

1 10 20 30 40

QUERY	M D Q T Q P [L] N E K Q [V] P N S E G C Y V W Q V S D M N R L R R F L C F G S E G G
UniRef90_H9GDQ6	V S Q M E P C D E N Q V P N S E G G Y V W Q V T D M N R L R R F L C F G S E G G
UniRef90_F6ZHD4	V G Q T Q P L N A K Q V A N S E G G Y V W Q V T D M T R L R R F L C F G S E G G
UniRef90_M3XKV2	V G Q R E P L N E K Q V L N S E G G F V W E V T D M T R L R R F L C F G S E G G
UniRef90_W5MKQ0	L S Q A [P] L N D E Q M L N S A G G Y T W E V T D M T R L R R F L C F G S E G G
UniRef90_I1FTC4	V P Q T A P L P G Q V P N S A G G Y S F A V N D F T R L R R F L C F G S E G G
UniRef90_UPI00032B0CBA	Q A P D A R R P G S S K D S C G W Q V T D Q S R L R R F L C F G S E G G
UniRef90_U3JJT1	Q P P S A A P E P S G A G R H L P D S R R L R R F L C F G S E G G
UniRef90_A7RN19	V P Q S E P L S A D Q V Q N S A G G F G W V V D D M C R V R R F L C F G S E G G
UniRef90_V9KCF7	V H Q L E P L N D Q Q T I N S A G G F V W Q V T D V T R L R R F L C L G T E L G
UniRef90_C3ZG25	P Q N Q T I P G N M V P N S A G G Y A F A V V D D T R L R R F L I L G C E G G
UniRef90_A7C186	P Q S Q A I P G S Q V R N S A G G Y S W E V T D W Q R L R R F L I L G A E G G
UniRef90_B9XQD9	P Q S Q P I P G R E I Q G R S G G Y M F K A D L W Q E L R R F L C L L I G T S Q N
UniRef90_UPI0002FEDCA8	M E P S E N A T S N H A I L N S T G A E G W E I S D K T R L C R F L C Y G S E G D
UniRef90_H2THV8	N E Q V L N S A D R S V T A A V C L R R F L C Y G S E S S
UniRef90_F1QQM0	P Q S Q P A S P K Q A R N A A G G Y A F V V S P W T R L R R F L I L G A E G G
UniRef90_L7VR73	Q G E K A R P E Q V Q N S A G G F V F A L D D W S R L R R F L V L G A D G G
UniRef90_A0A017T8W8	M E P S E N A T S N H A I L N S T G A E G W E I S D K T R L C R F L C Y G S E G D
UniRef90_M3ZRK4	Q S M P I P G S Q V L N H A G G F V Y E V D G W T V L R R F L I L G S E A G
UniRef90_W5XAD0	P P E Q P L N D Q E E Q G H S G G H P W A V T E S L R L R R F L C Y G S E S A G
UniRef90_W5K3J8	P Q R Q K A R A D Q V K N S A G G F A F A L D A W A R L R R F L I L G A E G G
UniRef90_A9G3H5	M E L S G S T T S N H T L N S T G V G S W E I S D S K A K L C R F L C Y G S E R D
UniRef90_I3KQJ2	P Q N Q P I P G R E I Q G R S G G Y M F D A G D W Q M L R R F L C L I G T A Q S
UniRef90_K9XV42	P Q T E A A Y G A T N N A G G Y S F E D R W Q K L R R F L I L G T E E G G
UniRef90_F8L6Y8	P Q S Q P I K G R E V Q G R S G G Y M F D A G I W S M L R R F L C L I G T A K S G
UniRef90_UPI00034584C8	P Q N Q P I P G R M T Q G R S G G W M F K A D L W Q I L R R F L C L I G T A N G
UniRef90_U7QS03	S P P Q Q E T E N C T N E T G S V P T V T E E V R L R R F L C Y G S E S A G
UniRef90_W5UAF6	P Q T Q P I P G R E I Q G K S G G Y M F R A G M W R T L R R F L C L I G T G N G
UniRef90_K9UPF8	P Q T E A A V N D A G G S G F E V S R I M R L R R F L I L G T E E G G
UniRef90_E5SPR6	V G Q R E P L N E K Q V L N S E G G F V W E V T D M T R L R R F L C F G S E G G
UniRef90_H3AGT5	U T T V N S A G G S H A F T V A P L E R R F L M L G T E E G G
UniRef90_A9V9D1	P Q S Q P S D S R Q V P N S A G G Y E I D D L G R L H R F L V L G T D G G
UniRef90_UPI00047AFD4D	P Q T Q P I P G R E I Q G R S G G H A F D A G I W S M L R R F L C L L V G T A Q S
UniRef90_L8LM85	S Q M Q P C I E N Q L S S N S E D E C G W Q V T D M T R L R R F L C F G S E G G
UniRef90_V8NNU3	P Q S Q P I P G R E I I R G R S G G Y M F D A G L W A M V R R C L L V G T A Q S
UniRef90_UPI0003497E55	P Q T Q P I P G R Q I Q G R S G G Y Q F K I D L W Q L R R F L C L L I G T A Q S
UniRef90_K9EYR9	P Q N Q P I P G R E I Q G R S G G V W M F D A G L W K L R R F L C L L I G T A Q S
UniRef90_T2JC44	P Q S E P A S P K Q A R N H A G G Y S F T L N D R D R L R R F L I I I G S E E G G
UniRef90_A6G1X4	P Q S Q P I P G R E T K G R S G G Y H F D P G M W A M L R R C L L I G T A Q S
UniRef90_K9PYE9	M E P P A N S T T N H T S A E P W E I T D K L R L R R F L C Y G S E G D
UniRef90_H2M5K6	P Q S Q R A A A N Q E P N S A G G Y T F T L D D A A R L R R F L I I I G V D G G
UniRef90_J0MW63	P Q T H P I P G E M V Q G R S G G Y M F D P G I W G M L R R C L L I G T A Q S
UniRef90_B0C0V8	P Q M M K T R P D E V R N T A G G Y F V F P V N D E T R V R R F I I I I G T S G G
UniRef90_W2T4P4	S Q N E R L A P Y Q V M N S T G G Y V Y S T D Y V T Q L M R F L C I G T T G G
UniRef90_K1QRQ0	P Q T Q P I P G R E I P G R S G G W M F K A D S W Q T L R R C L L I G T A Q S
UniRef90_UPI000347F30A	P Q T Q A I A G R E I Q G R S G S F A F D A G I W R M L R R F L C L L I G T A Q S
UniRef90_L8MVN6	P Q M K K K R D D Q V V N T A G G Y V F A V S D E S R V R R F I I I I G T A G G
UniRef90_U6P558	P Q Q S R E L M N D Q V Q D S A G G Y V W K V D D F N R L R R F L C L L I G V E G G
UniRef90_UPI0003F067C9	V R Q S E R L M N D Q V Q D S A G G Y V W K V D D F N R L R R F L C L L I G V E G G
UniRef90_E2MXQ9	P Q Q V R A S E K Q V Q N S A G G F T F E L D D K A R L R R F L I I I G V E G G
UniRef90_S9Y7M3	D Q R R P A V K D Q V R N A A G G Y V F S V G D E A R L H R F L T L G T E A G G
UniRef90_B5LJJ7	P Q S Q P R I P D Q V R N A A G G Y F A Y R T G D E L R L H R F L T L G T D G G
UniRef90_Q852Y5	P Q N Q P L P G R E V Q G R S G G W M F Q A D S W S V L R R C L L I G T A Q S
UniRef90_K9S919	S Q L D K S D S R Q V A N S A G G Y T F E V T P V A R L R R F L I I I G T E S G
UniRef90_H6MU78	Q M V K V K D G E V K N N A G G Y V F Q T S D E T Q V R R F I I I I G S D K S
UniRef90_G0N912	Q M E Q V K E G Q V M N N A G G Y V F V P V S D E T Q V R R F I I I I G S D K S
UniRef90_A8x8S9	P Q A P A T P G Q V R N N A G G Y T F P V V D D W A R V R R F L T L G T D G G
UniRef90_I7FFJ8	P Q T E A I P G R E T R N N A G G V A F T A D A W I R L E R W L L L G S E E G G
UniRef90_UPI000372E670	P Q S E S I P G T V P N T A G G H A F P V D D W T Q L D R F L V L G S E E G G
UniRef90_B8IKH3	M Q I K I R D D Q V V N N A G G F V F A V S D V T R I R R F L I I I G T E E G G
UniRef90_K1QEZ4	Q S E P L S E D Q V L N N A G G F V F K V D D F T L L R R F L I I I G S D A N G
UniRef90_A8J6R1	P Q S Q K A D P R Q V K N A A G G Y T F Q A D D W T R L H R F L T L G S D S G
UniRef90_I0PCF9	P Q L L P A S P K Q V R N A A G G Y T F R V D D A A R L R R F L T L G S E E G G
UniRef90_UPI00040A2F67	P Q S H P I S A D Q V R N N A G G F V F K V D D L T L R R F L I I I G S D A N G
UniRef90_A8HZE9	P Q S K P A D E R Q V Q N S A G G H T F Q L D D A A R L R R F L T L G V D A G
UniRef90_I6X2L4	P Q T S P A D A R Q V A N N A G G Y V F E I S P Q A R V R R F L T L G T E S G
UniRef90_U5E517	P Q R E R A D T R Q E L N A A G G Y A F V L D D V A R L R R F L T L G V D G G
UniRef90_E5XS43	Q M I K I R D D Q V V N N A G G F V F A V S D V T R I R R F L I I I G V D G G
UniRef90_D5UE31	M D D I L N R L R R F L I I I G V D G G
UniRef90_T1IM51	Q R E R L P G R Q V R N H A G G F V F E V S E T R F L R R F L I I I G T E E G G
UniRef90_H3E0T8	P E P T M M M N R P N N N G H D S Y E M T P E A R L R R F L I I I G V D G G
UniRef90_K1R051	Q M Q K Q H A H E V E N S A G G F V F K V S D M T R A L R R F L I I I G S D S G
UniRef90_UPI00021A6C5F	P Q T E R L D E R Q V R N N A G G F V Y T V S D E S R V L T R F L I I I G V D G G
UniRef90_F2UQA4	Q R E R L D P N Q Q K N H A G G F V Y A V S D E M R L T R F L I I I G V D G G
UniRef90_Q9RUW8	M N K L Q K K N S E G Y V T L A L S D E N R I R R F L I I I G A T G G
UniRef90_H3DU13	S D L V T L R R Y L S M Q Q T S G G
UniRef90_W4Y8C5	V P Q S E P I S E D Q V P N N A G G F V Y T I D D F S R L L K R F L V I L G S N A N G
UniRef90_R7THM6	Q R E R L P G R Q V R N H A G G F V F E V S E T R F L R R F L I I I G T E E G G
UniRef90_D8THD5	P Q Q A V T I E A E V L N S E G D I R L V A T A T S Q L L R R F L T V G C E E G
UniRef90_E8U8B6	P Q T R R I P G R Q V R N A A G G Y V F A K D T W T R L E D F L V L G T N G G
UniRef90_V3ZZG1	P Q H R P I P G A Q V P N S A G G Y T W A V D D W T R L H R F L V L G S E E G G
UniRef90_UPI000372C642	S Q T Q K L D E R Q V L N N A G G F V Y A L G D E G R L T R F L V L G T E E G G
UniRef90_E2AY68	P Q E Q E L K R L H F G R E I P P E V R L S Q F L Y V G K E Y Y P
UniRef90_A0A026WDP8	D P E L R L R Y L Y V G K E Y Y P
UniRef90_F7AHS5	P Q Q A V T I E A E V L N S E G D I R L V A T A T S Q L L R R F L T V G C E E G
UniRef90_D2B8V5	P Q T R R I P G R Q V R N A A G G Y V F A K D T W T R L E D F L V L G T N G G
UniRef90_E2BBQ4	P Q E P L R L R Y L Y V G K E Y Y A P
UniRef90_F4W676	S Q T Q K L D E R Q V L N N A G G F V Y A L G D E G R L T R F L V L G T E E G G
UniRef90UPI00036DD3FC	P Q H R P I P G A Q V P N S A G G Y T W A V D D W T R L H R F L V L G S E E G G
UniRef90_W4L6X4	P Q E Q E L K R L H F G R E I P P E V R L S Q F L Y V G K E Y Y P
UniRef90_E0VGE6	D P E V R L S Q F L Y V G K E Y Y P
UniRef90_H9KM82	P Q H R P I P G A Q V P N S A G G Y T W A V D D W T R L H R F L V L G T E E G G

QUERY	50	60	70
UniRef90_H9GDQ6	T Y Y E E K K L G Q E N A E A L L R I E D G K G C E V V Q E I K T F S Q E G		
UniRef90_F6ZHD4	T Y Y I K E Q K L L G F E N A E A L Q R I E D G K G C E V V Q E I K T F S Q E G		
UniRef90_M3XKV2	T Y Y I K E Q K L G L E N A E A L T R I E D G R G G Q V I V N E I K T F S Q E G		
UniRef90_W5MKQ0	T Y Y I K E Q Q L S L E N A L T L L I E E G R G C E V V Q E I K T F S Q E G		
UniRef90_1IFTC4	T Y Y T S E K K L G K E N A E A L R L I E E G R G C E V V V E E I K T F S L D G		
UniRef90_UP100032B0CBA	T Y H V K E Q K L G L E N A E A L R L I E E G R G C E V V V E E I K T F S L D G		
UniRef90_U3JJT1	A Y H A K D Q K L G L E N A E A L R L I E E G R G C E V V V E E I K A F S Q E G		
UniRef90_A7RN19	T Y Y V T Q P K L A K E N A T A F N L I S E A G K G K E V V V E E M I E K Y S V E G		
UniRef90_V9KCF7	T Y C V N E E R L G R E T A Q A L R L I E E G K G V E V V Q E I K T F S V E G		
UniRef90_C3ZG25	T Y T L D E K K L G K E N A E S V R L C Q K N G V R V V K R L V E I I S S Q A G		
UniRef90_ATC186	S Y Y A T E Q K L T V E N A E A V R C C Q K N G V R V V K R L V E I I S S Q A G		
UniRef90_B9XQD9	T Y Y G E R D L V K Q N H D A I R C C Q K N G A R V V D R E I V E I I S S D S G		
UniRef90_UP10002FEDCA8	T Y Y A G K H E L T N D F V D I F K V A E N P E C V A S E E I V Y A S D G		
UniRef90_H2THV8	V Y T A T E E R L S L Q S A G A T S M I Q G E R G S E V V D R E I K K L A R E G		
UniRef90_F1QQM0	T Y S T K E C P L G I E E N A L S L S M Q L E E G G R G S E V V D R E I V R R F N L		
UniRef90_L7VR73	T Y Y A S E Q K L V L L A N A R G V A A C C D Q D G L R A V A M I V A I S E A G		
UniRef90_A0A017T8W8	T Y Y A S E Q A L T V D N A R A V Q A C C V A D G A R T V K R I V E I I S T S G		
UniRef90_M3ZRK4	Y T A E Q R V S T E T A G A L S L S L L Q E G R G A E A V E A K R F A Q G G		
UniRef90_W5XAD0	T Y Y V A P Q K L T Q E N A Q N V L K L I H E D G E R V V R R I V E I V S V A G		
UniRef90_W5KJ38	T Y S T R E R A L G P E G A L A M E L V Q G G R S C E V V V E E V K R M C L E G		
UniRef90_A9G3H5	T Y Y A T E R K K L T V E N A R A V E A C L A A D G P R A V Q E R I V D I S S S G		
UniRef90_I3KQJ2	L Y S T K E N R I K L E N T G Q S M L E E K R G A E V L K R F A Q G D Q		
UniRef90_K9KV42	T Y Y A D K K E L T Q D F I G V I K Q A V A E D P H R V A E E I L Y A S D G		
UniRef90_F8L6Y8	T Y Y V T E R K L T Q A N A K N V Q V C I Q T D G Q R T V K Q I V T I S Q S G		
UniRef90_UP100034584C8	T Y Y A G K Q E L T D D F V N V I R Q C V H E N P A R V A Q E E I L Y A S D G		
UniRef90_U7QS03	A Y Y A G K H E L T D D F V D T I Q L A I E A D P R R V A D E I L Y A S D G		
UniRef90_W5UAF6	T Y Y R A R E Q K L C L E R A S S T E L L E A G R G S E A V V Q E E I V Q R I S L R G		
UniRef90_K9UPF8	S Y Y A T K W E L T N D F V D V L E K A I A E D P D R V A Q E E I V A Y A S D G		
UniRef90_E5SPR6	T F Y V S E K Q L T K E N A I N V L Y M E E N N R G M E V L I E Q E I L V I E V S L A G		
UniRef90_H3AGT5	T Y Y I K E Q K L G L E N A L T L L R L I E D G K G C V E V V N E I K T F S Q E G		
UniRef90_A9VD91	T Y Y V A S E S Q L T V E N A G C R L F N D G R G L E A L E I V A K V S L G G		
UniRef90_UP100047AFD4D	T Y Y G S E H A L T V E N A D V V L G W A R E R T A E L V D E I V V I S I S T A G		
UniRef90_L8LM85	T Y Y A G K Q E L T D D F I K V L T E A I A L D A E R V V G Q E E I L Y A S D G		
UniRef90_V8NNU3	A F Y V K E Q K L S F E S V D A L R L E G G K G Y E A V V H A E I K T F S Q E G		
UniRef90_UP10003497E55	T Y Y A N Q R E E L T D D F I T N E F V D V L F Q A I D E N D P E R V V A H E I V V A H E		
UniRef90_K9EYR9	S F Y A N Q Y E E L T D E F V T V V T Q A V A M D P A R T A Q E I V V A H E		
UniRef90_T2JC44	T Y Y A Q K R E E L T D D F I D V L K Q A V D T D P G R V A S E I V V A H E		
UniRef90_A6G1X4	T Y Y V G E R A L S L A N A E C Y R C L D A D G P G T V E A I A S L S E A G		
UniRef90_K9PYE9	T F Y A D K H E L T G E F T Q V N Q C C V A A D P A R V A K E A A Y A S D G		
UniRef90_H2M5K6	F T A G E S H V S V D D N A E A L S L Q E E E G G A E V V E I R R F V Q K G		
UniRef90_J0MW3	T Y Y T S A Q D L A D D N L E V L K R M A V E A P R T L V D M I V I E V S T S G		
UniRef90_B0COV8	T Y Y A D K H E L T D D F I H V Q Q C V Y E N P Q R T A E E I L Y A S D G		
UniRef90_W2T4P4	T Y Y S T E K E L L T M D N V K A L I D I I E R G R G S L I L K E I Y E I S L A G		
UniRef90_K1QRQ0	T Y Y T G E A E L T R E N T R T C D R L I N S G R G K D V V E L V R E F S V G		
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UniRef90_L8MVN6	T Y Y A G K H E L S A D F I D T L Q K C V A A D A D R V K S E I I L Y A S D G		
UniRef90_U6P558	T Y Y S T E Q E L L T V N V N E A L I K I I E K G R G S L I L K E I Y E I S L A G		
UniRef90_UP10003F067C9	S Y Y V G E K E L G K E N A Q C D R L I D S G K G E E V V K E I V T F S V V E G		
UniRef90_E2MXQ9	T F Y A N A R H L A F D N V Q I L Q R M A V N D P V T L V D T I V D V S V V S G		
UniRef90_S9Y7M3	T Y Y I K E Q K L G L E N A E A L I R L E D G R G C E V V Q E E I K S F S Q E G		
UniRef90_B5LJJ7	T F Y T G K R E L T K E N A A V V L R A A E Q A P L T L V R A I V D V S T K G		
UniRef90_Q852Y5	T Y Y T N A R D L T K D N A E V L R M V D K G L Y T V S Q I V E I Y A S D G		
UniRef90_K9S919	T F Y A D Q H E L T T E F V A V L N Q A I A L D P D R V A Q E I I L Y A S D G		
UniRef90_H6MU78	T Y Y T S A A D L T K E N A A V V M D F A R N D A G T L V R E I I V S I S Q S G		
UniRef90_G0N912	S Y Y Q S A E K M T M E N A Q R I I E I V E S G K G H M V L E E Q L A R I N A E N		
UniRef90_A8X8S9	T Y H Q N A E K I T D N A Q R V E I I I Q K G K G H K V L L H E L A L I V E S E A G		
UniRef90_I7FFJ8	T Y Y T A D R E L T R D N A E V L R V A T A D P V G L V N R I V E I V S E A G		
UniRef90_UP1000372E670	S Y Y V S E A D L T K Q N V A N V R A A I A E D G E R A V K M I V D V S V V A G		
UniRef90_B8IKH3	S Y Y A G E R A L T R E N A G A V L R C A A D G V R A V E A I V A V S E G G		
UniRef90_K1QEZ4	T Y H T G E I E L K R E N A Y C I A R L I N R G E G S Q V V A T I K E F S L Q N		
UniRef90_A8J6R1	T Y Y V S R K S V D L A S A Q C V V R L L A I A G Q G E A V V E I V D I S T R E G		
UniRef90_I0PCF9	T Y Y T S A E D L T R D A A D V V I R L L A I A T D P V T L V Q K Q I V E E V S E A G		
UniRef90_UP100040A2F67	T Y Y T R D V E L T R D N A A V L F R L A E T D H R T L V V D D Q I V E E V S E G G		
UniRef90_A8HZ9	N Y Y V S R K S V D L A S A Q C V A R L A G Q G E A V V K E I I L V D I S R E G		
UniRef90_D5UE31	T Y Y V A A P R E E L K R E N A E V L R V A T E L V A T E I V D I S T T G		
UniRef90_I6X2L4	T Y Y V N A A A L T A D N A D F V L D Y A A E H T A E L V R E I I V D I S V R G		
UniRef90_U5E517	T Y Y V N A A A E R E E L T K D N A E I V L K L A R E R C A E L V R T I V V E I V S A S G		
UniRef90_E5XS43	T Y Y V N A A A E R E E L T K D N A E I V L K L A R E R C A E L V R T I V V E I V S A S G		
UniRef90_D5UE31	T Y Y V A A P R E E L K R E N A E V L R V A T E L V A T E I V D I S T T G		
UniRef90_T1IM51	T Y Y V S S E K E M T L D N V N A L K D I I H R G K A D L I L N E I K E I S L A G		
UniRef90_H3E0T8	C Y Q P G N R Q L S K D R V P S D E L I R D N L G D E A V V E I L H F R Q K		
UniRef90_K1R051	L L I S N N T S I D L E K C I D S L I V A E C G C E V V E I L L K F R R E N		
UniRef90_UP100021A6C5F	D Y W F V H N Y F L A K N V L S I E E L A E N A E K Q L L I V E I I L T K A F E S N		
UniRef90_F2UQA4	T Y Y A S A R K L T R D N A Q C L Q R L D G G Q G A E L V D L V R T V S V E G		
UniRef90_Q9RUW8	T F Y A S A Q K H T V Q A T D F V R E L V L Y Q R D A A L A L R V T L D V V R V G Q		
UniRef90_H3DU13	T F Y A K E Q K L T M E N V Q A L K E I I I I R G G A S T I L E T L R E V V S I A G		
UniRef90_W4Y8C5	T Y Y V V N K E P K E N P E C T Q T I L E E G R G G D I V V K E L V R F S K A G		
UniRef90_R7THM6	V C L V K G K Q K T V S N L E L M Q H T R T M P A E D L I N E I V Y S A V G		
UniRef90_D8THD5	N Y Y V S S K D L G L E C E C V L K L L A E G H G V R V V E E I V T R I S R E G		
UniRef90_E8U8B6	T F Y A S E R D H T V K A T D F L R T F A Q D G A R M V Q V I L D V V R A G		
UniRef90_V3ZZG1	V L I G N A K P T K E D L S S I D R L I S E G K G E E I V R E V V R Y A L E C C		
UniRef90_UP1000372C642	T F Y A D E R A Q T K L E T E F V Q L F A V V H G L R A V E L L I V D V A E R N		
UniRef90_E2AY68	G Y W F A H N Y F I V K N V P S I E E L A A T P G K E L V P I L L K F A F E S N		
UniRef90_A0A026WDP8	D Y W F V H N Y F I V K N V P S I E E L A A T P G K E L V P I L L K F A F E S N		
UniRef90_F7AHS5	V Y N I S P S L T T P D N V T A V Y K L N E N G K G L S V L S T L V K F A K K G		
UniRef90_D2B8V5	T Y Y V G E D R L T A E N A E V F R A I A E D G P R V V A L L T D V A R P S		
UniRef90_E2BBQ4	D Y H P G H D Y F R A V N I M S I L E A L E N P K K Q L V I V E I T K A F D S G		
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UniRef90_UP100036DD3FC	T L Y A G E R A H T V Q A T D F V R E L V L R D A S L A L R V T L D V V V R G N		
UniRef90_W4L6X4	S Y Y A S E A K L L S A E N A D A V L R C I A A D G P R V V D T L V A V S E A G		
UniRef90_E0VEG6	F Y Q P G D R V K N E V Y H S C V S N T I E N L L A G E I L A N C I V K A Y S D G		
UniRef90_H9KM82	D Y W F V H N Y F L A K N A F D Y W F V H N Y F L A K N A F D Y W F V H N Y F L A K N A F E N N		

QUERY	90	100	110	120
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UniRef90_M3XKV2	R A A K Q E P I L L F A L [A V C S S Q C P D V P T K Q A A F R A V P A V C R I P T H			
UniRef90_W5MKQ0	R A A K P N P A L F A L [A V C S S Q C S D L A T K R A A F K A V K E V C R I P T H			
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UniRef90_C3ZG25	K A V K Q Q P V I F A L A L C A R E S D V K T K Q A A Y K A L S K V C Q T P T Q			
UniRef90_A7C186	R A P K N D P A L F V L C S K F G D L E T K H T A F D A F N Q I V R I G T H			
UniRef90_B9XQD9	R A P K N D P A I F A L A L V T T H G D V A A K T K A F A N L S K V C R I G T H			
UniRef90UPI0002FEDCA8	R S I N N S A P I F A L V L L S M G E T S G A K K A F Q E I F P Q V V R T G S H			
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UniRef90_F1QQM0	R A V R P N P G L F T L A V C S Q H A D C K T R Q A A L R A L K E L C R S P M Q			
UniRef90_L7VR73	R A P K Q S P A I F A L A M A A C H A D P D V T R T A A L A A A L P R V C R T G T D			
UniRef90_A0A017T8W8	R A P K N E P A L F A L A M A A G D A K P E T R K A A L Q A L P L V C R T G T D			
UniRef90_M3ZRK4	R A V S P G P A L F A L A L C S Q H S E L K T R Q A A F K A L R E V C R D P A H			
UniRef90_W5XAD0	R A P K N D S A I F A L A G L C S F G N D R T R A E A L L A P S V C R T G T H			
UniRef90_W5K3J8	K T V R P N P A L F A L A V C S Q N S D A K A K L E T R Q A A L A A L P E V C C R T G T D			
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UniRef90_A6G1X4	R A P K N D V A I F A L A V A S G H A D E A T R A A A A L E A L P R V C R T G S H			
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UniRef90_H2M5K6	L A V R L G P T F F A L A L C S Q H S K L N T R K A A F K A L K D I C S D P A H			
UniRef90_J0MW63	A A P R Q N P A L F A L A L A Y A T S V P Q T R E A A L A A L P K V A R T G S H			
UniRef90_B0C0V8	R S I N N S A P I L A L V L L S M G E T P A A K K A F Q E I F P Q V V R T G S H			
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UniRef90_Q852Y5	R A P K Q N K Q A L F A L A L A S H G D D V T R A A A L A A L P Q V V R T G S H			
UniRef90_K9S919	H A L I N N S A P I L A L V L L S M G E S P Q A K R A F Q E I F P Q V V R T G S H			
UniRef90_H6MU78	R A P K N N Q A I F A L A A A A S L A D D S G R R T A L A A L P D V V A R T G T H			
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UniRef90_A8X8S9	R N P K M N S M L F T L A I C A R I A T H D T S K A A L R L L P D V V C R T P T H			
UniRef90_I7FFJ8	R A P K N D P A L F A L A A A A S S E D D V D G R R A A L A A L P R Q V V A R T G T H			
UniRef90UPI000372E670	R A P K N D P A L Y A L A L A A S S A D A K T R E R A L A A A L P R Q V V A R T G T H			
UniRef90_B8IKH3	R A P K Q D P A I F A L A A A A G A A D L A V R R A A L A A A L P R R V C R T G T H			
UniRef90_K1QEZ4	K A C K A D P I L F A L A L C C R C S D L A T K E A A Y K A L S D V C R I P T H			
UniRef90_A8J6R1	R A P K Q A T G V V L A M C A R P A T S R A A L A A V P A V C R T A S T			
UniRef90_I0PCF9	R A P K Q N P A L F A L A I A S A A E N V D G R R A A A A A L P R V A R T A T H			
UniRef90UPI00040A2F67	L A P R Q N P A I F A L A V A A A H G D A D A R A R A Y A L S V L P R V C R T G T H			
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UniRef90_U5E517	R A P R P N P A L F A L A A A A S L G D V D G R R A A L A A L P L V A R T G T H			
UniRef90_E5XS43	R A P R Q N P A L F A L A A A A S A L G D E T G R A A A L A A A L G D V V A R T G T H			
UniRef90_D5UE31	R A P R Q N P A L F A L A A A A Y A S V P E S A Q L A A L P A V V A R T G T H			
UniRef90_T1IM51	S G T R D D T G L F A L A L C A R S S E P R T K L A A Y S V I Q E M C Q L P R D			
UniRef90_H3E0T8	R N P K Q D P I M I A L A L C A R Y S D L S K K K D A M R L V N E V C R I P T H			
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UniRef90UPI00021A6C5F	L V P N P E T L V F A L A V C C R M K S E S L R H A A Y A V L N K I C I S P Q H			
UniRef90_F2UQA4	R A K Q D P T F A L A L C A Q G D T A T R Q R A F A V L S E V C R I P T H			
UniRef90_Q9RUW8	R A P K A D P A L L V L A L I A K A P N A A D R K R A A W D A L P E V A R T G T M			
UniRef90_H3DU13	K S Q K Q E A I L L A L G L C S R F G V S S L S S A A T G L V N T I C R T A T H			
UniRef90_W4Y8C5	H V L H E E S Y M K V L V C V A R S K D T S A K K A I Y N E L G Q L C S T A S G			
UniRef90_R7THM6	R L V H E P V V F A L A V C A K S A N M K L R Q A A F D A L G D V C M S S T Q			
UniRef90_D8THD5	R A P R Q S T G I M V L A I C A R L G D L A T R R A A L A A A L P P A V C R T A S T			
UniRef90_E8U8B6	R A P K M D P A L L A L V A K T G S L E A R K R A A W D A L P E V A R T G T M			
UniRef90_V3ZZG1	R F V L K T N L L F A L A V A Y C K A K D N S T K T A A S K A F P N I C K H P I D			
UniRef90UPI000372C642	R A P K P G P S L A L A V A K L G D L E A R K R A A W N A L P R V A R T G T H			
UniRef90_E2AY68	L V P H P E T L V F A L A V C C R Q N S E K L R K A A Y D N V T K I C A S T Q D			
UniRef90_A0A026WDP8	L V P H P E T L V F A L A V C C R G R Q T S E K L R H E A F A S V Q K I C T T T E Q			
UniRef90_F7AHS5	N A Y V V E G A I P Y V L A V C A C A S K D A V K Q D A L N H V G V I C N R P R M			
UniRef90_D2B8V5	R A P K N R P A L F A L A A A Y A K G D A D T R Q A F A K L A L S K V A R T T D H			
UniRef90_E2BBQ4	L V P C P E T L V F A L A V C C R Q M S E K L R H A A Y K S V G K I C A S Q P H			
UniRef90_F4W676	L V T H P E A L V F A L A V C C R Q N K S E T R H A A Y E S V Q T I C A S T P N			
UniRef90UPI00036DD3FC	R A P K S D P A L L V L A L I A K A P N V A D R K R A A W N A L P E V A R T G T M			
UniRef90_W4L6X4	R A P K N D A A L F V L A L C A R G H D E T R R A V I E L P R V A R I G T H			
UniRef90_E0VGE6	Y S A H P S M L V Y A L A V C A C A Q N N P Q L R E A A Y K A L K T V C S S S E N			
UniRef90_H9KM82	L V P N P E T L V F A L A V C C R M K S E S L R H A A Y A I L N K I C V L P Q H			

130 140 150 160

QUERY				
UniRef90_H9GDQ6	L F T F Q F K K D [W G R A L R K A V S D W Y N T K D A L A M A V T K Y K			
UniRef90_F6ZHD4	L F T F Q F K K G M W G R A L R K A V A D W Y N E K N D M A I A L A V T K Y K			
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UniRef90_W5MKQ0	L F T F Q F K K G M W G R A L R K A V A D W Y N E K D A M C L A L A V T K Y K			
UniRef90_I1FTC4	L F T F V S F A E S G W G R A H R R R A I Q N W Y L T K S P K S L A M A V T K Y Q			
UniRef90_UPI00032B0CBA	L F T F Q F K K G M W G R A L R K A V A D W Y N E K G G M A L A L A V T K Y K			
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UniRef90_C3ZG25	L F A F N Y A E T V G W G R A Q R R A V Q A W Y N E Q D P R Q L A H V T K Y K			
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UniRef90_B9XQD99	L F H F A G Y V N A G W G R G L R N A V G N W Y N A Q E P R E L Q A I K Y Q			
UniRef90UPI0002FEDCA8	F Y E W L N Y T K S G F G K V R E A G Q R W L A R E N V R D L A Y Q L K Y Q			
UniRef90_H2THV8	L F A F I Q K K K G L W G R A L R K A V S D W Y N E Q D A M S L A A A V T K C K			
UniRef90_F1QQM0	L F T F V Q Y K K G M W G R A L R R V T D W Y N G Q D G L S L A Q A V T K C K			
UniRef90_L7VR73	L F E F L T T V Q R G W G R A L R K A V C R W Y M S K T P D A L A Y Q V V K Y R			
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UniRef90_M3ZRK4	L F S F V Q Y K K G M W G R A L R K A V S D W Y N E Q D A M L N L A A A V T R C K			
UniRef90_W5XAD0	L F Q F A A V V D G G W G R G L R R A V I G A W Y N A K P V Q E L L Q L V K Y Q			
UniRef90_W5K3J8	L F T F Q Y K K G M W G R G L R R A V N D W Y N S Q D A L S L A H T V T R C K			
UniRef90_A9G3H5	L F H F T R D V Q G F W G R G L R S A V A A W Y N D K P V D R G A Y Q A M K Y Q			
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UniRef90_K9XV42	F Y E W L N Y T K S G F G K V I R E A G T A W L S R E D V R A L A Y Q L L K Y Q			
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UniRef90UPI00034584C8	F Y E W L S Y T K S G F G K I V R E C G K S W L S P N V K A L A Y Q L L K Y Q			
UniRef90_U7QS03	F Y E W L S Y T K A G F G K I V R E A G K A W L T N E D V K G L A Y Q L L K Y Q			
UniRef90_W5UAF6	L F S F V Q Y K K E L W G R A L R K A V A D W Y N G H D A L R A R D I T K C K			
UniRef90_K9UPF8	F Y E W M S Y T K S G F G K I V R E A G K N W L Q G D T K A L A Y Q L L K Y Q			
UniRef90_E5SPR6	L F E F I G F C K T C W G R S H R R A I A N W Y L R K N P L D V Y L V T K Y K			
UniRef90_H3AGT5	L F T F I Q F K K G M W G R A L R K A V A D W Y H A K D G M T V A L A V T K Y K			
UniRef90_A9V9D1	L F M F V G F M T S G W G R V A R A I A R W Y T S K P A D R L A F T V T K Y R			
UniRef90UPI00047AFD4D	L F L F A G Y V E Q G W G R G L R R A V D W Y V A K P V D E V A Y Q A V K Y R			
UniRef90_L8LM85	F Y E W L N Y T K S G F G K I V K E A G R N W L S P N V K H L A Y Q L L K Y Q			
UniRef90_V8NNU3	L F T F I Q F K K G M W G R A L R K A V S V W Y N G K N D M A I A L A V T A Y K			
UniRef90UPI0003497E55	F Y E W L S Y T K S G F G K I V R E A Q G S W L S H N D A K R L A Y Q L L K Y Q			
UniRef90_K9EYR9	F Y E W L S Y T K S G F G K I V R E C G K T W L S P N D A R L A Y Q L L K Y Q			
UniRef90_T2JC44	L F T F V D N V Q R G W G R G L R R A V A R W Y V E R D A E A L A Y Q V A K Y R			
UniRef90_A6G1X4	F Y E W L S Y T K S G F G K I V R E C G T S W L S N A N V K S L A Y Q L L K Y Q			
UniRef90_K9PYE9	F Y E W L S Y T K S G F G K I V R E C G T S W L S N A N V K S L A Y Q L L K Y Q			
UniRef90_H2M5K6	L F A V I Q Y K K E L W G R A L R K A V S D W Y N K Q D A M A A T V T R C R			
UniRef90_J0MW63	L F T F A G Y T E Q G W G R G L R R A V D W Y T S R T A D R L A Y Q A V K Y R			
UniRef90_B0C0V8	F Y E W L N Y T K S G F G K I I R Q C G T T W L S N P D A K A L A Y Q L L K Y Q			
UniRef90_W2T4P4	L F T F V K Y C E S G W G R L M R R T I Q D W Y A Q S P Q Q L A M H T K Y P			
UniRef90_K1QRQ0	L F E F I K C C E T G W G R A H R A L A N W Y L N Y K G E F L L H M T K Y K			
UniRef90UPI000347F30A	F Y E W L S Y T K S G F G K V V R Q A G R Q W L S N P D G T A L A Y Q L L K Y Q			
UniRef90_L8MVN6	F Y E W M N Y T K S G F G K V I R E S G K A W L S N P D T K A L A Y Q L L K Y Q			
UniRef90_U6P558	L F T F V K Y C E T G W G R L M R R T I Q H W Y S S K S P E Q L A M H T K Y P			
UniRef90UPI0003F067C9	L F M F V E L A E T G W G R A Q R R A I I R K W Y T E K D A L K L A L V T K Y P			
UniRef90_E2MXQ9	L L Q F V S Y V E K G W G R G L R R A V G N W Y S T K N S D D L A Y Q V V K Y R			
UniRef90_S9Y7M3	L F T F I Q F K K G M W G R A L R K S I A D W Y N E K G M A L A L A V T K Y K			
UniRef90_B5LJJ7	L F K F L G Y A E Q G W G R T M R R A V G A W Y D G K D A E Q L A I Q L V K Y R			
UniRef90_Q852Y5	L F E F L N Y A Q Q G W G K G L Q K A V L R W Y A D K P V D R A A Y Q M V K Y R			
UniRef90_K9S919	F Y E W L S Y T K G G F G K V V R E A G K A W L A R E D V R E L A Y Q L L K Y Q			
UniRef90_H6MU78	L F L F A T Y V E Q G W G R G L R R A V G Q W Y L G K A V D S V A Y Q A L K Y R			
UniRef90_G0N912	L F E F V D Y C Q T G W G R S M R R N A I S S N W Y K S K T P K N L A M L L T K Y P			
UniRef90_A8X8S9	L F E F V D Y C Q T G W G R S R R N A I I K W Y K E K T A L A M L L T K Y P			
UniRef90_I7FFJ8	L F L F A G Y V E Q G W G R G P T L R R A V S R W Y T E R P V D A L A Y Q L V K Y R			
UniRef90UPI000372E670	L F Q F V A F I D G G W G P A L R R A I A Q W Y T A K T P D R L G Y Q L V K Y Q			
UniRef90_B8IKH3	L F R F A G A V D A G W G R G L R R A V G R W Y G E R S V E A L A Y Q A V K Y R			
UniRef90_K1QEZ4	L F Q F I K F A Q K G W G R A H R K G V S M W Y E N Y R N K L A Y H M T K Y K			
UniRef90_A8J6R1	L F E W V Q R C K E V W G R A M R R T V A R W Y L D K T A A V A Y Q A T K Y S			
UniRef90_I0PCF9	L Y L F T K Y M E Q G W G P A M K R A V V S S W Y L D K P V D R L A Y Q L V K Y R			
UniRef90UPI00040A2F67	L F L F F A R Y L E Q G W G R G L R R A V A A W Y T E R D A A L A Y Q A A K Y R			
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UniRef90_I6X2L4	L F T F F A D Y V Q G W G R G L R R A V G N W Y T G R R A D L A H Q A V K Y R			
UniRef90_U5E517	L F L F A G Y A E Q G W G R G L R R A V A S W Y L D K P V A D L A Y Q I A K Y R			
UniRef90_E5XS43	L F L F A G Y V E Q G W G R G L R R A V G R W Y L D A P V A D L A Y Q I A K Y R			
UniRef90_D5UE31	L F L F A G Y V E Q G W G R G L R R A V G R W Y L D K P V A D L A Y Q A V K Y R			
UniRef90_T1IM51	L F L F V H Y S E T G W G K A Q R A I S H W Y N L Q D P N R L A E M V T R Y V			
UniRef90_H3E0T8	L F S F V K F C E T G W G R L M R K V I E G W Y T S R T P E Q L A M H L T K Y G			
UniRef90_K1R051	L F Q F L S F Y R S G W G R A H R R A V A E W Y E K Q D G Q K K V Y H F F K Y Q			
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UniRef90_Q9RUW8	L L H F L A F A D G G W G R L T R R G V A N V Y E T A D V D K L A L W A V K Y K			
UniRef90_H3DU13	L F S Y V A Y C E T G W G R V M R K C I Q N W Y L S K T P E E L A V A V T K Y K			
UniRef90_W4Y8C5	L F R F V D G V E T G W G R M Q R K A I C N W Y C S K D G Q E L A R L V T G C K			
UniRef90_R7THM6	L F Q F L T Y C R S G W G R A K R R A I S L W Y N Q K S A H Q L A L V T K C R			
UniRef90_D8THD5	L F E L V Q R C K E L W G R S M R R A I A L W Y L E K S S A V A Y Q A T K Y S			
UniRef90_E8U8B6	L L H F L A F A Q G G W G R L T R R G V A R V Y E D A P I E K L A L W A V K Y K			
UniRef90_V3ZZG1	L F Y F L E Y A K K G W G R S L R R A V S S W Y N G I E P K E L V E F V T R Y K			
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UniRef90_A0A026WDP8	F I L F V R F T S K G W G N G M K K A V N N W Y L S K E P L A L K C V T K Y R			
UniRef90_F7AHS5	I L E F V A Y C E S G W G R G R K R K A V Q K W Y S N K R S Y E V A F A V T S C S			
UniRef90_D2B8V5	L A T F G Y Y K N L G G R S L R S A L G S W F L T G S P D D V A F K A C K A A			
UniRef90_E2BBQ4	F M L F V K F A K S G W G N G L R K A V N Q W Y L S K K P L D L A K Y V T R C R			
UniRef90_F4W676	F I L F V K Y H T Q G W G H G L R K A I N N W Y L S K K P L D F I E C V T K Y K			
UniRef90UPI00036DD3FC	L L H F L A F A D S G W G R L T R R G V A N V Y E T L P V E K L A L W A V K Y K			
UniRef90_W4L6X4	L F H F V A F V D A G W G R G L R Q A V G N W Y N A P V E R L A L W A V K Y K			
UniRef90_E0VGE6	L F F L F V K F A K K L W G S G F K V C K E W Y L K K D V K T L L A E I A G K Y K			
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QUERY	170	180	190	200
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UniRef90_M3XKV2	Q R N G W S H R D [L] R L [S] H I K P A S E G L A L L T K Y I T K G W K E V Q E A			
UniRef90_W5MKQ0	Q R N G W S H K D [L] R L [S] H I K P A N E G I A V I T K Y I T K G W K D V Q D S E			
UniRef90_I1FTC4	Q R D G W S H R D [L] R L [C] H I K A E A P G L A C V L T K Y I V K G Y D E C N K E S			
UniRef90_UPI00032B0CBA	Q R N G W A H K D [L] R L [S] H I K P A S E G L A I V T K Y I T K G W K E V R E S			
UniRef90_U3JJT1	Q R S G W S H K D [L] R L [S] H I K P A S E G I A I V T K Y I T K G W K E V Q E A			
UniRef90_A7RN19	Q R N G W S H K D M F R L [C] H I K P T S P S V A F V V K Y V V K G L E A V T E Q			
UniRef90_V9KCF7	K K A G W S H K D [L] R L [S] H I K P A N E D L T L V T K Y I M K G W K E V V E E A			
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UniRef90_A7C186	Q R E G W S H R D [L] R L [T] K P V P P N P E H N A I Y Y W I T K G			
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UniRef90_H2THV8	Q R E G W S H R D [L] R L [C] H I K P A N E A I A L I C K Y A T K G W D E V Q V A			
UniRef90_F1QQM0	H R A G W S H Q D [L] R L [S] H M K P A N D N I A L V C K Y I T K G W K G V E E A			
UniRef90_L7VR73	Q R A G F T H R D A L R L A G V G P R S L E Q D A V L R Y I L T T G P R A V V R S			
UniRef90_A0A017T8W8	Q R D G W S H R D M L R L [S] H P V A R T P E Q A A L F R W I T T Q G M E G M V N P			
UniRef90_M3ZRK4	Q R E G W S H Q D [L] R L [S] H T K P A T E A V A L I S K Y V T K G W K E V Q A A			
UniRef90_W5XAD0	Q R D G W S N H R D [L] R L [A] H P K P E S E A H R D Y K W V V S G			
UniRef90_W5K3J8	H R A G W S H Q D [L] R L [S] H L K P A N D A A L I S K Y V T K G W K V V Q E A			
UniRef90_A9G3H5	Q R D G F S H R D [L] R L [A] H P V A P T P Q H D A L Y R W I V G G I E A L K E S			
UniRef90_I3KQJ2	Q R E G W S H Q D [L] R L [S] H T K P A R D A A L I S K Y V T K G W K E V Q V A			
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UniRef90_F8L6Y8	E R N G W S H R D [L] R L [S] H P K P V V S K H R A L F S W A C S Q G K			
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UniRef90_W5UAF6	R K G G W C H Q D [L] F R L A H M K P A N D G V A L W S K Y V T K G W K A V Q E T			
UniRef90_K9UPF8	Q R H G F S H R D A L R L F H A K P Q T E D R D L L F K W V T N G W E E L P P K			
UniRef90_E5SPR6	N R H G W T H L D V I R L A H P K P D S K E I D D I F L Y I K S G L N S V L Q R			
UniRef90_H3AGT5	Q R N G W S H R D [L] R L [S] H L K P A N E G L G L V V K Y V I K G W K E V Q E A			
UniRef90_A9VD91	N R E S W T H R D [L] R L [V] H P R T R D S S Q Q L I F R Y I T H G M T G V D E L			
UniRef90UPI00047AFD4D	Q R G G W T H R D [L] R L [A] H P S T A E A D R K Q L F D W I C G R G T D G P Q			
UniRef90_L8LM85	Q R L G F A H R D A L R L F H V K P P S E E H N Q L F Q W V I K G W D E L P Q E			
UniRef90_V8NNU3	K K N G W C H K D [L] R L [S] H L K P A N E G L A I V T K Y V M K G W K E V Q E T			
UniRef90UPI0003497E55	Q R H G F S H R D A L R L F H V K P L T E D H D R L F D W V V K G W D E L P E T T			
UniRef90_K9EYR9	Q R H G Y T H R D A L R L F H V K P L T E D H D R L F D W V V K G W D E L P D T			
UniRef90_T2JC44	Q R Y G F S N R D A L R L F H V K P P T D E H Q Q L F N W V V K G W N N G			
UniRef90_A6G1X4	Q R N G W S H R D V L R L K A G I G P H A V E H E V V L R W A V D G V K A V N Y G			
UniRef90_K9PYE9	Q R H G F T N R D V L R L F H V K P A T D D H Q T L Y N W V V K G W D V L P K Q			
UniRef90_H2M5K6	Q R E G W S H K D [L] R L [S] H T K P S T E A V A L I S K Y V T K G W T E V Q A Y			
UniRef90_J0MW63	Q R E G W T H R D [L] R L [A] H P R T D D A G L G A T F D W I A H G			
UniRef90_B0C0V8	Q R H G F T H R D A L R L F H V K P I S A D H Q A L Y H W V T Q G W E T L P E S			
UniRef90_W2T4P4	Q R G G W S H R D L F R L A H P T L K E K Y E Q L Y H F A V K G E L K T R K R			
UniRef90_K1QRQ0	T R F G W N H K D V F R L C H I K P E V D H P E I K Y L V K G K E K T Q E K			
UniRef90UPI000347F30A	Q R H G F S H R D A L R L F H V K P P S P D H D R L F A W V S Q G W			
UniRef90_L8MVN6	Q R Q S F S H R D A L R L F H V K P E T D D Q Q A L Y Q W V V K G W D E L P S Q			
UniRef90_U6P558	Q R G G W S H R D L F R L A H P K L K D E Y E Q L Y H F A V K G E L N P R K R			
UniRef90UPI0003F067C9	Q R N G W S H R D L [A] H K P E N D E			
UniRef90_E2MXQ9	N R G G W S H R D L [L] R L A H P S T S D E S L R A T F D W I V R G S G S A S			
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UniRef90_B5LJJ7	Q R E G W T H N D A L R L A H T S G T N D A H R V L Y N Y I A G R T T K D R N G			
UniRef90_Q852Y5	Q R E G W T H A D V L R K A H I D G V T G E H A A L F N W A V G R R E G L D I M			
UniRef90_K9S919	Q R Q G F R H R D A L R L F H V K P P T A D H D R L F Q W V I Q G W E T L P A E			
UniRef90_H6MU78	S R E G W S H R D L [L] R L A H P V T D E A Q R R A L F D Y I T H G R			
UniRef90_G0N912	Q R D G W T H R D L F R L A H P N L K K N E R E Y L F R F A T G E K S T K E S			
UniRef90_A8x8S9	Q R E G W S H R D L F R L A H P N L M D D E R E Q L F R F A V K G K R A L K V P			
UniRef90_7FFJ8	Q R G G W S H R D M L R L A R P S G V D P A R R M A F N W A V K G L G D Y A E A			
UniRef90UPI000372E670	Q R G G W S H R D L F R L A H V P M N D A V A R W I T G A E Y G E H N V K N L			
UniRef90_B8IKH3	A R Y G W T H R D L [L] R L A H P E T G E A E R A A L F D W I C R G T			
UniRef90_K1QEZ4	A R F G F T H R D V F R L C H I K T S Y D A L G Y L V Y V C N G Q R E M A L A			
UniRef90_A8J6R1	Q R N G W S H A D L [L] R L A H P D P E E A D L K A V F A F L T H G T K Q A P K H			
UniRef90_I0PCF9	Q R D G W T H R D M L R L S G P T T S D P A R R L A F N W A V G K R E L T P E Q			
UniRef90UPI00040A2F67	Q R E G W S H R D L [L] R L S H P Q A V S P A T R A V F D W I C H			
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UniRef90_D5UE31	Q R E G W S H R D L [L] R L S H P T T A S P E L R A T F D W I V R G			
UniRef90_T1IM51	S R C H T W H K D [L] R M R L A H L K P N N T G S Q L I A K Y V S K G L D A A R K S			
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UniRef90_K1R051	S R H G W S H K D V F R L C H F K K E N L D E K V M V M K Y M V N G R A R G K E W			
UniRef90UPI00021A6C5F	G R Y G W K H K D I I K L S H P V P N G A G M V L R Y I H G L E E V K K			
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UniRef90_Q9RUW8	A R D G W S Q A D A L R K A H P K T D D A A R N A V L K F M V D G V			
UniRef90_H3DU13	A R N G W S H K D [L] R L S H P I P R N D H Q R I V F E Y A T K G E E T V R M K			
UniRef90_W4Y8C5	Q R G G W S H R D L I R L A H V K P P A E G T A V L K Y I M R G L K N V L E S			
UniRef90_R7THM6	G R Q G W A H D L [L] R L A H V R P T N E G A T L V M K Y V T R G L A Q V V K D			
UniRef90_D8THD5	Q R C G W S H V D [L] R L A H P D P E E H A A K R H K			
UniRef90_E8U8B6	A R D G W S Q A D A L R L A H P K T T D A V R N A V F R F M V D G V			
UniRef90_V3ZZG1	S C C R W S H V D V I R L L G H V P L K D E T A I I R Y V M K G L T E A T Q L			
UniRef90UPI000372C642	A R D G W T H A D A L R L A H P K T E D V R R N A V F K F M V D G V M G E G E A			
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UniRef90_F7AHS5	T V I N H W S H K D V L R L L C H L N P A N L C L K I L C M Y I A R G Y Q A T E N A			
UniRef90_D2B8V5	Q R K A F S L R D V L R I A H P A A D G D Q R R T L F G W I A G N V T D G Q			
UniRef90_E2BBQ4	S R Y G W K H K D I I K L S H P I T N S S E M G I V L Q Y I I H G M K H T K A S			
UniRef90_F4W676	S R Y G W K H K D I I V K M A H P L G N S P E S K I I L K Y V I H G L E K I K K A			
UniRef90UPI00036DD3FC	A R D G W A Q A D A L R L S H P K T T D A G R N A V L R F M V K G T L D P E V			
UniRef90_W4L6X4	Q R D G W S H R E V I R L A H P K A P D E P H Q T I Y H W I A K G W E W V G E M			
UniRef90_E0VGE6	K C N G W L H K D I I K L I H L K P D T P G R A A I I K Y L L F G I K A A K K E			
UniRef90_H9KM82	G R Y G W K H K D I I K L S H P V P N N L G E M I L K Y I I R G L E E M K K S			

210 220 230 240

QUERY	Y K E K E L S P E T E K V L K Y L E A T E R V K R T K D E L E I I H L I D E Y R		
UniRef90_H9GDQ6	Y K D D K Y S A E T E K L L K Y L E A V E R V K R T K D E L E I I H L I E E F S S		
UniRef90_F6ZHD4	Y K D K A L S A E T E K L F Q Y L E A V E R V K R T K D E L E I I H L I E E H R		
UniRef90_M3XKV2	Y K D K E T T D E V Q K I L K Y L E A V E R V K R P I E E L E I I H L I E E Y K		
UniRef90_W5MKQ0	Y R D K E N S D D I T K V L K Y F E A V E K V K H T D D V L E I I H L I E E H R		
UniRef90_I1FTC4	F G S T D D V H I D E L M S F L L A V E T A K S C D E R Y L V Q L I T E K G		
UniRef90_UPI00032B0CBA	Y K E K A L S V E S E K L L K Y L E A V E K V K R T R D E L E V T H L I E E H R		
UniRef90_U3JJT1	Y K E K A V S A E T E K L L K Y L E A V E K V K R T K D E L E V I H L I E E Y G		
UniRef90_A7RN19	A T S S G V S Q D I V E V Y D F L K M T E D A K T M S V D E L C A A I R S H		
UniRef90_V9KCF7	Y K D K E N S D E I H R R L L K Y F E V L E R V K M T K D E H E V A Q L V E E Y K		
UniRef90_C3ZG25	F G T E D A P D D V K N V L A F L R A V E D V K N M R D E S A V A G L V E Q H		
UniRef90_A7C186	D L I D G A P K I L E G T H K I R G K T E H E A A Q L I R D Y K		
UniRef90_B9XQD99	A E R T A T Y A A V G E L P A L I Q A F E Q A K A A K G K G E I L K L I T E S N		
UniRef90UPI0002FEDCA8	I P S N A L A Q I W W Y E W L K R N P S E T H I A I S E G R		
UniRef90_H2THV8	Y S N K E N S E E V A K V L S Y L E V V E K V K H S C D E T E L I N L I E E H		
UniRef90_F1QQM0	Y A E K D K S E D L Q K V F A Y L E A V E K V K H S T D E Q E L I H L I E E Q		
UniRef90_L7VR73	G K T T H Y D A P V E A L P R L V L A F E E L Q A E T D E A R A A Q L I T D H G		
UniRef90_A0A017T8W8	S A K G G A L S P A S L P E L V R G F E A L R A S T N R K Q V V A L I R Q H		
UniRef90_M3ZRK4	Y A D K E K S E E V A K V L S Y L E V L E K V K R S C D E V E V S G L I E E H		
UniRef90_W5XAD0	Y A D K E K S E E V A K V L S Y L E V L E K V K R S C D E V E V S G L I E E H		
UniRef90_W5K3J8	A A D A P A G S K R I E A M Q R L K G M T D A E E A A K V I T E A R		
UniRef90_A9G3H5	Y A D K E K S E E L M K V F L Y L E A V E K A K H S T D E Q E V V H L I E E Y		
UniRef90_I3KQJ2	A R G K A L P M S D L P D A V R A F E S L R A A T N R K Q V T A L I R Q H		
UniRef90_K9XV42	H E N K E N A E E V I R V L S Y L E V V E K V K H S R D E T E V V T L I E E H		
UniRef90_F8L6Y8	N P D D T L T Q I W W Y E W L K R H P E Q T H E A T Q G R		
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UniRef90_U7QS03	I P S E T L A Q I W W Y E W L K R N P D R T H E A I A C G H		
UniRef90_W5UAF6	I P S E A L K Q I W W Y E W L K R H P D Q T H K A S Q G H		
UniRef90_K9UPF8	Y A D R E K T E D V M K V F V Y L E A V E K T K H S S E E L E V A H L I E E H		
UniRef90_E5SPR6	S P T D A L N Q I W W Y E W L K R N P E H T Q T A S Q G R		
UniRef90_H3AGT5	R V E E K S A E E I E E L L K Y L Y Y L E R L K S S Q D E L I C A Q L I E E K F		
UniRef90_A9VD91	Y K D K E T T D E V Q K I L K Y L E A V E K V K R P I E E L E V I H L I E E Y		
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UniRef90_L8LM85	I P E T L A Q I W W Y E W L K R N P Q E T H K A A Q G K		
UniRef90_V8NNU3	I P S E A L K Q I W W Y E W L K R H P D Q T H K A S Q G H		
UniRef90UPI0003497E55	Y K E S R L S A E A E K V L K Y L E A V E R V K H T T D E L E V I H L I E E H		
UniRef90_K9EYR9	P P S D A L A Q V W W Y E W L K R H P D R T H E A I V G G R		
UniRef90_T2JC44	Y L P D E I P S E A L T Q I W W Y E W L K H H P E Q T H K A K K G H		
UniRef90_A6G1X4	R L S R E Q L P R I L A G V E A L K A C A A L T G A K R G R E A A K V I A D Y		
UniRef90_K9PYE9	A P S D A L Q Q I W W Y E W L K R N P S Q T K K A A E G R		
UniRef90_H2M5K6	Y A D K E N S D E V V K V L S Y L E A V E K V K H S C D E T V V I N L I E E H		
UniRef90_J0MW63	A V G E A T P S L I E G F I K A Q E A T I A R S W A Q I V R D Y R		
UniRef90_B0COV8	A P D A L K Q I W W Y E R V K R Q P E A T H E A I I Q G R		
UniRef90_W2T4P4	N I P K E E A D L A Q R A L K F V E T V L A L K N E K D E G K I V E A I K T Y N		
UniRef90_K1QRQ0	Q K P E Y E N S D L K K V M V F M D A V E K A E K C R E S D T M T R L I L E H		
UniRef90UPI000347F30A	D G L P P E P P A P A L R Q I W W Y E W L K R H P D R P C H A I Q Q G K		
UniRef90_L8MVN6	I P S D A L A Q I W W Y E W L K R H P D K T H E A I A K G K		
UniRef90_U6P558	N L S K E D A E L G S R A L D L I E A V M A L K N E K D E A K I V E A I K K H N		
UniRef90UPI0003F067C9	S M Y A L H		
UniRef90_E2MXQ9	I S D S A G D T S S E N I P T I E G F T K A S H A T T S S Q W A A L I I R G Y G		
UniRef90_S9Y7M3	Y K E K A L S V E T E K L L Q Y L E A V E K V K R T K D E L E V I H L I E E H		
UniRef90_B5LJJ7	K R I R A A L P E V V L A F E A L Q R V I N V R Q V V E L T K V D G		
UniRef90_Q852Y5	G N R I E A E L P A I V G A F E A L Q A A D S V G A V V R L I E A H G		
UniRef90_K9S919	P P S A A L S Q I W W Y E W L K R N P T Q T R K A I A Q G R		
UniRef90_H6MU78	A E G V P R I V E G Y E K V Q S E P G R A A A L V A Q Y G		
UniRef90_G0N912	E K D K M D T E E Q S S V V G L V E A Y L R L K N E Q N E E L I V A A I K K H G		
UniRef90_A8X8S9	Y T E Q Q L K E E K S R A L D L V E A Y L S L K Q E Q S E E V I V E A I K K H G		
UniRef90_I7FFJ8	P A R L T D V E L K V G Q R T A V R P P V R A E V V P D E L A I I A D F E D H G		
UniRef90UPI000372E670	L R E D H Y P A L N S E L P V I M Q A F E Q A K Q A D E T T V I R L V R E H G		
UniRef90_B8KH3	L G E A L P P L V H A F A A V Q R E G V N G A T A A A L V R S H G		
UniRef90_K1QEZ4	R R E E G L P L E L K K V A A L V K V F K D A K C T N E E T M K L M I L E H H		
UniRef90_A8J6R1	K K A A A S D E A A E E A D P Q V V A Q H E A A T A A V E S A L T L I R R G G		
UniRef90_I0PCF9	L K A G E R N P K R P K L P D I I A D Y E A A Q R A T T T K E W L A I I R R G G		
UniRef90UPI00040A2F67	E T V G A D T P A L I G A F V R T Q E P G A D V P A L V G E S S G		
UniRef90_A8HZE9	R A P P P L S A A G K G R G R D A A E S D E E H E D E A D P E V I L T L I R R H		
UniRef90_I6X2L4	S L G E D T P E V R A F L A A Q E A T T V A A W V A L V R E H		
UniRef90_U5E517	G L A L V D G F Q Q A Q T A P V A R I P E L V R A Y R		
UniRef90_E5XS43	I P D S L A I L D G F R K A Q A T T A G E W V S L I G Q Y P		
UniRef90_D5UE31	S V G D A T P A L V E G F V A A Q T A D T A T W V D L V R R H R G		
UniRef90_T1IM51	L T D D N T S M E L N G V V R Y L T A V D E L K H T K D E Q L A A R L I E N H G		
UniRef90_H3E0T8	K R R L P S D E E E S K A L V L I E K F L S L T K E T P D E E V A K A I K E		
UniRef90_K1R051	L K K S T P E E K F D E L K N L V E E Y S K A Q K S K S M T V I I D L I D K Y D		
UniRef90UPI00021A6C5F	Y Y C A E D P T L K E I L D Y I E H V E D F K H C T N E V R A A G L L E M Y K		
UniRef90_F2UQA4	A L W T E D E T T R E L H A F L T A L H G L A A E E D V G N V V A A I G E H		
UniRef90_Q9RUW8	I P K V D S P A L R V I E G H L K A T E A Q T D A A A A A L M Q E Y R		
UniRef90_H3DU13	Y T E A Q L V E E I S E G L L Y L E R V S S L S P Y T S E E E M I W S I R H F R		
UniRef90_W4Y8C5	H S S E G A D D S T R A L T E F F L R D V D G L R K E E D L E R V A G L V E K H K		
UniRef90_R7THM6	Y A N D G L T S E L K E V L Q Y L R D V E L V K H S H D E H Q V A M L V E K H Q		
UniRef90_D8THD5	L R L A A A A A A G Q G G G A T A A I E A A C A A A I E Q A V S L I R R H R		
UniRef90_E8U8B6	L A D A T D P A L R V I E G H V K A L A V S A D A D A A A L M H E Y G		
UniRef90_V3ZZG1	A E G K D S K Q I K E I L K Y I L K G V D Q V K Q S I N E H E I G V Q I R Q L N		
UniRef90UPI000372C642	T D E A L R L I R G H L L A L R A T T D T D A A A A L M R E Y R		
UniRef90_E2AY68	L E N Q S E N P N I N E I L Q Y I I E N V K N F K R C E D E N E A A S L I E T N G		
UniRef90_A0A026WDP8	A S E L A E N T T V E I V M K Y I E N I E L F K H C C E E E T S A A A L L I Q E		
UniRef90_F7AHS5	F R D K S D E A D A I K L M E L L G V I R K L K N S T V A A D S C A L I I E K H		
UniRef90_D2B8V5	A R E V L P A V D R F L T A K T V T S A A D S C A L I I E K H		
UniRef90_E2BBQ4	L E K V A D N P K I T E I M E Y I Q K V D F K H C C E D E V R A A A L L I E E Y Q		
UniRef90_F4W676	D Q I E E I S P N I N E I L K Y M E E I E D F K H C C E D E V R A A A S M L E T F G		
UniRef90UPI00036DD3FC	L S G A P V P D E T A P A L R V I E G H L L A A A A T S D A D A A R L M R D Y G		
UniRef90_W4L6X4	P H P D V A L Q Q I W A F E R A K R G S A E E L T E L I R T Y R		
UniRef90_E0VGE6	F G E N S E A H E I L L N Y I Q T V E D L K H C T D E Q L A A R S V E H H		
UniRef90_H9KM82	Y G E D P T L T E I L E Y I I E H V E D F K H C T D E V R A A G L L E M Y K		

QUERY	250	260	270	280
UniRef90_H9GDQ6	L V R E H L L T T I H L K S K E I W K S L L Q D M P L T A L L R N L G K M T A D S			
UniRef90_F6ZHD4	L V R E H L L T S H L K S K E I V W K A L L Q E M P L T A M L R N L G K M T A N S			
UniRef90_M3XKV2	L V R E H L L T N H L K S K E I V W K A L L Q E M P L T A L L R N L G K M T A N S			
UniRef90_W5MKQ0	L V R E H L L T N H L K S K E I V W Q T L L K E M P L A A M L R N L G K M T A D E			
UniRef90_I1FTC4	L V R E H V P S I H L K S K E I V W A A L L N G M P M T A M I R N L G K M S S I G			
UniRef90_UPI00032B0CBA	L V R E H L L T D H L K S K E I V W K A L L Q E M P L T T L L R N L G K M T A N S			
UniRef90_U3JJT1	L V R E H L L T N H L K S K E I V W K A L L K E M P I S V L L R N L G K S A N S			
UniRef90_A7RN19	L V R E H I P S E H L N N V E I W K A L L E K M P M T A M I R N L G K M T A I K			
UniRef90_V9KCF7	L V T E H L L T N H L K S K E I V C R A L L K D M P V M A M L R N L G K M T T D S			
UniRef90_C3ZG25	L D K E H I P T Q I L L K S K E I V W R A L L Q D M P L T S L L R Y L G K M S T I G			
UniRef90_A7C186	L P R E V V P T E L L N F P E I V W E A L L E S M P M T A M I R N L A T M T R I G			
UniRef90_B9XQD99	L P R E A V P T E W L N D A E I V W D A L L Q K M P M T A M I R N L G K M T S V G			
UniRef90UPI0002FEDCA8	L T H E M A A P V G K M D K T A W Q L L F D D M P I G A M L R N L G S L T E L G			
UniRef90_H2THV8	L E R E Q L L T D H L K S K Q V W R A L L K E M P L Q S V L K F L G K M T A S K			
UniRef90_F1QQM0	L G K E Q L L T N H L K S K E I V W K A L L K E M P V A V L L K H L G K L T A N K			
UniRef90_L7VR73	L T H E M V P T T L H G S P L V W R A L L E Q M P M T A M I R N L G R L T T L G			
UniRef90_A0A017T8W8	F T H E M L L S E W K N D P A V W E A L L E H M P Q T A L V R N L G K M T A V G			
UniRef90_M3ZRK4	L E R E Q L L T D H L R S K Q V W S A L L K E I S L Q S I L K L G K M T S N R			
UniRef90_W5XAD0	L P R E A V P T E L L N F P A V W E A L L M T D M P T A M V R N L A T M T R V G			
UniRef90_W5K3J8	L E R E Q I L L T T H L K S K E I V W K A L L K E M S M S A L M R H L G K M T A D K			
UniRef90_A9G3H5	F T H E M L L T E W K N D P A V W E A L L E H M P Q T A L L R N L G K M T A I G			
UniRef90_I3KQJ2	L E R E Q L L T E H L K F K Q V W S A L L K E M P L H S V V K M L G R L T S G K			
UniRef90_K9XV42	L T H E M C A P V G K M D Q A A W Q L L F N E M P I G A M L R N L G S L T Q L D			
UniRef90_F8L6Y8	L P R E V I P T N L N L K E I F W D A L L R D M P I T A L I R N L G K M T K I G			
UniRef90UPI00034584C8	L T H E M A A P V G K M D R Q A W Q L L F N E M P I G A L L R N L G S L T E L G			
UniRef90_U7QS03	L T H E M A A P V G K M D K R A W Q L L F Y E M P I G A M L R N L G S L T E L G			
UniRef90_W5UAF6	L E R E H V L S K H L K S R E V W K A L L K E M S S T L L T H L G K M T A D K			
UniRef90_K9UPF8	L T H E M A A P V G K M D L G A W Q L L F E D M P I G A L L R N L G S L T E I G			
UniRef90_E5SPR6	F V R E Q V P Q R L L S S K H I W Q A L L K E M P L T A T V R T L N R M T V A G			
UniRef90_H3AGT5	L V R E H L L T N H L K S K E M W S L L Y S L P L K S K I W T L A V L S H N G			
UniRef90_A9V9D91	L A R E H L S T D L L K L P Q I W Q K L L P N M P T A A I R N L N K M T R L G			
UniRef90UPI00047AFD4D	L S W E M L P N A A L R E P A V W T K L L N N I P Q T A L M R Q L P R L T R L G			
UniRef90_L8LM85	L T H E M A A P V G K M D Q E A W R L L F N Q M P I G A L L R N L A S L S E I G			
UniRef90_V8NNU3	L V R E H L L T S H L K S K E			
UniRef90UPI0003497E55	L T H E M A A P V G N M D A Q A W Q L F E G M P I G A M L R N L G S L T E L G			
UniRef90_K9EYR9	L T H E M I A P V G N M D R E A W Q L L F K D M P P M G A L L R N L G S L T H L G			
UniRef90_T2JC44	L T H E M A A P V G K M D K K A W Q I L F N E M P I G A M L R N L G S L T E L G			
UniRef90_A6G1X4	L T H E M V P S E L K A S P L V W E A L L P G M P V V G A L L R S L G K L T Q V			
UniRef90_K9PYE9	L T H E M V A P I G E M D E G A W K L L M Q G M P I G A L L R N L G S L T E I G			
UniRef90_H2M5K6	L E M Q L L T E N L K S K Q V W R S L L K D M P L H S V L K L G R M T A N K			
UniRef90_J0MW63	L T W E M L P D A A L A R P E V W D A I L L D G V P M T A L M R Q L P R L T R L G			
UniRef90_B0C0V8	L T H E M I A P I G Q M D Q R A W Q L L E G M P V V G A L L R N L G S L T A L G			
UniRef90_W2T4P4	L V R E H I P T D M L N S V P I W Q A I L L A K M P M T A M I R N L G K M Q S I G			
UniRef90_K1QRQ0	L T R E H V P T D L L K S K E I W K A L L K F M P M T A M I R N L G K M S Q L L G			
UniRef90UPI000347F30A	L T H E M A A P V G Q M T V K A W T L L E S M P I G A L L R N L G S L T Q L G			
UniRef90_L8MVN6	L T H E M A A P I G Q M D V R A W Q L L F N E M P I G A L L R N L G S L T E L G			
UniRef90_U6P558	L V R E H I P T E M L N S V P I W Q A I L L E K M P M T A M I R N L G K M Q S I G			
UniRef90UPI0003F067C9	S T L E F V T T L L Q I W K A L L Q E M P M T A L L R N L G R M T S I G			
UniRef90_E2MXQ9	L S W E M L P D A A L G E P E V W D A L L E G V P Q T A V I R Q L P R L T R L G			
UniRef90_S9Y7M3	L V R E H L L T S H L K S G E			
UniRef90_B5LJJ7	I T W E M I P D R W I N H A E V W E T L I N R L P I G A M I R Q L P R I T R L G			
UniRef90_Q852Y5	I T W E M V D Q F L N Q F L V W E A L L Q G V P Q T A L M R Q L P R I T R I G			
UniRef90_K9S919	L T H E M A A P V G Q M N T E A W Q L L F Q D M P I G A M L R N L A S L T E L G			
UniRef90_H6MU78	L S W D M L P D E S L N D A K V W E A L L D N I I P P N A L M R Q L P R I T R M G			
UniRef90_G0N912	L V R E H L P T S S L N S K L V W E T L Y D R M P M T A M I R N L A K M T V V D			
UniRef90_A8x8S9	L V R E H L P T S S L N S K L V W E T L F D P M P M T A M I R N L G K M T L V G			
UniRef90_I7FFJ8	L S W E M L P D A A L A Q P A V W E A L I D R M P Q T A L M R Q L P R I T R L G			
UniRef90UPI000372E670	L T R E M I P T E H Q K S A A V W E A L L E K M P I G A M L R T L G R M G A C			
UniRef90_B8IKH3	L P W E A L P T E L L A S R A V N E A L L D G M P V V G A M V R Q L G R I T A A G			
UniRef90_K1QEZ4	L A R E H V P T D L L K S R V V W E A L M R H M P M T A M I R N L G K M S S L G			
UniRef90_A8J6R1	F G H E H V G T V L L R N P A V W G A F E L N P M T A M I R N L G R M S E L L G			
UniRef90_I0PCF9	L P W E A F P D K A L T Q P V I W E A L I E H L P Q T A L M R Q L S R L T R L G			
UniRef90UPI00040A2F67	L S W E M L P D S A L A D P A V W E A L L D R M P Q T A L L R Q L P R L T R L G			
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UniRef90_I6X2L4	L A W E M L P D A A L R E P E V W E A L L D G I P Q T A L M R Q L P R I T R L G			
UniRef90_U5E517	L S W E M L P D A A L S A P E V W E A L L D N I I P Q T A L L R Q L P R I T R L G			
UniRef90_E5XS43	L S W E M L P D A A L L N E A S V W E A L I Q G V P Q T A L M R Q L P R I T R L G			
UniRef90_D5UE31	L S W E M L P D A A L L N E A S V W E A L I Q G V P Q T A L M R Q L P R I T R L G			
UniRef90_T1IM51	L S W E M L P D A A L L N E A S V W E A L I Q G V P Q T A L M R Q L P R I T R L G			
UniRef90_H3E0T8	F H F E H V P S H F I K S K E V W T T L V S L V P V N V L L Q Y L P K L C Q F			
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UniRef90_H3DU13	L T W E Q V P S K H L N S L E V W K A I V E R M P M L A M I R N L G N L G R I V V G			
UniRef90_W4Y8C5	L S P E H L P T K S L K S K D V W K A L V P H L S V Q S L L D N I V R L A S M G			
UniRef90_R7THM6	L S F E H I P T W M R N S A E V W R S L L H M P L Q E L I L S G K I S R V G			
UniRef90_D8THD5	F G H E H V G T A L L R S A P E L W A A F L E G M P L T A L V R N L G R M T Q M G			
UniRef90_E8U8B6	L P I E A I P T P A R G P R V Y R A A M R T N G L T W L M R N L G N L S R V G			
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QUERY	290	300	310	320
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UniRef90_W5MKQ0	V L E L G S S E V T L V C C E R L Q N E S V L K Q A Q I H P F N V L V A L E T Y K			
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UniRef90_U3JJT1	V L E P R G S E V A I V C C E K L R N E K L L K K G R I H P F H I L V A L E T Y K			
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UniRef90_A7C186	L L K P P M S E A V R V I E Q K I T D Q T A L T K A R I H P M A V L I A E K I Y A			
UniRef90_B9XQD9	L L K P M S A A A K L V V A K I S D Q T A L K R A R V H P V A L L S A L K V Y E			
UniRef90UPI0002FEDCA8	V L R A D S K N L D R V E S L N S N R D H L R K G R I H P I D I L K A L K T Y K			
UniRef90_H2THV8	I F E P G C L E T Q A V V C D R I Q C E A T L K K A K I H P F S L L I S L E N Y K			
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UniRef90_L7VR73	V L A Q G S E A T R L V V S R L H D V T R L A K A R V H P L S V L V A L N T Y R			
UniRef90_A0A017T8W8	L L V P G S A A C R K V A Q Q L V D K D R L R K A R V H P V A L L S A L K V Y E			
UniRef90_M3ZRK4	L L E P R S A E T Q T I C E R L Q N E S S L K K A N I H P F S I L L A S E N Y K			
UniRef90_W5XAD0	L L T P K S E A T K V K M R L A D A E R I P R A R V H P M A L L F A L R T Y A			
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UniRef90_I7FFJ8	V L S G A V G D T V A E Q L A D R D R L V K A R V H P V N V L V A Q R T Y A			
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UniRef90_K1QEZ4	L L E S D F G E S L A E E K L K S K D L K S A R I H P F T L L V A H K A Y S			
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UniRef90_I0PCF9	V L N G G Q L G S R V A A Q L Q D T D R L Q K G R V H P I N V L V A Q R T Y A			
UniRef90UPI00040A2F67	L L P A L G G R T A E V V A A R L A D S D R L R S A R V H P V N V L I A Q R T Y A			
UniRef90_A8HZE9	V L E Q P G Y Q Q R V T D R L R D A K A L T A A R V H P M T L L D A M C T Y A			
UniRef90_I6X2L4	V L D D L S A R T E Q V C A Q L T D P D R L R R A R V H P V N V L V A G R T Y A			
UniRef90_U5E517	L L D P L G S R T A A I C A Q L T D A D R L R K A R V H P V A V L V A L R T Y A			
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UniRef90_D5UE31	M L P D L G G R T D E V V A Q L V D P G R L R S A R V H P V N V L V A Q R T Y A			
UniRef90_T1IM51	Y L R L N G P L V P L V E Q L N S E T A N P R A K L H P V D V Y L A M K K Y E			
UniRef90_H3E0T8	L L A G E N V V K V K V A N E V K D K E A L K K A R V H P I Q L L L A K T V Y E			
UniRef90_K1R051	V F E R G S F E E N L T I Q K L T N P E S I Q N S K V H P F T L L V A L T Q Y R E			
UniRef90UPI00021A6C5F	L L K P N P S P T V S K I I D Q I T N E E N A R D K V H P A L V L V T I R D Y E			
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UniRef90_Q9RUW8	V L T P D S A T V Q A V I E R L T D P A A L K R G R I H P L D A L K A R L V Y A			
UniRef90_H3DU13	A L F K K E G D K I A H V V A H L A N I E A I K K A R I H P I Q I L L A K T V Y D			
UniRef90_W4Y8C5	L F K P K S P E V D V I C R R L Q T P S A L S E S H V H P F S V L M A Q R I Y E			
UniRef90_R7THM6	I L T D T N S M A P T E R E K L K S D I T E E S R L H P F A I L L A A Q K A Y E			
UniRef90_D8THD5	L M E R P D C L E A V T R R L R D G R A L A A A R V H P M T L L E A M C T Y A			
UniRef90_E8U8B6	V L T P D T A T L Q E V V A R L T D P A A L R K G R I H P I D A L K A R L V Y A			
UniRef90_V3ZZG1	V L I K S D N Y I L P D I L D R L T N E Q V I K D S G V S P M K V L I A L R N Y E			
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UniRef90_D2B8V5	T L G P M S D A T R V A R A V L T D A D A L K A R V H P M D V F L A L R V Y G			
UniRef90_E2BBQ4	I L K P D A P A V A M I T E Q L V N E E R L A R D K V H P A L V L I T I R N Y E			
UniRef90_F4W676	F L V I D E P A V E K V T E R L T N S Q Y V E K S A I H P A L F I T L K N Y Q			
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QUERY

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

R G K L R W Q P D K D I L E A L D A S F Y K T F K

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R G K L K W E P N K D I L Q A L D S A F Y K S F K

R G K L K W D V D K N I T S A L N E A F Y L S F K F

R G K L K W H P D E E I L K A L D T A F Y K T F K

R G K L W W R P D E D I L E A L D A S F Y K A F K

K G K L K W E P N A A V V S A L D A A F Y L S F K

R G K L K W V P D P D I L A A L D V A F Y K T F K

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

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

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

S G K K T W R P I P R I V D I L E R A L E L S F D

R G K R K W E P D S S I V K A V D S A F Y K S F

R G K L K W E P D R D I V Q A L D C A F C K S I

R G G K Q W K P V P Q V V A A L E S A F D L T F G V

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S G G K T W T P V P R I V D I L E T A L E M S F D

E G R L R W D P E P T V V A A L E R A F Y H S F

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R G G Q T W E P V P A L V D A L E K A F Y L S F

R G K S S W E P V G Q V V D A L D A A F Y A S F

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M S K L P T I P N P K I I C A L H E L F A S T C K L

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

	90	100	110	120
UniRef90_UPI0003C2B2BE	A [I] D R E P [L] L F A Y A L [C] C K S T D K N T K S Q A E K [L] C D K I C R T P C D			
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UniRef90_F8FM34	A A M K D M P A A L L V I L S T R D T E L M H R V F D R V I D N G R M			
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UniRef90_W7FT96	G H M K D M P A L L L A A V L S L R D P E A F A L V F P R V I D N G R Q			
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UniRef90_G1XYP1	G V M K D M P A L L T A W L T V A D P D L S V A V F R R V I D N G R M			
UniRef90_G2IPU4	G A M K D M P A L L A A Y T V A D P D L A V R V F G K V V N N G R M			
UniRef90_D5SQA2	A F M K D M P A A L L V A L S V R D T E L M H R V F D R V V D N G R V			
UniRef90_UPI0001746451	G L M K D T P A L L C A V L A S R D V D R L E L I F D R V I D N A K M			
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UniRef90_B3KN94	N H M K D M P V L L L A I L S Q R D Q A L F K A M F P S I I D N G K Q			
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130 140 150 160

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UniRef90_S4P6B2	L A D F T I L R G L G R G Q G G R A V K R Q V S Q F L N G I T E Y W A I K Y N
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UniRef90_Q5LWW2	L R T F V Q V M R S G L G S A P K A M V Q N W L N T A S D R A L L A A N
UniRef90_Q3KEW8	L R N F V Q I L R S G L G S P K R L V Q N W L N S A T E R Q L L Q A S I
UniRef90_S7U622	L R N F V Q I M R S G L G S P K R L V R N W L A A R S E E A L L R A S S V
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UniRef90_G9PTP9	V T W E T E L L S A K G N N R E T W E N L I N K L G Y M A M M R N L R N I			
UniRef90_UPI0001E2DE00	R F E S P A A K A A A F K T K W E E L I K K M G Y M A L L M R N L R N I L D A G			
UniRef90_UPI000412B906	M T W E Q I P S N G P W T A A M W E A I I P S M G Y M A L L M R N L R N F D Q A G			
UniRef90_U0FHR7	L S W E H H V P L Q L L H D P G L A K F L I P S M S Y E Q L L Q S W P R L S R L			
UniRef90_B4Q0J5	L P R E A I P T D F M T E K D V W A A L L E K M P M T A M I R N L G N M G K V G			
UniRef90_X1CW53	L L P R E A I P T D F M T E K D V W A A L L E K M P M T A M I R N L G N M G K V G			

290 300 310 320

UniRef90_UPI0003C2B2BE	V L E P G S P E V S L V C E R L K N E K M L K K A R I H P F H V L V A L E T Y K
UniRef90_K1R769	Y D E S F E G N Q F V I D K L N E A L L K E Q N V Q P F E I I I A S S F Y K
UniRef90_K1Q6Y1	L L D F D S F G E T L T I D K L K N S V L L K G A R I H P L T L L V A E K A Y K
UniRef90_P10155-2	
UniRef90_M8DM03	V F E S K E S L A Y A V K R L T D R Q A L A K A K I L P F R F A K A F N Q V D
UniRef90_K7ITP3	F L N P N G T M V A K V L D S I L N E Q N V T A E K I H P A V F L V A V K N Y E
UniRef90_UPI000248C42B	V F E K K A N L A F A V E R L T N A E A L R K A K I L P F R F A K A F R E V E
UniRef90_UPI0002659350	L L R P S L G L R I M Q R I S C D S V M T N C P W D P C A T Y V L M R T T
UniRef90_UPI000479AE40	V F K R R K A V K A I A K R L S D V D A I R R A K V F P Y Q M A A Y M A S Q
UniRef90_UPI00035CBC90	V F E V D G F A E T L A A R L S D P E E I R R A K V F P Y Q L M M A W R M V D
UniRef90_W4CG76	V F E K S K N D Y V T G R T D A E A L R K S R I L P F R F A S A Y E M I A
UniRef90_S4P6B2	F L T N D S D T T A I L L S L S N Q D V I K K S K V T A I E V Y I T L C N Y K
UniRef90_F8FM34	V F G S P E H L R Y A V G R L T D R E A L E R S R I L P F R F A A A F R Q V G
UniRef90_F0SIP3	V L N D R K M V N Y V A S R L T D A D E I R R S R Q F P Y Q L A A Y L N A S
UniRef90_UPI00037FA78F	V F S R K K N L K Y V Q E R L T D A E A L R K A K I L P F R F A K A F A E V N
UniRef90_G4CGG8	V F E K Q K Q A N I K Q V A Q K L R D P A A I A R A R V L P Y Q L L T A F Q A T S
UniRef90_UPI00041E0E96	V F E V D G F A E R V A A R L R D P E A I R R A R V F P Y Q L M A A Y A M A E
UniRef90_G6DRK5	F L T A H S T T V I L I S L L N N Q D L I K K S K I T P I E V Y I T M C N Y K
UniRef90_Q5LWW2	V F N V A K N V A H V A A L L R D P E A I G K A R A F P Y Q L M V A A Q N L S
UniRef90_Q3KEW8	A F D V P G Q T E Y V A A R L D P E A I V A K A R V V P Y Q L L A A Y R M V G
UniRef90_S7U622	V F E D Q A M V D L V A R R L A D P G E V R K A R V F P Y Q L L A A C C M A G N
UniRef90_K1Q171	L L E P G S P E E T R T C S R L N N A E L L K D A K L H P I Q I L S S L N G Y R
UniRef90_D3A586	V F A K S K N K M V A E K L R D E T A I A R A R V L P Y Q L L T A Y Q A T S
UniRef90_E6V472	V F E L P G L A K A V A A K L R D P Q A V A K A R V L P Y Q L M A A F T A T G G
UniRef90_S6IQ77	A F Q V A G Q A E Y V V A A R L A D A E A V A K A R V V P Y Q L L A A Y R M A G
UniRef90_C8NDH6	V F D K D D R H I R S V V A A K L R D P A A I A R A H A M P Y Q L L T T W Q A A G
UniRef90_A0A021W852	V F D D K G V V Y E I V A R L T D A D E I R N A R V F P Y Q L L S A Y H A
UniRef90_A9B0S4	V F H D A A M E Y V V G R G D E A L R A R A K I L P F R L H A A W L A F T
UniRef90_B7X3Q5	V F E I Q G M A A L I A R K L A D A G A V A R A R A M P Y Q L L S A Y Q A A G
UniRef90_A0A044RG80	L L G S K E H H C Q I V V D K L M N E K I L K E H H P I D I L L L T Y A T Y E
UniRef90_UPI0002630C97	V F E D P A M V A Q V A A R L R D P A Q I Q R A R V F P Y Q L L V V A
UniRef90_G6Y6Y8	V F E V E G F A E K L A A R L R D P E E I V R R A R V F P Y Q L M V A F T M T G
UniRef90_UPI0003802F10	V F E V E G F A E K L A A R L R D P E E I V S R S R V F P Y Q L M V A V N N L V
UniRef90_UPI00034F86D3	F L S G T S T L I P K L T L L N N Q D Y I Q S S D V T P L H V Y I A K C D Y R
UniRef90_B4D8H4	V F D D Q V L T R Q I T N R L R D P H K V R R A R C R C F P Y Q L L T A Y H S A D
UniRef90_UPI000287FCF6	A F E V P G F A W Q V A A R L A D A E A I A K A R V V P Y Q L L A A Y R M A G
UniRef90_F6FAQ4	A F E I R G C A E M V A A R L A D A E A I V A K A R V V P Y Q L L S A Y R M T G
UniRef90_S9QPZ5	V F K Q Q G M E K M I A R R L A D P A E V R R A R V F P Y Q L L A T W R A V G
UniRef90_UPI00036B5668	A F R V P G C T G T V A A R L S N P E E V A K A R V Y P Y Q L L A A Y R M G
UniRef90_C4GMW4	V F A D Q A N V R L V A D K L R D A E A I A R A R V L P Y Q L L T A F Q A A S
UniRef90_A0A022G467	V F A L P G M A Q E I A A K L R D P V A I A R A R V F P Y Q L L A A Y Q A
UniRef90_V1HSH0	V F D N A E L T A S V A K R L A D R A Q V R Q A R V Y P Y Q L L S A W S N L Q
UniRef90_K1PZM2	
UniRef90_A4EPS8	
UniRef90_UPI0002DC64F8	V F N V T K N V D H V A A L L R D P Q T I A K A R A F P Y Q L M V A A Q N V
UniRef90_L1NIZ2	V F E V R K N A D R V A A L L R A P K A I A R A R V L P Y Q L M A A A Q N V
UniRef90_UPI0004176E9E	V F E R E G S V R D A A S K L R D K A A I A R A R V L P F Q L L A A F Q A A S
UniRef90_F1KY01	L F A D D G F T S W L A A R L R D E D A I R K A R V F P Y Q L M A T Y S A L A
UniRef90_C8NAE3	M I T D K E E H V Q K V V S Q L T D E Q A L Q D A R V H P V S V L L A S A V Y K
UniRef90_UPI000380041C	L F N D E G I V R H V A A K L A D K N A I A K A R V M P Y Q L L T A Y Q A T G
UniRef90_F0Q059	V F E A G D G L V L D L A A R L R D G E T I R R A R V F P F Q L L A T W R A L D
UniRef90_UPI0004793DB6	V F G L P G M A E A V A A K L A D P Q A V A K A R V M P Y Q L L S A F K A A G
UniRef90_W7FT96	A F D V P W F P R N A E R L R D R K E I E R A R V F P Y Q L M A A Y A A A D
UniRef90_UPI00034D1FA1	V F D D P A M V Q V I A E R L R D P Q Q V R R A R V L P Y Q L L M A F H A
UniRef90_UPI0003752A10	V F E L P G L A E A V V A A K L S D A Q A V A R A R V M P Y Q L L S A F K A A G
UniRef90_UPI000289B7F1	V F E I P A M A A K V V A Q R L A D A K A I S K A R A Y P Y Q L L S A Y K M T G
UniRef90_Q2SLQ1	A F G V S G V T D V A A R L S D S A A I G K A R V V L P Y Q L M V A L G S A G
UniRef90_A0A044T980	V F V N E K G M D R V I A D R R D E N A I R K A K A F P Y Q L M A A Y T M A G
UniRef90_G1XYP1	L F N E A D D S V S L V I R R L N D I E K L K Q E R L H P L A F A K M N Y E
UniRef90_G2IPU4	A F A V E G V L A E R V V A A R L A D A E M V T R S R V L P Y Q L L A A R G T V G
UniRef90_D5SQA2	A F G V E G F A D Q V V A A R L A D R D A L R A V R P M P Y Q L M V A L G Q V G
UniRef90_UPI0001746451	V L A T S A M V D Y V A D R A D K T E I Q R S K Q F P Y Q Y F A A Y L N A D
UniRef90_A6CEJ7	V F E D K Q I V S L V A D R L R D E T Q V Q R A H A F P Y Q L L M A Y T S A G
UniRef90_Q7UEC5	V F K D Y A L I D E V V A N R L V D K E V R R A R V F P F Q Y F L A A Y Y M N A S
UniRef90_B3KN94	A F K K D N A M D Y V V A Q G L A D R D A L R A V R P M P Y Q L M V A L G Q V G
UniRef90_N9NAW2	V L E P G N S E V S L V C E K L C N E K L L K K A R I H P F H I L I A L E T Y K
UniRef90_UPI00036BC526	V F Q I E G M D N V I A N K L Q D Q D M R K S R V L P Y Q L M A T W A A L D
UniRef90_F3E8D5	L F Q E K G F T A M I A G R L S D R A E I R R T R L M P Y Q L M T T L D N V S
UniRef90_D2R2E3	V F E D R K I V S M V A E R L A N R E N V L S A R A F P Y Q L M A A M I N A G
UniRef90_W0ADK5	V L Q D Q E L V R C I A N R L R N P R A I Q Q A R V F P Y Q L M A A Y L N M N
UniRef90_G8LV85	A F D V E G T V D L V A A R L A D A D A I A R V R P L P Y Q L M V A L
UniRef90_W6M013	A S N L N K V Y E Y L T D E E R V L K N K Q L P F R Y Y S A Y K T L K
UniRef90_R4T178	V F K V G G M A Q R I A E R L R D P T A I R R A R V L P Y Q L L S A Y T M T G
UniRef90_E1G3K5	V V S D E V A E G V A A R L A D P D Q V A K S R Q F P M R F L S A Y R A
UniRef90_A1ZMP7	L L G S K K Q H N Q M V V D K L M D E K E L K Q E I H P I S L L T Y A T Y S
UniRef90_J2KA31	I S T E H L A K V A T R L S D P A Q V A R A K Q L P F R F L S A Y R E L K
UniRef90_UPI00039572CE	V F E L P G M A E R V A A K L Q D A A A V K A R A M P Y Q L L S A Y Q A A G
UniRef90_I2GJP0	I S A V H V E K V C A L A N E K A V R N A R Q L P F R F L A A Y R E L K
UniRef90_UPI000363A3DC	V V D D V L A G Q V A A R L A D P E E V L R A R Q L P F R F V S A Y R A
UniRef90_E3I644	V V L K S S G E G L N L I M P S L R D I T R W H S H L H P F A F L L D D Y R
UniRef90_UPI0003595623	M L N E D S P H V V R T D R L T S A D E A L Q L Q S P A L V L K V E K K Y S
UniRef90_I4AL27	V V S S E Y L K K V A Q R I A D Q N E V E R S K Q L P F R F L S A F R E L E
UniRef90_N9ES29	V F K I K G M T K I A D K L M D E Q A I K K S R V F P Y Q L L M M A W S A L A
UniRef90_B6QXU1	V F E D K K A V K K I A N L R D P K R V K K A N A F P Y Q L L T A Y Q A
UniRef90_D6X3X8	V F F K A G S Q F Q A K I C E A L S D A E K I K C N L H P V E V F I Y L K F F E
UniRef90_G9PTP9	V V L N D K A V V R F I N D R L T K P E A I R K A K I L P F R F A Q A W R M V S
UniRef90_UPI0001E2DE00	V I K S E A S N L N K V Y E N L A D E S R V L K N K Q L P F R Y Y S A Y K A L K
UniRef90_UPI000412B906	V V S V A H L Q M V C N Y L A S P T A V A T S K Q L P F R F R F L S A Y R E L K
UniRef90_U0FHR7	V V S D E V A G I C A R L A D P E Q V A K S R Q L P M R F L S A Y N A R
UniRef90_B4Q0J5	V V H H Q V R P V A E Q L D E K K L K A G N V P P V R L L E D M R L R
UniRef90_X1CW53	L L A P G N E V V V A H I Q Y E E R L K K A R I H P I N L L A A L K I Y G

330 340

UniRef90_UPI0003C2B2BE	R G K L R W R P D K D V L E A L D A A F Y K T F K V
UniRef90_K1R769	E G K K K W Q H N E K V T K A L E T A L E Y S L K
UniRef90_K1Q6Y1	K G T I Q W K E N P N V R D A L R D A F H L S F K
UniRef90_P10155-2	
UniRef90_M8DM03	H P E L R P L S F E K R I V D A L D A L R E A V E L T F D
UniRef90_K7ITP3	N S G K P L S F E K R I V D A L N K M L N F S F
UniRef90_UPI000248C42B	R P E L R P L S F E K R I V D A L R A A V E L T F
UniRef90_UPI0002659350	S I H S T L P P T P E V Q E I L Y N L H M A S F K
UniRef90_UPI000479AE40	K S D L P S E I V E A L K E A L E I S L E
UniRef90_UPI00035CBC90	S Q V P D V V R Q A L Q E A M D I I A I I
UniRef90_W4CG76	R E E L R P L S F E K R I V D A L R Q A V E L S I
UniRef90_S4P6B2	K S T R P M K Y E K A K V A L E K
UniRef90_F8FM34	H P E L R P L S F E K R I V D A L R A A V D H T F D
UniRef90_F0SIP3	D E V P H Q I K T A L H Q A A E I A C
UniRef90_UPI00037FA78F	H P D L R P L S F E K R I V D A L R E A V D L S F D
UniRef90_G4CGG8	D Q L P A A I R D A L Q D A M E I A V Q
UniRef90_UPI00041E0E96	A G V P A A V R E A L Q D A M E V A
UniRef90_G6DRK5	K K T R P L K F E K A K V A L E K
UniRef90_Q5LWW2	A D M P R E I V E A L H D A M E I A V R
UniRef90_Q3KEW8	D V P A L I R E A L Q D A L E L S S L
UniRef90_S7U622	A D I P G E I R E A L Q T A L E I S L E
UniRef90_K1Q171	R G E G T W N V N Q N I V H F L T Q A Y
UniRef90_D3A586	D Q M P S E I R E A L Q D A M E T A V Q
UniRef90_E6V472	A E V P H V V K E A L Q D A M E L A L
UniRef90_S6lQ77	D D V P L V V R E A L Q D A L E L S S L
UniRef90_C8NDH6	D A I P G T I R D A L Q D A M E I A V Q
UniRef90_A0A021W852	A S G L P A A I V E A L Q D A M E I A
UniRef90_A9B0S4	P L S E Q E K L I Q Q T L E Q M I E M A F
UniRef90_B7X3Q5	E Q V P A Q V R D A L Q D A M E H A I
UniRef90_A0A044RG80	E G E V K W N P S K D I V N A L E K A F Y S S I Q
UniRef90_UPI0002630C97	S T A A S Q L P P P I I G Q A L R E A M E I I A
UniRef90_G6Y6Y8	A D V P G V V K D A L Q D A M E I A L
UniRef90_UPI0003802F10	V P P V I R D A L Q D A M E L A I
UniRef90_UPI00034F86D3	L K T R P M R H E K A K V A A
UniRef90_B4D8H4	K A V P A A V R D A L Q D A M E V A T E
UniRef90_UPI000287FCF6	D D V P A R V R E A L Q D A L E L S S L
UniRef90_F6FAQ4	D G V P L V V R E A L Q D A L E L S S L
UniRef90_S9QPZ5	R A V P A R V R D A L V E E A M E V A I E
UniRef90_UPI00036B5668	E D V P P P Q I G E A L Q D A L E L S S L D
UniRef90_C4GMW4	D E M P H A I R D A L Q D A M E L A V K
UniRef90_A0A022G467	A G G E L P A V V R E A L Q D A L E L A L E
UniRef90_V1HSH0	S G V P Q A I G D A L E Q A M E F A L E
UniRef90_K1PZM2	
UniRef90_A4EPS8	T G E M P R E I V E A L H D A M E I A V Q
UniRef90_UPI0002DC64F8	V P D M P P Q I V D A L H D A M E I A
UniRef90_L1NIZ2	D D M P A D I R N A L Q D A M E T A
UniRef90_UPI0004176E9E	D E V P H A I R E A L Q D A M E I A L R
UniRef90_F1KY01	R G K L H W K T N P E I T A A L E K A F L L A F K
UniRef90_C8NAE3	D A M P H A I R E A L Q D A M E I A V Q
UniRef90_UPI000380041C	E R V P I E L R D A L Q D A M E I A L E
UniRef90_F0Q059	D A V P E A V R D A L Q D A M E L S S L
UniRef90_UPI0004793DB6	D K V P R M V L E A L Q D A M E I A
UniRef90_W7FT96	G G G L P A P I L L E A L Q D A M E I A
UniRef90_UPI00034D1FA1	E A V P A Q V R D A L Q D A M E L S S L
UniRef90_UPI0003752A10	E D I P A K V V R E A L Q D A L E V S S L R
UniRef90_UPI000289B7F1	E G V P L K V Q A A L E T A L E A S
UniRef90_Q2SLQ1	E G V P K M V T E A L Q D A M E I A L Q
UniRef90_A0A044T980	H G H E M W K P V R S I Q K A F D N A F Y N C F D
UniRef90_G1XYP1	K D V P P V V V A A L E T A L E L S S L
UniRef90_G2IPU4	D G V P L K V Q A A L E E A L E L S S L R
UniRef90_D5SQA2	D N V P Q K I K T A L H K A A E I A C
UniRef90_UPI0001746451	Q E V P A E I R D A L Q D A M E H A
UniRef90_A6CEJ7	D Q I P H K I T K A L H E A A E I A C
UniRef90_Q7UEC5	D E V P S K I K S A L H D A A E I A C
UniRef90_B3KN94	R G K L K W R P D E E I L K A L D A A F Y K T F K
UniRef90_N9NAW2	D A V P Q I V R Q A L E Q V M Q A A L E
UniRef90_UPI00036BC526	P Q V P L E V R K A L N A A L N V S L L Q
UniRef90_F3E8D5	S D V P L K I R S A L E D A M E I A L E
UniRef90_D2R2E3	E T L P A K I K A A L G E A M E L L A I
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UniRef90_W6M013	E Q V P A L V R E A L Q G A L D V A L L
UniRef90_R4T178	A P S L R W S Y A L E K A I A Q S L
UniRef90_E1G3K5	E G K M K W E P N E D I V N A L E K A F Y A S F Q
UniRef90_A1ZMP7	S V K S P R V S K V L E A L E A A I L A S
UniRef90_J2KA31	N I D S K Y L S S V L E A L E D A V M V S A K
UniRef90_UPI00039572CE	Q Q V P A A V T E A L Q D A M E L A
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UniRef90_UPI000363A3DC	A P S L R W S Q P L E L A L G H A L
UniRef90_E3I644	R G K L T W E P L P Q V V D
UniRef90_UPI0003595623	A S K K K W K K N Q D V V N A L Q R V Y Q D S L R
UniRef90_I4AL27	K V S S P N V Q I L L S A L E E A I K L S V K
UniRef90_N9ES29	E G L S P E M P R Q I R E A L H D A M E I A
UniRef90_B6QXU1	K G G K T M D P K L L E Y L Q K
UniRef90_D6X3X8	R G D V R R A L A H A A E L S V E
UniRef90_G9PTP9	K E G L G T S K I Y D A L E I A K T S T K
UniRef90_UPI0001E2DE00	G H N S N F T S M V L D A L E D A V M H S A K
UniRef90_UPI000412B906	A P S L R W G W S E E K A L D A S L
UniRef90_U0FHR7	K P K K V Y P T L V Q K A S F L H S V Y E I S F
UniRef90_B4Q0J5	E G K G D W E A V P E I V D A L D A A F Y K A F D
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UniRef90_F4L1D0
UniRef90_B4V128
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UniRef90_UPI00036EA1E
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UniRef90_C7PV89
UniRef90_T1IA11
UniRef90_UPI00036AF445
UniRef90_Q5YSN1
UniRef90_UPI0003449DBD
UniRef90_M3ABS4
UniRef90_A9DKB7
UniRef90_UPI0004663A7D
UniRef90_S5XZD0
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UniRef90_UPI000346699A
UniRef90_W5TVX7
UniRef90_UPI000472C575
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UniRef90_Q17FJ3
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UniRef90_S2Y6K1
UniRef90_J9LZP1
UniRef90_G8TAB1
UniRef90_X0UDE2
UniRef90_C9Z7U0
UniRef90_UPI00037244D0
UniRef90_UPI000373F277
UniRef90_C6XXQ7
UniRef90_E8W1X0
UniRef90_UPI00036BB338
UniRef90_C3ATZ0
UniRef90_UPI00046F71C2
UniRef90_D3DA84
UniRef90_Q11R14
UniRef90_C7PTW5
UniRef90_D9SVM3
UniRef90_R7KQD7
UniRef90_C1AZ81
UniRef90_B5GCB7
UniRef90_B1W131
UniRef90_G2P663
UniRef90_U5YE46
UniRef90_A0A037Z891
UniRef90_UPI0004146215
UniRef90_B4R461
UniRef90_B3NSQ1
UniRef90_W5TNJ0
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UniRef90_A6LZ99
UniRef90_A0A034V676
UniRef90_J9JP54
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UniRef90_U5VXX3
UniRef90_V5H5H8
UniRef90_B7QB92
UniRef90_D7BJ24
UniRef90_T2JNL1
UniRef90_W8B069
UniRef90_Q7PYC6
UniRef90_W5J2D8
UniRef90_UPI00037C5369
UniRef90_B4L487
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UniRef90_D1A5P3
UniRef90_E0XWQ7
UniRef90_R4TL80
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UniRef90_W8NWY1

1 10 20 30 40

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

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

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

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

T T D R E P N H A G R P G H A R D L R G E L F L L A V S N M A
A P S A I D K L R R F C Y L G R I Q P
P T H Q G G R G F A P S P Q G E L L L L V A G S L G D
M V K L K D K S E V I L R Y L Y L G T D Q P
R T H E G A P G H L R D T K S E L L F L L A V S N M Q
N Y E G G E A Y S P S P E V A L T K N V L T N L L E D
R T Y E G A P A F Q R P V R E E L Y L L V A N L F R G D
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 UniRef90_UPI0003449DBD
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 UniRef90_UPI0004663A7D
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 UniRef90_UPI000346699A
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 UniRef90_UPI0003C74671
 UniRef90_V6JML7
 UniRef90_M7MYA3
 UniRef90_Q17FJ3
 UniRef90_UPI0003B39B7F
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 UniRef90_D1A5P3
 UniRef90_E0XWQ7
 UniRef90_R4TL80
 UniRef90_UPI000373C191
 UniRef90_W8NWY1

50 60 70 80

This figure displays a sequence alignment of approximately 80 UniRef90 proteins. The alignment is presented in a grid where each row represents a different protein sequence. The columns represent amino acid positions, with positions 50, 60, 70, and 80 explicitly labeled at the top. A color key to the right of the alignment indicates the level of conservation at each position: black for high conservation, white for moderate conservation, blue for less conservation, red for very little conservation, and yellow for highest variation. The alignment shows significant conservation at positions 50, 60, 70, and 80, with many positions being black or white. Position 50 is mostly black (conservation), while positions 60, 70, and 80 show more variation with some blue and red regions.

	90	100	110	120
UniRef90_A8PYB4	P A P K K E P [L L M A L A L C A R Y K V H D T Q K A A L F A V H K V C V T P T H			
UniRef90_UPI000373B77C	A N L R T A A L V G A A E F A K A R R D A G L D G L S R Q V V A S V L Q R A D E			
UniRef90_I0KCY0	M Y L R T A P I V L L G T L A M R H N G D D L V S R T I A R V I Q R P D E			
UniRef90_W8F621	L H L R S V P L V L A V E L A R R H H G T N L V S R L V A R V V Q R P D E			
UniRef90_K7GZI4	R N P K M S S M L F T L A I C A R I S S H D V M K A A L S L I P D V C R I P T H			
UniRef90_L7LZ95	Q A A C P E A I A Y A L A L C A A S D H R P T K A A A Y T A F P Q I C K C P A Q			
UniRef90_W7SYM9	A N M R S A S I V G A A E F F A A R T E P G M T R Q [V V N S V L Q R A D E			
UniRef90_UPI0003AD67AB	A N M R S A P V V A A L E A V R A R L A A G L A G G N R Q L V A S V L Q R A D E			
UniRef90_U2NQQ1	M H L R S I S H V L V A E L A K S S S G K K Y A R D A I Y R V I E R V D D E			
UniRef90_D7CH70	G N M R T A S L V G A A E Y V R A R L D A A A P G H S R Q V V D S V L R R A D E			
UniRef90_H1YGV1	M Y M R S V P L V L V T E L A K L H S G D N L V A R A T A G V V N R A D E			
UniRef90_J7LJ33	A N M R T A S V V A A L E G A K A R V D A E S H G H S R Q M V T A A L R R A D E			
UniRef90_UPI00034B767E	A N M R S A S I V V A A L E G A K A R V D A G A H G H S R Q M V V A A A L Q R A D E			
UniRef90_UPI00036FB51A	M N M R S A A I V V M A A A L A R R G G D R E A T V P V R K M V V A G A M Q R A D E			
UniRef90_E2CFS7	G K M K D L P A I L L A I L A T R D P V L L S R A F P K V A S N G K M			
UniRef90_F4L1D0	M Y L R S M P L V L L T V E L A R R L Y Q G Y G L N L I S K M V T R V I Q R A D E			
UniRef90_B4V128	G N M R T A S L V G A A A Y V R A A A G S S S G G P T N R S V I D S V L Q R A D E			
UniRef90_UPI00028925E4	G N L R T A A V V G A A E Y V A R L A A G V T E P S N R G V V D S V L Q R P D E			
UniRef90_UPI00036EAF1E	M Y L R S V P M V L L V I E L A K Q A Q G T A V V S K S V S N V I Q R A D E			
UniRef90_UPI000367CAF5	A N M R S A P I V V A A L E A V K A R L D A G E Q G M N R Q L V N A V L Q R A D E			
UniRef90_C7PVB9	A N M R S A A V V A A C S V R A R L D A E A S G Y G R Q L I A A A C Q R A D E			
UniRef90_T1IA11	T S L Y P D L I L Y V L A E C A R S E I K R P D A L K A A E E M C Q R A D E			
UniRef90_UPI00036AF445	M N L R S V P V I L A V E L A K L Y S G N E I V K R T V A G I V N R A D E			
UniRef90_Q5YSN1	A N M R T A S L V G A A E Y V K A R L E A G L A G D N R H V I A S V L Q R A D E			
UniRef90_UPI0003449DBD	G N M R S A A L V A A L E G A K A R V D A G A H G H S R Q M V D A A L M R A D E			
UniRef90_M3ABS4	G G M R T A S L V G A A E F V A R L A A G G A A A P A R G V V V A S V L L R P D E			
UniRef90_A9DKB7	M N L R S I P V V L A V E L G K I H K G D N L V S K T I Y N I V Q R A D E			
UniRef90_UPI0004663A7D	G N L R T A S L V G A A E Y V K A R L D A G A T P S N R R V V D S V L R R P D E			
UniRef90_S5XZD0	G H M K D T P A L L L A V L S T R D P A L F A R V F E R V V T S G K M			
UniRef90_H8KLI6	M H L R S V P L M L A V E L A K N N S G N A L I G K V V D R V I Q R A D E			
UniRef90_UPI000346699A	A N M R S A A L V V A A L E G A R A R V V G A G E Y G Y S R Q M V D A A M A R A D E			
UniRef90_W5TVX7	A N M R S A A L V V G A A E F T R A R L D A G Q A G L S R Q V I D S V L L R P A D E			
UniRef90_UPI000472C575	G H M K D T P C V V L L A V L S L R D P A L F A R A F P R I V T N G K M			
UniRef90_L7ESU0	G N L R T A S I V V G A V E Y V K A D A D A T D G P S N R Q V I D S V L L R P D E			
UniRef90_UPI0003674F31	G N M R T A S L V G A A A Y A G T G E G P S N R S V V D A V L Q R A D E P G E L			
UniRef90_UPI0003F7A200	M N L R S V P I V L S V E L A K A D A G A W V V G K A I E Q I V L R P D E			
UniRef90_UPI0003C74671	G N L R T A S L V G A A A Y V R A D A G V T T G G P S N R S V I D S V L L R P A D E			
UniRef90_V6JML7	G N M R T A A I V V G A A E Y V K A R K G V D T G P S N R Q V I D S V L L R P A D E			
UniRef90_M7MYA3	M H L R S I P P L V L V V I E L A K L H R G D S L V S R T V A A V V Q R A D E D			
UniRef90_Q17FJ3	S L V R N D E C L F V L A F I A R C T K P E E K H K V Y E V V P T L I K E S K D			
UniRef90_UPI0003B39B7F	M Y L R S V P L V L A V E L A R L H R G D N L V S R L V A R I V Q R P D E			
UniRef90_S2Y6K1	G N L R T A S I V V G A A E Y V K A R L D A G A T P S N R Q V I V S V L Q R P D E			
UniRef90_J9LZP1	K L L D D Q L L I F T L A V C A R F N L K P C K K D A Y A A V S T I C T D G L K			
UniRef90_G8TAB1	M N L R T A P V V L V A T E L A K I H K G D D L V K K T V E N V V K R P D E			
UniRef90_X0UDE2	R A P K N A P A V F A L A V A S V F G D E E T K A Y A N K A M P Q V C R F S T D			
UniRef90_C9Z7U0	A H M R T G S L V G A A E F V R A R L E A G A V V G F S R Q A V S A V L Q R A D E			
UniRef90_UPI00037244D0	A N M R S A S L V G A A V K A R L G N R V N D G L S N R A V L V A S V V Q R A D E			
UniRef90_UPI000373F277	A N M R S A A L V G A L E A A K A M L A V G M S G G R Q L V A S V L Q R A D E			
UniRef90_C6XXQ7	M Y M R S V P L V L V T E L A K L H S G D N L V A R V T D G V I G R A D E			
UniRef90_E8W1X0	G R M R T A S V V G A A E Y V K A D A G A V D G P S N R Q V V D S V L L R P A D E			
UniRef90_UPI00036BB338	G N M R T A S L A G A A A Y V R A A A G T S D G P S N R S V V D S V L L Q R A D E			
UniRef90_C3ATZ0	F Y M R S V T H V L A V E L A N H P E G R K Y A R Q T V S R I A A Q R P D D			
UniRef90_UPI00046F71C2	G H M K D T P A L L L A I L S L R D T A L F V R A F P R V V T S G R M			
UniRef90_D3DA84	A N M R T A S I V V A A A A R A V R E L D P D A R A A A A R S V I A S T L Q R A D E			
UniRef90_Q11R14	M Y L R S V P L M L A V E L A K A Q S G N P V V A A A V R G V V K Q R A D E			
UniRef90_C7PTW5	M Y L R S V P T V L T V E L A K V H K G D D N L V G K L T G R V I Q R A D E			
UniRef90_D9SVM3	M H L R S I S H V L V S E L A R I H Q G D D N L V K R V T A R T V V E R V D D			
UniRef90_R7KQD7	M N L R S I P L V M A V I E L A R I H Q G D D N L V K R V T A R T V V E R V D D			
UniRef90_C1AZ81	A H L R S A S L V V A A A E F V R A R L Q G A G R H G G N R A V V S S A L D R A D E			
UniRef90_B5GCB7	G N L R T A A L V G A A E A V V H A R L E A E R A A R R L I I A S V L Q R A D E			
UniRef90_B1W131	G R M R T A S L V V Y V R A R L T A G S V E G P T N R Q V I D S V L L R P A D E			
UniRef90_G2P663	A Q M R T A S L V V A A A A E A V A A R L A A G L H H G N R R L V D A A C L Q R A D E			
UniRef90_U5EY46	S L C R N D E S I F T I A F F L R E N A K I R N E I Y K N F K D F L P Q C K D			
UniRef90_A0A037Z891	M H L R S Q V L I G E L A K V N K G K P Y V R R S M N N C I F R V D D M T E I			
UniRef90_UPI0004146215	M Y L R S I P P L V L A L A K V H R G D D L V S R L V S R V V N R A D E			
UniRef90_B4R461	H L P R D E P L L I L A V F T T C E D E K K R N A V R N R F T D L I T S E S D E			
UniRef90_B3NSQ1	H L P R D E P L L I L A V F T T C K D E M D R M L M R Y R V A D L I T H D S E			
UniRef90_W5TNJ0	A N M R S A P I V L A A E A A K A R L D A G E S G G R D I I K T V L Q R P D E			
UniRef90_UPI00036E9F51	A H I R T A S V V G A A E F V R G R L D A G A A G F S R Q A V E A V L Q R P D E			
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UniRef90_U5VXX3	A N L R S A S V V A A L E G A R A Q V S E G I P G S R A V V V D S A L Q R A D E			
UniRef90_V5H5H8	L V P Y R A T L Y F L L A C V V L K S E T E N V K P E V S A I V L K I C K S D K E			
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130 140 150 160

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UniRef90_W8F621	L F E F I D Y C Q T G W G R S M R K A I S W Y K N K T S E K L A M F L T K Y P		
UniRef90_K7GZI4	I T E L L A Y Y Q A A N G R T G P K T L G R L S K Q V Q K G L A Y Q L A K Y D		
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UniRef90_UPI0003AD67AB	P G E A L A Y W T S T Y G R A L P K P V K R G V A D A V Q R L T E R S L L K Y D		
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UniRef90_C7PV89	P G E V L A Y W T G R Y G R A L P K P V K R G V A D A V A H L Y E Y S F A K Y D		
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UniRef90_UPI00036AF445	I T E L L A Y Y Q T A N K R R L S K Q V Q K G L L E S F N K F D E Y Q F A K Y N		
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UniRef90_M3ABS4	P G E M L G Y W T S R Y G R A V P K P V K R G V G D A V R R L Y R A L L K Y D		
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UniRef90_UPI0004663A7D	P G E L L A Y W T A T Y G R N I P K P V K R G V A D A V R R L Y K A L L K Y D		
UniRef90_S5XZD0	L R T F V Q I L L R S G L G S R P K A M V Q N W L N A T T D A Q L L A A S V		
UniRef90_H8KLI6	I T E L L S C Y Q G K L S K Q V Q K G I A S S F N K F D E Y Q F A K Y N		
UniRef90_UPI000346699A	P G E A L A Y W T G R Y G R A V P K P V K R G I A D A A A R L T E R S L L K Y D		
UniRef90_W5TVX7	P G E L I A Y W F A G Y G R A L P K P V K R G I G D A V R R L Y R A L I K W D		
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UniRef90_L7ESU0	P G E L L A Y W T S R Y G R G I I A D A V R R L Y S G K S L L K Y D		
UniRef90_UPI0003674F31	L A H W I A T Y Q Q P V K R G V A D A V R R L Y T S R S L L K Y D		
UniRef90_UPI0003F7A200	I T E T L A Y Y Q Q T N K R T L S K Q I Q K G L A K A F N R F D E Y Q F A K Y N		
UniRef90_UPI0003C74671	P G K L L A H W V S A Y Y G R R V P Q P V K R G V A D A V R R L Y R A L L K Y D		
UniRef90_V6JML7	P G E M L G Y W T S R Y G R A I P K P V K R G T A D A V R R L Y S L L K Y D		
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UniRef90_C3ATZ0	V T E I I M A Y Q L G V Y G R S L K K G L A D A F S T F D E Y Q L E K Y N		
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UniRef90_D3DA84	P G E F I A Y W L S S G R P R G L A D A V T R R L Y T E R A A L L K Y D		
UniRef90_Q11R14	I T E L L A Y Y Q R A N N R T L S K Q I Q K G L A T A F N M F D A Y Q F A K Y N		
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UniRef90_B5GCB7	P G E L L A Y W R S R F G R G V A D A V Q R L Y T E R S L L K Y D		
UniRef90_B1W131	P G E L L G Y W T S R Y G R A L P Q P V K R G V A D A V R R L Y R A L L K Y D		
UniRef90_G2P663	P G E F L A H W T A Q H G R A L P K P V K R G L A D A T E R S S L L K H D T E S		
UniRef90_U5EY46	L F M F L D F Y K I C C G K G L R A A L T K W Y D K F S A I E L A E M F S K S H		
UniRef90_A0A037Z891	L A Y Y I I N K Y G K P I P N S I K K G I G D K L L I S F D E Y Q L A K Y N		
UniRef90_UPI0004146215	I T E L L A Y Y Q A S N E R A L S K Q I Q K G L A L A F N K F D E Y Q F A K Y N		
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UniRef90_B3NSQ1	P G E M L S Y W H T H Y G R K L P K P V K R G I A R R L Y R E R S Y L K W D S D		
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UniRef90_J9JP54	L L M F T Q F V K T P F S R T I R K A V V M E W Y Q D K S S A V L L Q M W A K N E		
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	170	180	190	200
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R A G T I R L R D A L F L V H P R P Q D E A H Q A L F N Q L V A G T L P T P Y T				
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UniRef90_Q11R14	M T W E A L A G W L Q M D A V A W Q A V L I D K I G Y M A L M R N L R N L L Q A N
UniRef90_C7PTW5	F K W V W T E L I E K L G Y M A A L R N V R N M L D Y N
UniRef90_D9SVM3	T W Q T K L S A Q G N T K E S W E Q L I E N L G Y M A L L R N L R N I V K A N
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330 340

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50 60 70 80

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UniRef90_UP1000359D8A6	N S L K L V P T I W L V Y L S T L D D K E L F N K A F E R I I T N P K M			
UniRef90_UP10001E2C2C1	G K L K L V P T I W M Y I S T L E D K S L F K K S F P L I I R N F N M			
UniRef90_C3CTM1	G M M K D M P A L L T A I L A A R G S A L L P V V F T R V I N N G R M			
UniRef90_U1JJ82	F N L R H V P L L L K A L V A R G A G D P W T G D T V A A V I K R P D E			
UniRef90_H8H1T4	L K L R H V P L L L I V R E M A R L P E H R A L V A E T L A A V I Q R P D E			
UniRef90_G3Q0W5	L N I R I T A N F L L A L A A N L P P S T K P H V R R Y F C A A V Q L P S D D			
UniRef90_H2LD41	L N I R I T A N F L L A L A A S L P S T K R P H V R R Y F C A A V Q L P S D D			
UniRef90_B4JMD9	R L P R P D E S L L V L A I L S M R S D E R H L M V V R G H F V E L V R T D K Q			
UniRef90_X2NK10				
UniRef90_E8RLJ1	M K L R H A P L I L L C A L I K T G G P L V A P A I E R V I Q R A D E			
UniRef90_UP10004444D1	L N I R I T T N F L L A L A A N L A P T K P H V R R Y F C A A V Q L P S D D			
UniRef90_UP100036976B5	H H L R H A P L L L T R E L A R H K E V K G S T L V A S T L Q Q V I N R P D E			
UniRef90_V4R329	F K L R H A P L M L I C A L A K A G G P L V A D T I V R V I R R P D E			
UniRef90_Q676C2	L N I R I T A S N F I V A V A A S R P E S R Q F V R A Y F S A M V V T P S D D			
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UniRef90_Q1IMI8	M K L R H A P L L L V R E M A R H A T H R G L V A E T L V R V I Q R A D E			
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UniRef90_C3Z4J5	M N I R V T A N F L L A L S A N I P A C R P F L K K Y F S T S V R L P S D D			
UniRef90_M3ZT51	L N I R I T T N F L L A L A A N L D P T K P H V R R Y F C A A V Q L P S D D			
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UniRef90_V4BQ67	L N I R T T S N F L L A L A A N V S A C C R P Y L K K Y F N C I I R L P S D D			
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130 140 150 160

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UniRef90_T1PJ88	L F L F S K Y A H K G F S T A R K A I T S W Y E M R T P E A I R T M W M A H R
UniRef90_B4MCZ5	L L L F V I K F V K T P I S R T I R K A V L D W Y Q H Q P L D K L L H M W S L N
UniRef90_M0K228	T A T A L A V H D Q L F G G T L R R G V E D A L V D M A D A Y T L G K Y D
UniRef90_W2U6F3	H L E T L A Y T R Q G W R K A L K K A V A E R L N R M S P Q A L L K Y R
UniRef90_R9JR25	I S E I I L A C Y H N A L P N A M R K G F K K A L E K F D I Y Q L D K Y K
UniRef90_L2TE14	P G E I I L A Y W I A R H G R S I P K P V K R G V A D A S E R S L L K W D S
UniRef90_E1FSC2	L F T F I K Y C K N G W G R A L R A T V I K W Y Y N H T P N R L A V I V T K Y R
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UniRef90_B4NPW9	L L I F T K L A K T P V S R T T R K A I V E W Y K K Q S L Q Y L L H M W S N
UniRef90_E3EL34	V H D F M E M A R Q G L G R S T K V M N E W L I D H L N E Y Q V
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UniRef90_UPI0002F9A65F	L A E L L A L Y W K D G K R P L S A Q M K R G L A K A F R K F D A Y Q L A K Y N
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UniRef90_H2L4D1	W L E I V V R I Y S A C F S C S L P A C L K K A M A D M K F K Q F S E Y Q L A K Y N
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UniRef90_X2NK10	R R S L I G T R P K K L V Q R W L Q N A S E E R L L Q A S V
UniRef90_E8RLJ1	L S E L V A I Y W R D G K P K L S K Q M K L G L S R A F T K F D A Y A L A K Y D
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UniRef90_UPI00036976B5	L A E F L A L Y W G G A D R R K T K E K L T R Q V K Q G L A Y Q L A K Y N
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UniRef90_K4JRQ9	L S E L V A I L Y W K Y P P R L S K Q M K L G L A K A F A K F D A Y Q I A K Y D
UniRef90_F4QMP0	L T E L V A I L Y W R N G K R P L S K Q M K L G L A R A F A K F D A Y A L A K Y D
UniRef90_UPI00036CAB36	L S E F V A I L Y W A E G R R P L S A Q V K K G L A A A F T R F D E Y A L L A K Y D
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UniRef90_Q1IMI8	L T E F V A I I Y W A E G R P L S A Q V K K G L A A A F T R F D E Y A L A K Y N
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UniRef90_UPI000342F6DE	W M E I P R L Y Q S L A G Q G L R R V L T V K F Q K F T E Y Q L A K Y N T K M K
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UniRef90_C3Z4J5	W I E V A E I I Y Q T F H D S S L P V A L R K V M A A K F P D F D Q Y Q L A K Y N
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UniRef90_T1JIE1	W I E V A E Q C Q L F L S R S L P A A L R R A M V S K F G E F D E Y Q L A K Y N
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UniRef90_A9UWP9	W I A V A E L F Q T L Y T R A L R K A M I D K F A D F D E Y Q L A K Y N V R H T
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UniRef90_W2EYP7	P G E L L A I Y W L G R Y G R S L P Q P L K R G V A D A V V R L Y D E L A V A T Y
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UniRef90_G1SHA4	W I Q V A E F Y Q S S L L P A C L R A A M T D K F A Q F D E Y Q L A K Y N
UniRef90_UPI0004448E92	W I Q V A E F Y Q K L A G E E L R A A M T D K F A Q F D E Y Q L A K H L F S D P
UniRef90_M3W6S2	W I Q V A E F Y Q D L L P A C L R A A M T D K F A Q F D E Y Q L A Y N P W K H R
UniRef90_UPI0002C44993	W I Q V A E F Y Q S S L L P A C L R A A M T D K F A Q F D E Y Q L A K A V P K K K
UniRef90_UPI000359FFDA	W I E V A E I F Q T L E G G S L P A A L R K A M I N K F P E F D K Y Q L A K Y N
UniRef90_UPI000332F507	W I Q V A E F Y Q T L V N G P L P A C L R A A M T D K F A Q F D E Y Q L A K Y N
UniRef90_UPI0003C88A28	W I Q V A E F Y Q S S L A S R G L R A A M T D K F V Q F D E Y Q L A K Y N
UniRef90_B3RHX3	W I E V A E L Y Q S L H D K T I R K A L R K V M V D K F G G F D E Y Q L A K Y N
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170 180 190 200

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UniRef90_W2U6F3	A G R H F R Q R D A L I L A H P K A P D R E H A W V Y D Y I R G K K A S P E A
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UniRef90_E1FSC2	H R I C Y S H R D L F C L C H I H P K Q N D Y E N I F K H V T R G R K D R K
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UniRef90_UPI000332F507	T R R R F T L K K L V Q R L H I H E P A Q H V Q A L L G Y R Y P S N L Q A
UniRef90_UPI0003C88A28	R Q K R F T L K K L V Q R L H I Q P A E H V V M A L I G K K Y P V D
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UniRef90_UPI0003316D2E	T E S K I S L K Q L I R A L H I S K P N N H V M S I L G K K Y P A T Y E E

210 220 230 240

<p>WE A K</p> <p>UniRef90_V6DFC2 UniRef90_UPI00037FEDD4 UniRef90_T1PJ88 UniRef90_B4MCZ5 UniRef90_M0K228 UniRef90_W2U6F3 UniRef90_R9JR25 UniRef90_L2TE14 UniRef90_E1FSC2 UniRef90_J9E7X3 UniRef90_M0K729 UniRef90_UPI0003AF457C UniRef90_N6TZM9 UniRef90_I8J6Z9 UniRef90_B4NPW9 UniRef90_E3EL34 UniRef90_H2SPP6 UniRef90_UPI000475BB2F UniRef90_UPI00021A5533 UniRef90_H2ZBF1 UniRef90_UPI00046BEB96 UniRef90_UPI000359D8A6 UniRef90_UPI0001E2C2C1 UniRef90_C3CTM1 UniRef90_U1JJ82 UniRef90_UPI0002F9A65F UniRef90_H8H1T4 UniRef90_G3Q0W5 UniRef90_H2LD41 UniRef90_B4JMD9 UniRef90_X2NK10 UniRef90_E8RLJ1 UniRef90_UPI0004444D1 UniRef90_UPI00036976B5 UniRef90_V4R329 UniRef90_Q676C2 UniRef90_K4JRQ9 UniRef90_F4QMP0 UniRef90_UPI00036CAB36 UniRef90_R5PGL2 UniRef90_J9M1C4 UniRef90_L0DDG6 UniRef90_V4R1W8 UniRef90_Q1IMI8 UniRef90_G3WI5 UniRef90_D3PRB2 UniRef90_UPI00037D7F1C UniRef90_UPI00034F26DE UniRef90_B2U8J5 UniRef90_C3Z4J5 UniRef90_M3ZT51 UniRef90_F0ZI44 UniRef90_UPI0002653808 UniRef90_UPI0003344323 UniRef90_UPI0003F14C3F UniRef90_E7F3E6 UniRef90_UPI0003F0B632 UniRef90_UPI000441F52B UniRef90_V4BQ67 UniRef90_T1JIE1 UniRef90_UPI0002B4A1F0 UniRef90_U6IF49 UniRef90_A9UWP9 UniRef90_L8HOG0 UniRef90_UPI0002BD0262 UniRef90_U1H894 UniRef90_W2EYP7 UniRef90_UPI000334034C UniRef90_H9GDQ3 UniRef90_F6X8W9 UniRef90_UPI00046C1A7C UniRef90_H0UVD3 UniRef90_008653 UniRef90_UPI000440D88E UniRef90_UPI00032AFA73 UniRef90_UPI00035945B7 UniRef90_G3SQJ9 UniRef90_UPI00038BC701 UniRef90_UPI00042B9980 UniRef90_F7AEG0 UniRef90_D3BUH1 UniRef90_E1FY93 UniRef90_H2Q7W0 UniRef90_G1SHA4 UniRef90_UPI0004448E92 UniRef90_M3W6S2 UniRef90_UPI0002C44993 UniRef90_UPI000359FFDA UniRef90_UPI000332F507 UniRef90_UPI0003C88A28 UniRef90_B3RHX3 UniRef90_UPI0003316D2E</p>	<p>LS Q A G Q A E T Q E E V D S L Q A F V A Q V L E E R P N S L E P L V K H K E K I V G L A N L R L S K N P H L A L P I N Q L S P D V E P L P S P N</p> <p>A F V Q R V R E E D P L E K E M T A A G Q K Q G I P T G L R M L T E R A A L A A L L P E D R R A V L R T P E R L S A A G R R Q E L S P K G Q S K R G R L E E A E Q V R K N L E E L N L K R A G E K R R Q E L L P D K Q P K R G R L D S K E</p> <p>L H I K E P A E H V M A I L K Y P A D V K A F T H S W D R E R A G Q R M K K E P A T E A Q L E V L R I I K Q A E Q L R R C V D P A E A A I L L K T S E</p> <p>P I Y N P V Q Q C K E T T M G I V N L R Q D Q S P N K S K A L P I V E K L N A A L K E V I D F M E K G E L N E T T F A L I E N N R L Q L E E V D K K Q S E F S L K K M I K R L H I K E P A E H V V W E R E K A G Q R M K L R W E A K L S A A G T E A T S A E D K A S R K A A A W T E L V K E G K F R C S G L P G T W D Q D R A G K R M K L P I P E</p> <p>F G S K M K D C I E D K N I K K M D E R A L Q N E I E F N R L G E K A S L G M L D P K T E R I I D R L Q D K E A I E R D R W V L I L L N L F A S A L K E V I N T L N E G K L D S S T V E L V S K H K L Q L E E T A L K I V I S G L E T G Q Y S L Y M D S L V R E H S C D K A Q L P E K R A R C W R F V K A</p> <p>K Q K E F S M K K M I E K F H I K E P A E H V K G S W D R E R A G Q R M K K E P F R K K Q S D F N M K K M I Q K L H I K D P A E H A W N R E R A G Q R M R K E P P A C L E P V A K C K E T I L G I A K L R A A Q D P S L A L V I I R Q L S C D K A Q L P E K T R A L L A F R E G N M G A A L P</p> <p>K Q S E F I K E P A E F V M A I L K A F S R I K G V W E P D R A G Q R M K K E P</p> <p>Y E E Y A R T R L T E S Y D R E R A G Q R M K K T A</p> <p>Y K S K V L E K E M T K A G Q T T K D A T Q E E K M E A L E E K M Q K V K D V K G I K S L E E Y I R L T H R I D F E K E S N K N D L K</p> <p>Y K K K P S D F T L K K L I Q R L H P V Q N V K R L P G P W D F S R A G T R M K R A G P M E I A L V E R M R Q E A</p> <p>Y S F S K S G L E G P W Q S D L S G Q K M K L K Q P Q T W D R E L S L K G N T G L N A T P K L S H D E A L Y R Q I A E R T L P V P D L E S F Y Q S R L P G T W D P D Q A G K R M K L P T P E K Q S E F I K E P A E F V M A I L K A F T R I K G V W E P D R A G Q R M K K E P I R V L H I S E P V S S V M S L E W I K N K L P G T F E P E R A G K R M K L P M E T F Y A S R L S G T W D T E R A G K R M K L P T P E F S Q S H L P G P W D S S K A S K R M K L S Q P E F S Q S R L P G P W D S S R A G K R M K L S Q P K K E S F S L K K M V M R L H I K E S A E H V W D R E R A G K Q M K K Q P A A P K K K D P P L K K L I Q R L H I R E P A S H L P G P W D S S K A G K R M K I H R L H I S E P A Q H V M S L L G Q R S R L P G P W D P T L A G T R M R L L P Y K S R L P G T W D E E R A G K R M K L P V P E A D F W S S G L P G M W D E E R S G K R M K L A T P E L E S F Y K S K L P G T W V Q E Q A G K R M K L P I P E T A S E F S S E S G L P G E W D P D M A G V R M R L P T P R L V M G V L G K P Y P N T S D E F R L A G L E G V W D P E R A G Q R M R L A P F R R S G L P G V F E P A K A G S R L K L P V P E Q R K N E P S F T L K K L V Q R L H I H E P A Q R L P G P W D S S R A G K R M K</p> <p>I P P Y L T L L R A R R E L F R I A A D R R A P L L D W P D G A L R L A S A A A A Y N A V P E K L K K L V Q R L H I R E P A Q H V P G P W D S S K A G K R M K P K D P F S L K A L I Q R L H I L Q A F S R S R L P D S R L A G T R M K L E K P K P S D F T L K K L I K R L H I R D P V Q N V K R L P G P W D S S R A G T R M K E P R E T K P F S L K A L I R W L H I S K P A Q H V P G P W D P A R A G T R M K F S R S R L P G P W D S S R A G K R M K L P R P E F S R S H L P G P W D S S R A G K R M K L Q R P E I K R L H I K E P A E L V M K Y P A D V K A F K N S G L S G D W L S D R A G Q R K K L V Q R L H I H E P A Q Y V Q A I L L G C R R L P G P W D S S R A G K R M K S L P R F T L K K L V E K L H I H E P A Q H V Q H L P G P W D S S R A G Q R M K V P E K K E Q P R L K K L V Q R L H I Q E P A Q H V P G P W D S S R A G K R M K I H I H E P A Q H V Q A L L G Y L E L F S R S H L P G P W D S S R A G Q R M K E P H E T K P F S L K A L I R W L H I S K P A Q H V P G P W D P A R A G T R M K E A S Y N V V P E K K K Q P R F L Q A F S R S R L P G P W D S S R A G K R M K F K K L N L P G E F E P E R A N K R M K L P V P E</p> <p>V S E K K N P P R L K K L V Q R L H I H K P A Q H V P G P W D S S R A G K R M K L R I K E P A E L V Q A L L G Y L Q F S R S R L P G P W D S R R A G K R M K F S R S R L P G P W D P S K A G K R M K L P R P E F S R S R L P G P W D S S R A G K R M K L P R P E F S Q S R L P G P W D S S R A G K R M K L S R P E I R K L H I R E P V E H I M S I I G K Y Q S R L P G T F E E E R A G K R M K L P V P K K R N Q P R L K K L V Q Q L H I H E P A Q H V P E P W D S S R A G Q R M K F S R S C L P G P W D S S R A G K R M K L A R P L E S F H K S G L S G I W N S E R A N K R M K L P V P E V Q R L H I R E P A Q H V P D N L Q A F S R S R L P G P W D S S K A G K R M K</p>
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250 260 270 280

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290 300 310 320

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UniRef90_R5PGL2	L Y A P D K V N E V C E Q L T D K D K I M N S R L P F R F A T A Y S E I E		
UniRef90_J9M1C4	L F K N G N Y G C M E F I S R F K N H I A L R Q S G I H P I D S Y L E Y L R Y Q		
UniRef90_L0DDG6	V E V E A I R T G I R N V K T G R L L P I N F I A S A		
UniRef90_V4R1W8	V D R A L V S D A L R A R R G K V L P F R F I A A A R A V		
UniRef90_Q1IMI8	V D A S S R H H E R I L Q L L E R K E S V I R S R Q L P F R F L L S A H		
UniRef90_G3WI5K	V N D G L I R E G I S G V K A G K L L P I N F I A S A R		
UniRef90_D3PRB2	I S R Q H H N Q V T S R L S S E R A V I K S R M F P F R F L L S A Y K V I Q		
UniRef90_UPI00037D7F1C	V P A E L V T K H I A G A A K S K A L P F R F V A A A		
UniRef90_UPI000342F6DE	I S S K H H S W V L R K L T D E G A V I N S R Q F P F R F F S A G L K Y D		
UniRef90_B2U8J5	I S E A H H K I L R R T N Q K A V I Q S R Q F P F R F L L A A Y K V		
UniRef90_C3Z4J5	V P A S V H K Q I I S K L T N E Q T I A N S K Q F P L R F L L A A Y S T Q K		
UniRef90_M3ZT51	I S E K H H K W V L Y K L T D R G S V V Y S K Q F P F R F F S A Y E V L		
UniRef90_F0ZI44	I S A Q H H H K L V L Q R L Q K E Q K S V I H S R Q F P F R F L L N A H		
UniRef90_UPI0002653808	I S A Q H H E I I L Q R L Q H A K S V I H S R Q F P F R F L L N A Y		
UniRef90_UPI0003344323	I S E K H H S K I L N R L S S K K N A V I Q S R Q F P F R F L L S A Y K V		
UniRef90_E7F3E6	I S A Q H H E L V L Q R L Q H A K S V I H S R Q F P F R F L L N A H		
UniRef90_UPI0003F0B632	V S E R H H K C L L K R L E D K D S V I H S R Q F P F R F L L A A Y K V		
UniRef90_UPI000441F52B	V I S A K H H G Q V L K R L T D E R Q V V N S K Q F P F R F F S A Y A A L T		
UniRef90_V4BQ67	I S E D D H R K I I S I L K D K E L V M R S K Q F P F R F L T A Y N I L C		
UniRef90_T1JIE1	I L A E K Y H A K I L S R L K N K D S V I N S K Q F P F R F L L S A Y		
UniRef90_UPI0002B4A1F0	I D D E H I A K V V E M L T T E K A V A N S K Q F P S A F M T A Y L R L E		
UniRef90_U6IF49	V N K K Y H N I V C S K L S D P D T I A H S R Q F P F R F F N A F E V L D		
UniRef90_A9UWP9	V D Y K Y H R W A M N K L N N E E T I A R S K Q F P F R F F S A		
UniRef90_L8H0G0	V S T R H H N L V L Q R L Q H A K S V I N S K Q F P F R F F L L N A H		
UniRef90_UPI0002BD0262	V P R R T I A E A I D A M R T D R I L P Y R F I T V A		
UniRef90_U1H894	V S A E V A A W V A A D L A D P A S V A R A G A T P L D V A A V R A V		
UniRef90_W2EYP7	V I S A Q H H E L I I Q R L Q H P K S V I H S R Q F P F R F L L N A H		
UniRef90_UPI000334034C	V I S A R H H E R I L L Q R L Q H P K S V I H S R Q F P F R F L L A A Y K V I N		
UniRef90_H9GDQ3	V I S E K H H E R I L L K R L E G K D S V I R S K Q L P F R F L L S A H		
UniRef90_F6X8W9	V I S A K H H E R I L Q R L Q H E K S V I R S R Q L P F R F F L L S A H		
UniRef90_UPI00046C1A7C	V I S E R H H R Q V L S Q L E N K E S I I R S R Q F P F R F F L T A N K V I Q		
UniRef90_H0UVD3	I S A A H H E L I I Q R L Q H E K S V I H S R Q F P F R F F L L N A H		
UniRef90_O08653	I S A A H H E L V L Q R L Q H E K S V I H S R Q F P F R F F L L N A H D S L D		
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UniRef90_UPI00035945B7	I S A R H H E L I I Q R L Q H E K S V I V N S R Q F P F R F F L L N A H		
UniRef90_G3SQJ9	I S A R H H E L V L Q R L Q H A K S V I H S R Q F P F R F F L L N A H		
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UniRef90_E1FY93			
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UniRef90_G1SHA4	I I S A R H H E L V L Q R L Q H T K S V I H S R Q F P F R F F L L N A H		
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330 340

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

T A G L D A P E V E R W L E A V D V A V E H

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

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

R A V P Q W E P D T A L L E A I G E A
 A S K Q A L P P V Q E I L K

C S V P Q V I R E A L A Q A M E Y A L E

R A A P R F E P F L D Q A L
 R A A P T F E P A L D E A L I A S I
 R F E R W L D E A L M E T V L E Q
 H A P Q L E E A L E R A M F R S L E

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

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

Q L Y K E Y D E N Q A I M E A E Q K A
 D L E K R S A E V K

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

R Y A P D F E P E L E A A M L K S V K
 P D S R W S A P L G R A L E S S L

E S E K R F P S I P K I I Q

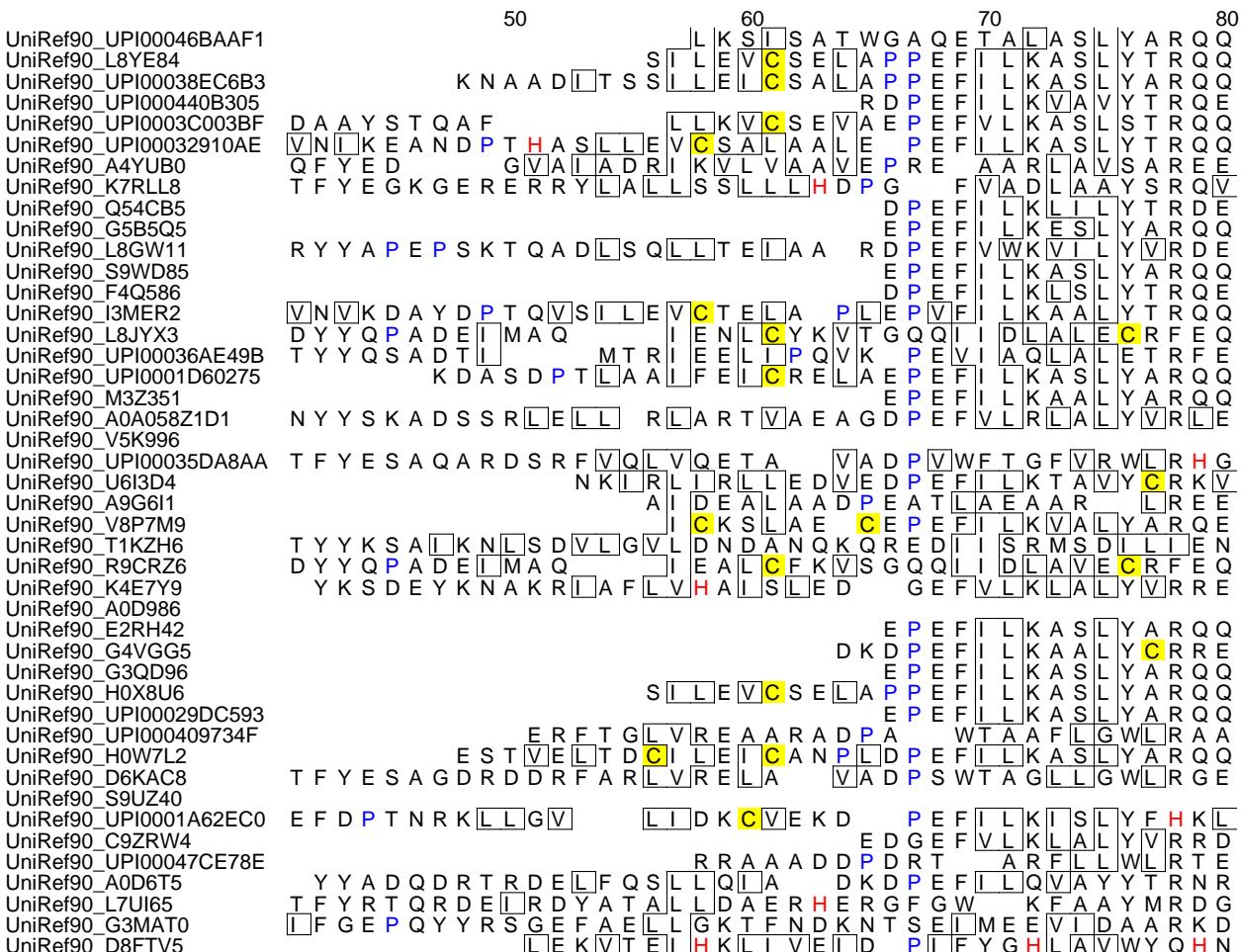
D R E L K K S

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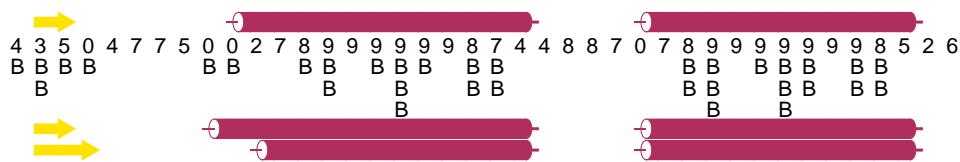
E L E E A Y E K N Q E

Sequence logo showing the conservation of amino acids across UniRef90 entries. The x-axis represents positions 1 to 40. The y-axis lists UniRef90 entries. Colored boxes indicate conserved amino acids: blue for P, red for H, yellow for C, green for S, and black for others.

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



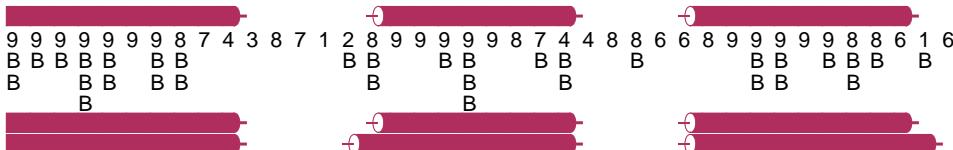
This figure displays a multiple sequence alignment of protein UniRef90_000046BAAF1 across various species. The alignment is color-coded to highlight conservation and similarity. Identical residues are shown in yellow, while similar residues are shown in blue. The alignment includes sequences from UniProtKB entries such as UniRef90_000046BAAF1, UniRef90_L8YE84, UniRef90_UPI00038EC6B3, UniRef90_UPI000440B305, UniRef90_UPI0003C003BF, UniRef90_UPI00032910AE, UniRef90_A4YUB0, UniRef90_K7RLL8, UniRef90_Q54CB5, UniRef90_G5B5Q5, UniRef90_L8GW11, UniRef90_S9WD85, UniRef90_F4Q586, UniRef90_I3MER2, UniRef90_L8JYX3, UniRef90_UPI00036AE49B, UniRef90_UPI0001D60275, UniRef90_M3Z351, UniRef90_A0A058Z1D1, UniRef90_V5K996, UniRef90_UPI00035DA8AA, UniRef90_U6I3D4, UniRef90_A9G611, UniRef90_V8P7M9, UniRef90_T1KZH6, UniRef90_R9CRZ6, UniRef90_K4E7Y9, UniRef90_A0D986, UniRef90_E2RH42, UniRef90_G4VGG5, UniRef90_G3QD96, UniRef90_H0X8U6, UniRef90_UPI00029DC593, UniRef90_UPI000409734F, UniRef90_H0W7L2, UniRef90_D6KAC8, UniRef90_S9UZ40, UniRef90_UPI0001A62EC0, UniRef90_C9ZRW4, UniRef90_UPI00047CE78E, UniRef90_A0D6T5, UniRef90_L7UI65, UniRef90_G3MAT0, UniRef90_D8FTV5.

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
inssm

130 140 150 160

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UniRef90_L8YE84	W Q V A E F Y Q A L L P A C L R A A M T D K F A Q F D E Y Q L A K Y N
UniRef90_UPI00038EC6B3	W Q V A E L Y Q E L L P A C L R A A L T D K F A Q F D E Y Q L A K Y N L R K H
UniRef90_UPI000440B305	W L E V T R L F S T C F S S L P A C L R A A M R D K F S Q F D E Y Q L A K Y N
UniRef90_UPI0003C003BF	W Q V A R F Y E L L C R E Q L R A A M R D K F S Q F D E Y Q L A K Y N
UniRef90_UPI00032910AE	W Q V A E L Y Q S L L P A C L R A A M T D K F A Q F D E Y Q L A K Y N
UniRef90_A4YUB0	M T E L L A I Y Q Q R K R Q P V S A Q V K K G L A K A F A K F D A Y Q L A K Y D
UniRef90_K7RLL8	H L Q T L A Y L G L P F P K L L R Q A V R A H L E A L P P H R L L K H R K A N P
UniRef90_Q54CB5	W L E L P T I L S N N I P K S L R N V M V E K F S Q F D T Y Q L G K Y N
UniRef90_G5B5Q5	W Q V A E F Y Q D L L P A C L R A A M T D K F A Q F D E Y Q L A K Y N
UniRef90_L8GW11	L L D V V N L Y L D L P N R A R T A V Q H K F L E F D D Y Q L A K Y N
UniRef90_S9WD85	W Q V A E F Y Q S V A R G L R A A M T D K F V Q F D E Y Q L A K Y N
UniRef90_F4Q586	W L E I P N I T N K L L S K T I P K S L R N V M V D K F T D F D T Y Q L G K Y N
UniRef90_I3MER2	W Q V A E F Y Q S L L P A C L R A A M T D K F A Q F D E Y Q L A K Y N
UniRef90_L8JYX3	T M D L L Q M L K A R N G S K M S K S V K K G L A K A F D Q Y D E Y Q I A K Y R
UniRef90_UPI00036AE49B	T M D T L A M L P R V L G R P I P K C L I K K G L A Q A F D Q Y D A Y Q I A K Y K
UniRef90_UPI0001D60275	W Q V A E L Y Q S L L P A C L R T A M T D K F A Q F D E Y Q L A K Y N
UniRef90_M3Z351	W Q V A E F Y Q N L L A G G E R A A M T D K F A Q F D E Y Q L A K Y N
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UniRef90_V5K996	L K R Q I S D V Y D E K E S E A E L S Q A
UniRef90_UPI00035DA8AA	P G E A L A Y W T G R Y G R A L P Q P L K R G V A D A V Q R L T E R A L L K Y D
UniRef90_U613D4	W L K I E I Y R S F L P N A R R A M V E K F Q E F D Q Y Q L S K A K T K T N
UniRef90_A9G611	P A V A L A Y Q L Y R F G K P V P N A L R K A L R D A L E R F D D H A L A K Y R
UniRef90_V8P7M9	W M Q V A K L Y Q F R Q F D A Y Q L A K Y N T R K
UniRef90_T1KZH6	L L I F A Y Y L R K G S G N Q I R K Q L C E W Y R V H S S L A H K D L L V K
UniRef90_R9CRZ6	T I D L L Q M K A R N G K S V K K G I A K F D Q Y D E Y Q I A K Y R
UniRef90_K4E7Y9	W L N I A N I A R G G M G R S L P N A R R A L V E T F T M F D D H S L S K Y N
UniRef90_A0D986	Q F K N Q A I Q K T N R V A K N R R R H T R N P N L F V Q E T L N V F
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UniRef90_G4VGG5	W I E V A E Y Y K A G M P K V L R S S M S K F L E F D E Y Q L A K H S K H R A
UniRef90_G3QD96	W Q V A E L Y Q S L L P A C L R T A M T D K F A Q F D E Y Q L A K Y N
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UniRef90_C9ZRW4	W L N I A Y S K K G I P N A R R A L V T F T M F D E F S L A K Y A T K R S
UniRef90_UPI00047CE78E	P G H L V A A W Q G L Y G R A T P K P V K R G V A D A V V R L Y D E A L A R Y D
UniRef90_A0D6T5	L I E V A E Y Y Q N G Y Q R C I P K M L Q K C G A N K F P Q F T I H Q L A K Y C
UniRef90_L7UI65	V A L F V T H F E N L G L G E V P E A A R K G M A R L G Q M D E Y Q V L K Y S
UniRef90_G3MAT0	P S S Q L T Y W N K G S K S G I P S I L K R T W K N R L E S M T R Y E A A K Y K
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 lupas_14
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 sol25
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 jpssm

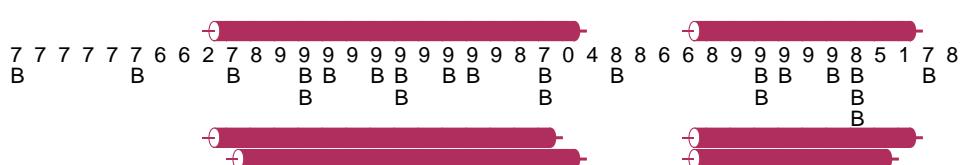


Multiple sequence alignment showing conservation across 200 positions. The UniRef90 entry is highlighted in blue.

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
inssm

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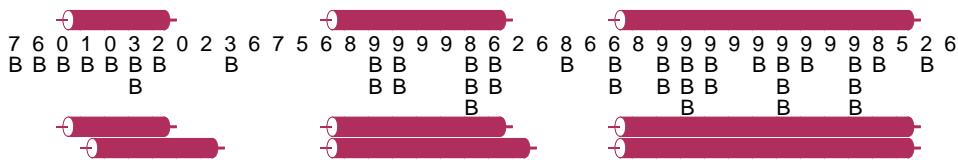
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