

QUERY	1	10	20	30	40																																										
UniRef90_D1B7J5	MK	L	S	D	F	L	I	K	T	E	D	F	K	K	E	K	H	V	P	V	I	E	A	P	E	K	V	K	K	D	E	P	F	V	Q	V	V	T	V	V	G	G					
UniRef90_UPI000377FB4F	MA	F	E	N	L	L	Q	S	A	D	W	K	G	E	K	H	V	P	V	L	E	E	G	A	P	E	V	V	K	K	G	E	A	F	V	Q	V	V	T	V	V	G	G				
UniRef90_D3L582	MK	F	E	N	L	L	Q	S	A	D	W	K	G	E	K	H	V	P	V	L	E	E	G	A	P	E	V	V	K	K	G	E	A	F	V	Q	V	V	T	V	V	G	G				
UniRef90_UPI0004785D92	MK	F	A	D	V	L	Q	S	A	D	W	K	G	E	K	H	V	P	V	I	E	E	A	P	E	K	V	K	K	G	E	A	F	V	Q	V	V	T	V	V	G	G					
UniRef90_E4TH49	M	P	L	A	E	V	L	K	S	A	D	F	K	G	E	K	H	V	P	V	I	E	E	C	P	E	N	G	L	N	K	G	E	A	F	V	Q	V	V	T	V	V	G	G			
UniRef90_F7NDH0	MK	L	A	D	V	L	K	S	A	D	W	K	T	E	K	H	V	P	V	I	E	E	A	P	D	R	E	V	K	K	G	E	A	F	V	Q	V	V	T	V	V	G	G				
UniRef90_E0RNT7	MK	L	G	E	W	L	K	S	D	D	F	K	T	E	K	H	V	P	V	I	E	E	L	P	D	R	E	V	K	K	G	E	A	F	V	Q	V	V	T	V	V	G	G				
UniRef90_F3Z468	MK	A	G	E	L	Q	T	A	D	W	K	N	E	K	H	V	P	V	I	E	E	C	P	D	D	S	V	A	S	G	E	A	F	V	Q	V	V	T	V	V	G	G					
UniRef90_V5WH49	MA	L	A	D	G	L	Q	T	A	D	W	K	A	E	K	H	V	P	V	I	E	E	S	P	D	T	V	K	A	S	G	E	A	F	V	Q	V	V	T	V	V	G	G				
UniRef90_F7YV10	M	P	L	S	N	H	I	Q	S	A	D	W	K	A	E	K	H	V	P	V	I	E	E	C	A	D	V	V	K	A	N	E	W	F	S	E	V	K	V	L	S	V	G	G			
UniRef90_I9MC39	MK	L	S	D	V	L	Q	S	A	D	W	K	T	E	K	H	V	P	V	I	E	E	A	P	E	K	V	K	K	G	E	A	F	V	Q	V	V	T	V	V	G	G					
UniRef90_X1H412	E	F	R	D	L	F	K	S	A	D	W	K	T	E	K	H	V	P	V	I	E	E	V	P	D	R	I	V	K	G	E	Y	F	A	N	V	K	L	A	T	V	V	G	G			
UniRef90_E3CV91	MK	V	A	D	T	L	Q	S	A	D	W	K	G	E	K	H	V	P	V	I	E	E	A	P	E	K	V	K	K	G	E	A	F	V	Q	V	V	T	V	V	G	G					
UniRef90_H1XV48	MK	L	A	D	Q	L	Q	S	A	D	W	K	T	E	K	H	V	P	V	I	E	E	A	P	E	K	V	K	K	G	E	A	F	V	Q	V	V	T	V	V	G	G					
UniRef90_O50258	MK	L	C	M	Q	L	Q	S	A	D	W	K	T	E	K	H	V	P	V	I	E	E	C	P	D	D	A	V	K	A	A	D	A	F	F	P	V	V	L	S	V	G	G				
UniRef90_UPI00046CD90F	I	G	D	L	Y	K	Q	A	D	W	K	A	E	K	H	V	P	V	I	E	E	C	P	D	D	T	V	A	A	D	E	A	F	F	E	V	K	V	L	S	V	G	G				
UniRef90_E1K076	MS	M	V	D	L	E	Q	T	A	D	W	K	G	E	K	H	V	P	V	I	E	E	C	P	E	A	Q	V	P	G	D	G	S	F	F	D	V	R	V	L	S	V	G	G			
UniRef90_D2Z6U9	MK	F	G	E	L	L	Q	S	A	D	W	K	G	E	K	H	V	P	V	I	E	E	A	P	E	K	V	K	K	G	E	A	F	V	Q	V	V	T	V	V	G	G					
UniRef90_A1HRY1	MK	F	V	D	L	Q	S	A	D	W	K	A	E	K	H	V	P	V	I	E	E	A	P	E	K	V	K	K	G	E	A	F	V	Q	V	V	T	V	V	G	G						
UniRef90_D3PD16	MA	I	G	E	F	V	K	T	A	D	F	K	N	E	K	H	V	P	V	I	E	E	L	P	E	K	I	K	A	G	E	K	F	F	V	V	N	V	S	V	G	G					
UniRef90_D4H5Z7	MS	I	G	E	F	V	K	T	A	D	F	K	N	E	K	H	V	P	V	I	E	E	V	V	P	E	G	I	K	A	G	E	P	F	F	V	V	N	V	S	V	G	G				
UniRef90_UPI00036C6B84	L	S	D	L	I	K	R	D	D	W	K	N	E	K	H	V	P	V	I	E	E	A	P	D	S	V	S	A	S	E	P	F	D	V	K	V	L	S	V	G	G						
UniRef90_HOUJA9	MK	L	G	E	L	Q	T	A	D	W	K	T	E	K	H	V	P	V	I	E	E	C	A	D	E	T	V	A	A	E	A	F	F	E	V	C	V	L	S	V	G	G					
UniRef90_I4C6Z6	L	G	E	L	Y	Q	A	D	W	K	T	E	K	H	V	P	V	I	E	E	C	A	D	E	T	V	A	A	E	A	F	F	E	V	C	V	L	S	V	G	G						
UniRef90_O29903	M	E	L	F	Q	T	A	D	W	K	G	E	K	H	V	P	V	I	E	E	V	L	R	A	E	G	G	V	V	E	V	K	V	L	S	V	G	G									
UniRef90_C5ZZW2	I	G	E	T	V	R	S	G	D	W	K	G	E	K	H	V	P	V	I	E	E	Y	E	A	K	E	G	D	L	V	K	V	K	V	Q	S	V	G	G								
UniRef90_UPI0003B5B81E	MA	I	G	D	F	R	K	T	A	D	F	K	N	E	K	H	V	P	V	I	E	E	V	P	S	R	A	G	V	K	K	G	E	A	F	V	Q	V	V	T	V	V	G	G			
UniRef90_Q1JX34	I	G	A	S	I	R	R	A	D	F	K	N	E	K	H	V	P	V	I	E	E	L	P	S	R	A	G	V	K	K	G	E	A	F	V	Q	V	V	T	V	V	G	G				
UniRef90_I0GKS9	MA	L	K	D	L	Q	T	A	D	F	K	N	E	K	H	V	P	V	I	E	E	V	L	E	K	G	D	K	T	K	I	R	V	L	S	V	G	G									
UniRef90_UPI00047DA46A	MK	L	G	Q	L	Q	S	A	D	W	K	G	E	K	H	V	P	V	I	E	E	V	L	E	P	E	K	V	K	K	G	E	A	F	V	Q	V	V	T	V	V	G	G				
UniRef90_Q8R810	F	G	A	L	Y	Q	S	A	D	W	K	G	E	K	H	V	P	V	I	E	E	H	S	P	E	K	V	S	A	S	E	S	F	E	V	K	V	L	S	V	G	G					
UniRef90_UPI00035C3E40	MK	L	A	D	C	L	Q	T	A	D	W	K	A	E	K	H	V	P	V	I	E	E	T	V	P	A	S	E	I	K	A	G	E	F	T	A	C	V	L	S	V	G	G				
UniRef90_D1Y2M6	MK	L	G	E	L	Q	S	A	D	W	K	G	E	K	H	V	P	V	I	E	E	A	P	A	S	E	I	K	K	A	G	E	T	A	H	V	V	L	S	V	G	G					
UniRef90_B5YCD9	L	K	D	L	F	Q	S	A	D	W	T	K	E	K	H	V	P	V	I	E	E	L	L	E	K	D	K	E	K	G	V	R	V	R	L	S	V	G	G								
UniRef90_D6GQ21	L	Q	D	N	F	I	K	T	G	D	W	K	G	E	K	H	V	P	V	I	E	T	C	A	D	T	F	K	G	E	V	T	D	V	L	S	V	G	G								
UniRef90_D9RZ36	S	L	A	N	H	L	K	K	D	W	K	E	K	H	V	P	V	I	E	E	V	K	G	P	V	V	K	K	G	E	V	T	D	V	H	L	C	V	L	S	V	G	G				
UniRef90_UPI00047D8740	MS	L	G	K	L	L	Q	T	G	D	W	K	G	E	K	H	V	P	V	I	E	H	S	P	E	K	V	K	K	G	E	A	F	V	Q	V	V	T	V	V	G	G					
UniRef90_K0B314	MS	L	G	N	L	L	Q	T	G	D	W	K	G	E	K	H	V	P	V	I	E	L	S	V	D	S	V	K	L	G	E	S	V	A	E	V	K	V	H	C	V	L	S	V	G	G	
UniRef90_G9XBQ3	L	G	Q	L	L	Q	T	G	D	W	K	G	E	K	H	V	P	V	I	E	E	T	A	P	Q	T	V	V	K	K	G	E	S	V	A	E	V	K	V	H	C	V	L	S	V	G	G
UniRef90_A0A010ZKX7	MK	I	G	E	V	M	R	D	G	D	F	K	A	E	K	H	V	P	V	I	E	E	A	P	E	K	V	K	K	G	E	A	L	V	K	V	M	V	L	S	V	G	G				
UniRef90_I2F4D0	MA	I	G	E	Y	V	K	S	A	D	W	K	S	E	K	H	V	P	V	I	E	E	I	P	D	D	S	V	K	P	G	E	A	F	V	Q	V	V	T	V	V	G	G				
UniRef90_R5BKW9	MA	V	T	N	Y	V	K	S	A	D	F	K	N	E	K	H	V	P	V	I	E	E	T	A	P	D	D	S	V	K	A	G	E	K	V	H	I	L	E	V	V	G	G				
UniRef90_R1CRA3	MK	I	S	E	F	L	Q	T	G	D	W	K	G	E	K	H	V	P	V	I	E	N	V	P	E	N	I	K	A	D	E	E	F	E	I	K	L	E	V	V	G	G					
UniRef90_E1L524	MA	V	H	D	Y	L	Q	S	A	D	F	A	T	E	K	H	V	P	V	I	E	E	A	A	P	D	K	V	K	G	E	A	F														

QUERY		50	60	70	80
UniRef90_D1B7J5	K E I	P H P N T T E E H H	R W I K Q V L F F K P D	G G G K F P Y E V V	G R Y E F F N A H H
UniRef90_UPI000377FB4F	K E I	P H P N T T E E H H	R W I K L L F F A K P E	G G G K F P Y E V V	G R Y E F F N A H H
UniRef90_D3L582	K E I	P H P N T T E E H H	R W I K L L F F A K P E	G G G K F P Y E V V	G R Y E F F N A H H
UniRef90_UPI0004785D92	K E I	P H P H T T E E H H	R W I R L L A F F K P E	G G G K F V Y D L V	G L V E F F N A H H
UniRef90_E4TH49	K E I	P H P N T T E E H Y	R W I S R L L Y F F K P A	S S G N K F V Y D L	G Y R A E F F N A H
UniRef90_F7NDH0	K E I	A H P N T T E E H H	R W I R L L Y F F K P D	S S G N K F V Y D L	G Y Y F E F F N A H
UniRef90_E0RNT7	K E I	P H P N T T E E H F	Q W I R R L L Y Y K P D	V D G G K F A I D L	G G A E F F F N A H
UniRef90_F3Z468	K E I	S H P N T T A H H H	A W I K Q V L F F K P E	G G G K F P Y E V V	G G S F F F F T A H
UniRef90_V5WH49	K E I	P H P N T T E E H F	S W I K Q V L F F R P E	G G G K F T I Q L V	G G D S F F F T A H
UniRef90_F7YV10	K E I	P H P N T T E E H H	K W I K L L F F M S P E	G G G K F I Y D V D	A T F S E F F N V H
UniRef90_I9MC39	K E I	A H P N T T E E H H	R W I R L L Y F F K P A	D N S G K F V F E V	A K A S E F F V A H
UniRef90_X1H412	K E I	H H P N T T E E H H	S W I E I L Y F F Q P A	G G G K F P Y E V V	A G K F F E F F V A
UniRef90_E3CV91	K E I	P H P N T T E E H H	K W I S Q V L F F K P A	G G G K F A Y E V V	A K V R F F E V H H
UniRef90_H1XV48	K E I	A H P N T T E E H H	S W I R L L Y F F K P K	G G N F T H Q V V	G G S H F F E F F T W
UniRef90_O50258	K E I	A H P N T T E E H H	R W I S R V L Y F F K P A	G G G K F S Y E V V	A G S F F E F F V A
UniRef90_UPI00046CD90F	K E I	A H P N T T E E H H	R W I R L L Y F F K P E	G G G K A P F E V V	A N L E F F F T A H
UniRef90_E1K076	K E I	A H P N T T E E H H	R W I R L L Y F F K P E	G G G K F A Y E V V	A G S F F E F F T A
UniRef90_D2Z6U9	K E I	A H P N T T E E H H	C W I K L L S F F K P E	G G D K F G Y E V V	A K V F F F D G H H
UniRef90_A1HRY1	K E I	A H P N T T E E H H	R W I K L L S F F K P E	N G N K F A Y E L V	A N F E F F N A H H
UniRef90_D3PD16	K E I	A H P N T T E E H F	G W I S L L Y F F K P A	N G N V I N L V	G R A F E F F T A H
UniRef90_D4H5Z7	K E I	P H P N T T E E H F	S W I S L L Y F F K P A	E N G P V I N L	G R A F E F F T A H
UniRef90_UPI00036C6B84	K E I	V A H P N T T E E H H	R W L R L L F F K P Q	G G Q E L V Y E A	G A F F E F F N A H
UniRef90_HOUJA9	K E I	A H P N T T A H H H	S W M K V L F F F L P E	D G D A K N P L E L	A D S F H Y V A H H
UniRef90_I4C6Z6	K E I	A H P N T T E E H H	M W I K V L H F F K P D	N E D G K F S Y D L	A D S F F F S A H H
UniRef90_O29903	K E I	P H P N T T E E H H	A W I E L L V F F Q P E	G S K F P Y V V	G R A F E F F A H H
UniRef90_C5ZZW2	K E I	P H P N T T E E H H	K Y I S L L Y F F K P A	G E N F V Y Q I	G R A D D F F T A H
UniRef90_UPI0003B5B81E	K E I	A H P N T T E E H F	A W I S L L Y F F K P A	D G G V V S H L	A K F F E F F T A H
UniRef90_Q1JX34	K D I	P H P N T T E E H F	N W I C L L Y F F K A	A G E S R V T E L	A K F F E F F T A H
UniRef90_I0GKS9	K E I	P H P N T T E E H H	E W L E V Y F F K A	A D G K F P Y E L	A R N F F F D S H H
UniRef90_UPI00047DA46A	D A V	A H P N S F E H Y I	A W F K V F H H P E	D G A K F P I E I	A N F D F F P T H H
UniRef90_Q8R810	E E I	P H P N T L E E H H	K W I K V L F F Q G E	G D K F P V E I	G N Y N F F T S H H
UniRef90_UPI00035C3E40	K D I	A H P N T L E E H H	Q W V K L L Y F F K P A	V E L F F K A I E L	G K A V F F T A H H
UniRef90_D1Y2M6	K E I	A H P N T M E H Y I	A W I K L L Y F F K P A	S S K F A V E L	G E L T F F D V H H
UniRef90_B5YCD9	K E I	P H P N T T A H H H	V W L E L V F F Q P E	G D K Y P Y H V	G R F E F F V A H H
UniRef90_D6GQ21	D A I	S H P N T T A E H Y	A W F K L F F V A E	G S K N V V E L	G D V H F F D S H H
UniRef90_D9RZ36	K E I	P H P N T T E E H H	R W I K L L Y F F Q P E	G E K T I V E I	G T Y R F F E A H H
UniRef90_UPI00047D8740	D E I	K H P N T L E E H H	S W F K V L F F H P E	G A K F P V E I	G T Y R F F T A H H
UniRef90_K0B314	K E I	P H P N T F E H Y I	S W I K V L F F Q P E	D G H K F P I E I	G S Y N F F S A H H
UniRef90_G9XBQ3	Q E I	A H P N T L E E H H	S W I K L L F V P P E	S G G K L V E L	A H S E F F S A N G
UniRef90_A0A010ZKX7	Q E I	K H P N T P L E H H	R W L Q L L Y F K Y P D	D A T P V I E V	A K F D Y F T A H S
UniRef90_I2F4D0	K E I	S H P N T L E E H H	K W F D L L Y Y M Y D	D G Q F L I H L	G A R L E F F T P
UniRef90_R5BKW9	K D I	A H P N T T E E H H	S W I K L L Y Y V E K D	G T T L P Y E V	A R L E F F N V H H
UniRef90_R1CRA3	D E I	K H P N K V E E H H	A W I K V L F F H P E	G S K F P V E I	G T Y N F F S A H H
UniRef90_E1L524	K D I	A H P N T V E E H H	E W I K L L Y F V A E	G T Q L P V E V	G E L S F F N V H H
UniRef90_M1Z3B5	E E I	A H P N T Q E H Y I	A W I K L L Y F H P E	G S N F P V E V	G S Y N F F N S H H
UniRef90_A7HKA0	K E I	P H P N L V E E H H	A W I E L L Y A M P E	G A P Y L R I	G R Y E F F S P T L
UniRef90_NOBL06	K E I	P H P N T T E E H H	K W L E L L F L P D	G A K F P V H I	G R T Y F F N T H H
UniRef90_E3PSP5	D A I	A H P N T L E E H H	S W F K L L F L A E	G A K F P V E L	G R T Y N F M A H H
UniRef90_H2J341	K D I	A H P N T L E E H H	A W I D L L Y V H Y E	D N P N T I H L	G R F E F F T N H G
UniRef90_L0HJ05	K E I	A H P N T P E H H H	A W L E L L Y F Q P E	D G Q F P I L V	G R V A F F T N H G
UniRef90_C5CIN3	K E I	P H P N T V E E H H	K W M D L L Y V K Y P D	D S Q F L V H L	G H L E L T P N H G
UniRef90_E0QKW1	E E I	A H P N T L E E H H	A W I K L L F F V A E	G S Q V L V E L	A N S E F F A A N G
UniRef90_V2QH03	A E I	A H P N T T E E H F	A Y I D L L Y Y K G E	A A Q H I	G R A E F F A H H H
UniRef90_F9MTM9	E E I	E H P N T L E E H H	Q W I K V L F L Q K E	G S K F P I E I	G S Y Q F F S A H H
UniRef90_UPI00029A549B	K E I	P H P N T P E H H H	A W I Q L L Y F H P E	N G V F P I L V	G T V E F F T N H H
UniRef90_C2BH40	E E V	A H P N T F E H H H	A W I K V L F F K P E	G A K F P I E V	G S Y E F F K A H H
UniRef90_B1L4D1	K E I	P H P N T T E E H H	R W I S L L Y F W P E	G E N Y P F E I	G K A D F F S A H H
UniRef90_U2JJM0	D E I	A H P N T V E E H H	A W I K L L F F Q P E	D S K F P I E V	G S Y Q F F A A H H
UniRef90_A8AC72	E E I	P H P N E A A H S I	R W I K L L Y F F Q P E	G R K F P V M L	G R V A F F E P G
UniRef90_D7N7V8	E E I	A H P N T L E E H H	S W I K L L Y F Q P E	G A K F P I E I	G S Y A F F K V H G
UniRef90_D7D7Z0	E E I	P H P N K V E E H S	R W V E L L Y F E E E	G R A F P I L L	G R A L W T P
UniRef90_B0RZL7	E E V	E H P N T F E E H H	A W I K V L F F Q P E	G E K F P V E V	A S Y Q A A A H H G
UniRef90_U7UEX0	E E V	E H P N T L E E H H	A W I K V L F F Q P E	G A K F P T E V	A S Y Q F F A H H G
UniRef90_C2CKL6	K E I	A H P N G F E E H H	A W I K V L F F K A E	D S K F P V E V	A S Y Q F F P A H H
UniRef90_B5Y9S3	K D I	P H P N T L V E H H	K W I D L L F F E E E	D D P F P I H I	A T F D L
UniRef90_A9B134	K E I	K H P N T V E E H H	E W I Q D L F L Q Y D	D N T V H I	A G R Y L F
UniRef90_C7HSK2	K E I	A H P N T L E E H H	V W I K V L F F V P E	G G K L P V E I	A N Y N F F S A H H
UniRef90_E0NJPO	E D I	A H P N T L E E H H	S W I K V L F V K P E	G A K F P I E V	G S Y E F F K A H H
UniRef90_D5U163	K E I	P H P N T V E E H S	R W I E L L Y F F E Q G	A K F P I L I	G R Y E F F T P
UniRef90_G4D162	E E I	E H P N T L E E H H	G W I K V L F F Q P E	G F A A P V E V	G S Y N F F S A H H
UniRef90_W0JDS6	K D I	P H P N T K E H Y I	G W I E G F V V P K S G	V A K S I	G K F L F E P
UniRef90_G0EFE4	K E I	P H P N E A A H S I	R R V E L L W F A E E	G R P F P H I	A T V T F F E P
UniRef90_UPI000366E6D0	K D I	P H P N L V E E H H	K W I Q V L F F E E E	G R A F	N P
UniRef90_Q1K036	S S I	V E H P M T D E H H Y	E W I E L L A D G K S Y	R A F E L L N P	G G
UniRef90_F7V8Z0	S S I	V A H P M E E A H H Y	S W I L E T A Q G R Q R	K E L L K P	G D A
UniRef90_X1Q6D2	K E I	A H P N T T E E H H	S W I E V Y F H P E	K E K F P Y Q	G R F N F M V H G
UniRef90_C9KNV3	T	V T H P M L P E H F	E W I H L E T E N G A Q	K H L K P	G D A
UniRef90_UPI00037FF34F	S	V T H P M L P E H H W	Q W I Y L Q T E K G G Q	R V D L N P	G G E
UniRef90_X8GQA1	S	V D H P M T E E H L	Q W I L L E T S Q G Y	Q K D L A	G G Q A
UniRef90_E8LG14	S	V E H P M L E K H Y I	Q W I Y L Q T T H G	G Q R Y L K P	G G
UniRef90_I3TF63	K E I	P H P N T V E E H S	R W I E L L Y T F K E	E G G R A F P V F	L G R Y V F E P
UniRef90_UPI000464C651	S T I	V A H P M G D D H H H	A W I V L Y T E K G	C Q R K Y L	P G
UniRef90_UPI00036479C7	S S A	V E H P M L A E H F I	E W I H L E T R K K G A	Q M A H L Q	P G G
UniRef90_R5FEV4	S S A	V E H P M I P E H Y I	Q W I A L A T R Q G G N	Q R K E L Q	P G Q
UniRef90_D9R4Y7	S S I	V E H P M L P E H F I	G W I A L E T K Q G N	Q R K V L S	P G E
UniRef90_G4Q8A1	S S I	V E H P M L D E H Y I	E W I S L E T K E G N	Q R K E L K	P G
UniRef90_J0X251	S S I	V E H P M L P E H Y I	Q W I Y L L T T G G	H R T A L Q	P G E A
UniRef90_D1VX44	E E V	E H P M L E A H Y I	Q W I D L L I T E N G	V L R K F L K	P G E
UniRef90_D0WIF2	E E V	A H P N K L E E H H	S W V V L F E T K N G	F Q K V E L S	A G Q
UniRef90_F7XLG4	K E T	P H P N K V E E H H	A W I L F G V K K D	N D Q V V N L	G R S S F
UniRef90_A2BLY6	K E T	P H P S K V E E H S	R W I E V Y F Y E	G R P Y P I H L	A R L D L

QUERY	90	100	110	120
UniRef90_D1B7J5	E S V Q G P N	G A V Y T E P T V T T V V K L N R S G T L L T A L S S Y C	N I I H G G L	
UniRef90_UPI000377FB4F	E S T D G G A N Q G G P A H T E E P F G V F R L V K L N R S G G T L L T A L S S Y C	P R A L F A V K R L N D N R S G G T V L L Y A T S S Y Y	N I I H G G L	
UniRef90_D3L582	H V N G P N T G P A Y T S E P Y A V A K I K L N K K S G M L L L A M S S Y Y	L L L A T S S Y Y	N I I H G G L	
UniRef90_UPI0004785D92	E S P E G A N Q G G P A Y T D P V A S F R I K L N K K S G M L L L A M S S Y Y	V A Q V T A K L Q S S G T L L L A V S S Y Y	N I I H G G L	
UniRef90_E4TH49	E S T E G A N K K G P A Y T N P V A G F K V K L N K K S G T L L L A V S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_F7NDH0	E S T E G A N K K G P A Y T E P V A G Q V T A K L Q S S G T L L L A V S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_E0RNT7	A T T A G P N T G S P A Y T E P V A V F K V K L N D T P G T L L L A V S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_F3Z468	A S T E G P D T S S V Y T H H G V T C S F K T S K T P G G T L L L A T S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_V5WH49	A S A K G A N E G S A L T E P A V T V D V K L K L N K K S G T L L L A T S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_F7YV10	E S V A G A N Q G S S V W T H S A A V T W M K L N T K S P G T L L Y A L A Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_I9MC39	E S T D G A N K K G P A Y T E P T T K A V I K L N G K S G T L L L A T S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_X1H412	E S V N G P D T S T L Y T N P E L T L S F K T E K P G G T L L Y A T S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_E3CV91	E S T E G P N Q G G P A H A N P C A T V K V K L N S K S P G T L F L A L S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_H1XV48	E S T S G P N K G G P V Y T A N P E V T V S L S L I N E T S G G T L L F A M A S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_O50258	C A K G P N K G G P V Y T N H T V T V Q L K I K L N K S G T L L V A S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_UPI00046CD90F	E S A E G A N A G P A Y T H H Q A S A F L K L K T S G G T L L J A T S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_E1K076	E A V E G A N T G P V F H T F H G V T F S M K T T A P G G T L L T A A T S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_D2Z6J9	A S V K G A N E G P V F T D P Y G V V R L N L K L K K S G T L L L A T S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_A1HRY1	E S G E G P N K G G P A Y T E P P F G K V V R L N L G G S G T L L L A T S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_D3PD16	E S T E G A N K K G P A F T E P S A L F K V K L N Q A P G T L L L A V T S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_D4H5Z7	E A A G A N Q G G P A Y A E P V S T C K I K L K L E K A G T L L I A T S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_UPI00036C6B84	E S A K G A N E G G P V Y T H H G A T C T L K I S E P G H L L J A L L G Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_H0UJA9	E S P K G A N D E G P S L C P K G S V T L K L K T S G T L L M A S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_I4C6Z6	A S V E G P N T G P A Y T N H S V V C R I K L K K S G T L L F A S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_O29903	A S V D G P N T S G V Y T D P V A V F A F K A E K S G K L T A F S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_C5ZZW2	E S T K G P N M S D L Y T E P V A Y F V I K T A K K G K L Y A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_UPI0003B5B81E	E S T K G A N E G P A H T E P P Y S V A K I K L D E P G G T L L Y A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_Q1JX34	E S P M G T N K G P A H S D P H V S A R M R L K K S G T L L J A V S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_I0GKS9	A S T N G P N T S Q V Y T E P D V T F V A K I G T D G G E L F A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_UPI00047DA46A	E Y G D N Y T E P V G L A S V K L S K S G T L H A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_Q8R810	E S D N Y T E P V G L A S V K L S K S G T L H A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_UPI00035C3E40	E S D N Y T E P V G L A S V K L S K S G T L H A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_D1Y2M6	E S D N Y T E P V G L A S V K L S K S G T L H A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_B5YCD9	A T V Q G P D T S T V Y S E P V V E F V F K T Q K D G V I F A T S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_D6GQ21	E A V E G P N K G S A K C N P C V H T S V I V E K P G G T L L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_D9RZ36	E S D I L F T S P S L V V T S F K P S K C G K L Y A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_UPI00047D8740	D T M N P D M P G C A A A D P A S C V K V K L T K S G T F I A V S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_K0B314	E S D I L F T S P S L V V T S F K P S K C G K L Y A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_G9XBQ3	E S D I L F T S P S L V V T S F K P S K C G K L Y A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_A0A010ZKX7	D T M N P D M P G C A A A D P A S C V K V K L T K S G T F I A V S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_I2F4D0	E S D I L F T S P S L V V T S F K P S K C G K L Y A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_R5BKW9	E A A G A N E G P V Y A E A A G V V V A S F K K S G K L I A T S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_R1CRA3	E S D I L F T S P S L V V T S F K P S K C G K L Y A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_E1L524	D G A T A N E G P V H A V S A G T L A V S L N K S G T L Y A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_M1Z3B5	H G T F T E P Y V S A K F K V L N K S G T L H A T S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_A7HKA0	E S D I L F T S P S L V V T S F K P S K C G K L Y A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_NOBL06	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_E3PSP5	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_H2J341	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_L0HJ05	D P L S E P K A K E Y F K T G K K G T L L J A H S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_C5CIN3	E S D I L F T S P S L V V T S F K P S K C G K L Y A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_E0QKW1	E S A K G A N Q G A L H T E P T V A L F K C K L T A S G T L H A V S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_V2QH03	E S A K G A N Q G A L H T E P T V A L F K C K L T A S G T L H A V S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_F9MTM9	E S D I L F T S P S L V V T S F K P S K C G K L Y A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_UPI00029A549B	D P L T E P R A V I F F R T E K K G K L Y A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_C2BH40	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_B1L4D1	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_U2JJM0	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_A8AC72	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_D7N7V8	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_D7D7Z0	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_B0RZL7	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_U7UEX0	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_C2CKL6	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_B5Y9S3	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_A9B134	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_C7HSK2	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_E0NJPO	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_D5U163	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_G4D162	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_W0JDS6	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_G0EFE4	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L S S Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_UPI000366E6D0	H V A T F D M G P T Y A E P K V S F T M K V Q K P G K L I A L A Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_Q1K036	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L A Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_F7V8Z0	E S T Q G P N T S T V Y T E P T A V I R F K T E K P G K L I A L A Y Y	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_X1Q6D2	E S V N G P N S S T I Y T H P E P E A V F M L A G S D K P V A A F A Y C N L H G G L	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_C9KNV3	E S V N G P N S S T I Y T H P E P E A V F M L A G S D K P V A A F A Y C N L H G G L	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_UPI00037FF34F	E S V N G P N S S T I Y T H P E P E A V F M L A G S D K P V A A F A Y C N L H G G L	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
UniRef90_X8GQA1	E S V N G P N S S T I Y T H P E P E A V F M L A G S D K P V A A F A Y C N L H G G L	H G V T C S F K T S K T P G G T L L L A T S S Y Y	N I I H G G L	
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A D I Y Y T K D G K A A T H L P H I E A S K A D G K I T V K V I T G  
M E L L K A K V S G E G Q E Y H L P E I R H Q N G L L Y V N V G  
P V I E A D G D F L K V K I G  
K F I E L Q N N E D W E T H E P V I N R N G D S F S V N I  
M K I K D P A N P T K A E L K H S P E I K I G E K D A K G F A L V E V N I G  
G A P E K H L P K V T I S D T G T V E I V V  
H L P K V I M P P V V E D G T G N F V T I T I G  
H L P K V S V E G R K V T I T T N  
L P V Q E A E E A D E A H G V C V Q V E

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