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                          1            10              20            30            40
QUERY                M I R P E Y L R V L R K I Y D R L K N E K V N W V V T G S L S F A L Q G V P V E
UniRef90_X1G6I1      M L N P D Y L K A L R N I N A R L N N T S V N W A V T G S V G F A L Q G V P V E
UniRef90_Q9V1L7      M I P Y A H L K V L R K L Y E R L K D S N V N W V V T G S L G F A L Q G V P V E
UniRef90_B2TJV7                I F K T L S Y I G E N L N D G V V W A V G A S I L L N S Y G L A D N
UniRef90_F4ABC2                I F K V L S Y I G E K L N D N G I T W G V G A S I L L N Q F G F I E K
UniRef90_UPI0003FF5733     E K K L T V L S R I A K E L N Q K N V T W A V G A S I L Y F K G I T R E
UniRef90_I3VUE3               M N V L R K I Y D R L N D T N I N W V I T G S T A F A I Q Q G I P F K
UniRef90_G0GEA0      M V P T L Y R E V L L L I E E R L R D M P H P W V I T G S L G M V L Q G L P L E
UniRef90_B1B9F6            E N K F K V L S K I A K E L N D N N I T W A I G A S L L L Y I K G I S S E
UniRef90_U7V9U4      M T N E I K I A T F L K V A K I L N E N N I T W A V G A S L L L Y L K G I T D K
UniRef90_T0PK72            L L D T L S Y I G S K L N E N L N T W A V G A S I L L N H Y G L V D K
UniRef90_R5QUC1            K K I E L L K K I A L R F N D A N I T W A L G A S M L L Y F K K I T I E
UniRef90_B1KXG7            F D T L S Y I G E K L N S L N I I W G V G A S I L L N Q F G L I E K
UniRef90_UPI00035E2E00 M I D P V Y L N V L R Q I H A R L C N T D V N W V V T G S L G F A L Q G V P V Q
UniRef90_A8MIG4            F R T L S N I G E N L N K E G I L W A V G A S I V L N H Y G L V Q H
UniRef90_U1MXV8       L P P A H A D A V S T L A T A L T D L T E P W A L T G S T S F A L Q G I P V E
UniRef90_G9RX20      M E T E R K L D V L A D I A R A L N Q S G V T W A V G G S L L L Y F K G K T D V
UniRef90_UPI00041032CB    D K Y S L L S D I G K K F N K E G I L W A V G A S I V L N Y Y N L I E N
UniRef90_E0QHZ4            E K I K L K K I A R R F N E F N V T W A L G A S M M L Y L K G I A T K
UniRef90_UPI00041CA644     L E T L T I I G K S L N D R E I T W G I G G S L L L S F H Q L I T N
UniRef90_R5I6A9        Q K K I E L L Q K I H R F N E A N I E W A L G A S M L L Y F K G I I S E
UniRef90_UPI00047C895F     I L E T L S F I G E K L N E N E V L W A V G A S L L L N Q Y G L I D K
UniRef90_UPI000248C8EC     K K E A L L R I A E I M N S N A V D W G L G G S S M L W F H G L V D R
UniRef90_Q1AYD2      M V G K R H L R A L R A V Y E A L S G R E V R W A L T G S L S F A L Q G A P V E
UniRef90_L9WJJ2        I E K Q Y L N A L E T L S A T L D G R L D V V A L T G S T S F V L Q G V P L T
UniRef90_I4A9P2      M D V E K K L S V L S K I G K A L N E N N I V W A V G G S L L L Y L K G K A D V
UniRef90_M0L331       L E S R Y L A V V R T L T E R L P E H L E W A L T G S T A F A L Q G V P V E
UniRef90_R5F8R0        Q K K M D V L Q K I A A E F N K D N L L W A I G A S L L L Y F K G V A E V
UniRef90_B9Y3J1        K E E K L Q V L V Q L A E L F N E H E I Q W A V G A S L L L Y F K G L V S D
UniRef90_UPI00036BCE22     E I L E T L S F I G N I S N N G N I T W G V G G S L L L R F H Q L I D K
UniRef90_R5G4B9          R K M N V L C E I A H A L N Q E N V T W V V G A S L L L Y L K G I V N D
UniRef90_F8FES6       L P P Q Q L E L A R A A A R V L D P A G I P W G L G G S A L L Y V R G L T R F
UniRef90_UPI000287D1ED     Y F N A L K E V S A I L N K L N C L W A V G G S L V L Y N K G L W E C
UniRef90_U2EEX3            F N T L A H I S D G L N K S G A L W A I G A S V M L Y F N G L L E K
UniRef90_T0DYP0            F D T L S Y I G D K L N K A N I L W G V G A S L L L N Q F G M V D T
UniRef90_UPI0003822610     D L A A A L T E L C A Q A G A T W L L G G S C G L W L Q G V P L E
UniRef90_D4IY62      M L T E L H E K V L K I C M L L H D S G V C W G L T G S T S F A L Q G M D Y E
UniRef90_B1YFW5            I E S V I S L L S P L F A S A H V R W G I G G S V L L A H H G L V E H
UniRef90_UPI00047C07E7     L D V L K K V A K L L N E S N C T W A V G G S V L L Y F H G L V D K
UniRef90_UPI00047E36B2     L N A L S Y I G S K L N L D L N I I W G V G G S V L L S H F G I T D K
UniRef90_A6LW68            L K A L S Y I G N K F N D L N I I V W G A G G S V L L S H F G L L N T
UniRef90_UPI0002E391E8     L V Q T I E H F S N M A R R E N L C W M L G G S C G L A L H G V Q L E
UniRef90_F5LDH1      L E E S L V E V M R Q A A R L L N G T G T G W L I G G S C G L A L Q G V E I Q
UniRef90_S9T711      L S E P I M G T I E Q L V A S A N N D M K H W M L G G S C G L V L Q G V P R E
UniRef90_K4Z8S3            I M D T I E Q L T E S V D K D T K H W M L G G S C G L A L Q G V S R E
UniRef90_X0RRU6            I N T L H M I A Q T L N R N Q I Q W G L G G S F L L Y L H Q I I E K
UniRef90_UPI000288A7DF     F E T V K E I V T K I G N R K L T W G V G G S L L L N F H S L I E H
UniRef90_V9G4G6       T P K L G N G L A S I V S K L H Q S N V P W L L G G S C S L R L Q N V S L P
UniRef90_UPI00040CF330     V L K K V A K S L N D N F N C M W A I G A S M L L N H Y G L V E E
UniRef90_UPI00047C2DE0 M M T N K K I N V L K R I A I E L N K K N I T W A L G A S M L Y F K G I I S E
UniRef90_A0A015L1R7   S D A I E R A L G E I A R R L T D S G A S W V V G G S A G L M L R G I P R P
UniRef90_A0A031IJF0        L Q E V V L A Y I V K A L Q Q A Q I R F G I G G S L L L A H H G L P V T
UniRef90_H3SLG2       L S H S L E N S I R L L T E A C P P E T L P W M L G G S C G L V L Q G I D R E
UniRef90_V9H317            E L L C E I S D G L N K I G C A W G I G G S L L K Y H G L I E K
UniRef90_C6CU48        I E N A L A A I V R L L E G A H A D W V L G G S A G L M L R G L P D K
UniRef90_F5T9C8                            I E W A L G G S M M L Y F K K I V S S
UniRef90_UPI000248DECA V P E S L K E I F S E L A I H T R G S D S I W L V G G S T G L L L Q G V Q L D
UniRef90_W2E2I1           I L P V V S R L S Q D L S R T E A K W L L G G S C A L L L Q R V E R E
UniRef90_U6BDN5           L E Q V L E K V V A C L Q Q E R I Q F G I G G S L L L H H H G L P V T
UniRef90_R9LGI4           D L T E D L C K L A E S C G M E G N W L L G G S C G L W L Q G V E L V
UniRef90_E0IC98      M V Q L E Q L E R L E F I A D A V H D S G A R W V I G G S T G L A L R G I G R A
UniRef90_L0EEE9            E S R I E R A L C R I A E R L D G T G V A W V V G G S A G L M L R G L P L P
UniRef90_UPI000366D718         A E L T R G C G V R W T I G G S A A L A I R G L D R P
UniRef90_F8FAT2       E P L R Q A L E E I G R S G R N L P G S W L V G G S T G L L L Q G V P L P
UniRef90_E4RK66           K K I L L N I A E N F N R D N I N W A I G A S Y L L K I H N I V D T
UniRef90_G7VS47       L P H E L T A A L G S L A D G W A S V A V P W M L G G S C S L V Q G V E L D
UniRef90_S6EJV7            F N T L Q K V A R E L N K S N I R W A I G A S I L L K E Y K I I N K
UniRef90_UPI00037C8AAB     R L T A A L H E L A G R L N G S P E V W L L G G S S G L W L Q G V P L E
UniRef90_UPI000379DE6C M N N E K L L T Q L Q Q R L S A T L K A F Q F G V G G S C L L W Q L G L E T S
UniRef90_UPI000413C047 M M A K L E A L C R L N G I A C R I G G S T L L Q Q Y G L V E T
UniRef90_Q5WCQ3      M D Q Q K I D A L F T V A S K L K A N Q I A F S L G G S L L Y A L Q L T E T
UniRef90_G4HF79        P G L E S L L Y E T V C K L N L T D Q P W V L G G S C S L L L Q G V Q L P
UniRef90_C4KZP8            L K Q L E T I C R L N G I A Y R I G G S E L L K H H G I V E V
UniRef90_UPI0003798DF5     E E L E Q V A R L A E L C H R K N I S F A L G G S L L Y S L G L E K E
UniRef90_Q8PZG2       P V P W E Q A T E F C R K A Q G T D I D W W L T G S C A A C I R G I K M N
UniRef90_I4WL86      L S P A L Y A T L A E I V P E L H V H C V P W C L I G S A A A L L L G A Q T G
UniRef90_C6A362            S L S R T I E I L D E K N I K W W L A G S T A C A I R G I N I K
UniRef90_UPI00047B069E     A L R R L A E L L E G C D S R W V V G G S T G L A L R G L E R A
UniRef90_UPI000375A674     R E L A P Q L A G H C W A I G G S T L L Q H L D L V E Q
UniRef90_I4VTM1      L T P A L Y A T L A E I V P D L H V H C V P W C L I G S T A A L L L G A Q A S
UniRef90_UPI0003726F71     K L R E A L R I I H G L T A G T G C T W L L G G S T G L M L Q G V S L A
UniRef90_D3PMZ2      L L P E R I V Q A L R L V C P I L N D A G V W A S G L A L A L L L H G L P V V
UniRef90_W6DE86      M S E K V K V A L N W F K G L L E S E N I E Y Q I V G G L A A T I H G S S R E
UniRef90_U1LY65           E K Q V E T L C R L N G I A C R F G G S T L L K H H G L I E T
UniRef90_UPI0003FBEC90 M S E K V K V A L N W L K D L L E S E S I E Y Q I V G G L A A T I H G G S R E
UniRef90_UPI00041C0ED9     M D S L K Q L L E L R T E K V R C G I G G S Y L L Q M Y E L C D N
UniRef90_UPI00037583B8 V P P A L F V E I V P E L H V H C I P W C V I G S A G A L M L G A D V G
UniRef90_UPI0004779231     I V Q S L A E I A R L T E A A D A W V G G S A G L L L R G L A L P
UniRef90_F7P0T3      M Q P T D I R Q I A T E L V Q V L G P T D W A I G G S F L L Q C Y G I E P Q
UniRef90_D3E7I6            P E L E K A L A T A I H K L N Q A P V A W L L G G S C C L L L Q G V E L P
UniRef90_I1E079                            F G I G G S C L L W Q L G L E L P
UniRef90_G0QDV0       V P D K H L D V L E V L V E N V S G D W A V T G S T G M A L Q G M D L D
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                                          50              60              70            80
QUERY                    V H D I D I Q T D E E G A Y E I E R I F S E F V S K K V R F S S T E K I C S H F
UniRef90_X1G6I1          P N D I D I Q T D K R G A Y E I E R H L S E F V T K R V K F S S T E R I R S Y F
UniRef90_Q9V1L7          P H D I D I Q T D K R G A Y E I E R L F S E F V V E P V R F K E S E I I R S H F
UniRef90_B2TJV7          P N D I D I L V D T N D I E R V D K I L K S I G E K K E R K E S K T Y S T K Y F
UniRef90_F4ABC2          P N D I D I F I S T K D I K R A D K V L K S M G E K K K W E S S T T Y S T K Y F
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UniRef90_I3VUE3          P N D V D I Q T D K E G A Y K I E E C F K E F V I A K V C F S S N G K I S S H F
UniRef90_G0GEA0          I H D I D I Q T D G E G A Y E I E A R L S E Y V T R P V E Y T R S E R V R S H L
UniRef90_B1B9F6          F N D I D I M V A E S D V E V L K N I L L S L G E L Q P R N T A Q Y K T K Q F
UniRef90_U7V9U4          F N D I D L M V A E N D I E K T K N I F L S L G K E Y A K N P N L Q Y K S K C F
UniRef90_T0PK72          P N D I D I M I N I K D I E K A D K I L T S L G K K K S Q E K V S T Y N T E Y F
UniRef90_R5QUC1          F H D I D L M I A N E D V E S V Q K I L S E M G E I Q P P N P N S K Y K T K S F
UniRef90_B1KXG7          P N D I D I F V D I K D I E K T D E V L K S I G K K K W E K N A T Y S T K Y F
UniRef90_UPI00035E2E00   P N D I D I Q T D K V G A Y E I E R R F S D V I I R K V K Y S A I E R I K S H F
UniRef90_A8MIG4          P N D I D L L V D V Q D M E K A D R I L Q E M G Q K K G P E K T D V Y A T Q Y F
UniRef90_U1MXV8          P T D I D L Q T T E A G A R A V E A R W N E A V T D P V S Y V E S D Q V R S Y F
UniRef90_G9RX20          F R D I D L M V C E T D V E K L K R A M L P L G A P A P S D P N A Q Y R T R C F
UniRef90_UPI00041032CB   P N D I D I L V S L K D I E K A D N I L K E M G I K K E Y K K T E D Y S T E Y F
UniRef90_E0QHZ4          F H D I D L M I S N D D V E R V Q V I L S E M G E I K P P N P N P K Y K T K T F
UniRef90_UPI00041CA644   P N D I D I L V D E N H A N Q L N E I I A P M G E S K K V L H S D P F R T N Y F
UniRef90_R5I6A9          F H D I D L M V S V H D A E Q V R T I L S E M G E L H P P A S A P D Y R T K V F
UniRef90_UPI00047C895F   P N D I D L M V D Q K D Y P K V H Q I L K G L G S E V I E T K S S D Y E T E C F
UniRef90_UPI000248C8EC   P N D I D L L V A E H D A L R A H E L L S R L G T Y E E L Q P K E P F C T K Y F
UniRef90_Q1AYD2          P D D I D I Q T D R E G A Y E I Q R A L H E H V T R R V E F S S S G G I R S H F
UniRef90_L9WJJ2          P N D I D V Q T T E D G A Y A I E K L F A E E I V E P I S F S E T E T I C S H F
UniRef90_I4A9P2          F Q D I D I M A M E D H I K E L K K I L Q Q Y G D L E L P N P N V R Y K T R H F
UniRef90_M0L331          P N D V D V Q T T E D G A Y G I A D R F P E S V V D P V P F E E G D R I R S H F
UniRef90_R5F8R0          F H D I D I M V D E K D V E R C K N I L L N M G T M G A A S P D P Q Y K T R T F
UniRef90_B9Y3J1          F H D L M I D E Q A G E Q V A Q L L E P L G T R R P F I P S P A F Q T R C F
UniRef90_UPI00036BCE22   P N D I D I L V D L D H T T Q M N Q I L S L I G T E K E V I R T E P F R T K Y F
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UniRef90_UPI000287D1ED   P N D I D I L I N F K D V E K N V M D A R Y E K L E L K Y K D N F K T K A F
UniRef90_U2EEX3          P N D I D I L V A E K D I E K I K N V L D N L G E M T F D E G K E P Y L T K Y F
UniRef90_T0DYP0          P N D I D I F I D I K D I H K S D K I L L K K I G K K R E Y E E T S T Y S T K Y F
UniRef90_UPI0003822610   P R D I D V Y Y C D R A D L S G L H D R L A G G S L D E P K W D E S G C Y A S L L
UniRef90_D4IY62          T H D I D D E A T A Y I L G E L K E Y E V Q P V I F S G N E K I R S H F
UniRef90_B1YFW5          P N D V D L L F H P D D F A V A E R I L K Q F G K Q Q P S Q D K G V F L T R R F
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UniRef90_UPI00047E36B2   P D D I Y I F I D I N D I E K V D K I L N D I S N E T L T K E S K L Y S P K Y F
UniRef90_A6LW68          L N D I S I F V D V N D I I K I D E M F K D M S N E I A N N E S K L Y S P K Y F
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UniRef90_F5LDH1          P R D L D L Y V D T D Q A S A A A R I L Q P Y A I D E Q K L D R T G I Y E S L L
UniRef90_S9T711          P R D V D I Y A D E P D A K H L Q E Q W N P Y A T D A P E W N A T S T Y H S L L
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UniRef90_H3SLG2          P R D I D V Y A D E E A G S L H R A W A A W S T D E P E W S V T D R Y R S L L
UniRef90_V9H317          P N D I D I L I N S K D C E K V I E F M N T I G N K V E L Y S K D P F K T E N F
UniRef90_C6CU48          P N D I D L Y A D D E D Y D L I Y E R L K P Y A S D T K E L S E C G N Y R S I L
UniRef90_F5T9C8          F D D I D L M I F L S D V D R V R N I L S E M G E L K P E N P K A K Y R T K R F
UniRef90_UPI000248DECA   P R D L D L Y A D R R D V E D L H R A L Q R Y S T D D Q T E S E T P I Y R S I L
UniRef90_W2E2I1          P R D I D I Y I D E Q D A L L V Y E A L R H I A V D K P V F S T T P I Y R S E L
UniRef90_U6BDN5          P L D I D L V V A L A D A E R A V Q L L A D M G T V V E Q D K T S L Y A T E V F
UniRef90_R9LGI4          P R D I D V Y A D L V T A D R L H E R L K S F A T D Q P H H D Q S G I Y T S K L
UniRef90_E0IC98          P R D L D I Y A D L D S A V L L H K R L E R Y S V D S Q H W S E T E R F Q S L L
UniRef90_L0EEE9          P R D I D L Y A D P T D A E A M E A L S V W A V D R P R S V T E R Y E S I L
UniRef90_UPI000366D718   P R D V D I Y A D G Q D P V L H E R L R S A A L D R P T E D R T D R Y R S I L
UniRef90_F8FAT2          P R D L D L Y T D R E T A A E L H G A L L P W S V D K Q E E S A T E I Y R S I L
UniRef90_E4RK66          A N D L D I L V V K T D F K K A A S L L D R I G Q K E K A E K K Q K Y F S N E F
UniRef90_G7VS47          P R D I D I Y A D I H A A K Q L H A K A P G I M I D R Q Q V D R S G S Y V S L L
UniRef90_S6EJV7          V N D I D I I V D I K D V K K L D S I L K N I G I R K E G N E N L N Y S T K Y F
UniRef90_UPI00037C8AAB   P R D V D I F A D A E A V H I L H E R L S S L A T D K P V Y D R N E C Y A S L L
UniRef90_UPI000379DE6C   P N D I D I V C S E D D F A V I C N E L A A E Y Q L R D P P P H S E Y A T T H F
UniRef90_UPI000413C047   A N D L D V F V E P D Q F E R L D N V L S R V D S K L D T K P D P D Y M T T Y F
UniRef90_Q5WCQ3          V N D W D I M T N A N K N V V T Q A L F P I K A F E T G Q T G D H L F T S S Y K
UniRef90_G4HF79          P R D I D I Y T D A E S V H E L H A S L A D W A E D A P H L D Q E G M Y A S I L
UniRef90_C4KZP8          T N D I D V F V E P D Q F E K I D R V L S R A G E K K S S D P H D A Y V T T Y F
UniRef90_UPI0003798DF5   F R D I D L T T D A S V Q L R E A L T E Y P V K V E N S G D G I Y N T H Y R
UniRef90_Q8PZG2          P H D V D I M V D S R C I D E I T E V F S D C L I E P I I D T N G W L T K D F
UniRef90_I4WL86          A A D V D V L T S R A D A E A L M A H W A S R R E P A F T P P E A D R F R S H F
UniRef90_C6A362          P R D I D I M T Y K S E I S K I K H A F K N Y I I E P F H Y I N D W V V S G F
UniRef90_UPI00047B069E   P R D I D V Y A D R K A I R A I H Q R L A V Y A L D G P A D N E T D R Y R S V L
UniRef90_UPI000375A674   P R D I D I V T T A A D F A A V H A V L A A R G Q D I T P P P H P Q Y T T R H F
UniRef90_I4VTM1          V A D V D V L T S R A D A E A L M T L W A P R R E P A F T P P D S D R F R S H F
UniRef90_UPI0003726F71   P R D L D L Y A D R T D A L D I H C K L S A Y A V D G Q S E N A G G L Y R S L L
UniRef90_D3PMZ2          P K D I D L Q T D R L G A E Q I A L L S E Y L T H P P G L H L G V R V R S Y L
UniRef90_W6DE86          V A D I D L Y I H N S D A K K V L A H V S Q Y V S K P L T R Y S E Y G W D L E Y
UniRef90_U1LY65          T N D L D V F V E P D Q F E R L D Q V L S R V G V K V E T K P H A D Y M T T Y F
UniRef90_UPI0003FBEC90   I A D I D L Y I H N A D A N R I L A R V A P Y I S K P L H Y S E Y G W D L E Y F
UniRef90_UPI00041C0ED9   P Q D V D F W V E P S D I E K V R E I F K E C K E I K E K L Q L P E Q Y H
UniRef90_UPI00037583B8   P R D V D L V S R T D A E A L M V Q W A S R R D D S H V P A D G D R F R S H F
UniRef90_UPI0004779231   P S D L D L Y A D E Q D A A A R I L V S L Y A T D K P E R S R T S L Y D S V L
UniRef90_F7P0T3          A R D L D L V C T L E R F E Q F K T L L L S Q Y A H L V P V S L H P I Y R S K G F
UniRef90_D3E7I6          P R D I D I Y A D A G G I Q P L H E T L A L L A V D A P H L D Q E G I Y S S I L
UniRef90_I1E079          P R D I D V C A E D A F A A I C A V L N A H F S L Q P V A P H P L Y M S A H F
UniRef90_G0QDV0          V N D L D I Q S N G P A A D R L A E F L R R H V L E T P L R S V E S K K M S S R L
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                                              90              100             110             120
QUERY                   G E L I I D G I K V E I M G D I R K R L E D G T W E D P V D L N K Y K R F V E T
UniRef90_X1G6I1         V E L M I D G I K V E I M G D I Q K R L E D G S W E N P P V D L E Y H K R V V E V
UniRef90_Q9V1L7         G V L T I D G I K V E I M G D I Q K K V E   G K W E P P V D L N R Y K R F Q I
UniRef90_B2TJV7         Y E Y V V N G I D I D V M A G L N I N Y N G G V F K Y T F D N K S I S E F K N I
UniRef90_F4ABC2         Y E Y I I D G V D I D V M A G F A V N H N S G V F K Y N F N H T S I S E F K K I
UniRef90_UPI0003FF5733  L E F N V D G V D V D A M A G F I I V S K D K E Y Y F P L K K E N I H D H T E V
UniRef90_I3VUE3         G R L E I I D V K V E I M G D I Q K N I N   G T W E E P V N L E K Y K R Y I T L
UniRef90_G0GEA0         G A C M I G T V K V E I M G A I Q K R L P D G T W E S P V D V R P H R C W I S L
UniRef90_B1B9F6         L E F K V Q D V D I D V M A G F V I V N N G R N F Y F P L D K D D I M D Y T E I
UniRef90_U7V9U4         L E F N V D G I D F D I I S G F I I V N N N C D H Y F P L E K H S I V E Y F C L
UniRef90_T0PK72         Y E Y V I N G I D V D A M A G M I I N H E A G A Y E Y R F D D E A I T G Q R Q I
UniRef90_R5QUC1         M E F I I D S I D V D V M A G F S I V S D G K V H D C S L H K E Q I V E W M T L
UniRef90_B1KXG7         Y E Y I I D G F D V D V M A G F A V N H I N G V F E Y I F D H N S I S E S K T I
UniRef90_UPI00035E2E00  G A L Q I D G I E V E I M G D I Q K R G V D G V W E E I V D P A H Y R Q M V E I
UniRef90_A8MIG4         Y E Y M I K G F D V D V M A G F E I K H S N G S F Q Y K F D E N S I S T M K E I
UniRef90_U1MXV8         G A I S L C G V A V E V M G A L Q K R D A D G R W T E P P A I G E L R Q R V T V
UniRef90_G9RX20         L E F T I R G V D V D V M A G F V I L E N G Q E H D C A L K P E Q V A E H I L V
UniRef90_UPI00041032CB  Y E Y V I E N I D I D V M S G F K I N H K D G V F E Y I F D E K S I D N V M Q I
UniRef90_E0QHZ4         M E F I I D T I D V D V M A G F S I V N D G K L F D C S L Q K E Q I V E K I L L
UniRef90_UPI00041CA644  T K H R M N N T D I D I M G G F A I Q H S E G I Y K L S L N K E S I V A H I N I
UniRef90_R5I6A9         M E F T I D S V D I D V M A G F S I V S E G K V Y D C S L D K E Q I V E R M T L
UniRef90_UPI00047C895F  S K Y I I K G V S I D V M A G F I I N H K E G Q Y K Y E F D S S S V N E R L L I
UniRef90_UPI000248C8EC  T H Y T I L G T E V D V M G L L S I R H A E G I Y R L D W R R D A N T R I E P L
UniRef90_Q1AYD2         G E L R I G G V R V E V M G D V Q K R L P D G S W E A P V A L E R H T R R V E V
UniRef90_L9WJJ2         G A F E L D D V R V E V M G A I Q K R Q S D G T W E P P V D I S E H H R F V D L
UniRef90_I4A9P2         L E F T I D E V D V D V M A G F V I I H K G K E Y D C S L H P E S I T E H L L I
UniRef90_M0L331         G A L E R R G V R V E I M G A V Q K R D A D G T W E L P V D V A A H R T F A M A
UniRef90_R5F8R0         I E F T V D E V D I V I A G F V I V D N G M E H D C S L K P D Q I T E Y I T I
UniRef90_B9Y3J1         M E F L I E G V E I D V I G G L A I V S E G H V H E L P L R S E E I E E G F S L
UniRef90_UPI00036BCE22  N K F H I N Y I D L D I M G G F A I E H Q E G N Y Q L S F T Q Q S I V E H K Q V
UniRef90_R5G4B9         L E Y I V D N V E I D V I G G Y I I T N N G I D Y D C S L S K D Q I N D K V V I
UniRef90_F8FES6         R R F T L G R S S A D L I A G F G I R H S A G V Y R L L W R H G E A L P R L P L
UniRef90_UPI000287D1ED  F R Y K I N G I N I E F M G D F K I V C N D N V Y S F L L D E K T I V D K M D I
UniRef90_U2EEX3         Y K Y K V A D T D I D L I A G F K I K N E Q G I Y E M P F D E N T V T S H A K V
UniRef90_T0DYP0         Y E Y V I N G I D I D I M A G F A I N H D N G V Y N Y I F D N M S I S E Y K L I
UniRef90_UPI0003822610  S H Y R I K A I T I E L V G S F E I R K G K S I Y R T E V N L K E H A H N K L L
UniRef90_D4IY62         G K F L V D G M E V E V M G D I Q K K P A D   E W E N I I P L D T L L D Y V D W
UniRef90_B1YFW5         E E Y T I G S V E L D L I V D F K I Q H K A G V F S F I F D E T A M T E Q V S F
UniRef90_UPI00047C07E7  F G Y I V D D I E I E F M G G F K I A L N D N I Y S F I L D E D A I V D N V V I
UniRef90_UPI00047E36B2  H R S I I G G F E V N I I S G L K I N H S N G T F K Y I F H S D S I P E L T K I
UniRef90_A6LW68         H K S I I E G S E V N I I A G L K I N H S N G T F K Y I F H S D S I S E L T E I
UniRef90_UPI0002E391E8  S H Y E Y K G V S I E L V G D F V V S T P L G Q Y V T G I R L W N Y G L E V Q L
UniRef90_F5LDH1         S H Y A I G G I Q V E L V G G F K V C A A G S Q Y I V E Y L R E K H A E V R Q L
UniRef90_S9T711         S H Y Q I C G V P I E L V G G Q F I V T T P Q C Q Y N T I I R L W N H R I I Y N I
UniRef90_K4Z8S3         S H Y Q I G E V P V E L V G G Q F I V T T P N C Q Y K T I I H D S L W N H R I T Y
UniRef90_X0RRU6         Y H F K V N E V G V D V M S D F A I A H L S G V Y T M P L N   E E H I S V K T I
UniRef90_UPI000288A7DF  S K F K I G K V D I D S M G G F A I Q H N E G I Y R L Q F D E N S V V E R I D
UniRef90_V9G4G6         S H Y E W E G V P I E L V G G F E V T S S G S V Y V V E I K D L L Y A P V R Q I
UniRef90_UPI00040CF330  F R Y D V D G T E V E F M V G F R I K C E D S L Y E V I F D E D S I V S T V L K
UniRef90_UPI00047C2DE0  L E F I I D N V D V M A G F S I V N G D N L I D C S L K P E E I I E Y Y D L
UniRef90_A0A015L1R7     S H Y E I A G V A V E L V G G F V V S A N E G R Y E V K V P D G K D A E W L K L
UniRef90_A0A031IJF0     Q E F I I H D I D L D L M S G L R I R H D E G I F V Y P F A E Q T I N E T G P
UniRef90_H3SLG2         S H Y R H E R V T A E L V G S F T V T T P Q C R Y E T V I I E G L W P V G P E Y
UniRef90_V9H317         F G Y N V D G V M V E F M G N F K I N L Q K G I Y E F I L D D K S I V D N L I L
UniRef90_C6CU48         S H F V I E G V P V E L V G G F V V R A E R S R Y I T E V R L K P Y S E F V V R
UniRef90_F5T9C8         M E F T I E G I D V D V M A G F A I V Y E G N V V D C S L E K E Q I V E M L P L
UniRef90_UPI000248DECA  S H Y E M N G V K V E L V G A F E V R A M D S E Y R V E A E Y R T H A P A V P Y
UniRef90_W2E2I1         S H Y S I E N M Q A E V V A G F E V Q A E G S I Y E S R F L Y D H I A Q S V A V
UniRef90_U6BDN5         Q E F I I E G I D I D L M S G L Q I R H G E G V F I Y P F D E Q S   I
UniRef90_R9LGI4         S H Y R I G E S T I E L V G G F E V H T N G A F Y R T E I E L A P V A Q R V K L
UniRef90_E0IC98         S H Y V I E G A P V E V V G G F I V R A H C R Y A L E V D D W G H S L E V Q C
UniRef90_L0EEE9         S H Y R I E D V H V E L V G G F V V E D R G C R Y E V R V R P E A E R R T L E P
UniRef90_UPI000366D718  S H Y D L M G T T V E L V G A F R V G C R N S V Y I T E V I L F P M S E R V R F
UniRef90_F8FAT2         S H Y V I A G V N V E L V G A F E V R T P E S A Y R V E L R R E H A L T L R V G
UniRef90_E4RK66         Y K Y Q V D G V E V D L F V D L V L N Y N N S F L N Y Q F K K E S I T E Y K K I
UniRef90_G7VS47         S H Y E L E G F P V E L V G F E V L C D G A L Y R L E V E R L L W A A R L D L
UniRef90_S6EJV7         Y E Y V V D G I D I D V M A D F T I N H E N G K Y I V L L D E K S I T S Y K S L
UniRef90_UPI00037C8AAB  S H Y Q L D E L E V E M V G G F E I R T S R A H Y R T E V N L A G A S H Q V V L
UniRef90_UPI000379DE6C  A R F S R S G W D I E L M A G I A V K T N G K R W Q F N P Q R C H W Q N G I C W
UniRef90_UPI000413C047  G E Y V F E G V E I D V M A S F R M K C T D G I Y T H P F I E P R A G
UniRef90_Q5WCQ3         L F V E K N G Q E V E I I G G F S L R S E A G I C H I P A D A A F H         W
UniRef90_G4HF79         S H Y G R Y G V S I E L V G G F T V M T G G S E Y R V E I G P L L H A P E H R I
UniRef90_C4KZP8         G E Y V F E G T D V D V M S S F R M K C T D G I Y T H P F         I E P
UniRef90_UPI0003798DF5  L S V E L N G K D I D F M G S F S V K T K T G I C Y L P C L P A           Y
UniRef90_Q8PZG2         G V I F L H   A R I D I A S D P Q E I L D       I P E P V D C G P Y A E T V K W
UniRef90_I4WL86         A R F H F P G A P V E V M G A L E L   H A D D R W R   P V L P G K L V L A G V
UniRef90_C6A362         G V V F I E G   R V D I A F D P V E S C D D G R L D F G Y Y A S N N L E T I Q W
UniRef90_UPI00047B069E  S H Y K L E D T I V E L V G D F R I A A R G S V Y R T E V E H S P S G D P A N A
UniRef90_UPI000375A674  A R F D M N G L S V D L I A E M A I K L E K G S Y R W P F D A S A     R F E A
UniRef90_I4VTM1         A H F R F P G A P V E V M G A L E L F A D G G   W Q P V W P D K   L V L I G V
UniRef90_UPI0003726F71  S H Y E I A G V P V E L V G G F E V F A Q D S E Y K V E A R D W S W A E R H D S
UniRef90_D3PMZ2         A Q F R V G L V D V E V M G G F E Q S P E G R W S P A P D F R H Q R T V V D Y
UniRef90_W6DE86         F Q L I Y R N Q K I E V I G L A Q H T K I Q D S W H Q L E I D F S K S V V K Y
UniRef90_U1LY65         S E Y V F E G G D I D V M A S F R M K C T D G I Y T H P Y         I E P V G S W
UniRef90_UPI0003FBEC90  L V Y Q N Q K I E I I G L A Q S T K I Q S S D G S W H Q L E I D F S K S V V K S Y
UniRef90_UPI00041C0ED9  F K F F E F K D I V A D F V S C F I T K P N Q Y S F E Y N I K P D S I E Y M P T E
UniRef90_UPI00037583B8  A R F R F P G L P V E V M G D L E L D A D G   W Q   P V S P G R L V L V G L
UniRef90_UPI0004779231  S H Y R I G T V Q V E L V G G F C I S Q P A G N Y R T E I L F P A A P H M E V
UniRef90_F7P0T3         A R F N K N G L V I E L M A G I Q G V L K D D G L Q Q F L F Q P E K T S     W Q
UniRef90_D3E7I6         S H Y E L E K V P I E L V G G F E V N S E G S S Y R V E I D L Y P A A P A R H I
UniRef90_I1E079         C R F S R S G W D I E L M A G I A V Q Q Q Q Q W T F V P Q R C H W Q D G I C W
UniRef90_G0QDV0         G S Y E L I G V K I E V I G D L Q K V   D G S W G K T V D V T E I N L K N V R V
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                                         130           140           150
QUERY                   H G M K I P V L S L E Y E Y Q A Y L K L G R V E K A E T L R K W L N E R K
UniRef90_X1G6I1         E G M K V S V L S L E Y E Y Q A Y M K L G R I D K A K M L R K W L N S E
UniRef90_Q9V1L7         E G M K I P V L D L E Y E Y Q A Y L K L G R I K K F L E Q R
UniRef90_B2TJV7         N G V N I P L T S L E D W Y I Y Q L I N R E K K V N F I E D Y L I S N
UniRef90_F4ABC2         N K V D I P F T S L E D W Y I Y Q L I N R E L K V K M I E N Y F L S N
UniRef90_UPI0003FF5733  H G I T V P L Q S L E E W N Y Y E L M G R V E K V K M I D D
UniRef90_I3VUE3         Q D M R I P V L D L E Y C E A Y L K M G R V E K V I L I K K Y I N Q M K
UniRef90_G0GEA0         N G R K I P V L S L E Y E Y H A Y R T L G R L E R T A L I R E W L E K H
UniRef90_B1B9F6         N G V K I P L Q S V K E W R N Y Y E L M G R T E K V K M I D D
UniRef90_U7V9U4         E N I S I P L Q S V N D W L T Y Y T L M N R K E K V E M I K N Y L N K N
UniRef90_T0PK72         N G V N I P L T S L E D W Y Y Q I P N R D L K V K L I E D Y L I K N
UniRef90_R5QUC1         E N T K I P L Q S P I L W C E Y Y R L M G R K E K V D V I E S A L A N N
UniRef90_B1KXG7         N G V N I P F T S L E D W Y I Y Q L I N R E A K V K I I E S Y L
UniRef90_UPI00035E2E00  A G L L V P V L S L E Y E Y Q A Y L K F G R V E R A E M L R R W L D D
UniRef90_A8MIG4         H G I S I P L T S L E D W Y I L Y Q L I H R E H K V D M I E N Y L L S N
UniRef90_U1MXV8         A G T S V P V L P L A Y E A N A Y E Q L G R T S R A A L L R T H A H Q R S
UniRef90_G9RX20         R G E D I P L Q S L E D W R R Y Y A W M G R T S K V A M I D
UniRef90_UPI00041032CB  N G E N I P L T S L E D W Y I Y Q L I G R E Y K V Q K I E K Y L N D N
UniRef90_E0QHZ4         E T E L V P L Q S P L L W C E Y Y R L M G R N E K V D M I E R A V S K E K
UniRef90_UPI00041CA644  N G V E I P L C S L E D W I L Y L I P G K Q E K A V L I E N Y L R T N
UniRef90_R5I6A9         G T E V I P L Q S Q L W C K Y Y R L M G R S E K A D M I E R M L
UniRef90_UPI00047C895F  N D V E I P F T A L E D W F V L Y Q L M N R E A K V R L I E D Y L
UniRef90_UPI000248C8EC  E G V S V P L I P L E D W F V L L M G R S G K A D L I E A C L K R
UniRef90_Q1AYD2         E G M S V P V L A L E Y E A A A Y R R L G R L D T A R M L E E M L E K E
UniRef90_L9WJJ2         D D I R I P V L S L Q Y E A E A Y E A L G R A N L L S E Y I E E
UniRef90_I4A9P2         N D V Y I P L Q S L T E W R R Y Y A L M G R T E K V E M I D R
UniRef90_M0L331         D G T R V P V L S L E Y E A K A Y E R L G R S E R A K L L C E Y A E T D S
UniRef90_R5F8R0         G K E R V P L Q G L A L W R Q Y Y E W M G R T S K V E L I D K F A E
UniRef90_B9Y3J1         E G Q R I P L H S L R V W E I Y Y T L M G R T E K A E I L R R A Q K K
UniRef90_UPI00036BCE22  N G V D I P L C T L E D W Y I F Y L I P G K K E K A V L I E N Y F K
UniRef90_R5G4B9         N N E L I P L H S L W K K Y K L M E R S E K V N L L K D Y
UniRef90_F8FES6         Y G T G I P L M S L E D W Y V L Y L L L G R A D K A A L I E A H W R D
UniRef90_UPI000287D1ED  G G V K V N V S S L E D W I V A Y Y L M G D P K R V P I I K E Y F I E N
UniRef90_U2EEX3         N N V A I P L C A L E D W Y L Y Q L M E R E A K V K L I E D Y L I K N
UniRef90_T0DYP0         N G V S I P F T S L E D W Y V I Y Q L I N R E I K V E M I E K Y L L T N
UniRef90_UPI0003822610  E G V S V P L M Q L A H E L L F N V L R E R P D R Y T A V A Q V I R S
UniRef90_D4IY62         N G Y Q V P V L K L S Y E A E A Y R K L G R L E K A E Q L E R F A R E R Q
UniRef90_B1YFW5         G G Q R Y P F M H L E D W Y V F Y L L M G R E S K V R L L E D Y W Q S H
UniRef90_UPI00047C07E7  D E I K V N L T S L E D W L V A Y K V M N D P K R L P L I K K Y F Q T N S
UniRef90_UPI00047E36B2  N E I D I P L M S L E D W Y I Y Q L P N K K E K A K L I E V L L T N
UniRef90_A6LW68         N K I D I P L M S L E D W Y L Y Q L P N T K E K A A L I E K F L L T N
UniRef90_UPI0002E391E8  G H T F V H V M P L A H E L V F N V L R E R K D R V Q S I V S V M N Q
UniRef90_F5LDH1         E G E S L A L M P L A H E L L F N I L R E R P D R Y E A I A R T I N
UniRef90_S9T711         D R F R I A L M P L A H E L V F N I L R Q R E D R T A S I A Q V I N
UniRef90_K4Z8S3         E H S S I A L M P L A H E L V F N I L R Q R E D R V S S I A R V I N T
UniRef90_X0RRU6         S D E R I F L C C L E D W Y I M Y Q L M E K T E K A E W L E H Y F
UniRef90_UPI000288A7DF  G I P L S S L E D W Y V L Y L I P N K Q E K A I M I E D Y F K K N
UniRef90_V9G4G6         G P L E L R L M P L S H E L I F N I L R D R P D R Y E A I A K A M R Q E
UniRef90_UPI00040CF330  D E V E I N L M S L E D W F V I Y H V L G D P K R T H L I S K Y F E K N
UniRef90_UPI00047C2DE0  D G V K I P L Q S I E I W C R Y Y E L M G R S V E A I K K V L S K
UniRef90_A0A015L1R7     G G V R V P L V P L A H E L W F N R L R G R A D R F E L V A A V M A E
UniRef90_A0A031IJF0     P F M S L V D W Y I Y Q L I G R E Q K V V M I E H C L A D
UniRef90_H3SLG2         G R H I I R L M P L A H E L V F N L L R E R E D R T E A I V R V I N R
UniRef90_V9H317         E D S K I N F T S L E D W F V A Y L A M N D K K R V P L I K E Y F K H N
UniRef90_C6CU48         N G Q E V P V V P L A H E L W F N R L R Q R E D R L Q M I V D H Y I K E
UniRef90_F5T9C8         G T E S I P L Q S P L L W R E Y Y R L M E R P N K V E M I N K A L G D K S
UniRef90_UPI000248DECA  E G E T V R L M P L A H E L V F N V L R E R P D R Y E A I A R A C R A R
UniRef90_W2E2I1         G G A E V R M M P L A H E F L F N I L R N R P D R Y Q P I A E Q I N R H
UniRef90_U6BDN5         D S T G R P F M A L I D W Y V I Y L I P G R E Q K V A M I E Q Y L T K
UniRef90_R9LGI4         R D S A L W V M P L A H E L V F N L L R G R P D R Y L P I A G M M R K E
UniRef90_E0IC98         N G R K L Y V V P L S H E L L F N V L R D R I D R A D I I V Q A A I E S K
UniRef90_L0EEE9         C G T G A A I V P L A H E L W F N W L R E R P D R L E L
UniRef90_UPI000366D718  G D D E L F L V P L A H E L L F N L L R E R Y D R V E T V A R L M R A N
UniRef90_F8FAT2         E G T E A G L M P L A H E L L F N L L R R R P D R Y E A I A A V M V R R R
UniRef90_E4RK66         N R V Q I P L A S L E D W Y I L Y S L M D K E N K I K L L E D Y F K Q H
UniRef90_G7VS47         G R S S L R L M P L S H E L L F N L L R N R P D R Y E A I A D A I N R
UniRef90_S6EJV7         N G V I V P F M S L E D W Y I I Y Q L I G R D K K V S L I E K Y L K E N
UniRef90_UPI00037C8AAB  E K R V I Q V M P L A H E F V F N L L R E R H D R Y L P I A A V M R K E
UniRef90_UPI000379DE6C  M P P A D W L Q L Y Q L F N R P Q R V A Q L R H Y L
UniRef90_UPI000413C047  W M R L E E W V V L Y S V M G R K E K V D L L H D Y F Q T
UniRef90_Q5WCQ3         Q G I P V G S P E A W L A Y V L R E E K K V A M L E S Y L Q M H
UniRef90_G4HF79         Q G T V V R L M P L S H E L V F N V L R A R P D R Y E A I A A A I
UniRef90_C4KZP8         D G Q W M H L E E W V V L Y T V I G R E D K L A S L V R Y F K T H S
UniRef90_UPI0003798DF5  E W R G I P V C A P E V W A V A Y Q L G R I Q K A E R I Y G Y L E E H
UniRef90_Q8PZG2         N G Y E I K V P L E L Q L N V N R R R E R L D R V K L I E E F M N K
UniRef90_I4WL86         N G L A V P V P S V E D Q I R L C E S F G R P K R A A L L K Q
UniRef90_C6A362         K G K Q I K V P P V E L H I K S N E I R R R T E R V K L I K E Y I E K R
UniRef90_UPI00047B069E  E G M T V M L I P L A H E L I F N L L R D R M D R A E
UniRef90_UPI000375A674  D G L P W C C P E D W A L L Y R L M G R E E Q T E A L D E W L N E
UniRef90_I4VTM1         G G V A V P V P S I D D Q I R L C E R F G R Q K R K A A L R A L M
UniRef90_UPI0003726F71  G G A S L L L M P L A H E L L F N V M R E R A D R Y E A I A A H C R S
UniRef90_D3PMZ2         L G L
UniRef90_W6DE86         Q G I E L R V I S V H Q L V E Y K R I L G R E V D L I D
UniRef90_U1LY65         M R L E E W V V L Y T V I G R E D R L N R L A D Y F E T H
UniRef90_UPI0003FBEC90  Q G I E L Q V I P V H Q L I E Y K Q I L G R E V D L I D
UniRef90_UPI00041C0ED9  K G Y E I P C T A L E D W I V Y S L L G R K K K A D I I K K Y I K S
UniRef90_UPI00037583B8  Q G I V P S L D D Q I R L F E S F G R K D R A R A V A
UniRef90_UPI0004779231  E G R T I A L V P L V H E L L F N A L R E R S D R T S L I A A A I Q
UniRef90_F7P0T3         Q G L P L M Q L A D W L V L Y Q L F E R P K R V A Q L Q Q Y F N D
UniRef90_D3E7I6         R D V T V R L M P L S H E L V F N V L R D R P D R Y E A I A E T M
UniRef90_I1E079         M P P A D W L Q L Y Q L F E R V A Q L R R Y L
UniRef90_G0QDV0         E S I T V P V L R L E Y E E Q A Y R K M G R E E R A D A V R S F L S R
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Position markers: 1, 10, 20, 30, 40

Label	Sequence (approx., residues ~1–40)
UniRef90_J1Q7D3	P F G I G G S **C** L L W Q L G L E A N
UniRef90_G4F7K8	M S D R V K V A L S W L K G I L D S E K I D Y Q I V G G L A A K I Y G G S R E
UniRef90_U2DS72	D W E K S L E V I A **C** R M E K N N I K W W L A G S A A **C** A I R G I N I I
UniRef90_UPI00037DAC60	L P P P L T E T L R R V A S A M E G A R D P W W I I A S A M A L H G A P I E
UniRef90_UPI00036C8EFA	E K K L E T L N R V T R L L S Q A G V D Y V V G G S G M L F G L G L T D K
UniRef90_UPI000470BFBE	I K E R I T Q T L A F I A D E L K E V A P Y S **C** I I G A S A M I L H G Y E I N
UniRef90_UPI00037F693C	M L P I K F K K T L I I L V K M L K G F D Y V I G G S T S L A L Q G I I K V H
UniRef90_UPI000289ECFC	L A E P
UniRef90_X0XGQ9	L D E A G L A Y K L V A G A A A A L H G V P L P
UniRef90_UPI000471CD56	M P Q G L R K A L V Q V A D A L E K D P P L **C** L L G G S **C** G L L L H D V P L P
UniRef90_A3Y5D8	K V K N A L L W L Q S L L E H A D V P Y Q I V G G L A A Y I Y G A Q R P
UniRef90_W7YN35	I S P E L Q H A L Q D A S R M L S G A G N E W L L G G S **C** G L L L Q H V H L D
UniRef90_UPI00047668D3	K P M A V E A L E W I S S L L I E K E I P F A V **C** G G L A A L G Y G S T R P
UniRef90_A6W1P7	A L E W L K G I L D S Q H I Q Y Q I V G G L A A T I H G G S R D
UniRef90_UPI00046F0335	L A A P
UniRef90_F3ZU60	M K D I I L E T L G K L A P D L K L L Q D D F Y I I G G S A L I L H D V P L K
UniRef90_A0A015N8Y3	I K E R I I T L T E V A D R F Q K I E S E W **C** I I G S S A M I L S G I K D N
UniRef90_UPI00034853F8	I I S E N H I Q T L N F I I S T L E Q H K I K Y Q V T G G L A G N I Y G S T W P
UniRef90_X4ZLE7	L T A P
UniRef90_W4BIA9	P E L E K V L A A A I H R L N R A Y T A W L L G G S **C** S L L L Q D V K L P
UniRef90_F3WXR5	M M T P E L R A T L S S V G E V M A S **C** P A G W W I I G S A A M A L H G V P G S
UniRef90_UPI00046F4BF0	V P E P L V T V L G E L T E K L S E Q P P A W L L G G S **C** G L L L H G V T L D
UniRef90_Q8A7D6	I K D K I T Q S L A S I T V E L Q E I S P D F Y V I G A S A M I L S G I E V E
UniRef90_W4DFU4	I P Y V L E T A L G S I A R E L D G K P Y P V W L L G G S **C** G L L L H Q L S A A
UniRef90_V3JKQ9	S K Q L I D A I T E L T L L Q P I E E D W S I T G G A N R Y L Q G V Q I Y
UniRef90_Q6N6E9	P E L L R Q T L T T V L N L A K R E G F D **C** R L I G T A A D L L R G V P I E
UniRef90_C3LUZ8	I V S Q K V K V A L L W L K D I L E S K Q I S Y Q I V G G L A A K I H G G S R E
UniRef90_W4UWR1	R E K I I Q T L A L I A S E L H E V S A Y S Y L I G G A S M I L Q G F E I E
UniRef90_UPI000371D19F	V T P A L Y T T L A E I V P E L H V Q **C** L P W **C** L I G S A A A L L A G A D V G
UniRef90_R5JP44	I K D K I T Q T L I G I T A Q L I S S E F Y I I G A S A M I L S N I K I E
UniRef90_UPI00036B4C0B	L K Q S L I D L A S W L A P E H E G E H T H W L L G G S **C** G L L L Q G I P L E
UniRef90_K5ULV0	M N E S V Y R A M S W L K G I L D K Q D I R Y Q I V G G F A A H L H G G S R P
UniRef90_UPI00037D3B32	Q G V E L D
UniRef90_E6ST67	I K E K I T Q A I A S I S N E L Q K I T P E F Y I I G A S A M I L S D I E I E
UniRef90_UPI000479B965	M R D A L E Q V I A E A V P E L H R H **C** D P W Q L I G S A A A **C** L A G A E V S
UniRef90_Q2JG74	L R E S L K R V A V T L K E A G I P F A L G G S Y A **C** W A R G G P E P
UniRef90_A7N414	M N E S V Y R A M S W L K A I L D G G Q V R Y Q I V G G L A A H L H G G S R P
UniRef90_J6J9G5	L R D V L A K V L D L L E N E G P R Y R L I G T A A G L L R G V P L V
UniRef90_UPI0002886DDA	A L K S F **C** D L Y S E S G V P W I V V G S V G S V I Q K A A M T
UniRef90_UPI00047BF9EB	M E K S W K S A L S K V **C** E I Y I Q S N I D W I L V G S V G S V L Q G **C** K M E
UniRef90_K4IWY3	M N K Y I Y E E A F R Y L N K I I N I N I D W A L T G S Y R L Y L E N I H N N
UniRef90_UPI000361B748	M N P Q S I F P I I K K L E Y N S I A Y S L G G S G L L Y Y L G L T D A
UniRef90_H8KXV2	L E S I S E S L Q L L E D D F Y L I G S G A L V M E R I E D K
UniRef90_UPI000411282A	D H K E I L P I I R R F E E N D L T Y S L G G S G L L Y Y F N L S N T
UniRef90_UPI00037EC17C	M P L S L T R T I V A A A V L L E E T R D P W W I I S S A A A A I H G A P I T
UniRef90_UPI00046A1200	V L P I I K N I L D T N Q I D W A V T G S A S E V L G R T K I Y
UniRef90_U5VSM8	P V L W E E T L D L V **C** R R L E G I D W W L T G S A A L A A R G M A I T
UniRef90_W4CB38	P E L H A A L L E T A K A W N T Q P Q T W L L G G S **C** G L L L Q G V E L Q
UniRef90_UPI000470A171	D H Q E I L P I I R R F E N E L A Y S L G G S G M L Y Y L G L T D A
UniRef90_UPI0003176720	I S E N H I Q A L K F I I P V F E E H N I T Y R I T G G L A G N L Y G S H W E
UniRef90_K6NZ04	R T L T Q A G **C** P V V L G G S G L L A S L G L V D R
UniRef90_N0AKA3	M V R P A L E Q T L S L A V P A M A A M R D P W **C** V I G S A A A L A L Y G V D V A
UniRef90_L1QGU1	L P E N L A A T F D I L A S A A S E L L Q D P W W V F G G A G M A L S G L S E H
UniRef90_UPI0003645203	V R A V L A A V H A R G L V A A V V G G S G L L A A L G L V S R
UniRef90_A8LHJ9	L R E S L K R V A V T L K E A E I P F A L G G S Y A **C** W A R G G P E P
UniRef90_UPI0003B65AFA	M E A R L R E T L L A V A G A M A S A R D S W W I I A S T A A V L H G A D T N
UniRef90_I2EQE2	M N E K I K Q T I S L I S D K L A Q L Q D P Y W L I G S S A L V L A G I I Q L E
UniRef90_UPI00036BE266	L P H D L Q D G L I A V G E A A R E L R E P W W I F G G A A M A L Y G L T D H
UniRef90_E8RT07	M P P D L R R S L D L I R R L M P P E Q P W W I I G S A A L S L S G L P V T
UniRef90_K2CAC2	K E A L I W I T N I L Q R Y S I P F Q I A G G L A V R A Y G S T R E
UniRef90_UPI000288CDB1	H Q E A I K W I A L G L L R N R N I P F L I **C** G G L A A K G Y G S G R D
UniRef90_X1HFR4	M I D S R F A K V H Q L H K H L P I D E V D W A V T G S L G F A L G M D V D
UniRef90_UPI0003617248	A I K E V L P I I K S I L D E N Q I W A V T G S A S K F L K G E S I Y
UniRef90_G9XU66	
UniRef90_V4NTA7	M T P E L R L S L D L I R S I M P Q D Q P W W I I G S T A L **C** L S G V D I V
UniRef90_X0RJN5	L S E E H A E A M A W L A D L F R D H D V R Y A A A G L A A R S W G A T R P
UniRef90_N2JCT5	H A A A L R W I I D L L N E Q H I P F L L **C** G G L A A H V Y G A R R P
UniRef90_UPI000414855E	
UniRef90_N9D4K6	L K E P I E N V I D F I G N I L N G L G V T W E I **C** G S T A L W H Y G I P I V
UniRef90_L0IPE8	N D E L R D A L K R A A S A L K A Q G P E F A L A G S Y A L W V R G G P E P
UniRef90_M0GVK5	V L E E L V E K L S D S A T W **C** V I G S T D S V L R G L D D D
UniRef90_UPI000382FE7B	A L G G S G L L V A L G L A E V
UniRef90_UPI0003F91E0F	M R P E L T E T L S F L H A L S K R A G V V P V L F G T A V L E I L G I D F H
UniRef90_UPI000477E4EF	M T P R V A A A L A D V A Q L M R P A R H P W W I I G S G A V V L H G A E A D
UniRef90_UPI0003B75D63	V L G G S G L L Y A L D L V E A
UniRef90_B1MBH5	M N E Q A L L R T L T R V V T A L T Q K D I A F A V A G G **C** A V Y A R G G P V T
UniRef90_W9GS86	T P D L R E A L K T V A V A L K R S G V P F A L M G G Y A A W A R G G P E P
UniRef90_UPI00035FB9B6	G A D P A Y R V G G T G A A L L Q G V R L P
UniRef90_A0A059MUC7	E T Q L L Q V L T K A A N T L N E A G V P F A V **C** G G L A V Y A R G G P A S
UniRef90_T2LB12	A A Q W V V G L L R D R N I P F Q I **C** G G L A A K G Y G S K R A
UniRef90_M5RT50	M L N P D F K D M L S A F I D A K I E F L L V G A Y A M A A H G Y P R A
UniRef90_UPI0004729325	N L T D V
UniRef90_Q07PX3	
UniRef90_UPI00036A3074	E A L A G V A A K L N H G S F D W M L V G S A A T A L R G V A V E
UniRef90_H8L075	T L I G L A D L M K I A Q R P W W I I S S A A A A L H G V T Q P
UniRef90_A0QS57	N E S L R D A L K R A A S A F K T H P D F A L A G S Y A L W A Y G A P E P
UniRef90_UPI0003A60844	L R E A L K T V A V A L K E V G V P F A L A G S Y A L W A R G G P E P
UniRef90_R7ZVK1	M L E Q D F I E F V E F L N K H Q V K Y M V V G A Y A L S F H G R P R N
UniRef90_R7I5T1	K E K A L R R L G E K L T A A N I P F A A G G E W L H **C** Q L G Q S A V
UniRef90_UPI0003B72121	M E Q A L V A S L K V V A H V M E N A Q D P W W I I A S A A V A L H G A P G P
UniRef90_X5LE27	N D D L R E A L K R A A S A F H G P Q F A L A G S Y A L W V Y G A P E P
UniRef90_C6WE03	L Q D E L L R T L T K V A K A L R A E G I P F A L A G G **C** A V Y A R G G P S T

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                              50          60          70        80
UniRef90_J1Q7D3      P G D I D V V C R E Q D F D A I C Q L L A Q H Y Q P E A V T F N P D F V T R H F
UniRef90_G4F7K8      V A D I D L Y I R N S D A D K L L A R V A S Y L S K P L T H Y V E Y G W D L E Y
UniRef90_U2DS72      P K D I D V M T Y K T E I K K I E K G F K D T T I E P F H Y     V T D W F V K G F
UniRef90_UPI00037DAC60 V A D V D L L T S E R D T E T L L A T L R       I S P L P G G G S D R F R S I F
UniRef90_UPI00036C8EFA V R D W D L M T E A S E   N E I R M A L D S L T L V D E S G P S E L Y G S G C K
UniRef90_UPI000470BFBE T A D I D I L T T S E G S D K L Q L S L K E Y M E T A P L T K E N E L F R S N F
UniRef90_UPI00037F693C P K D I D I F A D K E N A F K I N N L L K E F E S S S E F V K S D L
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UniRef90_X0XGQ9      V N D L D I E T D A E D A Y R F Q A L F A D H V V E P V A E P Q G E A Y R S H F
UniRef90_UPI000471CD56 P R D I D L Y A D L E A V D R L H S A L G R Y A C G K P A E D S S C G C F S L I
UniRef90_A3Y5D8      I A D I D L Y I P K E D A A K L E Q E L A P F I S K P L T H Y L E G E W D L E Y
UniRef90_W7YN35      P N D I D I Y A D R D S V L A F H E A L V D C C V D G P L Y S E T A Q Y R S L L
UniRef90_UPI00047668D3 L N D I D I F V P G K Y F Q M V V S A G S E H I S K P A K H Y I G E G W D L E Y
UniRef90_A6W1P7      V A D I D L Y I H R S A A D K V L S Q V A A Y V S K P L T H Y V E G N W D L E Y
UniRef90_UPI00046F0335 P R D I D L Y A D L E A V D R L H S A L G R Y A C G K P A E D W S R G C Y S L I
UniRef90_F3ZU60      T H D I D I C S A R D V D M L K A A W E K Y Y N P H P I M K E N D L F C S H F
UniRef90_A0A015N8Y3  T F D I D I L T T D K G S D E L Q K S L H E Y M V V N P V T K E N D L F R S N F
UniRef90_UPI00034853F8 L H D I D I E V A Q K D M E R V A S L F R N F T V R P L A R F V D E E F D L M L
UniRef90_X4ZLE7      P R D I D V Y A D L D A A S R L H T A L R R Y A C G E P A E D W S R G C Y S L I
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UniRef90_F3WXR5      V K D V D L L V E E P       L A G A V L G K L G V A P L D M P P D P L F R S T F
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UniRef90_A0QS57          A D Y Q L N G V P V D
UniRef90_UPI0003A60844   G S   G P Q P A M V D V L       Y R S A G V P V T R   R H F E G V D E L E V
UniRef90_R7ZVK1          T Q L G Y P P L R I D I L N A I S G V H F D E A Y       N A R V E T D I
UniRef90_R7I5T1          C H Y H F D G A D V T L L A A
UniRef90_UPI0003B72121   A T W G E P P L P V E L M A G F H   H C Q D G H W R A I V     P A T R Q R I A L
UniRef90_X5LE27          K A Y A D D D V L V D V L Y Q L     N G V S V G A A V L G S   A E V L Q V
UniRef90_C6WE03              D G D L L V D L L Y R P N     E L P V T T E T L A E E L Q V
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                                130            140            150
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UniRef90_U2DS72          K G Y S I Y V P P V E L H I Y P N K A R G R N D R V K K I E E Y M K H N
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UniRef90_UPI00036C8EFA     G L R I A     S P E V W L A A Y T L M G R S E K A A L L E E Y L Q N H
UniRef90_UPI000470BFBE   E N V A I R I P T L K E Q I R V L S L F G R E K D Y R R I N Q
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UniRef90_UPI000289ECFC   G G I R V G L M P L A H E L V F N L L R Q R P D R Y Y S I A E K I R E E
UniRef90_X0XGQ9          D G V P V R V S W L E E E I L A Y V R R G R L D R A A
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UniRef90_A3Y5D8          E G I R V P L M P K T Q L I Q Y K T L L A R
UniRef90_W7YN35          G S H K L L L M P L A H E L L F N V L R S R A D R Y E A I A T E M R K E
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UniRef90_E6SA83          Q H D L R E A L K T V A V A L K R A G R P F A L I G G Y G V W A R G G P E P
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UniRef90_A4FHW0          P T A M L R T L T R V A C A L D D A G V E Y A L T G G C A V Y A R G G P P S
UniRef90_V4PZU7            L E V S L S R I V A A A P D A G D W W L I G S V A A R L L G I D L E
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UniRef90_UPI00035D9641       R L L R T A V R V S N T L R S H G V R F A L A G G C A V Y A H G G P A S
UniRef90_UPI0004672CB7   P V E L L R T A M R V A N T L R A H G V R F A L A G G C A V Y A H G G P A F
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UniRef90_X1CGE9          V Q P D F K E L L A L L N A H N V N Y V I V G A Y A L A F H G A P R F
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UniRef90_D5PDK5             Q L R H A L R G A A S A L K E N G P R F A L A G S Y A L W A Y G A P E P
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UniRef90_U5VSB5          V D E G L V N T L K R V A S V L K Q A E I P F A L G G S F A V Y A H G G H S S
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UniRef90_UPI0003A2CB1C   M T E D M L E L L R I M N E E G V R S I I I G G Y A L A F L G Q P R Y
UniRef90_UPI000363A695          S N T L R S E G V R F A L A G G C A V F A H G P V G
UniRef90_U7GVC0            A V Q W I V G L L R D R N I P F L I C G G L A A K G Y G S E R D
UniRef90_U5E7N4            Q L L H T L T L V V N T L H D K G V R F A V G G G C A V W A R G G P E S
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UniRef90_D6Y622          V T D A I L E T L K R A G A G L K E A G V R F A L A G G C A G Y A R G A A P S
UniRef90_W2ELK8          V T D A I L E T L K R A G A G L K E A G V R F A L A G G C A G Y A R G A A P S
UniRef90_D6SRS9      L M S P D F K E L L K L F E K H N I R Y L I V G G Y A V M K Y S E P R F
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UniRef90_UPI0004676FD7  M S H E D L R K A L K R A A S A L K A D G P P F A L A G S Y A L W V H G A P E P
UniRef90_M5U9K8      M F N P D F K D M L L A L S D A K I D F L A G V A Y A V A V A H G H P R A
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UniRef90_B7A5R1      M T E D M L D F L R A L H R A G A R F L V I G G Y A V A F L G Y P R A
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UniRef90_X1EFJ6          T K D E N T G I R I D F I F S F T T Y E R Q A I      R R A R R V P I
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UniRef90_A8M1U1          D D R V V D L I H      R P V E T P V T D T T F A E T I P I
UniRef90_UPI00047EB618   S R F S L R G S V D L I V G F A L L D S D G T      R I P L P T R V T G H W
UniRef90_U7D7W5           V F Q I G V A P I D I I T E I D G L T F E      D A S K G K D I V E I
UniRef90_Q029N6          V Q L G V K P N R I D L L T A L S G V S F D E A W      A T R S D A T L
UniRef90_F8C4F1          I R Y T P Q G F Y V D L I T K F G E A I N    W E T   V E N A I E W I N L
UniRef90_UPI0003FE7B9D   L K V F D G E V L V D L I H H L      G E T P I S A D T I S N A P P I Q V
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UniRef90_H8IA02          S K A Y K Q G I P I D F I L E N V G G V I V T D E T F K H G R Y M N V
UniRef90_B5I446          L K A D C M G Q Q V D L I F E L A      H Q P V D L L A R A D E L S V
UniRef90_A6G5Y7          F R F G R S P F A V D L L T S I R G V S F D A A W      P G S T V R D V
UniRef90_A0A021VWC5        H H D A L V D V L F R M C      G E P V D P A I F D R   A D T I E V
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UniRef90_E8PLN7          V Q L G Y A P N R I      V I L E S P S F D E A F A R A S   K H T V
UniRef90_UPI00046949F6   S Q I G Y P P L R I D I L N A I S G V E F D E A Y E N K I D    A E I
UniRef90_Q39WS8          T A P Q A P L G G I D I L H A F R E A S R
UniRef90_D6Y622          F D E A G V L V D L I F S L A      D R P V T E E M I A E M L N T
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UniRef90_U5WQ67          G E W V     V D V L H R V      N G E P V G P A D L D D A E E R V V L
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UniRef90_C7LNQ5           G D V R V Y F I G L N Q Y I Q N K R A S G R K K D L A D L E
UniRef90_F5XDQ7            L G L R I P V L P A S E I V L A K L
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UniRef90_X1CGE9           G D V P V Y F L G R K E F L A N K K A L G R K K D L A
UniRef90_A8FWB7           F G R E V E V M R L D H L L S Y K A Q L A R L D D V C R L E E A I
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UniRef90_H8G5C9           G A T R A P V L P A T D L L V             D K V S V L E A H
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UniRef90_L0D6Y5           A G V S Y     L D L P K L V E L K L A S G M T G G V A R L K D F A D
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UniRef90_F3NHV5           D S V R M P V L S P T D L L R
UniRef90_W0J253           D G T R F R V M S L R D L I S A K E A L G R E K
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UniRef90_F6FQA8           L A V R V P V L Q A T D
UniRef90_E9UWR8           D S V T M P V M S A T D L V V
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UniRef90_A4WIW4           D G I S I K A T G L E Q L L V L K A K I A T K E A E E F I N E V A R
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UniRef90_A8M1U1           D S I H M P V L S A T Q L M V H K L L
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UniRef90_Q029N6           D G I S A H F I G R A E L L R N K E Q T G R
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UniRef90_B5I446           D S V F M P V L S P T D L L L
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UniRef90_A0A021VWC5        L A V R M P V L S A T D
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UniRef90_U5WQ67           A   I S M P V L P P
UniRef90_UPI0004676FD7    L A L A I P V L S P T E I L
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UniRef90_D6A0Z6           E S V R M P V L A P T D L L W
UniRef90_D2S8F1           T D I V V K L M T L D E H Y
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UniRef90_B7A5R1           E G V E V S V V H P E D F K A L K R A F G R P
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UniRef90_F4KS88               F K E F I E L L N A N S V K Y L V I G G Y A V N F H G Y P R Y
UniRef90_UPI000362B117        T Q A I L E T T K R V A V L L K A S G Y P F A L A G S V A A H A H G V P A V
UniRef90_A0A051U933           Q L R N A L R R A A S A L K E N G P R F A L A G S Y A L W A Y G A P E P
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UniRef90_UPI0003488B62        M L N Q D F K E F I Q F L N D N H V R Y L I V G G Y A V A I H G H P R Y
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UniRef90_W4LP95               E Q L E V L K L V A L R D E A G I A Y M I S G S I A L S Y Y A Q P R M
UniRef90_D7CPL3               M T Y P T E I E V L R T V T E R L E Q G E I P Y M L S G S M A L S F Y G R P R M
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UniRef90_UPI000475C53D        M L N Q D F R E F I Q S L N D N Q V R Y L V G G Y A V A I Y G H P R Y
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UniRef90_X1TL77               F K E F L K L L N A H Q V E Y L L I G G Y A V G F H G Y P R A
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UniRef90_B5HIZ3               T Q A I L Q A T K Q V G A L L K A S G Y P F A L V G S V A A Y A H G V P I R
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UniRef90_UPI000421CA52        L E P D F E D F I S L L N Q Y G V E Y L V V G G Y A M A F H G K P R Y
UniRef90_E6V7I0               R A L R D A G I P F L V G G A F S L A C Y G I R R A
UniRef90_F4L1R3               L P P D F K D F L R L L Y D H E V A Y L L V G G Y A V A L H G Y V R Y
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UniRef90_G4RKR7               E K Y K M A L L E V A K A L S D S G I D F V L V G S A V L P L Y N I D Y E
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UniRef90_T0IXI0               R H I V E S G I P F M L S G T Y A L C H T G I V R P
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UniRef90_W4LE66               D F E Q F L R F L Y E L D R K G V N Y V L V G G V A L N L H G I V R A
UniRef90_D1CBD3               S E R E Q E V Y R K A V S A L T R S S L P F A L G G A I A L N A Y G L W R G
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UniRef90_UPI0003610011        F K E F I A L L N E H K V R Y L I V G G F A Y S F Y A E P R F
UniRef90_D7CQ88               E D F R D F L E A L L A E E A R F L V V G A Y A L A L H G I P R A
UniRef90_H1YIV4               M E N K L I A D L V R V C E V L K N Y G I E Y L I V G G T A V A L H G Y P N D
UniRef90_U1YYE6               A L H D G L R M T A A A L A E A E I P H A L V G G Y A A W A R G A P E P
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UniRef90_F4C7B5               F K E A L K L L N D S G S P Y M L G G A F A M F H Y G I F R N
UniRef90_A8ZY19               M A Q K K L T T M L S I L S D R F I E K Q I P F C L I G A F A L G F Y G L S R H
UniRef90_I3ZEE0               L L S V F N A H N V R Y V L V G G M A F S F H A E P R G
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UniRef90_U2HYT7             L N K H E V R Y I L V G G F A V I L H G Y S R T
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UniRef90_C6W7C6           K F V K A A A E N E L E Y M L I G G L A L A M H G I A R Y
UniRef90_L9W8P9         E Y I E A L E R V G A Q I E I S L T V Y L I G G G A M A F R D L K N T
UniRef90_W5X7C4           V L D A A D A R G V R Y A L G G G L A F S E H S S A R N
UniRef90_W5X6S5          L P A L L K A L S A A E L K C V L I G G M A V I L H G G A I I
UniRef90_C8W5K5           R I V K C L E N H G I P C L G V P L A L R L Y G Y L R P
UniRef90_H8YWW4       D F L G V T R Q V G R A L D E A R V R Y A L I G G F A M A L R L Y G V Q R A
UniRef90_Q1IMN5              M N E R G I P Y A V S G A F A L R E H G I C R N
UniRef90_W8CZP8       M N I D Q V L E T L D Q F V E Q L P R S L G N F A L T S G A A L V V H G V R D N
UniRef90_U4GJE6         I L E L I C E L R A E L G S V N G W V V S G S S A M L L Q G F E C Q
UniRef90_X7YLC0              F A L A G G Y A L W V H G A P E P
UniRef90_I7ZHK2          K L R A F E A I S R A L S E N G V R Y I V A G G L A V L H G Y S R F
UniRef90_W0RPC5           R R V M E T L R E G G V R F L V G G A Y A F T I T G I P R S
UniRef90_UPI0004417426    E I R Q V A R V T V D I F A S H N I P C C L F G G A A C A L Y G T T R T
UniRef90_UPI000288F2B0  D E S W E K A L L R I I S L L N D E G V A Y T V S G E T A L R V Q G I P D P
UniRef90_C4JXY8       M L D Q P H L R T V S A L A Q K L D S L G I D Y A L M G G A A V C L L N P N R K
UniRef90_X1DDD4          L N R L Q D V F K F F Q Q H K V R Y M V I G G V A S V L Y G V P R A
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UniRef90_E0U7B9       M L N Q D F K E F I Q F L N V N Q V H Y L V G G Y A V A V H G Y P R Y
UniRef90_G4TP26       M L Q E N Y D D C L R M V I D A L E G V G E P W C L V G G M A A R L W G V E R I
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UniRef90_L9W8P9        T K D I D L V V T D D L Q H L Q L V A N G Y E I V K D P G E E Y D E L G A
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UniRef90_W7HUW9        T R D V D L V D S P G P Q V R S A I L N S           S R Y F A E R E D S S F
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UniRef90_X1I8X4       T I F D L S E Y Y I D       G K G I Y N E N D R I T L E R R R V S F
UniRef90_W6K095       T L R L V S P V D G G V L V D L L F A S S G I E A E T V E A A E P L E L M
UniRef90_C3MUX5         K I I I K G V R V D L V       K P P Q Y K F D D E V I S R R R I V R I
UniRef90_F8L5P8       V I Y Q P A S Y K I D F M       I R K N A S       Y R K I E F Q R R R Q I E I
UniRef90_A7H6U5       F Q I G V P P N R I D V L T A I D G V T F T E A W P E R I E       T T Y
UniRef90_X1UYD7       L A M E K T G I R V D F I F S F S L Y E K Q A I       K R A S D I K F
UniRef90_D2QVF3       G R       N P Y R I D I       H K D G L G Q F P D H Y P N R V P A R T K
UniRef90_B9M9L2         W S F R G T R R G F I V D L L W R M L N G R G S V D E V W A T K G W E L T V
UniRef90_C6DZM6       Y R C S R G G Y I V D L L W       K M L N G R S S I D E I W L T M G W D L V V
UniRef90_S5S2I3       G N H       F F D V I F A S S N G T M P V G D D W F E D A R R V K M
UniRef90_UPI000380EDEF H A I R I N D F T V D V L P A A A G V P F A       E L E R H I E W L E L
UniRef90_M4FQD8       K S R N I D V M E P G Q I G G L A T Q P S K D       D T V P I
UniRef90_X1SMV2       V L P A K D I K T N I R V D F I F S Q T S Y E K Q A I E R V N K I       N L
UniRef90_H2C0M0       R L V I K G M R I D V V K P P S F K F D E E V V H R       R R T V R I
UniRef90_UPI0002F15F9B T L Q V T Q V D T I S R A D L I I A D D T V Y E Q Q K L A R R Q A Y R L T
UniRef90_UPI0003B7920D F Q H D G P S L G R A E V W N L Q T D G G R L D I S F V P N G T T G Y V D I
UniRef90_W6MEF5       Q I H R M T K F D D E L G A H L S L D L L I V T P E T R L S W D S       R I T V E W
UniRef90_R4YYA8       I Q L G Y P P N R I D L L T E P S G V T F E E C W       S R R E R V Q L
UniRef90_L8JU25         K G D F F I D I I F D T P N T I C T V D D T W F E H A S K G K F
UniRef90_I4BGT9       T       V D G P A V V D V L H       H I N       R V P V D P A M I E R V R D V
UniRef90_S9PE87       G D Y       F V D F I F S S G N G V A T V D D E W F E H A R K A P V
UniRef90_UPI000470633C T Q L G Y A P L R I D I I N D L D G V S F V E A W E N R K I I N M L N V P V N F
UniRef90_U2HYT7       F T F G I P P V A I D I M V K V K G L D F T E N Y D Q S I I F T D
UniRef90_UPI0003C80195 T R L F W D G T P V D L F L       P A H P T F H A S A V E R A E P V
UniRef90_C6W7C6       A Q H I R L A G P I D V M T V V H F C I D       Y D I C R S R A R E F L T V
UniRef90_L9W8P9       Q R I N D D G C R I D V F N Q Q V V       D K L V L S D R M R H R S E R Y L D V
UniRef90_W5X7C4       Y R G T D G V I V D L I W S       S P N H R M D V D E S W L E S G P A I Q L
UniRef90_W5X6S5       S L F Q T D A G R L D L V V Q L G V D N F D G L W E R       S E V V T V
UniRef90_C8W5K5       S K A S P N S F H F E I N L E L H I K P I D R G Y V L S L P I E G N V N R I G I
UniRef90_H8YWW4       A D A S A L G       R I D L L H A F R G       P S L S M L M R A E R I I
UniRef90_Q1IMN5       D D F F       V D L I T G M S I V T V D N S W I       A N A T P S Q I
UniRef90_W8CZP8       M Q Y V H G F P Q       F L S F T V G P E G D D Y R V K I T N T R H T E M V D
UniRef90_U4GJE6       F T I N R G G W E V E F T G S V D F S G G S K L M V D S E M L D R A R E D
UniRef90_X7YLC0       A D G A V V D V L H       R I N G       V P V D A A M I R R F E D V
UniRef90_I7ZHK2       F S G E H P E T S V D V F V Y       E P F D F E V E F E T A M R G E L L
UniRef90_W0RPC5       G Q       D F V   D L I F S S G N G V A P V D E R W F E H A P T G K V
UniRef90_UPI0004417426     Y R I P G T T       T F G G L P K L C K V D I L V P P T L N I P W V P P E R I
UniRef90_UPI000288F2B0 F C L N I D H F T A E L T       G E Y G T V I R T D P D R I V Y Q L
UniRef90_C4JXY8       G H       T I P A F K L Q L P G G V V E V F D Y Q S W P Q R P I P T A S R T T I N I
UniRef90_X1DDD4       I T V F N D R V R I D V Q T C T P G V S F Q D A W R
UniRef90_W7HUW9       I       Y T N A E T R V T V P V G I L E H G E G T T L K L P D L S S A P T V I V Q
UniRef90_E0U7B9       I Q L G Y P P N R I D L L T T I D G V N F Q D C Y P L
UniRef90_G4TP26         Q I P R T S I V L K V D L L S T T S D V       E I P S G F H R N H F I H L
UniRef90_D8FWH2       V T H I E S I A R A D L M       I T G N D E F       D R I K F E R K Q Q Y A I P
UniRef90_L0NJ48       G K H       F F D V I F A G S N G T M P I G D A W F D N A R Q I D M
UniRef90_E1IEB7       R I I W R G I K I       F D D L S V R R D G A H Y P L S L D A Q A R L R K Q S L
UniRef90_A0A017SVF8   G       D S F V D L I F A S S N G L C V D D L W F Q H A R E G A V
UniRef90_E8TNG9       G T H       F F D V I F G S A N G T V P V G D L W L E H A R Q T E L
UniRef90_B4D0M9       G C L N L S G F K A D L F       F V V H D P L H L W A M       K N R R R V G Y
UniRef90_A6DL27       T V F T L G A Q P I D L L T S V S S Q N E E E V F S H Q V
UniRef90_G7ZCN7       V F H K H G D L F F D V I S A V A I N P V N D R W       F K E E H R A V I
UniRef90_UPI00046F3DED G K H F I       D L I F N S G N G V S P V D W N I S R I T A A I
UniRef90_Q08QF0       N D       D Y F A D L I F S S G N G V A V V D D L W I D R A H P G V V
UniRef90_L7U3K7         W E D F L V D L I Y G       S G N G L T T I D E A W F E H A V P A Q V
UniRef90_R7S7R2       G T Y E R C K V D I L I P G V L
UniRef90_L1MAA5       D T F R K G N L E V E M H P G T A R R L R Q M V E H E V D E V S E W Q H Y V E I
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UniRef90_L8LMX7        D    S L P V I N L E K L I E M K L A S G
UniRef90_S4XRG6
UniRef90_UPI000362CD0A  N D I E I K V I H I N Q L I Q N K I A L N
UniRef90_Q1DE53        L N C A C N V P P A E E I Y W
UniRef90_C9RC87        E G V P V V A D I D T L I E T K R G L R E Q D K G D L L
UniRef90_S4Y1T1        P D L V C P F L G F A D L L R N K R A A G R P Q
UniRef90_R9GZ47        D D L K V N F I N V S E F I K K K E A T G R K K
UniRef90_K7YXA5        A G R R I P V A S L K E L K M K L E S N R P D Q I D I I K E V L N E K K
UniRef90_E4TRU9        E G V D V R V V S K H D L I V A K Q A S D R T D R A D I
UniRef90_L2GJ80
UniRef90_D9Q1U9        E G V K V K S I G V E H Y L V L K A R A G R E Q D E E A L K E
UniRef90_D8PII1        N N T T V R I A S V E D L I V L K R H A G R P Q D L A D I E E A I R R R K
UniRef90_G8AH83        C G A D V Q L I P P T E
UniRef90_B5ECB1              V K L L P V E E L I W S K L Y I L R H D R A D
UniRef90_D4Z7E7        Y G T T V R I T P P T E F I L S K V F I Q D R Y R Y D
UniRef90_E1YJR0        L N Q N V C F A S V E D L I I H K I F A G R P R D I E D V R S V V M K N
UniRef90_UPI0003B79AC1  D R T Y V N F A S X E D L I I H K I V S G R E R D I E D V K K I L I K N K
UniRef90_A8ZXH7        S G I P I D F I D I D S L K K N K L A S G R P Q D I A
UniRef90_F7Y8W4        A G A R L R L P S P E E W V
UniRef90_C5CTV2        L G V P V L V A N V E D S L L S K A I M E R   E R Y D
UniRef90_A8N408              G V P L V P F E L L L L H K L
UniRef90_UPI00047ECC9D  D F L S W N V L S L E D L I T S K V K A S R P K     D L L D
UniRef90_A0A011ND80    D G L P I R T I N L E G L L R T N V         A D R I   I L L E R A L E
UniRef90_X1L8A2        K K T P V R F A A P E D V I I H K V F A G R L D D V K S I
UniRef90_F5XXJ3        L G V P V H V V N M E D S L L S K A I M E R   E R Y D
UniRef90_W0A8I9        Y D Q R V R I T P P T E F I L S K L F I Q D R Y R Y D
UniRef90_R8ZMN5        E Q V K L T V I S L E D L I R M K S K T N R I E D V R A L R K
UniRef90_H1HQ08        G Q T A V P T L P P V E N L I F
UniRef90_X1V8F8        L E K S F S V I S P E D I L L K L
UniRef90_H6QA96        G G G I I Y I S P I E L Q I A Y K L K L G S D K D V E A L K D F I N K E
UniRef90_M0L7K9        G Q L S V R L T A L E D I I L F K A V A K R P D D I D
UniRef90_W4LHX3        E E Q T F A V I S R A H L L Q N K K A S G R P Q D L A
UniRef90_B4VRZ2        E D T M L Y F A S P E D V I L S K L R
UniRef90_W5X729        Q G E K V F F L S L P D Y V A T K K A S G R P K D T D D L N R
UniRef90_Q859G3        E G A T I R F M G A S H W S N L V R L R E R G S R A E K M E K W L
UniRef90_J3CPD9        D G G D I       A H L L E A N A   Q R L D W V S L L E R F
UniRef90_X1I8X4        A D F V F Y V A S P E D I I A N K L L F G S E Q D V K
UniRef90_W6K095        A G L V V P V A R A A H L V V L K L L R D D E K R
UniRef90_C3MUX5        E G V E V P I L S P E D L V T L Y V V
UniRef90_F8L5P8        Q K T L I W I V S T E D L I I S K L
UniRef90_A7H6U5        G G E P V P V I G R L Q L I A N K R A S G R P Q D A E M L E R
UniRef90_X1UYD7        G N T I V K F A S L E D L I I H K I I A G R
UniRef90_D2QVF3        D G T D Y T V V S P H D L V A S K K A A G R P K D L Q D I A   Y I E E R
UniRef90_B9M9L2        R E V K L R L I P P E E L V W S K L Y I L R R E R A D
UniRef90_C6DZM6        R E V P V K L L P V E E L I W S K L Y I L R R D R A D
UniRef90_S5S2I3        C G H T V R I V S P T E L V W F V Q L R H R Y D G A D I A H V I L K A H
UniRef90_UPI000380EDEF  E G E R I P V L D L I G L L K T K Q G L R P K D Q A D A L R R A L
UniRef90_M4FQD8        D G A R I       L R E D L L L N L W M N R   D R A K A E K Q E L D S R
UniRef90_X1SMV2        K N T I L K F A S I E D V I H K I F A A R P R D I E D A K S I M I K N
UniRef90_H2C0M0        E G V E V P I L S P E D L A V L Y V V
UniRef90_UPI0002F15F9B  N E T S I Y L A S P E D L V V N K L R W G
UniRef90_UPI0003B7920D  H G I E I R V A S L A D I I R S K Q A A N R P K
UniRef90_W6MEF5        E G G A L K V V S P K G L I E L K L L R
UniRef90_R4YYA8        D E L T I N V I G F G D L I A N K R E S G R P R D L A D I D D
UniRef90_L8JU25        A D T D V L F I P A E E W C K V Y V Q R E R F D G A D
UniRef90_I4BGT9        L A V A M P V L S P N E
UniRef90_S9PE87        F G R E C L V S P A E E T I W S K A F V T E R E R Y D
UniRef90_UPI000470633C  I G Y N         E L L K V K E K A G R A Q D I A D V K K L R N R N K
UniRef90_U2HYT7        D D L L I R T L H K N Q L L I A K R S S N R P K D Q D D I E N
UniRef90_UPI0003C80195  E W L D V K A L T A T D L I V F K A L F D R A K D W A D I E D
UniRef90_C6W7C6        E G Q T I H F I H I N D L R E L K I L A R R P K D V L M I D E L L E R
UniRef90_L9W8P9        G G L S V E L V S A E D I F L F K A V A G R T D D I E
UniRef90_W5X7C4        R D R V I R L L P A E E L I W A K L Y I V Q R D R C D
UniRef90_W5X6S5        A G Y P V R L A S L D D L I A L K S S S E R E K
UniRef90_C8W5K5        A G N P L P V L L D E E W L L Y L I L H G R L R W L N D I V K F L Q Q E K
UniRef90_H8YWW4        E G L T L P V V Q S E D I I
UniRef90_Q1IMN5        L G I P V K V L A A E E L L V S K I F I A F R E R F D
UniRef90_W8CZP8            G V H V Q T L D S I A R A K E V W G R R K D A E L I A A H L E E T K
UniRef90_U4GJE6            Q L Q P L E D I I S E L L V M G R P H R A K E I Y H K F K R H
UniRef90_X7YLC0        L A I R M P V L S
UniRef90_I7ZHK2        P G L P V R F V C I P T L I A M K R Q A G R A R D L D D I Q H
UniRef90_W0RPC5        L G V D V L I A P A E E S L W S K A V M E R   E R Y D
UniRef90_UPI0004417426  E R I D I P V M P I
UniRef90_UPI000288F2B0  D G S S I Y V R S P       Y Y F L N R D S R Y R A V K H Y L R R
UniRef90_C4JXY8        D G Q A V K V F G P E W L L R E K I L
UniRef90_X1DDD4
UniRef90_W7HUW9
UniRef90_E0U7B9
UniRef90_G4TP26        N N     L P V A P L   Y L V L Y H K L L G W E K R I H S L Q A W
UniRef90_D8FWH2        E G T E V Y L A S P E D L I L N K L R W G K R S K S E
UniRef90_L0NJ48        N G R P V R I V A P T E L I W F V Q L R H R Y D
UniRef90_E1IEB7        L G A P V P V V A P E D V V V H K L L L D R
UniRef90_A0A017SVF8    L G Y Q V P L A P P E M I
UniRef90_E8TNG9        L G S R V R I I G P T E L I W F I Q D R G R H D G A D I
UniRef90_B4D0M9        G D R Q M W I A P P E Y V L L R K L E F F R E G R
UniRef90_A6DL27
UniRef90_G7ZCN7        C G A D V R L V A P T E M I
UniRef90_UPI00046F3DED
UniRef90_Q08QF0        H G L P I L V A P P E D I I W
UniRef90_L7U3K7        L G C P C R V P P A E E W S K A F V L R E R F D
UniRef90_R7S7R2
UniRef90_L1MAA5        N N Y K V A V L P P H L
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Multiple sequence alignment (positions 1–40)

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                            1        10        20        30        40
UniRef90_F3YY06             L K P E Q A R L F A D W L R I M N D S G V P Y V V S G A F A L C A Y S I W R D
UniRef90_B8ICD7             L V S P E A E A F Y A E A I S R L V A S G L P F L L A G T Y A V S A Y G I T R E
UniRef90_B9XN36                             E A A K T A G L N F L L G G G F A L A T Y G Y W R N
UniRef90_UPI000428E997                   V A T A I A E L V R S K I P F L V A G T F A V S A Y G I S R L
UniRef90_UPI00047CC819                 L E Q L L R A L H E A R V E F I V V G G V A A R A H G S S R L
UniRef90_F5XHD1                     A V K R A A N D L D E V E A R W A M I G G L A V A A R S I P R F
UniRef90_X5QSI8                 Y I E A I R E L V A T G I P F L V A G T Y A V S A Y G I I R Q
UniRef90_UPI00044079A1             I D V L K T L H A L C R V A G I R Y A I L G G A A C M A L G S T R A
UniRef90_F8XVZ0                     L L Q L I D A L E D R G V D Y I L I G G H A L Q L H G Y M R A
UniRef90_X0V806                     L L E H L V K A G V D F V I V G G F A G V V H G C T Y V
UniRef90_Q11EN0                           E L R E A G I P F M V A V F A V A A Y S I S R L
UniRef90_K2AA48                   V C R L L N D E G A E Y L V I G G I A V Q L H G V M R L
UniRef90_J0LAR6             Y K E A L S           L L V K S E A K F L V G G G L A L D M Y G I N R A
UniRef90_UPI000466D121           K L I K L L D A N D I P C V I L G S A A A Q Y Y P K P R A
UniRef90_A0A011M9Q6               A A L Q T H G V D Y V L V G G L A L N I H G V E R A
UniRef90_B4RE58         P P D A E A F Y A E S L R L L N E S G I P F L L S G T Y A V S A F G I V R P
UniRef90_UPI0003B77EF8       L T T T L S Q V A A A L R S A H D P W W V I G S A A V W L H G V G T A
UniRef90_UPI0004023ACF                 T K H K V R M L M V G G A A V N F H G Y Q R H
UniRef90_A6DT31             Q L S E D M K E F L V L L Q K Y E I D F L V C G G H A V A F Y G Y P R M
UniRef90_W5X0G9                 L Y E L T D A F E K A K L V A A V A L V G G Y A L A L H G L V R A
UniRef90_I6B231                 L I S L A R E L N R L G V A Y V V V G G Q A I N R L G F V R A
UniRef90_A7C2B4             M K T F A E L L V E L S R S G V K Y I L V G G L A V D L C G Y S R V
UniRef90_D5MFN3         E F L A A V R K A Q K E A A Q H G V Q L C L I G G M A V S V W G T P R A
UniRef90_UPI0003B7A142
UniRef90_K2DHW9               E Q L L R E I T K I L Q K S K I P Y M V T G A L S V I F Y S K P R F
UniRef90_UPI00037C8E2D           R L L V K I A R I L D E L G I E Y F V T G G F A V S V W G R P R A
UniRef90_X0THN0                 D I V E K I I E V L N R Y N V E Y L I I G K G G A I F Y G Y N S T
UniRef90_R6QZ56             K E D L I T I L K I L N D S N I K Y W L D G G W G V V L A G Q S R N
UniRef90_H5SKP3           P D L S E T L K                 G I P W A V A G A V G S R L Y M P E R A
UniRef90_B3E2G6               E K L A A A F L Q N K V Q Y A L I G G Y A V S L W G L P R A
UniRef90_UPI00035D4A8A         R K L S A L L E D K G I P C A I G A P V S A L A F G S P R D
UniRef90_D9TCU9             R Q L R A I R E V V D V A G A C G I D V W L R G G W A M F H L G E V T R
UniRef90_K9UD09         I S E M T L H D V S E I V Q L F E R H G I E F Y V D G G W G V A L L G K Q T R
UniRef90_K7XW24         T Q S Q L E V L S E I C L L T E Q L E M E F W L R G G W A I F L L G K I T R
UniRef90_U2HPD2         M T E S E R L E A T S F V L L L L H E S E Y D Y M L G G A F A M Y H Y G I Y R D
UniRef90_X6DE66                     R A F N E S G L R Y G I I Q D L A S L Q D G L A G R
UniRef90_G5GCR6             K M L E M L T T I T D I L E R N N I S Y W L E G G T L L G A H G G F I P
UniRef90_UPI00035F87EA         D Y V N S I R H I C H A L N K N A V D Y M I V G G T A V A F Y G D I L G
UniRef90_A1RUE8         M S E L R L P P S V K R V V E I C R S M G F K V F L I G A R A L E F Y G V V R H
UniRef90_R7GX63           E R F K R I L R E L A A L F R T Y G I G Y V V F K G V A H Y Q H P F L R A
UniRef90_Q1PWP6                   A L K N A G I Q Y M L V G S V A S S L Q G E P R S
UniRef90_X1RD91                 E A F E K Q K L D Y V L V G G F A V I L Y G M Q R L
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UniRef90_D5MFN3          G   M I A R S L R V V Y P G G L H V D W I E P R Y G W Q V E M L Q R A S L I R I
UniRef90_UPI0003B7A142   L Q F S F G D Q L V E V G S D R N C R I R E G E W H S K V L N F T R Y Q T L P V
UniRef90_K2DHW9          N I L H L P T M    I K L D F L L K D D K F D R V S F N R    R E N V T A
UniRef90_UPI00037C8E2D   G E F N F I D P T T G V K A D F W V V K K T Q L G Q L E F E R    R V A K K I
UniRef90_X0THN0          I Q I R E G P F G I D L V F A    P D G I    E S F E A A K K R A T L
UniRef90_R6QZ56          E K Y G Y I D I H P F I L I G E K Q A D L E G G C Y E F S A D Y F G T A V    F
UniRef90_H5SKP3          S P E G V P V D V I A S E A P W I R D A L A Q V R T D P Q G
UniRef90_B3E2G6          D A A D N A L G E V D F L H A F
UniRef90_UPI00035D4A8A   R R Y S H E G I L V E L K T R L H P T E S L T P L T T A A A L G R   R Q S I S I
UniRef90_D9TCU9          T Q L D L L R D D V E L S F A Y L D R D A D G V V V G A G P W A G T A L P E I
UniRef90_K9UD09          G D C E    G H Q I D L H T Y T F D A A G N C I Y G I P Y P L E S L S G N G S I
UniRef90_K7XW24          R K     N E V D V T V G Y V T R S I E G E W V W Q P D   S L L P N R Y T L
UniRef90_U2HPD2          I D I I F D S V N      H I C T V E D S W Y E R A M E G H F S D
UniRef90_X6DE66          G R Y L H L D M H I G L R V G W E F R K R    Y P A F D Y A T I T R W I C V
UniRef90_G5GCR6          K V R D L N S F F V E F A D D R Q D Y A K G V Y V D I F
UniRef90_UPI00035F87EA   F K L S F D E Y T L D F L P N    I K A P L P F W     S S F K K R E V F Q S
UniRef90_A1RUE8          A G V H I D I N Y A P L I      L D N D F I S R C R E V
UniRef90_R7GX63          F Y W H G V R F E L H H R I E T Q E F D G W I E D V V R C Q P A T    L D I
UniRef90_Q1PWP6          N K F N I I D V K E G D K V D F W I L T D    E P F D Q S R F S R R Y E V
UniRef90_X1RD91          Q K Y P V N G L L V D I L S R L    G N I A T Y H D I E Y K    V I D I
UniRef90_UPI0004682993   N I I D H E G Y K A D     F V I L K N E N F R Q E E F N R    R V E M E Y
UniRef90_UPI00037EA0D3   G R Y V R D R V L L E L T F    V V L E G G R V L I P F E P E A A T T R R A L
UniRef90_B6HFU9          P E G D I Q L V D V E V    F D F R S W S H R P Q Y N L D K   A T R V T K T I
UniRef90_W6W280          G R H        F F D V I F A A S N G T M P I S D A W F E N A R Q I E M
UniRef90_UPI00035F632E   Q R W R E D G M Q V N F Q S D F P G T S V D V F V Y E P F D F A H E M R G E L L
UniRef90_UPI00046A6736   I R D R E R G V D L E I A G      V P T E D L M R D R I F V T V
UniRef90_G2QNT2          G E E I L E P C Q I E G I G D    I L K D D S R L Q R I E K D Y S A T I F I
UniRef90_R7S8R3          S S Y L A K R C K V D I L D P G I M N I P N V P P E H L V S K A P Y
UniRef90_UPI0003B472A7   H D F M
UniRef90_V6AQY5          Y F K S G I T V Q I W       D N S L Y S L P M N D F S W S H V I Q V
UniRef90_A5VF23          G E
UniRef90_UPI000413A523   A R W L A K A F S G E H F M D I I F N N P G N H C A V D D S W L E R S T S S E L
UniRef90_H8FSQ0          L V H D V T G I S L E L    H W H L T E N R W Q L P V L P S P Q A E K M D I
UniRef90_G2PJ07          I K F S P A D L N L E L I T N F S V N K S F D Q A Y E E A E E A S L D D Q P Q L
UniRef90_UPI000365AA0A   D G D V L V D L I
UniRef90_F1W1Z4          T E A L S V D L I A S S A R K K S F G V V P D D V H    T L
UniRef90_UPI00035FBD2A   S D Y M N L D V L I D A P F D F D     H L W N N R E T R K I
UniRef90_K9TED3          N I I D N E S I     V K F D I F I L K N N P F S Q S E F Q R R Q V Q I V R T N
UniRef90_Q2GMY9          V R V R N Q L V Q L D L K S Q G A E G H D R    T Y A P Q V R Q I A D R I G Y
UniRef90_A9FEM8          N I F Y L P M V K I D I F A    I G A S Q Y D E I E F S R R R K V R V R A
UniRef90_U2KRR1          A   F E Y K D I M F E M H F C L    L R F A S S K I Q E S F D K E S T P Y T I K V
UniRef90_UPI0004696495   I K F S P L D L D L E L I T K F S V N T F D E A F E S S E E V T N S N S F L K W
UniRef90_F1W1Z2          F H F E G D G V K V D V L T A P R N K S A V A S     K L G Q I A    W I
UniRef90_G0LG49          A Y L K D E E L P V T I V D E L Q C R Q T D A S W S Y   Q Y F E G H S V E K E I
UniRef90_Q8ZUI2          A S I R F H K P P   K F L P N F E V K P P R T V Y Q R   Y A L E N R V E V R I
UniRef90_H0HM18          K V F Q G R N      F F D V I F S S S N G A V P V G D S W F E H A C A I E L
UniRef90_F7PG09          M L S S G G N V R V A P E G E V V P N I E L S Y A T D R F D R A S I E N A I T I
UniRef90_K9WJC7          L Q I T D M E S I S R A D L M V S G N D E F D R Q K F E R R R R F S S L G V
UniRef90_D1QQG1          G   F E Y K G I L F E L C L L S F I S P R V Q R C F D E M V S H S A P Y I K V
UniRef90_UPI0003775453   H E F Q K E G C S V E F G G L H S L P A F A G V    P L E D L E E L R D
UniRef90_D5MM00          G E I E F D E G P I T V T V D L H W N T L M T S W E L L T D N E T W A S H V R L
UniRef90_UPI00034BA1C7   N   T I H Q A T I E K A D I F I L R N D
UniRef90_B2A0A2          F R G I K E G V L F D V I W A L      P N H R V G I D E A W F E R A G V V T L
UniRef90_U7SKA0          D E Y G Y L D I H P D D G T S K Q A D L E G G W Y E F E K D Y F G S A V    F
UniRef90_E6PGQ4          A F L K K E R V E V D L L D R I R G F A S Y G    N L R A N A E I Q D V
UniRef90_I4EEM0          G    D A V I D L I T G    S G N V L I P I D D S W F A D A V H A
UniRef90_UPI00047EBD4C   H I E I    F E N W I N D      T V T Q V
UniRef90_F3ZG87          T W L R D Q A T D R W L L D V F R E P H E G G T W I C R R D P S I R L P Y T E I
UniRef90_S7RK55
UniRef90_X0W2G9          I R M G N P P L R I E I L T S I D G V E F T E C Y     G N K K T V T I
UniRef90_C9PWX7          E F S Y H E V P L E M H F C M I K F N S K G I Y W E R L L A E A P N E Q I S I
UniRef90_UPI000400968C   D V W S M G N E P I E I L T    H V D G L V F E E S K K N C N W L V    L
UniRef90_R7EU38          K F Y D T N T T M T E I G V Y I D V F P L D G I G D T P E E S Y R N Y K K I D I
UniRef90_W0F2S9          D E F S L D L I P     Q I K A P V K F    I D A Y K R K D T I E I
UniRef90_S5Z9X7          K L Y L K S F R F D L     K R G Y N Y D P E V V V   A R R R H V I
UniRef90_D3FC52          A R V M W G R T P L D L F F A Y D P I H A A M Q    R A A R T V P F
UniRef90_UPI0003763E9A   A F E S E E I M V E L    F L V R R A D G I Y Y T D F
UniRef90_E8V3N7          Y H M G Q P P L R V D I L K A I D G V L F E Q A W E S R V
UniRef90_UPI00047E95D5   F T F G N P P V A I D I M I Q V K G L D F K T C F N Q S V L F E D
UniRef90_UPI00035E24D5   L E I G V E P L R V D F I N D I D G V E F A A A W E    N R I K G K Y
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                                              130           140           150
UniRef90_F3YY06         L G V S T R M V G P E E L V A S K V H V A R S D R F D
UniRef90_B8ICD7         F G H T V R I I G P T E L V W F I Q M R N R F D G A D V A H T I L R A H
UniRef90_B9XN36         R E E A L S V A P V E E W C K L Y I L
UniRef90_UPI000428E997  N A A T V P I V A P T E L V W S K S F I Q L R D R Y D
UniRef90_UPI00047CC819  F G C D L Q L L D L P W L V R V K R A A G R P K D L E V I A E
UniRef90_F5XHD1         P D L R V P V A S T G H L I A L K V L A R R
UniRef90_X5QSI8         L G S Q V R I I G P T E L I W S K S F R G R H D G A D I S H T I L K A H
UniRef90_UPI00044079A1
UniRef90_F8XVZ0         D G H S I R T L N L E G L L K R K S V P E R
UniRef90_X0V806         E N I Q I R V L S V D A L I E S K K A M N R P
UniRef90_Q11EN0         L G H S V R L V G P T E L V W S K L F I Q N R N R Y D
UniRef90_K2AA48         D G V K I P Y V G L D I L I Q T K
UniRef90_J0LAR6         Y G V K V K F M P A E E L I W C K L Y V Q N R E R Y D
UniRef90_UPI000466D121  D G Y K I P V L P
UniRef90_A0A011M9Q6     G R T A I S L A S I D D L I R L K Q S T G R Q R D A A
UniRef90_B4RE58         Y G A E A K I T P P T E L I V S K M F I Q D R Y R Y D
UniRef90_UPI0003B77EF8  A R G G V F V P E R A E L V A I L R L F G R L R R A A L L E R
UniRef90_UPI0004023ACF  Q           V I S L E D L I T S K I K S S R P       I D L L D
UniRef90_A6DT31         D G F E L G F I C L E D
UniRef90_W5X0G9         G G R K I V V A T L K E I L Q M K K E A A R P Q D V E N I K R K L N E
UniRef90_I6B231         D G V P I P F A G A E L M L R M K Q
UniRef90_A7C2B4         E G I E I P Y L N A E G L I A L K K H S M R P K
UniRef90_D5MFN3         G R T T L P V I D V V D L I A M K L K V G
UniRef90_UPI0003B7A142  Y G R R V R I M D K A D L I A Y K R I L G R E D R E D I
UniRef90_K2DHW9         F G Q K M S F T S P E D T I L K K L L
UniRef90_UPI00037C8E2D  S G Q E V Y F I S P E D L I L N K L
UniRef90_X0THN0         I D G K Y P V A S L K D
UniRef90_R6QZ56         E G I R I P C I S A K G Q K V F Y E L R D R H D   L K I I D S L L K
UniRef90_H5SKP3         L P V L A L P Y L V L T K V Q A G R T Q D L A D V A R M L
UniRef90_B3E2G6
UniRef90_UPI00035D4A8A  L D Q T L P V L A A D D L L M Y
UniRef90_D9TCU9         G T L A A P V I S V A A Q I E F K E M F E R Q R R A K
UniRef90_K9UD09         N G Y P V N C I S P E   W V V
UniRef90_K7XW24         C G L S V K V L S L L E E K E V Y E Q I G R T P R T K D I E
UniRef90_U2HPD2         I P V R F I P V E E W C K M Y V Q R E R Y D N A D I
UniRef90_X6DE66         D G V S I P V V S P E D E I R I
UniRef90_G5GCR6
UniRef90_UPI00035F87EA  D G V E I S F I T L E E L I Q D K E I N P R P K D I D D I Q Q L R R K
UniRef90_A1RUE8         G G V F I P       S P E D L V I L K L A S G E R K D V E D L K R L L R
UniRef90_R7GX63         D G E Q L R V P P V A D V V V V F K H M
UniRef90_Q1PWP6         L G I K L Q V S K P E D T I L A K L R
UniRef90_X1RD91         Q G I K I K A A T P E T L Y R L K K D T V R E D R L D A L K E I I K K E K
UniRef90_UPI0004682993  L G K S V Y L V T V E D L L I S K L I
UniRef90_UPI00037EA0D3  D G V T A R V P A L E I M R R
UniRef90_B6HFU9         N G Y P V K I F S P E   W L
UniRef90_W6W280         N G H K V R I I A P T E L I W F V Q L R H R Y D G G D I V H M I L R A H
UniRef90_UPI00035F632E  P G I N V R F V S I P T L I R M K Q A A G R P R D L D D I Q Q W L Q E N
UniRef90_UPI00046A6736  G D V S V P V M S L E H L F A S K K C I G E D K D L A D I D
UniRef90_G2QNT2                   P E V L L E L K R I R G R G K D E K K L N D
UniRef90_R7S8R3             N L P L M P L
UniRef90_UPI0003B472A7
UniRef90_V6AQY5         P G Y T I R C V S M E D L I V S K V       G R
UniRef90_A5VF23
UniRef90_UPI000413A523  L G I K V K V I P A E A L I W S K L Y V Q N R E R Y D I I L R Y G D K
UniRef90_H8FSQ0         G G G S V P V L P
UniRef90_G2PJ07         K W       K V L N L D D L I T S K I K A G R P K
UniRef90_UPI000365AA0A
UniRef90_F1W1Z4         F G T       P V M S L E V L L K S K M A A G R
UniRef90_UPI00035FBD2A  E E V E V Y I V A L E D L I A M K K Y A N R N D K Q D I I
UniRef90_K9TED3         P E Q T V V L P S P E D I I L Q K L L
UniRef90_Q2GMY9         E K R R D F V S E V         V Q R N R E D K E       I V R W A L K
UniRef90_A9FEM8         S G E E L W V
UniRef90_U2KRR1         G K T N V P T L S P V E N I V F
UniRef90_UPI0004696495  N           V L S L E D L I T S K I K A N R P K D L L D I Q Q L L E I N K
UniRef90_F1W1Z2         E G       V P V L S L T A L R E S K E I
UniRef90_G0LG49         E G V Q V R V P S E E L L I A V K L H S G R L D V V A L I E D A
UniRef90_Q8ZUI2         R G E T F Y I S P I E L Q I A Y K L W L G S E K
UniRef90_H0HM18         F G I P V R I I G P T E L V W S K S F I Q T R H R Y D
UniRef90_F7PG09         G G H E L P I G P L E L Q I A Y K L Y L G
UniRef90_K9WJC7         E G       L Y F A S P E D V I L N K L R W R
UniRef90_D1QQG1         G D V L P T L S P V E N V I F
UniRef90_UPI0003775453  G D V R Y Y L P T L E Q Y L K I Y Q
UniRef90_D5MM00         G N R T I P I L K G E A L L I Y
UniRef90_UPI00034BA1C7
UniRef90_B2A0A2         H G R E Y R V A P A E E L V R V K L V M Q R E
UniRef90_U7SKA0         E G R T I P C I S L K G Q K I F Y E L R D K D K
UniRef90_E6PGQ4           G V L V P V L S V G G L L R A K R A M K R P K D L Q D I L E
UniRef90_I4EEM0         N V L G I P I V S V T D W I K A Y V A   G R E D I A H M I R R A
UniRef90_UPI00047EBD4C  E G       I P V I T I A G L L E M K K E L G R E K D I E L I R G Y L R H N K
UniRef90_F3ZG87
UniRef90_S7RK55
UniRef90_X0W2G9         D D I D T N F I S L E D L K K N K K A S G R
UniRef90_C9PWX7         D G T P I V T L P P T L N V L Y
UniRef90_UPI000400968C  E K S K V P Y I D F D D L I K N K I A S G R Y K D L A D I E   A L K K K K
UniRef90_R7EU38         D N M
UniRef90_W0F2S9         E G I S I N V I G Y P D L I L D K Q A L G R K D D V Q Q L K N L K N K N
UniRef90_S5Z9X7         G Q I E V A I L S P E D L A V L Y L V R G V K D K A K D I V A Y S K A R
UniRef90_D3FC52         G E E R I V V L G P E H L V V C K A V F D R P K D W L D I E Q V L
UniRef90_UPI0003763E9A
UniRef90_E8V3N7
UniRef90_UPI00047E95D5  D G L K I R T I H K N N L I E A K K A S G R S K D L N D L E N
UniRef90_UPI00035E24D5  G S V E V N F I S K T D L I K N K S K T K R S E
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Multiple sequence alignment

Position markers: 1 ... 10 ... 20 ... 30 ... 40

Sequence	Alignment
UniRef90_I4EDQ0	I P D V K R S I F Q R A L Q A L E S T G V A F S L G G G L A L Y Y Y G V Q R D
UniRef90_W0SB91	L I R L L A E K K I D F V L V G G L A V A L Q G Y Q R V
UniRef90_L8MZB4	M L T D P I S L A L D I A E I F N S L D I P Y L V G G S V A S T L M G E P R A
UniRef90_R6L822	L H I L E N V A K I C D D N N I D Y W L S S G T L L Y R H G G F I P
UniRef90_UPI000373BD6C	E M R A A L R H V A D D L E R L G S G W A L I G G F A V S A R A N P R F
UniRef90_B4ULE5	G S G V P F L V A G A Y A F F E Y G I F R D
UniRef90_V2WZY5	A L T K N R I N C C I L G S T A C L I Y G M E R V
UniRef90_R5PCP3	M Q Q R M L D L L K V I D A I C R K H N M Q Y W L S G G T M L R H Q G F I P W
UniRef90_C4JE82	D L K T A V S V I A Q R L D S M N I D Y A I M G G A A A C L L S G D R R
UniRef90_UPI0004786CB8	S L R E I V D A L R G A G I R H C I L G Q G Y A A L F G A P R E
UniRef90_M5S200	L Q Q S V S R I I A A L N E A G L D Y M L V G S F S S M Y Y S F P R S
UniRef90_E6N5T3	A R K L K E S V T A Y L L G G V N M V L R Q I K S S
UniRef90_I3IH91	E I L E G L Y K S K I R Y L I V G G L S V N L Y G V P R V
UniRef90_U4L4V9	A G M T Y A V V G G A A C N L L G S T R A
UniRef90_V4BGV9	L E M L E K T G E A L D K L G I P F T L G G T L L G W Y R G I I S H
UniRef90_F5X084	F E I F L D I A R E L N Q I G I T P L L M G S V G L E E R G Q D W Q
UniRef90_M0K0V4	E D S L R R G L G E L G D H L E T P V D V Y L G G G N L I L R G L K D S
UniRef90_M0DFM5	P N R L D E L A L E F S R V L S R L D I D H V F V A G Y V A I L A G R S R S
UniRef90_UPI0003766F19	L Y K H Q V E Y L I V G G Q A V I Y Y G H R V R L
UniRef90_UPI00036C7E68	L L D K H E V K Y L I V G G E A V I Y Y G H T R L
UniRef90_X1SQI6	E E V L Q I V I V A L E K N N I P Y M L T G A I A V N Y Y G R P R L
UniRef90_A2BMQ9	L N D L S W L F R K L Q E H G I K G V V I G S T V L A L R R K S F E
UniRef90_X6GN62	Y T E A I R E L A A T D I P F L V A G T Y A V S A Y G V T R Q
UniRef90_D5MLT6	M I P P L E A A W E V H R F L T K L G F P Y A L I G G L A V Q Y W G E P R L
UniRef90_A0A031I143	
UniRef90_K5YWR3	Q T L K E V T E L L L D R G I R P V L L G V A R L Y R Y P E Q R Q
UniRef90_UPI000464A9C0	K L E S L Q Q I T A A L N A A G A R F L V V G G L A V V A H G Y G R S
UniRef90_Q048A7	V E L D L L D Q L D R V C Q K Y D I P W Y L S G G S L L R H Q G Y I P W
UniRef90_R7SE07	Q E I R Q V A R K T A S A L G E A G Y R C C L F G S V A C S M Y G M N R T

Annotation tracks:

Track	
lupas_21	
lupas_14	C C C C C C C C C C C C C C C
lupas_28	
jnet	
conf	9 9 5 7 9 9 9 9 9 9 9 9 9 9 9 8 6 2 0 8 9 8 3 4 3 0 1 7 8 9 8 8 8 6 2 4 7 8 8 8
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 B B B B B B B B B B B
sol0	B B B B B B B B
jhmm	
jpssm	

Multiple sequence alignment with positions 50, 60, 70, 80.
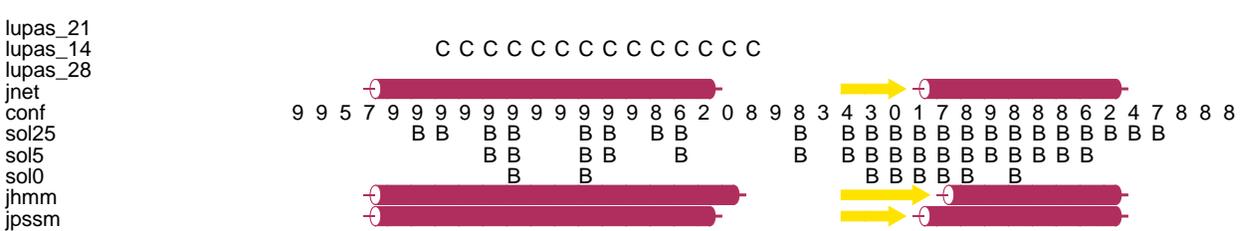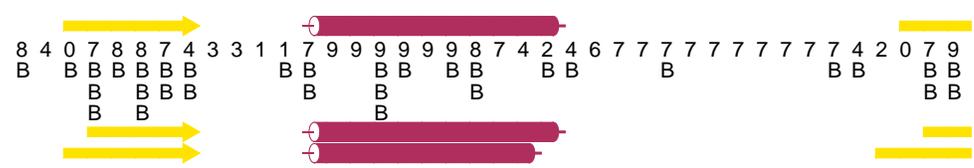
Sequence	Residues
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UniRef90_L8MZB4	T E D V D V V I D E K V I L L L Q S I Q P R F Y V S E D A V K D A V R F K Q S F
UniRef90_R6L822	D D D L D I M I L R K D L K R F R E V L P A D M V L Q D H S T D S D Y Y H P Y L
UniRef90_UPI000373BD6C	T S D I D I A V M V H D A E E L V R W F T A H G Y G L L G S V E H D N G R L A L
UniRef90_B4ULE5	T K D L D L F L R E K D L E A A F R V L E E A G F R T E L T D P G W I G K A W Q
UniRef90_V2WZY5	P N D V D I V L L T D D G E L I V K A N P K F N L I P S S V P S A E H R K L H Y
UniRef90_R5PCP3	D D D L D I E M F R P D F E K L M R I L P S E L P D S I R L Q W H T T D K N Y F
UniRef90_C4JE82	T D D V D F V I Q V D D A D R L T A Q L L K S F P S D F E G V S Q F
UniRef90_UPI0004786CB8	A S D I D L L I E P V D S P R A L Q V L Q R L G H V I D P A A A R D L Q R Y S I
UniRef90_M5S200	T T D A D F V I G T A D F D I Q S L S N S L G S E D P Q L S F E S I G G S I K
UniRef90_E6N5T3	T K D I D L L V E N S E Y E L I A E A L Q A S G Y E K A V E W S P G D R D A G P
UniRef90_I3IH91	T Q D I D I I N K E N I L K I T S L L K E L G V N P D D L A N P D K V K N W F
UniRef90_U4L4V9	T E D V D F V V P R G A T A E A R S L L R K T P G F T V E P R T N H T Y
UniRef90_V4BGV9	T S D L D I L V F R E D S D D I F T S L K K V G T H K N T F G K A S L N D S F E
UniRef90_F5X084	A R D L D I H V D E E R I Y R A D E L I A M M E R L G Y T L V D R H E
UniRef90_M0K0V4	T K D V D L V V D G Q T F F V I A E S L Q D L G Y E E R S D L E A A Y N K E G F
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UniRef90_UPI0003766F19	T G D I D L F Y N E K N V E K L Y N A L L E F W S N D I P N K K D L M E K N V I
UniRef90_UPI00036C7E68	T G D V D F F F F E P E N T K R L Y D T L K E F G D I P G V D S I E D L K K A L I
UniRef90_X1SQI6	T H D V D I I V E R K H I Q S I V D A F R Q Y I S L E G I E D A I R H R T A F N
UniRef90_A2BMQ9	D D V D V F A L E P S P L I E E D F Y R S V A E R E D W Q S Y T A L G T P K F
UniRef90_X6GN62	T K D L D I F C K A G D Y A R I L A H F K Q A G Y A V E I V D D R W L G K V F
UniRef90_D5MLT6	T V D A D V T V S A P L V R T L I E H F P S R I D D P I A F A R R S R M V L I R
UniRef90_A0A031I143	D I D V L T S R R D A E A L V L R L G L T V A A P D R H P Q F R S R L F
UniRef90_K5YWR3	C G D I D L Y I G E T L Y T K A C E V V S A Y G E K S G K E S E S Q Q H
UniRef90_UPI000464A9C0	T M D M D L V V D R H N L S S A F S A L A Q L G Y R P V P P D P S A R K R W
UniRef90_Q048A7	D D D I D L M M Y R K D F E R L C E V A S Q E F T E P Y F F Q T E E T D T S I R
UniRef90_R7SE07	P N D V D M V V T S H D P E G L K Q T L D R Y F T L P A Q T P D E T Y E V L W F

lupas_21	
lupas_14	
lupas_28	
jnet	
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sol25	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
sol0	B B B
jhmm	
jpssm	

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                                                    90              100             110             120
UniRef90_I4EDQ0         A Q A T V D R V Q V D L       V Y G Q G S G H A S V D Q R W F T G P R A H F
UniRef90_W0SB91         L A F S L R G A E A R A T V L D V L V K P V V P Y       A D L R R D A L M V E M
UniRef90_L8MZB4         N L I D N E S L K V D I F
UniRef90_R6L822         K N Y K Y R G I Y I D V F H L F L L H S T N I I W E P L L Y K F I L S R K K D P
UniRef90_UPI000373BD6C  A R L T R P V D S V D I T I D L L F A S S G
UniRef90_B4ULE5         G           E W F V D L I F S S G N G V A V V D D L W F T H A R P G R V
UniRef90_V2WZY5         Q P T S Q S P C K I D I F         L P G R D D Q F H V P A I P K A R V Q H V Q P
UniRef90_R5PCP3         F Q Y K V R D C N S E V       F E H N G Y D K I W R E H V D I F P V E P S P R W
UniRef90_C4JE82         G H   I I P A Y K L R L P D G L E V F D Y Q S W P Q R P Q Y N L K T A T R K E I
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UniRef90_M5S200         N E I Q I V G S P F R I E L       F R L T D Q P F D Q V     R F E R R Q K V T I
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UniRef90_I3IH91         Y H K K D N Y K V V D I V L           I H P L D F E K S F I N R T I K A
UniRef90_U4L4V9         Y Q S S T S P I P V Q I       E I L T P P M L F K E E F D     S T T P V I S V
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UniRef90_M0K0V4         P R W D I           F V E A V A G Q L Q L T P A M I E R C D Q S F E Y
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UniRef90_UPI000464A9C0    V E E K G M R V E T P V D I F V V       E S F S F E R E Y E H A L Q E R L P
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UniRef90_R7SE07         S R Q R Q C K V D I L V T G T L G           L P S V P R S K V E H T N V


lupas_21
lupas_14
lupas_28
jnet
conf                     9 9 8 7 0 7 5 2 2 9 9 8 6 2 2 8 9 9 1 4 8 8 5 5 8 8 8 4 2 6 8 8 8 3 1 8 9 8 6 2
sol25                    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
sol0
jhmm
jpssm
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UniRef90_UPI000373BD6C
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UniRef90_V2WZY5          W G   D I P V M P I
UniRef90_R5PCP3          A   H K L S C A T L G H C Y K M L R
UniRef90_C4JE82          N G Q M I K V F S P E W L L R E K I L
UniRef90_UPI0004786CB8   G N T E V
UniRef90_M5S200          A G D E V W I P T P E D V I L Q K L I W S R P Q
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UniRef90_I3IH91          K D I D I Y L A S I D D I I K M K E F S G R N Q D I E M L K K V
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UniRef90_V4BGV9          L G V R V R V P
UniRef90_F5X084          N G V H Y Y L P T L E Q Y L K I Y Q
UniRef90_M0K0V4          G N L H V H L L S L T D I F V F K S I T E R E E D V A L I A R
UniRef90_M0DFM5          G G E T V P I G P L E L Q I A Y K L S L G R T D
UniRef90_UPI0003766F19   E V I E I Y F I D I E H L I R N K E A L N R E K D R E D I K F L K R K N
UniRef90_UPI00036C7E68       P I Y F I G L D E L I K N K E T I N R P K D I E D L   K Y L R K
UniRef90_X1SQI6
UniRef90_A2BMQ9          G G V E I R V I R P E D Y I V L K A K A A R E E D L R I I R E Y I D E G K
UniRef90_X6GN62          L G S Q V R I V G P T E L I W
UniRef90_D5MLT6          E D K A I R L C S A E D L I V H K A V A S R P Q D L R D I E G V I A R R
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UniRef90_R7SE07          P G     I P C V P M I V L L G M K   L R G W E D H C E A Y E R Y F N K


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