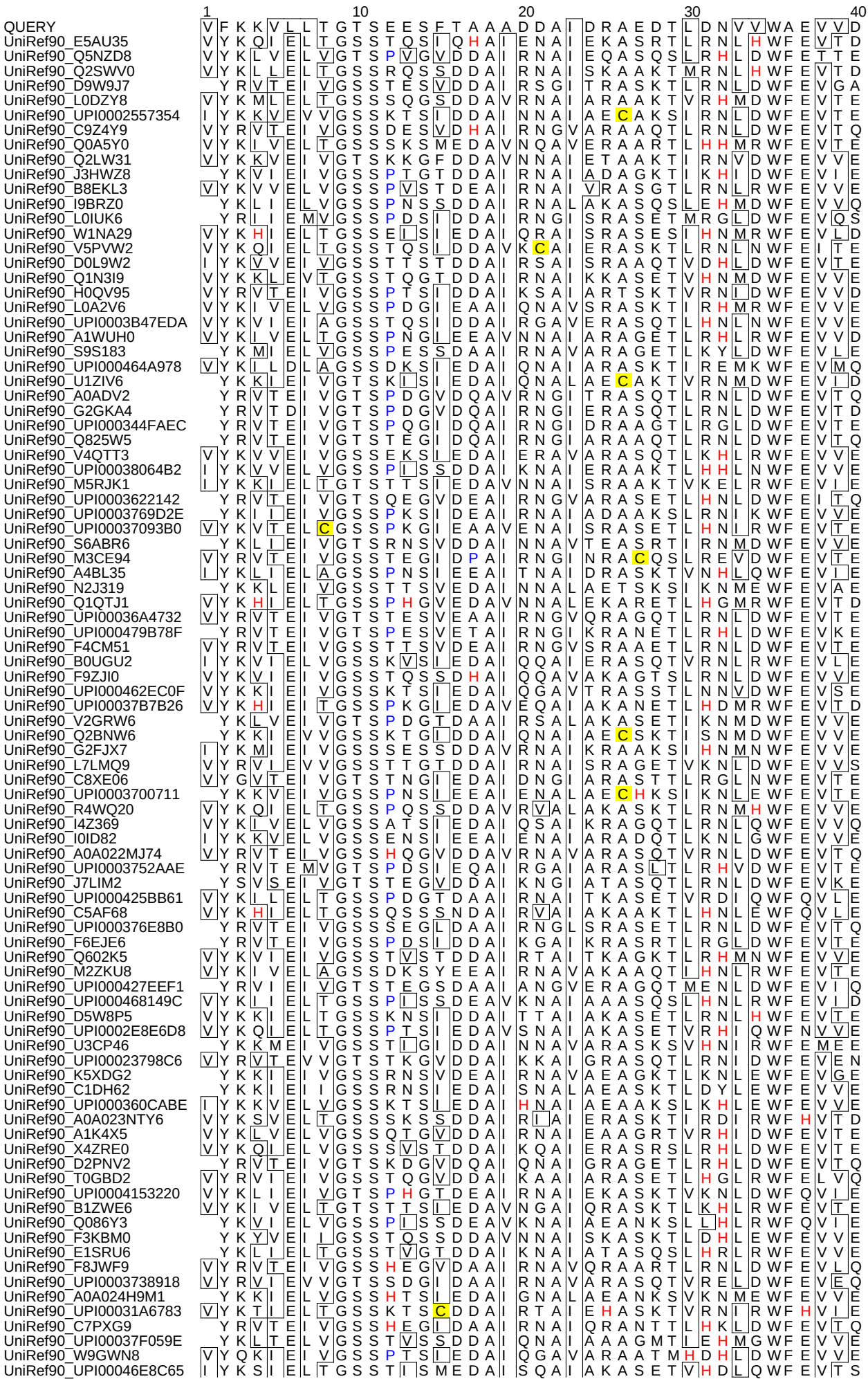
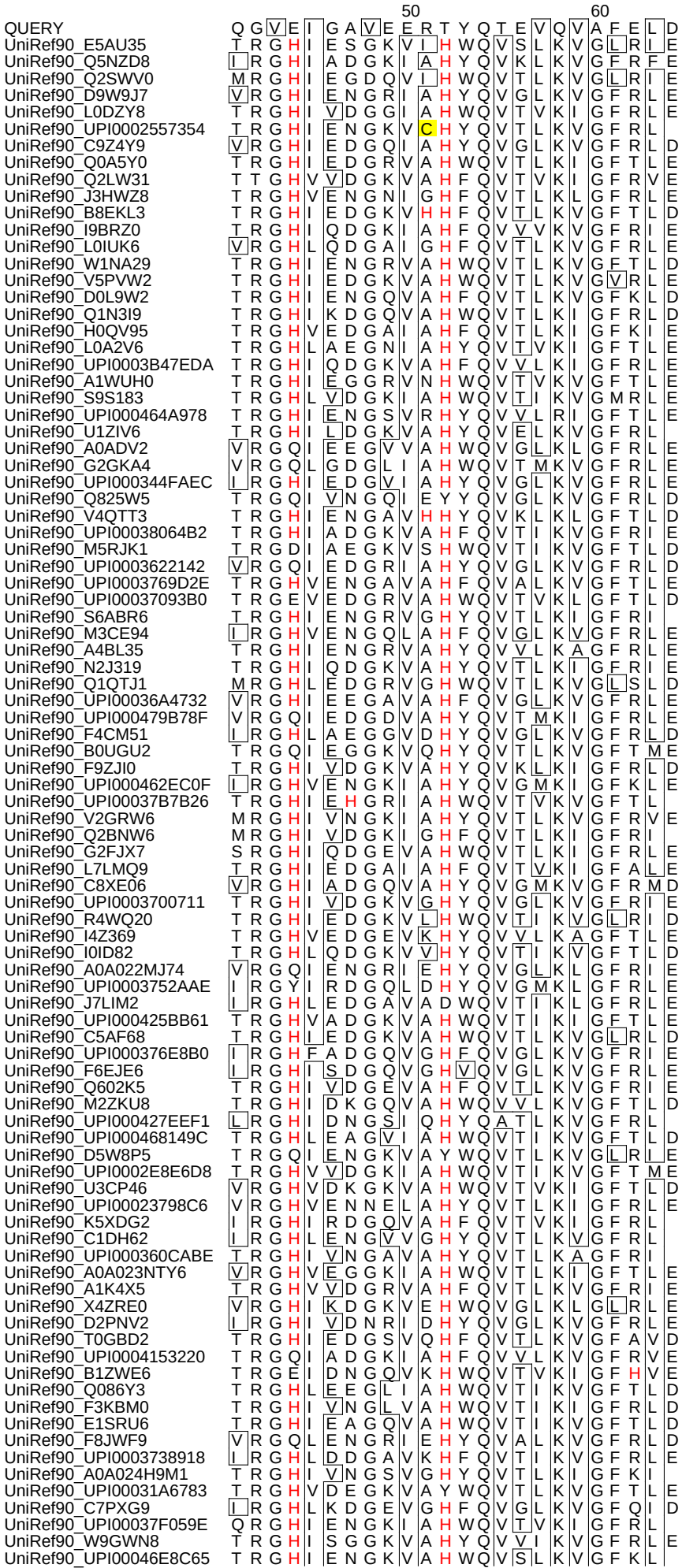
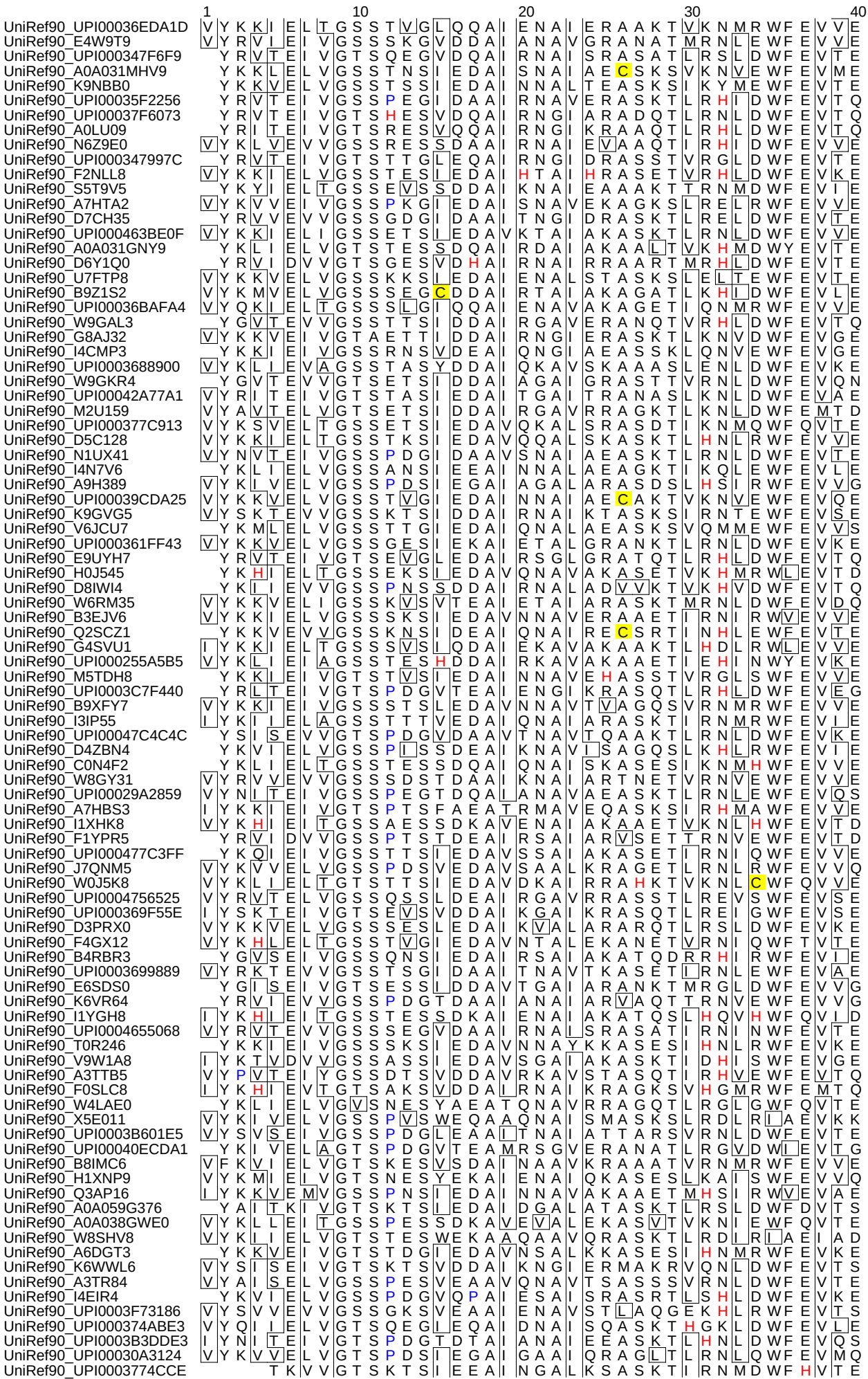
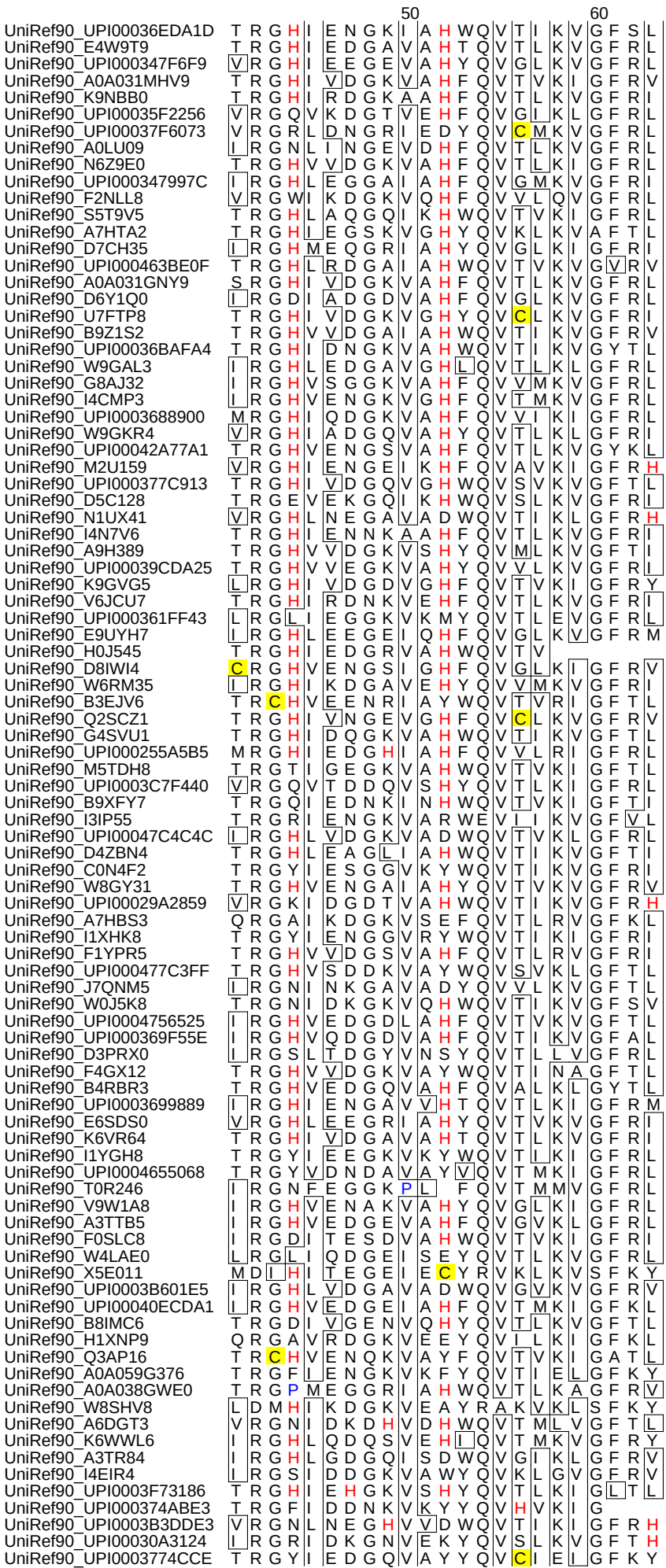
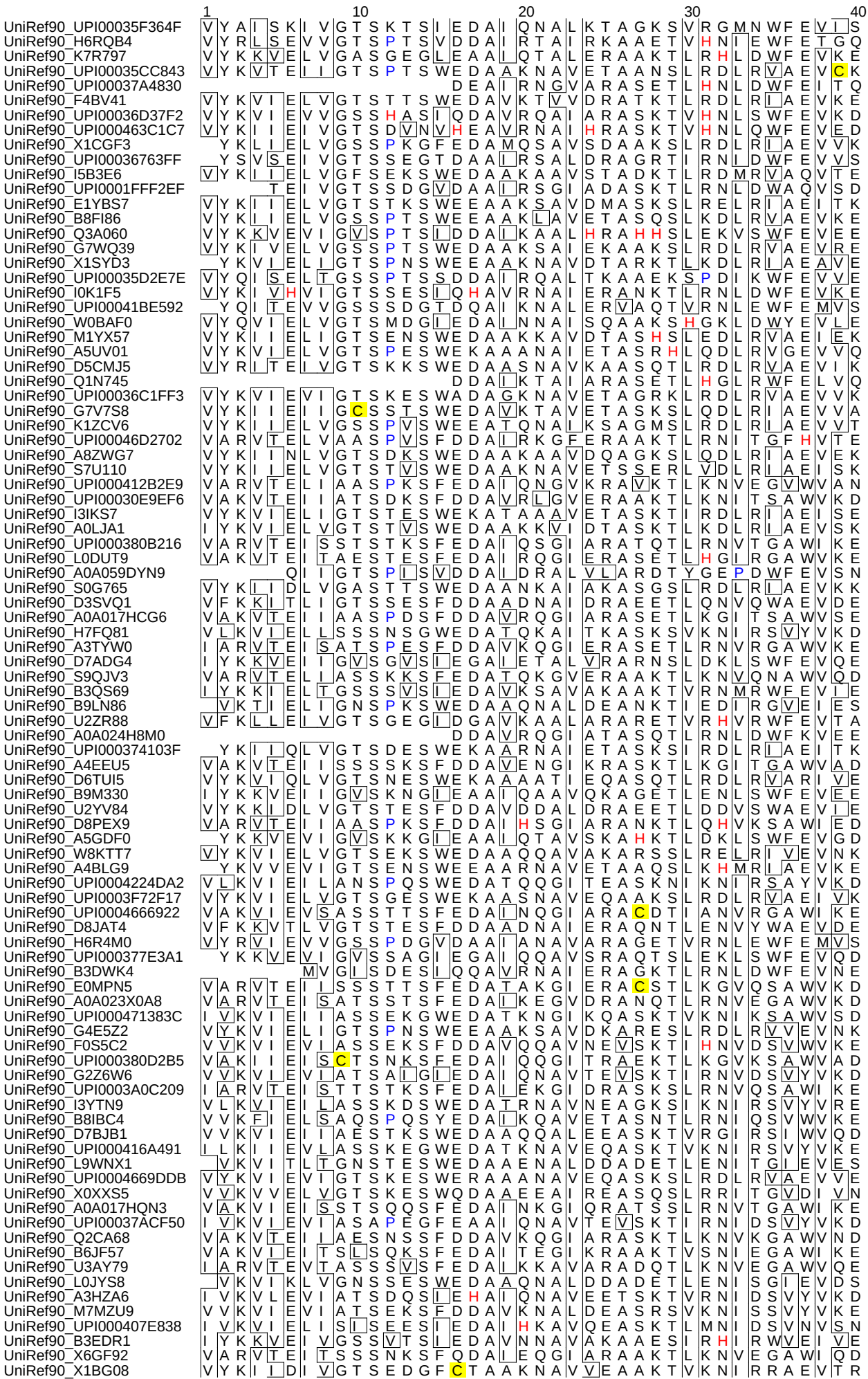
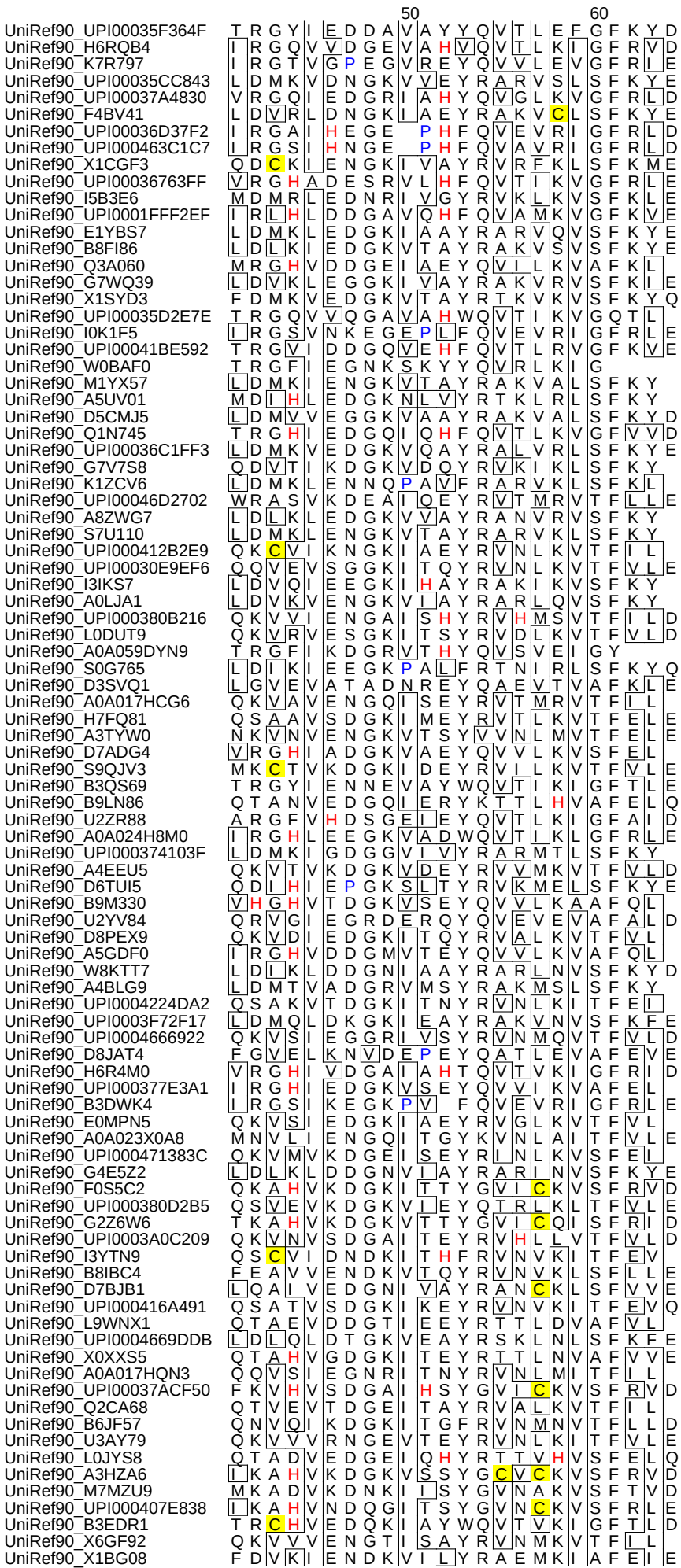

1
10
20
30
40
QUERY
UniRef90_E5AU35
UniRef90_Q5NZD8
UniRef90_Q2SWV0
UniRef90_D9W9J7
UniRef90_L0DZY8
UniRef90_UPI0002557354
UniRef90_C9Z4Y9
UniRef90_Q0A5Y0
UniRef90_Q2LW31
UniRef90_J3HWZ8
UniRef90_B8EKL3
UniRef90_I9BRZ0
UniRef90_L0IUK6
UniRef90_W1NA29
UniRef90_V5PVW2
UniRef90_D0L9W2
UniRef90_Q1N3I9
UniRef90_H0QV95
UniRef90_L0A2V6
UniRef90_UPI0003B47EDA
UniRef90_A1WUH0
UniRef90_S9S183
UniRef90_UPI000464A978
UniRef90_U1ZIV6
UniRef90_A0ADV2
UniRef90_G2GKA4
UniRef90_UPI000344FAEC
UniRef90_Q825W5
UniRef90_V4QTT3
UniRef90_UPI00038064B2
UniRef90_M5RJK1
UniRef90_UPI0003622142
UniRef90_UPI0003769D2E
UniRef90_UPI00037093B0
UniRef90_S6ABR6
UniRef90_M3CE94
UniRef90_A4BL35
UniRef90_N2J319
UniRef90_Q1QTJ1
UniRef90_UPI00036A4732
UniRef90_UPI000479B78F
UniRef90_F4CM51
UniRef90_B0UGU2
UniRef90_F9ZJI0
UniRef90_UPI000462EC0F
UniRef90_UPI00037B7B26
UniRef90_V2GRW6
UniRef90_Q2BNW6
UniRef90_G2FJX7
UniRef90_L7LMQ9
UniRef90_C8XE06
UniRef90_UPI0003700711
UniRef90_R4WQ20
UniRef90_I4Z369
UniRef90_I0ID82
UniRef90_A0A022MJ74
UniRef90_UPI0003752AAE
UniRef90_J7LIM2
UniRef90_UPI000425BB61
UniRef90_C5AF68
UniRef90_UPI000376E8B0
UniRef90_F6EJE6
UniRef90_Q602K5
UniRef90_M2ZKU8
UniRef90_UPI000427EEF1
UniRef90_UPI000468149C
UniRef90_D5W8P5
UniRef90_UPI0002E8E6D8
UniRef90_U3CP46
UniRef90_UPI00023798C6
UniRef90_K5XDG2
UniRef90_C1DH62
UniRef90_UPI000360CABE
UniRef90_A0A023NTY6
UniRef90_A1K4X5
UniRef90_X4ZRE0
UniRef90_D2PNV2
UniRef90_T0GBD2
UniRef90_UPI0004153220
UniRef90_B1ZWE6
UniRef90_Q086Y3
UniRef90_F3KBM0
UniRef90_E1SRU6
UniRef90_F8JWF9
UniRef90_UPI0003738918
UniRef90_A0A024H9M1
UniRef90_UPI00031A6783
UniRef90_C7PXG9
UniRef90_UPI00037F059E
UniRef90_W9GWN8
UniRef90_UPI00046E8C65

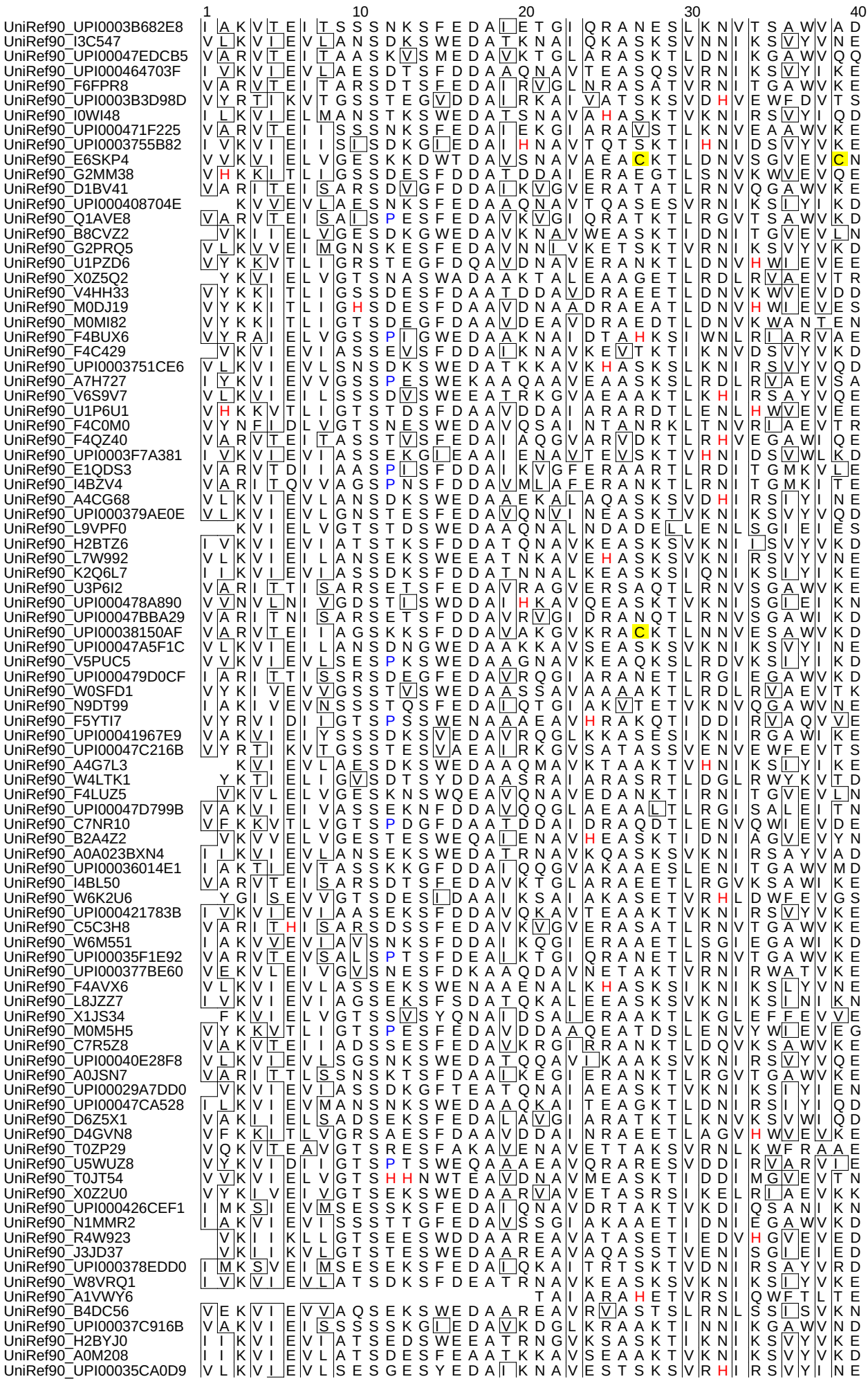

50
60
QUERY Q G V E I G A V E E R T Y Q T E V Q V A F E L D
UniRef90_E5AU35 T R G H I E S G K V I H W Q V S L K V G L R I E
UniRef90_Q5NZD8 I R G H I A D G K I A H Y Q V K L K V G F R F E
UniRef90_Q2SWV0 M R G H I E G D Q V I H W Q V T L K V G L R I E
UniRef90_D9W9J7 V R G H I E N G R I A H Y Q V G L K V G F R L E
UniRef90_L0DZY8 T R G H I V D G G I A H W Q V T V K I G F R L E
UniRef90_UPI0002557354 T R G H I E N G K V C H Y Q V T L K V G F R L
UniRef90_C9Z4Y9 V R G H I E D G Q I A H Y Q V G L K V G F R L D
UniRef90_Q0A5Y0 T R G H I E D G R V A H W Q V T L K I G F T L E
UniRef90_Q2LW31 T T G H V V D G K V A H F Q V T V K I G F R V E
UniRef90_J3HWZ8 T R G H V E N G N I G H F Q V T L K L G F R L E
UniRef90_B8EKL3 T R G H I E D G K V H H F Q V T L K V G F T L D
UniRef90_I9BRZ0 T R G H I Q D G K I A H F Q V V V K V G F R I E
UniRef90_L0IUK6 V R G H L Q D G A I G H F Q V T L K V G F R L E
UniRef90_W1NA29 T R G H I E N G R V A H W Q V T L K V G F T L D
UniRef90_V5PVW2 T R G H I E D G K V A H W Q V T L K V G V R L E
UniRef90_D0L9W2 T R G H I E N G Q V A H F Q V T L K V G F K L D
UniRef90_Q1N3I9 T R G H I K D G Q V A H W Q V T L K I G F R L D
UniRef90_H0QV95 T R G H V E D G A I A H F Q V T L K I G F K I E
UniRef90_L0A2V6 T R G H L A E G N I A H Y Q V T V K I G F T L E
UniRef90_UPI0003B47EDA T R G H I Q D G K V A H F Q V V L K I G F R L E
UniRef90_A1WUH0 T R G H I E G G R V N H W Q V T V K V G F T L E
UniRef90_S9S183 T R G H L V D G K I A H W Q V T I K V G M R L E
UniRef90_UPI000464A978 T R G H I E N G S V R H Y Q V V L R I G F T L E
UniRef90_U1ZIV6 T R G H I L D G K V A H Y Q V E L K V G F R L
UniRef90_A0ADV2 V R G Q I E E G V V A H W Q V G L K L G F R L E
UniRef90_G2GKA4 V R G Q L G D G L I A H W Q V T M K V G F R L E
UniRef90_UPI000344FAEC I R G H I E D G V I A H Y Q V G L K V G F R L E
UniRef90_Q825W5 T R G Q I V N G Q I E Y Y Q V G L K V G F R L D
UniRef90_V4QTT3 T R G H I E N G A V H H Y Q V K L K L G F T L D
UniRef90_UPI00038064B2 T R G H I A D G K V A H F Q V T I K V G F R I E
UniRef90_M5RJK1 T R G D I A E G K V S H W Q V T I K V G F T L D
UniRef90_UPI0003622142 V R G Q I E D G R I A H Y Q V G L K V G F R L D
UniRef90_UPI0003769D2E T R G H V E N G A V A H F Q V A L K V G F T L E
UniRef90_UPI00037093B0 T R G E V E D G R V A H W Q V T V K L G F T L D
UniRef90_S6ABR6 T R G H I E N G R V G H Y Q V T L K I G F R I
UniRef90_M3CE94 I R G H V E N G Q L A H F Q V G L K V G F R L E
UniRef90_A4BL35 T R G H I E N G R V A H Y Q V V L K A G F R L E
UniRef90_N2J319 T R G H I Q D G K V A H Y Q V T L K I G F R I E
UniRef90_Q1QTJ1 M R G H L E D G R V G H W Q V T L K V G L S L D
UniRef90_UPI00036A4732 V R G H I E E G A V A H F Q V G L K V G F R L E
UniRef90_UPI000479B78F V R G Q I E D G D V A H Y Q V T M K I G F R L E
UniRef90_F4CM51 I R G H L A E G G V D H Y Q V G L K V G F R L D
UniRef90_B0UGU2 T R G Q I E G G K V Q H Y Q V T L K V G F T M E
UniRef90_F9ZJI0 T R G H I V D G K V A H Y Q V K L K I G F R L D
UniRef90_UPI000462EC0F I R G H V E N G K I A H Y Q V G M K I G F K L E
UniRef90_UPI00037B7B26 T R G H I E H G R I A H W Q V T V K V G F T L
UniRef90_V2GRW6 M R G H I V N G K I A H Y Q V T L K V G F R V E
UniRef90_Q2BNW6 M R G H I V D G K I G H F Q V T L K I G F R I
UniRef90_G2FJX7 S R G H I Q D G E V A H W Q V T L K I G F R L E
UniRef90_L7LMQ9 T R G H I E D G A I A H F Q V T V K I G F A L E
UniRef90_C8XE06 V R G H I A D G Q V A H Y Q V G M K V G F R M D
UniRef90_UPI0003700711 T R G H I V D G K V G H Y Q V G L K V G F R I E
UniRef90_R4WQ20 T R G H I E D G K V L H W Q V T I K V G L R I D
UniRef90_I4Z369 T R G H V E D G E V K H Y Q V V L K A G F T L E
UniRef90_I0ID82 T R G H L Q D G K V V H Y Q V T I K V G F T L D
UniRef90_A0A022MJ74 V R G Q I E N G R I E H Y Q V G L K L G F R I E
UniRef90_UPI0003752AAE I R G Y I R D G Q L D H Y Q V G M K L G F R L E
UniRef90_J7LIM2 I R G H L E D G A V A D W Q V T I K L G F R L E
UniRef90_UPI000425BB61 T R G H V A D G K V A H W Q V T I K I G F T L E
UniRef90_C5AF68 T R G H I E D G K V A H W Q V T L K V G L R L D
UniRef90_UPI000376E8B0 I R G H F A D G Q V G H F Q V G L K V G F R I E
UniRef90_F6EJE6 I R G H I S D G Q V G H V Q V G L K V G F R L E
UniRef90_Q602K5 T R G H I V D G E V A H F Q V T L K V G F R I E
UniRef90_M2ZKU8 T R G H I D K G Q V A H W Q V V L K V G F T L D
UniRef90_UPI000427EEF1 L R G H I D N G S I Q H Y Q A T L K V G F R L
UniRef90_UPI000468149C T R G H L E A G V I A H W Q V T I K V G F T L D
UniRef90_D5W8P5 T R G Q I E N G K V A Y W Q V T L K V G L R I E
UniRef90_UPI0002E8E6D8 T R G H V V D G K I A H W Q V T I K V G F T M E
UniRef90_U3CP46 V R G H V D K G K V A H W Q V T V K I G F T L D
UniRef90_UPI00023798C6 V R G H V E N N E L A H Y Q V T L K I G F R L E
UniRef90_K5XDG2 I R G H I R D G Q V A H F Q V T V K I G F R L
UniRef90_C1DH62 I R G H L E N G V V G H Y Q V T L K V G F R L
UniRef90_UPI000360CABE T R G H I V N G A V A H Y Q V T L K A G F R I
UniRef90_A0A023NTY6 V R G H V E G G K I A H W Q V T L K I G F T L E
UniRef90_A1K4X5 T R G H V V D G R V A H F Q V T L K V G F R I E
UniRef90_X4ZRE0 V R G H I K D G K V E H W Q V G L K L G L R L E
UniRef90_D2PNV2 I R G H I V D N R I D H Y Q V G L K V G F R L E
UniRef90_T0GBD2 T R G H I E D G S V Q H F Q V T L K V G F A V D
UniRef90_UPI0004153220 T R G Q I A D G K I A H F Q V V L K V G F R V E
UniRef90_B1ZWE6 T R G E I D N G Q V K H W Q V T V K I G F H V E
UniRef90_Q086Y3 T R G H L E E G L I A H W Q V T I K V G F T L D
UniRef90_F3KBM0 T R G H I V N G L V A H W Q V T I K I G F R L D
UniRef90_E1SRU6 T R G H I E A G Q V A H W Q V T I K V G F T L D
UniRef90_F8JWF9 V R G Q L E N G R I E H Y Q V A L K V G F R L D
UniRef90_UPI0003738918 I R G H L D D G A V K H F Q V T I K V G F R L E
UniRef90_A0A024H9M1 T R G H I V N G S V G H Y Q V T L K I G F K I
UniRef90_UPI00031A6783 T R G H V D E G K V A Y W Q V T L K V G F T L E
UniRef90_C7PXG9 I R G H L K D G E V G H F Q V G L K V G F Q I D
UniRef90_UPI00037F059E Q R G H I E N G K I A H W Q V T V K I G F R L
UniRef90_W9GWN8 T R G H I S G G K V A H Y Q V V I K V G F R L E
UniRef90_UPI00046E8C65 T R G H I E N G K V A H W Q V S L K V G F K L

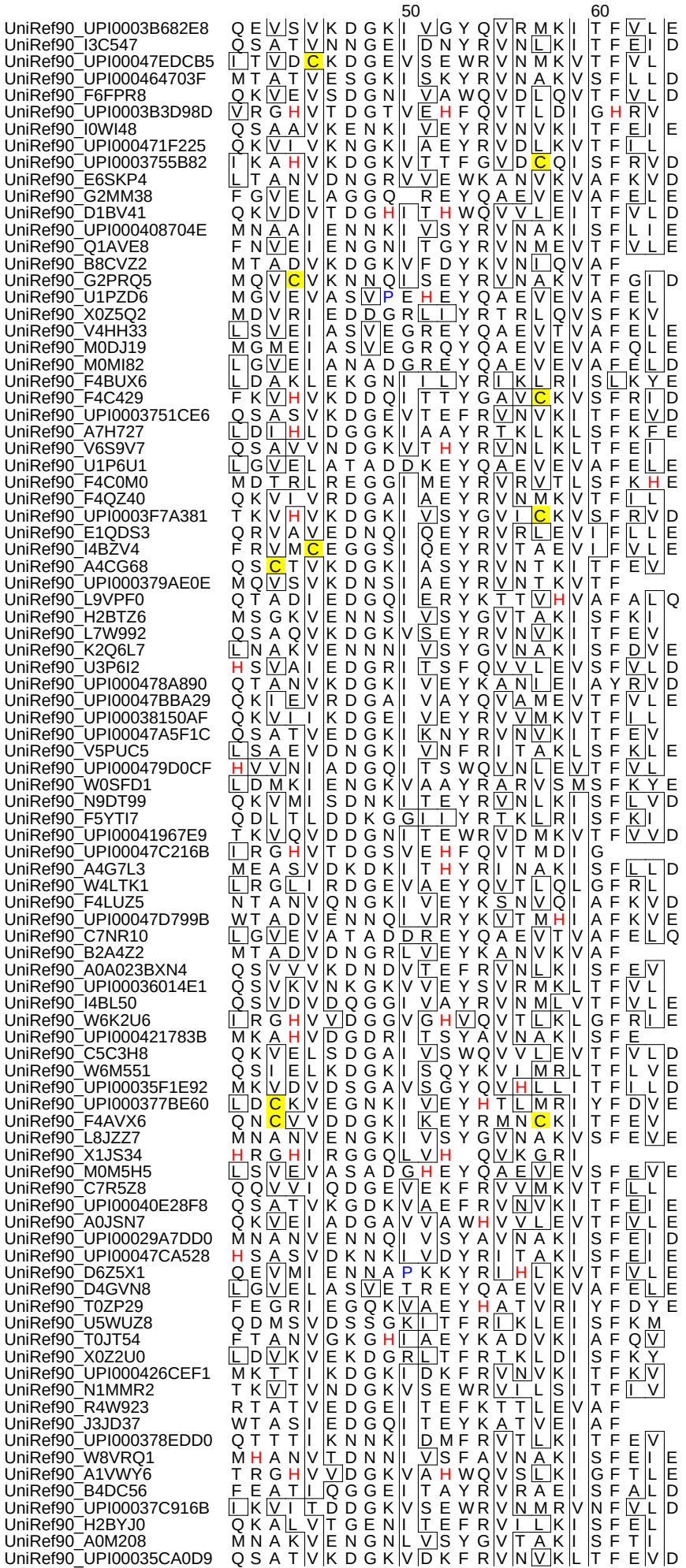

1
10
20
30
40
UniRef90_UPI00036EDA1D
UniRef90_E4W9T9
UniRef90_UPI000347F6F9
UniRef90_A0A031MHV9
UniRef90_K9NBB0
UniRef90_UPI00035F2256
UniRef90_UPI00037F6073
UniRef90_A0LU09
UniRef90_N6Z9E0
UniRef90_UPI000347997C
UniRef90_F2NLL8
UniRef90_S5T9V5
UniRef90_A7HTA2
UniRef90_D7CH35
UniRef90_UPI000463BE0F
UniRef90_A0A031GNY9
UniRef90_D6Y1Q0
UniRef90_U7FTP8
UniRef90_B9Z1S2
UniRef90_UPI00036BAFA4
UniRef90_W9GAL3
UniRef90_G8AJ32
UniRef90_I4CMP3
UniRef90_UPI0003688900
UniRef90_W9GKR4
UniRef90_UPI00042A77A1
UniRef90_M2U159
UniRef90_UPI000377C913
UniRef90_D5C128
UniRef90_N1UX41
UniRef90_I4N7V6
UniRef90_A9H389
UniRef90_UPI00039CDA25
UniRef90_K9GVG5
UniRef90_V6JCU7
UniRef90_UPI000361FF43
UniRef90_E9UYH7
UniRef90_H0J545
UniRef90_D8IWI4
UniRef90_W6RM35
UniRef90_B3EJV6
UniRef90_Q2SCZ1
UniRef90_G4SVU1
UniRef90_UPI000255A5B5
UniRef90_M5TDH8
UniRef90_UPI0003C7F440
UniRef90_B9XFY7
UniRef90_I3IP55
UniRef90_UPI00047C4C4C
UniRef90_D4ZBN4
UniRef90_C0N4F2
UniRef90_W8GY31
UniRef90_UPI00029A2859
UniRef90_A7HBS3
UniRef90_I1XHK8
UniRef90_F1YPR5
UniRef90_UPI000477C3FF
UniRef90_J7QNM5
UniRef90_W0J5K8
UniRef90_UPI0004756525
UniRef90_UPI000369F55E
UniRef90_D3PRX0
UniRef90_F4GX12
UniRef90_B4RBR3
UniRef90_UPI0003699889
UniRef90_E6SDS0
UniRef90_K6VR64
UniRef90_I1YGH8
UniRef90_UPI0004655068
UniRef90_T0R246
UniRef90_V9W1A8
UniRef90_A3TTB5
UniRef90_F0SLC8
UniRef90_W4LAE0
UniRef90_X5E011
UniRef90_UPI0003B601E5
UniRef90_UPI00040ECDA1
UniRef90_B8IMC6
UniRef90_H1XNP9
UniRef90_Q3AP16
UniRef90_A0A059G376
UniRef90_A0A038GWE0
UniRef90_W8SHV8
UniRef90_A6DGT3
UniRef90_K6WWL6
UniRef90_A3TR84
UniRef90_I4EIR4
UniRef90_UPI0003F73186
UniRef90_UPI000374ABE3
UniRef90_UPI0003B3DDE3
UniRef90_UPI00030A3124
UniRef90_UPI0003774CCE

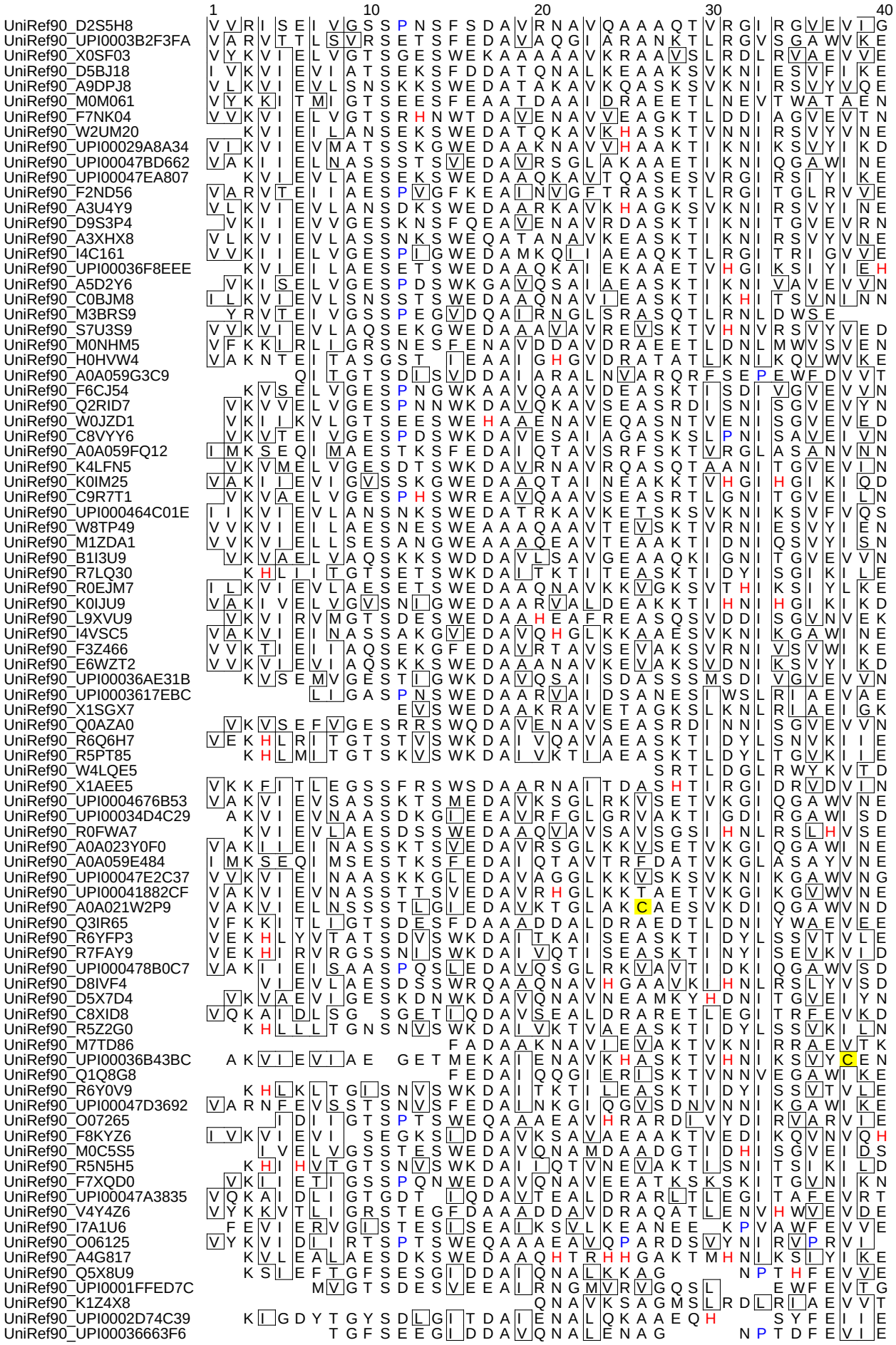

50
60
UniRef90_UPI00036EDA1D T R G H I E N G K I A H W Q V T I K V G F S L
UniRef90_E4W9T9 T R G H I E D G A V A H T Q V T L K V G F R L E
UniRef90_UPI000347F6F9 V R G H I E E G E V A H Y Q V G L K V G F R L E
UniRef90_A0A031MHV9 T R G H I V D G K V A H F Q V T V K I G F R V E
UniRef90_K9NBB0 T R G H I R D G K A A H F Q V T L K V G F R I
UniRef90_UPI00035F2256 V R G Q V K D G T V E H F Q V G I K L G F R L E
UniRef90_UPI00037F6073 V R G R L D N G R I E D Y Q V C M K V G F R L E
UniRef90_A0LU09 I R G N L I N G E V D H F Q V T L K V G F R L E
UniRef90_N6Z9E0 T R G H V V D G K V A H F Q V T L K I G F R L E
UniRef90_UPI000347997C I R G H L E G G A I A H F Q V G M K V G F R I E
UniRef90_F2NLL8 V R G W I K D G K V Q H F Q V V L Q V G F R L E
UniRef90_S5T9V5 T R G H L A Q G Q I K H W Q V T V K I G F R L E
UniRef90_A7HTA2 T R G H I E G S K V G H Y Q V K L K V A F T L E
UniRef90_D7CH35 I R G H M E Q G R I A H Y Q V G L K I G F R I E
UniRef90_UPI000463BE0F T R G H L R D G A I A H W Q V T V K V G V R V E
UniRef90_A0A031GNY9 S R G H I V D G K V A H F Q V T L K V G F R L E
UniRef90_D6Y1Q0 I R G D I A D G D V A H F Q V G L K V G F R L E
UniRef90_U7FTP8 T R G H I V D G K V G H Y Q V C L K V G F R I
UniRef90_B9Z1S2 T R G H V V D G A I A H W Q V T I K V G F R V E
UniRef90_UPI00036BAFA4 T R G H I D N G K V A H W Q V T I K V G Y T L
UniRef90_W9GAL3 I R G H L E D G A V G H L Q V T L K L G F R L E
UniRef90_G8AJ32 I R G H V S G G K V A H F Q V V M K V G F R L E
UniRef90_I4CMP3 I R G H V E N G K V G H F Q V T M K V G F R L E
UniRef90_UPI0003688900 M R G H I Q D G K V A H F Q V V I K I G F R L D
UniRef90_W9GKR4 V R G H I A D G Q V A H Y Q V T L K L G F R I E
UniRef90_UPI00042A77A1 T R G H V E N G S V A H F Q V T L K V G Y K L D
UniRef90_M2U159 V R G H I E N G E I K H F Q V A V K I G F R H E
UniRef90_UPI000377C913 T R G H I V D G Q V G H W Q V S V K V G F T L E
UniRef90_D5C128 T R G E V E K G Q I K H W Q V S L K V G F R I D
UniRef90_N1UX41 V R G H L N E G A V A D W Q V T I K L G F R H E
UniRef90_I4N7V6 T R G H I E N N K A A H F Q V T L K V G F R I
UniRef90_A9H389 T R G H V V D G K V S H Y Q V M L K V G F T I D
UniRef90_UPI00039CDA25 T R G H V V E G K V A H Y Q V V L K V G F R I E
UniRef90_K9GVG5 L R G H I V D G D V G H F Q V T V K I G F R Y E
UniRef90_V6JCU7 T R G H I R D N K V E H F Q V T L K V G F R I
UniRef90_UPI000361FF43 L R G L I E G G K V K M Y Q V T L E V G F R L E
UniRef90_E9UYH7 I R G H L E E G E I Q H F Q V G L K V G F R M E
UniRef90_H0J545 T R G H I E D G R V A H W Q V T V
UniRef90_D8IWI4 C R G H V E N G S I G H F Q V G L K I G F R V E
UniRef90_W6RM35 I R G H I K D G A V E H Y Q V V M K V G F R I D
UniRef90_B3EJV6 T R C H V E E N R I A Y W Q V T V R I G F T L D
UniRef90_Q2SCZ1 T R G H I V N G E V G H F Q V C L K V G F R V E
UniRef90_G4SVU1 T R G H I D Q G K V A H W Q V T I K V G F T L
UniRef90_UPI000255A5B5 M R G H I E D G H I A H F Q V V L R I G F R L E
UniRef90_M5TDH8 T R G T I G E G K V A H W Q V T V K I G F T L D
UniRef90_UPI0003C7F440 V R G Q V T D D Q V S H Y Q V T L K I G F R L E
UniRef90_B9XFY7 T R G Q I E D N K I N H W Q V T V K I G F T I E
UniRef90_I3IP55 T R G R I E N G K V A R W E V I I K V G F V L E
UniRef90_UPI00047C4C4C I R G H L V D G K V A D W Q V T V K L G F R L E
UniRef90_D4ZBN4 T R G H L E A G L I A H W Q V T I K V G F T I E
UniRef90_C0N4F2 T R G Y I E S G G V K Y W Q V T I K V G F R I E
UniRef90_W8GY31 T R G H V E N G A I A H Y Q V T V K V G F R V E
UniRef90_UPI00029A2859 V R G K I D G D T V A H W Q V T I K V G F R H E
UniRef90_A7HBS3 Q R G A I K D G K V S E F Q V T L R V G F K L E
UniRef90_I1XHK8 T R G Y I E N G G V R Y W Q V T I K I G F R I E
UniRef90_F1YPR5 T R G H V V D G S V A H F Q V T L R V G F R I D
UniRef90_UPI000477C3FF T R G H V S D D K V A Y W Q V S V K L G F T L E
UniRef90_J7QNM5 I R G N I N K G A V A D Y Q V V L K V G F T L D
UniRef90_W0J5K8 T R G N I D K G K V Q H W Q V T I K V G F S V E
UniRef90_UPI0004756525 I R G H V E D G D L A H F Q V T V K V G F T L E
UniRef90_UPI000369F55E I R G H V Q D G D V A H F Q V T I K V G F A L E
UniRef90_D3PRX0 I R G S L T D G Y V N S Y Q V T L L V G F R L E
UniRef90_F4GX12 T R G H V V D G K V A Y W Q V T I N A G F T L E
UniRef90_B4RBR3 T R G H V E D G Q V A H F Q V A L K L G Y T L E
UniRef90_UPI0003699889 I R G H I E N G A V V H T Q V T L K I G F R M E
UniRef90_E6SDS0 V R G H L E E G R I A H Y Q V T V K V G F R I E
UniRef90_K6VR64 T R G H I V D G A V A H T Q V T L K V G F R I D
UniRef90_I1YGH8 T R G Y I E E G K V K Y W Q V T I K I G F R L D
UniRef90_UPI0004655068 T R G Y V D N D A V A Y V Q V T M K I G F R L E
UniRef90_T0R246 I R G N F E G G K P L F Q V T M M V G F R L D
UniRef90_V9W1A8 I R G H V E N A K V A H Y Q V G L K I G F R L D
UniRef90_A3TTB5 I R G H V E D G E V A H F Q V G V K L G F R L E
UniRef90_F0SLC8 I R G D I T E S D V A H W Q V T V K I G F R I D
UniRef90_W4LAE0 L R G L I Q D G E I S E Y Q V T L K V G F R L
UniRef90_X5E011 M D I H I T E G E I E C Y R V K L K V S F K Y E
UniRef90_UPI0003B601E5 I R G H L V D G A V A D W Q V G V K V G F R V E
UniRef90_UPI00040ECDA1 I R G H V E D G E I A H F Q V T M K I G F K L E
UniRef90_B8IMC6 T R G D I V G E N V Q H Y Q V T L K V G F T L E
UniRef90_H1XNP9 Q R G A V R D G K V E E Y Q V I L K I G F K L
UniRef90_Q3AP16 T R C H V E N Q K V A Y F Q V T V K I G A T L E
UniRef90_A0A059G376 T R G F I E N G K V K F Y Q V T I E L G F K Y E
UniRef90_A0A038GWE0 T R G P M E G G R I A H W Q V T L K A G F R V D
UniRef90_W8SHV8 L D M H I K D G K V E A Y R A K V K L S F K Y E
UniRef90_A6DGT3 V R G N I D K D H V D H W Q V T M L V G F T L D
UniRef90_K6WWL6 I R G H L Q D Q S V E H I Q V T M K V G F R Y D
UniRef90_A3TR84 I R G H L G D G Q I S D W Q V G I K L G F R V E
UniRef90_I4EIR4 I R G S I D D G K V A W Y Q V K L G V G F R V
UniRef90_UPI0003F73186 T R G H I E H G K V S H Y Q V T L K I G L T L D
UniRef90_UPI000374ABE3 T R G F I D D N K V K Y Y Q V H V K I G
UniRef90_UPI0003B3DDE3 V R G N L N E G H V V D W Q V T I K I G F R H E
UniRef90_UPI00030A3124 I R G R I D K G N V E K Y Q V S L K V G F T H D
UniRef90_UPI0003774CCE T R G Y I E D G Q V A Y Y Q V C I E I G F K Y E


1
10
20
30
40
UniRef90_UPI00035F364F
UniRef90_H6RQB4
UniRef90_K7R797
UniRef90_UPI00035CC843
UniRef90_UPI00037A4830
UniRef90_F4BV41
UniRef90_UPI00036D37F2
UniRef90_UPI000463C1C7
UniRef90_X1CGF3
UniRef90_UPI00036763FF
UniRef90_I5B3E6
UniRef90_UPI0001FFF2EF
UniRef90_E1YBS7
UniRef90_B8FI86
UniRef90_Q3A060
UniRef90_G7WQ39
UniRef90_X1SYD3
UniRef90_UPI00035D2E7E
UniRef90_I0K1F5
UniRef90_UPI00041BE592
UniRef90_W0BAF0
UniRef90_M1YX57
UniRef90_A5UV01
UniRef90_D5CMJ5
UniRef90_Q1N745
UniRef90_UPI00036C1FF3
UniRef90_G7V7S8
UniRef90_K1ZCV6
UniRef90_UPI00046D2702
UniRef90_A8ZWG7
UniRef90_S7U110
UniRef90_UPI000412B2E9
UniRef90_UPI00030E9EF6
UniRef90_I3IKS7
UniRef90_A0LJA1
UniRef90_UPI000380B216
UniRef90_L0DUT9
UniRef90_A0A059DYN9
UniRef90_S0G765
UniRef90_D3SVQ1
UniRef90_A0A017HCG6
UniRef90_H7FQ81
UniRef90_A3TYW0
UniRef90_D7ADG4
UniRef90_S9QJV3
UniRef90_B3QS69
UniRef90_B9LN86
UniRef90_U2ZR88
UniRef90_A0A024H8M0
UniRef90_UPI000374103F
UniRef90_A4EEU5
UniRef90_D6TUI5
UniRef90_B9M330
UniRef90_U2YV84
UniRef90_D8PEX9
UniRef90_A5GDF0
UniRef90_W8KTT7
UniRef90_A4BLG9
UniRef90_UPI0004224DA2
UniRef90_UPI0003F72F17
UniRef90_UPI0004666922
UniRef90_D8JAT4
UniRef90_H6R4M0
UniRef90_UPI000377E3A1
UniRef90_B3DWK4
UniRef90_E0MPN5
UniRef90_A0A023X0A8
UniRef90_UPI000471383C
UniRef90_G4E5Z2
UniRef90_F0S5C2
UniRef90_UPI000380D2B5
UniRef90_G2Z6W6
UniRef90_UPI0003A0C209
UniRef90_I3YTN9
UniRef90_B8IBC4
UniRef90_D7BJB1
UniRef90_UPI000416A491
UniRef90_L9WNX1
UniRef90_UPI0004669DDB
UniRef90_X0XXS5
UniRef90_A0A017HQN3
UniRef90_UPI00037ACF50
UniRef90_Q2CA68
UniRef90_B6JF57
UniRef90_U3AY79
UniRef90_L0JYS8
UniRef90_A3HZA6
UniRef90_M7MZU9
UniRef90_UPI000407E838
UniRef90_B3EDR1
UniRef90_X6GF92
UniRef90_X1BG08

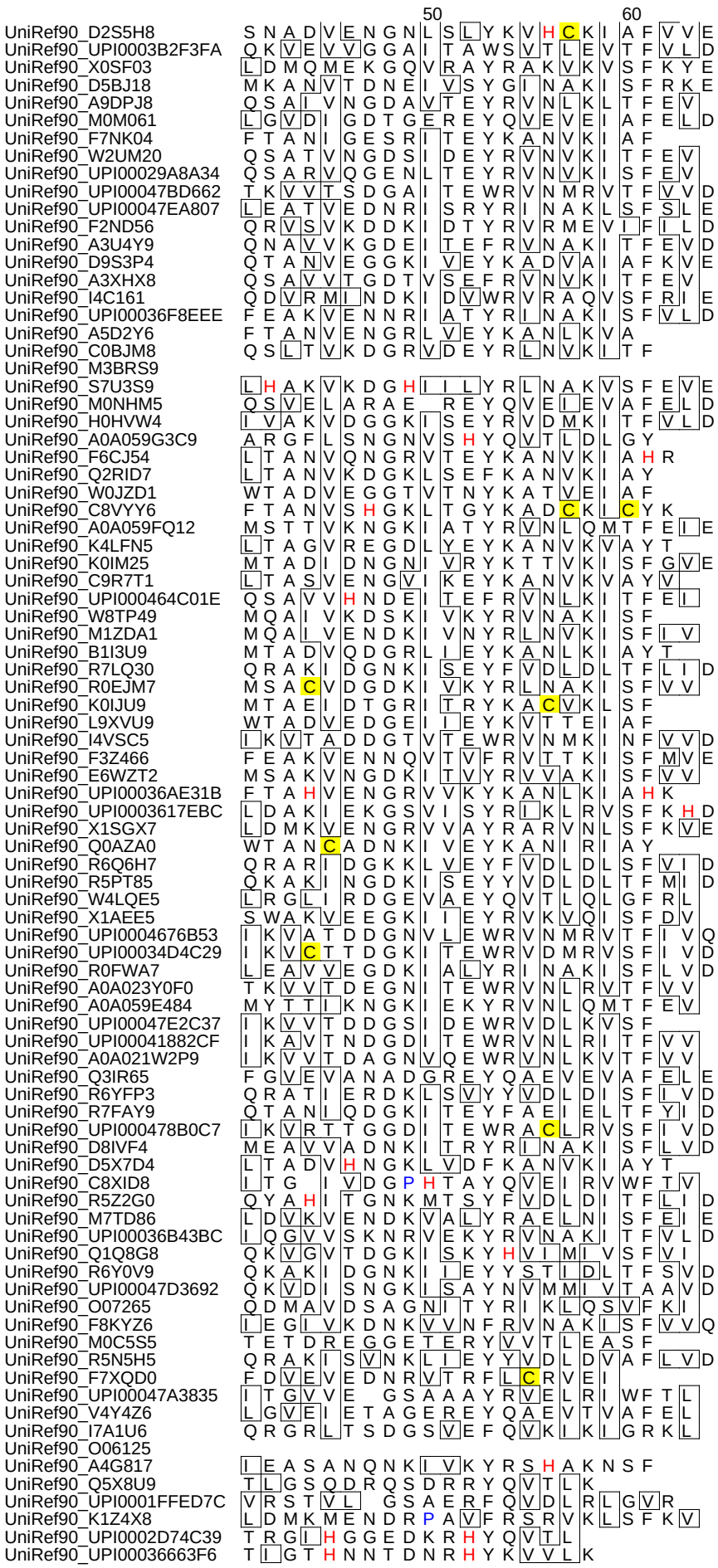

50
60
UniRef90_UPI00035F364F T R G Y I E D D A V A Y Y Q V T L E F G F K Y D
UniRef90_H6RQB4 I R G Q V V D G E V A H V Q V T L K I G F R V D
UniRef90_K7R797 I R G T V G P E G V R E Y Q V V L E V G F R I E
UniRef90_UPI00035CC843 L D M K V D N G K V V E Y R A R V S L S F K Y E
UniRef90_UPI00037A4830 V R G Q I E D G R I A H Y Q V G L K V G F R L D
UniRef90_F4BV41 L D V R L D N G K I A E Y R A K V C L S F K Y E
UniRef90_UPI00036D37F2 I R G A I H E G E P H F Q V E V R I G F R L D
UniRef90_UPI000463C1C7 I R G S I H N G E P H F Q V A V R I G F R L D
UniRef90_X1CGF3 Q D C K I E N G K I V A Y R V R F K L S F K M E
UniRef90_UPI00036763FF V R G H A D E S R V L H F Q V T I K V G F R L E
UniRef90_I5B3E6 M D M R L E D N R I V G Y R V K L K V S F K L E
UniRef90_UPI0001FFF2EF I R L H L D D G A V Q H F Q V A M K V G F K V E
UniRef90_E1YBS7 L D M K L E D G K I A A Y R A R V Q V S F K Y E
UniRef90_B8FI86 L D L K I E D G K V T A Y R A K V S V S F K Y E
UniRef90_Q3A060 M R G H V D D G E I A E Y Q V I L K V A F K L
UniRef90_G7WQ39 L D V K L E G G K I V A Y R A K V R V S F K I E
UniRef90_X1SYD3 F D M K V E D G K V T A Y R T K V K V S F K Y Q
UniRef90_UPI00035D2E7E T R G Q V V Q G A V A H W Q V T I K V G Q T L
UniRef90_I0K1F5 I R G S V N K E G E P L F Q V E V R I G F R L E
UniRef90_UPI00041BE592 T R G V I D D G Q V E H F Q V T L R V G F K V E
UniRef90_W0BAF0 T R G F I E G N K S K Y Y Q V R L K I G
UniRef90_M1YX57 L D M K I E N G K V T A Y R A K V A L S F K Y
UniRef90_A5UV01 M D I H L E D G K N L V Y R T K L R L S F K Y
UniRef90_D5CMJ5 L D M V V E G G K V A A Y R A K V A L S F K Y D
UniRef90_Q1N745 T R G H I E D G Q I Q H F Q V T L K V G F V V D
UniRef90_UPI00036C1FF3 L D M K V E D G K V Q A Y R A L V R L S F K Y E
UniRef90_G7V7S8 Q D V T I K D G K V D Q Y R V K I K L S F K Y
UniRef90_K1ZCV6 L D M K L E N N Q P A V F R A R V K L S F K L
UniRef90_UPI00046D2702 W R A S V K D E A I Q E Y R V T M R V T F L L E
UniRef90_A8ZWG7 L D L K L E D G K V V A Y R A N V R V S F K Y
UniRef90_S7U110 L D M K L E N G K V T A Y R A R V K L S F K Y
UniRef90_UPI000412B2E9 Q K C V I K N G K I A E Y R V N L K V T F I L
UniRef90_UPI00030E9EF6 Q Q V E V S G G K I T Q Y R V N L K V T F V L E
UniRef90_I3IKS7 L D V Q I E E G K I H A Y R A K I K V S F K Y
UniRef90_A0LJA1 L D V K V E N G K V I A Y R A R L Q V S F K Y
UniRef90_UPI000380B216 Q K V V I E N G A I S H Y R V H M S V T F I L D
UniRef90_L0DUT9 Q K V R V E S G K I T S Y R V D L K V T F V L D
UniRef90_A0A059DYN9 T R G F I K D G R V T H Y Q V S V E I G Y
UniRef90_S0G765 L D I K I E E G K P A L F R T N I R L S F K Y Q
UniRef90_D3SVQ1 L G V E V A T A D N R E Y Q A E V T V A F K L E
UniRef90_A0A017HCG6 Q K V A V E N G Q I S E Y R V T M R V T F I L
UniRef90_H7FQ81 Q S A A V S D G K I M E Y R V T L K V T F E L E
UniRef90_A3TYW0 N K V N V E N G K V T S Y V V N L M V T F E L E
UniRef90_D7ADG4 V R G H I A D G K V A E Y Q V V L K V S F E L
UniRef90_S9QJV3 M K C T V K D G K I D E Y R V I L K V T F V L E
UniRef90_B3QS69 T R G Y I E N N E V A Y W Q V T I K I G F T L E
UniRef90_B9LN86 Q T A N V E D G Q I E R Y K T T L H V A F E L Q
UniRef90_U2ZR88 A R G F V H D S G E I E Y Q V T L K I G F A I D
UniRef90_A0A024H8M0 I R G H L E E G K V A D W Q V T I K L G F R L E
UniRef90_UPI000374103F L D M K I G D G G V I V Y R A R M T L S F K Y
UniRef90_A4EEU5 Q K V T V K D G K V D E Y R V V M K V T F V L D
UniRef90_D6TUI5 Q D I H I E P G K S L T Y R V K M E L S F K Y E
UniRef90_B9M330 V H G H V T D G K V S E Y Q V V L K A A F Q L
UniRef90_U2YV84 Q R V G I E G R D E R Q Y Q V E V E V A F A L D
UniRef90_D8PEX9 Q K V D I E D G K I T Q Y R V A L K V T F V L
UniRef90_A5GDF0 I R G H V D D G M V T E Y Q V V L K V A F Q L
UniRef90_W8KTT7 L D I K L D D G N I A A Y R A R L N V S F K Y D
UniRef90_A4BLG9 L D M T V A D G R V M S Y R A K M S L S F K Y
UniRef90_UPI0004224DA2 Q S A K V T D G K I T N Y R V N L K I T F E I
UniRef90_UPI0003F72F17 L D M Q L D K G K I E A Y R A K V N V S F K F E
UniRef90_UPI0004666922 Q K V S I E G G R I V S Y R V N M Q V T F V L D
UniRef90_D8JAT4 F G V E L K N V D E P E Y Q A T L E V A F E V E
UniRef90_H6R4M0 V R G H I V D G A I A H T Q V T V K I G F R I D
UniRef90_UPI000377E3A1 I R G H I E D G K V S E Y Q V V I K V A F E L
UniRef90_B3DWK4 I R G S I K E G K P V F Q V E V R I G F R L E
UniRef90_E0MPN5 Q K V S I E D G K I A E Y R V G L K V T F V L
UniRef90_A0A023X0A8 M N V L I E N G Q I T G Y K V N L A I T F V L E
UniRef90_UPI000471383C Q K V M V K D G E I S E Y R I N L K V S F E I
UniRef90_G4E5Z2 L D L K L D D G N V I A Y R A R I N V S F K Y E
UniRef90_F0S5C2 Q K A H V K D G K I T T Y G V I C K V S F R V D
UniRef90_UPI000380D2B5 Q S V E V K D G K V I E Y Q T R L K L T F V L E
UniRef90_G2Z6W6 T K A H V K D G K V T T Y G V I C Q I S F R I D
UniRef90_UPI0003A0C209 Q K V N V S D G A I T E Y R V H L L V T F V L D
UniRef90_I3YTN9 Q S C V I D N D K I T H F R V N V K I T F E V
UniRef90_B8IBC4 F E A V V E N D K V T Q Y R V N V K L S F L L E
UniRef90_D7BJB1 L Q A I V E D G N I V A Y R A N C K L S F V V E
UniRef90_UPI000416A491 Q S A T V S D G K I K E Y R V N V K I T F E V Q
UniRef90_L9WNX1 Q T A E V D D G T I E E Y R T T L D V A F V L
UniRef90_UPI0004669DDB L D L Q L D T G K V E A Y R S K L N L S F K F E
UniRef90_X0XXS5 Q T A H V G D G K I T E Y R T T L N V A F V V E
UniRef90_A0A017HQN3 Q Q V S I E G N R I T N Y R V N L M I T F I L
UniRef90_UPI00037ACF50 F K V H V S D G A I H S Y G V I C K V S F R V D
UniRef90_Q2CA68 Q T V E V T D G E I T A Y R V A L K V T F I L
UniRef90_B6JF57 Q N V Q I K D G K I T G F R V N M N V T F L L D
UniRef90_U3AY79 Q K V V V R N G E V T E Y R V N L K I T F V L E
UniRef90_L0JYS8 Q T A D V E D G E I Q H Y R T T V H V S F E L Q
UniRef90_A3HZA6 I K A H V K D G K V S S Y G C V C K V S F R V D
UniRef90_M7MZU9 M K A D V K D N K I I S Y G V N A K V S F T V D
UniRef90_UPI000407E838 I K A H V N D Q G I T S Y G V N C K V S F R L E
UniRef90_B3EDR1 T R C H V E D Q K I A Y W Q V T V K I G F T L D
UniRef90_X6GF92 Q K V V V E N G T I S A Y R V N M K V T F I L
UniRef90_X1BG08 F D V K I E N D K V I L Y R A E M K I A F E I E


1
10
20
30
40
UniRef90_UPI0003B682E8
UniRef90_I3C547
UniRef90_UPI00047EDCB5
UniRef90_UPI000464703F
UniRef90_F6FPR8
UniRef90_UPI0003B3D98D
UniRef90_I0WI48
UniRef90_UPI000471F225
UniRef90_UPI0003755B82
UniRef90_E6SKP4
UniRef90_G2MM38
UniRef90_D1BV41
UniRef90_UPI000408704E
UniRef90_Q1AVE8
UniRef90_B8CVZ2
UniRef90_G2PRQ5
UniRef90_U1PZD6
UniRef90_X0Z5Q2
UniRef90_V4HH33
UniRef90_M0DJ19
UniRef90_M0MI82
UniRef90_F4BUX6
UniRef90_F4C429
UniRef90_UPI0003751CE6
UniRef90_A7H727
UniRef90_V6S9V7
UniRef90_U1P6U1
UniRef90_F4C0M0
UniRef90_F4QZ40
UniRef90_UPI0003F7A381
UniRef90_E1QDS3
UniRef90_I4BZV4
UniRef90_A4CG68
UniRef90_UPI000379AE0E
UniRef90_L9VPF0
UniRef90_H2BTZ6
UniRef90_L7W992
UniRef90_K2Q6L7
UniRef90_U3P6I2
UniRef90_UPI000478A890
UniRef90_UPI00047BBA29
UniRef90_UPI00038150AF
UniRef90_UPI00047A5F1C
UniRef90_V5PUC5
UniRef90_UPI000479D0CF
UniRef90_W0SFD1
UniRef90_N9DT99
UniRef90_F5YTI7
UniRef90_UPI00041967E9
UniRef90_UPI00047C216B
UniRef90_A4G7L3
UniRef90_W4LTK1
UniRef90_F4LUZ5
UniRef90_UPI00047D799B
UniRef90_C7NR10
UniRef90_B2A4Z2
UniRef90_A0A023BXN4
UniRef90_UPI00036014E1
UniRef90_I4BL50
UniRef90_W6K2U6
UniRef90_UPI000421783B
UniRef90_C5C3H8
UniRef90_W6M551
UniRef90_UPI00035F1E92
UniRef90_UPI000377BE60
UniRef90_F4AVX6
UniRef90_L8JZZ7
UniRef90_X1JS34
UniRef90_M0M5H5
UniRef90_C7R5Z8
UniRef90_UPI00040E28F8
UniRef90_A0JSN7
UniRef90_UPI00029A7DD0
UniRef90_UPI00047CA528
UniRef90_D6Z5X1
UniRef90_D4GVN8
UniRef90_T0ZP29
UniRef90_U5WUZ8
UniRef90_T0JT54
UniRef90_X0Z2U0
UniRef90_UPI000426CEF1
UniRef90_N1MMR2
UniRef90_R4W923
UniRef90_J3JD37
UniRef90_UPI000378EDD0
UniRef90_W8VRQ1
UniRef90_A1VWY6
UniRef90_B4DC56
UniRef90_UPI00037C916B
UniRef90_H2BYJ0
UniRef90_A0M208
UniRef90_UPI00035CA0D9

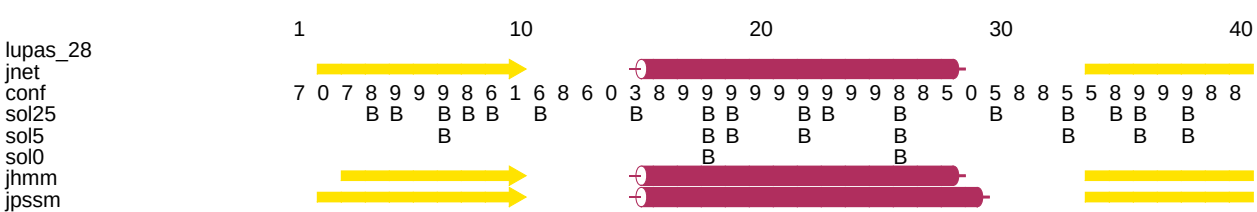

50
60
UniRef90_UPI0003B682E8 Q E V S V K D G K I V G Y Q V R M K I T F V L E
UniRef90_I3C547 Q S A T V N N G E I D N Y R V N L K I T F E I D
UniRef90_UPI00047EDCB5 I T V D C K D G E V S E W R V N M K V T F V L
UniRef90_UPI000464703F M T A T V E S G K I S K Y R V N A K V S F L L D
UniRef90_F6FPR8 Q K V E V S D G N I V A W Q V D L Q V T F V L D
UniRef90_UPI0003B3D98D V R G H V T D G T V E H F Q V T L D I G H R V
UniRef90_I0WI48 Q S A A V K E N K I V E Y R V N V K I T F E I E
UniRef90_UPI000471F225 Q K V I V K N G K I A E Y R V D L K V T F I L
UniRef90_UPI0003755B82 I K A H V K D G K V T T F G V D C Q I S F R V D
UniRef90_E6SKP4 L T A N V D N G R V V E W K A N V K V A F K V D
UniRef90_G2MM38 F G V E L A G G Q R E Y Q A E V E V A F E L E
UniRef90_D1BV41 Q K V D V T D G H I T H W Q V V L E I T F V L D
UniRef90_UPI000408704E M N A A I E N N K I V S Y R V N A K I S F L I E
UniRef90_Q1AVE8 F N V E I E N G N I T G Y R V N M E V T F V L E
UniRef90_B8CVZ2 M T A D V K D G K V F D Y K V N I Q V A F
UniRef90_G2PRQ5 M Q V C V K N N Q I S E Y R V N A K V T F G I D
UniRef90_U1PZD6 M G V E V A S V P E H E Y Q A E V E V A F E L
UniRef90_X0Z5Q2 M D V R I E D D G R L I Y R T R L Q V S F K V
UniRef90_V4HH33 L S V E I A S V E G R E Y Q A E V T V A F E L E
UniRef90_M0DJ19 M G M E I A S V E G R Q Y Q A E V E V A F Q L E
UniRef90_M0MI82 L G V E I A N A D G R E Y Q A E V E V A F E L D
UniRef90_F4BUX6 L D A K L E K G N I I L Y R I K L R I S L K Y E
UniRef90_F4C429 F K V H V K D D Q I T T Y G A V C K V S F R I D
UniRef90_UPI0003751CE6 Q S A S V K D G E V T E F R V N V K I T F E V D
UniRef90_A7H727 L D I H L D G G K I A A Y R T K L K L S F K F E
UniRef90_V6S9V7 Q S A V V N D G K V T H Y R V N L K L T F E I
UniRef90_U1P6U1 L G V E L A T A D D K E Y Q A E V E V A F E L E
UniRef90_F4C0M0 M D T R L R E G G I M E Y R V R V T L S F K H E
UniRef90_F4QZ40 Q K V I V R D G A I A E Y R V N M K V T F I L
UniRef90_UPI0003F7A381 T K V H V K D G K I V S Y G V I C K V S F R V D
UniRef90_E1QDS3 Q R V A V E D N Q I Q E Y R V R L E V I F L L E
UniRef90_I4BZV4 F R V M C E G G S I Q E Y R V T A E V I F V L E
UniRef90_A4CG68 Q S C T V K D G K I A S Y R V N T K I T F E V
UniRef90_UPI000379AE0E M Q V S V K D N S I A E Y R V N T K V T F
UniRef90_L9VPF0 Q T A D I E D G Q I E R Y K T T V H V A F A L Q
UniRef90_H2BTZ6 M S G K V E N N S I V S Y G V T A K I S F K I
UniRef90_L7W992 Q S A Q V K D G K V S E Y R V N V K I T F E V
UniRef90_K2Q6L7 L N A K V E N N N I V S Y G V N A K I S F D V E
UniRef90_U3P6I2 H S V A I E D G R I T S F Q V V L E V S F V L D
UniRef90_UPI000478A890 Q T A N V K D G K I V E Y K A N I E I A Y R V D
UniRef90_UPI00047BBA29 Q K I E V R D G A I V A Y Q V A M E V T F V L E
UniRef90_UPI00038150AF Q K V I I K D G E I V E Y R V V M K V T F I L
UniRef90_UPI00047A5F1C Q S A T V E D G K I K N Y R V N V K I T F E V
UniRef90_V5PUC5 L S A E V D N G K I V N F R I T A K L S F K L E
UniRef90_UPI000479D0CF H V V N I A D G Q I T S W Q V N L E V T F V L
UniRef90_W0SFD1 L D M K I E N G K V A A Y R A R V S M S F K Y E
UniRef90_N9DT99 Q K V M I S D N K I T E Y R V N L K I S F L V D
UniRef90_F5YTI7 Q D L T L D D K G G I I Y R T K L R I S F K I
UniRef90_UPI00041967E9 T K V Q V D D G N I T E W R V D M K V T F V V D
UniRef90_UPI00047C216B I R G H V T D G S V E H F Q V T M D I G
UniRef90_A4G7L3 M E A S V D K D K I T H Y R I N A K I S F L L D
UniRef90_W4LTK1 L R G L I R D G E V A E Y Q V T L Q L G F R L
UniRef90_F4LUZ5 N T A N V Q N G K I V E Y K S N V Q I A F K V D
UniRef90_UPI00047D799B W T A D V E N N Q I V R Y K V T M H I A F K V E
UniRef90_C7NR10 L G V E V A T A D D R E Y Q A E V T V A F E L Q
UniRef90_B2A4Z2 M T A D V D N G R L V E Y K A N V K V A F
UniRef90_A0A023BXN4 Q S V V V K D N D V T E F R V N L K I S F E V
UniRef90_UPI00036014E1 Q S V K V N K G K V V E Y S V R M K L T F V L
UniRef90_I4BL50 Q S V D V D Q G G I V A Y R V N M L V T F V L E
UniRef90_W6K2U6 I R G H V V D G G V G H V Q V T L K L G F R I E
UniRef90_UPI000421783B M K A H V D G D R I T S Y A V N A K I S F E
UniRef90_C5C3H8 Q K V E L S D G A I V S W Q V V L E V T F V L D
UniRef90_W6M551 Q S I E L K D G K I S Q Y K V I M R L T F L V E
UniRef90_UPI00035F1E92 M K V D V D S G A V S G Y Q V H L L I T F I L D
UniRef90_UPI000377BE60 L D C K V E G N K I V E Y H T L M R I Y F D V E
UniRef90_F4AVX6 Q N C V V D D G K I K E Y R M N C K I T F E V
UniRef90_L8JZZ7 M N A N V E N G K I V S Y G V N A K V S F E V E
UniRef90_X1JS34 H R G H I R G G Q L V H Q V K G R I
UniRef90_M0M5H5 L S V E V A S A D G H E Y Q A E V E V S F E V E
UniRef90_C7R5Z8 Q Q V V I Q D G E V E K F R V V M K V T F L L
UniRef90_UPI00040E28F8 Q S A T V K G D K V A E F R V N V K I T F E I E
UniRef90_A0JSN7 Q K V E I A D G A V V A W H V V L E V T F V L E
UniRef90_UPI00029A7DD0 M N A N V E N N Q I V S Y A V N A K I S F E I D
UniRef90_UPI00047CA528 H S A S V D K N K I V D Y R I T A K I S F E I E
UniRef90_D6Z5X1 Q E V M I E N N A P K K Y R I H L K V T F V L E
UniRef90_D4GVN8 L G V E L A S V E T R E Y Q A E V E V A F E L E
UniRef90_T0ZP29 F E G R I E G Q K V A E Y H A T V R I Y F D Y E
UniRef90_U5WUZ8 Q D M S V D S S G K I T F R I K L E I S F K M
UniRef90_T0JT54 F T A N V G K G H I A E Y K A D V K I A F Q V
UniRef90_X0Z2U0 L D V K V E K D G R L T F R T K L D I S F K Y
UniRef90_UPI000426CEF1 M K T T I K D G K I D K F R V N V K I T F K V
UniRef90_N1MMR2 T K V T V N D G K V S E W R V I L S I T F I V
UniRef90_R4W923 R T A T V E D G E I T E F K T T L E V A F
UniRef90_J3JD37 W T A S I E D G Q I T E Y K A T V E I A F
UniRef90_UPI000378EDD0 Q T T T I K N N K I D M F R V T L K I T F E V
UniRef90_W8VRQ1 M H A N V T D N N I V S F A V N A K I S F E I E
UniRef90_A1VWY6 T R G H V V D G K V A H W Q V S L K I G F T L E
UniRef90_B4DC56 F E A T I Q G G E I T A Y R V R A E I S F A L D
UniRef90_UPI00037C916B I K V I T D D G K V S E W R V N M R V N F V L D
UniRef90_H2BYJ0 Q K A L V T G E N I T E F R V I L K I S F E L
UniRef90_A0M208 M N A K V E N G N L V S Y G V T A K I S F T I
UniRef90_UPI00035CA0D9 Q S A T V K D G K V D K F R V N V K L T F E V D

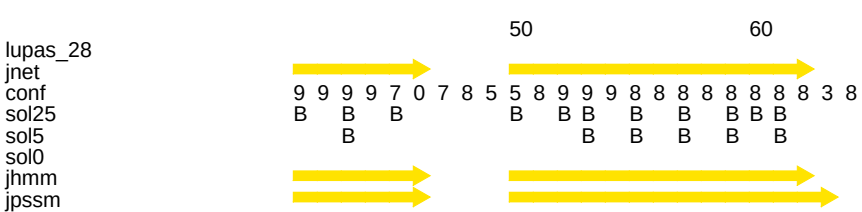


lupas_21
lupas_14



lupas_21
lupas_14


1
10
20
30
40
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm
7 0 7 8 9 9 9 8 6 1 6 8 6 0 3 8 9 9 9 9 9 9 9 8 8 5 0 5 8 8 5 5 8 9 9 9 8 8
B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B


50
60
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm
9 9 9 9 7 0 7 8 5 5 8 9 9 9 8 8 8 8 8 8 8 8 3 8
B B B B B B B B B B B B