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                              1          10         20         30        40
QUERY                    M K V I E T K Y S G K L E V A E D R L I A F D Q G I P A F E D E K E F V L L P F
UniRef90_UPI0003620C38   M K L N T K Y H G E V E I N E K D I W H F E N G I P G F P D E K A F T I L P L
UniRef90_UPI00036CC006   M K I I K T K Y F D E I D I D E K D M I T F E N G I P G F W E E T R F V I L P L
UniRef90_F7Z2S0          M M K L H T K Y H G E V E I E D A D I W H F E G G I P G F P D E K S F V L L P L
UniRef90_D5XCV1          M I V E T R R F G S L E I E E K D I I F I V G G M L G F E D K N K Y I L L D H
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UniRef90_M1Z974          M I L N K H F G E I I H F P E G I L G F E E E K Q F L I I N E
UniRef90_UPI0004704D36   M N I Q T K Y H G E I K V N E Q E I W H F E K G I P G F P D E K Q F V L L P L
UniRef90_E6W4W4          M K I T T S R F G E I T V A E E D I I R M T E P L L G F P D L K Q Y V L R D H
UniRef90_E3IAX2          M K I T S K F L G E I E I N E K Q L I H F P N G I P G F E E E K Q F V I L P L
UniRef90_M5PCZ8          M I I Q T K Y H G D T Q L Q E E Q M I L F A N G L P G F S D E K K F V I L P L
UniRef90_F5L4E4          M K V I H S P R F G Q V H Y A E E Q V I T F P Q G L P G F E T C T R Y V L L P L
UniRef90_S5ZSK3          M N V R T K Y H G E L N I D E Q H I I R F P R G L P G F V D E K R F V L L P L
UniRef90_I3E1Z6          M N I T S K F L G E V E I K E E Q I I H F P N G L P G F E D E K Q F V I L P L
UniRef90_D9TJN9          V V Q S R V F G E L E V N E E N I I T F E E G I P A F E N L K K F V I V K
UniRef90_R7AUM8          M K I N T K F G E V E I A D D K I I H F P S G I V G F P E L T E F T L L H D
UniRef90_UPI0002D57B91   M K I R T K Y H G E I E I N E K D I F H F E Y G I P G F L D E K Q F V L L P L
UniRef90_UPI000372ACE1   M K I Q T K Y H G E K E L Q E A D V L R F A N G L P G F E D E K Q F V L L A F
UniRef90_R1CNU3          M K L N T K H F G E I E I D E N R I I T F P D G L A F E N N K K F I I I D N
UniRef90_W7KZF7          M N I Q T K Y H G E T E I N P E N V I T F A D G I P S F E D E K Q F I L L E L
UniRef90_UPI0001E30130   M L L N T K H F G E I E I D E K K I I N F K E G I P G F E D T K R Y V L Y N G
UniRef90_A6CQD5          M K I S T K Y H G E I E V T P E A L L T F E H G I P G F L E E K Q F T L L P L
UniRef90_B0KC64          M Q I N T K N F G I I E Y N P D D V I Y F E E G I P G F E D L H N F L I I T D
UniRef90_UPI00037A9C49   M K T I H T V R F G D F E V E E K S I V H F A Q G I P A F E D E R E F V L I P Y
UniRef90_W4Q3J4          M K L E T K Y Q G L I E V S E E Q I I A F E K G I P A F E S E M S F V L L P F
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UniRef90_G0GFX3          T I N T R P Y G P L T V D E R Q I L T F V N G L F G F E H L T R Y A L L D
UniRef90_L0FBJ1          M I I Q S T R F G E L E V I E E Q I I S F P H G I P G F L D E K A F V H L P H
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UniRef90_L0IM63          M N I V T K N F G L V S Y N E E D V L H F D D G I P G F E G L R S F I L L S V
UniRef90_UPI0001E89DB9   M K I E T K Y H G L I E V Q E E E V V N F P N G L P G F E L E E K F T V I P F
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UniRef90_D9QTN6          M E L E T T R F G K L E V D E E E I I T F E D G L Y G F E D N K R F T L V A D
UniRef90_C9LY23          M R K I T T T R F G E I E E D E S K I V H F A A G L P A F E D E H E F I I I P Y
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UniRef90_I0JQK2          M K I A T K H F G H H V E V D E T K L L K F H N G L P G F E M Y T T Y A L I P V
UniRef90_F3ZWA4          M V L N T K H F G D I E V E E S G I I F E E G L P G F E Q A R K F V L L Y D
UniRef90_UPI000262839B   M Q T T R F G K V E I D D S Q V L T L P S G L L G F S N E R H F V L L N D
UniRef90_UPI00046C94BC   M E I R T P A F G P V E I D E A Q I V T F T Q P M L G F P D D L R F V V L D P
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UniRef90_L7VRX0          M Q L N T K H F G V I E V D E K E I L Y F P S G I P G F E N V R K F V L L R Q
UniRef90_UPI00047ED950   M I L N T K N F G E I Q V K E E E I I H F P D G I P G F E E L N Q Y I I I E P
UniRef90_D3FYG7          M K I E T K Y T G T I E I E E S R F I R F E K G I P A F E E E K S F V L L P F
UniRef90_A1HT52          M L I K S T R F G E L N V P D E Q I I A F P Q G L P G F G E K V F A L L P H
UniRef90_UPI0004786A65   M I I H T S R F G E L D I Q E Q E V I R F E Q G I P G F E D L R R F V L L E V
UniRef90_R6ESB9          M K I Q T K N F G E V E I A D N K I I T F D K G I I G F P E L K H F T M L H D
UniRef90_UPI00047A638D   M I L Q T K Y H G E V E I T S D E K I H F V N G L P G F A E E K S F V L L P L
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UniRef90_R6R3I6          M Q I N S R L F G E I D V E E H H K Y A I I F D
UniRef90_Q893T7          M K L N T K H H G T I D Y E E K D I I N F K R G I P G F E N H L K K F I V Y S I
UniRef90_R9J5V2          M T L Q T K V F G E V T I E E E K I I T F P G G I I G F P D L T Q F T L L H D
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UniRef90_A8FHX4          M I I Q T K Y H G E V K I K E E Q M I N F S N G I P G F L D Q K Q F V I L P L
UniRef90_UPI00030F0AB4   M K I M T K Y H G E M D V D E N D L W H F N K G I P G F L E E K Q F L L Y P L
UniRef90_UPI0003822E48   M Q I E T K Y F G E I D V K E E E I I H F P Q G I P G F L E E K E F V L L S F
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UniRef90_UPI00047A1219   M L T N T K Y F G E I E Y D P K D I L T F P D G L F G F E E E K F V L L P F
UniRef90_N4WVH0          M N I E T K Y F G N I E I K K E D I I H F P S G I P G F L Q E K E F V L L K F
UniRef90_T0IBW5          M L I Q S T R F G Q L E I A D S E L I Y F P H A I P G F P E E T M F A F L P F
UniRef90_R6BZP9          M R V N T R I F G E I E I E E K I I F P D G I I G F P G L Q K F A L L Y D
UniRef90_C5VT93          M K L E T K C H G I I E Y N K D D I E F K K G I P G F D N L K K F I N F P I
UniRef90_W0EE73          M K I E S T R F G E L E V A E E Q I I N F P H G I P G F P D E K T F A Y I L Q
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UniRef90_G2G0R4          M K I E S T R F G K L E V A E E Q V F N F P H P G F P D E K T F V H L H Y
UniRef90_UPI0004754436   M L K V K T T R F G E I E L A Q A D I I T F E E G I P G F P D E H E F I I L P Y
UniRef90_UPI0002F7A27F   M K I A T K Y H G E I E I N N R E E V I T F S K G I P G F L E E E E F I L L P L
UniRef90_A8MJP5          M K T K H F G E I E I K E D R V Y T F V D G I P G F E D L H Q Y M I I E N
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                              50         60         70        80
QUERY               A A G T P Y Y T L Q S T K T V D L A F I I V N P F S F F P E Y R V K L P E A T I
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UniRef90_F7Z2S0         L D D G I Y M V L Q S T A S P Y V V T S P F L F F R D Y A F N I D D A T L
UniRef90_D5XCV1         D Q E T P F K W L Q S I Q D P E L A F V V M E P F I F Y P D Y E F D L P E E D V
UniRef90_UPI000348949C  D E D T P F Y V L Q S A T T K D I A F I V V N P F D F F P D Y K V K I P D A T V
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UniRef90_UPI0004704D36  P N N D V F M I L Q A V Q T P Y I A F V I T N P F L T F K K D Y E F K I D D S T L
UniRef90_E6W4W4         S D D T P F K W L Q S L D D T T L A F V V L D P V L F K P D Y A V R L S R S D V
UniRef90_E3IAX2         E E Q S P F A I L Q S I H H S H V G F V I A Y P F S F Y P D Y A F D L T E E D I
UniRef90_M5PCZ8         S E D S P F V V L Q S A E T A E L A F I V A S P F V F F K D Y G F D L D E T T V
UniRef90_F5L4E4         D E E Q P F Y F L Q S V E E G D L S F L V L N P L R F F P D Y E V E L S D A V V
UniRef90_S5ZSK3         A D   T P F V I L Q S V D T P A L G F V L I E P F S Y F P A Y E I E L D E A T L
UniRef90_I3E1Z6         E E N S P F A V L Q S T E N S H V G F V V V Y P F A F H P N Y A F D L P E E E I
UniRef90_D9TJN9         E E D S P F L W L Q S I E D K D L A F V I N P F N I K P D Y E F D I S E E V L
UniRef90_R7AUM8         E E A G S I H W L Q S I Q E P G F A M P V M D P L L V C P D Y N P E V D D E L L
UniRef90_UPI0002D57B91  V D   T P F V I L Q S V K T P A L G F V L I E P F S Y F P S Y E I D L D D N T L
UniRef90_UPI000372ACE1  P G N T V F Y A L Q S I T T P E L S F V V T D P F S F F L D Y Q I K I D D T S L
UniRef90_R1CNU3         P D Q E P F Q W L Q S I D D T P D L A F V I I N P F I F K K D Y A F D I P K A V V
UniRef90_W7KZF7         G E D S A Y F I L Q S T V T P A V A F L V T S P F A F F S D Y Q I E L S D S A I
UniRef90_UPI0001E30130  D E T S P F K W L Q S V D N G Q L A F A V V N P F E V V R D Y D I E I P D E A I
UniRef90_A6CQD5         P D N N E F Q I L Q S L E T P E L G F V V A S P F V F F Q D Y D F T L D T A T V
UniRef90_B0KC64         N E D M P F K W L Q A L D N T D I A F V V I D P R V F K P N Y T F E I D E E L I
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UniRef90_U2SSM9         D E E S P Y L F L Q S A A T P D L A F L M N P F L F F P D Y A F E L D D A S Q
UniRef90_G0GFX3         S H Q P P F Y W L Q S L E D P Q V A F V V I D P R V F R P D Y D P A P L P S D L
UniRef90_L0FBJ1         T E D S P F Y F L Q S I T E P N L S F L L V D P F A F L S D Y E F N L E D E L A
UniRef90_W4RIU8         S D D E S Y F V L Q S V S N P G L A F V L T N P F H F M K E Y D F Q L E D A T V
UniRef90_L0IM63         D E Y T P F K W L Q S L D D T D I A F V I I D P K V V V K D Y K V E I N E E A I
UniRef90_UPI0001E89DB9  S E D G T F F I L Q S V K T P E L T N P F T F Y P D Y D F K L E D Q A V
UniRef90_UPI000428A269  S E D S P F L V L Q S T A T E E L A F I V A S P F I F F K E Y G F D L D D A T A
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UniRef90_UPI00036864F7  D K   S V L I V L Q S V R T P E I G F V V A D P F S F F P D Y D F Q L N E S T V
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UniRef90_I0JQK2         D E S A V Y F A L Q S V E A A G V L I V S S P L F F K E Y A F D V D E N T K
UniRef90_F3ZWA4         Q P D S P F C W L Q S M D Q P D L A F A M I N P E A L M P D Y T V E I D D D I V
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UniRef90_G5GZM3         E E G S P Y V F L Q S V K T P E L A F L M T M P L I F F P D Y E F T I D D D V E
UniRef90_UPI0002F1F851  E E S T S F A I L Q S I H H Q H V G F V V A Y P F A F Y P E Y A F D L S E D E A
UniRef90_B8FTV7         D E N S P F S F L Q S T A E A D L L L V E P F S F I P E Y E F V L G D E M A
UniRef90_L7VRX0         E A D S P F F W L Q C V D K P D L A F V V T D P F Y I K E D Y Y V D V D D E E I
UniRef90_UPI00047ED950  D K E V P F H W L Q S V E E T D L A F V I I N P F I F K K D Y D F K I S Q N T I
UniRef90_D3FYG7         E E G T P F Y V L Q S T T T Q E V A F I V I N P F Q F V P G Y Q V K L P D S T I
UniRef90_A1HT52         Q P D S P F A F L Q S A A D P D L T F L V V E P F A F F P D Y Q F E L D D N A A
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UniRef90_R6ESB9         E E S A G I R Y L Q S V E E P S F A M P V M D P L L V N P D Y D P E V D D E L L
UniRef90_UPI00047A638D  E K E S P Y Y I L Q S T Q T A N L G F V V V N P F L F N K E Y E F E I S E S D K
UniRef90_C4V4Y8         G E D G T Y V F L Q S V K T P D L A F L M T M P L T F F P D Y E F T I D D D V E
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UniRef90_R9J5V2         E D D G I I H W L Q S L Q E P G F A M P V M D P L F V K E D Y N P E I E D E L L
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UniRef90_UPI0001851344  P G N E Q F A I L Q S T T V G F V V T N P Y G F Q D Y F Q L D D S T K
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                              90        100       110       120
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UniRef90_U5LI23        K Q G K Q V I L N G T S Y T T K H P L I T K E G
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UniRef90_Q2RKH2        R L G M Q L I L E G T K Y T H Q L F K E S
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UniRef90_E3DWV6        M L A K Q V V L H N S S Y T T K H P I G G E S
UniRef90_I0JQK2        R K S K Q L I L N D Q S Y Q T R H L L V N G Q E
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UniRef90_K2BKY3       D R I K V R T P E D V I I Y S I V V I P D D P A K I S A N L C G P I V I N A M N
UniRef90_H9UH97       E D L G F Q D G D L L V F A I L T I P E E Q R R M T A N L Q G P I L I N K R N
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UniRef90_D7CPM4       G K L A A E E D K G L A V F V V L T I P D D F R D T T A N L L A P V V V N L D K
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UniRef90_M5E3L5       K D L E I K S I E D I L V L N I I T L K D Q L E E I T A N L S A P I I I N L K E
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UniRef90_F7NNU7       A E M G L S A D N T P Q I F N I V T V P A N P A D M T A N L W R D
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UniRef90_R4KDU9       R L G E Q I I L N D E K Y K I K Y P L F K E
UniRef90_L5NAF1       K E G K Q I I L N D S V Y R T K H E L L Q E
UniRef90_U2D263       R L G E Q I I L D N E K Y K I K H P L W R E
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UniRef90_G4KYG9          M Q I K T K Y F G Q V T Y E A A D V L R F R D G I F G F E Q E K Q F L L L P F
UniRef90_O83664          M E I Q T K T L G T Q T V E A A H Q I I T L E R G L Y G F E K Y H R F A L F D
UniRef90_F5LSS8          M I V Q S T R F G E I D V S D E Q L I T F E A G I L G F E T N R R Y A L L Q L
UniRef90_A5G8X1          M K V T T T T R F G E L D I H M P E G M L G F V E K R F I L L T P
UniRef90_A6LJM0            M F K T K L   G E L D I D D K E I I V F E N G M P G F E E Q L R K F S V I S L
UniRef90_UPI000360CC23   M K Y E T A R F G S L E I Q D Q D I L V F P D A L Y G F D Q E K E F A L L P L
UniRef90_I8UJC8            M I S T K F H G E I T T A E Q T M I T F K Q G I F G F V D Q Q S F I L L P Y
UniRef90_R5YAS6          M K A N T R I F G E L E I A D E K I I T L P N G M L P G F N L N R F A L I T V
UniRef90_X5A6D7          M L I E T A A L G S L D I Q E E K I Y C F P K G I P G F E Q E T E F A I I D L
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                                    50          60          70          80
UniRef90_B9E333          E E N N L F Y I L H S I E D E N I G I I V A S P F D I L K D Y E F E L N E D K T
UniRef90_X2GTG9          D A D L P L A L L Q S V V H K E I G F V V A Y P F A F K P D Y S F D I S D E D R
UniRef90_UPI000255C6B6   S E A F S I L Q S V D D A K V A F V V T S P F L F F K D Y S V D L P D H F I
UniRef90_UPI0003448BEF   P E N Q L F H I L Q S I H N P N L A F V I T D P Y Q I Y T S Y T F E L D D Y T I
UniRef90_UPI000472F7D5   E G N D S F Q V M Q S V R T P A V A L I V A N P Y T V V S D Y S F A I D D P T L
UniRef90_K2CR59          D D G S P F R W L Q C V D D G N L A F V I I E P L S F M F E Y D I E I S D S D A
UniRef90_R0AH63          K E Y E P F K L L H S L E N S E V A L V A S P Y E F Y E D Y E I S L A E T I
UniRef90_UPI0004721D72   G D D N P F M W L H A V H N P D V C F V V I D P F V F K K D Y S P S I N E E V L
UniRef90_R7CBU6          K E N S N I S W L Q S V E E P T L A L P V V K P W I I K E D Y N P V V E D E L L
UniRef90_M1ZDT8          G E G T P F L T L Q S V A H P E I R F I V V S P Y L I Y R D Y E V N L S D E V T
UniRef90_H7ENT8          A E Y R P F I W M Q S L N D R N L A F L L I D P F T V T D G Y E I D V D D K T L
UniRef90_G7M9X4          Q G Y E P F K L M Q S L E D E A I G L I V I S P Y E F Y K D Y E I R L N D E I I
UniRef90_R6DPB1          I E E G F F S W L Q C I T E E G L A F P I V N P F R V D T S Y D P V V E D A L L
UniRef90_R7K128          E E E P F F S W L Q C T T E Q S L A F P V V N P Q K V R E D Y D P V V E D E L L
UniRef90_F6CL13          A E E S P F F F L Q S L Q D E N I G F I L V N P F A F F P N Y E F D L P E E D A
UniRef90_UPI00047DA4E4   E E N N V F S M L H S I E N S E I G L F V V S P F Y V M K D Y E I N L D D N T K
UniRef90_UPI0003762BA9   D E T Y S Y L Q A A D Q P E V A F I V T D P F L H F Q D Y E F K L S D E L V
UniRef90_UPI00047C2AC8   G E P N P F Y I L Q S V M T P E L A F V M A D P F P F F P D Y Q V T L S D S T I
UniRef90_E1QJF8          R Q D S P F Q W L Q S L D A P D V A F V V V S P L L F D P Q Y N L H L G D S E M
UniRef90_G4HMD3          E G N Q P F E F L Q S I E D E N L T F I V T D P F A F F K E Y E F Q L D P H W I
UniRef90_Q73K68          S G K E P F F W V Q S L D D Q N L A F I V T D P F L F R P D Y E L D I D D E L L
UniRef90_A6TL87          D K E V P F H W L Q A V E D G A L A F V I T N P F L F K P D Y D F E I S K N V V
UniRef90_E1R4H7          A I Q Q P F Y W L Q S I D V P E I A F V L I S P F I F R P D Y D P V L S S D E Y
UniRef90_R5QKQ7          Q E E G G I Q W L Q S M Q E P Q F A L P V V N P L V I M S E Y N P Q V E D E L L
UniRef90_R6ZW65          S E K E G V S W F Q S V E E P G L A F P V I D P L I V K E D Y N P V V E D E L L
UniRef90_I5ART6          E E D N T L L V L Q S V D E A S I G F V V I N P Y A L D P D Y T P Y L T P E E L
UniRef90_G9YTU8          A G S D G M L C L Q S A A T P S L A F I A M N P F S L H P S Y Q P L L S S E E L
UniRef90_I7LJK7          E E A N I Y C L Q S I E E K N I A L L L I M P W D H V K D Y E L E L S E D E I I
UniRef90_V5WHI8          A S Q A P F Y W L Q S L S N A Q T A F V L I S P D V F R K D Y E L S V V S A E L
UniRef90_E6TS94          S N E S P F Y I L Q S V N T P G L A F V V M T P F Q F F P N Y E A K L S D S V I
UniRef90_UPI00047CA0CC   P D N P V F Q I L Q S I N T Q Q L A F I V T A P Y Q F N S S Y E V E L D K A I L
UniRef90_UPI000361C44A   P K D S P F L W W L Q S V E D G T L A F L L E T L Q V L Q D Y Q V P F T P Q D L
UniRef90_UPI000406CAE0   K D K G S I Q W L Q S E D P S F A M P V I D P L H V D E H Y D P L I D D D V L
UniRef90_S3V0H5          E E E S V F K W L Q S V D E V E L A F V V I P P S L F K K E Y L P S L N V D E L
UniRef90_UPI00047C69D0   S E K E T I S W F Q S L D E P G L A I P V I N P L I V K P D Y N P V V E D E L L
UniRef90_F2NSR4          S E Y E P L M W L Q S L Q E K N L A F L L I D P F L I T D D Y E A E I D D N E L
UniRef90_E3EBN1          D E A P F Y Y L Q S L Q Q K E L S F V V V D P F I F Y P E Y E F E L P D S E A
UniRef90_R6P0I9          S E E S A F K W L Q S V E D P A L A F P V T S P A F F D I E Y Q F E I P T E K A
UniRef90_T0C1W3          G D Q T L I L W L Q S T D D G A T A F P I I E P K I F K E D Y S I S L L P A E L
UniRef90_B1YLK3          G E G V P F W S F Q S I D Q P E C A F V V T N P F W I D P D Y V F E L P E S A K
UniRef90_W7Z124          Q E G T F S Y M Q S L K E P A L A F L L T E P F D Y Y S D Y E F E L S P S D M
UniRef90_U2M007          S E Y K P F M W L Q S V K E K A L A F L V V D P F L F F T D Y E I D V D D Q S V
UniRef90_R9BYT3          E E E S P F S I L Q S I E D K E I G F I I I S P F F I K D N Y E V K L S D E I I
UniRef90_D4M6Y9          E D N A I K W L Q N L E D P A L A L P V T T P D A V R P D Y N A R I P E D E L
UniRef90_V2QGV9          D N S Y P F L W Q S V E D A D I C F I L I E T N T F F K D Y N P D I P K R E L
UniRef90_F7JK59          H E T D S L L S F Q S T D D E T L S F I L M N P F R F F P D Y S P V L S E K D K
UniRef90_Q04P10          E E E S V F K W L Q S V E E V D L A F V V I P P S L F K K E Y K P L I S E Q E L
UniRef90_A8F502          Q N Q P I Q W L T S I E D P F V A L P V V D P W L V C I D Y S L T L T D E D I
UniRef90_W4F6F3          E K E S P F A I L Q S I E Q V E V A F V V A F P F L F K K N Y A F D L P K S D K
UniRef90_S0IR31          E G E D G I S W L Q S L D E P A F A L P V M D P L L I K E D Y N P Q V E D E V L
UniRef90_R5H5Q4          G D E T F P M W L Q S V D S K E P C F V V Y D P M K I Y G D Y R F A I S D E E Q
UniRef90_G2SZK0          E E K S S V M W F Q S M D D P H T A F P V M Q P N L V R P D Y N P M V N D E M L
UniRef90_W7YSQ1          G K E G F F L L Q S A V T K H H A I C V N P F I F W A N Y E I R L D D Q S I
UniRef90_R6PR83          E E K E G I S W L Q S M D E P E I A F P V M D P L F V C E T Y N P S V E E E L L
UniRef90_W3AMA0          D E N E T I L L L Q S I A N T D I A F V V M N P F S L D P D Y D P V L S P E E L
UniRef90_UPI000364109B   E N S P F S Y L Q S V Q E P G L S F L L V D P F S I Y N D Y E F E I K E E D Y
UniRef90_UPI0003B538EE   G D S N G I K W L Q S V Q E P N F A M P V I D P L T V C E E Y N P E V D D E L L
UniRef90_B1QXA3          E E Y E P F C L L Q S L E D E N V G F I V S P Y E F E Q Y E I K L S D D T I
UniRef90_D8PFJ8          D T E A P F K W L Q C V E E P Q L A F V I L D P A F F K P D Y Q I E V S L D A L
UniRef90_UPI00030627E1   E E Y E P F K L L Q S L E N D S I A M I V T S P Y E F F E D Y E V E L S E E T I
UniRef90_F9DQ98          E N N T A F Q V L Q S T K N A N T A F I I A N P Y T I I D N Y S F K I D E P T I
UniRef90_UPI00028999CF   K D N E D F K V I H S L E D E S V G I V I M S P F L V R K D Y E F N L S D K I V
UniRef90_H9U9M7          P E T Q P I Q W L V S L E D E N I S F P L I D P W L I L E N Y E V D L S K Q D L
UniRef90_B9K754          E E T F P I G W L L S L E D S H V G L P V V D P K L V R P D Y D P V V P S E D L
UniRef90_R5P340          A E S S K I L W M Q S L D D G N I A L V I D P L M I K S D Y N P V V E D E L F
UniRef90_UPI000288E14B   G E A F S V L Q S A D H V N V A F I V T S P F L F F E N Y S V D L P E H F T
UniRef90_UPI0003747C6B   E D T P F S Y L M Q P E I S L L I T D P F V F C K E Y E F E L P A T V K
UniRef90_A6M1C6          E E Y E P F K L L H S L E D D G V G L I V T S P Y D F F E D Y E L K L S E D I I
UniRef90_M1MUH5          K D T E P F K L L H S L E D E E I G F I V T S P Y E F F D D Y E I N L N N E A I
UniRef90_K2DCH2          T P D S P F K W L Q A V E D P N V A F P V T P G Y F G L D Y G F V I P E E D A
UniRef90_R9M2V6          E G G E N L L C L Q S T A T P A L A F V V M D P F S L C P G Y V P A R K A E L
UniRef90_UPI0003B6FAAA   S D Y E P F I W L Q S C E D P N L A F L I V D P F L I C N E Y E T D I D D A A L
UniRef90_D4H4A1          E K S Y P F I W F Q S V Q D A N I C F I L V E P G I F F P D Y K P E I S K R D L
UniRef90_A9KSQ1          G E D S V I S W L Q S L D E V S L A L P I I Q P S H V I D Q Y N P V I E D E L L
UniRef90_UPI000422B1FA   N D E L F V L Q S T N E K N I A F V T I N P F I I Q K D Y E F S L D D N T I
UniRef90_C4Z281          E E N I S I I W L Q A I D E P T L A L P V M K P E F V F E T Y D P V V E D E L L
UniRef90_R5RNL6          S E A E F F S W L Q C V T E K S L A F P V V N P L N V I K D Y N P V V E D A L L
UniRef90_E3CXD3          E D D N P F K W F Q S L L D G E V A L P V C S P R F V D P N Y Q V R V S A E G L
UniRef90_W4C1N3          D D G P F S Y L Q N D S I S F L L C D P F V F Y P T Y E F E I P Q A D K
UniRef90_F7K3V5          S N G N G I C W L Q S I E Q K G I C F I M L N P L E I C P D Y A P A V M Q D V L
UniRef90_I0X759          S E Y M P F I W L Q S C E D S N L A F L I V D P F R I C A D Y E A D I D D E T L
UniRef90_D4KM57          K E K S S I M W F Q S M D E P E V A F P V M H P N E L K P D Y A P S V S D E M L
UniRef90_C6PPJ5          E E N E V F S I L H S I D D E A V A F P V M F N P L K P D Y A P E L Q S T E L
UniRef90_G4KYG9          A G D G T L L C F Q S V A T P E L A F V A M N P F S L K P N Y A P E L Q S T E L
UniRef90_O83664          A V Q V P F I H M Q S L D D P A L S F I A I D P F L F R P D Y E L D I D D V L L
UniRef90_F5LSS8          D N G D P F H W L Q S L S D A D L A F V I A E P F L F E P A Y E F E L P K A V S
UniRef90_A5G8X1          E N L G P F C W L Q A V D N P D L A F V V A D A K N C A P G Y T F A L T A E E C
UniRef90_A6LJM0          K E T L P I M W L V S L E D E H I A F P I I D P W I L T K D Y E F S L D D V L
UniRef90_UPI000360CC23   D P E S P M E W L Q S L R T R E L A F I V T D P F L F V P E Y K M V L S D S E Q
UniRef90_I8UJC8          E N T P F S I L Q S V E E A A I A F I T V D P F L Y F P T Y E F S I P D H V L
UniRef90_R5YAS6          E E D T S L M W L Q S M D D A D L A F P V M I P N T V K E E Y E P A N V S E E I I
UniRef90_X5A6D7          Q E G P F S Y L Q S L K T A N L S F L L T D P F A F Y P Q Y E F E L P D T E A
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                            90          100         110         120
UniRef90_B9E333        A E L K I E N M E D I F I V N T V T L N S V L E N I T I N L K A P I V I N I K E
UniRef90_X2GTG9        T Q L Q I E K E E D V L P Y A I V T M K E T F K D S T I N L L A P V I L N I E K
UniRef90_UPI000255C6B6 K Q L D V Q S Q E D V A V W A I V S A A K P F S K S T V N L K A P V I V N V E K
UniRef90_UPI0003448BEF K S L Q I T S Q E D V A V F T I M T L K D P F Q K S T I N L K A P I V I N M E R
UniRef90_UPI000472F7D5 E L L G I D T Q E D L M I L S V M S M K D P F N A S T I N L Q A P L I F N I Q N
UniRef90_K2CR59        G F I S L K R A E D A V L Y V I V S I P A N P S D M T A N L Q G P L V V N A A T
UniRef90_R0AH63        K N L K E A N E V M I M C V T L N S D V K K I T M N L Q G P I V I N T S N
UniRef90_UPI0004721D72 H K L E V E D P T D I R F L S I V V I P Q D M Y K M T A N L Q G P I V I N A K K
UniRef90_R7CBU6        S H I G E L T E E N L V I L V T M T V P E Q I E Q M S V N L K A P I I V N A D T
UniRef90_M1ZDT8        D R L G I E Q E E D V V I L S I V T V R G E L R E A T L N L V A P V V I N S R T
UniRef90_H7ENT8        L E I G V D S P A D V V Y S L V T V P A D G G P V T A N L Q G P V V I N R R N
UniRef90_G7M9X4        D N L K I D S P Q Q V N I F T T V T L N S D V K I T T N L Q G P I V I N T S N
UniRef90_R6DPB1        K Q L G D F E T E D L A V F L L A T V P A D V S K T S V N M K A P I V I N T R N
UniRef90_R7K128        R S L G E F G E D D L V V L V L A T I P K E V E K T S V N L K A P L I I N A G T
UniRef90_F6CL13        R A L G I K A P E E A A V F C I V N A S R G L A R A T V N L L A P V V V N A A T
UniRef90_UPI00047DA4E4 Q T L K I E S E A D V L I F S T V C V N N D L N K I T T N L K A P I V I N I K E
UniRef90_UPI0003762BA9 E E L Q L S E E K G L A V R C I V T W N S D P A R V T A N L L A P L I F N V T D
UniRef90_UPI00047C2AC8 E Q L E V K K E T D V T I Y T V L T V K D P F N E S T A N L R G P I V I H E G K
UniRef90_E1QJF8        R L L K M T K P E Q V D I L V V V N I P H G P Q K M T G N L R A P V V I N S E A
UniRef90_G4HMD3        E A L G V Q S E E V Q V M V I V T V R S A E D I T C N L K A P I V L N K A R
UniRef90_Q73K68        K P I E A E S P K D L L V F A L V T I P P A G S P I T A N L Q G P L I I N K K N
UniRef90_A6TL87        E K L S I E D Q S D L Q V Y T I V R V P E N I K E M T A N L R A P L V I N T K N
UniRef90_E1R4H7        H E I G L E D D D D L L L F T I V T I P N N H S G M T A N L Q G P I I I N R K T
UniRef90_R5QKQ7        K P L G N F E N D D M L V L V T V T V P S D L T K M S V N L Q G P I V I N A A T
UniRef90_R6ZW65        K E L G E I T E E N I V I L L P L T V P Q D A V Q M T A N L K A P V I I N A D T
UniRef90_I5ART6        Q Y L G V E S E Q D L T F Y V I C V L H E N Y L D N T V N L K C P L V V N P E T
UniRef90_G9YTU8        R E M E V K D S H A L C Y Y V L C V V R E P V Q E S T L N F K C P V V V N P D S
UniRef90_I7LJK7        K E L D I K T H E D V L V Y N V I T V R E D K I T A N L L A P I I I N V K N
UniRef90_V5WHI8        E L L E I V Q K D D L L V L S I V T V T A D K N Q M T A N L Q G P I I I N P R D
UniRef90_E6TS94        E Q L E I N D Q E D V A L F V I L T V R E T W A E S T A N L Q G P I V I N G K K
UniRef90_UPI00047CA0CC D V L E I N E E Q E V V I L A I I S L K E P F E K S T I N L Q A P L V I N N R N
UniRef90_UPI000361C44A H E L Q A T S P Q E I S I Y T L L V V P E D P T K I R T N L R A P I V I N A K T
UniRef90_UPI000406CAE0 E D V K P I G S D N L L I L V T I P H D L T K M T A N L R G P F I I N T D N
UniRef90_S3V0H5        S Q I D L K E V S E A L V L V I V T I P D D P A S M T A N L Q G P I L I N K A S
UniRef90_UPI00047C69D0 K G M G E L T E E N L V I L L T M T V P S D I T Q M T V N L M A P I I I N S D T
UniRef90_F2NSR4        L K I G I K D P A D V M V L T I V T V P D D G S A V T A N F Q G P L I I N K K N
UniRef90_E3EBN1        E E L K I E S N L V R S I L T L Q E Q V E N S T I N L L A P L V F N P D N
UniRef90_R6P0I9        E K I S L N S V E S L I S L N I V T I P S N P R K A T I N L L A P I I I N A A N
UniRef90_T0C1W3        N S L K L E N L S N A S V Y T L L T I P T D V T Q M S A N L K A P L I I N N D S
UniRef90_B1YLK3        E Q L G I Q E T A Q V A V V T T V T L R E P F Q E S T T N L R A P F V M E T K R
UniRef90_W7Z124        E E L E I K E Q V L V R C I I T L K E S I E E S T I N L L A P V I L N P E K
UniRef90_U2M007        R D I G V K S P A D V C I I V I I T L A K E K K S L T A N L Q G P L V I N K N N
UniRef90_R9BYT3        K N L N L E G P D E A L L Y S I V T L N S K I E D I T A N L K A P I V I N I K N
UniRef90_D4M6Y9        E L V G S M D P A D L A L L I V S I P E G P W N M T A N L R A P I L L N L K T
UniRef90_V2QGV9        K V I A I S D K K E M K L F S I V V V P T D P K L S T A N L R A P L V V N F E K
UniRef90_F7JK59        K D L N L T C E D D I S Y Y V I C V L N E S L T D S T V N L K A P L A V N V R N
UniRef90_Q04P10        Q G I G I T D L E D G L M L V I V T V P E D P A L M T A N M Q G P I L I N K K T
UniRef90_A8F502        Q D L D I K D K N D V G I L S I L T I P K G P E K T T I N L L A P I V I N L K N
UniRef90_W4F6F3        V S L K A E V E S D I V T Y S I V T L K D P F D S S T L N L L A P V L I N I K E
UniRef90_S0IR31        E H L G N L T A E N T Y V L V T V A K E D I T L L S V N L K A P I V I N T D E
UniRef90_R5H5Q4        A L L K I D E N S Q Y R C L A V A I V P E D Y R K T T I N L R C P I V V N T K E
UniRef90_G2SZK0        R P L G G M T E D N T Y V L V T L T A A P D P K D T S V N L K A P I V I N T D T
UniRef90_W7YSQ1        E Q L N L S N E T D V A I F V L L T I E Q P F T L S T A N L K A P I V T N T K N
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UniRef90_W7Z124         Q L G K Q V V L H N T S Y Q T R H P L W I E E L
UniRef90_U2M007         R A A K Q V V L A D P R W L T K H D L
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UniRef90_S0IR31         R K A H Q V I V E D   D F P V K F P I Y E
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UniRef90_W4C1N3         R S G K Q V V L H N S N Y Q T R H N L W
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UniRef90_U2BQU2         M H F N T P C F G E V E Y E Q K D I I H F Q D G L F G F E N M I D Y L L I H I
UniRef90_UPI000406E3AC  M K L N T R I F G E V D I E D E K I I T M P F G L V G F P Q L Q K F A L I H D
UniRef90_A7HN72           T R L G E F E L E D N E I I T F P N G I P G F E S L K K F A V I S L
UniRef90_R5PCE7         M V A E T R L F G T V D I A E D K I L E F P M G L I G F E N L K K F A I I Y D
UniRef90_R7HAP9         M Q I N T K W F G T V E I D A A K V I T F E K G I I G F E D C S R F A I V E D
UniRef90_R7RRR0         M Q I S T K F F G D I I I Q E E N I I Y F N E G I P G L D E Y K R F V I L D I
UniRef90_N2AWW4         M K A N T R L F G E I D I Q D D K I I K L K E G I I G F P D L Q N F T L I H D
UniRef90_UPI00046379FE  M E I K T Q Y F G T I S C S E K E F I H F S D G L F G F A D L K Y Y V P L A F
UniRef90_D7GSS9         M K I D T K Y Y G E I D Y T K D E L V V F P D G L F G F S Q Y H D Y L P L S M
UniRef90_Q7URF1         M R I D S H R F G T L E L N A D Q L F L F P Q G L I G M E S L H Q W A L I P D
UniRef90_S7TYA2           T I Q T R L G E R T V D Q S R I I T F P K G L I G F E N R H E F A L L Q I
UniRef90_Q97H05         M K L E T Q Y H G I I E Y N E N N I I N L V K G M S G F E N L K K F I L V G I
UniRef90_UPI00037CDD1F  M K F E T T R F G E I E Y P E V M M I F P G L V G F P N D T H Y L L L E H
UniRef90_R5F472         M K I Q T D Y Y G E V E Y D Q E D L V T I S G G F F G F S E L T Y Y L P I C L
UniRef90_E8RHQ7         M K T I I T R F G E V E Y D P S H V I H F P E G L I G L D Q L K R F L V M P N
UniRef90_H2J5V3             T R F G E L E I A D E D V I T F E F G I P G F E N L K K F Y I H F S
UniRef90_H2J5V3             T R F G E L E I A D E D V I T F E F G I P G F E N L K K F Y I H F S
UniRef90_C4Z9R7         M R A K T R I F G E I D I P Q D K I I T M E K G M I G F S E L K N Y T L I Y N
UniRef90_G5FBE0         M K T Q T G Y Y G E T E Y N P S D L I V M A E G F F G F P E L K Q F L P L R L
UniRef90_G2HAZ2           M I Q T R L G R Q T V A L D K V L Y F P R G I M G F E D K H E F T L L Q L
UniRef90_UPI000288E9FA  M K I K T K F L G T V E I E K E D I I S F P E G I P G F P D Q K E F A L V P L
UniRef90_UPI0003B3C294  M K I D T R K F G I Q I D E N K I L S M P E G L P G F P D L Q N F T L I E D
UniRef90_UPI0002E10B18  M K I Q T K F L D E I E I K V E E I I N F P N G I P G F E G E K R F V L L P L
UniRef90_F8IC22         M T T I D T R F H G P I T I S D Q D I I T L D W E I L G F P R E R R Y I L L P H
UniRef90_UPI0003698C50  M I I T V Q T I R F G E V Q V D P K D V Y R F V K P L P G F E Q E V Q F A L L P T
UniRef90_F4LX31         M T V D T N F E D L K T D E E K V I F I N G I M G L E Q Y K K Y L L L H
UniRef90_L0RCQ4           K I I K T R L G E R E I T E E G I I Y F S R G L I G F D D K R D F A L I Q I
UniRef90_D4JWT2         M E I M T R D F G K V N V D E S K I F N F P S G L F A F E E C R Q F A L I P L
UniRef90_B8CYU0         M K L N T E G F G E L E F N T E D I I I F K T G L L G L P K Y K K Y L L L S W
UniRef90_K0NJM5         M K I N T R R F G E I I D A D K I I F M P E G L P G F E R F V L I F E D
UniRef90_R7Z8Y7         M K I A T K F L G E V E I T N E D V I T F P E G I P G F P D V T K F V L L P L
UniRef90_D3EYQ3           T I I D S T R F G Q I E V E P D S V I E F P H G L I G F E S R R R F A L V A R
UniRef90_E1JZB9         R V V E T R L G S I T L P E D R V I N F P R G L I G F M G H H R E F T L I A R L
UniRef90_UPI0003484AC2                 L F F E D I P G F S H L Q F F Q L L Q Y D
UniRef90_R5JYC2         M V A Q T R L F G E V T I D D D K V L D F P N G I I G I S D K H K F A I I Q Y D
UniRef90_R9L9V9         M K I R T R D F G V I E I E D T S E I T F V S P I L G F E N Q S R F V F L N D
UniRef90_K0J480         M M K I Q T K Y F G E V T I Y E A D I I I T F P N G I P G F D E K K K F I L L D I
UniRef90_D4IXA3         M R V K I T F G D I E I S D E K V I N L V H G L F G F E P D M K R Y T L I Y D
UniRef90_E3PUM6         M K I N T N Y F G E L E V D E N E I L E F K G M L G F E E L K K F V I I K
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                              50            60            70          80
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UniRef90_F2JT57         E E N G P L K H L Q S L E D G N I C F V I V D P Y F K K D Y A P I I N E S Y F
UniRef90_B0SGR1         S A E S P F K W L Q S T K E S G L A F I V I Q P E L F M N Q Y K P A I S D E E L
UniRef90_K6SXY6         E E Y K P F K L F H S I E D D E I G M I V V S P Y E F Y Q K Y E V K L N D E T I
UniRef90_N1ZJ07         D N N E N V L C L Q S L K D T N L A F F T V N P F A F S E D Y H P L L T D K E L
UniRef90_I4BUK4         D E G N P I K W L Q S L E D S D V A L P V M P P E F I I P K Y D P Q L C E G D I
UniRef90_F8FJ42         G E A   F S Y L Q S L E D E G I S F V L N P F D I Y R A Y E F E L S Q E D Q
UniRef90_S0FVB2         E D E S P F K W I Q A V N K P D L A F A L V D P F K I K K D Y D F E L K N E Y V
UniRef90_R7NE48         G D E A S I M W L Q S L D E P E L A P M L K P E L I K E D Y D P I V E D E M L
UniRef90_D7WRC1         D A D L P L V V L Q S V E Q K E L G F V L A Y P F A F K K D Y F E I D E G I K
UniRef90_R5I298         E E K G S I M W L Q S M D D P Q T A F P V I N P V T I K E D Y N P S V S E E L L
UniRef90_UPI00035DE005  P D   A P F A Y L Q S V K E S Q I S L L I T D P F I F F P N Y E F D L S E R V V
UniRef90_R5SHJ2         D G E E P F S W L Q S T T E P G L A F P I V N P Q R V D E Q Y N P I V E D A L L
UniRef90_U1YFU4         Q D   S P F T V L H S L Q   G D L Y F F L I D P F R F F A D Y E F A L P D Y V L
UniRef90_R9J3S5         E D E S S I K W L Q S L Q E P A F A M P V M N P D L V V A E Y S P N F A A D L L
UniRef90_F7K400         E E D D T I L C L Q S I E D R D T S F I I M N P F R L S P D Y N P Q L K P E D Y
UniRef90_U2NSH4         K E N P V F K I L Q S I E D E D V G L V I I S P F E V K N N Y E I E L K D D L I
UniRef90_Q0B0F7         G E G V P F Y Y L Q S A L N P E L C L V V A N P F A F F P R Y S I E I G Q E E L
UniRef90_M4V8L1         P N D D I F A W L Q S C E L S S V A F P V L E P E I F G H K Y N V N F N R T D L
UniRef90_UPI0003B3D907  E D S Y P F L W L Q S V E D S N V C F I L I E P Q I F H T D Y K P K L N K R E F
UniRef90_R5EL53         D R D T K I S W L Q S L E E P T L A L P V V D L A V T T E Y A P M I E D E L L
UniRef90_W8U3T3         D E   M I V D W L Q G I   D E D I A F P V I N P F A V K E D Y E F K I P D A D I
UniRef90_L0KA06         Q E T D   F F W L Q A V H N P D L A F V V T E P W A F C Q T Y E F D L K E S V K
UniRef90_D3PA50         D E Y F P F L W F H S V E D P N V A F V V L P V K T Y F N D Y N P R I P K R E L
UniRef90_B8FK12         N A D S P F F W Y Q A V D E P G L A F V L T N P N Y F M P E Y Q A V V K R E T G
UniRef90_N2ACN6         E E N D S L I S L Q C L Q D E A L S F I L M N P F G L L A D Y S P S L S R E D L
UniRef90_R9MRX6         E E D D S L I S L Q C L E D E D L S F I I M N P F S I C Q D Y S P K L S D Q E L
UniRef90_A0L3R7         G E D S F F W L Q S V D E P E I A F I V I N P F D F F S D L E F A V E D E D A
UniRef90_I0IR68         G E N S L F Y W L Q S V E E P S L A F V V M D P S E L V P D Y A S R V L A P D K
UniRef90_S3JZX8         S E Y K P F M W L Q S A S E K S L S F L T V D P F L F F P D Y E L D V D D E S I
UniRef90_R7QWE3         S E K K G V S W L Q C L E D E V F A L P V I D P L S V K P D Y A P D I D E E L L
UniRef90_R9LB23         G S E S S I K W L Q S L D E P N F A M P V M D P N L V V N E Y I P M F D R E L L
UniRef90_G5IMC9         S N G D G I C W L Q S V E E K Q V C F I M L N P L E I K P D Y A P A V N D E I L
UniRef90_R5DMU6         E S E N T I M W L Q S A E E P S L A L P I I K P E I V K E D Y D P I V E D E L I
UniRef90_Q1NR22         S S K S P M W L Q S M D N P E L A F V V I R A A L L V P Q Y E P E L P L A A L
UniRef90_G9WNR1         E E D S T V L L L H G V E D P N V A F V V I N P F A L D P D Y T P S L T E E E L
UniRef90_E4TJ93         E E H L P F Y V F H S S E D P T V S F V I I D I K S F F P D Y A P E I H K R D L
UniRef90_UPI0003B2F968  A E Q G G I R W M Q S V Q E P N F A M P V I D P L V V R E D Y D P R V D D E L L
UniRef90_T0PEU5         E E N E K F K M L Q S T E N D S I G I V I V S P F D F K K Q Y E I N L S D E Y I
UniRef90_UPI00036AA4FF  A V H K P F L W L Q S V D D P G L A F V L V N P Y L V E S G Y E L D I D P E D L
UniRef90_E1YHN6         K E N S P F F W Y Q S V D D P A L A F V I T S P F M F M P D Y K I D   D D E V I
UniRef90_F7YYV3         E S T E P I K W L V S L E E S S V A F P I V N P W L V R I D Y T L T L S E E D V
UniRef90_M1P835         K K E G P L F W I Q S I D D P G I A F I L T D P T N F F L D Y Q I K P E E S E R
UniRef90_Q1JZQ2         E K E G P L F W I Q S I E D D I A L V L T D P T N F F L T Y K V V P E T N E C
UniRef90_C0QVU5         D E E G T F K I L Q S K D D K N V C F I L L I D P L I F K N Y E P D V H D D D I
UniRef90_E8QYR2         P V V A G L T W L Q S T T D P E T A F A L V T P E Q V V T E Y K L D L R P G D K
UniRef90_S6EJ24         S E   T P F N I L Q S I E N E E L A F V I M S P F L I E N N Y E V K L N E E I I
UniRef90_R7PLX6         D D D D S M L L Q S T E K P E V V F L F I N P A F L Y P D Y L P K L T S E E L
UniRef90_V2XXZ4         I D D G P I S W F Q S L D L A E L A L P V I S P Y S V T A K Y E P I V E D E L L
UniRef90_Q6AJQ9         K K E G P L F W I Q S V D D P D M A F V L T D P N N F F P D Y Q I Q P G K D E H
UniRef90_I5AZ90         K E T S P F Y L F Q C V D D P N L G F V I M D P L R F Y P E Y T L S V K D F D K
UniRef90_Q3A5G2         R K N G P L F W I Q S V E E P D L A F V L T D P T N F F L D Y K V V P D A R E R
UniRef90_U2BQU2         S P E D S F M Y L Q S L Q D E N L S F I L A N P F T L Y P G Y S P S L S K E D L
UniRef90_UPI000406E3AC  K D K G S V W Y L Q S M D D P D I A L P V I D P L S V K P D Y N P Q I K E D D V
UniRef90_A7HN72         E E T K P I F W L V S L E D E T I A L P I I D P W L I K E D Y E I E L S E D E L
UniRef90_R5PCE7         E E R S K I S W L Q S M E E P A L A L P I I H P S E L I D D Y G P I V E D E L M
UniRef90_R7HAP9         K K E K P I M W L Q S L D E Q A L A L P I I K P E I V D E Y A P D V E D E L L
UniRef90_R7RRR0         E D T N   L K C L Q S I D E R E I A F L I I N P W D Y F K D Y E I E L T D E E V
UniRef90_N2AWW4         E E K E G I K W L Q S M D D P A F A L P V I S P L D V K P D Y Q L V V N E E G L
UniRef90_UPI00046379FE  E D N S D L I S L Q S V E D A S I S F I L M N P F Q L Y A E Y M P V L S D E D K
UniRef90_D7GSS9         E E D S S L L I L Q S V E D P Y V A F F L I D A A A L F P S Y S P V L L P E E L
UniRef90_Q7URF1         P D N A S V A W L Q S A A R G D R A L A V I S P R A F F P D Y R V H G R R D L
UniRef90_S7TYA2         R D D S P F M L L Q C L K D S K L G L V V T D P F A F L E D Y E I Q I G D A E Q
UniRef90_Q97H05         E N N E V F S L F H S M E D K E T A F I V S S P F Y V K A D Y E V N L S E E L V
UniRef90_UPI00037CDD1F  A E G S P F K W L Q S L D N P D L A F I V V D P A M L D P R Y Q F D I D L D T E
UniRef90_R5F472         E D E G S L L L M Q S T E Q P D L A F I V V N P A F L S P D Y S P I L S Q E E L
UniRef90_E8RHQ7         K K Q G P L F W I Q C V D D P A F A F V V T D P T N F F L D Y V V L P D E N E R
UniRef90_H2J5V3         K D T F P I Q W L L S L E D E A I S F P V I D P V L V R V D Y T F D L P K D M V
UniRef90_H2J5V3         K D T F P I Q W L L S L E D E A I S F P V I D P V L V R V D Y T F D L P K D M V
UniRef90_C4Z9R7         S E K E S I M W L Q S M D D G D I A F P V M T P D I I M P D Y K P T V N E E L
UniRef90_G5FBE0         D E N D S L L L M Q S V E N S Q V A F V V I A P T I L C P D Y S P V L T E E D L
UniRef90_G2HAZ2         R E G A P F L I L Q S M D D P R L G L L V G D P Y S F L E D Y P I R I G D A E Q
UniRef90_UPI000288E9FA  N D L S P F L I L Q S I N L Q E V G F M V A T P Y V F K A D Y A F D L Q Q S D V
UniRef90_UPI0003B3C294  P K T A P F C W F Q S V E A P N L A L V I M D P K I F K P D Y T I D L E K I I
UniRef90_UPI0002E10B18  E D E S P F R I L Q S V T K E Q V G F I L G F P F V F N K D Y S F V I S D E D K
UniRef90_F8IC22         R A D S P F L Y L Q S V D R P D L A F I C I D P L V R V R D Y H I P S E D I
UniRef90_UPI0003698C50  G Q E D   F L Y L Q S L Q T P E L T F L L T Q P F V F F P E Y V F D L D D A A Q
UniRef90_F4LX31         P G S D T V K W L Q A L N E P G I A L P V A D P S H F Y P D Y A P K I S R E E L
UniRef90_L0RCQ4         S E T S P F L L L Q S L E D H T L G L V V A D P Y S F M D D Y E V R L S D A E K
UniRef90_D4JWT2         G D G V Y P M W L Q S T E N V T P C F I V F D P A I I D G A Y K I T L N S S E K
UniRef90_B8CYU0         D K S L P F T Y L Y S T E E N D F Y F I L I K A D E F F T D Y K I K L T S A D L
UniRef90_K0NJM5         P Q S A P F C W F Q S M E E P N L A L V M L S P F V F K P D Y A F E L K E F I V
UniRef90_R7Z8Y7         D Q D L P L A L L Q A T E S A E L G F I V A Y P F V F K P D Y A F D L S M E D S
UniRef90_D3EYQ3         E T D A D F L W L H S L E D P A L A V P V T D P R R F F S G Y S V E L A D E E R
UniRef90_E1JZB9         R E E S P F M V L Q S L S D P K L G L L V D P Y S F M T E Y E V V I S E P D R
UniRef90_UPI0003484AC2  E E E S S P F F I I Q S T E K E V G F W V V D P F S F F P E Y K F E L S D V A K
UniRef90_R5JYC2         E E D T A I R W L Q S M E D P Y L A L P V I E P F A V L D E P V I E D E W L
UniRef90_R9L9V9         D S G S H F A F L Q S L E E P E L C F I L A D P H A V V A D Y L P E L P A A F E
UniRef90_K0J480         P D N P S F L V L Q S I T D A N I A F V V I P P H Q L Y Q D Y E F L K I D D A T Q
UniRef90_D4IXA3         E E K G N M F L V Q S E D T D F A M P V M L P H F V A D Y A P A L N E D S L
UniRef90_E3PUM6         D S D I F I E W L Q S V E D T T S F A I M D P F V A D N N Y S F E L P E K I M
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                                     90          100         110         120
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UniRef90_UPI000468380E  E E L Q I E K P E D I L I L S I V T S K G S L K E A T T N L K A P I I L N M V K
UniRef90_F2JT57         E K L G G G E D S D F A I Y S T V C L K T P L E E S T L N L A G P L L I H V D N
UniRef90_B0SGR1         H D I G L T S W K D G I I F L I V T I P H D P K G M T A N L Q G P I I L N G K E
UniRef90_K6SXY6         N H L S I K S P E E V M I I T T V T L N S D P K K I T T N L Q G P L I I N T S N
UniRef90_N1ZJ07         E V I E A K D M S D V A I Y V I C S M T D D I S T S T A N L K C P I I V N T H N
UniRef90_I4BUK4         K D L K A P L N E L C F F V V V A V P E N P W E A T A N V R A P I V I N I A E
UniRef90_F8FJ42         D E L E I R S E E G I E I W S I V T L G K Q P E Q Y T V N L M G P L V V N T V S
UniRef90_S0FVB2         D S L G I K D V S E V N I F S I V V V P E D M K K I S M N L K A P I I V N K K N
UniRef90_R7NE48         K A L G S D K E A D L I V F C V L T V P A D I T K M T I N F K A P I I V N A D T
UniRef90_D7WRC1         E D L Q I E K E D E V V P Y T L L T L K E T F Q E S T M N L L A P V V I N T V K
UniRef90_R5I298         K P L G D M K Q E D T F V L T T V R V P K D I Q D M S I N L K A P I I I N M S N
UniRef90_UPI00035DE005  E E L N L G S S F L I R C I V T L K Q D V S Q S T I N L L A P I V F N L E N
UniRef90_R5SHJ2         E S V G E I K E D D L V V F L L A T V P A D V K R T S V N K K A P L I I N A G T
UniRef90_U1YFU4         D Q L E I K N R E N V L S Y S I V V L R D P L H D S T V N L V A P I V L N T T N
UniRef90_R9J3S5         K P L G D N D S E N I L M F V T V T V P K D I T K T T V N L K A P I I V S V E N
UniRef90_F7K400         K R L G T S R E E D L S Y Y V I C V I R N T P E E S T V N L K C P V V V N S V T
UniRef90_U2NSH4         E K L S I S S Q K E V M L Y N T V T V N S D V H K I T V N L K A P I V I N M D K
UniRef90_Q0B0F7         Q R L D D C S Q R E E L L L Y V I L T V P Q D F R E S T A N L V A P L I I N Q E S
UniRef90_M4V8L1         E S L K M Q A N Q T P A F L N I I T I P D D P T Q M T A N I K A P I V I N I E Q
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UniRef90_A0L3R7         S S L V L A R S E D V E I F T L V T I P E G P E E M R T N L A G P V V V N V Q N
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UniRef90_S3JZX8         K D I G V K D A S D V L V I S I V T L K D N Y T H I T A N L Q G P L I I N K N N
UniRef90_R7QWE3         K P L G E L N A E N T Y V L V T L T A T G K K E D L T V N L K A P I I I N T D T
UniRef90_R9LB23         K P L G E D V P E N L L M L V T V T V P K D I T Q T T V N L K A P I I V N V E E
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UniRef90_S6EJ24          K K G E Q F I V D V D K Y K I K H Q L
UniRef90_R7PLX6          R V G M Q I I L E N S P Y G F H H K L
UniRef90_V2XXZ4          R K G I Q I I V N N E D Y P I K F S I Y D
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UniRef90_R7RRR0          M N A K Q I I L N E K K Y N I R Q E I
UniRef90_N2AWW4          L Q G A Q M I V E D   D Y P I K F K I Y D
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UniRef90_H2J5V3          K K G V Q L I L D N D E Y H L K H N V   K E E I E R S
UniRef90_H2J5V3          K K G V Q L I L D N D E Y H L K H N V   K E E I E R S
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UniRef90_R7Z8Y7          K V G K Q I V L S D S K Y P L R F S L
UniRef90_D3EYQ3          G R G H Q V I N Q A A E A P L R A P L F
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UniRef90_J2HTY4             I S E G T K L Y F E D G I P G F P H L M F F H L Q Q Q
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UniRef90_UPI0004705ADB       E I E V S E D Q V F V F N K G I P G F E D F K Q F T I Y N H
UniRef90_UPI00046450D3 R V L E T T R F G R L E V T S E A V V Y F P K G L P G F E D H Y E W V V A G
UniRef90_UPI0004720FCE              V Y Q F P N G L P G F E Q L K A Y R V E
UniRef90_UPI0002D46F1D   G K E Q Y K E E S I F T F P K G I P G F E H L R F D K L Q
UniRef90_UPI0003B5390B M K A E T R V F G T V D I A D E K I I T M E T G M I G L P L F K K F A L I F D
UniRef90_Q3ADG3       S P A F G E I E A D E S Q I F S F P E G L P G F S H L K K F L L I R H
UniRef90_UPI00035EF5EB M E I E T R N F G I I D V E K D K I I E L K K P I L G F D E Y T K F T V I D S
UniRef90_A0A010ZUV7            I E F V S P M P G F P G H K S F V L V R L
UniRef90_UPI000476B1C8 K E I M T R L G K R V I D L D S V I Y F P R G L I G L E D K R E Y V L L R I
UniRef90_E0RHP0            S L Y V F P K G I P G F E Q L R E F Q L Q
UniRef90_T0DZT8            I L F E K G L P G F E D Y K T F I I G E V
UniRef90_X0VZ55        I T I G E D K I I T M P S G V L G F P D K K R F V I L Q H
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UniRef90_J0N072           E S R N I I T F P E G L L G F E E I H E Y L L F H E
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UniRef90_Q72EP7       I Q T R I G R Q R I T L D K I I H F P R G L A G F E G R H D F T L L Q L
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UniRef90_C6HWJ2     M V T F R T V R F G E I P V A E S G V I R F P D G L P G F P G A H R F L L L E T
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UniRef90_S9SQD5     M E V K S S R L G I L Q V S E E D F V G F Q E G V L G F P E S K T Y V W L N I
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UniRef90_B7IFV8         K D T L P I L W L V S L E D E N V S L P I I D P W I V D K N Y E I E I S N E D I
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UniRef90_Q72EP7         R E G A P F L V L Q S L D D P G L G L L V A D P Y S F L T D Y Q I R V G D P E Q
UniRef90_V5X405         E H N E L F S L L S A V E E A T V T F I T V N P F D F V P D Y E F E L S S D A L
UniRef90_C6HWJ2         G E A Q V F Y W L Q S L D D P A L A F V V M D P A L L V P D Y M L V L P E W D R
UniRef90_C9XJ06         E D N D S L K E F N S T E E E G I G F V V S P F E I I N E Y E I V L N Q E T I
UniRef90_S9SQD5         E P D L P I E L L Q C T R D S N L A F M V V D P F E F A S E Y E F D L S E E T K
UniRef90_C6WJS4         H E E G L L Y A L R S A D D P G L R F L V V P P A P F F P D Y A P V V G E E A I
UniRef90_T4VSI5         E N N E K F K I L K S K E E   D I S F V T T S P F E I Y K D Y E I N L N D E T I
UniRef90_T0GGZ9         E E E S V F K W L Q S I D E V E L A F V V I P P S L F K K E Y L P A L T V E E L
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UniRef90_R6FRW2       E R I K A K F A S D V S V F S L V T L N S D I K K I T A N L K A P V V I N V N E
UniRef90_W4EJD1       E E L E I Q Q S V V V R A I V T L R E T L E E S T L N L L A P I V F N P D N
UniRef90_A0A017RVR5   K E L E L T S H E Q V M V Y N V V T I R E N K I T A N F L A P I I I N I I N
UniRef90_G7V5X3       K R L R L S S L D E G V L M V V L N L P R D K P W M T A N L L A P I I I N P S L
UniRef90_D6Z720       R E L G D P E N S K L E L L L I A I P Q G P E Q M T A N L L G P V V L N P V S
UniRef90_R5SII8       E A L K I T N V E S L L V M N I T S I P D D P K G T T I N L L A P L V F N I D T
UniRef90_V9H489       K N L N L E D S E D V M L Y S I V T L N S K A E I T A N L K A P L V I N I K N
UniRef90_UPI00047E4FF1 E Q L G T T D P A D L L V L L V V T A A G S V A E A T A N L L A P V I V D Q S T
UniRef90_A0A024PKY4   E Q L N I R S E K E I V V L S I V T V K E P F Q D S T L N L K A P I I L N P V R
UniRef90_E6VS92       K A L K I N N L K Q L A I L V T V T I P Q N P E Q T T I N L Q G P I V I N T E A
UniRef90_UPI00037BBDB6 Q D L Q V H N R E Q V I V R C I V T W H S D R K K T T I N L L A P L I F N T E N
UniRef90_J2HTY4       E Q L R L Q D D T A L M V V N I V T I R S Q G E V T V N L K A P I V I N L E N
UniRef90_E0QLD0       K T L D I K S S D E V V I K T V V V I P E D I T K I R T N L Q A P I V F N K A N
UniRef90_UPI0003B5165A K I L G I T G D E E L A V L T T V S I P N E P E K T T L N L S G P I V I N T A A
UniRef90_K0AX53       E R L E I R D K S D I L V Y S I V V I P E D Y T K M T A N L Q A P I I I N T K N
UniRef90_E6PCB8       A S L A I A D P T D F A T L C V V I V S A N A E E M S M N L F A P I L L N L K T
UniRef90_Q67T86       V A V G A E S A E Q V L L Y A I A S V P E D F R K A T A N L R A P V L F N P F T
UniRef90_Q1Q2S4       S A L E M G N K E K V E I F C I V N I G D D A S N V T I N L K G P I L V N M I N
UniRef90_UPI00030208D3 K E L Q V E K E E D V I A Y S I V T L K E P F E E S T L N L L A P I V I N S V K
UniRef90_G9X9T9       K A L D I K S E E D V I K T V V V I P E D I T K I R T N L Q A P I V F N K S N
UniRef90_K1YP83       K E L D S P E Q G Q L E L F I I L T I P K N P Q R M T A N L L G P V A V N T A R
UniRef90_UPI000475B79E E R L Q I E D M S D V A V F N I V N P R G G V T S A T V N L Q A P V I I N V R R
UniRef90_S7SRP5       E Q L N I E S E R D V A V Y I L T V A D P F H E T T A N L Q A P V
UniRef90_C0QA33       K A A S W R R D D D I S Y L A V V I P H R P D Q M T V N L M G P I A I N N A K
UniRef90_UPI0004705ADB E E L L I K D E N E I A V R S I V T W G S D T E V T A N L M A P L V F N V K Q
UniRef90_UPI00046450D3 E A L G G D A H K L T V M V V V T V P P A A P W D M T A N L R A P I V V N H E E
UniRef90_UPI0004720FCE Q L L E I D N R E Q V S V R C I V T W H S D R E K T T V N L L A P L V L N T E K
UniRef90_UPI0002D46F1D A D I D V T V R E Q I A V R C I V T W H S N R D K I T V N L I A P I I F N T E N
UniRef90_UPI0003B5390B A P L G E L T A E N T Y I L V T V T V P S E I E D L S I N L K A P I I I N A D T
UniRef90_Q3ADG3       G L L H L S E E T P V L S L N I V R I P P E A K E M I I N L K A P V V F N L Q E
UniRef90_UPI00035EF5EB E D L K L D K L D I I V Y T L V V V S Q R G E Y I T T N L K A P I I I N H N K
UniRef90_A0A010ZUV7   A A M G T K D P S Q L L V L L I V T A G D T P R D S T A N L M A P I V V D P M T
UniRef90_UPI000476B1C8 K L L Q I E N A R Q V A V M V T V T I P H D P E E T T L N L S G P I I I N S E A
UniRef90_E0RHP0       E D I G I T S Q E Q I A V R C I C T W N S D Q S K T T V N L L A P L I F N I E Q
UniRef90_T0DZT8       K F L K I E S P E D V M L L N I I T L G K T L E K S T V N L K A P L V I N I K N
UniRef90_X0VZ55       E M S W N E G R E D L E L Y V I V N I P K G P D K M T A N L I G P L I N N R T
UniRef90_U7DBH7       R D L G V T S P E D V L L Y V I V T I N D D M K K T T A N L S G P V V I N K H T
UniRef90_A9BF69       E Y L E L E K P E D A I I L S I L T I P E K E D E I T I N L A A P I I I S Q K N
UniRef90_F6B818       E S L E I K S P S D I V V F N I V N V R G D L A S A T V N L Q A P L V I N I V N
UniRef90_V6MAW2       A S L R L E D Q N P V A V L N I I T L R E E G Q I T I N L K A P I V I N R E N
UniRef90_Q02C76       S L L G L P P A S D V L C L T V L S M R E E G P T A N L L A P I V V N L K T
UniRef90_J0N072       E L L G N P Q P E D L C F L V I A V I R S P L S D S V V N L K A P I V I N I Y N
UniRef90_UPI00031FCF0F A S L H I S Q E T P V V V L N I V T P R P N Q Q I T V N L K A P I I V N Q V N
UniRef90_K4ZGM1       Q T L N I T S E E Q I V V R V I L T A R S D S N T T L N L R A P L I I N V T N
UniRef90_B7IFV8       K E L E I E D K E K V A V W A I L T I P S G P E E T T V N L R A P I V I N M E K
UniRef90_L0DPN4       T A L E L D E E R S A L I Y V I L N R G E G G G L T V N L Q G P L V F N P V R
UniRef90_B0PA06       E L I E T D E P M F W L V A V L R D T L E K S T V N L K S P I V I N P V S
UniRef90_M8DFN6       T A L S I E E D T P I G V F V I I T V R E N Q V T A N L K A P I V V N L G K
UniRef90_C8WYY6       Q V L G V G A D A S V V L A M I T V H G D D S I T V N L A A P V L Y A P D T
UniRef90_UPI00037F3191 E T L Q V E D P A D V A V L V T V T I P H G R P E N T A N L T G P I L V N R K S
UniRef90_E6U6H3       A A L A L G A Q E S P R Y L V I A N L P Q A G G R L F L N L K C P V A V N S T A
UniRef90_UPI0003017835 P G L G N P E F W A I L C I C T V G Q S A N G A T A N L K S P L I F N R Q T
UniRef90_D2R3T6       L P L E L T Q F D Q A Y V L G I V S K N S T E L T V N L K A P L V I N L D R
UniRef90_K8E0N1       A V L E I K E P A D V F N V V N A R Q G L A N A T V N L Q A P V V I N V R Q
UniRef90_Q72EP7       R L L K L E N I R Q V A V L V T V S I P A G P E K T A L N L T G P I L I N H R A
UniRef90_V5X405       A D I G V I D R E Q I A V R C I V T W H S N K E K I T V N L L A P L I F N V E K
UniRef90_C6HWJ2       E F F A P L P S T S L T A M V I V T F S G E T A T A N L L A P L L V R D E E
UniRef90_C9XJ06       E K L E V K S P K D V V L F N I I T L G Q T F E E S T V N M K A P I V I N I K T
UniRef90_S9SQD5       H A L D I S S Q E Q V V I R V I L T A R Q N S T T I N L K A P L I I N V V N
UniRef90_C6WJS4       D Q L G T R E A D N L L P L L V V T V G D K A A G A T A N L L A P I V V D Q R S
UniRef90_T4VSI5       K E L E I E N P E D V L V T I L G K T L Q E S T I N L K A P I I I N I K S
UniRef90_T0GGZ9       S Q I D L K E V S E A L I L V I V T I P D D P A S M T A N L Q G P L I N K V T
UniRef90_Q30WK3       K L L R L R N I R Q V A V L V T V S I P P G P D K T A L N L S G P I L V N H E A
UniRef90_UPI00046F7A6E L D I E V N N R E Q V A V R C I V T W H S E R E K I T I N L L A P L I F N V E S
UniRef90_N6YAE1       A L L Q L S E P A D A A V A V I R R E A E D E G L R A N F M A P L V I N A A T
UniRef90_W6RWU6       E E L I K K E E E V L I V N T V T I G E K K E D F T S N F M A P L I I N V A N
UniRef90_UPI00037A6AE7 E A L R I N E Q T P I A I F S I I T V R N D N Q V T A N L K A P I V V N L S N
UniRef90_T2G927       K L L Q L D D V E Q M V V L V T V T I P P G P E K T A L N L S G P I L V N Q G A
UniRef90_UPI00035C310D E T L G L T R A E D A L V I V N A G A S I A D A T A N L M A P I I V T V T
UniRef90_UPI0002DED786 E D I D V T E R E Q V S V Q C I V T W H S N L K H V T V N L L A P I I F N S F N
UniRef90_Q02C79       N L L G L P P A S Q V D V M C L T V L S M R E E G P T A N L L A P I V V N L R N
UniRef90_L5MVV0       K Q L Q I E E G T P L S V R T V I T V R N E G D V T V N L K A P I I I N E E K
UniRef90_F6DNQ7       E T L S I N G P A D I V V F T I I N C Q E G L M K G T V N L K A P I I I N V K E
UniRef90_C0C1L0       E K L E A D K E T D L S Y Y V I C V V G S R P E E S T V N F K C P I V V N V S
UniRef90_E0IED0       E N L N I K Q P E D V A V Y S I V K Q P F S K S T M N L V A P I V I N V S R
UniRef90_I9M581       K Q I G A K E S L D V F V T I N V A S T P E N I T A N L M G P I I M N Q N T
UniRef90_N9Y3A2       N G L K V D D S K D I L V Y S T V T L N S D I R K I T A N L S A P I V I N I K N
UniRef90_UPI00037B62C6 K E L Q I D S P K D V L V L N I L G K T L E K S T V N L K A P I V I N I K N
UniRef90_A1K2N7       A T L G L A S P A E A L V A V I V R K D G E A G G L R A N F M A P L V I N V E G
UniRef90_J2ZU48       V A L S L Q E D T P K A V F T I V T I R E S Q Q V S V N L K A P I V I N L S N
UniRef90_UPI0004024428 N S L K I D K P E E V L L L N I V T L G K K L E E S T V N L K A P I V M S V K N
UniRef90_F9VJU3       K R L G I K D A T D V L V L T L N D D V E K I T V N L R A P I I I N L T T
UniRef90_UPI00047B9863 P A G L G D P E Q V D V W V V V R A I G N V E D F T A N L R A P L L L A N
UniRef90_H0PWM8       A T L K L A N P A D A L V M V I V R K E E G D A N L R A N F M G P I V I N V S A
UniRef90_UPI000479BE23 N E L K I E N P K D V L I L N I I T L G K T L E K S T V N L K A P I I I N I K N
UniRef90_D2Z962       D E V K A E D E R D L G I L L I I V T I P S G I W D M T V N M R A P I I I G L S S
UniRef90_J9ZDJ3       A A L H D P Q G R D L L S L V I V T M L S T D S M T A N L Q G P L V I R F P D
UniRef90_V2ZM91       E A L G V E R S E D L C F Y T L C V R S P V G E S T V N L R C P V A V N D R T
UniRef90_W0RBM5       A Q V G A S S D G T L M V L A I V T L P Q D G E G P T A N L R A P L V L D V D R
UniRef90_A1SER1       D E L E I R S A E D V L V L N P G T S L A S T A N L A A P V L V N P A K
UniRef90_A3ZKY4       S P I R L T A D D E V F V L T I V S K H E D S L T V N L R A P V V I N L T K
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                              130             140
UniRef90_C6D590          K R G K Q H I I H D H V Y S S R A P L Y Q
UniRef90_R6FRW2          N L G E Q V I I D K E K Y K I K H P L V K E
UniRef90_W4EJD1          K A G K Q V V L H Q T A Y S T R Q L L W T H G P V K E
UniRef90_A0A017RVR5      N N G K Q I I L T D S K Y S I R Q E I
UniRef90_G7V5X3          R L G E Q V V L M D E R Y S V R T P L V S E E   E R A K
UniRef90_D6Z720          Q L A K Q I L L D P N K F D A A W P V F E P E E
UniRef90_R5SII8          Q T A G Q V V L S G S G Y D I S Y P M F K
UniRef90_V9H489          R K G E Q Y I S D K E V Y N I K E K V F K
UniRef90_UPI00047E4FF1   R R A A Q V I L E   E D L P I R A R L L P
UniRef90_A0A024PKY4      K L A K Q Y I L T E E T Y Q I K T P L
UniRef90_E6VS92          R I G L Q V P Q T D G G Y P T H H P I
UniRef90_UPI00037BBDB6   Q S G K Q I V L Q N T G Y N T K H R L W P D
UniRef90_J2HTY4          R M A K Q V I L N D E R Y P I R Q P L F Q
UniRef90_E0QLD0          N K G M Q I V L D D T   Y P L R Y E F Y N K E E E
UniRef90_UPI0003B5165A   R V G I Q S P Q T D S S Y P H V Y L
UniRef90_K0AX53          M I G K Q V I L N E N I Y T T K H Y I L E E
UniRef90_E6PCB8          R R G R Q V P L D G S S Y S V R T P M P R K A S A
UniRef90_Q67T86          R K G R Q V I L G D D R Y G I R E P L F Q
UniRef90_Q1Q2S4          N K G K Q F V L T D D Y Y A L H Y P L V Q K N V
UniRef90_UPI00030208D3   K C G K Q I V L D N Q A Y P L R F P I
UniRef90_G9X9T9          N K G M Q I I L D D S   Y P I R Y E F F G K E E
UniRef90_K1YP83          R L A K Q V L L D P T Q Y D P C W P V F S Q
UniRef90_UPI000475B79E   Q L G E Q I I L E E T R Y S L R T P L
UniRef90_S7SRP5
UniRef90_C0QA33          K E S Y Q L I L E N S G Y P L K H S L F P
UniRef90_UPI0004705ADB   N L G K Q V V L N K T V Y T T K H L L L S
UniRef90_UPI00046450D3   R M A K Q V I S G N E A Y E V R T P V L P Q S V
UniRef90_UPI0004720FCE   R M A K Q V V L H D T A Y T T R H F L W
UniRef90_UPI0002D46F1D   L K G K Q I I L Q N S E Y T T R H A L W P D
UniRef90_UPI0003B5390B   H K G V Q I I V E D   D F P V K F K I Y D
UniRef90_Q3ADG3          K I A R Q I I L   D A D Y P V R Y P I
UniRef90_UPI00035EF5EB   R L A G Q L V I E   E D Y P T R Y Y L V Q E
UniRef90_A0A010ZUV7      M K A A Q C V L T G S N L P V R A P L
UniRef90_UPI000476B1C8   K R G M Q V P Q L E A G Y P T Q Y R L
UniRef90_E0RHP0          R T G K Q I V L Q N T K Y T I K H P L W N E
UniRef90_T0DZT8          N K G K Q L I L Q N D K Y A I K E P L
UniRef90_X0VZ55          L Q A V Q M V I S N S L Y S H K F P L L G E
UniRef90_U7DBH7          G M A R Q V V L D S D R Y S T K E P L
UniRef90_A9BF69          H K G V Q Y L I E N E E Y K I R H L L K E E L E R S
UniRef90_F6B818          H K G V Q V V L N D P G L N L R E P L
UniRef90_V6MAW2          R M A K Q V I L N E E S Y S L R H P L F Q
UniRef90_Q02C76          R R G V Q A I A P E G G Y S H Q H E L M P V A V A
UniRef90_J0N072          Q H A K Q V I L E D A E Y P L R Y R L F D
UniRef90_UPI00031FCF0F   R M A K Q V I L R E E I Y D V R Q P L L P V R Q A A S K
UniRef90_K4ZGM1          N Q A A Q I I L D G P Q Y Q L Q Y P I
UniRef90_B7IFV8          G K G K Q I I L D T E K Y K I K H K L
UniRef90_L0DPN4          R L G R Q L V L T S S R Y A V R Y P L D P S Q A
UniRef90_B0PA06          K S A A Q V I L E D   D L P I R Y P L M
UniRef90_M8DFN6          R M A R Q V I L Q D D R Y S I R Q P L L E P R A A V
UniRef90_C8WYY6          K C A F Q K V L E T T E F S T R T P L
UniRef90_UPI00037F3191   R R G V Q T P L T D K N V P
UniRef90_E6U6H3          R L G V Q I I L E D D R Y P M R Y Y L P A R E G V
UniRef90_UPI0003017835   R H G G Q F V L S   L P Y P F E Y P L F G E
UniRef90_D2R3T6          R L G R Q V I T T D E       Q P L A L E L A V R Q
UniRef90_K8E0N1          Q K G M Q V V L N E P A W Q V R E P L
UniRef90_Q72EP7          R I G L Q V P Q T D A S L P P Q F Y L
UniRef90_V5X405          S I G K Q I V L Q N T D Y T T R S A L W Q K
UniRef90_C6HWJ2          R L G R Q V I L A E S E E W L R Q P V F
UniRef90_C9XJ06          N F G M Q I I L Q D D K Y S I R H P L L L
UniRef90_S9SQD5          R R A S Q I I L D G P Q Y Q L Q Y P I
UniRef90_C6WJS4          R R A V Q V V   Q A D D L P T R A P L
UniRef90_T4VSI5          N L G R Q Y I L Q T D K Y E T K H P L I R S E
UniRef90_T0GGZ9          L T G R Q F I S R N E V H S V R E K I L E S A T V E
UniRef90_Q30WK3          K L G L Q V P Q V E G K Y P A Q V Y V H P Q N E T K
UniRef90_UPI00046F7A6E   F K A K Q I V L Q N T I Y T T K H P L W S S S E A V E
UniRef90_N6YAE1          R R G L Q K V I S K
UniRef90_W6RWU6          N K G K Q I I L N D S R Y K I K E K I F K E
UniRef90_UPI00037A6AE7   R M G K Q I V L Q E E V Y S I R Q P L F E Q Q A A D
UniRef90_T2G927          R L G L Q V P Q P D S R Y P A K I Y L H E Q Q L A E S
UniRef90_UPI00035C310D   L R A A Q V V L S D P E L P L R A A L
UniRef90_UPI0002DED786   H T G K Q V I L Q N T Q Y S T K H
UniRef90_Q02C79          R R A V Q A I A P E G E Y S H Q F E L M P A E A
UniRef90_L5MVV0          A L A K Q V I L N D E N Y D I R Q P L F Q R P K A A S
UniRef90_F6DNQ7          R K G T Q L V L D N H P Y N V K E P L
UniRef90_C0C1L0          R K A V Q V I L E S E K Y H F R H A L L E K E E V
UniRef90_E0IED0          G E G R Q V I L N H T D Y K I N A E L F P
UniRef90_I9M581          G I G L Q T L L A D K K Y T T Q Y K I L S A K L A
UniRef90_N9Y3A2          G L G E Q I I L D N P K Y R I K H Q I K K E
UniRef90_UPI00037B62C6   N K G K Q L L Q D D K Y N I K E P L
UniRef90_A1K2N7          R R G L Q K V I N
UniRef90_J2ZU48          R M A K Q V I L Q D D R Y S I H Q P L F V E R T
UniRef90_UPI0004024428   K L G L Q L L Q D D K Y D I K E P L I
UniRef90_F9VJU3          G K C E Q V I L D R E D Y L V R Q S L V V K
UniRef90_UPI00047B9863   G T G H Q V I N R A D E A P L R A P L
UniRef90_H0PWM8          R L G L Q K V I T K
UniRef90_UPI000479BE23   N K G K Q L I L Q D D K Y N I K E P L
UniRef90_D2Z962          R L M L Q A I L P D E S L T L R R P L W N Q
UniRef90_J9ZDJ3          R A G R Q V L L F D N E D W L R F P L L E T Q E
UniRef90_V2ZM91          G Q A M Q S I L E E G G Y H M H H L L
UniRef90_W0RBM5          R V G R Q V V L V D E R Y A V Q T P
UniRef90_A1SER1          R R G G Q I V L D D T D L P L A A P L V S
UniRef90_A3ZKY4          Q L G R Q I V T S D D Q   P L Q F E I
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Multiple sequence alignment (positions 1–40)

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                             1           10          20          30          40
UniRef90_UPI00036C905F   M Q I K T R   F G E V A V D P N T I L T F P R G L P G F E Q F T R F K L L H E
UniRef90_UPI000470996A                         D E Q Y I F T K G L P G F V E L R E F K L Q A Y
UniRef90_UPI0003B51B5C                         V E F V E P M P G F P E D R S F A L A A V
UniRef90_S6AEV2          M K F H S T Q F G T Q E V D P E S I L T F P N G M P G F E G S T R Y K L F H I
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UniRef90_N6YWG2          R R G M Q K V I S
UniRef90_C4ZLH7          R V G L Q K L I D
UniRef90_N6XJ89          R L G L Q K V I
UniRef90_UPI0003669BF6   R S G V Q F I I H D Q E L P I R H P L I
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UniRef90_I4B4I3          K L G G Q F V S D D P N H L V R T P L L D
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UniRef90_UPI00045EBA67   G S A V Q V V L D G D E W P L R A P L
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UniRef90_UPI000479FBF7   G L A R Q I I L N G S P Y Q A Q S R L F P
UniRef90_C1A570          R L A A Q V V S R D E S H E L Q K P
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UniRef90_Q662I1          L L G K Q A I C T N E K Y S L H H K V F K E
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UniRef90_G4T0S9          R K G I Q K V L
UniRef90_T0Z604          M R A S Q V V Q Y K S D Y R V
UniRef90_D5WVR9          R R G V Q W V P V E S P H S L R H P L F P R R P E
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UniRef90_I7A6B0          K T G Y Q K I L D D E K Y S L Y Y N L F T E
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UniRef90_I0IAM5          R V G E Q F V L S D K R F G T H V P L L
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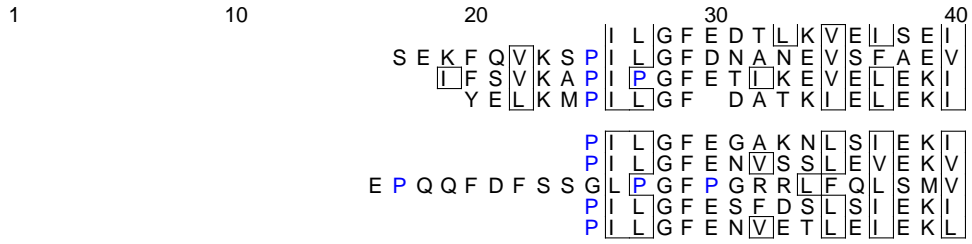
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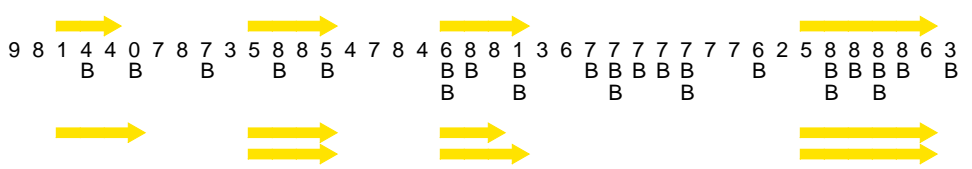
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UniRef90_B5Z921          Q L M G Q V V L D S N K Y P H Y H
UniRef90_U3PBK6          G V A G Q I I V D D P D L S
```

```
                     1                10                20                30                40
UniRef90_B6BGY0                                              I L G F E D T L K V E I S E I
UniRef90_C3XLX4            S E K F Q V K S P I L G F D N A N E V S F A E V
UniRef90_W6ECH2            I F S V K A P I P G F E T I K E V E L E K I
UniRef90_Q7VHN3            Y E L K M P I L G F   D A T K I E L E K I
UniRef90_C3XED9
UniRef90_UPI00047ABE72                                       P I L G F E G A K N L S I E K I
UniRef90_UPI00047B60B3                                       P I L G F E N V S S L E V E K V
UniRef90_T1CJQ6           E P Q Q F D F S S G L P G F P G R R L F Q L S M V
UniRef90_G2HST8                                              P I L G F E S F D S L S I E K I
UniRef90_A8ERE0                                              P I L G F E N V E T L E I E K L


lupas_21
lupas_14
lupas_28
jnet
conf             9 8 1 4 4 0 7 8 7 3 5 8 8 5 4 7 8 4 6 8 8 1 3 6 7 7 7 7 7 7 7 6 2 5 8 8 8 8 6 3
sol25                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
sol0
jhmm
jpssm
```

```
                          50              60           70            80
UniRef90_B6BGY0      D E   L F S T I K D T D N E D I V F T I I N P Y A L R   E Y S F D L   P S D I K
UniRef90_C3XLX4      D D G A L A F L     S M E N   G A E L L I N P Y K V R   E Y S F E V   P T A I I Q
UniRef90_W6ECH2      D E     F F V K F I S K S D P   T T F T L I N P F M L R P   Y E F E I   P E Y F R
UniRef90_Q7VHN3      D E T     F S K I R G L D G K Q F E I T L I N P F S L C   D Y A F T I   P T A D E
UniRef90_C3XED9                          E S E P M V L A L V N P Y K L R   D Y S F M I   P E Y L T
UniRef90_UPI00047ABE72  D E F F S F L V L E   D K T K I A V V N I N V L N   K V T F D F E I   D E K T L
UniRef90_UPI00047B60B3  D E F F S F L K L     D G N T K I S I I N I K A L N K S F D F I I   D Q S S L
UniRef90_T1CJQ6      D   N G P L H Y L T A I D P P G P R F A V V D P E V I I G D Y E V R L   D D E V V
UniRef90_G2HST8      D E F F S F L V F     D E N T K I T V V N I N V L K V S F D F Q I   D S N V L
UniRef90_A8ERE0      D D L M S F L I L     G E K T K M S V V N I D   G L S K V S F D F Q I   D E D V L


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lupas_14
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jnet
conf          7 8 8 8 4 5 8 8 8 8 6 3 7 8 8 8 4 6 8 8 7 6 1 2 3 4 5 6 7 7 6 5 6 5 2 6 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
sol0                  B                   B B     B     B
jhmm
jpssm
```

```
                                90           100          110          120
UniRef90_B6BGY0        V I L G I N E K S N V S V Y N V V I Q K P L E N S T I N F L A P I V V N N D N
UniRef90_C3XLX4        T L L E M K S N S N V K V F C   V F V R E K E A E V R I N F L A P I I L N F D N
UniRef90_W6ECH2        T L L E I N E K S N I L I L N I M I I A T P I E T S T I N F I A P L V F N V D N
UniRef90_Q7VHN3        R L L D L D E S D K V E V Y C V V V L Q K P I E N S V V N L M A P F V F N P A N
UniRef90_C3XED9        L I L H I T K K S K L L V Y C P L D L N S P L E S S E I N Y L F P I I F N T E T
UniRef90_UPI00047ABE72 S E L K I K S K D D F E T Y F V V S Q D P V E Y S I I N L V A P I F I N K K E
UniRef90_UPI00047B60B3 E K L K I S S K D D F D T Y F I V V S Q D P V E H S I V N L V A P I F I N E K E
UniRef90_T1CJQ6        S S L G I E D R S D V
UniRef90_G2HST8        E K L K I K S K E D F S T Y F A V V S Q N P I E H S I I N L V S P I F I N E K E
UniRef90_A8ERE0        E K L K I K S R D D F N I Y F S V V S Q N P V E Y S I I N L V S P I F I N E K E


lupas_21
lupas_14
lupas_28
jnet
conf                   7 4 1 6 7 8 8 8 7 6 0 6 8 8 8 8 7 1 5 7 8 8 7 6 3 1 5 4 3 0 3 1 6 8 9 7 0 5 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 B B
sol5                                           B B B B B B           B     B       B   B B B B
sol0                                             B     B B B           B   B B
jhmm
jpssm
```

```
                              130            140
UniRef90_B6BGY0      N K I A Q A V L D A K R H P
UniRef90_C3XLX4      N T L A Q V V L N A K D Y P
UniRef90_W6ECH2      Q S L A Q V V L D A N Q H P
UniRef90_Q7VHN3      A C A L Q V
UniRef90_C3XED9      K F A A Q I P L S I M D Y P
UniRef90_UPI00047ABE72  K L I G Q Y V T N E
UniRef90_UPI00047B60B3  K L V G Q Y V T S E Q
UniRef90_T1CJQ6
UniRef90_G2HST8      K L I G Q Y V
UniRef90_A8ERE0      K L I G Q Y V


lupas_21
lupas_14
lupas_28
jnet
conf                 5 5 8 9 9 9 8 1 4 7 8 8 5 2 1 4 0 0 7 7 4 2 1 1 0 0 6 9
sol25                  B B B B B B B         B   B   B     B B
sol5                     B     B     B
sol0                     B
jhmm
jpssm
```