Multiple sequence alignment (QUERY vs. UniRef90 homologs). Position ruler: 1, 10, 20, 30, 40.

```
                   1         10         20         30         40
QUERY              H E L P V Q H L G G H K Q R V E G A L I G G N L T A L A C M A G T L G G L H A P
UniRef90_K9UZM3              P L Q G N G W G G G I V D G V L L P G N L T V A T H L L G T K Y Q P N   F
UniRef90_B7RZ75                  R G G T A Q G P L I G G N L S L V C H L M G T P F Q P E   F
UniRef90_UPI0002559791                  G G V A R G R L I G G N L S L M A S L V G T P F E P D Y
UniRef90_UPI000478B654       R T I T L R G G K A R G R L L G G N L S L V L S A L A G S P Y   L P D F
UniRef90_D7E042             P L K G N S W G G G V A T G I L L P G N L T V A T H L L G T P I   L P N L
UniRef90_K8GNV7                      P G R V T G Q L I G G N L T L V T N L L G T P F E P D T
UniRef90_K4KKZ5                      G G R A R G R L I G G N L T L I A S V M G T P F Q P D   F
UniRef90_I0KEP6                    N P G I A R G R L L G G N L T V L S H L I G T P Y V P D   W
UniRef90_UPI00040E9F1A              P G K A R G K L V G G N L S V L S S M I G S S Y   L P V W
UniRef90_B0C4A9          L T G K G W G Q G K A T G I L L P G N L T V A T H I L G T S L   C P K L
UniRef90_UPI00034D99A3   P I K G C G W G N G V A K G I L L P G N L T V A T H L L G T P I Q P N   F
UniRef90_I1DTF7               R T I T I N S G K V Q G E L I G G N L T V L T A L A G S P Y   L P D F
UniRef90_UPI0002D527B7   L S L H G V G W G Q G R A V G R L W P A N L T V A T H L L G T P H E P D   L
UniRef90_UPI00036C65DC                 R P G V A R G R L V G G N L T L L A S A L G T K Y T   P K L
UniRef90_Q10V00            P L T G N G W G G Q A K G Y L M P A N L T V A G H L L G T K Y Q P D   L
UniRef90_M2TS05              R T Q L F R S G K A T G P L L G G N L T V L S A L V G T P Y   L P D F
UniRef90_A5GRS9         L P L Q G E G W Q G G V A E G P L L V G N L T V A T H L L G T R H C P D   L
UniRef90_K9TGN2            P L Q G N G W G N G T A T G Y L L P A N L T V A T H L L G T P A Q   P L L
UniRef90_D4TNB2          L Q G K G W G S G Q V T G I L L P G N L T V A T H L L G T P L L P P M
UniRef90_UPI00034C400E Y D L N Y R V E T L T A G R A R G R L V G G N L S V L A G M V G S P Y   L P D W
UniRef90_UPI00034720A4              P G K A R G K I V G G N L S V I A A M V G S V Y   L P S W
UniRef90_UPI00036C5CFF           H P G V A R G R L I G G N L T L V T S L M G T P Y E I   E T R
UniRef90_A0M517                 N E G S V K G Q L L G G N L S V L T G I M G S E Y F P K D W
UniRef90_UPI00037D14A1              P G K V K G P L F G G N L S V F S A M V G S E F   L P S F
UniRef90_K9RRD1          P L R G E A W V G G V V Q G M L W P G N L T V T T H L L G T P   Q L P A W
UniRef90_UPI000367BAB3             E G T A S G E L V G G N L S L I A T L M G T P Y E L D T
UniRef90_B2V592                   E G K A E G R L V G G N L S V I C S T L G T D Y E I D T
UniRef90_I3C730                   S G T A T G K L V G G N L L L S A M T G T D F D V D Y T
UniRef90_UPI00039CC9A7           H S G T A E G I I V G G N L T V L T G L A G S P Y   L P D F
UniRef90_UPI00039DBDC3         R P G L A R G R L V G G N L T V L S H L I G S P Y   L P D W
UniRef90_H8MG92                     G T A E G V L V G G N L S V F S R L L G T P Y M P P   L L
UniRef90_K9WHZ1          P L S G V G W G G G T V R G I L L P A N L T V A T H L L G T P V Q P P   L L
UniRef90_U5DPJ0                   S G I A R G R L I G G N L S V L S S L I G S P Y F P D   P
UniRef90_UPI0003A56987 Y N L P P K F F T I T P G D A E G K L L G G N L S V L V A M I G S D Y   L P D F
UniRef90_E5W295         P L E T L V H   G A A E G L V G G N L A L L V T T L G T P Y E I D T
UniRef90_UPI000474BF96   P L Q G Q A W Q G G V T G R L L P A N L T V A T H L L C T P L E P N   L
UniRef90_H1PPQ5                   E G R A E G E I V G G N L A T M I A S L G T E Y D V D Y
UniRef90_M1YTN2                 N G G K A E G A I I G G N L S L I T S T I G T P Y E I D S
UniRef90_B4VIK7         P V E T I T   K G K A R G R L V G G N L S L V A A L V G S D Y   L P D W
UniRef90_F8WVL7                   G K A K G E L T G G N L T L I C S M V G T P Y Q I D   L
UniRef90_UPI0004658992         R G G K A S G E L V G G N L S V L V A L A G S P Y M P E   F
UniRef90_F5L605                  P G K A E G P L V G G N L S L L V S T L G T P F E I D T
UniRef90_B2UBF4                 R P G R Y A G T L W G G N L A M L C S L I G T P Y L P D I R
UniRef90_R7N0P3                 P G Q A E G P I V G G N L T V L T S L V G T P Y A L D G T
UniRef90_G0J4Q2                  S G K A T G E L V G G N L T V L S L A G S P Y   L P S F
UniRef90_Q095C8                   G T A E G P L L G G N L A V L T C L V G T P Y   L P S F
UniRef90_I2GL96                 K S G K A R G R L I G G N L T V L S H L I G S S Y   L P D W
UniRef90_G4FLL2         P L Q G R A V R P G V A S G P L V V T N L T V A T H L I G T P W   L P D L
UniRef90_UPI00034B30E5  P L R G E G W G G G T V R G R L L P G N L T V A T R L L G T P V Q P D   L
UniRef90_UPI000361B230             P G T A E G W L A G G N L T V F V S L M G S P Y F P N   L
UniRef90_J2M2U6            G N P A L K A S G M L W G G N L A M I V H L L G T P Y F   P Q V
UniRef90_R7CRH9                 P G K A S G R L I G G N L T V V V S L C G T P Y E L D G
UniRef90_H3NRH6                 P G R A E G H L V G G N L T L M S A L L G T P Y   L P T F
UniRef90_B8HTC4                 P G R A R G R L I G G N L S V L A A L V G T S Y   L P T W
UniRef90_UPI000382D9B4          G G R A S G R L V G G N L A T L V H M I G T V Y Q P D   F
UniRef90_J8K0R0                       I V T G P L V G G N L T V L T S T I G S P Y E I N   I
UniRef90_K9S6K0         P L Q G E S W A A G R A A G P L I P A N L T V A T H L L N T A H Q P D   F
UniRef90_C2FXU3               H P G K A E G I L L G G N M T V L T G L C G T P Y   L P D F
UniRef90_L8LZZ0          L Q G K G W G R G I A E G I L L P A N L S V A T H I L G T P L Q   P S L
UniRef90_UPI000479C5C9           A L R P G R A E G P L T G G T L S L L T A L L G T P Y A P P P A
UniRef90_E2ZA87       D F P P H T R L I P S G T A E G R L I G G N L S I I A S L V G T P Y A L Q G
UniRef90_UPI00046F49C9  P L M T L A   S G T A S G R L V G G N L A L I S A L M G T P Y E I D T
UniRef90_K9VMT1          L Q G K G W G S S K A T G R L F P A N L T V A S H L L G T P Y Q P D   L
UniRef90_A0A059FL67                P G T A R G R L L G G N L T V M T A L V G T P Y   L P A F
UniRef90_UPI0002F4660B H T I E F Q P G Q N P A V E L E G M L W G G N L S M L V H L A G T P Y F S E   V
UniRef90_UPI00020020D7  P L Q G T V W N L G Q A E G P C L A G N L T V A T H L L G T P H   L P D V
UniRef90_J7SWB0                     I A E G E L V G G N L S L I C S T L G T P Y E I D T V
UniRef90_A3Z748         P L T G R A V R S G R A T G P L V V T N L T V A T H L I G T P W W   P S L
UniRef90_UPI000471D61E  P L E T L S   P G V A S G E L T G G N L S L L A S S I G T K F E I   H T
UniRef90_X8K2M6                   K G G K A T G N L V G G N L S L L S A S I G T P F E I E S E
UniRef90_S2D182                  P G K V S G K I L G G N L T V L T A L S G T S Y   L P D F
UniRef90_C3XA61                 N P D V D V E G T L W G G N L T M L A H M A G T P W M P D   I
UniRef90_UPI0003609742   L S F E T R D A D P W G G N L A M V A S L L G T P Y L P R V K
UniRef90_K2Q3B1                 N P G I I I A P L V G G N L S L L S A M C G T Q Y D V D Y T
UniRef90_UPI00047E9E75           E G R A E G V I I G G N L A L I S A T M G T P Y E I N T
UniRef90_U2NUP8       Y N I P F G G V C Y N E D N I T G I L L A G G N L A T I C S T L G T P Y E I N   F
UniRef90_UPI00036CF467          R A G T A E G R L W G G N L S L A A A S G T D Y V P P   L
UniRef90_C3WBP9                  E G K A K G K L V G G N L S L A A S L T K Y D L D Y R
UniRef90_E6XBA1                   G K A T G K L V G G S L T L I N A L I G T P H E I D F T
UniRef90_UPI0004792E40               I V S A P L T G G N L T V L V S T L G T S Y E I   Y T
UniRef90_W1S897                 R P G V A R G R L L G G N L T V A A L M G T P W   L P D F
UniRef90_A7GMQ5                        T G T L I G G N L T V L A S T L G S P F E V D T T
UniRef90_K9CWZ1                  G S G K A S G R L L G G N L V L T A L M G T P W   L P D F
UniRef90_I9WD01                  R G G K A Q G R L L G G N L S V L S A L V G T P Y   L P D F
UniRef90_F7Z506        T G E A W S E G A V T A P L T G G N L S I I C A L M G T P F E I D T
UniRef90_B7KHI5                  P G K T R G K L L G G N L T L S N L V G T P Y D A   A
UniRef90_B7KKW1         P L S G E G W G G G Q V I G D L L P A N L T V A T H L L G T S L Q P E   L
UniRef90_K2AMZ4             I T I S E G Q V T A P L V G G C L S L I T S L L G T P Y E L D T
UniRef90_F8EBW0                  G S G K A R G K L L G G N L S H L G S P Y V P D   W
UniRef90_T4VA56                   E G V T E G K I L G G N L T V L A T H L K Y E L D T
UniRef90_UPI000287B045          G R A T G K I V G G N L S L L A S S V G T M Y A   P Q T
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                              50              60              70              80
QUERY                 A G S I L V L E D V G E P Y Y R L E R S L W Q L L E S I D A R Q L G A I C L G S
UniRef90_K9UZM3       D D V I L A I E D V S E A P Y R I D R M L T Q W R M S G V L A K V R G I A L G R
UniRef90_B7RZ75       S G R I L F L E D V H E A P Y R I D R M L T Q L K L A G V L D E V A G I A F G K
UniRef90_UPI0002559791 R G K I L F L E D V S E A P Y R V D R M L T Q L W L A G K L Q Q V A G I V F G K
UniRef90_UPI000478B654 D G A I L F L E D V S E A P Y R M D R M L T T L K L A G I L D R I A G F V F G E
UniRef90_D7E042       D G V I L A L E D V T E P P Y R I D R M L T Q W R L S G V L S K V C G I A L G G
UniRef90_K8GNV7       R G K I L F L E D I G E E P Y R I D R M L T Q L W L A G K L Q D A A G I A L G R
UniRef90_K4KKZ5       R D A I L F L E D V H E A P Y R I D R M L T Q L W L A G V F D Q V A G V V L G K
UniRef90_I0KEP6       K G A I L F L E D V H E E P Y S V D R M L T Q L K L A G V L D Q V A G V V F G K
UniRef90_UPI00040E9F1A K H S I L F V E E L N E D I Y R V D R M L T Q L K N A G I L S Q I A G F I F G Q
UniRef90_B0C4A9       D Q V I L A L E D V G E A P Y R L D R M L T Q W R M S G V F K Q V K G I A L G R
UniRef90_UPI00034D99A3 D G V I L A F E D V A E A P Y R I D R M L T Q W R L S G A L S Q V R G I A L G G
UniRef90_I1DTF7       S G K I L F L E D V E E A P Y R V D R M L S T L K L M G A L D K I A G F I F G E
UniRef90_UPI0002D527B7 S G A I L A F E D V T E A P Y R I D R M L T Q W R M A G K L A K I A G I A L G R
UniRef90_UPI00036C65DC K N K I L F M E D V G E K P Y R I D R M L T S L R Q A W P L S D L A G I A M G V
UniRef90_Q10V00       T G T I L A L E D V N E A P Y R I D R M L T Q L S L A G I L P Q V A G I A L G R
UniRef90_M2TS05       A G A I L F L E D V G E A P Y R I D R M L T Q L S L A G I L P Q V A G V V F G T
UniRef90_A5GRS9       A G R V L L L E D I G E A P Y R I D R L L T H W R L S G A L Q Q L A G L G F G R
UniRef90_K9TGN2       D G V I L A F E D V G E A P Y R I D R M L T Q W R M M G A F T G V R G I A L G R
UniRef90_D4TNB2       D G V I L A L E D V T E A P Y R I D R M L T Q W R L S G I L N Q V R G V A L G G
UniRef90_UPI00034C400E Q G A I L F V E E I G E E V Y R I D R M L T H L K L A G I L D Q I S G F I F G Q
UniRef90_UPI00034720A4 R K N I L F L E D I G E D I Y R I D R M L T Q L K N A G I L Q Q I N G F I F A Q
UniRef90_UPI00036C5CFF E   R I F F T E D V G E E P Y R I D R M L T Q L L L A N K L Q K A T G I V F G E
UniRef90_A0M517       T G K I L Y L E D V G E K I Y A V D R M M T Q I Q I Q L G G V L N Q I S G F V F G K
UniRef90_UPI00037D14A1 D G A I L F L E D V G E S V Y R I D R M I T Q L K L A G I L D R I S G F V F G K
UniRef90_K9RRD1       S R V I L A L E D V G E A P Y R L D R M L T Q W R Q T P A F Q Q V V G L A L G R
UniRef90_UPI000367BAB3 K G K I L F L E E I H E E P Y A V D R M L T Q L K L A G K F E D A A G I V L G S
UniRef90_B2V592       K G K I L F L E I D E Y P Y K I D R M I M Q L K Q C N K F S E A N G I I L G Q
UniRef90_I3C730       D   K I V F I E E I E D P Y R V D R M L T Q L L D S K T F K H A K G I V L G V
UniRef90_UPI00039CC9A7 K D K I L F L E D V G E S P Y R I D R M M S T L Q L M G A L E G L K G F I F G Q
UniRef90_UPI00039DBDC3 K N T I L F L E D T H E D I Y R V D R M L T H L K L A G I L N Q I A G F V F G K
UniRef90_H8MG92       D G A V L L L E D V T E R P Y R I D R M W T H L R L A G V F S R V R G I V L G D
UniRef90_K9WHZ1       A G V I L A L E D V T E A P Y R I D R M L T Q W R M S G A L K Q V R G I A L G R
UniRef90_U5DPJ0       R G A I L F V E D I G E P I Y R I D R M L T Q L S L A G I L E Q L S G F V F G Q
UniRef90_UPI0003A56987 T D S I L F L E D V G E D V Y R I D R M I T Q L K L S G I L D Q I S G F I F G K
UniRef90_E5W295       K G K L L F I E D V D E E P Y R I D R M L N Q L K M A G K L S D A A G I L L C D
UniRef90_UPI000474BF96 A G V I L A L E D V A E A P Y R L D R M L T Q W R M S G R L E A I G G L A L G R
UniRef90_H1PPQ5       N G K I L F L E E I G E K T Y K I D R M L N Q L K K F K V F E K I N G I I L G D
UniRef90_M1YTN2       K G K I L F I E E I G E E P Y R I D R M L T Q L R L S K K L E E A E G I I L G D
UniRef90_B4VIK7       Q N S I L F V E D I R E E V Y R I D R L L T Q L K L A G I L D Q V A G F I F A Q
UniRef90_F8WVL7       K N K I V M I E D V G E E V Y R V D R L L T Q L I A T G E L T K A A G I A I G V
UniRef90_UPI0004658992 D G R I L F L E D V S E A P Y R V D R M F S T L K L S G A L D R I A G F V F G E
UniRef90_F5L605       R N K I L F I E E V D E E P Y R I D R M L N Q L K M A G K L E Q A A G I V L C D
UniRef90_B2UBF4       D G   I L F V E D I N E H P Y R V E R M L Q L Q Q A G V L D A Q Q A L L F G D
UniRef90_R7N0P3       G C I L V L E D T G E D A Y R I D R M L N Q L W Q S G L L S R V A A I A Y G D
UniRef90_G0J4Q2       K G K I L F L E E E P Y R I D R M M S T L M L M G V F Q E I K G F V F G Q
UniRef90_Q095C8       E G A V L L L E D V G E R P Y R L D R M W T Q L M L R L A G I L F Q Q V R G I V L G D
UniRef90_I2GL96       T G K I L F V E D V G E D V Y R M D R M L T Q L R L A G I L D Q I A G F V F G K
UniRef90_G4FLL2       R G S I L A L E D V G E A P Y R V D R M L T Q W R S S G L L R G L A G V A T G R
UniRef90_UPI00034B30E5 T G V I L A L E D V G E V P Y R L D R D L T Q W R M T G A F N G V R G I A L G R
UniRef90_UPI000361B230 D G A I L C L E D I G E K I Y R V D R M I T Q I A L G G Y L K G L K G I V L G G
UniRef90_J2M2U6       D G G I L F V E D V N E H P Y R V E R M L Q L E H A G V L A R Q K A V L L G D
UniRef90_R7CRH9       K G D I L V L E D T G E D P Y R I D R L M Q Q L W Q N G L L K R V S A I A F G D
UniRef90_H3NRH6       D N A I L F L E D V G E A I Y R V D R M L T Q L K I S G I L H Q K V S G I V F G H
UniRef90_B8HTC4       N N T I L F V E E V G E E V Y R V D R L L T Q L K L A G I L E Q L S G L I F A Q
UniRef90_UPI000382D9B4 T G S I L F I E D V G E P A Y K I D R M L T Q M K M A G V L K G V N G V V T G S
UniRef90_J8K0R0       D N N I L L I E D I G E E P Y R I D R M L N Q L R L S G K F N A C T G V I F T S
UniRef90_K9S6K0       R G A I L A L E D V T E A P Y R I D R L L T Q W R M S G A L A S V A I A L G R
UniRef90_C2FXU3       K D A I L F L E E V D E K V E R V D R M F C Q L K L S G I L A V I K G F V F G K
UniRef90_L8LZZ0       K G T I L A L E D I N E Y P Y R I D R M L T Q W R L M G V L S G V K G I A L G R
UniRef90_UPI000479C5C9 A G R I A F L E D V T E A P Y R I D R M L V Q L L Q A G W F D G A A A G I A L G S
UniRef90_E2ZA87       K D A I L F L E D I N E P S Y K I D R M L W Q S G L L R D V N G I I F G Y
UniRef90_UPI00046F49C9 E D A I L F F E D V N E L P A R V D R M L A Q L K A S G K L R Q A A G V L I G T
UniRef90_K9VMT1       T G V I L A F E D V S E A P Y R V D R M L T L W R M A G A F A G V R G I A L G R
UniRef90_A0A059FL67   D G A I L F F E D I D E A V Y R V D R M L T Q L G Q A G I L G R V A G V I V G N
UniRef90_UPI0002F4660B D G G I L F L E D V N E H P Y R V E R M L Q L L H T G V L S R Q K A V V L G A
UniRef90_UPI00020020D7 S G A I L L F E D I G E A P Y R I D R M S H W R L S G A L Q Q I A G L G F G S
UniRef90_J7SWB0       D   S I F L E E I S E P P Y K I D R M L T Q L I L S G K I K S C S G L I L G Q
UniRef90_A3Z748       E G A I L V L E D V G E A P Y R I D R M L T H W R T A G V L R G V A G I G I G R
UniRef90_UPI000471D61E K G K I L F L E E I G E E P Y R V D R N L L A G K F S D A A G I V I G D
UniRef90_X8K2M6       D N   I L F I E E V C E P M S K I E K W I F H L K N A G L E K C R G L I L G Q
UniRef90_S2D182       T G S I L F I E D I A E D P Y K I D R M M S T L M L N G T L S K I K G F I F G Q
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UniRef90_G0J4Q2         F L L P H G A K V I L D A D Q G T
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UniRef90_R7CRH9         L F L P L G V K A T I D T K E
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UniRef90_B8HTC4         F T L P L G I E V E I D A T T G T
UniRef90_UPI000382D9B4  L S L P M G G N V I L D A D
UniRef90_J8K0R0         I G I P L G V P A T I N T N N
UniRef90_K9S6K0         A A L P L G A W A E L D A D Q G T
UniRef90_C2FXU3         Y I L P V G A A V R I D A D K G T
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UniRef90_S2D182         F I V P V G A E V E M D A E N G T F
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UniRef90_UPI0003609742  A T L P I G Q K V G L A T E K G
UniRef90_K2Q3B1         L T L P I G V K A T L N T D T F S
UniRef90_UPI00047E9E75  V T I P F G V R G V L D A T I G S
UniRef90_U2NUP8         L T L P I G A K I K L N F T S K
UniRef90_UPI00036CF467  C T L P V G L K A R V S M E R M R
UniRef90_C3WBP9         L T L P L G A M C G I D S Y E K K
UniRef90_E6XBA1         M T L P I G I K A T F D A D K M T
UniRef90_UPI0004792E40  V G I P L G V T A T I N T E K N T F
UniRef90_W1S897         Y S L P L G V A A E M D A
UniRef90_A7GMQ5         I G I P L G I T V T M N T D R
UniRef90_K9CWZ1         F S L P V G A R A E I D A D A G T
UniRef90_I9WD01         I S L P V G G L A Q I D A D
UniRef90_F7Z506         L A L P L G I P A T L D T A G Q R
UniRef90_B7KHI5         L T F P I G I E V E I D A N T G T
UniRef90_B7KKW1         A V L P V G H R V R L D G D E G K
UniRef90_K2AMZ4         V T L P L G I G V T L N A T D K T
UniRef90_F8EBW0         F T V P V G L E A E M D A D A G T
UniRef90_T4VA56         I S I P V G N C K L D A T N K
UniRef90_UPI000287B045  F A L P L G V E A T L D A T K Q T
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Position:              1         10        20        30        40
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UniRef90_W3ACU9                 P L T A L A G   G V A Q G E L V G G N L S L I R S G I G T K F E L D     V
UniRef90_UPI00042495A4  Y H I P   H H A F N K D G K A T G E L V G G N L S V L Y S I Q G S E S A V D M   V
UniRef90_E1TAF3         T I S R N V P Q A H A V D V S G T L W G G N L A V L V S T L S L G T P Y M P P   V
UniRef90_C0Z7K8                         E G Q A A G P V V G G N L A L V S A L M G T P Y Q L D T
UniRef90_K1X9U6            P L H G D G W G G K V R G R L F P G N L V T A T Y L L G T P H Q P D     L
UniRef90_M5QZG6                       P G S A S G R L L G G N L S M I C A T I G S A F E L D D
UniRef90_D5W8R3                 N T P Q A Q N V D V T G T L W G G N L A V V A S L I G T P Y M P P   V
UniRef90_F4A8V9         N V P L S   C N V S G I A E G K I V G G N L S L I S A T M G T P Y E I D T K
UniRef90_K9TWH4                     N S G R T K G R L L G G N L S V L S A I V G S P Y   L P N L
UniRef90_A0A033UA78         L T F K S L V G G H V E G E I V G G C L S L L V S S L G T P Y E L D T
UniRef90_U9VL01            L Q G D S W N K G T A T G R L L P A N L T V A T C L L G T N H E P D     L
UniRef90_UPI000347750A                   D V S G T L W G G N L A M V C S L I G T R Y   L P Q I
UniRef90_UPI0004762F26  Y T I P   P H A Y N K I G K A T G E L V G G N L S V L Y S I M G S K S E A D Y
UniRef90_UPI00047E8867             I N A K C N F S K S V G E L V G G N L S L I C S T L G T D Y E I N T
UniRef90_D6Z6Q4         P A G L E I I P G Q A R G P L L G G N L A C L N H P W E P D     L
UniRef90_K0MRC2                           R G V L W G G N L A T L V S L L G T P Y   M P K V
UniRef90_R5BA04         D M P I K T L V G   G K A E G E L C G G N L S L V V A S L G T P W E I D T
UniRef90_G7M386                       N G C A T G K L A G G N L S L I V S S L G T R Y E I N T
UniRef90_V2KF97                     S G E V A G T L W G G N L A M L C S L L G T P Y   L P Q V
UniRef90_L0CXV6                     P G K A E G E L V G G N L S L L T S T L G T P F E I D T
UniRef90_F4L6S7                     R K G R V Q G E L Q G G N L S L L A A M A G T E F E L D A T
UniRef90_UPI0004638742                 G G V A E G E I I G G N L A L I V S T L G T E Y E I D T
UniRef90_UPI00046EED0F      L S F E T R D A D A V D A R G V L W G G N L A M L T A L L G T P Y F   P K V
UniRef90_I4C839                     R P G R A S G V L L G G C L S L V A L L G T P H   L P D F
UniRef90_UPI00034B188A               A S G V L W G G N L S M L C S L L G T P H W P K     V
UniRef90_Q065J1        P L D G H G I V Q G I A E G P L V V T N L T V G T H S I G T P W   M P H L
UniRef90_R5XI90           W I C V K P G V C Q G R L I G G N L N T M E G F F G T E Y M P E I R
UniRef90_Q31LS6        P L T G S V W V P G S A Q G P L Y P A N L T V A T H L L G T P W   L P D L
UniRef90_V8G8D3                 P V D A E G I L W G G N L A M V A S L V G T P Y L P A I K
UniRef90_UPI00046E72E2          E G E A Y G P L V G G N L T L L V S T L G T P Y E L D T
UniRef90_C5AEY9        T I V A E V P Q Q Q S A D V A G T L W G G N L A I L A S L V G T P Y   M P Q I
UniRef90_V9CG46                 S G V A T G R L I G G N L A L L A A L T G T R Y A I D A R
UniRef90_C1AAG2                 S G L A T G K L A G G N L A L V A A L C G T P W A M D     F
UniRef90_F4F2W3             P G R A V G R L L G G N L C L I V A S L G T P   D M P D L
UniRef90_B4EC51                     V T G T L W G G N L A I L T S L V G T P Y M P D L
UniRef90_R5G5N7             P G K V T G K L V G G N L S L I A T L V G S E Y E V D F T
UniRef90_UPI0003C75B16      P G R A R G V T V G G C L S L L A S A L G T P D G R A S L
UniRef90_C0BMS6             P G I A K G K L V G G S L T L I A A L I G T P Y E I N F T
UniRef90_UPI00047CFA31  Y E I P   S D P M N R T G A A E G E L V G G N L S L L Y S L F G S P S A I D C H
UniRef90_W5IPP7            L P C T H L S G P K K V V E G E L I G G N L T A L A S T A G T V A A L H A P
UniRef90_V6M960            P L G D L I N P P G E A S G P V V G G N L T L V A A L M G T P Y Q L D T
UniRef90_A1KV40        T V D V P Y I Q R A D V E T E G I L W G G N L S V L A S L A G T P Y M P D     I
UniRef90_B9XNN0                     R R G K V S G E L I G G N I S L L C S S L G T P Y Q   P S F
UniRef90_B8HX63            P L S G T G W G K G R G E L L L P A N L T V A T H L L G T S L Q P D     F
UniRef90_W0V6S7        H T I T A R A S G N P Q V D L S G K L W G G N L A M L H L L G T P Y F   P H I
UniRef90_I0AMW8                     K G I A N G R L V G G N L S I M V S L I G T K Y D V D Y
UniRef90_UPI00039FC63D            N G G K A T G K L Y G G N L T V L C T M I G S E Y   L P D F
UniRef90_S0G4Y0               Q G L C V A S G R A T G I L M G G N L A T L T H L V G T K F K A P D     F
UniRef90_K9Z1Y7            L Q G K G W G G K K A T G R L L P A N L T V A T H L L C T P   V C P K F
UniRef90_U7VB67                     P G K V S G R L I G G N L N T M Y G I W G S E Y M P E I K
UniRef90_B1I2Z8                     P G Q A R G E L V G G N L T L V T A L L G T P F E I E T
UniRef90_A6TKI5                     G G E A K G T I I G G N L A L L T A T M G T P Y E V D T
UniRef90_F0RH26                     G N A E G I L V G G S L T L I N A L I G T P H E I D     F
UniRef90_C2PDU7        P N N W I S V T N G Q A T G R I I G G N L N T I E G I W G S P Y M P C I Q
UniRef90_Q7U832           L E G I G V R T G V A E G P L V V S N L T V A T H L I G T P W   M P S L
UniRef90_F4GRE3           L S F E T Q D A D P V D A R G V L W G G N L A M V A S L I G T P Y   M P K I
UniRef90_W6N2K0        Y F I N S N Y F N E P S   A N G I L W G G N L S L L S S T I G T P Y E I D T
UniRef90_L0M1S7                   G P Q C R E E G K L W G G N L A M L T S L V G T P W M P Q I S
UniRef90_C6IT97        N L P V K H K L N R Q G T A E G I L R G G N M A V A Y G L R G T P Y D I P A
UniRef90_UPI00037081F3             D V R G V L W G G N L A M I C S L I G T P Y F P E I E
UniRef90_UPI000348DD5A                   L L P G N L T V A T H L L G T P I   I P N L
UniRef90_E6UCJ6           I P N E I I T L S G G K V S G R L I G G N L Y T I G N I W G T P Y M P E I R
UniRef90_A3YY07           L Q G T P W Q G G Q A E G P L L V A N L T V A T H L L G T E H   L P D L
UniRef90_UPI000306700D                 G R A T G P L L G G N L S V V S G L V G S P Y   L P S T
UniRef90_UPI00047CBCD9  P P S A R T L A P G R A R G V T V G G C L S L L A S G I G T P E H R D D C
UniRef90_L8JNB5             R T R T I A S G Q A L G V L A G G N L S L L S S G Y   L P D W
UniRef90_UPI00047B92A7            P G T A E G V L V G G N L S L I V S T L G T N Y E I N T
UniRef90_Q46GW3           I Y G E P W G G G I S K G R L I V G N L T V L T H L I G T E H   L P S F
UniRef90_UPI00034C2445            P G R V E G V T F G G N L S L L N D G L A T P H S R P S A
UniRef90_R6FMW9                     E G K A R G N L I G G N L S I I C S S L G T E N E I D T
UniRef90_UPI0003F7C773  P L Q G E G W G W G Q A K G I L L P A N L T V A T H I L K T K L Q P D     F
UniRef90_UPI0004166D08  P P T A R A L V S G R A E G V T F G G C L S L L A S S V G T G E D R P D G
UniRef90_D6YSE1                     P G I A R G R L V G G T L S L V S S L V G T P W E L D T
UniRef90_UPI0004040AC2     P L E V I A   E G E A Q G E L T G G N L S L L C S T L G T P Y E I E T
UniRef90_G8M8F1        T V T S N A P Q R Q T V D V T G M L W G G N L A I L T S L V G T P Y   L P P V
UniRef90_R9GXJ9                   T G R N G K T T G T L I G G N L T L L V M M S G S V S E M D     F
UniRef90_I0HU64                       A N G T L W G G N L T V L C S L G T P H W P R I
UniRef90_D4KF82                     P G R A F G K L I G G N L S V I T S L C G T P Y E L K G
UniRef90_A8ZU88           A E G M S L V P G T A Q G P V A G G N L A S L C Q M I G T P W Q   P A F
UniRef90_G4CP25        T I T V S S I Q R K G V S A E G T L W G G N L S V L A S L V G S P Y M P D     I
UniRef90_F5XXT5                       R G Q L W G G N L A I L A A L A G T P Y   L P E A
UniRef90_I3UC84            L S F E S E G S D A D T R G T L W G G N L A M V A S L V G T P Y   L P K I
UniRef90_A5GMW8           L Q G T T W V G G Q A Q G P L V T V N L T V A S H L L G S A H   L P D L
UniRef90_UPI0002E15972     P L T T L V G   G V S Q G E L V G G N L S L L V S A L G T K Y E I D T
UniRef90_W0ESD2        H E N P   H P L N R C G E A R G M L V G G N M A V L C G L I G T P Y D I F R P
UniRef90_J2F4W8        E Y P L T T V   E P G I A Q G R L L G G N L S M I A A T M G T P Y Q I D A
UniRef90_B7JWM7                     P G K N Q G Q L I G G N L S L L S G L V G S S Y   L P N F
UniRef90_G2IF93        N I P L K S F S S L K N I T V G N I V G G N L S L I C S T I S T K Y E I P     F
UniRef90_UPI0004754825               Q V S G T L W G G N L A M I A S L V G T P W L P Q G D
UniRef90_A6EIY7        Y E Y P N Q D Y P N R P G E A E G V L I G G N L V M L Q G S S S E M D Y T
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                                              50            60            70            80
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UniRef90_W3ACU9         K G K I L L I E D I D E E P Y Q V D E L L N H L K M A R K F D E A A G I V I G D
UniRef90_UPI0042495A4   K G K I L F I E D L D E Y L Y H I D R M M N L K R N G S L K D L K G I I I G G
UniRef90_E1TAF3         Q G G V L F V E D V N E Q P F R I E R M L Y Q L H L S G I L D Q Q Q A L V L G D
UniRef90_C0Z7K8         R G K L L F L E D I D E E P Y R I D R M L T Q L A Q G G L F D D C A G V V I G T
UniRef90_K1X9U6         T N A I L A F E D V N E E P Y R L D R M L T Y W R T I G A F Q P V L G I A L G R
UniRef90_M5QZG6         E G I I L F I E D V N E P L Y R V D R L L H L R L A G K L N R L R G V L V G D
UniRef90_D5W8R3         Q G G L F V E D V N E Q P F R I E R M I Y Q L H L A G I L A Q Q Q A L V L G D
UniRef90_F4A8V9         D N I L F I E D V H E A P Y A I D R D L T Q L A L A G K L D E C S G I I L G Q
UniRef90_K9TWH4         N G A I L F L E D I G E N I Y R L D R M M T Q L K L A G I F D K L A G F I F G Q
UniRef90_A0A033UA78     K D K I L F I E D I G E V P Y K V D G F L Q Q L K S A G K L D D A S G F I F G P
UniRef90_U9VL01         A G A I L A F E D V T E A P Y R I D R M L T H W R M L G K F D N I A G I A L G R
UniRef90_UPI000347750A  E G G V L F V E D V N E P P Y R V E R M L Y Q L H Q S G I L A R Q R A L V L G D
UniRef90_UPI0004762F26  K G K I I F I E D L D E Y L Y H I D R M M M N L E R N D Y F K N V K G I I I G A
UniRef90_UPI00047E8867  R A K I L F I E E V G E D P Y S I D R M L T Q L I L S N K L D Q C T G I V L G Q
UniRef90_D6Z6Q4         R G S I L L L E D V G E A P Y R I D R L L T Q L A L A G R L T G L I L G E
UniRef90_K0MRC2         R G G I L F L E D V A E H P Y R V E R M L A Q L W Q A G V L E R Q K A I V L G S
UniRef90_R5BA04         R G K I I F L E D V D E Q P Y S I D R M F T Q L R N A G K L D D C A G I I L G Q
UniRef90_G7M386         K G K I L F L E D V E L P Y K I D R M L I Q L K Q S G K F K D A A G I I L G A
UniRef90_V2KF97         D G G I L F L E D V N E P P Y R V E R M L L Q L E Q A G V L A A Q R A I L L G D
UniRef90_L0CXV6         R G K L L F I E D I D E E P Y Q I D R M L N Q L K M A G K L T D A A G I L V C D
UniRef90_F4L6S7         N K L V F L E D I E E K P Y R V D R M L T Q L R Q S A F L H Q A A G F A L G V
UniRef90_UPI0004638742  K G K I L F I E D I G E P L Y K L D R M M T Q L K M C K K L D D C N G I I F G D
UniRef90_UPI00046EED0F  R G G I L F L E D V G E H P Y R V E R M L T Q L S L A G V L Q R Q K A I V L G T
UniRef90_I4C839         D G A I L F L E D V N E P A Y R L D R M L T Q L H L S G I L K R I H G V L L G Y
UniRef90_UPI00034B188A  R G G I L F L E D V A E H P Y R V E R M L L Q L H Q A G V F A A Q K A I L L G A
UniRef90_Q065J1         D G T I L V L E D A G E A P Y R V D R M L T Q W R S A G L L D K V A G V A C G R
UniRef90_R5XI90         K G D I L F I E D S L K D A C T I E R S F S L L R L A G V F D R V S G I I L G K
UniRef90_Q31LS6         R G A I L A I E D V S E Q P Y R I D R L L T Q W R L S G Q L Q Q L A G I A V G R
UniRef90_V8G8D3         K G I L F I E D V S E H P Y R I E R L L T Q L L H A G I L E K Q K A I V L G D
UniRef90_UPI00046E72E2  R G R I L F I E E I D E E P Y R V D R M L N Q L R Q A G K L A D A S G I L V C D
UniRef90_C5AEY9         E G G I L F L E D V N E Q P F R I E R M I Y T L H F A G L L A R Q Q A L V L G Q
UniRef90_V9CG46         D G I L F F E D V N E A L P R V A Q L R R A G A F D G V R G V L V G S
UniRef90_C1AAG2         R G A I V I L E D I D E A T Y R I D R M L T Q L R L A G A F D G C A G L A F G Q
UniRef90_F4F2W3         T G A V L L L E D V Q E P P Y K V D R M L T Q L R R A G A L D G L A G V A V G Q
UniRef90_B4EC51         E G G I L F L E D V N E Q P F R I E R M I Y Q L H L S G L L A R Q Q A L V L G Q
UniRef90_R5G5N7         D K I V F I E E V T E P Y Q I D R Y F S S I K L R K M F E K A K G F V F G Y
UniRef90_UPI0003C75B16  R G G L L L L E D V G E E P Y R I D R M L T Q L L R A G L L D G L A G V A L G S
UniRef90_C0BMS6         D C I V C I E D V E E K P Y R I D R M L T Q L I G T K T F K K A A G I A F G V
UniRef90_UPI00047CFA31  E K I L F I E D L D E Y L Y H I D R M M M N L K R N G C L E S I K G I V V G S
UniRef90_W5IPP7         A G A I L V L E D V G E P Y Y R L E R S L W Q L L N S I D A Q S L G A V V L G T
UniRef90_V6M960         R G K L L F L E E I D E E P Y R V D R M L T Q L A L G G V F E D C A G V I L G T
UniRef90_A1KV40         D G G I L F L E D V G E Q P Y R I E R M L N T L Y L S G I L K K Q R A I V F G N
UniRef90_B9XNN0         R G K I L F F E D L D E V P Y R Y D R L L T Q L S N A G L L Q Q V A G I A V G I
UniRef90_B8HX63         T G V I L A L E D V S E A P Y R I D R T L T Q W R M A G F F N R V R G I A L G R
UniRef90_W0V6S7         D G G I L F V E D V N E H P Y R V E R M L L Q L F H A G V I G R Q Q A V L L G D
UniRef90_I0AMW8         A N K I I F I E E I D E E P Y R I D R M L T Q L I Q A D K F K N A S G V M M G I
UniRef90_UPI00039FC63D  S G S I L L I E D V G E R V Y K V D R Y L V Q L K L A G V L D K V A G I V F S S
UniRef90_S0G4Y0         S R A V L F L E D V G E P A Y K I D R M L T Q M K M A G L F S C V W A V V T G T
UniRef90_K9Z1Y7         N D V I L A L E D V Q E A Y K I D R M I T Q W R L M G I L D V K G V I L G R
UniRef90_U7VB67         K G D I L F I E D S L K T A A D I E R S F S F L K L N K V F E K V S G I I L G K
UniRef90_B1I2Z8         R G R I L F I E E V G E N P Y R L D R M L S Q L R L A G K L A E A A G V I F G E
UniRef90_A6TKI5         K G K L L L I E E I G E E P Y R V D R M L T Q L A L A G V F K D A A G I I L G D
UniRef90_F0RH26         T N K I V C I E D V E E S P Y R I D R M L T Q L I E G K T F K N A A G L V L G V
UniRef90_C2PDU7         D G D I L F I E D S S K D A A T I E R S F S L L K V N G V F D K V S G I I L G K
UniRef90_Q7U832         Q G A I L V L E D V G E A P Y R I D R T L T Q W R S A G L L N S V A G I A C G R
UniRef90_F4GRE3         R G G I L F L E D I G E H P Y R I E R M L T Q L L H A G I L G R Q K A I V L G R
UniRef90_W6N2K0         R N K I L F I E D I S E D P Y K I D R M M T Q L I L S G K I K A C N G I I L G Q
UniRef90_L0M1S7         D G I L V L E D I N E H P F R V E R M L L Q L L Y A G I L P R Q K A I V L G S
UniRef90_C6IT97         E G T I L F L E D V S E R P H A I E R M M Y N L K L G G V L E K L S G L I I G Q
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UniRef90_C0Z7K8          I A L P M G V E A S L D A T N G
UniRef90_K1X9U6          P I L P V G L E V L D G D R G
UniRef90_M5QZG6          L T L P L G A Q V R L D A D Q Q Q
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UniRef90_R5XI90          F T L P L G C Q V R L D A E N K T
UniRef90_Q31LS6          A V L P V G A I A Q I A G D Q L Q
UniRef90_V8G8D3          V T L P I G K K V G I A T E
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UniRef90_C5AEY9          L T L P V G G Q A R L V A N Q H G F
UniRef90_V9CG46          L T L P L G A R V T L D A G R G
UniRef90_C1AAG2          W T L P F G A R A T L D A D A G T
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UniRef90_R5G5N7          I N L P I G T L V T L D A N K K
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UniRef90_UPI00047CFA31   R A L I L G N Q V S I E V T
UniRef90_W5IPP7          R A W P Y G K V G R L D T K G L S W
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UniRef90_B9XNN0          T T I P V G G R A T L D A N K G
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UniRef90_I0AMW8          F T I P F G A L A E L D T N E Q T F
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UniRef90_K9Z1Y7          A C L P V G G K V E I D G E T G
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UniRef90_F4GRE3          A T L P I G K K V G I A T E
UniRef90_W6N2K0          L T L P I G A N V K M D C V N Q T
UniRef90_L0M1S7          V T L P L G A Q A K L
UniRef90_C6IT97          L P L I N G A K V E L T V G K K
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UniRef90_UPI000348DD5A   A A L P V G V M V T L D A D Q G
UniRef90_E6UCJ6          L T L P I G I T A K L D A D A Q T
UniRef90_A3YY07          G A L P L G V P C R L D G E
UniRef90_UPI000306700D   W T L P I G A P L T M D A
UniRef90_UPI00047CBCD9   L T V P L G V P A V L D A D A G T
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UniRef90_UPI00034C2445   I T V P L G V P A Q L D A E
UniRef90_R6FMW9          L T L P M G V E V V I D S K N K
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UniRef90_UPI0004166D08   W T V P L G V P A T L D A D A G T
UniRef90_D6YSE1          A T L P L N A M A E L D A T K K T
UniRef90_UPI0004040AC2   V A V P L G V Q A N L S S S G K T
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UniRef90_I0HU64          V T L P V G A K V E L
UniRef90_D4KF82          A F L P L G V N A T I N I T E
UniRef90_A8ZU88          R T L P L G V W A S L D A E N     R F
UniRef90_G4CP25          S T F P L G G H A K V
UniRef90_F5XXT5          V L L P V G A P V Q L T V E
UniRef90_I3UC84          V T L P I G K K V G L A T E
UniRef90_A5GMW8          A A L P M G V P A K L D A D R G T
UniRef90_UPI0002E15972   F A V P L G V E A R L D G H A K T
UniRef90_W0ESD2          L P L I E G A E V T F S V G N
UniRef90_J2F4W8          L T L P M G A L V K L D A G E K
UniRef90_B7JWM7          L T F P L G V N V E I N A N
UniRef90_G2IF93          L T I P I G A R A R I N T N N
UniRef90_UPI0004754825   V T L P L G A Q A V L Q V N Q G
UniRef90_A6EIY7          R T M I L G R V E L S N T A N R
UniRef90_H3RE52          V T L P L G A R A T L A V H Q G Q
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UniRef90_UPI00046F48F9                 V T A P M T G G N L T V L S T I G T P Y E V D T
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UniRef90_D0MJU6                 R P G A A E G P L V G G T L S V L V R L V G T P F L P D L
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UniRef90_B4SUJ2             G P Q C D V Q G T L W G G N L A M L I S L I G T P W M P T I D
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UniRef90_D3Q8V9       P T G V L T Q G D A A V S G R L S L V V D A V G T R T C P D Y T
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UniRef90_T0MQD0             G K A S G K I L G G N L T L I C R L M G T D Y Q P D F
UniRef90_J3D4U4                   Q G R W Q G T L W G G N L A M I C S L I G T P W M P Q I
UniRef90_F2BE87       Y T V S V S A F G R E N V N I G G T L W G G N L S V L A A L A G S P Y L P D I
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UniRef90_F0K4B5           E G E A K G H L V G G N L S L I S N T L G T P Y E I D F
UniRef90_U5L6R1           E G R A E G P L T G G N L C L I A S T L G T S F E I D M
UniRef90_S5UZK4           P G R A R G V T L G G C L S L L A A E L G T P H A R P S A
UniRef90_UPI00036B550C       S G V A T G P L M G G N L S L V S A L A G T P Y A A D I
UniRef90_M4NEJ4             D V A G P L W G G N L A V L C S L L G T P Y F P R G I
UniRef90_H1YIU5       H A D N R P G A S G E L I G G N L S L L V A V S G S V S D Y D Y
UniRef90_Q7V648         L E G Q P W M G G V A S G P L L V A N L T V A S H L L G S S H Y M P D L
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UniRef90_K9YJL5               R L L V G N L T V A T N I L A T P L C P D F
UniRef90_R9C9X4           E G K A S G K I T G G N L S L I T S S I G T P F E I D T
UniRef90_UPI0003046D5D       S G R V E G E I V G G C L S L L V S L G T P Y E I D T
UniRef90_W4ENI3           G V A K G E I T G G N L S L L S N G L G T E F E V D T
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UniRef90_A3Z5Z7       P L Q G C S W R G G R G R G P L V V A N L T V A S H L L G S S H V P Q L
UniRef90_A5PCP2       Q G R T I A P G F A K G R L L G G N L T V F S T L M G T P Y L P D C
UniRef90_T3HL54           E G K A E G I I M G G N L S L I I A T M G T K Y E I D A
UniRef90_G9RYM0       M P L Y T I A K G V S H G V L T G G N L P L L A A S L G T P Y E I E T
UniRef90_U2RDE4         K S G R A G E G K I T G G N L S L V V A S L G T E Y E I N T
UniRef90_UPI000367FC27       P G R A R G V T L G G C V S L L A A G V G T P G A H A G A
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UniRef90_UPI00037DD6CB         Q G T L W G G N L A V L S S L I G T P Y L P D I
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UniRef90_C3ECK7       W I C V N S G K A T G R F I G G N L D T L T G I W G S E Y M P E I K
UniRef90_E5ARZ4             R G T L W G G N L A M I A A L A G T P Y L P N I
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UniRef90_F9DUF7       P L E S L S G I A E G E V V G G N L T Q L A N S L G S E F E I K T N
UniRef90_I4MWI7           G V A S G R L T G G N L S M I C A T L A T D Y E I D I
UniRef90_D7N1F9           A E G T F W G G N L S V L A S L A G S P Y M P D I
UniRef90_J1RVP5           P G R A R G V T L G G C L T M L A T E L G A P R A R P G A
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UniRef90_N9VGV2           G R G R V S G R L I G G N L N T M A G V W G S P Y M P A I E
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UniRef90_B9DXG8        K D K I L F M E E V E E P Y K I D R M L T H L S L S G I L Q Q C R G F I I G Q
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UniRef90_M4XMU1        D G A I L I L E D V G E P Y Y R L E R S L W Q L L N S L D G A R L G A I C L G T
UniRef90_C7NCK3        D G K I L F I E E V N E P S Y R V D R M L Q Q L K L A G F D K L Q G I I I G N
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UniRef90_X2HGP3        N G G I L F I E D V G E Q P Y R I E R M L Q T L Y L S G V L A R Q Q A I I L G N
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UniRef90_H1YIU5        D G K I L F I E D V G E Y L Y A I D R M L Y H L K R A H K L K N L A G L V V G G
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UniRef90_R9C9X4        K S K I L L M E D I N E E P R S V D R M L N Q L M Q A G K L T D A K G I V I G D
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UniRef90_Q7V648          A A L P L G R Q A Q L D G S H G R
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UniRef90_UPI00047727DC   M A V P V G R R V R L N I E K
UniRef90_K9YJL5          A C L P L G Q M V E I D G N Q G
UniRef90_R9C9X4          I S I P L G V N A E I N T K E K
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UniRef90_W4ENI3          F A I P L G A E A I L N A N D K T
UniRef90_A4XP69          F P W P C G K K A R L S P G S L S W
UniRef90_UPI00037732B9   L T V P F G M A A E L D T E T G T
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UniRef90_A3Z5Z7          A A L P L G R M A E L D G D R G
UniRef90_A5PCP2          L S L P H G A R V E V D A
UniRef90_T3HL54          I T I P L G R M C E L D A T E K
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UniRef90_UPI000367FC27   L T V P L G V P A V L D A D A G T
UniRef90_F8L5I4          A T L P L G H V V E L D A D L K T
UniRef90_UPI00037DD6CB   V L L P V G A P V S L S V D E
UniRef90_H0K4A6          L A L P L G V P V E L D A D T G T
UniRef90_C3ECK7          L T V P I G I K I E M D A T N K T
UniRef90_E5ARZ4          V T L P V G V P A Q L K A G A N G F
UniRef90_UPI000349AB75   A S L P V G Q V V Q L D G D T G
UniRef90_D6Y1R2          F P V W L E A P A V L D T
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UniRef90_D7N1F9          S T F P L G A H A K I
UniRef90_J1RVP5          L T V P L G V P A E L D A T A G T
UniRef90_A3TS27          L T V P L G V T V T L D A D A G T
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UniRef90_A0A059NRD4                G T A S G E I I T G G N L A L I V T T L G T P F E I D T
UniRef90_M9VY40          E F T L E W Q G E G P C R A Q G T L W G G N L A M I T S L I G T P W   L P Q I
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UniRef90_I2N973                  P G R A R G V T L G G C A S L L A A D L G T R H A R P G T
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UniRef90_Q1INC8               K G S A E G V L Y G G C L S L L A A S M G T P Y E F K T
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UniRef90_Q1NSW2          A G T I L L L E D T G E A P Y R L D R A L T Q L A L G G Q L A R V A A V I L G K
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UniRef90_UPI0002F0F474   E P I L W Y F E N C E M S A T D F H R T L M Q M Q Q S G W F D N A S G V L F G R
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UniRef90_R6VEB4          E P T V L F I E E V G E F V Y R L D R M M Q S L H R S G A L R N V K A V V V G H
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UniRef90_X5E007	F T D M K D N E F G Q T V H E I F A E A V K D R D Y P V C Y G F P G G H D K K N
UniRef90_R7RRW6	F T K C D P E D K S F N L D Y I F N Y L K E L T D K P I Y K G L E S G H D Y I N
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UniRef90_E3IDJ2	S A A N H P V D D Y T V E D V Y K E L A D E L Q I P I V Y D I D C G H V P P Q
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UniRef90_A7N3V0	H E K F N D K G T G R A P I D V L L E V L N G Q P L P I L Y D F D S C H T H P M
UniRef90_B9E9P2	T Q V D E A V D G Y T M I D V Y E D I A D E L D I P I L Y D V D C G H Q P P Q
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UniRef90_UPI00028A09D1  N D A I I F F E T S E D K P K Y L E Y W L R N Y G S Q G I F Q N A K G L L T G R
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UniRef90_R5SCG4         D G I I W F M E S C D L N P M A I R R A I W Q L D H A G W F K Y V K G F L I G R
UniRef90_K1JMC9         N G I L F I E D V A E P A Y R L T L D M A G I L R R Q Q A V V V C D
UniRef90_UPI00035C8488  K G R I L F L E T S E E K P T A V K C M L R N Y G M Q G A F E H L A G L I M G R
UniRef90_W5WHX1         R G A V V L L E D V T E E P Y R L D R I L T Q L L R A G W F E G V A G I A L G S
UniRef90_A3XH99         N K I L F L E D L D E Y L Y H V D R M M V N L K R N G M L R N I R G L V V G G
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UniRef90_J1AC95         N D C I L F L E T S E A E P S T L R Y W L R N Y A A Q G I L H R L A G I I F G R
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UniRef90_UPI00047ACAAD  E N S I L F I E D D E E H P L A F D R D L Q S L H L P D A R G I K G L L I G R
UniRef90_I3VUA7         N D R I L F F E T S E A E K P N Q V D Y M L R N Y G I Q G V L N K V K G L I F G R
UniRef90_E3ZH29         K D T I L F L E D E T T P E L F D R N L E S L L S Q P G A D E I K G L V I G R
UniRef90_Q7V2M0         K G K I I I F E D I N E D I Y K I D R M L T Y L R M T N K L N G I S G I G F G S
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UniRef90_F3ND77         D G A V L F W E E L Q R P V S R I W N D L H T L R S G V L D R I A G M V V G I
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UniRef90_L5N0K4          H E R Y D D L G T G K E P I D L L M E Q L D G R D I P V I G E F D T S H T H P M
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UniRef90_A3XH99          L T S M H D N P F G K T A Q E I V M D A V E E Y D Y P V C F D F P A G H L K D N
UniRef90_W4BRP6            S P A N R P V D N Y T A E D I Y A E L S E E L K V P I V Y D I D C G H V P P Q
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UniRef90_I3VUA7          P K D Y S N K E K E E I I L R I V K D E F N A S E I P I V V D M D F G H T D P K
UniRef90_E3ZH29          F Q N   K S A V T E E Q L S Y I I Q T K P A L H N I P V I T G A D F G H T Q P N
UniRef90_Q7V2M0          F S D C T P E W N G L   L K K L I I E R L Q E F D I P I L F D L P I G H L S G N
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UniRef90_UPI00041B5DE4   F S D L R E N P F D K S V Y E I V L E L T A D Y D Y P I Y F D F P A G H D H H N
UniRef90_UPI00040AE151   P K D E A Y F A E Y K E V I Q L V M Q E Y Q L E D L P I L Y N L N F G H T E P K
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UniRef90_D9Y7Z3          A T L V V G S E A H L N V
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UniRef90_UPI00041CE304   R G K I L L L E E T H E P V N T V Y R Y V E Q L K L A G K F A D C A G I V M G E
UniRef90_A3I643          E S I I W Y L E N C E S T T D L R R T L V Q M K L A G W F N N C S G I L F G R
UniRef90_R6VWY9          D G M I W F M E A C D L N P M G I R R A L W Q L K E A G W F Q H V K A F L I G R
UniRef90_I4YKM1          N G A I L F Y E T S E E A P S H V L R W L R N F A A Q G I L P R L S G I V L G R
UniRef90_E8WYD4          E G G I L F L E D I G T K P Y Q W D R M L V H L R Y A G M L K D V T G I V F G
UniRef90_W3Y2A1          E D M I L F I E D I G E A P Y K L D R M L Q Q W R L S G L L N R I K G L M I G T
UniRef90_UPI00030B6E3E   E N C I L F F E T S E D E P N L L R Y W L R N Y G V V Q G I L Q K A N G I I F G K
UniRef90_H1ZDS3          K G A I L F L E T S E E E P F Y I R H W L R G Y A A M G I L E V I N G L I I G R
UniRef90_G9YGR8          K D L V L V L E E V G E S A Y S L D R M F R Q L E Q G G L L E R A K A V L F G E
UniRef90_UPI00037EBAD4   P G S I A L L E D V G E Q P Y R I D H F V T H L R R T G W F A G V A G I A L G S
UniRef90_F0P1H7          E N K I L L I E D W Y E N W Y H I D R M M S L Q R A G I L Q K L R G I L V G N
UniRef90_B4SAN4          N D A L L F L E D I N E P A Y R I D R M L S H L D N A A L L A S C K G V L F G Q
UniRef90_R5UQY5          D G F L W F L E A C D L H V M S I R R A I W Q M K E A G W F S H V K G F L I G R
UniRef90_F2I633          K N K I L F L E D D N I M A A E F E R N L Q S L I Q I L K F N G V K G I L F G R
UniRef90_A6LW50          K D K I I F L E S L G G D V P K M F T Y L T Q Y K Q L G V F E Q V K G I I L G E
UniRef90_UPI0004768749   E P V L W F L E N C E L N A A D L R R S L V Q M K L A G W F E N C S G L L F G R
UniRef90_D0LYM1          R D S L L W F E D V G E V V Y R I D R Y L T H L G L A G V L D G V R A A V V G D
UniRef90_UPI0004799520   E G I L W V I E N C E L S P M S Y R R A I W N M K E A G W F E N T K G F I M G R
UniRef90_D6GWM5          K D S I L I L E D D H E N P D L F N R D L Q S I I N L P E F S G V N G I M I G R
UniRef90_Q0SQ88          K D K I L F L E S F S G N S A K M V T Y I T Q Y K N L G V F N E V K G I I L G E
UniRef90_U5MT77          E N K I L F L E S M G G D V P K I S T Y L T Q Y K Q M G I L K K V K G I I L G S
UniRef90_UPI0003610D5E   H D K I L F L E T S E E K P N R V G Y M L R N Y G I Q G I L G K V K G V V F G R
UniRef90_UPI000368E605   K N K I L F L E N S E D P L W L L E Q H I R T L G Y M G I L N A V S G I I I G K
UniRef90_R5GAA2          D G I L W F L E S C D L N P M G I R R A L W Q L D E A G W L K Y T K G F L I G R
UniRef90_Q0YQL8          N D T L L F L E D I N E P A Y R I D R M L S H L S N A G L L A R C G A L L F G Q
UniRef90_E1VUF2          D G T I L F I E D S S E D I H E V A R K L A S I L Q S P A G A L I T G L A I G R
UniRef90_K8E4B3          E P I L W Y L E N C E L T L P D L R R S L L Q M K L A G W F D S T S G I L F G R
UniRef90_Q1J7S6          E D T I L L L E D V Y T D L G R L Y R N F T T L A L H G I F D K I G G L I I S K
UniRef90_UPI0003B499BA   E G I I W F F E S C D L N V F S I R R A L W Q L D R S G W F D R A A G F L V G R
UniRef90_I4HWS0          D S C I L L L E S A D E K P A K F D R E I T Q L K Q M G I L S S I A G L I I G Q
UniRef90_B5EFE1          E N S I L F L E E I D E K L H K V D R A L T Q W I L S G K L K G V K G I I L G D
UniRef90_UPI0003B5A7CB   H G D I L L I E D S A K D A A I V E K N F A M L K M H G I F E K V S G I I L G K
UniRef90_S4B5H8          K D G L L L L E T S E E Y P E F V E R E L R T L G V M G N L S L L N G I L V G K
UniRef90_M7T663          R G R I L F L E T S G N P L H R V Q A G F A D L I A Q G V F E E A A G L V V G R
UniRef90_R5JYK7          D G I I W Y L E S C D L N V M A I R R A M W Q M E N A G W F K Y V K G F I I G R
UniRef90_A4XA31          T G A V L L L E E V Q E P P Y K I D R M L T H L R R A G V L A G L A A V A V G Q
UniRef90_UPI000365421E   E P I L W F F E N C E L S V T D L R R S L V Q M K L A G W F E H S A G L M F G R
UniRef90_Q49X91          E D A I L F L E T S E D D P Q A F E A M L V Q L I Q Q D A L K Q C N G M I I G K
UniRef90_Q26GU1          D D C F L F I E D I D E Y I Y H I E R M M Y G L K R A G H L D K L K G L I V G G
UniRef90_C2RGA4          K E K I L F I E E D S L T L K T F D R Y L H S L M Q Q Q G F E Y I K G I V I G K
UniRef90_C0Z5V1          E A I I W Y L E N C E L S T T D L R R S L V Q M K L A G W F D H C A G I M F G R
UniRef90_Q6L2H0          D N R I F F I E D T D V T T G D I D R Y F F S M K L A G I L L D K F N G F V F G D
UniRef90_F4CFH3          D G K I L F I E D V G E F Y Y S I D R M L W T L K R A G K L K N L K G L L V G G
UniRef90_R6EJY7          D G I I W F L E A C D L N V F A I R R A M W Q M E E A G W F R Y V K G F L I G R
UniRef90_J0UTB5          A N D I L L I E D A E K D A S T V E K N F A M L K L A G V F D N I K G I I L G K
UniRef90_V9Z762          N G A V L A W E D A F K P V E Q L D Q A L T H F R D R G V L D L I A G M V V G E
UniRef90_K6U7N1          K D K I I F L E S L S G D V P K M V T Y L T Q Y K Q M G V F D K V K G I I L G S
UniRef90_UPI000472639C   G D S I L F I E D D E M T P E T F A R D L T S L L Q V A G E I R G L V M G R
UniRef90_UPI0003652D84   D K Y I L F L E S A E G P P E I I A R E L A A I L Q A Y P R P E A V L F G R
UniRef90_W7YCE7          A N S I L F I E D D F E A P T T F D R D L Q S I I Q Q L D F T G V K G I V I G R
UniRef90_R7HDB2          D G I L W F L E S C D L N V M S I R R A M W H M K Q A G W F E N T K G F L I G R
UniRef90_K0ACW2          E P I L W Y F E A S E A S A T D I H R S L M Q M V L A G W F D Q A S G I L F G R
UniRef90_N0DYA7          E G A I V L L E D V G Q S A W V L D R G L T Q L V R A G W L R R A A G I V L G D
UniRef90_UPI00034A6107   E G A I L F L E D V G E D I Y R I D R M M T H L K L A G W F D R L A G F V F G Q
UniRef90_K8N738          K N K I L F L E N S E D Q L W L L E Q S I R T L G Y M G I L K N V S G I I I G K
UniRef90_D7WMA5          S N C I L F L E D D E L N P A I F A R D L L Q A T T T I K G L A I G R
UniRef90_UPI0003079CF3   D K H I W Y L E N C N M S A T E F H R S L L Q M Q Q A G W F D L S A G I I F G R
UniRef90_UPI0003118180   K G K I I I F E D V N E D I Y K L D R I F T Y L R M S N K F D E I I G L G F G N
UniRef90_UPI000462610F   A G R I G L L E D V T E A P Y K I D G M L H S L L R A G W F D G L A G L A L G S
UniRef90_W4E7U1          E P I L W Y L E N C E L S V T D L R R S L V Q M K L A G W F E H C S G I M F G R
UniRef90_A8PPC2          R D K I L F L E D V N E S A Y R I D R M L Q H L Y Q S G I F N H V K A I V I G N
UniRef90_UPI000465651D   K G T I M F I E T S E M L P Y L F L Q I L R N Y A A S G I L H N I N G L L I G R
UniRef90_UPI0004704523   E P I L W Y L E N C E M S V T D L R R S L V Q M K L A G W F H N S A G L M F G R
UniRef90_F9TUA0          K G V L L Y L E N A A S P M D L T R A I L S M K F K G V F E C I D G L L L G R
UniRef90_L7FIC0          D G A V L F W E E T G G L A S H V W S Y L Q V M R H C G I I A G M V V G V
UniRef90_T0UIZ8          E D T L L F I E D V G E A P Y K L D R M L Q Q F R L S G L L S R I K G L V I G I
UniRef90_N8S776          Q P S V L L I E D V G E P Y Y R I E R S L T Q L L Q S I D T S N L K A L V L G D
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UniRef90_B9DKT9          K G K I L F L E S L P I Y F L K Q A L R S L G Y M G I L K N I E G I I V G K
UniRef90_UPI0003B794DF   T D R I L F L E T S E D K P S Q V G Y W L R N Y G A Q G I L N R I N G L V I G R
UniRef90_C4Z1K3          D G I I W F L E S C D L N V F A I R R A M W Q M D N A G W F K N V K G F L I G R
UniRef90_U6B9C3          R D T I L F L E D D Y E H P A T F A R D F A S L M A Q P G A E T L R G I V F G R
UniRef90_G2ECZ9          A G K I L F I E E I G E Y K Y H V D R M L Q S L K R A G Y F D N C A G V L V G D
UniRef90_R5ZIQ2          D G I I W F L E S F D F S D T T L I T H L W Q M K Q M G Y F K Y V K G F V F G R
UniRef90_A7GVA8          C D K I L F L E E D D L T I Q T F N R Y L H S L I Q Q P G F E H I K G I V L G R
UniRef90_X5L4Y1          H G A I L F I E A V D L Y L G Q V D R Q L T M L R N G G H L D G I A G I A V G Q
UniRef90_F0SAR0          D G K I L F I E D V A E Y Y Y A V D R M L R A L D R M G A K G I N L K G L V I G R
UniRef90_UPI0003B68E91   K P Y I L F L E D V G E N V Q H I H R Y L T V L K H N G V L D N A A G I V F G E
UniRef90_U1KZ85          E G L V L F L E N A E L S P T A V A R S L I A L K L N G V L T D V N G I I L G R
UniRef90_G4T6R1          H D A I L F I E D T D E V A Y S V D R L L T T L L R S H D F R G I V G I A I G Q
UniRef90_E3YQT6          A G A I L F I E D D F M T P E T F D R D L E S L L S Q P G A D E I L G G L V L G R
UniRef90_W5X642          R N A F L F V E D I G E R G Y R I D R M F E Q F E Q A G I F K G C H G L I L G D
UniRef90_D5EUP7          Q D I I L F L E E M E E S L H D I D R L F Y M L R Q L D F S R V K G I I F G T
UniRef90_C6D2B2          E P L W Y L E N C E L N T V D M R R S L V Q M K L A G W F D N C A G L L F G R
UniRef90_UPI000378C1B7   D R I L F L I L G E F S E G N V M K W E L S R L L S A L V A P H L K A L V I G R
UniRef90_UPI0004793F55   K D V V W V I E C C E L N P M A I R R S M W C L K E A G W F D S A K G F V I G R
UniRef90_L0LPH2          H G A V L L L E N M Y R G Q V D R Q M T M L R K A G H L N G L A A V A I G Q
UniRef90_A9T2B7          R C I L I L E D V H E A P Y S V D R M F T L L K S Q E V L K K I E A L V L G D
UniRef90_UPI000381F3B8   D K Y I L F A E L A D G W H Y T F V R D L A A I L Q A Y P N P Q A L C I G R
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                               90            100           110           120
UniRef90_R5ZPP7          P A M C E   N E Y N I S Y E E T L K D A L G D L Q V P V I Y N A D I G H V P P Q
UniRef90_A7GK71            T V I D E D K N G Y S I K N V Y S E M Y E Y L D L P V I F D I D C G H L P P Q
UniRef90_UPI00041CE304   C T N C V D   A Y G K T Y R D L I D E F I V P L G K P L L T G I A S G H G T Y K
UniRef90_A3I643          S T   A N T S V G N Y T I E D V Y Q E L S E E L Q I P I I Y D I D C G H P P Q
UniRef90_R6VWY9          P L C F G E E F L G L D Q Y R A V Y D V L K G F K V P V I M D A D L G H L P P S
UniRef90_I4YKM1          P G G Q T E E A Y R R E Q E Q M V V R A L A E E A G L P V L A E C D F G H T D P M
UniRef90_E8WYD4            D M E Q N G A D A E I E A S L I H A L R E F E F G P I G F G L R S G H V S A N
UniRef90_W3Y2A1          F T D C D E D E Q G Y D I G Y E A L R Y M E E L P E P F V C Y V P T G H G T P H
UniRef90_UPI00030B6E3E   P Q D E K Y C E E Y K E E I L K V L K E F N L E D T P V L Y N M N F G H T E P K
UniRef90_H1ZDS3          P Y D N L H A V E Y K Q A I L Q V L D E E G L T D L P V I M Q M D F G H T C P T
UniRef90_G9YGR8          F H N C E P Q E E N F T I R Q V V E Q Y A E R W S I P A V W G L P V G H G P D N
UniRef90_UPI00037EBAD4   W V D C G D P D V   V R S V L T D R L G D L G I P I I W E L G F G H C E G Q
UniRef90_F0P1H7          F T R M D V E E E N T T D F E I I H Q Y V K D L Q I P V A F H V P A G H T G H N
UniRef90_B4SAN4          F G N G A E N E E H L R L Q N I F A Y Y H A H T N G P V M R G L S Y G H I R N L
UniRef90_R5UQY5          P V C F G E E A F G I D H Y R A V T D L L A E Y Q V P V V I M D L D I G H M A P M
UniRef90_F2I633          F D D S C K I D I N   V I Q R I V S T K K Q L K N I P I V F N V D F G H V F P F
UniRef90_A6LW50          F S E M E R E K H V P N I S E I T K E I V E N S N I P I I K T S E I G H S K S S
UniRef90_UPI0004768749     S A A N T A V S G Y T A E D V Y R D I A G E L R V P V L Y D I D C G H M P P Q
UniRef90_D0LYM1          M T A C V S P V G H P S A F A V I H E R L S H W G L A A A Y G A P L A H G V R N
UniRef90_UPI0004799520   S N G C F E G D M G V D K F N A V T D L L Q E Y C V P M I F D A D I G H I D P M
UniRef90_D6GWM5          F Q P A S G F   T E E I L A K I I K N K K E L D G L P V I A G V D F G H T N P I
UniRef90_Q0SQ88          F T E M E R E D L K P D I V E I L K R V I G A I N I P I L K T R D L G H G A D A
UniRef90_U5MT77          Y T E M E K E N Y E P N I I E L V M E V I D D D C M P I I K T N E I G H G K D S
UniRef90_UPI0003610D5E   A K D Y E K E E L N K I I L S V I R N E F N V S D I P I V D M D F G H T D P K
UniRef90_UPI000368E605   P Q N N I N Y D E Y K D I W K K M A R E W K I Y N T P I F Y N A S F G H N E P K
UniRef90_R5GAA2          P Y C Y G E D F F G M D Q Y M A V L G I L S K Y N V P V I M D V D I G H L P P M
UniRef90_Q0YQL8          F S S E P L E P G E A E R V K N I F D Y Y S T L N A T V L S G L S Y G H I R E L
UniRef90_E1VUF2          F Q   L E S G I T R S L L E Q V I A K H P I L Q R I P V V A N L D F G H T S P M
UniRef90_K8E4B3            S D A N L P Q D G Y T V E E L Y Q D L E K E L G V P I   V Y D V D C G H V P P Q
UniRef90_Q1J7S6          F E T I G   E N S D V I N D I I N E F V G H R K I P I L L N F D C G H T H P S
UniRef90_UPI0003B499BA   P M Q Y G Q D V F G L N Q Y N A V T D I L G K Y N V P I I M D A D I G H L P P A
UniRef90_I4HWS0          F P S D S P L A T T E T M R S L L E P A L G G Q A Y P I L L N A S F S H V D P I
UniRef90_B5EFE1          F G G L K S R E V Y Q V L A S Q M   E L N F P V V H C P H I G H V P D K
UniRef90_UPI0003B5A7CB   H E R Y D D L G T G N K P I D L L L E Q L D G K N I P I L A D F D T S H T H P M
UniRef90_S4B5H8          P Q N N R Y F K E Y Q T S I K K I M K E F S L E R L P I I L Y N C N F G H T E P K
UniRef90_M7T663          P F G Y D A P E M R E R Y T G V I L D K V K N G D F P I L F G V D F G H T T P M
UniRef90_R5JYK7          P A V H G Q V M F G L D Q Y D A V M G I I G N M N V P V I M D A D I G H V A P M
UniRef90_A4XA31          F T E C T D   G W A V D V A D V L T D R L G D L G V P V L G G L P I G H G V G Q
UniRef90_UPI000365421E     S A A N R P V E D Y K V E D V Y R D L A E E L Q L P V M Y D I D C G H V P P Q
UniRef90_Q49X91          F D N V Y Y T A Y K E K I L D V L K Q Y   N Y T N I P V L Y N M S F G H N E P K
UniRef90_Q26GU1          M T D M R D H P F G K N A V E I I K D T T A S Y H Y P V I F N F P A G H V K D N
UniRef90_C2RGA4          M Q K   G A E C T I E D I Q E M I A S K P E L A H I P I I A N A S F G H T T P I
UniRef90_C0Z5V1            S P A N Q T V D G Y T V E D V Y Q E L A E E L Q V P V L Y D I D C G H M P P Q
UniRef90_Q6L2H0          F K A F D K E E P M P S I E D V V Q K Y M N E L N K T S L Y G A P F G H G E E Q
UniRef90_F4CFH3          F T N L K D N P F G I T L E E L I L E I V G E Y G Y P V A F D F P A G H I D N N
UniRef90_R6EJY7          P L C F G Q E M M G L D Q Y Q A I L S V A G E K N V P V I M D A D L G H L A P M
UniRef90_J0UTB5          H A L F D G E G T S M K P I D I L Q E V L G D K Q I P I I Y D Y D S S H T V P M
UniRef90_V9Z762          L V S C E P S   G G V S A H E M V M D L C A E Y D F P V A F G L P F G H T P L K
UniRef90_K6U7N1          F T E M E R K N Y S P S I S E I I K Y I V N N P N M P I A K T N E V G H G K D S
UniRef90_UPI000472639C   F Q R   G S K V T D E Q I H Y I L D K H P M L Q N I P V L Y D V D I G H T Q P M
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UniRef90_W7YCE7          F Q K S V D M K K D   V L K Q I I K S K S E L N Q I P V I A D V D F G H T S P L
UniRef90_R7HDB2          P L Q F G Q E M M G L D Q Y E A V M G I V R E Y H V P V I M D V S I G H L P P S
UniRef90_K0ACW2            T A A G Q T V E D Y T L L D V Y E T L S E K T G V P I F Y D L D I G H Q P P Q
UniRef90_N0DYA7          F S   M D D D P A A V E A V L R D R L L P L G V P V W A G A R I G H A R V N
UniRef90_UPI00034A6107   C T R C D P G E G Y L T L E E V V W G H I E P L G I P A W Y G A T I G H V E P I
UniRef90_K8N738          P Q N G R N Y L E I K K T W K L V L K E W E E N K P V F F N A S F G H N E P K
UniRef90_D7WMA5          F Q R A S A   M T E E Q L H F I L D K H P L L K A I P V L Y D V D F G H T Q P I
UniRef90_UPI0003079CF3     T S A G Q E V D G F T T L D A L E R L A E A T S L P I I Y N A D I G H V P P M
UniRef90_UPI0003118180   F N D S K N F E E K N L L K N L I H E R F K K Y N I P I V I D L P I G H S N G N
UniRef90_UPI000462610F   W Q D C G D P A E V K D L C   V E L L A P L G I P L V W E L G F G H G P A A
UniRef90_W4E7U1            S A A N R P M D G Y T V E D V Y Q E L A D E L G L P V A Y D I D C G H L P P Q
UniRef90_A8PPC2          F T F P S K P E E E E K I Q T I L K R F A I E Q H C P V L R C P E V G H G R K N
UniRef90_UPI000465651D   Y H N K Y V K E Y E E A I I Q V I K K E A R L T E L P I I T E A D F G H T C P T
UniRef90_UPI0004704523     S A A N R P V E D Y T V E D V Y R A L S E E L Q I P V I Y D I D C G H V P P Q
UniRef90_F9TUA0          N A V V D D A D S A L T Y E D V L N R H L S Q L G I P V M F D L D I G H V P P M
UniRef90_L7FIC0          P H E I G D P D A A P T L P E I V L D V L G D R D I P V L G N V D F G H A G P N
UniRef90_T0UIZ8          F T D C E G D E D E R D Y Y E A L R Y M E E N R N P P F V C Y V P T G H G A P H
UniRef90_N8S776          F Y Q C P Q K N V P Q S I V E I V K E H L D P L H I P L Y Q C D W F G H G E V N
UniRef90_UPI00047C86C4   H E L F D D Q G T G R K P I D V L L E V L G P C E T P I I Y D V D F C H T Q P M
UniRef90_B9DKT9          P Q N D E N K E I K E T W I Q V L K E H H L E D K I   L F F N A S F G H N E P K
UniRef90_UPI0003B794DF   P R G Y S P Q E K A E L D R V I V Q H L W G A T D I P V L S G A D F G H T D P Q
UniRef90_C4Z1K3          P L C Y G Q E M M G L D Q Y R A V T D I A A K Y N V P V I M D C D F G H L S P S
UniRef90_U6B9C3          F Q   L T T K M T E E H L R Y L I S L Y P F L E H V P V L A N V D F G H T S P L
UniRef90_G2ECZ9          M S K M R R N T T S W S T E Q L I L D A L A E Y D F P I A F N M P A G H T T P I
UniRef90_R5ZIQ2          P L   M Y N T W I E Q P Y N E A V M S I L G D L D V P V I F D A D I G H K G P Q
UniRef90_A7GVA8          M Q K   G A A S T M E D I Q E M I D S K P E L T H I P V I A N A N F G H T T P I
UniRef90_X5L4Y1          F T K F N P S K   G I T I I G L L R D H L S R L G V P I L G G L P L G H G D H P
UniRef90_F0SAR0          F T A M K D N D F G F S I E E I V M G V V G Q Y N Y P V V F N F P A G H I D D N
UniRef90_UPI0003B68E91   W A E L P T D L G D Y S A D M I T R Q F L A D I N V P V A F G F P A G H G D I N
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UniRef90_E3YQT6          F Q Q   K T A M T A E K L A Y I I E T K T A L G K I P V I S G A D F G H T Q P I
UniRef90_W5X642          F I G G E E P A T K K N F K K V F A R W A G D L N I P V F T G F E A G H A M I Q
UniRef90_D5EUP7          F S S I R F D I Q Y D S V E Q M L I A H L N D L D I P I A C G L P F G   A N
UniRef90_C6D2B2            S A V H L P V D H Y T E E D L Y S E L Y E E L K L P I L Y D I D C G H V P P Q
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UniRef90_L0LPH2          F T D F E   F D R R Y S V I D I L R E H L A E L N V P I L G G L P L G H G D R P
UniRef90_A9T2B7          F G D A L R R N Y E E E K W F W L E Q M R L P P D L P V L S G L P I G H H G D N
UniRef90_UPI000381F3B8   F A K   D S E I T K E I L L A I L D K F P Q F K K I P V M D F A H T Q P L
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UniRef90_A3I643	I T F I N G A Y A K L E S Y N G K
UniRef90_R6VWY9	M P I I S G G L A E V S V E E R K
UniRef90_I4YKM1	A T L L P Y G V R A E I D C G R A R
UniRef90_E8WYD4	V T L P L G V K V R L D L T E L R F
UniRef90_W3Y2A1	Q T L P L G A H V H F
UniRef90_UPI00030B6E3E	F I L P L G A L A E I N C N T S S F
UniRef90_H1ZDS3	F T L P Y G R L A E M D M E A K R F
UniRef90_G9YGR8	A S L P L G T S V T V C A E A E K
UniRef90_UPI00037EBAD4	L A V P L G T T V E L V S D
UniRef90_F0P1H7	M A M R F G A K V E L
UniRef90_B4SAN4	M T I P V G A R F K M R V T E
UniRef90_R5UQY5	M P V V T G A M A K A H V Q G N T F
UniRef90_F2I633	A T F P I G G L V R V N A T E
UniRef90_A6LW50	K C M I I G G K I K L
UniRef90_UPI0004768749	L T L I N G A Q V E F S A E K G K
UniRef90_D0LYM1	V A L P M G A H A S L
UniRef90_UPI0004799520	L P V I M G A K A N V S A D
UniRef90_D6GWM5	L T L P I G G Q A A L T A E R
UniRef90_Q0SQ88	K C I P I G K Y L I L
UniRef90_U5MT77	K C I I I G S D I S I
UniRef90_UPI0003610D5E	L I L P L G C M V S L N P T T K
UniRef90_UPI000368E605	C I I P F G A F A K L D T N N K T F
UniRef90_R5GAA2	M P L V C G S K A K V K V E
UniRef90_Q0YQL8	M T I P I G A R F R V S V T
UniRef90_E1VUF2	F T L P I G G Y A A L S S N N G S
UniRef90_K8E4B3	I T W I N G A R A T V E
UniRef90_Q1J7S6	C L M P I G G K I T L
UniRef90_UPI0003B499BA	M P I I S G A Y G Y V E A S K D K
UniRef90_I4HWS0	Y T L P I G R E V I L R A D E
UniRef90_B5EFE1	I T L P V G A E V E L N T Q K K Q
UniRef90_UPI0003B5A7CB	H P L A I G K Q V A L N T R A K T
UniRef90_S4B5H8	W T L P L G V Y A Q L D L N N K R
UniRef90_M7T663	V T L P F D A L A E L D S E R D R F
UniRef90_R5JYK7	I P I I C G S I G K V D L K G Q D F
UniRef90_A4XA31	L T V P V G T E A V L D A D A G T
UniRef90_UPI000365421E	L T F I N G A Q V E L S A D Q G R
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UniRef90_Q26GU1	R S L K L G T H V S I K K N Q I T F
UniRef90_C2RGA4	F T F P I G G R A K I
UniRef90_C0Z5V1	I T F I N G A E V E L S F E K G S
UniRef90_Q6L2H0	M I I P L N A R I R I S S E
UniRef90_F4CFH3	Y T L I F G A Q A S L S V N E
UniRef90_R6EJY7	M P I V T G S L A E V R V
UniRef90_J0UTB5	M T T P L G A D A T I D A E T M S
UniRef90_V9Z762	H T L P V G A E A L L D S D A A R
UniRef90_K6U7N1	K C I I I G D N M R L
UniRef90_UPI000472639C	F T F P I G G E V V L N S
UniRef90_UPI0003652D84	F T I T I G A K A T V D T K A K S
UniRef90_W7YCE7	I T F P I G G Q A S I K A
UniRef90_R7HDB2	M P V I C G S L A E
UniRef90_K0ACW2	L T L V N G A L A T I
UniRef90_N0DYA7	L A V P L G S H A R I
UniRef90_UPI00034A6107	V T L P L G T D V E V D A D G G T
UniRef90_K8N738	C I I P Y G I K A E L N T E K K S F
UniRef90_D7WMA5	F T F P I G G N V H I N T K E L R
UniRef90_UPI0003079CF3	L T F V N G A Y A E V
UniRef90_UPI0003118180	A C I P I G F D S T L N G N N G T F
UniRef90_UPI000462610F	H S I P L G V P A T L H A
UniRef90_W4E7U1	V T L V N G A F A E V V G A G K
UniRef90_A8PPC2	R S L P F G K Q A H L D L N K
UniRef90_UPI000465651D	F T I P Y G I K A E I N P D A K T F
UniRef90_UPI0004704523	L T F I N G A Y A E
UniRef90_F9TUA0	L T L I N G A V A S V
UniRef90_L7FIC0	L P M P V G I R V G L D A Q Q R T
UniRef90_T0UIZ8	Q T L P L G A T I
UniRef90_N8S776	R P F W L G K T G K I
UniRef90_UPI00047C86C4	A I I E L N Q K T I I D F K E M R
UniRef90_B9DKT9	C I L P Y G V V A T L D A E Q L K F
UniRef90_UPI0003B794DF	W V L P H N V L A E L D P A G N R F
UniRef90_C4Z1K3	M P I V S G A Y T Q V K V
UniRef90_U6B9C3	F T F P I G G Q V E L
UniRef90_G2ECZ9	R A M I F G E D V E L V V G K
UniRef90_R5ZIQ2	F S M I N G A I A K V S S A N G K
UniRef90_A7GVA8	F T F P I G G R V K M
UniRef90_X5L4Y1	A T V P L G A A A V L D A K A G T
UniRef90_F0SAR0	W A I V F G K K I
UniRef90_UPI0003B68E91	Y P L L M G E M A E L N V N A D N F
UniRef90_U1KZ85	L N L I N G A S C T I N A D
UniRef90_G4T6R1	M P L A L G A E I D V
UniRef90_E3YQT6	A T F S I G G T A S I D T N
UniRef90_W5X642	R P V P M N T R C E L S V
UniRef90_D5EUP7	R C M P L G A T C T L D V T
UniRef90_C6D2B2	I T F V N G A F A E I E A G N G K
UniRef90_UPI000378C1B7	M T I P L G A E V D T R K K
UniRef90_UPI0004793F55	L P V I M G A D A R V S A L G N R F
UniRef90_L0LPH2	A S V L V G A I A E L D A K A G T
UniRef90_A9T2B7	R V V P L G A F V D V N
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Sequence alignment

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UniRef90_UPI000473267D             V G N K E L V I E G R L L G G C I D V I R H A I G T P F Q Q R F L
UniRef90_A0A024F130        P M N E A A R Q V K T L K S K I V G G N L T V L Q S T L G T P W Q V D A
UniRef90_H3NEZ2            P G Y Q S L G A E T V A T G H L L G G C V E T L A S L R G T S L F P D Q F
UniRef90_W4QZV9                W K A Y N I G E A R G Q L Y G G N L C T L N L L Q G T E Y   M P N L
UniRef90_E6UDC0                Q K G K C E G E I I G G N L C T L N L L Q G T P Y M P E   I
UniRef90_R6R3S3                                        M E G F G T E Y M T I I N
UniRef90_Q884Q8                                          V G T P F M P D   L
UniRef90_UPI00047900A3         T P S N R L G T S E G K I I G G N L K I L E N L N G S A S M I E T
UniRef90_V4YRA1                          T L W G G N L S M V C S M V G T P Y   L P K V
UniRef90_T0JMH7        H V L P S P A W T W H P G R A E G R L F G G C L T V M A R I Q G I P Q I S P D W
UniRef90_A0A023CV24    E I N G Y E V L R G K G T V T G R L L G G C L D S L Y D I L G D R Y S L D E W
UniRef90_U2WL35                  V L R G H G V V Q G Q L L G G C L D S F Y D L L T T T R Y P D E W
UniRef90_C7ZEB0              G W T W R P G K A Q G R L F G G C L T V A V R L H G I P A I V P D W
UniRef90_UPI000479D624             G S G Q G R L L G G N L C T L N L L Q G T A Y F P D   L
UniRef90_A6FF62                      I E G R L I G G C W D T L S H L F E T E Y S Q R Y S
UniRef90_UPI0003B46DB8            E M K G I L L G G C L D I L V N L C G T K F D H M K N
UniRef90_UPI000478F171            M Q G I L L G G C V D V L A N L V G T R F D K M D F
UniRef90_UPI0003B5C140         G S G K I S G Q L L G G C L D V F P M I V G T D I W P K D W
UniRef90_L7W071            W L Q G A G S Q R G H L I G G C I E V L D F L R G T E F W P A Q W
UniRef90_N9WD42        F K Y E F I K G N S L E G I L V G G N I R C L L K L S G T P Y M P D   F
UniRef90_UPI0003B521E4              S G R L L G G C L N T L P R L V G T P L D R W R S
UniRef90_UPI0003B37FB2            K M S G I L L G G C V D V L A N M V G T R F D K R D H
UniRef90_O35046              Q E G Y A E G T L I G G N L C T L N L L Q G T E Y F P E T
UniRef90_R3HTD9            L L Q G H G V V E G R L I G G C L D V Y S M L R G T S L Y P E T F
UniRef90_R6E5U3              K M R G R I L G G C L D C L G K L V G T G Y D K Y A K
UniRef90_V5CS68          G P Q C H V E G R L W G G N L A M   L T S L I G T P W L P T V
UniRef90_E0TE43              R A G Q R G R R L V G N L T V L S L L G T P Y E P Q P R
UniRef90_C6HUY0        L P L E C R S I R Q G E A S G R L L G G N L E S L A H L S G T S F M P D   L
UniRef90_H7F6T0             Q G Q G V V T G P L I G G C M E V L E M A K G T F P A L A Q F
UniRef90_UPI000470DC35         I S G V V K G G N L S T L S G I W G S E Y A P I F N
UniRef90_E7MQH7             V E G R C I G G C I D V L K D L I G T P Y D R Y R N
UniRef90_W6TDW5        P F N Q S A K E A V L L K G K I I G G N L T L L V H S I G T S W Q L Q S
UniRef90_A4BBP9        P C T G W L Q G K G I H R G H L L G G C L E V L E M L R G T P A W P E Q W
UniRef90_R4LIH0              R P G S A E G W L L P G C A P T A S Q L F G T P Y   L P E V
UniRef90_F8L5X9             E G E A K G I I V G G N L G T F N L L K G T S Y F   P S L
UniRef90_F8ABE2          L I G E V W R E G E A Q G L L I G G N L V S V A S L L G S R W A P D   F
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UniRef90_R7F8B8          E Y R V I N P G Q A E G I M I G G N L S I M S N L I T G K Y N V D V T
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UniRef90_UPI0003602AA2    P T K W K V Y H S G K A R G T A I G G N L S T F G L L R G T E F A   P Q P
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UniRef90_W8UY22              T F S G K L I G G C L E I I S R L A G T P F A S N S P
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UniRef90_C1CZF1        W L Q G E A P A Q G H L I G G C L E V L D M L N G T P G W P E L W
UniRef90_A3CR92          H H G A Q A T A I G G N L S T F S L L R G T P Y A P   T D
UniRef90_UPI000050FED0         P G T A K G R L V G G N L S L V A A G M G S P R E L R E R
UniRef90_R6SLP8            K N G T V E G K I I G T N L A C M M Y L L G T E F L P N M E
UniRef90_R5IYZ0             E F K G R I I G G C L D S L K D I I G T K Y D C Y K E
UniRef90_U2WL52              T G R L I G G N L N T M Y G F F N S T Y F P V L T
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UniRef90_T0LUS5            H K G K V V G R S I G T N I S V A I S L I G T P Y   M P S T
UniRef90_G7LLA4              G R L I G G C L E I I S R L A G T P F D Q N S D
UniRef90_R5T8U8          V L N G K G K I T G K L Y G G C L D S L Y D I I Y T K Y N L D E W
UniRef90_A3TRG6            A W R D G E A S G S L I G G N V A L L A A S V G T   G D L V A T
UniRef90_UPI0002E9A0C7  P A Q T L T   A G E F T G I T Y G G N L S L L A A G V G A P E F Q P P D
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UniRef90_U1AV88          V R L L G G G S G K M E G R L I G G C L E S L A P L Q G T P Y D A F K A
UniRef90_R7LUK1             G A A Q G I T F G G N L A T L V S L A G I D F I P D
UniRef90_B9J7X4             S G R V T G R L I G G H L E T V T A A A G   W A L P D L
UniRef90_UPI000410515F  P T E W K V Y N P G G Q A T G I A I G G N I S T L N L L T G T E F A   P S P
UniRef90_UPI000314F32F     I L Q G S G V V E G H L L G G C L D V F M M A N G T E I W P D E W
UniRef90_A9F1V4             R A G V A E G P L F G G N   L A L L H A C A A A G R L R V P
UniRef90_F4CCE5          Y W V I N E G D V E G K I L G G N F L T F N F L Q G S E Y   L P D T
UniRef90_UPI0003B77BB9  P C T G W R F H Q G I A Q G Q L F G G C V E V L D W L R G T D Y F V T D L
UniRef90_UPI000375898C  L H G A P I G P V R V R G S T V G G T A S L L V S T V G T P L Q V R P R
UniRef90_Q67LP4              V R G R L V G G C C N C V L H L L G T S Y W P D T
UniRef90_R7F2T6        N T L D E K P V H L H G R I I G G C F D I I A E L A G T K Y D R Y S K
UniRef90_C0R438        N G I R L K D G R L K S I I G G N M T L V E N S I G T V W Q I N A
UniRef90_R5JBV1             T G R I I G G C L E C L M D L V G T E Y F K Y K N
UniRef90_UPI000299E14E  P S K H D A N K   R F E S T L I G G T L T L V Q A S L G T S W Q I   T A
UniRef90_R6FPB3        V N G R M E D E I S M T G R L I G G C L D V I V F L L G T S Y D K Y N S
UniRef90_A5ZAT9        V N G R G E E K I E I S G R L V G G C L D V L A F L I G T K Y E K Y K D
UniRef90_UPI00045E8FE0        Q V S G R L V G G C L E T V S M L A G T P F G F S E H A P
UniRef90_D1BVN7              A R G R L I G G C L E T V N L A G T P F G G Q H A E
UniRef90_UPI00047CD722     G N G K V T G I L W G G C L E S I Y D I Y T S E P D K G F F
UniRef90_F0RTY7         V L Q G E S V M E G P L L G G N L V L D M C I G T E I W P D   F
UniRef90_I7ILC4             N G A D I V S G H L L G G C L E T F V S L I T G V W P D E
UniRef90_S6GN35              F S G R L I G G C L G T L H L F G C C Y Q R F A D
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                              50             60             70             80
UniRef90_B1J145         K G C I L F I E D V N E P L Y R V D R L L T Q L R L A G K L A G V K G V L V G D
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UniRef90_UPI000473267D  Q G E V W Y F E N C E L S V T D L R R T L V Q M K L A G W F D Y C S G I L F G R
UniRef90_A0A024F130     D R R L F V E D I G R G Y R I D R M F E Q F R Q A G I L K K C H G I V L G D
UniRef90_H3NEZ2         Q G A I L F L E T S E M K P A R L E D E L R T Y G M M G I L E V I H G I I V G R
UniRef90_W4QZV9         Q G K V L F I E D D E M T P E T F A R D I T S L L Q V A G E I K G L V I G R
UniRef90_E6UDC0         E N R V L F L E D D N I M V C E F D R N L Q S L L Q I S G A D T I R G I V F G R
UniRef90_R6R3S3         K G D I L F I E D A E K D A Y T I E R S F S L L K L A G F D K V S G I I L G K
UniRef90_Q884Q8         S G A I L L I E E V N E P A Y R V D R M L T H L G N C G I L K Q L A G I A V G E
UniRef90_UPI00047900A3  K G K I L V L E D V G E P L Y N I D R M F C N L L R S G K L N Q L S G L V I G G
UniRef90_V4YRA1         S N G A L F L E D V A E P P Y R V E R M L T Q L L H A G V L A Q Q K V I M L G A
UniRef90_T0JMH7         N G R I L F L E S A G N P L G K V R Q A V A D L A A R G V F D E I A G V I G R
UniRef90_A0A023CV24     K G K I L F I E T S E E K P A L Y Q K M L M A L K K R G I F K V V K A I V V G K
UniRef90_U2WL35         R G K I L F I E T S D E Q P D L F R R M L Q R I R Q A K I L T N V V A V I V G K
UniRef90_C7ZEB0         R G R I I F L E T I G E D L P R I Q A G F A D L I A Y G A F E E A A G L V I G R
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UniRef90_A6FF62         E G I V L Y L E N A E M S P T E L A R T I L N M K F R G V F S C I S G L L L G R
UniRef90_UPI0003B46DB8  D N I I W V L E A C D L T P M S I R R S L W N L R E A G W F D S A S G F V F G R
UniRef90_UPI000478F171  K D V I W V L E A C D L T P L S Y R R T I W N M R E A G W F D S A A G F I I G R
UniRef90_UPI0003B5C140  K G K I L L L E T S E E K P S Y T Y Y L R N L G A Q G I L N A I N G I I V G K
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UniRef90_N9WD42         K N K V L F L E S F S G N P Y K I L T F L N Q F R D M D I L K N L K G I L I G S
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UniRef90_UPI0003B37FB2  K N V I W V L E A C D L T P M S Y R R A I W N M R E A G W F D S A A G F V I G R
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UniRef90_R3HTD9         E G G I L L L E T S E K S P E T V E Q E L R T M G V M G N L S K L H G I L F G K
UniRef90_R6E5U3         D G I I W Y F E A C D L N V M D I R R T L W Q L D H A G W F E Q A K G F L V G R
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UniRef90_C6HUY0         S G A I L L I E D V D E P L Y A V D R A L R T L A L A G S L R D L K G V V M G P
UniRef90_H7F6T0         D G A I L F L E E V K A N P W W F E D Q L R N Y G V M G V L E R I N G I V F G K
UniRef90_UPI000470DC35  Q G D I L F I E D E D K N I A T M E R L F N L L K L N K T F D H L N A I I L G T
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UniRef90_W6TDW5         Q G K I I I I E D L N I Q G Y Q I D R A L Y H L T Q A G V L C G A V A I I F G T
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UniRef90_R6YKU7         D G F I W Y F D N C E L S I E D L I R T M W K F K D N D Y F N Y T K L I I F G R
UniRef90_W9Y4E1         D G C I L L L E V G D A A Y R I H R S L R A L L R A P G F Q S L I A L G Q
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UniRef90_D5UD11         E G L V V Y L E N A G S S A D V T R R L F G L R Y A G W F D R A T A V L I G R
UniRef90_Q9HLJ4         Q G K I L F A E D T G V T S G D I D R Y L F T M K L A G I L D K F E G F A F G E
UniRef90_R7BLS1         E G I I W F L E A C D L N V M G I R R A L W N L E H A G W F K H V K G F I I G E
UniRef90_C1CZF1         S G A V L A L E T S E D S P S Q V G Y W L R N Y A A Q G I L T R A A G L L L A R
UniRef90_A3CR92         E N Y V L F V E E A E E D D Y E F D R N L A A L L Q A Y P N P Q A L L I G R
UniRef90_UPI000050FED0  S G S V L M L E D V E E E L Y R L D N L L V Q L V R G G W F D S A D A V V L G S
UniRef90_R6SLP8         S N I L F I E S Y R T S I N E C Q R R F A H L K Q Y G I F D K I K G I V I G Y
UniRef90_R5IYZ0         D G I I W Y F D V A E M T N E D I L R T M W Q F K N A G W F I G C K G I L F G R
UniRef90_U2WL52         G N E L L F I E D A E K N A A T L E K N F A M L A L A G V F D Q V S G I I L G K
UniRef90_W7Z4V0         N G S L L F I E E L E E P Y R I D R M F N L K R N G Y F D E I K A L L V G G
UniRef90_I0WHQ1         R G K I L F L E D L D E Y L Y H V D R M M M N L K R N G Y F D E I K A L L V G G H
UniRef90_U1KDK8         E S I I L Y F E N G E M P P A A Y Y R A L Q S I E L R G W F S K V A G V L I G R
UniRef90_T0LUS5         A G R I L F A E D T A I T S G D L D R Y F S V L N L T G Y L Q E F A G F A F G E
UniRef90_G7LLA4         E G T V L Y F E N V E M A P C E L T R A L F S L R L H G W F N N L T G I L I G R
UniRef90_R5T8U8         K E K I L F I E T S E E H P D K L E I V L N F F K N N K V L E S V K G V I V G K
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UniRef90_R7LUK1         E K F I L F A E D I N E D V Y K I D K Y F R Q L L N I P K F K K I S G I V L G D
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UniRef90_UPI000410515F  D R Y V L F L E E A E D D D Y L I T R H L T A L L Q A Y P N P Q A L V F G R
UniRef90_UPI000314F32F  T D A I L F I E T S E D S P Y F I K W T L R N L A A Q G I L V K G I I V G K
UniRef90_A9F1V4         E G C I L L L E D V T E R P Y R I D R M L A T L E V G G H L A P A A A V V L G D
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UniRef90_C0R438         K G K I L F L E D I R V Y P Y A I E R S L D H L K Q A H I F D G V H A V I F G D
UniRef90_R5JBV1         D G I I W Y F D I D Y M N N E G L L R N L W G F K Y S K C I A L V F G D
UniRef90_UPI000299E14E  K N K I L F L E N E A P Y R V D R M L Q H L Q Q A I C L T E L T A L V F G D
UniRef90_R6FPB3         D G I I W N L E S F N M E D T T I I T H L W Q M K E K G Y F K Y A N G F I F G R
UniRef90_A5ZAT9         D G I V W V L E S F N M E D V V L I T H L W Q M K E K G Y F K N A T G F V F G R
UniRef90_UPI00045E8FE0  E G L I V Y L E A A E A G L D R N L W R L L L A G W F D H A T A V L V G R
UniRef90_D1BVN7         D G L I V Y L E A A E D E A A T I C R N L H A L R L A G W F E H A T A I L I G R
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UniRef90_I7ILC4         N H A I L F L E T S E D T P S P L E K M F N Q L L Q L I F G I V F G R
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                              90              100             110             120
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UniRef90_A0A024F130   F I G G N E P N G T E D K T Q V F K R W A A D L E I P L F K G L E A G H A P V Q
UniRef90_H3NEZ2       P Q D G I Y Y E E Y Q K V Y P K V M K E F G R E D L P I L Y N M N F G H N E P K
UniRef90_W4QZV9       F Q R A S   K M T E E H L I Y I L D K H P I L K F I P V L Y D V D F G H T Q P M
UniRef90_E6UDC0       F D E S C K M T E D   I V K A I V K D K V S P   D I P I V F G V D F G H V F P M
UniRef90_R6R3S3       H E K F D D N G T A R K P Y E I L L E V I G D T S I P I L A E F D C C H T H P M
UniRef90_Q884Q8       F T P A A N T G G S I S P A H V L M E R L G G L G I P V L G G L P V G H G D L N
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UniRef90_V4YRA1       F N R F T A Q D K G F A M K T V V Q W L R A N T K A R V L T Q L P H G H V N T K
UniRef90_T0JMH7       P Y G Y D S A R A R A E Y A A V F K G R L A G K R F P I L M N V D F G H T A P M
UniRef90_A0A023CV24   P Q D E A H Y A E Y K       K I I S S V T A E S K T P I L F N V N F G H A Y P R
UniRef90_U2WL35       P Q N     E H Y Y Q E Y R N I L I D E T T D L N L P I L Y N V N F G H A F P R
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UniRef90_UPI000478F171 P T A F G K E M M G A N H F N A V T D I V G E L G V P I V M D A D V G H I D P A
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UniRef90_R3HTD9       P Q I N R Y F E E Y Q T S I K K I L K E F N L E K L P V L Y N C N F G H T E P K
UniRef90_R6E5U3       P L C F G E E L F G L N Q Y D A V T G V L S K Y H V P I I M D L D I G H I P P M
UniRef90_V5CS68       F S H A Q P N D Y G Y T L E K M V A W L R S R V A I P V I A G L D F G H E A K T
UniRef90_E0TE43       F T D L E D N P V P W G E G V A A M A H R H F P D L P I A H G F P V G H G L E N
UniRef90_C6HUY0       F L R P R D D D P V R E A E D L V L S V V G E     I P V L Y S S L P G H G R P M
UniRef90_H7F6T0       P K E G A H Q A A Y R E L T L K V L A E F S L Q H L P V F F N A S F G H N E P K
UniRef90_UPI000470DC35 H K N F D D Q K T G K Q P I D V L L E V L N G Q N I P I L Y D V N I S H D K P M
UniRef90_E7MQH7       T C F E S N S T G L S Y E D A I K H A L Q   D I P V I Y N A D I G H T V P R
UniRef90_W6TDW5       F S G     N S F D W K K A L K R F A K N T K I P V F Y W P Y F G H D S C N
UniRef90_A4BBP9       P N P A D F R K Y D E A L I Q V I R D E E G L T E L P I V T H M D F G H T D P M
UniRef90_R4LIH0       C L P G T A A G G S G D Y A A V I D A A V G D R R L P V L L D V D F G H T E P R
UniRef90_F8L5X9       F E K T A D I D   A K R L E T I I K S K P A L K L P V L D L D F G H T T P F
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UniRef90_UPI000050FED0 W Q D C A E I D     D V E A L I M D Y L G E A G I P I V S E M G F G H D P D A
UniRef90_R6SLP8       N Y D L Q K D E S K Y Q M E D I I L E Y T K E Y N F P I I K C N D F G H K I V N
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UniRef90_U2WL52       H A L Y D D K G S G R L P I D I L Q E V L G E R Q V P I I Y D Y D S C H T V P M
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UniRef90_U1KDK8       N P E P L A K D S D W T H L D A L Q K V F T G C D F P V L Y D V D I G H Q A P N
UniRef90_T0LUS5       F K Q I N S N E E P M P Y I E I I Q Q Y M D Q L K K P S I Y G L P F G H G E D Q
UniRef90_G7LLA4       S A V P D V S D T Q H N Y L D A L R A S L G D L D V P V L Y D V D I G H I I P P Q
UniRef90_R5T8U8       P I D E K Y Y E K Y K Q V Y K K V F A D L K T P V L Y N I N F G H S V P R
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UniRef90_U1AV88       S S G P D A A D G D L S Y E G A L R A A L D G L P Y P V A V D A D I G H V P P Q
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UniRef90_W4QZV9          I T F P I G G F V E V N S T G K Q
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UniRef90_A4BBP9          M T F A I G A A I R I N C D S Q T
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UniRef90_Q9RSX1          L T L P L G A Q V R L D P V A G R
UniRef90_R6YKU7          M T I I N G A I A K V
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UniRef90_Q9HLJ4          M M I P L N A R V R I S Y E E
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UniRef90_R5IYZ0          H T L I N G S I V K V I K D K
UniRef90_U2WL52          I S T P L G A D V R I D A Q A Q T
UniRef90_W7Z4V0          K S I P L G A R A T L D A D C K R
UniRef90_I0WHQ1          R T L I I G K E I T I
UniRef90_U1KDK8          L T L I N G A Y A E V T V
UniRef90_T0LUS5          M L I P L N A K M S I S S E K
UniRef90_G7LLA4          I S L I N G A I A T V T F T E
UniRef90_R5T8U8          C I I P Y D A E A T I D F D N K R
UniRef90_A3TRG6          R A L P H G A D V A L G G G E L R
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UniRef90_U1AV88          W S L L N G A W A T L E V
UniRef90_R7LUK1          A T V P Y G A N A I L N E N
UniRef90_B9J7X4          V S A L I G A V A E L D A E R G T
UniRef90_UPI000410515F   F T I T I G G Q V E L D T   K T F
UniRef90_UPI000314F32F   G I L P Y G I N T E L N C E N K T
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UniRef90_UPI0003B77BB9   F V I P I G T E V R I D S S K Q
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UniRef90_C0R438          D P L P F N T H A I I S V
UniRef90_R5JBV1          I T I V N G S I V R L C N E K
UniRef90_UPI000299E14E   R S L V F G A P T H L E Y D K
UniRef90_R6FPB3          F P I I E G A K A K I I S S N G K
UniRef90_A5ZAT9          F S V I M G A K A K V T S K N G K
UniRef90_UPI00045E8FE0   L A L V N G A L A D L T V
UniRef90_D1BVN7          L P L V N G A M A T V
UniRef90_UPI00047CD722   A M I P Y G I H C E I D F E N K T
UniRef90_F0RTY7          C I L A Y G A C A R F D C H T K T F
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UniRef90_U5SAB5                 V L Q G T G I V S G P L L G G C V E S L Y D I L V G E L Y P D E W
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UniRef90_UPI000380EC10     P T A W K V Y A N G R A S G T L I G G N L S T F S L L S G T D Y A P Q E
UniRef90_F8HUG0      T L P R R P L N N K Q G E A T G I S T G G N I Q T Y C L Q A G T P F F P E T K
UniRef90_UPI0003703162          V L R G T G H V T G R L L G G C L D S L N S L L D T R Y A P D T W
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UniRef90_Z5XSI2              I N Y K D T R K I E V S G R L I G G C L D T L G L L P S N Y Y Q Y A P
UniRef90_G5JW81      H F K P T E W K I Y N M G S A Q G T A I G G N L S S F H L L A G T E F A P K P
UniRef90_R6H4L8             P E D Y T I L Q E G E A K G R L I G G N L S L I R G M V A G K Y S I D F
UniRef90_UPI0004700C93             N Q S S P V T G I C Y G G N L S T F Q L L F G T R F L P D L
UniRef90_Q9ZDC9          I P L N D I A K S S D L V K G N L T G G N L T M V Q T S I G T R W Q I K T
UniRef90_R5KYR3                    E F S G R I I G G C V D V L T Q I I G T K Y D N T T K
UniRef90_UPI000369556E     T W S L L D P S T G P L G A R G R L I G G C I E T V S I L A G T P F A A H A P
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UniRef90_S3IUF6                   Q A A G T L W G G N L A M L I S L I G S P W L P T I
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UniRef90_UPI000468113E         V L R G S G Q L T G Q L L G G C L E S L T D L L M V P P S I A E W
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UniRef90_C5CD86                   P G K M V G R L I V G N L S L F K T L Q G T K Y F G S L
UniRef90_UPI00036B0C0A            P G T T G D L V G G H L G T V A H A V G T V L P S L
UniRef90_A7VJM5                   P G S A K G R L G G G N L S L I A A G M G S P E L S D V R
UniRef90_C5BUU0      T L T A E L T S G G R A E G S L A G G S L E Q L A R C V G V V D V P W
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UniRef90_D4J166          I N Y T F L Q N N V M E G I V V G G N I R C F A K L A G T K Y W P D M
UniRef90_M3DEZ6       L G G D G D G D V V A E G R L I G G C V D V L C N L A G T P Y R E R S P
UniRef90_K1XQ31                K E G S V D G V L K G G C M S V L A K L I G H K Y S P R F Q
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UniRef90_V5WH63             W L Q G S Q I S R G R L F G G C I E V L E M N K G T D Y W P E F W
UniRef90_H1PRG6               N G S G I V E G R L I G G C I D V F M M A N S T K I P E E W
UniRef90_D6S3V1             L L R G T K Q F S G E I L G G C I E S L Y D F F D S R Y E L D E W
UniRef90_V4SM23             L L K G P S Q F S G H I L G G C I E S L Y D I F D A N R H P D M W
UniRef90_A0A023VC88
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UniRef90_T0Q294               R S G V G R G T I L G G N L N V L G L L R G T P Y F P L Q F
UniRef90_E7MNG9             L L Q G S G V F A G K I L G G C I D S L Y D V F D T R Y S L D D W
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UniRef90_C8PQ88             L L Q G K S V F S G A I L G G C L E T L Y D M F D N F P S L D D W
UniRef90_B2V3K5      E I K G Y E L L Q G S G K F K G R L L G G C L E S F Y D M L S T R Y D K N E W
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UniRef90_D4W8E0        E K K I L L L E S Y S G D V A K M A T Y L N Q Y K Q M G V F E Q I N G L I L G S
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UniRef90_K3X1N6        T G A V L L L E D K G M S L D E A N T V L G C L R L D G T F K R I N G L V V G R
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UniRef90_A0A010YGT2    D G A I V V V E D D F E S V H D F A R H L T S L L Q T G I A V R G L V V G R
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UniRef90_R5NK58        S G K I L L E G L N S T S Q Q V A T Y L C Q L R Q M G A F N K I N G I L L G T
UniRef90_A0A011RRF6    T D T L L F I E T S E E T P D K F R E M L T V L K N Y G L F E V I N G I L L G K
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UniRef90_V5WH63        N G R V L F L E T S E E K P P Y V R Y S L R N Y G A M G A L E R I S G L L I S R
UniRef90_H1PRG6        K N A V L F I E T S E D S P E F I K W T F R N L A A L G I L K E L K G I L V G K
UniRef90_D6S3V1        R G K I L L L E S S E S T P E K Y R K M V R A L A N Y G I F D V V N G V L V G Q
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UniRef90_A0A023VC88    E N G V L V L E D I N E H P F R I E R M L L Q L H Y H A G I L A R Q N A I I L G S
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UniRef90_C5BUU0       F D E F T D H D R G W T V L D V L R S W L D P L G V P V L G G L P L G H L E D T
UniRef90_W8ZZW3       Y Y S I D P T D E R M M Y K A V L Q Q F A A Q Y D K P V Y Y F P F F G H G K Y N
UniRef90_D2PRW0       F S     D T D E G A L V A G V I R E R L A P L G L P M V V G A A I G H E D L N
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UniRef90_S0J1T8          A I L P Y G A K V R A D S K N Q
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UniRef90_A0A011RRF6      C L L P Y G I E T T L D T E N K S
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UniRef90_K1XQ31          I Y L P L G Q K I R L
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UniRef90_M4ZBP7          A I V P F G V K A F V D A D Q Q
UniRef90_V5WH63          V I L P Q G G E V L M N
UniRef90_H1PRG6          G I I P Y G I T T E L N C E R K T
UniRef90_D6S3V1          C I I P F G I K A E V D M N Q Q
UniRef90_V4SM23          A I I P F G V A A Q V D I D K Q T
UniRef90_A0A023VC88      V T L P L G A N A V L K N D K
UniRef90_S9TRW4          K I V P F G V W
UniRef90_T0Q294          T L I P I G G S C T L D T
UniRef90_E7MNG9          A I V P F G V M T R V D V E K Q K
UniRef90_R7FH00          T V I P I G T K A E I N T D E
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UniRef90_E3QCZ4                 P G R A E G R L F G G C L T V V S R I Q G I P R I T P D W
UniRef90_UPI0004763985       G D V D V T G R L I G G C V E T L A D L A G T P Y A L A P G
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UniRef90_F7K7D2            I Q W K F V Q G S E M K G I V I G G N I R C F L K L A G T P Y M P D   F
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UniRef90_J1Q1W1            D L L Q G S A Q F E G K I L G G C L E S L Y D I F D N S P D L S D W
UniRef90_G3Y0Z0            W R W L R K G R A T G Y L Y G G T V P C V V R L Q G T H Y A P A S W
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UniRef90_K1UD26          E Y T T I Q A G Q A T G E L V G G N L S L F T K L V C G K Y A V N V H
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UniRef90_UPI0002FF6CCC        G E V K G V I T G G N I Q T Y N L Q A G T K F   L P E V
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UniRef90_UPI00047B3FA7   L L Q G A T F S G K I L G G C I D S M Y D F F G E R Y E A K D W
UniRef90_M0LFC2        W A G G D D P V S G R V W G G C L E I L Q F L A G R Y P D E D D L
UniRef90_F3WZI2            N L S I L H A L T G T P W   L P D L
UniRef90_E6LG66        L L Q G A P S F T G H L L G G C F E S L T D F L S G E R Y P D Q W
UniRef90_D8MFN5          N G Q A T G I S T G G N S Q T Y C L Q A G T K F F P K T Q
UniRef90_R5K9J2        Q G T S M S G T V V G G N I R C F L K L A G T P Y F P D   L
UniRef90_D2BXS4            A I G V A S G G N L T L V Q S F F S T K Y E   D N Y
UniRef90_U2ZFX9            V L T G G N I T I L S Q L L G T A L E P D   L
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UniRef90_M3FQP5       T V P G T G W T W V N A V V Q G R S W G G C L E I L G W L L M A P R D L S V F
UniRef90_S6A0J7         L L Q G S P V F S G K I L G G C I E S I Y Y L F D N S P E I E D W
UniRef90_G0QC83        E F W N F N Q Q T V E G R L F G G C F E I M D F H M A T Q P E R E E L
UniRef90_D4JEP0       F K F T W L K K K N M K G I V I G G N I R C F L K L A G T P Y F P E T
UniRef90_D6U4J2         W H N A G S I I E G T A W G G C L E I V Y L I R A H Y R L Q P R Y
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UniRef90_D8MFN5          S P  I V F I E Q A E G D P L E F S R E L A Q I L Q   I H T D I K A L V I G R
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UniRef90_M0CTB4        P Q E E E R T A F R D D Q R A T I R E W V R E Y N V P V V F D L D F G H T N P T
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UniRef90_W1Q1P9          P M D E V Y S E E Y K Q I L V D V I A N P S L P V V Y F N L N V G H A Q P R
UniRef90_K1UD26        Y E H P S K I S L E K I I T N A I G D     E Y K F P I I K S D N F G H I D K K
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UniRef90_E7NTB9          P Q D E V Y F F E Y E E I Y T R T F C G Y K Y P V V Y N V N F G H A L P R
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UniRef90_K2AFB5         Y W I I N K W K A T W K I I W W H V R C L A C L Q W T K Y   M P S F
UniRef90_B9LPL4                       V R G R V W G G T F A I V K W H L Q T D P A P D R L
UniRef90_D2BB19          P S P G W T W H D R V V T A P T W G G N L E I L H W N L A A D R W I R P V
UniRef90_M0M523           E W Y W H G D G R V E G T V V G G C F E M L E M L D D S P F P A V V E
UniRef90_UPI000479FA82       T W A G P N A M V E G R L W G G C L E V I D Q I A G R M P S V A D L
UniRef90_R6CU92                   R K G D C K G K M I G T N L E C T L Y I V G T K Y F P N M
UniRef90_L1MG96              T W I G P E N T V R G R T W G G C I Q V L T A L A D R L P A L E D L
UniRef90_R5H9T8                                                              W
UniRef90_D7BPK0         M P V E F F G N D S   I V R G P T W G G C L E V I M A L A G R L P D A S D L
UniRef90_M0LWT7            G R L W R G G E A S G R I W G G N Y S V L V E Q F L A E R Y L P D L
UniRef90_Q829Y0         P G Y G W S W V N A V V E G R S W G G C L E I V S W L L M A D R E I S R D
UniRef90_UPI0003A2F792
UniRef90_J9K870                          G G N L T L V E N S L G T S C C F R G V
UniRef90_W9GGL1             W A G P P K S V T G R T W G G C I D V L Q W I L T A P A D P S V L
UniRef90_D6GSL5              G N K T F E G Q I L G G C L E S I T V E L C R K Y E I E E W
UniRef90_UPI00035F9F9E   R V P T E P W T W P A R V V E G R T W G G C L D V L D G L A G R M P E L E D L
UniRef90_A5P850                          N L Y T L A M L V G T Q F   M P S L
UniRef90_UPI0003098936                     N L I T L A M I A G T P   M M P D L
UniRef90_E4N216          P A T G W H W H D R V V E G P S W G G N L E I L H W M A A A D R L R P A E
UniRef90_D1J7E8         N I T K Y E F L N E K K S F E G Y L W G G C I E T I Y S G L D E E L K P N E L
UniRef90_E9V357             T W A G P A R T V T G R T W G G C I E I L Q W V L T A P A D P G V L
UniRef90_W2V1Q8                          T I T G G N I T V I A S L S I Y S P N T T
UniRef90_U1PTL1            W A G P G V S V T G P T W G G C L E V L H D V L A S D L E P A D L
UniRef90_I9C7Y0                          N L M T L A M L C G T R L   M P G L
UniRef90_F7KA45              N P G V C R G R L V G G Y L L N Y A L L N S P F F N Y G N
UniRef90_L0ERK4                          N L T L I Q S L F S T S Y E K Y F P
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                                      50            60            70            80
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UniRef90_R7JRD2         R G K I L L E A M G G G V P Q M V T F L S Q L K M M H A F E Q I N G I L L G T
UniRef90_F3GJT2         S G A I L L I E E V N E P A Y R V D R M L T H L G N C G I L A S L A G I A V G E
UniRef90_G0QCW5         E G E I L L L E T S E D R P S T V R W F L R S M A E R E L L Q R F S A L L V G R
UniRef90_M0BGX5         D G K V L L L E T S E E D P G V V Q R M L L G M G E R G L L E R F D G F L V G R
UniRef90_Q04A90         T G S I L L E A Y R G Q P E L V A S L L C Q R E T G I F N Q I S G V L L G T
UniRef90_H6LVX0         S T K I L F E D T G I S F R Q L D R S L H Q L L Y L P E N K K P E A I I F G Q
UniRef90_F9MWA2         K G K I L L L E T S E E K P A L Y R K M V R A L K D Y G L F D Q V Q G V L V G K
UniRef90_E6SFP2         E G I I H V L D V A E W A A Y D I C R A L H A M R L H G W F D R S N G I L V S R
UniRef90_A5CCE4         K D K I L F L E E V E P D P A L L E M R L E H L K Q A H I L D E V Q A V I F G D
UniRef90_R4W9A0         E G C V L L E P S E E L P E E V R M A L L A M G E R G I L D A I D G V L V G R
UniRef90_S2Y0P9         D G G V L F L E T S E E L P A E V F R T L R N M G E R G L L Q R F S A L L M G R
UniRef90_UPI00028A2E19  T D H V L I V E E V S E P L Y R I D R M L F T M A H A T Q L K G I A G V R L G Q
UniRef90_E1W551         K G K I L L L E T S E E K P A L F R K M I N V L K D Y G L F D V L T G V L V G K
UniRef90_S4MVL9         D G G V L L E T S E D M P S E V F R T L R N M G E R G L L Q R F S A L L M G R
UniRef90_UPI00036B013A  S G A I L L L E A M T A T F A E V D T A L T H F R L A G V F D D I A A L V I G A
UniRef90_UPI0003B45803  E G C S L F L E S Y S G N R Y R I R S Y L A Q L E M M H V F S S I D S L L L G Q
UniRef90_F0T2H8         K E S I L F L E S Y G F S P E E S Y C N F V Q L E Q M G V F D K V K G I I V G Y
UniRef90_S3Y9P1         E G A I L V C E T S E M S P D L V G R W I R G M G E R G Y L E A A A G M L V A R
UniRef90_UPI0003B3F0DD  T G K V L F L E T S E E K P D L V R E I L K T L E R Y G F F S N A R A L L V G K
UniRef90_R5XQ52         V G K I L L L E S S E E S P E K Y R K A V L A L K E T G I F D V I S G I L I G K
UniRef90_UPI0003081209  D G G V L L L E T S E E L P E E V F R T L R N M G E R G L L Q R F S A L L M W S
UniRef90_H3NJR1         R D K I L L L E T S E E K P D L F K K M I Q T L A D Y G I F E V L S G L L V G K
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UniRef90_R5N7I8         D G N I I I F D N C E L S K E A L I R E L W K L N E M E Y F K Y T K C V I F G R
UniRef90_E0NKD8         R G K I L L L E T S E T S P E L Y R K M I R A L K N Y G I F D V L S G V L I G K
UniRef90_I0KWW7         T G S V L V E T S Q E M P S E V F R I V R N L G E R G L L A A F P A V V V G R
UniRef90_M0H2V9         D G T I L A L E T S E D L P R E V R Y T L R T M G E R G L L E R F D G L M M G R
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UniRef90_M0J8R8         E G A V L A L E T S E D L P R E V R Y T L R A M G E R G L L E R F D G L L M G R
UniRef90_F3A354         E N K V L F I E G L G S S I E G L L T H L A Q L K Q L G V F D K I S G L L I G T
UniRef90_S6H6W1             M L I E D V G E A P Y K I D R M L Q Q L I N T A L V D E L Q G V V F A E
UniRef90_F4F4I9         H G S V L L I E T S E E L P P A V E R M L R N L G E R G L L A G F P A A L I G R
UniRef90_U1MPG7         D G D V L A I E T S E E L P S K V G L M L S C L G E R G L L E R F D A V F I G R
UniRef90_R7GXD7         R N R I L F L E S R S G G L N R M E T M L H Q Y Q Q I G A F Q Q C K G V L L G T
UniRef90_S5LA91         S N K I I L L E S L G G K E A K I A S Y V A Q L E Q L G V F S K C L G I V V G E
UniRef90_U2XI52         R G S I L M L E T S E E S P P A V K R W I R A L G E R G V L G V V D G V M V A R
UniRef90_UPI000371B0C3  K G R I L L L E S S E P E H H K K M L L R L K E T G I F D L I N G I L V G K
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UniRef90_UPI0004731C89      I F E D I N E D I Y K I D R M L T Y L R M T K T L S E F A G I G F G S
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UniRef90_V6JWK0         D G C V L L L E T S E E L P D E V F R M L G D M G E R G L L R R F P A L L M G R
UniRef90_Q92HR6         D N K I L L L E D V N E K A Y A V H R N L V Q L K N T G I F E C I K A I I F G D
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UniRef90_UPI00035E47AD  E K I I F F F E S A S L D Y Y K T R Q H L Q H L K M T G F A K K V V G I V V G A
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UniRef90_R5Z3R1         K G Q D L F L E S H S G N A Y R I A S Y L A Q L E Q M G V F D Q I A S L T F G Q
UniRef90_Q5D5H3         K G K I L F L E D I R V Y P Y A I E R S L D H L K Q A H I F D G V H A V I F G D
UniRef90_UPI00037EC81D  D G H V L F L E T S E E M P G E V F R T L R N L G E R G L L Q R F S A L L M G R
UniRef90_S3WQY6         E G G I L L L E A S E E S A R E F G F M L R A L G E R G L I A A V G A V I I C R
UniRef90_U2YEB3         A G K I L L L E T S E E K P E P I R K M L E A L K A T G I F S V L N G I L V G R
UniRef90_A8MA20         E G K V L L F E E I A L Q I H R L D E Y L T A L G L M G I L G G V N A I A Y G E
UniRef90_UPI00046413A5  S G K I M F W E S M D P L H A V A Q N L T Q L S N A G A F A D L A A M I V G R
UniRef90_A1F260         V G D I L L I E D S L K G I E N V E R S F A H L A A C G V F E R V S A I I L G K
UniRef90_W7D173         D G E V I L L E A M S G N R N K I A T F L A Q L D Q I G Y F E K A N G I I L G T
UniRef90_R4PVZ7         D G T I L V L E T S E N I P W I I E Y L L V G L G E R G W L D K F Q A V L V G R
UniRef90_X1BPU1         N D K V L F L E T S E E K P D R V G Y M L R N Y G I Q G I L E K V K G V V F G R
UniRef90_M0N262         D G C V L A I E T A E D M P S R V K W T L M C M G E R G L L E R F G A V L V G R
UniRef90_L0ALH5         E G T I L A L E T A E E E P T W V E G V L Q A L G E R G L L E R F A G V L V G R
UniRef90_Q5V132         E G T V L A L E T S E L D P A V V G A N L R A L G E R G L L E R F D G V L V G R
UniRef90_K2AFB5         K N S I L F L E E D E E N W P L F D R L I Q S L I H Q K D F S K V N W I V I W R
UniRef90_B9LPL4         D G A V L A L E T S E D P P R E V G Y T L R A M G E R G L L E R F D G V L V G R
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UniRef90_R6CU92         K N N I L L A E R Y I T T P S E T Y N H F Y Q L K Q K G I L D K M S G L L I G Y
UniRef90_L1MG96         Q D T I V L L E S S E E I P T D L E M T I R A L G E R G L F N I V R G I M V A R
UniRef90_R5H9T8         A G K I L L L E T C E E Q P P Q L Y R M V Q T L K K T G I F E V I S G I I C G K
UniRef90_D7BPK0         A G H V L M F E T S E L L P P A V G R W I R A L G E R G Y L E A A S A L M F A Q
UniRef90_M0LWT7         D G C I L A I E T S E L D P A V V G A N L R A L G E R G L L E R F D G V L V G R
UniRef90_Q829Y0         D G G V L F L E T S E D M P E E V F I I L R N M G E R G L L R R F P A L L M G R
UniRef90_UPI0003A2F792                         M E R A F A H L K L C G V F D R V A A V I L L G K
UniRef90_J9K870           G K I V F L E D V R V Q P Y A L E R S L D H M K L A G V F D G A T A V V F G S
UniRef90_W9GGL1         S G G I L L L E T S E E P A T E F G W I V R S L G E R G L L A G V A G V V V A R
UniRef90_D6GSL5         K D K I L L L E T S E E E P A L F R E M I C A L E R Y G I F D V V S G V L V G K
UniRef90_UPI00035F9F9E  R G G I L L L E T S E E S P R L V A R W V R A L G E R G H G V L G V V A G V V V A R
UniRef90_A5P850         D G H E V L I E E V G E Y E Y A I D R L M F H L V E H M Q G V A G I R L G E
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UniRef90_E4N216         A G G V L L I E T S E E L P S E V F R I L R N L G E R G L L R Q F P A V L V G R
UniRef90_D1J7E8         C D M V L F L E T S E E K P S P Q L L K K M L L K F K E V F K N I Q G I L I G
UniRef90_E9V357         A G G V L L L E T S E E P A Q E F A W I T R A L G E R G L L E A V D A V V V G R
UniRef90_W2V1Q8         Q N S I L L L S V G E T P H Q L D R W F D A L I H G C S L N M I K A I V I G S
UniRef90_U1PTL1         E G A V L L I E L S E E P T R S A F R M V L G E C G I L A M A A A V L F A R
UniRef90_I9C7Y0         A G H V V M V E V S E Y Y A V D R L F F H L T A H L G G V A G I R L G R
UniRef90_F7KA45         E K Y I L F L E D Y E Q D I G T V S M L I S H E Q S D F A D H I S G I L F G H
UniRef90_L0ERK4         D G H E M D T G S T Y R Q L D R T L H Q I T Y K K D F K P K A I V F G R
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                                    90              100             110              120
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UniRef90_R7JRD2         F S Q M E R D Q L T P D M P Q L V R Q A A G P   D L P I A R T P Y I G H G T D A
UniRef90_F3GJT2         F T P A P N T G R T I S P A D V L M E R L G
UniRef90_G0QCW5         P P S P E A S Q Y R Q N Q R K T I Q R I L D S Y S I P V V F G L D F G H T A P T
UniRef90_M0BGX5         I P K E E R E D Y R K Q V R K T I V D V I T Q Y N A P I V L N V D F G H T N P I
UniRef90_Q04A90         F S E L D K L K E S Q L P E E I L L D L L   P T N L P I A K T E F I G H R P D A
UniRef90_H6LVX0         F Y P L D P D D Q R L I Y K T V I K K F A K T F N R P V V Y F P F I G H G Q Y N
UniRef90_F9MWA2           S Q D K V Y Y E D Y K K I L L E E L Q D K D L S L V Y N I N V G H A T P R
UniRef90_E6SFP2         T T A   P S A G D L S Q H D A V V E A L G E L G V P I I A D V E C G H V A P H
UniRef90_A5CCE4         I L C T N D E     Q L L E L V K H R F A Q S V N F P V F T L N G I G H A R T N
UniRef90_R4W9A0         W E R P G P E E Y R E R Q R E T I E T I V G E Y N A P I V F D V E V G H T A P T
UniRef90_S2Y0P9         F E R P N T P E E G A R Y A A G Q R E A V L R A D T M L V F D V D L G H T D P Q
UniRef90_UPI00028A2E19  I T E V Q A N E P G E T I E T M I T R W C G E M R V P Y L G R A E I G H Y R G N
UniRef90_E1W551         P Q N E T Y Y D E Y K S       I L L E E L S D K N V S I V Y N V N V G H A T P R
UniRef90_S4MVL9         F E R P N S P E E A A D Q R E A V L R A M R T Y D T T I V F D V D F G H T D P Q
UniRef90_UPI00036B013A  P A A W D T V D A P D A D V D E L V L R C V G G G F P V V T N V E Y G H Q S R R
UniRef90_UPI0003B45803  F S E L D K N Q D R       E W L I D W G K Q F N I P V Y H T S L I G H A P T S
UniRef90_F0T2H8         I Y D E Y S D Q R S V Q L E D V L E R T T S K Y Q F P I L K V N D F G H N C P N
UniRef90_S3Y9P1         P E N V R A A R R A A Q R D Y V L A E L S R Y A G L P V C F G V P F G H T R P Q
UniRef90_UPI0003B3F0DD    P Q D E Q Y Y E E Y R A I Y T E L G R K L E L P I L F N L N V G H A H P R
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UniRef90_F8D7C9         P A A R S H E Q Y R T Q Q R E A I E G V F A E Y N A P I A F D V D F G H T W P T
UniRef90_R5N7I8         N G E E K S Y I Y E S M E D C L K D S V L N K L N I P I I Y D A D I S H K G P S
UniRef90_E0NKD8           P Q D E V Y Y D E Y K E I L L G E I T N E E L P I L Y N I N V G H A T P R
UniRef90_I0KWW7         P T V P E R R A W G E A Q R D A I T R A L A P Y N A V V F D V D L G H T D P Q
UniRef90_M0H2V9         P Q T F S P D D Y G E Q L R E E V L S V L D E Y N A T A V F D V E F G H A D P N
UniRef90_UPI0003493B64  S L C L G Q G D     F S Y Y D A L D Y A L Q G A A C P V V I D A D I G H V A P N
UniRef90_Q98RB5         P Q D E V F F D E Y K     K I L K D K S E K F D L P I F Y N I N F G H A L P H
UniRef90_M0J8R8         P E W E P P E N Y G E Q L R E E V L T V L G E Y N A T A V F D V A F G H A D P A
UniRef90_F3A354         F T K I E K E F S V E E I F E I I Q E Y I   P S S L S V A K T Q E V G H A K D S
UniRef90_S6H6W1         M H N C     I D P Y N D L K A V I Y D L F S S Y N L P I A F G L K T G H G L I N
UniRef90_F4F4I9         A T P P E K A A Y A Q Q Q R A A V S R A F A E Y D A V L V F D V D F G H T D P Q
UniRef90_U1MPG7         P Q T R S H E H Y R E H Q R S I I Q D I V H T Y N A A I I S G L D F G H T S P T
UniRef90_R7GXD7         F T E I Q K L G Q M E Q L Y Q M I R Q L V P D R   P I V C T Q Q L G H A A S S
UniRef90_S5LA91         H T E A E K N G E Y D R I G I L Y Q Q I G L K Y K L P V F R T K E I G H S S E A
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UniRef90_UPI000371B0C3    P I D N T Y Y E E Y K E N L L E V I   D Q D I P I L Y N L N V G H A T P R
UniRef90_D2PKH1         P K A W D N R R S T E D C A A Y V A D D Q Y A N P D A L V V T G L D I G H T D P Q
UniRef90_UPI0004731C89  F S D S C D L E W K D L L K K C I F E R L Q E F D F P I L F D L P I G H R S G N
UniRef90_A0A023CYZ5     F T K Y E Q T K P A R N A A T L F L D S L P Q Y K A P L V K T N Q I G H S Q T S
UniRef90_A9KRQ1         L       N E E E E K M L L K F L K Y E A N R E D L V V L E N V D F A H R T P M
UniRef90_X1MN06         A K D Y E K E E L N K I L N V I R D E F N V S D I P V I V D M D F G H T D P K
UniRef90_Q1GRW2         V S D I P E N D R P F D A E E I A Q G W C S R T G I P W L G R A D I G H D A A N
UniRef90_V6JWK0         P S P E Q S A L Y A R E Q R A A V L R A L D A Y G T M A V L D V D F G H T D P Q
UniRef90_Q92HR6         F T K G D E F V E Q A I K S F C L N H I Q   N I G T Y K A A G I G H G E V N
UniRef90_UPI00040F47FA  P P A S S L E D R P D A Q E A V I E T V G L Y N A V V C V G A P F G H T R P Q
UniRef90_UPI00035E47AD  M T K I D K Q E F   E V F E K F L I D Y F E N K K I P I L S T N A F G H G Y Y N
UniRef90_E0QKH6           P Q D D T Y Y D E Y K E I L L E E L S A C D L S I V Y N I N S G H S T P R
UniRef90_R5Z3R1         F T E L K Q   L H Q M D V L V K K A E A L S I P C F F T D E I G H S K D S
UniRef90_Q5D5H3         F V N C Y N D
UniRef90_UPI00037EC81D  P T L A E R E S F A A E Q R G A V L E A M A A Y N A T I V F D L D L G H T D P Q
UniRef90_S3WQY6         P S D Q Q R K A H R D E Q Y E M A F T M V E R Y N A V V V A G V P F G H T R P Q
UniRef90_U2YEB3           P M D E T Y Y G E Y K Q I L L D V I   D T D I P I L Y N L N V G H A T P R
UniRef90_A8MA20         I P E L R E W Q V G G S V V E S I T E A T K T Y N A P S F M N Y P C C H G G D Q
UniRef90_UPI00046413A5  I V D T L G D P F Y G V D I D R F L D V L G L R G F P I I S N A D I G H N V D N
UniRef90_A1F260         H E L F D N K G T G R T P L D V
UniRef90_W7D173         F T G M E K L G L A E E V P D M V L A Y T Q K Y D T F L V R T T V V G H Y E N A
UniRef90_R4PVZ7         M T P Q Q K A D Y R D Q Q R K T V V G T I R Q Y N I P I V Q N I D F G H T D P Q
UniRef90_X1BPU1         A K D Y S V K E K   E E L N K I L N V I R D
UniRef90_M0N262         P N D E E R A A Y R D R Q R E A I A G Q L E R Y N I P V V F D L D F G H T N P
UniRef90_L0ALH5         P A S R S H L E Y R E Q Q R D A I T G S F A E Y N A P I V F D V D F G H T W P T
UniRef90_Q5V132         C A R S H A E E N P Q E W R E E Y R E R Q R D T N A P V V F N C E F G H T Y P T
UniRef90_K2AFB5         F Q K   N S K I S K E N L I K I T K T K K E L N N I P I I A N T D F W H T N P L
UniRef90_B9LPL4         P R D P D P D E Y P A E L E N V V T R E L G R Y V P D A V A G F D F G H T P P S
UniRef90_D2BB19         T A S D E R D G Y R A E Q R E A I L R A L D H Y S A M A V F G V D F G H T D P Q
UniRef90_M0M523         P E T P E R T A Y R H E Q R E T I T R S L E A Y D L P V V F D L D F G H T V P V
UniRef90_UPI000479FA82  P H P V P D V D K R A Q L E V I E Q I T R Y N A V V C V G V P F G H T R P Q
UniRef90_R6CU92         N Y S F Q S L E S G R Q M E D I A L E C K D Y K F P I Y K C E T F G H M I P N
UniRef90_L1MG96         F A F R P D V D E R H R L R D I V L E Q I A R Y D A V V C F G V P F G H T R P Q
UniRef90_R5H9T8           P M D E L Y F E E Y K K I L V E E V A D P T L P I V A N V N I G H A T P R
UniRef90_D7BPK0         P P D Y V K E A R R M A Y L E Y V L S N L S Q Y D L L V V T G V P F G H T R P Q
UniRef90_M0LWT7         A A P E W R A D Y R E R Q R N A I E V F R N Y N A V V V L D C E F G H T Y P T
UniRef90_Q829Y0         F E R P N S P E E G A R Y A A E Q R E K I Y A P D T M A V F D V D L G H T D P Q
UniRef90_UPI0003A2F792  H E Q L D D K G T G R D S L T V L R E V L N R Q P L P V L A D F D G C H T H P M
UniRef90_J9K870         F S N C N P S S D D H L M A L V F R R F A A T V L F P V F R V D G I G H S F V N
UniRef90_W9GGL1         P P A S S L E V R R Q E Q R D V A I E T I G R Y N A V V V G V P F G H T R P Q
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UniRef90_A5P850         V T A V P E N D R P F N A E E I V R G W C E R Y G I E Y L G R A A I G H T S D N
UniRef90_UPI0003098936  V T D V P E N E F G Q S E E D I A R F W C D R A G V Y P Y L G R A E I G H T S A N
UniRef90_E4N216         P H D A A A R A H Y R A E Q R A A V L R A L A A Y A P A V F D V D F G H T E P Q
UniRef90_D1J7E8         C P Q N R V Y Y N E Y K E V W K E V V P F D I P I I Y N V N F G H C Y P K
UniRef90_E9V357         P S D F E R K P G A E E Q R D A A I E T V A R Y N A V V V G P P F G H T R P Q
UniRef90_W2V1Q8         T L Q N A S R Q N S I V E N Q N Y N D S I E R F N I P V Y R G H F F G H D A H N
UniRef90_U1PTL1         S E Q Q T R E A M R T E R D D M V I E T V T G Y N A V I C C G I P F G H T R P Q
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                                              130
UniRef90_UPI00035EDF5E   L I L P Y G G N V T L D G P S Q R
UniRef90_E3YKX6          K P C C I G E K V N I S R E T L T
UniRef90_R7JRD2          H A A V I G K F Y Q I S S D
UniRef90_F3GJT2
UniRef90_G0QCW5          C C M P V G G R L R L D T S D Q T
UniRef90_M0BGX5          V P V P I G E T V T I N
UniRef90_Q04A90          K A I R L G Q E C V F
UniRef90_H6LVX0          K P L L L G V T S N I K C S K E T
UniRef90_F9MWA2          C I V P F G L E A E V N
UniRef90_E6SFP2          F A L V N G A L T T V
UniRef90_A5CCE4          Y P L P L N T R A V I N H I K G R F
UniRef90_R4W9A0          V P V P I G G R A V V D
UniRef90_S2Y0P9          V V I P Y G G L V R V D G
UniRef90_UPI00028A2E19   R V V P F G V
UniRef90_E1W551          C I I P F G G K A E V N V K E Q
UniRef90_S4MVL9          L V I P Y G G T V R V D G
UniRef90_UPI00036B013A   I L F P V G C R V E F D
UniRef90_UPI0003B45803   K A L W I G
UniRef90_F0T2H8          T I I P V G V K I K L N S D K K T
UniRef90_S3Y9P1          Y V I P Y G G E V T I D T G R
UniRef90_UPI0003B3F0DD   C I L P I G E Q I E I D F D H K Q
UniRef90_R5XQ52          C I I P F G V V A T V D I D N Q
UniRef90_UPI0003081209   V V I P Y G G T V R V D G
UniRef90_H3NJR1          C I V P F G V P A F V D A V E Q R
UniRef90_F8D7C9          T P I P I G G R V E I D A E T V R F
UniRef90_R5N7I8          L S I I N G S I M S L
UniRef90_E0NKD8          C I I P F G V E A E V D A K K Q R F
UniRef90_I0KWW7          L I I P Y G G E I R V D A I E G R
UniRef90_M0H2V9          V P L P L G A K A T L D V G R V R F
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UniRef90_Q98RB5          N I I P Y G I E L E I D F D H K T
UniRef90_M0J8R8          V P L P L G A K A T L D
UniRef90_F3A354          K A L K L G G K I Y I
UniRef90_S6H6W1          N S I P L G G R A I L N S S K G I F
UniRef90_F4F4I9          L I I P Y G G L A R V D
UniRef90_U1MPG7          A P I P I G D R V V I D P T T K T
UniRef90_R7GXD7          K C L A Y Q T V H T F S Q E N Q T
UniRef90_S5LA91          K P C L I G T K V N V S R E T L T
UniRef90_U2XI52          W V L P Y G G R V R L D G R R
UniRef90_UPI000371B0C3   A I V P F D I P A H V D A H E Q
UniRef90_D2PKH1          Q V L P Y G G T V R L D
UniRef90_UPI0004731C89   A C I P L G Y E A T L N G D
UniRef90_A0A023CYZ5      K A L F L G V P L D L
UniRef90_A9KRQ1          T V I P V G A M A E I D C D R I S F
UniRef90_X1MN06          L I L P L G C M V S L N
UniRef90_Q1GRW2          K V V P F G
UniRef90_V6JWK0          L V I P Y G G T A R V D G
UniRef90_Q92HR6          H P V I M N H E V I I N S N V L S F
UniRef90_UPI00040F47FA   W I L P H G G T M T V D G A A R R
UniRef90_UPI00035E47AD   P T F P I G L R V T L N T E
UniRef90_E0QKH6          C I I P F G V R A I V D A K E
UniRef90_R5Z3R1          K A L L L
UniRef90_Q5D5H3
UniRef90_UPI00037EC81D   V I I P F G G L V R I D G
UniRef90_S3WQY6          W I I P H G G M M T V D G E R
UniRef90_U2YEB3          A I I P F G V K A Q V D A N E Q R F
UniRef90_A8MA20          Y P V P L G I N I E V N A D E
UniRef90_UPI00046413A5   V T W P L G K T A V V D V T
UniRef90_A1F260
UniRef90_W7D173          K P C P F G
UniRef90_R4PVZ7          T V L P L G Q K A R V I V D K Q
UniRef90_X1BPU1
UniRef90_M0N262
UniRef90_L0ALH5          T P I P I G S R V E I E P E
UniRef90_Q5V132          C P I P I G G E V E I E P A T K S
UniRef90_K2AFB5          I T F P I W W T A S L
UniRef90_B9LPL4          F P L P L G A V A T L D P E E K
UniRef90_D2BB19          W V L P Y G G L V T V D G
UniRef90_M0M523          L P L A L G A E M V V D A D E R T
UniRef90_UPI000479FA82   W I V P H G G T I R L D G
UniRef90_R6CU92          V I I P I G S K C D I S D G E I K
UniRef90_L1MG96          W I V P H G G Y I T L D G R A Q R
UniRef90_R5H9T8          C I I P F G V D A V V D A N R Q Q
UniRef90_D7BPK0          A L L P Y G G E V T L D P E N G T
UniRef90_M0LWT7          C P L P I G A E I E V E T R S L R F
UniRef90_Q829Y0          V V I P Y G G V V R V D G
UniRef90_UPI0003A2F792   L T V P L G V R A T V D F D A G S
UniRef90_J9K870          N P L P L N T E A T V
UniRef90_W9GGL1          W I L P Y G G S M T V D G V S R R
UniRef90_D6GSL5          C I I P F G I H A K V D S E R Q T
UniRef90_UPI00035F9F9E   W I V P Y G G T M R L D G V E R R
UniRef90_A5P850          R I V P F G L E A
UniRef90_UPI0003098936   R V V P F G
UniRef90_E4N216          L V I P Y G G L V R V D G
UniRef90_D1J7E8          T I I A Y G A K I K F N S Q N N K
UniRef90_E9V357          W V L P Y G G E M T V D G S A R R
UniRef90_W2V1Q8          K P I V L G S K A K I
UniRef90_U1PTL1          W I L P F G G E V T V D G
UniRef90_I9C7Y0          R I V P F G
UniRef90_F7KA45          S I L P I G C D A A L D T G K
UniRef90_L0ERK4          N P F I L E Q K T S I K C E K
UniRef90_X4QNJ0          V V L P Y G G H I T I D
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Multiple sequence alignment

Position markers: 1   10   20   30   40

Sequence	Alignment
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UniRef90_UPI00026CA182	L
UniRef90_L0JZI3	P G R R W A G G S D A V D G R A W G G C R A I V E W F L A S D R F M P D L
UniRef90_A0A031H4E9	M T G R T W G G C L E V L P W V M A A P S D L G A L
UniRef90_M4KIF2	P E Y L W A G E R R T I R G R S W G G C V Q T L L Q L M N D L P T P R Q L
UniRef90_T0BWG0	E W I I F N K G E F N G T L I G G N L D T I V G I I G T E Y M P K I T
UniRef90_V4X8C7	V R G R V W G G S F G I V K H L Q A D R Y D P E R L
UniRef90_D1BRS1	T W A G P A H A V T G R T W G G C I E V L Q Q I L T A P A D P A V L
UniRef90_X0UNC1	S G R A E S R L I G G C I A V F C A L I A K Q A K R L R P
UniRef90_L1KYJ9	P A D G W I W H N A V V E G A S W G G D L E I V S W L L M A D L A V Q P V
UniRef90_G8SCL5	P G P G W I W H Q R V L T A P T W G G N L E I L H W N L A A D R W I R P V
UniRef90_UPI000476A01A	W A G P E R S V T G P T W G G N L E V L Q W V L T A G R E P E A L
UniRef90_S2F4X1	
UniRef90_E8A3T8	
UniRef90_UPI0003616755	
UniRef90_H1GVT6	
UniRef90_UPI0003B51788	
UniRef90_T0Z4J9	F
UniRef90_W0FVA5	V L Q G S G K V R G Q V I A V C G G P L W Q I M G T K Y F P D I W
UniRef90_E3YUC9	G E V V G G N I R C F L K L A G T E F M P D V
UniRef90_R5UWE1	P G I V E A E L T G G D I R I I H H L Q S T T I Q H D L
UniRef90_R7QWF8	
UniRef90_K2DEV3	F P W Q N I N P G K V R G V L I T G N L V T M H D C I A G D Y N L L T K
UniRef90_UPI0002F1FC54	
UniRef90_F0XBA5	
UniRef90_S5LZK0	N Y L F H G S K I I K G I L I G G E I N S L I K F W N T K Y S F K I N

lupas_21
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lupas_28
jnet
conf: 8 8 4 3 5 6 7 7 7 7 7 4 1 7 8 9 8 8 7 4 5 1 4 8 8 9 8 8 8 6 0 3 6 7 7 7 7 7 7 7
sol25: B   B   B   B   B   B   B   B B   B B B   B B B B B B B B   B   B   B
sol5: B   B   B   B B B   B B B   B B   B
sol0: B B   B
jhmm
jpssm

Multiple sequence alignment (positions 50–80)

Position markers: 50, 60, 70, 80

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                              50        60        70        80
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UniRef90_UPI000468A151   H G Y F V L L E G L G S T L E T V T T Y T V Q L R H L G L F D R A E G V I L L G Q
UniRef90_UPI00026CA182   T D H I L L I E E V S E P L Y R I D R M L F T M A Q A T Q L K G I A G V R L G H
UniRef90_L0JZI3          D G A I L C L E T A E S E P D T V G G T L M C L G E R G L L E R F D G V A I A R
UniRef90_A0A031H4E9      E G G V L L I E T S E E L P S E V R R L L R I L G E R G V L G A V D A V L A A R
UniRef90_M4KIF2          Q G A I L F L E L S D E H L G D V L K L V R A F G E S G Y F H S V G A F L F G R
UniRef90_T0BWG0          E D T I L L L E D V Y T D L G R L Y R N F T T L A L H G I F D K I G G L I I
UniRef90_V4X8C7          D G A V L A L E T S E D P P R E V G Y T L R A M G E R G L L E R F D G I L V G R
UniRef90_D1BRS1          A G G V L L L E T S E E P A H E F G R I V R S L G E R G I L A A V D A V V V A R
UniRef90_X0UNC1          D G R W L I L E D I R E A P Y R L D R Y F A S F K L A G W F D R L A G L I I G D
UniRef90_L1KYJ9          E G G V L F L E D S M P S A E E V Y V I M R S M G E R G L L E Q F S A L L M G R
UniRef90_G8SCL5          A G H I L L L E T S E E M P E E V F R I L R N F G E R G L L H Q F P A A L F A T
UniRef90_UPI000476A01A   A G G V L L V E T S E M P P H E V G W I L R S L G E R G I L G A V D A V L A A R
UniRef90_S2F4X1                                                M H S G V L A A Q K A V I F G S
UniRef90_E8A3T8                                                L N R Q S A I V L G S
UniRef90_UPI0003616755           M L E D V N E K A Y A V H R N L V Q L K N T G I F E C I K A I I F G D
UniRef90_H1GVT6                                              M G I L D V V N G I I L G R
UniRef90_UPI0003B51788                                 Y L R K G Y L Q I L K G V I I G K
UniRef90_T0Z4J9          T G A I L L I E D V D E P L Y A I D R A L R T L S L S G G L D R L A G V V V G P
UniRef90_W0FVA5          E D S I I A L E H G S I Y G S K V A H E L R A F A A A G V F D K A K A V I T G
UniRef90_E3YUC9          S N K I I F L E S L G G K E A K I A S Y V A Q L E Q L D V F S K C L G I V V G E
UniRef90_R5UWE1          K G T V L F L D S T Y N S L E T   E K I I R Y M K L S K I F Q H L R G L I L C N
UniRef90_R7QWF8                                            K E T G V F D V V H G V L V G K
UniRef90_K2DEV3          F P E I I L V E E V D E S L E N L E R L L S T M   T S Y S S V R A L I I N
UniRef90_UPI0002F1FC54                             M L E H L C Q A S I F K D T A A I L F G D
UniRef90_F0XBA5                                                      L A G I A F G Q
UniRef90_S5LZK0          Q N S I L F I D G I I N N I D E L T K I L T F L D L N N V F K K V K A I I F
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Secondary structure / prediction tracks:

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lupas_14
lupas_28
jnet
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sol5            B B B B B   B         B     B B   B B         B       B   B B B B B
sol0              B B B               B     B B     B                       B B B
jhmm
jpssm
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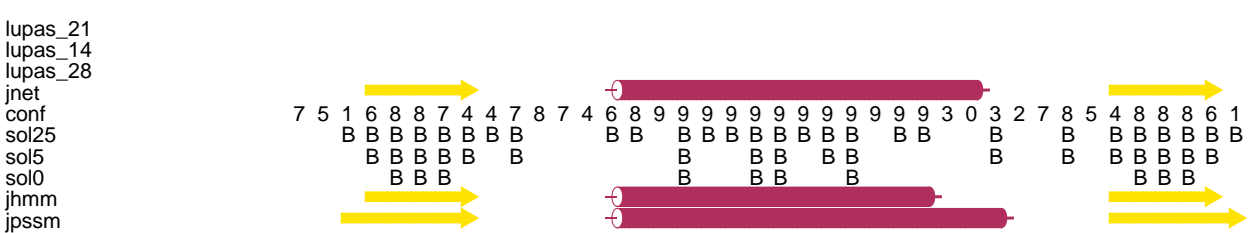
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                                    90            100            110          120
UniRef90_UPI000470DD9D    S S A N R P V E G Y T A E E V Y Q E L A Q E L Q V P I V Y D I D C G H V P P Q
UniRef90_UPI00047A13C1  H E L F N D Q G S G K R P L D I L L E V V G V P T F P I L A E F D C A H T H P M
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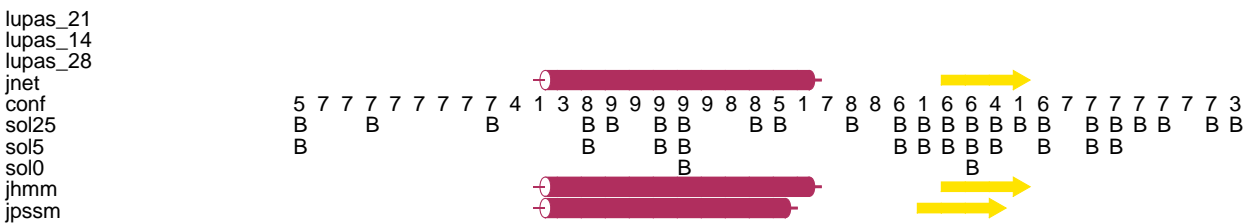
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