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                            1         10        20        30        40
QUERY                    L L T I D T T I E W L G K F N E K I Q E N K A Y L S E L D G P I G D G D H G A N
UniRef90_D4MB26          L T V K D I Q T W L D N Y S K V I E E K K D Y L S E L D T P I G D G D H G N N
UniRef90_UPI0004226EE8   M D A K T A L T W M E K F N E K I Q T N K D Y L S E L D S P I G D G D H G G N
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UniRef90_K8E7T6          M N V E N I I K W L D L F T E K V N E N K D Y L S E L D S A I G D G D H G M N
UniRef90_UPI00046EA556   M L D V N T T K Q W L I T F N Q L I Q A N K A Y L S E L D T P I G D G D H G G N
UniRef90_A0A023CYE0      M L T A E N T K K W M D S F Y R K I E N K D Y L S E L D T P I G D G D H G G N
UniRef90_K9XI13          M V T K E Q I L Q W L E Q F A D A I A Q N K E Y L T Q L D A A I G D A D H G I L N
UniRef90_F5ZH16          M D L L K V K K W I S N F N N K I N D N K D Y L S Q L D T P I G D G D H G G N
UniRef90_E0U9C1          M I T K D Q I L Q W L E A L A K S F N E N K D Y L T E L D A A I G D A D H G S N
UniRef90_R2SGX0          I T V N E I Q A W L S A F T E K I D E N K S Y L S E L D T P I G D G D H G N N
UniRef90_E4PTQ5          L N L D S V K E V L I K I A K V I N E N K E E L S Q L D A A I G D G D H G H N
UniRef90_I3D7P6          L T Q K Q I L Q W L E N C H Q C F T E Q R D Y L T Q L D T S I G D G D H G L N
UniRef90_B7KD17          M I T Q K Q L L Q W L E T L V Q V F N D H K D Y L T E L D A A I G D A D H G I N
UniRef90_L5NDP0          M L N V E N T I Q W M M I T N E K Y Q E Q K D Y L T S L D R A V G D G D H G I N
UniRef90_B1IBX7          M N V E Q T L E W M K L F N E K I Q E Q K D Y L S E L D T P I G D G D H G G N
UniRef90_I0DW44          L T Q Q Q I Y H W L I Q C S Q T F A D E Q D R L T E L D T A I G D G D H G L N
UniRef90_F4XKM2          M V T K H Q I I Q W L Q A V A T V L E Q N K D Y L T E L D A A I G D A D H G I N
UniRef90_C4VMG5          L T L D V Y E K W L F A K K V E S N K L Y L S E L D A A I G D G D H G N N
UniRef90_U5MP41          M I N G T Q L K E I L N K I N I A I E K N K L Y L S E L D A A I G D G D H G I N
UniRef90_A0A037ZCZ8      L N V S Q V V E L I N N I A N V V E G N K V F L T E L D S A I G D G D H G I N
UniRef90_C7XGQ5          L T T D T L T I W M N K F A D K V N T N K Q Y L S D L D T P I G D G D H G F N
UniRef90_F7Z6I2          M L T A E T A T D W L H R F A E K I N E N K A Y L S E L D S A V G D G D H G S N
UniRef90_E3H7Q4          M I D N K K L L D V L N N I G D R I I E N K M V L N D L D T A I G D G D H G I N
UniRef90_W7D727          D T K W A I R W L I D F S N R V I K N K Q W L S D L D Q A I G D G D H G I N
UniRef90_K6R036          L T V N V A Q R W L D G F A A A I A E H K D Y L S E L D T P I G D G D H G S N
UniRef90_UPI00031CB04D   M N T E Q V L R W L Q R F A T K I E Q N K E Y L T E L D A A I G D A D H G I N
UniRef90_B4EW91          V L T H H Q I L W L Q Q C A Q L F E Q N S D Y L T D L D R E I G D A D H G I N
UniRef90_W7CSU4          M L T N D K L I D W L T L F A D E L I A N K A Y L S D L D S P I G D G D H G V N
UniRef90_M7E4C9          M D I K I A K A W M T S F N D K I Q E N K D Y L S E L D T P I G D G D H G S N
UniRef90_UPI000466467F   M N G K R V I E V I G K I N E K I D S K K E Y L T E L D A A I G D G D H G L N
UniRef90_E3DLJ7          V E K T K E I I N K M A D L I I E N K A Y L T E L D S A I G D G D H G I N
UniRef90_UPI0002FC4A96   L A V Q Q V L N W L E K T N E K I Q R N K E Y L T S L D Q A I G D G D H G I N
UniRef90_D7DWU8          M V T Q V V Q I I Q W I Q V F A S V I E H H K E E L T E L D A A I G D A D H G I N
UniRef90_Q1WRP5          V T K E S L E K W L E L F G D L I E T N K A Y L S D L D T P I G D G D H G N N
UniRef90_K9U7Y7          M N K S Q V I Q W L Q N F A T E I E R N K E Y L T E L D A A I G D A D H G I N
UniRef90_G5K1Y5          M Q A Q K A I Q W M T L F N E K I Q V N K D Y L S Q L D T P I G D G D H G G N
UniRef90_L5L8G6          L N I D G V K K I L L K M A E V I E I N K E E L T Q L D Q V I G D G D H G H N
UniRef90_R7RQ76          L N G Q Q I K Q I I F K I A Q M I D E N K M Y L T E L D A A I G D G D H G I N
UniRef90_E9SIF2          L N R E E L K S M M L Y V A E K I V E N E P Y L T E I D L K I G D G D H G T G
UniRef90_G8PBG1          L D V E K T I K W M D D F N A E I Q A Q K G Y L S E L D T P I G D G D H G N N
UniRef90_E4L414          M D Y Q K V L E W M R L F N E K I K A K K D Y L S E L D T P I G D G D H G G N
UniRef90_C3WZR9          F L E I I E K I S D E I I K N E E Y L T E L D R E I G D G D H G V N
UniRef90_A3CK11          M D A A R A K K W M Q L F N E K I Q D Q K D Y L S D L D T P I G D G D H G A N
UniRef90_E1NP39          I R R N T I K K M D G I I F Q K I A A N E K Y L C E L D A P I G D S D H G F N
UniRef90_V5XLM6          L T V K E I Q A W L N R F A E E I K E K K A Y L S D L D T P I G D G D H G N N
UniRef90_D9TSY8          I L T I N D V A K I I S N I A E V I E E N K Q Y L T D L D A A I G D A D H G I N
UniRef90_A0A024Q8R3      L D V L K T V E W M E Q T N E K M Q A K K D E L T T L D Q P I G D G D H G I N
UniRef90_F0LYU1          I E K K H I L S W L E L C A K T Y Q E N Q E F L T D L D R D I G D A D H G L N
UniRef90_UPI0003723F6B   Q I I E K I S A D I I Q K N K D Y L T Q L D A A I G D A D H G V N
UniRef90_A6LVD6          I Q G K K V I E I L E K I S E K I D E N K A Y L S E L D A A I G D G D H G L N
UniRef90_K9VA65          M T K E Q I L L W L Q R F A T K I E Q N K E Y L M Q L D A A I G D A D H G I N
UniRef90_D6DGV8          M T D S K K V I E L L E K I G D K I I E E K E F L T E L D K P I G D C D H G I N
UniRef90_B1QUU9          M V N G E E L K N I F N K I N I V I E E N K L Y L S E L D A A I G D G D H G L N
UniRef90_Q8ENK9          L Q L N D I R N W L E L S N Q L M Q E N R S Y L I E L D Q A I G D S D H G I N
UniRef90_F1T4X2          M E T Q V T V K W L L A F D K K I Q E N K T Y L T D L D T P I G D G D H G A N
UniRef90_L8JCE8          I T K Q Q I L Q W L E L S A E V F Q A E Q D F L T D L D R E I G D A D H G I N
UniRef90_D1C9M9          T L E I L R R I T E V M R E N A E E L T R L D S A I G D G D H G T N
UniRef90_E6WA32          V V S K K Q V I D W L D A S A T V F E Q Q Q E F L T N L D R E I G D A D H G L N
UniRef90_H1PZ43          E L L K I I K K V S E K I I E N K D Y L T E L D R E I G D G D H G V N
UniRef90_D1AJM4          M K N D R V I D L D E I A K I V I A H E E E L T D L D R A I G D G D H G L N
UniRef90_UPI000367EC99   M I T L S Q I L A W I S Q L D A V Y T E N K A Y L T E L D S A I G D A D H G I N
UniRef90_UPI0004073FCC   I T S A E I L K R W L F M A N E K M Q Y N K D Y L S E L D Q A I G D G D H G H N
UniRef90_F4LS03          V M D K E Y F F N V I E K I A E L V E E K R D Y L T E L D A A I G D A D H G F N
UniRef90_C6BY70          M N K A Q L I A W L G K L N E V Y A D K K E Y L T E L D A A I G D A D H G I N
UniRef90_R2SRX5          M F T P D N L R T A L Q L F N E K I Q A K K D Y L S E L D T P I G D G D H G N N
UniRef90_UPI0002D651D4   I Q E A K Y W I K Q L N D Q I Q Q Q K A Y L T D L D Q A I G D G D H G L N
UniRef90_N2ANJ6          I T V E T L Q K M F A D G A Q L I I E K E P Y L T E I D S V I G D G D H G T G
UniRef90_S0LAM8          T M E T I E A W L D R F T E V I E Q N K Q V L S D L D T P I G D G D H G N N
UniRef90_UPI000473CA99   M Q K D V I K N W L F T A N E C I S E L D R A I G D G D H G V N
UniRef90_L0MLI4          L T K Q Q L V D W L M R C S E I F R R E R D Y L T E L D T A I G D A D H G L N
UniRef90_R6PHL6          M V N Q Q K V I E I L R N I G E T I E K E K L F L T E L D N V I G D G D H G I N
UniRef90_UPI00037B9340   V L D V E K A A R W I H R L N G K I Q E Q K Q Y L T D L D Q A I G D G D H G I N
UniRef90_UPI0002880506   M L T V D N T I N W L N R F C D S L I A Q K T A L S E Y D R I G D G D H G M N
UniRef90_I4BYG6          L D V T K A V A I V E N I K I D A N K E F L T K L D S A I G D A D H G I N
UniRef90_UPI000255BD40   V D K I K K W L E L F A A Q L H E K K T Y L S E L D S A I G D A D H G N N
UniRef90_S3J7S3          I T P R H L I N W M Q L T A K Q L E Y Q K K N L T Q L D Q F I G D G D H G I N
UniRef90_UPI00026264B8   L T V Q D A V A W I K K S N E K I Q A N K D Y L T D L D Q T I G D G D H G I N
UniRef90_UPI000478FA61   L N A A Q V K E M F L Y V G R K I R E N K P L L T K V D S A I G D G D H G I G
UniRef90_B1CB33          M T K E K L I E L I N D I A D K I E E N K D Y L T D L D S A I A D G D H G I N
UniRef90_I8UJC4          V T T E Q F V N A L R K G A L A I I S A K D E L T D L D R E I G D G D H G I N
UniRef90_D4GL25          L T R A Q I V S W L Y R C G E V F T R E S D F L T G L D R E I G D A D H G L N
UniRef90_UPI000475E232   M D I T A L H G W I E F E F A R L I A D H L T E L D A A I G D A D H G I N
UniRef90_A5N619          I N G V Q V R E I L N S M A I L I N E N V D Y L T E L D A A I G D G D H G L N
UniRef90_R6Z7F2          L D R N D I K A M M L Y V A E Q V K K Q E P F L T E I D L K V G D G D H G T G
UniRef90_D1AP48          I V D N L I T I Q N N R D Y L S E I D G K I G D G D H G I N
UniRef90_W0LB22          L S K Q Q V L D W L C S E V F A R E Q V L T Q L D T A I G D G D H G I N
UniRef90_UPI00040C9D70   A T R V Y E C L K S I G E K I I E N K D F L T D L D R E I G D G D H G V N
UniRef90_I6X1C8          M L T H E Q C M A W L R A F A A L I N D N T D F L T D L D A A I G D G D H G T N
UniRef90_M7NIQ8          V L T A Q D F R N Y F K Q I V E M I E E E K D Y L C E L D R K L G D G D H G V T
UniRef90_P76014          L S R T Q I V N W L T R C G D I F S T E S E Y L T D L D R E I G D A D H G V N
UniRef90_T0BG13          M L T T S A F I L A F I Q A Y T N R L D E L Q P L L D Q L D N Q I G D G D H G T N
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                                               50             60            70           80
QUERY                 M A R G M S E T M K A L E V S N F G N V S E I F K K V A M T L M S K V G G A S G
UniRef90_D4MB26       M A R G M A E Y K I A F D K K V P T T I T E T F K V L S M A L I S K V G G A S G
UniRef90_UPI0004226EE8 M A R G M A A V M Q E L T E K D Y E S A D Q V F K V V A M Q L L S K V G G A S G
UniRef90_G5KIC1       M S R G M T A V M E N L K G K T F D S A Q E V F K L V A M Q L L S K V G G A S G
UniRef90_K8E7T6       M A R G T T A V K E A L D A K K P T T V V D I F K L T G M T L V S K V G G A S G
UniRef90_UPI00046EA556 M A R G M D K V I Q I L D T T E F D Q V A D L F K K V A M T L I S S V G G A S G
UniRef90_A0A023CYE0   M M R G M D G V K N S L A Q L Q D P D L K T V L K A I A M G L I S K V G G A S G
UniRef90_K9XI13       M D R G F Q K V A S Q L P N L A A Q D I S G I L K T V S M T L I S S V G G A S G
UniRef90_F5ZH16       M A R G M A A V V A E L E S K E F E S S Q D L F K M V A M Q L L S K V G G A S G
UniRef90_E0U9C1       M S R G F H K V R E I L P T V A D Q D L G T I F K T V S M T L I S T V G G A S G
UniRef90_R2SGX0       M G R G V T A Y M E A F Q Q D P P T T I S E T F K I L S M A M I S K V G G A S G
UniRef90_E4PTQ5       M S R G F L K V V E E L E N N S Y D D I G S I F K K V G M V L V S N V G G A S G
UniRef90_I3D7P6       M Q R G F S K V A E K F P T L V D K D I S T L L K T V G M T L L S Q V G G A S G
UniRef90_B7KD17       M S R G F Q K V G E K L P T L P D Q D L G N M F K T V S M T L I S S V G G A S G
UniRef90_L5NDP0       M A R G F K E V A S A L E D G S F S D V S D V L K K A A M T V M S K V G G A S G
UniRef90_B1IBX7       M A R G M A A V M E N L E G K Q F E T S S D V F K L V S M Q L L S K V G G A S G
UniRef90_I0DW44       M H R G F Q K V A E K L P S V E D K D I A T L L K T T G M T L L S S V G G A S G
UniRef90_F4XKM2       M N R G F Q K V I T Q L P K V A D K D I G S I L K T V S M T L I S T V G G A S G
UniRef90_C4VMG5       M A R G V S A V E E G F N L T S A L K L T A M A F I S K V G G A S G
UniRef90_U5MP41       M S K G F K A V V E K V K D L P E D D L G N I L K S C G M A L V S N V G G A S G
UniRef90_A0A037ZCZ8   M N K G F K A V K E K L I T A K L N T V S D V L K N T G M I L V S N V G G A S G
UniRef90_C7XGQ5       M D R G M T A V K E K L A T K P A D L T S G F K T I A M A L I S T V G G A S G
UniRef90_F7Z6I2       M A R G V A A M E E K L A A G G F A T V Q D V L K T A A M A L L G K V G G A S G
UniRef90_E3H7Q4       M S R G F T N V K D K L K D L E G K D C T T I L N T V A M T L I S T V G G A S G
UniRef90_W7D727       M A R G L T E L Q K A L T E K E P T S V K E T F K M A G M T I S K V G G A S G
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UniRef90_W7CSU4       M A R G A T F L K E A F S E K Q P Q N I S E T L K L T G M T L S K V G G A S G
UniRef90_M7E4C9       M A R G M A A V M E A L D Q S E P A T T A D L F K L V S M Q L L S K V G G A S G
UniRef90_UPI000466467F M S K G F N A V L D K L K D D D G S N I G N I F K K T G M A L V S S V G G A S G
UniRef90_E3DLJ7       M T K G F K K V K E K L A A K D Y E N N K E L I K T V A M T L I S T V G G A S G
UniRef90_UPI0002FC4A96 M S R G F Q E V M S K T S A T S Y N S V S D L L K D V A M T L I S K V G G A S G
UniRef90_D7DWU8       M D R G F K K V S N L L P S F A D K D I S T I F R T V S M T L I S S V G G A S G
UniRef90_Q1WRP5       M A R G M V A V K E T L A S K Q P E D I V G V F K I T A M S L I S K V G G A S G
UniRef90_K9U7Y7       M E R G F K K V A S Q L S S L A D K D I S T I L K T V S M T L I S T V G G A S G
UniRef90_G5K1Y5       M A R G M A A V M E N L E G K T F E N A S D V F K V V A M Q L L G K V G G A S G
UniRef90_L5L8G6       L S R G F L K V K E E L E N N T Y T D I A S M L K K V A M V L I S N V G G A S G
UniRef90_R7RQ76       M S K G F Q A V I D K I K D D N G D N I G D M L K K V S M A L I A N V G G A S G
UniRef90_E9SIF2       M K R G F C E V A K A L P G F E P V F A E D V L Q F V G T T L L D T M G G A S G
UniRef90_G8PBG1       M A R G M E A V H E A L D G K E F N S V S D V L K T I A M S L I S K V G G A A G
UniRef90_E4L414       M A R G M A A V M E N L D G K D F E K A S D V Y K I V A M Q L V S K V G G A S G
UniRef90_C3WZR9       L A R G F S E I K N Q L V N F K N L P V S D V F T K M G M I L L T K V G G A S G
UniRef90_A3CK11       M A R G M A A A V E S L A A K D F A S A A E V F Q A V S M Q L I S K V G G A S G
UniRef90_E1NP39       M K R G M D A V V T K L N S A P D D L T I C F K T I A M A L I S T V G G A S G
UniRef90_V5XLM6       M G R G V T A Y E A A F Q Q E A P D T I S D T F K M F S M A M I S K V G G A S G
UniRef90_D9TSY8       L D R G F K A V K E K I P Q F L D K D I G A I L K N V G M V L V S T V G G A S G
UniRef90_A0A024Q8R3   M A R G F Q E V V N K L N D T E Y N E V S A V L K D V A M T L M S K V G G A S G
UniRef90_F0LYU1       M N R G F K K V A E T L P K V A E Q N I A N I L K N T G M T L L S S V G G A S G
UniRef90_UPI0003723F6B M T R G F K K V E E K L P T I A G K D I G N I L K A T G M T L I S S V G G A S G
UniRef90_A6LVD6       M S K G F K A V V E K I K D D D G N D I G G I L K K S G M A L V S N V G G A S G
UniRef90_K9VA65       M E R G F C K K L L S N L P S L R D K D I G T I L K N V S M I L I S H V G G A S G
UniRef90_D6DGV8       M A R G F T E V K K K L E T M A D S D L G T I F K T A G M T L V S T V G G S A G
UniRef90_B1QUU9       M S K G F K A V V K K L N D L E E D D L G K I L K D V A M T L V T N V G G A S G
UniRef90_Q8ENK9       M A R G F Q E V I T K T Q D Q N Y Q S P S D L L K D V A M T L M S K V G G A A G
UniRef90_F1T4X2       M A R G M E F V R K A L E E K P P K T T A E A L K L C A M Q L L S H V G G A S G
UniRef90_L8JCE8       M N R G F Q K V K D K L P S L A D K D I G T I L K T T G M T L L S S I G G A S G
UniRef90_D1C9M9       M A R G F N A V L P K V E A M A G Q P P A A L K T T A T T L S T V G G A A G
UniRef90_E6WA32       M N R G F K K V R E K L P T L E D K D I G T I L K N T G M V L L S S I G G A S G
UniRef90_H1PZ43       L A R G F E K V E K E L P T M E T L K P F E I L N K M A M L L V S N V G G A S G
UniRef90_D1AJM4       L K R G F D A V M A K V D Y F R E M D L S K L L N E T A M T L L S T V G G A S G
UniRef90_UPI000367EC99 M A R G F S A A R K A L E E S P P A D I G A A L K A V S M T L I K T V G G A S G
UniRef90_UPI0004073FCC M A R G F Q E T V E S L K D D N E E D M G A V M K S A A M T L I S K V G G A S G
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UniRef90_R2SRX5       M G R G L E A V M A A N L D G D L P A I F K A S A M A L I G K V G G A S G
UniRef90_UPI0002D651D4 M S R G F Q E V I K K I E S S T Y S N M G S L F K D V G M T L L T K V G G A S G
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                              90        100       110       120
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UniRef90_UPI0002D651D4 P L Y G T I F L R T N Q T S I N V N E L I E V L T A S L E G I V S R G K A Q L G
UniRef90_N2ANJ6      V I F G T M F R L P H K D T V S G E E L A D Y F Y E G E Q A I E R R G R S K P G
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UniRef90_I8UJC4      P L V G T A F I K F A S A W L T H E Q L T A G F Q E A C A G I A A R G K S E V G
UniRef90_D4GL25      P L F G T F F I R Q A H Q S L T L E E L Y Q M I R E G A E G V I N R G K A E P G
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UniRef90_I3D7P6        D K T M C D V W L P V L D E L E Q A E S A V K K A K I S L E A T I P L V A K K G
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UniRef90_W7D727        E K T M I D V W E P V I H A L R Q D E L T G D V I E A A L Q K T K D L K A T K G
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UniRef90_B4EW91        D K T M C D V W W P V V D S L K H A N D A L K V A E K A A E E T I P M Q A K K G
UniRef90_W7CSU4        E K T M L D V W D P V I K S L K N E L S S E A I T T F V D K T K D I L A T K G
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UniRef90_R7RQ76        E K T M V D S L E P A I N E L K C L E K M V N S A K L G M E N T K N I V A T K G
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UniRef90_UPI0003B74839   M A D L N S F Q A W I A A C A A G I D E R A D D L T E L D R A I G D A D H G S N
UniRef90_V6K7C2          M D T D L A R T W V Q A I A A A V D Q H K D H L T Q L D S A I G D A D H G T N
UniRef90_C0W168          L N T Q W A L Q W I R N C Q K E V H A N R D Y L I D L D R E I G D G D H G E N
UniRef90_UPI00040EA1F8   M N A Y E W K Q Y F S R I S N M V E K E K D Y L S E L D R K L G D G D H G V T
UniRef90_X0QPS3          M L D E T L L F K W M T E F D H Q I Q T D K A Y L S G L D A E I G D G D H G D N
UniRef90_U1FW19          M N A E T L K M N L L A L V D T F E T Q E E S L T Q L D R A I G D G D H G V N
UniRef90_UPI0003686803   M L D T A F F R R W L T L A A A V D R E A D R L T E L D S A I G D A D H G S N
UniRef90_W7BQ55          M Y N A A N F R D F L N N V T E T M E R E K D Y L C E L D R K L G D G D H G V T
UniRef90_E1IG61          I T A D R I I A F V E R V A T S I K A E R D Y L T Q L D A A I G D A D H G L N
UniRef90_H2JWJ2          M L D A A F F R R W M T A A A S V S R E A E R L T A L D S A I G D A D H G S N
UniRef90_D7C870          L D A A F F H R W L T A A A A I S R E A T R L T D L D S A I G D A D H G S N
UniRef90_V5FG05          L I E K Q H I V Q W L A H C A K N L Q Q E Q E F L T D L D R D I G D A D H G A H
UniRef90_UPI00036B2131     L T E T I E A V A Q M L L R E K N Y L S D L D A K I G D G D H G I N
UniRef90_A0A011A6L1      M A D S K K V L E I I K A I S L K M E E Q K D Y L T E L D Q P I G D S D H G I N
UniRef90_R9IRK6            A T K I Y Q C M Q K I G E D I I A N K D F L T D L D S A I G D A D H G I N
UniRef90_W9VBV4          V L T H R Q V I V W I E R T A E V M K A N R D T L T E L D A A I G D A D H G N N
UniRef90_Q097J6          V T R E T A E Q W I R A Y A A A I A E F V Q L T Q L D M A I G D G D H G A N
UniRef90_B6K6I7          M N K E A V R N A I I N S M N T L I E Q E P I I T K Y D T I A G D G D C G T T
UniRef90_E8VZN8          M L D T D F F R R W M A V T A A A V D R E A D R L T E L D A A I G D A D H G S N
UniRef90_S4XR90          L S G E H I A A W L E S A A E V L E R E K G F L T E L D A A I G D S D H G V N
UniRef90_M3JMF5          V T P A L F K A M M M N V N Q I I A E K N W L S E L D G V I G D G D H G I T
UniRef90_B0P6N6          M N A Q Q L R D M F L F V A R R L V D S E D F L T E I D I K I G D G D H G I G
UniRef90_E3G883            N K H I I A W L E R C S V Y M S E Q Q D F L T N L D R D I G D A D H G L N
UniRef90_W5KUR9              I R P V L E S V C K V L L Q R Q E E L N A L D R A A G D G D C G S T
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UniRef90_A4AIN0          I S L D H V V A W L A R F R E L V T E Q Q S Y L T E L D S A I G D A D H G A N
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UniRef90_A9W9R1          I T V E H V T H F L T A A A E I I H A H R D E L T A L D A A I G D A D H G A N
UniRef90_D4HA90          I S A A T V S L W K N Y S A V I S E H A N E L T D L D R Q I G D A D H G S N
UniRef90_C8NCE6          F T N S Q Y I N W I D R C A A A L A A A Q D E L T A L D T A I G D G D H G L N
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UniRef90_F9L6Q7          M N V V K M K T Q L L L S L A D T F K D K E S E L T D L D R S I G D G D H G V N
UniRef90_W0JS79            E A I L E A V D R I A A R I E S E K K H L T D L D S A I G D A D H G E N
UniRef90_UPI000471346D   I S V T E L K D M I Q L G A E R L N E Q A E Y V N S L N V P V P D G D T G T N
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UniRef90_B6BU12            E L L K Y I A L I D Q A I N E N E S E I E G L D R A I G D G D H F I N
UniRef90_K0KGV1            D H F S K V L K A G T E T L I K A E P E I I T R L D T K V G D G D C G T T
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UniRef90_W4DIT5          F T L Q N I V Y L L D Q M S Q V I I E N E V P F C E L D S H A G D G D F G M S
UniRef90_J9E6V8          M L T L E T L Q A F I Q A Y A A R H T E L C T V L D D L D N R I G D G D H G T N
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UniRef90_Q097J6           M Q R G F Q A V L S R L G S V A E G D L G A L F K V T G M T L L S T V G G T S G
UniRef90_B6K6I7           L K R G A E A V L E Y V K D K F T D D P I L M A R Q I A D V V E N N M D G T S G
UniRef90_E8VZN8           M R R G F A A V N D V L E K E D P R T P G T V L T L A G R H L I S T V G G A S G
UniRef90_S4XR90           M A R G F A A V R D R L G R L D R G D V G A L L R E V G M T L L S T V G G A S G
UniRef90_M3JMF5           M E I G W K A V Q H A L E D E Q D E T I E A L C K R M A K A F L D A V G A S S G
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UniRef90_UPI000344E875   D K T M V D A L V A A A D A A Q L L I S E P Q A A R S G S E Q T R Q M V A K F G
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UniRef90_UPI00036260D2   E K T M M D V L I P V A N C L K Q M I E T I E T A E K G M L S K N L L A T K G
UniRef90_B9DIG9          D K T M I D T L E P F F I K L E E E R E A L N E A R N G M E S T E D I I S N K G
UniRef90_U5VX81          D K T M Y D A L A P A V D A L D A A L A A G K S L E E G T A A T I P M V A R K G
UniRef90_B6BU12          Q K T M L D V L I P V A A K F E E L A S S N M S T Q E C A H N T K D M L P T K G
UniRef90_K0KGV1          D S T I I D A L E P F V K E F V K S S D A V A A A D K G A Q A T G S S E A K F G
UniRef90_UPI0003B4588A   D K T M Y D A L A P A L E A Y D G A V A L E A A A A G R D A T V P L V A R K G
UniRef90_L8EN66          D A T M L D A L D P A V E A A T S F R A A A A E A V Q G A E A T V P L Q A R K G
UniRef90_UPI00046324CE   E K T M V D A W Q P G A S P A D V L A A A A D A A G A R A G A T V P L V A T K G
UniRef90_UPI00037C19FA   D K T M V D A W T P A V D A A R A A D G D G T D V L G V V A T V P L I A R K G
UniRef90_H2AZL4          S S T M I D A L E P A V V A S K D F A K A V A A A E G A K S T A T F E A K F G
UniRef90_Q6AFI5          D K T M I D A W T P A V D A A A I L A A A A D A A E K G A E A T E P L V A R K G
UniRef90_W4DIT5          D K T L I D A L V P F A D A W T Q S A E Q G D D I K Q G S K N T I E I V A R M G
UniRef90_J9E6V8          E K T L I D V W T P A S E A L A A Q P D E D G M R T A V A R A T K D I P A T K G
UniRef90_K6UNQ1          D K T M I D V W D P F Y K S G D A F N K A L V K A K S G M D S T K E I I S N K G
UniRef90_I7KNV4          D K T M I D T L D P F Y K S G D A F N K A L V K A K S G M D S T K E I I S N K G
UniRef90_D4MXC2          D K T L L D T L I P A V E A Y D A A L E A K S A A E D G W K S T E D M V A K I G
UniRef90_T3DFQ2          Q K T L M D A L Y P A I D A I Y N I Q S N Y E K A V E A A E N T K T Y I A K F G
UniRef90_UPI00047D4B4E   D K T L L D S L V P A I E A F N S A N A A A A E Q G R D S T R D L V A K I G
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UniRef90_E3GPD1          R A S Y L G E R S I G H Q D P G A T S I T Y L I Q A A K E A
UniRef90_C6PVN6          R A S Y L G E R S I G H Q D P G A T S S Y L M L N T I Y E C I
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UniRef90_UPI00036E101E   R A S Y L G E R S A G H Q D P G A T S A A L L V E A A A A K V L A
UniRef90_H0UNI9          R A S Y L G E R S V G H Q D P G A T S S Y L L L T C L R D A V
UniRef90_Y5PCX3          R A S Y F K E D S K G Y I D P G A Q S S V Y I L N A M
UniRef90_R9MKU8          R A K S L M E R A I G Y Q D A G A T S V W L I L Q G M R E F V
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UniRef90_UPI0003F78148   R A S F L G A R S V G H V D P G A K S S C L L H A V C S T L
UniRef90_U7JMQ1          R A S Y L G E R S K G H Q D P G A T S L T L F I E S A A R C L
UniRef90_UPI0002D369B4   R A S Y L G K R S I G H Q D P G A T S S M M V Q S L Q R I V S
UniRef90_UPI0003B74839   R A S Y L G E R S A G H Q D P G A T S A T V I E A A Q T L S
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UniRef90_UPI00040EA1F8   R S S R L K E R S I G H Q D P G A T S A Y L I F S L F V E Q F S
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UniRef90_W9VBV4          R A S Y L G E R S R G H Q D P G A T S S Y L I L K T L T E
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UniRef90_B6K6I7          R A V Y V G D E L T V P D P G A V G V A S I K G F A K
UniRef90_E8VZN8          R A S Y L G E R S I G H Q D P G A A S S A L L V G A L V E A
UniRef90_S4XR90          R A S Y L G E R S A G H Q D P G A T S C W L L L R S L A A T
UniRef90_M3JMF5          R S A K L G E R S I G H I D P G A A S T F V T L R A M A E A L
UniRef90_B0P6N6          R A K S Y G E A A I G L Q D A G A T S V W L I Y Q S M A D W
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UniRef90_J9E6V8          R A A Y L G E R S V G T C D P G S I S S A V F F E E L A D A
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UniRef90_D4MXC2          R A S R L G E R S R G V L D A G A T S C Y L I L E S L A T S I
UniRef90_T3DFQ2          R A K S L G E R S I G H M D P G A V S I S L M F K G L Y N A L
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UniRef90_M8AHX6                  D I V L S M A E K I I E N R A Y L S E I D G K I G D G D H G V N
UniRef90_T0UID0                      M F Y E K I Q E N E K V L A E L D S M G G D H G E N
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UniRef90_E8NAC6      V S T G D L V A W I R A F R D A V H Q H K D L T R L D S E I G D A D H G S N
UniRef90_C3XZK9          K Q I F H V V S A V C N S L M T A E E Q L N D L D R A C G D G D C G S T
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UniRef90_E3HB84      I L N K E N F V D M L N S S C Q L I D K N I D K L G N I D A K F G D G D H G V T
UniRef90_UPI00037286C6   M D C P F V L D W L R R V G T A M D R H Q D H L I Q L D S A I G D G D H G A N
UniRef90_UPI0003707590      T T Q H V I A A M R S A V N S V S E H R D E L V E L D R A I G D G D H G E N
UniRef90_T1HSX8           G E I F R K C L L A I S I A L M K E C D T L N K L D A L A G D G D C G T T
UniRef90_R7PHP3      M A D S K K V L E I I K A I G L K M E A E K E Y L T E L D Q P I G D S D H G V N
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UniRef90_E7N1L7                          Q K D Y L T A V D A K T G D G D H G L N
UniRef90_C7YU83      I D A N S A Q K A F K R A L E K V I A A E P E V T R Y D T V V G D G D C G I G
UniRef90_W8AKQ7      M A A V D A A A W V R D F A A A V D A H A D E L T A L D A A I G D A D H G T N
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UniRef90_D5E5M2	P L L G T W L M A F S K K I K D Q K T F L D A F S F A N E N L K A R G K T E Y R
UniRef90_UPI0003616A00	P L F G S F F L C L G D A I G N D P D L A L G L R A G L A G V V A R G R A E A G
UniRef90_B1IHV9	P I W G S A F R S A G K Q V G D V S D F A E M M Q A A V K G I Q A T G G A V V G
UniRef90_UPI000219787D	V I T S Q L F R G F S K S L E D K E T L T A M A K A F D D G V K T A Y K A K P V
UniRef90_L0EJ60	T L L A T A L M R G G K A E L S G E D V I R M F E A M V Q G I A D R G K A R V G
UniRef90_F3P562	P L Y G T F F L R T G S A G L D A Q A L A D G L E A G V G G I A A R G R A T A G
UniRef90_K0K2T4	P L Y G T A F L R A A T S V G D A A E L A T A L Q A A L E G V V A R G K A V V G
UniRef90_R7TBN4	A L Y S L F F A G E L S G S V D S P A W V K A L S Q G V S A I M R Y G G A E P G
UniRef90_M3A3M3	A L Y A I Y L N N G G S K K A D A K I W A A A L K E A S R A L E K Y T P A K P G
UniRef90_UPI0004760ADA	P L Y G T A F L R A A T A L G E A S D V A A A L Q A A R D G I V A R G K A E S G
UniRef90_A0A016SDH5	A L Y A L M L S A A S E A F I T S K D F A A A L Q K A S Q A V Q I Y G G A K P G
UniRef90_B8H9V2	P L Y G T A F L R G D S A E I D P G A W A A A L A A A R D G I V A R G K A E P G
UniRef90_Q4L473	P L Y G F S F V K M V N D E M D K E N L K A V V T E F A N A I A Q R G K V Q R D
UniRef90_F8I672	A L W G S G L L R V H A A D A D K A T L T E A I D V F V T A L K E R G K A E L G
UniRef90_I7JUZ4	V I T S Q L F R G F Y K A N K D T L S A L D L A N A F S N G V A T A Y K A K P V
UniRef90_D7DPP9	P L L A S F F M S M A K V L K E N G D I A A A F A G G V Q A I I Q R G K A G L G
UniRef90_K0YPL4	P L Y G T A F L R A A K V A V D E P L T A E A V A A A L A G I Q A R G K A E R G
UniRef90_K9ASS7	V I L S Q L F R G F S K Q L E Q H Q D I D A F A K C F E A G V K T A Y K A K P V
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UniRef90_UPI00026279D4	P L Y G T A F L R S N Q P E L G A A E V V A A L R A G L E G V Q A R G K A V E G
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UniRef90_C2WFF4	P I W G G A F R A A G K A I L T V A E F A E M L E A A L K G I Q S I G G A E V G
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UniRef90_W6RIS2	P L Y G T L L M E M G R E S D Q G Q D F S S A L K Q A I D A V A R R G R S H A G
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UniRef90_Q1DEN7	P F Y A T A L L R A A E G P V D A A A W A E A F D L A V T A V S E L G G A R P G
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UniRef90_A0A031LJ91	P I W G S A F R A A S K A I L S V A D F A D M L Q A A V K G I Q T T G G A V V G
UniRef90_D5DNY0	P I W G S A F R T E S K T E L T L A E F A E M V Q A S V K G I Q A T G G A V V G
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UniRef90_B0WHX3	A L Y S L F F Q G A S K I F T E G G D W S R A L T A G N D T I A K Y A L T Q L G
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UniRef90_UPI00037731EF	P L Y G V L L L R V V A Q D T G P R G W R E V L A A G A R A I G E L G G A Q V G
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UniRef90_K9ASS7         E G T I L T V A K C A S E A A V K A S E E S D D C L Y V M E A E R A L E N T P N
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UniRef90_M5E9L1         D R T L V D A L D P F C R T K D L A S A V K A A E R G A E H T R D L T A R L G
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UniRef90_C0C0I3         H K T M I D A L D P A V N V L R R L L D E N Q P E C E V L E A V K E M R A V F G
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UniRef90_I2GZA6         S S T M V D A L E P F V K E F S K S K D A V Q A A A D A G A K S T G T F E A K F G
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UniRef90_X2H9X5         D R T L I D A L Q P A V W Q N R N F S A A I Q A A R E G A E K T A G H K A G A G
UniRef90_UPI000382488B  E K T M V D A L V P A V E A F D A A K A M A Q A A E K G R D S T V D L V A K I G
UniRef90_E6SH85         E K T M V D A L G P A V E A F D A A A A A R A A R Q G S D A T I P M V A T K G
UniRef90_C5MB24         G R T L I D T L Q P F V D T L Y E L S K A I E E A T K G C E K T K D L H A S F G
UniRef90_A6UG56         D K T L L D S F V P A V E A F D A A I A A G R S F E A G R D S T R D L V A K I G
UniRef90_D6M656         D K T M L D A L P A S E A T S W E A A A A E A A E A T V P L V A R K G
UniRef90_D4XUY8         N K T M Y D I L Y A A E L A T K Q V S S L S E F A K V A Y E A T K G I A A R S G
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                                                       170              180              190
UniRef90_F5RKK0          R A A L I   G P R S I G I E D P G A M S S L I M F R A L C S Y L
UniRef90_F9ZQA6          R A S Y L G E R S R G H A D P G A A S A S L I L E C L A
UniRef90_M8AHX6          R A S R L G E R S L G V L D A G A T S C A L I L R S L A E
UniRef90_T0UID0          R Q A L L S D G S S G L V D P G S Y S S G L L F K A L I E A
UniRef90_G7DA15          R A S F L G E R S I G H M D P G S R S V S L L I G A A A K V L
UniRef90_UPI00041C2535   R A M R L G E R A I G H R D P G S A S S A A I L A I L Y K
UniRef90_X6GSQ7          R A S F L G D R S I G H M D A G A R S T A L L V R A V T E T I
UniRef90_UPI0003661174   R A S Y L G E R S A G H I D P G A R S T A L I L R A L L
UniRef90_H0BIB4          R A S Y L G E R S I G H Q D P G A T S S A L L V E A L A A T
UniRef90_E2Q762          R A S Y L G E R S M G H Q D P G A T S
UniRef90_UPI0002F7234B   R A G T V G E R S L G H P D A G A H A L G V I F T E L A E V L
UniRef90_E8NAC6          R A S Y L G E R S A G H L D P G A A S A T L L L E
UniRef90_C3XZK9          R A S Y V S T D R L T R P D P G A Q A V A I W M R A I Y S S L
UniRef90_S9Q079          R A V Y V G G D   V K V P D A G A L G V A A I V E G F A K
UniRef90_U7FY23          R A S R L G E R S R G V L D A G A T S C C L I L V A L A D S L
UniRef90_E3HB84          R A R F F K D E T I G Y M D A G A M S L S L I F M G F N E G I
UniRef90_UPI00037286C6   R A S Y L G L R S V G H Q D P G A T S S C Y L F R
UniRef90_UPI0003707590   R A S Y L G D R S A G H L D P G A R S V V L L L N A F A D V
UniRef90_T1HSX8          R A R Y V D K S E V T D V D P G A Y A V V I V L K T L V K A L
UniRef90_R7PHP3          R A S Y V G E R G L G H Q D P G A T S Y S Y M L E V I A
UniRef90_M3JIB9          R A S R L G E R S L G V L D A G A T S C A L I L T D L A
UniRef90_UPI000248D074   R A G T V G E R S L G H P D A G A Y A L G V I F T E I A R S L
UniRef90_UPI0003B2F2D3   R A S Y L G E R S A G H R D P G A E S S A L L L R
UniRef90_UPI0004046A8A   K A R T L G E R S L G H V D P G A V S F T L I L E S M R D Y I A
UniRef90_UPI0003287F6A   R A S Y I S S A R L D Q P D P G A V A V S A I L R A I L E V L
UniRef90_UPI00040D256C   R A A Y I G Q R S I G H Q D P G A T T V L L M L Q A L H K T
UniRef90_W5WJ74          R A S Y L G E R S A G H L D P G A R S T A L L L R S L A N
UniRef90_UPI000477B298   R A K T L G E K T L G L P D A G A I S V T I I L K T M E E F I
UniRef90_D5E5M2          R A S Y L G E R S I G V N D P G A T T I Y L I F E
UniRef90_UPI0003616A00   R A S Y L G E R S V G H Q D P G A T S A C L L F T A A T S A
UniRef90_B1IHV9          R A G T V G E R S I G Y P D A G A Y G L G V I F T E I S N S L
UniRef90_UPI000219787D   L L P V L K E     V G V V D S G G Q G L V F I Y E G F L E G L S
UniRef90_L0EJ60          R A S R Y L E R S I G H Q D P G A T V G A L I V Q G F A D Y V
UniRef90_F3P562          R A S Y L G E R S V G H I D P G A A S T A L I L A A L D D V V A
UniRef90_K0K2T4          R A S Y L G E R S A G H L D P G A R S T S L L L R S F A
UniRef90_R7TBN4          R A S Y V A A D Q L T A V D P G A H A V A I W M T A L A E S L
UniRef90_M3A3M3          R T V Y V G G S G F K V P D P G A Y G L A E F L S G L A E A L
UniRef90_UPI0004760ADA   R A S Y L G E R S I G H R D P G A V S S A L I L R A A A G A
UniRef90_A0A016SDH5      R A S Y T A K E V Q T K P D A G A V A I A A F M Q T L L D T I
UniRef90_B8H9V2          R A S Y L G E R S A G H R D P G A V S S A L I L R A A V G A A A
UniRef90_Q4L473          R A A Y F K K D S I G Y I D P G A Q S M V Y V L S A L
UniRef90_F8I672          R A A Y L G P R S Q G H L D P G A L S S A I W W E C W L E
UniRef90_I7JUZ4          L L P V L     K Q V G V V D S G G Q G L V F I Y Q G F L E G L
UniRef90_D7DPP9          R A A G L G E R A I G H I D P G A K S C Q L M I E T V C
UniRef90_K0YPL4          R A S Y L G E R S K G H L D P G A V S S A I I L A K A L E A
UniRef90_K9ASS7          Q L P V L K E     V G V V D S G G K G L T L V Y E G F L K A M
UniRef90_Q5HKK0          R A S Y F N E A S K G Y I D P G A Q S S V Y I L N A I
UniRef90_W4Q6E1          R A G R Y L E K S I G H Q D P G A T V G A F I V K G F E E Y
UniRef90_E7N1L7          R A A L I G E R S I G H E D P G A M S S L I M F R A L C S Y L
UniRef90_C7YU83          R T V Y V G G S G Q E V P D P G A W G L A C F F L G L S E
UniRef90_W8AKQ7          R A S Y L G E R S A G H Q D P G A T S A A L L V R T A R Q A L
UniRef90_R5FIS9          R A G T V G E K S I G Y P D A G A Y G L G V I F T A L S D F I A
UniRef90_UPI00036EC58A   R S S Y L G E R A L G T V D P G A E A V V I W L D A I A
UniRef90_M5E9L1          R A T Y V G E T S E K V P D P G A W G V W A L V E G I L K A L
UniRef90_M0LVL5          R A S Y L G W R S V G H Q D P G A T S T L F I L E T L L A T
UniRef90_A0A010RRY7      R A V Y V E E S A W G V P D P G A E G V L A I L E G L Q A A V
UniRef90_UPI000359C0FF   R A S Y V N K E L L T K P D P G A V A M W M T A I A D A L
UniRef90_W9DW96          R A S F L G E R A K G H I D P G A R S S Q L I I D T I C K S L
UniRef90_UPI000363BF43   R A S R L G E R S L G V L D A G A T S C A L I L K E L S Q
UniRef90_UPI00026279D4   R A S Y L G E R S A G H L D P G A R S
UniRef90_D6S4R4          L L P V L K E     V G V V D S G G Q G L L F I Y E G F L E G L
UniRef90_C2WFF4          R A G T V G E R S L G Y P D A G A Y A L G V I F T E L S R S L
UniRef90_F0ZM09          R S S Y L G E R S I N V M D P G A A A I S I I Q S F
UniRef90_UPI00036A7A04   R A S F L G E R T K G H I D A G A R T A Q L M I C S I I D V L S
UniRef90_UPI0003B50912   R A R P L S E K S L G H Q D P G A Y S F A L I V T G L A K Q L A
UniRef90_F5YG98          R S S R L G E R S R G V Y D A G A T S C K I I L K A M A D G I
UniRef90_W6RIS2          R A A Y L G E R S I G H V D P G A S S C A L L T I A I C R Y L
UniRef90_X5QGF0          R S A Y I G S Q L D G V V D P G A F A V A E V F T A L A A L L
UniRef90_Q1DEN7          R A S Y L G A R A V G V P D A G A A A V V V W M K A L
UniRef90_G0WA14          R A S Y V G D S S   N V A D P G A V G F T E F L K G I E S A
UniRef90_UPI00047AA3B7   R A S Y L G E R S A N H R D P G A V S T A M I L Q A A A
UniRef90_A0A031LJ91      R A G T V G D R S L G Y P D A G A Y G L G V I F T D I A D H L
UniRef90_D5DNY0          R A G T V G E R S L G Y P D A G A H G L G V I F T E V A Q V M
UniRef90_UPI00037DF57E   R A S Y L G E R S L G H V D P G A Q S T A Y L L R S L A T S A A
UniRef90_F5XQ38          R A S Y L G Q R S A D H Q D P G A T S A V L L I Q A A A T A L
UniRef90_C0C0I3          R A V Y Q A D K G E G H L D P G A V T M Y Y Q I E I L A D
UniRef90_B0WHX3          R A S Y S G D R K Y Q H P D P G A H A V S I W A R A L L E A
UniRef90_UPI00036F768A   L L P V L K E     V G V V D S G G Q G L V Y V Y E G F L S A L
UniRef90_UPI00037731EF   R S S Y L G D R A I G T V D P G A E A V V I W L R A I A D S L
UniRef90_I2GZA6          R A S Y V G D S S   S I E D P G A V G L V E F L K G I
UniRef90_UPI00047C6158   R A S Y L G G R S A G H L D P G A A S S V L L I R A L A D V A S
UniRef90_U4WTE9          R A G T V G E R S L G Y P D A G A F A L G V I F T Q L A Q A L
UniRef90_UPI000476284E   R A S Y L G E R S I G H E D P G A A S S A L L M R A L A
UniRef90_U6SMG8          R A S K Y L E R S I G H Q D P G A T V G A L I V E G F
UniRef90_I6A718          R A S R L G D R S I G V L D A G A C S C F L I L R S M G E S I
UniRef90_X2H9X5          R S S Y V N Q Q N L G V P D P G A V A V A E V F T A L
UniRef90_UPI000382488B   R A S R L G E R S R G V L D A G A T S C C M I L T E L G N G F S
UniRef90_E6SH85          R A S Y L G E R S R G H R D P G S L S A T L M M E A A A E T L
UniRef90_C5MB24          R A S Y V N E D E F G I P D P G A V G V L A L I K G F T E K L
UniRef90_A6UG56          R A S R L G E R S L G V L D A G A T S C A I I L R E L
UniRef90_D6M656          R A S Y L G E R S E G H E D P
UniRef90_D4XUY8          R A S Y L G E R S I G V N D A G S T T I C L I L E V L N A V V
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Multiple sequence alignment (UniRef90), positions 1–40.

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                        1         10        20        30        40
UniRef90_N1Q0B0         I D P K L T T K A L A H A L D R V I S A E P D I T R Y D T V G D G D C G I G
UniRef90_B9JN81               M F Q R I S I A I T A E K D H L S E L D G A I G D A D H G I T
UniRef90_M3B5F8         I D A A Y A S N V L G G Q A L D Q L I K A E P E V T R F D T I A G D G D C G I G
UniRef90_U2SGA1         I G S D V L V T W L R L A D A A I A E R A D L T E L D A A I G D A D H G T N
UniRef90_R2SAP3         I S A G Q F S E M V Q A G A N R L Q V N A E Y V N S L N V P V P D G D T G T N
UniRef90_UPI0002D5EA73    N A R Q F K T I L Q S V T L A L R Q Q E V L T E L D S V V G D G D I G I S
UniRef90_R7FLB0         I D G V I L K Q M I L S G A N N L Y N S Y P E V D A L N V P V P D G D T G T N
UniRef90_UPI000472D747     V S E T T P V V P A L V D A I V K A R D W L S E I D G R I G D G D H G I N
UniRef90_D8IKM9         I T E S E F R K M V L T S S N K L N K N A E F I N S L N V P V P D G D T G T N
UniRef90_Q60CU3           T P H L I P S V I Q G A A S A I Q S H A E E V S A L D Q A I G D G D H V V N
UniRef90_G4T0K8            K L F P A M I D A V D A I K Q N S E S V T E L D Q A I G D G D H V T N
UniRef90_D9SLB2         I D G R Q F Y N M I L N G S N K L E E D K E Y V N A L N V P V P D G D T G T N
UniRef90_X5Q7J2                                   H S E E L T A L D Q A I G D G D H G L N
UniRef90_W7CTB4         L N G E K L A A M I I A G A E N L A K N A D Y V D S L N V P V P D G D T G T N
UniRef90_O60017         F S S S T V K A V L E S G C K K L L T K E P K I L Y D T V A G D G D C G E T
UniRef90_W4EA64         L Q L D N I I Y L V D K M S E I I I A N E A P F C E L D A H A G D G D F G M S
UniRef90_Q6FKI1            D S F A K W M K G A A A N V E K E E P R I T Q L D T L V G D G D C G Y T
UniRef90_E4V3Q6         V D P A V L K K A L S S G L D R V I K A E P L V T R Y D T I V G D G D C G I G
UniRef90_B5ZF39           D V A L L C V W L R R A A Q V I D D R Q D S L S V L D A V I G D G D H G A N
UniRef90_R7YQG6         I D P D L A K T A L T S G L N R V I A A E S D I T N Y D T I V G D G D C G I G
UniRef90_UPI000380D4B8  L S P A L A D R W V R G F A A A V E E A N D R L T D M D R R S G D G D F G V N
UniRef90_K8EU53         V M D S A F F G H V L Q D M G A L I E K E R D Y L T G L D S D I G D G D H G I N
UniRef90_R9PRI5           N D E V A S A L R T A C N T I I D N E S A L N H L D A I V G D G D T G S T
UniRef90_T4VE18        F T L E N M I Y V V D K M S E I I K N E V P F C E L D S Y A G D G D F G M S
UniRef90_M2ZL12            Q I L T R I Q T A C H A L I T S E P T I T E Y D T I V G D G D C G Q T
UniRef90_UPI0002F05498  L T L A D M R N I L I E I T R L M D E Q K D Y L C Q L D G A L G D G D I G L T
UniRef90_A8NT28          N A K L V E A A I K K A C I A I H E A A D L L N A L D G S A G D G D C G N T
UniRef90_U7VDP9         I I T K E R W I A I F Q N I S E L M I E N K D I L S Q I D S K F G D G D H G I T
UniRef90_E5V583         I N G L V L A K M I D L G A R N L A K N A E K I N S L N V P V P D G D T G T N
UniRef90_L7X1F7                                   L T E L D R A I G D G D H G V N
UniRef90_D4MYY8         I D A A L L Q K M L I G G A K R L E A N K E Y I N E L N V P V P D G D T G T N
UniRef90_UPI0004679142       A E Q I R A C A L A V A R E L I A A E T H L A D L D S Q A G D G D L G A S
UniRef90_R6MHB6         I D V E L L A K M F L A G A Q N I E A K K E Y I N E L N V P V P D G D T G T N
UniRef90_B0P9R2         L T T K D Y V E Y I K K A Y E K I H A N G D Y I T E L D S A T G D G D H W T N
UniRef90_UPI000406C568              K A I V A Q R D R L S E I D G A I G D G D H G V N
UniRef90_L0DGU5             I L A A M V A L I D A E P T L T E L D R I V G D G D L G L S
UniRef90_Q55EE0          N G E I L K E I V L L G C N S L I E N S N K L T D L D K Q V G D G D T G T T
UniRef90_H8H8T4         I T T S L F Q E M V Q A A A T R L G K Q A E Y V N S L N V P V P D G D T G T N
UniRef90_A7ED65         L D P A T T K T A L T A G L Q R M I A A E P D V T R F D T V V G D G D C G I G
UniRef90_I1A7E4         I N V N K A H I D L V K N I Y E E L K I N E D Y I S S L D Q A I G D G D H G F N
UniRef90_U1ESV9         I N G K L F A D M I I Q G A Q N L S K H A D L V D S L N V P V P D G D T G T N
UniRef90_V5FZM3           D P T A F K T I L S A G L Q R I I A A E P Q V T H F D T I V G D G D C G I G
UniRef90_C0C253            K P V L L R M V K E I Q D N K A Y L G E V D G L I G D G D H G M N
UniRef90_A1UWQ3              V V R E L V D V I R R N R D H L S E I D A A I G D G D H G I N
UniRef90_G8S8S8        M D A T L A R D W M R A A A A V A A E T D R L T R L D S A I G D G D H G V N
UniRef90_J1SYR6             R R L L T A L C E H L L S L E N E L N R L D G L V G D G D T G S T
UniRef90_D8HSS1                            E H R A E L I D L D R A I G D G D H G E N
UniRef90_UPI00031E953C  L D G K R F A R M I Q S G A Q N L Q N N V E F V D A L N V P V P D G D T G T N
UniRef90_Q6C2B3           D G K L F K A M I E S A V D D L K K E E P Q I T K Y D T I A G D G D C G E T
UniRef90_Q6BWB4        M Y D S S V L E R I I R T A A Q N I I D K E P E I T D W D T K M G D G D C G I N
UniRef90_K6DTI7         L D G K R F A E M I I Q G A N H L A A N A K M V D A L N V P V P D G D T G T N
UniRef90_V7IAM1        M T K K D Y L D Y I E L V T K K L E E N R D Y V T E L D A A T G D G D H W V N
UniRef90_H8X9X8        V D A N S F E K Q L R N G L E N L L K E E P K I T H Y D T L V G D G D C G E T
UniRef90_J2J6E7          S G Q R L R Q L F A S I A S A L V N A E D E L A R L D S I S G D G D L G A S
UniRef90_A5N7Z4         I D G Q R F Y N M I V N A S N K L E E Q K D F V N S L N V P V P D G D T G T N
UniRef90_H2MW17              M R R A L E K V C S A L L E K Q E E L N S L D R A S G D G D C G T T
UniRef90_G8YMK2        I F D F D H F S R F L K S G V E K I I E A E P L I T K L D T Q V G D G D C G T T
UniRef90_UPI00036AAAED     S E W V S D W M A S W V Q R V L T E E P A L T D L D R R A G D G D T G T N
UniRef90_UPI000468B200    N D K T R D I I A Q C C D L L I A A E D D L N A L D A K S G D G D T G N T
UniRef90_C2D4Z7         I T N T E F T A M V Q A A S N K L N K N T D F I N S L N V P V P D G D T G T N
UniRef90_X5L362            D V I G M L T A V C D R M I A S E L L A R A D R E V G D G D H G Q G
UniRef90_UPI000374D988 M V T R D N M I Y L I D K M S E I I I E N E I P F C E L D S Q A G D G D F G M S
UniRef90_C8XKM4         M S Q D Q V E L V V Q T I A R T A V D N E K Y F G D L D A V V G D G D F G Y S
UniRef90_I1BU49        V V E P N L L E A V I R G A A H A V I Q A E P E I T Y Y D T V L G D G D C G Q T
UniRef90_I4YFL7           F I E T L I K R A C E A A L A V E A D L T K W D T I V G D G D C G T T
UniRef90_W6X260                       V R T I N A N R Q Y L S E V D G A I G D G D H G I N
UniRef90_C4SC97              I V E E L V E T I A N R D Y L S E I D G A I G D G D H G I N
UniRef90_K6WWV1         L D V A A A H A W L A D F A A R V H A N V D L L T D L D R Q I G D A D H G A N
UniRef90_M2BWQ1        M I T K D I I L D V L I E I A K T M D D E K G Y L I E L D Q Q N G D G D L G I S
UniRef90_K4ZJL3                     D K M S E I I I E N E V P F C E L D A H A G D G D F G M S
UniRef90_W2RZI4         L N P D K A H E A L A G L Q K V I A A E A V T R F D T I V G D G D C G I G
UniRef90_G5GGR1        I L D A S A L K K A F L A G A A S L E E K K E W I N E L N V P V P D G D T G T N
UniRef90_UPI00039E8F3D L I D G N D F T R M V N R G A D C L Q R H A E H V N A L N V P V P D G D T G T N
UniRef90_F9DPF1        I N G L Q F A K W M E M G A H H L H Q N A D Y V D S L N V P V P D G D T G T N
UniRef90_Q9N5C4        V N A Q L V E A C V G G V V D A M L E S E K H L N Q L D A Y A G D G D C G S T
UniRef90_A6DNZ7            E D I Y A I L G N V T E V I C D N A M F L C E L D S V V G D G D H G T T
UniRef90_UPI0003A069CB     A A V L R P A L V A V A E A L R E N E P R L T E L D S I A G D G D L G M S
UniRef90_U5F6K8             I V L Q V I D A I H E Q A S Y L S E I D G A T G D G D H G I N
UniRef90_Q1R0P1        L D A T H G K E I L E E L V E V I V E N R N Y L S E V D G A I G D G D H G I N
UniRef90_UPI00036D36A7 M K T A F I L S A S L A I H A A I V A N E S E I E S L D R A I G D G D H Y I N
UniRef90_Q162B9        D N D Q T R R L V A H A C D L L I A S E A E L N A L D A K S G D G D T G S T
UniRef90_K9EAE9        I K A K D F A E N M V N T G R K R L D D N A E Y V N S L N V P V P D G D T G T N
UniRef90_I6X335          S P D A L S A W L K S T A A E F E D R I D G L D A A I G D G D H G T N
UniRef90_F9XLF4            T K T A L A K A L D R V I A A E P D V T K Y D T V V G D G D C G I G
UniRef90_H3CIW3             K V L V R V C S T L L E K Q E E L N S L D R A A G D G D C G Y T
UniRef90_UPI0003746CFA L S L K N L I Y L I D Q M S E I I I D N E V P F C E L D S H A G D G D F G M S
UniRef90_UPI0003643A92 L S L Q N M V Y L I D Q M S E I I I E N E V P F C E L D A H A G D G D F G M S
UniRef90_U6B7T6                                       I G D G D H G I N
UniRef90_S3X4B0             E W L A C F A E R V E T G R G L L N E L D R F I G D G D H G I N
UniRef90_B2TJ09        I N G H D F F N M V N A S N R L L E Q S E F V N S L N V P V P D G D T G T N
UniRef90_UPI00025555E8 V I T L Q N I I Y L I D K M S E I I E N E V P F C D M D A H G D G D F G M S
UniRef90_UPI00036E32A8              E V I S E H R D E L V E L D R A I G D A D H G E N
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                                                    50            60            70            80
UniRef90_N1Q0B0         L K R G A E G I K S H L D G A S S Q D A A L F L D S I I D V V E N T M D G T S G
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UniRef90_M3B5F8         L K R G A E I K G R L D I S G Q N D A A L W L N E I I S V V E T D M D G T S G
UniRef90_U2SGA1         M R R G M A A V V E A V D A G G P G G A D A L L K K A G M T L V S T V G G A A G
UniRef90_R2SAP3         M N M S M E S G A K A V A D S P A D T V G K L A Q V F A R G L L M G A R G N S G
UniRef90_UPI0002D5EA73  L A R G A R A I D D S L G T L D L E R P A F A L Q Q I S A I L R R A L G G T S G
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UniRef90_UPI000472D747  M A K G F A R C G E A L G   A T P P V M E K G L A M L S D S L M A G I G G S M G
UniRef90_D8IKM9         M S L S L A S G Y K Y V S E S T S T K V G D L G V A L A K G L L M G A R G N S G
UniRef90_Q60CU3         L Q R G L E A L S Q Q A E S L A A L D W P A A L Q K I G M T L M A S V G G A S G
UniRef90_G4T0K8         L Q R G L K A L K A K E G E I S A L D W A D A L Q S I G M V S M S A I G G A S G
UniRef90_D9SLB2         M S M T F R A A A T E I I G K E N L P L G E V A K Q L S R G A L M G A R G N S G
UniRef90_X5Q7J2         M K R G F E A V R A D A G A F A A K P L P E A L K A I G T K L V M T V G G A S G
UniRef90_W7CTB4         M N L S M T S G A E E V N R N S L S T V G A V G T S L A K G L L M G A R G N S G
UniRef90_O60017         L A N G A H A I L D L L A A D K L E I T D R S L T Q L T E T A M G G T S G
UniRef90_W4EA64         V A K G F K Q L K R E W K E L H A T D I G S F L Q A C S L I I M E H C G G A S G
UniRef90_Q6FKI1         L L A G C K G I T D N L D K I S K T H L S S A M D K I S E Y V E A S M G G T S G
UniRef90_E4V3Q6         L Q R G A E A I L K E I N D T S T P L N S D T L H R I I D V V E N T M D G T S G
UniRef90_B5ZF39         M A R G F R A V A G K L D   E P P P D V A A L L K L V G M T L I S T V G G A S G
UniRef90_R7YQG6         L R R G A E S I L K L L E K S K A D D A G I F L Y K I T Q S V E N S M D G T S G
UniRef90_UPI000380D4B8  M T T G L R R A L A A L P D   R P D T P G T P F Q V L S D T F L S H S G G T S G
UniRef90_K8EU53         L S I G F R E V N K Q L D E L A S P D I A T L L K K S G M I L L G K V G G A S G
UniRef90_R9PRI5         F A S G A R K V L A E L D Q L P L N E P A L L M T L I G Q Q L T T V M G G S S G
UniRef90_T4VE18         V A K G F K Q L K R E W A N I E D L T I G K F L N E C S M V I M E Y C G G A S G
UniRef90_M2ZL12         L R S G A Q T I L N Y L T T T S T P L P E L L T S L V S R L E L D M G G T S G
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UniRef90_L7X1F7         M L R G F E S L K D K I D D S S       M Q S V F K S T G M C L M S N I G G A S G
UniRef90_D4MYY8         M T M T A L A A A K E V G N A A E V T V K E V T R G L S S G S L R G A R G N S G
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UniRef90_R6MHB6         M S M T I M A A A K E V T A L E G M D M A S A K A I S S G S L R G A R G N S G
UniRef90_B0P9R2         I N M G F E K L V E A S G E L E T M S L F D A F K K I S M I M M S V I G G S G G
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UniRef90_L0DGU5         L E R G A R V R E A L G T S S Y P D P S A T L Q A L G L T L Q K A L G G T S G
UniRef90_Q55EE0         L E N L S K S I K K S I D T I P F D K P C Y T F R K I S L I I Q E L I G G S S G
UniRef90_H8H8T4         M S M T M D N G A K E V A D K P A S T V G E V G Q M L S K G L L M G A R G N S G
UniRef90_A7ED65         L K R G A E A V L S T I K E N L S G D A V V D L A K I V Q V V E N S M D G T S G
UniRef90_I1A7E4         I V R G F A A V S E   I S V D N L T L E S F F S Q L G R T L M A K V G G A S G
UniRef90_U1ESV9         M N L T M T S G R E A V E H N S S N H I G A L G K T F S K G L L M G A R G N S G
UniRef90_V5FZM3         L K R G A E A V L A K I N D P N L T D A V N A V N Q I T N I V E N V M D G T S G
UniRef90_C0C253         M N K G F T V F E T R F K D   E D I S F T D G L D E L G M I L L N E I G G S M G
UniRef90_A1UWQ3         M S K G F G Q C G A R L D A R G A T S L P D A L D V L S T A L M D G I G G S M G
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UniRef90_UPI00031E953C  M N L S M S S G A K E V D A K E T E N I G E V G Q L L A R G L L M G A R G N S G
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UniRef90_Q6BWB4         L E T G A R A I I K S I D N A K S G S L R N V L H A I L K V L K D D M G G T L G
UniRef90_K6DTI7         M N L S M T S G A K E V K N N V Q E H I G K V G I A L S K G L L M G A R G N S G
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UniRef90_H8X9X8         L A A G A N S I L K A L K E N S S F D P I A T L S R I T E F V E D S M G G T S G
UniRef90_J2J6E7         M R R G A D A L L S   L P D A A F S S V A Q A L S Q A G E R V R K A I A G S S G
UniRef90_A5N7Z4         M S L T L K S A V V E I S N V K G K S I D N V S K D L A K G A L M G A R G N S G
UniRef90_H2MW17         H A Q A A R A A Q E W L Q H V V P G C P G R L L S V L S G L V E E K M G G S S G
UniRef90_G8YMK2         L V A G G N V G I N N L S K V P K S S L S E A L H T I S N L I E T Y Q G G T S G
UniRef90_UPI00036AAAED  M V S A L E Q V D L A   Q I R E T Y S A Q T I F E A V S A A Y L G H A G G T S G
UniRef90_UPI000468B200  L A T A A R A L K S A L D R M P L A D L T Q L F R A I S N E L S Q T M G G S S G
UniRef90_C2D4Z7         M S L S L A S G Y K Y V N K D V S T S V G S L C S S L A K G L L M G A R G N S G
UniRef90_X5L362         M A R G F R A A R D Y L H R A T A S T P H Q I L V G V G T T L I G S M G G A S G
UniRef90_UPI000374D988  V A K G F K Q L K R E W K D H E D Q S I G G F L H E C S L V I M E Y C G G A S G
UniRef90_C8XKM4         L A R G F E K V L E G W D E I D R T D A G T F L K K T G M I I S S R I G G T S G
UniRef90_I1BU49         L K T A A S T I L N R L P S Y P L Q S T P G T L L A V A E T I E N S V G G T S C
UniRef90_I4YFL7         L S A G A Q A I L D A L D S G P L D N L P N L F D K L S I I V E S S M G G T A G
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UniRef90_K6WWV1         M D R G M R A V A   A L L V Q D F A D A A L L K K A G M T L V S T V G G A S G
UniRef90_M2BWQ1         M S A G F N A A V N A F K D D S G K D I G L G I L K A A M A F N E K A P S S L G
UniRef90_K4ZJL3         V A K G F K Q L K H E I M N H H S N N I G E F L H A C S L V I M E H C G G A S G
UniRef90_W2RZI4         L K R G A E A V L K L S S N N P S D A V A F L N K I V P V V E E N M D G T S G
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UniRef90_A6DNZ7         I R R G V K A A Q I K I D T E K P Q Q V D K L F A A Y A M G M V S T M G G A S G
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UniRef90_Q162B9         L A T A A R D L K G A L D R L P L A D P A Q L F R A L S N E L S Q T M G G S S G
UniRef90_K9EAE9         M N L T F S T G T E S V N E S Q S D Q V G D L A K S L S K G L L M G A R G N S G
UniRef90_I6X335         M A R G M A A T A A T I V P G P N T T T   R E Y L N Q V G M A L V S S V G G A S G
UniRef90_F9XLF4         L K R G A E G I K K Y L D S S E Q K D A A L F V D G I V E V V E S D M D G T S G
UniRef90_H3CIW3         H S Q A A K A I Q E W L D H T V P A C P G K L S I L A G L V Q E K M G G S S G
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UniRef90_B2TJ09         M S M T F K A A V K E I E N I N S N S I G E I S K K L A K G A L M G A R G N S G
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UniRef90_UPI00036E32A8  M K R G F T A I V S A L D T A V P E T P A A V A K L A A T T L I S K V G G A A G
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                               90            100           110           120
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UniRef90_B9JN81        P L Y A T A F R K A A Q A L K Q D E S L S D A V E A M T T G I K E R G K G Q R G
UniRef90_M3B5F8        A L Y A I F L N S N G G K Q A D P K V W A S A L R E A S K S L A K Y T P A K P G
UniRef90_U2SGA1        P L Y G T F L L R M G G A L K D S T S L A D A V E A G V G G L V A R G K A A E G
UniRef90_R2SAP3        V I L S Q L I R G F S K Q I P D V V E L G D L A H A F T H G V D T A Y K A K P V
UniRef90_UPI0002D5EA73 P L Y A V F V L R A G V A L S G A S S W A N A L Q A G C D G I V N L G N A S L G
UniRef90_R7FLB0        V I L S Q I F R G F A Q K G K D E A D A I D L A F M M G K E V A Y K A R P V
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UniRef90_G4T0K8        S L Y G T L F I A M S K A E L S V S T F A E A F A Q G V E A V K R R G K A D A G
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UniRef90_X5Q7J2        P L F G T L F L A L G K E I S G E P D L T A A F G K A I E A V A A R G K S Q V G
UniRef90_W7CTB4        V I L S Q L F R G F S K S I E G K T E L K E L A A A F T A G V E T A Y K A K P V
UniRef90_O60017        G L Y S I F I S A L A K S L K D P Q I L A A S L K D A L E S L Y R Y T R A R A G
UniRef90_W4EA64        P I W G S A F R S A G K T S L N T L E M A G M L D A A A Q G I Q A T G G A V V G
UniRef90_Q6FKI1        G L Y S I L I S G F V H E K V T P E V L A K S F Q I A L D T L Y H Y T N A R P G
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UniRef90_B5ZF39        P L Y G T F F L D M G K A A L D V P A W R T L L A A G V A G V A A R G K A V A G
UniRef90_R7YQG6        A I Y A I F L N A L A H A P V T V E I W A N A L N S S L E A L T N Y T P A K P G
UniRef90_UPI000380D4B8 P L F G M W F R D F A K D F L T L G A V A E A S Q K G W D T V T R L G S A K V G
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UniRef90_U7VDP9        P L Y G T Y L L D E D I V E A D G K T L K K I L D S G L T E L Q Y L T T A K V G
UniRef90_E5V583        V I L S Q L F R G M S Q Y I V D K K E I K E F A A A I Q N G V N I A Y K A K P V
UniRef90_L7X1F7        P L Y G F S F V K M V K D D I D H N N L V E L L E T F A E A I A K R G K V E L N
UniRef90_D4MYY8        V I L S Q L F R G F Y K G V K D Q D V L T T E T V A F K K A V E T A Y K A K P K
UniRef90_UPI0004679142 P F Y A V G L V R Q G K A E A S A R D W S A A F S A A V D A V E Q L G G A R V G
UniRef90_R6MHB6        V I L S Q L R G F T K S I K T E S D V P A L A R A A V R A K E T A Y K A K P K
UniRef90_B0P9R2        V L Y G S A Y M E N G K E T I Q N E E L C G I L E A M M N G I M K R G N A K P G
UniRef90_UPI000406C568 P L Y G T F F N E M A D T E L D A P A F A R M V R A G L D G V L D I G G A K P G
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UniRef90_J1SYR6        V L L S I F F T A A S K S M A E K D D I A A A L L A G L D R M T F Y G G A V V G
UniRef90_D8HSS1        P L Y G T A F L R G P A A E L D V P A L L D A L R A G L E G V Q A R G K A V A G
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UniRef90_K6DTI7        V I L S Q L F R G F S K A K I S G K D F A G A L E A G V E T A Y K A V M K P V
UniRef90_V7IAM1        V L Y G S A Y I K A S Q A I G D N E V L H A I L E A K L T A I M E R G N A K P G
UniRef90_H8X9X8        G L Y S I Y L T A L V Q D K V D S A A V A N A F K A L H D G L F K Y T K A R V G
UniRef90_J2J6E7        P F Y A T A L M R A A R D E P T A A D I A G A F L D A V Q A I M D L G G A R P G
UniRef90_A5N7Z4        V I L S Q I F R G I S K G G K N K V N S S E F T L A L E E G A K A A Y K A R P T
UniRef90_H2MW17        A L Y S L F L T H V T Q G Q S D A A A W A R A V H A G T Q A M R R Y G G A D P G
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UniRef90_X5L362        V V F G T F F R S A F T G P L T V A A L T G H L D A A V A E I Q R R G G A R A G
UniRef90_UPI000374D988 P I W G S A F R A D K A E L N V S E F A E L M Q A A V A G I Q S T G G A V V G
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UniRef90_L7X1F7       E K T M Y D V I A R A Y E A V K K G E Q D L N R L Q S F A E E T V D M V A T K G
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UniRef90_J2J6E7       D R T M V D A L E P A A R T K T A W R T A V E A A E D G M K R T S D M H P K L G
UniRef90_A5N7Z4       E G T I L T I I K A A G E A K S K K E N I T E L L Q E V C D S K R M L D K T P D
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UniRef90_C2D4Z7       E G T I L T V I R M A A Q A G K K T A A T T N D I V A V M D A V Y E N K K T P D
UniRef90_X5L362       D K T M L D A V L P A V E A L R A Q P A E I P V A Q A G A E A T K A M T A R H G
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UniRef90_C8XKM4       D K T L L D A L V P G S D A A T T L A A V S A T T R D A A E A T K D M V A R R G
UniRef90_I1BU49       D R T L M D A L C P F I D S H H S L F K A V R L A Q A G A E R T R F M S A R L G
UniRef90_I4YFL7       D R T L I D A L A P F C Q A L S R D K I A A K L S Q E G A E A T T G M T A K L G
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UniRef90_M2BWQ1       E K T I V D T L V P V E K F V R E N K E S E K I A K E G S D S T R N M K S V H G
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UniRef90_D2BME6          M G M T I T N G A K D V A S K P A D T V G Q V A Q I L S K G L L M G A R G N S G
UniRef90_U2EEB1          M S M T F R A A V T E I E G M T S T S I G E I S K K L A K G A L M G A R G N S G
UniRef90_UPI0003B68924   M N L S F T S G S D R V I S N G A T T V G D M A N D L A K G L L M G A R G N S G
UniRef90_G4TBR1          L K N G A E A I I K S I H R I N G D N V I E D A R A I A E A V E M A M D G T S G
UniRef90_UPI0004262054   M N D G F K A V C M I M E L S E E K D L G K L L M K A G N A F N E A A P S S L G
UniRef90_G2TJQ0          M N L T M T S G A K E V Q K N V Q A H I G S V A A S F A K G L L M G A R G N S G
UniRef90_UPI0003727BB2   M N L T M T S G A K E V R K N N Q E H I G A L A A A F A K G L L M G A R G N S G
UniRef90_C8NGP5          M M L S F K S G A E R V A N S T A T T V G D L A Q D L A K G L L M G A R T G G A A G
UniRef90_M8A3G6          M Q R G F E G A L E S L K T S P P E T I E E A L R A V G S S I L S R T G G A A G
UniRef90_X6KTY4          M A K G F G R A A E R I D D A D T L D A A   F A T V T D V L M G E I G G S M G
UniRef90_UPI0004140646   L A R G A R A I L A E I D T L P A A D   D R L L Q R I S G I V R R A I G G T S G
UniRef90_G9P9L9          L K T G A E A V L K H L E I S G E L D V V H F V R N I A Q V I E S S M D G T S G
UniRef90_W2D3A9          M A K G F S R C G K T L E G   R E L S L A E A L D E L T L A L M E G I G G S M G
UniRef90_Q1K7A2          L K R G A E A I L S H L D S N P L T D A A I D L A K I V T V V E Q T M D G T S G
UniRef90_UPI0003825EB2   M N K G F T M F L N Q Y K D   V D Y S F T E G L Y H L G M V L L N G I G G S M G
UniRef90_UPI0002196ED4   M S L S L S S G E S Y V D K S T D D T V G G K A S A L A K G L L M G A R G N S G
UniRef90_UPI00046E759D   M S D G F K A V D M L M E L S E E D L G K I L M K S G N A F N E A A P S S L G
UniRef90_W8U788          M S L T M N A A V E E L I S G N P L T I S E I A R A I S K G S L M G A R G N S G
UniRef90_A9CFD1          M V R G G E A I L   A L P K E S F G D V S D G L M A M A N A M R K A I G G S S G
UniRef90_U2NLV9          M S M T F K A A V K E I E N I N S T N I G E V S K K L A K G A L M G A R G N S G
UniRef90_X4ZC36          M N L T M T A G A G E L R K N S S A S I G Q C A G V L S K G L L M G A R G N S G
UniRef90_G3XP19          L K R G A E A V L K L V E D P S S P D V V N A V N R I V S I V E N V M D G T S G
UniRef90_U5L8U4          M N L S M T S G A K E V R N N V Q A H I G K V G T A L S K G L L M G A R G N S G
UniRef90_M5F185          M S L G F M A V N A E L A N L D D T L P S E V F A V A A S A F L D A V G A S T G
UniRef90_R6V1X4          V N M G F E K I T A L S K E L E D M T L A D M F K K V G M T M Y S A V G G S S G
UniRef90_A0A024UB64      L A T G A K A I Q S A L S D F P L N V P S M T L A D I A R A V G S A I L G G T S G
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UniRef90_A6WF74          L D G G T R T A L   A S R V P G D E P Q P G L R A A E Q A F L D H V G G S S G
UniRef90_G6F1I8          M A K G F N I C K K R I D G K Q L   T L S E A L A E L S D S L M E G I G G S M G
UniRef90_UPI0002626FEC   M N L S I T S G V E E V V K L N S E N I S E V A N A F S K G L L M G A R G N S G
UniRef90_W0L994          M S K G F T L C S E A I K G Q H L   T L A Q A F D A V S D A L M E G I G G S M G
UniRef90_R5UJR2          M S M T I M S A A R E V G A L S N P T M K E L A K A I S S G S L R G A R G N S G
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UniRef90_A0Q104          M S M T F K S A V S E V E N L K T K S I S E V A K Q V S R G A L M G A R G N S G
UniRef90_UPI0004636AFB   L A G A A R S L I G A M H R L P L A D H T Q L Y R A I G L E L S Q T M G G S S G
UniRef90_UPI0003788375   M D A G C Q A A A K A V G E L D G I A P T T A F N V A A K A F L N A V G A S S G
UniRef90_R7E8D2          M T L T I M S A V K E V N G L E D V Q M T T L A K A I S S G S L R G A R G N S G
UniRef90_UPI0003C137A2   F A T A A R G V L G R F D G L P F G D V A A L L A A I S Q L I L S R T M G G S S G
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UniRef90_M0EF21          M A R G W A A A A E A A R D L D D P D A E T V A K T V G K T L M S E V G G A S G
UniRef90_E3LKB2          F A G A A R A I Q Q K A K E L D F E Q P E T L L K Q L S V I F E Q T V G G T S G
UniRef90_M5GCF8          F A T A A Q A V I D G L P A L P T T F A S Q T I A S I V H I L L E P T M G G T S G
UniRef90_M2ND50          M S L T F T N G S N E V E A L E S D D L F E I S K K L S K G L L M G A R G N S G
UniRef90_A0A059NX78      M N L S M T S G A E E V R S V D K N H A G T V S K S L S K G L L M G A R G N S G
UniRef90_U5W4Q2          L A R G F E K V L E G W D T I D R A D A G T F L K R S G M V I A S R I G G T S G
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UniRef90_R6XQC8          M R M T I E A G A N E I K Q L D S K S I Y E I S K K L S R G M L M G A R G N S G
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UniRef90_D5GGZ0          L K K G A E A I L Q L I A N K I S P D A V I T V S A L A E V V E A N M D G T S G
UniRef90_UPI00031D704C   M N L T M T A G I T E M K A K I S T S I A K T A E V L S K G L L M G A R G N S G
UniRef90_G6YM53          V A T G A R S V L D R L D T L P L A D P A A T L G E V G D I L S K S M G G S S G
UniRef90_W1QIU8          L K I G A E A V L E R L E F T E S G S L L Q T L T S L L K V V K D S M G G T L G
UniRef90_R9N5U5          M T L T I M S A A K D V A A M D N P D M I S L C K A I S S G S L R G A R G N S G
UniRef90_N4WYZ5          M N L S I T S G A D E V K K A N H D H V E A V S N A F A K G L L M G A R G N S G
UniRef90_UPI0003647519   F A A G A R H I L A L L E N L P L N D T G A L L S M V G E Q L A A A M G G S S G
UniRef90_G9PIG6          L D R G M R A V V T K L D A A Q P A T P G G V L K V V A T T L M A T V G G A G G
UniRef90_U9T842          L K Y G A T D I L K A L E Q I M T N D L S G G L M K I S N I L E R   G G T I G
UniRef90_M7NK03          M N L S M T S G A K E T E Q A A N D H I G R T A Q A L S K G L L M G A R G N S G
UniRef90_G2XHZ8          L S R G A N A V L K V L S E S P S T T A G A A M M S I A H A I E E S M D G T S G
UniRef90_UPI0004103C40   M N L T I T S G A N E V K K L T S D S V S E V A E A F A K G L L M G A R G N S G
UniRef90_C0W771          L E R G Y N A A V A R L D E Q A P T T A G E V L Q L V A T S L I T T V G G A A G
UniRef90_UPI00046F66B5   M E R G I N A A V E R A T Q L V D K Q Y G T G L I E A G D A W A D K A G G T S G
UniRef90_W1FGK7          F A Q G A R D I A Q R L E N L P L N D V P T L L L L V G E R L A T V M G G S S G
UniRef90_Q4ZTB8          M A K G F A H C G R T I E G R Q L S   L A E A L D E L T L S L M E G I G G S M G
UniRef90_L0EES0          M N L T M R S G V Q E L R S R P S L S L G T A A E A L S R G L L M G A R G N S G
UniRef90_L7ZQH8          M S K G F A M C G D A I R G   R E L T L A Q A F D A V S D A L M E G I G G S M G
UniRef90_UPI00047C6910   M S L T I S Y A M K E L S K S Q D S S I T D I G K A L S K G S L M G A R G N S G
UniRef90_A6FUE0          L A G A A R A L I G A L D R L P L A D H T Q L F R A I G Q E L T Q T M G G S S G
UniRef90_G3WE93          H S R A A R A I Q Q W L E E P P P S R P D Q L L S A L S Q L L L E K M G G S S G
UniRef90_H3G972          F K N A A E A I L A D L K A H Y P N D A T Q T L R A L A D S V G R S A G G T S G
UniRef90_U2YR05          L A R G V G A V T D K R D E L A G M A L D E A V K T V G T T L I S E V G G A A G
UniRef90_D2EI78          M S L S L E S G A K Y E A N D A S E E V G H L A G S L A K G L L M G A R G N S G
UniRef90_UPI00041D05B5   M S M T F K A A V K E I E N I N S N S I G E V S K K L A K G A L M G A R G N S G
UniRef90_K0IYZ0          M N L S M T S G A N E V K K V S S G T V S E V A S A F A K G L L M G A R G N S G
UniRef90_E8YQF2          L L R G V D A L L A M R A D I E A A L I G P A L D L A A S K L L S T V G G S S G
UniRef90_K8B4A3          F A E G A R D I A Q K L A Q L P L N D A A A L L Q L I G E R L A T V M G G S S G
UniRef90_UPI000262D0A6   L A S A A R A L I S K V D E L P L A D H T Q L F R A L G Q E L S Q T M G G S S G
UniRef90_U4VJK7          M V L G F S A I N S A L A K L D L E H P S E I F A A A A A F L D T V G A S T G
UniRef90_B1Z9Z1          F A E G A R A V L A D L D R L P Q A E P A A L C R A L G E R L G R A A G G S S G
UniRef90_Q0TPM2          M S M T F R A A V K E I E G M D N K N I G E V S K K L A K G A L M G A R G N S G
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UniRef90_R7RPA7          M S A T M M S A I T E L N K I K E E T V K A V V D A A S M G T L M G A R G N S G
UniRef90_B0PG89          M S S G F H A V R F L R G P Q E T D W G R R L N A C G D A F N E A A P S S L G
UniRef90_W4KKJ3          F A A G A R A V L K A L D D I K L N P S Q L I G K L S E I L E D S M G G T I G
UniRef90_W7CK99          M N L S M T S G A K E V K T H E T A N A G V A S A N L A K G L L M G A R G N S G
UniRef90_F5RNW6          M V K G F T A V A E E I R T L D E T D M G K I M M K L G L K M N A T A P S T M G
UniRef90_F4C699          F A I A G R R L L S A I H A L P L N E P E K L L S S I G R I L S R E T G G S S G
UniRef90_R6R2F6          M T L T I M S A A K E V N S L A A P T M Q T L S K A I S G G S L R G A R G N S G
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                              90        100       110       120
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UniRef90_E0VVG3        A L Y H I F F N S L A K S I Q N S N E I S R A F K C A T K T I K H Y G K V D I G
UniRef90_D2BME6        V I L S Q L F R G F A Q Y V K D Y E E I D H L A A A L Q N G V E V A Y K A K P V
UniRef90_U2EEB1        V I L S Q V F R G I A K G L E N K E D V T A L E F A N S E G S K S A Y K A R P T
UniRef90_UPI0003B68924 V I L S Q L F R G F S Q A G K D T V D A I G L A A A F Q K G V E T A Y Q A K P V
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UniRef90_UPI0003727BB2 V I L S Q L F R G F S K S I E A K A S I T E F A E A F Q A G I E S A F K A K P V
UniRef90_C8NGP5        V I L S Q L F R G F S K A V V D V I T G E E L A Q A F T N G V E T A Y K A K P V
UniRef90_M8A3G6        A I F G T L F R S G S K A A I D A G G F A D F L E T G L D A V L K R G G V T E G
UniRef90_X6KTY4        P L Y G M F F S D M G K D R I D A P T F A A M L A A G A E G V M A I G E A K P G
UniRef90_UPI0004140646 P L Y A V G L L R A G T V L G E G G D W A A A F P A G V A A I G D L G G A R L G
UniRef90_G9P9L9        A L Y A I F Q S S S Q K I T V T P K I W A A A L Q A A L K S L A K Y T P A Q P G
UniRef90_W2D3A9        P L Y G S L F I G M A D E V I D A A T F A K L L R G G L T S L Q D I S D A G V G
UniRef90_Q1K7A2        A L Y G I F L N E S D K K A A D E N A W A A A L K L S C E A L S K Y T P A R P G
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UniRef90_W8U788        V I L S Q L L R G F A N E G K D S L N I F D F A Q A L N Q A A Q M A Y K A K P V
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UniRef90_X4ZC36        V I L S Q L F R G F Y A A Q Y E E L N T Q Q F A A A L Q T G V D T A Y K A K P V
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UniRef90_U5L8U4        V I L S Q L F R G F S K A Q K S E I T A S E F A D A L N T G V E T A Y K A K P V
UniRef90_M5F185        P L Y A T A F R R A A Q A C L S P A D Q A A I V E A M T T G I K E R G K G Q R G
UniRef90_R6V1X4        A L Y G S G Y M C A G K A V L D V H G L Y E V Y D A M L Q E I M K R G K T E P G
UniRef90_A0A024UB64    V L Y T I F F T A A G A M M Q T L Q A W V E S F A A G A G A I V K Y G G A T E G
UniRef90_F2TZ16        A V Y S I F F A A A S C L N D R D V V R A A L T A G I D A V M K Y G G A Q Q G
UniRef90_A6WF74        P L F G L L F Q N L R T G L S G G S G V E A V L R S A A E A V Q R V G G A R P G
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UniRef90_R5UJR2        V I L S Q L F R G F C K V I K D E V D V S V L C D A F Q K A V E T A Y K A K P K
UniRef90_E2SIC2        A L Y G S G Y M C T G K D Y L D V H S L Y E M Y E A M L Q E I M K R G K T E P G
UniRef90_A0Q104        V I L S Q I F R G I A K E G K D E V D A V G F A K S L E E G A K A A Y K A R P T
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UniRef90_A0A059NX78    V I L S Q I F R G F S K A V E E K E V L T D F A E G L Q G G V T T A Y K A K P V
UniRef90_U5W4Q2        P L W G T A F L R A G A A A G S T E D L T A M L R A A I E G I K A R G Q S D V G
UniRef90_A0A015P0V2    V I L S Q L F R G F S R S V A G M E A V Q F A A A L Q L G V D T A Y K S K P V
UniRef90_R6XQC8        V I L S Q F F R G I Y K G F L D E V S T K E F S K A F I S G V E Q A Y H A K P V
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UniRef90_G6YM53        V L L S I F F T A A A Q A L E G D A S V S K A L L A G L D R M I F Y G G A R P G
UniRef90_W1QIU8        A I L Y I F L L L E S N E A P L P L V F A D A M D Y A I E N L C N F T K A R E G
UniRef90_R9N5U5        V I L S Q L F R G F T K S I K D V L D I P V F A D A F E K A V E T A Y K A K P K
UniRef90_N4WYZ5        V I L S Q L F R G F S K G V S E K Q Q L T D L A I A L D N G V Q T A Y K A K P V
UniRef90_UPI0003647519 V L F S I F F T A A G R D Y N Q H G N T V T A L K A G L A Q M M Q Y G G A K P G
UniRef90_G9PIG6        P L L G T A F R S S D A S A W G A E N L V R A L E E A T S G L E A R G H A T S G
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UniRef90_M7NK03        V I L S Q L F R G F G K A I E D A L D A K E F A G A F Q A G V D T A Y K A K P V
UniRef90_G2XHZ8        A L Y E L F F T A F A A A T V S T E I W S Q A A G S A L E R L Q A M T P A R V G
UniRef90_UPI0004103C40 V I L S Q I F R G F S K E K K E A V T T I E L A K A F E S G V S T A Y N A K P V
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UniRef90_K0IYZ0           E G T I L T V A K D T A N A A E K I A E E T D D L V V F M E S K A S L D R T P E
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UniRef90_G6F1I8          R A S R L G E R S R G V L D A G A T S C C L L V T Q L A D S I
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UniRef90_W0L994          R A S R L G E R S R G V L D A G A V S C C L L L T Q L A E A I
UniRef90_R5UJR2          M L P V L   K Q A G V V D S G G Q G L V Q V L K G A Y D S L
UniRef90_E2SIC2          R A S Y R T D K G V G H L D P G A V T M A M Q L E S M
UniRef90_A0Q104          M L P A L K E   A K V V D S G G M G L F I L K G M Y N A L
UniRef90_UPI0004636AFB   R A A Y L S A R Q I G H P D P G A E A V A R L F E H L A T W L
UniRef90_UPI0003788375   R A S R L G D R A I G H I D P G A A S A V I I I A T M A K F
UniRef90_R7E8D2          M L P V L K E   A G V V D S G G Q G L M V V L E G A F D A
UniRef90_UPI0003C137A2   R S S Y L A E D L L G N V D P G A E A A A R L F E R L V E
UniRef90_N1JTE7          L L P K L K E   A G V V D S G A K G L A Y I L E G F V L A V
UniRef90_R6PC40          M L P Q L K E   A G V V D S G G Q G L I F I V E G G Y E N L
UniRef90_M0EF21          R A S Y L G W R S V G H Q D P G A T S A L F I L E E L L A V A A
UniRef90_E3LKB2          R A S Y T S S E S Q T K P D A G A T A I S L W L R A F W T A
UniRef90_M5GCF8          R A T Y V G D G T T G T P D P G A W G V A E L F K G I Q E G L
UniRef90_M2ND50          L L P V L K E   V G V V D S G G A G L L L V L T G L S A L A
UniRef90_A0A059NX78      L L P V L K E   V G V V D S G G Q G L V T I Y E G F L A N L
UniRef90_U5W4Q2          R A A Y T G E R S R G S V D A G A T A V A V I V E R I N E T
UniRef90_A0A015P0V2      M L P V L   K Q V G V V D S G G Q G L V C I Y E G F V Q F L S
UniRef90_R6XQC8          L L P V L Q D   A G V V D S G G Q G L V Y I L E G M Q K A L
UniRef90_UPI0001850D6D   L L P V L K E   V G V V D S G G Q G L L F V Y K G F L A E L
UniRef90_D5GGZ0          R S V Y V G E V G   D T P D P G A V G I A V L M E G L A E A V
UniRef90_UPI00031D704C   M L P V L   K Q V G V V D S G G Q G L V Y I Y E G F L S V L
UniRef90_G6YM53          R S A Y V G S Q L Y G V V D P G
UniRef90_W1QIU8          R A S Y V G I E D N E T P D P G A Y G V Y E I I A A L G E G L S
UniRef90_R9N5U5          M L P V L   K Q A G V V D S G G Q G L V Q V L K G A Y D A
UniRef90_N4WYZ5          L L P V L K E   V G V V D S G G Q G L V V I Y E G F L A A L
UniRef90_UPI0003647519   R S S Y L S S D S L G V K D P G A L A V E R V F A S F K E
UniRef90_G9PIG6          R A S F L G E R S C G H R D P G A Q S S A L I F Q A A L D A
UniRef90_U9T842          R S T Y I A N K E A Q V P D P G A W A A Y V I L N G I Y D H L S
UniRef90_M7NK03          L L P V L K E   V G V V D S G G Q G L V F V Y E G F L S A L
UniRef90_G2XHZ8          R A V Y V G E N W A K V P D P G A E G I V A I A E G I A K
UniRef90_UPI0004103C40   L L P V L K E   V G V V D S G G Q G L L T I Y E G F L A A L
UniRef90_C0W771          R A S F L G E R S R G H L D P G A C S T A L L I Q
UniRef90_UPI00046F66B5   R A R P L A E K S V G T P D P G A V S L A L I V K A V G N F I
UniRef90_W1FGK7          R S S Y V K E N L D G V M D P G A V A V A E V F K T M V D A
UniRef90_Q4ZTB8          R A S R L G E R S L G V L D A G A V S C C L I L T Q L A D S V
UniRef90_L0EES0          M L P I L   K Q V G V V D S G G Q G L V H L Y E G F A A Y L S
UniRef90_L7ZQH8          R A S R L G E R S R G V L D A G A V S C C L L L T R L A D E V
UniRef90_UPI00047C6910   L L K A L K E   A G V V D S G A K G L V L I Y E G M H A A L
UniRef90_A6FUE0          R A S Y I N A A Q L G H V D P G A E A V A R L F E Q L A
UniRef90_G3WE93          R A S Y I T S A K L V Q P D P G A V A A A A V L R A I L E T L
UniRef90_H3G972          R A G Y V G E E G A G I P D P G A K A A A F W I Q A I A D T L
UniRef90_U2YR05          R A S Y L G L R A V G H R D P G A T S T L F V L E E L L A T
UniRef90_D2EI78          L L P V L K E   V G V V D S G G Q G L V F D A F N D V L
UniRef90_UPI00041D05B5   L L P A L   K K A K V V D S G G M G L Y I I L S G M T A A L
UniRef90_K0IYZ0          L L P V L K E   V G V V D S G G Q G L V I I Y E A F V A S L
UniRef90_E8YQF2          R A S F L G E R A R G H I D P G A R S S Q L M I G A V C A R L A
UniRef90_K8B4A3          R S S Y V G R D N L G V E D P G A V A V A E V F K A M
UniRef90_UPI000262D0A6   R A T Y L A E Q L R G N K D P G A E A V A K L F E
UniRef90_U4VJK7          R A A R L G E R S L G H V D P G A A S A V I I L R S M R D
UniRef90_B1Z9Z1          R S S Y L A S G D L G H P D P G A V A V A T A F E A L A
UniRef90_Q0TPM2          M L P A L   K K A K V V D S G G M G L L I I L Q G M Q E A L
UniRef90_J3JCF3          L L P V L K E   V G V V D S G G Q G L V F I Y E G F L E G L S
UniRef90_R7RPA7          I L P A L   K Q A N V V D A G G M G L L I I Y K G M L N Y I
UniRef90_B0PG89          R A A Y Y G E R S V G V L D G G S V V G A L I F E A L R D
UniRef90_W4KKJ3          R A V Y V G E G D V R P P D P G A W G V A A V L E G L W Q G M C
UniRef90_W7CK99          Q L P V L K E   V G V V D S G G Q G L I I I Y E G F Y G V L
UniRef90_F5RNW6          R A A Y Y Q E K S V G R Q D P G A T A M M Y I V S G I A K A V
UniRef90_F4C699          R S A Y L S E A V L K V P D P G A E I V A R I F E R I A
UniRef90_R6R2F6          L L P V L K E   V G V V D S G G Q G L M Q I M K G A Y D A L
UniRef90_M2X4T8          R A T Y V G E H A R G V E D P G A S A I A M F F A A
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Multiple sequence alignment (positions 1–40)

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                          1         10        20        30      40
UniRef90_UPI00044095E1    L D P E L V K A G I R G A C R A V L V V E N D L T H F D T I V G D G D C G A T
UniRef90_C0BWT2           I N A Q Q A K E M L L Y V A D C I I E A K P M L T E V D S A I G D G D H G I G
UniRef90_G6C134               F L E I I E K I S D E I I K N E E Y L T E L D R E I G D G D H G V N
UniRef90_G8QX21           L T L E N F T Y L V D K L S A V A I E N E I P F C E L D S H A G D G D F G M S
UniRef90_B0K1Y0           L D G K T L K N M M I A S S N Y L F N N K V E V D R L N V P V P D G D T G S N
UniRef90_Q6D8V6                   L N A A R D I V L A N V T E L G R I D A I A G D G D H G I G
UniRef90_B1YIP1           L T G A Q L V K M I Q N G A A N L Y Q N A D F V D S L N V P V P D G D T G T N
UniRef90_A0A021XB70           L A R M F E R M S Q V I E A E K D H S E L D G A I G D G D H G I T
UniRef90_UPI00047E8FBB    V I D A A V V R K C F L S G A A A L Q A K K E Y I N E L N V P V P D G D T G T N
UniRef90_E3KZ09           D P A L F I K A V Q S A C Q A L I S A E P E I T K Y D T I A G D G D C G L T
UniRef90_UPI00037031A5    I N G T D F T G M A E A E K L S R Q A E H V N A L N V P V P D G D T G T N
UniRef90_L2GDU5           D A A S A T K T I T N A L N R I I A A E P E V T K Y D T I V G D G D C G I G
UniRef90_R5ZT70           L D G I L L K Q M I I S G S N N I F N S Y P D I D A L N V P V P D G D T G T N
UniRef90_S5JGG9           L D S E K F A A M I A L G A E N L A K N A D F V D S L N V P V P D G D T G T N
UniRef90_V1XEZ5               A E K V M C I L N A V A E K I I D S A C E L G R I D A I A G D G D H G I G
UniRef90_R5HLX6           I N A E L F A R M F L A G A N N L E A K K E W I N E L N V P V P D G D T G T N
UniRef90_M7TLC6           F D A T T L K T S L A S G L R A I I A A E P D V T R Y D T V V G D G D C G I G
UniRef90_G9PZG6               F V E M L G S A A S A I A A A K Y E L T E L D S Q I G D G D H G T T
UniRef90_Y1GKH7           D N E T T R H A L S V I C R T L I N A E S E L N A L D A L V G D G D T G S T
UniRef90_R9JGQ6           V I D A K M L A K M F L A G A K N L E H K K E W I N E L N V P V P D G D T G T N
UniRef90_J3DEH6           S A K R V L Q L L E S V A E M L Q R N A E R L G D I D A V A G D G D H G I G
UniRef90_R5NKA6           I I D G K T L Q K M F L A G A K N L E A K K E W I N E L N V P V P D G D T G T N
UniRef90_UPI000368B074            D I V L T L A D R I I E N R A Y L S E I D G K I G D G D H G V N
UniRef90_UPI00047D9D14    I D G H R F Y N M I V N A C N E L E S K K N F V N S L N V P V P D G D T G T N
UniRef90_U1GH87           L D P N L A S K V L T T G L E K M I A C E P D V T H Y D T I V G D G D C G I G
UniRef90_A9KNP0           L T S K D Y A D Y I R K T Y E L I Y S K G D Y I T A L D S A T G D G D H W T N
UniRef90_F5YET5               K P I L L K M V A A I Q K N K D Y L G E V D G L I G D G D H G M N
UniRef90_C0GHJ3           L V G S D L K Q M L I A G A R L L E N N K E I I N A M N T V P D G D T G T N
UniRef90_G2NDG0           F D G T L T R D W M H R F A D S V Y A T E A E L T A L D Q R V G D G D F G T N
UniRef90_UPI000376F720        A A T R A F L I N C C N V L I A A E Q D L N A L D A K S G D G D T G S T
UniRef90_N4X8S5           I N Y A Q A K S V L T T A L N R L I A A E P D V T K Y D T I V G D G D C G I G
UniRef90_B2TFH1           M N G K T V M A C I D A A Y A A L K E H T D E I A S L D Q Q I G D G D H I F N
UniRef90_Q1YEP1           I T T Q H L V A M F V A I A D A I E E H K D H L S E L D G V I G D A D H G V T
UniRef90_UPI000377E45D        L S D M L S D C C K T L I A S R T E L N A L D A K S G D G D T G S T
UniRef90_R7NBR9           I D A A L V Q K M F L A G A K N L E S K K E W I N D L N V P V P D G D T G T N
UniRef90_G6XSD9               G E R L R A A A E L V A G A L I A A E P K L T Q L D S V T G D G D L G T S
UniRef90_UPI000427375E        A T L R R A I E S V C A C L L E A E P I T E M D Q R V G D G D L G I S
UniRef90_UPI00026259D4        V L D G L R A V R K A L R E A E S E L G A I D A V A G D G D H G R G
UniRef90_W1ND28           E S V R L L I D A S C S I L I E A E A E L N T L D A K S G D G D T G S T
UniRef90_U7HG21           L N A T Q M T E L L R I V S M R I D E A S A E L G A L D G A I G D A D H G N T
UniRef90_F7YXH3           V N G K F F K L A F Q K A T E I L A A H V D E L N A L N V P V P D G D T G S N
UniRef90_M1K0G4           L D G R A F A A M I L A G A E T L S Q N A S A V D A L N V P V P D G D T G T N
UniRef90_M4BJW5           D G R L L E K C I V A V C D T L I E H E P E L T R W D T K V G D G D C G S T
UniRef90_K9FQW5           L V D P T I L Q T A L N S G L K R V I K A E A E V T R Y D T I V G D G D C G I G
UniRef90_UPI00047EA892    D L A D V E F V V H S L A S T A V E K E K E F G D L D A V V G D G D L G Y S
UniRef90_C2CFB7           I I D A N K L Q Q M I I G A Y E Y L D E N K D H V N E L N V P V P D G D T G T N
UniRef90_UPI0003B4EB22        A A A V T E A L S A V K E I I A D N A D E L G R L D A I A G D G D H G I G
UniRef90_K6RIH8           M I K N S E G I E I P L Y I I T E I K K N E G Y L G Q L D S L G D G D H G I N
UniRef90_B5YMX3           A T V A R E I I S K C C D D L I N A E S L L T K Y D T I V G D G D C G L T
UniRef90_A8I259           T V E R V L G A V C A H L A A Q E A E L N R L D A R I G D G D T G T T
UniRef90_UPI0002F030F2                                L T A L D S R A G D G D L G I S
UniRef90_H9K7H3               L K N C L K N A C D N A I K E E E H L N D L D R G C G D S D A G S T
UniRef90_R7YHE0           V E L F H K A L R N A C S K V I A A E P T I T E Y D T Q V G D G D C G T T
UniRef90_S7PT04               V K R G I E K A C E Q V L A V E A D M T R F D T I V G D G D C G E T
UniRef90_F9F616           M D P S L L E R C I R S A C E K A I L A E P K L T E W D M M M G D G D C G E A
UniRef90_R6V2G6           V D A K M L G R M F L A G A K N L E A K K E W I N E L N V P V P D G D T G T N
UniRef90_G0SFA4               A L M Q Q M L T R A L E S V I A I E P E V T K F D T V V G D G D C G I G
UniRef90_K2Q820               T R Q F L T E C C K L L I E A E K D L N A L D A K S G D G D T G S T
UniRef90_UPI000405562E    V I G T T D L K T M F D A I A V S I E A D R D R L C Q L D G V I G D A D H G I A
UniRef90_Q986N4           I D T A D L K R M F D T I A V A I E A D K D R L C Q L D G V I G D A D H G I A
UniRef90_UPI0004649144    I D G K K L R E M F V S G A N N L Q N H K D L V D K L N V P V P D G D T G T N
UniRef90_D7CLT5           M N G Q D L A N M L K A G C A N L E L H K E K V N A L N A M N V P V P D G D T G T N
UniRef90_B7IFW1           I T A K E L K Y L F M K G A E N L L H K D E V I N A L N V P V P D G D T G S N
UniRef90_N1ZFQ8
UniRef90_UPI0004681A0A        A N M V A A T M A A I A R V I D A N A D L G R I D A I A G D G D H G I G
UniRef90_M5WFC0                   A I E A A H A V K K L R D N L N E W D S K V G D G D C G S T
UniRef90_R6KPU5           I D A S V L S R M F L A G A K N L E A K K E W I N E L N V P V P D G D T G T N
UniRef90_UPI00037622A5           A V V T A I I E A V C A N R D Y L S Q I D A A L G D G D H G I N
UniRef90_UPI00017443DA            M L T L V A D R I I A A E P V L S E A D R N L G D G D H G L G
UniRef90_UPI000255D0BA        V Q S V I E L F A R I C A E Q E E L G R I D A I A G D G D H G Q G
UniRef90_N1WYY0           T N E R F D R V L D A I V E E I I S A E K V N A I D E K V G D G D A G S T
UniRef90_A0A026WU04           M K L C L K N A C T A I I E K E G Y L N E L D R G C G D G D C G S T
UniRef90_UPI0004449E0F    N P K E F E A A V E R A C Q R V N K D E P E I T R M D N I A G D G D C G L T
UniRef90_UPI00046736C4        L A H M A A I E A I E A D R D R L S E L D G A I G D G D H G T T
UniRef90_F7XZ64               T R R V I V T V C E R L I S L E A T L N G L D A K A G D G D T G S T
UniRef90_V2Y1I7           L D A S M L K K A F L A G A A R L E S Q K E R I N E L N V P V P D G D T G T N
UniRef90_M2XUI3               D F G R R F V Q G V V Q R L L G E N A E A L G E L D R R A G D G D F G T S
UniRef90_G0RTZ6           I D P T L L E K M L R N A C E A L V A A E P D L T K W D T V M G D G D C G E T
UniRef90_X1UI79           M V T R E Q I V K W L Q A V G D A M A A N K E I T Q L D A A I G D G D Y G I S
UniRef90_L7BTS0           D N P T V A A F V D S I C S T L I A S E S E L N K L D A Q V G D G D T G S T
UniRef90_M2WB13               V Q A A T V R I E Q L L R D N E Q R L G E I D A V A G D G D H G R G
UniRef90_UPI0003F866BA    I D G K A F A D M V L Y G A H H L S Q N A S V V D A L N V P V P D G D T G T N
UniRef90_R7B1H9           I D A K L Q K M F L S G A G N L K A K K E W I N E L N V P V P D G D T G T N
UniRef90_N6UV51               D R V R A V V E T I I A A C I S M E G A I N A L D A K V G D G D T G S T
UniRef90_L9X4S0           A E A I R E A T A A M A D R M A A E K S V L T D L D S A I G D A D H G A N
UniRef90_R5VQV6           L N M D D L K W M F I S G A N N L S N N Y K E V D A L N V P I P D G D T G T N
UniRef90_UPI00035FA5C4    I E G Q K L A L F I E G A A N H L S R H V V D S L N V P V P D G D T G T N
UniRef90_A0A037Z4U8       I I D G Q C F Y N M A I N A S N K L E Q E K E Y V N A L N V P V P D G D T G T N
UniRef90_A8TSW3               R A L I E N C C R V F I D A E D D L N A L D L K S G D G D T G S T
UniRef90_C7MW80           A T R I V A A L E T L R E T A E A N E E N F G K L D A V A G D G D H G Q G
UniRef90_C7ZAF0           D A D I L E K M L R S A C D A I I Q A E P H L T K W D T V M G D G D C G E T
UniRef90_G2BMK6
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                                                    50              60              70              80
UniRef90_UPI00044095E1   F S S G A R A V M R A L E T G E L D V P S D L M A A L S E L L L N S M G G T S G
UniRef90_C0BWT2          M A G G K K A K D K L L K M E E P A D V Y A V F T A A G K A M L M S M G G A S G
UniRef90_G6C134          L A R G F T E I K N Q L N N F K D L P V S D V F T K M G M I L L T K V G G A S G
UniRef90_G8QX21          I A K G F K Q L K R E W K T E K S G T I S E F L D E C S I V I M E Y C G G A S G
UniRef90_B0K1Y0          M A Y T M Q Y A A K E L E K S Q D T I R E V L D A I S K G T L M A K G N S G
UniRef90_Q6D8V6          M E R G V I A A A D K A T E M L E R Q A G T L L Q R A A D A W A D Q A G G T S G
UniRef90_B1YIP1          M N L T M T S G S K E A A K T T T D S V S E V A T V F A R G L L M G A R G N S G
UniRef90_A0A021XB70      M S I G F K A V T T A L A I L D T A S P S D V I S T T A T S F L D A V G A S T G
UniRef90_UPI00047E8FBB   M T M T I M S S V Q S V K S I E E V K M Y D I C K A I S G G A L R G A R G N S G
UniRef90_E3KZ09          L K S G A E G I L A A I E K I K G T N L I S D L L Q I S E V V N R D M G G T S G
UniRef90_UPI00037031A5   M N L T M T A G V T E L R E R S S A S M G Q A A T V L S K G L L M G A R G N S G
UniRef90_L2GDU5          L K R G A E A I L K H I S E K P L T G D A V D L A S A V P V V E N T M D G T S G
UniRef90_R5ZT70          M N L T M S S G A K E V S T T D D S N I Y N V A K A F S R G L L L G A R G N S G
UniRef90_S5JGG9          M N L S M T S G A E E V A K N D K E T I S A V G A N L A K G L L M G A R G N S G
UniRef90_V1XEZ5          M G V R A A R R A A E K A L R Q G A G V G A L L Q C A A D A W A D E A G G T S G
UniRef90_R5HLX6          M S M T I M S A A K E V A A I E N P T M A S L A K A I S S G S L R G A R G N S G
UniRef90_M7TLC6          L K R G A E A V L K H L E D K A L T G D A V D V A Q I L P V V E T S M D G T S G
UniRef90_G9PZG6          M V K V M E K V R E T A E S Y G G G D F K G M L S A V G M A V L N M G G G A T V
UniRef90_Y1GKH7          F A G G A R R V L S A L E Q L P L D K P D D L M I A V G E H L A T A M G G S S G
UniRef90_R9JGQ6          M S M T I L S A A K E V A A I A E P D M I S L S K A I S S G S L R G A R G N S G
UniRef90_J3DEH6          M E R G V L G A V E K A R D A R G A G A G S L L C R A A D A W A D K A G G T S G
UniRef90_R5NKA6          M T L T I M S A A K E V S G I D N P T M E T L A K A I S S G S L R G A R G N S G
UniRef90_UPI000368B074   M A K G F G L A A E R L K G K D A S L A E A L D T L G T V L M T E I G G S M G
UniRef90_UPI00047D9D14   M S M T F R G A I S E I S G M Q D K S V G E I S K K L S K G A L M S A R G N S G
UniRef90_U1GH87          L K R G A E A V V S E L K K G D L S T D A V A F N K I V S V V E N S M D G T S G
UniRef90_A9KNP0          I N M G F E K L V E V A E E L E Q K S V F E E F M Q I G T I M M S V I G G S S G
UniRef90_F5YET5          M N K G F S M F A A Q I A D K D I G F A D G L D E L G T L L F S K I G G S M G
UniRef90_C0GHJ3          M S L T M R S A L N E V Q K A S D D S F S A V A K A L S T G S L L G A R G N S G
UniRef90_G2NDG0          L T A G V R A A G H L L D A G G A E G P S E T L G C M A T A F L D E I G G T S G
UniRef90_UPI000376F720   L A G A A R A L I S A I D R L P L S D H T Q L L R A I G Q E L S Q T M G G S S G
UniRef90_N4X8S5          L K R G A E A I L K M L E T A K E T D D L L I L N N I I Q V V E L A M D G T S G
UniRef90_B2TFH1          L L R G M E A L L A V R A E I E A E A F G P A L D I A A S K V L S T V G G S S G
UniRef90_Q1YEP1          M G I G F T A V R E A L G Q L D E N E P A I V F N T A A K T F L N A V G A S S G
UniRef90_UPI000377E45D   V A K A A E T L L A A S E Q L P F A E P S Q L Y Q A L A Q I L G Q A M G G S S G
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UniRef90_U7HG21          M A R G F A A V V T A C A A N Q D V K A G A L L P I A G R S F L N A V G A T T G
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UniRef90_S7PT04          F A A G A R A V T R A M E E G S S L D P P Q L S R K L G E I L E E N M G G T I G
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UniRef90_B7IFW1          M S S T L L E G C K Y L E S V E D E R A D K I I E A I R N G T L M G A R G N S G
UniRef90_N1ZFQ8          K T I A M A L I S T V G G A S G
UniRef90_UPI0004681A0A   M R R G S I A A S E A A A V A E G A G A G S T L T A A A H A W S D R A G G T S G
UniRef90_M5WFC0          M Y R G A A A V L E D M Q N Y P L N D A T E T V N E I A S S V R R V M G G T S G
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UniRef90_UPI0004449E0F   L Q T G A N A V L E E L K S G K G E D V A G L A L A V S N V A A E K M G G T S G
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UniRef90_M2XUI3          V R A A L S Q L D R E T E Q E Q P S T Y R Q W L S A L Y R G W L A V G G T S G
UniRef90_G0RTZ6          L R T G A T S L L T A L D S A K S G S V V R V L L E L E D I V E S K M G G T L G
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UniRef90_C7ZAF0          L K T G A T S L L T A L D K A K S G S V V E L E D I V E S K M G G T L G
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UniRef90_B0K1Y0         V I L S Q I F R G F S K K K I T P C D F A E G L K A G V E   V A Y K A V M R P V
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UniRef90_C0GHJ3         V I L S Q L F R G F G E K I V P K D F A A A L Q A G V D T A Y K A   V M K P V
UniRef90_G2NDG0         P L F G L L F R S A S G N G L T S D G L A E G V E Q G L A A I R R V G D A A P G
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UniRef90_B2TFH1         P L F F S L L N G M A K A S M D V A G F A H I F A A G V E A V G G R G K T G V G
UniRef90_Q1YEP1         P L Y A T A F M R K G K P E L D R D A M V E A F C A M A K G I Q D R G K A E R G
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UniRef90_G6XSD9         P F Y A T G L M R A S R E K P T A Q Q M A E A F V A A V A A V S E L G G A R P G
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UniRef90_M1K0G4         V I L S Q L F R G F T K S Q I D A Q E F A A A L Q A G V D   M A Y K A V M K P V
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UniRef90_M2XUI3         P L F G V F F R E L A K A T P Q V E E L V E A L A A A G Q A I V Q R Y G E A E V G
UniRef90_G0RTZ6         G I L G I F F V S L R A A V E K N I G L A Q A L A T A L E S L R R Y T P A K V G
UniRef90_X1UI79         P L Y G T L F I R S G K H E L N T T E M A V V L K A G L L G L I E R G K A Q V G
UniRef90_L7BTS0         V L M A I F F T A A A Q Q L A E G G A L P A A L L Q G L D K M K Q Y G G A Q P G
UniRef90_M2WB13         V L W G A A L E S A G R E I D D A A D V R R A V R S F A E S I Q Q L G G A H R G
UniRef90_UPI0003F866BA  V I L S Q L F R G F G K E Q K S E I D A K E F A A A F Q A G V D T A Y K A K P V
UniRef90_R7B1H9         V I L S Q L F R G F T K E I V E A I D V N V L A S A F E R A V E T A Y K A K P K
UniRef90_N6UV51         V L F A I M M A R S A D A C R H S Q D W V S A L A E G L D A M Q Q Y G G A K L G
UniRef90_L9X4S0         P L Y G G S L M K A S E E G V T A E S S V A F A E R Y L E T V E E R G K A S V G
UniRef90_R5VQV6         V I L S Q I F K G F G D A I K E K Q K L A D F A L A F Q S G K E K A Y K A K P V
UniRef90_UPI00035FA5C4  V I L S Q I F R G F S K S V E G K K E I S A T M F A A K E G V D T A Y K A K P K
UniRef90_A0A037Z4U8     V I L S Q I F R G I A K G L E D Q V N A Q E F G N S I V E G A K S A Y K A R P T
UniRef90_A8TSW3         V L L A I F F A A A G D A S G N G E D T I G A L S S A L K R V Q E V G G A K I G
UniRef90_C7MW80         A L W G A A L T F D D Q E T A D G A R V V A A L A A L E A A V D A V Q R L G G A E V G
UniRef90_C7ZAF0         G I L G I F F V H M A R S Q G P I A L W S E A L S L A L E N L S R Y T P A K V G
UniRef90_G2BMK6         P L F G T F F I R A A Q A T L T L E E L Y Q M F R D G V D G V I S R G K A E P G
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                                    130             140              150            160
UniRef90_UPI00044095E1  D R T I V D S L A P F C S A L T A G E S A V N R A K E G A E S T R G M R A K L G
UniRef90_C0BWT2         D K T M V D A F S P A V D A M L A H A E A Q E S A L K G V E S T K N F E A K F G
UniRef90_G6C134         E K T M L D T I I P T Y N
UniRef90_G8QX21         D K T L I D A L A P C A D S W S E N A S K G L S L K E C A K A T E S I V A R M G
UniRef90_B0K1Y0         E G T I L T V C R E T A E E A E K I C K Q I E N F E E F F A A E K S L Q N T P N
UniRef90_Q6D8V6         D K T L V D A L I P F S L A L T Q R V E T G M S L P E A W D D T A Q L L P K I G
UniRef90_B1YIP1         E G T I L T V A R E T A V A A I A Q S E T T T D L L E L M A S K V S L E G T P D
UniRef90_A0A021XB70     D K T M L D V W L P A A E A T A A V A E G K S K H E F W S A T A T M V A A K G
UniRef90_UPI00047E8FBB  E G T I L T V A K S G A E K A R E I E D E H D D I I P F M E E V I E E M R T P E
UniRef90_E3KZ09         S R T L I D P L S A F V L T F T E F D K A I E A A K E S A E N T I Y L D A K A G
UniRef90_UPI00037031A5  E G T I L T V A R E A A Y A R R T T D V V E L M R E V L A R A Q Y A L D R T P E
UniRef90_L2GDU5         D R T L V D A L Y P F V E T L G E T G D A A E A A R A G A E K T K G M K A S L G
UniRef90_R5ZT70         E G T M L T V E R E A A M V L Y E K A E R G M P I D E A I E A E A S L K R T P N
UniRef90_S5JGG9         E G T I L T V A R E A A K A G V A A A N E H Q D I E L V M E A I V A L E K T P D
UniRef90_V1XEZ5         D K T L V D V L H P F S Q A L L E A A E T H T V A K L S A E N T A Q L V P K I G
UniRef90_R5HLX6         E G T I L T V A K A A E L G E E T D D L A Y F C E E I I K E G D H V L S K T P D
UniRef90_M7TLC6         D R T L V D A L Y P F V E E L G K T G D I N K A A E A A A L G T K G M K A S L G
UniRef90_G9PZG6         A K T M V D A L T P A V A A F A D L E A A R L A A H E G C M K T K D Y V A H F G
UniRef90_Y1GKH7         D R T M V D A L S P A F T C I I Q L S E I A R A A H T G A E S T C S M K A N A G
UniRef90_R9JGQ6         E G T I L T V A K G A A R R A T D L A M A G E K D L E V K E A E I V L A Q T P D
UniRef90_J3DEH6         D K T M V D V L V P F S D S L N E A V A A G A S L T D A W Q D T A Q L V P K M G
UniRef90_R5NKA6         E G T I L T V A K G M A E K A K E V V L E T D D L E Y M I D E I I K H S Q T P E
UniRef90_UPI000368B074  D K T L L D T L V P A V D A F D A A T A D G R P F A E A L D A
UniRef90_UPI00047D9D14  E G T I L T I I K A A G E S A S R S M E S D I D M E Q V C S Y S E E V K K T P E
UniRef90_U1GH87         D R T L M D V L I P F V K T L G E S G D A A E A A K G A E E T K G M K A S L G
UniRef90_A9KNP0         W K T M I D C L A P A V E C Y Q A C I A Q K Q A A I D G A E S T R D M E A V R G
UniRef90_F5YET5         D K T L I D T L A P A N E A L Q Q A V K E G K D L A E A L N A M K D L A A K F G
UniRef90_C0GHJ3         E G T M L T I A R E S A K A A A T S A G T Q V L M D V V Q H A E A V L E K T P E
UniRef90_G2NDG0         D K T L V D A L T P A A A D R A L S L A A A A W Q G V H D T A G L S A R M G
UniRef90_UPI000376F720  D R T M V D A L S P A L V A L D E L A A A A A A R K G A N F T A T T R A K A G
UniRef90_N4X8S5         D R T L M D A L Y P F I E M L S K T E D A A A A A Q G G A Q G T K G M K A S L G
UniRef90_B2TFH1         S K T M M D V L I P V A K R F E E L A A E P Q I A E E N M L A T R D M L A T K G
UniRef90_Q1YEP1         D K T M V D A W L P A A E A I G E A A E R G D D L E A K A M R A S K G
UniRef90_UPI000377E45D  D R T M I D A L E P A L D S L I Y G E D A A V A A R K G A N H T S T M K A G A G
UniRef90_R7NBR9         E G T I L T V A K G V S D K A A E V A G N V T D L E E A L S A E E V L A K T P E
UniRef90_G6XSD9         D R T M I D A L H P A A E T F R D K L A G G A S A A E A W R S A V S M K P R L G
UniRef90_UPI000427375E  D R T M V D A L K P A A D A L H A A L A K A D A A A E G A A Q T A S M H P R R G
UniRef90_UPI00026259D4  D K T L V D A L V P F R E A S G T W A Q A A A A A E D A A R A T A D L V P R R G
UniRef90_W1ND28         D R T M I D A L A P A L E D Q G M T H A A A A A R Q G A N A T A S M T H A R A G
UniRef90_U7HG21         D K T M L D A W G P A A R A V T E A Q A A L E A A S E G R E A T R A M V A S V G
UniRef90_F7YXH3         E G T M L T V L R K S S Q A Q N F E K I S D V L Q W A V E V A E N T V K E T P R
UniRef90_M1K0G4         E G T I L T V A K D A A K K A V A S A K E E T D I I S V M E A V I E E A R T P D
UniRef90_M4BJW5         C R T M L D A L I P S L Q A L D S C T L E S G T M L A I A A A L I S T T K A F G
UniRef90_K9FQW5         D R T L I D A L G P F V D T L L E T G D A A A A A R K G T E S T K A M K A S L G
UniRef90_UPI00047EA892  D K T L L L D A L P A T D E L E R Q L A A G A S P E E C R A A F A A K E A K R G
UniRef90_C2CFB7         E G T I L T V A R M M A E K A A E A Y K E D Y L M E I I A A G Q K A L D S T P K
UniRef90_UPI0003B4EB22  D K T M V D S L V P F A D T L A E R V S S G E S L T D A W D G T T A M M P K L G
UniRef90_K6RIH8         D K S L L D S L V P A A A A F S E S I Q V D Q D F E K G L R A M A E A K A N I G
UniRef90_B5YMX3         S R T M L D A L F P A S V A L L G I D E S A V D V E G A A K A A R M D H A D A G
UniRef90_A8I259         A R T L V D A L E P A L G S D G I A A A A R A A R A G A D A T A G M A K A R A G
UniRef90_UPI0002F030F2  D R T M L D A L H P A A E A F Q A E L E A G R P A P E G A E R T A R M R P R L G
UniRef90_H9K7H3         D R S L I D P L N A L C N T F D R C D A L R T S T S Q A C E A T K H M K P M V G
UniRef90_R7YHE0         D R T L M D A L T P F V E T L A K T G D A A A A A R L G A N R T M G M Q A K L G
UniRef90_S7PT04         D R T V I D A L H P F C S T T Q S L G D A V S A A K E G A E S T R G M K A R L G
UniRef90_F9F616         D R T V M D V L L P F S D E F I R T K A G V V K A K E K A E A T R Y L K P K L G
UniRef90_R6V2G6         E G T I L T V A K G A A A K A D E L A E E A E D L N T F F E A Q E V L S Q T P E
UniRef90_G0SFA4         D R T L V D A L Y P F V E T L A H T G D A A T A A Q E G A A R T R G M R A S L G
UniRef90_K2Q820         D R T M I D A L S P A L D A Y D K G F A A A A S A A R A G A N L T A T K A R A G
UniRef90_UPI000405562E  E K T M V D A W Q P A A E A A A A A H A A L A A A E R G A E A T K E M I A A K G
UniRef90_Q986N4         E K T M V D A W Q P A A T L A E S L G A A L A A A E S G A E A T K E M I A A K G
UniRef90_UPI0004649144  E G T I L T V V R E S G D Y A V K L A A R E K D I V R F M E S N A S L K R T P D
UniRef90_D7CLT5         E G T I L T F V K E I A R A A V T A A G S G L D I I G T L Q A R K T L A K T P Q
UniRef90_B7IFW1         E G T I L T A I R E N V D Y L I D S S D F K E F F E K V L E V D K A V K D T P S
UniRef90_N1ZFQ8         D K T M V D V W A K L V P D V K D G S L T E D K I H E A V A A T K N M V A K K G
UniRef90_UPI0004681A0A  D K T M V D A L V P F T E E L N A R V E A G D E L A Q A W R A T A E L T P R K G
UniRef90_M5WFC0         Y R T L L D A L I P A S A V L Q E R L K A G D A A L A G A E S T K H M Q A Q A G
UniRef90_R6KPU5         E G T I L T V A R E A L K A A E I A P E A E E L L E V F A H A E A T L A K T P E
UniRef90_UPI00037622A5  D K T L I D V L D P A V K A Y E E A A H M L A A A K E G L E G T K A M A A K V G
UniRef90_UPI00017443DA  D K T L V D S L E P A A V K A Q E V A G A E T A A L G G L E A S K A M V A K F G
UniRef90_UPI000255D0BA  D K T M I D A A V P F S G E L R K A L D A G T P L A D A A R D T A D M T A R L G
UniRef90_N1WYY0         Q R T M V D A M Q P A F E V L S E L E T A A Q K A R E G A N K T K D I T Q T F G
UniRef90_A0A026WU04     D R T M I D T M Y A T C I T Y E K L L N E D W A A W E G C D S T K N M K P K A G
UniRef90_UPI0004449E0F  S R T V V D P L S A F I E A F Q D L K A A V K K A A E A A E K T K D I E A K A G
UniRef90_UPI00046736C4  D K T M L D A W L P A A E A A Q A V A E N R A A T A G A N T T R S M I A T K G
UniRef90_F7XZ64         D R T M V D A L E P A L K A L D A E E A A A A R R G A E T T A A M A K A K A G
UniRef90_V2Y1I7         E G T I L T V A K A A E L D G T T N D I A K F A G E V I A H M E K V L D S T P E
UniRef90_M2XUI3         D K T M V D A L A P A V E A M R R S L H D G E P S Q H V L R S S A E S L A R R G
UniRef90_G0RTZ6         D R T V M D T L I P F A T V M C E S D N G V K A A Q D G A D A T K T M K P R L G
UniRef90_X1UI79         D K T M V D A L T P A V E A F E Q A A Q D G V D I T E A L
UniRef90_L7BTS0         D R T L V D A L Q P A I E A L V A G K E A S D A A N Q G S D A T A S M K A K A G
UniRef90_M2WB13         D K T L L D A L L P F V D A L C E E H A A A V T A Q E Q A E A T A E L R P K V G
UniRef90_UPI0003F866BA  E G T I L T V A K D A A K K A V L T A Q T E N D V T S V M E A V V S E A A T P E
UniRef90_R7B1H9         E G T I L T V A K G A A S K A S E L A D V S D N L G E V M R A E E V L A K T P D
UniRef90_N6UV51         D R T M I D A L S P A L A A L G R G E G M A P A A A A A R L G A D M T R A N A G
UniRef90_L9X4S0         D K T M V D A I T P A V H T Y K K L G K A V D A A E R G V A F T T P I R A K K G
UniRef90_R5VQV6         E G T M L T V I R E S S E A L L Q F L N E N K M D F M V K E A H K S L E N T P N
UniRef90_UPI00035FA5C4  E G T I L T V A K A A A V K S S K R N Q D L I L V M E A K A S L K R T P D
UniRef90_A0A037Z4U8     E G T I L T V I K S A G E A A A K S N F K N I T E L M E S E V T L N K T P E
UniRef90_A8TSW3         D R T M V D A L L D P A I D A T G G L R E A A V A A R K G A D A T A A I K A G A G
UniRef90_C7MW80         D K T M I D A L A A V P Y R A A L R E A F A G N G D V A A A A Q Q T A D I T A R L G
UniRef90_C7ZAF0         D R T V M D T L I P F A I A A V A D G G V E A A V Q G A E A T K T M K P R L G
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                                        170           180           190
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UniRef90_C0BWT2          R A K T Q G T   T I G F Q D A G A T S V W I I M K A M Y E Y V S
UniRef90_G6C134
UniRef90_G8QX21          R A G T V G T R S I G Y P D A G A Y G L G V L F T E I A K A L
UniRef90_B0K1Y0          L L P V L K E     A G V V D S G G M G F V Y V L K G M F E
UniRef90_Q6D8V6          R A R P L A E K S L G T P D A G A I S L A M I L D A V S A V L
UniRef90_B1YIP1          L L P V L K E     V G V V D S G G Q G L C I Y E G F L A T L
UniRef90_A0A021XB70      R A A H V R E R S L G H L D P G A V S A A A L I K A M S K T
UniRef90_UPI00047E8FBB   M L P V L K E     A G V V D S G G M G L L T V V E G A F D C L
UniRef90_E3KZ09          R A S Y V D R Q K L Q V P D A G A W G V W K L L E A I G Q V I
UniRef90_UPI00037031A5   Q L P V L     K Q V G V V D S G G Q G L V L Y E G F L D Y L
UniRef90_L2GDU5          R T V Y I G G S G F E V P D P G A W G L S C F F N G L A
UniRef90_R5ZT70          L L P V L K E     V G V V D S G G A G F C K V I E G F S K A L
UniRef90_S5JGG9          L L P V L K E K E V G V V D S G G Q G L I I I Y E G F Y G A L
UniRef90_V1XEZ5          R A R P L A E R S L G T P D A G A V S L A M V V M T V A E F M
UniRef90_R5HLX6          M L P V L     K Q A G V V D S G G Q G L M Q V L K G A F D A L
UniRef90_M7TLC6          R A V Y V G G T G Y E V P D P G A W G L A C F F L G L A
UniRef90_G9PZG6          R A K N L G E R A L G V P D P G A V S V S I I F K A F A K T A A
UniRef90_Y1GKH7          R S S Y L N S D N L G V K D P G A Y A V E L V F A E L S K Q F S
UniRef90_R9JGQ6          M L P V L     K Q A G V V D S G G Q G L V E V L K G A Y D A
UniRef90_J3DEH6          R A R P L A E K S M G T P D A G A I S L A L I V N T V G D L L
UniRef90_R5NKA6          M L P V L     K Q A G V V D S G G Q G L M Q V I K G A Y D A
UniRef90_UPI000368B074       L V L G E R S L G V L D A G A T S C A I I L R E L
UniRef90_UPI00047D9D14   M L P V L     K K A N V V D A G G A G L L I I L K G M T A A L
UniRef90_U1GH87          R A V Y V G G E S E K I P D P G A W G L K E F L E G L A G A
UniRef90_A9KNP0          R A T Y Q A N K G V G H L D P G A V T M S Y Q I A T L M D F V
UniRef90_F5YET5          R S S R L G E R S R G V L D A G A V S C C I I L G S M A D G I
UniRef90_C0GHJ3          M L P V L K E     A G V V D A G G K G L I H I Y E G F L L Y L
UniRef90_G2NDG0          R A S Y L G E R V T G I P D P G A V G V A L L F A S A A
UniRef90_UPI000376F720   R A A Y I N A K Q L G H V D P G A E A V A R L F E H L A N
UniRef90_N4X8S5          R T V Y V G E G F Q E V P D P G A H G L A E L L L G L S D G L
UniRef90_B2TFH1          R A S F L G E R S R G H I D P G A R S S Q I M I A S V C A R L A
UniRef90_Q1YEP1          R A A R L G D R S L G H I D P G A A S T A L I V G V M A T Q L
UniRef90_UPI000377E45D   R A S Y V S A D Q L G H V D P G A E A V A R V F E C L A E
UniRef90_R7NBR9          M L P V L K E     A G V V D S G G Q G L V V V L R G M L D A L
UniRef90_G6XSD9          R A S Y L G E R A V G H L D A G A V A V S I W L E A I R N
UniRef90_UPI000427375E   R S S Y V G D R A L G Y A D P G A H A V A L W L A A I R E A L A
UniRef90_UPI00026259D4   R A R P L A E R S V G T P D P G A V S L A L I A R T V S E Y L
UniRef90_W1ND28          R A S Y V S E A N V G H N D P G A E A V A R L L E Q L S K
UniRef90_U7HG21          R A A R L G E R S L G H V D P G A A S A V I I A A L R E G L A
UniRef90_F7YXH3          L L P V L     R E A G V V D A G A K G L Y Y I L Q G F L K V
UniRef90_M1K0G4          L L P V L K D     V G V V D S G G K G L L C V Y E G F L A A L
UniRef90_M4BJW5          R A G Y V G E D G V D I P D P G A K A A A M W I Q A V A D T V
UniRef90_K9FQW5          R S V Y V G E E W I G I P D P G A F G L S E F L T G L A E G I
UniRef90_UPI00047EA892   R A S Y S G E R S I G S P D A G A V A V A I I V E R I V
UniRef90_C2CFB7          L L P V L K E     A G V V D S G G Q G L I F L L R G A L N A L
UniRef90_UPI0003B4EB22   R A R A H G E K A V G V A D P G A V S L S L I A L T I H E V L
UniRef90_K6RIH8          R S V R L G D K T L G H L D A G A A S C N I I L N A L S K S V
UniRef90_B5YMX3          R S N Y L K E Q L I G T P D P G A V A V S L V L E A M S Q V L S
UniRef90_A8I259          R A A Y L S S Q D L G L P D P G A V A V A G I F E V V A
UniRef90_UPI0002F030F2   R A S Y L G E R A L G V P D A G A A A A V V W L R A L A A V
UniRef90_H9K7H3          R A S Y V K Q K Y L Q N V D A G A Y A V V T C V N A V T D V I
UniRef90_R7YHE0          R S V Y V E A S A Y D V P D P G A I G L A E L F E G L A Q A L
UniRef90_S7PT04          R A V Y V G E S A E G P P D P G A W G V A A I L E G L
UniRef90_F9F616          R A L Y V G E A S Q Q V P D P G A W A L Y E I L D G M A E G L
UniRef90_R6V2G6          M L P V L K E     A G V V D S G G Q G L L E V L K G A Y D
UniRef90_G0SFA4          R S V Y V G G S G F E V P D P G A W G L A R F F L G L A
UniRef90_K2Q820          R A A Y I N A Q Q L G H I D P G A E A V A R L F E F L A
UniRef90_UPI000405562E   R S S R L G E R S L G H M D P G A A S A V T V I A A M R N S L A
UniRef90_Q986N4          R S S R L G E R S L G H I D P G A A S A V T V I G A I R K S L S
UniRef90_UPI0004649144   L L P V L K D     A G V V D S G G K G L V C I Y E G M Y E T L
UniRef90_D7CLT5          M L P I L     R E A G V V D A G G A G L L E G A L N A W S
UniRef90_B7IFW1          M L K K L K E     A G V V D A G A K G L Y Y I A E G F Y K Y I
UniRef90_N1ZFQ8          R A S Y L G E R S K G H V D P G S E S S G Y L F E A M L E T
UniRef90_UPI0004681A0A   R A R T H G Q R A V G T P D A G A H S F A L I V S A V G G T L A
UniRef90_M5WFC0          R S S Y I G E K L A S V P D P G A M
UniRef90_R6KPU5          M L P V L K E     A G V V D S G G Q G L L E V L R G A I D
UniRef90_UPI00037622A5   R G S R L G D R A I G H Q D A G A T S C Y I I L E A M A E A
UniRef90_UPI00017443DA   R A K T L G E G A I G F P D A G A M S L T I I V G A M K E Y I A
UniRef90_UPI000255D0BA   R S R V L G D K S L G T P D P G A V S F S L L M Q A L G E H L A
UniRef90_N1WYY0          R S S Y L S E K D L G V L D P G A A R V F E R V V K A L
UniRef90_A0A026WU04      R A S Y I K Q R Y L T E V D A G
UniRef90_UPI0004449E0F   R S A Y V R L K S E Q V P D P G A W G V K S I L E A L A
UniRef90_UPI00046736C4   R A A R L R E R S L G H M D P G A A S A V I I L Q A M A
UniRef90_F7XZ64          R S A Y V G S Q L Q G V A D P G
UniRef90_V2Y1I7          M L P V L K E     A G V V D S G G A G L L E V L K G A Y D V L
UniRef90_M2XUI3          R A S Y V G E A S Q G V I D P G A A A M A L V L
UniRef90_G0RTZ6          R A T Y V G V S S E N K P D P G A W G A M V A I R G L R Q G L
UniRef90_X1UI79
UniRef90_L7BTS0          R S S Y L N S A N L G V S D P G
UniRef90_M2WB13          R A R P L A E K S V G T P D A G A T S M G L I L V S L G E T L
UniRef90_UPI0003F866BA   L L P V L K E     V G V V D S G G K G L L C Y E G F L A S L
UniRef90_R7B1H9          M L P V L K E     A G V V D S G G Q G L V E V L R G A
UniRef90_N6UV51          R S S Y L D A R S L G I A D P G A E A I A R L F E A L A
UniRef90_L9X4S0          R A S Y L G W R S V G H Q D P G A T S
UniRef90_R5VQV6          L L P V L K E     A N V I D S G G A G I L K I L E G F L A A L
UniRef90_UPI00035FA5C4   L L P V L K E     V G V V D S G G Q G L V Y I Y E G F L A I L
UniRef90_A0A037Z4U8      M L P V L     K Q A K V V D A G G A G L L I I L K G M E E V L
UniRef90_A8TSW3          R A S Y I A S A N L G H N D P G A E A V A R L F E H L A
UniRef90_C7MW80          R S R V L G A K S L G T P D P G A V S F S V L V D A L A T F L
UniRef90_C7ZAF0          R A T Y V G D S T E L P P D P G A W G A M V A I R G L Q S G L
UniRef90_G2BMK6          R A S Y L G E R S I G H Q D P G A T S V M F M M Q M L A
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Multiple sequence alignment (positions 1–40):

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                          1         10        20        30        40
UniRef90_H4GJU4           I T N L E F G Q M V Q A A A A K L N N Q A E F I N S L N V P V P D G D T G T N
UniRef90_R6MC86           L T V E D F K K M L R N A L T C I T E R A D E F S Q L D A V L G D G D H G T A
UniRef90_UPI0002625724    M K V L W L Q D Q L P K L A E H L E S S S E E L N G L D A K L G D G D L G V T
UniRef90_R5NQN2           V I D A Q L L Q K A F I A G A Y N L E R N K D Y I N E L N V P V P D G D T G S N
UniRef90_L0LVM0           I G T E E L K L L F V R I A E A M A R E K D R L C E L D G V I G D A D H G I A
UniRef90_I6A713           L T T A D M A R L F R E L A D A I A K A R D E L C R L D G V I G D A D H G I A
UniRef90_Q5FNU0           V A A V M D H L A R T L A E A E S D L G H I D A V V G D G D H G Q T
UniRef90_A3K4I4           A R M L K T C C R A L I E A E E D L N Y L D A R T G D G D T G T N
UniRef90_R5JW76           I D A A L L Q K A F L A G A Q S I E S K K D Y I N Q L N V P V P D G D T G T N
UniRef90_UPI000373DD3B    R V R D V V V E H E E E L G R L D A I A G D G D H G I G
UniRef90_G1WYR5           A N L L T K I S S L L T K I Q S E E P T I T K Y D T L V G D G D C G T T
UniRef90_G8QU73           M D N S I I R S F L E Q A A S I M V E N R D R L I D L D S V V G D G D L G L T
UniRef90_E3QTK3           M D P A T L K S M L R T A C L A V I E A E P D L T K W D M V M G D G D C G E T
UniRef90_R1AV63           I D S K L L R K M F I F A A K S L E K N K K T V D A L N V P V P D G D T G T N
UniRef90_U4KR89           L S G S L F K M V T N G A I N L K N N H Q E I N V P V P D G D T G T N
UniRef90_E1R6V0           A A V D A V L A S I S G I M S E N R E F L I K I D G V I G D G D L G I T
UniRef90_R6N8M6           M F N G E I L K N A I I S G A N N I S S Q K N Q I N D L N I P V P D G D T G T N
UniRef90_R5CE68           I D V Q L L R K M F L C G A Q N L E S N K A W I N E L N V P V P D G D T G T N
UniRef90_UPI00040BF120    V S G A A F V A L L R A G H A R L K E M R D S V N A L N V P V P D G D T G T N
UniRef90_C2EW91           I T N L E F G K M V Q A A A S K L S K N A E F I N S L N V P V P D G D T G T N
UniRef90_B5ZT47           R R L I A A L C E H L I S L E E D L N R L D A R V G D G D T G S T
UniRef90_J9JUF2           L K S I L K Q I G E D L L K N V D V L N K L D Q E I G D G D N G S T
UniRef90_A1UG44           T V A R I F E A L A A M L A D A E D E L G R I D A I A G D G D H G R G
UniRef90_K2GF31           L D G R T F A A M V L Q G S R Y L S K N A Q M I D A L N V P V P D G D T G T N
UniRef90_UPI00041ED777    L T G T G F A E L I R S G H A R L Q Q M V G V V N A L N V P V P D G D T G T N
UniRef90_R6V3N1           M D V K Y I K S L L N C F A E V M Q E N R E F L I E Q D S I V G D G D L G L T
UniRef90_A4CTL5           L L A R F R A V E E A L C Q R E E E L G A L D A V A G D G D H G L G
UniRef90_UPI00037F5E6C    D A T R Q V V G L I T A Q L I A L E Q E L N A L D A K V G D G D T G S T
UniRef90_C2KWS6           V L S A R D L Q K A F L A G A N Q L N A K K D L I N E L N V P V P D G D T G T N
UniRef90_K7SGI7           V S E I M S T L A S A L A T A E A E L G R I D A V A G D G D H G Q G
UniRef90_R5TPX4           I D A A L L S K M F L A G A K N L E A K K E W I N E L N V P V P D G D T G T N
UniRef90_B7C794           I N G V L F K Q M L S G M N N L S N H S A E I D A L N V P V P D G D T G T N
UniRef90_R7MKY4           M I T G C L L R D A F I S A A V T I A N K K R E V D E L N V P V P D G D T G T N
UniRef90_A8FD49           L D G R S F A K M I L A G A H H L S Q N A Q I V D A L N V P V P D G D T G T N
UniRef90_W9ZIB5           L D P K Q S H E V L K A G L D K M I A A E K D V T K F D T I V G D G D C G I G
UniRef90_Q67PP7           I D G K A L K Q M I L R A A A R L D A E K D A V N A L N V P V P D G D T G T N
UniRef90_UPI000249055C    I T N L E F G K M V Q A A S N R L Q Q N A E F I N S L N V P V P D G D T G T N
UniRef90_M9MEB9           D Q E L V K K A I L S A C A A T V E I E P T L T R Y D T I V G D G D C G E T
UniRef90_C5GL82           L D P S V L K K A L A G G L N R V I D A E P L V T K Y D T I V G D G D C G V G
UniRef90_UPI000376BAAA    I D G K R F R D M F V S G A N N L Q N H K D L V D K L N V P V P D G D T G T N
UniRef90_H2J3G6           L H A K D F Y I A F K K A A E T L I V K K D E I N A L N V P V P D G D T G S N
UniRef90_U4L5H4           M D I P V F I T T L K N G L K I I E A E P E L T R F D C L V G D G D C G T G
UniRef90_C0D801           L L S K P E I E K M F H K V A E I W Q E N K D Y L S E I D S R F G D G D H G V T
UniRef90_UPI000377158A    I D G K R L S Q M I I Q G A N N L T N N V Q L V D A L N V P V P D G D T G T N
UniRef90_N1JVX2           I S A A K I S E I L Y G A C N S L E K N Y D E F R A L D A A I G D G D L G I T
UniRef90_B2B356           I D P V L L E R M L R R A C N D L I K S E P D L T R W D T I M G D G D C G L T
UniRef90_UPI00040FCA2A    T V V E V L E A V R A A I E A A E D E L G R I D A V A G D G D H G R G
UniRef90_UPI00046463BB    T Q E L L I R C C K A L I G A E A D L N A L D A R A G D G D T G S T
UniRef90_UPI0004417C15    F V T T L E K I C H A L I A A E P E I T R M D T I A G D G D C G T T
UniRef90_Q0AYX3           I D G S D L I R A V K S G C I K L E H E R D R V D A L N V P V P D G D T G T N
UniRef90_R5IWC1           I N A G M V K N A F L A G A K G L A A K K E W I N E L N V P V P D G D T G T N
UniRef90_J5GTL8           I N A Q T L K H M F L G G A N N L I N N K D Y V D K L N V P V P D G D T G T N
UniRef90_V7HVZ1           I T E K E F R Q M V S V S S R K L S R N A E F I N S L N V P V P D G D T G T N
UniRef90_C0BWD3           L A R M F L A G A Q N I E A K K E Y I N E L N V P V P D G D T G T N
UniRef90_R5UA72           I N A E L L A K M F L A G A A N L E A K K E F I N E L N V P V P D G D T G T N
UniRef90_K6WUY2           A A Q V V L G F E A V H D A I V D A E E E L G R I D A V A G D G D H G R G
UniRef90_D8K3R5           M N G Y E L R D M L S A A V A W L E K S V L D I N A L N V P V P D G D G D C G T N
UniRef90_C6LER9           M F L A G A S N L E A N K E W I N E L N V P V P D G D T G T N
UniRef90_UPI00035E4529    A A T A V D A L K E A R A V V V E H E D A L G K L D A I A G D G D H G I G
UniRef90_J7LUJ0           A A Q C L R A V D T T T A L L R D S E S L L G D M D A I A G D G D H G R G
UniRef90_M4G566           E R V I S V E P E V T K Y D T V V G D G D C G I G
UniRef90_B9MRL9           L T A D V L K D M L K A A N N Y L K L H I D K I N S L N V P V P D G D T G T N
UniRef90_T2S186           T A A T V V R A L H S V A D A L R D A E D E L G R L D A I A G D G D H G R G
UniRef90_K3XBR4           L E K A I Q A A C N E L I K R E P E L T L W D S K V G D G D C G T T
UniRef90_U4KKC5           V S G N L F K K M V T N G A I H L K N N H K E V D H L N V P V P D G D T G T N
UniRef90_V4J8C7           E A T K E F I S A C C R V L L A A E T D L N T L D A K S G D G D T G S T
UniRef90_K2F336           I N A D L L S K M L K Q G T Y E L N K N K D L V D A L N V P V P D G D T G T N
UniRef90_UPI0004086F4E    I D A K M L S K M F L T G A K N L E A K K E W I N E L N V P V P D G D T G T N
UniRef90_X7FD36           L G P A E F R A M M H A G A E A I F A E R D H L C A L D G A I G D G D H G I T
UniRef90_M8EFY1           L D G V L F R M V Y L G A R L L S N A K V V D G L N V P V P D G D T G T N
UniRef90_M9RRA3           A A T K A F L T T C C E I L I A S E A D L N V L D A K S G D G D T G S T
UniRef90_U5FA99           M I N G K L L K D M L A S G A N N L S N K F T E I N V P V P D G D T G T N
UniRef90_G7WG29           V L N G Q L W K Q M M V S G A K A L E I K K H D V D A L N V P V P D G D T G T N
UniRef90_UPI00035CAD9F    L I E V F E A L S T A I E A E R D H L S E L D G A I G D A D H G I T
UniRef90_G2XGP9           M V E P S R L E A M L R T A C E A L V A S E P D L T R W D T V M G D G D C G E T
UniRef90_G4D6F8           L N G E L M S R A I N G A V N Y L I I N K E E V N S L N V P V P D G D T G T N
UniRef90_R7Z5W1           V S T S D L K R A L Q K A C D A V I A A E P D I T K Y D I Q M G D G D C G E A
UniRef90_K5ULB2           D P K A F I D A I Q R A T D A L E P E L T R M D S I A G D G D C G L T
UniRef90_W5THE5           M T T L D S T V A R L R E V F L A A E P A L T T L D E I T G D G D F G V N
UniRef90_W6N251           I D G Q R F Y N M F V S A S N D L E E Q K G F V N S L N V P V P D G D T G T N
UniRef90_I6VZ93           N S E V A G Y V E R V T G T L S G L E A D L N A L D A K V G D G D T G S T
UniRef90_R6YCZ0           M I L G S Q L K N A I I S K Y K K Q I N E L N I P V P D G D T G T N
UniRef90_UPI000362AFC8    K N W I I N S Y N Q I Q T E Y V E L N K L D Q I V G D G D H G S T
UniRef90_A0A021X019       L L D A M V A A L T E A E A E L G R I D A F A G D G D H G Q G
UniRef90_UPI0003B737C5    I D S R M V A R M F L A G A K N L E A K K E W I N Q L N V P V P D G D T G T N
UniRef90_Q494P3           G Q V L E A A I Q A A A T V I I S L K D S L N E W D G K V G D G D C G S T
UniRef90_U7UBG0           I D G N L L K S A F V G A V N Y L L L N K D H V N A L N V P V P D G D T G T N
UniRef90_UPI00035F9670    I G D G D H G V N
UniRef90_R6AWQ3           I E G S L F R E M L L T G A A C L E K N K Q A I D A M N V P V P D G D T G T N
UniRef90_C0ZTR2           W I A D W A A K V L E Q E P A L T D L D R R A G D G D F G S N
UniRef90_R7L8D7           L N L E N L K K M F S A A T A E I S A R E N E L S A L D A V C G D G D H G S A
UniRef90_Q3ABX4           I N G I D Y A K M I I A A A A K N E R N K E K L N Q L N V P V P D G D T G T N
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                              50          60          70          80
UniRef90_H4GJU4        M S M S M A S G A K Y E R E S T S D Q V G D L A T A L A K G L L M G A R G N S G
UniRef90_R6MC86        I V Q A M S A I V E S A E K G T E F K     T M L N D M G F N V M L Q I S G S T S
UniRef90_UPI0002625724 M V R G S R Q   L M E I R E E L P D D W G M A L L K C A Q A F T K T S G S S Y G
UniRef90_R5NQN2        M S L T I M A A R E V S A L E N P S M D L S K K I S S G S L R G A R G N S G
UniRef90_L0LVM0        M E L G F A A A A K A V S E L D S S D P T L V F N T A A K S F L N A V G A S S G
UniRef90_I6A713        M E Q G F T A A S K A I A L S A E A T L A D Q L N A A A K A F L N A V G A S S G
UniRef90_Q5FNU0        M A R G S A A A K V A R A A A D A G A G P A L A S A A D A W A D R A G G T S G
UniRef90_A3K4I4        V A I A A R A L L E R L Q H L P L S D L T Q L F R A I S Q E L T Q T M G G S S G
UniRef90_R5JW76        M T L T I M S A A K E V G A I E T P T M D T L S K A I S S G S L R G A R G N S G
UniRef90_UPI000373DD3B M R R G V D A A V T A A E Q A A A D D P S R V L T A A G E A W S E R A G G T S G
UniRef90_G1WYR5        L L K G V T S I N D A F K N G D T T D L S T T F E S I A E I V E S S M G G T S G
UniRef90_G8QU73        M S D G F V A A F Q A I Q D S E E A D A G K M L Y F A G K A M S T A V P S T M G
UniRef90_E3QTK3        L K T G A S H L L E A L E H A S E G S I V S V L H E L E D I V E S K M G G T L G
UniRef90_R1AV63        M S L T M Q S A V K Q I K N L D S D D I A Q I A S A A S K G S L M G A R G N S G
UniRef90_U4KR89        M Q M T M M A G I K E V N N L N S K S I V D V S K I L S R G L L M G A R G N S G
UniRef90_E1R6V0        M D K A F S A A A E G V V S L D E P Q V P K A L I E A G K I M A K N A P S T M G
UniRef90_R6N8M6        M S M T I M A A A K A L A D Y D G D D A G E V A Q I T A S A M L R G A R G N S G
UniRef90_R5CE68        M G M T V S A V R E V L E V E D A D D M K K V C K A I S S G S L R G A R G N S G
UniRef90_UPI00040BF120 M E M T L A S G V A A L P D S M E A S L S E V T Q A L A T G L M M G A R G N S G
UniRef90_C2EW91        M T S S M A S G A K Y E R N A N S T K V G D L A A A L A K G L L M G A R G N S G
UniRef90_B5ZT47        V A T G A R S L L A R L D T L P L D R P A A T L A A I G D I L G T S M G G S S G
UniRef90_J9JUF2        I S R F A S D L L T N L N N L P L N Y P A S V L Y S L A F I C E D K M G G A S G
UniRef90_A1UG44        M V K G S A A A R A A A A E A V E Q G A G Q V L A A A G K E W A A K A G G T S G
UniRef90_K2GF31        M N L S M T S G Q E E V K S I T S D H T G E V S K A L A K G L L M G A R G N S G
UniRef90_UPI00041ED777 M E M S L A S G V A Q L E N S S D K K L C D I T Q A F A S G L L M G A R G N S G
UniRef90_R6V3N1        M S D G F Q A A A E A V R K S D E T D A G K L L Y M A G K A M S V A V P S T M G
UniRef90_A4CTL5        M V R G I R S A A A H A A L A K N C E T G E V L M E A G E A W S D H G G G A S G
UniRef90_UPI00037F5E6C F A A G A R R I E Q L A Q Q N Q L P D H A L A L V G E E L A T V M G G S S G
UniRef90_C2KWS6        M T M T I L S A A K E V A A V E V S G S L K E I C K A M S G G S L R G A R G N S G
UniRef90_K7SGI7        M A R G S A K V A A A K A A S F G A G A A T T L S T A A D A W A D R A G G T S G
UniRef90_R5TPX4        M S M T I I S A A K E V A A V E K P V M K D L A K A I S S G S L R G A R G N S G
UniRef90_B7C794        M H L T V S N G V K E A L K T N S D S V K D L A K T L S R G L L M G A R G N S G
UniRef90_R7MKY4        M S M T M A A V A E L K R L D D N V S A A E V T S V T A A L L R G A R G N S G
UniRef90_A8FD49        M N L S M T S G A K A V E E T N T D H I G K V G V A L S K G L L M G A R G N S G
UniRef90_W9ZIB5        L K R G A E A V L K E L S S G D L P T D A V A F N K I V P V A E N Y M D G T S G
UniRef90_Q67PP7        M S M T L T S A N R E V E R A G D R T V G E V A A A L A Q G S L M G A R G N S G
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UniRef90_H2J3G6        M S S G M L E A C E W L D K K N K N K M K D I M K N M R D G L L M G A R G N S G
UniRef90_U4L5H4        L K R G A E A V I G F M A G A V T E D P V S T V S R I A G V V E E S M D G T S G
UniRef90_C0D801        I G K I A S L I E K K L A A W E D D D I E E F L E D L G D S T M E I G G G S A G
UniRef90_UPI000377158A M N L S M T S G A R E V K G N P S Q H A G K V G A S L A K G L L M G A R G N S G
UniRef90_N1JVX2        I R K G C T A I I E T L K T F Q T E D T G A L I K K C G I Q F N Q A N P S T F G
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UniRef90_V7HVZ1        M S L T L A S G E K Y V N Q D S A T S I E T L A N S L A K G L L M G A R G N S G
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UniRef90_R1AV63        V I L S Q L F R G F A K G L N D V K D T K A I A K A F K S A S D T A Y K A K P T
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UniRef90_R5UA72        V I L S Q L L R G F T K T I R E E K E I D T I V Q A C E R A R A T A Y K A K P K
UniRef90_K6WUY2        V L W G A A L R L G D E G T P D A G A I A D A V R L G Y Q A M L H L G G A Q P G
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UniRef90_Q5FNU0        D K T L V D A L Q P F V E T L E K A L A A G H A S H E A A Q A T R D L L P R M G
UniRef90_A3K4I4        D R T M I D A F A P A L E R L E D L V A A A E A A R S G A E S T S F T V A G A G
UniRef90_R5JW76        E G T I L T V A S G V A E K A K E I H R K V K D I E E F G R I V I E Y A Y T P E
UniRef90_UPI000373DD3B D K T M V D A L L P F Q D A F L T A F D A A S A A T A A A E R T A G L R P L K G
UniRef90_G1WYR5        H R T L M D T L I P F V E T F Q R T G D L N K A V E E G C E E T K K M E A K L G
UniRef90_G8QU73        D K T F L D G L N P A I E A Q E A S Q D A S L A A Q K G Y E A T V G M L A I H G
UniRef90_E3QTK3        D R T I L D V L P F V S A I S N E E Q A V E A A V Q G A E Y T R K T K A K L G
UniRef90_R1AV63        E G T I L T V A R E C A E K A S E L S E H E T D I K V F L E T V I D Y N K T P D
UniRef90_U4KR89        E G T I L T V V R E A A E Q V L R E R K N L R S I E D V L Q A K V S L D R T P D
UniRef90_E1R6V0        E K T L L D V L D P V V R A S D A L E A A M K A A E E G L K A T E K M V S Q H G
UniRef90_R6N8M6        E G T I L T V A R M A Y E E G V E A S R I N S D S L Y V W K A N E A L A I T P E
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UniRef90_R1AV63        M L E V L     K Q A G V V D A G G K G L I F I L K G A Y
UniRef90_U4KR89        L L P V L     K Q A G V V D S G G A G F I K I I E G M L
UniRef90_E1R6V0        K A A V Y R E Q T L G K Q D P G A T A M L F V V K G F R E A L
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UniRef90_UPI00037F5E6C R S A Y L S Q H S L G V K D P G A Y A V E K V F A A L S K
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UniRef90_K7SGI7        R A R T H G E K S K G H P D A G A L S L S L
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UniRef90_U5FA99        L L P V L K E     V G V V D S G G A G L V T I F E G F V S A L
UniRef90_G7WG29        M L P V L     K Q A G V V D A G G Q G F L V I L G G W I A A L S
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UniRef90_K5ULB2        R S A Y V R L Q E K V P D P G A V G V K A I V E G L L
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UniRef90_W6N251        E M L P A L K K A K V V D S G G K G L L I I L Q G M Y R A L
UniRef90_I6VZ93        R A S Y L N S D S L G N M D P G A H A V A M V F K A L A Q
UniRef90_R6YCZ0        L L P V L     K Q A G V V D A G G Q G L C L I F E G M L S V
UniRef90_UPI000362AFC8 R A K F L E N R G L C I D P G A R S T E I I L R E F F D S V
UniRef90_A0A021X019    R A R P L A A R S I G H P D A G A V S L A L I A R T I A
UniRef90_UPI0003B737C5 M L H V L     K Q A G V V D S G G E G L V Q V L K G A L S G L
UniRef90_Q494P3        R S S Y V A E N L A T V P D P G A M
UniRef90_U7UBG0        K L S V L K E     A G V V D S G G A G L V Y L L E G A Y K T L C
UniRef90_UPI00035F9670 R A A Y F K E D S K G T V D P G A Q S A V Y I I H A L G E
UniRef90_R6AWQ3        M L P V L K E     A G V V D S G G M G L L T I Y R G F K M A L
UniRef90_C0ZTR2        R A S Y V G E A A R G V V D P G A L L I A W F A S A V
UniRef90_R7L8D7        R A K N L G E K S V G S L D A G A V S I S I I F R E F E K A L
UniRef90_Q3ABX4        L L P A L     K K A G V V D S G G M G L V L F L Q G C L A G L
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                              1         10          20          30          40
UniRef90_F4W7H7          V T D Q R L I K L C L K N A C I A I I E K E A Y L N G L D R G C G D G D C G S T
UniRef90_UPI0003B424D4              L L D E V V E V L K E H E A E L G E L D A V A G D G D H G Q G
UniRef90_UPI0003713117      M T S D E F Y S M I I G A T S T L Q E K V E D I N A L N V P V P D G D T G T N
UniRef90_D6S6C9             F T N Y D I Y K V F E M Y Q E C L M I N C S L L N K L D E N L S N R D H G S N
UniRef90_UPI00047BBFD3      L T P S L F P E L I Q A L I D T I D A H Q E V T E L D Q A I G D G D H V F N
UniRef90_Q8R9U3            I D G K T L K D M I V A S A N Y L Y N N R G E V D K L N V P V P D G D T G T N
UniRef90_F5TBJ3           M I N S E Q L Q K A F V R A R N Y L E T N K E I V N S L N V P V P D G D T G T N
UniRef90_UPI00026284A9        T I V D T R A W I E R F A A V I D E R G A E L T E L D R R A G D G D Y G T N
UniRef90_R6ZHR3           I D A A A L K R A F L A G A E G L E A R K E W I N E L N V P V P D G D T G T N
UniRef90_V2ZAL4              A K E L P E L F K G V S D I F A E K K D E L C E M D A N M G D G D L G L T
UniRef90_U2T4X1           L D T N W V S A W L T A G A A A I G E H K Q E L N T L D R E I G D G D H G E N
UniRef90_T1DNR8                M R L I L E C V C S K M L S L Q E Q L N E L D R A A G D G D C G S T
UniRef90_U7LZ50          L S T V W A Q D W M K N C A A A A H D H R D E L I E L D R V I G D S D H G E N
UniRef90_K0AY04          V D G S L L K K M F I G A T N S L E K N K E M V N A L N V P V P D G D T G T N
UniRef90_V5RIZ9         M K E V Q L L K G M I I T S G V N N I Y N N Y P H I D K L N V P V P D G D T G T N
UniRef90_K8DXR8          F D G Q G L K K M I L G S T N L L A R Q K S E I D A L N V P V P D G D T G N N
UniRef90_X8GY04          I N A R L L A K A F L G A S T N L D N H K E W I N E L N V P V P D G D T G T N
UniRef90_A6L9P2          L T I E A F K A M L D N A L K Q I K A R E E E F S K L D A V I G D G D H G T A
UniRef90_UPI000474E549      V D E V V A A F R R A A E V V T E H R D E L V D L D R A I G D G D H G E N
UniRef90_UPI0003650523           I A G L L G R L A Q A L A E A E E M L G Q I D A Q A G D G D H G Q G
UniRef90_D2MQ67           L N G E Q F R V L L E S G A N A L Y N R K A E V D S M N V P V P D G D T G T N
UniRef90_UPI0003F7B82A   V L D G E I L S R M F R Q G A A E L S R N A Q K I D A L N V P V P D G D T G T N
UniRef90_E8LWP8               Q E T A L V L S K V C Q S I I N I E A D L N H L D S I V G D G D T G S T
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UniRef90_C8RYK0          I D S A F L I A V F R R A A D R L E A E R Q A L C A L D G E I G D G D H G T S
UniRef90_UPI0003B2F78B   V L T P E L L S K M F L A G A K N L E L Q K E H I N E L N V P V P D G D T G T N
UniRef90_Q0CRT9               K V I T A V G Q S I T K T E P L I T R Y D T I A G D G D C G E T
UniRef90_R4X742          I D S K T T R T L I E G A C K S L V A S E S E I T K Y D T V A G D G D A G L T
UniRef90_M5E160          V D A E E F K N M M F T S L N W L K E Q K S F I D S L N V P V P D G D T G T N
UniRef90_B8FS65         M I T G Q Q W K Q M M R S G A R A L E R K K H D V D A L N V P V P D G D T G T N
UniRef90_UPI0004410A65      D P K A F D A A V E R A C K A L G E A E P E I T R Y D N I A G D G D C G L T
UniRef90_G0LNV5            D A S S T D G W M R R F A C S A R A T E Q L T A L D Q E V G D G D F G T N
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UniRef90_X1LCT6                             E Q H I D E V N A L N V P V P D G D T G I N
UniRef90_P43550           D Y D T F A K I L L A G I A K I N E V E P K V T W Y D T I A G D G D C G T T
UniRef90_J1LP11          L D V Q W A Q R W I E L S A S A V A E H R D Y L V D L D R A I G D G D H G E N
UniRef90_R6S567           D A S L F Q T A V L S A A K N L E A K K E W I N E L N V P V P D G D T G T N
UniRef90_R9LWY2         M I T G Q M L R D A F I S G A N H I T N K R Q A V D A L N V P V P D G D T G T N
UniRef90_G2Q228          V D P A L L E R M L R G A C E A V I A A E P D L T R W D T V M G D G D C G L T
UniRef90_UPI0003B38A2C   I D S A M L A K M F L S G A K S L E N K K D Y I N E L N V P V P D G D T G T N
UniRef90_C0C2Y7         M Q K E S L N K A V D F I S R K M D E K C L Y L V E L D Q Q N G D G D L G I S
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UniRef90_R7J4H4          L T I A D F K A M M N K A L E N I K A R E E E F S K L D A V I G D G D H G T A
UniRef90_UPI0003681B7F   L T G A G A K M W L L A F V D R V V A G A D E L T E L D R E A G D G D F G W N
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UniRef90_W0GS00          F N A N S F K E A L I S G Y N N L Y N F Y P E I D K L N V P V P D G D T G T N
UniRef90_Z5TKX2                  Y V D V V T Q T L S S L E S V N A L D A K V G D G D T G S T
UniRef90_O74215           D P K M F T K I L K A A V D A I N E F E P K T T W Y D T I A G D G D C G T T
UniRef90_UPI000370C51C      A A T V V A S L E T V A R T V D E N V D E L G R I D A V A G D G D H G I G
UniRef90_UPI0003B34012   V L K V N E L K L A I Q S A S N K L F N N K E R I D A L N I P V P D G D T G T N
UniRef90_A0A037UMM7      F N A K S F K D S L I S G Y N N L Y N F Y P E I D K L N V P V P D G D T G T N
UniRef90_E3J2C4               A W V E A F H R R F S A D A A E L G E L D R R A G D G D F G N N
UniRef90_UPI0004623A37    D T Q A F N A A V E R A C N A L I A A E P E I T R M D N I A G D G D C G L T
UniRef90_UPI00035C3EDB   L T V K E F I S A F D G G Y S L V K E L K E D I N A L N V P V P D G D T G I N
UniRef90_D5BB93                Q K I V E N I A D Y L I E M E K E M N D L D E K V G D G D A G S T
UniRef90_G7VJ77          I T N V E F G K M I N A A A A V L A A N A D K I N K L N V P V P D G D T G T N
UniRef90_D8Q787         V D P T A L Q R I M R A A A Q A V L A A E P D L T R W D T I V G D G D C G E T
UniRef90_X5EEP2                  R W L S D F V G R V Q G A T D D L T E L D R L A G D G D F G Q N
UniRef90_UPI00020D9C85   I T N V E F G K M I N A A A A V L A A N A E L N V P V P D G D T G T N
UniRef90_C2CP76               M K G C A E Q A H E H R E E L I E L D R V I G D S D H G E N
UniRef90_W1PUQ8            L E A A I E A S A N A V I N L R D V L N E W D S K V G D G D C G T T
UniRef90_V2X2A2          I S P D L V K R G I L S A C K A V L R V E A E L T D Y D T V V G D G D C G V T
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UniRef90_R6GZ51          I S G K V F R K M I L N G A K L I D V N K E H I D A L N V P V P D G D T G T N
UniRef90_W6MY06         M D P G H L E E I V R T A A L N V I R R E P E I T D W D T K M G D G D C G E T
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UniRef90_R7GRP2          I N G K M F K Q M V L S G A I V L H N N H P E V D A L N V P V P D G D T G T N
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UniRef90_X6KKK5          I D T A R L A A M F V A I A D A M S A D R D R L C A L D G V I G D A D H G I A
UniRef90_K1SFJ6           I D A K M L S K M F L A G A K N L E N K K E W I N E L N V P V P D G D T G T N
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UniRef90_I6YDW4               R W L S A F V E R V R A S V G M L T D L D R R A G D G D F G T N
UniRef90_F4MQ06         M K K L E L L K N M I T S G V N L Y N H Y P Q I D K L N V P V P D G D T G T N
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UniRef90_UPI000372A2DD   L D G T G T R D W A G R F A E S V Y A T E A E L T A L D Q Q A G D G D F G A N
UniRef90_UPI00040542F8            L I E A C R E V I A A N A D H L S E L D R A I G D G D H G T N
UniRef90_D4CSE9         V L T P L R L T K L F I A A S R W L L K Y A D V L N D L N V P V P D G D T G T N
UniRef90_L8DZB1           D K D W A L R W L N D F G E R V Q E N K Q L L S D L D Q A I G D G D H G I N
UniRef90_V7EF54               R A L L E R C C R A L I A C E T D L N A L D A K S G D G D T G S T
UniRef90_K9ZX72         L T S A Q I A A S L R Y A T D W L G V Y R E Q V N A L N V P V P D G D T G T N
UniRef90_K4A7E9              L E A A I E A S A T E I I S L K D I L N E W D S K V G D G D C G T T
UniRef90_M9VIR1            A D V V F K G L E E V V K T L S E R A N E I D N L D S V A G D G D H G I G
UniRef90_L0KAM9           D A L E F K Q M L I T A T K S L E K A K T E I N D L N I P V P D G D T G T N
UniRef90_UPI00047CFB71  M E K I N L L K D M I T S G V N N L Y N N Y P H I D K L N V P V P D G D T G T N
UniRef90_G8QXH1         M N S V N L C E A M N Y I S E T M T S E K E Y L I A L D Q Q N G D G D L G I S
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UniRef90_UPI0004036BF1   V V Q G L Q T M A Q T L H A N E K E L D A V A G D G D H G R G
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                                                  50            60            70            80
UniRef90_F4W7H7          L K R F A N G I L N N L E N L S L S H P A A L L E I A N I A E E C M G G T S G
UniRef90_UPI0003B424D4  M V L G V V G A A E R G H E A L G D G V G T F L R E V G E A W A E S A G G T S G
UniRef90_UPI0003713117  M F L T M K A I E E E F T K H P D I Q P T E I V N V M A R G A L L G A R G N S G
UniRef90_D6S6C9         L N N G F S E L F I Q F P D F K D E D I S T Q F K N L S F L F T Y K V K G S T A
UniRef90_UPI00047BBFD3  L Q R G L Q A L R E H A G E I A T L D W V A A W Q K I G M T V M A A V G G A S G
UniRef90_Q8R9U3         M A Y T L L Y A A K E L E K V Q D T   V K E V L E A T S K G T L M G A K G N S G
UniRef90_F5TBJ3         M S L T I K S A I K N L E N S K I N T C A D V T K A I S D G A L M G A R G N S G
UniRef90_UPI00026284A9  L R S A L A K V R A N L T A D D P R T P G E V F T A V S N A F L H T   G G T S G
UniRef90_R6ZHR3         M T M T I L S A A R E A A A I E E P T M E L L A K A I S S G S L R G A R G N S G
UniRef90_V2ZAL4         M N K G F G A L P E L I A E N M D N N I G M T L V K A G M K M A A V V P S T M G
UniRef90_U2T4X1         M D R G L R A S V D A L G K L P D A T P N A A L R S V A M T L I S T V G G A S G
UniRef90_T1DNR8         H A Q A A I A I Q N W L D K A L P Q R P Y Q L F S S L A K L L L E K M G G S S G
UniRef90_U7LZ50         V D R G F R A V V D K V A T E D G S T V V D V L K L T A K T L M S T V G G A S G
UniRef90_K0AY04         M S L T M Q S A T K R L K S S D V E D I E A V G T L V S N G S L M G A R G N S G
UniRef90_V5RIZ9         M N L T C T N G Y S E I S Q G D F D S I G S L M S K F S R G L L M G A R G N S G
UniRef90_K8DXR8         M Y L T L L A A A K A I Q D L E T C H I G E V A E A A A Q A C L M G A R G N S G
UniRef90_X8GY04         M T A T I A S A A H A V E E L G S E A M K D I C K A I S S G S L R G A R G N S G
UniRef90_A6L9P2         I V A A M T A V N K S A Q S G T E F K   Q M L G D M G M D V M M E V S G S T S
UniRef90_UPI000474E549  L T R G F T A V L A R L D E G G P G S P A E A L R M V A S T L I S T V G G A A G
UniRef90_UPI0003650523  M A R G S K A A A A A A E A A Q A G A T V L G L A G D A W A D R A G G T S G
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UniRef90_UPI0003F7B82A  M N L T I T S G V K E M Q G K E S G H A G T T A S A F A K G L L M G A R G N S G
UniRef90_E8LWP8         F A A G A R K V L A Q L D Q L P L Q D K A K L M T A I A D C L T S V M G G S S G
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UniRef90_C8RYK0         M A N G F A A I N D H L R G M Q E A T P A A V L R D A A S T F L A E V G A T V G
UniRef90_UPI0003B2F78B  M T L T V M S A A K E V H E L K D P S M Q D F C K A V S S G S L R G A R G N S G
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UniRef90_M5E160         M Y L T F K E A V S N L E D S K Y D S V S D L S A A L S K G A L M G A R G N S G
UniRef90_B8FS65         M N F T I Q S A V R D A D K T S G A T V A E V A A A V S M G S L M G A R G N S G
UniRef90_UPI0004410A65  L K A G A A A V L K D L K R I T G E H V P K S V F A V A K V A E E Q M G G T S G
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UniRef90_R5HD87         M G L T L G T A A A E L R Q K A P T T A A A Q A S A L C A S A M L R G A R G N S G
UniRef90_X1LCT6         M F L T M K S A V E A V E E S Q E T S A A A I S A S A A R G A L M G A R G N S G
UniRef90_P43550         L V S G G E A L E E A I K N L R L E D A A L G I E D I A Y M V E D S M G G T S G
UniRef90_J1LP11         M D R G F R A A V E A L L S E A Q P G S V A E V L K T V A K T L M S T V G G A A G
UniRef90_R6S567         M T M T I M A A A R E V A A I A E P S M G S I A K A L S S G S L R G A R G N S G
UniRef90_R9LWY2         M S M T A S A A K R E L I R L P D S D V S K A A D V C A S A L L R G A R G N S G
UniRef90_G2Q228         L K T G A T A L L D A I K I A A R G S V V E V L A E L E E I V E G K M G G T L G
UniRef90_UPI0003B38A2C  M T L T I M S A A K D V S A L E N P D M K S L C K S M S S G S L R G A R G N S G
UniRef90_C0C2Y7         M K E G F A A A R H F L S N T D E K D L G R L M M G S G T F N E A A P S S L G
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UniRef90_UPI00047CCC40  M Q M T M M A G I K E V K N N K T D S I Q D I S K I L S R G L L M G A R G N S G
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UniRef90_W0GS00         M N L T M T N A V K E I N E V D S T S I S K I A D V F A R G L I M G A R G N S G
UniRef90_Z5TKX2         F A A G A R A L L R Q Q S Q L P L N Q L E T L C A L I G E R L T V V M G G S S G
UniRef90_O74215         L V N G G E A I T K A I N D K R L D D G V N G I D D L A Y I V E D S M G G T S G
UniRef90_UPI000370C51C  M G S R A A V A A A R E T A A A G A G A A T T L T R A A D A W S D R A G G T S G
UniRef90_UPI0003B34012  M S S T F Q K A T D M I S N E S F K T T K E L I E T F S R N M L L S A R G N S G
UniRef90_A0A037UMM7     M N L T M T N A V K E I N E L N S E S L S K V A D V F A R G L I M G A R G N S G
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UniRef90_UPI0004623A37  L K A G A S A V L K G L Q R I S G D D V V R S V I A I A Q V A E E E M G G T S G
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UniRef90_G7VJ77         M S L S M A S G A Q Y E R D S L E T E I G A L A K A T S K G L L M G A R G N S G
UniRef90_D8Q787         C A N G A K A V L A S L D A G A D G D L V G V L R A L T E L I D D T C G G T L G
UniRef90_X5EEP2         M D A A F G G V S L P L Q G S D       A D V L G A L G H R L L I R A G G T S G
UniRef90_UPI00020D9C85  M S L S M A S G A Q Y E R D V L E T D I S A L A K A T A K G L L M G A R G N S G
UniRef90_C2CP76         V D R G F R A V V E K L E A D A P A S L V D V L K L T A K T L M S T V G G A S G
UniRef90_W1PUQ8         M F R G A T T I L E D M K K H Y P N D A A A T V N E I G C S I G R V M G G T S G
UniRef90_V2X2A2         F A S G A Q A V M E A F V T D E S M S P S E L V S R I G D T L E D N M G G T I G
UniRef90_R6PTY9         M S L T M L A A A R E T E K G D A L R V D E V T K R A S G G A L R G A R G N S G
UniRef90_R6GZ51         M S L T M L S A A K E V A A C Q S N N L N D L C D C V G K G A L R G A R G N S G
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UniRef90_W0HU69         F A A G A R E I A N R E G Q L P Q D D P A A L L T L I G D K L A T I M G G S S G
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UniRef90_K8DXR8         V I L S Q L V R G F A K G K E K A N A L E V V E A L E E G A K L A Y Q A N P V
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UniRef90_P43550         G L Y S I Y L R D S G D K E L T A E T F K K A S N V A L D A L Y K Y T R A R P G
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UniRef90_R6S567         V I L S Q L F R G F T K E I A D T I T V T V L A N A F T R A A E T A Y K A K P K
UniRef90_R9LWY2         V I L S L L F R G F S R G L K D Q A D A E H L V A A L E K G V E A A Y K A K P T
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UniRef90_H0QP15         A L W G M A L R A V G D A T P D A G A V A T G V A G A A A A I M G F G K A K V G
UniRef90_UPI00047CCC40  V I L S Q F F R G L Y S E I A D S V S V D D F I Q A L V G G Y Q M S Y R A D P V
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UniRef90_D8Q787         A I F S I F L S E G P Q T A V D L P F W G A T A S A A I E T L K Q S T A A R V G
UniRef90_X5EEP2         A V L G T L F R E L G T A M G E A D S L A S G L E A A H R A I T E L G G A R Q G
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UniRef90_C2CP76         P L L G T A F L R A A K S E L D S A G V A A L I E A A L E G I T T R G K A A E G
UniRef90_W1PUQ8         V L Y D I F L K E K Q S S T V T P K G W V D A L E A A I G A V S K Y G G A S A G
UniRef90_V2X2A2         A L A A I F F T A W S S A L S A P N A F S S S L F S A L D T L S H H T P A K P G
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UniRef90_R6GZ51         V I L S Q I L K G F V S A I I T S R N F A K G L V K G T E   V A Y I A V T K P K
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UniRef90_W0HU69         V L M S I F F T A A G Q Q V A E G Q P L A Q A L L A G L Q Q M K H Y G G A E R G
UniRef90_G9RWZ0         V I S S L L F A A G S G K K T A D A K D L V Q A L E K G E G A Y K A K P T
UniRef90_X6KKK5         P L Y A T A F M R K G K A T L D D A D A V A M F Q A M A R G I Q D R G K A E P G
UniRef90_K1SFJ6         V I L S Q L F R G F T K S I K E E Q D I P V L T R A F D K A V E T A Y K A K P K
UniRef90_U7VCG3         T I L S Q L I Q G F L E G V R T K E E V T D V K I A F R L A K E K A Y K A K P G
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UniRef90_T1DNR8        D R T M L D S L W A A A K V L K A L K T P K A D L M E V L E S T K Y M E A A A G
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UniRef90_C2GFX4           I T G D V L V Q W A R L A T N A L Q D A C E E I N A L N V P V P D S D T G S N
UniRef90_F3B5C7           I R I E D L Q E L F E S I A K V F V E K K D E L C A M D A N M G D G D L G L T
UniRef90_K8EMZ2         L T S D H L V V A F Q A G A Q R V I Q Q K N H L N G I N V P V E D G D T G S N
UniRef90_F3ZG31                 W M R R F A A S A R A T E A E L T A L D Q R V G D G D F G T N
UniRef90_UPI0004782480           A W L S A F V R R V Q E G A G R L T E L D R L A G D G D F G A N
UniRef90_D9QQZ0             K E A L K F S V D Y F A D F K E E I D R L N V P V P D G D T G T N
UniRef90_R6UCC4         M N G I I F K N A V I S A A N S I T K E K Q S V D D L N I P V P D G D T G T N
UniRef90_F9FCX8             T S L V K V L I E S V A R T T T R D E P K I T E Y D T L A G D G D C G E T
UniRef90_R4KC65         F D G E Q L K Y M L V G A A N L L A L N K S E I D A L N V P V P D G D T G T N
UniRef90_E4RN47         L D G K R L Y Y A V L S G S R E V I K N R R E L N E T N V P V A D G D T G T N
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UniRef90_I1L409                                 K D N L N E W D G K V G D G D C G S T
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UniRef90_A9TNH7           G Q K L D S A I R A G A Q A V L K L K D S L N E W D L V A G D G D C G T T
UniRef90_S0FQV7         T L Q D V K N I I N V S A V A L S L K E L L T E L D S R S G D G D L G H G
UniRef90_J0UUM7                 I S D L F A G I A A M L K E Q E A E L G R I D A V A G D G D H G Q G
UniRef90_UPI0002ECBF41         D A R A V L T A F A D A A R T A H P A L T A L D Q I S G D G D F G D N
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UniRef90_I0RWB2             V A R L T A M A T M L A D A E T E L G R I D A V A G D G D H G R G
UniRef90_UPI0003F4A2CC       E E F L A A I I R A C K S L I E A E P E L T K Q D Q I A G D G D A G L T
UniRef90_B1M3Z6           A V T A A R I R A V A E A L I R A E G S L N S L D A K V G D G D A G T T
UniRef90_R6F6W7                     A N V K A R E E E F S K L D A I A G D G D H G T A
UniRef90_UPI000255D09D                             D A L D R A A G D A D A G T T
UniRef90_K9AMF1           S T D L E T A V V I R F A E L A E E H H G H L T R L D Q V T G D G D F G D N
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UniRef90_W6WPT4                                     I G D G D H I F N
UniRef90_R7D2S6       M I A N T I R T C F P I A A K A V A D K A E E I N K L N V P V P D G D T G T N
UniRef90_X5LKI9             V A K G I S A I A A Q M I A A E A E L G R I D A V A G D G D H G R G
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UniRef90_V6MJZ6       I T L E I L K Q A V S R I A I A C E Q S Q P M L C E A D S R L G D G D L G I T
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UniRef90_E3GFE6          M S L T F S H S V S E L E K M T G V S L Y S V A K T A S S G A L I G A R G N S G
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UniRef90_UPI00040DBC1D   L A G A A R A L L G A L D H L P L A D H T Q L Y R A I G L E F S Q T M G G S S G
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UniRef90_S0FQV7          M E K S A H A L M I E I C K Y E G K D I G E F L I K S A M S V N R A A P S T M G
UniRef90_J0UUM7          M Q R G S H A A A K A I S A A V E A G A G A Q L A L G G D A W A D R A G G T S G
UniRef90_UPI0002ECBF41   L R D G L D R V G A A L A A G P A D P P       F A V A A A V F L D E V G G T S G
UniRef90_H6LBH2          M S L T F S H S V S E F D K I E K L N V Y S V A K S A S S G A L I G A R G N S G
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UniRef90_C8WGT1          M S L T L E T V V E N L A N L P I G A A G A E I K A I T T G A L M G A R G N S G
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UniRef90_UPI0004689E07   F A S G A N A V L E S M E C C E L A C A G G Q L M N C I G Q Q L A R G M G G S S G
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UniRef90_UPI0003F5692B   M G V R A A V G A A A D A V A R G A G A A T T L H L A A D A W A D K A G G T S G
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UniRef90_V2YGV3          M S K I A R A I D Q A V D Q A D G   G I Q S M L D A A M A V M T L N G G S A V
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UniRef90_R1GQW9          V A G V C N A L L A Q M K G A P F V T K A P S L F P A L D A I L E D M G G S L G
UniRef90_V6MJZ6          M Q K G W R Q I A D D S Q D W P D     D L S K A L F Q C S K S L Q K A C A S S F G
UniRef90_UPI00035FE24D   M A K S F A A A D T V A E G P A A G I T K L L R S A G A I M A K T A P S T M G
UniRef90_UPI00036DC469   M R R G C E A V S A E D A S V S T L P L P D A L E K I G L T L V M S I G G A A G
UniRef90_UPI0003B68CDB   M V L G T T A A A K A A C V K A G A G L R T T L A R A A A A W S E G A G G T A G
UniRef90_UPI0003B5B24F   L A F T L G S V L T G A L S R R T A G A G D L L R K V G E D A I D G A R G N S G
UniRef90_Z9JV12          M A Y G S R G A A A A A R E A L A A G A A G R L V H A G D A W A D E S A G G T S G
UniRef90_Q5KN19          C A L G A A Q A T L K A L E Q G S D G E L V H F F R V L T E V I D G S M G G T L G
UniRef90_UPI0003B366A9   M H L T L Q S A R R E L D L T D A Q M A E V A R A I A Y G S L M G A R G N S G
UniRef90_S2ZNH7          M S L T L G T V V R E V Q D L P D A S M E D I A K A I T H G S L M G A R G N S G
UniRef90_D5E4P7          M S S T I N T A I D N C R N I T D E S I S V V S S S I A K G M L L G A R G N S G
UniRef90_UPI00039926AD   H A R A A R A I Q E W V A G P P P A A P A P L L S A L A D T L L E K M G G S S G
UniRef90_UPI0002FC87BA   M T R G A A A A K E A A V A G A Q D A G T T L N A A G T A W S A S A G G T S G
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                                        90              100             110             120
UniRef90_R6IGN6          T I V S M L L I D A A K Q L K G T E D F G N I M H K S M N A I M E K L D S K L G
UniRef90_R5QFP9          V I L A M F F R G M S K A F L E E A D S V Q M A E A L K A G V T E A Y K A V P T
UniRef90_A8F8T1          V I L S Q I F R C G K K R T L Q P K D I L R M I S S A R A V A Y K A V M R P V
UniRef90_R6GPZ6          V I L S L L F R G L S K S V K G L T D M A Q L A A A M A E G V T T A Y G A K P A
UniRef90_J4I912          A L Y S I F F S A L A Q G T L T A A Q W A T S L T S A L E K L Y T Y T R A R P P
UniRef90_D9R123          T I T S F G F M G M A K A K V S F E E A A E A M L A G V K N I M E K A G S K V G
UniRef90_E9CAP9          V L Y S I G L H A A A Q S S P Q P R D W L G A L S R A I E A I Q R H G G A A F G
UniRef90_V8AC51          A L W G A G L A F D D S A V P D A Q S L S T G L R R A M E K I T A L G K A K P G
UniRef90_U0FFA3          V L W G A A L T A M D K G Q P G A H D L A D G V R A G Y D A I V A L G G A K L G
UniRef90_D4XWC2          V I L S Q I F K G F S L S L A D S A T I K D L I N A L K G A S K K A Y G A K P V
UniRef90_M1W3Y6          G I L G I F F V A L R S A F E N N I T T T K S L A A A L A S L A Q Y T P A K V G
UniRef90_R7A7F3          V I L S L L F R G I A K G G L T E A D C E S M A N A L E L G V S A A Y K A K P T
UniRef90_R4TIH2          L Y T G A G L R G L E A G A V T T E A L A G A V D G A V K A F V E L G K A E P G
UniRef90_E3GFE6          V I L S Q L L R G L A E G C K D K E E L D G L A I R A A A D A A Y K A V M K P T
UniRef90_C2GFX4          V V L S Q V F R G L A R V S G S S A D M S D V A A S L E A A V Q T Q A I A D P K
UniRef90_F3B5C7          T L M A S G I M E N E K D K I E A A D L A V F F E S F A A G I K K R G K C E A G
UniRef90_K8EMZ2          I I F A Q Y L N G L A S R L T D S T E T S A F A T S A K F A V E D A Y Q A K P V
UniRef90_F3ZG31          P L F G L L L Q A M A G A V W T V V A L A D G V G E G L A A I R R V G G A A P G
UniRef90_UPI0004782480   A V L G T L F R E L A R A D P S P S G L A R G L E R G C A I R E L G G A R P G
UniRef90_D9QQZ0          V I F S Q L L R G F S E E I K A E D G L G I A E I A S G A A V A Y Q G V M K P T
UniRef90_R6UCC4          V I L S L L F R F D G K E T I D T A D L A K A F D M A V E A A Y E A V A K P T
UniRef90_F9FCX8          A I Y A I F L N A V A N R L L Q S E F I Q Q A L Q G G L S E L C R Y T P A R I G
UniRef90_R4KC65          V I L S Q I F S G F A R A L E S H A G A A D I A R A F V R G A E A A Y R A N P V
UniRef90_E4RN47          I I F A Q F I N G L K K N L A D K A D L N E F A A A V E N A V E Y Q G M S N P V
UniRef90_UPI00016BFC7A   V I L S Q I I R G F V K G L G T N E T V D A V A R A T K L A V A T A Y K M K P K
UniRef90_I1L409          I I Y T I F F K A A H H S G V T S K Q W A E A L L A T S I A A V S K Y G G A S A G
UniRef90_UPI00026C71EA   A L W G A A L T S L G S A F S D D A S V S T G L V Q A V E A V E R L G G A K P G
UniRef90_UPI000364D0D3   V L W G A A L R L G N N G V P D G A A L A R A G Y D A L T S L G G A S L G
UniRef90_UPI00040DBC1D   V L L A I F F A A A G D A A S S G L P M R D A L M A G L A R M Q E L G G A R L G
UniRef90_Q9SX75          I I Y N L L C K A A Y A E L K T S K H W S E A L K S S I S A V S K Y G G A T A G
UniRef90_A9TNH7          I L Y D I F T R A A F G S S V T A K T W S A A F E T A V A A V S K Y G G A S A G
UniRef90_S0FQV7          T L L S C S I M E L G K E F K G S E E I T K V P A V I V D A I M K R G K A N R G
UniRef90_J0UUM7          A I W G L L L R S W S N A A P D D S A I V D G A R L A L D G V T H L G R A R L G
UniRef90_UPI0002ECBF41   P L L G L L F Q E L A R A H A G H E A W R T G I R E G L A A I Q R V G E A E P G
UniRef90_H6LBH2          V I L S Q L L R G F A E G C K V N E E L L A N A L K L A A D V A Y K A V M K P T
UniRef90_C7MMY7          V I T S Q I L R C E G A A E C E A F D V P S I D H A F D T A S T T A F Q A K P V
UniRef90_C8WGT1          V I T S Q I L R G L C E G S V G H D E L N D A A F A K S Q E V A F Q A V R K P V
UniRef90_F2N9R6          V I T S Q I L R G V A E A A S D P V S T Q D I A S A L R R S V K V A F K A K P V
UniRef90_UPI00036F8F19   V L W G A A L R A F G T A A A S T A D V A A G A E K A L E T L V S L G K A E L G
UniRef90_UPI000258F8AB   A L Y C L L F T R I A R E L T S N Q Q W A Q A L R V G L S C L R M Y G K A E P G
UniRef90_L0R908          A I L A Q F L C G F A E G V K D L P R L S P A E F A K A A S L A A R A I S D P K
UniRef90_M5E3W5          I I F A Q F I L K N S I E L E D S I N V N K F V Q A V D A V T Y Q G I S N P V
UniRef90_I5C678          T L V A T G L M A A A K A L K D P D E I A G L L A Q A R D A M L A R G K S S L G
UniRef90_R9ALH1          A L F A L Y F G A L S N A L S G A N D V G E A A L T A L D E L R L F T P A Q V G
UniRef90_M2N9Z5          A I I S I V L A S F T S N R M D I K S A S M A A G Q A L K N L C G Y T S A R Q G
UniRef90_UPI0003B616CB   A V F G T L F S Q L H D S A S L A A G L E S A N D A I F E L G A T Y G
UniRef90_Q9RXC5          V I L S Q L L K G F A E A I R D E V D A A Q L G K A L R A A Q K S G Y G A K P V
UniRef90_R7K9I1          V I T S Q I M K G F E K E E M T A K D F A E S L K Q G T E I A Y G A V T K P K
UniRef90_G2FUR1          V I L S Q L L R G I A K G M A N P L Q V A Q A L Q A G V D T A Y K A V M K P V
UniRef90_X0UPU6          A I L A Q F F Q G L A E A T K G K V R L S T Q A A T K A A E Q A R N A I S N P Q
UniRef90_U2RMN5          V I L S L L F R G L S K A L K E T A D A A A F A A A M Q E G V S A A Y K A K P A
UniRef90_C0XR13          A V F G T L F T E L S H A V E D T E S L A A G L N S A Y E A I H E L G G A E Y G
UniRef90_UPI0004689E07   V L L S I L F T A A A T R W R E G Q D W H A A L T H G V A R M Q H Y G G A A R G
UniRef90_T0LF71          A I L G I L L S A Y S S S L R T N A A A S K S L A T A V E S L K S H T P A R E G
UniRef90_UPI0003F5692B   V L W G L A L R A V G D A L G N T D T V S A G V A D A A A A I M E F G K A K P G
UniRef90_A8LNW4          T L M A T G L M S A A K E E I E S E S I P G L I A G A R D K M Q E R G K A E L G
UniRef90_UPI0002651F65   A F Y G L F L L A A R Q A E P G F G V W V E A L A L R Q G M D R I M K Y G K A E V G
UniRef90_V2YGV3          P L W N T W L D G M Q E E E I D V D G L K A I F A K A L E E L S D M S G A K V G
UniRef90_I0RWB2          V L W G A L L R L G D T G T P D A T T I A A G M R A G Y D A L I R L G G A A P G
UniRef90_UPI0003F4A2CC   A L Y S I F F A G L G T S L R S S K T W A Q A A E E A L K T L Y K Y T R A R P P
UniRef90_B1M3Z6          V L G S I F F A A T A S A L A D G A A W P E A L G Q G V A R V Q G Y G G A K A G
UniRef90_R6F6W7          T L L G A L F M G M G E A E L N A A Q V K V M F R G G L T G V E E Q T K A K L G
UniRef90_UPI000255D09D   V L L A I C S T A V A R A L E D G R S W P E A F Q A G I A A M Q H H G G A V E G
UniRef90_K9AMF1          P L L G L L F Q E L N A G Y A K L G D W E Q A T A A G S A A I R R V G R A E P G
UniRef90_A0A016PIA2      A L Y T I F L N S L L H A F A T P E T W A L V L K H C S S I L A R Y T P A R V G
UniRef90_A5IYN0          V I L S Q I F K G F A N Y F A D K N E V T E L V K G F Q S A T K R A C E S K P V
UniRef90_UPI000349287A   A L W G A A L T A G D S G R V G P E R A V T G A R A A V D A A Y R L G G A S P G
UniRef90_M5FBW8          A I W G L L L Q S W S S S F K D D E S V T T G A R L A L N S V I R L G G A S I G
UniRef90_D8SIL0          V L Y D I F S K A A Y V K L K D N A D W S D A L D A A V T A V S T Y G G A S A G
UniRef90_F9UJP0          V I L S Q I F K G F A I A L E N K K D I L G L L E G F R Q A T K K A Y S S K P I
UniRef90_M7PKV8          V I L S Q F F S G L S N K L I Q L K N I E E F I Q S L I S G Y Q Q A Y D S S P V
UniRef90_R7B666          V I T S Q I L R G L C E G F D G H E D F D A I G D A F A K A V E V A F N A K P V
UniRef90_UPI0002629173   A L Y G V L L A E T G A G E I T T T V V A D A V D G A V R A F T E L G K A E L G
UniRef90_G3B3T3          A I L Y I F M K S F I N N L T L N L G F A T S L S S A I E T L K G F T K A R E G
UniRef90_W6WPT4          P L F Y S L L H G M A K A S A G S G D I A R I F A A G V D A V A Q R G K A G I G
UniRef90_R7D2S6          V I T S Q I L R G V A E G L I S A S N T A D I A A A L R N A V K V A F Q A K P V
UniRef90_X5LKI9          V L W G A A L A A A G R R L G N D R E V T A A L R A G H D A L T S L G G A Q P G
UniRef90_E8U8B7          V I L S Q L L F G F A E A I R D A S D A K T L A R A L D D A R K C G Y S A K P V
UniRef90_R6CN57          V I L S L I F R G F A K T L K D R N E L A E S L A V A G K A Y K S V M K P V
UniRef90_R1GQW9          A I L S I L L T A F S S F K L D G G S I G A A A G E A L D S L K A Y T G A R V G
UniRef90_V6MJZ6          T L Q A T A F M A M A K Y C I S S S D I S P L L T V A Y Q S M M A R G K G E L G
UniRef90_UPI00035FE24D   T L T A T G F L R G A K A A I G T A E L A Q F W R A F A T G I A E R G K A K L G
UniRef90_UPI00036DC469   P L Y G T L L M E M G R A A E E E K D F S S A L K Q A I N A V A R R G R S H P G
UniRef90_UPI0003B68CDB   A L W G G A I A K A A S E L S D T E D I A R A A V I A A R T F Q T M G E A K V G
UniRef90_UPI0003B5B24F   A I L A Q F F T G V A E A T I A P L A L A Q A I R A G A T S A R G A L A E P K
UniRef90_Z9JV12          A L W G A A L V H S D D A A G S P A Q T L Q S L R S G I D A I Q R L G G A K V G
UniRef90_Q5KN19          A I F S I F L A G L T T A L I D A A S F G Q V T S S A L E T L K A R T A A R V G
UniRef90_UPI0003B366A9   V I L S Q I L K G F A E A I L D A Q A L E A A L R R G A E T G Y R A V M R P V
UniRef90_S2ZNH7          V I T S Q I L R V K N P A H I T P K D I A H A F R R G K E V A F K A V R K P V
UniRef90_D5E4P7          V I L S Q I F K G F S M S E K N S A T V K D L V Q A L N T A Q Q K A Y G A K P V
UniRef90_UPI00039926AD   V I L G F L F L T A A R S L L N R D D W A L E A M Q Q Y G G A A P G
UniRef90_UPI0002FC87BA   A L W G A V L T A F D D A P Y D P A R V V E A A R A C L D A V Q R L G G A K V G
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                                  130         140         150         160
UniRef90_R6IGN6          E K T F F D S V V P A A K A L C D E T A A A E A A R N G V E S T R D M V A K H G
UniRef90_R5QFP9          E G T I L T V M R V C A E K A M E K A D S F G D I E E I K E G I D L L N K T P E
UniRef90_A8F8T1          E G T I L T V R R L D E K S E E I V D A Q V L K W V V K V S E Q T V R D T P N
UniRef90_R6GPZ6          E G T V L T V S R L A A A R A V E A A Q E N P S A E Y V L E G Y E T L A Q T I D
UniRef90_J4I912          S R T L V D P L E A F V V R L S A S A G A V Q A A G E A A Q K T R D L E A K A G
UniRef90_D9R123          E K T I L D S L Y P G V L A L V K Y A H E P K A A A E G S E A T K Q M Q A V H G
UniRef90_E9CAP9          D R T M L D A L G P A L Q A G F T A Q A M A S A A R A G V E R T A T M N A V A G
UniRef90_V8AC51          D K T L M D A L V P L V E R F K A W N E A A K A S T T A A E A T K D L L P R L G
UniRef90_U0FFA3          D K T M L D A L W P F V E T L S A A V G N G V L T A Q A W D E A A D V R P L V G
UniRef90_D4XWC2          E G T I L T V I R E T S E A I E K D L K K T H S S L T L V E M R K A C D N T P N
UniRef90_M1W3Y6          D R T V M D T L I P F A V V M D S S E E A V Q A A V Q G A E T R K M K P K L G
UniRef90_R7A7F3          E G T I L T V A R M A S V K A Q E C V H T T N D P E V C K E A E A T L A K T P D
UniRef90_R4TIH2          E K T M L D A I E P F R L A P Q A W Q K A A Q V A V S A A E A T A D L V P V K G
UniRef90_E3GFE6          E G T I L T V A R E M A E F A M D N Y D R Y D N L D D Y L E G K K S L A K T P E
UniRef90_C2GFX4          E G T V L T V R A A A T A A R E P G A T V S H V     I A A A N R A L A E T P S
UniRef90_F3B5C7          D R T I Y D A L L V A G D R A K E A N A A L K G A Q E G V E A T K D M L P K F G
UniRef90_K8EMZ2          E G T M I T V I R E W A E T L F M H K E T E R D I E P L L E A K K A L S E T P K
UniRef90_F3ZG31          D K T L V D A L H P A A E S L R D S A A A A E A G W A G V H R T A G L R A R M G
UniRef90_UPI0004782480   D G T L L D A L Q P A A A E A A R V A E A Y R A A V A G A E R T R E A V A R K G
UniRef90_D9QQZ0          E G T I L T V A R E V G E T A L S L A E E K K E V D E V K Q A E S T V E K T P Q
UniRef90_R6UCC4          E G T I L T V A R S A V R A N Q C V E E D L T V T E A W D E I C K A A E A T P D
UniRef90_F9FCX8          H R T L M D A L I P F V K N Y Y S L R A A L A E A R N G A E S T R R M V A A L G
UniRef90_R4KC65          E G T I L T V C R E T A A G L E K A A A R S K D P V R V L A A T L A L A R T P E
UniRef90_E4RN47          E G T I L T V M K D W A G A L K E F K Y I T D D F A E A M E A F K S L Q Q T K E
UniRef90_UPI00016BFC7A   E G T I L T V A K E I S N A Y K T A A D A P T F L K E V M H G Y K V L E Q T Q N
UniRef90_I1L409          Y R T L L D A L I P A S S V C T A F V L S S E A A L A G A Q S T V D M Q A Q A G
UniRef90_UPI00026C71EA   D K T M V D A A V P F R E A I A L A Q A T G A E K G D G P A A S A D I S A T L G
UniRef90_UPI000364D0D3   D K T M L D A L D P F V G A R T A W S D A V N V A G D A A Q R T A E L R P K V G
UniRef90_UPI00040DBC1D   D R T M I D A L Q P A L S A L K D L A A A A T A A R K G A D H T A T S V A K A G
UniRef90_Q9SX75          Y R T M L D A L I P A S K V L E E K L S S A E A A T A G A E S T I H M K A Q A G
UniRef90_A9TNH7          H R T L L D A L I P A S V T L Q E K L A A G E D P L K G A A A T K T M M A Q A G
UniRef90_S0FQV7          D K T I L D A L I P L A D V L Q A S Y A R D M N L K L A L K E T K G M I A K V G
UniRef90_J0UUM7          D K T L V D A L A P F V E T L S R E A Q A G K P L A Q A W K T A A G A A P R L G
UniRef90_UPI0002ECBF41   D R T L V D A L D P A R E A L E S G K D V A E A A L A G A R A T A E L R A R R G
UniRef90_H6LBH2          E G T I L T V A R E M G E F A V E K Y N T Y N D F E A F I H G K A T L A K T P D
UniRef90_C7MMY7          E G T I L T V L K D T A A A A H R A N K K M P L E E A L E A Y A S V Q R T P D
UniRef90_C8WGT1          E G T I L T V L R D S A A A A K H A R K K K M G C D E A L E A Y A S V Q R T P D
UniRef90_F2N9R6          E G T I L T V L R D I S A R A D A C E K A H D S V A E A A E A Y R S V A R T P D
UniRef90_UPI00036F8F19   D K T M L D A V D P F V T A L R E A S G D D L A T A W A G T A T A S L S P K V G
UniRef90_UPI000258F8AB   D R S M V C T L
UniRef90_L0R908          D G T I L S V I K D W A S H L H A N S N N Y K D F H H L L S A Q T S V K A T T E
UniRef90_M5E3W5          E G T I L T V M K D W A E S L K F L Q T K S T D F A E V M E A A A S L K K T K T
UniRef90_I5C678          E K T V L D G L D A Q V H A L E A E R S A V T A A R D T V E K F T Q R P N Q A G
UniRef90_R9ALH1          D R T L M D A L I P F S S A L E S G A V A A Q H A R K G A E E T A F M V A T L G
UniRef90_M2N9Z5          S R T V M D A L I P F C E T D V D L K K A V E A A E E G A K S T S G M Q A K F G
UniRef90_UPI0003B616CB   D K T M V D A L F P A M R A V A E L D A E A S V A E A G V R E T R A Q A A K K G
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UniRef90_R7K9I1          E G T I L T V I R A I T I T K K K T L E I E D F L Q Q I L Q A G E E I L A T P E
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UniRef90_U2RMN5          E G T V L T V S R A A K Q A V D T A A A G E T D L E R V L E G Y A A L A Q T T E
UniRef90_C0XR13          D K T M V D A L Y P A A R A E E A M A A A R E A A V E G V A H T R E I S A K K G
UniRef90_UPI0004689E07   D R T L L D A L L P A A S G C V D W A A M A Q A A R Q G A D A T A E M T T R A G
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UniRef90_UPI0003F5692B   D K T L V D V L V P F R D A L A S A V D A G Q P L T S A W G S T A G M L P L M G
UniRef90_A8LNW4          G K T V L D S L D Y V A R T T D K A D D K A S A A D R A L E D F R D K P A T V G
UniRef90_UPI0002651F65   D R T M L D P L D A A Y R I L K E G H T N N S D S M K T L E
UniRef90_V2YGV3          D K T M M D A L I P A S Q A I A A F A E A A K A A A E A S K Q F V S K F G
UniRef90_I0RWB2          D K T M L D A L L P L V E T L E Q R A A H G D T W T E A W R A A A E V R P R V G
UniRef90_UPI0003F4A2CC   S R T L V D P L E T F I L S T S S L S K A A E A A L E S A E K T K E L V A K A G
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UniRef90_I5C678          R A R I F A E K S V G L P D P G Q L A L V V I T E G L
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UniRef90_G2FUR1          L L P A L     K Q A G V V D A G G Q G F L I L S G W I T V L
UniRef90_X0UPU6          K L L I L     K K A G V V D A G A Q G F V N I L E G I V N F I
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UniRef90_D8SIL0          R S S Y I S P D L L T V P D P G A M
UniRef90_F9UJP0          K L K V L     R E V G V T D S G G E G L Y A M I F G M N K F I
UniRef90_M7PKV8          L L P I L K E S     N V V D A G A A G L I Y F F E G M L
UniRef90_R7B666          L L P V L K E N     G V V D A G G Y G L A I F F D S F V A A L
UniRef90_UPI0002629173   R A A R L A Q R S K G H A D P G A T S F A L I V T A I G E A L
UniRef90_G3B3T3          R A T Y V G N K K D F V P D P G A V G V Y E A I R G L
UniRef90_W6WPT4          R A S F L G E R S R G H I D P G A R S S Q L M I D A V C A R L A
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UniRef90_E8U8B7          M L P A L     K Q A N V V D S G G Q G Y L Y V V Q G M L A S L
UniRef90_R6CN57          L L P Q L A     K A G V V D A G G M G L L I I F K E M
UniRef90_R1GQW9          R A T Y V G D T K E G P P D P G A Y A V A V F L R G L V E
UniRef90_V6MJZ6          R A R M F P E K S I G L D D P G M L A I K V I V E A I
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UniRef90_UPI0003B5B24F   Q L P V L M     K A G V V D A G A Q G F V D M L E G I G E F L A
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UniRef90_UPI0003B366A9   L L P V L     R Q A G V V D A G G A G Y V R F L E G L
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UniRef90_D5E4P7          K L K I L     R E V G V T D S G G E G L F V I F E G M L S Y
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UniRef90_G5HQN0                  E L P A F F Q G A A E I F E E K K E C E M D A K M G D G D L G L T
UniRef90_B1I3R2            I S G A Q L Q E V L V T G A A R L A R M R Q E I D R L N V P V P D G D T G T N
UniRef90_X1JLQ0            D G K I L R K M F A L G T T W L E K C V P E I N A I N V P V P D G D T G T N
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UniRef90_T2RD41                                                                          M S
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UniRef90_U1V7J4                                                          V G D G D T G S T
UniRef90_G9MV75          I D I G V V A E V V D A I E K S T V E D E P L I T K Y D T I A G D G D C G E T
UniRef90_W7CII1          I T S N D L L Y A F Q Q G A Q T V M Q H T T E L N D I N V P V A D G D T G S N
UniRef90_UPI0003F98506    L D G N A L L R W A E R A T R E L G F R R A E I N A L N V P V P D S D T G S N
UniRef90_E3PWH8          I L D G N D F F K L L F S Y G A S E V I S N R D K L N K I N V P V A D G D T G S N
UniRef90_E5STZ5              E Y R N L I L T I C D T L K Q N E Q K L N Y L D S E C G D G D C G S T
UniRef90_D3USI8              L L Q G M L N G A R E V I S K K D E L N R I N V P V A D G D T G S N
UniRef90_UPI0002627F79
UniRef90_UPI000376D92A        L L D A A L E R V S A A E D E L G R L D A V A G D G D H G Q G
UniRef90_D1YG20          I N S D Q F R D M V R A A T H R M G K N A E F V N K L N V P V P D G D T G T N
UniRef90_D9WFE6                L N S M R T A L T R S A E E L G R I D A V A G D G D H G R G
UniRef90_UPI00036C3C9F                                  L T D L D A R A G D G D L G A S
UniRef90_N6TFM3                                        M L N K M D S E Q G D G D T G T R
UniRef90_V3TV16          L T T E H L K Q A I A R I Q Q A A L E Q Q A F L C A A D A Q L G D G D L G V T
UniRef90_W8GT31              K E T I L S V L E S G I A N I Q K N E Q K I N D L N V P V P D G D T G S N
UniRef90_B6QSP0              K S T I I N I I T N V A N T T R E D E P L I T E Y D T L A G D G D C G E T
UniRef90_V5WNN2          I S G R Q L Y Y A F A A G G Q A V I A Q R E D L N K M N V P V P D G D T G S N
UniRef90_R7G565          I N G V I F E A M V K G G Y N N L C L H E K E I N D M N I P V P D G D T G Y N
UniRef90_M0RZA4                                                          V G D G D C G S T
UniRef90_UPI000466DDAA                  A Q D E L N T A D G K M G D G D T G V M
UniRef90_UPI0004661256    L L S K P E I E K M F H K V A E I W Q E N K D Y L S R I D S R F G D G D H G V T
UniRef90_E6U6Q7          I T G V M L N Q M F Q A A A Q A I E T Q A A Q V N A L N V P V P D G D T G S N
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UniRef90_UPI000349A42C        T V L R A L D T I H E T V D A H A E E L G R I D A V A G D G D H G I G
UniRef90_R0GEY9
UniRef90_D4J383
UniRef90_L8EET6                  A T A A L Q A A L D L I A A N E D E L G R L D A V A G D G D H G I G
UniRef90_UPI00037A702C    I D G R R F Y Y M F L A G A K M V I K N Q L E L N K I N V P V K D C D T G T N
UniRef90_UPI0002E22238                        L H E E E E T L G R L D A V A G D G D H G R G
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UniRef90_B5HGG3          L D A S A V R D W C S L A L E S L G R E R E E I D A I N V P V A D G D T G S N
UniRef90_UPI0003595271      T A R V Q R V L Q R V C S T L L D M Q D K L N E L D R G A G D G D C G H T
UniRef90_A0QXE4                                                    R I D A V A G D G D H G R G
UniRef90_K1T7R8                R E M L L C A N A A L E E N K Q K I N E L N V P V P D G D T G T N
UniRef90_T0S5N8              D R L L E S V I A G A Q R V I N G K D E L N K I N V P V A D G D T G S N
UniRef90_D3F987            T A K V V A R T L T A V T R E M E E R Q D V L D R L D A V A A D G D H G A T
UniRef90_V6Z728          V L D S A A L L D W A R A S V E G L I S R S D E I N R L N V P V A D A D T G T N
UniRef90_UPI0003C496C0
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UniRef90_UPI00036AACF0    L S T L Q I N T I L N N A L S L L S R E K N V I N N L N V P V P D G D T G L N
UniRef90_R7PRK6          V I D G K L F K K M L I G S Y Q L M N E K C E I I N Q L N V P V P D G D T G N N
UniRef90_X0WZ29                                                              G D T G T N
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UniRef90_L8GH20         L A R G G K A V R A K L A D L R A G S V A D A L H A L G M E L Q R S M G G T S G
UniRef90_W7D7N2         L A S T M L S I V E E   S K I G K S A K E T L Y T I S E A A L F G A R G N S G
UniRef90_S6BYX1         M S L T I Q S V V S N V A N L P G A S G A D I R K A V T T G A L M G A R G N S G
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UniRef90_D9WFE6         M V K G V T A A V E A A R A E H G A G V A T V L T A A G D A W A A K A G G T S G
UniRef90_UPI00036C3C9F   L A R G A A A L R A L P D A A W T S P D G A L Q A M A D A L R R A I A G S S G
UniRef90_N6TFM3         L   R V M A E V L N K R A C L N A V Y P F T F F L S L S K L L E K S I G G T M G
UniRef90_V3TV16         F S R G W T Q   A R E D S V N L D E D W G T A L F T L S K S F Q L A C S S S F G
UniRef90_W8GT31         M T G T L V N A W N N I N E N S E T D I   E I L N D F A K G A L L G A R G N S G
UniRef90_B6QSP0         L L N G I N G L I E L S K R L N S I Y L A H M F R Q I A V V A E T K M G G T S G
UniRef90_V5WNN2         L S F T L K N L I E Q T Q I S Q S   A G E T M Q S L A E S A L S G A R G N S G
UniRef90_R7G565         M R M T L E N G I K H A R S N K   H L G E Y L N E L N H G M L L G A R G N S G
UniRef90_M0RZA4         M H R G A T A V L E D M K R C Y P N D A A E T V N E I G A S L R R V M G G T S G
UniRef90_UPI000466DDAA  L R R L F G A V A A A I P D   Q E T D L G S V F Q A C A K A C A S G T G S S L G
UniRef90_UPI0004661256  I G K I A S L I E K K L A A W E D D N I E E F L E D L G D S T M E I G G G S A G
UniRef90_E6U6Q7         M S R T M G A C A H A L A A V D A D A G A G E V A R A A A T A L L G A R G N S G
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UniRef90_UPI000349A42C  M R R G A A Q E A A R D A A D H G G G A G T V L A R A A A D G W A D R A G G T S G
UniRef90_R0GEY9         M S L S F A S G E K Y V A E S T S S N V G E L A N A L A K G L L M G A R G N S G
UniRef90_D4J383         M T M T I M S A A N A V S E L K D A D R A H T V A K A I S S G S L R G A R G N S G
UniRef90_L8EET6         I V R G L R A A V A A A R A S E P G P A A D P L L A A G L A L A D A S G G A S G
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UniRef90_B5HGG3         L Y L T V E S A A Q A V E A V F A A H L A D V I R A M A H G A L L G A R G N S G
UniRef90_UPI0003595271  H A R A A Q A I Q A W M R R P P P A T P A Q L L S A L A D V L L E Q M G G S S G
UniRef90_A0QXE4         M V K G S S A A R E A A A S A L S E G A G Q V L N A A G K A W A A K A G G T S G
UniRef90_K1T7R8         M S L T M N S A A I E L G R K Q T D T V G A V A D C A A S A L L R G A R G N S G
UniRef90_T0S5N8         L A S V M Q T I V D N L S N N K Y S T N   L L L D E V A S A A L I G A R G N S G
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UniRef90_V6Z728         M L F T M R S A V N A A E A L E G A T V A Q V A A A L A R G A V H G A R G N S G
UniRef90_UPI0003C496C0                             P A Q P S R I L S T L A R L L L E K M G G S S G
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UniRef90_UPI00035EF66D  L V R T S R S A V L R L E R N P A G D S G S A L S V F A E L A H G A V G N S G
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UniRef90_G5HQN0        T L M A S G I M E G G A K A E M G P K E F S E F L D G F A R G I E R R G K C R P G
UniRef90_B1I3R2        V I L S Q I L Q G F A S A G K D Q G C A G D I A V A L E K G V E F A Y R A K P V
UniRef90_X1JLQ0        V I L S Q F L R G L A K G L E D S Q D F A K A L A E A S Q A A Y E   G I M H P V
UniRef90_S8BJ38        A S L T A S I R R Q P E G I D T N Q L L A N S V F E A L Q G L K S H S G A R V G
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UniRef90_K7QYJ6        V I L S Q I L K G F T E A L R K G E R L E A P L E A L R L G A E T G Y K A K P V
UniRef90_W6WFG1        A L I G G G L L A A A K T M V D K D D V L T I G R A V A A R I V E R G K S K V G
UniRef90_UPI000255CB1C A L T G A G A L A A A E A L G D E E A G R E A L A A F V D R V A A R G G A V V G
UniRef90_U1WP15        V I T S Q I L R G V A E A K G A D A T P G D I A V A L R N G V K V A F K A K P V
UniRef90_S2Z245        V V L S Q V F R G I T G E S A G M E D V S A S L G A A V D M V T Q A   I A D P K
UniRef90_J4KNN2        G I L G I F F V S L R A A V E K N I A L A Q A L A T A L E N L R R Y T P A Q V G
UniRef90_H3BDK7        A L Y S L F L T A A A Q T Q S D T A A W A A A M D A G I E A V K R Y G G A E P G
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UniRef90_R4T8N2                                P V A D S D T G S N
UniRef90_A1UEC2        L D A T V L R D W A H A A V E D L I S H T D E I N G L N V P V P D A D T G T N
UniRef90_R7B0S9
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                              50          60          70        80
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UniRef90_H1CZ57        M L N T L K S M Y S M I A E E K A E Q P V G I L A K A A A G A I M G A R G N S G
UniRef90_D9Q805        M A H T M H A A V E A V H Q S Q E L S A S D V A T A L A S G A V R G A R G N S G
UniRef90_UPI00037F1458 L Y L T A E A H Q A V E E A S A P D T A E T V R A M A H G A L L G A R G N S G
UniRef90_E5XMH2        M L A T M R A G L D A L Y P D I P W T A A N I A Q T L L Q G V L D G A R G N S G
UniRef90_UPI00035F2213 L H L T L L S A A E A V E S L P D D D A A V V W Q T L A Y G A L V G A R G N S G
UniRef90_UPI000344926B L A F T M G S V L S G A L S R R A A G V G E L L R R V G E D A V D G G R G N S G
UniRef90_W4XJJ9        L R R G A E A M K T W I E S E E L L S V S H V A G H M S I I A E E A M G G S S G
UniRef90_UPI00037F882F M A H T M A A A V E S A S A L N D D A P A H K V A A L A T G S I R G A R G N S G
UniRef90_K0VRD6                                                D E C R G R G R
UniRef90_UPI00036ABD11 L F L T V E S A A Q S V D A V F E G H L T S C L R S M A H G A L I G A R G N S G
UniRef90_Q1AW96        M L L T L E S V L K E T S G C S Y D S V E A A V K A G A R A A L M G A R G N S G
UniRef90_D0LC19        M V F T M T A A A D A T D A L Q D A G V A D V A R A M A D G A V A G A R G N S G
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UniRef90_W9NNC4                         I G Q I F R R T A T T A E R S M G G T S G
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UniRef90_UPI0004125437 L L N T M R A A S E R V A P L P G G T L G E V A S A L A T G A L L G A R G N S G
UniRef90_UPI0004770C61 L V F T V R A V A C M R T V G A D A T L S E A A A A L A R G A V S G A R G N S G
UniRef90_UPI0003B3775E M A F T M Q S A V E H A A A V P A D A P S N D L H A L A R G A V R G A R G N S G
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UniRef90_F9EHM1        V L L T V R A A C D A L D L L P S T D L A Q A S R A A A D G A V R G A R G N S G
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UniRef90_X0ZI10        M V M T M T S I V Q G V K E C K E S S F A E I S S V I A N S A L T G A R G N S G
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UniRef90_K2N9I0        M L R R V M A A M A H A G A G G A E T A S D A A K R A A A A A M K E T G S S L G
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UniRef90_V6KDM1        L Y L T V E S A A R A V E A V F D A H L P D T V R A M A H G A L I G A R G N S G
UniRef90_J9FZ84
UniRef90_B9L468        L F L T A Q A A L R A A R A A S D T S L T V V T R S A A H A A L R A A H G N S G
UniRef90_A0LV93        L Y R T L H A G L P       S G D D D G G D L R A T A R R C V L H A C G S S G
UniRef90_K1S4V3              N A V A E L N M L S D S V T V A Q T A A S A M L R G A R G N S G
UniRef90_A0QV04        M L F T M R S A W A H A D A Q S G G D V A Q V A S A L A A G A L Q G A R G N S G
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UniRef90_A1UEC2        M L F T M R S A W S R   A Q D C V G D V A E V S A A L A A G A L H G A R G N S G
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                                        90            100           110           120
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UniRef90_UPI00037F1458   T I L S Q L L R G M A G V L A D G C D G D H L A R A L A E A A A R R A V A H P V
UniRef90_E5XMH2          I I L S Q F W R A V S Q T I A D A D G Y A E A L   A L S V A L I G E S V A D P V
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UniRef90_UPI000344926B   A I L A Q F L T G V A S D L G D R I A V A P A R L A A G A R A A R E A V A E P R
UniRef90_W4XJJ9          A L                         D P L D A A
UniRef90_UPI00037F882F   V V L S Q V L R G A H S A S Q G P I G A D A V A H A L T M A V E D R A I A D P V
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UniRef90_UPI00036ABD11   T I L A Q L L R G M A E V L A D A G D L R P A L L R R A A E S A Y Q A   V A H P V
UniRef90_Q1AW96          V I L S Q M I R G A C E V L A R R T T F A E D F A A A L E G A E R R A Y A Q P V
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UniRef90_R4GMF9          V L Y G L F L T A A A H P L H N R S D W A D A V D A G I E A M Q R Y G G A A P G
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UniRef90_UPI00034549CE   S G T G A G L A G L D P A E I G P V A L S R A V D G A V A A F T E L G G A E P G
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UniRef90_UPI000050FADB   L I L A V A L Q G V A D A V A T P E A M A Q A L E L A   S A R A R Q S V A R P V
UniRef90_UPI0004752378   A I W G E M L R A L G R E R A D G E R V A T G I V A A R D A V M A F G K A Q V G
UniRef90_A7NGY6          I I L S Q I L R G V A A A L A G H H L M S E M A V A L T H G S T R A Y E A R P V
UniRef90_Q11BU5          T L L M T A L R L K G R S E V P W G E L G A V M L A A R D A M L S R G G G A L G
UniRef90_UPI000344B147   S G T G A G L E G K D T A R I T P G A L A D A V D R A V A A F T E L G G A R P G
UniRef90_UPI0003C779DE   T I L A Q L L R G M A E V L A R G C D G H H L A E A L D S A A A R R A V A H P V
UniRef90_X1G5R3          P L F G T A F I E A G K A I I R L E D W S R S V K A A E E G I K K R G R V E V G
UniRef90_T5AGD3                                      W A A A L S T A L E S L R R Y T P A K V G
UniRef90_B8HAC1          T L F S V F L C A A A E P L A G Q Q R L S S A L L A A L H R A Q I R A W S D P V
UniRef90_L8DLN1          V I L S Q L L R A V A E A A A D G P L D T V S V Q A M L R R A K V L A V S V P V
UniRef90_G8SJV3          V I V S Q I L R G M A D A F A S A A E L A H A L R Q A S E A A Y A A V A   R P V
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UniRef90_W9NNC4          A I Y V I F L N A V A N S L P D Q A L A K T P L Q R G L D E L C R Y T P A C I G
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UniRef90_UPI0004125437   V I L S Q M L R G L A E A V R D L D L V D A H A L A G V E R V A R T A V T E P A
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UniRef90_UPI0003B3775E   M V L S Q V L R G T A D T V T D E G L T G P A L S N A L N T S V D Y A L A G P V
UniRef90_UPI00035E263E   V L L S Q V L R G F V A E P G R L F G T G Q L R S A L H K A R I L A A V S E P A
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UniRef90_W2PZB9          V L Y V I F L T A G S L H E D D A A A W I G A F R A G I N A V Q K Y G G A K E G
UniRef90_X0ZI10          A I L A Q F F Q G L A E A T R G K V R L S T N A A T K A A E Q A R N A I S N P Q
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UniRef90_UPI000378A4F6   V I L S Q I L R A G D L A D I D G V L F G A A L R H A V   A L V V A S M D E P V
UniRef90_D2SE35          T I L A Q L W R G A G Q P P A D P T L A A A L Q K A A D S A Y G A   V A D P E
UniRef90_H6MUL1          I I L S Q V L V G V A D A E L S L S Y L A S A G L R L A G L A A R R A V S E P R
UniRef90_UPI00035C6576   T I L A Q L L R G M A Q P H T D G N G L G L A L R H A A D S A R Q A   V A H P V
UniRef90_UPI000477072E   V I L S Q V M V G L A D A E L G S D A Q S A L T F N A L C V A K R A V S D P M
UniRef90_D5UTE7          V I V S Q I M R G V V G G Q L G P D A D L E A A G L A T A T G L V T S A V A D P I
UniRef90_F5YYC5          V I L S Q I L R T A D P T V V D A A L L G A G L R H G V E L V I T S M G G R E V
UniRef90_D6EDE1            L R S L G T S L G D R D A P D A A R V A E G V T E A S A A V R R L G G A E V G
UniRef90_L7KRB2          I I L S Q V L V G L A D A V L T F S Q L A V S G L R L G S L A A T R A V S D P R
UniRef90_K2N9I0          S L V A T A A M T L A R K T P E T A D L P M I V E A I R D A I S A R G K A S V G
UniRef90_UPI00037EEF82   V I L S Q V L R G L A E S V D G A E R V G G A E L A A A D R T A T E A V A R P V
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UniRef90_J9FZ84                                      E E V D A A V F A K A F E K G V E T A Y K A K P K
UniRef90_B9L468          V I L S Q F F R A W A E I A A Q R E Y L M A A G F A R A D T L A R Q A L L E P V
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UniRef90_C3PG03       E G T I I T V L R A A A T A A S Q A A G E S G A L A A V E A A S K A L A E T P S
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UniRef90_M3TIP8       E G T V L T L L K V A A A T A S A H V S D S P A D L V R A V A E D S A E A T T E
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UniRef90_W1VNE7       D K T M V D A T E P F V Q A M S E A G A E I A T Q A A A S T A D M A A R K G
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UniRef90_L8DLN1        Q L V E L   R E A G V V D A G A L G L S V V F D A L V E V V
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UniRef90_A0A022LMB5    T T S Q L A L A R A G V V D A G G R G L L V L L D T M V E V L
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UniRef90_X1MCH0
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UniRef90_UPI00030F8A97 T T E Q L G L A A A E V V D A G G T G L L A V L G A L R Q A L
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UniRef90_H1VXB9        R T V Y I G G S G F E V P D P G A W G L S C F F A G L A
UniRef90_W8ATG6        T P T Q L G L R E A G V V D A G A L G L L V L L D E L V A A
UniRef90_W9NNC4        R A S Y V G R D R F G I P D P R A L G M V S I L R G V E A A L
UniRef90_Z5X4G5        Q L D A L A E   A G V V D A G G R G F L V L I D A L T A T V
UniRef90_UPI0004125437 Q Q D A L A   A T G V V D A G G C G V L V I L D A L L A L V
UniRef90_UPI0004770C61 Q L P A L   D V A G V V D A G A L G L V V M L D A L A S I V
UniRef90_UPI0003B3775E Q L P A L Q E   A G V V D A G A G L V L V L A A M L D V
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UniRef90_W2PZB9        R A G Y V G E E G A G I P D P G A K A A A F W I Q A I A D T L
UniRef90_X0ZI10
UniRef90_I0UZL2        Q L A A L A   V A G V V D A G G R G L V V V L D A L V E A L
UniRef90_UPI0004711CD3 R A R T H G E R S K G H P D A G A I S M A L C A R V I A R E L S
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UniRef90_H6MUL1        Q L P E L A   S A G V V D A G A R G F L V L L D S L V A V I
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UniRef90_L7KRB2        Q L P E L A   S A G V V D A G A R G F L V L L D A M V G V L
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UniRef90_J9FZ84        M L P V L K E   A G V V D S G G Q G L L E V L K G A F D
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UniRef90_L0IUV0        Q L D V L A E   A G V V D A G G R G L L V L L D A M S T T L
UniRef90_UPI0003804E25 Q L D V L   R E A G V V D A G G A G L V V L L E T L A Q Q I
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UniRef90_R4T8N2        Q L P V L A   V A G V V D A G A R G L V A V L D A L H G V I S
UniRef90_A1UEC2        Q L D V L A D   A G V V D A G A R G L V A L L D A L T R T L
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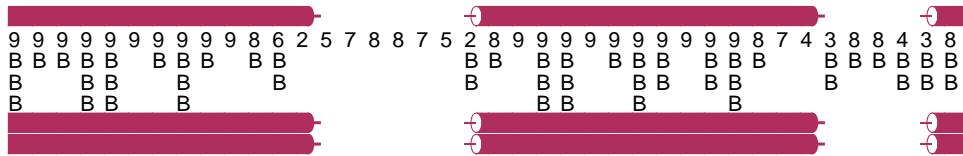
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UniRef90_D3FFN3                 V D G T A L R R W V D L G L R A L A E R R D E I N S L N V P V P D G D T G T N
UniRef90_A0A059MS33
UniRef90_D4KEN0               V I T G N D F K R M I A G A Y S A F L L E Y E N I N A L N A S L M D E K A G T H
UniRef90_G2NJ38                 L D A V A V R A W C S L A L E A L G R E R E A I D A I N V P V A D G D T G T N
UniRef90_U4UF89                                                               A A T G D G D T G T R
UniRef90_UPI000255EA82             T A R R W A M T A R L S L A A A R D R I D A L N V P V A D G D T G T N
UniRef90_UPI000262DE22         F D A L A V R T W C G L A L E T L G R A R E E I D A I N V P V A D G D T G T N
UniRef90_K5BGV3                 L D A T A L R A W A H A A V G G L S A H L D E I N R L N V P V A D A D T G T N
UniRef90_UPI0003B4FC0B                F R D L V A A G L A H L E S R R Q E I N D L N V P V A D G D T G D N
UniRef90_UPI00046D51FB         V I D A A V L H R W G Q T A L E L L M R H Q N D I D E L N V P V A D S D T A T N
UniRef90_UPI000369F434                             L V V A R E E I D A L N V P V P D G D T G T N
UniRef90_M3DCF6                 F D A L A V R T W C G L A L A A L G R A R E E I D A I N V P V A D G D T G T N
UniRef90_X0V9Q2                         M E A S T T W L E R H V Q T I N A L N V P V P D G D T G T N
UniRef90_F6FQ17                 L L D A A V V R T W A R L A A E A L G R A R T A L D G V N V P V A D G D T G T N
UniRef90_V4TMB7
UniRef90_C7QGZ9                 V D A G A L R R W A G A A L A V L G R H R E E I D A L N V P I A D A D T G T N
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UniRef90_M2XTL1                                                                 D S D T G A N

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lupas_28
jnet
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sol25             B   B B   B B   B B   B B       B B     B               B B B B B B   B B B
sol5                B       B B       B B     B                 B               B B       B
sol0                B           B           B           B                                 B
jhmm
jpssm
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Multiple sequence alignment (residues ~45-80)

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UniRef90_D3FFN3          L L V T L R S A A A E L D T S D A E D V A T I V G A L A R G A F H G A R G N S G
UniRef90_A0A059MS33      I L R T I G A A A M S L R D L Q A D S I G G V S K R V G S A A V L G A H G N A G
UniRef90_D4KEN0          L Y L T V E S A A A A V E A V F A A H L A D V V R A M A H G A L I G A R G N S G
UniRef90_G2NJ38          L   R V M A E V L N K R A C L N A V Y P F T F F L S L S K L L E K S I G G T M G
UniRef90_U4UF89          M F L T I D G A L E H V R V Q F E N G A G T D L Q L I A R G M L L A A R G N S G
UniRef90_UPI000255EA82   L Y L T V E S A A A A V E A V F A G H L A D A A R A M A H G A L I G A R G N S G
UniRef90_UPI000262DE22   M L F T M R S A V D E L G S A D Q A D V V A V A A L T R G A L Q G A R G N S G
UniRef90_K5BGV3          M A L T L R S V V G E L D A V L T E G Q T L D V R R L A R A A L L G A R G N S G
UniRef90_UPI0003B4FC0B   M Y T T L K S A T E E C D E A D S V P L   L L D R L A A R A L V S A R G N S G
UniRef90_UPI00046D51FB   L V R T M D A A C R A L D G Q V E D R V G T H L H R V A R A A M I G A C G N S G
UniRef90_UPI000369F434   L Y L T M E S A A A A V E A V F A G H L A E A A R A M A H G A L I G A R G N S G
UniRef90_M3DCF6          M L L T M R A A L E E L N N S S A Q S A S A V A H T V S Y G A L M G A R G N S G
UniRef90_X0V9Q2          M H L T L R E A A D A I D T P D D A G G A R L L R L M A R G A L L G A R G N S G
UniRef90_F6FQ17                                  N E I G A S I R R V M G G T S G
UniRef90_V4TMB7
UniRef90_C7QGZ9          M Y L T F E A A C R A L D D R P A P S V P E A L Q A L A H G A L L G A R G N S G
UniRef90_W6KXE4          L Y L T V E S A A A A V E A A E G P T L A E A V R A M A H G A L I G A R G N S G
UniRef90_G0Q2Y3          L L A T M R A A M A A A E A A R E V T A H E V A A A M A R G A T I G A R G N S G
UniRef90_A0A024YIR0      L Y L T V E S A A A A V E A V F A A H T A D A V R A M A H G A L I G A R G N S G
UniRef90_R7WM12          L Y L T A E S A D R A L A D T F P T T L S E A V R A W A H G A L V G A R G N S G
UniRef90_M2XTL1          L L F T M R S A L A A A E N A A R P G V H R I A V A L A H G A V A G G R G N S G
                        L V T T V G T A A Q A V Q V L E T P D V G E L I S L A G Q A A L D D A R G N S G
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jnet
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sol5   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   B
jhmm
jpssm

UniRef90_UPI000237892A	L W G A A L R S F G D L L P D A N D L T A G A S A A L A A V Q R L G R A E L G
UniRef90_D3FFN3	D L T H Q A A H Y L D Q N K L S R N H L I E S F Y R A L L D C K N K Y Q L R I G
UniRef90_A0A059MS33	V L L A Q M L R G L A D A A V D G A A L G R A W R H A A D L V T R A L S C P A
UniRef90_D4KEN0	V L I S Q I L R G I A K G L A G K Y D A S S S V F S F Q Y G I L Y A Q R A V N
UniRef90_G2NJ38	T I L A Q L L R G M A G A A A G D A D H L R R A L A E A A A S A R L A V A H P V
UniRef90_U4UF89	C L Y S I I F E A A A K T F G Q Y S E E D N V Q A E M W K A L E N A S L A I K K
UniRef90_UPI000255EA82	V I L A Q L T A G L A D A V G P D V E A A E V A T A F E Q A A R S A A L A A P V
UniRef90_UPI000262DE22	T I L A Q L L R G M S Q A H A D G Q G L R L A L R H A A D S A R Q A V A H P V
UniRef90_K5BGV3	V I L S Q I L R G F S E T E I D A G L F A A A L R R A V G F V L A A V G D P Q
UniRef90_UPI0003B4FC0B	V I L S Q L I R G A A E E L V A R P G L V A A A L A G A A H R G Y D S V R Q P V
UniRef90_UPI00046D51FB	V I L A Q M I A G L A D T W I D E T V N A H Q F A L G A A D S A V A A V A Q P T
UniRef90_UPI000369F434	I I L A Q F L H G A A R A L D G R R V L D G P A L A R A L A A A S A A G Y R P V
UniRef90_M3DCF6	T I L A Q L L R G M A Q V L S D D S E A V H A L R H A A D S A R D A V A H P V
UniRef90_X0V9Q2	V I L S Q L F R G L A R S L D K K K T F T E L A Q A M K E A S A T A Y
UniRef90_F6FQ17	V I L S E W L R G L A V A A T H R D P L A P A L D A A A R S A R R A V A H P E
UniRef90_V4TMB7	I L Y H I F C K A A Y K S G I T S K Q W A E A L E A S I A A V S K Y G G A T A G
UniRef90_C7QGZ9	V I L S Q L L R G A A G A R Y T G S A V D G A A L A A G L A L A Y E A V A R P A
UniRef90_D5ZUM4	T I L A Q L L R G M A Q V H A D G Q R L R L A L R H A A D S A R R A V A H P A
UniRef90_K0EWR8	I I L S Q V L R G I A E A V R A G P L T A A T L R E A L R R A A V L V R A A P I
UniRef90_W6KXE4	A A I A K G S D E V Q K L G G A R K G
UniRef90_G0Q2Y3	T I L A Q L L R G M A G V L V D G G D A A H L S L A L A R A A D A A R R A H P V
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UniRef90_R7WM12	V I L S Q I L R G L A E A T A G S G S S S A D A E S A A S N L V A D A V S R P V
UniRef90_M2XTL1	S L F A V W L C A V G A S L E G R G L T A D A F A Q A L S S G E V R S W S A L T

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

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                              130         140         150         160
UniRef90_UPI000237892A   D K T L V D A L V P F V E E L R R A V E A G A T G T D A W E Q T A E L R P R T G
UniRef90_D3FFN3          A K S F Y D I L Y P   V L K Y L Y L N N D L S T Q E L M A E S Q K I L K S K V G
UniRef90_A0A059MS33      E G T I V S V L H A A A D G A H A A G R S T V A T A A A D A A A E A L Q R T T A
UniRef90_D4KEN0          D E V E R P L I I T A K A V A K G A Y N A V R A N L P I A E I L T E A I K A G G
UniRef90_G2NJ38          E G T V L T V A S A A A E A A G A T A A A A D L T D V A D A A Y A G A A H T P Q
UniRef90_U4UF89          Y R D L F S K N R H Q L K A C A V L V R K N S A N G Q Y I Y A F E T G V A K A E
UniRef90_UPI000255EA82   E G T I L T V A R A A A Y C P G Q D S V A E V V G A A L E A A R E A L A R T P E
UniRef90_UPI000262DE22   E G T V L T V A S A A A D A A D A A C G A E G D C G T V A R A C A A L A A T P G
UniRef90_K5BGV3          P G T V I T V L E E A A A A A E R A V A D G A D L V E A V D A A A D A D K T T A
UniRef90_UPI0003B4FC0B   E G T I L T V A R P L G E E E Q S A A L A V V I G E S I M A G Q R A L D E G P E
UniRef90_UPI00046D51FB   A G T I L T V A E T A A T A A R K A A S L G L M S A V R A A A E T A A E A V E A
UniRef90_UPI000369F434   E G T I L T V A R A A A E A A T R R A A E S G P T P A A V L S A A T G A A E A A
UniRef90_M3DCF6          E G T V L T V A A A A A D A A T G T E G D C A A V A R S A Y A G T A L A A T P G
UniRef90_X0V9Q2
UniRef90_F6FQ17          P G T I L T A A E V A A A A A R D A A A G P A G P E A A P A P A D G H D A A T S
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UniRef90_C7QGZ9          A G T I L T V A S A A A E A S S A A V A A R I P V P A G G E A L P V P N P T P D
UniRef90_D5ZUM4          E G T V L T V A S A A A E A A D G A P G D C G T V A R A A Y A R A A L A A T P G
UniRef90_K0EWR8          E G T I L L T V L D C A A A S A A A D A D G T L A E V A L A A A D G A A K A L G E
UniRef90_W6KXE4          D R T M V D V L E A A V T L K D F L E V C L R E A T K A A A A T A Q L P A K F G
UniRef90_G0Q2Y3          E G T V L T V A T A A A E S A A D G S A D L C A V V H A A H A L A A L A K T P E
UniRef90_A0A024YIR0      E G T M L T V A G A A A R A G E A A S E A A G T A A D V A R A R A A L A E T P G
UniRef90_R7WM12          E G T I V T V L R H A A R L P H S T G L V D A A S A I A G V A A D A L D R T S G
UniRef90_M2XTL1          D G T M L S V I R D I A A V Q V P E A E E H H M E R V V A A A R E A V L G S T E
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jnet
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sol5            B       B B     B B     B                     B         B
sol0            B           B           B                     B         B
jhmm
jpssm
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UniRef90_D3FFN3          R A S Y H G K R S I G I Y D P G T V F I Y I I L E G I
UniRef90_A0A059MS33      Q L D V L A E     A G V V D A G G L G L L L L L D A F V E T V S
UniRef90_D4KEN0          I A L S Q A E K K N G F V D A G A K A L M V F L Q G C R A G L
UniRef90_G2NJ38          R L A V L G R     A G V V D A G G Q G L V T V L G A L L E A V
UniRef90_U4UF89          E A Q S T R Q Q G S K Y P N P G A H A V G I W L R A V C E A V
UniRef90_UPI000255EA82   Q L A E L       R D A G V V D A G G A G L V L V I E A L H T V L
UniRef90_UPI000262DE22   Q L P V L       E R A G V V D A G G R G L V A V L G A L V E T
UniRef90_K5BGV3          Q L D V L A D     A G V V D A G G R G L L V L L D A M S A T L
UniRef90_UPI0003B4FC0B   L L P A L K E     A G V V D A G G F G L L V M F A G V I R F L
UniRef90_UPI00046D51FB   T T N Q L A L A R A G V V D S G G L A F T F I L E A L V E S L
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UniRef90_D5ZUM4          Q L A V L     R R A G V V D A G G R G L V A V L A A L V E T
UniRef90_K0EWR8          T P S Q L G L R D A G V V D A G A R G L V V L L D S L V S V
UniRef90_W6KXE4          R S R Y L S G K E V G Q K D P G A E L V V L W I K A V A D
UniRef90_G0Q2Y3          Q L A V L G R     A G V V D A G G R G L V A V L G A L V E T V
UniRef90_A0A024YIR0      Q L A A L G R     A G V V D A G G C G L V A V L G A L W Q A L S
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UniRef90_M2XTL1          E L G A L     Q G S G R V D A G A L G M L I I L D A L R R T A A


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