

QUERY	1	10	20	30	40																																									
UniRef90_UPI0003A61F63	P	L	G	Y	A	I	A	Q	L	H	G	V	Y	I	L	A	E	S	A	Q	Q	N	L	S	L	L	S	L	P	V	A	E	R	W	L	R	Q	A	E	R	L	L				
UniRef90_A9BN65	P	L	G	Y	A	V	A	Q	L	H	G	V	Y	I	L	A	E	N	E	N	E	Q	Q	M	V	V	V	D	M	H	A	A	H	E	R	R	I	V	T	Y	E	E	R	L	L	
UniRef90_Q0VME5	P	L	G	Y	A	V	A	Q	L	H	G	V	Y	I	L	A	E	N	E	N	E	Q	Q	M	V	V	V	D	M	H	A	A	H	E	R	R	I	V	T	Y	E	E	R	L	L	
UniRef90_U7FLE3	P	L	G	Y	A	I	A	Q	L	H	G	V	Y	I	L	A	Q	S	T	R	A	G	G	M	I	V	V	D	M	H	A	A	H	E	R	R	I	V	T	Y	E	E	R	L	L	
UniRef90_B0SWX9	P	L	G	A	A	R	A	Q	L	H	E	T	Y	I	V	A	Q	T	R	D	R	M	V	V	V	V	D	D	Q	H	A	A	H	E	R	R	L	V	V	Y	E	E	R	L	L	
UniRef90_A0A059IKC0	P	L	G	A	A	R	A	Q	L	H	E	N	Y	I	V	A	Q	T	E	M	G	M	V	V	V	V	D	D	Q	H	A	A	H	E	R	R	L	V	V	Y	E	E	R	L	L	
UniRef90_Q1YRY9	P	L	G	Y	A	I	A	Q	L	K	G	I	Y	I	L	A	E	N	R	E	N	G	L	I	I	V	V	D	M	H	A	A	H	E	R	R	I	V	T	Y	E	E	R	L	L	
UniRef90_UPI0004763ABC	P	L	G	F	A	I	A	Q	L	K	G	I	Y	I	L	A	E	N	R	E	N	G	L	I	I	V	V	D	M	H	A	A	H	E	R	R	I	V	T	Y	E	E	R	L	L	
UniRef90_B2SD15	P	L	G	A	A	R	A	Q	L	H	E	N	Y	I	V	A	Q	T	E	N	D	S	L	V	I	V	V	D	D	Q	H	A	A	H	E	R	R	L	V	V	Y	E	E	R	L	L
UniRef90_V5B267	Q	S	F	G	R	V	L	T	L	I	A	P	H	Y	A	L	L	E	R	D	G	K	L	A	L	L	A	L	P	V	A	E	R	W	L	R	H	A	Q	L	L	L	L			
UniRef90_H4F181	P	L	G	A	A	R	A	Q	L	H	A	N	Y	I	V	A	E	N	T	G	D	Q	G	L	V	I	V	D	D	Q	H	A	A	H	E	R	R	L	V	F	A	E	E	R	L	L
UniRef90_G2DD62	Q	P	L	G	Y	A	V	A	Q	L	H	G	V	Y	I	V	A	E	N	A	Q	Q	G	M	V	V	V	D	D	M	H	A	A	H	E	R	R	I	V	T	Y	E	E	R	L	L
UniRef90_W1N512	P	L	G	Y	A	V	A	Q	L	H	G	V	Y	I	V	A	E	N	A	Q	Q	G	M	V	V	V	D	D	M	H	A	A	H	E	R	R	I	V	T	Y	E	E	R	L	L	
UniRef90_M3GA44	P	L	G	Y	A	I	A	Q	L	H	G	V	Y	I	V	A	E	N	A	E	E	G	L	I	I	V	V	D	D	M	H	A	A	H	E	R	R	L	V	G	Y	E	E	R	L	L
UniRef90_G7Z1Q0	H	P	L	G	A	A	R	A	Q	L	H	G	V	Y	I	V	A	Q	T	R	E	G	L	I	I	V	V	D	D	Q	H	A	A	H	E	R	R	L	V	V	Y	E	E	R	L	L
UniRef90_J0AYK0	P	L	G	M	A	L	G	Q	L	H	G	V	Y	I	L	S	E	T	R	Q	Q	G	M	I	L	V	D	D	M	H	A	A	H	E	R	R	L	V	V	Y	E	E	R	L	L	
UniRef90_UPI00037BEA6C	P	L	G	Y	A	V	A	Q	L	H	G	V	Y	I	V	A	Q	N	A	R	D	G	L	V	L	V	D	D	M	H	A	A	H	E	R	R	L	V	T	Y	E	E	R	L	L	
UniRef90_U3QUW0	H	P	L	G	Y	A	I	A	Q	L	H	G	V	Y	I	V	A	Q	N	A	R	D	G	L	V	L	V	D	D	M	H	A	A	H	E	R	R	L	V	T	Y	E	E	R	L	L
UniRef90_V7EJU0	P	L	G	A	A	R	A	Q	L	H	E	N	Y	I	V	A	Q	T	D	T	G	I	V	I	V	V	D	D	Q	H	A	A	H	E	R	R	L	V	V	Y	E	E	R	L	L	
UniRef90_A0A024IGZ9	P	L	G	R	A	I	A	Q	L	H	G	V	Y	I	V	A	E	N	A	Q	Q	G	L	V	I	V	V	D	D	M	H	A	A	H	E	R	R	L	V	T	Y	E	E	R	L	L
UniRef90_B7RW30	P	L	G	Y	A	L	A	Q	L	K	G	I	Y	I	L	A	E	N	V	A	G	L	V	L	V	V	D	D	M	H	A	A	H	E	R	R	L	V	T	Y	E	E	R	L	L	
UniRef90_L0M9W3	H	G	F	G	R	V	L	M	V	Y	P	C	Y	A	L	V	E	T	Q	Q	R	L	S	L	L	N	L	P	V	A	E	R	W	L	R	Q	A	E	R	L	L	L	L			
UniRef90_G4SZB8	H	P	L	G	Y	A	V	A	Q	L	H	H	N	I	Y	I	L	A	E	T	P	K	G	I	L	V	V	D	D	T	H	A	A	H	E	R	R	L	V	T	Y	E	E	R	L	L
UniRef90_UPI000372337D	P	L	G	A	A	R	A	Q	L	H	H	E	T	Y	I	V	A	Q	T	R	D	G	V	V	V	V	D	D	Q	H	A	A	H	E	R	R	L	V	V	Y	E	E	R	L	L	
UniRef90_UPI00046F1AEE	P	L	G	A	A	R	G	Q	L	H	E	T	Y	I	V	A	Q	T	K	N	G	M	V	V	V	D	D	Q	H	A	A	H	E	R	R	L	V	V	M	E	R	L	L	L		
UniRef90_E5AMA3	H	Q	S	F	G	R	V	L	G	Q	L	H	G	I	Y	L	A	Q	N	T	R	G	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T	V	C	A	S	S	Y	A	L	V	E	T	G	K	L	V	L	V	S	L	P	V	A	E	R	W	L	K	T	A	Q	L	L	L				
UniRef90_UPI000372337D	H	Q	S	F	G	R	V	M	T																																					

QUERY UniRef90_UPI0003A61F63 UniRef90_A9BN65 UniRef90_Q0VME5 UniRef90_U7FLE3 UniRef90_B0SWX9 UniRef90_A0A059IKC0 UniRef90_Q1YRY9 UniRef90_UPI0004763ABC UniRef90_B2SD15 UniRef90_V5B267 UniRef90_H4F181 UniRef90_G2DD62 UniRef90_W1N512 UniRef90_M3GA44 UniRef90_G7Z1Q0 UniRef90_J0AYK0 UniRef90_UPI00037BEA6C UniRef90_U3QUW0 UniRef90_V7EJU0 UniRef90_A0A024IGZ9 UniRef90_UPI00017RW30 UniRef90_L0M9W3 UniRef90_G4SZB8 UniRef90_UPI000372337D UniRef90_UPI00046F1AEE UniRef90_E5AMA3 UniRef90_I0QTJ3 UniRef90_A0A021XEA9 UniRef90_UPI0003627A11 UniRef90_A0A016XLF4 UniRef90_B2VCU8 UniRef90_Q2VYV5 UniRef90_UPI0003699C11 UniRef90_K2DW94 UniRef90_UPI0004210EF1 UniRef90_A0A059FG04 UniRef90_A0A014PTZ8 UniRef90_Q2G6F7 UniRef90_K2HKT6 UniRef90_R4XTE9 UniRef90_UPI00037F3766 UniRef90_UPI000479925B UniRef90_UPI000419AF99 UniRef90_UPI000463CBD6 UniRef90_H0HUX1 UniRef90_UPI0003B66C6F UniRef90_UPI00047A0156 UniRef90_A3YHG8 UniRef90_UPI0003B337FF UniRef90_Q07RR2 UniRef90_U5CJO UniRef90_B6J016 UniRef90_G4RB08 UniRef90_M4S5K6 UniRef90_UPI00037964F9 UniRef90_E0Y0F3 UniRef90_I4YPJ8 UniRef90_UPI00035CD3CE UniRef90_C1D5X3 UniRef90_UPI00041KA87 UniRef90_UPI0003B720E2 UniRef90_UPI000475D69A UniRef90_J7GD91 UniRef90_Q5NQM6 UniRef90_I7Z991 UniRef90_UPI000469FE64 UniRef90_UPI0004687820 UniRef90_Q1YH01 UniRef90_UPI00046E9264 UniRef90_A0Z0Q4 UniRef90_E1SFK7 UniRef90_L1NGS1 UniRef90_UPI0003602C21 UniRef90_Q28JZ8 UniRef90_C7RTF8 UniRef90_UPI0003708094 UniRef90_UPI0003660DAE UniRef90_R6JRY4 UniRef90_UPI0003B72F4C UniRef90_G4QBK6 UniRef90_V5SB58 UniRef90_K8CTG5 UniRef90_W0SGN1 UniRef90_UPI00035DED09 UniRef90_A3STM8 UniRef90_UPI0003686085 UniRef90_N9WCX2 UniRef90_Q5FRI3 UniRef90_UPI0004790640 UniRef90_R5RAY5 UniRef90_W6LQ72

T P G E A P V C A 50 P L L I P L R L K A 60 S A E E K S A L E 70 K A Q S A L A E L G 80
K L A Q E E G L R G Q Q P L L V P E S L A V S A Q R E E A D A C A E E H A Q D W F A R L A G L G F
K N A A E D K V R S Q Q P L L V P A T F A A T P R E E A V A T A E A H Q Q D D T L Q S R L L G L G M F
K Q A E D K V R S Q Q P L L V P V S L A V S S K A E A A L A E T H R G E E L S Q A H L G L G L
K R A E Q D L K S Q Q P L L V P E I V V E L S D S P A E D A A E R V V A R A D E E L A A T L L L G L G L
K M A A G R G I A A R Q A L L L P E I V V E L S D S P A E D A A E R V V A R A D E E L A A T L L L G L G L
K A Q D R G I A A Q A L L L P E I V V E L S D S P A E D A A E R V V A R A D E E L A A T L L L G L G L
K S A D Q G L S Q Q P L L V P E S L A V S S Q R E A D A A E Q N A E V F A K L L G L G L
K R A G E G I K A Q Q M L L V P E I V V D L P S E E D A Q R L A G H A E T L F A S Q R F F G L G L
K N A A R P L A G Q M L L V P E I V V D L P S E E D A Q R L A G H A E T L F A S Q R F F G L G L
S P D N A P G C G Q Q P L L I P V R L K L S S E E D S A Q R L K M A Q Q P V L T E Q M G L G L
R K A G R R L P S Q Q G L L V P E I L D L S P E E D S A Q R L K M A Q Q P V L T E Q M G L G L
K R A G Q G V T G Q Q P L L V P E I S L A V S A G E E M E T A E S E S E R E A F T R L L G L G L
K S Q V H G L D A Q Q P L L V P V S L A V S A G E E M E T A E S E S E R E A F T R L L G L G L
K N A H D G V I Q S Q Q P L L V P E I L D L S P E E D S A Q R L K M A Q Q P V L T E Q M G L G L
K T A E H G G I K R Q A L L L P E I L D L S P E E D S A Q R L K M A Q Q P V L T E Q M G L G L
K Q A G R D L P R Q D L L V P V V F S C S S E T D L A L L D E H H A D T L L S E L G L G L
K L G Y E G L K S Q Q P L L V P A R M N V S R R E A D L A E E H H A G T A F T R F F G L G L
K A G A R D L A V Q P L L I P E I L D L S P E E D S A Q R L K M A Q Q P V L T E Q M G L G L
K R Q E N G I T A Q A L L I P E I L D L S P E E D S A Q R L K M A Q Q P V L T E Q M G L G L
K R A G Q G V T G Q Q P L L V P E I S L A V S A G E E M E T A E S E S E R E A F T R L L G L G L
K S Q V H G L D A Q Q P L L V P V S L A V S A G E E M E T A E S E S E R E A F T R L L G L G L
K N A H D G V I Q S Q Q P L L V P E I L D L S P E E D S A Q R L K M A Q Q P V L T E Q M G L G L
K T A E H G G I K R Q A L L L P E I L D L S P E E D S A Q R L K M A Q Q P V L T E Q M G L G L
K Q A G R D L P R Q D L L V P V V F S C S S E T D L A L L D E H H A D T L L S E L G L G L
K L G Y E G L K S Q Q P L L V P A R M N V S R R E A D L A E E H H A G T A F T R F F G L G L
K A G A R D L A V Q P L L I P E I L D L S P E E D S A Q R L K M A Q Q P V L T E Q M G L G L
K R Q E N G I T A Q A L L I P E I L D L S P E E D S A Q R L K M A Q Q P V L T E Q M G L G L
K R A G Q G V T G Q Q P L L V P E I S L A V S A G E E M E T A E S E S E R E A F T R L L G L G L
T P P E E G L R P Q P L L I P V K L T L E K A E V A A C T T H Q D L L V K M G M
K Q Q N G S L P S Q Q P L L L P I K I A V S A G E A D L A E H H A Q R F F F N A L G L G L
K A A M E G L A R Q M L L V P L V L D P S E A A R L A E R A P A L L E K L G L G L
K K A Q R S V G R Q M L L L P D V I E I D E A A A E R V C E E R A E L L E M G L G L
K L A Q R H I A P Q P L L I P V T M Q A D A V E I G V A G T E R Q A E L L D A L G L G L
T P T S E G L K P Q P L L I P V K L M A V S P I E L G V A E E H H A G T A F T R F F G L G L
R N A A R A V P A Q A L L I P E I V D L S E D D C D R L V S H A E E F S R L G L G L
K R E R A G I T R Q L L L P E I V E L D P V E A D R L A H A E T L L E A S L G L G L
K Q Q L H M L T S Q P L L I P A S V A A T P Q E V A T A E A H E D T L L A S L G M
E P G S E G L R P Q P L L I P V R L K L D K A E R D A G N R C S E L L N Q M G L G L
K L G E G S V A R Q G L L L P E V V D L D G D A G A E R V T E R A G D E L A R L G L G L
K A Q E G S V T R Q A L L T P E V V D L D P A G A E A R V A F R A D E L A E M G L G L
K A E K G H V Q R Q P L L I P E V V E L S E E E Q K R L N E V R A D E L A S F G L G L
K S A D K G I V R Q A L L I P K T I E V T S K E I A L V E E F R A D E L A S F G L G L
K R Q A G G V K R Q A L L I P D V V E L T E D E A A R V L E R A D E L A E L G L G L
D P G K E G L K A Q P L L I P V R I R S D K A E R D A L E R Y S S L L Q M G L G L
R A A G A G A P S Q A L L I P E V V E L D E T A C D R L E E E A S Q K L A E F G L G L
K L A W E K V R P P L L V P L S M A V S T R E A D F A E S E P Q V F S R L G L G L
K Q A A R S L P R Q D L L V P V V F H A Q E K D V A V V E E F E E Q L E D L G L G L
K K A G K G V E R Q V L L I P D I V D L G E D S E A A R L Q A R S D E L L E E M G L G L
K T Q S G E V V S P L L I P L K V E V S E A D Q V L Q A R S Q D E L A E L G L G L
K A E S G T V K S Q G L L L P E I V V E L N E A S V D R L S A R F Q E E L A G L G L G L
K T Q W Q K L S Q P L L I P E I V A M E T S Q D L K T W Q S F E E P E F Q R L G L G L
K Q A S R P L A Q M L L L P E I V D L P E D S D A S R I A A H S E D M L K K F G L G L
K I A A R G V A R Q A L L I P E V V E L D E A A A A R V L A S R R E L L A E L G L G L
K N A H E G L R T Q P L L V P Q T V P V A Q E S A D V A E E R E V A T L A Q L G L G L
K N A F K Q I V S P L L V P I N I S V A Q S E A D L V E A A D E V F S S F G L G L
R A Q A G N V P A Q R L L M P E V V E I E E T G C D R L E A R A D E L S A F G L G L
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K A Q Q G T V P S Q P L L I P E I V E N V S L A E A D I T E Q A E L F T D L G L G L
K K Q E V G L V M Q S L L V P I N L S L N P Q E I T A W Q T N K A L F A R L L G L G L
R T Q S G P V A S Q R Q L L I P V V I D L D E G C G R L E E A A P V L E K L G L G L
R R A D G G V A A Q A L L L P E V V E L D E G A C D R L E A R I A E L A E M G L G L
V P G D E K L R A Q P L L I P V R L K L E N A E L K T L E H W Q A S L A Q E T G V
K N Q M N G V S A Q T L L I P E I I E L E E Q D A A E L M E I S G S L N G F G L G L
K R A A S G L A R Q L L I P E V V D L P V D A D R V L A E A S S L E L L G L G L
K T A G E E M Q V Q P L L I P V T F Y A D T V E V A T A S E H Q E T L Q A L L G L G L
K R A R D G L P S Q P L L I P L A F E A D A L R Q Q A L A Q E E H A D A L A R L G L G L
K V V L D G T P S Q R L L I P A V F S V S A R D L Q A V A E E C G E V L A R M G L G L
R L A G G R V A S Q S L L I P E V I E L E E P A C D R L E A R I A E L A E F G L G L
K K Q A T G V V R Q S L L I P D V V E L E D G P A E R L T A R A E E L A G L G L G L
T P G E N A A C A P L L I P V R L K L E A E E T R V L Q R T E A L A Q M G L G L
R R Q N G Q V T S Q R L L M P D V V E M D E V S C D L F E Q R Q D E F A A M G L G L
K L A Q G A L P S Q Q P L L V P V V L Q M P E D Q A D R L E E R R E G L S R F G L G L
K Q G G G H L E A Q P L L V P V S L A V S S R E M G T F E R E P E A F T R L G L G L
K N Q E N G V A S Q A L L I P D I I E L S A S E R A L I L S V A D E L A K F G L G L
K T A G R P L A S Q R L L I P E I V E L P E D D V D R L A E Q A E T F A R L G L G L
R E Q Y G R V Q A Q R L L V P D V V E L P R V Q Q D L L A R M Q P M L E K L G L G L
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QUERY	E	P	G	N	I	A	Q	W	L	A	R	N	L	M	S	E	H	A	Q	W	S	M	A	Q	A	I	T	L	L	A	D	V	E	R	L	C	P	Q	L	V				
UniRef90_UPI0003A61F63	D	N	E	L	L	S	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
UniRef90_A9BN65	T	V	E	L	L	S	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
UniRef90_Q0VME5	E	D	E	L	L	S	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
UniRef90_U7FLE3	D	H	E	L	L	S	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
UniRef90_B0SWX9	Q	A	E	V	L	S	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
UniRef90_A0A059IKC0	Q	T	A	V	L	S	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
UniRef90_Q1YRY9	E	N	E	L	L	S	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
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UniRef90_B2SD15	D	H	H	V	A	A	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
UniRef90_V5B267	D	A	V	N	I	S	H	W	L	A	R	R	L	A	T	E	H	A	Q	W	S	T	A	Q	A	I	T	L	L	A	D	V	E	R	L	C	P	H	L	V				
UniRef90_H4F181	D	R	H	V	A	A	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
UniRef90_G2DD62	I	D	K	M	L	A	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
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UniRef90_J0AYK0	R	H	E	L	L	S	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
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UniRef90_U3QUW0	R	N	E	L	L	A	T	L	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
UniRef90_V7EJU0	Q	E	A	V	L	S	R	L	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
UniRef90_A0A024IGZ9	E	H	E	L	L	S	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
UniRef90_B7RW30	E	D	E	L	L	S	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
UniRef90_L0M9W3	S	P	D	V	L	A	T	W	F	A	R	H	L	G	S	E	H	E	Q	W	N	A	S	Q	A	I	Q	L	L	T	D	V	E	R	L	C	P	Q	L	V				
UniRef90_G4SZB8	T	N	E	V	L	A	T	V	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
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UniRef90_E5AMA3	Q	H	E	L	L	G	T	L	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
UniRef90_I0QTJ3	T	P	D	A	V	A	M	W	F	A	R	S	L	I	G	S	E	H	E	V	W	T	V	S	Q	A	I	Q	L	L	T	D	V	E	R	L	C	P	Q	L	V			
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UniRef90_B2VCU8	T	A	F	Q	L	A	Q	W	F	A	R	Q	S	A	S	E	H	Q	H	W	N	H	S	Q	A	I	T	L	L	A	E	V	E	R	L	C	P	T	L	V				
UniRef90_Q2YVV5	T	V	H	L	C	A	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
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UniRef90_K2DW94	L	A	E	V	L	S	T	S	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
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UniRef90_A0A014PTZ8	S	A	S	Q	M	V	Q	W	L	A	R	H	S	V	V	E	Q	P	H	W	N	H	S	Q	A	I	A	L	L	A	E	V	E	R	L	C	P	Q	L	V				
UniRef90_Q2G6F7	E	D	L	V	L	A	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
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UniRef90_H0HUX1	D	T	L	K	A	A	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
UniRef90_UPI0003B66C6F	L	E	E	V	L	G	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
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UniRef90_A3YHG8	D	I	E	L	M	A	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
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UniRef90_Q07RR2	L	P	H	V	A	A	T	M	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N	A	L	L	L	R	D	M	E	R	T	C	C	N	H	G	R	
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UniRef90_B6J016	I	N	A	V	L	A	T	L	A	C	H	G	S	V	R	A	N	R	R	R	L	T	L	T	E	M	N																	

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UniRef90_C6JNY1 K K E Y T N V S R Q Q L M V P I R I R L D P R E R E L T F E N I E Y F T G F G F
UniRef90_R7HEL7 M K Q E K T Y H S Q M I M P P V I L T L S R E E Q I L K E N W K T F T A L G Y
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UniRef90_F2NHR2 S Q S W G K G A R Q T L L F P L T L E L D A A S A A W S I L D H L P V L Q A A G M
UniRef90_B9EB15 K K Q D V G L E M Q S L L I P I T V L E L D A K D E A I N K I N L L K D I G I
UniRef90_H3NFN1 R R D Q D G T A Q Q N L L V P L V L E Y P T N E T I E I R Q Q M E Q L E A G I
UniRef90_Q5GSP0 K K Q K S I I K R Q K L L S E V V T N Q A G M E M V Y I Q K L F E M G F
UniRef90_V9HG68 L K E E G D I V V Q Q L L V P T L I D L T T D D F C Y Y E E N S K V F T M A G F
UniRef90_F7XKR3 K V K P N I S S Q E L I A P V T L D L S P K E R A L V E E Y I P Y L E S A G F
UniRef90_R5P3C1 M L K N K Q V F S Q Q L L P P M V I T V T Y A E R Q A I L D N F D L F E M K I G Y
UniRef90_C2ETT5 R K E I G Q V D Q Q T F L V P L V L V T V D T M T I T Q H L D T L E A V G L
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UniRef90_H8KY78 K A G S D T L R S Q L L V P L A V A V S A G E A A A A E A H A E A L E A W G L
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UniRef90_UPI0004708B0B K F G N P A E A S Q E L L V P L T L E F T A I E A A K L A D R L P Q L E A G A V
UniRef90_Q03R34 R Q A I G E V S D Q K L L V P L V L D Y P T T D V L E L T N H L E L A S V G I
UniRef90_UPI00031EAA32 K K N A K D V M M Q Q L L I P E T I K L T P A A I V Q L E D I N A M L S P M H I
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	90	100	110	120
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UniRef90_K1ZZ78	V E E V S P A T E L V V V	R E V V P A D M L K X S S D L K K S L L R D L L	A G D S L V Q E T E S	
UniRef90_R6NP72	E I E F G G A T S T L A L	H A V P A N L Y G V S V S D L K K S L L R D L L	A G D S L V Q E T E S	
UniRef90_R9IQS7	E M E F G G G K E Y A V T	S A L P S N L F G V N G Q E L V I E I L	D S L A S E T E P Q M	
UniRef90_UPI00047E82F9	N I E F F G G H E Y A M R	A L P L D L F G G E N E K T M F T E L	D D S L A S E T E P Q M	
UniRef90_W9A8S9	F F E F G G G H T Y V I	R S H P N W F P K G F E E E E V I R E M M E	D E Q I L A D E R T E R I	
UniRef90_K8E4S4	F L E F G G Q N S F L V	R S H P V W F P N R G Q E E E E I I K E M I	D L L L E A Q T G G S I	
UniRef90_I0HP78	D V A P S A T T F L V V	R S R P A A L Y G V N G Q E L V I E I L	D D S L A S E T E P Q M	
UniRef90_R6QJM6	T I E F G G G T S Y V I	R Q V P A N L Y G L K E K E L F M E L	D A S L E T A D G G R S M	
UniRef90_C5VST3	S L E F G G D N T I S I	R E A P M L L L G K V S T K N F F L E I L	D N I K N M G K G G	
UniRef90_W9E0Q32	M L E F G G G H D Y L V	S S Y P V W F P K K D E V E E I I K D M I	E L L L S E E K K V	
UniRef90_Q1JVP7	V L E F G G G T S Y W A V	K A V P A Y I E K K D I K T M V C	M L E L L S S V G G S S	
UniRef90_D7MZU0	E L S M G G N T L A V	R A V P A M L L G K A D V V S L A K D V L	G E L A S Q V G G S S	
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UniRef90_G2TMI6	F L E F G G H N S F L V	R S H P T W F P K N E E E K E V I E E M I	E H V L L S I K K V	
UniRef90_UPI0003757412	A V E F G T T T Y R I	T S Y P K W M P A G S E E E M V R E I V	D E V L H E R S I	
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UniRef90_UPI000371E4A8	D M D A G P E Q M R L	K E I P S D I P V G E A E A I R E I L	E S L Q N N M Q E I	
UniRef90_UPI0004635CB2	E V E F G N N S H I M V	R S V P T I F G T P E P E A K F I L Q I	I V E R N L K N N Y D S	
UniRef90_Q8RA70	V F E F G N N S V V L	R E V P V I L G G P E A K K L F V E I V	E R L R D K K S F	
UniRef90_R7P791	K I E F G G N T I C I	K S H P T W L R E N Y E Q D N I K Y I V	D L V L E N K N F T	
UniRef90_C6JNY1	E I E F D D E N E V I	R S V P V M N F R D S T E N Q L I E K N I	I D T I K E N K T T	
UniRef90_R7HEL7	E I E F D D E N E V I	R S V P V M N F R D S T E N Q L I E K N I	I D T I K E N K T T	
UniRef90_UPI000426C62C	Y L E F G G N T F I I	R A V P H W L P K G E E A D I V R E M A	E W V L G E R S T V	
UniRef90_F2NHR2	E L E F G G N T F I L	R T V P T C L S G Q D L E E S L A P E M I	A E L S D G H R Q I	
UniRef90_B9EB15	H L E F G G N D Y I I	N D L P V W F P D N Y E E T V Q E L I	D Y A L Q G H R Q I	
UniRef90_H3NFN1	F L E F G K N T F V L	N S H P S W F I H G Q E E A T V K E M I	D F L L D K K E L	
UniRef90_Q5GSP0	D I Q F G N G K V I	K E V P A I L G T I D V K E M L T D I	V D R L M E L E D M	
UniRef90_V9HG68	S L E F G G N T L A I	K E V P Y F L G K L D P R N L F I N I	V D N I K S L G E V	
UniRef90_F7XKR3	S E F F G P S T Y A V	N A V P G V S D A L L E D P A V I P D I	S D I L S A G S R I	
UniRef90_R5P3C1	D I E F G G N S F K I	N A V P S N L F G L H G E R D M F L E	F V G S L I Q N S D I	
UniRef90_C2ETT5	H L E F G G P N S F I	R S H P T W F A E G Q E E A T A K E M I	E W L I N D N G K I	
UniRef90_UPI000369B0FD	R V E F G G T S F V I	K A V P V L V I E E K D V G A M V V I E	M V E K I S D K D D W	
UniRef90_U2UQ28	Q M E A S G N E Y R L	M E V P A D I P S D E A E D I R E L	A S L H D M H E T S	
UniRef90_H8KY78	E S R S G P S A I V V	R R I P A L L E G T D V S Q L A R D V L	A D L A S N G S S	
UniRef90_R5C6D7	E T E F G G A G S Y A V	R A V P L E L Y A N E P D A L L R E I L	D E I L D T P A A	
UniRef90_UPI0004708B0B	Y L E F G G G A S F L V	R A Y P H W F P A G E E Q A L I E E M I	E W L L E K K Q V I	
UniRef90_Q03R34	H L E F G G P N S F I V	H E H P T W F K A G Q E E A T I Q E M I	D W V L K D K G K I	
UniRef90_UPI00031EAA32	E L E F G G E D S V I L	R E T P L W L K N T N L N Y F V H D L V	D L F L K N N E I	
UniRef90_A5FW68	E I E F G P G A V L V	R A V P A A L A K A D P A A L A R D V A	D T L A E S G T A	
UniRef90_R7LXU6	G I E F N D T E L I F	R K V P Q L L A K A V N P K E I I A D I	E N I L D G D I D N	
UniRef90_S0FS13	V F E F G N N S I I I	R G L P Y L L E G C S P K D V F L I E L A	D K I F S S T P L	
UniRef90_UPI00036D80CF	V V E F G P G A L C I V	R E T P A L L G T A A M G P L L G D L G	A E A L A E A A S	
UniRef90_N1ZV77	E E E F G Q N T F I V	R H H P T W F I K G Q E E D T L R E M I	E W F L A D H K L	
UniRef90_UPI0002F505E7	F L E G H H D Y M V	S E Y P V W L P Q V E A E E V I K D M I	D Y V L K H E R V	
UniRef90_Q895H3	N I E F G G E N T I N I	R E V P F I L M G K P D I E N L F M D I	I N N I K A M G E V	
UniRef90_S2PQ94	Y L E F G G N S F V V	H E H P T W F K A G Q E E E D T I K E M V	D W V L R D G R M	
UniRef90_N9B4A9	I D Q Y G D E Q V I V	R G V P A I L H K A D F A E L I P E L L	D D L D P N D E A	
UniRef90_D1CFL1	E A E F G V K E I V I	R S I P A I L F K G E E V M A F I E D L	C Q D I N N F S N V	
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UniRef90_G4Q663	D A E P G T S L R V I	S A L P A D V E D Q G A E A F I Q D I	L T L L E A E N R S T	
UniRef90_B1N024	R L E F G A T T M I I	R E H P T W F E K G Q E E E T V R E M T	D W L L R D G Q L	
UniRef90_R5LFB3	I L E F D D K T I K I	T G L P N I G Y N I E Y K S M F K D M I	D D I D D I M E K S E K	
UniRef90_R5Q3B3	D L E P F G N G F I I	K Q L P M W M N Q I N E H L F I E D M I	Q Q I L K D N K I	
UniRef90_S0K738	H E E F G G Q H S F I I	R A H P T W Y P Q G Q E E A I R E M I	D I V L L K G S V	
UniRef90_G5H0K4	H L E P G E R E Y R L	T E A P A D I P L D E A E A T I R E L L	S L G D L H A A	
UniRef90_UPI0004713BE5	F L E F G G Q T F L V	R S H P Y W F P K G E E K E I E E M A E	S W L G L G E K S I	
UniRef90_J7TSY6	E G S V S R G K A T I	R T V S L P L R Q Q N L P H L I P E L L	R F L A D N P E A	
UniRef90_R7FML4	S E E F G E N T I K I	T G V P T V C L D I D N K D L F L E T L	D E I T A K Q E K	
UniRef90_D3LVB0	T Y E A G P T T L R I	E E V P A D L P G G E I K E S L Q T I	C R G L R E N K T I	
UniRef90_UPI0004777B87	D V I E F G G K S F A L	K A V P Q L L A G E D N R R L I V D I	A I A L D L E Q V G S S	
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UniRef90_Q3Z791	E I E F F G R R V R V	Q S I P A G F T A P Q A K A L L S E I V	D N P K D A P A E	
UniRef90_D4CRU6	D I D F E K N E I L L	R T T P T M N L R D S Y E N I K E I L	D N I S K N K D I	
UniRef90_W4LXJ1	A L E F G G H T Y R M	H S V P A L L A E R D H A A A L M D V L	D E V L R T A D E S	
UniRef90_UPI000237705A	E V V F S P K T L A V	R A V P G P L A Q G D V V I E L A R S	V L A E L A H D A S	
UniRef90_R5TKE0	E I E F G N T F I V	R V H P T W L P T Y M A E E A I R K I	I N I V I E K E S F	
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UniRef90_E0E301	I V E F G H K N I S V	R G L P A N T F G R P D E S E K F I Y E	L I D K F L D L D K S	
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