

QUERY	1	10	20	30	40																																				
UniRef90_W7L5I0	R	K	S	I	G	R	I	V	T	L	K	S	N	T	R	R	N	L	E	E	I	K	P	Y	L	F	R	A	I	E	E	A	Y	K	V	D	G	R	I		
UniRef90_K4MPP3		K	H	Q	G	R	Y	L	T	L	K	S	N	T	R	R	N	L	E	E	I	F	L	P	Y	L	F	R	A	I	E	E	A	Y	K	V	D	G	R	I	
UniRef90_L0KZQ5		Q	I	G	R	M	A	S	L	K	K	E	D	T	R	D	N	E	Q	M	I	F	L	L	L	A	E	L	V	D	D	V	I	K	K	A	R	K	V	S	
UniRef90_S0AQ9	I	R	K	N	Y	G	R	Y	I	T	L	P	E	N	T	R	D	T	N	I	I	M	P	L	L	R	K	A	V	D	S	A	F	S	K	A	N	G	P	G	L
UniRef90_F4B9G2	V	R	K	H	I	G	K	E	D	T	M	K	N	D	T	R	D	T	K	E	I	L	S	E	L	L	K	K	A	I	E	A	Y	S	K	A	N	G	G	I	L
UniRef90_R9GMH1	Q	K	S	I	G	K	E	D	T	F	K	N	D	T	R	D	T	N	I	I	L	H	S	E	L	L	V	R	M	T	E	N	I	A	F	Q	L	H	K	L	
UniRef90_V6AS45		Q	Y	S	K	I	T	T	L	K	E	D	S	R	D	F	N	F	L	A	A	N	L	D	E	I	C	T	E	L	H	N	V	V	N	G	K	M			
UniRef90_F4FZ38		H	R	G	R	Y	V	T	L	T	E	N	T	R	D	T	N	V	L	P	F	I	K	R	A	V	D	E	A	F	S	K	I	A	T	L	R	K	R	L	
UniRef90_Q3ZAI3		K	S	I	S	R	E	T	T	F	E	D	T	R	N	H	T	F	L	E	A	K	L	G	Y	L	S	E	K	I	A	T	L	R	K	R	Q	Q			
UniRef90_I2F0M6	K	K	S	I	S	K	E	E	T	F	D	K	D	T	D	V	N	K	L	K	A	V	L	L	K	M	V	E	E	T	F	E	L	R	Q	K	Q				
UniRef90_UPI00037FDD18		K	S	I	S	G	N	E	E	T	F	S	R	D	T	D	P	E	E	I	L	R	E	L	L	R	M	T	E	K	A	T	A	R	L	R	K	L	L		
UniRef90_Q468M5		K	S	I	S	R	H	G	T	F	A	E	D	T	S	D	P	V	K	I	T	G	S	L	D	L	L	A	E	S	V	H	S	S	L	N	K	L	L		
UniRef90_UPI00030E45E6	I	R	K	S	I	G	R	E	T	T	F	E	T	D	Q	N	D	D	F	I	L	N	K	I	R	T	L	S	G	E	V	A	V	R	A	D	K	H	A		
UniRef90_A0RUK5		Q	Y	H	S	R	I	V	T	L	K	K	E	S	N	E	F	G	F	L	A	E	T	L	G	E	L	C	R	D	L	H	S	S	A	V	N	K	R	R	
UniRef90_UPI00037199F6		K	Q	Y	S	R	M	I	T	L	K	E	S	T	L	N	Y	F	K	E	I	L	P	Y	L	D	T	L	A	K	E	L	S	K	Y	N	K	L			
UniRef90_UPI00035E3CD5	Q	K	S	I	G	K	E	E	T	F	G	N	D	T	I	D	M	Q	F	L	S	G	E	L	L	V	R	L	T	E	G	V	A	F	A	L	R	K	R	L	
UniRef90_W2EZE9	D	K	S	V	G	N	E	E	T	F	S	R	D	T	D	P	E	E	I	R	R	E	L	L	R	L	S	E	R	V	A	A	R	L	R	G	H	V	L		
UniRef90_UPI000368DDAB	R	T	Q	L	S	R	I	V	T	L	K	R	D	T	R	D	P	E	E	I	L	A	Q	L	E	R	L	E	E	A		R	R	Q	G	Y	L				
UniRef90_X1RU91		K	S	I	S	R	E	T	T	F	G	N	N	T	Q	D	S	S	L	L	K	A	T	L	R	Y	L	S	E	R	V	S	N	D	L	R	G	K	L		
UniRef90_I2FRP9		R	K	S	V	G	R	E	T	F	S	P	T	S	D	T	Q	A	L	L	H	F	L	K	E	S	S	D	R	V	Q	Q	D	L	R	K	E	F	K		
UniRef90_X1BM52		R	K	S	I	S	K	E	R	T	F	Y	E	D	T	N	D	L	N	L	I	S	L	K	E	E	E	N	N	R	I	H	K	N	V	N	K	I	Y		
UniRef90_UPI0004668F5E	V	D	K	S	I	S	A	A	E	T	F	D	S	D	T	E	D	Q	E	I	V	L	R	E	L	L	R	L	T	E	K	A	T	Y	R	M	R	E	F	S	
UniRef90_B3T2L8		Q	L	S	K	I	S	T	L	R	E	D	S	V	D	Y	A	F	V	E	K	S	L	L	E	L	C	E	K	L	H	S	S	I	K	I	K	I			
UniRef90_S6F8E1	R	K	S	Y	G	K	E	V	T	L	K	N	N	T	N	N	K	E	L	L	L	Y	L	K	E	L	Y	I	S	K	E	L	K	I	K	I	K				
UniRef90_W6K165		K	S	I	G	S	D	E	T	F	P	V	D	V	D	D	P	A	Y	I	H	R	E	L	L	R	L	S	A	K	T	A	S	R	M	R	G	L	V		
UniRef90_Q12U41		Q	I	G	R	M	A	S	L	T	H	D	T	R	K	S	D	L	V	L	S	L	D	E	L	D	D	D	V	I	F	S	K	V	T	A	R	N	K		
UniRef90_G8TL26	Q	K	S	I	S	T	E	S	T	F	Q	T	D	T	I	D	T	H	F	L	H	S	Q	L	V	R	M	T	E	E	I	Q	L	R	Q	N	K	L			
UniRef90_UPI000413EA7F	D	K	S	V	G	A	E	E	T	F	E	T	D	V	D	D	P	E	E	I	R	R	E	L	L	R	L	A	E	R	V	G	E	R	L	R	G	H	A		
UniRef90_X5E0I9	R	K	S	I	S	S	S	L	T	F	E	K	D	T	I	D	V	Q	A	L	K	N	L	L	A	M	A	E	K	L	Y	L	R	N	G	N	K	L			
UniRef90_U7PBH5	I	R	K	S	V	G	T	E	T	F	T	D	V	N	D	E	E	I	L	L	K	V	R	E	L	S	E	K	T	A	E	R	L	I	Q	K	S				
UniRef90_X1HE86		K	S	I	S	R	E	T	T	F	G	K	D	T	R	N	H	P	R	L	I	A	T	L	R	Y	L	S	E	R	V	G	S	E	L	R	G	K	Q		
UniRef90_C7HST7		R	K	S	I	G	R	E	T	F	F	Q	N	T	K	D	L	K	L	Y	A	Y	I	D	E	L	S	Q	K	I	A	E	E	K	A	K	E	I	K		
UniRef90_UPI00029B43FC	R	K	S	I	S	S	E	R	T	F	E	Q	N	T	G	D	M	K	M	L	M	G	L	V	V	K	M	T	E	K	I	A	Y	A	K	E	K	L			
UniRef90_N0E3I3		R	S	I	G	S	D	E	T	F	A	H	D	L	D	D	P	A	L	I	H	R	H	L	L	A	L	S	E	R	T	A	S	R	V	R	G	L	A		
UniRef90_S7W1S8		K	S	M	G	H	E	T	F	F	E	Y	D	V	L	D	S	D	E	I	R	R	E	L	L	R	L	S	A	K	V	A	I	R	L	R	R	M	L		
UniRef90_UPI0003623610	D	K	S	I	G	A	E	E	T	F	P	S	D	V	D	D	P	A	A	I	R	R	E	L	L	R	L	S	E	K	T	A	R	R	L	R	G	Q	V		
UniRef90_F5IU7	I	R	K	S	M	S	E	E	T	F	E	H	D	I	D	N	L	E	E	L	A	L	T	L	D	E	V	A	R	D	A	F	H	D	I	E	K	F	K		
UniRef90_UPI00045E8DB8		K	S	I	G	A	E	E	T	F	D	V	N	T	A	D	L	T	E	V	G	R	Q	L	L	A	L	A	D	R	V	C	G	Q	L	R	G	K	V		
UniRef90_G8TQL3		K	S	I	S	T	E	S	T	F	D	E	N	I	L	D	L	E	R	L	E	M	N	E	L	V	R	M	T	E	E	I	V	A	Y	R	Q	D	N	K	M
UniRef90_W9DRL4		K	S	V	S	T	E	D	T	F	D	E	D	I	S	D	P	G	R	I	E	Q	V	F	K	E	L	T	E	K	V	H	A	S	M	M	K	R	F		
UniRef90_UPI00037B7DDA	D	R	K	S	I	G	A	E	E	T	F	A	Q	N	L	D	N	S	E	R	F	L	T	E	F	L	R	L	T	E	R	A	T	A	R	L	R	D	R	F	
UniRef90_C2M407	L	R	K	S	I	G	V	E	H	T	F	E	N	I	T	S	E	R	F	L	E	K	P	L	K	E	L	C	E	E	V	A	L	R	L	K	E	K	L		
UniRef90_UPI00036D7DE7	V	E	K	S	I	G	T	E	T	F	D	V	D	V	D	V	S	R	L	R	R	T	L	L	A	L	A	Q	E	V	A	V	R	A	R	S	A	R	K		
UniRef90_E4T8Q8	I	R	K	S	V	S	A	E	N	T	F	A	I	D	T	D	I	Y	E	E	L	P	E	L	D	V	L	T	R	E	V	V	D	Y	I	Q	K	F	K		
UniRef90_Q30V82		K	S	E	S	A	E	N	T	F	E	E	D	T	D	R	E	L	L	K	T	W	L	K	Q	A	E	R	V	N	Q	R	R	M	G	L	S				
UniRef90_UPI0003A7E0DE		S	L	G	A	E	E	T	F	P	A	D	L	A	D	P	E	R	L	D	R	E	F	L	R	L	S	E	R	V	G	G	R	L	R	G	Q	V			
UniRef90_K1YMZ5		K	S	I	S	N	E	I	T	F	E	K	D	I	Q	D	K	E	E	V	L	K	K	L	N	L	S	E	K	V	S	R	R	L	N	N	L	K			
UniRef90_J7LT02		K	S	I	G	A	E	E	T	F	S	V	D	T	A	D	Q	A	L	L	H	R	E	L	L	R	L	S	H	R	T	A	I	R	L	R	G	M	L		
UniRef90_D9V4C4		K	S	I	G	A	E	H	T	F	D	V	D	V	L	D	R	G	E	L	S	V	E	L	L	R	L	S	E	R	V	G	A	T	L	R	S	R	R		
UniRef90_UPI0004261D97		R	K	S	I	G	K	E	T	F	F	N	Y	D	R	N	D	S	T	E	I	L	S	V	L	E	T	L	T	E	K	V	S	T	R	L	R	G	V	V	
UniRef90_UPI0003B4A0D0	V	E	K	S	I	G	H	E	Q	T	F	H	D	V	T	D	A	S	T	L	R	R	E	L	L	R	M	S	Q	Q	A	H	R	L	R	G	A	V			
UniRef90_I3VRY1		K	S	I	G	K	E	T	T	L	K	K	D	T	S	D	V	D	L	L	K	Y	L	R	G	F	A	N	I	V	S	S	K	S	E	G	L	Y			
UniRef90_A0A024H4G1		K	S	I	G	A	E	E	T	F	A	V	D	T	I	D	V	D	A	L	H	R	E	L	L	R	L	A	H	R	T	A	G	R	L	R	G	M	V		
UniRef90_UPI00036CC5DF	R	K	S	I	S	T	E	N	T	F	Q	A	D	T	I	D	V	K	M	L	R	A	I	L	T	G	M	T	E	K	I	A	F	R	L	R	K	Q	L		
UniRef90_F8X181	I	R	K	S	I	S	S	E	T	F	D	R	D	I	D	S	L	D	E	L	A	V	E	L	D	A	V	A	R	D	T	F	D	Y	L	Q	K	K	L		
UniRef90_A7I5X9		K	S	I	S	K	E	T	T	F	A	N	D	T	E	D	P	K	E	I	A	A	T	M	E	L	L	V	R	E	V	A	Q	A	I	E	A	L	Q		
UniRef90_UPI000371AF92		K	S	I	G	K																																			

QUERY	50	60	70	80
UniRef90_W7L5I0	P K A I H V V A V T E D L D I V S	R G R T F T S Y G L S K E T A Y S E S V K L L Q		
UniRef90_K4MPP3	P K S I A V V A I T M E D L D I V S	R E R T F T S Y G L S K E T A Y S E S V K L L Q		
UniRef90_L0KZQ5	F R S V T I T V I F S N F K T S T K S R T	L N H A V S D K Q V L H D T A R E M M G		
UniRef90_S0AQA9	P G E I S A I G I M E D L N I V S R S Y T	G N F I S L E S A Y G I A T G L M G		
UniRef90_F4B9G2	P K T L A V V A I M E D L D I V S R E K A	S F N S Y T A S K D D V I L Q T A K E L F K		
UniRef90_R9GMH1	G G C V G V K L R Y S N F D T Y T R Q A S	I S I S D D V I L Q T A K E L F K		
UniRef90_V6AS45	F K S V G I Q F V Q S D L S N K T K S R M	L R N P T S D D E L K K T A M Q L L Q		
UniRef90_F4FZ38	P M E I Y V V A I M E D L D I V S K G K S	Y K F A L T R E Y A N V V S I E L M K		
UniRef90_Q3ZAI3	A R V V Q I V K I R F A D F T T L T R Q K	H L N H P C N Q E I F Q T A L K L M N		
UniRef90_I2F0M6	C G C V T V K I R Y S N F D T H T K Q F N	I P Y T T D D Q T I I D K V T E L F E		
UniRef90_UPI00037FDD18	A K T I T I K I K F A D F T S M T R S K T	L S P L A T S D H E T Y E V V K K L L Y		
UniRef90_Q468M5	F K T V T I T V R F E D F S T Y T R S K T	I S I W T S D I V I K R T A M Q L L S		
UniRef90_UPI00030E45E6	G R T I T V K M K T H N F E T L S K Q T S	V N N P V H D E E I Y N I A Y E L Y N		
UniRef90_A0RUK5	F K S V G I Q L V Q S D L S Q K T R S R M	L S P V S D L E V L E K S V Q L L R		
UniRef90_UPI00037199F6	A K G I V G I A I L T D L S T V S K S T I	L N S P T S Y E I K E S E K L L R		
UniRef90_UPI00035E3CD5	C G C I T V K L R Y A N F D T V S K Q C V	L P Y T A N D D V L L A K A K E L F A		
UniRef90_W2EZE9	G R T V S V K L R R S D F T T I T R S R T	L K R E A T D A K E I Y D T S C E L Y		
UniRef90_UPI000368DDAB	C R G V G I A I L T D L S T V S K S T I	L N S P V V D L E A F R R S V S L L V		
UniRef90_X1RU91	M K C V T L K L R Y A D F T T I T R R Q T	L R Q A S D D Q I I Y D T G V K L L N		
UniRef90_I2FRP9	G K T V T L I A K R E F Q R F S R A R T S	T R P V N R Q E L V D I T R S L L		
UniRef90_X1BM52	Y K T V T L K I R L E G F I T Y T R S K S	F T H H V D B K E Q V L K V I E L L N		
UniRef90_UPI0004668F5E	A R T I S I K V R F A D F K T I S R S K T	V P L A I S A T H E V F E V V K T L F		
UniRef90_B3T2L8	F R S V G I H L T Q D D L S K T R S R M L	N R H P T S L D E L K N V S R Q L L K		
UniRef90_S6F8E1	G K T V T I K Y K T S N F S K T R S R T	L N R Y Y T N R E D F Y K I S K E V L K		
UniRef90_W6K165	G R T V S I K V R F A D F T T I T R A K T	L L R D P T D T Q E I Y A T A K S L Y D		
UniRef90_Q12U41	F R S I T V T V I Y S N F K T V T K S H T	L N R H Y T M A K A V L R E V S Q I M G N		
UniRef90_G8TL26	T G C V T V K V R Y S N F E T F T K Q I T	I P Y T N A D H V L L Q T A R E L F N		
UniRef90_UPI000413EA7F	A R T V S V K L R M A N F K T I T R S R T	L A E P T D L R V I Y I T A C G L Y E		
UniRef90_X5E0I9	T S C V T V K R Y S D F D T R T R S Q R	I L P Y T S L D H T I Q T M E L F D N		
UniRef90_U7PBH5	G K T V T V I K Y T H Q F E T L S R Q R S	L R D P V R N E I I Y N I A Y T L Y N		
UniRef90_X1HE86	A R C V T L K L R Y A D F T T I T R R S L	R Q T S D D Q T I F D T G L Q L L N		
UniRef90_C7HST7	A Y T I N L K I K T E Y F D T R T K S Y T	L S P I S K E D I A E I A K D L L D T		
UniRef90_UPI00029B43FC	T G C I T V K I K Y S D F D T R L K K T	V P Y T S F D H L L I P I A K E L L T		
UniRef90_N0E3I3	G R T I S I K V R F A D F T T I T R S R T	L R E P T D S R E I Y E T A V G L Y D		
UniRef90_S7W1S8	A R T V V L K L R F E D F S T V T R S R T	L P E P T D L R T L Y E T V R T I Y D		
UniRef90_UPI0003623610	G R T V V V K L R R A D F T T V T R S R T	L P D P T D A R D I S A V A R D L Y		
UniRef90_F5IU77	A R T V T L K I K Y A D F K T I T R S K T	F P A S V A D E S F Y K A G F E L L Q		
UniRef90_UPI00045E8DB8	A R T V S V K I R Y A D F Q T T L T R S T	S I D G V P T D T D R E I Y L A A R E L		
UniRef90_G8TQL3	A G C I A V K I R Y P D F E T T S R Q T S	I D Y T F Y D D E F I P K A K D L F H		
UniRef90_W9DRL3	F R T V T I K V R Y E D F R T Y T R A R T	L N A A T D K E V I A K N A L I L M E		
UniRef90_UPI00037B7DDA	A K T I S I K V R F A D F S T I N R S K T	L P L P I S T H D V Y E V V K G L L Y		
UniRef90_C2M407	A K T V T L K L K Y S D F K Q Q T R S R S	I P E F I N S T D I Y A V V E E L L E		
UniRef90_UPI00036D7DE7	G R T L A V K V R F G D F R T I T S R S R T	L P G P T D A H E I F Q V A W E L L E		
UniRef90_E4T8Q8	G R T A S I K V K F A D F R V I T R S K T	F P T P V S D E T L Y D G A G K E M L K		
UniRef90_Q30V82	G R T V T L K V K F A D F R T V T R S R T	L A A P T S S T V I Y D T A A A L L D		
UniRef90_UPI0003A7E0DE	A R N I S I K V R Y A D F T T V T R A R T	L S P E P T D V T M I Y R S A R A L F A		
UniRef90_K1YMZ5	G L T V T L K I K T N Q F K T I T R S K T	L S T P V Y L D I I Y Q N I S D L I N		
UniRef90_J7LT02	A R T V A L K L R Y S D F S T V T R S R T	V Q T P V S A Q L I Y Q N V A V L L T		
UniRef90_D9V4C4	G R T V S I K V R F A D F R T I T R A R T	V L S A T D A R D I H R T A V E L L T		
UniRef90_UPI0004261D97	A K V I T V K I K T A N F E T H T R Q M M	T V D P V S S D D I Y H Y A Y N L Y H		
UniRef90_UPI0003B4A0D0	G R T I S L K L R Y S D F R T I S R S R T	I G E P T A V K R I Y E V A G L L G		
UniRef90_I3VRY1	C R T V T V K I K T S N F I V H T R S R T	L N E Y I D L D D I Y S V A E S I F K		
UniRef90_A0A024H4G1	A R T I A L K L R F A D F S T I T R S R T	I Q T P V S A Q L I Y G V A L L L E		
UniRef90_UPI00036CC5DF	T S C V A V K I R Y S N F D T Y A K Q M M	I P Y T A N D K T L I G T A L L L F D		
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UniRef90_UPI0003A8FD49	P K T I T L K V K Y S N F K Q V T R A F T	V T H N L E D I K S V L R K L L S F		
UniRef90_UPI000378A40E	A K T V T L K L R Y P S F Q T T R S Q T L	P E P T Q D D T I Y R I A R A L L F		
UniRef90_G8R525	T S T I T L K I R Y S N F D T H T R Q K R	V A Y T S D D Q K I L E V I S E L F D		
UniRef90_U1EDR0	A K T V T V K I K T Y K F E T Y S K R S	L R E P V R S E D I Y N I A A L F E T		
UniRef90_G2HAB3	G R T I T L K V K Y A D F K S S K S H S	L P E P T S T E T I F N D E A Y A R L D		
UniRef90_U2PYU9	G R T L T I K Y K T W D F K S H T K S K T	L M N Y V D K D E I F K N A V D I L T		
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UniRef90_G7DKQ4	G R T V T L K I K F A D F E I I T R S R S	V T A P V A R D D L E R L A C G L L E		
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UniRef90_I3YYG1	T A C V T F K I R Y S D F Q T Y T M Q Q K	I P Y S A D H K I I P V V M E L F K		

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UniRef90_L0KZQ5	Q	F	L
UniRef90_S0AQAG	K	I	L
UniRef90_F4B9G2	E	I	L
UniRef90_R9GMH1	R	L	Y
UniRef90_V6AS45	E	A	L
UniRef90_F4FZ38	K	I	L
UniRef90_Q3ZAI3	G	I	L
UniRef90_I2F0M6	K	L	Y
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UniRef90_UPI00030E45E6	S	L	K
UniRef90_A0RUK5	E	A	L
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UniRef90_UPI00035E3CD5	K	L	Y
UniRef90_W2EZE9	E	A	A
UniRef90_UPI000368DDAB	E	L	L
UniRef90_X1RU91	M	S	L
UniRef90_I2FRP9	Q	E	I
UniRef90_X1BM52	Q	F	I
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UniRef90_B3T2L8	E	V	L
UniRef90_S6F8E1	K	E	D
UniRef90_W6K165	A	L	G
UniRef90_Q12U41	E	L	L
UniRef90_G8TL26	K	L	Y
UniRef90_UPI000413EA7F	G	A	G
UniRef90_X5E0I9	Q	L	Y
UniRef90_U7PBH5	E	L	K
UniRef90_X1HE86	Q	A	L
UniRef90_C7HST7	Q	I	L
UniRef90_UPI00029B43FC	R	L	Y
UniRef90_N0E3I3	A	L	G
UniRef90_S7W1S8	D	F	A
UniRef90_UPI0003623610	A	A	A
UniRef90_F5IU7	N	I	L
UniRef90_UPI00045E8DB8	A	T	D
UniRef90_G8TQL3	K	L	Y
UniRef90_W9DRL4	E	F	M
UniRef90_UPI00037B7DDA	Q	A	L
UniRef90_C2M407	K	L	Y
UniRef90_UPI00036D7DE7	P	A	L
UniRef90_E4T8Q8	L	V	D
UniRef90_Q30V82	E	M	L
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UniRef90_K1YMZ5	K	V	D
UniRef90_J7LT02	E	S	L
UniRef90_D9V4C4	E	L	R
UniRef90_UPI0004261D97	E	V	K
UniRef90_UPI0003B4A0D0	E	A	W
UniRef90_I3VRY1	E	A	K
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UniRef90_A7I5X9	E	L	W
UniRef90_UPI000371AF92	A	L	A
UniRef90_UPI00037A53A9	A	I	L
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UniRef90_K9AZA9	E	V	K
UniRef90_F0SC93	H	V	D
UniRef90_UPI0003B67380	G	L	D
UniRef90_D5EB13	E	F	S
UniRef90_UPI000469FD8D	E	A	D
UniRef90_R4V6Y6	H	H	L
UniRef90_Q26G18	Q	E	G
UniRef90_D7UXU8	N	A	S
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UniRef90_UPI0003754693	K	L	Y
UniRef90_UPI00037C08B7	R	V	D
UniRef90_Q2N8B6	A	Q	L
UniRef90_UPI000375F82D	S	I	Y
UniRef90_G7DKQ4	A	E	M
UniRef90_H1XUV2	Q	I	R
UniRef90_W6TSC4	Q	V	Y
UniRef90_U2EA38	E	L	E
UniRef90_J9H7J7	A	L	N
UniRef90_UPI00046A63B4	Q	L	D
UniRef90_UPI00035FB581	K	F	Y
UniRef90_UPI00039D2FB5	K	L	Y
UniRef90_F5XRU2	R	L	R
UniRef90_UPI0002491111	K	L	D
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UniRef90_I3YYG1	K	L	Y

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UniRef90_G2FN88	I	V	K	S	I	G	R	E	I	T	F	A	T	N	I	G	A	S	E	D	V	L	E	T	L	L	K	L	A	V	D	V	V	G	A	R	L	R	S	L	R
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UniRef90_U7FIG1	K	S	I	S	A	E	T	T	F	F	T	D	I	S	S	F	D	T	I	F	E	P	L	L	R	N	L	A	E	K	V	S	A	R	L	N	K	K	L	S	
UniRef90_B1YK83	R	K	S	I	G	S	E	S	T	F	E	E	D	T	S	E	D	I	T	I	F	E	T	L	K	R	E	A	L	S	V	V	K	T	L	N	K	Q	S	V	
UniRef90_A1WY69	R	K	S	I	G	A	E	R	T	F	G	D	D	T	R	D	L	G	E	I	H	Q	R	L	A	P	L	I	T	K	V	A	T	R	L	N	H	H	V		
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UniRef90_C6Y0F2	K	S	I	S	A	E	D	T	F	F	S	Y	D	L	T	R	F	E	E	M	N	P	E	I	E	K	I	A	N	V	V	F	K	R	M	K	G	L	A		
UniRef90_L0KB65	P	K	S	I	G	K	E	T	T	F	K	V	D	I	K	D	K	S	K	L	S	Q	Y	L	E	T	K	L	C	N	Q	V	I	M	R	A	K	D	K		
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UniRef90_UPI0004030941	V	R	K	S	I	G	A	E	R	T	F	A	D	D	L	T	E	E	D	M	L	E	R	L	Q	F	L	A	E	K	V	T	Q	D	R	L	T	R	L	Q	
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UniRef90_F4B1G8	I	R	K	S	L	A	A	E	R	T	F	A	S	E	N	I	T	S	E	I	F	M	L	E	K	L	D	I	A	E	E	V	E	K	R	L	A	K	V	A	
UniRef90_A9LGX4	K	S	I	S	H	E	T	T	F	A	V	D	D	M	E	R	L	R	G	V	L	A	Q	L	T	A	E	E	Q	V	A	R	R	V	L	A	K	L	R		
UniRef90_Q4L7K8	V	R	K	S	V	G	T	E	R	T	F	S	T	D	V	N	D	E	E	I	L	Q	K	I	W	E	L	S	G	K	T	A	E	R	L	S	K	K	S		
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UniRef90_C6VYA9	K	S	L	G	A	E	D	T	F	T	Y	D	L	T	T	P	D	E	M	N	K	E	L	D	R	I	G	V	T	V	A	N	R	L	E	K	L	K			
UniRef90_H2CKA1	R	K	S	V	G	I	E	D	T	F	S	A	D	V	L	D	R	S	V	E	L	M	Q	R	L	R	Q	L	A	E	G	L	S	F	R	L	H	G	K	P	
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UniRef90_F3XV37	I	R	K	S	V	G	A	E	Q	T	F	A	E	N	L	T	S	E	I	Y	M	L	K	E	L	D	S	I	A	S	E	V	A	M	R	L	Q	K	V	A	
UniRef90_C8NE97	R	K	S	M	G	S	E	R	T	F	L	K	D	T	T	D	H	G	I	L	S	E	Y	L	E	K	F	S	L	E	I	A	S	M	L	Q	K	R	A		
UniRef90_D1BIM9	R	S	I	G	A	E	T	T	F	A	H	K	D	V	V	D	S	V	E	A	R	L	L	E	L	S	D	R	C	A	D	R	L	Q	G	F	L				
UniRef90_UPI000479C1B2	K	S	I	G	R	S	T	T	L	S	E	D	T	S	D	L	E	T	L	K	D	I	L	M	E	L	S	E	D	V	T	A	R	K	H	Q	K	K			
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UniRef90_G2DEZ8	R	K	S	I	S	K	E	T	T	F	A	E	D	V	R	Q	S	S	L	R	R	L	Q	R	L	S	A	E	V	T	A	R	Y	K	G	L	S				
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UniRef90_R9GZ27	K	S	L	A	A	E	D	T	F	A	Y	D	L	S	T	L	E	E	M	E	A	E	L	D	K	I	A	K	L	V	Y	D	R	L	L	K	K	K			
UniRef90_N1V0J1	V	E	K	S	I	G	A	E	E	T	F	A	H	D	V	D	T	A	V	L	E	R	L	R	L	A	H	R	T	A	V	R	L	R	G	L	Q	R			
UniRef90_L0HHR3	I	V	K	S	I	S	R	E	T	T	F	E	I	D	T	D	R	E	H	L	L	S	V	I	D	E	L	I	R	C	V	G	A	S	L	E	G	L	R		
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UniRef90_UPI0003B6A4A9	V	P	K	S	V	S	R	E	T	T	F	L	E	J	D	I	W	D	R	R	L	L	A	H	L	A	Y	L	C	D	R	L	A	P	L	R	K	E	R		
UniRef90_F0GUZ6	R	K	S	I	G	K	E	R	T	F	S	K	N	T	N	D	I	N	L	Y	S	Y	L	K	N	L	S	E	F	I	E	D	E	M	N	E	I	Q			
UniRef90_U2HPZ0	Q	K	S	M	S	K	E	N	T	F	L	A	D	T	I	N	M	D	L	L	R	K	T	L	V	A	M	V	D	E	L	A	Y	D	L	Q	K	L			
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UniRef90_A3WEG5	V	R	K																																						



UniRef90_U2YJC3	A	G	T	V	S	L	K	V	R	L	S	D	F	S	T	Y	S	R	S	Q	T	L	L	P	L	A	T	N	V	Q	R	I	G	S	A	A	I	E	L	L	S				
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UniRef90_U7FIG1	G	R	G	V	T	L	K	L	K	T	A	D	F	K	T	I	T	R	A	R	T	H	F	L	P	T	Q	L	D	K	L	Y	L	A	A	G	E	N	L	L	Q				
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UniRef90_F4B1G8	G	K	T	I	T	L	K	I	K	Y	S																																		

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Y P E E T G P I R L I G V R T S L S N F  
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R V P L A Q S I R L I G V R T S L S N F

90  
100

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UniRef90_C3PHE2	A	R	T	V	S	I	V	K	V	L	R	M	A	D	F	H	I	E	S	R	S	A	T	L	L	S	Y	A	T	D	D	L	K	V	L	E	A	K	N	L	S	L	
UniRef90_D1JEL0	F	K	T	I	Q	I	K	V	L	K	R	K	F	D	F	T	I	A	T	R	A	K	T	S	L	L	S	Y	A	T	D	D	L	K	V	L	E	A	K	N	L	S	L
UniRef90_B81170	A	R	T	I	Q	I	K	V	L	K	R	K	F	D	F	T	I	A	T	R	A	K	T	S	L	L	S	Y	A	T	D	D	L	K	V	L	E	A	K	N	L	S	L
UniRef90_UPI0002197A10	G	K	T	I	V	L	K	V	L	K	R	K	F	D	F	T	I	A	T	R	A	K	T	S	L	L	S	Y	A	T	D	D	L	K	V	L	E	A	K	N	L	S	L
UniRef90_UPI0003A89863	G	R	T	I	V	L	K	V	L	K	R	K	F	D	F	T	I	A	T	R	A	K	T	S	L	L	S	Y	A	T	D	D	L	K	V	L	E	A	K	N	L	S	L
UniRef90_COXS17	A	R	T	I	V	L	K	V	L	K	R	K	F	D	F	T	I	A	T	R	A	K	T	S	L	L	S	Y	A	T	D	D	L	K	V	L	E	A	K	N	L	S	L
UniRef90_K2Q653	T	A	C	V	S	V	K	V	L	K	R	K	F	D	F	T	I	A	T	R	A	K	T	S	L	L	S	Y	A	T	D	D	L	K	V	L	E	A	K	N	L	S	L
UniRef90_W6S3T6	G	K	T	I	V	L	K	V	L	K	R	K	F	D	F	T	I	A	T	R	A	K	T	S	L	L	S	Y	A	T	D	D	L	K	V	L	E	A	K	N	L	S	L
UniRef90_W5Y9F2	V	R	T	I	V	L	K	V	L	K	R	K	F	D	F	T	I	A	T	R	A	K	T	S	L	L	S	Y	A	T	D	D	L	K	V	L	E	A	K	N	L	S	L
UniRef90_UPI0002DDB466	G	K	T	I	V	L	K	V	L	K	R	K	F	D	F	T	I	A	T	R	A	K	T	S	L	L	S	Y	A	T	D	D	L	K	V	L	E	A	K	N	L	S	L
UniRef90_I0WJN6	G	K	T	I	V	L	K	V	L	K	R	K	F	D	F	T	I	A	T	R	A	K	T	S	L	L	S	Y	A	T	D	D	L	K	V	L	E	A	K	N	L	S	L
UniRef90_E2SAD2	G	R	T	I	V	L	K	V	L	K	R	K	F	D	F	T	I	A	T	R	A	K	T	S	L	L	S	Y	A	T	D	D	L	K	V	L	E	A	K	N	L	S	L
UniRef90_UPI000288BD6B	G	R	T	I	V	L	K	V	L	K	R	K	F	D	F	T	I	A	T	R	A	K	T	S	L	L	S	Y	A	T	D	D	L	K	V	L	E	A	K	N	L	S	L
UniRef90_UPI000361B0FA	G	K	T	I	V	L	K	V	L	K	R	K	F	D	F	T	I	A	T	R	A	K	T	S	L	L	S	Y	A	T	D	D	L	K	V	L	E	A	K	N	L	S	L
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UniRef90_I5BOM8	C	R	K	V	G	I	K	V	L	K	R	K																															



UniRef90_C3PHE2	A	R	Y	P	E	E	L	G	P	L	R	V	G	V	S	Y	S	G	L	100
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UniRef90_C0XS17			Y	P	D	E	V	G	P	I	R	L	V	L	G	I	T	S	Y	G
UniRef90_K2Q653	Q	L	Y	N	R		R	L	L	V	R	L	L	I	G	V	R	F	T	S
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UniRef90_T0GCV3	E	F	L		D	Q	G	G	S	I	R	L	L	I	G	L	S	I	S	N
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UniRef90_C2GKM3				Y	P	S	E	V	G	A	I	R	L	V	L	G	V	T	S	L
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UniRef90_G8SEI8	E	L	D	T	S		G	G		I	R	L	L	I	G	V	G	V	S	T
UniRef90_A4GAC8	R	V	P	L		D			K	R	L	L	I	G	V	R	I	T	S	L
UniRef90_H1Y555	T	S	F	E	E	G	Q		K	V	R	L	L	I	G	I	S	L	S	N
UniRef90_Q0A4X2	Q	D	T	E	A	G	D	R	P	V	R	L	L	I	G	V	T	S	L	S
UniRef90_Q16C83	Q	V	G	D	E		G	P		Y	R	L	L	I	G	V	T	S	L	S
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UniRef90_S4XK60	R	F			D	L	S	R	P	V	R	L	V	L	G	V	A	A	G	D
UniRef90_D6S336	Q	I			D	Y	R	T	A	G	I	R	L	L	I	G	I			

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UniRef90_X2GMM7		K	S	V	G	S	E	T	T	F	Q	D	N	T	S	R	D	T	D	T	P	L	R	D	V	Q	I	T	T	T	Q	N	A	D	V	A	F	E	D	R	L	L	K	S	G	Y			
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UniRef90_MOHC65	P	K	S	Y	Q	G	E	E	T	F	Y	S	T	R	T	V	D	D	I	E	T	V	H	D	T	L	H	Q	I	A	N	K	V	A	T	E	K	L	D	N	L	Y							
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UniRef90_I4Z1L3	I	R	K	S	V	G	A	E	N	T	F	S	N	D	L	E	S	E	A	M	K	T	L	Q	P	I	L	I	D	K	V	H	C	D	Q	T	G	V	I	R									
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UniRef90_K0AVX3	R	K	S	I	S	V	N	E	R	T	F	T	N	H	T	K	N	K	E	I	L	L	Q	E	Y	L	Y	K	F	S	L	E	V	A	L	S	L	N	K	S	K	Q							
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[illegible]

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UniRef90_C7QBJ0	K	S	V	G	N
UniRef90_G0VMR5	P	Q	S	V	L
UniRef90_S1R129	R	K	S	I	G
UniRef90_H5WWE6	V	P	R	S	R
UniRef90_U3QA083	K	G	I	S	N
UniRef90_UPI0003FBCB41	I	R	K	S	I
UniRef90_R6VFX2	V	R	K	S	V
UniRef90_E0TCC5	K	S	V	G	N
UniRef90_UPI0003B69635	R	K	S	I	S
UniRef90_J3LQT9	L	R	K	S	I
UniRef90_UPI0002A4BF87	R	K	S	M	S
UniRef90_C0QJE1	K	S	I	S	S
UniRef90_I5C4M8	R	K	S	I	S
UniRef90_X1CZ63	K	S	M	G	H
UniRef90_W4PY93	K	S	I	L	G
UniRef90_UPI0004793E2B	R	K	S	I	L
UniRef90_R4VU60	P	K	S	I	L
UniRef90_UPI0003829E4A	K	Q	I	S	S
UniRef90_Q1QKL2	K	S	I	S	S
UniRef90_G0A904	K	S	I	S	R
UniRef90_F3KZ08	I	R	K	S	V
UniRef90_UPI00036DF289	P	R	K	S	V
UniRef90_UPI00046329E3	I	P	K	S	M
UniRef90_C0BH12	I	P	K	S	L
UniRef90_UPI000477B7B0	K	S	V	L	G
UniRef90_I4W129	K	Q	I	S	A
UniRef90_M9VFV1	I	A	K	S	V
UniRef90_A0A059DNK4	R	K	S	V	S
UniRef90_E2MVQ7	V	A	K	S	V
UniRef90_W8X0C6	P	K	S	I	L
UniRef90_UPI0002F2742B	K	S	I	L	G
UniRef90_D4H7Z8	K	S	I	G	H
UniRef90_H5UF55	K	Q	I	S	A
UniRef90_UPI0002625881	K	S	I	S	S
UniRef90_UPI000376BBDE	K	S	I	S	N
UniRef90_A7H6L7	R	S	V	L	G
UniRef90_D4YF51	I	R	K	S	I
UniRef90_H6N3U6	V	A	K	S	I
UniRef90_G8APD5	K	S	I	S	A
UniRef90_F8FPG8	K	S	I	L	G
UniRef90_B9JYH1	K	S	I	S	A
UniRef90_R5MJHH4	I	R	K	S	V
UniRef90_UPI0003F8D6C0	K	S	Y	S	N
UniRef90_H0GYF2	R	S	I	L	G
UniRef90_I0GPR6	K	S	L	S	R
UniRef90_UPI00047C61BA	K	S	V	S	V
UniRef90_D8P8Z5	K	S	V	S	H
UniRef90_A1ZRT8	I	R	K	S	I
UniRef90_UPI00035D85C3	K	S	V	S	R
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UniRef90_R4KLY3	K	S	V	G	K
UniRef90_UPI000455D171	L	R	K	S	I
UniRef90_UPI00046AD7CA	R	K	S	I	G
UniRef90_R5BMU9	H	S	I	G	N
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UniRef90_U2XQZ3	K	S	I	S	S
UniRef90_C7DCU4	K	G	L	S	N
UniRef90_UPI0004756266	R	K	S	V	G
UniRef90_UPI0003FC2F4B	V	R	K	S	L
UniRef90_W5XBX9	Q	S	I	S	A
UniRef90_UPI0003796983	R	R	S	I	G
UniRef90_C9A4X3	R	K	S	V	G
UniRef90_UPI00036B3C03	I	R	K	S	I
UniRef90_U9W233	K	G	F	S	A
UniRef90_R6L6L4	K	S	V	S	A
UniRef90_X5MPF4	K	S	I	G	H
UniRef90_T0C4L1	K	S	I	G	N
UniRef90_D8FC11	K	S	V	G	N
UniRef90_Q7USY7	K	G	I	G	H
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UniRef90_UPI00024885F8	R	K	S	S	G
UniRef90_V4GRP8	P	K	S	L	S
UniRef90_U1QR25	P	K	S	L	S
UniRef90_UPI0002F93D1F	K	S	I	G	N
UniRef90_J9GHW5	I	R	K	S	I
UniRef90_F4GIK2	H	S	I	S	S
UniRef90_F7NIX4	K	S	V	G	N
UniRef90_W4XZ50	R	K	S	M	S
UniRef90_R6YS37	P	K	G	I	G
UniRef90_B8KVE2	R	K	S	I	G
UniRef90_H0PVZ7	P	K	S	I	S
UniRef90_UPI000364D744	P	K	S	I	S
UniRef90_F9ZPI2	R	K	S	V	G
UniRef90_R7NWX7	I	R	K	S	V

	50	60	70	80																																														
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UniRef90_B0VHN7	I	R	G	I	T	I	K	V	K	G	A	H	D	N	F	E	L	I	V	T	R	S	S	E	N	T	P	S	N	T	N	K	D	E	L	T	I	F	A	S	A	G	E	T	H	R	L	M	L	I
UniRef90_7Q7BJ0	G	R	T	I	T	I	K	V	K	R	Y	A	D	N	F	E	K	T	I	T	R	S	S	E	N	T	P	S	N	T	N	K	D	E	L	T	I	F	A	S	A	G	E	T	H	R	L	M	L	I
UniRef90_G0VM29	G	R	T	I	T	I	K	V	K	R	Y	A	D	N	F	E	K	T	I	T	R	S	S	E	N	T	P	S	N	T	N	K	D	E	L	T	I	F	A	S	A	G	E	T	H	R	L	M	L	I
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UniRef90_H5WWWE6	A	A	R	V	V	A	V	K	V	R	F	A	D	F	I	T	T	T	T	R	S	R	V	T	L	L	P	E	P	T	N	D	V	T	I	L	F	E	R	S	A	M	E	L	V	F	D	E		
UniRef90_U3QA83	G	R	V	V	T	L	K	L	K	R	A	D	F	H	T	L	L	T	T	R	S	R	V	S	T	L	L	P	E	P	T	N	D	V	T	I	L	F	E	R	S	A	M	E	L	V	F	D	E	
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UniRef90_R6VFX2	G	R	T	L	T	L	K	V	K	Y	A	D	F	T	Q	I	S	K	R	Q	T	I	L	N	H	A	L	S	L	S	K	A	S	I	L	D	P	L	A	K	R	L	L	A	T	A	R	L	A	T
UniRef90_E0TCC5	G	R	V	V	T	L	K	L	K	T	A	R	F	E	T	H	T	R	Q	Q	K	I	L	P	A	H	A	S	N	L	T	V	I	L	F	D	C	A	R	A	N	M	L	T	K	K	E			
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UniRef90_C0QJE1	A	T	N	I	T	I	K	L	K	N	S	D	F	T	Q	I	S	K	R	Q	T	K	L	M	V	I	A	C	A	S	T	A	I	F	A	Y	R	E	A	C	A	L	L	F	E	E	R			
UniRef90_I5C4M8	G	R	T	A	V	L	K	L	K	Y	S	D	F	S	Q	Q	T	R	S	R	S	Q	E	H	Y	I	P	E	E	A	L	I	E	E	F	Y	R	A	L	L	E	L	L	E	E	R				
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UniRef90_UPI0004227859	I	R	K	S	I	G	T	E	T	T	F	E	A	D	I	S	Q	R	E	A	S	I	L	Q	T	I	S	K	L	S	G	L										
UniRef90_E5AR64	P	K	S	I	M	S	R	E	T	T	F	E	R	A	D	M	H	D	R	A	S	L	S	A	I	F	T	D	L	C	V	R	V									
UniRef90_L9N8T4	R	Q	Q	I	S	K	E	T	T	T	F	D	S	D	F	T	L	A	Q	L	Q	C	Y	W	H	G	L	A	E	K	V	W										
UniRef90_B6IN41	K	S	I	M	S	T	E	T	T	T	F	E	R	D	F	G	D	R	E	D	T	L	E	H	A	L	W	P	L	C	E	T	V									
UniRef90_UPI000359F820	R	K	S	I	M	S	T	E	T	T	F	E	N	E	L	I	N	S	N	R	E	K	L	L	Q	K	L	D	E	V	L	A	H	E	L							
UniRef90_UPI000441812B	R	K	S	I	G	A	E	R	T	T	F	N	E	L	I	N	S	N	R	E	K	L	L	Q	K	L	D	E	V	L	A	H	E	L								
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UniRef90_A0A021XF61	R	K	S	V	G	A	E	D	T	T	F	M	V	D	I	A	A	A	R	S	E	I	T	P	L	A	A	K	V	L	H	C	E	A	K	G	L	H				
UniRef90_B1ZN03	K	S	Y	S	Q	Q	E	T	T	F	D	E	D	I	A	S	F	A	E	I	E	R	V	V	K	R	M	I	D	E	L	P	K	I	D	G	K	R				
UniRef90_D5UXV0	R	K	S	I	G	A	Q	R	A	L	G	R	R	I	L	T	S	E	N	E	I	E	G	T	A	L	A	I	D	R	L	G	E	R	L	R	G	R	V			
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UniRef90_R4T7P3	V	A	R	S	R	G	R	E	T	T	T	F	Q	Q	N	L	T	D	F	G	V	M	A	A	E	V	V	A	L	A	R	R	V	Q	S	H	D	V	E	G	R	P
UniRef90_X1SRN5	R	K	S	I	S	K	E	R	T	T	F	Y	E	D	T	S	D	F	G	V	V	L	S	K	L	E	E	I	N	S	K	I	H	E	S	K	N	K	I	Y		
UniRef90_D7NDH6	R	K	S	I	V	G	C	E	Q	T	T	F	L	E	D	I	S	L	P	S	A	L	L	I	E	L	Y	H	L	V	L	E	L	S	T	T	R	I	E	K	F	E
UniRef90_UPI000380A779	V	A	R	S	R	S	R	E	T	T	T	F	Q	Q	D	L	T	D	P	E	A	I	A	A	E	L	E	T	L	A	G	R	V	S	R	D	V	E	G	R	P	
UniRef90_A1SN18	V	P	R	A	H	G	R	E	E	T	T	F	Q	Q	E	D	L	E	D	T	E	E	V	R	A	L	T	R	R	V	V	D	D	I	A	K	K	E	G	L	K	
UniRef90_UPI00046293C5	R	K	S	M	S	T	E	R	T	T	F	N	E	I	N	T	E	E	Q	Y	S	L	C	K	E	L	C	A	D	L	A	Q	K	K	E	G	L	K				
UniRef90_F9N6H9	Q	S	I	V	G	N	E	T	T	T	F	D	E	L	M	D	P	N	E	I	D	N	E	W	R	Y	F	A	H	H	V	A	K	R	L	R	K	Q	K	G		
UniRef90_S2VUU7	K	S	I	G	T	E	T	T	F	G	E	D	I	F	D	P	N	E	I	L	E	Q	V	L	L	E	Q	S	H	D	N	A	R	R	L	R	K	M	V			
UniRef90_D2Q8F3	K	S	I	G	S	E	R	T	T	F	D	T	D	T	Q	D	M	R	Q	V	C	S	M	L	R	H	C	C	D	E	V	A	S	R	R	R	G	L	M			
UniRef90_A0A015MCN1	K	S	I	L	G	H	T	T	T	L	P	Q	D	V	T	H	R	G	E	A	H	R	L	L	N	L	L	A	D	Q	T	A	R	R	L	Q	K	L	M			
UniRef90_UPI0003B6AD48	K	S	Y	S	N	E	T	T	L	R	S	D	T	S	D	S	K	D	I	I	P	V	L	K	Y	L	L	C	A	S	V	S	A	R	R	L	D	R	V	F		
UniRef90_K1MM79	R	K	S	Y	G	R	E	R	T	F	A	P	F	L	V	I	T	P	A	A	V	N	D	Q	L	E	R	L	A	Q	D	R	N	G	R	I	K	E	L	R		
UniRef90_R1AT83	Q	S	I	G	E	E	N	T	T	F	S	K	D	V	S	D	I	N	L	L	R	K	A	V	N	Q	Y	A	L	D	I	T	K	R	I	K	K	Y	L			
UniRef90_T0J6M9	R	K	S	V	S	V	E	D	T	T	F	D	D	L	V	E	K	D	A	L	A	E	I	D	R	I	A	Q	S	L	W	A	R	I	E	K	A	Y				
UniRef90_A2DLM9	Q	Q	S	I	S	K	E	R	T	T	F	D	N	T	N	D	R	V	F	M	E	E	T	I	E	K	L	C	M	E	V	C	K	L	L	Q	N	V	L			
UniRef90_E8X112	K	S	L	S	A	E	D	T	T	F	E	K	A	D	I	P	L	A	E	T	E	P	L	V	R	R	L	A	E	K	V	A	S	R	Q	N	A	R	M			
UniRef90_U1PNH8	P	K	S	L	S	R	E	S	A	F	T	E	K	A	D	T	D	P	E	T	A	K	R	Q	K	V	R	G	L	A	A	D	V	A	S	R	A	N	S	R	L	
UniRef90_C6XJ62	I	R	K	S	V	G	V	E	R	T	Y	S	K	D	L	F	E	K	E	I	L	T	E	T	E	K	L	I	T	L	W	E	R	I	E	N	A	V				
UniRef90_UPI0004786D30	I	R	K	S	L	G	A	E	R	T	F	N	E	N	I	S	S	E	I	F	M	L	E	K	L	Q	N	I	A	E	E	I	E	R	R	L	K	R	S	D		
UniRef90_R5JK5	I	P	K	G	I	G	N	E	T	T	L	S	R	N	I	S	S	R	E	I	E	L	Y	P	Y	L	L	A	L	S	E	N	V	A	I	R	L	Q	K	K	Y	
UniRef90_X4ZJN6	K	S	I	G	H	T	T	T	L	P	G	D	I	Q	G	L	A	E	A	R	P	V	L	L	A	L	S	D	Q	V	A	R	R	L	Q	K	L	V				
UniRef90_R6B3P1	V	R	K	S	V	G	C	E	Q	T	T	F	L	E	D	I	Y	K	K	T	A	I	I	E	L	Y	H	S	V	L	E	L	A	Q	E	R	I	S	G	F	E	
UniRef90_W7D289	R	K	S	L	G	R	E	T	T	F	S	A	D	V	I	D	E	K	Q	L	Q	L	T	L	R	H	F	A	Q	K	I	A	Q	E	T	L	T	E	K	Q		
UniRef90_J0BGA6	P	K	S	I	S	R	E	T	T	F	S	A	D	L	H	D	R	S	R	L	S	W	V	L	E	S	L	C	E	K	L	A	Q	D	L	R	K	S	A			
UniRef90_B3E013	P	R	S	L	S	R	E	T	T	F	D	R	I	K	N	F	S	L	Q	R	V	L	V	S	L	S	R	D	L	A	D	R	K	E	L	V						
UniRef90_G9ZE20	R	K	S	I	G	S	E	T	T	F	H	D	L	E	G	I	P	A	L	Y	Q	A	L	L	A	Q	N	Q	D	A	F	A	D	V	Q	K	R	H				
UniRef90_H0UV23	R	K	S	M	S	V	E	R	T	T	F	N	E	I	N	K	A	E	D	Q	Y	S	L	C	Q	E	L	C	S	E	I	A	Q	D	L	E	G	L	K			
UniRef90_H0R2M0	K	Q	I	S	S	E	T	T	L	A	Q	D	I	D	L	P	A	V	L	R	R	E	I	T	K	L	A	G	D	A	H	R	R	L	D	G	R	G				
UniRef90_I7KIL3	K	Q	V	S	A	E	R	T	F	E	R	D	L	V	D	R	R	A	V	D	D	A	V	D	D	A	A	R	A	A	F	R	R	L	D	G	R	G				
UniRef90_G4L668	R	K	S	V	G	R	E	R	T	Y	G	K	A	L	T	S	E	Q	E	C	L	S	Q	L	R	I	M	A	E	Q	V	T	E	S	L	K	K	K	H			
UniRef90_M3UL47	S	I	G	A	Q	R	A	L	G	R	R	I	K	S	E	S	D	I	E	A	T	L	L	A	V	D	R	L	G	A	R	L	R	K	R	L						
UniRef90_UPI000360DC54	I	R	K	S	I	G	N	E	R	T	Y	S	K	L	Y	D	E	E	D	I	K	A	E	I	S	K	N	A	Q	R	V	A	K	T	L	N	E	R	Q			
UniRef90_E4L9G8	P	K	S	I	G	D	E	T	T	Y	A	Y	D	I	F	E	K	E	D	I	E	R	K	L	I	H	C	D	I	V	A	Q	R	L	R	E	K	K				
UniRef90_UPI00037AC129	I	P	K	S	V	G	A	E	R	T	F	S	E	N	L	S	S	E	I	F	M	L	E	R	L	D	H	I	A	R	E	L	E	S	T	R	L	K	K	I	A	
UniRef90_R9N6F5	I	P	K	G	I	G	N	S	T	T	L	S	K	D	A	N	R	S	E	A	L	H	V	L	L	S	L	S	D	S	V	A	T	R	L	R	G	Q	L			
UniRef90_L9PIG6	K	G	I	R	E	T	T	F	E	R	D	L	Q	D	R	D	T	L	S	G	I	L	T	Q	L	C	A	R	L	A	D	K	R	K	G	Y	V					
UniRef90_R4YXH1	K	S	I	S	R	E	T	T	F	A	T	D	R	A	D	A	G	E	L	E	G	D	A	V	M	A	D	S	V	A	T	R	L	R	G	L	T					
UniRef90_UPI000262853D	R	S	R	S	R	E	T	T	F	Q	T	D	L	D	R	A	A	V	D	A	Q	V	S	A	L	A	A	R	V	A	T	E	R	D	V	E	G	R	P			
UniRef90_H6SR18	R	K	S	I	G	A	E	D	T	T	F	P	E	D	I	F	S	L	A	P	A	R	R	E	I	G	D	L	A	A	K	V	H	G	E	A	K	G	L	T		
UniRef90_I3TNR2	K	S	V	S	A	E	T	T	L	A	R	D	E	R	A	S	A	D	R	L	A	E	L	P	P	L	A	E	R	V	A	A	R	L	A	G	L	V				
UniRef90_U2QCP1	V	R	K	S	V	G	C	E	H	T	F	M	E	D	I	G	S	R	A	V	V	I	E	L	Y	H	T	V	L	E	L	A	T	R	I	A	K	F	E			
UniRef90_UPI00037BE486	V	R	K	S	I	G	S	E	R	T	Y	G	K	L	L	Y	D	E	A	D	I	K	A	E	I	S	R	N	A	Q	R	V	T	E	K	K	N	K	V			
UniRef90_B0UFA6	K	S	V	S	G	E	T	T	F	A	E	D	L	R	D	F	A	E	L	R	P	L	W	R	L	C	E	T	V	A	R	R	L	A	E	L	A					
UniRef90_W7CXE6	R	K	S	F	G	R	E	T	T	F	A	A	D	V	V	D	A	E	L	Q	L	A	L																			



UniRef90_UPI000381036A	A	R	T	L	T	I	L	K	I	R	F	A	S	F	S	Q	T	I	T	R	S	Q	S	L	L	E	P	T	N	D	E	V	I	Y	Q	M	A	V	N	L	Y	R					
UniRef90_R6FGL8	F	K	T	L	T	L	K	V	K	R	F	H	D	F	V	Q	I	T	R	S	D	T	T	R	F	L	Q	Q	E	L	T	D	N	N	L	F	Q	A	A	K	Q	L	V	K			
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UniRef90_L9N8T4	A	R	G	V	N	L	K	L	K	L	K	N	F	A	D	F	Q	T	L	Q	H	S	K	S	F	K	N	P	E	P	T	A	D	Q	Q	D	L	I	Q	V	L	F	L	L	K		
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UniRef90_UPI000359F820	G	K	T	V	T	L	K	L	K	L	K	T	D	T	F	R	L	R	T	R	S	A	R	T	L	L	T	Q	S	D	P	T	Q	A	D	E	R	L	F	Q	V	G	R	E	L	L	K
UniRef90_UPI000441812B	G	K	T	I	T	L	K	Y	K	L	S	A	S	Y	Q	V	F	T	R	A	K	S	F	D	R	W	L	S	K	K	D	D	L	F	S	A	R	K	E	L	L	L	K				
UniRef90_UPI0003B4E3B4	P	Q	T	L	T	L	K	I	K	Y	A	D	F	S	T	L	R	S	K	Q	R	T	T	E	R	P	G	T	D	W	E	K	V	L	E	A	A	R	E	L	L	L	N	D	D	K	
UniRef90_UPI00039D8B2E	G	R	T	V	T	L	K	V	K	R	Y	A	D	F	S	T	L	R	S	K	E	T	L	R	G	P	T	D	D	A	D	V	I	E	A	A	L	R	L	L	L	D	D	K			
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UniRef90_B1ZN03	V	R	T	M	T	V	K	V	K	Y	P	D	F	S	Q	E	S	H	G	R	S	L	L	S	A	G	T	D	L	E	A	F	Y	P	L	V	T	P	L	L	L	D	R	D	K		
UniRef90_D5UXV0	T	R	T	V	E	L	R	L	R	F	D	D	F	T	S	L	T	R	S	R	S	L	L	R	E	L	R	E	T	D	T	E	V	V	L	A	T	A	R	A	L	L	D	R	D	K	
UniRef90_A0A011N271	C	R	T	I	G	V	K	V	R	F	A	D	F	R	V	V	T	R	D	L	T	L	A	L	A	L	A	T	D	T	A	E	I	L	R	A	S	R	E	C	L	L	L	D	R	D	K
UniRef90_R4T7P3	A	A	R	V	A	V	K	V	R	F	A	P	F	Q	T	H	T	H	S	V	T	L	F	L	P	A	P	I	A	T	S	D	A	K	E	I	L	K	A	A	L	A	V	L	N	C	N
UniRef90_X1SRN5	Y	K	T	V	S	L	K	I	R	L	E	G	Y	L	T	F	T	R	A	S	H	S	F	I	H	H	I	L	L	T	K	K	V	L	R	V	I	T	E	L	L	T	N	C	N		
UniRef90_D2NDH6	G	K	T	L	T	L	K	I	K	Y	A	D	F	S	T	L	R	S	K	Q	R																										

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UniRef90\_E0RP33 S R W D G K T P I R L L G V G V S G L  
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UniRef90_R3X480	R	K	S	V	G	R	E	T	Y	G	N	P	L	L	T	E	D	E	V	L	F	T	Q	L	L	R	Q	L	C	E	Q	V	D	G	I	T	K	Q				
UniRef90_4LNK5	R	K	S	I	S	G	S	Q	C	H	A	L	E	K	D	I	S	T	T	S	F	E	L	Y	H	V	A	C	E	L	C	E	Q	V	D	G	I	T	K			
UniRef90_R0R6Y4	I	R	K	S	I	G	S	Q	C	H	A	L	E	K	D	I	S	T	T	S	F	E	L	Y	H	V	A	C	E	L	C	E	Q	V	D	G	I	T	K			
UniRef90_E3MNVW1	R	K	S	I	S	V	E	R	T	F	S	P	T	S	D	F	K	L	I	A	E	I	C	R	M	L	E	C	E	Q	V	D	G	I	T	K	Q					
UniRef90_E5XTM6	K	Q	I	V	S	V	E	T	T	F	Y	E	T	S	D	L	V	A	E	P	A	V	I	R	R	E	V	Q	Q	L	A	E	Q	V	D	G	I	T	K			
UniRef90_E1LD26	Q	S	I	V	S	N	E	E	T	T	F	Y	E	T	S	D	L	V	A	E	P	A	V	I	R	R	E	V	Q	Q	L	A	E	Q	V	D	G	I	T	K		
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UniRef90_A0A024Q0X2	K	S	I	G	S	S	Q	T	L	P	H	D	L	S	R	E	E	K	E	D	L	E	K	L	M	V	L	A	T	N	V	E	R	R	L	D	K	R	K	Q		
UniRef90_W7TTB7	R	K	G	I	S	R	E	R	T	F	A	A	L	S	R	E	E	K	E	D	L	E	K	L	M	V	L	A	T	N	V	E	R	R	L	D	K	R	K	Q		
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UniRef90_H0E942																																										
UniRef90_UPI00047A1452																																										
UniRef90_A0A022KWK0	D	K	S	L	G	H	T	Q	M	T	L	P	F	D	L	T	R	E	L	M	V	R	R	L	I	T	M	M	A	D	D	V	S	R	G	R	L	D	G	V	I	S
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	50	60	70	80
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UniRef90_R3X480	G K T V T L K L K R Y T D F T V K T R K R V T L L P E Y V Y K E V L F H E A E A S L I W E			
UniRef90_R4LNK5	G R T V T L K L K R Y T D F T V K T R K R V T L L P E Y V Y K E V L F H E A E A S L I W E			
UniRef90_F0R6Y4	G T T L T L K L K R Y T D F T V K T R K R V T L L P E Y V Y K E V L F H E A E A S L I W E			
UniRef90_E3MNVW1	G K T I T L K L K R Y T D F T V K T R K R V T L L P E Y V Y K E V L F H E A E A S L I W E			
UniRef90_E5XTM6	A R R V T V K L K R Y T D F T V K T R K R V T L L P E Y V Y K E V L F H E A E A S L I W E			
UniRef90_E1LD26	G H T V S I K L K R Y T D F T V K T R K R V T L L P E Y V Y K E V L F H E A E A S L I W E			
UniRef90_K0EXN0	A R T V T L K L K R Y T D F T V K T R K R V T L L P E Y V Y K E V L F H E A E A S L I W E			
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UniRef90_G4YKE9	A K N V T F V Y K D T D F A R C S A S R S V T L L A S A I T A E D L Y S S A V E L L R			
UniRef90_G1WFT2	G R T V T L K L K Y S Y G S G R S A Q R K L L A H P T T D D S A E N I F V V A T G L L D			
UniRef90_D7MZY5	A K S V T L K L K T H D R L I T R S R T L T Y S S V L D S A A L L R A A Q T L A G			
UniRef90_F4C3X9	G S T L T L K I K F A D F F K Q I T R N Y T H S N L I H L N Q V E A F G I D L L K			
UniRef90_U5E9H8	S T R V A V T Q L R T S E F K N Y S H Q R K L L D F S T S T K E I F N A A K Q L V D			
UniRef90_R7F5R0	C N V V S V Q L R T S E F K N Y S H Q R K L L D F S T S T K E I F N A A K Q L V D			
UniRef90_W2UMY4	G K T V T L K I K Y S D F A Q Q T R S R T L L P Y Y I A D K S I F D T V K E L L Y			
UniRef90_F5WVY2	G R T I V L K I R Y S D F S T T K R I T L D D V T N D F E V I D Q V A K T I Y			
UniRef90_R65PQ00	G R T L T L K I R F A D F T T K T K S R T L L M P F V G A E R L A A A G L E L L R			
UniRef90_R9L1C6	G R T V A L K L K R F S D R T T T R S V Q R Q L L S P S P T D D D L A F A P V V H A M V			
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UniRef90_UPI000373F61D	G Q V V N V S C M Y E A P T G F S R Q R K L L D P T S T N K V F A S V K E L F Y			
UniRef90_E4Y2R5	G A G F T L K V K T D Q F V L Y T R S K V L L P R A I N D E E I F K F A E K M F M			
UniRef90_F6CDA4	A G T V I K V R N N F E T V T K R R K L K H P T S D S F D E F D V A K D L F D			
UniRef90_M3JTL2	P F R V G L T V R T S T F Y T R T K M R K L L S E P T S F D E I V A V A R G L L D			
UniRef90_E3DXC6	G Q T V S V S C R G A D F D I P T R Q V K L L S E P T N R Q D V Y R A V C R L F L			
UniRef90_R65MRP9	A Y V I A V L K S N S F V T K N H Q A K L L T N P N I G E I Y K A K A Q L L K			
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UniRef90_U2N1R5	C K V I G I S I R S A D F T N Y S H Q R K Q L L N A I T D T N A V L F A A T E L W N			
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UniRef90_W7YX41	G K T I V L K I R Y S F D V T L T R R I S L P T V V Q K D E L F A A T E L W N			
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E L L G I E K G I R L L G V T V T N L  
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K L M R E R S  
A I D P A E L G P I R L V G V G Y G G L  
L H W N E E P I R L L G I T V Q D I  
L P Q L P V T L R L M G V R A S H F  
  
E Y A P A Q P V R L L G V R A A G L  
K L L L G D E G L I R L L V G V G V S K L  
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R E L P L T L R L L G V R A A T L V  
S I W S P D M P V R L A G I G L S G F  
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S F L E D G I R L L G V T V T D F  
A F H D Q E P R P V R L L A V R L  
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A A M P M I R E Q I T L I G L A L S N L  
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K H W T G S P I R L L G I T A D E L  
D E V K A E A L T L R L M G V K I S N L V  
  
A L E D S R P V R L L G V R  
R V E L S A Q T R Y R L V G V G L S G F  
A E L P G S L R L I G L R M S Q F  
K F W N G S P L R L L V G V S V S H  
A E L P V S L R L I G L R I S Q F  
L V D Y S S S H P R L L G L S V S N  
E F L L G R F P I R L L G L S L S H  
K L W K G E P I R L I G V T L G D L  
E M L G R G V R L V G I T  
K S N I P G S I R L L G L G I S H L

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UniRef90_UPI0003633471	K	S	I	V	G	Q	S	K	T	F	K	D	P	M	T	D	L	D	E	I	R	T	A	I	L	N	E	L	D	E	V	I	R	R	M	E	K	R	L		
UniRef90_UPI00026583DB	R	R	S	K	S	A	E	T	T	F	K	D	S	D	N	V	E	F	L	T	E	V	C	H	H	L	S	E	R	L	S	E	D	L	A	D	L	Q			
UniRef90_M4DQM8	R	K	S	I	S	A	E	R	T	F	A	A	T	G	D	E	R	L	I	Y	S	K	L	A	E	I	A	E	M	L	S	D	K	K	E	G	L	M			
UniRef90_UPI0004728A01	R	K	S	I	S	A	E	R	T	F	A	A	T	G	D	E	R	L	I	Y	S	K	L	A	E	I	A	E	M	L	S	D	K	K	E	G	L	M			
UniRef90_C3YBI7	R	K	S	M	S	V	E	R	T	F	S	E	L	S	K	P	A	D	L	Y	R	K	C	W	E	L	C	E	A	L	A	K	D	L	E	G	L	K			
UniRef90_M3UV03	R	H	S	I	G	S	Q	R	A	L	G	R	R	P	K	S	G	A	D	L	E	A	T	I	V	A	I	V	E	R	L	G	Y	R	V	R	E	V			
UniRef90_D5XET2	K	S	I	G	N	S	T	T	L	S	E	D	A	T	T	Y	E	E	A	R	D	V	F	R	E	L	A	Q	S	V	G	S	R	L	A	G	K	K			
UniRef90_D4M3E5	K	G	V	G	N	S	T	T	L	S	E	D	A	T	T	Y	E	E	A	R	D	V	F	R	E	L	A	Q	S	V	G	S	R	L	A	G	K	K			
UniRef90_F8F9T3	Q	Q	A	L	G	S	H	Q	M	T	L	P	R	K	L	L	Y	T	E	A	D	V	K	A	E	I	A	K	H	A	Q	R	V	S	T	A	D	K	K	R	
UniRef90_E4L2N0	I	R	K	S	M	S	T	E	R	T	F	T	P	T	G	D	E	A	S	L	Y	Q	K	L	A	E	I	S	E	I	L	A	S	K	K	E	G	L	S		
UniRef90_S8DIW2	R	L	Q	I	L	S	A	E	R	T	F	L	S	D	N	L	N	K	Q	A	L	S	M	Y	L	D	N	L	S	K	D	L	W	Q	Q	M	R	K	K		
UniRef90_F5S8B2	R	K	S	I	L	G	T	E	Q	T	Y	L	S	D	N	L	N	K	Q	A	L	S	M	Y	L	D	N	L	S	K	D	L	W	Q	Q	M	R	K	K		
UniRef90_UPI00029A1323	V	P	R	S	R	S	H	V	I	T	F	P	Q	D	L	T	E	R	E	A	V	T	E	L	A	R	R	T	L	D	E	V	I	A	Q	Q	R	I			
UniRef90_A4TDT5	R	K	S	I	S	V	E	R	T	F	E	D	T	D	D	I	A	V	A	S	N	I	C	K	N	L	C	Q	M	L	A	D	D	L	N	E	K	K			
UniRef90_T1EGD5	K	S	I	G	N	S	T	T	F	P	R	D	L	E	C	D	Q	D	V	Q	I	L	M	A	L	A	E	S	V	G	A	A	R	L	R	K	H	G			
UniRef90_A5ZWS1	K	G	F	G	N	S	V	T	T	A	F	D	V	T	D	E	Y	A	A	G	N	L	L	S	L	C	E	T	V	G	A	A	R	L	R	A	A	K			
UniRef90_R7IUZ5	R	Q	S	I	V	G	K	E	T	T	F	D	R	F	L	H	T	E	A	Q	V	Q	N	A	F	G	Q	L	A	D	K	I	S	L	R	Q	Q	K	V		
UniRef90_UPI00020D981B	R	S	S	I	G	S	E	T	T	F	E	D	L	T	S	I	P	E	I	E	R	E	I	R	A	L	C	R	T	V	M	L	R	A	E	N	L	L			
UniRef90_H7E1I0	Q	S	I	G	A	E	E	T	Y	E	E	D	L	T	E	G	R	A	I	E	L	E	F	R	Y	F	A	N	R	L	T	S	K	R	L	R	R	N			
UniRef90_T0STS6	P	K	S	V	S	E	R	T	F	A	Q	D	L	L	S	P	V	Q	I	Y	A	A	I	D	H	V	A	E	L	T	A	E	R	L	R	A	K	Q			
UniRef90_U2VGM6	K	A	I	G	H	A	M	T	L	P	R	D	Y	Q	E	L	S	E	I	K	V	I	L	L	E	L	C	E	E	V	A	L	R	A	R	A	G	K			
UniRef90_D3FUE0	R	H	N	I	G	R	G	I	T	L	L	R	D	Y	N	D	L	E	E	I	K	T	V	I	F	N	L	A	E	E	V	A	K	R	A	R	H	N	N		
UniRef90_E4RK90	R	K	S	I	V	G	K	E	R	T	Y	G	P	R	D	N	E	E	K	I	M	A	E	L	K	R	L	A	D	L	L	E	S	S	L	Q	R	K	R	S	
UniRef90_UPI00021918F4	K	S	I	G	A	H	R	A	L	G	R	R	H	R	S	D	E	E	I	D	A	Y	L	H	G	L	A	D	R	L	E	S	H	R	L	R	K	R	S		
UniRef90_W8AGG4	Q	I	S	A	E	D	T	F	A	N	D	V	L	L	G	E	T	V	P	T	I	R	R	L	V	E	K	V	W	S	A	A	I	K	R	I					
UniRef90_UPI0003B5B28A	K	S	I	G	N	S	T	T	K	K	N	L	E	T	Y	E	D	V	K	I	T	E	Y	K	L	V	E	S	V	T	E	R	L	R	E	F	V				
UniRef90_UPI000467090E	R	K	G	I	G	H	H	M	T	L	P	R	D	Y	Y	S	W	N	D	I	K	I	V	L	L	E	L	S	E	V	A	A	R	A	N	G	Y	M			
UniRef90_UPI00047D0A8D	R	K	S	V	G	C	E	Q	T	F	M	E	D	I	T	G	E	I	K	I	L	I	E	L	Y	H	I	V	I	E	L	V	K	R	L	S	K	F	E		
UniRef90_UPI000395C02D	I	R	K	S	V	G	V	E	K	T	L	S	E	D	L	N	L	D	A	C	P	W	I	D	R	L	Y	D	E	L	T	R	L	E	G	R	I				
UniRef90_UPI00039E47B5	K	S	I	G	N	S	T	T	F	P	K	N	V	T	E	T	E	D	I	S	N	K	I	N	R	L	A	C	S	I	S	Q	R	M	K	Q	K				
UniRef90_W9EF89	L	R	K	S	L	G	K	E	E	T	F	R	H	F	L	T	E	S	A	M	Q	T	V	L	S	R	L	A	K	E	V	C	S	G	L	Q	K	S	Q		
UniRef90_R5P1H2	V	R	K	S	L	G	C	E	E	T	F	D	K	D	I	E	T	P	M	A	L	T	I	E	L	Y	H	I	T	T	E	L	T	G	R	L	Q	K	F	K	
UniRef90_K6W9W7	R	S	H	S	K	S	R	T	F	P	V	D	L	T	D	P	G	E	M	R	V	A	A	R	G	L	T	T	R	E	V	L	D	Q	V	E	H	R	V		
UniRef90_UPI00036A5504	V	A	R	S	R	S	K	E	T	T	F	Q	E	D	L	T	Q	W	P	E	V	E	E	A	V	A	N	L	A	R	Q	L	A	G	R	L					
UniRef90_H1LJN3	I	R	K	S	I	G	K	E	R	T	F	G	P	R	E	I	S	T	A	A	E	V	D	S	Q	L	Q	R	I	A	Q	L	V	V	K	A	M	A	K	K	H
UniRef90_H6N285	V	R	S	I	G	S	Q	R	A	L	G	R	R	P	R	P	P	A	E	I	E	A	T	I	A	I	V	E	R	L	V	G	K	R	L	R	G	R	V		
UniRef90_G9ZT42	V	R	K	S	V	G	K	E	R	T	F	G	P	E	L	E	N	Q	S	Q	V	D	D	Q	L	K	H	I	A	E	M	V	A	A	E	M	Q	K	K		
UniRef90_D8LUC4	R	K	Q	I	S	K	E	R	T	F	G	E	L	S	A	P	R	D	L	N	K	C	R	E	I	C	D	S	L	A	A	E	M	A	G	L	E				
UniRef90_UPI0004725D3C	P	K	S	V	G	H	M	M	T	L	P	R	D	Y	T	Q	N	S	E	A	E	T	V	L	L	E	I	T	E	E	V	A	R	R	K	K	A				
UniRef90_UPI0002882AC3	S	F	G	K	S	Q	L	L	R	D	Y	P	D	P	E	E	V	K	H	V	I	L	E	M	C	E	E	V	A	R	R	A	R	K	K	A					
UniRef90_UPI0003B446FB	K	S	Y	S	N	E	T	T	R	S	D	S	N	Y	E	K	E	M	P	G	L	L	K	W	L	S	E	S	V	S	R	R	L	D	G	V	F				
UniRef90_E0XS00	K	S	I	S	N	E	T	T	F	G	N	D	V	G	Q	S	S	I	L	V	G	H	L	W	R	M	C	E	K	V	S	D	R	A	K	S	R	I			
UniRef90_A5LXS6	I	R	K	S	I	G	K	E	K	T	Y	G	K	L	R	A	E	E	D	I	K	K	E	L	T	L	L	S	E	K	V	A	L	N	L	Q	E	K	A		
UniRef90_V5FFI4	R	K	S	V	G	T	E	S	T	F	R	E	T	S	G	T	Q	A	L	R	E	K	L	R	W	A	A	E	E	L	E	K	D	L	R	E	F	K			
UniRef90_UPI000372F118	R	K	S	L	S	K	E	R	T	F	R	E	N	I	D	D	V	D	W	L	M	N	V	L	R	K	L	A	R	E	E	V	E	E	A	V	K	H	K	S	
UniRef90_K5BHV4	I	V	P	R	S	R	S	H	V	V	T	F	P	H	D	L	T	D	Q	R	E	M	A	S	A	V	A	D	L	A	H	R	T	L	A	D	A	Q	Q	R	V
UniRef90_I0RJH7	I	V	P	R	S	R	S	H	V	V	T	F	P	R	D	L	T	D	R	T	E	I	N	A	A	V	T	E	L	A	Q	Q	A	L	A	D	A	Q	S	R	I
UniRef90_C0D1Q6	I	N	K	C	Y	G	N	S	V	T	L	S	R	D	V	S	D	Y	E	T	A	Q	V	I	L	S	E	L	C	E	T	V	G	A	R	L	D	R	V	L	
UniRef90_D4J6N0	K	G	I	G	N	S	T	T	L	S	A	D	V	T	T	E	E	A	A	R	K	V	L	L	E	L	S	E	S	V	A	G	R	L	R	G	F	L			
UniRef90_UPI000379C177	K	S	I	G	H	T	T	T	L	P	K	D	V	V	I	R	S	E	A	H	R	V	F	L	N	L	A	D	Q	Q	A	G	R	R	L	Q	G	L	M		
UniRef90_C0W7F0	K	S	V	G	T	E	S	T	F	F	D	T	L	T	S	R	E	D	A	R	R	V	L	L	D																

UniRef90_I4ZSX0	A	R	G	R	I	T	V	L	K	L	R	K	N	F	Q	I	L	M	H	S	R	S	F	R	S	V	L	K	N	L	D	L	H	Y	Q	A	L	Q	R	F	L	L	Q				
UniRef90_U5HB08	G	R	T	I	T	S	I	V	K	L	K	D	N	Y	D	H	L	N	S	S	R	A	T	T	F	G	S	N	I	Y	K	K	A	I	L	E	I	A	V	A	D	L	T	R	D		
UniRef90_W4EZX7	G	R	T	V	T	V	V	S	V	K	R	T	G	N	F	K	R	H	S	S	R	A	Q	M	Q	L	S	D	N	A	I	D	D	K	A	I	F	D	C	A	K	A	R	V	T	S	D
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UniRef90_UPI0003633471	G	K	T	I	S	L	S	L	R	L	R	D	S	Y	K	T	A	A	R	S	Y	T	F	E	N	Y	A	D	K	N	M	F	E	R	I	M	S	R	V	L	Y	D	K	L			
UniRef90_UPI00026583DB	G	K	L	I	T	V	K	F	K	T	S	D	F	V	F	A	R	S	V	A	L	E	P	T	S	L	P	T	S	K	T	I	S	T	Q	A	T	R	L	V	L	K	E	L			
UniRef90_M4DQM8	A	R	T	L	T	L	K	L	K	T	A	D	F	Q	M	H	S	R	S	S	R	A	L	V	R	S	Y	T	C	S	S	E	D	I	L	K	H	A	T	K	L	L	K	E	L		
UniRef90_UPI0004728A01	S	S	K	I	F	I	K	L	R	F	D	D	F	T	T	T	T	T	S	A	M	L	V	R	S	I	T	N	F	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
UniRef90_C3YB17	G	R	T	I	T	V	K	L	K	T	V	N	F	D	V	K	Q	R	G	Q	T	V	P	R	A	V	S	S	K	E	I	Y	D	V	A	T	A	R	M	G	L	L	A	L	A		
UniRef90_M3UV03	C	R	T	V	V	L	R	L	R	F	D	D	F	T	R	A	T	Q	R	S	K	T	L	V	P	E	P	T	D	R	D	I	V	M	A	T	A	R	M	G	L	L	A	L	A		
UniRef90_D5XET2	Y	K	T	V	V	V	T	V	R	D	T	K	F	R	N	H	S	W	S	K	V	T	L	E	Q	H	K	P	T	D	T	T	E	E	I	F	N	T	A	M	K	L	L	F	R		
UniRef90_D4M3E5	A	G	M	V	S	M	E	V	R	Y	I	D	F	R	N	M	S	H	Q	V	Q	L	R	P	N	A	T	T	N	D	K	E	I	Y	E	S	A	R	N	L	F	H	I	R			
UniRef90_F8F9T3	G	R	V	I	S	A	G	A	R	G	A	D	Y	E	R	G	T	R	Q	R	T	T	L	P	Q	D	A	P	T	N	T	K	E	I	Y	E	S	A	R	N	L	F	H	I	R		
UniRef90_E4L2N0	G	K	I	V	I	L	K	V	R	Y	A	D	F	T	T	L	R	K	R	A	V	T	L	N	Q	N	A	T	R	D	L	D	I	L	R	Q	T	A	N	A	I	Y	K	A	L		
UniRef90_S8DIW2	G	R	T	L	T	L	K	L	K	T	S	E	F	Q	V	F	T	R	A	R	A	V	T	L	P	N	Q	A	C	I	C	S	E	G	L	L	S	Q	A	A	L	Q	L	L	A	L	
UniRef90_F5S8B2	M	Q	T	L	T	L	K	L	K	T	S	E	F	Q	V	F	T	R	A	R	A	V																									

		90	100
UniRef90_I4ZSX0	D M H L D P A L Q F R L I G V G V		
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UniRef90_UPI0004792D67	D P L D V G P I R L V G V G Y S G L		
UniRef90_V6SCH1	Q E K M K E S V R L L G I S L H N L		
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UniRef90_C3YBI7	M E I Q Q Q P L R L R L M G		
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UniRef90_D4M3E5	E S W S G E P V R L L G I R T S K L V		
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UniRef90_E4L2N0	D S I E E S E L G I R L L G V T L T Q L		
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UniRef90_UPI00029A1323	A P L F P L Q T G V R		
UniRef90_A4TDT5	A F D L Q R P V R L L G V R L		
UniRef90_T1EGD5	D E L G S Q S L K I R L M G		
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UniRef90_R7IUZ5	E I W N G T P I R L L G V S T G K		
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UniRef90_T0STS6	K L M Q N K T S K		
UniRef90_U2VGM6	K I W K E G M P I R L L G I G V S G F		
UniRef90_D3FUE0	T F W D G Q P I R Q V G I T L T N L		
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UniRef90_UPI000467090E	R H H N P F I P V R K L G V R A C N L		
UniRef90_UPI00047D0A8D	R H W D G F P L R S I G I T L D Q L I		
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UniRef90_UPI000395C02D	F Y R G E G R G I R L I G L S V G		
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UniRef90_K6W9W7	D F E R D R P V R L L G V R L D		
UniRef90_UPI00036A5504	R F S D R R P V R L V G V		
UniRef90_H1LJN3	A G M P D I S T G V R L L G I T I T N L		
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UniRef90_D8LUC4	R E I Q G G K L R L R L M G V R A S G F		
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UniRef90_UPI0002882AC3	K F Y A K R T V R K I S I A L S N I		
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UniRef90_E0XS00	N E I K E V R F R L L G V T L M D L		
UniRef90_A5LXS6	E L S E K E R G V R L L G I T L T G F		
UniRef90_V5FFI4	K L E K E P N L T L R L L G L R C T N L V		
UniRef90_UPI000372F118	L A W S R G E G K V R L L G V G V		
UniRef90_K5BHV4	R F D I D R P V R L L G V R L		
UniRef90_I0RJH7	L F E L D R P V R L L G V R L		
UniRef90_C0D1Q6	E F W D R T P V R L I G V R A G K I		
UniRef90_D4J6N0	E L W N G A P V R L L G I R T S K L		
UniRef90_UPI000379C177	R H W P E G K P A R L L G V T L Q G L		
UniRef90_C0W7F0	S A L P V P A G G Y R L L G V R		
UniRef90_UPI000407E7B3	R V G L P D D T R Y R L V G V G L S G F V		
UniRef90_H3NRX4	E G W Q R R E M P V R L I G I G V		
UniRef90_UPI0003FCF26A	E F Y D G V S K I R R V F V T L D N L		
UniRef90_UPI0003AD6C53	A L I E E R G L T L I G V S L G N L		
UniRef90_G0W1A9	N F W N G M P I R R L G V T L S G L V		
UniRef90_B8M4C5	K L Q K E P N M R L R L L G L R C T H L V		
UniRef90_F1YI13	D A F E I D R P V R L L A V R L		
UniRef90_R6HBX7	E V W D R K T P L R Q I G V Q V T K L		
UniRef90_R6XD94	D F Y D T S V P L R L I G V A A S H V I		
UniRef90_A6W1V6	Q A Y S R S R R P V R L I G V R L S		
UniRef90_A0A059F1M7	E K E K A F P E K V N Q I G I S I S D L		
UniRef90_UPI000314CDEC	R L L R E S G R P V R L L G L S V S N		
UniRef90_U1PEL2	E V R I G D A G L R L L G L R A E Q L V		
UniRef90_K0YPX7	E V M P A S G I R L L A G V K V		
UniRef90_L7L414	V V L D P L E V P I R L V G V G		
UniRef90_UPI00047A35CC	K M E P D R P I R L L G L R		
UniRef90_B1C6S4	K T R R I D N T P I R T L G V R G C N L V		
UniRef90_I7L209	D N I G P D F S V R L L G V S M S N L		
UniRef90_M0SUV3	A E L P I S A R L M A G L R M S H F		
UniRef90_E1GXG8	Q T D Y E A R P I R L M G L T V S		
UniRef90_B7FT83	E L K D E G S F A V R L L G I R C S S F		
UniRef90_UPI00035CAFB9	E R I A E D P T L Y R L V G V G L A N F		
UniRef90_UPI0003711457	Q H Y H W Q R P I R S L G I S I S D L V		
UniRef90_V5X404	A A A P L A E R G L S L V G F A V S N I		
UniRef90_J5XYR6	R V W S A P S R V R L V G I G V S D F		
UniRef90_F7K346	E L W D G K P L R L I G V S T S		
UniRef90_F3S6X9	P C F P P A R G L R L M G I T V S G L		
UniRef90_A5G2F2	M R A A G P R Y R L I G I G A A R L		
UniRef90_UPI0004759CB0	S V R P L A E R G V T L V G V A V S N F		
UniRef90_F5ZLJ8	S L A D N D S G V R L L G V T M S G L		
UniRef90_W6T6S6	E V V D D H D S G I R L L G I T L T G L		
UniRef90_F6CNZ1	Q H W S P H W P V R L V G L A L G G L		
UniRef90_R7G657	Q H N N G K E I R L G I G L G S L		
UniRef90_D5RKV5	R E A D G T A F R L I G I G		

	1		10		20		30		40																																		
UniRef90_V9XCT3	K	Q	V	S	A	E	T	T	F	P	T	D	I	L	V	A	M	P	G	L	R	R	A	I	A	A	S	H	T	R	L	D	G	R	A								
UniRef90_L7KF61	R	S	H	S	K	S	R	T	T	F	A	A	D	T	E	K	R	T	A	A	E	Q	L	V	R	E	L	A	D	Q	V	I	T	A	E	D	R	V					
UniRef90_C8X739	I	A	R	S	R	G	H	K	S	R	T	T	F	E	D	T	E	R	G	V	V	E	R	E	L	R	V	L	A	D	Q	V	I	T	D	A	D	D	R	V			
UniRef90_G2I6J0	R	R	S	V	G	A	E	K	T	F	Y	E	D	T	I	H	E	R	G	V	V	E	R	E	L	R	V	L	A	D	Q	V	I	T	D	A	D	D	R	V			
UniRef90_E1PRX6	K	N	I	G	N	E	L	T	T	F	T	Y	D	I	L	D	D	R	K	E	I	L	L	I	L	R	S	L	Y	V	L	S	E	S	V	S	K	R	A	K	R	N	L
UniRef90_G8LXV3	K	G	I	G	N	S	L	T	T	P	R	D	L	V	N	N	E	D	V	K	L	L	L	Y	V	L	S	E	S	V	S	E	R	L	A	K	R	K	Y	N			
UniRef90_B8CKD6	R	K	S	V	G	V	E	T	T	A	K	D	I	H	T	L	E	Q	C	R	A	V	M	P	Q	L	I	Q	E	L	S	G	A	R	V	N	R	V	I	N			
UniRef90_M7B2W5						E	K	T	F	S	E	I	N	T	V	E	E	Q	Y	R	L	C	Q	E	L	C	R	D	L	A	Q	D	L	E	G	L	K						
UniRef90_I8J657	S	Y	G	K	S	Q	L	L	R	D	Y	T	K	K	E	I	Q	H	V	M	L	E	M	C	E	E	V	A	R	R	A	R	K	K	A								
UniRef90_A0A023CWS9	R	K	S	I	G	F	E	R	T	L	N	K	S	S	V	E	V	D	M	L	D	F	L	A	E	K	L	T	E	A	V	Q	Q	K	K	H							
UniRef90_UPI0002F116D4	K	S	V	S	R	E	T	T	L	S	V	D	I	Y	T	R	E	R	V	L	S	L	L	A	K	V	L	E	D	V	E	A	E	G	V	R							
UniRef90_Q2PUL8	K	S	V	G	N	S	M	T	F	S	K	D	M	D	E	E	K	L	L	D	M	L	E	R	L	S	K	S	V	S	K	R	L	L	Q	K	R	T					
UniRef90_R6NGD9	K	S	I	G	N	S	I	T	F	K	R	N	L	T	G	I	E	D	I	R	L	G	V	R	A	I	A	D	Q	V	S	A	S	R	L	R	R	R					
UniRef90_G7GKX2	R	G	S	I	G	S	Q	R	A	L	G	R	R	P	K	T	P	A	D	L	D	A	T	V	I	A	I	V	E	R	L	G	K	R	L	R	K	R					
UniRef90_M2MS74	R	K	S	V	G	T	E	S	T	F	H	D	I	S	D	P	K	E	L	R	D	K	L	R	W	T	A	E	E	L	T	E	K	K	R	T	E	F	K				
UniRef90_A0PX34	R	R	S	V	G	A	Q	R	A	L	G	R	N	A	L	S	P	A	E	L	D	A	V	V	V	T	L	I	D	R	I	T	G	R	M	R	G	R	T				
UniRef90_S2XP00	S	Y	G	K	G	Q	L	L	F	R	D	Y	R	K	K	E	D	I	L	A	V	V	L	E	M	T	E	D	V	A	R	R	A	R	G	K	V						
UniRef90_E1ST11	R	K	S	V	G	V	E	T	T	L	A	R	R	L	T	S	A	E	G	C	F	E	L	L	Q	G	L	L	P	E	L	G	K	R	L	R	E	R	P				
UniRef90_UPI00036FA581	R	H	S	V	G	S	Q	R	A	M	G	R	R	P	K	T	D	A	D	L	E	A	T	L	A	I	V	E	R	L	S	A	S	R	L	R	G	R	R				
UniRef90_B4FIZ1	K	S	V	G	A	E	I	N	W	G	V	R	F	N	D	N	K	D	A	E	H	F	L	N	N	L	C	K	E	V	S	L	R	L	Q	G	V	Q					
UniRef90_F7V1J0	K	S	V	G	S	N	E	M	T	F	A	V	D	L	T	E	R	T	D	V	E	A	A	I	A	T	M	A	A	K	V	G	R	R	L	R	G	L	A				
UniRef90_UPI000289D8AA	Q	K	A	V	G	H	H	M	T	L	P	Y	D	F	A	A	D	I	R	G	V	L	L	E	L	S	E	E	V	A	A	R	A	R	A	K	N	Y					
UniRef90_F9DY11	S	Y	G	K	S	Q	L	L	R	D	Y	N	S	R	E	E	V	N	A	V	L	L	E	M	C	E	D	V	A	R	R	A	R	E	Q	A							
UniRef90_F5WT56	K	S	I	G	Q	S	K	T	F	K	D	A	M	T	D	L	D	E	I	R	N	A	I	L	N	E	L	V	E	V	M	R	R	M	E	R	V						
UniRef90_V9HEJ0	K	G	I	G	N	S	T	I	A	W	D	V	T	S	K	D	E	A	L	K	I	L	S	L	T	E	S	V	C	I	R	L	R	N	N	L							
UniRef90_UPI0003B665F5	K	S	V	G	A	E	R	T	F	E	I	N	L	T	D	V	H	E	I	D	A	A	L	E	T	V	A	A	A	W	L	R	V	E	R	V	R						
UniRef90_C5A9X5	R	K	S	V	S	V	E	T	T	Y	R	H	D	L	T	T	L	E	Q	C	A	A	E	M	R	R	L	V	P	Q	L	D	A	R	L	E	R	R	L				
UniRef90_R7LD83	K	S	I	G	N	S	V	T	Y	R	R	D	L	S	G	M	E	D	F	E	A	A	I	L	D	L	S	E	T	V	S	A	R	M	E	G	V	K					
UniRef90_E9UZC4						H	G	H	E	E	T	F	Q	Q	D	L	V	E	W	P	D	I	V	A	A	T	R	R	L	C	A	E	C	L	A	D	V	E	D	R	P		
UniRef90_B5IOP9	V	S	R	S	L	A	A	E	R	P	F	T	R	D	E	L	D	R	H	R	R	A	L	L	S	A	A	E	E	L	G	S	R	L	R	D	K	V					
UniRef90_W4CPY9	P	K	S	I	G	N	S	L	T	V	W	R	D	L	K	N	R	E	E	V	S	M	V	I	F	M	L	A	D	S	V	A	A	R	M	R	E	F	L				
UniRef90_R7K414	K	S	I	G	N	S	L	T	V	W	R	D	L	K	N	R	E	E	V	S	M	V	I	F	M	L	A	D	S	V	A	A	R	M	R	E	F	L					
UniRef90_W3AM57	K	S	I	G	N	S	L	T	V	W	R	D	L	K	N	R	E	E	V	S	M	V	I	F	M	L	A	D	S	V	A	A	R	M	R	E	F	L					
UniRef90_UPI0002D376E1	K	S	I	G	N	S	L	T	V	W	R	D	L	K	N	R	E	E	V	S	M	V	I	F	M	L	A	D	S	V	A	A	R	M	R	E	F	L					
UniRef90_UPI00035C5F2A	S	Y	A	K	G	Q	I	L	L	R	D	Y	D	D	P	K	E	I	K	Q	V	I	L	E	M	C	E	E	V	A	R	R	A	E	K	K	C						
UniRef90_E3YKS1	R	K	S	I	G	S	Q	R	A	L	G	R	A	L	S	V	A	E	R	E	Q	I	V	L	G	I	V	D	G	L	G	K	R	L	R	G	R	F					
UniRef90_UPI00037651DF	R	K	S	I	G	S	Q	R	A	M	G	R	R	A	K	T	P	G	E	L	E	A	T	L	V	A	I	D	R	L	E	E	R	L	I	K	L	Q					
UniRef90_B2FLR2	Q	S	I	S	S	E	D	T	F	A	E	D																															
UniRef90_F5LF53	K	A	K	A	V	G	H	G	M	T	L	P	R	D	Y	A	T	P	A	E	E	I	K	V	V	L	L	E	L	S	E	L	V	C	Q	R	C	R	A	K	G		
UniRef90_B4VAW5	I	A	K	S	L	A	A	D	R	A	F	E	H	D	A	L	D	P	A	E	H	R	R	T	L	D	L	A	E	E	V	A	A	R	L	R	D	G	Q				
UniRef90_H2G0P6	V	R	K	S	V	G	V	E	T	T	L	A	T	D	L	H	A	P	E	Q	G	A	E	V	L	Q	R	L	W	P	E	L	L	R	R	L	D	G	R	A			
UniRef90_W6QQ50	R	K	S	V	S	T	E	T	T	F	H	E	I	G	D	K	E	L	R	A	K	L	W	W	A	A	Q	E	L	E	K	D	M	A	R	F	K						
UniRef90_CONW02	R	K	S	V	G	T	E	R	T	F	R	D	D	M	A	D	L	Q	E	M	L	Q	L	T	A	L	E	L	E	K	D	M	L	R	T	Q	F	R					
UniRef90_R5BM16	K	S	I	S	A	E	R	T	F	E	K	D	I	S	S	P	K	Q	L	R	A	L	F	N	V	A	C	I	V	A	H	R	R	R	N	G	F	R					
UniRef90_R6SP30	K	S	I	S	V	E	R	T	F	A	K	D	I	V	N	P	E	E	L	D	R	E	M	F	K	A	C	T	V	A	H	R	R	R	N	G	F	R					
UniRef90_A0A058ZM51																																											
UniRef90_R6MDF2	K	S	I	S	N	S	T	V	L	P	Y	N	Y	R	D	S	G	M	I	K	N	V	I	S	D	L	S	K	E	I	G	K	K	L	N	K	L	Y					
UniRef90_UPI0003B341A0	R	K	S	V	S	A	E	T	T	F	F	E	D	S	D	K	E	L	L	T	D	H	L	W	W	L	C	E	K	V	A	S	K	E	I	G	V	A					
UniRef90_A3DH61	K	S	I	G	N	S	L	T	A	P	R	D	L	T	N	K	E	D	V	R	I	L	I	Y	V	L	S	E	S	V	G	E	R	L	R	S	H	K					
UniRef90_D8HV89	R	R	S	I	G	A	Q	R	A	L	G	R	G	R	T	P	A	E	L	D	I	V	L	V	A	L	I	D	R	I	A	R	L	R	A	A	R						
UniRef90_UPI0002BC0EF5	V	X	K	S	I	X	S	E	K	T	Y	G	K	L	L	Y	N	E	A	D	I	K	A	E	I	S	K	N	V	Q	R	V	A	S	L	N	K	K	V				
UniRef90_W2VIL2	K	S	I	S	K	E	F	T	Y	G	K	D	V	S	F	K	L	D	D	V	L	F	I	L	S	F	R	V	A	G	R	A	K	G	L	Y							
UniRef90_V2XUY6	R	K	S	I	G	A	E	R	T	F	N	I	Q	D	R	E	L	I	L	D	K	L	E	E	V	A	V	E	L	E	N	D	M	T	G	W	T						
UniRef90_UPI00035D071E	V	P	R	G	H	S	K	E	T	T	F	Q	Q	N	I	V	E	R	A	D	V	R	S	L	L	D	Q	V	L	D	E	V	A	A	D	D	R	P					
UniRef90_UPI00037912B4	K	G	G	Y	G	H	G	V	T	L	L	R	D	Y	T	K	D	E	I	N	A	C	L	L	D	L	C	E	E	A	C	R	R	A	D	E	K	E					
UniRef90_M4ZYC0	R	G	S	I	G	S	Q	Q	A	M	R	R	Q	R	T	R	A	D	L	D	V	L	R	G	L	V	D	R	V	T	R	R	M	R	D	R	V						
UniRef90_R7MB03	I	P	K	S	I	Q	N	T	R	A	F	G	I	F	T	S	D	F	N	F	I	K	N	E	L	N	K	H	I	D	T	S	C	R	K	L	R	K	Y	E			
UniRef90_G0W2H0	V	R	K	G	F	S	N	G	I	T	L	M	R	N	Y	S	I	Q	E	V	S	T	I	L	E	L	T	D	H														



UniRef90_V9XCT3	A	P	R	F	T	V	V	L	V	L	K	L	R	K	A	D	M	S	V	L	T	R	S	S	T	L	P	Y	A	T	E	D	Q	V	L	T	A	A	A	Q	R	L	A	L	Q
UniRef90_L7KF61	F	I	T	R	V	V	A	V	V	V	T	V	R	N	S	S	F	F	Y	T	R	T	S	H	L	Q	P	E	P	T	S	A	A	V	V	G	E	A	V	S	L	L	L	D	D
UniRef90_C8X739	I	T	R	V	V	A	V	V	V	V	T	V	R	N	S	S	F	F	Y	T	R	T	S	H	L	Q	P	E	P	T	S	A	A	V	V	G	E	A	V	S	L	L	L	D	
UniRef90_G2I6J0	G	V	T	V	T	V	K	V	K	V	K	V	K	V	N	D	N	K	T	W	H	S	H	L	Q	P	E	P	T	S	A	A	V	V	G	E	A	V	S	L	L	L	D		
UniRef90_E1PRX6	P	E	V	I	S	C	S	I	R	D	T	N	K	T	W	H	S	H	L	Q	P	E	P	T	S	A	A	V	V	G	E	A	V	S	L	L	L	L	L	L	L	L	L	L	
UniRef90_G8LXV3	F	K	T	V	Q	V	Y	I	R	D	N	E	L	N	S	I	D	R	K	Q	A	K	I	N	F	S	C	V	T	E	D	I	F	K	E	A	Y	E	I	F	L	L	L	L	
UniRef90_B8CKD6	H	K	Q	V	V	K	L	K	F	E	D	F	K	V	N	D	N	K	T	W	H	S	H	L	Q	P	E	P	T	S	A	A	V	V	G	E	A	V	S	L	L	L	L	L	
UniRef90_M7B2W5	G	K	T	V	T	L	K	L	K	N	V	N	F	E	V	K	T	R	A	S	T	V	L	S	A	V	S	E	E	I	F	A	V	A	K	D	M	L	R	L	L	L	L		
UniRef90_I8J657	G	R	T	I	S	L	G	M	G	Y	S	R	F	H	E	G	F	H	R	K	S	I	E	E	P	L	N	I	T	E	L	Y	D	V	C	L	Q	L	M	Q	D	L			
UniRef90_A0A023CWS9	G	K	T	L	V	L	K	L	R	N	S	Q	F	E	T	V	T	K	R	M	T	F	D	D	S	G	D	V	N	H	R	L	E	E	L	V	D	A	F	L	L	L	L		
UniRef90_UPI0002116D4	P	K	T	M	L	K	I	K	Y	S	D	F	T	Q	R	S	R	K	R	M	T	S	G	D	V	N	H	R	L	E	E	L	V	D	A	F	L	L	L	L	L	L	L		
UniRef90_Q2PUL8	L	V	S	I	Q	I	M	I	K	Y	H	D	R	R	T	V	T	R	S	K	Q	L	K	N	A	I	W	E	R	V	I	F	Q	A	L	L	L	L	L	L	L	L	L		
UniRef90_R6NGD9	V	K	T	V	Q	V	V	I	K	D	P	D	F	R	V	I	S	R	Q	R	P	L	K	N	A	I	W	E	R	V	I	F	Q	A	L	L	L	L	L	L	L	L	L		
UniRef90_G7GKX2	C	R	T	V	V	L	V	V	I	K	D	P	D	F	R	V	I	S	R	Q	R	P	L	K	N	A	I	W	E	R	V	I	F	Q	A	L	L	L	L	L	L	L	L		
UniRef90_M2MS74	G	R	T	L	V	L	K	L	K	L	H	T	Y	E	V	F	S	R	Q	V	Q	P	L	K	N	A	I	W	E	R	V	I	F	Q	A	L	L	L	L	L	L	L	L		
UniRef90_A0PX34	G	R	T	V	V	L	R	L	R	F	D	D	F	S	R	A	T	R	S	H	T	L	P	K	A	V	Y	T	D	D	L	Y	H	F	S	L	P	M	L	L	L	L	L		
UniRef90_S2XP00	G	R	T	V	H	L	G	A	E	Y	S	D	G	F	H	R	S	R	S	M	E	A	T	N	D	T	K	I	Y	K	A	M	C	V	K	L	L	L	L	L	L	L	L		
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I L W N E E P I R G I G V R V L H K L V  
N S W K W E R P I R S I G V R V T D L I  
Q A M V R Q E R G I R L L G V R V S G F  
T E I D G V P L R L L M G I R V S G F  
E F Y S G Q T V R K L S I T L T S N  
Q M Q P N E V D V R L L G M T L T N I  
D Y S A G V R L V G V G F S D F

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

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