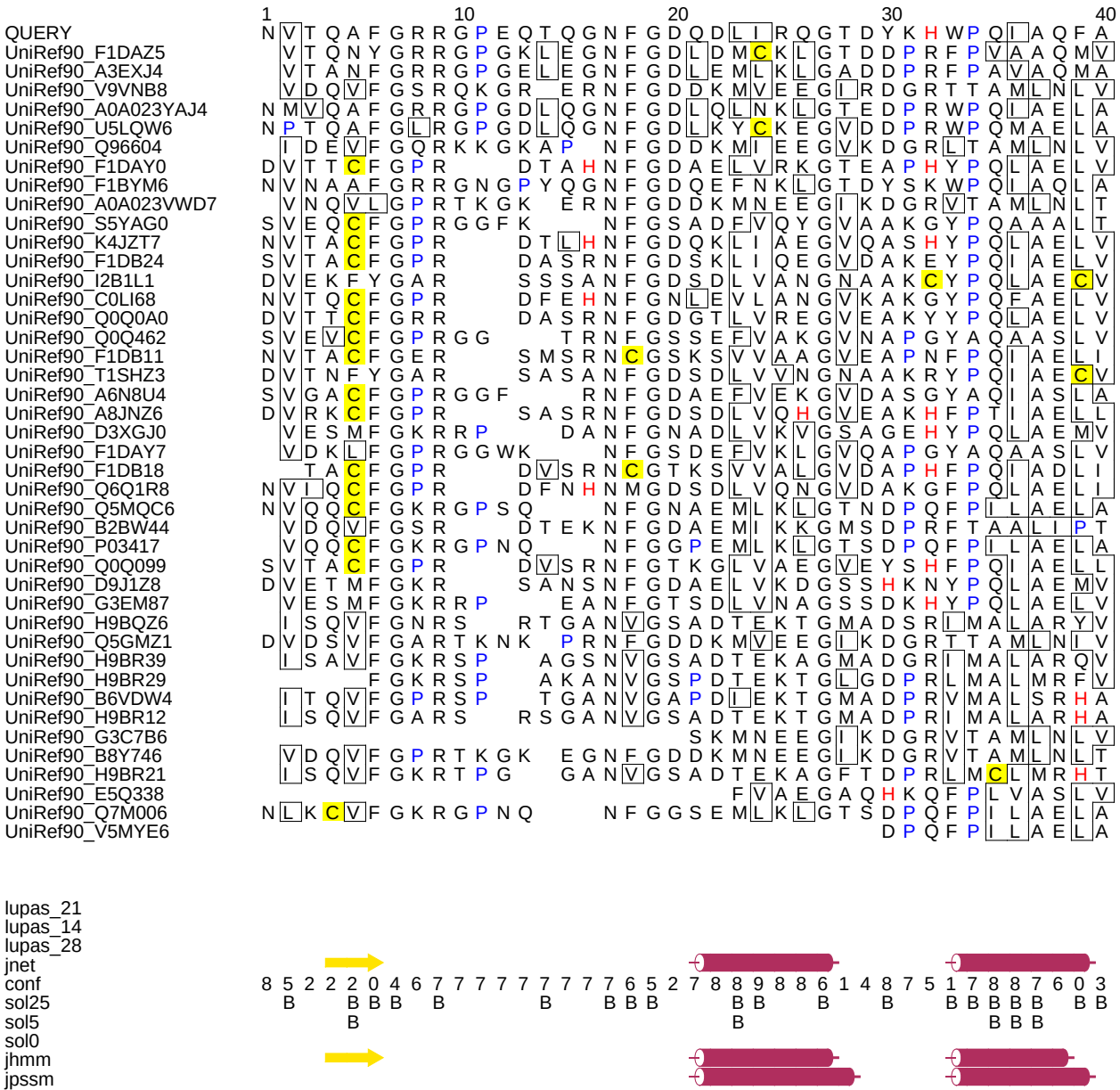
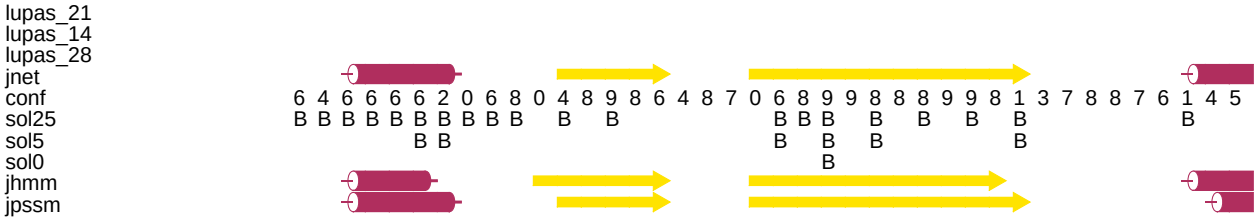

1 10 20 30 40
QUERY N V T Q A F G R R G P E Q T Q G N F G D Q D L I R Q G T D Y K H W P Q I A Q F A
UniRef90_F1DAZ5 V T Q N Y G R R G P G K L E G N F G D L D M C K L G T D D P R F P V A A Q M V
UniRef90_A3EXJ4 V T A N F G R R G P G E L E G N F G D L E M L K L G A D D P R F P A V A Q M A
UniRef90_V9VNB8 V D Q V F G S R Q K G R E R N F G D D K M V E E G I R D G R T T A M L N L V
UniRef90_A0A023YAJ4 N M V Q A F G R R G P G D L Q G N F G D L Q L N K L G T E D P R W P Q I A E L A
UniRef90_U5LQW6 N P T Q A F G L R G P G D L Q G N F G D L K Y C K E G V D D P R W P Q M A E L A
UniRef90_Q96604 I D E V F G Q R K K G K A P N F G D D K M I E E G V K D G R L T A M L N L V
UniRef90_F1DAY0 D V T T C F G P R D T A H N F G D A E L V R K G T E A P H Y P Q L A E L V
UniRef90_F1BYM6 N V N A A F G R R G N G P Y Q G N F G D Q E F N K L G T D Y S K W P Q I A Q L A
UniRef90_A0A023VWD7 V N Q V L G P R T K G K E R N F G D D K M N E E G I K D G R V T A M L N L T
UniRef90_S5YAG0 S V E Q C F G P R G G F K N F G S A D F V Q Y G V A A K G Y P Q A A A L T
UniRef90_K4JZT7 N V T A C F G P R D T L H N F G D Q K L I A E G V Q A S H Y P Q L A E L V
UniRef90_F1DB24 S V T A C F G P R D A S R N F G D S K L I Q E G V D A K E Y P Q I A E L V
UniRef90_I2B1L1 D V E K F Y G A R S S S A N F G D S D L V A N G N A A K C Y P Q L A E C V
UniRef90_C0LI68 N V T Q C F G P R D F E H N F G N L E V L A N G V K A K G Y P Q F A E L V
UniRef90_Q0Q0A0 D V T T C F G R R D A S R N F G D G T L V R E G V E A K Y Y P Q L A E L V
UniRef90_Q0Q462 S V E V C F G P R G G T R N F G S S E F V A K G V N A P G Y A Q A A S L V
UniRef90_F1DB11 N V T A C F G E R S M S R N C G S K S V V A A G V E A P N F P Q I A E L I
UniRef90_T1SHZ3 D V T N F Y G A R S A S A N F G D S D L V V N G N A A K R Y P Q I A E C V
UniRef90_A6N8U4 S V G A C F G P R G G F R N F G D A E F V E K G V D A S G Y A Q I A S L A
UniRef90_A8JNZ6 D V R K C F G P R S A S R N F G D S D L V Q H G V E A K H F P T I A E L L
UniRef90_D3XGJ0 V E S M F G K R R P D A N F G N A D L V K V G S A G E H Y P Q L A E M V
UniRef90_F1DAY7 V D K L F G P R G G W K N F G S D E F V K L G V Q A P G Y A Q A A S L V
UniRef90_F1DB18 T A C F G P R D V S R N C G T K S V V A L G V D A P H F P Q I A D L I
UniRef90_Q6Q1R8 N V I Q C F G P R D F N H N M G D S D L V Q N G V D A K G F P Q L A E L I
UniRef90_Q5MQC6 N V Q Q C F G K R G P S Q N F G N A E M L K L G T N D P Q F P I L A E L A
UniRef90_B2BW44 V D Q V F G S R D T E K N F G D A E M I K K G M S D P R F T A A L I P T
UniRef90_P03417 V Q Q C F G K R G P N Q N F G G P E M L K L G T S D P Q F P I L A E L A
UniRef90_Q0Q099 S V T A C F G P R D V S R N F G T K G L V A E G V E Y S H F P Q I A E L L
UniRef90_D9J1Z8 D V E T M F G K R S A N S N F G D A E L V K D G S S H K N Y P Q L A E M V
UniRef90_G3EM87 V E S M F G K R R P E A N F G T S D L V N A G S S D K H Y P Q L A E L V
UniRef90_H9BQZ6 I S Q V F G N R S R T G A N V G S A D T E K T G M A D S R I M A L A R Y V
UniRef90_Q5GMZ1 D V D S V F G A R T K N K P R N F G D D K M V E E G I K D G R T T A M L N I V
UniRef90_H9BR39 I S A V F G K R S P A G S N V G S A D T E K A G M A D G R I M A L A R Q V
UniRef90_H9BR29 F G K R S P A K A N V G S P D T E K T G L G D P R L M A L M R F V
UniRef90_B6VDW4 I T Q V F G P R S P T G A N V G A P D I E K T G M A D P R V M A L S R H A
UniRef90_H9BR12 I S Q V F G A R S R S G A N V G S A D T E K T G M A D P R I M A L A R H A
UniRef90_G3C7B6 S K M N E E G I K D G R V T A M L N L V
UniRef90_B8Y746 V D Q V F G P R T K G K E G N F G D D K M N E E G I K D G R V T A M L N L T
UniRef90_H9BR21 I S Q V F G K R T P G G A N V G S A D T E K A G F T D P R L M C L M R H T
UniRef90_E5Q338 F V A E G A Q H K Q F P L V A S L V
UniRef90_Q7M006 N L K C V F G K R G P N Q N F G G S E M L K L G T S D P Q F P I L A E L A
UniRef90_V5MYE6 D P Q F P I L A E L A
lupas_21
lupas_14
lupas_28
jnet
conf 8 5 2 2 2 0 4 6 7 7 7 7 7 7 7 7 7 6 5 2 7 8 8 9 8 8 6 1 4 8 7 5 1 7 8 8 7 6 0 3
sol25 B B B B B B B B B B B
sol5 B B B B B B
sol0
jhmm
jpssm

```
                                                  50                  60                  70                  80
QUERY                          P S A S A F F G M S R I G M E V T P S G T W L T Y H G A I K L D D K D P Q F K D
UniRef90_F1DAZ5                P N T S S F L F M S H F T P R Y E P D A L W L D Y T G S I K L P K D D P N F P Q
UniRef90_A3EXJ4                P N V A A F M F M S H F S T R D E E D A L W L N Y R G A I K L P K S D P N F E Q
UniRef90_V9VNB8                P S S H A M L F G S N V Q A K L Q P D G L H V T F S F T T V V P R E D P Q F E N
UniRef90_A0A023YAJ4            P S A S A F M G M S Q F K L T H Q S N D Y F L R Y S G A I K L D P K N P N Y Q K
UniRef90_U5LQW6                P S A S A F L S M S Q L K L V H H S N D Y M L R Y S G A I K L D P K N P N Y S K
UniRef90_Q96604                P T P H A C L L G S R V T A K L Q P D G L H V S F E F E T V V K R D D P Q F D N
UniRef90_F1DAY0                P T P A A L L F G G E V V T R E V G E E V E V T Y V Y K M R V P K D N         K
UniRef90_F1BYM6                P T P S A F F G M S K L S V Q K N T E G T W L A Y N G Y I K L D D N D P N F A V
UniRef90_A0A023VWD7            P S P H A C L F G S T V T H K L R S D G L H L K F E F T T V G P R D D P Q F D N
UniRef90_S5YAG0                P T S A A L L F G G N V Q V Q E L S D D I E I T Y T Y K M T V P K S D         K
UniRef90_K4JZT7                P T P A A L L F G G E V S T R E R G D E V E I M Y V Y K M K V H K S N K D
UniRef90_F1DB24                P T S A A L L F G S K V S V R E T P N D F E I K F H Y K M H V P K T D         K
UniRef90_I2B1L1                P S T S S V L F G S Y W T A K E D G D Q V E V T F T H T Y H L P K D D P K T S R
UniRef90_C0LI68                P S T A A M L F D S H I D T K E E G D S V V L T Y T T R V K V P K D H P N L G K
UniRef90_Q0Q0A0                P G T A A L L F D S E I S T K E A G E D V I I T Y H Y R M K V P K S D         K
UniRef90_Q0Q462                P G A A A L L F G G N V A T K E M A D G V E I T Y T Y K M L V P K D D         K
UniRef90_F1DB11                P T Q A A L F F G S R V S T K E D N D T V E I K Y H Y K M S V P K T N P N
UniRef90_T1SHZ3                P S V S S M L F G S Q W S A E D D G D Q V K V T L T H T Y Y L P K G D A K
UniRef90_A6N8U4                P N V A A L L F G G N V A V R E L A D S Y E I T Y N Y K M T V P K S D P N
UniRef90_A8JNZ6                P T Q A A L A F G S E I T T K E A G D F V E V T Y H Y V M K V S K T D         K
UniRef90_D3XGJ0                P S T A S I L F G G E W T S E E E G D D V V L T V K Y S Y K V P K G D K
UniRef90_F1DAY7                P H P A A L V F G G N V S V R E L K D T Y E I Q Y T Y K A T V P K S D         K
UniRef90_F1DB18                P T P A A L F F G S R V E V K E Y K D E V E I K Y H Y K M N V P K E D P N
UniRef90_Q6Q1R8                P N Q A A L F F D S E V S T D E V G D N V Q I T Y T Y K M L V A K D N         K
UniRef90_Q5MQC6                P T P G A F F F G S K L D L V K R K D V F E L H Y S G S I R F D S T L P G F E T
UniRef90_B2BW44                P G P Q A A L F G S H V T L K E K P D G L E I T Y K Y R T L F P K T D E R Y E E
UniRef90_P03417                P T A G A F F F G S K L E L V K K N D V Y E L Q Y S G A V R F D S T L P G F E T
UniRef90_Q0Q099                P T Q A A L A F G S R V E V K D F K D E V E I K F H Y K M N V P K E N         K
UniRef90_D9J1Z8                P S T G A L V F G G K W E A T E S G D D V I V T V N Y S Y K L P K N D P K
UniRef90_G3EM87                P G S A A L L F G G K W T A K E E S D D V V V T V K Y S Y T L P K G D K
UniRef90_H9BQZ6                P G V Q E M L F A G H V D G Q F Q A G D I T L T F T Y S I T V K D G T P D H A R
UniRef90_Q5GMZ1                P S S H A L L F G G E V Q S K L N P E G L A V T F T F T T T V D R N D P Q F D N
UniRef90_H9BR39                P G V Q E M L F A G H L S H Q F Q A D A V T L T W T Y S I T I K S D S S D Y D R
UniRef90_H9BR29                P G T Q E L L F A G H L K H K M Q P E G V Q L T F T Y D I T V K R D N K D F D R
UniRef90_B6VDW4                P G V Q E L M F A G H V S S N F Q A N D I T L T F T Y S I T V K E G T P D Y Q R
UniRef90_H9BR12                P G V Q E L L F A G H L S S F Q Q E G A L T L T F T Y S I T V K P D S P D Y D R
UniRef90_G3C7B6                P S S H A C L F G S R V T P K L Q A M G C S L K F E F T T V V P Q N D P Q F D N
UniRef90_B8Y746                P S P H A C L F G S R V T P K L Q H D G L
UniRef90_H9BR21                P G T Q E L L L A G H L D H D I Q P E G V Y L K F T Y T T Q V K R D S A E Y D R
UniRef90_E5Q338                P N T A A M L F G S E I T T K E V G K D V V L E F K Y K V Q T S K D N P D
UniRef90_Q7M006                P T V G A F F F G S K L E L V K K N
UniRef90_V5MYE6                P T A G A F F F G S K L E L E P Q K D V Y E L R Y N G A I R F D S T L S G F E T
```



```
                                                  90
QUERY                 N V I L L N K H I D A Y K T F P P
UniRef90_F1DAZ5       W E K L L A D N I D A Y Q S F P P
UniRef90_A3EXJ4       W T K L L E E N L N A Y K T F
UniRef90_V9VNB8       Y R Q I C D E C V D G V G T R P
UniRef90_A0A023YAJ4   W M E L L E A N I D A Y K S F P
UniRef90_U5LQW6       W L E I L E G N I D A Y K N F P
UniRef90_Q96604       Y S K I C D A C I D G V G T R P
UniRef90_F1DAY0       N L P A F L K Q I S A Y
UniRef90_F1BYM6       W I N E L S K H I D A Y K E F P
UniRef90_A0A023VWD7   Y V K I C D E R V D G V C T R P
UniRef90_S5YAG0       N L E V F L S N V N A Y K E A K P
UniRef90_K4JZT7         L P A F L Q Q V S A Y A Q A P
UniRef90_F1DB24       A L S A F L P Q V D A Y
UniRef90_I2B1L1               F L E Q I D A Y K
UniRef90_C0LI68               F L E Q L N A F
UniRef90_Q0Q0A0       N L S R F L Q Q V S A Y A D
UniRef90_Q0Q462       N L E I F L A Q V D A Y K L G D P
UniRef90_F1DB11         L P Y F L Q Q V N A Y
UniRef90_T1SHZ3         T S L F L E Q I D A Y K
UniRef90_A6N8U4         V E L L V S Q V D A F K T
UniRef90_A8JNZ6       N L P R F L E Q V A A Y
UniRef90_D3XGJ0         T T A F L Q H I N A Y K
UniRef90_F1DAY7       N L E V F L Q Q V D A Y K N G S P
UniRef90_F1DB18         L P Y F L Q Q V D A Y
UniRef90_Q6Q1R8       N L P K F I E Q I S A F
UniRef90_Q5MQC6       I M K V L E E N L N A Y
UniRef90_B2BW44       V K H A Y L S N V
UniRef90_P03417       I M K V L N E N L N A Y Q N
UniRef90_Q0Q099       N L Q V F L D Q V D A Y
UniRef90_D9J1Z8         T T A F V G Q I G A Y
UniRef90_G3EM87         T T A F L K Q I D A Y
UniRef90_H9BQZ6       I K D A L N T V V N     Q N Y E P
UniRef90_Q5GMZ1       Y V K I C N E C V N G V G T R P
UniRef90_H9BR39       I K Q A L D T V V D Q T Y E A P
UniRef90_H9BR29       I V E A L N S V V D
UniRef90_B6VDW4       V K D A L N T I V D Q K Y E A P
UniRef90_H9BR12       L K E A L S S V V N Q T Y E A P
UniRef90_G3C7B6       Y V K I C D Q C V D G V G T R P
UniRef90_B8Y746
UniRef90_H9BR21       V I A A L N N V V N
UniRef90_E5Q338         L G A F L Q Q L N A F A N
UniRef90_Q7M006
UniRef90_V5MYE6       I M K V L S E N L N A Y Q Q

lupas_21
lupas_14
lupas_28
jnet
conf                  8 9 9 9 9 9 8 6 1 0 2 6 8 8 9 9 9
sol25                 B B   B B     B B   B B
sol5                          B       B
sol0                          B
jhmm
jpssm
```