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                    1          10        20        30        40
QUERY               T V E P T S A E R A E K L Q G M G C K R K R V E D I R F T Q G K G N Y V D D V K
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UniRef90_D8F3L7                     E D Y S V I G K R I P R I D G L A K V T G E A K Y A A D Y E
UniRef90_B9L450           A T A V R G I G V P V K R K E D P R F I R G K G T Y V D D V K
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UniRef90_UPI00036ADCFE      L E R K P Q Y S V I G K P V P K V D G D I K V T G A A R Y V D D V K
UniRef90_D8WWV7                  D Y A V I G K S V P R I D G R E K V T G A A K Y T G D L S
UniRef90_UPI00037A7179    L K T S A E V G G M H S V K R K E D A R F I R G K G N Y T D D V V
UniRef90_R5T8N9                       V G K P L P R I D A L E K A T G L A A F T T D L K
UniRef90_R5AGW4                M H T V G T S V E R I E A L A K V T G K A E F G D D I R
UniRef90_E6NB44                K L V G V A V K R K E D P R L V K G E S V Y V D D V R
UniRef90_X0RFC6             E N F Q Y V G K S V P R V D A E V K V T G E A R Y T V D V A
UniRef90_B5WEW0                  R Y V G K P V K R T E D P A L L K G E G Q F V D D I H
UniRef90_D1CHB1                 T Y V G T P V K R V E D P K F I T G K G S Y L D D I K
UniRef90_UPI0003B5BAD6             G I G Q G V R R L E D Q R F L T G E G R Y T D D I V
UniRef90_B8IJP7                    G I G Q P L R R V E D H R L L T G G G H Y G D D H A
UniRef90_D6THP2                    L G T S I K R R E D P R L I T G Q A T Y V D D I K
UniRef90_Q11MB1                   G I G A R V T R K E D Q R F V T G L G R Y V D D M V
UniRef90_D8WWW3             R E E F A V G K Q V P K Y D G L E K V T G Q A Q Y A T D V V
UniRef90_U5W6Z5           T T F E D N D Q   K P V G H R M L R K E D P R F V R G R G R Y T D D V Q
UniRef90_F4CY80       T T A T T G S P R E G E R R W V G R S V P R K E D P K L L A G R A T F V G D V T
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UniRef90_A0A023X1X4         R D G G K Y V G T S V P R R E D A A L L T G R G T W T D D I K
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UniRef90_UPI00034D17F7            I I G K S V T R T D L L G K V T G E A R Y A G D I D
UniRef90_K2K401                 T G I G A S V R R K E D Q R F L T G R G H Y T D D I N
UniRef90_UPI000479D3EF           I G K S I P K Q D G T A I V T G K A S Y T A D F V
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UniRef90_G9PWM8             K K P E D Y E L A G K A Y V R I D A E A K V T G R A V Y T D D V D
UniRef90_H2L694        A V P K G Q S Q D D V V G R P M M H V S A I K Q A T G E A I Y C D D V P
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UniRef90_V6JMX9         E A P A P G E S V G R S L P A P A G P Q V V T G T A R Y T F D I D
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UniRef90_A0A038GB95              I I G K P Q R R I D G G K V S G G Q A R Y A A D H P
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UniRef90_G8MFU4               P T D Q R Y I G K R V M R T E D K K L L Q G Q G S Y V D D V H
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UniRef90_UPI0004661719          I G V S I P R K E A F D K V T G T A K Y T D D T L
UniRef90_M2VDA6         A A I E V A E P G R V G A S V G A P A A T D V V T G R A E F T M D T R
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UniRef90_F4CUA8                   R I D A P L K V T G R A R Y G S D H N
UniRef90_X4ZG22               M K Y I G Q P M K R K I D P R L I R G G Q G R Y V A D I H
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UniRef90_A6FNR8                  G I G A S T K R R E D A R F L T G N Y T D D I N
UniRef90_I9X0Z6              R P K L V G K R V K R T E D P R L L T G V G K Y V D D M A
UniRef90_A0A017S5U6             L G K S T P H V S A M K Q A T G E A Q Y T D D I P
UniRef90_I1GQN7               E S V R Q G T A V G Q P M I H M S A M L Q V T G E A E Y T D D T P
UniRef90_K6VCI1       T V E P S A A A E H E     I G K A R V R K E D H L I T G R T K W T D N L V
UniRef90_Q07LN6               E K P A A D T L I G K R I P K M D A P Q K A S G R T R Y V H D I N
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UniRef90_UPI0002F27F86        D A G T G I G A S V R R K E D Y R F T T G S G K Y T D D V Q
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UniRef90_UPI000347AA6D T A A P E S A P Q T     G R P L P R K E D A R L L T G R T R W T D N I E
UniRef90_M7R6J7                  S I I G T S S K R I D G R Q K V T G A A R Y A A D H P
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UniRef90_A3VVZ0           T K K I K N F K V V G T R P N R P D G I D K V T G R A R F G A D I V
UniRef90_I3TJS6                 Q V I G K P V K R T E D R R F L T G E R G R Y T D D I Q
UniRef90_Q6AK66               S K F K V V G Q N L K R K E D S R T T G R G L F T S D M S
UniRef90_U5HG17            D P Y A L E V V G K Q E P H M S G L K H V T G E A I Y C D D I P
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UniRef90_D8WWV7      F P N M L H G K I L T S P H A H A K I I S I D T S E A E K L P G V K G V I T H K
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UniRef90_B5WEW0      L P G T L H C C F V R S S H A H A R I K H I D T E A A K A I P G V R H V W T H A
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UniRef90_D6THP2      L P G T L H M A V V R S P Y G H A R I L S I D T S A A L K H P G V V A V Y T A E
UniRef90_Q11MB1      V P G M K Y A V F V R S P H A H A T I K A I D T A S A K A M P G V I G V L T G P
UniRef90_D8WWW3      L P G M L H G A I L R S P L P H A R I L N V D T R R A A R L P G V K A I I T G K
UniRef90_U5W6Z5      L P G M L H L A I L R S P F A H A K I V S I D T S A A A I P K V K A V V T G A
UniRef90_F4CY80      L P G M L H G A V L R S P H A H A R I V S I D T S A A E A I P G V A A V L T G A
UniRef90_K6WZJ9      L P G M L H L A M V R S P F A H A T I T N I D A S A A Q Q S P G V V R V I T G E
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UniRef90_M5AR36      V P G A L Y M A V L R S P Y A H A T I G S I D T S A A L A L D G V H A V Y T W A
UniRef90_I0KFJ2      L P G M L H A H F V R S P Y A H A R V V S I D S S E A A A M E G V V A I F T G D
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UniRef90_UPI000401593B L P G M L Y A A I L R S P H A H A R I I S I D V E A A K R A P G V V A V Y K M G
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UniRef90_B1IEA2      A N G L L Y A R M V T S P Y A H A K I A I E Y E N S L K T S G V R A V I T G E
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UniRef90_H2L694      L E N E L Y L A L I T S T K A H G R I L T V D T S A A E R L P G V V C S L F A D
UniRef90_G2FLH5      V D Q M L H A A V L R T K Y P R A L V K N I D I S A A S G Y P G V E A V M T A A
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UniRef90_C0D020      K P G M Q Y G K I L R S P H P Y A R L A E I D T E K A K A Y P G V S A V V T W K
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UniRef90_H2L352      R E G E L F L V L V T S T R A H A R I T G L D V S E A L K L P G V D V I I T A A
UniRef90_G8MFU4      L P N M L Q A A V L R S P H A H A K I C A A A A R E L K G V H A V Y T H A
UniRef90_R6JZ77      M E G M L Y A G V L R S P Y S S A R V V S V D A A K G K G I P G V E A V V T C
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UniRef90_UPI0003792867 M P G M I W G H V L R S P H P H A K I K S I N T K K A E A I D G V K A V I T S K
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UniRef90_A6FNR8      L R G Q A Y V H F L R S D V A H G R I N N I D T S A A E A M P G V V R I F T G K
UniRef90_I9X0Z6      P A G M V H V A L R R S D Q P H A K I L N I D I G D A F S V P G V I A I Y D A E
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UniRef90_UPI0003B38639 L P D M I Y A G V L R S P F P S A S V K S I D S S R A E R I P G V R A V
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UniRef90_UPI00034943D3 L P Q Q A Y A V F V R S P H A H A T I Q S V N T D A A K S M P G V I A V F T G A
UniRef90_H3F0A9      I H E L K H A A L V L S T E A H A R I D P S S A L A V E G V L A Y V D A K
UniRef90_N9VGZ4      M L G M R H A K Y V R S T L A H G R V T A I D C T E A L A L Q G V E A V F T W Q
UniRef90_UPI000347AA6D P P G T L H V A F L R S P M A H A R L T R V D A S R A R G L P G V A A V F T G A
UniRef90_M7R6J7      M P N L A Y A Y G V Y S T I A N G R V V A I D D K Q A R T M P G V V A V L H H G
UniRef90_I0K956      V P D L L Y G Y V V S A G I T K G T I R R I D T G A A L S L S G V V Q V F T H E
UniRef90_G3WL03      L S N E L C L R L V T S T K A H A K I K S I D T S E A Q K V P G F V C F L S A D
UniRef90_A3VVZ0      A P G M L T G R I L R S P H A H A R I V K I D T S A A L A R P G V K A V V T R A
UniRef90_I3TJS6      L A R Q T Y A Y I I R S P H A H A K I L N I D P S A A L A P G V V A V F T G K
UniRef90_Q6AK66      L P G M L H V A F V R S P H A H A K I V S I D V S A A K E M I G V R A I M T H K
UniRef90_U5HG17      I A N E A Y V G L V L S Q R A H A K I V S I D A S D A L E Q G V G F V D H N
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                              90        100       110       120
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UniRef90_X0RFC6         D       T P F T Y G V T H M D Q K P L H M N K V R H V G D P V A A V A A V D
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UniRef90_Q11MB1         C G W M I H S K D G S P M K M G A W S P L A T D K V R Y V G D A V A L V V A E T
UniRef90_D8WWW3         D I P Q V G F G A E R D F S P E W G D Q R Q L S K V R Y V G D E I A A V A A V D
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UniRef90_B1IEA2         Y F P Q L V G S T I V D R P P     I A I D K V R Y N G E P V A V V A A D S
UniRef90_G9PWM8         D F P E G H N L G N P E A F K E D K E P L C R K K V R M I G D E V A A V C A V T
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UniRef90_A0A038GB95     N F P T L H R T P N T K L S D E H R L P F E D D K V Y Y P G Q F V A L V V A E S
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UniRef90_H2L352         D I P G K K V R L M F G Y Q E E V L S     D D E V S C I G Q M V C A V V A D S
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UniRef90_R6JZ77               F D M P R T R S W A G Y M Y L T D T I R Y S G D C V A M V A A Q S
UniRef90_E5Y966         D V P G F L F P T A G H P Y S M D P S H G L T K H V R Y Y G D E V A V V V A R D
UniRef90_UPI0004661719  Y       F P V L S G S V I E D R P P I A R D R V R Y F G E P V A V V I A N S
UniRef90_M2VDA6         D V P R K R F T H T D H L V D P D D T Y I L D D I V R F V G Q R V A V V L A D T
UniRef90_UPI000372AEB1  L A K H F N P L P N F G D P R V V Q Y P L A V D K V R Y V G E G V A V V A E D
UniRef90_F4CUA8         D P L T L R T P S T P I L   G D T W V P L Q D R S V T H H G Q P V A F V V A E T
UniRef90_X4ZG22         E L P C L P V V F P N P N L I S V T Q R P L D R T V H H V G E P V A M V I A T S
UniRef90_Q5QL46         M V A S L S R P F P V G V T A P V K Y S A V D K V R F V G E P V A V V V A K N
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UniRef90_Q46V82         D T P T R     L W G P H R K E Q R I L A V G V V L H V G E E V A A V A V S
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UniRef90_A0A017S5U6     D L P N P E A N W W G A P V S D E Q F   F A V D K V T T A G Q P I G M I L A S S
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UniRef90_K6VCI1         D S L N A W Q I T P D M K A P A A P S L A V D T V Q F S G E A V A M V I A R T
UniRef90_Q07LN6         D V P       F Q K P I G V A K D H L P L K R G K V L S L R D E I A A V A A D T
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UniRef90_H3F0A9         D I P P G G K L R P S L M V Q D D T P V F A D G V E M I G Q P I G C I V A D D
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UniRef90_UPI000347AA6D  D V A P C A W P V T E D M V T P P H P P M A V D E V R Y A G E A V A C V V A R D
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UniRef90_I0K956         N R P H A T W F D M N A P P G S P F R P L L T D H T V I K Y S G Q F V A L V V A S
UniRef90_G3WL03         D I P G S N     E T G L A N D T V F A K H T V T C V G H I I G A V V T D T
UniRef90_A3VVZ0         D F G D V P     E H V A D V M D N C L A G A K A L Y D G H A V A A I A A N S
UniRef90_I3TJS6         D M A A D G I G G L P C G W E P P H A P L V P D R V R H V G D A V A V I A T S
UniRef90_Q6AK66         N P K N L F N A A A P M F L T A P H Y L F D I V R Y V G Q E V A A V I A D S
UniRef90_U5HG17         D L P N E R A N W W G S A A I D E T F   F A T D E V I S H G Q I I G A V V A K T
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                                          130                 140
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UniRef90_R5T8N9         E E T A K Q A L K L I R V E Y E E L P A V
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UniRef90_Q11MB1         R G Q A R D A A E A V A V D Y D E L P A V
UniRef90_D8WWW3         E D T A R E A L E L I K V D F E E L P A V
UniRef90_U5W6Z5         R Y A A R D A L E L I D V E Y E V L D P V
UniRef90_F4CY80         R Y I A E D A C A A I R V E Y E V L P A V
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UniRef90_D6Y5M4         R Y K A A D A L E A I E V D Y E P L E P V
UniRef90_M5AR36         D A I A H D A L E L I D V E Y E P L E A I
UniRef90_I0KFJ2         R A I A T D A A E S V I V E W D E L P A V
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UniRef90_F8I3D1         S D A A D Y A A Q A V D I E Y E L P A V
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UniRef90_G9PWM8         E D I A A E A A A L V K V E Y E P L P V V
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UniRef90_A0A017S5U6     A K A A E D A S R V I K V E Y E D L P A V
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UniRef90_Q07LN6         E E I A A A A L K L I K V D Y Q P L P V V
UniRef90_UPI000402A945 H E H A R N A A E A V N V D Y E P L G A V
UniRef90_UPI0003B38639 Q E I V D L A L Q K I S V D Y E I L P A V
UniRef90_F2J2L0         R A A A E D G A A L V E V G Y E P L A V V
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UniRef90_K0HWH9         Q Q Q A R D A A E L V E V D Y D V L P A V
UniRef90_UPI00034943D3 V K E A K D A A E T I E V E Y D M L P A V
UniRef90_H3F0A9         V E T A R R A A Q L V N V E Y E K L P A I
UniRef90_N9VGZ4         P L T A E K G A A L V R V T Y E P L P V
UniRef90_UPI000347AA6D P E S A A D A L E E I D V D Y E P L P A V
UniRef90_M7R6J7         F E E A R A A A L R V K V T Y E Q T P A I
UniRef90_I0K956         F E L A R Y A A S L I E V T Y D E
UniRef90_G3WL03         P E H A Q R A A Q A V K I T Y E E L P A I
UniRef90_A3VVZ0         V A V A R K A L K L I E V E Y E V L P H V
UniRef90_I3TJS6         K E L A K D A A E D V A I D Y E E L P A V
UniRef90_Q6AK66         E A I A A Q A I K L I R V E Y E D L P V I
UniRef90_U5HG17         K L I A A K A A R L V K I E Y E D L P V I
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                              1              10                   20                   30                   40
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UniRef90_UPI000303021B               G V G Q A V R R V E D A R F V T G T G R Y T S D I A
UniRef90_D8GL58            D Y N Y V G K G I   P R I D G V E K V T G E A Q V Q D L S
UniRef90_I4CEG3            K E A D L T V V G Q S L N R T D D P L K V T G K L M F G A D Y S
UniRef90_S4R9U7                    A V G R P V P H V A A A L H T S G E A E Y C D D L P
UniRef90_D5RQL7                    G I G A S V R R K E D L R F L S G R G Q Y T D D M N
UniRef90_UPI000361D089   T E H A N T V E K S R Y K Y L G A D R K R V E D P R L L V G R G G Y I A D L K
UniRef90_A4J4N1              K D Y A V G K S V R R L D A M E K A M G K A T F T T D I K
UniRef90_UPI000441C4CA   V D P Q Q P P Q D P     V G R P I Q H E S G I K H A T G E A V Y V D D I P
UniRef90_K9DZ20          T T S P R S L E R Q A P A P F V G R S L Q R I E D V S L L T G R G Q F G D D V G
UniRef90_UPI000415C2CB            G I G Q P V S R M E D P V L L T G E G R Y T D D V S
UniRef90_Q0S623                   R M L R K E D P R F I R G L G N Y V D D I T
UniRef90_F6W0Y5                    V G R A V P H H S S Q V Q V T G E A R Y T D D I P
UniRef90_UPI00047296E1   T Q D V Q G A T S T P T P R Y A G T R V Q R V E D G R L L T G H G T F V D D I S
UniRef90_W6RGP3                   G I G A R V A R K E D F R F I T G K G R Y T D D M V
UniRef90_M7T5K7                   V G K P A N H V A A L K Q T T G E A Q Y T D D I P
UniRef90_UPI000472B398          M N T V G K S L P R G D A Y Q K V S G E A L Y V D D I K
UniRef90_UPI0003B6F066          M A Y I G Q A V K R K E D Y R F L T G R G T Y T D D L V K
UniRef90_G5HDS9               S E Y R H I G K V R R Q D G R A I V T G K A V Y C D D I K
UniRef90_R5WNF6                    V G K S I P R V D A Y E K V T G R A K F T D D L I
UniRef90_A0A059MIZ9              I G Q S R R R K E D E H L V T G R T R W T D N L V
UniRef90_C5EG57               M N I V G Q Q V K R V D A Y G K V T G E A K Y T A D L E
UniRef90_UPI000462B96D           V G R P I M H E S G I K H T T G E A V Y V D D I P
UniRef90_A5EDJ2            E D V A A G E A F G R S L P A P A G P D V V R G K A R Y T F D T A
UniRef90_A7HXD5                  G I G Q P V R R K E D F R F I T G N G H Y T D D I S
UniRef90_H6RKH6          I T P A P A A T G A K R K Y I G R S M K R V E D P R L L T G R G G F I A D Q K
UniRef90_W4LNQ9                  Y I G A A I R R K E D R R F L T G T G Q F V D D V K
UniRef90_G0RLA0          T D P H S A A A Y E K E V T G K S N P H V A A L K Q T T G E A Q Y T D D I P
UniRef90_UPI0004655FE9   T P T P T T P V R     N A V G A R V P R L E D A R L V A G A G T F V D D V T
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UniRef90_L9KIC7                    M H Q S A I K H T T G E A V Y C D D I P
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UniRef90_K0AZ79             E E I E K F E S V R K S I N K I D G I N L V T G K P V Y T S D L A
UniRef90_G3HUL2          V D P S Q P Q Q D P     V G H P V M H Q S A I K H A T G E A K Y V D D R P
UniRef90_U4LJ82                 K Q K I L G H S K E H V S A M K Q V T G E A I Y T D D I P
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UniRef90_R7VU46                    V G R P I M H Q S G I K H A T G E A V Y V A D L P
UniRef90_UPI0003653960       E R P P L G A V G D P V P H E S A D L H V T G H A L Y T D D L R
UniRef90_T0MJD6           V G E D E K A N F N V I G K S V P M R D A V E K I T G K A K Y T S D I D
UniRef90_A9E3T9              P K D L E P T R G I G A S S K R R E D I R F L T G S G R Y T D D I N
UniRef90_UPI0004446714   V D P K Q P P Q D P     V G H P M M H Q S G L K H A T G E A V Y V D D M P
UniRef90_B3E0E2               L S L L G Q P L T D E S A L A H V S G R A R Y T D D Y A
UniRef90_L9PBC6          T Q P A T P A V P M A W A E V G Q S H P H E S A V L H V L G E A T Y T D D I P
UniRef90_UPI00037285CD     T E E P G A G R A V G R N L G A P A G P Q V V T G T A R Y T F D L D
UniRef90_J3C1V4            P A G N N P I D Q L K V V G Q P L N R I D G P L K T S G L A P Y A Y E W H
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UniRef90_UPI0003B2F5B3   T T T P R L V E A T S N T S Y I G K P T S R V E G P A K V T G T A K Y S A E F N
UniRef90_D3F2M1          T R I E T W H S P A A R E K S V G Q S V P R K E D G R L L K G Q G E F A D D I W
UniRef90_B6IVW2            P L L R P R R H G V G R P L A R I D G P L K V A G Q A P F A A E I P
UniRef90_G7UVU9          T P A T T N P I D Q L R V V G K P H D R I D G P L K T T G T A P Y A Y E R H
UniRef90_T1PDW6                 V G R P K V H A S A F K Q V T G E A V Y C D D V P
UniRef90_S6GXX3          T P A T T N P I D Q L K V I G K P T P R I D G P L K T C G R A P Y A Y E Q H
UniRef90_L0DRA1             P E N P R L I N T R I P R L D G M A K A S G K A K Y P S D I A
UniRef90_UPI00041FEC92         M N I I G K S V I R K E A P D K V T G K A R Y T D D F S
UniRef90_R4KBA1          S M E D L S F K I P E D G R I F G T A Y P R P T A L A K V T G T C D Y G A D L G
UniRef90_D6M343               G V G A S T L R P D G I L K V T G E F A Y A S D M W
UniRef90_K2SI30               P H E Q R V V G K Q V P H L S A L K Q C T G E A Q Y V D D I E
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UniRef90_UPI0003F0D7F3      S K A D P V G R P I M N E S S L Q L T G E A I F L D D I K
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UniRef90_R4T2F5                   R V D G P L K V T G R A E Y G A D H A
UniRef90_G7LZD3                  V G E K T C R V D A K G K T I G T A K Y V D D Y N
UniRef90_A0A023XMA0      T A P L T S L D R P N   S Y I G R S V P R P N A K R L L A G R G R Y V S D F R
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UniRef90_W4M2I7              E Y A V V G A S P P R R G L A D K I R G E A L Y T A D L K
UniRef90_R9ME28                N Y V G K P V V K K D A M A L V T G Q P V Y T D D I A
UniRef90_L9PAX8          T T P A T T N P I D Q L K I I G K P V D R I D G P L K T T G A A I Y A Y E Q H
UniRef90_G6A1G0                R T T A I H T P L A H E S A A L H V T G R A A Y V D D M A
UniRef90_R5IFU6                   L G S S V H R I D V E E K V L G Y G K Y P D D W Y
UniRef90_V6L155          T R T P T S L S Q G S R T R G I G E S T L R P D G T L K V N G E F A Y S S D M W
UniRef90_UPI00038EDBB4           V G R P V M H L S G L K H A T G E A V F C D D L P
UniRef90_A0A016U2A0              V G R P I P H A S G E K H V T G E A I Y C N D I Q
UniRef90_A0A037ZJ63         P K D S G I G A S S K R R E D V R F L T G N G N Y T D D I N
UniRef90_B0P5P6                 G V G S R A I R V D A C E K V T G K A K Y T D D L R
UniRef90_C7Z881                R T V G R P V P H L S A L H C T G E A E Y V D D M P
UniRef90_R5XKH1               M K Y V N Q A V P K V D A K A L V T G K G V Y V N D I A
UniRef90_A0A011AYI0             L G K D T V R K E A Q D K V T G A A Q Y T N D I T
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UniRef90_K4D9K2               K Q G N S V G S P E A H L S S R L Q V S G E A E Y L D D S T
UniRef90_A4EFR9           A Q A K R N F K V V G T R V T R P D G I D K V T G K A A Y G A D I A
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UniRef90_UPI0003D78D45   V D P A Q L P Q D P   I G R P I M H L S G I K H A T G E A I Y C D D M P
UniRef90_UPI000463FBF3          S Y I G K T V P R P N L D R L L Q G R G T Y V S D I E
UniRef90_D9V8T7              G K W I G A S V R R R E D P R L V T G R G R F V D D I H
UniRef90_UPI0002F4E796          K V I G T G V N R D G R A K V M G T A T Y A A E H Q
UniRef90_UPI000179743E          V G R P I M H L S G L K H A T G E A I F C D D I P
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UniRef90_UPI000303021B    A E G M A H A V V V R S P Y A H A R F A I E N V A E V R A M P G V L A V Y T A Q
UniRef90_D8GL58           F K G M L Y A K V K T S P Y A H A L I K S I N T S K A K E L P G V K A V L
UniRef90_I4CEG3           Q V G F L H G K I L R S P Y P H A L I K S I D T A K A L E G V V A V L T A K
UniRef90_S4R9U7           L E N E L Y M A L V T S S R P H A A I T A I D A K E A L G L P G V E A F I G A R
UniRef90_D5RQL7           R P G Q L H A W I L R S P H A H A R I D G I D T A A A A A M P G V A A V Y T A R
UniRef90_UPI000361D089    L P G M L H A A I L R S P V P H A R I R S V D A T E A L K L P G V V A V V T G E
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UniRef90_UPI000441C4CA    A D G Q L Y M A V V T S T R A H A K I L A I D I S E A L K E P G V V D V V T A K
UniRef90_K9DZ20           V P G T L H A A I V R A P H A H A L I N G I D S T R A E Q A P G V R A V L T G D
UniRef90_UPI000415C2CB    L P G Q A Y A A F V R S P H A H G V I A G I D T D M A R A M P G V L A V Y T A A
UniRef90_Q0S623           L P G M L H L A I L R S P V A H A R I V N I D T T A A Q E H P K V T A V V T G A
UniRef90_F6W0Y5           P A D E L H M W L V T S Q R C H A H I R D V D I K E A M T S P G F V T Y V D H R
UniRef90_UPI00047296E1    R P G M R H A C F L R S P F A R A R I N G I D A S A A L Q L P G V H A V F T A A
UniRef90_W6RGP3           V P G M K F A Y F I R S P Y A H A K I G G I D A A S A K A M P G V I D V L D G K
UniRef90_M7T5K7           L K N E L H A C L V L S T R A H A K I K S I D Y S A T L E V P G V D V V D R N
UniRef90_UPI000472B398    M H G M L A G K V L R S P Y P H A L I R D I K V E R A K K L N G V I D V I T Y N
UniRef90_UPI0003B6F066    L P G M V H A A F V R S P Y A H A R I R A V R T E A A L K A P G V L A V L T G E
UniRef90_G5HDS9           I I P N V L Y M K V L R C P Y P H A E I V S I D T S K A E A M P G V K S V M T Y K
UniRef90_R5WNF6           L D R A L V A K V L H S T I G N G I V T S I D T S E A E A L P G V K V V T F K
UniRef90_A0A059MIZ9       L P G M L H M A I L R S P F A H A R I T S I D T S E A R Q R P G V V A V L T G A
UniRef90_C5EG57           P R D I L H G R V V H S T I A N G R V K S F D L T E A Y K V P G V V K I V T C F
UniRef90_UPI000462B96D    A D G Q L Y M A V V T S T R A H A K I L S I D V S K A L E E P G V V A V V S A H
UniRef90_A5EDJ2           I E G L L H V K L A R S P H A H A R I T G I D K A A A L A V P G V H T V L T H E
UniRef90_A7HXD5           R P R Q T W A Y F L R S P H A H A R I R A I D T A Q A E Q A P G V V A I F T G K
UniRef90_H6RKH6           I P G L L H A A I F R S P V A H G R I V S I D A S A A L A I P G V V A V V T G E
UniRef90_W4LNQ9           L P H M V Y A A V V R S P H P H A N I L T I D A S A A Q Q M D G V I A V F T Y R
UniRef90_G0RLA0           P R N E L Y G C W V L S T R A H A K I K S I D Y S A A L D M P G V V D Y V D R Q
UniRef90_UPI0004655FE9    R P G M V H A C F V R S P L A R A R I G E I D V S G A L E L D G V L A V Y T A A
UniRef90_H1RS91           L P G L L Y A R T K R S N V A H A R I V K I D T S R A L A L P G V K A V L T H E
UniRef90_L9KIC7           P D Q E L F L A V V T S S R A H A K I I S I D A S E A L A F P G V V D V I T A E
UniRef90_UPI0004675F68    R R D T A Y A A F L R S P H A H A E I R S I D A E K A K A H P G V Y A V L T G Q
UniRef90_K0AZ79           P K D C L V V K I L R S P H A F A K I K N I N T S I A M K V P G V E C V L T W K
UniRef90_G3HUL2           P M D Q L A L V V V T S T R A H A K I T S L D V S E A L E C P G V D V I T A E
UniRef90_U4LJ82           R A N E L V G C L V L S T K A H A K I L S V D S S P A M E I P G V V A Y V D H N
UniRef90_UPI000361BEF3    R A G M L H I A F V R S T V A R G R I L G V D T S E A L A I D G V K A I Y L A A
UniRef90_R7VU46           V D G E L F L A V V T S S R A H A K I V S I D T S E A L K G P G V F D I I T A H
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UniRef90_B3E0E2           F N Q L L H A W P V L S P H A H A R I N G I S V E N A L R I P G V S Y V L T A K
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UniRef90_J3C1V4           R P D A A Y G V V V G A P I A K G K I T S I D V Q A A Q N A P G V L A V V T A K
UniRef90_UPI0004636616    P P G T L H A A I L R S P H A D I V S V D A E A A R R A P G V A A V L T G E
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UniRef90_UPI0003B2F5B3    V P G L L Y G Y V V T S P I T K G R I T K I N S A P V L A L E G V V Q I F S H E
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UniRef90_B6IVW2           M A G M L H A A L V C S T V A R G R I A A L D T G A A E A A P G V V A V M T H R
UniRef90_G7UVU9           V P G Q V Y G F V V G A G I A K G R I R S M D L A A A K A A P G V L E I V T A A
UniRef90_T1PDW6           R E N E L Y L A L V L S T K A H A K I L N I D V S E A L A M P G V H A F F S S K
UniRef90_S6GXX3           V P N Q A Y G Y V V T S A I A K G R I A S I D L E D A N A A S G V L G I V T A G
UniRef90_L0DRA1           P Q G M L F G T I L Y S P Y A N A T I V S I D T S A A E K L P G V K A V H V I
UniRef90_UPI00041FEC92    S A G I Y H A R L V T S P F A H A L I K S I D T R E A E K V S G V R A I L T G E
UniRef90_R4KBA1           L K D T L H L A I A Q A K V S H A N I I S I D T S E A E Q M P G V Y R V L T H Q
UniRef90_D6M343           H E D M L W G Y T L R S P H A H A E I R S I D T A E A L A T P G V H A V L T Y D
UniRef90_K2SI30           R Q D E L F G A L V M S S K A H A K L V E V D W T A A L S M P G V V G Y I D K D
UniRef90_UPI00038C0B6A    P D Q E L F L A V V T S T R A H A K I T S L D A S E A L A C P G V V D V I T A E
UniRef90_E6N7Z6           L P R M A Y V S F L R S P Y P H A L I K S L D V S R A A K A E G V L G V F T G A
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UniRef90_T1PDW6          Q A L A Q R A A R K V K V D Y E D I  P A I
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UniRef90_G7LZD3          K E E A I  A A V K A V E I  E Y E E L K P V
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UniRef90_W4M2I7          E V L A E D A L R L I  Q V D Y E V L P A V
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UniRef90_Q2IVG0        R P N Q L Y A V V L R S S V A H G I V D V S A A L A L D G V H R V L T A A
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UniRef90_D8EXM2        P E N A L E L A A V H S T E F H A V I K N I D A T E A K K M P G V V G V M T A A
UniRef90_W9GW73        R H N Q T H A Y I L R S P Y A H A R I N G I D T S A A L A A P G V A I F T G Q
UniRef90_D1PPS1        P R D C L V V K V L R S P H A H A R I R S I N T A V A M K V P G M V A I Y T W Q
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UniRef90_C5FUL2        V K N E L F G C L V L S N K A R A K I I S V D F T P A L D I P G V V D F V S A K
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UniRef90_R9MD45          D I P G E N K I G H L K     H D Q Y T M I P V G G L T H Y L G D A V A L V A A E D
UniRef90_W0K5E7          D V A D S D I P N N I Q T G W P P Q R I M A T D T V R Y Q G E P V A V V V G D T
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UniRef90_D8RLG8          S P N T L H A A F V C S Q K A Y A K I K D I S V S A A M A S P G A V S F M S V K
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UniRef90_I2Q2K8          P D D T L H L A L V Q A T V H H A M I R G V D T A E A E K M P G V V Y R V L T A R
UniRef90_D0D699          P E G A L H A Y M F R S P V A H A V I G T L D V S A A R D A E G V A L V L T V D
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UniRef90_UPI000416D72F   S H Q D D Y E R T F F D T T S         F T D L V A I V G N S
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UniRef90_M0MPM9          D L D V P G E V P T G W L L D P A H P L L A G E T A R Y Q G D G I A V A V A E E
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UniRef90_UPI000365F8B8   G L T A S K A L K K I K V T Y E E Y P A I
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UniRef90_L7FA92          L E A A Q H G A S L V K V R Y D
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UniRef90_UPI00036A2B6B   L D Q A E H A A T L L R I G Y
UniRef90_F7S7W2          P A I A R A A L D L V R V D Y E A L P F V
UniRef90_D2Z8Q3          R L L L E R A L S C L R P I I E P
UniRef90_UPI0003756D9E   R E S L D E V L G L I E L D A E E L Q P V
UniRef90_UPI000288CE1E   L E Q A Q A A A H A I R T G Y E A A P H V
UniRef90_A0A037ZHI7      H L A A R K A A R L G V I A Y E A A P A I
UniRef90_UPI0003FF4FF9   W W Q A H S A L S A L P I V W D E G P
UniRef90_I9CS51          V A A A E A G C R A L R V T Y A L R P A L
UniRef90_L0KUR8          F E A A E Q A A L L I R A D Y A E
UniRef90_G0LKQ1          R Y I V E D L I D L I D V E Y E I K E P V
UniRef90_UPI0003717916   R A L L P A A V A G V H I T Y E E L P A I
UniRef90_A1VL23          V M Q A R R A A R Q V K C Q I D A L P A I
UniRef90_B7GAV1          L E A A E F A A R T V H V T
UniRef90_D8U4V3          E A A A R A G A R V V E V G Y E D L P A V
UniRef90_A0YDE3          Y W Q A K T A A E K L D P T W D D
UniRef90_UPI0003796F4D   F E Q A Q H A A R L V K F E Y D P N P A I
UniRef90_I4KTH2          R A E A E D L V E Q V M V D Y E D L P V
UniRef90_R6K2H0          E N C V D K A I K L I K A E Y E V L E P V
UniRef90_X0N204          L E A A R L G A A A V E V E L D E R P S L
UniRef90_M4EZT2          Q K H A D R A A K L A V A E Y D V
UniRef90_A3DLF9          Y E N A L E A A D L V R V E Y E P L E V I
UniRef90_UPI0004795986   L D H A R A A A D L V R V D Y E V R A A I
UniRef90_K4A4Z2          Q R Y A Y M A A K Q A V V E Y
UniRef90_O44233          E I V A K K A R D L V S I T Y E R L Q P V
UniRef90_N0CJZ9          P E A A R T G A G R L L V E Y E
UniRef90_U5G4F3          Q K H A D I A S N L V E V D Y D
UniRef90_K4RFV6          M E Q A R S A A A L R V T Y H E E P
UniRef90_S5VZG0          R Y A A A D A L E A I E V D Y D P L P P V
UniRef90_B1LZF2          F E Q A R A A A M L V K V R Y D
UniRef90_UPI0003730696   E A L A A Y A L T Q I E V D Y E P L P V V
UniRef90_U1SMJ2          E E Q A I R A A Q Q L R I E W K P
UniRef90_G9ZYV9          W W R A K T A L D A L P I T W D E G P
UniRef90_B0UMF9          F E L A R Y G A S L I R V T Y E E V P
UniRef90_G2NZN1          L E S A R E G A A A V R V S Y E R E P
UniRef90_F4GMR7          H D A A R R A A R L A V V Q Y E D L P A I
UniRef90_B2THL7          K E T L D E V I N L I E V D Y T E L Q A V
UniRef90_B2U6U2          Y W Q A R Q A L A T L E P V W D N G P
UniRef90_UPI0003B40FD0   F E R A T H A A S L V R V Q Y A V
UniRef90_UPI0003B7B6C6   R Y L A E D A A E R V L V S Y D V L P P V
UniRef90_G9AJG2          A A E A A D G A E K V F V D W E E L P Y V
UniRef90_UPI0003464AA4   E R I A D R A L D L V R V E Y E P L P A V
UniRef90_UPI000418F4E9   F E Q A Q Y A A R L V K F E Y K E D P
UniRef90_UPI00047B5CB7   P E T A R R A L G K I A V G F E V L E P I
UniRef90_E1JYE0          E K I A R E A A E L V K V D L E V L P A
UniRef90_G4SXT0          E H E A R H A A A R I K V D Y R E L P A V
UniRef90_UPI00035F462F   A A E A R D A V D L I D V D Y E D L P V V
UniRef90_E8TDE7          E K Q A R A A L A A I V L E I E L A P V
UniRef90_C5CYT8          R A V A E D L L E E V Q V S Y D E L P V
UniRef90_Q2CHD6          F E Q A R H A A Q R L E V A I E D L P I
UniRef90_V5B1Z8          Y Q A A C L A V D K I K L T Y S P C E P I
UniRef90_A2E0I9          E K L A M K G A R L V K V T Y E Q K P I V
UniRef90_I2GFP4          L E H A Q H A A A L L K V V V A E T P V V
UniRef90_UPI00035CBA77   R Y I A E D A A D A V R I D Y E P L D P V
UniRef90_W1NDI8          Q K H A K R A A D Q V K V Y Y D
UniRef90_UPI000288FDBB   W W Q A K Q A A D A L D I T F T Q T P A
UniRef90_G6CWT9          E S A A K K G K D L I K V T Y E K L D P L
UniRef90_C3ZSV2          Q P H A D A M A K T V K V T Y T D L P P I
UniRef90_J2LZH0          W W R A K T A L D A L P I E W D N G P
UniRef90_UPI00036B7AF6   L E Q A R D A A E Q I
UniRef90_L0MIV0          E E T A W R A A Q A I V I D Y Q D L P A
UniRef90_UPI00028A0AFE   F E A A R D A A Q Q V V V K F D
UniRef90_UPI00035D4068   H E K A R H A A T L V K A T Y
UniRef90_B9C914
UniRef90_C7PZS9          P E T A R R A L K L I Q V D Y E V Q E P I
UniRef90_T0YNS8
UniRef90_A0B2Q1          T W A A K R G A S A L V V K W N E
UniRef90_W1P5D4          W R C A K I G A D Q V K V H Y D
UniRef90_F3GHY4          S E Q A R A A S A L L R I Y Y A R E P
UniRef90_K5YYT1          F E M A R A A A L L I R P D Y E A Q P
UniRef90_UPI000463FB65   R Y L A E D A L E L I D V E Y Q P L G A I
UniRef90_X7E828          E E N A I R A M K E L K V H W K P H P
UniRef90_R5HAK0          E K A A L K A M K L I K V Y K I L E P V
UniRef90_Q7G193          Q K H A D I A A N L V V I D Y D
UniRef90_H8L4K8          W W N A K Q A A E A L Q V D W Q E
UniRef90_C0SGR3          A L K A Q A A A A K A V K V V Y E D L P A I
UniRef90_W7IPN0          L E Q A R E A V G L V R L D Y A P L S A
UniRef90_UPI000225F7E9   W W R A R M A V E A L Q V T W T E P A
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Multiple sequence alignment (positions 1–40)

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                          1         10        20        30        40
UniRef90_UPI0003F94649    A D D M P V K A V G S Y S I V G Q S V P R V D L P A K A T G E L V Y V H D V R
UniRef90_H1Y7Y9                             M K N I D S R T H T R G E S I Y L D D I P
UniRef90_H2IJT9           V E S G Q T I L P E S Q Q V V G K S Y K H E S A D K Q V S G E A L Y V D D Y A
UniRef90_Q7Q5T1                             K N I P K I E G L L Q T S G E A K Y A N D L P
UniRef90_J0KV26              R A M G Y S H I H E S A R A Q V A G A A H Y I D D Q P
UniRef90_C5X3L7           D D Y K P V G E P V R K Y G V E L Q A S G E A V Y V D D I P
UniRef90_UPI000378E39B                V V G Q R L S R V D A R R K V T G A A T Y S A E H R
UniRef90_W9H0C4                                D K V G G G T R Y A F D A A
UniRef90_UPI0003690EB4              S I I G R A V P R I D G P L K T S G T A K Y S S D H N
UniRef90_F7QGW4                        G Q S V K R L E D Q R L L T G Q G H F V D D K P
UniRef90_V8QTN9           E T L K L K P A D A F R Y I G K G E T H L D G A Q V T G R A Q Y G Q D V R
UniRef90_F7DW62                       I G R P I M H Y S G I K H A T G E A V Y C D D M P
UniRef90_I5AZW0           P E E L T P L P T D P K L G V S H S R P S A M I K A C G T A A F T S D I I
UniRef90_T1VMA5              T E T A K T G G A Q G R S I A A P A S A R I V T G T E Q Y T M D F K
UniRef90_UPI000466A6B2       V P L K D P K D F V Y I G Q P L K R F D T P E K V N G K A V Y G I D A M
UniRef90_R7MV37                  E Y K V I N H T V A K K D S Q A L V T G Q P V Y T D D L R
UniRef90_K2PTR6           E V E L K S Y D E F K I I G N S T R N V D G L K L V T G K P L F G I D Q Y
UniRef90_UPI00037A08A3          P Q T T P W I G A A A A R V D G P V K V T G T A I Y T G D V A
UniRef90_UPI00039A5CD8                         R L D A P L K V T G G A K V G V D H N
UniRef90_UPI0002E3E8C7      V A T K P A S Q Y K T I G K S I P R V D I P A K A T G Q L V F V H D V R
UniRef90_F0RUM2                          R Y Q R V D A K I K A L G K G L Y A D D L R
UniRef90_M4IJB6                       I P R V D A R D K V L G R A Q Y G A D A K
UniRef90_UPI00035DC349    A Q P T S L K D P A N F K V M G Q P V P R V D I P A K V T G G A A Y V Q D M R
UniRef90_R4LNS0                      R S V G R P V G R I E P D K V S G A A R Y A A E Y P
UniRef90_UPI0004767BDF                G M G A A I R R K E D P A L I V G R G H F T D D Y T
UniRef90_D5QF25           E S V T L R K S G Q F R W I G A S V P R V D V H D K S T G K V V Y T I D V S
UniRef90_UPI0003B6D95D    D T P P L K P Q S E W R L L G R A L P R K D M L G K V T G T A Q F T A D I R
UniRef90_D9UQB2                      G L G T S L P P A E L R T K T E G T F P Y A A D L W
UniRef90_T3GYW5                       V N K E V R K I D S E A L V T G K P I Y T E D I F
UniRef90_K2JU59              V Q L K D P K D W T V I G Q P L K R L D T A E K V T G K Q V Y G A D L K
UniRef90_W9GYU6           T A R P T A L K P V A D Y T V I G Q G V R R I D I P A K V T G G P A Y V Q D L R
UniRef90_F2U7X3                        V S Q P L P K V S A F M Q T G E A Q Y T D D F I
UniRef90_A0PLE5                        G R S I G A P A A L R V V T G T E P Y T T D H A
UniRef90_E1QU23                          R E G L R A V T G S G E Y I D D I P
UniRef90_R1FXR6                E P R A I G T P T T R R D G P A K V T G T A P Y A F E A P
UniRef90_Q16T48                          K N I P K I E G L S Q T S G Q A K Y V E D L P
UniRef90_UPI000469BCD6            V I G T G A P R V D G P A K V T G Q A K Y A A E I G
UniRef90_M1A957              E S S T E Y Y P V G E P M K K V G A A M Q A A G E A V Y V D D I P
UniRef90_UPI0003ACE0FE             A V G R A H K R V E G R L K V T G R A T Y A A D H G
UniRef90_UPI0004770E83        V R L K E P R E F R L I G R P L A R L D S R A K V D G S A R F G I D A R
UniRef90_J4PHP8           Q P V R L K P A E D Y R I V G Q G V A R V D I P A K A A G E L S F V H D V R
UniRef90_A0A024TZC4                 V G Q S I P K L S A K L L A T G E A K Y V G D L P
UniRef90_I0YKB8                      G L P L M K E R A L L Q A S G E A K Y T G D M P
UniRef90_V4RHT4                   G I G Q S V T R L E D P A L I T G R G R F T S D L R
UniRef90_H0TE09             L K D P K D W T L I G K G V K R L D T P D K V T G A M I Y G I D I K
UniRef90_Q976Z4                           K E G F R F V K G E G S Y I D D V E
UniRef90_C6WMP3              E D A P P G A A V G S S L G A P A G P D V V T G R A A F T A D V D
UniRef90_B3E5Q6                     I G T A H P R G D A A A K A A G T E R Y A A D L Y
UniRef90_A5ZR22                    S I V G T N Y I R P S A A Q K V T G T W D F G A D D A
UniRef90_UPI00038160AC    T D A P L K P P H A Y R V V G K S V P R V D I P A K A T G E L S F V H D V R
UniRef90_X1KZ76             V S L K A P S E F T I V N K P V S R A D A Q E K V T G K A M F S G D I R
UniRef90_F5RGQ6             L K D P K Q F N L I G R S A P R V D S V A K T T G R A T F T Q D V K
UniRef90_UPI0002D646F5                   Q P V K R V E D V R F L T G Q G N Y V E D A A
UniRef90_W6TY47             L K K I S E Y K L I R K P L H R Q D T P L K T N G T A I F G L D K K
UniRef90_UPI0003F9A7AB       P K L K D N K D F K L I G K D T Q R Q D I P L K V A G K A T F G I D V E
UniRef90_H0HPV0            S S V K Q P G T F R V M G K P M P R V D I P A K V T G G V A Y V H D L R
UniRef90_W1JNT4           E K V T L K R P E D F Q L I G T S A K R L D A P G K V N G T A R Y G I D Q P
UniRef90_UPI0003F79E2D              T P R T S A L G A D L E R I D G H A K V T G T A P Y A W E H P
UniRef90_UPI000372143D               I G S R S R R F D A P E K A L G R E R F A S D E Y
UniRef90_C7PF93             V P L R D A K D W K Y I G K G V K R L D T P A K I N G T A K F G M D V Q
UniRef90_UPI00047C683E            P E P G P N M G R P E P R I D G R R K V T G E A R Y P S D A P
UniRef90_W0DHT8             L K E P S E F I Y I G K N I P R I D A K E K V D G S A I F G I D V R
UniRef90_UPI000361B91B                  L R R P D G P A K L T G A A R Y T A D Q P
UniRef90_A0A022FN87       E T V T L K D P R D F R L I G K P T G R L D A R A K S S G R Q S F G I D M R
UniRef90_U4V1W7                    V N K P L P H D A A K L H V S G S A R Y I D D L P
UniRef90_A0A022FNV5         L K D P A Q F R Y I G K S T R N I D G R A I A T G R A Q Y G I D V R
UniRef90_UPI00034D33A4             T D T T T H L G A D S A R V E G P A K V T G R A R Y A S E Y P
UniRef90_W4GD23           P S V L P D A D S T A P V G L G I P K L S S K L L A T G E A K Y V A D V P
UniRef90_D2QDT3                      P I D R I D G R M K V T G G A K Y F A D F E
UniRef90_G4D1P8                   N Y K F I G K N I K K F D T T K A V T G E L K Y T G D F Y
UniRef90_UPI000464C9B7                I G R G V R P L D W R D R S L G R V A Y T G D L T
UniRef90_L7U6W1           T Q P K D P S E Y T L V G Q P T G R I D A R D I V T G A A R Y A L D L D
UniRef90_UPI000469A853                K P L P H D A A A L H V T G A A R Y T D D I A
UniRef90_V4UD81              E Y Y P V G G P L T K S G A A L V T G A A S G E A V Y V D D I P
UniRef90_A6F3E5           P S L K P R E E W K Y I G K E R G R L D A E A K S T G A P V Y G I D V R
UniRef90_UPI000369E63D              A V G V A T R H E S A H L H V A G R A P Y A D D L P
UniRef90_W8F1A8                     M N H L D P I R H V R G E S Q Y L D D V P
UniRef90_UPI00041584AA    E E V Q L K E I S E F K L I G K S H R N V D I Q K L I T G K P L F G I D Y K
UniRef90_K2JNQ7                          R V D A F D K V R G T T K Y A A D F Q
UniRef90_UPI000362CF7A                  K A L D R V D G R L K V T G A A K Y S A E Y Q
UniRef90_A9WF02                     I G A E V K R R E D P R L V Q G G Q G T Y V S D L R
UniRef90_G2PJ79           E N P I L K S K S E F K L I G K S H K R G D V I E R I T G K S T Y S L D M Q
UniRef90_D5RTK3             T D A L P R P S R T G M G A S L R Q D S A L R H T T G E A R F T D D L P
UniRef90_B6AZM6              L R P K S E W K Y V G K T M P R V D M M A K A T G T A E Y G I D V R
UniRef90_UPI0004207514                T D T D K I I G S C T E R V D A K G K V T G A L E Y A A D M K
UniRef90_UPI000464143F    D T A P E K P P A E Y T L V G K P V R R L D I P G K V H A R F T F M Q D F D
UniRef90_UPI00037168F3    A E P Q A T K D P R A F T V I G R S F P R V D I P A K V T G G P S V Q D M R
UniRef90_A1K1D5             V T L K D P K N F S L I G R S H V P R K D S V A K T T G T A Q F T Q D V K
UniRef90_G8AXH6                      A D R P R I D A H E K V L G R A L Y A A D Q P
UniRef90_A0Y7L4           E V T L K D P K D W K V V G P K K R L D T L E K L T G K Q V Y G A D M M
UniRef90_UPI00037D9FAF      V Q L K A P K D W K I I G K S Q K R L D T P E K I N G K A V Y G I D I H
UniRef90_H5WQL7           D Q V K L K D P S Q F R Y I G K G Q L R V D G R D I V T G K A T Y G Q D V R
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                                          50              60              70            80
UniRef90_UPI0003F94649  V P G M L H G R V V R P P Y A G V D A G P F V G T S L I A V D E A S V R D I P G
UniRef90_H1Y7Y9         L Q G T L F G A S F G S V A N G V I K K L D L S E A E K A P G V V K I L T Y K
UniRef90_H2IJT9         T P G C L Y A A V V T S T I A K G Q I T Q L D L S E V E C A E G V V K V L T E T
UniRef90_Q7Q5T1         V P N E L Y A A F V L G T E S Q T T I V N I D A S E A L K L P G V V A F Y S A K
UniRef90_J0KV26         I K G T L Y A S P I L S T V A H G R L N G V D A S A A L A L P G V R G V V L A A
UniRef90_C5X3L7         A P N C L Y G E F V Y S T Q P L A Y V K S I K F K S S L A S E K I I S F V S A K
UniRef90_UPI000378E39B  V E G L L Y G V I V N G T V A R G T V S R I S V D A A L G H P G V L H I L T D F
UniRef90_W9H0C4         L P G M R H A K L L R S P H P H A R I L G I D A S H A L A L P G V C V V T G E
UniRef90_UPI0003690EB4  F P N M V Y A V P V C S T I G K G R I R R L D S S A A E V M P G V V R V Y R H G
UniRef90_F7QGW4         Q D G G L W L Y V L R S P H A H A R I K A I D T S A A L A M E G V A A V Y T G A
UniRef90_V8QTN9         L E G M L Y A V V A R P P V F G G K L V K V D D A A A L K V P G V V K V V T I P
UniRef90_F7DW62         V D G E L F L Y F V T S T K A H A K I V S L D F S E A L A Q P G V V D V V T T E
UniRef90_I5AZW0         I P D A V E I A V V R S P H M H A E I E K L D F S R A E K M P G F I G T L T A S
UniRef90_T1VMA5         P I G L L H V A V L G S P H A H A H I T R M D T A A A E A A P G V A A V L T F Q
UniRef90_UPI000466A6B2  L P G M K F A T V A A C P V F G G K V G K V D D I A A R K V P G V H K I V
UniRef90_R7MV37         P K D C L I V K A L R S P H A R A I V K N V N K S A A E K V T G I V C I V T A D
UniRef90_K2PTR6         Q E G M L I A M I V A P P A F G L K L K S Y D D A K A R S M P G V K D I F T I N
UniRef90_UPI00037A08A3  L P E L A H A V L V Q S T I A K G R I T D M D I A A A E T A P G V L A V C T S D
UniRef90_UPI00039A5CD8  F P G M V Y G Y I V V S T I A H G E I E S M D V T A A K S A P G V L G V Y S P F
UniRef90_UPI0002E3E8C7  V P G M W H A R V V R P P Y V G R D S G D F V G N S L I S I D E S S V A H I A P
UniRef90_F0RUM2         L P A L L H G K A V R S A H P R A R I L S I D S S E A E K H P D F I R I L T S S
UniRef90_M4IJB6         L P G M L H A M L V P A T I A K G K V S A L D V A P A M E T P G V V Q V L G I G
UniRef90_UPI00035DC349  L P G M V H A R V V R P L S Y G A Q L V E C D T A A I E K M P G V I Q V
UniRef90_R4LNS0         V E D V T Y A W V V Q S P V A R G T L             N A V V V D P L A E D D D M L A
UniRef90_UPI0004767BDF  P E G T L H A F V L R S A M A H A R I R L N E L D A A R A A P G V S L I L T G A
UniRef90_D5QF25         V E G M L H A A V Q H A P R L G M
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UniRef90_D9UQB2         A E G L L W A A V L R S P H A H A R I V S I D T S E A L R M R G V R A V L T H E
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UniRef90_UPI00039A5CD8   F E Q A R A A             Y R E L P P L
UniRef90_UPI0002E3E8C7   E E H A I K A A K A L K V V W K Q P P
UniRef90_F0RUM2          P E T I E K I A S L V A V S Y E V L K P V
UniRef90_M4IJB6          V E A A I E G A E A V T A L Y E T A P Y I
UniRef90_UPI00035DC349
UniRef90_R4LNS0          L E A A R R A A Q T V T L D I A E E P
UniRef90_UPI0004767BDF   A E A A Q L A A E Q I D V D Y D P L P T V
UniRef90_D5QF25          W W H A K R A A E A A Q I D W K E
UniRef90_UPI0003B6D95D   T W A A F K A M E L V E I V W D P A P
UniRef90_D9UQB2          P D T A R M A A A A V Q V T Y E T L D P V
UniRef90_T3GYW5          E R A A I K A M K L I K V E Y E V M T P I
UniRef90_K2JU59          W W Q A K S A L D A L P I T W N E
UniRef90_W9GYU6
UniRef90_F2U7X3          Q A K A N A A A K L V T A K Y D V K P V I
UniRef90_A0PLE5          V A V A E K A C R A I Q I E Y E E L P A V
UniRef90_E1QU23          P Y R A I D L L D Y V Q V D F E P L K P V
UniRef90_R1FXR6          P E T A R H A A E L V E A A Y D V E P
UniRef90_Q16T48          F D L A Y Q A S K L V S V T Y S E
UniRef90_UPI000469BCD6   F E Q A R H A A Q H I T V E Y D A D D A V
UniRef90_M1A957          Q R S A D V A A R M A L V E Y D
UniRef90_UPI0003ACE0FE   L E I A Q H A A H L I D V T Y K V
UniRef90_UPI0004770E83   W W Q A R Q A A A K L A V T W D E
UniRef90_J4PHP8          E E Q A I A A M R A L K V C W K P V P P
UniRef90_A0A024TZC4      A D V A Q H A A S L V D V E Y
UniRef90_I0YKB8          R A V A E R A A A L V K V D Y E L G P P V
UniRef90_V4RHT4          A E A A R D A A E A V E I D W R D L P A V
UniRef90_H0TE09          W W H A K T A L D A L P I V W D E G P
UniRef90_Q976Z4          D Y I A E D A K E L V Q V D Y E P L D A V
UniRef90_C6WMP3          E A A A E A G R D L V V V G Y E P L P A V
UniRef90_B3E5Q6          K E A L Q R G I A A V Q L Q L E P L P A
UniRef90_A5ZR22          E E H A R A A A D A V K V E I K E L P A
UniRef90_UPI00038160AC   E E I A Q Q A A Q R L D V R W D G L P P L
UniRef90_X1KZ76          P D E A G K A L A K V K A Q Y D L P
UniRef90_F5RGQ6          Y W T A K K G R D A L K I E W D E
UniRef90_UPI0002D646F5   L D Q A R D A G E L I E L E I G D L P V
UniRef90_W6TY47          T W A A M Q G K K A L K V E W D D
UniRef90_UPI0003F9A7AB   Y W A A L K G R K A L S V E W D
UniRef90_H0HPV0
UniRef90_W1JNT4          M W A A K K G L K A L V I E W D D G P
UniRef90_UPI0003F79E2D   P E T A R Q A A D L V R V S Y E R R P
UniRef90_UPI000372143D   R Q I L A E A L L A I V L D I E P L P V V
UniRef90_C7PF93          Y W V A K K G R A A L K V D W D L G P
UniRef90_UPI00047C683E   F E A A Q D A A H R V K L R Y R A D P A
UniRef90_W0DHT8          F Y S A Q K G R E S L K E W T E
UniRef90_UPI000361B91B   A E Q A R Y A A G L V E A T Y E V T P P L
UniRef90_A0A022FN87      Y W S A R Q G R E A L Q L D W D D
UniRef90_U4V1W7          H I Q A R K A A S R V K I S Y Q
UniRef90_A0A022FNV5      T W S A I K G R E A L K L R W D D G P
UniRef90_UPI00034D33A4   T E A A R H A A G L L R T D I D R S P
UniRef90_W4GD23          A S V A Q H A A G L V V A E Y T P L
UniRef90_D2QDT3          F E R A T Y A A S L V K A T Y
UniRef90_G4D1P8          K E C V E E A L K R I V N Y T E L P T V
UniRef90_UPI000464C9B7   A E Q A R A A V S A I R L R I R P L R A
UniRef90_L7U6W1          F A Q A F A A R D A L S I T W K P G P A
UniRef90_UPI000469A853   H L A A R F A A T L A K V E I A A T P A I
UniRef90_V4UD81          Q K N A N R A A N L A V I N Y E
UniRef90_A6F3E5          Y W R A R K A Q D A L T I E W D
UniRef90_UPI000369E63D   Y E A A R R A V R A A K I E Y E D L P A I
UniRef90_W8F1A8          E H A A H A A L A Q V R V S V E A L P I I
UniRef90_UPI00041584AA   T W E V L N A K K A V K A E W
UniRef90_K2JNQ7          P D A A V E G A E K V T G E Y E E E P
UniRef90_UPI000362CF7A   F E R A T Y A A S L V K L Q Y D
UniRef90_A9WF02          P E A A L D A A L A L A I E W E P L P A V
UniRef90_G2PJ79          S W A A M Q G K K A L Q V E W
UniRef90_D5RTK3          R D A A L A G A A A L R P E I T K L P P I
UniRef90_B6AZM6          T W L A F Q A A D A V E V E W
UniRef90_UPI0004207514   L E E A E E A E K L I E I V Y S K L P I V
UniRef90_UPI000464143F   E W S A I R A A Q L K V T W
UniRef90_UPI00037168F3
UniRef90_A1K1D5          R K L A
UniRef90_G8AXH6          L E A A V E G V E A V T V R Y A E
UniRef90_A0Y7L4          W W R A N K A L D A L P I S W D
UniRef90_UPI00037D9FAF   F W A A K Q G R D A L K I D W
UniRef90_H5WQL7          T W A A I Q G R E A L K I T W D D
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Multiple sequence alignment (positions 1–40)

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UniRef90_C9Z695               A T P K P A S R H R V I G K A T T R I D A R D I V T G K A D Y T G D L T
UniRef90_UPI000374D58F        V P L K K V G D F K V I G N S K R N V E G L N I V T G K P L F T L D Y K
UniRef90_UPI00040442C7      E Q L T W K E F S S Y K L V G T D V P I Y D A Q D I A T G K A V F G A D V R
UniRef90_H0SCD7               V P L K D P S Q W K L I G T P A R T D S P G K T D G T A T F G I D I R
UniRef90_A4YNW3               T L K T P D Q Y T M I G V S V P Q L D I P S K T N G T A K Y G I D T M
UniRef90_UPI00035EB6D3      D K P A L K D P K D F V L V G K R T K R I D T P A K V N G T A E F G I D V K
UniRef90_W4LJ45            E D V K L K D P K R Y I G K D M Q I V D M D D I T H G R A I Y G L D V V
UniRef90_W6ESB1        T I K D I W K E L P E G A S L V G S E F I R P S A L A K V M G T W D F G A D L G
UniRef90_A0A022S2I5            E S S T E Y Y P V G E P I A K S G A A I Q A S G E A V Y V D D I P
UniRef90_UPI00037DDA91             R A M G T P R R R T E G P A K V T G T A R Y A A E Y A
UniRef90_J2WZA7            D P A S F K E A K D W K I I G K P T K R L D T P E K L T G K A K F G M D V Q
UniRef90_A0A024YMA2           P D A A Q P Q A P R G I G A S V E A T D T R A K T E G T F P Y A A D L W
UniRef90_G0AHI9            D K V Q L K D P K Q F T I I G K A T P R L D T A A K S S G Q K F G I D L D
UniRef90_A0A031GTA2           P V L K S P K D F K L I G Q P A P R R D T P S K V N G S A R F G I D A R
UniRef90_UPI00045EA258             R A V H V P A R H E S A N A H V S G R A V Y I D D M P
UniRef90_U1V5Q9               V T L K P A S E Y R L V G T S S A R V D I P A K A T G E L T W V H D L R
UniRef90_A0A024JJR2             P Y E G T I V G K S N P H L S A L K Q V T G E A L Y T D D I P
UniRef90_B8EKL9          D Q V P L K D P K D F K L V G T P A K R V D T H L K I N G S A K Y G I D V I
UniRef90_E6NAB4                          D S K L L T G R A S F V D D V A
UniRef90_A0A037XQ54    A E K V V Y K S V A D R R F I G K P I S P L S T V P A T R G E I V Y G I D I D
UniRef90_W1N1U1               V P L K D P A D F T L I G Q H I R R Q D S A D K S T G R A I F T Q D I H
UniRef90_UPI0003B55B6A         L K Q P D A L S I I G R D V Q R I D I P G K V T G A A A Y V Q D L R
UniRef90_A0NSN7        T A Q L D P N D L A T P L K H V R K A L P H D S A A K H V S G T A T Y I D D M V
UniRef90_E3N560            P T T N E S A G R P I A N Y F N E R A I T G E A L Y V N D I Q
UniRef90_UPI000416FE43          R L K D P A E F R I I G R P I G G C D S P K V V R G E P I F G I D V R
UniRef90_A0A059FTY3        E V Q L K D P K D W T I I G Q P K L R L D T A D K L T G V Q V Y G A D L K
UniRef90_UPI00032A7E09         L Q A G S E Y C P I G K P V V K S G A A L Q A S G E A V F V D D I P
UniRef90_B2T925              V T L K D P A N F K L I G K P L R R I E A A S K I N G T A R F G I D V L
UniRef90_W0RJY4               V T L K D P K D F K I I G T R T R G V D T K A I V T G K P M Y G I D V T
UniRef90_C5T479            E K V T L K D P K Q F R I I G K P T G R L D A K A K S S G Q D Y G I D V R
UniRef90_E0MR23             P D T S R R L D E M Q V I S K S L N R P D G P L K V S G T A R Y A A E A E
UniRef90_UPI00041F7E9A     D E V A L K S P D D W R Y L G Q P M E R L D I V A K S T G T Q G Y G I D I D
UniRef90_M0D8R5                    H A V G T S A P R T D A R E K V R G R A R Y A T D V D
UniRef90_D0MFF8        L E P P A L K D P A S F R L I G R P Q H G V D V P D I V T G R A T Y G I D V R
UniRef90_Q1GJD5                  V S T P L P H D A A A L H V T G Q A R Y V D D I P
UniRef90_U0ZAG6           D T V E L K P R H R W K L I G T R V H R V D G D E K L D G R A Q F A M D V R
UniRef90_UPI000237B6AE           G S L L G T E V Q R V E D P E L L R G R G T Y V G N L E
UniRef90_UPI00047C357B      T R R N R A M G K Q G V G V A L R R K E D D R L M R G R G R F I G D V R
UniRef90_B9RQ20               K E Y H P V G E P I T K S G A S L Q A S G E A I F V D D I P
UniRef90_F8EN55            E V K L K N V N E F K I I G K S Q R N V D L E K I V S G K P L F G I D T Q
UniRef90_A0A034VHF5           T F E T I E K N Y P I T Q P V Q K L D A L L Q G S G E A F Y M D D L T
UniRef90_U2AYC1               V T L K D P A H W T I A G K P V K R I D T L D K L D G S L V Y G V D F T
UniRef90_A4A7F1               P T L K T P D Q F R I M G K S A P R R D I P A K V D G T A V F G I D A Q
UniRef90_W9TEX2            E Q V R L K E P S E F K L I G Q R I A R K D S P E K I N G S A I I Y T Q D I H
UniRef90_UPI00031DC234   V D K S M L K P M A Q F R L I G K V I P R V D D V P A K S S G Q A L I Y G I D Q R
UniRef90_UPI00034963C1    A T P T P L K D P K T F N V I G T S L P R L D I P S K V T G G V S Y V Q D M Q
UniRef90_H1S2L4        A D A I A T K P V S E Y R V V G R A A P R V D I P A K A T A Q L T F V H D V R
UniRef90_S7VCC6        S M K D L A F K L P K D G R I W G S E Y P R P S A V A K V T G A W D F G A D L M
UniRef90_UPI00046F65CB         L K D P K D F K I V R N S K K N V E G L K I V T G K P L F G L D Y K
UniRef90_UPI00035CB125   T P T S V T L K K P E Q W K F I G K A T K R L D S A E K I N G T A K F G Q D V Q
UniRef90_UPI000471A780   L E E V A L K P A A E R R V I G R D R R N V A S S D I V T G K P I Y G I D Q D
UniRef90_UPI000417D8AD         E T P V D Y Q V V G R S H K H E S A A K Q V S G E A Q F I D D Y P
UniRef90_X6FP09             A L K D P K D F R I I G Q P T R R L D A Q A K S S G Q S F G I D F K
UniRef90_UPI000475338F      A P V K D P S T Y S V V G Q S L R R K D I P G K V T G Q F T Y I Q D V K
UniRef90_UPI000360AF06    D T P A L K A S T A Y K F V G K P I P R V D L E D K V M G A P I F G M D A T
UniRef90_T0IYZ5                      S H P H D S A R L H V S G L A R Y A D D V A
UniRef90_Q0SKG5                D P K V I G T S A E R L D A H D K V T G T A L Y A F E Y P
UniRef90_J0K2M6              L K P P A S F R L I G Q P V P R L D V A G K V N G S V V Y G I D V R
UniRef90_E8TN54            E V R L K D R A D W K L L G K P Q K R I D M L A K L T G A P I F G I D V R
UniRef90_I4YNB0              P T M D A E S L R H I R Q P I A H D S G I K H V Q G S A Q Y I D D I R
UniRef90_UPI0003AAFF8A             G H N A H H D S A W K H V R G Q A R Y I D D L P
UniRef90_UPI0003F8F51C     S T L K D P G A L R V M G K S L P R V D I P A K V T G G Q A V Y V H D L R
UniRef90_A9HI68             T L R D P S S F R L V G R S Q H R L D A P A K V A G T A T F G I D V Q
UniRef90_D8MSJ6                 S G V G K S N K H E S A D K H V S G E A L Y I D D L E
UniRef90_UPI00037048F2      V P L K D P S Q F K V I G T R A K R L D T P G K V N G S V V Y G M D I R
UniRef90_G6CWA8                 K P I P R L N G L V Q C A G E T K Y V D D L Q
UniRef90_UPI00047CD495  L E P A A A K S P A D Y G V V G R S L P R V D V P A V A G R R R F L H D L R
UniRef90_N2JB95           E N V P L K K P E D Y K V I G Q P L R R L D T P G K V D G S A K F T I D L H
UniRef90_A0A024PSU4             V R H A P A H D S A T L H V T G R A R Y L D D Q P
UniRef90_B8II02            E S V P L R D P K D F R Y I R Q P V P R I D V R D K S T G R A V Y A I D L T
UniRef90_Q39G66        A T P A P L R D P A T F K V I G E S L P R V D I P N K V T G G V S Y V Q D I E
UniRef90_UPI00047712C5          A S P P V R G D D R L T R G R G R Y T A D L H
UniRef90_W0ICR0        V S E A D L K P I D Q C R Y I G R D V N R I D V P S K V N G T A K F G I D V E
UniRef90_B2AIA0             R L K P R T G F R Y I G K N A V R V D Q E A I G T G R A T Y G M D L R
UniRef90_UPI00046697F4        P S N D W G V G A A I P R L D E P K V R G T E M F G A D G V
UniRef90_I2F0S7              L K E A K D F K I I G K S Q R N V D L D K I V S G K P L F G I D T K
UniRef90_T1HPX3                 V G K P V S K V E A N I Q C S G E A E Y T G D I K
UniRef90_V8R664           S P A M A A A D F K L I G H N L P R L D I P A K V S G G A A F V Q D M R
UniRef90_UPI0002628943            R R V D A R D K V T G R T A Y G A D R V
UniRef90_UPI0002DA4B72          G S S S F H E S A Q K H V T G K A L Y I D D L K
UniRef90_W9CFL4               P Y E Q R V V G K Q I P H L S A L K Q T T G E A E Y I D D M P
UniRef90_UPI00037D6C80     E S V K L K D P K D Y K L L G T R I G G V D N P S V V T G K P L F G I D V Q
UniRef90_UPI0003B67BAF          A I S R P F D R I D R D K S G S A T Y A A E Y A
UniRef90_W8IRI3              V A L R D Q A N F R W I G K P F A R L D A R D K S T G K A K Y S I D Q T
UniRef90_UPI00047B8EE4    E S V Q L K T P A D F K L I G Q E A P R V D A H A K T N G A A V F T Q D I K
UniRef90_K0D0D9                   V G T A V N R V D G V K K V T G K A K Y A A E H M
UniRef90_K9GUS8               A Y Q Q K I G T A T P H V A L K Q T T G E A Q Y T Y D I P
UniRef90_I1JIN7            L E A G T K Y E P I G E P V I K S G A A L Q A S G E A V F V D D I P
UniRef90_UPI00036F0B12            I G I R V S K V D N Q E K T S G S A K Y I A D L K
UniRef90_UPI0002D4623A        L K D P K D F K L I G Q K L P R K D S P S K T D G T A Q F T Q D I H
UniRef90_UPI0004712CA2  T A K A L R L K S P A E F R Y I G K N T R N I D G A L K V T G A T H Y G I D T K
UniRef90_A3K805                G V G A R V A R L D G W P K V S G A E F G D D V P
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                            50          60          70          80
UniRef90_C9Z695        V A G A R P T V V A R P P T L G G K A L S V D S K A A R G M P G V H A V V E I   A
UniRef90_UPI000374D58F  E P G M L I A M I A H P R A F G L K V R S V D D S A A R S M P G I T D V F T I K
UniRef90_UPI00040442C7  L P N M L I A V V R R S P V V G A K A V S F N D E K A L A I P G V K K V V K I D
UniRef90_H0SCD7         V P G M K V A A V A A S P V I G K L V S V D D S E A K K V P G F I K A V T L D
UniRef90_A4YNW3         L P G M V Y G K V V T P P R F G A T V K S V D D S E A K K V P G F I K A V T L D
UniRef90_UPI00035EB6D3  L P G M V Y A S L A Q C P V I G G K V V S L D A A K A K S M P G V I D V V Q I P
UniRef90_W4LJ45         V P G M K Y V S L E R C P V L F G K P K S V D A A K A L A V P G V E K V V E I P
UniRef90_W6ESB1         L K N T L H A K L V Q A E V S H A N I L S I D T E E A K K V P G V V A V L T Y K
UniRef90_A0A022S2I5     P P D C L H G A F I Y S T K P L A R V R G V S F E S H P K P T E I S S V I S V K
UniRef90_UPI00037DDA91  V A R P L H L H P I L A T V P R G R V T A I H T T A A E A L D G V V A V L T T R
UniRef90_J2WZA7         F D G L M T A M V A R P P V F G G S V K S F E G A A L A V P G V H K V V Q V P
UniRef90_A0A024YMA2     A E G L L W A A V L R S P H A H A R I L S I D T E A A A E M P G V R A V V T H A
UniRef90_G0AHI9         L P G M K V A M L A R A V P W G A K I G K L D D S A A K A I P G V R K I F T I P
UniRef90_A0A031GTA2     P P G M L Y A A L H L P P R L G D S L S A F D A A P I L A M P G V K K V L
UniRef90_UPI00045EA258  P P G L L H A T L V L S P H A H A R I V S I D L S A A R A L P G V V A A A G D
UniRef90_U1V5Q9         V P G M L H G R V I R P P Y A G Y                               D T G S F V G T
UniRef90_A0A024JJR2     P H N E L F G V Q V M T T K P A A K I L S V D V S E A L E I D G V H G Y T D I D
UniRef90_B8EKL9         L P G M K F A D V A A C P I F G G K L K S V N D E K A K A V R G V R Q I V K L
UniRef90_E6NAB4         L P K M L H C V F V R S S Y P H A V V H G L R T P E N L S E A K I F T W R M L S
UniRef90_A0A037XQ54     L P G M R Y A A V Q Q S P V F G G K L V R V D D A L K E L P G N P Q I V Q I K
UniRef90_W1N1U1         L P D M L T A M V A H P P R F G A K V S S F D A T E A S K V R G V V E V V E I P
UniRef90_UPI0003B55B6A  L D G M V H A R V I R P P S Y G A T L K D I D A T A A A A M A G V I S V I R D G
UniRef90_A0NSN7         E P G T L H L A P G W S R Q A R G R I L A L D L E E V R S A P G V V A V L T A D
UniRef90_E3N560         A Y N A L H L G F V L S T V P H A D I A K V D Y T E A L K L E G V A G Y F G R F
UniRef90_UPI000416FE43  L P G M L Y A V F E R C P V F G G T L K S A D L D A A R G R P G V R Q V F T V R
UniRef90_A0A059FTY3     L D G M L N A S I K A S P K L G G K V K S F D A A V E S M P G V K K V V
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UniRef90_E0MR23         A D D M A T G V L V G A I I P K G R V V S I D E D A A M K M P G V L G V F H G K
UniRef90_UPI00041F7E9A  L P G M L Y A T V R T N P R R G G V V R G Y D A S K A E G M P G V Q R V V P V T
UniRef90_M0D8R5         H P D A L V G G V V R S P V P H A T V A G L E S A V A E S M A D V A A V I P R W
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UniRef90_Q1GJD5         T P G T L H L A F G L A P I A S G S I T A M N L A E V H A S D G V V A V L T A D
UniRef90_U0ZAG6         Q P G M L T A L V K R C P S Y G G K P K G F N A D A A R S V P G V K D V F A I S
UniRef90_UPI000237B6AE  L E G M L H L G F V V R S V H A Q I G G I D V A A A A A A P G I V A A F S A D
UniRef90_UPI00047C357B  F E G Q V E L A F V R S P V A H G R I L G V N I P P E H R E R V Y L M E D M K G
UniRef90_B9RQ20         S P N C L H G A F I Y S T K P F A R V K G I N F N S K S L P D G V T T L L S F K
UniRef90_F8EN55         K E G M L I A M I V H P P A F G M K F K S T D D A A V R K M K G I K D V F P V K
UniRef90_A0A034VHF5     N S N A V Y C A F A N A T R V G A H I E Q I D A S E A L D M S G V I A F T A K
UniRef90_U2AYC1         L P D M L I A V P K A C P V H G G K L R R F D A A A V A Q M P G V K Q V L
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UniRef90_S7VCC6         P K D T L H L A L V Q A E V S H A N L K G I D A S E A L K M P G V H S V L T H K
UniRef90_UPI00046F65CB  H E G M L I A M I E H P P A F G M K F K S F D A S E T L R M P G I K D V F S L K
UniRef90_UPI00035CB125  F D G L K V A M V A R S P V F G T K L K S V D D S A A R Q V P G V I K V V K V P
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UniRef90_UPI000417D8AD  T P G C L H A A V V S D V V K G Q L E Q V D L S A V A A A P G V V G A Y T H E
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UniRef90_UPI000475338F  V D G M L H G R V R P P Y G V G A R L E S V D E T G L K D I P G F V Q V V R
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UniRef90_UPI00037D6C80  L P G M L Y A T Y Q K C P A F G G K V V S A N L D K I K T L P G V K H A F I V E
UniRef90_UPI0003B67BAF  F D D L A Y G F L V S A H S P V S I D A D A V R S L P G V I D V V C D F
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UniRef90_UPI00036F0B12  F D N M L Y G K T I R S T K A R A K I           Q A I H Y P V L P K E Y F I I
UniRef90_UPI0002D4623A  L P D M L V A V V A H P P R F G G V P A K V D A S K A K A I P G V E V V V Q F P
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Multiple sequence alignment (positions ~90–120)

Identifier	Sequence
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UniRef90_A4YNW3	DKTGSTSGWVVA … VANT
UniRef90_UPI00035EB6D3	D … GVAVVAAS
UniRef90_W4LJ45	SITPPAAFKAWG … GIAVVASN
UniRef90_W6ESB1	DVKGTNRFPTNKGDGLDRPILNDKKIFQYGDAIAIVLAEN
UniRef90_A0A022S2I5	DIPKDGKNVGSMAMFGTEPLFADGLAQFPGHLIAFVVSET
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UniRef90_J2WZA7	S … GVAVIADH
UniRef90_A0A024YMA2	DVPGATTHGRRIADRPV FAHDVVRHHGEPIAAVAADH
UniRef90_G0AHI9	GIRGG … QSVVVVADG
UniRef90_A0A031GTA2	DLTPQLAQRSVSCAAVVADT
UniRef90_UPI00045EA258	IPGVNDIAPIRSNEPLLAEGEADYVGHPVAAVAAPT
UniRef90_U1V5Q9	SLLSIDESSIAHLEGIVKVVQIAD FVGVVAER
UniRef90_A0A024JJR2	DLPNRESNLWGPIPIGKEKFFADGESEFVGQCIGVIVAST
UniRef90_B8EKL9	DNAVAVVADH
UniRef90_E6NAB4	EIVRPFSFPFEGCKRLEVSPLADTKVRYVGEPVAAVLAED
UniRef90_A0A037XQ54	GGFVGYNSPVPDGEDPDLWAAAVNI DDTVAVVADS
UniRef90_W1N1U1	S … GVAVLATD
UniRef90_UPI0003B55B6A	S … FLAVVAEK
UniRef90_A0NSN7	DIPGRND CSSAFGDDPVLAEDEILFYGQVVFAVVAET
UniRef90_E3N560	DVIGNNKPGANMNFPDDTTVFAEGKVECVGQVIGVIAAND
UniRef90_UPI000416FE43	GNGRPESLVDGVAILATN
UniRef90_A0A059FTY3	QVGDDAVAVVADT
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UniRef90_B2T925	PYNGGTGG VAVIADH
UniRef90_W0RJY4	GGTDLAGLLP GVAIVADS
UniRef90_C5T479	TDRGG EGVAVIADG
UniRef90_E0MR23	KLLRNPAQGTANQAPIQP DGEVSYMGQPVALVVAES
UniRef90_UPI00041F7E9A	GGAG VILADS
UniRef90_M0D8R5	DLPGG FDDRVRHYGDAVAAVAAET
UniRef90_D0MFF8	ALGSGVYRVRPG VAVIAEN
UniRef90_Q1GJD5	DLPFDNDVSPSAHDEPL LAKGEVHYLGQPVFLVVATS
UniRef90_U0ZAG6	N GVAVLADG
UniRef90_UPI000237B6AE	LDVPIPPPFVDLNPNVKRPPLATDRVRFVGEAVAVVVGES
UniRef90_UPI00047C357B	VAGILARSGLPGFKASVQMPLAQGKVRFAGEPIAMCVAAT
UniRef90_B9RQ20	DIPKGGANVGLVFAFGTEPLFAEELTQFAGERLAFVLADT
UniRef90_F8EN55	IFH DDYERQYFDTTTFIVGNS
UniRef90_A0A034VHF5	DIPGNNTFGDAAFLYEPEEIFCSDVVKYYDQPLGVVVAQT
UniRef90_U2AYC1	RVDDETVAVVADT
UniRef90_A4A7F1	D AVAVVADG
UniRef90_W9TEX2	N GVAVLARD
UniRef90_UPI00031DC234	Y GVAVVADS
UniRef90_UPI00034963C1	SMLAVVAKGEW
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UniRef90_UPI00035CB125	T GVAVIAEY
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UniRef90_X6FP09	LDRGA EGVAVVADG
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UniRef90_UPI0003F8F51C	
UniRef90_A9HI68	N AVCVVGNH
UniRef90_D8MSJ6	TWHQVPGELDIGPLEPGDPLLAKEVVEYAGQVVLAVAAET
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UniRef90_G6CWA8	DIPGRNVPAVNVFNTTDEEFLCNGEVKYYNQPLGVIVATS
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UniRef90_B2AIA0	AFQGAPAFQPLG GVAVVARN
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UniRef90_W8IRI3	G AVAVVANS
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UniRef90_I1JIN7	DIPNGGQNLGSKTRFGDEPLFAEEIARCVGDRLAFVVADT
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UniRef90_UPI0004712CA2	SSALPPLFHPLG GVAVVAES
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UniRef90_H0SCD7          Y W A A R Q G L A A L R I T W D D G P
UniRef90_A4YNW3          Y A N A R K A A D A L K I S Y D N G P
UniRef90_UPI00035EB6D3   W W Q A K K A R D T L T I Q W D E
UniRef90_W4LJ45          T W A A Q E G R K K L K I E W D L G P
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UniRef90_UPI0003B55B6A   E W Q A I K A M R A V E A K W D E   P A
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UniRef90_UPI000237B6AE   A A A V A D A I E L V D V D Y D P L P V V
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UniRef90_UPI00031DC234   F Y T A K M A R D K L L K V V
UniRef90_UPI00034963C1
UniRef90_H1S2L4          E E Q A M Q A A R R L R V D W
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UniRef90_V8R664
UniRef90_UPI0002628943   L V A A T E A A E L V T G E Y E V E P
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UniRef90_UPI0003B67BAF   Y E A A R D A A L Q L P V T Y E
UniRef90_W8IRI3          W W R A R R A V E A L Q M S W T E
UniRef90_UPI00047B8EE4   T W A A R T G R D A L Q V Q W D D
UniRef90_K0D0D9          L E Q A R Y A A S L V S F T I E
UniRef90_K9GUS8          A K I A E E G M R A V K V E Y E D L P S I
UniRef90_I1JIN7          Q K N A D I A A N S A I V D Y
UniRef90_UPI00036F0B12   R Q K L K E L A N K I T I E Y Q P L T A
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UniRef90_UPI0004712CA2   T W A A I K G R E A L K L T W E
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UniRef90_V9S8N8                                    K E H L P V V S G K S K Y I D D I D
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UniRef90_UPI000478409B       R L K K T E E F T L I G T P H K R L D S A A K V N G T A L F G I D A K
UniRef90_F4B7A8                              M R R L D L E D V I K G K G N Y V D D I P
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UniRef90_A6SW08           L P G M L Y A V V A R P L V M G G K V R S F D A S E A L K V S G V I Q V I E L K
UniRef90_A6FD56           Y P N Q L H V Y V R M S D V A H A N I I K I D L T P C Y E F D G V E L A I E A K
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UniRef90_S5XT37          D P S G N V P G                                   W A M V I A D S
UniRef90_I9LGP1          G                                               A V A V A A D S
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UniRef90_I0GDV6          G G V G                                           I I A D N
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UniRef90_B2JPD7          A Y N G G T G G                                   V A V V A E N
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UniRef90_F3NGT3          L E
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UniRef90_K6ZPG9          T W A A S Q G R K A L N I K W G D S P
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UniRef90_S9XPY2                                                    E A I F C D D I P
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UniRef90_UPI00037716E5             G I G C S V S R A D A T K V T G Q E A Y A A D H Y
UniRef90_S9NXW7       V A P K P A S A R R Y I G Q P I A R V D L P G K L T G E P S F V Q D L R
UniRef90_F2G8F8     T P T P T G E R E K Q G V V H V S K K H E S A E R Q V Q G T A N Y V D D I E
UniRef90_T0JAL3     V A D A P R R S P Q S Y R T M N R D F R R V D I P A K L T G G E A Y V Q D M R
UniRef90_I0HWE5             A P A H P L S A A G V V G R S R P H E S A A R Q H A G S A P Y T D D L P
UniRef90_B1KKK5     V D T L V L K S P Q D F T H I G K P H K I V D M D G I L N G E A K Y G F D V Q
UniRef90_D5VIK6             A P A I T A P R G V N A P L P H D S A E R H V A G S A I Y V D D L P
UniRef90_D0D4S2         A S D T A P V A E G G V G A P I A R L D G W P K V S G T E R F G D D V A
UniRef90_A6E9A8                                     R V E G V F K V T G T G K Y S A E Y H
UniRef90_V4R2G6                             R P E T R L E D E P L L R G M G R Y T G D R R
UniRef90_E6NA81                                         A Y D A V R G A P I Y T E D I V
UniRef90_B7QZC2     E T P R L R D P S E W K I I G K S T R R K D S P I K I N G E A K F A M D V Q
UniRef90_A0KE85         V P L K S P D Q F R I I G K P T P R I D A R A M L D G T L K Y G M D W R
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UniRef90_Q3KZI0                     I G R P Q V H A A A L K Q A T G E A I Y T D D I P
UniRef90_B8KPR2             P I K P A A A R T L I G K P A S A L D V P A K S K G T A V Y G L D A E
UniRef90_F5ZCS8         S A K D S A S T Q V V H T S V K H E S A A R Q V Q G S A K Y I D D L V
UniRef90_UPI0003B59CBA E P T L K S P D Q F R L L G S D L N R L D A S D K S T G Q E T F T Q D V R
UniRef90_G0BAZ0         T L K D P A N F T L I G K G L H R V D S L A K T N G S A Q F T Q D I H
UniRef90_T0IYT6                           R F D A R D K V L G R T Q F T A D I Q
UniRef90_U2NJH5     E A R L K D P A E Y R Y I S K P V K R I D V E D K I K G K T E Y L A D M H
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UniRef90_A3JJD4         L K S D S E L R F I G K A H P K I D G E D I V T G K A I F G A D I D
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UniRef90_K6ZCM3         L K K R S E W R Y I N T A M E H I D L K D I V K G K A I F A A D V L
UniRef90_S2D5K9     A K E K E P K D H Q I V G K A I P R E D I K N L V K G V A H F V H D L R
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UniRef90_UPI00037F3027   L K D E G T W R Y I G K S L P I V D L D D I V H G R A T Y G I D V V
UniRef90_T1NWR1                                     T G E A V Y V D D I P
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UniRef90_UPI00047A280A D K V Q E K D A A Q F A L I G K P L R R V D T A G K V D G S L Q F G I D L R
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UniRef90_Q2IRQ8                         R V D F L D K V T G R A A F I S D L V
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UniRef90_D8SBA3               V S K P L P K L S A M S Q A S G E L K Y V N D F N
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UniRef90_A3VYX5       E P R L R R P E E W R L I G K A V M R K D T P V K I D G S G Q F A M D M Q
UniRef90_I2Q6X1                         P R A D A L A K A T G V E H Y S A D E T
UniRef90_UPI00021A8711             Q P L P K L E S I H Q A S G E A Q Y S N D I P
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UniRef90_A6DXA7     T D V T L R P A S D W T R L G K P Y Q R L D I V A K S T Q D Y G I D L V
UniRef90_A3T0Q4     V Q D V T L R D P S E W R Y L T K P Q K R T D I V A K S T G R Q I Y G I D M Q
UniRef90_Q1YH26         P A L K D P K D F V L I G T D R P K L D T P E K T N G K A V F T L D V L
UniRef90_V5SBA4           K T P D E F S Y M R K G E T K I D L H D I T T G K A I Y G A D V R
UniRef90_S0ATZ3                                   R Y V D G K G K Y I D D M T
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UniRef90_G0IUJ6           P A K W K V A G Q S I S K I N G K D F I N G S H K Y V S D M V
UniRef90_H2C7A5                             R E H Y D V I T G R S K Y I D D L E
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UniRef90_A5FYT5                   G R P T Q A R D R T R W V S G A G R Y V A D V R
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UniRef90_G4KY59               T G I G V T V I R K E A N D K V T G C A K Y T D D F R
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UniRef90_UPI00042BA487             V G R P L P H L A A A M Q A S G E A V Y C D D I P
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UniRef90_UPI00036D1C7C                 R E H L K V V K G E A T Y T D D I G
UniRef90_UPI000377E5C6           H S E V R V D A A S K I A G I E K Y T A D I R
UniRef90_Q6ARM6           P E D G R I W G T R Y P R P S S V S K V T G T L D F G A D L G
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UniRef90_M4S3L4     V A L R A P G A G G L S G R S V P R L D P S K V D G S A R Y A G D V R
UniRef90_M7CRR4         P I K P P S E R R L G R D I P G K T N G K A I Y G I D A S
UniRef90_Q21GR9     E S V K L K A N K D F S L I G K D V A L Q G G Q A D I V Q G K A T Y A H D I Q
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UniRef90_T1JEH9                 Q P I C K I E A K S Q C A G E V E Y I I P D I R
UniRef90_L8JBG0                                   A T G E A K Y I A D R H
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                                    50              60              70              80
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UniRef90_UPI00037144D7   F A G E A F A C V V R S P L A H G M I N A V D A E A A R A M P G V L A V V Y T A Q
UniRef90_UPI00037716E5   P K G C L W A G V K R S C Q A H A R I V S V D V E A A A L Q L P G V V A V L T S R
UniRef90_S9NXW7          P D Q L A H G R V V R A P S Q G A T L L E A D V A S V R D M P G V L G V V R D G
UniRef90_F2G8F8          P Q G T L Y A A V G L S K C A K G T I A H V D L S A V R A S E G V V D V V T I D
UniRef90_T0JAL3          L P G M V H A R V V R G P S Y G T R L T A P D I A A A R K M P G V L R I I Q N G
UniRef90_I0HWE5          L A G T L H A A L G L S P V A H V L R G V D L E R V R A V P G V V D A F C A D
UniRef90_B1KKK5          L E G M R Y A S I V R P P V Y G S K V K T L D D S Q A R K V A G V I D V
UniRef90_D5VIK6          P P G L L H V H L G T S T R A H A R I A K L D L S A V R A S P G V V L V L S A H
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UniRef90_B8KPR2          L P G M V Y A H I V A P T R Y G S V I T A I D D S A A R E I P G Y Q Q T L T I E
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UniRef90_T0IYT6          L P D M L Y A M S V P A T I A K G R V R S V A I D E A M K I P G V V R V L T A K
UniRef90_U2NJH5          F E D A L Y A K T L R A T K A R A E I L S I D I P R L P D G Y Y I V
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UniRef90_Q6SGY9          T P G M V Y A S F V K C P A I G G V A K S A N L D E I K A L P G I I D A F L I E
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UniRef90_I2Q6X1          P P G C L W A G V R R A G I P H G L I T V L D V A A A R D V P G V A A V L T R A
UniRef90_UPI00021A8711   P S D E V F C A F V L T T V G A G K L D K I D A S E A L K M K G V I A F Y T A K
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UniRef90_Q1YH26          A D N M M I A M V A H P A H F G A T V Q S F D D T A A R Q I P D V V D I Q Q I P
UniRef90_V5SBA4          L P G M K Y A V M I R P A V L G E K L K S F D G A A A L K V P G V E A V H E I E
UniRef90_S0ATZ3          F N D M L Y M N V F R S P Y G K A K I K N V K G G L N A S E L K L F Y K S S M G
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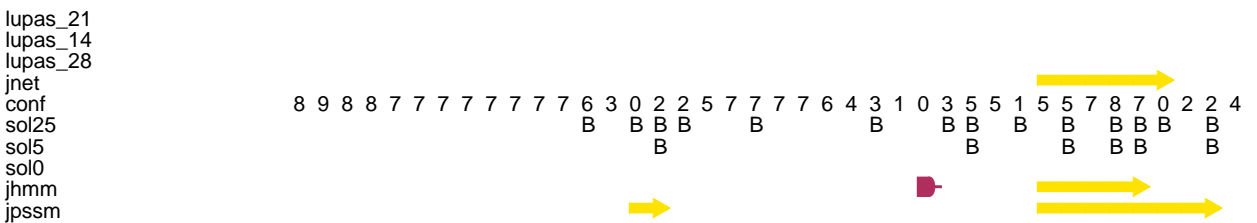
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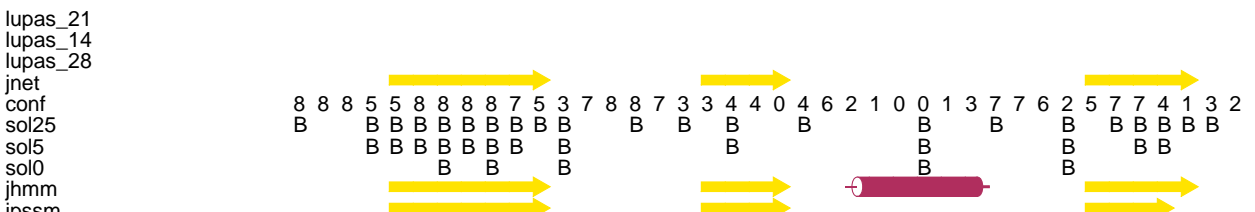
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UniRef90_UPI00035FDF6A          V E D L L F K T P D E F T L M R K G E T K I A D L R I T T G K A I Y G A D V R
UniRef90_X7EI39                            V A K P L P H D A A R L H V T G A A R Y V D D I P
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UniRef90_X7FDI2                 V E P A   V K N P S E F T L I G T D R P K V D S R S K S D G T A M F T M D V Y
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UniRef90_U2SMT0                 T V K P K A P G E R Q Q A       G R A V P R V D L P G K I A G E P S F V Q D Y R
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UniRef90_UPI000369891C            T T V E N D A P A Q E I G R D R R R K E D R R L I T G R T R W T D N Q A
UniRef90_Q28U20                A E V A S V K P R P N   T V V G T P V P R H D L L Q K L T G A A   F I H D M D
UniRef90_UPI00036DC757            E T A I T E G A E A L T H V H R S L P H D S A E R H V T G T A V Y I D D M P
UniRef90_K2EWF8                          M P I V G K N I P H D S A I S H V S G T S E Y I S D I P
UniRef90_E3FKK1                      T Q P K P V E R Y T V V G R P T G R I D A R D I V T G A A R Y T L D L D
UniRef90_UPI0003F19435
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UniRef90_H1Y461                        A K T T P I G K D S P K I D S K P Q L N G Q A K Y T H D L S
UniRef90_A3WGN1                 P P P G S L P D D V S A I P Q   F P R I D L P S K V D G S Y R F A A D V R
UniRef90_V2GG23                 V A L K D P S R F T L I G K P T P R L D T R G K L D G S V G F G I D T Q
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Multiple sequence alignment (positions 50–80)

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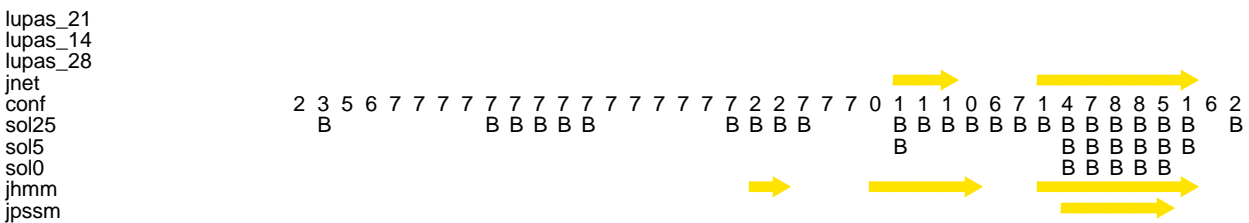
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sol5   B B B B B B B B   B   B   B   B   B   B B
sol0   B   B   B   B
jhmm
jpssm

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UniRef90_D3A9E8        D V P D Q R F T M A G Q T Y P E
UniRef90_UPI0003B78274 N N
UniRef90_J2KCW7        A T N G I T P T P P                                          G V A V M A E T
UniRef90_UPI00037331F9 S V K P V S D G E L A V L Q               S R H V S Y R G Q L V A V V V A E T
UniRef90_G8QQU5        D Y K D V P G V N R V H I V K D D T P V F S E G N V E Y I G D P I L M V V G P D
UniRef90_D6XY39        D I P G L N G F       G I A D P N Q P V F C D H H I R F E G D A I A A V A A T S
UniRef90_UPI00036B3350 P L K H P V R F Q P L G                                      G V A V V A A N
UniRef90_Q0K114                                                                     D D A V V V L A D S
UniRef90_S6D0Q6        D P S N T V P G                                              W V A V L A S S
UniRef90_A9UXF9        P Q N Y T T T E G A L S A D P E P L F V A V G E K V W Y H G Q A V G M V L A S T
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UniRef90_G8S585        V P H P A S V P G P P G F D G P E P P P L Q S D R I A H R G Q P V A L V V A D T
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UniRef90_V2GG23        T D G G G                                               T G V A V V A N G
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UniRef90_Q1IQB7
UniRef90_UPI0003C165C8 D I P G E N D D H F Y
UniRef90_A9D3I1        D V P G R N V L Q M V E A D W P V       F A D E E V R Y L G Q I L L V V G P E
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sol5                                                             B                 B B B B B B
sol0                                                                               B B B B B
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