

1 10 20 30 40
 QUERY A T L V K E K L I A P V A Q Q E T T I P D N K I I T V V G V G Q V G M A C A I S I L
 UniRef90_P42120 A S V Q E K L L I C V C Q Q E K P A E G P R N K K V T I V V G V G Q V G M A C C A I S I L
 UniRef90_H3AJ84 A T I Q E K L F A S I L S E K G A E K P R N S K I T I V V G V G Q V G M A C C A I S I L
 UniRef90_UPI0003F0F5B2 A T L K C E L I K N F T P E K V S P H S K I T I V V G T G S V G M A C C A I S I L
 UniRef90_UPI00004A662E A I L K D Q L T Q N L L K E D H I P R Q N K I T I V V E V G A V G L A C A I S I L
 UniRef90_UPI00026551AF S I Q S E L F K T F A R E E A M P R R S K I T I V G T G S V G M A C C A I S I L
 UniRef90_UPI00026551AF A T L K E K L I A P V A E E E E A T V P P N N K I T V V G V R Q V G M A C C A I S I L
 UniRef90_UPI0003EAF533 A T L K E K L I A P V A E E E E A T V P P N N K I T V V G V R Q V G M A C C A I S I L
 UniRef90_B9SIT3 K P I H N T S P S P T K R H T K I S V I G T G N V G M A I A Q T I L L
 UniRef90_Q7Q981 V K A K L L T Q I A E P M T S S G R N K V T T V V G I I G Q V G M A C C A F S I L
 UniRef90_H3DEZ9 A S I L K K L F H I P L L A S G P P E H S G S K V T I V V G V G Q V G M A C C A F S I L
 UniRef90_E9FTK7 I L K T E I Q T P V A S G P P E H S G S K V T I V V G V G Q V G M A C C A F S I L
 UniRef90_UPI00045DDE4E A T L K D Q L I H N L L K E E Q T P Q N K I T I V V G V G A V G M A C C A I L C
 UniRef90_UPI00029D7DBF S S V K K Q L I E N L L I E E D K V S Q N K V T I V V G T G A V G M A C C A I L C
 UniRef90_A0A034WAY2 A S V S E N L M S K V A E V L P S G R N K V T I V V G I I G Q V G M A C C A F S I L
 UniRef90_K7J616 A S V K E G L L T A V T E P A T T G R N K V T V V G V G G F V G M A C C A F S I L
 UniRef90_G8M1C3 K K V T V I G A G F V G S T T A Y T L M
 UniRef90_UPI00027F51F2 E T L T N D R K K V A I I G C G F V G S T T A F C I L M
 UniRef90_R7BNK4 L V P L A S H V H S K P K T K I V S I I G A G F V G S T T A F S I L M
 UniRef90_U6HNF1 M K T T T K I T V V G V G N V G M A I A Q T I L L
 UniRef90_L7EN55 Q K E Y E N K T T R V A V I G S G F V G S T T A Y A L M
 UniRef90_D5AAB2 K I S I I G A G F V G S T T A F S I L M
 UniRef90_UPI00047986CE K I S I I G A G F V G S T T A F S I L M
 UniRef90_Q892U0 K I S I I G A G F V G S T T A F S I L M
 UniRef90_R5L3M3 V I E N P R A Q D S K K V A I V G V G M V G M S F A Y A L M
 UniRef90_UPI00042AF04A S T V K E Q L I Q N L H E E D K T S R K K I T V V G V G N V G M A C A I S I L
 UniRef90_H9K9W0 A S L R S K L L N T V M D P V P T S T H K V T V V G V G N V G M A C T I S I L
 UniRef90_D4W2Z4 R R V V L V G T G F V G M S F A Y S I L
 UniRef90_M3ZGF0 S S V L Q K L I T P L A S S S A E P P R N K V T V V G V G Q V G M A C A V S I L
 UniRef90_I1SSL2 G M A C A F S I L
 UniRef90_UPI000464FA09 M I N I R K A A I I G C G F V G A S T A F S I L V
 UniRef90_W6N6R2 K I S I I G A G F V G S T T A F S I L M
 UniRef90_M5NY39 A N Q K V N R T V L I G A G F V G S S T A F S I L
 UniRef90_R9BY17 K N R K V A I V G T G L V G S S T A F S I L
 UniRef90_UPI0004222736 M A S S K V V I V G T G M V G M S Y A Y S M I
 UniRef90_U5L738 K T N K V N R V V V I G T G A V G C Y A Y S M V
 UniRef90_UPI00040F5D5A A T L N E R K V A V V G C G F V G S A S A F A L M
 UniRef90_UPI0003F7230B M I K G T R V V L I G T G F V G S S Y A F A L M
 UniRef90_R5TX92 K R K V A L I G T G M V G M S Y A Y S M L
 UniRef90_R7QW70 R K I A V I G C G F V G S S C A F T L M
 UniRef90_R7PEH3 K R K V V I V G T G M V G M S Y A Y C L M
 UniRef90_G4Q7T9 P E I N A R K I A I V G C G M V G A T S A F A L M
 UniRef90_F7UZ15 L N N R K V A I V G C G F V G A T A F A L M
 UniRef90_UPI0003UL77 K Q F K G K K V V L V G N G A V G S S Y A F S M I
 UniRef90_R5XUT7 M I E K R K V V L V G T G F V G M S M A Y S L
 UniRef90_UPI0001DEA924 A T V R C K R I K N F T S G N T I I H N K I S I I G T G S V G M A C A I S I L
 UniRef90_R6ZIB9 E E K I N H R K V G I V G C G F V G A A S A F C L M
 UniRef90_UPI0003450536 M V N N R K V A V V G C G F V G S S S A F A L M
 UniRef90_UPI000313E38F T K N K V N R V L V G T G F V G S S Y A F A L M
 UniRef90_UPI0003B34D57 E Q K K L N S R K C A M V G C G F V G S A S V I A L M
 UniRef90_A9NH08 K N R V V I V G T G F V G M S Y A Y A L L
 UniRef90_I0JR33 N R V A L I G A G S V G S S Y A F A M L
 UniRef90_A0YLW3 D S K I K P R K G V I G A G Q V G M A C A Y S M L
 UniRef90_A5N7Z2 S N K I S I V G A G F V G S S T A F A I M
 UniRef90_Q8FLV6 N R V L I G A G D V G A Y A Y A L V
 UniRef90_U1GPN5 S V V N A R K I G V I G C G F V G A S A F A L M
 UniRef90_F1M2L5 L K D Q L I V N L L K E E Q V L Q N L L L G L V L A I N I L
 UniRef90_UPI000479CAD3 A I V S H K I A I V G T G F V G S T A F A L A
 UniRef90_UPI0003B7B875 K K N Q K V I L V G D G A V G S S Y A F A L V
 UniRef90_U6HPC6 E G L L L H L A K G L R F A F E R K V S V V G A G A V G T A V A F A G M
 UniRef90_UPI000379EB44 E Q L F T P H A N S D P N V P P K G V I G A G Q V G M A C A Y S I L
 UniRef90_U4WJN8 T R K V S R V A L I G S G F V G M A C A Y S I L
 UniRef90_UPI00047C9AFC N R V A L I G T G F V G S S Y A F A L L
 UniRef90_D9SWS0 M R N K T K V S I I G A G F V G S T T A Y A I L
 UniRef90_R7EXD5 M N I R K C A I G C G N V G A T T A Y T L M
 UniRef90_R9LP00 K T A D K R K V V L V G T G L V G M S F A Y A L M
 UniRef90_D5XCJ2 K V T I V G T G F V G S T T A F A L V
 UniRef90_UPI000374FDF2 N K V V L I G A G D V G V A Y A Y A L V
 UniRef90_S6AYD9 T K Q H K K V I L V G D G A V G S S Y A F A L V
 UniRef90_A6CLY3 K V A L I G T G F V G S S Y A F A L L
 UniRef90_W2EE42 T K R V T R V A L I G S G F V G A S Y A F A L L
 UniRef90_UPI00046B6563 A T A K R E X K S F T S E E A V H H S K V S I V G V G S V G V A C A I S I L
 UniRef90_M1MT66 L R K S K I A I V G T G L V G S S T A F S I L
 UniRef90_B7C9T6 M I K K R K V V I V G A G N V G A S T A F C M L
 UniRef90_Q0TUX8 K T N K I S I I G A G F V G S T T A F A L M
 UniRef90_R5NS47 M I S K R K V V L V G T G F V G M S M A Y A L E
 UniRef90_U2NI56 I K S R K V A I V G T G L V G S S I G F S I L
 UniRef90_E6U7S5 N R K V V L V G T G L V G M S F A Y A L L
 UniRef90_B9YE14 M K D R K I V L V G T G F V G M S M A Y S F L
 UniRef90_E7MMB0 S I N F R K V A V V G C G F V G A S S A F A L M
 UniRef90_C3PK93 N K V V L I G A G D V G V A Y A Y A L V
 UniRef90_S9R3S0 S K I A I I G A G A V G A T V A Y A S M
 UniRef90_UPI00040C0017 R V V I I G A G A V G C A Y A S L L
 UniRef90_U1ELV5 K H G N K V V L V G N G A V G S S Y A F A M V
 UniRef90_E9SH07 T T D R K V V L I G T G M V G M S F A Y S I L V
 UniRef90_B0PD75 M N A S K V S V I G A G L V G S S T A F S I L L
 UniRef90_G4CLV3 S K V V I I G T G A V G I S Y A F A M L
 UniRef90_W7UXV4 A D K N G T K I T I L G A G N V G A S V A Y T F A
 UniRef90_UPI0003B68296 S R K I T I I G A G Q V G S T V A Y A L T
 UniRef90_R8W5K8 K C A V I G T G F V G A T A Y T L M
 UniRef90_UPI000288388F N S T K I S I I G S G A V G A S T A Y S L M
 UniRef90_K8E1Y3 H Q K V I V V G D G A V G A S T A Y S A L M

QUERY	G	K	S	L	T	D	E	L	A	L	V	D	V	L	E	D	K	L	K	G	E	M	M	D	L	Q	H	G	S	L	F	L	Q	T	P	K	I	V	A	N		
UniRef90_P42120	L	K	E	L	L	A	D	E	L	A	L	V	D	V	L	E	D	K	L	K	G	E	M	M	D	L	Q	H	G	S	L	F	L	Q	T	P	K	I	V	A	N	
UniRef90_H3AJ84	L	K	D	L	L	A	D	E	L	A	M	V	D	V	L	E	D	R	L	K	G	E	M	M	D	L	Q	H	G	S	L	F	L	K	T	P	K	I	V	A	N	
UniRef90_UPI0003F0F5B2	L	K	G	L	S	A	D	E	L	A	L	V	D	A	N	E	D	G	K	K	G	E	T	M	D	L	Q	H	G	S	P	F	V	L	K	M	P	K	I	V	A	N
UniRef90_UPI00004A662E	M	K	G	L	S	A	G	E	L	A	L	V	D	V	M	E	D	K	L	V	K	G	E	T	M	D	L	Q	H	G	S	P	F	L	R	T	P	K	I	V	A	N
UniRef90_UPI00033153F6	L	K	G	L	G	D	E	L	A	L	V	D	A	N	D	Q	L	V	K	G	E	T	M	D	L	Q	H	G	S	P	F	A	R	M	P	S	I	V	A	N	S	G
UniRef90_UPI00026551AF	G	K	S	L	A	D	E	L	A	L	V	D	V	L	E	D	K	L	K	G	E	M	M	D	L	Q	H	G	S	L	F	L	Q	T	P	K	I	V	A	N		
UniRef90_UPI0003EAF533	G	K	S	L	A	D	E	L	A	L	V	D	V	L	E	D	K	L	K	G	E	M	M	D	L	Q	H	G	S	L	F	L	Q	T	P	K	I	V	A	N		
UniRef90_B9SIT3	T	Q	D	L	S	A	D	E	L	A	L	V	D	V	N	A	P	N	K	L	R	G	E	M	L	D	L	Q	H	A	A	A	F	L	P	R	T	K	I	V	A	N
UniRef90_Q7Q981	T	T	R	N	V	S	S	E	V	A	L	V	D	V	N	A	D	K	L	K	G	E	M	M	D	L	Q	H	G	S	A	F	M	K	N	A	H	V	I	S	A	G
UniRef90_H3DEZ9	L	R	D	L	S	A	D	E	L	A	L	V	D	V	M	E	D	K	L	K	G	E	M	M	D	L	Q	H	G	S	L	F	L	K	N	T	P	K	I	V	A	N
UniRef90_E9FTK7	T	Q	G	I	A	S	E	L	T	L	V	D	V	M	E	D	K	L	K	G	E	L	M	D	L	Q	H	G	L	A	F	L	L	G	N	I	K	M	T	A	G	S
UniRef90_UPI00045DDE4E	T	M	K	D	L	A	D	E	L	A	L	V	D	V	L	E	D	K	L	K	G	E	M	M	D	L	Q	H	G	S	L	F	L	R	T	P	K	I	V	A	N	
UniRef90_UPI000297DBF	L	K	D	L	A	D	E	L	A	L	V	D	V	V	A	D	K	L	K	G	E	T	M	D	L	Q	H	G	S	L	F	L	F	N	T	P	K	I	V	A	N	
UniRef90_A0A034WAY2	A	Q	N	V	S	N	E	I	C	L	V	D	V	C	K	D	K	L	K	G	E	M	M	D	L	Q	H	G	S	N	F	L	L	K	N	A	P	K	I	T	A	S
UniRef90_K7J616	T	N	H	V	S	S	D	L	V	L	I	D	V	M	A	D	K	L	K	G	E	M	M	D	L	Q	H	G	S	A	F	L	L	K	N	A	K	I	N	A	S	
UniRef90_G8M1C3	T	S	G	L	V	S	E	I	V	L	I	D	I	N	K	D	K	A	E	G	E	V	M	D	M	N	L	Q	H	G	M	F	V	V	R	V	K	I	N	A	S	
UniRef90_UPI00027F51F2	Q	S	G	L	F	S	E	M	V	L	I	D	V	L	E	D	K	L	K	G	E	M	M	D	L	Q	H	G	S	L	F	L	Q	T	P	K	I					

QUERY	K	D	Y	S	V	T	A	N	S	K	I	V	V	V	T	A	G	V	R	Q	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	K	F	I		
UniRef90_P42120	K	D	Y	S	V	T	A	N	S	R	L	V	V	V	T	A	G	V	R	Q	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	K	F	I		
UniRef90_H3AJ84	K	D	Y	S	V	T	A	N	S	R	L	V	V	V	T	A	G	V	R	Q	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	K	K	M		
UniRef90_UPI0003F0F5B2	T	D	Y	H	V	T	A	N	S	N	L	V	I	I	T	A	G	A	R	Q	Q	E	K	G	E	T	R	L	N	L	V	Q	R	N	V	N	V	F	K	K	L		
UniRef90_UPI00004A662E	K	D	Y	N	V	T	A	N	S	K	L	V	I	I	T	A	G	P	R	Q	Q	Q	E	G	E	S	R	L	N	L	V	A	Q	H	N	V	N	I	F	K	F	I	
UniRef90_UPI00033153F6	T	D	Y	A	V	T	A	D	S	S	L	V	I	I	T	A	G	A	R	Q	Q	E	K	G	E	S	R	L	N	L	V	R	R	N	V	N	I	F	K	F	S		
UniRef90_UPI00026551AF	K	D	Y	S	V	T	T	S	S	K	I	V	V	V	T	A	G	V	R	Q	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	K	F	I		
UniRef90_UPI0003EAF533	K	D	Y	S	V	T	A	N	S	K	I	V	V	V	T	A	G	V	R	Q	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	K	F	I		
UniRef90_B9SIT3	P	D	Y	S	V	T	I	G	S	D	L	C	I	V	T	A	G	A	R	Q	I	P	G	E	S	R	L	N	L	V	Q	R	N	V	T	D	L	F	K	K	N		
UniRef90_Q7Q981	T	D	F	S	V	S	A	G	S	R	L	I	V	I	T	A	G	V	R	Q	K	E	G	E	S	R	L	N	L	V	Q	R	N	T	D	L	F	K	G	I			
UniRef90_H3DEZ9	K	D	Y	S	V	T	A	N	S	R	V	V	V	V	T	A	G	V	R	Q	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	I	F	K	H	L		
UniRef90_E9FTK7	S	D	Y	A	L	S	A	G	S	K	L	C	I	V	T	A	G	A	R	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	A	D	L	F	K	G	M			
UniRef90_UPI00045DDE4E	K	D	Y	S	V	T	A	N	S	K	L	V	I	I	T	A	G	A	R	Q	Q	E	K	G	E	S	R	L	N	L	V	Q	R	N	V	N	I	F	K	K	L		
UniRef90_UPI00029D7DBF	K	D	Y	S	V	S	A	N	S	R	L	V	I	I	T	A	G	A	R	Q	Q	E	K	G	E	S	R	L	N	L	V	Q	R	N	V	D	I	M	K	S	A		
UniRef90_A0A034WAY2	T	E	Y	E	A	T	A	G	S	R	L	C	I	V	T	A	G	V	R	Q	Q	E	K	G	E	S	R	L	N	L	V	Q	R	N	T	D	L	F	K	H	I		
UniRef90_K7J616	T	D	Y	A	A	S	A	N	S	S	I	C	I	V	T	A	G	A	R	Q	Q	E	K	G	E	T	R	L	N	L	V	Q	R	N	T	D	I	F	K	G	I		
UniRef90_G8M1C3	G	D	Y	S	D	C	K	G	S	D	I	V	I	I	T	A	G	A	N	Q	K	E	G	E	T	R	I	N	L	V	H	K	N	T	A	I	F	K	G	I			
UniRef90_UPI00027F51F2	K	D	Y	S	V	T	A	N	S	K	I	V	V	V	T	A	G	V	R	Q	Q	Q	E	K	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	K	F	I	
UniRef90_R7BNK4	G	T	Y	E	D	L	A	D	A	N	I	V	I	I	T	A	G	V	N	Q	K	P	G	E	T	R	L	N	L	V	Q	K	N	T	A	I	F	K	T	I			
UniRef90_U6HNF1	K	D	Y	S	Y	T	S	H	S	D	V	V	F	I	A	A	G	A	R	Q	V	V	I	G	E	S	R	L	N	L	V	Q	R	N	V	D	I	F	K	T	I		
UniRef90_L7EN55	G	D	Y	K	D	T	D	N	S	D	I	V	I	I	T	A	G	A	P	Q	K	P	G	E	S	R	L	N	L	V	I	N	K	N	Y	K	I	M	N	S	I		
UniRef90_D5AAB2	T	D	Y	A	V	T	A	G	S	D	I	C	I	V	T	A	G	A	R	Q	R	D	G	E	S	R	L	N	L	V	E	R	N	L	H	L	F	K	S	I			
UniRef90_UPI00047986CE	G	D	Y	T	D	C	K	E	A	D	I	V	V	I	T	A	G	A	N	Q	K	P	G	E	T	R	L	N	L	V	I	E	K	N	A	A	I	F	K	S	I		
UniRef90_Q892U0	G	D	Y	E	D	T	K	D	S	D	L	V	I	I	T	A	G	A	G	P	K	P	G	E	T	R	L	N	L	V	I	N	K	N	Y	E	I	F	K	G	I		
UniRef90_R5L3M3	G	D	Y	T	D	C	T	D	M	D	M	I	V	I	C	A	G	V	P	Q	L	E	G	E	T	R	R	L	N	L	V	Q	K	N	Y	K	V	F	K	T	I		
UniRef90_UPI00042AF04A	A	F	L	C	P	Q	R								A	P	A	G	A	R	Q	V	V	I	G	E	T	R	L	N	L	V	Q	R	N	V	V	I	M	K	S	I	
UniRef90_H9K9W0	T	D	Y	S	I	T	A	N	S	I	V	C	I	V	T	A	G	A	R	Q	Q	E	K	G	E	T	R	L	N	L	V	Q	R	N	T	D	I	F	K	K	I		
UniRef90_D4W2Z4	G	T	Y	A	D	C	G	T	A	D	I	V	V	V	T	A	G	V	N	Q	K	P	G	E	T	R	L	N	L	V	E	R	N	A	K	I	M	R	D	V			
UniRef90_M3ZGF0	K	D	Y	A	V	T	A	N	S	R	L	V	V	V	T	A	G	V	R	Q	Q	E	E																				
UniRef90_I1SSL2	T	D	Y	A	V	T	A	G	S	R	V	C	I	V	T	A	G	A	N	Q	K	E	G	E	S	R	L	N	L	V	S	L	V	Q	R	N	V	D	I	F	K	G	M
UniRef90_UPI000464FA09	G	S	Y	D	D	I	S	D	C	A	D	I	V	I	I	T	A	G	A	N	Q	K	P	G	E	S	R	L	N	L	V	H	K	N	V	I	A	I	F	K	T	I	
UniRef90_W6N6R2	G	D	Y	K	D	T	E	S	N	I	V	I	I	I	T	A	G	S	G	Q	K	P	G	E	S	R	L	N	L	V	I	N	R	N	Y	S	I	F	K	S	I		
UniRef90_M5NY39	G	T	Y	D	D	C	K	D	A	D	V	C	I	V	T	A	G	A	N	Q	K	P	G	E	S	R	L	N	L	V	I	E	K	N	L	K	I	A	F	K	G	I	
UniRef90_R9BY17	G	S	Y	E	E	C	K	D	A	D	I	V	I	I	T	A	G	A	P	R	P	G	E	T	R	L	N	L	V	D	L	D	S	A	K	I	A	K	S	I			
UniRef90_UPI0004222736	G	E	Y	S	D	C	K	D	A	D	I	V	V	I	T	A	G	V	S	Q	K	D	G	E	T	R	L	N	L	V	L	N	R	N	A	K	I	I	K	S	V		
UniRef90_U5L738	G	T	Y	D	D	C	R	E	A	D	V	V	V	I	T	A	G	L	P	Q	K	P	G	E	T	R	L	N	L	V	D	L	A	K	N	T	G	I	F	K	T	I	
UniRef90_UPI00040F5D5A	G	D	Y	K	D	A	G	D	A	A	V	V	V	V	T	A	G	A	G	Q	K	P	G	E	T	R	L	N	L	V	K	K	N	V	S	I	F	K	S	I			
UniRef90_UPI0003F7230B	G	T	Y	K	D	C	R	D	A	D	I	V	V	L	T	A	G	A	N	Q	K	P	G	E	T	R	L	N	L	V	I	E	K	N	A	R	I	F	K	T	I		
UniRef90_R5TX92	G	E	Y	K	D	T	S	D	A	D	I	A	V	I	C	A	G	V	A	Q	K	P	G	E	S	R	L	N	L	V	I	K	R	N	A	A	V	F	K	S	I		
UniRef90_R7QW70	G	E	Y	E	D	I	A	D	C	A	I	V	I	I	T	A	G	A	N	Q	K	P	D	E	T	R	L	N	L	V	A	K	N	V	A	G	I	Y	K	H	I		
UniRef90_R7PEH3	G	E	Y	D	D	C	R	D	A	D	I	V	V	I	C	A	G	V	A	Q	K	Q	G	E	T	R	L	N	L	V	L	K	R	N	A	E	V	F	R	S	I		
UniRef90_G4Q7T9	G	D	Y	D	D	I	M	D	A	S	I	V	I	I	T	A	G	A	S	Q	K	V	I	G	E	T	R	L	N	L	V	L	K	K	N	A	A	I	F	S	S	I	
UniRef90_F7UZ15	G	D	Y	D	D	A	D	A	A	I	I	V	I	V	T	A	G	A	N	Q	Q	P	G	E	T	R	L	N	L	V	H	K	N	V	R	I	F	K	S	I			
UniRef90_A0A033UL77	G	D	Y	K	D	C	H	D	A	D	I	V	V	I	C	A	G	A	A	Q	K	P	G	E	T	R	L	N	L	V	A	K	N	M	K	I	F	K	S	I			
UniRef90_R5XUT7	G	D	Y	D	E	C	K	D	A	D	I	V	V	I	T	A	G	L	A	Q	K	P	G	E	T	R	L	N	L	V	A	K	T	N	A	K	I	M	K	D	L		
UniRef90_UPI0001DEA924	K	D	Y	H	V	T	A	N	S	N	L	V	I	I	T	A	G	A	H	P	G	K	G	E	T	R	L	N	L	V	D	V	X	Q	E	N	V	S	I	F	K	L	M
UniRef90_R6ZIB9	G	D	Y	D	D	I	V	D	A	A	I	V	V	T	A	G	A	N	Q	K	P	E	E	T	R	L	N	L	V	H	K	N	V	E	I	F	K	N	I				
UniRef90_UPI0003450536	G	D	Y	A	D	A	D	A	A	I	V	V	T	A	G	A	A	Q	K	P	G	E	T	R	L	N	L	V	I	N	K	N	V	R	I	F	Q	G	I				
UniRef90_UPI000313E38F	G	S	Y	A	D	C	K	T	A	D	I	V	V	L	T	A	G	A	N	Q	K	P	G	E	T	R	L	N	L	V	A	K	N	T	A	I	F	K	S	I			
UniRef90_UPI0003B34D57	G	D	Y	A	D	L	A	D	A	A	I	V	I	V	T	A	G	A	A	Q	K	P	G	E	T	R	L	N	L	V	K	K	N	V	G	I	F	K	S	I			
UniRef90_A9NH08	G	T	Y	E	D	C	K	D	A	K	L	V	V	I	T	A	G	V	N	Q	K	D	G	E	T	R	L	N	L	V	I	N	R	N	A	K	I	M	Q	S	V		
UniRef90_I0JR33	G	Q	Y	E	D	C	K	D	A	D	I	V	C	I	C	A	G	A	N	Q	K	P	G	E	T	R	L	N	L	V	L	K	K	N	L	T	I	F	K	S	I		
UniRef90_A0YLLW3	T	V	A	D	V	G	K	D	A	D	I	V	I	V	T	A	G	A	S	Q	R	E	G	E	T	R	L	N	L	V	H	R	N	V	K	I	F	R	S	L			
UniRef90_A5N7Z2	G	D	Y	K	D	T	C	K	S	N	L	V	I	I	T	A	G	A	A	Q	K	H	G	E	T	R	L	N	L	V	I	D	K	N	Y	L	I	F	K	S	I		
UniRef90_Q8FLV6	G	T	Y	S	D	C	E	D	A	A	M	V	I	I																													

QUERY	I	P	Q	I	V	K	Y	S	P	N	C	I	I	L	V	V	S	N	P	V	D	I	L	L	T	Y	V	A	W	K	L	L	S	G	L	P	K	H	R	V	I	G	160	
UniRef90_P42120	I	P	Q	I	V	K	Y	S	P	N	C	I	I	L	V	V	S	N	P	V	D	I	L	L	T	Y	V	A	W	K	L	L	S	G	L	P	K	H	R	V	I	G	130	
UniRef90_H3AJ84	I	P	Q	I	V	K	Y	S	P	N	C	I	I	L	V	V	S	N	P	V	D	I	L	L	T	Y	V	T	W	K	L	L	S	G	L	P	Q	K	H	R	V	I	G	140
UniRef90_UPI0003F0F5B2	I	S	N	I	I	Q	H	S	P	R	N	C	K	L	L	V	V	S	N	P	V	D	I	L	T	Y	V	A	W	K	L	L	S	G	D	F	P	K	N	R	V	I	G	150
UniRef90_UPI00004A66E2	I	P	N	I	V	K	Y	S	P	R	N	C	K	L	L	V	V	S	N	P	V	D	I	L	T	Y	V	A	W	K	L	L	S	G	D	F	P	K	N	R	V	I	G	160
UniRef90_UPI00033153F6	V	P	S	I	I	R	Y	S	P	H	C	K	V	L	V	V	S	N	P	V	D	I	L	T	Y	V	A	W	K	L	L	S	D	L	A	P	K	N	R	V	L	G	130	
UniRef90_UPI00026551AF	I	P	Q	I	V	K	Y	S	P	D	C	I	I	L	V	V	S	N	P	V	D	I	L	T	Y	V	A	W	K	L	L	S	G	D	F	P	K	N	R	V	I	G	140	
UniRef90_UPI0003EAF533	I	P	Q	I	V	K	Y	S	P	D	C	I	I	L	V	V	S	N	P	V	D	I	L	T	Y	V	T	W	K	L	L	S	G	L	P	K	H	R	V	I	G	150		
UniRef90_B9SIT3	I	P	P	L	A	K	Y	S	P	D	S	I	L	M	I	V	S	N	P	V	D	I	L	T	F	I	T	W	K	L	L	S	G	L	P	S	N	R	V	V	G	160		
UniRef90_Q7Q981	I	P	K	L	V	A	Q	S	P	D	C	I	L	L	V	V	S	N	P	V	D	I	L	T	Y	V	A	W	K	L	L	S	G	L	P	K	N	R	V	I	G	130		
UniRef90_H3DEZ9	V	P	Q	I	V	R	Y	S	P	E	C	V	L	L	V	V	S	N	P	V	D	V	L	T	Y	V	T	W	K	L	L	S	G	L	P	K	N	R	V	I	G	140		
UniRef90_E9FTK7	I	P	K	L	V	Q	H	S	P	D	T	L	L	L	I	V	S	N	P	V	D	L	M	T	Y	V	A	W	K	L	L	S	G	L	P	K	E	R	V	I	G	150		
UniRef90_UPI00045DDE4E	V	P	N	V	V	K	Y	S	P	D	C	K	L	L	I	V	S	N	P	V	D	I	L	T	Y	V	A	W	K	L	L	S	G	D	F	P	K	N	R	V	I	G	160	
UniRef90_UPI00029D7DBF	I	P	A	I	V	Q	N	S	P	D	C	K	M	L	I	V	S	N	P	V	D	I	L	T	Y	V	A	W	K	L	L	S	G	D	F	P	K	N	R	V	I	G	130	
UniRef90_A0A034WAY2	I	P	K	L	V	Q	Y	S	P	D	T	L	L	M	V	S	N	P	V	D	I	L	M	T	Y	V	A	W	K	L	L	S	G	L	P	K	N	R	V	I	G	140		
UniRef90_K7J616	I	P	Q	L	V	K	Y	S	P	N	D	T	L	L	V	V	S	N	P	V	D	I	L	T	Y	V	A	W	K	L	L	S	G	L	P	K	N	R	V	I	G	150		
UniRef90_G8M1C3	V	G	E	V	I	K	Y	N	D	C	I	L	L	V	V	S	N	P	V	D	I	L	T	Y	V	T	Y	K	L	L	S	G	D	F	P	K	N	K	V	I	G	160		

QUERY	S	G	C	N	L	D	S	A	R	F	R	Y	L	M	G	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V		
UniRef90_P42120	S	G	T	N	L	D	S	A	R	F	R	F	L	L	M	A	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_H3AJ84	S	G	C	N	L	D	S	A	R	F	R	F	L	L	M	A	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_UPI0003F0F5B2	S	G	C	N	L	D	T	A	R	F	R	F	F	L	L	M	A	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V
UniRef90_UPI00004A662E	S	G	C	N	L	D	S	A	R	F	R	Y	L	L	M	G	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_UPI00033153F6	S	G	C	N	L	D	T	A	R	F	R	F	L	L	M	G	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_UPI00026551AF	S	V	S	N	P	D	S	V	R	F	R	Y	L	L	M	A	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_UPI0003EAF533	S	G	C	N	L	D	S	A	R	F	R	Y	L	L	M	A	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_B9SIT3	S	G	T	N	L	D	S	S	R	F	R	F	L	L	M	A	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_Q7Q981	S	G	T	N	L	D	S	S	R	F	R	F	L	L	M	A	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_H3DEZ9	S	G	T	N	L	D	S	A	R	F	R	F	L	L	M	A	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_E9FTK7	S	G	T	N	L	D	S	S	R	F	R	F	L	L	M	A	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_UPI00045DDE4E	S	G	C	N	L	D	S	A	R	F	R	Y	L	L	M	G	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_UPI00029D7DBF	S	V	S	N	P	D	S	A	R	F	R	Y	L	L	M	G	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_A0A034WAY2	S	G	T	N	L	D	S	S	R	F	R	F	L	L	M	S	Q	R	L	D	V	A	P	T	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_K7J616	S	G	T	N	L	D	S	A	R	F	R	F	L	L	M	S	Q	R	L	D	V	A	P	T	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_G8M1C3	S	G	T	V	L	D	S	A	R	F	R	Y	L	L	M	G	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_UPI00027F51F2	S	G	C	N	L	D	S	A	R	F	R	Y	L	L	M	A	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_R7BNK4	S	G	T	V	L	D	S	A	R	F	R	Y	L	L	M	A	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_U6HNF1	S	G	T	I	L	D	S	A	R	F	R	Y	L	L	M	A	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_L7EN55	S	G	T	V	L	D	T	S	R	F	K	Y	M	L	S	D	H	F	N	V	D	A	R	N	I	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V		
UniRef90_D5AAB2	S	G	T	N	L	D	S	S	R	F	R	S	L	L	M	A	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_UPI00047986CE	S	G	T	I	L	D	S	A	R	F	R	F	L	L	M	S	D	Y	L	N	L	D	V	R	N	I	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V	
UniRef90_Q892U0	S	G	T	V	L	D	T	S	R	F	R	Y	L	L	M	G	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_R5L3M3	S	G	T	S	L	D	T	A	R	F	R	Y	M	L	S	D	Y	F	K	V	N	P	R	N	I	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V		
UniRef90_UPI00042AF04A	S	G	C	N	L	D	S	A	R	F	R	Y	L	L	M	G	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_H9K9W0	S	G	T	N	L	D	S	A	R	F	R	F	L	L	M	S	E	K	L	K	V	A	P	T	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_D4W2Z4	T	G	T	T	L	D	T	A	R	F	R	Y	L	L	M	S	E	K	L	N	V	D	P	R	N	I	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V	
UniRef90_M3ZGF0	S	G	T	N	L	D	S	A	R	F	R	Y	L	L	M	A	E	K	L	G	V	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_I1SSL2	S	G	T	N	L	D	S	A	R	F	R	F	L	L	M	S	Q	K	L	S	V	A	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_UPI000464FA09	S	G	T	V	L	D	S	A	R	F	R	Y	L	L	M	S	Q	K	L	S	V	A	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_W6N6R2	S	G	T	V	L	D	T	S	R	F	R	Y	M	L	S	E	N	F	N	L	D	A	R	N	I	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V		
UniRef90_M5NY39	S	G	T	T	L	D	T	A	R	F	R	Y	M	L	S	E	Y	F	G	A	A	H	N	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V			
UniRef90_R9BY17	T	G	T	S	V	D	T	A	R	F	K	N	F	L	S	G	D	L	F	N	V	D	P	R	S	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V	
UniRef90_UPI0004222736	S	G	T	A	L	D	T	A	R	L	R	Y	E	I	L	A	D	K	I	N	I	S	V	K	N	I	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V	
UniRef90_U5L738	S	G	T	V	L	D	S	A	R	L	R	F	K	L	L	G	E	Y	F	K	V	D	T	R	N	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V	
UniRef90_UPI00040F5D5A	S	G	T	V	L	D	T	A	R	F	K	Y	L	L	M	G	E	H	L	S	V	D	S	R	N	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V	
UniRef90_UPI0003F7230B	F	G	T	I	L	D	T	A	R	L	R	Y	L	L	M	G	E	S	L	S	V	D	P	R	N	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V	
UniRef90_R5TX92	S	G	T	A	L	D	T	A	R	L	R	Y	L	L	M	G	E	S	L	S	V	D	P	R	N	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V	
UniRef90_R7QW70	S	G	T	V	L	D	T	A	R	L	K	Y	L	L	M	G	E	S	L	K	L	D	N	R	G	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V	
UniRef90_R7PEH3	T	G	T	A	L	D	T	A	R	L	R	Y	L	L	M	G	E	D	Y	L	K	A	D	P	R	N	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V
UniRef90_G4Q7T9	S	G	T	V	L	D	T	G	R	L	K	Y	L	L	M	G	E	H	L	D	V	D	P	R	N	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V	
UniRef90_F7UZ15	S	G	T	V	L	D	T	A	R	F	K	Y	L	L	M	G	E	H	L	G	V	D	P	R	N	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V	
UniRef90_A0A033UL77	S	G	T	I	L	D	T	A	R	F	R	Y	L	L	M	S	E	E	F	D	V	A	P	Q	S	N	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V
UniRef90_R5XUT7	S	G	T	V	L	D	T	A	R	L	R	Y	L	L	M	G	E	H	L	S	V	A	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_UPI0001DEA924	S	G	C	N	L	D	A	A	C	F	R	Y	F	V	L	G	Q	R	L	C	I	H	S	E	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	A	V	
UniRef90_R6ZIB9	S	G	T	V	L	D	T	A	R	L	K	Y	E	L	L	M	G	E	H	L	E	V	D	S	R	G	I	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V
UniRef90_UPI0003450536	S	G	T	V	L	D	S	A	R	L	Q	E	A	L	L	M	G	E	Y	L	G	V	D	P	R	N	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V
UniRef90_UPI000313E38F	S	G	T	I	L	D	T	A	R	F	R	Y	E	L	L	M	G	E	Y	L	G	V	D	T	R	N	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V
UniRef90_UPI0003B34D57	S	G	T	V	L	D	S	A	R	F	Q	Q	M	L	L	M	G	E	H	L	D	V	D	S	R	S	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V
UniRef90_A9NH08	S	G	T	S	L	D	T	A	R	L	R	Y	E	L	L	M	G	E	Y	L	N	I	D	V	R	N	I	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V
UniRef90_I0JR33	S	G	T	I	L	D	S	G	R	F	R	F	L	L	M	G	E	Y	F	N	D	I	A	P	S	N	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V
UniRef90_A0YLW3	S	G	T	V	L	D	T	A	R	F	R	A	L	L	M	A	N	R	L	D	I	D	P	R	S	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V	
UniRef90_A5N7Z2	S	G	T	V	L	D	T	S	R	L	K	Y	L	L	M	S	N	E	L	L	H	V	D	P	R	D	V	H	T	Y	I	M	G	E	H	G	D	S	S	V	A	V
UniRef90_Q8FLV6	S	G	T	V	L	D	T	A	R																																	

QUERY	WS	G	V	N	V	A	G	V	V	L	Q	Q	L	N	P	E	M	G	T	D	N	D	S	E	N	W	K	E	V	H	K	M	V	V	E	S	A	Y	E	E			
UniRef90_P42120	WS	G	V	N	V	A	G	V	V	L	Q	Q	L	N	P	E	M	G	T	D	N	D	S	E	N	W	K	E	V	H	K	M	V	V	E	S	A	Y	E	E			
UniRef90_H3AJ84	WS	G	V	N	V	A	G	I	Q	L	K	N	L	N	P	D	F	G	A	D	Q	D	K	E	G	W	K	E	V	H	K	M	V	V	E	S	A	Y	E	E			
UniRef90_UPI0003F0F5B2	WS	G	V	N	V	A	G	V	N	I	A	G	V	S	L	K	N	L	H	S	D	L	G	A	D	K	E	Q	W	R	N	V	I	H	K	E	V	E	E	E			
UniRef90_UPI00004A662E	R	S	G	G	N	V	A	G	V	S	L	K	N	L	P	H	P	D	L	A	T	D	A	D	K	E	Q	W	K	E	G	H	K	Q	V	V	E	S	A	Y	E	E	
UniRef90_UPI00033153F6	WS	G	V	T	V	A	A	G	V	P	L	R	S	L	N	K	H	L	G	A	K	G	D	P	E	A	W	Q	R	V	H	K	Q	V	V	E	S	A	Y	E	Q		
UniRef90_UPI00026551AF	WS	G	V	N	V	A	A	G	V	S	L	Q	E	L	N	K	P	E	M	G	T	D	N	D	S	E	N	W	Q	E	G	H	K	M	V	V	E	S	A	Y	E	E	
UniRef90_UPI0003EAF533	WS	G	V	N	V	A	A	G	V	S	L	Q	E	L	N	P	E	M	G	T	D	N	D	S	E	N	W	K	E	V	H	K	M	V	V	E	S	A	Y	E	E		
UniRef90_B9SIT3	WS	S	I	S	V	A	G	G	V	P	I	L	S	F	L	E	S	K	Q	D	I	A	Y	E	K	E	T	L	E	N	I	H	H	K	A	V	V	E	S	A	Y	E	E
UniRef90_Q7Q981	WS	G	V	N	V	A	A	G	V	R	L	A	E	I	N	P	S	D	I	G	T	D	A	D	H	E	N	W	R	E	T	H	K	Q	V	V	E	S	A	Y	E	E	
UniRef90_H3DEZ9	WS	G	T	N	V	A	A	G	V	S	L	K	T	L	N	P	S	D	I	G	T	D	R	D	H	E	N	W	R	E	T	H	K	M	V	V	F	S	A	Y	E	E	
UniRef90_E9FTK7	WS	G	V	N	V	A	A	G	V	R	L	R	D	L	N	P	A	A	G	T	D	A	D	T	E	N	W	Q	E	T	H	T	Q	V	V	Q	S	A	Y	E	E		
UniRef90_UPI00045DDE4E	WS	G	M	N	V	A	A	G	V	S	L	K	T	L	H	P	A	A	G	T	D	K	D	K	E	Q	W	K	E	V	H	K	Q	V	V	E	S	A	Y	E	E		
UniRef90_UPI00029D7DBF	WS	G	V	N	V	A	A	G	V	S	L	K	S	L	D	P	K	L	G	T	D	S	D	K	D	S	W	K	N	I	H	K	E	V	V	G	S	A	Y	E	E		
UniRef90_A0A034WAY2	WS	G	V	N	V	A	A	G	V	R	L	R	E	L	N	D	P	N	I	G	T	T	E	D	P	E	N	W	E	E	V	H	K	Q	V	V	Q	S	A	Y	E	E	
UniRef90_K7J616	WS	G	V	N	V	A	A	G	V	R	L	R	E	L	N	D	V	G	T	D	A	D	E	K	E	G	W	N	E	L	H	K	Q	V	V	Q	S	A	Y	E	E		
UniRef90_G8M1C3	WS	I	A	N	I	A	G	I	P	V	D	K	Y	C	D	E	C	H	G	C	K	D	K	L	S	R	K	I	I	Y	E	N	V	K	N	A	Y	E	E				
UniRef90_UPI00027F51F2	WS	G	V	N	V	A	A	G	V	S	L	Q	E	L	N	P	E	M	G	T	D	N	D	S	E	N	W	K	E	V	H	K	M	V	V	E	S	A	Y	E	E		
UniRef90_R7BNK4	WS	L	A	N	V	A	S	G	V	P	I	N	Q	Y	C	E	L	L	G	H	F	D	H	E	S	E	S	M	K	E	V	A	D	H	V	K	N	A	Y	E	E		
UniRef90_U6HNF1	WS	R	V	S	V	A	G	G	V	N	L	S	T	V	I	P	K	F	G	E	D	G	D	P	N	N	F	K	A	V	H	K	D	V	I	D	S	A	Y	E	E		
UniRef90_L7EN55	WS	I	T	N	I	A	A	G	L	N	I	S	E	Y	C	S	K	Y	C	D	K	C	D	G	N	I	R	Y	E	I	H	E	K	V	K	N	A	Y	E	E			
UniRef90_D5AAB2	WS	S	I	S	V	A	G	G	V	P	V	L	S	L	E	K	Q	Q	I	P	Y	E	K	E	T	L	E	T	I	H	S	A	V	I	N	S	A	Y	E	E			
UniRef90_UPI00047986CE	WS	Q	A	R	V	A	G	L	E	P	L	A	R	Y	I	E	K	Y	K	P	E	A	T	Q	E	D	L	D	Q	I	F	V	N	V	R	D	A	Y	E	D			
UniRef90_Q892U0	WS	L	T	N	I	A	A	G	I	S	V	E	D	Y	C	K	D	I	C	K	G	C	E	G	N	F	K	N	R	I	P	E	E	V	K	N	A	Y	E	E			
UniRef90_R5L3M3	WS	S	A	M	I	A	S	V	L	P	I	K	E	L	D	S	H	I	N	E	P	S	T	D	Q	I	M	N	E	L	A	V	E	N	V	R	D	S	A	Y	E	E	
UniRef90_UPI00042AF04A	WS	G	V	N	V	A	A	G	I	P	L	K	S	L	N	D	P	A	L	G	T	D	S	D	K	E	G	W	K	E	I	H	K	Q	V	V	E	S	A	Y	E	E	
UniRef90_H9K9W0	WS	G	V	N	V	A	A	G	V	R	L	R	D	L	D	E	T	V	G	T	E	D	D	K	E	E	N	W	N	E	I	Y	K	V	V	I	G	S	A	Y	E	E	
UniRef90_D4W2Z4	WS	H	T	T	V	A	G	V	K	L	D	I	L	I	E	Q	D	D	P	T	E	Q	Y	K	F	E	D	L	E	Q	I	Y	V	K	N	V	R	D	A	Y	E	H	
UniRef90_M3ZGF0	WS	G	A	N	V	A	A	G	V	N	L	Q	K	L	N	P	E	I	G	T	D	A	D	K	E	Q	W	K	A	T	H	K	A	V	V	E	S	A	Y	E	E		
UniRef90_I1SSL2	WS	G	V	N	V	A	A	G	V	N	L	R	D	L	N	P	K	V	G	T	P	E	D	P	E	K	Y	D	E	L	H	K	D	V	V	E	S	A	Y	E	E		
UniRef90_UPI000464FA09	WS	S	T	N	V	A	S	G	I	S	I	N	D	F	C	E	L	M	D	A	S	C	D	S	D	Y	Q	D	R	I	I	N	N	V	R	N	A	Y	E	E			
UniRef90_W6N6R2	WS	S	T	S	I	A	A	G	I	P	L	E	Q	Y	C	N	L	M	D	A	S	C	D	S	D	Y	Q	D	R	I	I	N	N	V	R	N	A	Y	E	E			
UniRef90_M5NY39	WS	H	A	N	I	A	A	G	V	P	F	S	E	L	L	K	K	D	N	E	N	Y	K	Q	E	E	L	D	E	L	F	D	D	V	K	N	A	Y	E	H			
UniRef90_R9BY17	WS	H	V	Y	V	A	G	G	K	P	V	S	K	V	I	K	D	N	K	D	R	A	G	D	I	D	L	D	K	L	A	M	E	T	A	Q	A	G	W	E	E		
UniRef90_UPI0004222736	WS	N	A	Y	V	A	G	A	K	P	I	V	D	V	I	E	S	M	E	Q	I	T	F	N	D	L	D	K	I	Y	N	N	V	K	N	A	Y	E	E				
UniRef90_U5L738	WS	H	S	S	I	A	G	I	E	S	L	G	S	F	L	K	R	K	E	D	V	N	P	D	C	L	E	K	I	F	V	N	V	R	D	S	A	Y	D	E			
UniRef90_UPI00040F5D5A	WS	S	A	N	V	A	S	G	I	P	L	H	D	F	C	E	M	R	G	H	F	E	H	E	K	S	M	K	K	I	A	E	N	V	K	N	A	Y	E	E			
UniRef90_UPI0003F7230B	WS	H	A	S	I	A	G	G	Q	R	L	H	D	L	I	K	Q	S	N	G	A	Y	D	V	K	D	L	D	D	I	F	Q	V	R	D	A	Y	E	E				
UniRef90_R5TX92	WS	Q	A	M	I	A	T	K	P	I	L	S	L	C	F	C	E	M	Q	G	E	G	G	M	E	V	I	C	K	R	I	E	E	D	V	R	G	A	Y	Q	E		
UniRef90_R7QW70	F	S	S	A	N	V	A	S	G	I	N	L	N	K	F	C	E	M	R	G	Y	N	H	E	E	S	M	Q	R	I	E	E	D	V	R	D	S	A	Y	K	E		
UniRef90_R7PEH3	WS	Q	A	L	L	A	T	K	P	I	L	E	L	C	E	G	E	N	G	E	A	V	C	R	Q	R	F	D	D	I	E	E	E	V	R	T	A	Y	K	E			
UniRef90_G4Q7T9	WS	S	A	Y	V	A	S	G	M	P	L	S	R	F	C	E	F	R	G	H	H	D	H	K	A	S	M	E	R	H	L	A	Q	S	V	K	D	S	A	Y	E		
UniRef90_F7UZ15	WS	T	A	N	V	A	S	G	I	P	V	N	D	F	C	E	L	R	G	H	F	Q	H	D	E	A	M	R	I	A	E	D	V	K	N	S	A	Y	E	E			
UniRef90_A0A033UL77	WS	H	A	N	I	A	A	G	K	P	L	R	S	I	T	E	K	D	E	S	R	K	H	R	V	E	E	I	F	V	I	Q	T	R	D	A	Y	E	E				
UniRef90_R5XUT7	WS	H	S	Y	V	A	G	C	K	S	L	I	N	I	L	K	Q	K	H	E	D	L	S	L	L	D	K	I	Y	T	D	V	Q	A	Y	E	E	E					
UniRef90_UPI0001DEA924	WS	G	V	N	V	A	A	G	I	P	L	K	D	L	N	S	D	G	M	D	E	D	P	E	H	W	G	N	V	I	Y	K	E	V	I	T	T	G	Y	E	E		
UniRef90_R6ZIB9	WS	S	A	N	V	A	S	G	I	P	L	I	N	T	F	C	E	M	R	G	H	H	N	H	S	A	A	M	E	E	I	A	E	K	V	K	N	S	A	Y	E	E	
UniRef90_UPI0003450536	WS	S	A	D	V	A	A	G	V	P	L	K	D	F	C	E	M	R	G	H	F	D	H	E	E	A	E	R	R	I	A	E	N	V	K	N	A	Y	E	E			
UniRef90_UPI000313E38F	Y	S	H	V	N	L	A	G	K	P	L	A	K	A	L	E	T	K	A	D	Y	K	E	D	L	E	M	F	A	E	D	V	R	D	A	Y	E	E	E				
UniRef90_UPI0003B34D57	WS	S	A	N	I	A	A	G	V	P	I	H	R	V	C	E	M	R	G	F	T	D	H	D	Y	E	T	H	R	I	A	E	A	V	K	N	S	A	Y	E	E		
UniRef90_A9NH08	WS	N	A	F	V	A	G	V	K	P	L	K	D	V	I	D	S	M	A	Q	I	K	F	S	D	L	D	K	I	Y	L	T	N	V	K	N	S	A	Y	E	E		
UniRef90_I0JR33	WS	H	A	S	I	A	G	G	V	P	V	Y	E	L	M	E	R	H	E	D	Y	H	M	E	D	L	E	I	F	T	N	V	K	N	S	A	Y	E	E				
UniRef90_A0YLV3	WS	K	A	N	V	A	A	G	M	K	I	C	D	G	D	W	K	G	S	P	A	C	D	F	A	E	L	N	E	I	F	E	Q	V	K	N	A	Y	E	E			
UniRef90_A5N7Z2	WS	L	A	S	I	A	N	G	I	P	L	K	E	Y	K	L	E	S	H	K	D	F	S	K	E	H	E	K	I	L	N	C	V	R	N	A	Y	E	E				
UniRef90_Q8FLV6	L	S	S	A	T	I	A	A	G	V	S	M																															

[illegible]

[illegible]

330
QUERY D T L W G I Q K D L K D L
UniRef90_P42120 E T L W S I Q K D L K D L
UniRef90_H3AJ84 D T L W N I Q K D I K D L
UniRef90_UPI0003F0F5B2 E T L W E I Q K N L K
UniRef90_UPI00004A662E D T L W G I Q K E L Q
UniRef90_UPI00033153F6 D A L W G I Q K D L Q
UniRef90_UPI00026551AF D T L W D I Q K D L K D L
UniRef90_UPI0003EAF533
UniRef90_B9SIT3 K T L L E V Q S Q L
UniRef90_Q7Q981 T L M A Q V Q S G I K
UniRef90_H3DEZ9 R T L W D I Q K D L Q N
UniRef90_E9FTK7 A T L N E V Q I N L
UniRef90_UPI00045DDE4E
UniRef90_UPI00029D7DBF S T L W N I Q K D L K
UniRef90_A0A034WAY2 N I M D Q V Q A G I K
UniRef90_K7J616 D T M D E V Q Q G L K
UniRef90_G8M1C3 E A L K S V I K T L
UniRef90_UPI00027F51F2 D T L W D I Q K D L K D L
UniRef90_R7BNK4 I A L K E I I A Q L
UniRef90_U6HNF1 K T L L E T
UniRef90_L7EN55 D K L K K S L D E
UniRef90_D5AAB2 K A I F G V Q K Q L
UniRef90_UPI00047986CE E T L K K A M K V H E I
UniRef90_Q892U0 E V L K E N L N K I
UniRef90_R5L3M3 K V I K E M L D E I
UniRef90_UPI00042AF04A E T L W N V Q K D L E
UniRef90_H9K9W0 Q T I Y E V Q K D L K
UniRef90_D4W2Z4 D I L R E T L Q T V
UniRef90_M3ZGF0 D T L W G I Q K D L K D L
UniRef90_I1SSL2 N T L W D V Q A G I Q
UniRef90_UPI000464FA09 T E L K E V L G S V
UniRef90_W6N6R2 D T L K D I I E K L
UniRef90_M5NY39 G V L K G I L K
UniRef90_R9BY17 D T I R E Y I S K L
UniRef90_UPI0004222736 T T L K E L L D K M E
UniRef90_U5L738 K V L K E I M A N
UniRef90_UPI00040F5D5A D T L K K V L E D
UniRef90_UPI0003F7230B A L L K N T L
UniRef90_R5TX92 D T L R A S F D E L E
UniRef90_R7QW70 A A L K K V L D D V
UniRef90_R7PEH3 D T L R E G Y D G I
UniRef90_G4Q7T9 E I L K E T A A T I
UniRef90_F7UZ15 D A L K A V I A E L
UniRef90_A0A033UL77 K V L K D I Q A
UniRef90_R5XUT7 N V L N D M L K E I E
UniRef90_UPI0001DEA924 E K L R E I Q K E I K
UniRef90_R6ZIB9 Q T L K Q V A E E M K
UniRef90_UPI0003450536 K A L R D V I D G I E
UniRef90_UPI000313E38F K V L K E T M A P I E S L
UniRef90_UPI0003B34D57 A T L K K V I E E A E
UniRef90_A9NH08 S I L K H S I D S I
UniRef90_I0JR33 N V L K D I L
UniRef90_A0YLW3 H T L R E Y I D K L
UniRef90_A5N7Z2 R V L K K T T A H L
UniRef90_Q8FLV6 Q T L R A I K D E I
UniRef90_U1GPN5 E T L K K V I D E
UniRef90_F1M2L5 D T L W G I Q K E L Q
UniRef90_UPI000479CAD3 M T L K E I A S T L E
UniRef90_UPI0003B7B875 K V L K D L N K A F A D L
UniRef90_U6HPC6 E T L Q K V I A G I K
UniRef90_UPI000379EB44 K V L H E V I D A L
UniRef90_U4WJN8 D V L K Q A L S T I
UniRef90_UPI00047C9AFC T V L K K T M
UniRef90_D9SWS0 K A L D D I R N E I K
UniRef90_R7EXD5 D S L K E I I A S L
UniRef90_R9LP00 D V I R G F F Q K I R
UniRef90_D5XCJ2 A A M K E V L A K V
UniRef90_UPI000374FDF2 D T L R E I K D A
UniRef90_S6AYD9 K Q L K D I I N D
UniRef90_A6CLY3 N T L K D V I D
UniRef90_W2EE42 E V L K K A N R S L
UniRef90_UPI00046B6563 A I
UniRef90_M1MT66 Q F I R E S I K K I
UniRef90_B7C9T6 S H L Q S F Y K E V
UniRef90_Q0TUX8 E I L K G H I A N
UniRef90_R5NS47 E V L M K M K K E I D E I
UniRef90_U2NI56 N L I K D Y C N T L K
UniRef90_E6U7S5 A K L E Q A V S G L
UniRef90_B9YE14 E T L K E I I
UniRef90_E7MMB0 A V L K K T M E G V E
UniRef90_C3PK93 N T L N T I K E E I
UniRef90_S9R3S0 D T I R K A I R T L
UniRef90_UPI00040C0017 N V L K K M M K Q
UniRef90_U1ELV5 E I L K E M Q S K I K
UniRef90_E9SH07 N V L N E H F D P L E
UniRef90_B0PD75 D V I R S Y V K D L
UniRef90_G4CLV3 N I L R D Y Q Q K V
UniRef90_W7UXV4 K A L R N V I D Q I Q
UniRef90_UPI0003B68296 D C L K E V I K Q V
UniRef90_R8W5K8 A K L R T L L D Q M K
UniRef90_UPI000288388F E T L K E T L N N
UniRef90_K8E1Y3 S T L K Q I L N D

	1	10	20	30	40
UniRef90_H3NN98			M K K S K	I I L I	G D G A V G S S Y A F A C T
UniRef90_U2MAN3				V T V L	G A G N V G A S I A F A L A
UniRef90_A0A011QUQ3			S K K Q Q K	I I L I	G D G A V G S S Y A Y S I I
UniRef90_UPI0002C2F245	S T	V K E Q L I E N L I E E D K	S K K Q Q K	I T I V	G T G A V G M A C A V C I L
UniRef90_UPI0003759703			S Q T P A D T R K I A I I	G T G M V G T A F A Y A A V	
UniRef90_K9Y1B7		E K I F A L N T E V I E Q T	L R L R K G V I	G A G Q V G L A C A Y S L L	
UniRef90_F5LEW1			T S K K S R I V V I	G T G A V G S T T A Y T L L	
UniRef90_C2CF94			M K D S K I I L V	G D G A V G S S F A Y A S T	
UniRef90_D6VHNO					M A C V F S I L
UniRef90_H4GJ76			S K N H Q K V V L I	G D G A V G S S Y A F A M V	
UniRef90_F6FSG4			A P R P R S R L A I V	G A G A V G S T L A Y A A L	
UniRef90_E7GB17			M K E S R K V V L I	G T G M V G M S M A Y S L M	
UniRef90_D3EK15		T K N E A Q R	P S R V V I I	G T G A V G A T T A Y T L F	
UniRef90_W7CFK8			R K V A I I	G T G F V G S S I A Y A I V	
UniRef90_F7GGA7	T I	K D Q L I V N V L K E D Q T	P H N T I T V	D A G G M A C A I S I L	
UniRef90_C2D1P4			R Q K V A L I	G D G A V G S S Y A Y A M M	
UniRef90_K6WMW2			K V A I I	G A G A V G T A I A Y S S L	
UniRef90_T1GKZ2					C A F S I L
UniRef90_Q0YS54			K I T V I	G A G N V G A T A A L R I A	
UniRef90_B8CYJ4					S T S A Y A I M
UniRef90_D2NTC0					G S A T A Y A A M
UniRef90_F6XLK3	T I	R K R L F S Q V C D G E S	N P T K L G V I	G A G G V G S A T A Y A A M	
UniRef90_UPI00039C92C4			K P C K V T V V	G V G V G M A C S I S I L	
UniRef90_B8GSY5			M S N R R T V G I I	G T G Q V G M A A A Y A L F	
UniRef90_Q5HL31			M S K N T V G I I	G T G N V G M A A A Y A L F	
UniRef90_R5LCD6			K K V V L V	G D G S V G S S Y A F A M V	
UniRef90_Q9P7P7			M N I Q K C A V I	G S G G V G A T T A F T L V	
UniRef90_G9K810	T A	G S K V F S N D S V R S S S	F K S I K I V I V	G A G N V G S T T A F T L L	
UniRef90_UPI000273D9D7					A T T A Y T L V
UniRef90_F0Z5G7					G V A Y A Y A L V
UniRef90_UPI00024857E2			K I V L V	G A G D V G G T L A L L A A	
UniRef90_D3NXT4			M A R K K I A L V	G A G Q I G G T L A L L A A	
UniRef90_E0QJ94			N K I S V I	G A G F V G S A T V F A L M	
UniRef90_G7YH18					
UniRef90_UPI0003ADAE47	A T	V R G E L L K N L T S E E	V V H H N K V S I I	G T G S V G M A C A I S I L	
UniRef90_G4MY20			Q A S K P V K V V I V	G A G Y V G S T T A Y T L L	
UniRef90_W0JHH6			N A K I S V I	G A G Q V G A T T A V R I A	
UniRef90_C3IW10			K N I N R V V L I	G T G A V G C S Y A Y C M I	
UniRef90_Q8GMJ0			S K N H Q K V V L V	G D G Q V G S A Y A Y A L V	
UniRef90_U1YV99			K L A I V	G A G A V G S T L A Y A A L	
UniRef90_R5TAP8			A I K T R K I G I I	G A G N V G S H L A L Q F A	
UniRef90_F4H785		A V P D P T V	P R R K L A I V	G A G A V G S T M A Y A A L	
UniRef90_W7CN35			N Q K V I L V	G A G D V G A S Y A F A L T	
UniRef90_V5T8T2			T D K N H T K V I L V	G D G A V G S S F A Y A M T	
UniRef90_M3YSQ8	T L	K E K L I A P V I E E E A T	I P N N K I I V V	G I R Q V D M A C A F S I L	
UniRef90_A9AXB8			M A N R K K V T I I	G A G F V G S T C A H W L A	
UniRef90_P56512			S S M P N H Q K V V L V	G D G A V G S S Y A F A M A	
UniRef90_D1AME6			I K S R K V A V I	G V G N V G S H V A F S L V	
UniRef90_UPI0003771E18			N K V V L I	G A G D V G A A F A Y A A V	
UniRef90_E6SLT2			M K R P K V S I V	G A G N T G A A L A H W L A	
UniRef90_R5MRY3			M E K N K V V I I	G C G N V G M S Y A Y A L I	
UniRef90_R6FU53			M L S N R I V I I	G A G H V G T H C A A A L S	
UniRef90_UPI0003B6AAD6			K I T V V	G A G M V G G T L A Q R L A	
UniRef90_N6TP62		K E A L L S M I S Q P A E D S	G S K V T V V	G V G Q V G M A C A F S I L	
UniRef90_U1M8V5	T V	K A L F K E I A P A H K A	P H G K V T I V	G V G Q V G M A C A Y S I L	
UniRef90_F7B2C2					
UniRef90_D0YRP9			A A P T T K L A V I	G A G A V G S T L A Y A A T	
UniRef90_A5VJZ6			A T E H Q K V V L I	G D G V V G S A Y A F S V I	
UniRef90_W1U9I9			S I K T R K V V I V	G S G N V G S H C A F S L A	
UniRef90_UPI0003623797			E I K L R K V G L I	G V G H V G A H V A F S L V	
UniRef90_UPI0003A6F1C1			M A R K K L A M I	G A G M I G G T L A H L A G	
UniRef90_UPI0004068B47			S K V T V V	G A G N V G A T C A N V L A	
UniRef90_C8ZXT4			K I L I	G N G D V G S S Y S F A L V	
UniRef90_R6IS26			K V G I I	G A G S V G S A T A F A L I	
UniRef90_R5I5E8			S S K I T I I	G A G S V G S T I A Y T L A	
UniRef90_R6RY43			K H R D K I V V V	G A G N V G E A I A Y T L M	
UniRef90_E3EX64			K I A L I	G A G Q I G G T L A H L A A	
UniRef90_R5YAA3			I G I I	G T G M V G S A I A Y S L A	
UniRef90_R5HWF8			N K V V I I	G C G N V G M S Y A Y A L L	
UniRef90_UPI00036269BF			M A R K K I A L V	G A G N I G G T L A H L I G	
UniRef90_UPI0003B72E94			M A R S K I A L I	G A G N I G G T L A L L T G	
UniRef90_UPI0004681786			K V T I V	G A G N V G A T C A D V I A	
UniRef90_UPI000415E03D			M A R A K I A L I	G A G M I G G T L A H I A A	
UniRef90_F0HET9			R R V G I I	G T G L V G A T C G Y A L I	
UniRef90_UPI000262A3F4			M I V N S K L T V V	G A G A V G A S V A Y A S L	
UniRef90_D1C2T1			K V T V V	G A G A V G A T T A Q Y I A	
UniRef90_P62051			N R I A V I	G V G N V G M A F A Y A A A	
UniRef90_C1A2U1			S R R K V S V V	G A G S V G T A I A Y A C L	
UniRef90_S7TQA2			D K K V T V V	G A G N V G A T A A Q R L V	
UniRef90_UPI00042C8F90	A T	V K C E L M K N F P S E E P	V C C N K I S I V	G T G S V G M A C A I S I L	
UniRef90_E6YJL5			M A R K K I A L I	G S G M I G G T L A H L I G	
UniRef90_M5J615			N H Q K V M L I	G D G A V G S S Y A Y A M A	
UniRef90_G7LZS9			R R K I S V I	G A G F V G A T T A Y A L M	
UniRef90_F0M8H8			M S G S K L A I V	G A G S V G T S L A Y A A L	
UniRef90_B1I3T1			M R R K I S I V	G A G N V G A T C A H W I A	
UniRef90_U7JFB8			K A V N R R K I S V I	G A G S V G S S L A Y A C L	
UniRef90_B2GKH9			E T T V R R T K I G I V	G A G S V G T S L A Y A A M	
UniRef90_UPI0004247A02			K I T V V	G A G A V G A T C A D N I A	
UniRef90_D7N2G1					S Y A Y S M L
UniRef90_F9EHN6			P S K V A V I	G A G A V G S T L A Y A C V	
UniRef90_W2STE0			V V V G M N G I T	H I I K Q N L K	
UniRef90_C4L474			M I R R N K I S V I	G S G F T G A T T A L Y L A	

		50	60	70	80																																							
UniRef90_H3NN98	L	L	G	V	G	R	E	I	G	L	I	D	M	N	A	D	K	A	E	G	D	A	M	D	L	S	D	A	L	S	F	T	A	P	K	D	I	Y	S					
UniRef90_U2MAN3	I	K	G	L	C	S	E	L	L	I	D	I	N	K	D	K	A	E	G	E	A	M	D	L	I	S	M	G	N	A	F	C	P	S	C	D	I	H	D					
UniRef90_A0A011QUQ3	N	Q	N	L	G	Q	E	L	L	I	D	I	D	K	D	K	A	E	G	D	V	M	D	L	I	N	S	A	L	A	F	T	A	T	K	K	I	Y	S					
UniRef90_UPI0002C2F245	L	K	N	D	L	A	D	E	L	A	L	V	D	V	A	V	D	R	L	K	E	G	E	T	M	D	L	H	H	G	S	L	F	T	N	S	K	F	Y	S				
UniRef90_UPI0003759703	L	E	G	A	A	R	E	I	V	L	V	D	R	T	F	E	K	A	E	G	E	A	M	D	L	I	N	H	A	M	P	F	C	S	P	V	N	I	E	P				
UniRef90_K9Y1B7	I	Q	N	C	S	E	L	V	L	Q	D	I	N	T	K	K	V	E	G	E	V	M	D	L	I	N	H	G	M	S	F	I	A	P	T	E	L	A	A	G				
UniRef90_F5LEW1	L	R	E	R	M	S	E	L	V	L	I	D	Y	N	H	A	K	A	N	G	D	A	L	D	M	N	H	G	L	P	F	T	G	R	V	K	I	W	A	G				
UniRef90_C2CF94	I	L	G	I	G	R	E	I	G	I	D	I	N	E	D	K	A	Y	G	D	A	M	D	L	I	S	D	V	L	S	F	T	K	P	K	T	I	Y	K					
UniRef90_D6WHN0	A	Q	N	V	S	H	D	V	V	L	I	D	C	V	E	N	K	K	E	L	L	D	L	I	Q	H	G	S	L	F	L	K	N	P	R	I	N	A	S					
UniRef90_H4GJ76	Q	Q	G	L	A	E	E	F	A	L	I	D	I	N	K	D	R	I	H	K	G	E	D	A	L	I	N	H	G	A	M	F	V	P	Q	A	E	I	V	G				
UniRef90_F6FSG4	A	R	G	S	A	R	T	V	A	L	M	D	V	N	R	R	K	V	D	A	E	V	L	D	L	I	N	H	G	A	M	F	V	P	Q	A	E	I	V	G				
UniRef90_E7GB17	N	T	G	S	I	D	E	L	V	L	I	D	I	D	E	E	K	A	K	G	E	A	M	D	L	I	N	H	G	I	P	Y	S	T	N	K	M	K	I	K				
UniRef90_D3EK15	L	R	E	R	V	S	E	L	V	L	I	D	A	N	H	D	K	A	L	K	G	E	A	L	D	M	N	H	G	L	P	F	A	G	V	K	I	W	A	G				
UniRef90_W7CFK8	N	Q	G	I	C	N	E	L	V	L	I	D	V	N	Q	N	K	A	E	G	E	A	L	D	L	I	A	D	G	I	A	W	A	D	T	K	T	T	I	Y	A			
UniRef90_F7GGA7	I	K	D	L	A	D	K	L	A	L	V	H	V	E	K	D	K	L	K	E	M	M	D	L	I	Q	H	G	S	L	F	L	K	T	P	K	I	V	Y	S				
UniRef90_C2D1P4	Q	Q	G	L	A	E	E	F	V	I	V	D	V	V	E	K	R	T	V	G	D	A	L	D	L	I	N	H	G	A	Q	V	F	T	S	P	K	H	I	V	S			
UniRef90_K6WMW2	I	R	G	V	A	R	T	I	A	L	M	D	I	N	T	A	K	V	T	A	E	V	L	D	M	S	H	G	L	E	F	V	P	R	A	D	I	I	V	G				
UniRef90_T1GKZ2	T	Q	N	V	S	N	E	I	C	I	D	V	S	A	D	K	L	Q	Q	G	E	M	M	D	L	I	Q	H	G	S	N	F	L	K	S	P	K	V	T	A	G			
UniRef90_QOYS54	E	K	Q	L	A	K	E	I	V	L	I	D	I	V	E	G	I	P	Q	G	K	A	L	D	M	E	S	G	A	V	A	L	F	D	T	S	N	K	I	V	G			
UniRef90_B8CYJ4	N	W	G	L	A	S	E	I	V	L	I	D	I	D	K	D	R	A	E	G	E	A	M	D	L	I	N	H	G	A	S	F	V	K	P	V	R	I	R	S				
UniRef90_D2NTC0	V	R	G	S	A	D	E	I	V	L	Y	D	I	D	G	K	R	A	H	A	E	A	L	D	I	N	H	G	A	M	F	A	H	E	A	T	V	T	G	G				
UniRef90_F6XLK3	L	K	H	L	A	T	D	L	I	V	D	V	I	E	D	K	L	K	E	G	E	V	L	D	L	I	N	H	G	N	L	F	L	S	N	V	H	I	D	G	G			
UniRef90_UPI00039C92C4	Q	Q	R	I	A	D	E	L	V	L	V	D	L	D	R	R	R	A	E	G	E	A	M	D	L	I	M	H	A	Q	G	Y	V	G	R	Q	R	V	R	A				
UniRef90_B8GSY5	Q	R	Q	I	A	S	S	L	V	L	V	D	K	D	P	R	R	A	E	G	E	A	M	D	L	I	M	H	G	Q	A	L	V	G	R	V	T	V	K	A				
UniRef90_Q5HL31	T	Q	G	I	A	D	E	F	V	I	I	D	I	A	K	D	K	V	E	A	D	V	K	D	L	I	N	H	G	A	L	Y	S	S	P	V	T	V	K	A				
UniRef90_R5LCD6	Q	S	G	L	F	N	E	I	V	I	I	D	A	N	K	N	K	A	E	G	D	A	L	D	I	N	H	G	I	Q	F	T	N	P	V	N	V	Y	S					
UniRef90_Q9P7P7	L	S	G	L	A	A	E	I	V	I	I	D	L	N	K	K	K	A	E	G	E	A	M	D	L	I	N	H	A	A	P	L	S	H	E	T	R	V	Y	L				
UniRef90_G9K810																																												
UniRef90_UPI000273D9D7																																												
UniRef90_F0Z5G7	E	S	G	L	F	N	E	M	V	L	I	D	I	D	E	K	K	T	A	E	G	E	A	L	D	I	N	H	A	V	P	F	T	S	V	P	S	A	D	I	Y	A		
UniRef90_UPI00024857E2	N	Q	G	L	C	D	H	L	V	L	V	D	I	I	A	E	K	K	A	E	G	E	A	L	D	I	N	H	A	V	P	W	S	G	V	P	R	T	A	I	T	Q		
UniRef90_D3NXT4	Q	K	E	L	G	D	V	V	L	F	D	I	I	A	E	K	E	G	M	A	P	A	G	K	A	L	D	I	N	A	E	T	S	P	E	G	F	N	A	S	L	T	G	
UniRef90_E0QJ94	Q	S	G	L	A	S	Q	I	V	L	V	D	I	I	A	E	K	E	K	A	E	G	E	I	M	D	L	I	N	H	G	A	A	F	I	K	S	V	E	I	L	K	A	
UniRef90_G7YH18																																												
UniRef90_UPI0003ADAE47	L	R	G	L	T	D	E	L	A	L	V	D	V	N	E	D	K	L	K	A	E	M	M	D	L	I	Q	H	G	S	P	F	V	K	M	P	T	I	V	S				
UniRef90_G4MY20	M	N	R	A	A	E	I	V	L	I	D	V	D	K	D	K	T	E	G	E	V	M	D	L	I	N	H	G	A	A	F	I	K	S	V	E	I	L	K	A				
UniRef90_W0JHH6	E	K	E	L	A	R	Q	V	L	V	I	D	I	V	E	G	L	P	Q	G	K	A	L	D	E	M	E	A	S	P	I	G	F	D	T	E	I	I	G	T				
UniRef90_C3IW10	N	Q	G	L	A	E	E	F	V	L	V	D	V	N	E	A	R	A	E	G	E	A	M	D	L	I	S	H	A	I	P	F	S	P	S	P	T	K	V	W	K			
UniRef90_Q8GMJ0	Q	Q	G	L	A	E	E	L	A	I	V	N	L	S	K	E	Q	A	E	G	D	A	L	D	L	I	N	H	G	A	A	F	I	K	S	V	E	I	L	K	A			
UniRef90_U1YV99	M	R	G	A	A	R	T	V	A	L	L	D	V	N	R	A	K	V	E	A	E	V	L	D	L	I	N	H	G	I	Q	F	M	P	M	A	R	V	E	G	S			
UniRef90_R5TAP8	V	Q	G	L	A	D	E	V	V	F	Y	D	I	N	N	D	K	A	H	G	E	S	L	D	L	I	N	H	G	I	Q	F	M	P	M	A	E	V	V	G				
UniRef90_F4H785	M	R	G	A	A	R	T	V	A	L	L	D	V	N	R	A	K	A	E	A	E	A	L	D	L	I	N	H	G	I	Q	F	M	P	M	A	E	V	V	G				
UniRef90_W7CN35	S	Q	N	I	A	R	E	I	G	I	V	D	I	N	V	G	K	K	A	E	A	E	A	L	D	L	I	N	H	G	L	A	Y	T	S	P	K	K	I	Y	V			
UniRef90_V5T8T2	L	Q	G	I	A	N	E	I	G	I	V	D	I	A	K	E	K	T	Q	G	D	A	L	D	I	N	H	G	I	Q	F	M	P	M	A	E	V	V	G					
UniRef90_M3YSQ8	G	K	S	L	A	E	L	V	L	V	D	I	F	E	D																													
UniRef90_A9AXB8	S	K	E	L	A	D	V	L	V	I	D	I	V	E	G	L	P	Q	G	K	G	L	D	L	I	N	H	G	S	P	V	E	G	F	D	V	S	I	V	I	G			
UniRef90_P56512	Q	Q	G	I	A	E	E	F	V	I	V	D	V	V	K	D	R	T	K	G	D	A	L	D	L	I	N	H	G	A	Q	A	F	T	A	P	K	K	I	Y	S			
UniRef90_D1AME6	T	R	G	I	T	D	E	L	I	L	I	D	I	K	E	D	K	V	K	S	E	M	L	D	L	I	N	H	G	S	L	A	N	L	N	S	N	V	T	I	K	I		
UniRef90_UPI0003771E18	N	R	G	L	C	D	Q	L	V	L	I	D	L	D	T	K	R	A	W	G	H	A	E	D	L	I	N	H	A	V	P	W	T	G	S	H	N	T	R	V	S			
UniRef90_E6SLT2	I	K	Q	V	A	D	I	V	L	V	D	V	V	E	G	M	P	Q	G	K	A	L	D	L	I	N	H	G	A	P	E	G	F	D	V	V	I	T	G	S				
UniRef90_R5MRY3	N	Q	R	T	V	N	E	L	A	L	I	D	L	N	Y	E	R	E	I	E	G	E	V	M	D	L	I	N	H	C	L	A	F	A	P	S	K	I	D	I	K	V		
UniRef90_R6FU53	F	Q	N	I	C	D	E	I	V	F	I	D	R	D	K	E	K	E	J	E	G	E	A	M	D	L	I	N	H	G	A	S	V	A	F	L	Q	S	A	P	V	I	R	V
UniRef90_UPI0003B6AAD6	E	K	N	F	A	E	I	A	L	I	D	I	V	G	D	L	A	R	G	K	A	L	D	I	N	H	G	A	P	I	M	G	Y	D	V	N	I	Q	G					
UniRef90_N6TP62	S	Q	G	V	S	E	V	L	V	D	V	V	A	D	K	L	K	G	E	M	M	D	L	I	N	H	G	A	L	F	L	K	N	A	K	I	V	A	D					
UniRef90_U1M8V5	Q	Q	N	I	A	S	E	I	C	L	V	D	V	V	A	D	K	L	K	G	E	M	M	D	L	I	N	H	G	S	L	F	L	Q	T	P	K	I	V	A	D			
UniRef90_F7B2C2	V	E	G	I	A	A	D	I	V	L	Y	D	I	N	K	R	S	V	E	A	E	A	L	D	L	I	N	H	G	A	Q	I	Q	F	T									

[illegible]

		130	140	150	160																																									
UniRef90_H3NN98	V	D	K	V	V	S	G	F	N	G	L	F	L	V	A	T	N	P	V	D	I	M	T	Y	A	T	W	R	F	S	G	F	N	A	N	R	V	I	G							
UniRef90_U2MAN3	M	P	E	I	V	K	Y	A	S	G	F	H	A	C	I	F	L	V	A	T	N	P	V	D	I	V	L	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G
UniRef90_A0A011QUQ3	V	E	Q	I	V	M	A	S	G	F	D	G	I	F	L	V	A	T	N	P	V	D	I	V	L	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G		
UniRef90_UPI0002C2F245	I	P	A	M	V	I	Q	N	S	P	D	A	V	Y	I	M	V	T	N	P	V	D	I	V	L	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G		
UniRef90_UPI0003759703	V	S	G	V	M	E	H	A	C	I	F	L	V	A	T	N	P	V	D	I	V	L	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G					
UniRef90_K9Y1B7	L	E	D	V	V	M	H	C	P	H	A	C	I	F	L	V	A	T	N	P	V	D	I	M	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G			
UniRef90_F5LEW1	V	E	N	V	T	K	Y	N	Q	T	G	I	L	F	L	V	A	T	N	P	V	D	I	M	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G			
UniRef90_C2CF94	I	K	K	I	V	D	S	G	F	D	G	I	F	L	V	A	T	N	P	V	D	I	L	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G				
UniRef90_D6WHN0	I	P	K	L	V	K	Y	S	P	N	T	V	L	I	V	A	S	N	P	V	D	I	L	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G				
UniRef90_H4GJ76	V	E	P	I	M	A	S	G	F	D	G	I	F	L	V	A	T	N	P	V	D	I	L	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G				
UniRef90_F6FSG4	M	P	G	L	V	E	V	A	P	D	A	V	I	M	V	T	N	P	V	D	I	V	L	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G				
UniRef90_E7GB17	A	L	K	I	K	S	S	G	F	D	G	I	F	L	V	A	T	N	P	V	D	I	L	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G				
UniRef90_D3EK15	I	Q	N	I	V	K	Y	N	D	H	G	I	L	V	A	T	N	P	V	D	I	V	L	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G				
UniRef90_W7CFK8	T	T	E	I	M	A	S	G	F	D	G	I	L	V	A	T	N	P	V	D	I	V	L	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G				
UniRef90_F7GGA7	I	P	N	I	V	K	Y	S	P	C	K	L	V	A	S	N	P	V	D	I	L	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G						
UniRef90_C2D1P4	I	K	P	L	V	A	S	G	F	K	G	V	I	L	V	A	S	N	P	V	D	I	L	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G				
UniRef90_K6WMMW2	L	P	G	V	L	E	V	A	P	D	A	V	I	M	V	T	N	P	V	D	I	V	L	T	Y	A	V	I	R	V	S	G	L	D	P	A	T	K	Q	V	I	G				
UniRef90_T1GKZ2	I	P	K	L	V	E	H	S																																						

UniRef90_H3NN98	T	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	T	K	V	D	P	R	S	V	H	A	Y	I	M	G	E	H	G	D	S	E	F	P	V				
UniRef90_U2MAN3	S	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_A0A011QUQ3	T	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_UPI0002C2F245	S	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_UPI0003759703	S	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_K9Y1B7	T	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_F5LEW1	S	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_C2CF94	T	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_D6WHN0	S	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_H4GJ76	S	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_F6FSG4	S	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_E7GB17	T	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_D3EK15	S	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_W7CFK8	T	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_F7GGA7	R	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_C2D1P4	S	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E	H	G	D	T	S	E	F	M	I	P
UniRef90_K6WMMW2	S	G	T	V	L	D	S	S	R	F	R	T	K	E	L	A	E	L	H	A	G	V	D	N	I	R	N	V	H	G	Y	I	V	G	E										

UniRef90_H3NN98	WS	H	A	N	I	G	G	L	P	L	D	D	W	I	Q	T	N	S	V	D	E	E	V	L	L	H	S	F	N	K	V	K	N	A	A	Y	E	240			
UniRef90_U2MAN3	WS	L	A	S	S	I	A	G	M	K	F	D	E	Y	C	A	N	V	E	N	L	G	D	K	D	E	I	V	E	Q	E	S	V	R	D	G	A	E			
UniRef90_A0A0111QUQ3	WS	H	A	N	I	V	A	G	L	Q	I	N	E	Y	I	N	N	N	P	N	L	G	D	E	K	A	L	V	E	I	F	F	S	V	R	D	A	A	E		
UniRef90_UPI0002C2F245	WS	G	V	T	I	A	V	V	S	P	K	V	L	N	S	D	K	G	T	D	K	D	X	E	Q	K	E	N	V	R	K	V	V	V	A	S	G	E			
UniRef90_UPI0003759703	WS	R	V	N	I	A	G	V	L	L	D	E	F	C	P	V	C	G	R	S	C	A	S	F	R	E	K	V	V	K	Q	V	R	G	A	A	Y	E			
UniRef90_K9Y1B7	WS	T	A	N	V	A	G	R	K	L	L	S	Q	D	W	E	N	L	D	S	E	E	R	E	E	F	T	A	I	F	S	Q	V	R	K	N	A	A	Y	E	
UniRef90_F5LEW1	WS	L	A	N	F	A	G	L	P	L											E	L	N	Q	E	D	K	D	E	L	F	Q	N	T	R	D	A	A	Y	Q	
UniRef90_C2CF94	WS	H	T	N	I	A	G	L	P	I	Y	E	W	V	K	S	H	S	K	V	D	E	L	A	L	L	E	T	F	E	K	T	K	N	A	A	Y	E			
UniRef90_D6WHN0	WS	G	V	N	V	A	G	V	R	L	R	E	I	N	P	S	M	G	T	Q	Q	D	P	E	R	W	D	Q	V	I	H	K	E	V	V	N	A	A	Y	E	
UniRef90_H4GJ76	Y	S	S	A	T	I	G	G	K	P	L	L	E	M	A	Q	E	A	G	V	T	D	E	E	L	L	Q	I	E	D	D	V	R	H	K	A	A	Y	E		
UniRef90_F6FSG4	WS	S	A	T	I	G	G	V	P	L	L	E	W	T	A	L	P	G	P	L	D	A	A	A	R	E	R	I	E	D	D	V	R	N	A	A	Y	R			
UniRef90_E7GB17	W	T	N	T	Y	V	G	C	K	T	L	L	E	Y	V	D	E	K	N	L	D	M	N	D	L	N	E	I	Y	D	D	V	R	N	A	A	Y	E			
UniRef90_D3EK15	W	S	I	A	N	I	A	G	L												G	I	D	L	T	D	D	E	R	E	I	F	D	R	T	K	N	A	A	Y	E
UniRef90_W7CFK8	WS	H	T	T	N	I	G	G	K	P	I	I	E	W	D	N	I	T	A	D	D	L	N	T	I	Y	V	S				V	R	D	A	A	Y	E			
UniRef90_F7GGA7	WS	G	V	N	V	A	G	V	S	L	L	K	S	L	H	P	V	L	R	T	D	G	D	S	E	H	W	K	D	V	H	K	Q	V	V	E	C	A	Y	E	
UniRef90_C2D1P4	Y	S	A	A	R	V	G	G	E	P	F	L	D	V	A	K	R	T	G	S	L	D	D	D	L	A	T	I	E	D	D	V	R	H	K	A	A	Y	E		
UniRef90_K6WMMW2	WS	S	A	S	I	G	G	V	P	L	L	D	W	N	P	D	G	E	P	L	D	S	A	S	R	A	K	M	H	E	D	V	R	H	K	A	A	Y	K		
UniRef90_T1GKZ2	WS	G	V	N	I	A	G	V	R	L	R	E	L	N	P	T	I	G	T	A	Q	D	P	E	K	W	N	E	L	H	K	Q	V	V	D	S	A	Y	E		
UniRef90_Q0YS54	V	K	Y	T	N	V	A	G	I	P	L	T	E	Y	I	P	Q	D	K	I	D							A	I	V	E	R	T	R	N	G	G	I</			

[illegible]

[illegible]

UniRef90_H3NN98	R	I	K	E	I	I	D	A					
UniRef90_U2MAN3	E	A	L	R	S	V	I	D	Q	M			
UniRef90_A0A011QUQ3	D	T	I	R	T	H	L	K	E	V	L	E	
UniRef90_UPI0002C2F245	E	T	L	W	E	I	Q	K	E	R	K		
UniRef90_UPI0003759703	S	V	I	R	E	T	L	E	S	I			
UniRef90_K9Y1B7	N	L	L	Q	D	V	F	A	Q	L	K		
UniRef90_F5LEW1	A	K	I	R	E	M	I	D	S	I	S	E	
UniRef90_C2CF94	K	T	L	K	E	T	I	D					
UniRef90_D6WHN0	T	T	L	D	D	I	Q	K	T	I			
UniRef90_H4GJ76	K	A	L	K	E	V							
UniRef90_F6FSG4	D	A	M	R	E	V	Q	R	R	L			
UniRef90_E7GB17	E	I	L	R	K	L	K	V	E	V	K		
UniRef90_D3EK15	N	K	L	K	E	Q	I	S	K	I			
UniRef90_W7CFK8	N	Q	L	R	L	T	I	Q	S	L			
UniRef90_F7GGA7	D	T	L	W	G	L	Q	K	E	L	Q		
UniRef90_C2D1P4	E	T	L	Q	K	T	T	K	D				
UniRef90_K6WMW2	E	T	L	R	K	M	Q	E	Q				
UniRef90_T1GKZ2	N	I											
UniRef90_QOYS54	A	E	V	K	E	N	C	N	S	L	A	A	L
UniRef90_B8CYJ4	R	I	L	K	D	V	I	K	D	L			
UniRef90_D2NTC0	E	A	I	R	A	S	A	A	S	L			
UniRef90_F6XLK3	S	L	I	S	E	V	Q	A	G	L	K		
UniRef90_UPI00039C92C4	G	T	L	K	Q	S	L	A	E	I			
UniRef90_B8GSY5	A	V	L	R	G	G	L	E	G	M	E		
UniRef90_Q5HL31	K	T	L	E	D	T	Y	D	S	I	K	H	L
UniRef90_R5LCD6	N	K	L	K	E	A	Y	R	S	I	K		
UniRef90_Q9P7P7	K	S	I	K	H	A	I	E	S	I			
UniRef90_G9K810													
UniRef90_UPI000273D9D7	E	T	L	W	N	I	Q	K	D	L			
UniRef90_F0Z5G7	Q	A	L	Q	K	I	T	E	E	L			
UniRef90_UPI00024857E2	E	T	L	E	Q	V	M	R	D				
UniRef90_D3NXT4	D	A	V	K	T	L	V	D	V	V	K	K	L
UniRef90_E0QJ94	R	I	L	K	D	I	I	E	Q	I			
UniRef90_G7YH18	E	T	L	A	V	V	C	K	S	I	K		
UniRef90_UPI0003ADAE47	K	T	L	W	E	I	Q	K	E	L			
UniRef90_G4MY20	E	K	V	K	E	T	I	Q	S	L	E		
UniRef90_W0JHH6	D	H	V	K	E	L	C	N	R	V	E	E	L
UniRef90_C3IW10	H	T	L	K	D	T	M						
UniRef90_Q8GMJ0	E	A	L	K	K	I							
UniRef90_U1YV99	E	S	L	R	A	V							
UniRef90_R5TAP8	K	V	L	K	E								
UniRef90_F4H785	D	A	V	R	S	V	A	R	S				
UniRef90_W7CN35	G	E	I	K	A	M	M	K	D				
UniRef90_V5T8T2	A	Q	L	T	K	V							
UniRef90_M3YSQ8	D	M	L	W	D	I	Q	K	D	L	K	D	
UniRef90_A9AXB8	D	L	V	R	S	S	V	D	T	L	R	T	L
UniRef90_P56512	A	T	L	K	K	V	L	D	G	L	A	E	L
UniRef90_D1AME6	E	V	I	K	T	Y	I	G	K	I			
UniRef90_UPI0003771E18	D	A	L	R	A	V	M	D	S				
UniRef90_E6SLT2	A	D	V	R	Q	T	L	S	K	L			
UniRef90_R5MRY3	D	V	I	K	D	A	I	K	K	I			
UniRef90_R6FU53	D	I	I	R	E	H	I	K					
UniRef90_UPI0003B6AAD6	E	V	V	R	S	L	Q	Q	D	I	D	K	L
UniRef90_N6TP62	S	V	M	A	E	V	Q	E	G	L	K		
UniRef90_U1M8V5													
UniRef90_F7B2C2	E	T	L	W	A	I	Q	K	D	L	H	D	L
UniRef90_D0YRP9	E	R	L	R	Q	V	A	R	D	L			
UniRef90_A5VJZ6	S	V	L	R	E	T	T	A	N				
UniRef90_W1U9I9	N	I	I	R	S	Y	I	E	K	S	K	E	I
UniRef90_UPI0003623797	N	V	V	K	E	N	M	S	K	I	K		
UniRef90_UPI0003A6F1C1	D	A	V	K	E	L	V	E	A	C	K	K	I
UniRef90_UPI0004068B47	D	A	V	R	K	V	N	G	A	L	K	E	
UniRef90_C8ZXT4	Q	T	L	K	T	M	Q	A	Q	L	Q	E	
UniRef90_R6IS26	Q	K	I	K	E	Y	S	D	K	A	V	E	I
UniRef90_R5I5E8	N	A	L	K	E	V	I	A	Q	T	E		
UniRef90_R6RY43	K	V	L	Q	E	L	W	A	Q	V	K		
UniRef90_E3EX64	D	A	V	K	G	L	V	A	A	C	K	T	I
UniRef90_R5YAA3	A	T	L	S	E	Y	T	K					
UniRef90_R5HWF8	A	L	I	K	E	V	I						
UniRef90_UPI00036269BF	D	A	V	R	G	L	L	A	K	S	K	E	L
UniRef90_UPI0003B72E94	A	S	V	R	G	L	L	D	T	C	K	K	L
UniRef90_UPI0004681786	D	A	V	R	A	M	N	A	D	L	K		
UniRef90_UPI000415E03D	A	A	V	E	K	I	I	A	E	C	Q	E	M
UniRef90_F0HET9	N	V	L	R	E	Y	M	K	T	I			
UniRef90_UPI000262A3F4	D	A	L	K	K	V	A	A	D	L	R		
UniRef90_D1C2T1	N	S	V	R	V	L	V	E	A	M	K	N	L
UniRef90_P62051	R	V	L	G	E	H	L	A	A	L			
UniRef90_C1A2U1	R	T	L	R	E	V	Q	E	S	L			
UniRef90_S7TQA2	A	A	V	E	E	L	K	A	V	L	A	K	L
UniRef90_UPI00042C8F90	K	T	I	W	E	I	Q	K	E	L	K		
UniRef90_E6YJL5	N	A	V	H	E	L	C	K	A	C	A	A	I
UniRef90_M5J615	A	T	L	K	Q	V	L						
UniRef90_G7LZS9													
UniRef90_F0M8H8	D	T	L	R	H	S	L	D	T	L			
UniRef90_B1I3T1	S	A	V	R	G	V	L	K	G	L			
UniRef90_U7JFB8	E	R	L	K	D	S	L	S	S	L			
UniRef90_B2GHK9	E	T	M	R	A	S	L	R	D	L			
UniRef90_UPI0004247A02	E	A	V	R	N	M	N	Q	V	L	R	D	
UniRef90_D7N2G1	E	L	L	K	S	Y	Q	R	K	V	D	D	
UniRef90_F9EHN6	E	R	L	R	E	V	A	R	G	L			
UniRef90_W2STE0	K	T	L	F	T	V	Q	T	Q	I	E		
UniRef90_C4L474	D	S	V	R	S	V	L	S	V	L			

	1	10	20	30	40
UniRef90_UPI000478C0AF			R K K V S I V	G A G N V G A T A A H W I	
UniRef90_F7Z042			M L K R K K I S V I	G G G F T G A T T A F L I A	
UniRef90_UPI0000DB7268			H R V K I V I V	G S G Y T G V A I G I A I L	
UniRef90_G4L4A6			H Q K V I L V	G D G A V G S S Y A F A L V	
UniRef90_UPI0003B36BF8			M P N S K V T V V	G A G F V G S T T A Q R L V	
UniRef90_UPI00026C6F46			M I E N S K L T V I	G A G A V G S S V A Y A S L	
UniRef90_UPI00046A10AD			A I K R R K I S V I	G S G F T G A T T A F I L S	
UniRef90_A0A031FVS4			S V I E N S K L T V V	G A G A V G S S V A Y A A L	
UniRef90_B5E0F0	A S S F N K V M K P L	D C F	K P K P S L K I T V V	G S G Q V G A A V A F L L	
UniRef90_D5UA69			S N S I K R R K F V L I	G A G H V G S H A G Y A L A	
UniRef90_UPI0003F67CB6			M I K R R K I S V I	G A G F T G A T T A L M L A	
UniRef90_E4U8E1			K V S V I	G A G H V G S T L A M R I A	
UniRef90_R6QJB5			R K I V I	G A G H V G T M C G L S L M	
UniRef90_R7N1E6			E I H T R K I A I I	G A G H V G S H A G Y A L L	
UniRef90_I4BD07			Q N S K V S I V	G M G S V G T A I A Y A C L	
UniRef90_W0RN26			N K I T V V	G A G N V G A T T A Q R I A	
UniRef90_U1WJ42			S F N R K K I A V I	G S G F T G A T T A F L L A	
UniRef90_R5QLQ6			K V G I I	G A G L V G S T T A Y T L A	
UniRef90_K8GHC2	L R P A E I	S C A T S Q V A I V	R K K I A L I	G A G N V G A T L A Q R L A	
UniRef90_Q1GQY3			R K K I A L I	G A G N I G G T L A L L A A	
UniRef90_M1URB5			R I T V V	G A G D V G V A C A Y N I L	
UniRef90_Y5PGV5			M K R N K I V L I	G S G F V G S A F A H A V V	
UniRef90_K7T117			M I K G K R V G I V	G A G N V G S T V A Y S L A	
UniRef90_A0A059FMB7			M A R K K I A L I	G S G M I G G T L A H I A A	
UniRef90_W8BWE1				M A V V M S I L	
UniRef90_UPI0003662A10			R N K I A L I	G S G N I G G T L A H L A A	
UniRef90_D5V1Z2			M K N K K V G I I	G V G N V G S T L A Y T L A	
UniRef90_UPI00036AE82A			M S V R K I S I I	G S G R L G S F T G Y E I V	
UniRef90_UPI0002DC1C10	S S P N M	C H S P	R V T V I	G A G K V G S T L A Q R I A	
UniRef90_UPI000366E4E1				S T T A Y T L L	
UniRef90_UPI00037282C3			T I V R K K I T I V	G A G F T G A T A A L M I A	
UniRef90_D6S5K8			S K V L L V	G D G A V G S T F A N D L L	
UniRef90_C6HU27			K K R R K V S I I	G A G N V G A T T A Q K I V	
UniRef90_UPI000372670D			K V G I V	G T G M V G S A A Y A L G	
UniRef90_UPI0001E2D173			K S T K S K G K A S I I	G T G L V G S S A A F A L A	
UniRef90_I7JAW4			Q R K K I S L I	G A G N I G G T L A H M I A	
UniRef90_UPI0004709A16			M A R K K I A L I	G G G N I G G T L A H L A G	
UniRef90_I4CAM1			K V G I V	G S G L V G S T C A Y A M V	
UniRef90_J9YY42			K I S L I	G A G N I G G T L A H L A A	
UniRef90_E8T5Z0			M D R K K I T I V	G A G N I G A T L A L L A A	
UniRef90_R6QNK9			M L D K R K V V I I	G A G H V G S H V A M A L C	
UniRef90_Q67LB8			M K R K K I A I V	G S G F T G Q G T A L F A A	
UniRef90_UPI0003D0A2B4	S V K E H L I H N V H K E E	H G H A H N K I T V V	G V G A V G M A C A I S I L		
UniRef90_R7YWH4			S K T T L T S K I A V V	G A G E V G S T I A Y S L I	
UniRef90_F6CJC3					
UniRef90_K7Z644			M A R N K I A L I	G A G N I G G T I A L L S G	
UniRef90_UPI0004708FDE			M K P T K I T L I	G A G A V G T A F V Y S S I	
UniRef90_R6LQB7			S K I T V I	G A G S V G A T I A N D L M	
UniRef90_D5RI56			M A R K K I A L V	G A G N I G G T L A H L I G	
UniRef90_H8FW05			K V G I V	G A G A V G S T A A Y A L V	
UniRef90_UPI0003F539CD			K V T V V	G A G N V G A T C A D V L A	
UniRef90_W6A658			M T N D R K I V L V	G C G A V G T S F I Y S A I	
UniRef90_K8EXY7			K R K V G I I	G T G H V G S D V A F S L V	
UniRef90_E1I130			R K K I S I I	G S G F V G S T T A Q R I F	
UniRef90_K9WHE3	M T S L P N S S	L C E	S R R V S V I	G S G K V G S T L A Q R I F	
UniRef90_E6W399			M A R K K I A L I	G G G Q I G G V L A Q L C A	
UniRef90_H9ULD2			K N K I A I I	G A G S V G A T I A Y N L S	
UniRef90_L7MRS3					
UniRef90_W2UU14			K V T V V	G A G A V G A S C A E Y I A	
UniRef90_C0KKG7			K I A M V	G S G M I G G T M A F L C S	
UniRef90_E2C742					
UniRef90_UPI00031C12DD			K V G I V	G S G H V G S T A A Y S I T	
UniRef90_UPI00038235C3			S K V T V V	G A G N V G A T C A N V L A	
UniRef90_G2E592			K K I T I V	G A G R V G E T T A Q I L A	
UniRef90_E6WZW8			K K V T I I	G A G N V G A T V A Y S L A	
UniRef90_UPI0002E810B2			K I S K A G V V	G A G R V G A A V A N A L V	
UniRef90_UPI00030EF671			M S R K K I A L V	G A G N I G G T L A H L A G	
UniRef90_I7KHN4			M N R K V F L V	G D G R V G S T F A N D L L	
UniRef90_D1VU56			K L G I V	G A G F A G E I I A Y T A A	
UniRef90_B5YGI4			R K K L G I V	G A G N V G A T L A L F A V	
UniRef90_I3XWY6			K K V S I I	G A G N V G A T I C Y W L A	
UniRef90_UPI00040B3677			M A R K K I A L V	G A G Q I G G T L A L L A G	
UniRef90_D5DKA1			A F R R K K I A V I	G A G F T G A T A A L M M A	
UniRef90_B7KGC9			V T V I	G A G N V G R T L A Q R I S	
UniRef90_R4PZ53	R L L H N V L I I K T	G V Q M R K Y A I I	G V G H V G A T I A Y T L V		
UniRef90_E8SH74			S K V S I I	G A G A V G S T A A Y L L S	
UniRef90_Q8RED8			M L Q T R K V G I V	G I G H V G S H C A L S M L	
UniRef90_U7PG07			K R K V A I I	G A G H T G A T L A F M L A	
UniRef90_D1AYS4					
UniRef90_Q2IK16					
UniRef90_D1BJ26			M A R S K I A L I	G G G Q I G G V L A Q L A A	
UniRef90_UPI000258EE37				S T M A Y A A L	
UniRef90_B5QJG1					
UniRef90_UPI000413445E			K P R K V M I I	G D G A I G S S F A F N C L	
UniRef90_Q92BI0			M K P R K V M I I	G A G N V G T A A A W A L L	
UniRef90_I0JW74			K I S V I	G A G N V G S A A A H A F V	
UniRef90_B4LT74			G Q P S E P A D K I S V I	G A G F V G A T T A Q R I W	
UniRef90_C5C7D1				G T G Q V G L S C C A F L I	
UniRef90_S2XB40				A I C Y A T L	
UniRef90_Q3J7E7			N K V S I V	G A G A V G A T T A Y L L S	
UniRef90_Q3YS64			K K I T I V	G A G R V G E A T A Q F L V	
UniRef90_A0Z0A0			M I K R K K I A L I	G A G N I G M I A Y L I R	
	P P S C H P	T R V S I I	G A G K V G S T L A Q R I A		

UniRef90_UPI000478C0AF	S	K	E	L	A	D	V	V	A	L	V	D	I	V	E	G	V	P	Q	G	K	A	L	D	L	M	L	E	A	S	M	P	I	E	G	K	D	V	H	R	I	V	G	S	
UniRef90_F7Z042	Q	K	E	L	G	D	V	V	L	V	D	I	V	E	N	E	P	V	P	K	G	K	A	L	D	L	M	L	E	A	S	M	P	I	E	G	K	D	V	H	R	I	V	G	S
UniRef90_UPI0000DB7268	F	K	R	L	A	S	E	V	V	F	I	D	V	N	E	E	L	A	K	G	K	A	L	D	L	I	S	H	G	A	F	L	G	N	A	P	K	I	I	G	T	S			
UniRef90_G4L4A6	T	Q	D	I	A	Q	E	V	G	L	I	D	I	D	S	N	R	T	E	G	K	A	L	D	L	I	S	D	A	L	A	F	L	G	N	A	P	K	I	I	G	T	S		
UniRef90_UPI000336BF8	E	K	E	L	A	D	V	V	L	V	D	I	V	E	G	L	A	K	G	K	A	L	D	L	M	M	E	S	A	P	I	G	F	N	A	T	K	I	I	G	T	S			
UniRef90_UPI00026C6F46	I	R	G	S	A	R	H	V	A	L	Y	D	I	D	A	A	K	T	E	A	E	A	L	D	L	A	H	E	G	T	L	F	T	R	D	K	I	I	G	T	S				
UniRef90_UPI000046A10AD	Q	K	E	L	G	D	V	V	L	V	D	I	M	E	N	P	T	K	G	K	A	L	D	L	M	L	E	H	G	S	P	Q	G	S	D	V	N	I	G	T	S				
UniRef90_A0A031FVS4	I	R	G	S	A	R	H	V	A	L	Y	D	I	A	A	E	K	V	E	A	E	A	L	D	L	A	H	E	G	S	Q	F	T	N	S	D	I	I	G	T	S				
UniRef90_B5E0F0	A	R	N	L	T	K	H	L	V	I	L	D	V	K	Y	D	L	A	T	A	E	A	L	D	F	S	H	G	S	A	F	L	G	N	R	I	V	E	A	K	S				
UniRef90_D5UA69	A	Q	G	L	A	E	E	V	V	F	I	D	D	E	K	K	A	F	S	Q	A	L	D	I	I	F	D	E	T	V	Y	L	P	H	R	I	V	E	K	A	S				
UniRef90_UPI0003F67CB6	M	K	E	L	G	D	V	V	L	V	D	I	M	E	N	P	T	K	G	K	A	L	D	L	M	L	E	A	T	P	V	V	G	D	V	H	I	I	G	T	S				
UniRef90_E4U8E1	E	A	A	L	A	D	V	V	L	V	D	I	V	E	G	M	P	Q	G	K	A	L	D	L	S	Q	S	P	V	V	L	N	D	V	T	I	I	G	T	S					
UniRef90_R6QJB5	Y	R	G	E	V	D	D	L	V	Y	I	D	I	D	R	E	K	A	Y	S	Q	A	L	D	L	L	D	D	A	V	S	L	L	P	H	I	I	T	V	R	T	S			
UniRef90_R7N1E6	S	Q	G	L	A	E	D	I	V	Y	I	D	I	D	R	K	K	A	E	A	Q	A	L	D	L	L	Y	D	S	T	V	Y	L	P	K	R	A	L	V	Y	A				
UniRef90_I4BD07	I	R	G	S	A	G	S	L	A	L	F	D	I	D	T	A	K	V	R	A	E	A	L	D	L	N	H	G	S	Q	F	V	P	H	I	C	R	I	S	G	T	S			
UniRef90_W0RN26	E	K	E	L	A	G	T	V	V	M	V	D	I	V	A	E	G	I	P	Q	G	K	L	D	D	Q	W	S	A	P	I	G	F	F	D	A	R	V	I	G	T	S			
UniRef90_U1WJ42	Q	K	E	L	G	D	V	V	L	V	D	I	M	E	N	P	T	K	G	K	A	L	D	L	M	A	E	G	P	V	Q	G	F	D	A	S	V	I	G	T	S				
UniRef90_R5QLQ6	I	E	G	T	A	R	E	I	V	L	V	D	I	N	K	V	R	A	E	A	E	A	L	D	I	I	H	A																	

UniRef90_UPI000478C0AF	N	D	Y	A	A	T	A	N	S	D	I	V	V	I	T	A	G	I	P	R	K	P	G	M	S	R	D	D	L	L	H	T	N	F	K	I	M	S	D	V				
UniRef90_F7Z042	S	D	Y	A	D	T	K	D	A	S	D	V	V	V	I	T	A	G	V	A	R	K	T	N	G	M	S	R	D	D	L	L	Q	T	N	Q	R	I	M	S	D	V		
UniRef90_UPI0000DB7268	K	D	Y	S	L	A	R	K	D	A	T	V	V	I	T	I	G	D	R	S	T	N	G	Q	M	S	R	D	D	L	L	L	Q	T	N	Q	R	I	F	K	D	V		
UniRef90_G4L4A6	A	S	Y	E	D	A	H	D	A	D	L	V	V	I	T	A	G	A	P	Q	K	P	N	G	E	T	R	L	D	L	L	V	N	K	N	L	K	I	N	H	D	V		
UniRef90_UPI0003B36BF8	N	H	Y	E	D	T	K	D	S	D	I	V	V	I	T	A	G	L	A	R	K	P	G	M	S	R	D	D	L	L	L	L	K	N	A	K	I	V	S	G	I			
UniRef90_UPI00026C6F46	S	D	I	G	V	V	E	G	S	H	V	V	V	I	T	A	G	A	K	Q	K	P	G	Q	M	S	R	I	E	L	L	A	A	T	N	A	K	I	V	S	G	I		
UniRef90_UPI00046A10AD	S	N	F	E	D	T	A	D	S	D	V	V	V	I	T	A	G	I	A	R	K	P	G	M	S	R	D	D	L	L	V	N	T	N	A	G	I	M	K	S	V			
UniRef90_A0A031FVS4	S	D	V	S	V	A	A	G	S	H	V	V	V	I	T	A	G	A	K	Q	N	P	G	Q	T	R	T	E	L	L	A	G	V	N	A	G	I	L	R	R	M			
UniRef90_B5E0F0	G	D	G	N	R	T	K	N	S	D	V	I	I	I	T	A	G	A	P	S	G	K	T	R	S	R	L	D	V	L	M	H	K	T	V	V	I	L	K	S	V			
UniRef90_D5UA69	G	N	Y	S	D	I	D	A	D	I	M	V	I	I	T	A	G	P	L	P	N	M	Q	M	S	R	D	D	L	L	L	G	A	T	I	E	V	I	M	K	D	I		
UniRef90_UPI0003F67CB6	S	S	Y	E	D	T	A	N	S	D	L	V	V	I	T	A	G	V	A	R	K	P	N	G	M	S	R	D	D	L	L	L	E	I	N	T	N	A	G	I	V	K	S	V
UniRef90_E4U8E1	N	D	Y	A	D	I	A	G	S	D	M	V	I	I	T	A	G	V	P	R	K	P	G	M	S	R	D	D	L	L	L	I	E	I	N	G	K	I	A	L	T	M		
UniRef90_R6QJB5	G	D	Y	G	D	V	E	D	A	D	V	I	V	I	T	A	G	V	S	R	L	P	G	Q	T	R	L	D	M	L	L	D	D	S	T	I	R	I	M	K	E	V		
UniRef90_R7N1E6	G	D	Y	S	D	I	K	D	A	Q	L	L	V	I	T	A	G	P	D	M	S	K	G	Q	T	R	L	D	D	L	L	L	R	Q	T	I	E	L	V	K	N	I		
UniRef90_I4BD07	D	D	I	G	V	T	A	R	S	A	I	V	V	V	T	A	G	A	K	Q	K	P	G	Q	S	R	L	E	L	L	A	A	S	N	V	E	M	A	R	S	L			
UniRef90_W0RN26	N	G	Y	E	E	T	A	G	S	D	V	V	V	I	T	A	G	I	A	R	K	P	G	M	S	R	D	D	L	L	L	N	T	N	A	G	I	V	K	Q	V			
UniRef90_U1WJ42	S	N	Y	E	D	I	K	G	A	D	L	V	V	I	T	A	G	I	A	R	K	P	G	M	S	R	D	D	L	L	L	N	T	N	A	G	I	M	K	A	V			
UniRef90_R5QLQ6	G	D	Y	S	D	L	K	G	A	D	V	V	I	I	T	A	D	G	A	P	N	F	T	A	S	R	L	E	L	L	V	D												

	UniRef90_UPI000478C0AF	UniRef90_F7Z042	UniRef90_UPI0000DB7268	UniRef90_G4L4A6	UniRef90_UPI0003B36BF8	UniRef90_UPI00026C6F46	UniRef90_UPI000046A10AD	UniRef90_A0A031FVS4	UniRef90_B5E0F0	UniRef90_D5UA69	UniRef90_UPI0003F67CB6	UniRef90_E4U8E1	UniRef90_R6QJB5	UniRef90_R7N1E6	UniRef90_I4BD07	UniRef90_W0RN26	UniRef90_U1WJ42	UniRef90_R5QLQ6	UniRef90_K8GHC2	UniRef90_Q1GQY3	UniRef90_M1URB5	UniRef90_Y5PGV5	UniRef90_K7T117	UniRef90_A0A059FMB7	UniRef90_W8BW1E	UniRef90_UPI0003662A10	UniRef90_D5V1Z2	UniRef90_UPI00036AE82A	UniRef90_UPI0002DC1C10	UniRef90_UPI000366E4E1	UniRef90_UPI00037282C3	UniRef90_D6S5K8	UniRef90_C6HU27	UniRef90_UPI000372670D	UniRef90_UPI0001E2D173	UniRef90_I7JAW4	UniRef90_UPI0004709A16	UniRef90_I4CAM1	UniRef90_J9YY42	UniRef90_E8T520	UniRef90_R6QNK9	UniRef90_Q67LB8	UniRef90_UPI0003D0A2B4	UniRef90_R7YWH4	UniRef90_F6CJC3	UniRef90_K7Z644	UniRef90_UPI0004708FDE	UniRef90_R6LQB7	UniRef90_D5R156	UniRef90_H8FW05	UniRef90_UPI0003F539CD	UniRef90_W6A658	UniRef90_K8EXY7	UniRef90_E1I130	UniRef90_K9WHE3	UniRef90_E6W399	UniRef90_H9ULD2	UniRef90_L7MRS3	UniRef90_W2U014	UniRef90_C0KKG7	UniRef90_E2C742	UniRef90_UPI00031C12DD	UniRef90_UPI00038235C3	UniRef90_G2E592	UniRef90_E6WZW8	UniRef90_UPI0002E810B2	UniRef90_UPI00030EF671	UniRef90_I7KHN4	UniRef90_D1VU56	UniRef90_B5YG14	UniRef90_I3XWY6	UniRef90_UPI00040B3677	UniRef90_D5DKA1	UniRef90_B7KGC9	UniRef90_R4PZ53	UniRef90_E8SH74	UniRef90_Q8RED8	UniRef90_U7PG07	UniRef90_D1AYS4	UniRef90_Q2IK16	UniRef90_D1BJ26	UniRef90_UPI000258EE37	UniRef90_B5QJG1	UniRef90_UPI000413445E	UniRef90_Q92B10	UniRef90_I0JW74	UniRef90_B4LT74	UniRef90_C5C7D1	UniRef90_S2XB40	UniRef90_Q3J7E7	UniRef90_Q3YS64	UniRef90_A0Z0A0
V	S	K	V	V	A	Q	S	P	E	S	I	L	I	V	V	S	N	P	L	D	A	M	A	Y	Q	A	F	R	Q	A	S	G	F	N	R	K	R	R	V	I	G																																																			
T	K	E	I	V	K	Y	A	P	N	S	I	V	L	V	L	T	N	P	V	D	A	M	T	Y	A	F	Q	M	K	L	S	G	F	P	P	H	R	R	V	I	G																																																			
I	P	K	V	C	K	Y	A	P	N	S	I	V	L	V	L	T	N	P	V	D	I	L	T	Y	A	F	Q	M	K	L	S	G	F	P	P	H	R	R	V	I	G																																																			
V	T	Q	L	V	D	S	G	F	N	G	I	F	L	V	A	T	N	P	V	D	I	L	T	Y	A	F	Q	M	K	L	S	G	F	P	P	H	R	R	V	I	G																																																			
V	T	E	C	V	K	Y	S	P	K	T	I	L	L	V	T	N	P	L	D	V	M	T	Y	A	F	Q	M	K	L	S	G	F	P	P	H	R	R	V	I	G																																																				
M	R	R	T	L	E	V	A	P	N	A	V	F	L	V	I	T	N	P	C	D	V	L	T	M	L	A	H	E	K	S	G	L	P	P	K	R	R	V	I	G																																																				
T	E	Q	L	V	K	Y	S	P	N	A	Y	L	V	V	L	T	N	P	A	D	A	M	T	Y	T	V	Y	K	T	S	G	F	P	P	K	R	R	V	I	G																																																				
L	P	E	L	L	E	V	A	P	N	A	V	Y	V	I	T	N	P	C	A	D	V	L	T	V	I	G	Q	R	I	G	L	P	P	K	R	R	V	I	G																																																					
V	P	K	L	V	E	L	S	P	K	A	I	F	I	I	I	C	N	P	A	D	V	M	T	F	A	V	Q	R	I	G	L	P	P	K	R	R	V	I	G																																																					
I	E	K	I	K	T	K	F	N	G	I	I	N	I	I	I	S	N	P	A	D	V	I	T	H	Y	L	Q	K	N	K	L	N	Y	G	F	P	P	K	R	R	V	I	G																																																	
T	E	Q	V	V	K	F	S	P	D	A	V	L	I	V	L	T	N	P	S	N	P	V	D	A	M	T	Y	V	A	Y	K	S	G	F	P	P	K	R	R	V	I	G																																																		
G	E	N	I	K	K	Y	A	P	D	A	F	I	I	Q	V	A	N	P	L	D	A	I	T	Y	V	I	S	E	I	T	G	T	P	P	K	R	R	V	I	G																																																				
A</																																																																																												

UniRef90_UPI000478C0AF	M	A	G	V	L	D	S	A	R	F	R	T	F	I	A	E	E	L	N	V	S	V	E	N	V	T	A	F	V	L	G	G	H	G	D	T	M	V	P	L				
UniRef90_F7Z042	Q	S	G	V	L	D	T	A	R	F	R	A	F	I	A	E	E	L	N	V	S	V	E	N	V	T	A	F	V	L	G	G	H	G	D	T	M	V	P	L				
UniRef90_UPI0000DB7268	L	G	T	F	L	D	S	A	R	F	Q	Y	A	F	A	E	Q	K	L	D	G	I	V	S	A	R	N	V	V	L	G	E	N	G	D	P	T	M	V	P	L			
UniRef90_G4L4A6	T	G	T	S	L	D	S	A	R	F	R	Q	A	F	A	E	G	L	M	D	V	D	A	R	N	V	V	H	A	Y	L	G	E	H	G	D	S	E	F	V	V			
UniRef90_UPI0003B36BF8	M	A	G	E	L	D	S	A	R	Y	A	Y	F	L	A	S	E	E	A	T	K	V	C	A	P	T	S	V	H	A	M	I	V	L	G	E	H	G	D	T	M	V	P	L
UniRef90_UPI00026C6F46	S	G	T	V	L	D	T	A	R	F	R	W	E	I	A	R	R	T	G	V	A	A	P	T	S	V	V	H	A	Q	I	V	L	G	E	H	G	D	T	E	F	P	L	
UniRef90_UPI00046A10AD	Q	S	G	V	L	D	T	A	R	F	R	T	F	V	A	Q	E	L	N	V	S	V	E	D	V	T	T	G	F	V	L	G	E	H	G	D	T	M	V	P	L			
UniRef90_A0A031FVS4	S	G	T	V	L	D	T	S	R	L	R	W	K	L	A	Q	Q	R	A	G	V	S	T	S	A	V	V	H	A	Y	I	V	L	G	E	H	G	D	T	E	F	P	H	
UniRef90_B5E0F0	T	G	C	H	L	D	T	A	R	F	R	Y	L	I	A	K	R	L	K	V	P	T	S	A	V	V	N	A	Y	I	L	G	E	H	G	S	A	V	P	V				
UniRef90_D5UA69	T	S	T	S	L	D	S	A	R	L	R	R	A	L	A	S	E	A	I	N	I	D	Q	K	S	A	V	Y	A	Y	A	L	G	E	H	G	S	Q	M	V	A			
UniRef90_UPI0003F67CB6	Q	A	G	V	L	D	T	A	R	F	R	T	F	V	A	E	E	A	L	G	V	S	V	K	D	V	V	S	G	F	V	L	G	E	H	G	D	T	M	V	P	L		
UniRef90_E4U8E1	M	A	G	V	L	D	S	S	R	Y	R	H	F	I	A	E	E	A	L	G	V	S	V	K	D	V	V	S	Q	G	F	V	L	G	E	H	G	D	T	M	V	P	L	
UniRef90_R6QJB5	T	G	T	S	L	D	S	A	R	F	L	R	R	L	I	S	Q	K	M	H	L	D	R	S	S	I	Y	A	F	V	L	G	E	H	G	D	S	Q	M	V	P	L		
UniRef90_R7N1E6	T	S	T	I	L	D	S	A	R	L	R	R	A	L	A	A	D	K	T	G	I	D	Q	K	S	I	Y	A	Y	A	L	G	E	H	G	S	Q	M	V	P	L			
UniRef90_I4BD07	S	G	T	V	L	D	S	A	R	F	R	F	L	I	A	E	R	A	D	I	L	A	V	G	N	I	V	H	G	F	I	V	L	G	E	H	G	D	S	E	I	P	L	
UniRef90_WORN26	M	A	G	V	L	D	T	A	R	F	R	A	F	L	A	E	A	M	D	V	L	S	V	K	D	I	V	Q	A	M	V	L	G	E	H	G	D	T	M	V	P	L		
UniRef90_U1WJ42	Q	S	G	V	L	D	T	A	R	F	R	T	F	V	A	A	M	E	L	N	M	S	V	K	D	V	T	T	G	F	V	L	G	E	H	G	D	T	M	V	P	L		
UniRef90_R5QLQ6	S	G	T	V	L	D	T	A	R	F	R	S	L	L	A	K	Y	L	D	I	S	P	Q	S	L	V	V	H	A															

[illegible]

UniRef90_UPI000478C0AF	I	V	K	K	T	G	S	A	Y	Y	A	P	S	A	A	T	V	E	M	V	E	A	I	L	K	D	K	R	K	R	I	L	P	C	A	A	Y	L	Q	G	E			
UniRef90_F7Z042	I	V	N	G	N	G	S	A	Y	Y	A	P	S	A	A	T	V	E	M	V	E	A	I	L	K	D	K	R	K	R	I	L	P	C	A	A	Y	L	Q	G	E			
UniRef90_UPI0000DB7268	L	I	V	S	R	K	G	Y	R	C	W	G	M	G	I	C	A	E	M	V	D	A	I	V	I	R	N	T	C	I	C	V	P	A	V	S	T	Y	L	K	G	C		
UniRef90_G4L4A6	L	I	V	E	K	K	G	A	T	F	Y	G	V	A	A	A	L	A	R	I	T	R	A	I	L	V	N	D	E	N	A	V	L	P	S	L	S	V	H	M	D	G	E	
UniRef90_UPI0003B36BF8	I	V	K	L	L	K	T	G	S	Y	A	P	S	S	S	V	V	R	M	V	E	A	I	L	K	D	E	R	N	G	E	V	L	P	S	C	V	Y	L	T	G	Q		
UniRef90_UPI00026C6F46	I	V	Q	G	K	G	A	T	S	Y	A	I	G	L	S	S	A	R	I	V	E	A	I	L	K	D	E	N	A	V	L	N	V	S	T	V	Y	L	T	E	D	F		
UniRef90_UPI00046A10AD	I	V	N	G	N	G	S	A	Y	Y	A	P	A	A	S	L	V	Q	M	V	E	A	I	L	K	D	K	K	R	I	L	P	T	I	J	A	Y	L	E	G	E			
UniRef90_A0A031FVS4	I	V	R	G	K	G	A	T	N	Y	A	I	G	L	S	S	A	R	I	V	E	A	I	L	K	D	Q	H	A	V	M	P	V	S	T	V	L	S	D	F				
UniRef90_B5E0F0	V	S	K	A	K	G	Y	T	N	W	A	I	V	G	L	T	A	S	D	V	V	K	C	M	V	S	E	N	T	Q	G	Q	V	C	C	V	G	T	D	I	V	K	G	L
UniRef90_D5UA69	V	L	G	G	K	G	S	T	E	F	G	I	G	T	S	L	A	E	V	A	R	A	V	L	S	D	E	R	H	R	V	L	P	V	S	V	Y	L	N	G	E			
UniRef90_UPI0003F67CB6	I	V	N	G	N	G	S	A	Y	Y	A	P	G	A	S	L	V	I	E	M	A	E	A	I	L	K	D	K	R	R	L	L	P	V	S	I	A	L	L	N	G	E		
UniRef90_E4U8E1	I	V	G	L	T	G	S	A	Y	Y	A	P	S	A	G	A	F	E	M	A	K	A	I	I	K	D	E	K	R	R	L	L	P	V	A	A	Y	L	E	G	E			
UniRef90_R6QJB5	V	I	E	G	K	G	S	T	E	F	G	I	G	I	A	L	S	E	I	V	R	S	I	F	H	D	E	K	K	R	V	L	P	V	S	P	L	L	N	G	E			
UniRef90_R7N1E6	I	L	G	G	K	G	S	T	E	F	G	I	G	A	T	L	S	A	E	V	T	R	A	I	F	G	D	E	N	R	V	L	P	V	S	V	L	L	N	G	E			
UniRef90_I4BD07	I	V	A	G	K	G	A	T	N	L	A	I	G	L	S	T	A	R	I	I	E	A	I	L	G	D	Q	H	R	V	L	P	V	S	T	V	Q	S	G	V				
UniRef90_WORN26	I	V	K	H	T	G	S	A	Y	Y	A	P	S	A	G	A	V	Q	M	V	E	A	I	L	K	D	Q	K	R	R	I	L	P	C	A	A	W	L	Q	G	E			
UniRef90_U1WJ42	I	V	N	G	N	G	S	A	Y	Y	A	P	A	A	S	L	V	I	E	M	A	E	A	I	L	K	D	K	K	R	I	L	P	S	I	A	Y	L	E	G	E			
UniRef90_R5QLQ6	I	Y	H	G	K	K	A	T	Y	Y	G	I	A	G	A	L	S	T	I	C	K	A	V	A	K	N	E	R	R	V	L	T</												

UniRef90_UPI000478C0AF	Y	G	I	D	G	Y	Y	L	G	V	P	C	K	L	G	A	A	G	L	E	K	I	V	E	I	K	L	T	P	E	E	D	A	A	L	K	K	S	A						
UniRef90_F7Z042	Y	G	Y	N	D	V	Y	L	G	I	P	V	I	L	G	G	N	G	L	E	K	I	V	E	I	K	L	T	P	E	E	E	K	E	A	L	D	K	S	A					
UniRef90_UPI0000DB7268	R	H	G	E	K	D	V	Y	M	S	L	P	C	A	V	G	R	K	A	G	L	E	K	I	V	E	I	K	L	T	P	E	E	K	E	L	T	E	S	C					
UniRef90_G4L4A6	Y	G	L	K	N	D	V	Y	L	G	S	P	A	I	V	N	K	R	A	G	V	K	E	V	E	I	K	L	T	D	G	E	K	D	R	M	A	S	A						
UniRef90_UPI0003B36BF8	Y	G	L	K	D	V	Y	C	G	V	P	A	K	L	G	G	R	Q	G	V	E	V	E	I	K	L	T	D	R	E	E	S	E	K	A	L	R	A	S	A					
UniRef90_UPI00026C6F46	H	G	I	D	G	V	A	L	S	V	P	S	T	I	V	G	S	F	G	A	R	P	I	R	E	T	P	F	D	A	P	E	E	K	E	L	R	A	S	A					
UniRef90_UPI00046A10AD	Y	G	L	K	N	G	L	Y	M	G	V	P	T	I	V	G	G	D	G	A	R	K	V	E	L	E	L	T	D	A	E	E	K	A	A	L	E	V	S	A					
UniRef90_A0A031FVS4	Q	G	V	D	G	V	A	L	S	V	P	S	V	V	S	S	R	G	A	R	P	I	L	E	L	T	S	F	S	T	D	E	E	K	E	L	F	H	R	S	A				
UniRef90_B5E0F0	Y	G	L	K	D	S	V	V	L	S	V	P	C	R	V	T	A	S	G	I	V	E	I	L	E	L	P	L	N	D	E	E	K	K	K	L	K	S	A						
UniRef90_D5UA69	Y	G	Q	T	D	V	Y	A	S	V	P	A	V	L	G	G	K	D	G	V	E	E	I	L	E	L	P	L	N	M	D	E	E	K	K	L	F	N	A	S	C				
UniRef90_UPI0003F67CB6	F	G	Y	K	D	L	F	L	G	V	P	A	T	I	L	G	G	N	G	I	E	K	I	V	E	I	L	E	L	P	E	E	K	A	A	L	D	K	S	A					
UniRef90_E4U8E1	Y	G	I	S	G	L	F	V	G	V	P	A	V	L	G	G	K	D	G	I	E	K	I	W	E	L	P	L	N	D	E	E	K	A	A	L	K	N	S	A					
UniRef90_R6QJB5	Y	G	Q	Y	S	G	L	H	A	G	V	P	C	I	L	G	K	D	G	I	E	Q	V	E	I	L	E	L	P	L	N	D	E	E	K	K	F	E	N	S	C				
UniRef90_R7N1E6	Y	G	Q	T	D	V	Y	A	S	V	P	A	V	L	N	R	N	G	V	A	G	V	E	I	V	E	L	S	L	N	E	E	K	K	Q	F	A	A	S	C					
UniRef90_I4BD07	H	G	I	S	G	V	A	L	S	V	P	T	V	I	V	S	A	R	G	A	G	E	V	E	V	E	L	P	L	N	D	E	E	K	K	L	R	A	S	A					
UniRef90_W0RN26	Y	G	M	S	D	L	Y	L	G	V	P	C	K	L	G	G	K	D	G	I	E	K	Q	V	E	L	E	L	P	L	N	D	E	E	K	K	L	F	N	A	S	A			
UniRef90_U1WJ42	Y	G	Y	N	D	L	Y	L	G	V	P	T	L	L	G	G	K	D	G	I	E	K	V	F	E	L	E	L	P	L	N	D	E	E	K	A	Q	L	D	K	S	A			
UniRef90_R5QLQ6	E	G	L	Q	N	V	C	L	S	L	P	S	V	V	G	G	A	E	G	V	I	E	S	N	T	L	Q	P	S	L	D	E	E	K	A	L	L	R	G	S	A				
UniRef90_K8GHC2	Y	K	L	D	D	I	F	I	G	V	P	C	R	L	G	G	C	G	G	I	E	S	I	L	E	L	P	L	N	D	E	E	K	K	L	F	N	A	S	A					
UniRef90_Q1GQY3	Y	G	V	D	G	L	F	V	G	V	P	C	M	L	G	G	A	G	G	V	E	K	I	V	E	L	E	L	P	L	N	D	E	E	K	A	G	L	Q	V	S	V			
UniRef90_M1URB5	R	G	L	E	S	D	V	F	L	S	L	P	C	V	L	G	R	N	G	V	E	V	E	L	Q	I	L	M	E	S	D	E	E	K	E	L	L	Q	S	S	I				
UniRef90_Y5PGV5	Y	G	L	K	N	D	L	Y	L	G	T	P	T	V	I	G	G	N	G	A	D	R	V	E	I	L	K	L	E	L	P	L	N	D	E	E	K	K	L	R	F	K	Q	S	S
UniRef90_K7T117	Y	G	F	S	D	V	V	S	G	V	P	V	M	L	G	G	A	N	G	A	E	K	I	V	E	L	P	L	N	D	E	E	K	A	M	F	A	R	K	S	C				
UniRef90_A0A059FMB7	Y	G	L	D	G	M	Y	V	G	V	P	A	V	L	G	G	A	G	G	A	E	K	V	V	E	F	D	L	N	D	A	E	E	K	R	A	M	F	A	K	S	V			
UniRef90_W8BWE1	E	G	I	E	N	D	V	F	L	S	V	P	V	V	I	G	A	N	G	V	T	S	F	I	K	L	Q	L	S	G	L	E	Q	E	L	L	C	K	S	A					
UniRef90_UPI0003662A10	Y	N	L	N	G	L	Y	L	G	V	P	V	I	L	G	G	K	N	G	V	E	R	I	V	E	I	S	F	T	S	E	E	K	D	M	F	N	H	S	V					
UniRef90_D5V1Z2	Y	G	Y	K	D	I	V	S	G	V	P	I	M	L	G	G	K	N	G	V	E	K	I	F	E	L	N	L	N	D	E	E	K	E	L	F	K	K	S	V					
UniRef90_UPI00036AE82A	Y	G	L	N	D	L	C	I	G	V	P	A	V	L	G	G	K	K	G	I	E	K	I	F	E	L	N	L	N	E	E	K	K	L	R	F	Y	K	G	A					
UniRef90_UPI0002DC1C10	Y	G	L	N	D	I	F	I	G	V	P	C	R	L	G	G	R	G	G	I	E	K	V	V	E	L	K	L	S	E	A	E	K	N	A	L	H	T	C	A					
UniRef90_UPI000366E4E1	Y	G	I	S	D	V	Y	L	G	V	P	C	V	L	G	D	R	Q	G	V	E	R	Q	V	M	D	I	E	L	T	D	E	E	K	Q	L	L	H	K	S	A				
UniRef90_UPI00037282C3	Y	G	Y	H	D	L	F	L	G	L	P	A	V	L	G	G	S	G	V	E	R	I	F	E	L	E	L	P	L	N	D	E	E	K	S	A	L	D	K	S	A				
UniRef90_D6S5K8	Y	G	I	K	H	D	L	Y	L	G	T	P	A	V	I	N	A	N	G	I	S	H	V	I	E	A	E	L	S	S	K	E	L	A	K	M	Q	N	S	A					
UniRef90_C6HU27	Y	G	I	R	G	A	F	V	G	V	P	V	R	L	G	G	N	G	L	E	E	I	L	Q	L	P	L	N	D	E	E	K	S	Q	L	A	H	S	A						
UniRef90_UPI000372670D	V	E	G	V	Q	D	V	A	L	S	L	P	R	V	L	G	R	D	G	I	A	T	E	L	L	P	D	L	D	A	Q	E	R	A	A	L	Q	R	S	A					
UniRef90_UPI0001E2D173	Y	G	I	N	D	V	A	L	S	L	P	S	V	V	N	F	N	G	I	E	R	M	F	N	I	S	L	T	H	E	E	Q	D	K	L	N	V	S	A						
UniRef90_I7JAW4	Y	G	A	E	G	L	F	V	G	V	P	I	V	I	G	K	N	G	V	E	K	V	L	E	I	K	M	N	S	N	E	E	Q	E	M	F	N	K	S	V					
UniRef90_UPI0004709A16	Y	G	Q	K	G	M	Y	V	G	V	P	A	V	I	G	E	G	G	V	E	K	V	V	E	I	N	L	N	D	E	E	K	Q	M	F	D	H	S	V						
UniRef90_I4CAM1	E	G	V	T	D	V	T	I	S	L	P	R	L	V	G	G	E	G	I	L	D	T	F	P	P	P	L	D	A	D	E	H	N	E	L	R	K	S	A						
UniRef90_J9YY42	Y	G	L	N	N	M	Y	M	G	V	P	T	I	L	G	S	K	G	V	E	K	I	I	E	V	K	L	S	A	N	E	K	S	M	L	K	K	S	V						
UniRef90_E8T5Z0	Y	Y	G	A	S	G	L	C	V	G	V	P	L	L	G	K	E	K	G	V	E	E	I	I	K	L	D	L	T	D	E	E	K	W	A	D	W	R	K	S	V				
UniRef90_R6QNK9	Y	G	I	D	G	V	A	C	G	V	P	C	V	I	G	R	N	G	I	E	D	I	I	E	L	E	L	N	D	K	E	K	G	Q	M	A	H	T	C						
UniRef90_Q67LB8	Y	G	Y	T	D	M	C	L	G	V	M	T	V	L	G	G	G	G	L	E	K	V	I	E	L	E	L	D	L	T	D	E	E	K	V	A	L	D	K	G	A				
UniRef90_UPI0003D0A2B4	Y	R	E	D	L	Q	C	C	L	S	F	P	V	V	L	G	R	K	G	V	V	R	T	V	P	M	P	L	S	E	E	E	D	K	A	L	K	K	S	G					
UniRef90_R7YWH4	Y	G	I	T	G	V	C	L	S	L	P	S	I	V	N	R	T	K	G	R	A	R	V	L	A	V	P	L	L	A	N	D	E	E	K	E	A	L	H	H	S	A			
UniRef90_F6CJC3	Y	G	L	D	G	L	Y	L	G	V	P	I	I	L	G	G	S	G	V	E	K	I	V	E	I	E	L	N	E	K	E	K	E	M	F	D	N	S	I						
UniRef90_K7Z644	Y	G	L	D	G	L	Y	L	G	V	P	I	I	L	G	G	S	N	G	I	E	K	I	L	E	I	E	L	N	E	K	E	K	S	K	F	K	N	S	I					
UniRef90_UPI0004708FDE	Y	G	F	N	D	V	Y	A	G	V	P	V	I	L	G	D	Y	K	G	V	E	R	G	K	I	L	N	P	M	T	D	A	E	E	V	A	K	L	H	H	S	A			
UniRef90_R6LQB7	Y	G	V	D	D	V	C	L	S	T	L	A	L	V	L	G	D	K	G	V	E	K	I	V	E	V	Q	F	T	E	A	E	K	A	A	F	D	K	S	C					
UniRef90_D5RI56	Y	G	M	N	D	F	Y	V	G	V	P	V	V	I	G	G	D	K	G	V	E	K	I	V	E	I	E	L	N	E	K	E	K	S	K	F	K	N	S	I					
UniRef90_H8FW05	E	G	I	H	D	V	T	L	G	V	P	R	I	V	G	A	G	G	V	L	E	T	L	K	P	D	F	S	D	E	E	H	A	A	L	R	R	S	A						
UniRef90_UPI0003F539CD	Y	G	I	D	D	C	Y	L	G	V	P	V	I	L	G	G	K	N	G	I	E	K	V	I	E	L	Q	L	T	S	A	E	E	K	A	L	L	Q	T	S	R				
UniRef90_W6A658	Y	G	L	D	D	V	Y	I	S	V	P	C	I	V	G	G	A	N	G	I	E	Q	I	I	D	W	K	L	S	A	E	E	L	A	G	L	Q	E	S	S					
UniRef90_K8EXY7	Y	G	L	K	T	N	T	Y	L	G	Q	P	A	I	L	G	A	N	G	V	I	D	I	L	E	P	K	L	T	T	D	E	V	A	N	F	N	A	S	A					
UniRef90_E1I130	Y	G	L	N	D	M	Y	F	G	V	P	V	I	L	G	G	A	G	G	V	E	K	I	V	E	L	P	L	N	D	D	E	K	A	L	V	K	S	A						
UniRef90_K9WHE3	Y	G	L	N	D	I	F	I	G	V	P	I	Q	L	G	G	S	G	V	E	K	V	L	E	L	N	L	N	D	A	E	E	K	E	R	A	L	H	T	S					

UniRef90_UPI000478C0AF
UniRef90_F7Z042
UniRef90_UPI0000DB7268
UniRef90_G4L4A6
UniRef90_UPI0003B36BF8
UniRef90_UPI00026C6F46
UniRef90_UPI00046A10AD
UniRef90_A0A031FVS4
UniRef90_B5E0F0
UniRef90_D5UA69
UniRef90_UPI0003F67CB6
UniRef90_E4U8E1
UniRef90_R6QJB5
UniRef90_R7N1E6
UniRef90_I4BD07
UniRef90_W0RN26
UniRef90_U1WJ42
UniRef90_R5QLQ6
UniRef90_K8GHC2
UniRef90_Q1GQY3
UniRef90_M1URB5
UniRef90_Y5PGV5
UniRef90_K7T117
UniRef90_A0A059FMB7
UniRef90_W8BWE1
UniRef90_UPI0003662A10
UniRef90_D5V1Z2
UniRef90_UPI00036AE82A
UniRef90_UPI0002DC1C10
UniRef90_UPI000366E4E1
UniRef90_UPI00037282C3
UniRef90_D6S5K8
UniRef90_C6HU27
UniRef90_UPI000372670D
UniRef90_UPI0001E2D173
UniRef90_I7JAW4
UniRef90_UPI0004709A16
UniRef90_I4CAM1
UniRef90_J9YY42
UniRef90_E8T5Z0
UniRef90_R6QNK9
UniRef90_Q67LB8
UniRef90_UPI0003D0A2B4
UniRef90_R7YWH4
UniRef90_F6CJC3
UniRef90_K7Z644
UniRef90_UPI0004708FDE
UniRef90_R6LQB7
UniRef90_D5RI56
UniRef90_H8FW05
UniRef90_UPI0003F539CD
UniRef90_W6A658
UniRef90_K8EXY7
UniRef90_E1I130
UniRef90_K9WHE3
UniRef90_E6W399
UniRef90_H9ULD2
UniRef90_L7MRS3
UniRef90_W2UU14
UniRef90_C0KKG7
UniRef90_E2C742
UniRef90_UPI00031C12DD
UniRef90_UPI00038235C3
UniRef90_G2E592
UniRef90_E6WZW8
UniRef90_UPI0002E810B2
UniRef90_UPI00030EF671
UniRef90_I7KHN4
UniRef90_D1VU56
UniRef90_B5YGI4
UniRef90_I3XWY6
UniRef90_UPI00040B3677
UniRef90_D5DKA1
UniRef90_B7KGC9
UniRef90_R4PZ53
UniRef90_E8SH74
UniRef90_Q8RED8
UniRef90_U7PG07
UniRef90_D1AYS4
UniRef90_Q2IK16
UniRef90_D1BJ26
UniRef90_UPI000258EE37
UniRef90_B5QJG1
UniRef90_UPI000413445E
UniRef90_Q92BI0
UniRef90_I0JW74
UniRef90_B4LT74
UniRef90_C5C7D1
UniRef90_S2XB40
UniRef90_Q3J7E7
UniRef90_Q3YS64
UniRef90_A0Z0A0

330
A A V K E L C A V I
A S V R K V M D A L
R T I F E T Q K S I
E Q L S N I L
E H V R E N C N K L
D A L E A V A A S L R
E S V R N V M K V L
D A L K S V A A S L
D T L L E A Q C S L K
E V M K K N Y E
E S V R N V I N V V K
D H V K A L V D K V N E L
G V I R E Y I S H I
K T M R E N Y E
S A L R N A Q D S L
Q A V R E P M A A I
D A V R S V M D V L K
E I L C K V V Q Q Q
N S V R Q N L E H L K T L
D A V K E L L E A C K K L
E A L Q S T
H I I L J E H Q Q
A S V Q S L I D T L
T S V Q G L I A A C K E I
E T L N K A M Q S L K E
S A V K Q L N E
T S V K E L V D T L
E I I K N A I N E L R Q L
R E V R K N L D R A K E I
N K L K D L I R S I E
D S V R G V I S V V
D K M Q E V L A G V E E
A V I A E G I S A L N R L
S L L R G L F E S V
I K L K E I L R K V
N A I K E L M K S L
D A V K G L V E A C I G I
L V V K S A I D E L D E
K S V Q G L V S A V D K I
E S V K R L V E K L
S V I K D Y C E R A E N
Q G V R N L I E M L K
E S L R E I I
R T L K S I I A Q L
N A I K
D V I K N S I D V V K
D C L K E V I R Q I E
D A V K K L I E D F K K L
L L L R E A A D S I K
K H V K D V M D A
N Q L K E V
E V I K
D A V R S T L E T L K T L
E S V R A N I Q Q
N A V K E L V E A M D K L
R Y I
D T L W G I Q K E L Q
E A V S K T N G A L S D I
D E V K E M Q K A I A A L
N T V Y N V Q K D L K
R L I K Q A V S Q L
K H V K A V M D
N A V R S E I E R L R D I
A S V R S M I N V L K
E E L N K A Y E S L
N S V K T L I E A A K G L
E K M K E V L D G I E
E L I K S Y N K A L
E E V K N M I K I L K E
A S V D A L L E T L
A S V K G L I D A C K T I
E S V Q S V M A I L E
G S V R E N L N
D T L I E
A V M H D Y I Q Q L
A V M K K Y I E
D A V E E V K S A L K
K V L K D V I K T I K
K A V K D L V A T L K
A S L K E V
N L V Y N V Q K D I K
D I L K D N L K K A Q E
D V I K A N I A R L
A V I K E N I K S I
R H V A S N I K K L
E V L M K A Q C A L
D A L R R E A R S L
D V M R S Y I D Q L K
E A I R
K L I K N L V S N V
E S V R

	1	10	20	30	40
UniRef90_R4Q285			R K Y G V I G L G Q V G A T V A Y T L V		
UniRef90_A5CF61			K I S I I G A G N V G A T L A H L I A		
UniRef90_I0QNU7			S K V G I I G T G H V G A D V A F S L V		
UniRef90_G5H864			S K V T V V G A G N V G A T C A N V I A		
UniRef90_H1LCB8			R K I G V I G V G H V G S T V A H Y I I		
UniRef90_F6B7Q3					
UniRef90_S2XMB0			M K R K K V S I I G S G H T G A T L A F I I A		
UniRef90_D2RHB2			K L G F V G A G R I G S T T A F T C I		
UniRef90_T0YX18			S R K L V V L G A G N V G G S L A Q R L A		
UniRef90_UPI000426689E	M C A I A A P N I S H K A		P Q V A V I G A G K V G S T L A Q R L I		
UniRef90_C3XNN7			K K V G I I G A G N V G S T L A Y I L A		
UniRef90_F2NNI5			K V G I V G S G Q V G A T A A Y A L A		
UniRef90_H1LIF6			R K I A V I G M G N V G S T A A H Y I V		
UniRef90_K9YIS2			K V S I I G A G N V G R T L S Q R L I		
UniRef90_UPI000318D1F2			K I S V I G A G A V G A S C A D N I S		
UniRef90_Q0FLW6			K I G I V G A G M V G S A A G Y A L A		
UniRef90_R6QWX2				A H C A Y S L A	
UniRef90_B0FYI3	M C A I A V P S I S C K A P Q V T V I G A G K V G S T L A Q R V I				
UniRef90_Q2GK85			S H R S V K V S L V G A G N I G G T L A Y M L G		
UniRef90_U2PUJ3			S T R H P S K L S I V G A G A V G T S L A Y A L		
UniRef90_UPI00047776DC			R V A V I G A G K V G S T L A Q R L A		
UniRef90_E2Z9E0			R K V V I V G A G H V G S H V A L A L I		
UniRef90_G2ED55			K V T V V G A G A V G A S C A E Y I A		
UniRef90_E4PKJ8			K V S V I G T G N V G S T L A F V L T		
UniRef90_I0HSG8			K V G I I G V G Y V G A S V A F S L L		
UniRef90_UPI000464F3BE			K I A V I G A G F V G S T T A Q R L V		
UniRef90_T0L381			R K V G I V G A G S V G A T A A Y S L T		
UniRef90_R5I916			S K V T V V G A G N V G A T C A N V L A		
UniRef90_A0A023CZG0			R K I G V I G L G H V G A T I A Y T L V		
UniRef90_E0TKE5			M K A T K I V L I G A G N V G N S F L Y S A M		
UniRef90_G2SR93			R K F A V I G L G H V G A T V A Y T L V		
UniRef90_UPI000363135A	M I K K N K I A I I G L G H V G S A V L A R A I				
UniRef90_D8K409			K I T V V G A G N V G A T L A Q R L I		
UniRef90_B3SFB4			R K I A L I G G G N I G G T L A Y I A A		
UniRef90_A1HSK3			K I A I V G S G K V G A A I G Y T A M		
UniRef90_Q7Z0X7	P V I K R N K I S L I G S G N I G G V M A Y L A Q				
UniRef90_W0JG90			M R R S K V T V I G A G N V G A T A A H W A A		
UniRef90_A0ZB96			R V T I V G A G K V G S S L A Q R V A		
UniRef90_UPI0004440146					
UniRef90_UPI000346BE24			K T K N F P K V S I I G T G N V G K T L A Q R I V		
UniRef90_A8EUE8			M N N K T I G I I G V G N V G S T L A F I L A		
UniRef90_D0MCT0					
UniRef90_C7HUK9			R K V V L I G S G F V G S S Y A F A L V		
UniRef90_B2GA86			R K V A V I G M G H V G A T V A H Y L V		
UniRef90_U6KZN5			M R R P K I A L V G G G Q I G A I L A F L S S		
UniRef90_A0A037UPR1			R K V V L V G C G M V G N S F L Y S A M		
UniRef90_UPI00039900A3					
UniRef90_U7UUC4			M M Q T R K V V I I G A G H V G S H V A L A L L		
UniRef90_D4MA05			K K R T V G I I G I G H V G A H V A Y S L A		
UniRef90_M1PJF5			R K K I T I I G A G N V G A T A A H W A A		
UniRef90_R5E9U3			R K V G V I G L G H V G S T V A Y T L V		
UniRef90_A5VY92			N K L T I V G A G L V G E A A A Q I I A		
UniRef90_R6PTG8			N K K I S I I G M G A V G A G I A Y A L M		
UniRef90_M2S4P1			I A I L G C G G D V G S T L A Y T L I		
UniRef90_X1KHS5			R K K I S L I G G G Q I G Q I L A M L A A		
UniRef90_G2D928	K Q G I T M N K I T I V G A G R V G E T T A Q M L A				
UniRef90_V9LTS8	S Q V V K P R R V G I I G N G H V G S H V G Y S L A				
UniRef90_Q4N6I8			I R R K L I S L I G S G N I G G I M G Y L S Q		
UniRef90_W7BAR5			Q Q K V G I I G C G H V G S D V A F S L V		
UniRef90_Q9YEA1			I T I L G A G K V G M A T A V M L M		
UniRef90_D5T3B8			R K I G V I G I G H V G A T V A H I I I		
UniRef90_V5B069			K I A V I G T G R V G S S I A Y A L V		
UniRef90_Q9HJL5			M A R K K I S V I G A G N V G A T V A Q F L A		
UniRef90_D2RK05				A H V A Y S L G	
UniRef90_S2ZPW9			S K I G I I G A G H V G A H V A N A L L		
UniRef90_F2I3I4			M S R K K I S L I G A G Q I G G T L A H L I A		
UniRef90_O08349			K L G F V G A G R V G S T S A F T C L		
UniRef90_L0L1F9			K K L S V I G A G N V G A S T V I Q R L A		
UniRef90_A3ZQY3			K I S I V G T G H V G S A I A F A A T		
UniRef90_L7EN91			K T K I S I I G A G L V G S S I A H T L M		
UniRef90_D4KE67			K I S V I G A G N V G A T C A N V L A		
UniRef90_K7RNP5			M R S R T K I A I I G T G Q V G T A T A F E L I		
UniRef90_A8AXZ0			S R K V A I I G M G N V G A A V A H G L I		
UniRef90_V7HY64				M A	
UniRef90_W9EDV5			R K I G I I G V G H V G S T V A H Y L V		
UniRef90_G9WI90			S R K L A I I G V G H V G S T V A H Q I V		
UniRef90_B6YQU6			K V S V I G A G N V G A T C A N V L A		
UniRef90_U6EEN7			K V T V I G A G R V G K A A F S L A		
UniRef90_U5DC01			V S I V G A G K V G S T L A Q R L I		
UniRef90_UPI000258EE36	T T K N A I I T T Q L G P C D S Y P H R K V S I I G I G K I G I A C A L A I V				
UniRef90_R7D848			M A S T R K V G I I G L G H V G A H V A N S L L		
UniRef90_UPI0003783975					
UniRef90_A6Q7S2			M A K G K K V T V I G T G N F G S T V A F I L A		
UniRef90_D3SE40			K I A I I G A G R V G E S T A Q F L A		
UniRef90_UPI0002DAD185			T L K R K K I S V I G A G F T G A T T A F L L A		
UniRef90_B6AHM1			M T Q R R R I A V I G S G Q I G A N V A Y I A I		
UniRef90_F7NEE8			K F S V I G C G K V G A T I A F T A M		
UniRef90_E4SV09			R K V A V I G M G H V G A T A A F I L F		
UniRef90_J4C7U8	E A F V K R R I S L I G S G N I G G I M G Y L G Q				
UniRef90_D3R3M1			K I G I V G M G H V G A H V A N S L V		
UniRef90_S6ETZ9			K V S I I G A G A V G V G I C A N S L L		
UniRef90_F2N907			S L Q A R T V G I I G V G H V G A H V G N S L L		

		50	60	70	80																																						
UniRef90_R4Q285	Q	Q	G	T	V	D	E	L	V	L	I	D	K	N	E	A	L	A	K	A	Q	K	L	D	L	D	D	A	S	P	R	L	S	S	T	T	K	I	L	I			
UniRef90_A5CF61	V	K	E	L	G	D	I	V	I	V	D	K	T	K	A	V	A	Q	A	G	K	A	L	D	L	S	Q	S	M	G	I	G	K	S	C	I	N	I	T	T			
UniRef90_I0QNU7	T	Q	G	L	C	D	V	L	V	L	D	Q	D	E	K	V	A	A	A	Q	A	L	E	L	Q	D	M	A	S	L	T	A	S	R	T	T	V	I	A				
UniRef90_G5H864	T	R	E	I	A	D	E	V	V	L	D	I	K	E	G	V	A	E	G	K	M	L	D	I	F	Q	T	A	T	L	M	D	T	K	L	T	G	V	T				
UniRef90_H1LCB8	S	G	G	Y	A	D	D	I	V	L	I	D	T	N	E	L	K	V	N	S	D	A	T	D	F	T	D	A	M	A	N	L	P	A	H	T	N	T	I				
UniRef90_F6B7Q3					Q	L	V	L	V	L	D	V	N	K	E	D	K	A	E	G	E	A	M	D	L	G	D	A	A	A	F	I	K	P			I	N	V	M	Y		
UniRef90_S2XMB0	M	H	G	H	A	D	V	L	L	V	R	E	K	N	E	S	V	M	K	G	K	A	L	D	M	Q	Q	G	A	I	L	G	F	N	V	H	V	H	A	T			
UniRef90_D2RHB2	Q	H	L	D	L	D	E	V	V	L	V	D	I	V	E	D	L	A	V	G	E	A	M	D	L	S	H	A	I	V	G	L	D	K	Y	A	K	I	V	G			
UniRef90_T0YX18	E	A	D	L	A	A	E	V	V	L	I	D	I	V	D	G	L	P	Q	G	K	A	L	D	I	Q	E	S	A	P	I	L	F	S	T	R	V	T	G	S			
UniRef90_UPI000426689E	E	K	D	L	A	Q	V	V	L	L	D	I	V	E	G	L	P	Q	G	L	A	L	D	L	A	Q	A	Q	G	L	E	K	H	H	K	T	I	G	T				
UniRef90_C3XNN7	S	A	T	T	P	Y	E	I	V	L	Q	D	K	D	K	N	R	A	R	G	M	L	L	D	M	F	Q	A	S	C	V	G	P	K	F	T	K	L	G	V			
UniRef90_F2NNI5	L	T	G	V	A	S	E	I	V	L	V	D	R	D	P	A	R	A	R	A	H	A	E	D	I	L	H	A	T	P	F	A	H	P	V	R	I	V	Q	A			
UniRef90_H1LIF6	A	C	G	F	A	D	D	L	V	L	I	D	T	R	E	K	K	V	E	A	D	A	T	D	F	E	D	A	M	S	N	L	P	F	H	T	N	I	T	V			
UniRef90_K9YIS2	E	R	N	L	A	D	V	C	L	L	D	I	V	E	G	L	P	Q	G	I	A	L	D	L	T	E	A	Q	G	L	Q	S	H	H	C	E	I	M	T				
UniRef90_UPI000318D1F2	R	R	E	L	S	E	E	L	I	L	L	D	I	K	E	G	F	A	E	G	K	A	L	D	M	M	Q	T	A	A	Y	N	G	F	D	T	K	I	K	T			
UniRef90_Q0FLW6	L	R	G	G	A	S	E	I	V	L	V	D	R	N	M	A	L	A	V	A	Q	A	E	D	I	A	H	A	V	P	F	A	H	P			C	R	V	S	A		
UniRef90_R6QWX2	V	Q	G	T	V	D	E	L	V	L	V	D	V	K	E	Q	K	V	I	S	E	C	Q	D	L	R	D	S	V	S	Y	L	P	H	R	V	E	V	R	G			
UniRef90_B0FYI3	E	K	N	L	A	D	V	V	L	L	D	I	V	E	G	L	P	Q	G	I	A	L	D	I	L	Y	E	A	Q	L	E	G	H	H	K	T	I	L	G	T			
UniRef90_Q2GK85	V	A	G	I	C	Q	E	L	V	F	V	D	I	V	M	D	G	V	P	R	G	K	L	D	I	G	H	A	A	I	S	G	V	D	I	T	A	V	I	G	G		
UniRef90_U2PUJ3	I	R	D	S	A	K	V	V	A	L	Y	D	I	A	T	K	K	V	E	A	E	V	K	D	L	A	H	G	T	Q	F	T	N	S	V	V	M	G		G			
UniRef90_UPI00047776DC	E	K	E	I	A	D	V	T	L	L	I	D	V	V	P	L	P	Q	G	I	A	L	D	L	M	E	A	G	V	E	R	H	G	R	D	R	A	I	I	G	T		
UniRef90_E2ZE0	Q	S	G	E	A	D	D	I	V	L	I	D	I	D	K	A	V	G	Q	A	F	D	L	D	D	A	V	T	A	C	G	R	D	T	V	I	R	A					
UniRef90_G2ED55	I	K	N	F	A	S	E	V	V	L	L	D	I	K	E	G	F	A	E	G	K	A	M	D	L	M	Q	T	A	S	L	N	G	F	D	T	K	I	I	T			
UniRef90_E4PKJ8	L	K	N	I	T	D	E	L	V	L	V	G	R	S	K	Q	S	V	L	G	D	V	L	D	L	R	H	G	Q	L	F	V	N	T	P	A	Q	V	T	A			
UniRef90_I0HSG8	H	G	G	V	T	R	E	L	L	L	H	D	R	D	A	A	R	A	E	G	E	A	M	D	L	A	Q	G	A	P	Y	Y	P	R	A	T			V	R	A		
UniRef90_UPI000464F3BE	E	G	N	L	G	D	V	V	L	Y	D	I	V	E	G	L	P	Q	G	K	A	L	D	M	M	E	S	A	P	I	L	F	E	S	R	V	V	G	T				
UniRef90_T0L381	M	T	G	R	C	H	E	V	I	L	Y	D	I	D	S	D	L	T	V	G	K	A	I	D	I	L	G	Q	S	T	S	Y	S	P	R	G	T	I	V	T	P		
UniRef90_R5I916	F	K	E	V	A	D	E	I	V	L	L	D	I	K	Q	G	V	S	E	G	K	A	L	D	M	M	Q	T	A	T	L	L	G	F	D	S	K	V	I	T			
UniRef90_A0A023CZG0	T	K	G	I	A	D	E	L	V	L	I	D	S	N	E	D	K	A	V	A	E	E	Y	D	L	R	D	T	L	S	R	L	D	T	F	T	K	I	I	P			
UniRef90_E0TKE5	N	Q	G	L	A	S	E	Y	G	I	I	D	L	N	N	D	F	R	D	G	N	V	L	D	F	E	D	V	V	A	S	S	V	R	P	F	R	V	K	A			
UniRef90_G2SR93	T	K	G	L	A	S	E	V	G	L	I	D	S	N	D	D	K	C	M	A	E	Q	Y	D	L	L	D	S	L	G	R	L	D	T	H	T	K	I	K	V			
UniRef90_UPI000363135A	A	C	Q	L	A	P	E	I	V	C	I	D	T	D	E	K	K	A	H	G	E	A	L	D	A	S	H	S	T	P	C	T	L	P	G	I	K	V	Y	S			
UniRef90_D8K409	E	K	D	F	A	D	V	V	L	I	D	V	V	E	G	E	L	P	Q	G	K	T	L	D	M	Q	S	A	N	V	I	G	F	T	H	Q	L	V	G	T			
UniRef90_B3SFB4	S	K	E	I	G	D	I	V	I	L	D	R	S	K	E	Y	A	A	G	K	A	L	D	I	E	E	S	A	L	P	V	M	K	K	D	I	N	I	T	T			
UniRef90_A1HSK3	L	K	G	L	A	H	E	I	V	M	V	D	A	R	D	K	A	H	G	E	A	L	D	M	L	Q	C	L	A	F	A	P	P	A	R			I	R	H			
UniRef90_Q7Z0X7	L	K	E	L	G	D	V	V	L	E	D	I	A	P	K	L	G	A	A	K	A	L	D	I	Q	M	H	A	N	A	I	T	D	T	S	Q	N	V	I	G			
UniRef90_W0JG90	I	E	G	L	G	D	V	V	L	L	D	I	V	E	G	L	P	Q	G	K	A	L	D	L	Q	S	Q	F	R	I	T	D	T	G	S	C	S	I	I	G	T		
UniRef90_A0ZB96	E	K	N	L	A	D	V	V	L	L	D	I	V	E	G	M	P	Q	G	L	A	L	D	L	M	E	A	G	I	E	L	H	H	R	Q	L	I	M	G	T			
UniRef90_UPI0004440146																																											
UniRef90_UPI000346BE24	E	R	N	L	A	D	V	C	L	L	D	I	V	E	G	L	P	Q	G	I	A	L	D	L	M	E	A	G	L	E	L	H	T	R	N	V	V	G	T				
UniRef90_A8EUE8	T	N	N	I	C	S	N	I	L	L	K	D	I	K	N	N	I	S	E	A	M	A	L	D	I	S	Q	A	M	Q	E	T	N	S	N	T	K	I	T	A			
UniRef90_D0MCT0					G	L	A	S	T	L	I	L	I	D	K	D	A	R	R	A	E	G	E	A	M	D	L	M	H	G	Q	S			L	V	G	S	M	T	V	R	A
UniRef90_C7HUK9	N	S	G	L	A	S	T	L	S	I	I	D	I	D	K	D	K	A	I	A	D	V	N	D	L	M	D	A	S	C	K	I	E	S	P	T	L	V	K	E			
UniRef90_B2GA86	A	C	G	F	T	D	D	L	A	L	Y	D	T	N	E	A	K	V	R	A	D	A	L	D	L	R	D	A	S	M	A	N	L	P	Y	H	T	N	L	T	V		
UniRef90_U6KZN5	L	K	E	L	G	D	V	S	I	F	D	I	V	E	G	L	P	Q	G	K	A	L	D	L	S	S	Q	G	P	V	E	G	V	D	T	K	V	S	G	S			
UniRef90_A0A037UPR1	N	R	G	I	A	Q	H	Y	V	L	I	D	A	F	R	Q	A	A	E	G	N	A	I	D	L	S	D	A	V	A	V	L	E	N	R	F	T	I	K	A			
UniRef90_UPI00039900A3																																											
UniRef90_U7UUC4	Q	A	G	Q	A	N	D	I	V	L	I	D	K	R	E	K	A	F	G	Q	A	L	D	L	D	D	A	V	S	L	C	G	R	D	T	Q	V	R	A				
UniRef90_D4MA05	V	Q	G	I	A	N	D	I	I	L	V	D	R	E	R	K	K	A	D	C	E	A	Q	D	L	V	M	D	S	V	C	Y	L	P	H	R	V	E	V	R	S		
UniRef90_M1PJF5	A	K	N	I	G	D	I	I	L			D	V	A	E	G	I	P	Q	G	K	A	L	D	L	S	Q	G	P	V	E	G	F	H	F	G	V	K	R	S			
UniRef90_R5E9U3	T	K	G	I	A	D	E	L	V	L	I	D	T	N	E	A	K	C	T	A	E	Y	Y	D	L	D	S	L	G	R	L	E	T	Y	T	K	L	S	M				
UniRef90_A5VY92	R	D	E	L	A	C	R	E	L	V	L	M	D	V	Q	E	L	A	Q	G	K	A	L	D	V	V	Q	A	A	V	D	S	G	S	D	T	H	V	H	G			
UniRef90_R6PTG8	L	K	D	I	A	D	E	L	V	F	I	D	I	N	E	K	I	V	N	A	E	M	L	D	I	K	H	G	I	P	N	M	G	R	T	K			I	T	C		
UniRef90_M2S4P1	L	Q	G	P	L	C	S	E	V	L	V	L	D	L	K	H	S	L	L	E	A	Q	V	R	D	L	S	D	A	T	Y	R	G	G	S	G	V	R	V	R	A		
UniRef90_X1KHS5	Q	K	E	M	G	D	I	V	V	L	D	I	P	D	Y	P	V	K	G	K	A	L	D	L	M	E	M	A	P	H	G	N	D	A	N	I	T	G	T				
UniRef90_G2D928	E	A	E	L	C	R	E	V	M	L	V	D	I	R	E	D	A	P	Q	G	V	A	L	D	L	Q	T	S	S	F	F	R	F	D	T	R	V	S	G	S			
UniRef90_V																																											

	90	100	110	120
UniRef90_R4Q285	N D Y S A L A D A E V L I V T A S G N I G A I D M N R R F G E Y D L N Q A Q I V R E I			
UniRef90_A5CF61	N N Y Q E I L Q D A S N V I V T A G I A R K P G M S R R D D L L L K I N T N A K I V T E A			
UniRef90_I0QN7	N D Y S V L A D A D V V V I T A V G I K T M L K E D R R L E E L A E T C S A V R E A			
UniRef90_G5H864	N D Y A A T A G S D V V V I T S G M P R K P G M T R R E E L I G V N A G I V S S V			
UniRef90_H1LCB8	N D Y A A L K D A D V V I S A V G N I D N K P K H D R F V E L P Q F T K K A V K S D V			
UniRef90_F6B7Q3	G T Y A D C Q G A D V V I F T A G A N Q D N P K E T R L D L V I Q K N T A I L K E S			
UniRef90_S2XMB0	V D Y A E T K D S D V V I T A G L P R Q P G M S R R D D L V Q K T N E E I M V E V			
UniRef90_D2RHB2	G D Y S L L K G C D L I V V S T A G L A R K P G M T R R L D L A K K N A E I M R S V			
UniRef90_T0YX18	T S L D A L A D A D V V I E T A G L A R K P G M S R R D L L E K N A G I L K G H			
UniRef90_UPI000426689E	N H Y D D T V G S D V I V I A A G L P R K P G M S R R D D L L H Y N A K I V A H A			
UniRef90_C3XNN7	A S P K D L S D C D V I V I A A G S P R L P G M S R R D D L L L A N A K V I S E I			
UniRef90_F2NNI5	G E Y T A L E H A R I V I L A C G V A Q R P G E T R L E L L L G R N A K R V F Q E V			
UniRef90_H1LIF6	N D Y S A L K D A D V I I S A L G N I D N K N D D R F A E L P F T S K A V K S V			
UniRef90_K9YIS2	N N Y V D T K D S D I V V I T A G V A R K P G M S R R D D L L K I N A K I V T E A			
UniRef90_UPI000318D1F2	N D Y A A T A D S E V V V I T S G I P R K P G M T R R E E L L I G T N A G I V K S V			
UniRef90_Q0QLW6	G D Y D A L E G A D L V I L A A G V A Q K P G E D R I S L E L K S H S A E V F A Q V			
UniRef90_R6QWX2	G T Y E D L K D C D I V V I S V G T I M G E D H S R L A E L K S N S V E L V N S F			
UniRef90_B0FYI3	N D Y A D T T G S D L V V I T A G L A R K P G M S R R E D L L H Y N A K I V V H A			
UniRef90_Q2QGK5	S D Y A A I E G S D A I V V T A G L P R K E G M S R R E D L L M A N A A V I K G V			
UniRef90_U2PUJ3	D D I T A V R D S S I V I T A G A K Q K P G Q T R L D A T A N A R I L S S M			
UniRef90_UPI00047776DC	N D Y A D L T A M D V V V I T A G K P R L P G M S R R D D L L D I N G T I V A H A			
UniRef90_E2Z9E0	G G Y E E L N D A D I L V I T A F G R S R K P G E T R L D M F D D S I R M A D E V			
UniRef90_G2ED55	N D Y S A T A N S D I C V I T S G I P R K P G M T R R E E L I G I N A G I V K A V			
UniRef90_E4PKJ8	G T I S D T A G S D V I A V C A S V P T P K N M S R L E L A Q G N V Q L M K E L			
UniRef90_I0HSG8	V D L D E V S R C D V V F A A G R N G R P G E S R L Q L L A E D N F R V A S E V			
UniRef90_UPI000464F3BE	N D P K D L S G S A L V V V T S G I A R Q P G M S R R D D L L E R N A G I V A S V			
UniRef90_T0L381	A L H P E M K D C D I V V I T A G V P R K P G M T R R A D L L M I N A K I M K E V			
UniRef90_RS1916	N D Y A K T E G S D V V I T A G I P R K P G M T R R E E L I G V N A G I V K S V			
UniRef90_A0A023CZG0	Q D Y T A L K D A D V I I T A F G N I S A I K M D R F G E L N Y N A A V A E V			
UniRef90_E0TKE5	A E Y A D L K D A D F I V I T A G R P Q K P G E T R L E L I K D N I R I R Q I			
UniRef90_G2SR93	Q D Y S E L K D A D I I I T A F G N I A S L D G D R F G E F N F N T A A A D V			
UniRef90_UPI000363135A	G G F E E C K D A S I I C S G G P S I I P G E D R L L A E R N V K V I G D I			
UniRef90_D8K409	N D Y Q D T A G S D V V V I T A G I A R K P G M T R R D E L L I G I N A D I I R E V			
UniRef90_B3SFB4	D D Y S D I K D S D L V I T A G V A R K P G M S R R D D L L S V N A G V I K I V			
UniRef90_A1HSK3	G E M A D T A G A D I V V I T A G I P R K A D E P R V L L L S R N A A I L A D L			
UniRef90_Q7Z0X7	T T Y E D I A G S D V C I I T A G N K S D D E W S R D D L V A P N S K I M F T I			
UniRef90_W0JG90	N D Y K D T A D S D V I I T S G I A R K P G M S R R D D L L A T N V K I V K E V			
UniRef90_A0ZB96	N N Y A D T T A N S E I V V I T A G I P R K P G M S R R D D L L K I N T K V V D A			
UniRef90_UPI0004440146				
UniRef90_UPI000346BE24	N N Y E D T A N S D V V V I T A G I A R K P G M S R R E D L L L K I N A K I V T E A			
UniRef90_A8UEU8	C N N E D F K D C D I I I I T A G I A R K P N M S R R D D L L L I T N A K I V A S V			
UniRef90_D0MCT0	G T Y A D L Q E A Q I V I I T A G V A Q R K P G E S R R L A L L N R N A E V F R E I			
UniRef90_C7HUK9	G S Y E D C K D A D L V V L C Y G N S Q D T N L T N R L N D I K I A T R M V L D T			
UniRef90_B2GA86	N D D S Q L A D A D C V V V S T L G K S D T P K D H D R F A E F K F T R T Q V P L V			
UniRef90_U6KZN5	N H F S A L Q G A D V V I V T A G V P R K P G M S R R D D L L A I N S K I V A D V			
UniRef90_A0A037UPR1	G D Y S E C K D A D L I V V T A G R P Q R D G E T R L D M V A D N A R I M Q D I			
UniRef90_UPI00039900A3				
UniRef90_U7UUC4	G E Y G E L Q D A D V L V M A F G R S R R P G E T R L L D M F D D S I R M A N D V			
UniRef90_D4MA05	G D F P D L K D C D V L V N S A G H I Q T P G N K S R L L E E M D F I N V A V N K S C			
UniRef90_M1PJF5	N D Y A D T A N S D V V I I T A G L A R K P G M S R R D D L L A I N V A I V K S C			
UniRef90_R5E9U3	N D Y R S L K D A D V V I T A F G D I K A D G G N R F L E Y S F N C Q Q A K Q V			
UniRef90_A5VY92	G A K A E M G S E L V V I T A G V P R K P G Q S R Q D V L S T N L P I L D S I			
UniRef90_R6PTG8	G S Y K D I K N S D M I I I T A G R S R K S S E S R L D L A E E N I K I T E S I			
UniRef90_M2S4P1				

UniRef90_R4Q285	A	P	K	I	V	A	S	G	F	K	G	I	L	I	D	I	M	N	P	C	D	V	M	T	D	Y	L	Q	R	M	T	G	F	P	R	Q	R	V	I	E	G						
UniRef90_A5CF61	A	T	Q	I	K	I	Y	S	G	F	N	G	F	V	I	V	V	T	N	P	L	D	D	A	M	V	W	V	M	Q	K	H	L	G	F	D	H	Q	Q	V	I	F	G				
UniRef90_I0QN7	I	P	K	L	I	A	Y	S	G	F	N	G	F	I	L	N	I	T	S	N	P	L	D	D	T	M	T	Y	L	A	L	K	K	T	S	G	L	P	K	K	V	I	F	G			
UniRef90_G5H864	V	E	N	V	L	K	Y	S	G	F	K	A	I	I	L	I	I	T	S	N	P	M	D	T	M	T	Y	L	A	L	K	K	T	S	G	L	P	K	K	V	I	F	G				
UniRef90_H1LCB8	A	A	K	I	K	A	S	G	F	N	G	I	L	I	L	D	I	T	S	N	P	M	D	D	V	I	T	T	M	Y	K	K	T	S	G	L	P	K	K	H	V	I	F	G			
UniRef90_F6B7Q3	L	P	Q	L	L	K	Y	S	G	F	S	E	S	I	L	I	M	V	T	S	N	P	V	D	V	L	T	T	Y	A	A	L	K	I	S	G	L	P	A	S	Q	V	I	F	G		
UniRef90_S2XMB0	T	Q	K	V	V	K	Y	S	P	N	C	T	I	L	I	V	L	T	S	N	P	V	D	D	A	M	T	Y	T	V	Y	R	T	S	G	F	P	S	R	E	V	I	F	G			
UniRef90_D2RHB2	A	K	N	I	V	K	H	A	S	D	S	K	I	L	V	V	V	T	N	P	L	D	D	V	M	T	Y	Y	F	R	E	V	I	S	G	F	P	A	R	E	V	I	F	G			
UniRef90_T0YX18	A	E	A	V	R	A	K	A	S	D	A	V	L	V	V	V	T	N	P	L	D	D	V	M	T	Y	Y	F	R	E	V	I	S	G	F	P	A	R	E	V	I	F	G				
UniRef90_UPI000426689E	A	K	E	A	I	K	R	N	S	D	Q	A	L	F	I	V	V	T	S	N	P	L	D	D	V	M	T	Y	T	A	W	T	V	I	S	G	F	P	P	R	E	V	I	F	G		
UniRef90_C3XNN7	A	K	D	I	K	E	N	S	P	D	A	I	L	V	V	L	V	T	S	N	P	L	D	D	A	M	V	Y	T	A	L	K	E	V	I	S	G	F	N	P	R	Q	I	L	I	G	
UniRef90_F2NNI5	V	P	R	V	L	E	A	A	S	P	E	A	I	L	I	V	A	S	T	S	N	P	V	D	V	M	T	Q	V	T	A	R	V	I	A	G	L	P	P	Q	R	V	I	L	I	G	
UniRef90_H1LI6F	A	Q	K	I	K	D	S	G	F	N	G	I	L	V	D	I	V	T	S	N	P	V	D	V	M	T	S	M	Y	Q	Q	I	T	S	G	L	P	P	K	H	V	I	L	I	G		
UniRef90_K9YIS2	T	Q	K	S	L	Y	Y	S	P	N	A	I	Y	L	I	V	T	S	N	P	L	D	D	V	M	T	Y	L	V	W	K	T	S	G	L	P	P	K	D	R	V	I	F	G			
UniRef90_UPI000318D1F2	T	E	N	V	L	K	Y	S	P	N	T	I	L	I	V	V	A	N	P	M	D	T	M	N	Y	L	T	L	K	S	S	G	L	P	P	K	E	K	V	I	L	I	G				
UniRef90_Q0QLW6	T	A	G	V	Q	K	A	A	S	P	E	T	M	L	I	V	A	S	T	S	N	P	V	D	V	M	T	E	V	A	L	R	V	I	S	G	L	P	P	R	E	K	V	I	L	I	G
UniRef90_R6QWX2	V	I	G	R	I	V	K	A	G	F	D	G	I	F	I	V	I	T	S	N	P	C	D	I	I	A	R	Q	V	Q	K	L	S	G	F	P	S	R									

[illegible]

UniRef90_R4Q285
UniRef90_A5CF61
UniRef90_I0QN7
UniRef90_G5H864
UniRef90_H1LCB8
UniRef90_F6B7Q3
UniRef90_S2XMB0
UniRef90_D2RHB2
UniRef90_T0YX18
UniRef90_UPI000426689E
UniRef90_C3XNN7
UniRef90_F2NNI5
UniRef90_H1LIF6
UniRef90_K9YIS2
UniRef90_UPI000318D1F2
UniRef90_Q0FLW6
UniRef90_R6QWYX2
UniRef90_B0FYI3
UniRef90_Q2GK85
UniRef90_U2PUJ3
UniRef90_UPI00047776DC
UniRef90_E2Z9E0
UniRef90_G2ED55
UniRef90_E4PKJ8
UniRef90_I0HSG8
UniRef90_UPI000464F3BE
UniRef90_T0L381
UniRef90_R5I916
UniRef90_A0A023CZG0
UniRef90_E0TKE5
UniRef90_G2SR93
UniRef90_UPI000363135A
UniRef90_D8K409
UniRef90_B3SFB4
UniRef90_A1HSK3
UniRef90_Q7Z0X7
UniRef90_W0JG90
UniRef90_A0ZB96
UniRef90_UPI0004440146
UniRef90_UPI000346BE24
UniRef90_A8EUE8
UniRef90_D0MCT0
UniRef90_C7HUK9
UniRef90_B2GA86
UniRef90_U6KZN5
UniRef90_A0A037UPR1
UniRef90_UPI00039900A3
UniRef90_U7UUC4
UniRef90_D4MA05
UniRef90_M1PJF5
UniRef90_R5E9U3
UniRef90_A5VY92
UniRef90_R6PTG8
UniRef90_M2S4P1
UniRef90_X1KHS5
UniRef90_G2D928
UniRef90_V9LTS8
UniRef90_Q4N6I8
UniRef90_W7BAR5
UniRef90_Q9YEA1
UniRef90_D5T3B8
UniRef90_V5B069
UniRef90_Q9HJL5
UniRef90_D2RK05
UniRef90_S2ZPW9
UniRef90_F2I3I4
UniRef90_O08349
UniRef90_L0L1F9
UniRef90_A3ZQY3
UniRef90_L7NE91
UniRef90_D4KE67
UniRef90_K7RNP5
UniRef90_A8AXZ0
UniRef90_V7HY64
UniRef90_W9EDV5
UniRef90_G9WI90
UniRef90_B6YQU6
UniRef90_U6EEN7
UniRef90_U5DC01
UniRef90_UPI000258EE36
UniRef90_R7D848
UniRef90_UPI0003783975
UniRef90_A6Q7S2
UniRef90_D3SE40
UniRef90_UPI0002DAD185
UniRef90_B6AHM1
UniRef90_F7NEE8
UniRef90_E4SV09
UniRef90_J4CVU8
UniRef90_D3R3M1
UniRef90_S6ETZ9
UniRef90_F2N907

	250	260	270	280
UniRef90_R4Q285	VMA G K H Y T N F A	I A T C G V R L A E A V S	A D A Q L A C P V S A	
UniRef90_A5QC61	I V S L K K S S A Y Y F	P A A T A T M T M V E S Y L	K D N Q K Q I L A C S V V Y	V E N Y
UniRef90_I0QN7	I L Q G K S G W T Y S F	G I A A T A T A Q L V D A S Y L	K N A Q K S V I V A V A V W	
UniRef90_G5H864	T K L L G T S A W Y A	P G A A A A Y V V E S I L R	D A R K K V I V S C T A L D	G E
UniRef90_H1LCB8	V F H G K H Y T N Y G I	A S A A V R L A A T I M S	D A R T E L P V S N W	
UniRef90_F6B7Q3	I I K R K G A T Y Y A	V A L S I K R I C E A I L	R N E N S I T T P V S G L V N	N L
UniRef90_S2XMB0	I V K K G N G S A Y Y A	P A A A V Y R M V L A I L	E D T Q K R V L T P T I A Y C	Q G G E
UniRef90_D2RHB2	V I K R K G A T F Y A	P A V C I Y R M V K A V L	E D T K R E I P T S V V L	G G E
UniRef90_T0YX18	I V N L T G S A F Y A	P S A S Q A E L V R A V L	R N E A H R L L P V S A M V	S G G E
UniRef90_UPI000426689E	I V N L M G S A F Y A	P A S A V C Y M V E V L L	Q D Q A H L L P A S V Y L	Q G G Q
UniRef90_C3XNN7	I V N C K G S A Y F A	P A R A T A E M V V A I M	S D A R K H L L P C S V I L	T P E V
UniRef90_F2NNI5	I I A G K G A T Y H G I	G A G L A R I V R A I L	N D E R A V L T V S I L	
UniRef90_H1LIF6	V F H G K K Y T N Y G V	A T A A V R L A N T V I L	S D A R T Q L A V S	
UniRef90_K9YIS2	I V R L T G S A Y F A	P A S A C Y M I E S I L	F N D Q S R R L L T A A A Y V	Q G G E
UniRef90_UPI000318D1F2	L T K L I G T S A W A	P G A G T A F M V E S I L	R D D Q K K L I L C G V A L	D G G E
UniRef90_Q0QLW6	I E G K G A T W Y G I	G A G L A R I V Q A V F	R D D Q K K S V L S V S I V	T P E
UniRef90_R6QWX2	T F A G K G A T E F G I	C S T A R L V F Q A V F	H D E K A S V M P V S T Q L	N G Q
UniRef90_B0FYI3	I V S L L K T G S Y A	P A S S V C H M I E S L I	Q D Q S R R L L P A S V Y L	Q G G Q
UniRef90_Q2GK85	I V K L L K S G S Y A	P A A A C M N M L E S Y L	F D K R C V I P C S V G L	D G K
UniRef90_U2PUJ3	V I E G K G A T N Y A I	G L A S A R L V E A L L	S P T R S V L P V S S V L	D G Q
UniRef90_UPI00047776DC	I V N L M K T A F Y A	P A S A A C G M V E A M L	A D R S R L L P A A C Y L	Q G G E
UniRef90_E2Z9E0	E V D F K G C T E F G I	A N A A L M L I R A V F	H D Q K L I W P C S T V L	T G G Q
UniRef90_G2ED55	L T K L L G T S A W A	P G A A V S G L V Q A I A	C D Q K K M F P C S V L L	E G E
UniRef90_E4PKJ8	L V K H K G C T N Y A	V A L A A A E I V E C I A	N D S K H T L P V S L R V	D G F
UniRef90_I0HSG8	I I Q R K K G V T N H A I	G L V T A D L V R A I V R	D E K H R V L T V T R C H	T G
UniRef90_UPI000464F3BE	I V R H K G S A Y Y A	P S A A I A Q M V E S I V	R D Q K R R L L P C S A W C	S G Q
UniRef90_T0L381	I V H L G T S A Y Y A	P G R A V A V M V E A M L	D D S Q I V M P S S V L	D G G E
UniRef90_R5I916	T L G L L G T S A W Y A	P G A A A A F V E S I L	H D Q K K L V P C S V Y L	E G E
UniRef90_A0A023CZG0	I F S G K H Y T C Y A I	T T C A I K L A L A V L	S D A H L A C P T S V Y L	E N
UniRef90_E0TKE5	I I N R K R A T F Y G I	G A A L A S I I R N I I	Q D S R Q V M V V G A N L	H G E
UniRef90_G2SR93	V F S G K R Y T C Y A I	A T C A I K L A L A V L	S D A H L A C P A S V Y L	E
UniRef90_UPI000363135A	V L M S K G W T N T G I	A M G A C R L A K A V L	F N E H C I T P V S T P L	Q G G E
UniRef90_D8K409	I V G K N G S A F Y A	P A S S V A Y M I D A V T	N D T G I Q M N C A V Y L	D G G E
UniRef90_B3SFB4	I V K L N G S A F Y A	P A T S A I R M A M S Y L	N N S R Q L F P C S V Y L	E G E
UniRef90_A1HSK3	V I A L K G G T V F A	P A T A A C A V L E A I	V R D S R A V L P V C T	
UniRef90_Q7Z0X7	L V Y G N G S A F F A	P A T A A I E M A S A Y L	S D K R S V I V C S C Y L	E G E
UniRef90_W0JG90	I V A H T G S A Y Y T	P A S A A V E M A K A I L	F D E K R V L P C A A Y L	E G E
UniRef90_A0ZB96	I V E L M R T A F F A	P A S A A S V M V E S I L	F N Q S R R L L P V A T Y L	Q G E
UniRef90_UPI0004440146	I I K R K G Y T S W A	I G L S V V D L A A S I F	K N L R R V L H P V S T M V	K G L
UniRef90_UPI000346BE24	I V K L L K T G S Y A	P A S A Y M I E S V L	N N S R L L P A A V Y L	Q G E
UniRef90_A8EUE8	I V K L T G S A Y Y A	P A Y S T I A M I E A I	L N D T K K C F A C A T L	N G E
UniRef90_D0MCT0	I I E R K G Y T N T A I	G V V I A R L V E A I L	D D E K S V L P V S V R L	N G E
UniRef90_C7HUK9	I I K G K G A T H F G I	A N C L D F T R A I L	D E K K I I M T S A Y L	D G E
UniRef90_B2GA86	V Y K G K K Y T N Y G V	A T A A V R L T N A L L	S D A R T E M P V S	
UniRef90_U6KZN5	I V N L M K T A F F A	P A A A G V L M A E A Y L	K D K K R V I P C A A Y L	T G Q
UniRef90_A0A037UPR1	I I D L K K A T F Y G I	G V C L S S I A K A I L	N D E R S T F L V G A K	E G E
UniRef90_UPI00039900A3	V I K L K G Y T N W A I	G L S V A N L C E T I L	K D L Y R V H S V S T C	F K G M
UniRef90_U7UUC4	E V D G K G C T E F G I	A N V A C M L I T A I F	Q D Q K L V W P C S T A L	D G G E
UniRef90_D4MA05				

	290	300	310	320
UniRef90_R4Q285	F D P Q K Y G T Y V G M P A V I	G K N G I E S L I Q L D L T T D	R A S L L A A S A	A
UniRef90_A5QC61	Y S I K E G Q L Y I G M P V V I	G K N G I E S L I Q L D L T T D	R A S L L A A S A	A
UniRef90_I0QNU7	Y S I K E G Q L Y I G M P V V I	G K N G I E S L I Q L D L T T D	R A S L L A A S A	A
UniRef90_G5H864	Y H E E Y G T Y L S L P A I V	G K N G I E S L I Q L D L T T D	R A S L L A A S A	A
UniRef90_H1LCB8	Y G I E H C C L S L P A I V	G K N G I E S L I Q L D L T T D	R A S L L A A S A	A
UniRef90_F6B7Q3	Y Q L N D I Y I G V P A I L	G K N G I E S L I Q L D L T T D	R A S L L A A S A	A
UniRef90_S2XMB0	Y G I S D V I A L G V P A I L	G K N G I E S L I Q L D L T T D	R A S L L A A S A	A
UniRef90_D2RHB2	F G E K D V I A L G V P A I L	G K N G I E S L I Q L D L T T D	R A S L L A A S A	A
UniRef90_T0YX18	Y G L T D V I A L G V P A I L	G K N G I E S L I Q L D L T T D	R A S L L A A S A	A
UniRef90_UPI000426689E	Y G L T D V I A L G V P A I L	G K N G I E S L I Q L D L T T D	R A S L L A A S A	A
UniRef90_C3XNN7	Y G Y S D V I A L G V P A I L	G K N G I E S L I Q L D L T T D	R A S L L A A S A	A
UniRef90_F2NNI5	E G V P E V A L S L P R V V	G A A G A L Q T L T P P	D P A E E R E K L Q T S A	A
UniRef90_H1LIF6	Y R E E L D T Y L S Y P A I V	G R D G I L E K V Q L D L	T D E E K E K L Q T S A	A
UniRef90_K9YIS2	Y G L N D I F L S V P C R V	G S N G V E Q I L D F K L	T T E E R E K L Q T S A	A
UniRef90_UPI000318D1F2	Y G Q K D I S L V P V I L	G K N G W E K I L D F K L	T A D E Q A Q L F N K S A	A
UniRef90_Q0QLW6	V E G V T D V A L S L P R V V	G R S G V M T T L P E L	T A E E A S A F L R S A	A
UniRef90_R6QWX2	Y G Q Y D L Y I S T P C V I	G K D G V E E L L E L A L	T P E E M A A F Q H S A	A
UniRef90_B0FYI3	Y G L T D L F L G V P C R L	G C R G V E A I V E I L P	T D A E L A Q L H R S A	A
UniRef90_Q2QGK5	Y G V N G S G I A L S L P T L V	G K N G V E V I E Y V L	T S Q E R E I F E K S A	A
UniRef90_U2PUJ3	Y G I S G I A L S L P T L V	S E H G I D R V E A P M S	T A D E V S L L R S A	A
UniRef90_UPI00047776DC	Y G L K D I Y L G V P C R L	G R Q G V E A V V E A L N L	T D Q E Q D S L L R S A	A
UniRef90_E2Z9E0	Y G E K D V I A G V P C V L	G K N G I E E I V E I L L	T P E E A E K F H S A	A
UniRef90_G2ED55	Y G L N D I V I G A P V I L	G R N G I E K I V E I L K L	T D A E K T H M Q E S A	A
UniRef90_E4PKJ8	L G V D D V I A L S L P A V V	G R N G I E R V L H P S R L	T D E K Q A A F L H S A	A
UniRef90_I0HSG8	E G L D G V A L S L P A I V	G R N G A T T V I P S P S	T D D D E A Q A L A H S A	A
UniRef90_UPI000464F3BE	Y G I T G Q F V G V P V I L	G R A G V E K I V E I L P	T S V A E K D L H T S S	A
UniRef90_T0L381	Y G Y S D V I A G V P V I L	G N G V E K I V E I L E L	T D G E T K A K F K S S	A
UniRef90_RS9196	Y G E S D I C I G V P V I L	G R N G W E K I V D F K L	T N A E K A A F E K S A	A
UniRef90_A0A023CZG0	Y G H I Y I G Y P A V I	G R Q G V E I N K I K L T	I E E Q A K L D N S A	A
UniRef90_E0TKE5	Y G F Y D V N V G V P A I I	G R N G I E Q V L E I S L	N E K E E R E K F V K S A	A
UniRef90_G2SR93	Y K Y G Y V G V P A V I	G A E G V V S V N Y T P	A E E K N L Q S S A	A
UniRef90_UPI000363135A	Y G L T D V A L S L P S L	T E N G V Q K R L A I H	T S D K E L K N L H S A	A
UniRef90_D8K409	Y G L S D V I A L G V P V H L	G A G G V R E I V E I A L	N A E E K A D L E A S A	A
UniRef90_B3SFB4	Y G L N D I C M G V P T F I	G A N G V E D I V Q I T F	N Q E E Q A I F D K S A	A
UniRef90_A1HSK3	Y N P Q Y G V A L S L P T I V	G R G G A G P V L P L	T A A E E Q E Q L A S A	A
UniRef90_Q7Z0X7	Y G H N D V Y L G T P A I I	G A N G I E K I I T L K L	T A E E E Q A K L D A S A	A
UniRef90_W0JG90	F G I S G Y F L G V P V V I	G K N G V E K I I Q F K L	T T D E E Q S L L K L S A	A
UniRef90_A0ZB96	Y G L D D I V I G V P C R L	G C G G V E K I I L E L S L	T D G E E R E A L Q L S A	A
UniRef90_UPI0004440146	Y G I K E D V F L G V P C L L	G Q N G V S D V V L E I N L	T S E E T M L F K K S A	A
UniRef90_UPI000346BE24	Y G L T D I F L G V P C R L	G Y C G V E A V L E I N L	T D E E T Q A L H D S A	A
UniRef90_A8EUE8	Y G Y K D I V S G V P V I L	G K D G V E K I I E L E L	I S D F E K E Q F S N S A	A
UniRef90_D0MCT0	Y G I R V V C L S I P C V I	G L Q G I E G R V L P E L	I A P D E L E G L R R S A	A
UniRef90_C7HUK9	Y N N K G L Y T G V P A V I	G A N G C E K I L E M D I	S T A K E Q E M F D K S A	A
UniRef90_B2GA86	Y R E E Y G T Y L S Y P A V V	G R D G V V Q L L E M D I	T T A K E Q E K L A T S A	A
UniRef90_U6KZN5	Y G V Q D L Y V G V P C V V	G R G G V E K V L E L Q L	T T A T E K K M F Q K S A	A
UniRef90_A0A037UPR1	Y N V K G T Y I G V P A V I	G A N G I E E I V W K L	A K E E Q V I Q F E K S A	A
UniRef90_UPI00039900A3	Y G I N D V F I S L P S V L	S A A G L T S I V N P K L	K D D E V A Q L K K S A	A
UniRef90_U7UUC4	Y G E R N V A A G V P C I I	G K N G M E G V L E M E L	T E S E Q R Q F H D S A	A
UniRef90_D4MA05	Y G E S G I F I G V P A V V	G A G G A E Q V V E V M S	T A E E L A E F K G C C	A
UniRef90_M1PJF5	F G I S G Y F L G V P V V I	G E N G V E K I L E F E L	T A E E K E A L Q L S A	A
UniRef90_R5E9U3	Y D Y G C Y V G Y P A V I	G K N G V E Y V H R L E L	T A E E K K L L D K S A	A
UniRef90_A5VY92	Y G R T D I A M G V P C V L	A E K G L A R V I E L P L	D A Q E Q A M F D H S A	A

UniRef90_R4Q285 K F I K S Q V D V L 330
UniRef90_A5CF61 N A V R E L I T T V Q E L
UniRef90_I0QNU7 R V I
UniRef90_G5H864 E A V R K T N A V L K E I
UniRef90_H1LCB8 N Y I K
UniRef90_F6B7Q3 Q V L K E I I K Q V
UniRef90_S2XMB0 E A V E S V K A S L K
UniRef90_D2RHB2 E I L K E R L K E L
UniRef90_T0YX18 R A V R E
UniRef90_UPI000426689E Q A V R E G I D Q V
UniRef90_C3XNN7 Q S V K S L I D T L K
UniRef90_F2NNI5 A L L K R A A E A L
UniRef90_H1LIF6 N F I K
UniRef90_K9YIS2 R S V R D S I D
UniRef90_UPI000318D1F2 D A V R T M N N V L
UniRef90_Q0FLW6 E M L K Q T
UniRef90_R6QWX2 D V I R T N I G Y I E E
UniRef90_B0FYI3 A S V R D S L D
UniRef90_Q2GK85 G L I S N S V K I I S E
UniRef90_U2PUJ3 E R I R Q T A A S V
UniRef90_UPI00047776DC E L V R G Q I D R V R S L
UniRef90_E2Z9E0 E I I R S F L D R A E S L
UniRef90_G2ED55 E G V R K T
UniRef90_E4PKJ8 N V V R E V I A S
UniRef90_I0HSG8 Q V L R D A W S Q L
UniRef90_UPI000464F3BE A H V A S K I A Q L Q
UniRef90_T0L381 D S I K D G I E I L E
UniRef90_R5I916 A A V H K T N S V L K E I
UniRef90_A0A023CZG0 K I I S E
UniRef90_E0TKE5 K I I D T M Y K E A E E
UniRef90_G2SR93 E F I A K K V K S L E D
UniRef90_UPI000363135A D S I K A V L K A
UniRef90_D8K409 A A V R K T I D S L
UniRef90_B3SFB4 K A V G D L V T A M Q
UniRef90_A1HSK3 A N I K K Y V K E M E Q L
UniRef90_Q7Z0X7 K E I R
UniRef90_W0JG90 E K V K E Q V D S V N K I
UniRef90_A0ZB96 Q S V R D N I N
UniRef90_UPI0004440146 D T I W N I Q K E L K
UniRef90_UPI000346BE24 R S V R D N I N
UniRef90_A8EUE8 N S V K E S I N I L E N
UniRef90_D0MCT0 E I L Q Q S L R A L
UniRef90_C7HUK9 K D L E E N Y K
UniRef90_B2GA86 K Y I K D R V K A
UniRef90_U6KZN5 D A V R A L V Q A L
UniRef90_A0A037UPR1 T Q L H E A L N
UniRef90_UPI00039900A3 E T L W N I Q K D L Q D L
UniRef90_U7UUC4 D V L R S F L D R A E A L
UniRef90_D4MA05 D D V R A N M A
UniRef90_M1PJF5 K A V E K Q M E A
UniRef90_R5E9U3 L M I A Q K T K E
UniRef90_A5VY92 D Q V A R D I A E M K A L
UniRef90_R6PTG8 L A M R S V I E R L A N
UniRef90_M2S4P1 K G L R G V I E G A E
UniRef90_X1KHS5 A A V Q K T V D E C
UniRef90_G2D928 A A V R A D I A R L
UniRef90_V9LTS8 D V I R S I Q K A L
UniRef90_Q4N6I8 K E I R R L E S L I K
UniRef90_W7BAR5 A V I K
UniRef90_Q9YEA1 Q A V K K L V E T L
UniRef90_D5T3B8 D A I
UniRef90_V5B069 T A I K S A I V S L
UniRef90_Q9HJL5 A S V E A S S K K V D E
UniRef90_D2RK05 A A I R E N V N K A Y D I
UniRef90_S2ZPW9 E H V K G N I D Q L E
UniRef90_F2I3I4 A A V K D L F E A A K K I
UniRef90_O08349 K I L R E R L E E L
UniRef90_L0L1F9 K S V R
UniRef90_A3ZQY3 A A V K T S I Q A L Q
UniRef90_L7EN91 N S L K S I I S S L
UniRef90_D4KE67 G S A R E T N A K L A E
UniRef90_K7RNP5 S R I A E V R D
UniRef90_A8AXZ0 Q F I Q E
UniRef90_V7HY64 K T L K E T L D N L K A L
UniRef90_W9EDV5 D F I K S
UniRef90_G9W190 N F I K S K Y A E
UniRef90_B6YQU6 E A I R R V N N I L
UniRef90_U6EEN7 K V V K E A T D E V
UniRef90_U5DC01 E S V R
UniRef90_UPI000258EE36 D K I R G A L R E C
UniRef90_R7D848 Q H I R D N I A Q L
UniRef90_UPI0003783975 T I L K E A A T S L
UniRef90_A6Q7S2 A S V Q E M V D T L
UniRef90_D3SE40 I A G V R K D L E R L
UniRef90_UPI0002DAD185
UniRef90_B6AHM1 S S V S N L C D V L E
UniRef90_F7NEE8 A N I K T Y V D E L
UniRef90_E4SV09 K K L K D S L A S L E
UniRef90_J4C7U8 K E I R R L E A L I K
UniRef90_D3R3M1 A H V K E
UniRef90_S6ETZ9 K A L R Q V V E Q V A E
UniRef90_F2N907 E H I R T N I S Q I

	1	10	20	30	40
UniRef90_K9F0K0			S T S	L K A R K	V A I I G A G H V G S H V G Y A L G
UniRef90_UPI0004758974					M L
UniRef90_F8DF75			K A A	I S	R K I G I I G L G H V G A T L A R H S M I
UniRef90_U9W0Z3					P K I T V I G A G N V G A S L A R C L L
UniRef90_Q7NHJ3					S K V S I L G A G N V G S A L A Q R L I
UniRef90_R6YAE1					A A L I S
UniRef90_E1RE49					K V T V I G A G K V G Q S A A Y A I S
UniRef90_D4HA95			I K	P H K L G I I G V G R V G D A V L S D A M	
UniRef90_W5IJ85					R K V G V I G I G H V G V T V A F S L F
UniRef90_B6BK78					S S V A Y S L A
UniRef90_E3T2Y8			M S R K K	I A L I G G G Q I G S T L A L L I A	
UniRef90_P14295					R K I G I I G L G N V G A A V A H G L I
UniRef90_B3T2X7					I T I I G A G K V G G A A L L H S A
UniRef90_V5F9J0			A V K K	H V V A T I V G V G Q V G A A A H A L I	
UniRef90_H8MGM5					L A L L A V
UniRef90_R4KCT2					
UniRef90_Q7M9A7					G I I G A G H V G S T V A F I L A
UniRef90_Q04GC4					R K I G I I G M G H V G S T L S H I V I
UniRef90_UPI000333B702	A S	L K D Q	L I V N L L K E E Q	V P Q	N K I T V V G V G A V G M A C A I S I L
UniRef90_UPI0003776311					K V S I I G A G K I G S V L S Y L L A
UniRef90_R2RHY5					R K V A I I G V I G H V G S T T A Y T L I
UniRef90_R5T9E8					A H V A F N L G
UniRef90_W0ITY7					I I G G G G R V G S N A A F A L Q
UniRef90_E6U6C3					
UniRef90_A0A023B8T1					K I S V I G A G N V G A T T V Q R L A
UniRef90_Q8TSH7	A V	T K P Q	I L K S V L F S T S T K S	H T	K V A V M G A G G I G Q P L S L L L K
UniRef90_E9HGX0					K I G V I G A G A V G V G I C N Y L L
UniRef90_F0LT17					
UniRef90_UPI0002EF4176					M R S N K L V V T G A G H V G S Q V L T E A L
UniRef90_D7GDR8					K I G I I G M G H V G A H V A N A I L
UniRef90_E1QXR3					K V S I I G A G K V G S A I S F L L A
UniRef90_D5VSV9					Y N I A
UniRef90_D2RRX3					K I S M V G S G Q I G A I V G Q L L
UniRef90_A5K221					M H S T K L V V V G L G H V G S S V V I T F A M
UniRef90_C4LKR7					K V S L I G L G K V G S A V A H A I V
UniRef90_A3ZZ88					K I G V I G A G A V G V G V C A N Y L L
UniRef90_A7JYY7					R K V G I I G M G H V G A T V A Y T L F
UniRef90_Q5FIY9					R K I G I I G M G N V G A A V A H G A I
UniRef90_I0QHJ7					N K I T V V G A G D L G L A C A L A I S
UniRef90_G1K890			K S	I S N A D P P S Q T N H H T	K I S V I G V G N V G M A I A Q T I L
UniRef90_M1AXH8					K V A I I G I G H V G S T V A Y T L V
UniRef90_X0PQI0					Y S L A
UniRef90_U3AEF2					K V T I L G A G N V G I F A A H T I S
UniRef90_A3CYB5					I S I I G S G K V G T A I A F L C I
UniRef90_F3KLW7					
UniRef90_C0L8Z4					S R K I G I V G M G N V G A A A A H Y I V
UniRef90_H4GJ19					N K V T V I G A G D L G I A C V L A I A
UniRef90_K7F3W1					R T V G I I G S G H V G A T L A N N L L
UniRef90_B2GB94					R K I S I I G L G N V G A T L A H T I V
UniRef90_UPI0002EDBDA9					L V V I G L G H V G S D V V I T N A A
UniRef90_F9YW38					H H S K V S I I G T G S V G M A C A X S I L
UniRef90_Q6J9I8					P H S K V T V V G V G Q V G M A C A V S I M
UniRef90_C7DRP0	Q A	L F K E	I V P A Q R T		K I G I V G L G Y V G S A S A Y S I A
UniRef90_T2D6V9					
UniRef90_G2R5U2					S A T R D A K V S V M G A G G I G Q P L S L L L K
UniRef90_F4WPA4					T S Q K N F K V V V A G A G G I G Q P L A L L L K
UniRef90_I4DQC2					R K I G I I G L G H V G S A V A H G L I
UniRef90_UPI0003B50BAF	A T	L K E K	L I V S V T E E E S T	V P N N K S T V V G V G Q V G M A C A I S I L	
UniRef90_M3X7W9					
UniRef90_X1TJ1					Q L L R R R S Y S S A S G Q Q R K V A I L G A G G I G Q P L S L L M K
UniRef90_M0XD84					V P E R K V A V L G A G G I G Q P L S L L M K
UniRef90_C6T7I4					Y S L A
UniRef90_V4Y1D5					I S I I G A G K I G T A I S V L L A
UniRef90_A6UUM3					M K T N K L V V V G V G H V G S Y V L A D A M
UniRef90_UPI0004002BD6					R K K I T V V G A G Q V G T T V A Q L T A
UniRef90_M1YX07			F A P A A R S	L S T S N M K V A V L G A G G I G Q P L S M L M K	
UniRef90_F2US16					A A P G F K V A V L G A G G I G Q P L S L L M K
UniRef90_A9RZZ9					T L K T V A T Q G V K N F S T T S Q N N K V A V C A G A G G I G Q P L S L L L K
UniRef90_Q16Z15					R L T S K R S F S V A A V N P Y K V A V L G A G G I G Q P L S L L L K
UniRef90_G0VJG3					K V A I I G T G A V G A A S L M A L V
UniRef90_UPI00046693B7					Q S K V A V L G A G G I G Q P L C L L M K
UniRef90_G0UVP4					F S Q T A A A N R K V A V L G A G G I G Q P L S L L M K
UniRef90_Q9Y750					D R K V A V L G A G G I G Q P L S L L M K
UniRef90_E1ZRS4	I L	K D Q L Y V N L L K E E Q	F Y Q N K I	I V I Q V G A V S M C A L S I L	
UniRef90_D4A8P2					K L A L V G A G V G A N I A Q I A A
UniRef90_UPI0004704A2D					K I T I I G A G N V G V S T A Y A I I
UniRef90_B9KGG0					Y K V A V L G A G G I G Q P C G L L M K
UniRef90_A4RYV9					N A C K N L Q P Q A S Y K V A V L G A G G I G Q P L A L L I K
UniRef90_UPI0002B45551					L V N Y L L
UniRef90_W6EAU2					K L G I I G T G R V G S Q V L T D A Q
UniRef90_B9DK48					K V T V V G A G N V G A T V A N V L A
UniRef90_I0GS79					P G R K V A V L G A G G I G Q P L S M L M K
UniRef90_D8U454					K I A V V G V G R L G Q A V A F R V L
UniRef90_G0EHD0					N D S K V A V L G A G G I G Q P L S L L L K
UniRef90_UPI00035980A2					N K L V V I G L G H V G S Y V L S Y A M
UniRef90_H2GDF3					K V V I L G A G G I G Q A L A L L L K
UniRef90_UPI000366115C					S K N Q E K S V N K I T V V G S G E L G I A C V L A I L
UniRef90_F7G233					K L G I I G V G R V G S Q V L T D A Q
UniRef90_U7PDP6					K V L V T G A G G I A Y S L L Y S I A
UniRef90_H3BAH2	S V	L G A A V Q R R A F S A T A S N L S			K V V V L G A G G I G Q P L S L L L K
UniRef90_M3A4J1					K V A V L G A G G I G Q A L A L L L K
UniRef90_A0KG16					

		50	60	70	80																																						
UniRef90_K9F0K0	T	Q	G	L	A	S	E	V	T	I	Y	I	D	P	A	P	E	K	A	S	A	Q	A	L	D	L	Q	D	A	V	S	Y	L	P	A	H	T	V	F	R	A	80	
UniRef90_UPI0004758974	I	R	R	S	A	S	E	V	V	L	Y	D	V	D	A	Q	R	V	D	A	E	L	D	L	D	L	Q	H	G	R	F	V	L	G	G	W	P	A	I	T	G		
UniRef90_F8DF75	L	K	H	T	C	H	H	V	L	V	L	I	D	T	N	E	K	K	V	K	A	D	A	L	D	F	C	D	T	V	A	N	T	E	G	Y	P	V	H	I	T	V	
UniRef90_U9WQZ3	S	Q	N	L	G	H	V	V	L	L	D	I	T	I	E	G	R	P	Q	G	L	A	L	D	L	D	L	M	A	E	A	Q	P	L	E	G	Y	S	Y	N	I	T	
UniRef90_Q7NHJ3	Q	G	N	V	A	D	V	V	L	L	D	I	V	E	G	R	P	Q	G	L	I	T	L	D	L	L	L	E	A	C	V	E	G	H	T	C	R	I	T	G	T		
UniRef90_R6YAE1	T	N	S	N	I	D	E	L	I	V	L	V	D	I	N	K	E	K	A	M	G	E	A	M	D	L	S	N	T	L	Y	A	L	G	S	K	T	K	I	K	A		
UniRef90_E1RE49	R	I	P	S	I	T	E	L	I	V	L	F	G	R	N	E	S	L	D	G	L	K	W	D	F	T	D	A	F	A	A	V	G	R	R	I	K	V	V	S			
UniRef90_D4HA95	M	S	G	L	F	G	E	I	C	V	I	D	V	N	E	K	L	A	A	G	Q	A	L	D	Q	H	H	A	A	L	P	N	V	T	N	V	A	V	Y	A			
UniRef90_W5IJ85	T	S	G	G	A	D	Q	L	V	L	I	D	T	K	K	E	K	A	T	A	E	V	N	D	F	K	D	A	L	A	R	N	H	H	L	V	V	D					
UniRef90_B6BK78	M	S	G	S	C	H	E	V	I	L	R	A	H	D	V	D	K	A	R	G	K	A	L	D	L	S	Q	A	A	Q	A	K	H	T	V	I	T	V	A				
UniRef90_E3T2Y8	Q	K	E	L	G	D	V	V	I	L	D	R	P	E	D	P	M	K	G	K	A	L	D	M	M	A	L	R	P	H	G	G	D	V	N	L	S	G	T				
UniRef90_P14295	A	Q	G	V	A	D	D	Y	V	F	I	D	A	N	E	A	K	V	K	A	D	Q	L	D	F	Q	D	A	M	A	N	L	E	A	H	G	N	I	V	I			
UniRef90_B3T2X7	I	K	Q	L	A	D	D	Q	I	L	L	L	D	I	V	E	G	L	P	Q	G	E	A	M	D	L	N	H	L	L	S	E	Q	G	I	G	V	E	I	N	G		
UniRef90_V5F9J0	L	S	S	I	A	S	E	L	V	L	L	D	V	K	T	D	L	R	D	A	Q	V	H	D	L	L	S	D	V	T	Y	S	G	S	S	S	T	R	V	R	A		
UniRef90_H8MGM5	Q	K	N	L	G	D	V	V	L	Y	D	I	A	E	G	L	V	K	G	K	A	L	D	L	I	N	Q	S	A	V	D	G	Y	D	S	R	V	T	G	S			
UniRef90_R4KCT2																																											
UniRef90_Q7M9A7	T	Q	G	I	C	Q	E	I	I	K	D	L	N	L	D	T	A	R	G	I	A	L	D	M	G	H	A	A	S	A	T	K	T	H	T	I	V	R	A				
UniRef90_Q04GC4	D	R	G	M	V	D	E	I	V	L	L	D	I	N	Q	K	H	L	K	A	E	A	L	D	F	W	D	A	Q	S	F	L	R	T	P	H	T	K	I	A			
UniRef90_UPI000333B702	M	K	D	L	A	D	E	L	A	L	L	D	V	T	E	D	K	L	K	E	E	M	M	D	L	Q	H	S	S	L	F	L	R	T	P	K	L	V	S	G			
UniRef90_UPI0003776311	K	E	P	Y	I	N	H	I	N	M	I	S	R	S	K	S	K	L	E	G	I	K	M	D	I	Y	D	A	L	A	A	S	G	T	D	A	D	I	D	D			
UniRef90_R2RHY5	S	K	N	I	D	E	L	V	L	F	E	P	R	E	A	L	L	R	A	E	L	N	D	L	M	D	G	Q	M	E	Q	N	Q	V	R	L	I	E					
UniRef90_R5T9E8	M	M	G	I	A	D	E	V	L	L	C	D	K	E	S	K	V	T	S	E	V	Q	D	L	N	D	A	V	M	Y	M	P	N	H	V	Y	M	A					
UniRef90_W0ITY7	C	A	G	I	V	S	E	I	Q	I	L	D	A	N	A	D	L	A	A	G	E	A	L	D	L	L	H	G	T	A	T	I	G	G	Q	R	I	Y	A				
UniRef90_E6U6C3																																											
UniRef90_A0A023B8T1																																											
UniRef90_Q8TSH7	E	L	E	P	G	E	I	V	M	T	D	I	V	E	G	L	P	Q	G	K	A	L	D	L	M	Q	G	A	I	N	G	Y	D	T	Q	V	T	G	T				
UniRef90_E9HGX0	Q	S	P	L	V	S	Q	L	N	L	Y	D	I	V	H	T	L	G	V	A	A	D	L	L	S	H	I	N	S	K	A	K	V	T	G	F	V	G	P				
UniRef90_F0LT17	T	L	G	S	V	S	E	L	I	L	L	D	R	V	A	R	A	E	G	E	V	F	D	F	R	H	T	A	T	F	S	K	N	T	R	I	V	P	T				
UniRef90_UPI0002EF4176																																											
UniRef90_D7GDR8	H	M	G	L	A	S	E	I	V	L	V	D	L	D	Q	A	R	A	R	S	E	A	Q	D	I	A	H	A	A	F	G	G	T	A	Q	I	R	A					
UniRef90_E1QXR3	Y	Q	G	L	A	S	E	I	V	C	V	D	T	N	E	S	V	A	V	G	E	V	N	D	L	Q	A	T	G	A	P	H	M	A	A	I	D	V	H	S			
UniRef90_D5VSV9	N	E	P	Y	V	K	E	L	V	L	R	E	K	S	I	D	K	L	R	G	L	R	E	D	I	Y	D	A	L	A	G	T	K	R	D	C	E	I	N	V			
UniRef90_D2RRX3	L	R	D	I	A	D	E	L	V	L	Y	D	I	P	E	D	D	T	L	Q	G	A	A	D	V	N	H	G	A	A	Y	D	S	N	T	I	L	R	Q	G			
UniRef90_A5K221	M	E	N	I	G	D	I	V	L	Y	D	V	M	Q	G	V	P	Q	G	K	S	L	D	L	K	H	F	S	T	I	V	G	V	N	K	N	I	G	T				
UniRef90_C4LKR7	A	S	G	L	Y	S	E	I	A	V	I	D	T	K	E	G	L	A	L	G	E	G	L	D	H	S	Q	S	T	V	P	G	T	N	T	Y	I	H	E				
UniRef90_A3ZZ88	L	K	G	L	A	D	E	L	V	L	V	D	S	R	N	T	E	M	A	R	S	E	A	D	D	L	N	H	A	A	G	L	E	E	H	S	V	E	V	R	A		
UniRef90_A7JYY7	T	L	G	G	F	S	E	L	V	L	L	D	K	N	L	E	R	A	E	G	E	V	F	D	F	R	H	A	L	T	F	S	K	N	T	R	I	M	P	S			
UniRef90_Q5FIY9	T	H	G	I	A	D	E	L	V	L	I	D	K	N	E	D	K	V	A	A	E	Y	N	D	L	R	D	S	L	S	R	N	N	Y	Y	V	R	V	T	M			
UniRef90_I0QHJ7	A	Q	G	L	A	D	S	Y	V	F	I	D	I	N	E	S	G	T	K	K	A	E	A	D	A	Q	D	F	K	D	A	M	A	N	L	P	S	Y	A	K	I	V	
UniRef90_G1K890	A	K	D	V	A	D	K	V	V	V	L	E	C	S	E	G	T	V	K	G	G	T	M	D	L	E	I	F	A	L	P												
UniRef90_M1AXH8	T	Q	D	L	V	D	E	L	A	L	V	D	V	N	S	D	K	L	R	G	E	M	L	D	L	Q	H	A	A	F	L	P	R	T	K	I	V	A	S				
UniRef90_X0PQI0	A	R	Q	L	C	D	E	L	V	L	D	D	Q	D	P	K	D	L	A	E	A	E	K	Q	D	L	T	G	Q	V	G	R	T	G	A	V	A	I	T	A			
UniRef90_U3AEF2	L	R	D	V	D	E	L	V	F	V	D	I	P	E	D	V	T	V	G	Q	A	A	D	A	N	H	G	I	A	Y	D	S	N	T	E	V	S	Q					
UniRef90_A3CYB5	E	I	P	Y	V	S	D	M	L	L	V	G	R	P	E	D	F	L	A	G	C	C	R	D	L	S	D	S	A	A	R	G	T	D	I	R	L	S	Y	S			
UniRef90_F3KLW7	T	N	S	L																																							
UniRef90_C0L8Z4																																											
UniRef90_H4GJ19	A	N	G	F	A	D	Q	L	V	L	I	D	K	N	E	A	K	V	K	A	D	A	L	D	F	E	D	A	M	S	N	L	Q	Y	H	T	D	I	T	V			
UniRef90_K7F3W1	A	K	G	A	A	D	Q	V	V	L	I	D	L	S	E	S	T	A	K	G	G	T	M	D	L	D	I	F	S	L	P												
UniRef90_B2GB94	V	T	G	S	V	D	K	L	V	L	I	D	T	N	E	L	K	V	N	S	D	A	T	D	F	E	D	A	L	A	N	L	P	T	H	T	K	V	V	K			
UniRef90_UPI0002EDBDA9	E	R	S	L	C	D	T	L	F	L	F	D	K	K	E	G	L	A	E	A	E	V	S	D	L	S	D	G	F	V	R	R	N	G	H	I	N	I	V	A			
UniRef90_F9YW38	A	L	G	L	F	S	R	I	A	L	I	D	V	D	K	X	V	R	D	G	Q	A	L	D	N	H	Q	A	T	A	V	A	P	M	T	T	T	I	T	A			
UniRef90_Q6J9I8	L	K	G	L	S	D	E	L	A	L	V	D	L	E	X	K	L	K	G	E	T	M	D	L	Q	H	G	S	P	F	X	K	M	P	N	I	V	C	S				
UniRef90_C7DRP0	Q	K	N	I	A	S	E	L	C	L	V	D	V	A	X	K	L	K	G	E	M	M	D	L	Q	H	G	I	P	F	M	N	P	C	I	I	R	A	S				
UniRef90_T2D6V9	T	Q	G	L	C	S	E	L	Y	L	Y	D	I	K	Q	D	L	A	L	A	H	A	R	D	L	E	D	M	S	A	I	H	F	S	Y	T	K	I	F	R			
UniRef90_G2R5U2																																											
UniRef90_F4WPA4	Q	S	P	L	I	T	E	L	S	L	Y	D																															

UniRef90_K9F0K0	G	T	Y	A	D	I	S	D	A	A	I	V	V	I	A	A	G	P	P	D	Y	E	K	G	E	R	D	R	L	D	T	A	L	P	A	A	V	V	D	D	V			
UniRef90_UFI0004758974	G	D	I	T	S	I	A	D	S	D	I	V	V	F	T	A	G	G	N	K	Q	E	N	T	G	D	R	R	F	A	E	L	P	F	N	S	K	Q	V	V	A	Q	S	
UniRef90_R6DF75	N	D	Y	A	D	I	A	K	D	S	D	V	V	I	T	A	G	G	N	K	Q	E	N	T	G	D	R	R	F	A	E	L	P	F	N	S	K	Q	V	V	A	Q	S	
UniRef90_U9W0Z3	N	N	Y	Q	D	T	A	G	S	D	V	V	I	V	T	A	G	L	P	R	K	P	P	G	M	S	R	R	D	D	L	L	K	V	N	G	S	I	L	D	V	I		
UniRef90_Q7NHJ3	N	D	Y	A	Q	T	A	G	S	D	V	V	I	V	A	A	G	F	A	R	Q	N	K	P	G	M	S	R	R	D	D	L	L	L	T	N	T	R	I	V	F	E	V	
UniRef90_R6YAE1	G	T	Y	L	D	A	K	D	A	K	I	V	V	I	A	A	G	A	N	Q	N	K	P	G	N	E	T	R	L	D	L	V	L	K	R	N	N	K	I	I	K	D	I	
UniRef90_E1RE49	G	D	P	S	L	I	R	D	S	D	M	V	I	I	T	S	G	A	P	R	H	T	G	Q	D	R	L	D	L	A	K	G	N	A	K	I	I	R	A	N	S	T		
UniRef90_D4HA95	G	D	Y	D	D	L	S	N	A	D	V	V	I	I	M	T	A	G	P	S	I	D	A	G	A	R	R	E	L	A	A	T	N	G	K	I	I	R	A	N	S	T		
UniRef90_W5UJ85	G	D	Y	S	E	L	A	D	A	D	V	V	I	I	T	A	F	G	A	A	T	V	A	G	S	D	R	F	G	E	F	N	F	N	T	V	Q	A	Q	S	T	V		
UniRef90_B6BK78	E	T	L	E	D	V	K	D	C	H	D	V	V	I	T	A	G	S	P	R	L	D	A	G	M	S	R	R	D	D	L	L	L	E	I	K	N	A	Q	I	M	K	D	V
UniRef90_E3T2Y8	G	D	Y	A	D	I	E	G	A	D	V	V	I	T	A	G	L	P	R	K	P	P	G	M	T	R	R	D	D	L	L	L	E	I	N	G	I	Q	L	A	T	V		
UniRef90_P14295	N	D	W	A	A	L	E	A	D	A	D	V	V	I	S	T	L	G	N	I	D	N	P	T	G	D	R	F	A	E	L	K	F	T	S	S	M	V	Q	S	T	V		
UniRef90_B3T2X7	N	N	Y	E	D	M	K	G	S	D	V	V	I	V	A	G	A	G	R	K	P	P	G	M	T	R	R	D	D	L	L	L	K	I	N	G	A	V	G	V	K	D	V	
UniRef90_V5F9J0	A	T	Y	D	E	A	G	Q	C	H	D	V	V	I	T	A	G	S	K	Y	F	R	G	E	T	S	I	G	H	M	Y	Q	K	M	G	I	I	R	G	V	I			
UniRef90_H8MGM5	T	D	W	K	D	V	A	G	S	D	V	V	I	I	T	A	G	V	P	R	K	P	P	G	M	S	R	E	D	L	L	D	V	N	L	K	I	M	K	D	V			
UniRef90_R4KCT2	G	D	Y	E	D	C	H	N	A	Q	I	V	I	M	T	A	G	A	P	S	L	K	P	G	E	D	R	M	D	L	A	N	K	N	V	V	V	M	N	E	V			
UniRef90_Q7M9A7	N	E	P	S	D	L	R	K	G	A	C	D	V	V	I	F	C	A	G	S	P	R	Q	P	G	M	S	R	R	D	D	L	L	L	A	N	A	K	V	I	R	T	V	
UniRef90_Q04GC4	G	D	Y	K	D	L	A	D	A	N	L	V	I	S	T	F	G	N	V	T	V	E	S	G	D	R																		

UniRef90_K9F0K0	V	A	G	L	A	E	S	G	F	S	G	I	T	V	T	I	S	N	P	A	D	V	I	A	N	Y	I	A	E	K	L	D	W	P	R	R	R	I	L	S				
UniRef90_UFI0004758974	L	Q	A	L	L	E	Q	A	F	H	A	V	L	V	V	V	T	S	N	P	C	D	A	L	T	V	V	A	Q	E	A	T	G	L	P	R	R	I	L	S				
UniRef90_8DF75	A	R	D	L	K	A	S	G	F	S	G	V	L	V	V	V	T	S	N	P	V	D	A	L	T	Q	L	V	A	Q	E	A	T	G	L	P	R	R	I	L	S			
UniRef90_U9W0Z3	M	A	K	A	V	L	H	S	F	P	N	A	Y	F	I	L	V	T	S	N	P	L	D	V	M	T	Y	L	A	W	R	S	G	L	P	H	S	R	V	L	G			
UniRef90_Q7NHJ3	T	Q	K	A	V	A	H	S	F	P	E	A	T	V	V	V	V	T	S	N	P	L	D	A	M	S	H	V	A	W	R	A	S	G	L	V	P	R	R	I	L	S		
UniRef90_R6YAE1	T	L	N	I	V	K	S	G	F	P	N	G	I	V	V	V	V	T	S	N	P	V	D	I	T	Y	L	V	K	K	Y	S	K	F	P	A	S	R	V	L	G			
UniRef90_E1RE49	A	K	M	V	A	E	N	A	P	D	D	T	L	F	V	V	T	S	N	P	V	D	I	M	T	A	V	A	L	K	Y	S	G	F	P	Q	R	V	L	G				
UniRef90_D4HA95	M	T	Q	I	T	S	R	N	H	D	A	A	I	I	I	C																												
UniRef90_W5UJ85	G	A	Q	I	K	A	S	G	F	H	G	I	I	V	D	I	V	T	S	N	P	C	D	V	V	T	N	I	L	Q	Q	E	T	S	G	L	P	R	R	I	L	S		
UniRef90_B6BK78	M	H	V	I	K	V	S	S	P	N	A	V	I	I	P	V	T	S	N	P	L	D	A	M	V	V	V	A	L	K	Q	E	T	G	W	D	P	R	R	I	L	S		
UniRef90_E3T2Y8	A	E	N	I	K	H	A	S	F	H	G	A	F	V	I	L	T	S	N	P	L	D	A	M	V	Y	A	F	Y	K	Q	A	G	M	P	K	R	R	I	L	S			
UniRef90_P14295	G	T	N	L	K	E	S	G	F	H	G	V	L	V	V	V	T	S	N	P	L	D	V	I	T	A	L	F	Q	H	V	T	G	F	P	A	H	K	R	V	L	G		
UniRef90_B3T2X7	V	G	N	V	K	K	Y	A	D	N	S	L	I	I	P	V	T	S	N	P	L	D	P	M	V	T	I	T	Y	K	T	G	S	G	F	E	K	N	R	V	L	G		
UniRef90_V5F9J0	V	K	A	M	K	P	I	R	S	D	A	L	L	L	V	V	T	S	N	P	L	D	L	L	T	S	L	A	L	Q	I	T	S	G	L	P	P	R	R	I	L	S		
UniRef90_H8MGM5	A	G	N	I	K	Q	H	A	P	D	A	F	V	I	N	V	T	S	N	P	L	D	A	M	V	F	A	L	H	K	I	I	A	G	L	K	D	N	M	V	L	G		
UniRef90_R4KCT2	M	S	S	I	T	K	Y	T	K	D	A	V	I	V	V	V	T	S	N	P	L	D	I	V	T	Y	L	A	Q	N	H	F	D	Y	P	K	E	K	I	L	S			
UniRef90_Q7M9A7	L	S	E	V	K	P	Y	I	Q	D	A	S	V	L	V	M	V	T	S	N	P	L	D	A	M	V	T	A	I	K	E	S	G	L	S	P	L	Q	V	I	L	G		
UniRef90_Q04GC4	A	E	Q	L	K	K	V	H	F	Q	D	G	V	F	L	T	I	T	S	N	P	V	D	V	I	T	A	V	Y	Q	R	E	L	A	G	L	S	K	N	Q	V	I	L	G
UniRef90_UPI00																																												

UniRef90_K9F0K0	T	G	T	G	L	D	S	A	R	L	R	R	A	I	G	V	A	L	G	V	E	Q	K	S	V	N	A	Y	M	L	G	E	H	G	E	N	Q	F	A	G			
UniRef90_UFI0004758974	S	G	T	V	L	D	S	S	R	L	R	R	A	I	A	E	R	A	L	E	V	S	T	A	S	V	H	V	S	V	V	G	E	H	G	N	S	E	F	V	L		
UniRef90_D8DF75	T	G	T	L	L	D	T	A	R	M	K	R	A	V	A	A	D	R	A	Q	V	S	T	A	S	V	S	G	V	N	L	G	E	H	G	N	S	E	F	V	L		
UniRef90_U9W0Z3	T	Q	A	G	V	L	D	S	A	R	F	R	T	F	A	A	Q	A	L	K	V	P	Q	D	I	V	S	A	T	M	V	L	G	G	H	G	D	L	M	V	P	L	
UniRef90_Q7NHJ3	M	A	G	V	L	D	A	A	R	F	F	T	F	I	A	S	W	E	L	G	F	S	V	R	D	I	R	A	M	V	L	G	G	H	G	D	L	M	V	P	L		
UniRef90_R6YAE1	S	G	T	M	L	D	T	S	R	L	K	A	Y	L	I	S	D	K	L	E	V	I	N	V	R	D	V	S	A	Y	I	L	G	E	H	G	D	S	S	F	A	V	
UniRef90_E1RE49	L	G	T	H	L	D	S	M	R	L	K	S	F	I	A	S	D	H	F	K	V	H	V	S	E	V	H	T	R	I	L	G	E	H	G	D	T	M	V	P	L		
UniRef90_D4HA95	T	G	T	L	L	D	S	A	R	M	K	R	V	V	A	A	D	H	L	G	V	D	P	D	Y	I	R	G	Y	M	L	G	E	H	G	D	P	S	G	F	P	M	
UniRef90_W5UJ85	T	G	T	S	L	D	T	A	R	M	Q	R	A	V	A	A	A	Y	L	G	D	Q	A	P	R	N	I	R	G	Y	V	L	G	E	H	G	N	S	G	F	T	A	
UniRef90_B6BK78	M	A	G	I	L	D	S	A	R	M	A	H	F	V	A	Y	E	K	L	G	Y	G	A	G	Q	I	R	Y	S	V	M	G	G	H	G	D	D	M	V	P	L		
UniRef90_E3T2Y8	M	A	G	A	L	D	S	G	R	F	E	A	F	V	A	A	M	E	T	G	L	S	T	A	E	D	V	S	A	L	V	L	G	E	H	G	D	P	T	M	P		
UniRef90_P14295	T	G	T	L	L	D	T	A	R	M	Q	R	A	V	A	G	E	A	F	D	L	S	P	R	S	I	V	S	G	Y	N	L	G	E	H	G	N	S	Q	F	V	A	
UniRef90_B3T2X7	M	G	G	M	L	D	L	S	R	F	K	Q	F	I	A	H	E	A	T	A	N	S	P	A	R	T	N	I	D	A	I	V	V	G	E	H	G	N	S	M	V	P	L
UniRef90_V5F9J0	S	G	T	F	L	D	S	V	R	L	R	G	L	I	A	A	D	K	A	G	I	S	P	A	T	N	S	I	D	L	Y	V	I	G	V	H	G	D	S	Q	V	V	A
UniRef90_H8MGM5	M	A	G	V	L	D	T	S	R	F	K	C	F	V	A	A	E	A	L	G	V	S	I	R	N	D	V	E	A	L	V	L	G	E	H	G	D	D	M	V	P	L	
UniRef90_R4KCT2	T	G	T	L	L	D	T	A	R	M	L	R	R	I	A	A	K	N	Y	S	I	D	T	K	N	V	H	G	Y	L	V	L	G	E	H	G	D	S	A	F	A	A	
UniRef90_Q7M9A7	M	A	G	I	L	D	S	A	R	M	A	S	F	I	A	F	E	K	L	G	Y	G	S	D	Q	I	V	J	A	S	V	M	G	G	H	G	D	D	M	V	P	L	
UniRef90_Q04GC4	T	G	T	F	L	D	S	S	R	L	K	K	E	I	A	G	E	R	F	K	I	D	P	R	S	I	V	S	G	F	V	I	G	E	H	G	N	S					

UniRef90_K9F0K0
UniRef90_UPI0004758974
UniRef90_F8DF75
UniRef90_U9W0Z3
UniRef90_Q7NHJ3
UniRef90_R6YAE1
UniRef90_E1RE49
UniRef90_D4HA95
UniRef90_W5IJ85
UniRef90_B6BK78
UniRef90_E3T2Y8
UniRef90_P14295
UniRef90_B3T2X7
UniRef90_V5F9J0
UniRef90_H8MGM5
UniRef90_R4KCT2
UniRef90_Q7M9A7
UniRef90_Q04GC4
UniRef90_UPI000333B702
UniRef90_UPI0003776311
UniRef90_R2RHY5
UniRef90_W5TE8
UniRef90_W0ITY7
UniRef90_E6U6C3
UniRef90_A0A023B8T1
UniRef90_Q8TSH7
UniRef90_E9HGX0
UniRef90_F0LT17
UniRef90_UPI0002EF4176
UniRef90_D7GDR8
UniRef90_E1QXR3
UniRef90_D5VSV9
UniRef90_D2RRX3
UniRef90_A5K221
UniRef90_C4LKR7
UniRef90_A3ZZ88
UniRef90_A7JYY7
UniRef90_Q5FIY9
UniRef90_I0QHJ7
UniRef90_G1K890
UniRef90_M1AXH8
UniRef90_X0PQI0
UniRef90_U3AEF2
UniRef90_A3CYB5
UniRef90_F3KLW7
UniRef90_C0L8Z4
UniRef90_H4GJ19
UniRef90_K7F3W1
UniRef90_B2GB94
UniRef90_UPI0002EDBDA9
UniRef90_F9YW38
UniRef90_Q6J9I8
UniRef90_C7DRP0
UniRef90_T2D6V9
UniRef90_G2R5U2
UniRef90_F4WPA4
UniRef90_I4DQC2
UniRef90_UPI0003B50BAF
UniRef90_M3X7W9
UniRef90_X1TJJ1
UniRef90_M0XD84
UniRef90_C6T7I4
UniRef90_V4Y1D5
UniRef90_A6UUM3
UniRef90_UPI0004002BD6
UniRef90_M1YX07
UniRef90_F2US16
UniRef90_A9RZZ9
UniRef90_Q16Z15
UniRef90_G0VJG3
UniRef90_UPI00046693B7
UniRef90_G0UVP4
UniRef90_Q9Y750
UniRef90_E1ZRS4
UniRef90_D4A8P2
UniRef90_UPI0004704A2D
UniRef90_B9KGG0
UniRef90_A4RYV9
UniRef90_UPI0002B45551
UniRef90_W6EAU2
UniRef90_B9DK48
UniRef90_I0GS79
UniRef90_D8U454
UniRef90_G0EHD0
UniRef90_UPI00035980A2
UniRef90_H2GDF3
UniRef90_UPI000366115C
UniRef90_F7G233
UniRef90_U7PDP6
UniRef90_H3BAH2
UniRef90_M3A4J1
UniRef90_A0KG16

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

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

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

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

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

UniRef90_K9F0K0
UniRef90_UPI0004758974
UniRef90_F8DF75
UniRef90_U9W0Z3
UniRef90_Q7NHJ3
UniRef90_R6YAE1
UniRef90_E1RE49
UniRef90_D4HA95
UniRef90_W5IJ85
UniRef90_B6BK78
UniRef90_E3T2Y8
UniRef90_P14295
UniRef90_B3T2X7
UniRef90_V5F9J0
UniRef90_H8MGM5
UniRef90_R4KCT2
UniRef90_Q7M9A7
UniRef90_Q04GC4
UniRef90_UPI000333B702
UniRef90_UPI0003776311
UniRef90_R2RHY5
UniRef90_R5T9E8
UniRef90_W0ITY7
UniRef90_E6U6C3
UniRef90_A0A023B8T1
UniRef90_Q8TSH7
UniRef90_E9HGX0
UniRef90_F0LT17
UniRef90_UPI0002EF4176
UniRef90_D7GDR8
UniRef90_E1QXR3
UniRef90_D5VSV9
UniRef90_D2RRX3
UniRef90_A5K221
UniRef90_C4LKR7
UniRef90_A3ZZ88
UniRef90_A7JYY7
UniRef90_Q5FIY9
UniRef90_I0QHJ7
UniRef90_G1K890
UniRef90_M1AXH8
UniRef90_X0PQI0
UniRef90_U3AEF2
UniRef90_A3CXB5
UniRef90_F3KLW7
UniRef90_C0L8Z4
UniRef90_H4GJ19
UniRef90_K7F3W1
UniRef90_B2GB94
UniRef90_UPI0002EDBDA9
UniRef90_F9YW38
UniRef90_Q6J9I8
UniRef90_C7DRP0
UniRef90_T2D6V9
UniRef90_G2R5U2
UniRef90_F4WPA4
UniRef90_I4DQC2
UniRef90_UPI0003B50BAF
UniRef90_M3X7W9
UniRef90_X1TJJ1
UniRef90_M0XD84
UniRef90_C6T7I4
UniRef90_V4Y1D5
UniRef90_A6UUM3
UniRef90_UPI0004002BD6
UniRef90_M1YX07
UniRef90_F2US16
UniRef90_A9RZZ9
UniRef90_Q16Z15
UniRef90_G0VJG3
UniRef90_UPI00046693B7
UniRef90_G0UVP4
UniRef90_Q9Y750
UniRef90_E1ZRS4
UniRef90_D4A8P2
UniRef90_UPI0004704A2D
UniRef90_B9KGG0
UniRef90_A4RYV9
UniRef90_UPI0002B45551
UniRef90_W6EAU2
UniRef90_B9DK48
UniRef90_I0GS79
UniRef90_D8U454
UniRef90_G0EHD0
UniRef90_UPI00035980A2
UniRef90_H2GDF3
UniRef90_UPI000366115C
UniRef90_F7G233
UniRef90_U7PDP6
UniRef90_H3BAH2
UniRef90_M3A4J1
UniRef90_A0KG16

250 260 270 280

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

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

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

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

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

UniRef90_K9F0K0
UniRef90_UPI0004758974
UniRef90_F8DF75
UniRef90_U9W0Z3
UniRef90_Q7NHJ3
UniRef90_R6YAE1
UniRef90_E1RE49
UniRef90_D4HA95
UniRef90_W5JH85
UniRef90_B6BK78
UniRef90_E3T2Y8
UniRef90_P14295
UniRef90_B3T2X7
UniRef90_V5F9J0
UniRef90_H8MGM5
UniRef90_R4KCT2
UniRef90_Q7M9A7
UniRef90_Q04GC4
UniRef90_UPI000333B702
UniRef90_UPI0003776311
UniRef90_R2RHY5
UniRef90_R5T9E8
UniRef90_W0ITY7
UniRef90_E6U6C3
UniRef90_A0A023B8T1
UniRef90_Q8TSH7
UniRef90_E9HGX0
UniRef90_F0LT17
UniRef90_UPL0002EF4176
UniRef90_D7GDR8
UniRef90_E1QXR3
UniRef90_D5VS9V
UniRef90_D2RRX3
UniRef90_A5K221
UniRef90_C4LKR7
UniRef90_A3ZZ88
UniRef90_A7JYY7
UniRef90_Q5FIY9
UniRef90_I0QHJ7
UniRef90_G1K890
UniRef90_M1AXH8
UniRef90_X0PQI0
UniRef90_U3AEF2
UniRef90_A3CYB5
UniRef90_F3KLW7
UniRef90_C0L8Z4
UniRef90_H4GJ19
UniRef90_K7F3W1
UniRef90_B2GB94
UniRef90_UPI0002EDBDA9
UniRef90_F9YW38
UniRef90_Q6J9I8
UniRef90_C7DRP0
UniRef90_T2D6V9
UniRef90_G2R5U2
UniRef90_F4WPA4
UniRef90_I4DQC2
UniRef90_UPI0003B50BAF
UniRef90_M3X7W9
UniRef90_X1TJ11
UniRef90_M0XD84
UniRef90_C6T714
UniRef90_V4Y1D5
UniRef90_A6UUM3
UniRef90_UPI0004002BD6
UniRef90_M1YX07
UniRef90_F2US16
UniRef90_A9RZZ9
UniRef90_Q16Z15
UniRef90_G0VJG3
UniRef90_UPI00046693B7
UniRef90_G0UVP4
UniRef90_Q9Y750
UniRef90_E1ZRS4
UniRef90_D4A8P2
UniRef90_UPI0004704A2D
UniRef90_B9KGG0
UniRef90_A4RYV9
UniRef90_UPI0002B45551
UniRef90_W6EAU2
UniRef90_B9DK48
UniRef90_I0GS79
UniRef90_D8U454
UniRef90_G0EHD0
UniRef90_UPI00035980A2
UniRef90_H2GDF3
UniRef90_UPI000366115C
UniRef90_F7G233
UniRef90_U7PDP6
UniRef90_H3BAH2
UniRef90_M3A4J1
UniRef90_A0AKG16

UniRef90_K9F0K0
UniRef90_UPI0004758974
UniRef90_F8DF75
UniRef90_U9W0Z3
UniRef90_Q7NHJ3
UniRef90_R6YAE1
UniRef90_E1RE49
UniRef90_D4HA95
UniRef90_W5J85
UniRef90_B6BK78
UniRef90_E3T2Y8
UniRef90_P14295
UniRef90_B3T2X7
UniRef90_V5F9J0
UniRef90_H8MGM5
UniRef90_R4KCT2
UniRef90_Q7M9A7
UniRef90_Q04GC4
UniRef90_UPI000333B702
UniRef90_UPI0003776311
UniRef90_R2RHY5
UniRef90_R5T9E8
UniRef90_W0ITY7
UniRef90_E6U6C3
UniRef90_A0A023B8T1
UniRef90_Q8TSH7
UniRef90_E9HGX0
UniRef90_F0LT17
UniRef90_UPI0002EF4176
UniRef90_D7GDR8
UniRef90_E1QXR3
UniRef90_D5VSV9
UniRef90_D2RRX3
UniRef90_A5K221
UniRef90_C4LKR7
UniRef90_A3ZZ88
UniRef90_A7JYY7
UniRef90_Q5FIY9
UniRef90_I0QHJ7
UniRef90_G1K890
UniRef90_M1AXH8
UniRef90_X0PQI0
UniRef90_U3AEF2
UniRef90_A3CYB5
UniRef90_F3KLW7
UniRef90_C0L8Z4
UniRef90_H4GJ19
UniRef90_K7F3W1
UniRef90_B2GB94
UniRef90_UPI0002EDBDA9
UniRef90_F9YW38
UniRef90_Q6J9I8
UniRef90_C7DRP0
UniRef90_T2D6V9
UniRef90_G2R5U2
UniRef90_F4WPA4
UniRef90_I4DQC2
UniRef90_UPI0003B50BAF
UniRef90_M3X7W9
UniRef90_X1TJJ1
UniRef90_M0XD84
UniRef90_C6T7I4
UniRef90_V4Y1D5
UniRef90_A6UUM3
UniRef90_UPI0004002BD6
UniRef90_M1YX07
UniRef90_F2US16
UniRef90_A9RZZ9
UniRef90_Q16ZI5
UniRef90_G0VJG3
UniRef90_UPI00046693B7
UniRef90_G0UVP4
UniRef90_Q9Y750
UniRef90_E1ZRS4
UniRef90_D4A8P2
UniRef90_UPI0004704A2D
UniRef90_B9KGG0
UniRef90_A4RYV9
UniRef90_UPI0002B45551
UniRef90_W6EAU2
UniRef90_B9DK48
UniRef90_I0GS79
UniRef90_D8U454
UniRef90_G0EHD0
UniRef90_UPI00035980A2
UniRef90_H2GDF3
UniRef90_UPI000366115C
UniRef90_F7G233
UniRef90_U7PDP6
UniRef90_H3BAH2
UniRef90_M3A4J1
UniRef90_A0KG16

330
S Q L H A N F E K A L E L
E A V Q E T L A R M R
E T I K E T R K G L E H
D S V R K T L D
H T I R A S L D Q I A H L
N V I R Q T I K S L E E
E K I R R V T D E V
K A I Q E T V E A
T Y L K E N A A K V
G S V K E L I D A L
E A V V I S T V K E
D Y I Q Q R F D E I V D
N S V K N A L A G I
N T L G A T I E R I N E
T S V K G T V E L V K
N N I G K I L D K L
Q S V K S L I D A L
E S I
N T I K E Y C K K V E K I
Q T I H S M
A T I R A N I A
R A L Q E T Y A K V
E R L H T V L Q Q L
A A I K D M V K E A E S I
E T I K
P E L K K N I K K G E E
D N L R E N M
G V L H D A I R
A Q I R A T M
A H I Q E N V E K I R
E T I K R Y C E E I K E L
E K L S E Q Y D K I
A F V R E
D S I R A V Y A E
Q R I R D V I Q T L
T H L K H I V E N V
T L I R N R V E E
A S I H D L Q Q Q L K
N K I K D M
E K L S E Q Y A E L
K K I R K V T A D V M E
Q T I R N Y I K S L
A S I N D L Q Q Q L K
N Y I Q T R Y E A V
K T I K D T L
K A V R E V Y E S V R
E R L K E T L E R I K H
P E L K K N I E K G E D
P E L L K N I K
H Y V N D
Q T L R K V L N S I R
G E L K S S I E
P E L K S I E K G I K
E I V K R Y W N E V K G I
A Y I Q K A M Q D
E V I P E L Q K S I E
P E L R Q S I E
P E L K K N I Q K G E D
E T L K K N I E
D A L K A A I G R M K
V E L K K N I A N
P D L A K N I K
P E L R S S I E
D
A A I R R R C E G I
P Q L Q G E I K
P E L K A S I E
K T M Q K M A Q E V
E A V A Q A H K E I E N I
A A A R N T N S K L G D
P E L L A S I E
K S I L N V Y K Q
D E L K S N I E K G E E
E F I R E T V R
D T L R S D I K
S S I H S L Q N Q L K
N F I Q T A I E Q
K E L V E E R D
K E L K A N I E
A T L K A D I Q

	1	10	20	30	40
UniRef90_B4LPS6			V R N Y K V T V V G A G G I	G Q P L S M L L K	
UniRef90_M2MIZ4		L Q S R S F S A T A A N A T K	V A V L G A G G I	G Q P L S L L L K	
UniRef90_M0MA77					Y N J I A
UniRef90_I0YQB9		I E R Q F T S A A A S S N V K	V A V L G A G G I	G Q P L A L L L K	
UniRef90_K0NHZ0			I G I I G S G N V	G A N T A F F L A	
UniRef90_UPI0004575D79			P Y S K V T V L G S G D L	A M A V T S I L	
UniRef90_T0EFY9					
UniRef90_UPI0003F496E1			R K V A V L G A G G I	G Q P M S L L L K	
UniRef90_S2K7K8		A K R A F S T S A A N L S	K V A V L G A G G I	G Q P L S L L L K	
UniRef90_I1PNM9		L L R D E P K K P	V K V L V T G A A G Q I	G Y A I V A L L M L	
UniRef90_Q7ZSY2			P I R V L V T G A A G Q I	A Y S I L L Y G I A	
UniRef90_V7Z5U7			R K Y A I I G V G H V	G A T I A Y T L V	
UniRef90_H0X138		S A Q N N A K V A V L G A G G I		G Q P L S L L L K	
UniRef90_M0XT98		P A T P T S S A V P H R	K I S V V G A G N V	G M A I A Q T I L	
UniRef90_T2MFV8			R V C V T G A G Q I	A Y S L L L Y S L A	
UniRef90_H0EN93			K A V V A G A G G I	G Q P L S L L M K	
UniRef90_J6H3M9		L T Q D K L T I V G A G M I		G S N M A Q T A A	
UniRef90_S8D4W0		A A P E R K V T I L G A G G I		G Q P L S L L M K	
UniRef90_E0WT01			K V T V L G A G G I	G Q A L A L L L K	
UniRef90_H0EDL9		Q S R A F S A S A R D L S	K V T V L G A G G I	G Q P L S L L L K	
UniRef90_W0PIW6			K I G L I G A G A V	G R A C L T S L V	
UniRef90_H2YZK0		S N Q S N Y K V S V L G A G G I		G Q P M S L L L K	
UniRef90_B7GEG9			S K K V A V L G A G G I	G Q P L S M L L K	
UniRef90_UPI0004446F2E		K N W A D Q E N K S V S K I T V V G G G E L		G V A C T L A I S	
UniRef90_C4JX87	L V	Q R R A F S A T A Q Q S K V T V L G A G G I		G Q P L S L L M K	
UniRef90_G0QR65		Q S F S K H K A L K P P V	R V A V T G A G N I	G Y A T V F R I A	
UniRef90_R5PMK7			L T N D K L L I V G A G M I	G S N M V Q S A L	
UniRef90_R5BV64			K L L I V G A G M I	G S N M A Q T A L	
UniRef90_UPI000365AD99		S K P A V R V A V T G A G Q I		G Y A L L F R I A	
UniRef90_D8QLH9		L F S S S A A R Q T K V A V L G A G G I		G Q P L S L L L K	
UniRef90_UPI0003F5A651			K V A V L G A G G I	G Q A L S L L L K	
UniRef90_J7UB04			K V A V L G A G G I	G Q A L A L L L K	
UniRef90_C1E2C0			Y K V A V L G A G G I	G Q S L S L L L K	
UniRef90_B1PDJ4					
UniRef90_B9D261			K I S V I G A G N V	G A S A A S A I L	
UniRef90_E5AAQ2			K A V V A G A G G I	G Q P L S L L L K	
UniRef90_K1PU26			K V L V T G A G Q I	A Y S L L L Y S V A	
UniRef90_K8D9W4					
UniRef90_I3D2Y1			I S I I G S G R V	G S S I A F L C M	
UniRef90_A0Z1R5			R V T V T G A G Q I	G Y A L L F A M L	
UniRef90_C5E3W9		A R R A F T T T R V N P Y	K V T V L G A G G I	G Q P L S L L L K	
UniRef90_I3CQ66			M K P I K H I A V T G A G Q I	G Y S L V F R I A	
UniRef90_S8DYB4			K V A I L G A G G I	G Q P L A M L V K	
UniRef90_A8Q8R4	S S V L E P	L T R N L Q M C S H R L T S S	K I A L L G A G G I	G Q P L G L L L K	
UniRef90_U1GAT6			K A V V L G A G G I	G Q P L S L L L K	
UniRef90_M5BQU1		P T A R A F S T S S S R	L T K V A V L G G I	G Q P L S L L L K	
UniRef90_C4R024		I A K R Q F S S S A S T A Y	K V A V L G A G G I	G Q P L S L L M K	
UniRef90_D2TX06			K L A I L G A G G I	G Q A L A L L L K	
UniRef90_K1E657			K V A V T G A G Q I	G Y S L L F R I A	
UniRef90_R5BEC0		L T N E K L L I V G A G G I		G S N M A Q T A L	
UniRef90_H2ZMX1			K V L V T G A G Q I	A Y S L L L Y S I A	
UniRef90_K3WT76		S T A A A G K K V A V L G A G G I		G Q P L S L L L K	
UniRef90_C3J9T5			L T N D K L T L I G A G M I	G S N M A Q T A A	
UniRef90_W1N3U7			R I A I T G A G Q I	S Y S L A F R I A	
UniRef90_UPI0003DF636C	T T K N A L I T T Q L D P C D	V Y P H R K V S I V G V G K I		G I A C A I A I L	
UniRef90_Q2YAQ4		M K T P I R V A V T G A G Q I		A Y S L L F R I A	
UniRef90_R7TJ18		T E P L R V L T G A A G Q I		A Y S L L L Y S V A	
UniRef90_A6GNA9		T K P A M R V A V T G A G Q I		G Y S L L F R I A	
UniRef90_F4P7E9			K V A V L G A G G I	G Q P L S L L L K	
UniRef90_F4KJS3		V T Q D K L V I I G A G M I		G S N M A Q T A A	
UniRef90_A1DM13			K A A V L G A G G I	G Q P L S L L L K	
UniRef90_R5GEI7			K L V I I G A G M I	G S N M A Q T A A	
UniRef90_H5SI25		M T P K R V A V T G A G R I		S Y S L L F R I A	
UniRef90_C8V0H6			K A A V L G A G G I	G Q P L S L L L K	
UniRef90_Q4QL89			K V A V L G A G G I	G Q A L A L L L K	
UniRef90_V2US60		M K Q P I R V A V T G A G Q I		G Y S L L F R I A	
UniRef90_S2K6R1			K V T V C G A G G I	G Q P L S L L L K	
UniRef90_UPI00039D9733			R V A V T G A G Q I	G Y S L L F R I A	
UniRef90_B4L2P2		T Q R N F R V A V T G A G G I		G Q P L S L L M M	
UniRef90_UPI000471478F		L T N E K L T I V G A G M I		G S N M A Q T A A	
UniRef90_U1HY66		L S Q R R A F S A S A R Q A S	K V T V L G A G G I	G Q P L S L L M K	
UniRef90_N9VBW0			K K I L V V G L G N V	G F T Y I N I A V	
UniRef90_T0GDL9			K V A V T G A G Q I	G Y S L L F R I A	
UniRef90_UPI0003723E9B			M K P A I R V T V T G A G N I	A Y S L L F K I A	
UniRef90_R5Z1A0			V T N E K L T I V G A G M I	G S N M A Q T A I	
UniRef90_D5X4M7			R V T V S G A G Q I	G Y A L L F R I A	
UniRef90_M4CF15		M C N L L K I E K E P I R	V L V T G A A G N I	G Y A I A P M I A	
UniRef90_UPI0003FA46FF			P K T V T V T G A G A I	G Y A L L F R I A	
UniRef90_M1WIC4			K A V V A G A G G I	G Q P L S L L L K	
UniRef90_UPI000427785F			K T L T S E K L T I I G A G M I	G S N M A Q S A I	
UniRef90_L8D0N6			K V A V L G A G G I	G Q A L S L L L K	
UniRef90_R7QQ53		T V S P I T V C V T G A G Q I		S Y S L S M L A	
UniRef90_V4KJM0	A S A K Q S L L R R S F S S E S	V P E R K V A I L G A G G I		G Q P L A L L M K	
UniRef90_S2J7L6			K V T V C G A G G I	G Q P L S L L L K	
UniRef90_UPI000255648F			K I A V L G A G G I	G Q P L S L L L K	
UniRef90_UPI000344387F		T I K G D L X K N F T S E E A A H H S	R X S I I A T G V I	G M G C A I S I L	
UniRef90_S9UXP2			K V A V L G A G G I	G Q P L S L L L K	
UniRef90_UPI0003671041			K V A V L G A G G I	G Q A L S L L L K	
UniRef90_H3FCC2			Q S S S Q P K V A L L G A G G I	G Q P L G L L L K	
UniRef90_G3AJA2			K V A V L G A G G I	G Q P L S L L L K	
UniRef90_UPI00036CB833			M K T P V R I A V T G A G Q I	A Y S L L F R I A	
UniRef90_F4QFJ5			S T T K A P L R V A I T G A G Q I	G Y Q L L F R I A	

UniRef90_B4LPS6	Q	N	P	L	R	I	S	D	E	L	T	L	H	D	V	G	D	A	K	G	V	A	A	D	L	S	H	I	C	T	S	T	Q	V	F	F	D	G	V			
UniRef90_M2MIZ4	L	N	R	P	R	I	V	S	D	E	L	V	L	D	I	V	K	G	A	P	G	V	A	A	D	L	S	H	I	N	T	K	S	I	V	K	F	D	G	P		
UniRef90_MOMA77	L	N	R	G	I	A	S	D	E	L	V	F	V	D	I	V	P	E	T	T	I	G	V	A	A	D	L	S	H	I	G	V	A	Y	D	T	N	T	T	V	R	G
UniRef90_I0YQ38	G	S	P	L	I	S	D	E	L	S	L	Y	D	I	V				G	T	E	G	V	G	A	D	L	S	H	I	D	S	P	K	V	S	S	S	Y	T	G	A
UniRef90_K0NHZ0	E	K	G	V	D	D	V	M	L	Y	D	I	V	R	K	G	T	A	K	G	K	A	L	D	M	E	A	A	P	I	R	G	Y	R	T	Q	I	S	G	S		
UniRef90_UPI0004575D79	A	K	E	V	E	R	L	V	F	I	Q	T	S	E	N	M	L	R	G	G	S	L	E	L	E	I	F	S	L	P	R	V	D	S							S	
UniRef90_T0EYF9																																										
UniRef90_UPI0003F496E1	Q	D	P	L	V	T	S	L	A	L	Y	D	V			R	G	A	P	G	V	A	A	D	L	S	H	I	V	N	T	K	S	E	V	K	G	Y	G	A	D	
UniRef90_S2K7K8	E	N	P	H	V	T	H	L	S	L	Y	D	I	V			N	T	P	G	V	A	A	D	L	S	H	I	N	T	N	S	K	V	T	G	H	T	P	E	S	
UniRef90_I1PNM9	G	A	D	Q	P	V	V	L	H	L	L	D	I	V	A	N	A	L	N	G	V	R	M	E	L	I	D	A	C	A	L	P	L	L	R	G	V	V	A	T	S	
UniRef90_Q7ZSY2	K	G	D	V	F	G	K	L	L	L	L	D	I	V	A	M	V	L	N	G	V	V	M	E	L	I	Q	D	C	A	L	P	L	L	R	E	V	I	P	T	D	
UniRef90_V7Z5U7	C	K	G	I	A	D	E	L	I	L	I	D	I	V	A	A	K	A	R	A	E	Q	L	D	L	Q	D	A	Q	A	R	L	L	D	S	R	T	I	I	K	I	
UniRef90_H0X138	N	S	P	L	V	S	R	L	T	L	I	D	I	V	A	H	T	P	G	V	A	A	D	L	S	H	I	E	T	R	A	T	V	K	G	T	G	S	H	T		
UniRef90_MOXT98	T	Q	N	L	A	D	E	I	A	L	V	D	A	L	P	D	K	L	R	G	V	A	L	D	L	S	H	I	A	A	A	F	L	P	R	V	R	I	A	T	S	G
UniRef90_T2MFV8	N	G	D	V	F	G	K	L	L	L	L	D	I	V	P	M	C	V	E	G	V	V	L	E	L	Q	D	C	Y	S	L	P	L	L	H	D	A	I	A	T	S	
UniRef90_H0EN93	T	S	P	L	I	S	D	E	L	A	L	Y	D	V	V		N	T	P	G	V	A	A	D	L	S	H	I	S	S	S	P	A	K	I	T	G	Y	L	P	K	S
UniRef90_J6H3M9	M	M	S	L	T	P	N	I	C	L	Y	D	I	V	P	F	T	G	L	E	G	V	A	E	E	I	R	H	C	G	F	E	A	L	N	L	T	F	T	S		
UniRef90_S8D4W0	L	N	P	L	V	S	S	L	S	L	Y	D	I	V	A	A			T	P	G	V	A	A	D	L	S	H	I	N	T	F	G	V	K	G	Y	V	G	E	T	
UniRef90_E0WT01	T	Q	P																																							

[illegible]

UniRef90_B4LPS6	S	C	A	V	G	M	A	C	P	E	A	L	L	L	A	F	I	T	N	P	I	N	T	I	V	P	I	A	L	K	K	G	V	F	D	P	N	R	L	F		
UniRef90_M2MIZ4	A	K	A	A	A	D	A	C	P	D	E	A	N	M	L	I	I	T	S	N	P	V	N	S	T	V	P	I	A	L	K	K	G	V	F	D	P	N	R	L	F	
UniRef90_MOMA77	G	S	S	L	A	A	H	C	N	D	E	F	V	S	V	T	T	S	N	P	V	N	S	T	V	P	I	H	L	Y	E	T	K	G	D	R	P	N	R	L	F	
UniRef90_I0YQB9	C	V	A	I	A	K	Y	C	P	D	A	W	V	A	I	I	T	S	N	P	V	N	S	T	V	P	I	A	F	F	K	K	A	G	T	Y	N	P	R	K	L	F
UniRef90_K0NHZ0	A	S	K	I	T			G	S	D	T	K	V	I	I	V	T	E	N	P	V	N	S	T	V	P	I	A	F	F	K	K	A	G	T	Y	N	P	R	K	L	F
UniRef90_UPI0004575D79	I	P	S	A	V	M	Y	S	P	H	C	V	L	V	I	A	S	Q	P	V	D	V	M	S	F	V	A	W	K	L	S	G	F	A	P	N	Q	R	V	I	G	
UniRef90_T0EFY9																																										
UniRef90_UPI0003F496E1	A	E	A	C	A	E	H	C	P	K	A	M	I	G	I	I	T	S	N	P	V	N	S	T	V	P	I	V	F	K	K	G	V	F	D	P	N	R	L	F		
UniRef90_S2K7K8	A	S	A	A	A	K	Y	C	P	N	A	H	F	L	I	I	T	S	N	P	V	N	S	T	V	P	I	F	L	K	K	A	G	V	F	N	P	K	R	L	F	
UniRef90_I1PNM9	A	S	A	L	D	Q	K	H	A	P	N	C	K	V	L	V	V	T	S	N	P	A	N	T	N	A	L	V	L	K	E	F	A	P	A	I	P	A	K	N	F	T
UniRef90_Q7ZSY2	G	E	A	L	D	K	Y	A	K	K	T	V	V	L	V	V	T	S	N	P	A	N	T	N	A	L	V	L	K	E	F	A	P	A	I	P	A	K	N	F	T	
UniRef90_V7Z5U7	A	P	K	V	K	A	T	K	F	N	G	V	V	I	D	T	S	M	N	P	C	D	A	I	T	H	Y	F	Q	R	A	T	G	L	S	R	P	Q	N	V	F	G
UniRef90_H0X138	T	A	A	C	A	H	C	P	E	A	M	I	C	I	I	T	S	N	P	V	N	S	T	V	P	I	V	F	F	K	K	H	G	V	Y	N	P	R	K	L	F	
UniRef90_M0XT98	V	P	P	V	A	E	H	C	P	D	A	L	L	V	V	T	S	N	P	V	N	S	T	V	P	I	V	F	F	K	K	A	G	T	Y	N	P	R	K	L	F	
UniRef90_T2MFV8	G	K	A	L	D	T	Y	A	K	K	T	V	V	L	V	V	T	S	N	P	A	N	T	N	A	L	V	L	K	E	F	A	P	A	I	P	A	K	N	F	T	
UniRef90_H0EN93	I	E	V	I	A	D	V	A	P	K	A	Y	I	L	I	T	S	N	P	V	N	S	T	V	P	I	A	L	K	K	A	K	N	G	V	F	D	P	K	R	L	F
UniRef90_J6H3M9	G	E	D	I	K	A	Y	C	P	D	R	H	V	I	I	T	S	F	N	P	A	D	I	T	G	L	V	I	L	H	S	G	L	K	P	E	Q	R	L	F	T	
UniRef90_S8D4W0	I	E	A	V	A	K	F	S	P	K	A	L	I	N	M	I	T	S	N	P	V	N	S	T	V	P	I	A	L	K	S	N	G	V	Y	D	E	K	N	R	L	F
UniRef90_E0WT01	V	E	Q	I	A	T	T	C	P	K																																

	170	180	190	200																																								
UniRef90_B4LPS6	G	V	T	S	L	D	V	V	R	A	K	S	T	F	I	A	D	Y	M	N	T	D	P	A	T	V	E	I	P	V	I	G	G	H	A	G	K	T	I	L	P			
UniRef90_M2MIZ4	G	V	T	S	L	D	V	V	R	A	K	S	T	F	I	A	D	Y	M	N	T	D	P	A	T	V	E	I	P	V	I	G	G	H	A	G	K	T	I	L	P			
UniRef90_MOMA77	F	G	G	R	L	D	S	A	R	F	R	Y	V	L	F	G	E	R	K	F	N	T	Q	V	A	N	E	N	I	A	S	I	V	I	G	G	H	G	A	Q	V	I	P	
UniRef90_I0YQB9	G	V	T	K	L	D	V	L	R	A	N	T	F	V	I	A	E	A	E	I	G	V	P	P	E	N	M	S	V	P	V	I	I	G	G	H	A	G	V	T	I	L	P	
UniRef90_K0NHZ0	I	G	V	K	L	D	A	T	R	L	R	F	L	F	I	A	Q	A	E	I	K	V	S	T	E	N	S	A	Q	V	I	I	G	G	H	A	G	M	D	M	I	L	L	
UniRef90_UPI0004575D79	T	G	C	N	L	D	T	Q	R	L	R	Y	L	L	R	P	L	C	I	R	P	L	C	I	R	P	A	H	Q	P	W	L	I	I	G	G	H	G	E	N	Q	V	A	V
UniRef90_T0EFY9	S	G	T	T	L	D	S	S	R	L	R	Y	L	F	I	S	E	I	L	D	V	N	S	K	N	V	H	A	Y	V	M	G	G	H	G	S	G	D	S	Q	F	V	A	
UniRef90_UPI0003F496E1	G	V	T	T	L	D	V	V	R	A	S	S	R	F	L	A	E	I	K	G	L	D	P	K	D	V	K	V	T	V	V	I	G	G	H	S	S	G	V	T	I	V	P	
UniRef90_S2K7K8	G	V	T	T	L	D	V	V	R	A	S	S	R	F	V	A	E	V	K	N	L	D	P	K	D	V	K	V	T	V	V	I	G	G	H	S	S	G	V	T	I	V	P	
UniRef90_I1PNM9	C	L	T	R	L	D	H	N	R	A	L	G	Q	V	A	E	K	L	N	V	H	V	G	D	K	N	A	I	I	W	G	N	H	S	S	T	T	Q	F	P	D			
UniRef90_Q7ZSY2	C	L	T	R	L	D	H	N	R	A	S	Q	V	A	E	K	L	N	V	H	V	G	D	K	N	A	I	I	W	G	N	H	S	S	T	T	Q	F	P	D				
UniRef90_V7Z5U7	T	G	T	F	L	D	T	A	R	A	N	Q	K	V	V	A	E	A	F	N	C	I	D	P	K	N	I	S	G	Y	V	Y	W	G	E	H	G	E	S	Q	F	S	V	
UniRef90_H0X138	G	V	T	T	L	D	I	V	R	A	N	T	F	V	I	A	E	L	K	G	L	D	P	A	R	V	N	V	P	V	I	I	G	G	H	A	G	K	T	I	L	P		
UniRef90_M0XT98	S	G	T	N	L	D	S	S	R	F	R	F	L	I	A	E	H	L	D	V	N	A	Q	D	R	V	Q	G	V	I	I	G	G	H	A	G	K	T	I	L	P			
UniRef90_T2MFV8	C	L	T	R	L	D	Q	N	R	A	V	S	Q	V	A	M	R	L	G	V	K	T	N	V	K	K	V	I	I	W	G	N	H	S	S	T	T	Q	Y	P	D			
UniRef90_H0EN93	G	V	T	T	L	D	V	V	R	A	E	T	F	V	A	E	I	T	G	K	N	P	Q	K	L	T	I	P	V	I	I	G	G	H	S	S	G	E	T	I	V	P		
UniRef90_J6H3M9	T	L	A	A	L	D	S	T	R	L	Q	S	E	L	A	K	H	F	G	V	A	Q	S	E	V	V	A	R	T	Y	G	G	H	S	G	E	A	M	A	V	F			
UniRef90_S8D4W0	G	V	T	T	L	D	V	V	R	A	K	T	F	Y</																														

UniRef90_B4LPS6
UniRef90_M2MIZ4
UniRef90_M0MA77
UniRef90_I0YQB9
UniRef90_K0NHZ0
UniRef90_UPI0004575D79
UniRef90_T0EFY9
UniRef90_UPI0003F496E1
UniRef90_S2K7K8
UniRef90_I1PNM9
UniRef90_Q7ZSY2
UniRef90_V7Z5U7
UniRef90_H0X138
UniRef90_M0XT98
UniRef90_T2MFV8
UniRef90_H0EN93
UniRef90_J6H3M9
UniRef90_S8D4W0
UniRef90_E0WT01
UniRef90_H0EDL9
UniRef90_W0PIW6
UniRef90_H2YZK0
UniRef90_B7GEG9
UniRef90_UPI0004446F2E
UniRef90_C4JX87
UniRef90_G0QR65
UniRef90_R5PMK7
UniRef90_R5BV64
UniRef90_UPI000365AD99
UniRef90_D8QLH9
UniRef90_UPI0003F5A651
UniRef90_J7UB04
UniRef90_C1E2C0
UniRef90_B1PDJ4
UniRef90_B9D261
UniRef90_E5AAQ2
UniRef90_K1PU26
UniRef90_K8D9W4
UniRef90_I3D2Y1
UniRef90_A0Z1R5
UniRef90_C5E3W9
UniRef90_I3CQ66
UniRef90_S8DYB4
UniRef90_A8Q8R4
UniRef90_U1GAT6
UniRef90_M5BQU1
UniRef90_C4R024
UniRef90_D2TX06
UniRef90_K1E657
UniRef90_R5BEC0
UniRef90_H2ZMX1
UniRef90_K3WT76
UniRef90_C3J9T5
UniRef90_W1N3U7
UniRef90_UPI0003DF636C
UniRef90_Q2YAQ4
UniRef90_R7TJ18
UniRef90_A6GNA9
UniRef90_F4P7E9
UniRef90_F4KJS3
UniRef90_A1DM13
UniRef90_R5GEI7
UniRef90_H5SI25
UniRef90_C8V0H6
UniRef90_Q4QL89
UniRef90_V2US60
UniRef90_S2K6R1
UniRef90_UPI00039D9733
UniRef90_B4L2P2
UniRef90_UPI000471478F
UniRef90_U1HY66
UniRef90_N9VBW0
UniRef90_T0GDL9
UniRef90_UPI0003723E9B
UniRef90_R5Z1A0
UniRef90_D5X4M7
UniRef90_M4CF15
UniRef90_UPI0003FA46FF
UniRef90_M1WIC4
UniRef90_UPI000427785F
UniRef90_L8D0N6
UniRef90_R7QQ53
UniRef90_V4KJM0
UniRef90_S2J7L6
UniRef90_UPI000255648F
UniRef90_UPI000344387F
UniRef90_S9UXP2
UniRef90_UPI0003671041
UniRef90_H3FCC2
UniRef90_G3AJA2
UniRef90_UPI00036CB833
UniRef90_F4QFJ5

210
220
230
240

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

UniRef90_B4LPS6	V	L	N	G	K	G	S	A	T	L	S	M	A	Y	A	A	A	F	V	N	A	L	L	R	G	L	N	D	E	P	G	V	I	E	C	A	Y	V	A		
UniRef90_M2MIZ4	V	V	K	A	K	G	S	A	T	L	S	M	A	M	A	G	A	F	V	A	E	S	I	L	K	A	A	Q	G	S	G	V	I	E	P	T	F	V	D		
UniRef90_MOMA77	V	I	E	R	K	G	A	T	Q	W	G	P	A	T	G	V	G	H	V	A	E	S	I	L	R	D	T	G	T	V	L	P	G	S	L	V	L	N	G	E	
UniRef90_I0YQB9	V	V	K	G	K	G	S	A	T	L	S	M	A	Y	A	A	A	F	V	A	E	S	C	L	R	A	L	A	G	E	P	I	V	E	C	A	Y	V	E		
UniRef90_K0NHZ0	I	V	D	L	A	R	G	A	T	Y	G	P	S	A	V	V	A	E	V	A	E	A	C	H	D	T	G	R	L	L	S	V	S	H	V	L	S	G	V		
UniRef90_UPI0004575D79	G	L	K	E	K	G	Q	R	S	Y	W	C	V	G	L	S	V	A	D	L	T	E	T	I	L	S	Q	H	G	R	P	H	S	V	C	T	L	A	Q	G	Y
UniRef90_T0EFY9	I	I	K	R	K	K	S	T	Y	Y	G	L	G	M	G	L	T	A	L	T	K	A	L	I	E	N	E	N	T	I	L	T	V	S	S	Y	L	N	G	E	
UniRef90_UPI0003F496E1	V	V	K	A	K	D	S	A	T	L	S	M	G	F	A	G	A	R	F	A	N	S	L	L	R	A	M	N	G	S	G	V	V	E	P	T	F	V	E		
UniRef90_S2K7K8	V	V	Q	A	K	N	G	T	T	L	S	M	A	Y	A	G	A	R	M	A	E	A	T	V	G	G	K	K	G	V	V	E	P	S	F	V	K	S	D	V	
UniRef90_I1PNM9	I	K	A	R	K	Q	S	S	A	L	S	A	A	S	A	A	C	D	H	M	R	D	W	L	G	T	P	K	G	T	W	V	S	V	Y	S	D	G	S		
UniRef90_Q7ZSY2	I	K	A	R	K	L	S	S	A	M	S	A	A	K	A	L	C	D	H	M	R	D	L	W	T	G	T	P	E	G	E	F	I	S	M	G	V	Y	N	S	
UniRef90_V7ZSU7	V	H	S	G	K	G	Y	T	S																																
UniRef90_H0X138	V	V	K	A	K	G	S	A	T	L	S	M	A	Y	A	G	A	R	F	V	F	S	L	L	D	A	V	N	G	K	E	G	V	V	E	C	S	F	V	K	
UniRef90_MOXT98	I	K	A	R	K	L	S	S	A	M	S	A	A	K	A	L	C	D	H	M	K	T	W	W	F	G	T	A	D	D	D	Y	C	S	M	G	V	D	G	S	
UniRef90_T2MFV8	V	V	A	A	K	D	S	A	T	L	S	M	A	Y	A	G	F	R	F	A	E	A	V	L	K	G	L	S	G	E	K	G	I	V	T	P	S	F	V	Y	
UniRef90_H0EN93	I	I	K	L	R	G	R	S	S	F	S	P	A	Y	V	S	I	E	M	I	R	A	M	G	G	A	P	F	R	W	P	A	G	C	Y	V	N				
UniRef90_J6H3M9	V	V	E	G	K	G	S	A	T	L	S	M	A	Y	A	G	A	L	F	A	D	A	C	L	K	G	L	N	G	V	P	D	V	V	E	C	A	F	V	Q	
UniRef90_E0WT01	V	V	K	A	K	G	S	A	T	L	S	M	A	Q	A	A	R	F	A	L	S	L	V	R	A	F	Q	G	E	K	G	I	C	A	Y	V	D	V	D		
UniRef90_H0EDL9	V	V	K	A	K	D	S	A	T	L	S	M	A	M	A	G	A	R	F	A	E	S	L	L	K	A	A	Q	G	K	G	V	V	E							

UniRef90_B4LPS6
UniRef90_M2MIZ4
UniRef90_MOMA77
UniRef90_I0YQB8
UniRef90_K0NH20
UniRef90_UPI0004575D79
UniRef90_T0EFY9
UniRef90_UPI0003F496E1
UniRef90_S2K7K8
UniRef90_I1PNM9
UniRef90_Q7ZSY2
UniRef90_V7ZSU7
UniRef90_H0X138
UniRef90_MOXT98
UniRef90_T2MFV8
UniRef90_H0EN93
UniRef90_J6H3M9
UniRef90_S8D4W0
UniRef90_E0WT01
UniRef90_H0EDL9
UniRef90_W0PIW6
UniRef90_H2YZK0
UniRef90_B7GEG9
UniRef90_UPI0004446F2E
UniRef90_C4JX87
UniRef90_G0QR65
UniRef90_R5PMK7
UniRef90_R5BV64
UniRef90_UPI000365AD99
UniRef90_D8QLH9
UniRef90_UPI0003F5A651
UniRef90_J7UB04
UniRef90_C1E2C0
UniRef90_B1PDJ4
UniRef90_B9D261
UniRef90_E5AAQ2
UniRef90_K1PU26
UniRef90_K8D9W4
UniRef90_I3D2Y1
UniRef90_A0Z1R5
UniRef90_C5E3W9
UniRef90_I3CQ66
UniRef90_S8DYB4
UniRef90_A8Q8R4
UniRef90_U1GAT6
UniRef90_M5BQU1
UniRef90_C4R024
UniRef90_D2TX06
UniRef90_K1E657
UniRef90_R5BEC7
UniRef90_H2ZMX1
UniRef90_K3WT76
UniRef90_C3J9T5
UniRef90_W1N3U7
UniRef90_UPI0003DF636C
UniRef90_Q2YAQ4
UniRef90_R7TJ18
UniRef90_A6GNA9
UniRef90_F4P7E9
UniRef90_F4KJS3
UniRef90_A1DM13
UniRef90_R5GE17
UniRef90_H5SIZ5
UniRef90_C8V0H6
UniRef90_Q4QL89
UniRef90_V2US60
UniRef90_S2K6R1
UniRef90_UPI00039D9733
UniRef90_B4L2P2
UniRef90_UPI000471478F
UniRef90_U1HY66
UniRef90_N9VBW0
UniRef90_T0GDL9
UniRef90_UPI0003723E9B
UniRef90_R5Z1A0
UniRef90_D5X4M7
UniRef90_M4CF15
UniRef90_UPI0003FA46FF
UniRef90_M1WIC4
UniRef90_UPI000427785F
UniRef90_L8D0N6
UniRef90_R7QJ53
UniRef90_V4KJMO
UniRef90_S2J7L6
UniRef90_UPI000255648F
UniRef90_UPI000344387F
UniRef90_S9UXP2
UniRef90_UPI0003671041
UniRef90_H3FCC2
UniRef90_G3AJA2
UniRef90_UPI00036CB833
UniRef90_F4QFJ5

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

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

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

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

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

UniRef90_B4LPS6 P E L R Q N I E
UniRef90_M2MIZ4 K D L K G N I E
UniRef90_M0MA77 D K L A D Q Y E T I
UniRef90_I0YQB9 G E L R G S I K
UniRef90_K0NHZ0 D L I A K T I K E
UniRef90_UPI0004575D79 T T L R N L L Q Q L
UniRef90_T0EFY9 D I M K E N I K K L
UniRef90_UPI0003F496E1 P D L K K N I
UniRef90_S2K7K8 P E L K K N I
UniRef90_I1PNM9 T E L K E E
UniRef90_Q7ZSY2 A E L V E E R D
UniRef90_V7Z5U7
UniRef90_H0X138 P E L K A S I K K G E D
UniRef90_M0XT98
UniRef90_T2MFV8 V E L C Q E R D D
UniRef90_H0EN93 E G L K G N I
UniRef90_J6H3M9 E H L V K M R D E V I S M
UniRef90_S8D4W0 S E L K S S I D
UniRef90_E0WT01 D E L R G
UniRef90_H0EDL9 E D L K K N I K
UniRef90_W0PIW6 A V I R K A W E G V
UniRef90_H2YZK0 P E L Q A S I K K G E E
UniRef90_B7GEG9 M I P D L Q K Q I K
UniRef90_UPI0004446F2E S S I Y G L Q Q Q L K
UniRef90_C4JX87 V D L K K N I A
UniRef90_G0QR65 K E L L E E R Q A V E H L
UniRef90_R5PMK7 E H L C K M R D E I V E L
UniRef90_R5BV64 E H L C K M R D E I I E L
UniRef90_UPI000365AD99 N E L L E E R D G V A D L
UniRef90_D8QLH9 P D L K K N I
UniRef90_UPI0003F5A651 D T L Q D I Q K G V
UniRef90_J7UB04 D V L K A
UniRef90_C1E2C0 P E L K A S I D
UniRef90_B1PDJ4
UniRef90_B9D261 S Q T A V N I K F L K E
UniRef90_E5AAQ2 D G L K G N I A
UniRef90_K1PU26 K E L V D E K N
UniRef90_K8D9W4 A V I K E N I A R L
UniRef90_I3D2Y1 K K I K D Q L S S L
UniRef90_A0Z1R5 K E L S D E R D A V A H L
UniRef90_C5E3W9 E T L K K N I E
UniRef90_I3CQ66 N E L L E E R D A I R H L
UniRef90_S8DYB4 K E L S E S I N
UniRef90_A8Q8R4 P E L K K N I K G L K
UniRef90_U1GAT6 K G L K G N I E
UniRef90_M5BQU1 P E L K K N I A
UniRef90_C4R024 E T L A K N I A K G Q E
UniRef90_D2TX06 E T L N K D I K
UniRef90_K1E657 A E L A E E R E A V T K L
UniRef90_R5BEC0 E H L C K M R E E I I A L
UniRef90_H2ZMX1 E E L
UniRef90_K3WT76 V D L K Q I N K G I
UniRef90_C3J9T5 E H L A A M I A Q V A E M
UniRef90_W1N3U7 Q E L R E E R A A V E H L
UniRef90_UPI0003DF636C
UniRef90_Q2YAQ4 R E L M G E R E S I K H L
UniRef90_R7TJ18 K E L V E E K N D
UniRef90_A6GNA9 N E L M E E R E G V K H L
UniRef90_F4P7E9 A E L K N I Q K G V
UniRef90_F4KJS3 K H L E G M R E Q I I E M
UniRef90_A1DM13 K G L K G N I E
UniRef90_R5GEI7 K H L V D L R N Q V I E M
UniRef90_H5SI25 R E L V E E R E A V K D L
UniRef90_C8V0H6 K G L K G N I D
UniRef90_Q4QL89 P T L R A D I E
UniRef90_V2US60 Q E L E E E R S A I A H L
UniRef90_S2K6R1 P E L K S N I
UniRef90_UPI00039D9733 Q E L V E E R D A V A H L
UniRef90_B4L2P2 K Q L Q Q S I E
UniRef90_UPI000471478F K H L C D L R D Q V I E M
UniRef90_U1HY66 T D L K N I R K G V
UniRef90_N9VBW0 E G F C K V H N D V L S L
UniRef90_T0GDL9 D E L K S E R D E V K G M
UniRef90_UPI0003723E9B A E L L E E R A A I D H L
UniRef90_R5Z1A0 E H L C A L R D E V I A M
UniRef90_D5X4M7 A E L E E E K A G V Q H L
UniRef90_M4CF15 R E L A E E
UniRef90_UPI0003FA46FF N E L K G E R D A V R E L
UniRef90_M1WIC4 E G L N G N I
UniRef90_UPI000427785F K H L C D L R D S L
UniRef90_L8D0N6 A T L K D I Q E G V
UniRef90_R7QQ53 E E L Y A E R E E
UniRef90_V4KJM0 P E L K S I E K G V K
UniRef90_S2J7L6 S E L K G N I
UniRef90_UPI000255648F D T L K A D I K
UniRef90_UPI000344387F
UniRef90_S9UXP2 D G L K N I Q K G
UniRef90_UPI0003671041 G T L K A
UniRef90_H3FCC2 P Q L K E I A K G I K
UniRef90_G3AJA2 E Q L E K N V E
UniRef90_UPI00036CB833 R E L C E E R D G V A H L
UniRef90_F4QFJ5 K E L L S E M D A I K H L

	1	10	20	30	40
UniRef90_UPI0004560059			K A T V T G A G G I	G Q P L S L L L	K
UniRef90_UPI0002490D6B			R K V G I I G L G H V	G E T I A Y T L V	
UniRef90_UPI0003D75E20			P C R V L V T G A T G Q I	G Y A L V P M I A	
UniRef90_M5U157					
UniRef90_F8A034			G D A A Q A P A V V T V T G A G G I	G Y A L L F A M L	
UniRef90_J4H3G6		A F S S S	A S R Q T N V T V L G A G G I	G Q P L S L L L M K	
UniRef90_H3G2J3			A S P L R V L V T G A A G G I	G Y S L V L Q I A	
UniRef90_A1K5Q9				G Y S L L F R I A	
UniRef90_L0DA29				G Y A L L F R I A	
UniRef90_P17505		A K R A F S S T	V A N P Y K V T V L G A G G I	G Q P L S L L L K	
UniRef90_F8GE84			M K P P I R I A V T G A G G I	C Y S L L F R I A	
UniRef90_Q8H0P9				G Y A L A G A M L	
UniRef90_F3LEC4			M K S P V R V T I T G A G G I	S Y S L L F R I A	
UniRef90_M4ZX24			M T T P V R V A V T G A G G I	G Y S L L F R I A	
UniRef90_B6JYT4			T T T R P L K V S V L G A G G I	G Q P L S L L L K	
UniRef90_X8IVG1				G Q P L S L L L K	
UniRef90_M7YNY2			P G F K V A V V G A G G I	G Q S L S L L M K	
UniRef90_B4LR03			P I R V V V T G A A G G I	A Y S L L Y M I A	
UniRef90_C7MV61			T Q P P V N V T V T G A G G I	G Y A L L F R I A	
UniRef90_X0QDR0					
UniRef90_V4ILR5			M K T P K R I S V T G A G G I	S Y S L I F R L A	
UniRef90_C1E918				S N H L L F K I A	
UniRef90_UPI000348458D			S K P A K R I A I S G A G G I	A Y S L L F R I A	
UniRef90_UPI0003F68B16				G Y S L L F R I A	
UniRef90_V5FRV8				G T P L S L L C K	
UniRef90_F0SGB9				G Y A T V F R L A	
UniRef90_E9C218				A Y S L L F N I A	
UniRef90_UPI00047E3EDC	R L Q V M S A H V S	N S A E P K V V C V T G A G G I	A Y S L L F R L L		
UniRef90_UPI00037E5090			T Q S P V N V T V T G A A G G I	G Y A L L F R L L	
UniRef90_F2DZ74				A N N L L F K I M	
UniRef90_H3NUK0		M A T F A F S K K	P I R V A V T G A G G I	C Y S L L F R I A	
UniRef90_F5RA33			M K T P V T V T V T G A G G I	G Y A L L F A M L	
UniRef90_A5G320			S K T P L R V A V T G A G G I	G Y A L L F R I A	
UniRef90_Q4A0K7				A Y A L V F A L L	
UniRef90_A5DGY9			S K L G I T G L G K V	G T Q V L T D V Q	
UniRef90_E1SLM1				G Q P L S L L L K	
UniRef90_R1CB91				G Q A L A L L L K	
UniRef90_UPI00047DA8E3			H V K V A V L G A G G I	G Q P L S L L C K	
UniRef90_T1KQT4			S K K P V R V A V T G A G G I	G Y A L L F R I A	
UniRef90_Q4PP81				G Q P L S L L L K	
UniRef90_T0C4U3			P I N V V V T G A A G G I	A Y S L L Y Q L A	
UniRef90_S8FKK1			M T K R V K V A V T G A G G I	G Y A L L F R I A	
UniRef90_A0A023FCF4				G Q P L S L L L K	
UniRef90_C2GK21			P I R V V I T G A A G G I	A Y S L L Y H L G	
UniRef90_A0A022QUV0				A Y S L L F R I A	
UniRef90_F0J9X5	A E E E	T K S W K K L I N I A V S G A A G M I	S N H L L F		
UniRef90_G8BJ12			S S K E P L R V L V T G A A G G I	A Y S L V P I A	
UniRef90_H1Q466				G Q P L S L L L K	
UniRef90_Q8FN62			L T N D K L V I V G A G M I	G S N M T Q T A L	
UniRef90_Q9FNS5			M N S P K K I T V T G A G G I	A Y S L L W R I A	
UniRef90_S9WTW3			K K T V K V A V T G A G N I	A N H L L F M L A	
UniRef90_E4WX88			L H R H S V C V L G A G H I	G Q P L S L A L M	
UniRef90_M2YWQ3			A K S P M R V V V T G A A G G I	S Y S L L A L I A	
UniRef90_C6TNA8				G Q P L S L L L K	
UniRef90_C8P9X5				A M L	
UniRef90_A9NX63			R K I G I I G L G H V	G R L L A N E L V	
UniRef90_A4QGA0	E E K Q K S W K K K V A V S G A G M I	S N H L L F M I A			
UniRef90_W7DLF4	N S P Q N V S T K K V T V T G A G G I	S Y S L L W R I A			
UniRef90_Q3U1V6			T V E Q K R I A V I G N N K I	S T S Y A F A M M	
UniRef90_L1M919				G I A C T L A I S	
UniRef90_A6DLK9			A F L T D E K L V I V G A G M I	G S N M V Q S A L	
UniRef90_D9SFQ9			M S K T I R V C V T G A G G I	D Y S L L F R I A	
UniRef90_F4CMX6				G Y A L L F R I A	
UniRef90_X1YDY3			S T P P V T V T V T G A G G I	G Y A L L F R I A	
UniRef90_D1BB08			S S E P I R V V V T G A A G G I	A Y S L L Y M V A	
UniRef90_G7H0Y9				G Y A L L F R L L	
UniRef90_V7IFQ7				G Y S L L F R V A	
UniRef90_K2B930				A Y S L L F R I A	
UniRef90_B4D4R8			M S K R I K V A I T G A G G I	G Y A L L F R I A	
UniRef90_L0GSY7				G Y S L L F R I A	
UniRef90_I7ZH7			M K K P V K V A I T G A G G I	A Y S L I F S M L	
UniRef90_B6HMM3				G T P L S L L L K	
UniRef90_C5KWJ7	T I A S K A M V T R G F S S Q V A		K V C L L G A G G I	G Q P L A L L L K	
UniRef90_E1RJ09				G G E V A F L S A	
UniRef90_UPI000362BE6F			M K R P V R I A I T G A G S I	S N S L L F R I A	
UniRef90_M4XJP7			M C Q S K K V A L L G A G G I	G Q S L A L L L K	
UniRef90_T1JGE8			P I R V L V T G A A G G I	A Y T L L Y N L A	
UniRef90_B5DLR8					
UniRef90_S8JHH8			R K I G I I G M G H V	G S T V A H A L I	
UniRef90_B9XQ90			T T P I R V A V T G A A G G I	G Y S L L F R I A	
UniRef90_G3Y094				G Q P L S L L L M K	
UniRef90_C0W8W1		L L Q K R S F S A S A S Q A S K	V A V L G A G G I	G Y A L L F A L L	
UniRef90_V5SI03				A Y S I L Y M I A	
UniRef90_D2V4P7			T E P I R V V T G A A G G I	A Y S L L F R M L	
UniRef90_UPI000406CAE6			D Q L A P P V T V T V S G A G G I	A Y S L L F R I A	
UniRef90_D8VJD0					
UniRef90_UPI00036BBC39					
UniRef90_K6W9P9			S S I T P A K V A V T G A G N I	A Y S L L W R L A	
UniRef90_P61974				G Y A A L F A M L	
UniRef90_K6KBV8			K K I A V T G A G G I	A Y S L L W R I A	
UniRef90_W6MY07					
UniRef90_Q6FL22			K V T I C G A G G I	G Q P L S L L V K	
			K V A V L G A G G V	G Q P L S L L L K	

	50	60	70	80
UniRef90_UPI0004560059	Q S T L I T D L A L L V D V V	N A L G V A A D I L S H I N T P A V V N G Y L P K		
UniRef90_UPI0002490D6B	S K G T V D Q L V L L D V D D K R A L A L A Q Q Y D L V N T I T S P L N T S T K I L I			
UniRef90_UPI0003D75E20	G P D Q P V L L H M L D I A A E A L N G V K M E L I D A A F P L L K G I V A T T			
UniRef90_M5U157				
UniRef90_F8A034	G H G T P R L R L L E I V P Q K A A E G T A M E L D D C A F P L L A G I D I F D			
UniRef90_J4H3G6	L D P H V K K L N L Y D I P Q R G A A P G V A A D V L D H I D T G S E V T G F A A D			
UniRef90_H3G2J3	K G D V F G K L V L L D I A P Q M A A E G V V M E L T D D C A L A N L T G V E A V T			
UniRef90_A1K5Q9	G K D Q P V I L Q L L D L P A Q K A V K G V M M E L D D C A F P L L A G M I A T D			
UniRef90_L0DA29	S G G L F G R L L E I T P A L P S L K G T L M E L E D D C A F P L L A D V Q A T D			
UniRef90_P17505	L N H K V T D L R L Y D L I T K G A K G V A T D L S H I P T N S V V K G F T P D			
UniRef90_F8GE84	A G D M F G K L Q L H D I T D A Q P E A I V M E L Y D C A F P L L T E I T T D			
UniRef90_Q8H0P9	G P D V P V V L H L L D I A E T A L K G V A M E L V D A A Y P L L K G I V A T T D			
UniRef90_F3LEC4	G A D Q P V I L Q M L E I T P P N A L K G V A M E L D D D G A F P L L A G M V T T D			
UniRef90_M4ZX24	G P D T P V D L Q L L E I T P P G A L E G V R M E L D D D G A F P L L N S I T T C			
UniRef90_B6JYT4	L N P Y I S K L S L F D I V H G A A G V A A D L S H I D T S S D V Q G Y A N G			
UniRef90_X8IVG1	A N P A I T E L S L F D I V N T P G V A A D V S H I D T P A V V Q G Y L P P			
UniRef90_M7YN92	M N P L V S V L H L Y D V V N T P G V T A D V S H I M D T S A V P L V V T S D			
UniRef90_B4LR03	R G E V F G K L H L L D I P P M V L E G V V M E L S D C A L P L L R K V V P T T			
UniRef90_C7MV61	S G Q L P V R L R L L E I P Q K A A E G T A L E L E D G A F P L L A G I D I Y D			
UniRef90_X0QDR0				
UniRef90_V4ILR5	H Q P I L L Q L L E I E R P A M E A L L N G V V M E L N D C A F P L L A D I V T T S			
UniRef90_C1E918	S Q P V A L R L L L G S E R S R E A L L N G V V M E L E D S L F P L L R E V S I G I			
UniRef90_UPI000348458D	N G D L P V I L Q L L D L P Q A Q A K G V V M E L E D D C A F E L L Q D I T T D			
UniRef90_UPI0003F68B16	A G E V F G Q L R L L E I T P Q A A L E G T V M E L D D C A L P L L D S V V I T G D			
UniRef90_V5FRV8	A S D I F D E I S L Y D L V H V P G I A T D L M H I D T K A K V S G Y L P D			
UniRef90_F0SGB9	S G E V F G H L V E L P Q A M G A L D G V H M E L D D C A F P T L A G V V K E S			
UniRef90_E9C218	R G D I Y G I L H L L D I A P M M L Q G V V M E L Q D D C S L P T L A G V E A T S			
UniRef90_UPI00047E3EDC	G P D T P V N L R L L E I V P Q A M A E G T A M E L D D C A F P L L N S I E V T D			
UniRef90_UPI00037E5090	G K D Q P V I L Q L I E V P Q A M L R G I A M E L E D D C A Y S L L H T I T L H D			
UniRef90_F2DZ74	H Y D Q P V I L H L L D I A Q K A L K G V A M E L G D C A F P L L Q G I V C T D			
UniRef90_H3NUK0	G N D Q P V K L N L L D I T P D A L E G V K M E L D D C A F P L L A G I T C S D			
UniRef90_F5RA33	G K D Q P V I L Q L L D L A Q K A L T G V M M E L D D C A F P L L A G M I A T D			
UniRef90_A5G320	G P D Q P V I L H L L D L P Q M Q L G G V M M E L E D C A F P L L A G M V A T D			
UniRef90_Q4A0K7	Q L N L F S E I I L I D R A D V A S G E A L D H I H S Q G L I N T A H I I R S			
UniRef90_A5DG99	L N P K I D E L A L F D V V N V P G V G A D L S H I S S H L P S A K E D K T			
UniRef90_E1SLM1	L N P K G S D L A L Y D I A P V T P P G V A V D I S H I P T A V N A K G Y A G E			
UniRef90_R1CB91	L S D S I D E V A C Y D V V G T P G V A A D I S H C P T K A V W P P S G N S			
UniRef90_UPI00047DA8E3	G K D Q P I L Q L L E V P Q K A L K G V I M E I E D C A F P L L A G I E A H G			
UniRef90_T1KQT4	R S K L I S H L S L Y D V A N T P G V A A D L S H I N S R A K V T G H L G P			
UniRef90_Q4PP81	G Q N Q P I N L R L L E I A M E P A L Q G V V M E L E D C A F P L L R E V I P T D			
UniRef90_T0C4U3	S G M F G E L Q L L E L P Q G A L E G V K M E L D D C A F P L L K N I V C T D			
UniRef90_S8FKK1	N N P L V K E L A L Y D I V N T P G V A A D L S H I S T P A K V V G Y L P G			
UniRef90_A0A023FCF4	K G D V F G T L H L L D I P P M M L D G V V M E I D C A L P L V L D V I P T T			
UniRef90_C2GK21	N G D V P V E L K L L E I P Q K A T E G V A M E L L D S A F P L L T D I E I T D			
UniRef90_A0A022QUV0	D Q P I A L K L L G S E R S I T A L E G V A M E L E D S L F P L L R E V S I G I			
UniRef90_F0J9X5	G A D Q P I L H L L D I P M M L N G V V M E L V D C A F P L L K D V V A T E			
UniRef90_G8BJ12	L N T N V T E L A L F D I V N A K G V A A D L S H I N T P A V V T G Y Q P K			
UniRef90_H1Q466	M L G L T P N I T L Y D V F S A E G V A E E M R Q C G F D D A N I V A T T			
UniRef90_Q8FN62	N G E V P V E L N L L E I P D G A E G V A M E L S D S A F P L L H N I N I T A			
UniRef90_Q9FNS5	S Q P I A L Q L L G S E R S K E A L E G V A M E L E D S S L Y P L L R E V S I G T			
UniRef90_S9WTW3	Q S K Y V T D L R L Y D L V Y A T G V G V D L S H M P V S T R V R G Y E P G			
UniRef90_E4WX88	G R D Q P V D L V M L D L A K D A M E G V V M E L T D C A F P L L K S V T A T C			
UniRef90_M2YWQ3	A C P L V D H L S L Y D V V N T P G V T A D L S H I A T I D G Y L P E N G E			
UniRef90_C6TNA8	G P N			

	90	100	110	120
UniRef90_UPI0004560059	D D G L A K A N A D I V V I P A G V P R K T P G M T R G D L F N T I N A G I V R D I			
UniRef90_UPI0002490D6B	Q D Y A L A K N K N A D V I I T S F R S T E S K Q N G N L T D D F A S S Y V Q Q V			
UniRef90_UPI0003D75E20	D V V E A C K D V N I A V M V G G F P R K E G M E R K D L V M S K D N V S I T V K A Q			
UniRef90_M5U157				
UniRef90_F8A034	D A R A A F E G A N V A L L V G A R P R S A G M E R G D L L S A N G G I F K P Q			
UniRef90_J4H3G6	K L D E A L D G A E V V V V P A G V P R K E P G M T R R D D L F S T N A S I V L R S D L			
UniRef90_H3G2J3	N E K D A F T N I D Y A F L V G A M P R K E P G M E R K D D L L A A N V R I F K S S Q			
UniRef90_A1K5Q9	D N V A F K D A K V A L L V G A R P R G P G M E R K D L L L T E N A K I F T S V Q			
UniRef90_L0DA29	Q A T T A F E G A D W V I L V G G L P R K E P G M T R A D D L I R A N G S P I F T G Q			
UniRef90_P17505	G L N N A L K D T D M V L I P A G V P R K E P G M T R R D D L F A I N A S I V R D L			
UniRef90_F8GE84	N P E V V F D N V D I A L L V G A R P R G E N M E R K D D L L A A N G P I F L A Q			
UniRef90_Q8H0P9	D V A E A C K G V D V A V M V G G F P R G P G M E R K E V M G K N V A I Y K G Q			
UniRef90_F3LEC4	D A N V A F K D A D Y A L L V G A R P R G P G M E R K D D L L E A N A A I F S A Q			
UniRef90_M4ZX24	D A D V A F G D A D A L L V G S M P R K A G M E R A D L L L S A N G G I F K P Q			
UniRef90_B6JYT4	G L E R S V Q D A N V V I I S A G V P R K P N M T R D D L F A I N A S I I H K L			
UniRef90_X8IVG1	D E G L A K A G A D I V V I P A G V P R K P G M T R D D L F K I N A G I I R D L			
UniRef90_M7YN2	G G F L F L T G M D L V I I P A G L P R K P G M T R D D L F N K N A G I V R S L			
UniRef90_B4LR03	D P L V G F K D V S A A F L V G A M P R K E G M E R K D L L L S A N V K I F K V Q			
UniRef90_C7MV61	N P K D A F D G A N I A L L V G A R P R T K G M E R G D L L E A N G G I F K P Q			
UniRef90_X0QDR0				
UniRef90_V4ILR5	D P N V A F K D A D F A F L V G A R P R G P G M E R S D L L L E A N A K I F S G Q			
UniRef90_C1E918	D P M D V F V D A D W A L L I V G A K P R S K G M E R A D L L L S A M N G A I F V I E Q			
UniRef90_UPI000348458D	D P K I L A F D I D Y A L L V G A R P R S K G M E R K D L L L S A N A E I F T V V Q			
UniRef90_UPI0003F68B16	D P N Q V F D G V N A A F L V G A K P R G K G M D R A D L L L R E N G G I F G P Q			
UniRef90_V5FRV8	G L Q K A L T G A D I V V V T A G S I A R K K G M T R A D D L F K T N A S I I R D I			
UniRef90_F0SGB9	S D N K A F A D C N W V L C V A G I P R K A G M E R G D L V R V N G P I F T S T			
UniRef90_E9C218	D P K V A F N N A D A I L V G A M P R K E G M E R K D L L V R A N A K I F K E Q			
UniRef90_UPI00047E3EDC	N A N K A F D G A N V A L L V G A R P R G P G M E R G D L L L E A N G G I F K P Q			
UniRef90_UPI00037E5090	N V E D G F K N T H F A L L I G A R P R G A G M E R S D L L L E V N A E I F T R Q			
UniRef90_F2DZ74	D L K V G F T D V I E A A L L V G A K P R G K G Q E R G D L L L K D N A K I F P Q			
UniRef90_H3NUK3	D P N I A F A D A D Y A L L V G A R P R G P G M E R K D D L L E A N A A I F S A Q			
UniRef90_F5RA00	D N V A F K D A D A L L V G A R P R G P G M E R K D D L L T E N A K I F T V Q			
UniRef90_A5G320	D P K V A F K D I D I G F L V G A R P R G K G M E R K D L L L G A N A E I F T V Q			
UniRef90_Q4A0K7	G V Y Q D L T D D F I V I A S E A T D K N G M D R T L L A Q G N H D I K G I			
UniRef90_A5DG9	A L A D S L K N S D L V I I P A G V P R K N P G M T R D D L F N I N A S I V K G L			
UniRef90_E1SLM1	D P T P A L E G A D L V L I S A G V A R K P P G M D R A D D L F N V N A S I I R N L			
UniRef90_R1CB91	G L E R T L T G A S V V I P A G V P R K P G M T R D D L F N T N A S I V Q T L			
UniRef90_UPI00047DA8E3	D M T A F K D T D Y A L L V G A R P R G P G M E R A D D L L A N A A Q I E T A Q			
UniRef90_T1KQT4	E Q L G E A Q G S D V V L I P A G V P R K P G M T R D D L F N T N A S I V R D L			
UniRef90_Q4PP81	D P E I A F K D A S A F L V G A M P R K E G M E R K D L L L S A N V K I F K V Q			
UniRef90_T0C4U3	K M E I A F K D A N W I L A L A V P R K D G M E R A D L L L K V N G G I E G P L			
UniRef90_S8FKK1	G L E K A L T G A D I V V I P A G V P R K P G I N A G I V R T L			
UniRef90_A0A023FCF4	D L A V A F K D V D A F L L G S M P R K K G M E R R D L L L S A N C K I F R E Q			
UniRef90_C2GK21	D N K A F D G A N G M F L V G A K P R G K G M E R A D L L L S A E N G K I F G P Q			
UniRef90_A0A022QUV0	D P Y D V F R D A E W A L L I G A K P R G P G M E R A A L L L D I N G Q I F A D Q			
UniRef90_F0J9X5	D E K T A F T A I D V A F L V G S M P R K E G M E R K D D L L A A N V K I F K S Q			
UniRef90_G8BJ12	D K E D K T A G T D L V I I P A G V P R K P G M T R A D L F N I N A S I I R D L			
UniRef90_H1Q466	D A K E A F T G A K Y V I S S G A P R K E G M T R E D L L V G N S K A A E E L			
UniRef90_Q8FN62	D L N E A F D G A N A F L V G A K P R G K G E E R A A L L L S N N G K I F G P Q			
UniRef90_Q9FN55	D P Y E V F G D A D W A L M I V G A K P R G P G M E R A A D L L Q N N G E I F Q V Q			
UniRef90_S9WTW3	S I D K A L K G A D L V I N V A G L A R K P G M V R E D L F N T N A L T I E E L			
UniRef90_E4WX88	D Q T E A F T D I D V A V L V G A F P R K P G M E R N D M L A K N A E I F K A Q			
UniRef90_M2YWQ3	G L K K A L K G A D I V V I P A G I P R K P G M T R D D L F K I N A G I V Q G L			
UniRef90_C6TNA8	D V V E A C K D V N I V M V G G F P			

		130										140										150										160											
UniRef90_UPI0004560059	A	V	G	I	A	E	H	S	P	K	A	F	V	L	V	I	S	N	P	V	N	S	T	V	P	I	V	L	K	K	K	G	V	F	D	P	K	R	L	F			
UniRef90_UPI0002490D6B	G	E	K	I	K	S	S	E	F	N	G	V	I	L	V	I	N	V	N	D	P	N	E	A	T	N	A	L	L	K	E	F	A	S	I	P	Q	N	Q	V	F	G	
UniRef90_UPI0003D75E20	A	S	A	L	E	K	S	H	A	P	D	A	V	L	I	M	V	T	N	P	V	D	V	M	T	Y	E	A	I	R	L	T	G	F	P	P	E	R	V	I	G		
UniRef90_M5U157																																											
UniRef90_F8A034	G	E	A	I	N	G	A	A	P	D	A	V	K	V	L	V	V	T	G	N	P	A	N	T	N	A	Y	I	A	A	F	H	A	G	V	D	P	P	E	R	F	T	
UniRef90_J4H3G6	A	S	A	V	A	R	V	S	P	K	A	H	L	L	I	V	I	V	N	P	V	N	S	L	V	P	I	A	A	Q	K	A	G	V	D	P	P	K	R	I	F		
UniRef90_H3G2J3	G	A	A	L	A	E	F	A	P	T	T	K	V	L	V	V	V	G	N	P	A	N	T	N	A	F	I	C	A	K	Y	A	G	K	V	I	P	A	R	N	F	T	
UniRef90_A1K5Q9	G	A	A	I	G	Q	Y	A	P	D	C	K	V	L	V	V	V	G	N	P	C	N	T	N	A	Y	I	A	K	E	V	A	G	R	V	I	P	A	K	N	F	T	
UniRef90_L0DA29	G	K	A	I	N	D	A	A	P	D	V	R	V	L	T	V	I	V	A	N	P	C	N	T	N	C	L	I	A	K	S	H	A	P	N	I	P	A	D	R	W	F	
UniRef90_P17505	A	A	A	T	A	E	S	A	P	N	A	A	I	L	V	I	V	S	N	P	V	N	S	T	V	P	Q	V	L	K	N	K	G	V	Y	N	P	K	L	F			
UniRef90_F8GE84	G	R	A	L	N	V	A	A	K	R	N	V	V	L	V	V	V	G	N	P	A	N	T	N	A	Y	I	T	L	L	K	N	A	P	D	L	N	P	K	N	F	S	
UniRef90_Q8H0P9	A	S	A	L	E	E	H	A	P	G	C	K	V	L	V	V	V	A	N	P	A	N	T	N	A	L	I	L	S	N	Y	A	P	K	I	D	P	K	E	N	V	T	
UniRef90_F3LEC4	G	K	A	M	N	E	T	A	S	R	D	I	V	L	V	V	V	G	N	P	A	N	T	N	S	L	I	A	Q	R	N	A	A	P	D	L	N	P	A	D	R	F	T
UniRef90_M4ZX24	G	E	A	L	N	S	R	S	A	K	R	D	V	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	M	N	N	A	A	P	D	L	N	P	G	R	F	T	
UniRef90_B6JYT4	G	R	A	C	A	V	V	A	P	N	A	I	Y	L	V	I	V	T	N	P	V	N	S	M	V	P	N	A	L	A	A	G	G	V	R	D	S	R	K	L	I	F	
UniRef90_X8IVG1	A	I	A	I	A	T	N	A	P	K	A	F	I	L	V	I	V	S	N	P	V	N	S	T	V	P	I	V	L	K	K	H	G	V	F	D	S	R	K	L	F		
UniRef90_M7YN12	C	E	G	V	A	K	S	C	P	N	A	I	V	N	L	I	V	S	N	P	V	N	S	T	V	P	I	A	F	K	R	A	G	T	Y	C	P	K	R	L	L	F	
UniRef90_B4LR03	G	E	A	L	D	K	V	A	K	K	D	V	V	L	V	V	V	G	N	P	A	N	T	N	A	L	V	C	A														

UniRef90_UPI0004560059	G	V	T	T	L	D	I	V	R	A	S	T	F	I	S	E	A	A	G	K	P	T	E	S	L	K	Y	K	I	P	V		
UniRef90_UPI0002490D6B	I	G	T	C	R	L	E	T	Q	R	A	K	S	Q	A	E	Q	L	K	V	S	P	H	N	V	S	G	F	V	Y	G	N	
UniRef90_UPI0003D75E20	C	L	T	R	L	D	H	N	R	A	L	S	Q	L	A	S	E	R	L	K	V	S	P	H	N	V	S	G	F	V	Y	G	N
UniRef90_M5U157	T	G	T	L	V	D	S	I	R	A	R	S	Q	L	A	S	E	R	L	K	V	S	P	H	N	V	S	G	F	V	Y	G	N
UniRef90_F8A034	A	M	T	R	L	D	H	N	R	A	L	S	Q	L	A	S	A	R	T	G	S	H	V	D	I	R	A	Y	I	L	G	N	H
UniRef90_J4H3G6	G	V	S	T	R	L	D	H	N	R	A	T	R	F	L	A	S	V	T	G	N	D	P	K	N	T	P	V	T	V	I	G	N
UniRef90_H3G2J3	A	M	T	R	L	D	H	N	R	A	L	S	Q	L	A	I	K	S	G	V	T	V	G	S	K	N	V	I	I	W	G	N	
UniRef90_A1K5Q9	G	M	L	R	L	D	H	N	R	A	L	S	Q	L	A	A	G	K	S	G	R	E	V	S	S	E	T	K	N	V	I	W	G
UniRef90_L0DA29	A	M	T	R	L	D	Q	N	R	A	A	A	Q	L	A	E	K	A	G	V	P	V	S	E	T	N	V	T	I	W	G	N	
UniRef90_P17505	G	V	T	T	L	D	S	I	R	A	A	R	F	L	A	S	E	V	E	N	T	D	P	T	Q	E	R	V	N	V	I	G	N
UniRef90_F8GE84	A	M	L	R	L	D	H	N	R	A	V	S	Q	L	A	L	K	L	H	V	P	V	S	D	I	K	K	M	I	W	G	N	
UniRef90_Q8H0P9	C	L	T	R	L	D	H	N	R	A	L	S	Q	L	A	S	E	K	T	G	V	S	P	H	N	V	S	G	F	V	Y	G	N
UniRef90_F3LEC4	A	M	T	R	L	D	H	N	R	A	A	M	T	Q	L	A	A	Q	K	T	G	S	S	I	E	N	D	I	T	Q	T	I	W
UniRef90_M4ZX24	A	M	T	R	L	D	H	N	R	A	L	S	Q	L	A	A	T	R	L	N	S	Q	G	E	S	V	S	V	N	V	I	W	G
UniRef90_B6JYT4	G	V	T	T	L	D	S	V	R	A	S	K	F	L	S	Q	V	K	G	A	S	P	E	T	I	R	V	P	V	I	V	G	N
UniRef90_X81VG1	G	V	T	T	L	D	V	V	R	A	S	T	F	I	A	T	V	A	G	S	P	A	R	E	T	Y	T	A	P	V	V	I	G
UniRef90_M7YN12	G	V	T	T	L	D	V	V	R	A	S	T	F	I	A	E	V	L	G	V	D	P	R	E	V	N	V	A	P	V	V	I	G
UniRef90_B4LR03	A	M	T	R	L	D	Q	N	R	A	S	S	Q	L	A	A	N	K	L	G	V	P	T	H	V	S	N	I	I	I	W	G	N
UniRef90_C3MV61	A	M	T	R	L	D	H	N	R	A	L	S	Q	L	A	A	K	K	L	Q	V	P	V	S	D	V	K	K	M	I	W	G	N
UniRef90_X0QDR0	T	G	T	L	L	D	S	S	R	M	R	R	A	V	S	S	E	L	G	I	D	P	R	S	V	G	G	Y	N	L	G	E	H
UniRef90_V4ILR5	S	M	M	R	L	D	H	N	R	S	L	S	Q	L	A	A	E	K	T	G	S	H	S	T	K	V	E	K	M	V	W	G	N
UniRef90_C1E918	A	L	T	R	L	D	E	N	R	A	K	C	Q	L	A	A	L	K	A	G	V	F	Y	E	T	T	N	V	T	I	W	G	N
UniRef90_UPI000348458D	S</																																

UniRef90_UPI0004560059 I L G G H S G V T I V P L I S Q S Q P S 220 D V S Q E K I E Q L T N R I Q F G G D E 240
UniRef90_UPI0002490D6B W S T F S V S G R S M N D I H D D Y Q L N F E K L E M T A K Q Q A W S
UniRef90_UPI0003D75E20 V N H A T V T T S K G E K P V R E A V A D D N W L N T E F I T T V Q Q R G A A I
UniRef90_M5U157 Y S V A T M T G G E K F F P S E T I R R L F Q E T V N L G Y E
UniRef90_F8A034 L T H A T V R G V P A T S L V D P A W V Q D T F I P T V A R R G A A I
UniRef90_J4H3G6 L F S Q S S Y G K A V T G E V Y K K L V H R V Q F G G D E
UniRef90_H3G2J3 V S H A K V N K N G S E V D A V S A V G D S A W L Q S G F I S T V Q K R G A A I
UniRef90_A1K5Q9 Y R F V K S N G D S V K D L I N D A A W N K D V F L P T V G K R G A A I
UniRef90_L0DA29 Y K N A K I G G A P A T T V I T D P T W F T E Q Y I P G V A K R G S A V
UniRef90_P17505 L I S Q T N H K L M S D D K R H E L I H R I Q F G G D E
UniRef90_F8GE84 L I S H A T V G N D K V A S L I G D T A W I E N H F I P T V Q K R G T A I I
UniRef90_Q8H0P9 V N H G T A G G K P I R E A I G D D A Y L D G E F I A T V Q Q R G A A I
UniRef90_F3LEC4 I H H T A V D G K Q A M S L I D Q A W Y E G D F I P T V Q Q R G A A I
UniRef90_M4ZX24 L S H C E V A G K N A L E L V G D Q E W Y A N E Y I P T V A K R G A A I
UniRef90_B6JYT4 L L S Q S G V Q L S E K E R D E I V H R I Q F G G D E
UniRef90_X8IVG1 L L S Q A T P S L P N G T T Q P E I E A L T K R I Q F G G D E
UniRef90_M7YNY2 L L S Q V S P P C S F T P D E I S Y L T N R I Q N G G T E
UniRef90_B4LR03 A S Q G K V L I N N E W K S V A D A L G D N A Y L E G Q F I D T V Q K R G A A I
UniRef90_C7MV61 I F N A E V K G E N A A Q A V N D Q Q W L E N E F I P R V A K R G A A I
UniRef90_X0QDR0 W S T V R V L G Q P I T K V A E R N I D L A K L D E V A R A G G Y T
UniRef90_V4ILR5 I S H A T V D G K P V I G Q V D N Q W Y V D T F I P T V Q Q R G A A I
UniRef90_C1E918 F V N A Q I G G E K A M D V I D D N G W L E N D F T P A I Q T R G G L L
UniRef90_UPI000348458D F R F A T V K G A S L Q Q M L N D E A W N R T V F I P T V A Q R G T A V I
UniRef90_UPI0003F68B16 L S G C L V A G K P A L E V V N D T A W V R E T F I P T V A K R G G A I
UniRef90_V5FRV8 I G G H S G A T I L P L Y S Q A H P A V D L H D E Q L A P I I H R V Q F G G D E
UniRef90_F0SGB9 F Y Q A R I D G K P V T D V I S D Q A W L Q G E F I E T V Q K R G A A V
UniRef90_E9C218 V N H G E V E V G G Q R K K I K D V I A D E A W L H G D F I K T V Q S R G G A I
UniRef90_UPI00047E3EDC L F H A E V N G K N A A E A V G D Q W L E N T F I P T V A K R G A A I
UniRef90_UPI00037E5090 L H Q A T I L D R A A M D Q I S F D W Y T Q E Y I P K I Q F R G G E I
UniRef90_F2DZ74 L A W A T V K G K R A L D L V G E E W Y T K T F I P R V I Q K R G A A I
UniRef90_H3NUK0 L F N A R I K G Q S A I E L V D Q A W Y E N D F I P T V Q Q R G A A I
UniRef90_F5RA33 Y R F A T S N G D S V A K L V N D Q E W N A K T F L P T V G K R G A A I
UniRef90_A5G320 Y R F A E A G G R K L A E A I N D E A W N R D V F I P T V G K R G A A V
UniRef90_Q4A0K7 W S K V H I H G M E L S E F E A L S D R P A I D K S H I S S I I N E V S M D
UniRef90_A5DGY9 S G E T I V P L Y S L I G N S K K Y L D K L S E E Q Q K E L I H R V Q F G G D E
UniRef90_E1SLM1 L L S Q V E G V S F T D E E I A S L T H R I Q N A G T E
UniRef90_R1CB91 L L S Q V P G A S S L P A D V L D A L T V R I Q F G G D E
UniRef90_UPI00047DA8E3 Y R F A T V N G K G V K D L I N D Q V W N A D V F L P T V G K R G A A I
UniRef90_T1KQT4 L L S R V T P S V S F D K D H I D A L T K R I Q K D A G T E
UniRef90_Q4PP81 A S H A I V N D D A S V P I A V N D D A W L N G V F V E T I Q K R G A A I
UniRef90_T0C4U3 F Y N A K I S G K S A A E V I S D E E Y L Q G E F I S T V Q K R G A A I
UniRef90_S8FKK1 L F S Q S S H A L P A G Y A A A D L E A L T K R V I Q F G G D E
UniRef90_A0A023FCF4 A Q N A T V T I N G V E K S V S E V L K D K A W L Q T E F V A T V Q N R G G A V
UniRef90_C2GK21 L T N A T V N G E S V M D K I D Q D W Y T G E F I P K V A G R G G A I
UniRef90_A0A022QUV0 F L N A K I D G S P V K E V I K D T N W L E E E F T E K V Q T R G G V L
UniRef90_F0J9X5 A S H A S V K L N G Q N V K V T E A I K D E A Y F Q G E F L T T V Q K R G A A V
UniRef90_G8BJ12 A S P T T I C G V N L L D I I K A N G K G I T A E E W K K L Q E E V T Q G G A K
UniRef90_H1Q466 I T Y A T V I G G E K V S D L V D H D W Y V N E F I P R V A K R G A A I
UniRef90_Q8FN62 F V N A R I G G L P A P D V I R D M K W F R E E F T P K V A L R G G A L
UniRef90_Q9FNS5 L L S I A L G D E K I T N D Q Q E L T T H R I Q K R G G D D
UniRef90_S9WTV3 A W H G K V N K D G A E V A A S A A C N D N A W L K S D F I T T V Q K R G A A V
UniRef90_E4WX88 L F S K A E P P V E I P A D K L E A L T T R V I Q F G G D E
UniRef90_M2YWQ3 V N H A T V T N S G E K P V R E L V V D D N W L N N E F I T T V Q Q R G A A I
UniRef90_C6TNA8 W S T V R V N G S A V D E S I N G H H L D E S Q L K I Q A D L S W Y
UniRef90_C8P9X5 F L N A K I L G R P V K E T I T D I K W L E V E F T E M V Q K R G G V L
UniRef90_A9NX63 I T Y A T V G G E K V T D L V D H D W Y V E E F I P R V I A N R G A E
UniRef90_A4QGA0 W S R A F I G G R P I L S Y I M D D P D H Y S F E K L E I V K Q M Q E L P N E
UniRef90_W7DLF4 W S G R D G V L I S P S S Q A Q L S S R A M E
UniRef90_Q3U1V6 G S A V E I A G R K L S D I V G T A E F P E E E W A Q M R K D V T Q G G A A I
UniRef90_L1M919 Y K N A T I S G K P A A D V I G D L A Y L Q S E F T S T V A K R G A A I
UniRef90_A6DLK9 L D H A E I R G R L V R D I L P D Q D W V E N T F I P S V Q K R G A A V
UniRef90_D9SFQ9 L Y H T E V G G K I A A E Q V E E S W L R D T F I P T V A K R G A A I
UniRef90_F4CMX6 A R N A S V E V N G V T K S V P E A V A N D E F L K Q E F L E T V Q K R G A A V
UniRef90_X1YD3 L F H A E I D G A P A T A L T D D S T W L T D D F I P T V A T R G A A I
UniRef90_D1BB08 I R H A T V A G R P A L E M V G T E W A E G V F I E T V A Q R G G A I
UniRef90_G7H0Y9 Y R F A T V N G S V Q E L I G D A Q W N T E H F F I E T V A K R G A A I
UniRef90_V7FQ7 F Y H A K I N G K P A T D I I T D I H W L Q N D F I P I V I Q K R G A E
UniRef90_K2B930 F Y N A R I D G R H V T E V I P D V H W L Q N D F I S T V Q Q R G A S I
UniRef90_B4D4R8 I R Y A T I E G E R A S D L V D A A W Y K E T Y I P S V A K R G A A
UniRef90_L0GSY7 I S H T T I G G K P A K S L V S Q E W I E K D F I P V V I Q Q R G A A I
UniRef90_I7ZH7 I L S Q A Q P V S L D G Q T L A G V I N R V I Q F G G D E
UniRef90_B6HMM3 F S H A F P P H K L S A D A V R Q L D E R I Q N A G T E
UniRef90_C5KJW7 F S G L E D E V P T D L R E E I L I K M R G A S M P
UniRef90_E1RJ09 L R H A E A F G L P I F P G L D L D W V E N S F P R V Q K R G A E V
UniRef90_UPI000362BE6F L S Q A T V N G L K L E F T Q E Q I E Q L T H R I Q N A G T E V
UniRef90_M4XJP7 V H A V A D I G K I E K K V Y D A V A N D E Y L K N D F V S I I Q K R G A A V
UniRef90_T1JGE8 I F S Q Q P P F E G D E K C I A A I V K R I Q T G G D E
UniRef90_B5DLR8 W S Q V T V K G Q P
UniRef90_S8JHH8 F V H A K I S G K G V T D V I K D E A W L K G D F I S S V Q Q R G A A I
UniRef90_B9XQ90 L L S Q S N H P D I S G T V R D E L V N R I Q F G G D E
UniRef90_G3Y094 L T H A T V K G Q P V T E L L A D R A W V E E D F I P T V A K R G A A I
UniRef90_C0W8W1 V K H A T I Q T A S G E Q S V Y D A V N N S N Y L Q T D F V T A I Q K R G A A V
UniRef90_V5SI03 L S F T T V N G Q W A M N L I N D E K W L T E D F I P K V Q Q R G A A I
UniRef90_D2V4P7 V E Y A T V G D D K V A E L V D R E W Y E G E F I P R V A K R G A E I
UniRef90_UPI000406CAE6 A S N A V V K I S G V E K P V P A A I N D D E Y L K S L F V S T V Q K R G A A V
UniRef90_D8VJD0 I T Y A T V D G K P V P E A V D N D W Y V N E F I P R V I A K R G S E
UniRef90_UPI00036BBC39 I F H A R V G E R T G A E L A E D R A W L I D D F I P T V A K R G T S I
UniRef90_K6W9P9 I T Y A T I G G E A I S G L V D H D W Y T G E F I P R V A K R G A E
UniRef90_P61974 W S H S A V Y G S A I A D V Y Q K H T G K A L D R D L A D K V R K L G F E
UniRef90_K6KBV8 L F S S L P G Y S K L S D A E V D A L V H R V Q Y G G D E
UniRef90_W6MY07 Y K Y V G V I G V P L V F N H M M T R T L E K T N K Y D E F I N R V Q Y G G D E
UniRef90_Q6FL22

UniRef90_UPI0004560059	V	F	K	A	K	D	S	A	T	L	S	M	A	Y	A	G	A	R	F	A	A	V	L	S	K	K	L	E	T	T	E	Q	A	Y	V	V	H	L	S	A	D	250	
UniRef90_UPI0002490D6B	S	F	V	S	G	R	G	Y	T	N	F	S	V	A	T	C	T	V	K	L	I	A	V	L	S	D	E	R	L	T	V	M	P	V	A	V	V	H	L	S	260		
UniRef90_UPI0003D75E20	I	F	K	A	R	K	L	S	S	A	L	S	A	A	S	S	A	C	D	H	I	R	D	W	V	L	G	T	P	K	G	T	W	V	S	V	Y	S	D	G	S		
UniRef90_M5U157	V	I	E	N	A	R	K	G	Y	T	N	Y	G	L	A	A	N	A	T	M	T	I	V	D	S	I	V	Y	D	L	R	H	T	M	P	V	S	V	M	V	D	D	F
UniRef90_F8A034	I	E	A	R	G	S	S	A	A	S	A	A	A	N	A	A	T	D	H	V	H	T	R	D	W	V	K	G	T	R	D	G	D	W	T	S	A	A	I	D	G	S	
UniRef90_J4H3G6	V	V	Q	A	K	G	S	S	A	T	L	S	M	A	F	A	A	G	A	K	F	A	G	A	L	R	G	I	A	G	E	K	G	V	I	T	P	T	F	V	R		
UniRef90_H3G2J3	I	E	E	R	R	K	L	S	S	A	M	S	A	A	K	A	A	C	D	H	I	H	D	W	Y	K	G	T	P	A	G	S	F	V	S	V	P	S	D	G	S		
UniRef90_A1K5Q9	I	E	A	R	G	L	S	S	A	A	S	A	A	N	A	A	A	D	H	I	R	D	W	V	L	G	S	N	G	E	W	T	M	G	I	P	S	D	G	S			
UniRef90_L0DA29	I	K	A	R	G	A	S	S	A	A	S	A	A	N	A	A	L	D	S	V	R	S	L	S	T	P	S	K	G	D	D	W	F	S	T	G	V	D	G	S			
UniRef90_P17505	V	V	K	A	K	N	S	A	T	L	S	M	A	H	A	G	A	K	F	A	N	A	V	L	K	G	E	R	D	V	I	E	P	S	F	V	D	S	P	L			
UniRef90_F8GE84	E	A	R	R	G	K	S	S	A	A	S	A	N	A	I	T	I	N	H	M	Q	S	V	L	K	G	E	R	P	E	D	D	W	V	S	F	V	P	S	N	G	C	
UniRef90_Q8H0P9	I	A	A	R	K	L	S	S	A	L	S	A	A	S	S	V	C	D	H	I	R	D	W	V	N	G	T	P	P	E	G	T	W	V	S	M	G	V	E	A	A		
UniRef90_F3LEC4	I	A	A	R	G	A	S	S	A	A	S	A	A	N	A	A	I	F	H	M	R	D	W	A	L	G	T	P	E	G	D	W	T	S	V	Y	S	D	G	S			
UniRef90_M4ZX24	I	D	A	R	G	S	S	A	A	S	A	A	S	A	A	V	D	H	I	R	D	W	T	L	G	T	P	D	G	D	W	V	S	V	P	S	D	G	S				
UniRef90_B6JYT4	V	V	K	A	K	G	S	A	T	L	S	M	A	Y	A	G	A	R	M	T	N	A	V	L	R	G	L	S	G	E	V	G	V	T	E	C	A	Y	V	E			
UniRef90_X8IVG1	V	V	K	A	K	D	S	A	T	L	S	M	A	Y	A	A	A	E	F	T	T	A	V	L	K	G	L	K	G	E	N	V	I	T	A	D	P	E	G	G			
UniRef90_M7YN2	V	V	E	A																																							
UniRef90_B4LR03	I	A	A	R	K	M	S	S	A	M	S	A	A	K	A	A	C	D	H	M	H	D	W	W	N	G	T	A	P	G	K	F	V	S	V	F	S	D	G	S			
UniRef90_C7MV61	I	E	V	I	R	G	A	S	S	A	A	S	A																														

UniRef90_UPI0004560059	S	N	G	N	D	T	P	Y	F	S	V	P	L	E	L	G	L	P	N	G	V	E	K	L	M	V	L	K	V	N	E	Y	Q	G	L	I	K	K	A	V								
UniRef90_UPI0002490D6B																																																
UniRef90_UPI0003D75E20	Y	G	I	P	E	G	L	I	Y	S	F	P	V	T	C	G	K	G	E	W	S	T	L	V	K	L	K	V	L	T	D	D	F	E	R	A	S	K	M	D	A	T	A					
UniRef90_M5U157	L	G	V	P	N	D	V	C	L	S	S	F	P	A	V	I	G	R	Q	G	W	T	R	V	L	H	P	P	L	S	D	D	D	S	E	A	E	S	F	R	K	C	A					
UniRef90_F8A034	Y	G	V	P	E	G	L	V	S	S	F	P	V	T	A	S	G	G	E	W	S	T	L	V	K	L	K	V	L	T	D	D	D	S	E	A	E	S	F	R	K	C	A					
UniRef90_J4H3G6	Y	L	D	Q	G	V	E	E	Y	F	S	F	P	V	E	L	G	P	N	G	E	W	E	K	I	H	P	V	L	E	D	A	A	E	E	E	E	E	E	L	K	V	A	L				
UniRef90_H3G2J3	Y	G	I	P	E	G	L	I	F	S	F	P	V	T	L	S	N	G	E	W	K	I	V	Q	Q	G	L	E	L	I	D	A	A	E	E	E	E	E	E	L	K	V	A	L				
UniRef90_A1K5Q9	Y	G	I	P	E	G	V	I	Y	G	F	P	V	T	T	E	N	G	E	Y	K	I	V	Q	Q	G	L	E	L	I	D	A	A	E	E	E	E	E	E	L	K	V	A	L				
UniRef90_L0DA29	Y	G	I	P	A	G	L	I	Y	S	F	P	M	I	S	S	D	G	G	R	W	S	I	V	P	L	E	L	I	D	D	E	E	E	A	E	E	E	E	E	L	K	V	A	L			
UniRef90_P17505	F	K	S	E	G	I	E	F	F	A	S	F	P	V	T	L	G	P	D	G	I	E	K	I	H	P	V	L	E	L	I	D	S	S	E	E	E	E	E	E	E	L	K	V	A	L		
UniRef90_F8GE84	Y	D	I	P	R	G	V	I	F	S	Y	P	V	T	C	K	N	G	Q	Y	K	I	V	E	G	L	E	L	I	D	T	P	S	E	E	E	E	E	E	E	E	L	K	V	A	L		
UniRef90_Q8H0P9	Y	G	V	E	E	G	L	M	Y	S	F	P	V	T	C	V	D	G	K	W	S	I	V	Q	Q	G	L	E	L	I	D	E	R	S	S	R	A	E	E	E	E	E	L	K	V	A	L	
UniRef90_F3LEC4	Y	G	I	P	E	G	L	I	Y	S	F	P	V	T	C	C	K	N	G	D	W	E	I	V	Q	Q	G	L	E	L	I	D	N	D	F	S	E	E	E	E	E	E	E	L	K	V	A	L
UniRef90_M4ZX24	Y	G	V	P	E	G	L	I	S	S	F	P	C	V	C	K	N	G	D	N	Y	E	I	V	Q	Q	G	L	E	L	I	D	N	D	F	S	E	E	E	E	E	E	E	L	K	V	A	L
UniRef90_B6JYT4	Y	T	D	Q	G	V	D	F	F	S	S	R	V	T	L	G	K	E	G	A	E	D	I	H	P	V	L	E	L	I	D	N	D	F	S	E	E	E	E	E	E	E	E	L	K	V	A	L
UniRef90_X8IVG1	K	A	L	Q	S	E	I	Y	F	S	T	R	I	K	L	G	P	N	G	E	W	E	K	I	L	P	L	E	L	I	D	S	E	E	E	E	E	E	E	E	E	E	E	L	K	V	A	L
UniRef90_M7YNY2	S	E	V	I	L	E	P	F	F	A	S	T	K	V	R	L	G	R	G	A	E	E	I	L	P	L	E	L	I	D	S	E	E	E														

UniRef90_UPI0004560059	A D L
UniRef90_UPI0002490D6B	N F I K Q K I E S L
UniRef90_UPI0003D75E20	E E L A E E
UniRef90_M5U157	A K V R R T I D M V Q
UniRef90_F8A034	S E L V E E R D A V H A L
UniRef90_J4H3G6	T G L K Q N I E
UniRef90_H3G2J3	K E L L E E R D E
UniRef90_A1K5Q9	N E L L E E R E G V K D L
UniRef90_L0DA29	K E L Q A E R E A V K D L
UniRef90_P17505	E T L K K N I E
UniRef90_F8GE84	Q E L I A E Q E A I K H L
UniRef90_Q8H0P9	A E L K E E K A M A E E L
UniRef90_F3LEC4	Q E L A E E R D A V A H L
UniRef90_M4ZX24	A E L V G E R D A V T E L
UniRef90_B6JYT4	Q N L K K S I K
UniRef90_X8IVG1	P E L K D N I
UniRef90_M7YNY2	K E L S E I Q K G V
UniRef90_B4LR03	K E L Q E E K N E
UniRef90_C7MV61	A E L S E E R E A V R K L
UniRef90_X0QDR0	D Y I R
UniRef90_V4ILR5	H E L K G E R D A V A H L
UniRef90_C1E918	E E L T K E A E C V S H L
UniRef90_UPI000348458D	Q E L L E E Q N G V K H L
UniRef90_UPI0003F68B16	E E L I S E R E A V K
UniRef90_V5FRV8	R D L K T N I
UniRef90_F0SGB9	Q E L R D E R D A V K D L
UniRef90_E9C218	D E L V S E R E D
UniRef90_UPI00047E3EDC	A E L S E E R D T V K K L
UniRef90_UPI00037E5090	G E L L E E K A M V E H L
UniRef90_F2DZ74	N E L L E E R K A I E D L
UniRef90_H3NUK0	Q E L S E E R D A V R H L
UniRef90_F5RA33	A E L E E E R A G V A D L
UniRef90_A5G320	N E L K E E R E A I A H L
UniRef90_Q4A0K7	E Y I R Q T I
UniRef90_A5DGY9	D Q L S K N I E
UniRef90_E1SLM1	E T L
UniRef90_R1CB91	L L P D L Q K Q I
UniRef90_UPI00047DA8E3	K E L L D E Q A G V A H L
UniRef90_T1KQT4	P E L K A S I K K G Q E
UniRef90_Q4PP81	K E L E D E R T E
UniRef90_T0C4U3	E E L R T E R N T V K E L
UniRef90_S8FKK1	P E L
UniRef90_A0A023FCF4	A E L E D E K K A A S D I
UniRef90_C2GK21	E E L D S E R A T V R E
UniRef90_A0A022QUV0	A E L L A E K K C V A H L
UniRef90_F0J9X5	K E L V E E R D
UniRef90_G8BJ12	K G L K G S I D Q
UniRef90_H1Q466	A H L Q G L R D Q V I S L
UniRef90_Q8FN62	E E L Q G E R E A V K D L
UniRef90_Q9FNS5	D E L Q K E K E C V S H L
UniRef90_S9WTW3	P D L E
UniRef90_E4WX88	D E L S G E A K
UniRef90_M2YWQ3	E G L K G N I E
UniRef90_C6TNA8	Q E L I E E
UniRef90_C8P9X5	A A I S G Q L A A L N E L
UniRef90_A9NX63	A E L L A E K R C V A H L
UniRef90_A4QGA0	Q E L Q A E R E A V R D L
UniRef90_W7DLF4	K S I Q N A V Q A
UniRef90_Q3U1V6	S S I H A L Q Q Q L E
UniRef90_L1M919	E H L C K M R D E L V T L
UniRef90_A6DLK9	A E L E G E R E V I K G L
UniRef90_D9SFQ9	R E L M E E R E L V K H L
UniRef90_F4CMX6	A E L V E E R D A V K A L
UniRef90_X1YDY3	
UniRef90_D1BB08	K E L V E E R D A V R S L
UniRef90_G7H0Y9	A E L E E E R A A V Q A L
UniRef90_V7IFQ7	K E L E D E R A A V A H L
UniRef90_K2B930	D E L R K E K E M V K E L
UniRef90_B4D4R8	N E L K E E R E L V R E L
UniRef90_L0GSY7	E E L L E E R D G I
UniRef90_I7ZH7	T E L R E E R A A I E D L
UniRef90_B6HMM3	K E L K T N I A
UniRef90_C5KWJ7	K L V Q D I Q R G V
UniRef90_E1RJ09	E H L K T L
UniRef90_UPI000362BE6F	A E L L E E K A A V E H L
UniRef90_M4XJP7	P V L N D E I Q
UniRef90_T1JGE8	Q E L L E E
UniRef90_B5DLR8	D A L K K
UniRef90_S8JHH8	
UniRef90_B9XQ90	A E L K E E K S L V S D L
UniRef90_G3Y094	
UniRef90_C0W8W1	A E L L E E K H A V Q E M
UniRef90_V5SI03	
UniRef90_D2V4P7	K E L L D E K K I V E A L
UniRef90_UPI000406CAE6	E E L A G E R D A V A D L
UniRef90_D8VJD0	K E L
UniRef90_UPI00036BBC39	T E L E G E R D A V A D L
UniRef90_K6W9P9	A E L A D E R A A V G D L
UniRef90_P61974	T E L E E E R E A V K D L
UniRef90_K6KBV8	E V I K A S I A R L
UniRef90_W6MY07	G Q L
UniRef90_Q6FL22	Q E L E K N V N K G K D

1 10 20 30 40

UniRef90_S2ZCV8 P R I V T V T G A G N I G Y A L L F R I A
UniRef90_Q4FQU7 S M K Q P V R V A V T G A G N I S Y A M L F R I A
UniRef90_UPI000362CD90 A H A S Q A V K N I A V T G A G N I A Y S L L W R I A
UniRef90_UPI000330DD23 T L A H M V L
UniRef90_A0A024JD63 K A V V A G A G G I G Q P L S L L L K
UniRef90_W5EJL1 P I L D Q K T N S W K K L V N V S V T G A T G M I S N H L L Q
UniRef90_T0RJL6 K R V K V A V T G A G Q I G Y A I L F R I A
UniRef90_B6RB90 I A K N A F S T S A K T D A K V A V L G A G G I G Q P L S L L L K
UniRef90_A5DE02 K V T V C G A G G I G Q P L S L L L K
UniRef90_UPI00047B0F30 M K T P A H I A V T G A G Q I S Y A L L F R I A
UniRef90_A3Y861 I A V T G A G G I S S S L L F R L A
UniRef90_A0A022LLA0 S S T A P V T V T V T G A A G K I A Y S L L F R L A
UniRef90_UPI00037E2BBA T V A P K K V V V T G A G Q I A Y Q L L F R I A
UniRef90_UPI0004727FF0 K V G I I G A G N I G S A L L A S L L M
UniRef90_Q01DD4 T T S E Y K V A V L G A G G I G Q S L S L L L K
UniRef90_UPI0003B70E2E V T V T G A G N I G Y A L L F A M L
UniRef90_A0C0W6 V C V T G A G Q I A Y S F I P L L L
UniRef90_B4RCG7 A S K P P I R V A V T G A G N I G Y A L L F R I A
UniRef90_C0ZZ60 V T V T G A G Q I A Y G M L F R I A
UniRef90_F8P9R9 K A V V L G A G G I G Q P L S L L L K
UniRef90_E9EKP2 K
UniRef90_UPI000359DDEE P L R V V V T G A A G Q I A Y S L L F S V A
UniRef90_Q5ENS5 P R A K E P R K T G E F K V C V C G A G G I G Q P L C L L M A
UniRef90_W5EVZ9 M K K P V K V A I T G A G Q I A Y S L I F S M L
UniRef90_UPI0003B31073 V T V T G A G Q I G Y A L L F R I A
UniRef90_UPI00038143B2 G Y V L A F R I A
UniRef90_Q9GSF6 N L Q V S V V G A G G I G Q A L S L L L K
UniRef90_B4MY57 T K T P L R V A V S G A G Q I C Y S L L F R I A
UniRef90_UPI0003B50202 K K K K I V V I G R S N L Q N L Y I H T V L
UniRef90_F3YKQ0 S T S P A V V T V T G A G S I G Y A S V F R I A
UniRef90_L7KV59 M T Q P K R I A V T G A G Q I C Y S L L F R I A
UniRef90_UPI000378F6FF M K T P V R V A I T G A G Q I S Y S L I F R M L
UniRef90_UPI0004764FDB V T V T G A G Q V S Y S L L F R I A
UniRef90_G4YTB0 K I V V S G A G Q I A Y S L L P L I C
UniRef90_K5XPB2 K A V V L G A G G I G Q P L S L L L K
UniRef90_D4CZA9 G I G Q V G S P L S L L L K
UniRef90_A2FKC7 T S P A H V L I T G A A G Q I G Y V L S N W I A
UniRef90_A2DMN2 I L I T G A G Q I G Y A L T F R I A
UniRef90_G9KA08 S A Q K N A K V A V L G A G G I G Q P L A L L L K
UniRef90_UPI0003C4B05E S A Q S N A K V A V L G A G G I G Q P L F
UniRef90_UPI0003EAA57F N I A R G L S T S S Q N K V S V L G A G G I G Q P L S L L L K
UniRef90_V9KJA1 K V L V T G A G N I A Y S L F H Y I A
UniRef90_UPI0003F49727 K A C V C G A G G I G Q P L S L L L K
UniRef90_W9UUT7 R I A V T G A G A I S N N L L F K I A
UniRef90_UPI00045DE89F S N I A S L L I
UniRef90_S3YHE6 K V T I L G A G G V G Q P L S L L L K
UniRef90_G0WB63 K V C I T G A G Q I A Y S L I P S V A
UniRef90_Q9GQB5 P G F K V A I L G A G G I G Q S L S L L M K
UniRef90_A0A024TDC3 N V V V S G A A G Q V A Y S L L P L L L
UniRef90_U4UEM0 L Q K E T V I E Q E R R A L T G R S K I G Q P L C L M L K
UniRef90_B1ZRVS A M K P I R V A V T G A G Q I G Y A L L F R I A
UniRef90_R0HDB1 P G F K V A I L G A G G I G Q P L A M L M K
UniRef90_UPI0004541976 Q P P S P R V S F Q N H A K V A V L G A G G I G Q P L S L L L K
UniRef90_F0ZJ23 K A V V L G A G G I G Q P L S L L L K
UniRef90_L8WMD6 K I T L I G A G R V G K T L S L L L K
UniRef90_W5AHH1 K V T V C G A G G I G Q P L S L M F K
UniRef90_E0VNQ7 I L G S G Q V G S T Q K F S L Q
UniRef90_C4R911 N V L V V G G G T I G S T V A Y T L A
UniRef90_A0CVC4 V V V T V T G A G N I G Y A T L F R I A
UniRef90_B3KTM1 N V C V V G A A G G I G Q P L S L L L M
UniRef90_X0KXZ7 K A V V A G A G G I G Q P L S L L L K
UniRef90_L9X7P0 V A V T G A G N I G Y S A V F Q I A
UniRef90_K0YUS9 V A V I G A G G I G Q S L S L L L L
UniRef90_A4HA28 A G G I G Q A L A L L L K
UniRef90_H1W409 T L R P T L I A S R N F S T S K Q N N Y K V A V C G A G G I G Q P L S L L L K
UniRef90_D6ZCH6 I T L T G A G Q I G Y A A L F R I A
UniRef90_D0A0M1 V T V T G A G N I G Y A L L F A L L
UniRef90_Q9GSY1 P K A K S G P I R V V V T D A A G Q L A Y S L I F K I A
UniRef90_Q9L8F6 K P V V R V C I S G A G Q I C Y S V L F R I A
UniRef90_C3UTD0 V A V S G A G N I G Y N V L G R L A
UniRef90_UPI000262A97F M M N N R R V A V T G A G Q I G Y A L L F R I A
UniRef90_I7ECP2 Y K V A I L G A G G I G Q P L S L L V K
UniRef90_D7BK12 M E N D K K I V I V G S D D L A Y H F C F L S M
UniRef90_T1GJA6 P I R V L V T G A A G Q I A Y S L L L Y S I F
UniRef90_X1XNQ7 N K I T V V I G G G E L G I A C T L A I S
UniRef90_A0A059J8J7 F R R S P A A L K K A K V V L F G C N S V G Q P L S L L L K
UniRef90_C6LXC7 K I T V V I G A G G I G Q S L S L L L K
UniRef90_D4YP25
UniRef90_UPI000474F294
UniRef90_B9FUD5
UniRef90_U5SCA8
UniRef90_T1ARR1
UniRef90_U6DJ13
UniRef90_Q8IX04-3
UniRef90_W9IAP7
UniRef90_A4HAC1
UniRef90_S6ELL2
UniRef90_C7XW14

UniRef90_S2ZCV8
UniRef90_Q4FQU7
UniRef90_UPI000362CD90
UniRef90_UPI000330DD23
UniRef90_A0A024JD63
UniRef90_W5EJL1
UniRef90_T0RJL6
UniRef90_B6RB90
UniRef90_A5DE02
UniRef90_UPI00047B0F30
UniRef90_A3Y861
UniRef90_A0A022LLA0
UniRef90_UPI00037E2BBA
UniRef90_UPI0004727FF0
UniRef90_Q01DD4
UniRef90_UPI0003B70E2E
UniRef90_A0C0W6
UniRef90_B4RCG7
UniRef90_C0ZZ60
UniRef90_F8P9R9
UniRef90_E9EKP2
UniRef90_UPI000359DDEE
UniRef90_Q5ENS5
UniRef90_W5EVZ9
UniRef90_UPI0003B31073
UniRef90_UPI00038143B2
UniRef90_Q9GSF6
UniRef90_B4MY57
UniRef90_UPI0003B50202
UniRef90_F3YKQ0
UniRef90_L7KV59
UniRef90_UPI000378F6FF
UniRef90_K1YFQ9
UniRef90_UPI0004764FDB
UniRef90_G4YTB0
UniRef90_K5XPB2
UniRef90_D4CZA9
UniRef90_A2FKC7
UniRef90_A2DMN2
UniRef90_G9KA08
UniRef90_UPI0003C4B05E
UniRef90_UPI0003EAA57F
UniRef90_V9KJA1
UniRef90_UPI0003F49727
UniRef90_W9UUT7
UniRef90_UPI00045DE89F
UniRef90_S3YHE6
UniRef90_G0WB63
UniRef90_Q9GB5
UniRef90_G5BG62
UniRef90_W7BY50
UniRef90_B3H560
UniRef90_A0A024TDC3
UniRef90_U4UEM0
UniRef90_B1ZRV8
UniRef90_R0HDB1
UniRef90_UPI0004541976
UniRef90_F0ZJ23
UniRef90_L8WMD6
UniRef90_W5AHH1
UniRef90_E0VNQ7
UniRef90_C4R911
UniRef90_A0CVC4
UniRef90_B3KTM1
UniRef90_X0KXZ7
UniRef90_L9X7P0
UniRef90_K0YUS9
UniRef90_A4HA28
UniRef90_H1W409
UniRef90_D6ZCH6
UniRef90_D0A0M1
UniRef90_Q9GSY1
UniRef90_Q9L8F6
UniRef90_C3UTD0
UniRef90_UPI000262A97F
UniRef90_I7ECP2
UniRef90_D7BK12
UniRef90_T1GJA6
UniRef90_X1XNQ7
UniRef90_A0A059J8J7
UniRef90_C6LXC7
UniRef90_D4YP25
UniRef90_UPI000474F294
UniRef90_B9FUD5
UniRef90_U5SCA8
UniRef90_T1ARR1
UniRef90_U6DJJ3
UniRef90_Q8IX04-3
UniRef90_W9IAP7
UniRef90_A4HAC1
UniRef90_S6ELL2
UniRef90_C7XW14

50 60 70 80

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

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

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

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

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

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

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

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

		90	100	110	120																																					
UniRef90_S2ZCV8	D	V	N	R	A	F	Q	G	T	N	V	A	Y	L	V	G	A	M	P	R	R	K	G	M	E	R	A	D	L	L	E	A	N	A	G	I	F	G	P	Q		
UniRef90_Q4FQU7	D	A	T	V	A	F	K	D	V	D	Y	A	L	L	V	G	S	R	P	R	G	P	G	M	E	R	K	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_UPI000362CD90	D	L	A	T	A	F	D	G	V	S	A	A	F	L	V	G	A	K	P	R	T	K	G	Q	M	E	R	G	D	L	L	E	A	N	A	G	I	F	G	S	A	Q
UniRef90_UPI000330DD23	S	S	L	E	K	F	E	S	F	D	V	L	V	I	T	A	G	R	F	T	P	G	Q	M	S	R	G	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_A0A024JD63	E	D	G	L	K	T	A	G	A	D	I	V	V	I	P	A	G	I	P	R	K	P	G	M	T	R	D	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_W5EJL1	D	P	Y	V	I	F	E	D	A	D	W	A	L	L	I	G	A	K	P	R	G	P	G	M	E	R	A	G	I	V	D	I	N	A	G	I	F	G	A	E	Q	
UniRef90_T0RJL6	K	M	E	V	A	F	K	D	V	N	W	V	L	A	I	G	A	V	P	R	K	P	G	M	E	R	A	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_B6RB90	D	Q	K	E	V	S	G	A	Q	L	V	L	I	P	A	G	V	P	R	K	P	G	M	T	R	D	D	L	L	E	A	N	A	G	I	F	G	S	A	Q		
UniRef90_A5DE02	N	K	E	D	S	S	A	G	T	D	V	V	I	P	A	G	V	P	R	K	P	G	M	T	R	A	D	L	L	E	A	N	A	G	I	F	G	S	A	Q		
UniRef90_UPI00047B0F30	D	P	Y	V	A	F	E	N	V	D	L	A	F	L	I	G	A	K	P	R	G	P	G	M	E	R	K	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_A3Y861	N	P	E	E	G	F	N	G	A	D	Y	A	L	I	G	A	R	P	R	S	A	G	M	E	R	N	D	L	L	E	A	N	A	G	I	F	G	S	A	Q		
UniRef90_A0A022LLA0	D	A	T	A	A	F	D	G	A	N	A	A	F	L	V	G	A	M	P	R	G	K	G	M	E	R	S	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_UPI00037E2BBA	D	P	N	V	A	F	K	D	A	N	V	A	F	L	V	G	A	K	P	R	G	K	G	E	E	R	S	A	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_UPI0004727FF0	K	S	Y	E	I	I	R	N	F	D	I	L	V	I	T	A	G	V	A	R	K	L	D	Q	T	R	D	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_Q01DD4	D	Q	E	D	A	L	K	G	C	S	D	L	V	I	P	A	G	V	P	R	K	P	G	M	T	R	D	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_UPI0003B70E2E	D	P	N	Q	A	F	A	G	C	S	Y	G	L	V	I	G	A	R	P	R	S	K	G	M	E	R	A	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_A0C0W6	N	P	K	E	L	F	K	N	C	S	D	L	V	I	P	A	G	V	P	R	K	P	G	M	E	R	K	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_B4RCG7	D	A	N	V	A	F	K	D	A	N	W	C	L	V	I	G	A	K	P	R	G	P	G	M	E	R	A	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_C0ZZ60	D	P	D	V	A	F	S	G	A	N	V	G	M	L	V	I	G	A	R	P	R	S	K	G	M	E	R	A	D	L	L	E	A	N	A	G	I	F	G	S	A	Q
UniRef90_F8P9R9	D	D	G	L	K	K	A	G	A	N	I	I	V	I	P	A	G	I	P	R	K	P	G																			
UniRef90_E9EKP2	N	D	K	A	A	F	K	D	A	I	L	V	I	P	A	G	I	P	R	K	P	G	M	T	R	D	D	L	L	E	A	N	A	G	I	F	G	S	A	Q		
UniRef90_UPI000359DDEE	D	P	N	V	A	F	K	D	V	D	A	A	F	M	V	G	A	M	P	R	K	E	G	M	E	R	K	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_Q5ENS5	N	L	E	E	C	L	T	G	C	H	L	V	L	I	P	A	G	M	P	R	K	P	G	Q	T	R	D	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_W5EVZ9																																										
UniRef90_UPI0003B31073	D	P	M	T	A	F	E	G	T	D	Y	A	L	L	V	I	G	A	R	P	R	G	P	G	M	E	R	K	D	L	L	E	A	N	A	G	I	F	G	S	A	Q
UniRef90_UPI00038143B2	D	A	R	A	A	F	D	G	V	N	V	A	L	L	V	I	G	A	R	P	R	G	P	G	M	E	R	S	D	L	L	E	A	N	A	G	I	F	G	S	A	Q
UniRef90_Q9GSF6	D	P	N	V	A	F	K	D	A	D	V	V	F	L	V	I	G	S	F	P	R	K	D	G	M	D	R	A	D	L	L	E	A	N	A	G	I	F	G	S	A	Q
UniRef90_B4MY57	E	L	K	K	A	L	K	G	S	D	I	V	V	I	P	A	G	R	P	R	R	P	G	M	D	R	K	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_UPI0003B50202	D	P	N	T	A	F	R	D	I	D	A	A	L	L	V	I	G	S	R	P	R	S	K	G	M	E	R	R	D	L	L	E	A	N	A	G	I	F	G	S	A	Q
UniRef90_F3YKQ0	G	T	F	N	E	C	R	N	A	D	I	V	V	I	P	A	G	I	P	R	K	Q	E	E	M	S	N	Q	L	V	S	K	E	D	N	V	I	L	K	E	Q	
UniRef90_L7KV59	D	P	R	K	A	F	D	G	A	G	A	F	L	L	I	G	A	R	P	R	S	K	G	M	E	R	A	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_UPI000378F6FF	D	P	K	A	A	F	R	D	I	D	A	G	F	F	V	I	G	S	R	P	R	T	Q	G	M	E	R	R	D	L	L	E	A	N	A	G	I	F	G	S	A	Q
UniRef90_K1YFQ9	D	P	N	V	A	F	K	D	V	D	F	A	L	L	V	I	G	S	R	P	R	G	P	G	M	E	R	S	D	L	L	E	A	N	A	G	I	F	G	S	A	Q
UniRef90_UPI0004764FDB	S	P	A	E	A	F	A	G	A	N	W	G	L	L	V	I	G	A	S	P	R	K	A	G	M	E	R	G	D	L	L	E	A	N	A	G	I	F	G	S	A	Q
UniRef90_G4YTB0	N	L	E	T	A	F	K	D	A	D	V	A	L	L	V	I	G	G	F	P	R	K	Q	G	M	Q	R	K	D	L	L	E	A	N	A	G	I	F	G	S	A	Q
UniRef90_K5XPB2	N	D	G	K	T	L	K	G	A	D	V	V	I	P	A	G	V	P	R	K	P	G	E																			
UniRef90_D4CZA9	P	P	F	F	G	V	L	F	R	L	V	V	I	S	N	N	P	A	K	G	K	P	G	M	T	R	D	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_A2FKC7	E	P	E	K	A	F	K	D	I	D	C	A	F	L	V	A	S	M	P	L	K	P	G	Q	V	R	S	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_A2DMN2	K	V	E	E	A	F	K	G	V	D	V	A	F	L	V	I	G	S	F	P	R	K	D	G	M	D	R	S	D	L	L	E	A	N	A	G	I	F	G	S	A	Q
UniRef90_G9KA08	E	Q	L	P	D	C	K	G	C	D	V	V	V	I	P	A	G	V	P	R	K	P	G	M	T	R	D	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_UPI0003C4B05E	D	Q	L	C																																						
UniRef90_UPI0003EAA57F	Q	L	G	E	A	L	K	G	S	E	V	V	V	I	P	A	G	V	P	R	K	P	G	M	T	R	D	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_V9KJA1	R	E	E	I	A	F	T	D	L	D	V	A	L	L	I	G	S	I	P	H	A	G	M	L	K	K	D	L	L	E	A	N	A	G	I	F	G	S	A	Q		
UniRef90_UPI0003F49727	D	N	E	R	A	L	E	G	S	D	I	V	I	I	P	A	G	V	P	R	K	P	G	M	T	R	D	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_W9UUT7	N	V	E	E	G	F	E	N	I	H	Y	A	L	L	I	G	A	Y	P	R	G	P	G	M	E	R	R	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_UPI00045DE89F																																										
UniRef90_S3YHE6	T	D	Y	S	K	L	K	D	F	D	I	V	V	I	T	A	G	I	T	R	K	E	G	Q	S	R	E	E	L	A	K	I	N	A	G	I	F	G	S	A	Q	
UniRef90_G0WB63	D	L	E	K	A	L	K	G	A	N	L	V	I	I	P	A	G	V	P	R	R	P	G	M	S	R	D	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_Q9GQB5	D	P	L	V	A	F	D	N	V	A	L	L	V	I	P	A	G	V	P	R	K	E	G	M	E	R	K	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_G5BG62	Q	P	L	A	T	I	W	K	S	L	M	S	F	M	N	L	S	C	W	I	S	G	M	T	R	D	D	L	L	E	A	N	A	G	I	F	G	S	A	Q		
UniRef90_W7BY50																																										
UniRef90_B3H560	K	Q	L	E	D	A	T	G	M	D	L	V	I	I	P	A	G	I	P	R	K	P	G	M	T	R	D	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_A0A024TDC3	D	L	Q	T	A	F	Q	D	A	D	I	A	I	L	L	G	G	F	P	R	K	Q	G	M	E	R	K	E	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_U4UEM0	D	N	L	Q	L	A	L	K	H	K	I	V	A	L	L	M	A	G	A	P	G	A	D	L	P	Y	D	K	M	W	E	P	N	S	L	V	V	K	E	Q		
UniRef90_B1ZRV8	K	P	E	V	G	F	K	D	A	N	W	C	L	L	I	G	A	K	P	R	G	P	G	M	E	R	A	D	L	L	E	A	N	A	G	I	F	G	S	A	Q	
UniRef90_ROHDB1	Q	L	E	E</																																						

[illegible]

UniRef90_S2ZCV8	A	M	T	R	R	L	D	H	N	R	A	T	A	Q	L	A	H	K	T	G	A	N	A	D	I	K	D	V	V	V	W	G	N	H	S	A	D	Q	Y	P	D			
UniRef90_Q4FQ17	A	M	T	R	R	L	D	H	N	R	A	A	A	Q	L	A	A	G	K	T	G	A	N	D	T	V	N	D	V	K	K	M	I	W	G	N	H	S	A	T	Q	Y	P	D
UniRef90_UPI000362CD90	A	L	M	R	L	D	H	N	R	A	A	A	Q	L	A	Q	A	G	K	L	E	R	P	A	E	L	E	K	M	V	V	W	G	N	H	S	A	T	Q	F	P	D		
UniRef90_UPI000330DD23	M	A	G	V	L	D	E	G	R	M	A	Y	H	I	A	K	A	F	S	G	L	K	G	Q	S	V	R	P	C	Y	I	G	P	H	S	D	R	M	V	P	L			
UniRef90_A0A024JD63	G	V	T	T	L	D	V	V	R	A	S	T	F	T	A	S	V	V	G	K	N	P	S	K	F	T	I	P	V	I	G	G	H	S	G	E	T	I	V	P				
UniRef90_W5EJL1	A	L	T	R	L	D	E	N	R	A	K	F	Q	L	A	L	Q	A	G	V	F	Y	D	K	V	S	N	M	I	P	V	W	G	N	H	S	A	T	Q	Y	P	D		
UniRef90_T0RJL6	A	M	T	T	L	D	E	N	R	A	K	T	Q	L	A	Q	K	A	G	V	D	V	T	E	V	T	N	M	I	P	V	W	G	N	H	S	A	G	A	T	Q	Y	P	
UniRef90_B6RB90	G	V	T	T	L	D	V	V	R	A	N	T	S	I	A	E	A	K	G	L	D	V	A	K	V	N	V	P	V	I	T	G	G	H	A	G	A	T	I	P				
UniRef90_A5DE02	G	V	T	T	L	D	S	V	R	A	E	T	F	L	G	E	L	T	G	Q	S	P	S	A	I	R	G	H	L	S	V	I	G	G	H	S	G	D	T	I	P			
UniRef90_UPI00047B0F30	A	M	T	R	L	D	H	N	R	A	V	S	Q	L	A	L	H	C	G	C	S	V	N	D	I	R	V	I	I	W	G	N	H	S	A	T	Q	Y	P	D				
UniRef90_A3Y861	A	L	T	R	L	D	H	N	R	T	K	G	L	V	A	K	H	L	E	T	A	E	A	E	N	V	I	I	W	G	N	H	S	A	T	Q	Y	P	D					
UniRef90_A0A022LLA0	A	L	M	R	L	D	H	N	R	A	L	S	Q	L	A	T	R	L	G	A	V	P	V	A	E	D	G	V	V	V	W	G	N	H	S	A	T	Q	F	P	D			
UniRef90_UPI00037E2BBA	A	M	M	R	L	D	H	N	R	A	I	S	Q	L	A	K	K	L	G	R	D	V	T	D	F	Q	V	V	A	V	W	G	N	H	S	A	T	Q	F	A	D			
UniRef90_UPI0004727FF0	M	A	G	E	L	D	S	A	R	A	N	L	N	L	A	K	K	E	Q	I	S	P	L	K	D	S	A	Y	V	L	G	T	H	D	E	M	I	V	P					
UniRef90_Q01DD4	G	V	T	T	L	D	I	V	R	S	N	T	F	V	A	E	A	K	G	L	D	I	N	D	V	D	V	P	V	I	G	G	H	A	G	I	T	I	L	P				
UniRef90_UPI0003B70E2E	A	M	M	R	L	D	H	N	R	A	T	S	Q	L	A	E	K	T	G	A	V	K	D	I	K	K	M	I	W	G	N	H	S	A	D	Q	Y	P	D					
UniRef90_A0C0W6	C	L	T	R	L	D	Q	N	R	A	Y	A	S	Q	L	A	L	A	N	K	P	L	S	N	K	N	I	I	W	G	N	H	S	A	T	Q	Y	P	S					
UniRef90_B4RCG7	A	M	V	R	L	D	E	N	R	G	R	A	Q	L	A	K	K	A	G	V	S	I	N	D	V	S	E	F	I	Y	G	N	H	S	A	P	T	M	F	A	D			

UniRef90_S2ZCV8 V S F A K V A G K P A T E L V D E E W L S S Y R P T V A K R G A A I 210 220 230 240
UniRef90_Q4FQU7 L T A S T V N G K L A L D L V D R T W Y E G T Y I P E V Q Q R G A A I
UniRef90_UPI000362CD90 L S Y A T L A G E P V A D R V E G A W Y R E E F M P R V A K R G A E I
UniRef90_UPI000330DD23 Q A I K V G P G N L Q D I V K F S Q E K K N S I D Q N T R F G G G R
UniRef90_A0A024JD63 L L S L T T P K V E I P A D K L D A L V N R I Q F G G D E
UniRef90_W5EJL1 F L N A K I S G R P V K E V I K D T K W L E E D F T I T V Q K R G G V L
UniRef90_T0RJL6 F Y N A K I G G K K A H E V I T D E A W L Q G E F I K T V Q Q R G A A I A A R
UniRef90_B6RB90 I I S Q T P P V S F P A E E R D K M T T R I Q N A G T E
UniRef90_A5DE02 L S A L V P L I N V D S T I S S A V S Q W S P S Q Y Q A Y V K R V Q F G G D E
UniRef90_UPI00047B0F30 L H H A L V R G K P A L D Q I E W D W Y E K E F I P T V Q N R G A V V
UniRef90_A3Y861 L N Q A Q A G K S V L N Q I D E S Y Y H H E L I P K I Q Q R G S E I
UniRef90_A0A022LLA0 V S Y L T R A G E P V T A G L G R D W L A D T F I P R V A N R G S E
UniRef90_UPI00037E2BBA V S Y A T V G G E K V S G L V E E A W L R D E F E P R V A K R G A E I
UniRef90_UPI0004727FF0 L L S Q T Y P K C E F T S D E I E K L T V R I Q N A G T E
UniRef90_Q01DD4 L T F A T V D G K P A P G L V D E A W L D D Y F V P T V A K R G A E I
UniRef90_UPI0003B70E2E I E H A T A D G Q S F V L P D Q G Q F I E R I Q K R G A E I
UniRef90_A0C0W6 F T H A K I G G K A A A D V I N D R A W L E N E Y I P T V G K R G A A I
UniRef90_B4RCG7 L S H A T V A G E P A L D Q I N D R D W V E N D F I P T V Q V R G T A I
UniRef90_COZZ60 V P L L S Q S S H P I P S S V A S S D I D A L I N R I Q F G G D E
UniRef90_F8P9R9 V G G H S G E T I V P L F S K A N P A V N I P A D K Y D A L V N R V Q F G G D E
UniRef90_E9EKP2 V A H A K A E V Q G K V T V P E A V Q D D N F L K N E F I K T V Q Q R G A A V
UniRef90_UPI000359DDEE L F S Q D K H A K T I D A E K I P D L D K H V I Q D A G T D
UniRef90_Q5ENS5 L L S Q V S P P C S F T P D E I S Y L T N R I Q N G G T E
UniRef90_W5EVZ9 I S H C T I G G K K A T S L V D Q A W C E K D F I P V V Q Q R G A A I
UniRef90_UPI0003B31073 V T H A T V D G R P A T E L V D E R W L T D E Y I P R V A K R G A E I
UniRef90_UPI00038143B2 C S N A V Y D S P E G P E K K V S Q L L P D E A L K G E F V Q K I A T R G G A V
UniRef90_Q9GSF6 L F S Q S N P P F K G D S E K K E L I E R V I Q E G G S E
UniRef90_B4MY57 W T Y A T A Q G T S L A E R I S D E A W Y R D T L I P K V A Q R G S A I I
UniRef90_UPI0003B50202 W S R A F L G G K P I L S Y L A E E Q K R I S A E D L Q N L T K M I T K I P D F
UniRef90_F3YKQ0 I F H A R V G R R S G A D L A A D R E W L V D D F I P T V A R N R G T A I
UniRef90_L7KV59 W A N A T A E G R K L S E V I G D E A W Y K D T L I P T V A K R G T A I
UniRef90_UPI000378F6FF I S Y A K R I D G A S V K E K V D N D W Y V K E F I P T V Q Q R G A A I
UniRef90_K1YFQ9 A Y N A R I A G K P A A E V I N D P S W T D G P F I E T V Q K R G A A I
UniRef90_UPI0004764FDB V T Y A E V Q G Q P L D K V V S D K D W V E S K L V K D V Q E R G A A I
UniRef90_G4YTB0 H S G V T I V P L L S Q S S H P L P N L S T T E Y E A L V K R I Q F G G D E
UniRef90_K5XPB2 I G G H S G E T I V P V Y S L A K P A A E I P E N E Y S E I K R V I Q F G G D E
UniRef90_D4CZA9 L T N A T F T K D G K T Q K V S D V L D E K Y M Y D T F F K F I S H R A W D
UniRef90_A2FKC7 T T H A T V D L P E G T V K V A D K L P K E Y L E G E F A Q M I A T R G G A V
UniRef90_A2DMN2
UniRef90_G9KA08
UniRef90_UPI0003C4B05E L I S Q C T P K V E F P Q D Q L E T L A G R I Q E A G T E
UniRef90_UPI0003EAA57F L I S Q C T P K V E F P E D K L T A L T L R I Q E A G T E
UniRef90_V9KJA1 V N H A Y F I R K K K M S V T D G V G D S D W L Q G D F I R I I Q E R N T I
UniRef90_UPI0003F49727 L L S Q S K P A I P S D I L A D K E K R D A L V Y R I Q F G G D E
UniRef90_W9UUT7 L H H A T I L D E P A M Q Q I S E E W Y R S V Y I P K V Q Q R G G E I
UniRef90_UPI00045DE89F W S G Q E V M S H T S Q V Q L S N R A M E
UniRef90_S3YHE6 T S
UniRef90_G0WB63 G G H S G N T I V P V F L N K K L G E T L K M K K C Y D E F I H R V Q F G G D E
UniRef90_Q9GQB5 S R F A I V G A E K V P I T T V N N D P A A E L K T D F I K S V Q Q R G A S
UniRef90_G5BG62 L I S Q C T P K V D F P Q D Q L A T L T G R I Q E A G T E
UniRef90_W7BY50 W S R A Y I G G R P I L S Y M M D D P D R Y S F E K L Q P I V T Q M Q E L P S E
UniRef90_B3H560 L L S Q V K P S S F T P Q E I E Y L T N R I Q N G G T E
UniRef90_A0A024TDC3 A A H V V I Q M A D G S V A P L A D F L Q D P D W I D S S L R P L V Q N R G A A
UniRef90_U4UEM0 V L S Q A K P C A E F S N A E I E N T A S I R N A Q G N I A
UniRef90_B1ZRV8 F A H A T I N G K P A T S V I T D T A W L Q G P C E T V G R K R G A I
UniRef90_ROHDB1 L L S Q V K P P C S F T Q K E I E Y L T G R I Q N G G T E
UniRef90_UPI0004541976 L I S Q C T P K V D F P Q D Q L A T L T G R I Q E A G T E
UniRef90_F0ZJ23 V N H G Y I S N Y P L V S P I K S A V E D E K W L N E Q F I P L V Q N R G A A V
UniRef90_L8WMD6 L L S Q A R P S L P L F S Q A T P A S N A L S H E D L V A L T K R T Q D G G T E
UniRef90_W5AHH1 A G I T I L P L F S Q A T P A S N A L S H E D L V A L T K R T Q D G G T E
UniRef90_E0VNQ7 V I S Q M K P C C R I K R N E T L A L T E C I K R A E G N L S D C Q
UniRef90_C4R911 V F S Q S A P E V I Y K E L S D E Q K A A L V H R V I Q F G G D E
UniRef90_A0CVC4 M T H S I I N G K Q A S E T F S K D F L R N A L I Q Q V Q Q R G G Q L
UniRef90_B3KTM1 L I S Q C T P K V D F P Q D Q L T A L T G R F Q E A G T E V V K A K A G A G
UniRef90_X0KXZ7 W S S A S I G A V P I A D V Q M F N A L D R N R I E L I C K H R S Q S
UniRef90_L9X7P0 F S R A T V D G E P I S L S A D D R E A L D S V R S I P Y D
UniRef90_K0YUS9 I S F A T V G D K A A S E L V D E E W L D S Y F V P T V A K R G A A I
UniRef90_A4HA28 I F H Q L L G P L P A Q E V L D K M V K R V I Q V A G T E
UniRef90_H1W409 L F S Q V Q P S V S I P D D K Y D A L V N R V Q F G G D E
UniRef90_D6ZCH6 V F H A R A G Q L S G A Q L A E D R S W L A D E F I P T V A Q R G A A I
UniRef90_D0A0M1 L F S Q L P G P L P E E G E L T Q I R K R V I Q V A G T E
UniRef90_Q9GSY1 V E F A E I E L P E G T K K V T E C F E K S Y Y E G D F I A K I S T R G G A V I
UniRef90_Q9L8F6 L L S Q V E G V T F T D E E V A A L T K R I Q N A G T E
UniRef90_C3UTD0
UniRef90_UPI000262A97F L S H A T V R G D A A L A A V D P A W A R G A Y I E R V A Q R G A E I
UniRef90_I7ECP2 A S N A V V V G S E K S V P A A L N D N D Y L T N T F V S T V Q K R G A A V
UniRef90_D7BK12 V S N A T V A G K P A T E L V D E A W L A D Y F V P T V A K R G A A I
UniRef90_T1GJA6 V S N G T V K V N G A E K Q I V D A V N D S A Y L Q N V F V E T V Q K R G A A V
UniRef90_X1XNQ7 V F N A S V Q S C D S S T S V Y D V I K D T Q W L E D D F I K I Q T R E A A V
UniRef90_A0A059J8J7 L I S Q S N H P D I A G E A L D K L T N R I Q F G G D E
UniRef90_C6LXC7 V E C G V T Y D E D L K N K Q P V K P M L P A E W V K G E F V P C V R G R G A V
UniRef90_D4YP25 L T F A T V G G T P A L D V I D R D T W L D T I V P T V A T R G G A V
UniRef90_UPI000474F294 F Y N A K I N G L P A A T V I N D E A W L K D T F V S T V I Q Q R G A T
UniRef90_B9FUD5 T R R P S S R C C P R R G P K T A F T D E E V E A L T R R I Q N A G T E
UniRef90_U5SCA8 W S R S S V G N S L L G L T M D P T T N I N Q D D M F E I E E K I R K A Q N Q Q
UniRef90_T1ARR1 L H H A T V N G K P A L S L V D Q A W Y E K D F I P V V Q Q R G A A I
UniRef90_U6DJJ3 V S H A K V
UniRef90_Q8IX04-3 W S G Q
UniRef90_W9IAP7 L F S K A S P A V Q I I P E D K Y D T L V N R V I Q F G G D E
UniRef90_A4HAC1 L T A Q T G L R I P L F S D I T R I S G E V Q S Y G V P F E V I V G T G L H D S L
UniRef90_S6ELL2 G G H S G E T I V P L F S L V P G A S D L S K D T L K E L V H R V I Q Y G G D E
UniRef90_C7XW14 W S T V R V I N G Q T I D Q P I Y G K K L D D H E L T V I Q A K L I N G F Y

UniRef90_S2ZCV8 I E A R G A S S A A S A A N A A I D H M Y S W I H G T P E G E W V T A G V M S H
UniRef90_Q4FQU7 I E A R G A S S A A S A A N A A I A H M R T W V L G T D E N D W V S V Y S N G E
UniRef90_UPI000362CD90 I E V R G R S S A A S A A S A A I V D H M R D W V Q G S R G W A T A A V V I S D G S
UniRef90_UPI000330DD23 I I E K L K L K S G S Y G P A S A G C F R M I Q N L E L Q G E V L T C S I Q M E M I
UniRef90_A0A024JD63 V V K A K N G T L S M A Y A G A F A E K F A E A V L K G T G I V E P S Y V I L E G I
UniRef90_W5EJL1 I E K W G R S S A A S A T A V S I V D A M R S L V T P S S E G D W F S T A V Y N P
UniRef90_T0RJL6 G A S S A A S A A N A C V Q G V Y N L T H D T P A G E T F S M C L L S S K G Q
UniRef90_B6RB90 V V E A K
UniRef90_A5DE02 V V K A K N S A T L S M A Y A G Y R F A E T V L N S L P V P D S S Y V Y L P G K
UniRef90_UPI00047B0F30 I Q K R G K S S A A S A A N A A L E H M R N W L F G T P A G D D W T S M T V D G S
UniRef90_A3Y861 I K A R G H S S A A S A A Q A I D H M H D W A L G T Q N D D L V S T F S D G S
UniRef90_A0A022LLA0 I I V R G S S S A A S A A G A A V D Q M R D W V H G T P G E S W T T V A L D G Q
UniRef90_UPI00037E2BBA I E V R G S S S A A S A A S A A I D H M H D W C L G T P Q D N W V T A A L D G S
UniRef90_UPI0004727FF0 V V E A K G S A T L S M A Y A A A R M A E A C L R G L S G E P D V Y E C T Y V A
UniRef90_UPI0003B70E2E I E A R G A S S A A S A A S A A I D H M H T W A L G T P E G D W S T F P S H G E
UniRef90_A0C0W6 V L N A R G N S S A S A A N A V K D H I K D W F N G R E D T L S L G V I S N G E
UniRef90_B4RCG7 I E A R G Q S S A A S A A N A L I D H V R S L N T V G E V H S I A V N S E G R
UniRef90_C0ZZ60 I A A R G S S A A S A A S A S I D H V R D W V I G T A E D D W V S V C S D G S
UniRef90_F8P9R9 V V K A K D S A T L S M A F A G A E F A G K V I R A L N G E K G I V A P S Y V N
UniRef90_E9EKP2 V V K A K D S A T L S M A Y A G F R F A E K L L R A K G L V I E P S Y V Y L P G V
UniRef90_UPI000359DDEE I K A R K L S A M S A A K A C D H M R D W F I G T K G G N W V S I S D G S
UniRef90_Q5ENS5 V V N G K G S A T L S M A Y A G A R L D G K S V L A G L A G Q R R T E C A Y C K
UniRef90_W5EVZ9 V V E A K G S A T L S M A F A A A K F A D A C L R G M R G D A G I V I E C S Y V A
UniRef90_UPI0003B31073 K A R G L S S A A S A A S A A V D H M H D W A L G S N G K W V S M G V P S D G S
UniRef90_UPI00038143B2 I D V R G S S S A A S A A S A A I D H M H D W V N G T G D R W T S A A I V D G S
UniRef90_Q9GSF6 I K A R G A S S A A S A A N A A L A H M R D W C L G T K A G S W V S M A I D E P
UniRef90_B4MY57 V V K A K G S A T L S M A F A G A Q F V G S L I K G I K N E E P I V I E C A F V E
UniRef90_UPI0003B50202 E A R G A S S A A S A A N A A I D H L R D W V L G S G D R W V S M G L S S T G A
UniRef90_F3YKQ0 P F E N K D G C S F S T V T V L A E L T E V V L R D E A R V I T V G V E V K D A
UniRef90_L7KV59 L E A R G S S A A S A A N A T I D H V H D W V L G T P A D D W T S T A L P G V
UniRef90_UPI000378F6FF I E A R G A S S A A S A A N A A I D H M R D W I Q G S N G D W V M G I S S D G S
UniRef90_K1YFQ9 I K A R G A S S A A S A A S A A I D H M R D W T L G T G G G W V S M G V Y S N S
UniRef90_UPI0004764FDB I E A R G L S S A A S A A N A A I D S V R S V V N G T A A G D W T S V S K G E
UniRef90_G4YTB0 I K A R K L S A M S A A A A I G A H L R D W F N G S K D G E Y V S M A I C K N K
UniRef90_K5XPB2 V V Q A K G S A T L S M A Y A G A E F A N K V I K A F K G E K G L I A P S Y V S
UniRef90_D4CZ9 V V K A K D S A T L S M A Y A G Y R F A L S V M K A K G I V I E P T F V H L S G I
UniRef90_A2FKA7 I L E H R G F T S A A P T R A A I M H M K A W L F G T K E N E V L S L G I P V P
UniRef90_A2DMN2 I K M R G A S S A A S A A N A A L T C V K D W L Y G T A E G D F V S M A I P V P
UniRef90_G9KA08
UniRef90_UPI0003C4B05E V V K A K G S A T L S M A Y A G A R F V F S V L D A M N G K E G V V I E C S F V R
UniRef90_UPI0003EAA57F V V K A K G S A T L S M A Y A G A R F V F S L L D A M N G K E G V V I E C S F V R
UniRef90_V9KJ01 T K V R K L S A M S A A K A I S D H L R D L W V G T P E G D W T S M G V G N S
UniRef90_UPI000349F727 V V K A K D S A T L S M A Q A G A E F A E F V L E A A F G G K S K V V Q A Y V Y
UniRef90_W9UUT7 I A A R G Q S S A A S A A Q A I V D H M H D W V L G T S P G E I V S M F S D G S
UniRef90_UPI00045DE89F L L R V K S Q R S W S V G L S V A D M V D S I V N N K K K V H S V S T L A K G Y
UniRef90_S3YHE6 V V K A K D S A T L S M A L A G Y K F A E E I L R S L H K T I P A F V Y L P G I
UniRef90_G0WB63 V I R G L S A M S A A N A S V D H M R D W W Q G T K D R W V S M G V I S N G E
UniRef90_Q9GQB5 V V K A K G S A T L S M A Y A G A R F V F S V L D A M N G K E G V V I E C S F V Q
UniRef90_G5BG62 P L A E N R L F D Y S I A L A L V I E L T R I L L G D E R M I L T V G V Y V Q D K
UniRef90_W7BY50 V V E A K G S A T L S M A Y A A A K F A D A C L R G L R G D A N V V E C S F V A
UniRef90_B3H560 I I Q R K L S A M S V A A A I A G H M N D W L F G T S E L V S M A V L S T G N
UniRef90_A0A024TDC3 K L K A N E S G Q L A S A F A A A R F I I S L V K A L Q G Y P D I V I E S A F V N
UniRef90_R1ZRv8 I A A R G A S S A A S A A N A L V D H V R S L V T P G A V H S I A V K S N G A
UniRef90_R0HDB1 V V E A K A G A S A T L S M V G L H C N V Q F Q M N P G L I E F I F Q S L N T F
UniRef90_UPI0004541976 V V K A K G S A T L S M A Y A G A R F V F S V V D A M N G K E G V V I E C S F V R
UniRef90_F0ZJ23 I A A R K L S A S A A N A I V G H M R D W L G T R D G E V S V Y S D G S
UniRef90_L8WM06 V V K A K D S A T L S M A Y A A E F T N A V L K G L K G E D V I V P S Y V H I
UniRef90_W5AHH1 V V E G K G S A T L S M A Y A G A V F G D A C L K G L N G V P D I V E C S F V Q
UniRef90_E0VNQ7 N C G T R G A S L S T A Y A A F R F T S L L M A L K G A E N I I E C A Y V K
UniRef90_C4R911 V V K A K N S A T L S M A Y A G Y K L G H A L L A A I N D T P N I I E S T F V Y
UniRef90_A0CVC4 L Q L S R G A S T I S G A I A V K D H L R T W F L G T S Q D N W T S F G V G N H
UniRef90_B3KTM1 S A T L S M A Y A G A R F V F S V V D A M N G K E G V V I E C S F V K
UniRef90_X0KXZ7 I M R G K G S A P F G I A S V T A N L C C S V I L D K H E V I P V S H
UniRef90_L9X7P0 V I E G A D S S R W V T G R G V A L I V G R L L E G G T D G V C L S T P L S G E
UniRef90_K0YUS9 I E A R G A S S A A S A G A A I D H M R S W A L G T P E G D W V S V A L A K G Q
UniRef90_A4HA28 V V K A K G S A T L S M A E A G A R F T L K V V E G T E G A G N P L V Y A Y V D
UniRef90_H1W409 V V K A K D S A T L S M A Y A G F R F A E K V L K
UniRef90_D6ZCH6 I E A R G V S A G S A A T A I D H I R D W A L G R E W W T S V A L P S P G V
UniRef90_D0A0M1 V V K A K G S A T L S M A E A G A R F A M F V V N A I T G Q S S P M V Y A Y V D
UniRef90_Q9GSY1 K A R G A S S A A S A A N A A L C Q M F S W I H G T Q F G D W V S M A I P V P
UniRef90_Q9L8F6 V V E A K
UniRef90_C3UTD0
UniRef90_UPI000262A97F I I E R G G S S V A S A A N A A I E H T R D W V R A A G R W T S A A I V I S R G E
UniRef90_I7ECP2 I A A R K M S S A L S A A K A A S D H M R D W F L G S D S W V S M G V V I S D G S
UniRef90_D7BK12 I E A R G A S S A A S A A S A A I D H V Y N W V N G T P S G D W V T I W S D G H
UniRef90_T1GJA6 I S A R K M S A M S A A K A A C D H M H D W W N G T Q S G N Y V S V I S D G S
UniRef90_X1XNQ7 I Q A R K K L S A M S A A K A A V D H M H D W W F G T A D G T W V S M G I D G S
UniRef90_A0A059J8J7 V V K A K G S A T L S M A Q A G A R F A D S L L R A T Q G E Q N V I E P T F V D
UniRef90_C6LXC7 I E A R G H S S S A A S A A N A A I D H I R D W H M G T K P G V F

UniRef90_S2ZCV8 Y G V P A G L N F S 290 G F P V T S D G G E W Q V V D G L E I S 310 D A T R A G L D H N I 320
UniRef90_Q4FQU7 Y G I A K G L I Y S F P C T C T N G D W S I V D G V D V S A F S K E K M A A T E
UniRef90_UPI000362CD90 Y G V E E G L V F G F P T V A R E G R W E I V Q G L D L S E F Q R Q R I A A N V
UniRef90_UPI000330DD23 H G I E S K I L F F G W P V I L L G K E G V K K K V N P E I N T Q E L G E L N S A L
UniRef90_A0A024JD63 E G G K E V D F F S V P V E F G K D G A T R V Q N P K I N D Y E K K L L S V I A V
UniRef90_W5EJL1 Y G I A E D L V F S M P C R S K G D G D Y E V Q H V A M D D F L W D R I K K S E
UniRef90_T0RJL6 Y G V D E G L I F S F P C R V E N G K L I V V E G Q E H N A F G T E K F N A T L
UniRef90_B6RB90
UniRef90_A5DE02 K Y V N G V T F F S V P V L L Q N G E I S S F I N P K I T S E E A N L T E V I A L
UniRef90_UPI00047B0F30 Y D I T P G L M F S Y P V E I E N A K Y R V V Q N L E T S E F S R E R L K I T E
UniRef90_A3Y861 Y G I E K G L F Y S F P M Q C H D G V C E I K Q G L A L S E F S K A R M L E T Q
UniRef90_A0A022LLA0 Y G T V P G V V T G L P C R S N G G E W E V V E G L E I D D F Q R A R I D A S V
UniRef90_UPI00037E2BBA Y G V P E G L V F G F P A R S V N G E W Q I V P D L E L T D Y Q R E R I A Q N V
UniRef90_UPI0004727FF0
UniRef90_Q01DD4 S N V T E L P F F A
UniRef90_UPI0003B70E2E Y G V P E G L I Y G M P V I C K D G Q Y Q V V E G L E L P E K T K Q H I V A N A
UniRef90_A0C0W6 Y G V Q S G L C F S Y P I C L G A F K Y E I V G N L E L S D F S K K Q L K V T E
UniRef90_B4RCG7 Y G F A E G V W A G M P V K T T A P G A Y E V V S Y E M D D F A K S K I K I T E
UniRef90_COZZ60 Y G V P E G L I S F P V T C A D G E F A I V P D L A I D D F S R E R L K I T S V
UniRef90_F8P9R9 E I G K D L E Y F S A P V E L G T E G V V K I R S L K I T E A E Q V L V K A A V
UniRef90_E9EKP2 P G G D G C D F F S V P V E L G P N G A E K A T N P G L T E K E K G L L G K A V
UniRef90_UPI000359DDEE Y G I K E G L M Y S F P V T I E N K K I T I V Q G L S I N E F
UniRef90_Q5ENS5 S E I T D L P Y F A Q K V V F G K E G I S K V L P L E L N E Y E T K R L E E V K
UniRef90_W5EVZ9 S E V T E L P F F A S K V R L G R G G A E E I L P L N D F E R A G M L E K A K
UniRef90_UPI0003B31073 Y G I K P G I V Y G Y P C I C K D G G Y E I V Q G L S V D D F S R E R L K I T E
UniRef90_UPI00038143B2 Y G V P E G L V S S F P V R S V D G E W R I V P D L A V D A F S R E R I D A S V
UniRef90_Q9GSF6 Y G I K K G T V F S F P C E I V D A N G N V H I V V G L E V T G W L R Q K L E A T E
UniRef90_B4MY57 S N V T P L E F F A S P V I L G P S G I K D I P C L P L D Q L E S Q M L Q G L L
UniRef90_UPI0003B50202 Y D I P E G L Y C G V P A T C A A G S V Q R I E G L E V G D F Q R Q M I E R T V
UniRef90_F3YKQ0 Y G L E N P V F I S V P A V I G A E G V R E L L E L H L S D D E Q K E L K Q I A
UniRef90_L7KV59 Y G V P E G I V C S F P V R S V A G E W E I V E G L D I N E F S R A R I D A S I
UniRef90_UPI000378F6FF Y G I P E G L M A G V P V I C E N G T Y K R V T G L E I G A F Q Q Q M L D R T V
UniRef90_K1YFQ9 Y G I N E G I M Y A L P I T C E N G E W K E V K G L A V S D F A R K M M T A T E
UniRef90_UPI0004764FDB Y G I P E G L V F G Y P V E T S A D G G W H V T E I E H S P A Q E R I R K T T
UniRef90_G4YTB0 Y G V P E G L I Y S F P V K C T G N G A Y E V V N L P T S S R I D A M M K A T A
UniRef90_K5XPB2 S E G K E V A Y F S S N I E L G L G G I A K I N P L K I T D A E R N L I K A A I
UniRef90_D4CZA9 N G G D V I E Y F S M P V E L G P S G A E N I V N L E V N E R E K A L L E V C K
UniRef90_A2FKC7 Y G I K P G V V F S F P C K V D K E G H I H V V G Y K I N D W L K E K L A F T E
UniRef90_A2DMN2 Y G I K Q G T I F S F P V T V S K D G E V H V V E L E L N D W V K G R L E A T E
UniRef90_G9KA08
UniRef90_UPI0003C4B05E E G V I E C S F V S T P L L L G K N G I E K N L G I K I S P Y E E K M V A E A M
UniRef90_UPI0003EAA57F S E E T E S P Y F S T P L L L G K N G I E K N L G L K I S A F E E K L V A E A M
UniRef90_V9KJA1 Y G V A E D L I Y S F P V T I G N K T W K L V Q D L A I S D F S K Q K M K L C T
UniRef90_UPI0003F49727 E I G T E L E Y F S V P I E L G S S G I E K I L S L K L D E Y E Q Q L L G A A V
UniRef90_W9UUT7 Y G I Q K G I V Y S F P V R C D Y G R Y Q I V K G L E I N E W G L Q Q M R L T E
UniRef90_UPI00045DE89F Y D I D S E V F L S L P C I L G I S G V S E V I K T T L K E D T V E K L Q S S A
UniRef90_S3YHE6
UniRef90_G0WB63 Y N G K E V E Y I A L P V N L V Y G S V A S I V L D N L T S E E T K L L N I A V
UniRef90_Q9QGB5 Y G I P A G L M Y S F P V T V A N K K V T I V E G L D I N D F A R E K M D L T A
UniRef90_G5BG62 S K E T E C T Y F S T P L L L G K N G L E K N L G I K I S A F E E N M I V E A I
UniRef90_W7BY50 F G M A S G F I S I P A V I G A T G V K T T I P L T L S D S E Q K Q L A T V V
UniRef90_B3H560 S Q V N L E N S F T L F H C F N G F
UniRef90_A0A024TDC3 Y D V P D D L I Y S F P V K C I G N G K Y Q L A N V A V T P A I A K L M Q L S A
UniRef90_U4UEM0 S K V H F L K Y L A T P L L L G P L G V T K N F G L P L S D F E Q C M F D N A V
UniRef90_B1ZRV8 Y G F D A N V W A G M P V R T T T P G S Y E V I G Y A M D D F A K S K L A A T N
UniRef90_ROHDB1 E C K N T G L C S S E V C R C L P Q G S T R
UniRef90_UPI0004541976 S E E T E C S Y F S T P L L L G K K G I E K N L G M K L S P F E E K M V A E A I
UniRef90_F0ZJ23 Y N I P K G L I F S F P V T C R Q Q W S I V Q D L K I S P F I Q A
UniRef90_L8WMD6 S A D P E G G K A L L P N G V E K I L P L Q L S D Y E A A L V K T A T
UniRef90_W5AHH1 S T V T E L P F F A S K V R L G K S G V E E V M G L E L S A L E K E G L E S K G
UniRef90_E0VNQ7 S N I P Q I E Y M A S P L R K L G L C G I E H N F G Y P L S D F E V S L M E K A
UniRef90_C4R911 S D S S D V D F F A L P V L L S S N G I E E I T L E K V D A K E T E L L K I A T
UniRef90_A0CVC4 Y G I P K G L C F S L P V T C K D F E F K V V G D V E L D D F A K Q R I Q L S L
UniRef90_B3KTM1 S Q E T E C T Y F S T P L L L G K K G I E R N L G I K V S F E E K M I S D A I
UniRef90_X0KXZ7 F Q E Q Y E C C L S M P A I I G R K G I L S S V P L S L D A G E E V I A V K A S G
UniRef90_L9X7P0 Y G L E G V S L S V P V V L D E G G V A E I V E W D L A D D E R E G L E A A A
UniRef90_K0YUS9 Y D I P E G L V Y G V P C T S D G G D W K V V E
UniRef90_A4HA28 T D G Q H E P F L A I P V I L G R H G I E K R L P I P L H P T E E K I L K E A L
UniRef90_H1W409
UniRef90_D6ZCH6 Y G V P E G L V S S F P A R S V N G E W L I V E G L H V G E F S R A R I D A S V
UniRef90_D0A0M1 T D G Q N C S F L A I P V V L G K N G I E K R L P I P M N A V E K E M L K Q S I
UniRef90_Q9GSY1 Y G I E P G V I Y S F P V T V D E Q G K V H I V E L N V N S F I Q E K M Q V S L
UniRef90_Q9L8F6
UniRef90_C3UTD0
UniRef90_UPI000262A97F Y G V P E G L I S S F P V T S S D G A W S I V D G L E I D E F S R E R I D A S V
UniRef90_I7ECP2 Y G T P R D V S F S F P V
UniRef90_D7BK12 Y G V P E G L I F G F P A V S E G G E W K V V I E
UniRef90_T1GJA6 Y G A P K D I I Y S F P V E I V N K Q W K I V Q G L K L D D F A N G K L A I T G
UniRef90_X1XNQ7 Y G V P K D L I Y S M P V T I Y K K Q W T I V Q G L K I T S I A K N K L D L A A
UniRef90_A0A059J8J7 S P I Y K D E F V A S N V R L G P N G V E I L P I K I S E Y E Q K L L D N C L
UniRef90_C6LXC7 Y G I A P G I F Y S M P C S C V D G K W Q I V K L D L P K E V L D E M K A S E
UniRef90_D4YP25 Y G V P A G V V Y S Y P V T I E N G T Y T V V P Q L E L D D L Q R E R I T A S A
UniRef90_UPI000474F294
UniRef90_B9FUD5 C Q V P E L P F F A C R V K L G R D G V E E V A E L R L T E F E A R A L E A L K
UniRef90_U5SCA8 E M K D I P L S I P V V L G N G I R Q I A G L S F S E T E Q K N L I V I A
UniRef90_T1ARR1 Y G V A P G V I F S Y P V T C K D G K F S I V Q G L E V N A F S R A R I A A T E
UniRef90_U6DJJ3
UniRef90_Q8IX04-3
UniRef90_W9IAP7 L P E T G T D F F S S V P I E L G P N G A E K A T N P G I T E K E K A L L A K A T
UniRef90_A4HAC1 S M R P E T S F F S S R V E L G R D G V Q R I F P M G L T T Y E R H E L I E T A V
UniRef90_S6ELL2 S H I N G L P Y F A V P L R V T S A G V D E V I E R M S L F E R E R L
UniRef90_C7XW14 Q P Q F D G Y V S Y P V Q L N R Q G V G N Y V L L P L Y P L E T E Q L K V A A

UniRef90_S2ZCV8 K A L Q E E Y D A V K A L
 UniRef90_Q4FQU7 Q E L S E E R D A V A H L
 UniRef90_UPI000362CD90 A E L Q Q E R R A V A H L
 UniRef90_UPI000330DD23 L A L Q K E Y E E
 UniRef90_A0A024JD63 D G L K G N I
 UniRef90_W5EJL1 A E L
 UniRef90_T0RJL6 N E L R E E R A A V K E L
 UniRef90_B6RB90
 UniRef90_A5DE02 D G L Q K S I D Q
 UniRef90_UPI00047B0F30 A E L L A E R E E V R H L
 UniRef90_A3Y861 Q E L M A E R A S I N H L
 UniRef90_A0A022LLA0 A E L I S E R D A V H A L
 UniRef90_UPI00037E2BBA A E L E E E K A A V V D L
 UniRef90_UPI0004727FF0
 UniRef90_Q01DD4
 UniRef90_UPI0003B70E2E K A A E E E I A T V K E L
 UniRef90_A0C0W6 E E L I Q E Q
 UniRef90_B4RCG7 D E L V A E R D T V K D M
 UniRef90_C0ZZ60 S E L E Q E R A A V R E L
 UniRef90_F8P9R9 P D L V S N I D
 UniRef90_E9EKP2 E G L K G N I K
 UniRef90_UPI000359DDEE
 UniRef90_Q5ENS5 V Q L K G E I E S
 UniRef90_W5EVZ9 K E L S E I Q K G V
 UniRef90_UPI0003B31073 N E L R E E R A A V E E L
 UniRef90_UPI00038143B2 A E L V A E R D A V T A L
 UniRef90_Q9GSF6 A E L I S E R
 UniRef90_B4MY57 P V L K D I E Q G V K
 UniRef90_UPI0003B50202 A E L I D E R D A V R A L
 UniRef90_F3YKQ0 T K T T E K L E E L Q
 UniRef90_L7KV59 V E L E A E R D A
 UniRef90_UPI000378F6FF A E L S E E R E A V S A L
 UniRef90_K1YFQ9 Q E L L S E K E A I A D L
 UniRef90_UPI0004764FDB E E L V Q E R D L V K H L
 UniRef90_G4YTB0 T E L T E E K A D A V E I
 UniRef90_K5XPB2 P E L E K N I S S
 UniRef90_D4CZA9 T G L Q G N I A
 UniRef90_A2FKC7 D D L F K E K E A L R H L
 UniRef90_A2DMN2 K E L I G E K E
 UniRef90_G9KA08
 UniRef90_UPI0003C4B05E S E L K A S I K K G E E
 UniRef90_UPI0003EAA57F A E L K A S I K K G E E
 UniRef90_V9KJA1 E E I V D E R N Q
 UniRef90_UPI0003F49727 K E L
 UniRef90_W9UUT7 Q E L L D E K S A V N H L
 UniRef90_UPI00045DE89F S S I H G L Q L Q L K
 UniRef90_S3YHE6
 UniRef90_G0WB63 K E L I G N I D K G K
 UniRef90_Q9GQB5 K E L K D E
 UniRef90_G5BG62 P E L K A S I K K G E D
 UniRef90_W7BY50 K A L E E
 UniRef90_B3H560
 UniRef90_A0A024TDC3 D E L E G E
 UniRef90_U4UEM0 P I L A N D I K
 UniRef90_B1ZRV8 K E L V E E R A F V A D M
 UniRef90_ROHDB1
 UniRef90_UPI0004541976 P E L K A S I R K G E D
 UniRef90_F0ZJ23
 UniRef90_L8WMD6 P E L K D N I
 UniRef90_W5AHH1 E L L S S I E K G V K
 UniRef90_E0VNVQ7 P M L I K D I D
 UniRef90_C4R911 G Q L S K N I A
 UniRef90_A0CVC4 V E L Q K E Q
 UniRef90_B3KTM1 P E L K A S I K K G E D
 UniRef90_X0KXZ7 K L V K E S V E S I Q
 UniRef90_L9X7P0 E A V R A
 UniRef90_K0YUS9
 UniRef90_A4HA28 P E I K S N I E K G K E
 UniRef90_H1W409
 UniRef90_D6ZCH6 A E L V S E R D A V R A L
 UniRef90_D0A0M1 S V V K A N I E
 UniRef90_Q9GSY1 K E L Q T E
 UniRef90_Q9L8F6
 UniRef90_C3UTD0
 UniRef90_UPI000262A97F A E L S A E R D A V R E L
 UniRef90_I7ECP2
 UniRef90_D7BK12
 UniRef90_T1GJA6 K E L
 UniRef90_X1XNQ7 K E L
 UniRef90_A0A059J8J7 V E L K K N I Q
 UniRef90_C6LXC7 A E L M K E A K D
 UniRef90_D4YP25 N E L L D E R
 UniRef90_UPI000474F294
 UniRef90_B9FUD5 P Q L K K S I D
 UniRef90_U5SCA8 K E I R S Q L D W I E
 UniRef90_T1ARR1 K E L R E E R A G V E H L
 UniRef90_U6DJ13
 UniRef90_Q8IX04-3
 UniRef90_W9IAP7 E G L K G N I
 UniRef90_A4HAC1 P Q L R D V Q A G I E
 UniRef90_S6ELL2
 UniRef90_C7XW14 N A I Q Q Q L A A M Q N

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm

lupas_21
 lupas_14
 lupas_28
 jnet
 conf
 sol25
 sol5
 sol0
 jhmm
 jpssm

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm

UniRef90_V4YMV2
 UniRef90_G8BVW8
 UniRef90_U1LC56
 UniRef90_M0R653
 UniRef90_A2EFX9
 UniRef90_J4UZH2
 UniRef90_U4TXD6
 UniRef90_T1AJR2
 UniRef90_A0A024V1X0
 UniRef90_UPI00036A5CCF
 UniRef90_T0MIV5
 UniRef90_L8B1M9
 UniRef90_I3U9T4
 UniRef90_G7Y844
 UniRef90_H2AS14
 UniRef90_Q9GPV2
 UniRef90_G8FGJ2
 UniRef90_T0YIB6
 UniRef90_UPI0001746603
 UniRef90_R4UK85
 UniRef90_Q8LK54
 UniRef90_I2JX05
 UniRef90_S4XFF5
 UniRef90_F0W2R8
 UniRef90_V5I2N9
 UniRef90_M2X081
 UniRef90_S9UNA5
 UniRef90_Q6FV11
 UniRef90_UPI000252C14E
 UniRef90_L7VQR7
 UniRef90_T1GSB8
 UniRef90_UPI0003D6EB27
 UniRef90_B7QAS6
 UniRef90_C5MPY0
 UniRef90_UPI00040A385F
 UniRef90_X0UL18
 UniRef90_I2GWR7
 UniRef90_E3YP17
 UniRef90_Q82R06
 UniRef90_I7LIN1

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

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

Y G V P E G L V C S F P V H A H G E G Y E I V E G L D L D D R A R A R I D A S V

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

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

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

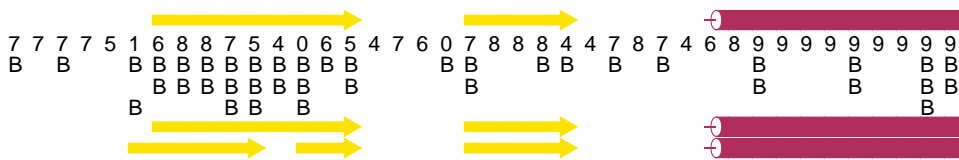
S C I P E L T Y F A A P L E L G P N G I Q R H L D I P L N D Y E C E L L R A A V
 Y G V P E G L I S S F P C V C K D G E Y S I V Q G L E I D D Y S R G K I D A S T
 Y C V P E D V V F S F P V V I D N K K N Y C I V E L E N K V E T T K N I A I S T

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

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

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

lupas_21
 lupas_14
 lupas_28
 jnet
 conf
 sol25
 sol5
 sol0
 jhmm
 jpssm



UniRef90_V4YMV2 K S I Q A D I K S 330
UniRef90_G8BVW8 E A L T K D I K T G E D
UniRef90_U1LC56
UniRef90_M0R653
UniRef90_A2EFX9 E E L
UniRef90_J4UZH2 D E L L S E R E A V K H L
UniRef90_U4TXD6 M F I R E N I R
UniRef90_T1AJR2
UniRef90_A0A024V1X0
UniRef90_UPI00036A5CCF A E L V A E R D A V R A L
UniRef90_T0MIV5
UniRef90_L8B1M9
UniRef90_I3U9T4
UniRef90_G7Y844
UniRef90_H2AS14
UniRef90_Q9GPV2 Q E L V G E K E
UniRef90_G8FGJ2 E E L T E E
UniRef90_T0YIB6
UniRef90_UPI0001746603 N E L K E E R D A V K E L
UniRef90_R4UK85
UniRef90_Q8LK54 E E L I Q E R D C V S H L
UniRef90_I2JX05 D S L P G N Y E
UniRef90_S4XFF5 A D L Q A E A A T V R A L
UniRef90_F0W2R8 E E L
UniRef90_V5I2N9
UniRef90_M2X081 K E L V E E R D A V R H L
UniRef90_S9UNA5 T E L Q E E K E Q
UniRef90_Q6FV11
UniRef90_UPI000252C14E P R I K K D I K
UniRef90_L7VQR7 G E L A E E R D A V R E L
UniRef90_T1GSB8 E E L E S E Q N E I
UniRef90_UPI0003D6EB27
UniRef90_B7QAS6 K H
UniRef90_C5MPY0
UniRef90_UPI00040A385F
UniRef90_X0UL18 A E L V G E R A A V R S L
UniRef90_I2GWR7 D Q L I E N F D Q A K T I
UniRef90_E3YP17
UniRef90_Q82R06 T K L R D A Y Q A L R
UniRef90_I7LIN1 R K L G E I I

lupas_21
lupas_14
lupas_28
jnet
conf 9 9 9 9 9 9 8 7 2 8 9
sol25 B B B
sol5 B
sol0 B
jhmm
jpssm