

		1		10		20		30		40																																		
QUERY		V	A	S	Y	D	Y	L	V	I	G	G	G	S	G	G	L	A	S	A	R	R	A	A	E	L	G	A	R	A	A	V	V	E	S	H	K	L	G	G	T			
UniRef90_UPI0003B56A58				Y	D	L	I	V	I		G	A	G	P	G	G	Y	V	C	A	I	R	A	A	Q	L	G	L	K	V	A	C	V	V	E	G	R	E	T	G	G	T		
UniRef90_Q5LXD1	MA	T	Y	D	V	I	I				G	A	G	P	G	G	Y	V	C	A	I	R	A	A	Q	L	G	L	K	V	A	V	V	E	G	R	E	T	G	G	T			
UniRef90_B7JUC1		D	F	D	L	F	V	I			G	G	G	S	G	G	I	A	T	A	R	R	A	A	E	Y	G	A	K	V	G	L	A	E	G	M	G	R	L	G	G	T		
UniRef90_B4U2K9		Q	Y	D	Y	I	V	I			G	G	G	S	A	G	I	A	S	A	N	R	A	A	M	Y	G	A	K	V	L	L	A	E	G	K	A	L	G	G	T			
UniRef90_F0IDT1	MK	N	Y	D	V	I	V	I			G	A	G	P	G	G	Y	V	A	A	I	R	A	A	Q	L	G	K	K	T	A	I	V	E	K	E	N	T	G	G	T			
UniRef90_B9R072	MS	Q	Y	D	L	V	V	I			G	T	G	P	G	G	Y	V	C	A	I	R	A	A	Q	L	G	L	K	T	A	V	V	E	K	E	A	T	G	G	T			
UniRef90_UPI0004129ACB	MS	T	Y	D	V	V	I				G	S	G	P	G	G	Y	V	A	A	I	R	C	A	Q	L	G	M	K	T	A	I	I	E	K	Y	S	T	G	G	T			
UniRef90_J9J038		K	E	Y	D	L	V	V	I			G	G	G	P	G	G	Y	V	A	A	I	K	G	A	Q	R	G	L	K	T	A	C	I	E	G	R	K	G	S	G	G	T	
UniRef90_J5T5F0			E	Y	D	I	F	V	I			G	G	G	S	G	G	L	A	T	A	R	R	A	A	S	Y	G	A	K	A	L	V	E	G	S	H	R	L	G	G	T		
UniRef90_A0Z2L0			D	F	D	L	F	V	I			G	A	G	S	G	G	V	R	A	A	R	V	A	A	S	L	G	A	R	V	A	I	A	E	D	R	Y	M	G	G	T		
UniRef90_E0UCH9			D	F	D	L	F	V	I			G	G	G	S	G	G	I	A	T	A	R	R	A	A	E	Y	G	A	R	V	G	L	A	E	D	F	N	R	L	G	G	T	
UniRef90_UPI00041F9A40	MS	Q	Y	D	V	F	V	I				G	A	G	S	G	G	V	R	A	A	R	T	A	A	S	K	G	A	R	V	A	I	A	E	D	R	H	L	G	G	T		
UniRef90_L8LTi3			D	F	D	L	F	V	I			G	A	G	S	G	G	I	A	T	A	R	R	A	A	E	Y	G	A	K	V	G	I	V	E	F	D	R	L	G	G	T		
UniRef90_Q87XC9			D	F	D	L	Y	V	I			G	A	G	S	G	G	V	R	A	A	R	F	S	A	G	F	G	A	K	V	A	V	A	E	S	R	Y	L	G	G	T		
UniRef90_G0IW21			Y	D	L	I	V	I				G	S	G	P	G	G	Y	V	A	A	I	R	A	A	Q	L	G	M	K	T	A	I	I	E	K	Y	S	T	G	G	T		
UniRef90_A6FKU8			D	Y	D	L	F	V	I			G	G	G	S	G	G	V	R	A	A	R	V	A	A	Q	G	G	A	K	V	A	L	A	E	D	R	Y	G	G	T			
UniRef90_C8S3B1	MA	S	F	D	V	I	I				G	A	G	P	G	G	Y	V	C	A	I	R	A	A	Q	L	G	L	K	V	A	V	V	E	G	R	D	T	G	G	T			
UniRef90_K2K9M7		H	Y	D	Y	L	S	I				G	A	G	S	G	G	I	A	S	A	N	R	A	A	M	H	G	A	K	A	A	V	I	E	A	N	S	V	G	G	T		
UniRef90_E1SVB5		Q	Q	F	D	Y	I	V	L			G	A	G	S	G	G	I	A	S	A	N	R	A	A	M	R	G	A	K	V	L	L	I	E	A	Q	H	L	G	G	T		
UniRef90_UPI00037F12AE			N	Y	D	L	F	V	I			G	G	G	S	G	G	V	R	A	A	R	I	A	A	T	H	G	A	R	V	A	I	A	E	E	Y	R	Y	G	G	T		
UniRef90_Q6FUN7		K	Q	H	D	L	V	I	I			G	G	G	P	G	G	Y	V	A	A	I	K	A	A	Q	L	G	L	D	T	A	C	I	E	K	R	G	S	G	G	T		
UniRef90_L1NY52	MK	M	Y	D	V	V	I	I				G	S	G	P	G	G	Y	V	A	A	I	R	S	G	Q	L	G	F	K	T	A	L	I	E	K	Y	D	T	G	G	T		
UniRef90_E0XRC4	ME	K	Y	D	V	A	V	I				G	S	G	P	G	G	Y	V	A	A	I	R	C	A	Q	L	G	M	K	T	A	L	I	E	K	Y	D	T	G	G	T		
UniRef90_N9CMX9		K	H	Y	D	Y	L	V	I				G	A	G	S	G	G	I	A	S	A	N	R	A	A	Q	Y	G	K	K	C	A	L	I	E	V	A	D	L	G	G	T	
UniRef90_D0IV92			D	Y	D	F	L	V	I			G	G	G	S	G	G	V	R	A	S	R	V	A	A	G	L	G	A	R	V	A	V	V	E	A	A	Q	L	G	G	T		
UniRef90_C3X445			D	F	D	V	A	V	I			G	G	G	P	G	G	Y	I	A	A	I	R	A	A	Q	L	G	M	K	T	V	C	I	E	D	W	K	T	D	G	K		
UniRef90_G6G044			D	Y	D	L	F	V	I				G	A	G	S	G	G	L	A	A	S	K	R	A	A	S	Y	G	A	K	V	A	I	A	E	S	S	L	V	G	G	T	
UniRef90_UPI00037FD0A4	MS	D	F	D	V	I	V	V				G	A	G	P	G	G	Y	V	A	A	I	R	A	A	Q	L	G	L	K	T	A	C	V	E	K	W	V	D	A	K	T		
UniRef90_V6SK24	MS	S	F	D	V	V	I	I				G	S	G	P	G	G	Y	V	A	A	I	R	C	A	Q	L	G	M	K	T	A	I	I	E	K	Y	S	T	G	G	T		
UniRef90_H1XUL4	MS	N	S	F	D	I	A	I				G	S	G	P	G	G	Y	V	A	A	I	R	A	A	Q	L	G	N	L	K	T	V	L	I	E	K	D	R	L	G	G	V	
UniRef90_J9YS57		E	K	F	Q	A	V	V	I			G	G	G	P	G	G	Y	V	C	A	I	R	L	A	Q	L	G	L	K	T	A	C	I	E	S	R	G	S	G	G	T		
UniRef90_A0A024IE92			D	F	D	L	F	V	I			G	G	G	S	G	G	V	R	A	A	R	M	A	A	Q	R	G	Q	R	V	A	L	A	E	V	L	G	N	S	G	T		
UniRef90_Q5WFA8		Q	E	V	D	T	L	V	V				G	S	G	P	G	G	Y	V	A	A	I	R	A	A	Q	L	G	Q	K	V	T	I	V	E	K	G	S	L	G	G	V	
UniRef90_A0A016QLK4	MD	S	Y	D	V	L	V	I				G	G	G	P	A	G	Y	V	A	A	I	R	A	A	Q	L	G	F	K	V	A	C	V	D	A	F	E	R	G	G	K		
UniRef90_T0BQL0		E	E	V	E	V	L	V	I				G	A	G	P	G	G	Y	V	A	A	I	R	A	A	Q	L	G	K	S	V	T	I	V	E	D	K	A	E	L	G	G	V
UniRef90_A0YXB0			D	Y	D	L	F	V	I				G	A	G	S	G	G	L	A	S	S	K	R	A	A	S	Y	G	A	K	V	A	I	A	E	N	D	L	V	G	G	T	
UniRef90_D5RI63	MS	D	F	D	V	I	V	I				G	A	G	P	G	G	Y	V	C	A	I	R	A	A	Q	L	G	M	K	V	A	C	V	E	K	R	D	T	G	G	T		
UniRef90_UPI00047E435E		E	E	V	D	T	L	V	I				G	S	G	P	G	G	Y	V	A	A	I	R	A	A	Q	L	G	Q	S	V	T	I	V	E	K	S	E	L	G	G	V	
UniRef90_K2L6A8			N	F	D	L	I	V	V				G	A	G	P	G	G	Y	V	T	A	I	R	A	A	Q	L	G	L	K	T	A	V	V	E	R	E	H	L	G	G	I	
UniRef90_A0A011NT11			D	Y	D	L	F	V	I				G	A	G	S	G	G	V	R	A	A	R	M	A	A	G	F	G	A	R	V	A	V	A	E	D	R	Y	L	G	G	T	
UniRef90_Q4PFH3		H	Y	D	M	V	V	I				G	G	G	S	G	A	M	G	V	S	R	R	A	A	A	Y	G	K	K	V	C	V	I	E	S	D	N	G	R	G	G	T	
UniRef90_I9W158		K	E	F	D	V	V	V	I				G	A	G	P	G	G	Y	I	A	A	I	R	A	A	Q	L	G	L	N	V	A	C	C	E	S	N	P	Y	D	D	P	
UniRef90_UPI00021A3CF2			D	I	D	L	V	V	I				G	S	G	P	G	G	Y	V	A	A	I	K	A	A	Q	L	G	M	K	T	V	C	V	E	K	D	P	T	G	G	T	
UniRef90_UPI0003685E9C	MA	K	F	D	L	A	V	L				G	A	G	P	G	G	Y	V	A	A	I	R	A	A	Q	L	G	L	N	V	I	I	D	K	D	R	L	G	G	I			
UniRef90_D7WB84		E	Q	Y	D	V	V	V	I				G	A	G	P	G	G	Y	V	A	A	I	R	A	A	Q	L	G	Q	K	V	A	V	V	E	K	Q	Y	W	G	G	V	
UniRef90_X8JH60		E	E	Y	D	A	V	I	I				G	G	G	P	G	G	Y	V	A	A	I	K	A	A	Q	L	G	L	K	T	A	C	I	E	K	R	G	A	G	G	T	
UniRef90_UPI0003B3146D	A	H	Y	D	V	V	V	L				G	A	G	P	G	G	Y	V	A	A	I	R	A	A	Q	L	G	L	K	T	A	I	I	E	E	K	Y	W	G	G	V		
UniRef90_A5EXP7			D	L	V	V	I	I					G	A	G	P	G	G	Y	S	A	A	F	R	A	A	D	L	G	L	K	V	L	I	E	R	Y	A	T	L	G	G	V	
UniRef90_Q6FYD5		S	Y	D	V	V	V	I					G	A	G	P	G	G	Y	V	A	A	I	K	A	A	Q	L	G	F	K	T	A	I	I	E	K	R	M	T	G	G	T	
UniRef90_V9HK93	MS	Q	F	D	V	V	I	I					G	A	G	P	G	G	Y	V	A	A	I	R	A	A	Q	L	G	F	K	T	A	C	I	E	D	A	G	V	N	K	G	T
UniRef90_A3K2D4		H	A	E	V	V	V	L					G	A	G	P	G	G	Y	T	A	A	F	R	A	A	D	L	G	K	S	V	V	L	I	E	K	D	K	T	L	G	G	T
UniRef90_N2IS25			D	F	D	L	F	I	I				G	A	G	S	G	G	V	R	A	A	R	F	S	A	D	F	G	A	R	V	A	V	A	E	S	R	Y	L	G	G	T	
UniRef90_K7QWE8	ME	T	Y	D	L	I	V	I				G	T	G	P	G	G																											

QUERY		C	V	N	V	G	C	I	P	K	K	V	M	W	N	T	A	V	H	S	E	F	M	H	D	H	A	V	Y	G	F	P	S	C	E	G	F	F	N	W	R			
UniRef90_UPI0003B56A58		O	L	N	V	G	C	I	P	S	K	K	L	L	L	H	A	S	H	S	L	H	E	H	H	H	N	F	E	K	M	G	M	G	A	G	H	V	E	S	V	D	W	A
UniRef90_Q5LXD1		O	L	N	V	G	C	I	P	S	K	K	L	L	L	H	A	S	H	S	L	H	E	H	H	H	N	F	E	K	M	G	M	G	A	G	H	V	E	S	V	D	W	A
UniRef90_B7JUC1		O	V	N	R	G	C	I	P	K	K	L	M	V	Y	T	A	S	H	F	P	S	L	F	Q	E	S	E	G	Y	G	W	S	P	V	K	S	T	L	N	W	T		
UniRef90_B4U2K9		O	V	N	L	G	C	V	P	K	K	V	M	W	Y	G	A	Q	V	A	E	T	L	H	T	Y	K	D	Y	G	F	T	V	L	E	D	R	F	D	F	K			
UniRef90_F0IDT1		O	L	N	V	G	C	V	P	S	K	K	L	L	L	D	S	T	H	L	E	D	A	H	K	H	A	S	S	H	G	I	E	I	N	I	M	V	D	F	A			
UniRef90_B9R072		O	L	N	I	G	C	I	P	S	K	K	L	L	L	H	A	S	E	M	F	H	E	G	H	F	E	K	L	G	I	K	V	A	K	P	K	L	D	L	P			
UniRef90_UPI0004129ACB		O	L	N	V	G	C	I	P	S	K	K	L	L	L	D	S	T	H	H	F	E	D	K	H	G	F	E	K	L	G	I	D	I	P	V	I	K	V	N	L			
UniRef90_J9J038		O	L	N	V	G	C	I	P	S	K	K	L	L	L	N	A	T	H	K	F	H	E	Q	H	D	F	E	K	E	L	G	I	V	V	K	D	V	S	I	D	Y	T	
UniRef90_J5T5F0		O	V	N	V	G	C	V	P	K	K	V	M	W	Y	T	A	E	S	V	F	E	G	I	R	H	A	S	S	Y	G	F	G	T	I	A	D	N	F	N	W	P		
UniRef90_E0Z2L0		O	V	N	R	G	C	V	P	K	K	L	M	V	Y	A	S	R	F	P	D	I	F	E	E	S	Q	G	Y	G	W	S	P	V	E	S	H	L	N	W	E			
UniRef90_A0UCH9		O	V	N	R	G	C	V	P	K	K	L	M	V	Y	A	S	R	F	P	D	I	F	E	E	S	Q	G	Y	G	W	S	P	V	E	S	H	L	N	W	E			
UniRef90_UPI00041F9A40		O	V	N	V	G	C	V	P	K	K	L	Y	S	Y	A	A	H	F	H	D	A	F	E	S	R	G	Y	G	W	F	S	A	E	P	T	F	D	W	P				
UniRef90_L8LTl3		O	V	N	R	G	C	V	P	K	K	L	M	V	Y	A	S	H	F	P	E	A	F	Q	A	A	S	G	Y	G	W	T	V	G	E	S	Q	F	D	W	K			
UniRef90_Q87XC9		O	V	N	V	G	C	V	P	K	K	L	L	V	Y	G	A	H	F	A	D	D	F	E	N	S	R	G	F	G	W	T	P	G	E	A	K	F	D	W	A			
UniRef90_G0IW21		O	L	N	V	G	C	I	P	S	K	K	L	L	L	D	S	S	E	Y	H	A	A	H	T	F	E	N	S	H	G	I	N	L	S	L	K	V	N	F	K			
UniRef90_A6FKU8		O	V	Q	R	G	C	I	P	K	K	L	M	V	F	A	S	E	Y	P	Q	A	I	A	D	A	Q	S	Y	G	W	T	V	H	S	G	G	F	D	W	P			
UniRef90_C8S3B1		O	L	N	V	G	C	I	P	S	K	K	L	L	L	H	A	T	H	S	L	H	E	T	H	E	N	F	A	K	M	G	I	G	A	S	P	K						

QUERY	V	I	K	E	K	R	D	A	Y	V	S	R	L	N	A	I	Y	Q	N	L	T	K	S	H	I	E	L	I	R	G	H	A	F	T	S	D	P	K					
UniRef90_UPI0003B56A58	K	M	Q	D	Y	K	S	E	T	V	K	G	N	T	G	G	I	E	F	L	F	K	K	N	K	V	I	D	W	I	K	G	W	A	S	I	E	A	G	P			
UniRef90_Q5LXD1	Q	M	L	A	Y	K	D	E	V	I	E	G	N	T	G	G	I	E	F	L	F	K	K	N	K	V	I	D	W	I	K	G	W	A	S	I	P	A	G	K			
UniRef90_B7JUC1	K	M	I	T	A	V	Q	A	E	V	I	E	R	L	N	G	I	Y	Q	G	M	L	D	R	S	K	V	I	Q	L	Y	S	A	Y	G	K	L	I	D	P	H	T	
UniRef90_B4U2K9	T	L	K	S	N	R	Q	A	Y	I	D	R	I	H	A	S	Y	E	K	G	F	E	H	N	G	V	I	D	R	I	Y	S	D	Y	A	R	F	I	D	Q	H	T	
UniRef90_F0IDT1	K	M	V	E	R	K	Q	A	V	V	D	Q	N	T	Q	G	I	N	F	L	M	K	K	N	N	I	E	V	F	H	G	K	M	S	F	T	P	C	E	I			
UniRef90_B9R072	G	M	M	K	H	K	S	D	V	V	D	A	N	V	S	G	I	S	N	F	L	M	K	K	N	K	I	D	V	H	T	G	M	G	K	I	L	G	A	G	K		
UniRef90_UPI0004129ACB	Q	M	M	K	R	K	S	S	V	V	S	Q	T	C	D	G	V	K	F	L	M	D	K	N	K	V	I	D	V	F	E	G	V	G	S	F	K	D	A	T	H		
UniRef90_J9J038	Q	L	M	K	R	K	E	K	A	Y	I	K	G	L	T	S	G	I	E	F	L	F	K	K	N	K	V	I	D	Y	V	H	K	G	Y	A	S	F	S	S	A	N	E
UniRef90_J5T5F0	Y	L	K	E	K	R	D	A	Y	I	K	R	L	N	G	I	Y	D	R	N	L	A	K	D	G	V	I	D	Y	H	E	G	H	A	S	G	K	F	V	D	P	H	T
UniRef90_A0Z2L0	T	L	R	D	R	K	K	A	E	I	S	R	L	N	A	I	Y	E	R	L	L	E	A	S	P	G	A	T	I	I	S	G	R	A	Q	L	S	D	P	H	T		
UniRef90_E0UCH9	K	M	I	T	A	V	N	N	E	V	D	R	L	N	G	I	Y	Q	R	M	L	D	N	S	Q	V	I	Q	L	E	R	N	Y	A	C	L	V	D	P	H	T		
UniRef90_UPI00041F9A40	V	L	R	D	N	K	Q	A	E	I	A	R	L	N	G	I	Y	E	K	L	L	T	N	A	D	V	E	I	L	I	N	G	R	A	K	I	L	V	D	A	H	T	
UniRef90_L8LTi3	T	M	I	T	A	V	N	N	E	V	D	R	L	N	G	I	Y	Q	K	M	L	D	K	S	E	V	I	K	V	Y	E	G	H	G	T	F	I	D	S	H	T		
UniRef90_Q87XC9	T	L	I	V	N	K	R	D	S	E	I	N	R	L	N	D	I	Y	R	N	L	V	N	S	G	V	I	T	L	H	E	G	H	A	K	I	L	I	D	P	H	T	
UniRef90_G0IW21	Q	M	V	S	R	K	R	D	V	V	K	R	L	N	G	I	Y	Q	R	L	L	V	N	S	G	V	I	T	L	H	E	G	H	A	K	I	L	I	D	P	H	T	
UniRef90_A6FKU8	A	F	R	G	K	L	H	A	E	L	D	R	L	E	G	V	Y	R	L	L	A	N	S	G	V	I	E	T	F	D	T	R	A	S	V	A	D	A	H	T			
UniRef90_C8S3B1	R	M	Q	A	Y	K	D	V	V	S	G	N	T	K	G	I	E	F	L	F	K	K	N	K	V	I	E	T	W	L	I	K	G	W	A	S	I	P	A	A			
UniRef90_K2K9M7	T	M	V	N	N	R	E	A	Y	I	E	R	I	H	G	G	Y	N	R	G	L	D	A	N	G	V	I	E	Y	I	E	G	F	A	K	F	V	D	N	A	K	T	
UniRef90_E1SVB5	K	L	V	E	S	R	E	A	Y	I	E	R	I	H	G	G	Y	N	R	G	L	D	A	N	G	V	I	E	L	V	K	G	F	G	K	F	V	D	A	K	T		
UniRef90_UPI00037F12AE	T	L	I	E	A	K	D	K	E	I	T	R	L	E	G	I	Y	R	R	N	L	D	R	T	G	V	I	E	L	F	D	S	R	A	V	I	E	G	S	N	S		
UniRef90_Q6FUN7	Q	F	Q	K	A	K	D	T	V	V	K	R	L	T	G	G	V	E	M	L	F	K	K	Y	K	V	I	E	N	Y	Y	K	G	V	S	F	E	S	N	S			
UniRef90_L1NY52	K	M	I	A	R	K	A	A	V	V	E	Q	T	C	G	G	V	K	F	L	M	E	K	N	K	V	I	D	V	F	T	G	V	G	S	F	V	S	T	Q			
UniRef90_E0XRC4	Q	M	M	K	R	K	A	Q	V	V	E	Q	T	C	A	G	I	D	F	L	M	K	K	N	K	V	I	D	V	L	K	G	W	F	S	F	V	D	T	T	H		
UniRef90_N9CMX9	T	L	I	Q	N	R	K	A	Q	Y	I	Q	R	I	H	A	S	Y	Q	S	G	L	A	K	N	N	V	I	D	V	I	K	G	F	A	R	F	V	D	T	N	E	
UniRef90_D0IV92	T	L	I	A	N	K	D	R	E	I	E	R	L	N	G	I	Y	Q	R	M	L	A	G	A	G	I	T	L	I	H	G	R	A	A	L	S	G	P	H	S			
UniRef90_C3X445	R	M	Q	A	R	R	A	S	V	R	Q	N	N	D	G	I	A	F	L	E	R	K	N	K	V	I	E	T	F	F	N	G	T	S	G	F	A	G	C	H	R	D	
UniRef90_G6G044	Y	F	I	T	A	D	K	E	V	R	R	L	S	Q	L	H	I	G	F	L	E	K	A	K	V	I	E	L	I	P	S	R	A	T	L	L	D	A	N	Q			
UniRef90_UPI00037FD0A4	Q	M	V	A	R	K	D	K	I	V	G	N	L	T	M	G	V	A	G	L	F	K	A	N	G	V	I	E	T	L	L	Q	G	M	G	K	L	L	A	N	K	Q	
UniRef90_V6SK24	K	M	I	A	R	K	Q	A	V	V	D	Q	T	C	G	G	V	K	F	L	M	D	K	N	K	V	I	E	T	V	F	E	G	V	G	S	F	T	T	V	N	V	
UniRef90_H1XUL4	A	V	I	K	R	S	R	Q	V	A	D	M	N	S	K	G	V	E	F	L	M	K	K	N	K	I	D	V	E	F	G	S	A	R	F	Q	T	A	N	V			
UniRef90_J9YS57	K	M	M	K	S	K	D	K	A	V	T	V	L	T	K	G	V	E	F	L	L	K	K	N	K	V	I	S	Y	F	R	G	H	G	S	F	K	S	Q	N	E		
UniRef90_A0A024IE92	T	L	K	A	N	R	A	Q	E	I	S	R	L	N	S	V	Y	A	N	L	L	S	G	S	G	V	I	E	T	R	M	D	G	F	A	R	L	V	G	D	H		
UniRef90_Q5WFA8	K	V	Q	E	W	K	G	S	V	V	K	K	L	T	G	G	V	E	G	L	L	K	G	N	K	V	I	E	T	R	G	E	A	Y	F	S	G	E	D	T			
UniRef90_A0A016QLK4	K	M	L	G	R	K	E	S	V	V	D	K	L	T	G	G	I	A	Y	L	F	K	K	N	K	I	T	S	L	H	G	L	G	R	L	V	R	Q	D	G			
UniRef90_T0BQL0	K	V	Q	E	W	K	Q	S	V	V	N	K	M	T	G	G	V	Q	S	L	M	K	G	N	K	I	T	V	I	D	G	E	A	F	F	T	K	P	D	R			
UniRef90_A0YXB0	K	L	V	D	V	V	D	K	E	V	R	R	L	S	E	L	H	I	S	F	L	E	K	A	K	V	I	E	L	I	R	G	Y	A	K	F	I	D	P	H	T		
UniRef90_D5RI63	R	M	Q	A	R	K	G	E	V	V	S	A	N	V	K	G	V	E	F	L	F	K	K	N	K	I	T	W	L	K	G	A	G	K	I	T	A	P	G	K			
UniRef90_UPI00047E435E	K	V	Q	E	W	K	S	V	V	K	K	L	T	G	G	V	E	G	L	L	K	G	N	K	V	I	E	T	N	V	R	G	E	A	Y	F	V	D	N	K	K		
UniRef90_K2L6A8	A	V	I	Q	R	S	R	G	V	S	K	Q	L	S	G	G	V	E	G	H	L	L	K	K	N	K	I	T	V	I	N	G	E	A	K	F	D	P	K	I			
UniRef90_A0A011NT11	T	L	R	D	N	K	K	A	E	I	A	R	L	N	G	I	Y	D	N	L	L	A	G	A	K	A	E	V	I	N	G	R	A	R	L	V	D	A	H	T			
UniRef90_Q4PFH3	Y	F	A	E	K	R	D	A	Y	V	R	R	L	N	G	I	Y	D	R	N	L	D	K	D	G	V	I	E	Y	L	S	G	H	G	K	L	T	G	K	N	E		
UniRef90_I9W158	K	M	L	K	R	K	D	D	I	V	G	K	M	T	K	G	I	E	F	L	F	R	K	N	K	V	I	E	T	L	L	K	G	H	G	K	F	V	G	K	A	D	
UniRef90_UPI00021A3CF2	N	M	M	K	Q	K	E	D	A	V	K	Q	L	T	S	G	I	A	Y	L	F	K	N	K	V	I	E	T	H	M	A	G	F	G	S	V	S	T	P	N	E		
UniRef90_UPI0003685E9C	T	T	L	I	A	R	S	R	K	V	A	N	Q	L	S	K	G	I	A	F	L	M	K	K	N	K	I	E	T	H	I	K	G	E	G	R	L	I	S	Q	T	T	
UniRef90_D7WB84	D	A	H	Q	R	S	R	K	V	E	K	I	V	G	G	V	H	Y	L	F	M	K	K	N	K	I	T	E	I	N	G	V	G	S	F	K	D	A	K	T			
UniRef90_X8JH60	Q	M	L	K	A	K	D	T	A	V	S	G	L	T	K	G	V	E	G	L	F	K	K	N	K	V	I	E	T	Y	I	K	G	T	G	S	F	T	E	I	D	V	
UniRef90_UPI0003B3146D	A	A	F	D	R	S	R	Q	V	A	D	G	R	V	K	G	H	F	L	M	K	K	N	A	I	E	T	E	Y	E	G	R	G	T	F	L	D	A	N	T			
UniRef90_A5EXP7	A	L	I	R	T	H	K	E	G	V	I	K	K	L	T	T	G	L	A	G	M	A	K	A	R	I	E	T	V	I	Q	E	G	V	A	Q	F	T	G	S	H	S	
UniRef90_Q6FYD5	Q	M	M	A	H	K	K	A	V	V	T	A	N	T	S	G	I	S	F	L	M	K	K	N	K	I	D	T	F	F	G	T	A	K	I	L	S	A	G	Q			
UniRef90_V9HK93	K	M	I	E	R	K	D	A	I	V	N	K	L	T	G	G	I	K	F	L	F	Q	K	N	K	V	I	E	S	F	F	G	L	G	S	F	L	G	K	N	G		
UniRef90_A3K2D4	G	L	R	G	F	K	N	D	V	V	G	K	L	T	G	G	L	D	G	L	A	K	Q	R	K	V	I	E	K	V	V	K	G	Y	K	G	F	T	G	N	M		
UniRef90_N2IS25	N	L	L	A	N	K	D	H	E	I	R	R	L	N	G	I	Y	R	A	L	L	I	N	S	G	V	I	E	T	L	L	E	D	H	A	R	I	I	D	A	H	T	
UniRef90_K7QWE8	G	L	G	A	W	R	D	S	V	V	R	K	L	T	G	G	V	G	I	H	T	L	L	K	G	N	K	V	I	E	L	V	Q	G	F	A	R	L	V	G	P	K	A
UniRef90_Q3AE67	K	A	A	E	R	K	N	Q	V	V	E	R	L	T	V	K	G	I																									



QUERY	P	T	E	V	S	G	K	K	Y	T	A	P	H	I	L	I	A	T	G	G	M	P	S	T	P	H	E	S	Q	I	P	G	A	S	L	G	I	T	S				
UniRef90_UPI0003B56A58	G	K	V	K	V	G	D	T	V	H	E	A	K	N	I	V	L	A	S	G	S	V	P	T	A	L	K	G	V	E	I	D	D	K	G	V	I	V	D	S			
UniRef90_Q5LXD1	V	Q	V	G	D	D	T	K	V	H	E	A	K	N	I	I	L	A	S	G	S	E	P	A	S	L	P	G	V	E	V	D	E	K	T	V	I	V	T	S			
UniRef90_B7JUC1	V	E	V	G			D	T	K	V	H	E	A	K	N	I	L	I	A	S	G	G	Y	P	V	K	P	D	I	P	G	K	E	H	L	V	I	V	T	S			
UniRef90_B4U2K9	V		D	I	A	G	K	T	Y	T	A	P	H	I	L	I	I	A	T	G	G	Q	P	I	F	P	D	I	P	F	I	T	E	G	A	E	L	G	I	T	S		
UniRef90_F0IDT1	Q	V	Q	A	A	E	N	D	L	S	A	T	H	F	N	I	V	I	A	T	G	S	K	P	S	T	L	P	F	I	T	L	D	E	K	E	R	V	I	T	S		
UniRef90_B9R072	V	E	V	T	D	N	D	G	K	V	I	E	T	K	N	I	V	I	A	T	G	S	D	V	M	P	L	P	G	V	E	I	L	D	E	K	Q	I	V	T	S		
UniRef90_UPI0004129ACB	I	T	V	D	K	T	Q	E	T	L	E	A	K	H	T	I	I	I	A	T	G	S	K	P	A	N	L	P	F	I	N	L	D	E	K	E	R	I	V	T	S		
UniRef90_J9J038	V	E	V	D	L	I	D	G	G	K	D	T	I	N	F	I	I	I	A	T	G	S	E	P	S	P	P	G	N	V	I	P	I	D	E	K	Y	V	V	T	S		
UniRef90_J5T5F0	L	E	I	T	K	E	D	G	S	K	Y	A	K	K	I	V	I	I	A	V	G	G	V	P	T	V	P	T	E	E	Q	V	P	G	A	Q	Y	G	I	T	S		
UniRef90_A0Z2L0	V		T	I	E	Q	T	F	R	A	E	K	I	L	I	I	I	I	A	T	G	T	W	P	Y	L	P	D	L	P			G	K	Q	H	M	L	T	S			
UniRef90_E0UCH9	V	E	V	G			D	T	K	V	I	T	A	D	K	I	L	I	I	A	V	G	G	H	P	L	K	P	D	L	P			G	T	E	Y	T	I	V	S		
UniRef90_UPI00041F9A40	V		T	V	N	N	R	R	I	S	A	E	K	I	L	I	I	I	A	T	G	G	Q	P						W	M	P	E	F	E	G	R	E	H	V	L	D	S
UniRef90_L8LTi3	I	A	I	G			E	E	K	V	T	A	E	K	I	L	I	I	I	A	V	G	G	K	P	V	K	P	D	S	I	P			G	T	E	H	A	I	T	S	
UniRef90_Q87XC9	V		E	V	N			H	T	A	Q	N	I	I	I	I	I	I	A	T	G	G	W	Q	I	L	P	D	I	P			G	H	E	H	A	I	T	S			
UniRef90_G0IW21	I	T	V	T	K	E	D	E	E	L	T	A	K	K	T	I	I	I	A	T	G	S	K	P	A	N	L	P	F	I	N	L	D	E	K	E	R	I	T	S			
UniRef90_A6FKU8	V	E		L	A	S	G	G	T	K	T	A	K	H	I	L	I	I	A	T	G	G	W	V	L	P	D	L	P	T			D	A	E	H	A	L	T	S			
UniRef90_C8S3B1	G	Q	V	K	V	G	D	E	V	H	E	A	K	S	I	V	I	I	A	T	G	S	E	A	A	S	L	P	G	V	T	V	D	E	K	T	V	I	V	T	S		
UniRef90_K2K9M7	V			E	V	N	G	E	Q	I	T	A	D	H	I	T	I	I	A	T	G	G	R	P	M	I	P	D	V			K	G	A	E	L	G	I	D	S			
UniRef90_E1SVB5	V			E	V	N	G	E	H	Y	T	A	P	N	I	L	I	I	A	T	G	G	R	P	T	I	P	A	I	P			G	A	E	H	G	I	D	S			
UniRef90_UPI00037F12AE	V	R	L	L	S	T	D	Q	V	I	T	A	R	Y	I	L	I	I	A	T	G	G	T	P	N	V			D	P	S	L	P	G	C	E	H	V	I	T	S		
UniRef90_Q6FUN7	V	K	V	T	S	D	E	T	I	I	E	A	K	N	I	L	I	I	A	T	G	S	E	V	T	P	F	P	G	I	K	I	D	E	E	R	I	V	T	S			
UniRef90_L1NY52	I	K	V	T	P	K	E	E	V	I	E	A	K	H	T	I	I	I	A	T	G	S	K	P	A	S	L	P	F	I	K	I	D	E	E	R	I	T	S				
UniRef90_E0XRC4	I	K	V	S	K	D	D	G	Q	Y	T	A	A	K	T	I	I	I	A	T	G	S	K	P	T	T	L	P	F	I	K	I	D	K	E	R	V	I	T	S			
UniRef90_N9CMX9	K	T	V	E	V	N	G	Q	Q	Y	T	A	D	H	I	L	I	I	A	T	G	T	E	P	T	R	P	D	I	P			E	G	A	E	L	G	I	D	S		
UniRef90_D0IV92	V	L	V		N	G	Q	T	I	H	A	R	H	I	L	I	I	I	A	T	G	G	T	P	S	L	P	D	L	P			G	V	E	H	A	I	T	S			
UniRef90_C3X445	G	E	Y	R	I	D	P	R	Q	F	T	C	H	V	I	V	I	I	A	T	G	S	K	P	R	A	W	P	G	V	P	F	D	E	K	E	R	V	L	T	S		
UniRef90_G6G044	I	E	V	D			G	R	K	V	T	A	D	K	I	L	I	I	A	V	G	G	R	P	V	K	P	D	L	P			G	M	E	Y	G	I	T	S			
UniRef90_UPI00037FD0A4	V	Q	V	T	A	A	D	T	V	Y	D	A	E	N	I	L	I	I	A	S	G	S	V	P		V	N	I	P	P	A	P	L	T	D	G	L	I	D	N			
UniRef90_V6SK24	T	K	A	D	G	S	V	E	K	I	E	A	K	N	I	L	I	I	A	T	G	S	K	P	S	S	L	P	F	I	K	I	D	E	K	E	R	I	T	S			
UniRef90_H1XUL4	L	E	V	T	D	S	K	R	I	E	A	K	H	I	L	I	I	I	A	T	G	G	R	P	R	T	I	P	G	I	E	I	D	E	E	K	I	I	T	S			
UniRef90_J9YS57	I	L	I	K	D	E	K	G	N	I	E	A	E	K	T	V	I	I	A	T	G	S	V	P	V	S	L	P	G	I	E	F	D	E	G	I	I	V	S	T	S		
UniRef90_A0A024IE92	A	D	G	T	P	G	H	R	F	S	A	A	H	V	L	I	I	I	A	T	G	G	T	P	H	V	P	H			F	S	G	R	E	H	V	I	T	S			
UniRef90_Q5WFA8	V	K	I	M	D	E	K	S	S	T	Y	K	F	K	H	C	I	I	A	T	G	S	S	P	I	E	I	P	N	F	K	Y	T	D	R	V	I	T	S				
UniRef90_A0A016QLK4	D	G	W	I	V	D	G	T	E	V	R	A	K	N	V	I	V	I	A	T	G	S	S	P	R	A	L	P	G	A	P	F	G	N	I	V	I	D	N				
UniRef90_T0BQL0	I	M	H	E	N	G	G	R	I	K	F	H	C	I	L	I	I	I	A	T	G	S	R	P	I	E	L	K	S	L	P	F		G	K	R	V	L	T	S			
UniRef90_A0YXB0	L	E	V	G			D	R	K	V	T	A	D	K	I	L	I	I	A	T	G	G	P	V	K	P	Q	I	P			G	I	E	H	S	I	T	S				
UniRef90_D5RI63	V		E	V	A	G	Q	S	Y	D	A	K	H	I	L	I	I	I	A	T	G	S	D	S	A	P	L	R	G	V	E	V	D	E	K	Q	I	V	T	S			
UniRef90_UPI00047E435E	V	M	D	E	K	H	S	Q	T	Y	K	F	K	C	I	V	I	I	A	T	G	S	T	P	I	E	L	P	T	F	K	Y	N	D		R	V	L	T	S			
UniRef90_K2L6A8	K	V	E	G	K	D	A	R	T	Y	T	A	K	N	Y	I	I	I	A	T	G	A	R	A	R	S	L	P	G	L	E	A	D	G	K	V	W	D	Y				
UniRef90_A0A011NT11	V	A	V	G			E	Q	R	H	T	A	G	R	I	L	I	I	A	T	G	G	W	P	H	I	P	A	F	P			G	R	E	H	A	I	T	S			
UniRef90_Q4PFH3	V	E	V	T	M	R	G	G	D	G	S	F	N	R	I	V	I	I	A	T	G	G	R	P	V	I	P	S	D	D	K	I	P	G	A	S	L	G	I	D	S		
UniRef90_I9W158	G	G	Y	Q	V	E	I	E	T	V	K	A	K	Q	V	I	I	I	A	T	G	S	K	A	R	H	L	P	S	I	P	V	D	N	V	M	V	C	D	N			
UniRef90_UPI00021A3CF2	V	T	V	T	K	N	D	E	K	V	K	T	K	N	I	L	I	I	A	T	G	S	E	P	V	A	F	P	G	L	E	F	D	E	K	I	I	T	S	S			
UniRef90_UPI0003685E9C	I	S	N	G	E	S	I	E	M	I	E	A	D	R	I	L	I	I	A	T	G	G	R	P	S	T	F	P	G	M	E	L	D	G	E	K	I	I	S	F			
UniRef90_D7W84	L	E	I	T	D	S	Q	G	K	E	S	F	D	N	I	I	I	I	A	T	G	S	I	V	K	T	L	P	G	I	E	L	S	D	N	V	V	I	T	S			
UniRef90_X8JH60	A	L	N	E	G	G	S	T	T	V	S	A	K	N	V	I	I	I	A	T	G	S	E	V	T	P	F	P	G	L	E	I	D	E	K	V	V	V	T	S			
UniRef90_UPI0003B3146D	V	E	V	E	K	K	S	T	E	M	V	S	F	A	N	A	L	I	A	T	G	S	R	V	R	L	L	P	G	V	S	L	S	D	N	V	V	I	T	S			
UniRef90_A5EXP7	I	H	I	K	T	V	D	G	E	Q	N	L	N	F	K	N	C	I	I	A	A	G	S	E	S	V	K	L	P	F	M	P	T	D	P	R	V	I	D	S			
UniRef90_Q6FYD5	I	E	V	V	A	R	D	G	N	K	Q	T	I	N	I	V	I	I	A	T	G	S	E	S	S	I	P	G	V	N	V	K	I	D	E	K	I	V	T	S			
UniRef90_V9HK93	D	F	W	Q	L	E	I	N	N	R	E	A	K	H	V	I	V	I	A	T	G	S	L	P	R	Q	L	T	A	L	V	D	I	D	N	E	I	V	L	D	N		
UniRef90_A3K2D4	I	D	V	E			G	T	T	V	S	F	D	Q	C	I	I	I	A	A	G	S	E	P	V	A	L	P	F	I	P	H	D	D	P	R	V	I	D	S			
UniRef90_N2IS25	V	E	V	T			G	K	R	Y	T	T	E	R	I	L	I	I	A	T	G	G	W	P	S	V	P	E	L	P			G	R	E	H	I	I	T	S			
UniRef90_K7QWE8	I	E	V	G			G	K	R	Y	E	A	R	S	L	I	L	I	A	T	G	S	E	P	A	A	L	P	G	F	P	F	G	E	D	V	W	D	S	T			
UniRef90_Q3AE67	I	T	V	E	T	S	D	E	K	V	E	A	K	N	I	L	I	I	A	T	G	S	K	P	A	L	I	S	A	L	G	Y	D	G	E	R	V	I	T	S			
UniRef90_G7UVD4	I	Q	I	T	G	E	D	G	K	P	Q	F	E	Q	C	I	I	I	A	A	G	S	Q	A	V	K	L	P	N	F	P	W	D	A	R	V	M	D	S				
UniRef9																																											

QUERY	D	G	F	F	Q	L	E	E	L	170	P	G	R	S	V	I	V	G	A	G	V	180	A	V	E	M	A	G	S	I	L	190	L	G	S	K	T	S	L	M	200
UniRef90_UPI0003B56A58	T	G	A	L	E	L	P	K	I	P	K	S	M	V	V	I	G	A	G	V	G	L	E	L	G	S	V	Y	R	R	L	G	S	E	V	T	V	V	E		
UniRef90_Q5LXD1	T	G	A	L	E	L	P	K	I	P	K	S	L	V	V	I	G	A	G	V	G	L	E	L	G	S	V	Y	R	R	L	G	S	E	V	T	V	V	E		
UniRef90_B7JUC1	D	A	M	F	E	L	P	E	Q	P	K	R	V	V	V	W	G	G	G	Y	G	V	E	F	A	C	I	M	Q	I	L	G	A	E	V	I	Q	I	I		
UniRef90_B4U2K9	D	G	F	F	A	L	D	D	I	P	K	R	T	A	V	V	G	A	G	Y	G	V	E	I	A	G	V	L	N	A	L	G	S	Q	T	D	L	L	V		
UniRef90_F0IDT1	T	E	A	L	S	D	H	E	V	P	K	H	L	I	V	I	G	G	G	V	G	L	E	L	G	Q	V	Y	L	R	L	G	A	E	V	T	S	V	V	E	
UniRef90_B9R072	T	G	A	L	D	L	E	K	V	P	K	M	I	V	V	I	G	G	G	V	G	L	E	L	G	S	V	W	N	R	L	G	A	E	V	T	S	V	V	E	
UniRef90_UPI0004129ACB	T	E	A	L	K	L	K	E	I	P	K	Q	M	I	V	I	G	G	G	V	G	L	E	L	G	Q	V	Y	S	R	L	G	S	E	V	T	F	V	V	E	
UniRef90_J9J038	T	G	A	L	S	L	E	K	I	P	K	K	L	V	V	I	G	G	G	V	G	L	E	L	G	S	V	Y	A	R	L	G	S	Q	V	T	V	V	E		
UniRef90_J5T5F0	D	G	F	F	E	L	E	E	Q	P	K	R	V	A	V	I	G	A	G	Y	A	V	E	L	A	G	V	F	N	S	L	N	T	E	H	L	L	I			
UniRef90_A0Z2L0	N	E	I	F	D	L	E	H	F	P	K	R	L	I	V	I	G	G	G	Y	A	T	E	F	A	G	I	F	N	G	L	G	A	E	V	V	Q	A	Y		
UniRef90_E0UCH9	D	D	M	F	H	L	R	E	R	Q	P	K	R	L	V	I	G	G	G	Y	G	V	E	F	S	C	I	M	H	G	L	G	A	E	V	T	Q	I	I		
UniRef90_UPI00041F9A40	D	H	V	F	D	L	E	R	R	F	Q	R	F	L	V	I	G	G	G	Y	A	V	E	F	A	S	I	F	N	G	L	G	A	E	V	T	H	L	A	Y	
UniRef90_L8LTi3	R	E	I	F	H	V	Q	E	Q	P	K	H	I	V	I	L	G	G	G	Y	G	A	E	F	A	C	I	L	K	G	L	G	S	D	V	T	Q	I	I		
UniRef90_Q87XC9	N	Q	A	F	F	L	K	E	L	P	K	R	V	L	V	I	G	G	G	Y	A	V	E	F	A	G	I	F	H	G	L	G	A	K	T	T	L	L	Y		
UniRef90_G0IW21	T	E	A	L	E	L	K	E	V	P	K	H	L	V	I	I	G	G	G	V	G	L	E	L	G	S	V	I	Y	A	R	L	G	A	K	V	T	S	V	V	E
UniRef90_A6FKU8	N	E	I	F	H	L	D	E	L	P	R	S	I	L	V	I	G	G	G	Y	A	C	E	F	A	C	I	L	N	G	L	G	V	E	V	T	Q	Y	Y		
UniRef90_C8S3B1	T	G	A	L	J	A	L	G	K	V	P	K	S	L	V	I	G	A	G	Y	G	L	E	M	G	S	V	Y	A	R	L	G	A	E	V	T	V	V	E		
UniRef90_K2K9M7	D	G	F	F	A	L	T	E	Q	P	K	R	V	A	V	I	G	A	G	Y	A	V	E	L	A	G	V	F	H	H	L	G	S	E	T	T	H	L	F	V	
UniRef90_E1SVB5	N	G	F	F	A	L	T	E	Q	P	K	R	V	A	V	I	G	A	G	Y	A	V	E	L	A	G	V	L	H	S	L	G	S	E	T	T	H	L	V		
UniRef90_UPI00037F12AE	N	E	A	F	H	L	S	E	M	P	R	Q	V	I	V	A	G	G	G	Y	A	V	E	F	A	G	I	F	N	G	L	G	A	E	T	T	L	L	Y		
UniRef90_Q6FUN7	T	G	A	L	S	L	K	E	V	P	K	R	L	A	V	I	G	G	G	I	G	L	E	M	G	S	V	Y	N	R	L	G	A	K	V	T	S	V	V	E	
UniRef90_L1NY52	T	E	A	L	K	L	K	E	V	P	K	H	L	V	I	I	G	G	G	V	G	L	E	L	G	Q	V	Y	N	R	L	G	A	K	V	T	S	V	V	E	
UniRef90_E0XRC4	T	E	A	L	S	L	K	E	V	P	K	S	M	V	I	I	G	G	G	V	G	L	E	L	G	S	V	Y	G	R	L	G	S	E	V	T	V	V	E		
UniRef90_N9CMX9	N	G	F	F	E	L	Q	Q	L	P	K	R	T	A	V	I	G	S	G	Y	G	A	V	E	L	A	G	V	L	N	G	L	G	S	E	V	G	L	F	I	
UniRef90_D0IV92	D	E	A	F	H	L	P	H	L	P	R	R	V	V	V	I	G	G	G	Y	A	V	E	F	A	S	I	F	N	G	L	G	A	A	T	T	L	L	H		
UniRef90_C3X445	T	G	V	L	J	A	M	E	A	V	P	E	S	L	A	I	I	G	A	G	V	G	L	E	M	G	S	V	W	R	R	L	G	A	A	V	T	L	F	E	
UniRef90_G6G044	N	E	M	F	H	L	P	A	K	P	K	S	I	A	I	I	G	A	G	Y	G	T	E	F	A	C	I	M	R	G	L	G	C	E	V	T	Q	V	I		
UniRef90_UPI00037FD0A4	E	G	A	L	N	I	N	E	T	P	K	R	L	G	V	I	G	A	G	V	G	L	E	M	G	S	V	W	A	R	L	G	T	E	V	T	V	L	E		
UniRef90_V6SK24	T	E	A	L	K	L	T	K	V	P	K	H	L	V	I	I	G	G	G	V	G	L	E	L	G	Q	V	Y	L	R	L	G	A	K	V	T	S	V	V	E	
UniRef90_H1XUL4	R	T	A	M	T	L	K	E	K	P	A	S	M	V	I	I	G	A	G	A	G	V	E	F	A	Y	F	Y	N	A	M	G	S	E	V	T	M	V	E		
UniRef90_J9YS57	G	A	L	K	L	N	K	V	P	K	K	M	V	V	V	I	G	G	G	Y	G	L	E	M	G	S	V	W	S	R	L	G	S	E	V	T	H	V	V	E	
UniRef90_A0A024IE92	N	E	V	F	D	L	E	P	F	P	K	R	L	L	V	I	G	G	G	Y	A	C	E	F	A	S	I	F	N	G	L	G	A	R	V	T	Q	L	Y		
UniRef90_Q5WFA8	T	G	A	L	A	L	K	E	V	P	K	K	L	V	I	I	G	G	G	Y	G	I	E	L	T	G	A	Y	S	N	L	G	S	E	V	V	V	L	E		
UniRef90_A0A016QLK4	S	G	A	L	A	F	E	Q	V	P	G	K	L	G	V	I	G	A	G	V	G	V	E	L	G	S	V	W	R	R	L	G	A	Q	V	T	V	L	E		
UniRef90_T0BQL0	T	E	A	L	A	L	D	E	I	P	E	R	L	A	V	I	G	G	G	Y	G	A	E	L	G	Q	T	F	A	K	F	G	S	K	V	T	L	I	E		
UniRef90_A0YXB0	D	D	M	F	L	L	T	E	K	P	Q	R	F	A	V	W	G	G	G	Y	G	V	E	F	A	S	I	L	K	G	L	G	S	E	V	T	Q	I	I		
UniRef90_D5RI63	T	G	A	L	E	L	E	K	V	P	G	H	M	V	V	I	G	G	G	V	G	L	E	L	G	S	V	W	R	R	L	G	A	E	V	T	V	V	E		
UniRef90_UPI00047E435E	S	G	A	L	J	A	L	R	E	I	P	K	K	M	V	I	G	G	G	Y	G	I	E	L	T	G	A	Y	A	N	L	G	A	E	V	T	V	L	E		
UniRef90_K2L6A8	K	K	A	M	T	P	D	K	M	P	K	S	L	V	V	I	G	S	G	A	G	I	E	F	A	S	F	Y	H	T	M	G	A	E	V	T	V	V	E		
UniRef90_A0A011NT11	N	E	V	F	D	L	E	T	F	P	R	R	L	A	I	V	G	G	G	Y	A	V	E	F	A	G	I	F	N	G	L	G	A	H	V	T	Q	L	Y		
UniRef90_Q4PFH3	D	G	F	F	E	L	K	E	Q	P	K	R	V	A	V	I	G	A	G	Y	A	V	E	L	A	G	V	F	N	T	L	G	S	Q	T	H	L	L	I		
UniRef90_I9W158	E	G	A	L	K	F	G	E	V	P	K	K	L	G	V	I	G	A	G	V	G	L	E	L	G	S	V	W	R	R	L	G	S	A	D	T	T	L	L	E	
UniRef90_UPI00021A3CF2	T	G	A	L	S	L	E	S	V	P	Q	R	L	L	V	I	G	A	G	V	G	L	E	L	G	S	V	W	C	R	L	G	S	K	V	T	A	I	E		
UniRef90_UPI0003685E9C	K	E	A	M	I	L	N	K	I	P	K	K	M	V	I	I	G	S	G	A	L	G	V	E	F	A	Y	F	F	N	E	Y	G	T	E	I	H	L	I		
UniRef90_D7WLB84	E	E	Q	I	L	N	P	E	A	P	K	K	M	V	I	V	G	A	G	A	L	G	M	E	F	A	Y	F	L	S	N	Y	G	V	D	V	T	V	V	E	
UniRef90_X8JH60	T	G	A	L	D	L	Q	E	V	P	K	K	M	I	V	I	G	G	G	V	G	L	E	M	G	S	V	W	S	R	L	G	A	E	V	T	V	V	E		
UniRef90_UPI0003B3146D	E	T	Q	I	L	T	R	E	L	P	K	S	L	V	I	I	G	A	G	A	L	G	M	E	F	A	Y	V	L	K	N	Y	G	V	D	V	T	I	I	E	
UniRef90_A5EXP7	T	G	A	L	Q	L	Q	D	I	P	E	R	L	L	V	I	G	G	G	I	G	L	E	M	A	T	V	Y	H	A	L	G	S	K	V	I	D	I	V	E	
UniRef90_Q6FYD5	T	G	A	L	A	L	E	K	V	P	M	R	M	I	V	I	G	A	G	V	G	S	E	L	G	S	V	W	S	R	L	G	S	K	V	T	I	I	E		
UniRef90_V9HK93	E	G	A	L	N	L	T	N	V	P	A	K	L	G	V	I	G	S	G	V	G	L	E	M	G	S	V	W	K	R	L	G	S	E	V	T	I	L	E		
UniRef90_A3K2D4	T	G	A	L	E	L	A	D	I	P	K	R	M	L	V	L	G	G	G	I	G	L	E	M	A	C	V	Y	D	A	L	G	S	K	V	T	V	V	E		
UniRef90_N2IS25	N	E	A	F	Y	L	D	K	L	P	E	R	M	I	V	I	G	G	G	Y	A	I	E	F	A	S	I	F	H	G	L	G	V	K	A	T	L	M	Y		
UniRef90_K7QWE8	R	A	L	K	V	E	E	G	V	P	G	R	L	L	V	I	G	G	G	A	V	G	L	E	F	G	Q	I	Y	H	R	L	G	S	Q	V	T	L	I	E	
UniRef90_Q3AE67	D	E	A	L	N	L	E	K	L	P	A	E	M	V	I	I	G	G	G	V	G	S	E	F	A	T	I	F	S	E	M	G	V	K	V	T	I	V	E		
UniRef90_G7UVD4	T	D	A	L	E	L	A	E	V	P	K	K	L	L	V	I	G	G	G	I	G	L	E	M	A	T	V	Y	G	A	L	G	S	E	V	T	V	V	E		
UniRef90_W1Q6I6	T	G	A	L	F	A	L	D	H	L	P	S	S	M	V	I	G	G	G	Y	G	S	E</																		

QUERY	R	H	D	N	V	L	R	S	F	D	S	M	I	S	T	N	C	T	E	E	L	E	N	A	G	V	E	V	L	K	F	S	Q	V	K	E	V	K	K	T		
UniRef90_UPI0003B56A58	Y	L	D	V	I	T	P	G	M	D	A	E	V	Q	K	Q	F	Q	K	M	L	T	K	K	Q	G	L	T	F	V	L	G	A	A	V	Q	G	A	T	A	T	
UniRef90_Q5LXD1	F	L	D	V	I	T	P	G	M	D	E	E	V	Q	K	T	F	Q	R	L	L	K	K	Q	G	L	T	F	V	L	M	G	A	A	S	I	S	A	T	E	I	A
UniRef90_B7JUC1	R	Q	D	K	I	L	R	G	F	D	E	D	I	R	S	T	I	Q	E	G	M	E	K	H	G	L	R	I	L	N	N	C	A	S	I	S	A	V	E	K	T	
UniRef90_B4U2K9	R	Y	D	R	P	L	R	T	F	D	Q	D	I	I	Q	V	L	V	D	E	M	K	V	P	G	P	R	L	H	T	N	A	D	V	T	K	V	T	K	A		
UniRef90_F0IDT1	Y	A	P	S	I	L	P	T	M	D	I	S	I	G	K	E	L	S	K	V	L	K	K	Q	G	F	F	Y	T	D	S	S	K	V	T	K	V	E	S	R	K	
UniRef90_B9R072	F	M	P	K	I	L	G	P	M	D	S	I	S	I	S	K	N	F	Q	R	I	L	K	K	Q	G	M	A	F	K	L	S	S	K	V	T	G	V	E	K	K	
UniRef90_UPI0004129ACB	Y	M	D	R	I	L	P	N	M	D	S	A	L	S	S	K	E	L	T	K	V	F	K	K	Q	G	M	K	F	N	V	S	H	K	V	K	S	V	E	R	K	
UniRef90_J9J038	Y	M	D	R	I	C	P	T	M	D	V	E	L	S	T	Q	Q	F	K	K	T	L	E	K	Q	G	L	K	F	M	M	K	T	K	V	V	G	G	S	G	G	
UniRef90_J5T5F0	R	T	E	H	V	L	R	T	F	D	P	M	L	S	D	V	L	V	P	W	M	E	H	T	G	M	R	V	H	K	N	S	G	V	E	K	V	E	K	T		
UniRef90_A0Z2L0	R	G	D	L	F	M	R	G	F	D	D	D	V	R	R	F	L	A	Q	E	V	R	K	T	G	V	D	L	R	F	N	T	N	P	K	S	I	D	T	S		
UniRef90_E0UCH9	R	S	D	K	I	L	R	G	F	D	E	D	I	R	S	T	I	Q	D	A	M	Q	A	H	G	I	R	I	L	N	N	S	Q	P	T	A	I	E	K	T		
UniRef90_UPI00041F9A40	R	G	P	L	F	L	R	G	F	D	V	E	Q	R	E	F	I	R	D	E	M	H	K	K	G	V	N	L	H	F	E	A	N	I	V	R	V	E	K	R		
UniRef90_L8LTl3	R	A	D	K	I	L	R	G	F	D	E	D	I	R	S	E	I	Q	S	Q	M	Q	D	H	G	I	N	V	L	N	N	V	Q	D	M	A	I	T	K	T		
UniRef90_Q87XC9	R	G	D	L	F	L	R	G	F	D	G	A	V	R	E	H	L	Q	V	E	L	T	R	R	G	M	D	L	Q	F	N	S	D	T	E	R	I	D	K	Q		
UniRef90_G0IW21	F	M	N	G	I	I	P	T	M	D	K	V	R	G	K	E	L	Q	K	S	L	K	K	L	G	F	E	F	Y	L	Q	H	K	V	T	G	V	E	R	K		
UniRef90_A6FKU8	R	G	A	Q	I	L	R	G	F	D	E	E	A	R	G	L	I	S	E	E	M	I	R	N	G	V	G	L	H	L	G	T	N	I	E	M	E	K	L			
UniRef90_C8S3B1	Y	L	D	A	I	T	P	G	M	D	A	E	V	A	K	A	F	Q	R	L	L	A	K	Q	G	L	K	F	I	L	G	A	A	V	Q	G	V	S	V	T		
UniRef90_K2K9M7	R	H	D	R	P	L	R	D	F	D	R	D	I	T	D	G	L	L	E	R	M	A	Q	D	G	Q	H	L	H	T	Q	C	T	I	D	K	V	E	Q	A		
UniRef90_E1SVB5	R	K	H	A	P	L	R	N	F	D	P	M	I	V	D	T	L	V	K	L	M	A	A	E	G	P	T	L	H	T	H	S	I	P	K	A	V	E	K	E		
UniRef90_UPI00037F12AE	R	G	E	E	I	L	R	G	F	D	N	D	I	R	K	A	T	S	H	E	E	M	E	K	K	G	I	K	I	L	C	G	D	T	F	S	A	I	E	K	D	
UniRef90_Q6FUN7	F	Q	P	K	I	G	A	S	M	D	G	E	V	A	A	T	S	Q	K	F	L	K	K	Q	G	F	N	F	K	L	S	T	K	V	V	S	A	E	R	N		
UniRef90_L1NY52	Y	A	D	S	I	I	P	T	M	D	K	G	L	G	R	E	L	T	K	V	L	K	K	Q	G	F	T	F	Y	T	S	H	Q	V	K	E	V	T	R	K		
UniRef90_E0XRC4	Y	S	D	S	L	I	S	S	M	D	K	S	L	L	G	K	E	M	R	K	V	L	K	K	Q	G	F	N	T	K	L	N	C	G	V	T	A	V	E	R	K	
UniRef90_N9CMX9	R	K	Q	L	P	L	R	S	L	D	Q	F	L	G	E	T	L	L	E	C	M	R	D	E	H	I	Q	V	H	T	Q	A	I	L	P	K	K	V	T	R	Q	
UniRef90_D0IV92	R	R	Q	Q	L	L	R	G	F	D	A	D	L	G	L	H	L	G	Q	E	M	A	Q	L	G	V	N	F	R	W	G	E	E	I	Q	A	I	S	K	Q		
UniRef90_C3X445	A	Q	P	A	L	L	A	G	A	D	R	Q	I	A	M	E	A	Q	E	Q	M	T	R	N	G	G	L	T	I	Y	T	G	A	T	V	R	K	E	V	P	V	
UniRef90_G6G044	R	K	E	L	I	L	N	G	F	D	E	D	I	R	T	N	I	Q	K	G	M	T	N	H	G	I	K	I	I	Q	N	H	V	V	E	A	V	E	K	V		
UniRef90_UPI00037FD0A4	A	M	D	D	F	L	A	L	A	D	K	D	V	A	K	E	A	A	K	I	F	E	K	K	Q	K	L	D	I	K	L	G	A	R	C	T	G	T	E	I	N	
UniRef90_V6SK24	F	M	D	R	I	I	P	G	M	D	G	G	L	S	K	E	L	T	K	V	L	K	K	Q	G	M	K	F	Y	T	S	H	K	V	Q	A	V	I	D	R	A	
UniRef90_H1XUL4	M	L	D	H	L	I	P	Q	E	D	E	E	I	S	T	L	L	E	R	N	F	K	K	N	K	I	N	F	H	T	S	A	T	V	S	K	I	D	E	K	L	
UniRef90_J9YS57	F	L	D	H	I	T	P	G	M	D	N	E	I	S	K	E	F	M	K	I	L	K	K	Q	G	I	T	F	H	M	Q	H	K	V	E	K	I	N	K	N		
UniRef90_A0A024IE92	R	G	E	Q	V	L	R	G	F	D	D	E	I	R	H	F	A	S	A	E	I	A	K	A	G	V	D	L	H	N	A	G	V	V	D	I	R	K	S	T		
UniRef90_Q5WFA8	G	T	K	Q	I	L	P	G	F	E	K	Q	M	A	K	L	V	E	R	K	L	K	K	N	G	V	T	F	H	T	E	A	M	A	K	G	V	E	K	T		
UniRef90_A0A016QLK4	A	L	P	G	F	L	A	A	D	D	A	I	S	K	E	A	L	K	Q	L	K	Q	K	Q	G	L	D	F	H	F	S	V	Q	I	T	E	V	K	Q	G		
UniRef90_T0BQL0	R	L	D	S	I	L	A	A	F	D	K	Q	M	V	R	S	N	I	V	E	K	N	L	K	K	Y	D	V	Q	I	E	T	K	A	M	A	K	S	V	E	E	T
UniRef90_A0YXB0	R	R	D	W	I	L	R	G	F	D	Q	D	I	R	S	N	I	Q	D	G	M	S	K	H	G	V	N	F	L	T	N	T	T	I	E	K	I	E	K	T		
UniRef90_D5RI63	Y	L	D	R	L	A	P	G	M	D	A	E	T	A	K	Q	F	E	R	V	L	T	K	Q	G	F	K	F	K	L	K	S	K	V	T	A	A	A	K	S		
UniRef90_UPI00047E435E	G	G	K	Q	I	V	A	G	F	E	K	Q	M	S	Q	L	V	S	R	R	L	K	K	S	G	V	V	I	H	T	E	A	L	A	K	G	V	E	K	T		
UniRef90_K2L6A8	I	M	S	Q	I	M	P	V	E	D	K	E	V	A	A	L	A	Q	K	M	M	T	K	D	G	M	K	I	L	T	E	A	K	V	A	N	L	K	R	N		
UniRef90_A0A011NT11	R	G	P	L	F	L	R	G	F	D	A	D	I	R	A	H	A	A	Q	E	I	A	K	T	G	V	D	L	R	F	E	V	N	V	Q	S	I	S	A	G		
UniRef90_Q4PFH3	R	H	D	T	F	L	R	P	F	D	P	I	I	S	E	T	L	Q	D	Y	M	S	R	T	G	L	N	V	H	K	Q	T	N	I	T	K	V	E	G	S		
UniRef90_I9W158	A	L	P	A	F	L	G	A	V	D	A	G	V	A	K	E	A	Q	K	L	F	T	K	Q	G	L	K	F	E	L	G	V	K	I	G	N	V	K	A	D		
UniRef90_UPI00021A3CF2	F	L	G	H	V	G	M	I	D	M	E	V	S	K	S	I	Q	R	I	L	K	K	Q	G	L	E	F	K	L	N	T	K	V	T	S	A	V	K	T			
UniRef90_UPI0003685E9C	M	L	P	R	I	A	P	A	E	D	E	D	I	S	K	E	L	K	R	I	F	K	K	A	G	I	N	I	Y	T	G	S	R	V	S	K	I	S	A	L		
UniRef90_D7WB84	F	M	D	R	V	L	P	N	E	D	K	D	V	S	K	E	I	A	K	A	Y	K	K	L	G	V	K	L	L	T	G	H	A	T	T	E	V	R	D	N		
UniRef90_X8JH60	F	L	G	I	G	G	V	I	D	E	E	I	A	K	Q	F	Q	R	T	L	Q	K	K	Q	G	F	K	F	Q	L	N	T	K	V	L	G	G	T	K	T		
UniRef90_UPI0003B3146D	F	L	D	P	R	A	L	P	N	E	D	P	D	V	S	K	E	I	Q	K	Q	Y	K	K	L	G	V	N	I	L	V	D	T	K	V	E	T	V	V	D	N	
UniRef90_A5EXP7	M	M	D	G	L	M	A	G	A	D	K	D	L	V	K	V	W	Q	R	R	N	P	D	L	F	E	H	I	Y	L	N	T	K	T	V	A	A	E	A	K		
UniRef90_Q6FYD5	Y	L	N	K	V	L	G	S	M	D	G	E	V	S	R	Q	F	Q	K	L	M	E	K	Q	G	I	E	Y	K	T	G	T	K	V	T	A	I	M	Q	S		
UniRef90_V9HK93	A	A	P	T	F	M	A	A	A	D	Q	Q	I	A	K	E	A	F	K	Y	F	K	E	Q	G	L	D	I	K	L	G	V	K	I	H	A	I	N	R	A		
UniRef90_A3K2D4	L	M	D	Q	I	I	P	G	A	D	K	D	V	V	K	P	L	M	Q	R	I	K	G	R	Y	E	N	I	F	L	K	T	K	V	T	A	V	E	A	K		
UniRef90_N2IS25	R	K	E	L	F	L	R	G	F	D	D	C	V	R	V	H	L	R	D	E	L	L	K	R	G	H	D	L	Q	F	N	A	E	I	A	R	I	D	K	Q		
UniRef90_K7QWE8	Y	M	P	E	I	L	P	Q	G	G	D	K	E	T	A	G	L	L	R	R	A	L	M	K	E	G	L	V	I	K	T	G	T	K	A	V	G	Y	E	K	K	
UniRef90_Q3AE67	L	L	P	S	I	L	A	N	T	D	K	E	V	S	R	Y	L	T	T	L	F	K	K	R	G	I	Q	V	K	T	K	V	A	V	K	E	V	K	K	G		
UniRef90_G7UVD4	F	M	D	Q	L	M	P	G																																		



QUERY UniRef90\_UPI0003B56A58 UniRef90\_Q5LXD1 UniRef90\_B7JUC1 UniRef90\_B4U2K9 UniRef90\_F0IDT1 UniRef90\_B9R072 UniRef90\_UPI0004129ACB UniRef90\_J9J038 UniRef90\_J5T5F0 UniRef90\_A0Z2L0 UniRef90\_E0UCH9 UniRef90\_UPI00041F9A40 UniRef90\_L8LTi3 UniRef90\_Q87XC9 UniRef90\_G0IW21 UniRef90\_A6FKU8 UniRef90\_C8S3B1 UniRef90\_K2K9M7 UniRef90\_E1SVB5 UniRef90\_UPI00037F12AE UniRef90\_Q6FUN7 UniRef90\_L1NY52 UniRef90\_E0XRC4 UniRef90\_N9CMX9 UniRef90\_D0IV92 UniRef90\_C3X445 UniRef90\_G6G044 UniRef90\_UPI00037FD0A4 UniRef90\_V6SK24 UniRef90\_H1XUL4 UniRef90\_J9YS57 UniRef90\_A0A024IE92 UniRef90\_Q5WFA8 UniRef90\_A0A016QLK4 UniRef90\_T0BQL0 UniRef90\_A0YXB0 UniRef90\_X8Jl63 UniRef90\_UPI00047E435E UniRef90\_K2L6A8 UniRef90\_A0A011NT11 UniRef90\_Q4PFH3 UniRef90\_I9W158 UniRef90\_UPI00021A3CF2 UniRef90\_UPI0003685E9C UniRef90\_D7WB84 UniRef90\_X8JH60 UniRef90\_UPI0003B3146D UniRef90\_A5EXP7 UniRef90\_Q6FYD5 UniRef90\_V9HK93 UniRef90\_A3K2D4 UniRef90\_N2IS25 UniRef90\_K7QWE8 UniRef90\_Q3AE67 UniRef90\_G7UVD4 UniRef90\_W1Q6I6 UniRef90\_D7E1D6 UniRef90\_UPI0003717158 UniRef90\_UPI000374522C UniRef90\_W9VAV7 UniRef90\_UPI0003F8EC44 UniRef90\_B9MG22 UniRef90\_D9QI41 UniRef90\_Q9PJi3 UniRef90\_F6DSE9 UniRef90\_J6J8F7 UniRef90\_X5DGH3 UniRef90\_UPI00020DA1BD UniRef90\_H8MPQ4 UniRef90\_W5Y6D2 UniRef90\_H9KKR1 UniRef90\_A0A022LGA3 UniRef90\_UPI0002492C30 UniRef90\_B4RBV3 UniRef90\_Q1QQS0 UniRef90\_G9ZF13 UniRef90\_J2V2J5 UniRef90\_UPI00047CF318 UniRef90\_V4A6K4 UniRef90\_A0A031K6Y7 UniRef90\_F8JD04 UniRef90\_UPI00036ECA9B UniRef90\_D5C4P8 UniRef90\_UPI000362A2F2 UniRef90\_UPI00031727B3 UniRef90\_B1LZV5 UniRef90\_B9M2i3 UniRef90\_S6AA66 UniRef90\_E4KNH4 UniRef90\_UPI00030308E5 UniRef90\_UPI000366FF7D

QUERY	L	S	L	N	K	L	G	I	E	T	T	D	D	K	G	H	I	I	V	300	E	F	Q	N	T	N	V	K	G	I	Y	A	V	G	D	V	C	G	K	A	L	320		
UniRef90_UPI0003B56A58	L	G	L	D	K	A	L	G	I	E	T	T	D	D	K	G	H	I	I	V	D	E	G	H	W	A	T	N	N	K	G	I	Y	A	V	G	D	V	C	G	K	A	L	
UniRef90_Q5LXD1	L	G	L	D	K	A	L	G	I	E	T	T	D	D	K	G	H	I	I	V	D	E	G	H	W	A	T	N	N	K	G	I	Y	A	V	G	D	V	C	G	K	A	L	
UniRef90_B7JUC1	L	G	L	E	N	T	A	I	E	V	E	V	E	V	E	V	E	V	E	V	D	E	G	H	W	A	T	N	N	K	G	I	Y	A	V	G	D	V	C	G	K	A	L	
UniRef90_B4U2K9	F	G	L	E	H	T	G	V	E	V	L	D	K	R	G	G	A	I	A	T	D	E	A	Y	E	N	T	S	V	E	G	I	Y	A	V	G	D	V	C	G	K	A	L	
UniRef90_F0IDT1	L	G	L	D	K	A	G	V	Q	L	N	D	R	G	R	G	V	A	Q	I	N	E	N	T	H	Y	K	T	N	V	D	G	I	Y	A	V	G	D	V	C	G	K	A	L
UniRef90_B9R072	L	N	A	E	A	A	G	V	E	M	G	D	R	G	M	I	E	A	I	N	D	H	L	Q	T	N	V	K	N	I	Y	A	V	G	D	V	C	G	K	A	L			
UniRef90_UPI0004129ACB	L	Q	L	E	K	A	G	V	T	T	D	K	K	G	K	V	E	T	N	E	H	Y	Q	E	T	N	V	K	N	I	Y	A	V	G	D	V	C	G	K	A	L			
UniRef90_J9J038	L	G	L	Q	N	A	G	V	E	V	N	N	K	G	F	I	A	V	N	E	Y	F	Q	T	A	E	A	S	I	V	Y	A	V	G	D	V	C	G	K	A	L			
UniRef90_J5T5F0	L	G	L	E	K	N	V	G	L	E	R	T	N	S	G	K	L	K	V	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L			
UniRef90_A0Z2L0	L	N	L	Q	C	T	S	V	E	A	L	N	N	K	G	F	I	A	V	N	E	Y	F	Q	T	A	E	A	S	I	V	Y	A	V	G	D	V	C	G	K	A	L		
UniRef90_E0UCH9	L	G	L	E	K	N	V	G	L	E	R	T	N	S	G	K	L	K	V	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L			
UniRef90_UPI00041F9A40	L	G	L	E	N	T	G	V	E	V	N	K	G	F	I	A	V	N	E	Y	F	Q	T	A	E	A	S	I	V	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_L8LTi3	L	G	L	E	N	T	G	V	E	V	N	K	G	F	I	A	V	N	E	Y	F	Q	T	A	E	A	S	I	V	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_Q87XC9	L	G	L	E	N	T	G	V	E	V	N	K	G	F	I	A	V	N	E	Y	F	Q	T	A	E	A	S	I	V	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_G0IW21	L	N	A	A	A	A	G	V	K	L	N	K	K	G	F	I	A	V	N	E	Y	F	Q	T	A	E	A	S	I	V	Y	A	V	G	D	V	C	G	K	A	L			
UniRef90_A6FKU8	L	G	L	E	R	T	G	V	K	L	R	N	K	G	A	I	E	V	D	A	Y	S	Q	T	S	V	P	S	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_C8S3B1	L	G	L	D	A	L	G	V	E	M	L	P	R	D	G	Q	V	I	K	T	D	A	H	F	A	T	N	I	K	G	I	Y	A	V	G	D	V	C	G	K	A	L		
UniRef90_K2K9M7	I	N	I	E	C	A	S	G	V	K	V	D	S	D	G	F	I	P	V	D	E	Y	Q	N	T	S	V	P	S	I	Y	A	V	G	D	V	C	G	K	A	L			
UniRef90_E1SVB5	I	N	I	E	A	S	G	V	K	V	D	S	D	G	F	I	P	V	D	E	Y	Q	N	T	S	V	P	S	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_UPI00037F12AE	L	G	L	E	K	A	G	V	E	V	G	D	G	A	I	R	V	I	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_Q6FUN7	L	G	A	E	K	L	G	V	E	V	D	K	R	G	R	L	I	V	I	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L			
UniRef90_L1NY52	L	N	L	E	A	A	G	V	K	D	E	R	G	R	V	A	V	N	D	H	L	Q	T	N	V	P	H	I	Y	A	V	G	D	V	C	G	K	A	L					
UniRef90_E0XRC4	L	G	L	D	N	I	G	V	K	V	D	E	R	G	R	V	A	V	N	D	H	L	Q	T	N	V	P	H	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_N9CMX9	L	N	L	A	A	A	N	V	K	V	D	E	R	G	R	V	A	V	N	D	H	L	Q	T	N	V	P	H	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_D0IV92	L	G	L	E	A	A	G	V	K	V	D	E	R	G	R	V	A	V	N	D	H	L	Q	T	N	V	P	H	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_C3X445	L	G	A	E	N	V	G	L	K	R	D	E	R	G	F	I	A	V	N	D	H	L	Q	T	N	V	P	H	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_G6G044	C	C	G	S	I	E	P	G	Y	S	T	M	D	A	I	F	V	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L					
UniRef90_UPI00037FD0A4	L	J	A	D	S	G	V	K	L	D	E	R	G	F	I	F	V	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L					
UniRef90_V6SK24	L	N	A	D	K	A	G	V	K	L	D	E	R	G	F	I	F	V	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_H1XUL4	L	G	L	E	K	I	G	V	E	H	E	K	G	F	I	E	V	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L					
UniRef90_J9YS57	L	N	L	D	V	T	G	V	E	L	D	E	R	N	R	V	K	I	D	K	N	F	R	T	N	M	N	I	Y	A	V	G	D	V	C	G	K	A	L					
UniRef90_A0A024IE92	L	G	L	D	A	V	G	L	E	L	G	A	K	G	E	V	I	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L					
UniRef90_Q5WFA8	I	G	L	E	A	G	V	E	M	D	D	R	G	F	I	K	V	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L					
UniRef90_A0A016QLK4	L	G	A	D	A	V	G	L	E	L	D	E	R	G	F	I	K	V	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_T0BQL0	L	G	L	Q	N	A	G	V	E	L	M	K	K	G	F	I	K	V	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_A0YXB0	L	M	L	E	N	A	G	V	E	L	M	N	Q	D	A	I	A	V	T	Q	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L					
UniRef90_D5RI63	L	G	L	E	A	E	I	G	V	E	L	D	E	R	G	R	V	K	I	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L			
UniRef90_UPI00047E435E	L	G	L	E	Q	A	G	V	E	L	D	E	R	G	F	I	K	V	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_K2L6A8	L	G	L	E	T	T	K	V	K	V	D	R	N	V	I	D	T	N	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L					
UniRef90_A0A011NT11	I	G	L	E	S	V	N	V	A	L	N	D	D	G	T	I	K	V	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_Q4PFH3	L	G	L	E	T	V	G	L	Q	L	D	K	G	F	I	P	V	N	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L				
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UniRef90_UPI00021A3CF2	L	G	L	E	E	I	G	I	Q	L	D	D	K	K	R	I	P	V	N	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L			
UniRef90_UPI0003685E9C	I	G	L	E	D	I	G	V	S	V	T	K	G	A	I	E	V	I	N	E	R	M	R	T	S	V	P	S	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_D7WBB4	F	G	L	D	N	T	G	V	K	L	T	E	R	G	A	I	E	V	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_X8JH60	L	G	L	E	K	I	G	V	E	V	D	K	R	G	R	I	V	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L					
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UniRef90_A5EXP7	L	N	V	E	A	C	G	V	T	V	D	E	R	G	F	I	A	I	D	A	N	W	Q	T	N	I	P	G	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_Q6FYD5	L	G	L	V	E	A	G	V	K	L	D	E	R	G	F	I	A	I	D	A	N	W	Q	T	N	I	P	G	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_V9HK93	L	N	A	E	S	V	G	L	A	K	D	E	R	G	F	I	A	I	D	A	N	W	Q	T	N	I	P	G	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_A3K2D4	V	D	A	D	K	A	G	V	A	V	D	D	R	G	F	I	A	I	D	A	N	W	Q	T	N	I	P	G	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_N2IS25	L	G	L	E	N	V	G	V	E	L	D	E	R	G	F	I	K	V	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_K7QWE8	L	G	L	E	A	F	G	I	L	R	D	P	K	G	F	I	Q	V	N	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L				
UniRef90_Q3AE67	I	G	L	E	E	V	G	V	A	L	G	P	K	G	E	V	L	D	E	Y	S	Q	T	S	Q	E	N	I	Y	A	V	G	D	V	C	G	K	A	L</					



[illegible]

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QUERY	V	M	K	M	V	C	A	N	K	E	E	K	V	V	G	H	M	Q	G	L	G	C	D	E	M	L	Q	G	F	A	V	A	V	K	M	G	A	T	K				
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UniRef90_B7JUC1	L	M	K	L	I	V	H	D	K	E	S	D	R	I	V	L	G	A	H	I	V	G	D	H	A	A	E	L	I	Q	G	V	A	I	A	V	K	M	G	A	T	K	
UniRef90_B4U2K9	L	M	K	L	V	A	G	E	E	E	T	D	R	I	V	L	G	L	H	G	I	G	Y	G	V	D	E	M	I	Q	G	F	A	V	A	I	K	M	G	A	T	K	
UniRef90_F0IDT1	F	V	K	V	L	A	D	A	T	T	D	E	I	V	L	G	V	H	I	V	G	A	R	A	S	D	L	I	A	Q	S	V	V	A	M	E	F	G	A	S	A		
UniRef90_B9R072	F	A	K	V	L	S	D	V	K	T	D	Q	I	V	L	G	V	H	I	V	G	F	G	A	G	E	M	I	A	H	E	A	A	V	L	M	E	Y	G	G	S	A	
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UniRef90_J9J038	M	V	K	L	T	N	K	D	T	D	K	I	V	L	G	L	H	I	V	G	G	P	N	A	G	E	M	I	A	E	G	V	L	G	M	E	Y	G	A	A	A		
UniRef90_J5T5F0	P	Y	K	M	I	C	Q	G	K	D	E	K	V	V	L	G	L	H	I	V	G	E	G	S	D	E	M	L	Q	G	F	A	V	A	I	K	M	G	A	T	K		
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UniRef90_E0UCH9	L	M	K	L	V	V	E	K	A	S	T	D	R	V	L	G	A	H	M	V	G	E	H	A	A	G	E	L	I	Q	G	V	A	I	A	V	K	M	G	A	T	K	
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UniRef90_L8LTi3	L	M	K	L	I	V	D	G	N	T	D	K	I	V	L	G	A	H	M	V	G	D	S	A	A	G	E	L	I	Q	G	V	A	I	A	V	K	M	G	A	T	K	
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UniRef90_G0IW21	L	V	K	V	L	A	D	A	E	T	D	E	I	V	L	G	V	H	I	V	G	P	R	A	A	D	M	I	A	E	A	V	V	A	M	E	Y	R	A	S	A		
UniRef90_A6FKU8	L	M	K	L	I	V	S	Q	E	T	R	R	I	V	L	G	C	H	I	V	A	P	G	A	G	E	M	I	Q	L	A	G	I	A	V	K	M	G	A	T	K		
UniRef90_C8S3B1	F	V	K	L	A	D	K	A	T	D	R	I	V	L	G	C	H	I	V	G	G	P	G	A	G	D	L	I	H	E	V	C	V	A	M	E	F	G	A	S	A		
UniRef90_K2K9M7	Y	F	K	L	I	C	V	G	K	E	E	K	V	I	G	L	H	I	V	G	E	G	G	M	D	E	L	I	Q	G	F	A	V	A	I	A	M	N	M	G	A	T	K
UniRef90_E1SVB5	E	M	K	L	V	G	P	E	E	K	I	V	L	G	L	H	G	I	V	G	F	G	M	D	E	L	I	Q	G	F	A	V	A	I	K	M	G	A	T	K			
UniRef90_UPI00037F12AE	V	M	K	L	I	V	D	A	E	T	D	K	I	V	L	G	A	H	I	V	G	P	D	A	G	E	L	I	A	Q	V	L	G	I	T	L	Q	M	G	A	T	K	
UniRef90_Q6FUN7	F	V	K	L	I	D	A	E	T	D	E	K	V	L	G	A	H	I	V	G	P	N	A	G	E	M	I	A	E	A	G	L	A	L	E	Y	G	A	S	A			
UniRef90_L1NY52	F	V	K	I	L	A	D	K	T	T	D	E	I	V	L	G	V	H	I	V	G	A	R	A	A	D	M	I	A	E	A	V	T	A	M	E	F	K	A	S	A		
UniRef90_E0XRC4	F	V	K	V	L	A	D	A	N	T	D	E	K	V	L	G	V	H	I	V	G	P	R	V	A	D	L	I	A	E	A	V	V	A	M	E	Y	R	A	S	A		
UniRef90_N9CMX9	K	M	K	L	V	C	V	D	A	N	T	D	K	V	L	G	V	H	I	V	G	Y	G	M	D	E	L	I	Q	G	F	A	V	A	I	V	K	M	G	A	T	K	
UniRef90_D0IV92	F	L	K	L	I	V	S	K	A	D	Q	R	V	L	R	G	V	H	M	V	G	E	G	A	G	E	L	M	Q	G	F	A	V	A	L	Q	C	G	A	T	K		
UniRef90_C3X445	F	V	K	L	A	D	A	S	T	D	E	V	L	G	V	H	I	V	G	G	P	M	V	S	E	L	I	A	E	A	V	M	A	M	T	F	K	A	T	K			
UniRef90_G6G044	M	M	K	L	V	D	A	S	T	D	K	V	L	G	A	H	M	V	G	G	E	N	A	G	E	L	I	Q	G	V	A	I	A	I	N	M	G	A	T	K			
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UniRef90_V6SK24	F	V	K	I	L	A	D	A	K	T	D	E	V	L	G	L	H	I	V	G	A	R	A	A	D	L	I	A	E	A	V	T	A	M	E	F	R	A	S	A			
UniRef90_H1XUL4	M	V	K	L	I	F	D	A	K	T	G	E	L	L	G	A	H	I	V	G	A	E	A	E	T	E	L	I	A	E	L	G	V	A	K	G	L	E	V	T	P		
UniRef90_J9YS57	F	V	K	I	L	A	D	E	K	S	D	R	V	L	G	A	H	I	V	G	P	H	A	G	E	L	I	A	E	I	G	I	A	M	E	F	G	A	S	S			
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UniRef90_A0YXB0	F	M	K	L	I	V	E	T	N	T	D	R	V	L	G	A	H	M	V	G	K	D	S	A	E	L	I	Q	G	V	A	I	A	V	N	M	G	A	T	K			
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UniRef90_K2L6A8	L	V	K	T	V	F	D	A	K	T	G	E	L	L	G	A	H	M	V	G	A	E	V	T	E	L	I	Q	G	F	V	V	A	M	G	L	E	T	T	E			
UniRef90_A0A011NT11	F	M	K	L	I	V	D	K	A	S	D	R	V	V	G	A	H	M	M	G	P	D	A	G	E	L	M	Q	G	I	A	I	A	M	R	A	G	A	T	K			
UniRef90_Q4PFH3	A	F	K	M	V	A	P	G	D	K	V	L	V	L	G	L	H	I	V	G	L	G	A	D	E	M	L	Q	G	F	A	V	A	I	K	M	G	A	T	V			
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UniRef90_UPI00021A3CF2	F	V	K	I	L	S	D	K	T	T	D	R	M	L	G	A	H	I	V	G	A	T	A	G	E	L	I	A	N	E	T	V	L	A	L	E	Y	G	A	S	A		
UniRef90_UPI0003685E9C	F	V	K	L	V	F	D	N	K	Y	G	E	L	I	G	A	H	I	V	G	S	E	A	T	E	M	I	A	E	L	G	M	A	K	A	L	E	S	T	W			
UniRef90_D7WB84	F	G	K	L	V	D	G	E	Y	G	E	I	I	G	C	H	L	V	G	A	N	V	S	E	L	L	I	P	E	I	N	L	A	Q	R	F	D	L	T	A			
UniRef90_X8JH60	V	V	K	F	I	V	E	K	E	T	D	R	V	L	G	C	H	I	V	G	P	N	A	G	E	M	I	A	S	A	V	L	A	I	E	Y	S	A	S	A			
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UniRef90_A5EXP7	F	V	K	L	I	V	D	K	A	S	Q	R	V	L	G	G	A	H	I	V	G	P	N	A	G	D	M	I	G	E	I	A	L	A	E	M	N	A	V	P			
UniRef90_Q6FYD5	F	V	K	I	L	A	D	K	K	T	D	R	V	L	G	G	H	L	V	G	F	G	A	S	E	M	I	H	E	I	A	V	L	M	E	F	G	G	S	S			
UniRef90_V9HK93	T	L	K	V	L	S	C	A	K	T	D	R	I	L	G	V	H	I	V	G	P	M	V	S	E	L	I	A	E	A	V	V	L	S	M	E	F	K	A	S	S		
UniRef90_A3K2D4	M	T	K	L	I	F	D	P	E	D	Q	R	V	I	G	G	C	M	V	G	P	N	A	G	D	L	I	A	E	V	A	L	A	I	E	M	G	A	D	A			
UniRef90_N2IS25	L	M	K	L	V	D	A	E	T	D	K	V	L	G	C	H	M	V	G	G	P	D	A	P	E	Q	I	Q	C	L	A	V	A	L	K	A	G	A	T	K			
UniRef90_K7QWE8	L	I	K	V	V	G	D	E	E	T	D	L	L	L	G	V	H	I	V	G	P	A	A	S	D	L	I	A	E	A	A	L	A	L	E	M	G	A	T	V			
UniRef90_Q3AE67	F	V	K	I	I	A	D	E	F	T	H	R	I	L	G	G	H	I	V	G	P	H	A	T	D	L	I	G	E	I	A	L	A	V	Q	K	G	L	T	L			
UniRef90_G7UVD4	F	T	K	L	I																																						



QUERY A D F D N T V A I 450 T S S E E L V T 460 L R  
UniRef90\_UPI0003B56A58 E D I A L T C H A H P T V S E A V R  
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UniRef90_W8EU32	C	L	N	W	G	C	I	P	T	K	A	L	L	S	S	A	K	Q	V	F	E	A	K	N	S	A	F	N	D	H	G	L	S	T	G	E	V	K	M	D	V	F	G
UniRef90_P31052	K	L	A	L	G	G	T	C	L	N	V	G	C	S	S	W	K	Y	K	E	A	K	N	S	A	F	N	V	H	G	L	S	T	G	E	V	K	M	D	V	F	G	
UniRef90_F2FLW8	C	V	L	N	R	G	C	I	P	S	K	A	L	L	V	Y	A	S	H	F	V	M	D	E	A	A	G	Y	G	W	R	F	G	E	V	K	M	D	V	F	G		
UniRef90_UPI00022CAA65	C	L	N	V	G	C	I	P	S	K	A	L	L	N	N	S	Y	L	Y	H	L	A	H	G	K	D	F	E	S	R	G	I	E	I	S	G	V	I	N	D	L	E	
UniRef90_H3CFW6	C	L	N	V	G	C	I	P	S	K	A	L	L	T	A	G	H	R	Y	D	H	A	K	N	S	A	D	M	G	I	T	A	E	N	V	I	Q	V	D	F	S		
UniRef90_UPI00030D33D8	C	L	N	V	G	C	I	P	S	K	A	L	L	K	S	A	Q	V	F	H	Y	I	N	N	S	A	E	D	Y	G	I	L	N	K	V	E	A	S	F	E	F	P	
UniRef90_W4T5U5	C	L	N	V	G	C	I	P	S	K	A	L	L	N	N	S	H	L	F	H	Q	M	H	T	E	A	Q	K	R	G	I	D	V	N	I	S	K	I	N	V	A		
UniRef90_P09624	R	P	N	V	G	G	S	Y	L	N	A	G	C	S	A	K	I	Y	H	S	L	T	T	G	L	A	S	H	G	I	G	V	E	N	I	S	K	I	N	V	A		
UniRef90_H8GKT1	C	L	N	V	G	C	I	P	S	K	A	L	L	H	V	A	K	V	I	K	E	A	K	S	H	G	I	G	V	S	F	G	E	P	K	I	N	D	V	L	D		
UniRef90_UPI0000E0F495	C	L	N	R	G	C	I	P	S	K	A	L	L	S	A	A	H	Q	Y	E	S	M	I	H	S	K	D	N	G	I	V	A	S	E	S	V	S	I	N	D	F	E	G
UniRef90_UPI000046354D3	C	L	N	V	G	C	I	P	S	K	A	L	L	R	N	A	E	L	A	H	L	F	N	K	S	A	V	M	T	F	G	I	S	G	D	V	S	I	N	D	F	F	G
UniRef90_F5RA43	C	L	N	V	G	C	I	P	S	K	A	L	L	Q	S	S	E	L	F	E	A	N	H	S	F	V	K	M	H	G	I	S	V	E	S	P	K	M	D	V	I	G	
UniRef90_K7J6V1	C	L	N	V	G	C	I	P	S	K	S	L	L	N	N	S	H	Y	Y	H	M	A	H	D	L	D	N	R	G	V	K	V	S	V	S	G	V	S	L	D	L	P	
UniRef90_M9R3R8	C	V	I	R	G	C	V	P	K	K	L	M	V	F	A	S	E	Y	Q	E	M	F	A	D	A	A	R	E	Y	G	W	D	V	R	D	G	I	F	N	W	P		
UniRef90_E6QNY2	C	L	H	W	G	C	I	P	T	K	A	L	L	N	A	E	I	W	E	H	L	K	H	A	A	R	A	F	G	I	E	G	L	G	E	P	R	L	N	W	E		
UniRef90_K6W8W8	C	L	N	V	G	C	I	P	S	K	A	L	L	K	N	A	E	L	A	H	T	L	T	H	A	K	A	K	Y	G	I	E	G	D	A	T	M	S	F	G			
UniRef90_UPI0003793615	C	V	N	V	G	C	V	P	K	K	L	F	V	N	A	S	Q	F	Q	D	Q	F	S	H	A	K	G	Y	W	S													



UniRef90_UPI00036911B7	A	M	I	A	R	K	D	N	I	V	N	Q	L	T	T	G	V	T	G	L	F	K	A	N	K	G	V	T	L	L	A	G	A	G	K	L	L	A	G	K	Q				
UniRef90_W8EU32	A	V	I	Q	R	S	A	R	G	V	A	D	G	M	S	T	K	G	V	A	T	L	F	K	K	A	N	G	V	T	D	A	I	M	G	T	H	G	K	L	L	A	G	K	K
UniRef90_P31052	A	M	V	I	G	R	K	A	D	R	E	I	N	R	L	S	T	G	L	I	Y	I	K	L	N	D	A	G	V	T	D	A	M	H	E	G	R	A	T	I	V	D	A	H	T
UniRef90_F2LFW8	T	L	I	A	D	A	K	E	D	R	E	I	N	R	L	S	T	G	L	I	Y	I	K	L	N	D	A	G	V	T	D	A	M	H	E	G	R	A	T	I	V	D	A	H	T
UniRef90_UPI00022CAA65	K	V	R	D	A	W	K	E	K	V	I	S	Q	L	T	T	G	G	I	A	H	L	F	K	K	A	N	G	V	T	D	A	I	M	G	T	H	G	K	L	L	A	G	K	K
UniRef90_H3CFW6	K	M	M	A	Q	K	S	G	A	V	I	K	A	L	T	T	G	G	I	A	H	L	F	K	K	A	N	G	V	T	D	A	I	M	G	T	H	G	K	L	L	A	G	K	K
UniRef90_UPI00030D33D8	K	V	Q	E	F	K	N	S	V	V	K	K	L	T	T	G	G	V	E	S	S	L	L	K	K	A	N	G	V	T	D	A	I	M	G	T	H	G	K	L	L	A	G	K	K
UniRef90_W4T5U5	N	V	I	Q	R	S	R	G	V	A	S	K	M	S	T	G	G	I	E	L	L	F	K	K	A	N	G	V	T	D	A	I	M	G	T	H	G	K	L	L	A	G	K	K	
UniRef90_P09624	N	F	Q	K	A	K	D	D	A	V	K	Q	L	T	T	G	G	I	E	L	L	F	K	K	A	N	G	V	T	D	A	I	M	G	T	H	G	K	L	L	A	G	K	K	
UniRef90_H8GKT1	R	M	I	E	R	K	D	D	R	I	V	A	E	L	T	T	G	G	I	E	L	L	F	K	K	A	N	G	V	T	D	A	I	M	G	T	H	G	K	L	L	A	G	K	K
UniRef90_UPI0000E0F495	K	V	R	D	W	K	D	S	V	A	S	Q	L	T	T	G	G	I	E	L	L	F	K	K	A	N	G	V	T	D	A	I	M	G	T	H	G	K	L	L	A	G	K	K	
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UniRef90_UPI000046354D3	A	A	F	D	R	S	R	T	V	A	D	G	R	V	K	G	I	H	L	F	M	K	K	A	N	G	V	T	D	A	I	M	G	T	H	G	K	L	L	A	G	K	K		
UniRef90_F5RA43	V	M	M	K	R	K	D	N	I	V	G	Q	L	T	T	G	G	I	R	G	L	F	K	K	A	N	G	V	T	D	A	I	M	G	T	H	G	K	L	L	A	G	K	K	
UniRef90_K7J6V1	K	L	M	E	Q	K	S	S	V	V	K	A	L	T	T	G	G	I	A	R	G	L	F	K	K	A	N	G	V	T	D	A	I	M	G	T	H	G	K	L	L	A	G	K	K
UniRef90_M9R3R8	T	F	R	T	H	L	N	A	E	L	D	R	L	E	A	V	Y	R	D	F	L	M	K	K	A	N	G	V	T	D	A	I	M	G	T	H	G	K	L	L	A	G	K	K	
UniRef90_E6QNY2	R	V	L	J	A	R	K	S	A	I	T	L	K	H	A	K	G	L	D	F	L	M	K	K	A	N	G	V	T	D	A	I	M	G	T	H	G								

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

UniRef90_UPI00036911B7	T	G	A	L	E	F	S	E	V	P	K	R	L	G	V	V	G	G	A	G	V	G	L	E	L	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E			
UniRef90_W8EU32	R	Q	A	M	V	L	S	E	V	P	K	R	L	G	V	V	V	G	G	A	G	V	G	L	E	F	A	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E	
UniRef90_P31052	T	G	A	L	E	F	S	E	V	P	K	R	L	G	V	V	V	G	G	A	G	V	G	L	E	F	A	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E	
UniRef90_F2FLW8	R	E	A	L	D	L	P	E	V	P	K	R	L	G	V	V	V	G	G	A	G	V	G	L	E	F	A	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E	
UniRef90_UPI00022CAA65	T	D	A	L	A	L	T	S	I	P	P	K	R	L	L	L	L	M	G	G	A	G	V	G	L	E	F	A	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E
UniRef90_H3CFW6	T	G	A	L	L	K	R	V	I	P	P	K	R	L	L	V	I	G	G	A	G	V	G	L	E	L	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E		
UniRef90_UPI00030D33D8	T	G	A	L	N	L	Q	E	I	P	P	K	R	L	L	V	I	G	G	A	G	V	G	L	E	L	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E		
UniRef90_W4T5U5	Q	A	L	L	S	L	P	E	Q	P	K	S	M	L	V	I	G	G	A	G	V	G	L	E	F	A	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E		
UniRef90_P09624	T	G	A	L	L	K	E	I	P	P	K	R	L	T	I	I	I	G	G	A	G	V	G	L	E	M	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E		
UniRef90_H8GKT1	D	A	L	L	N	L	D	S	I	P	P	K	R	L	L	A	I	G	G	A	G	V	G	L	E	I	A	S	I	V	W	N	A	L	G	S	E	V	V	V	L	E	E		
UniRef90_UPI0000E0F495	T	G	A	L	E	M	K	D	S	I	P	P	K	M	L	V	I	G	G	A	G	V	G	L	E	M	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E		
UniRef90_UPI000469D51D	T	E	A	L	S	L	K	E	I	P	P	K	S	M	L	V	I	G	G	A	G	V	G	L	E	L	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E		
UniRef90_UPI000046354D3	E	E	Q	I	M	T	R	D	L	P	P	S	S	L	L	V	I	G	G	A	G	V	G	M	E	F	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E		
UniRef90_F5RA43	E	G	A	L	A	F	D	G	A	P	P	K	K	L	G	V	I	G	G	A	G	V	G	L	E	L	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E		
UniRef90_K7J6V1	T	G	A	L	S	L	D	S	E	V	P	K	R	L	L	V	I	G	G	A	G	V	G	L	E	L	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E		
UniRef90_M9R3R8	N	D	I	F	L	L	P	E	V	P	P	K	K	L	L	V	I	G	G	A	G	V	G	L	E	S	F	A	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E	E
UniRef90_E6QNY2	M	E	L	L	T	M	P	S	V	P	P	K	R	L	V	V	I	G	G	A	G	V	G	L	E	F	A	G	S	V	W	R	T	M	L	G	S	E	V	V	V	L	E		



UniRef90_UPI00036911B7	A	Q	D	K	F	L	A	A	D	Q	E	Q	I	A	K	E	S	Q	K	S	F	F	K	K	Q	G	L	D	N	V	I	R	L	S	A	R	V	T	G	S	E	V	K	
UniRef90_W8EU32	Y	L	P	R	K	F	L	P	V	E	D	E	I	S	R	Q	M	E	K	S	I	F	K	K	L	G	L	V	D	N	I	K	L	G	A	R	V	T	G	S	E	V	K	
UniRef90_P31052	A	L	D	T	F	L	M	A	A	D	D	A	V	S	R	K	E	A	Q	E	T	I	T	K	K	L	G	L	V	D	N	I	K	L	G	A	R	V	T	G	S	E	V	K
UniRef90_F2FLW8	R	G	E	E	I	L	R	H	F	D	D	D	L	R	V	K	V	L	H	E	E	I	S	K	K	H	G	V	A	I	H	T	Q	A	Q	V	R	A	I	T	R	N		
UniRef90_UPI00022CAA65	M	L	D	Q	V	I	P	A	A	D	K	D	V	L	R	K	V	F	T	K	R	V	E	K	K	F	F	T	L	M	L	Q	T	K	V	T	K	V	E	A	K			
UniRef90_H3CFW6	F	L	G	H	V	G	G	M	I	D	M	E	M	S	T	K	N	F	Q	R	I	L	T	Q	K	K	G	F	T	K	F	K	L	S	T	K	V	L	G	A	T	K	R	
UniRef90_UPI00030D33D8	G	G	P	E	I	I	P	G	F	E	E	Q	M	T	I	L	V	K	R	N	L	T	K	K	S	G	A	T	I	V	T	N	A	L	A	K	G	V	E	E	S			
UniRef90_W4T5U5	F	M	P	N	I	V	P	V	E	D	E	E	I	S	T	K	H	L	E	K	S	L	T	K	K	S	G	I	E	L	M	T	N	A	S	V	E	S	V	D	T	S		
UniRef90_P09624	F	Q	P	Q	I	G	A	S	M	D	G	E	V	A	S	K	A	T	Q	K	F	L	T	K	K	Q	G	L	I	D	F	K	L	G	S	T	K	V	I	S	A	K	R	N
UniRef90_H8GKT1	A	Q	E	N	I	L	N	L	P	D	R	H	I	S	V	E	A	Y	R	I	F	T	G	D	T	G	I	E	M	R	L	L	G	S	T	K	V	I	S	A	K	K	S	
UniRef90_UPI0000E0F495	F	L	D	Q	L	I	P	A	A	D	K	D	I	V	S	K	V	Y	N	K	T	I	K	D	T	F	N	V	M	L	E	T	K	V	T	G	V	E	A	K	A	K		
UniRef90_UPI000469D51D	G	E	K	Q	I	L	P	A	A	F	E	K	Q	L	I	Q	P	V	T	K	S	L	T	K	K	A	G	V	E	I	V	T	K	A	M	A	L	S	A	E	Q	N		
UniRef90_UPI000046354D3	Y	L	D	R	A	L	P	N	E	D	A	V	S	K	E	I	A	K	A	Y	K	K	L	G	V	T	I	K	T	G	A	A	Q	T	I	V	E	D	D	E	T			
UniRef90_F5RA43	A	A	P	E	F	L	S	A	A	D	P	A	T	V	S	K	E	A	W	K	T	F	A	K	Q	K	L	G	I	K	L	G	A	K	I	G	A	K	I	V	E	R	T	
UniRef90_K7J6V1	F	M	T	S	I	G	G	V	I	D	G	E	V	S	K	T	M	Q	K	I	M	S	K	Q	G	L	K	F	K	L	G	T	K	V	T	A	A	K	S					
UniRef90_M9R3R8	R	G	A	Q	I	L	R	G	F	D	D	E	A	R	G	L	V	S	E	M	M	I	E	K	G	V	H	L	H	L	G	T	N	V	L	E	M	E	K	Q				
UniRef90_E6QNY2	F	L	P	R	L	V	P	V	E	D	A	D	V	S	K	E	L	A	R	V	F	R	K	R	G	I	D	A	N	T	G	A	K	V	L	E	S	V	E	R	T			
UniRef90_K6W8W8	F	L	D	R	M	V	P	T	E	D	A	D	V	S	K	E	L	L	K	H	Y																							

				250				260				270		280
UniRef90_UPI00036911B7	G	Q	E	V	E	V	T	Y	Q	D	A	N	G	
UniRef90_W8EU32	G	E	G	C	N	V	T	I	K	T	A	K	G	D
UniRef90_P31052	G	N	E	V	E	V	T	Y	T	N	A			
UniRef90_F2LFW8	A	D	G	S	L	T	L	D	V	D	G			
UniRef90_UPI00022CAA65	E	D	A	T	Y	V	S	M	E	D				
UniRef90_H3CFW6	P	D	G	K	I	D	V	A	V	E	A	A	A	G
UniRef90_UPI00030D33D8	E	D	K	V	I	V	T	Y	E					
UniRef90_W4T5U5	G	E	G	V	K	A	N	V	K	T	A	N	G	N
UniRef90_P09624	D	D	K	N	V	V	E	I	V	V				
UniRef90_H8GKT1	E	G	K	V	V	I	E	Y	Q	N	H	E	G	N
UniRef90_UPI0000E0F495	K	D	G	L	Y	V	S	F	E	G				
UniRef90_UPI000469D51D	D	Q	E	V	T	V	T	Y	K	V	G			
UniRef90_UPI00046354D3	G	G	Q	V	S	V	T	I	K	D	N	K	T	G
UniRef90_F5RA43	D	A	G	V	R	V	E	Y	E					
UniRef90_K7J6V1	N	G	E	I	Q	V	V	L	E	D	A	K	D	P
UniRef90_M9R3R8	D	A	K	D	G	G	G	I	W	V	K	C		
UniRef90_E6QNY2	E	D	G	A	R	V	T	F	T	D	A	N	G	
UniRef90_K6W8W8	G	S	G	V	K	V	T	V	T	P	A	A	G	G
UniRef90_UPI0003793615	D	G	L	K	V	V	I	L	D	S	G	A	T	
UniRef90_W8KFG8	K	D	K	G	Q	V	S	V	V	Y	E	D	E	N
UniRef90_S2XKY2	D	S	G	V	T	V	T	Y	K	E	A	G		
UniRef90_H3RP58	A	D	G	V	K	V	T	Y	A	V	G			
UniRef90_UPI000382C9B1	G	D	S	I	V	V	K	A	T	D				
UniRef90_R7F0D3	D	E	Y	Q	C	V	V	H	Y	K	V	K	E	K
UniRef90_G4Q9Q4	K	D	G	I	Y	V	T	L	E	G	D	K	A	P
UniRef90_G8SG43	A	A	S	V	R	V	T	V	S					
UniRef90_UPI000479A73B	K	S	G	V	K	V	T	F	T	A	S			
UniRef90_UPI0003FF08ED	E	D	G	V	K	I	T	A	E	V	N			
UniRef90_UPI000476BCC3	G	D	N	I	Q	I	Q	L	T	G	D	R	S	D
UniRef90_G8PQ29	E	G	G	L	T	V	T	T	H	A	G	E		
UniRef90_UPI0004704179	N	G	E	V	E	V	S	T	D	A	S	E		
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UniRef90_A6GF66	A	G	G	A	R	A	T	V	V	Y	T	D	K	
UniRef90_UPI00040D2EDA	G	N	M	K	K	V	Y	I	E	V	N			
UniRef90_R2PUC8	G	D	S	V	T	V	K	Y	E					
UniRef90_U2ZS61	G	K	K	A	I	L	T	L	E	P	A	A	G	G
UniRef90_C9SXR8	G	E	K	V	Q	L	Q	V	D	S	A	K	G	G
UniRef90_B9L3X2	I	T	E	G	G	V	R	M	R	V	K	S	G	
UniRef90_G0QJ38	G	Q	N	L	G	T	H	A	V	V	N	I	E	P
UniRef90_J0YS22	G	D	Y	Y	D	V	V	L						
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UniRef90_J2GL32	P	E	G	D	L	L	A							
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UniRef90_D7CUP2	G	E	G	A	V	V								
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UniRef90_U5N513	G	E	G	V	R	V	V	Y	A	D	A			
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UniRef90_F2RE94	G	P	Q	V	R	V	T	V	T	G				
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UniRef90_J0UNG4	A	K	Q	V	T	I	N	Y	V	D	A			
UniRef90_B8LRK1	E	E	G	I	K	V	Y	T	D	R	G	D	E	
UniRef90_A9FH02	K	D	G											
UniRef90_W0K070	G	D	G	V	V	L	T	A	E	D				
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UniRef90_K7YH84	G	S	G	Y	N	A	E	I	E					
UniRef90_M7X4W9	V	E	K	P	D	L	Y	K	P	F	P	K	V	I
UniRef90_C7NLL2	G	S	G	V	K	V	T	V	S					
UniRef90_C5F2Q8	G	K	G	V	K	V	T	Y	T					
UniRef90_Q12I59	A	D	N	S	L	T	L	V	L					
UniRef90_UPI000380F944	A	S	G	F	N	V	T	L	T	D	G	T		
UniRef90_D7B989	G	E	G	V	R	V	T	V	S	G	G			
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UniRef90_Q60151	A	D	D	S	L	T	I	S	F	D	N			
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UniRef90_X5DWJ3	D	G	T	K	V	S	F	E						
UniRef90_K9EBX6	D	D	G	S	L	L	L	H	F	N	D	G	S	S
UniRef90_B7RUS3	D	G	K	V	L	V	S	Y	S	S	A	D	G	E
UniRef90_UPI000479E963	G	D	A	I	V	L								
UniRef90_UPI0004273BC9	G	D	E	V	V	V	I	A	K	D				
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UniRef90_C5BL84	E	K	D	G	K	K	E	V	I	V	T	Y	S	D
UniRef90_E7GF72	N	E	K	A	V	I	H	Y	S					
UniRef90_UPI000379CC9B	D	A	G	L	V	V	T	F	E	G	K	D	C	P
UniRef90_I4DMH5	G	S	V	V	K	V	E	V	E	A	A	K	G	G
UniRef90_V4QQI2	D	E	G	Q	K	S	Q	M	L	I	T	M	N	
UniRef90_I4WHS1	K	K	G	I	E	V	G	Y	E	G	D	S	I	P
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UniRef90_I7Z8N4	A	D	S	S	L	A	V							
UniRef90_G2QI25	S	E	G	V	K	L	N	I	D	S	A	K	G	G
UniRef90_F6CYY7	S	D	T	L	N	V	T	L	K	D	Q	N	G	
UniRef90_C0VP35	G	D	G	S	V	V	L	H	L	E	N	G	E	S
UniRef90_X0P0K9	G	E	R	V	R	V	T	V	T	G				
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UniRef90_D7BGK4	D	G	K	V	V	E	V	I	E	T	G			
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UniRef90_Q72T62	N	G	K	V	L	L	K							
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UniRef90_P43784	D	D	G	I	Y	V	S	M	E	G	K	A	C	N

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UniRef90_UPI00036911B7	L	L	L	L
UniRef90_W8EU32	L	L	L	L
UniRef90_P31052	L	L	L	L
UniRef90_F2LFW8	L	L	L	L
UniRef90_UPI00022CAA65	L	L	L	L
UniRef90_H3CFW6	L	L	L	L
UniRef90_UPI00030D33D8	L	L	L	L
UniRef90_W4T5U5	L	L	L	L
UniRef90_P09624	L	L	L	L
UniRef90_H8GKT1	L	L	L	L
UniRef90_UPI0000E0F495	L	L	L	L
UniRef90_UPI000469D51D	L	L	L	L
UniRef90_UPI000046354D3	L	L	L	L
UniRef90_F5RA43	L	L	L	L
UniRef90_K7J6V1	L	L	L	L
UniRef90_M9R3R8	L	L	L	L
UniRef90_E6QNY2	L	L	L	L
UniRef90_K6W8W8	L	L	L	L
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UniRef90_S2XKY2	L	L	L	L
UniRef90_H3RP58	L	L	L	L
UniRef90_UPI000382C9B1	L	L	L	L
UniRef90_R7F0D3	L	L	L	L
UniRef90_G4Q9Q4	L	L	L	L
UniRef90_G8SG43	L	L	L	L
UniRef90_UPI000479A73B	L	L	L	L
UniRef90_UPI0003FF08ED	L	L	L	L
UniRef90_UPI000476BCC3	L	L	L	L
UniRef90_G8PQ29	L	L	L	L
UniRef90_UPI0004704179	L	L	L	L
UniRef90_N0E4H4	L	L	L	L
UniRef90_UPI000429AD11	L	L	L	L
UniRef90_K2J885	L	L	L	L
UniRef90_A6GF66	L	L	L	L
UniRef90_UPI00040D2EDA	L	L	L	L
UniRef90_R2PUC8	L	L	L	L
UniRef90_U2ZS5C	L	L	L	L
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UniRef90_J0YS22	L	L	L	L
UniRef90_UPI00037FFCFB	L	L	L	L
UniRef90_J2GL32	L	L	L	L
UniRef90_UPI0003815CCB	L	L	L	L
UniRef90_D7CUP2	L	L	L	L
UniRef90_X7F622	L	L	L	L
UniRef90_U5N513	L	L	L	L
UniRef90_L0AFE4	L	L	L	L
UniRef90_F2RE94	L	L	L	L
UniRef90_Q0UZV7	L	L	L	L
UniRef90_J0UNG4	L	L	L	L
UniRef90_B8LRK1	L	L	L	L
UniRef90_A9FH02	L	L	L	L
UniRef90_W0K070	L	L	L	L
UniRef90_A0A059FB33	L	L	L	L
UniRef90_K7YH84	L	L	L	L
UniRef90_M7X4W9	L	L	L	L
UniRef90_C7NLL2	L	L	L	L
UniRef90_C5F2Q8	L	L	L	L
UniRef90_Q21I59	L	L	L	L
UniRef90_UPI000380F944	L	L	L	L
UniRef90_D7B989	L	L	L	L
UniRef90_K4IWS2	L	L	L	L
UniRef90_Q60151	L	L	L	L
UniRef90_UPI00041C21EC	L	L	L	L
UniRef90_X5DWJ3	L	L	L	L
UniRef90_K9EBX6	L	L	L	L
UniRef90_B7RUS3	L	L	L	L
UniRef90_UPI000479E963	L	L	L	L
UniRef90_UPI0004273BC9	L	L	L	L
UniRef90_UPI00046A925F	L	L	L	L
UniRef90_C4K7S1	L	L	L	L
UniRef90_UPI0003B619D1	L	L	L	L
UniRef90_C5BL84	L	L	L	L
UniRef90_E7GF72	L	L	L	L
UniRef90_UPI000379CC9B	L	L	L	L
UniRef90_I4DMH5	L	L	L	L
UniRef90_V4QI02	L	L	L	L
UniRef90_I4WHS1	L	L	L	L
UniRef90_UPI00036A54E1	L	L	L	L
UniRef90_I7Z8N4	L	L	L	L
UniRef90_G2QI25	L	L	L	L
UniRef90_F6CYY7	L	L	L	L
UniRef90_X0PV35	L	L	L	L
UniRef90_C0P0K9	L	L	L	L
UniRef90_UPI00033B6523	L	L	L	L
UniRef90_D7BGK4	L	L	L	L
UniRef90_A0A024PKY2	L	L	L	L
UniRef90_Q72T62	L	L	L	L
UniRef90_UPI0003624849	L	L	L	L
UniRef90_P43784	L	L	L	L



UniRef90_UPI00036911B7	L	A	H	K	G	S	E	E	G	I	M	V	A	E	K	I	I	A	G	Q	K	A	Q	M	N	Y	D	L	P	S	V	I	Y	T	H	P	E	I	V					
UniRef90_U8EU32	L	A	H	V	A	S	A	E	E	G	I	I	C	V	E	K	I	A	G	H	G	H	E	P	E	Q	M	N	Y	D	L	P	S	G	T	Y	T	A	S	P	E	I	L	
UniRef90_P31052	L	A	H	K	A	S	A	E	E	G	I	M	V	V	E	R	I	I	A	G	H	G	H	E	P	E	Q	M	N	Y	D	L	P	S	G	T	Y	T	A	S	P	E	I	L
UniRef90_F2FLW8	L	T	P	V	A	T	R	D	G	A	L	L	A	A	E	N	L	I	F	G	E	Q	R	N	E	A	D	H	R	A	I	P	S	A	V	I	F	T	S	Q	P	E	I	L
UniRef90_UPI00022CAA65	L	A	H	K	G	V	H	E	G	I	H	V	A	A	E	V	I	A	G	E	K	N	H	Y	F	D	P	K	V	I	P	S	I	A	Y	T	S	P	E	I	V			
UniRef90_H3CFW6	L	A	H	K	A	E	D	E	G	I	I	C	V	E	E	G	M	A	G	G	A	V	H	I	D	Y	N	C	V	I	P	S	I	V	I	Y	T	S	P	E	I	V		
UniRef90_UPI00030D33D8	L	A	H	K	A	S	Y	E	G	K	I	A	A	E	E	A	I	A	G	H	A	A	E	I	D	Y	L	A	I	P	A	V	I	F	S	P	E	I	V					
UniRef90_W4T5U5	L	A	H	V	A	S	A	E	E	G	I	T	C	V	E	K	I	K	G	M	H	V	E	K	I	D	Y	G	N	I	P	A	G	C	T	Y	C	H	P	E	I	V		
UniRef90_P09624	L	A	H	K	A	E	E	E	G	I	A	A	V	I	E	K	I	M	L	K	T	G	H	G	H	I	V	N	Y	N	I	P	S	V	M	Y	S	H	P	E	I	V		
UniRef90_H8GKT1	L	A	H	K	G	I	E	E	G	V	F	V	A	E	E	Q	I	A	G	L	H	P	I	I	N	Y	D	L	I	P	S	V	I	Y	T	D	P	E	I	V				
UniRef90_UPI0000E0F495	L	A	H	K	A	V	H	E	G	H	V	A	A	E	E	V	V	A	G	G	K	H	Y	F	D	P	K	C	I	L	P	S	V	A	Y	T	E	P	E	I	V			
UniRef90_UPI000469D51D	L	A	H	K	A	S	Y	E	G	K	V	A	A	E	E	V	V	A	G	H	S	S	A	I	D	Y	K	A	I	P	A	V	I	F	T	S	P	E	I	V				
UniRef90_UPI000046354D3	L	A	H	V	A	E	A	M	A	V	V	A	A	E	E	T	I	G	G	A	E	T	Q	T	L	G	D	Y	R	M	I	P	R	A	T	F	C	S	P	Q	V	I	V	
UniRef90_F5RA43	L	A	H	K	G	M	E	E	G	V	M	V	A	E	E	V	I	A	G	E	Q	N	G	H	V	N	H	D	T	V	P	W	V	I	Y	T	T	H	P	E	I	V		
UniRef90_K7J6V1	L	A	H	K	A	E	D	E	G	I	T	V	I	E	E	T	G	I	A	G	G	A	V	H	I	D	Y	N	C	V	I	P	S	V	I	Y	T	T	H	P	E	I	V	
UniRef90_M9R3R8	L	T	P	V	A	I	R	E	A	M	A	F	V	I	E	T	V	F	K	G	N	P	T	K	I	D	R	H	A	L	I	P	A	I	F	T	T	Q	P	E	I	M		
UniRef90_E6QNY2	L	A	H	V	G	M	A	G	M	I	A	A	E	E	A	R	V	A	G	R	P	C	R	P	I	R	R	D	R	I	P	A	C	T	Y	T	E	P	Q	I	V			
UniRef90_K6W8W8	L	A	H	V	A	E	A	M	G	I	V	A	A	E	E	E	T	I	A	G	A	E	T	M	P	V	D	Y	A	N	I	P	R	A	T	Y	C	H	P	Q	I	V		
UniRef90_UPI0003793615	L	T	P	V	A	L	A	E	G	M	A	L	A	R	R	I	L	Y	F	T	E	D	S	L	R	I	N	Y	D	L	I	P	T	A	V	I	F	T	Q	P	N	I	V	
UniRef90_W8KFG8	L	A	H	K	G	S	E	E	G	I	M	V	A	E	E	R	I	A	G	M	G	S	V	N								P	N	V	I	Y	T	L	P	E	I	V		
UniRef90_S2XKY2	L	A	H	K	A	S	Y	E	G	K	V	A	A	E	E	A	I	V	A	G	Q	T	S	V	V	D	Y	L	A	I	P	A	V	C	Y	T	D	P	E	I	V			
UniRef90_H3RP58	L	A	H	K	A	S	Y	E	G	K	V	A	A	E	E	Y	A	I	S	G	K	P	T	T	V	D	Y	H	A	M	P	A	V	C	Y	T	D	N	E	I	V			
UniRef90_UPI000382C9B1	L	A	H	K	A	E	E	E	G	A	V	V	A	E	E	A	I	A	G	E	K	P	H	I	N							P	N	I	V	Y	T	W	P	E	A			
UniRef90_R7F0D3	L	A	H	V	A	S	F	Q	G	H	A	L	N	A	E	I	L	G	K	E	D	D	I	D	F	N						P	S	A	V	F	T	T	P	E	C	I	V	
UniRef90_G4Q9Q4	L	A	H	K	A	V	H	E	G	H	V	A	A	E	E	V	I	A	S	G	L	K	T	A	F	D	A	R				P	N	V	A	Y	T	D	P	E	I	V		
UniRef90_G8SG43	L	A	H	T	A	E	S	M	G	I	V	A	A	E	E	E	T	I	A	G	A	E	T	M	A	L	D	Y	R	M	I	P	R	A	T	Y	C	Q	P	Q	I	V		
UniRef90_UPI000479A73B	L	A	H	V	G	A	M	A	G	M	V	V	A	A	E	A	K	V	A	G	K	Y	A	R	P	I	K	R	Q	R	I	P	A	C	T	Y	T	E	P	Q	I	V		
UniRef90_UPI00037F08ED	L	A	H	K	A	S	Y	E	G	K	V	A	A	E	E	A	I	S													P	M	V	I	F	T	S	P	E	I	V			
UniRef90_UPI000476BCC3	L	T	P	V	A	R	A	E	G	R	A	F	A	E	T	V	F	G	K	S	Q	M	A	I	D	Y	H	L	I	P	S	G	V	C	S	R	P	E	A	I	V			
UniRef90_G8PQ29	L	T	P	V	A	I	R	E	G	H	A	F	A	D	S	T	Y	G	G	K	S	E	W	H	V	D	H	S	M	I	P	T	A	V	F	S	Q	P	E	I	V			
UniRef90_UPI0004704179	L	A	H	K	A	S	E	E	G	V	M	V	A	D	E	I	I	A	G	H	S	K	A	Q	M	N	Y	D	A	I	P	S	V	I	Y	T	A	P	E	I	V			
UniRef90_N0E4H4	L	A	H	V	A	E	A	Q	G	I	V	A	A	E	E	H	M	A	G	A	D	T	M	P	V	E	Y	D	F	I	P	R	A	T	Y	C	H	P	Q	I	V			
UniRef90_UPI000429AD11	L	T	P	V	A	I	R	E	G	H	A	F	A	D	T	V	F	E	G	G	K	P	T	A	V	S	H	A	N	I	P	T	A	V	I	F	T	T	P	E	I	V		
UniRef90_K2J885	L	A	H	K	A	V	H	E	G	H	V	A	A	E	E	V	A	S	G	L	K	H	Y	F	D	P	K	V	I	P	S	I	A	Y	T	D	P	E	I	V				
UniRef90_A6GF66	L	A	H	L	A	E	H	E	G		V	A	A	E	E	A	E	T	M	T	G	T	P	G	H	V	N	Y	E	A	I	P	N	V	I	Y	T	H	P	E	I	V		
UniRef90_UPI00040D2EDA	F	V	I	V	A	A	Y	E	G	I	V	V	I	E	N	A	L	G	A	A	N	K	K	V	D	L						P	G	V	T	F	T	N	P	S	I	V		
UniRef90_R2PUC8	L	A	H	K	A	S	Y	E	A	K	I	A	A	E	E	A	I	S	G	K	K	V	A	V	D						P	A	V	A	F	T	D	P	E	I	V			
UniRef90_U2ZS61	L	A	H	K	A	E	D	E	G	I	A	V	A	E	N	I	A														P	S	V	V	I	T	T	P	E	I	V			
UniRef90_C9SXR8	L	A	H	K	A	E	E	E	A	V	A	V	V	E	E	I	Y	I	K	G	H	G	H	I	V	N	Y	A	A	I	P	S	V	M	Y	T	H	P	E	I	V			
UniRef90_B9L3X2	L	A	H	T	A	M	H	Q	G	I	I	A	V	E	E	H	I	A	G	E	K	P	L	P	L	D	Y	H	R	V	I	P	I	V	T	Y	C	H	P	Q	I	V		
UniRef90_G0QJ38	L	A	H	K	G	E	E	E	G	I	A	A	V	E	N	I	A														P	N	V	I	Y	T	H	P	E	I	V			
UniRef90_J0YS22	L	T	P	V	A	I	H	D	A	M	C	F	V	K	T	V	F	F	E	N	I	P	T	I	P	D	Y	D	L	I	P	T	T	A	V	F	S	Q	P	E	I	V		
UniRef90_UPI00037FFCFB	L	T	P	V	A	V	A	A	G	R	L	S	E	R	L	F	F	N	N	K	P	D	A	H	L	D	Y	D	N	V	A	T	S	A	V	F	S	H	P	P	L	V		
UniRef90_J2GL32	L	T	P	V	A	I	R	E	G	H	A	F	A	D	S	V	F	G	G	N	K	R	K	T	A	Y	D	C	V	I	P	S	A	V	I	F	S	Q	P	P	L	V		
UniRef90_UPI0003815CCB	L	A	H	K	A	V	H	E	A	H	V	A	E	E	V	V	A	H	G	E	K	A	Y	F	D	A	K	V	I	P	G	V	A	Y	T	D	P	E	I	V				
UniRef90_D7CUP2	L	A	H	K	A	E	E	E	G	V	A	C	V	E	E	G	I	A														P	G	V	A	Y	T	D	P	E	I	V		
UniRef90_X7F622	L	T	P	V	A	I	R	E	G	M	A	F	V	I	E	T	V	F	R	G	N	P	T	P	A	D	H	E	M	I	P	S	A	V	I	T	Q	P	E	F	I			
UniRef90_U5N513	L	A	H	K	A	E	E	E	A	V	A	V	A	E	E	R	I	A														P	W	V	I	Y	T	S	P	E	I	V		
UniRef90_L0AFE4	L	A	H	K	G	S	A	E	E	G	V	A	A	E	E	V	I	A	G	E	P	A	A	S	D	H	Q	A	M	I	P	A	V	I	F	T	D	P	E	I	V			
UniRef90_F2RE94	L	A	H	T	A	E	A	M	G	V	V	A	A	E	E	T	I	G	D	A	E	T	M	E	L	D	Y	P	M	I	P	R	A	T	Y	C	Q	P	Q	I	V			
UniRef90_Q0UZV7	L	A	H	K	A	E	E	E	A	V	A	V	A	E	E	Y	I	H	K	G	Y	G	H	V	N	Y	G	A	I	P	S	V	M	Y	T	S	P	E	I	V				
UniRef90_J0JUNG4	L	A	H	K	A	E	E	E	G	V	A	A	E	E	R	L	A	G	Q	Q	G	P	H	V	N	F	D	T	V	I	P	W	V	I	Y	T	S	P	E	I	V			
UniRef90_B8LRK1	L	T	P	V	A	L	M	E	G	T	C	F	A	K	T	V	F	G	G	Q	Q	P	T	K	P	D	Y	N	H	V	I	P	C	A	V	I	C	L	P	P	L	V		
UniRef90_A9FH02	L	A	H	K	A	T	K	E	G	E	I	A	A	E	E	V	I	A	G	H	K	A	E	K	D	W	V	A	I	P	G	A	I	F	T	D	P	E	I	V				
UniRef90_W0K070	L	A	H	K	A	S	K	E	E	G																																		

UniRef90\_UPI00036911B7 A W V G K S E E E V 370 K A S G D E Y K V G T F P F A A S G R A L A A N E T H G  
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UniRef90\_F2LFW8 A T V G L S E E A E A R A K E A G A L D I L Y K T S F F R A L K H T L T A G R D E K I  
UniRef90\_UPI00022CAA65 A W V G L T E E A E A K A Q N I S Y E V A V F P W A A S G R A L T A S D S E G  
UniRef90\_H3CFW6 A W V G K T E E Q A L K E E G V P Y R V G K F P F A A N S R A K T N S D T D G G  
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UniRef90\_W4T5U5 A S V G L T E E K Q A K E K G Y E I K V G K F P L S A S G K A T A N G N T D G G  
UniRef90\_P09624 A W V G K T E E Q A L K E A G I D Y K I G K F P F A A N S R A K T N Q D T E G  
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UniRef90\_UPI0000E0F495 A W V G L T E E K A K E Q G I N Y E A A S F P W A A S G R A L T A S D A T D G G  
UniRef90\_UPI000469D51D A S V G L S E E A E A T E A G Y E V S V G K F P F G A N G R A L S L N A A E G  
UniRef90\_UPI00046354D3 A S F G L T E E Q A K A E G I E Y K A G Q F P F A A N G R A L G Q G D T T G  
UniRef90\_F5RA43 A W V G K T E E T Q L K K E E G I D Y K V G K F P F M A N S R A K T N L E D G  
UniRef90\_K7J6V1 A W V G K S E E D L K K E E G I D Y K V G K F P F M A N S R A K T N L E D G  
UniRef90\_M9R3R8 G T V G L S E E D A R E Q E Q I E Y V A A S F R P M Q T A F A N R P D R V  
UniRef90\_E6QNY2 G S V G L T E E A A R E Q G Y E V K I G K F P F A G N S K A T I L G S H D G  
UniRef90\_K6W8W8 A S M G L S E E Q A K D A G H E V K T A S F P F A A N G K A Q G L G E A A G  
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UniRef90\_W8KFG8 A W V G R N E Q D L K K Q G V P Y A T G V F P F V A S G R A R A M E D T T G  
UniRef90\_S2XKY2 A T V G L N E E Q A K K E G F E V T A G K F P F G A N G R A L A L N A T D G G  
UniRef90\_H3RP58 A T T G L T E E S A K E K G L D V K T A K F P F M A N G R A V S M K A T E G  
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UniRef90\_G4Q9Q4 A W V G L T E E K A K E E G I S I E V G L F S W A A S G R A L A N G R D E G  
UniRef90\_G8SG43 A S F G W T E A Q A R E Q G F D V K V A K F P F T A N G K A H G L G D A A G  
UniRef90\_UPI000479A73B G S V G L T E E A Q A K E K G L N L K V G K F P F T A N S K A T I V N S H E G  
UniRef90\_UPI0003FF08ED A S V G Y T E E Q E A K D A G Y E V T A A K F P F Q A N G R A L S L N D S E G  
UniRef90\_UPI000476BCC3 A T V G M T E E S E A Q E K F G D R I K Y Q T E F T P L L R T L S Q E K R  
UniRef90\_G8PQ29 G T A G L T E E A E A R F D N I D I Y T S S F R P M K N T L S G K P G K M  
UniRef90\_UPI0004704179 A F V G K T E E Q Q L K E E G V E Y K T G S F P F S A N G R A L A N N A P E G  
UniRef90\_N0E4H4 G S F G Y S E A Q A K E K G Y D V K T A T F P F A A N G K A A G L G E T A G  
UniRef90\_UPI000429AD11 G T V G L T E E A E A R E A C D C V D I Y E A S F R P L K A T L S G R A D K T  
UniRef90\_K2J885 A W V G L T E K E A K E G I Q Y E V S N F P W A A S G R A L I A S D T S D G  
UniRef90\_A6GF66 A S L G K T E P A E L D A A G V P Y R V G K F P L M A N G R A K A L G A T D G  
UniRef90\_UPI00040D2EDA A T V G L T E E Q Q A K D Q G N D V K T S V L P L N S V P R A L V N R E T N G  
UniRef90\_R2PUC8 A S V G L T E K E A K E Q G Y D A K A F K F P F A G N G R A L I S L D K T E G  
UniRef90\_U2ZS61 A G V G L T E E A A K E A G F D I K V G K F P M M A N S R A K T N R E P D G  
UniRef90\_C9SXR8 A W V G Q S E E Q D L K S Q N I P Y R I G T F P F S A N S R A K T N L D T E G  
UniRef90\_B9L3X2 A S L G L T E R E A K E Q G R A I K V G K F P F R A N S G K S L I E G E T D G  
UniRef90\_G0QJ38 A W V G K N E E E L I K A G I K Y A K G S F P M M A N S R A K A N D D Y E G  
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UniRef90\_UPI00037FFCFB G T V G L S E E Q A A K I K Y G E D N V K V Y T S Q F T A M Y Q A L T S H R Q P T  
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UniRef90\_X7F622 G T V G L T E E Q A M E Q E E I E V Y C T S F R P M Q T A F I G R P D R V  
UniRef90\_U5N513 A W V G R T E Q Q L Q S D G V Y Q Y R S G A F P F L A N G R A R A L G D T T G  
UniRef90\_L0AFE4 A T V G M T K S E A E D A G F E T V T G E F P L R A S G R A L T M D E P D G  
UniRef90\_F2RE94 A S F G W T E A Q A R E K G F D V K V A K F P F V A N G K A H G L G D A T G  
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UniRef90_W8EU32	F	V	K	V	I	F	D	K	K	T	D	R	V	L	G	V	H	M	V	G	A	N	S	A	A	E	L	V	A	E	V	V	V	A	R	M	F	A	A	S	T			
UniRef90_P31052	F	V	K	V	I	F	D	K	K	T	D	R	V	L	G	V	H	M	V	G	A	N	S	A	A	E	L	V	Q	Q	G	V	V	A	R	M	F	A	A	S	T			
UniRef90_F2FLW8	F	M	K	L	V	F	D	R	K	D	T	D	R	V	L	G	A	H	M	I	G	R	D	N	A	A	E	L	V	Q	Q	G	V	V	A	R	M	F	A	A	S	T		
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UniRef90_H3CFW6	M	V	K	L	I	S	H	K	E	D	T	D	R	M	L	G	A	H	I	V	G	S	G	A	S	E	M	V	N	E	A	A	L	A	M	E	Y	G	A	S	T			
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UniRef90_W4T5U5	F	I	K	V	I	F	D	A	K	Y	G	E	V	L	G	C	H	M	I	G	E	G	V	T	D	M	V	A	E	A	V	V	A	R	K	E	L	E	T	T	G			
UniRef90_P09624	F	V	K	L	I	D	S	K	T	E	R	I	L	L	G	A	H	M	I	G	P	N	A	S	E	M	L	A	A	E	A	A	G	L	A	L	E	Y	G	A	S	T		
UniRef90_H8GKT1	L	V	K	V	I	A	H	A	E	T	D	R	L	L	G	V	H	M	I	G	A	T	N	A	G	E	M	L	A	A	E	A	V	L	A	M	E	F	C	A	S	T		
UniRef90_UPI0000E0F495	L	T	K	L	I	F	D	K	D	T	D	R	L	L	G	G	A	M	V	G	A	T	N	A	G	E	M	L	A	A	E	A	V	L	A	M	E	F	C	A	S	T		
UniRef90_UPI000469D51D	Y	V	K	L	I	V	A	D	K	S	N	G	L	V	I	G	G	Q	I	V	G	A	E	A	S	N	L	L	A	E	E	L	I	G	L	A	I	E	M	G	A	T	L	V
UniRef90_UPI000046354D3	F	V	K	L	I	A	D	E	R	H	G	E	L	L	I	G	G	H	L	I	G	P	D	V	S	E	L	L	P	E	E	L	I	G	L	A	I	E	M	G	A	T	L	V
UniRef90_F5RA43	F	V	R	M	Y	A	C	A	K	T	D	R	L	L	I	G	V	H	M	I	G	S	N	N	A	S	E	L	L	A	E	A	V	V	A	M	E	F	D	A	C	S	T	
UniRef90_K7J6V1	F	A	K	V	L	A	D	K	A	T	D	K	I	L	L	G	V	H	M	I	G	S	P	A	A	G	E	L	L	A	E	A	V	L	A	M	E	F	G	A	S	T		
UniRef90_M9R3R8	L	M	K	L	V	V	S	K	A	T	R	K	V	L	L	G	C	H	M	I	G	P	H	A	G	E	M	V	Q	L	A	A	G	I	A	M	E	K	M	G	A	T	V	
UniRef90_E6QNY2	F	V	K	L	V	A	E	A	K	Y	G	E	L	L	L	G	V	H	L	I	G	P	P	G	A	T	E	M	V	A	E	A	V	A	A	M	E	L	E	A	T	V		
UniRef90_K6W8W8	F	V	K	V	V	A	D	A	K	Y	N	E	I	L	L	G	V	H	M	I	G	P	D	V	T	E	L	L																



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UniRef90_UPI00036911B7	E D L A L T I F S H P T L S E A I L	
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UniRef90_F2LFW8	A Q F D A T I G I H P S A A E E F V T L R	
UniRef90_UPI00022CAA65	E D I A L T I H A H P T L H E S I L	
UniRef90_H3CFW6	E D V A R V C H A H P T L V S E A F R	
UniRef90_UPI00030D33D8	E D I A M T I H A H P T L G E I L	
UniRef90_W4T5U5	H E I L K S I H P H P T L V S E A I L M	
UniRef90_P09624	E D V A R V C H A H P T L S E A F	
UniRef90_H8GKT1	E D L A K T I H A H P T L S E A L	
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UniRef90_K7J6V1	E D V A R V C H A H P T C A E A L R	
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UniRef90_S2XKY2	E D I A M T I H A H P T L G E I L	
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UniRef90_R7F0D3	D K M L D I F G H P T V S E V L M S	
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UniRef90_U2ZS61	E D I A Y T C H A H P T H S E A I	
UniRef90_C9SXR8	E D I A R T C H A H P T L A E A F	
UniRef90_B9L3X2	W E I G L S V H P H P T V S E V I	
UniRef90_G0QJ38	E D L G K T C H A H P T I S E A L	
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UniRef90_UPI00037FFCFB	A D L D N T V A I H P T S A E E F V T M	
UniRef90_J2GL32	A D F D A T V A I H P S M A E E L V L M R	
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UniRef90_D7CUP2	E D L A R T S H A H P T	
UniRef90_X7F622	E D F D R T V A V H P T M A E E I V T M R	
UniRef90_U5N513	E D I A R I C H A H P T L S E A V M	
UniRef90_L0AFE4	E D V A S T V H A H P T L S E S V M	
UniRef90_F2RE94	H E V A R N V H A H P T L G E A V	
UniRef90_Q0UZV7	E D V A R T C H A H P T L A E A F	
UniRef90_J0UNG4	E D L A R I C H A H P T L S E A L	
UniRef90_B8LRK1	A Q F D S T V G I H P S A A E E F V T M R	
UniRef90_A9FH02	E D L S L T I H P H P T L G E S L M	
UniRef90_W0K070	E D V A S T I H T H P T L A E A V	
UniRef90_A0A059FB33	Q D L A H T V F P H P T L S E M M	
UniRef90_K7YH84	A E L M H T I F P H P T L S E M I	
UniRef90_M7X4W9	K D F D S C V P I H P C S A E E L V T M R	
UniRef90_K2NLL2	D E V A R N V F A H P T L S E S V	
UniRef90_C5F2Q8	E D L A L T I H P H P T L S E V I M D	
UniRef90_Q12159	A D F D S V V A I H P T G A E E F V T M R	
UniRef90_UPI000380F944	A D F D A T M A V H P T S A E E L V T M R	
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UniRef90_Q60151	A D F D N T V A I H P T G S E E F V T M R	
UniRef90_UPI00041C21EC	W E I G E T I H P H P T L S E A I	
UniRef90_X5DWJ3	K E M E E V V F P H P T V S E I F	
UniRef90_K9EBX6	A D L D D T V A I H P T S A E E F V T M R	
UniRef90_B7RUS3	E D L A L T V F G H P T L S E A V	
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UniRef90_UPI0004273BC9	E D V S R M S H A H P T Y M E A V	
UniRef90_UPI00046A925F	T D L R D I I H T H P T L S E I L Q D I	
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UniRef90_C0XP35	K D F D N T V A I H P T S A E E F V T M R	
UniRef90_X0POK9	H E V A R N V H G H	

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UniRef90_A4XRA5	M	S	S	Y	D	V	V	I	I	G	A	G	P	G	G	Y	N	A	A	I	R	A	G	Q	L	G	L	K	V	A	C	V	E	G	R	E	T	G	G	T		
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UniRef90_E6QSJ6		K	H	Y	D	L	L	A	I	G	G	G	S	G	G	I	A	T	V	N	R	A	A	R	Y	G	A	K	C	A	V	I	E	S	G	R	L	G	G	T		
UniRef90_I2JJN8	M	S	K	F	D	V	V	V	I	G	S	G	P	A	G	Y	V	A	A	I	R	A	A	Q	L	G	L	K	T	A	C	I	E	K	N	R	N	K	E	D		
UniRef90_H0IYY2	V	H	N	Y	D	V	V	V	I	G	T	G	P	A	G	E	S	A	A	I	N	A	A	K	H	G	M	R	V	A	I	V	E	K	Q	A	Q	L	V	G	N	
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UniRef90_B124B6	M	K	H	Y	D	Y	I	A	I	G	G	G	S	G	G	I	A	S	V	N	R	A	A	M	H	G	K	K	C	A	L	I	E	A	K	E	I	L	G	T		
UniRef90_F1YJ26	E	H	F	Q	T	V	V	L		G	A	G	P	G	G	Y	V	A	A	I	R	S	A	Q	L	G	M	K	T	A	V	I	E	E	K	W	W	G	V			
UniRef90_UPI000328EA0D																																								C		
UniRef90_S9SRI5	K	E	V	D	V	L	V	I		G	S	G	P	G	G	Y	T	A	A	K	R	A	A	D	N	G	L	Q	V	A	I	V	E	R	D	R	I	L	G	G	V	
UniRef90_H0Q1G7		E	C	D	M	L	V	L		G	A	G	P	G	G	Y	S	A	A	F	R	S	A	D	L	G	L	K	V	I	V	E	R	Y	A	T	L	G	G	V		
UniRef90_Q2BMY7		D	F	D	L	F	V	I		G	A	G	S	G	G	V	R	A	A	R	M	A	A	G	M	G	V	K	V	A	I	A	E	D	R	H	L	G	G	T		
UniRef90_G0DXW3	S	H	F	D	V	V	V	L		G	A	G	P	G	G	Y	V	A	A	I	R	A	A	Q	L	G	K	K	T	A	I	I	E	K	E	Y	W	G	G	V		
UniRef90_R5JL08	M	K	Q	Y	D	A	I	I		G	F	G	K	G	K	T	L	A	A	E	L	A	N	R	G	W	K	I	A	L	I	E	R	S	D	K	M	Y	G			
UniRef90_A7HBV5		K	T	F	D	A	V	V	I	G	A	G	V	G	G	Y	V	A	A	I	R	L	A	Q	L	G	K	K	V	A	L	V	E	K	E	T	L	G	G	V		
UniRef90_B4FWU6		D	Y	D	L	F	V	I		G	A	G	S	G	G	V	R	G	S	R	T	A	A	S	F	G	A	K	V	A	I	C	E	L	P	F	H	P	I	S		
UniRef90_POA0E5		D	Y	D	L	L	I	I		G	S	G	G	A	A	F	S	A	A	I	K	A	N	E	N	G	A	K	V	A	M	V	E	R	G	T	V	G	G	T		
UniRef90_R5I2Y2	M	E	K	F	D	I	L	V	V	G	S	G	P	G	G	Y	V	A	A	V	R	A	A	Q	L	G	K	S	V	A	V	I	E	R	S	E	I	G	G	I		
UniRef90_UPI00030CD2C9		D	Y	D	L	F	V	I		G	G	G	S	G	G	V	R	A	A	G	R	V	A	A	A	M	G	K	R	V	A	V	A	E	E	F	R	F	G	G	T	
UniRef90_A6FRD7	K	S	F	D	M	I	V	I		G	A	G	P	G	G	Y	V	A	A	I	R	G	A	Q	L	G	L	S	V	A	V	V	E	R	E	F	M	G	G	I		
UniRef90_K9ET44		E	E	L	D	T	V	V	I	G	S	G	P	G	G	Y	V	A	A	I	R	A	A	Q	E	G	Q	D	V	T	V	I	E	R	K	S	E	I	G	G	V	
UniRef90_M5E6N9	S	H	Y	D	V	L	V	I		G	G	G	S	G	M	G	A	S	R	R	A	A	M	Y	G	K	K	V	A	V	V	E	E	S	G	R	G	G	T			
UniRef90_S9U045					L	A	V	I		G	G	G	P	G	G	Y	V	A	A	I	K	A	A	Q	L	G	L	N	T	V	C	I	D	K	R	G	P	G	G			
UniRef90_H1QU08	M	E	K	A	D	L	I	I		G	A	G	P	G	G	Y	R	A	A	D	Y	A	A	R	A	G	L	K	V	I	V	I	E	K	K	H	A	G	G	T		
UniRef90_F0SMC6		H	A	D	V	V	V	L		G	A	G	P	G	G	Y	P	A	A	F	E	A	A	D	H	G	K	K	T	L	V	N	D	V	A	P	G	G	V			
UniRef90_UPI000362DA2E		H	Y	D	V	V	V	L		G	A	G	P	G	G	Y	T	A	A	V	R	A	A	Q	L	G	L	R	T	A	V	V	E	E	K	Y	W	G	G	V		
UniRef90_C4KF5	E	H	Y	D	Y	L	V	I		G	G	G	S	G	G	I	A	S	V	N	R	A	A	L	Y	G	Q	K	C	L	L	V	E	A	K	A	L	G	G	T		
UniRef90_I0K604					Y	D	A	I	I	G	V	G	Q	A	G	K	P	L	A	M	A	L	J	A	K	A	G	R	S	V	A	V	I	E	R	K	W	V	G	G	T	
UniRef90_A1B892	M	K	D	Y	D	L	F	V	I		G	G	G	S	G	G	V	R	A	A	R	I	A	A	E	Y	G	A	R	V	G	L	A	E	S	R	M	G	G	T		
UniRef90_E1W3T5																																										
UniRef90_X5LG77		H	F	D	V	V	V	L		G	A	G	P	G	G	Y	V	A	A	I	R	A	A	Q	L	G	L	S	V	A	V	V	E	D	K	Y	W	G	G	V		
UniRef90_I3YRA1	M	K			Y	D	L	I	V	V	G	S	G	P	G	G	Y	V	A	A	I	R	A	S	Q	L	G	R	K	V	A	L	V	E	R	A	E	A	G	G	V	
UniRef90_A8NGY9					Y	D	Y	V	V	I	G	G	G	S	G	S	G	T	S	R	R	A	A	S	Y	G	K	K	V	A	V	V	E	A	T	P	Y	G	G	T		
UniRef90_D5BMN6	S	N	F	D	L	I	V	I		G	A	G	P	G	G	Y	V	A	S	I	R	A	A	Q	L	G	M	N	V	A	C	I	D	R	R	E	T	G	G	T		
UniRef90_V9XJG2	E	K	Y	D	V	L	V	V		G	S	G	P	G	G	Y	V	A	A	I	R	A	A	Q	H	G	L	R	T	A	I	V	E	R	D	R	L	G	G	I		
UniRef90_UPI0003B3281C	E	N	V	D	L	V	V	L		G	A	G	P	G	G	Y	V	A	A	V	R	A	A	Q	L	G	M	K	V	A	V	V	E	K	E	K	V	G	G	V		
UniRef90_C2W8P5					L	V	V	I		G	G	G	P	A	G	Y	V	A	A	I	T	A	A	Q	N	G	K	E	V	I	L	V	E	E	N	A	L	G	G	T		
UniRef90_B3R4M3					L	V	V	I		G	A	G	P	G	G	Y	V	A	A	F	R	A	A	D	L	G	M	N	V	L	V	E	R	Y	G	T	L	G	G	V		
UniRef90_J9Z2L5	M	K			Y	D	L	I	V	I	G	A	G	S	G	G	V	R	A	A	R	I	A	S	V	H	G	A	K	V	A	I	V	E	N	N	R	F	G	G	T	
UniRef90_A6CNH8	Q	E	Y	D	L	V	I	L		G	G	G	T	G	G	Y	V	A	A	I	R	A	S	Q	M	G	L	K	T	A	I	V	E	K	G	K	L	G	G	T		
UniRef90_A0A059LT72	E	Y	D	I	I	V	V		G	G	G	P	A	G	Y	Y	A	A	I	R	G	A	Q	L	G	G	K	I	A	I	V	E	K	S	E	F	G	G	T			
UniRef90_J5KDV7					Y	D	V	V	V	I	G	S	G	P	A	G	Y	V	A	A	I	R	A	A	Q	L	G	K	T	V	C	I	E	Q	S	S	N	D	D	G		
UniRef90_D8LBF4																																										
UniRef90_W6KE33					Y	D	L	A	V	I	G	G	G	P	G	G	Y	V	A	S	I	K	A	A	Q	L	G	L	K	T	A	V	I	E	S	R	G	K	G	G	T	
UniRef90_UPI00047CA29C					D	Y	D	L	F	V	I	G	A	G	S	G	G	V	R	A	A	R	L	A	A	Q	T	G	A	R	V	A	V	A	E	S	R	V	G	G	T	
UniRef90_K4A7W7					D	Y	D	L	F	T	I	G	A	G	S	G	G	M	R	A	S	R	V	A	A	L	Y	G	A	R	A	V	C	E	M	P	F	A	T	V	T	
UniRef90_UPI000376C1CF	M	A	R	F	E	A	V	V	I		G	A	G	P	A	G	Y	V	A	A	L	R	L	A	Q	L	G	R	S	V	A	V	V	E	R	E	R	V	G	G	E	
UniRef90_S3Y345		A	D	F	D	V	V	V	L		G	A	G	P	G	G	Y	V	A	A	I	R	A	A	Q	L	G	K	T	A	I	I	E	K	Q	W	V	G	G	V		
UniRef90_UPI0002559D71	M	K			Y	D	I	V	I		G	S	G	P	G	G	Y	V	T	A	I	R	A	S	Q	L	G	F	K	T	A	V	V	E	K	E	S	L	G	G	I	
UniRef90_F2G723	M	T	H	F	D	Y	I	C	I		G	G	G	S	G	G	I	A	S	A	N	R	A	A	K	H	G	K	K	A	A	I	E	A	K	D	I	L	G	G	T	
UniRef90_I1E112					D	Y	D	A	I	V	I	G	T	G	P	G	G	E	G	A	A	M	Y	L	A	K	S	G	L	K	V	A	I	E	R	Y	Q	S	V	I	G	T
UniRef90_B6AY04					Y	D	M	I	V	I	G	A	G	P	G	G	Y	V	A	A	I	R	G	A	Q	L	G	L	N	V	A	I	I	E	R	E	H	M	G	G	I	
UniRef90_UPI00046AC838		H	A	D	I	V	V	L		G	A	G	P	G	G	Y	T	A	A	F	R	A	A	D	L	G	K	K	V	V	L	I	E	R	Y	P	T	L	L	G	G	T
UniRef90_UPI0003F704F7		E	Y	D	L	V	V	I		G	G	G	S	G	G	L	V	V	A	S	A	A	A	Q	L	K	A	K	V	A	L	I	E	R	D	R	L	G	G	D		
UniRef90_L0DZB2					V	L	V	L		G	S	G	P	G	G	Y	T	A	A	F	R	A	A	D	L	G	L	D	A	I	M	V	E	R	Y	P	E	I	G	G	T	
UniRef90_D6Y969																																										

[illegible]



	90	100	110	120
UniRef90_A4XRA5	Q	M	M	K
UniRef90_U0B4X0	K	L	A	J
UniRef90_UPI00046776C1	T	L	I	A
UniRef90_E6QSJ6	G	L	K	Q
UniRef90_I2JJN8	A	M	I	K
UniRef90_H0IYY2	K	V	M	E
UniRef90_A1AXL4	D	V	R	T
UniRef90_B1Z4B6	T	L	V	K
UniRef90_F1YJ26	A	A	F	D
UniRef90_UPI000328EA0D	V	I	K	E
UniRef90_S9SR15	N	V	Q	S
UniRef90_H0Q1G7	A	L	R	A
UniRef90_Q2BMY7	T	L	R	D
UniRef90_GDBXW3	K	A	F	S
UniRef90_R5JL08	L	A	I	A
UniRef90_A7HBV5	K	L	R	E
UniRef90_B4FWU6	T	L	L	E
UniRef90_P0A0E5	Q	L	T	E
UniRef90_R5I2Y2	K	M	V	Q
UniRef90_UPI00030CD2C9	K	L	V	E
UniRef90_A6FRD7	A	V	V	K
UniRef90_K9ET44	K	T	Q	K
UniRef90_M5E6N9	Y	L	A	E
UniRef90_S9UV45	A	M	Q	T
UniRef90_H1Q0U8	R	I	Q	E
UniRef90_F0SMC6	K	L	R	D
UniRef90_UPI000362DA2E	A	A	F	Q
UniRef90_C4K47F5	T	L	I	K
UniRef90_I0K604	A	V	I	A
UniRef90_A1B892	E	F	H	G
UniRef90_E1W373	K	L	V	E
UniRef90_X5LG75	T	A	H	D
UniRef90_I3YRA1	K	I	V	A
UniRef90_A8NGY9	E	F	K	T
UniRef90_D5BMN6	Q	M	M	A
UniRef90_V9XJG2	R	L	V	E
UniRef90_UPI0003B3281C	G	V	Q	A
UniRef90_C2W8P5	Q	M	Q	N
UniRef90_B3R4M3	G	L	R	H
UniRef90_J9Z2L5	L	F	I	K
UniRef90_A6CNH8	R	V	Q	E
UniRef90_A0A059LT72	K	T	V	D
UniRef90_J5KD7V	A	M	M	K
UniRef90_D8LBF4	K	M	M	E
UniRef90_W6KE33	A	M	Q	K
UniRef90_UPI00047CA29C	T	L	I	A
UniRef90_K4A7W7	T	L	I	T
UniRef90_UPI000376C1CF	E	V	V	R
UniRef90_S3Y345	K	A	F	S
UniRef90_UPI0002559D71	A	I	I	K
UniRef90_F2G723	S	L	I	A
UniRef90_I1E112	Q	I	L	K
UniRef90_B6AY04	A	V	V	K
UniRef90_UPI00046AC838	K	L	R	K
UniRef90_UPI00037F04F7	K	A	A	S
UniRef90_L0D2B2	G	L	R	K
UniRef90_D6Y969	A	V	Q	A
UniRef90_B4W6C9	Q	M	K	A
UniRef90_P41921	E	F	K	Q
UniRef90_K7G277	V	I	K	E
UniRef90_E4L4U7	V	L	K	N
UniRef90_M1M3P1	K	L	N	D
UniRef90_UPI0002235B8F	K	M	A	E
UniRef90_L2F737	T	L	V	K
UniRef90_F0ZDY0	G	M	M	K
UniRef90_L2RRV7	R	L	V	D
UniRef90_I9I2M1	Q	S	I	A
UniRef90_E6LED0	E	L	V	D
UniRef90_Q24PW4	V	A	V	D
UniRef90_UPI0002BCD6D4	T	M	T	E
UniRef90_UPI00042465A4	A	I	I	K
UniRef90_P48640	S	F	I	A
UniRef90_E4N146	K	A	F	S
UniRef90_F9DY44	S	L	V	K
UniRef90_U3AH32	P	F	R	Q
UniRef90_I0V810	S	V	L	R
UniRef90_I0YJ16	R	L	M	E
UniRef90_J3Q5S5	K	L	K	E
UniRef90_E0RDB5	K	V	Q	E
UniRef90_Q6LLT9	Q	I	L	G
UniRef90_I0I9M2	K	A	V	I
UniRef90_R5TGK4	A	I	E	K
UniRef90_M1T3M7	Q	L	R	G
UniRef90_C3LGV0	Q	M	Q	V
UniRef90_R5QDV3	F	V	V	A
UniRef90_H2DL28	T	F	K	N
UniRef90_H0EB13	A	I	Q	E
UniRef90_C6XJS8	K	I	V	E
UniRef90_A0A037UKY2	K	M	Q	E
UniRef90_UPI000360958E	R	L	R	S
UniRef90_D1PV33	Q	R	K	E
UniRef90_B4SBH5	E	A	V	K

	130	140	150	160
UniRef90_A4XRA5	V Q V K L E H G G E R T F Q N I V I	A S G S E P T P L P G V I E I D N V R I L D S		
UniRef90_N0B4X0	L R L L S E D G R E T F E K A I I	A A G S E A V A L L P F I P A D E G I E P R I V D S S		
UniRef90_UPI00046776C1	L R L L S A T E D G K V T A K H V I I	A A G S E A V A L L P F M I P A D E G I E P R I V D S S		
UniRef90_E6QSJ6	V A V D G E H Y T A N H I V I	A T G G R P S V P Q I P P A G A E L G I T S		
UniRef90_I2JJN8	V E V T A A D G S E L E A D N I I I	A A G S R P V A I P P A P V D Q N I V D S		
UniRef90_H0IYY2	R D R Q E G M E V L V A K K L I I	A T G S R P Y R P A D I N F R H P R I Y C S D S		
UniRef90_A1AXL4	L A I E N S D D I L E F E H Q C I I	A A G S R V T K I L S V F P F D D A R V M D S		
UniRef90_B1Z4B6	R V V E V N D G R E M T A H I L I	A T G S C R P S R P D I P P A G A E H G I D S		
UniRef90_F1YJ26	I V V G D R E I T F A D N V I V	D T G S T V R L L P G V A L S E N V V T Y		
UniRef90_UPI000328EA0D	P T I E V N G R K Y T A P H I L I	A T G G M P A F P Q E S Q V P G A S L G I T S		
UniRef90_S9SR15	I L V D Y M D S H I R F E H C I I	A T G S R P I E L K A F P F G G P R I V D S S		
UniRef90_H0Q1G7	Q D K T G E K K V I K F K Q C I I	A A G S A A V H L P F I P P R I V D S S		
UniRef90_Q2BMY7	V A V G D K Q Y T A E R N L V	A V G G W P N I D I P P G K E H I I S S		
UniRef90_GDGMXW3	D S D G K V T D E I T F E R N A I I	A V G S V V K T L P G T Q L S G R V V T Y		
UniRef90_R5JL08	V K V T L P D E E I T Q G K E I F I	N T G S T S I I P A I D G I R D S K R V Y T S		
UniRef90_A7HBV5	I D V E Q N G E R T R A Q A F I V	A T G G R P V E I P G F A F D G K D V W S A		
UniRef90_B4FWU6	V Q P D G S K Q R Y T A K H I L I	A T G S R A Q R V N I P G K D L A T S		
UniRef90_P0A0E5	K T I Q V N G Q N I T S K S F I I	A T G A S P A V P E I P G M N E V D Y L T S T		
UniRef90_R5I2Y2	V E V E A F R T V Y E A D H I L I	A V G S R A N S L P F A P I D G E R T I S Y R		
UniRef90_UPI00030CD2C9	V R I E A E N R T V T A N H I L I	A T G G R P N H A A L P G H E H C I F S		
UniRef90_A6FRD7	V S V K T D S G A Q E A P H I V L	A T G A R A R E L P G L E A D G D L V W T Y K		
UniRef90_K9ET44	V S T E D G K Q S Y S F N N I V	A T G S S P T I E I P G F S K S D R V L D S		
UniRef90_M5E6N9	V H I S K K D F T L T A D H I V I	A T G G R P T V P S D D Q I P G A S L G I D S		
UniRef90_S9UV45	K T L D G K D E A V D A K K V I I	A T G S E P T P L P F L P F D E Q A V L S S		
UniRef90_H1Q0U8	T I E V N N Q E Y T A N H I I	A T G S N S K L L P F A K P F M Q Y P V V T S		
UniRef90_F0SMC6	M Y K D G S K K T L S F D K A I V	A T G S V P A M P P I F K L D D D R V M D S		
UniRef90_UPI000362DA2E	T L Q V N G E T I T F S H C I I	A A G A T T R L P I P G T Q L S E R V V T Y		
UniRef90_C4K7F5	E K D H P A K K I V T A D H I I	A T G G R P K H P D I P P G A Y A G I D S		
UniRef90_I0K604	T V V V H D K Q R L T A D H I F I	N C G T R P A T P I P G L D T V D W L T S		
UniRef90_A1B892	V E L A D G Q R L T A K H I L I	A I G G R P Q R P D I P G K E L G L I S		
UniRef90_E1W373	I Y A D G S T E L V T A D H I L I	A T G G R P S I P A V P K G A E Y G I D S		
UniRef90_X5LG77	V E V R P G G G Q L C F G H A I I	A T G A R P K Q L P G V P S S A R V V T Y		
UniRef90_I3YRA1	L D V D G T E Y E A D H I V L	A T G A R P R E M A F M P I D G E R V I S S		
UniRef90_A8NGY9	V E V T R P D G T K Y A D H I T I	A V G G S P T I P S D D V I P G A S L G I D S		
UniRef90_D5BMN6	V T I T K D K G A Y K A E N I I	A S G S H P S S L P G I D I D E S R I V S S		
UniRef90_V9XJG2	V A V T T A D E T Y R A D H V I L	A T G A R P R P V P G V I P D G D R I W T Y		
UniRef90_UPI0003B3281C	F S P Q P D K V M L V P Q Y V L I	A T G S R P R T L P G L D V D G T Y V M N S D		
UniRef90_C2W8P5	I L Q G D K K E T V I D A N Q I I	A S G S E P T E L P F A P F D G K W L N S S		
UniRef90_B3R4M3	K Q T T G K K T V I R F E K A I I	A A G S Q A V K L P F I P E D P R I V D S S		
UniRef90_J9Z2L5	Q K I K V I G E K T Y Q A K K F I	S T G G K P R I P N I S K N T K L I N T S		
UniRef90_A6CNH8	M N G G E E N E M L P K N V I V	A T G S R P R T L P G L D I D G E F V L S S D		
UniRef90_A0A059LT72	K T V T I G A Q T I K G R N I I L	A T G S K V S R I N I P G I D S K L V L T S		
UniRef90_J5KD7V	V E V T K S D E L E A K N I I	A T G S L P I E I P A G K F G D K I V D S		
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UniRef90_W6KE33	L K V D G K D E T I T T S K T I I	A T G S E P M E L P F L P F D E K V V L S S		
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UniRef90_K4A7W7	V S V D G K L Y T A K N I I	A V G G R P S K P N I P G I E H A I D S		
UniRef90_UPI000376C1CF	V E V I D G K T E V E A G S V L L	A V G S V P V S L P Q I P P F D G R R V I G		
UniRef90_S3Y345	L D V T T D D Q K V S A N H C I I	A T G A T A K L L P G T Q K S A N V Y T Y		
UniRef90_UPI0002559D71	V D V T D N V T E Y D A D H I V I	A T G A R S R E L P N L P Q D G K K V I G Y		
UniRef90_F2G723	V E V N G E Q Y T A D H I T I	A V G G R P T I P D I P E G A E H G I D S		
UniRef90_I1E112	L S V T S D D G S C F A Q T I V I	A C G S R P Y R P A E V D F N H S R I Y D S		
UniRef90_B6AY04	V L V K T N K G D E V L T S A H I	A T G A R A R E L P G L E G D G D L V W T Y		
UniRef90_UPI00046AC838	M Q V E T A D G Q K N F E H C I I	A A G S S		

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UniRef90_N0B4X0	A	N	E	A	F	H	L	R	Q	L	P	R	K	M	L	V	I	G	G	G	Y	I	G	L	E	M	A	T	I	F	A	G	F	G	S	D	V	I	Y				
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UniRef90_I2JJN8	T	G	A	L	E	F	Q	E	S	H	T	P	R	T	L	V	I	F	G	A	G	V	I	G	L	E	Y	A	S	I	F	S	G	L	G	S	V	K	L	I	N		
UniRef90_H0IYY2	T	D	A	L	D	L	T	N	I	P	K	R	L	L	V	I	V	G	G	G	I	L	G	L	E	M	A	T	V	Y	H	A	L	G	S	E	S	I	V	E			
UniRef90_A1AXL4	D	G	F	F	A	L	R	E	M	P	G	S	I	V	I	V	G	A	G	Y	I	A	V	E	L	A	G	V	L	N	A	N	Y	G	V	D	V	T	I	V	E		
UniRef90_B1Z4B6	E	T	Q	I	L	T	R	D	L	P	G	S	I	V	I	V	G	A	G	A	I	G	M	E	F	G	Y	V	L	A	N	Y	G	V	D	V	T	I	V	E			
UniRef90_F1YJ26	D	G	F	F	Q	L	E	E	L	P	R	R	P	T	I	E	V	N	G	R	K	Y	T	A	P	H	L	I	A	T	G	G	S	R	T	S	I	M					
UniRef90_UPI000328EA0D	T	E	A	L	A	L	E	Q	V	P	E	S	L	V	I	V	G	G	G	Y	I	G	I	E	L	G	Q	T	F	A	K	F	G	G	S	K	R	T	I	L	E		
UniRef90_S9SR15	T	G	A	L	E	L	R	F	V	P	E	K	M	L	V	I	V	G	G	G	Y	I	G	L	E	M	A	T	V	Y	S	T	L	G	T	K	E	V	D	V	L	E	
UniRef90_H0Q1G7	N	E	V	F	Y	L	E	E	F	P	K	R	S	I	V	I	V	G	G	G	Y	I	A	V	E	F	A	G	I	F	A	L	G	A	E	D	T	K	L	A	Y		
UniRef90_Q2BMY7	K	E	Q	I	L	S	D	T	V	P	G	S	I	V	I	V	G	A	G	A	I	G	T	E	F	A	Y	V	L	N	A	N	Y	G	V	D	V	T	I	V	E		
UniRef90_GDWMX3	S	T	L	L	D	M	E	L	P	Q	H	L	V	I	V	G	G	G	Y	I	G	L	E	F	A	S	M	Y	A	E	F	G	S	K	V	T	I	L	E				
UniRef90_R5JL08	K	E	A	V	D	L	P	E	V	P	K	R	L	V	I	V	G	G	G	Y	I	G	M	E	L	G	T	V	Y	A	K	M	G	A	Q	V	T	F	L	E			
UniRef90_A7HBV5	D	E	A	L	S	L	E	E	L	P	K	R	A	V	I	L	V	G	G	G	Y	I	A	V	E	F	A	S	I	L	W	R	G	A	E	V	D	L	F	Y			
UniRef90_B4FWU6	S	A	L	L	E	L	K	E	V	P	Q	R	L	A	V	I	V	G	S	G	Y	I	A	A	E	L	G	Q	M	F	H	N	L	G	T	E	V	T	L	M	Q		
UniRef90_P0A0E5	Q	A	L	V	L	P	E	K	L	P	K	S	L	A	V	I	V	G	S	G	A	I	G	S	E	F	A	F	I	F	R	S	L	G	V	E	V	T	L	I	Y		
UniRef90_R5I2Y2	D	Q	A	F	D	L	P	E	L	P	K	S	I	V	I	S	G	G	G	Y	I	A	V	E	F	A	N	I	F	R	H	G	L	G	V	E	T	T	I	V	E		



UniRef90_A4XRA5	Y	L	E	R	I	C	P	G	L	D	G	E	T	A	K	T	L	Q	R	T	L	G	K	Q	G	M	S	F	K	L	G	T	K	V	T	G	A	K	T	S				
UniRef90_N0B4X0	V	L	D	G	L	M	L	G	A	D	R	D	V	L	V	A	V	W	Q	R	V	N	A	K	R	F	G	D	R	V	L	M	L	Q	T	R	V	I	E	A	K	E	R	Y
UniRef90_UPI00046776C1	R	G	D	N	I	L	L	S	F	D	V	M	L	R	E	N	L	A	M	N	M	V	E	S	G	I	T	D	V	L	T	H	C	H	A	S	A	L	Y	K	E			
UniRef90_E6QSJ6	R	R	E	H	V	L	D	S	F	D	V	M	L	R	E	N	L	A	M	N	M	V	E	S	G	I	T	D	V	L	T	H	C	H	A	S	A	L	Y	K	E			
UniRef90_I2JJN8	A	L	E	S	F	L	P	A	V	D	Q	E	I	S	D	A	L	S	Y	H	L	R	K	H	G	V	L	I	R	L	H	G	A	R	V	I	T	K	I	L	V			
UniRef90_H0IYY2	N	R	D	S	F	L	P	A	V	D	D	E	I	S	D	A	L	S	Y	H	L	R	K	H	G	V	L	I	R	L	H	G	A	R	V	I	T	K	I	L	V			
UniRef90_A1AXL4	L	S	D	Q	L	I	T	S	A	D	K	D	I	V	N	P	L	E	F	R	R	L	K	S	Q	Y	T	N	I	F	L	H	T	H	A	L	P	K	A	I	L	V		
UniRef90_B1Z4B6	R	K	N	T	P	M	R	H	L	D	P	L	S	D	T	L	V	E	V	M	K	S	D	G	P	T	L	H	T	H	A	L	P	K	A	I	L	V	K	N				
UniRef90_F1YJ26	F	M	P	R	V	L	P	N	E	D	A	D	V	S	S	K	E	I	A	K	A	Y	K	K	L	G	V	K	I	L	T	G	S	A	V	Q	R	E	V	D	D	N		
UniRef90_UPI000328EA0D	R	H	D	K	V	L	R	H	F	F	E	S	V	I	S	S	N	T	E	E	L	E	N	A	G	I	E	V	L	L	K	Y	S	Q	V	R	E	V	K	Q	T			
UniRef90_S9SR15	G	A	D	Q	V	L	R	H	F	F	E	S	A	E	L	I	R	P	V	C	R	K	L	D	N	A	G	I	E	V	L	L	K	Y	S	Q	V	R	E	V	K	Q	T	
UniRef90_H0Q1G7	M	L	D	R	L	M	Q	G	P	D	A	D	A	V	K	V	W	E	K	Q	N	L	H	R	F	D	N	V	M	L	K	T	K	T	V	A	V	E	A	K	Q			
UniRef90_Q2BMY7	R	G	D	L	F	L	R	G	F	D	R	E	I	R	E	F	T	A	Q	E	V	A	K	K	L	G	V	I	L	L	F	N	N	I	E	S	I	E	K	Q				
UniRef90_GoDMXW3	F	L	D	R	M	V	P	N	E	D	K	E	V	S	A	E	L	A	K	Y	K	K	L	G	V	I	K	V	L	L	T	S	K	V	D	I	E	S	K	Q				
UniRef90_R5JL08	G	D	R	F	F	M	P	R	E	D	R	D	I	A	N	S	V	R	E	N	L	R	K	G	I	E	V	I	R	L	N	A	R	A	Q	S	I	H	D	T				
UniRef90_A7HBV5	A	L	P	Q	I	L	T	G	V	D	P	E	A	V	R	F	V	Q	K	N	L	R	E	Q	G	V	I	T	R	H	V	L	N	A	K	A	G	F	E	K	K			
UniRef90_B4FWU6	R	R	D	L	P	L	R	G	F	D	E	M	R	A	L	V	A	S	N	L	R	Q	R	G	I	K	L	H	P	G	T	N	L	S	E	K	L	S	K	T				
UniRef90_P0A0E5	R	S	E	R	L	I	F	K	T	Y	D	P	E	I	S	E	A	I	D	E	S	L	T	E	Q	G	L	N	L	I	T	G	V	T	Y	Q	K	V	E	Q	N	S		
UniRef90																																												

UniRef90\_A4XRA5 K S G V T L S L E P A A G G A S E T L E A A D Y V L V L V A G R R P Y T K G  
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UniRef90\_UPI00046776C1 G D E Y V S H L S S G S S V A S E K M V L M F A I G R K H P N G V A N  
UniRef90\_E6QSJ6 K G T F T L N F E Q G A P L T G L D C V I W A I G R E P H T S Q S  
UniRef90\_I2JJN8 K K Q V E V S Y T F K D E E K T E I F D K L I V C V G R K P L S T S G  
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UniRef90\_P0A0E5 G K S T S I Y I E V N G Q E Q V I E A D Q V L V A T G R K P N T E T  
UniRef90\_R5I2Y2 G E L C K L T V E T K K G T E T I E A E T V L S A V G V I P N T D S  
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UniRef90\_I0K604 G A T T I K L T L T T D E Q R H T L T G S H L L V A I V G T T P N S D T  
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UniRef90\_X5LG77 T D S S T V S W Q Q A D G A A G S K T A D L V L V A I G F E A N S D G  
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UniRef90\_A8NGY9 K G Q T L T V T D Q G E K I E V D T V L W A I G R H P C T K G  
UniRef90\_D5BMN6 K T G V S L T V E P A G G G D A E T I K A D I A L V S V G R H P A I D G  
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UniRef90\_UPI0003B3281C D G V V T L Q A E S G S E V I T L T A E K M L V S V G R Q A N I E D  
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UniRef90\_A6CNH8 K D G G V K I K A E I K D T Q K E F T A D Q L L V S V G R Q A N V E G  
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UniRef90\_UPI000376C1CF G D S V R V R I S T P E G E L V G E F E R V L V A V G K R A P E L  
UniRef90\_S3Y345 G S G V R V T V E P A A G G E Q E V L E A D K M L Q A M G F A P R V D G  
UniRef90\_UPI0002559D71 G N G V V A T V K A K G E E K L E A D K L L S A V G I K S N I E N  
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UniRef90\_UPI0003F704F7 N G K K I I A G N N I I L A D E I L V S V G R V P N V E S  
UniRef90\_L0DZB2 K A G I E V R F E G E A K D L P E K D V F D R V L V A V G R S P N G Q Q  
UniRef90\_D6Y969 D T G V V V T L E N G R T L D A E L L V A V G R G P V S A G  
UniRef90\_B4W6C9 K D G V E L T V E P S A G G A A E T L K G D V V L V A I G R R P Y T E G  
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UniRef90\_L2F737 A D D S L T L N F N N G E T L D V D C L L W A V G R N P A T D N  
UniRef90\_F0ZDY0 P N G R V A V T V I E Q V G A S G Y T G T L E A D V V L V S V G R R P N T Q N  
UniRef90\_L2RRV7 G N I K K V H I I V N G K N K V I E S D E L I V G T G R K P N T E V  
UniRef90\_I9IZM1 D V I Y R D A V T G E E H Q L H A D A I L L A T G R R P N T A G  
UniRef90\_E6LED0 G S T Y Q T T F E D G R T V V S E C V I F A G G R Q P N T G N  
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UniRef90\_UPI0002BCD6D4 E K G S P G K L K V V A K S T E G T E M I E G L Y N T V L L A I G R D S C T K K  
UniRef90\_UPI00042465A4 G D H I A V T V D E N G K E T V L E C S H I L V A T G R K P Q T K E  
UniRef90\_P48640 A D G S F S L K T N K G T V D G F S H I M F A T G R R P N T Q N  
UniRef90\_E4N146 D P D K V K V T V T R D G K Q E V L E A D K V L Q A I G F V P R V H G  
UniRef90\_F9DY44 G D I K K V Q V E I N G E K R V I E A E Q L V A T G R K P N T E S  
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UniRef90\_I0V810 G A E A P L R V A V G G P H E R E L D A D V V L I G V G R R P N T A H  
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UniRef90\_I0I9M2 D E G V T V T V K N L K T N E E Q T L T A D R V L M A I G V I Q P N T D K  
UniRef90\_R5TGK4 G D R S Y V H Y S A D G K E G D L E A D A I L V A T G R R P N T A G  
UniRef90\_M1T3M7 A D G I Q V S F E G E N A P A E P Q T Y D L V L V A T G R T P N G K K  
UniRef90\_C3LGV0 N S Y K K Q A L F E Y E G G I Q E V N P E F V L V S V G R K P R V I Q Q  
UniRef90\_R5QDV3 G D I K K V Q V E I N G E K R V I E A E Q L V A T G R K P N T E S  
UniRef90\_H2DL28 A N G K L S V T Y R D E E G N E S V V S D V D H L I W A V G R T P E T G G  
UniRef90\_H0EB13 D T G V T F T F Q K G D G K Q Q G E A D W L I T A D V V I A V G I V G N V I E N  
UniRef90\_C6XJS8 K N S V T A S

	290										300										310										320														
UniRef90_A4XRA5	L	G	L	E	S	V	G	L	S	T	D	K	R	G	F	M	L	A	N	E	K	Q	H	S	G	V	S	G	V	W	V	G	D	I	V	T	S	G	P	M					
UniRef90_U0B4X0	L	G	V	E	E	A	S	V	V	A	N	P	R	G	F	V	P	L	N	A	K	Q	M	R	S	G	V	S	H	I	F	A	I	G	D	I	V	T	H	R	L	N			
UniRef90_UPI00046776C1	L	L	G	L	A	A	A	G	I	A	T	D	S	R	G	F	P	T	D	E	A	F	Q	N	T	M	V	A	G	H	I	Y	A	I	G	D	I	V	T	P	R	P	A		
UniRef90_E6QSJ6	L	L	N	L	A	A	A	G	I	A	T	D	S	R	G	F	P	T	D	E	A	F	Q	N	T	M	V	A	G	H	I	Y	A	I	G	D	I	V	T	P	R	P	A		
UniRef90_I2JJN8	L	L	L	A	A	D	C	G	V	N	E	N	D	S	R	G	F	V	T	D	E	H	Y	R	T	D	A	I	A	G	N	I	Y	A	A	G	D	I	V	I	R	G	P	M	
UniRef90_H0IYY2	L	L	G	L	E	N	I	G	L	A	N	D	S	R	G	F	Q	L	G	V	D	E	H	Y	R	T	D	A	I	A	G	N	I	Y	A	A	G	D	I	V	I	R	G	P	M
UniRef90_A1AXL4	I	N	C	E	K	A	G	V	E	V	N	D	S	R	G	F	P	T	D	E	K	Q	M	K	T	N	V	P	G	I	Y	A	I	G	D	I	V	T	G	Q	P	M			
UniRef90_B1Z4B6	L	L	N	V	Q	A	T	G	V	A	I	T	D	R	G	A	I	V	T	D	E	K	Q	M	K	T	N	V	P	G	I	Y	A	I	G	D	I	V	T	G	L	L	Q		
UniRef90_F1YJ26	F	G	L	E	N	T	G	V	A	I	T	D	R	G	A	I	V	T	D	E	K	Q	M	K	T	N	V	P	G	I	Y	A	I	G	D	I	V	T	A	K	L	L	Q		
UniRef90_UPI000328EA0D	L	N	L	N	Q	V	T	G	V	Q	T	D	D	R	G	A	I	V	T	D	E	F	Q	M	K	T	N	V	P	G	I	Y	A	V	I	G	D	I	V	C	G	K	A	L	
UniRef90_S9SR15	L	N	L	G	E	Q	T	G	I	Q	L	T	D	N	R	G	L	I	P	V	D	E	F	Q	M	K	T	N	V	P	H	I	F	A	I	G	D	I	V	S	G	P	A		
UniRef90_H0Q1G7	I	A	A	D	K	A	G	V	L	V	T	D	R	G	A	I	P	V	P	V	D	A	Q	M	K	T	N	V	P	H	I	F	A	I	G	D	I	V	S	G	P	M			
UniRef90_Q2BMY7	L	L	G	L	E	A	V	G	I	E	Q	T	G	K	R	G	A	I	V	V	D	E	F	Q	M	K	T	N	V	P	S	I	Y	A	V	I	G	D	I	D	R	V	Q		
UniRef90_GDGMXW3	Y	L	G	L	E	K	T	G	V	K	L	T	D	R	G	A	I	E	L	I	V	D	E	F	M	K	T	N	V	D	G	I	Y	A	I	G	D	I	C	A	K	L	M		
UniRef90_R5JL08	L	N	L	Q	A	A	G	V	Q	V	D	S	K	Q	G	A	I	I	T	D	V	H	L	H	T	T	T	P	S	H	I	F	A	M	G	D	I	V	K	G	P	Q			
UniRef90_A7HBV5	L	L	G	L	K	A	G	V	K	I	A	P	K	I	D	R	G	A	I	E	V	D	A	Q	Y	S	R	T	S	V	P	S	I	F	A	I	G	D	I	V	T	G	R	I	N
UniRef90_B4FWU6	L	N	L	N	Q	A	A	G	V	E	I	A	R	V	G	A	I	I	T	D	E	A	Y	S	R	T	S	A	N	R	I	Y	A	V	A	I	G	D	I	V	T</				



		330		340		350		360																																	
UniRef90_A4XRA5	L	A	H	K	A	E	D	E	A	V	A	C	I	E	R	I	A	G	H	A	E	V	N	Y	G	V	I	G	V	I	Y	T	R	P	E	I					
UniRef90_N0B4X0	L	A	H	K	A	V	H	E	G	H	V	A	A	E	N	A	T	G	R	T	S	Y	F	D	A	R	Q	I	P	S	V	A	Y	T	D	P	E	I			
UniRef90_UPI00046776C1	L	T	P	V	A	I	R	E	G	H	A	F	A	D	R	T	V	F	G	K	R	D	V	K	V	D	H	A	D	I	P	T	V	A	V	F	T	D	P	E	I
UniRef90_E6QSJ6	L	T	P	V	A	I	R	E	G	H	A	F	A	D	R	T	V	F	G	K	R	D	V	K	V	D	H	A	D	I	P	T	V	A	V	F	T	D	P	E	I
UniRef90_I2JJN8	L	A	H	K	G	S	E	E	G	V	M	V	A	E	R	L	F	A	G	H	K	I	A	M	N	Y	D	C	I	P	S	V	I	Y	T	H	P	E	I		
UniRef90_H0IYY2	L	A	S	A	A	Y	D	Q	G	L	N	S	C	N	E	L	L	E	K	E	Y	R	F	V	S	D	V	P	T	G	I	Y	T	I	P	E	I				
UniRef90_A1AXL4	L	A	H	K	A	V	H	E	A	K	V	A	V	E	L	S	E	V	I	Y	G	H	K	L	G	F	D	A	L	T	I	P	S	V	A	Y	T	D	P	E	I
UniRef90_B1Z4B6	L	T	P	V	A	V	A	A	G	R	R	L	S	E	R	L	F	N	N	K	P	H	E	H	L	D	Y	N	N	V	P	T	V	V	F	S	H	P	E	I	
UniRef90_F1YJ26	L	A	H	V	A	E	A	Q	G	V	V	A	A	E	T	M	A	G	A	E	T	M	T	L	G	D	Y	R	M	M	P	R	A	T	F	C	Q	P	Q	V	
UniRef90_UPI000328EA0D	L	T	P	V	A	I	A	A	G	R	K	L	A	H	R	L	F	E	G	H	K	E	D	S	K	L	D	Y	E	N	I	P	T	V	V	F	S	H	P	E	I
UniRef90_S9SRI5	L	A	H	K	A	S	Y	E	A	K	V	A	V	E	A	L	S	H	R	H	A	A	V	D	Y	K	A	L	P	L	V	V	F	S	D	P	E	I	V		
UniRef90_H0Q1G7	L	A	H	K	A	V	H	E	A	H	V	A	A	E	V	A	A	G	E	K	S	A	F	D	A	T	V	I	P	T	G	V	A	Y	T	D	P	E	I		
UniRef90_Q2BMY7	L	T	P	V	A	I	A	E	G	M	V	A	L	V	R	N	L	Y	A	G	M	N	Q	K	V	D	Y	D	L	I	P	T	V	V	F	C	Q	P	Q	V	
UniRef90_G0DXW3	L	A	H	T	A	E	A	Q	G	V	V	A	A	E	T	I	A	G	A	Q	T	M	P	I	N	Y	D	M	I	P	R	A	T	Y	C	Q	P	Q	V		
UniRef90_R5JL08	F	T	Y	V	S	L	D	D	Y	R	I	L	R	N	K	L	F	G	D	K	E	R	T	T	E	D	R	N	P	L	A	Y	S	V	F	I	D	P	E	I	
UniRef90_A7HBV5	L	A	H	K	A	S	K	E	G	E	I	A	A	E	V	I	A	G	M	K	S	A	R	D	E	W	V	A	M	P	G	G	I	F	T	D	P	E	I		
UniRef90_B4FWU6	L	T	P	V	A	L	M	E	A	T	C	F	A	K	T	V	F	G	G	Q	V	K	P	D	H	R	D	V	P	C	A	V	F	S	I	P	E	I			
UniRef90_P0A0E5	F	V	I	Y	V	A	A	Y	E	G	G	I	V	A	N	A	L	G	L	A	K	R	K	I	D	L	R	F	V	P	G	V	T	F	T	N	P	S	E	I	
UniRef90_R5I2Y2	L	A	H	V	A	S	A	E	G	I	C	C	V	E	A	I	C	G	L	N	P	K	P	I	D	Y	G	N	I	P	G	C	T	Y	I	T	D	P	E	I	
UniRef90_UPI00030CD2C9	L	T	P	V	A	I	H	E	A	M	C	F	V	E	T	A	F	K	D	N	P	T	R	P	D	H	C	I	A	T	A	V	F	S	Q	P	E	I			
UniRef90_A6FRD7	L	A	H	K	A	S	H	E	G	V	M	V	A	E	M	I	S	A	G	H	K	V	H	P	V	K	P	E	S	I	A	G	C	T	Y	C	T	D	P	E	I
UniRef90_K9ET44	L	A	H	K	A	S	Y	E	A	K	V	A	A	E	A	I	S	G	K	K	V	E	V	D	Y	K	A	M	P	A	V	A	F	T	D	P	E	I			
UniRef90_M5E6N9	L	T	P	V	A	I	A	A	G	R	R	L	S	N	R	L	F	G	G	P	K	D	D	H	L	D	Y	T	N	I	P	T	A	I	F	S	H	P	A	V	
UniRef90_S9U045	L	A	H	K	A	E	E	E	G	V	A	C	A	E	M	L	A	G	K	P	G	H	V	N	Y	D	V	I	P	G	V	I	Y	T	T	P	E	A			
UniRef90_H1QU08	L	A	H	A	S	T	F	E	Q	G	L	H	V	V	N	H	I	L	G	K	N	D	N	I	H	F	D	I	M	P	A	A	I	F	T	H	P	E	A		
UniRef90_F0SMC6	L	A	H	K	A	T	R	E	A	K	V	A	V	D	T	V	I	L	G	E	P	A	E	F	D	V	R	A	I	P	A	V	V	F	T	D	P	E	L		
UniRef90_UPI000362DA2E	L	A	H	A	A	E	A	M	G	V	I	A	A	E	T	I	G	D	A	E	T	M	E	L	D	Y	V	M	I	P	R	A	T	Y	C	Q	P	Q	V		
UniRef90_C4K7F5	L	T	P	V	A	V	A	A	G	R	R	L	S	E	R	L	F	N	H	K	P	D	E	H	L	D	Y	T	Q	V	P	T	V	V	F	S	H	P	E	I	
UniRef90_I0K604	F	T	H	I	A	Y	D	D	Y	R	V	V	K	Q	N	L	D	G	G	K	A	S	T	A	N	R	P	V	Y	T	V	F	T	D	P	Q	L				
UniRef90_A1B892	L	T	P	V	A	I	R	E	G	H	S	F	A	D	R	T	V	F	G	A	R	P	K	V	D	H	R	L	V	A	S	A	V	Y	T	R	P	H	E	L	
UniRef90_E1W3T5	L	T	P	V	A	V	A	A	G	R	R	L	S	E	R	L	F	N	G	N	K	P	N	E	H	L	D	Y	N	L	V	P	T	V	V	F	S	H	P	E	I
UniRef90_X5LG77	L	A	H	V	A	E	A	M	G	V	V	A	A	E	T	I	A	G	A	T	T	M	E	L	G	D	Y	R	M	M	P	R	A	I	F	C	Q	P	Q	V	
UniRef90_I3YRA1	L	A	H	V	A	S	A	E	G	I	C	C	V	E	A	I	C	G	L	N	P	A	P	V	D	Y	S	T	I	P	S	C	T	Y	F	T	S	P	E	I	
UniRef90_A8NGY9	L	T	P	V	A	I	A	A	G	R	R	L	S	N	R	L	F	G	P	E	K	F	K	N	D	K	Y	D	N	I	P	T	V	V	F	S	H	P	E	I	
UniRef90_D5BMN6	L	A	H	K	A	E	E	D	G	V	A	A	V	E	M	M	A	G	K	A	G	H	V	D	Y	D	L	V	P	G	I	V	Y	T	A	P	E	I			
UniRef90_V9XJG2	L	A	H	K	A	S	H	E	A	V	L	C	V	E	K	L	A	G	V	Q	H	V	R	P	L	D	R	D	Y	V	P	C	T	Y	A	R	P	Q	V		
UniRef90_UPI0003B3281C	L	A	H	V	A	S	H	E	G	I	L	A	V	E	H	M	A	G	L	D	V	H	P	L	N	P	Q	E	V	P	R	C	T	Y	S	R	P	E	I		
UniRef90_C2W8P5	L	A	H	V	A	F	H	E	G	A	T	A	G	L	H	A	C	G	E	E	A	K	V	N	Y	H	A	V	P	R	C	I	Y	T	A	P	E	I			
UniRef90_B3R4M3	L	A	H	K	A	V	H	E	A	H	V	A	A	E	A	A	H	G	E	K	A	F	F	D	A	K	Q	I	P	S	V	A	F	T	D	P	E	I			
UniRef90_J9Z2L5	L	T	P	V	A	I	R	Q	G	H	F	L	A	D	K	L	F	N	N	K	K	T	I	E	Y	D	F	A	N	I	P	T	A	V	F	T	S	P	Q	I	
UniRef90_A6CNH8	L	A	H	V	A	S	H	E	G	I	S	A	V	E	H	M	A	N	E	N	P	E	P	I	D	Y	S	L	I	S	K	C	I	Y	S	N	P	E	I		
UniRef90_A0A059LT72	L	A	H	A	A	Y	R	M	G	E	V	A	A	E	N	A	M	H	G	S	T	T	R	K	A	N	L	K	Y	T	P	A	A	V	Y	T	P	E	I		
UniRef90_J5KDV7	L	A	H	K	G	S	E	E	G	I	M	V	A	E	R	I	A	D	K	H	A	E	V	N	Y	D	L	V	P	S	V	I	Y	S	H	P	E	I			
UniRef90_D8LBF4	L	A	H	K	A	E	E	E	G	I	A	C	V	E	G	I	A	G	F	A	G	H	V	N	Y	D	A	I	P	S	G	V	Y	T	Y	P	E	I			
UniRef90_W6KE33	L	A	H	K	A	E	D	E	G	V	A	L	A	E	Q	L	A	G	K	P	S	H	R	P	D	Y	D	F	V	P	S	V	I	Y	T	M	P	E	I		
UniRef90_UPI00047CA29C	L	T	P	V	A	I	H	E	A	M	C	F	V	D	T	V	F	H	D	R	P	T	R	P	D	Y	D	F	V	P	T	A	V	F	S	Q	P	E	I		
UniRef90_K4A7W7	L	T	P	V	A	L	M	E	A	G	A	I	A	R	T	I	F	G	N	E	P	T	K	P	D	Y	R	A	V	P	S	A	V	F	S	Q	P	E	I		
UniRef90_UPI000376C1CF	L	A	H	R	A	Y	R	Q	G	L	I	A	A	E	S	M	A	G	N	V	T	A	W	A	P	R	F	Y	P	I	A	V	F	T	D	P	E	A			
UniRef90_S3Y345	L	A	H	T	A	E	A	Q	G	V	V	A	A	E	T	I	A	G	A	E	T	M	P	V	N	Y	A	M	I	P	R	A	T	Y	C	Q	P	E	I		
UniRef90_UPI0002559D71	L	A	H	V	A	S	A	E	G	I	T	C	V	E	K	I	A	G	L	H	T	E	P	I	D	Y	G	N	I	P	G	C	T	Y	A	S	P	E	I		
UniRef90_F2G723	L	T	P	V	A	V	K	A	G	R	L	L	S	E	R	L	E	N	G	Q	K	D	A	H	M	D	Y	S	L	I	P	T	V	V	F	S	H	P	E	I	
UniRef90_I1E112	L	A	S	A	A	Y	D	Q	G	R	L	L	A	E	A	I	V	K	G	N	L	D	G	H	L	A	D	I	P	A	G	I	Y	T	I	P	E	I			
UniRef90_B6AY04	L	A	H	K	A	S	H	E	G	L	M	V	A	E	M	I	A	G	K	A	V	H	P	I	K	P	G	S	I	A	G	C	T	Y	C	H	P	Q	V		
UniRef90_UPI00046AC838	L	A	H	K	A	S	H	E	G	K	L	A	A	E	I	I	A	G	G	E	K	M	K	N	F	D	A	R	A	I	P	S	V	A	Y	T	D	P	E	I	
UniRef90_UPI0003F704F7	F	T	H	V	A	S	G	Y	E	A	V	V	L	T	N	A	L	F	F	P	I	S	K	V	N	Y	R	V	I	P	W	A	T	F	T	D	P	E	I		
UniRef90_L0DZB2	L	A	H	K	A	T	H	E	G	K	V	A	A	E	V	I	A	G	H	N	K	V	H	F	D	A	R	A	I	P	S	V	A	Y	T	H	P	E	I		
Uni																																									

	370	380	390	400
UniRef90_A4XRA5	A S V G K G E E L	K A E G R A Y K V G K F P F T A S N S R A K L N H E T E G		
UniRef90_U0B4X0	A W A G V T E E T D A R A	K T Q Q S R V D I Y R K A Y K T F F W A R P L K A I L A N G R D T E E R V		
UniRef90_NP100046776C1	G T V G L T E E T K Q A R E L H G D E V K I Y Q T F F V A P M I D A F S V N P A K T			
UniRef90_E6QSJ6	A G V G K T E E R E L L T E K A D G I P Y K V G K F P F V A L G R A V A A T N D T T G			
UniRef90_I2JJN8	S S F G P N E R E L L T E K A D G I P Y K V G K F P F F K D T A G R A Q I T N D T T V G			
UniRef90_H0IYY2	A W T G K T E E K E L L T E K A E G D S Y E K G V F P F W A S M Y S A V L T Q G R S E G			
UniRef90_A1AXL4	G T V G L T E E P E A R M K A Y G D D G E V K V Y Q A F T F T S A M Y S A V L T Q G R S E G			
UniRef90_B1Z4B6	A S F G L T E E Q A A I S K A Y G E E N V K I V T Y T S F T P M Y H A I L T R R K L K C			
UniRef90_F1YJ26	G T V G L T E E D Q A I S K A Y G E E N V K I V T Y T S F T P M Y H A I L T R R K L K C			
UniRef90_UPI000328EA0D	A S A G L S E E D D A K K E G R K I V E T A K S F P F W A S M Y S A V L T Q G R S E G			
UniRef90_S9SR15	A W V G Y T E E D A K K E G R K I V E T A K S F P F W A S M Y S A V L T Q G R S E G			
UniRef90_H0Q1G7	G T V G L S E E D Q A R E Q Y E N I E V V K V S K F P F A A N G K A W G L G D G T G			
UniRef90_Q2BMY7	G S F G Y S E E D Q A R E K G Y S F K V S R L P A T A V A R A R T L Q K V D G			
UniRef90_GDGMXW3	A H V G L T E E E E A I K K G Y S F K V S R L P A T A V A R A R T L Q K V D G			
UniRef90_R5JL08	G T V G L S E E E E A L E R A N G D I T G K F A F G A L G R A I L A I D H T D G			
UniRef90_A1HVBV5	S T V G L S E E E E A L E R A N G D I T G K F A F G A L G R A I L A I D H T D G			
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UniRef90_I2JJN8	M	V	K	M	L	A	E	D	T	D	R	I	L	I	G	G	C	H	I	V	G	A	S	A	A	S	E	L	V	Q	Q	F	V	I	A	M	E	F	G	S	A	
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UniRef90_Q2BMY7	F	M	K	M	L	V	D	A	D	S	R	K	V	L	G	V	H	M	V	G	D	V	A	G	E	L	L	Q	Q	G	I	G	I	A	L	K	K	A	G	A	T	K
UniRef90_GDGMXW3	F	V	K	I	V	A	D	A	R	H	G	E	L	I	G	A	S	L	V	L	G	H	D	V	A	S	E	L	L	P	E	L	T	L	A	Q	L	W	D	L	T	A
UniRef90_R5JL08	M	L	K	A	I	V	D	A	H	T	G	K	I	M	G	C	T	L	F	C	A	D	A	S	E	M	I	N	I	V	N	V	A	M	K	S	G	Q	H	Y		
UniRef90_A1HBBV5	F	V	K	V	I	A	D	R	A	S	K	L	I	L	G	V	T	S	V	G	P	D	A	A	D	L	I	A	E	A	T	L	A	I	E	M	G	A	T	K		
UniRef90_B4FWU6	I	M	K	L	V	V	D	A	D	T	D	K	V	L	G	A	S	M	C	G	P	D	A	P	E	I	I	Q	G	I	A	I	A	V	K	C	M	G	A	T	K	
UniRef90_P0A0E5	V	Y	K	L	V	V	N	A	Q	T	Q	K	V	L	I	G	A	H	I	V	S	E	N	A	G	D	M	I	Y	A	A	T	L	A	V	Q	F	G	L	T</		



				450		460
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UniRef90_H0IYY2	K	Y	F	V	N	T
UniRef90_A1AXL4	D	D	I	A	L	T
UniRef90_B1Z4B6	R	D	F	D	N	T
UniRef90_F1YJ26	R	E	L	A	R	N
UniRef90_UPI000328EA0D	A	D	F	D	N	T
UniRef90_S9SRI5	E	D	I	A	L	T
UniRef90_H0Q1G7	V	D	I	G	K	T
UniRef90_Q2BMY7	E	V	F	D	S	T
UniRef90_G0DXW3	E	E	I	G	R	N
UniRef90_R5JL08	S	F	L	R	D	F
UniRef90_A7HBV5	E	D	V	A	L	T
UniRef90_B4FWU6	A	D	F	D	S	T
UniRef90_P0A0E5	E	D	L	T	D	S
UniRef90_R5I2Y2	S	D	L	I	H	S
UniRef90_UPI00030CD2C9	D	D	F	D	R	T
UniRef90_A6FRD7	E	D	L	M	H	A
UniRef90_K9ET44	E	D	I	T	L	T
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UniRef90_S9UV45	E	D	V	G	R	T
UniRef90_H1Q0U8	E	Q	M	R	E	I
UniRef90_F0SMC6	R	D	L	A	E	S
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UniRef90_I9IZM1	T	F	L	R	D	F
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UniRef90_I0I9M2	A	E	I	A	R	N
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UniRef90_C6XJS8	A	E	I	M	E	T
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UniRef90_D8K0R0	M K H Y D V I V I	G S G A G L D V L D N A V E L G L K A A V D R G P V G G T			
UniRef90_UPI0003715093	D Y D L F V I	G G G S G G V R A G R L A A A M G K K V A I A E E F R Y G G T			
UniRef90_S9S1E7	D Y D L F V I	G G G S G G V R A A R V A A A G A K V A L A E E S R L G G T			
UniRef90_V5FN09	S H F D V I V I	G S G P G G E G A A M G L T K A G F N V A I I E K E K S V I G G			
UniRef90_UPI0000E0E436	M H T F D Y I C I	G G G S G G I A S A N R A A K H G K N V A L I E A K A I G G T			
UniRef90_A4G5Y9			A A I R A A Q L G F S V A C I D E W K N A K G		
UniRef90_A6X3R4	Y D L V V I	G A G S A G F S A S I T A A D Q G A Q V A L I G S G T I G G T			
UniRef90_K6D528	E Y D L V I L	G G G T G G Y V A A I R A A Q L G L K T A I V E K G K L G G T			
UniRef90_UPI00041E4E15	E K Y D L V I L	G A G T G G Y V A A I R A A Q L G M T T A V V E K S S L G G T			
UniRef90_F6HE11			A I K A A Q L G L K T T C I E K R G T G G T		
UniRef90_D6TBP4	H Y D V I V I	G T S Q G G R F L P I E F A R A G R K V A L I E R D H M G G V			
UniRef90_B5JTA0			A T A N R A A Q R G A K V A V V E A N R L G G T		
UniRef90_J3CE61	D Y D L F V I	G G G S G G V R A G R L A G A M G K K V G L A E E Y R M G G T			
UniRef90_H2Y7X3	Q D A D L V V I	G S G P G G Y V A A I K A A Q L G K T V V C V E K E S T G G T			
UniRef90_A8F3Z6	Y D A V V I	G A G P G G Y V A A I K L A Q R G K K V A V V E K S F V G G T			
UniRef90_S7U1U7	K Q Y D L V V V	G S G P G G Y V A A V R A V Q L G F K V A V V E K A A R L G G			
UniRef90_Q9NL96			R R A K M Y G A K C A V I E K N N R I G G T		
UniRef90_I0XX59	E N Y D L T V I	G G G P G G Y V A A I R A A Q L G L N V C L V E K E K L G G V			
UniRef90_UPI00047B2699	K E Y D L V I V	G A G T G G Y V A A I R A S Q L G L S V A V V E K D K L G G T			
UniRef90_U5EQ42	E Y D L V V I	G G G S G G L A C A K E A C Q F G A K V A V L D Y W G L G G T			
UniRef90_G2P4J5	A H F D V V V L	G A G P G G Y V A A I R A A Q L G L T T A V V E E R Y W G G V			
UniRef90_G8RWU9	E K F D A I I V	G A G Q A G P S L A G R L T E A G Q K V A V I E R K L V G G T			
UniRef90_C1F334	E S F D A I V V	G A G Q A G P S L A R R L A A G R T V A V V E R H L F G G T			
UniRef90_E1VKE3			G G G S G G V R C A R M A A R L G V R V A C I E S R F W G G T		
UniRef90_Q7URE6	D F D L F V I	G T G P G G E G A A M Q A A K G G L R V V A E R Y R Q I G G G			
UniRef90_A0A010ZJ89	D L L I I	G A G P G G Y V A A I Y A A K S G L K V T L V E Q S A L G G T			
UniRef90_W6W1A7	M K T F D A I I I	G A G Q A G P S L A S R F N D A G K T V A I I E R K H V G G T			
UniRef90_D1AVB0	Y D V V V I	G G G P A G Y V A A I K A S Q L G G K V A L V E K S E L G G T			
UniRef90_K0CH36	E K Y D V I V I	G G G P G G Y V A A I R A A Q L G Y K T A C I E K R I N K Q G			
UniRef90_F9U7Y3	E F D S I V I	G T G P A G E G A A M K L A K A G Q R V A V I E A H N V G G			
UniRef90_B2B031					
UniRef90_A5FT27	Y D I A I V	G A G P A G L E A A E Y A A R L G F S V A L I E R N R L G G N			
UniRef90_A8NNP4			A A I K A A Q M G L R T A C V E K R G A G G T		
UniRef90_UPI0002490023	M K H Y D N I I I	G F G K A G K T L A A T L A S H H E E V L I I E K D A M M Y G			
UniRef90_D2KCA6			A A I K A A Q L G F K T A C I E K R G A G G T		
UniRef90_H0ZDH0	E Y D L L V I	G G G S G G L A C A K E A A Q F G R K V A V L D Y W G L G G T			
UniRef90_K1PU86	D Y D L I V I	G G G S G G L A A S K E A A G L G K K V A V F D F V K P T P I			
UniRef90_G8BGG8			A A I K A A Q L G L D T A C I E K R G A G G T		
UniRef90_D4YLH5	S F D V I V I	G A G P G G Y V A A G R A A Q L G L R T A V I E R A E L G G I			
UniRef90_D3DIL1	F D L V I V	G A G S G G Y E A G L E Y A H R R G M K V A V L V E S V G G N			
UniRef90_B8ETF1	A R F D A I V I	G A G Q A G P P L A E R M T K A G M K V A V I E R S R F G G T			
UniRef90_C5BB26	K H Y D Y L A I	G G G S G G I A S I N R A A M Y G R K C A L I E A K A L G G T			
UniRef90_F8F203	D Y D I L F I	G A G P A G Y V A A I R A S Q L G L K T A V V E R D K L G G V			
UniRef90_U2ZG82	Q Y D V V I	G G G P G G Y N A A I R A G Q L G L K V A C V E M R D T G G T			
UniRef90_B3MB57	D Y D L V V L	G G G S A G L A C A K E A V D C G A R V L C F D Y W G L G G T			
UniRef90_N1W712	H F Q V I V I	G G G P G G Y V A A I R A A Q L G L Q T C V V E R E K L G G V			
UniRef90_UPI0002FF37BB	K Q Y D L V V L	G G G T A G Y V A A I R A S Q L G K K V A I V E K S L L G G T			
UniRef90_E3B835	H F D V V V L	G A G P G G Y V A A I R A S Q L G L S A A V I E Q K Y W G G V			
UniRef90_W7U9J4			A A I K G A Q L G M K T A C V E V R G A G G T		
UniRef90_A5IK31	Y D A V I I	G G G P G G Y V C A I K L V Q L G K K V A L V E K D A L G G T			
UniRef90_D9VB06			G A G V G G Y V A A I R A S Q L G L S V A V V E E K Y W G G V		
UniRef90_C7LK61	M N F Y D V V I	G S G P G G Y I S A I R A S Q L G L G F K T A I I E K Y N S F G G			
UniRef90_C5EJ38	M N Q Y D A V I I	G F G K G G K T M A G T L G A A G R K V A L I E R S M M Y G			
UniRef90_L0F8S5			Y V C A L R A A Q L G L S V L I I E E G R L G G T		

[illegible]



[illegible]

	130	140	150	160
UniRef90_B9Y9W1	V R V Q M K E G E E A R R E I	N T G A K P F V P D I P G L N Q S Q R V Y L S		
UniRef90_UPI00045EBC67	V R I L D P S P E E E V A K H F I L L	N T G A T H P A L L P G P Q I P G C G E L A T S S		
UniRef90_K9E263	I K V T D T S P E K N E A K P F I F I	N T G S K S A P F N G H A I L K N R Y I V T S S		
UniRef90_I3X754	I S I D I G K Q V T A K S I V I	A T G S K S A P F N G H A I L K N R Y I V T S S		
UniRef90_O86924	V R I A G G Q D V T S R M I L V	A T G A R A L L P S F D G A E H G I S T S		
UniRef90_UPI0003B423A5	D R P D G T T R H V T A R K I V I	A T G G R A A T P P I D G L D N V D Y I T S N		
UniRef90_U1KQN5	V E V N G E H Y S A D T H I C	A V G G R P S V P N I P G A E H G I T S		
UniRef90_W2ET48	V E T D G D R I T V T A D T I L I	N T G A E P I V P A I P G L R A S P R T L T S		
UniRef90_L0IX96	V E I D G G T R Q V T A V I L I	D T G T R P K P P A I P G A G D V P V I T S		
UniRef90_K1R2N1	V E V G G N L Y E A D K I L I	A T G G H P V I P D T P G A E H G I T S		
UniRef90_I0DUT7	V S V R Y S D G S Y C D A D N I V I	A T G S R P Y C P S D V D F N H S R I Y N S		
UniRef90_U2CMD5	V L V T T G K E E I T A K N I L I	A A G A K T A V P P I P G I D L G S V E D S		
UniRef90_UPI00036DEBB4	V L V T T G S T Q Q L T A K N I L I	A T G S K P S T L P F V T L D K E R I T S		
UniRef90_J9G149	Y H V K C G E A V Y E C D H L L L	A T G S D T F I P I P G V D S V P Y W T H		
UniRef90_Q6SFY9	I S V T T P N G Q K T F E Y C V I	A A G S S V A H P P G I I Q N D P R I T S		
UniRef90_A5GBJ1	D A V E V S D R V I Y G D K F I L I	A T G G F P R T I A I P G L D E T P Y T S		
UniRef90_I9SF65	V R C G E E T Y E C E N L I L	A T G S E T F I P I A G I D T V N Y W T H		
UniRef90_R4YTR1	S P E S T N H V R L H A D Q I V I	A T G S S P W R P D N I D F N H E R V Y D S		
UniRef90_K5ZLE9	I E V K A G N E T L E G E K I F I	N T G A S T I I P S I K G L E G N P Y V T S		
UniRef90_K5WHB0	V E I A G S D G N K I T K Y I C V	A T G G R P T V P S D E Q I P G A S L G V I D S		
UniRef90_J5KJH3	V L I T N E E E I V E T K N V I I	A T G S S P I E I P S A K F G N K L I V D S		
UniRef90_UPI00037621A4	Y T L E I G D R V T A N K I L I	A V G G R A V K P N L P G I E N A I T T		
UniRef90_V7EFV0	V E V A E G P G V Y A A P H V I L	A T G A S P R S L P G L E P D G R L V W T Y		
UniRef90_G4RF48	I K L S T G E E L E A K R I L I	A T G G A P F K P D I P E G S D L G I T S		
UniRef90_C7RQZ8	W Q L R V G G E M V E A K Q V I V	A T G S K A R H L P G V P V D N E I V C D N		
UniRef90_C7NAW4	V N I L S N G E N V Q G E K I F I	N T G S T T I I P G I K G L K E S N H V I T S		
UniRef90_UPI0003FBDBD3	F S P M P E N T M L V P K N V L I	A T G S T P K T L P G L D I D H K T V L N S D		
UniRef90_D1BFX1	T V I E V D G R Y T G R H V I V I	A T G S Y S R S L P G L E I G G R V L T S		
UniRef90_UPI000378AB06	L E V F L M D G R I N A E Y T V I	S A G S R P A L F G Q P I D S P D I M N S		
UniRef90_F8L2M6	I K I T G Q D N E I Y A D K T I I	A T G S E P R S I P A F P F D Y K K I H D S		
UniRef90_F4LW57	I L I S D K T E Q M T A D N I L I	A A G S V P T I L P I P G H D F Q N V I T S D		
UniRef90_D8QML3	V H S D G S S K R Y R A K H I L V	A T G S R A V R L N V P G K E L A T S		
UniRef90_C7QD41	V Q V S T N N Q N V T G S N V V L	A T G S V P K S L P G L E I D G N R V I S S D		
UniRef90_A1SR77	V L I T K D D E T I T A K D I I L	A T G S R P Y R P A D I D F T A A N I Y D S		
UniRef90_UPI00037876F4	A P K V I K D T T F T G K H V I L	A T G A R A R I P A G A G L E D G K F I W T Y		
UniRef90_A6VW16	N T Y E K G P E L L E A K K V V I	A T G S R P Y R P A N I D F S H P R I Y C S D		
UniRef90_W0T8K0	V Q V D N S V E T Y T A E H I L I	A T G G K P V F P S K V P G Y E Y G I S S		
UniRef90_G5IFK4	V T V T P N K G H L E A A S I L I	A T G S T P A A P P I P G S S L E G V A D S D		
UniRef90_D8K0R0	T L R V G S T E I K A E K I F I	A A G T R P A V P P I Q G L N N V D Y I T N		
UniRef90_UPI0003715093	I R L I A T G K T V T A E R I V I	A V G G H P T P H E A L P G H E L C I T S		
UniRef90_S9S1E7	V K L T S N G T K I T A K H L I L	A T G G R P M K P S E N F D E S L G M V S		
UniRef90_V5FN09	V K V T G R T E H Y S A D R F V I	A T G S R P Y H P D S V D F N H Q R I Y D S		
UniRef90_UPI0000E0E436	L E V N G E Q Y S A P H I S I	A T G G Y P I I P E I E G G D L G I T S		
UniRef90_A4G5Y9	K V A G A G E E T I A T K H V I V	A T G S T P R V L P G A D F D E K M I L S N		
UniRef90_A6X3R4	G V E V D G A R I A A G K I I I	A T G A R P A V P A I P G L E T V P Y L T S		
UniRef90_K6D528	F S P T P E N M L I P K N V I	A T G S R P R S L P G L E I D G E T Y M T S		
UniRef90_UPI00041E4E15	Y E D E R E N D M L I P A N V I I	A T G S K P K T L P G L E L D K E T Q V L S S N		
UniRef90_F6HE11	V S V D T I E G G N K G K N I I	A T G S D V K S L P G I T I D E K R I V S S		
UniRef90_D6TBP4	S L Q D G G T R E I T A P L I V I	D T G A R P E P L T I K G A E R V P V L N S		
UniRef90_B5TJA0	I E V E S D R E Q Y S A D R F V I	A T G G Q P V W P E L P G A E H G I T S		
UniRef90_J3CE61	I E I L K T G K R V T A D Q L L V	A V G G H P N P H A A L P G Y E L C I S S		
UniRef90_H2Y7X3	V V A K K A D G G E E T I N Y I L	I A T G S E V T P F P G I E I D E T I I S S		
UniRef90_A8F326	S V V K T S D K K L E T H N I L I	A T G S V P T L I P P F D Q Q I P G I W T S		
UniRef90_S7U1U7	V A V T V D D G S P K A K N I L L	A T G S E T V S		

UniRef90_B9Y9W1	E	S	L	M	E	L	Q	T	L	P	R	R	L	V	I	L	G	G	G	Y	I	G	L	E	F	A	S	M	F	A	N	F	G	S	Q	V	T	I	L	Q					
UniRef90_UPI00045EBC67	N	E	A	F	N	D	R	S	F	P	R	R	L	L	I	Q	G	G	G	Y	I	G	A	V	E	F	A	G	L	F	A	R	A	G	F	G	S	K	V	T	I	L	V	E	
UniRef90_K9E263	E	T	L	L	H	A	D	I	L	P	R	R	L	L	I	I	G	G	G	Y	I	G	A	V	E	F	F	A	T	M	Y	A	R	A	G	F	G	S	K	V	T	I	L	V	E
UniRef90_I3X754	T	G	A	L	S	F	S	K	V	P	R	H	L	A	V	I	G	G	G	Y	I	G	A	V	E	L	G	S	V	W	R	R	L	G	S	K	V	T	I	L	V	E			
UniRef90_O86924	N	E	A	F	H	L	D	D	V	P	R	H	L	A	V	I	G	G	G	Y	I	G	A	V	E	F	A	G	L	F	A	R	A	G	F	G	S	K	V	T	I	L	V	E	
UniRef90_UPI0003B423A5	E	N	L	F	D	L	D	E	Q	P	R	H	L	A	V	I	G	G	G	Y	I	G	A	V	E	F	M	A	Q	A	F	A	R	L	G	S	K	V	T	I	L	V	E		
UniRef90_U1KQN5	N	G	F	F	E	L	N	E	Q	P	R	S	V	A	V	I	G	G	G	Y	I	G	A	V	E	L	A	G	V	L	H	G	L	G	S	K	V	T	I	L	V	E			
UniRef90_W2ET48	T	D	L	I	R	T	T	A	L	P	R	D	R	L	A	V	I	G	G	G	Y	I	G	A	V	E	F	F	A	S	L	Y	R	R	F	G	S	K	V	T	I	L	V	E	
UniRef90_L0IX96	T	S	L	M	E	L	D	E	L	P	E	H	L	I	I	L	G	G	G	Y	I	G	A	V	E	F	F	G	Q	M	F	R	R	F	G	S	K	V	T	I	L	V	E		
UniRef90_K1R2N1	D	G	F	F	D	L	E	T	P	K	R	K	V	V	V	V	G	G	G	Y	I	G	A	V	E	L	A	G	I	L	F	R	G	S	L	G	A	K	T	S	I	L	V	E	
UniRef90_I0DUT7	D	T	I	L	N	L	T	H	E	P	R	K	R	V	I	I	Y	G	G	G	Y	I	G	A	V	E	L	A	G	I	L	F	R	G	S	L	G	A	K	T	S	I	L	V	E
UniRef90_U2CMD5	T	G	L	L	A	R	Q	E	P	Y	D	S	L	I	I	I	G	G	G	Y	I	G	A	V	E	F	F	A	S	F	Y	S	D	L	G	S	K	V	T	I	L	V	E		
UniRef90_UPI00036DEBB4	T	E	A	L	T	L	R	T	L	P	K	S	H	L	I	I	G	G	G	Y	I	G	A	V	E	L	G	S	V	Y	A	R	L	G	S	K	V	T	I	L	V	E			
UniRef90_J9G149	R	D	A	L	N	S	K	E	L	P	K	S	L	V	I	I	G	G	G	Y	I	G	A	V	E	F	F	A	S	F	F	N	S	F	G	V	Q	V	T	I	L	V	E		
UniRef90_Q6SFY9	T	G	A	L	E	L	E	D	L	P	K	S	M	L	I	I	G	G	G	Y	I	G	A	V	E	L	M	A	T	I	Y	D	A	F	G	S	K	V	T	I	L	V	E		
UniRef90_A5GBJ1	R	S	A	L	L	M	K	S	L	P	E	S	L	V	I	I	G	G	G	Y	I	G	A	V	E	L	F	A	G	Q	M	F	L	R	L	G	S	K	V	T	I	L	V	E	
UniRef90_I9SF65	R	D	A	L	D	N	K	E	L	P	A	S	L	A	V	I	G	G	G	Y	I	G	A	V	E	L	M	F	A	S	F	F	N	S	L	G	V	K	V	T	I	L	V	E	
UniRef90_R4YTR1	D	T	I	L	S	L	E	H</																																					



[illegible]

		250	260	270	280
UniRef90_B9Y9W1	A A E T V L S L K Q N E T E A E		L R C D A L L V A T G R R P Q L D N		
UniRef90_UPI00045EBC67	S G G K K V V L S D G S E		L E V D E V M L A T G R R P S T R N		
UniRef90_K9E263	A D G I T A A Y T D A	S D G T P Y F	L E S G D A L L V A T G R R P M T D S		
UniRef90_I3X754	E N G V T L S I A G A	E G K R T	L S A S A V L I A T G R R P N T D G		
UniRef90_O86924	A D G S L S V	Q L A G E D A F S V D C	L M F A T G R R V P N S S D		
UniRef90_UPI0003B423A5	E A P G T V Q V T A	L K D D T V H T	L T A D A L L V A A G R R P T I E T		
UniRef90_U1KQN5	A D G S V T L H L E N G E S H		N V E Q L I W A I G R E P V T D L		
UniRef90_W2ET48	A S G A T V V Y E	K D G R R Q T I E A D A I L A A A G R A	P A T R G		
UniRef90_L0IX96	D G D R V R L T V D	T E D G E R Q V E	G S H L L S A I G R R P N T D A		
UniRef90_K1R2N1	D G D T L T L E L N N G Q I S K		V D C L L W A V G R R P N T A S		
UniRef90_I0DUT7	P D G V I V H L K S G K K		V K A D C L L Y A N G R T G N T D K		
UniRef90_U2CMD5	E E G G F V C Y Y E	E K G Q A F S A S A K G L L A A V G R R A D G E S			
UniRef90_UPI00036DEBB4	G D K V S L V A Q G G P	S A E L Q L E G D Y C L	V S V G R R P Y T D G		
UniRef90_J9G149	D G N R V Q V N Y E A	L D G T M G S V E A E K L L M S V G R R P V T K G			
UniRef90_Q6SFY9	K D G L E V T F E G	E E S P G T Q T Y D R I L V A V G R R P N T H A			
UniRef90_A5GBJ1	G E T T V V E A E V I G R R E E	F A A E K L L A V A V G T A P A S A G			
UniRef90_I9SF65	E T E A V V S Y E N A	E G S G S V I A E K L L M S V G R R P V T K G			
UniRef90_R4YTR1	D K F V T L K M K S G K K	V K A D A F L W A A G R S G N T K E			
UniRef90_K5ZLE9	D A G A V I T Y K E	K E G N E V Q L P A D A V L A T G R R P N T T D			
UniRef90_K5WHB0	K G G P L T V H T D H	G D K L E V D C L L W A I G R H A N T E G			
UniRef90_J5KJH3	K K G V E V T F L K N D E D V S E	S F D K L I V A V G R K P N S E G			
UniRef90_UPI00037621A4	Q G C I K I S V S S	E A V D E I S T T T V A W I E N R T P N L D G			
UniRef90_V7EFV0	A D S L T A H L S D G T	V L A A D R L L S A A G V V P N V S G			
UniRef90_G4RF48	G E G V C V S F S H G E E A	T F D K V M F A T G R H P N T S D			
UniRef90_C7RQZ8	Q K G V S I D Y T D	K D G S A Q K L D A D R L I V S I G R I P N T D G			
UniRef90_C7NAW4	N G K G Y V Q I S Q G A S K S E	I E S D A L L V A I G R K P N T E G			
UniRef90_UPI0003FBDBD3	D T L L K E D G V Q I E A E I	N E K H Q R F H A E K M L V S V G R K A N T N N			
UniRef90_D1BFX1	D S G V H V T L E S G K T	F D A E I M L V A V G R G P N T A D			
UniRef90_UPI000378AB06	K K G I A V E L E G A	E I K K P Q Q I F D K V L V S V G R K P N S S G			
UniRef90_F8L2M6	E A G I S V N L A G D K T	I T A D I A L V A V G R Q L N T T A			
UniRef90_F4LW57	E N T L Q T F F E T K	E G I K F I D S E K V L I A V G R T P N T A A			
UniRef90_D8QML3	G G E L K V S I D N G G E I M T D A	V L F A V G R K P K T S G			
UniRef90_C7QD41	E N G V R A S I A N G K T	V E A D L M L V A V G R G P N T S A G			
UniRef90_A1SR77	E E G V V I H L K S G K K M	K A D C L L Y A N G R T G N T D K			
UniRef90_UPI00037876F4	A S T I K A H V K D A	K G K A Q A I E V E K V I L A I G I T G N V I E N			
UniRef90_A6VW16	E R G V V M H M A S G K K	L R A D A L L F C N G R S G N T D N			
UniRef90_W0T8K0	E K T G K L T I F L D T G K	N I T D V D S L I W T I G R S M L G			
UniRef90_G5IFK4	S D G S L L C R Y E E K G G E K E A A G E R V	L I A T G R R P N T A N			
UniRef90_D8K0R0	G D Q L G F I V N Y E R A G G S G A D S	V R A Q K L L V A T G R I P N T D L			
UniRef90_UPI0003715093	G D G R L A A E T M K H G	T L T V D Q V M L A L G R V P N T R G			
UniRef90_S9S1E7	D G G V W V	K G S H G S E A V Y D K V L F A T G R L P N T D G			
UniRef90_V5FN09	D D G V I V H L E S G K K M R	A D C L L Y A N G R T G N T D T			
UniRef90_UPI0000E0E436	N D N S L L V S L S N	G D N I E T D L I W A I G R A P A N D N			
UniRef90_A4G5Y9	K N E V T V N Y V D D K G A A Q K A	V F D K L I V S I G R I P N T V G			
UniRef90_A6X3R4	E G R A S L T V T R	D G H D V Q I D A D Q V L I T T G R T P N T I E G			
UniRef90_K6D528	V K E N G V T I A A E I K G E Q K T	F S A D T M L V S V G R Q A N V I E D			
UniRef90_UPI00041E4E15	K E E N R V S I S F R S T G G E D V	I T S E K L L V S V G R E A N I H Q			
UniRef90_F6HE11	G D L V K L T L E P A A G G E Q S T	L E A D V V L V S A G R S P F T A G			
UniRef90_D6TBP4	G E G R M Q L	T V H T P Q G E Q Q L I G S H L L A A T G R V P N T E A			
UniRef90_B5JTA0	S D G T L A V T F K D G G T L D G V D S	L I W A I G R R A N T A D			
UniRef90_J3CE61	P N G R L D V H L S S	G D E L P A D Q V M L A I G R V P N T K M			
UniRef90_H2Y7X3	S S G I Q V N V E S A K G G K E E T	L E C D V L L V C I G R R P F T S N			
UniRef90_A8F3Z6	S D A F K C I I E T K Q G T V E K I	V Q K V L V S V G R K P N I P K			
UniRef90_S7U1U7	N G T V K V A V E G K D G A S T	L E C D R V L V A V G R R P L T R G			
UniRef90_Q9NL96	A D N S I I I T S D K G E D F S G Y D T	L E C D R V L V A V G R R P L T R G			
UniRef90_I0XX59	S D G V S I L L K G E G I P P E G E R K	K F D K V L V A I G V T P N T E G			
UniRef90_UPI00047B2699	E K G D D V T I Q V I H K G E K K E	F S A Q A L L I S V G R V A N V I E G			
UniRef90_U5EQ42	A D G R L L V K Y R S D D G A E G S D	V Y D T V L F A I G R K A L T S D			
UniRef90_G2P4J5	P A V K V M V T T G	G Q R Q T L Q A A R V L Q A I G F R P R V D G			
UniRef90_G8RWU9	G S G F E V T P R D G V	Q P I A G T H L L M A V G R Q P N T D D			
UniRef90_C1F334	G K Q V A V G L T C G	E G E P R I V G S H I L L A V G R I P N T D D			
UniRef90_E1VKE3	E S G Y R V T F A P D A G V H	G V A I E A D C V I N A T G R T P N S A S			
UniRef90_Q7URE6	D D G V I L R L K S G	K V L K T D V F L W A N G R Q G N T D D			
UniRef90_A0A010ZJ89	V D C M A V I T Y E N N A G	E H L V V S E K V L V A I G R E P N L D G			
UniRef90_W6W1A7	E D G V A V	G V D C T E G A P E V I G S D V L L A V G R R P N T D D			
UniRef90_D1AVB0	D G K L T V K L E G K Q D	L I V D K A L L S I G R V P D L E G			
UniRef90_K0CH36	K N S V R V T Y T D G D G E H E E T	F D R L I V A V G R R P Y T E G			
UniRef90_F9U7Y3	E G G V V L H C K S G K K F K T D	I L L W A N G R T G N T H D			
UniRef90_B2B031	E G K L R L H Y N S S K G E G S N	D V K G D I Q A D E I L L S I G R V P N V I E K			
UniRef90_A5FT27	N G I K I L E T V N N	L D A D V V L V A V G R R P Y T D G			
UniRef90_A8NNP4	D G K V F L K A E A A K G G K E E T	L E A D V V L V A T G R R P N T A D			
UniRef90_UPI0002490023	D D G V K L T Y	Q Q G D E T K V I A A D A L L V A T G R Q P N T V A D			
UniRef90_D2KCA6	G D K V V L K V D A A K G G K E E T	L E A D V V L V A T G R R P V T K G			
UniRef90_H0ZDH0	E N D R	L Q V T W K N A D L D T E E T D S F N T V M W A V G R A P D T K T			
UniRef90_K1PU86	E D G Q P G K Y R V T G K Y D D G M E F T	D E F N T V I F A I G R D P C T S S			
UniRef90_G8BGG8	G D V V K I E V E D A K S G K K E D	I E A D V L L V A I G R T P Y T E G			
UniRef90_D4YLH5	A D G V D V	E V D G E T I T A E R V L L A V G V Q P N S A G			
UniRef90_D3DIL1	G E S L N I K L S D G S E V I V D A	V L L G V G R K P N T E G			
UniRef90_B8ETF1	G E D I L V	G V N C L A G E P E I A C S H V L L A I G R R P N T D D			
UniRef90_C5BB26	A D G S L T L M L	E N G H S Q T V D C L I W A I G R D P N T D R			
UniRef90_F8F203	D S G G L R L I I E G S P Q Q Q E K D R A I	L E G D R L L V S T G R S P N T E N			
UniRef90_U2ZG82	K D G V E L M I E P A A G Q K A E T	L K G D V V L V A T G R R P Y T A G			
UniRef90_B3MB57	S D G R L L V R F R N T T T Q T D G S D V F D T V	L W A I G R R G L I E D			
UniRef90_N1W712	D K G V E L T L Q D R N S A K K E	K L N F D K V I V G V G I S A N T S S			
UniRef90_UPI0002FF37BB	D N Q S V S I N D E T N E A T I K I N D E Q I T V E R I L L S V G R K P N T T D				
UniRef90_E3B835	G S G V K V T V S P A K G G	D S Q V L E A D K M L S A F G F K P R V I E G			
UniRef90_W7U9J4	E D G V S L S L E P A A G G A A E	N F D A E V V L V A I G R R P N T R N			
UniRef90_A5IK31	D D G F S E A L E N G E T	L K A E K V L L A A G R K P N I P E			
UniRef90_D9VB06	G A K V L V T V S	K D G E Q Q V L E A D K V L Q A I G F R P N V I E G			
UniRef90_C7LK61	K S N V K I Y A K K N	K N E K I N L I C C C L S I G R I P Y T K N			
UniRef90_C5EJ38	G N K A I V D L E G R D G L V E	L E A D A V L V A T G R R P N T E D			
UniRef90_L0F8S5	D G A L I V H V E D A K G L K E	L P A Q Q V L L A T G R K P N M R G			

		290	300	310	320																																												
UniRef90_B9Y9W1	L	H	P	E	A	G	I	A	L	T	S	R	G	A	I	A	V	D	E	Q	L	K	T	S	V	D	H	I	W	A	M	G	D	I	V	T	G	L	I	Q									
UniRef90_UPI00045EBC67	L	G	L	E	E	K	V	G	V	A	L	D	N	E	P	L	G	A	I	D	E	H	S	R	T	N	V	P	S	I	Y	A	V	G	D	I	V	T	N	G	R	I	N						
UniRef90_K9E263	L	D	L	E	E	K	A	G	V	A	L	V	N	E	P	L	G	A	I	D	E	H	S	R	T	N	V	P	S	I	Y	A	V	G	D	I	V	T	N	G	R	I	N						
UniRef90_I3X754	L	L	A	L	E	E	K	I	G	L	E	Q	T	D	H	L	R	G	A	I	P	I	G	S	K	Q	E	T	A	V	I	G	D	I	V	T	P	G	S	M	Q								
UniRef90_O86924	L	L	G	L	E	E	Q	Q	G	V	E	I	D	D	P	L	G	A	I	L	V	D	D	G	R	T	S	T	S	V	F	A	V	G	D	I	V	T	N	R	I	Q							
UniRef90_UPI0003B423A5	I	L	N	L	K	A	A	T	D	V	R	T	I	Q	R	G	F	I	I	K	V	D	D	E	F	Q	R	T	S	T	S	V	D	G	I	Y	A	L	G	D	I	V	T	M	G	G	I	E	
UniRef90_U1KQN5	L	L	G	L	E	A	A	G	I	V	R	T	I	Q	R	G	F	I	I	K	V	D	D	E	H	L	R	T	S	T	S	V	P	G	H	I	Y	A	L	G	D	I	V	T	H	G	A	P	Q
UniRef90_W2ET48	L	L	A	P	D	A	A	G	I	V	R	T	I	Q	R	G	F	I	I	K	V	D	D	E	H	L	R	T	S	T	S	V	P	G	H	I	Y	A	L	G	D	I	V	T	H	G	A	P	Q
UniRef90_L0IX96	L	L	N	L	K	A	A	T	D	V	R	T	I	Q	R	G	F	I	I	K	V	D	D	E	H	L	R	T	S	T	S	V	P	G	H	I	Y	A	L	G	D	I	V	T	H	G	A	P	Q
UniRef90_K1R2N1	L	L	N	L	K	A	A	T	D	V	R	T	I	Q	R	G	F	I	I	K	V	D	D	E	H	L	R	T	S	T	S	V	P	G	H	I	Y	A	L	G	D	I	V	T	H	G	A	P	Q
UniRef90_I0DUT7	L	L	G	L	A	N	K	Q	G	I	E	A	D	N	R	G	L	I	I	K	V	D	D	E	H	L	R	T	S	T	S	V	P	G	H	I	Y	A	L	G	D	I	V	T	H	G	A	P	Q
UniRef90_U2CMD5	V	W	S	Q	L	L	G	P	S	G	T	E	R	G	R	V	I	P	V	D	E	N	Y	R	T	R	I	V	P	G	I	Y	A	V	G	D	I	V	T	G	G	I	Q						
UniRef90_UPI00036DEBB4	L	L	N	L	E	A	A	G	I	V	R	T	I	Q	R	G	F	I	I	K	V	D	D	E	H	L	R	T	S	T	S	V	P	G	H	I	Y	A	L	G	D	I	V	T	H	G	A	P	Q
UniRef90_J9G149	F	L	G	L	E	N	L	S	L	D	V	K	N	E	R	G	N	V	I	V	N	A	Q	M	Q	T	S	E	P	T	V	Y	A	C	G	D	I	V	T	G	F	S	L						
UniRef90_Q6SFY9	I	E	A	G	N	A	G	I	V	R	T	I	Q	R	G	F	I	I	K	V	D	N	Q	L	R	T	N	V	T	P	N	I	F	G	I	G	D	I	V	T	G	E	M						
UniRef90_A5GBJ1	I	L	G	L	E	K	A	G	I	V	R	T	I	Q	R	G	F	I	I	K	V	D	N	Q	L	R	T	N	V	T	P	N	I	F	G	I	G	D	I	V	T	G	E	M					
UniRef90_I9SF65	F	L	G	L	E	N																																											



UniRef90_B9Y9W1	F	T	Y	I	S	L	D	D	S	R	I	V	R	D	A	V	L	N	S	G	P	R	T	T	A	N	R	G	A	V	P	Y	S	V	F	I	D	P	P	F	330					
UniRef90_UPI00045EBC67	L	T	P	V	A	I	R	D	D	G	R	H	A	F	A	D	T	L	F	G	N	K	E	R	T	T	V	D	R	H	S	L	V	P	T	A	V	F	T	S	D	P	E	M	340	
UniRef90_K9E263	Y	D	Y	P	V	A	I	R	D	D	F	R	I	A	D	E	T	L	F	G	N	K	E	R	T	T	V	D	R	H	S	L	V	P	T	A	V	F	T	S	D	P	E	M	350	
UniRef90_I3X754	L	T	P	V	A	I	R	D	D	G	R	H	A	F	A	D	E	T	L	F	G	N	K	E	R	T	T	V	D	R	H	S	L	V	P	T	A	V	F	T	S	D	P	E	M	360
UniRef90_O86924	L	T	P	V	A	I	R	D	D	G	R	H	A	F	A	D	E	T	L	F	G	N	K	E	R	T	T	V	D	R	H	S	L	V	P	T	A	V	F	T	S	D	P	E	M	370
UniRef90_UPI0003B423A5	F	T	H	M	S	E	H	M	A	K	V	A	A	T	N	A	L	L	K	V	P	M	T	I	D	A	A	H	V	P	S	W	V	T	Y	S	T	D	P	P	E	L	380			
UniRef90_U1KQN5	L	T	P	V	A	I	R	D	D	G	R	H	A	F	A	D	E	T	L	F	G	N	K	E	R	T	T	V	D	R	H	S	L	V	P	T	A	V	F	T	S	D	P	E	M	390
UniRef90_W2ET48	H	T	Y	L	S	L	D	D	S	R	I	V	R	D	A	V	L	N	S	G	P	R	T	T	A	N	R	G	A	V	P	Y	S	V	F	I	D	P	P	F	400					
UniRef90_L0IX96	F	T	H	S	S	Y	D	D	Y	R	I	L	H	A	N	L	I	K	H	E	K	A	S	T	A	D	R	I	V	P	Y	A	V	F	I	D	P	P	Q	L	410					
UniRef90_K1R2N1	L	T	P	V	A	I	R	D	D	G	R	H	A	F	A	D	E	T	L	F	G	N	K	E	R	T	T	V	D	R	H	S	L	V	P	T	A	V	F	T	S	D	P	E	M	420
UniRef90_I0DUT7	L	A	S	A	A	Y	D	A	Q	G	R	I	A	A	R	A	I	A	E	D	L	G	N	A	H	L	V	E	D	I	P	S	T	G	I	Y	T	I	P	E	I	430				
UniRef90_U2CMD5	L	A	H	A	A	T	A	E	G	L	I	A	L	D	H	M	E	G	R	E	P	S	I	N	D	R	R	V	I	P	S	T	G	I	Y	T	I	P	E	I	440					
UniRef90_UPI00036DEBB4	L	A	H	K	A	S	D	E	G	V	Y	V	A	E	L	I	A	G	K	D	P	E	I	N	L	L	I	P	N	V	V	Y	T	D	P	E	I	450								
UniRef90_J9G149	L	A	H	K	A	T	V	R	E	A	E	V	A	V	H	I	L	I	A	G	K	D	P	E	I	N	L	L	I	P	N	V	V	Y	T	D	P	E	I	460						
UniRef90_Q6SFY9	L	A	H	K	A	T	H	E	G	K	L	A	A	E	L	I	I	A	G	K	D	P	E	I	N	L	L	I	P	N	V	V	Y	T	D	P	E	I	470							
UniRef90_A5GBJ1	I	A	T	I	G	A	R	E	G	I	V	A	V	H	I	L	I	A	G	K	D	P	E	I	N	L	L	I	P	N	V	V	Y	T	D	P	E	I	480							
UniRef90_I9SF65	L	A	H	K	A	T	V	R	E	A	E	V	A	V	H	I	L	I	A	G	K	D	P	E	I	N	L	L	I	P	N	V	V	Y	T	D	P	E	I	490						
UniRef90_R4YTR1	L	A	S	A	A	Y	D	Q	G	R	A	A	A	A	D																															

UniRef90_B9Y9W1	S	R	V	G	L	S	E	E	A	R	Q	A	G	Y	A	V	V	D	I	A	R	I	P	A	A	I	P	K	A	Q	V	L	R	K	T	D	G				
UniRef90_UPI00045EBC67	G	H	V	G	L	T	E	E	E	A	R	A	A	G	R	P	V	K	I	V	S	R	T	P	A	A	I	P	K	A	Q	V	L	R	K	T	D	G			
UniRef90_K9E263	A	T	V	G	L	T	E	E	E	A	I	K	Q	G	Y	P	V	I	K	V	S	R	T	P	A	A	I	P	K	A	Q	V	L	R	K	T	D	G			
UniRef90_I3X754	A	S	V	G	R	T	E	Q	E	L	R	E	A	G	V	S	F	T	K	A	V	F	P	M	S	A	N	S	R	T	K	A	N	R	E	P	E	G			
UniRef90_O86924	A	F	V	G	L	T	E	Q	Q	A	R	D	Q	V	G	E	V	K	I	Y	T	S	D	F	A	P	M	K	N	V	L	R	K	R	E	A	G				
UniRef90_UPI0003B423A5	A	H	V	G	A	T	E	E	A	L	Q	D	D	G	T	A	Y	T	T	Y	T	S	D	F	Y	A	K	V	D	R	A	I	T	D	G	D	T	L	G		
UniRef90_U1KQN5	G	T	I	G	L	T	E	P	E	A	I	A	A	Q	Y	G	E	D	Q	V	K	V	S	S	F	A	A	M	Y	T	A	V	T	A	H	R	Q	P	C		
UniRef90_W2ET48	A	A	V	G	L	T	E	E	A	R	R	A	A	Q	Y	R	R	V	R	I	A	C	E	R	V	D	I	T	A	M	P	T	A	Y	I	V	E	D	T	R	G
UniRef90_L0IX96	G	R	A	G	M	T	E	E	E	A	T	A	A	Q	G	R	R	V	R	I	A	C	E	R	V	D	I	T	A	M	P	T	A	Y	I	V	E	D	T	R	G
UniRef90_K1R2N1	G	T	V	G	L	T	E	E	E	A	K	A	K	Y	G	A	D	K	I	V	N	S	T	F	T	P	M	Y	A	V	T	S	R	K	E	C	K	C			
UniRef90_I0DUT7	S	S	V	G	K	T	E	Q	E	L	T	A	M	K	I	P	Y	E	V	G	R	A	Q	F	K	H	L	A	Y	A	Q	I	A	G	M	N	V	G			
UniRef90_U2CMD5	A	C	A	G	L	T	C	E	E	A	A	K	A	S	G	V	P	V	K	T	A	K	Y	I	M	S	L	N	G	K	S	V	L	S	G	Q	E	R	G		
UniRef90_UPI00036DEBB4	A	G	V	G	Y	T	E	S	Q	L	K	E	K	Q	G	L	A	Y	K	V	G	S	F	S	S	A	S	G	R	A	V	A	G	G	E	T	E	G			
UniRef90_J9G149	A	G	V	G	E	T	E	S	L	Q	K	K	K	G	L	A	Y	R	V	S	K	L	P	S	M	A	F	S	G	R	F	V	A	E	N	E	G	V	N		
UniRef90_Q6SFY9	A	W	M	G	L	T	E	I	E	A	K	N	Q	G	I	D	Y	E	K	A	S	F	P	W	A	A	S	G	R	A	I	A	M	G	R	D	E	G			
UniRef90_A5GBJ1	A	T	V	G	Y	S	E	G	A	K	K	A	G	F	S	V	V	V	N	T	M	P	V	A	A	I	P	K	A	H	V	I	G	Q	T	R	N				
UniRef90_I9SF65	A	G	V	G	H	T	E	E	S	L	L	A	K	G	I	F	H	H	L	V	V	K	L	P	M	A	S	G	R	F	V	A	E	N	E	G	V	N			
UniRef90_R4YTR1	S	S	V	G	K	N	E	R	E	S	L	T	E	A	K	V	P	Y	E	V	G	Q	A	F	F	K	N	I	A	R	A	Q	I	T	D	E	G	V	G		
UniRef90_K5ZLE9	S	R	I	G	M	G	E	E	A	L	R	S	G	R	K	I	S	I	A	R	I	P	A	A	A	F	P	T	R	T	F	E	E	Q	T	D	G				
UniRef90_K5WHB0	G	T	V	G																																					

	410	420	430	440
UniRef90_B9Y9W1	L L K A V I	D A K T D R Q I L	G A H F F C E E S H E M I	N L I K L A M D A N L P Y
UniRef90_UPI00045EBC67	F M K L I V	D G E T D R K I L	G V H S L F G E A A P E M I	N L I A A V M K S K A T K
UniRef90_K9E263	M L K A I V	N T D T E K I L	G C H S L F G E A A P E M I	N L I A A V M K S K A T K
UniRef90_I3X754	F V K I L A	D R E T D V V L	G A H I L S E T D A G T E M I	A Q V I A Q A M F G A T S
UniRef90_O86924	L Y K M I L	C D A D T D R I L	G L H M I S E T D A G T E M I	Q A E A I A V K A G V S K
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UniRef90_U1KQN5	K M K L V C V G	P E E K V V L	G L H G I S V D A G E E M I	Q G F A V A M R M G A T K
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UniRef90_I0DUT7	S L K I L F H R	E T D T L Q I V	G I H C F G E R A A A T D M I	H I G Q A I M E Q G N T
UniRef90_U2CMD5	F I R L V A R E	D N E K I V L	G A Q L M C A R A T D M I	G E L A L A I S R G I T A
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UniRef90_J9G149	G V C K L L	L G E D D T V L	G A H V L G N P A S E E I	V A A G M A I E M K L K T
UniRef90_Q6SFY9	M T K L L F D K	N T R R L L	G A G I V G I N A G E E I	S E T V F A L E M G L T D M
UniRef90_A5GBJ1	A I K M V A D S	G S G R L L	G V H L S C H R A S E E I	N E A A M A V R F K L T V
UniRef90_I9SF65	G M C K L L	I G E D K T L	G A H V L G N P A S E E I	T L A G M A V E L K L T T
UniRef90_R4YTR1	M L K I L F H R	E T D T L Q I L	G V H C F G D Q A A E E I V	H I G Q A I M S Q G N T L
UniRef90_K5ZLE9	L L K A I V D T	E G E I L	G C T L F C A E S E E I V	N T V S L A I R A M G K D Y
UniRef90_K5WHB0	P H K V V V A G	P E E K V V L	G I H T I L G L S D E E I V	Q G F A V A V K M G A T K
UniRef90_J5KJH3	F V K V I S D K	K T D T I L	G V H V F G P S A A E E I V	Q Q A L I S M E F G A S S
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UniRef90_V7EFV0	L V K C L F	D A A T D R I V	G A Q V I G A E A S E E I	H G L I T I A V S L G A T S
UniRef90_G4RF48	M L K L V T E T	D T G R I L	G C H I L G P A G A S E M I	Q L I A I P L G M G G T M
UniRef90_C7RQZ8	F V K M A L A C	A E T D R I L	G V H I L G A N A S E E I	S E G V V A M E F G A A S
UniRef90_C7NAW4	L L K A V L D A	K T D K I L	G C T L L G N T S H E M I	N I V A A A M K A E Q K Y
UniRef90_UPI0003FBDBD3	F V K I I A D K	Q T D D I V	G V H M V G P H V T D M I	S E A G L A K V L D A T P
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E D L A Y S C H A H P T H S E A V L  
A A F D E T I A L H P T M A E E L V L L R  
R E I A D T I H P Y P T S Y G  
A D F D A V A I H P T T G S E E F V T M R  
S E L R D T V Y T H P T S T E A F N  
N D M A D A I F T H P L L A E G L N S L R  
A Q F D E T V A I H P T S G E E L V T L R  
E Y F V N T T F N Y P T M A E A F R  
G E L A G V I H P H P T T F G E G I  
E D V G L M S H A H P T T Y A E A F  
D D W K L I V F H P P T V G E I F R  
E D I S L T I F H P H P T L G S E T I N  
E D L A N T L H V Y P S I G E G L R  
T E W K L I V F H P P T V A E I F R  
K Y F V N T T F N Y P T M A E A Y R  
T F L R D S I Y T H P S M S E S L N D L K  
D D L D N T V A I H P T S G E E L V T L K  
E D L G L T I F S H P T V S E A L  
K H F D Q A I G I H P S L G E E F F T M R  
Q E L A H V V F H P T L S E A L  
A D F N H A I A V H P T A A E E L V T  
E D L A R I C H A H P T L S E V V  
T F L K D M I F T H P T M S E A L N D L  
W E V G H T I H P H P T L A E V I  
E D V A S L V H A H P T Q N E A L  
E D I D L T I H P H P T L N E T I M  
E S V A D T I H A H P T V A E A W M  
E E L A D T I H A H P T L S E A V M  
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E Y F V K T T F N Y P T M A E A Y R  
A E L M H T I F H P P T L S E A M  
K Y F L N T T F N Y P T M A E A Y R  
A D F D S C V A I H P T S A E E I V T L  
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E D I A R T S Y A H P T R S E A L  
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UniRef90\_B2W133 Y D L A V I G A G S A G F S A A T A A E T G A R V A L I G E G T I G G T

UniRef90\_A0M102 E E F D V I V V G S G P G G Y L A A E E A G K S G L K T L I V E K W A W G G V

UniRef90\_S3K4E5 D I L V I G A G S G G L S V A A G A S Q M G A D V I L L E G H K M G G D

UniRef90\_UPI00017HAD2 Q F D V I V I G G G P G G Y V A A I R A A Q L R L K V A V V E A A Q L G G I

UniRef90\_D5E5K2 M K R L T V I G G G P G G Y T A A F A A R A G M E V T L V E A A H L G G T

UniRef90\_D0CUR4 N F D L I V I G G G S A A F S A A I K A E S L G L K K T L M V N A G N F G G T

UniRef90\_G2I4W8 D Y D L I V I G G G S G G L A A S K E A A K L G K K V M V L D F V V P T P M

UniRef90\_B6WSC3 K F D L I V I G G G S G G L A C A K Q A S T L G A S V C L I D Y W G M G G T

UniRef90\_D5B9L6 Q E Y D V V I L G G G T G G Y V A A I R S A Q L G L K T A L V E K G K L G G T

UniRef90\_G1KRY9 Y D F I I I G T G P A G L A A M T A V K S G K K V V L E K E G S L G G V

UniRef90\_E0VQ04 Y D L M V I G G G S A G F A A A I K G A E L G F N V A L V E A G T I G G T

UniRef90\_UPI00047100E8 D Y D L I V I G G G S G G L A C S K E A A L G K N V M V L D Y V V P T P L

UniRef90\_K1YKK2 D V L V V G A G P A G Y T T A I R L G Q L G I D A T L V E A D A H G G T

UniRef90\_B6EWWW K E T D Y L V I G G G S G G L A S A R M A S K F G V K A T V I E K R G A G G T

UniRef90\_UPI0003C19667 E K Y D L I I L G G G T A G Y V S A I R A S Q L G K K V A L V E K S L L G G T

UniRef90\_D2S0S4 M P H Y D L V I V G T G S G N S I L D P R F A G W K T A I V E K G V F G G T

UniRef90\_C4R312 V L I I G G G P A G Y V A A I R A G Q L G L P V I L V E K E Q L G G T

UniRef90\_U7PH76 K V A V V I K V A V V I E S K A M G G T

UniRef90\_UPI0002FF52C5 H Y D L V I L G S G S T A F A A A L T A Q E M G K T A V M T E E R V I G G T

UniRef90\_UPI0002625DF3 M D H F D I A I I G A G S G N M I V N R R F A D K A V A I T I E R N F G G T

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UniRef90\_X2GKJ0 V K E Y D V V I L G G G S A G Y A T A L R S A Q L G M S V A M I E G D K V G G T

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UniRef90\_I7LAQ6 M R K F D L I I I G S G S G N S I L T E D Y E G L D V A I I D G G T F G G T

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UniRef90\_I4BOV1 D V L V I G G G P G G Y A A A I R A A Q H G L D A T L V E R D A Y G G T

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UniRef90\_L9WNC0 G A G P G G Y V A A L R A A A L G A N V T L I E Q E N L G G T

UniRef90\_K9VIC5 M L T H D L I I L G G G P A G Y T A A E R A A R G G L N T L L I E K R A L G G V

UniRef90\_K0NGC7 E D F D V I V V G A G I G G Y V S A I K V A Q L G L K A M I V E K Q Y G G V

UniRef90\_C3JBB1 V E S F D V L I L G S G Q G K L A A W H L G R L G K R V A V V E R Q W Y G G S

UniRef90\_UPI00046593DC M K K Y D L A V L G G G P G G Y N V A A I A K A G L K T V L F E K N K V G G V

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UniRef90\_V5WIL6 A D F D V L I L G A G S G G Y A C A L R S A Q L G L S V G L V E K A S H L G G T

UniRef90\_K8YUL8 M K H F D L V V I G S G S G D T V I G D R P A G W T V A L V E D Q A V G F G G T

UniRef90\_A1SJ24 D Y D L I V I G A G M A G V T A A N K C A A A G W K V A I V D A L P Y G G T

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UniRef90\_E4TKQ2 V E S F D V L I L G S G P A G Y V A A I K A A Q F G G K V A L V E K S E L G G T

UniRef90\_J3PQF3 M N H F D L A I I G T G S G N S I L D E R Y D G K K V A I L E E S T F G G T

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UniRef90\_A5MBV2 A A D L G M D V T I I D P E V N P G G

UniRef90\_E4WG82 M T D F D L V V I G G G T G N T V A S N A A A E G L E T A L V E P G L G G T

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UniRef90\_H1XYS5 D L V I I G A G A G G L S V A A G A S Q M G A S T L L I E K G V M G G D

UniRef90\_MOHFM6 D Y D L V V I G G G S G G L A C S K E A A S F G Q K V C V L D Y W G L G G T

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UniRef90\_G9NFM1

UniRef90\_M0C777

UniRef90\_E1VX93

[illegible]



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UniRef90_A4BVQ5	G	L	V	E	R	R	E	A	Y	I	L	E	R	L	N	A	W	G	H	R	V	Q	L	K	E	S	K	V	D	Y	N	C	G	R	F	V	D	N	H	T	120		
UniRef90_E6YBY5	Q	L	V	K	A	R	K	D	E	A	I	V	Q	R	S	T	E	G	V	A	S	W	L	R	G	S	T	P	G	L	T	A	I	E	H	A	R	F	D	E	G	P	120
UniRef90_A8PVX8	T	M	M	Q	A	K	E	K	A	V	I	T	G	L	T	E	G	V	E	M	L	L	K	R	N	K	V	D	Y	I	K	G	M	A	S	F	T	S	V	D	V	120	
UniRef90_Q2NQZ3	D	I	L	C	H	A	D	Q	V	I	N	Q	Q	T	H	M	R	Q	G	F	Y	E	R	H	G	C	Q	I	F	T	G	E	A	S	F	V	D	E	H	Q	120		
UniRef90_U2M2E4	A	A	I	A	E	K	R	R	L	T	A	M	L	R	E	K	N	Y	A	K	V	T	G	A	S	G	V	A	V	I	T	D	G	E	A	S	F	I	D	A	H	T	120
UniRef90_E4TV07	D	L	M	A	Y	K	N	E	L	V	S	K	M	P	N	V	E	K	G	Y	E	K	S	G	V	E	M	Y	H	E	E	R	A	E	F	L	D	A	H	T	120		
UniRef90_UPI0003B5DF55	S	F	M	T	T	L	H	A	E	V	D	R	L	S	G	I	Y	T	R	N	L	N	A	G	V	D	V	H	E	E	R	A	E	F	L	D	A	H	T	120			
UniRef90_W9DQX1	T	I	M	D	R	M	R	S	T	I	S	S	D	I	E	G	I	K	Q	G	Y	T	Y	M	P	R	L	D	F	Y	N	E	A	A	E	F	V	S	P	120			
UniRef90_G1U0U1	R	A	V	A	J	R	K	D	E	V	T	G	F	L	R	Q	K	N	L	E	M	L	T	S	R	G	V	I	T	L	T	G	Q	A	S	F	V	S	P	H	E	120	
UniRef90_F9ZTD7	Q	L	E	Q	H	R	R	S	I	V	Q	T	R	G	E	M	A	L	K	T	D	Q	G	M	K	I	Q	V	L	E	G	H	A	R	F	T	G	P	H	S	120		
UniRef90_F7YW30	T	I	M	S	H	M	R	K	V	V	Q	M	S	Q	K	G	I	E	Y	L	L	K	K	N	G	V	E	V	V	F	K	E	A	V	V	L	S	P	N	Q	E	120	
UniRef90_UPI00034B1A0A	P	A	V	M	A	R	M	R	Q	V	R	T	Q	I	S	P	V	D	S	A	V	A	A	K	K	A	G	V	D	V	I	F	G	E	A	S	F	A	S	E	120		
UniRef90_E7RW0C6	I	P	K	L	R	A	A	N	F	A	K	L	D	E	M	E	R	V	R	I	N	A	R	A	R	F	E	D	A	N	T	V	I	V	T	G	A	V	G	120			
UniRef90_R5S0X5	E	I	F	A	Y	K	R	A	V	S	Q	K	L	S	A	G	I	E	S	L	F	K	T	A	K	I	D	L	L	R	G	T	A	L	I	T	G	S	G	C	120		
UniRef90_X8IUQ6	A	V	R	A	R	K	D	E	V	L	D	V	L	R	E	G	I	E	A	G	L	A	K	A	K	I	D	L	I	H	G	L	A	L	R	V	D	E	H	T	120		
UniRef90_U5QBX4	A	V	I	R	R	K	R	A	V	D	Q	A	L	R	E	V	N	L	H	N	L	E	A	N	A	L	G	H	E	L	I	G	L	G	R	F	V	G	P	K	120		
UniRef90_E3GJV1	Q	M	I	K	N	K	D	E	K	V	R	R	L	G	G	I	K	M	L	L	K	S	N	G	V	D	V	Y	Q														

	130	140	150	160
UniRef90_UPI00021A5830	I E A T D K N G K K M A D N F I V I	A V G G R P A F P D Q V P G A R E F G I I S S		
UniRef90_A4BVQ5	R S E L A N G E R L T A E D E F I F I	A V G G R H A T T P A L P P G A E L G I I D S S		
UniRef90_E6BYB1	R S V R V L N G E T V T E A D E F I F I	A V G G R G R A A V P P E L P P G L A D I D F I L T N S		
UniRef90_A8PVX8	Q L L D D G N T Q V L E A K N I I V I	A T G S E V T P F P G V E I D E K Q I V I S S S		
UniRef90_Q2NQZ3	H Y G D N T T E T L V T A E N I V I	A C G S R P Y Q P Q D V D F D H S T P R I V I S S S		
UniRef90_U2M2E4	V R I V D N G E Q R L V T A E R I F I	N T G A L P F V P P Q D V D P G A K F H V Y T S S		
UniRef90_E4TV07	V R I G D D L L T A E A D K V I	A T G A R V V L D I P P G G N L P I T S S		
UniRef90_UPI0003B5DF55	L R L T T S G K H I T A E K V L I	A T G G E P W M P P E I P G I E H A I T S S		
UniRef90_W9DQX1	Y T M R V I G E E S I T A K M I F I	C T G S K S A I P P V K G L E E I D Y I T S S		
UniRef90_G1U0U1	V E V R F R A E L H G T F A C V I	N T G A Y S V I P P I E G L A E S A N I A Y T S S		
UniRef90_F9ZTD7	V D L E G R D A R T L T F A A C V I	I A A G V P I P P G A K E T L A A G A A V T S S		
UniRef90_F7YW30	V V K A A D K I F E A R N L V I	A T G S T P T I V P P F N E V P G I W T S S		
UniRef90_UPI00034B1A0A	N T I V G G Q T L K F K K A V I	A S G A R A V K P K I K G I E E V P G Y L T N S		
UniRef90_E7RWC6	D A G E Q G G R A I R A E R I F I	N T G S L P V V P K I I G V D G P R I H D S S		
UniRef90_R5S0X5	V R V A D A D G S A N D Y T C D D I	I L I A T G S V P S R P I P G L E L A M T S S		
UniRef90_X81UQ6	V S Y T D E S K E V S S K F I F I	A T G G S P F I P P L I S G A E L E G V M D S T		
UniRef90_U5QBX4	T V E V Q T D E G T R A D E I F I	N T G T R P L I P P L P G L K E A G F L T S E		
UniRef90_E3GJV1	A K I T D M E E I I G W E K L V I	A T G S N P A I P P D L F R D I P G L I T N S		
UniRef90_B2W133	V E N D G G V Q R I K A K H I L I	A T G A R P M I P D I P G K E L C I N S S		
UniRef90_A0M102	L Q V G D E V I E A D K F V I	A T G A K P R V L D I F E G G N L A L S S		
UniRef90_S3K4E5	L V K V A E T G E V H E A K A V I I	A A G S I P A M P P I P G T K D N K K L L D S T		
UniRef90_A0A017HAD2	G R L T V D G D A F P A A K I V V	A T G A R H V P A I P I G I K T V I D A L D S T		
UniRef90_D5E5K2	I E V D G Q V Y R A K N I I	A T G S R A K K L N M I E G F D E Y V I T S K		
UniRef90_D0CUR4	T Q V Q A G D F V I T A R R V V I	A T G S S P L V P P I P G L D Q V P F E T N S		
UniRef90_G2I4W8	S T D G K E T T V L T A P N V I	A T G A R A V L P G L E P D G K L V W S Y		
UniRef90_B6WSC3	V E V T M A D G G V E V V I N D A	A T G S R V A E L P G L A F D H S H I L S S D		
UniRef90_D5B9L6	T I I V D G K D T Y T A T N I L I	A T G A T T Y I P N I E G L N E V I G Y L T N S		
UniRef90_G1K1R9	I K A T N N K G F Y T A E K F I L I	A T G E R P R Y L D I P G D K E Y C I T S S		
UniRef90_E0VQ04	I E V T T K T K N I Y G K N I L I	A V G G R P K Y P D I P G A V I E Y G I S S		
UniRef90_UPI00047100E8	M N N G E E N E M L I L K N L V L	A T G S R P R T L P G L E L D E Q Q I L S S D		
UniRef90_K1YKK2	I I V T R I A D K V Q G E R I I I	A T G S H P R N P T D I P F D H E T I V D S S		
UniRef90_B6EWW4	N G V Q I N G S E F T P N K I V I	A T G A H P W A P T I P G L R A A G Y L T S		
UniRef90_UPI0003C19667	T N K R G V E T F Y T A D K F V L	A M G E R P R Y L P G V P G D K E Y C I T S		
UniRef90_D2S0S4	A R D G T E L I R V E F D Y A V L	A T G S R P V E L P G F E Y D H P S I L D A		
UniRef90_C4R312	I N V D P V E G G D K A D N V I	A T G S E P S P F P G I T V D E E R I V T S		
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UniRef90_UPI0002FF52C5	F E Y E N G S E L T P N N V L	I C T G S S P L P L P L F D G N T V L S S		
UniRef90_UPI0002625DF3	F A D G R P D E V V T A D K F V L	A A G G R P V V P D L P G L E D V R Y H T S S		
UniRef90_UPI000399BC39	V H G K A G T T R I R T K H L V L	A T G S L P M Q I G A L P F G G N V I S S		
UniRef90_UPI000395872A	V V D G A E V R T L T A D H L I	A T G G T P V R P D L P G S A H V I V S		
UniRef90_UPI000464A771	V E V G G K R L T G A R F L I	A T G S R P V V P D I P G L D Q V P Y L T T H		
UniRef90_F6EIZ4	T V E L S S G A R I S A D Q F V I	A T G A R A T V P E G L P R P D R R P I Y T S		
UniRef90_C1DB56	E K W A I E V I T D N E A H V I	A T G S R P R P D I P G V I A I D N R V L D N		
UniRef90_H2YTP0	I T A V N K R T T M T A D K F V I	A V G E R P R Y P D I P G A K E F C I T S		
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UniRef90_K9EJG0	V E V D G V S Y K G K N L V L	A S G S Y S K T L G Q T I T K R V I T S		
UniRef90_Q98R18	K S L E V N N T K I Y A E K I I I	A T G S R A R K I S F D G S D E K Q V L V D S		
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UniRef90_F3X1A3	L V V E G K T L V G G H F L V	N S G A E P V P L P L G L G E E H V I D N		
UniRef90_I7LAQ6	L E V T Q K D G N K Q G E R I F I	N T G A T P R I S K I D G L K L S Q N I V T S		
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[illegible]

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UniRef90\_Q2NQZ3 L A S A A Y D Q G R I A A Q V I I K G Q A N V Q L I E N I P T S G I Y T I P E I L  
UniRef90\_U2M2E4 F T Y I S L D D F R I V K D Q L A G S G T R T T A N R G A V P Y S V F T L D P T L L  
UniRef90\_E4TV07 L T P V A V M E G H A V A T N I R G N S K K P D Y T E M P S S V F T Q P P V  
UniRef90\_UPI0003B5DF55 L T P V A I R E S G Q A F A E S V F Q N D P N F F T Y D N V P T A V F T Q P P V  
UniRef90\_W9DQX1 F K H V A N H E S S V V Y Y N A L L K K K I K A D Y H A V A V A V F S Y P P E L  
UniRef90\_G1UU01 F T Y I S L D D F R I V R D A L W G E G K R D T G N R G P V A Y A V F M D P P E L  
UniRef90\_F9ZTD7 L A H T A A Q Q G R V A A A N L L G H R A T Y E A R K D C G V T F T R P Q V  
UniRef90\_F7YW30 L A H V A M Y E A V V A A K N L L C G S E V R M D Y S A V P S V T F T S N P P E I  
UniRef90\_UPI00034B1A0A F T H A A D A A A R I V I K N T L F S P F K S K L S D L I M P S V V T Y T D P P E I  
UniRef90\_E7RWC6 F T Y I S L D D Y R I V R D Q L L G S G Q R S R A D R A V F P T A V F T Q P P L  
UniRef90\_R5S0X5 L A H V A T A Q G I A C V E R L C G V Q D H T D L S V V P T C I Y C P P E I  
UniRef90\_X8IUK6 L A H T A T A E G R N A V A H M N G A E P P I R M D T V P T C I Y S M P P E I  
UniRef90\_U5QBX4 Y T H I A L D D Y R I V R A N L L E G G N R S R N D R L V P S A L F T D P P E L  
UniRef90\_E3GJV1 L A H G A S A M A M R A V E N M F G G R P T K M N Y S L I P S C V Y T L P P E I  
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UniRef90\_L9WNC0 L A H K A S A E G L V A A G V A A G E P A A L D H Q A I P A V V F T D P P E I  
UniRef90\_K9VIC5 Y T H V S L D D Y R I I K A N L I D G G N R N T S D R L I P S C L F T D P P E I  
UniRef90\_K0NGC7 L A H V A S H E G I V A A Q N A M G K D S V M N Y D V I P G G I F T M P P E V  
UniRef90\_C3JBB1 L A H T A V R E A E V A V D N M L G K N A Q M S Y R A I P G I I Y T Q P P E V  
UniRef90\_UPI00046593DC L A H V A S H A G R I A M K N G S S K A H D I K M D F A K I P S C L Y T S P P E V  
UniRef90\_W4PON5 F T H A S V D D F R I V R D N L A G I E R S K R D R L V P Y T M F T D P P L  
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UniRef90\_A0A022GXQ6 L A H K A S H E G V I C V E Q I A G L H P A L D A T R I P A C T Y S A P P Q V  
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UniRef90\_X0R3Z5 L A H V A T H E G I K A V D H I L Q K K V E A V D E Q T V P I C V Y S R P P E I  
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UniRef90\_V5WIL6 F T H T S V H D G Q V L A R R A G G D K R I G D R T L I Y A L Y S D P P V  
UniRef90\_K8YUL8 L T P M A I A A G R R L A D R L F G G L D G A Q A D Y A N V P T V I F S H P P I  
UniRef90\_A1SJ24 L A H R G F Q Q H G I V A E D I A G L D P S P I D E A G I P R V T Y S H P P E V  
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UniRef90\_K6WS19 L T P V A I V F E G K V A A S N M L K G T T T A P D Y T G V S T A V F T I P P E L  
UniRef90\_D5RPF7 L A H K A S H E G I L T V E A I A G L H P H A M D V S N I P G C T Y C P P Q V  
UniRef90\_S5XMH2 L T P V A I R A G I N F A D T V F G G K P K P C D F S Q V P S A V Y T R P P E L  
UniRef90\_I3VXV4 L A H V A S A Q G E A A V D N I F G C N V A I D Y M K I P A A V F T E P P E I  
UniRef90\_E4TKQ2 L T P V A V M E G H I V A S N I L K E N S K K P D Y R A I P T V V F T S P A M  
UniRef90\_J3PQF3 L A H K A E E E G I A I A E M L K T G H G H V N Y D V I P S V V Y T H P P E V  
UniRef90\_G2LP78 L A H K G V H E G H I A A E V I A G N K H Y F E P R V I P S I A Y T E P P E I  
UniRef90\_A5MBV2 L A H A A F R M G E V S A E N A L K G N H A V A K L N L T P A A I Y T D P P E V  
UniRef90\_E4WG82 L K H V A N H E M E R V V Q H N L L H D A W A S T A H H R F V P A A V F T D P Q I  
UniRef90\_W4LE03 L A H K A S H E G R C A V E A I A G H R V A F E P Q A I P A V V F T D P P E I  
UniRef90\_H1XYS5 L A H K A S H E G F V A E A I H G Q K A A F E P A A I P A V V F T D P P E I  
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UniRef90\_UPI00029A018E L T P V A V L E G H T A A S N I I K G N S K E V N Y P P M P T V V F T L P S M  
UniRef90\_W6K530 F T H V A G Y H A G I I I K N A L F R M P A K A D M R A V P W V T Y S S P P L  
UniRef90\_D0NX20 L T P V A I Q A G R L L S R R L Y N N A T V Q M D Y D K V C T A V F T P L E Y  
UniRef90\_UPI00036FD593 L T P V A G M E S H L V A S N L L N G N N R T Y T E Q I I P S S V F T L P K L  
UniRef90\_UPI0004645479 L A H V A S K E G E I A V D N A L G R S R E L N Y T A I P R C V Y T E P P E L  
UniRef90\_F8Q6J6 L T P V A I A A G R R L S N R L F G P E K F K N D K Y E D I P T V V F S H P T I  
UniRef90\_UPI00047444D7 L A S A A Y D Q G R I A A Q S I S E G T A Q S K L I E D I P T G I Y T I P E I  
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UniRef90\_M0C777 F K H A D Y E T R V L T E N V L E E S Q R A V D Y E A M P H A V F T D P Q V  
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UniRef90_UPI00021A5830	G A I	G F T	E R Q	A Q A	D Q F	G G E	N V E	V F H	A F Y	K P	L E	Y Y	L P	F R N	S N	S Q
UniRef90_A4BVQ5	G A V	G L T	E E E	H E V	A R Q R A	S G G	R P A	L V	T T M	R F V	P L E	L A	L R	E D K	R H	S Q
UniRef90_E6BYB1	A R I	G M S	E E E	H E V	R A S	G G R	P A	L V	T T M	R F V	P L E	L A	L R	E D K	R H	S Q
UniRef90_A8PVX8	A W V	G K S	E E E	E L T	K A E	G V E	Y E	K V	G K F	P F M	A N S	R A	K T	N D E	T D	G G
UniRef90_Q2NQZ3	S S V	G K T	E E E	E L T	A M K	V E	Y E	V G	R A Q	F K H	L A	R A	Q I	V G M	N V	G G
UniRef90_U2M2E4	S R V	G M T	E E E	A E A	Q A A	G F D	V R I	L R L	E V A	A I P	K A	Q V	I Y K	K P S	G Y	
UniRef90_E4TV07	A A V	G M T	E E E	A Q A	K K A	G L E	Y Q V	K A S	S A S	S S W	Y N	A K	R I	N D E	S T Y	
UniRef90_UPI0003B5DF55	G T V	G L S	E E E	D A R	H K Y	G A G	D I I	Y K T	T F R	P M K	D L	L T	I G N	E E R	V I	
UniRef90_W9DQX1	A G V	G M T	E E E	A Q A	V E E	K Y G	E D N	I I I	G F Y	R F Q	E T A	K R	I L A	M S L	E E R	
UniRef90_G1U0U1	A R V	G L S	E E E	A Q A	R A G	L N V	T I I	G F Y	R F Q	E T A	K R	I L A	M S L	E E R		
UniRef90_F9ZTD7	A F V	G L T	E E E	A Q A	K A G	L D V	V E V	E K V	P M S	I D A	K A	K M M	T G E	T D G	G	
UniRef90_F7YW30	A S V	G L T	E E E	K E K	D V D	P E K	V K V	F S F	P F S	A N G	R A	R T M	L E R	E G	G	
UniRef90_UPI00034B1A0A	A H V	G M Y	E E E	A Q A	K G L	D C N	T I K	I N F	D D V	D R A	L A	D G E	T E G	G		
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UniRef90_R5S0X5	A V V	G L T	E E E	A E A	K E M	G I P	V K V	G K H	V M F	G N A	K T V	I A D	P G R	C		
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UniRef90_E3GJV1	A S V	G M R	E E E	A A R	E A Y	S N I	V R V	G S F	P M S	A S G	R A	L I R	D E S	Q G	G	
UniRef90_B2W133	G S I	G L T	E E E	A A R	K K Y	G D K	I K I	K I Y	K T Q	F T A	M Y F	A M M	D P S	E K	G	
UniRef90_A0M102	A S V	G L T	E E E	A A R	K K Y	G D K	I K I	K I Y	K T Q	F T A	M Y F	A M M	D P S	E K	G	
UniRef90_S3K4E5	S G C	G I T	E E E	A A R	K K Y	G D K	I K I	K I Y	K T Q	F T A	M Y F	A M M	D P S	E K	G	
UniRef90_A0A017HAD2	A G V	G L S	E E E	A A R	K K Y	G D K	I K I	K I Y	K T Q	F T A	M Y F	A M M	D P S	E K	G	
UniRef90_D0CUR4	A F I	G K T	E E E	A A R	K K Y	G D K	I K I	K I Y	K T Q	F T A	M Y F	A M M	D P S	E K	G	
UniRef90_G2I4W8	A Q V	G L T	E E E	A A R	D R H	G D K	V E I	A R F	D Y V	H D D	R A	V I A	E R K	T T G	G	
UniRef90_B6WSC3	A S V	G M T	E E E	K A K	A A G	Y K V	R V G	R F F	P F I	G N G	K A	I A M	G E P	E G		
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UniRef90_UPI00047100E8	G V C	G L S	E E E	K A T	E K Y	G V K	N I E	V Y H	S Y F	W P L	E W T	V P S	R D S	N A N	R G	
UniRef90_K1YKK2	A S V	G I T	E E E	K A K	D R G	F T V	K I G	K F P	Y Q A	V G K	A L V	N G K	A D G	G		
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UniRef90_D2S0S4	G A C	G L P	E E E	K A V	E L Y	G A E	N I E	V Y H	S							

UniRef90\_UPI00021A5830 C Y I L K V V C E G R E R V V G L H M T 410 420 P N A G E V V Q G F A V A I K R G L T M  
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UniRef90\_R5S0X5 F M K F V S H A A D S H E L L L G A Q L M C C E H A S D M I G G A A Q A L A N R L T A  
UniRef90\_X8IUK6 Y I K L I A D A D S H E L L L G A Q L M C C R A T D L V G E L A L A I S N K L T L  
UniRef90\_U5QBX4 L L K A I V D A Q T G E H I L L G C T L L C Q A A G E V I S T V Q M A M T A R L P Y  
UniRef90\_E3GJV1 F V K V I T E D K Y G E I L L G I H V A G P G A T E L I T Q A E T I M A L E G T I  
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UniRef90_UPI000316609F	D	A	F	S	R	K	K	E	V	I	Q	A	L	N	Q	K	N	Y	Q	L	L	A	N	D	E	N	I	S	V	L	N	Y	K	A	Q	F	K	S	N	T		
UniRef90_H9UBP8	K	I	M	A	H	A	S	K	S	I	M	S	R	K	G	I	E	Y	L	M	K	K	N	N	V	T	V	I	K	G	T	A	E	V	V	N	K	N	K			
UniRef90_UPI000472B16D	A	L	V	A	R	K	R	D	V	V	I	G	T	L	R	R	G	I	A	H	L	F	N	A	H	A	I	E	L	I	V	Q	G	T	A	S	Y	V	P	D		
UniRef90_S7U5M4	G	V	R	G	W	K	Q	Q	V	V	D	K	L	A	K	G	L	M	Q	L	T	K	A	R	G	I	Q	L	L	Q	G	R	A	T	A	F	K	S	A	N	E	
UniRef90_UPI00037ADC33	K	T	V	A	K	R	D	G	L	V	I	G	R	L	N	S	G	V	L	G	L	L	R	K	A	K	V	K	L	V	H	Q	G	R	A	T	F	R	D	G	K	T
UniRef90_G8XZE4	M	L	K	E	K	R	D	A	Y	I	R	R	L	N	G	I	Y	E	R	N	L	K	K	E	G	V	D	V	Y	Y	Q	E	I	P	F	V	E	E	N	K		
UniRef90_UPI0003625116	E	L	M	K	F	K	R	G	F	T	D	P	V	P	D	K	M	E	K	G	Y	Q	K	A	G	V	D	T	F	H	D	A	V	T	F	L	S	E	N	T		
UniRef90_K9B4A5	D	L	Q	E	R	I	F	S	R	V	D	A	I	E	G	R	E	Y	F	M	S	D	R	Q	P	N	N	T	V	I	P	E	H	V	R	F	V	D	E	K		
UniRef90_W3Y1Z4	Q	V	L	T	Q	R	E	V	V	T	S	R	L	R	N	K	N	F	D	M	L	N	T	N	H	V	D	V	Y	T	G	H	G	E	F	S	G	N	K	V		
UniRef90_J9YNU2	A	M	T	T	R	N	E	V	T	S	R	L	R	A	K	N	F	A	M	L	D	N	K	D	T	V	D	V	Y	N	A	K	A	R	F	T	S	N	K	V		
UniRef90_T0J2Q6	V	A	A	R	A	R	K	V	A	D	D	A	R	E	R	N	E	G	W	L	G	K	M	K	H	G	L	T	L	L	R	G	H	A	R	L	T	G	P	S	Q	
UniRef90_Q8R9D9	K	L	R	Q	K	K	E	R	V	V	K	R	L	N	T	Y	G	N	L	K	N	S	G	V	T	L	D	V	I	N	G	K	G	T	F	I	D	K	N	T		
UniRef90_K3X332	D	I	L	Y	R	V	K	R	V	V	N	S	E	V	D	V	I	K	A	Q	L	K	A	A	R	V	E	Y	I	P	G	F	A	R	F	E	N	D	H	E		
UniRef90_W8VWA0	D	V	Y	N	Y	A	R	R	Y	A	Q	D	I	P	D	N	T	E	E	F	L	K	E	L	G	V	D	R	H	H	G	E	G	Y	F	V	D	E	K	T		
UniRef90_B8KKG2	A	V	M	E	R	V	Q	E	K	I	A	I	E	P	H	D	S	A	E	R	F	T	S	L	G	V	D	C	V	S	G	D	A	R	I	D	S	P				
UniRef90_UPI000478E40B	K	A	Y	E	R	S	R	S	V	A	D	G	R	V	E	K	G	I	H	Y	L	M	K	K	N	G	I	T	E	I	D	G	W	G	T	F	T	D	A	K	T	
UniRef90_UPI0003C4BEA7	I	M	T	E	A	I	Q	N	H	I	G	S	L	N	W	S	Y	G	L	S	L	R	E	K	S	V	A	Y	V	N	S	Y	G	E	F	V	E	R	H	K		
UniRef90_D8THZ5	S	L	I	K	L	K	N	K	E	I	Q	R	L	N	T	Y	G	N	L	K	N	S	G	V	T	L	I	E	G	R	G	R	I	D	A	T	T					
UniRef90_F7PFQ2	A	V	V	A	D	M	E	T	L	S	A	L	A	Q	G	M	E	D	N	Y	H	E	K	E	H	L	T	L	Y	N	D	E	A	V	F	V	D	D				
UniRef90_K9D0Z2	D	L	L	E	R	K	R	T	F	T	G	P	V	P	G	S	K	Q	L	K	N	Y	A	A	K	G	V	D	T	Y	H	E	H	A	R	F	A	G	P	N	S	
UniRef90_B2A2T0	R	V	S	D	R	K	E	E	I	V	G	N	L	K	D	S	V	K	K	L	L	K	K	A	G	V	Q	T	V	F	G	R	C	E	L	K	A	D	S	K	E	
UniRef90_A0M0F6	D	I	M	A	F	K	Q	S	F	V	D	A	M	P	P	K	I	E	K	G	Y	D	K	K	G	I	D	T	Y	H	S	S	A	R	F	I	S	E	N	T		
UniRef90_UPI0003B3FA7F	D	L	R	D	R	V	I	N	R	L	D	P	I	S	A	G	G	L	E	Y	R	R	H	S	P	N	T	E	A	F	L	G	H	G	R	L	T	G	T	N		
UniRef90_H6PD14	Q	A	M	A	E	K	E	V	V	T	H	R	L	N	Q	K	N	K	A	N	V	V	N	A	G	V	D	L	Y	D	A	K	A	G	F	V	S	N	K	V		
UniRef90_A8M2T3	A	V	H	G	R	V	K	R	L	A	I	A	Q	S	V	D	I	H	A	K	L	V	K	A	G	V	T	F	D	T	L	G	H	T	H	R	V	I	V	T		
UniRef90_G4I9V9	D	I	V	S	R	V	F	G	R	I	D	P	L	E	H	Y	R	R	S	P	N	V	T	V	Y	D	S	H	T	R	F	T	G	R	T	E	T	G	Y			
UniRef90_K5Z236	K	V	V	A	R	S	R	A	V	S	K	Q	L	S	G	G	I	G	H	L	M	K	K	N	K	V	T	V	Y	D	G	Y	G	K	L	A	G	S	G	K		
UniRef90_H5SG39	R	V	I	E	Q	K	D	E	L	V	A	A	L	R	Q	G	K	Y	I	N	V	M	D	V	Y	P	N	I	T	L	I	R	G	W	A	R	L	T	G	R		
UniRef90_A0A017TEL6	E	L	A	Q	T	A	G	S	V	M	K	Q	S	G	M	R	E	V	F	Y	E	R	N	R	V	E	V	V	E	G	R	A	R	F	V	D	P	T	T			
UniRef90_Q03GQ4	M	A	I	T	K	R	S	V	I	G	K	L	R	Y	S	N	F	H	K	L	A	D	Q	K	T	V	K	V	L	N	G	S	A	S	F	I	D	Q	H			
UniRef90_R7WAE9																																										
UniRef90_A0A024IBM6	K	I	L	R	G	H	K	E	K	V	V	G	K	L	T	G	G	L	N	S	M	A	K	M	R	K	V	T	V	L	R	G	Y	G	S	F	V	G	P	N	H	
UniRef90_UPI00037C4CB4	K	I	R	D	R	V	F	G	R	V	D	A	I	N	G	L	H	Y	R	Q	D	D	C	D	N	I	D	V	Y	Q	Q	H	A	G	F	V	A	P	R	D		
UniRef90_A5GMK5	K	I	A	D	H	A	N	Q	L	V	A	T	I	R	G	N	L	T	K	T	L	E	R	A	G	V	T	I	I	R	G	Q	G	R	L	E	S	A	Q	A		
UniRef90_F8JH33	K	V	R	Q	R	K	N	D	M	V	D	R	E	K	V	L	H	L	S	A	Y	K	A	S	G	A	E	L	I	M	G	S	G	R	F	T	A	P	K	T		
UniRef90_S0G846	T	L	K	E	R	K	S	G	V	S	A	E	I	Q	M	G	M	E	A	L	M	Q	N	N	G	V	E	F	I	K	G	R	A	V	I	K	S	P	R	E		
UniRef90_UPI00036A29B3	P	A	A	M	V	R	M	R	R	I	R	E	R	L	V	R	I	D	S	P	A	K	L	A	A	A	G	I	D	L	Y	F	G	H	A	H	F	V	G	P		
UniRef90_D1CGW8	E	L	V	R	Q	K	G	E	L	T	E	R	L	R	Q	E	K	Y	L	D	L	T	G	E	Y	G	W	E	L	E	L	G	E	A	R	F	V	D	E			
UniRef90_R4Z5A8	R	T	F	D	R	I	D	P	I	A	A	G	G	E	D	Y	R	Q	G	Q	D	H	L	T	V	Y	N	G	E	A	T	F	V	G	D	R	T	V	E	V		
UniRef90_Q2SKE2	T	L	I	D	R	L	D	D	V	M	K	S	H	D	E	Y	M	R	R	Q	I	D	R	N	A	I	K	R	I	H	G	R	A	R	F	L	S	P	N	E		
UniRef90_Q1IMV9	R	L	R	T	F	K	E	G	V	V	K	K	L	T	G	G	L	G	Q	L	S	K	Q	R	K	V	T	Y	L	Q	G	K	A	T	L	V	D	S	C	T		
UniRef90_Q38KF2	Q	L	V	N	Q	K	N	E	L	V	E	R	L	R	Q	N	K	Y	I	D	L	I	D	E	Y	G	F	M	I	R	G	E	A	R	F	V	D	P				
UniRef90_UPI00036AE5A4	E	M	Q	K	W	A	N	R	V	V	S	T	L	R	R	G	L	Q	S	L	L	K	H	H	G	V	A	V	E	K	G	E	K	L	H	G	A	N	E			
UniRef90_J9Z7M8	T	L	S	A	H	R	E	K	V	S	R	L	F	L	G	I	Q	A	L	L	R	K	N	G	I	L	H	F	S	G	E	G	Q	L	V	P	E	E	V			
UniRef90_M5RX66	Q	L	L	Q	F	K	K	S	F	T	D	P	V	V	E	K	S	E	A	S	Y	Q	E	K	G	I	E	T	F	S	G	T	A	S	F	T	S	P	D	A		
UniRef90_F8E7J1	N	L	I	Q	Y	K	C	S	Y	T	N	N	I	P	M	K	V	E	Q	S	L	K	M	S	I	D	S	L	S	G	N	A	E	F	A	N	E	N	T			
UniRef90_M4RET4	A	L	R	D	Y	R	L	R	V	V	D	T	M	T	K	G	L	A	G	L	L	A	H	R	K	V	T	V	I	H	G	Q	A	E	L	T	D	H	T	T		
UniRef90_I1WBW3	A	K	T	A	L	T	S	K	L	R	T	A	N	Y	R	K	L	D	V	L	D	G	V	A	V	L	D	G	T	A	R	F	T	A	A	H	T	V	L	V		
UniRef90_W1LEG2	L	V	R	D	R	T	A	R	V	V	A	E	M	V	A	T	N	K	A	G	F	N	A	S	G	F	D	L	I	L	G	W	G	R	F	V	A	P	K	T		
UniRef90_D8LUQ5	I	L	K	K	R	D	E	M	V	T	R	L	N	G	K	H	H	A	A	L	D	K	F	K	V	D	F	Y	T	G	F	G	H	F	V	G	P	H	Q			
UniRef90_L9XUV1	E	I	T	A	S	V	H	D	T	V	E	K	A	E	N	Q	E	S	S	L	Q	D	E	N	V	T	L	Y	R	G	E	G	R	F	V	D	D	R	T			
UniRef90_B8KRS2	D	M	M	Q	R	K	K	Q	I	V	S	Q	L	T	Q	G	V	A	G	L	K</																					

	130	140	150	160
UniRef90_UPI00037F8D52	E D E S M E S E V L V N D Q V I I	A S G S R P I E L P F L S F D H K V V L S S		
UniRef90_S3XAR6	T V E V T T T Q V T A N K Q L V I	G T G T T P R R P E I P G I D S S P R V Y D S S		
UniRef90_M5TSW1	I S V G N T V L T A N R L L V I	A T G T T P T K I D I P G I D S S G S E H I T T S S		
UniRef90_K7FFM5	V K A T N N K G K Y T A E K F L I	A T G E R R Y L G I P G I D S S D K E Y C X S		
UniRef90_UPI000316609F	E V H N D I N T I P R I I I	N T G A K A N I P N L K G I N N A K H L F D S S		
UniRef90_H9UBP8	V R I K E T G E I L E G S N L V L	A H G S V P T I F P F S Q V I E G L I W T S S		
UniRef90_UPI000472B16D	Q G L T V D G R T L S A R H T L L	A T G S R P F I P P I A G L D R V S Y Y T T D		
UniRef90_S7U5M4	R I P G S D I S G I R F K H A V I	A T G S R P I P L P L D T D F E K D G R I M S S		
UniRef90_UPI00037ADC33	V E V E T E T Q V I R A E T V V I	A T G S E P V E L P S L P F G G P V I T S S		
UniRef90_G8XZE4	L F K Q N D K F I F T G E K T L I	A T G G Q A I I P P S V E G S E L G T L T S		
UniRef90_UPI0003625116	L K V G D T T I Q A K K I V V	A S G A R P R A L S V I P G L D P A R V D T T S		
UniRef90_K9B4A5	T V V T D S G E E I T A D R I V I	A A G A A P T I P D T P G L D P A R V D T T S		
UniRef90_W3Y1Z4	I S I T A G D E N I K A D T I V I	N T G A I A I K P D I I Q G I D T A K G F Y N S		
UniRef90_J9YNU2	V E L T G D K Q E L T A D V I I	N T G A K S V Q L P I P G L A D S Q H V Y D S		
UniRef90_T0J2Q6	V E V D G V A L T A P H I F L	N V G G R A S V P D M P G V G D V P H L D N		
UniRef90_K8R9D9	V E V N G A K Y T A E N F I I	A T G S K V F L P P I E G I D L E G V M T S D		
UniRef90_K3X332	I S I V R D P E T G R A D E K F L I	A C G T R P A H N P N V P I D G K V I F M D S D		
UniRef90_W8VWA0	F R Y G D T S L T A D K F V I	A T G M K P L E L K I P I G A E H L L T S		
UniRef90_B8KKG2	W E V E V N G Q R I S T R H I I	A S G A R A R V P D I S G L E D L D Y L T S		
UniRef90_UPI000478E40B	L D V K L N D E T V T F E H C I	A A G A T T R L L P G T Q L S E R V V T Y		
UniRef90_UPI0003C4BEA7	I K A T N Q E T Y Y T A K F V I	A T G A R P R Y L G I Q G D K E Y C L T S		
UniRef90_D8THZ5	V E P D G A V R H L R A K N F L L	A T G G V A T K I P I E G A E H A I M S D N A		
UniRef90_F7PFQ2	R T V V V D G E R L S G E K V V V	A A G S R P L V P P I E G I D S V E Y L T S		
UniRef90_K9D0Z2	L E L E R S G I L E A T N V L I	A A G A R P V P L G F P G E E H L M D N		
UniRef90_B2A207	A E V D L H D G S K M A N S V I	A T G S E S A T S D L P G S D H K D V I G T D		
UniRef90_A0M0F6	L K I G D T E I L K A N K I V I	A T G A K P R E L K F E G G E L A L L S		
UniRef90_UPI0003B3FA7F	S I E V S T G D S F T A E Q I V I	A A G G H T F I P E I I V A S G V I S Y Q T S		
UniRef90_H6PD14	I K I V E D S E R L T A D T I V I	N T G A I S N R L P I P G L K E S K N V F D S		
UniRef90_A8M2T3	P A D G G T E Y R I D A S I V L I	A T G A T P R Q L P T A V P D G E R I L T W		
UniRef90_G4I9V9	R L R T D K G E E F T A E Q V V I	A A G A R A M V P D A I A G C G V I Q V H T S		
UniRef90_K5Z236	L S V T K D G K P L E A P H I I L	A T G A R P R Q I P G L E V D G K Q I S Y		
UniRef90_H5SG39	R Q V S V N G T T Y T P G K I I	A T G S R P W A P P I P G L E E A G Y L D S		
UniRef90_A0A017TEL6	I E V I Q P K G A V D A K H F V I	A T G S R P Y H P P E I D F S H P A I F D S		
UniRef90_Q03GQ4	T L N V K Y T E V V G E R I F I	N T G A T S T I P D I P G L K E S S R T V T S		
UniRef90_R7WAE9	V S V D G G N T V V K G K N I I	A T G S D V K S L P G I T I D E K K L V S S T		
UniRef90_A0A024IBM6	Q E K T G K K Q V V G F K K A I I	A A G S Q A V R L P F M P E D P R V V I D S		
UniRef90_UPI00037C4CB4	D D T G L I R T I L A A R V V V L	A A G S R P A V P P A I A H S G A T F H T N		
UniRef90_A5GMK5	V G V R E I D R V I T G K D V I L	A T G S D P F V P P G I E T D G R S V F T S		
UniRef90_F8JH33	I E N D G G T R L L R G N D V V I	N V G S H A A I P N V P G L L E S R P L T H		
UniRef90_S0G846	V D V D G Q T I E T K K I I V	A T G S S L E A P D I P G L D K A G M T T		
UniRef90_UPI00036A29B3	D S V D V D G I K L R F G K A L I	A T G S R A M V P E I E G L E K A G F L N N		
UniRef90_D1CGW8	G T L E V N G H R V R G R H Y L L	A T G A R P A V P P I P G L E E A G Y I T S		
UniRef90_R4Z5A8	V D A H G A T Q Q V S A D R M V L	A A G A R P R I P Q V A G L E T V P F H T S		
UniRef90_Q2SKE2	V E V T S V R G K K Q T D Y V V I	A T G S F P R K P E Q V P I D H E N I F D S D		
UniRef90_Q1IMV9	V K V E K T E E T L H F D K L I L	A T G S R P A V I P A F N I G S P R V M D S		
UniRef90_Q38KF2	R T V E V N G N R I S A R F F I L	A T G A S P D V P D I P G L R D V D Y L V S T		
UniRef90_UPI00036AE5A4	V S S G G G K V H A A K A I V L	A T G S S P T Q I P C Y D P N A S V L T E		
UniRef90_J9Z7M8	F V S G G E N K K L R A S H L L V	A T G S R P R P W P G L P F D R E R V L D S		
UniRef90_M5RX66	I R V G D H T L T S E R F F I	G A G A R P R T L G I P G E A H V L Q S		
UniRef90_F8E7J1	L K I G D K F Y T A D N I L V	A S G S V P T K L P F N G A E M M S S S		
UniRef90_M4RET4	V T I T P S A G K Q Q A D H V V L	A T G S E P K P L P G Q P F G G A L I D S		
UniRef90_I1WBW3	D G A D G V Q T V L E A D R I Y I	D T G A K P R I P D I E G I R T T G V Y I T S		
UniRef90_W1LEG2	I Q V E T E N G V R M G D Q V E	N L G T V A D I P D V P G L S E A D P I T H		
UniRef90_D8LUQ5	V Q I D D G I V L E S E M I L			



UniRef90_UPI00037F8D52	N	D	L	M	H	L	E	N	L	P	K	K	V	A	V	I	G	G	G	V	I	G	V	E	F	A	T	I	L	S	S	F	G	S	E	V	T	L	L	I	E			
UniRef90_S3XAR6	T	T	I	L	H	A	D	P	F	E	P	K	H	V	A	V	V	G	G	G	F	I	G	L	S	M	E	F	A	H	V	V	A	R	C	G	A	T	V	T	V	L	L	E
UniRef90_M5TSW1	D	D	F	L	E	A	D	E	F	L	P	K	H	V	F	I	V	G	G	G	F	I	G	L	S	M	E	F	A	H	V	V	A	R	C	G	A	T	V	T	V	L	L	E
UniRef90_K7FFM5	D	D	L	L	F	S	L	P	Y	C	P	G	K	T	L	V	V	G	G	G	S	Y	V	A	L	E	F	A	G	F	L	A	G	L	G	L	D	V	T	V	L	M	V	
UniRef90_UPI000316609F	T	G	L	L	N	I	S	Y	Q	P	K	S	H	L	V	I	V	G	G	G	Y	V	A	L	E	F	F	A	S	M	F	A	N	L	N	T	K	V	T	V	L	E	E	
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V D K T I T K T T Q G D F E S D A V L L A T G R R P N V D L  
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UniRef90_S7U5M4	M	T	K	M	I	V	D	P	E	S	Q	R	I	L	G	V	G	I	V	G	A	R	N	T	E	G	L	I	S	E	G	V	L	A	V	E	M	G	
UniRef90_UPI00037ADC33	F	V	R	V	V	A	R	A	D	T	N	L	I	L	G	I	Q	A	V	G	A	G	V	S	E	L	L	S	S	T	F	A	L	A	I	E	M	G	
UniRef90_G8XZE4	S	Y	K	I	V	C	K	D	E	K	V	V	I	L	G	L	H	I	V	G	D	S	S	A	E	L	I	Q	G	F	G	V	A	I	K	M	G		
UniRef90_UPI0003625116	A	Y	K	V	L	I	S	K	E	D	G	T	I	L	G	A	H	L	I	V	G	P	S	A	D	E	T	I	N	L	F	A	L	A	I	K	A	K	
UniRef90_K9B4A5	I	V	K	I	I	A	D	R	D	T	R	L	I	L	G	A	Q	I	V	S	G	H	E	A	S	M	I	I	Q	P	V	I	Q	A	M	A	F	D	
UniRef90_W3Y1Z4	V	F	K	I	V	V	N	A	E	N	D	L	I	L	G	A	T	M	Y	S	Q	S	S	E	E	L	I	N	L	I	K	M	A	M	D	N	K		
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UniRef90_T0J2Q6	L	M	K	V	V	A	D	R	A	T	R	H	I	L	G	A	A	I	L	G	T	S	G	D	E	A	I	I	H	G	I	L	D	A	M	S	A	G	E
UniRef90_Q8R9D9	F	V	K	I	A	E	G	Y	G	R	V	L	I	L	G	M	E	I	L	I	G	A	G	A	T	E	I	I	H	E	G	V	L	A	I	K	E	E	
UniRef90_K3X332	M	L	K	I	L	F	E	D	P	T	T	L	K	M	F	G	V	H	A	I	G	E	G	A	T	E	L	I	H	I	G	Q	V	A	I	A	M	E	
UniRef90_W8VWA0	A	Y	K	V	I	V	D	E	E	T	R	M	V	L	G	A	H	I	I	S	H	E	A	G	E	T	I	I	N	I	F	S	V	A	M	N	H	D	I
UniRef90_B8KKG2	F	V	K	V	L	T	V	P	G	R	D	R	I	L	G	A	T	I	V	S	A	H	A	G	D	L	L	P	E	F	V	L	A	M	K	H	G	L	
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460

LELS SATFAHP S VGE I  
DVL RDGI WT H P S ST E AL N  
TDL KSM LFA F PTF ASDV R S M  
AQL DNTI G I H P V C A E I F T T L  
QVL RDNI Y T H P T M T E S F N D L  
HEL EES I H P H P T L S E S V L  
DDL AEQVFA H P T L S E V I  
QDVAF TI H P H P T L S E  
EDVAA TI HA H P T R S E G F  
KDF DN C V A I H P T S A E E L V T M  
KDL QSM MY S Y P T W A S D L S Y M  
DEV ARQY W I H P A L P E V I  
TYFKNQ I FT H P T M A E N L N D L  
TYFQKQ I FT H P T M V E N F N D L  
DTL RWAV P V H P T V S E L I P T L  
EEL ADSI HA H P T L S E S I  
TYFRDAVFN Y P T L A E A Y R  
QYL QQT I FT Y P S W A N D I  
NKI LGT I H I Y P T M S E A  
DEV GRNI HA H P T L S E A V  
QLL DGT I G I H P T C G E V F T T L E  
AQF DATVGI H P T A A E E F V T M R  
SDI TDT I HA H P T L N K A V  
DDI KST MFA Y P T G A S D I G Y M  
ADL GE L I H P H P T L S E T L  
NDL RKM IFA Y P T L A S D I P H M  
VDL ARQY W I H P A L M E V V  
TYIKNQ I FT H P T M A E N L N D  
NELAQTI T I Y P S L S G S V T  
QDM VRQY W I H P A L P E V I  
AEL MET V F P H P T V S E A M  
KDL VET F H P Y L T M V E GL  
NYF VNT T F N Y P T M A E A Y R  
QML RDQ I Y S H P T M A E G L N D L  
EDV AR I C HA H P T V S E A L  
VDI GKTI H P H P T L G E S M  
ADL ARQY W P H P A L Q E V I  
RQL STE V H T H P T L S E V V  
PKL RDAV T A H L T Y A E GL  
QEL ARSI R V H P T F S E A V V D  
CRL AS V I H A Y P T Q G E A V R  
SDL LDT F A P Y L T M A E GL  
DEV ART I Y H P P A L T E V V E Q L  
DI F V E S I F N F P T L A E A Y R  
GDI KLS I H P H P T L S E T I M  
EDL NSTL A P Y L T M A E GL  
EQA VDI I R Q H P S L S E GI  
LAF QGT I I P H P T V G E A L  
SDV KSTL F V F P T F A S D V R K M  
EEMKNM V Y T Y P T A S S D I V Y M  
SQA AR L I H P H P T F S E T L  
AYL RDAI FT H P T M T E A F N E L  
TAL RDGI FA H P T I T E GL N M L  
KDL DA C V A I H P T A A E E V V T  
DDVAE P V H V H P A L N E V V  
EDV QLM V F G H P T L S E A V  
EDF DGL I HA H P S Q N E S L  
NKI LGT I H I Y P T M A E A  
NKI LST I H P Y P T M S E A  
TVL RDQ I FT H P S M S E S L N D L  
FGV AS L I V P Y P N R S E H I  
SDF YNTI GV H P T S A E E L C S M R  
EDI I E TI YA H P T T S E L I  
DMSE HFI AA H P T L S E T L  
YDL AN V V QV H P T L S E GL I L M  
TSMARQY W I H P A M P E L V  
DQMRE VLYA Y P T P A S D L S Y M  
R V F D E T I G I H P T A A E E F V T M R  
QEMARQY W I H P A L P E V I  
Q H LDK I V F P H P T V G E V V R  
SVL RDAV H I H P T R A E A I  
REV AE QY W I H P A L P E V I  
SQMLDM P FY H P V I E G V R T  
SVL RDQ I FT H P T M S E S L N D L  
EEL AGQL F P Y L T M V E GL  
EDL DRVL AV H P S S A E E L V L M  
RKL AS MV HA Y P T L A Q I  
QQL DST I G I H P V C A E I F T T L  
EDL ALTI HA H P T L S E  
NFFKNQ I FT H P S I S E A L N D L  
GRL AS V I H P Y P T Q A E A I R  
EQVMRTVGI H P T C A E E V V K L R  
TEI R DFL FT H P T I A E A L N D  
EKL DD I T H I H P T L S E I I V  
RELA FN V H T H P T L S E V L  
SYVRDMI FT H P T M A E GL N D L  
DSL ED FLSA H P T L S E A I  
TEMLE M P FY H P V I E E GL R T  
PDL QR L V L A Y P T P A S D L QY L  
KQL AS V I H P Y P T Q A D A I R K I  
SEL RDGI WT H P S S T E A L N  
ETL RDQ I Y T H P T M T E A L N D L



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UniRef90_W2UBV7	C	L	N	V	G	C	I	P	S	T	K	S	L	L	R	G	A	D	I	A	H	T	L	K	E	A	E	H	F	G	F	T	F	D	N	L	S	F	D	L	K	
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UniRef90\_A8TKB3 R E V E G G G V R V K A K F V V I A T G S A P S V P P I P G L A D V P Y L T N  
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UniRef90\_U5QFN2 I L V S D S H G T K R G K H I L V A C G T R P A H D P N I C D G K Y I F D A D  
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UniRef90\_D3SUX0 L K V T N S R G D Y E S K N I I I A T G T K P A A S D K V P I N G T T I N S D  
UniRef90\_I3ZMM7



UniRef90_UPI00035D5E37	E	T	L	F	S	L	T	E	L	P	R	R	F	G	V	I	G	G	G	P	I	G	A	E	M	A	Q	S	F	A	R	F	G	S	E	V	S	L	I	T		
UniRef90_S4E3H3	T	D	F	L	S	L	D	Q	L	P	R	K	V	V	V	V	G	G	G	Y	I	A	F	E	L	A	S	I	V	F	A	N	G	A	S	E	V	T	I	I	E	
UniRef90_I4BD79	T	D	T	V	M	R	L	D	S	P	P	R	H	L	I	V	L	G	G	G	Y	I	A	F	E	L	A	S	I	V	F	A	N	G	A	S	E	V	T	I	I	E
UniRef90_UPI00047E5125	V	E	A	L	E	L	D	V	L	P	E	H	L	I	V	L	G	G	G	Y	I	A	F	E	L	A	S	I	V	F	A	N	G	A	S	E	V	T	I	I	E	
UniRef90_UPI00031E262B	E	E	V	F	Q	I	E	E	L	P	E	H	L	I	V	L	G	G	G	Y	I	A	F	E	L	A	S	I	V	F	A	N	G	A	S	E	V	T	I	I	E	
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UniRef90_UPI000366B27D	D	T	V	W	E	L	S	G	L	P	H	R	L	V	V	L	G	G	G	P	I	G	C	E	L	A	S	I	V	F	A	N	G	A	S	E	V	T	I	I	E	
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UniRef90_UPI000348ACEE	D	S	V	M	R	L	Q	D	L	P	R	R	M	I	I	M	G	T	G	F	V	S	A	E	L	A	H	V	F	S	A	L	G	T	D	V	T	V	V	E		
UniRef90_K9QJL6	E	T	V	F	S	L	I	Q	R	P	R	K	L	A	V	I	G	G	G	P	I	G	V	E	L	A	Q	T	F	Q	R	L	D	G	T	D	V	T	L	V	E	
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UniRef90_Q0G2J9	E	G	F	L	A	L	E	D	L	P	K	R	L	V	M	V	G	G	G	Y	I	A	F	E	L	A	S	I	V	F	A	N	G	A	S	E	V	T	I	I	E	
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UniRef90_B6B0C6	E	T	L	F	E	L	R	E	Q	P	A	H	L	V	I	G	G	G	P	I	G	M	E	M	A	S	I	V	F	A	N	G	A	S	E	V	T	I	I	E		
UniRef90_UPI00037238BB	T	G	I	Q	Q	L	T	E	R	P	E	R	L	V	L	G	G	G	N	I	G	M	E	F	A	S	I	V	F	A	N	G	A	S	E	V	T	I	I	E		
UniRef90_H3GE36	Q	L	L	W	G	V	K	T	V	P	R	R	L	V	V	G	G	A	G	V	V	G	M	E	F	A	S	I	V	F	A	N	G	A	S	E	V	T	I	I	E	
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UniRef90_W7AWL7	T	G	A	L</																																						

	210	220	230	240
UniRef90_UPI00035D5E37	S N R G L M P E E D R D E A V A M V R K H M E K D G V H M L L G A H E L E V S I N			
UniRef90_S4E3H3	H N S R R L L K A G F D Q D D A L R T R Y T D L M K R S R Y R F A F A D T D L Q K E L A G T			
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UniRef90_UPI000288223C	T E S R L L A L E D E D I V S K E L Q K E F S K R R G I Q V L T D T R I D T H S I N			
UniRef90_UPI000348ACEE	R S G L M L R H G D E D V A T R F T E L A A R R W D L R M N R T A K G V E R D			
UniRef90_K9QJL6	R G S H L L N K N E D A D A A E I V Q N V L I Q E G I R V V L N C Q L E E V V I A V			
UniRef90_W2UBV7	A E Q R I T P A E D A D I S A M A E K A F V Q R G I K V L T N S I V Q S L D T			
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UniRef90_UPI000388FBEB	R S I P L L R G F D Q Q M S F L V T D Y M E S C G T R F L K K C T P S K V E K L			
UniRef90_W4QIE7	A S E R I L P S G E D A A I S K E A A R L L E K K R I Q F I V G A D I D V T E I E			
UniRef90_I1HLK9	A L D Q L M P G F D P E I A K L A Q R V L I N T R K I D Y H T G V F A S K I T P			
UniRef90_A2RNK4	P H A T F L P K E D E D I S N E I Y K D L V A A G V E I Q L G V E I E R I T D S			
UniRef90_Q12V54	R S P R I V D N E E P E I S E L A R K K M A R Y V D I I T D H E V S E I H P S			
UniRef90_S7VY3	R R A R I L L A N E D E R S S G I L Q A S F E R D G I T V L H G R S A T E V V I S			
UniRef90_C7XN33	F D D S F L V I R E D E D E A K I L K E I L E K K D I K F F F K T S V K K F E D L			
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UniRef90_R4XPZ4	M T A E I L P Q E D A E I S A L A R K A F E K Q G I R V L T Q C A V K S S S L T			
UniRef90_G6XHU7	V A D R I L I A E D P E I S A F A R K A F E K Q G M K I M T G A K V G P L Q K S			
UniRef90_E4PU52	N V D F L S R F D M D L Q K S V K Q Y F D L K N I R V I D R V N L K R I D L D			
UniRef90_UPI00047D816D	S R D Q V L P G E D A D A A E V L E S A F Q R R G M T V L S R T R A E T V E R T			
UniRef90_L0JLH3	R R P Y L L P D D A D A V A E F T D R Y A D R F D V Y T G Y E A T A A M Q S			
UniRef90_M5D3H4	K T C L M E R E D A D A V A L I E A A L R A D G V R V L T Q T E A I R C E R A			
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UniRef90_U2RS06	A L D H M L P M L D G D L T A I G V K H M K K M G M E F N L E C P V Q A V E A S			
UniRef90_M5T966	S E H G I L T K E D R S A A E I V Q N A M E R A G V K L C C G R N L Q I K N			
UniRef90_A6GLK6	R G D L P L R G F D E G I R N R L V T A M Q L Q G I Q L F P D D T F K S L S Q Q			
UniRef90_G2J4W1	A S G S L G P L T D P V I R D Y A R R A L G E E F Y L D P K A K V V E M R			
UniRef90_U5WPC4	R S T E F L S V A D R D I A E E V G R D L A D L G V T I S G A A V S I L S S G			
UniRef90_U2B5D8	R N			

UniRef90\_UPI00035D5E37 P D G S I R L L H D 250 E A T N G Y D I E V D Q L L V A V G R A P N V I E S 260 270 280  
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UniRef90\_UPI00047E5125 S G S G V T L H L T S D G V A S E L K G S H L L V A T G R T P N S T Q N  
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UniRef90\_U1MU18 G T V A T V V T S A D P H A D A V L L A T G R S P A T A E  
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UniRef90\_U3TEQ7 E P V G A K V V C K N K A G E T V S F E A E K V L V A I G R K A N T A S  
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UniRef90\_G2J4W1 D D A A T V T Y T V G E S G D Q S L S V D Y V L L A T G R K P A I E G  
UniRef90\_U2B5D8 E G E Q R V L V R D L G S G E Q R S I A F D A A L L A L G R Q P H V D G  
UniRef90\_Q17745 A G K Y R V F W P K K N E E T G E M Q E V S E E Y N T I L M A I G R E A V T D D  
UniRef90\_A6LL85 L N Y I A I V D G E T I E A E K V L L A V G R R P N I T D  
UniRef90\_UPI00036C151F N G E K T L V A E H Q G E E V R I P F D V L L V A V G R A K L T G  
UniRef90\_W4URT6 E D G I E L T Y T S L S G D N P K I L E G S A V L V T T G Y R P L T D T  
UniRef90\_K9YN60 E E G K K I Y Y R S D R G E D S V I V D E I L M G A G R A P N V I E G  
UniRef90\_R7MA49 N N I V T L S S G E T L N P E L I L V A I G R E P N S Q E  
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UniRef90\_E1K001 P E G L R I E A P G A S L T C D M A V N A A G R P A A I D D  
UniRef90\_UPI00035CA4B7 E N K K W L Q A G D K A I E T D E I V V A I A Q Q P N I E F  
UniRef90\_K6VPM7 D G G V R V S L K D G T H V D G D V L L V A T G R W P N G D R  
UniRef90\_R5H2Q7 K K V Y L T T G E I L E P E C V L L A A G R V P N S C K  
UniRef90\_T0PQN8 D A T G Q L H V S F A N S E T N E T F T E V I F D T V L Y A V G R T A D T F N  
UniRef90\_UPI00035D7A0A N G E H I L L A E H D E Q I V R I A F D K V L T A I G R A K A V Q A  
UniRef90\_Q21EH1 E G K S V L T I S Q N E N T Q H L E C D Q L L A L G R T P R L Q G  
UniRef90\_A6GLK5 G E Q K V L V T E H Q G N T V E I E F D D V I C A V G R K A R L T G  
UniRef90\_W1RW50 G D V K R L I V I K D G Q E T V I E F D A L I C A V G R E A R L E G  
UniRef90\_A8TKB3 D A D A V A L T L D G P D G A E T V G G S H L L V A A G R K A T F E G  
UniRef90\_C7LYG4 A D G V V G I E Q G A G V D K L A A D V V A V V V G R E P R L I E P  
UniRef90\_M4ZUH1 D D G S I E I I V G G S V I V D E L L V A T G R E P N S D L  
UniRef90\_K0V7D1 I L R P G A A P V A R V Q Y L R D G R S V S V D A D T I L V A L G R T P N T A  
UniRef90\_Q6AFG3 E N G V V V S L I E D G S T V I E E L L V A V G R G P L T Q G  
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UniRef90\_A0A010NFW0 E D G V K V T L I E D G K T F E A E I C L V A V G R G P V T E G  
UniRef90\_U5QFN2 A D G R V I H Y R T R A G T A Q V T V D A I L V A G R T P N V I E A  
UniRef90\_L8H6Y8 E A R K R V I A E L E S G K R V T G D S L L Y A V G R Q C N S D S  
UniRef90\_E6S609 P T P G E A D Q V E V T L E D G T V L R A E R I L V A T G R R T D P G A  
UniRef90\_UPI00031DB26F G D Q V K I R F V N R E D G K E K E E N F E Y V L A A T G R S P N V I N  
UniRef90\_U4UHP6 H T G K L Q I L Y S N K T K Q K F S A E F Y D K T I L F A I G R R S L I N E  
UniRef90\_G2FDL9 K Q G L K V S F E G K N A P D K P Q L Y D T V L V A V G R T P N G R S  
UniRef90\_K8GT24 G S P V V I E L A D T K T K E V V E V L E V D A C L I A T G R I P Y T K D  
UniRef90\_F0F1L5 G K V I E K V K W S D N G E S G V F V A D Y L L A A A G R R P N V D N  
UniRef90\_S9PXX1 K I E K L P S Q L R L H S E Q S T L D V D S L L W A V G R T P K T E G  
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UniRef90\_UPI00041C8AC8 D T D G K T A A F I E Y T D K D G N E G R W Q G E R V L V A T G R R N N I K Q  
UniRef90\_D3SUX0 D D G I V V T A E E N D N E E N S D E S V E L E A E R L L F A T G R R P N T D S  
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UniRef90_UPI00035D5E37	L	G	L	E
UniRef90_S4E3H3	L	D	L	V
UniRef90_I4BD79	L	D	V	G
UniRef90_UPI00047E5125	I	L	G	L
UniRef90_UPI00031E262B	L	L	G	L
UniRef90_A0A014MHU1	L	L	S	E
UniRef90_UPI000366B27D	L	L	G	L
UniRef90_M1FB56	L	L	G	L
UniRef90_UPI000288223C	L	L	G	L
UniRef90_UPI000348ACEE	I	L	A	A
UniRef90_K9QJL6	L	L	N	L
UniRef90_W2UBV7	L	L	G	L
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UniRef90_A0A011R2Y0	Y	L	G	L
UniRef90_B6B0C6	L	N	L	N
UniRef90_UPI00037238BB	L	L	G	L
UniRef90_H3GE36	L	N	L	N
UniRef90_UPI0002E4710B	L	G	F	E
UniRef90_W7AWL7	I	L	G	L
UniRef90_UPI000318F8E2	L	N	L	E
UniRef90_L8JHK4	F	G	L	E
UniRef90_M7PN1I	L	D	L	E
UniRef90_X5JGX4	L	N	L	D
UniRef90_UPI000388FBEB	L	N	L	E
UniRef90_W4QIE7	I	L	G	L
UniRef90_I1HLK9	L	L	G	L
UniRef90_A2RNK4	L	D	L	E
UniRef90_Q12V54	L	H	P	E
UniRef90_S7VY33	L	A	P	E
UniRef90_C7XN33	L	L	G	L
UniRef90_E6QSU2	L	L	G	L
UniRef90_F8A554	L	A	L	I
UniRef90_A0A024HY21	L	D	A	E
UniRef90_W9B7T2	L	L	G	F
UniRef90_F8A3L4	L	N	L	N
UniRef90_K9Z154	L	D	L	D
UniRef90_U1MU18	L	D	L	D
UniRef90_UPI000464B683	L	L	G	L
UniRef90_R4XPZ4	L	L	G	L
UniRef90_G6XHU7	L	L	G	L
UniRef90_E4PU52	F	K	N	L
UniRef90_UPI00047D816D	I	L	G	L
UniRef90_L0JLH3	L	N	V	L
UniRef90_M5DLH4	F	G	L	E
UniRef90_UPI000262927E	L	L	G	L
UniRef90_A3SIQ4	L	D	L	E
UniRef90_U3TEQ7	V	L	G	L
UniRef90_U2RS06	L	N	L	E
UniRef90_M5T966	L	N	L	E
UniRef90_A6GLK5	L	L	G	L
UniRef90_G2J4W1	L	L	G	L
UniRef90_U5WP54	L	L	E	A
UniRef90_W2B5D8	Y	G	A	E
UniRef90_Q17745	V	G	L	T
UniRef90_A6LL85	D	I	K	E
UniRef90_UPI00036C151F	Y	F	G	L
UniRef90_W4URT6	L	R	L	Y
UniRef90_K9YN60	L	N	L	E
UniRef90_R7MA49	K			
UniRef90_C5CDS1	G	L	E	D
UniRef90_E1K001	L	D	L	E
UniRef90_UPI00035CA4B7	L	N	L	A
UniRef90_K6VPM7	L	N	L	S
UniRef90_R5H2Q7	K			
UniRef90_T0PQN8	I	G	L	E
UniRef90_UPI00035D7A0A	Y	G	V	E
UniRef90_Q21EH1	F	G	L	E
UniRef90_A6GLK5	Y	G	L	E
UniRef90_W1RW50	Y	G	L	E
UniRef90_A8TKB3	L	D	L	E
UniRef90_C7LYG4	E	L	G	L
UniRef90_M4ZUH1	L	E	V	R
UniRef90_K0V7D1	L	R	L	E
UniRef90_Q6AFG3	L	G	F	E
UniRef90_W6LRJ7	Y	G	L	E
UniRef90_A0A010NFW0	F	G	F	E
UniRef90_U5QFN2	L	D	L	E
UniRef90_L8H6Y8	L	N	L	A
UniRef90_E6S609	V	L	G	S
UniRef90_UPI00031DB26F	L	G	L	E
UniRef90_U4UHP6	L	Q	L	E
UniRef90_G2FDL9	I	N	A	E
UniRef90_K8GT24	L	G	L	E
UniRef90_F0F1L5	I	L	G	L
UniRef90_S9PXX1	L	R	L	E
UniRef90_F5RD78	L	G	L	E
UniRef90_A0A011RNB7	L	G	L	E
UniRef90_L8SMG7	L	A	L	E
UniRef90_J2ZA28	W	N	V	S
UniRef90_UPI00041C8AC8	L	G	V	E
UniRef90_D3SUX0	L	D	L	E
UniRef90_I3ZMM7	L	Q	L	E



	330	340	350	360
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UniRef90_I4BD73	L K H V A N R E D A V V K H N L H P	D L R A T I V S H E L V P S A V F T S P Q M		
UniRef90_UPI00047E5125	F T H I S F N D F H I V R D N L A G A N R T T T G	R Q V L P S C Y C F T D P E L		
UniRef90_UPI00031E262B	L A V K A I K Q G K V A E A I A G E N T E A D	L T F L V P F I A H T N P E I		
UniRef90_A0A014MHU1	L A H V A Y R H A V V A V S T I T G K G E K Y N	D K T F V P A C V Y T H P E I		
UniRef90_UPI000366B27D	F T H L L G G T Q G G A A A T D A L L G V R R K	P V D Y R A V P W V T Y T D S P E I		
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UniRef90_UPI00037238BB	F T Y T S L D D F R I V F G K L M T G N G D Y T	K R S D R G Q V P T T V F T D S P E I		
UniRef90_H3GE36	L A S T S M E Q G R L A V S K H M R T S K P F R A K	L S L I M P F T G I T V P E I		
UniRef90_UPI0002E4710B	L A H A A S A Q G I L T V E T I C G D P R T I N Y M S I	P A A A F T H P E I		
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UniRef90_UPI000318F8E2	F T H A A D A A A R I V I K N T L F S P F R Y K L S	S Y L V M P W V T Y T D S P E I		
UniRef90_L8JHK4	L T H A A A H Q A W Y A A V N G F G H F K F K A D Y S	V L P A A T Y T S P E I		
UniRef90_M7PN11	L A S A S M E Q G R R A T C N I L G L E T A Q F S H L I	P A G I Y S I P E I		
UniRef90_X5JGX4	F T H A A D A A A R I V I K N T L F S P F R Y K L S	G L V M P W V T F T D S P E I		
UniRef90_UPI000388FBEB	E L T P T A I A A G K L L A Q R L F G Q S S E L M D Y	D N V P T T V F T D S P E I		
UniRef90_W4QIE7	L A H V A S H E G I T A V D H I A G K V E P L P N Y D	H V P A C I Y S P E I		
UniRef90_I1HLK9	L A H A A S A Q G I S V I D H I S G R D H I L N H L S I	P A A C Y T H P E I		
UniRef90_A2RNK4	F Y Y L S T D D F R I V N N Q L F G D H S R K L S D R K L V	P A S V F T S P E I		
UniRef90_Q12V54	F K H V G N Y E S T L V Y E N A L L N E G I K I D Y N A V	P R A I F S Y P E I		
UniRef90_S7VY33	F S H V A G V S G S V A G T N A I L L G R R T F N E V V V	P Y A T F T S P E I		
UniRef90_C7XN33	F T Y V S L D D F R I V F P Q I G E N N G R K L S D R I L I	P T S T F L D P Y		
UniRef90_E6QSU2	A S P M T A S V A Q Y V A A T N A M K G N G S A R A N Y	F K V P Y M I H S A L E M		
UniRef90_F8A554	Y V Y V A A Q T G H V A A A G A L G Q Q S A R V D Y R G L	P G V T F T T P Q E		
UniRef90_A0A024HY21	L S S V A Y K S A D L I T N H I V N K K A Q P L N Y R V I	P A C V Y G P K D F		
UniRef90_W9B7T7	L K H V A N H E M R V R H N W D T A M V A S D H R F V	P S A V F T D P Q M		
UniRef90_F8A3L4	L A H R G F A Q G I F V A E Q I C G L N A P A I V E S G I	P R V T Y S E P E I		
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UniRef90_U1MU18	L T P I S L D D H R I V A A Q L T G A G R R R D D R V A V	P T T I F T T P E I		
UniRef90_UPI000464B683	F T H V S L D D Y R I V K A N I T G A D R R T T G R L V	P W N V F T T P E I		
UniRef90_R4XPZ4	L A H K A S H E A V L C V E A I A G L P V H A L D P L R I	P A C T Y S H P Q V		
UniRef90_G6XHU7	L A H K A S H E G I L C V E K I A G R S P Q P L H P L N I	P G C T Y S R P Q V		
UniRef90_E4PU52	L S S V A Y K T G D I V A R N I L K Y N D S E F Y K N L V	P W A I Y L N P E I		
UniRef90_UPI00047D816D	L A S I A A M Q G R I A M A H L L G D A V K P L K L K Q V A	S N I F T A P E I		
UniRef90_L0JLGH	L K H N A N H E A R A V A R N L F G E A L D P V D Y S A M	P F A V F G S P E I		
UniRef90_M5LDH34	F T H V A A H Q G W Y A A V N L F G A K R F K V D Y S V I	P W T F T S P E I		
UniRef90_UPI000262927E	L A S T S L L Q A R I A T L H A F G Q L E N E R I L P R E L	P Y G I W T I P A V		
UniRef90_A3SIQ4	F T H V A G Y H A G I V I R S A L F G L P A K A T R D H I	P A Y A T Y T D S P E I		
UniRef90_U3TEQ7	L A H R A F L Q A V I V A E R A A G D S T A A F D A K A V I	P A V V Y T D S P E I		
UniRef90_U2RS06	L A H T A S A M G E V A E N I M G I P A V Y D E K T N P T	C V Y M E P E A		
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UniRef90_A6GLK6	L T P V A I A E G R A L A E N E F N G K D L T V D H T S V I	P T A T F T S P E I		
UniRef90_G2J4W1	L L H E A A D E G K T A G E N A A R Y P D V R P G L R R A P I	G V V F S D P Q M		
UniRef90_W5WPDC4	F T Y I S F D D H R V I L S D R W G D G S R T T S G R I F	P T T F T F L E P L		
UniRef90_U2B5D8	Y T H V A A H Q A W Y A A V N A L F G G K			

UniRef90\_UPI00035D5E37 A H V G L N P E L A K E Q G V E L D T F T Q P M S G V D R A I L E G E T E G 370 380 390 400  
UniRef90\_S4E3H9 A S V G I T P T A E A E K Q Q D L K V V A Q D L T S W F S Y S R L N E D D T  
UniRef90\_I4BD73 A S I G V T T E N D E C R D S G L D Y R V G L A E Y A D V A Y G W A M E T D D T  
UniRef90\_UPI00047E5125 A E I G L T T E N D E A S K R G I P Y R L A R I P M P A I L R T R T I S E T R G S  
UniRef90\_UPI00031E262B A S V G L T T E Q E T Q T N E I N Y K V G Q F N L G A N G F T S I I S K R D S  
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UniRef90_I7ZAY0	M K E C	D V A V I	G A G T A G L A A S G A A H R A G A K V L I E S G S S G T T		
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UniRef90_Q2JF62	C	V	L	T	D	C	V	P	S	K	T	L	I	A	T	S	E	T	M	T	N	L	A	L	A	G	P	G	L	G	V	R	P	A	H	V	V	N	V	D	A	E	
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UniRef90_L9VGY1	C	I	T	R	G	C	I	P	S	K	A	L	I	H	R	A	D	V	V	E	E	V	V	R	R	A	P	E	F	G	I	A	A	E	L	N	G	D	V	D	Y	G	
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UniRef90_I1U4M3																																											
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UniRef90_S3V2F5	C	L	N	R	G	C	I	P	S	K	M	L	I	H	P	A	E	I	T	Q	A	S	E	S	N	R	F	Q	L	E	I	P	G	S	L	K	V	D	F				
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UniRef90_F6GFL3	C	A	N	R	G	C	D	P	K	K	I	L	V</																														

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

	130	140	150	160
UniRef90_G4FC59	WEI Q V G D Q E L T A R H I V L	A T G A R P R V P P L P G I E S A P V L T S		
UniRef90_Q2JF62	V E A T S T G E T F V G R V L V	A T G A S P R D L P T A R P D G E P R L T W		
UniRef90_S9Q622	V Q A G D T E I F T A R R I V V	A T G A S P F V P P I P G L E N V P Y L T N		
UniRef90_L9VGY1	N D R D A D N V E I R G E T V V L	A V G G R P S I P P I D G L E N V D F L T S		
UniRef90_B9LNB0	T V E I V D G D D R A D T V L I	A T G T R P S I P P I D G I E D V D Y L T S		
UniRef90_R3W571	N D K S K E E E I I V P K N V I	A T G S S P R T L P N L P L D E K M I L S		
UniRef90_I1U4M3		A T G S R T A L P P I P G L S G G P Y L T N		
UniRef90_M0QK12	D A A T G R Y R L V T A D A E V L	A I G S R S I L P P I P D I A S G A A P F H T S		
UniRef90_D2R164	D P S I P E D R T V T F D Y C I V	A T G S F T M P P N F N I G A S D R V M D S		
UniRef90_UPI00036CAA82	G T V E V D G R V L N A A D I I	A T G S T A V L P P V A G L E T V P V W T N		
UniRef90_UPI0003460696	V A V G D Q R L R A D V V L V	A T G A R H P R E L P N A K P D G D R L T W		
UniRef90_UPI0003B42EDF	H R L I V H Q C E V A F D R C L I	A T G A R P Q I P P I P G L Q D T P Y W L S N		
UniRef90_A0A018R8A1	V E G E N G K T V I N F D N A I I	A A G S R P I Q L P F I P H E D P R V W D S		
UniRef90_K01797	R S L V V R E Q I V V F D R C L V	A T G A S P A L P P I P G L K E S P Y W T S T		
UniRef90_B3R9F9	T L D V D G H T V V R A S R V V I	A T G S T P V L P A P F Q V F G D R L I V N		
UniRef90_C7LXA5	I V S G N S R L E A S H C I V	A T G S T P R E L H I P G S S L Y S S S		
UniRef90_S3V2F5	K V L K V N D Q L T A D R I E I	A A G C R P I L D I P G L A G T P Y L S T S		
UniRef90_F0JBV4	V E V D D L G P I T A R H I V V	A A G A V T R P L G I P G E E L L L T S		
UniRef90_F6GFL3	V L V E G K T I S A D Y F V I	A T G R V P R K L K I K G N K H I E T S		
UniRef90_E3ZGH0	L Q V G E N V L K T K N I V L	A T G A S P R N K Q N I P G S E F I Q N S		
UniRef90_F2U0W6		A T G G S P R L P A I A Q N P E H P L I L T N		
UniRef90_X5SG61	V S L T A D N G D Y S F T N A I I	A V G T R P H R P R D V P F D K V R V F D S		
UniRef90_M4NFY3	I L E V N G E L T R A R H F H L	A T G R A P M T N L I P G E N L L I T S		
UniRef90_A0C460	L L Y G K L D D F K K F K Y C V I	S T G G R P T K L Q S I E K H A I T S		
UniRef90_Q115D3	L A F V V K G R H L K R S R K Y L L	A T P S Q P I P A I P E G L I S T G F L T P		
UniRef90_D8FXT9	L A F A V N G R L K R S R F L L	A T P Q P A I P D I E G L L S T G Y F T D S		
UniRef90_V9WDU9	V E V A T D T R V T G E K F L I	A T G T R T Y R P D Y V P F N G K T V V D G		
UniRef90_Z5GYA6		A T G R A P R A L P G I A P D G E H I W T Y		
UniRef90_Q46LY3	V E V K D R K N G E Y G R I L I	A V G G R K R P S I E G A S L G W T S		
UniRef90_UPI0002F182C5	T R H D G T T Q R L T T R S I V I	A A G A P L V P P L P G L T D H N H L T S W		
UniRef90_B4ULN9	R E V E V A G E R L A P V I V V	N V G R A P A V P P I P G L D R V P F L T S		
UniRef90_UPI00035E3F86	R L H D G S R E V I P F D R C L I	A T G A S A A V P P I P G L E G T P Y W T S T		
UniRef90_B8MZ48	I E V A N N D G T K A R Y T A P H I	I L I A T G G R P K L P N I K G A E H G I T S		
UniRef90_UPI0002626F3B	I Q K P D G T S Q R L C S T A I I	I A A G A P Y V P P L P G L E E V G Y L T S		
UniRef90_G4QEY5	S L N D G S K Q R L S A R N I V I	A T G R A P F V P P L P G L E N S A Y V T S D		
UniRef90_K4KEW0	V S P D G R R E R L T A E H I V V	A T G S R P Y R P S D I D F G H P R V Y D S		
UniRef90_A0A038GUZ5	H S T A G G R E R T V S F D R C L I	A T G A T A A V P I P G L K D T P Y W T S T		
UniRef90_T1HQM1	I A A T L K N K L K A D H I V V	A C G G R P S Y P D V P G A K		



	170	180	190	200
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UniRef90_Q2JF62	R H L Y D L L K E D L P E H L V V V G G G V I T G I E F A S A Y H L J R L G A K V T T L V S E			
UniRef90_S9Q622	E T L W D L L E R D D L P E H L V V V G G G V I T G I E F A S A Y H L J R L G A K V T T L V S E			
UniRef90_L9VGY1	D A L F L L R D D Q P E D S H L V V V G G G Y I G A E L G Y F F G A L G T D V T T M I G			
UniRef90_B9LNB0	T E A L L R L E T A P E S H L V V V G G G Y I G A E L G Y F F G A L G T D V T T M I G			
UniRef90_R3W571	D G M L L E L E T A P E S H L V V V G G G Y I G A E L G Y F F G A L G T D V T T M I G			
UniRef90_I1U4M3	E T L Y R L S E L P E R H L V V V G G G Y I G A E L G Y F F G A L G T D V T T M I G			
UniRef90_M0QK12	D D V M R L L P E L T I V V G G G Y I G A E L G Y F F G A L G T D V T T M I G			
UniRef90_D2R164	T G A L A L A D I P E T M L V I V G G G Y I G A E L G Y F F G A L G T D V T T M I G			
UniRef90_UPI00036CAA82	R E A T T V T E P A K H V V M L G G S A V T G A E F A N A Y Q A R L G S E Q V T T L V S E			
UniRef90_UPI0003460696	R Q L Y D L D T L P E K R L A V I G S S V V A T E L A Q A F A R L G S E Q V T T L V S E			
UniRef90_UPI0003B42EDF	E A L A S D T I P E K R L A V I G S S V V A T E L A Q A F A R L G S E Q V T T L V S E			
UniRef90_A0A018R8A1	T D A L E L K E V P K R M L V M G S G I I A L E M G T V Y F A R L G S E Q V T T L V S E			
UniRef90_K01797	E A L A S A T V P G S V V V F G S G V I A L E L A Q A F A R L G S E Q V T T L V S E			
UniRef90_B3R9F9	D D V F S W Q D L P E S V V V F G S G V I A L E L A Q A F A R L G S E Q V T T L V S E			
UniRef90_C7LXA5	N D F L A M P T P E R I A F I G G G Y I A F E M A H I A A A G A K H V H			
UniRef90_S3V2F5	R E A L R R T D L P K R L L V L G G G Y I A F E M A H I A A A G A K H V H			
UniRef90_F0JB4	D Q F L D L E T L P E S M L F I G G G F I S F E F A T M L A I A A G A K A T T L H			
UniRef90_F6GFL3	D S I L N L T K I P K T A S F I G G G Y I S F E F A T M L A I A A G A K A T T L H			
UniRef90_E3ZGH0	D D F L S L P T P K S V T F I G G G Y I S F E F A T M L A I A A G A K A T T L H			
UniRef90_F2U0W6	E S I F N L D T E L P A R T L G V I G A G P I G C E L A Q A F A R L G S E Q V T T L V S E			
UniRef90_X5SG61	D E M L E L D H L P A R T L T V I G A G V I G V E Y A T I F S A L D V P V L V E			
UniRef90_M4NFY3	T D F L E L P E R P D R V V F I V G G G F I A M E F A H I C K R A G S R D T V L E			
UniRef90_A0C460	D D I F S Q Q K P P G K T L V V G G G Y I A L E C A G M L K G L G Y D V T T L M T			
UniRef90_Q115D3	E E I Q E L S K K V P E T L A V I G G D P S G V E I A Q S F S R R L G T Q V T T L V V			
UniRef90_D8FXT9	R Q L S E L S K K L P E T L V V I G G D P A G V E I A Q S F S R R L G T Q V T T L V V			
UniRef90_V9WDU9	D E F L E M E E L P R S L V V V G A G V I G V E Y A T M F S A D L D V R V T T L V E			
UniRef90_Z5GYA6	F E A L R P K I P R S L L I V G S G A I G V E F A S L Y N D L G V C K E V T Q L V			
UniRef90_Q46L3	D D M F L L K S F P K K T I V V G G G Y I A C E F A C I L L H G L G V E V T Q L V			
UniRef90_UPI0002F182C5	D A F S A L L E T I P R R I L V V G G G P I G C E L A Q A L A R L G A Q V T Q Q V E			
UniRef90_B4ULN9	T G A L A L R A L P A H L V V L G G G Y V G C E L A Q A L A R L G A Q V T Q Q V E			
UniRef90_UPI00035E3F86	E A L V S A T I P G R L A V I G S S V A A V E L A Q A F A R L G A G A R V T L L			
UniRef90_B8MZ48	D G F F E I E E L P P K I A V V G A G Y I A V E L A G V M G A V G V D T H M F I			
UniRef90_UPI0002626F3B	D T L W D R E K E P K R L V V L G G G P I G T E L A Q A F A R L G S E V T S Q I Q			
UniRef90_G4QEY5	T M W T E L E E A P K K L V V L G G G P I G C E L A Q A F A R L G S E V T S Q I Q			
UniRef90_K4KEW0	D T I L N M K H T P R N L L I Y G A G V I G C E Y A S I F S G L G I K V D L I N			
UniRef90_A0A038GUZ5	E A L V S D A I P E R L A V I G S S V V A L E L A Q A F A R L G S E V T S Q I Q			
UniRef90_T1HQM1	D D L F S L L T P P G D T L I V G A G Y I G L E C A G F L N G M G F E S T V M V			
UniRef90_A2SIU0	D D V F D W Q D L P R S V A V V G T G A I G L E L A Q A L H L L G V R V R L V L G			
UniRef90_R0G5U5	R E A L M P R Q T P R R L L V I G A G A I G I E F A S F Y R A L G A E V T V V E			
UniRef90_D7G913	A S V F N L T A L P R R L V V I G G G P I G L E L A Q A M Q R F G S E V T V L I			
UniRef90_UPI0002F2DBB3	D A F A K L D D I L P K R I V V L G G G P I G C E L S Q S F A R L G A Q V T Q V E			
UniRef90_K1VRB9	D D A L K L S S L P K W I A I V G S G Y I G I E F A D I Y T A L G S E V T M I V			
UniRef90_UPI0001E89DF8	E T I F S L S K L P K R L L V L G G G P I G I E F A Q A M A M L G S E V T V V E			
UniRef90_UPI0002490137	R E F L D L E E M P N H L T F V G A G I I S L E F A S M A A M L G S A V T V V E			
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UniRef90_E0ITZ3	K G A L S L M N N T K S D I G I I G C G A I G L E T A T I W Q R L G L N V T L F E			
UniRef90_UPI00046EFF14	D D I F E W D D L P E S H L V V V G P G V I T G L E L G Q A L H R R L G G A V D M T M F G			
UniRef90_A6WEZ2	K Q V Y F E D M T E L P A S H L V V V G G G V T G A E F A N A Y D A R L G A H V T L V S			
UniRef90_I7ZAY0	E T I F E L E T L P A S V A V I G A G A V G A E L G Q A L H R R L G A V R T A I E D			
UniRef90_C5ANE4	E A L N S D A L P A R L T I I G S S I V A A E M A Q A F A R L D S R V T T L L V			
UniRef90_UPI0002624B48	M L Y D D G A P A G K R I L I V G G G V I G T E F A Y I F A D Q F L D K D V T Q W L V			

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250

260

270

280

[illegible]



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UniRef90_R0G5U5	F T H A A D F M A R V I R N A L F G D K A K F S D L L I P W A T F T E P E V			
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UniRef90_S9Q622	A Q V	G L T	E E A	Q A R
UniRef90_L9VGY1	A S V	G R T	E E A	L E E
UniRef90_B9LNB0	A G V	G A R	E E Q	N D L
UniRef90_R3W571	A S V	G Y V	K E N	V P K
UniRef90_I1U4M3	A G V	G L S	E R E	E A
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UniRef90_S3V2F5	A A V	G K T	E Q E	E L I
UniRef90_F0JBV4	A C A	G L L	E E E	Q A R
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UniRef90_E0TIZ3	A Y V	G K D	L L K	L E K
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UniRef90_UPI0002624B48	A R I	G L D	D D T	A E D
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UniRef90_U5VH16	V V V	G K T	P E Q	A T A
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UniRef90_D8SFR3	S M T	G M T	E P Q	A R E
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UniRef90_H6RT70	A S V	G V S	P A E	A R E
UniRef90_L8DJ45	S Y V	G A T	E V D	L T K
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UniRef90_E1K000	A V V	G A T	E D M	G A R
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UniRef90_T0R096	G C C	G L S	E D A	A V E
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UniRef90_Q5WFW3	A Q V	G M T	E T Q	A R E
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UniRef90_I0JV82	A S V	G L T	E A A	A K E
UniRef90_J0B866	A V V	G T P	F K S	L Q Q
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UniRef90_D2V520	G L V	G Y S	E E K	A K K
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UniRef90_I1U4M3	L	V	K	L	L	R	D	P	A	M	D	R	L	L			G	A	R	I	V	A												M	E	L	S	L	A	L	R	Y	E		P	V	
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UniRef90_D2R164	L	T	K	W	L	I	D	P	E	T	E	R	V	L			G	C	G	L	V	A	G	P	G	A	G	E	M	I				S	E	A	A	L	A	I	E	M	G	C	V	V	
UniRef90_UPI00036CAA82	H	L	G	L	L	A	D	H	Q	D	K	G	V	L			G	A	W	A	V													H	Q	A	A	L	A	I	R	T	R	I	P	I	
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UniRef90_A0A018R8A1																																															
UniRef90_K0I797	F	I	K	L	V	T	D	T			T	G	H	L	I		G	V	Q	A	V	A	P	E	A	G	E	L	I	Q	T	A	A	L	A	I	R	H	R	M	T	V					
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UniRef90_C7LXA5	G	F	K	L	L	V	D	K	E	T	R	K	L	L			G	A	H	V	L		G	D	A	A	S	E	N	T	I	V	N	H	L	F	A	L	S	M	R	K	I	N	G	T	V
UniRef90_S3V2F5	F	V	K	L	L	V	D	R	K	E	T	R	K	L			G	A	H	V	L		G	D	A	A	S	E	N	T	I	V	N	H	L	F	A	L	S	M	R	K	I	N	G	T	V
UniRef90_F0JB4Y	G	Y	R	I	L</																																										

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UniRef90\_S9Q622 D Q I A G M V A P Y P T L G E V  
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UniRef90\_C7LXA5 D E L R S M L W A Y P S F G Y A I K Y M  
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UniRef90\_F3NBQ5 Q T L R I G S E I V S A D Q F L I A T G Q R P A L L P I K G Q E Y A L H T S  
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UniRef90_T1AXE8	W	G	A	L	E	F	E	R	K	V	P	K	K	I	L	G	V	I	G	A	G	V	I	G	L	E	L	G	Q	V	L	H	N	M	G	S	E	V	T	T	L	I	N	
UniRef90_I0IME2	D	D	I	L	E	T	R	I	L	P	P	K	K	V	V	V	I	G	T	G	V	V	I	G	L	E	L	G	Q	V	L	H	N	M	G	S	E	V	T	T	L	I	N	
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UniRef90_L0NG06	D	E	L	L	D	I	D	T	V	P	R	S	L	V	V	I	G	S	G	V	I	G	I	E	L	E	Y	A	S	I	F	S	A	L	D	T	Q	V	S	V	V	E		
UniRef90_N9NCR3	N	E	I	F	E	F	S	Q	L	P	R	S	L	A	V	I	G	S	G	V	I	G	I	E	L	A	Q	A	M	Q	R	L	G	V	J	K	T	T	M	F	A			
UniRef90_UPI0003C18BCF	D	D	L	F	W	L	K	E	S	P	G	K	T	L	V	V	I	G	A	S	Y	V	A	L	E	C	A	G	L	L	T	G	L	L	D	T	T	V	M	I	S			
UniRef90_S3X1V0	E	T	I	M	R	L	A	E	L	P	R	R	M	V	I	L	G	G	G	V	E	A	L	V	E	F	G	H	I	Y	A	L	L	G	V	H	V	T	V	I	S			
UniRef90_B6CP0	R	Q	A	M	S	L	E	K	Q	P	K	K	M	I	V	V	I	G	S	G	A	G	I	G	M	E	F	A	Y	F	Y	A	L	L	G	A	E	V	T	T	V	V	E	
UniRef90_S6JHD2	T	E	A	L	Q	P	T	A	I	P	K	K	R	L	T	V	V	I	G	S	G	A	G	I	G	L	E	G	I	A	Y	R	N	K	L	G	A	E	V	T	T	V	V	E
UniRef90_UPI00047B0128	T	Q	I	Y	Q	M	T	E	V	P	K	H	L	I	V	V	I	G	S	G	V	T	G	A	E	F	A	S	A	Y	N	G	L	L	G	A	K	V	T	T	L	I	S	
UniRef90_D1BK52	T	Q	V	Y	N	L	K	A	L	P	P	E	K	L	V	V	I	G	S	G	V	T	G	A	E	F	A	G	A	Y	N	A	L	L	G	A	E	V	T	T	V	V	E	
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UniRef90_N0DZJ6	D	T	I	M	R	L	D	T	L	P	P	K	R	M	A	V	I	G	G	G	F	V	A	L	E	C	E	F	A	H	V	F	S	A	L	G	V	S	E	V	T	Q	I	Q
UniRef90_UPI00036EF5A4	N	D	V	L	D	L	S	E	V	P	Q	E	V	I	V	L	G	G	G	I	V	A	L	C	E	C	E	L	A	V	F	L	C	R	V	L	G	S	K	V	T	L	L	Q
UniRef90_S7HLX3	F	G	P	S	Y	P	K	K	P	Y	Q	S	L	I	I	I	G	G	G	P	I	G	L	E	C	E	F	A	H	V	I	F	D	A	A	G	T	Q	V	T	M	V	Q	
UniRef90_E7A8Z0	L	M	Q	L	N	K	L	P	S	H	L	V	V	V	I	G	G																											

	210	220	230	240																																							
UniRef90_I2K9S9	R	H	D	R	L	L	P	H	T	H	S	S	I	Q	N	A	M	T	K	E	L	E	R	Q	G	I	T	Y	L	K	E	H	A	I	T	S	K	A	E	P	T		
UniRef90_T1AXE8	A	L	P	T	F	L	P	A	V	D	A	Q	V	I	S	E	A	A	T	E	A	R	Q	F	Q	R	G	L	G	S	I	M	L	G	A	K	I	T	S	V	E	R	T
UniRef90_I0IME2	I	L	P	E	W	G	H	G	L	D	R	D	I	A	E	V	L	T	D	A	Q	L	E	R	A	A	G	V	T	I	Y	T	G	T	S	L	Q	S	L	D	E	A	
UniRef90_UPI000308995A	M	A	G	Q	L	L	P	G	E	D	R	D	I	A	E	V	L	T	D	A	Q	L	E	R	A	A	G	V	T	I	Y	T	G	T	S	L	Q	S	L	D	E	A	
UniRef90_L0NG06	P	R	S	T	M	L	D	F	I	D	R	E	I	V	E	D	F	T	Y	Q	L	R	E	N	M	K	L	I	F	G	Q	T	S	A	E	K	I	D	E	R	E		
UniRef90_N9NCR3	R	S	Q	K	L	G	A	L	S	D	S	A	V	L	Q	K	L	A	Q	E	Q	F	S	K	E	L	N	I	K	F	K	I	L	P	D	K	V	E	I	Q			
UniRef90_UPI0003C18BCF																																											
UniRef90_UPI00042C9C5C	R	S	V	P	L	R	A	F	D	Q	M	A	S	L	V	T	E	H	M	A	G	R	G	T	R	I	L	R	G	C	A	P	E	R	V	E	K	L					
UniRef90_S3X1V0	R	S	A	P	L	L	R	K	L	D	S	L	T	A	E	A	A	T	E	A	L	A	G	R	V	A	V	R	L	N	Q	Q	V	T	G	L	E	K	P	E			
UniRef90_B6CP0	F	L	P	N	V	V	P	V	E	D	E	D	S	K	Q	L	E	R	S	F	K	A	G	I	K	V	M	T	S	S	E	V	T	K	V	D	T	S					
UniRef90_S6JHD2	A	R	D	R	I	L	P	T	Y	D	K	D	L	T	L	P	V	A	E	S	K	A	L	G	I	T	L	Y	L	S	H	S	V	T	K	V	D	T	S				
UniRef90_UPI00047B0128	S	R	D	R	V	L	P	G	E	D	A	D	A	K	V	L	E	D	V	F	E	K	R	G	M	S	V	L	A	Q	S	R	A	E	S	V	E	R	T				
UniRef90_D1BK52	S	R	D	R	V	L	P	G	E	D	A	D	A	A	N	L	I	E	E	V	F	R	G	R	G	M	T	V	M	G	R	S	R	A	E	S	V	A	V	V			
UniRef90_L1JCE3	R	S	V	V	L		R	G	F	D	R	D	C	A	E	R	I	K	D	M	I	N	T	G	T	N	F	I	E	S	C	I	P	L	G	I	E	L	L				
UniRef90_UPI0004201C1E	A	S	R	R	L	L	G	R	E	D	A	E	I	A	A	R	A	E	S	A	L	R	R	E	L	T	I	Y	T	G	S	S	V	S	R	V	E	Q	S				
UniRef90_N0DZJ6	R	S	A	T	V	L	S	K	E	E	A	E	V	A	K	R	Y	T	A	L	A	G	E	E	R	Y	D	L	R	V	I	S	T	G	V	N	A	H	R	T			
UniRef90_UPI00036EF5A4	R	S	D	R	I	L	K	D	F	P	E	Q	A	S	L	C	I		K	F	E	S	G	M	I	V	K	T	G	V	S	I	E	L	E	Q	I						
UniRef90_S7HLX3	H	N	V	R	L	L	P	K	E	D	A	L	F	Q	K	S	I	L	D	S	L	T	S	K	G	I	Q	V	I	N	A	S	R	A	S	I							

[illegible]



[illegible]



UniRef90_I2K9S9	L	A	H	A	A	R	V	Q	A	L	N	V	T	K	Q	L	M	G	K	Q	P	G	K	L	N	L	D	H	V	V	R	F	L	H	T	L	P	M	S	Y				
UniRef90_T1AXE8	L	A	H	K	G	E	E	E	G	V	M	V	A	D																														
UniRef90_I0IME2	V	L	N	V	A	T	F	F	Q	G	E	M	A	G	N	A	T	R		K	S	P	L	P	I	P	E	P	P	V	P	I	A	I	F	T	D	P	E	Y				
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UniRef90_L0NG06	L	A	S	T	S	M	E	Q	G	R	I	A	A	R	N	A	V	G	A		P	A	S	E	P	P	Q	Y	F	P	Y	G	I	Y	A	V	P	E	I					
UniRef90_N9NCR3	I	Q	H	E	A	A	H	T	G	K	Q	V	V	H	N	C				L	V	N	Y	P	E	V	K	P	I	S	A	L	I	P	L	A	I	V	F	C	H	P	E	M
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UniRef90_UPI00042C9C5C																																												
UniRef90_S3X1V0	L	K	H	L	A	N	Q	Q	A	R	V	V	K	H	N	E	R	D	G	Q	P	L	V	A	T	R	E	E	Y	V	P	L	G	V	F	G	H	P	E	I				
UniRef90_B6C6P0	L	A	H	V	A	S	A	E	G	I	L	C																																
UniRef90_S6JHD2	L	A	H	R	A	M	A	Q	G	E	M	V	A	E							I	I	A	G	K	Q	R	E	F	S	P	T	A	I	A	A	V	C	F	T	D	P	E	I
UniRef90_UPI00047B0128	L	A	S	V	A	A	M	Q	G	R	T	A	I	A	H						L	M	G	D	S	V	K	P	L	K	L	F	Q	V	A	S	N	I	F	T	S	P	E	I
UniRef90_D1BK52	L	A	S	V	A	A	M	Q	G	R	V	A	M	S	H	A	L	G			D	A	V	Q	P	I	R	L	R	T	V	A	N	I	F	T	S	P	E	I				
UniRef90_L1JCE3	E	L	T	P	V	A	I	K	Q	G	L	M	L	A	K	R	I				W	G	N	S	K	L	V	N	L	D	H	V												
UniRef90_UPI0004201C1E	F	T	H	G	A	G	A	Q	A	Q	T	A	L	A	N						A	L	F	G	L	P	Q	N	I	N	Y	D	A	M	P	W	S	Y	Y	T	Q	P	E	I
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UniRef90_UPI00036EF5A4	I	V	H	V	A	I	R	Q	G	E	T	A	A	A	H	A	L	G	Q		S	P	Q	P	I	S	Y	D	H	R	F	H	A	V	P	H	A	V	F	T	D	P	Q	V
UniRef90_S7HLX3	F	R	H	K	A	N	Y	E	A	E	I	L	A	H	N	G	N	E	P		E	T	W	R	W	A	D	Y	D	A	V	P	A	V	T	Y	T	Y	P	E	A			
UniRef90_E7A8Z0	F	T	Y	V	S	L	D	D	F	R	I	V	S	Q	H	L	Y	G	D	K	S</																							

UniRef90\_I2K9S9 A T V G Q N R Q R L E E D G M E F K E S S I M L S Q F K P A A F H Q A G N G

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UniRef90\_I0IME2 A S V G L T E M Q A R E K Y G D V R I G E F A F T A N G K A I L N E Q T G

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UniRef90\_N9NCR3 A W V G K S E E Q L K E G I E Y K V V F P F A A N S R A K T N D T D G

UniRef90\_UPI00042C9C5C G C V G L S E E A A D V A C H G E H V E V Y H A F Y K P L E F T V P Q R D A S Q

UniRef90\_S3X1V0 A S V G A T S A A D L D R A G I P H V E Y I H E Y G W T A Y G W A L N D T G H

UniRef90\_B6CPD0 V V V G K T P A E A E A A G L D F I S A S F P F S A N G R A M T L E S K T G

UniRef90\_S6JHD2 A T V G V T E A D I A S G R Y Q G D V L K L A L S K T N P R A K M M N V E D G

UniRef90\_UPI00047B0128 A T V G Y S E E K K L V D Q G S K Y V T T I L P L S R N P R A K M L G M R D G

UniRef90\_D1BK52 G S I G F S E E R A I A T D F G E D N I E V Y H S E F T P L E Y T V P H R R S R C

UniRef90\_L1JCE3 Y H L G M T E A E V Y E E R G G S Y Q V L R G S G A D R M T A E M D E D S

UniRef90\_N0DZJ6 A A F G P T A A E L E A S G T A Y V T K T Q R Y G D I A Y G W A L E D V G G

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UniRef90\_UPI000365B389 A A V G L T E A G A R D A G H D V V N T M P L T A V A K G M V H G Q G G

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UniRef90\_UPI000463EBA3 A S V G L T L K E A E A A G H R V R A V D Y A I E N V A G A S L Y A E G Y Q G

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UniRef90\_UPI00026294B4 G V F G T S F S D L N M A S S V M A K F D L E K N N G R A I V M E E D K G

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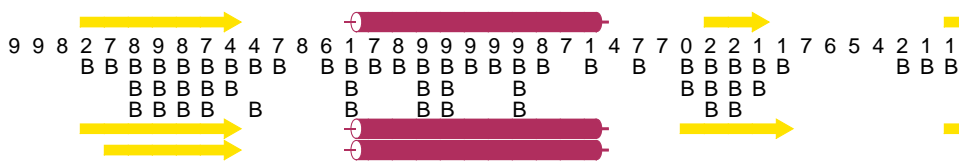
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UniRef90_T1AXE8																																											
UniRef90_I0IME2	W	L	K	I	V	A	N	E	S	D	H	K	E	I	V	G	A	E	M	F	G	P	G	A	S	D	L	I	H	V	H	V	A	I	A	L	G	A	T	L			
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UniRef90_L1JCE3	Y	A	K	L	I	V	N	Y	D	K	Q	R	V	I	G	F	H	Y	L	G	P	N	A	G	E	V	T	Q	G	F	A	S	A	F	V	A	G	L	S	L			
UniRef90_UPI0004201C1E	F	V	K	V	I	V	D	K	S	G	R	Y	V	I	G	A	H	A	V	G	A	Q	A	S	D	W	M	Q	T	L	V	Y	M	K	Q	K	D	K	I				
UniRef90_N0DZJ6	F	L	T	V	H	A	S	P	V	T	T	R	V	L	A	A	H	C	I	G	Q	A	S	T	V	I	Q	P	L	I	Q	A	S	F	G	Q	D	V					
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UniRef90_S7HLX3	F	V	K	L	V	I	D	K	K	T	K	F	I	L	G	A	S	H	I	V	G	P	E	A	S	I	L	I	Q	P	F	V	Q	A	L	R	A	K	S	V			
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UniRef90_M9U1G7	F	V	K	I	F	C	R	P	G	T	G	I	V	V	G	G	C	V	V	A	P	R	A	S	E	L	I	H	P	I	S	L	A	V	D	N	N	L	T	V			
UniRef90_I0U9S9	V	V	K	I	I	S	D	T	K	H	D	L	I	L	G	V	H	M	I	G	V	G	A	I	D	L	I	S	S	G	I	I	G	L	E	M	A	H	E				
UniRef90_Q65MC8	K	V	K	I	I	E	P	E	Y	Q	E	I	V	G	V	S	I	V	G	P	G	A	T	E	L	I	S	Q	A	A	V	M	L	H	A	E	L	T	A				
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UniRef90_A0A011T8L0	Y	T	K	A	V	V	D	T	D	R	D	V	L	V	I	G	A	T	F	V	G	A	N	D	M	A	E	L	L	Q	A	A	T	I	A	I	V	G	E	V	P	L	
UniRef90_H2C7W8	Q	T	K	L	G	I	D	R	E	N	R	V	V	I	Y	G	E	V	V	S	N	N	A	E	E	L	I	V	N	L	L	V	L	A	I	K	L	R	M	K	V		
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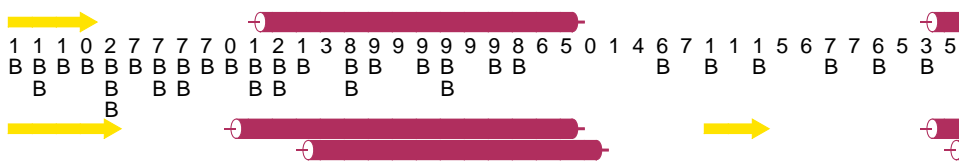
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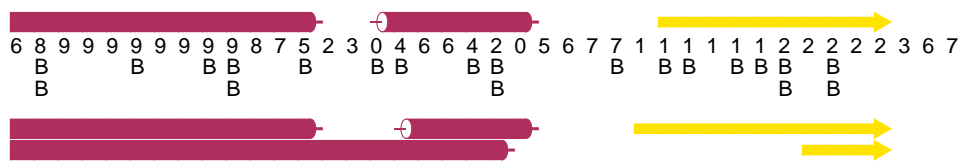
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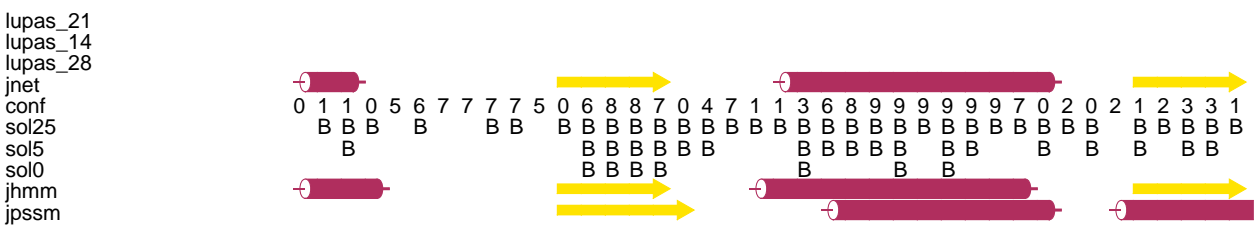
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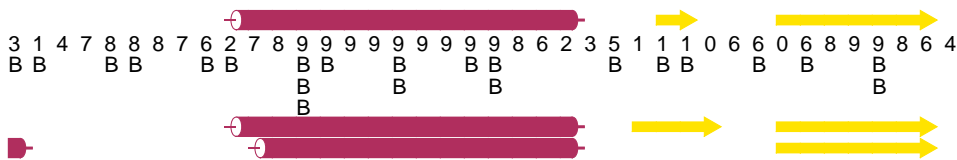


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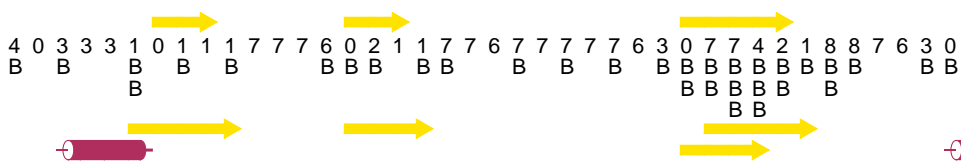
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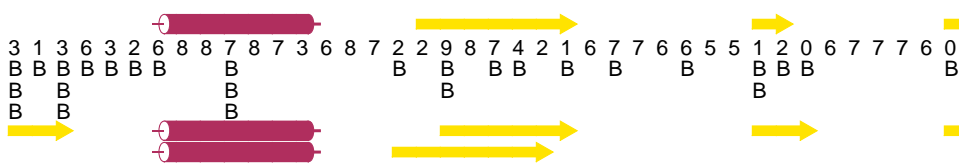
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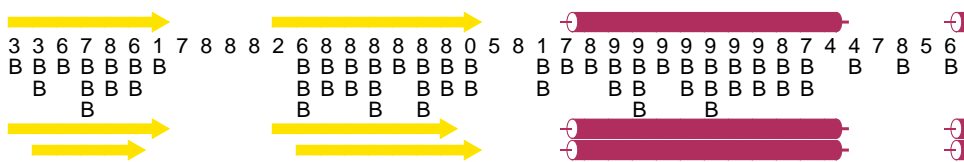
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