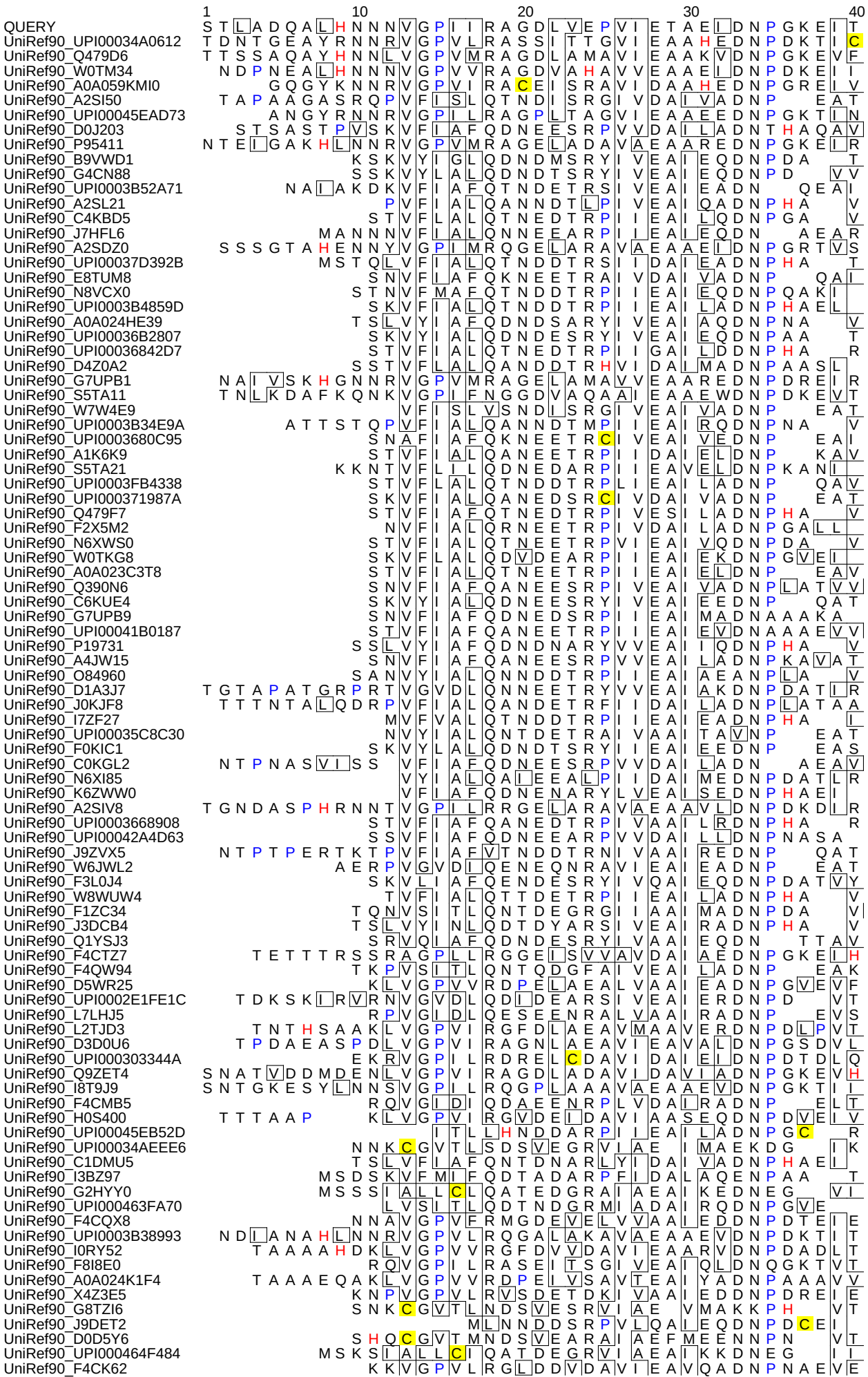
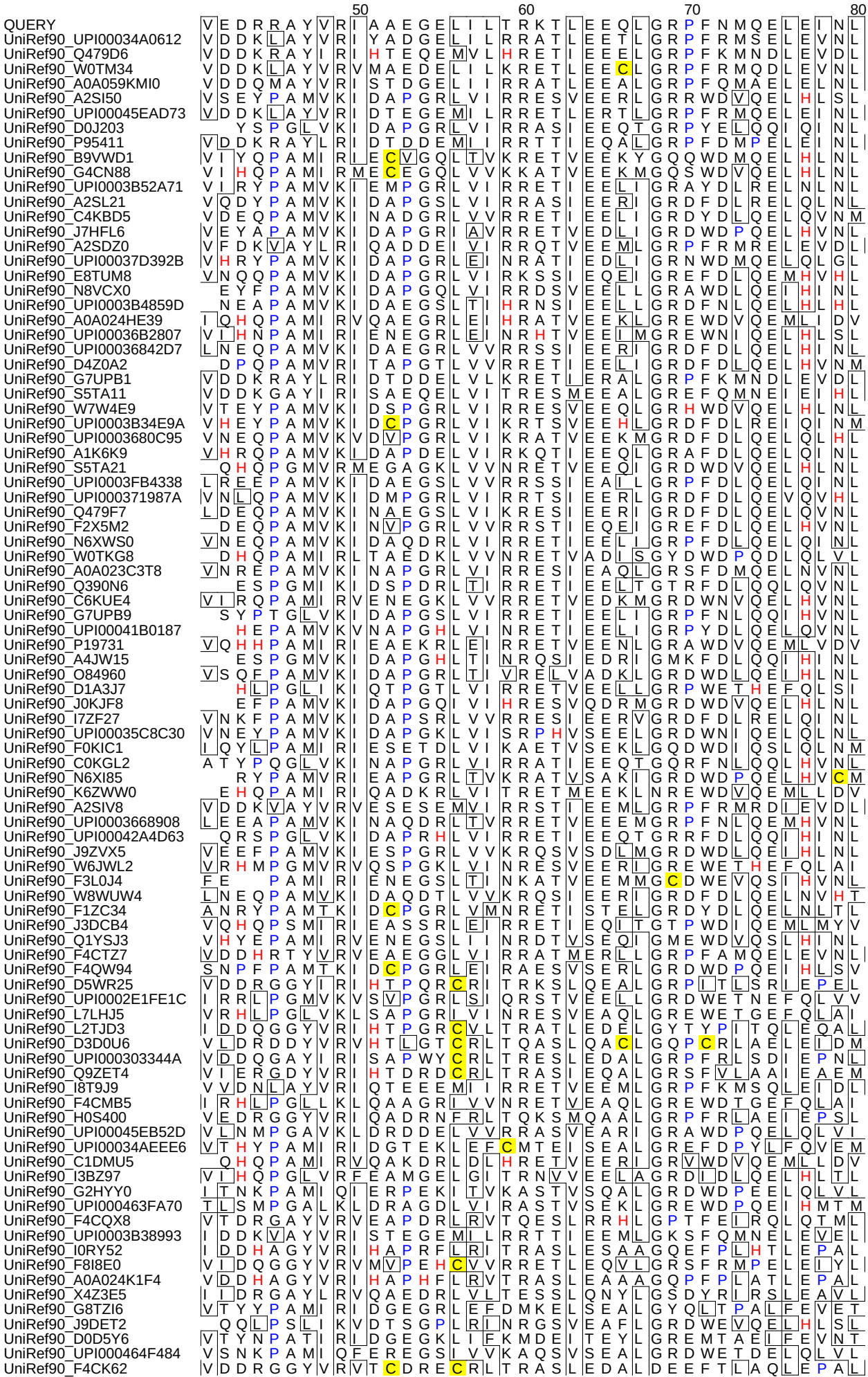
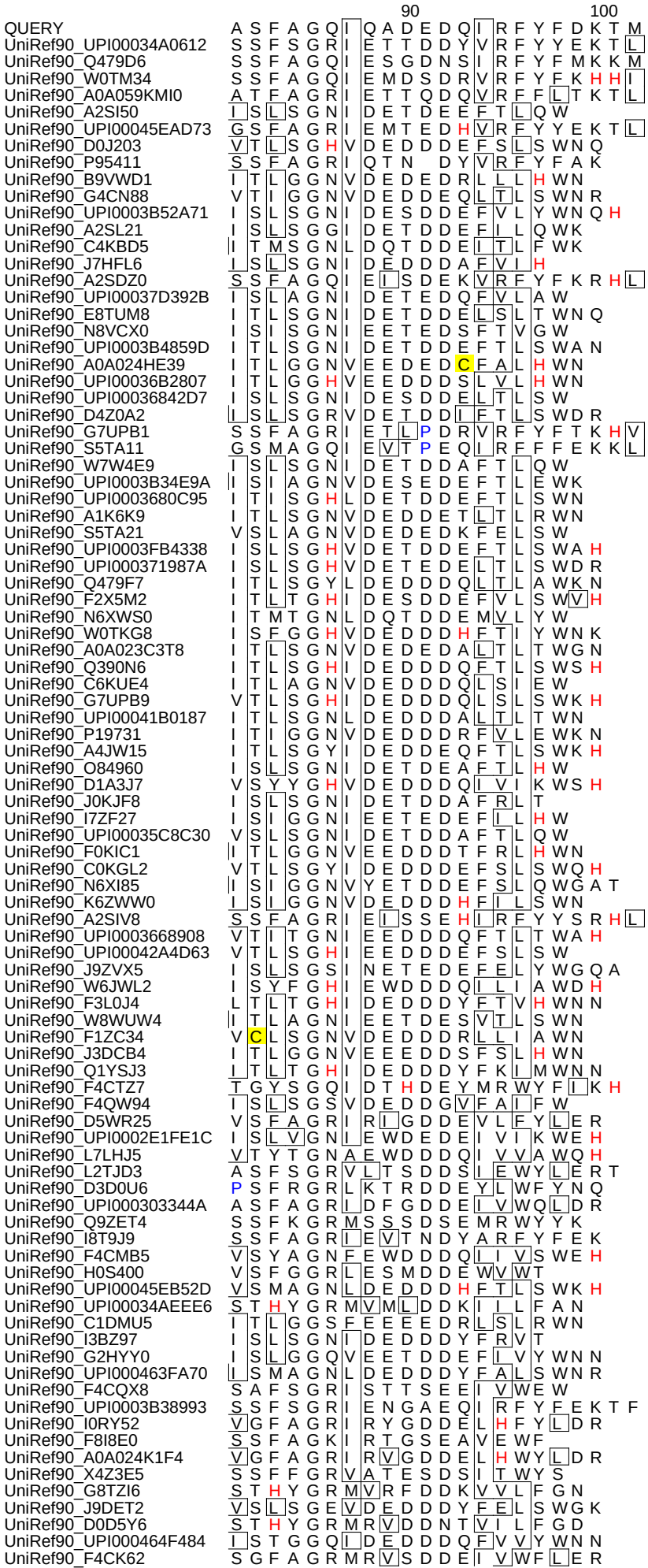
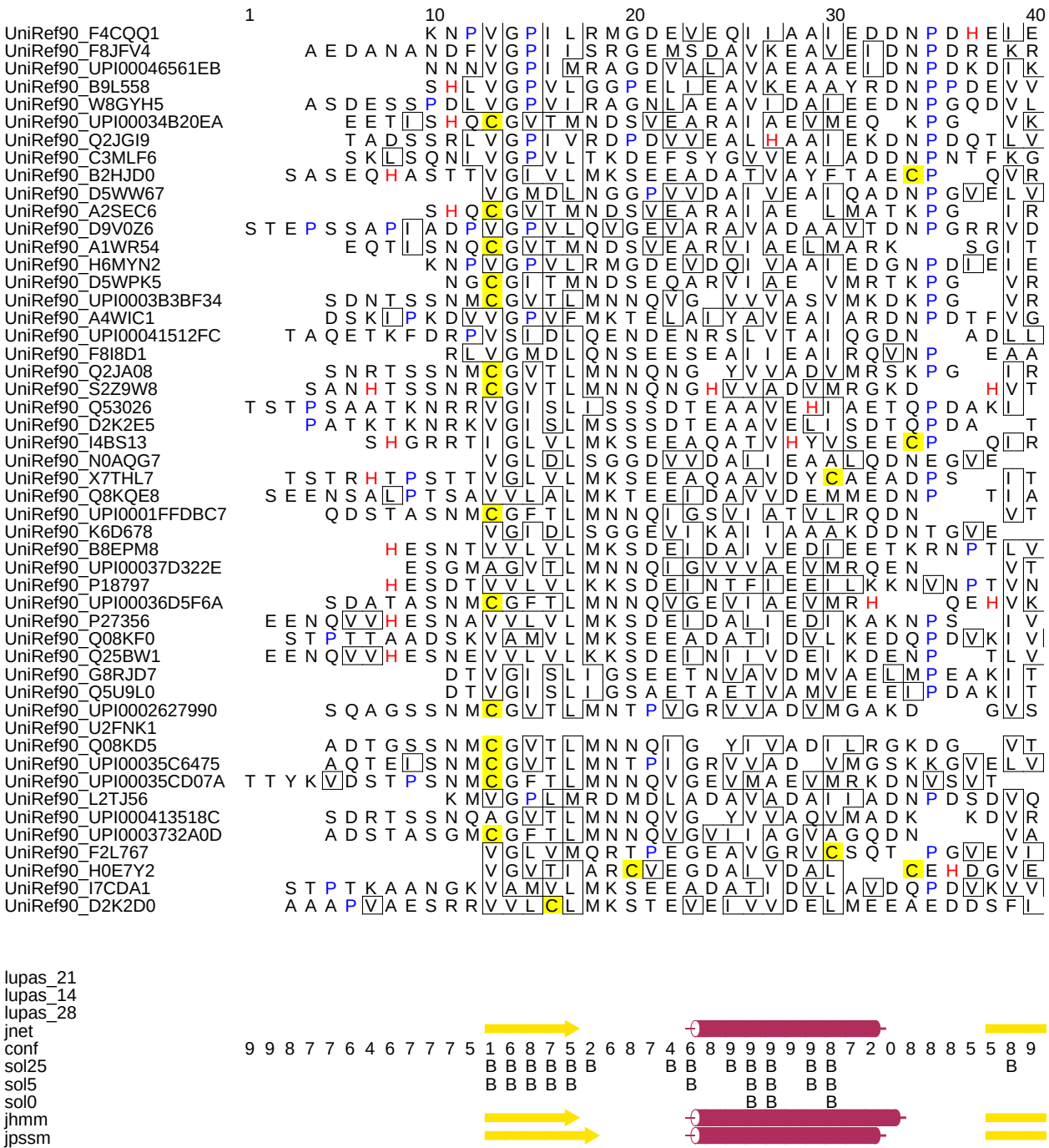
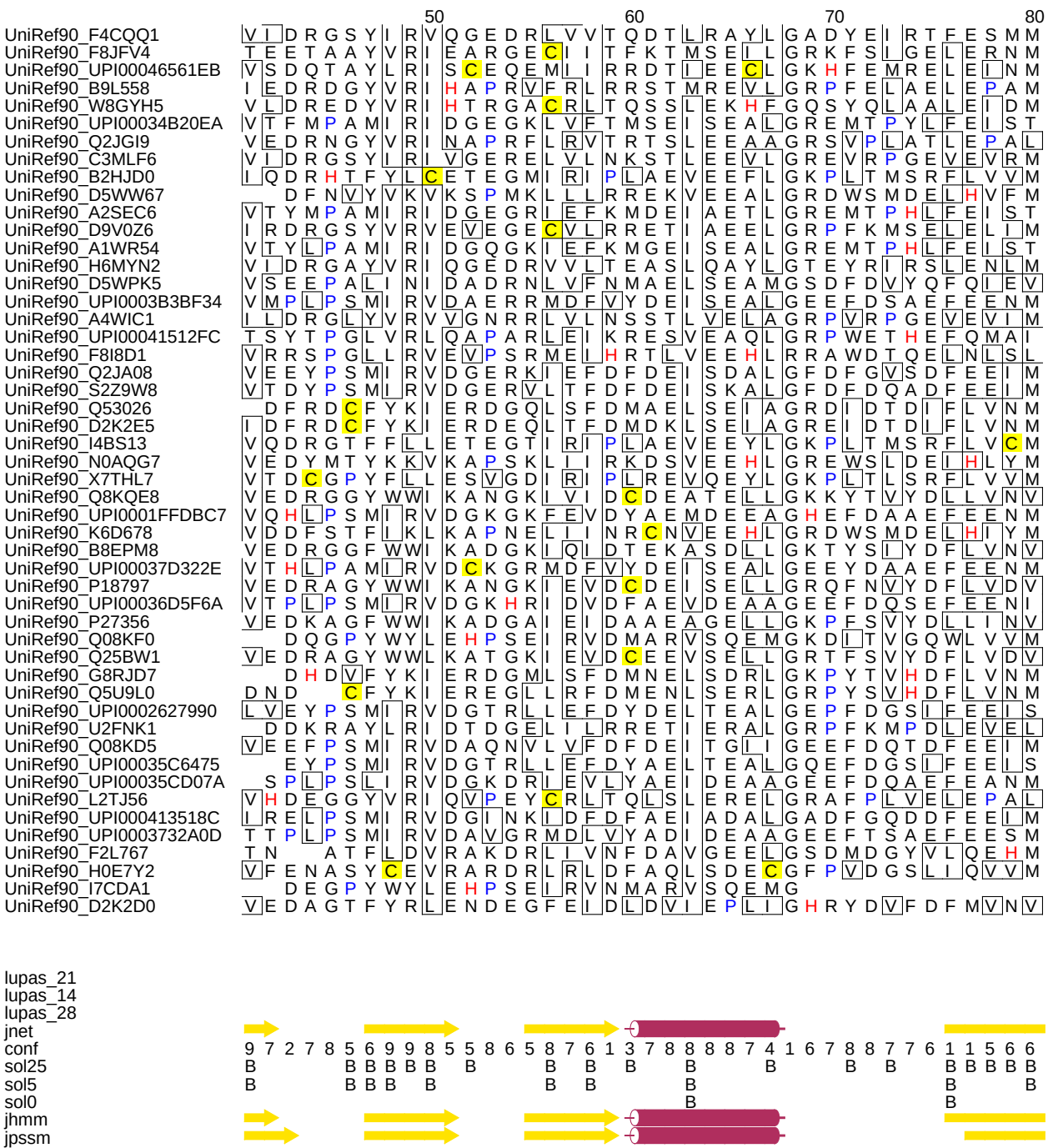
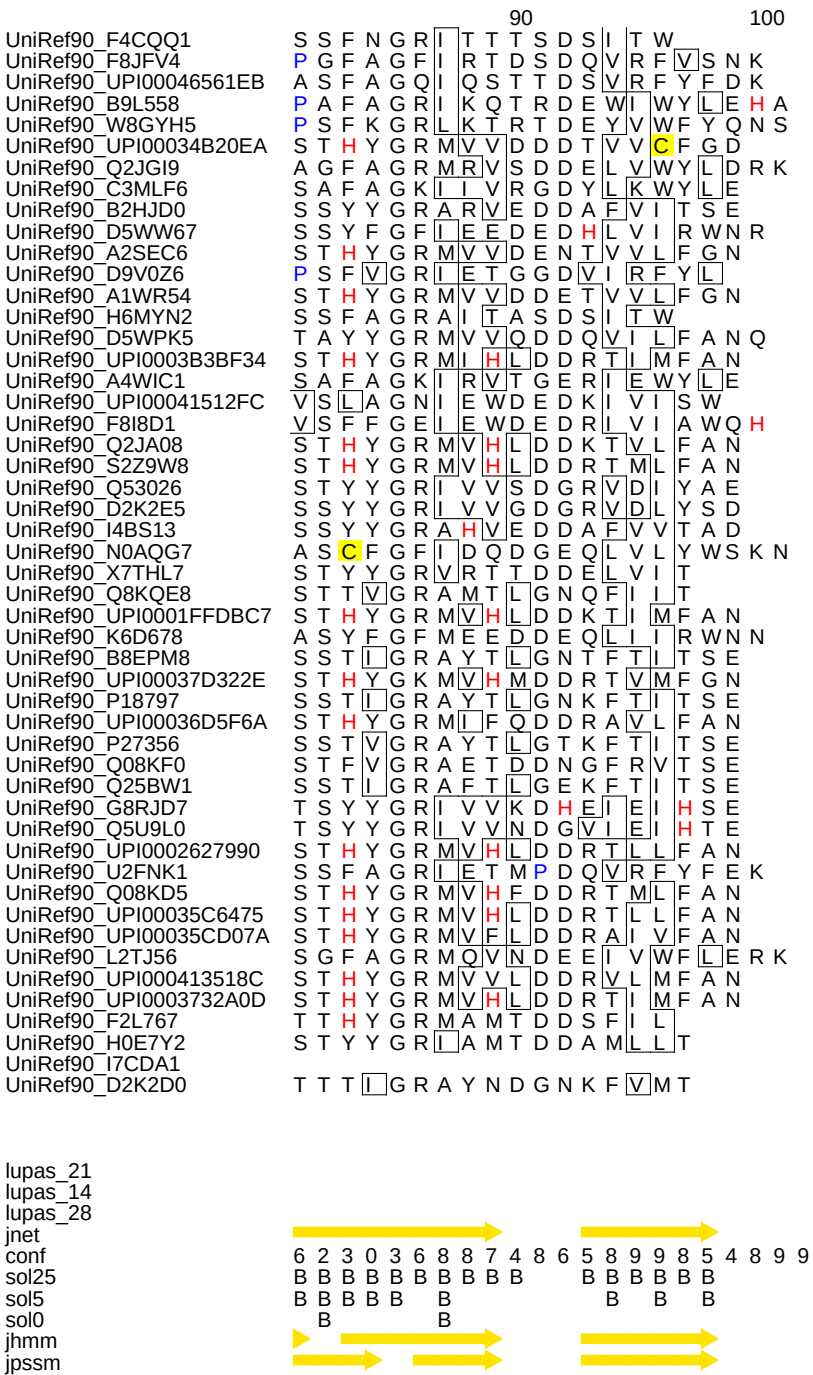

1
10
20
30
40
QUERY
UniRef90_UPI00034A0612
UniRef90_Q479D6
UniRef90_W0TM34
UniRef90_A0A059KMI0
UniRef90_A2SI50
UniRef90_UPI00045EAD73
UniRef90_D0J203
UniRef90_P95411
UniRef90_B9VWD1
UniRef90_G4CN88
UniRef90_UPI0003B52A71
UniRef90_A2SL21
UniRef90_C4KBD5
UniRef90_J7HFL6
UniRef90_A2SDZ0
UniRef90_UPI00037D392B
UniRef90_E8TUM8
UniRef90_N8VCX0
UniRef90_UPI0003B4859D
UniRef90_A0A024HE39
UniRef90_UPI00036B2807
UniRef90_UPI000036842D7
UniRef90_D4Z0A2
UniRef90_G7UPB1
UniRef90_S5TA11
UniRef90_W7W4E9
UniRef90_UPI0003B34E9A
UniRef90_UPI0003680C95
UniRef90_A1K6K9
UniRef90_S5TA21
UniRef90_UPI0003FB4338
UniRef90_UPI000371987A
UniRef90_Q479F7
UniRef90_F2X5M2
UniRef90_N6XWS0
UniRef90_W0TKG8
UniRef90_A0A023C3T8
UniRef90_Q390N6
UniRef90_C6KUE4
UniRef90_G7UPB9
UniRef90_UPI00041B0187
UniRef90_P19731
UniRef90_A4JW15
UniRef90_O84960
UniRef90_D1A3J7
UniRef90_J0KJF8
UniRef90_I7ZF27
UniRef90_UPI00035C8C30
UniRef90_F0KIC1
UniRef90_C0KGL2
UniRef90_N6XI85
UniRef90_K6ZWW0
UniRef90_A2SIV8
UniRef90_UPI0003668908
UniRef90_UPI00042A4D63
UniRef90_J9ZVX5
UniRef90_W6JWL2
UniRef90_F3L0J4
UniRef90_W8WUW4
UniRef90_F1ZC34
UniRef90_J3DCB4
UniRef90_Q1YSJ3
UniRef90_F4CTZ7
UniRef90_F4QW94
UniRef90_D5WR25
UniRef90_UPI0002E1FE1C
UniRef90_L7LHJ5
UniRef90_L2TJD3
UniRef90_D3D0U6
UniRef90_UPI000303344A
UniRef90_Q9ZET4
UniRef90_I8T9J9
UniRef90_F4CMB5
UniRef90_H0S400
UniRef90_UPI00045EB52D
UniRef90_UPI00034AEEE6
UniRef90_C1DMU5
UniRef90_I3BZ97
UniRef90_G2HYY0
UniRef90_UPI000463FA70
UniRef90_F4CQX8
UniRef90_UPI0003B38993
UniRef90_I0RY52
UniRef90_F8I8E0
UniRef90_A0A024K1F4
UniRef90_X4Z3E5
UniRef90_G8TZI6
UniRef90_J9DET2
UniRef90_D0D5Y6
UniRef90_UPI000464F484
UniRef90_F4CK62


50
60
70
80
QUERY
UniRef90_UPI00034A0612
UniRef90_Q479D6
UniRef90_W0TM34
UniRef90_A0A059KMI0
UniRef90_A2SI50
UniRef90_UPI00045EAD73
UniRef90_D0J203
UniRef90_P95411
UniRef90_B9VWD1
UniRef90_G4CN88
UniRef90_UPI0003B52A71
UniRef90_A2SL21
UniRef90_C4KBD5
UniRef90_J7HFL6
UniRef90_A2SDZ0
UniRef90_UPI00037D392B
UniRef90_E8TUM8
UniRef90_N8VCX0
UniRef90_UPI0003B4859D
UniRef90_A0A024HE39
UniRef90_UPI00036B2807
UniRef90_UPI00036842D7
UniRef90_D4Z0A2
UniRef90_G7UPB1
UniRef90_S5TA11
UniRef90_W7W4E9
UniRef90_UPI0003B34E9A
UniRef90_UPI0003680C95
UniRef90_A1K6K9
UniRef90_S5TA21
UniRef90_UPI0003FB4338
UniRef90_UPI000371987A
UniRef90_Q479F7
UniRef90_F2X5M2
UniRef90_N6XWS0
UniRef90_W0TKG8
UniRef90_A0A023C3T8
UniRef90_Q390N6
UniRef90_C6KUE4
UniRef90_G7UPB9
UniRef90_UPI00041B0187
UniRef90_P19731
UniRef90_A4JW15
UniRef90_O84960
UniRef90_D1A3J7
UniRef90_J0KJF8
UniRef90_I7ZF27
UniRef90_UPI00035C8C30
UniRef90_F0KIC1
UniRef90_C0KGL2
UniRef90_N6XI85
UniRef90_K6ZWW0
UniRef90_A2SIV8
UniRef90_UPI0003668908
UniRef90_UPI00042A4D63
UniRef90_J9ZVX5
UniRef90_W6JWL2
UniRef90_F3L0J4
UniRef90_W8WUW4
UniRef90_F1ZC34
UniRef90_J3DCB4
UniRef90_Q1YSJ3
UniRef90_F4CTZ7
UniRef90_F4QW94
UniRef90_D5WR25
UniRef90_UPI0002E1FE1C
UniRef90_L7LHJ5
UniRef90_L2TJD3
UniRef90_D3D0U6
UniRef90_UPI000303344A
UniRef90_Q9ZET4
UniRef90_I8T9J9
UniRef90_F4CMB5
UniRef90_H0S400
UniRef90_UPI00045EB52D
UniRef90_UPI00034AEEE6
UniRef90_C1DMU5
UniRef90_I3BZ97
UniRef90_G2HYY0
UniRef90_UPI000463FA70
UniRef90_F4CQX8
UniRef90_UPI0003B38993
UniRef90_I0RY52
UniRef90_F8I8E0
UniRef90_A0A024K1F4
UniRef90_X4Z3E5
UniRef90_G8TZI6
UniRef90_J9DET2
UniRef90_D0D5Y6
UniRef90_UPI000464F484
UniRef90_F4CK62


90
100
QUERY A S F A G Q I Q A D E D Q I R F Y F D K T M
UniRef90_UPI00034A0612 S S F S G R I E T T D D Y V R F Y Y E K T L
UniRef90_Q479D6 S S F A G Q I E S G D N S I R F Y F M K K M
UniRef90_W0TM34 S S F A G Q I E M D S D R V R F Y F K H H I
UniRef90_A0A059KMI0 A T F A G R I E T T Q D Q V R F F L T K T L
UniRef90_A2SI50 I S L S G N I D E T D E E F T L Q W
UniRef90_UPI00045EAD73 G S F A G R I E M T E D H V R F Y Y E K T L
UniRef90_D0J203 V T L S G H V D E D D D E F S L S W N Q
UniRef90_P95411 S S F A G R I Q T N D Y V R F Y F A K
UniRef90_B9VWD1 I T L G G N V D E D E D R L L L H W N
UniRef90_G4CN88 V T I G G N V D E D D E Q L T L S W N R
UniRef90_UPI0003B52A71 I S L S G N I D E S D D E F V L Y W N Q H
UniRef90_A2SL21 I S L S G G I D E T D D E F I L Q W K
UniRef90_C4KBD5 I T M S G N L D Q T D D E I T L F W K
UniRef90_J7HFL6 I S L S G N I D E D D D A F V I H
UniRef90_A2SDZ0 S S F A G Q I E I S D E K V R F Y F K R H L
UniRef90_UPI00037D392B I S L A G N I D E T E D Q F V L A W
UniRef90_E8TUM8 I T L S G N I D E T D D E L S L T W N Q
UniRef90_N8VCX0 I S I S G N I E E T E D S F T V G W
UniRef90_UPI0003B4859D I T L S G N I D E T D D E F T L S W A N
UniRef90_A0A024HE39 I T L G G N V E E D E D C F A L H W N
UniRef90_UPI00036B2807 I T L G G H V E E D D D S L V L H W N
UniRef90_UPI00036842D7 I S L S G N I D E S D D E L T L S W
UniRef90_D4Z0A2 I S L S G R V D E T D D I F T L S W D R
UniRef90_G7UPB1 S S F A G R I E T L P D R V R F Y F T K H V
UniRef90_S5TA11 G S M A G Q I E V T P E Q I R F F F E K K L
UniRef90_W7W4E9 I S L S G N I D E T D D A F T L Q W
UniRef90_UPI0003B34E9A I S I A G N V D E S E D E F T L E W K
UniRef90_UPI0003680C95 I T I S G H L D E T D D E F T L S W N
UniRef90_A1K6K9 I T L S G N V D E D D E T L T L R W N
UniRef90_S5TA21 V S L A G N V D E D E D K F E L S W
UniRef90_UPI0003FB4338 I S L S G H V D E T D D E F T L S W A H
UniRef90_UPI000371987A I S L S G H V D E T E D E L T L S W D R
UniRef90_Q479F7 I T L S G Y L D E D D D Q L T L A W K N
UniRef90_F2X5M2 I T L T G H I D E S D D E F V L S W V H
UniRef90_N6XWS0 I T M T G N L D Q T D D E M V L Y W
UniRef90_W0TKG8 I S F G G H V D E D D D H F T I Y W N K
UniRef90_A0A023C3T8 I T L S G N V D E D E D A L T L T W G N
UniRef90_Q390N6 I T L S G H I D E D D D Q F T L S W S H
UniRef90_C6KUE4 I T L A G N V D E D D D Q L S I E W
UniRef90_G7UPB9 V T L S G H I D E D D D Q L S L S W K H
UniRef90_UPI00041B0187 I T L S G N L D E D D D A L T L T W N
UniRef90_P19731 I T I G G N V D E D D D R F V L E W K N
UniRef90_A4JW15 I T L S G Y I D E D D E Q F T L S W K H
UniRef90_O84960 I S L S G N I D E T D E A F T L H W
UniRef90_D1A3J7 V S Y Y G H V D E D D D Q I V I K W S H
UniRef90_J0KJF8 I S L S G N I D E T D D A F R L T
UniRef90_I7ZF27 I S I G G N I E E T E D E F I L H W
UniRef90_UPI00035C8C30 V S L S G N I D E T D D A F T L Q W
UniRef90_F0KIC1 I T L G G N V E E D D D T F R L H W N
UniRef90_C0KGL2 V T L S G Y I D E D D D E F S L S W Q H
UniRef90_N6XI85 I S I G G N V Y E T D D E F S L Q W G A T
UniRef90_K6ZWW0 I S I G G N V D E D D D H F I L S W N
UniRef90_A2SIV8 S S F A G R I E I S S E H I R F Y Y S R H L
UniRef90_UPI0003668908 V T I T G N I E E D D D Q F T L T W A H
UniRef90_UPI00042A4D63 V T L S G H I E E D D D E F S L S W
UniRef90_J9ZVX5 I S L S G S I N E T E D E F E L Y W G Q A
UniRef90_W6JWL2 I S Y F G H I E W D D D Q I L I A W D H
UniRef90_F3L0J4 L T L T G H I D E D D D Y F T V H W N N
UniRef90_W8WUW4 I T L A G N I E E T D E S V T L S W N
UniRef90_F1ZC34 V C L S G N V D E D D D R L L I A W N
UniRef90_J3DCB4 I T L G G N V E E E D D S F S L H W N
UniRef90_Q1YSJ3 I T L T G H I D E D D D Y F K I M W N N
UniRef90_F4CTZ7 T G Y S G Q I D T H D E Y M R W Y F I K H
UniRef90_F4QW94 I S L S G S V D E D D G V F A I F W
UniRef90_D5WR25 V S F A G R I R I G D D E V L F Y L E R
UniRef90_UPI0002E1FE1C I S L V G N I E W D E D E I V I K W E H
UniRef90_L7LHJ5 V T Y T G N A E W D D D Q I V V A W Q H
UniRef90_L2TJD3 A S F S G R V L T S D D S I E W Y L E R T
UniRef90_D3D0U6 P S F R G R L K T R D D E Y L W F Y N Q
UniRef90_UPI000303344A A S F A G R I D F G D D E I V W Q L D R
UniRef90_Q9ZET4 S S F K G R M S S S D S E M R W Y Y K
UniRef90_I8T9J9 S S F A G R I E V T N D Y A R F Y F E K
UniRef90_F4CMB5 V S Y A G N F E W D D D Q I I V S W E H
UniRef90_H0S400 V S F G G R L E S M D D E W V W T
UniRef90_UPI00045EB52D V S M A G N L D E D D D H F T L S W K H
UniRef90_UPI00034AEEE6 S T H Y G R M V M L D D K I I L F A N
UniRef90_C1DMU5 I T L G G S F E E E E D R L S L R W N
UniRef90_I3BZ97 I S L S G N I D E D D D Y F R V T
UniRef90_G2HYY0 I S L G G Q V E E T D D E F I V Y W N N
UniRef90_UPI000463FA70 I S M A G N L D E D D D Y F A L S W N R
UniRef90_F4CQX8 S A F S G R I S T T S E E I V W E W
UniRef90_UPI0003B38993 S S F S G R I E N G A E Q I R F Y F E K T F
UniRef90_I0RY52 V G F A G R I R Y G D D E L H F Y L D R
UniRef90_F8I8E0 S S F A G K I R T G S E A V E W F
UniRef90_A0A024K1F4 V G F A G R I R V G D D E L H W Y L D R
UniRef90_X4Z3E5 S S F F G R V A T E S D S I T W Y S
UniRef90_G8TZI6 S T H Y G R M V R F D D K V V L F G N
UniRef90_J9DET2 V S L S G E V D E D D D Y F E L S W G K
UniRef90_D0D5Y6 S T H Y G R M R V D D N T V I L F G D
UniRef90_UPI000464F484 I S T G G Q I D E D D D Q F V V Y W N N
UniRef90_F4CK62 S G F A G R M R V S D D E I V W F L E R


1
10
20
30
40
UniRef90_F4CQQ1
UniRef90_F8JFV4
UniRef90_UPI00046561EB
UniRef90_B9L558
UniRef90_W8GYH5
UniRef90_UPI00034B20EA
UniRef90_Q2JGI9
UniRef90_C3MLF6
UniRef90_B2HJD0
UniRef90_D5WW67
UniRef90_A2SEC6
UniRef90_D9V0Z6
UniRef90_A1WR54
UniRef90_H6MYN2
UniRef90_D5WPK5
UniRef90_UPI0003B3BF34
UniRef90_A4WIC1
UniRef90_UPI00041512FC
UniRef90_F8I8D1
UniRef90_Q2JA08
UniRef90_S2Z9W8
UniRef90_Q53026
UniRef90_D2K2E5
UniRef90_I4BS13
UniRef90_N0AQG7
UniRef90_X7THL7
UniRef90_Q8KQE8
UniRef90_UPI0001FFDBC7
UniRef90_K6D678
UniRef90_B8EPM8
UniRef90_UPI00037D322E
UniRef90_P18797
UniRef90_UPI00036D5F6A
UniRef90_P27356
UniRef90_Q08KF0
UniRef90_Q25BW1
UniRef90_G8RJD7
UniRef90_Q5U9L0
UniRef90_UPI0002627990
UniRef90_U2FNK1
UniRef90_Q08KD5
UniRef90_UPI00035C6475
UniRef90_UPI00035CD07A
UniRef90_L2TJ56
UniRef90_UPI000413518C
UniRef90_UPI0003732A0D
UniRef90_F2L767
UniRef90_H0E7Y2
UniRef90_I7CDA1
UniRef90_D2K2D0
lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm


50
60
70
80
UniRef90_F4CQQ1
UniRef90_F8JFV4
UniRef90_UPI00046561EB
UniRef90_B9L558
UniRef90_W8GYH5
UniRef90_UPI00034B20EA
UniRef90_Q2JGI9
UniRef90_C3MLF6
UniRef90_B2HJD0
UniRef90_D5WW67
UniRef90_A2SEC6
UniRef90_D9V0Z6
UniRef90_A1WR54
UniRef90_H6MYN2
UniRef90_D5WPK5
UniRef90_UPI0003B3BF34
UniRef90_A4WIC1
UniRef90_UPI00041512FC
UniRef90_F8I8D1
UniRef90_Q2JA08
UniRef90_S2Z9W8
UniRef90_Q53026
UniRef90_D2K2E5
UniRef90_I4BS13
UniRef90_N0AQG7
UniRef90_X7THL7
UniRef90_Q8KQE8
UniRef90_UPI0001FFDBC7
UniRef90_K6D678
UniRef90_B8EPM8
UniRef90_UPI00037D322E
UniRef90_P18797
UniRef90_UPI00036D5F6A
UniRef90_P27356
UniRef90_Q08KF0
UniRef90_Q25BW1
UniRef90_G8RJD7
UniRef90_Q5U9L0
UniRef90_UPI0002627990
UniRef90_U2FNK1
UniRef90_Q08KD5
UniRef90_UPI00035C6475
UniRef90_UPI00035CD07A
UniRef90_L2TJ56
UniRef90_UPI000413518C
UniRef90_UPI0003732A0D
UniRef90_F2L767
UniRef90_H0E7Y2
UniRef90_I7CDA1
UniRef90_D2K2D0
lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm


90
100
UniRef90_F4CQQ1 S S F N G R I T T T S D S I T W
UniRef90_F8JFV4 P G F A G F I R T D S D Q V R F V S N K
UniRef90_UPI00046561EB A S F A G Q I Q S T T D S V R F Y F D K
UniRef90_B9L558 P A F A G R I K Q T R D E W I W Y L E H A
UniRef90_W8GYH5 P S F K G R L K T R T D E Y V W F Y Q N S
UniRef90_UPI00034B20EA S T H Y G R M V V D D D T V V C F G D
UniRef90_Q2JGI9 A G F A G R M R V S D D E L V W Y L D R K
UniRef90_C3MLF6 S A F A G K I I V R G D Y L K W Y L E
UniRef90_B2HJD0 S S Y Y G R A R V E D D A F V I T S E
UniRef90_D5WW67 S S Y F G F I E E D E D H L V I R W N R
UniRef90_A2SEC6 S T H Y G R M V V D E N T V V L F G N
UniRef90_D9V0Z6 P S F V G R I E T G G D V I R F Y L
UniRef90_A1WR54 S T H Y G R M V V D D E T V V L F G N
UniRef90_H6MYN2 S S F A G R A I T A S D S I T W
UniRef90_D5WPK5 T A Y Y G R M V V Q D D Q V I L F A N Q
UniRef90_UPI0003B3BF34 S T H Y G R M I H L D D R T I M F A N
UniRef90_A4WIC1 S A F A G K I R V T G E R I E W Y L E
UniRef90_UPI00041512FC V S L A G N I E W D E D K I V I S W
UniRef90_F8I8D1 V S F F G E I E W D E D R I V I A W Q H
UniRef90_Q2JA08 S T H Y G R M V H L D D K T V L F A N
UniRef90_S2Z9W8 S T H Y G R M V H L D D R T M L F A N
UniRef90_Q53026 S T Y Y G R I V V S D G R V D I Y A E
UniRef90_D2K2E5 S S Y Y G R I V V G D G R V D L Y S D
UniRef90_I4BS13 S S Y Y G R A H V E D D A F V V T A D
UniRef90_N0AQG7 A S C F G F I D Q D G E Q L V L Y W S K N
UniRef90_X7THL7 S T Y Y G R V R T T D D E L V I T
UniRef90_Q8KQE8 S T T V G R A M T L G N Q F I I T
UniRef90_UPI0001FFDBC7 S T H Y G R M V H L D D K T I M F A N
UniRef90_K6D678 A S Y F G F M E E D D E Q L I I R W N N
UniRef90_B8EPM8 S S T I G R A Y T L G N T F T I T S E
UniRef90_UPI00037D322E S T H Y G K M V H M D D R T V M F G N
UniRef90_P18797 S S T I G R A Y T L G N K F T I T S E
UniRef90_UPI00036D5F6A S T H Y G R M I F Q D D R A V L F A N
UniRef90_P27356 S S T V G R A Y T L G T K F T I T S E
UniRef90_Q08KF0 S T F V G R A E T D D N G F R V T S E
UniRef90_Q25BW1 S S T I G R A F T L G E K F T I T S E
UniRef90_G8RJD7 T S Y Y G R I V V K D H E I E I H S E
UniRef90_Q5U9L0 T S Y Y G R I V V N D G V I E I H T E
UniRef90_UPI0002627990 S T H Y G R M V H L D D R T L L F A N
UniRef90_U2FNK1 S S F A G R I E T M P D Q V R F Y F E K
UniRef90_Q08KD5 S T H Y G R M V H F D D R T M L F A N
UniRef90_UPI00035C6475 S T H Y G R M V H L D D R T L L F A N
UniRef90_UPI00035CD07A S T H Y G R M V F L D D R A I V F A N
UniRef90_L2TJ56 S G F A G R M Q V N D E E I V W F L E R K
UniRef90_UPI000413518C S T H Y G R M V V L D D R V L M F A N
UniRef90_UPI0003732A0D S T H Y G R M V H L D D R T I M F A N
UniRef90_F2L767 T T H Y G R M A M T D D S F I L
UniRef90_H0E7Y2 S T Y Y G R I A M T D D A M L L T
UniRef90_I7CDA1
UniRef90_D2K2D0 T T T I G R A Y N D G N K F V M T
lupas_21
lupas_14
lupas_28
jnet
conf 6 2 3 0 3 6 8 8 7 4 8 6 5 8 9 9 8 5 4 8 9 9
sol25 B B B B B B B B B B B B B B
sol5 B B B B B B B B B
sol0 B B
jhmm
jpssm