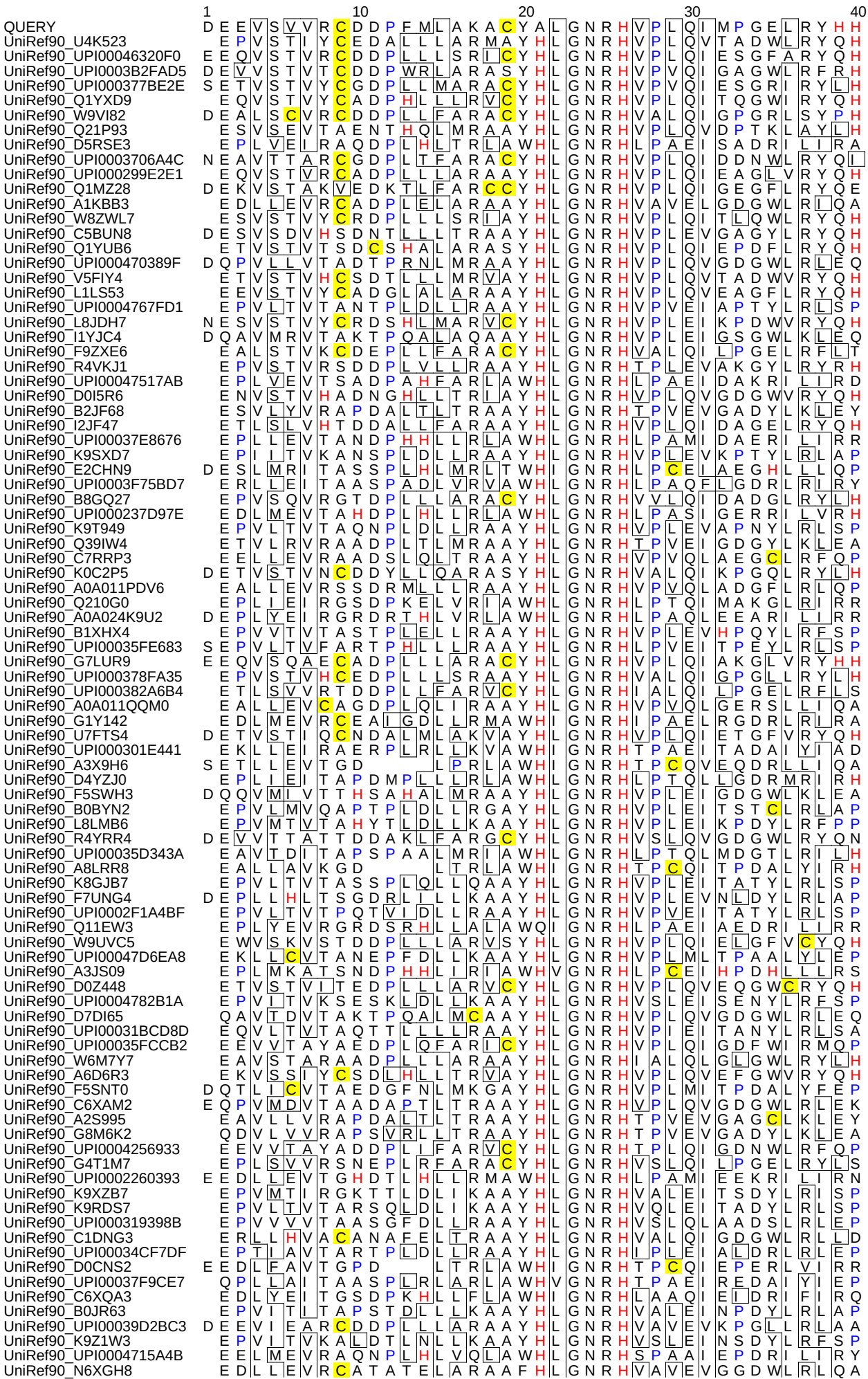
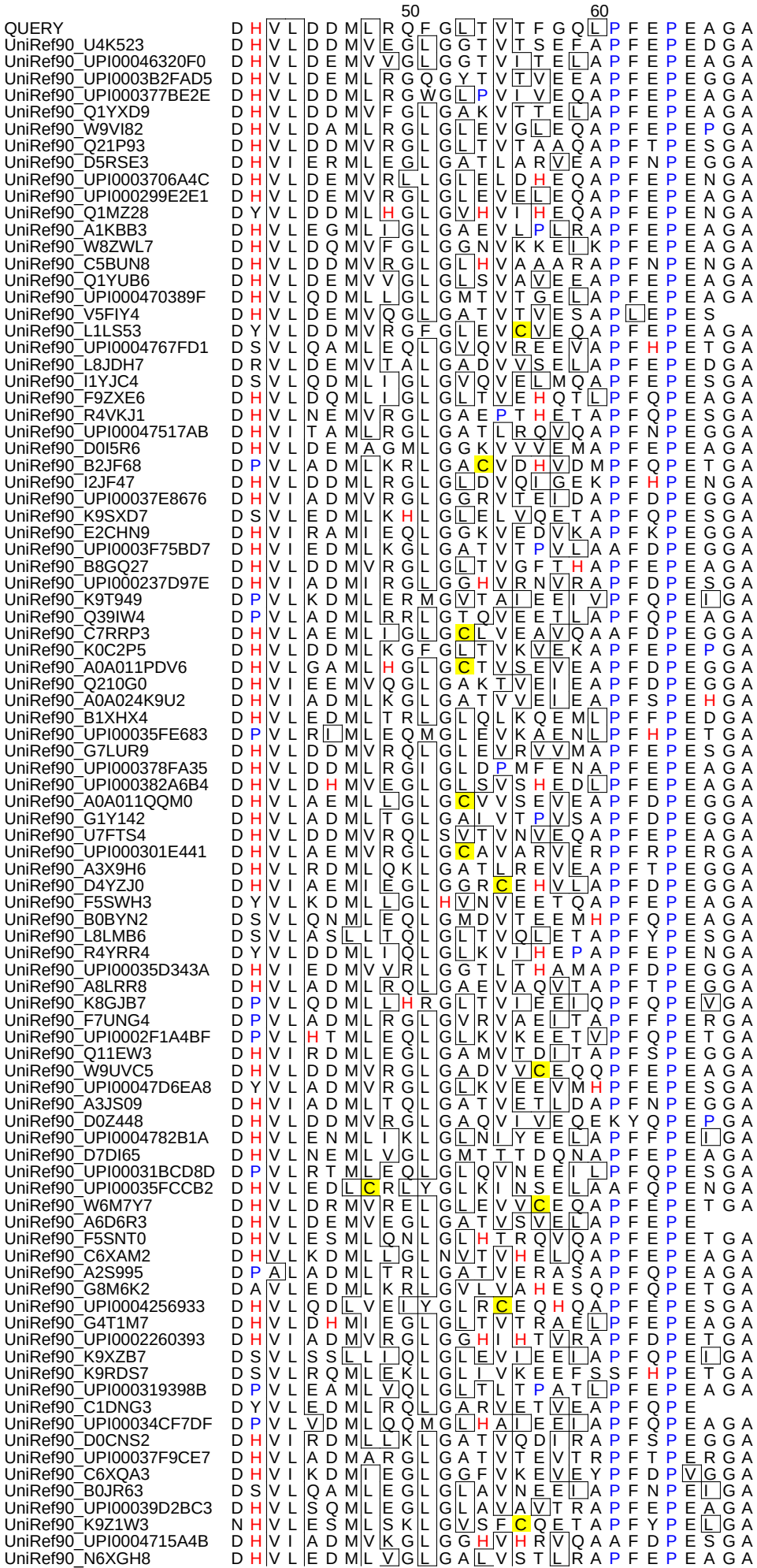
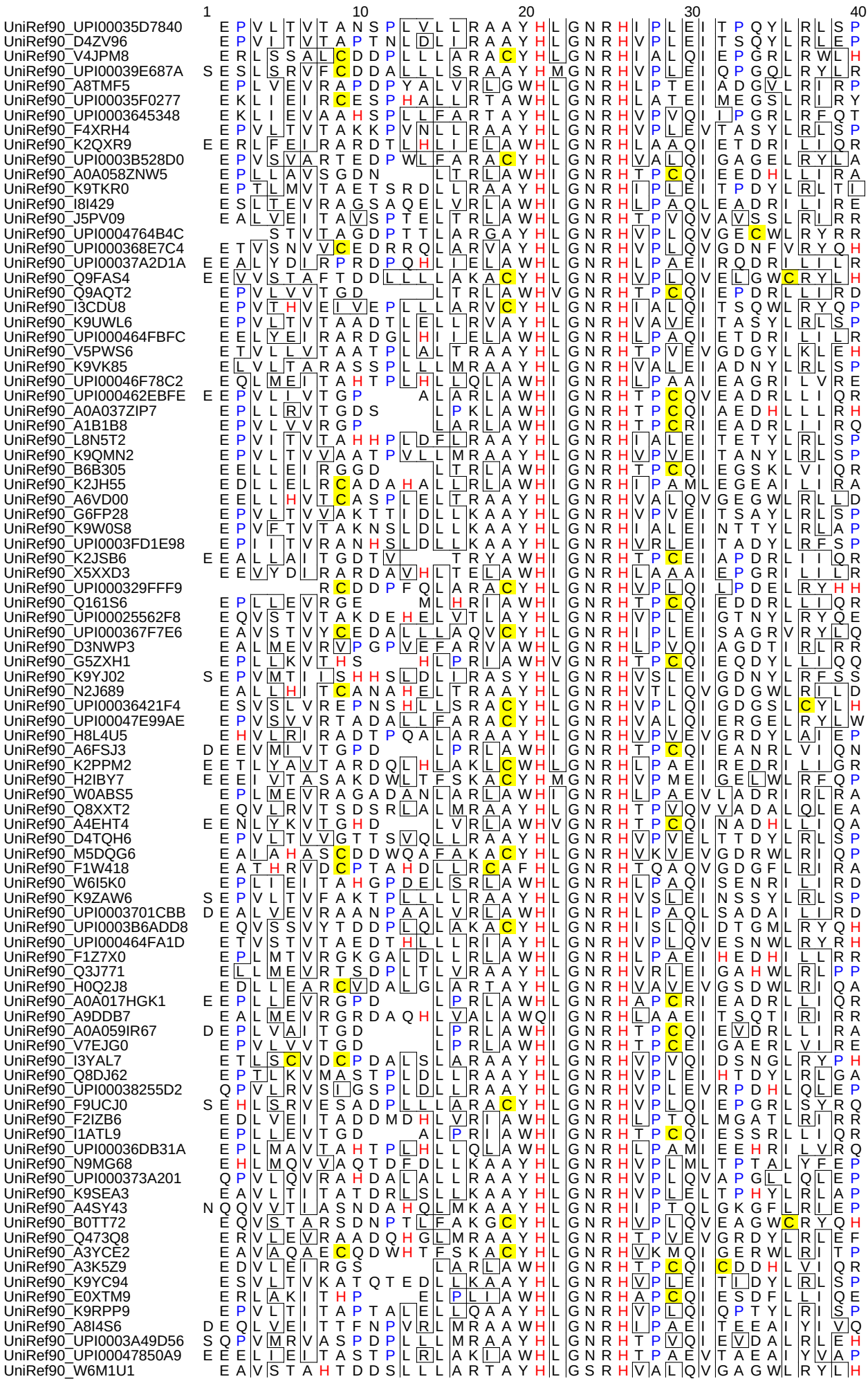
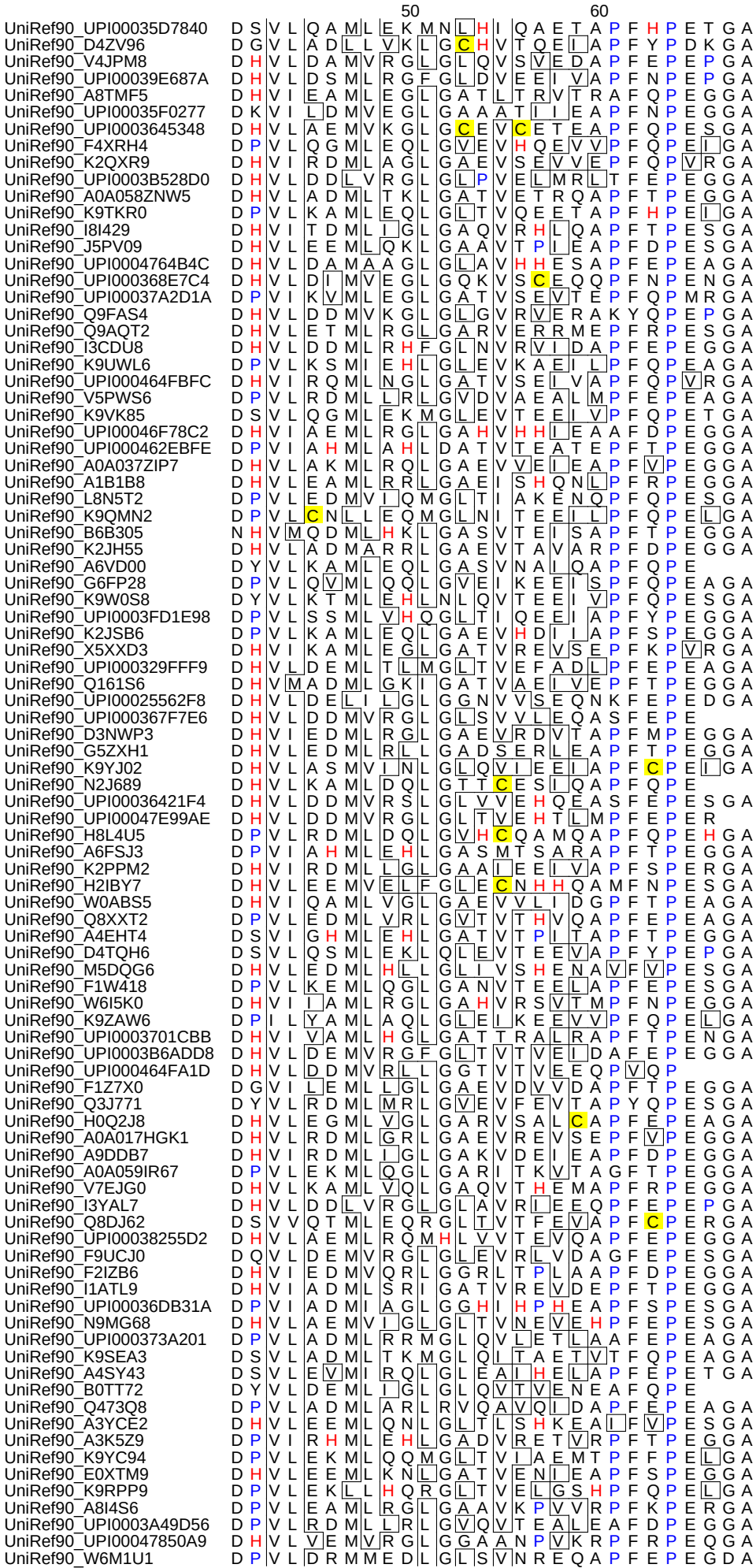
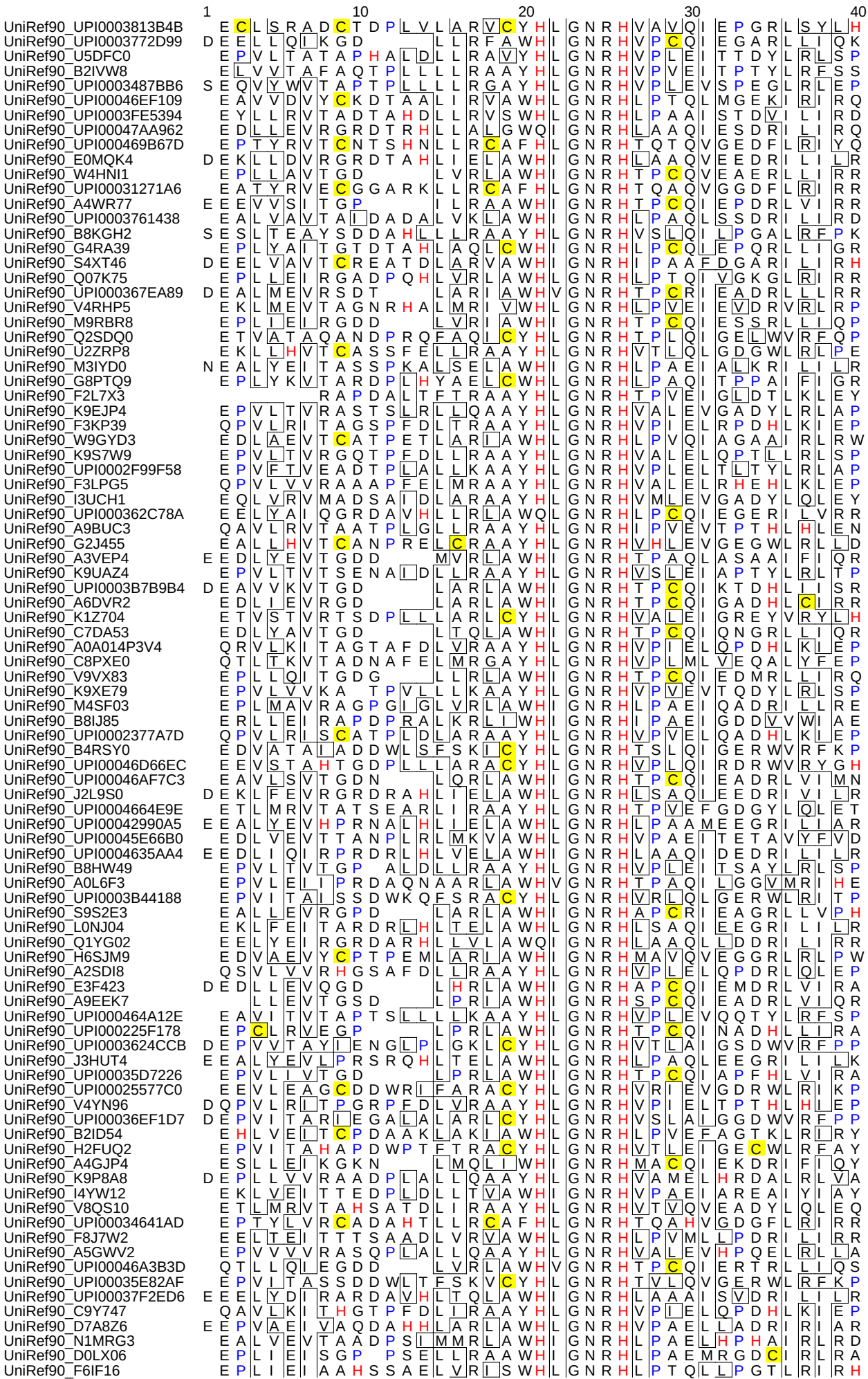
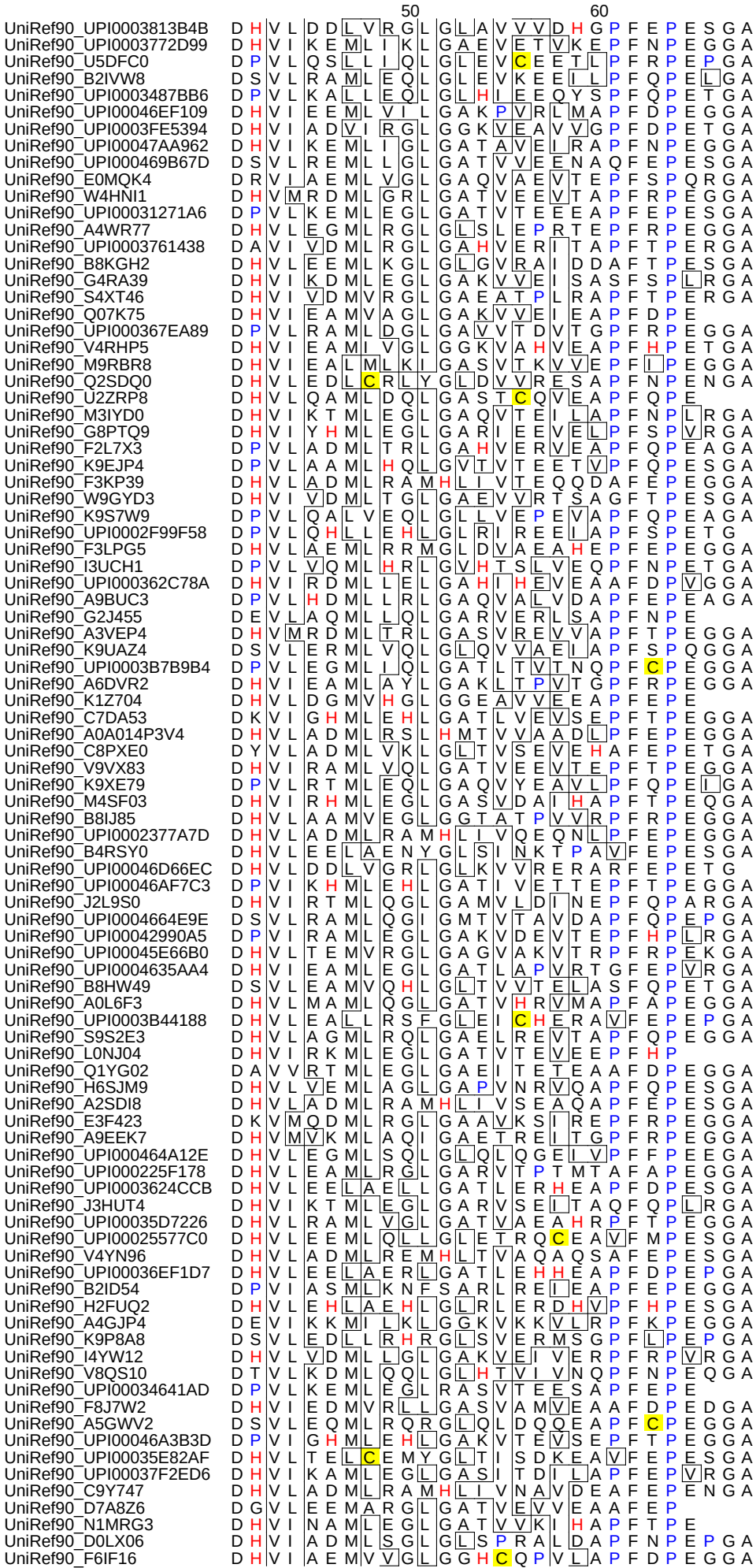

1
10
20
30
40
QUERY D E E V S V V R C D D P F M L A K A C Y A L G N R H V P L Q I M P G E L R Y H H
UniRef90_U4K523 E P V S T I Y C E D A L L L A R M A Y H L G N R H V P L Q V T A D W L R Y Q H
UniRef90_UPI00046320F0 E E Q V S T V R C D D P L L L S R I C Y H L G N R H V P L Q I E S G F A R Y Q H
UniRef90_UPI0003B2FAD5 D E V V S T V T C D D P W R L A R A S Y H L G N R H V P V Q I G A G W L R F R H
UniRef90_UPI000377BE2E S E T V S T V Y C G D P L L M A R A C Y H L G N R H V P V Q I E S G R I R Y L H
UniRef90_Q1YXD9 E Q V S T V Y C A D P H L L L R V C Y H L G N R H V P L Q I T Q G W I R Y Q H
UniRef90_W9VI82 D E A L S C V R C D D P L L F A R A C Y H L G N R H V A L Q I G P G R L S Y P H
UniRef90_Q21P93 E S V S E V T A E N T H Q L M R A A Y H L G N R H V P L Q V D P T K L A Y L H
UniRef90_D5RSE3 E P L V E I R A Q D P L H L T R L A W H L G N R H L P A E I S A D R I L I R A
UniRef90_UPI0003706A4C N E A V T T A R C G D P L T F A R A C Y H L G N R H V P L Q I D D N W L R Y Q I
UniRef90_UPI000299E2E1 E Q V S T V R C A D P L L L A R A A Y H L G N R H V P L Q I E A G L V R Y Q H
UniRef90_Q1MZ28 D E K V S T A K V E D K T L F A R C C Y H L G N R H V P L Q I G E G F L R Y Q E
UniRef90_A1KBB3 E D L L E V R C A D P L E L A R A A Y H L G N R H V A V E L G D G W L R I Q A
UniRef90_W8ZWL7 E S V S T V Y C R D P L L L S R I A Y H L G N R H V P L Q I T L Q W L R Y Q H
UniRef90_C5BUN8 D E S V S D V H S D N T L L L T R A A Y H L G N R H V P L E V G A G Y L R Y Q H
UniRef90_Q1YUB6 E T V S T V T S D C S H A L A R A S Y H L G N R H V P L Q I E P D F L R Y Q H
UniRef90_UPI000470389F D Q P V L L V T A D T P R N L M R A A Y H L G N R H V P L Q V G D G W L R L E Q
UniRef90_V5FIY4 E T V S T V H C S D T L L L M R V A Y H L G N R H V P L Q V T A D W V R Y Q H
UniRef90_L1LS53 E E V S T V Y C A D G L A L A R A A Y H L G N R H V P L Q V E A G F L R Y Q H
UniRef90_UPI0004767FD1 E P V L T V T A N T P L D L L R A A Y H L G N R H V P V E I A P T Y L R L S P
UniRef90_L8JDH7 N E S V S T V Y C R D S H L M A R V C Y H L G N R H V P L E I K P D W V R Y Q H
UniRef90_I1YJC4 D Q A V M R V T A K T P Q A L A Q A A Y H L G N R H V P L E I G S G W L K L E Q
UniRef90_F9ZXE6 E A L S T V K C D E P L L F A R A C Y H L G N R H V A L Q I L P G E L R F L T
UniRef90_R4VKJ1 E P V S T V R S D D P L V L L R A A Y H L G N R H T P L E V A K G Y L R Y R H
UniRef90_UPI00047517AB E P L V E V T S A D P A H F A R L A W H L G N R H L P A E I D A K R I L I R D
UniRef90_D0I5R6 E N V S T V H A D N G H L L T R I A Y H L G N R H V P L Q V G D G W V R Y Q H
UniRef90_B2JF68 E S V L Y V R A P D A L T L T R A A Y H L G N R H T P V E V G A D Y L K L E Y
UniRef90_I2JF47 E T L S L V H T D D A L L F A R A A Y H L G N R H V P L Q I D A G E L R Y Q H
UniRef90_UPI00037E8676 E P L L E V T A N D P H H L L R L A W H L G N R H L P A M I D A E R I L I R R
UniRef90_K9SXD7 E P I I T V K A N S P L D L L R A A Y H L G N R H V P L E V K P T Y L R L A P
UniRef90_E2CHN9 D E S L M R I T A S S P L H L M R L T W H I G N R H L P C E I A E G H L L L Q P
UniRef90_UPI0003F75BD7 E R L L E I T A A S P A D L V R V A W H L G N R H L P A Q F L G D R L R I R Y
UniRef90_B8GQ27 E P V S Q V R G T D P L L L A R A C Y H L G N R H V V L Q I D A D G L R Y L H
UniRef90_UPI000237D97E E D L M E V T A H D P L H L L R L A W H L G N R H L P A S I G E R R I L V R H
UniRef90_K9T949 E P V L T V T A Q N P L D L L R A A Y H L G N R H V P L E V A P N Y L R L S P
UniRef90_Q39IW4 E T V L R V R A A D P L T L M R A A Y H L G N R H T P V E I G D G Y L K L E A
UniRef90_C7RRP3 E E L L E V R A A D S L Q L T R A A Y H L G N R H V P V Q L A E G C L R F Q P
UniRef90_K0C2P5 D E T V S T V N C D D Y L L Q A R A S Y H L G N R H V A L Q I K P G Q L R Y L H
UniRef90_A0A011PDV6 E A L L E V R S S D R M L L L R A A Y H L G N R H V P V Q L A D G F L R L Q P
UniRef90_Q210G0 E P L I E I R G S D P K E L V R I A W H L G N R H L P T Q I M A K G L R I R R
UniRef90_A0A024K9U2 D E P L Y E I R G R D R T H L V R L A W H L G N R H L P A Q L E E A R I L I R R
UniRef90_B1XHX4 E P V V T V T A S T P L E L L R A A Y H L G N R H V P L E V H P Q Y L R F S P
UniRef90_UPI00035FE683 S E P V L T V F A R T P H L L L R A A Y H L G N R H L P V E I T P E Y L R L S P
UniRef90_G7LUR9 E E Q V S Q A E C A D P L L L A R A C Y H L G N R H V P L Q I A K G L V R Y H H
UniRef90_UPI000378FA35 E P V S T V H C E D P L L L S R A A Y H L G N R H V A L Q I G P G L L R Y L H
UniRef90_UPI000382A6B4 E T L S V V R T D D P L L F A R V C Y H L G N R H I A L Q I L P G E L R F L S
UniRef90_A0A011QQM0 E A L L E V C A G D P L Q L I R A A Y H L G N R H V P V Q L G E R S L L I Q A
UniRef90_G1Y142 E D L M E V R C E A I G D L L R M A W H I G N R H I P A E L R G D R L R I R A
UniRef90_U7FTS4 D E T V S T I Q C N D A L M L A K V A Y H L G N R H V P L Q I E T G F V R Y Q H
UniRef90_UPI000301E441 E K L L E I R A E R P L R L L K V A W H I G N R H T P A E I T A D A I Y I A D
UniRef90_A3X9H6 S E T L L E V T G D L P R L A W H I G N R H T P C Q V E Q D R L L I Q A
UniRef90_D4YZJ0 E P L I E I T A P D M P L L L R L A W H L G N R H L P T Q L L G D R M R I R H
UniRef90_F5SWH3 D Q Q V M I V T T H S A H A L M R A A Y H L G N R H V P L E I G D G W L K L E A
UniRef90_B0BYN2 E P V L M V Q A P T P L D L L R G A Y H L G N R H V P L E I T S T C L R L A P
UniRef90_L8LMB6 E P V M T V T A H Y T L D L L K A A Y H L G N R H V P L E I K P D Y L R F P P
UniRef90_R4YRR4 D E V V T T A T T D D A K L F A R G C Y H L G N R H V S L Q V G D G W L R Y Q N
UniRef90_UPI00035D343A E A V T D I T A P S P A A L M R I A W H L G N R H L P T Q L M D G T L R I L H
UniRef90_A8LRR8 E A L L A V K G D L T R L A W H I G N R H T P C Q I T P D A L Y I R H
UniRef90_K8GJB7 E P V L T V T A S S P L Q L L Q A A Y H L G N R H V P L E I T A T Y L R L S P
UniRef90_F7UNG4 D E P L L H L T S G D R L I L L K A A Y H L G N R H V P L E V N L D Y L R L A P
UniRef90_UPI0002F1A4BF E P V L T V T P Q T V I D L L R A A Y H L G N R H V P V E I T A T Y L R L S P
UniRef90_Q11EW3 E P L Y E V R G R D S R H L L A L A W Q I G N R H L P A E I A E D R I L I R R
UniRef90_W9UVC5 E W V S K V S T D D P L L L A R V S Y H L G N R H V P L Q I E L G F V C Y Q H
UniRef90_UPI00047D6EA8 E K L L C V T A N E P F D L L K A A Y H L G N R H V P L M L T P A A L Y L E P
UniRef90_A3JS09 E P L M K A T S N D P H H L I R I A W H V G N R H L P C E I H P D H L L L R S
UniRef90_D0Z448 E T V S T V I T E D P L L L A R V C Y H L G N R H V P L Q V E Q G W C R Y Q H
UniRef90_UPI0004782B1A E P V I T V K S E S K L D L L K A A Y H L G N R H V S L E I S E N Y L R F S P
UniRef90_D7DI65 Q A V T D V T A K T P Q A L M C A A Y H L G N R H V P L Q V G D G W L R L E Q
UniRef90_UPI00031BCD8D E Q V L T V T A Q T T L L L L R A A Y H L G N R H V P I E I T A N Y L R L S A
UniRef90_UPI00035FCCB2 E E V V T A Y A E D P L Q F A R I C Y H L G N R H V P L Q I G D F W I R M Q P
UniRef90_W6M7Y7 E A V S T A R A A D P L L L A R A A Y H L G N R H I A L Q L G L G W L R Y L H
UniRef90_A6D6R3 E K V S S I Y C S D L H L L T R V A Y H L G N R H V P L Q V E F G W V R Y Q H
UniRef90_F5SNT0 D Q T L I C V T A E D G F N L M K G A Y H L G N R H V P L M I T P D A L Y F E P
UniRef90_C6XAM2 E Q P V M D V T A A D A P T L T R A A Y H L G N R H V P L Q V G D G W L R L E K
UniRef90_A2S995 E A V L L V R A P D A L T L T R A A Y H L G N R H T P V E V G A G C L K L E Y
UniRef90_G8M6K2 Q D V L V V R A P S V R L L T R A A Y H L G N R H T P V E V G A D Y L K L E A
UniRef90_UPI0004256933 E E V V T A Y A D D P L I F A R V C Y H L G N R H T P L Q I G D N W L R F Q P
UniRef90_G4T1M7 E P L S V V R S N E P L R F A R A C Y H L G N R H V S L Q I L P G E L R Y L S
UniRef90_UPI0002260393 E E D L L E V T G H D T L H L L R M A W H L G N R H L P A M I E E K R I L I R N
UniRef90_K9XZB7 E P V M T I R G K T T L D L I K A A Y H L G N R H V A L E I T S D Y L R I S P
UniRef90_K9RDS7 E P V L T V T A R S Q L D L I K A A Y H L G N R H V Q L E I T A D Y L R L S P
UniRef90_UPI000319398B E P V V V V T A A S G F D L L R A A Y H L G N R H V S L Q L A A D S L R L E P
UniRef90_C1DNG3 E R L L H V A C A N A F E L T R A A Y H L G N R H V A L Q I G D G W L R L L D
UniRef90_UPI00034CF7DF E P T I A V T A R T P L D L L R A A Y H L G N R H I P L E I A L D R L R L E P
UniRef90_D0CNS2 E E D L F A V T G P D L T R L A W H I G N R H T P C Q I E P E R L V I R R
UniRef90_UPI00037F9CE7 Q P L L A I T A A S P L R L A R L A W H V G N R H T P A E I R E D A I Y I E P
UniRef90_C6XQA3 E D L Y E I T G S D P K H L L F L A W H I G N R H L A A Q I E I D R I F I R Q
UniRef90_B0JR63 E P V I T I T A P S T D L L L K A A Y H L G N R H V A L E I N P D Y L R L A P
UniRef90_UPI00039D2BC3 D E E V I E A R C D D P L L L A R A A Y H L G N R H V A V E V K P G L L R L A A
UniRef90_K9Z1W3 E P V I T V K A L D T L N L L K A A Y H L G N R H V S L E I N S D Y L R F S P
UniRef90_UPI0004715A4B E E L M E V R A Q N P L H L V Q L A W H L G N R H S P A A I E P D R I L I R Y
UniRef90_N6XGH8 E D L L E V R C A T A T E L A R A A F H L G N R H V A V E V G G D W L R L Q A

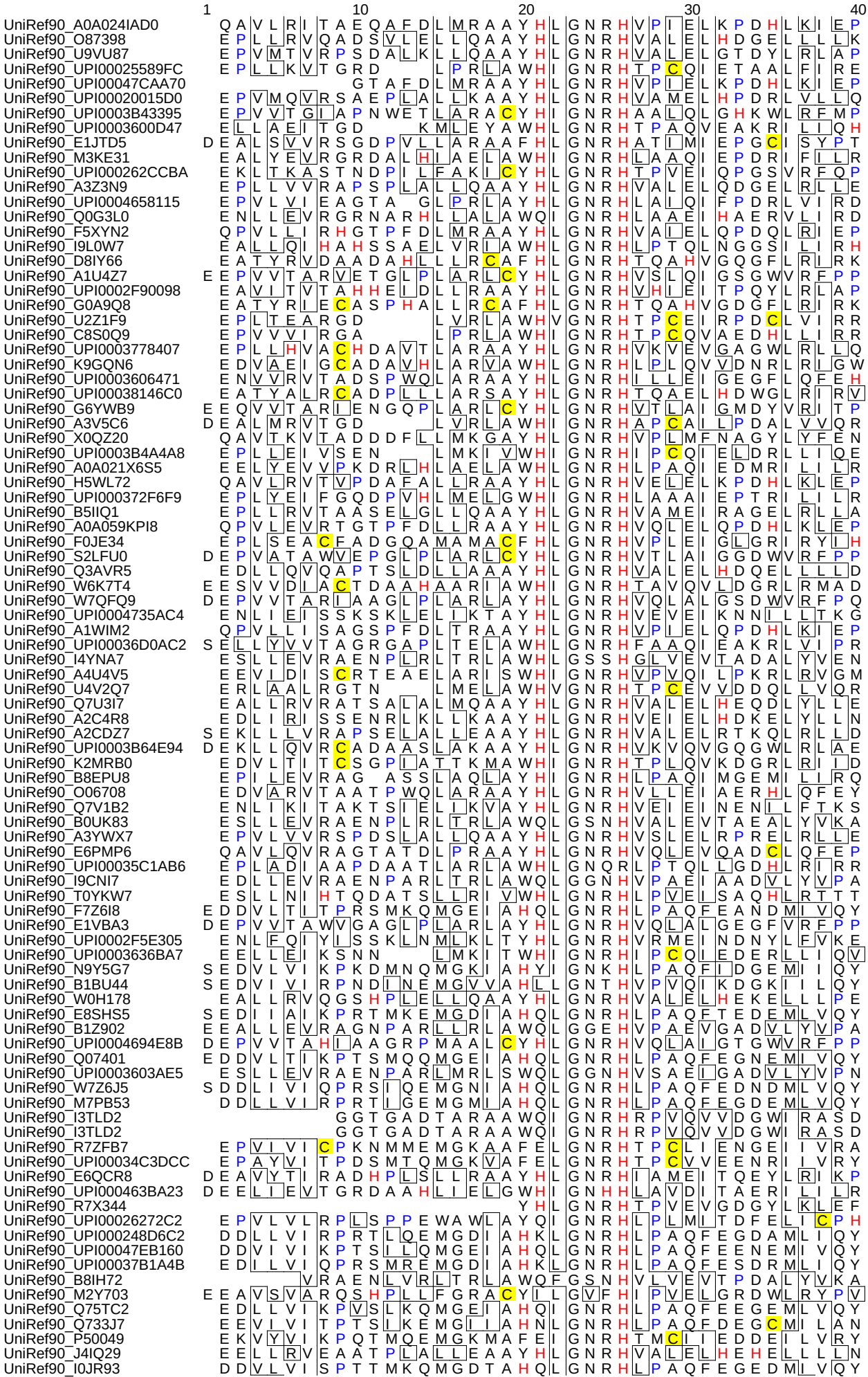

50
60
QUERY D H V L D D M L R Q F G L T V T F G Q L P F E P E A G A
UniRef90_U4K523 D H V L D D M V E G L G G T V T S E F A P F E P E D G A
UniRef90_UPI00046320F0 D H V L D E M V V G L G G T V I T E L A P F E P E A G A
UniRef90_UPI0003B2FAD5 D H V L D E M L R G Q G Y T V T V E E A P F E P E G G A
UniRef90_UPI000377BE2E D H V L D D M L R G W G L P V I V E Q A P F E P E A G A
UniRef90_Q1YXD9 D H V L D D M V F G L G A K V T T E L A P F E P E A G A
UniRef90_W9VI82 D H V L D A M L R G L G L E V G L E Q A P F E P E P G A
UniRef90_Q21P93 D H V L D D M V R G L G L T V T A A Q A P F T P E S G A
UniRef90_D5RSE3 D H V I E R M L E G L G A T L A R V E A P F N P E G G A
UniRef90_UPI0003706A4C D H V L D E M V R L L G L E L D H E Q A P F E P E N G A
UniRef90_UPI000299E2E1 D H V L D E M V R G L G L E V E L E Q A P F E P E A G A
UniRef90_Q1MZ28 D Y V L D D M L H G L G V H V I H E Q A P F E P E N G A
UniRef90_A1KBB3 D H V L E G M L I G L G A E V L P L R A P F E P E A G A
UniRef90_W8ZWL7 D H V L D Q M V F G L G G N V K K E I K P F E P E A G A
UniRef90_C5BUN8 D H V L D D M V R G L G L H V A A A R A P F N P E N G A
UniRef90_Q1YUB6 D H V L D E M V V G L G L S V A V E E A P F E P E A G A
UniRef90_UPI000470389F D H V L Q D M L L G L G M T V T G E L A P F E P E A G A
UniRef90_V5FIY4 D H V L D E M V Q G L G A T V T V E S A P L E P E S
UniRef90_L1LS53 D Y V L D D M V R G F G L E V C V E Q A P F E P E A G A
UniRef90_UPI0004767FD1 D S V L Q A M L E Q L G V Q V R E E V A P F H P E T G A
UniRef90_L8JDH7 D R V L D E M V T A L G A D V V S E L A P F E P E D G A
UniRef90_I1YJC4 D S V L Q D M L I G L G V Q V E L M Q A P F E P E S G A
UniRef90_F9ZXE6 D H V L D Q M L I G L G L T V E H Q T L P F Q P E A G A
UniRef90_R4VKJ1 D H V L N E M V R G L G A E P T H E T A P F Q P E S G A
UniRef90_UPI00047517AB D H V I T A M L R G L G A T L R Q V Q A P F N P E G G A
UniRef90_D0I5R6 D H V L D E M A G M L G G K V V V E M A P F E P E A G A
UniRef90_B2JF68 D P V L A D M L K R L G A C V D H V D M P F Q P E T G A
UniRef90_I2JF47 D H V L D D M L R G L G L D V Q I G E K P F H P E N G A
UniRef90_UPI00037E8676 D H V I A D M V R G L G G R V T E I D A P F D P E G G A
UniRef90_K9SXD7 D S V L E D M L K H L G L E L V Q E T A P F Q P E S G A
UniRef90_E2CHN9 D H V I R A M I E Q L G G K V E D V K A P F K P E G G A
UniRef90_UPI0003F75BD7 D H V I E D M L K G L G A T V T P V L A A F D P E G G A
UniRef90_B8GQ27 D H V L D D M V R G L G L T V G F T H A P F E P E A G A
UniRef90_UPI000237D97E D H V I A D M I R G L G G H V R N V R A P F D P E S G A
UniRef90_K9T949 D P V L K D M L E R M G V T A I E E I V P F Q P E I G A
UniRef90_Q39IW4 D P V L A D M L R R L G T Q V E E T L A P F Q P E A G A
UniRef90_C7RRP3 D H V L A E M L I G L G C L V E A V Q A A F D P E G G A
UniRef90_K0C2P5 D H V L D D M L K G F G L T V K V E K A P F E P E P G A
UniRef90_A0A011PDV6 D H V L G A M L H G L G C T V S E V E A P F D P E G G A
UniRef90_Q210G0 D H V I E E M V Q G L G A K T V E I E A P F D P E G G A
UniRef90_A0A024K9U2 D H V I A D M L K G L G A T V V E I E A P F S P E H G A
UniRef90_B1XHX4 D H V L E D M L T R L G L Q L K Q E M L P F F P E D G A
UniRef90_UPI00035FE683 D P V L R I M L E Q M G L E V K A E N L P F H P E T G A
UniRef90_G7LUR9 D H V L D D M V R Q L G L E V R V V M A P F E P E S G A
UniRef90_UPI000378FA35 D H V L D D M L R G I G L D P M F E N A P F E P E A G A
UniRef90_UPI000382A6B4 D H V L D H M V E G L G L S V S H E D L P F E P E A G A
UniRef90_A0A011QQM0 D H V L A E M L L G L G C V V S E V E A P F D P E G G A
UniRef90_G1Y142 D H V L A D M L T G L G A I V T P V S A P F D P E G G A
UniRef90_U7FTS4 D H V L D D M V R Q L S V T V N V E Q A P F E P E A G A
UniRef90_UPI000301E441 D H V L A E M V R G L G C A V A R V E R P F R P E R G A
UniRef90_A3X9H6 D H V L R D M L Q K L G A T L R E V E A P F T P E G G A
UniRef90_D4YZJ0 D H V I A E M I E G L G G R C E H V L A P F D P E G G A
UniRef90_F5SWH3 D Y V L K D M L L G L H V N V E E T Q A P F E P E A G A
UniRef90_B0BYN2 D S V L Q N M L E Q L G M D V T E E M H P F Q P E A G A
UniRef90_L8LMB6 D S V L A S L L T Q L G L T V Q L E T A P F Y P E S G A
UniRef90_R4YRR4 D Y V L D D M L I Q L G L K V I H E P A P F E P E N G A
UniRef90_UPI00035D343A D H V I E D M V V R L G G T L T H A M A P F D P E G G A
UniRef90_A8LRR8 D H V L A D M L R Q L G A E V A Q V T A P F T P E G G A
UniRef90_K8GJB7 D P V L Q D M L L H R G L T V I E E I Q P F Q P E V G A
UniRef90_F7UNG4 D P V L A D M L R G L G V R V A E I T A P F F P E R G A
UniRef90_UPI0002F1A4BF D P V L H T M L E Q L G L K V K E E T V P F Q P E T G A
UniRef90_Q11EW3 D H V I R D M L E G L G A M V T D I T A P F S P E G G A
UniRef90_W9UVC5 D H V L D D M V R G L G A D V V C E Q Q P F E P E A G A
UniRef90_UPI00047D6EA8 D Y V L A D M V R G L G L K V E E V M H P F E P E S G A
UniRef90_A3JS09 D H V I A D M L T Q L G A T V E T L D A P F N P E G G A
UniRef90_D0Z448 D H V L D D M V R G L G A Q V I V E Q E K Y Q P E P G A
UniRef90_UPI0004782B1A D H V L E N M L I K L G L N I Y E E L A P F F P E I G A
UniRef90_D7DI65 D H V L N E M L V G L G M T T T D Q N A P F E P E A G A
UniRef90_UPI00031BCD8D D P V L R T M L E Q L G L Q V N E E I L P F Q P E S G A
UniRef90_UPI00035FCCB2 D H V L E D L C R L Y G L K I N S E L A A F Q P E N G A
UniRef90_W6M7Y7 D H V L D R M V R E L G L E V V C E Q A P F E P E T G A
UniRef90_A6D6R3 D H V L D E M V E G L G A T V S V E L A P F E P E
UniRef90_F5SNT0 D H V L E S M L Q N L G L H T R Q V Q A P F E P E T G A
UniRef90_C6XAM2 D H V L K D M L L G L N V T V H E L Q A P F E P E A G A
UniRef90_A2S995 D P A L A D M L T R L G A T V E R A S A P F Q P E A G A
UniRef90_G8M6K2 D A V L E D M L K R L G V L V A H E S Q P F Q P E T G A
UniRef90_UPI0004256933 D H V L Q D L V E I Y G L R C E Q H Q A P F E P E S G A
UniRef90_G4T1M7 D H V L D H M I E G L G L T V T R A E L P F E P E A G A
UniRef90_UPI0002260393 D H V I A D M V R G L G G H I H T V R A P F D P E T G A
UniRef90_K9XZB7 D S V L S S L L I Q L G L E V I E E I A P F Q P E I G A
UniRef90_K9RDS7 D S V L R Q M L E K L G L I V K E E F S S F H P E T G A
UniRef90_UPI000319398B D P V L E A M L V Q L G L T L T P A T L P F E P E A G A
UniRef90_C1DNG3 D Y V L E D M L R Q L G A R V E T V E A P F Q P E
UniRef90_UPI00034CF7DF D P V L V D M L Q Q M G L H A I E E I A P F Q P E A G A
UniRef90_D0CNS2 D H V I R D M L L K L G A T V Q D I R A P F S P E G G A
UniRef90_UPI00037F9CE7 D H V L A D M A R G L G A T V T E V T R P F T P E R G A
UniRef90_C6XQA3 D H V I K D M I E G L G G F V K E V E Y P F D P V G G A
UniRef90_B0JR63 D S V L Q A M L E G L G L A V N E E I A P F N P E I G A
UniRef90_UPI00039D2BC3 D H V L S Q M L E G L G L A V A V T R A P F E P E A G A
UniRef90_K9Z1W3 N H V L E S M L S K L G V S F C Q E T A P F Y P E L G A
UniRef90_UPI0004715A4B D H V I A D M V K G L G G H V H R V Q A A F D P E S G A
UniRef90_N6XGH8 D H V L E D M L V G L G A L V S T L R A P F E P E A G A

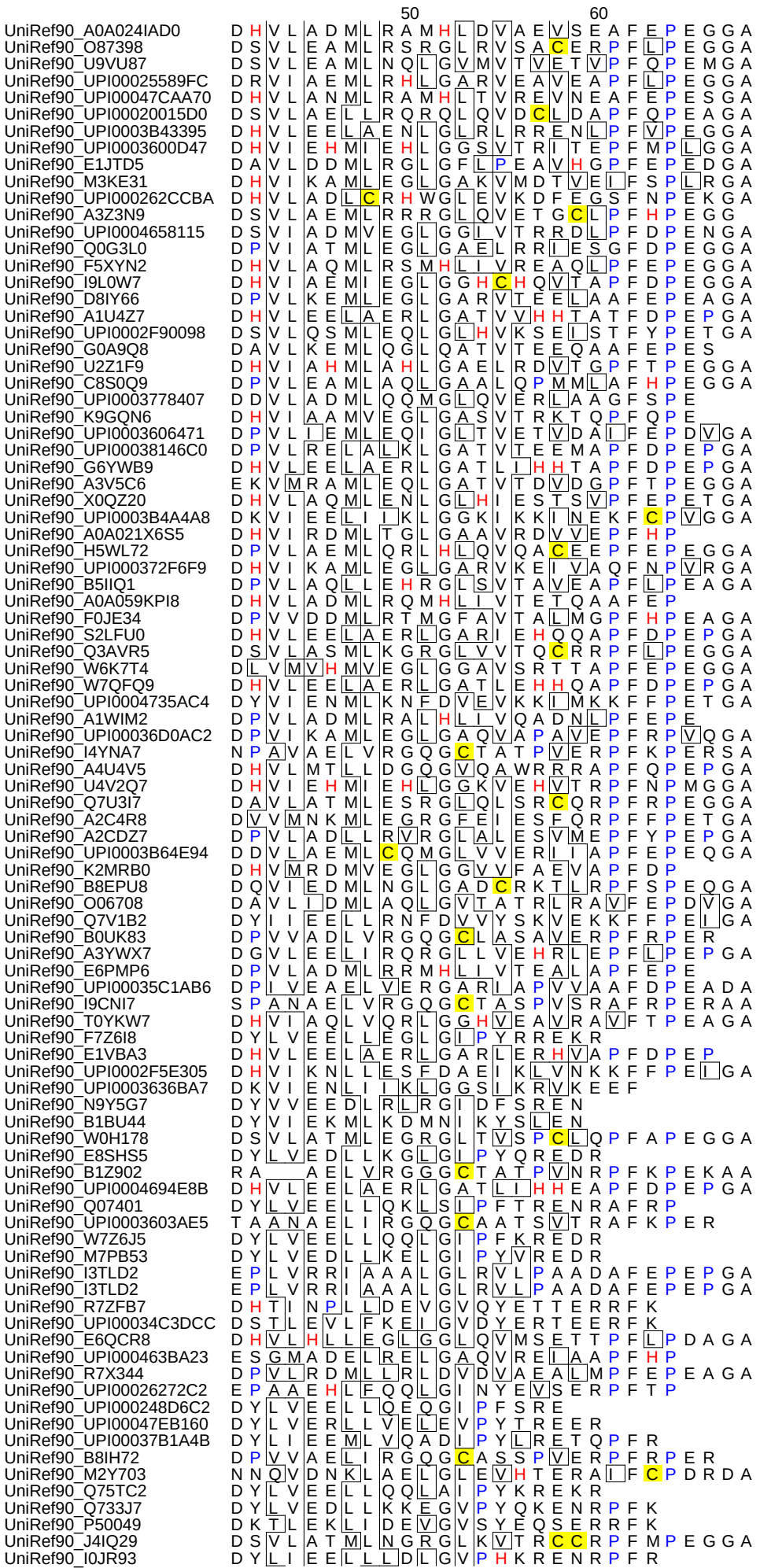

1
10
20
30
40
UniRef90_UPI00035D7840
UniRef90_D4ZV96
UniRef90_V4JPM8
UniRef90_UPI00039E687A
UniRef90_A8TMF5
UniRef90_UPI00035F0277
UniRef90_UPI0003645348
UniRef90_F4XRH4
UniRef90_K2QXR9
UniRef90_UPI0003B528D0
UniRef90_A0A058ZNW5
UniRef90_K9TKR0
UniRef90_I8I429
UniRef90_J5PV09
UniRef90_UPI0004764B4C
UniRef90_UPI000368E7C4
UniRef90_UPI00037A2D1A
UniRef90_Q9FAS4
UniRef90_Q9AQT2
UniRef90_I3CDU8
UniRef90_K9UWL6
UniRef90_UPI000464FBFC
UniRef90_V5PWS6
UniRef90_K9VK85
UniRef90_UPI00046F78C2
UniRef90_UPI000462EBFE
UniRef90_A0A037ZIP7
UniRef90_A1B1B8
UniRef90_L8N5T2
UniRef90_K9QMN2
UniRef90_B6B305
UniRef90_K2JH55
UniRef90_A6VD00
UniRef90_G6FP28
UniRef90_K9W0S8
UniRef90_UPI0003FD1E98
UniRef90_K2JSB6
UniRef90_X5XXD3
UniRef90_UPI000329FFF9
UniRef90_Q161S6
UniRef90_UPI00025562F8
UniRef90_UPI000367F7E6
UniRef90_D3NWP3
UniRef90_G5ZXH1
UniRef90_K9YJ02
UniRef90_N2J689
UniRef90_UPI00036421F4
UniRef90_UPI00047E99AE
UniRef90_H8L4U5
UniRef90_A6FSJ3
UniRef90_K2PPM2
UniRef90_H2IBY7
UniRef90_W0ABS5
UniRef90_Q8XXT2
UniRef90_A4EHT4
UniRef90_D4TQH6
UniRef90_M5DQG6
UniRef90_F1W418
UniRef90_W6I5K0
UniRef90_K9ZAW6
UniRef90_UPI0003701CBB
UniRef90_UPI0003B6ADD8
UniRef90_UPI000464FA1D
UniRef90_F1Z7X0
UniRef90_Q3J771
UniRef90_H0Q2J8
UniRef90_A0A017HGK1
UniRef90_A9DDB7
UniRef90_A0A059IR67
UniRef90_V7EJG0
UniRef90_I3YAL7
UniRef90_Q8DJ62
UniRef90_UPI00038255D2
UniRef90_F9UCJ0
UniRef90_F2IZB6
UniRef90_I1ATL9
UniRef90_UPI00036DB31A
UniRef90_N9MG68
UniRef90_UPI000373A201
UniRef90_K9SEA3
UniRef90_A4SY43
UniRef90_B0TT72
UniRef90_Q473Q8
UniRef90_A3YCE2
UniRef90_A3K5Z9
UniRef90_K9YC94
UniRef90_E0XTM9
UniRef90_K9RPP9
UniRef90_A8I4S6
UniRef90_UPI0003A49D56
UniRef90_UPI00047850A9
UniRef90_W6M1U1

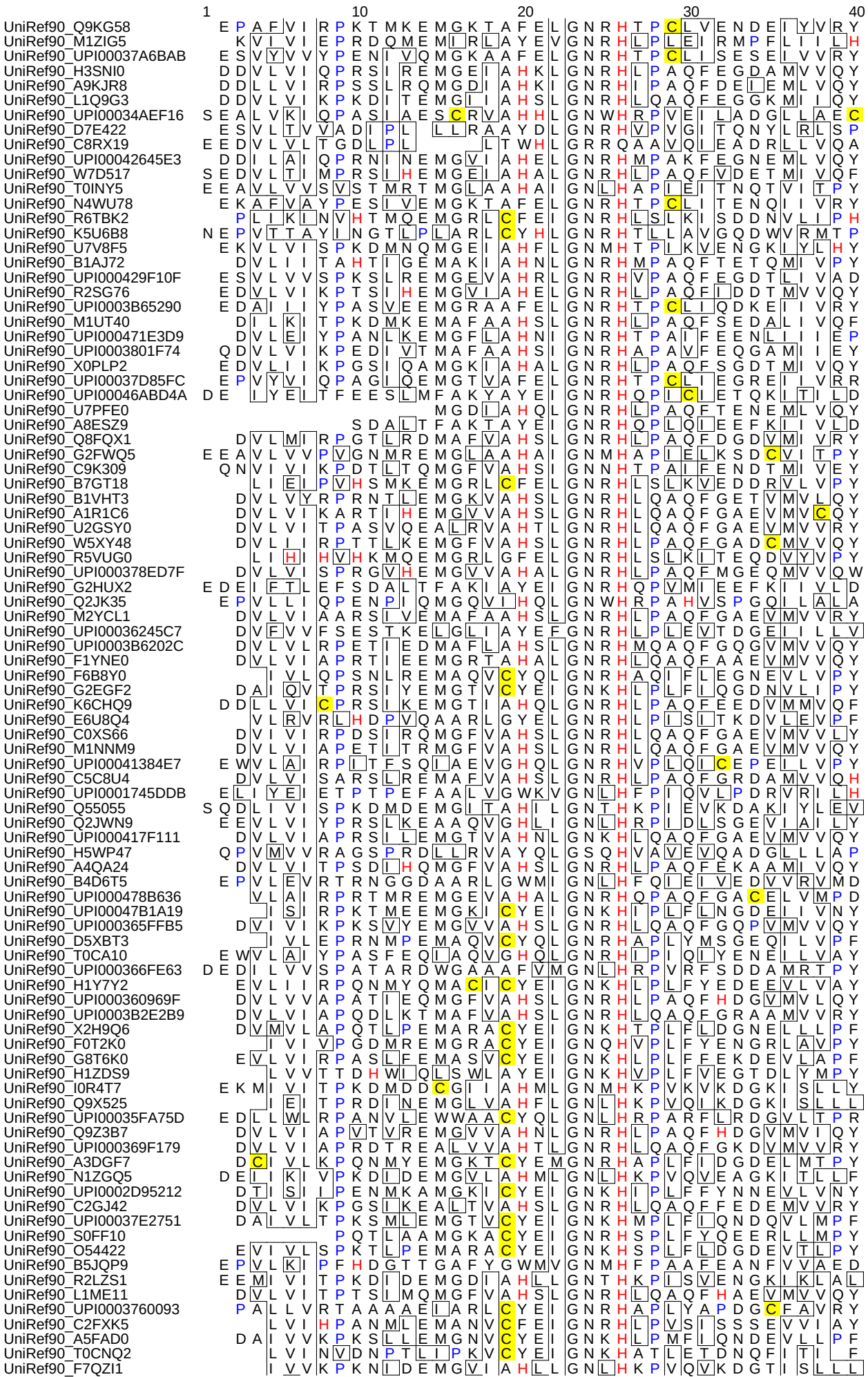

50
60
UniRef90_UPI00035D7840 D S V L Q A M L E K M N L H I Q A E T A P F H P E T G A
UniRef90_D4ZV96 D G V L A D L L V K L G C H V T Q E I A P F Y P D K G A
UniRef90_V4JPM8 D H V L D A M V R G L G L Q V S V E D A P F E P E P G A
UniRef90_UPI00039E687A D H V L D S M L R G F G L D V E E I V A P F N P E P G A
UniRef90_A8TMF5 D H V I E A M L E G L G A T L T R V T R A F Q P E G G A
UniRef90_UPI00035F0277 D K V I L D M V E G L G A A A T I I E A P F N P E G G A
UniRef90_UPI0003645348 D H V L A E M V K G L G C E V C E T E A P F Q P E S G A
UniRef90_F4XRH4 D P V L Q G M L E Q L G V E V H Q E V V P F Q P E I G A
UniRef90_K2QXR9 D H V I R D M L A G L G A E V S E V V E P F Q P V R G A
UniRef90_UPI0003B528D0 D H V L D D L V R G L G L P V E L M R L T F E P E G G A
UniRef90_A0A058ZNW5 D H V L A D M L T K L G A T V E T R Q A P F T P E G G A
UniRef90_K9TKR0 D P V L K A M L E Q L G L T V Q E E T A P F H P E I G A
UniRef90_I8I429 D H V I T D M L I G L G A Q V R H L Q A P F T P E S G A
UniRef90_J5PV09 D H V L E E M L Q K L G A A V T P I E A P F D P E S G A
UniRef90_UPI0004764B4C D H V L D A M A A G L G L A V H H E S A P F E P E A G A
UniRef90_UPI000368E7C4 D H V L D I M V E G L G Q K V S C E Q Q P F N P E N G A
UniRef90_UPI00037A2D1A D P V I K V M L E G L G A T V S E V T E P F Q P M R G A
UniRef90_Q9FAS4 D H V L D D M V K G L G L G V R V E R A K Y Q P E P G A
UniRef90_Q9AQT2 D H V L E T M L R G L G A R V E R R M E P F R P E S G A
UniRef90_I3CDU8 D H V L D D M L R H F G L N V R V I D A P F E P E G G A
UniRef90_K9UWL6 D P V L K S M I E H L G L E V K A E I L P F Q P E A G A
UniRef90_UPI000464FBFC D H V I R Q M L N G L G A T V S E I V A P F Q P V R G A
UniRef90_V5PWS6 D P V L R D M L L R L G V D V A E A L M P F E P E A G A
UniRef90_K9VK85 D S V L Q G M L E K M G L E V T E E I V P F Q P E T G A
UniRef90_UPI00046F78C2 D H V I A E M L R G L G A H V H H I E A A F D P E G G A
UniRef90_UPI000462EBFE D P V I A H M L A H L D A T V T E A T E P F T P E G G A
UniRef90_A0A037ZIP7 D H V L A K M L R Q L G A E V V E I E A P F V P E G G A
UniRef90_A1B1B8 D H V L E A M L R R L G A E I S H Q N L P F R P E G G A
UniRef90_L8N5T2 D P V L E D M V I Q M G L T I A K E N Q P F Q P E S G A
UniRef90_K9QMN2 D P V L C N L L E Q M G L N I T E E I L P F Q P E L G A
UniRef90_B6B305 N H V M Q D M L H K L G A S V T E I S A P F T P E G G A
UniRef90_K2JH55 D H V L A D M A R R L G A E V T A V A R P F D P E G G A
UniRef90_A6VD00 D Y V L K A M L E Q L G A S V N A I Q A P F Q P E
UniRef90_G6FP28 D P V L Q V M L Q Q L G V E I K E E I S P F Q P E A G A
UniRef90_K9W0S8 D Y V L K T M L E H L N L Q V T E E I V P F Q P E S G A
UniRef90_UPI0003FD1E98 D P V L S S M L V H Q G L T I Q E E I A P F Y P E G G A
UniRef90_K2JSB6 D P V L K A M L E Q L G A E V H D I I A P F S P E G G A
UniRef90_X5XXD3 D H V I K A M L E G L G A T V R E V S E P F K P V R G A
UniRef90_UPI000329FFF9 D H V L D E M L T L M G L T V E F A D L P F E P E A G A
UniRef90_Q161S6 D H V M A D M L G K I G A T V A E I V E P F T P E G G A
UniRef90_UPI00025562F8 D H V L D E L I L G L G G N V V S E Q N K F E P E D G A
UniRef90_UPI000367F7E6 D H V L D D M V R G L G L S V V L E Q A S F E P E
UniRef90_D3NWP3 D H V I E D M L R G L G A E V R D V T A P F M P E G G A
UniRef90_G5ZXH1 D H V L E D M L R L L G A D S E R L E A P F T P E G G A
UniRef90_K9YJ02 D H V L A S M V I N L G L Q V I E E I A P F C P E I G A
UniRef90_N2J689 D H V L K A M L D Q L G T T C E S I Q A P F Q P E
UniRef90_UPI00036421F4 D H V L D D M V R S L G L V V E H Q E A S F E P E S G A
UniRef90_UPI00047E99AE D H V L D D M V R G L G L T V E H T L M P F E P E R
UniRef90_H8L4U5 D P V L R D M L D Q L G V H C Q A M Q A P F Q P E H G A
UniRef90_A6FSJ3 D P V I A H M L E H L G A S M T S A R A P F T P E G G A
UniRef90_K2PPM2 D H V I R D M L L G L G A A I E E I V A P F S P E R G A
UniRef90_H2IBY7 D H V L E E M V E L F G L E C N H H Q A M F N P E S G A
UniRef90_W0ABS5 D H V I Q A M L V G L G A E V V L I D G P F T P E A G A
UniRef90_Q8XXT2 D P V L E D M L V R L G V T V T H V Q A P F E P E A G A
UniRef90_A4EHT4 D S V I G H M L E H L G A T V T P I T A P F T P E G G A
UniRef90_D4TQH6 D S V L Q S M L E K L Q L E V T E E V A P F Y P E P G A
UniRef90_M5DQG6 D H V L E D M L H L L G L I V S H E N A V F V P E S G A
UniRef90_F1W418 D P V L K E M L Q G L G A N V T E E L A P F E P E S G A
UniRef90_W6I5K0 D H V I I A M L R G L G A H V R S V T M P F N P E G G A
UniRef90_K9ZAW6 D P I L Y A M L A Q L G L E I K E E V V P F Q P E L G A
UniRef90_UPI0003701CBB D H V I V A M L H G L G A T T R A L R A P F T P E N G A
UniRef90_UPI0003B6ADD8 D H V L D E M V R G F G L T V T V E I D A F E P E G G A
UniRef90_UPI000464FA1D D H V L D D M V R L L G G T V T V E E Q P V Q P
UniRef90_F1Z7X0 D G V I L E M L L G L G A E V D V V D A P F T P E G G A
UniRef90_Q3J771 D Y V L R D M L M R L G V E V F E V T A P Y Q P E S G A
UniRef90_H0Q2J8 D H V L E G M L V G L G A R V S A L C A P F E P E A G A
UniRef90_A0A017HGK1 D H V L R D M L G R L G A E V R E V S E P F V P E G G A
UniRef90_A9DDB7 D H V I R D M L I G L G A K V D E I E A P F D P E G G A
UniRef90_A0A059IR67 D P V L E K M L Q G L G A R I T K V T A G F T P E G G A
UniRef90_V7EJG0 D H V L K A M L V Q L G A Q V T H E M A P F R P E G G A
UniRef90_I3YAL7 D H V L D D L V R G L G L A V R I E E Q P F E P E P G A
UniRef90_Q8DJ62 D S V V Q T M L E Q R G L T V T F E V A P F C P E R G A
UniRef90_UPI00038255D2 D H V L A E M L R Q M H L V V T E V Q A P F E P E G G A
UniRef90_F9UCJ0 D Q V L D E M V R G L G L E V R L V D A G F E P E S G A
UniRef90_F2IZB6 D H V I E D M V Q R L G G R L T P L A A P F D P E G G A
UniRef90_I1ATL9 D H V I A D M L S R I G A T V R E V D E P F T P E G G A
UniRef90_UPI00036DB31A D P V I A D M I A G L G G H I H P H E A P F S P E S G A
UniRef90_N9MG68 D H V L A E M V I G L G L T V N E V E H P F E P E S G A
UniRef90_UPI000373A201 D P V L A D M L R R M G L Q V L E T L A A F E P E A G A
UniRef90_K9SEA3 D S V L A D M L T K M G L Q I T A E T V T F Q P E A G A
UniRef90_A4SY43 D S V L E V M I R Q L G L E A I H E L A P F E P E T G A
UniRef90_B0TT72 D Y V L D E M L I G L G L Q V T V E N E A F Q P E
UniRef90_Q473Q8 D P V L A D M L A R L R V Q A V Q I D A P F E P E A G A
UniRef90_A3YCE2 D H V L E E M L Q N L G L T L S H K E A I F V P E S G A
UniRef90_A3K5Z9 D P V I R H M L E H L G A D V R E T V R P F T P E G G A
UniRef90_K9YC94 D P V L E K M L Q Q M G L T V I A E M T P F F P E L G A
UniRef90_E0XTM9 D H V L E E M L K N L G A T V E N I E A P F S P E G G A
UniRef90_K9RPP9 D P V L E K L L H Q R G L T V E L G S H P F Q P E L G A
UniRef90_A8I4S6 D P V L E A M L R G L G A A V K P V V R P F K P E R G A
UniRef90_UPI0003A49D56 D P V L R D M L L R L G V Q V T E A L E A F D P E G G A
UniRef90_UPI00047850A9 D H V L V E M V R G L G G A A N P V K R P F R P E Q G A
UniRef90_W6M1U1 D P V L D R M M E D L G L S V N R E Q A P F E P E G D A

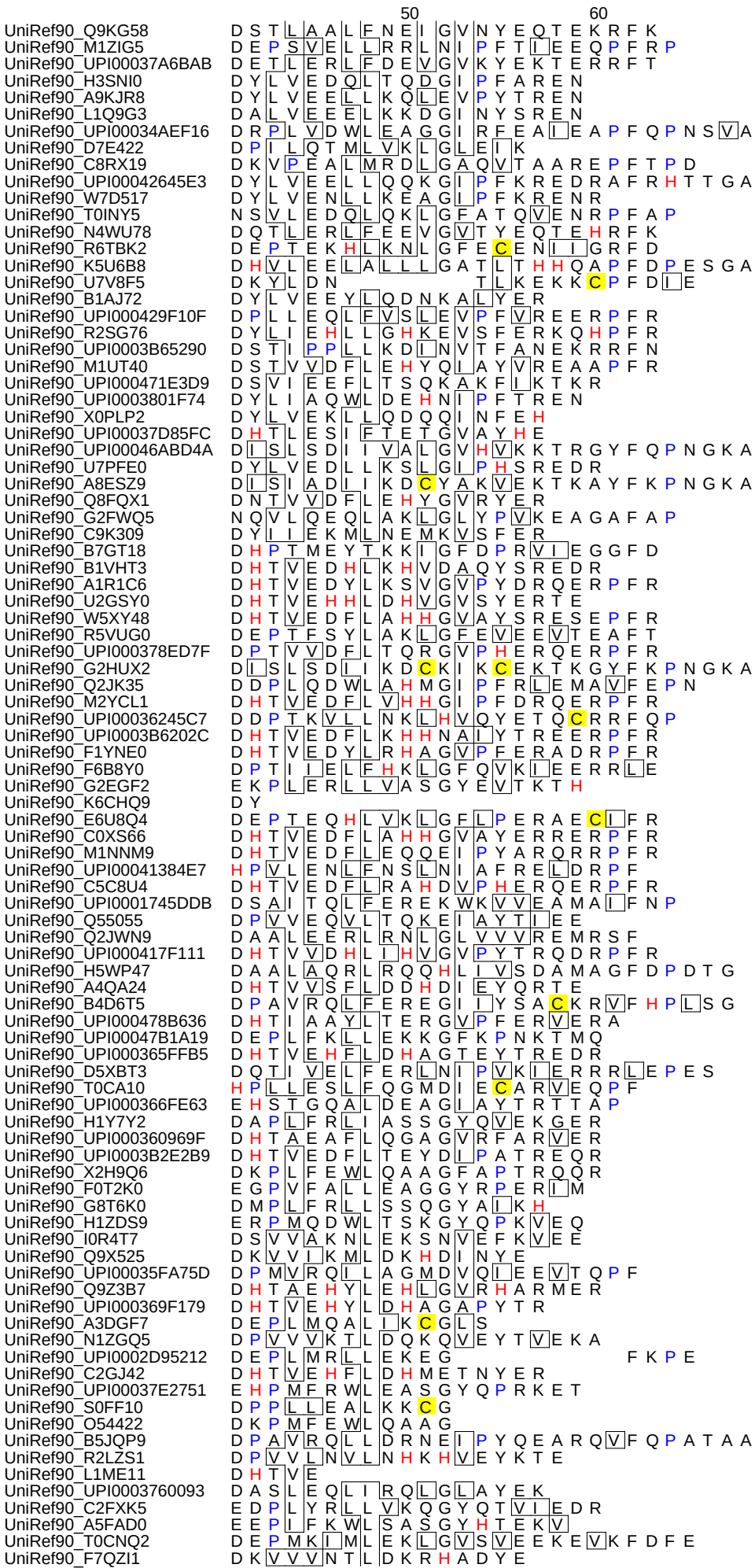

1
10
20
30
40
UniRef90_UPI0003813B4B
UniRef90_UPI0003772D99
UniRef90_U5DFC0
UniRef90_B2IVW8
UniRef90_UPI0003487BB6
UniRef90_UPI00046EF109
UniRef90_UPI0003FE5394
UniRef90_UPI00047AA962
UniRef90_UPI000469B67D
UniRef90_E0MQK4
UniRef90_W4HNI1
UniRef90_UPI00031271A6
UniRef90_A4WR77
UniRef90_UPI0003761438
UniRef90_B8KGH2
UniRef90_G4RA39
UniRef90_S4XT46
UniRef90_Q07K75
UniRef90_UPI000367EA89
UniRef90_V4RHP5
UniRef90_M9RBR8
UniRef90_Q2SDQ0
UniRef90_U2ZRP8
UniRef90_M3IYD0
UniRef90_G8PTQ9
UniRef90_F2L7X3
UniRef90_K9EJP4
UniRef90_F3KP39
UniRef90_W9GYD3
UniRef90_K9S7W9
UniRef90_UPI0002F99F58
UniRef90_F3LPG5
UniRef90_I3UCH1
UniRef90_UPI000362C78A
UniRef90_A9BUC3
UniRef90_G2J455
UniRef90_A3VEP4
UniRef90_K9UAZ4
UniRef90_UPI0003B7B9B4
UniRef90_A6DVR2
UniRef90_K1Z704
UniRef90_C7DA53
UniRef90_A0A014P3V4
UniRef90_C8PXE0
UniRef90_V9VX83
UniRef90_K9XE79
UniRef90_M4SF03
UniRef90_B8IJ85
UniRef90_UPI0002377A7D
UniRef90_B4RSY0
UniRef90_UPI00046D66EC
UniRef90_UPI00046AF7C3
UniRef90_J2L9S0
UniRef90_UPI0004664E9E
UniRef90_UPI00042990A5
UniRef90_UPI00045E66B0
UniRef90_UPI0004635AA4
UniRef90_B8HW49
UniRef90_A0L6F3
UniRef90_UPI0003B44188
UniRef90_S9S2E3
UniRef90_L0NJ04
UniRef90_Q1YG02
UniRef90_H6SJM9
UniRef90_A2SDI8
UniRef90_E3F423
UniRef90_A9EEK7
UniRef90_UPI000464A12E
UniRef90_UPI000225F178
UniRef90_UPI0003624CCB
UniRef90_J3HUT4
UniRef90_UPI00035D7226
UniRef90_UPI00025577C0
UniRef90_V4YN96
UniRef90_UPI00036EF1D7
UniRef90_B2ID54
UniRef90_H2FUQ2
UniRef90_A4GJP4
UniRef90_K9P8A8
UniRef90_I4YW12
UniRef90_V8QS10
UniRef90_UPI00034641AD
UniRef90_F8J7W2
UniRef90_A5GWV2
UniRef90_UPI00046A3B3D
UniRef90_UPI00035E82AF
UniRef90_UPI00037F2ED6
UniRef90_C9Y747
UniRef90_D7A8Z6
UniRef90_N1MRG3
UniRef90_D0LX06
UniRef90_F6IF16

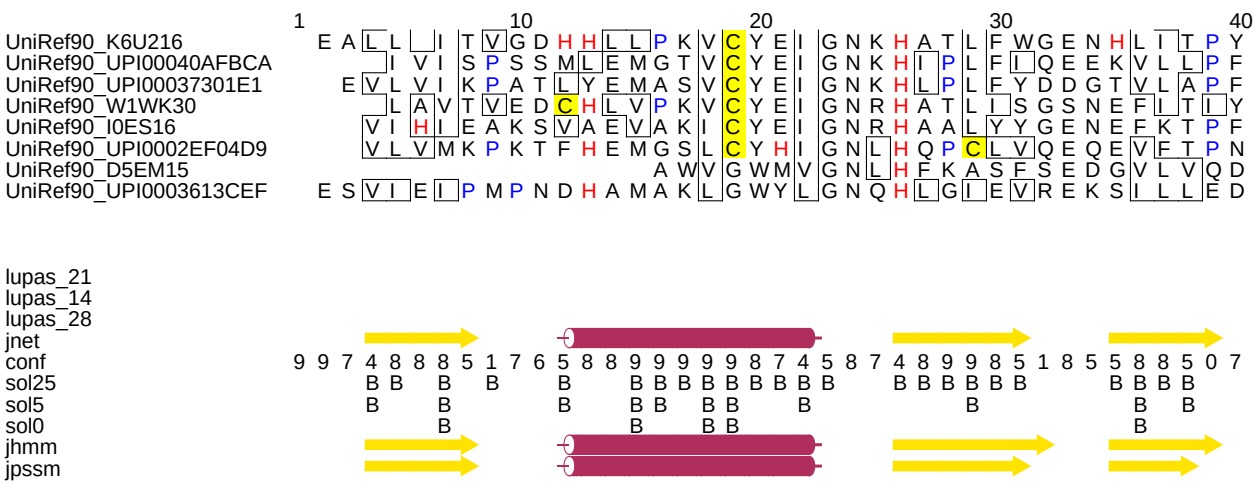

50
60
UniRef90_UPI0003813B4B D H V L D D L V R G L G L A V V D H G P F E P E S G A
UniRef90_UPI0003772D99 D H V I K E M L I K L G A E V E T V K E P F N P E G G A
UniRef90_U5DFC0 D P V L Q S L L I Q L G L E V C E E T L P F R P E P G A
UniRef90_B2IVW8 D S V L R A M L E Q L G L E V K E E I L P F Q P E L G A
UniRef90_UPI0003487BB6 D P V L K A L L E Q L G L H I E E Q Y S P F Q P E T G A
UniRef90_UPI00046EF109 D H V I E E M L V I L G A K P V R L M A P F D P E G G A
UniRef90_UPI0003FE5394 D H V I A D V I R G L G G K V E A V V G P F D P E T G A
UniRef90_UPI00047AA962 D H V I K E M L I G L G A T A V E I R A P F N P E G G A
UniRef90_UPI000469B67D D S V L R E M L L G L G A T V V E E N A Q F E P E S G A
UniRef90_E0MQK4 D R V I A E M L V G L G A Q V A E V T E P F S P Q R G A
UniRef90_W4HNI1 D H V M R D M L G R L G A T V E E V T A P F R P E G G A
UniRef90_UPI00031271A6 D P V L K E M L E G L G A T V T E E E A P F E P E S G A
UniRef90_A4WR77 D H V L E G M L R G L G L S L E P R T E P F R P E G G A
UniRef90_UPI0003761438 D A V I V D M L R G L G A H V E R I T A P F T P E R G A
UniRef90_B8KGH2 D H V L E E M L K G L G L G V R A I D D A F T P E S G A
UniRef90_G4RA39 D H V I K D M L E G L G A K V V E I S A S F S P L R G A
UniRef90_S4XT46 D H V I V D M V R G L G A E A T P L R A P F T P E R G A
UniRef90_Q07K75 D H V I E A M V A G L G A K V V E I E A P F D P E
UniRef90_UPI000367EA89 D P V L R A M L D G L G A V V T D V T G P F R P E G G A
UniRef90_V4RHP5 D H V I E A M I V G L G G K V A H V E A P F H P E T G A
UniRef90_M9RBR8 D H V I E A L M L K I G A S V T K V V E P F I P E G G A
UniRef90_Q2SDQ0 D H V L E D L C R L Y G L D V V R E S A P F N P E N G A
UniRef90_U2ZRP8 D H V L Q A M L D Q L G A S T C Q V E A P F Q P E
UniRef90_M3IYD0 D H V I K T M L E G L G A Q V T E I L A P F N P L R G A
UniRef90_G8PTQ9 D H V I Y H M L E G L G A R I E E V E L P F S P V R G A
UniRef90_F2L7X3 D P V L A D M L T R L G A H V E R V E A P F Q P E A G A
UniRef90_K9EJP4 D P V L A A M L H Q L G V T V T E E T V P F Q P E S G A
UniRef90_F3KP39 D H V L A D M L R A M H L I V T E Q Q D A F E P E G G A
UniRef90_W9GYD3 D H V I V D M L T G L G A E V V R T S A G F T P E S G A
UniRef90_K9S7W9 D P V L Q A L V E Q L G L L V E P E V A P F Q P E A G A
UniRef90_UPI0002F99F58 D P V L Q H L L E H L G L R I R E E I A P F S P E T G
UniRef90_F3LPG5 D H V L A E M L R R M G L D V A E A H E P F E P E G G A
UniRef90_I3UCH1 D P V L V Q M L H R L G V H T S L V E Q P F N P E T G A
UniRef90_UPI000362C78A D H V I R D M L L E L G A H I H E V E A A F D P V G G A
UniRef90_A9BUC3 D P V L H D M L L R L G A Q V A L V D A P F E P E A G A
UniRef90_G2J455 D E V L A Q M L L Q L G A R V E R L S A P F N P E
UniRef90_A3VEP4 D H V M R D M L T R L G A S V R E V V A P F T P E G G A
UniRef90_K9UAZ4 D S V L E R M L V Q L G L Q V V A E I A P F S P Q G G A
UniRef90_UPI0003B7B9B4 D P V L E G M L I Q L G A T L T V T N Q P F C P E G G A
UniRef90_A6DVR2 D H V I E A M L A Y L G A K L T P V T G P F R P E G G A
UniRef90_K1Z704 D H V L D G M V H G L G G E A V V E E A P F E P E
UniRef90_C7DA53 D K V I G H M L E H L G A T L V E V S E P F T P E G G A
UniRef90_A0A014P3V4 D H V L A D M L R S L H M T V V A A D L P F E P E G G A
UniRef90_C8PXE0 D Y V L A D M L V K L G L T V S E V E H A F E P E T G A
UniRef90_V9VX83 D H V I R A M L V Q L G A T V E E V T E P F T P E G G A
UniRef90_K9XE79 D P V L R T M L E Q L G A Q V Y E A V L P F Q P E I G A
UniRef90_M4SF03 D H V I R H M L E G L G A S V D A I H A P F T P E Q G A
UniRef90_B8IJ85 D H V L A A M V E G L G G T A T P V V R P F R P E G G A
UniRef90_UPI0002377A7D D H V L A D M L R A M H L I V Q E Q N L P F E P E G G A
UniRef90_B4RSY0 D H V L E E L A E N Y G L S I N K T P A V F E P E S G A
UniRef90_UPI00046D66EC D H V L D D L V G R L G L K V V R E R A R F E P E T G
UniRef90_UPI00046AF7C3 D P V I K H M L E H L G A T I V E T T E P F T P E G G A
UniRef90_J2L9S0 D H V I R T M L Q G L G A M V L D I N E P F Q P A R G A
UniRef90_UPI0004664E9E D S V L R A M L Q G I G M T V T A V D A P F Q P E P G A
UniRef90_UPI00042990A5 D P V I R A M L E G L G A K V D E V T E P F H P L R G A
UniRef90_UPI00045E66B0 D H V L T E M V R G L G A G V A K V T R P F R P E K G A
UniRef90_UPI0004635AA4 D H V I E A M L E G L G A T L A P V R T G F E P V R G A
UniRef90_B8HW49 D S V L E A M V Q H L G L T V V T E L A S F Q P E T G A
UniRef90_A0L6F3 D H V L M A M L Q G L G A T V H R V M A P F A P E G G A
UniRef90_UPI0003B44188 D H V L E A L L R S F G L E I C H E R A V F E P E P G A
UniRef90_S9S2E3 D H V L A G M L R Q L G A E L R E V T A P F Q P E G G A
UniRef90_L0NJ04 D H V I R K M L E G L G A T V T E V E E P F H P
UniRef90_Q1YG02 D A V V R T M L E G L G A E I T E T E A A F D P E G G A
UniRef90_H6SJM9 D H V L V E M L A G L G A P V N R V Q A P F Q P E S G A
UniRef90_A2SDI8 D H V L A D M L R A M H L I V S E A Q A P F E P E S G A
UniRef90_E3F423 D K V M Q D M L R G L G A A V K S I R E P F R P E G G A
UniRef90_A9EEK7 D H V M V K M L A Q I G A E T R E I T G P F R P E G G A
UniRef90_UPI000464A12E D H V L E G M L S Q L G L Q L Q G E I V P F F P E E G A
UniRef90_UPI000225F178 D H V L E A M L R G L G A R V T P T M T A F A P E G G A
UniRef90_UPI0003624CCB D H V L E E L A E L L G A T L E R H E A P F D P E S G A
UniRef90_J3HUT4 D H V I K T M L E G L G A R V S E I T A Q F Q P L R G A
UniRef90_UPI00035D7226 D H V L R A M L V G L G A T V A E A H R P F T P E G G A
UniRef90_UPI00025577C0 D H V L E E M L Q L L G L E T R Q C E A V F M P E S G A
UniRef90_V4YN96 D H V L A D M L R E M H L T V A Q A Q S A F E P E S G A
UniRef90_UPI00036EF1D7 D H V L E E L A E R L G A T L E H H E A P F D P E P G A
UniRef90_B2ID54 D P V I A S M L K N F S A R L R E I E A P F E P E G G A
UniRef90_H2FUQ2 D H V L E H L A E H L G L R L E R D H V P F H P E S G A
UniRef90_A4GJP4 D E V I K K M I L K L G G K V K K V L R P F K P E G G A
UniRef90_K9P8A8 D S V L E D L L R H R G L S V E R M S G P F L P E P G A
UniRef90_I4YW12 D H V L V D M L L G L G A K V E I V E R P F R P V R G A
UniRef90_V8QS10 D T V L K D M L Q Q L G L H T V I V N Q P F N P E Q G A
UniRef90_UPI00034641AD D P V L K E M L E G L R A S V T E E S A P F E P E
UniRef90_F8J7W2 D H V I E D M V R L L G A S V A M V E A A F D P E D G A
UniRef90_A5GWV2 D S V L E Q M L R Q R G L Q L D Q Q E A P F C P E G G A
UniRef90_UPI00046A3B3D D P V I G H M L E H L G A K V T E V S E P F T P E G G A
UniRef90_UPI00035E82AF D H V L T E L C E M Y G L T I S D K E A V F E P E S G A
UniRef90_UPI00037F2ED6 D H V I K A M L E G L G A S I T D I L A P F E P V R G A
UniRef90_C9Y747 D H V L A D M L R A M H L I V N A V D E A F E P E N G A
UniRef90_D7A8Z6 D G V L E E M A R G L G A T V E V V E A A F E P
UniRef90_N1MRG3 D H V I N A M L E G L G A T V V K I H A P F T P E
UniRef90_D0LX06 D H V I A D M L S G L G L S P R A L D A P F N P E P G A
UniRef90_F6IF16 D H V I A E M V V G L G G H C Q P V L A P F D P E G G A

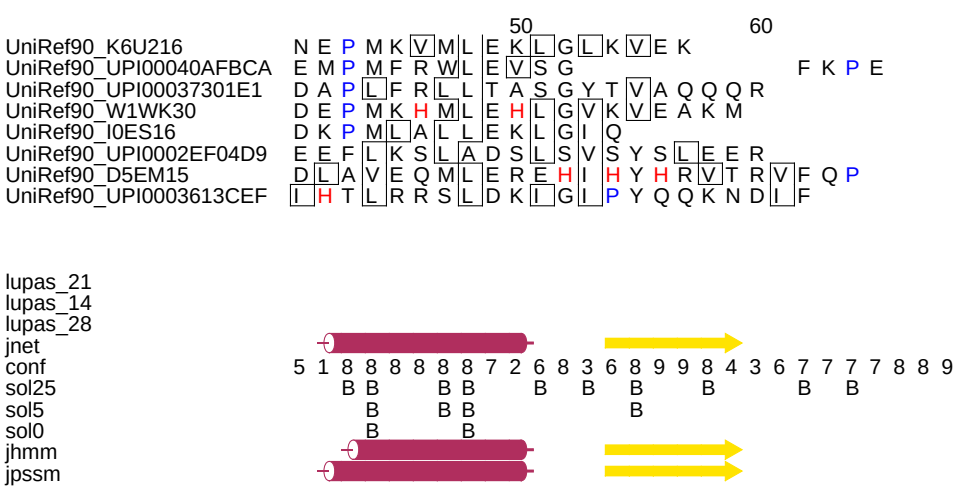

1
10
20
30
40
UniRef90_A0A024IAD0
UniRef90_O87398
UniRef90_U9VU87
UniRef90_UPI00025589FC
UniRef90_UPI00047CAA70
UniRef90_UPI00020015D0
UniRef90_UPI0003B43395
UniRef90_UPI0003600D47
UniRef90_E1JTD5
UniRef90_M3KE31
UniRef90_UPI000262CCBA
UniRef90_A3Z3N9
UniRef90_UPI0004658115
UniRef90_Q0G3L0
UniRef90_F5XYN2
UniRef90_I9L0W7
UniRef90_D8IY66
UniRef90_A1U4Z7
UniRef90_UPI0002F90098
UniRef90_G0A9Q8
UniRef90_U2Z1F9
UniRef90_C8S0Q9
UniRef90_UPI0003778407
UniRef90_K9GQN6
UniRef90_UPI0003606471
UniRef90_UPI00038146C0
UniRef90_G6YWB9
UniRef90_A3V5C6
UniRef90_X0QZ20
UniRef90_UPI0003B4A4A8
UniRef90_A0A021X6S5
UniRef90_H5WL72
UniRef90_UPI000372F6F9
UniRef90_B5IIQ1
UniRef90_A0A059KPI8
UniRef90_F0JE34
UniRef90_S2LFU0
UniRef90_Q3AVR5
UniRef90_W6K7T4
UniRef90_W7QFQ9
UniRef90_UPI0004735AC4
UniRef90_A1WIM2
UniRef90_UPI00036D0AC2
UniRef90_I4YNA7
UniRef90_A4U4V5
UniRef90_U4V2Q7
UniRef90_Q7U3I7
UniRef90_A2C4R8
UniRef90_A2CDZ7
UniRef90_UPI0003B64E94
UniRef90_K2MRB0
UniRef90_B8EPU8
UniRef90_O06708
UniRef90_Q7V1B2
UniRef90_B0UK83
UniRef90_A3YWX7
UniRef90_E6PMP6
UniRef90_UPI00035C1AB6
UniRef90_I9CNI7
UniRef90_T0YKW7
UniRef90_F7Z6I8
UniRef90_E1VBA3
UniRef90_UPI0002F5E305
UniRef90_UPI0003636BA7
UniRef90_N9Y5G7
UniRef90_B1BU44
UniRef90_W0H178
UniRef90_E8SHS5
UniRef90_B1Z902
UniRef90_UPI0004694E8B
UniRef90_Q07401
UniRef90_UPI0003603AE5
UniRef90_W7Z6J5
UniRef90_M7PB53
UniRef90_I3TLD2
UniRef90_I3TLD2
UniRef90_R7ZFB7
UniRef90_UPI00034C3DCC
UniRef90_E6QCR8
UniRef90_UPI000463BA23
UniRef90_R7X344
UniRef90_UPI00026272C2
UniRef90_UPI000248D6C2
UniRef90_UPI00047EB160
UniRef90_UPI00037B1A4B
UniRef90_B8IH72
UniRef90_M2Y703
UniRef90_Q75TC2
UniRef90_Q733J7
UniRef90_P50049
UniRef90_J4IQ29
UniRef90_I0JR93


50
60
UniRef90_A0A024IAD0 D H V L A D M L R A M H L D V A E V S E A F E P E G G A
UniRef90_O87398 D S V L E A M L R S R G L R V S A C E R P F L P E G G A
UniRef90_U9VU87 D S V L E A M L N Q L G V M V T V E T V P F Q P E M G A
UniRef90_UPI00025589FC D R V I A E M L R H L G A R V E A V E A P F L P E G G A
UniRef90_UPI00047CAA70 D H V L A N M L R A M H L T V R E V N E A F E P E S G A
UniRef90_UPI00020015D0 D S V L A E L L R Q R Q L Q V D C L D A P F Q P E A G A
UniRef90_UPI0003B43395 D H V L E E L A E N L G L R L R R E N L P F V P E G G A
UniRef90_UPI0003600D47 D H V I E H M I E H L G G S V T R I T E P F M P L G G A
UniRef90_E1JTD5 D A V L D D M L R G L G F L P E A V H G P F E P E D G A
UniRef90_M3KE31 D H V I K A M L E G L G A K V M D T V E I F S P L R G A
UniRef90_UPI000262CCBA D H V L A D L C R H W G L E V K D F E G S F N P E K G A
UniRef90_A3Z3N9 D S V L A E M L R R R G L Q V E T G C L P F H P E G G
UniRef90_UPI0004658115 D S V I A D M V E G L G G I V T R R D L P F D P E N G A
UniRef90_Q0G3L0 D P V I A T M L E G L G A E L R R I E S G F D P E G G A
UniRef90_F5XYN2 D H V L A Q M L R S M H L I V R E A Q L P F E P E G G A
UniRef90_I9L0W7 D H V I A E M I E G L G G H C H Q V T A P F D P E G G A
UniRef90_D8IY66 D P V L K E M L E G L G A R V T E E L A A F E P E A G A
UniRef90_A1U4Z7 D H V L E E L A E R L G A T V V H H T A T F D P E P G A
UniRef90_UPI0002F90098 D S V L Q S M L E Q L G L H V K S E I S T F Y P E T G A
UniRef90_G0A9Q8 D A V L K E M L Q G L Q A T V T E E Q A A F E P E S
UniRef90_U2Z1F9 D H V I A H M L A H L G A E L R D V T G P F T P E G G A
UniRef90_C8S0Q9 D P V L E A M L A Q L G A A L Q P M M L A F H P E G G A
UniRef90_UPI0003778407 D D V L A D M L Q Q M G L Q V E R L A A G F S P E
UniRef90_K9GQN6 D H V I A A M V E G L G A S V T R K T Q P F Q P E
UniRef90_UPI0003606471 D P V L I E M L E Q I G L T V E T V D A I F E P D D V G A
UniRef90_UPI00038146C0 D P V L R E L A L K L G A T V T E E M A P F D P E P G A
UniRef90_G6YWB9 D H V L E E L A E R L G A T L I H H T A P F D P E P G A
UniRef90_A3V5C6 E K V M R A M L E Q L G A T V T D V D G P F T P E G G A
UniRef90_X0QZ20 D H V L A Q M L E N L G L H I E S T S V P F E P E T G A
UniRef90_UPI0003B4A4A8 D K V I E E L I I K L G G K I K K I N E K F C P V G G A
UniRef90_A0A021X6S5 D H V I R D M L T G L G A A V R D V V E P F H P
UniRef90_H5WL72 D P V L A E M L Q R L H L Q V Q A C E E P F E P E G G A
UniRef90_UPI000372F6F9 D H V I K A M L E G L G A R V K E I V A Q F N P V R G A
UniRef90_B5IIQ1 D P V L A Q L L E H R G L S V T A V E A P F L P E A G A
UniRef90_A0A059KPI8 D H V L A D M L R Q M H L I V T E T Q A A F E P
UniRef90_F0JE34 D P V V D D M L R T M G F A V T A L M G P F H P E A G A
UniRef90_S2LFU0 D H V L E E L A E R L G A R I E H Q Q A P F D P E P G A
UniRef90_Q3AVR5 D S V L A S M L K G R G L V V T Q C R R P F L P E G G A
UniRef90_W6K7T4 D L V M V H M V E G L G G A V S R T T A P F E P E G G A
UniRef90_W7QFQ9 D H V L E E L A E R L G A T L E H H Q A P F D P E P G A
UniRef90_UPI0004735AC4 D Y V I E N M L K N F D V E V K K I M K K F F P E T G A
UniRef90_A1WIM2 D P V L A D M L R A L H L I V Q A D N L P F E P E
UniRef90_UPI00036D0AC2 D P V I K A M L E G L G A Q V A P A V E P F R P V Q G A
UniRef90_I4YNA7 N P A V A E L V R G Q G C T A T P V E R P F K P E R S A
UniRef90_A4U4V5 D H V L M T L L D G Q G V Q A W R R R A P F Q P E P G A
UniRef90_U4V2Q7 D H V I E H M I E H L G G K V E H V T R P F N P M G G A
UniRef90_Q7U3I7 D A V L A T M L E S R G L Q L S R C Q R P F R P E G G A
UniRef90_A2C4R8 D V V M N K M L E G R G F E I E S F Q R P F F P E T G A
UniRef90_A2CDZ7 D P V L A D L L R V R G L A L E S V M E P F Y P E P G A
UniRef90_UPI0003B64E94 D D V L A E M L C Q M G L V V E R I I A P F E P E Q G A
UniRef90_K2MRB0 D H V M R D M V E G L G G V V F A E V A P F D P
UniRef90_B8EPU8 D Q V I E D M L N G L G A D C R K T L R P F S P E Q G A
UniRef90_O06708 D A V L I D M L A Q L G V T A T R L R A V F E P D V G A
UniRef90_Q7V1B2 D Y I I E E L L R N F D V V Y S K V E K K F F P E I G A
UniRef90_B0UK83 D P V V A D L V R G Q G C L A S A V E R P F R P E R
UniRef90_A3YWX7 D G V L E E L I R Q R G L L V E H R L E P F L P E P G A
UniRef90_E6PMP6 D P V L A D M L R R M H L I V T E A L A P F E P E
UniRef90_UPI00035C1AB6 D P I V E A E L V E R G A R I A P V V A A F D P E A D A
UniRef90_I9CNI7 S P A N A E L V R G Q G C T A S P V S R A F R P E R A A
UniRef90_T0YKW7 D H V I A Q L V Q R L G G H V E A V R A V F T P E A G A
UniRef90_F7Z6I8 D Y L V E E L L E G L G I P Y R R E K R
UniRef90_E1VBA3 D H V L E E L A E R L G A R L E R H V A P F D P E P
UniRef90_UPI0002F5E305 D H V I K N L L E S F D A E I K L V N K K F F P E I G A
UniRef90_UPI0003636BA7 D K V I E N L I I K L G G S I K R V K E E F
UniRef90_N9Y5G7 D Y V V E E D L R L R G I D F S R E N
UniRef90_B1BU44 D Y V I E K M L K D M N I K Y S L E N
UniRef90_W0H178 D S V L A T M L E G R G L T V S P C L Q P F A P E G G A
UniRef90_E8SHS5 D Y L V E D L L K G L G I P Y Q R E D R
UniRef90_B1Z902 R A A E L V R G G G C T A T P V N R P F K P E K A A
UniRef90_UPI0004694E8B D H V L E E L A E R L G A T L I H H E A P F D P E P G A
UniRef90_Q07401 D Y L V E E L L Q K L S I P F T R E N R A F R P
UniRef90_UPI0003603AE5 T A A N A E L I R G Q G C A A T S V T R A F K P E R
UniRef90_W7Z6J5 D Y L V E E L L Q Q L G I P F K R E D R
UniRef90_M7PB53 D Y L V E D L L K E L G I P Y V R E D R
UniRef90_I3TLD2 E P L V R R I A A A L G L R V L P A A D A F E P E P G A
UniRef90_I3TLD2 E P L V R R I A A A L G L R V L P A A D A F E P E P G A
UniRef90_R7ZFB7 D H T I N P L L D E V G V Q Y E T T E R R F K
UniRef90_UPI00034C3DCC D S T L E V L F K E I G V D Y E R T E E R F K
UniRef90_E6QCR8 D H V L H L L E G L G G L Q V M S E T T P F L P D A G A
UniRef90_UPI000463BA23 E S G M A D E L R E L G A Q V R E I A A P F H P
UniRef90_R7X344 D P V L R D M L L R L D V D V A E A L M P F E P E A G A
UniRef90_UPI00026272C2 E P A A E H L F Q Q L G I N Y E V S E R P F T P
UniRef90_UPI000248D6C2 D Y L V E E L L Q E Q G I P F S R E
UniRef90_UPI00047EB160 D Y L V E R L L V E L E V P Y T R E E R
UniRef90_UPI00037B1A4B D Y L I E E M L V Q A D I P Y L R E T Q P F R
UniRef90_B8IH72 D P V V A E L I R G Q G C A S S P V E R P F R P E R
UniRef90_M2Y703 N N Q V D N K L A E L G L E V H T E R A I F C P D R D A
UniRef90_Q75TC2 D Y L V E E L L Q Q L A I P Y K R E K R
UniRef90_Q733J7 D Y L V E D L L K K E G V P Y Q K E N R P F K
UniRef90_P50049 D K T L E K L I D E V G V S Y E Q S E R R F K
UniRef90_J4IQ29 D S V L A T M L N G R G L K V T R C C R P F M P E G G A
UniRef90_I0JR93 D Y L I E E L L L D L G V P H K R E N R P F R


1
10
20
30
40
UniRef90_Q9KG58
UniRef90_M1ZIG5
UniRef90_UPI00037A6BAB
UniRef90_H3SNI0
UniRef90_A9KJR8
UniRef90_L1Q9G3
UniRef90_UPI00034AEF16
UniRef90_D7E422
UniRef90_C8RX19
UniRef90_UPI00042645E3
UniRef90_W7D517
UniRef90_T0INY5
UniRef90_N4WU78
UniRef90_R6TBK2
UniRef90_K5U6B8
UniRef90_U7V8F5
UniRef90_B1AJ72
UniRef90_UPI000429F10F
UniRef90_R2SG76
UniRef90_UPI0003B65290
UniRef90_M1UT40
UniRef90_UPI000471E3D9
UniRef90_UPI0003801F74
UniRef90_X0PLP2
UniRef90_UPI00037D85FC
UniRef90_UPI00046ABD4A
UniRef90_U7PFE0
UniRef90_A8ESZ9
UniRef90_Q8FQX1
UniRef90_G2FWQ5
UniRef90_C9K309
UniRef90_B7GT18
UniRef90_B1VHT3
UniRef90_A1R1C6
UniRef90_U2GSY0
UniRef90_W5XY48
UniRef90_R5VUG0
UniRef90_UPI000378ED7F
UniRef90_G2HUX2
UniRef90_Q2JK35
UniRef90_M2YCL1
UniRef90_UPI00036245C7
UniRef90_UPI0003B6202C
UniRef90_F1YNE0
UniRef90_F6B8Y0
UniRef90_G2EGF2
UniRef90_K6CHQ9
UniRef90_E6U8Q4
UniRef90_C0XS66
UniRef90_M1NNM9
UniRef90_UPI00041384E7
UniRef90_C5C8U4
UniRef90_UPI0001745DDB
UniRef90_Q55055
UniRef90_Q2JWN9
UniRef90_UPI000417F111
UniRef90_H5WP47
UniRef90_A4QA24
UniRef90_B4D6T5
UniRef90_UPI000478B636
UniRef90_UPI00047B1A19
UniRef90_UPI000365FFB5
UniRef90_D5XBT3
UniRef90_T0CA10
UniRef90_UPI000366FE63
UniRef90_H1Y7Y2
UniRef90_UPI000360969F
UniRef90_UPI0003B2E2B9
UniRef90_X2H9Q6
UniRef90_F0T2K0
UniRef90_G8T6K0
UniRef90_H1ZDS9
UniRef90_I0R4T7
UniRef90_Q9X525
UniRef90_UPI00035FA75D
UniRef90_Q9Z3B7
UniRef90_UPI000369F179
UniRef90_A3DGF7
UniRef90_N1ZGQ5
UniRef90_UPI0002D95212
UniRef90_C2GJ42
UniRef90_UPI00037E2751
UniRef90_S0FF10
UniRef90_O54422
UniRef90_B5JQP9
UniRef90_R2LZS1
UniRef90_L1ME11
UniRef90_UPI0003760093
UniRef90_C2FXK5
UniRef90_A5FAD0
UniRef90_T0CNQ2
UniRef90_F7QZI1


50
60
UniRef90_Q9KG58 D S T L A A L F N E I G V N Y E Q T E K R F K
UniRef90_M1ZIG5 D E P S V E L L R R L N I P F T I E E Q P F R P
UniRef90_UPI00037A6BAB D E T L E R L F D E V G V K Y E K T E R R F T
UniRef90_H3SNI0 D Y L V E D Q L T Q D G I P F A R E N
UniRef90_A9KJR8 D Y L V E E L L K Q L E V P Y T R E N
UniRef90_L1Q9G3 D A L V E E E L K K D G I N Y S R E N
UniRef90_UPI00034AEF16 D R P L V D W L E A G G I R F E A I E A P F Q P N S V A
UniRef90_D7E422 D P I L Q T M L V K L G L E I K
UniRef90_C8RX19 D K V P E A L M R D L G A Q V T A A R E P F T P D
UniRef90_UPI00042645E3 D Y L V E E L L Q Q K G I P F K R E D R A F R H T T G A
UniRef90_W7D517 D Y L V E N L L K E A G I P F K R E N R
UniRef90_T0INY5 N S V L E D Q L Q K L G F A T Q V E N R P F A P
UniRef90_N4WU78 D Q T L E R L F E E V G V T Y E Q T E H R F K
UniRef90_R6TBK2 D E P T E K H L K N L G F E C E N I I G R F D
UniRef90_K5U6B8 D H V L E E L A L L L G A T L T H H Q A P F D P E S G A
UniRef90_U7V8F5 D K Y L D N T L K E K K C P F D I E
UniRef90_B1AJ72 D Y L V E E Y L Q D N K A L Y E R
UniRef90_UPI000429F10F D P L L E Q L F V S L E V P F V R E E R P F R
UniRef90_R2SG76 D Y L I E H L L G H K E V S F E R K Q H P F R
UniRef90_UPI0003B65290 D S T I P P L L K D I N V T F A N E K R R F N
UniRef90_M1UT40 D S T V V D F L E H Y Q I A Y V R E A A P F R
UniRef90_UPI000471E3D9 D S V I E E F L T S Q K A K F I K T K R
UniRef90_UPI0003801F74 D Y L I A Q W L D E H N I P F T R E N
UniRef90_X0PLP2 D Y L V E K L L Q D Q Q I N F E H
UniRef90_UPI00037D85FC D H T L E S I F T E T G V A Y H E
UniRef90_UPI00046ABD4A D I S L S D I I V A L G V H V K K T R G Y F Q P N G K A
UniRef90_U7PFE0 D Y L V E D L L K S L G I P H S R E D R
UniRef90_A8ESZ9 D I S I A D I I K D C Y A K V E K T K A Y F K P N G K A
UniRef90_Q8FQX1 D N T V V D F L E H Y G V R Y E R
UniRef90_G2FWQ5 N Q V L Q E Q L A K L G L Y P V K E A G A F A P
UniRef90_C9K309 D Y I I E K M L N E M K V S F E R
UniRef90_B7GT18 D H P T M E Y T K K I G F D P R V I E G G F D
UniRef90_B1VHT3 D H T V E D H L K H V D A Q Y S R E D R
UniRef90_A1R1C6 D H T V E D Y L K S V G V P Y D R Q E R P F R
UniRef90_U2GSY0 D H T V E H H L D H V G V S Y E R T E
UniRef90_W5XY48 D H T V E D F L A H H G V A Y S R E S E P F R
UniRef90_R5VUG0 D E P T F S Y L A K L G F E V E E V T E A F T
UniRef90_UPI000378ED7F D P T V V D F L T Q R G V P H E R Q E R P F R
UniRef90_G2HUX2 D I S L S D I I K D C K I K C E K T K G Y F K P N G K A
UniRef90_Q2JK35 D D P L Q D W L A H M G I P F R L E M A V F E P N
UniRef90_M2YCL1 D H T V E D F L V H H G I P F D R Q E R P F R
UniRef90_UPI00036245C7 D D P T K V L L N K L H V Q Y E T Q C R R F Q P
UniRef90_UPI0003B6202C D H T V E D F L K H H N A I Y T R E E R P F R
UniRef90_F1YNE0 D H T V E D Y L R H A G V P F E R A D R P F R
UniRef90_F6B8Y0 D P T I I E L F H K L G F Q V K I E E R R L E
UniRef90_G2EGF2 E K P L E R L L V A S G Y E V T K T H
UniRef90_K6CHQ9 D Y
UniRef90_E6U8Q4 D E P T E Q H L V K L G F L P E R A E C I F R
UniRef90_C0XS66 D H T V E D F L A H H G V A Y E R R E R P F R
UniRef90_M1NNM9 D H T V E D F L E Q Q E I P Y A R Q R R P F R
UniRef90_UPI00041384E7 H P V L E N L F N S L N I A F R E L D R P F
UniRef90_C5C8U4 D H T V E D F L R A H D V P H E R Q E R P F R
UniRef90_UPI0001745DDB D S A I T Q L F E R E K W K V V E A M A I F N P
UniRef90_Q55055 D P V V E Q V L T Q K E I A Y T I E E
UniRef90_Q2JWN9 D A A L E E R L R N L G L V V V R E M R S F
UniRef90_UPI000417F111 D H T V V D H L I H V G V P Y T R Q D R P F R
UniRef90_H5WP47 D A A L A Q R L R Q Q H L I V S D A M A G F D P D T G
UniRef90_A4QA24 D H T V V S F L D D H D I E Y Q R T E
UniRef90_B4D6T5 D P A V R Q L F E R E G I I Y S A C K R V F H P L S G
UniRef90_UPI000478B636 D H T I A A Y L T E R G V P F E R V E R A
UniRef90_UPI00047B1A19 D E P L F K L L E K K G F K P N K T M Q
UniRef90_UPI000365FFB5 D H T V E H F L D H A G T E Y T R E D R
UniRef90_D5XBT3 D Q T I V E L F E R L N I P V K I E R R R L E P E S
UniRef90_T0CA10 H P L L E S L F Q G M D I E C A R V E Q P F
UniRef90_UPI000366FE63 E H S T G Q A L D E A G I A Y T R T T A P
UniRef90_H1Y7Y2 D A P L F R L I A S S G Y Q V E K G E R
UniRef90_UPI000360969F D H T A E A F L Q G A G V R F A R V E R
UniRef90_UPI0003B2E2B9 D H T V E D F L T E Y D I P A T R E Q R
UniRef90_X2H9Q6 D K P L F E W L Q A A G F A P T R Q Q R
UniRef90_F0T2K0 E G P V F A L L E A G G Y R P E R I M
UniRef90_G8T6K0 D M P L F R L L S S Q G Y A I K H
UniRef90_H1ZDS9 E R P M Q D W L T S K G Y Q P K V E Q
UniRef90_I0R4T7 D S V V A K N L E K S N V E F K V E E
UniRef90_Q9X525 D K V V I K M L D K H D I N Y E
UniRef90_UPI00035FA75D D P M V R Q I L A G M D V Q I E E V T Q P F
UniRef90_Q9Z3B7 D H T A E H Y L E H L G V R H A R M E R
UniRef90_UPI000369F179 D H T V E H Y L D H A G A P Y T R
UniRef90_A3DGF7 D E P L M Q A L I K C G L S
UniRef90_N1ZGQ5 D P V V V K T L D Q K Q V E Y T V E K A
UniRef90_UPI0002D95212 D E P L M R L L E K E G F K P E
UniRef90_C2GJ42 D H T V E H F L D H M E T N Y E R
UniRef90_UPI00037E2751 E H P M F R W L E A S G Y Q P R K E T
UniRef90_S0FF10 D P P L L E A L K K C G
UniRef90_O54422 D K P M F E W L Q A A G
UniRef90_B5JQP9 D P A V R Q L L D R N E I P Y Q E A R Q V F Q P A T A A
UniRef90_R2LZS1 D P V V L N V L N H K H V E Y K T E
UniRef90_L1ME11 D H T V E
UniRef90_UPI0003760093 D A S L E Q L I R Q L G L A Y E K
UniRef90_C2FXK5 E D P L Y R L L V K Q G Y Q T V I E D R
UniRef90_A5FAD0 E E P I F K W L S A S G Y H T E K V
UniRef90_T0CNQ2 D E P M K I M L E K L G V S V E E K E V K F D F E
UniRef90_F7QZI1 D K V V V N T L D K R H A D Y E


1 10 20 30 40
UniRef90_K6U216 E A L L I T V G D H H L L P K V C Y E I G N K H A T L F W G E N H L I T P Y
UniRef90_UPI00040AFBCA I V I S P S S M L E M G T V C Y E I G N K H I P L F I Q E E K V L L P F
UniRef90_UPI00037301E1 E V L V I K P A T L Y E M A S V C Y E I G N K H L P L F Y D D G T V L A P F
UniRef90_W1WK30 L A V T V E D C H L V P K V C Y E I G N R H A T L I S G S N E F I T I Y
UniRef90_I0ES16 V I H I E A K S V A E V A K I C Y E I G N R H A A L Y Y G E N E F K T P F
UniRef90_UPI0002EF04D9 V L V M K P K T F H E M G S L C Y H I G N L H Q P C L V Q E Q E V F T P N
UniRef90_D5EM15 A W V G W M V G N L H F K A S F S E D G V L V Q D
UniRef90_UPI0003613CEF E S V I E I P M P N D H A M A K L G W Y L G N Q H L G I E V R E K S I L L E D
lupas_21
lupas_14
lupas_28
jnet
conf 9 9 7 4 8 8 8 5 1 7 6 5 8 8 9 9 9 9 9 8 7 4 5 8 7 4 8 9 9 8 5 1 8 5 5 8 8 5 0 7
sol25 B B B B B B B B B B B B B B B B B B B B B B B B
sol5 B B B B B B B B B B B
sol0 B B B B B
jhmm
jpssm


50
60
UniRef90_K6U216 N E P M K V M L E K L G L K V E K
UniRef90_UPI00040AFBCA E M P M F R W L E V S G F K P E
UniRef90_UPI00037301E1 D A P L F R L L T A S G Y T V A Q Q Q R
UniRef90_W1WK30 D E P M K H M L E H L G V K V E A K M
UniRef90_I0ES16 D K P M L A L L E K L G I Q
UniRef90_UPI0002EF04D9 E E F L K S L A D S L S V S Y S L E E R
UniRef90_D5EM15 D L A V E Q M L E R E H I H Y H R V T R V F Q P
UniRef90_UPI0003613CEF I H T L R R S L D K I G I P Y Q Q K N D I F
lupas_21
lupas_14
lupas_28
jnet
conf 5 1 8 8 8 8 8 8 7 2 6 8 3 6 8 9 9 8 4 3 6 7 7 7 7 8 8 9
sol25 B B B B B B B B B
sol5 B B B B
sol0 B B
jhmm
jpssm