```
                    1         10        20        30        40
QUERY                M T H D N K L Q V E A I   K R G T V I D H I   P A Q I G F K L L S L F K L T E T D Q
UniRef90_C4LBX3      M S E K K Q L Q V E A I   C N G S V I D H I   P A G Q G I K L K L F H L L D T R Q
UniRef90_E8XVP5      M T H D N K L Q V E A I   K C G T V I D H I   P A G V G F K L L S L F K F T Q T E Q
UniRef90_G2DT68      M T D K K Q Y S V E A I   K N G T V I D H I   P A G K G L T I L R Q F K L L H Y G S
UniRef90_UPI0004789736 M T H D N K L Q V E A I K R G T V I D H I   P A Q I G F K L L T L F K F T D T D Q
UniRef90_U4KH05      M A K E T Q L Q V E A I   R N G T V I D H I   P A H I G I K V L R L F D M H N S E Q
UniRef90_G9YDZ5      M T H D N K L Q V E A I   K R G T V I D H I   P A Q V G F K L L T L F K L T E T D Q
UniRef90_D7N502          E N K K L S V E A I   E N G T V I D H I   P A G L G L T I L R Q F K L L H Y G S
UniRef90_F2PG20      M S K E T Q L K V E A I   K N G T V I D H I   P A H V G I K V L K L F S M D N S N Q
UniRef90_Q1C1J6      M T Q D Y K L Q V E A I   C G T V I D H I   P A Q I G F K L L S L F K L T A T D Q
UniRef90_UPI000395B8DC M S T D N K L Q V E A I C H G T V I D H I   P A H I G F K I L N L F Q M H G S D Q
UniRef90_Q5E7U6      M A N K T Q L R V E A I   N N G T V I D H I   P A N I G I K V L K L F Q M D K S A E
UniRef90_UPI00030969E9 M S K Q N Q L Q V E A I K N G T V I D H I   P A H V G V K V L K L F K M D N S N E
UniRef90_Q7MZ14      M T Q D H K L Q V E A I   R C G T V I D H I   P A Q V G F K L L S L F K L T E T D Q
UniRef90_A6FE77      M I T K N Q L Q V E A I   K N G S V I D H I   P A T L K L I K L F N L E A S N Q
UniRef90_H2G0D5          N K T Q L Q V E A I   H N G T V I D H I   P A G Q G I R I L Q L F G L A E N R E
UniRef90_R8ATE7      M E R E N K L Q V E A I   K N G T V I D H I   P A T I G I K I L S L F K F S E T R Q
UniRef90_B4F2M1      M T H D H K L K V E A I   K R G T V I D H I   P A Q V G F K I L S L F R L T E T D E
UniRef90_UPI000419A461   E Q K N K L S V E A I E H G T V I D H I   P A G L G L S I L R Q F K L L H Y G N
UniRef90_E1SUK1      M T K D N Q L Q V E A I   K N G S V I D H I   P A H T G I K V L R F Q L H K S E N
UniRef90_A0KQG1      M S E K N Q L Q V E A I   R H G S V I D H V   P A G Q G I K I L K L F Q L I E T Q E
UniRef90_UPI00037002F3     H Q R N V E A I   C D G T V I D H I   P A G Q G L V I L S Q F G L N D L G E
UniRef90_G4CII3          Q K L S V E A I   K D G T V I D H I   P A G L A L A I L R Q F K L L H Y G N
UniRef90_J7UB41      M T Q D H K L L V E A I   K C G T V I D H I   P A N V G F K L L S F F R L T E T D S
UniRef90_UPI0002DD6B95 M G K E Y K L Q V E A I K N G T V I D H I   P A H V G F K V M K L F K L H K T N E
UniRef90_X2HED9      M M N Q T R L S V E A I   K D G T V I D H I   P V G Q G L T I L R Q F K L L H S G D
UniRef90_M4U2H5      M I K K T K L Q V E A I   K N G T V I D H I   P A T L G I K I L K L F Q I D K T H H
UniRef90_U3U9A9      M K Y D N K L Q V E A I   K H G T V I D H I   P A Q V G F K L L S F F R L T Q T D Q
UniRef90_D2TZX4      M A N N H K L Q V E A I   S C G T V I D H I   P A Q M G F K L L S L F K L T Q T D Q
UniRef90_UPI00040F95E2     K K Q L Q V E A I   Q H G T V I D H I   P A G Q G I K I L K F F H L A D D N K
UniRef90_R7U7Q2          N K L Q V E A I   C Q G T V I D H I   P A G Q G V K L D R L H L L N G E A
UniRef90_UPI0003B31261   E H K L T V E A L   K D G T V I D H I   P A G Q G R R I A K L R S E S G Q
UniRef90_R9PF66          K K K L Q V E A I   A H G T V I D H V   P A G Q G I K I L K F F Q L S A A Q E
UniRef90_C1D9A6          D Y T L K V E A L   K D G T A I D H I   P A S V G T K V L R M F G L M E S G E
UniRef90_V7IB30          D N K R L S V E A I   E N G T V I D H I   P A G L A L T I L R Q F K L L H E G C
UniRef90_UPI0003664E02 M T A K T Q L Q V E A I R N G T V I D H I   P A G Q A L K I L K L F H F L D T H Q
UniRef90_F5S5P2          K N Q Q L S V E A I   E N G T V I D H I   P A G L G L T I L R Q F K L L H Y G H
UniRef90_Q7P144          Q Y T R T V E A L   K Q G T V I D H I   P A G E G V K I L R L F K L T E T G E
UniRef90_E4NMT8      M S   D K E L R V S K I   R D G T V I D H L   T A G Q A L N V L A I L G I D G S G E
UniRef90_U6R5Q1      M T H D N K L Q V E A I   K C G T V I D H I   P A Q V G F K L L S L F K L T E T D Q
UniRef90_UPI0002556292     K S Q L Q V E A I   R Q G T V I D H I   P A G Q A L N I L K L F H F L D T K D
UniRef90_Q9HHN3      M S S D Q H L Q V S K I   Q A G T V I D H I   P A G Q A L Q V L Q I L G T N G S D D
UniRef90_W0JZ13      M T   D T E L R V S K I   Q S G T V I D H V   S A G A A L H V L S L L G I D E S E A
UniRef90_A4BHB4            T M A V E A I   E N G T V I D H I   P A G Q A L N I L S R I Q V R N S Q A
UniRef90_Q1LTK5      M H Q Y H K L Q V E A I   Y C G T V I D H I   P A Q V G I K L L S W F K L T A T D E
UniRef90_O26938      M K K P F E L R V K P I   K N G T V I D H I   T A N R S L N V L N I L G L P D G R S
UniRef90_S3DJZ7          K Q P Q L Q V E A I   R N G S V I D H I   P A R I G I K L L K L F K M Y E V N E
UniRef90_UPI00037DD921 M S E K Y A R N V E A L K N G T V I D H I   P A G L G L R I L D L F E L T S Y G E
UniRef90_UPI000471DBC1     K K Q L Q V E A I   A Q G T V I D H I   P A G T G I K I L R F F Q L A D A S K
UniRef90_P96175          K S N H M Q V E A I   C N G Y V I D H I   P S G Q G V K I L R L F S L T D T K Q
UniRef90_E1QQJ8      M S S K R E L I I S K I   R D G V V I D H I   P A G R A L L V L R L L G I S G R E G
UniRef90_K2R1L9      M K T P R E L K V K P I   K N G T V I D H I   S A N K A L R V L K I L G L P S P K I
UniRef90_B6YXW5          E L K V T A I   K E G T V I D H I   P A G K G L K V I E I L H L S R P N G
UniRef90_W2CGJ2      M S E Q K E L Q V A A I   E N G S V L D H I   P S E H L F K V A Q L L G L E H M D H
UniRef90_A1RZC6          E E G L L V R K I   R E G T V I D H I   P A G R A L N V L K I L G L T G R E G
UniRef90_UPI0003B4ABC8     N H K L Q V E A I   Q N G S V I D H I   P A Q Q G L K I L K F F K L A Q A N E
UniRef90_Q5JHN0          L K I E V I P E G T V I D H I   P A G K W L K V I E I L G L T K P N G
UniRef90_U1P238      M T E   Q E L R V S K I   E N G T V I D H I   A G G Q A L N V L A I L D I D G S G E
UniRef90_U1P238      M T E   Q E L R V S K I   E N G T V I D H I   A G G Q A L N V L A I L D I D G S G E
UniRef90_E3GWI8      M R K I R E L K V K P I   K N G T V I D H I   P A G R A L Q V L K I L K I P E G K N
UniRef90_B2RL77          K K E E M L V A A I   R N G I V I D H I   P P T K L F K V A T L L Q L D D L D K
UniRef90_F8NCS9          K K E L Q V A A I   E N G T V I D H I   P A D K T Y Q V V R L L R L E E I S T
UniRef90_A2BJ23      M E S G S G L L V R R I   R E G T V I D H I   P A G R A L T V L K I L G I T G R E G
UniRef90_G8UP03          K R K E L Q V A A L   E N G T A I D H I   P P A Q L F K V A E L L G L D K M D N
UniRef90_UPI0003739542     T L T V S K I   R N G T V I D H I   P A G R S L A V L K V L G I T G Y E G
UniRef90_Z4WRP6      M S K D K M L V E A I   R D G I V L D H I   P S D K L F K I V A L L H L E E L T T
UniRef90_A9D3H4          K K Q L K V E A I   E N G T V I D H I   S P G Q G I K I L R F F E L A K G P Q
UniRef90_B1L384          K E E L V V R R I   S D G T V I D H I   P A G R A L R V L K L L G I T E R D G
UniRef90_A1SZR7          Q K K L Q V E A I   E H G S V I D H I   P V Q Q G V K I I R F F N L T Q T N E
UniRef90_U2YVA3      M T E K T E L R V S K I   R D G T V I D H V   S A G E A L H V L A I L G I D G S G E
UniRef90_V4Y011      M T D E P Q L R V S K I   R N G T V I D H I   A A G Q A L N V L A I L D I D G S G E
UniRef90_Q0W5I3      M T G K R E L R V K P I   V N G T V I D H I   T S G Q S L N V L K I L G I N A S R Y
UniRef90_H3ZLG5          K E L K V S A I   N K G T V I D H I   P A G R G L K V L E I L N L S G   D N
UniRef90_R5ALI7          T D K K E L A V A A L   A N G T V I D H I   P A E N L F K A V S L L H L D K C R T
UniRef90_F9D182          K K E L Q V A A I   E N G T V I D H I   P A D K T Y Q V A R L L H L H E L D E
UniRef90_C7NSA1      M S D D Q E L R V S K I   R N G T V I D H V   N G G A S M H V L S I L G I E G G D G
UniRef90_D8J2L8      M T Q D H Q L R V G K I   R N G T V I D H V   T G G Q A L T V L A I L D I D G S G E
UniRef90_R6F5J5      M S N K T E R Q V A A I   K N G T V I D H I   P A E K T F Q V V N L L Q L E T L D T
UniRef90_H1PZD3          K K E R L V A A I   Q D G T V I D H I   P A A K T F Q V A N L L Q L E R L S T
UniRef90_U2C5N3          K K Q E L Q V A A L   E N G T V I D H I   P S E K L F T V V Q L L G V E Q M T S
UniRef90_C7NXI0      M S D D P E L R V S K I   E N G T V I D H I   P G G Q A L N V L A I L G I D G T G E
UniRef90_E8LH68          V S K G K L M V E A I   E N G T V I D H I   A P G Q A M N I L R L F N F L G K H
UniRef90_S5ZMD1      M S E   E L L V R K I   R D G T V I D H I   P A G R A L D V L K I L G L S G K E G
UniRef90_R7LDQ1          K R Q E L M V A A I   E N G T V I D H I   P S N K I F D V I R L L H L D T I T T
UniRef90_UPI00036B8FBC V E K G Q L R V N A I   K N G S V I D H I   P V E H L F K V V R L L H L D S L D V
UniRef90_G1W9F6          K K E M Q V A A I   E N G T V L D H I   P A E K T Y L V A D L L D L K A S T M
UniRef90_UPI0003FC1EC9     L N V G K I   E E G F V L D H I   E A G K S M S I Y R H L G L D K L D C
UniRef90_F6D6N2      M K T P K E L K V K P I   K N G T V I D H I   T A N K A L N V L K L P S K K S
UniRef90_W7YLV8      M S E K K E L S V S A I   E E G T V I D H I   P A D C L F K V I S I L G L D N C G N
UniRef90_F4BA17          K N G L I V S K I   K N G T V I D H I   P A G R A L A V L N I L G I K G N E N
UniRef90_J9FTV9          L N I D S L E N G I V I D H I   A A G R G M Q I Y Q L L E L D K L D C
UniRef90_F2L370          E L I V S K I   E N G T V I D H I   P A G R A L R I L G I T G R E G
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                              50         60         70        80
QUERY                   R I T I G L N L P S G E M G R K D L I K I E N T F L S E D Q V D Q L A L Y A P Q
UniRef90_C4LBX3         R I T V G L N L P S A A L G S K D L I K V E N T Q L T A D Q A N Q L A L F A P Q
UniRef90_E8XVP5         R V T V G F N L P S A A L G S K D I I K I E N T Q L T D E Q V N Q L A V Y A P R
UniRef90_G2DT68         A V T V G F N L P S K N H G S K D I I K I S G V R F D E Q A N R L A L F A P E
UniRef90_UPI0004789736  R I T I G L N L P S N E L G R K D L I K I E N V F L T E E Q A N Q L A M Y A P Q
UniRef90_U4KH05         R V T I G L N L P S S A L G A K D L L K I E N V F I N E D Q A Q K L A L Y A P H
UniRef90_G9YDZ5         R I T I G L N L P S N A Q G R K D L I K I E N V F L T E E Q V N Q L S L Y A P K
UniRef90_D7N502         A V T V G F N L P S K T Q G S K D I I K I S G V A F D D A A A N R L A L F A P E
UniRef90_F2PG20         R V T I G L N L P S S A L G A K D L I K I E N V F I N E D Q A N Q L A L Y A P K
UniRef90_Q1C1J6         R I T I G L N L P S K R S G R K D L I K I E N T F L T E Q Q A N Q L A M Y A P D
UniRef90_UPI000395B8DC  R I T I G L N L P S S A L G S K D L I K I E N V V I S E D Q A S Q L A L Y A P Q
UniRef90_Q5E7U6         R V T V G L N L P S S A L G A K D L L K I E N T F I T P E Q A S K L A L Y A P H
UniRef90_UPI00030969E9  R V T I G L N L P S S A L G A K D L L K I E N T F I S E E Q A Q K L A L Y A P H
UniRef90_Q7MZ14         R I T I G L N L P S N R L G K K D L I K I E N T F L T E Q Q A N Q L A M Y A P N
UniRef90_A6FE77         R V T I G L N L P S S A L G H K D L I K I E N V F L T E Q Q A N Q L A L Y A P H
UniRef90_H2G0D5         R I T V G L N L P S K A L G A K D L I K V E N V R L S S A Q A N Q L A L F A P E
UniRef90_R8ATE7         R I T V G L N L P S A A L G Q K D L I K I E N V F L T G E Q A N Q L A I Y A P D
UniRef90_B4F2M1         R I T V G F N L P S E N L G K K D L I K I E N V F L T A E Q A N R L A M Y A P Q
UniRef90_UPI000419A461  A V T V G F N L P S R T Q G S K D I I K N V L F S E Q A N R L A L F A P E
UniRef90_E1SUK1         R I T I G L N L P S S A L G H K D L I K I E N L F I D E E L A N R L A L L A P N
UniRef90_A0KQG1         R I T V G F N L K S G A L G K K D L I K I E N T R L T E Q Q A N Q L A L F A P K
UniRef90_UPI00037002F3  R V T V G F N L T S Q D M G H K D I I K V E N V H F N A E Q A N R L A F F A P N
UniRef90_G4CII3         A V T V G F N L P S G R H G Q K D I I K I T G V Q M D D H T A N R L A L F A P E
UniRef90_J7UB41         R I T I G L N L P S N N M G R K D L I K L E D T F L T P E Q A N Q L G F Y A P K
UniRef90_UPI0002DD6B95  R V T V G F N L P S S A V G A K D L I K I E N I F I S A E Q A K Q L A L Y A P Q
UniRef90_X2HED9         A V T V G F N L S S K S T G S K D I I K I S G Q Y L D D A A A N R L A L F A P Q
UniRef90_M4U2H5         S V T I G L N L P S S A I G H K D L I K I E N V F I T K D Q A N L L A L Y T Q N
UniRef90_U3U9A9         R V T I G L N L P S C E M G R K D L I K I E N T C L T D D Q I N Q L A V Y A P N
UniRef90_D2TZX4         R I T I G L N L P S N H L G K K D L I K I E N T F L T P E Q A N E L A M Y A P H
UniRef90_UPI00040F95E2  R I T V G L N L P S G N R P N K D L I K I E D T T F S E E Q A N Q L A L F A P N
UniRef90_R7U7Q2         R I T V G F N L P S K A R G F K D I I K V E G R M F T E Q E A N E L A L F A P S
UniRef90_UPI0003B31261  R V V Y M G F N L P S Q R S G K K D L I K V E N I L L S A E D A N Q L A L Y A P D
UniRef90_R9PF66         R I T V G L N L P S G E Q Q Q K D L I K V E N T V F D E N Q A N Q L A L F A P N
UniRef90_C1D9A6         R L Y V G L N L P S R R L G K K D L I K V E N I L L T A E Q A N Q L A L F A P N
UniRef90_V7IB30         A V T V G F N L P S K R H G R K D I I K I N G I K L N E A A A N R L A L F A P E
UniRef90_UPI0003664E02  A I T V G F N L P S K A F G H K D L I K I E N A S L T E D Q A Q N L A I F A P D
UniRef90_F5S5P2         A V T V G F N L P S Q S Q G S K D I I K I N V Q F S E Q D A N R L A L F S P N
UniRef90_Q7P144         R V T V G L N L V S R H M G S K D L I K V E N V A L T E E Q A N E L A L F A P K
UniRef90_E4NMT8         S V S I G M N V P S D R L A R K D I V K V E D R E L S Q S E V D V L S V I S P E
UniRef90_U6R5Q1         R I T I G L N L P S G E M G R K D L I K I E N T F L T D E Q V N Q L A L Y A P Q
UniRef90_UPI0002556292  R I T V G F N L P S K A F G H K D L I K V E N V S I T E E Q S N Q L A L F A P K
UniRef90_Q9HHN3         Q I T V G M N V T S E R H H R K D I V K I E G R E L S Q D E V D V L S L I A P D
UniRef90_W0JZ13         T V S L G M N V P S D R M G R K D V V K V E G R E L S D S E L E V L S L I A P E
UniRef90_A4BHB4         R V T V G L N L R S G G N G T K D I I K V E G W L F S E F D A A E M A L Y A P N
UniRef90_Q1LTK5         R I T I G L N L P S N K Q G K K D L I K I E N V L L T E E Q A N Q L A I Y A P Y
UniRef90_O26938         K V T V A M N M D S S Q L G S K D I V K I E N R E L K P S E V D Q I A L I A P R
UniRef90_S3DJZ7         R I T I G L N L P S S A L I H K D L I K I E N V F L T K E Q A N Q L V L Y A P K
UniRef90_UPI00037DD921  R V T V G L N L S S G H M G N K D L I K V E N L V L T E G Q A N E L A L L A P K
UniRef90_UPI000471DBC1  R M T I G L N L P S H G E M K D L I K I E N T Q F T E E Q A N Q L A L F A P N
UniRef90_P96175         R V T V G F N L P S H D G T T K D I I K V E N T E I T K S Q A N Q L A L L A P N
UniRef90_E1QQJ8         R V A L V M N V E S R K L G T K D I V K I E G R E L T K D E L N L V A L V A P T
UniRef90_K2R1L9         A V T L A M N V Q S S Q M G N K D I V K I E G R E L A S R E V D E I A L I A P N
UniRef90_B6YXW5         G V L L A S N V H S K K L G K K D I V K I E G K F L S E E E V N K I S L I A P T
UniRef90_W2CGJ2         R I T I G N N L K S S K M G H K G V I K I A D K F E E D E I N R I A V V A P N
UniRef90_A1RZC6         T I A V V M N V P S R K L G V K D I V K V E K R F L E P S E V D K I A L I A P S
UniRef90_UPI0003B4ABC8  K I T V G L N L N K K N G L R K D L I K V E N T F I S D E Q A N Q L A L F A P D
UniRef90_Q5JHN0         G L L I A S N V P S K K L G R K D I V K V E G R Y L S E E E V N K I A L I A P M
UniRef90_U1P238         A V S I G M N V P S D R L G R K D V V K V E D R E L S Q S E L D V L S L I A P A
UniRef90_U1P238         A V S I G M N V P S D R L G R K D V V K V E D R E L S Q S E L D V L S L I A P A
UniRef90_E3GWI8         K V T I G I N M E S S R M G I K D I V K I E N R E L H S E E V D Q I A L I A P K
UniRef90_B2RL77         R I T I G L N L R S R S H G S K G V I K I E D K T F E E E E I N R I A L I A P N
UniRef90_F8NCS9         P V T I G Y N L P S S K L G R K G I I K I A D K Y F T D E E I N R L S V V A P N
UniRef90_A2BJ23         R I A V V M N V E S R K L G R K D I V K I E G R H L S P E E V D K I A L V A P R
UniRef90_G8UP03         R I T I G N N F E S K K M G C K G M I K I A D K F F E E D E I N R I A L V A P N
UniRef90_UPI0003739542  R I A I L M N V E S K K L G K K D I V K L E D R V V D E R E A S V I S L I A P E
UniRef90_Z4WRP6         P V T I G N N L Q S V R H Q R K G I I K M A D H F S P K D V D K I L L L A P N
UniRef90_A9D3H4         R L T I G L N L P T S S G D F K D L I K I E H T V F D Q N Q A N Q L A L F A P K
UniRef90_B1L384         V V A L V M N V P S K K L G K K D I V K I E G R E L S K E E V D K I S L I A P S
UniRef90_A1SZR7         K I T I G L N L A T H T G Q K K D L I K V E N T F I S D K Q A N Q L A L F A P H
UniRef90_U2YVA3         S V S V G M N V P S E T M G H K D I V K V E G R E M S E A L D V L S L I A P D
UniRef90_V4Y011         S V S V G M N V P S G R I E R K D V V K V E G R E L S P A E V D V L S L I A P E
UniRef90_Q0W5I3         V V S V L M N V P S G E M K G K D V V K I E N R E L D P E E L D S I A L I A P R
UniRef90_H3ZLG5         T I L I A M N V R S G K L G R K D I I K V E G K I L N E E E V N K I A L I A P S
UniRef90_R5ALI7         R M T I G L N L P S G R L G T K G I I K I A D V E L P E A T I N R I A L I A P H
UniRef90_F9D182         Q I T I G Y N L P S R K V G R K K G I I K V S N K Y F T D E E I S K L S V I A P K
UniRef90_C7NSA1         T V S I V M N V P S D R L G K K D V V K V E D R E L S Q A E V D V L S L I A P A
UniRef90_D8J2L8         E I S V G M N V P S D R I G R K D L K I E G R E L S Q E E V D V L S L V A P D
UniRef90_R6F5J5         P V T I G Y N Y P S N K I G R K G I I K V S D K F F T D E E I S V V A Q N
UniRef90_H1PZD3         P V T I G Y N F T S N K V G R K G I I K V S N R F F T D A E I S H L S V V A P N
UniRef90_U2C5N3         N I T I G F N L D S K K L G R K G I I K I A D K F F C D D E I N R I A V V A P R
UniRef90_C7NXI0         E V S V A M N I P S D R L G K K D V K I E G R E L S Q N E V D V L S L I A P A
UniRef90_E8LH68         H V T I G Y N L R S G E L G S K D I I K I A D V T F S P S E T E Q L A I L A P N
UniRef90_S5ZMD1         T I A I V M N V P S K K L G K K D I V K I E G K F L E P K E V D E I A L I A P T
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UniRef90_A6FE77         A T V N Q I  E N Y E V V S K K L K L A L  P H E I T A V F A C P N S N C I T H N E P
UniRef90_H2G0D5         A T V N L I  E D F E V V E K L Q L Q L  P E Q V E G V F S C P N G N C I S H R E P
UniRef90_R8ATE7         A T V N Q I  E N Y Q V V Q K R H L E L  P E Y I E H V L N C P N S N C I S H S E P
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UniRef90_A0KQG1         A T V N I I  E D F A V V K K H Q L E L  P E F I A G V F H C P N S N C I S H N E P
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UniRef90_M4U2H5         A T I N Q I  K D Y E S E K F Q L T L  P E K V N A V F S C P N S N C I T H N E P
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UniRef90_A4BHB4         A T V N L I  E D Y Q V V R K F P I G L  P A E F T G I F D C P N S N C I S H T E P
UniRef90_Q1LTK5         A T V N R I  A N Y N V V C K R T L T L  P E S I A N V F I C P N S N C V S R S E P
UniRef90_O26938         A T I N I V  R D Y K I V E K A K V R L  M D E V R G I L R C P N P N C I T N S D E
UniRef90_S3DJZ7         A T V N Q I  E E Y K V V K K L T L T L  P K H I N N V F K C P N S N C I S H G E P
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UniRef90_K2R1L9         A T I N I I  R D Y E I V G K G K V N L  L D E I N N I L T C S N P N C I T N T E P
UniRef90_B6YXW5         A T V N I I  R D Y G V A E K F N V E I  P D E I V G I L R C A N P N C V S N H E Y
UniRef90_W2CGJ2         V V L N I I  R D Y E V V E K R V E I  P D E L T D I I R C N N P K C I T N N E P
UniRef90_A1RZC6         A T I N L I  R D F Q V A S K R R V E  P P A V V T G I L R C P N P N C V T N S E P
UniRef90_UPI0003B4ABC8  A T I N Q I  K N F K V V N K F K V Q L  P D A F V G V L A C P N S N C I S H N E P
UniRef90_Q5JHN0         A T V N I I  K D Y K I I E K F N V E I P D E I T G I L K C P N P N C V S N H E Y
UniRef90_U1P238         A T I N I I  R G Y D V V
UniRef90_U1P238         A T I N I I  R G Y D V V
UniRef90_E3GWI8         A T I N I I  R D Y E V V K K E K V Q L  R D E I E G L I K C P N P N C I S N A D E
UniRef90_B2RL77         V R L N I I  R D Y E V V E K R Q V E V  P H E I V G L V R C P N P K C I T N N E P
UniRef90_F8NCS9         I V L N T I  H N Y G V V E K K K R V E T  P E E L R G I I K C P N P K C I T N N E P
UniRef90_A2BJ23         A T I N I I  H D Y R V V A K R R V T V P D I V E G I L M C P N P S C I T R V E P
UniRef90_G8UP03         V V L N I I  R D Y E V V E K K C V R L  P D E L I D I I R C N N P K C I T N N E P
UniRef90_UPI0003739542  A T I N I V  R D F N V V E K R N L R L  P E I I K G L L K C P N P L C V T N N D P
UniRef90_Z4WRP6         V H L N V I  R D Y Q V V E V R G L V R C P N P K C I T N A E P
UniRef90_A9D3H4         A T I N V I  E N F E V V D K F K V A I  P E S I S G V L T C P N S N C I S H N E P
UniRef90_B1L384         A T I N L I  R N F E V A S K R R V E L  P R R V V G I L R C L N P N C V T N A E A
UniRef90_A1SZR7         A T I N Q I  K D F K V V N K F Q V Q L  P D S F I D V L A C P N S N C I S H H E P
UniRef90_U2YVA3         A T V N I I  R D Y E V A E K T Q I E P  P E Q V T G L L T C P N R H C I T N A E P
UniRef90_V4Y011         A T I N I I  R D Y E V V H K T R V Q R P T S V T G V L E C P N H S C I T N A E P
UniRef90_Q0W5I3         A T I N I I  R N Y E V V G K H R V D P P R E V S G L V R C G N P N C I S N N E P
UniRef90_H3ZLG5         A T V N L I  E N W E V V M E K R K V E I  P D E I I G I I C C A N P N C I T H Y E E
UniRef90_R5ALI7         A R V N T I  R D F E V V E K R Q V E L  P D M I V G I V K C P N P K C I T N H E P
UniRef90_F9D182         I V L N I I  K N Y E V V E K K T V E T  P D E L H G I V K C N N P K C I T N N E P
UniRef90_C7NSA1         A T I N I I  R D F E V I E K R R V A R P D E V V G V L S C P N P Q C I T T D E P
UniRef90_D8J2L8         A T I N I V  R E Y D V A E K H R V E R P E E V V G V L S C P N A N C I T T E E P
UniRef90_R6F5J5         V V L N I I  H D Y E V V E K K T V K T  P D E L R G I V K C N N P K C I T N N E P
UniRef90_H1PZD3         A V L N I I  H D Y E V V E K K T V R T  P D E L R G I V K C P N P K C I T N N E P
UniRef90_U2C5N3         V Q L N I I  R D Y E V I E K R E V Q L  P D E L R S I V R C A N P K C I T N N E P
UniRef90_C7NXI0         A T I N I I  R E F D V A E K H R V E R P G R V Q G V L E C P N R N C I T T S E P
UniRef90_E8LH68         A T I N N I  K D Y K V I D K Y N L R L  P L E S V G A F S C P N S N C V T H M E K
UniRef90_S5ZMD1         A T I N I I  K D F R V L E K R R V Q V  P G E I L G I L V K C A N P N C V T N T E P
UniRef90_R7LDQ1         V T L C I I  R D Y E V A E K K C V T L  P D E I L G I V K C A N P K C I T N N E P
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UniRef90_G1W9F6         V V L N I I  K D Y E V V E K K M V E T  P Q V L R G I V R C N N P K C I T N N E P
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UniRef90_F6D6N2         A T I N I I  R D Y E I V E K G K V N L  L D E I N N I L E C P N P N C I T N N E P
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UniRef90_J9FTV9         I T V N I I  K D G K I V A E K K H L T V N V A K C P N P N C I T S V E Q
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                                        130             140             150
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UniRef90_Q7MZ14         V E S S F R V K V T V E D V V L T C K Y C E K E F D R N V V I L N
UniRef90_A6FE77         V D S H F A V V A S H E V Q L K C K Y C E K V F S R K I M T E
UniRef90_H2G0D5         V S S K F R V R A V R H Q V M F R C R Y C E K S F Q R D M M V
UniRef90_R8ATE7         V S S G F W V R K K A Q Q V L L K C K Y C E K V F D S E V V T E
UniRef90_B4F2M1         V Q S S F R V K K F A S D V V L T C K Y C E K E F E R H A V I R
UniRef90_UPI000419A461  V S S R F Y V R V Q G R Q T K L K C H Y C E K T F A R E A V A E
UniRef90_E1SUK1         V P S R F K V S S K D T L I K L K C H Y C E K A F N R E S M S E
UniRef90_A0KQG1         V D S Y F R V R E V K G V V R M K C K Y C E K S F T Q D I V S E
UniRef90_UPI00037002F3  V L S R F K V K S K D G D V K L R C H Y C E K T Y A R K L V T E
UniRef90_G4CII3         V K S R F Y V R Q G S G Q T K L K C H Y C E K T Y A R E S V A E
UniRef90_J7UB41         V E S S F T V K S I A Q E I V L I C K Y C E K E F D H A I I N N
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UniRef90_X2HED9         V K S H F S V R V S H G E T R L C C H Y C E K T F A R E S V I E
UniRef90_M4U2H5         V E T S F N V L S K D D V L F L R C K Y C E K V F S R E I M A E
UniRef90_U3U9A9         V Y S N F S V K E R Y K K L L L K C K Y C E K E F T R Q V V I D H
UniRef90_D2TZX4         V S S S F N V K Q L H N E V I L T C K Y C E K T F D R H A V I N N
UniRef90_UPI00040F95E2  V D S R F H V R S N D G D T K L K C H Y C E K S Y S T N
UniRef90_R7U7Q2         V E S Y F Y L R Q K S S D I Q L K C H Y C E K S F S K E I V A E
UniRef90_UPI0003B31261  V T S H F S V R S R H G E I R L K C K Y C E K A Y A K E
UniRef90_R9PF66         I D S N F Y V R H Q Q Q D I K L K C H Y C E K T F D R
UniRef90_C1D9A6         V R S R F S V R A K D G S V R M K C H Y C E K S F S Q D I V A E
UniRef90_V7IB30         V A S R F Y V R R L G N Q T R L K C H Y C E K T Y D R S L V T E
UniRef90_UPI0003664E02  A E S N F Q V L N Q N G R I R L K C R Y C E K V F D K A L V
UniRef90_F5S5P2         V R S L F Y V R E Y K G T K L K C H Y C E K T F A R E M V
UniRef90_Q7P144         V K S V F Y V K T L A H D T K M K C K Y C E K V F S R D I V A E
UniRef90_E4NMT8         V A S R F E V L S D G L R C G Y C G T I V R E D E V A S N
UniRef90_U6R5Q1         V S S S F A V K N
UniRef90_UPI0002556292  V I S N F K I I N N N G K I Q L K C K Y C E K V F D R E I V T N N
UniRef90_Q9HHN3         V R S G F D V L D D G M R C Q Y C E Q I V S E D I
UniRef90_W0JZ13         V Q P T F A V I D D G V R C E Y C D E I V R E D
UniRef90_A4BHB4         V A T R F Y V R E Q V R P I Q L T C H F C E R S F T D S L F T R N
UniRef90_Q1LTK5         V A S G F I I K T R G K Q I H L K C K Y C E K V F E R R A V
UniRef90_O26938         G V E N R F Y V I S E E P V L L R C Y Y C E R L I E A D E I
UniRef90_S3DJZ7         I E S N F H V R L K N E H V Q L K C Y Y C E K V F S R E I M T
UniRef90_UPI00037DD921  V Q S H F S V R V T E H D T K M K C K Y C E K V F S K D I V V A
UniRef90_UPI000471DBC1  V T S K F N V R E T G C E L K C H Y C E K T F
UniRef90_P96175         V I S S F T I K M I K G N I G L K C K Y C E K T F S K E I V T A
UniRef90_E1QQJ8         V R S R F H V V S R E P L K L V C E Y C G T M H E L S D I
UniRef90_K2R1L9         V T T R F T V L Q K E P M I L R C H Y C E R I M D Q A E V
UniRef90_B6YXW5         V T S K F Y V V S R E P L K V R C H Y C E R T M E E S E I L S N
UniRef90_W2CGJ2         M K S R F Y V T D K E C G T V Q C R Y C E H K I H R D E I V
UniRef90_A1RZC6         V T P R F V R V S L S P L K L K C A Y C E E T L S E A E I V
UniRef90_UPI0003B4ABC8  V N T Q F Y V N N R N E L K L K C H Y C E K S F
UniRef90_Q5JHN0         V T P R F H V E S R E P L K L R C H Y C E R T I N E D E I A Q N
UniRef90_U1P238
UniRef90_U1P238
UniRef90_E3GWI8         P I K T K F Y V V D K E P V T L R C Y Y C E R L I K E E E I
UniRef90_B2RL77         M Q T R F R V I D A E Q C T L R C D Y C E R K L A G D R I
UniRef90_F8NCS9         M K T Y F T I D K V K G L V R C H Y C D K E Q R L D S V T
UniRef90_A2BJ23         V K P R F R V V S R Q P L V L Q C V Y C G T L V S E E D V A E
UniRef90_G8UP03         M K S H F Y V T D K E T G A V K C R Y C E R K T N Q E E I T
UniRef90_UPI0003739542  E A L S E F V K V S E K P L R L R C V Y C D T Y L N E A D V L R
UniRef90_Z4WRP6         M Q T F F V V V E G G K G M L E C H Y C G R K T K A E E
UniRef90_A9D3H4         V D S L F N I K Q E R V G V K L K C H Y C E K S F
UniRef90_B1L384         V E P S F T L I S E S P L R M V C E Y C G E Y L R E E D I I E
UniRef90_A1SZR7         V D T R F Y V K K K S T L K L K C H Y C E K T F D H
UniRef90_U2YVA3         V A T R F D V I D D G V R C A Y C E T I V R E D I
UniRef90_V4Y011         V D S E F D V L D E G V R C R Y C E T I F R E E I
UniRef90_Q0W5I3         V T S R F T V E R T G D D I Q L R C S Y C E Y V I D Q E I
UniRef90_H3ZLG5         V T P K F K V L S K K P L K L K C H Y C E R T M E E D I V L K H
UniRef90_R5ALI7         M A T R F D V V D R D D V T L R C C Y C G Q
UniRef90_F9D182         M Q T Y F T I V D K A A G I V K C H Y C D K E Q D I D K V
UniRef90_C7NSA1         V E S R F E V L E D G V R C C Y C D T I V R D D
UniRef90_D8J2L8         V E S R F A V L A D G V R C A Y C G T L I R E
UniRef90_R6F5J5         M H T V F H V V N K E K G I L K C H Y C D K E Q F I E K V
UniRef90_H1PZD3         T G T I F H V V D K S E G I L R C H Y C E K E Q H I D Q V
UniRef90_U2C5N3         M A T R F H V I D K E N C I V K C H Y C E K E Q K R D E L V
UniRef90_C7NXI0         V D S A F E V L D D G V R C E Y C D T I I R E D I
UniRef90_E8LH68         A T P R F K I F K Q G D Q V M M R C H Y C E R V F T R E V I L E N
UniRef90_S5ZMD1         I E T R F K L V S I A P L K L K C Y Y C E D I V T E E Q V I Q
UniRef90_R7LDQ1         M E T H F H V V P S E R G C I K C H Y C E K E Q S L D N I
UniRef90_UPI00036B8FBC  M K S A F R L L D R E Q E I M Q C E Y C T R K V H R G E I V
UniRef90_G1W9F6         M A T L F H V V D K V H G V V K C H Y C D K E Q N M N E I
UniRef90_UPI0003FC1EC9  G L P H I F Y L A D E A N E I Y R C K Y C D E K Y S D K A V V Y F N
UniRef90_F6D6N2         V K T K F Y V I E K K P V T L R C Y H C E R I M N K E D I E S D
UniRef90_W7YLV8         I T T H F S L V N A N V L A L K C H Y C E K I I T T E E
UniRef90_F4BA17         E A R S R F I V I S K L P L V L K C D Y C E T T L T E D E V L R
UniRef90_J9FTV9         E L D H V F L L S D R E R G I V R C A Y C G Q V Y T R
UniRef90_F2L370         V V T S F V L V K E E P P T F A C E Y C G R Y H S L E E L V
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Multiple sequence alignment (positions 1–40):

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                          1         10        20        30        40
UniRef90_W7L8H6               E N G L I V S K I R N G T V I D H I P A G R A L A V L K V L G I R G S E G
UniRef90_R5NXI1           K R Q E L L V A A L E S G T V I D H I P S S K L F E V V N L L H L E Q M K T
UniRef90_UPI00046933D2    H K E E M M V A A I Q N G T V L D H I P P C R L F K V A S M L G L E N L S E
UniRef90_R7JRE3           K N N K E L Q V A A I E N G T V L D H I N A G K A L L V L R I L G I S G S R E
UniRef90_F2KTB6       M S E     Q L A V S K I R D G T V I D H I N A G K A L L V L R I L G I S G S R E
UniRef90_H6Q4E5       M S Q K N K L Q V E A I F Q G T V I D H I P A K V A I K L L R I F K L L R T T E
UniRef90_R5CC46               L S V G K I E E G F V L D H I R A G R A M K I Y H Y L G L D K L D C
UniRef90_G2MJQ2       M S   D H E L R V S K I R N G T V I D H L S G G S A L N V L G L L G I D G S E T
UniRef90_UPI000237BE73 M V H N K E L K V S A I E N G T V I D H I P S D N L F K V I T I L G L D K I T T
UniRef90_H8I483           S K E R E L R V K P I N N G T V I D H I E A G Q A L N V L K I L G I G H T R H
UniRef90_F4KNB7           K Q Q E G M L V T A I C N G T V I D H I P P K K L F K I A H L L Q L E D M E E
UniRef90_W0ETV2           V E K K E L K V A A L E N G T V I D H I P S N Q L F K V V S I L G L E N C P N
UniRef90_R6RJN1                   L N I S G I K E G V V L D H I Q A G K S M E I Y K Y L G L G K M D C
UniRef90_V4JGI0           K E G R M L L V T K I K D G T V I D H I P A G R A L T V L R I L G I R G D E G
UniRef90_R7F0U2           K K E L A V A A L R N G T V I D H I P P R A V F K I V E M L G L V N E P D
UniRef90_UPI0004793AF9 M T Q H K Q L Q V S A I E N G T V I D H I P A E S L F V V I N I L G L D T I P N
UniRef90_R5P1N5           K K E L Q V S A I E N G T V I D H I P A E K L F D V I N V L G I T A L D N
UniRef90_R7J1V4           D K K E L A V A A L R N G T V I D H I P S A A L F K A V R V L G V E S M D K
UniRef90_UPI000370AADB        K E L Q V A A L E N G T A I D H I P S D A V F K V V S L L Q L Q K L N N
UniRef90_E7QYW7               D H E L R V S K I R N G T V I D H I R A G Q A L N V L A I L G I D G S D E
UniRef90_U1P2G0       M S   D R E L R V S K I R D G T V I D H V T A G Q A L N V L A I L G I D G S G G
UniRef90_G0EHM1           K N S E L L V R K I R E G T V I D H I P A G R A L A V L K I L G I T G R E Y
UniRef90_J2ZL20               E H E L R V S K I R N G T V I D H V S G G Q A L N V L A I L G I D E A G E
UniRef90_Q8TVB1                   L K V K R I E M G T V L D H L P P G T A P Q I M R I L D I D P T E T
UniRef90_D3IHX2           N K K E R L V A A I K N G T V I D H I P A D K T F Q V V N L L E L Q T L N E
UniRef90_A0B8L2               E R E L K V R P I R S G T V I D H I Q A G Q A L N V L K I L G I S G T T G
UniRef90_W0JL81       T H D H E L R V S K I H N G T V I D H V R S G Q A L N V L A V L G I D G S E E
UniRef90_K1ZH67       M K N D K Q I K V F A I K E G T V I D H I P A G Q A L L I K L Q N N E K
UniRef90_C3JAD8               E M P V A S I C N G T V I D H I P S N K L F K V A A L L H L D T M E S
UniRef90_F0TC48       M K T P R E L K V K P I K N G T V I D H I T A N K A L N V L K I L G L P N K E T
UniRef90_U1N800           D D Q E L R V S K I R N G T V I D H L T A G E A L N V L A I L D I D G S G E
UniRef90_S8FDW8       M N E K K K L L V A A L E N G T V I D H I P C D K V F T V A T L L G L Q D S D S
UniRef90_UPI00046922FA M S E K K Q L Q V A A L E N G T V I D H I P S G K L F T V V S L L R L Q N S D L
UniRef90_R7D085       M N E N K Q L Q V A A L K D G T V I D H I P S G K L F Q V V S L L G I E H M D S
UniRef90_H9ZZW5       M S E K S T L V V S K I K H G T V I D H I P A G K A M N I L S V L G I G E K G D
UniRef90_D9Q236                   L L V S K I R E G T V I D H I P A G R A L V V L K I L G I T G N E G
UniRef90_R5I064           N K E K Q L K V S A I K N G T V L D H I P S G Q V F K V I D I L G L Y D S A H
UniRef90_A8A8H5               K E L K V S K I N N G T V I D H L P P G R A L K V L R L L G I D G S E G
UniRef90_Q9UX07           S K R D E L I V S K I R N G T V I D H I P A G R A L A V L R I L G I R G S E Y
UniRef90_D3IE25           K K E R L V A A I E N G T V I D H I P A E K T Y Q V V S L L G L E H T L S
UniRef90_R6P4F2               M N I D S I K N G I V I D H I T A G R S M K I Y R L L G L E S L D C
UniRef90_D3DZ25               E L K V K P I E N G T V I D H I P A N K A L Q V L K I L G L P K K G T
UniRef90_E4T1P8           E K K L K V A A L C N G T V I D H I P S D K L F K V V S I L H I E T S L N
UniRef90_UPI000419A3F3 M S E K K E L Q V A A L C N G T A I D H I P S D Q L F K V V S L L N L D N L A H
UniRef90_H1HRP1                   L N I S G L S E G I V L D H I K A G K S L D I Y Y Q L G L N K L D S
UniRef90_F6BAU8           K N R E L K V K P I Q N G T V I D H I K S G K A L D V Y N I L K I P D D L
UniRef90_R9MEI8           N N T L N V G R I E E G F V L D H I Q A G R S M D I Y K Y L N L D K L D C
UniRef90_A8MCA3       V Q E R D L I V S K I D G I V I D H I P A G R A L I V L R V L K L K G G E G
UniRef90_UPI000471BC67 V E K G A L Q V P A I C N G S V I D H I P V E K L M K V V R L L G M D R L N L
UniRef90_R7BKP0                   L N V G K I T E G F V I D H I Q A G R C M D I Y Q Y L G L D K L D C
UniRef90_T1D780               R E L K I T P I R N G T V I D H I P D G L A L E V L R I I G R L G R D S
UniRef90_R5EQA6           N N K S K L L V E A I A N G T V I D H I A P G Q A I N I I R M F K F L S K N N
UniRef90_A0RXJ6               E S E L I V R R I R E G T V I D H I D G G R G L Q V L S A L G I D G G D G
UniRef90_UPI0003B64AD6        L N V G K I E E G F V L D H I P A G K G M S Y Y H L G L D K L D C
UniRef90_R7DJL5       H K K E L E V A A L E N G T V I D H I P S N Q L F K V V S L L G L E H L N K
UniRef90_UPI0003B662A1        L N V G K I E E G F V L D H I K A G R S M Q I Y H H L G L D R L D C
UniRef90_A3MX26               K E L I V S K I E N G T V I D H I P A G R A L M V L R V L G I T G R E G
UniRef90_D5EYF5           N K K E R L V A A I E N G T V I D H I P T D K T Y Q V A S L L G L F T L K T
UniRef90_J9FN18           K R E Q L K V A A I E N G T V I D H I P S E K L F E V I N L L R L S E Y H S
UniRef90_UPI00037B954C M K E N K Q L L V A A L E N G T V I D H I P S D Q L F T V V H L L K L D K L E T
UniRef90_U2U6A4                   M K I D G I E N G I V L D H I K A G R S M L V Y R Y L G L D R V K S
UniRef90_UPI0003F70918        L N I G K I E E G F V L D H I Q A G K G M Q I Y N H L G L N K L D S
UniRef90_T1DTT9       M K K E K F L V A A I Q N G T V I D H I P T E K L F S V A A M L R L H E I A T
UniRef90_K2C8G1           N E T L L V S A I K N G T V I D H I T S G Q A L R I I H L L S L Q S S H Y
UniRef90_G7WPG2       M T E D M K L R V T P I G N G T V I D H I P P G Q A L N V L R I L G I D R T T E
UniRef90_D6YUA3           E K T L P V S A I Q N G T V I D H I P A G K A L K I V K L L N L S T E R L
UniRef90_R4W6E8           E R E L R I S K I E N G T V I D H V P G G E A L N V L A V L G I D G T G E
UniRef90_G5H986       M T M E G T L E V R A I E N G T V I D H I P A N S L F K I I K I L G L D T E T H
UniRef90_R6TTF9                   M N I D P I K N G I V I D H I T A G S A M K I Y S L L R L G T L T C
UniRef90_F8EXZ1                   L N I A K I K N G I V I D H I K A G Q G L R I F N W L G L G K A P Y
UniRef90_R9MII3               M N I D S I S N G V V L D H I Q A G R S M E I Y K H L G L D R L D C
UniRef90_R6ASL5               M N I D A I R N G I V I D H I T A G K A M Q V Y N M L N L D K L D C
UniRef90_Q2NGY3           K S E L K V K R I K N G T V I D H I T A N R S L N I L N M L K L P D D E T
UniRef90_Q97B28           E E K T L K I K D G T V I D H I P S G K A L S I L G I D D V D Y
UniRef90_R6X1A6                   M L V T A I E N G T V I D H I P A E K T Y K V A N L L K L D T L T T
UniRef90_M0MG62       M S E D H E L R I S K I Q D G T V I D H I A G G H A P D V L A I L G I D G T D E
UniRef90_A9KNJ4                   L N I S G L N Q G V V I D H I Q A G C A M K I Y E Y L H L E K L D C
UniRef90_P74766           N R K E L M V S K I R N G T V I D H I P A G R A F A V L N V L G I K G H E G
UniRef90_T1A4K1       M I E G H D L R V S A I R N G T V I D H I G G G L A L D V L I G V H L D S
UniRef90_R5GKS5           K R E E L L V A A I Q N G T V I D H I P P A K I F E V V N L L H L E N V K T
UniRef90_R7PC17           K K E E L L V A A I E N G T V I D H I P S N K L F E V I N L L Q L Q K L H T
UniRef90_K0IM94       M S D T S Q L L V R R I R N G T V I D H I E A G K A L L V L R A L S I T G K E G
UniRef90_UPI00037E1F8A M A E E T E M K V T K I R N G T V I D H I P N G R A L S V L K L G L T G K E G
UniRef90_C4G9E8                   L N I S G I Q E G F V L D H I K A G M S M R I Y N D L G L A D R D C
UniRef90_C6LLC6                   L N V G A L N E G F V L D H I E A G K S M T I Y H Y L R L D K L D C
UniRef90_R5B6H1                   M I I D A I Q N G I V I D H I T A G K S M E L Y S I L G L G E L D C
UniRef90_D3S167               Q L T I S K I R E G T V I D H I N A G K A P L V L I D L D K S K E
UniRef90_G2LN78           E I N K L Q V E A I K S G S V I D H I P A H I G F K L L S L F R F T E T E K
UniRef90_Q8THL3       M K E K R D L K I Q A I E N G T V I D H I T A G Q A L N V L R I L R I S S A R A
UniRef90_K2AHQ0                   K V F T I E E G T V I D H I D A G Q A L N I I R V L D L A K N D T
UniRef90_R5LYK7                   L N V G R I E N G T V I D H I D A G Q A L R I Y R Y L G L G E L D S
UniRef90_UPI0004708A52        M P V A T I C N G T V I D H I P S S K L F K V A S L L H L E E A S Q
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UniRef90_R5NXI1        S I T V G Y N L K S K K M G K S I I K I A G K F F S D E E L N Q L A V V S P N
UniRef90_UPI00046933D2 S I T I G N N L K S K K R C G L K G V I K I S N K Y F S D E E L G R I A L L A P S
UniRef90_R7JRE3        T I T I A N N L P S K K C G F K G M I K I S D K F F N D D E I S R I A L V A P N
UniRef90_F2KTB6        R V L M A M N V P S R K M G R K D I V K V E G K F I S E E E L N R I A L I A P G
UniRef90_H6Q4E5        R V T I G L N L P S N Q Q N K K D L I K L E N V F L N E D Q A N Q L S I Y A P L
UniRef90_R5CC46        P V A I I K N A R S G K M G K K D I L K V E C D I N S L D L D V L A F I D R N
UniRef90_G2MJQ2        G V S V A M N V P S D R L G T K D V V K V E G R E L S Q D E V D V L S L I A P R
UniRef90_UPI000237BE73 Q V T F G A N L D S K K L G R K A I I K V S E V F F E D N E I N K I S L V A P H
UniRef90_H8I483        V V S V L M N V P S G A M V A K D V V K V E D R E L E P E E V D T I A L I A P R
UniRef90_F4KNB7        P I T I G N N L D S H Y L G K G I I K I S G R M L S D E E A S R I A L I A P D
UniRef90_W0ETV2        S I T I G N N L V S K K L G R K G I I K V A D C F F K E E E L N K I A L V A P E
UniRef90_R6RJN1        T V A I I K N A R S S K M G R K D I I K I E G P L D S L D L D V L G Y I D H T
UniRef90_V4JGI0        R V A V V M N V E S T R M G R K D I V K L E N F Y P R F E D I T K I A L I A P T
UniRef90_R7F0U2        A I T I G N N L P S E N M G L K G I I K V S N R E F A R E E I N R I A L V A P D
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UniRef90_P74766        A T I N I I R E Y E V V K K T K L E V P K V V K G I L K C P N P Y C I T S N D V
UniRef90_T1A4K1        A T I S I I R D F E V V E K R P V T L P E T I R G I V K C P N P N C I S N G E P
UniRef90_R5GKS5        V S L C I I K D Y E V V E K K E V E L P D V I R S V V K C G N P K C I T N N E P
UniRef90_R7PC17        V S L C T I K N Y E V V E K K Q V E L P D D L I G I V K C N N P K C V T N N E P
UniRef90_K0IM94        A T I N I I R D Y K L I E K R I Q L P D S I V G I F K C P N L K C I T N S G E
UniRef90_UPI00037E1F8A A T I N I I R D Y K Y E K R K I Q D V E N I L K C T N P T C I S S N E P
UniRef90_C4G9E8        I T V N V I K D N Q I C E K R K L R L P K R I K N V I R C K N P R C I S S I E Q
UniRef90_C6LLC6        I T V N I I K D G R I V E K K E L S L P K K I V N V I K C K N P R C I T S I E Q
UniRef90_R5B6H1        I T V N I I R G G E L K E K K L N L P E R I R G V I K C K N P R C I T S V E Q
UniRef90_D3S167        A T I N I I K D Y K I I V K K F K V T P P E K L I R D R L I C P N S N C I S N A E R
UniRef90_G2LN78        A T V N Y I D E Y N L V G K V F P N L P E K I D R I L I C P N N S C V S N H N L
UniRef90_Q8THL3        A T I N I I R D F E V Q K N K V V L P S Y V E G V V R C M N S N C I S N S E P
UniRef90_K2AHQ0        S S I N I I K N Y E V T D K F A V T V P P S I K R L I V C P N P S C I T Q T E H
UniRef90_R5LYK7        I T I N I I R N G E I A E K V E K T N I I S K N P R C I T Q I E Q
UniRef90_UPI0004708A52 V H L N I I R N Y K V V E K R C V Q L P E E V I G I I S R C T N P K C I T N H E P
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                                   130             140             150
UniRef90_W7L8H6         E A T S T F I T V R K S P I T L R C A Y C E T E I G E E E V L R
UniRef90_R5NXI1         M K T Y F H   A V P G K E G V L R C H Y C N K E V D L D H V
UniRef90_UPI00046933D2  M Y S R F K V I D R D N E I   F R C H Y C G R K L K Q D D Q I
UniRef90_R7JRE3         M P T R F E V I D K E A   G T I K C H Y C E R K I N K D D I I
UniRef90_F2KTB6         I V R R F H V S M A E D N V V A R C H Y C G R K I T E
UniRef90_H6Q4E5         K S S D F F V R F K I N K I Y L Q C K Y C E R D F E H K I V I F N
UniRef90_R5CC46         G L P H I F Y L A D E K T A T Y R C D E K Y E E S D
UniRef90_G2MJQ2         V R S R F A V L N D G       V R C E Y C D E I V R E G I
UniRef90_UPI000237BE73  V T T H F K V V N K K E   V A L R C H Y C E K I T T Q E E
UniRef90_H8I483         P V S S R F V V E S M D P V L L R C S Y C E F V L D K N I
UniRef90_F4KNB7         M H T H F H   L I D A E H E V L C C H Y C G R K V T E D R I
UniRef90_W0ETV2         M E T I F H V   T D K V N I Q V K C H Y C E R S V S K D E I
UniRef90_R6RJN1         E L P H I F Y L A D K E K E V Y R C Q Y C D E K H S
UniRef90_V4JGI0         V K S R F I M V S R S   P L R L R C Y Y C G S E V D E T T V L K
UniRef90_R7F0U2         M P S R F H K V L T D G E T R L R C H Y C E H E L N
UniRef90_UPI0004793AF9  I K T R F R V   E D K N D L M L K C H Y C E K I T S R S E
UniRef90_R5P1N5         V R T K F T V V N D S   P I V L K C H Y C E K L T D Q E H M T M N
UniRef90_R7J1V4         M D T H F H V V S R   D P V V I S C H Y C
UniRef90_UPI000370AADB  M K T R F H V   T D K E K V E L Q C H Y C E V K I K K E E V V
UniRef90_E7QYW7         V D S K F E V L S D G       V R C E Y C E T I I R D D
UniRef90_U1P2G0         V D T G F A V V S       G G L Q C Q Y C E T V L R V D I
UniRef90_G0EHM1         I E P K F R V V S R S   P V K L Q C I Y C G S M L S E E D I L E
UniRef90_J2ZL20         V V S K F D V V D D G       V R C T Y C S T I V R E D I
UniRef90_Q8TVB1         E V D T V F V R E S K K P L E Y R C R Y C E R T V R E D Q I
UniRef90_D3IHX2         M Q T V F H V   V D K V S R T L K C H Y C D M E Q A I D
UniRef90_A0B8L2         I K P K M L V K G K   N P V V L R C F Y C D Q P L T E R I
UniRef90_W0JL81         V T S K F D V L E D A     V R C S Y C E T I F R E N I
UniRef90_K1ZH67         M R T I F Y T Q E N N N E V T L Q C H Y C K S F L Q E E I I E
UniRef90_C3JAD8         M P T R F S A L Q G H E K G V I Q C A Y C G R K V
UniRef90_F0TC48         V K T K F Q V I   D K N P L I L R C Y Y C E R I V N N D D I
UniRef90_U1N800         I E T Q F Q V T E N G       L R C G Y C G M I V R E S E V T S H
UniRef90_S8FDW8         M P T I F H   R V D K A R R T Y K C H Y C E K E Q N L D N M T
UniRef90_UPI00046922FA  M K T H F H V V D K E N G I   L K C H Y C E K E Q N K D S I
UniRef90_R7D085         M Q T W F H V I N K E E G I   L K C H Y C E K E Q R K D N I
UniRef90_H9ZZW5         I K T K F K V L S R   D P L K L Q C E Y C G T I I Y K D D I V K
UniRef90_D9Q236         I S S R F   L L V S G S P L R L K C H Y C G T E I G E N D V I E
UniRef90_R5I064         I P T R F K T I V K G S E I R L Q C S Y C E K I T D
UniRef90_A8A8H5         I K S K F L V V S K R   P L K L K C H Y C G E I I E E K E V
UniRef90_Q9UX07         E A E S R F I T I S I K P L K L K C K Y C E M Y I T E D D V I R
UniRef90_D3IE25         M S T I F H   T I G E D K Q T L R C H Y C D I E Q N I N E V
UniRef90_R6P4F2         E L P H I F R L T D R E H R V Y R C I Y C E T K
UniRef90_D3DZ25         P L E T K F Y L V D S N P I T V R C H Y C E R L V Q Y D E I Y N
UniRef90_E4T1P8         V T T R F H V L N N D G D I M L K C H Y C E R E V K R D E V
UniRef90_UPI000419A3F3  M E T R F E V L   D N T Q V V L N C H Y C D I K I Q K D E I I
UniRef90_H1HRP1         E L P H I F Y L S D P E R E I Y R C R Y C D E R Y T D K
UniRef90_F6BAU8         V E G K F   V I E S K N P L K I R C K Y C E K F L S
UniRef90_R9MEI8         G L E H I F T L T D E E K Q I Y R C K Y C E E K Y T
UniRef90_A8MCA3         A V P T F R V L H L D Q P I   L Q C Q Y C G T Y L T I D D I
UniRef90_UPI000471BC67  M Q S A F S V I D R E H G I   L H C K Y C N R K I E R E E V I
UniRef90_R7BKP0         E L D Q V F Y L T D E D K Q V Y R C K Y C E E K Y S K
UniRef90_T1D780         V E S S F E V A H R R   P T R L R C R Y C D E P V T
UniRef90_R5EQA6         D A N R F K I S T E N G K V F M K C R Y C E R V F E R E V V L E
UniRef90_A0RXJ6         I E S V M D V A S R E G P V   L K C Y Y C S R I L D
UniRef90_UPI0003B64AD6  E L P H I F Y L A E A D R Q I Y R C K Y C D E K N S E K
UniRef90_R7DJL5         M N T V F R V I N K E   T V E V K C K Y C E R A I S Q K D I
UniRef90_UPI0003B662A1  E L P H I F Y L A D E E K E I Y R C K Y C D E K Y T E
UniRef90_A3MX26         V V P T F Y   L V K R E P L F V C A Y C G R Y H E L S D L I
UniRef90_D5EYF5         M K T H F H V     E N G I L T C H Y C E K E Q D I N K V
UniRef90_J9FN18         M D T I F H   L V D N E K G V L R C H Y C E K E V N L D K V
UniRef90_UPI00037B954C  M T T N F H V I D K E K C   T I K C H Y C E K E Q T K E D
UniRef90_U2U6A4         E L P H I F R L A D R E R R Q Y R C I Y C D T I A K K D E I
UniRef90_UPI0003F70918  G L P Q V F Y L A D E K N E V Y R C K Y C D E K Y T E G D A S K N
UniRef90_T1DTT9         M R T H F L V   V D S D T E I L Q C K Y C G R K I H P S Q I
UniRef90_K2C8G1         I D T F F Y I S E N R K K I I L T C H Y C E K M Y D R D Q V
UniRef90_G7WPG2         I K S Q I L V K S K   N P V I L R C V Y C E Q P I A E K I
UniRef90_D6YUA3         V D S I I L V K E R K G N I Q L Q C H Y C R K Q F S H Q D I
UniRef90_R4W6E8         V E T K F E V L D S G       V R C V Y C E T I I R E D I
UniRef90_G5H986         V R T S F T V I   H G D E I S L R C K Y C E K I T H Q N S I
UniRef90_R6TTF9         E L P Q I F R L T D A D R R V Y R C L Y C E A R A K E E
UniRef90_F8EXZ1         Y A P H I F H L V D P E Q G L Y R C E Y C D E Q R S T E D
UniRef90_R9MII3         Q L D A V F L L S D P E K H T Y R C A Y C E T A I D K K
UniRef90_R6ASL5         E I H H V F V L T D A E K G E Y R C M Y C D T K A S N
UniRef90_Q2NGY3         I Q K R F A V   Q N K Q P I T L R C Y Y C E R T M E Y D D I
UniRef90_Q97B28         V K P E F E I V S R   H P L V L R C V Y C Q R T M N E R D V F E
UniRef90_R6X1A6         M L T I F N V I D K A H G I   I K C H Y C D K E Q E L S K V
UniRef90_M0MG62         V T S R F E V L D D G       V R C A Y C E T I L R E N
UniRef90_A9KNJ4         E L P H R F K L T D P S K G V Y R C I Y C E Q A F R N N E
UniRef90_P74766         E A I P T F K T L T E K P L K M R C E Y C E T I I D E N E I M S
UniRef90_T1A4K1         I E S E F A V   T R R R P V V L T C V Y C E R T V E
UniRef90_R5GKS5         M A T V F Q V   V D K E Q G I I Q C A Y C E K E Q N I D H V
UniRef90_R7PC17         V P T H F H V I   D K N I G K L Q C H Y C E K E Q N I D Q V
UniRef90_K0IM94         E I R S T I D V I D K E K V V L R C A R T L S I D E L V F
UniRef90_UPI00037E1F8A  I V S K F K V I S K   N P L K F Q C M Y C N R Y L M E N E V I
UniRef90_C4G9E8         E L D Q I F L L T D E E N E V Y R C K Y C E E Q Y K R G D
UniRef90_C6LLC6         E L D H V F L L T D P E K E V Y R C K Y C E E K Y R
UniRef90_R5B6H1         E L P Q E F I L T D R E K R V Y R C I Y C E
UniRef90_D3S167         E I T P K F K I V K K S T L F A V C Y C G R R F S N
UniRef90_G2LN78         V T S S F I F K Q D Q F N M N L K C K Y C E K E F S K N T V L S
UniRef90_Q8THL3         I L K S K F S V L R T E E E G V L H C L Y C E H V I S E E I
UniRef90_K2AHQ0         M D T L F H I S N G G Q H L K F T C H Y C E K K F Q H D D I L E
UniRef90_R5LYK7         E L D Q I F Y L T D E E H R I Y R C H Y C E K E K Y
UniRef90_UPI0004708A52  M A T R F R S S S H N E E S T I V C S Y C G R K I K S E Q I
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                        1         10        20        30        40
UniRef90_Q9YBD5              L L V R K I R S G V V I D H I P P G R A F T M L K A L G L L G Y R W
UniRef90_O30129          R E L V V S K I K E G T V I D H I N A G K A L L V L K I L K I Q G T D L
UniRef90_I5AR01            L N V G A I E Q G F V L D H I K A G K A M T I Y H D L K L D Q M D C
UniRef90_A3DM47          N K L I V S K I R N G I V I D H I P A G K A L K V L R V L G I T G S E G
UniRef90_R5SL16      E T G R L N I G G L N E G V V I D H I Q A G G A M K I Y E Y L N L E K L D C
UniRef90_B5IFV5      E E Q T L K V Q K I R N G I V I D H I P C G M A L K V L K I L N I N D I G S
UniRef90_L1N946    T D K K E R L V A A I K N G I V I D H I P A S K T Y L V A N I L E L Q S I E Q
UniRef90_G5G933        K K E L Q V A A L D N G T V I D H I P N N K L F E V V R L L H L E K C E S
UniRef90_W3ANP0          M N V D G I E N G I V L D H I R A G K A M L V Y K Y L H L D K L G S
UniRef90_N2BDA1        N S T L N V G K L S E G F V L D H I E A G K S M E I Y K Y L H L D K L D C
UniRef90_A0A031LNV7 M S K E N G L I V T K I K D G T V I D H I P A G R A L A V L K I L G I K G N E N
UniRef90_I7LJ69          L T V N S I K N G I V I D H I K A G L G I K I F K M L G I D K I D S
UniRef90_R6GCC6          M K I D S I Q S G L V L D H I K A G K S M Q I Y K Y L G L D D L D C C
UniRef90_R6NZH8          L N I S G I H E G F V L D H I K A G M S L S I Y H N L K L D K L D C C
UniRef90_Q970X3    V N K K E L I V S K I K N G T V I D H I P A G R A L A V L R I L K I A E G Y A
UniRef90_B6YRU2  M E S K E Q L Q I A A L K D G T V I D H I P S E Q L F K V V S L L K I D R L K A
UniRef90_K2BJQ2        K Q L K V D A I K D G T V I D H I P A G K A M K V L N I L K L K N S D
UniRef90_R6ITJ2          M T I D S I Q N G Y V L D H I P A G M G M R I Y K L L G L D K T D A
UniRef90_L1MCL3      K R E K L M V A A I E N G T V I D H I P S N R L F E V I R L L G I E E L D H
UniRef90_X5D764    M K K K L K L K V S A I K D G T V I D H I P A K S L F E V I S L L G I D K I E N
UniRef90_K4MNG0  M N E E Q E L R V K R I E N G T V I D H I T A G Q A L N V L K I L G I P D S S Q
UniRef90_D4LTY0          L N V G A L H E G F V L D H I K A G K A M T I Y H D L K L D K L D C
UniRef90_A3CW67          L L V S P I K N G T V I D H I T A G E A L N V L R I L G I T G S T E
UniRef90_C9LHN6        K K E L Q V A A L E N G T V I D H I P N D R L S E V V R L L C L E T K D S
UniRef90_R5P8T3          L N V G S L N E G I V L D H I K A G K S M S I Y K Y L G L D K L D C
UniRef90_R6BYS6          L N V G Q L N E G V V L D H I E A G K S M S I Y H Y L K L D Q L D C
UniRef90_R5B0P6        E K K E L A V A A L R H G T V I D H I P S S A L F K A V K I L G I E K M D K
UniRef90_R6QSK3          M N I D S I K N G I V L D H I T A G K G M D I Y Y Q L G L D K L D C
UniRef90_T1C7Y7  M P V S K E L R I T P I R N G T V V D H I P S G L A L E V L R I L N V E A L E S
UniRef90_R9T4R0          R V T P I R N G T V I D H I E C G Q A L K V L H I M G V G E V R S
UniRef90_D4JB20          L N I S G L D N G L V L D H I P A G M S M E I Y K Y L N L G K L D S
UniRef90_R5YVW3          I N V D Q I N N G F V L D H I Q A G R A M A I Y K Y L G L D K L D Y
UniRef90_J1H2M3          L N I D S L E H G I V I D H I H A G S A M K I Y H L L G L D S L D C C
UniRef90_R9LDH1          M N V D S L Q K G L V I D H I Q A G K S M E I Y R F L D L D R L D C
UniRef90_J0S7Z4  S E P K C L Q I S P I K N G T V I D H I T A G E A F N V L R I L G I T G T E E
UniRef90_D1JB42        K K E L K I V A I K N G T V I D H I T A G Q A L N V L K I L S I T A R T D
UniRef90_R7I375          L N I S G L N N G V V I D H I Q A G G A F E I Y N Y L N L D K E D C
UniRef90_R9K940          L N V G A I T E G F V L D H I Q A G T S L S L Y H D L K L D Q L D C C
UniRef90_G5GF42          I N I G A L N E G I V L D H I Q A G K S F N I Y Y H L S L D K L D C
UniRef90_R5FYF6      E K G K L R V Q A I K N G S V I D H I P V E K L Q K V V R L L F E L E Y
UniRef90_K1XKH9      E K Q L K V S A I K N G T V I D H I P A D Q L F K V I D I L G L S T S S N
UniRef90_D4MQE9          L N I S G L S E G I V L D H I E A G K S M D I Y F K L G L D K L D C
UniRef90_F5Y9E4          L N I D K I R N G L V I D H I K A G Q G I H I F N W L G L D K A P Y
UniRef90_L0KSZ6          L R V R P I E N G T V I D H I N A G Q A L N V L H I L K L P S Q F K
UniRef90_Q9HKM3      E K T L R I S K I R D G T V I D H V P S G K G I R V I G V L G V E D V N Y
UniRef90_A7FYJ1          L T I N S I K N G I V I D H I Q A G H G I K I F K Y L G L E E A D Y
UniRef90_R5HVG3          M I I G T I V D G I V I D H I P A G R G M D L Y R D L G L D K L E C
UniRef90_B8GF04  M T D E G G L L I S P I R N G T V I D H I K G G E G L N V L R I L G L T G T C T
UniRef90_W9DPT0  M T D E T E L R V S R I E N G T V I D H I T A G K A L N V L K I L G L P D S S K
UniRef90_UPI0004170ED5      L E I T S I K N G L V I D H I E A G M G V K I F N Y L H L D K T D Y
UniRef90_C6Q1L6          L T I N S V R N G I V I D H I K A G H G I K I F N Y L G L D N A E Y
UniRef90_T1BIR2        R E L K I T P I K N G T V I D H I G N G L A L E V L R I L K E L D S
UniRef90_C5WCV1  M I R E K N I Q V E A I K I G T V I D H I P A H F G F K I L S L F C L S N T E K
UniRef90_R6B4P4  N N K N Q L V V A A I E N G T V I D H I P A E K T Y Q V V N L L Q L E K M D T
UniRef90_R6WAI7        K K E R L V A A I E N G T V I D H I P A E K T Y A V A T L L G L Q K L Q T
UniRef90_R5EDI5          M N I D S I Q N G L V L D H I T A G K A M L V Y K Y L H L D R L D C
UniRef90_Q6L0F1      E K T L K I S K I R D G T V I D H I S A G K A L E V L N I L G S N N G
UniRef90_UPI00029B3740   Q Q R L V L A I N Q G M V L D H I P A G Q A L K I M R L L H V V S D Q Q
UniRef90_D5EC23  M S E K K E I R V Q P I C S G T V I D H I T A G Q A L N V L K I L G I T G T S W
UniRef90_T0MY21  M T E E K M L K V E K I R R G T V I D H I P V G R A F K V L K I L K I S D P G V
UniRef90_R7GLY1          M R I D S I K N G I V I D H I A A G A K E V Y D A L D L G K L D C
UniRef90_H2C9B1        K N G L I V S K I K N G T V I D H I P A G R A L A V L R V L G I R G Q E Y
UniRef90_V4HEQ0        E H E L R V A K I R N G T V I D H V T A G Q A L N V L A V L G I D G D G G
UniRef90_D2RDI1        K K E L V I S K I E K G T V I D H I N A G K A L L V L R I L G I G G S R D
UniRef90_UPI0002891D62      L T I N S I K N G I V I D H I E S G R G M K I F N Y L G L D R A Q Y
UniRef90_H1Z2C5  M S E K E G L M I S P I R N G T V I D H I S P G E A F H V L R I L G I T G T E E
UniRef90_D1AMD8          E L Q I S A I K N G T V I D H L P T D T A L K V V E I L D L K N F R E
UniRef90_E6MJS8          I N V S Q I K K G I V I D H A E A G H G F H I Y K A L H L D A L S D
UniRef90_M1Z3V5          L Y I D S I T K G L V I D H I K A G Y G F S I F K H L G L D T A D F
UniRef90_UPI000472411A      K K Q L N V S A I K Q G T V I D H I P S T A L F K V I S I L K L D H C K D
UniRef90_A5ULI9      K K S E L K I R A I E N G T V I D H I T A N K S L H I L K I L G L P D S E T
UniRef90_W0FQ46          M N V D S I R D G I V I D H I A A G C G M K L Y R L L G L E N L E A
UniRef90_F4LP58          L H V D T I K N G L V I D H I R A G T G P R I F S W L G L D K V N F
UniRef90_R8W031          L N I D S I Q N G I V I D H I K A G T G M Q I Y H L A G L D Q L D C
UniRef90_F5IYJ4    Q R K E L Q V A A L C N G T A I D H I P S N V V F K V V S L L E L E K L S N
UniRef90_L0ABF1  K K D D K L L V S K I E S G T V I D H I N S G R A L V V L K I L N I K G N E Y
UniRef90_H5SI61        D G E L K V S K I K N G T V I D H I P A G M A P V L K I L G I E G C S D
UniRef90_R5AEF3          M K V T A V N N G V V I D H I T A G C M K L Y Q F L D L D H D V D A
UniRef90_J4KA34          L N I S G L N E G V V L D H I E A G K S L D I Y F H L G L D K L D I
UniRef90_D1NSH5          M Q V T S I Q D G V I I D H V P A G T A L K V L E Y L A I D P A H T
UniRef90_R7HNS3  M N D N S K L A V A A L Q N G T V I D H I P S H L V F K V V R L L D L E N V E G Y
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UniRef90_D0GKJ5        E L Q I T A L K N G I V I D H I P A E K T F P I L E I L R L R E Y G E
UniRef90_R5XWU6          M N I D S I K N G I V I D H I K A G K G M E I Y N L L E L D K L D C
UniRef90_UPI0003B576FF      M E V T S I Q D G L I I D H V P A G T A L K V L E Y L S I N P A S T
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UniRef90_I7LJ69        A V C L L M N V P S E K L G K K D I I K I E N V V D I D L T I L G I L D P N
UniRef90_R6GCC6        S V A I I K N A S S N K M G K K D I I K I A D N M D L N L D V L G Y I D P D
UniRef90_R6NZH8        T V A I I K N A K S N K M G K K D I I K V E C P I D A L D L D I L G F I D H N
UniRef90_Q970X3        R I A L V M N V E S K K M G K K D I I K I E N K E V D E K E A N L I T L I A P T
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UniRef90_B5IFV5          ATVNVI ENYKVVNKHKVEL PDEIVGIVK C MNPR C ITNQEP
UniRef90_L1N946          IVLNII HDYEVKEKKVET PNELRGIVR C NNPK C ITNNEP
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UniRef90_W3ANP0          ITVNYI KDGKRVEKKTLSL PETLTNVLK C KNPR C ITSVEQ
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UniRef90_I7LJ69          ITINVI KDEVIVEKKKFEL PERVENVLN C KNPR C VTSIEK
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UniRef90_K4MNG0          ATINII RNFNVSQKKKVHI PIFVEGVVR C VNPN C ISNNEP
UniRef90_D4LTY0          ITVNII KDEKIVEKRILKL PKQITNVIK C KNPR C ITSIEQ
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UniRef90_R5P8T3          ITVNII KDGVIYEKKDLKL PKLIRNVIR C KNPR C ITSIEQ
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UniRef90_R9K940          ITVNII KGEKIVEKRELKL PKEIKNII K C KNPR C ITSIEQ
UniRef90_G5GF42          ITINII KDSKIVKKLSLKL PQEIKNIIH C KNPR C ITSIEQ
UniRef90_R5FYF6          VVISVI RDYQVVEKIKVDL PEEINGLVK C TNPK C ISNNEP
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UniRef90_D4MQE9          ITVNII RDSRIVEKRSLDL PRKITNVIQ C RNPR C ITSIEQ
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UniRef90_Q6L0F1          ATISIV KNYEIIEKFNVDM PEKIYGIVK C SNQN C ITNANE
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UniRef90_R7GLY1          ITVSII KNGETVEKKLQL PEKIVNVAK C KNPR C ITSVEK
UniRef90_H2C9B1          ATINII KDYEVVERKQKV PDKITGLLR C TNPS C ITNNDP
UniRef90_V4HEQ0          ATVNII REYEVVEKNRVER PARVVGLLS C PNHN C ITNAEP
UniRef90_D2RDI1          ATINLI EDYEVKRKFKVRL PEFIEGILR C PNRN C ITNSEI
UniRef90_UPI0002891D62   ITVDII KDEKIVEKIDLTL PKKVEGIIK C KNPR C ITSIEP
UniRef90_H1Z2C5          ATINII RDFGVAEKLTVQI PKRLTGVIK C PNPG C ISNSEP
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UniRef90_E6MJS8          VTVNFV RDGQVVAKQSLTL PREVTGIMQ C KNPR C ITNYEK
UniRef90_M1Z3V5          ITVNII ENEKIVEKINLSL PEKVEGIIE C KNPR C VTSVER
UniRef90_UPI000472411A   AKLNTI KDYEVVGKYVVEI PDEIQDIAR C FNPK C ITNHEN
UniRef90_A5ULI9          ASVNII RDYKPVKKDKIIL PNTITGIIK C TNSK C ITNNEP
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UniRef90_F4LP58          ITVNVV SNEHITRKITLSL PERVENIIK C KNPR C ITSTEP
UniRef90_R8W031          ITIDII RDGKIVEKKKLVK PKTLKNVIR C RNPR C ITTIEE
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UniRef90_L0ABF1          ATINII KNYEVVKKYKVEI PSKIKGTLK C NNPT C ITSNEP
UniRef90_H5SI61          ATVNII KDMAVAEKIHVEL GIIR C PNRN C ITNSER
UniRef90_R5AEF3          VTINII KDGV C VKKVHPQL PERLTNIIQ C KNPR C ITSVEQ
UniRef90_J4KA34          ITINVI KNNAIVEKKTVSL PEKITNIIK C KNPR C ITSIEQ
UniRef90_D1NSH5          ATVDVV QGGEIRKKLHPTM PDHVVNIIT C GNPR C VTTSER
UniRef90_R7HNS3          VNVNII EDYKVVKFKVTL ADDIVDIVR C TNPK C ITNNEP
UniRef90_W6N907          VTINII KDEVIDKKKIKLSI PNEIVGLIK C NNNK C ISNHEN
UniRef90_D0GKJ5          VTINII ENFKVVKKIKLSL PNEIVGILK C NNPK C ISNHEN
UniRef90_R5XWU6          VTIDII KDGKLVEKKKVSL PKQLKNIIK C CNPR C ITTTEQ
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UniRef90_A6LS55          ITI C EV KDEMIINKVTPTL PDKVENIIK C NNPS C ITSQEE
UniRef90_UPI0003F80C1E   IVLNII KNYEVVET PDELRGIVK C NNPR C ITNNEP
UniRef90_D7EB02          ATINII RNFKVASKKQVQI PEHIEGVVK C VNPR C ITNNEP
UniRef90_W4UR72          VKLNII RDYEVVEKKVQM PDNLYAIVK C NNPR C ITNNEP
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UniRef90_I5AR01      G L D Q V F I L T D H D R A V Y R C K Y C E E A Y H G E
UniRef90_A3DM47      I K S L F   K L K S T N P I M L E C Q Y C G Y V L K G D E I
UniRef90_R5SL16      E L P H S F K L T D R N R R I Y R C I Y C E S K F K G S L V
UniRef90_B5IFV5      V V S E F K V I S K   P V I L K C K Y C E R E M G V E D I I E N
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UniRef90_K2BJQ2      V T T C F Y V E A R   N P I M V R C H Y C E K S F G A D E I
UniRef90_R6ITJ2      V D D V F T   L V D P D K G T Y R C L Y C E T
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UniRef90_A3CW67      V A S T F E V L D K G       L H C L Y C D W L I K D D I
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UniRef90_R5B0P6      M R T R F T V V D R E N E V   I R C D Y C G H T V K
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UniRef90_R6B4P4      M A T I F H   T V D A A L G I V R C H Y C D K E Q
UniRef90_R6WAI7      M N T I F H V I   D K N S G I I K C H Y C D K E Q V I S E V
UniRef90_R5EDI5      G I Q Q I F K L T D P Q K R I Y R C I Y C E A E N Q G E E
UniRef90_Q6L0F1      P V K T E F I V D S R S P V T L R C L Y C N R S M S G D E I I K N
UniRef90_UPI00029B3740 G Q T A F Q V E S A L K T V M L S C V Y C E R R F E R D Q L V K N
UniRef90_D5EC23      I E S K F D V D T R E G K I E L R C G Y C E R V I C E N I
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UniRef90_V4HEQ0      V D S A F A V V D D G         V R C E Y C G E I V R E G I
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UniRef90_R8W031      E I D H I F V L   G E N G K Y R C I Y C E Q E
UniRef90_F5IYJ4      M P T K F D V I D R E N   I E L Q C H Y C S V K I K K D E I I
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UniRef90_R6Q4C0                   M H I D E I Q N G I V I D H I K A G K G M E L Y H F L H L D E L D C
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UniRef90_Z2ED44                                                 M F D M H N S S Q
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UniRef90_W5IJA1                   M E V T S I S E G I I I D H V P A G R A F K V L R Y L N I D E K T T
UniRef90_U2KR50                   L N I N S I T N G I V I D H I S P G N G I K I Y Y M L E L D K A D Y
UniRef90_X1F7S0           E E K L K I A R L K K G T V I D H I D A G Y A L T I M S L T G L D E S P N
UniRef90_G4D2L1                   I N V S K I K K G I V L D H I E A G K A K V I Y T A L K L D Q V K D
UniRef90_X1PG81          M K E Q K K L R V S A I K N G T V I D H I P A E S L F K V I I L G L D K I N N
UniRef90_UPI000405CFD1            L E I T S I K N G L V I D H I K A G V G I K I F N H L N L E K S D L
UniRef90_R7I5D7                   M K I D A I H R G I V L D H I K A G R A M D I Y R Y L H L D E L Q C
UniRef90_UPI0003822A96         E L K V K R I E N G T V I D H I D G G K A L E V Y R I L N I K E G L
UniRef90_E7MLR5                   M N I D G V K T G I V L D H I K A G K S M E I Y S L L Q L E K L D C
UniRef90_T0ZDJ8          M S K K N E L S V K K I A D G V V I D H I E P G M A L N V L K M L N M G G N T L
UniRef90_V2Z549                   L N I S G L N S G Y V L D H I P A G L S M S I Y N Y L N L S K Y D H
UniRef90_U2N6M5                   L K I T T I K K G I V M D H I K A G T G I K I F N H L E L D K V E Y
UniRef90_A5N2L7                   L T I N S I K N G I V I D H I K A G Y G M K I Y K Y L D L D K A D Y
UniRef90_I4C6S2           K E R T V T I A K I E R G I V I D H I P E G K A L L I S Q L L G L N E T G D
UniRef90_E4L0Y2                   I N V S K I K K G I V L D H I E A G R A H V L Y K A L D L D K V T D
UniRef90_Q2FN10           K R T L V I S T I E N G T V I D H I K A G E A L T V L R I L G I T G S T E
UniRef90_UPI00047D3353            L K V T G I E K G I V I D H I T A G K G L K I F Q K L K L D K N N T
UniRef90_N6UVA6               E L K V R K I K D G T V I D H I D A G K A L I V Y K I L N I P N H
UniRef90_X1BN26          M G E S N K L K I P K I K K G T V I D H I D A G Y A L S I M D I I G L G E T Q N
UniRef90_E3GQ52                   I N V S K L K K G I I I D H I E S G H G F E I Y K E L H L N E I D D
UniRef90_R5L446                   M K I D K I E N G Y V I D H I S A G S G M K V Y E A L A N Q K C
UniRef90_F5TDK5                   L N I N S I S N G L V I D H I K P G L G Y E I F K L L E L D S A D F
UniRef90_B7IDE3           V S K E G K R G I K P I E N G T V I D H I A K G K I V K I R K I L K L F D L D S
UniRef90_F7JFB9                   L K V E P I Q N G V V I D H I P A G R G M E I Y R L L H L E S K Y Q
UniRef90_UPI00037D1CE6            M N I D G I K T G I V L D H I K S G K S M E I Y D L L D K L S C
UniRef90_C2BD32                   I E I T S I K D G I V L D H I R A G L G M Q I Y N L L D L K D L K D
UniRef90_S6ES97                   L Q I T S I K N G L V I D H I K A G V G I K I F N Y L K L E N Q K N
UniRef90_R5NUU6                   M K I D S I Q N G I V L D H I T A G K A L Q V Y H D L E L D K L D C
UniRef90_D3R0M5                   L E I T S I K K G I V L D H I H A G K A L K F Q M L K L D D Q K V
UniRef90_T0LR89          N N K S T L K V S K I R D G I V I D H I H G K A L K V L S T L G I S G G E E
UniRef90_Q58801         M I I P M E E L K V K K I T N G T V I D H I D A G K A L M V F K V L N V P K   E T
UniRef90_UPI00037C0F82            M N I D G V T T G I V L D H I E A G K S M E I Y E L L K L D R L D C
UniRef90_K4ILE1                   M K V S I V D G I V I D H I R A G T A L K V L H R V D P A K T
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                                             50              60              70              80
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UniRef90_R7RUZ6         N V A L I K N A E S S K L G K K D I V K I E     I I D L N Y E V L G L L D S N
UniRef90_R6Q4C0         S V A I L R N V N S Q K M G K K D I I K I D S V L N M   D L G V L G Y M D P D
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UniRef90_UPI0004796190  S V A I I K N A K S N K M G K K D I I K I E G P L     R V D L D I L G V L D D K
UniRef90_F7XNZ5         G I V S I L I N A P G A E E R K D V V K I E G R E L K S Q E V D K I A L I A P D
UniRef90_M4RD02         K L A L I M N T D R Q Y G S K D I I K I E D A     G D L N L D V L G F I A R Q
UniRef90_M7TUS5         I V S V A M N V S S   R M K K K D V V K V E N R E L D P K E V D K I A L I A P K
UniRef90_K9E9U1         R V A L M M N V D S Q L L G K K D I I K I Q G D   L S D I N F D I L S V V D P H
UniRef90_V9H736         Q V A L I M N A E K T L G K K D I I K I E N S   S E I N Y T L L G L L S P N
UniRef90_Z2ED44         R V T I G L N L P S S A L G H K D L L K I E N V F I N E E Q A S K L A L Y A P H
UniRef90_V6AW05         N V T I A L N V P S G K F N K K D I I K V E N K Y L A D H D T N K L A I I S P K
UniRef90_Q97FS4         P T A L I M N A I S K K N K A K D I I K I E N V M     D L D L A V L G F L D P N
UniRef90_N0BDW3         A V S M A M N V E S A K M G K K D I V K V E G K Y I G D Q E L N K I A L I A P E
UniRef90_A8PKY7         R V T L G L N L R S T S L K L K D I I K I E N R L L T S G E V D H V A V F A P G
UniRef90_M4YUK3         T I S I A M R V A T E K H G W K D I V K L E D M E L D P D A A D K I A L I A P D
UniRef90_E3EM92         R L A L I M N A D S H L Y G T K D I I K I E D E E     N V D L D V L G L V A R Q
UniRef90_R6EL27         C V A V I Q N V S S S K Y G K K D I I K I D E S I   E L D L D V L G Y I D S N
UniRef90_E0SQE8         R I A V L M N V E S K K L G R K D I I K L E Q K K L T P T E V N V I A L I A P T
UniRef90_UPI0003B3B900  R L A L V M N A P S T R Y G T K D I I K M E G D V P V D L E A     L A I V A P R
UniRef90_K0AZH9         T V A L I K N A V S D K R D K K D I I K I E N V M     D M D F T V L G L I D P N
UniRef90_T0LX93         S I S I G I R V T S K R L G T K D V I K I E N R D L E K F E V D K I S L I A P D
UniRef90_R6FXG6         Q V A L I N A D S K K N G K K D I I K I     T D V D F T V L A L L S P G
UniRef90_W2BZM2         C V A I I Q N A D S E K Y G K K D I K V D G N I   S L D F D I L G Y I D S N
UniRef90_R6EX16         S V A L L Q S V K S Q K Y G C K D L I K I E G E T L   P E R L D V L G Y L D S Q
UniRef90_B3T370         V I T I A L N V P S G K L K K K D I I K V E N K F L E Q D D T N K L A V I S P S
UniRef90_X1QXA8         P I N L A L N L D S K R I S S K G V I K I D S R F L T Q S E V N K I A I L A P N
UniRef90_F8AN01         T V T I A M N V S K K N E K K D I L K I E G I E L S K E D V N K I S L I S P N
UniRef90_K1LZ40         K A A L I M N V D S Q L M G K K D L I K I E N H L     D I D L D I L G L F S D R
UniRef90_UPI00041AB4B7  Q L A L I M N T T S N R F G S K D I I K I E T E     K D I N L E V L G F V A R Q
UniRef90_S0ANB9         S I S I G I R V T S E K L A Y K D V I K L E N K F L E K L E L D K I A L I A N E
UniRef90_U1GR65         T S A L I M N V P S Q K S G K K D L I K     I D N I I D I D F S V L G F I D P D
UniRef90_S3JX39         M V T V G F N L H S K A H N K K G L I K I A D K T L T K S E L A K I S L L A P H
UniRef90_X0TWE6         R A L I A Q N V V S G S M G S K D I I K I E G T Y L T S S E I D V I A F V A P D
UniRef90_A7I9E0         A L S I A T N V P S K H M G T K D I V K I S N R E L S K E E V D R I A L I S P N
UniRef90_R6Y8B1         C V A I I K N A K S E K Y G K K D I I K I E G V M     N I D L D V L G F I D D N
UniRef90_U2RC13         V V T V A I N L K S T S L G K K G I I K I E D K V L D E S E L N K I A L L S D H
UniRef90_G9XB91         T V A I I Q H V S S T K Y G K K D I I K I D E D I     E L D F D V L G Y I D S N
UniRef90_L0HBT8         A L S I A T N V P S R N M G K K D I V K L N N R E L S K E E V D R I A L I S P K
UniRef90_E0NLP7         P V V L M Q G I R S T S M G K K D I I K I E T D F     K L D F T V L G L I A P H
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UniRef90_A2SRK8         T V I V A S N V P S S R G G R K D M V K I E N R E L L K D E V D K I A L V A P D
UniRef90_W8T3B0         H V A L I I N A Q S K R L G K K D M I K V D N V M     D L N L D L L G L F D P N
UniRef90_R5Y519         N I T I G N N L C S K K I G K K G I I K I A D T Y F K Q E D I N K I A I L A P K
UniRef90_A6TVR3         P V V L L M N V S S K T L G K K D V I K I Q D E V     D L D L T M L G L I D Q N
UniRef90_A6UPB5         P V T L A L N V S S K K G S L K D I L K I E G L A L S K A D V N K I A L V S P N
UniRef90_T0ND36         A V A L I M N V K S E K C G S K D I I K I E N V L     D L D Y E I L G L I D P N
UniRef90_UPI000361E1EC  R L A V I M N A H P S L G T K D I I K I E S D I Y     V N L D I L A L I A P S
UniRef90_D1VSV4         T V V L M Q N I P S S S M G K K D L I K I E T D F     D L D F T V L G L I A P D
UniRef90_H7EIS6         S C A L I K N V P S K K S G K K D M I K I D N     I I S I D Y S I L G F I D P N
UniRef90_UPI00035DE3CE  T V S I A I H V K S Q K L G L K D V I K I E E R I L D S S E L N K I A L I A G G
UniRef90_T0LVX7         T V S V L M N V P S K K D G T K D I I K V E N R K L A K K E L D L I S I V S P N
UniRef90_D5VQM2         L V T M A I N V P S K K K G R K D I L K I E N V E I K K E D F D K L S L I S P D
UniRef90_A0A017RT93     T V A L I M N A P S N K L G K K D I I K I E N A I     D M D Y I V L G L I D P N
UniRef90_R1ASW2         P V V L L M N V P S K K L G K K D I I K I Q D E I     D L D L T M L G L I D P N
UniRef90_D7N770         P V V L M Q N I S S T S L G K K D L I K I E T D F     N L D F T V L G L I A P H
UniRef90_W5IJA1         R L A L I M N A A S G R L G T K D L I K I E G K     T Q I D L S V L A L V A H E
UniRef90_U2KR50         T V A L I M N A Q S K K H G C K D M I K I E N V L     D L D L T A L G V M D S N
UniRef90_X1F7S0         L I T I G V N V S S K K Y Q R K D I I K I E G V F L N K K D M Q Q I S I L S P N
UniRef90_G4D2L1         P V V I M Q S I P S T A M G K K D I I K I E T D F     E L D Y T V L G L I A P R
UniRef90_X1PG81         T V T F G T N L E S K K L G T K G I I K I S G K Y F L D K E I N K I A L V A S E
UniRef90_UPI000405CFD1  S V A L I M N V P S N R S G K K D I I K I E D     I E R I N Y E V L A M L S P N
UniRef90_R7I5D7         P V A I I K N A R S E A M G L     K D I I K I D D E I D I D L D V V G F V D P G
UniRef90_UPI0003822A96  P V T L A M N V S S K K R N K K D I L K I E G L E L S K E D V N K I S L I S P N
UniRef90_E7MLR5         S V A I I Q N V V S R K Y G K K D I I K I D S     M I D L D L D I L G F I D P N
UniRef90_T0ZDJ8         T V S I L M H A P S S R M G H K D I V K V E N K R L R K E E I D V I S L I S P R
UniRef90_V2Z549         Q I A I I K N A R S S K M G K K D I I K I E G     I P E N L N L E L L S I F G D N
UniRef90_U2N6M5         P V A L I M N V E S S K L G K K D I I K I E D N V     S L D Y T F L R L L S P S
UniRef90_A5N2L7         S V A L I M N A E S K K L K K K D I I K I E N N I     E L D L A V L G F I D P N
UniRef90_I4C6S2         I V A I G I N F E S P S M K R K D I K V E N L S L T R D M L N V V S L I A P H
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UniRef90_Q2FN10         C V S V A T N V S S K A Q E K K D V V K I E K R E L K A Q E V D R I A L V A P N
UniRef90_UPI00047D3353  Q A V L M N V P S Q Q L R N K D I I K I Q D D L     D I D L L G L I D P N
UniRef90_N6UVA6         P I T L A I N V P S K K K E K K D I I K I E G F E L K E K D I N K I S L I S P D
UniRef90_X1BN26         L M T I G V N I E S K K Y G K K D I I K V E N V F L T E T Q I Q Q I S I I T P N
UniRef90_E3GQ52         V V V L M K N V P S K K M G Q K D L I K I E T D L     E L D M N V L G L I D P N
UniRef90_R5L446         Q V A I I Q N A S E K L G V K D L I K V     N E L I D I D V L A F I D K N
UniRef90_F5TDK5         T V A L I M N A D S K K Y G K K D M I K I E N V M     D I D L A I L G L I D K D
UniRef90_B7IDE3         A D G I     F K S E N G E F K G Y I S L P N R Y L S K K E I K M L S A I S P N
UniRef90_F7JFB9         A V A L L Q S V R S E K Y G T K D I I K I E G S N L     P E R L E I L G Y L D R R
UniRef90_UPI00037D1CE6  G V A I I Q R V R V M S T K Y G R K D I I K I D E D I     P D I N L E V L G L L D N N
UniRef90_C2BD32         E V A I I L N A S S T R F G K K D I I K I A N N I     D I N L D A V S I I D P T
UniRef90_S6ES97         Q V A L I I N A D S R T L G K K D I I K I E N S K Y     I N Y T I L G I L S P D
UniRef90_R5NUU6         S V A L I Q N V K S S K M G K K D I I K I D K E Y     D V N L D V L G Y I D P D
UniRef90_D3R0M5         E V A L I I N A Q S K K Y G H K D I I K I E N E L     D L N L D L L G L L D R R
UniRef90_T0LR89         T V S V L M N V K S K T M N F K D V V K I E R R V L K K V E L D R I S L V S P G
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UniRef90_UPI00037C0F82  S V A I I Q N A D S K Y G K K D I I K I D E D I     P L D F A A L G Y L D N K
UniRef90_K4ILE1         R L A L I M N A D S R K Y G S K D I I K I E Q T     G D L D L T A L G F I A P E
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                                            90         100        110        120
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UniRef90_R6MWS9         I T V N V I K D G V I A E K K A I G L P N E I H N V I K C K N P R C I T S V E E P
UniRef90_R7RUZ6         I T I I I I E D E K V I R K E K V V D I K L T L P E E V V D I I K C K N P R C V T S I E Q P
UniRef90_R6Q4C0         M T I I S I I Q D G K Q V K K F H P E L P E Q I T N V I F C K N P R C I T T V E Q
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UniRef90_M4RD02         A T I D I V R G G K I V R K E R P N L P E H M V N V I K C K N P R C V T T T E R
UniRef90_M7TUS5         A T I N L I R N Y E V V E K H K V K L P R E V V G I I R C S N P T C V S N S D E
UniRef90_K9E9U1         I T V N Y I K D S Q I V D K G E V A L P K R I N S Y L S C T N P R C I T N T E P
UniRef90_V9H736         L T I N E V R D G G Q I S R K I K P E L P K K V V D V L I C S N P R C I T E V E Q
UniRef90_Z2ED44         A T V N Q I E N Y E V V K K L A L E L P E K I N N V F E C P N S N C I S H N E P
UniRef90_V6AW05         A T I N I I K D Y K L V E K R R V S L P N K I E K I F R C S N P D C I T N S N E
UniRef90_Q97FS4         I T V N I I E D E K I R Q K I Q L K L P S E V N N I I K C S N P R C V T S V E S
UniRef90_N0BDW3         A T I N L I Q N Y E I I R K F N V K P P E V V E N I I K C P N P N C I S N N E P
UniRef90_A8PKY7         A T I N R I K N F K V S H K I K C E L P H V I R D I L V C P N L N C I T H V E K
UniRef90_M4YUK3         A T I S I I R D Y Y V A E K S Q V K L P D T V V G L V K C S N P N C I T N G E P
UniRef90_E3EM92         A T V G I V R G G K I V R K L K P T L P E H V V N I I T C V N P R C V T T T E R
UniRef90_R6EL27         I T V N H V K D G K L E K K L H L E L P L T L K N V V R C K N P R C I T S I E Q
UniRef90_E0SQE8         A T I N I I E N F L V V S K Y R V E I P E V I E G I L R C T N P T C I S N G E P
UniRef90_UPI0003B3B900  A T V A I V E N G V I T G K H A P T L P D R V V N V I R C V N P R C V T G S E R
UniRef90_K0AZH9         L T I N I I E D E V I K E K I K L K I P E R V D D V I K C K N P R C I T S V E K
UniRef90_T0LX93         A T I S L V S N Y E I I E K F P V E L P Q R I V G I V K C S N A N C I T N M K E
UniRef90_R6FXG6         I T I N E V K N E Q I I K K I V P P L P Q K I S G I L K C N N P R C I T S D E K
UniRef90_W2BZM2         I T V N I I K N G E L E K K V H L D L P E R L S D V I K C K N P R C I T S I E Q
UniRef90_R6EX16         I T L I V I R N G K V V K K Y H P V P P Q K L V N V I K C K N P R C I T S I E T
UniRef90_B3T370         A T V N I I K N Y Q L V E K K R H V S L P N E I E R I F R C S N P E C V T N S K E
UniRef90_X1QXA8         A T V S I I K N Y K V I E K I Q V K L P E E L V G V L N C T N P V C I T S K E I
UniRef90_F8AN01         A T I N I I K D G V V K K F K V E I P D E I E G I L K C T N P N C I T Q T E N
UniRef90_K1LZ40         I T V N L I E N E Q L I S K Q E I V L P Q H V E G V L A C H N P R C I S N H E R
UniRef90_UPI00041AB4B7  A T V D I V R G G T I I V N K V R P T M P S H L V N V L T C A N P R C V T S S E T
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UniRef90_U1GR65         I C V N I I K D E K V R K I N M T L P P R V Q N V F R C K N P R C I T A S E N
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UniRef90_A7I9E0         A T I N I I R H F K V C E K Q G V E I P T V I E G S V R C P N P G C I T T N E P
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UniRef90_G9XB91         I T V N K V K D G K L S S K V H L S L P E T L K D V V I C K N P R C I T S V E Q
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UniRef90_B0S199         M T V N V I E N E K I K E K I N L N L P E H F E G F I K C K N P R C I T Q S E R
UniRef90_A2SRK8         A T I S I I R N F K V S V K K P V E V P K Q I I G V I K C P N P N C I T N T E P
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UniRef90_U2KR50         I T I N L I K D E R I S E K I N L E L P H H E G V L E C N N P R C V S T S E R
UniRef90_X1F7S0         A N I S L I E E Y K V I E K K V N L P E V I K K L I L C R N K T C I S N N E P
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UniRef90_A5N2L7         I T I D I I K D E T I Y K K L K L P D R V E N I I A C K N P R C V T S V E K
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UniRef90_S6ES97         L T I N E V K D G E I K N K F K P Q L P T R V V G I L K C K N P R C I L D E K
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UniRef90_R7RUZ6          N I K H I F Y L V D S E R G E Y R C L Y C D E A Y S N M E V
UniRef90_R6Q4C0          E I D H I F K L T D R E K G V Y R C L Y C E S E A K K
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UniRef90_A6UPB5          I K S K F T V E Q K   D T L K I R C D Y C E K F I N S I I I
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UniRef90_H7EIS6          Y V T P V F K L S N R D K G Q Y K C E Y C D A L Y N A G A I
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UniRef90_R1ASW2          Y A V P T F T L V D K E K V K Y K C S Y C D
UniRef90_D7N770          V Q D H A F A L V D A E K R E Y K C E Y C D
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UniRef90_U2N6M5          D I P Q V F N L T S K A K G V Y R C D Y C
UniRef90_A5N2L7          N I P H I F K L V D E N T G E Y R C E Y C D Q I Y E N
UniRef90_I4C6S2          V P G K F L V   V R E D P I T L R C Y Y C E T E F
UniRef90_E4L0Y2          E I P H K F F L Y N R D K K E Y K C E Y C D T V T T Y G E
UniRef90_Q2FN10          V M S R F E M     H G K K A V C S Y C D
UniRef90_UPI00047D3353   Y A V A E F T L V K N G K I Q Y R C N Y C E E L T E Y K
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UniRef90_F7JFB9          G C D H I F K L     S P S G K Y R C L Y C N Q E L
UniRef90_UPI00037D1CE6   E I V Q Q F K L A N K D Q K V Y R C E Y C D A E Q
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UniRef90_UPI00047E19C1          M I I G S I V D G I V I D H I P A G R G M E L Y R D L R L D N L D C
UniRef90_R7BFH2                 L N V E S I Q N G I V I D H I T A G K G L E I Y K F L H L E N I S R
UniRef90_D1PMV7                 L T V D E I L N G V V I D H I T A G T G L G L Y H M M E L E K H D A
UniRef90_M2Q147                 M K I D S I V N G I V I D H I P A G K V M E V Y D A L E L D K L N C
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UniRef90_C7N944          M S E G R E L L I R A I K N G I V I D H I P S E K V F A I V E I L K L K E Y S E
UniRef90_X8JA31                 M N I D G V T T G I V L D H I A A G K S M L I Y N L L R L D K L D C
UniRef90_R7I7B9                 L N I E S I Q N G I V I D H I T A G K G M D I Y R L L H L E A M D Q
UniRef90_R6QKB1                 M K I D E I E N G I F D H I A A G K G M E V Y Y N T L R L D K L K C
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UniRef90_A8F3H2          K E G K R G I K P I E N G T V I D H I A K G K S V K I R K I L K L H D C D S
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UniRef90_A9BJV6            E G K R G I K P I E N G T V I D H I A K G Q I M K I R K I L K F Y N I D S
UniRef90_E3HDR3               E L Q I N A I E N G T V I D H I D S E K T L E I M N L L E L N K E Q G
UniRef90_H9UKC5               K V G I K P V E H G I V I D H I P R T I W D H I E K I R R I L D L N C
UniRef90_UPI000381FDD2    E E G L L V R K I D W G T V I D H I P A W R A D R V M R L I D A D Q L E V
UniRef90_F0RTV5                 V Q P I H D G L V I D H I P S E I R D H I S S V L G L D E A K G
UniRef90_D0XFY8
UniRef90_L1QF04              L Q I T S I K N G F M L D H I K A G M G V K I F R Y L N L D K L G H
UniRef90_J9CFV2                                                                            M K N
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UniRef90_UPI00037217DA                                                                      G Y
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UniRef90_U1QXL2
UniRef90_U0F5X7          M V K E T Q L Q V E A I R N G S V I D H I P A N V G I K V L K L F K M H K T N Q
UniRef90_X1C2F8          M S E E K L K I D K I K K G T V I D H I D S G Y A L T I L N L T G L G E S P N
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UniRef90_X0VD23
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UniRef90_X0X444          M S N   K Q L L V S K I E N G I V I D H I P P G K A F S V L H L L K L D P   D A
UniRef90_T1BEU2
UniRef90_A6BEH4            K N T L T V G R I E E G F V L D H I Q A G R S M D I Y K Y L H L D K L D C
UniRef90_X0SP41          V K E G R R F I D N I S N G T V V D H L L P G T E Q N I V A E L D L V N K G S
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UniRef90_X1FGB7
UniRef90_X1CGG0


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lupas_14
lupas_28
jnet
conf     9 9 9 7 2 6 8 8 8 6 1 2 7 8 7 3 6 7 7 4 3 7 8 7 6 3 5 7 7 8 7 6 4 2 6 7 8 8 7 7 5
sol25            B     B         B       B B B B B B B     B     B B       B B     B         B
sol5                                     B B B   B
sol0                                         B
jhmm
jpssm
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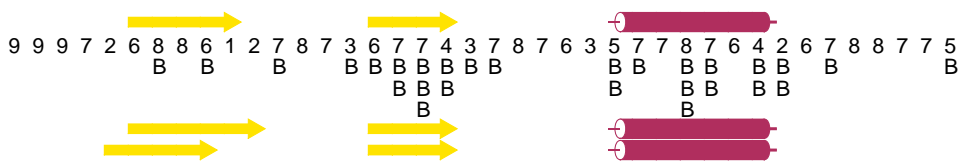
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UniRef90_R7N9N0          S V A L L Q Y V K S E K Y G C K D L I K I E G T K L   P E R L D I V G Y I N K Q
UniRef90_N9Y5J5          N V A L I M N V E S L R M G K D I I K M E L K E G     I D Y D I L A M I S P N
UniRef90_UPI00047E19C1   E I V L I K N A V S R K I E K K D V L K I   N E V I D L N Y E V L G F I D P K
UniRef90_R7BFH2          S I A L L Q Y V K S E K Y G K K D L I K I E G S D M L P   Q L D I L G Y L D D K
UniRef90_D1PMV7          S V A L L Q N V R S Q K S G K K D I I K I E G D V   S K L N F D I L G Y L D P K
UniRef90_M2Q147          S I A I L K N V K S Q K M G S K D I L K I D H E I     D I N L D V L G Y I D P S
UniRef90_B1C953          V I V L M R N I P S H K M G K K D I I K I E T D L     K L D L T I L G L I D P N
UniRef90_C7N944          R I T V A T N M P S S S L G R K G I I K I E E K I L E E K E L N N I S L L A P N
UniRef90_X8JA31          S V A I I Q N A K S G K Y G K     K D I I K I D Q I   D L D F D L I G F V D P H
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UniRef90_R6QKB1          Q V A I I Q N A K S E K M G A K D I I K I   N E L I D I N L D V L C Y I D K N
UniRef90_F0GZM2          E V A L I L N A N S T S N G K K D I V K I A N N L   D I N L D A V A I I D P S
UniRef90_F0GUS6          E V A I I L N A K S T K N G K K D I L K I A N N I   D I N L D I V S I I D P S
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UniRef90_D4K665          S V A L I Q N A R S K K T G R K D I I K V E G D   A S W L N L D V L A Y L D P N
UniRef90_F7YV41          A D G I     F K S A D G N F K G Y I S L P N R Y L T K K E I K K L A A I A P N
UniRef90_UPI0003B4A343   T S C L I Q N V H S E K S G K   K D I I K I D N I I N I D Y S V L G F I D P D
UniRef90_V7I3D5          P V V L L I N V E S K K L G K K D I I K L A D V F   D I N L D I L G L I D Q N
UniRef90_E6NAJ8          A V   I A K N V P S T K L G R K D L V K I E G E Y I T S S L V N V I A L I S P T
UniRef90_UPI00047C8E59   P T A L I M N V S S T K N K K K D I I K I E N D I   D L D F K M L G L L D H N
UniRef90_A6UT12          T I T I A M N V P S G K N H K K D I L K I E G I E L S K Y D V D K I S L I S P N
UniRef90_G0GA19          I S S H G V Y K S H R T G E H K G I I S L P D V L F D R P H I K M L G A I A P G
UniRef90_A8F3H2          A D G I     F K S A D G S Y K G Y I S L P D R Y L S K K E I K K L A A I A P N
UniRef90_F2NU85          S T A L I M N A S K K T G K     K D I I K I D N I I N I D Y S V L G F I D S N
UniRef90_H1XQB7          P V T L G I N Y D S Q K M G R K D I K L Q L E F L A P E I I Q H I S I V V P G
UniRef90_A9BJV6          A D G I     F R S A D G R L K G Y I S L P D V H L S K K E I K K L S A I S P N
UniRef90_E3HDR3          T I M V A F N L E S K K Q G K K G I I K I D G R I L K D E E I E K I S I L A P M
UniRef90_H9UKC5          V S S H G V Y K G H S G R N H K G I I S I P G E S M D E S R M K I L A A I A P N
UniRef90_UPI000381FDD2   S V I V L K N V P S R K Y G R K D V I K L Y H H F M S K T D A A L V K L I F P T
UniRef90_F0RTV5          G E W V S T G H K D G T L Y K G I I F R P G L Y E L S R K H L K R L S A V A P G
UniRef90_D0XFY8                                    M L K I E N V F I N E E Q A N K L A L Y A P H
UniRef90_L1QF04          Q V A L I I N A D S K K M G K K D I I K   I E N L E K I N Y T V L G L L S P G
UniRef90_J9CFV2          N I T I G F N L K S K K L G T K G I I K I A D K F F C D D E I N R I A V V A P N
UniRef90_Q04595          G E W V S T S T K D K G T F K G I I F R P G E Y K F S R A D L K R L S A V A S S
UniRef90_S6A373          G E W I S T S T E G T N I F K G I I F R P G E Y K F S R A D L K R L A G V A A S
UniRef90_V5WGQ1          M G S H G V F P S F R E G S Y K G I I S P D H R L P G E K K L K M L S A V S P G
UniRef90_UPI000364CA80   T I A L V M N V K S K K L G V K D V V K V E N L E I N P N L L N R L A L I A P E
UniRef90_B7AT76          Q V A I I K N A R S N K M G K K D I I K I E G G   L D L V D L D V L G F I D H N
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UniRef90_E1R525          K G     G E W V T S S R I A K G I I F R P G F S G F D G K Q M K Q L A A I A P G
UniRef90_U1QXL2                                M G H K D V A K I E G R E L S Q S E L D V L S L I A P A
UniRef90_U0F5X7          R I T I G L N L P S S A L G E K D I I K I E N V Y L T K E Q A N Q L A L Y A P K
UniRef90_X1C2F8          L M T I G V N V S S R K Y N K K D I I K I E G E F L D E I Q M Q Q I S I L S P N
UniRef90_R5HZZ3          S V A L L Q S V R S E K Y G C K D L I K I E G   L T E P K R L E V L G Y L N E G
UniRef90_UPI0003637A97   P G     G E W V S T G K S G T K G L F R P G H P V P D E T M I R K L A A V V P G
UniRef90_X0VD23                I G V N V L S K K Y L T K G I I K I E N I F L N E T Q M Q Q I S I L S P N
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UniRef90_T1BEU2                                    E L S D R A V N A I A L L A P T
UniRef90_A6BEH4          C V A I I K N A K S N K M G K K D I M K I E C P I   D F M D L D I L G F I D H N
UniRef90_X0SP41          S   S I P A H L P K A G     K S F L K T D L P E L S E R E L K K I T L N S P E
UniRef90_X1C9A1                                                  L Q Q I S I L S P N
UniRef90_X1FGB7                                                  M Q Q I S I L S P N
UniRef90_X1CGG0                                                  Q I S I L S P N
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jnet
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sol25  B B B B B B B   B           B B B B B           B     B B B B B B B B
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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                                                  90                    100                   110                   120
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UniRef90_A9M468          A V V N T I  D N F K V V Q K R H L N L P D E I A E V F R C P N T N C A G H G E P
UniRef90_R7N9N0          I T L I I I  K D G K V D K K Y H P L P P K I L T N V I K C K N P R C I T S I E T
UniRef90_N9Y5J5          I T I N E I  E N G K I K N K F R P E L P T K V I N K M K C T N I N C I T V D E R
UniRef90_UPI00047E19C1   I T V N F I  R G G A L I Q K V N P P L P E L L T N I I Y C K N P R C I T S T E Q
UniRef90_R7BFH2          I T L I Y I  K D G K V V Q K L H P V P P I E L R N V I R C K N P R C I T N L E
UniRef90_D1PMV7          I T I T V I  E N G H I V N K I R P K Q P Q R L V N V I K C T N P R C V T S I E E
UniRef90_M2Q147          I T V S F I  K D Q K T Q K K M H L N L P R M I I N I E K C K N P R C I T S K E H
UniRef90_B1C953          I T V S Y I  E N G E R V K K I Q P R L P E V V E G I L K C K N P R C I T Q Y E K
UniRef90_C7N944          V T I N I I  D N Y E V V E K S K L D K L D K V I G L M K C D N P K C I S N H E N
UniRef90_X8JA31          I T V N I I  K N S S L H S K K H M K L P E Q L M N V I E C R N P R C I T S T E R
UniRef90_R7I7B9          I T L I S I  K D G K V V K K F H P I P P M E L K N V I R C E N P R C I T S I E T
UniRef90_R6QKB1          I T V N V I  K N G K S V E K K T L S L P K T L T N V I K C S N P R C I C N N E D
UniRef90_F0GZM2          A T V N F I  E D E K V V K K N I E L P E K I E G I L K C Q N P S C I T A N E R
UniRef90_F0GUS6          A T I N I I  K N E Q V V D K L T L S L P K V V R G I L E C Q N P K C V S T S E R
UniRef90_Q1Q511          A T V N I I  K D Y E V V K K F E V I P E M I E G I V K C F N P N C I S N Y G N
UniRef90_X0UZ37          A T V M R I  K D F E I V E K I Q I T I S G E I A N I V K C P N I G C I T N Q E P
UniRef90_D4K665          I S V T I I  E N G K A V R K E Q P K P P K R L V N I V R C K N P R C I S S I E E
UniRef90_F7YV41          V T V N I I  K D S T V K E K Y R I K L P P R I Y N F I R C K N E N C I T H P K N
UniRef90_UPI0003B4A343   I C V N V I  E N E K I V R K I N M E L P S R V Q G V F K C K N P R C I T Q T E H
UniRef90_V7I3D5          I T V N V V  K D S K I V E K Y M A V I P D E V T G L F S C D N P R C I S N S D S
UniRef90_E6NAJ8          A T I N I I  A D W S V K S K E R V N P P R E V V G V I D C R N P L C S S K G P N
UniRef90_UPI00047C8E59   I T V N I I  E N E I I K E K I L S L P K K V E N V L K C K N P R C I T S V E K
UniRef90_A6UT12          A T I N I I  K N K I V I N K F K V E I P N T I E G I L K C T N P N C I T N I E N
UniRef90_G0GA19          C T L N I I  K E G R V E R K F R I G M P P R I Y N F I S C T N E D C I S H P D Q
UniRef90_A8F3H2          T T V N I I  K G A S V K E K Y R I K L P P K I Y N F I R C K N E N C I T H G E N
UniRef90_F2NU85          I T V N V I  Q D S K I T R K I K M E L P E K I E N V I E C K N P R C I T I T E H
UniRef90_H1XQB7          V T I K A I  K E Y E V Y S K V V V Q A P K V I K N L L R C K N P N C V T N L E K
UniRef90_A9BJV6          T T V N I I  E G G R V K E K Y R I S L P P I I Y G F L R C K N E N C I T N P Q N
UniRef90_E3HDR3          A S I N I I  K N Y K V V E K K M V E I P D I I N D V I K C C H N Q K C V T N F E K
UniRef90_H9UKC5          A T V N M V  E E G R V I R K V R L S M P P R V Y Y G L I A C K N P D C I A F P E N
UniRef90_UPI000381FDD2   V T V N Y I  R E W K V E K Y S P E L P E V I E G K V R C P E L T C I S N S D P
UniRef90_F0RTV5          C T L N L I  K G G K V V N K Y R L H L P P R I Y N F L G C T N E A C I S H P D Q
UniRef90_D0XFY8          A T V N Q I  E N Y E V V K K L A L E L P E Q V K N V F E C C P N T N C I T H N E P
UniRef90_L1QF04          I T I N E V  R N E V I V N K I K P E L P E R V E N I I E C K N P N C I T S D E K
UniRef90_J9CFV2          V R L T I I  R D Y E V V E K R E V E L P D E L I G L V K C A N P K C I T N N E P
UniRef90_Q04595          C T L N L I  K D G K I Q S K Y R T H L P P R I Y N F L I C K N E A C I S H P A Q
UniRef90_S6A373          C T L N I I  K D G K I E A K Y R T H L P P R I Y N F L I C R N E A C V S H P A Q
UniRef90_V5WGQ1          V T L N L V  E N H E V V K K F R L T T P P R V Y R L L C C K N E A C V S R P E Y
UniRef90_UPI000364CA80   A T I N I I  R D Y K V H E K R K I T L E E I V
UniRef90_B7AT76          I T V N I I  K D G E I V E K S V F R S Q N V L L M L S D V R T H A
UniRef90_UPI00037217DA   A T I N I I  R D Y K V H E K R K I T L E E I V E D I L R C S N P T C I S T N E P
UniRef90_E1R525          S T L N I I  H E S R V V K K L R L H M P P R I Y N F I S C S N T A C I S H P S N
UniRef90_U1QXL2          A T I N I I  R G Y E V A D K Q R V E S P G H V S G V L D C S N P D C I T T D E P
UniRef90_U0F5X7          A
UniRef90_X1C2F8          A K I S L I  E D Y K V I E K K E V K L P D
UniRef90_R5HZZ3          V T L I V I  C D G K V V K K Y H P V P P R T L K N V I K C K N P R C I T S T E A
UniRef90_UPI0003637A97   A T V N V I  R H G E V Q R K I R L G F P L R I A E L L V C R N E A C I T H P A N
UniRef90_X0VD23          A T I S L I  E K Y K V I E K K K V E L P K I I K K L I L C V N Q T C I S N S E P
UniRef90_F4GJI6          C T L N I I  S G A K I T E K Y R M R M P P R I Y N F L G C T N T A C I S H E S L
UniRef90_X0X444          A T L N V I  E
UniRef90_T1BEU2          A T I S I I  R D F T V R E K H P V A L P D R I D G V L R C P N F E C I T N S E P
UniRef90_A6BEH4          I T V N I I  K
UniRef90_X0SP41          A T I N Y I  K D G K V V D K F V Y L L C K N T N C V T R N E D
UniRef90_X1C9A1          S K I S L I  E D Y K V I E K K K V K L P D I I K S L I L C R S N T C I S N S E P
UniRef90_X1FGB7          A T I S L I  E N Y K V I E K K K V K L P Q I I K K L I L C I N Q T C I S N S D E
UniRef90_X1CGG0          A A I S L I  D N Y N V I E K K K V R I P D V I K K L V L C V N K T C I S N S E P


lupas_21
lupas_14
lupas_28
jnet
conf                     0 8 9 9 9 8 5   4 4 4 6 4 2 3 4 1   2 3 5 4 0 0 1 2 4 6 7 6 1 5 7 7 3 1 1 2 5 7 7 7
sol25                    B B B B B B    B   B B       B   B B     B     B B   B B   B       B B B
sol5                     B     B     B                     B       B B   B             B
sol0                     B     B                                 B
jhmm
jpssm
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Multiple sequence alignment (residues ~125–152)

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UniRef90_R7N9N0          G C E H I F K L Y           P S G K Y R C L Y C N E E I S
UniRef90_N9Y5J5          Y V P Q S F I L V D K E K G N Y R C E Y C D H I
UniRef90_UPI00047E19C1   E L A H R F R L T D R E S G V Y R C L Y C E
UniRef90_R7BFH2              A N C E H I F R M S S S K K Y R C I Y C N Q E I
UniRef90_D1PMV7          G C D H I F T L T           P S G R Y R C V Y C E Q E F R V K
UniRef90_M2Q147          H L D Q K F Y L A N A S K R I Y R C Y Y C D S R I E K
UniRef90_B1C953          V E N I K F Y L A N P E K K E Y R C S Y C D S K T T
UniRef90_C7N944          I E T K F I R V E E E E K T K Y K C F Y C E K I I L E D E I
UniRef90_X8JA31          G I E Q R F R L D D P K K R I Y R C E Y C D T V H Q G G I
UniRef90_R7I7B9          H C D H I F R M S V S K       K Y R C I Y C N Q E I H V K
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UniRef90_F0GZM2          N V E S K F I L I D R K E K M Y K C N Y C D H I Y D V E E
UniRef90_F0GUS6          S V D S E F N L I D E K E K T Y S C A Y C D H I Y D V E E
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UniRef90_X0UZ37          Y K I T H F I K L S E K P M K I K C K F C E G I F K E G E
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UniRef90_F7YV41          G E N V G A S F V R V G D     K L V C E Y C E T P H D Y S E I W
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UniRef90_G0GA19          H E H V I P E F H R S D E G L F V C K Y C E R P H T Y E T I W R
UniRef90_A8F3H2          V G A S F I R I D D           R L V C E Y C E T P H E Y S E I W
UniRef90_F2NU85          Y V P Q E F K L V N R E K K E Y R C I Y C D A L H K
UniRef90_H1XQB7          E S E T L F E A V D P E S K K V K C A Y C E R I F E L S E
UniRef90_A9BJV6          N E N V Q V S F I R N E E N E L I C E Y C E T P H T F E E I W R
UniRef90_E3HDR3          V P T K F Y           K E G K K Y R C A Y C E T S I K K N N I I
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UniRef90_D0XFY8          V A S S F Q V F E K K E E I R L K C K Y C E K V F A R E I V T E
UniRef90_L1QF04          Y I P H S F T L V
UniRef90_J9CFV2          M P T R F H V I D K D N C I   I K C H Y C E K E Q V R E N I
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UniRef90_X1FGB7          P I D T E F L V L E E K P L K I Q C V Y C G C I Y K L E E I V F
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sol0   B   B
jhmm
jpssm