R K N C R V T N  
 UniRef90\_E5A4C7  
 UniRef90\_UPI000350DA12 I R K V C N K F N  
 UniRef90\_B9FVK2 I R N K C G A I N  
 UniRef90\_I1HEC9 I R T Q C R  
 UniRef90\_R7W736 I R R S C F R T N A Q  
 UniRef90\_UPI0002C3674C I R L N C R K I N  
 UniRef90\_H1V4U6  
 UniRef90\_A0A010QMF6  
 UniRef90\_X0H203 Q R W T F K P T  
 UniRef90\_M1B7R0  
 UniRef90\_U3KYQ1  
 UniRef90\_B9VR21  
 UniRef90\_UPI0004418034  
 UniRef90\_A0A059CA93 V R K V C  
 UniRef90\_B9S0N8 I R K D C R Y V N S  
 UniRef90\_X5GE19 V R K  
 UniRef90\_I3S6A4 I R T D C S V I  
 UniRef90\_UPI0004408994  
 UniRef90\_J3LVF4 V R K S C R S I N  
 UniRef90\_M5XW30  
 UniRef90\_W4K3N7  
 UniRef90\_UPI0003511491  
 UniRef90\_M0ZW68  
 UniRef90\_H1W3L9  
 UniRef90\_R7T0F0  
 UniRef90\_V4K8K9 E G I I I D N D P A Q G  
 UniRef90\_I1HM83 I R K N C R K I N  
 UniRef90\_J3M3Q9 I R K S C R C T N  
 UniRef90\_K4L9N8  
 UniRef90\_UPI0004408145  
 UniRef90\_Q206Y8  
 UniRef90\_A5JW32  
 UniRef90\_M0Z7D4  
 UniRef90\_D8U094  
 UniRef90\_W5C2X3



lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm

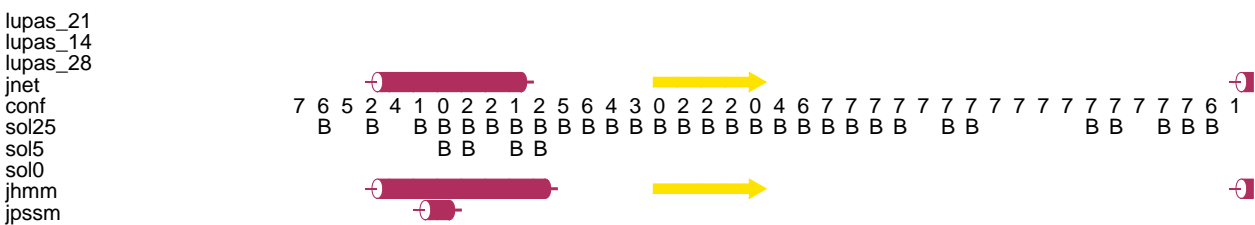
lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm

lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm

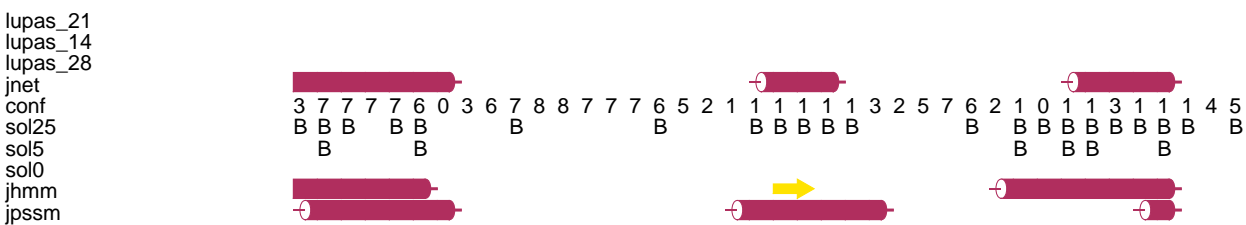
lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm



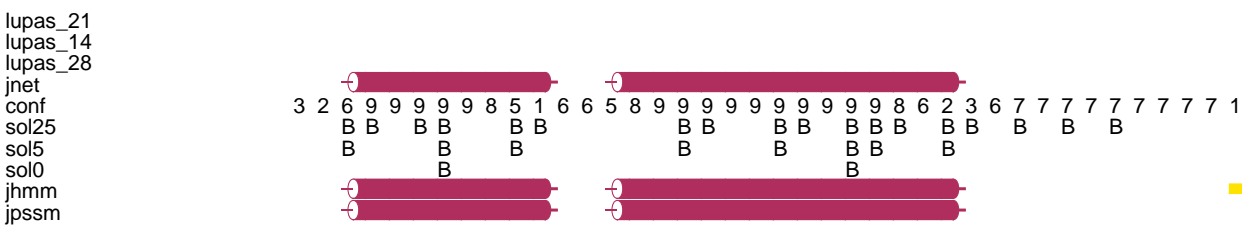
	170	180	190	200
UniRef90_I3T9B7	F S A A E V V A L L A S H T I A A A D H V D P T I P G T P F D S T P E L F D T Q			
UniRef90_UPI0004624898	G L N L T D M V A L S G A H T I G Q A Q C K N F R T R L Y N			
UniRef90_W5E6G0	F S P F E V V S L L S S H S V A R A D K V D T T I D A A P F D S T P F T F D T Q			
UniRef90_UPI000441646E	G F D D R E I V A L S G A H T I G R A F K E R S G Y T G G C P F S P K G D G D G			
UniRef90_A4RRF3				
UniRef90_C0P793	F T A E D T V A L L A A H S V A R Q K T V D P S V P N V P F D S T P G A F D T K			
UniRef90_S8EM85	G L S Q E D M V T L S G A H T V G V T H C S S F S A R L H			
UniRef90_W5E2N0				
UniRef90_M0XHB0	T F T A S D L V A L V G A H T V S Q Q F F V D T S K P G A P Q D S T D G A W D V			
UniRef90_R8BBS0	G L D A F D M V T L S G A H S I G R S H C S S F S R D R L P P S S T S D M D T A			
UniRef90_C5X3C3	E F D E L E L V W M L S A H S V A A V N D V D P T V Q G L P F D S T P G I F D S			
UniRef90_P21764				
UniRef90_I3SMC3	F T P F E V V S L L A S H S V A R A D K V D S T I D A A P F D S T P F V F D T Q			
UniRef90_K5UMQ0				
UniRef90_M0XRC3	G E F D E L E L V W M L S A H S V V N D V D P T V Q G L P F D S T P G I F D S Q			
UniRef90_P49012	F S P T E V V H L L A S H S I A A Q Y E V D T D V A G S P F D S T P S V F D T Q			
UniRef90_Q60FD2	T I S P G G L A A L I G A H T V S Q Q F S M A P A Q A G A S Q D T P G V W D N			
UniRef90_U7PZC0	G L S M D D V V V L S G A H T L G V T R C G T F D Y R L M S D Q D K G M N A			
UniRef90_M8CLR4	F V A V E L V W L L I S H T V A S Q H T I D P S V P G A P F D S T P S D F D A Q			
UniRef90_UPI000462416A	G L D L K D L V V L S G A H T L G T A H C P S F A D R L Y N			
UniRef90_W5IB62	N M N E D D L V V L S G A H T I G V S H C S S F T D R			
UniRef90_W5B0W1				
UniRef90_A9ZPL5	G L T A E D M V V L S G S H T L G R S H C N S F I V R N			
UniRef90_W510G1	N F E C P I A F R W P E Q D E D D H S Q C N L T Q P D H			
UniRef90_W6ABZ1	G F T Q S E M I A L V A C G H			
UniRef90_V2XV41	G F S P T E M L G L V A C G H S F G S V Q S V D F P D V T K E N G T A F D			
UniRef90_UPI0004410EED				



	210	220	230	240
UniRef90_I3T9B7	F F E T Q	L K G T A F	P G T S G N Q G E	L E S P L A G E L R L Q S D G L L A R D
UniRef90_UPI0004624898	I F L E	V L L K G V D F	P G T N N N T G E V S S P L S K	H R L Q S D F L L A R D
UniRef90_W5E6G0	D F G M	P G G A S W T S	C W L K F D N S Y F T D D K N L L W L	S T D R V L H T D
UniRef90_UPI000441646E	F Y A E M	L L K G M G Y	P G K G G N S A E V K S S K	H V M R L A S D A A L A Q H
UniRef90_C0P793				
UniRef90_S8EM85				
UniRef90_W5E2N0				
UniRef90_M0XHB0				
UniRef90_R8BBS0	K F		Y S E T A S S D T	P D G V V K F P S D V S L S H D
UniRef90_C5X3C3	F A A			
UniRef90_P21764	Q F E T Q	L R G T A F	P G S G G N Q G E V E S P L P G E	I R I Q S D H T I A R D
UniRef90_I3SMC3	V F L E	V L L K G V G F	P G T N N N T G E V A S P L P N T T G T S D F A L A H D	
UniRef90_K5UMQ0				
UniRef90_M0XRC3				
UniRef90_P49012	F F V E T Q F R G T	L F P G S G G N Q G E V E S G M G E	I R I Q T D H T L A R D	
UniRef90_Q60FD2	F F V E S	L L H G T Q F T G S G Q G G E V M S P I P G E F R L	Q S D F A L S R D	
UniRef90_U7PZC0	L Y		Y S T T L A A T A P A G V Y R F P S D V A L A Q S	
UniRef90_M8CLR4	T F R N E	L R R Q C		
UniRef90_UPI000462416A	F F V E T	L L N G T A P T G E S A N G E A L S P I P G E F R L A S D S L I A R D		
UniRef90_W5IB62				
UniRef90_W5B0W1				
UniRef90_A9ZPL5				
UniRef90_W5I0G1				
UniRef90_W6ABZ1				
UniRef90_V2XV41				
UniRef90_UPI0004410EED	S T L T T F D N S	V A A Q Y I N G T T S N P L V V G M N A T K N S D G R I F G S		



	250	260	270	280
UniRef90_I3T9B7	S R T A	C E W Q S F	V D N Q A K	L Q S A F K A A F K K M T I L G
UniRef90_UPI0004624898	P R T A	C F W Q G F	V N E Q D F M S S S F R A A M A K	L A V L G
UniRef90_W5E6G0	P G F A	P H F M R Y A R D Q D		
UniRef90_UPI000441646E	P I T S A	L W R S F A G D	H N A M R A A F R D A M Q K	L A N Q G
UniRef90_A4RRF3				
UniRef90_C0P793				
UniRef90_S8EM85				
UniRef90_W5E2N0				
UniRef90_M0XHB0				
UniRef90_R8BBS0	T S T S G T W Q	V F A S S Q G A W A A A Y A	P A Y F R M S	L L G V K N L N D
UniRef90_C5X3C3	S R T A	C E W Q S F	V N N Q S K	L V D D F Q F I F L A L T Q L G
UniRef90_P21764				
UniRef90_I3SMC3	E R T A	C F W Q G F	V N Q Q D F M S N S F Q Q A M A K	L A I L G
UniRef90_K5UMQ0				
UniRef90_M0XRC3	S R T A	C E W Q S F	V G N Q S K	L V D D F Q F I F L A L T Q L G
UniRef90_P49012	P R T A	C E W Q A	L V N N Q Q A M V N N F E A V M S R L A V I G	
UniRef90_Q60FD2	A G A A S S F Q F F Q A G R S T W Q T A F G S E Y	L R M S	L L G V	
UniRef90_U7PZC0				
UniRef90_M8CLR4	S R T A	C E W Q R	L I T D P D D M	V A K F V Q T V Q K L S L L G F
UniRef90_UPI000462416A				
UniRef90_W5IB62				
UniRef90_W5B0W1				
UniRef90_A9ZPL5				
UniRef90_W5I0G1				
UniRef90_W6ABZ1				
UniRef90_V2XV41				
UniRef90_UPI0004410EED	D R	N A T M A A F A R N	P A H F A A T	C K H L F E R M I N



UniRef90\_I3T9B7  
UniRef90\_UPI0004624898  
UniRef90\_W5E6G0  
UniRef90\_UPI000441646E  
UniRef90\_A4RRF3  
UniRef90\_C0P793  
UniRef90\_S8EM85  
UniRef90\_W5E2N0  
UniRef90\_M0XHB0  
UniRef90\_R8BBS0  
UniRef90\_C5X3C3  
UniRef90\_P21764  
UniRef90\_I3SMC3  
UniRef90\_K5UMQ0  
UniRef90\_M0XRC3  
UniRef90\_P49012  
UniRef90\_Q60FD2  
UniRef90\_U7PZC0  
UniRef90\_M8CLR4  
UniRef90\_UPI000462416A  
UniRef90\_W5IB62  
UniRef90\_W5B0W1  
UniRef90\_A9ZPL5  
UniRef90\_W5I0G1  
UniRef90\_W6ABZ1  
UniRef90\_V2XV41  
UniRef90\_UPI0004410EED

lupas\_21  
lupas\_14  
lupas\_28

