

	1		10		20		30		40																																		
QUERY	A	N	P	L	Y	Q	K	H	I	S	I	N	D	L	S	R	D	D	L	N	L	V	L	A	T	A	A	K	L	K	A	N	P	Q	P	E	L	L	K				
UniRef90_R8ATH4	A	N	P	L	Y	R	K	N	I	I	S	I	P	E	F	S	R	A	E	L	L	V	V	D	T	A	A	R	L	K	A	T	P	Q	P	T	L	L	K				
UniRef90_B0TSQ4	S	N	P	L	Y	R	N	K	N	I	I	S	I	T	D	L	S	R	A	E	L	L	V	V	D	T	A	A	R	L	K	A	T	P	Q	P	T	L	L	K			
UniRef90_G4CTV5	A	N	P	L	Y	R	N	Q	N	I	I	S	I	T	D	L	S	R	N	E	Q	L	L	L	H	T	A	L	K	L	K	A	E	P	R	S	D	L	L	K			
UniRef90_C4LBX2	A	N	P	L	Y	K	K	N	I	L	S	I	A	D	L	S	R	T	D	L	L	V	V	Q	T	A	L	Q	L	K	Q	S	P	R	K	H	D	L	L	Q			
UniRef90_Q0TRA8				L	K	N	K	H	L	D	P	S	D	F	T	I	K	E	E	F	D	E	I	F	K	L	A	H	Q	L	M	A	N	P	K	Q	N	I	L	C			
UniRef90_W0EUUV0					M	K	R	E	S	L	V	I	T	D	L	S	V	D	E	I	L	D	L	L	Q	K	A	S	R	F	E	E	A	N	P	Y	R	D	T	M	H		
UniRef90_R7I5T3						R	H	L	I	D	I	T	D	L	S	V	D	E	I	E	S	I	L	L	D	L	A	D	K	M	K	A	N	P	Y	R	D	T	M	H			
UniRef90_I7J550						L	K	G	R	H	L	D	P	M	D	F	T	T	D	E	I	L	L	L	G	G	E	L	S	K	N	P	E	K	K	A	C	Q					
UniRef90_W8TEK5						L	K	G	R	H	L	D	P	M	D	F	T	T	D	E	I	L	L	L	G	G	E	L	S	K	N	P	E	K	K	A	C	Q					
UniRef90_A5D509						F	K	G	R	H	L	D	S	L	H	D	F	S	P	D	E	I	A	Y	I	L	D	L	A	G	E	L	K	K	N	I	P	H	P	Y	L	S	
UniRef90_W1SC01				N	H	L	K	G	K	D	F	L	Q	L	S	D	Y	T	S	D	D	I	H	L	L	D	V	A	Q	E	L	K	A	G	K	P	H	P	Y	L	S		
UniRef90_D7CJ38						F	K	G	R	D	F	L	A	I	R	D	Y	T	S	E	E	V	M	E	I	L	L	A	Q	K	L	K	G	P	H	P	Y	L	S				
UniRef90_UPI00037C2D26				N	L	K	G	R	D	F	L	G	L	G	D	F	S	S	E	E	I	R	Y	L	I	D	L	A	E	L	K	K	K	Q	K	N	Q	P	L	K			
UniRef90_R5BHL2						K	S	L	F	I	S	I	Q	A	D	F	S	K	E	E	V	L	H	I	L	L	R	V	A	K	E	F	E	A	D	R	E	Q	N	F	L	A	
UniRef90_D5WRE7						L	R	G	R	D	F	L	L	R	G	L	S	D	E	E	L	R	G	L	L	R	L	A	A	V	L	K	A	G	E	R	V	Q	P	L	A		
UniRef90_V9H2E0				N	M	K	S	K	H	L	I	D	P	M	D	F	S	K	E	E	L	Q	E	I	F	K	L	A	H	Q	I	I	A	N	P	R	S	H	I	C	D		
UniRef90_K4LIi9						S	L	K	G	R	D	F	L	T	I	S	D	F	T	A	P	E	I	R	L	L	D	A	A	H	E	L	K	E	G	V	P	H	P	V	L	K	
UniRef90_M1ZDQ5	G	T	S	L	K	G	K	D	F	L	K	L	S	D	F	T	A	P	E	I	H	L	L	L	E	A	A	R	L	K	R	M	K	K	H	P	F	L	A				
UniRef90_U7USJ3						R	N	L	I	E	P	R	D	F	T	T	E	E	L	D	K	L	F	D	L	A	D	A	I	I	Q	D	P	K	R	D	V	C	K				
UniRef90_UPI0003D0956D				H	P	L	V	Q	G	H	V	L	S	V	K	Q	F	T	K	D	Q	M	S	H	L	F	N	V	A	H	T	L	R	K	E	R	S	L	E	I	L	K	
UniRef90_I0XB62						L	T	G	R	H	L	I	Q	P	D	D	L	T	V	S	E	I	D	E	I	C	S	L	A	E	Q	I	I	V	D	P	K	S	D	V	C	R	
UniRef90_D2RBF6	A	N	S	L	A	G	K	S	V	V	T	L	D	D	I	S	T	A	Q	I	R	M	L	L	D	K	A	R	Y	I	D	S	H	R	K	A	H	T	C	D			
UniRef90_R5B7L5						M	N	S	N	S	L	V	S	I	N	D	I	S	R	D	E	I	L	D	L	I	E	R	A	R	F	F	E	E	S	H	P	N	H	K	I	L	D
UniRef90_D3R0M6						L	K	G	R	N	L	L	G	A	D	D	F	S	R	E	E	L	L	E	I	I	Q	F	G	T	Q	I	Q	Q	S	P	E	K	H	L	G	D	
UniRef90_R7APE5						K	H	L	L	N	P	L	D	L	S	V	E	E	T	D	R	L	L	N	L	A	D	S	I	A	A	D	P	Y	S	H	C	C	T				
UniRef90_W6S4Q2						L	K	G	K	D	L	I	E	F	T	K	D	L	S	E	E	E	Y	E	E	L	F	K	L	A	E	D	M	M	E	N	K	Y	S	E	I	A	K
UniRef90_W4BYH8						L	R	G	R	D	F	I	E	F	T	D	Y	T	A	E	E	I	R	Y	L	L	D	K	L	E	I	K	G	K	S	Q	P	L	K				
UniRef90_G8ZZC0	N	P	F	K	G	R	H	V	L	S	V	R	Q	F	K	R	S	D	F	H	A	L	F	A	V	A	Q	E	L	R	A	A	V	E	R	D	L	M	K				
UniRef90_C4G9E9						R	H	L	M	S	P	M	D	L	S	V	A	E	E	I	N	R	L	M	D	L	A	A	D	M	K	A	D	P	Y	A	H	S	L	E			
UniRef90_K5ZGR7						R	H	F	L	R	D	L	K	D	F	S	P	E	E	Q	A	E	V	L	A	L	A	A	E	L	K	K	N	P	H	R	P	L	E	G			
UniRef90_I4BJC8						R	H	F	L	M	S	P	L	D	F	S	V	E	E	L	D	K	L	L	D	L	A	N	D	I	E	A	H	P	E	K	H	K	C	D			
UniRef90_D4JH74						R	H	F	L	M	S	P	L	D	F	S	V	E	E	L	D	K	L	L	D	L	A	N	D	I	E	A	H	P	E	K	H	K	C	D			
UniRef90_H8IB23						R	H	F	L	M	S	P	L	D	F	S	V	E	E	L	D	K	L	L	D	L	A	N	D	I	E	A	H	P	E	K	H	K	C	D			
UniRef90_Q74DP5						F	K	H	K	D	I	I	G	L	Q	D	L	T	R	E	E	I	Q	L	L	L	D	T	A	D	N	M	K	E	I	K	K	V	P	L	R		
UniRef90_K0B198						L	K	G	R	S	F	L	K	L	L	D	F	T	P	K	E	I	E	Y	L	L	D	L	D	S	E	E	L	K	A	G	D	K	P	R	N	L	E
UniRef90_U2DQS5						L	A	G	R	N	L	S	P	S	D	F	S	P	R	E	L	D	E	L	F	A	L	A	D	D	I	V	K	D	P	Y	A	H	A	C	D		
UniRef90_UPI00037F2CDE						L	K	G	R	S	F	L	T	L	K	D	F	T	A	E	E	I	E	Y	L	I	D	L	A	A	E	L	K	E	K	K	Q	D	T	L	K		
UniRef90_A8MIU1	P	L	K	G	K	H	L	I	D	P	D	L	L	T	F	N	E	I	H	E	I	L	N	G	L	D	M	E	Q	N	P	Y	S	K	V	C	E						
UniRef90_A0B8L1						L	K	R	R	H	V	L	S	M	K	D	F	S	V	E	E	I	D	E	I	L	E	T	A	E	S	E	R	G	K	G	S	D	L	E			
UniRef90_P77918						W	K	G	R	D	V	I	S	T	R	D	F	S	K	E	D	I	E	T	V	L	A	T	A	E	E	L	K	E	K	Q	L	E	Y	A	K		
UniRef90_UPI000316F9D7	S	S	L	K	G	K	D	L	L	T	L	L	D	Y	T	S	E	E	V	Q	E	L	I	S	L	A	I	K	M	K	K	G	R	Q	P	E	L	L	D				
UniRef90_C3P7R4						L	N	T	K	D	L	T	L	E	E	L	T	Q	E	E	I	S	L	I	S	F	A	I	Y	I	K	K	N	K	G	E	P	L	L	Q			
UniRef90_R6NAZ9						R	H	L	M	S	P	L	D	L	S	V	E	E	L	A	K	V	L	L	D	L	A	N	D	I	E	K	N	P	E	K	H	K	C	D			
UniRef90_E1QP27	S	L	R	G	R	D	F	L	A	V	N	D	F	T	F	R	E	E	L	A	E	I	L	D	F	A	Q	L	K	A	G	E	K	H	D	L	L	R					
UniRef90_B0K2E9						M	K	R	K	D	L	L	G	I	K	D	L	S	K	E	E	L	L	E	V	L	D	T	A	K	E	M	K	K	E	Y	S	Q	I	L	K		
UniRef90_R4SWA1						R	N	F	L	R	D	D	L	S	P	A	E	Q	A	E	I	L	L	D	L	A	D	Q	L	K	A	E	P	S	S	R	A	L	E				
UniRef90_C0GH81	S	D	L	R	G	R	D	F	L	A	V	N	D	F	T	F	R	E	E	L	A	E	I	L	D	F	A	Q	L	K	A	G	E	K	H	D	L	L	R				
UniRef90_UPI0004657A86						R	H	F	L	R	D	D	L	T	P	A	E	Q	A	A	V	L	L	D	L	A	A	E	L	K	Q	H	P	G	D	A	L	A					
UniRef90_UPI00037B5CFD						M	N	K	A	S	F	Y	S	T	E	Q	L	T	A	E	Q	I	E	I	L	D	S	A	E	L	F	E	Q	N	A	P	N	R	D	F	L	H	
UniRef90_D6X207	H	S	L	A	N	K	H	L	I	S	V	D	M	F	T	K	D	Q	L	N	D	I	F	N	L	A	Q	T	F	K	E	R	A	V	D	H	L	L	K				
UniRef90_UPI00047901B9	S	P	L	A	G	S	N	V	I	T	L	D	T	L	S	V	S	D	I	E	W	L	L	D	R	A	R	Y	M	G	E	H	A	R	A	G	A	C	R				
UniRef90_J7IKS4						F	K	G	R	D	F	I	S	L	H	D	F	S	Q	D	E	L	S	F	I	L	D	V	A	K	D	I	K	A	G	R	P	H	P	L	Q		
UniRef90_F4X7C6	S	N	S	L	I	G	H	H	V	L	T	V	E	F	N	K	D	I	L	K	D	I	F	H	L	A	E	T	F	K	E	R	P	L	D	H	L	L	K				
UniRef90_S2Y0U0						N	L	K	G	R	H	F	L	T	L	K	D	F	T	A	E	E	I	T	Y	F	L	D	L	A	A	E	L	K	E	K	Q	E	T	L	R		
UniRef90_R7PBF7						K	K	S	F	V	T	I	A	N	H	S	R	E	K	L	M	Y	L	L	T	M	A	A	E	F	E	K	F	P	N	R	K	I	L	E			
UniRef90_M1YQA9						K	H	L	I	D	P	M																															

[illegible]

QUERY	L	G	K	K	G	Q	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G
UniRef90_R8ATH4	L	G	K	K	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G
UniRef90_B0TSQ4	L	G	K	K	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G
UniRef90_G4CTV5	L	A	K	K	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G
UniRef90_C4LBX2	L	A	K	K	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G
UniRef90_Q0TRA8	S	V	S	K	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G
UniRef90_W0EUV0	S	S	K	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G	
UniRef90_R7I5T3	S	S	K	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G	
UniRef90_I7J550	V	A	K	K	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G
UniRef90_W8TEK5	S	T	S	K	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G
UniRef90_A5D509	L	G	R	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G	
UniRef90_W1SC01	L	G	R	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G	
UniRef90_D7CJ38	M	G	R	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G	
UniRef90_UPI00037C2D26	M	G	R	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G	
UniRef90_R5BHL2	Q	L	R	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G	
UniRef90_D5WRE7	Q	L	R	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G	
UniRef90_V9H2E0	T	A	K	K	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G
UniRef90_K4LIi9	Q	L	R	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G	
UniRef90_M1ZDQ3	L	G	R	G	E	T	L	A	D	S	T	I	V	S	T	Y	V	D	A	I	V	M	R	H	P	Q	E	G	A	A	R	L	A	T	E	F	S	G	
UniRef90_U7USJ5																																							

QUERY		130	140	150	160																																							
UniRef90_R8ATH4	N	V	P	V	L	N	A	G	D	G	S	N	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	Q	R	E	T	Q	Q	G	R	L	D	N	L	S	V	A	M	V	
UniRef90_B0TSQ4	S	V	P	V	I	N	A	G	D	G	T	N	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_G4CTV5	S	V	P	V	I	N	A	G	D	G	T	N	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_C4LBX2	S	V	P	V	I	N	A	G	D	G	S	N	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_Q0TRA8	I	P	V	I	N	A	G	D	G	N	H	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_W0EUVO	S	V	P	V	I	N	A	G	D	G	N	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_R7I5T3	R	V	P	I	N	A	G	D	G	G	H	N	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_I7J550	I	P	V	I	N	A	G	D	G	G	H	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_W8TEK5	D	A	P	I	N	A	G	D	G	G	H	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_A5D509	T	V	P	V	I	N	A	G	D	L	T	D	L	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_W1SC01	S	I	P	V	I	N	A	G	D	L	T	D	L	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_D7CJ38	A	S	I	P	V	I	N	A	G	D	L	T	D	L	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V
UniRef90_UPI00037C2D26	T	V	P	V	I	N	A	L	T	D	L	S	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_R5BHL2	S	V	P	V	I	N	A	G	D	G	A	N	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_D5WRE7	T	V	P	V	I	N	A	G	D	L	T	D	L	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_V9H2E0	V	P	V	I	N	A	G	D	G	G	H	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_K4LI19	S	I	P	V	I	N	A	G	D	L	T	D	L	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_M1ZDQ5	A	T	V	P	V	I	N	A	G	D	L	T	D	L	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V
UniRef90_U7USJ3	R	M	P	L	I	N	A	G	D	G	A	H	N	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_UPI0003D0956D	K	P	V	I	N	A	G	D	G	V	G	E	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_I0XB62	V	P	V	I	N	A	G	D	G	G	H	Y	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_D2RBF6	T	P	I	N	A	G	D	G	G	H	M	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V			
UniRef90_R5B7L5	D	T	P	I	N	A	G	D	G	A	N	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_D3R0M6	E	R	V	P	L	I	N	A	G	D	G	H	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_R7APE5	R	I	P	V	I	N	A	G	D	G	G	H	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_W6S4Q2	K	Y	P	V	I	N	A	G	D	G	G	H	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_W4BYH8	D	V	P	V	I	N	A	G	D	S	D	A	A	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_G8ZZC0	I	P	I	V	N	A	G	D	G	S	R	E	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_C4G9E9	I	P	V	I	N	A	G	D	G	G	H	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_K5ZGR7	A	S	V	P	V	I	N	A	G	D	L	T	D	L	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V
UniRef90_I4BJC8	S	S	V	P	I	N	A	L	S	D	D	F	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_D4JH74	I	P	V	I	N	A	G	D	G	H	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V			
UniRef90_H8IB23	A	T	V	P	V	I	N	A	G	D	L	T	D	L	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V
UniRef90_Q74DP5	S	C	S	V	I	N	A	G	D	G	A	H	E	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_K0B198	G	V	P	V	I	N	A	G	D	L	T	D	K	F	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V
UniRef90_U2DQS5	G	I	P	V	I	N	A	G	D	G	G	H	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_UPI00037F2CDE	G	V	P	V	I	N	A	G	D	L	T	N	E	Y	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V
UniRef90_A8MIU1	V	P	V	I	N	A	G	D	G	G	H	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_A0B8L1	V	P	V	L	N	A	G	D	G	A	G	H	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_P77918	E	V	P	V	I	N	A	G	D	G	S	N	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_UPI000316F9D7	T	I	P	V	I	N	A	G	D	L	T	D	L	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_C3P7R4	S	S	I	P	V	I	N	A	G	L	T	D	D	L	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V
UniRef90_R6NAZ9	I	P	V	I	N	A	G	D	G	G	H	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_E1QP27	V	P	V	I	N	A	L	S	D	R	E	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V			
UniRef90_B0K2E9	A	S	I	N	A	G	D	G	I	N	E	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V			
UniRef90_R4SWA1	A	S	I	P	V	I	N	A	L	T	D	E	F	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_C0GH81	A	D	I	P	V	I	N	A	G	L	T	D	L	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_UPI0004657A86	S	A	V	P	V	I	N	A	L	T	D	E	F	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V	
UniRef90_UPI00037B5CFD	R	V	P	I	N	A	G	D	G	A	N	Q	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_D6X207	K	P	L	I	N	A	G	D	G	V	G	E	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_UPI00047901B9	R	A	P	V	I	N	A	G	D	G	H	M	H	P	T	Q	T	L	L	D	L	F	T	S	L	I	Y	E	T	Q	Q	G	T	L	D	N	L	S	V	A	M	V		
UniRef90_J7IKS4	S	S	I	P	I	N	A	G	L	T	D	L	L	H	P	T	Q	T	L	L	D	L	F	T																				

QUERY	170	180	190	200
UniRef90_R8ATH4	GDLK Y GRT V H S L T Q A L A K F D G N R F Y F I A P D A L A M P E Y I L D			
UniRef90_B0TSQ4	GDLK Y GRT V H S L T Q A L A K F D G N R F Y F I A P D A L A M P E Y I L D			
UniRef90_G4CTV5	GDLK Y GRT V H S L A Q A L K R W G C A R F F V S P P E A L A M P A Y I T E			
UniRef90_C4LBX2	GDLK Y GRT V H S L A Q A L S F G A R F Y F I S P P E A L A M P D Y I L C			
UniRef90_Q0TRA8	GDLK F GRT V H S L I K A L S R Y K N N K F I L I S P P I E L R P N Y I R E Q			
UniRef90_W0EUV0	GDLK Y GRT V H S L L M A M S R F N P T F F F V A P D E L K M P I E Y K I F			
UniRef90_R7I5T3	GDLK F GRT V H S L L I G A M S R Y G V E F F V L I S P P E L R V P A Y I T Q			
UniRef90_I7J550	GDLK F GRT V H S L I K A M S R Y E N N K F I L I S P P K E L K P D Y I K K E			
UniRef90_W8TEK5	GDLK F GRT V H S L I K A F S R Y P G N K F I L I S P P Q E L K P Q Y I K T			
UniRef90_A5D509	G D G N N V C H S L L F G C A K T G M H I L S V A S P P E G Y K P K E E I V R			
UniRef90_W1SC01	G D G N N M A H S L L M E G A V K T G M N F S I A S P P E G Y L P N G K V I E			
UniRef90_D7CJ38	G D G N N V C H S L L L V G G A K V G M N V V A C P P G F A P K H E I M K			
UniRef90_UPI00037C2D26	G D G N N M V H S L L M I G A K A L G L H I S I A S P P E G Y D M D E M I S			
UniRef90_R5BHL2	G D L K Y G R A V H S L L V E A L R W F D P R F I F T S P P E E L N M P K K Y L E			
UniRef90_D5WRE7	G D G N N M A N S W L V G A P L F G M N L R V A T P P Q G Y E C D P G V A A R			
UniRef90_V9H2E0	G D L K N G R T V H S L I K A M S R Y E G T K F I L I S P P K E L I P V Y I A R E			
UniRef90_K4LIi9	G D G N N V A H S L L E I C A K M G V H M T V A C P P G Y E P D S G I L S			
UniRef90_M1ZDQ5	G D G K N N M A H S L L E G A A N T G M H L V I G T P A G F E P D P E I F H Q A			
UniRef90_U7USJ3	G D L K F G R T V H S L I V R A M N R Y E N V K F V F I S P P E E L K M P K V F			
UniRef90_UPI0003D0956D	G D L K H G R T V H S L A C L L T Q Y R I N L R Y V T P H S L R M P D D I I H			
UniRef90_I0XB62	G D L K F G R T V H S L I A E A M R Y K G N K F I F I S P P K E L T V P D Y L I K			
UniRef90_D2RBF6	G D L T Y G R T V H S L I E T L C R F G N V H F V L I S P P D E L K P Q Y V I D R			
UniRef90_R5B7L5	G D L K Y G R T V H S L L M A M Q Y F N P T F F H F V A C P P E L Q M P K E Y K D			
UniRef90_D3R0M6	G D L K Y G R T V H S L L I K V M S L F P N N R F T L I S P P A E L K P G Y F K R S			
UniRef90_R7APE5	G D L K F G R T V H S L L I N S L I R Y D N N V K F V L I S P P K E L R V P D Y I R D			
UniRef90_W6S4Q2	G D L K F G R T V H S L I K A L A R Y E G N S F V M I S P P K E L D P M Y I K E E			
UniRef90_W4BYH8	G D G N N M A H S L L M L G A K A K M G H V A V A T P P E G Y E P D S A V V E			
UniRef90_G8ZCC0	G D L K Y G R P V H S L L C R L L Q H Y Q V R I N L V A S P N E L R L P T A L R K E			
UniRef90_C4G9E9	G D L K F G R T V H S L I T A M S R Y E G I S F V L I S P P E E L R P G Y I R E D			
UniRef90_K5ZGR7	G D G N N V A A S F I E A A T A R F N F K L R L A C P P G Y L P R P E V L A			
UniRef90_I4BJC8	G D G A N N M A H S L M L G G V T A G I D V T I A S P P R G F V P P A F V Q			
UniRef90_D4JH74	G D L K F G R T V H S L I N A L I R Y D N V K I V L I S P P E E L K V P D Y V R D			
UniRef90_H8IB23	G D G N N V A S D I V L A S A M M G M R M S V A C P P G Y E P D E G I V E			
UniRef90_Q74DP5	G D I T H S R V A R S D I F G L T K M G A H V R L A G P P T M M P P G I E R L			
UniRef90_K0B198	G D G R N N M A N S L L I G A K M G M D F R I V A P P K E E L F P G E I V K			
UniRef90_U2DQS5	G D L K F G R T V H S L I E A M C R Y E G V T F Y C I P P E E L S L P N Y I A			
UniRef90_UPI00037F2CDE	G D A R Y N M G N S L M I L C A K M G H F V A C A P P K K Y F P N D E C E A			
UniRef90_A8MIU1	G D L L F G R T V H S L L K T L S R F P D M E F I L I S A P P P E L P P P E D L K T			
UniRef90_A0B8L1	G D L K Y G R T V H S L L A Y A L S L Y G A D I Y L V S P P E L R M P E Q I I G			
UniRef90_P77918	G D L K Y G R T V H S L L A E A L T F Y D V E L Y L I S P P E L R M P R H I V E			
UniRef90_UPI000316F9D7	G D G N N V A H S L V V A A A H V G M D I V V A T P P K G Y E P M K K A Q A			
UniRef90_C3P7R4	G D G N N V C H S L L L A S A K Y G M H M T V A T P P V I G Y K P N E E I V K			
UniRef90_R6NAZ9	G D L K F G R T V H S L I E A L V R Y E G V K F V L I S P P E E L R P P D Y I R E			
UniRef90_E1QP27	G D G D N N V A H S L M I I G A K L G W E V R I I S P K K Y W P S K F A E L L T			
UniRef90_B0K2E9	G D I M H S R V A R S N I W G L K K M G A E V R V A G P S T L M P D A I E K L			
UniRef90_R4SWA1	G D G A N N M A H S L L L G G T T A G M H V R V V S P P E G F Q P D Q Q V M L			
UniRef90_C0GH81	G D G N N V A N S L L L A C S K F G M N V A V A S P P K G Y E C P K D A A Q T			
UniRef90_UPI0004657A86	G D G A N N M A H S L L L G G V T A G M H V R I A A P P E G F H P L P W L D			
UniRef90_UPI00037B5CFD	G D L K Y G R T V H S L L I E G T S H F N P T F S F V A P P R Q L E L P R E Y V D Y			
UniRef90_D6X207	G D L K N G R T V H S L A R L L T L Y N V Q L R Y V S P P P E L K M P S H I T S			
UniRef90_UPI00047901B9	G D L M F G R T V H S L I E T L C R K W G N I H F V L V S P P P E L R V P Q Y V L D			
UniRef90_J7IKS4	G D G N N M A H S L M F G G A K M G L H V V I A A P P Q G Y K P D S G I I A			
UniRef90_F4X7C6	G D L K H G R T V H S L A R L L T L Y N V E L R Y V N P P G L D M P N H V V N			
UniRef90_S2Y0U0	G D A R Y N M G N S L M			

QUERY	M	L	D	E	S	K	G	I	A	W	S	L	H	S	S	I	E	V	M	A	E	V	D	I	L	Y	M	T	R	V	Q	K	E	R	L	D	P	S	E	Y		
UniRef90_R8ATH4	E	L	D	S	K	G	I	T	F	T	Q	Y	D	S	S	I	E	V	I	A	Q	V	D	I	L	Y	M	T	R	V	Q	K	E	R	F	D	D	E	Y			
UniRef90_B0TSQ4	E	L	K	E	A	G	C	T	R	Y	F	L	P	D	S	I	E	G	V	S	K	L	W	D	I	L	Y	M	T	R	V	Q	K	E	R	F	D	D	E	Y		
UniRef90_G4CTV5	E	L	D	E	A	G	C	R	Y	E	F	L	P	D	S	I	E	G	V	S	A	V	W	D	I	L	Y	M	T	R	V	Q	K	E	R	F	D	D	E	Y		
UniRef90_C4LBX2	E	L	T	E	K	G	I	E	F	Y	S	F	H	D	T	S	I	E	E	V	M	P	E	L	D	I	L	Y	M	T	R	V	Q	K	E	R	F	D	D	E	Y	
UniRef90_Q0TRA8	I	L	E	K	N	N	I	E	Y	K	E	I	D	T	S	I	E	E	G	I	K	E	A	D	I	L	Y	M	T	R	I	V	Q	K	E	R	F	D	D	E	Y	
UniRef90_W0EUV0	C	E	Q	H	H	I	P	Y	Y	E	H	T	E	F	S	E	E	V	I	N	Q	A	D	I	L	Y	M	T	R	V	Q	K	E	R	F	D	L	M	E	Y		
UniRef90_R7I5T3	K	L	A	D	D	G	I	P	F	R	E	V	E	T	M	E	D	V	I	G	K	L	D	I	L	Y	M	T	R	V	Q	K	E	R	F	F	N	E	E	Y		
UniRef90_I7J550	V	L	E	K	N	N	I	E	F	L	E	V	E	R	M	E	D	V	I	G	K	L	D	I	L	Y	M	T	R	V	Q	K	E	R	F	F	N	E	E	Y		
UniRef90_W8TEK5	Q	V	L	E	K	N	N	I	E	F	L	E	T	S	K	I	D	E	V	S	G	A	D	V	D	I	L	Y	M	T	R	V	Q	K	E	R	F	F	N	E	E	Y
UniRef90_A5D509	D	A	E	Q	T	G	S	R	I	E	I	L	T	S	P	V	E	A	V	S	G	A	D	V	V	I	T	D	V	W	T	S	M	G	Q	E	E	K	R	R		
UniRef90_W1SC01	A	G	K	L	T	G	S	T	V	E	V	T	N	N	P	Q	E	A	V	S	K	D	A	V	V	I	T	D	V	W	T	S	M	G	Q	E	E	K	R	R		
UniRef90_D7CJ38	D	A	E	E	T	G	A	K	L	W	V	E	D	P	A	E	A	V	D	G	A	D	V	I	Y	T	D	V	W	A	S	M	G	Q	E	E	K	H	E	K		
UniRef90_UPI00037C2D26	Q	A	K	D	I	A	A	K	I	V	I	T	R	D	P	K	E	A	V	Q	D	A	D	V	I	Y	T	D	V	W	A	S	M	G	F	E	Q	Q	E	R		
UniRef90_R5BHL2	M	L	D	H	E	G	I	D	Y	R	Q	T	D	R	I	E	D	G	L	D	E	C	D	I	L	Y	M	T	R	V	Q	E	F	P	D	Q	E	E	R			
UniRef90_D5WRE7	A	Q	E	R	A	G	T	E	M	S	L	V	H	D	P	R	E	A	V	A	G	A	D	I	Y	T	D	V	W	A	S	M	G	Q	E	A	E	E	R			
UniRef90_V9H2E0	I	L	I	K	N	N	I	E	F	K	E	V	E	K	D	P	R	E	D	V	I	G	A	D	I	L	Y	M	T	R	I	Q	K	E	F	F	N	E	E	Y		
UniRef90_K4LIi9	E	A	R	S	D	A	A	Q	L	E	V	T	E	D	P	E	D	A	V	R	D	A	D	V	I	Y	T	D	L	W	A	S	M	G	Q	E	E	E	R	E		
UniRef90_M1ZDQ3	K	R	S	M	T	E	S	V	Q	V	T	T	S	P</																												

QUERY	250	260	270	280
UniRef90_R8ATH4	A N V K A Q F V L T A A A L S D A R K A N M K V L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T	270	280
UniRef90_B0TSQ4	A N L K S Q F V L T A A Q M F E G N A K D N L K V L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_G4CTV5	A K I I A G K F N L S A D M L G N A K D N L K V L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_C4LBX2	R H I A A K F V L S A D E L K T A K A K N M K I L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_Q0TRA8	E R L K D V Y V L D E A S K M K G A K E D M M V L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_W0EUVO	E K V K N V Y V L D E A S M L E H S K E N L R V L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_R7I5T3	I R L K D T Y I L D P D K L K T A K A K D M A I L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_I7J550	I R L K D S Y I L D D K A K L K G A K E D M I I L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_W8TEK5	I R L K D S Y I L D D R D K M A M A K E D M I V L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_A5D509	V R V F A P Y Q V N R Q L T G H A R P D Y I F L H C L P R G E E I V T D E I I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_W1SC01	L K V F E S Y Q V N E S D L C K L A K K N D F I F L H C L P R G E E I V T D E I I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_D7CJ38	E K H F A R Y Q V N A S L L G K A K A K P D V I V M H C L P R G E E I V T D E I I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_UPI00037C2D26	E A A F K D F Q V N E E L A K H A K P D Y L F M H C L P R G E E I V T D E I I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_R5BHL2	D K V K D V Y R L T A S M L G G V A K P N M K I M H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_D5WRE7	L R A F A G F E V T P A L V A R A A K P D Y L F M H C L P R G E E I V T D E I I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_V9H2E0	I R L K D S Y I L D D V E K M K L A K K D M I V M H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_K4LI19	S K V F R R Y Q V N S A R L K K A A P D A I V L H C L P R G E E I V T D E I I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_M1ZDQ5	K R K I A P Y Q V N S A R L V Q Y A K S D Y I F L H C L P R G E E I V T D E I I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_U7USJ3	V R L K D F F I L D K E K L K Q A K A D M I V M H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_UPI0003D0956D	E A C F G Q F V L T P H S M T R A K K M V V M H P M P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_I0XB62	I R L K D S Y I L D T E R M K L A R K N M I V L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_D2RBF6	I R L R D T Y I L T E E K L Q K A K S H M P V L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_R5B7L5	E K V K N L Y I L T R N S M L D V A K D N L R V L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_D3R0M6	I R L K D S Y I L T T A A M L Q Q A K P D L A I L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_R7APE5	L R M K N F Y I L D A E K M Q L A K P D M Y V L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_W6S4Q2	E Q L K D S Y I L T V D K L E N A K E D M I L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_W4BYH8	E Q A F A S Y Q V D E E L M K G A K P D Y M F L H C L P R G E E I V S A G V I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_G8ZZC0	E R L K D V Y V V D N K I L S H A K K H M A V M H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_C4G9E9	L R M K D F Y I L T P E K M K R A K D M F V L H C L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_K5ZGR7	A K I F A P Y Q V T N A L M G K A A K G A I F Q H C L P R G E E I V T A E V I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_I4BJC8	V R P F R P F Q L N A A L M S R A D S E A V V L H C L P R G H E I T D E V I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_D4JH74	V R L K D F Y I L T K E K M E L A K D D M I V L H P L P R V D E I I A T D V D K T	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_H8IB23	L K D L R G Y Q I N M G L V K L A D K D C I V L H C L P R G E E I T E D V I Q C	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_Q74DP5	P E Y A R Y Y G L N P Q N L K L A K P G A M V M H P G P R G V E L S S Y V A D S	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_K0B198	I N Q L K A Y Q V N M D M L K K A K D V I F M H C L P R A F H D Q D D E V F E S	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_U2DQS5	E R L R D C Y I L D A A K M A G A G A D T I V L H C L P R V S E I A T E V D A D	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_UPI00037F2CDE	I R E L T P Y K V T K K V M E N A G D Q A V F L H C L P R A F H D I A T E V D F E S	R A S D L H N A K A N M K V L H P L P R V D E I I A T D V D K T		
UniRef90_A8MIU1	E K L K D S Y I L T N S L L E N A G Q D L I L H P L P R V D E I I A T E V D R D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_A0B8L1	N R V A R S Y S I T I R D L E G V K P E L R I M H P L P R V D E I I S P S V D E T	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_P77918	L K V K G S Y Q V N L K V L E K A K D E L R I M H P L P R V D E I I H P E V D N T	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_UPI000316F9D7	Q R D F K G Y Q I N E E L V A H A K P D F M F L H C L P A H E E V A T S E I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_C3P7R4	Y T L F Q P Y Q I N K E L V K H A K Q T Y H F L H C L P A H E E V T G E I I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_R6NAZ9	V R M K D F Y I L D K A K M A L A R E D M L V L H P L P R V D E I I S V E V D A D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_E1QP27	K K V F R P Y Q V N A E V M K K A G P Q A V F M H C L P R G E E I T D D V I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_B0K2E9	P S Y R E Y F G I N K E R M K L A K P D A I L M H P G P R N V E L T S E A A N D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_R4SWA1	D R P F R E L Q V N S A L M R R A A D E A I V L H C L P R G W E I T D E V I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_C0GH81	I R I F K P Y Q V N D E L K V A N D E A M V L H C L P R G E E I T E S V M E G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_UPI0004657A86	V R P F L P Y Q V N G E L L A R T G T D T I V L H P A H R G M E I T D E V I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_UPI00037B5CFD	Q A V K D S F V L D N S L L Q E A K P T M K I L H P L P R V D E I I A Q E V D D T	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_D6X207	D K A C G H F I V T P Q L M T R A K K M V L H P L P R V F E I A T E F D T D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_UPI00047901B9	V R L R D T Y V L D R A R L A A R P D M A V L H P L P R V D E I I A T D V D A D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_J7IKS4	V R M A A F Y Q I N S D S L K L A N Q S A I V L H C L P R G E E I T E D V I E G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_F4X7C6	H K M C G F F I V T P Q L M S R A K K M A V M H P L P R V F E I S K E F D T D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_S2Y0U0	I R D L T P Y K V T M D V M K N A G E Q A I F L H C L P A F H D W T D E V F E S	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_R7PBF7	E K V K D L F V L R N D M L A Q A K K N M K I L H P L P R V D E I I A Y D V D N N	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_M1YQA9	I R L K D S Y I L D K E K L K A K D L L S I L H P L P R V D E I I A Y E V D E D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_C4K7I6	H K T A F I L E G K H L L P G Q V K T N L K I L H P L P R V D E I I A P E V D T T	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_K2P349	D N V F R P Y Q V N E E L M K R A K P D A L F M H C L P R G E E I V T D E V I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_UPI0003B2E246	I A D L K A Y Q V N A E V M K K A K P T A L F M H D L P S F H D I V T D E V F E S	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_R6J1S2	L R H K D A F V L D P E K L E S A K S D L T I M H P L P R V H E I T V D V D D D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_H1HRP2	I R L K D S Y I L D T E E K L K N A K E D M F I L H P L P R V D E I I A V E V D K D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_R6Q9R8	L K V K D S F I L D L D K L K T A K E D L T I M H P L P R V D E I I A T E V D D D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_F0FAW9	E R V K N V Y I L L R R D M L S Q A R P N M R I L H P L P R V D E I I A Y D V D E S	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_L0KXF1	L K D L K D Y Q I N A E L L G L A K S D A I V M H C M P R G Q E I S A E V M D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_UPI00047904B9	E Q V F L D F Q V N K K L L E L A H P D A L F M H C L P R G E E I V T D E V I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_Q74GU2	E A A F Q G Y C L D D A L V A L A R P D C M V L H C L P R G E E I T D S V I E G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_A2BJ24	E K V R G S Y R V T L E L E Q H A R R E L R I L H P L P R V D E I I A P E V D G T	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_UPI000381E6C8	V A P F R P Y Q I N A E L V E L A K P D A I V M H C L P R G E E I T D E V L D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_D9SWU0	E R L K D F Y I L D G E K M S K A D E C I V L H P L P R V D E I I S C A V D S D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_R6EUQ0	I R L K D S Y I L T P E K L A H A D E K M A I L H P L P R V D E I I S V A V D D D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_A8SKG8	V R L K D T Y I L D D N K K M K T A K D M I I L H P L P R V D E I I A T E V D S D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_H8I482	L K V A D S Y R I L T P D T L K G V K D D M I M H P L P R V D E I I D P A V D S T	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_N1ZDW4	E R I Q P Y Q V N E E V M A T G N E N T I F M H C L P R G Y E V T H E V L I E G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_R7R578	I K V L S P Y K V T S D V F M R N A G E K A I F L H C L P A F H D I V T D E V F E S	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_UPI0003B517B3	P S L R E Y Y S L T T S R F Q N A K K D A I I M H P G P I N V E I S T D L A D S	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_D5EAC7	L S D L A D Y Q I N S T L L D V A K N D V I M H C L P R G E E I S A E V M D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_W0K316	E A V A G E Y R I T A E T L E A A K D D L A V M H P L P R V D E I I A A E V D D A	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_C2BD31	T R L K D S Y I L D K E K M E R A R K D M I V L H P L P R V D E I I A K E V D D D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_Q3AL44	E Q A F A G F C I V D H V L M E Q A A A D A I V L H C L P R G E E I S A E V M E G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_S7UY81	D D A V G K Y V L T P E K V R M K P D A L I M H P L P R L D E I P R A V D D D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_D4K1F0	L R D F A G F Q L T S G L L K A A K P D C M V L H C L P R G E E I S T A V F E A	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_UPI00034D8E13	N R I F Q P Y Q L N E Q L L S C A D A D A I V L H C L P R G E E I T D E V M E G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_R5K088	I R L K D T Y I L D N S K L L A L A R P D M S I L H P L P R V D E I I A V E V D D D	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_UPI0003783BD4	L K A F Q G Y Q I D Q Q L A R H A A D Y I F L H C L P R G E E I A A D I I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_UPI0004751766	L P A F Q P Y Q V N S Q L L E Q A S S D A I V L H C L P R G E E I T H Q V M E G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_L9XFE0	M D A F E G F Q V N S E L L E S A N D S V M H C L P A H R G E E I T D A V I E S	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_E1REB2	A R V N A F Y R V D E S L L A G C I V L H C L P R G E E I S D E V I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_Q606D8	E R T F R D Y Q V N A A L M A L A H A D A L F M H C L P R G E E I V S A E V L E G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_E5XPS0	A T L M R P Y Q V N K A L L S H A K P D A I V L H C L P A H E E I S A E V L D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_D3EMC8	E A A F A D Y Q V N E E L V K A A K P D Y L F L H C L P R G E E I T S E G V I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		
UniRef90_UPI0004746A17	Q N I L L A P Y Q L N T Q L L R H A A P D A I V M H C L P R G E E I T D E V I D G	R A S D L H N A K A N M K V L H P L P R V D E I I A T E V D R D		

QUERY	290	300	310
UniRef90_R8ATH4	P H A W Y F Q Q A G N G I F A R Q A L L A L V L L N R D L V L		
UniRef90_B0TSQ4	P Y A Y Y F Q Q A D N G V V Y A R Q A L L A L V L L N P E L N L		
UniRef90_G4CTV5	P Y A Y Y F E Q A T N G V Y A R M A L L S L I L L N E E F		
UniRef90_C4LBX2	N H A Y Y F Q Q A G N G V V Y A R Q A L L A L V L L N E E V		
UniRef90_Q0TRA8	S R A F Y F K Q A K G M Y V R M A L M A K I L L G E		
UniRef90_W0EUV0	P K A Y Y F Q Q A K N G L Y A R Q A I I C K V L L G E V		
UniRef90_R7I5T3	P R A M Y F E Q V R N G R F V R M A L I I S T L L L G E		
UniRef90_I7J550	K R A K Y F E Q A K Y G M F V R M A L I I M K L L G V E V		
UniRef90_W8TEK5	E R A C Y F K Q V E Y G M Y A R M A L I A K L L G V D K		
UniRef90_A5D509	P H S A V W D E A E N R L H V Q K A V L A L L L L A K		
UniRef90_W1SC01	P H S V V F D E A E N R L H A Q K A I L K L L L A K		
UniRef90_D7CJ38	P N S V V F D E A E N R L H A Q K A I V M A L V M		
UniRef90_UPI00037C2D26	E N S I I F D Q A E N R L H A Q K A V M A A I L L		
UniRef90_R5BHL2	P Y A Y Y F Q Q A G G M Y V R M A I I S Y L L L G		
UniRef90_D5WRE7	P H S V I F D E A E N R L H A Q K A I L V A T M A G P L		
UniRef90_V9H2E0	D R A C Y F K Q A E Y G M Y V R M A L I A K L L L G		
UniRef90_K4LIi9	P Q S V V F D E A E N R L H A H K A I M A L L L M		
UniRef90_M1ZDQ5	D H S V V F E A E N R L H A H K A I L H L F M G		
UniRef90_U7UJ3	E R A V Y F K Q A G F G M Y V R M A L I M T L L L G L E		
UniRef90_UPI0003D0956D	P R A A Y F R Q A E N G M Y I R M A L I A T V L L G R		
UniRef90_I0XB62	P R A A Y F K Q V K Y G M Y A R M A L I A K L L T G		
UniRef90_D2RBF6	P R A A Y F E Q V K N G M L M R M A L E S V L L G D E L L		
UniRef90_R5B7L5	P K A Y Y F E Q A R N G L F A R Q A I I C K A L L G I D V L L		
UniRef90_D3R0M6	P R A L Y F K Q V R C G M Y V R M A L I A K L L L G V D K		
UniRef90_R7APE5	P R A A Y F K Q V Q N G V V Y V R M A L I L T L L L G I D		
UniRef90_W6S4Q2	K R A A Y F D Q A E Y G I Y A R M A L I A L I L L G		
UniRef90_W4BYH8	P N S L I F D Q A E N R L H A Q K A I M A A V L M S E		
UniRef90_G8ZZC0	H R A V Y F R Q M R Y G L F V R M A L L A M V M G V D L L		
UniRef90_C4G9E9	P R A A Y F R Q V E C G R Y I R Q A I L L S L L L G K S D V L L		
UniRef90_K5ZGR7	P A S V V F D E A E N R L H A Q K A I L T W A M G		
UniRef90_I4BJC8	P Q S A V W D E A E N R L H A Q K A L L V V L L L G K		
UniRef90_D4JH74	P R A C Y F R Q A Q Y A V Y V R M A L I L T L L L G K D V L		
UniRef90_H8IB23	E N S A I F D E A E N R L H A Q K A L L V R L L L G		
UniRef90_Q74DP5	D Q S A I L T Q V E N G V A V R M A M L Y H V S G G E L		
UniRef90_K0B198	K H S V V F D E A E N R M H T I K A I M V A T L L G K		
UniRef90_U2DQS5	P R A W Y F K Q A Q Y G M F A R M A L L C K V L L G		
UniRef90_UPI00037F2CDE	E Q S V V F D E A E N R M H T I K A V M A A T L L G		
UniRef90_A8MIU1	P R A K Y F E Q A K M G V Y V R M A L M A L L L L G		
UniRef90_A0B8L1	E H A V Y F R Q S F Y G V P V R M A L L K M I L L G		
UniRef90_P77918	K H A I Y F R Q V F N G V P V R M A L L A L V L L G		
UniRef90_UPI000316F9D7	P N S Y V F E Q A E N R L H A Q K A V L L L S L L		
UniRef90_C3P7R4	P Q S I V F E Q A G N R L H A Q K A L L V S L L F		
UniRef90_R6NAZ9	P R A A Y F K Q V Q Y G V Y V R M A L I L S L L L G		
UniRef90_E1QP27	P Q S V V W D Q A E N R L H T A K A V L I S L L		
UniRef90_B0K2E9	K Y S V I E E Q V T N G V A V R M A L L K I L C E R		
UniRef90_R4SWA1	P A S A V W D E A E N R L H A Q K A L L V W L M		
UniRef90_C0GH81	E Q S A V F D Q A E N R L H V Q K A I M A K V M		
UniRef90_UPI0004657A86	P A S A V W D E A E N R L H A Q K A L L V W L S R Q E		
UniRef90_UPI00037B5CFD	P Y A Y Y F R Q A V N G M F V R E A I C R A L L G E V		
UniRef90_D6X207	P R A A Y F R Q A E C G M Y V R M A L L A M V L G K		
UniRef90_UPI00047901B9	P R A A Y F D Q V A N G M L V R M A L M A A V L		
UniRef90_J7IKS4	P Q S V V F D E A E N R L H A Q K A V M A L V M		
UniRef90_F4X7C6	P R A A Y F R Q A E N G V Y V R M A L L A M V L G R		
UniRef90_S2Y0U0	A Q S K V F D E A E N R M H T I K A V M A A T L L G		
UniRef90_R7PBF7	P H A Y Y F Q Q A K N G L Y A R Q A I I C D A L L G		
UniRef90_M1YQA9	P R A C Y F D Q V E Y G M F I R M A L I T K L L L G		
UniRef90_C4K716	P Y A Y Y F Q Q A A N G M F I R E A L L A L L L N		
UniRef90_K2P349	P H S V V F D E A E N R L H A Q K A V I A W C L G Q		
UniRef90_UPI0003B2E246	K Q S V V F D E A E N R M H T I K A V I A A T L L G N N F		
UniRef90_R6J1S2	P R A K Y F E Q A K N G K Y M R M A L I M T L L L		
UniRef90_H1HRP2	P R A A Y F K Q V Q Y G V Y V R M A L I I M K L L		
UniRef90_R6Q9R8	P R A K Y F V Q A L N G K Y V R M A L I K T L L		
UniRef90_F0FAW9	P H A Y Y I Q Q A R N G L F A R E A I F C H C L G		
UniRef90_L0KXF1	P H S V V Y D Q A E N R L H A Q K A L L M K L L L G		
UniRef90_UPI00047904B9	K K S V V F R Q A E N R L H A Q K A L M T A L L M G		
UniRef90_Q74GU2	P R A A V W D E A E N R L H I Q K A I M A S L M		
UniRef90_A2BJ24	P Y A A Y F E Q A R N G V P V R M A L L A L I A G R E V		
UniRef90_UPI000381E6C8	P R S V V F D E A E N R L H A Q K A V L I W L L L E Q		
UniRef90_D9SWU0	P R A W Y F K Q A E Y G M Y G R M		

	1	10	20	30	40
UniRef90_R6FHY1		R	H	L	A
UniRef90_UPI000465CA6D	S	S	L	V	G
UniRef90_K9HQA8		A	P	K	H
UniRef90_UPI0004672001		K	Q	F	F
UniRef90_U7M0J1	M	S	L	R	H
UniRef90_A3DL27	T	S	L	K	G
UniRef90_D7JEK4		R	S	L	K
UniRef90_Q0W2V3		H	F	I	S
UniRef90_B8GP66		R	K	L	L
UniRef90_B6YRC6	M	K	K	K	D
UniRef90_A1ATU5		R	H	F	L
UniRef90_A6LW74	A	V	N	L	R
UniRef90_UPI00036E7A00		K	H	F	L
UniRef90_D5WXZ9		R	H	V	L
UniRef90_E2CAY1		R	H	F	L
UniRef90_UPI00034ADF99	S	S	L	K	G
UniRef90_B5EME4	M	N	V	R	H
UniRef90_D5U0D8	S	S	L	K	G
UniRef90_C5FKA7	S	T	F	R	H
UniRef90_D5MHR1		K	K	D	L
UniRef90_U1H2G0		R	H	F	L
UniRef90_G3BF15	N	S	F	L	R
UniRef90_UPI00036A3C36		K	D	L	L
UniRef90_F4CLF9		R	H	L	R
UniRef90_UPI0003595D7D	H	G	L	T	G
UniRef90_J5U4P4		R	N	L	I
UniRef90_D7EB01	F	K	D	L	L
UniRef90_F8E558		K	D	F	L
UniRef90_G4TJQ3	F	H	R	H	I
UniRef90_I4W801		R	H	L	T
UniRef90_R5HFH3		K	R	D	L
UniRef90_E6JYB2	H	S	L	R	G
UniRef90_B9XEN2	S	W	N	R	K
UniRef90_UPI00038093DB		L	K	G	K
UniRef90_W0FJD3		R	S	V	I
UniRef90_UPI00037133FF		R	H	F	L
UniRef90_E8XVP0	T	T	L	K	N
UniRef90_UPI0003458327		R	H	F	L
UniRef90_K2BMJ4	M	L	K	K	G
UniRef90_UPI000364211C		R	H	F	L
UniRef90_I0YUHO	P	A	K	G	H
UniRef90_R7N2B0		L	K	G	R
UniRef90_R6CPZ8		R	H	L	I
UniRef90_T0N0K7		L	K	Q	R
UniRef90_H1BLD0		K	H	L	L
UniRef90_UPI00037F3590		K	H	F	L
UniRef90_B4W2Y0	T	A	L	Q	G
UniRef90_UPI00047C5BAE		R	H	L	L
UniRef90_E8N917		R	H	L	R
UniRef90_X1FYE2		N	K	D	L
UniRef90_D7A9Q2	S	F	T	L	S
UniRef90_D5BV08		M	A	V	Q
UniRef90_G8S2R8	M	T	L	R	H
UniRef90_B1QZ96		K	K	D	L
UniRef90_K9SR86	T	N	L	K	G
UniRef90_E3GWW5		K	H	V	L
UniRef90_C9S7J6	S	S	W	R	H
UniRef90_D6THJ1		F	K	G	K
UniRef90_A7C313	N	Q	G	R	L
UniRef90_G9EDZ5	A	F	N	L	K
UniRef90_UPI00038214C1		S	L	Y	G
UniRef90_UPI00047DFF51		R	H	M	N
UniRef90_H8GII4		K	L	K	R
UniRef90_E7NY86	N	L	Q	G	R
UniRef90_K2C3M3		K	H	L	I
UniRef90_E0MM40		K	H	L	I
UniRef90_A0A023X6C3	S	P	I	A	G
UniRef90_Q2BRE4		K	H	F	I
UniRef90_UPI0004776469		R	H	F	L
UniRef90_E4ZRS5	S	P	F	K	S
UniRef90_Q16VN4		A	G	K	H
UniRef90_V5S9X7	A	K	P	S	A
UniRef90_UPI0003B358AC		R	H	F	L
UniRef90_Q92BC1	S	N	T	T	G
UniRef90_Q1GZG8		K	L	K	R
UniRef90_R5TE21	N	L	Y	G	R
UniRef90_U2V460		L	K	G	K
UniRef90_I0AOA1	N	F	R	G	R
UniRef90_L1N5V6	S	L	K	G	R
UniRef90_I0FDT5		S	L	R	N
UniRef90_F4S4Q8		F	Y	R	R
UniRef90_B2V8A7		K	R	D	F
UniRef90_R6C7U7		N	L	I	D
UniRef90_C1DD77	A	F	N	L	K
UniRef90_B5YFH6		W	K	K	K
UniRef90_UPI000368E814		H	L	L	S
UniRef90_V6MAY4		K	G	K	D
UniRef90_UPI00035D1BB8	M	N	P	R	H
UniRef90_F9ZRT5		T	P	R	H
UniRef90_A0A031MDN9		R	H	F	L
UniRef90_B1VH32		R	H	M	L
UniRef90_E0XYF5		Q	H	I	V

	50									60								70							80																	
UniRef90_R6FHY1	G	K	I	L	A	T	L	F	Y	E	P	S	T	R	T	R	L	S	F	E	T	A	M	L	N	L	G	G	R	T	L	G	F	A	G	A	E	Q	C	S		
UniRef90_UPI000465CA6D	G	R	V	L	A	T	L	F	Y	E	P	S	T	R	T	R	V	S	F	E	T	V	A	M	K	R	L	G	G	Q	V	I	G	F	A	G	A	Q	L	S		
UniRef90_K9HQA8	G	R	T	L	A	M	I	F	E	K	P	A	S	T	R	T	R	V	S	F	E	T	V	A	M	K	R	L	G	G	D	V	V	I	L	D	G	N	G	S		
UniRef90_UPI0004672001	G	K	T	L	C	I	L	F	E	K	A	S	T	R	T	R	V	S	F	E	T	V	A	V	R	H	L	G	G	W	P	I	F	M	T	Q	N	D	S			
UniRef90_U7M0J1	P	K	T	I	A	V	L	F	D	E	K	A	S	T	R	T	R	F	S	F	E	T	G	L	A	H	L	M	G	S	A	I	T	V	D	S	S	G	T	Q		
UniRef90_A3DLZ7	G	R	H	L	A	M	I	F	E	K	S	P	S	T	R	T	R	L	S	F	E	T	A	M	M	E	L	L	G	S	D	A	L	Y	L	G	W	K	E	L	Q	
UniRef90_D7JEK4	S	K	K	L	A	T	L	F	Y	E	P	S	T	R	T	R	L	S	F	E	T	A	M	M	M	E	L	L	G	G	N	V	L	G	F	S	D	A	A	S		
UniRef90_Q0W2V3	N	R	S	L	A	M	I	F	E	K	A	S	T	R	T	R	V	S	F	E	T	V	A	G	M	T	D	L	G	G	H	A	L	Y	L	D	P	A	S	M	Q	
UniRef90_B8GP66	G	K	T	V	V	N	L	F	F	E	A	S	T	R	T	R	T	S	F	E	T	L	A	K	R	L	L	S	A	D	V	L	N	M	N	I	S	T	S	A	T	
UniRef90_B6YRC6	D	K	I	C	A	T	L	F	F	E	A	S	T	R	T	R	L	S	F	E	T	A	I	N	R	L	L	G	N	G	R	I	L	G	F	S	D	V	H	T	T	S
UniRef90_A1ATU5	G	K	T	L	A	M	I	F	D	K	S	P	S	T	R	T	R	L	S	F	E	T	V	G	L	N	Q	L	G	M	H	I	G	L	F	I	S	T	G	T	S	
UniRef90_A6LW74	G	K	N	I	V	L	L	F	E	K	T	A	S	T	R	T	R	V	S	F	E	T	V	A	G	R	D	L	G	M	G	V	T	Y	L	D	S	A	G	S	Q	
UniRef90_UPI00036E7A00	G	K	T	L	G	M	I	F	D	K	A	S	T	R	T	R	V	S	F	E	T	V	G	M	Y	Q	L	G	G	H	A	L	F	L	H	S	G	A	T	S		
UniRef90_D5WXZ9	G	R	I	M	A	T	V	F	F	E	P	S	T	R	T	R	L	S	F	E	T	A	M	L	R	L	G	G	Q	V	I	S	T	E	N	A	A	Q	F	S		
UniRef90_E2CAY1	G	K	V	L	A	M	V	F	E	Q	P	S	T	R	T	R	L	S	F	E	T	V	G	M	R	L	L	G	G	E	T	L	M	L	T	G	A	E	R	S		
UniRef90_UPI00034ADF99	N	K	T	L	G	L	L	F	Y	K	A	S	T	R	T	R	V	S	F	E	T	V	A	M	Y	Q	L	G	G	N	V	I	D	L	N	L	P	S	R	D	T	Q
UniRef90_B5EME4	G	R	T	L	A	M	I	F	E	K	A	S	T	R	T	R	V	S	F	E	T	G	M	A	M	E	L	L	G	G	H	A	L	Y	L	S	S	S	E	L	Q	
UniRef90_D5U0D8	G	R	H	L	A	M	I	F	E	K	P	S	T	R	T	R	L	S	F	E	T	A	M	K	E	L	L	G	G	D	A	I	Y	L	S	S	S	E	L	Q	H	S
UniRef90_C																																										

	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120										
UniRef90_R6FHY1	A	T	K	G	E	T	V	A	D	T	A	R	V	V	S	C	Y	A	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R		
UniRef90_UPI000465CA6D	S	V	S	G	R	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R
UniRef90_K9HQa8	S	L	G	R	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R	
UniRef90_UPI0004672001	Q	L	G	R	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R	
UniRef90_U7M0J1	L	G	R	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R		
UniRef90_A3DL27	S	V	S	G	R	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R
UniRef90_D7JEK4	L	G	R	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R		
UniRef90_Q0W2V3	T	K	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R			
UniRef90_B8GP66	S	S	K	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R		
UniRef90_B6YRC6	Q	M	G	R	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R	
UniRef90_A1ATU5	Q	L	G	R	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R	
UniRef90_A6LW74	S	A	I	K	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R	
UniRef90_UPI000367A00	Q	L	G	R	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R	
UniRef90_D5WXZ9	S	A	I	K	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R	
UniRef90_E2CAY1	Q	L	G	R	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R	
UniRef90_UPI00034ADF99	Q	V	V	G	R	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R
UniRef90_B5EME4	L	G	R	G	E	S	I	A	D	T	L	K	T	V	S	N	Y	V	D	I	I	A	M	R	H	P	K	E	G	A	P	L	R	A	S	M	Y	S	R		
UniRef90_D5U0D8	Q	L	A	R	G	E	S	I	A																																

		130	140	150	160																																					
UniRef90_R6FHY1	I	P	V	I	N	A	G	D	G	G	H	N	H	P	T	Q	T	M	I	D	L	L	T	I	R	Q	R	K	G	H	L	D	H	L	K	I	G	F	C			
UniRef90_UPI000465CA6D	V	P	V	I	N	A	G	D	G	G	H	M	H	P	T	Q	T	L	A	D	V	L	A	T	L	Q	R	F	G	R	V	Q	D	L	T	V	G	L	C			
UniRef90_K9HQA8	T	V	P	V	I	N	A	G	L	S	D	D	S	H	P	C	Q	I	M	A	D	V	L	M	T	F	E	E	H	K	G	P	I	A	G	K	V	L	C			
UniRef90_UPI0004672001	G	S	I	P	V	V	I	N	A	L	S	D	D	A	F	H	P	C	Q	I	M	A	D	L	L	T	M	R	E	Y	S	G	S	L	A	G	V	K	V			
UniRef90_U7M0J1	S	T	V	P	V	I	N	A	L	S	D	D	L	H	P	C	Q	I	L	A	D	L	L	T	C	R	E	N	L	G	D	L	S	A	G	R	K	A	V	Y	L	
UniRef90_A3DL27	S	R	V	P	V	I	N	A	L	S	D	D	L	H	P	C	Q	I	L	A	D	L	L	T	I	M	E	K	K	S	D	L	S	A	G	R	K	I	V	F	I	
UniRef90_D7JEK4	I	P	V	I	N	A	G	D	G	H	C	H	P	T	Q	T	L	A	D	M	L	T	I	I	Y	R	E	H	K	K	G	R	F	S	D	L	T	V	G	F	C	
UniRef90_Q0W2V3	S	T	V	P	V	I	N	A	G	L	S	D	R	E	H	P	C	Q	A	V	A	D	L	M	T	I	R	E	Q	K	G	K	I	K	G	L	K	F	V	W	V	
UniRef90_B8GP66	P	H	V	S	V	I	N	A	G	D	G	R	H	A	H	P	T	Q	A	L	L	D	M	F	T	I	R	R	K	Q	D	F	T	R	L	R	V	A	I	V		
UniRef90_B6YRC6	D	V	P	V	I	N	A	G	D	G	A	N	Q	H	P	S	Q	T	L	L	D	I	Y	S	M	Y	K	T	Q	G	T	L	Y	N	L	T	I	T	I	V		
UniRef90_A1ATU5	T	V	P	V	I	N	A	G	L	T	D	L	F	H	P	C	Q	I	M	A	D	V	M	T	V	M	E	H	K	G	G	Y	A	G	L	K	F	A	W	V		
UniRef90_A6LW74	A	G	V	P	V	I	N	A	G	L	T	D	E	F	H	P	C	Q	I	M	A	D	L	L	T	F	E	E	K	L	G	R	L	K	G	V	N	F	V	Y	M	
UniRef90_UPI00036E7A00	S	S	V	P	V	I	N	A	G	L	T	D	L	T	H	P	C	Q	I	L	T	D	V	F	T	F	E	E	H	R	G	S	I	R	G	K	T	V	A	W	S	
UniRef90_D5WXZ9	S	V	P	V	I	N	A	G	D	G	P	G	E	H	P	T	Q	A	L	L	D	L	Y	A	I	Y	E	R	E	K	G	R	V	D	G	L	R	V	A	M	V	
UniRef90_E2CAY1	T	V	P	V	I	N	A	L	T	K	L	S	H	P	C	Q	I	M	A	D	I	M	T	Y	E	E	E	H	R	G	S	I	K	G	K	S	V	A	W	T		
UniRef90_UPI00034ADF99	S	K	I	P	V	I	N	A	L	T	D	L	E	H	P	C	Q	I	L	A	D	L	Q	T	I	E	E	S	F	G	C	L	R	G	L	T	L	T	Y	L		
UniRef90_B5EME4	R	V	P	V	I	N	A	L	S	D	D	H	H	P	C	Q	I	L	A	D	L	M	T	A	T	E	H	W	G	D	L	S	R	G	R	T	V	A	Y	I		
UniRef90_D5U0D8	A	S	V	P	V	I	N	A	L	S	D	L	H	H	P	C	Q	I	L	A	S	D	L	T	I	I	E	K	K	G	K	D	I	S	A	G	L	K	I	V	F	V
UniRef90_C5FKA7	P	V	P	V	I	N	A	G	D	G	S	Q	E	H	P	T	Q	A	F	L	D	L	F	T	I	R	E	E	L	G	T	V	S	G	I	T	V	T	F	T		
UniRef90_D5MHR1	A	V	P	V	I	N	A	G	L	S	D	L	T	H	P	C	Q	I	L	A	D	L	F	T	L	Q	E	K	C	G	T	L	H	G	V	K	V	A	Y	I		
UniRef90_U1H2G0	T	V	P	V	I	N	A	G	L	T	R	R	S	H	P	C	Q	I	V	M	A	D	L	M	T	Y	E	E	N	R	G	S	I	A	G	K	T	V	A	W	T	
UniRef90_G3BFi5	V	P	V	I	N	A	G	D	G	S	K	E	H	P	T	Q	A	L	L	D	L	F	T	I	R	E	E	L	G	T	V	N	G	I	T	V	T	F	M			
UniRef90_UPI00036A3C36	D	I	P	V	I	N	A	G	L	T	D	S	Y	H	P	C	Q	A	L	T	D	L	F	T	I	K	E	N	K	G	E	L	A	G	L	K	M	T	Y	I		
UniRef90_F4CLF9	T	V	P	V	I	N	A	L	T	D	E	F	H	P	C	Q	I	L	A	D	L	Q	T	I	R	E	R	K	G	R	L	A	G	L	T	T	T	Y	F			
UniRef90_UPI0003595D7D	R	K	P	V	I	N	A	G	D	G	V	G	E	H	P	T	Q	A	L	L	D	V	F	T	I	R	E	E	I	G	T	V	N	D	L	T	I	T	L	V		
UniRef90_J5U4P4	V	P	V	I	N	A	G	D	G	G	H	F	H	P	T	Q	T	L	T	D	L	L	T	I	K	R	K	K	G	R	L	S	D	M	T	I	G	V	C			
UniRef90_D7EB01	T	I	P	V	I	N	A	G	D	G	A	H	H	P	C	Q	I	T	F	L	D	L	Y	T	M	R	E	S	R	L	K	G	V	K	I	A	I	A				
UniRef90_F8E558	A	S	I	P	V	I	N	A	L	T	D	D	L	H	P	C	Q	V	M	A	D	V	L	T	I	Y	E	K	L	G	K	L	K	G	V	K	V	A	F	V		
UniRef90_G4TJQ3	V	P	V	I	N	A	G	D	G	I	G	E	H	P	T	Q	A	L	L	D	I	Y	T	I	R	S	E	L	G	T	V	N	G	R	T	I	T	L	L			
UniRef90_I4W801	S	G	V	V	I	N	A	G	D	G	N	R	A	H	P	T	Q	G	L	L	D	V	L	T	I	R	K	H	R	P	D	F	D	N	L	V	T	I	L	C		
UniRef90_R5HFH3	V	P	V	I	N	A	G	D	G	G	R	A	H	H	P	T	Q	T	L	T	D	L	L	T	I	K	R	E	K	G	R	L	D	H	L	T	I	G	L	C		
UniRef90_E6JYB2	S	I	P	V	I	N	A	G	D	G	G	H	M	H	P	T	Q	T	L	A	D	L	A	T	I	R	A	R	F	G	R	L	D	H	L	T	I	G	L	C		
UniRef90_B9XEN2	N	A	S	V	I	N	A	G	D	G	A	H	E	H	P	T	Q	A	L	L	D	T	Y	T	I	R	E	R	K	G	K	I	A	G	L	K	V	T	L	L		
UniRef90_UPI00038093DB	D	I	L	P	V	I	N	A	L	T	D	L	H	P	C	Q	V	L	T	D	L	L	T	I	I	Q	H	K	G	K	K	L	K	G	L	K	V	A	Y	I		
UniRef90_W0FJD3	S	V	P	V	I	N	A	G	D	G	G	H	C	H	P	T	Q	T	L	A	D	L	L	T	I	R	R	E	K	G	R	L	S	G	N	L	T	V	G	L	C	
UniRef90_UPI00037133FF	A	T	V	P	V	I	N	A	L	S	D	D	F	H	P	C	Q	I	L	A	D	L	Q	T	I	R	E	R	G	E	L	S	G	L	T	A	T	Y	V			
UniRef90_E8XVP0	S	G	V	P	V	I	N	A	G	L	T	D	E	F	H	P	T	Q	I	L	A	D	L	M	T	M	L	E	H	S	P	G	K	K	L	S	Q	I	S	F	A	
UniRef90_UPI0003458327	S	V	P	V	I	N	A	L	S	D	E	F	H	P	C	Q	I	L	A	D	L	Q	T	I	R	E	H	K	G	T	L	A	G	L	T	L	A	Y	L			
UniRef90_K2BMJ4	V	P	V	I	N	A	G	D	G	A	N	D	H	P	T	Q	G	L	L	D	V	Y	T	I	W	R	E	F	G	R	I	A	D	G	L	T	I	G	M	V		
UniRef90_UPI000364211C	A	T	V	P	V	I	N	A	L	T	D	A	T	H	P	C	Q	I	M	A	D	L	Q	T	F	E	E	H	N	G	P	V	I	A	G	K	T	I	A	W	T	
UniRef90_I0YUHO	S	S	P	V	I	N	A	G	L	T	D	Y	N	H	P	C	Q	I	M	A	D	A	L	T	M	I	E	H	K	G	R	I	E	G	T	K	V	V	Y	V		
UniRef90_R7N2B0	A	G	V	P	V	I	N	A	G	L	T	D	N	E	F	H	P	T	Q	M	L	A	D	V	L	T	I	K	E	K	L	G	R	I	K	G	V	K	L	T	Y	M
UniRef90_R6CPZ8	P	I	P	V	I	N	A	G	D	G	H	Q	H	P	T	Q	M	L	T	D	L	M	T	I	H	Q	L	K	G	R	V	I	D	N	M	T	V	G	L	C		
UniRef90_T0N0K7	S	V	P	V	I	N	A	G	D	G	S	G	Q	H	P	T	Q	T	L	L	D	L	Y	T	M	W	K	E	F	G	G	F	D	K	L	T	I	T	V	L		
UniRef90_H1BLD0	N	I	P	V	I	N	A	L	T	D	Y	V	H	P	C	Q	V	L	A	D	L	Q	T	I	R	E	Y	K	G	S	L	E	G	L	K	L	C	Y	I			
UniRef90_UPI00037F3590	S	V	P	V	I	N	A	G	L	T	D	E	S	H	P	C	Q	I	L	M	A	D	I	M	T	Y	E	E	H	R	G	S	I	A	G	K	T	V	T	W	C	
UniRef90_B4W2Y0	A	Q	I	P	V	I	N	A	L	T	D	L	E	H	P	C	Q	V	L	A	D	L	L	T	I	Q	E	E	C	F	G	S	L	A	G	A	T	V	V	Y	L	
UniRef90_UPI00047C5BAE	T	I	P	V	I	N	A	L	T	D	M	H	H	P	C	Q	V	L	A	D	L	L	T	I	E	E	E	H	F	G	Q	R	T	G	K	V	L	T	Y	I		
UniRef90_E8N9I7	T	R	V	P	V	I	N	A	L	S	D	D	F	H	P	C	Q	I	L	A	D	L	L	T	I	R	E	H	K	G	E	L	K	G	L	T	L	S	F	F		
UniRef90_X1FYE2	S	S	V	P	V	I	N	A	L	S	D	W	E	H	P	C	Q	T	L	A	D	L	L	T	I	Y	E	M	K	G	K	L	A	G	L	T	L	A	F	V		
UniRef90_D7A9Q2	D	C	S	V	V	I	N	A	G	D	G	A	H	E	H	P	T	Q	A	L	L	D	A	L	T	I	R	R	N	K	G	T	I	Q	G	L	T	V	A	I	C	
UniRef90_D5BV08	R	V	P	V	I	N	A	L	T	D	G	Y	H	P	C	Q	I	L	A	D	I	Q	T	Y	L	E	H	R	G	G	I	G	R	T	I	A	W	I				
UniRef90_G8S2R8	V	D	V	P	V	I	N	A	L	S	D	G	Y	H	P	C	Q	I	L	A	D	L	L	T	I	R	E	R	F	G	T	I	R	G	R	I	A	Y	V			
UniRef90_B1QZ96	S	S	I	P	V	I	N	A	L	T	D	D	E	H	P	C	Q	V	L	A	D	L	M	T	I	R	E	N	K	N	I	L	E	G	L	K	V	A	F	V		
UniRef90_K9SR86	C	K	I	P	V	I	N	A	L	S	D	R	E	H	P	C	Q	A	L	A	D	L	L	T	V	I	E	N	F	G	G	L	T	G</								

	170	180	190	200
UniRef90_R6FHY1	G D L K F	G R T V H S L V I N S L V R Y	P G N E F Y F I S	P E E L K P D Y L V E
UniRef90_UPI000465CA6D	G D L T F	G R T V H S L V I E T L C R F G	H V F N F V L I S	P D E E L K P Q Y V L D R
UniRef90_K9HQA8	G D G	N N V A A S W I E A A A Q F G	F E M R V I A C	P D E N R E P D V A R V Q
UniRef90_UPI0004672001	G D G	N N I A A H S L I N A A A R F	P I T V A V A S	P E Q G Y Q P N P D V V A
UniRef90_U7M0J1	G D G N N	M A N S Y M I G F A T A G	M D I S I S	P E G F Q P R P E F V E
UniRef90_A3DL27	G D G G D N	V L H S L M L G I G I L G	G K I I S S P K G	Y D P D P R I K L F
UniRef90_D7JEK4	G D L L Y	G R T V H S L T K A M G R Y R	G I Q F V F V S	P D E L R I P D Y L R R
UniRef90_Q0W2V3	G D	G N N V C N S L M L A C A M M G	M E M V V I A C	P K G Y E P N Q Q L L E
UniRef90_B8GP66	G D I L H	S R V A R S Q I H A L N I L N T	G E I R V I A	P Q S L L P A
UniRef90_B6YRC6	G D L K Y	G R T V H S L I N G M S Y F N	P T F H F I A	P E E L K L P I I Y K Q F
UniRef90_A1ATU5	G D G	N N M A N T W I E A A A I F G	F D L A L A C	P Q G Y E P D A K V M A W
UniRef90_A6LW74	G D A R N	N M G N S L M V A C A K M G L N	F T A C	P K E L F P S E E L V E
UniRef90_UPI000367A00	G D G	N N M A H S W I N G A V S F G Y	R L N I A C	P K G Y C P N N S L L Q
UniRef90_D5WXZ9	G D L A Y	G R T V H S L A Y L L S L F R D	I H I D F V S	P P E T V P D R V L A
UniRef90_E2CAY1	G D S	N N V L A S W V H A A P R L D	F E M R I A T	P K E L A P P T E L L E
UniRef90_UPI00034ADF99	G D G	N N V A H S L L L G G V L M G M N	V R I A S	P E G Y L P D E N V K Q
UniRef90_B5EME4	G D G S N	N M A H S W M E A A Q V F	D F R L R I A G S	P A G Y V P S A G M L
UniRef90_D5U0D8	G D G G D N	V L H S L M L A V G I L G G R V	I I A S	P K G Y E P H P S V V K
UniRef90_C5FKA7	G D L R H	G R T V H S L I K L Q F Y Q	V R V Q L V S	P K P L S L P D D I R Q V A
UniRef90_D5MHR1	G D G	N N V C H S W L Y G A A R T G	I E L H V A C	P K G Y E P D A G I V A
UniRef90_U1H2G0	G D D	N N V L A S W A H A A E R F	K F Q L N I A T	P P E L S P K K P M R D
UniRef90_G3BF15	G D L K Y	G R P V H S L C H L L R H Y	H V R V Q L V A S	P K E L E M P A S L R Q M
UniRef90_UPI00036A3C36	G D G	N N M V N S L L L A A A K V G	M D I S I A S	P K A Y K P Q E D V V E
UniRef90_F4CLF9	G D G A N	N M A H S L L L G G A T A G L	H V R I A C	P Q G F A P H P Q F L A
UniRef90_UPI0003595D7D	G D L K N	G R T V H S L I E A R L L T L Y R	V N L R Y V I A S	P G L I E M P K E I C
UniRef90_J5U4P4	G D L K F	G R T V H S L I E A M L R Y D	N I K F V L I S	P V I E L Q V P D Y I K E
UniRef90_D7EB01	G D L K Y	G R T V H S L C Y A L S H Y	N A E I T L V S	P K D L R M P R E I I R
UniRef90_F8E558	G D G	N N M A H S W I L G A A K F G	M D I V V A S	P R G Y E C D E K Y I N
UniRef90_G4TJQ3	G D L K N	G R T V H S L V T L L M	F Y S V R L N F V S	P S S L A M P D S I V N
UniRef90_I4W801	G D I R H	S R V A R S D V H A L T A L	G T K E I R L C	P A A L L P E A E E F P
UniRef90_R5HFH3	G D L K F	G R T V H S L I G A M S R Y	P N V R F V L I S	P E E L R P E S V R T D
UniRef90_E6JYB2	G D L T F	G R T V H S L I Q T M C R F G	H I D F V L I S	P P E L K T P D Y V L D
UniRef90_B9XEN2	G D I L Y	S R V A R S N I W A L L K L G	A H V T L C	P G S T L V P K V I F E K M
UniRef90_UPI00038093DB	G D G	N N M T H S L M Y G C A K V G	M H F S V A T	P P G Y E P N A A V V E
UniRef90_W0FJD3	G D L K F	G R T V H S L I N A L S R Y E	G L R F V L I S	P E E L K V P S Y V K S
UniRef90_UPI00037133FF	G D A A N	N M G H S Y L L G F A T A G	M H I R V A G	P D G Y H P R E D I V A
UniRef90_E8XVP0	Y L G D A	R N M M G N S L M V G A A K M G	M D I R L I A	P K S F W P E E T C
UniRef90_UPI0003458327	G D G A N	N M A H S Y L L G G A T A G M	H V R I G A P K G	H Q P D P V V L T R A
UniRef90_K2BMJ4	G D L K Y	G R V P H S Q C Q Y L K N F K K	L K F V F V S	P D E L K M P R E I V K
UniRef90_UPI000364211C	G D G	N N V L H S F I E G A G R F S Y	R M N I A S	P K G S E P E M R F V D
UniRef90_I0YUHO	G D G	N N I V H S W R L A A K F D F	E F V I C A C	P E G Y E P D A T V A L
UniRef90_R7N2B0	G D A R Y	N M G N S L M V V C A K L G	M H F T A C	P T T K S Y F P D E A L V A
UniRef90_R6CPZ8	G D L K F	G R T V H S L I T A L S R Y E	G I R F V L I S	P D E L I P D Y V K T E
UniRef90_T0NOK7	G D L K Y	G R T T H S L I R M L S R F K A N	V N L V S	P D T L K M P E H V I
UniRef90_H1BLD0	G A	G N M A N S Y I N G C I L A G	M Q V A L A C	P K E Y L P D T Q I C
UniRef90_UPI00037F3590	G D G	N N V G T S W I H A A V R F G	F H L K L A T	P A E L P N S A V L D
UniRef90_B4W2Y0	G D	G N N V A H S L M V G C A L M G M N	V R V A T	P S T Y Q P N Q L V D
UniRef90_UPI00047C5BAE	G D G N N	M A H S L L I G G A L S G M T I	R I C S P A A Y A	P D E M I V E Q K Q
UniRef90_E8N917	G D G Q S	N M A H S Y L L A G V T A G M	H V R V A A S	P A D Y A P R V I A D A E R
UniRef90_X1FYE2	G D	G N I V A N S L L A S S L V G M N	R F A S	P P G Y E I R Q E V L S
UniRef90_D7A9Q2	G D I A H	S R V A R S N I L L Q A L G A	Q V R V V A	P P T L L
UniRef90_D5BV08	G D G	N N M C Q S Y I N A A C Q F D	F Q L R I A G	P V I G Y E P D P T I L
UniRef90_G8S2R8	G D A A N	M A H S Y L L A G A T A G M	H V R V A G	P S G F D P S P S V V G R E
UniRef90_B1QZ96	G D G	N N M A N S L M I G C L K V G M N	F S I A S	P K I Y

	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240											
UniRef90_R6PHYH1	D	T	K	P	T	N	V	P	Y	H	E	V	S	S	L	E	D	T	L	P	E	L	D	M	L	Y	M	T	R	V	Q	K	E	F	F	N	E	E	D	Y		
UniRef90_UPI000465CA6D	I	N	K	A	T	E	C	S	Y	V	E	V	S	D	L	A	G	S	I	G	D	L	D	V	L	Y	M	T	R	V	Q	K	E	F	F	N	E	E	D	Y		
UniRef90_K9HQA8	W	A	R	E	K	G	A	T	V	I	D	R	D	P	A	K	L	A	D	G	A	D	C	V	L	T	D	T	W	V	S	M	G	H	E	F	N	E	E	D	Y	
UniRef90_UPI0004672001	K	A	R	E	Q	Q	G	A	D	V	T	V	S	D	P	A	E	A	A	A	G	A	N	Y	L	Y	T	D	T	W	V	S	M	G	H	E	F	N	E	E	D	Y
UniRef90_U7M0J1	R	A	R	Q	R	G	N	V	T	V	T	D	V	A	E	V	A	G	A	D	V	V	I	T	D	T	W	V	S	M	G	H	E	F	N	E	E	D	Y			
UniRef90_A3DL27	E	E	K	P	N	G	G	E	Y	E	I	R	D	P	Y	E	A	V	R	D	A	D	V	V	Y	T	D	T	W	V	S	M	G	H	E	F	N	E	E	D	Y	
UniRef90_D7JEK4	D	I	D	K	K	G	Y	Q	Y	I	E	T	D	K	L	E	E	A	M	P	R	L	D	I	L	Y	M	T	R	V	Q	K	E	F	F	N	E	E	D	Y		
UniRef90_Q0W2V3	Q	A	R	S	M	G	N	I	T	I	T	R	D	P	K	A	A	S	K	D	A	D	V	L	Y	T	D	T	W	V	S	M	G	H	E	F	N	E	E	D	Y	
UniRef90_B8GP66	Q	V	E	S	L	G	V	H	V	Y	N	D	I	R	Q	G	L	K	D	V	D	V	I	I	M	L	R	L	Q	R	E	R	M	E	S	G	L	L				
UniRef90_B6YRC6	M	D	E	N	S	I	Q	Y	F	D	H	S	D	F	L	V	D	I	I	N	S	G	S	D	I	L	Y	M	T	R	V	Q	K	E	F	F	N	E	E	D	Y	
UniRef90_A1ATU5	A	A	E	R	A	P	G	R	V	T	L	T	A	D	P	K	E	A	V	S	G	A	H	V	I	N	T	D	T	W	V	S	M	G	H	E	F	N	E	E	D	Y
UniRef90_A6LW74	K	C	K	E	I	G	G	T	I	T	L	T	E	D	V	N	K	G	T	K	N	A	D	V	I	Y	T	D	T	W	V	S	M	G	H	E	F	N	E	E	D	Y
UniRef90_UPI00036E7A00	A	A	R	A	L	G	A	E	I	N	L	F	D	L	P	V	R	A	S	S	G	A	D	L	V	T	D	T	W	V	S	M	G	H	E	F	N	E	E	D	Y	
UniRef90_D5WXZ9	Y	L	A	E	R	G	I	S	W	S	R	E	T	D	L	P	A	R	V	A	S	A	Q	A	D	V	L	Y	Q	T	R	I	Q	K	E	F	F	N	E	E	D	Y
UniRef90_E2CAY1	Q	A	R	A	A	G	G	E	I	I	V	T	D	D	P	F	E	A	A	K	G	A	D	C	V	T	D	T	W	V	S	M	G	H	E	F	N	E	E	D	Y	
UniRef90_UPI00034ADF99	A	Q	A	T	K	P	E	Q	V	V	T	Q	S	D	A	V	K	A	V	E	N	A	H	V	I	Y	T	D	T	W	V	S	M	G	H	E	F	N	E	E	D	Y
UniRef90_B5EME4	Q	S	G	G	D	Q	V	V	T	L	H	S	D	A	V	A	A	V	R	G	A	N	L	I	V	T	D</															

		250	260	270	280																																						
UniRef90_R6FHY1	I	R	L	K	D	I	L	D	Q	E	K	L	N	L	A	K	A	D	M	P	V	L	H	P	L	P	R	V	D	E	I	A	P	G	V	D	A	D					
UniRef90_UPI000465CA6D	L	R	L	R	D	T	Y	I	L	D	A	D	K	M	R	L	A	K	A	D	M	A	V	L	H	P	L	P	R	V	N	E	I	A	V	E	V	D	D				
UniRef90_K9HQA8	H	N	I	F	R	G	Y	Q	V	N	G	A	L	M	A	K	A	K	A	D	A	L	F	M	H	C	L	P	A	H	E	E	I	T	T	D	E	V	D	G			
UniRef90_UPI0004672001	V	E	I	F	A	G	L	Y	Q	I	N	D	A	L	L	A	K	A	A	P	G	A	K	V	L	H	C	L	P	R	G	E	E	I	T	T	D	A	E	V	M	E	G
UniRef90_U7M0J1	R	T	P	F	L	P	Y	Q	V	S	E	D	V	M	A	K	A	K	Q	D	A	I	F	L	H	C	L	P	R	G	N	E	E	V	A	A	E	V	I	D	G		
UniRef90_A3DL27	I	K	D	L	E	P	Y	R	V	T	V	E	L	M	K	H	A	K	S	D	A	V	F	M	H	C	L	P	R	G	Q	E	E	V	V	D	E	V	I	D	G		
UniRef90_D7JEK4	D	R	L	K	D	S	F	I	L	D	M	E	P	K	L	R	H	A	K	S	D	D	I	I	L	H	C	L	P	R	V	N	E	I	A	Y	E	V	D	A	H		
UniRef90_Q0W2V3	Q	R	F	A	D	D	Y	Q	I	N	M	E	L	V	G	L	A	K	K	D	C	L	V	M	H	C	L	P	R	G	E	E	I	T	D	D	A	I	R	S			
UniRef90_B8GP66	P	S	E	H	E	F	F	Q	L	S	Y	Q	E	R	L	A	L	A	H	P	D	C	L	V	M	H	C	L	P	R	G	V	E	I	D	S	R	V	A	D	G		
UniRef90_B6YRC6	E	K	V	K	N	V	I	V	L	S	N	D	M	L	A	D	S	K	D	N	L	R	I	L	H	P	L	P	R	V	G	E	E	I	T	S	D	V	D	T	N		
UniRef90_A1ATU5	E	Q	A	F	G	G	F	C	L	D	D	A	L	A	G	L	A	H	P	D	H	I	V	L	H	C	L	P	R	G	E	E	I	T	S	D	S	V	I	E	G		
UniRef90_A6LW74	L	K	L	L	S	P	Y	Q	V	N	K	D	V	M	N	A	N	E	N	A	I	F	M	H	C	L	P	R	A	Y	H	E	E	I	T	S	D	E	V	F	E	G	
UniRef90_UPI00036E7A00	E	K	V	F	S	G	F	K	V	D	E	R	V	M	A	E	A	K	S	D	A	L	F	M	H	C	L	P	R	G	E	E	I	T	S	D	E	V	I	D	G		
UniRef90_D5WXZ9	E	R	A	Y	G	R	Y	V	L	D	P	S	L	L	G	R	M	R	A	D	A	V	I	L	H	P	L	P	R	A	G	E	E	I	T	D	P	A	V	D	A	D	
UniRef90_E2CAY1	H	N	I	L	G	A	Y	Q	I	N	N	R	L	M	K	E	A	K	A	D	S	L	F	M	H	C	L	P	R	G	E	E	I	T	S	E	V	M	D	G			
UniRef90_UPI00034ADF99	Q	R	I	L	F	G	Y	Q	I	N	Q	E	L	V	N	L	A	D	S	A	I	I	L	H	C	L	P	R	E	K	E	E	I	T	T	T	E	V	M	E	G		
UniRef90_B5EME4	A	R	K	A	A	P	F	Q	V	N	A	T	L	M	A	A	A	A	P	D	A	L	F	M	H	C	L	P	R	G	E	E	I	V	S	A	E	V	I	D	G		
UniRef90_D5U0D8	I	K	D	L	E	P	Y	R	V	T	V	E	L	M	S	K	A	K	S	D	A	L	F	M	H	C	L	P	R	G	E	E	I	V	N	E	V	I	D	G			
UniRef90_C5FKA7	E	R	L	K	N	S	F	V	I	D	N	A	I	M	K	H	A	K	S	Q	M	V	V	M	H	C	L	P	R	N	A	E	I	D	E	E	V	D	F	D			
UniRef90_D5MHR1	R	H	D	F	R	G	F	Q	V	N	A	A	L	V	R	L	A	K	P	D	V	L	V	M	H	C	L	P	R	G	E	E	I	T	D	E	V	I	D	G			
UniRef90_U1H2G0	H	N	V	L	Q	P	Y	Q	V	N	A	K	L	M	S	L	A	K	P	D	A	L	F	M	H	C	L	P	R	G	E	E	I	T	D	E	V	I	D	G			
UniRef90_G3BFi5	N	R	L	K	D	V	Y	I	V	D	N	K	I	L	S	H	A	K	Q	H	M	C	V	M	H	C	L	P	R	T	N	E	I	R	E	E	V	D	F	D			
UniRef90_UPI00036A3C36	Q	A	A	F	A	N	Y	Q	V	N	S	E	V	M	S	V	A	K	K	D	A	T	F	L	H	C	L	P	R	G	E	E	I	T	A	E	V	I	D	G			
UniRef90_F4CLF9	T	A	P	F	R	A	M	Q	L	N	A	D	L	V	A	R	G	A	A	D	A	I	V	L	H	C	L	P	R	G	D	E	I	T	D	D	V	I	D	G			
UniRef90_UPI0003595D7D	E	A	C	N	K	N	L	V	L	T	P	E	L	M	T	L	A	K	K	M	V	V	M	H	C	L	P	R	V	F	E	I	S	P	S	I	D	T	D				
UniRef90_J5U4P4	I	R	L	K	D	S	Y	I	L	D	L	E	K	L	E	T	A	K	K	D	L	T	I	M	H	P	L	P	R	V	N	E	I	S	V	E	V	D	D	D			
UniRef90_D7EB01	Q	R	V	S	T	S	L	Q	V	T	N	E	L	L	K	N	A	N	P	D	L	K	I	M	H	P	L	P	R	V	N	E	I	D	S	G	V	D	F	T			
UniRef90_F8E558	K	E	K	F	A	D	F	Q	V	N	G	K	L	M	Q	S	T	G	K	N	T	I	F	M	H	C	L	P	A	G	E	E	I	T	D	E	V	F	E	S			
UniRef90_G4TJQ3	W	Q	A	V	A	S	Y	V	V	N	H	A	V	L	A	R	A	K	P	D	M	I	V	M	H	C	L	P	P	R	V	N	E	I	D	P	E	V	D	D	A		
UniRef90_I4W801	P	D	E	A	A	Y	F	R	Q	Y	C	K	R	L	R	A	A	K	G	C	L	V	M	H	C	L	P	P	R	G	I	E	I	A	S	D	E	A	D	D	G		
UniRef90_R5HfH3	V	R	L	K	D	S	Y	I	L	T	P	E	K	L	R	T	A	K	W	D	L	A	I	L	H	P	L	P	R	V	N	E	I	S	I	A	I	D	D	D			
UniRef90_E6JYB2	L	R	L	R	D	T	Y	I	L	D	E	D	K	M	A	F	A	R	K	D	M	A	V	L	H	P	L	P	R	V	N	E	I	A	F	N	I	D	E	D			
UniRef90_B9XEN2	P	S	L	G	E	Y	F	G	L	N	K	K	R	L	A	T	K	P	D	A	L	I	M	H	C	L	P	P	R	G	V	E	I	D	S	E	I	A	D	C			
UniRef90_UPI00038093DB	K	E	I	F	K	N	Y	Q	I	N	K	E	L	Q	T	A	D	Q	R	A	I	V	L	H	C	L	P	P	R	G	E	E	I	T	D	E	V	M	E	D			
UniRef90_W0FJD3	L	R	L	R	D	S	Y	I	L	T	P	E	K	M	K	K	A	R	A	D	L	S	V	M	H	C	L	P	P	R	V	N	E	I	S	V	A	V	D	D	D		
UniRef90_UPI00037133FF	V	A	T	F	G	A	Y	R	V	T	P	E	L	M	Q	A	A	D	D	A	I	F	L	H	C	L	P	P	R	E	Y	E	I	A	P	D	V	I	D	G			
UniRef90_E8XVP0	I	S	L	M	T	P	Y	Q	V	N	A	A	L	N	A	T	G	N	P	D	V	K	F	M	H	C	L	P	P	A	F	H	E	E	I	T	D	D	V	F	E	S	
UniRef90_UPI0003458327	E	A	P	F	R	P	Y	I	V	D	E	A	L	M	E	L	A	H	P	E	A	I	V	L	H	C	L	P	P	R	G	K	E	I	S	A	G	V	I	D	G		
UniRef90_K2BMJ4	L	K	Y	K	G	V	I	V	V	G	R	L	Q	V	A	D	C	K	K	M	I	L	H	C	L	P	P	P	R	V	D	E	I	L	P	E	V	D	S	D			
UniRef90_UPI000364211C	H	N	V	F	Q	P	Y	Q	V	N	A	D	L	M	K	A	N	G	N	A	I	F	M	H	C	L	P	P	P	R	G	E	E	I	T	D	E	V	M	D	G		
UniRef90_I0YUHO	K	K	K	F	Q	G	F	Q	V	N	E	E	M	M	A	A	A	G	P	D	A	L	F	L	H	C	L	P	P	R	G	I	E	C	I	D	G	V	I	E	G		
UniRef90_R7N2B0	I	R	S	L	S	P	Y	Q	V	N	R	A	V	M	E	N	A	G	T	Q	A	I	F	M	H	C	L	P	P	A	F	H	D	E	I	T	D	E	V	F	E	S	
UniRef90_R6CPZ8	L	R	L	K	D	C	Y	I	L	T	P	E	K	L	A	S	A	K	S	D	M	Y	I	L	H	P	L	P	P	R	V	N	E	I	S	V	A	V	D	K	D		
UniRef90_T0N0K7	Q	G	V	I	G	A	Y	S	I	N	L	E	T	T	Q	E	M	K	K	G	S	I	M	H	C	L	P	P	P	R	I	D	E	I	T	P	D	V	D	E	T		
UniRef90_H1BLD0	K	R	R	Q	G	V	I	Y	Q	I	N	D	A	V	M	A	Q	A	K	K	D	A	M	V	L	H	C	L	P	P	A	H	E	E	I	T	A	K	V	F	E	E	
UniRef90_UPI00037F3590	H	N	L	L	K	P	Y	Q	V	D	Q	R	V	M	G	L	A	K	P	D	A	L	F	M	H	C	L	P	P	P	R	G	E	E	I	T	D	E	V	I	D	G	
UniRef90_B4W2Y0	I	P	V	F	L	P	Y	Q	V	N	E	Q	L	L	S	L	A	A	K	D	A	I	V	L	H	C	L	P	P	P	R	G	E	E	I	T	D	E	V	M	E	G	
UniRef90_UPI00047C5BAE	L	E	A	F	E	G	Y	Q	V	N	Q	T	L	L	K	L	A	A	D	D	V	I	F	L	H	C	L	P	P	P	R	G	E	E	I	V	T	A	E	V	I	D	G
UniRef90_E8N9I7	I	R	D	L	G	F	K	V	T	S	E	L	M	T	R	A	D	D	A	I	F	L	H	C	L	P	P	P	P	P	R	G	Y	E	V	D	A	E	V	I	D	G	
UniRef90_X1FYE2	K	R	R	L	A	F	Y	Q	V	D	E	K	L	L	S	M	A	R	G	D	A	L	F	M	H	C	L	P	P	H	G	E	E	I	S	E	G	L	L	D	N		
UniRef90_D7A9Q2	P	S	V	K	E	Y	F	H	F	W	E	A	K	L	R	Y	A	K	P	D	A	L	V	M	H	C	L	P	P	P	M	G	V	E	I	D	S	A	V	A	D	G	
UniRef90_UPI00047D5B08	L	Q	D	F	A	D	Y	Q	I	N	S	K	L	M	A	L	A	Q	E	D	A	L	F	M	H	C	L	P	P	P	P	R	G	E	E	I	T	D	E	V	I	D	G
UniRef90_G8S2R8	L	T	P	F	R	P	Y	Q	I	N	S	G	L	L	A	V	A	A	P	D	A	I	V	L	H	C	L	P	P	P	P	R	G	D	E	I	T	D	E	V	M	D	G
UniRef90_B1QZ96	I	K	H	F	E	G	F	Q	V	N	N	E	L	L	K	N	A	N	D	V	L	V	L	H	C	L	P	P	P	C	H	E	E	I	T	S	E	V	L	E			

	290	300	310
UniRef90_R6FHY1	P R A A Y F F Q V L N G K F I R M A L I L S L	L E S A V I	G D K L
UniRef90_UPI000465CA6D	P R A A Y F F Q V K N G M L M R M A L I E S A V I	G D K L	
UniRef90_K9HQA8	P R S V V W D E A E N R L L H A R Q K G I L V W C	L T Q	
UniRef90_UPI0004672001	P A S I V W D E A E N R L L H V Q K A I L E W I	F T Q G K	
UniRef90_U7M0J1	P Q S R V F D E A E N R L L H A Q K A I L V W L	D I N K	
UniRef90_A3DL27	K W S I V W D Q A E N R K H V Q K A I L A L I		
UniRef90_D7JEK4	P G A L Y F E Q V R N G K F I R M A L I Y T L		
UniRef90_Q0W2V3	P N S V I F E Q A Q N R L L H A Q K A L L I R L M	G K D	
UniRef90_B8GP66	P R S V I L E Q V T Y G I A V R M A V M S M I M	G G S V	
UniRef90_B6YRC6	P K A Y Y F E Q A R N G I F A R Q A I I C D V L	M G	
UniRef90_A1ATU5	S N S R V W D E A E N R L L H A Q K A I M A T L M	G G E	
UniRef90_A6LW74	K Q S V V F D E A E N R M H S I K A I M L A T I	G	
UniRef90_UPI00036E7A00	S Q S V V W D E A E N R L L H V Q K A L L E F I		
UniRef90_D5WXZ9	P R A A Y F R Q A A G G L Y V R M A L I C Q C L		
UniRef90_E2CAY1	P H S V V F D E A E N R L L H A Q K G I L A W C F	N G	
UniRef90_UPI00034ADF99	R Q S R I L W D E A E N R M L H A Q K A L M A C L	G L N	
UniRef90_B5EME4	P R S V V W E A E N R L L H A Q K A L M E F L F	G	
UniRef90_D5U0D8	K W S V V W D Q A E N R K H A Q K A I L A L I		
UniRef90_C5FKA7	Q R A A Y F R Q M R Y G L Y C R M A L L A L V M		
UniRef90_D5MHR1	P H S I V Y F D E A E N R L L H V Q K A I L V T L L	G H	
UniRef90_U1H2G0	P Q S V V F D E A E N R L L H A Q K G I L A W C F	N E	
UniRef90_G3BF15	Q R A A Y F R Q M R Y G L F V R M A L L A M V I	G V D F	
UniRef90_UPI00036A3C36	G Q S I V F D Q A E N R L L H V Q K A I M A T L M		
UniRef90_F4CLF9	P A S A V W D E A E N R L L H A Q K A L L T W L L	Q R	
UniRef90_UPI0003595D7D	P R A A Y F R Q A E N G M Y V R M A L I A L I L	N G K	
UniRef90_J5U4P4	E R A C Y F F Q A L C G K H I R M A L I L L L L		
UniRef90_D7EB01	S H A C Y F K Q S F Y G V P V R M A L L S L I M	G	
UniRef90_F8E558	G A S V V F D E A E N R L L H A Q K A I M A K I L	G K	
UniRef90_G4TJQ3	R R A A Y F R Q M R Y G L F V R M A L L A S V L G		
UniRef90_I4W801	A Q S R I L E Q V A N G V F V R M A V L G E V L A	R	
UniRef90_R5HFH3	P R A C Y F R Q V L C G K F I R M A L I L K L L	E V E	
UniRef90_E6JYB2	P R A A Y F R Q V K M G M L M R M A L I E S S L I	G	
UniRef90_B9XEN2	G R S V I L E Q V T N G L A V R M A V L F L I N G	G G	
UniRef90_UPI00038093DB	H A Q V I F D E A E N R L L H V Q K A I M A L T M		
UniRef90_W0FJD3	P R A C Y F K Q V L N G K Y M R M A L I L M L L	G	
UniRef90_UPI00037133FF	P Q S V V W D E A E N R V L H A Q K A L M A W L L	Q Q G	
UniRef90_E8XVP0	P H S I V F D E A E N R M H T I K A V M A T L	G D D	
UniRef90_UPI0003458327	P Q S V V W D E A E N R M H A Q K A L L A F L L		
UniRef90_K2BMJ4	K R A K Y F E Q V T N G V A V R M A L L N L T L		
UniRef90_UPI000364211C	P Q S V V F D E A E N R L L H A Q K S V L A W C	L G	
UniRef90_I0YUHO	P Q S V V F Q E A E N R M L H A Q N G V L L C L		
UniRef90_R7N2B0	A Q S V V F D E A E N R M H T I K A I M A A T L		
UniRef90_R6CPZ8	P R A A Y F K Q V F F G K F I R M A L I M K L L	G	
UniRef90_T0N0K7	V N A R A Y F Q Q A A N G V P V R M A L I S K M L	G V N	
UniRef90_H1BLD0	H A N E I F D E A E N R L L H A Q K A V L V K L L	G	
UniRef90_UPI00037F3590	P Q S V V F D E A G N R L L H A Q K G I M Y W C	M S K	
UniRef90_B4W2Y0	S R S R I L W D Q A E N R M L H A Q K A L L A S L L	G A D	
UniRef90_UPI00047C5BAE	P Y S V V F D Q A E N R L L H A Q K A L M I E L I	G	
UniRef90_E8N9I7	P Q S V V W D E A E N R L L H A Q K A L L V W L L	R Q N	
UniRef90_X1FYE2	T R S V V F D Q A E N R L L H L Q K A L L A K M L	G G	
UniRef90_D7A9Q2	A Q S L I R E Q V E M G V A V R M A V L D A L	S R N L	
UniRef90_D5BV08	P Q S V V W D E A E N R L L H A Q K A L L E K L L		
UniRef90_G8S2R8	P Q S V V F D E A E N R L L H A Q K A L L T W L L	A V N	
UniRef90_B1QZ96	H A E E I F D E S E N R L L H A Q K A V L V K L M		
UniRef90_K9SR86	S Q S K V W D E A E N R L L H A Q K A L L V S I L		
UniRef90_E3GWW5	P N S V V W D Q A E N R L L H T Q K A I L Y K I F		
UniRef90_C9S7J6	P R A A Y F R Q M R Y G L Y C R M A L L A L V M		
UniRef90_D6THJ1	H R A V Y L R Q V R N G L Y T R M A L L A L V L	G R	
UniRef90_A7C313	K R S V I L Q Q V S N G I A V R M A V M A M T L	G	
UniRef90_G9EDZ5	P A S I V F D Q A E N R M H T I K A V L V A T L	G	
UniRef90_UPI00038214C1	D N S A I Q E E V Q N G V A V R M A L L Y L V L		
UniRef90_UPI00047DF5F1	P R A A Y F K Q V Q Y G L Y V R M A L L T L L	N	
UniRef90_H8GII4	P Q S V I L Q Q V S N G I A V R M A V M A M V M		
UniRef90_E7NY86	P Q S K V F D E A E N R M H T I K A V M Y A T L		
UniRef90_K2C3M3	P Y A Y Y F D Q A E N G V Y I R Q A I S I L L L	E G	
UniRef90_E0MM40	P Q S V V F D E A E N R L L H A Q K G I L A W C	L G G	
UniRef90_A0A023X6C3	P K S R V F D Q A E N R L L H A Q K S L L Y L L L		
UniRef90_Q2BRE4	D R S L I L D Q V T N G I A V R M A V M S M S M S	G	
UniRef90_UPI0004776469	P D S A V W Q E A E N R L L H A Q K A L I E F L L		

		1				10						20						30							40																	
UniRef90_M7NXB4						R	H	F	L	T	L	K	D	L	S	A	S	E	L	K	Q	L	T	H	R	A	L	E	L	K												
UniRef90_M1F6F7	A	F	N	L	N	N	R	H	F	L	T	L	R	D	F	S	P	R	E	E	L	S	F	L	L	K	L	S	T	D	L	K	A	G	K	Y	A	P	Q	L	V	
UniRef90_UPI0003722DD5				N	L	S	G	R	D	F	L	T	L	R	D	F	S	P	R	E	E	L	S	F	L	L	K	L	S	T	D	L	K	A	G	K	Y	A	P	Q	L	V
UniRef90_B4D106	A	P	A	W	T	H	K	D	L	V	G	L	E	D	L	T	S	A	S	E	I	E	S	I	F	D	K	A	K	K	Y	K	A	Y	D	K	Y	W	P	L	E	
UniRef90_A0P6H5				M	T	I	K	H	F	L	K	F	N	D	L	T	S	A	S	E	I	E	S	I	F	D	K	A	K	K	Y	K	A	Y	D	K	Y	W	P	L	E	
UniRef90_Q935Y4				L	A	G	R	D	L	L	T	L	A	D	L	T	S	A	S	E	I	E	S	I	F	D	K	A	K	K	Y	K	A	Y	D	K	Y	W	P	L	E	
UniRef90_A3CW66								H	L	I	S	I	R	D	F	S	E	S	E	I	E	S	I	F	D	K	A	K	K	Y	K	A	Y	D	K	Y	W	P	L	E		
UniRef90_D3DCP4				M	T	A	R	H	F	L	L	D	T	D	L	T	S	S	E	Q	A	E	L	L	D	L	A	D	R	L	K	A	T	R	R	P	P	L	E			
UniRef90_A6DBF0								H	F	L	S	L	I	D	F	T	S	E	E	E	I	K	E	I	D	L	A	F	Q	I	K	K	E	T	K	K	P	Y	L	E		
UniRef90_O86132				N	L	K	G	R	S	Y	L	A	E	K	D	F	S	A	E	E	I	L	Y	L	D	L	A	F	Q	I	K	K	E	T	K	K	P	Y	L	E		
UniRef90_UPI00038102BF				L	K	G	Q	D	F	L	G	T	A	N	F	S	A	N	D	I	R	D	L	L	Q	L	A	G	D	L	K	S	G	K	T	T	I	T	C			
UniRef90_UPI000382A2A5								H	F	L	T	I	E	G	L	P	R	A	I	L	D	Q	I	L	D	T	A	E	Q	F	R	E	V	K	K	V	P	L	L	R		
UniRef90_A0A022R3E7								K	D	F	L	N	I	R	D	F	D	K	D	T	L	L	K	I	L	D	R	A	K	D	V	K	A	L	L	K	S	G	P	F	K	
UniRef90_A5UVX9								H	F	L	S	A	A	D	L	T	R	T	E	A	E	A	L	L	D	R	A	Q	A	L	K	A	E	W	R	N	G	P	L	Q		
UniRef90_W7CZJ2								K	G	K	D	M	L	S	L	V	E	W	S	N	E	E	L	V	Q	L	A	L	T	I	K	T	N	P	Y	S	H	T	L	S		
UniRef90_Q65TN0	F	N	L	K	N	R	S	L	V	N	H	S	P	R	E	E	I	K	Y	L	L	D	L	A	R	D	L	A	R	D	L	K	A	G	T	S	Q	P	R	L	K	
UniRef90_B0UIR6				F	P	H	R	H	L	L	G	I	E	G	L	S	P	L	D	I	V	A	L	L	D	R	A	D	E	A	V	E	E	K	K	R	A	T	L	R		
UniRef90_R5H6R9								K	H	F	L	K	L	M	D	L	S	T	E	E	I	D	I	L	N	L	A	D	Q	L	K	H	G	I	P	H	P	L	E	K		
UniRef90_UPI00036ABA0F								H	F	L	R	D	D	D	V	T	S	A	E	E	Q	S	T	I	L	D	L	A	Q	L	K	R	D	R	A	R	P	L	E	G		
UniRef90_UPI00047812AD	P	F	P	Q	R	H	L	L	G	V	E	D	L	A	P	E	A	T	L	Q	L	L	L	D	R	A	D	G	Y	E	A	R	K	K	R	D	I	L	K			
UniRef90_I4C6S3	N	F	K	G	K	D	I	I	S	M	N	D	L	T	R	A	E	I	D	E	I	L	L	G	K	V	K	T	V	R	E	S	H	P	K	K	T	L	C			
UniRef90_F2U457								C	L	I	L	S	M	N	D	L	T	R	A	E	I	D	E	I	L	G	K	V	K	T	V	R	E	S	H	P	K	K	T	L	C	
UniRef90_C5ZX14								H	F	L	T	L	A	D	F	S	K	Q	E	I	L	E	L	L	D	I	A	K	D	L	K	A	G	K	Y	S	N	L	L	E		
UniRef90_A7C4T9	M	A	P	R	H	F	L	T	L	A	D	F	S	K	Q	E	I	L	E	L	L	L	D	I	A	K	D	L	K	A	G	K	Y	S	N	L	L	E				
UniRef90_I1JJC4				F	H	L	D	V	I	E	A	Q	Q	F	D	R	E	T	L	N	A	I	F	E	V	A	R	S	M	E	S	I	E	R	S	Q	M	L	K			
UniRef90_UPI0004204CB3				T	P	K	H	F	L	D	L	T	Q	L	S	G	D	D	L	R	A	L	L	L	A	R	A	K	D	L	K	S	K	P	G	V	G	M	L	A		
UniRef90_G2TC28				T	P	R	H	F	L	E	L	S	D	F	S	A	P	A	L	R	A	M	L	L	D	R	G	L	A	F	K	A	E	R	R	S	A	P	L	E		
UniRef90_C7MN79	T	S	L	S	G	R	D	F	L	K	L	L	D	F	D	S	T	S	E	I	K	Y	L	L	K	L	S	R	E	F	K	N	G	T	P	H	R	Y	L	E		
UniRef90_UPI0004734361				L	V	K	N	N	Y	L	S	S	L	D	M	A	G	E	E	I	S	D	I	L	L	E	L	A	K	N	L	K	N	K	K	T	N	I	E	L	K	
UniRef90_A6THH6	S	A	F	Y	Q	K	H	F	L	K	L	L	D	F	T	P	A	E	I	T	A	L	L	L	A	A	K	L	K	A	D	K	K	N	Q	K	L	L	A			
UniRef90_UPI000348BE9A								H	F	L	S	T	A	D	L	G	H	D	E	A	V	L	L	L	D	T	A	R	E	L	R	S	V	K	K	L	P	T	L	R		
UniRef90_S5TJ73								H	F	L	S	T	A	D	L	S	R	D	E	I	L	G	L	M	D	E	A	D	R	F	R	E	I	K	K	L	P	T	L	R		
UniRef90_X1SHN9								K	R	D	L	G	L	E	E	L	S	R	K	E	I	E	T	L	L	K	T	A	E	S	L	K	A	I	K	K	V	P	Y	L	E	
UniRef90_U2TED8								H	F	L	R	D	D	D	I	S	P	A	E	Q	A	E	L	L	A	J	A	A	E	L	K	R	D	P	R	K	V	P	L	E	G	
UniRef90_Q8FT39								H	F	L	S	T	A	D	L	S	R	D	E	I	L	S	L	L	D	E	A	D	R	F	K	E	V	K	K	L	P	T	L	R		
UniRef90_UPI000372D3FD	M	A	L	R	H	K	D	F	L	D	I	W	Q	L	E	A	S	E	L	R	A	I	L	L	D	D	A	H	A	M	K	S	A	R	K	G	W	P	L	D		
UniRef90_C9RB97				L	R	H	K	D	F	L	G	L	A	D	L	S	P	E	E	I	E	H	L	L	E	Q	A	E	A	M	R	E	V	K	K	V	P	L	R			
UniRef90_UPI0003632EC3				Q	K	G	L	L	G	L	A	E	L	S	R	G	E	I	E	E	L	L	L	S	R	A	R	D	F	Q	P	P	P	R	Q	D	T	L	R			
UniRef90_V2EAN3				L	K	G	K	S	F	L	A	E	K	D	F	S	E	E	E	L	L	Y	F	L	D	L	A	E	E	L	K	E	G	P	H	R	Y	L	Q			
UniRef90_V4JVG2	H	E	L	K	G	R	D	L	L	C	L	I	T	D	Y	S	A	E	E	Q	I	T	F	L	D	L	A	Q	L	K	A	R	Y	A	D	V	L	R				
UniRef90_I4C853								H	F	L	T	F	Q	D	Y	S	R	D	E	I	L	T	L	L	K	R	S	H	E	L	K	H	S	I	M	S	R	P	L	E		
UniRef90_D7UYU7				Y	P	K	D	M	L	S	L	V	E	W	S	K	A	E	L	E	L	L	L	Q	L	A	L	E	M	K	T	N	P	K	H	S	K	A	L	S		
UniRef90_E6YG13								H	F	L	D	I	S	L	T	P	Q	A	R	A	L	L	L	D	Y	A	K	A	F	K	A	G	E	S	S	K	P	F	A			
UniRef90_Q2JN73	N	L	A	G	R	D	L	L	K	L	S	D	L	T	P	A	E	L	S	A	L	L	L	A	Q	A	E	L	K	R	D	P	Y	R	V	E	L	R				
UniRef90_K0KUK9	N	P	F	L	R	R	S	V	L	S	V	N	D	F	K	R	S	D	F	H	A	L	L	F	S	V	A	Q	E	M	R	N	G	V	L	D	L	K				
UniRef90_R4YQ36								K	H	F	L	T	T	E	G	L	S	K	A	L	L	T	E	I	L	D	L	A	D	S	F	R	A	V	K	K	V	P	L	R		
UniRef90_I4AMP7	S	L	S	V	N	H	L	L	G	I	K	D	L	T	Q	A	D	I	L	H	I	F	E	M	A	K	Q	F	K	E	V	K	K	V	P	S	L	R				
UniRef90_V4TB12				F	A	H	R	H	L	L	G	I	E	G	L	S	R	D	I	E	A	L	L	D	L	S	D	K	A	V	E	E	K	K	L	S	T	L	R			
UniRef90_UPI0003756A00				W	K	N	R	D	V	I	S	I	E	D	F	S	I	D	D	L	E	V	L	F	K	L	T	D	E	L	E	K	G	H	P	N	E	L	K			
UniRef90_W7KL08								H	F	L	S	S	Y	D	F	S	R	E	E	F	H	K	L	F	E	L	S	D	E	L	L	G	G	K	L	K	P	N	V	N		
UniRef90_UPI000375C182				F	K	H	D	L	L	S	I	E	D	L	S	R	D	I	E	H	I	L	L	D	L	A	E	A	F	R	A	G	R	R	P	P	H	L	K			
UniRef90_R9TBR3								K	R	D	I	I	S	V	F	D	M	K	D	D	I	Q	D	I	L	S	L	A	A	K	L	K	S	G	K	Y	T	P	V	L	Q	
UniRef90_UPI0003F6305E								H	F	L	S	I	A	D	L	S	R	D	E	I	V	G	L	M	D	E	A	D	R	F	R	E	A	K	K	L	P	T	L	R		
UniRef90_A1SJJ1								H	F	L	A	D	D	L	T	P	A	E	Q	A	R	V	L	D	L	A	A	E	L	K	Q	A	P	Y	K	P	L	A	G			
UniRef90_UPI0003794487	A	P	N	Y	S	H	R	H	L	L	G	I	E	G	L	Y	P	A	E	I	S	Y	L	L	D	L	A	D	S	Y	V	E	T	N	R	R	P	L	L	K		
UniRef90_B2A2U7				L	Q	R	K	S	L	L	G	L	K	D	M	E	K	S	E	I	E	S	I	L	D	S	T	E	S	M	K	K	N	K	K	L	P	T	L	K		
UniRef90_T1KED0				L	R	N	K	D	L	L	S	V	D	M	F	T	A	Q	T	L	H	V	L	F																		

UniRef90_M7NXB4	N	K	V	L	A	M	I	F	E	K	S	S	T	R	T	R	V	S	F	E	S	A	M	L	Q	F	G	G	S	I	F	L	S	P	P	D	T	Q									
UniRef90_M1F6F7	G	K	E	I	L	V	L	F	E	K	N	S	T	R	T	R	V	S	F	E	V	A	A	Y	D	L	Q	G	G	S	A	R	V	T	T	S	H										
UniRef90_UPI0003722DD5	G	K	N	I	V	L	L	F	E	K	N	S	T	R	T	R	V	S	F	E	V	A	G	A	R	D	L	G	G	M	A	R	G	V	T	Y	L	D	P	B	P	S	N	S	S		
UniRef90_B4D106	G	Q	T	M	V	N	F	F	V	E	K	A	S	T	R	T	R	V	S	F	E	V	A	A	H	R	L	L	G	S	A	D	V	I	N	M	T	A	S	N	S	S	S				
UniRef90_A0P6H5	D	R	T	L	V	M	I	F	E	K	A	S	T	R	T	R	V	S	F	E	S	G	M	H	Q	R	L	L	G	G	A	A	I	V	I	N	L	N	P	S	T	R	N	S	D	S	
UniRef90_Q935Y4	P	K	T	L	G	L	I	F	S	F	K	S	A	S	T	R	T	R	V	S	F	S	A	A	I	M	Q	M	G	G	G	Q	S	V	L	D	L	N	P	S	A	T	T	N	V	I	T
UniRef90_A3CW66	D	K	L	V	A	L	L	F	F	E	K	P	S	T	R	T	R	M	S	F	A	T	A	M	A	R	L	L	G	G	R	S	I	P	I	S	V	D	S	V	E	A	S	T	S		
UniRef90_D3DCP4	G	R	S	V	A	L	I	F	F	E	K	P	S	T	R	T	R	V	S	F	D	V	A	A	E	L	L	G	G	G	H	P	S	I	V	I	L	D	S	A	T	T	T	Q			
UniRef90_A6DBF0	N	Y	Q	L	A	M	I	F	E	K	P	S	T	R	T	R	V	S	F	E	V	A	G	I	N	Q	L	L	G	G	N	G	I	F	L	L	G	N	K	D	D	I	Q				
UniRef90_O86132	G	K	N	I	A	L	L	F	E	K	P	S	T	R	T	R	V	S	F	A	T	T	A	C	Q	L	L	G	G	A	H	P	S	E	Y	L	N	G	K	N	D	D	I	Q			
UniRef90_UPI00038102BF	N	K	L	I	A	L	L	F	Y	K	A	S	T	R	T	R	V	S	F	E	T	V	A	A	M	Y	Q	L	L	G	G	Q	V	I	N	D	L	N	I	N	A	N	V	T	Q		
UniRef90_UPI000382A2A5	G	K	S	V	F	N	L	F	F	E	K	A	S	T	R	T	R	T	S	F	E	I	A	A	K	R	L	L	G	S	A	D	V	I	L	N	L	N	I	N	A	S	T	S	Q		
UniRef90_A0A022R3E7	G	K	T	M	A	M	I	F	A	K	P	S	M	R	T	R	V	S	F	E	T	G	M	F	H	L	L	G	G	H	A	L	S	Y	L	G	P	D	D	I	Q						
UniRef90_A5UZX9	G	K	T	L	A	L	V	F	E	K	P	S	L	R	T	R	V	S	F	E	A	G	M	T	Q	L	L	G	G	H	G	S	Y	L	S	A	N	D	I	D	M						
UniRef90_W7CZJ2	G	Q	I	L	G	M	I	F	D	K	S	T	R	T	R	V	S	F	E	A	G	M	L	Q	L	L	G	G	Q	A	I	V	M	S	S	K	E	L	Q								
UniRef90_Q65TN0	G	K	N	I	A	L	L	F	E	K	N	S	T	R	T	R	V	S	F	E	I	A	A	Y	D	Q	L	L	G	G	A	N	V	T	Y	I	D	P	A	S	S	S	S				
UniRef90_B0UIR6	G	R	T	Q	I	N	L	F	F	E	P	S	T	R	T	Q	S	S	F	E	T	A	G	K	R	L	L	G	A	D	V	M	N	M	S	P	V	A	S	S	S	S					
UniRef90_R5H6R9	G	Q	T	L	G	M	I	F	Q	K	S	S	T</																																		

	90	100	110	120																																								
UniRef90_M7NXB4	L	G	R	G	E	P	I	E	D	S	A	R	V	I	S	M	V	D	A	V	M	I	R	T	F	F	E	H	S	K	V	E	R	F	A	Q	Y							
UniRef90_U1F6F7	L	G	R	H	K	E	S	I	V	K	D	T	A	R	V	L	G	R	V	Y	D	A	I	E	Y	R	G	F	Q	Q	E	I	V	E	Q	L	A	Y	A					
UniRef90_MPF0003722DD5	M	G	K	G	K	E	S	I	V	K	D	T	A	R	V	L	G	R	M	Y	D	G	I	E	Y	R	G	F	Q	Q	E	I	V	E	Q	L	A	Y	A					
UniRef90_B4D106	L	T	K	G	E	S	I	L	K	D	T	A	R	N	L	Q	A	L	H	A	D	I	V	L	R	H	S	S	G	A	G	A	S	K	F	L	A	E	R	L				
UniRef90_A0P6H5	Q	L	G	R	G	E	P	I	V	E	D	T	A	R	V	L	S	R	M	C	D	V	V	M	I	R	T	F	F	Q	Q	E	I	V	E	Q	L	A	Y	A				
UniRef90_Q935Y4	Q	V	L	G	R	G	E	P	I	A	D	T	A	R	V	L	S	R	M	L	D	A	L	M	I	R	T	F	F	Q	Q	E	I	V	E	Q	L	A	Y	A				
UniRef90_A3CW66	S	I	V	K	G	E	T	L	A	D	T	A	R	V	L	S	R	G	Y	A	D	A	I	V	L	R	H	P	A	K	E	G	A	A	R	L	J	A	S	E	A	F	A	T
UniRef90_D3DCP4	L	G	R	G	E	T	I	L	E	D	T	A	R	V	L	S	R	Y	V	D	A	I	V	L	R	T	F	F	Q	Q	E	I	V	E	Q	L	A	Y	A	T				
UniRef90_A6DBF0	L	G	R	G	E	P	I	L	K	D	T	A	R	V	L	S	R	M	V	D	M	I	M	I	R	T	F	F	Q	Q	E	I	V	E	Q	L	A	Y	A	S				
UniRef90_O86132	L	G	K	K	E	S	I	L	E	D	T	A	K	V	L	G	R	M	F	D	G	I	E	F	R	G	F	E	H	E	K	V	L	I	S	L	A	E	A	H				
UniRef90_UPI00038102BF	V	G	R	G	E	P	I	L	C	D	T	A	R	V	L	G	R	Y	L	D	V	L	A	V	R	T	F	F	Q	Q	E	I	V	E	Q	L	A	Y	A					
UniRef90_UPI000382A2A5	S	T	S	K	G	E	S	I	L	D	T	A	R	V	L	S	G	Y	N	D	I	A	M	A	R	V	F	A	H	A	T	V	I	L	D	L	A	K	Y	A				
UniRef90_A50U22R3E7	M	G	K	R	E	E	T	L	R	D	V	A	R	V	L	S	G	Y	N	D	I	A	M	A	R	V	F	A	H	A	T	V	I	L	D	L	A	K	Y	A				
UniRef90_A5UUX9	G	G	R	E	S	V	P	L	C	D	T	A	R	V	L	S	G	Y	N	D	I	A	M	A	R	V	F	A	H	A	T	V	I	L	D	L	A	K	Y	A				
UniRef90_W7CZJ2	I	G	R	G	E	P	I	L	K	D	T	A	R	V	L	S	E	Y	I	N	A	V	M	I	R	T	F	F	Q	Q	E	I	V	E	Q	L	A	Y	A					
UniRef90_Q65TN0	I	G	R	H	K	E	S	I	M	K	D	T	A	R	V	L	G	R	L	Y	D	A	I	E	Y	R	G	F	Q	Q	E	I	V	E	Q	L	A	Y	A					
UniRef90_B0UIR6	V	K	K	G	E	T	L	I	D	T	A	A	T	L	N	A	M	R	P	D	I	L	V	V	R	H	S	S	G	A	G	A	V	H	L	L	A	R	K	V	D			
UniRef90_R5H6R9	I	G	R	G	E	P	I	V	Q	D	T	A	R	V	L	S	R	Y	L	S	G	I	M	I	R	T	F	F	Q	Q	E	I	V	E	Q	L	A	Y	A					
UniRef90_UPI00036ABA0F	G																																											

		130	140	150	160
UniRef90_M7NXB4	S	S	V	P	V
UniRef90_M1F6F7	G	V	P	V	Y
UniRef90_UPI0003722DD5	G	V	P	V	W
UniRef90_B4D106	D	A	S	V	I
UniRef90_A0P6H5	S	R	V	P	V
UniRef90_Q935Y4	D	I	P	V	I
UniRef90_A3CW66	V	P	V	I	N
UniRef90_D3DCP4	T	V	P	V	I
UniRef90_A6DBF0	K	V	P	V	I
UniRef90_O86132	S	G	V	P	V
UniRef90_UPI00038102BF	A	T	I	P	I
UniRef90_UPI000382A2A5	P	H	V	H	I
UniRef90_A0A022R3E7	S	V	P	V	I
UniRef90_A5UVX9	A	T	V	P	V
UniRef90_W7CZJ2	S	I	P	I	I
UniRef90_Q65TN0	S	G	V	P	V
UniRef90_B0UIR6	C	A	V	P	V
UniRef90_R5H6R9	S	I	P	I	I
UniRef90_UPI00036ABA0F	A	R	V	P	V
UniRef90_UPI00047812AD	C	A	V	P	V
UniRef90_I4C6S3	D	I	P	V	I
UniRef90_F2U457	R	K	P	L	I
UniRef90_C5ZX14	S	I	P	V	I
UniRef90_A7C4T9	K	V	P	V	I
UniRef90_I1JJC4	S	I	P	V	I
UniRef90_UPI0004204CB3	A	T	V	P	V
UniRef90_G2TC28	A	S	V	P	V
UniRef90_C7MN79	A	T	V	P	V
UniRef90_UPI0004734361	K	P	V	I	N
UniRef90_A6THH6	A	G	V	P	V
UniRef90_UPI000348BE9A	D	G	S	V	V
UniRef90_S5TJ73	G	T	S	V	I
UniRef90_X1SHN9	E	A	S	V	I
UniRef90_U2TED8	T	R	V	P	V
UniRef90_Q8FT39	P	S	V	I	N
UniRef90_UPI000372D3FD	A	G	V	P	V
UniRef90_C9RB97	A	A	V	P	V
UniRef90_UPI0003632EC3	I	P	V	I	N
UniRef90_W2EAN3	S	G	V	P	V
UniRef90_V4JVG2	T	V	P	V	I
UniRef90_I4C853	S	V	P	V	I
UniRef90_D7UYU7	T	I	P	V	I
UniRef90_E6YG13	Q	I	P	V	I
UniRef90_Q2JN73	A	D	V	P	V
UniRef90_K0KUK9	V	P	V	I	N
UniRef90_R4YQ36	P	G	V	I	N
UniRef90_I4AMP7	A	A	I	V	N
UniRef90_V4TB12	C	S	V	V	N
UniRef90_UPI0003756A00	K	K	P	V	I
UniRef90_W7KL08	E	K	P	V	I
UniRef90_UPI000375C182	C	A	V	P	V
UniRef90_R9TBR3	A	S	I	P	V
UniRef90_UPI0003F6305E	E	H	N	V	I
UniRef90_A1SJJ1	G	V	P	V	I
UniRef90_UPI0003794487	C	A	V	P	V
UniRef90_B2A2U7	S	C	S	I	N
UniRef90_T1KED0	Q	I	P	V	I
UniRef90_UPI000472173B	D	L	S	I	V
UniRef90_A0RQX6	P	S	C	V	V
UniRef90_C9YG50	S	R	V	P	V
UniRef90_E3CYD2	K	A	V	V	L
UniRef90_C8PK33	D	A	S	I	V
UniRef90_B1Y9R0	E	S	P	V	I
UniRef90_M0GXS2	S	T	A	P	V
UniRef90_R5BV82	R	V	P	V	I
UniRef90_UPI0003456DCC	S	H	V	P	V
UniRef90_Q605F1	P	H	I	S	V
UniRef90_A0RUE9	A	S	V	P	V
UniRef90_V4X650	C	V	P	V	I
UniRef90_R6MT17	V	P	F	I	N
UniRef90_E4RIW1	S	A	S	V	L
UniRef90_D0ZF71	A	G	V	P	V
UniRef90_B6JX37	V	P	V	I	N
UniRef90_A6X568	C	S	V	V	N
UniRef90_G9MW37	V	P	V	V	N
UniRef90_UPI0002F0D9B5	G	V	P	V	I
UniRef90_J3P4H7	Q	V	P	V	I
UniRef90_UPI0004706DA3	S	G	V	P	V
UniRef90_E2MYP4	A	T	V	P	V
UniRef90_X5DS46	Q	I	S	V	L
UniRef90_E4NB79	G	V	P	V	I
UniRef90_Q31I95	Q	V	P	V	I
UniRef90_S0FP31	G	T	I	P	V
UniRef90_UPI0004792C95	A	G	V	P	V
UniRef90_M7TTB8	P	V	P	V	I
UniRef90_Q5KNM2	P	V	P	V	I
UniRef90_D3E0Z1	S	D	V	P	V
UniRef90_E4TGH2	S	S	V	P	V
UniRef90_UPI0004733CAC	K	P	V	I	N
UniRef90_K2CXH0	E	L	P	V	I
UniRef90_A0KQG4	G	V	P	V	I
UniRef90_Q6YI72	S	V	S	I	N

[illegible]

	210	220	230	240
UniRef90_M7NXB4	E T K A E I A	L F H Q P E L A A R D A D L I V T D V W A S M G Q E E E Q R		
UniRef90_U1F6F7	I A R E T G A R I T	L T E D V D T A V A G A G V D F V Y T D V W V S M K E E K W G D R		
UniRef90_MPF0003722DD5	L A R G S G S V T	L T E D V D T A V A G A G H V Y T D I V W V S M G E E W R E R		
UniRef90_B4D106	G V K	V T H D L D S V L P G A D V V V N L L R I Q H E R Q R K E Y F		
UniRef90_A0P6H5	A G L Y S D D H F E Q F D P M D A A K G A D I V T T D V W T S M G F E K K E R			
UniRef90_Q935Y4	K A Q Q I R A K V E I L H D P I A A S Q G A H V Y T D V W A S M G Q E E Q A R			
UniRef90_A3CW66	E L R E R G M E V V E H P N V E A A I R E L D V L Y V T R I Q A R E F P D S A S Y			
UniRef90_D3DCP4	Q A N E I G A V T G V M H D A L E A A T D A D V L Y T D V W A S M G Q D D E S Y			
UniRef90_A6DBF0	F A K Q S G A K I E F L Y D V K E A I K N A D V T T D T W V S M G Q E K E K R			
UniRef90_O86132	M A E A F G G K I T V T S D T D K A V S K G A D V Y T D V W V S M G E E D K E R			
UniRef90_UPI00038102BF	A I A G D R S E I L L T E D P V A A V K G A D V V Y T D V W A S M G Q E N M E R			
UniRef90_UPI000382A2A5	G V R	V T F H N L D E G L K D V D V I I M L R L Q N E R M S G A I L L		
UniRef90_A5A022R3E7	A I K A G V S K I E I T I D P K E A V K G A D V V Y S D V W A S M G Q E A E Y R			
UniRef90_A0UXX9	L A E R H N A S I W I T T P S P V E A V E G A D A D F V Y T D V W A S M E H A A R R			
UniRef90_W7CZJ2	I A T K T G A K I L T V T T D D L A V K D A D F V H T D V W V S M I E A W G E R			
UniRef90_Q65TN0	I C K E T G A R I T V T D D L A V K D A D F V H T D V W V S M I E A W G E R			
UniRef90_B0UIR6		M G V E V F T D M R G L A G A D I V M M L R L Q R E R M N G S F V		
UniRef90_R5H6R9	F A K Q Y P G K F Q I V N D P V Q A A A D A D V L Y T D V W A S M G Q E G E K R			
UniRef90_UPI00036ABA0F	R A R E I A A E Q E	V G T D A A A L V A G A D V V I T D T W V S M G L E E E R		
UniRef90_UPI00047812AD	G V E	V F E D M E Q G L E G Q D V V M M L R L Q L E R M S G A F V		
UniRef90_I4C6S3	K C K D R G V T F S E A R R I E D Y I G E V D I L Y M T R I Q K E R L E E K L A			
UniRef90_F2U457	V G A A G I E Q S K H A H L D D V I A D T D V L Y V T R V Q K E R F E T E A Y			
UniRef90_C5ZX14	F A K I S G A K L I V T N N P Q E A L A N A D V V T T D T W A S M G Q E E N K R			
UniRef90_A7C4T9	Q F D K H V N L I T D P R Q A V A G A D V L Y T D V W A S M G Q E E N Q R			
UniRef90_I1JC4	Y L T S K G V I E W E S A D L M E V A S K C N A V V Y Q T R I Q K E R F G E K L Y			
UniRef90_UPI0004204CB3	W A R A N G G R I E V T S D P F E A V D G A D A V E T D T W V S M G D E G E R			
UniRef90_G2TC28	W A R A N G G A V I E V L R D P Q E A V D G A D C V I T D T W V S M G C D G A A R			
UniRef90_C7MN79	I A A D N G C T I K L T S D V R E G A V T G A D V I Y T D V W V S M D E I V A S R			
UniRef90_UPI0004734361	K A R E I Y G E K D L S N D L H A A V S G A N V L Y T D V W S M G E E N K K E			
UniRef90_A6THH6	T C K Q Q G G N I T L T E D I A A G V K G A D F I Y T D V W V S M K E K W A E R			
UniRef90_UPI000348BE9A	P C Q	V S Y D L D E V L P S K D V V M M L R V Q A E R M N E A F F		
UniRef90_S5TJ73	P V R	V A H D F D A E I P D A D V V M M L R V Q Q E R M N G A F Y		
UniRef90_X1SHN9		K M E D M G V K V F Y D L N E A I P D K D V I Y V L R I Q R E R Q T G G L L		
UniRef90_U2TED8	I A E S T G S G S V E V F T D A A A A A A A A D V V I T D T W V S M G Q E K A Q R			
UniRef90_Q8FT39	P V R T S	Y D M A A E I R D A D A V M M L R V Q Q E R M Q G G F		
UniRef90_UPI000372D3FD	L A R E M Q G R I E L C	S T A E D A V A G A D V V I D T F V S M G D T D A D E R		
UniRef90_C9RB97	G V E	V Y Y Q L E A L E R D A D V V Y V L R L Q R E R F S E Q T F		
UniRef90_UPI0003632EC3	D M A A I A P G V E L T D M R K A I R D A D V I M M L R V Q L E R Q N E A S F			
UniRef90_W2EAN3	M A K Q Y N G R I M V S S S I E A A V P E A D V I Y T D V W V S M G E E D K F A			
UniRef90_V4JVG2	A A R R E G A E I R F T E D P F E A V D G A D V Y T D V W V S M G Q E E S E Q K			
UniRef90_I4C853		S F N S G K I S L T R D P V A V K G A N A V S T D V W A S M G Q E E E A A		
UniRef90_D7UYU7	Q A A E S G A E I V V T A D P V K A V T D A D F I Y T D V W T S M G Q E K E N Q			
UniRef90_E6YG13	W A R E R G A H I M L T Q N P Q K A A E N V D C I T D T W V S M G Q E F R A R			
UniRef90_Q2JN73	Q A R T Q G S Q V L V L Q D P Q E A A V S G S Q V Y T D V W A S M G Q E A E A E			
UniRef90_K0KUK9	L I Q A G M L G N E S E E L T K E I I A D S D I Y C T R V Q E E R F K D K E Q Y			
UniRef90_R4YQ36		E M K D L G A N I Y S F D M E Q G L A D V D V I M L R L Q K E R M S D A I L		
UniRef90_I4AMP7	G V K	V S Y N L R E T L E W C D V A N V L R I Q L E R Q D V K N I		
UniRef90_V4TB12	G V E	V Y R D L R E N E I R G A D V V M M L R L Q R E R M N G A Y V		
UniRef90_UPI0003756A00	K L K E I G A I L Y E T T N N E V I S E L D V L Y V T R I Q K E F P D A E Y			
UniRef90_V7KL08	E L N Y E V I E R D N P Y D	V I S D V D V L Y V T R I Q K E F P D E M E Y		
UniRef90_UPI000375C182	G A A H T T S R F D E	A I E G A D V V M M L R L Q M E R M N G G Y L		
UniRef90_R9TBR3	E S A K N G C S L T I T T D P V E A A T D A D V I Y T D A V V S M G Q E D Q E K			
UniRef90_UPI0003F6305E	P V R	V S Y D F D S E L P D A D A V M M L R V Q Q E R M N G G F		
UniRef90_A1SJJ1	A A I A A T G S A T L E P D P V A A V T G A D V V I T D T W T S M G K E E A V</			

UniRef90_M7NXB4	K	R	E	Q	A	F	F	Q	V	N	D	S	L	M	Q	L	A	P	D	A	L	F	M	H	C	L	P	R	G	E	N	T	V	S	A	S	V	T	D	G						
UniRef90_M1F6F7	I	K	L	L	M	P	Y	R	V	N	A	E	L	M	K	G	R	A	D	P	R	A	I	F	M	H	C	L	P	R	A	F	H	H	E	T	D	D	E	Q	V	F	E	G		
UniRef90_UPI0003722DD5	I	A	A	L	E	P	Y	R	V	N	A	E	L	M	K	G	R	A	D	P	R	A	I	F	M	H	C	L	P	R	A	F	H	H	E	T	D	D	E	Q	V	F	E	G		
UniRef90_B4D106	P	S	L	G	E	Y	F	G	L	T	K	Q	R	A	E	R	L	K	P	E	A	L	I	F	M	H	P	G	P	R	G	V	E	I	T	D	S	E	V	L	A	D	C			
UniRef90_A0P6H5	I	K	D	F	A	D	W	Q	V	N	D	M	M	K	L	A	N	K	D	A	I	F	M	H	C	L	P	R	G	E	E	E	I	V	T	T	A	S	E	V	L	D	G			
UniRef90_Q935Y4	V	K	A	F	T	Y	Q	V	N	Q	A	L	L	E	K	A	D	P	A	I	V	L	H	C	L	P	R	A	H	E	E	E	I	V	T	T	A	S	E	V	L	D	G			
UniRef90_A3CW66	Y	N	V	A	S	S	Y	R	I	T	D	L	L	D	G	V	K	E	R	L	M	I	L	H	P	G	P	R	A	G	E	E	I	V	T	D	S	A	V	L	D	R	T			
UniRef90_D3DCP4	A	L	V	F	Q	P	Y	R	L	D	E	K	V	V	E	V	A	R	D	A	I	V	M	H	C	L	P	R	A	H	V	E	E	I	V	T	T	A	S	E	V	L	D	G		
UniRef90_A6DBF0	I	S	D	F	K	G	F	E	V	N	S	E	L	M	N	L	A	K	K	D	A	I	F	L	H	C	L	P	R	G	Y	E	I	V	T	S	A	E	V	L	F	E	K			
UniRef90_O86132	I	K	L	L	K	P	Y	Q	V	N	M	D	L	V	K	K	T	N	D	N	V	I	F	L	H	C	L	P	R	A	F	H	E	E	I	V	T	D	D	A	V	L	F	R	S	
UniRef90_UPI00038102BF	M	P	I	F	Q	P	Y	Q	V	N	G	A	L	L	N	E	A	D	D	A	I	V	L	H	C	L	P	R	A	H	E	E	I	V	T	T	D	D	A	V	L	E	G			
UniRef90_UPI000382A2A5	P	S	A	Q	E	Y	F	K	S	W	P	E	R	L	L	A	L	A	P	D	A	I	V	M	H	P	G	P	M	G	V	E	I	T	D	S	Q	V	L	A	D	G				
UniRef90_A5A022R3E7	R	K	V	I	F	Q	G	F	Q	V	D	E	L	M	K	L	A	G	S	P	K	A	Y	F	M	H	C	L	P	R	G	V	E	I	V	T	D	D	G	V	L	E	A			
UniRef90_A0UUX9	R	P	L	F	Q	P	Y	Q	V	N	G	A	L	L	M	T	H	A	R	S	G	A	L	F	M	H	C	L	P	R	G	E	E	I	V	T	T	A	S	E	V	L	D	G		
UniRef90_W7CZJ2	L	A	D	F	E	G	Y	A	V	T	K	G	L	V	A	H	A	K	A	D	Y	H	F	L	H	C	L	P	R	A	H	E	E	E	I	V	T	S	A	D	V	L	D	G		
UniRef90_Q65TN0	I	N	L	L	M	P	Y	Q	V	N	T	D	L	M	K	R	T	N	P	N	V	K	F	M	H	C	L	P	R	A	F	H	V	E	E	I	V	T	S	A	D	V	L	F	E	S
UniRef90_B0UIR6	P	S	V	K	E	Y	F	R	Y	T	G	E	K	L	S	L	A	A	P	D	A	I	V	M	H	P	G	P	M	G	V	E	I	T	A	S	D	K	V	L	F	E	Q			
UniRef90_R5H6R9	K	Q	I																																											

	290	300	310
UniRef90_M7NXB4	Q Q S V V W Q E A E N R L H A Q K A L L E F L L		
UniRef90_M1F6F7	P A S I V F D Q A E N R M H T I K A V L V A T L L G		
UniRef90_UPI0003722DD5	E R S R I V F D E A E N R M H T I K A I M Y A T L L S		
UniRef90_B4D106	S R S V I L D Q V T N G L A V R M A V L Y L C A G T N		
UniRef90_A0P6H5	S Q S V V W E A E N R L H V Q K A L L E Y L L L		
UniRef90_Q935Y4	S Q S R V W D Q A E N R L H A Q K A V L A L L L L G		
UniRef90_A3CW66	P Y A R Y F E Q A E N R G V P I R M A L L H E V M		
UniRef90_D3DCP4	P R S V V F D Q A E N R L H A Q K		
UniRef90_A6DBF0	H S N E I F D E A E N R L H A Q K G L M V W L M R Q		
UniRef90_O86132	K H S K V F D E A E N R M H T I K A V M A A T L L G		
UniRef90_UPI00038102BF	K Q S R V W D Q A E N R M H A Q K A L L A T L L L G		
UniRef90_UPI000382A2A5	P Q S V I L N Q V T F G I A V R M A V M G I V A G T N		
UniRef90_A0A022R3E7	P N S I V F P Q A E N R M H A Q N A I M L H A L L G		
UniRef90_A5UVX9	S Q S V V F E Q A E N R L H V Q K A L I L T L L L G		
UniRef90_W7CZJ2	K H S L V Y Q Q A E N R L H A Q K A L I L T M L L G		
UniRef90_Q65TN0	P M N I A F E Q A E N R M H T I K A V M V A S L		
UniRef90_B0UIR6	A Q S L I R E Q V E M G V A V R M A V L E A L A T H		
UniRef90_R5H6R9	H A N E I F D E A E N R L H A Q K A V M V R L M		
UniRef90_UPI00036ABA0F	P Q S A I W D E A E N R L H A Q K A L L V W L L A Q		
UniRef90_UPI00047812AD	N R S V I Q E Q V E M G V A V R M A V L E T L A E R		
UniRef90_I4C6S3	K H A Y F F Q Q A E N R G L F V R E T L L A L I L L G		
UniRef90_F2U457	K R A A Y F R Q M E Y G V H V R M A L L R L L L L E Q		
UniRef90_C5ZX14	S Q S K I F L E A E N R L H A Q K G V M V W L		
UniRef90_A7C4T9	P Q S V V W D Q A E N R L H S Q K A L L E F L L L S		
UniRef90_I1JJC4	P R A A Y F R Q A K N G L Y I R M A L L K V L L L		
UniRef90_UPI0004204CB3	P R S I V F D E A E N R L H A H K G I L A W C F G		
UniRef90_G2TC28	P Q S V V W D E A E N R L H A Q K G I L A W C M		
UniRef90_C7MN79	K Q S R V F D E A E N R M H T I K A V M Y A T L L S		
UniRef90_UPI0004734361	K K S R I F E Q A E N R M H T I Q K A L L A C L L		
UniRef90_A6THH6	A A S V V F D Q A E N R M H T I K A V M V A T L S K		
UniRef90_UPI000348BE9A	P R A T V T R Q V A N G V S V R M A V L L Y L L L G G		
UniRef90_S5TJ73	D R A A M L Q Q V E N G V S V R M A V L F T I L V G E		
UniRef90_X1SHN9	K H S I I L E Q V T N G V A V R M A I L Y L L L S G G		
UniRef90_U2TED8	P Q S V I W D E A E N R L H A Q K A L L A W L L A K N		
UniRef90_Q8FT39	P R T A V L Q Q V S N G V H V R M A V L F A L V		
UniRef90_UPI000372D3FD	P N S L V F E E A E N R L H A Q K A I M R W C L D K		
UniRef90_C9RB97	D R A A I I E E Q V T N G V A V R M A C L Y L L M R R G		
UniRef90_UPI0003632EC3	Q R S A I L N Q V E N G I A V R M A V L E K I V L		
UniRef90_W2EAN3	R H S K V F E Q A E N R M H T I K A V M A A T L L G		
UniRef90_V4JVG2	P W S V V W D E A E N R L H T A K A V L A S I V		
UniRef90_I4C853	D R S L V W D Q A E N R L H V Q K A I L E M L F		
UniRef90_D7UYU7	E H S V C W Q Q A E N R L H A Q K A L L Q L V L		
UniRef90_E6YG13	P N S V V F D E A E N R L H A Q K A I L S W C L Q D A F F L		
UniRef90_Q2JN73	S Q S R V W D Q A E N R L H V Q K A L I L Q V L G		
UniRef90_K0KUK9	Q R A A Y F R Q M R Y G L Y V R M A L L A M V I G V D L		
UniRef90_R4YQ36	A Q S V I L N Q V S Y G I A V R M A V M A M A M S G Q V		
UniRef90_I4AMP7	D H S I I L N Q V E N G V A I R M A V L L A L A E K		
UniRef90_V4TB12	A Q S V I T E Q V E M G V A V R M A V L E A I L		
UniRef90_UPI0003756A00	Q K A A Y F K Q V T F G I P L R M A L L S I L L G K		
UniRef90_W7KL08	P Q A K Y F Y Q A S L G V P I R M A L L Y T I L T G		
UniRef90_UPI000375C182	K H S V I T E Q V E M G V A V R E A V L K L L A G R R V		
UniRef90_R9TBR3	S Q S V V F D E A E N R L H A Q K A I M L T I I		
UniRef90_UPI0003F6305E	P R A A V L Q Q V S N G V H V R M A V L F S L L T		
UniRef90_A1SJJ1	P Q S V V W D E A E N R R H A Q K A V L S F L L		
UniRef90_UPI0003794487	E R S V I R E Q V E M G V A V R M A V L E T L V		
UniRef90_B2A2U7	E K S V I E E Q V T N G V A I R M A L L Y H L S G G E		
UniRef90_T1KED0	P R A A Y F R Q M R N G M F V R M A L L A M V F G H T V		
UniRef90_UPI000472173B	K R S R I F K Q M E N G V F A R M A I L K T I L Q N E K V V		
UniRef90_A0RQX6	A R S S I L D Q V E N G V A I R M A V L K T I		
UniRef90_C9YG50	P Q S V V W D E A E N R M H V Q K A L M E Y L L		
UniRef90_E3CYD2	E Q S V I L E Q V R S G V A V R M A L L Y L C A G G		
UniRef90_C8PK33	P R S C V L D Q V E N G E A M R M A I L H T I		
UniRef90_B1Y9R0	P H A R Y F R Q A A L G V P L R M A L L Y L I L		
UniRef90_M0GXS2	E Q S L V W E Q A E N R L H A Q K G I I V E L L E E		
UniRef90_R5BV82	P R A A Y F R Q V E N G K F V R M A L I S K L L		
UniRef90_UPI0003456DCC	E A S I V F S Q A E N R M H T I K A V L V A T L		
UniRef90_Q605F1	P R S V I L Q Q V T H G I A V R M A V M S M A M		
UniRef90_A0RUE9	P Q S A V W D E A E N R L H S Q K A L L L A L L		
UniRef90_V4X650	D R A L V W D Q A E N R M H A Q N A L L V E L L G P D		
UniRef90_R6MT17	P R A		

	1		10		20		30		40																																
UniRef90_K6UJG2		K	H	F	L	T	I	E	G	L	S	Q	Q	T	L	I	K	I	L	D	T	A	S	S	F	F	S	D	I	T	S	P	L	L	E						
UniRef90_U4WFS1		R	G	K	N	T	L	Q	I	D	E	W	S	R	E	E	M	L	E	L	H	Y	A	S	S	Q	F	K	S	M	Q	K	S	Q	P	L	A				
UniRef90_UPI0003653068		M	N	Q	N	S	L	Y	S	I	N	Q	F	S	E	E	E	I	F	L	D	M	A	E	Y	F	E	R	G	P	N	S	S	D	F	L	Q				
UniRef90_Q27464					N	V	I	T	S	I	N	K	D	F	K	R	E	D	I	E	F	I	L	R	E	A	E	K	M	S	R	S	S	S	A	L	R				
UniRef90_UPI0003C7E2A1		R	H	L	L	R	D	D	D	L	S	P	A	E	Q	A	E	V	L	A	L	A	A	R	M	K	A	E	P	H	R	P	L	E	G						
UniRef90_R6TKE2		K	H	L	L	K	L	S	D	W	S	G	E	E	I	T	A	A	L	D	L	A	A	D	R	L	K	H	G	E	P	H	R	P	L	D					
UniRef90_UPI00036DCAE0		M	T	T	R	H	F	L	T	L	L	D	L	T	P	D	E	L	I	N	K	L	I	H	R	A	V	E	L	K	G	G	E	I	Y	L					
UniRef90_X0S7E2						S	I	H	D	L	G	R	D	D	I	E	L	I	L	E	Q	A	A	A	M	E	A	I	K	R	S	K	E	L	S						
UniRef90_UPI000473591C	A	F	N	L	V	N	K	N	F	L	S	S	L	D	L	S	K	E	E	F	L	E	L	D	L	S	G	D	K	N	F	K	N	K	T	L	E				
UniRef90_H0KGH9		Q	L	S	V	K	H	L	L	G	I	R	D	L	T	R	Q	D	I	K	Y	L	L	D	T	A	T	Q	F	K	E	V	K	K	V	P	S				
UniRef90_G8TJ25					R	H	F	L	T	L	K	D	F	T	P	D	E	L	H	K	L	I	R	A	T	E	L	K	A	M	Q	K	A	E	P	L	K				
UniRef90_UPI000466CF4E					L	S	T	N	H	L	G	I	R	D	L	T	K	G	D	I	S	L	F	L	D	T	A	A	Q	F	K	E	V	K	K	V	P	S			
UniRef90_W0EUU6		N	L	K	G	R	H	F	L	T	L	K	D	Y	T	P	E	E	I	L	Y	L	V	D	L	K	E	K	K	K	K	G	I	A	I	D	H	Y			
UniRef90_R6XPC4										S	I	R	D	L	I	G	K	K	E	I	L	N	L	E	E	A	E	K	M	E	E	E	K	H	S	N	I	M	N		
UniRef90_UPI0003642848	S	F	N	L	R	N	R	S	F	L	T	L	M	D	F	T	P	K	E	I	Q	Y	M	L	D	L	A	R	K	R	L	K	A	G	E	Q	K	L	Q		
UniRef90_U2WA68					L	S	G	R	D	F	L	K	L	D	F	T	A	E	E	I	R	Y	L	L	D	L	A	K	R	L	K	A	E	K	K	A	A	R	F	Q	
UniRef90_UPI000417A63F					K	H	L	L	T	T	K	D	L	S	R	D	E	A	E	L	I	L	D	L	T	G	Q	M	R	E	V	P	K	L	P	T	L	R			
UniRef90_D1AWJ3		N	L	Q	K	G	H	F	L	K	L	D	F	S	T	E	E	V	R	Y	L	L	D	L	S	G	D	K	F	K	L	K	P	H	R	Y	L	E			
UniRef90_E6W7F8	S	Q	L	N	Q	R	H	F	L	R	L	L	D	F	T	P	A	E	I	D	Y	L	L	R	L	A	G	E	L	K	H	A	K	K	T	Q	Y	L	K		
UniRef90_R5G2B0					F	N	H	K	H	L	L	S	I	D	D	L	S	R	E	D	I	M	T	V	L	K	Q	A	A	T	F	E	E	V	K	K	V	P	A	L	R
UniRef90_D8GNJ2		N	L	R	N	R	N	F	L	T	L	M	D	F	T	T	K	E	I	N	F	M	L	D	L	A	K	D	L	K	A	G	T	E	Q	R	K	L	K		
UniRef90_E1RJQ8					R	H	F	L	Q	F	R	D	L	S	K	T	E	I	Q	Y	V	L	D	R	A	R	K	F	K	R	E	P	H	T	L	H					
UniRef90_F4GNT5		M	T	I	R	H	F	L	L	D	T	D	L	S	S	A	E	Q	A	I	L	L	D	A	A	D	R	L	K	A	A	R	R	P	G	P	L	A			
UniRef90_F8AZT8		M	A	T	R	H	F	L	T	L	L	D	L	S	P	E	E	L	H	Y	L	I	Q	R	A	I	T	I	K	N	G	P	T	Y	S	P	F	T			
UniRef90_W7QAV1		M	R	H	D	H	F	L	S	A	K	Q	L	S	R	G	D	I	E	T	V	L	D	H	A	A	D	I	A	A	D	P	F	A	D	R	H	S			
UniRef90_Q5V2T3					R	H	F	L	V	D	T	D	L	S	P	A	E	Q	A	E	V	L	D	L	A	A	A	M	K	A	A	P	H	K	P	L	A	G			
UniRef90_N1V785					R	S	F	L	R	D	D	L	S	P	A	E	Q	S	H	V	L	D	R	A	A	A	L	K	A	A	P	H	K	P	L	A	G				
UniRef90_UPI0003667A0C					A	K	R	D	F	L	G	F	S	Q	L	D	S	G	G	K	I	E	L	F	D	Y	S	L	F	M	K	K	R	M	E	S	P	L	R		
UniRef90_B4S9U7					R	H	F	L	A	D	D	L	S	P	A	E	Q	A	E	V	L	D	L	A	E	L	K	A	K	Q	P	R	R	P	L	E	G				
UniRef90_M1NY02	A	V	N	L	K	G	R	S	F	L	T	L	N	D	F	T	P	L	E	I	R	Y	L	L	D	L	G	H	N	L	K	A	K	R	R	A	P	A	L	Q	
UniRef90_R6TJH5											S	T	E	G	L	P	K	D	I	I	Y	Q	I	L	D	T	A	K	E	F	E	E	S	K	K	Y	P	Y	L	H	
UniRef90_E8UEU6		T	K	L	T	G	K	H	L	L	T	L	L	D	F	T	P	T	E	V	A	Q	L	L	E	E	A	K	A	L	K	A	G	E	P	H	T	L	L	A	
UniRef90_Q5WEX3					H	K	N	L	L	D	T	E	Q	F	S	K	E	D	L	D	F	L	V	R	Q	T	R	E	M	E	A	G	K	A	F	G	L	L	E		
UniRef90_S3UXH3					N	L	K	Q	R	S	F	L	T	L	K	D	Y	S	Q	E	E	I	R	Y	L	D	L	A	H	K	L	K	K	S	K	K	E	K	L	L	E
UniRef90_E7GBD2		S	A	L	Y	Q	K	S	F	L	K	L	D	F	T	P	A	Q	I	H	L	L	L	E	L	S	A	K	L	K	S	D	K	S	D	K	N	Q	K	L	A
UniRef90_A7MIU6	A	F	N	L	R	N	R	N	F	L	K	L	D	Y	T	P	K	E	I	Q	F	L	L	D	L	S	M	D	L	K	A	G	T	E	Q	K	R	L	S		
UniRef90_UPI0002E8D001					K	H	F	L	D	L	D	Q	I	D	S	S	I	L	R	E	I	L	E	Q	A	K	G	F	K	L	A	D	R	E	R	P	L	I	D		
UniRef90_K7ZCN2					N	F	K	G	K	D	I	V	S	L	D	Q	F	S	Q	K	D	I	K	L	F	D	E	V	P	K	M	R	N	A	R	P	S	K	I	E	
UniRef90_K2ABJ8					R	H	L	L	S	I	E	G	L	P	R	D	V	L	L	H	I	M	D	T	A	Q	G	F	R	E	V	K	K	V	P	L	L	R			
UniRef90_UPI000475439D					K	H	L	L	S	A	D	L	S	A	E	E	I	T	S	L	L	D	E	A	A	D	N	F	R	E	V	K	K	L	P	T	L	R			
UniRef90_UPI00037D6F35					K	L	R	H	F	L	T	T	E	H	L	P	R	S	L	E	D	I	L	D	T	A	S	F	R	A	L	K	K	V	P	L	L	R			
UniRef90_Q0VTM5	F	N	L	K	N	R	S	L	L	S	L	V	N	H	T	P	E	E	I	D	Y	L	V	S	L	A	E	D	L	K	A	G	T	E	R	P	Q	L	R		
UniRef90_R5EGT6											S	I	T	D	L	E	D	N	I	E	N	I	L	N	L	A	S	Y	F	K	D	G	K	F	D	D	P	L	K		
UniRef90_R9SHQ5					R	H	F	L	G	I	E	G	L	N	K	A	Q	L	R	A	I	L	L	A	K	A	E	T	F	F	D	D	K	N	R	P	E	L	E		
UniRef90_Q4FUA5		K	G	R	S	V	L	K	L	D	F	T	P	D	D	I	R	F	L	L	K	L	S	A	S	L	K	Q	A	K	Y	D	Q	R	L	K	S				
UniRef90_A6X864		M	Q	F	K	H	F	L	Q	F	N	D	F	C	H	D	E	Y	E	Y	L	F	E	R	A	K	E	F	K	Q	Y	R	Q	Y	W	D	L	S			
UniRef90_F9ZGL2					R	H	Y	L	D	V	D	D	L	T	A	D	E	V	L	L	G	L	A	A	E	Y	K	A	G	V	L	H	D	L	L	D	L	D			
UniRef90_R4W555	Q	L	Q	G	R	D	L	L	G	T	A	D	L	N	P	P	E	I	T	S	L	L	E	L	A	R	Q	L	K	S	K	E	L	V	I	Q	C				
UniRef90_UPI000348B2CF	A	N	P		R	H	F	L	D	L	D	G	V	A	P	V	D	L	R	S	I	L	L	E	S	S	K	R	K	Q	A	R	N	D	R	P	L	D			
UniRef90_A7HQA3					L	R	H	R	F	L	K	E	L	D	F	T	P	E	E	F	R	H	L	E	L	S	A	S	V	K	A	A	R	N	R	Q	R	L	R		
UniRef90_UPI00029B0B68					K	H	L	L	T	M	A	D	L	Q	P	A	E	I	E	I	L	L	S	T	A	E	G	F	K	N	G	E	Q	W	T	P	V	T			
UniRef90_A6CPR4					F	S	K	K	H	L	D	I	A	S	L	A	P	E	E	I	F	L	L	D	T	A	E	A	L	K	E	I	P	K	V	P	T	L	R		
UniRef90_F8ADJ0	G	F	N	L	K	G	R	S	L	L	S	L	K	D	Y	T	P	Q	E	I	R	Y	L	L	D	I	S	K	Q	V	K	A	E	R	K	H	Q	R	F	L	
UniRef90_I3VYM7					R	H	F	L	A	D	A	D	L	N	P	Q	E	Q	A	D	V	L	N	L	A	L	N	F	A	T	N	R	H	Q	P	F	A	G			
UniRef90_C7R3R4					M	A	T	R	H	F	L	T	L	M	D	L	S	S	E	E	L	K	Q	I	L	E	R	A	I	E	L	K	Q	G	I	T	D	L	F		
UniRef90_UPI0003603924	S	V	T	L	K	N	R	H	F	L	K	L	D	Y	S	A	D	E	I	H	Y	L	L	D	T	A	R	Q	L	K	H	D	K	H	R	P	R	L	T		
UniRef90_UPI00046EB82D					S	L	S	S	R	H	L	L	G	L	Q	G	V	P	K	E	D	I	Q	L	L	D	T	A	T	T	F	R	E	V	K	R	V	P	T	L	Q
UniRef90_I0ALP0					L	K	G	R	H	F	L	T	L	K	D	F	T	P	E	E	I	I	Y	L	L	D	L	A	A	E	L	K	E	K	K	K	E	G	L	R	
UniRef90_R5QY59	S	V	N	L	K	G	R	N	L	L	T	L																													

UniRef90_K6UJG2	G	R	T	V	M	N	L	F	F	E	N	S	T	R	T	R	T	T	F	E	A	A	K	Y	R	L	S	A	N	V	L	N	I	D	I	A	R	S					
UniRef90_U4WFS1	G	K	T	V	A	M	N	L	F	F	E	N	S	T	R	T	R	T	T	F	E	V	G	M	N	R	L	S	A	N	V	L	N	I	D	I	A	R	S				
UniRef90_UPI0003653068	G	R	V	A	A	T	L	F	F	E	N	S	T	R	T	R	T	T	T	F	E	V	G	M	N	R	L	S	A	N	V	L	N	I	D	I	A	R	S				
UniRef90_O27464	G	K	I	L	G	M	N	L	F	F	E	N	S	T	R	T	R	T	T	T	F	E	V	A	M	K	R	L	S	A	N	V	L	N	I	D	I	A	R	S			
UniRef90_UPI0003037E2A1	P	Q	T	V	A	V	M	L	F	D	K	S	T	R	T	R	V	S	F	E	A	V	G	I	T	D	L	S	A	N	V	L	N	I	D	I	A	R	S				
UniRef90_R6TKE2	G	K	T	L	G	M	I	F	E	K	S	T	R	T	R	T	R	V	S	F	E	A	V	G	I	T	D	L	S	A	N	V	L	N	I	D	I	A	R	S			
UniRef90_UPI000363DCAE0	N	Q	V	L	A	M	I	F	E	K	S	T	R	T	R	T	R	V	S	F	E	A	G	M	A	Q	F	L	S	A	N	V	L	N	I	D	I	A	R	S			
UniRef90_X0S7E2	T	K	I	M	A	C	L	F	F	E	A	S	T	R	T	R	T	R	L	S	F	E	S	A	M	L	R	L	S	A	N	V	L	N	I	D	I	A	R	S			
UniRef90_UPI000473591C	D	K	V	L	G	L	I	F	D	K	S	T	R	T	R	T	R	V	S	F	E	Q	V	A	M	S	R	L	S	A	N	V	L	N	I	D	I	A	R	S			
UniRef90_H0KGH9	G	K	N	I	A	L	I	F	E	F	E	N	S	T	R	T	R	T	R	L	S	F	E	V	A	A	E	K	R	L	S	A	N	V	L	N	I	D	I	A	R	S	
UniRef90_G8TJ25	D	V	T	I	V	N	L	F	F	E	N	S	T	R	T	R	T	R	I	L	S	F	E	L	I	G	M	T	R	L	S	A	N	V	L	N	I	D	I	A	R	S	
UniRef90_UPI000466CF4E	N	Q	T	L	A	M	I	F	E	K	S	T	R	T	R	T	R	T	R	I	L	S	F	E	L	I	G	M	T	R	L	S	A	N	V	L	N	I	D	I	A	R	S
UniRef90_W0EUU6	D	V	T	I	V	N	L	F	F	E	N	S	T	R	T	R	T	R	I	L	S	F	E	L	I	G	M	T	R	L	S	A	N	V	L	N	I	D	I	A	R	S	
UniRef90_R6XPC4	G	M	N	V	A	L	I	F	E	K	T	S	T	R	T	R	T	R	L	S	F	E	L	A	A	H	D	M	G	T	T	I	N	F	T	A	P	S	A	S	S		
UniRef90_A6UWP3	G	K	I	L	A	T	L	F	F	E	N	S	T	R	T	R	T	R	L	S	F	E	T	A	M	K	R	L	S	A	N	V	L	N	I	D	I	A	R	S	S		
UniRef90_UPI0003642848	G	K	K	I	V	I	L	F	E	K	D	S	T	R	T	R	T	R	L	S	F	E	V	A	G	A	Y	D	Q	G	A	L	L	T	F	L	S	P	T	E	G	S	S
UniRef90_U2WA68	G	K	N	I	A	L	I	F	E	K	D	S	T	R	T	R	T	R	L	S	F	E	V	A	A	R	D	L	L	S	A	N	V	L	N	I	D	I	A	R	S	S	
UniRef90_UPI000417A63F	G	R	T	V	V	N	L	F	F	E	D	S	T	R	T	R	T	T	T	S	F	E	T	A	A	K	R	L	S	A	N	V	L	N	I	D	I	A	R	S	S		
UniRef90_D1AWJ3	G	K	N	I	V	L	L</																																				

	90	100	110	120
UniRef90_K6UJG2	S	T	S	K
UniRef90_U4WFS1	L	T	G	R
UniRef90_UPI0003653068	T	S	K	G
UniRef90_O27464	A	V	K	G
UniRef90_UPI00037E2A1	A	G	R	G
UniRef90_R6TK2E	I	G	R	G
UniRef90_UPI00036DCAE0	L	G	R	G
UniRef90_X0S7E2	A	G	G	K
UniRef90_UPI000473591C	Q	I	G	R
UniRef90_H0KKGH9	I	G	H	K
UniRef90_G8TJ25	V	S	K	G
UniRef90_UPI000466CF4E	L	G	R	G
UniRef90_W0EUU6	V	S	K	G
UniRef90_R6XPC4	Q	I	G	K
UniRef90_A6UWP3	V	M	K	G
UniRef90_UPI0003642848	I	G	K	K
UniRef90_U2WA68	I	G	K	K
UniRef90_UPI000417A63F	V	N	K	G
UniRef90_D1AWJ3	M	G	K	K
UniRef90_E6W7F8	Q	I	G	H
UniRef90_R5G2B0	T	V	K	G
UniRef90_D8GNJ2	M	G	K	K
UniRef90_E1RJQ8	S	I	S	K
UniRef90_F4GNT5	Q	L	G	R
UniRef90_F8AZT8	L	G	R	G
UniRef90_W7QAV1	L	G	R	G
UniRef90_Q5V2T3	S	V	K	K
UniRef90_N1V785	Q	L	G	H
UniRef90_UPI0003667A0C	G	V	R	S
UniRef90_B4S9U7	L	G	T	R
UniRef90_M1NY02	M	G	K	G
UniRef90_R6TJH5	M	G	K	K
UniRef90_E8UEU6	T	S	K	G
UniRef90_Q5WEX3	I	G	R	G
UniRef90_S3UXH3	I	S	K	G
UniRef90_E7GBD2	I	S	G	K
UniRef90_A7MIU6	I	G	H	K
UniRef90_UPI0002E8D001	I	G	H	K
UniRef90_K7ZCN2	Q	L	S	R
UniRef90_K2ABJ8	S	I	V	K
UniRef90_UPI000475439D	T	S	K	G
UniRef90_UPI00037D6F35	V	Q	K	G
UniRef90_Q0VTM5	S	K	G	E
UniRef90_R5EGT6	I	G	H	K
UniRef90_R9SHQ5	Q	L	G	R
UniRef90_Q4X8U4	S	T	K	K
UniRef90_A6X86A	I	G	K	K
UniRef90_F9ZGL2	Q	L	G	R
UniRef90_R4W555	Q	L	G	H
UniRef90_UPI000348B2CF	Q	V	G	R
UniRef90_A7HQ43	Q	L	G	R
UniRef90_UPI00029B0B68	L	G	H	K
UniRef90_A6CPR4	V	S	K	G
UniRef90_F8ADJ0	V	E	K	G
UniRef90_I3VYM7	Q	L	G	A
UniRef90_C7R3R4	Q	M	G	R
UniRef90_UPI0003603924	L	G	R	G
UniRef90_UPI00046EB82D	Q	I	G	H
UniRef90_I0ALP0	V	N	K	G
UniRef90_R5QY59	Q	F	G	K
UniRef90_H3B664	L	G	V	N
UniRef90_A9A594	Q	L	S	R
UniRef90_K5XJ61	I	G	H	K
UniRef90_G5F411	M	G	H	K
UniRef90_G3IX51	L	G	R	G
UniRef90_K4IPD7	V	T	K	G
UniRef90_I9W3U7	V	L	K	G
UniRef90_M7N769	V	S	K	G
UniRef90_D1NXT9	Q	L	G	R
UniRef90_A1S263	A	L	G	K
UniRef90_A6Q1W6	Q	L	G	R
UniRef90_UPI00036C2BE8	L	T	K	G
UniRef90_UPI000360F401	Q	I	G	H
UniRef90_Q0EX01	T	K	G	E
UniRef90_V9HL43	Q	I	G	N
UniRef90_C4LID9	Q	I	G	K
UniRef90_A0QWS1	V	A	K	G
UniRef90_U2TID6	V	V	K	G
UniRef90_UPI0003672139	V	G	I	G
UniRef90_UPI00039FAEF9	S	I	K	K
UniRef90_B8ER56	Q	L	G	R
UniRef90_C9YYX2	Q	M	G	H
UniRef90_H0A6D3	V	N	K	G
UniRef90_B8FH29	Q	I	L	K
UniRef90_I0R321	L	G	K	K
UniRef90_D3W8I3	Q	L	G	R
UniRef90_J1JUV8	V	K	K	G
UniRef90_U5HGA6	S	V	T	K
UniRef90_A6TWW1	I	G	K	K
UniRef90_S0J1L8	I	G	K	K
UniRef90_V5PPU8	Q	L	G	R
UniRef90_C6C3Z7	Q	I	G	H

[illegible]

[illegible]

UniRef90_K6UJG2 G P E V R 210 L F N N M D E G V K D C D V I T A L R I Q N E R I D S P A L 240
UniRef90_U4WFS1 Y A T Q Y G G K F M M T E H D A N E A V D Q A D D V I Y T D V W T N S M G F E E E E Q R
UniRef90_UPI0003653068 C D E H H I P T E Y S E T E R L D P E I A Q T D I L Y M T R I Q R E F F D D E E D Y
UniRef90_O27464 D L R R A G V E V K E T E R L D D V I D E V D V L Y V T R I Q K E F F D P E E Y
UniRef90_UPI0003C7E2A1 E A A E T G G S V T I T D D P T A A L T G A D V V T D T W V S M G Q E E E S E R
UniRef90_R6TKE2 K W A S A N G D F T C T P D I K A V K D A D A V C T D V W A S M G Q E E D E E R
UniRef90_UPI00036DCAE0 A T N S D R V T I F R T P E E A V Q G S H L I V T D V W A S M G Q E E E E Q K
UniRef90_X0S7E2 E M K K A G L D V K E V D S V E E A M K D A D V V Y M T R I Q K E F P D I S E Y
UniRef90_UPI000473591C K A L Q I Y E D K K I V N N N P E S C V T G A N V I Y T D V W S M G E E N Q K E
UniRef90_H0KGH9 F A K Q S G A R I T V T D D I D K A V K G V D F V H T D V W V S M G E T W G E R
UniRef90_G8TJ25 F D I R V E Y N L R K A L E W C D V A N V L R I Q L E R Q N Q V L F
UniRef90_UPI000466CF4E K A H A D L V E V F R D P M E A A E N V D V V T D V W A S M G Q E E E Q R
UniRef90_W0EUU6 F G V T V N Y N L E E T L N W C D V A N V L R I Q L E R Q N Q V L F S S L
UniRef90_R6XPC4 Y A K E S G G S I T L T E D V E S G T K D V D V I Y T D V W V S M G E P W A E R
UniRef90_A6UWP3 D L D N K N K L Y N N N I K Y D I L T G M D V V Y M T R I Q K E F P D L S E Y
UniRef90_UPI0003642848 K C N E T G A K I T V T S D I A A G V K N A D V L Y T D V W V S M D E P W G A R
UniRef90_U2WA68 Q C Q S I G G S I S L S E S V E K G C R N A D V I A T D V W V S M G E P W Q K R
UniRef90_UPI000417A63F P V E L S Y D L D A S L R D A D A V M M L R V Q R E R M N D A F F
UniRef90_D1AWJ3 K C K E N G A K V R F T S V E E G C T D A D V I Y T D V W V S M D S W E E R
UniRef90_E6W7F8 Q C Q I T G G K I T L T E D I A A G V Q G A D F I Y T D V W V S M G E D W S D R
UniRef90_R5G2B0 A D E I T V T P H L D S V L P S L D V V Y M L R I Q M E R L E N A P F
UniRef90_D8GNJ2 K C K N T G A K I T I T D N I D S E G V K D A D V L Y T D V W V S M D E V W E K R
UniRef90_E1RJQ8 E M A E R G V E L I Q H D S L T D V I N E L D V L Y V T R I Q R E F P D S A S Y
UniRef90_F4GNT5 V G Q P A D G V L Q E F T D P I E A C R N A H L V T T D V W T S M G F E N E E R
UniRef90_F8AZT8 Q A N E I G G E I V V T H D P L L A A A G A D V L Y T D V W A S M G Q D D Q D E
UniRef90_W7QAV1 D L H E A G A G I R E H T E L D D I L P E L D V L Y V T R I Q E R F P D E S E Y
UniRef90_Q5V2T3 A A R A A A S V T I T T D A G E A L A G A D V V A T D T W V S M G Q E D E E K A
UniRef90_UPI0003667A0C R A D E I G G S V E L H T D A S S A V A D A D V L V T D T W V S M G K E D E A A
UniRef90_B4S9U7 A A R Q K G I R I E V L H D P K E A A A N A D V L Y T D V W T S M G R E T E E R
UniRef90_M1NY02 R A R R R T G A S V T V T S D L D E V A G A D V V I T D T W M G M E N D G K D R
UniRef90_R6TJH5 E T A R E T G A R I E I T S D M A A V K D A D V I Y G D I W A S M G E E A L I P
UniRef90_E8UEU6 G V J K V F T S M E E G L R D V D V I T M L R L Q N E R M S G A L L
UniRef90_Q5WUX3 E A A M Q T G A K L V T N D P E A A V A D A D V L Y T D V W M G Y E Q E Q T S R
UniRef90_S3UXH3 G L S G F P I S F E E S E D I K K V W E C D V A Y V T R I Q E E R F P D H K E F
UniRef90_E7GBD2 E A E K S G G K I E V L D N V E E A V Q D A D V I Y T D I W V S M G E D E A L Y
UniRef90_A7MIU6 E C Q A M G G R I M L T E D I A A G V K G A D F I Y T D V W V S M G E A K E K W
UniRef90_UPI0002E8D001 I A E L T G A T I L T E D V K Q G V E G C D F L Y T D V W V S M E Q A W D E R
UniRef90_K7ZCN2 W A N H K G G R V Y V L H D P S I A V F D A D A V V T D T W V S M G D L D S N R
UniRef90_K2ABJ8 N F L N L G I K L V E L E S V N D I P K N A D V W Y W T R I Q K E R F K S I D Y
UniRef90_UPI000475439D D L R D M G V R V C H I E E G L R G A D V V I A L R L Q N E R M A G G L L
UniRef90_UPI00037D6F35 P V E T S Y D L D A E I T D A D A V M M L R V Q Q E R M R G G F F
UniRef90_Q0VTM5 D A E A L G A T V F T D M A Q G L K D V D V V I M L R L Q K E R M D S A L L
UniRef90_R5EGT6 F A K A S G A R I T I T D D P E A A V K G V D F I H T D I W V S M K E V W D E R
UniRef90_R9SHQ5 I A K K T G S T I T I T P D L E L A L K D A D A V Y T D V W V S M G E E E E K R
UniRef90_Q4FUA5 G V I Q V Y E N M N E C V T D C D V I M G L R I Q N E R I G S P L L
UniRef90_A6X864 I A L Q T G A R I T I T E D P V I A A V K G C D F I Y T D V W V S M D S V W A E R
UniRef90_F9ZGL2 I G L N G T A H Y E I V T N P R E A V M N A D V L V T T D V W T S M G F E E E E R R
UniRef90_R4W555 R A A E L G G E P A I Y D P A D A V A D A D V I Y T D V W V S M G Q E D E E R
UniRef90_UPI000348B2CF R A E A I K S E I V V T Q D P V I A A E G A Q V V Y T D V W A S M G Q E E D Q R
UniRef90_A7HQ43 W A K S K G A S I I V T T D P F E A V K D A D C V N T D T W V S M G D S A A R R
UniRef90_UPI00029B0B68 A A A V S G A R I L T E D V A E G V A G A D F L Y T D V W G E P E M W D E R
UniRef90_A6CPR4 G Q Y L P V D E A V K T G D A V M L L R V Q H E R H E S T S T L T K
UniRef90_F8ADJ0 A R V C Y R L E E A L K D A D V V M A L R V Q K E R H G R A L F
UniRef90_I3VYM7 E I R E M A A T F T L T D V P E G L E G A H A I Y T D V W A S M G E A K A Q K
UniRef90_C7R3R4 V A A R T G G S V T I T T D V A Q A A G A D V I A T D T W V S M G D E E H I R
UniRef90_UPI0003603924 A A A G D R V K V H N P V I E A V R T A D W V S T D V W A S M G Q E Q Q V R
UniRef90_UPI00046EB82D R C R H I G A R I T I T E D S V A E G V K D V D F L Y T D V W V S M K E A W E R
UniRef90_I0ALP0 G V D V I Y N I D E A I Q E N D V L N V L R I Q L E R K A R E Y F
UniRef90_R5QY59 Y A K E S G S E I T T S D V K E G T K G A D V I Y T D V W V S M D E V W E K R
UniRef90_H3B664 T A Q Q Y S A K F F M T N D P L E A A S G S V L V T D T W V S M G Q E E K E R
UniRef90_A9A594 E A Q K S T I I E L T T D P L K A V K N A D V I V T D T Y S S I H N N D P K R
UniRef90_K5XJ61 A C R T F A A Q S T L T E D P R E A V R D V D F I H T D V W V S M V I E A W G E R
UniRef90_G5F411 I A A Q N H C E V V L T E D P H E G A K D C D V L Y T D I W V S M G E S Y D E R
UniRef90_G3IX51 E A A G E R V R F F D T P L I A A A Q N S D L V I T D V W A S M G Q E E E Q K
UniRef90_K4IPD7 G V E V E Y N L A A A L E W C E I A N M L R V Q H E R M E S Y F
UniRef90_I9W3U7 P S A Q P Y V K V F E D P M Q A A A G A H L V T T D V W T S M G F E A E N A R
UniRef90_M7N769 P C T I S F D L D A T L A T G V D A V M M L R V Q G E R M H D S F F P N T R E Y
UniRef90_D1NTX9 D A E R L A A D N G V T T D A K E A V R D A D C V F T D T W V S M G E E E Y R
UniRef90_A1S263 Q I A A A H G G K L V T S D I N A I E G H D A V Y T D T W I S M G D N T Y D I
UniRef90_A6Q1W6 D A M R F G A T I E L M H D P K A A V Q D A D V V T D T W I S M G Q E E E K R
UniRef90_UPI00036C2BE8 V N E Q H Q D R L F L H W K L N P A L E D A D F V M T L R L Q K E R M T A N F I
UniRef90_UPI000360F401 A A E D R A A E T G V T V K D A A E A L G A D V V A T D T W V S M G Q E A E K E
UniRef90_Q0EX01 G C E V Y H D F D A A L P G S D A V Y M T E R L T D S C A F P S I
UniRef90_V9HL43 K A K Q I G A Q I T I T D N P T E A I K G V D F V H T D I W V S M E Q A W R E R
UniRef90_C4LID9 R A Q G D T G A S V V T D D V D A V A G A D V V I T D T W V S M G F E N D G L
UniRef90_A0QWS1 P V I T V S Y D L D A E L P A A D A V L M L R V Q A E R M N G S F F
UniRef90_U2TID6 D P K S W Y G C K Q T A D L D S V I P E M D V V Y M L R V Q L E R M G A A I
UniRef90_UPI0003672139 W A K K K K A D I E L I L H D A K E A A D N A D C I M T D K W I S M G D K G N L K
UniRef90_UPI00039FAEF9 K S L G E F V D F N E I I D K V D V C M L L R V Q H E R H H D E K E K N E F S K
UniRef90_B8ER56 W A R R S G A K L E V T R D P F E A V R G A D A V V S D C W V M G D K D E Q Q R
UniRef90_C9YX2 H A E T S G A R I T L T E H I F E G V E G A D F V A T D V W V S M K E V W D E R
UniRef90_H0A6D3 P S E V I E R M G V E V F H D M K S G L R D A D V V M M L R L Q K E R M A G G L V
UniRef90_B8FH29 V K E S S A G S V K V S D P K E A A V G A D V L Y T D V W A S M G Q E E D E R
UniRef90_I0R321 R A R N Q G K I S S N D P V I E A V S G A H V V V T D T W V S M G M E D Q A R
UniRef90_D3W8I3 W A K T S G A A I D I G S D P E E A V K G C D C V V T D T W V M G D K D G Q R R
UniRef90_J1JU8 P S E I E N M S V T Y N D M Q G L K D V D V I M M L R L Q R E R M T S A F I
UniRef90_U5HGA6 A I K A G V P V M E T S L A S V I G S T D V L Y V T R T Q E R F A S V V I E Y
UniRef90_A6TWW1 E M R E T G G E I T L T D D V A E G V K D A D V I Y T D V W V S M G E D Q F E
UniRef90_S0J1L8 Y C E R T A A S V T L T E D V A E G T R D A D V I Y T D V W V S M E E V W E S R
UniRef90_V5PPU8 E S S R P F V R E F D D P R E A C K G A D L V S T D V W T S M G F E A E N E
UniRef90_C6C3Z7 A A A K T G G S I T I T E E V A A G V K D V D F I Y T D V W V S M K D A W A E R

[illegible]

	290	300	310
UniRef90_K6UJG2	P Q S V I L R Q V T N G I A V R M A V L A L T M Q G Q L		
UniRef90_U4WFS1	P H S V V F E E A E N R L H A Q K A L L A S V M		
UniRef90_UPI0003653068	K Y A Y Y F T Q A E N R L V Y R E A L L C R A L		
UniRef90_Q27464	P Q A M Y F R Q A F Y G V P V R M A L L R L L I S E		
UniRef90_UPI00037E2A1	P Q S V V W D E A E N R L H V Q K A V L V F		
UniRef90_R6TKE2	H A N E I F D E A E N R L H A Q K A I M A I C M G		
UniRef90_UPI00036DCAE0	P R S V V F D E A E N R L H A Q K A L L E F L L		
UniRef90_X0S7E2	P Q A K Y F D Q V Y S G V I R M A I L K M I L S		
UniRef90_UPI000473591C	N K S R I F E Q A E N R L H A Q Q A L L A C L F S		
UniRef90_H0KKGH9	P M N V A F E Q A E N R M H T T K A V L Y S S L		
UniRef90_G8TJ25	N Q S I I L Q Q V E N G V A V R M A L L Y L L S G G		
UniRef90_UPI000466CF4E	P D S V V W D E A E N R L H A Q K A L L E F L M A K N		
UniRef90_W0EUU6	G Q S I I L Q Q V E N G V A V R M A V L Y L L S N K N		
UniRef90_R6XPC4	E K S K I V F D E A E N R M H T T K A V M V A T L G G		
UniRef90_A6UWP3	P Q A K Y F K Q S F Y G V P V R M A I L K I L N E K N K		
UniRef90_UPI0003642848	K R S V V F D E A E N R M H T T K A I M V A T L G		
UniRef90_U2WA68	E H S V V F D E A E N R M H T T K A V V Y A T L G G		
UniRef90_UPI000417A63F	P R A T I T E Q V A N G V W V R M A V L Y L L L T		
UniRef90_D1AWJ3	R Q S K V F D E A E N R M H T T K A V M V A T L		
UniRef90_E6W7F8	T H S I V F D Q A E N R M H T T K A V M V A T L G Q		
UniRef90_R5G2B0	N K S V I V E Q V F S G V C V R M A L I Y L L L G G		
UniRef90_D8GNJ2	K H S V V F D E A E N R M H T T K A V M V A T L G		
UniRef90_E1RJQ8	P Y A K Y F R Q A E N G V P V R M A L L E E V I		
UniRef90_F4GNT5	P Q S V V W D E A E N R L H V Q K A L M E F L L		
UniRef90_F8AZT8	P R S V V F D Q A E N R L H A Q K A L L S F L L		
UniRef90_W7QAV1	P R S V V W Q E A G N R L H A Q K A L L E F L L		
UniRef90_Q5V2T3	T H A Q Y F Q Q A H N G V P V R M A L L D L M L G G D		
UniRef90_N1V785	P Q S V V W D E A E N R L H A Q K A L M A W L L		
UniRef90_UPI0003667A0C	P Q S V V W D E A E N R R H A Q K A I L L A F L A E Q		
UniRef90_B4S9U7	P R S I I L D E A E N R L H V Q K A L L V K L L N H E		
UniRef90_M1NY02	P Q S R V F D E A E N R L H A Q K A L M V W L F		
UniRef90_R6TJH5	K H S V V F D E A E N R M H S T K A V L V A T L G K		
UniRef90_E8UEU6	P Q A V I L D Q V T F G I A V R M A V M K I L G G		
UniRef90_Q5WEX3	S H S A I Y R Q A E N R L H V Q K A I L A A I L		
UniRef90_S3UXH3	P N A A Y F R Q A E N Y G V V S R M T L L C L S L G V K F		
UniRef90_E7GBD2	S Q S V V F D E A E N R M H T T K A V M V A T I G E N L		
UniRef90_A7MIU6	A H S I V F D Q A E N R M H T T K A V M V A T L G S E		
UniRef90_UPI0002E8D001	D Y S I V F D Q A E N R M H T T K A V M V A T L G		
UniRef90_K7ZCN2	P Q S I V F N E A E N R M Y S Q M A I L C W C L S E		
UniRef90_K2ABJ8	P R A V Y L K Q I R N G T Y V R M A L L T K I V L		
UniRef90_UPI000475439D	P Q S V I L P I Q Q V R F G I A V R M A V L S L V A N		
UniRef90_UPI00037D6F35	D Q T V V L N Q V T N G V H V R M A V L A T V L G E		
UniRef90_Q0VTM5	P R S V I L N Q V T F G I A V R M A V M S M A I S G		
UniRef90_R5EGT6	P A S I V F Q Q A G N R L H T T K A V L V S S L		
UniRef90_R9SHQ5	P Q S V I Y D Q A E N R L H A Q K A I M Y H Y L		
UniRef90_Q4FUA5	A Q S V I L K Q V N G I A I R M A I L S L A M E G		
UniRef90_A6X864	N A S I V F D Q A E N R M H T T K A I L V A T L G		
UniRef90_F9ZGL2	P Q S V V W D E A E N R L H T T Q K A L M E Y L L		
UniRef90_R4W555	D H A I V W D Q A E N R L H A Q K G L L V W L		
UniRef90_UPI000348B2CF	K R S R V W D Q A E N R M H A Q Q A L L A S L L G W E		
UniRef90_A7HQ43	P A S V V F D E A E N R L H A Q K G V L A W C F		
UniRef90_UPI00029B0B68	A H S I V F D Q A E N R L H T T K A V L V A T L G		
UniRef90_A6CPR4	K K S R I F R Q M E N G V F V R M A V L K R A L		
UniRef90_F8ADJ0	P R S V I L E Q V T N G V A V R M A		
UniRef90_I3VYM7	K Q S R V W D E A E N R K H T T K A V M I A T I		
UniRef90_C7R3R4	P Q S V V F D E A E N R L H A Q K A L L T W L V N		
UniRef90_UPI0003603924	E S S V V W D E A E N R L H A Q K A L M E F L		
UniRef90_UPI00046EB82D	A R S I V F D E A E N R M H T T K A V M V A T L		
UniRef90_I0ALP0	P Y Q I I L Q Q V T N G V A V R M A V L Y L L		
UniRef90_R5QY59	E Q S K V F D E A E N R M H T T K A V M D A T L		
UniRef90_H3B664	P R S L V F P E A E N R K W T I M A V M V S L L T		
UniRef90_A9A594	P Q S V V W D E A E N R L H S Q K A L L A S L I		
UniRef90_K5XJ61	P A S V V F D Q A E N R M H T T K A V L V A T L G G		
UniRef90_G5F411	P Q S R V F D E A E N R M H T T K A V M Y A T L		
UniRef90_G3IX51	A Q S V I F D E A E N R L H A Q K A L L E F L L C K		
UniRef90_K4IPD7	E H S I I L N Q V E N G V A I R M A V M Y L L A S K		
UniRef90_I9W3U7	P Q S V V W D E A E N R L H V Q K A L M E Y L L		
UniRef90_M7N769	P R S T V L A Q V A N G V A V R M A V L Y L L S G D		
UniRef90_D1NTX9	P Q S V V W D E A E N R L H A Q K A L L T W L L G Q		
UniRef90_A1S263	E G S L I L D Q A E N R M H A Q N A V L V T L L G		

	1	10	20	30	40
UniRef90_Q9CC11		R	H	F	L
UniRef90_Q19072	Q	L	K	G	
UniRef90_D7UVF0		K	R	S	L
UniRef90_UPI00047C97CA	S	F	N	L	R
UniRef90_F7NRH0		S	F	K	G
UniRef90_J0UXH5		G	K		
UniRef90_A5EVP6	S	L	V	G	C
UniRef90_UPI00037BD32E	A	S	S	L	K
UniRef90_B2GAF2	A	F	N	L	R
UniRef90_D0YSU9		K	H	S	L
UniRef90_C5QNI5		L	K	G	R
UniRef90_D3QAF4		K	H	S	L
UniRef90_G2MJQ3	M	R	Q	D	H
UniRef90_H2G025		Q	H	S	L
UniRef90_M1GDBG6		H	F	I	T
UniRef90_B2TQ29		K	K	D	L
UniRef90_Q7VP68	A	F	N	L	K
UniRef90_B5YA17		K	H	S	L
UniRef90_C3N688	M	R	L	R	H
UniRef90_D3QBD9		H	S	L	
UniRef90_R4LVY4		R	H	S	L
UniRef90_I4N3B9	A	N	N	E	S
UniRef90_A1AV91		H	S	L	
UniRef90_A6FMN9		N	F	L	D
UniRef90_D3R0J1	A	K	N	L	S
UniRef90_H3NSH0		R	H	S	L
UniRef90_G5JK30	N	L	R	N	
UniRef90_A0A011QF61		K	H	S	L
UniRef90_A2C427		N	F	L	S
UniRef90_F6PKA8	H	G	L	V	A
UniRef90_B3T369	N	E	F	Y	E
UniRef90_UPI0003B535F4		R	H	S	L
UniRef90_UPI00042644E3	S	L	S	G	R
UniRef90_K9VG54	W	T	R	R	
UniRef90_F2I7H0	A	K	N	F	R
UniRef90_UPI000379FEB9	L	R	G	R	D
UniRef90_A6GU60		K	H	S	L
UniRef90_A0A017T1R7	F	Q	R	R	H
UniRef90_E9UV96		R	H	S	L
UniRef90_Q8KDE2	K	K	R	D	F
UniRef90_G2LFB8		K	D	F	L
UniRef90_UPI0002486DFE		H	S	L	
UniRef90_E6WUW8		R	H	S	L
UniRef90_UPI0003B36084		R	H	S	L
UniRef90_D4LFE6		K	H	S	L
UniRef90_W6NLA7	L	K	G	K	S
UniRef90_J8IZ34		R	H	S	L
UniRef90_E8QYU1	W	T	R	K	
UniRef90_UPI0003665DF4		R	H	S	L
UniRef90_UPI000255E8B2	A	V	D	L	R
UniRef90_B8GF03		K	D	F	L
UniRef90_C7RF25	N	L	R	G	R
UniRef90_D5UES9		R	H	S	L
UniRef90_R9N6D3	N	L	K	G	R
UniRef90_D3L2K5	P	W	K	H	S
UniRef90_G8NQ50		K	L	K	H
UniRef90_UPI00030508C4	T	S	I	K	G
UniRef90_H3KC78	A	V	N	L	K
UniRef90_S3NGU7	M	A	L	R	H
UniRef90_UPI000369FF7A		K	N	F	I
UniRef90_D7E4C9	T	T	W	T	R
UniRef90_G9QMK0		K	N	L	V
UniRef90_UPI0004136CA3		R	H	S	L
UniRef90_B3TB95					
UniRef90_Q9K9V6	T	K	H	D	L
UniRef90_A0A059ITY7	F	R	A	R	H
UniRef90_U3AJS1	T	P	F	P	R
UniRef90_UPI000371CE16	M	A	V	R	H
UniRef90_UPI000374898A	L	K	N	K	D
UniRef90_F9ZQ81		R	H	S	L
UniRef90_A4GHT0		H	S	L	
UniRef90_L8MZ07	W	Q	R	H	S
UniRef90_Q84489		K	H	S	L
UniRef90_UPI00035DD569		R	H	S	L
UniRef90_A8ERG2		Q	H	S	L
UniRef90_UPI0002E5284A		K	N	L	S
UniRef90_U5QIT6					
UniRef90_C5C683		R	H	S	L
UniRef90_L8LL50	T	N	W	Y	R
UniRef90_R5PNX0	N	L	R	G	R
UniRef90_M1LRK1		R	H	S	L
UniRef90_UPI00026C78B2	S	S	S	K	K
UniRef90_X1XJ00		K	N	L	T
UniRef90_H0E1A8		D	L	R	S
UniRef90_M3VB22		K	H	S	L
UniRef90_K0TH75	T	Q	F	E	G
UniRef90_G7UQM6					
UniRef90_UPI000381579F	W	R	G	K	H
UniRef90_F4B3F0	S	E	L	S	V
UniRef90_G0ACV0	M	A	L	K	H
UniRef90_Q1D6L9		R	H	S	L
UniRef90_G2ITM7	S	F	P	H	R

UniRef90_Q9CC11	P	R	G	V	A	V	I	F	D	K	N	S	T	R	T	R	F	S	F	D	I	G	I	A	Q	L	G	G	H	A	V	V	L	T	D	G	L	S	T	Q			
UniRef90_O19072	G	K	S	L	V	G	M	I	F	F	E	K	A	S	T	R	T	R	H	L	S	T	F	E	M	A	Q	L	G	G	M	R	E	C	F	V	L	T	Q	D	I	H	S
UniRef90_D7UVF0	P	K	Y	A	V	N	M	I	F	F	E	K	A	S	T	R	T	R	Q	A	S	F	G	C	A	Q	L	G	G	M	R	E	I	S	F	T	D	P	A	G	S	S	
UniRef90_UPI00047C97CA	G	K	E	I	C	L	I	F	F	E	K	A	S	T	R	T	R	Q	A	S	F	G	C	A	Q	L	G	G	M	R	E	I	S	F	T	D	P	A	G	S	S		
UniRef90_F7NRH0	G	A	I	L	G	N	L	F	F	E	A	S	T	R	T	R	V	S	F	G	S	A	F	C	N	L	G	G	S	G	V	R	E	T	T	G	M	Q	T	S	S		
UniRef90_J0UXH5	G	A	V	L	G	N	L	F	F	E	A	S	T	R	T	R	V	S	F	G	S	A	F	C	N	L	G	G	S	G	V	R	E	T	T	G	M	Q	T	S	S		
UniRef90_A5EVP6	G	S	V	M	A	N	L	F	F	E	A	S	T	R	T	R	M	S	F	H	T	A	F	A	R	L	G	G	S	G	V	V	I	D	T	G	F	S	T	S	S		
UniRef90_UPI00037BD32E	D	R	F	I	S	N	M	I	F	F	E	N	S	T	R	T	R	M	S	F	E	M	A	K	R	L	G	G	A	E	V	L	N	F	S	A	G	S	S	S			
UniRef90_B2GAF2	G	K	N	I	A	L	I	F	F	E	K	S	T	R	T	R	C	S	F	E	T	V	A	K	R	D	Q	G	A	H	V	T	Y	L	G	P	S	A	G	S	S		
UniRef90_D0YSU9	G	K	T	V	V	N	L	F	F	E	D	S	T	R	T	R	I	S	F	E	T	V	A	A	K	R	L	G	A	D	V	I	N	F	S	A	K	G	S	S			
UniRef90_C5NI5	G	K	N	I	V	N	L	F	F	E	K	S	T	R	T	R	A	I	S	F	E	T	V	A	S	K	R	L	G	A	H	P	E	F	L	G	K	N	D	I	Q		
UniRef90_D3QAF4	P	K	S	V	A	V	V	F	F	E	K	E	S	T	R	T	R	A	A	F	Q	V	G	I	T	Q	L	G	G	N	P	V	I	V	D	A	Q	S	S	S			
UniRef90_G2MJQ3	G	A	V	L	A	L	S	F	F	E	A	S	T	R	T	R	K	M	S	F	D	A	A	M	K	R	L	G	G	R	V	V	I	D	M	G	G	V	D	S	S		
UniRef90_H2G025	G	K	S	V	V	T	L	F	F	E	K	P	S	L	R	T	R	V	T	F	D	I	G	V	N	K	L	G	G	H	A	V	Y	L	D	S	Q	N	E	T	Q		
UniRef90_M1G0G6	G	K	V	A	A	L	L	F	F	E	K	A	S	T	R	T	R	V	S	F	E	V	A	V	R	Q	L	G	G	T	T	I	F	L	T	P	N	S	R	D	L		
UniRef90_B2TQ29	G	K	S	L	G	M	I	F	F	E	K	S	T	R	T	R	V	S	F	E	V	A	G	M	Y	Q	L	G	G	Q	N	A	L	F	L	S	N	R	D	L			
UniRef90_Q7VP68	G	K	N	I	A	L	I	F	F	E	K	S	T	R	T	R	Q	A	S	F	E	V	A	A	Y	D	Q	G	G	A	Q	V	T	Y	I	D	P	N	S	Q			
UniRef90_B5YA17	G	K	I	I	G	T	L	F	F	E	P	S	T	R	T	R	K	N	S	F	E	L	A	A	K	L	L	S	A	D	V	V	S	V	S	V	A	T	S	S			
UniRef90_C3N688	G	K	V	V	S	L	A	F</																																			

	90	100	110	120																																			
UniRef90_Q9CC11	L	G	R	D	E	T	L	Q	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T			
UniRef90_O19072	L	G	R	D	E	T	L	Q	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T			
UniRef90_D7UVF0	I	T	K	G	V	N	E	S	L	Y	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T
UniRef90_UPI00047C97CA	I	G	H	K	E	S	F	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T			
UniRef90_F7NRH0	L	S	K	G	E	S	L	Y	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T		
UniRef90_J0UXH5	M	A	K	G	E	S	L	Y	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T		
UniRef90_A5EVP6	V	I	E	K	G	E	S	L	Y	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T	
UniRef90_UPI00037BD32E	V	I	E	K	G	E	S	L	Y	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T	
UniRef90_B2GAF2	H	I	G	H	K	E	S	V	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T		
UniRef90_D0YSU9	V	S	K	G	E	S	L	Y	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T		
UniRef90_C5QNI5	L	G	K	G	E	S	V	L	Y	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T	
UniRef90_D3QAF4	H	L	S	K	G	E	S	T	L	Y	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T
UniRef90_G2MJQ3	S	V	K	K	G	E	S	L	Y	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T	
UniRef90_H2G025	G	K	R	E	T	V	L	Y	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T		
UniRef90_M1GDDG6	I	G	R	E	E	P	L	Y	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T		
UniRef90_B2TQ29	Q	I	G	R	E	E	P	L	Y	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T	
UniRef90_Q7VP68	I	G	H	K	E	S	M	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T			
UniRef90_B5YA17	V	K	K	G	E	S	L	Y	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T		
UniRef90_C3N688	I	A	K	G	E	N	L	Y	K	D	T	A	R	V	L	S	G	Y	V	D	A	I	V	W	R	T	F	G	Q	H	R	L	D	A	M	A	T		
UniRef90_D3QBD9	V	S	K	G	E	S																																	

UniRef90_Q9CC11	A	T	V	P	V	N	A	L	S	D	E	F	H	P	C	Q	V	L	A	D	L	Q	T	I	A	E	R	K	G	S	L	N	G	L	R	L	S	Y	F
UniRef90_O19072	A	S	I	P	I	N	G	L	D	G	L	E	Y	H	P	I	Q	V	L	A	D	L	Q	T	I	A	E	R	K	G	S	L	N	G	L	R	L	S	W
UniRef90_D7UVF0	D	I	S	I	I	N	G	L	D	G	C	E	Y	H	P	S	Q	V	L	A	D	L	Q	T	I	A	E	R	K	G	S	L	N	G	L	R	L	S	I
UniRef90_UPI00047C97CA	A	G	V	P	V	Y	N	G	L	T	D	E	Y	H	P	T	Q	M	I	A	D	V	M	T	M	R	E	E	H	F	D	K	P	I	A	T	L	K	Y
UniRef90_F7NRH0	V	P	V	L	N	G	G	D	G	A	N	E	H	H	P	S	Q	A	L	L	D	L	F	T	I	I	E	K	E	Q	Q	R	L	I	D	G	M	H	
UniRef90_J0UXH5	I	P	V	V	N	G	G	D	G	A	N	E	H	H	P	S	Q	A	L	L	D	L	F	T	I	I	E	K	E	Q	Q	R	L	I	D	G	M	H	
UniRef90_A5EVP6	I	P	V	V	N	A	G	D	G	I	G	E	H	H	P	S	Q	A	L	L	D	L	F	T	I	I	E	K	E	Q	Q	R	L	I	D	G	M	H	
UniRef90_UPI00037BD32E	S	I	P	L	V	N	A	G	D	G	N	N	E	H	H	P	T	Q	A	L	L	D	L	F	T	I	M	K	H	F	F	E	G	E	L	K	G	V	
UniRef90_B2GAF2	G	V	P	V	W	N	G	L	T	D	E	D	H	H	P	T	Q	V	L	A	D	L	T	A	H	E	V	L	K	K	P	Y	Q	Q	L	K	F		
UniRef90_D0YSU9	D	V	P	V	N	A	G	D	G	N	H	H	H	P	T	Q	A	L	L	D	A	M	T	I	L	R	R	N	H	Y	W	D	L	K	G	A	K		
UniRef90_C5QNI5	S	G	V	P	V	W	N	G	L	T	D	E	W	H	P	T	Q	M	L	A	D	F	M	T	I	L	R	R	N	H	Y	W	D	L	K	G	A	K	
UniRef90_D3QAF4	A	T	V	P	V	N	A	L	T	D	G	F	H	H	P	C	Q	L	L	A	D	L	Q	T	I	V	K	E	E	N	F	G	S	L	A	G	R		
UniRef90_G2MJQ3	D	I	P	V	V	N	A	G	D	G	A	G	L	H	P	S	Q	T	L	L	D	L	F	T	I	R	E	N	A	G	L	D	D	L	T	V	G		
UniRef90_H2G025	T	V	P	V	I	N	S	L	L	C	N	L	Y	H	P	C	Q	A	L	A	D	F	L	T	I	S	E	H	F	S	A	D	L	S	K	V	H		
UniRef90_M1GDG6	S	I	P	I	I	N	A	L	T	D	H	G	H	H	P	C	Q	V	M	A	D	L	T	I	I	Y	E	Y	Q	T	K	N	D	I	A	N	I		
UniRef90_B2TQ29	S	S	I	P	I	I	N	G	L	T	D	A	E	H	H	P	C	Q	V	L	A	D	L	M	T	I	I	Y	E	Y	Q	T	K	N	D	I	A	N	
UniRef90_Q7VP68	A	G	V	P	V	F	N	G	L	T	D	E	F	H	H	P	T	Q	M	L	A	D	L	T	M	L	E	N	C	E	K	P	I	L	E	N	G	L	
UniRef90_B5YA17	K	A	S	I	I	N	A	G	D	G	Q	H	E	H	H	P	S	Q	A	L	L	D	L	F	T	I	Q	Q	Y	K	G	R	I	E	N	G	L	K	
UniRef90_C3N688	D	I	P	I	I	N	A	G	D	G	K	H	E	H	H	P	T	Q	A	L	L	D	L	F	T	I	Y	K	V	F	G	E	I	D	E	G	R		
UniRef90_D3QBD9	D	G	S	V	V	N	A	G	D	G	T	H	E	H																									

[illegible]

[illegible]

[illegible]

	290	300	310
UniRef90_Q9CC11	P T S A I W D E A E N R L H A Q K A L L V W L E R		
UniRef90_O19072	P Q S L V F P E A E N R K V F T I M A V M V S L L T		
UniRef90_D7UVF0	K Q S R I V E Q M T N G V F I R M A I L A M V S L L		
UniRef90_UPI00047C97CA	E A N V A F E Q A E N R L H T I K A L L V A T L G		
UniRef90_F7NRH0	P H L A I F R Q A D N G V L V R M A I F A L T L G	V D Q L V	
UniRef90_J0UXH5	P R L A I F R Q A D N G I P V R M A I F A L L G G	V E T L V	
UniRef90_A5EVP6	P Q L A I F R Q A D N G V T I R M A I F A M V L N		
UniRef90_UPI00037BD32E	H Q S R I F K Q M E N G V P I R M A V M E R A M K Q		
UniRef90_B2GAF2	E Q S V V F R E A E N R M H T I K A V M V A T L G		
UniRef90_D0YSU9	P Q S V V F E Q V G N G V N I R M S V L Y L L L		
UniRef90_C5NI05	E H S K V F D Q A E N R M H T I K A V M A A T L G		
UniRef90_D3QAF4	P Q S R V F Q Q A E N R L H A Q K A L L T R I L V T G S F		
UniRef90_G2MJQ3	E N A K Y F E Q A H N G V P V R M A L L D L L L R N E		
UniRef90_H2G025	P A S L I L D Q A E N R M H A Q N A V L L T L M		
UniRef90_M1GDG6	E K S L V W D Q A E N R L H M Q K A L L E W I F		
UniRef90_B2TQ29	H S G E I L F D E S E N R L H V Q K A V L I K F M		
UniRef90_Q7VP68	S A N I A F E Q A E N R M H T I K A V M V A S L		
UniRef90_B5YA17	D K S A I Q E Q V S N G V A V R M A I Y Y T I L M G G		
UniRef90_C3N688	T N A K Y F Y Q A S L A V P V R M A L F Y E V L G E		
UniRef90_D3QBD9	P R S R I V D Q A N G V L V R M A V L Y L L L S G		
UniRef90_R4LVY4	P Q S A V F D Q A E N R L H A Q K		
UniRef90_I4N3B9	S R L A I F K Q T D N G I A V R M A I F A T L M G V E		
UniRef90_A1AV91	N Q S I L Q Q V T N G I A V R M A V M Q L L V N K		
UniRef90_A6FMN9	P H S V I W D E A E N R L H A Q K A I M R W C L D R		
UniRef90_D3R0J1	D K S V V F E A E N R M H T I K A V V Y A T L		
UniRef90_H3NSH0	P N T V I W D E A E N R L H A Q K A L I E F A T L		
UniRef90_G5JK30	E Q S V V F R E A E N R A H T I K A V M V A T L G E		
UniRef90_A0A011QF61	P R S V V W D E A E N R M H T Q K A L L Y L V L G G D		
UniRef90_A2C427	K S S H V F D Q A E N R M L H V Q Q A L L A V Q L G G		
UniRef90_F6PKA8	P R A T Y F R Q A E N G M Y L R M A L L M V L G K		
UniRef90_B3T369	K Q A K Y F E Q A E Y G K Y T R A A L L G L I L N E N		
UniRef90_UPI0003B535F4	P Q S V I F D E A E N R L H A Q K S I L R W V F G Q		
UniRef90_UPI00042644E3	S R S K V F D E A E N R M H T I K A V M Y A T L S		
UniRef90_K9VG54	A Q S L I S Q Q V T S G V A V R M A L V Y L I G G G K V		
UniRef90_F2I7H0	E Q S Y V F E Q A E N R M H T I K A I V Y A T L S		
UniRef90_UPI000379FEB9	K N S I V F D Q A E N R L H S S K S I L I T I L F		
UniRef90_A6GU60	P K S V V W D E A E N R L H T I Q K A L M E F I L L		
UniRef90_A0A017T1R7	E Q S V I L D Q V E A G V A V R M A V L W M L		
UniRef90_E9UV96	P R S L V W D E A E N R R H A Q K A I L A F L W E R		
UniRef90_Q8KDE2	P Q S I I D E A E N R L H V Q K A L M V K L M N H D V		
UniRef90_G2LFB8	V Q S V I Q T Q V T H G V A V R M A L E W L S S Q		
UniRef90_UPI0002486DFE	P Q S V I L K Q V T N G I A V R M A A M E V L A G		
UniRef90_E6WUW8	P Q S W V L R Q V A N G V A V R M A V L E H L L G		
UniRef90_UPI0003B36084	P Q S A V F D E A E N R L H A Q K A I L K W C L		
UniRef90_D4LFE6	H A K E I F E E A E N R L H A Q K A V M V R L M		
UniRef90_W6NLA7	E N S I V F D E A E N R L H T I K A V M V A T L G		
UniRef90_J8IZ34	P R A K Y F Q Q V S N A V P V R M A I L D L I G G		
UniRef90_E8QYU1	P Q S A I L D Q V A H G L A V R M A V L Y L I S G K		
UniRef90_UPI0003665DF4	S Q S V V W D E A E N R M H G Q K A L M E F I L L		
UniRef90_UPI000255E8B2	A A S L V F D Q A E N R L H T I K A L M V A T L G		
UniRef90_B8GF03	K N A R Y F E Q S H N G V P V R M A M L K Q V I		
UniRef90_C7RF25	H K S K V F D E A E N R M H T I K A I M Y A T L		
UniRef90_D5UES9	P R A V I V E Q V A N G V A V R M A V L Y L L L		
UniRef90_R9N6D3	P Q S V V F D E A E N R M H T I K A V M A A T L		
UniRef90_D3L2K5	S R S L V L D Q V R S G V A V R M A L L F L Y L		
UniRef90_G8NQ50	S R A Y F R Q A K N A L Y I R M A L L N Y L L		
UniRef90_UPI00030508C4	N H S S V F Q Q A G N R L H V Q K A L L V E I L		
UniRef90_H3KC78	P A S I V F H Q A S N R L H T I K A A M V A S L S		
UniRef90_S3NGU7	K S S V V W D E A E N R L H A Q K A L V E F I L L N E N L		
UniRef90_UPI000369FF7A	K Q S M V W Y E A E N R L H A Q K A L L L Y L I		
UniRef90_D7E4C9	P E S L I Q S Q V T S G V A V R M A L L Y F I L		
UniRef90_G9QMK0	R R S R I F K Q M E N G V Y V R M A V L K E V L E G		
UniRef90_UPI0004136CA3	P Q S R V L E Q V G N G V A V R M A V I E A L L S		
UniRef90_B3TB95	P Q S V V W D E A E N R L H T I Q K A L L A S L L S		
UniRef90_Q9K9V6	P R S R I F K Q M K N G V A I R M A V L K R A L T D E		
UniRef90_A0A059ITY7	N R S V I Q E Q V E M G V A V R M A A M E L L A R N L		
UniRef90_U3AJS1	P A S L I Q D Q V E M G V A V R M A V L A S L		
UniRef90_UPI000371CE16	T S S V V W D E A E N R L H A Q K A L M L F I L L N Q		
UniRef90_UPI000374898A	E E A V I E D Q V T N G V A I R M A L L Y L L L G G		
UniRef90_F9ZQ81	P Q S V V L A Q V E H G L A V R M A V L S L L		

UniRef90_D0RQ65
UniRef90_F8K4Y6
UniRef90_UPI00037C8BCB
UniRef90_F2N572
UniRef90_R5L0X5
UniRef90_H0Z8K0
UniRef90_I81J1
UniRef90_UPI00029AB495
UniRef90_F2N9N6
UniRef90_Q7NGR7
UniRef90_E0I3I3
UniRef90_M9SBG4
UniRef90_C7R4C4
UniRef90_M1P155
UniRef90_UPI000469CBCE
UniRef90_E0XUH2
UniRef90_UPI000472392E
UniRef90_F8AZX7
UniRef90_D7WCJ0
UniRef90_Q03DS0
UniRef90_A0Z4T9
UniRef90_K1Z7I8
UniRef90_UPI000469B2D3
UniRef90_G4L3Y9
UniRef90_I4Z667
UniRef90_UPI00045E6D1C
UniRef90_C3PG15
UniRef90_E6WZH4
UniRef90_K0YRW3
UniRef90_D5DJR4
UniRef90_N0AX57
UniRef90_U2YW77
UniRef90_Q9IAU9
UniRef90_U7J7N2
UniRef90_B8J2A8
UniRef90_UPI0003B39EDE
UniRef90_UPI000375BA44
UniRef90_D5BRF9
UniRef90_F4LP98
UniRef90_UPI0003636401
UniRef90_D7G203
UniRef90_G7YP97
UniRef90_A3D1R6
UniRef90_F8ESC4
UniRef90_F0T026
UniRef90_K9YNQ9
UniRef90_A0A023D3U0
UniRef90_A7Z4G9
UniRef90_G7Q8C2
UniRef90_UPI000372A675
UniRef90_I1YJJ7
UniRef90_I9AJR5
UniRef90_Q1IQM8
UniRef90_H2CAY3
UniRef90_W0DC40
UniRef90_B4WKT4
UniRef90_B0DHH0
UniRef90_K0D9H2
UniRef90_UPI00028969E1
UniRef90_UPI000255F618
UniRef90_A0A023VNA7
UniRef90_E4SJW5
UniRef90_U5LAP8
UniRef90_M7WEG7
UniRef90_UPI0003614682
UniRef90_UPI000379282D
UniRef90_I0JXG0
UniRef90_W7QI18
UniRef90_D4LAQ3
UniRef90_M2X7W0
UniRef90_K6YXW1
UniRef90_W7QK17
UniRef90_L0A4V9
UniRef90_D8HZF1
UniRef90_E0XZA9
UniRef90_R6EVN2
UniRef90_UPI00037B8C9E
UniRef90_UPI00036F3021
UniRef90_C8WMG2
UniRef90_J7HZG5
UniRef90_UPI00037BA6BD
UniRef90_UPI0003B54E51
UniRef90_M4RZQ3
UniRef90_UPI0003B55C65
UniRef90_UPI0003B35409
UniRef90_R7LB49
UniRef90_D1BIG7
UniRef90_R1CZZ3
UniRef90_A0A022LQ27
UniRef90_UPI000289C231
UniRef90_T0M6U3
UniRef90_A0A031LN54

1 10 20 30 40

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

UniRef90_D0RQ65	D	K	L	L	L	M	V	F	F	E	K	P	S	T	R	T	R	L	I	S	F	D	L	A	M	R	Q	L	G	G	E	T	I	V	M	N	A	N	D	M	S	H					
UniRef90_F8K4Y6	G	R	T	V	V	N	L	F	F	E	K	D	S	T	R	T	R	T	R	L	I	S	F	E	A	A	A	R	Q	L	G	A	D	V	I	N	F	N	A	K	G	M	S				
UniRef90_UPI00037C8BCB	G	R	V	L	A	M	I	F	F	E	K	D	S	T	R	T	R	T	R	L	I	S	F	E	A	A	A	V	R	Q	L	G	A	D	Q	S	I	N	F	N	A	K	G	M	S		
UniRef90_F2N572	N	R	V	L	L	G	M	I	F	F	E	K	A	S	T	R	T	R	T	R	L	I	S	F	E	A	A	G	M	I	Q	L	G	G	G	Q	A	I	F	L	N	A	P	G	N	S	
UniRef90_R5L0X5	G	K	I	L	M	A	T	L	F	F	E	K	A	S	T	R	T	R	T	R	L	I	S	F	E	Q	T	A	M	I	R	L	G	G	S	I	I	G	F	D	N	T	Q	S			
UniRef90_H0Z8K0	G	K	S	L	A	M	I	F	F	E	K	A	S	T	R	T	R	T	R	L	I	S	F	E	A	E	G	F	A	L	L	G	G	S	H	P	S	F	L	T	T	Q	D	I	H		
UniRef90_I81J11	G	R	T	V	V	N	L	F	F	E	K	A	S	T	R	T	R	T	T	T	F	V	A	A	K	R	L	L	L	G	A	D	V	I	N	L	Q	I	A	S	A	S	L				
UniRef90_UPI00029AB495	G	H	V	M	S	Q	V	F	F	E	K	P	S	L	R	T	R	T	R	L	I	S	F	E	A	A	M	M	Q	L	G	A	D	G	N	S	I	F	L	N	A	K	S	A	G	L	S
UniRef90_F2N9N6	G	K	T	V	V	N	M	F	F	E	K	P	S	T	R	T	R	T	R	S	L	I	S	F	E	L	A	E	K	R	L	G	A	D	S	L	N	L	C	G	G	S	S	T	S		
UniRef90_Q7NGR7	G	K	V	L	G	L	V	F	L	K	A	S	T	R	T	R	T	R	V	S	L	I	S	F	E	V	A	M	Q	L	G	G	G	Q	V	I	D	L	S	P	S	S	N	T	S		
UniRef90_E0I3I3	G	K	F	V	A	N	M	F	F	E	K	P	S	T	R	T	R	T	R	F	S	L	I	S	F	E	M	A	E	K	R	L	G	A	E	V	M	N	F	A	A	A	S	S	S		
UniRef90_M9SBG4	G	K	T	L	A	N	M	F	F	E	K	P	S	T	R	T	R	T	R	F	S	L	I	S	F	E	D	V	A	I	T	E	L	G	A	H	A	L	Y	L	D	V	T	A	K	M	S
UniRef90_C7R4C4	G	R	T	V	V	N	L	F	F	E	K	A	S	T	R	T	R	T	R	I	S	L	I	S	F	E	T	A	M	Q	L	G	A	D	Q	V	I	N	F	S	A	K	G	S	S		
UniRef90_M1P155	G	K	T	V	G	L	I	F	F	E	K	P	S	T	R	T	R	T	R	V	S	L	I	S	F	E	S	A	M	Y	G	L	G	A	D	Q	V	I	F	L	S	G	R	D	T	S	
UniRef90_UPI000469CBCE	K	K	N	I	A	L	I	F	F	E	K	P	S	T	R	T	R	T	R	S	L	I	S	F	E	V	A	A	H	D	E	G	A	Q	V	T	Y	L	G	P	T	G	T	C	S		
UniRef90_E0XUH2	G	Q	G	V	A	L	I	F	F	E	K	P	S	G	R	T	R	N	S	M	E	M	A	V	V	L	L	L	G	G	H	P	M	Y	I	K	P	D	E	L	G	I	S	S			
UniRef90_UPI000472392E	N	K	N	I	C	L	L	F	F	E	K	P	S	T	R	T	R	T	R	A	F	T	T	A	A	L	D	L	G	A</																	

	90	100	110	120																																							
UniRef90_D0RQ65	L	G	K	G	E	S	V	Q	D	T	A	K	V	T	S	G	F	S	D	L	V	M	F	R	T	F	E	H	Q	T	L	I	D	L	S	K	L	L					
UniRef90_F8K4Y6	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_UPI00037C8BCB	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_F2N572	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_R5L0X5	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_H0Z8K0	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_I811J1	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_UPI00029AB495	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_F2N9N6	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_Q7N9R7	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_E0I3I3	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_M9SBG4	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_C7R4C4	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_M1P155	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_UPI000469CBCE	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_E0XU02	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_UPI000472392E	L	V	S	K	G	E	S	T	L	K	A	D	T	A	L	T	R	V	L	S	M	G	A	D	A	V	V	R	H	H	A	S	G	A	P	H	R	L	A	T	S	D	W
UniRef90_F8AZX7	L	V	S																																								

		130	140	150	160
UniRef90_D0RQ65	T	V	P	L	I
UniRef90_F8K4Y6	I	G	S	V	V
UniRef90_UPI00037C8BCB	A	S	V	P	V
UniRef90_F2N572	S	S	V	P	V
UniRef90_R5L0X5	D	C	P	V	I
UniRef90_H0Z8K0	A	T	I	P	I
UniRef90_I81J1	P	G	V	A	I
UniRef90_UPI00029AB495	G	V	A	V	I
UniRef90_F2N9N6	A	S	V	I	D
UniRef90_Q7NGR7	G	I	P	V	I
UniRef90_E0I3I3	V	P	L	I	N
UniRef90_M9SBG4	A	T	V	P	V
UniRef90_C7R4C4	D	V	P	V	I
UniRef90_M1P155	S	S	V	P	V
UniRef90_UPI000469CBCE	S	G	V	P	V
UniRef90_E0XUH2	M	G	I	P	V
UniRef90_UPI000472392E	S	G	V	P	V
UniRef90_F8AZX7	R	G	S	V	L
UniRef90_D7WCJ0	D	A	S	I	N
UniRef90_Q03DS0	S	G	V	P	V
UniRef90_A0Z4T9	A	S	V	P	V
UniRef90_K1Z7I8	S	G	V	P	V
UniRef90_UPI000469B2D3	S	V	P	V	I
UniRef90_G4L3Y9	S	G	V	P	V
UniRef90_I4Z667	R	V	P	V	I
UniRef90_UPI00045E6D1C	S	T	S	V	V
UniRef90_C3PG15	G	P	S	V	I
UniRef90_E6WZH4	Q	V	P	V	I
UniRef90_K0YRW3	M	D	P	V	L
UniRef90_D5DJR4	S	I	P	I	N
UniRef90_N0AX57	H	L	S	V	I
UniRef90_U2YW77	D	V	P	V	I
UniRef90_Q9IAU9	A	S	I	P	I
UniRef90_U7J7N2	A	G	V	P	V
UniRef90_B8J2A8	C	G	V	P	V
UniRef90_UPI0003B39EDE	N	I	P	I	N
UniRef90_UPI000375BA44	L	V	H	I	V
UniRef90_D5BRF9	A	V	I	N	A
UniRef90_F4LP98	G	V	P	V	I
UniRef90_UPI0003636401	I	P	T	I	N
UniRef90_D7G203	R	R	P	V	L
UniRef90_G7YP97	N	R	P	V	I
UniRef90_A3D1R6	V	P	V	I	N
UniRef90_F8ESC4	A	T	V	P	V
UniRef90_F0T026	S	A	S	V	I
UniRef90_K9YNQ9	G	V	S	I	F
UniRef90_A0A023D3U0	A	S	V	V	N
UniRef90_A7Z4G9	N	I	P	I	N
UniRef90_G7Q8C2	C	A	V	I	N
UniRef90_UPI000372A675	S	I	P	V	I
UniRef90_I1YJJ7	P	H	V	V	I
UniRef90_I9AJR5	S	L	S	L	I
UniRef90_Q1IQM8	V	P	V	I	N
UniRef90_H2CAY3	D	Q	V	P	I
UniRef90_W0DC40	S	I	P	V	I
UniRef90_B4WKT4	G	V	G	V	L
UniRef90_B0DHH0	V	P	V	I	N
UniRef90_K0D9H2	S	G	V	P	V
UniRef90_UPI00028969E1	N	V	A	V	I
UniRef90_UPI000255F618	T	S	S	V	V
UniRef90_A0A023VNA7	A	G	V	P	V
UniRef90_E4SJW5	S	G	V	P	V
UniRef90_U5LAP8	G	I	P	V	L
UniRef90_M7WEG7	V	P	V	I	N
UniRef90_UPI0003614682	P	C	H	V	V
UniRef90_UPI000379282D	G	V	P	V	I
UniRef90_I0JXG0	I	S	V	I	N
UniRef90_W7QI18	S	S	V	P	V
UniRef90_D4LAQ3	D	C	P	V	I
UniRef90_M2X7W0	S	K	V	P	V
UniRef90_K6YXW1	K	V	P	V	I
UniRef90_W7QK17	V	P	V	I	N
UniRef90_L0A4V9	K	P	T	I	N
UniRef90_D8HZF1	G	T	S	V	V
UniRef90_E0XZA9	V	P	V	I	N
UniRef90_R6EVN2	S	K	V	P	V
UniRef90_UPI00037B8C9E	G	T	S	V	V
UniRef90_UPI00036F3021	A	S	I	P	V
UniRef90_C8WVG2	S	G	V	P	V
UniRef90_J7HZG5	S	G	I	P	V
UniRef90_UPI00037BA6BD	K	V	P	V	I
UniRef90_UPI0003B54E51	S	T	A	V	I
UniRef90_M4RZQ3	T	V	P	V	I
UniRef90_UPI0003B55C65	C	P	V	L	N
UniRef90_UPI0003B35409	C	P	V	L	N
UniRef90_R7LB49	S	G	L	P	V
UniRef90_D1BIG7	A	G	V	P	V
UniRef90_R1CZZ3	S	K	V	P	V
UniRef90_A0A022LQ27	P	P	S	V	I
UniRef90_UPI000289C231	A	D	I	P	V
UniRef90_T0M6U3	A	T	V	P	V
UniRef90_A0A031LN54	S	K	P	V	I

	170	180	190	200
UniRef90_D0RQ65	G D G	N N V T N S A	I E A A V Q F	D F E L N I C V S K N Y L L P S K K V L D
UniRef90_F8K4Y6	G D V L H	S R V A R S N V	L A G T L G L	M A E D V T L V A P P T L L P S K K V L D
UniRef90_UPI00037C8BCB	G D	G N N V L A S I	V E A A G L G	H F A E D V V A A C P P Q F T L P P E E A I T
UniRef90_F2N572	G D G	N N M C N T Y I	E A A L Q F D	F R L K V A C P P E G Y E P D A E L L
UniRef90_R5L0X5	G D L K Y	G R T V H S I	L K A L S C Y K N	K F L I S T P S L A L P Q Y I K D
UniRef90_H0Z8K0	G D	G N N V L Q S F	M T S A A Q L G	M H F L R I A T P R G F E P D L R I T K
UniRef90_I811J1	G D V L H	S R V A R S D I	H G L R T L G C	T D I R V I A P P P L V P V G I F E A M
UniRef90_UPI00029AB495	G D	G N N V A S S L	I A A A L C G	M H L T V C A P P D G Y R L E K E F L G
UniRef90_F2N9N6	G D I G H	S R V C G S L I	P A L K I M G	A E V T V V G P P G T L M P A C P D V L
UniRef90_Q7NGR7	G D G	N N V A H S L L	G C A K V G	A M S I A V A T P E G F T P D P A V I S A
UniRef90_E0I3I3	G D I L H	S R V A R S N L	W A L R K L G	A D V K F C A P A E M Q A P E L D A
UniRef90_M9SBG4	G D G N N V	C N S L L Y A S	A I M G I G M	V A C C P A T R M P N A E I M L G A A
UniRef90_C7R4C4	G D V L H	S R V A R A N V	A L A T L G	A H V I L V A P P T L V P V G V H T W
UniRef90_M1P155	G D G	N N M A N S W I	Q A A S R I	G F E L L A C P P E Y D P D P E I M A A
UniRef90_UPI000469CBCE	G D G R N N	V A N A L M I	G A S I	M G M T F H L V C P K E L D P A Q D L D
UniRef90_E0XUH2	G D A	N N V W R S L	A L G C S M L	G I E T S V A S P A G H K P T E V D L D
UniRef90_UPI000472392E	G D G R N N	M A N S L L	V T G A I L G	A D I T I C A P E S L F P A A E V Q E
UniRef90_F8AZX7	G D V L H	S R V A R S N V	W L S T L G	A A V T V V A P P T L V P V G V I E
UniRef90_D7WCJ0	G D C L H	S R V V R S N V	D L L S A L G	A T V V L V A P P L L M P A G V I E T W P
UniRef90_Q03DS0	F V G D G	Q D N V S N A L	M L G A A V M	G M E Y H V V T P K E L E P T K D V L D
UniRef90_A0Z4T9	G D G N N M	C H S Y I N A	A R L L D F E	L V V A C P P D G Y Q P A S Q L V S
UniRef90_K1Z7I8	G D T R N N	M A C A W M Y	G C A K L G M	H F V A Y G P K E L H P D P K I D K V N
UniRef90_UPI000469B2D3	G D G	N N V F A S F A	H A A K Q F	D F E L V F T G P P P
UniRef90_G4L3Y9	G D G Q D N	V A N A L M I	G A A L M G	M N Y H L V S P K E L Y P S Q D L V D
UniRef90_I4Z667	G D G N	N M A N T W L	Q A A E I L G	F T V H V S T P S G Y E V D P V V A G I R
UniRef90_UPI00045E6D1C	G D V L H	S R V A R S N V	Q M L H T L T	G A R V T L V A P P T L V P V G A E A W
UniRef90_C3PG15	G D C L H	S R V V R S N V	D L L S T L G	A E V T L V A P P T L L P F G V D T W
UniRef90_E6WZH4	G D I V N S	R V A S D I	R L F R R M G	I E V L V A P K P F M P P V S D L P Q
UniRef90_K0YRW3	G D V L H	S R V A R S N V	D L L T L G	A H V T L V A P P T L L P V G V E N W
UniRef90_D5DJR4	G D L R H	S R V A R S N A	E M L T K L G	A T V Y F A G P E
UniRef90_N0AX57	G D I L H	S R V A R S N A	D A L V R L G	A K
UniRef90_U2YXW7	G D G N N V	G A S F L V	G A M V G L D	V T A A T P E G Y E F A A D A V E
UniRef90_Q9IAU9	G D G	N N V L N S I	M M S A A K L G	M H L H V A T P K P D Y R I I K I A E Q
UniRef90_U7J7N2	G D G R N N	M G R S L L	L G A K L G	M D V R I G A P E G L Q P D S E L V G
UniRef90_B8J2A8	G D I A H	S R V A R S N I	H L L T S L G	V R I R V C A P R T L L P A G V D H W
UniRef90_UPI0003B39EDE	G D I V N S	R V A K S H I	W M S K I L G	N W K L S F Y G P K T M L
UniRef90_UPI000375BA44	G N I K H	S R V A N S F I	Q Y M C S A L G	V G E L V F I C P E L L W Q P
UniRef90_D5BRF9	G D I A N S	R V A R S N I	H L G T L G	A E M R L V C P S T L L P
UniRef90_F4LP98	G D G R N N	V A R S L M L I	C A K L G	I H F T I V S P E A L F P D R E I Q T
UniRef90_UPI0003636401	G D G D N N	M S C S	W I W A A K Y L	G F E L V V A P E A C L P T E W M N
UniRef90_D7G203	G D L K H	G R T V H S I	A K K L A R F G	C V L R Y V S P A S L Q M P R Y I Q D E
UniRef90_G7YP97	G D L A N G	R T V H S I	A R L L C L Y N	V R L R Y V T H C P E Q L R M P E E V K Q
UniRef90_A3D1R6	G D L K F G	R T V H S I	L S R L C M Y K N I	S F T L I S P A E I A M P D Y V I S
UniRef90_F8ESC4	G D G N N V	L H	S I E A S S M M	G F S V I A A C P A G Y E P N P D L V A
UniRef90_F0T026	G D I L H	S R V A R S N A I	G L K K L G	A E V V L V G P P T L L P P
UniRef90_K9YNQ9	G D I I H	S R V A R S N I N	S L T A G	A L H L A A P P T L L P N L F A D T
UniRef90_A0A023D3U0	G D V G H	S R V A R S N I	H L L T A M G S	S H V R V V G P P T L V P E A I A R L
UniRef90_A7Z4G9	G D I K H	S R V A R S N A E	V L T R L G	A R V L F S G P P Q
UniRef90_G7Q8C2	G D V A H	S R V A R S N C R	L P M L G	A R V R L C A P R T L L P K D A A A L
UniRef90_UPI000372A675	G D G	N N V V H S W L	H L A S K S I N	F V C I C P E G F T P D E K I V K L
UniRef90_I1YJJ7	G D I L H	S R V A R S Q I	Q A L A T L G	V G E I R V I G P Q T L L P R
UniRef90_I9AJR5	G D L A H	S R V A R S N M E	L T Q L G	A K V Y F G P P R E W Y G A D F A Q Y G
UniRef90_Q1IQM8	G E L	D R G R T V R S	L A Y L L A K F	D R V K I Y F V S P P E L Q M K P D I L E
UniRef90_H2CAY3	G	E P N N V F N S	L A L G T L H	S G S S L C V A S P E G Y E I R P G I Q E
UniRef90_W0DC40	G D G N N L	C N T W L V A A		

	210	220	230	240
UniRef90_D0RQ65	W A E N Q G G K I N L F H D A K K G V A G A D C I M S D K W V S M Q G D T K K K			
UniRef90_F8K4Y6	P C E			
UniRef90_UPI00037C8BCB	R A S G R A R V S V D P R E A V E G A D I V M M L R V Q N E R M N A A F F K			
UniRef90_F2N572	A R A G E R V I Q V L A R D P R E A A A G A N L I S T D V W A S M G Q E D E V A			
UniRef90_R5L0X5	V L H A R G S C E F K E A T D P R E A A G E C D M L Y M T R I Q Q E R F A S R E Y			
UniRef90_H0Z8K0	I S E Q N S K E Y G L T T D P L E A A D S A N V L V T D T W V S M G Q E E K E R			
UniRef90_I81J11	G V R V F H E L E R G L E G V D V V I L L R L Q K E R M L G A F L			
UniRef90_UPI00029AB495	A K K F S T A Q V I Q T D D F K T A L Q D A I V Y T D V W T S M G Q E A E A F			
UniRef90_F2N9N6	G V D H V N L N L D D V L P D L D V V Y M L R I Q K E R L E G A P F			
UniRef90_Q7NGR7	R A S R T G A E V I Q I S R M D P F E A A R G A H I L Y T D V W T S M G Q E A Q H R			
UniRef90_E0I3I3	P Y I S M D E A V K A D V V M M L R V Q L E R H A T G M M K S A			
UniRef90_M9SBG4	N I A A E N G S K I V S H D P Q E A C V G A D V L Y T D T W I S M G D D T P K A			
UniRef90_C7R4C4	P C S V S Y D F T S T L T Q W Q P A V M M L R V Q R E R M S A A G G F F P S P			
UniRef90_M1P155	A Q K E A V K P I T V T R S P E A V A Q A D V I N T D V W A S M G Q E E E E R			
UniRef90_UPI000469CBCE	K C K K T G A K I M V T D D D K G V L G S D V I Y T D V W V S M D D W K K R			
UniRef90_E0XUH2	R V L S C G G S V Q V T D D P R E A V E G A D V V Y T D V W T S M G Q E D E E R			
UniRef90_UPI000472392E	M A R K F A E K S G I T D N V D E A K G A D V V Y T D V W V S M G E A Q E R			
UniRef90_F8AZX7	K V C Y D F D A E L E G A D G V A P D V V M M L R V Q A E R M L G G F F P S			
UniRef90_D7WCJ0	C A N K T G G K I V V E N D V K A G V K N M D V I Y T D V W V S M D E M W Q K R			
UniRef90_Q03DS0	E N S D R V H I V H D P R E A V Q N A D L L V T D V W A S M G Q E D E Q Q			
UniRef90_A0Z4T9	A V A K E T G A T I T I S D D V S C V A G A D V I Y T D V W V S M G E E A L M E			
UniRef90_K1Z7I8	P E A L I Q G L Y T I E R D N A A V A G A D L V I Y T D T W V S M H D P Q S A R			
UniRef90_G4L3Y9	I A K K T G A T I K I T D D D E K G V K D S D V I Y A D V W V S M D E V W E E R			
UniRef90_I4Z667	N Q D C Y R V L F D P M Q A C A G A D L V T T D V W T S M G F E A E N R			
UniRef90_UPI00045E6D1C	P C T T S Y H L D E V L I T D Q Q P A I M M L R V Q R E R M G D G P G G R G V			
UniRef90_C3PG15	P V R V S H D F D A E V P E A D V V M M L R V Q A E R M N G G F F			
UniRef90_E6WZH4	F E R L E D M D E V D V I S L R A Q L E R K K P I F F D D Y			
UniRef90_K0YRW3	T C D I E Y D F D K A L A T D P A D A V M M L R V Q R E R M S A A G G F F P S P			
UniRef90_D5DJR4	E W K D E E N R H G T Y L D D E A I E T V D V V M L L R I Q F E R H E E N T S			
UniRef90_N0AX57	P T G C T I E P V D E A I T T S D V V M L L R I Q H E R H H E K E E G N L			
UniRef90_U2YW57	R A K G Y D G D V T V A G H D P A A V E G A D V V Y T D V W V S M G E E E Q R E			
UniRef90_Q9IAU9	Y S K E Y G T K L L L T T D D P L E A A S G A N V L V T D T W I S M E Q E K I E R			
UniRef90_U7J7N2	Q C R K W A G E S G V T A S A E A V R D V D F V H T D V W V S M V D S W G E R			
UniRef90_B8J2A8	P V E V Y T D L E R A V R D V D A V M C L R L Q L E R R Q Q A P D L			
UniRef90_UPI0003B39EDE	P D R R W L D G I K I E K S L E D A L S G K D F I M L L R I Q L E R E S G S N I			
UniRef90_UPI000375BA44	A V K V H F G T V T D N L R E G L A E A D V V M C L R V Q R E R T D H L D L			
UniRef90_D5BRF9	A A V D Q M G V S V F T D L E T G I R D A D I V M M L R L Q R T E R M A G T E T			
UniRef90_F4LP98	I C A P F S G S K I T I S A D I S L V K D A D S I Y T D V W V S M G E E K E S R			
UniRef90_UPI0003636401	L V D A P N V S L T S D P V A A M Q D A D I I N T D V W L S M G Q E G Q E K			
UniRef90_D7G203	V E S A G E S V Q T E V E D I G V V L E E A D V I Y T R V V Q K E R F A S R E F			
UniRef90_G7YP97	Y V A A R G I P Q E E M S S I E E A L P D T D V L Y M T R V Q A E R I Q S T D S			
UniRef90_A3D1R6	D I E N A G H S I K I T D Q L E H L D K A D I L Y L T R I Q E E R F P S Q E E			
UniRef90_F8ESC4	A A R K N G G N V E V T H D P F A A V K G A D V I Y T D T W V S M G Q A H A E K			
UniRef90_F0T026	E M S Y L G V Q T S Y D L E S V L E G A D A V V M A L R L Q L E R Q Q S G L F			
UniRef90_K9YNQ9	V K S E H K D R L F V H W L E P A L E N A D A V M T L R L R L Q K E R M A D Y L			
UniRef90_A0A023D3U0	G A V E V F H T M E E G L R D V D A V M A L R L R L Q R E R M G A G L V			
UniRef90_A7Z4G9	W Q D E K N A F G T C V Q T D E A I Q A S D V V M L R I Q N E R H Q T E A D Q			
UniRef90_G7Q8C2	D A E V F H D L D A A L V G A D A V M C L R L R L Q L E R Q E A G L L			
UniRef90_UPI000372A675	A K N G G C S E I E I S H E P Y S S V Q N A D I Y T D V W A S M G Q E A E A R			
UniRef90_I1YJ77	D C Q T M G V H V F H D L A S G L E G V D V V I M L R L Q L E R M Q G A L L			
UniRef90_I9AJR5	E Y R E M D Q L V T E M D V V M M L R V Q H E R L T Q E N Q A F D A			
UniRef90_Q1IQM8	Y L D R E M V K Y E I E A D I N K V V G E V D V V Y Q T R I R P D R V S S V			
UniRef90_H2CAY3	L L R K R N K I D V Y R D P V E A V R Q A D V I Y T D V W I S M G Q E G E A R			
UniRef90_W0DC40	L C K I T G G S I Y L T P N P V E A V K D A D V I Y T D V W V S M N Q D D E E K			
UniRef90_B4WKT4	H N G T V I E R Q V F			

UniRef90_D0RQ65
UniRef90_F8K4Y6
UniRef90_UPI00037C8BCB
UniRef90_F2N572
UniRef90_R5L0X5
UniRef90_H0Z8K0
UniRef90_I811J1
UniRef90_UPI00029AB495
UniRef90_F2N9N6
UniRef90_Q7NGR7
UniRef90_E0I3I3
UniRef90_M9SBG4
UniRef90_C7R4C4
UniRef90_M1P155
UniRef90_UPI000469CBCE
UniRef90_E0XUH2
UniRef90_UPI000472392E
UniRef90_F8AZX7
UniRef90_D7WCJ0
UniRef90_Q03DS0
UniRef90_A0Z4T9
UniRef90_K1Z7I8
UniRef90_UPI000469B2D3
UniRef90_G4L3Y9
UniRef90_I4Z667
UniRef90_UPI00045E6D1C
UniRef90_C3PG15
UniRef90_E6WZH4
UniRef90_K0YRW3
UniRef90_D5DJR4
UniRef90_N0AX57
UniRef90_U2YXW7
UniRef90_Q9IAU9
UniRef90_U7J7N2
UniRef90_B8J2A8
UniRef90_UPI0003B39EDE
UniRef90_UPI000375BA44
UniRef90_D5BRF9
UniRef90_F4LP98
UniRef90_UPI0003636401
UniRef90_D7G203
UniRef90_G7YP97
UniRef90_A3D1R6
UniRef90_F8ESC4
UniRef90_F0T026
UniRef90_K9YNNQ9
UniRef90_A0A023D3U0
UniRef90_A7Z4G9
UniRef90_G7Q8C2
UniRef90_UPI000372A675
UniRef90_I1YJ77
UniRef90_I9AJR5
UniRef90_Q1IQM8
UniRef90_H2CAY3
UniRef90_W0DC40
UniRef90_B4WKT4
UniRef90_B0DHH0
UniRef90_K0D9H2
UniRef90_UPI00028969E1
UniRef90_UPI000255F618
UniRef90_A0A023WNA7
UniRef90_E4SJW5
UniRef90_U5LAP8
UniRef90_M7WEG7
UniRef90_UPI0003614682
UniRef90_UPI000379282D
UniRef90_I0JXG0
UniRef90_W7QI8
UniRef90_D4LAQ3
UniRef90_M2X7W0
UniRef90_K6YXW1
UniRef90_W7QK17
UniRef90_L0A4V9
UniRef90_D8HZF1
UniRef90_E0XZA9
UniRef90_R6EVN2
UniRef90_UPI00037B8C9E
UniRef90_UPI00036F3021
UniRef90_C8WMG2
UniRef90_J7HZG5
UniRef90_UPI00037BA6BD
UniRef90_UPI0003B54E51
UniRef90_M4RZQ3
UniRef90_UPI0003B55C65
UniRef90_UPI0003B35409
UniRef90_R7LB49
UniRef90_D1BI67
UniRef90_R1CZ33
UniRef90_A0A022LQ27
UniRef90_UPI000289C231
UniRef90_T0M6U3
UniRef90_A0A031LN54

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

		290		300	310																										
UniRef90_D0RQ65	K	Q	S	L	V	W	Q	A	E	N	R	L	H	G	Q	K	A	I	I	D	W	C	L	S							
UniRef90_F8K4Y6	G	R	C	T	A	V	E	Q	V	A	N	G	V	S	V	R	M	A	V	L	Y	L	L	L	G	G	N				
UniRef90_UPI00037C8BCB	A	H	S	L	I	W	A	E	A	E	N	R	L	H	A	Q	K	A	I	L	R	W	C	F	G	Q					
UniRef90_F2N572	P	R	S	V	A	W	E	Q	A	E	N	R	L	H	V	Q	K	A	L	L	E	F	L	V							
UniRef90_R5L0X5	P	R	A	A	Y	F	R	Q	A	K	C	G	M	Y	V	R	M	A	L	I	L	M	T	L	N						
UniRef90_H0Z8K0	Q	S	L	V	F	Q	E	A	E	N	R	K	W	T	I	M	A	V	M	V	S	L	L	T							
UniRef90_I81J1	E	R	S	L	I	L	N	Q	V	T	Y	G	I	A	V	R	M	A	V	M	A	E	I	L	G	E					
UniRef90_UPI00029AB495	P	Q	S	I	V	F	Q	Q	A	Q	N	R	M	H	L	A	K	G	L	L	L	W	V	L	E	K					
UniRef90_F2N9N6	P	R	S	V	I	L	D	Q	V	Y	A	G	I	C	V	R	M	A	A	L	F	L	L	L	G	G					
UniRef90_Q7NGR7	P	R	S	R	I	W	D	E	A	E	N	R	L	H	A	Q	K	A	V	L	A	A	L	M	G	G					
UniRef90_E0I3I3	E	K	S	R	I	F	P	Q	M	A	N	G	V	P	I	R	M	A	V	M	E	R	A	M	S						
UniRef90_M9SBG4	P	H	S	V	V	F	D	Q	A	E	N	R	L	H	A	Q	K	A	V	L	Y	T	L	L							
UniRef90_C7R4C4	P	R	S	V	I	V	E	Q	V	A	E	N	G	V	A	A	R	M	A	V	L	Y	L	L	L	A	S	E			
UniRef90_M1P155	E	Q	C	V	A	F	D	Q	A	E	N	K	M	H	M	H	K	A	I	L	E	L	L	L	I	G					
UniRef90_UPI000469CBCE	D	Q	S	V	V	F	Q	E	A	E	N	R	M	H	T	I	K	A	V	M	V	A	T	L	L	G					
UniRef90_E0XUH2	P	Q	S	R	V	F	L	Q	A	A	H	N	R	M	H	S	A	R	G	L	L	S	W	L	S	G	E				
UniRef90_UPI000472392E	K	Y	A	R	Q	F	D	Q	A	E	N	R	M	H	T	I	K	A	V	M	A	A	T	L	L	G	N	L	F	I	
UniRef90_F8AZX7	T	R	S	T	V	V	E	Q	V	A	N	G	V	S	V	R	M	A	V	L	Y	L	L	L	L	G	G				
UniRef90_D7WCJ0	P	N	A	V	V	L	N	Q	V	T	N	G	V	Y	T	R	M	A	V	L	F	T	L	L	L						
UniRef90_Q03DS0	S	Q	S	V	V	F	Q	E	A	E	N	R	M	H	T	I	K	A	V	M	V	A	T	L	L	G					
UniRef90_A0Z4T9	P	D	T	V	I	W	D	E	A	E	N	R	L	H	A	Q	K	A	L	I	E	F	L	L	L	N					
UniRef90_K1Z7I8	K	S	I	V	F	D	Q	A	E	N	R	M	H	S	I	K	A	I	L	V	A	T	I	L	L						
UniRef90_UPI000469B2D3	P	R	S	V	I	F	D	E	A	E	N	R	L	H	A	Q	K	A	I	M	R	H	C	L	L	G	R				
UniRef90_G4L3Y9	S	S	S	V	V	F	K	E	A	E	N	R	M	H	T	I	K	A	V	M	V	A	T	L	L	G	E				
UniRef90_I4Z667	Q	S	S	V	V	W	D	E	A	E	N	R	L	H	V	Q	K	A	L	M	E	F	L	L	L						
UniRef90_UPI00045E6D1C	V	R	A	V	I	L	E	Q	V	S	N	G	V	A	V	R	M	A	V	L	Y	L	L	L	L	A	K	E	K		
UniRef90_C3PG15	D	N	T	A	V	L	Q	Q	V	N	N	G	V	H	V	R	M	A	T	L	F	T	L	L	L	T					
UniRef90_E6WZH4	P	R	C	M	V	L	D	Q	V	R	N	G	V	Y	V	R	M	A	V	L	K	L	L	L	L						
UniRef90_K0YRW3	K	R	S	V	V	V	E	Q	V	S	N	G	V	S	V	R	M	A	A	L	Y	L	L	L	L						
UniRef90_D5DJR4	E	R	S	R	I	F	K	Q	M	Q	N	G	V	Y	I	R	M	A	V	L	A	R	A	L	L						
UniRef90_N0AX57	K	R	S	R	I	F	K	Q	M	E	N	G	V	F	A	R	M	A	V	L											
UniRef90_U2YW77	D	R	E	L	I	W	A	Q	A	E	N	R	L	H	G	Q	K	G	L	L	V	E	I	L	L						
UniRef90_Q9IAU9	S	R	S	L	V	F	Q	E	A	E	N	R	K	W	T	I	M	A	V	M	V	S	L	L	L	T					
UniRef90_U7J7N2	S	A	C	I	A	F	D	Q	A	E	N	R	M	H	T	I	K	A	V	M	V	A	S	L	L						
UniRef90_B8J2A8	P	A	S	L	V	L	D	Q	V	A	A	G	V	A	T	R	M	A	V	L	Y	L	L	A	T	R	N				
UniRef90_UPI0003B39EDE	N	K	S	L	I	T	K	Q	V	E	N	G	V	F	A	R	M	S	I	Y	E	F	C	L	L						
UniRef90_UPI000375BA44	A	Q	S	V	I	L	Q	V	T	N	G	V	Y	A	R	M	A	I	L	E	V	L	L	L							
UniRef90_D5BRF9	E	K	S	L	I	R	T	Q	V	E	M	G	V	A	A	R	M	A	C	L	E	A	L	L							
UniRef90_F4LP98	S	C	S	K	V	W	D	Q	A	E	N	R	K	H	T	I	K	A	I	M	L	A	L	L	M						
UniRef90_UPI0003636401	H	A	D	T	I	L	Q	Q	A	E	N	R	L	H	A	Q	K	A	V	L	A	A	I	L							
UniRef90_D7G203	P	R	A	A	Y	F	K	Q	M	E	N	G	M	Y	V	R	M	A	L	L	A	L	V	F	G	K					
UniRef90_G7YP97	P	R	A	A	Y	F	R	Q	A	E	Y	G	I																		
UniRef90_A3D1R6	P	N	L	A	I	F	R	Q	A	D	N	G	L	L	I	R	M	A	L	F	A	L	T	L	L	G	V	D			
UniRef90_F8ESC4	P	H	S	V	V	W	D	E	A	E	N	R	L	H	A	Q	K	S	V	L	L	W	S	L	L	G	H				
UniRef90_F0T026	P	L	S	V	I	E	E	Q	V	T	N	G	V	A	V	R	M	A	L	I	Y	L	L	L	L	G	G	G			
UniRef90_K9YNQ9	E	R	S	L	I	S	D	Q	V	T	S	G	V	A	V	R	M	A	L	L	Y	L	L	L							
UniRef90_A0A023D3U0	V	Q	S	V	I	Q	E	Q	V	E	M	G	V	A	V	R	M	A	V	L	D	R	L	L							
UniRef90_A7Z4G9	G	K	S	R	I	F	K	Q	M	E	N	G	V	Y	I	R	M	A	V	L	K	R	A	L	L	Q	T	N	V		
UniRef90_G7Q8C2	G	N	S	L	I	L	D	Q	V	S	S	G	V	A	V	R	M	A	I	L	Y	L	L	H	I	T	R				
UniRef90_UPI000372A675	D	Y	S	I	V	F	D	Q	A	E	N	R	L	H	I	Q	N	A	I	M	V	S	L	A	D	K					
UniRef90_I1YJJ7	P	Q	S	V	I	L	E	Q	V	T	H	G	I	A	I	R	M	A	V	M	S	M	A	L	G						
UniRef90_I9AJR5	P	Q	S	R	I	L	F	Q	Q	M	T	N	G	V	Y	I	R	M	A	M	I	A	T	V	L	A	H	Q	G	L	L
UniRef90_Q1IQM8	P	R	A	F	Y	F	R	Q	A	A	N	G	L	V	V	R	M	A	L	L	T	M	L	L	D	R					
UniRef90_H2CAY3	H	A	A	T	I	F	T	Q	A	E	N	R	L	H	V	Q	K	A	L	L	E	W	I	L							
UniRef90_W0DC40	F	V	D	F	I	F	T	Q	A	E	N	R	V	Y	A	Q	M	G	L	K	L	L	L	F	T	Q					
UniRef90_B4WKT4	P	Q	S	L	V	S	K	Q	V	A	S	G	V	A	M	R	M	A	L	L	Y	L	M	G	G						
UniRef90_B0DHH0	R	R	A	V	Y	F	R	Q	M	R	Y	G	L	F	V	R	M	A	L	L	A	S	V	M							
UniRef90_K0D9H2	P	Y	A	H	Q	F	E	Q	A	E	N	R	L	H	T	I	K	A	I	M	A	A	S	L	G	N	L	F	I		
UniRef90_UPI00028969E1	E	R	S	R	I	F	N	Q	V	R	N	G	V	F	I	R	M	A	I	V	E	S	I	L							
UniRef90_UPI000255F618	V	R	N	T	A	L	E	Q	V	A	N	G	V	S	V	R	M	A	V	L	Y	L	V	L	L	S	G				
UniRef90_A0A023VNA7	P	A	C	I	A	F	E	Q	A	E	N	R	M	H	T	I	K	A	I	L	V	S	T	L							
UniRef90_E4SJW5	K	Y	A	W	Q	F	T	E	A	E	N	R	L	H	S	I	K	A	V	M	A	A	T	L	L	G	N	L	F	I	
UniRef90_U5LAP8	S	R	S	R	I	F	K	Q	M	E	N	G	V	F	V	R	M	A	V	L	K	R	A	L	L	E	H				
UniRef90_M7WEG7	R	R	A	S	Y	W	R	Q	V	R	F	G	L	F	V	R	M	A	L	L	A	L	V	L							
UniRef90_UPI0003614682	E	S	S	L	T	E	E	Q	V	T	C	G	V	A	V	R	M	A	V	L	E	I	L	L	L	R	G	E	K		
UniRef90_UPI000379282D	A	H	S	V	V	F	D	E	A	E	N	R	M	H	T	I	K	A	V	L	V	A	T	L	L	A	R				
UniRef90_I0JXG0	P	N	S	A	I	L	K	Q	V	E	N	G	L	A	I	R	M	A	V	F	Y	L	L	G	G						
UniRef90_W7QI18	E	G	S	L	L	I	Q	Q	A	E	N	R	M	H	A	Q	N	A	V	L	M	T	L	L	L	S	K				
UniRef90_D4LAQ3	P	R	A	M	Y	F	K	Q	A	H	Y	G	M	Y	V	R	M	A	L	I	M	T	M	L	L						
UniRef90_M2X7W0	H	N	S	K	V	F	Q	A	E	N	R	M	H	A	Q	N	A	I	L	L	Y	C	H	L	L	G					
UniRef90_K6YXW1	D	K	S	L	L	M	Q	Q	A	E	N	R	M	H	G	Q	N	A	I	L	A	K	L	L	L	G					
UniRef90_W7QK17	P	N	L	A	I	F	R	Q	A	D	N	G	V	L	V	R	M	A	L	F	A	T	T	L	L	G	V	Q	D	I	V
UniRef90_L0A4V9	P	R	S	R	I	V	Q	V	E	N	G	L	A	V	R	M	S	V	L	Y	H	L	L	L							
UniRef90_D8HZF1	P	A	S	A	I	T	E	Q	V	R	N	G	V	H	V	R	M	A	V	L	Y	H	L	L	L	A	S	E			
UniRef90_E0XZA9	P	N	L	A	I	F	R	Q	S	D	N	G	V	I	V	R	M	A	L	F	A	L	L	L							

UniRef90_UPI0004142407
UniRef90_C1MZZ1
UniRef90_UPI0003B4F8BA
UniRef90_T0QEX0
UniRef90_UPI0003B469CF
UniRef90_F0W7X7
UniRef90_D6SQL9
UniRef90_K6YDR6
UniRef90_E4NER6
UniRef90_B2UML6
UniRef90_R7QGE7
UniRef90_E1V4A8
UniRef90_Q03HM9
UniRef90_I9C7M1
UniRef90_R2S403
UniRef90_C5NW73
UniRef90_F4BRA8
UniRef90_Q4FLQ4
UniRef90_S3XVB7
UniRef90_F4FXI5
UniRef90_Q03HB3
UniRef90_UPI00036ED175
UniRef90_R5FAC9
UniRef90_V1CRW8
UniRef90_L8XV31
UniRef90_C6HY87
UniRef90_K0RY17
UniRef90_UPI0002490460
UniRef90_E3ZHP7
UniRef90_A0RXJ5
UniRef90_K0KAB4
UniRef90_UPI00036218F8
UniRef90_W6T616
UniRef90_J5KIQ2
UniRef90_UPI0004784706
UniRef90_C8P8U3
UniRef90_UPI0003B59A61
UniRef90_A0KFFV2
UniRef90_UPI00041FE396
UniRef90_D8IIA5
UniRef90_UPI00037BE0B6
UniRef90_C4L7S7
UniRef90_K4KL70
UniRef90_Q3YS44
UniRef90_C4XEY3
UniRef90_UPI000311156
UniRef90_U2EMG4
UniRef90_UPI0001746AE5
UniRef90_UPI000395B0C5
UniRef90_P68746
UniRef90_H2C9B0
UniRef90_UPI0003B46DCE
UniRef90_D0LJ06
UniRef90_Q97ZM1
UniRef90_V8CEY2
UniRef90_QOAST0
UniRef90_UPI000365F949
UniRef90_UPI0004765189
UniRef90_UPI0003F9B3EB
UniRef90_E4U7H5
UniRef90_A9GL64
UniRef90_UPI0002492429
UniRef90_UPI0002885C92
UniRef90_UPI00036DA760
UniRef90_T0U2V1
UniRef90_UPI0004276EAA
UniRef90_R4X9S5
UniRef90_O66726
UniRef90_V4HC10
UniRef90_H1WW92
UniRef90_UPI0003816DBE
UniRef90_P59100
UniRef90_S3X451
UniRef90_S7W057
UniRef90_Q72T26
UniRef90_W722K4
UniRef90_A0A013XWF4
UniRef90_R6JWB6
UniRef90_UPI000479365C
UniRef90_M3J127
UniRef90_W7CF19
UniRef90_A5MZU2
UniRef90_Q7U9G2
UniRef90_A3WJK6
UniRef90_V8C829
UniRef90_H0DJY3
UniRef90_X0TH94
UniRef90_W7TNZ3
UniRef90_H3NM13
UniRef90_E8SGE0
UniRef90_F7RX21
UniRef90_F4G0L2

UniRef90_UPI0004142407	G	Q	N	I	A	L	F	F	E	K	S	S	T	R	T	R	A	A	F	T	V	A	A	N	D	L	G	A	A	P	E	F	L	G	S	G	E	I	Q		
UniRef90_C1MZZ1	G	F	L	M	S	T	L	F	F	E	K	S	S	T	R	T	R	L	L	S	F	E	G	A	M	K	R	L	G	G	D	I	V	L	N	E	S	G	V	S	
UniRef90_UPI0003B4F8BA	G	L	T	Q	I	N	A	F	F	E	K	S	S	T	R	T	R	L	L	S	F	E	I	A	G	M	K	R	L	G	G	D	I	V	L	N	E	S	G	V	S
UniRef90_T0QEX0	N	E	T	S	L	M	I	F	F	E	K	S	S	T	R	T	R	L	L	S	F	E	I	A	G	M	K	R	L	G	G	D	I	V	L	N	E	S	G	V	S
UniRef90_UPI0003B469CF	G	K	S	V	G	L	F	F	F	E	P	S	S	T	R	T	R	V	S	F	D	I	G	I	A	K	T	L	S	S	G	D	T	I	N	L	S	E	K	S	
UniRef90_F0W7X7	N	D	T	S	M	I	F	F	E	K	S	S	T	R	T	R	T	I	S	S	F	E	I	I	A	M	H	L	S	S	G	D	K	A	L	F	L	S	S		
UniRef90_D6SQL9	G	K	S	V	V	L	F	F	F	E	P	S	S	T	R	T	R	K	T	S	F	D	M	A	A	K	R	L	L	S	S	G	D	S	F	S	L	A	S		
UniRef90_K6YDR6	G	L	S	V	V	A	L	F	F	E	P	S	S	T	R	T	R	V	S	F	D	I	G	I	N	K	L	L	G	G	G	V	T	S	S	T	G	A	E		
UniRef90_E4NER6	G	A	V	M	A	S	L	F	F	E	A	S	S	T	R	T	R	V	S	F	E	T	A	F	L	R	L	L	G	G	G	V	T	S	S	T	G	A	E		
UniRef90_B2UML6	G	Q	T	W	A	L	I	F	F	S	K	S	S	T	R	T	R	V	S	F	E	T	V	G	I	S	E	L	L	G	G	R	P	M	F	L	S	V			
UniRef90_R7QGE7	N	K	A	M	S	M	V	F	F	A	K	P	S	S	T	R	T	R	V	S	F	E	T	A	M	F	K	L	L	G	G	H	A	L	A	L	G	P	E		
UniRef90_E1V4A8	G	A	V	L	G	N	L	F	F	E	A	S	S	T	R	T	R	V	S	F	H	A	A	F	C	R	L	L	G	G	S	V	C	D	T	T	G	F			
UniRef90_Q03HM9	N	K	T	L	G	M	I	F	F	E	Q	S	S	T	R	T	R	T	S	A	E	A	A	M	T	E	L	L	L	G	G	S	H	A	Q	Y	L	A			
UniRef90_I9C7M1	G	H	V	L	G	M	I	F	F	E	K	N	S	T	R	T	R	V	S	F	A	E	A	M	M	R	Q	L	L	G	G	S	A	Q	L	A	L	L			
UniRef90_R2S403	P	Q	Y	F	A	N	L	F	F	E	N	S	T	R	T	R	T	H	K	S	F	E	V	A	E	K	K	M	G	L	D	V	I	N	D	F	E				
UniRef90_C5NWT3	D	L	Y	A	N	L	F	F	E	N	S	T	R	T	R	T	R	H	K	S	F	E	V	A	E	K	K	H	L	E	I	N	V	I	N	D	F	E			
UniRef90_F4BRA8	P	L	Y	A	V	N	L	F	F	E	N	S	T	R	T	R	T	H	K	S	F	E	M	A	E	K	K	L	G	L	E	I	N	V	I	N	D	F			
UniRef90_Q4FLQ4	G	K	T	Q	I	N	L	F	F	E	P	S	S	T	R	T	R	Q	S	S	F	E	L	A	G	K	R	L	L	G	A	D	V	M	S	M	N	M			
UniRef90_S3XVB7	N	Q	T	L	A	M	V	F	F	E	K	N	S	T	R	T	R	I	S	S	F	E	L	A	G	M	T	Q	L	L	G	G	H	A	L	F	L	D	S		
UniRef90_F4FXI5	H	R</																																							

		90	100	110	120																																				
UniRef90_UPI0004142407	L	G	K	K	E	S	V	A	D	T	A	K	L	L	G	S	M	F	D	G	L	E	F	R	G	A	S	Q	A	V	V	E	E	L	A	E	H				
UniRef90_C1MZZ1	S	A	A	K	G	E	T	L	E	D	T	I	R	T	V	E	G	Y	A	D	I	V	L	R	H	F	T	A	G	A	A	R	R	A	A	D	A	I			
UniRef90_UPI0003B4F8BA	L	G	K	G	E	T	L	L	D	T	A	L	T	L	N	M	A	H	P	D	M	I	V	L	R	H	G	S	G	A	V	Q	L	I	S	E	K	V	D		
UniRef90_TOQEX0	L	K	V	N	E	S	L	L	K	D	S	A	H	V	M	S	R	F	G	S	A	L	L	A	R	V	Y	G	H	A	S	V	V	E	L	A	K	E			
UniRef90_UPI0003B469CF	V	E	K	G	E	S	L	L	D	T	I	K	T	I	T	A	L	G	V	D	F	L	V	T	R	H	R	S	E	G	F	P	H	I	L	A	K	L	S	G	
UniRef90_F0W7X7	L	G	V	N	E	T	L	L	K	D	T	A	L	T	L	V	L	S	R	F	S	D	V	I	L	A	R	V	N	S	D	E	D	I	K	E	L	A	T	H	A
UniRef90_D6SQL9	L	S	K	G	E	G	L	K	D	T	A	V	L	L	Q	A	M	N	P	D	A	I	V	L	R	H	S	L	S	G	A	G	F	I	A	S	H	L	D		
UniRef90_K6YDR6	A	G	R	E	D	V	L	K	D	M	G	A	N	L	A	Y	W	A	D	A	I	V	S	R	V	F	T	H	S	T	L	E	Q	L	A	G	S				
UniRef90_E4NER6	I	S	K	G	E	S	L	A	D	T	S	R	V	V	T	G	Y	C	D	L	V	V	M	R	H	P	E	V	S	A	V	H	E	F	A	A	A	T	N		
UniRef90_B2UML6	L	G	R	G	E	P	L	K	D	T	A	R	V	L	G	R	M	I	H	G	A	A	I	R	T	Y	G	Q	Q	E	V	E	E	F	A	S	F	S			
UniRef90_R7QGE7	V	N	T	R	E	A	A	G	D	V	A	R	V	L	S	G	M	T	D	V	I	M	A	R	L	F	A	H	G	D	L	V	Q	L	A	E	R				
UniRef90_E1V4A8	M	A	K	G	E	S	L	Y	D	T	S	R	V	M	S	G	Y	C	D	A	I	V	M	R	H	P	E	Q	G	S	V	A	E	E	F	A	Q	A	T	N	
UniRef90_Q03HM9	G	G	H	E	T	I	E	D	T	S	Q	V	L	G	R	L	D	I	G	A	R	V	D	R	H	K	T	V	A	E	E	V	G	K	Y	A	T	N			
UniRef90_I9C7M1	L	G	R	G	E	T	I	A	D	T	A	R	V	L	S	R	M	V	D	A	I	M	I	R	T	D	D	H	A	K	I	E	E	L	A	H	Y				
UniRef90_R2S403	V	Q	K	G	E	T	L	Y	D	T	V	L	T	M	S	A	I	G	V	D	V	C	V	I	R	H	G	D	E	N	Y	D	E	L	I	Q	S	R	T	V	
UniRef90_C5NWT3	S	V	N	K	G	E	T	L	Y	D	T	C	K	T	L	E	M	L	G	C	N	M	L	V	I	R	H	G	Q	D	A	Y	Y	N	E	L	T	N	L		
UniRef90_F4BRA8	I	K	K	G	E	S	L	Y	D	T	V	L	T	M	S	A	L	G	T	E	I	A	V	I	R	D	S	K	E	A	F	Y	T	E	L	I	N	S	P	I	
UniRef90_Q4FLQ4	I	K	K	G	E	T	L	I	D	T	A	M	T	L	N	A	M	H	P	D	I	L	V	I	R	H	Q	D	S	G	A	C	N	L	L	S	Q	K	V	N	
UniRef90_S3XVB7	L	G	R	G	E	P	L	K	D	T	A	R	V	L	S	S	M	C	N	M	A	M	L	R	V	Y	K	H	A	D	L	K	E	F	A	K	F				
UniRef90_F4FXI5	G	S	A	E	S	E	S	L	G	D	T	A	I	V	L	S	R	L	V	D	I	L	M	A	R	V	A	K	H	S	T	V	E	K	L	A	E	T			
UniRef90_Q03HB3	V	T	K	G	E	S	L	L	D	T	V	K	T	I	D	A	I	Q	M	T	D	I	A	V	I	R	H	P	Q	N	D	Y	Y	K	Q	L	L	E	A	D	L
UniRef90_UPI00036ED175	L	G	K	K	E	S	V	I	D	T	A	K	V	L	S	G	M	F	D	G	I	E	Y	R	G	F	K	Q	E	D	V	E	E	F	A	A	E	Y			
UniRef90_R5FAC9	L	G	G	H	E	T	I	G	D	T	G	R	V	L	S	N	L	I	D	I	V	M	A	R	V	I	E	H	K	S	V	V	E	L	A	Q	A	S			
UniRef90_V1CRW8	V	E	K	G	E	S	L	Y	D	T	A	K	T	F	E	A	I	G	F	D	A	L	V	I	R	H	K	E	N	E	Y	F	N	S	L	K	G	L			
UniRef90_L8XV31	I	V	K	G	E	S	I	L	E	D	T	A	R	V	L	S	G	Y	F	D	V	V	V	R	H	P	E	E	E	A	I	H	K	M	A	G	A	T			
UniRef90_C6HY87	V	T	K	G	E	S	L	S	D	T	V	K	T	I	E	A	L	G	A	D	G	L	V	I	R	H	A	S	S	G	A	A	E	F	V	A	E	R	V		
UniRef90_K0RY17	A	S	K	K	G	E	S	L	E	D	T	I	K	C	L	E	C	Y	T	D	A	T	V	L	R	H	P	T	T	G	S	V	Q	V	A	L	G	G	T		
UniRef90_UPI0002490460	V	N	K	G	E	T	L	Y	D	T	L	R	T	I	E	S	I	G	V	D	I	A	V	I	R	H	S	E	N	D	Y	Y	K	E	L	L	T	K	P	N	
UniRef90_E3ZHP7	M	T	K	G	E	T	L	Y	D	T	L	T	M	Q	A	V	G	V	N	V	A	V	I	R	H	S	E	E	N	Y	Y	E	G	L	R	D	L				
UniRef90_A0RXJ5	S	I	Q	K	G	E	S	L	A	D	T	V	R	M	M	A	M	S	D	A	L	V	L	R	H	P	L	D	G	S	S	R	F	A	A	E	V	S			
UniRef90_K0KAB4	V	S	K	G	E	S	L	R	D	T	A	L	T	L	A	A	A	G	A	D	C	V	I	V	R	H	P	A	S	G	A	A	H	R	G	W	L	K	H	T	
UniRef90_UPI00036218F8	L	G	R	G	E	T	I	Q	D	T	A	K	V	L	S	R	Y	V	D	A	L	M	I	R	T	F	A	H	E	T	V	E	E	F	A	K	Y				
UniRef90_W6T616	V	T	K	G	E	S	L	A	D	T	I	R	V	V	S	Q	Y	V	D	A	L	V	V	R	H	P	T	A	G	A	A	V	A	A	T	H	A				
UniRef90_J5KIQ2	S	M	K	K	G	E	S	V	F	E	T	I	D	T	V	S	L	M	G	V	D	M	F	I	L	R	S	S	E	P	L	L	A	E	L	N	M	M	P		
UniRef90_UPI0004784706	F	G	G	K	E	S	V	E	D	T	A	K	V	L	S	G	S	M	F	D	G	I	A	F	R	G	S	E	Q	S	T	V	E	A	L	G	E	H	A		
UniRef90_C8P8U3	M	S	K	G	E	T	L	Y	D	T	C	L	V	M	N	A	L	G	V	D	L	S	V	T	R	A	S	E	N	A	Y	Y	G	P	L	I	N	P	G	A	
UniRef90_UPI0003B59A61	M	G	K	K	E	S	M	A	D	T	A	R	V	L	S	R	F	F	D	G	I	E	Y	R	G	Y	E	Q	A	R	V	E	A	L	A	E	F				
UniRef90_A0KFV2	A	L	G	K	R	E	S	V	Q	D	F	A	A	N	L	S	R	W	C	D	A	I	V	A	R	V	F	D	H	Q	T	L	V	E	L	A	E	H	G		
UniRef90_UPI00041FE396	T	S	K	G	E	S	L	R	D	T	V	A	T	L	D	A	M	G	V	D	A	L	V	V	R	H	S	A	S	G	A	P	A	Q	T	A	Q	W	Y	R	
UniRef90_D8IIA5	I	K	K	G	E	T	L	Y	D	T	C	L	T	L	D	A	L	G	V	D	L	T	V	I	R	H	S	E	N	D	Y	Y	L	P	L	I	N	H	Y	L	
UniRef90_UPI00037BE0B6	A	T	K	K	G	E	S	L	L	D	T	G	Q	T	L	A	M	Q	P	H	V	L	V	I	R	H	S	V	S	G	A	C	E	F	L	A	D	Y	L	G	
UniRef90_C4L7S7	V	M	G	K	R	E	S	V	K	D	F	A	M	N	L	S	R	W	C	D	G	I	V	A	R	V	F	D	H	K	T	L	G	L	R	E	H	A			
UniRef90_K4KL70	I	A	K	G	E	S	L	Y	D	T	A	R	V	L	S	G	Y	S	D	V	I	C	M	R	H	P	Q	N	G	S	V	A	E	F	A	E	S	R			
UniRef90_Q3YS44	I	N	K	G	E	S	I	I	D	T	L	N	I	N	A	M	N	P	D	L	I	I	T	R	S	Q	Y	S	Q	L	V	K	T	I	S	Q	Y	V	S		
UniRef90_C4XEY3	N	F	G	K	K	E	S	I	E	D	T	A	Q	V	L	G	R	F	Y	D	G	I	E	F	R	G	F	K	Q	S	D	V	D	A	L	V	K	Y			
UniRef90_UPI000311156	L	G	R	G	E	S	L	A	D	T	A	R	V	L	S	G	Y	V	D	A	I	M	I	R	T	D	H	A	K	I	E	D	M	A	R	H	A				
UniRef90_U2EMG4	Q	I	G	H	K	E	T	I	K	D	T	A	R	V	L	S	G	R	M	Y	D	A	I	E	Y	R	G	A	D	Q	H	T	V	E	Q	L	A	E	F		
UniRef90_UPI0001746AE5	V	V	K	G	E	S	V	L	D	T	V	A	T	L	E	A	M	R	T	D	Y	V	V	V	R	H	S	M	S	G	I	P	N	L	I	A	K	H	T	N	
UniRef90_UPI000395B0C5	Q	I	G	H	K	E	T	M	K	D	T	A	R	V	L	S	G	R	M	Y	D	G	I	Q	Y	R	G	F	G	Q	E	V	V	E	T	L	A	A	H		
UniRef90_P68746	R	F	G	H	K	E	S	I	K	D	F	A	R	V	V	G	R	L	F	D	G	I	A	F	R	G	F	E	H	E	V	A	E	E	L	A	K	H	S		
UniRef90_H2C9B0	V	A	K	G	E	N	L	A	D	T	V	R	M	L	D	N	Y	S	D	C	I	V	I	R	H	K	F	D	G	A	K	F	A	S	E	I	A				
UniRef90_UPI0003B46DCE	V	S	K	G	E	S	L	K	D	T	A	Q	T	L	A	L	I	G	A	D	G	V	V	I	R	H	P	A	S	G	A	P	Q	L	A	D	S	G	W	I	
UniRef90_D0LJ06	M	A	R	G	E	P	I	R	D	T	A	R	V	L	G	Y	C	H	G	L	V	L	R	T	H	A	H	S	R	A	L	E	L	A	K	W	A				
UniRef90_Q97ZM1	S	R	G	E	L	S	E	D	T	G	R	V	L	G	R	V	N	G	I	G	A	R	V	L	N	H	L	T	L	V	K	L	K	E	S						
UniRef90_V8CEY2	T	S	K	G	E	T	L	S	D	T	A	A	N	L	N	A	M	S	P	H	A	I	I	R	H	Q	S	S	G	A	P	V	H	L	T	K	S	V			
UniRef90_Q0AST0	D	G	D	K	E	E	H	V	R	E	A	A	R	V	L	S	S	Y	V	D	L	I	A	I	R	C	F	P	E	F	K	D	W	Q	S	E	R	F	A	K	
UniRef90_UPI000365F949	L	G	K	K	E	S	V	V	D	T	A	K	V	L	S	G	S	M	F	D	G	I	E	Y	R	G	F	S	Q	E	D	V	E	L	L	A	Q	H	A		
UniRef90_UPI0004765189																																									

	130	140	150	160																																										
UniRef90_UPI0004142407	S	G	V	P	V	W	N	G	L	T	D	D	W	H	P	T	Q	M	I	G	D	F	M	T	I	K	E	E	F	G	T	F	A	G	I	K	L	V	Y	A						
UniRef90_C1MZZ1	E	S	P	V	L	I	N	A	G	D	G	P	R	H	E	H	P	T	Q	A	L	L	D	T	Y	T	I	Y	R	R	K	G	R	I	A	D	I	L	R	V	A	I	C			
UniRef90_UPI0003B4F8BA	A	S	V	P	V	I	N	A	G	L	S	D	K	Y	H	P	L	Q	A	L	L	A	D	Y	L	T	V	Q	R	E	H	F	K	R	I	V	K	G	L	T	I	L	A	W	V	
UniRef90_UPI0003B469CF	I	S	T	I	N	A	G	D	G	K	N	E	H	H	P	T	Q	A	L	L	A	D	L	F	T	M	M	T	Q	R	F	K	R	G	D	L	K	G	L	T	I	S	I	V		
UniRef90_F0W7X7	T	V	P	V	I	N	A	G	L	S	D	R	F	H	P	L	Q	A	L	L	A	D	Y	M	T	I	T	Q	H	F	K	R	G	D	L	K	G	L	T	I	A	W	I			
UniRef90_D6SQL9	C	S	V	L	I	N	A	G	D	G	W	H	A	H	P	T	Q	A	L	L	A	D	G	F	T	L	T	F	Q	W	D	D	F	Q	D	K	K	I	L	I	L	L	L			
UniRef90_K6YDR6	A	K	V	P	V	I	N	A	G	L	C	D	L	Y	H	P	T	Q	A	L	L	A	D	Y	L	T	I	S	E	H	Y	F	A	R	D	L	S	K	V	K	L	A	Y	I		
UniRef90_E4NER6	I	P	V	V	I	N	A	G	L	C	A	G	E	H	H	P	T	Q	A	L	L	A	D	M	F	T	I	H	R	E	F	A	R	L	D	S	K	G	R	K	I	A	I	L	V	
UniRef90_B2UML6	G	I	P	T	I	N	A	L	T	D	E	E	H	H	P	T	Q	A	L	L	A	D	L	T	I	E	E	E	Y	G	A	P	W	K	D	M	K	I	A	F	V	I	V			
UniRef90_R7QGE7	A	S	V	P	V	I	N	A	G	L	T	D	Y	N	H	P	T	Q	A	L	L	A	D	A	L	T	I	M	A	E	E	T	R	G	A	L	D	S	K	V	I	V	I	V		
UniRef90_E1V4A8	V	P	V	I	N	A	G	D	G	P	G	E	H	P	S	Q	A	L	L	D	I	Y	T	I	D	K	E	F	K	Q	L	A	G	A	H	I	L	L	T	I	V	I	V			
UniRef90_Q03HM9	K	V	P	V	I	N	A	G	F	M	S	D	Y	N	H	P	T	Q	E	L	G	D	I	T	T	M	V	E	H	L	P	A	G	K	L	S	D	A	C	K	V	I	V			
UniRef90_I9C7M1	A	D	V	P	V	I	N	A	G	L	T	D	L	S	H	P	T	Q	E	L	T	V	A	D	L	T	I	V	V	E	H	G	A	L	P	L	S	K	M	A	W	I	V			
UniRef90_R2S403	H	C	S	I	I	N	A	G	D	G	S	G	Q	H	E	H	P	T	Q	C	L	L	D	L	M	T	I	Y	E	E	F	G	Y	F	E	G	L	K	V	A	I	V	I	V		
UniRef90_C5NW73	N	I	P	I	L	S	G	G	D	G	S	G	E	H	P	S	Q	C	L	L	D	L	M	T	M	Y	E	E	K	F	G	T	F	E	D	N	L	N	V	I	I	A	I	A		
UniRef90_F4BRA8	K	C	S	I	I	N	A	G	D	G	T	G	Q	H	E	H	P	S	Q	C	L	L	D	L	M	T	I	Y	E	E	Y	G	H	F	E	D	G	L	K	I	A	I	I	A	I	A
UniRef90_Q4FLQ4	C	A	V	L	I	N	A	G	D	G	S	R	E	H	H	P	T	Q	A	L	L	A	D	A	L	T	I	I	N	R	K	K														

UniRef90_UPI0004142407 G D G R N N V A N S L L V T A A L L G A D V T I A A P E S L F P E Q S Y V D
UniRef90_C1MZZ1 G D L A N G R T V R S L A T M L C N F E N F V F V A P E V V K M K D D I K A
UniRef90_UPI0003B4F8BA G D I L L H S R V A R S N F M L A L S L M G A E V R A V A P S T L L P D G L D G Y
UniRef90_TQEX0 G D G N N V L H D Y M L A A P L M G A N I R I A T P S G Y D V I A K C Q K
UniRef90_UPI0003B469CF G D I L L H S R V A R S G I K L F S K I G M N V I L V S S Y T T L P K G I E K L G
UniRef90_F0W7X7 G D G N N V L H D Y M L A A A K L G A N I R I A T P K G Y E P I E E T Q K
UniRef90_D6SQL9 G D I A H S R V A R S D V I Q A L S M L G C R I R V C A P R T L L P R G I H N W
UniRef90_K6YDR6 G D G N N V T H S L M L V G V A L G C E V I V I T P K G H E V D P K I V E L T E
UniRef90_E4NER6 G D L R H G R T V H S L I K L L S R Y E G L T I V C V A P D S L G M P V E L M E
UniRef90_B2UML6 G D G D N N M S R S W M W A K R L G F T L A I G A P T N Y L P L E D F R R H
UniRef90_R7QGE7 G D G N N I V H S W V E L A A V A P I E F V C C C P E G Y A P D M G L V E
UniRef90_E1V4A8 G D L K F G R T V H S L I K L L S L Y A P M R I T L V S P P G L E M P Q H L V E
UniRef90_Q03HM9 V F V G D A T Q V C V S T M F M T T K M G M D F V Q F G P K G F Q M K D D V V E
UniRef90_I9C7M1 G D G N N V A N S L I E A A G L M K F T I R L G C P E G Y D A D P A F I E
UniRef90_R2S403 G D I T H S R V A K S N M Q M L N R L R S E V Y F S G P E Q W Y D K S F D V Y
UniRef90_C5NWT3 G D I K N S R V A K S N Y N M L T R L G A R V R F V C P D I
UniRef90_F4BRA8 G D L K H S R V A K S N M H M L K R L G A E V N I I A P S N
UniRef90_Q4FLQ4 G D I T H S R V A K S N I Y L L N M L G A E V N I I A P S N
UniRef90_S3XVB7 N N M C N S W L N L A S I M G L N S V A I P K N Y K I N D E V L K I A M N
UniRef90_F4FXI5 V F V G D A T Q V C V S L M F I A S K M G M K F V Q F G P K G Y Q I K P E T L E
UniRef90_Q03HB3 G D I A H S R V A R S N A M L N K L G A E V Y F A G P E A W M A E D L K A Y
UniRef90_UPI00036ED175 G D G R N N M A N S L L V T S A I L G V N V K I I A P A D L Q P E A E I L A I
UniRef90_R5FAC9 V F V G D G T Q V C A S L G F I T T K L G M H F V H Y G P E G H Q L L D E H K K
UniRef90_V1CRW8 G D I A H S R V A A S N K E A M E L L G G E C V F S G P
UniRef90_L8XV31 G D L R Y G R T V H S L V K L M S L Y Q N I T F T F A S P D F L S M P E Y I V E
UniRef90_C6HY87 G D I L H S R V A R S N I L G L S A L G A K I R L V A P P T L L P R G I D R W
UniRef90_K0RY17 G D L K H G R T V H S L A K L L A R H E L V L R Y C S P K A L E M P E H V K D Y
UniRef90_UPI0002490460 G D I V H S R V A R S N A Q M L T R L G A K V Y F A G P K K W Y
UniRef90_E3ZHP7 G D I R H S R V A R S N M K V L K R L G A E L F F S G P R E W F D E S Y L K F
UniRef90_A0RXJ5 G D L K Y G R T V Y S L L H A L T G N Y D V K V S L I S P E P L R I R T D S I Y
UniRef90_K0KAB4 G D V L H S R V A R S N V H L L T A L G A E V T L V A P P T L L P A G T A N W
UniRef90_UPI00036218F8 G D G H N N M C H S L L E G A V K M G M D I S V A S P K G Y L P N P Q I L G
UniRef90_W6T616 G D L K Y G R T V H S L V Q A L M Q Y P H N R F I F V A P T L Q I P N T L L T
UniRef90_J5KIQ2 G D L D H S R V A R S F L N G I S N Y E E N E I V L T G H P D L C S N F
UniRef90_UPI0004784706 G D G R N N V A H S L L V T G A I L G I N I H I V A P E Q P E L S V I Q K T V K E
UniRef90_C8P8U3 G D I T N S R V A R S N M E I L T R L G A E V Y F S G P D Y D Y W D H R F
UniRef90_UPI0003B59A61 G D A R Y N M G N S L M I G S A M L G V D F R S V A A L W T S D E V F E M A R H
UniRef90_A0KFV2 G D G N N V S H S L L L L G A T L G T N V T L V C P K G H G P D T Q I F L Q A Q
UniRef90_UPI00041FE396 G D L T H S R V A R S N V L L Q Q T L G A Q V T L V A P P T L L P S G V D T W
UniRef90_D8IIA5 G D I T H S R V A R S N M E I L N K L G A E V Y F S G P E Y W Y D H A F D K Y
UniRef90_UPI00037BE0B6 G D I A H S R V A R S H L L A A R L M G Y Q V R L V A P K T L M
UniRef90_C4L7S7 G D G N N V A H S L L I T G A I L G T D V T V V S P K G S G P D A Q I F N L A A
UniRef90_K4KL70 G D L K Y G R T V H S L C R L L A L Y K N V Q V T L V S P V E L A M P E Y L V D
UniRef90_Q3YS44 G D I L H S R V A R S N I R L L S R Y G A N I S L I A P P T
UniRef90_C4XEY3 G D I K N N V A R S I M I G A A F T G M N C V L C G P G K G K F V Y E K C L E
UniRef90_A0A0311156 G D G N N V L A S L I E A A G L M Q F D V V A A C P G Y G F M P S E A D V A
UniRef90_U2EMG4 G D A R Y N M G K S L L M I G A K L G M D V R I A A P K A L W P S E Q A H I E
UniRef90_UPI0001746AE5 G D I Q H S R V A R S T N L L C R R M G M Q T A M L A P G S L I P R E L P Q E I
UniRef90_UPI000395B0C5 G D A R N N M G N S L M V G A A R M G M D L R L I G P K A Y W P E A D L I A
UniRef90_P68746 G D G R N N M V T S L A I G A L K F G Y N L R I I A P H P T D A V L A G I Y E
UniRef90_H2C9B0 G D L R Y A R T V N S L V R G L K F F R P K K V Y L I S P P Q L R L R E E I R N
UniRef90_UPI0003B46DCE G D I L H S R V A R S N V W L A G L G A D V T L V A P P T L V P A D T S G W
UniRef90_D0LJ06 G D G N N M A H S W I E A A G L L G L D L I L A C P A N F A P D R E T V A
UniRef90_Q97ZM1 G D G S D N V L L S L M A I V A K L G L E L H V A T P K E L K P R D D L Y K
UniRef90_V8CEY2 G D I K T S R V A N S N I E L L S R Y G A E L V L I A P H F L P H S K L A Y
UniRef90_Q0AST0 W V P H P K P L N N S S L I A S K F G A N V R I L V P D E A Y R L D E R Y M S
UniRef90_UPI000365F949 G D G R N N M A N S L L V T S A I L G L H I K I I A P E S L Q P E E E I V A
UniRef90_UPI0004765189 G D V K H S R V A R S D I C A L Q T L G V K D L R V A P K T L L P K G I E R Y
UniRef90_UPI0003F9B3EB G D G N N V T H S L F I A G A I L G A T V T A V C G H S P D A Q I M K K A E
UniRef90_E4U7H5 G D V A H S R V A R S N A E L L P L L G A E V W A A G P A G L L P E R L P
UniRef90_A9GL64 W T Y H P R P L N N S A V L I A S K L G M D V T L L C P S E E Y H L D E R Y L D
UniRef90_UPI0002492429 G D L K N S R V A R S N M Q L L K K L G A D I Y F S G P S E W F T S E F N E Y
UniRef90_UPI0002885C92 G D L D H S R V T S S F V E A V S N F S F N S L T F C G H P S M S T K Y
UniRef90_UPI00036DA760 G D G R N N I A N S L L V T S A I L G I N V K I I A P A S L Q P D P E I V T I A
UniRef90_T0U2V1 G D G R N N V A Q S L L V T S R I L G V A I R I I A P K E L Q P E Q Q V I E
UniRef90_UPI0004276EAA G D G N N V T H S L M I A S A L A G C N V T V V T P K G Y E Q I T H L A A Q
UniRef90_R4X9S5 G D A N N V I H D L A L I C A K V G I N V A I A T P G I E V N E G I L E A R E
UniRef90_O66726 G D I K H S R V I F R S G A P L L N M F G A K I G V C G P K T L I P R D V E V F
UniRef90_V4HC10 G E G N N V T H S L M L L A A S L G T D F V A V C P K G H S P D A Q I V K Q A E
UniRef90_H1WW92 G D G R N N M A N S L L V T G S M L G V N I H I V A P K S L H P A Q E I I D
UniRef90_UPI0003816DBE G D A S C N V A R S W A L A A S L F R F H L R F G A P R A F F C D V I E N P W
UniRef90_P59100 Y V G D S R N N I G N S L L E A A S I V G L N L Y L V S P K Q Y W P F I E C K K
UniRef90_S3X451 G D A R Y N M G N S W L V A S A L M G M D V R I A P E A F Q P C A E V R E
UniRef90_S7W057 G D I V H S R V A R S N V W L L T T L G A T V S L V A P A T L L P V N L S G W
UniRef90_Q72T26 Y I G V H N N V A R S L I G I T S A L G I R L T L V T P I A E K E N I H S Q T V
UniRef90_W72ZK4 G D L H H S R V A R S N A D I L T R L G A T V T I A G P
UniRef90_A0A013XWF4 G D G N N V L H S I E A A G L L K F D V R I A V I P Q G Y E P D P S F A A
UniRef90_R6JWB6 V F V G D A T Q V C A S L M F I T T K M G M N F V H F G P E G Y Q L N E N H R A
UniRef90_UPI000479365C G D A R F N M G R S L L V N G A L L G A D T R I V A P E E L W P D D A C V E
UniRef90_M3J127 G D I S H S R V A N S N M K V L K R L G A S L Y F A G P D S W F K
UniRef90_W7CF19 G D L L H S R V A R S N A H I L H Q M G A N L Y F S G P T K W Y D
UniRef90_A5MZU2 G D G R N N M A K A L M I G A A K M G M N F K I I T P K E L F P E G E L V K
UniRef90_Q7U9G2 G D I L H S R V A R S N L W A L T A C G A D V V L C G P P S L V P D A F R A F
UniRef90_A3WJK6 G D G N N V A R S L A L Y G C L L G M H V T L V T P A G H G L S A T D I D Q L
UniRef90_V8C829 G D I K S R V A N S N I E L L S R Y G V D L T L I A P H F L G
UniRef90_H0DJY3 G D I K N S R V A R S N Y H S L T A L G A E V M F S S P Q E W Q D D A I G A P
UniRef90_X0TH94 G D S N N M A N S L L L S A C L L G M N F H L A S P Q G Y D V K E E V L N
UniRef90_W7TNZ3 W V I G D G N N V L H D L A M G A A R L G M H V R V A C P V I G Y E P N G E I M H
UniRef90_H3NMI3 G D I R H S R V A H S N M Y I F E K L G A N V K L S
UniRef90_E8SGE0 G D A S N N V A H D L V T G A I L G V N I H I A A P E N L Q P H P D V Q T I Q
UniRef90_F7RX21 Y V I G E G N V C Q S L M V G A A L D L K L T V I C P E G Y G P K G Q L D E
UniRef90_F4G0L2 G D G G D N V L A S L M A F V A K L G L E M R V A S P K E L R P R P D V W K

UniRef90_UPI0004142407	Y A K A S G S T V E I T T D I K A A V I N A N V I Y T D V W V S M G F E E H R E Y	210	220	230	240
UniRef90_C1MZZ1	E L D A N G A K W R E S T E D L L G V A S E V D V L Y Q T R I Q K E R F G E D R E Y				
UniRef90_UPI0003B4F8BA	A V Q S F T D M D A G L A G A D V L V M M L R L Q K T E R F M G E G D A Y V				
UniRef90_T0QEX0	L A K A A G T S V F L T T D P V E A V K G A H V I A T D T W I S M G Q E N K K R				
UniRef90_UPI0003B469CF	N G N I K I K T F F D F L K S D F V M A L R L Q K E R H N V Y F P S D K E Y				
UniRef90_F0W7X7	L A K H A S T R V L L T Q Q P E E A V Q G A H V I A T D T W I S M G Q E N K K R				
UniRef90_D6SQL9	P V E V I S D D K A C Y R G M D A I I S L R L Q L E R Q D E A G L L				
UniRef90_K6YDR6	A R A A L Y G G K L T I S T D M S A N G A Q V L Y T D T W L S M G D T A P E I				
UniRef90_E4NER6	L A E N R G H R V E Q S D Q P R T G L K G A D V I Y T T R L Q T E R F A D K P V				
UniRef90_B2UML6	L D C E N V I F T D P V E A V K G A S V I N T D V W L S M G Q E G L S K				
UniRef90_R7QGE7	R A R R R G A R V S V S H D V G E A T R G A S D F L Y A D V W A S M G Q E E E R				
UniRef90_E1V4A8	L V A S R G H R V E T R E N L A G D F S D V D V V Y T T R I Q K E R F T A E M S				
UniRef90_Q03HM9	I G K K Y G G S V T I T D D A E A M K D A D F V Y T D V W Y G L Y D D E M P K				
UniRef90_I9C7M1	R A R A A G G E V V V I T R S P Q E A A A G A D V V V T D T W I S M G Q A G G E K				
UniRef90_R2S403	G E Y R P L D E L V E M V D V V M L L R V Q H E R H D M G N E S F S K				
UniRef90_C5NWT3	F K D E T L G E V D F D K V A V G E V D V C M L L R V I Q H E R H D S K M K				
UniRef90_F4BRA8	D S F K E Y G Q Y A A V D D L I C E A D V I M L R V Q H E R H E S Y N D A L I				
UniRef90_Q4FLQ4	P K E I E K F G V N T F T D M K K G L K D C D I V M M L R L Q N E R M T S S F L				
UniRef90_S3XVB7	N A K I S G A K I V T N D P K A I K D V D V V A T D T W F S M G D E K D Q K				
UniRef90_F4FXI5	I G K K N G G S V E I T E D T D A A M K D A D F V Y T D V W Y G L Y E A P L S Y				
UniRef90_Q03HB3	G T F L P I D E L V E K V D V M M L L R I Q N E R I S Q D T A I K F E P				
UniRef90_UPI00036ED175	A E Q Y N N G A E L T I T D D V A A V K G V D M L Y T D V W V S M E V D F K E R				
UniRef90_R5FAC9	I M E E N C G T W D V T D R V A K A L T G A D F L Y T D V W Y G L Y E N E M E R				
UniRef90_V1CRW8	E F W Q R K G Y D Y M E I D E A V K W A D V V M M L R I Q N E R H E T D N T E				
UniRef90_L8XV31	F A R K R G H T V I E T D Q L K D G I H N D V I Y A T R I Q K E R F T Q G E E				
UniRef90_C6HY87	P V T V Y D R L D R G I D G A D V M A L R L Q E R A S G Y I				
UniRef90_K0RY17	V K D F P N A K Q E L Y T D M I D A V K G A H V L N Y V T R V Q R E R F E N P D Y				
UniRef90_UPI0002490460	D K A F D Q Y G E Y G D I D K L L P D M D V V N L R I Q N E R L S Q A E N				
UniRef90_E3ZHP7	G T Y L P V D E L V E K V D V M M L L R V Q H E R H S G T E Q F T K				
UniRef90_A0RXJ5	D I R T K L D F A E S E S L D E Y V D E L D V V Y V T R I Q K E R F P D E E E Y				
UniRef90_K0KAB4	P V T V S H E L D A E G Q D A V M L L R V Q A E R M Y G G P A G A G N G H F F				
UniRef90_UPI00036218F8	A A K N E A A K K G V K S P E A M L Q N A D I V I T D V W A S M G Q E E K Q R				
UniRef90_W6T616	Q L Q T A G I D F Q L C D S F D S I D E H L D V L Y M T R Q Q T E R V P Q S V				
UniRef90_J5KIQ2	I N N D K Y H Y V E N D D A L K D A D I V M A L R I Q H E R I Q E I D I				
UniRef90_UPI0004784706	I Q E K S G G T S L I T S D V E K G I E D S D V I Y T D V W Y C M G E E E Q L A				
UniRef90_C8P8U3	D Q Y G K Y L P V D E L V D Q V D V L M L R V Q H E R H A G D A N E S S F D A				
UniRef90_UPI0003B59A61	I A Q G S G A E I T R T E S V E E A V K S C D F I Y T D V W V S M D A V W K E R				
UniRef90_A0KFV2	A L A A Q S G A T I H I S D D V A A I E G F D V A Y T D T W V M G D N T P M E Q				
UniRef90_UPI00041FE396	P V E V C T D F D A V L G E V D A V M M L R V Q R E R M A G G F F				
UniRef90_D8IIA5	G K F L P I D E L V E E V D V M M L L R V Q H E R H A G D A H E G D F S A				
UniRef90_UPI00037BE0B6	P A E V E R F G C E V F H E F D D A I P G S D I L Y M L R M Q T E N C G F S I				
UniRef90_C4L7S7	E L A R Q S G A K L A V T D N C A D I R G F D V A Y T D T W V S M G D N T P M K				
UniRef90_K4KL70	L L R A A G H Q V S I T D E L T A S I S K V D I A Y S T R I Q E E R F A S K Q E				
UniRef90_Q3YS44	L A C D L V G V S H I Y H N L I D G L R D A D V I M L L R L Q K E R I T N C V I				
UniRef90_C4XEY3	L F K R N G G S I T F E D D K L K A A K D A D A I Y T D V W V S L G E D F S L F				
UniRef90_A0A0311156	L G Q G R A R V A S P Q E A V E G A D V I T D T W I S M G Q A H A E K				
UniRef90_U2EMG4	A C E K F G A R I T L E D P A E A V A G V D F I H T D V W V S M I E A W A E R				
UniRef90_UPI0001746AE5	A V F Q D W K E L Y A W K P D V I Y L L R V Q T E R Q N V P F F P S I G E Y H R				
UniRef90_UPI000395B0C5	T C Q D I A S T I T L T E D T A A G V K G C D F I Y T D I W V S M G E P S V W				
UniRef90_P68746	Q T P E R N G S I E I F T E V A A G V H Q A D V I Y T D V W I S M G E S V S V E				
UniRef90_H2C9B0	E L D Y P T E E R V D P R D V I G D I D V L Y V T R I Q K E F P D E S E Y				
UniRef90_UPI0003B46DCE	P A R V E F D L D A A V D T Q P D V V M M L R I Q A E R M H G S F F P N S R E Y				

UniRef90_UPI0004142407	V	K	T	L	P	Y	Q	I	N	K	P	L	L	S	N	V	N	E	N	F	I	F	M	H	C	L	P	A	F	H	D	E	T	T	D	V	F	N	A				
UniRef90_C1MZZ1	E	A	C	R	G	V	V	T	F	D	E	K	V	M	A	M	K	K	T	S	I	S	I	V	M	H	P	G	P	R	L	H	D	E	I	A	G	E	C	A	D	D	
UniRef90_UPI0003B4F8BA	P	S	P	R	E	Y	F	T	F	Y	E	K	V	M	A	K	A	A	P	D	V	L	V	M	H	P	G	P	R	M	G	V	E	I	A	D	G	E	A	D	D		
UniRef90_T0QEX0	I	A	D	F	D	G	Y	Q	V	I	T	K	K	M	L	A	H	A	A	S	D	H	I	F	L	H	C	L	P	R	M	G	V	E	E	I	D	S	E	V	F	Y	G
UniRef90_UPI0003B469CF	N	E	I	W	G	L	D	E	N	I	M	V	T	L	K	E	K	N	K	D	V	V	I	M	H	P	G	P	R	M	G	V	E	I	N	S	D	S	G	L	A	D	G
UniRef90_F0W7X7	V	K	D	F	A	G	Y	Q	V	S	D	G	M	L	Q	G	A	A	R	D	H	I	F	L	H	C	L	P	R	M	G	V	E	I	T	S	D	S	G	L	A	D	G
UniRef90_D6SQL9	P	D	L	R	E	Y	F	C	L	Q	P	G	H	V	Q	K	A	A	P	D	V	K	I	M	H	P	G	P	R	M	G	V	E	I	S	S	G	L	A	D	G		
UniRef90_K6YDR6	K	D	T	F	A	G	Y	E	L	T	E	A	L	M	E	T	G	A	D	Y	V	M	H	C	Q	P	A	H	R	D	L	E	I	S	S	G	L	A	D	G			
UniRef90_E4NER6	P	Y	S	D	D	F	R	I	D	K	A	L	F	S	E	V	G	G	P	D	T	V	I	M	H	P	L	P	R	D	N	D	L	I	A	T	D	L	N	G	D		
UniRef90_B2UML6	E	K	H	F	Y	P	Y	Q	V	N	R	E	L	E	H	A	A	G	S	H	S	V	F	H	C	L	P	R	M	G	V	E	I	P	R	G	K	E	I	H			
UniRef90_R7QGE7	E	R	R	F	Q	G	F	Q	V	I	T	D	Q	M	V	K	G	T	G	V	E	T	R	F	L	H	C	L	P	R	M	G	V	E	I	T	D	E	V	M	E	A	
UniRef90_E1V4A8	E	G	F	R	D	Y	T	V	D	K	A	F	M	D	Q	R	V	N	D	H	A	I	V	M	H	P	L	P	R	D	N	D	L	I	D	V	D	L	N	G	D		
UniRef90_Q03HM9	E	E	R	M	N	I	F	Y	P	K	Y	E	L	M	A	K	A	S	D	H	V	K	F	M	H	C	L	P	R	M	G	V	E	I	T	D	E	V	L	D	S		
UniRef90_I9C7M1	V	A	A	M	A	P	Y	Q	V	D	G	A	L	M	A	L	A	K	P	S	A	T	F	L	H	C	L	P	R	M	G	V	E	I	T	D	L	V	I	D	G		
UniRef90_R2S403	E	G	Y	H	Q	E	Y	G	L	T	I	E	R	A	K	R	M	K	E	K	A	I	I	M	H	P	A	P	V	N	V	E	I	A	D	S	L	V	I	E	A		
UniRef90_C5NW73	D	E	Y	H	N	N	F	G	L	T	K	E	R	E	R	N	K	S	A	I	V	M	H	P	A	P	P	V	N	R	D	M	A	S	S	E	L	V	I	E	A		
UniRef90_F4BRA8	A	S	Y	L	D	Q	Y	G	L	N	E	L	R	E	K	N	M	K	P	S	A	I	L	M	H	P	A	P	V	N	R	D	V	M	A	S	S	L	V	I	E	C	
UniRef90_Q4FLQ4	S	S	N	R	E	Y	Y	E	Y	P	D	K	L	A	H	A	K	D	D	A	L	I	M	H	P	G	P	M	G	I	E	I	D	T	K	L	A	D	D	G			

UniRef90_UPI0004142407 N Y A K Q F E Q G E N R M H S I K A I M A A T N G N L F I 290 300 310
UniRef90_C1MZZ1 P R A A Y F R Q A E N G L F I R M A L L K V L L
UniRef90_UPI0003B4F8BA A R S A V T E Q V E M G V A V R M A L L D V L L
UniRef90_TOQEX0 E R S K V W D E A E N R M W T V M A V L A K L L E K
UniRef90_UPI0003B469CF E H S A I F E Q V R N G V A T R M A I L Y Y L F S H
UniRef90_F0W7X7 K R S L V F D E A E N R L W T V M A V Y A S L L G K
UniRef90_D6SQL9 A D S L I L E Q V G S G V A V R M A L L Y L Y L A R
UniRef90_K6YDR6 E K S L L M Q Q A E N R M H G Q N A I L V E L L A K D F
UniRef90_E4NER6 P R L A V F R Q T D A G I P M R M A L F A S V L G
UniRef90_B2UML6 F A P V I F R E A E N R V H A Q K A V L A T L
UniRef90_R7QGE7 G Y S E V F R Q A E N R M H A Q V A I V L H M G V G L
UniRef90_E1V4A8 P R L A I F R Q T D N G I P M R M A I F A T L L Q V E D L V
UniRef90_Q03HM9 D Y S L V W D E A E N R K T A M R A I F V Y L L N
UniRef90_I9C7M1 P R S A V W D E A E N R I H G Q K S V L L W A L G
UniRef90_R2S403 Y Q S R I V E Q M S N G V F V R M A L L E A I L N G
UniRef90_C5NWT3 P K S V I F E Q M K N G M F M R Q A M I E K I I K D N N L
UniRef90_F4BRA8 E R S R I V T Q M S N G V Y A R M A I L E A I I
UniRef90_Q4FLQ4 N R S V I K E Q V E L G V A V R M A L L
UniRef90_S3XVB7 H S K E I F L E A E N R L H V Q K G I M V W L
UniRef90_F4FXI5 P H S I A W D E A E N R L T A M R A L L V Y L M
UniRef90_Q03HB3 E K S R I F K Q M T N G M Y M R M A I L T D V L
UniRef90_UPI00036ED175 H S S T I F Q E A E N R M H S I K A I M Y
UniRef90_R5FAC9 E C S L A F E E A G N R L T A M R G L L V Y
UniRef90_V1CRW8 P K S R I F R Q M S N G V L V R K A V L K R A F G
UniRef90_L8XV31 P R L A I F R Q S D A G V P A R M A L F A M V L G V D
UniRef90_C6HY87 N D V A I L D Q V E Y G V A V R M A V L Y L L M G G
UniRef90_K0RY17 D R A C Y F R Q M E N G M F V R M A I L A L I L G
UniRef90_UPI0002490460 P K S R I E T Q M Q N G V F V R M A I I S R I L
UniRef90_E3ZHP7 E K S R I V T Q M T N G V F I R M A I L E S I L
UniRef90_A0RXJ5 D K A K Y F V Q A E Y G V Y T R A A L L G L V L N E G
UniRef90_K0KAB4 P R A A I T D Q V R N G V H V R M A V L Y H L L A H E
UniRef90_UPI00036218F8 P H S A V
UniRef90_W6T616 P Q A H Y F D Q V R M G K Y V R M A L L A Y L L
UniRef90_J5KIQ2 D K S V I R D Q V S N G V A I R M A V L S R F L S
UniRef90_UPI0004784706 E Y S K V F E Q A E N R M H S I K S L L A A T C G E
UniRef90_C8P8U3 P K S A F F K Q M Q N G V F M R M A M L E A V V
UniRef90_UPI0003B59A61 G R N M A F E A E N R M H T I K A V M V A T L A E D
UniRef90_A0KFV2 P G S L T M D E A E N R M H I Q N A V L L T L L G H
UniRef90_UPI00041FE396 A Q S L V L E Q V A A G V A V R M S V L Y H V L S G E
UniRef90_D8IIA5 P K S A F V A Q M G N G V F M R M A M L E A V L
UniRef90_UPI00037BE0B6 A R A L I L D Q V E H G V A I R M A V L T A L C G G
UniRef90_C4L7S7 P A S L I M D E A E N R M H I Q N A I L H T L I N Q
UniRef90_K4KL70 P N L A I F R Q T D N G I L V R M A L F A L V L
UniRef90_Q3YS44 K S V I L L Q V K M G V A V R K A I L H Y L L Y G N K
UniRef90_C4XEY3 K C N R S I D Q A E N R L H T I K A V V L A T I G
UniRef90_A0A0311156 P Q S L I W Q E A G N R L H A Q K A V L R W V F G Q
UniRef90_U2EMG4 P A C I A F D Q A E N R M H T I K A V L V A T L G
UniRef90_UPI0001746AE5 E R S L I D Q Q V E N G I A V R M S V L Y W L
UniRef90_UPI000395B0C5 A Q S I V F D Q A E N R L H T I K A V M I A T L
UniRef90_P68746 P Q S R V F D Q G E N R M H T I K A L M
UniRef90_H2C9B0 P Q A K Y F L Q A S L A V P L R S V L L H E V V G G
UniRef90_UPI0003B46DCE P Q S T V R E Q V A N G V S V R M A A L Y L L L S G D
UniRef90_D0LJ06 P Q S A V W R Q A E M R L H F Q K A L L E A L V G
UniRef90_Q97ZM1 S K S A V W D Q A E N R L Y T T M A V F S L
UniRef90_V8CEY2 S R C K V L Q Q V R N G V A V R M A V L E F
UniRef90_Q0AST0 P A F M G I E E A A N R L P V Q M A V M E A L A G Q
UniRef90_UPI000365F949 Y S S Y I F Q E A E N R M H S I K A I M Y Y S L
UniRef90_UPI0004765189 V Q S V I L K Q V N N G I A V R M A V M A M E G
UniRef90_UPI0003F9B3EB P A S L I F D Q A E N R M H I Q N A I M L T L I N K
UniRef90_E4U7H5 P R S R V E R Q V R A G E A V R M A V L Y H L L
UniRef90_A9GL64 P A S M V I D E A E N R L H V Q K A V M D V L A N G
UniRef90_UPI0002492429 P R S R F V R Q M T N G V Y M R M A M L E A V I N G
UniRef90_UPI0002885C92 D Q S V I R T Q I A N G V A I R M A V L S R F L S
UniRef90_UPI00036DA760 Y S S A I F Q E A E N R M H S I K A I M Y
UniRef90_T0U2V1 K Q A R Q F D Q A E N R L H S I K A I M A V T L G D L F I
UniRef90_UPI0004276EAA Q Y S L L M Q Q A E N R M H G Q N A I L V N L L A E P N V
UniRef90_R4X9S5 N R S L V F E E A E N R K W S M I A A L E F L L S
UniRef90_O66726 E K S L I Q E Q V K N G I P V R K A I Y K F L
UniRef90_V4HCIO K H A K I L Q Q A E N R M H A Q N A L L V T L L N K
UniRef90_H1WW92 Q Y A R Q W D E A E N R M H A I K A I M A A T L G N L F I
UniRef90_UPI0003816DBE R A P D I F D E A E N R L H V Q K G L L R W L A T R
UniRef90_P59100 H Q K T I F E Q A E N R L H T I K A L L V S S L I K E
UniRef90_S3X451 N A E V I F T E A E N R M H T I K A I V A T V G E
UniRef90_S7W057 P Q S T V L E Q V A N G V S V R M S V L Y H L L S G
UniRef90_Q72T26 P R S I I F Q Q A E N R L D A Q K A V I L K L L
UniRef90_W7Z2K4 A R S R I Y K Q S A N G V A V R M A V L K K A L
UniRef90_A0A013XWF4 P Q S L I W D E A E N R I H A Q K S V L L W A L G H
UniRef90_R6JWB6 G Y S V V F D E A E N R L T A M R G L L V Y
UniRef90_UPI000479365C P A S I V F D Q A E N R M H T I K A V M V A T L G
UniRef90_M3J127 E K S R I I T Q M T N G V Y I R M A I L E A V L
UniRef90_W7CF19 S H S R I V E Q M A N G V Y A R M A I L E A I T N Q
UniRef90_A5MZU2 I Y S I V F E E A E N R L H T I K A V M V A T L S P G N I
UniRef90_Q7U9G2 P S C L V E E Q V R N G V P I R M A L L Y L M
UniRef90_A3WJK6 D D S L C L K Q A E N R L F A Q N A L L H L L L N
UniRef90_V8C829 S R C K V L K Q V R N G V A V R M A V M E F
UniRef90_H0DJY3 P K S R I F K Q M E N G M F L R M A V I D T I L
UniRef90_X0TH94 P R S V V F D Q A E N R L
UniRef90_W7TNZ3 P R S L V F P E A E N R M W T V M A V M L S L
UniRef90_H3NMI3 P K S R I F K Q M E N G V L V R K A M L K Y I F D E K F
UniRef90_E8SGE0 P N S V V F E Q A E N R L H A I K A I M A A T L G E
UniRef90_F7RX21 T I S A V L Q Q A E N R L Y V Q K A A L H L F E E
UniRef90_F4G0L2 K K S K V W D Q A E N R L Y T A M S A F S L I F

UniRef90_K2K2G7
UniRef90_I4BXG1
UniRef90_D1Y0V9
UniRef90_W0BBM4
UniRef90_D4YGW3
UniRef90_J9YZH1
UniRef90_W6WMN7
UniRef90_L8DIK6
UniRef90_B3EL97
UniRef90_A0A023CWF3
UniRef90_G8BY04
UniRef90_UPI00036AEC00
UniRef90_N1W9P9
UniRef90_A9BIT6
UniRef90_UPI00036C0536
UniRef90_E0IA92
UniRef90_UPI00040A9C4B
UniRef90_K2CBP7
UniRef90_Q7VDV6
UniRef90_Q1AS69
UniRef90_G3B1N4
UniRef90_E8W121
UniRef90_L8FQ19
UniRef90_A3UJX1
UniRef90_C0QUQ3
UniRef90_R9YK62
UniRef90_J7M5M5
UniRef90_C4YB13
UniRef90_S0ANR9
UniRef90_UPI0003711F75
UniRef90_B4SCQ7
UniRef90_UPI0003870F10
UniRef90_G8YQ43
UniRef90_UPI00036B48B1
UniRef90_UPI0003680884
UniRef90_Q0ID96
UniRef90_R1GVK3
UniRef90_UPI00035F8B38
UniRef90_N9VDL7
UniRef90_C6V4Z8
UniRef90_R6GUH5
UniRef90_W2SCS6
UniRef90_W9EFF1
UniRef90_B0TL86
UniRef90_J3MRJ8
UniRef90_J5KJR4
UniRef90_G8S700
UniRef90_F3P796
UniRef90_Q83GQ3
UniRef90_W0JE42
UniRef90_P14995
UniRef90_UPI000380A05B
UniRef90_UPI000413324E
UniRef90_I3TGC4
UniRef90_A5GT19
UniRef90_A3WK97
UniRef90_C1F8V3
UniRef90_V5I621
UniRef90_G0S045
UniRef90_X0XUA3
UniRef90_C5FF11
UniRef90_X1CFG2
UniRef90_E7G0C8
UniRef90_R9P6N7
UniRef90_G2LPM0
UniRef90_I1BPG0
UniRef90_UPI0003740CE8
UniRef90_X0ZQL1
UniRef90_D3SBQ0
UniRef90_UPI000465428A
UniRef90_I4YH40
UniRef90_B5GUT2
UniRef90_X0Y3F2
UniRef90_U1K4E0
UniRef90_N2A705
UniRef90_G0R862
UniRef90_X5JE42
UniRef90_UPI000406F680
UniRef90_E5CUK1
UniRef90_V6S2D4
UniRef90_J0LK67
UniRef90_B4VIF9
UniRef90_D5BG00
UniRef90_X8J6J9
UniRef90_K3YN21
UniRef90_UPI00042879CE
UniRef90_J3CC33
UniRef90_UPI00035C548C
UniRef90_X1HBL6
UniRef90_X1SHH3
UniRef90_C7PM52
UniRef90_S2D464

1 10 20 30 40

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

UniRef90_K2K2G7
UniRef90_I4BXG1
UniRef90_D1Y0V9
UniRef90_W0BBM4
UniRef90_D4YGW3
UniRef90_J9YZH1
UniRef90_W6WMN7
UniRef90_L8DIK6
UniRef90_B3EL97
UniRef90_A0A023CWF3
UniRef90_G8BY04
UniRef90_UPI00036AEC00
UniRef90_N1W9P9
UniRef90_A9B1T6
UniRef90_UPI00036C0536
UniRef90_E0IA92
UniRef90_UPI00040A9C4B
UniRef90_K2CBP7
UniRef90_Q7VDV6
UniRef90_Q1AS69
UniRef90_G3B1N4
UniRef90_E8W121
UniRef90_L8FQ19
UniRef90_A3UJX1
UniRef90_C0QUQ3
UniRef90_R9YK62
UniRef90_J7M5M5
UniRef90_C4YB13
UniRef90_S0ANR9
UniRef90_UPI0003711F75
UniRef90_B4SCQ7
UniRef90_UPI0003870F10
UniRef90_G8YQ43
UniRef90_UPI00036B48B1
UniRef90_UPI0003680884
UniRef90_Q0ID96
UniRef90_R1GKV3
UniRef90_UPI00035F8B38
UniRef90_N9VDL7
UniRef90_C6V4Z8
UniRef90_R6GUH5
UniRef90_W2SCS6
UniRef90_W9EFF1
UniRef90_B0TL86
UniRef90_J3MRJ8
UniRef90_J5KJR4
UniRef90_G8S700
UniRef90_F3P796
UniRef90_Q83GQ3
UniRef90_W0JE42
UniRef90_P14995
UniRef90_UPI000380A05B
UniRef90_UPI000413324E
UniRef90_I3TGC4
UniRef90_A5GT19
UniRef90_A3WK97
UniRef90_C1F8V3
UniRef90_V5I621
UniRef90_G0S045
UniRef90_X0XUA3
UniRef90_C5FF11
UniRef90_X1CFG2
UniRef90_E7G0C8
UniRef90_R9P6N7
UniRef90_G2LPM0
UniRef90_I1BPG0
UniRef90_UPI0003740CE8
UniRef90_XOZQL1
UniRef90_D3SBQ0
UniRef90_UPI000465428A
UniRef90_I4YH40
UniRef90_B5GUT2
UniRef90_X0Y3F2
UniRef90_U1K4E0
UniRef90_N2A705
UniRef90_G0R862
UniRef90_X5JE42
UniRef90_UPI000406F680
UniRef90_E5CUK1
UniRef90_V6S2D4
UniRef90_J0LKG7
UniRef90_B4VIF9
UniRef90_D5BG00
UniRef90_X8J6J9
UniRef90_K3YN21
UniRef90_UPI00042879CE
UniRef90_J3CC33
UniRef90_UPI00035C548C
UniRef90_X1HBL6
UniRef90_X1SHH3
UniRef90_C7PM52
UniRef90_S2D464

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

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

	90	100	110	120
UniRef90_K2K2G7	L I G E R E S A A D V G A N L I C W H D A I V A R V F S Q Q T L T E L E A A A D			
UniRef90_I4BXG1	Q L A H G E S A K D T A V I L S R F G H G I A C R N C S F W T G M P Y Y I Q K L V P			
UniRef90_D1Y0V9	S M S K G E S L R D T A V W T L C M G V N G L V A R H N S A T G T G M P Y Y I Q K L V P			
UniRef90_W0BBM4	E K K G E V I E D T I K T L A A M G I S L M V I R H A K A D N G Y P Q L A A Q C G D			
UniRef90_D4YGW3	V N K G E S L Y D S V L T M Q A I G A D I V V I R H P B A D G A N Y P D Q L V N L D V			
UniRef90_J9YZH1	Q R V I E S F E D T F E I M S C Y L D A L V F R T T N H E K L K L A S K Y F K			
UniRef90_W6WMN7	I G H K E S M K D T A R V L G R M F N A I E Y R G F S Q E T V E E L A R F			
UniRef90_L8DIK6	V S K G E S L R D T A M T L R A A G A D A L I V R H P S A S G A A H Q I A Q W T A			
UniRef90_B3EL97	V S K G E S I V D T I K N L E A M Q V D A F V I R H P S A S G A A E Q Q S R I T			
UniRef90_A0A023CWF3	V K K G E T L Y D T L L A L N S I G V N L A V I R H S Q N E Y K E D E T Q K L			
UniRef90_G8BY04	L G T N E S F Y D T T K V V S S M V S C I F A R V N S H D D Y I Q N L C K D			
UniRef90_UPI00036AEC00	V N K G E T L Y D T V L T M S A L G T D V C V I R H P D V D Y Y K E V E S D S			
UniRef90_N1W9P9	L L S D I E D F E G K Y L S R N V A I I M A R L K R H G I D L L V L K S G S			
UniRef90_A9BIT6	Q L S H G E S A K D T A I V L S R F G A I A I R N C F F G I G N N Y M R A K Y			
UniRef90_UPI00036C0536	A G E T I E D A A K V L D R Y A C G M G I R I L E T Y G D G D A L L R E Y A R W			
UniRef90_E0IA92	S I S P I Q Y E A R Y V S S N S D M I M A R L K K H A D L L E L A K A Y A			
UniRef90_UPI00040A9C4B	A G G T T Q E D D D I A R M V S L Y G D V V V V R H P K E T G W P A H A A S L S E			
UniRef90_K2CBP7	D G T R R E S F E D I I E T M D R M V D A Y V V R D Y S Q Q M L T V F K R K			
UniRef90_Q7VDV6	L I K G E T P L D T V M T Y V A M G A H V L V V R H P G G T G V P E Q L D Q K K			
UniRef90_Q1AS69	S A A K E E S L A D T M R T I S K Y A N I V L R H P D D V A A R E G A S Y S			
UniRef90_G3B1N4	L G V N E S M Y D T T K I I S S M T S C V F A R V G K H Q E I L D L C K D			
UniRef90_L8W121	Q E N T G E T V E D S A A V L S R M I D V L V A R T A G P E H E L R A Y A A Q R			
UniRef90_E8FQ19	L G V N E S L Y D T S V V I S S M T S C M V V R A G E H S E V A D L A K H			
UniRef90_A3UJX1	S I S K G E S L D D T A L T L A A M R P D V L V V R H K A A G A A A H F A R I T			
UniRef90_C0QUQ3	V K K G E T L Y D T I K T L E A M N A D F I V L R H Y M S G A A H E I V A N K V K			
UniRef90_R9YK62	Q L A R A G E S V K D S A K I I G A A S D A I V L R T G P H Q I V I E F S R F C			
UniRef90_J7M5M5	L G V N E S L Y D T A V V V S S M V S C I V A R V G P H A D V A G L A Q H			
UniRef90_C4YB13	L G V N E S M Y D T T R V I S S M T S C I F A R V N K H Q D I S L C K D			
UniRef90_S0ANR9	S G G E P V K D V A R M L G G W L D I M V A R V F A Q S T L E E L K K Y S			
UniRef90_UPI0003711F75	Q T N T G E T T E D T G R V L S G M L D I L V A R T A G D Q A E M R G W A G Q D			
UniRef90_B4SCQ7	V S K G E S L S D T V K N L E A M Q V D A F V L R H P S G A A D L I T R I T S			
UniRef90_UPI0003870F10	S V Q K G E S L A D S V Q T M C Y A D V L V L R H P Q P G A V E L A A K H C			
UniRef90_G8YQ43	L G V N E T L Y D T V K V L S S M T A C I F A R V N K H Q E I T D L C E H S			
UniRef90_UPI00036B48B1	Q L G R G E T I A D T A K I I S G Y C S A L I R T F A Q A D V D E L G A H A			
UniRef90_UPI0003680884	I A K G E S L Y D T A R V L S G Y S D V I T M R H P D V G S A E F A E A S R			
UniRef90_Q0ID96	L S K G E S L L D T A R T Y V A M G A D V L V I R H R C T D V A S E L D Q A G E			
UniRef90_R1GVK3	L G V N E S L Y D T S V V I S S M V S C I F A R V N S H S D V A N L A K H			
UniRef90_UPI00035F8B38	P G R V G R L G E P S Q V I G A Y T A L V V L Q I C D D A E A V R F A R A A			
UniRef90_N9VDL7	N F G K K E S V E D T A M V L G Q M Y D G I E F R G F K Q S D V E A L A K Y			
UniRef90_C6V4Z8	L K K G E H L V D F F T S L N G L S P N A F I I R H S Q S G V L H I L E K Y I D			
UniRef90_R6GUH5	L G G H E T I G D T G R V L S Y L V D V V M A R V I E H R T I V D L A E A C			
UniRef90_W2SCS6	L G V N E S L Y D T S K V V S S M V S G I V A R V G P H S D V V G L A K D			
UniRef90_W9EFF1	F G T K E S I E D S G R V F G L A D G I E Y R G F A Q Q D L E T L A T A			
UniRef90_B0TL86	L G K R E P V S D F A A N Y S C W A D A I V A R T F L H S T I E E L A E H G			
UniRef90_J3MRJ8	S A A K G E T L E D T I R T V E G Y S D I I V L R H F F E S G A A R R A A A T A			
UniRef90_J5KJR4	P I E F K E H V I E V A Q V L S E Y C D L I A V R S F D D I S D Y V I N S F A K			
UniRef90_G8S700	Q E N T G E T A G D T G A V L S R M L D V L V V R T A G G D A E L R A Y A A S R			
UniRef90_F3P796	S V A K E E S I E D T M R V S Q Y A N L I V V L R H Y D E E E A R R G A E S A			
UniRef90_Q83GQ3	S V A K G E S T S D T S R V I S G Y A D I V V V R H S E L G F A E R Y A S D S			
UniRef90_W0JE42	L Q K G E N W L D T I T N L N A M H P D F F V T R H A Y S G F A Y Y I S Q F T Q			
UniRef90_P14995	L G V N E S L H D T T K I I S S M T S S I F A R V N K H S D I Q E M C K Y S			
UniRef90_UPI000380A05B	M G H K E S V A D T A R V L G R F Y D G I E F R G K E Q A H V I E T L A E L			
UniRef90_UPI000413324E	I E K G E S L Y D T L K T F E A L G V D L F V I R H P R A R F Y E E L E G L Q			
UniRef90_I3TGC4				

[illegible]

	170	180	190	200
UniRef90_K2K2G7	G D G N N V C H A L M G A A A L A G	M T L Q I A T P D G Y A P D P E L L A		
UniRef90_I4BXG1	W A Y A T T H K K P S Q I L L F P R Y	G M D V T L A Y P E G Y D L P D W A I K Q		
UniRef90_D1Y0V9	G D V R Y S R V A R S D V K A F R G M	G A R V I L S G P E R T L M P T R A E A L		
UniRef90_W0BBM4	G D I R H S R V A N S M Q T L C S L M G	V G E I L F V A P E I L L Q P H S V E		
UniRef90_D4YGW3	G D I M Y S R V A V S N M M L N Q L G	A N V I F A G P D Q Y F		
UniRef90_J9YZH1	G D L N N V L F S L L E S M K Y L T S S	K I D I F T D K K I Y E K N Y E N F		
UniRef90_W6WMN7	G D A R N N M G N S L L L I G A K L G	M D V R I G A P K S L W P N E E H V A		
UniRef90_L8DIK6	G D I L H S R V A R S N A I L L A T L G	A E V V L L A P T L L G		
UniRef90_B3EL97	G D I L H S R V A R S N I F G L T A L G	A N V G V C S P V S L L L P A D I S S L G		
UniRef90_A0A023CWF3	G D L T N S R V A R S D M R L R L Q L G	A K L Y F S G P T C W Y S S E F		
UniRef90_G8BY04	G D A N N V I N D L S I A C L K L G I D	V I V A T P D G I E D K D I F E E A K K		
UniRef90_UPI00036AEC00	G D L T H S R V A K S N M E I L K R L G	A T L Y F T G P A E W Y S		
UniRef90_N1W9P9	G V H N N V A N S L T E I T A A L G I	H L T L V T P I A S E E S I V K N S I		
UniRef90_A9BIT6	W A Y A T S H A K P L S V A L L F T R Y	G M D V T I A H P K E F P L M P E L M K		
UniRef90_UPI00036C0536	W A H R S Y C S V H E N L L I T S R I	G M N V R L A Y P K G Y D L P K E E I K T		
UniRef90_E0IA92	G I H R N N V A N S L I A G C V T L G	I K L L L V T P I I N G L P S W D E E L M		
UniRef90_UPI00040A9C4B	N D L R M R K V R S L L L G L	R H F D C T V Y I N G L S A S G K D A A		
UniRef90_K2CBP7	C P A A G S G V M E S F V Y G V L L L	G Q V I T L I F A G K N V D F H A Q V K R		
UniRef90_Q7VDV6	G D I L H S R V A R S N L W S L T A C	A N V V L C A F A K F V E A P S S G Q K K		
UniRef90_Q1AS69	P D M V H A R T G H S M A Y G L A R L G	A E V T L A S R S D Y R A P E E V I E G		
UniRef90_G3B1N4	G D S N N V L N D M A I A A I K L G I	H V S V A I P K Y D P E I Q A Q T E Q		
UniRef90_E8W121	G E G N N T A S A L A L A L S R F P	G T R L T L R T P P G Y G V A P E Y L E		
UniRef90_L8FQ19	G D S N N V L F D L A I A S V K L G V	D I T S V A S P K G F T I P R M K E F		
UniRef90_A3UJX1	G D I L H S R V A R S N V S L L N L L G	N A E V R L C G P A T L L P A D A D R W		
UniRef90_C0QUK3	G D I L H S R V A R S D I K L K M L G	A E I T I C G P Q T M L P R H L E V F		
UniRef90_R9YK62	G D T N N M L M T W L Q A S K L F G F E L	C I S S F K K G R L G V G		
UniRef90_J7M5M5	G D A N N V L F D M A I S A A K M G V D	L A V A T P K G Y E I P A P M L E L I Q		
UniRef90_C4YB13	G D A N N V I N D L A I A A L K A D I S	V S I S T P S S V Q V D P S I Q E I V		
UniRef90_S0ANR9	G D G T N N M A N S L M L A C S M T G I	D L T I A T P D A Y Q P D A S Y K A		
UniRef90_UPI0003711F75	G E G N N T A T A L A L A L A R F P	G V R L E L R T P P G Y G L P I L A T A L A		
UniRef90_B4SCQ7	G D V L H S R V A R S N I Y G L I T A G	A E V G I C C P V I T L M P		
UniRef90_UPI0003870F10	G D L K H G R T V H S L A R L L T L Y R	V N L R Y V T P G L H M P P D I T S		
UniRef90_G8YQ43	G D S N N V I N D L A I A S L R S G I S	V S I S V P S G I S L D S E V I E T V A		
UniRef90_UPI00036B48B1	G D G N N M S H A W L I M G A I V V A A	T P T G K W A P N P K V V E		
UniRef90_UPI0003680884	G D L K H G R T V H S L C K L C L Y R N	V T V T L I S P Q E L A M P G E I V E		
UniRef90_Q0ID96	G D V V H S R V A R S N L W A L S A C	A D V V L C F A A F L D A P P G Q A S		
UniRef90_R1GVK3	G D A N N V L F D L A I A S A K L G V D	V A V A T P K G Y E I P A S M R Q A		
UniRef90_UPI00035F8B38	G P A S N V T H S L E A V A L T G L T	L A V A A P E G A G P D A V L A R A E		
UniRef90_N9VDL7	G D I K N N V A R S L M I G A A F F G V	H I V M C G P K A Q W E I V K N G P D H		
UniRef90_C6V4Z8	G D I R S R V A H S T I P L R Q R L G	A T V S I S G P L S F M P T I Q V I E		
UniRef90_R6GUH5	V I F V G D G T Q V C A S L G F I T T H	L G M K V F H Y G P K G H Q L T D G H Q A		
UniRef90_W2SCS6	G D A N N V L F D M C I G A R K L G V D	M A V A T P K G Y E I P Q K I K Q D E		
UniRef90_W9EFF1	G D G R N V A N S L L V T G S M L G V N	V H I V A P A L A Q P Q Q K A Q T		
UniRef90_B0TL86	G D G N N V T H S L M F G A A I L G A Q	L T V I C P P G H F P D G K V V C		
UniRef90_J3MRJ8	G D L A N G R T V R S L A Y L I A K Y Q	N I K I Y F V S P D V V K M K D D I K E		
UniRef90_J5KJR4	W T Y H P K P L N N S S L I A S K F G	M N I K M L C P N N E Y L L H D S F I G		
UniRef90_G8S700	G E G N N T A S A L C L A L S R F G T	E L H L R T P P G F G V D R S F L D		
UniRef90_F3P796	P D M V E A R T G H S M A Y G L A R L G	A N V T I A S D S D R R T P T N I I N R		
UniRef90_Q83GQ3	G D L K H G R T V H S L I K L L S L Y E	G L T F K I F S I T D L E L P N D F H D		
UniRef90_W0JE42	G D I I R S V A R S H M Y L A K M F N	W D L S F Y G P S T F L		
UniRef90_P14995	G D V N N V I N D L C I A A L K S G I	D V S I A V P K F E L L I L S G A K E		
UniRef90_UPI000380A05B	G D A R N V A N S L L I S A A L M G M D	V R M V A P T Q L Q P E T E I I D		
UniRef90_UPI000413324E	G D T A H S R V A N T N A W I L K R L G	A R V S Y A G P D A W M P Q E		
UniRef90_I3TGC4	W A Y I R G W C S P Q E D M L F P R F	G V D V I A R P P G F D L D P K L V E		
UniRef90				

UniRef90_K2K2G7 A A Q Q Q A A A H G G S I S V V H S L C D A I Y T D T W F S M G Q Q R D A N Q V
UniRef90_I4BXG1 A E E N A K A N G R I T H N Q E E A Y E G A H V V I P K N W G D W V T N A P N P R
UniRef90_D1Y0V9 G A E Y E F G H V T S S L P R A A A Q A D I L G L L R V Q L E R S Q E A G L F
UniRef90_W0BBM4 A C R K F G A R L M L T E D P Q A A V E G T D F V H T D V W V S M F E A W K D D K
UniRef90_D4YGW3 L N L D N I S Y H F E I D D K I L G S A D C I M T D V F N S M N D A K D D K
UniRef90_J9YZH1 A C R K F G A R L M L T E D P Q A A V E G T D F V H T D V W V S M F E A W K D D K
UniRef90_W6WMN7 P T G V S G W P V R V S Y D I D A E L P G L D A V L M L R V Q A E R M N G G F F
UniRef90_L8DIK6 V R I F T G I D D A I L R W A D A A V L R L Q L E R T T G G Y L P S L E D Y S L
UniRef90_B3EL97 T E F G S Y G K V D D L L P Q M D V V I L L R V Q H E R H K Q E I G F S P
UniRef90_A0A023CWF3 I A K K N N C Q F E I T H D S E K G S A G A N V L V T D T F I S M G E E Y A K K
UniRef90_G8BY04 S E F D V Y G R H V A I D D V I T E L D V V M L L R V Q H E R H D G E T S F S K
UniRef90_UPI00036AEC00 E R G K T K G T I S W E T D V K K A V S N A D Y V Y T D T W D M E Y E K E E R
UniRef90_N1W9P9 Q A K Q N A E K H K F T N D M D E A F D G A Q I V I P K N W D E G K K Q M K E N
UniRef90_UPI00036C0536 N C E K N G R K F E I C H D P D K A Y T Q D N W F G P D F Y E I G K E A E I E R
UniRef90_E0IA92 R D A Y A S G Y V E N V D S L T D A A A R S D F V Y T D T W I H Y Q D E K N R R
UniRef90_UPI00040A9C4B A L P E G V P P I H T G R D L D S L L S E V D I V Y S S P T V A A E R P E D S L
UniRef90_K2CBP7 L V K M Y R G G T L T V T K N I Q N T I A Q A D V L Y V D E W W E N P H Y L D R
UniRef90_Q7VDV6 D P I K N R G K V T I S R C L K E A L T D T D A V I T L R L Q K E R M S E N L L
UniRef90_Q1AS69 L R R V E G A K V R E V F D L D Q D G F N D L V S E M D L V Y L P G C S A P E F
UniRef90_G3B1N4 L A A E N K V T F E I V N D P L V A L K N A N I V T D T W I S M G E E K L E K
UniRef90_E8W121 R A K R S G A R I E E R H D M A D L P A A D V V Y T T R W Q T T G T V K P T A D
UniRef90_L8FQ19 I L A S N P G K L T E T S V P E E A I K D A D I L V T D T W V S M G Q E E E Y K
UniRef90_A3UJX1 G V T V F H D L D E A L E G C D A V M A L R I Q K E R M T G G L I
UniRef90_C0QUQ3 E V D Y V T T D V N E A L E G K D V A I F L R I Q L E R Q K K V F F
UniRef90_R9YK62 P S D N C S F Y S N P I E A C Y Q S D L I V T D V W V S M N D G A K R G E A K T
UniRef90_J7M5M5 Q G V Q N P G K L I T Q N I P E A V K G A D V L V T D T W V S M G Q E A E A R
UniRef90_C4YB13 D A S N G S L S F E L V N E P A K A L K D A N V V T D T W I S M G E E A K K
UniRef90_S0ANR9 F G K K A G S A I T V T D N V H D S A I G A D I L Y T D V W V S M G E E A Q K R
UniRef90_UPI0003711F75 S A A R T G A Q V T E R H D M D E L P G D L D V Y T T R W Q T T G H S G N G W
UniRef90_B4SCQ7 P D A D Q L G I T F T D L D R A I A W A D T A I V L R L Q L E R A T G G Y L
UniRef90_UPI0003870F10 F V A S K G I K Q E E F G S I E E A L P D T D V L Y M T R I Q K E R F R A E E Y
UniRef90_G8YQ43 K K Q E Q G L S F E F I H D P V V A V K D A N I V T D T W I S M G Q E K Q K K
UniRef90_UPI00036B48B1 V A K N I A A K I E V V H D P E S A S K D A S V L Y T D V W S M G D S E S E R
UniRef90_UPI0003680884 K M R S A G L T V H E S D V M E E S I G H V D I A Y S T R I Q E E R F A S K A E
UniRef90_Q0ID96 D P V R E R G T V Q I T S R S L D D C L S G A D A V M T L R L Q K E R M T D H L L
UniRef90_R1GVK3 A S A P K A G K L I E T T V P E E A V K G A D I L V T D T W V S M G Q E E K R
UniRef90_UPI00035F8B38 E A A S G G R V I V T P D P Y E A V K E A D A V C T G A W P V S R A A T A G L
UniRef90_N9VDL7 K F E R N G G S V S F S D N K L E A A K D A D A I Y T D V W V E P F E L F E P R
UniRef90_C6V4Z8 Q I I Y Y D N F P A A A K S A D V I I M L R T Q T E R T G Q K V L
UniRef90_R6GUH5 I M E R N C G G S F L V T D D R S A V R D A D F I Y T D V W Y G L Y E N E M P K
UniRef90_W2SCS6 L R A A G S G A L T E T N V P E A V K N A D V I V T D T W V S M G Q E Q E M R
UniRef90_W9EFF1 L A Q Q S G A R P L V T A D I E K G V R A A N V I Y T D V W V M G E H N W Q A R
UniRef90_B0TL86 A Q E A K H G G K L I L S S D V E A I I G H D A I Y A D T W L S M G D S T P E I
UniRef90_J3MRJ8 Y L T S Q G V E W E E S S D L L E V A S K C D V I Y Q T R I Q K E R F G E R L Y
UniRef90_J5KJR4 S A K N N C S Q N N I T H D I E Y G Y K G A D I V Y A K S W Y F N K V D Q E K E
UniRef90_G8S700 R A G S R V V Q R H D M T D L P K V D V V Y T T R W Q T T G T T K P V P N W R
UniRef90_F3P796 I H D D L G A Q V R E E F D F E Q F V R G Q D I Y L P G C S A P A G A K A E E
UniRef90_Q83GQ3 L L S G R G H T L E V C D S L R N A V N A D V I Y A T R V Q T E R I A Q D L T
UniRef90_W0JE42 P Q N I D I K I E K D L K Q A I S N K D F V I L L R I Q L E R K S G V N I
UniRef90_P14995 I S A E N G T T L K I T N D P T E A I N G A N V I V T D T W I S M G Q E D E Q K
UniRef90_UPI000380A05B A A H D S G A R I T I T D D P T T G V A G V D F L Y T D V W V S M K E V W D E R
UniRef90_UPI000413324E V S G G R V L S M D E A V E Q A D V M M M L R I Q T E R H D G Y T P
UniRef90_I3TGC4 K A K E H G G S L E V T D N L Q E A L R G A H A V F P R N W A T P K D E E L K I
UniRef90_A5GT19 F D A G Q R E A L E Q S G L K R L A T R L N D E V G R F D V T Y I N A I A W V
UniRef90_A3WK97 E Q Q R E Q I E Q A G I H V R T S T D L N A T L P D I D V V Y I N A I S W E G E
UniRef90_C1F8V3 P G V S V E R D F E A A L R R S Q I V M M L R I Q A E R L A G I D L
UniRef90_V5I621 I T K Q S P G K L I Q T N V P E E A V K N A D I L V T D T W V S M G Q E E K I
UniRef90_G0S045 E G V A R P G K L F E T T V P E E A V K E A D I I V T D T W V S M G Q E K Q K R
UniRef90_X0XUA3 N G V R S P G A L I Q T Y S P E E A V K K A D V I V T D T W V S M G Q E E E Q R
UniRef90_C5FF11 D A K K I S S R I E I L L Q D P K E A V D G A D V I Y T D V W T S M G F E K E S E
UniRef90_X1CFG2 T H N L E A L K E V D I V M C L R T Q T E R H S L Q T Y
UniRef90_E7G0C8 G T M Q D G G Q V S W S N D P A E A V K D A D I V T D T W I S M G D E A Q K E
UniRef90_R9P6N7 F Y Q D H T S N I I C T E N I Q Q G V K N V D F I Y T D V W V S M G E S K E T W
UniRef90_G2LPM0 D A A K T G A T V K F T T K P E D A I K D C D V I V T D T W I S M G Q E E E K K
UniRef90_I1BPG0 Q A R E N G G S L E I T H D L K E A L T G A H V V F P R S W A S Y A C R E L E L
UniRef90_UPI0003740CE8
UniRef90_X0ZQL1 E L E E A G L K L R V V H E L D P L L P E L D V V Y I N A I A W V G D T F
UniRef90_D3SBQ0 K A A R E I A S K T I T T D P R A A K D A S V V Y T D V W S M G D P E E E K
UniRef90_UPI000465428A L E E Q G I L D K V L F T S S P E A V K D A D V I V T D T W I S M G Q E D E K T
UniRef90_B5GUT2 R A R E T G A R I T L T E E V P E G V R G A D F V A T D V W V S M
UniRef90_X0Y3F2 G A K I S H D L D A L A E A D V V N M L R V Q H E R M T S Q L F
UniRef90_U1K4E0 Q L E E A G V K V S I G H D L N A V L P E L D V V Y I N S I A W V G E S F E T Y
UniRef90_N2A705 F A K Y S P E C K F L E T D D I N A I K G V D V I T T E N W G F F T D W L P G I
UniRef90_G0R862 L I N S P G K L S E T T V P E E A L K N A D I L V T D T W I S M G Q E K Q K R
UniRef90_X5JE42 A I A K N K T Q V S I T Q D A Q A T E G A N I Y T D V W A S M G Q E S Q N R
UniRef90_UPI000406F680 L D P K I R K D V K V E Y N Q E K A F E N A D F I Y V K N W S Y E D Y G Q V K
UniRef90_E5CUK1 L L R N T N Y S I V H N V E R K L E Q A D L D I I P F E L P D F N S A Y S
UniRef90_V6S2D4 K S K I I H D Q E E A F K D A D F I Y A K N W S N Y N D Y G Q I T
UniRef90_J0LK G7 L A E E F T K G A Q V L H N Q D E A L Q D A D F V Y V K N W S S Y E Q Y G Q V L
UniRef90_B4VIF9 Q P S I P N R R L F L H W E V E P A L K D A D F V M T L R L Q K E R M T A H L L
UniRef90_D5BG00 L S N R V L N D T K V Y H N Q D E A L K D A D F V Y V K N W S S Y E K Y G E V L
UniRef90_X8J6J9 V K E L G C D K N I I W T D N P Y A V K G A D V V I T D T W I S M G Q E K A Q R
UniRef90_K3YN21 Y L N S K G V E W E E S S D L L E V A S K C D V I Y Q T R I Q K E R F G E R L Y
UniRef90_UPI00042879CE L A P E F V G K G Q V I Y D Q D K A L E G A D F V Y G K N W S S Y Q H Y G Q V L
UniRef90_J3CC33 L D K N F T K D T P V I H D Q D E A L K D A D F V Y V K N W S S F D E Y A A M P
UniRef90_UPI00035C548C L A D K F T K G A T I I H N Q D E A L S G A D F V Y V K N W S S Y N D Y G K M H
UniRef90_X1HBL6
UniRef90_X1SHH3 D L R S R G A E I E E T E D V K K A L S V S D I V Y V T R V Q R E R F E N P E Y
UniRef90_C7PM52 L D P S F T I G A R I E Y N Q E K A L E G A D F V Y V K N W S S Y K D Y G K I T
UniRef90_S2D464 L D P S F T I G A R I E L D Q E K A L E G A D F V Y V K N W S S A F N D Y G K

[illegible]

UniRef90_K2K2G7 E Q S L V L K Q A E N R L H A Q N A I L V T L L G A N
UniRef90_I4BXG1 P H S I V Y D E A E N R I H T A K A V M T L T M G G
UniRef90_D1Y0V9 P S S L I R E Q V L C G V L T R M A L L D I C L G G D
UniRef90_W0BBM4 P Q S V I L R Q V G N G V F M R M A I F D L L
UniRef90_D4YGW3 E K S R I V S Q M S N G V Y A R I A I L E W V L
UniRef90_J9YZH1 S K S I V L K Q A K N R M V A Q R G I I K W L
UniRef90_W6WMN7 P L N I A F E Q A E N R M H T I K A I L V S T L
UniRef90_L8DIK6 P K T A V L Q Q V T N G V H V R M A V L F R L L
UniRef90_B3EL97 S K S V L L E Q V T N G V A V R T A V L E M L F T E
UniRef90_A0A023CWF3 S R S R F A K Q M Q N G V F M R M A M I E A V I N G
UniRef90_G8BY04 E N S I V F Q E A E N R L Y A A M A V I V F V I N K G N F
UniRef90_UPI00036AEC00 P K S R I V A Q M T N G V F V R M A I I E A V L
UniRef90_N1W9P9 D R S I I F T Q A E N R L D A Q K A V I L K L L
UniRef90_A9BIT6 P H S I I Y D E A E N R L H T A K A I M A L T M G G
UniRef90_UPI00036C0536 P R S I I V D I A E N R L H T Q K A I M A M T I
UniRef90_E0IA92 E R S V I Y Q Q A E N R M H V Q K A L L L Y L L T E N
UniRef90_UPI00040A9C4B R F A G Y W E Q A D N G V P V R M A L L R L M F G
UniRef90_K2CBP7 A Q S I I Y D E A E F R V Y A A M A L L S Y L L
UniRef90_Q7VDV6 P K S L I E N Q V S N G I P I R M A L L Y L L
UniRef90_Q1AS69 P H Q Q Y F E A I A Y S V A I R M A L V A A I V G
UniRef90_G3B1N4 D N S V V F Q E G E N R L Y A A L A V M E F V I N K G D L L
UniRef90_E8W121 P A S I A F D Q A E N K Y H S A R A V L E W C
UniRef90_L8FQ19 P R S L V F P E A E N R L Y A I A A I E A F V V N K G K I V
UniRef90_A3UJX1 P R A L I L E Q V E S G V A V R S A I L E L I T G R
UniRef90_C0QUQ3 D R S L I L D Q V E N G L F T R M A I Y R Y L L
UniRef90_R9YK62 P K S V V Y F E A L N R I S F Q K A L I E Y V
UniRef90_J7M5M5 K R S L V F P E A E N R L W A I S A L E G F V V N K G K I L
UniRef90_C4YB13 D K S I V F E E A E N R L Y A A M A V I A F V V N K G D L L
UniRef90_S0ANR9 K Q S V A W Q Q G V N K I Y G A A S S I E W A M G
UniRef90_UPI0003711F75 P A S I A F R Q A E N K M H S A M A V L E W
UniRef90_B4SCQ7 S K S M L L E Q V T N G V A V R M A V L N T L L T
UniRef90_UPI0003870F10 E N S L V F F E E A E N R L Y A A M A V I S F V V N K G D L L
UniRef90_G8YQ43 P R S V I W R E A Y H R R T T I Q S L L F H L T K G D L
UniRef90_UPI00036B48B1 D L N A I F R Q T D N G V L V R M A L F
UniRef90_UPI0003680884 R S C L V E D Q V R N G I P I R M A L L Y L M
UniRef90_Q0ID96 P K S L V F P E A E N R L W A I S A L E G F V V N K G K I
UniRef90_R1GVK3 P A S R V L A Q A A N L L P A A Q A V M E A L L T N R L
UniRef90_UPI00035F8B38 K Y N K S I Q Q A G N R M H T I K A V I L A T I G
UniRef90_N9VDL7 P R C A I L T Q V R N S Q Y V R A A V L N F L I
UniRef90_C6V4Z8 A A S L C W E Q A G N R L T A M R G L L V Y
UniRef90_R6GUH5 K R S L V F P E A E N R L W S A I A V L E
UniRef90_W2SCS6 K Y A R Q F Q E A G N R K P A I M A I M A A T L G
UniRef90_W9EFF1 E G S L I L H Q A E N R M H A Q N A V L V T L L S
UniRef90_B0TL86 P R A A Y F R Q A K N G L Y I R M A L L K L L L
UniRef90_J3MRJ8 E N C V A I K E A A N R I H V Q K S I M T N L I
UniRef90_J5KJR4 P Q S I A F E Q A E N K Y H S A R A V L E W C
UniRef90_G8S700 E H Q L H F R A I L Q S V S I R M A L L A S I L G
UniRef90_F3P796 S G F M P F G Q A N N G V P V R M A I F S E I L G
UniRef90_Q83GQ3 R N V L I T K Q V E N G V F V R M A I F D F C I S
UniRef90_W0JE42 E R S L V F F E E G E N R L Y A A I A V L E F V V N K G K L L
UniRef90_P14995 P L N A A F D Q A E N R M H T I K A V M V A T L
UniRef90_UPI000380A05B R R S R I F K Q M E N G V K V R Q A V L H F L L
UniRef90_UPI000413324E P R S I I Y E Q A E N G L W T K M A V L A L T M
UniRef90_I3TGC4 P Q N W Y F A Q A R G A V F L R M A L L T C M V E R
UniRef90_A5GT19 P H N W Y F S Q A R G A V F L R M A L L T C M V Q R
UniRef90_A3WK97 P Q S A I A E Q V H H G L A I R M A L L A Q A L D K
UniRef90_C1F8V3 R R S L V F P E A E N R L W A A I S A L E
UniRef90_V5I621 P R S L V F P E A E N R L W A A V A V L A F V V N K G K I L
UniRef90_G0S045 E R S L V F P E A E N R L W A I S A I Q A F V V Q K G Q I V
UniRef90_X0XUA3
UniRef90_C5FF11
UniRef90_X1CFG2 D R S C K I L Q Q V K L G V A I R M A L I E S M L G
UniRef90_E7G0C8 D R S V V F P E A E N R K W T I M S L F D R M F G R
UniRef90_R9P6N7 N E K I I F E Q A E N R L H T I K A I L
UniRef90_G2LPM0 D R S I V F P E A E N R K W T I L S V I D A L L
UniRef90_I1BPG0 P R S V I Y D Q A E N L V Y V R A A V L A L V A G
UniRef90_UPI0003740CE8
UniRef90_X0ZQL1 P H N W Y F A Q A R G A V F V R M A L L T T V V R R
UniRef90_D3SBQ0 P K S V V W R E A Y H R R T T I Q A A L Y H L V R G E L
UniRef90_UPI000465428A A R S K V F Q E A E N R K W T I M S I F D K I L G E
UniRef90_I4YH40
UniRef90_B5GUT2 P N S S I L R Q V T N G L A I R M A V L F L L
UniRef90_X0Y3F2 P H N W Y F S Q A R G A V F L R Q A L L T C M V Q R
UniRef90_U1K4E0 N A K Y I F Q E A G N R K H T I K A V I K A V L G E
UniRef90_N2A705 P R S L V F P E A E N R L W A A V A A L E F V V N K G V L
UniRef90_GOR862 S Q S L V W E Q A E N R M H A Q K A L L V S I L G A E
UniRef90_X5JE42 E N S I V I Q Q A N N R T Y A A Q A V L K R I L
UniRef90_UPI000406F680 S N V I F T K Q A N N G M L I R M S L Y Y F M
UniRef90_E5CUK1 E N S I V I D Q A N N R T F A T Q A I L T Q I L
UniRef90_V6S2D4 P N S L V I E Q A N N R L Y A A Q A V L K R M L E G
UniRef90_J0LK G7 P E S L I S Q Q V T S G V A V R M A L L Y L M
UniRef90_B4VIF9 E N S A V I H Q A N N R T Y A A Q A V L K R I L E K
UniRef90_D5BG00 S R S L V F P E G E N R K W T I M A L F D S I I G R
UniRef90_X8J6J9
UniRef90_K3YN21
UniRef90_UPI00042879CE P R S L V I E Q A A N R E W S A Q A A L R E V L
UniRef90_J3CC33 K N S I I Y Q Q A K N R I F S A Q A V F S E I L
UniRef90_UPI00035C548C A N S L V T K E A S N R V W A A Q A V I S E L L T
UniRef90_X1HBL6
UniRef90_X1SHH3 K G A A Y F R Q A H N G L Y V R M A L L S L V S G R
UniRef90_C7PM52 P Q S I V I P E A A N R V W A A Q A V L S E I L K G N
UniRef90_S2D464 D R S L V Q E Q A K N R I Y A A Q A V I S Q I L G

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5

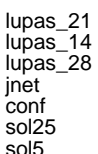
[illegible]

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5



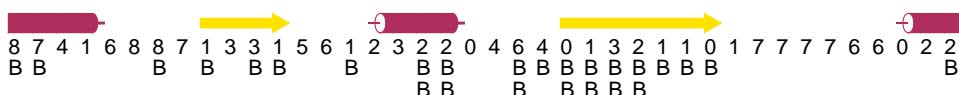
UniRef90_R7RWJ2	S	P	V	P	V	L	N	A	L	S	S	L	W	H	P	T	Q	T	L	A	D	L	L	T	L	H	E	H	A	H	L	F	D	P	S	I	P	A	P	T	
UniRef90_UPI00037A8DBB	G	S	V	L	N	A	G	D	G	T	H	E	H	P	T	Q	A	L	L	D	A	F	T	M	R	S	R	L	G	R	L	E	G	L	R	V	A	V	V		
UniRef90_T5K5S3	S	G	V	P	V	W	N	G	L	T	D	E	Y	H	P	T	Q	A	L	L	D	A	F	T	M	Q	S	R	L	G	R	L	E	G	L	N	E	M	T	L	V
UniRef90_F0NZE9	S	S	V	P	V	V	S	L	E	S	A	T	L	H	P	T	Q	S	F	A	D	L	L	T	I	N	P	A	N	P	P	K	E	K	V	K	V	V	M	T	
UniRef90_I3B7L8	V	P	V	I	N	A	G	D	G	G	H	M	H	P	T	Q	T	L	A	D	L	A	T	L	T	L	Q	S	R	F	G	R	I	T	D	L	T	V	G	L	C
UniRef90_A3XM38	A	T	V	P	V	V	N	M	E	S	A	T	A	H	P	T	Q	A	L	A	D	A	I	T	I	T	E	L	S	E	K	K	S	P	K	V	V	L	S	W	
UniRef90_U7UFF7	A	T	V	P	V	I	N	G	C	D	N	T	F	H	P	T	Q	A	L	A	D	M	L	T	I	L	Y	E	K	L	G	R	F	S	A	S	V	L	Y	I	
UniRef90_I3Z7J6	A	N	V	P	I	L	S	L	E	S	A	T	R	H	P	T	Q	S	L	A	D	M	I	T	I	Q	E	N	S	K	A	I	K	K	P	K	V	V	L	T	
UniRef90_F4XJ24	Q	V	S	V	L	N	A	G	D	G	Q	H	E	H	P	S	Q	G	L	L	D	L	F	T	I	C	S	C	L	D	W	L	A	G	K	K	V	T	L	V	
UniRef90_Q1K5I2	S	S	V	P	V	I	N	A	L	S	D	D	F	H	P	L	Q	A	L	A	D	F	Q	T	I	H	E	A	F	A	T	L	E	G	M	K	V	A	W	V	
UniRef90_I5C388	A	G	L	P	V	V	S	L	E	S	A	T	R	H	P	L	Q	S	L	A	D	M	I	T	I	Q	E	H	A	L	K	K	P	K	V	V	L	T	W	A	
UniRef90_U5BQY2	S	G	K	P	V	I	S	L	E	S	A	T	R	H	P	L	Q	S	L	A	D	M	I	T	I	Q	E	N	Q	I	A	G	K	S	P	K	I	L	V	L	T
UniRef90_R7QWM6	F	P	V	I	N	A	G	L	T	D	E	N	H	P	C	E	L	S	D	L	Y	A	L	S	K	L	R	N	N	F	C	T	D	K	F	L	F	V			
UniRef90_UPI000382264D	H	I	V	N	A	G	D	G	K	H	A	H	P	S	Q	A	M	L	D	L	M	T	I	V	I	E	R	K	P	N	N	L	N	Q	L	K	I	A	I	V	
UniRef90_UPI000423E3B4	C	G	V	P	V	V	S	L	E	S	A	T	L	H	P	L	Q	S	L	A	D	L	L	T	I	Q	E	Q	K	Q	T	V	K	P	K	V	V	L	S		
UniRef90_R7AXY5	S	I	P	I	I	N	G	L	T	D	L	S	H	P	C	Q	V	L	A	D	L	M	T	I	R	E	F	K	G	S	F	D	G	L	K	M	C	Y	I		
UniRef90_H2QYG7	A	S	I	P	I	I	N	G	L	T	D	L	Y	H	P	T	Q	I	L	A	D	Y	L	T	L	Q	G	Y	E	P	D	A	S	V	T	K	L	A	E	Q	
UniRef90_U1D2A1	S	G	V	P	V	W	N	G	L	T	D	D	W	H	P	T	Q	M	I	A	D	F	M	T	V	K	E	N	F	G	H	L	K	G	L	T	L	V	Y	V	
UniRef90_U2J7D8	C	G	V	P	V	V	S	L	E	S	A	T	R	H	P	L	Q	S	L	A	D	L	T	I	T	E	I	Y	K	Q	V	D	K	P	K	V	V	L	A		
UniRef90_F7WZF8	S	N	I	P	V	W	N	G	L	T	D	M	F	H	P	T	Q	L	L	A	D	L	V	T	I	V	E	I	Y	P	K	F	E	K	L	H	I	A	Y	I	
UniRef90_E0TCC0	L	A	S	V	L	N	A	G	E	G	S	F	G	H	P	T	Q	G	L	L	D	A	A	T	M	L	R	A	I	D	R	F	L	T	G	Y	K	L	A	I	C
UniRef90_F7K8R3	S	K	V	P	V	I	N	A	L	T	A	I	N	H	P	C	E	M	L	A	D	M	Y	A	L	S	E	K	I	R	K	D	F	T	K	D	K	F	L	F	C
UniRef90_UPI000375CE78	S	G	K	P	V	F	S	M	E	A	A	T	R	H	P	L	Q	S	F	A	D	L	L	T	I	E	E	Y	K	K	T	E	K	P	K	V	V	L	T	W	
UniRef90_L7VZ63	R	C	P	V	V	N	G	D	A	L	E	H	P	T	Q	A	L	L	I	D	R	F	A	I	E	Q	L	A	G	P	I	G	N	L	H	V	G	I	A		
UniRef90_UPI00047EA22C	A	S	V	P	I	V	N	M	E	S	S	V	G	H	P	T	Q	A	L	T	D	A	I	T	L	D	E	H	N	F	K	N	N	P	K	V	V	L	S	W	
UniRef90_I0K7F0	A	G	V	P	I	V	N	L	E	S	A	T	R	H	P	L	Q	S	L	A	D	C	I	T	I	E	E	A	R	T	T	Y	P	R	P	K	V	V	L	T	
UniRef90_A5LMY3	T	T	S	L	I	N	G	D	G	S	G	Q	H	P	S	Q	S	L	L	D	L	M	T	I	Y	E	E	F	F	G	H	F	E	G	L	K	V	A	I	A	
UniRef90_U6END4	S	G	R	P	V	W	N	G	L	T	D	D	W	H	P	T	Q	M	L	A	D	F	M	K	I	K	E	H	F	G	H	L	Q	D	L	T	L	A	Y	V	
UniRef90_A4AU33	A	S	V	P	I	L	N	M	E	S	S	V	G	H	P	L	Q	A	L	A	D	A	I	T	I	A	E	N	N	T	K	K	R	P	K	V	V	L	S	W	
UniRef90_F4AZQ2	G	S	V	P	V	V	S	L	E	S	S	T	A	H	P	L	Q	G	F	T	D	A	I	T	I	Y	E	L	T	E	S	L	R	A	E	N	K	K	P	N	
UniRef90_A6EDV2	C	G	V	P	V	V	S	L	E	S	A	T	R	H	P	L	Q	S	L	T	D	L	V	T	I	S	E	T	W	K	G	V	A	K	P	K	V	V	L	A	
UniRef90_UPI000381D256	A	S	V	P	I	V	N	M	E	S	A	T	G	H	P	L	Q	G	L	T	D	A	L	T	I	S	E	Y	A	K	V	K	K	P	K	V	V	L	S	W	
UniRef90_E4TPD4	S	Q	K	P	V	V	S	L	E	S	S	R	H	P	L	Q	S	L	A	D	M	M	S	I	L	K	E	T	W	K	N	V	S	K	P	K	I	V	L	S	
UniRef90_L7EUQ5	D	A	A	V	I	N	A	G	D	G	T	H	Q	H	P	T	Q	A	L	L	D	A	F	T	M	R	R	R	G	Q	D	L	A	G	K	R	I	T	L	V	
UniRef90_X1C085	A	S	V	P	V	I	S	G	L	D	N	K	E	H	P	C	Q	V	I	T	D	L	M	T	I	K	E	Y	K	G	R	L	K	G	L	N	F	V	Y	I	
UniRef90_UPI000328AE49	R	R	P	V	I	N	A	G	D	G	V	G	E	H	P	T	Q	A	L	L	D	I	E	T	I	R	E	E	L	G	T	V	N	G	M	T	I	T	M	V	
UniRef90_X0TSD1	A	E	I	P	V	I	N	M	E	D	D	I	Y	H	P	C	Q	S	M	A	D	V	L	T	M	K	E	K	L	G	D	L	R	N	K	L	V	V	S		
UniRef90_W8AQD9	A	T	V	P	I	V	N	M	E	S	A	T	A	H	P	L	Q	A	L	A	D	A	I	T	I	T	E	F	Q	T	I	R	R	P	K	V	V	L	S	W	
UniRef90_I0W7D7	S	V	P	I	I	S	L	E	S	A	T	S	H	P	L	Q	A	L	A	D	A	I	T	I	T	D	E	N	K	Q	K	A	K	P	R	V	V	L	S	W	
UniRef90_M7NRT8	G	I	P	V	I	N	A	M	A	T	E	E	H	P	T	Q	S	G	I	C	D	L	A	T	I	S	L	V	R	G	S	L	E	G	V	R	V	L	Y	V	
UniRef90_S4MQM6	A	G	V	P	V	V	S	L	E	S	E	T	R	H	P	L	Q	S	L	T	D	L	L	T	I	E	Y	H	R	A	K	A	K	L	S	G	R	P	K	V	
UniRef90_A1ZXAB	S	G	R	P	V	I	S	M	E	S	A	T	R	H	P	L	Q	A	F	A	D	L	V	T	I	E	E	H	R	S	V	Q	R	P	K	V	V	L	T	W	
UniRef90_UPI00029A758B	T	T	A	I	V	N	A	G	D	G	A	G	Q	H	P	S	Q	M	M	L	D	L	M	T	I	H	E	E	F	G	H	F	D	G	L	S	I	G	I	V	
UniRef90_S2U3X9	A	S	V	P	I	L	N	M	E	S	A	T	G	H	P	L	Q	A	L	T	D	M	I	T	I	A	E	H	H	K	K	S	K	P	K	V	V	L	S	W	
UniRef90_UPI000248EB71					Y	V	P	I	R	H	A	S	M	T	R	I	G	Y	I	T	Y	A	Y	T	Q	D	L	P	S	L	R	P	L	T	V	T	W	L			
UniRef90_L8WWVZ9	S	G	K	P	V	I	S	M	E	A	A	V	R	H	P	L	Q	T	F	A	D	L	L	T	I	E	E	Y	K	R	V	E	K	P	K	I	V	M	T	W	
UniRef90_R5I3B2	G	T	V	V	I	N	A	G	D	P	S	S	E	H	P	T																									

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5



UniRef90_R7RWJ2 V K E L G C G G 210 W W G A D P K E A V 220 K G A D V V V T D T W I S M G Q E K E E R 240
UniRef90_UPI00037A8DBB P C E W S Y D L D E V L P K S D V V M M L R V Q A E R M T E S Y F
UniRef90_T5K5S3
UniRef90_F0NZE9 A K F T H G A N I V Y D Q E E A L K G A D F V Y A K N W S S Y E D Y G A I
UniRef90_I3B7L8 I N A T D N C S Y V E V R D L A S V I G D L D V L Y M T
UniRef90_A3XM38 D A T M K D T P V V Y D Q D E A L K D A D F V Y V K N W S N Y E D Y G K V L
UniRef90_U7UFF7 T G R Y H E I S P T V S K E E L K K I V G A D C V Y T D T W V D M E F K K N A I
UniRef90_I3Z7J6 L D P Q F T Q G A V I E L D Q K K A L K N A D F V Y V K N W S A F N D Y G K
UniRef90_F4XJ24
UniRef90_Q1K5I2 S V A E G V A K P I E T T V P E E A V K D A D I L V T D T W V S M G Q E A Q R R
UniRef90_I5C388 L D A A F T Q G A T I T H N Q A E A L E G A D F V Y V K N W S S F N D Y G K I L
UniRef90_U5BQY2 L D V E F T K G A K I E Y D Q K T A L E G A D F V Y V K N W S G F N E Y G K I L
UniRef90_R7QWM6 V I R D L K E A V R G R D I I C T D S L T H G E L H D F K K
UniRef90_UPI000382264D V H F G H V T S S L R D G I Q E A D V I V C L R V Q R E R L L E N E Y
UniRef90_UPI000423E3B4 L A E E F T A G A S I T Y N Q E A L E N A D F I Y V K N W S S Y R E Y G K I L
UniRef90_R7AXY5 D F A Q K D P G F S I T N V P L E A A K D A D I L L T D V W A S M G Q E G E I A
UniRef90_H2QYG7 T N D P L E A A H G G N V L I T D T W I S M G Q E E E K K
UniRef90_U1D2A1
UniRef90_U2J7D8 L A D N F T K G A T I T N N L N E A L S G A D F V Y V K N W S S Y K E Y G E V Y
UniRef90_F7WZF8 M S K N N K K R A K I T C T E N I A V K N I D F I Y T D T W I S M K T C W K E K
UniRef90_E0TCC0 A P P G V Q A M T S S V A E A V S G A D F V M T L R L Q K E R M T K A L L
UniRef90_F7K8R3 Y E M E G I P V Y H N I E D A I L G K D I V C T D S L P S D V L E K S S D
UniRef90_UPI000375CE78 L D N K F V G K A V V E Y D K E K A Y K G A D F I Y A K N W A A Y Q D P N Y G K
UniRef90_L7VZ63 L V J E R T E Q P S V P E F A E L D V L V L P G L P B G H G Q K R L D
UniRef90_UPI00047EA22C L D P N I T K D S K I E Y D Q E K A L E N A D F V Y V K N W S S Y T D Y G Q I K
UniRef90_I0K7F0 L A P E F V G N A R I E H D Q N K A F E G A D F I Y G K N W S S Y E H Y G Q V L
UniRef90_A5LMY3 W R S Q E F A D Y G K F V S I T I D E I D Q V D V M M F L R V Q H E R H D S F S K
UniRef90_U6END4 L A R K Y A M K S R S K I S I R T D L N G A D I V Y T D V W V S M G E A Q T A
UniRef90_A4AU33 T D G I T I E T D Q E K A L E N A D F I S V K N W S S Y A E Y G Q V
UniRef90_F4AZQ2 L N P E I R G E V P V I S Y N Q K E A F A N A D I Y V K N W S S Y E D Y G K V Q
UniRef90_A6EDV2 L N E D F T P G A A I H N Q K E A F E G A D I Y V K N W S S Y E Y G K V L
UniRef90_UPI000381D256 L N P E I T G S T P I Y H N Q E E A F K D A D F V Y A K N W S S Y E N Y G K V V
UniRef90_E4TPD4 L E E Q F T K G A E I E Y D Q E K A V A D A D F V Y V K N W S S Y H D Y G K L P
UniRef90_L7EUQ5 P C E V S Y D L D S T L P K S D A V M L L R V Q R E R M N A A F F
UniRef90_X1C085
UniRef90_UPI000328AE49
UniRef90_X0TSD1
UniRef90_W8AQD9 A A Q K R A A E I A I T S D P Q A A A E G A D A L V T D A W T S M G Q E N D G R
UniRef90_I0W7D7 L N P L I T R N V P I N Y N Q N D A L K D A D F V Y V K N W S S Y N Q Y G Q I
UniRef90_M7NRT8 L A P Q I L G D T P V I Y N Q E R A F E G A D F I Y A K N W S S Y R E Y G K I L
UniRef90_S4MQM6 E A K R G A E H V E S H S M D E L P D Q V D F V Y T T R W Q T G T S K G D A H
UniRef90_A1ZX8 L S P E F T Q G V T I E Y D Q K K A L K G A D F V Y I K N W S S F S S N Y G Q V
UniRef90_UPI00029A758B L A P E F M D G V H V E Y D Q K K A F E G A D F I Y A K S W A S F S E Y G K V L
UniRef90_S2U3X9
UniRef90_UPI000248EB71 L D P Q F V G K A T V T N N Q E E A F K D A D F I Y V K N W S P F A D A N Y G K
UniRef90_L8WWZ9 D R V K E L G C I G F W T D N P Y E A V K G A D F V V V T D T W Y V I S M E K A Q R
UniRef90_R5I3B2 L N P A F T A K A V I E Y D Q K K A F E G A H F I Y A K N W A A Y E G D N Y G K
UniRef90_A1SFG7 A L R E A P M V D S Y D D L E R I D A L H A I G I P N G S V E E N V R
UniRef90_U6F3Y1 F A K D S G S R N L I T D D I E Q G V K G A N I Y T D V W V M G N E N D W S E R
UniRef90_UPI0004735D07 R A R E I Y G D K K I T N D P I N A V K G A N V L Y T D V L S S M G E E N Q K K
UniRef90_Q4PK12 Y A K E N S S F A N S R E E A A K G A D I L T T D V W V S M G D E K T K
UniRef90_D1AT17 T A Q R E G V D I V C E P V P A R A V P D I A T T D S W Y M G T G T E P A D
UniRef90_UPI00047AF790 G S G Y E I D G L T I V N N I H D A V I G K D I V C T D S L P A C A F E D F
UniRef90_J9F469 L D P K F V G N A Y V E Y D Q M K A F E G A D F V Y A K N W A A Y S G S N Y G Q
UniRef90_Q01323 V A K E T V G G R I L L T E N V Q E A V K G V D F I H T D V W V S M K E A W Q E R
UniRef90_A4CJ57 L A P E F T G G L S P E Y N Q E K A L E G A D F V Y V K N W S S Y S D Y G A I L
UniRef90_D1BT39 P R E L A T P G L R W S D D V E A A V R D A D V V L T D G V G R H
UniRef90_P96111 K M K K N G F E V R I F S S I R E Y L D Q K D I W Y F T R L Q L E R M G E D I L
UniRef90_H1GRC7 L K E E F T V G A T V T T N Q D E A L A D A D F V Y V K N W S S Y E D Y G Q I T
UniRef90_D0MH55 D A A A H G G R V T V V H D Q A E A F E G A A I V Y A K S W T A P D D E A A L R
UniRef90_W8PBY8 G I K L I H N Q K E A F K N A D F I Y A K N W S S Y E N Y G K I L
UniRef90_R5ND01 L D P K F V G D A R V E Y D Q L K A F E G A D F I Y A K N W S C P R P A D Y G K
UniRef90_J2MU59 R C N K Y G A R I T L T E D P K A A V K G V D F I H T D V W V S M V E A W A E R
UniRef90_A9DTS0 L N S K I T K N T P I Y N Q K E A L K D A D F V Y A K N W S S Y E S Y G K V L
UniRef90_Q59559 L F K R N G G S I T F E D K I K A A K D A D A I Y T D V W V S L G E D F S L F
UniRef90_L7FR84 L S D N K I A Y R Y I G A L I D G L A E A D V V Y M A G F K E R A D H K V R R
UniRef90_U2NKG3 V A K N N A A S F Q Q V T S M A E A F Q G A D I V Y P K S W A P Y K V M E Q R Q
UniRef90_X1MS72 G S P H Q L A M I P D I S I Q L I E L K K G V D A L Y V T R P Q K E R F A T A E E
UniRef90_J5MQ43 D A A L L N R R F R V S T D M G E L L D A D I V T D S W P G G A A S E A L
UniRef90_UPI0003637A97 E M R N Q G F Q V R E Y G S I A E Y L S S A P Q W Y F T R P Q L E R M G D R I L
UniRef90_R7K443 C R V Y N D I G I A V S G C D A V I D C G L K Y D G E Q K K F Y
UniRef90_C5KJA8 R M R S L G Y E V R Q F P S L E E Y L G Q D N V A R I W Y F T R L Q L E R M T E
UniRef90_UPI000219499D I A A E N A A K F T K T N D M K A A F A D A V I Y C K S W A P F A A M K K Q N
UniRef90_H0T736 H V T T D L D A L Q D V D V I I T D C W P R D D E
UniRef90_R5S5J8 I A K K N A A S F K K C N D M K E A F R D A D I V Y P K S W A P F K A M E E R Q
UniRef90_O86376 L A E E T G A K V T L T E N A E A V Q G V D F I H T D V W V S M K E T W E E R
UniRef90_C0B055 I A A E N E G S I T L T E D I E K G A K D A D V L Y T D I V W S M D S V W D E R
UniRef90_G6DNH2 A S E N M T A K S H T A L K A C S K E E V L K D A T V I I A G P S N V N
UniRef90_K1RSQ4 T L H P A N S L Y W V S L E D T L P K L D V L Y M T R V Q F N E E D Y I R
UniRef90_B2V0C7 N A K E S G G S F T K T N S M E E A F K D A D I V Y P K S W A P Y V A M E K K Q
UniRef90_G4L5Y5 N A E K S G G S F K K T Y D M K E A F T D A D V I Y C K S W A P F K M E K R T E
UniRef90_W2VHQ9 Q A A A C G G K F T I T N D M K E A F K D A D I V Y P K S W A P F A A M E K R Q

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5



UniRef90_R7RWJ2 P R S L V F P E A D N R K W T I M A A F D L L F G K 290 300 310
UniRef90_UPI00037A8DBB P R C T V T E Q V A N G V S L R M A V L Y L L L G G
UniRef90_T5K5S3
UniRef90_F0NZE9 S Y S I V I E E A T N R I Y S A Q T V F H E I L
UniRef90_I3B7L8
UniRef90_A3XM38 E Q S V V I E Q A N N R T F S A Q V V L K K I L
UniRef90_U7UFF7 H L E T I L D E A E N R R H A E K G L L V Y L L T G K L
UniRef90_I3Z7J6 P R S L V Q K Q A E N R I F A A Q A V L S K I I
UniRef90_F4XJ24
UniRef90_Q1K5I2 P Q S L V F P E
UniRef90_I5C388 P R A R V Q Q Q A E N R I Y A A Q A V L A E I L
UniRef90_U5BQY2 P R S L I Q Q Q A A N R I Y A A Q A V L S K I I
UniRef90_R7QWM6 P Y F V G Y A F K S H L L E I H Q A I L
UniRef90_UPI000382264D P Q S C I L Q Q V E N G V F M R M A I L D A L
UniRef90_UPI000423E3B4 P N S L V I K E A G N R V W A A Q V V L K K M L E K
UniRef90_R7AXY5 H A K E I F E A E N R L H A Q K A V M V R L M
UniRef90_H2QYG7 P R S L V F P E A E N R K W T I M A V M V S L L T
UniRef90_U1D2A1
UniRef90_U2J7D8 P S S L V I K E A S N R V W A A Q V V L K R M L
UniRef90_F7WZF8 K A N L S F Q Q S I N K L H S A K A L L I S T L S
UniRef90_E0TCC0 P R S L I R S Q V R Q G V A L R M A L L E E I
UniRef90_F7K8R3 E Y F V G Y E F K K Y L L E I Q Q A V I I Y C M
UniRef90_UPI000375CE78 P Q S I V I P E A A N R V V S A Q V I L K E I L
UniRef90_L7VZ63 P R V R V L E E A D L G L F V R M G L L S W L L E Q
UniRef90_UPI00047EA22C E Q S L V I E Q A N N R T Y A A Q L V L K K I L
UniRef90_I0K7F0 P R S L V I E Q A A N R E W S A Q A V L R E I L
UniRef90_A5LMY3 P K
UniRef90_U6END4 N N S V V F E Q A E N R M H T I K A V M A A T L G D L F I
UniRef90_A4AU33 D Q S L T I E Q A N N R T F A A Q I L K K I V
UniRef90_F4AZQ2 A S S A V I Q Q A G N R T W A A Q V V L K N I L D N D K
UniRef90_A6EDV2 P N S L V I H E A G N R L W A A Q A V L K Q L L
UniRef90_UPI000381D256 D N S L V I E Q A N N R T Y A A Q L V L K K I L
UniRef90_E4TPD4 N K S L V P L Q A E N R I Y A A Q A V L F E I I S
UniRef90_L7EUQ5 E R C T A I E Q V T N G V S I R M A V L Y L L L G G N
UniRef90_X1C085
UniRef90_UPI000328AE49
UniRef90_X0TSD1
UniRef90_W8AQD9 P R S A V W D E A E N R L H A Q K A L L V W L L E K
UniRef90_I0W7D7 P Q S I V I Q Q A N N R T W A A Q A V L K N I L
UniRef90_M7NRT8 N S L V I P Q A E N R L W T A Q L V L K K L L E E
UniRef90_S4MQM6 E R S V A W I Q A R M K L T S A M A L E W A A G
UniRef90_A1ZXAS A Q S I V I E Q A G N R E T A A Q T V L I E L L
UniRef90_UPI00029A758B P D S I V V Q E A A N R V V S A Q T V L K R M L
UniRef90_S2U3X9
UniRef90_UPI000248EB71 E N S L V I Q Q A N N R T Y A A Q V A I K K I L
UniRef90_L8WWZ9 P R S L V F P E A E N R K W T I M G L F
UniRef90_R5I3B2 P R S L V I P E A A N R V V S A Q T V L K E I L
UniRef90_A1SFG7 P R L A F L E Q S A L A L P V R M A V L E
UniRef90_U6F3Y1 Q Y A W Q F T E A S R L H S I K A I M A A T L G N L F I
UniRef90_UPI0004735D07 D K S R I F E Q A E N R L H A Q K A L L A C M L
UniRef90_Q4PK12 P S S K V L Q Q A E N R M H V Q E A L I E N L L S
UniRef90_D1AT17 T S S C I A E E A G N K L H I Q K A V L A R C F G
UniRef90_UPI00047AF790 E F F G G Y E F K K Y L L E V Q Q A I M V Y C L T R
UniRef90_J9F469 Q Q S I V I P E A A N R E I S A T V V L K K L I E G
UniRef90_Q01323 E A S I V F D Q A
UniRef90_A4CJ57 G R S L V L Q Q A A N R L S A Q L A L A H L I
UniRef90_D1BT39 G P F V G Y G F K R S L L H V Q Q A V L A T C L G
UniRef90_P96111 P L N G W E T Q A R N G Y W V R I V L L S M
UniRef90_H1GRC7 E H A T V I Q E A G N R V W A A Q A V L K E M L
UniRef90_D0MH55 P Q A I H L K Q A A F R L Y A Q K A I L E Y V
UniRef90_W8PBY8 K N S I V L N Q A E N R I F A T Q I V F L E I L
UniRef90_R5ND01 P Q S L V I P E A A N R E I S A T V V L K R M L
UniRef90_J2MU59 P A C I A F E Q A E N R M H T I K A I L V S T L
UniRef90_A9DTS0 E N S V V I Q Q S A N R V F S A Q I V L K K I L
UniRef90_Q59559
UniRef90_L7FR84 R H A A Y F Y Q A N N G L P V R M A I L Q Q I L
UniRef90_U2NKG3 Y R I A T Y K E A S W K P Y I I A A M I M A
UniRef90_X1MS72 Q R S A Y F K Q A A R G V P V R M A L V A L L L G
UniRef90_J5MQ43 P L C Q S R A A K A F L L H A Q N A L M E W V
UniRef90_UPI0003637A97 E L N G W E R Q S A N G W I V R I V L L A M L G G R
UniRef90_R7K443 A H S V L N E Q I K N R L A V C M A A L Y L M S R N
UniRef90_C5KJA8 D L N G W D E Q S R N G Y F L R I I L L
UniRef90_UPI000219499D Y R N D L Y I Q A S Y K P Y V I A A M I F L
UniRef90_H0T736 H A C R S V I Q A K A F L L H A Q N A A L E W V F G G D
UniRef90_R5S5J8 Y I V P L Y K Q A S Y K P Y I I A A M I F L
UniRef90_O86376
UniRef90_C0B055 I Y Q K I W L E
UniRef90_G6DNH2 E N S K T F V A F E N F H Y I A A A L M A N V M
UniRef90_K1RSQ4
UniRef90_B2V0C7 Y R K S L Y K E A S F K P Y I I A A M I F L
UniRef90_G4L5Y5
UniRef90_W2VHQ9 Y R D P L Y K E A S F K P Y V I A A M I L L

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5

8 3 0 1 3 7 7 7 6 0 3 6 8 9 9 9 9 9 9 8 7 4 4 8 8 1 1 7
B
B B B B B B B B B B B B B B B B

1

10



20
B

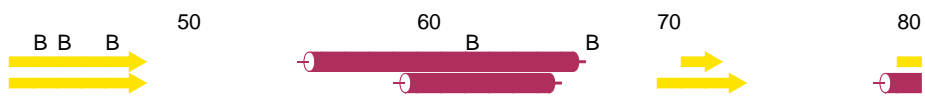
B

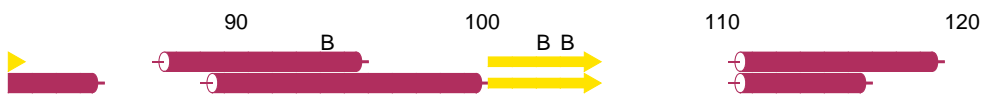
B

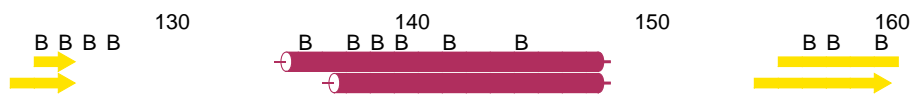
30

40









B



