```
                          1         10        20        30        40
QUERY                     A S G P R A L S R N Q P Q Y P A R A Q A L R I E G Q V K V K F D V T P D G R V D
UniRef90_V3TIZ2           S S G P R P L S R T Q P E Y P E R A F A L R I E G R V K L Q F D V N A S G R V D
UniRef90_D0ZH87           S G A P Q A A S R P E P V Y P Q R A L A L H I E G R V K L R F D V D S E G R V D
UniRef90_D4GFZ3           S S G P K A L N I S K P S Y P R A A A L R V E G R V R V K F D V D S D G R V D
UniRef90_L0M586           T G P K A L N R S Q P S Y P T R A L A L R I E G K V R V K F D V T A D G R V E
UniRef90_A0A023UX28           G P K P I S R A D P I Y P P R A R A L Q I E G S V R V Q F D I D S D G R V T N
UniRef90_K6YQY8           A K L P E P I K R V E P K Y P V S M A R K G A E G W V Q L N F V V G T D G R V S
UniRef90_D4E5T4               G P K P L N R V A P L Y P A R A Q A L Q I E G R V R V Q F D V D S D G R L S
UniRef90_A0KYI0                   P I V R I E P Q Y P I A A A R D G K E G W V Q L R F T I N E L G G V D
UniRef90_UPI0004754623    A T G P R A L N V G K P A Y P A R A F A L R V E G K V R V Q F D V D G S G Q V D
UniRef90_D0I977                 M P L V R V Q P S Y P A R A L K R G I E G Y V I V S F T I N E E G R P T
UniRef90_H1CZ67             G I Q L L S A P A P A Y P E S A R R A G I S G T T V V G M T V S T D G S V S
UniRef90_W1IQE4           A G P K A L N R P N P D Y P N R A R Q L G T E G S V K V K Y D I D E Y G R V R
UniRef90_R5BTC2               P V P T Y T P K P K Y P R A A R N Q N V R G S V G V G L T I G A D G S V E
UniRef90_UPI00045E9DB2                 S N P K P E Y P R I A K S R G W Q G K V L L R V Q V T A D G H S A
UniRef90_J3B3E3           S A N A A Y L K N P A P E Y P S Q A V R R G W E G T V L L R V H L A N G K P G
UniRef90_T1I680           S S G A R P L S R A Q P Q Y P A R A F A L R V E G R T T L Q F D V D S E G R V D
UniRef90_UPI0003A4D878       K A P V P L M P I R P V Y P D I A Q E A G I E G Q V I V Q Q C F I D K K G K V T
UniRef90_F4ATQ5                   P I V R I E P K Y P A Q A A R D G K E G W V K L S F T I N E V G G V E
UniRef90_V2UH13               Y L S N P A P E Y P E Q A L E R G V S I L R V K V L A N G S P D
UniRef90_Z9K Q3                   P I V R I N P K Y P T T A A R D G I E G W V Q L S F N I S P T G E V I
UniRef90_C4S4N2           T A G P K A L S K A K P T Y P A R A L A L G V E G Q V K V Q Y D I D A D G R V T
UniRef90_B3PJG5             T D V I P V V R V P P A Y P Q R A K Q A K L E G R V T M A V T I R P D G T V A
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UniRef90_R4YNY8                   P I V K V A P Q Y P R R A L Q K G I E G H T V E F T V T A L G T V I
UniRef90_D8EW98           S A P R A L G Q A L P P Y P R V A R R R G I E G W V K V R F L I T K D G K V R
UniRef90_M4NA15           S S D L S Y N S R L Q P K Y P P Q A I R Q R H E G T V V L M I L V G V D G S P K
UniRef90_C6WZ62             G A A Y L N N P A P T Y P M S A R R M G E G Q K V L L K V L V S E D G K A T
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UniRef90_C6X882               Y L N N P P P E Y P A F A Q R Q G W E G K V I L R V R V L A S G K P G
UniRef90_G7FQ66                   P I I R I E P H Y P A Q A A K Q G I S G S V V L K Y D I A A N G R T K
UniRef90_UPI00046FD1D0         Y L N N P A P S F A Q R Q G W Q G T V I L R V R V L A N G R V E
UniRef90_UPI0004634522         R A I S T P A P R Y P S E A L R S G Q S G E V L V E F T V A P D G S V I
UniRef90_F7NT87                   P I V R I E P K Y P V Q A A R D G L Q G W V K M R F T I L E D G S V G
UniRef90_UPI0003719F28    S A N A G Y L K N P P P E Y P A R A T Q M G W S G T V I L R V R V S A D G S V A
UniRef90_A0A024IIP3       S S N A D Y L N N P R P P Y P S L S R R L G E Q G E V V V R V F I D L N G T A S
UniRef90_UPI00036F5ABD             H N P K P E Y P S I A R S R G W Q G K V T L R V E V S E E G Q V V
UniRef90_V5BDS2               Y L H N P N P N Y P A I S R R L G E Q G K V L L Q V Q V T A D G T A S
UniRef90_A7JYZ5               P L Y R V D P R Y P S K A L K R R V E G Y V I M R F T I D A T G R P K
UniRef90_W0DTF2             G A A Y L N N P P P E Y P R L S Q R R E E G T V L L W V A V G A D G R P V
UniRef90_T0ING5           S Q P Y V V Y S T L P E Y P S E A R K N R W Q G K V V V R V L V E A S G R V A
UniRef90_W1U2T7           T S P S I L S A P D P K Y P E S A R R A N I E G T V G V E L V I G A Q G S V T
UniRef90_H0BVB7           S S D A A Y L N N P R P S Y P A I S K R M G E Q G K V V L R V L I G T D G L P Q
UniRef90_K0NKZ0               P M P T F K N H P R Y P Y R A K R M G I E G E V K V K F L V D K E G R V S
UniRef90_K6XBT6             R P V V R I E P K Y P A Q A A R D G V E G W V K L R F S I G T R G Q V L
UniRef90_V5FC34               M P L Q R I E P R Y P I R A L S R K I E G Y V V M S F T I N D R G R P T
UniRef90_S9ZHH6               Y L N N P A P A Y P M L S R R L R E E G E V M L R V L V A A D G Q P M
UniRef90_W7QHS1           A K P Q L I K R V Q P K Y P K S A A K S G V Q G W V K M S F D I S K D G K P V
UniRef90_UPI000377B6EF    S S D A D Y L Q N P K P A Y P A I S K R L G E Q G K V L R V L I G A D G Q P Q
UniRef90_U1K834                   P I V K V A P V Y P R R A L S R G I E G Y V I V E F I V T K Q G T V R
UniRef90_M4U9Q6           T Q A K P I F Q I P P Q Y P L Y A K R H A I E G F V T L D L H I N A D G R V K
UniRef90_UPI000381C379            P I V K V S P V Y P R R A L Q R G I E G F V I V E F T V S K Q G A V R
UniRef90_UPI0002F8B4A3           P I M R I E P L Y P K Q A A E Q G I S G S V V L K Y D I D P A G N T A
UniRef90_D4ZBQ0           A K G I H P L T R V E P K Y P I A A V K A N Q N G Y V Q L K F D I S K S G R V S
UniRef90_UPI000305DB2A    T Q A T P I V R I D P K Y P A I A A R D G I E G W V K L S F D I S P T G E V I
UniRef90_W1MU99           S D I K P L R M D P V Y P R M A Q A R G I E G R V K V L F T I T S D G R I D
UniRef90_UPI00036863BA       P K L T N Y Q Q P I Y P A S M R R R E I E G W V L L D Q Q G S V K
UniRef90_UPI000476A4DD       G A D Y L D N P P P D Y P R I S Q R R E E G T V M L R V T V S A E G E P V
UniRef90_D6Z3X7           T E A R P L Y R P P P Y P R A A Q R R H H Q G T V I L E V L V N R Q G R V E
UniRef90_D0J1A4           S S N A A Y L N N P A P A Y P S V S K R M G E Q G K V L L R V Y I N E Q G G Q P E
UniRef90_Q492N3              A I N R V Y P E Y P A R K I L N V E G K V I V Q Y D V N A R G K V D
UniRef90_U1L3G1             E A I K R V P P K Y P I N A A R D G K E G W V Q L S F V V E P D G S T S
UniRef90_Q3A7D1           A T P L G Y G E N P P M P Y P R S A R R R G W E G E V L L K V D V S A H G R V L
UniRef90_K8WJ30             G P K A L S K Q L P S Y P D R A R R L G K D G Y V K V R Y D I D D D G R V T
UniRef90_F5ZAM0                 P V F V S P E Y P K S A E K G N I E G F V V L Q F D I T K N G N T D
UniRef90_I3CH56               Y L N N P A P N Y P L L S K R R G E Q G K V L R V H V N A N G R A E
UniRef90_UPI0003B3DC32           P L Q R I P P T Y P A E A R R A G I S G T V L V D V T V N P D G S V R
UniRef90_UPI00046A719B    S E V M P L N D V S P E Y P R H A L Q R G I E G H V K L A F T I N R A G A V E
UniRef90_UPI00034956A7    A A A P V P V Q V R Q P L Y P R Q A L E A G I E G E V V I E F G L R H N G T V R
UniRef90_W4MCC5             R F I D K P S P Y P I K A R L R G W E G T V S L R V E M L P D G T I G
UniRef90_D2UF68               N M N P P K Y P P A A F R A G A Q G E V I L I I D V D A S G N V T
UniRef90_G3IXI8           A G A G Y L D N P P V Y P D V A M E R G W E G K V L M K V H V L A S G K P D
UniRef90_G4QKU6                   P I V R I P P D Y P P Q A R S R D G K E G W V R L S F T I N E V G G V E
UniRef90_J2GGX6           K V L F A K P P T Y P T E A R R A R E Q G T V K L L V L I G T D G K V S
UniRef90_K2KYJ0                   P I V K V Q A V Y P R R A L Q R G I E G Y V V V E F I V T K Q G T V R
UniRef90_Q07X53               M P V I R I E P S Y P I D A A K E G L N G Y V Q M S F D I S P N G S V N
UniRef90_Q2C516           S K P T F A T K P S P K Y P R L A K R R G I L E G T V L V E L I A K D G H Q V
UniRef90_N8RG81               Y L S N P A P E Y P E V A L E R G V E G V I L R V K V S P E G Q P I
UniRef90_UPI00047BE0F4          Y L H N P L P E Y P A F A R K Q R W Q G K V T I K V H V L P T G M P A
UniRef90_I4W1I5           A A A V L V K A A P A R Y P T A A M R T R Q Q G W V V V T F T V D P D G K T S
UniRef90_I4WNF2             V L T R Q V N P R Y P T Q A Q R S G T E G W V E V D F K V D T E G K V R
UniRef90_G2LH85             P K L V K P K Y T E E A R A N K I Q G T V V L S A T V G P D G S L S
UniRef90_V5BNM9           A E P K A L S L P K P I Y P R A L A L Q I E G K V K V Q Y D I D G D G R V I
UniRef90_D7DN89             G A A Y L H N P A P D Y P Q M A R R L G Q Q G V L L K V L V G E N G T A E
UniRef90_E6VYD8               P Q V V R S V P P D Y P Y V A K R N R V E G E V V V R M L V D S E G R P Q
UniRef90_Q7MF96           S S Q P T L I E P K P Y P Q S K M R G E E G T A L F E L W I D G Q K L T
UniRef90_E8UD84               L N N P K P P Y P Q Q S K M R G E E G V G L K V T A D G R A A
UniRef90_B9TNN6               N N P A P D Y P A L A Q D R G M Q G R V I L R V H V L A S G K A D
UniRef90_Q1IQI7           S A P R A L D T P D P E Y S E E A R K A K Y Q G V C I L W L I V G P D G H P R
UniRef90_G4T0M3           T T D V T P L V R I P P R Y P M R A A S R R I E G W V K V E F T I T K T G E V S
UniRef90_B0FL32               M P L Y R V E P R Y P S R A M K Q G A Q G W V K L S F T I D T L G R P I
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                     50        60        70        80
QUERY          N V Q I L S A K P A N M F E R E V K N A M R R W R Y E   P G K P G S G I V V N I L
UniRef90_V3TIZ2        N V R V L S A E P K N M F E R A I K Q A M R K W R Y E E N K P A K D L V V T I M Y
UniRef90_D0ZH87       N V T I L S A D P P G V F E R A A R R W R Y Q P G R P G Q N V E T V Y
UniRef90_D4GFZ3       N I E I L S A E P R N M F E R T V K Q A M R T W R Y Q S G S G L T M N I V
UniRef90_L0M586       N V E I L S A Q P S N M F E R D V K A A M R K W R Y E A G K P G N G L I M N I E
UniRef90_A0A023UX28   N V R I L S A E P R N M F E R E V K Q A L R K W R Y E   A K E A K D R V V N I R
UniRef90_K6YQY8       D I V V V D S T G M K A F E K A A V K A M K N W Q Y S P A I D G K P I K V Q M D
UniRef90_D4E5T4       N V R I L S A Q P R N M F E R E V K Q A M R R W R Y E   A K E G K D L I V N I Q
UniRef90_A0KYI0       D V E V I Q A E P K R L F D K E A I R A L K K W K Y K P G K P L K G M T V Q L D
UniRef90_UPI0004754623 N I R I L S A E P R N M F E R E V K Q A M K K W R Y E S G K P G S N I T M N I V
UniRef90_D0I977       D M R V V E A S P K R V F D R E A L R A L K K W K Y S P P V P Q P G Q T V K L E
UniRef90_H1CZ67       S A W V E S S S G N S T L D S A A V A A V Y S W R F V P A K Q N G N S R V P I T
UniRef90_W1IQE4       N I T I L A S N P K N T F D R E V K Q V M K K W R Y E   K V P A T G Y I T T I E
UniRef90_R5BTC2       S V W V N D S S G S D I L D Q A A L D A V S S W R F E P A R R G S T T S V N V E
UniRef90_UPI00045E9DB2 G I S V Q Q S S G H E M L D E A A I E A V K N W T F I P A K R G S T V T V P M Q
UniRef90_J3B3E3       E I Q I Q K G S G R D S L D E A A I N A V K R W S F V P A K Q G G W V S V P I D
UniRef90_T1I680       N I R V L N A Q P R N M F E R D I R Q A M R K W R Y E A G K P G K D L Q V T I I
UniRef90_UPI0003A4D878 E T I I L K G I P N T G L N E S A I A A L R K T R F R P A K Q G V W L T I P I N
UniRef90_F4ATQ5       D V D V I E A D P K R V F D R E A L K A L K K W K Y K P G K P M K G M K V Q L D
UniRef90_V2UH13       T V S V K Q S G K K L L D S A A V R T V K Q W K F S P A L K G K W V D V P I H
UniRef90_Z9KQ3        D A T V I N A E P K R I F D R E A L R A I K R W K Y R P A Q L Q T G Q T V Q L D
UniRef90_C4S4N2       N V R I L E A T P R N T F E R E V K Q V M R K W R F E   A V A A K D Y V T T I V
UniRef90_B3PJG5       D V Q V L E S D P P R L F D Q A A I Q A M Q R W K F R P G K P E S R A R Q T M E
UniRef90_UPI00047652E5 N V A V H R S S G H E I L D E S A I E A V K K W K F V P A R R G S S V V V P I L
UniRef90_R4YNY8       D P K V I D A N P P N I F N R A A M S A V K K F K Y K P A Q A V T G V R N I I R
UniRef90_D8EW98       N L S V I E E S P A G V F H K T V L R T V P E W R F R P A K Q G E P V D V W V E
UniRef90_M4NA15       D I K I D R S S G Y H E L D R A A M D A A R R W R F N P G G Q K V E G Y R V P V N
UniRef90_C6WZ62       T V Q V D R S S G H S K L D E A A V E A V K K W S F V P A K R S N K V L V P I N
UniRef90_T0IAB5       N I V L L R T S G N H S L D E A A I E A V Q Q W R F V P A R N G R T V T I P V S
UniRef90_F7YJ70       D I N V V D A N P K R M F E R E A M Q A L K K W K Y Q P A I E Q P G Q T V T V E
UniRef90_C6X882       A V E V K Q S S G R K T L D E A A L E V V K N W V F A P A K R G S W A T V P I E
UniRef90_G7FQ66       N I S V I Q S K P S D V F D A A K E A L A K W E Y K T S R A G N D V L V Q L D
UniRef90_UPI00046FD1D0 R V E I K Q S S G R K T L D E A A I E A V N G W E F A P S K R G G W A T V P I E
UniRef90_UPI0004634522 N A R V V R A D P P R V F D R E A L A A V R R W R F E P V D A P I T T R R T I G
UniRef90_F7NT87       E V T V V E A E P K R V F D R E A I R A L K R W K Y S P A V Q Q P G I M V Q L D
UniRef90_UPI0003719F28 S V S V H K K S S G H K V L D D S A V T A V K K W T F V P S K R G G W A T V P I I
UniRef90_A0A024IIP3   K A E I H T S S G Y E R L D Q T A L Q T V L R W R Y V P G K R G G W F N V P I N
UniRef90_UPI00036F5ABD G V A V E Q S C G H E S L D E S A V E A V K Q W R F V P A K R A S A V L V P I I
UniRef90_V5BDS2       L V V L H V S S G S E R L D Q A A L E A V K K W R F I P A K R G E Q V I V P V R
UniRef90_A7JYZ5       D I E V I E A E P Q R M F E R E A I R A L K K W K Y Q P K V E D G G Q T A K V E
UniRef90_W0DTF2       S W R V E K S S G H E R L D N A A L A A V E G W R F E P A R R G T R V I V P M E
UniRef90_T0ING5       D A S V A K S S G Y N E L D Q A A E E V V Y Q W R F N P A R D G R P V T V W V K
UniRef90_W1U2T7       S A W V A E S S G N A A L D Q A A V D A V Y R W R F A P G T N G S P V E T R S R
UniRef90_H0BVB7       K V E V S T S S G F D R L D R Q A Q D A V M R W R F V P G K R N G W N L V P I N
UniRef90_K0NKZ0       D I T I I Q A S V P G I F N D S V I N A I S S W K Y S P G K V A T M V T T I I
UniRef90_K6XBT6       N I D V L E A Q P K R T F D R E A K R A L G K W K Y P Q Q Q D G I T V V L D
UniRef90_V5FC34       D I K I V D S K P K R I F D R E A M R A L Q R W K Y Q P A T A Q K G Q T L K L E
UniRef90_S9ZHH6       R I E V R T G S G S E R L D R A A E D A V A R W R F V P A R R G A W V L V P I V
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UniRef90_U1K834       N P V V V S A E P E S I F D Q A A L D A A L K F K Y K P P V E V A G V Q N K I S
UniRef90_M4U9Q6       S I K V F K E K P T G I F S H S A K K A V L R W R F L A P K S T Q W Q R I T I R
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UniRef90_UPI0002F8B4A3 N I S V V N A K P E G V F N R E A K R A L K Q W Q Y K P S N F G K D V L V Q L D
UniRef90_D4ZBQ0       N I T V I K S S P T G I F D K S A V E A L T Q W V Y N E S K Q G K G S Q V Q L D
UniRef90_UPI000305DB2A N V K V L E S E P R R I F D R S A A K A L A G W K Y K P A K T Q S G L S V K L D
UniRef90_W1MU99       D I Q V L E S V P S R M F D R E V R Q A M A K W R F E P R V S G G K I V A R F F
UniRef90_UPI00036863BA R I K V E R S S G Y K D L D Q A A V E A V R K W Q F S P T K K E D K V L I P V N
UniRef90_UPI000476A4DD R W E V E E S S G Y D R L D E A A L S A V E R W R F E P A R R G G R A V V P M E
UniRef90_D6Z3X7       E L Q V A E S S G Y P L L D Q A A L A A V A D W R F E P G R R N S T V L V P V S
UniRef90_D0J1A4       K I E I K Q S S G F E R L D A A N T V R Q W K F V P G K R N G W H I V P I N
UniRef90_Q492N3       N I C I L S A V P P G I F E E S I R S A M R W V Y E S N K P E K K L I I T F K
UniRef90_U1L3G1       N V I V E D S S   N E A F E K Y A L R S I K K W K Y S P A K D G K P I Q V Q L D
UniRef90_Q3A7D1       A V H I E Q S S G Y G I L D D T A L G A V S E W R F R P A R V N G T V I V P I H
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UniRef90_F5ZAM0       N V T V V N A T P E G I F D E S A K A A L E Q W K Y K P A R R Q T G L L V Q L D
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UniRef90_G3IXI8       S V S V I K S S G K D L D N E A V R T V K Q W S F A P A M R G K W V T V P I S
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UniRef90_D4YXP1            F R L
UniRef90_UPI000468EEC6     F T L
UniRef90_M5DRP4
UniRef90_T0K7I0
UniRef90_Q47VZ0            F S L
UniRef90_R5PMS6            Y T L P I V F E
UniRef90_A0A011N8D1        F T L T G
UniRef90_UPI000414AD61     F P I N F S L E
UniRef90_B2IKJ3            F S L
UniRef90_R6BVN9            L P V K F S L Q
UniRef90_B8CS37            V Q L D Y T I Q
UniRef90_A2WII7            F N L N
UniRef90_A0A052HI29        F G L
UniRef90_UPI00047A63D3     V P I N F V L Q
UniRef90_R6FB46            F T V P
UniRef90_A3D924
UniRef90_K9S7N9            L N I E G S
UniRef90_E6WTR0            F R R N
UniRef90_H1HNU6            F N I P V Q F K L K
UniRef90_G1VF91            F K L S
UniRef90_V8BMV0            F K L
UniRef90_R5SKJ4            F P V M F R L Q
UniRef90_A0A011R2F0        F H L
UniRef90_D8E015            Y N V P V S F R L Q
UniRef90_W5X2A4            W D L Q G G V Q
UniRef90_W1J716            F E L N
UniRef90_R7JCR9            F R L
UniRef90_UPI000362BB48     F H I P V S F K I
UniRef90_G6AJ81            Y T I P V R F K L Q
UniRef90_E4T3N8            F K L N
UniRef90_R6AHN6            F R L P V R F R I Q
UniRef90_I6ADJ6            F N L N
UniRef90_F8C5H3            Y K L
UniRef90_L1NHZ6            F K L
UniRef90_R5JMV3            F R L
UniRef90_L9PMU1
UniRef90_UPI0003B48050     F Q L
UniRef90_A3I2W7            Y K L
UniRef90_UPI0002F0BAA0     W K L
UniRef90_UPI0004684485     F K L S
UniRef90_V8CP83            F R L
UniRef90_F9RPC5            F K L
UniRef90_L8NAU3            F Q L D
UniRef90_Q08NI0            Y P Y E F
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UniRef90_K1LBG9                              K Y P S L A I R Q G M E G T V L V M F K I T S D G T I V V
UniRef90_R6IYE1                              K Y P K E S Q D N G E Q G R V I C S F I V G R D G S V N
UniRef90_G0CDX3                          P P R Y P K D A M D A G L E G S V E L K I R M D A S G V P Q S
UniRef90_UPI000364A4FB            V Q A N V K Y P K A E A F R N G E Q G R V L S F V V E K D G S V S
UniRef90_G2E2Q7                              R Y P N R A R R L R H E G T V R L T F T I D R S G R V L
UniRef90_UPI0002F8F869          R P L     P Q P H Y S A A M K N T A G S G T V V V M V Q V D A E G K I I Q
UniRef90_UPI00036BF933                       R Y P K E A Q Q S R I Q G R V F V Q F V V T Q Q G D I I Q
UniRef90_K0X9H6                       N N P M P I Y P K V L S R A G E V R V S F I V K A D G S V S
UniRef90_UPI000425E9E5                       R Y P A A A Q R A G V E G L V V L S F V V S K T G E I I S
UniRef90_UPI00046EB04A      S A G A A P I N G A R P V F P E E M L E E N R E G S V T V A C D I G T D G R T S
UniRef90_UPI000474F055                   N R P N P E Y P R A S L R R G E K G R V V V R V L I S P Q G S V V V
UniRef90_R7DNV1                  R Y I S K   N I K Y P V G A Q K A G T Q G R V I V E V I I D A N G N V T
UniRef90_UPI0003B50DD3               I V R K H L Q Y P Y L A R R M G W E G K V V I S F V L T R Q G E V K
UniRef90_E8VTH2        T G G P M P L A T F Q P Q M P R K A A K A G L E G L V V L E F T V N E R G G V E
UniRef90_UPI00047D1E1A  S S S A G Y L Q N P T P P Y P P L S A R L G E T G R V V Y K V W I G P D G K A Q
UniRef90_L7TYN6        A T P P E P L S N L I P D Y P S E A R S K G L E G M V I L K G V V E A D G R V T
UniRef90_UPI00034CE95F                       K Y P E A A R R R G I E G R V E V A V D T D D Q G N V T
UniRef90_I3ZKB5        T S P K V L F K P K P E Y T E E A R S L H L E G T V N V K I H V S A T G T V S
UniRef90_I0ANV6                             Y P E E A R R K K I E G T V K V L A F I E K D G E V S
UniRef90_UPI00047E83B0                       K Y P K Q A R K A G I E G R V L V S F V V K S D G T V S
UniRef90_A0A023NWE5              V P L K Y P S A A L R A H M E G T V V L K V L V D E Q G V P Q
UniRef90_W7KD73        A I P L K P V T T L Q P T Y P V Q A A A K R I E G Q V T A T F D I L D D G R V D
UniRef90_R5K607                              K Y P T I A Q E N G V E G R V I C Q F V V S S D G R V R
UniRef90_B3EBT5                              Y P Q L A R R R G W S G R V V L A F V V A E D G S V R
UniRef90_A0Y9U5                P I V K V A P M Y P R R A N S R G V E G Y C T V E Y T V T K N G S I R
UniRef90_D2QTL5                              R Y P A K A K A S G I Q G D V Y V I F T V L P T G G I G
UniRef90_A4G208        S G V S Y I N A P R P V Y P P L D A R M G N E G T V T L R V L I N E K G R A E
UniRef90_UPI000468338D                       R Y P S R A Q D E G A A G K V F V S F V V E K D G S I T
UniRef90_UPI000374D07D  K V R Y A P P P S Y P K E A I D Q N I Q G K V K L L A N I D V N G N V E
UniRef90_L9PMK3                  C P T P A Y P I N A Y R N G E S G S V L L A L L V G N D G R V L
UniRef90_M7XH66                              K Y P S T A R R M G I E G T V Y V S F V V E K S G E I S
UniRef90_L9PNS8                  K P K W P E G A M A R K E A G T V T L K F L I G A D G K F K
UniRef90_UPI00046FF8B9                       K Y P E E A V K E K I E G R V F L S F V V T E S G E I Q
UniRef90_X5DDR1                              R Y P V I A Q E N G I Q G K V Y V K F V V D E Q G N V N
UniRef90_A0A013RNF3            P K N L L R V L P N Y P V K A A F N R M E G E L K V K F D V D E N G Y V Q
UniRef90_UPI0003688B25    S P P R P       P V Y P M L A R R R A Q E G E V L L R L D L D M R G R I I
UniRef90_UPI00029AB37F                       K Y P K A A L D N N V Q G K V F L S F V V E K D G S L S
UniRef90_D4XA79                    R P M P T Y P M A S R R M R E E G R V L V L V E I N T Q G L V E
UniRef90_G8M796                   A Q P D Y P A M A K R R G E T G T A V I R L T V G L S G K I E
UniRef90_R7GUZ9                          Y P T V A A E N G V Q G R V V V G F V V E R D G S I T
UniRef90_K9CF21          P P K F L S G A T P V Y P P D L E R K G I T G T V G V S L I V G A D G S V Q
UniRef90_U2FT21                           D Y P R R A R R L R Q E G T V L L Y F V M D R N G H V L
UniRef90_UPI00035C304D                       R Y P K I A I D N R V E G K I F L S F I V E K D G S L S
UniRef90_A0A031GY65    S A P V L E R R P K P V W P A A S L Q A K E E G K V T M S F D V N A A G K V T
UniRef90_F2LI54                         P R P D Y P P K A K R L E Q E G T V V V R L T I G A D G A V K
UniRef90_UPI00047B044C              K N C K A E Y P K A S L M N E E Q G T V S M S F L V K P D G S V A
UniRef90_F9D4F0                            Y P V Q A Q Q Q R I E G R V V V S F I V N K D G S I A
UniRef90_UPI0003FBB014                     R Y P E D A K Q A G V E G L V V L S F V V E Q D G S L Y
UniRef90_C6VSU6                           R Y P K K A I D A N V Q G R V F L A F V V T E T G E I S
UniRef90_I3Z8L5                            Y P N E A K E Q N I S G T V Y V S F V V D K S G A I D
UniRef90_E8V5J2        S A P V L R F Q A D P E Y P K A A Q E G N R S G M C F I S L V V D A K G M P T
UniRef90_E8UXM7        T A P K L L F K P K P V Y T A E A R Q L H L E G T V Y V K I H L T A A G A V Q
UniRef90_UPI00035D2798                       K Y P N Q A K K M G L E G K V Y V Q F V I D E N G N L Q
UniRef90_L0WIY4                          Q Y P S R A R M R R Q Q G I V E I S F V I N A N G R A E
UniRef90_UPI0001A43C8F          P Q P D Y P R R A K R L Q Q E G N V L V R L V I S P E G R L L
UniRef90_R5V1D4                           R Y P A E A Q A A G Y K S K V Y V H F I V D K N G D V K
UniRef90_L8Y1V6                            Y P L I S R R R G E Q G R V M V R I F V N E K G E L V
UniRef90_UPI000406F03F                    Q Y P A V A A E N G V Q G R V I V K F V V G R D G S V S
UniRef90_L7UK87        A K P P V E L T N P Q P E F P Q E A R A A G R E G M V V L K L V V T A R G E V R
UniRef90_S0EZH6                        P Q P Q I P D D L R Y Q P L D A M C V V E V T V E P D G T V A
UniRef90_G8NXU4        S A P R L I F S K D P E F P K S A K K D K F N G S C V V T L I V D S T G A V H
UniRef90_G2PIX5                           N Y P K K A Q E G I E G R V S V I F V I G K D G I I T
UniRef90_UPI000377883B                     R Y P V I A Q E N G I Q G R V V C D F T I M K D G S I S
UniRef90_I0KA86                            R Y P A E A V K K N V S G K V F I S F V V N A D G R L D
UniRef90_R6WR49                              K Y P V V A A E N I S G R V V V Q F V V E R D G S V S
UniRef90_T0IS18        D P R A L P T F Q P D Y P G A M I R Q Q K E G T V T V R I T I N A Q G R V T
UniRef90_W0SHK7                    R A P P V Y P A M S R R L G E V G I V V L R V E L D E Q G L V A
UniRef90_B1WWT1        K C I S N C Q P Q Y P S T   I A K K V P G K V I V Q F R V E T D G S V S
UniRef90_G6F1H1                            P M A A R R R H E E G V V K V S Y Q L L P D G Q V Q
UniRef90_A6L4K0                           Q Y P T K A Q T E G I Q G K V I V Q F I I D E D G Y I I
UniRef90_UPI0003B6D933                       Y P I S A R K A G I E G R V I L S F A I E E D G S L A
UniRef90_Q2LX47                            Y P P M A R K V G W Q G K V R V S F V I R K D G R V E
UniRef90_UPI000472ABD1              N Y P Q R A K A L G V E G R V K L R F D V T A D G T V T
UniRef90_H6RFW9                              K Y P P M A K A G L I T G T V F V T F V V K E D G K V S
UniRef90_R7M2F7                            Y P Q A S R A S G E E G T A L V G V A V S A G G E V T
UniRef90_H1S5F4        S A A P R A V S P P Q P T Y P S Q S R R M G E T G K A V V R L T T D D T G K V V
UniRef90_B8L3Z9              K M P P P S Y P K S A I E Q R Q V G V V N L R V E V D A Q G Q P T
UniRef90_F9U786                            R Y P P A R K L R Q E G V V R V R F V I D R T G K V I
UniRef90_I6ZWD1                 Q K K I V Y P E I A K R A G V Q G R V Y I K A F V D E N G N V V
UniRef90_G2IQJ5        D P R F A D A F R P A Y P A A L R R D G L E G S V T V R V T I D P R G R V T
UniRef90_UPI00037E0A2C                       Y P T Q L I E E G I E G T V K V R V N V G A D G T I M
UniRef90_D3RW07                            R Y P S R A Q R L R Q E G T V R V S F T I D R N G R I L
UniRef90_UPI00047E3A40                       K Y P N E A I R N Q V E G R V F E V V D A K G M V T
UniRef90_E4L7G1        A T K P I V I R S V S P I Y P E S R I D S D V Q R I V R L D I R I N T D G I V S
UniRef90_L1MBW6                              K Y P A I A V E Q E I Q G T V Q L R F V V E A N G S I G
UniRef90_K1Y198                          V Y P E I A K E N S V Q G R V I L Q F L V G T D G S V S
UniRef90_E8V295              L V S K V N P V Y P Q E A R R G H I L G T V V M H A I I S K T G D V E
UniRef90_UPI00035F96A4                     R Y P A E A Q K V G I K G R V F V S F I I E K D G H I A
UniRef90_G8T7B4                      R R N L K Y P A A A V K A N I Q G T V V Q F V V D L D G N V T
UniRef90_R5WST2                            Y P P L A Q E N N I Q G T V T V K F V V E K D G R L T
UniRef90_UPI0002EAAB5B        K V L R K T N P Q Y P Y K A K R L K I E G V V L L H V L I N D E G R S E A
UniRef90_UPI0003F8162A                       K Y P T E A Q K G I Q G K V N L M F I I D E T G N I A
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Multiple sequence alignment (positions ~45–80):

Sequence ID	Aligned sequence
UniRef90_K1LBG9	E A T I K K S C K P I L D E A A L D L I K G M Q W N P A T Q G R T Y Q L P I R
UniRef90_R6IYE1	N P E V L R G V T P L L N E E A V R V I N T M R W N P G M Q A V K Y T V P I T
UniRef90_G0CDX3	Q I V I L R S Q P A G V F D A A V L A A A R Q W R L V P G R P V T T V R V P V Q
UniRef90_UPI000364A4FB	N I Q I L Q T P G K A F S E E T R R V V A S P K W K P G E Q R G R Y T L P V D
UniRef90_G2E2Q7	S H R I A S S S G H A L L D Q E V K S L I R R A S P L P A I P P G T V T V P I R
UniRef90_UPI0002F8F869	S V H V M M S S G A R Q L D D E A I R T A K S W S Y K P A I K G G Y V Q V P I T
UniRef90_UPI00036BF933	N L R V L K G I G G G C D E E A V R V V S Q M K W N P G R Q H G E A V S V Q
UniRef90_K0X9H6	G I N I V Q S A H P D L A E L V K D A V T Q W R F K P W T V A G E V V A P I V
UniRef90_UPI000425E9E5	D I Q V V K N L G A G T D E E A M R V V K T M K W T P G K Q N G R A V P V R
UniRef90_UPI00046EB04A	N C Q V T N S T G G H A F V E A A M E F L R K A R Y Q P A V T N G Q A V V E I N
UniRef90_UPI000474F055	N A T V Q S S S G Y E R L D Q S A V K A T A R F K P Y T E N G
UniRef90_R7DNV1	N P K V S Q G V D P L L D A E A I R V T A N M K W Q P G T Q G Q A V N V K Y T
UniRef90_UPI0003B50DD3	E V R V V N S S G Y K V L D E N T L A T L Q G C K Y F P V P P V D K I T L P V V
UniRef90_E8VTH2	D I K V L K E E P R R M L G K E A R K T V S K W T F K P G K P V S R M A Q E I E
UniRef90_UPI00047D1E1A	R A E L V S S S G F S R L D K A A Y E T V M R W R Y V P G K R N G V P E T M P
UniRef90_L7TYN6	Q L K V M R G D E P F A S A A L A A V R S W R F K P A V E G R P T A V F R I
UniRef90_UPI00034CE95F	N V R V A R S S G N R E L D E E T L R Q A R D W K L K P A A G G R G V S I G T E
UniRef90_I3ZKB5	V V G V Q S G L G H G L D Q A A V R A V Q G M R F Q P A M A N G Q P T V S I N
UniRef90_I0ANV6	N A T V V E G I G Y G C D E V A R L A V Y Y T R F K P G M K G K R V K V P V E
UniRef90_UPI00047E83B0	A I E V T Q G I G G G C D A E A V R M V E N S V W T P G K Q G G Q M V L P I Q
UniRef90_A0A023NWE5	E V T V E K S S G Y A L L D R S A R Q V L H G W R F Q P A T V S G W A R V P V S
UniRef90_W7KD73	N V S L T G C H L F F R E T L T A M R H W L Y P A G H P A M R Q V I N F E
UniRef90_R5K607	D A K V V K T L D P Y C D K E A I R V I M S M K W I P G K Q N G K Y T V P I V
UniRef90_B3EBT5	S I H V K E G S G H T L L D N S A V E T V K G V A P F P K P P A A E I I M P V V
UniRef90_A0Y9U5	D A V A V D C V P S G Y F E R T S V K A A T K F K Y K P A I E V L G V Q N R F T
UniRef90_D2QTL5	D V K I N K N I K R G G C E E E A I R I V S Q M K W I P A K Q N N R Y Q L P I R
UniRef90_A4G208	R V E V Q K S S G S L R M D D A A R D A V M R A L F K P G R P A P A F I V P I N
UniRef90_UPI000468338D	D V S V I K G I G F G C D E E A I K V I K K P L W K P G K N K G V P V R V R
UniRef90_UPI000374D07D	S I S I I Q S S G F G I L D Q A A K R W F K K L Q F F P A K E S A A V P S T I I
UniRef90_L9PMK3	E S K V Q K S S G S S D L D K A A R K A L S Q C R F K P A S E P T W A T L T Y V
UniRef90_M7XH66	N V Q L L R G I G G G C D E E A I R V I E N W K Y Q R G R P V K R M R V P I R
UniRef90_L9PNS8	K S Q V Q K S S G H Q D L D E A A R A G I E K C G F K P G K P V S W M Q M Q Y V
UniRef90_UPI00046FF8B9	Q I T I L K G L G H G C D E E A V R L K S F K W K P G Y Q D G K A I N V K
UniRef90_X5DDR1	N A E V L R P V D A S L D K E A L R V I N S P R F K P G K Q G K P V K V Q I T
UniRef90_A0A013RNF3	N I R V L D S P L V D V F G L S L I H A M E Q W R Y E T G K P A K D L
UniRef90_UPI0003688B25	S A R V L V S S G Y P L L D A A A L Q A G S D W R L Q P A R V A S Y V K I P V Q
UniRef90_UPI00029AB37F	D I Q I T R G L G S G T D E E A I R V I S S P R W N P G L A E G K A V R V K
UniRef90_D4XA79	R A T I D T S S G F S R L D E S A L A A A R K A K F K P Y T R N G K A K I P F D
UniRef90_G8M796	N V T L Q K S S G S S R L D D A A L D A V R G S A C S P Y K E N G T A T V P F V
UniRef90_R7GUZ9	D V S V L R G V D P S L D R E A M R V V S M R W T P G K Q N G S Y Q V P V A
UniRef90_K9CF21	S A S V S S P S G Q P A L D Q A A L N A A Y T Y R F A P A R N I Y D E P V A C R
UniRef90_U2FT21	S W E I R Q S S G H E L L D E A V R D M I R K A D P L P A L P D S A L T V P V R
UniRef90_UPI00035C304D	D I Q V L K G N Y R R L L N T E A I R V V K S M K W E P G K D A D G K P V R V E
UniRef90_A0A031GY65	G S S V V K S S G H P A L D E A A R S G I A K C T F K P A L A G G
UniRef90_F2LI54	T A R V A R S S G Y P L L D A A A L T S I E A G R C Q P Y T R A V E A E Q P I A
UniRef90_UPI00047B044C	D S K V E K T S G F K N L D K A A I K A L S A C K F K P G T K D G W T K V D Y A
UniRef90_F9D4F0	S P K V V K S A D P L L D S E A L R V I R M M R W K P G K P C R T M A I P I N
UniRef90_UPI0003FBB014	D F Q L V K G V S P S I D A E A M R V V K R M K W S P G R Q N N Q P V P V R
UniRef90_C6VSU6	D L R I L K G L G A G C D E E A L R V V S T M K W V P G E V D G K P V V R N
UniRef90_I3Z8L5	D V Q I L R G V N P D I D A E A L R V V E A A N W T P G M R G K E V N V R M R
UniRef90_E8V5J2	D V H V A K S L N P D F D A N A I K A V Q Q W R F S P A R R G K P V A V A L N
UniRef90_E8UXM7	V V G I S S G L G H G L D Q A A I Q A V E G M R F S P A M Q G H P V V V N I N
UniRef90_UPI00035D2798	D F N V L K G I G A G C D E E A V R V I K S P A W T P A I A D Q T I V L P V N
UniRef90_L0WIY4	N V A V H K S S G S R I L D R A A T Q L V Q R L H F R P P V E L D T I P V P V T
UniRef90_UPI0001A43C8F	R H D I A R S S G Y D A L D Q A A I E A V A Q A R C T P Y R E G Q A I T V P V N
UniRef90_R5V1D4	E V E L T H K S P H E V L N Q E A I R V I K S M R W E S P G K V E G K P V N V S
UniRef90_L8Y1V6	N K K V V Q S S G F S R L D R C A L D A I T D L K V K P A I K G G K A V Q P I E
UniRef90_UPI000406F03F	Q A Q I A R G V D P A L D E A A R V V N S M R W N P G M N N G Q P A N V W
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UniRef90_UPI00047D7234   F A I P I T F K L Q
UniRef90_S6AAX6          Y E L N
UniRef90_T0HQ51          Y K L N
UniRef90_F8E6H2
UniRef90_B5WW42
UniRef90_I9S9V9          Y S I P V V F R M Q
UniRef90_I4VYY6          F N L
UniRef90_N8TQY3          F Q
UniRef90_F5UM61          F L L T
UniRef90_UPI00047109A4   F Y L D G
UniRef90_UPI00029A9916   I N V N F
UniRef90_UPI0003725127   F T L N
UniRef90_Q46Z35          F E L N
UniRef90_UPI00036A77DB
UniRef90_K9V8J0          Y S I Q G S
UniRef90_K9Z4Q4          F T V A G S
UniRef90_C5AA31          F D L S
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UniRef90_UPI000311F6D3   F S L R G
UniRef90_A0A011MU64      F V L
UniRef90_B4S5L8          Y S L
UniRef90_R7JF81          F K I D G S D
UniRef90_Q21HQ7          F T L P V V F Q L Q
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UniRef90_A3D9E5          F C I
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UniRef90_A4AMW5          F S I P I S F K L Q
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UniRef90_U4TD88          F K I
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UniRef90_V2Q9H5
UniRef90_U7QYY9          F N L
UniRef90_L1PT23
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UniRef90_B1J463          Y S L D
UniRef90_UPI0003F5549E   F K L
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UniRef90_E8WWE8          F K L T
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UniRef90_I0K033                                         G H Q G L V I L R V H V S S S G Y P T
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UniRef90_R5PCE1                       Y P Q A A I D S T I Q G T V L K F T I M P S G I V D
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UniRef90_UPI000377B595        P P R Y P Q E A V S A H L G A R V L L Y L H L   D D D N G N V V
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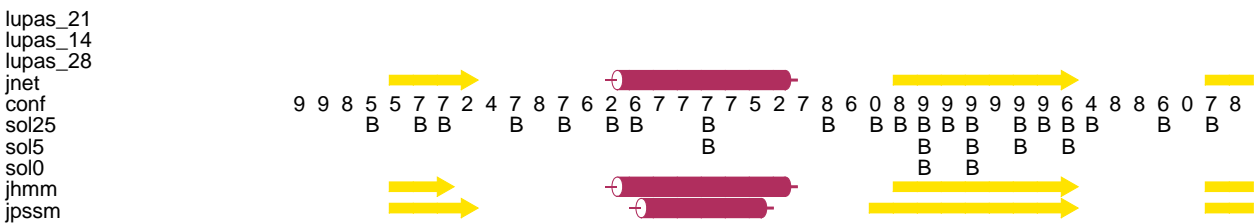
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Multiple sequence alignment

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UniRef90_F8CLP2           T P P R F V S G E R I H L P N I A Y G L Q S Q G A V V A R C I I T A K G S V T
UniRef90_UPI000302B347                                 S G R V V L R L T V D G E G R V G
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UniRef90_J2GYX2                       Y P E S A M R E V S G Q A T L A C T V A A N G A L R
UniRef90_X0WZV0                                     G I V K V S L R L L P N G Q L R
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UniRef90_J1JPE8                                     G T V K L E F R V H K Q G N I F
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UniRef90_G6EE18                                 P R D L R K S R E G A E L T L R Y R I G V D G R A R
UniRef90_S9QQU1           P V E I Q G K E I V F S R E A R A A R V S G V M I V K C V I T P K G S V E
UniRef90_T0JTW9           T P P K I I T L A P I S L S P E M R E K Y S E Q T V K V K A T I A E A G T I D
UniRef90_A4JQL8                                     R V L V R V W L D D E G R V R
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UniRef90_H8L3S9                                     C V A V S Y L I G S D G V P R
UniRef90_F4B1F2                   S I A K P L G L T G R V F V S F R I N K R G Q V D
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sol0                                                                           B      B
jhmm             ────▶      ════      ═══════
jpssm            ────▶      ════      ═══════
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UniRef90_F8CLP2         D C Q P L Q       G L R G L E E G V I R T L S T W R Y E P A L N G R P V A V R Y V
UniRef90_UPI000302B347  Q A V V A E S S G N A G L D D R A L R T A E H W R F V P G D H P E G L
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UniRef90_L8M6R2         D A E L L K S A T Y P V F N Q Q A I K D L E K Y D F N E T Q D T K P Y Q V T V D
UniRef90_E8WXM4         E A R V N T R S G S S S L D A A A L R A I Q S V D F G P L P Q G D H   I S V D
UniRef90_A5WFL6         S A T L A K S S G N T A L D N Y T V N T A K K G K N P F T K G G Q V T L P I D
UniRef90_H0HST0         G V R V V R S S G S P V L D K A A V E T V R R A A P F P A I P E G P F T V P L A
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UniRef90_B7XLB3         Q I D I L K K G A M G A F D E A A L A A V R N A R I P P A G K D F Q L T V W V E
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sol5          B   B           B             B         B B           B
sol0                          B         B         B
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UniRef90_I3ZDP0           F P L Y V E V D F Q
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