

1 10 20 30 40

QUERY				
UniRef90_H2ZZ03	K A P P T F K V S L M D Q S V R E G Q D V I M S I R V Q G E P K P V V S W L R N			
UniRef90_F1P0G8	Q S K P S F T V Q L K N Q E E V E G S T A C L C C H I E G F P D P K V I W Y Q D			
UniRef90_UPI000383E4BC	H K A P V F I E K L Q N T G V T E G P V R L E C R I S G E P S P Q I F W K K E			
UniRef90_UPI000223542F	P P V F L R P L K D A A V S A G S D V R V V L E C R V R G A P P L Q V K W F R Q			
UniRef90_L8IZK0	P D F L R P L Q D L D V G L A K E A M L E C Q V T G N P Q P S L S W F R D			
UniRef90_UPI0004445114	V A P F F E V K L K H F K I F E G M P V T F T C R V T G N P K P K I Y W F K D			
UniRef90_UPI0003EA87BC	F K T K L R D V E V Q E K E T A T L Q C E V P L P A T E T S W Y M E			
UniRef90_UPI000383D6BE	P H F L Q A P G D L T V Q E G R L C R M D C K V S G L P T P D L T W L L D			
UniRef90_UPI000457474F	E G P P V F G E V F K D Q V S E P G R T L H L E C V S L S K T E I R V R W L K D			
UniRef90_UPI0003444771	V P P S F L S T I Q S A S V A T Q G L A R F D A K I T G T K P L D V Y W L K D			
UniRef90_F4X806	P V K F V R P L Q D V V A T E K E K V A L D C E L S R P N V D V R W L K D			
UniRef90_UPI00042CBEE6	A A V I T K Q L E S S T V T Q G E D V V L S C E I S P P D A S V R W Y K D			
UniRef90_UPI0003C11F81	P Q V V D E L H D L F L S P G A N A K M S V R V K G F P A P K V Y W F K D			
UniRef90_W5LEM8	P A R F I K E L K T K A A T E G A T A T L C C E L S K A A P V E W R K G			
UniRef90_UPI00029D856D	T I V R G L V D T E V Q A D G E A F S C E V S Q A G V D A E W R L L Q			
UniRef90_UPI0003C16A75	H E A P R F L L P L T D V V T V M E N T T L R L E V T F T G S A E I I V K W Y L D			
UniRef90_K1R2G8	F L L Q G L S D L H V M D G S Q V T M T V R V S G G N P P P E V I W L H D			
UniRef90_UPI00029D8DD1	F R K L Q S L Q A E E G T S A S L R C E L S E P G A A V V W S K G			
UniRef90_UPI0004402C4B	E C P P K F A T K L G R A V V K E Q M G R F S C K L T G R P P P Q V T W L K G			
UniRef90_UPI0004542366	E K A N R F M E E L L A D V V Q V E E K G T A V F M C K T E H P A A M V T W R K G			
UniRef90_J9JHMO	T I L E P L Q D V V Q L S E G Q D A H F Q C R L S R A S G Q E A R W A L G			
UniRef90_UPI0003333914	K F V S G L S A L V A E E G C E A T F Q C V S P A D A L V T W F R E			
UniRef90_UPI0003317DE9	E P P I L E P L K S V V V G L L G E T V S L T C V I G G T P A P E I T W L R N			
UniRef90_UPI00032913C4	T V T Q P L Q D A Q V T E E G R A C C F S C E L S H E D E E V E W S L N			
UniRef90_UPI0003DECA33	Q E G P V F R S T F G D T E A Q V G D T L R L E C V V S S K A D V Q A R W L K D			
UniRef90_E2RLJ0	V F L K S L D D V I G E E K G M I T L A C E A S K P R V S P T W R K E			
UniRef90_UPI0003BBC437	P M F I S H L N N V E C F E G D S V H F E C N V S K D P T M K I E W F V N			
UniRef90_I3JST4	H V K P F F S K T I I R D L L E V V E G S A A R F D C K I E G Y P D P E V V W F K D			
UniRef90_N6U7F7	P L K I I Q D L T D Q T I I R L G R P L A L H C E I S P G N V P G K W Y K N			
UniRef90_UPI0003343790	P K F T T H I Q S L E L K D Q G S S A H F E C T L V G D P H M K V E W F H N			
UniRef90_W5NDI3	K Q P P R F V T Q I Q D Q T L V E M N S T K F E C Q L V G D P N M K V E W F F N			
UniRef90_H9KC31	R L V T K L L N N V V A T E R K D A V F K C A V S P A D V S V R W F H N			
UniRef90_UPI0003DED426	P A R F I D N M T N Q E A R E E G A T A T L H C E L S K V A P V E W R K G			
UniRef90_UPI0003AFCE02	P Q V V E E L H D V H V C P G S P A K M Q L K V K G F P K P R I Y W F K D			
UniRef90_A6NGQ3	P V K F V K R L R D K I A M Y K H R G H L E C Q V S S R A S A K V K W Y K N D			
UniRef90_UPI00038F02DE	A P V F F Q T E L K N Q D A I E G D D L T L H C E L S K P C V C V E W R K G			
UniRef90_UPI0003AF9948	A P V R F L R E L Q A Q E V D E G G T A R L C C E L S R A G T S V E W R K G			
UniRef90_UPI00032990B7	T I V R G L V D A E V T A D E D V E F F S C E V S R A G A T G V Q W C L Q			
UniRef90_UPI0003AF528B	V P P P R F L E R F T S K K V K V K G S S I T F S V K V E G C P A P A V H W L R E			
UniRef90_UPI0003BD0AB4	P V V F L K A L D D V L S A E E H G T L A L Q C E V S D P E A H V I W R K D			
UniRef90_UPI0003C47B5B	E Q A P H F L L R P T S I R V R E E G S E A T F R C R V G G S P R P A V S W S K D			
UniRef90_UPI000292AB98	A A P V F L T E L Q N Q E A G T T A M L S C E V A Q P Q T E V T W Y K D			
UniRef90_UPI00042C2384	P A Q F I L G K L R N K E A T E G A T A T L R C E L S K A A P V E W R K G			
UniRef90_F7CQP1	E C P P K F A T K L G R V M V R E G Q T G R F S C K I M G R P P P Q V T W L K G			
UniRef90_H2N3G8	P P T F S R K P K A K Y V N E G D V I L E C R L V A V P E P E I T W Y Y K			
UniRef90_UPI000387B024	V K A I A L G K Q A E F V S E T S E A N I M V K W Y K E			
UniRef90_UPI000387B55E	Q E E P E I T L E L Q D Q M C R A G T I I I R I P A S I K G R P P K S S W E F G			
UniRef90_UPI000387DA3B	Q E E P E I T L E L L Q D Q M C R A G T I I I R I P A S I K G R P P K S S W E F G			
UniRef90_UPI000387DF40	A P K I M T P L N D M V V K A G T I L H V A V D Y I G E P P E A I W S I Q			
UniRef90_UPI0003316751	A A P V F L T E L Q N Q E A G T T A M L S C E V A Q P Q T E V T W Y K D			
UniRef90_UPI000161CAF1	E C P P K F R R R E A I K A V D G D K V V L L A E L E G S E P L T I R W M R N			
UniRef90_UPI000252C902	P P T F S R K P K A K Y V N E G D V I L E C R L V A V P E P E I T W Y Y K			
UniRef90_U3JEAT	V K A I A L G K Q A E F V S E T S E A N I M V K W Y K E			
UniRef90_UPI0003C13867	Q E E P E I T L E L Q D Q M C R A G T I I I R I P A S I K G R P P K S S W E F G			
UniRef90_UPI0003C13867	Q E E P E I T L E L L Q D Q M C R A G T I I I R I P A S I K G R P P K S S W E F G			
UniRef90_A0A023F4X9	A P K I M T P L N D M V V K A G T I L H V A V D Y I G E P P E A I W S I Q			
UniRef90_M3ZU72	A P T F T E K L R D V H V A E G E K L L Q C Q V S S S D P P A T V T W T L N			
UniRef90_UPI0003C907E5	P A V I K E E L K N V E A T E G E E Q S F R V E T S A P V R T V K W Y K N			
UniRef90_UPI00045DB8A7	P E I V K G L E D G E V D E G E E Q S F R V E T S A P V R T V K W Y K N			
UniRef90_G1PJ16	F K K R L Q D L E V V R E K E S A T F L C E V P Q P S T E A A W F K E			
UniRef90_UPI0003C26626	A P T F T E K L R D V H V A E G E K L L Q C Q V S S S D P P A T V T W T L N			
UniRef90_F1KPF2	P A V I K E E L K N V E A T E G E E Q S F R V E T S A P V R T V K W Y K N			
UniRef90_UPI0003B6B209	P E I V K G L E D G E V D E G E E Q S F R V E T S A P V R T V K W Y K N			
UniRef90_UPI0002C426EB	T V V R G L E N V E A L E G G E A L F E C Q L S Q P E V A A H S W L L D			
UniRef90_UPI000333B41C	E R P V S I V K L L E D D Q Q A M I G E D V V L S C E V L D S K M E V K W L K D			
UniRef90_T1J5H7	Q R P P I W T T H L E S H N L V E N Q S V H L Q G T V E P D E K L R I E W Y K N			
UniRef90_U1NFY6	R K A P E F V E R L S D K S V V V E G S T T V F E V R I D A E P K E K L T T W I L N			
UniRef90_UPI0004545B1B	A P S M Q V T I E D V Q V Q A G G T A Q F D A V I E G N P P P T V T W Y K D			
UniRef90_UPI00035935D6	P V T L L R P L R D K I A M E K H R G V L E C Q V S R A S A Q V R W F K G			
UniRef90_UPI00035A2588	P P H F K K E L K N V E G T E N G T A T F C C E L S K A G A A V A W R K G			
UniRef90_W5ZMG1	P P R I M V K F R D V V V K A G D A L K I Y A D I S G R P I P V V S W A K D			
UniRef90_U315M2	P V K I V K P L R D K I A L E K H R G F L E C Q V S R A N A E V R W Y K K			
UniRef90_F7C4M0	P T R F I D N M T S Q E A T E G A M A T L Q C E L S K A A P V E W R K			
UniRef90_UPI00046C259E	P A L F E Q K L L Q N Q E A E E G S T V I L H A E L S K P N A P V K W R K			
UniRef90_UPI000383272E	P V R F K K E L K N K E E A M E S G T A T L Q C E L S Q A V G S V E W R K D			
UniRef90_UPI00046C0E8A	P L V Q K E P I I V Q E H E S I T L A T S V T P E T A V V K W F K D			
UniRef90_UPI00046C2AE8	P P S F K E E M C S E E A T E G G T A T L H C E L S T K V A A P V E W K K G			
UniRef90_UPI00046C0337	E K P A E I I K Q L E D E K T S A Q A G D I S L S C E M S K P D T N V K W Y K D			
UniRef90_UPI00046BF1B7	E I V C G L K N T D V F A G E S A T F T C E L S R L G V Q N V Q W W L D			
UniRef90_R4GJF0	A A P A F V R K L K N A A I G T G C D I R L R V V A V G N P R P N L R W Y H N			
UniRef90_W5MSH8	E E A P V I I D K P D V V Y V V E N Q S A Y I T V T L N H V H A G V T W K R N			
UniRef90_S9WMN0	F S K K P R S I V E V A A G S P A V F E A E T E R A G L K V R W Q R A			
UniRef90_UPI0003871737	P V L F K E E L K N E E V Q E G A S V C L C C E L T K T A P V Q W K T			
UniRef90_UPI0001A6532A	E T A P R F A F H L R N R Y L Q E G G S V K L T C S V D G Y P T P V I T W F K N			
UniRef90_UPI000203D623	A P V I F K E E L R D T E K E G E V V A L R C V L A T P D V P V S W K K			
UniRef90_UPI00046291F8	E Q A P Y F I Q K P T S I R V I M G E D A M F K C I V Q G S P P L S V N W E K D			
UniRef90_A2AAJ9	E V A A K F S K P L E P V E G E L G G T V M L V C E L S P E Q A E V V W R C G			
UniRef90_UPI00034FB4A1	Q E C P V F T E T F R D F C G E P G S T L H E C V A H S K T D M K V R W L K D			
UniRef90_UPI00035090E1	K Q P P R F V T Q I K D Q T L T E M A N T K F E C Q L V G D P N M K V E W F F N D			
UniRef90_UPI00032A068B	A P P T L E L D C R D L I V R V G E A F S L T G R Y S G K P A P T V T W L K D			
UniRef90_M7AMC7				

QUERY R Q P V R P D Q R R F A E E A E G G [C] R L R I L A A E R G D A G F Y T C K A V
UniRef90_H2ZZ03 D S P I Q E C S R V W I E Y K D N G S C S L I I S N I L Q S D S G L Y T C K A M
UniRef90_F1P0G8 N E S I T H N T D R V S M H Q D N G Y I C L L I Q G A T K E D A G W Y T V S A K
UniRef90_UPI000383E4BC G Q R L P P P A P E P S C L W L R S C G P R D A G V Y S C R A Q
UniRef90_UPI000223542F G S E I Q D S P D F R I L Q E P E E I C T C L V I A E T F P E D A G I F T C S A R
UniRef90_L8IZK0 G H R I Q S S D D R R M T Q Y R D V H R L V F P A V G P Q H A G V Y K S V I A
UniRef90_UPI0004445114 G K Q I S P K N D H Y T I Q R D D G T C S L H T T A S T L D D D G N Y T V M A A
UniRef90_UPI0003EA87BC E T P L S Q S A K Y H M E E D G T L R R L T C N V T T N D D A V Y I C E M K
UniRef90_UPI000383D6BE G K P V R Q D S A H K M L V R E N G V H S L V I E P V S A R D A G I Y T C C V A T
UniRef90_UPI000457474F G V A L A D G R H H H I D S Y P D G T C S L I V A G V E E K D A G T Y T C E V S
UniRef90_UPI0003444771 G K L S A S S N V H M E A K G R N R R L V V Q Q A G K M D A G E Y S C C E A
UniRef90_F4X806 S K K I I A D I R Y K T L E E D N T Y T L L I L E T V P E D G K Y E C V A I
UniRef90_UPI00042CBEE6 N V E L R V S K T M G M M A Q G A C R S L V I Y R C E L G D Q G V Y M C D A H
UniRef90_UPI0003C11F81 G K T I R K S N K Y E M C Q E G A L S K L T I H D A A S R D S G E Y S C E T E
UniRef90_W5LEM8 G S P L Q P S K R I L V S S E R G V Y S L E I A E V T R E D T G E Y S A Y I S
UniRef90_UPI00029D856D P E T L R A G D R V S L R Q E G A M C E L E I H G L T A E D A G E Y S C M
UniRef90_UPI0003C16A75 G L P L Q S N E V T E V A V Q G G R T H T R L R L K S V T L E D A G T V S
UniRef90_K1R2G8 G E E I I V P S D D I N I I V E N N R S V L V I H Q V F P E D E G E Y W V E C I
UniRef90_UPI00029D8DD1 G T E I I Q E S E D F H F E Q R G T Q H S L C Q E V F P E D T G T Y T C E A W
UniRef90_UPI0004402C4B G L E L Q A D E R W E P Q Q R G H V A E L V L D R L R Q E D T G E Y T C T
UniRef90_UPI0004542366 N V P L Q P S A R V S M S E K N G M Q I L E I H E V T Q D D M G T Y T C M V V
UniRef90_J9JHMO V T E L H A S R K H V P S Q E G L T L K L T I N A L E K A D S D T Y T C
UniRef90_UPI0003333914 G V P L Q A N E M N D I T V K Q G T L H L L T H K V T L E D A G T I S L Q
UniRef90_UPI0003317DE9 G A Q L Q P S T K F V I S Q S G G S H S L T I S G L T V D A G Q I S V E A E
UniRef90_UPI00032913C4 G R A L S K D T D H F E V L L Q N E D V F T V L V K N V Q P R H A G Q Y E I L L K
UniRef90_UPI0003DECA33 G E I F E D I N I T Y E N R V S K Y T I T R T T E T S S A S F T V K A K
UniRef90_E2RLJ0 G A P L Y N D S F H E I T H E G R C H T L V L K R V R R V D T G T V R V S S
UniRef90_UPI0003BBC437 G V E L T D G R R H D Q L R D G T C S L L V A G V G H A D A G C Y T C Q V S
UniRef90_I3JST4 G N V L K A G P K Y E L L H T G K S L L G L I K D V T K D D A G E Y S C K A S
UniRef90_N6U7F7 N K P L P T G A K Y K S T Y D F G F I A L D I T H S Y E E D S G V Y T C K A S
UniRef90_UPI0003343790 D Q S I R E S R H F Q I D Y D E E G N C S L I I I S D V C G D D D A K Y T C K A V
UniRef90_W5NDI3 G Q L I Q G G D R I N I H R A R N H R E I T S T T V D D E G D Y T F V P E
UniRef90_H9KC31 G Q P L R H S S R F K M V S D F G F G V V M D I A G V M A H D T G E Y V C K A S
UniRef90_UPI0003DED426 G K P L P H K N R F T P I Y D F G Y V A M M N F G W V Y P E D S G E Y L C R A T E
UniRef90_UPI0003AFCE02 S I P I V S G Q K Y K L E Q G G G S H S L T I T S V T Q K D A G E I S V D A E
UniRef90_A6NGQ3 P E T L R D G D R H S L R Q D G T R C E L Q I R G L S V I A D A G E Y S C V
UniRef90_UPI00038F02DE M K P L R G G D R H S L R Q E G A V C L L Q I R G L A A A D A R E Y S C I
UniRef90_UPI0003AF9948 G H P L R P S E R I H L A E R D D V H G V E I T E V K K E D M G E Y S V Y I S
UniRef90_UPI00032990B7 K T E I I K P S K K Y E I L K S E A D D L Y R K L T V D V D S G D E D T Y T C C D A T
UniRef90_UPI0003AF528B G K L I S S R T I Y S E A K G N T R Q L V I E K V E K S D A G E Y T C E A
UniRef90_UPI0003BD0BA4 G L V L R P G K K Y D M R Q S G C I Q E L W N L E P D D S G Y Y T C
UniRef90_UPI0003C47B5B L L Q L F P C O A K Y Q M V Q E G M T V E L L V H G A D Q E D A G H Y T C
UniRef90_UPI000292AB98 G L P L Q S N E V T E V A V R D G R I H T L R L K G V T P E D A G T V S
UniRef90_UPI00042C2384 E A E I I G R D T P G Y T V V A S S A Q Q H S L V L D V G R Q H Q G T Y T C I A S
UniRef90_F7CQP1 K T P L H A N E L N E I E A Q P G G Y H V T L R Q L A L K D S G T I Y F E A
UniRef90_H2N3G8 G V Q L G P S D K Y D F L H T A G T R G L V V H D L T S E D A G L Y T C H
UniRef90_UPI000387B024 G R R L E P D G P R V R V E E L G E A S A L R I R A A R P R D G G T Y E V R A E
UniRef90_UPI000387B55E G K K L S S S K S R V M E V K G C T R R L V V Q Q V G K A D A G E Y S C E A
UniRef90_UPI000387DA3B G K L E E D D H Y M I N E D Q Q G G H Q L I I T A V V P A D M G V Y R C L A E
UniRef90_UPI000387DF40 S E T L R D G D R Y C L R Q D G G A M C E L Q I R G L A M V D A A E Y S C V
UniRef90_UPI0003316751 D I P L Q A S A R V C Y M S E K N G M Q V L E I R D V S Q E D E A V Y T C L A V
UniRef90_UPI000161CAF1 N M E I Q D S T G F E Y S R E E A N C Y L T V A D A F P E D A G V Y T C E A R
UniRef90_UPI000252C902 D T Q I I T K K E N I V V A T E S D Y C S V I K I T K V Q K K Q E G K Y T I V A R
UniRef90_U3JEAT G K E I I A A S K K F T V D E K G K L H K L V A S A V T K E D E G T Y T C K
UniRef90_UPI0003C13867 G E E V H N I P E D A Q L E A T E N T S T I I I P Q C H R G H S G R Y S I T A K
UniRef90_UPI0003C13867 G E E V H N I P E D A Q L E A T E N T S T I I I P Q C H R G H S G R Y S I T A K
UniRef90_A0A23F4X9 S K E I I V A D S R T T V S A I G Y H T I V H T V N C C R T D S G L Y H L L R
UniRef90_M3ZU72 G T I L L E N N P C I D I G V E Q G F I H T L T F K N L A T D D S G T V T
UniRef90_UPI0003C907E5 G A E L G R S C Q H F S Q E D I G T R H R L V A A S V T R Q D E G T Y S C R
UniRef90_UPI00045DB8A7 E T R L W A S A K Y G I E E E G T E R R L T V R N V S A D D D A V Y I C E
UniRef90_G1PJ16 G K T L K T T K F I I L S Q E G S L C S V S I E K A L P E D R G L Y K C V A K
UniRef90_UPI0003C26626 P K A L R Q S G K Y R L M K Q E G T S A E L V I R D D L D K D A G D Y T C I
UniRef90_F1KPF2 G Q E I K P T A K V T M K T N P K K Y E L F I E K A S L D D T A T Y K V V L G
UniRef90_UPI0003B6B209 G K V L T S S K G I H M E S K G K T R E L V I D R M E K K D A G E Y T C E A
UniRef90_UPI0002C426EB D E P V R T S E D A E V V Y F E N G L R H L L L K N L R Q D S
UniRef90_UPI000333B41C G K A I R K G Q K Y D L L G E G T R A M L V V R G A S L R D S G E Y A C E T D
UniRef90_T1J5H7 G L P L Q F G T R M R N R V D F G L V T L D I S G I R S D D S G I Y T C R A V
UniRef90_U1NFY6 D E E L H E S T D V H I R E F D G S C K L E F H N V T L K Q G G T L R C V A E
UniRef90_UPI0004545B1B S T Q L M N S D R L S Q R Q D G T T Y S L V L V A D V A P H D A G V Y T C C L A H
UniRef90_UPI00035935D6 R V E L Q P G P K Y E V V V S D G L Y R K L V I N D Q P E D E D T Y T C
UniRef90_UPI00035A2588 H K T L G T S D K F T V R C Q G T V A E L V I H D L A L A D A G D Y T C
UniRef90_W5ZMG1 G K E M E P R P R I E I C T T D I N T T L I V K D C V R S D S G Q Y I L M L K
UniRef90_U315M2 D M E I H P S D K Y E I V S E G V Y R K L I I N D A D Y E D E D T Y T C D A F
UniRef90_F7C4M0 G P E I I L R D G D R Y S L R Q D G T R C E L Q I R G L A V A D A G E Y S C V
UniRef90_UPI00046C259E G S V L L Q A S A K Y E M R M Q K G S T V E L L L I H D D L Q L K D F G D Y T C
UniRef90_UPI000383272E G K V L M P D S K Y K M R R E G R F V E L V I Q D L D L T D A G S Y T C V
UniRef90_UPI00046C0E8A G T E I I K G S K K Y E I K A D G A S R T L T V K L A E G K D S A V Y T C E T K
UniRef90_UPI00046C2A8 E H K V L P C N D K Y T T M R Q E G C I V E L V V H G L D L K D A G D Y T C V
UniRef90_UPI00046C0337 G K A I I R K S Q K Y D L R Q E G T W A I L V I H D S M T K D S G E Y M C E M E
UniRef90_UPI00046BF1B7 G S P L Q N S A V N E I T V R D G K I H T L T L K N L G S D D S G I V T F R A
UniRef90_R4GJF0 G E E Q L A P R G E E Y G T L W I R D S T K E D A G V Y T C V A E
UniRef90_W5MSH8 G C V L V N K P G F E M S M P D D D Q H T L R I L R V R S T D V G E L I C T A S
UniRef90_S9WMN0 G S D I S A S N K Y G L A A E G T R H T L T V R D D V G P A D Q G S Y A V I A
UniRef90_UPI0003871737 G S K V L K A S G K Y Q M R Q L G T T A E L L V I H D L E V K D T G D Y I C V
UniRef90_UPI0001A6532A G K E L I R K G D G N Y E I Q Q M L G I T S L E I Y S C S E S D S G R Y S C R A V
UniRef90_UPI000203D623 G A T V L R A S E K Y E M K E G C V A E L L I H D V T E D A G R Y S C
UniRef90_UPI00046291F8 G R N L R S E S N R Q I Q S Q G E K N A L K I Q S T R L D D T G T Y T C R A A
UniRef90_A2AAJ9 N T Q L R P G K R F Q M T S E G P R R T L T V S G L R E D D A E E Y V C E S R
UniRef90_UPI00034FB4A1 G K K L G A S S R V R V E A T G C R R Q L L V V Q Q A G E A D T G E Y S C E A
UniRef90_UPI00035090E1 G E E L I S D G R Y Y H I D N Y S D G T C S L I I T G L D R K D A G K Y T C E A S
UniRef90_UPI00032A068B G K P L L Y K N R F Q P I Y D F G V Y V A M N F G W V Y P E D S G E Y V C R A T
UniRef90_M7AMC7 E I T V K E D K R T K I Q T T P T T L C L G I L K S I R E D S G K Y C V I I E

90

QUERY	N E Y G A R Q C E A R L E V R G
UniRef90_H2ZZ03	N C L G E A T S S A K L T V H
UniRef90_F1P0G8	N E A G I V S C T A R L D V
UniRef90_UPI000383E4BC	N E L L G Q A S C E A V L T V
UniRef90_UPI000223542F	N D Y G S V T S A A Q L V V
UniRef90_L8IZK0	N K L G K A A C Y A H L Y V
UniRef90_UPI0004445114	N P Q G R V S C T G R L M V Q A
UniRef90_UPI0003EA87BC	E G S R T V A E L T V R G
UniRef90_UPI000383D6BE	N R A G Q N S F C L E L V V A A
UniRef90_UPI000457474F	N A L G T T S H S A G L R V
UniRef90_UPI0003444771	G G Q K V S F R L D V
UniRef90_F4X086	N S A G E A R C E A E C T V R G
UniRef90_UPI00042CBEE6	D A Q S S A S L K V Q G
UniRef90_UPI0003C11F81	A S K S K A T V T V K
UniRef90_W5LEM8	N A A G S A Y S S A R M V I L G
UniRef90_UPI00029D856D	C G Q E K T S A T L A V R A
UniRef90_UPI0003C16A75	F H V G R H T S S A Q L T T V R
UniRef90_K1R2G8	N K E G K T K S T A Y L T V
UniRef90_UPI00029D8DD1	N S A G E V R T Q A V L T V Q
UniRef90_UPI0004402C4B	C G S Q A T S A T L T T V
UniRef90_UPI0004542366	N G S G K A S M S A E L S I P G
UniRef90_J9JHMO	D I G Q A S S Q A R L L V Q G
UniRef90_UPI0003333914	V G S C S S E A Q L K V T A
UniRef90_UPI0003317DE9	G V T S V A A L R V V R
UniRef90_UPI00032913C4	N R V G E C S C Q V S L M L Q
UniRef90_UPI0003DECA33	N D I I G T A E T T C E L K V Q
UniRef90_E2RLJ0	S P K V S A T A R L E V V K A
UniRef90_UPI0003BBC437	S K F G C T V H S A H V A V S G
UniRef90_I3JST4	D L G T E V S K A K V T V R
UniRef90_N6U7F7	N S K G S A T T S G T L R C T G
UniRef90_UPI0003343790	N S L G E A T C T A E L I V E
UniRef90_W5NDI3	G Y S T S L N A R V H V
UniRef90_H9KC31	N K F G E D Y T K A T L K
UniRef90_UPI0003DED426	N L Y G M D E T R A V I R T A G
UniRef90_UPI0003AFCE02	G K S C K A T L Q V Q
UniRef90_A6NGQ3	C G Q E R T S A T L T I R
UniRef90_UPI00038F02DE	C G K E R T S A M L T I
UniRef90_UPI0003AF9948	N A A G S A Y S S A R M I V
UniRef90_UPI00032990B7	D D K T S C K L L V E
UniRef90_UPI0003AF528B	
UniRef90_UPI0003BD0AB4	D A G D Q L T T A S L A V Q A
UniRef90_UPI0003C47B5B	D T G H A Q S T A R L S V R A
UniRef90_UPI000292AB98	F H L G N R A S S A Q L T V R A
UniRef90_UPI00042C2384	N S A G Q A L C S A S L H I S G
UniRef90_F7CQP1	G D Q R A S A A L R V T G
UniRef90_H2N3G8	V G S E E T R A R V S V H
UniRef90_UPI000387B024	N P L G A A S A A A A L V V
UniRef90_UPI000387B55E	G G Q R V S F Q L H I
UniRef90_UPI000387DA3B	N S M G V S S T K A E L R V
UniRef90_UPI000387DF40	C G E E R T S A S L L T I R G
UniRef90_UPI0003316751	N G S G K A S M S S E L S I Q G
UniRef90_UPI000161CAF1	N K F G I A K C N V R L V V
UniRef90_UPI000252C902	N R E G E A T I E L P M K V K
UniRef90_U3JEAT	I L G D D T L T F D L K V
UniRef90_UPI0003C13867	N K A G Q K T V N V R V V N V
UniRef90_UPI0003C13867	N K A G Q K T V N V R V V N V
UniRef90_A0A023F4X9	N S S G I D E G S M Q I T V
UniRef90_M3ZU72	F K T G N L T S S A K L L V K
UniRef90_UPI0003C907E5	V G E D S V D F R L R V
UniRef90_UPI00045DB8A7	T Q E G S R T V A E L A V Q G
UniRef90_G1PJ16	N G A G Q A E C S C Q V T V
UniRef90_UPI0003C26626	V G D Q K T T A A L S V N A
UniRef90_F1KPF2	N A A G E C D S S A A L T V K
UniRef90_UPI0003B6B209	
UniRef90_UPI0002C426EB	F L V G D V V T S A F L T V R G
UniRef90_UPI000333B41C	A A K S I A R L H V K
UniRef90_T1J5H7	N E V G E A I T T C T L K
UniRef90_U1NFY6	N A E G R A E C E A R L E V
UniRef90_UPI0004545B1B	N A G G Q V L C K A E L L V H G
UniRef90_UPI00035935D6	D A G D V K T S A Q F F V E
UniRef90_UPI00035A2588	S C G E Q E T T A A L K V N A
UniRef90_W5ZMG1	N V A G T T S
UniRef90_U315M2	D D K S S A H F F V E
UniRef90_F7C4M0	C G Q E R T S A T L T I R A
UniRef90_UPI00046C259E	D S G D E Q T T A S L L V K A
UniRef90_UPI000383272E	C G D Q K T T A A L R V N A
UniRef90_UPI00046C0E8A	S D K Q E F K V Q V K
UniRef90_UPI00046CAE8	C G D Q T T A A L T V H A
UniRef90_UPI00046C0337	T S K T K A L V T V E
UniRef90_UPI00046BF1B7	G S L I S S A K L L I K
UniRef90_R4GJF0	N E R G E A M T S A V L A I
UniRef90_W5MSH8	N Q Y G S D S C S M S L E
UniRef90_S9WMN0	G S S K V K F D L K V
UniRef90_UPI0003871737	C G D Q K T T A T L T V H A
UniRef90_UPI0001A6532A	N S R G E H E T E C K V I V E A
UniRef90_UPI000203D623	D T G E Q Q S T A Q V K V H A
UniRef90_UPI00046291F8	N P L G A T S A A A S L V V V
UniRef90_A2AAJ9	D D R T S A R L T V K
UniRef90_UPI00034FB4A1	G G R K V S F R L D V
UniRef90_UPI00035090E1	N K F G K V S H S A K V V V I
UniRef90_UPI00032A068B	N L Y G K D E T R A F I K V S G
UniRef90_M7AMC7	N S S G S R K G L C Q V T V

1 A P P T L E L D C R D L I V R V G E A F S L T G R Y S G K P A P T V T W L | K D
UniRef90_M7AMC7
UniRef90_G3PZP0
UniRef90_UPI0003504898
UniRef90_UPI000203714F
UniRef90_UPI00046B7571
UniRef90_G5C996
UniRef90_L7MMW9
UniRef90_UPI00042BF92B
UniRef90_E2BUG0
UniRef90_UPI00034FA67A
UniRef90_UPI0003992B13
UniRef90_UPI00032A32A8
UniRef90_F1LM20
UniRef90_H9GGG0
UniRef90_Q917U4-2
UniRef90_UPI0003D0A1D5
UniRef90_UPI000329E673
UniRef90_E2ARB2
UniRef90_UPI000395608A
UniRef90_B7PGA6
UniRef90_UPI00045E3C1F
UniRef90_UPI000273F408
UniRef90_UPI00046BEF15
UniRef90_D4A7X7
UniRef90_A0A016U4J2
UniRef90_H3DW85
UniRef90_UPI0003C911F1
UniRef90_UPI0003442418
UniRef90_UPI0003946A88
UniRef90_UPI0003946A88
UniRef90_A6BM71
UniRef90_D6WIF5
UniRef90_K7JL7
UniRef90_UPI0003834F84
UniRef90_UPI0003834F84
UniRef90_UPI000395814A
UniRef90_UPI000395814A
UniRef90_F6TWE8
UniRef90_UPI0004422B9F
UniRef90_UPI0004422B9F
UniRef90_H9K214
UniRef90_K7G060
UniRef90_K7G060
UniRef90_M9PDS8
UniRef90_G3WF16
UniRef90_UPI00046C17FE
UniRef90_UPI00046C17FE
UniRef90_UPI0003C427E2
UniRef90_UPI0003C427E2
UniRef90_Q17AF2
UniRef90_UPI00046BFC4A6
UniRef90_UPI00046BFC4A6
UniRef90_M9PEA5
UniRef90_UPI00046C0B7B
UniRef90_UPI00046C0B7B
UniRef90_UPI00046C0F6D
UniRef90_UPI00046C0F6D
UniRef90_UPI00046BF829
UniRef90_UPI00046BF829
UniRef90_UPI00046BFC9C
UniRef90_UPI00046BFC9C
UniRef90_UPI00046C2405
UniRef90_UPI00046C2405
UniRef90_UPI00046C1FA2
UniRef90_UPI00046C1FA2
UniRef90_UPI00046BEC4D
UniRef90_UPI00046BEC4D
UniRef90_UPI00046BFF2
UniRef90_UPI00046BFF2
UniRef90_UPI00046C0F17
UniRef90_UPI00046C0F17
UniRef90_UPI00046C071E
UniRef90_UPI00046C071E
UniRef90_UPI00046C23F5
UniRef90_UPI00046C23F5
UniRef90_Q95YM2
UniRef90_UPI00046BEE8A
UniRef90_UPI00046BEE8A
UniRef90_G3WDG5
UniRef90_H0ZG47
UniRef90_UPI0003D07FFE
UniRef90_UPI0003D07FFE
UniRef90_E7EYG1
UniRef90_E9J4B3
UniRef90_G0PNA2
UniRef90_G1R2U7
UniRef90_M9PB0
UniRef90_Q917U4
UniRef90_M9PEA0
UniRef90_M9PB19
UniRef90_W4W778
UniRef90_S7MF52

10 20 30 40

This sequence alignment shows a highly conserved protein region across numerous UniProt entries. The sequence is aligned in columns, with positions 1, 10, 20, 30, and 40 marked. Yellow boxes highlight specific amino acid residues at these positions, which appear to be invariant or highly conserved across the dataset. The alignment includes a mix of uppercase and lowercase letters, indicating different sequence representations or processing steps. The UniProt IDs for each entry are listed to the left of the sequence.

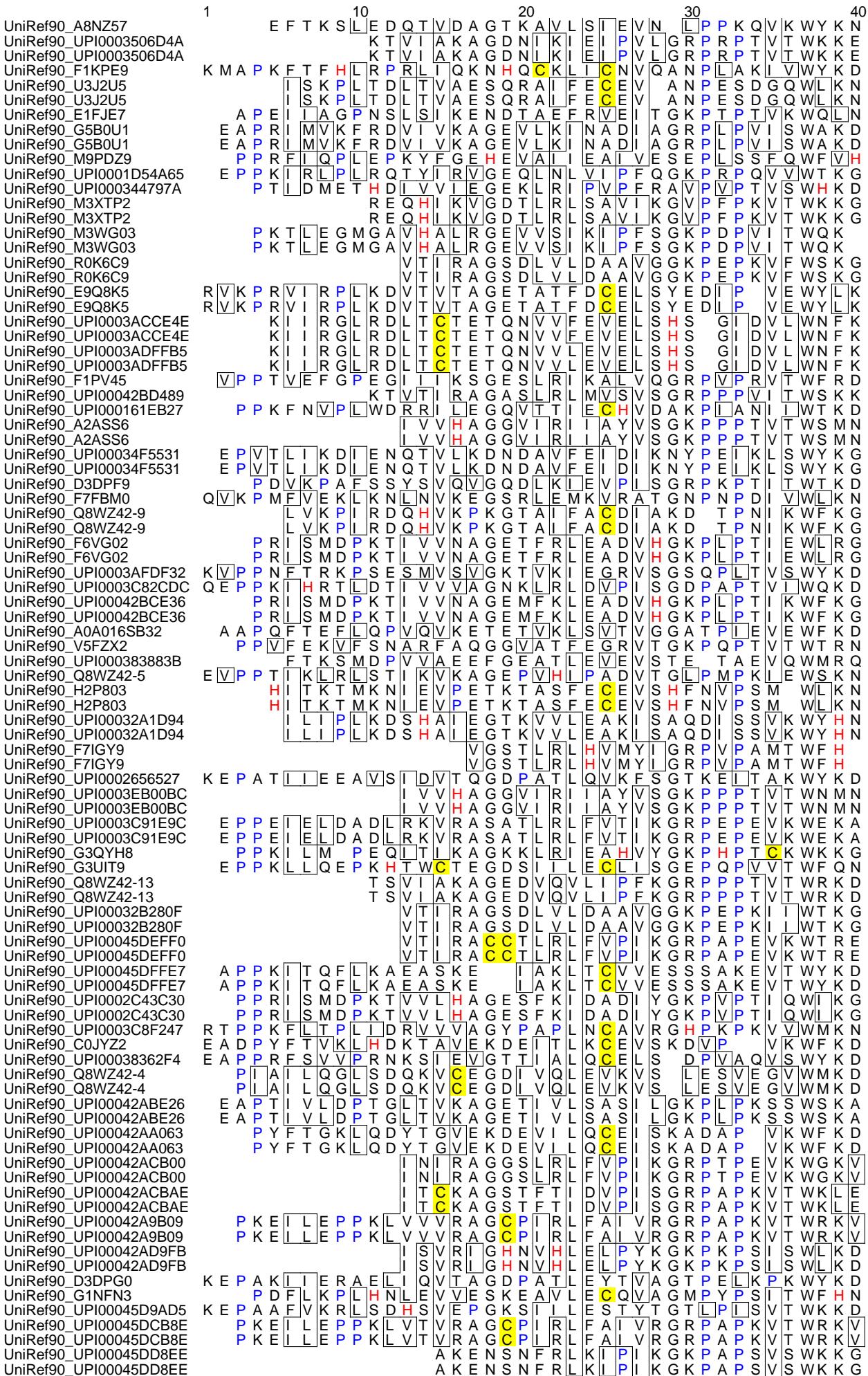
UniRef90_M7AMC7
UniRef90_G3PZP0
UniRef90_UPI0003504898
UniRef90_UPI000203714F
UniRef90_UPI00046B7571
UniRef90_G5C996
UniRef90_L7MMW9
UniRef90_UPI00042BF92B
UniRef90_E2BUG0
UniRef90_UPI00034FA67A
UniRef90_UPI0003992B13
UniRef90_UPI00032A32A8
UniRef90_F1LM20
UniRef90_H9GGG0
UniRef90_Q917U4-2
UniRef90_UPI0003D0A1D5
UniRef90_UPI000329E673
UniRef90_E2ARB2
UniRef90_UPI000395608A
UniRef90_B7PG46
UniRef90_UPI00045E3C1F
UniRef90_UPI000273F408
UniRef90_UPI00046BEF15
UniRef90_D4A7X7
UniRef90_A0A016U4J2
UniRef90_H3DW85
UniRef90_UPI0003C911F1
UniRef90_UPI0003442418
UniRef90_UPI0003946A88
UniRef90_UPI0003946A88
UniRef90_A6BM71
UniRef90_D6WIF5
UniRef90_K7JLU7
UniRef90_UPI0003834F84
UniRef90_UPI0003834F84
UniRef90_UPI000395814A
UniRef90_UPI000395814A
UniRef90_F6TWE8
UniRef90_UPI0004422B9F
UniRef90_UPI0004422B9F
UniRef90_H9K214
UniRef90_K7G060
UniRef90_K7G060
UniRef90_M9PDS8
UniRef90_G3WF16
UniRef90_UPI00046C17FE
UniRef90_UPI00046C17FE
UniRef90_UPI0003C427E2
UniRef90_UPI0003C427E2
UniRef90_Q17AF2
UniRef90_UPI00046BFCA6
UniRef90_UPI00046BFCA6
UniRef90_M9PEA5
UniRef90_UPI00046C0B7B
UniRef90_UPI00046C0B7B
UniRef90_UPI00046C0F6D
UniRef90_UPI00046C0F6D
UniRef90_UPI00046BF829
UniRef90_UPI00046BF829
UniRef90_UPI00046BFC9C
UniRef90_UPI00046BFC9C
UniRef90_UPI00046C2405
UniRef90_UPI00046C2405
UniRef90_UPI00046C1FA2
UniRef90_UPI00046C1FA2
UniRef90_UPI00046BECD4
UniRef90_UPI00046BECD4
UniRef90_UPI00046BFF2
UniRef90_UPI00046BFF2
UniRef90_UPI00046CF17
UniRef90_UPI00046CF17
UniRef90_UPI00046C071E
UniRef90_UPI00046C071E
UniRef90_UPI00046C23F5
UniRef90_UPI00046C23F5
UniRef90_Q95YM2
UniRef90_UPI00046BEE8A
UniRef90_UPI00046BEE8A
UniRef90_G3WDG5
UniRef90_H0ZG47
UniRef90_UPI0003D07FFE
UniRef90_UPI0003D07FFE
UniRef90_E7EYG1
UniRef90_E9J4B3
UniRef90_G0PNA2
UniRef90_G1R2U7
UniRef90_M9PB0
UniRef90_Q917U4
UniRef90_M9PEA0
UniRef90_M9PB19
UniRef90_W4W778
UniRef90_S7MF52

50 60 70 80

This sequence logo illustrates the conservation of amino acids across four positions (50, 60, 70, 80) of a protein sequence. The columns represent the positions, and the rows represent the amino acids: A, C, D, E, F, G, H, I, K, L, M, N, P, Q, R, S, T, V, W, Y. The height of each letter in a column indicates its frequency at that specific position. The sequence logo shows a strong bias for certain amino acids at each position, with some positions being more conserved than others.

90

UniRef90_M7AMC7	N S S G S R K G L C Q V T V
UniRef90_G3PZP0	D T G D A C Q C D V S L T V E G
UniRef90_UPI0003504898	G A A K S S A V I T V K
UniRef90_UPI000203714F	D T G D Q Q S T A I L R V N A
UniRef90_UPI00046B7571	N I H G S D T A E M Q L Y V
UniRef90_G5C996	C G Q E R T S A S L T V R A
UniRef90_L7MMW9	N P S G M A D S T A R V T V V G
UniRef90_UPI00042BF92B	G D E I V Y Q L S V K A
UniRef90_E2BUG0	N T L G L A T T C R L K I
UniRef90_UPI00034FA67A	S G E K T A T T
UniRef90_UPI0003992B13	G I H S S G R L T V K
UniRef90_UPI00032A32A8	N H L G S A H T S S C V R
UniRef90_F1LM20	C G Q E K T S A T L T V K A
UniRef90_H9GGG0	N P Q G R I S C S G H L M V Q
UniRef90_Q917U4-2	N L Q G C V V S S A V L A V E
UniRef90_UPI0003D0A1D5	C G Q E K T S A T L S V K A
UniRef90_UPI000329E673	N K L G S I Q T S A Q L K V R
UniRef90_E2ARB2	N T G G E A S S Q C T L T V
UniRef90_UPI000395608A	
UniRef90_B7PGA6	N K Y G S D A T K C T I Q C E G
UniRef90_UPI00045E3C1F	S S Y K T A N T S V H I
UniRef90_UPI000273F408	T K D K F D S C N F N L T V H
UniRef90_UPI00046BEF15	N K S G E A V S S I S M K V K
UniRef90_D4A7X7	N K T G Q N S F S L E L T V
UniRef90_A0A016U4J2	N Q Y G T A R C I M R L D I H
UniRef90_H3DW85	N P S G T A S D K G N A Y V K
UniRef90_UPI0003C911F1	N S A G S S Q A S A R L T V
UniRef90_UPI0003442418	V G Q L E C K A K L F V E
UniRef90_UPI0003946A88	N T A G
UniRef90_UPI0003946A88	N T A G
UniRef90_A6BM71	E P R G E A R S T A E L
UniRef90_D6WIF5	N A A G E A V T T A N V Q V A
UniRef90_K7JLU7	N T C G E A S S E C R L T I Q
UniRef90_UPI0003834F84	G Q D K S V A E L L I
UniRef90_UPI0003834F84	G Q D K S V A E L L I
UniRef90_UPI000395814A	N Q R G E V K S S A A L K V
UniRef90_UPI000395814A	N Q R G E V K S S A A L K V
UniRef90_F6TWE8	D C G D Q T T S A T L T V T A
UniRef90_UPI0004422B9F	A A R T S G M L T V
UniRef90_UPI0004422B9F	A A R T S G M L T V
UniRef90_H9K214	N V H G K D E T S C V V I V E G
UniRef90_K7G060	D K R T S A K L I I E G
UniRef90_K7G060	D K R T S A K L I I E G
UniRef90_M9PDS8	N A A G E A R C D G D C I V Q
UniRef90_G3WF16	N Q Y G T V K T S G M I K V K A
UniRef90_UPI00046C17FE	N A A G K K T G F V N V K V
UniRef90_UPI00046C17FE	N A A G K K T G F V N V K V
UniRef90_UPI0003C427E2	V A S S K T S A K L K V E A
UniRef90_UPI0003C427E2	V A S S K T S A K L K V E A
UniRef90_Q17AF2	N S A G S A S V E L Q L K V
UniRef90_UPI00046BFCA6	C G P H I A S A K L T V
UniRef90_UPI00046BFCA6	C G P H I A S A K L T V
UniRef90_M9PEA5	N L I G S D E T Q V E L Q
UniRef90_UPI00046C0B7B	C G P H I A N A K L T V I A
UniRef90_UPI00046C0B7B	C G P H I A N A K L T V I A
UniRef90_UPI00046COF6D	T D Q G I V R C Q F D M T
UniRef90_UPI00046COF6D	T D Q G I V R C Q F D M T
UniRef90_UPI00046BF829	L P S T R T T G K L K V H
UniRef90_UPI00046BF829	L P S T R T T G K L K V H
UniRef90_UPI00046BFC9C	N S A G E A T E T L N I V V
UniRef90_UPI00046BFC9C	N S A G E A T E T L N I V V
UniRef90_UPI00046C2405	N S S G S R K G L C Q V S V
UniRef90_UPI00046C2405	N S S G S R K G L C Q V S V
UniRef90_UPI00046C1FA2	N T T G T A V E T I K V I I
UniRef90_UPI00046C1FA2	N T T G T A V E T I K V I I
UniRef90_UPI00046BEDCD4	N S S G I K S A F V S V R V
UniRef90_UPI00046BEDCD4	N S S G I K S A F V S V R V
UniRef90_UPI00046BFFEF2	N L L L S T T G R V S V
UniRef90_UPI00046BFFEF2	N L L L S T T G R V S V
UniRef90_UPI00046C0F17	G E K K T S G K L I V A G
UniRef90_UPI00046C0F17	G E K K T S G K L I V A G
UniRef90_UPI00046C071E	N N L G T A S K E M R L N V L G
UniRef90_UPI00046C071E	N N L G T A S K E M R L N V L G
UniRef90_UPI00046C23F5	C G N D R V S A T L T V
UniRef90_UPI00046C23F5	C G N D R V S A T L T V
UniRef90_Q95YM2	N K A G E A Y S T S T V V V
UniRef90_UPI00046BEE8A	N S S G S K S A F V T V K V
UniRef90_UPI00046BEE8A	N S S G S K S A F V T V K V
UniRef90_G3WDG5	N K Y G T V S S I A Q L T V R G
UniRef90_H0ZG47	N A I G T A S S S G R L V
UniRef90_UPI0003D07FFE	N A A G E K A V F V N V R V
UniRef90_UPI0003D07FFE	N A A G E K A V F V N V R V
UniRef90_E7EYG1	G G P T S K A K L E L K
UniRef90_E9J4B3	N V G G S V T C T A T V N
UniRef90_G0PNAA2	N S L G K D F T H C T V K V
UniRef90_G1R2U7	E D E N I K T T A K L I V E G
UniRef90_M9PB0	N K Y G E D V T R A S L L K
UniRef90_Q917U4	N R E G E A R L P I T L K V R
UniRef90_M9PEA0	N V T S S T K L C V E
UniRef90_M9PB19	N P L G E A V T T A S M R V
UniRef90_W4W778	N K W G S A T T K A A I T C K
UniRef90_S7MF52	V G R V E T S C N L S V E



G K E I | T G S D K A K P N K S N D N T Y Q L L I | P D A G K D D T A E Y K V V L I |
 UniRef90_A8NZ57
 UniRef90_UPI0003506D4A
 UniRef90_UPI0003506D4A
 UniRef90_F1KPE9
 UniRef90_U3J2U5
 UniRef90_U3J2U5
 UniRef90_E1FJE7
 UniRef90_G5B0U1
 UniRef90_G5B0U1
 UniRef90_M9PDZ9
 UniRef90_UPI0001D54A65
 UniRef90_UPI000344797A
 UniRef90_M3XTP2
 UniRef90_M3XTP2
 UniRef90_M3WG03
 UniRef90_M3WG03
 UniRef90_R0K6C9
 UniRef90_R0K6C9
 UniRef90_E9Q8K5
 UniRef90_E9Q8K5
 UniRef90_UPI0003ACCE4E
 UniRef90_UPI0003ACCE4E
 UniRef90_UPI0003ADFFB5
 UniRef90_UPI0003ADFFB5
 UniRef90_F1PV45
 UniRef90_UPI00042BD489
 UniRef90_UPI000161EB27
 UniRef90_A2ASS6
 UniRef90_A2ASS6
 UniRef90_UPI00034F5531
 UniRef90_UPI00034F5531
 UniRef90_D3DPF9
 UniRef90_F7FBM0
 UniRef90_Q8WZ42-9
 UniRef90_Q8WZ42-9
 UniRef90_F6VG02
 UniRef90_F6VG02
 UniRef90_UPI0003AFDF32
 UniRef90_UPI0003C82CDC
 UniRef90_UPI00042BCE36
 UniRef90_UPI00042BCE36
 UniRef90_A0A016SB32
 UniRef90_V5FZX2
 UniRef90_UPI000383883B
 UniRef90_Q8WZ42-5
 UniRef90_H2P803
 UniRef90_H2P803
 UniRef90_UPI00032A1D94
 UniRef90_UPI00032A1D94
 UniRef90_F7IGY9
 UniRef90_F7IGY9
 UniRef90_UPI002656527
 UniRef90_UPI0003EB00BC
 UniRef90_UPI0003EB00BC
 UniRef90_UPI0003C91E9C
 UniRef90_UPI0003C91E9C
 UniRef90_G3QYH8
 UniRef90_G3UIT9
 UniRef90_Q8WZ42-13
 UniRef90_Q8WZ42-13
 UniRef90_UPI00032B280F
 UniRef90_UPI00032B280F
 UniRef90_UPI00045DEFF0
 UniRef90_UPI00045DEFF0
 UniRef90_UPI00045DFFE7
 UniRef90_UPI00045DFFE7
 UniRef90_UPI0002C43C30
 UniRef90_UPI0002C43C30
 UniRef90_UPI0003C8F247
 UniRef90_C0JYZ2
 UniRef90_UPI00038362F4
 UniRef90_Q8WZ42-4
 UniRef90_Q8WZ42-4
 UniRef90_UPI00042ABE26
 UniRef90_UPI00042ABE26
 UniRef90_UPI00042AA063
 UniRef90_UPI00042AA063
 UniRef90_UPI00042ACB00
 UniRef90_UPI00042ACB00
 UniRef90_UPI00042ACBAE
 UniRef90_UPI00042ACBAE
 UniRef90_UPI00042A9B09
 UniRef90_UPI00042A9B09
 UniRef90_UPI00042AD9FB
 UniRef90_UPI00042AD9FB
 UniRef90_D3DPG0
 UniRef90_G1FNF3
 UniRef90_UPI00045D9AD5
 UniRef90_UPI00045DCB8E
 UniRef90_UPI00045DCB8E
 UniRef90_UPI00045DDEEE
 UniRef90_UPI00045DD8EE

50 60 70 80

90

UniRef90_A8NZ57	T D D E T V D S S C A L T V K
UniRef90_UPI0003506D4A	N I V G E V S E V I T V Q V H
UniRef90_UPI0003506D4A	N I V G E V S E V I T V Q V H
UniRef90_F1KPE9	N E L G S D F T E C I V N V Q G
UniRef90_U3J2U5	I A S S K T S A K L K V E A
UniRef90_U3J2U5	I A S S K T S A K L K V E A
UniRef90_E1FJE7	N A A G M V G K E V V L K V E
UniRef90_G5B0U1	N V A G T R S M A V N C K V
UniRef90_G5B0U1	N V A G T R S M A V N C K V
UniRef90_M9PDZ9	N V I G G S V T S T A T V N
UniRef90_UPI0001D54A65	I E N M K D T A T I H I R V
UniRef90_UPI000344797A	N K L G S A T G S I N V K V I G
UniRef90_M3XTP2	N P A G S K T V S V K V L V
UniRef90_M3XTP2	N P A G S K T V S V K V L V
UniRef90_M3WG03	N R F G I D Q K T V E L D V
UniRef90_M3WG03	N R F G I D Q K T V E L D V
UniRef90_R0K6C9	N A S G T K Q I S V L V K V
UniRef90_R0K6C9	N A S G T K Q I S V L V K V
UniRef90_E9Q8K5	D F K T Q A N L F V K
UniRef90_E9Q8K5	D F K T Q A N L F V K
UniRef90_UPI0003ACCE4E	G E N M T S G K L T V A G
UniRef90_UPI0003ACCE4E	G E N M T S G K L T V A G
UniRef90_UPI0003ADFFB5	G E N M T S G K L T V A G
UniRef90_UPI0003ADFFB5	G E N M T S G K L T V A G
UniRef90_F1PV45	N A S G S S K A E I T V K V Q
UniRef90_UPI00042BD489	N Q S G K K S A T V L V K V
UniRef90_UPI000161EB27	N T F G V A D T R S N L N I Q
UniRef90_A2ASS6	N E G G E R K K T I I V D V
UniRef90_A2ASS6	N E G G E R K K T I I V D V
UniRef90_UPI00034F5531	C G P H I A S A K L T V
UniRef90_UPI00034F5531	C G P H I A S A K L T V
UniRef90_D3DPF9	N V V G Q K T A S I E I V
UniRef90_F7FBM0	N K A G R D T T R C K V N V E
UniRef90_Q8WZ42-9	
UniRef90_Q8WZ42-9	
UniRef90_F6VG02	N V A G S K S F P V N V K V
UniRef90_F6VG02	N V A G S K S F P V N V K V
UniRef90_UPI0003AFDF32	N E A G K A S C N V S L T V
UniRef90_UPI0003C82CDC	N P V G E D Q V N L T V K V
UniRef90_UPI00042BCE36	N I A G T K S V P I N I K V
UniRef90_UPI00042BCE36	N I A G T K S V P L N I K V
UniRef90_A0A016SB32	N V S G E A R T E A N V I I
UniRef90_V5FZX2	N Q Y G A A I C S V Y I S P E G
UniRef90_UPI000383883B	H D R T Q A K L S V E
UniRef90_Q8WZ42-5	N R L G S V F R N V H V E V
UniRef90_H2P803	C G N D Q V S A T L T V
UniRef90_H2P803	C G N D Q V S A T L T V
UniRef90_UPI00032A1D94	V G R A D T S C R F T V E
UniRef90_UPI00032A1D94	V G R A D T S C R F T V E
UniRef90_F7IGY9	N V F G T V D A I L D V E I Q
UniRef90_F7IGY9	N V F G T V D A I L D V E I Q
UniRef90_UPI0002656527	N D V G R S S C K A R I N V
UniRef90_UPI0003EB00BC	N E A G E R K K T I I V D V
UniRef90_UPI0003EB00BC	N E A G E R K K T I I V D V
UniRef90_UPI0003C91E9C	N N S G S K T A F V N V R V
UniRef90_UPI0003C91E9C	N N S G S K T A F V N V R V
UniRef90_G3QYH8	N S S G T D T Q K I K V V V
UniRef90_G3UIT9	N N S G I V E S V L D L T V E
UniRef90_Q8WZ42-13	N G V G E K S S T V S V K V
UniRef90_Q8WZ42-13	N G V G E K S S T V S V K V
UniRef90_UPI00032B280F	N A S G T K A V S V M V K V
UniRef90_UPI00032B280F	N A S G T K A V S V M V K V
UniRef90_UPI00045DEFF0	N S S G S K S A F V N V R V
UniRef90_UPI00045DEFF0	N S S G S K S A F V N V R V
UniRef90_UPI00045DFFE7	G E G G T S K T N F Q
UniRef90_UPI00045DFFE7	G E G G T S K T N F Q
UniRef90_UPI0002C43C30	N V A G E R S V T V N V K V
UniRef90_UPI0002C43C30	N V A G E R S V T V N V K V
UniRef90_UPI0003C8F247	N E L G E A L A E C K L E V R
UniRef90_C0JYZ2	D C G T D K T K A N V T V E A
UniRef90_UPI00038362F4	G D A V H F S V D V K A
UniRef90_Q8WZ42-4	
UniRef90_Q8WZ42-4	
UniRef90_UPI00042ABE26	N P F G T K E E H V K V S V
UniRef90_UPI00042ABE26	N P F G T K E E H V K V S V
UniRef90_UPI00042AA063	D C G T D Q T S G K L D I E
UniRef90_UPI00042AA063	D C G T D Q T S G K L D I E
UniRef90_UPI00042ACB00	N S S G T K S A F V T V R V
UniRef90_UPI00042ACB00	N S S G T K S A F V T V R V
UniRef90_UPI00042ACBAE	N T A G V K T F T I T V V V I G
UniRef90_UPI00042ACBAE	N T A G V K T F T I T V V V I G
UniRef90_UPI00042A9B09	N P A G E K A V F V N V K V
UniRef90_UPI00042A9B09	N P A G E K A V F V N V K V
UniRef90_UPI00042AD9FB	N A V
UniRef90_UPI00042AD9FB	N A V
UniRef90_D3DPG0	N E V G S S S C E T T F T V
UniRef90_G1FNF3	N K V G K A T C Y A H L Y V
UniRef90_UPI00045D9AD5	N E A G R D V C G A L V S
UniRef90_UPI00045DCB8E	N P A G E K A V F V N V R V
UniRef90_UPI00045DCB8E	N P A G E K A V F V N V R V
UniRef90_UPI00045DD8EE	N V A G T K E G T I S I K V V G
UniRef90_UPI00045DD8EE	N V A G T K E G T I S I K V V G

1 Q E P P R F I K K L E S R T V K Q D E F T R Y E C K I G G S P E I K V L W Y K D
 UniRef90_UPI00045E3C3E
 UniRef90_UPI00045E43AA
 UniRef90_UPI00045E43AA
 UniRef90_UPI00045D73AE
 UniRef90_UPI00045D73AE
 UniRef90_UPI00045D7CAB
 UniRef90_UPI00045D7CAB
 UniRef90_UPI0003B3526A
 UniRef90_UPI00045DB816
 UniRef90_UPI00045DB816
 UniRef90_UPI00045E0BA4
 UniRef90_UPI00045E0BA4
 UniRef90_UPI00042AB353
 UniRef90_UPI00042AB353
 UniRef90_UPI000273C9B5
 UniRef90_UPI000273C9B5
 UniRef90_UPI0002038289
 UniRef90_UPI0003F0CD41
 UniRef90_UPI0003F0CD41
 UniRef90_UPI0003EA65A
 UniRef90_UPI0003EA65A
 UniRef90_Q8WZ42-12
 UniRef90_Q8WZ42-12
 UniRef90_UPI0003AB58B8
 UniRef90_UPI0003D0722E
 UniRef90_UPI0003D0722E
 UniRef90_J0DZT4
 UniRef90_Q4S3Q6
 UniRef90_UPI0003AF49FA
 UniRef90_UPI0003AF49FA
 UniRef90_H3D6D5
 UniRef90_W5K7R4
 UniRef90_O01761-6
 UniRef90_UPI00022F7285
 UniRef90_UPI00022F7285
 UniRef90_UPI00035056A3
 UniRef90_H2RMU8
 UniRef90_H2SX41
 UniRef90_W5J457
 UniRef90_I3KLJ9
 UniRef90_UPI000393CE2F
 UniRef90_UPI0003F18492
 UniRef90_UPI0003F18492
 UniRef90_G0MXP9
 UniRef90_G1P5X9
 UniRef90_UPI00032A0431
 UniRef90_UPI0003C4D960
 UniRef90_UPI0003C4D960
 UniRef90_V9KA56
 UniRef90_UPI0002BCFEC4
 UniRef90_UPI0002BCFEC4
 UniRef90_UPI0003292681
 UniRef90_UPI000440CC6A
 UniRef90_G4XH79
 UniRef90_W5MH34
 UniRef90_W5MH34
 UniRef90_UPI0002ADBC4A
 UniRef90_U6PBG4
 UniRef90_UPI0003EA8818
 UniRef90_UPI0003EA8818
 UniRef90_UPI0003EC164A
 UniRef90_UPI0003EC164A
 UniRef90_UPI0003B6C58B
 UniRef90_U3JLE0
 UniRef90_U6NRP3
 UniRef90_UPI0003C8EB7F
 UniRef90_K1QVQ5
 UniRef90_H2YH14
 UniRef90_UPI0003DF67CE
 UniRef90_B0W5W8
 UniRef90_UPI0003AFEA41
 UniRef90_UPI0003C36E43
 UniRef90_UPI0003EC04B1
 UniRef90_UPI0003EBBB25
 UniRef90_B4J9N6
 UniRef90_UPI00033318B8
 UniRef90_UPI00032ADF80
 UniRef90_W5MRZ5
 UniRef90_UPI000457486B
 UniRef90_UPI00029D56BE
 UniRef90_W5PDG4
 UniRef90_UPI0003C435A2
 UniRef90_H2RMV3
 UniRef90_UPI00032A40E0
 UniRef90_UPI000329778B
 UniRef90_UPI0002C56BB5
 UniRef90_UPI0004540DD8
 UniRef90_F7ALJ3
 UniRef90_H2S884
 UniRef90_X1Y996
 UniRef90_UPI0003AF2D8E
 UniRef90_UPI0003BD54B5

10 10 Q E P P R F I K K L E S R T V K Q D E F T R Y E C K I G G S P E I K V L W Y K D
 V P L K F V K E I K D I V L T E G S S A I F E C L V S P S T A I T T W M K D
 V P L K F V K E I K D I V L T E G S S A I F E C L V S P S T A I T T W M K D
 E A P K I K V K F K D T V I K A G E A F R L E A D V S G R P P P T M E W T K D
 E A P K I K V K F K D T V I K A G E A F R L E A D V S G R P P P T M E W T K D
 V I A R A G D N I K V E I P V L G R P K P T V T W K K G
 V I A R A G D N I K V E I P V L G R P K P T V T W K K G
 F T K K M A A V V A E E Y S E A T L E V E V S Q E A A E V Q W M R Q
 P V R F V K T L E E V T V V K G Q P L Y L S C E L N K E R D V V W R K D
 P V R F V K T L E E V T V V K G Q P L Y L S C E L N K E R D V V W R K D
 R I R S I K K E V Q V I E K Q R A V V E F E V N E D D V D A H W Y K D
 R I R S I K K E V Q V I E K Q R A V V E F E V N E D D V D A H W Y K D
 L E V I V P N P I K I L V P S T G Y P R P K A T W T F G
 L E V I V P N P I K I L V P S T G Y P R P K A T W T F G
 E A D P Y F T V K L H D Y T G I E K D E I V L K C E V S K D V P V K W F K D
 E A D P Y F T V K L H D Y T G I E K D E I V L K C E V S K D V P V K W F K D
 E E A P I I L D K P D V M Y A V E E G Q S A T I T V T L N H V E V A V T W R R S
 E I P V E I I R P P Q D I L E A P G A D V V F F A E L N K D K V E V Q W L R N
 E I P V E I I R P P Q D I L E A P G A D V V F F A E L N K D K V E V Q W L R N
 I V V H A G E T F V L E A D I R G K P I P D V V W S K D
 I V V H A G E T F V L E A D I R G K P I P D V V W S K D
 A P P T L H L D F R D L T I R V G E A F A L T G R Y S G K P K P K V S W F K D
 A P P T L H L D F R D L T I R V G E A F A L T G R Y S G K P K P K V S W F K D
 R V T P V F A S I P S D T V E V G A N V Q L P C S Q S G E P E P A I T W N K D
 I T V R V G Q T I R I L A R V K G R P E P D I T W S K E
 K W E K P L E N K T V Q Q Q V D K I C E W K S R P N A K I R W Y K D
 P F D K K L K N F K A M E G V P T F S C K I V G P V K Y W F K D
 K F I S P L E D D Q T V K E G E T A T F V C E L S H E K M H V V W F K N
 K F I S P L E D D Q T V K E G E T A T F V C E L S H E K M H V V W F K N
 E P P Q F I Q K L R S R E I I A E G S K V Q L D C I V R G L P P P E V R W F C E
 E A P V S I L G N P E H Y T L V A G D E L I L E C E V S R E N A N V Q W L C N
 A P K L T R D L K L Q T V N K T D L A H F E V V V E H A T E C K W F L D
 P V R F Q K P L R D L R C H E E D V V F E C V L R T P C Y D A V W L H K
 K D P P S F V Q K L E N L S V G S E V S L L C V V K G S E P M T V S W M K D
 P H L V Q D L L E D R R V V V G D T V A L Q C K A L G S P P P R I T W L R N
 K L P P K I R R R N L K N L S V A V G E P F G F D V K I A G E P A P D V D W T I N
 K E P A T F S K K L K D I S V E K G K P L T L E C T Y T G T P M I T V S W Y K D
 E A P R I M V D V K T L L I L K A G E T F R L E A D V S G R P P P T M E W A K D
 E A P R I M V D V K T L L I L K A G E T F R L E A D V S G R P P P T M E W A K D
 A P R I T A H P S E V I L D G S P L K L R V M A S S L P P A T F L W M L N
 Q E A P E I V K L L A G L T V K A G T K I E L P A T V T G K P E P K I T W T K A
 E P P L F V E R F E E Q S V P Q K G T I R L P A K V T G N P V P E V Q W L F N
 P V R F V K T L E E V T V V K T Q P L Y L S C E L N K E R D V V W R K D
 P V R F V K T L E E V T V V K T Q P L Y L S C E L N K E R D V V W R K D
 K E P P V V V V P L D D Q H V F D E R V E F D C E V S E E G A H V V W T K D
 K T L I V K A G A S F T M T V P F R G R P V P V S S W S K P
 K T L I V K A G A S F T M T V P F R G R P V P V S S W S K P
 K A P A R F V K R L N D Y S I E K G K P L I L E G T Y T G T P P I S A T W K K N
 Q V P P R F S E L P K N F K I E A G C P I I L Q C E I S D P A A Q V S W L K D
 P E W V V P V A P H Q L I E Q G Q P L H L E Q G Q V E N D N P L K I E W Y F N
 K F L K P L K D Q T V K E G K T A R F E I E L S H E N V P V T W Y R N
 K F L K P L K D Q T V K E G K T A R F E I E L S H E N V P V T W Y R N
 E I V L S C Q V I G R P S V S W M R D
 P E I A K G L N D M E I S E G D D E V F K V E V T A P V R T V K W Y K N
 E P V T L V K D I E D Q T I I V D K D A V F E C E I K N Y P E I K L S W Y K G
 E P V T L V K D I E D Q T I I V D K D A V F E C E I K N Y P E I K L S W Y K G
 P V Q I V T P M K D K Q C S E S E N V T F E V E V S H A G I D A F W T F K
 P V Q I V T P M K D K Q C S E S E N V T F E V E V S H A G I D A F W T F K
 E A P E I Q K L L A G L T A K A G S K I E L P A E V V K G K P E P R V K W T K A
 P A F I M Q P K S Q N V N E G Q D V L F T C E V S G E P S P E V E W L K N
 P P E I I S Q L S D Q S V E P G R G A T F E C E I T G S P R P E Y S W F K G
 K A P V L Q E A F S Y L V A P V G G S I R L D C A A R G E P A P D I H W S K D
 V P P R F T L P L I D Q V K K V R E T V E L T V T V T C R P E P E V Q W F H N
 E E K P Q F T K F M D D V E A S D G Q P F T L E C T V T G E P R P E I T W Y L D
 P P R F L H P L Q E S I V V E G H C Y E L Q T R L T G T P P F S M I W L K D
 A P K I V T P L R D M V V K A G L I F H D V N F T G E P A P E V T W T L N
 P V R F I R P R K M A S R V E G E T L V L D C E V S R S N A E V T W K K N
 K I V K P L P D V D C S E G E L I D L C F E E L E C N Q P Y S Y T W S R N
 K F I R Q L E N I K A L K G T H L T L Q C E I N K P K G D V Q W L K N
 I T R P L Q D V T V A E S Q T A E L E C E V A N A A E G K W L K E
 R A P P E F A T Q L R D R M S L E G T T A K F A V T V I G P D P N T R W M K D
 Q V P P R I H P T A T Y H V T S E G V L V S L P C N A S G V P A P T I T
 Q V P P Q V Q P G R P L L K V L A G E A L D L N C M A E G Q P E P R L S W F K D
 Q V P P R F V N K L R N A V L V Q G E D C Q F T C T I Q G A P S P Q I R W T K D
 E A P R I M L K F R E I V I K A G E I V K V N A D I A G R P L P V V S W T K D
 P V F T T L P G D H S L H L G D T S L W A R G S P T P R I G W T V N
 V P P T F R Q A P S R V L V S A G D K A V L S C E T D A L P E P T V A W Q K D
 Q T L Q R R V G E P V N L I P F Q G K P R P Q V T W T K E
 S F T E H L E D D Q T A N E K D T V T F E C E T N E P F I K V K W L K N
 K A P P A M S E V D Q K M T V I A G Y P I A L Q C E L S D P T G Q V S W Y K D
 R E P P V T I I Y P K D R H V P D E I I L S C E L S R A S G V V S W Y K D
 P P S I S K S V K E V K T K V N S T L T L E C E C W A V P P P T I S W Y K D
 V A P R I R S S A R E H H V L E G Q E V R L D C E A D G Q P P P D V A W L K D
 Q V L P S I L P T A S H Y V T N E G V P I S L P C V S R G I P T P T I T W R K E
 P L F T R K L D I L E V I E G R N A R F D C K V S G T P S P K V T W C H F
 A P R F V T E L R G T T I H E G Q T A H F E A Q V E H D P N L R I E F Y H N
 P I N L L F T T Y S V K A G D D L K I D V P F K S R P Q P E V C W K K D
 P P K V M S Q L T A E A C E G S V R M S C V C E S S V R E V V W Y V N

UniRef90_UPI00045E3C3E E T E I | Q E S S K F R M S F V D S V A V L | 50 | E M H N L S V E D S G D Y T C E A H
 UniRef90_UPI00045E43AA G S N I R E S P K H R F I | A D G K D R K | 60 | L H I I D V Q L L S D A G E Y T C V L R
 UniRef90_UPI00045E43AA G S N I R E S P K H R F I | A D G K D R K |
 UniRef90_UPI00045D73AE G K E L E G T A K L E I K I A D F S T H | 70 | L V N K D S T R R D S G A Y T L T A T
 UniRef90_UPI00045D73AE G K E L E G T A K L E I K I A D F S T H |
 UniRef90_UPI00045D7CAB D Q I L K Q T Q R V N F E T T A T S T I | 80 | L N I N E C V R S D S G P Y P L T A R
 UniRef90_UPI00045D7CAB D Q I L K Q T Q R V N F E T T A T S T I |
 UniRef90_UPI0003B3526A G I L I H P G A K Y T L K H R G R T H S | 50 | L T V H Q V A A D R G A Y S C E T L
 UniRef90_UPI00045DB816 G K I V V I E K P G R I V P G V I G L M R A L T | 60 | T I N D A D D T D A G T Y T V T V E
 UniRef90_UPI00045DB816 G K I V V I E K P G R I V P G V I G L M R A L T |
 UniRef90_UPI00045E0BA4 G I E I N F Q Q E R H K Y V V E R R I H R M F I | 70 | S E T R Q S D A G E Y T F V A
 UniRef90_UPI00045E0BA4 G I E I N F Q Q E R H K Y V V E R R I H R M F I |
 UniRef90_UPI00042AB353 D Q V L E E G D R V K I K T I S A Y A E L V I | 80 | S E T R Q S D A G E Y T F V A
 UniRef90_UPI00042AB353 D Q V L E E G D R V K I K T I S A Y A E L V I |
 UniRef90_UPI000273C9B5 G E E I T P S T K Y S I K T D G L R R I | 50 | L K I K K T E L K D K G E Y S C C
 UniRef90_UPI000273C9B5 G E E I T P S T K Y S I K T D G L R R I |
 UniRef90_UPI0002038289 G V L K D G D P N W M S M P D D D Q H S | 60 | I R F V R V G R G D V G E M T C E V S
 UniRef90_UPI0003F0CD41 N M I V V Q G D K H Q M M S E G K I | 70 | L Q I C D I K P R D Q G E Y R F I A K
 UniRef90_UPI0003F0CD41 N M I V V Q G D K H Q M M S E G K I |
 UniRef90_UPI0003EAF65A G K E L E E T A A R M E I K S T I Q K T T | 80 | L V V V K D C I R T D G G Q Y I L K L S
 UniRef90_UPI0003EAF65A G K E L E E T A A R M E I K S T I Q K T T |
 UniRef90_Q8WZ42-12 E A D V L E E D D R T H I K T T P A T L A L E K I | 50 | K A K R S D S G K Y C V V V E
 UniRef90_Q8WZ42-12 E A D V L E E D D R T H I K T T P A T L A L E K I |
 UniRef90_UPI0003AB58B8 G V Q V T E S G K F H S P E | 60 | L T I N D V G P A D A G R Y E C V A R
 UniRef90_UPI0003D0722E G K V L V K D K R V D L I H D L P R V | 70 | E L Q I K E A V R A D H G K Y I I S A K
 UniRef90_UPI0003D0722E G K V L V K D K R V D L I H D L P R V |
 UniRef90_J0DZT4 K K E I F S G G G L K Y K I V T E K A V C T | 80 | D S G K Y T C E A
 UniRef90_Q4S3Q6 G K Q I K K N V H Y K K I R D G G T C A | 50 | L H I E S T T S D D D G N Y T V M A A
 UniRef90_UPI0003AF49FA D A K L L H T S R T V L I S S E G K T H K | 60 | L E M R E V T M D D I S Q I K A Q V K K
 UniRef90_UPI0003AF49FA D A K L L H T S R T V L I S S E G K T H K |
 UniRef90_H3D6D5 G K E L E N S P D I Q I L E N N N G E L H S | 70 | L V L S N L C V K D S G E Y V C D A T T
 UniRef90_W5K7R4 G R V L N A D S R T H I E S R G R M R K L | 80 | L V L S N L C V K D S G E Y V C D A T T
 UniRef90_O01761-6 G K E I T T A Q G V T V S K Q D D Q F E F R C S I | 50 | D T T M F G S G T V S V V A S
 UniRef90_UPI00022F7285 V R Q L E N S E K Y E I T Y E D G V A T M Y V | 60 | K D I T K F D D G T Y R C K V V
 UniRef90_UPI00022F7285 V R Q L E N S E K Y E I T Y E D G V A T M Y V |
 UniRef90_UPI00035056A3 A H P L E A S E K H Q I V S P D G M T H Q L I | 70 | K I N A V T S D N G L Y T L
 UniRef90_H2RMU8 N H E L K K A E E H Q I L S Y E N N T A L L H L | 80 | T D V Q R K D G G K Y S C Q A Q
 UniRef90_H2SX41 D Q P L R P S D R H F T P G N Q L L V I S P A S M E D A G R Y T C L M S
 UniRef90_W5J457 D R M V T V T T T R T I D N V P Y N S K F A N Q N P D R R R D S G K Y I I K A T
 UniRef90_I3KLJ9 G Q Q I F A S Y K Y N I T T T E S S C I L E C L | 50 | S T D D K E A A G R F C C Q V C
 UniRef90_UPI000393CE2F G V E I T T K K M M D I T V P G S S T | 60 | L F V R D A D R S H C G L Y T V E A T
 UniRef90_UPI0003F18492 G K E L E G T G K L E I K I A D F S T N L V N K D S S R K D S G A Y T L T A T
 UniRef90_UPI0003F18492 G K E L E G T G K L E I K I A D F S T N L V N K D S S R K D S G A Y T L T A T
 UniRef90_G0MXP9 N F E L R S N Q N I T I R N E E E N V S E I E F Q K A P S G N L T V S A K
 UniRef90_G1P5X9 D K L L K Q D N R I T I E N V P N K S T V T I V D S K R S D T G T Y I I E A V
 UniRef90_UPI00032A0431 N N P L Y P S Q R I L Q K Y D G E S I E L I I N D A N P D D S G D Y K C I A S
 UniRef90_UPI0003C4D960 G K I I V E K P G K I V P G V I G L M R A L T | 50 | I N D A D D F D A G T Y T V T V E E T
 UniRef90_UPI0003C4D960 G K I I V E K P G K I V P G V I G L M R A L T |
 UniRef90_V9KA56 D V E L L T R E E T K Y R F K K V G K K H C | 60 | I N E A M K E D A G M Y K I Q T
 UniRef90_UPI0002BCFEC4 D T D L L R S R A Y I I D S T D S H T S S T I E N A N R N D S G K Y T L L T I Q E
 UniRef90_UPI0002BCFEC4 D T D L L R S R A Y I I D S T D S H T S S T I E N A N R N D S G K Y T L L T I Q E
 UniRef90_UPI0003292681 G L N I T P S Q R C T I T T T E K S A I L E | 70 | P S S T V E D A G Q Y N C Y |
 UniRef90_UPI000440CC6A R V P L L Q Q T L D I Q S E G T M R T M I | 80 | H S A E L E H T G V Y S C E A R
 UniRef90_G4XH79 G K V L D H G S R F K F T S D F G F V T L D V | 50 | T D D V Y E R D S G I Y T C K A Y
 UniRef90_W5MH34 E R K L L H P S R T V L T S V D G K K K H I L E I K E V T L D D | 60 | T C Q V K
 UniRef90_W5MH34 E R K L L H P S R T V L T S V D G K K K H I L E I K E V T L D D |
 UniRef90_UPI0002ADBC4A D H S I C N R N Y R T I E E P G G V R K L V I | 70 | R N P I S S D C G I F A C Y A E
 UniRef90_U6PBG4 G Q E I K P S V H F E P K K I G P K K Y E L A I | 80 | I N R A E L D D G A T Y K V V L S
 UniRef90_UPI0003EA8818 T E K L L D T N E K Y D I S I V G D R H L L K I K N C Q T R D Q G N Y R V V
 UniRef90_UPI0003EA8818 T E K L L D T N E K Y D I S I V G D R H L L K I K N C Q T R D Q G N Y R V V
 UniRef90_UPI0003EC164A R Q P I K A G P Q Y K M E S K D K R H R | 50 | L T V M N A M K D E E E G E Y M F A A
 UniRef90_UPI0003EC164A R Q P I K A G P Q Y K M E S K D K R H R |
 UniRef90_UPI0003B6C58B D L V L K P D D R V S I D T K P G H S T V T V A K T K R D D S S T Y I E A T
 UniRef90_U3JLE0 N Q P I A V S S H L R V S R S K N I Y S L E I R N A A V I S D T G K Y T V K A K
 UniRef90_U6NRP3 M K E L V D T S R F T I L T S K G D K Q I L M V N H A N P E D A D E Y T C R A T
 UniRef90_UPI0003C8EB7F G L P L R G S H L Q H Q L Q N G S L A I R R T E M D D A G Q Y Q C L A G
 UniRef90_K1QVQ5 N V R I K S S K H Y D L E H I K G V Y R L I I H E V N P D D A G T W K C E A T
 UniRef90_H2YH14 E E E V K A E A D I S I T Y E G D I C R L S I A E S F P D D Q G K Y S C T A R
 UniRef90_UPI0003DF67CE G R E I L I D N D D H K Y V V Y S D G G I A R L S N V Y P Q D A G E Y T C L V R
 UniRef90_B0W5W8 G K P V E T D K R T T L T A V G H H T I V H T V N C N R G D S G E Y K L V I K
 UniRef90_UPI0003AFEA41 G E E V E D S R N I T I L E D G V I R Q L T I H S L T V E D A G Q Y V C D A K
 UniRef90_UPI0003C36E43 G E L I K D S E D V N Y I D H G N G L L C L R L F D A F D L D S G L Y T C H I T
 UniRef90_UPI0003EC04B1 G N E I I S P S R Q H T I R A Q G R E R S F T H Q L M E E D S G E Y V C E S T
 UniRef90_UPI0003EBBB25 G Q P I D F N E N V V G E V N G A I R R L I I N I T R P Q D V G E Y T Y Q V I A
 UniRef90_B4J9N6 D K W V T I S D N I K N L S E E G K A I L Q I I N V T S A D T G V Y K C V A K
 UniRef90_UPI00033318B8 W T K E T T T L T R G H Y N M G R D G T L V I S R P S P R D A G A Y V C T A T
 UniRef90_UPI00032ADB80 G A S L Q G R G P E G S V Q F A A V E A S D A G R Y R C E A S
 UniRef90_W5MRZ5 G I L L T D Q E K Y Q T F E P R S G V V V L V I K T P G E S D L G R Y Q C E L K
 UniRef90_UPI000457486B G K E L E G Q Q A R T E I Q S T D K S T I I I V K D C N R D S G Q Y V L T L Q
 UniRef90_UPI00029D56BE N R L V T E G V S E Q D G G S T L Q R V A V T R E D S G T Y V C W A E
 UniRef90_W5PDG4 G Q P L V L P E R F Q A L L G Q Q R L E I Q D A Q V S D K G L Y S C R V S R
 UniRef90_UPI0003C435A2 G Q P L A G E E V S I R N S P T D T I L F I R A A R R A H S G T Y Q V T L R
 UniRef90_H2RMV3 D M E I F S G D K Y R M H S D R K V H F L S V L L I D L K D D A E Y T C A V T
 UniRef90_UPI00032A40E0 G T K L L P Q S G V D I Q S E G N L R S L L V V S S A E R A H T G V Y R C E S K
 UniRef90_UPI000329778B G Q K L Q E S E N I K L K V E G P Y R R L K I L S S G V I E D S G E Y V C
 UniRef90_UPI0002C56BB5 G Q P K V P N Q R L R I L G E G R L L Q I Q P T Q V S D S G R Y L C V A G
 UniRef90_UPI00045400DD8 G S P L G Q D M G P H L R F Y L D G G S L V L K G L R A S D A G A Y T C V A H
 UniRef90_F7ALJ3 T N A L S P R S S H H Q V L K E G S S L Y L P Q P S A Q D S G T Y V C
 UniRef90_H2S884 D H L L T E S E D I R I L Q E G G R H S | 50 | L I I S H V T K E D E G F Y I V T A R
 UniRef90_X1Y996 G K A L Q S A S R F H I T F D F G Y V A L D I Q H V V A E D A G E Y T V K A I
 UniRef90_UPI0003AF2D8E G Q V L K Q T T R V N V L N S K T S S K I V I K D A T K E D V G K Y V I T L T
 UniRef90_UPI0003BD54B5 G R R L S Q S S R L E M H Y S E G S C S L L I H N L T D S D Q G E Y I C E M K

90

UniRef90_UPI00045E3C3E	N A A G S A S S S T S L K V K
UniRef90_UPI00045E43AA	L G N K E K T S T A K L V V E
UniRef90_UPI00045E43AA	L G N K E K T S T A K L V V E
UniRef90_UPI00045D73AE	N P G G F A K H F N V K V
UniRef90_UPI00045D73AE	N P G G F A K H F N V K V
UniRef90_UPI00045D7CAB	N V G E V G D V I T I Q V H
UniRef90_UPI00045D7CAB	N V G E V G D V I T I Q V H
UniRef90_UPI0003B3526A	H D R T Q A Q L A V E
UniRef90_UPI00045DB816	N A A N N L E C S S C V K V V E
UniRef90_UPI00045DB816	N A A N N L E C S S C V K V V E
UniRef90_UPI00045E0BA4	G R N R S S S V T L Y V N A
UniRef90_UPI00045E0BA4	G R N R S S S V T L Y V N A
UniRef90_UPI00042AB353	N P V K S I S G E I D V N V I A
UniRef90_UPI00042AB353	N P V K S I S G E I D V N V I A
UniRef90_UPI000273C9B5	D C G T D K T I S N V N V E A
UniRef90_UPI000273C9B5	D C G T D K T I S N V N V E A
UniRef90_UPI000238289	N Q H G Y D H C F I N L E
UniRef90_UPI0003F0CD41	D K E A R A K L E L
UniRef90_UPI0003F0CD41	D K E A R A K L E L
UniRef90_UPI0003EA65A	N V G G T K S I P I T V K V
UniRef90_UPI0003EA65A	N V G G T K S I P I T V K V
UniRef90_Q8WZ42-12	N S T G S R K G F C Q V N V
UniRef90_Q8WZ42-12	N S T G S R K G F C Q V N V
UniRef90_UPI0003AB58B8	N T I G S A S V S M V L S V
UniRef90_UPI0003D0722E	N S S G H A Q G S A I V N V
UniRef90_UPI0003D0722E	N S S G H A Q G S A I V N V
UniRef90_J0DZT4	N G L P T T A V L T V
UniRef90_Q4S3Q6	N P Q G R I S C S G H L I V Q
UniRef90_UPI0003AF49FA	D L S S S T A N N L K V
UniRef90_UPI0003AF49FA	D L S S S T A N N L K V
UniRef90_H3D6D5	N V C G T D S T S A E I Y V E G
UniRef90_W5K7R4	D D K M T T I V K V Q
UniRef90_O01761-6	N A A G S V E T K T E L K V
UniRef90_UPI00022F7285	N D Y G E D S S Y A E L F V K G
UniRef90_UPI00022F7285	N D Y G E D S S Y A E L F V K G
UniRef90_UPI00035056A3	D T G L C S S R A W L V E
UniRef90_H2RMU8	N Q A G S Q T C S A L L T V K
UniRef90_H2SX41	N T L G T E R A H S Q L M V
UniRef90_W5J457	N K F G T D Q V E I T V T V R
UniRef90_I3KLJ9	N D A G K D T C E A V V S I
UniRef90_UPI000393CE2F	N G S G T K K E N I L V Q V Q
UniRef90_UPI0003F18492	N P G G F A K H I F N V K V
UniRef90_UPI0003F18492	N P G G F A K H I F N V K V
UniRef90_G0MXP9	N H L G E D R W T G K V I V Q
UniRef90_G1P5X9	N A C G R A T A V V E V N V
UniRef90_UPI00032A0431	N P L G K T S H G A R V I V E
UniRef90_UPI0003C4D960	N A N N L E C S S C V K V V E
UniRef90_UPI0003C4D960	N A N N L E C S S C V K V V E
UniRef90_V9KA56	N G G E S K A F L I V E
UniRef90_UPI0002BCFEC4	N I L N A A S L T L V V K V
UniRef90_UPI0002BCFEC4	N I L N A A S L T L V V K V
UniRef90_UPI0003292681	N A S G K D S C S A Q I L I
UniRef90_UPI000440CC6A	N D
UniRef90_G4XH79	N K R G E A F T S S T I V
UniRef90_W5MH34	A E A L S L A T A G N L T V
UniRef90_W5MH34	A E A L S L A T A G N L T V
UniRef90_UPI0002ADBC4A	H E D R I D S T S I T I K
UniRef90_U6PBG4	N S A G E C D S S A Q L T V
UniRef90_UPI0003EA8818	C G P H I S S A K L T V
UniRef90_UPI0003EA8818	C G P H I S S A K L T V
UniRef90_UPI0003EC164A	G E K M C S S A S L T V T G
UniRef90_UPI0003EC164A	G E K M C S S A S L T V T G
UniRef90_UPI0003B6C58B	N S S G R A T A T V D V N I
UniRef90_U3JLE0	N Y H G Q C S A T A S L T V
UniRef90_U6NRP3	N K F G T K S T R A Q L
UniRef90_UPI0003C8EB7F	N E V G A V K K V V T L V L Q
UniRef90_K1QVQ5	N K Y G H T W C S C E L K V
UniRef90_H2YH14	N I R G E A T C S A F V T V
UniRef90_UPI0003DF67CE	N N F G E A S S N G L F I V Q
UniRef90_B0W5W8	N S S G T D E G Q M R L T V
UniRef90_UPI0003AFEA41	D D V M D F S V I V Q
UniRef90_UPI0003C36E43	S Q D G Q C S T S T S L N I E
UniRef90_UPI0003EC04B1	D D R T S A T V T V E
UniRef90_UPI0003EBBB25	N S K T T A N L R V E G
UniRef90_B4J9N6	N D M S E I E T S C Y F K V Y A
UniRef90_UPI00033318B8	N A V G F S S Q E M R L S V
UniRef90_UPI00032ADB80	N S A G A D V W E L E L R V
UniRef90_W5MRZ5	N R L G T A T C A A E L
UniRef90_UPI000457486B	N V A G T R S L A I N L K V
UniRef90_UPI00029D56BE	N R V G R V Q A V S F V H V K
UniRef90_W5PDG4	N A A G E A M R A F S L T V Q
UniRef90_UPI0003C435A2	I E N M E D K A T L V L Q I
UniRef90_H2RMV3	D D E S V R T S A R L T V E G
UniRef90_UPI00032A40E0	D D D I Q F T V D V K A
UniRef90_UPI000329778B	N V A G E D D Q D F S V L I Q
UniRef90_UPI0002C56BB5	N P A G E D A R L H T V N V
UniRef90_UPI0004540DD8	N A L G I S S Q E I Q L S V
UniRef90_F7ALJ3	N C H G E A E T S A E L Y I Q
UniRef90_H2S884	N A K G Q C K S S I K M Q V T A
UniRef90_X1Y996	N S V G T K S A E I S V I
UniRef90_UPI0003AF2D8E	S E G G V S K S S F N F T G Q A
UniRef90_UPI0003BD54B5	S E G G V S K S S F N F T G Q A

1 10 20 30 40

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

50 60 70 80

G R R L S Q S S R L E M H Y S E G S C S L L I H N L T D S D Q G E Y I C E M K
K K P I T S D Q K Y K L I S Q D S I A R L E I Q T F D T T D G D Y Q C V I S
U n i R e f 9 0 _ U P I 0 0 0 3 2 9 E C D 3
D R E L V P S H R I D V S R E G R M C T L T L A N C Q G E D T D D Y S V R V S
U n i R e f 9 0 _ U P I 0 0 0 3 1 7 5 C D
G V D V E I N H R I Q Q L S N G S L A I Y G T V N E D S G D Y T C V A A
K G E I V R E S D N I W I S H S E N V A T L H F S R A E P A N A G K Y T C Q I K
N K E I K P S K D F Q Y T N E A N I Y K L I A E I F P E D S G A Y T C E A F
G K P I T G S R F K T Y F D F G F V A L D I L G A Y T T D S G E Y T C R A E
U n i R e f 9 0 _ F 1 M M A 0
U n i R e f 9 0 _ U P I 0 0 0 4 6 C 1 D D C
U n i R e f 9 0 _ F 1 K W K 7
U n i R e f 9 0 _ U P I 0 0 0 3 B C A 1 5 6
U n i R e f 9 0 _ U P I 0 0 0 3 9 4 2 D 7 D
U n i R e f 9 0 _ E 9 I H 2 9
U n i R e f 9 0 _ A 8 P 2 2 2
U n i R e f 9 0 _ G 3 W N T 6
U n i R e f 9 0 _ U P I 0 0 0 3 F 1 7 7 9 4
U n i R e f 9 0 _ U P I 0 0 0 3 F 1 7 7 9 4
U n i R e f 9 0 _ U P I 0 0 0 3 4 4 8 7 F 5
U n i R e f 9 0 _ U P I 0 0 0 4 4 4 3 7 4 0
U n i R e f 9 0 _ B 4 N H W 1
U n i R e f 9 0 _ H 2 R Z V 5
U n i R e f 9 0 _ U P I 0 0 0 3 F 0 6 B 0 D
U n i R e f 9 0 _ G 3 W A 4 9
U n i R e f 9 0 _ G 3 W A 4 9
U n i R e f 9 0 _ B 3 N 0 W 9
U n i R e f 9 0 _ H 2 R M V 4
U n i R e f 9 0 _ U P I 0 0 0 3 9 4 2 1 3 7
U n i R e f 9 0 _ H 2 M V A 6
U n i R e f 9 0 _ U P I 0 0 0 3 9 8 F A B 7
U n i R e f 9 0 _ G 3 W A 4 8
U n i R e f 9 0 _ G 3 W A 4 8
U n i R e f 9 0 _ U P I 0 0 0 3 F 1 A F 7 0
U n i R e f 9 0 _ U P I 0 0 0 4 4 0 F 4 7 0
U n i R e f 9 0 _ G 3 R 3 X 9
U n i R e f 9 0 _ A 0 A 0 2 6 W 2 4 9
U n i R e f 9 0 _ U P I 0 0 0 2 9 8 B 6 9 7
U n i R e f 9 0 _ F 6 T 0 1 3
U n i R e f 9 0 _ F 1 M Z V 0
U n i R e f 9 0 _ U P I 0 0 0 2 2 F 6 C 2 A
U n i R e f 9 0 _ G 4 S L H 0
U n i R e f 9 0 _ F 6 N I R 3
U n i R e f 9 0 _ B 4 K Q R 1
U n i R e f 9 0 _ H 2 S 8 W 4
U n i R e f 9 0 _ F 7 E A V 6
U n i R e f 9 0 _ F 7 E A V 6
U n i R e f 9 0 _ G 3 T G T 5
U n i R e f 9 0 _ U P I 0 0 0 3 C 3 5 B 9 4
U n i R e f 9 0 _ U P I 0 0 0 3 8 3 6 3 1 A
U n i R e f 9 0 _ U P I 0 0 0 3 8 3 6 3 1 A
U n i R e f 9 0 _ U P I 0 0 0 4 6 B 9 F 9 A
U n i R e f 9 0 _ A 5 X 6 X 5
U n i R e f 9 0 _ U P I 0 0 0 3 C 9 1 1 1 5
U n i R e f 9 0 _ W 5 M F K 7
U n i R e f 9 0 _ U P I 0 0 0 3 A E 2 B C 9
U n i R e f 9 0 _ M 9 P G Z 0
U n i R e f 9 0 _ U P I 0 0 0 4 5 4 2 3 4 D
U n i R e f 9 0 _ F 1 P E U 6
U n i R e f 9 0 _ U P I 0 0 0 4 6 B 8 D 2 5
U n i R e f 9 0 _ U P I 0 0 0 3 5 9 6 C 0 A
U n i R e f 9 0 _ U P I 0 0 0 3 5 9 6 C 0 A
U n i R e f 9 0 _ I 7 H G J 1
U n i R e f 9 0 _ I 7 H G J 1
U n i R e f 9 0 _ U P I 0 0 0 2 C 6 8 7 8 5
U n i R e f 9 0 _ B O S 7 5 8
U n i R e f 9 0 _ U P I 0 0 0 3 8 9 0 F D 0
U n i R e f 9 0 _ F 6 T D 2 1
U n i R e f 9 0 _ U P I 0 0 0 4 6 C 1 A 9 C
U n i R e f 9 0 _ U P I 0 0 0 3 C 2 9 9 3 A
U n i R e f 9 0 _ L 9 K L A 3
U n i R e f 9 0 _ U 3 I V 8 4
U n i R e f 9 0 _ A 5 X 6 X 6
U n i R e f 9 0 _ W 5 J 3 4 4
U n i R e f 9 0 _ H 2 Y F D 3
U n i R e f 9 0 _ B 3 M C 1 0
U n i R e f 9 0 _ G 1 K 2 X 0
U n i R e f 9 0 _ Q 7 Z Z 4 6
U n i R e f 9 0 _ F 7 F 7 Z 3
U n i R e f 9 0 _ H 2 S 2 E 9
U n i R e f 9 0 _ T 1 G 2 F 5
U n i R e f 9 0 _ U P I 0 0 0 2 B 4 6 9 0 4
U n i R e f 9 0 _ F 1 K P F 1
U n i R e f 9 0 _ H 0 X A K 9
U n i R e f 9 0 _ H 2 R M V 0
U n i R e f 9 0 _ U P I 0 0 0 3 9 2 E 7 1 0
U n i R e f 9 0 _ F 7 C R 7 8
U n i R e f 9 0 _ E 9 G R E 8
U n i R e f 9 0 _ U P I 0 0 0 3 A E F D A 1
U n i R e f 9 0 _ Q 2 9 L F 7
U n i R e f 9 0 _ U P I 0 0 0 3 F 0 8 F 5 3
U n i R e f 9 0 _ W 2 T S G 9
U n i R e f 9 0 _ A 0 A 0 2 4 N G J 2
U n i R e f 9 0 _ U P I 0 0 0 3 C 2 6 4 2 C
U n i R e f 9 0 _ E 3 M S U 4
U n i R e f 9 0 _ U P I 0 0 0 3 D 7 1 E 2 3

90

UniRef90_UPI0003BD54B5
 UniRef90_UPI000329EC03
 UniRef90_U6HX11
 UniRef90_UPI0003175CD
 UniRef90_F1MAA0
 UniRef90_UPI00046C1DDC
 UniRef90_Q95YM1
 UniRef90_F1KWK7
 UniRef90_UPI0003BCA156
 UniRef90_UPI0003942D7D
 UniRef90_E9IH29
 UniRef90_A8P222
 UniRef90_G3WNT6
 UniRef90_UPI0003F17794
 UniRef90_UPI0003F17794
 UniRef90_UPI00034487F5
 UniRef90_UPI0004443740
 UniRef90_B4NHW1
 UniRef90_H2RZV5
 UniRef90_UPI0003F06B0D
 UniRef90_G3WA49
 UniRef90_G3WA49
 UniRef90_B3N0W9
 UniRef90_H2RMV4
 UniRef90_UPI0003942137
 UniRef90_H2MVA6
 UniRef90_UPI000398FAB7
 UniRef90_G3WA48
 UniRef90_G3WA48
 UniRef90_UPI0003F1AF70
 UniRef90_UPI000440F470
 UniRef90_G3R3X9
 UniRef90_A0A026W249
 UniRef90_UPI000298B697
 UniRef90_F6T013
 UniRef90_F1MZV0
 UniRef90_UPI00022F6C2A
 UniRef90_G4SLH0
 UniRef90_F6NIR3
 UniRef90_B4KQR1
 UniRef90_H2S8W4
 UniRef90_F7EAV6
 UniRef90_F7EAV6
 UniRef90_G3TGT5
 UniRef90_UPI0003C5B94
 UniRef90_UPI000383631A
 UniRef90_UPI000383631A
 UniRef90_UPI00046B9F9A
 UniRef90_A5X6X5
 UniRef90_UPI0003C91115
 UniRef90_W5MFK7
 UniRef90_UPI0003AE2BC9
 UniRef90_M9PGZ0
 UniRef90_UPI000454234D
 UniRef90_F1PEU6
 UniRef90_UPI00046B8D25
 UniRef90_UPI0003596C0A
 UniRef90_UPI0003596C0A
 UniRef90_I7HGJ1
 UniRef90_I7HGJ1
 UniRef90_UPI0002C68785
 UniRef90_B0S758
 UniRef90_UPI0003890FD0
 UniRef90_F6TD21
 UniRef90_UPI00046C1A9C
 UniRef90_UPI0003C2993A
 UniRef90_L9KLA3
 UniRef90_U3IV84
 UniRef90_A5X6X6
 UniRef90_W5J344
 UniRef90_H2YFD3
 UniRef90_B3MC10
 UniRef90_G1K2X0
 UniRef90_Q7ZZ46
 UniRef90_F7F7Z3
 UniRef90_H2S2E9
 UniRef90_T1G2F5
 UniRef90_UPI0002B46904
 UniRef90_F1KPF1
 UniRef90_H0XAK9
 UniRef90_H2RMV0
 UniRef90_UPI000392E710
 UniRef90_F7CR78
 UniRef90_E9GRE8
 UniRef90_UPI0003AEFDA1
 UniRef90_Q29LF7
 UniRef90_UPI0003F08F53
 UniRef90_W2TS9
 UniRef90_A0A024NGJ2
 UniRef90_UPI0003C2642C
 UniRef90_E3MSU4
 UniRef90_UPI0003D71E23

90

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

UniRef90_UPI0003F17348
 UniRef90_T1K4T7
 UniRef90_E1B9K4
 UniRef90_Q23551
 UniRef90_G1L1P3
 UniRef90_UPI0003502069
 UniRef90_Q23551-4
 UniRef90_UPI0003C39CF2
 UniRef90_E5ST68
 UniRef90_UPI000440B6AB
 UniRef90_UPI00046C043E
 UniRef90_UPI000350D010
 UniRef90_X1X113
 UniRef90_F6SBG0
 UniRef90_UPI0001D56579
 UniRef90_UPI0003F136A7
 UniRef90_W4XXC3
 UniRef90_UPI000395C2DE
 UniRef90_A0A034W0K9
 UniRef90_I1FMN0
 UniRef90_H3G329
 UniRef90_Q7SY8
 UniRef90_UPI000454A208
 UniRef90_UPI0003EC6624
 UniRef90_K7G9R1
 UniRef90_U6NNC4
 UniRef90_UPI000441D068
 UniRef90_G0NP6
 UniRef90_UPI000386F3D7
 UniRef90_M3ZJ19
 UniRef90_D6WIF4
 UniRef90_I1QJ42
 UniRef90_A8XON6
 UniRef90_I3JEK7
 UniRef90_H2M0W7
 UniRef90_UPI00034F9638
 UniRef90_UPI0003D08A8B
 UniRef90_E3N530
 UniRef90_UPI00038BF12D
 UniRef90_M7BBY2
 UniRef90_Q17AE9
 UniRef90_UPI0003C25E20
 UniRef90_H3AZ49
 UniRef90_UPI0001D394B8
 UniRef90_H9K5L4
 UniRef90_UPI00045D9AED
 UniRef90_W5K3F8
 UniRef90_Q291P5
 UniRef90_V4CCY8
 UniRef90_UPI00042C6656
 UniRef90_UPI000441B6A7
 UniRef90_UPI0003433AF
 UniRef90_UPI00038333E
 UniRef90_F1P3U6
 UniRef90_N6UIA4
 UniRef90_UPI000298D8C6
 UniRef90_Q0IJ38
 UniRef90_I3JXY4
 UniRef90_UPI000443F230
 UniRef90_UPI0004443539
 UniRef90_G3NFC6
 UniRef90_W8BIV4
 UniRef90_B5DZE2
 UniRef90_UPI000350A390
 UniRef90_UPI0003314A98
 UniRef90_UPI0003D6F09D
 UniRef90_UPI0002A4A464
 UniRef90_A5PKA4
 UniRef90_UPI0002236964
 UniRef90_H2SMQ9
 UniRef90_UPI0003339D45
 UniRef90_UPI0003C37561
 UniRef90_E3LLH1
 UniRef90_UPI0003EDF7A9
 UniRef90_M3ZZ20
 UniRef90_UPI0002A4BA7B
 UniRef90_G1PE73
 UniRef90_H3B9K1
 UniRef90_UPI0002C345EA
 UniRef90_UPI0003D0C89B
 UniRef90_UPI0003836444
 UniRef90_UPI0003443348
 UniRef90_UPI0004446F5E
 UniRef90_UPI000393DA16
 UniRef90_Q7Q767
 UniRef90_UPI000298A481
 UniRef90_G3VQ15
 UniRef90_UPI00034F75F0
 UniRef90_Q2EY14
 UniRef90_W5LCY5
 UniRef90_UPI00044441FD
 UniRef90_L5KZE1

1 10 20 30 40

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

UniRef90_UPI0003F17348
 UniRef90_T1K4T7
 UniRef90_E1B9K4
 UniRef90_Q23551
 UniRef90_G1L1P3
 UniRef90_UP10003502069
 UniRef90_Q23551-4
 UniRef90_UP10003C39CF2
 UniRef90_E5ST68
 UniRef90_UP1000440B6AB
 UniRef90_UP100046C043E
 UniRef90_UP1000350D010
 UniRef90_X1X113
 UniRef90_F6SBG0
 UniRef90_UP10001D56579
 UniRef90_UP10003F136A7
 UniRef90_W4XXC3
 UniRef90_UP1000395C2DE
 UniRef90_A0A034W0K9
 UniRef90_I1FMN0
 UniRef90_H3G329
 UniRef90_Q7SY8
 UniRef90_UP1000454A208
 UniRef90_UP10003EC6624
 UniRef90_K7G9R1
 UniRef90_U6NNC4
 UniRef90_UP1000441D068
 UniRef90_G0NP6
 UniRef90_UP1000386F3D7
 UniRef90_M3ZJ19
 UniRef90_D6WIF4
 UniRef90_T1Q42
 UniRef90_A8XON6
 UniRef90_I3JEK7
 UniRef90_H2M0W7
 UniRef90_UP100034F9638
 UniRef90_UP10003D08A8B
 UniRef90_E3N530
 UniRef90_UP100038BF12D
 UniRef90_M7BBY2
 UniRef90_Q17AE9
 UniRef90_UP10003C25E20
 UniRef90_H3AZ49
 UniRef90_UP10001D394B8
 UniRef90_H9K5L4
 UniRef90_UP100045D9AED
 UniRef90_W5K3F8
 UniRef90_Q291P5
 UniRef90_V4CCY8
 UniRef90_UP100042C6656
 UniRef90_UP1000441B6A7
 UniRef90_UP10003433AF
 UniRef90_UP100038333E
 UniRef90_F1P3U6
 UniRef90_N6UIA4
 UniRef90_UP1000298D8C6
 UniRef90_Q0IJ38
 UniRef90_I3JXY4
 UniRef90_UP1000443F230
 UniRef90_UP10004443539
 UniRef90_G3NFC6
 UniRef90_W8BIV4
 UniRef90_B5DZE2
 UniRef90_UP1000350A390
 UniRef90_UP10003314A98
 UniRef90_UP10003D6F09D
 UniRef90_UP10002A4A464
 UniRef90_A5PKA4
 UniRef90_UP10002236964
 UniRef90_H2SMQ9
 UniRef90_UP10003339D45
 UniRef90_UP10003C37561
 UniRef90_E3LLH1
 UniRef90_UP10003EDF7A9
 UniRef90_M3ZZ20
 UniRef90_UP10002A4BA7B
 UniRef90_G1PE73
 UniRef90_H3B9K1
 UniRef90_UP10002C345EA
 UniRef90_UP10003D0C89B
 UniRef90_UP10003836444
 UniRef90_UP10003443348
 UniRef90_UP10004446F5E
 UniRef90_UP1000393DA16
 UniRef90_Q7Q767
 UniRef90_UP1000298A481
 UniRef90_G3VQ15
 UniRef90_UP100034F75F0
 UniRef90_Q2EY14
 UniRef90_W5LCY5
 UniRef90_UP100044441FD
 UniRef90_L5KZE1

50 60 70 80

90

UniRef90_UPI0003F17348	N Q A G A Q R D F E L V
UniRef90_T1K4T7	N L G S D S T R C S I K I
UniRef90_E1B9K4	S A V G E D R D V V L R V H
UniRef90_Q23551	N Q L G E S N A N L N N F A G
UniRef90_G1L1P3	N D G G M R E N M A T L T
UniRef90_UPI0003502069	N E A G I V S C T A R L D Y A
UniRef90_Q23551-4	N P Y G E A E A N I K I T V
UniRef90_UPI0003C39CF2	N E S G R D E A S F E I T N I
UniRef90_E5ST68	N L V G T V N T E C R L L V E
UniRef90_UPI000440B6AB	N K H G T T V A G A V L L V E
UniRef90_UPI00046C043E	S L E A E A R K D F I V S V Q A
UniRef90_UPI000350D010	N R A G E A S F A V K V E V I A
UniRef90_X1X113	N N S G E A R C C E A P L L V Q
UniRef90_F6SBG0	N E A G A I Q C C S S R V T V K A
UniRef90_UPI0001D56579	N I A G E D E L D F D V N I Q
UniRef90_UPI0003F136A7	N P A G E E D R I F N N V Y A
UniRef90_W4XXC3	N S K G E A V C I G D L L V E
UniRef90_UPI000395C2DE	N E F G K I H A E V K T V T G
UniRef90_A0A034W0K9	N R E G T D I T Q G R L D
UniRef90_I1FMN0	N P G A H D S Q S V R L T V Q
UniRef90_H3G329	N Q F G Q C E S S C H L S I I E
UniRef90_Q7SY8	D T L E D K A K I E K I
UniRef90_UPI000454A208	N H F G S S S V K A K L T V
UniRef90_UPI0003EC6624	D T G D M Q S T A K L T V
UniRef90_K7G9R1	D R L E D K A T I D R V
UniRef90_U6NNC4	N E A G R T E T S T E F D V E
UniRef90_UPI000441D068	N I A N T R Y S E A T L S I S G
UniRef90_G0NP6	N E F G S I E S K A E L F V Q A
UniRef90_UPI000386F3D7	
UniRef90_M3ZJ19	N V A G S A E K H F N L N V H A
UniRef90_D6WIF4	N E A G K A I S T A D L V V R
UniRef90_T1JQ42	T K G D E T E S E V L V E
UniRef90_A8XON6	N V N G E D E A T V K I N V
UniRef90_I3JEK7	N S A G K K S A D I H V R V
UniRef90_H2M0W7	N A A G E A Y K H H L T V
UniRef90_UPI00034F9638	N S Q G S V L S R A R L I V
UniRef90_UPI0003D08A8B	
UniRef90_E3N530	N N S G V A T T S S A Q L V V R
UniRef90_UPI00038BF12D	N V F G K V Q A E T R L S V T G
UniRef90_M7BBY2	N V F G K T Q A E A K L M A T G
UniRef90_Q17AE9	N P Q G C Q V S S A I L A V E
UniRef90_UPI0003C25E20	N H L G T T S L R F Q V E I H
UniRef90_H3AZ49	N I A G S S E K D F I L E V
UniRef90_UPI0001D394B8	N A A G K Q T K D V K L T V
UniRef90_H9K5L4	S S T G V A E S R A T L S S V
UniRef90_UPI00045D9AED	N V A G R A E R R F T L S S V
UniRef90_W5K3F8	N P Y G E A T V A C K L E V K
UniRef90_Q291P5	S E R G E T S W S A T L T V E
UniRef90_V4CCY8	N P F G E T T T S T A T L T V V
UniRef90_UPI00042C6656	N I A G M T D R K Y D L S V H
UniRef90_UPI000441B6A7	N E A G V A T C H A R L D V
UniRef90_UPI00033433AF	S P A G V T S R N F S L Q V H
UniRef90_UPI000383333E	T L R C S A R L L V V R
UniRef90_F1P3U6	N H F G T A S S T G S L V V K
UniRef90_N6UIA4	N D L G E S S S E A R L K
UniRef90_UPI000298D8C6	D V G T M Q S R A Q L T V Q G
UniRef90_Q0IJ38	N P A G E D K A D V F V K I
UniRef90_I3JXY4	S P V G Y A S R E I Q L S V
UniRef90_UPI000443F230	S T A G Q E S K I Y T L V V V
UniRef90_UPI0004443539	N R A G E G K F T M R L D V I A
UniRef90_G3NFC6	S G K N T R Q K V T V S V
UniRef90_W8BIV4	N P K G T T S S K A R L Q V
UniRef90_B5DZE2	
UniRef90_UPI000350A390	N V A G S S S I S A K L I V H
UniRef90_UPI0003314A98	D D R G K D K S R L K L V
UniRef90_UPI0003D6F09D	S D A G E D K R A V D L T V Q
UniRef90_UPI0002A4A464	T A K E E L I S S A N L T V
UniRef90_A5PKA4	N G V K T I T A T G V L F V R
UniRef90_UPI0002236964	N S V G F V K A I G F V Y V K
UniRef90_H2SMQ9	N Y L G E A S H N A S L E V
UniRef90_UPI0003339D45	N L L G S A T A R A F L V V R
UniRef90_UPI0003C37561	N E H G E A R Q R V R L E I
UniRef90_E3LLH1	N P E G E A V S S A T L K C H G
UniRef90_UPI0003EDF7A9	S T S G D D D K E Y L V R V H
UniRef90_M3ZZ20	N V G G V K M I P V N V K V
UniRef90_UPI0002A4BA7B	N Q A G S S T K S F N L T V
UniRef90_G1PE73	N E A G N A Q T S V Q L I V
UniRef90_H3B9K1	N E E G M S S S S A T L K V K
UniRef90_UPI0002C345EA	
UniRef90_UPI0003D0C89B	S S A G E D T K L H T L T V
UniRef90_UPI0003836444	G D Q K T T A E V K V V K
UniRef90_UPI0003443348	N S A G A T E L F Y S L Q V H
UniRef90_UPI0004446F5E	N I Y G Q A S S F A K V L V Q
UniRef90_UPI000393DA16	D V E S T A Y L E V E
UniRef90_Q7Q767	S I G G G E T E A K F N I Q V K
UniRef90_UPI000298A481	N N V G E A Y A A V T L K V Q
UniRef90_G3VQ15	N K L G S A R S G A E F V Q
UniRef90_UPI00034F75F0	N A F G W V Q A E I L L S V T G
UniRef90_Q2EY14	N K Y G S I S Q R A R L T I
UniRef90_W5LCY5	N A A G S A H R H V Q L T V Q
UniRef90_UPI00044441FD	N A A G T A
UniRef90_L5KZE1	N I A G S D D T E I T L H V Q

1 10 20 30 40

UniRef90_Q801W8	P S F K L T F N T Y S V Q S G E D L K V E I P F K G R P T P K I G W M K D	
UniRef90_W5KF42	E P P K L S G P L E D R L V A V G G V V E L E C I A E G V P P P T L S W L K D	
UniRef90_G3N4Z2	A P K F T C P L E E V M V T L G Q P A T L D C R V I G K P K P Q A T W T H N	
UniRef90_UPI0002657BC9	A P K F T C P L E E V M V T L G Q P A T L D C R V I G K P K P Q A T W T H N	
UniRef90_UPI0003331A5B	P K F L M D S S S L T V R A G D T L R V P V S F E A A P M P E V T W L K D	
UniRef90_UPI00035023D4	K V G E T V N L L I P F Q G K P K P Q A T W T H N	
UniRef90_UPI000441B72C	P K F L M D S S S L T V R A G D T L R V P V S F E A A P M P E V T W L K D	
UniRef90_UPI00032AD4AA	V A P L V G I S P S V A S V V E G Q Q L T L P C T L A G N P I P E R R W I K N	
UniRef90_G3WF17	K I K K T L K N L T V T E T Q D A V F T V E L H P D V K G V Q W I K N	
UniRef90_UPI00044212B4	A P I I T T P L E T V D A L V E E A A T F V C V V K S F P Q A E I T W T R N	
UniRef90_UPI00022357E4	H V P P Q L V T Q P D Q M A A P G E S V A F Q C E T K G N P P P A I F W Q K E	
UniRef90_G3W0Z5	A P T F T Q R P M D T V T D G M T A V L T C E V S G A P K P A I T W K R G	
UniRef90_UPI00032A2B04	P E L V K R L A D Q T V T E A K S F E L L I S L Q S D R K C K E W Y K	
UniRef90_T1PDY3	P T F I T P P E D K V V H D Y H P A L T E V V V H G V P L P K I E W T K D	
UniRef90_UPI000329E195	T F T K P L K K K I E G H E T T L E C A V S S S M A N V T W F K D	
UniRef90_UPI000398FCBB	E A P A L T I V Q N E I L V A L G D T T I M E C K T T G I P H P Q V K W F K G	
UniRef90_H0Z2I4	Q V P P V L E S P E S S Q M V A E G S D V T F T C K A T G S P A P S V T W L K D	
UniRef90_G1Q1L7	Q A P P N V I G P E A P L C G W P G G Q L V L E C S V E A D P A P E I E W H R D	
UniRef90_A9YRX2	H V P A R I T V P P S D V T A N I G Q A V R F I C Q A E G I P N P T F S W R R E	
UniRef90_K7G886	Q S P P V I T V E P V E T V V N A G T T A I L N C Q A N G E P T P T I E W S R Q	
UniRef90_UPI000258E2A4	E P Q D D V V V E Q G G P A R L D C E A R S D G K P S I Q W R T D	
UniRef90_UPI00046B9FD5	P S F V K L M E D L T I Q E Y E E V Q L S V R V N G I P P K P K I T W F K N	
UniRef90_UPI00045DC64	V P P S I S E S L S V I N V R E G T S V S L L E C E S N A I P P P V I T W Y K N	
UniRef90_A0A023G617	P K F A E H L K S H V V K D G D A V T L Q C T I R G S S K F D V V W L H	
UniRef90_A0A026VM0	P K L L K K L A D Q R L E G D T L N L K L E V S G T P D P E V K W Y K D	
UniRef90_UPI0003EC28F5	K S A P T I K V R L A D T Y A L A G H T T Q L E C F A Y G N P V P K V R W R K V	
UniRef90_UPI000333E2B9	H V P P S I L L G E E L N V S V L A N E S V A L E E C R S H A T P P P V L S W W K D	
UniRef90_U6IGB9	Q K A P E F K Q Y F H D Q I V N I G D N V R F R C I E G T P K P D I R W E H N	
UniRef90_H2SLV9	P H K V V I I P T K S V S T Y L G D T A L L E C K V S G D P S P V I R W Q K N D	
UniRef90_J9K2T1	P P K F V K F L K N A S G K V G S V L F L E C Q V E V P P W P S I G W Y N D	
UniRef90_H2UZC8	S P F W F T V E P Q D T L V I R G N S A L L N C S A H S D A P A R V E W K K D	
UniRef90_UPI0003C285DA	K P I E I S V T A G E D V T L P C D V K S L P P P I I T W A K E	
UniRef90_UPI000441FD98	P R V T V V Q N E L L I A L G D T S I M E C K S S G V P P P S I K W F K G	
UniRef90_G3WGA8	S A P V F A Q L K K T I I I T K G Q E V L I E C K P Q G S P K P T I S W K K G	
UniRef90_UPI0003EC1EA2	S P E D V V V I L N S P T S L V C E A Y S Y P P A T I T W F K D	
UniRef90_UPI000441C8E8	E T Q A Y Q Q V A E R V V L S C E L S H P D A P V H W Y K D	
UniRef90_H3B208	A P Q F K E E L R N L N V K Y K G N A T F V C K I I G H P K P V V K W F K Q	
UniRef90_W4ZBX2	S P P R F Q S R L R K D I E V S E G E P I E I A I R V T G Q P A P R I T W Y K D	
UniRef90_Q4S6A5	R S P P L A V R V S P Q V E V R A Q G S A V E F T C S A A G G L D T T I E W L K E	
UniRef90_H3DPY8	V P P V V V K L I E G I I V K A G T T I R L P A I M R G I P V P T A K W S I E	
UniRef90_W8B783	P E L I I A P Q N Q L V L A G K S F T L E C D A D G D P I P N I F W L F N	
UniRef90_H2RMU5	Q T H T V K N G G T V T L Q V A F R G K P T P L A T W S R V	
UniRef90_H2YNK4	P R F L K K P D S R E C N E G E T T R I D C K V T G R P L P D V I F Y R N	
UniRef90_F1QVQ2	V P P P N I M G E E V N N T V L M G Q S V Q L H C Q S D A I P P P A L S W R K D	
UniRef90_UPI00044310F0	K M K P K I T R P P I N V K I I E G L K A V L P C T T M G N P K P S V S W I K G	
UniRef90_F1KRK4	R F V E E P M S K V A N E G R V Q L N C R S N K V R S V R E W R R D	
UniRef90_F1QDQ7	F R Q P P N D V V V A A G E P A V L D C V P R G H P E P T V S W K R N D	
UniRef90_F8W5M4	V P P P I I R R G P A N Q T L A L G S S A Q L Q C H V M G S P M P G V R W E K D	
UniRef90_T1ESP7	K K K P R I V E G P K D M V V K E H N V F N C R A T G D P E P T I I W K K L	
UniRef90_UPI0002A480AB	P D V V A I Q E G K S L N L T G N V W G E P T P E V C W T K N N	
UniRef90_I3J4B8	R V P P S I N E S P S D V T T H V N S P T L L R C S A Y G I P S P T I Q W L K D	
UniRef90_H2YT93	E V N V G E P S T I P V K Y S A Y P E P I I K W F K N	
UniRef90_G1KZU5	UniRef90_I3K9C3	E P P Q V M V E L Q Q R E V V Y G D T V R F F C E A R G K P A P S V M W L H
UniRef90_UPI0004571B6E	UniRef90_B0V2N1	V P P S M V N E L E D V K V K E S L S V T L L S C E V S G K P P N I T W L K D
UniRef90_F1KPJ7	UniRef90_A0A044UJY8	E E P P R F I R E P K D Q I G V S G G V A S F V C Q A T G D P K P R V T T W N K K
UniRef90_UPI0003503B2F	UniRef90_Q4RJ20	P Q V V Q P L V D T I I P E G D S I H L E C R V S N D P K L C V Q W F K N
UniRef90_G3TG99	UniRef90_H2UB69	R E P P V M L K L L Q D L E V P E A G A A T F E C E L S R P S A E V K W L K D
UniRef90_H2UB69	UniRef90_H9J4V7	P V F T E L L G D V A L K K G E R L L L A C G V N G I P T P H I T W V F N
UniRef90_H2UB69	UniRef90_G2HP0	P A I L A G P Q N I T A S L H Q T V V L E C V A T G N P K P I I S W S R
UniRef90_H2UB69	UniRef90_B4J668	E F L T E L H N N T V L E G E D A T F K C V V S P D D V Q L V W L M D
UniRef90_H2UB69	UniRef90_Q7YT99	A P K I R T N L I D I K L K V G Q K F G F D V K V S G E P M P V T K W Y L A
UniRef90_H2UB69	UniRef90_G0MT52	V P P P V I R V Y P E S Q A R E P G V T A S L R C H A E G I P K P Q L G W L K N
UniRef90_H2UB69	UniRef90_UPI000241A888C	P P F F R E K P Q T I A I T D N K P A H I H C F A V G D P K P C V Q W F K N
UniRef90_H2UB69	UniRef90_UPI00046C0340	P F F R E K P Q T I A I T D N K P A H I H C F A V G D P K P C V Q W F K N
UniRef90_A7RGL8	UniRef90_H9K3U1	E A T P V F I E P L S P V E T E E G G R A H F T A R Y E N D N Q L Q V Q Q W Y H D
UniRef90_H2T1W0	UniRef90_F1DFM0	R R K P S F S K P L E D A K A T V G Q P L K L E A Q V V A F P N P Q V Q W F K D
UniRef90_G3PMG3	UniRef90_F4WYU8	P E F V V K L K D T E L A E N T Y L R F M V K V R G D P N P D V I F F K D
UniRef90_UPI000265258C	UniRef90_H2YFC9	A P S L S S Q L M P V E V T E G N D I D L V C V K V S V N P K P T V T W Y K
UniRef90_A0A023EYD3	UniRef90_UPI0003C100FE	H A P P K F S I T P E E I Y V N V G D A I I L N C Q A E G T P T P E I L W Y K D
UniRef90_Q17AI9	UniRef90_W5M0S1	Q V P P P S I V E K P E S Q T R P R A G T A R F M C Q A E G A P P P R I S W L K N
UniRef90_UPI0002C433BE	UniRef90_UPI0002247D1F	K T A L Q V S I S L N K V E L S V G E S K F F C T A I G E P V R L E W Y N P
UniRef90_F1DFM0	UniRef90_J9AF97	P T A R I D P A E I T V T V Q G A T Q V L R C L T T G V P T P T I T W T R G
UniRef90_F4WYU8	UniRef90_UPI0003C91486	A P T F T T S L K H I E I K E G Q R A H F E C R L V S D A T L R V E W Y H N
UniRef90_H2YFC9	UniRef90_UPI0003C25CE8	R V P P T F S R P P E P I E V M L G G N L T L T C V A V G S P M P L V K W R Q G
UniRef90_UPI0003C100FE	UniRef90_W5M0S1	P V I I T T P V S A K V V D G D V T L L S C N A S G L P V P A V R W Y H S E
UniRef90_W5M0S1	UniRef90_UPI0002247D1F	A P T F V D K P K I I P S D T G S L I T M K C K C K A K P A P V V T W Y R E
UniRef90_J9AF97	UniRef90_UPI0003C91486	P R F K T K L C D I S A N E G E N V E F V V K V E G F P K P S V H W F L G
UniRef90_UPI0003C91486	UniRef90_E1FK25	P V F L K R P I N Q V V L A N D T V D F Q C E V Q G D P V P T A R W R K E
UniRef90_E1FK25	UniRef90_G5EG33	V P P T L D N G T E D V T V V K G N P T E L L C V S D G T P T P I M S W L K D
UniRef90_G5EG33	UniRef90_UPI0003C25CE8	A P R F I I P L Q D I T V Y P G S A I D L E C K V V G D P M Q T I K W S K D
UniRef90_UPI0003C25CE8	UniRef90_UPI00032ADCCA	P I F I Q P L S S L R V H N G E T V R F H A R V S G I P K P E Q W F H N
UniRef90_UPI00032ADCCA	UniRef90_A0A034V1E7	P A E I I E P L P R R S F K C G E N V T L A V S V T H P A H S I V W E F N
UniRef90_A0A034V1E7	UniRef90_UPI0004435CA5	E P P R V V M A S E V M R V V E G R Q T T I R C E V F G N P E P V V N W L K D
UniRef90_UPI0004435CA5	UniRef90_E0VRV4	Q D P P T I S K L R E P L V V K A G K P V T M K I L F Q S R L P V Q A A W S K D
UniRef90_E0VRV4	UniRef90_E0VRV4	P I F L T P L S N L E K G E H A H L E C R V E N D P N L K I E W F C N
UniRef90_E0VRV4	UniRef90_E0VRV4	P P V R I V S P Q D M V M S L A S E R V V L K C E L S R A G V P V R W Y K D
UniRef90_E0VRV4	UniRef90_E0VRV4	E P P T F L K K L S D C D V Y K G M N A K T A C C A G F P K P D M E W F K D

50 60 70 80

UniRef90_Q801W8	G Q A L K E T T R L N V S S T A T S T V L K I K E A N R E D S G K Y T I T A T	
UniRef90_W5KF42	G R P V E D S S A V V L I Q N G Q L L R I N N I Q V I E D S G L Y T C L A S S	
UniRef90_G3N4Z2	G V E L Q T R G Y I E N T D S F T A L T M E N I N R Y D S G K Y V V E A E	
UniRef90_UPI0002657BC9	G E P L Q Y T P D V K V S Y D T E G T C Q L V I P T T E E D H F G H Y Y V E A K	
UniRef90_UPI0003331A5B	G C A L D A S R V S V R N G E Q D S I L F I R E A Q R A D S G R Y Q L R V Q	
UniRef90_UPI00035023D4	G L P L P K R S V I A T T Q D G F T Q L L P V I A S L S D S G R Y A V V L R	
UniRef90_UPI000441B72C	G V L I S P S K W V Q M H W S G E R A S L T L T H A N K E D E G L Y T L R V T	
UniRef90_UPI00032AD4AA	S A V L V Q N P Y V T V R G D G S L H E R V R L Q D G G Q Y T C V A S	
UniRef90_G3WF17	G V V L Q S N D K Y E I S V K G N I Y T L K I K N C A I V D E S V Y G F K	
UniRef90_UPI00044212B4	N I P I R F F D T R Y A I R E N G Q L L T I L S V E D N D D G I Y C C T A N	
UniRef90_UPI00022357E4	G S Q V L L F P S Q S L Q P T G S P R G Q L N I N T E V Q S G D A G Y Y V C Q A V	
UniRef90_G3W0Z5	K Q I L A S G S V Q I P R F I L L E S G G G L Q I T P V F Q D A G N Y T C Y A V	
UniRef90_UPI00032A2B04	G V T L I K E T K E I T T F D G V N A R L T F S T A R Q E H S S N Y K V V V I	
UniRef90_T1PDY3	G K P I D A N A S H K V V A S D Q I A S E F E V L H F N L S D M A K Y A A V A T	
UniRef90_UPI000329E195	N K K I E S D D P R Y L I S K D N G N L K L T I K E S S L E D T G Q Y R C Q	
UniRef90_UPI000398FCBB	D L E L R A S P F L I I D T H R G L L K I Q E T Q D L D A G D Y T C V A T	
UniRef90_H0Z2I4	G E P L G Q Q N A Q V P G G P Q L S V A V A L T D A G T Y S C L V V	
UniRef90_G1Q1L7	G I L L Q A D A H T Q F P E Q G R F L Q L Q A L S T A D S G N Y S C T A R	
UniRef90_A9YRX2	S E V V E A S G R I S L S S G N Q L V I A Q V D L L D S G T Y T C I A S	
UniRef90_K7G886	G H P L L N N R V T L L S N G S L R V A A Q K E D T S E Y E E C V A R S	
UniRef90_UPI000258E2A4	G Q P I N F G D S Y R S Q L A N G S L Y N S V Y S S N T G S Y Q C L A S	
UniRef90_UPI00046B9FD5	G E V V I P D L R I S I H T N E E G Q S T L T D H F S G L D C A N F S V K A V	
UniRef90_UPI00045DCC64	G R M I T E S T H L E I W V D G Q M L H I K K A E V I S D T G Q Y V C R A I	
UniRef90_A0A023G617	E K E I K S S K D F Q Y V T E G D V Y K L V A E V Y P E D S G T Y T C E A F	
UniRef90_A0A026WM0	G E E V T A D A R I K I S R D S R Q K E S T V T L L K G S D G G L Y E V R A E	
UniRef90_UPI0003EC28F5	D G L M P S K A G P T V E G P T L T L P E L S F D D E G I Y E C E A Y	
UniRef90_UPI000333E2B9	G G P L E P R P G V R L S A D K A L L E V D R A E V R D A G H Y T C E A L	
UniRef90_U6IGB9	G Q E I Q Q S G R S F Q I N N S D T A H E L V L S S V D T E F A G R Y T V I A E	
UniRef90_H2SLV9	R E D L P V T F D P N S H L A M L P S G S L Q V P Q P D S A M Y R C L A D	
UniRef90_J9K2T1	N G I V V N E G P L Y H L L A D G L G M Y G V E I K S L R A D H S T T W K C V A T	
UniRef90_H2UZC8	G M S L V I S D E R R R I L L P D G S S L L F T H V V H S H H N K P D E G T Y Q C V A T	
UniRef90_UPI0003C285DA	M Q L I S P F S P R H T F L P S G S M K I T E T R V S D S G I Y F C V A T	
UniRef90_UPI000441FD98	D L E L R A T E F L I I D F S R G I L L R I Q E T Q D L D A G D Y M C V A T	
UniRef90_G3WGA8	D K A V R E S K R I A I L P D G S L R I L N A S K P D E G K Y I C R G E	
UniRef90_UPI0003EC1EA2	G T P L E S N R N I R I L P G G R T L Q I L N A Q E D N A G R Y S C V A T	
UniRef90_UPI000441C8E8	G E E V E E S E R L L I L E S E G P H R R L V I P L A Q V Q D S G E F V I C	
UniRef90_H3B208	G K E I L P D G E K I L Q F E K G G Y Y Q L V I S S V N E E D A T V Y Q V R A T	
UniRef90_H2Y4K4	D E P I N G K P Q Y E M S F V E S V A R L D V R E A F L E D E G R Y V C K A T	
UniRef90_F1QVQ2	G G A L P P N H H V K D G V L R I E D L E Q S N E G V Y I C R A S S	
UniRef90_UPI00044310F0	G E E I T S Q G N T K I D T D N F S T V L S I N E C T R N H S G T Y L L T V S	
UniRef90_F1KRK4	G N P L E A D E R K I L D N E N T E L H N K A I K S D A G I Y T C T A Y	
UniRef90_H2RMU5	D G E L P I M A D V S T T N S S S T L T E G C T R Y E A G K Y T L S L E	
UniRef90_H2YNK4	D A Q V Y E D Y N H R I V V K E D G V R S L I S P A K P E D S G E Y T V V A R	
UniRef90_F1QVQ2	G R P L Y R K P G L S V S E D G S F L K I S A Q V Q D T G R Y T C E A T	
UniRef90_UPI00044310F0	D T I L R E N T R I A I L E S G S L R I H N V Q V R E D A G H Y R C V A K	
UniRef90_F1QDQ7	G T P L L S S L R P V G R I V L V L P N G S L S E S A G S G D E G I Y Q C V V I	
UniRef90_F8W5M4	N V R V S D K D G R I S M R G G K L I S H T R K S D A G M Y V C V G T	
UniRef90_H3DPY8	G R S I P P S D I H I R L M E N G T L H S G V K D T D S G T Y T C V A S E	
UniRef90_W8B783	N S N I P P Q G R S F I Q D N K S L K E K V D S S D E G I Y C R A E	
UniRef90_UPI0002A480AB	D K E L V I S D E R Y K L K F E H G K F A S T A A V T T A D S G K Y A L V V K	
UniRef90_I3J4B8	D L P L N D Y R I K Q K S D A L L V R E V K E T D A G I Y T V I L T	
UniRef90_H2YT93	G E P L D D N E N V M I Q F G G R Y L R F N T Y L S D E G A Y T C I A T	
UniRef90_G1KZU5	G K W L K H S T E N Y L I L P S G N L Q I L N V S L E D K G S Y K C A A F	
UniRef90_I3K9C3	A Q P L V Q S S R H R L T P R M L R I S K V G P R D D G L Y Q C M A E S	
UniRef90_UPI0004571B6E	G Q P L T K D Q R H R V L L S S G R F L Q I D R T R V S D T G R Y T C V A S Q	
UniRef90_B0V2N1	G K K V N S Q R F E T I D F D E S S S G A V L R I Q P L T P R D E N V Y E C V A Q	
UniRef90_F1KPJ7	G A P L P E A S R F K P S F E F G F V T L D I Y A Y P E D N G V Y E C V V V	
UniRef90_A0A044UJY8	G S H I T T D G R Y K V E I F N D G L T K L T D K C T A E D N D T Y L C V A E	
UniRef90_UPI0003503B2F	G M E L R P G P H C R M Y S A G R R R L Q L S R C A L P D A G I Y T C E A	
UniRef90_Q4RJ20	N S I L P V H Y D H A N G H S Q L V I E R V T K E D S G T Y T C V A E	
UniRef90_G3TG99	L E I D H K S I D V F N T R V L G N G N L M I S D V R L Q H A G V Y V C R A T	
UniRef90_H2UB69	N E P I S L G D R F Q T T Q N G L C H T L V K K C Q M L D C S K I T A E A E	
UniRef90_H9J4V7	K K E V K S G G D M K V Q H T D Y N T K L S C K A A T R A D S G R Y T V T A E	
UniRef90_G2HJP0	G I D I T P K L L S K Q L T L Q A N G S E V H I S N V R Y E D T G A Y T C I A K	
UniRef90_B4J668	UniRef90_H2T1W0	G D M V V S E S K R I K I T Y D D D G R S I L R F E P A V H D G I Y K A V A R
UniRef90_Q7YT99	G R P V D M N R A K C T S S E E D A K L H V D K A E R G D T G K Y T I T V T	
UniRef90_G0MT52	G R P L K T G S R I K T I N S F G Y V V L E I S P T Y P E D N G E Y T C R A V	
UniRef90_UPI00021A888C	G I P L R Q S K E I Y F M N E P N G I I G L R I D Y V R P E D A G V Y S M T V S S	
UniRef90_UPI00046C0340	G V I V E K S D R Y E V I H S D R G F Y E L L P E Q V Q M S D A G E Y K C V A S	
UniRef90_A7RGL8	G D A L V K I L D D R I S A H F D G R F S R L S I Q K A T K D D E G I Y I C D V I Q	
UniRef90_H9K3U1	A S P V E P S T I G I F N D G T E L R S T I K S E D I G D Y T C I A R	
UniRef90_H2T1W0	G E E V H L N G R I K K M Y S S K L L V I T Q I I P E D D D A I Y Q C L A E	
UniRef90_G3PMG3	G E R I L P S K R M A L H T E T S R S R L I Y N A I I E D A G I Y R C Q A V	
UniRef90_UPI000265258C	S G P L S A N Q Q A L N G V L R I I N A D V T D R D M Y S C T A T	
UniRef90_A0A023EYD3	D A P V K S G S R F T E T T N N F G F V A L D I M G C L A E D S G T Y T C R A V	
UniRef90_Q17AI9	D Q D L T P E T D V P V G R N V L E L S N I R H S A N Y T C I A S	
UniRef90_UPI0002C433BE	H G L I T S H P P V Y F V M S R A G G S S L Y I Q A V T Q E H A G K Y I C E A T	
UniRef90_F1DFMO	T A V V K S E S S K I L K M K T I L E L G E L I L Q D P T N S D G G T Y K C N A K	
UniRef90_F4WYU8	D V E I T E K R R T E Y T R V E E D D N N Y K L I I K E V K T E L K G H Y T C K V E	
UniRef90_H2YFC9	N L N V T K N P R V H D N V D G K T I L L V I Q D C T R D D T G K Y A L A L E	
UniRef90_UPI0003C100FE	UniRef90_W5M0S1	E G E L P Q G R Y E I R N D N S L M I T R V S A E D E G T Y T C I T E
UniRef90_UPI0002247D1F	A V P L Q L G A H T T V L N Q G T A L L Q I T Q A Q V E D T G R Y T C V A T	
UniRef90_J9AF97	G K P I E T N R V E I K N L G G G K H Q L V F N R A E M T D D G E I T C E S	
UniRef90_UPI0003C91486	G M I L L R D D S R Y W E I D A T A G T Y R L K V	
UniRef90_E1FK25	Q Q P I L Q T K N V V F H E E S T G M A L M I V D A Y S E H A G Q Y S C R A A	
UniRef90_G5EG33	G E K L P Q D D G N Y M I A E E G N I Y T L T I K D A T Y N D A G R Y S I K	
UniRef90_UPI0003C25CE8	G E P Y T S D L L Q F S T K L S Y H L R E T T L A D G G T Y T C I A T	
UniRef90_UPI00032ADCCA	S S E V V P S A F R N K S I D N Y S I S M L V I T N I T Q E H A G L Y K C Q A Q	
UniRef90_A0A034V1E7	G A E V L J G S S R Q G A Q V A L G D D Y T L C P S A R R K D A G Q Y S V I L K	
UniRef90_UPI0004435CA5	G K Q L P T G H R F R T T H D F G Y V V A L D I L Y V G E D T G T Y M C K A T	
UniRef90_E0VRV4	G N K L L L T N S R F K V D Y E D G L I R T I Y N V N D D D O G T Y K L K I S	

90

UniRef90_Q801W8	N N I G T V T E E V A I I I Q
UniRef90_W5KF42	S P A G E D G R N H W V R V Q
UniRef90_G3N4Z2	N P S G K K S A T I L V K V
UniRef90_UPI0002657BC9	N R Y G V D V T H T E L V
UniRef90_UPI0003331A5B	L G G L E A T A T I D I
UniRef90_UPI00035023D4	D F Q G K E C T Y S F L V R
UniRef90_UPI000441B72C	M G D Y Y E E Y S A Y V F V R
UniRef90_UPI00032AD4AA	S V A G S S N R T T S V V V V H
UniRef90_G3WF17	L G R L G A S A R L H V E
UniRef90_UPI00044212B4	N G V G E A E S C G A L Q V K
UniRef90_UPI00022357E4	S V A G S V L A K A L L K I K
UniRef90_G3W0Z5	N S E G S L N A F A M L T V V
UniRef90_UPI00032A2B04	N E A G K T E S I C K I T V
UniRef90_T1PDY3	N D I G T T E A P F K I T
UniRef90_UPI000329E195	N D A G T A S G K I T L D V
UniRef90_UPI000398FCBB	N E V G E V S K A F H L V V
UniRef90_H0Z2I4	N A
UniRef90_G1Q1L7	N P A G S D S A S A E L N V F G
UniRef90_A9YRX2	N L M G S I L V R V P V T V Q
UniRef90_K7G886	D D V G A I V S R V
UniRef90_UPI000258E2A4	N M M G E A E T S S T L T
UniRef90_UPI00046B9FD5	N I A G R D D K N F H L N V
UniRef90_UPI00045DCC64	N D V G E A F S T C T L D V
UniRef90_A0A023G617	N E L G Y V T S K S K V L V
UniRef90_A0A026WVM0	N S E G R D T Y Q G R I N V Q A
UniRef90_UPI0003EC28F5	N R A G R S E K H Y N L D V
UniRef90_UPI000333E2B9	N H L G L A A C S A I L T V H
UniRef90_U6IGB9	N P G S S R T S D A E L R V
UniRef90_H2SLV9	S S T G K A V T S C V V S V
UniRef90_J9K2T1	N L I G S I S S R T A R L S V A G
UniRef90_H2UZC8	N I A G N A T Q S V K L N V H
UniRef90_UPI0003C285DA	N D A G T A S G K I T L D V
UniRef90_UPI000441FD98	N V F G S A E I L A S V F V K
UniRef90_G3WGA8	N E A G E M I K H Y E V K V
UniRef90_UPI0003EC1EA2	D A G G D S A F F N I T T V
UniRef90_UPI000441C8E8	N Q G G A I S A T V S L D V E
UniRef90_H3B208	N P A G Q D T T T C Q I T V
UniRef90_W4ZBX2	S S F G Q A Q D T A R L T I Q A
UniRef90_Q4S6A5	N P A G T K T V A L N V T V
UniRef90_H3DPY8	N S N G K I T V Q A N V T I
UniRef90_W8B783	N N S G R K S L T F T V K V
UniRef90_H2RMU5	S A A G K A V S T L S L T V
UniRef90_H2YNK4	N V A G K T E K H Y N L N V
UniRef90_F1QVQ2	N S L G T A Y S K V M L E V E
UniRef90_UPI00044310F0	N M V G E R D S D A E L V V
UniRef90_F1KRK4	S G T S E T S W S G T V T V K A
UniRef90_F1QDQ7	N A F G F Q E S G V Q L N V H
UniRef90_F8W5M4	N K F G K E A G E F T V S V
UniRef90_T1ESP7	N K I T E Q R R S F Q L L V
UniRef90_UPI0002A480AB	N P A G E T S R N I N L H V
UniRef90_I3J4B8	N P V
UniRef90_H2YT93	N G V G S S Q A S A R L I
UniRef90_G1KZU5	N A A G D R S K N F N L N V
UniRef90_I3K9C3	N S V G E I T H A K L T V
UniRef90_UPI0004571B6E	N D K G E A R T K T S I N V
UniRef90_B0V2N1	N E G G A V Q R C S L N V
UniRef90_F1KPJ7	N R V G T I K S L G F V S I
UniRef90_A0A044UJY8	T P G T R N A M A T L T V
UniRef90_UPI0003503B2F	G Q I S K A T L L K V Q
UniRef90_Q4RJ20	N S N G K D V A E V E V V V
UniRef90_G3TG99	N E A G V D E D I S S L F V E
UniRef90_H2UB69	N K A G Q T V A R C R I V I
UniRef90_H9J4V7	N E S G S M S M A D V N V I V
UniRef90_G2HJP0	N R V G E A V T S T K L T
UniRef90_B4J668	N S L L G E I T G S A K V E I E
UniRef90_Q7YT99	N K W G E D S C E A T L K V
UniRef90_G0MT52	N E L L G K A F S K V E L T V R
UniRef90_UPI00021A888C	N G E G Q I S H T A R V I I A G
UniRef90_UPI00046C0340	N Q Q G S V L S L A R L I V
UniRef90_A7RGL8	D G V G T V E A S V V L E I
UniRef90_H9K3U1	N I A G S S T A T A Y V E I E
UniRef90_H2T1W0	N A L L G E A V T S A T C I V H
UniRef90_G3PMG3	S T L L G V I D A T T L V K V Q
UniRef90_UPI000265258C	N Q Y G A A Q S E A F L T V
UniRef90_A0A023EYD3	N D Y G G E S N A N L N I E A
UniRef90_Q17AI9	N E Y G E N S S S S N L T V
UniRef90_UPI0002C433BE	N A S G V A R T F V S I R V
UniRef90_F1DFM0	N S V G K A E A S G T L S V V H
UniRef90_F4WYU8	N E A G E A S R H F N L K V
UniRef90_H2YFC9	N G E L K S S C Q L S L K
UniRef90_UPI0003C100FE	N S A G A A T C A A T L T V
UniRef90_W5M0S1	N K A G E S Q T T T D V E V
UniRef90_UPI0002247D1F	N Q H N S T E Q T T Q L V V V K A
UniRef90_J9AF97	S Q G G S T Q A R L T L Q V
UniRef90_UPI0003C91486	N L L G E A V N T C N V R I
UniRef90_E1FK25	N E D S A F F F N V T I
UniRef90_G5EG33	N K Y G E A D C S A K L I
UniRef90_UPI0003C25CE8	N Q H N S T E Q T T Q L V V V K A
UniRef90_UPI00032ADCCA	S Q G G S T Q A R L T L Q V
UniRef90_A0A034V1E7	N L L G E A V N T C N V R I
UniRef90_UPI0004435CA5	N E D S A F F F N V T I
UniRef90_E0VRV4	N K Y G E A D C S A K L I

1 10 20 30 40

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

50 60 70 80

G T P V P D V S S L R Q D M S N G T L A L L P F P P A M Y R H S S V Y R C L A T	G N L T I E S L R R A D F G F Y Q C V A S		
G A S I Q R N R A K I V D E V D A S D T K Y A A T D K T M N V T N I Q L D D E G V Y F C T V V	G P I D E G G H F E S I R A Q A S S A D L M I R N I L L M H A G R Y G C R V Q		
G K A V Q A D D F H K F I V S E K G V H S F I F E V V K T Y D A G L Y K C V A S	D A P V V Q E P R R I S F R A T S Y G S R L R I R N L D T T D T G Y F Q C V A T		
H G P L P I G A K R E S V D T V Y G L T C L R L R H V T G E I T G N Y K L L I S	D A P V V Q E P R R I S F R A T S Y G S R L R I R N L D T T D T G Y F Q C V A T		
G Y L V P I N E N S G I R M L D N G Q G L E I L E A K R E H A G V W T C E A S	G I P I S I D D D R F V I E Q N N Q T F G I K Q V V K V S D Q G K F V C V V E		
G D M V I P S D Y F K I V K E H N L Q V L G L V K S D E G F Y Q C I A E	G I D V K S N M D Y R Q E Y I N G V A T L V I E E S F I E D T A E Y T V K A T		
E Q P V E A G V R F H V D Q R K G F T H S L S L D S T D V A D S G T V K A V A V	G E A I I A S D Y F V V E P T R L R I L G L V K A D Q G V Y Q C I A D		
G K L I Q A S Y L Y N V I T T D T S C I L E V L N S E R M E A A G R Y Y C E V D	G K L I Q A S Y L Y N V I T T D T S C I L E V L N S E R M E A A G R Y Y C E V D		
N E E V T T I P D N R F A V L A N N N I Q I L N I N K S D E G V Y R C E	N E E V T T I P D N R F A V L A N N N I Q I L N I N K S D E G V Y R C E		
S G I P I K E G S K M F F D S I N K E Y I L K E N L G S E D A D N Y K C M V A	S G I P I K E G S K M F F D S I N K E Y I L K E N L G S E D A D N Y K C M V A		
G R R V H P G P S V K I S N D S L T I A F A R S H D S G T Y V C A A I	G A E L E P S D R V F S I K A G V L T I M E T S S K D T G S Y T C V A E		
G R P L L P D R R R R L M Y R D R D G G F V L K V L Y C Q A K D R G L Y V C A A R	G R P L L P D R R R R L M Y R D R D G G F V L K V L Y C Q A K D R G L Y V C A A R		
E E A L D I E S S E R L V L L A G G S L E I S D I T E D A G T Y F C I A D	E E A L D I E S S E R L V L L A G G S L E I S D I T E D A G T Y F C I A D		
G Q K L D L V E S S K R L R V V D G G N L A I Q D V R Q T D E G Q Y Q C I A R	G Q K L D L V E S S K R L R V V D G G N L A I Q D V R Q T D E G Q Y Q C I A R		
G F T F L G R D P R T S L Q E Q Q T L Q I K N L R V S D T G T Y T C V A T	G F T F L G R D P R T S L Q E Q Q T L Q I K N L R V S D T G T Y T C V A T		
D Q S L L A G H P T A Y S T D V L J G V C S L V I P S V S L R D G G Q Y K A V A E	D Q S L L A G H P T A Y S T D V L J G V C S L V I P S V S L R D G G Q Y K A V A E		
U n i R e f 9 0 _ Q 9 Z 2 J 4 - 2	G E I L L Q D G E D Y Q Y I E R G E T Y C L Y P E T F P E D G G E Y Y M C K A V		
U n i R e f 9 0 _ U P I 0 0 0 3 E A E E E 7	D V L L K E S K W T K M F F G E Q G A S I S F S H G L H K D D E G L Y T L R I V		
U n i R e f 9 0 _ W 5 M U E 4	G T S I D P K L D S R Y S F F G G N L R I T H L N K V K D A G T Y Q C I A S		
U n i R e f 9 0 _ U P I 0 0 0 4 4 1 D A 1 0	G L P L P K R S R V T S V K D G L T Q L L V P V A S L A D S G L Y T V V L R		
U n i R e f 9 0 _ U P I 0 0 0 3 9 8 F F 2 8	K G S G N P Q Q Y H P I P L T G R P N S S L L I R H V L E E D G Y Y L C Q A S		
U n i R e f 9 0 _ U P I 0 0 0 3 E E 0 6 B D	R Q P P L L D D R V I K L P S G T L V I S N T T E G D G G L Y R C I V E		
U n i R e f 9 0 _ E 4 X 3 Z 2	G V E I S I S D K H F V E D I G G G R R R L T I Q N L K K V D E G I Y E Y V		
U n i R e f 9 0 _ A 0 A 0 4 4 U K 0 0	G Q Q L Y Q T Y K Y R M Q K L S D N T H T L T I C N I D R R D E G T Y T C R A E		
U n i R e f 9 0 _ H 2 Y T 9 0	G R H L D R N R I R K H R N G S L I I Q G A A P R D E A A Y Q C T A V		
U n i R e f 9 0 _ E 4 X 1 J 1 8	N T P V N F N M F P G I Y Q M G T N L V I P V T S S A M T G D W T C E A K		
U n i R e f 9 0 _ S 9 X 5 0 6	G I Q L P G D D P H I S V Q F R G G T G W L Q I Q A V R P S D E G T Y R C L A H		
U n i R e f 9 0 _ Q 1 6 Q 1 5	G I L I I S P S L Q V T E I K D E F F T L L I L K E I S A K H S G K Y T C F A L		
U n i R e f 9 0 _ Q 6 K D Z 1	G G T L P P Q S R S E R T D I A T L L I P S I T V A D G G I Y L C V G T		
U n i R e f 9 0 _ U P I 0 0 0 2 7 F 1 E 5 E	G K E F R G E H R I G G I K L R H Q Q W S L V M E S V P S D R G N Y T C V V I E		
U n i R e f 9 0 _ U P I 0 0 0 2 2 B 6 9 1 7	G L P L N F N L D L E D I N D F G E E D S L Y I T K V T T V H M G N Y T C H A S		
U n i R e f 9 0 _ H 3 B 5 H 2	R T T L P L A M D R I T V L P S G V L Q I Y G V K Q A D A G S Y R C V A S		
U n i R e f 9 0 _ U P I 0 0 0 3 4 3 5 8 7	G G S L P A R H Q T H G S L R L Y Q V T P A D S G E Y M C R V V		
U n i R e f 9 0 _ E 4 Y 7 3 8	G K P L E I N D E I N S P Y K S Q Q G Q M L A I S S S V E S H G G D Y Q C K A S		
U n i R e f 9 0 _ U P I 0 0 0 3 4 F E 2 7 A	G Q E V E E S D F T V L E N E G P H H R L V L P A A Q P H D G G E F Q C V A		
U n i R e f 9 0 _ U P I 0 0 0 4 C B F F A	G H L I I D F D K D G D H F E R V G G Q D S L M I R N I Q L K H A G K Y V C M V Q		
U n i R e f 9 0 _ U P I 0 0 0 3 8 B B 8 6 F	G Q D A V S G S N W R R L Y S H L A T A S I D P A D S G N Y S C V V G		
U n i R e f 9 0 _ U P I 0 0 0 3 4 F A E D E	G C A L L P S P R L R L Q A L G T R R L Q L R C S S D A G T Y S C V E T		
U n i R e f 9 0 _ M 7 A Y 7 5	K K A H L D G L Y D L Q T G T G T L R I K K L T R E D K G I Y K A V V S		
U n i R e f 9 0 _ W 5 K K 8 6	S A L S T P L S L S S R M H T D D N G T L L Y I S S A H S D A G D Y Y C T A E		
U n i R e f 9 0 _ U P I 0 0 0 3 D F 5 D C C	G K E L L N P S T N Y R V T V P D G V I A Q L Q I S S A E A S D S G A Y F C Q A S		
U n i R e f 9 0 _ U P I 0 0 0 3 1 5 A C 3	G S R V G P D G T P Y V T T D K E L E V S L S R N V T F E D A G E Y T C L A G		
U n i R e f 9 0 _ Q 4 T 4 4 4	T L E E C K V D D R L S M T L E M N D A H L E L L K C T H A D A G T Y T I V L K		
U n i R e f 9 0 _ B 7 Q G 8 4	G A Q V V T V T G T G R I R L L G H G S L L I A D V R H T D Q G H Y V C R A A R		
U n i R e f 9 0 _ B 4 K W 1 5	G R E L P D D I R Q R V Q P D G S L T S P V Q K T D S G V Y T C W A R		
U n i R e f 9 0 _ E 9 P 2 1 6	G I P V K L E P R M F G L M N S H A M L K I A S V K P S D A G T Y V C Q A Q		
U n i R e f 9 0 _ B 4 Q V P 9	H Q E L T T S N H Y E L A S V A D G G Q L V I K N V E P R D Q G I Y T C I V R		
U n i R e f 9 0 _ Q 9 0 4 1 3	D S N R L G P D G S P V L E N L S K V N I F P L V N I S L E D A G E Y V C K A E		
U n i R e f 9 0 _ H 2 M M H 3	D G Q I P P P Q A R T D R T D I G T L L P D I K I S D S G T Y M C V G H		
U n i R e f 9 0 _ Q 8 A V 5 7	S R E L T K F S L E Y R Y M K M S H N Q Q L Q D N V K L S Q N G S V I T T N T A R H S N Q G T Y R C T A S		
U n i R e f 9 0 _ U P I 0 0 0 3 C 1 7 9 8 F	N G S L P R Q A A V R G E A I S I R G L S N E T L L I S S A Q K S H S G A Y Q C F A T		
U n i R e f 9 0 _ F 7 G I Z 7	T E L V L P G E A I S I R G L S N E T L L I S S A Q K S H S G A Y Q C F A T		
U n i R e f 9 0 _ U P I 0 0 0 4 5 4 1 F A E	W G N I P T G P R V T V T S V D G R G T L T V T N A V P E D A G A Y T C E A I		
U n i R e f 9 0 _ U P I 0 0 0 3 5 9 F 6 7 9	G R P V P S T A Q R R Q Q G S E H F T S V Q P S E A G V Y I C T C R		
U n i R e f 9 0 _ U P I 0 0 0 4 4 1 F 3 4	R A P L P W Q H R V V N N T L L I P R V A Q Q D S G Q Y I C N A S		
U n i R e f 9 0 _ U P I 0 0 0 3 8 B A 0 9	W G H I P V S G R V S M N N K N G F G T L T I R D V K E S D Q G A Y T C E A I		
U n i R e f 9 0 _ U P I 0 0 0 2 A 4 C A 9 A	A E D L T P E D E M P V G R N V L E L S S V V R E S A N Y T C V A M		
U n i R e f 9 0 _ H 2 T R Q 7	A L H N G K L P S R A M D F N G I L T I R N V Q P S D A G T Y V C T G S		
U n i R e f 9 0 _ F 1 M 5 6 6	G R E L I D M E K Y C I R N D R S G I L S L T V I G A T E A D D Q Q Y E C E		
U n i R e f 9 0 _ Q 4 R U 8 9	G E G G V P P R A S T T K T Q H T D G S F V L H K K Q F I Q F Q G V Y R C Y A F		
U n i R e f 9 0 _ H 2 U 7 B 6	G Q T L V E T P R R S I E R S L Q G D V H R L T I S A L E Q S D T G V Y R V E A K		
U n i R e f 9 0 _ U 6 I S M 7	U n i R e f 9 0 _ U P I 0 0 0 3 2 B 1 C 7 C	G Q T L V E T P R R S I E R S L Q G D V H R L T I S A L E Q S D T G V Y R V E A K	
U n i R e f 9 0 _ G 1 Q B T 9	Q E W L E A S R G N Y L I M P S G N L L Q I V N A S Q E D E G M Y K C A A Y		
U n i R e f 9 0 _ B 4 J T V 0	S Q P I I M D V S H H R F I S G D V I S H L L N I S H V R P D D G G L Y R C V A S		
U n i R e f 9 0 _ G 3 V V 9 0	G K E L L N S S D A L G I L T R G T L V I T A L N N H T V G R Y Q C V A R		
U n i R e f 9 0 _ H 9 F E Q 4	D T E L L D R Y C G K Y E L T H Q G N R N H T L Q I Y R C R E E D A A I Y Q A S A Q		
U n i R e f 9 0 _ G O N Y L 1	G K P L L K A V G R V K M A S E R G K H V M K I E N A V R G D S G Q Y T I T L K		
U n i R e f 9 0 _ J 3 J E E 0	N G N I I P K K A R L R K S Q A V L L E I P N I Q L E D S G T Y E C K A E		
U n i R e f 9 0 _ F 7 I A B 0	U n i R e f 9 0 _ F 7 I A B 0 D E P L Y I G N R M K K E D D S L T I F G V A E R D Q G S Y T C V A S		
U n i R e f 9 0 _ F 7 C C A 0	G R L L S P N H Q V L G S R L R I T Q A S V A D S G E Y I C R T T		
U n i R e f 9 0 _ U P I 0 0 0 3 8 7 1 6 B 4	G G A L L P P N S Q V S G T R L R I V Q V A V A D S G E Y I C R T T		
U n i R e f 9 0 _ L 7 M L G 3	G Q P V D P E A D A R M M V Q A G D N S L T I T R T I E L D S G I Y T C V A R		
U n i R e f 9 0 _ U P I 0 0 0 3 4 F D 1 7 0	R A P L L P W Q H E I V N D T L I I P K A A L Q D S G Q Y I C N A S		
U n i R e f 9 0 _ U P I 0 0 0 4 5 7 2 9 C 7	G S A L L T A N H Q V L G S R L Q I V K A T V A D A G D Y S C E A E		
U n i R e f 9 0 _ D 6 W 6 V 8	D Y E I I D K L V A R R I D P L S D P R Y T L I H E P E K R D H A T Y H C K A S		
U n i R e f 9 0 _ U P I 0 0 0 3 F 1 8 8 B B	G K P I I S T D V I V L G R T N L L I A S A Q P R H S G V Y V C R A N		
U n i R e f 9 0 _ W 5 P E L 7	G G S L L P A R H R L R I V Q V A V A D S G E Y I C R T T		
U n i R e f 9 0 _ U P I 0 0 0 2 6 5 6 F 0 5	W Q P I I A T S G R T N I T W E Q P D L C V M K L D D S I M R D A G L Y S C K A T		
U n i R e f 9 0 _ I 3 K 5 U 6	N H Q I I M Y D T R Y L T K E K G Q M L L I I P H V R E S D N G E Y Y C C L A S S		
U n i R e f 9 0 _ E 9 G 7 R 9	M V P V N L S N P R Y Q Q I A S D S K S S L Q I T N S E E D Q G K Y E C V A E		
U n i R e f 9 0 _ U P I 0 0 0 3 F 1 6 4 5 8	S F Q R L L P Q S E R V S Q G L N G D L Y F S N V L P E D T R E Y I C Y A R		
U n i R e f 9 0 _ H 9 F R Q 7	G G D L L P S D K A K F E N F N K A L R I T V S E E D S G E Y Y F C L A S S		
U n i R e f 9 0 _ U P I 0 0 0 3 D E 7 E 2 D	G A V L V Q S S D R L R Q L P E G S L F I K E V D R T D A G E Y Y S C V Y E		
U n i R e f 9 0 _ U P I 0 0 0 3 8 C 2 4 4 8	G G S L L P A R H Q V R G S R L Y I I F Q A S P G D A G E Y Y V C R A S		

UniRef90_UPI00046BE47A
 UniRef90_UPI00021A8331
 UniRef90_A8XN78
 UniRef90_UPI0003317B18
 UniRef90_F6V6P2
 UniRef90_UPI0003336580
 UniRef90_G4VNR5
 UniRef90_E1FMD8
 UniRef90_A0A044SXW9
 UniRef90_S9Y6Z6
 UniRef90_G0PN16
 UniRef90_UPI0003597597
 UniRef90_A0A016TM40
 UniRef90_UPI0003944717
 UniRef90_G3HWM7
 UniRef90_G1KX42
 UniRef90_B7PZR6
 UniRef90_UPI00035A0D8F
 UniRef90_UPI0003D71EC4
 UniRef90_G5BRE9
 UniRef90_Q16EG8
 UniRef90_UPI000273AE98
 UniRef90_F1PQ00
 UniRef90_Q9Z2J4-2
 UniRef90_UPI0003AE9E7
 UniRef90_W5MUE4
 UniRef90_UPI000441DA10
 UniRef90_UPI000398FF28
 UniRef90_UPI0003EE06BD
 UniRef90_E4X3Z2
 UniRef90_A0A044UK00
 UniRef90_H2YT90
 UniRef90_E4XJ18
 UniRef90_S9X506
 UniRef90_Q16Q15
 UniRef90_Q6KDZ1
 UniRef90_UPI00027F1E5E
 UniRef90_UPI00022B6917
 UniRef90_H3B5H2
 UniRef90_UPI000343587
 UniRef90_E4Y738
 UniRef90_UPI00034FE27A
 UniRef90_UPI0004CBFFA
 UniRef90_UPI00038BB86F
 UniRef90_UPI00034FAEDE
 UniRef90_M7AY75
 UniRef90_W5KK86
 UniRef90_UPI0003DF5DCC
 UniRef90_UPI000315AC3
 UniRef90_Q4T444
 UniRef90_B7QG84
 UniRef90_B4KW15
 UniRef90_E9PZ16
 UniRef90_B4QVP9
 UniRef90_Q90413
 UniRef90_H2MMH3
 UniRef90_Q8AV57
 UniRef90_UPI0003C1798F
 UniRef90_F7GIZ7
 UniRef90_UPI0004541FAE
 UniRef90_UPI000359F679
 UniRef90_UPI000441F3F4
 UniRef90_UPI000388BA09
 UniRef90_UPI0002A4CA9A
 UniRef90_H2TRQ7
 UniRef90_F1M566
 UniRef90_Q4RU89
 UniRef90_H2U7B6
 UniRef90_U6ISM7
 UniRef90_UPI00032B1C7C
 UniRef90_G1QBT9
 UniRef90_B4JTV0
 UniRef90_G3VV90
 UniRef90_H9FEQ4
 UniRef90_G0NYL1
 UniRef90_I3JEE0
 UniRef90_F7IAB0
 UniRef90_F7CCA0
 UniRef90_UPI00038716B4
 UniRef90_L7MLG3
 UniRef90_UPI00034FD170
 UniRef90_UPI00045729C7
 UniRef90_D6W6V8
 UniRef90_UPI0003F188BB
 UniRef90_W5PEL7
 UniRef90_UPI0002656F05
 UniRef90_I3K5U6
 UniRef90_E9G7R9
 UniRef90_UPI0003F16458
 UniRef90_H9FRQ7
 UniRef90_UPI0003DE7E2D
 UniRef90_UPI00038C2448

90

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

UniRef90_UPI00042C06D9
 UniRef90_UPI0003DEC979
 UniRef90_E2BXH3
 UniRef90_UPI0003DE8086
 UniRef90_UPI0002C2E0EE
 UniRef90_A0A024RAB6
 UniRef90_I3M0A3
 UniRef90_Q7QCH7
 UniRef90_UPI0003DF4AB0
 UniRef90_M3YH1
 UniRef90_UPI000387AE0A
 UniRef90_I3KII9
 UniRef90_UPI0003C9215B
 UniRef90_UPI000387CAAE
 UniRef90_E1BNH9
 UniRef90_UPI0001E47504
 UniRef90_UPI0003991CDE
 UniRef90_W4X413
 UniRef90_UPI0001D377A2
 UniRef90_F7IHL4
 UniRef90_O97394
 UniRef90_Q7PQF4
 UniRef90_Q4TAD5
 UniRef90_G1KP86
 UniRef90_C3YK90
 UniRef90_UPI000393F6E8
 UniRef90_Q4S2G
 UniRef90_UPI0004438C65
 UniRef90_UPI000388C2B1
 UniRef90_UPI00020E392D
 UniRef90_Q92823
 UniRef90_F4WEM7
 UniRef90_UPI0004468C8
 UniRef90_B2KYP2
 UniRef90_M3ZA93
 UniRef90_UPI0003D6DCC4
 UniRef90_L5KAX0
 UniRef90_UPI0002A49CCD
 UniRef90_G3SPQ7
 UniRef90_L9L0Q8
 UniRef90_H2T8W2
 UniRef90_UPI000386FD35
 UniRef90_UPI0004418841
 UniRef90_F7CZC8
 UniRef90_E0VBQ8
 UniRef90_UPI0003C4756A
 UniRef90_UPI0003F1456F
 UniRef90_UPI0001CE2702
 UniRef90_UPI0003F0B42D
 UniRef90_M4AVK1
 UniRef90_H3FAV4
 UniRef90_UPI0003500FB4
 UniRef90_H9JKN9
 UniRef90_UPI0003C392E6
 UniRef90_UPI00039447D0
 UniRef90_F1Q8S1
 UniRef90_W8BCB8
 UniRef90_U3JPS6
 UniRef90_UPI000393F2F3
 UniRef90_G1NWX9
 UniRef90_W5NPR4
 UniRef90_U4U1P9
 UniRef90_L5M7P7
 UniRef90_E7F5U2
 UniRef90_Q6NR91
 UniRef90_L5LFJ9
 UniRef90_F7CT64
 UniRef90_O00533
 UniRef90_G0P6F4
 UniRef90_UPI000443AFE4
 UniRef90_W4WHT4
 UniRef90_H2V6Q8
 UniRef90_UPI0002236283
 UniRef90_UPI000214B93A
 UniRef90_A0A034WSB8
 UniRef90_G3TPV7
 UniRef90_S9XKT6
 UniRef90_L5WKW2
 UniRef90_UPI00045753EF
 UniRef90_C9DED1
 UniRef90_UPI00046C129A
 UniRef90_UPI00046C2F30
 UniRef90_F6PVG4
 UniRef90_F1PA86
 UniRef90_T1JES3
 UniRef90_H2TJK2
 UniRef90_UPI00038EF407
 UniRef90_H2U6H8
 UniRef90_T1EVU3
 UniRef90_UPI00032AAEDEC
 UniRef90_UPI00046BDA82
 UniRef90_F6TY02

1 10 20 30 40

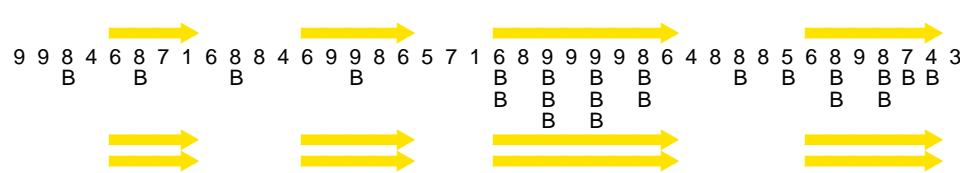
UniRef90_UPI00042C06D9
 UniRef90_UPI0003DEC979
 UniRef90_E2BHX3
 UniRef90_UPI0003DE8086
 UniRef90_UPI0002C2E0EE
 UniRef90_A0A024RAB6
 UniRef90_I3M0A3
 UniRef90_Q7QCH7
 UniRef90_UPI0003DF4AB0
 UniRef90_M3YH1
 UniRef90_UPI000387AE0A
 UniRef90_I3KII9
 UniRef90_UPI0003C9215B
 UniRef90_UPI000387CAAE
 UniRef90_E1BNH9
 UniRef90_UPI0001E47504
 UniRef90_UPI0003991CDE
 UniRef90_W4X413
 UniRef90_UPI0001D377A2
 UniRef90_F7IHL4
 UniRef90_Q97394
 UniRef90_Q7PQF4
 UniRef90_Q4TAD5
 UniRef90_G1KP86
 UniRef90_C3YK90
 UniRef90_UPI000393F6E8
 UniRef90_Q4S2G
 UniRef90_UPI0004438C65
 UniRef90_UPI000388C2B1
 UniRef90_UPI00020E392D
 UniRef90_Q92823
 UniRef90_F4WEM7
 UniRef90_UPI0004468C8
 UniRef90_B2KYP2
 UniRef90_M3ZA93
 UniRef90_UPI0003D6DCC4
 UniRef90_L5KAX0
 UniRef90_UPI0002A49CCD
 UniRef90_G3SPQ7
 UniRef90_L9L0Q8
 UniRef90_H2T8W2
 UniRef90_UPI000386FD35
 UniRef90_UPI0004418841
 UniRef90_F7CZC8
 UniRef90_E0VBQ8
 UniRef90_UPI0003C4756A
 UniRef90_UPI0003F1456F
 UniRef90_UPI0001CE2702
 UniRef90_UPI0003F0B42D
 UniRef90_M4AVK1
 UniRef90_H3FAV4
 UniRef90_UPI0003500FB4
 UniRef90_H9JKN9
 UniRef90_UPI0003C392E6
 UniRef90_UPI00039447D0
 UniRef90_F1Q8S1
 UniRef90_W8BCB8
 UniRef90_U3JPS6
 UniRef90_UPI000393F2F3
 UniRef90_G1NWX9
 UniRef90_W5NPR4
 UniRef90_U4U1P9
 UniRef90_L5M7P7
 UniRef90_E7F5U2
 UniRef90_Q6NR91
 UniRef90_L5LFJ9
 UniRef90_F7CT64
 UniRef90_O00533
 UniRef90_G0P6F4
 UniRef90_UPI000443AFE4
 UniRef90_W4WHT4
 UniRef90_H2V6Q8
 UniRef90_UPI0002236283
 UniRef90_UPI000214B93A
 UniRef90_A0A034WSB8
 UniRef90_G3TPV7
 UniRef90_S9XKT6
 UniRef90_L5WKW2
 UniRef90_UPI00045753EF
 UniRef90_C9DED1
 UniRef90_UPI00046C129A
 UniRef90_UPI00046C2F30
 UniRef90_F6PVG4
 UniRef90_F1PA86
 UniRef90_T1JES3
 UniRef90_H2TJK2
 UniRef90_UPI00038EF407
 UniRef90_H2U6H8
 UniRef90_T1EVU3
 UniRef90_UPI00032AEDEC
 UniRef90_UPI00046BDA82
 UniRef90_F6TY02

50 60 70 80

UniRef90_UPI00042C06D9 N T F G E C F D S A R I L V E
 UniRef90_UPI0003DEC979 N S V G G E S V E T V L T V T A
 UniRef90_E2BHX3 N A F G S D D T S I N M I V Q
 UniRef90_UPI0003DE8086 S K V G S A E H S A R L N V Y G
 UniRef90_UPI0002C2E0EE N A Y G V A Q S V V N L S
 UniRef90_A0A024RAB6 S P A G H A E A T I I L H V E
 UniRef90_I3M0A3 N A A G T T Q S H V L L L V Q A
 UniRef90_Q7QCH7 L D P R E I T H S V E I L V
 UniRef90_UPI0003DF4AB0 N V A G L A E Y S T S L S V
 UniRef90_M3YH1 N G F G S L S V N Y T L I V
 UniRef90_UPI000387AE0A A A P G A P S L S F T V Q V
 UniRef90_I3KII9 N K Q G K V E S F T T L E E V H
 UniRef90_UPI0003C9215B N L H G V D R M V V L L S V
 UniRef90_UPI000387CAAE D E S A S F T V T V
 UniRef90_E1BNH9 G Q D S A Y T R L L V E G
 UniRef90_UPI0001E47504 N K Y G T A R S T A K I T V H
 UniRef90_UPI0003991CDE N S A G V V L Y Q A R I I N V R G
 UniRef90_W4X413 N A A G A T S Y S A T L A V
 UniRef90_UPI0001D377A2 N S Y G M V R S T A T L S
 UniRef90_F7IHL4 S P A G T A Q A R I I Q V I V
 UniRef90_O97394 N E A G S V K G E A Y L S V
 UniRef90_Q7PQF4 N A V G E V E T T C K V I V
 UniRef90_Q4TAD5 N H V G V A S C T V T L A V
 UniRef90_G1KP86 N D F G T A I S N I F L Q V
 UniRef90_C3YK90 N N I G E S T R S V R L R V
 UniRef90_UPI000393F6E8 N H L G T I R H S I F V Q V K A
 UniRef90_Q4S2G2 N S I G L S H Q T A W L T V
 UniRef90_UPI0004438C65 N P R G T D T K V Y Q L D V
 UniRef90_UPI000388C2B1 N E H G Y L L A N A F V S V
 UniRef90_UPI00020E392D N E V G T D Q E T V T L
 UniRef90_Q92823 N K L G M A K N E V H L E I K
 UniRef90_F4WEM7 N E A G E S S S Y T W L K A K
 UniRef90_UPI0004468C8 N K H G S V Y Y S S A Q L M V L A
 UniRef90_B2KYP2 N S A G S I V S R D I H V R A
 UniRef90_M3ZA93 N A N G V T R A S V W L L V R
 UniRef90_UPI0003D6DCC4 N S R G K N V A R G R L T
 UniRef90_L5KAX0 N E A A A V E H Q S Q L I V R
 UniRef90_UPI0002A49CCD N Q Y G S A Y T H
 UniRef90_G3SPQ7 N A R G M V
 UniRef90_L9L0Q8 S S S G T L E A S I L V T I E A
 UniRef90_H2T8W2 G S H G N P S S H L R
 UniRef90_UPI000386FD35 N Y L G E A T
 UniRef90_UPI0004418841 N E Y G Y L L A N A F V N I L A
 UniRef90_F7CZC8 N D V G A D S K S M Y L T V K
 UniRef90_E0VBQ8 D Q S G R Q E S V A R I I S V
 UniRef90_UPI0003C4756A N N I D A R E A S I M V S V
 UniRef90_UPI0003F1456F N L R G R D L S K G Q L I
 UniRef90_UPI0001CE2702 N T H G A I Y A N A E L K I L A
 UniRef90_UPI0003F0B42D N A A G E A Y A A A V T V
 UniRef90_M4AVK1 UniRef90_H3FAV4
 UniRef90_UPI0003500FB4 N K H G E C T V A L K L K V K G
 UniRef90_UPI0004418841 N G F G S L S V N Y T L I V
 UniRef90_H9JKN9 N T L G N T T A K G Y L T V
 UniRef90_UPI0003C392E6 N N L G E L N A N L T L N I E
 UniRef90_UPI00039447D0 N A A G E A T A T V D L K I
 UniRef90_F1Q8S1 N K M G K N T V Q G R L S F H A
 UniRef90_W8BCB8 N Q F A F K T H R F T L N V
 UniRef90_U3JPS6 N A A G A D S L A V R L H I A A
 UniRef90_UPI000393F2F3 N S A G T V S Y Q A R I N V R G
 UniRef90_G1NWX9 N R V G S A E A F T L V H V Q G
 UniRef90_W5NPR4 N S I G V S T V V I S L G V Q
 UniRef90_U4U1P9 N R A G H V S S K S R L T V E A
 UniRef90_L5M7P7 N E C G S I N H T Y H D V
 UniRef90_E7F5U2 N D G G E A V M L V Q L E V
 UniRef90_Q6NR91 N K S G E V S A S I N L N
 UniRef90_L5LFJ9 N A Q G K T A V T A S L D I R
 UniRef90_F7CT64 N Y A G E T
 UniRef90_O00533 T A L L D S A A D I T Q V T V
 UniRef90_G0P6F4 N D V G S E Q A N A Q L L V D A
 UniRef90_UPI000443AFE4 N Q H G Y L L A N A F V S V
 UniRef90_W4WHT4 N R H G S D Q I T H R L T V Q
 UniRef90_H2V6Q8 N A A G H V S S N F S L N I
 UniRef90_UPI0002236283 N R H G L L L A N A Y I I Y V
 UniRef90_UPI000214B93A N K L G T A S H E I Q L M A E G
 UniRef90_A0A034WSB8 N A L L G R T K K Y I E V S
 UniRef90_G3TPV7 T K L L D V V E S R A Q L L V V G
 UniRef90_S9XKT6 N S A G Q R E S R A R V S V Q
 UniRef90_L5WKW2 T A V E S V S S A A N L T V V R G
 UniRef90_UPI00045753EF N R L L G S D S R V S H I Q V
 UniRef90_C9DED1 N S I G L A H S S A W V N V
 UniRef90_UPI00046C129A N S A G E A D A V A D V I V E
 UniRef90_UPI00046C2F30 N D G G S C S C T R V S L K
 UniRef90_F6PVG4 N K V G Y L E K L V I L E I
 UniRef90_F1PA86 N N W G S D E I I L N L Q V Q
 UniRef90_T1JES3 N T I L G S I S A M A L L S I
 UniRef90_H2TJK2 N T W G A V S R R A S L R
 UniRef90_UPI00038EF407 T E Y G S S A V T I P V I V I A
 UniRef90_H2U6H8 N Q Y G Y L L A N A F V N V
 UniRef90_T1EVU3 N S F K N T Q T F C I L K A K
 UniRef90_UPI00032AEDEC N R L G T A V S R A L L S V
 UniRef90_UPI00046BDA82 D G Y S S
 UniRef90_F6TY02 Q P Q L S I S Q S V H V A V K

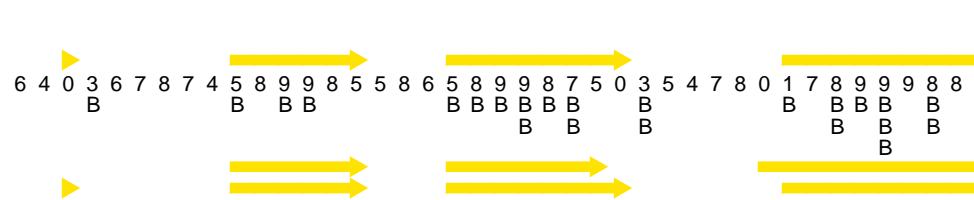
UniRef90_Q4SR20
 UniRef90_F6PVH4
 UniRef90_UP100046B85BD
 UniRef90_W5LB29
 UniRef90_V8P7Z0
 UniRef90_UP100026521D6
 UniRef90_Q6AWJ9
 UniRef90_UP10003D0DAA3
 UniRef90_H2YLF1
 UniRef90_F7GEA8
 UniRef90_B7P4A1
 UniRef90_UP10003C1B1F9
 UniRef90_U6DJ4
 UniRef90_F6X6W5
 UniRef90_UP1000359B179
 UniRef90_E2ARB1
 UniRef90_Q4T583
 UniRef90_G1KEL6
 UniRef90_H9KTF8
 UniRef90_W4XR77
 UniRef90_F4W742
 UniRef90_G5BQR9
 UniRef90_UP100038F146D
 UniRef90_H9KM92
 UniRef90_Q4T109
 UniRef90_B0WJF5
 UniRef90_UP1000443E007
 UniRef90_UP10003F06323
 UniRef90_T1JCP4
 UniRef90_T1JCZ6
 UniRef90_D2XNH9
 UniRef90_T1JC13
 UniRef90_H2LAX0

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



UniRef90_Q4SR20
 UniRef90_F6PVH4
 UniRef90_UP100046B85BD
 UniRef90_W5LB29
 UniRef90_V8P7Z0
 UniRef90_UP100026521D6
 UniRef90_Q6AWJ9
 UniRef90_UP10003D0DAA3
 UniRef90_H2YLF1
 UniRef90_F7GEA8
 UniRef90_B7P4A1
 UniRef90_UP10003C1B1F9
 UniRef90_U6DJ4
 UniRef90_F6X6W5
 UniRef90_UP1000359B179
 UniRef90_E2ARB1
 UniRef90_Q4T583
 UniRef90_G1KEL6
 UniRef90_K9JTF8
 UniRef90_W4XR77
 UniRef90_F4W742
 UniRef90_G5BQR9
 UniRef90_UP100038F146D
 UniRef90_H9KM92
 UniRef90_Q4T109
 UniRef90_B0WJF5
 UniRef90_UP1000443E007
 UniRef90_UP10003F06323
 UniRef90_H2LAX0

50 60 70 80
 G Q I L I D F Q R D G N H F E R V G G S V S L M I R N I Q L S H G G K Y V C L I D
 S G Y V V D R P Q I N R K Y I L H D N G T L V I K E A T A Y D R G N Y I C K A Q
 N G L Y L P H G S R D I G G R L E M P N I K V E H S G T Y V C E A I
 G Y S Y G K G E L K F S S L T F E D S G G M Y Q C I A E
 G E D I E E S D D N N K Y I I G D M S L K V T N V D F S D Q G T Y S C L A W
 E E Q L Q S G G R V S I E E S G Q A L V I S A V E I S D E G T Y T C V A S
 G E N T T L P D H V E V D A N G T L I F R N V N S E H R G N Y T C L A T
 N N P L Q E D S R R F V S Q E T G N L Y I A K V E P S D V G N Y T C I V A
 R I P L K Q G E R L V Y E R T R D T A I L M I K D I K K V D A G Q Y I L H E
 D N I F L T A P Y Y G S R I T V H K N G T L E I R N V R L T D T A D F I C I V R
 N D R V P D K S K V S T V A N Q S V T S T L V V S T E T V E D S G I Y S C M A K
 G A P L P P D S R L S T A Q D G H V Y R L F I H S V V L A D Q G T Y G C E S H
 G G D L P K G R E T K E N Y G K T L K I E N V S H R D R G N Y R C T A N
 D E I L Q S S E R T A I L K D G G L Q I A N V T K L D V G T Y T C I A E
 S K V I D Q W H R T G S R A H V Y P N G S L V I G S V T E Q D G G D Y L C V A R
 G F E I F S S R R T R I T D N G K S V L L H Q T A H N D E G E I K C T A T
 G E E V L T P N H V R G N M V V T N I G Q L V I Y N A Q P R D S G L Y T C T A Q
 N G M K L D S P Q A H G R F S L S E N G S L T V R E A S V F D R G T Y L C K V A
 N I V L E S D D K Y G L N N D G S E L I K D V K K V D E G D Y T C I A R
 G K V I R P E R D D R L K I T D Y S V S I L D I V E V K L V D T G E Y A C V A I
 G E P L S Q I A G Q Y V D Q S G D V I S H L N I S S A G A E D G G L Y A C V A S
 S K R I I D G S A N A S H A Y M W A D G S L S I P S V Q V I S H A G Y Y R C V A V
 P L S M W R E F A V L T S D A A L S E L V I P T A H P M D S G N Y T C V A S
 G Q Q L P P P G R S V D D N H G L L V I R D V K V S D S G I Y V C Q V I S
 R R R V F T G R S H G R V T V H N N G T L E I K S A E V Q D S G V Y L C L A S
 N V D V N P V I P R N M T K L E V L A D F L K F N S I K K T D A G Y Y S C
 K N Q V L L P T Q K T R R A E V L E N G T L V V R K M T Q E D A G E Y S C L A S
 S A N I N L S G R Y S L N G G S L T I S N I V R E D D G I Y T C Y A S
 G H P V S T D G R R L K I R N Q F E L T I A S V E R R D H G M Y Q C F V G
 D G T L P S S R R Y K T S E N G D V V S F V N V T N V R V D D G G N Y R C M A A
 T K P L P E E R T T Y P S F G Q E V L I A D V K F E D E G E Y R C T A S
 G Q E I R P E M G I N I R N Y D D H A N S L S I E S V S S T H T G N Y T C L A S
 R K E F T L E A T H R R R H N N L E F L A L G S A D E G T Y A C G V D



UniRef90_Q4SR20
 UniRef90_F6PVH4
 UniRef90_UP100046B85BD
 UniRef90_W5LB29
 UniRef90_V8P7Z0
 UniRef90_UP100026521D6
 UniRef90_Q6AWJ9
 UniRef90_UP10003D0DAA3
 UniRef90_H2YLF1
 UniRef90_F7GEA8
 UniRef90_B7P4A1
 UniRef90_UP10003C1B1F9
 UniRef90_U6DJD4
 UniRef90_F6X6W5
 UniRef90_UP1000359B179
 UniRef90_E2ARB1
 UniRef90_Q4T583
 UniRef90_G1KEL6
 UniRef90_K9JTF8
 UniRef90_W4XR77
 UniRef90_F4W742
 UniRef90_G5BQR9
 UniRef90_UP100038F146D
 UniRef90_H9KM92
 UniRef90_Q4T109
 UniRef90_B0WJF5
 UniRef90_UP1000443E007
 UniRef90_UP10003F06323
 UniRef90_T1JCP4
 UniRef90_T1JCZ6
 UniRef90_D2XNH9
 UniRef90_T1JC13
 UniRef90_H2LAX0

90

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

lupas_21
 lupas_14
 lupas_28
 jnet
 conf
 sol25
 sol5
 solo
 jhmm
 jpssm

