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                              1          10         20         30         40
QUERY                    M D T N G V L Y A A N M T N A L A K E I P E S K W D I Q L I P E L G T L R K L F
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UniRef90_UPI00047AFADB   M K S D G F T Y A A D M T N Q L A E E L P E P L W D K P L I D E V G T V R Q L F
UniRef90_X0RD78          M D I K G L E Y A I G M T N Q L S E T I S I E K W D E P L M K D I G T L R K L F
UniRef90_UPI000368D379   M N S K G Y L Y A A E M L D L L V V N K E K W N D V L I P E L G S L G R L F
UniRef90_UPI0003603D76         K M Y T M L S G V V I A A A E M P E E S Y S F K P T P D V R S F G Q L V
UniRef90_T0MCL0          I E T L K F H G N L I I S S L E S I D S E F L E L S P I K N A G T F G K Q F
UniRef90_G4HK18            K R W L R H R G V L Q Q L L E E I R D E H L E Y K P W P N A M T L G K L I
UniRef90_UPI000368AEC3           I F A V N M N Q V L I E H L D A T A W R A K P P G N V R T I A A I F
UniRef90_V9GET6          S H R W L Q H R G V V Q Q L L E E L D P G R L D Y K P W P D A Y S L G A L V
UniRef90_I2GGV2        M F A K E L E Q E A Q T T R K M L E R V P N D K F D W Q P H P K S M T V R Q L T
UniRef90_C3KS39                   D I L N Q L S D E E L K K A W T V K N I K E M I S V E N A F
UniRef90_S0AP13            V K T L R F H G G L I H S A L E S I D S E C L E I I P I K N S G S F G K Q F
UniRef90_E5WJW1          F L N Y F L S H R K V T N E L I K K I D E N N Y D Y K P T E T S M A A G K L V
UniRef90_UPI00047C19A9       N Y F L S H R K V T N E L I S K I D E N N Y D Y K P T E T S M P A G K L V
UniRef90_U1XAN2                 R K R T M Q Y V K V V P N S I L D W Q P A E N K F S T G D L L
UniRef90_T0MQH5                 K L N L A A L E L V P S D R L N Y R P V K E L Y S L G D L F
UniRef90_F8F4Z0          F A D S W K N E S A S T Q R I L D A L T D S S L Q Q K I A P D Y R S L G Q L G
UniRef90_G0J5V4             W K R N M N Y S Q L V A E A M P A E L Y D Y Q P T P E S M S F K D Q L
UniRef90_K2D237                 T I S F A N T V P T D I W T T R P F K R F T T Y S W E F
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UniRef90_S7WHF7                 S R E L A E A M P A N L Y D Y K P T P E A M S F G D Q I
UniRef90_W8TT29             E W L R H R S V L Q E L V E V I P D E H I D F K P W D N A M P M G S L I
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UniRef90_W4AXE3            R W R K H R T V L N Q L L E D V H T E H L D Y K P W Q D A Y T L G A L A
UniRef90_I3E7V1          V R Y F L A H R N V T I E L I N K I E K E H Y D Y K P T P T S M S A K Q L V
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UniRef90_UPI00042124BE   V Q E F L S H R S V T E E L I Q K I D D E H M D Y K P T E T S M S A R D L I
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UniRef90_D3EHZ8            R W H R H R T V L L Q L L Q D V Q S E H L D Y K P W E N A Y T L G G L A
UniRef90_I0K5K7        M L L K E M D L E A N T T R K M L S R V P D D K L D W R P H P K S M V M R D L A
UniRef90_I2ET35        M Y L Q E L E Q E S A T T R K F L S I V P D D K L D W Q P H P K S M T I R Q L A
UniRef90_M5PF40            I Q E F L S H R T V T E E L I Q K I D E K H L D Y K P T E T S M S A K E L A
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UniRef90_U1X4E8            I Q G W L R H R T V L L D L L D L I H N E H T H Y K P W N D A F S L G A L A
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UniRef90_C6CXR3          F I A G W K S H R N V L H D M L A D A T T E Q L S Y K P W E K G M S L A E L V
UniRef90_Q67JY9          F A R Y F E S V R G R T L A F I Q A I P E D R M D F A P Q P G K F T F G D L I
UniRef90_UPI0002EDC73A       A K E L E Q E A A T T R K M L S I V P N D K Y S W K P H E K S M N I K S L A
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UniRef90_I8AGG0          F R D S W L K H R V V L E R L V Q E T E S T H V R F K P W E G A M P L G E L I
UniRef90_E3DWF3            F L S H R N V T V E L I E K I S K D H Y S Y K P A E T S M S A E E M A
UniRef90_Q02BV8                     A E K M P A E N Y S F K P T D S I R S F G Q L V
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UniRef90_W4QQ12            D Y F L S H R H V T N E L I G K I E Q K D Y D F K P T P S S M S T K E L V
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UniRef90_H8KQM2             K E M E Q E A Q T T R K M L S R V P D K Y D W K P H P K S M N I K S L A
UniRef90_C8WQU6               W H S H R D V L G P L V E S V P E D K L D F K P W D G A M S F R D L V
UniRef90_UPI0003645E18   F I E E W N G E A A S T Q K V L H V L T N E S L Q Q Q V A P D Q F T L G K L A
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UniRef90_UPI00042A5769   N H W L S H R Q A L M D L L A V I P S D K A D F R P W E K A M S V N E L A
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UniRef90_UPI0003B422D4                 L S R I P D D K Y Q W K P H P K S M T I E Q L S
UniRef90_C6D5R5            K S W K M H R N A L L E L A E M L P E S G G T W S P W D G A M T T L E L I
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UniRef90_UPI000413E18F   F Q R E F E S E V L T T R K M L S I V P Q D K F E W Q P H K S M T L K R L A
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UniRef90_U4WUK0               F E G V R K R T L K Y L A A I P E Q V I D W R P D D H K F S F G D I V
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                                  50          60          70          80
QUERY                  I H I V R V R D V Y R D G L K T G S I K F P G R L A S D E H R L L D E L E R S M
UniRef90_UPI0002D8061E  R H M V R V R D V Y C D G L K T G C V C F P G E L A S E E D S L I H E L E R S M
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UniRef90_I2GGV2         T H I A E L P G W V K L A L T T D G V D F A T T P V N N T T E L L D L H E R S M
UniRef90_C3KS39         I T A I D N E D M S F D N V   P D V F D F S G D L N R D K   L L D G L K E S D
UniRef90_S0AP13         R H I L D V R N S Y L D A L Q S G T L D F Y R K E L L E E L K C V M E E F S S M
UniRef90_E5WJW1         T H M L T S F Y M F S K T V K E G S P A V F G E I A P N L S E A A E N Y T E K T
UniRef90_UPI00047C19A9  T H M L T S F Y M F T K T V K V G N A S V F G E Y T E K S I D L I S S L   T N
UniRef90_U1XAN2         R H L G S S Q V M F L H V F E H G K W S Y P G H E R S K G E H I E E K L K E G L
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UniRef90_A4IJR1         T H M V F S F Y N F A N V A K H G D P A L F Q D P E T N L A K L A E T Y T E K T
UniRef90_W4AXE3         V H I A A S S E M F L L S I K N G T F S P P S I S T Q F E T D I R N I V Q A S T
UniRef90_I3E7V1         T H I L L S F Y R F A K T A K S G Q M L F R E K I E E T E T D L A E N Y T E K T
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UniRef90_D3EHZ8         V H I A A A S D M F L R S I V K G S F S P P S I S T E F E T D I R N I V Q A S T
UniRef90_I0K5K7         V H I A E I P T W V A L A L Q T D G L D F A T T P I E T N A E L L A L L E K S L
UniRef90_I2ET35         T H I A E L P T W I T Y G I T T D E L D F A Q T P I N N R A E L L A Y F E E C F
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UniRef90_Q67JY9         R H I A A T E R M F V E G A I E G R W A Y P G E L G S T K D E A L G Y L E E A M
UniRef90_UPI0002EDC73A  T H I A D L P S W P E M V L K T K E L D F A N D D V D N T I S L I Q F F D R S V
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UniRef90_W3A8N1         W H L V T T L D V S H T G L Q F S S A K F G T P V P E T A E E I A E A Y R F S N
UniRef90_W4QQ12         L H M V T S F Y Q F A S A A A K Q A P K S L H D E A S N P E E L A Q L Y T D E T
UniRef90_G8T9N9         T H I A E L P G W V S F T L T T S E L D F A G I L E T F E K S Y A D G L L E K A T
UniRef90_H8KQM2         T H I A E L P W T M A V T T D E L D F A S N P I T N T D D L L K Y F E K S L
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UniRef90_W6TXU5      Q L G V F L R L L N I P I P G S F
UniRef90_W0F3S3      Q L G V F L R L L E V P I P G S Y
UniRef90_UPI000381F0C0  Q C I I Y L R M N N I R P P
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UniRef90_E3DWF3      N L F V Y V R E M G
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UniRef90_U5L6W9      Q L F T Y A R L A G I E
UniRef90_UPI0003B53FB0  Q L Y T Y A R I V G V E
UniRef90_UPI000363D750  Q I A V Y L R L L D I P V P G M Y
UniRef90_W3A8N1      Q M T V L M R Q A G L K V P G L Y K E E W
UniRef90_W4QQ12      N L F V Y V R L M G
UniRef90_G8T9N9      Q L G V F L R L L D V P I P G S Y
UniRef90_H8KQM2      Q L G V F L R L L D V P I P G S Y
UniRef90_C8WQU6      Q L F V Y A R M M G A E
UniRef90_UPI0003645E18  Q M F V L M R Q A G L V V P G V Y
UniRef90_UPI0003675777  Q F C V Y L R L L D V P V P S T W
UniRef90_UPI00042A5769  Q L F V Y A R L V G V E
UniRef90_L7W9B2      Q L V Y L N L K G I T P P G
UniRef90_UPI0003B422D4  Q L G V Y L R L L D I P I P G S Y
UniRef90_C6D5R5      Q L Y V Y A R L L G V K P P
UniRef90_UPI0002E9D0A0  Q M T V L L R Q A G L P V P G
UniRef90_UPI000413E18F  Q L G V F L R L L D I P I P G S Y
UniRef90_I4D0I0      Q M T V L M R Q A G L K V P G I Y R E D W
UniRef90_U4WUK0      Q L S V Y M Q V N H I D P P Q I F
UniRef90_UPI0004019055  Q L F V Y A R L I G V K
UniRef90_U5C3B1      Q C L V Y M R M V E V N A P
UniRef90_UPI000248D923  Q M T V L M R Q A G L R V P D I Y R E D W
UniRef90_I0AFW9      Q L T V V M R L L G L K V P G I Y K E E W
UniRef90_UPI00031863BF  Q M T V L M R Q A G L P V P G I Y K E E W
UniRef90_D5WU97      Q L I L Y A R M L N V E P P
UniRef90_UPI0002FA826F  Q M T V L M R Q A G L M V P G V Y R E E W
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                                1         10          20          30          40
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UniRef90_D3EIP0          I S E L K R E A E S T R A L L E K L P E D K F S W R P H P I S M S L G Q L A
UniRef90_UPI0004788E50   F F K L W K F E A D A T Q K L L N Q L T D E S L P Q E V T P Q N W T L G R I A
UniRef90_D7WST2          F L Q S W A F E A A A T Q K L L N H L T D E S L H Q A I T P Q N W T L G R I A
UniRef90_UPI000422DD8D   V K D W E R A K A Y T Q E Y L D A M P A D K Y D L K P T P E M R S F A Q Q M
UniRef90_UPI000248DE06   F A A E W E K E A E L T A Q V L S G L T D E S L Q R R I D A D R R T L G A L A
UniRef90_J7J2L7              W E K E S E S T Q K L L D C L T D K S L G Q S I T V N D R T L G R I A
UniRef90_J9HEZ9               H R D V L T D L V K S V G E E H L S F Q P W A G A M S F A D L V
UniRef90_UPI000471D32F   F I R E W N R E A T L T Q K V L D G L T D D S L N Q K V Y Q E G R T L G R I A
UniRef90_I3ZCU8              Y T Q I K T I I L A S A E K M P A E N Y S F K P T P E I R S Y G E L F
UniRef90_UPI000371C355        W E F E A N A T Q K L L N S L T D E S L K Q E I T S E N W T L G R I A
UniRef90_K2FMD2            T F R A H R K V T N D L I A L I D E K K L D F A P T D T S M P V G K L A
UniRef90_M8DD36             F E G V R K R T L K Y L G Q L P E G V I D W R P D E G K F S I G D I I
UniRef90_UPI000475DDCC     N N W Q G H R R L T R K T I E A F P E D K L F Q F S V G G M R P F A E M A
UniRef90_I3C4B4          F S E K W E N S K Y L L Q I A Q S M P E E K Y D Y K P T E R E M S F K E Q L
UniRef90_UPI000313029E   F L Q T W E F E A G A T Q R I L D A L T D E S L K Q D V T P Q D R T L G T I A
UniRef90_UPI00034C714B   F L N E W S Q S A D G T A K V I N N L T D K K L D Q S I V E N H S T L G W L G
UniRef90_D5WTY9          F A E E W S H E S A A T Q R V L E A L T D E S L A R Q V A P G H R T L G E I A
UniRef90_UPI00037023AE      N D W M R H R R V L Q E M L L V G D E H M H F K P W D G A M P L A E L T
UniRef90_UPI0003F7DAE6      N E W L Q H R N V L E E L L E L I D D K H I D F K P W E G A M T L G E L A
UniRef90_UPI0003662164      N E W L E H R K V L E E L L E T V D D K H I N F K P W E G A M T L G E L A
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UniRef90_F4C4W9             E L I G E A E T T R K F L K L I P E D K Y D W A P H E K S M K M Q H L A
UniRef90_UPI0004121BB3      E L E K E A I T R K M L A L V P A D K F E W Q P H P K S M T L K R L A
UniRef90_UPI00047CD0C5       E W N Q E M E S T Q K V L D A L T D S S L Q Q A I S Q E D R T L G R I A
UniRef90_UPI0003794C09        W K Y E A D S T Q R V L D M L T D E S L T Q E I T P D N W T L G R I A
UniRef90_UPI0004717DCD     R W E N A R K Y T L A V L H A M P E A Q Y T F K P T P E E M D F R N Q A
UniRef90_UPI00047D40FF   M L I Q E F S E E A A S T R Q V L E R V P E E K L S W A P H E K S M T L G Q L T
UniRef90_UPI000225B405   F I N D W D H A S S G T L Q V I E A I T D E K L D Q A I V E G H N T L G W L G
UniRef90_H2BQK2             L Y V P R T I I T A A E Q M P E E Y Y S F R P T P D V R S F G E L M
UniRef90_F8FJI5          F K Q T W T F E S G S T Q K L L D V L T D E S L K Q Q V A E N H R T L G E L A
UniRef90_D3EDC4          F I T E W K K E A D L T Q R I L D S L T D E S L Q Q Q V Y P E G R T L G R I A
UniRef90_G2FU40                                                      R T L G R I A
UniRef90_UPI00047ACB98   F L K S W E F E A G A T S K L L K T L T D E S L K Q E V S S Q H W S L G R I A
UniRef90_UPI0002DD0C0D   F I K T W T I E A G L T E K T M N Q L T D D S L K Q E I A P G Y W S L G K I A
UniRef90_F0RE51            R L E T S K K Y L L V A E T M P N D K Y T F K P T P E S M S F A E H L
UniRef90_G4H8U8             W T K E V Q I T E R V M N A L T D E S L K Q S I T E Q H R S V G Q L A
UniRef90_V6M5V0             E W K N E A G L T Q K V L D E L T D H A L L Q Q V Y P G G R T L G R I A
UniRef90_W0REQ4                 T R R I L E R V P D E H W N W K P H A K S A S L G D L A
UniRef90_UPI000248BFBD    D E L K R E A G S T R T L L E R L P E D K F S W R P H P K S M S L G Q L A
UniRef90_S9UE33              L Q E L A T T R R I L E R L P E E H L T W K P H V K S M S L G G L A
UniRef90_UPI0003FED558   V K D W E R A K A Y T L E Y L E A M P A D K Y S L K P T P E M R T F A Q Q M
UniRef90_F3MJF6                 T R R V L E R L P E E H M S W K P H E K S M S L G G L A
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UniRef90_UPI00028856A5       W N Y E G N A T Y K I L E A L T D E S L S Q E V A P G H R T L G E L A
UniRef90_UPI00046FC034       W E R A K A Y T M E Y L Q A M P E A G Y A L K P T P E I R S F G E Q M
UniRef90_W6TPD9                      M P E S G Y T L K P T P E M R S F A E Q V
UniRef90_UPI00047C51AB     E F E G Q A P I T R K F L E R L P E D K L T W K P H E K S M T A G Q L A
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UniRef90_W2UJ80             W E N S K N Y L L E I A E A M P A N A Y A Y K P T E R E M T F A K Q L
UniRef90_UPI00029A9DEA    K E F E S E F N T T K K F L A L V P T D H F D W A P H E K S M K M K S L A
UniRef90_UPI0003B3A63C      H R R L T R R V I E A F P E D L F T F T A A P P M R P F G T L A
UniRef90_UPI00047E811C   V K E W Q R A K A Y T K E Y L D A M P E N G Y S L K P T K E M R T F S G Q V
UniRef90_W4CQ55          F A A T W Q N E T E A T M R T L E M L T D E S L G Q Q I T S D H R T L G R V A
UniRef90_UPI00036A0545   F I Y E W K R E A M L T Q K V L E G L T D D S L K Q Q V Y S E G R T L G R I V
UniRef90_C7PTX6            K E M E Q E A Q T T R K M L S I I P E D K F N W Q P H P K S M S V I R L A
UniRef90_K6PZX1            L E S N R R L T L R V I Q A F P D D A L S Y K P V E V L R P F G E M V
UniRef90_R9H2I1          F L E E L K Q E S E T T C K M L K I I P E D K Y E W Q P H V K S M T I K Q L S
UniRef90_K6E7P8          F L N E W K Q E A A V T Q K V L D V L T D E S L N Q E V S P G L Y S I G S V A
UniRef90_A6EH64              N E W L G H R R L T R R V I E A F P E D K F D Y S I G G M R T F A D M V
UniRef90_W4TAG7          F I E Y Y E R I R S R T N R L I E I I P R D K L D F T Y K Q G K F T I G D Q I
UniRef90_W8A084          F I Q E W K Q E S Q L T L S V L N A L S D E K L G Q A I E E G H N T L G W L G
UniRef90_U5LGG0          F L K L W N Y E V H T T Q K V L D Q L T D E S L S Q E V T A Q N W T L G R I A
UniRef90_UPI000417A8F5   F L E E W N Q E A T A T Q K V L D A L T D A S L Q Q Q V S P N G R T L G R I A
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UniRef90_K6DKK6          F I N E W N K E A L L T Q N V L D G L T D D S L N Q K V Y P E G R T L G R I A
UniRef90_I2EUQ6          V K E W E R A K A Y T K E Y L D A M P E S G Y A L K P T E M R S F A Q Q M
UniRef90_UPI000379D51F       E W Q R A K E Y T K E Y L D A M P E E G T N F K P T P E I R S F A E Q M
UniRef90_Q1IJJ7               R K L T E M A E D F P E D K Y D F K P T P A Q R S F A E Q L
UniRef90_X0R6S9          F V N I W Q V E S Q K T I Q L L T H V T D E T L D Q T I V E D H R N I I G W L S
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UniRef90_UPI00037D7BDD   V S R L E N S K K S T L L M A Q A M P E N Q Y G Y K P V A D E M S F R A Q L
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UniRef90_Q01WF6           E L D Q E L K T T R K C L E R I P D D K F S Y K P H P K S F D M G S L A
UniRef90_I2F0N8              A K D Y T L K T I E A M P E D K F G F R P M N E E M T F S E Q I
UniRef90_UPI0003101607   F I R E W N W E A N L T Q K V L E G L T D D S L K Q K V Y P E G R T L G R I V
UniRef90_C1ACE8             W A W S E Q T Q N V L D A L T D A S L A Q P I D A Q S R T L G R I A
UniRef90_I0KCE7             W Q R A K E Y T K E Y L D A M P E D G V G F K P T A E I R S F A E Q L
UniRef90_UPI00047DBF65   F L N H W D Y E S S E T L K L L E G L T D A S L P Q P M Y P G G R T L G R L A
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UniRef90_E5WKX4          F I N E W K R E A V L T Q K V L T D D S L K Q Q V Y P E G R T L G R I A
UniRef90_V6SAG5             L T Y V S G H V M Q L A K A I P A E K Y S Y S P G K G V R S V A E V C
UniRef90_E6SHT0              R R L T L R V I E A F P E E A L Q Y K P V D V L R P F A E M V
UniRef90_L0E9F8             W S H S A Q G T L K V L Q S L T D E K L D Q A I V E G H N T L G W L G
UniRef90_Q01VZ8            E F K M A G R Q I I T L A E A I P T E K F E W R P A P G V R S V S E V L
UniRef90_B9EA77          F I T Q Y R Q E G E T T L A C I R E L T D A L T E L D R T L G E L T
UniRef90_UPI000377D50C      T A R L E N S K K S T L L M A Q A M P E N Q Y G Y K P A T D E M S F R A Q L
UniRef90_W4QF22           V E E F K R E I A M T R D S L K R I P E D K S W K P H E K S M S L G Q L A
UniRef90_W7YXP6          F L Q E W K N E A N L T K S V L D A V S D E K L G Q A I E E G H N T L G W L G
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                                                  50            60            70          80
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UniRef90_D3EIP0          L H I A G V P G I L L D D S V S E V P V V P L P E P T N R Q E L L D A L E N S L
UniRef90_UPI0004788E50   W H T V T A I G V V T S S F D S P N Q D Y P     V P T S A K F I S D S Y Q Q A S
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UniRef90_UPI000248DE06   W H L V T S I D M T S L G L D F K G V S E G A K A P E S A E G I A E E Y R R I N
UniRef90_J7J2L7          W H I V T T I P L A K T G L E F E G I Q E D A P V P K D A K T I A Q T Y T D V N
UniRef90_J9HEZ9          W H I V S T G Y F F A D S A A L G H L       G T R P E   K A D L     S T M S A L
UniRef90_UPI000471D32F   W H I T T N I P D Y L T G L N V N K V E N A K N V P S S A K E I A A T F K R V S
UniRef90_I3ZCU8          T H V A Q T Q   M A L C G A N G M Q T N P P G Q P A T A K D D V I A F L K K S F
UniRef90_UPI000371C355   W H N V A S I R I I T S N   T D L T F D A P D Y P V P T S A Q I A D S Y H Q A S
UniRef90_K2FMD2          N H I L E A T Y T F L A N N Q S P A K L F D D D D N T E L K S K A S T Y T Q E T
UniRef90_M8DD36          R H L G S A E L M F F H A I T Q N E W K Y D G H G P E K G K T L A E Y L E Q C L
UniRef90_UPI000475DDCC   W E F I R M A V P I V E G V S T G K W E E Y K T A P S S K S E L L R L W D E Q T
UniRef90_I3C4B4          L H I Q Q N M N W L G K Y T F E A D I K D E K V E N S N K E A L L K S I S T S K
UniRef90_UPI000313029E   W H I V T S I Q V I M G G A G L Q I E A P G G D E P S E A Q K I A E S Y R R T T
UniRef90_UPI00034C714B   W H L V N S P A F F L V G L D I D L S H D P D Q V P E K A K D I A E A Y N K   M
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UniRef90_UPI00037023AE   L H L V Q W N E V F V K M V K T G D A T P P D P I K K T M A D L R Q A V A E R T
UniRef90_UPI0003F7DAE6   L H V A G W N D V F V S M V K T E F A S P R K V V K D T K K T K A T Y E S L T
UniRef90_UPI0003662164   L H V A G W N D V F V T M V K T G S P D I P A D V R K A V K H F T E K T K A T Y
UniRef90_A6ELH7          L H I K G N M D W Y F T A T A F D K T I   G K Q P S T K I Y L I E H I K A A F
UniRef90_F4C4W9          V H I T E L P S W I A L A V D T D E L D F S G Y S P K N N E E L L S M F E A S L
UniRef90_UPI0004121BB3   T H V A E L P G W V E M V L T T K E L D F A N R V V D N T Q D L L G Y F D E S L
UniRef90_UPI00047CD0C5   W H I V T S T P E M L N G I Q V G A V E N A T T V P T S A K V I A D S F R K V T
UniRef90_UPI0003794C09   W H I V T T I P V I T S     R T G L K F E G E V P T S A Q Y I A D S Y R Q M N
UniRef90_UPI0004717DCD   A H L A D N I L W L T S S K E T A P L S V N S F Q G T T K A Q L I D L V M Q T F
UniRef90_UPI00047D40FF   L H I A I L P D R Y F S E L T R N A P D V P L P E A E S A A A Q I L T E L E Q S E
UniRef90_UPI000225B405   W H L A N A P A F F L S I T P A G G     P Q D V P S S I D E I V A A Y K N T S
UniRef90_H2BQK2          A H I A E S   N F E M T A I A K G E T A P V L E V A P T K A E V I K A L E D S F
UniRef90_F8FJI5          W H I V T S E M L S R T G L K F D A P A M D S P V P A S A A E I A A A Y R Q S S
UniRef90_D3EDC4          W H F V T N I P E Y L S G L V I E Q I T N S A E V P A A K   Q I A E L L S S D A
UniRef90_G2FU40          W H L V T T I P M A R T G L I L E S I D E D A P V P D T A Q E I S N S Y R E V S
UniRef90_UPI00047ACB98   W H T V T S I K V I S S G L R F E A P S E D W S V P S S A N F I A E S Y I K S S
UniRef90_UPI0002DD0C0D   W H L V T V V G V I A K G L E F E C P E P N A P V P S S A K E L V S N Y Q K V S
UniRef90_F0RE51          M H I A W A M D W H S Q S L M G G N W E T D T E L N K S K E E M I S N T F D V T
UniRef90_G4H8U8          W H L V S I Q Y M S M L G L S F E G P S R E Q Q I P D S A S V I L E S Y R R A F
UniRef90_V6M5V0          W H F V T S I P D Y F T G V S V E K V S N P N E V P S A K   E I A Q T F T K V S
UniRef90_W0REQ4          S H V A M V I G L Q N A V V R R D E L D P P A K V T S   R A E L L E S V R E S I
UniRef90_UPI000248BFBD   L H T A G V P G L L L N E A I S E A S V V P L P E P T T R Q E L L E A L E W S A
UniRef90_S9UE33          T H L I N L L N W Q I A I F L Y P E F D L S T V P N R R E A K L E Q L F A E C D
UniRef90_UPI0003FED558   L H L T D G N Y G F A S A A   T G A A S P V G M G A S E K A E     D Q S K E N V
UniRef90_F3MJF6          T H L I N L L N W Q I A I F Q Y P E F D L S R E A L N K R T D L E Q L L A E C D
UniRef90_I0JT18          N H T L K T T Y T F L A A K Q S P E D L F P     E G D D T P L A E R A R V Y T
UniRef90_UPI00028856A5   W H V A T S     L H H I V S L T G L Q F E G E V P A S A K E I A D S Y R A T S
UniRef90_UPI00046FC034   A H L A D A N Y A F A S G A S K T S L E K Q G E L   S K A A L T Q S V A E S Y
UniRef90_W6TPD9          L H L G D A N Y G F V S A V   T G T K S P V G Q G D L E K T N D K S K A N V S N
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UniRef90_A4IS39          W H F T T N I P E Y L A G L K I D K V E N A E N V P T S A K E I A E T F Q K V S
UniRef90_W2UJ80          K H I Q D N S N A Y F H A E K R     E V P N H   N T D K K A T L E S L Q T A F
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UniRef90_V6M5V0            Q V T V L M R Q A G L P I P A V Y K E G W
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UniRef90_UPI000248BFBD     Q L T V Y L R L L G I P V P G I Y
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UniRef90_W4CQ55            Q M T V L M R Q A G L R V P D L Y K E Q W
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UniRef90_C7PTX6            Q L G V D L R L L D V K I P G S Y
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UniRef90_W8A084            Q M T V L L R Q A G L T V P G L Y
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UniRef90_A3XGZ0          E H I     N Q N M     E W L S T T Y F D E V S T N V N E K K R I I A N L Q N A F
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UniRef90_Q01PW1               V K H W K T T G E L T M A V A E A M P A E S Y N F R P N P E A M S F G Q L M
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UniRef90_Q67SI0               M L E G N R R L T L R V V E L F P E D A L H F T P A P P L R P F A D M V
UniRef90_C6XSE7               F T K D W E L E T Q G T L K V L S A I T E R T R K E K I H P D V R S L A R L G
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UniRef90_S3XCB7                   N S T K K I V A C V P N D K W G W K P H E K S M N L G D L A
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UniRef90_Q26GY9            I H M E G N M K W Y F N L E T V G E P E D L S D L   S K E D L I I A L Q S R F
UniRef90_UPI00035F4694     W E V V G L G D Y V L R G L N T D D W S P A G P P P H A A A V A W D E Q T
UniRef90_I2GSP3            L H S A S N M L W L S S T Y L T K Q T S P F D Y T S Q P K A A I I P V L E Q S L
UniRef90_Q1IN78            K H V A C A N V A F A K G C E K G G P N   P A K S K A E I M K Y L R D S F
UniRef90_R9GP19            W H L   T Q T I T E M G H K A G L   F P V D I P E S I V E L V N T Y Q D Y C
UniRef90_UPI00042700A4     W H L V E S Q N L G L K V K G P V G L G P D G F P P P T M A E I L A A Y R A V S
UniRef90_H5SAS6            S H L A N I P Q W V D L A F H T E S L D V A G E P H R N E A E S V A A A M L R V F
UniRef90_J1FEK9            R H I A A I R Y L Y A E T V Q G R S A A Y T G D P E Q V L A F F R E K H Q E S L
UniRef90_G0IXE3            Q E L L G I A G P G I K G L V T R K W E P L K E E E N S K K R L L E L W D Q A T
UniRef90_Q1ISR4            R H L A L E D E W L L N C V A A G A F T P P G I L T P A D A V A H Y R A R I A A
UniRef90_UPI0003607E23     N H I A S A N G F Y C   S V A L G T E N P I G K T A E D S K D A I K N L T K S Y
UniRef90_Q1IHV3            V L V A T M V G W V F M V N I D E F D I P G Y E M E S R A Q L L Q M H E E A L
UniRef90_X5K2D3            S H V V E L H L W L K I A L E R D S F N F H T D Y V P L K A E L Q D I L V K G V
UniRef90_I6Z6Y3            W H M V L V E M A Q L M A G L K I S A L E K E A P M P A T V R E L I D K F N E T A
UniRef90_UPI00029A74B2     M H L A E I P G W T E P T L N K D V D I P V G E E P Y R T P K A T S L K A M L
UniRef90_I3YT25            N H I I D I F G W P E I I L N T D C L D L S A G Y N N D K A D I I N A L E A A K
UniRef90_K2Q4I2            Q E L L A I A G P G I K E I V T G F T E P E Y P N K K E Y Y L K   A W D E T T
UniRef90_S2XCR1            W H T I V S I N M S R V G L E F E A P H H D A S M P E S A A A E I A A G Y K Q A N
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UniRef90_E4RWW1             D W V E K T V D T L P D E K L K F G S E D I P V W R L F Y A L E N H I I H H R G
UniRef90_Q01PW1             D K Q I F D F C N T A V A S V T L E A R N L T G Y E W L W S Y F T H T A H H R G
UniRef90_Q1IP87             E K S V F D A D R A T L T P E K A A A E W R F L F E I F T N M L N H L Y H H R G
UniRef90_Q67SI0             L E L I T A A R L T E E E I D P F F G S E P S N L S R L V Y T L E N E I H H R G
UniRef90_C6XSE7             R I L A N A K W T D S G L T V E M Y N E Q W E K G K I L R V L I A H Q T H H R G
UniRef90_L8JPN9             R E I D E V W P Q I P V Q R F H F G Q Y E G T M I S T I F Y L I D N E I H H R G
UniRef90_S3XCB7             D K Y E K A V I S A M F D E E K W M S E W L K S G D H I I V A M N H I Y H H R G
UniRef90_W4B7K0             E N L V R T Q W N D E S E S V M I E K E A W L N G S S L R Y T I M H Q A H H R G
UniRef90_UPI0002DB04C3      Q E A I R T Q W K D A N L S D E M Y G D M W S A T T L N V L V K H Q I H H R G
UniRef90_W8EZ74             R Q A L Q D S D D E K L T S F R L H R G E Q T L M E I R I M G L N H S I H H R G
UniRef90_UPI00036CB57B      I E T I P A E K L L A T V E Y G E H K M P G W R L L Y V L E N H I I H H R G
UniRef90_UPI0004258697      D A T V K A L S D D A A E K I E F G T T T V S R R Q V E A L L M D H C T H H R G
UniRef90_D2R171             E R L L Q T L T L T F A G K P L L T M P R H L F L R N I L L N H W Y H H R G
UniRef90_UPI00041C5C3A      I T F I N H F E L V K L E R L D Y F G A D R T K R Q I L L L L S D H I T H H R A
UniRef90_E6X6L0             E F V L K S I L L V E T E E V D F E F A K M S T L A G L L A I M E H N G E H K G
UniRef90_W4T3M2             A A L E K A T E D N L N P S I K N N G H E L A S W S K Y G A I R H A T H H R A
UniRef90_UPI0003B313B5      A A A Q A A I T A E Q L W S L C S G E Q R Q T R A E I I R H L I S H T V H H R G
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UniRef90_A3ZLS2             K N V A T A A V L A K T P D D V F A Q D W M M G G Q V M F T M T K H M I H H R A
UniRef90_C6VW51             E E V I T D D D L D A P F H L K R E G Q I L P K R E G I G S T I N H W V H H R A
UniRef90_U5C334             L V L A Y D F V I A N L K K V T F G S F E M P K R T A F D K L F E H Q T H H R G
UniRef90_W0RQF1             R G V G D E I A R G D A R A V D A P S L D T M V S F L E H A G E H Y G
UniRef90_H3SA77             T E M F K T L T A E D L K T V Y F P N L D P R S K L V R L V I D H E I H H K G
UniRef90_UPI00028989D8      E T A I K A F D T I E W T M K K G D F I F F T L S K L R K L I I N H T I H H R A
UniRef90_UPI00036BFC9E      E A V V S A H W A D Q D D T I K L F G I D T T V A G V L N T L V R H Q I H H R A
UniRef90_A3I1Q1             E L I N K S W A N I Q K Q V V A F G Q Y E S S G Y Q L V A Y A I E N E V H H R G
UniRef90_I3ZK40             E E L Q A E W T L R F G E H V V T T G P K Y V L Y R T M F L N H L V H H R G
UniRef90_Q026A3             D A C D A A W D S M N D T A M E M G G A Q R S K L S G M I G N T T H N T E L Y G
UniRef90_UPI0003601192      N H F N K V L N Q Q N D K D L F S S N K E F S I A E I I M L A Y S H T T H H Q A
UniRef90_W2UR81             D K T I E F I V N R L V E R L D Y F G A D R T K R Q I L L L L A D H I T H H R A
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UniRef90_F4B1Q2             E K L I Q G L D T T Q L D T V A Y G N L Q R T K R Q V L L I L T D H I T H H R A
UniRef90_UPI00045E7AD1      D A T I Q A L P A E K G E V I E V F G N N V S R R Q V M A L L M D H S T H H R G
UniRef90_UPI00037EF2BE      D F V A K S L T E D E L E E V E V F G G A M V S R R Q V E N L I D H G I H H R G
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UniRef90_W0REA9             T Y C E R A Y A L T D A Q R A S S M G D A G T K L T F L A E N A T H N A E H Y G
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UniRef90_J3CN88             N A L E N A K E D E Q T W A L K N N G Q E L A K W S K Y G S I R H S T H H R A
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UniRef90_UPI000463D307      Q K M N E T F K I L E Q E S I K G Y S P H P V A F F A Q M I A H E S H H R G
UniRef90_G2RMV9             L E M I S T F S H E D L T C I Q I D R S D V S L G D M L L R I G Y H E S V H A G
UniRef90_W7ZZW3             E A I L N A V E A N E T E L V D A L G T Q M P K S A I M R M L I N H Q T H H R G
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UniRef90_Q26GY9             D D I Y N A V K A M K F E E V E F Y A G P K S R L Q I L N L L Q D H V T H H R G
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UniRef90_I2GSP3             H Y A Q T A I E Q E L D Q K V T F F A G P K T K R Q I I N L M Q D H L T H H R A
UniRef90_Q1IN78             A M L N D E I N A T T E K N M M E P I D G P L G M T Y L A V W H L A D H Y G
UniRef90_R9GP19             E Q L S K A V N S K W T D S V N M Y G E E W E K G K I L Q V L I I H Q T H H R A
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UniRef90_J1FEK9             A I F S S L S D Q G L Q Q K I G G G Q I T C W K W L R A L I E H E I H H R A
UniRef90_G0IXE3             V E I D E W F P K L T T D D F Q E T V L A F G Q I Y T L I D N E I H H R G
UniRef90_Q1ISR4             I E R V R A L T P E Q L T Q V M F G L M Q M P A V Q F L G L A V K H S V H H R G
UniRef90_UPI0003607E23      D Y C I D G L K K S E A D L M K T H E A F W G A F T H A A H H R A
UniRef90_Q1IHV3             Q R A I T A L R N T T D A H L E T N W K F M A R G H V I T S V I N H L A H H R G
UniRef90_X5K2D3             E N T D E D F W L Q T Y T L K A G D H V I A T L P R I G A L R N H L I H H R G
UniRef90_I6Z6Y3             S G L Y S G I E K T L L R E D D L F G E L W K R G K S L S V I M A H H I H H L G
UniRef90_UPI00029A74B2      D L F D Q V N A S G L L A D E Q F L K P W S L L S F V L I N H L A H H R A
UniRef90_I3YT25             E E D L K P N W S I Q M N G Q K I M E W S K Y G A I R H G L N Q I T H H R A
UniRef90_K2Q4I2             D I I N E N F A K I K P E Q I K L F G Q Y D T I T S S I M Y F I D N E I H H R A
UniRef90_S2XCR1             M A F K E A I R S Q W T E E H D M Y G E M W T N A T T L N V I V K H Q I H H R G
UniRef90_UPI000255B335      K E A I S V L K Q I D S N R L D Y F G L D R N K R Q I C L L L A D H I T H H R A
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UniRef90_H8H0A8         Q G Y V Y L R A L G T E P P
UniRef90_UPI0004729FB1  Q T T V Y I R L A K G T P P Q E
UniRef90_W8YJY8         Q M T V L M R Q A G L R V P D V Y
UniRef90_E4RWW1         Q A V C Y L R L N G I T P
UniRef90_Q01PW1         Q A E V Y L R V K G I K P P T
UniRef90_Q1IP87         Q L S V Y L R L L E I P V P
UniRef90_Q67SI0         Q G Y T Y L R I L G I Q P P A F Y I R
UniRef90_C6XSE7         Q M T V I M R V L G L L V P G L Y K E E W
UniRef90_L8JPN9         Q G Y V Y L R A L G I E P P Y F W E R
UniRef90_S3XCB7         Q L S V Y L R L L D V A I P G M Y
UniRef90_W4B7K0         Q M T V L M R Q A G L R V P D T W V E
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UniRef90_UPI00036CB57B  Q C V V Y L R L K G I P     P E S Y
UniRef90_UPI0004258697  S A I A Y L R F K G I A P P E
UniRef90_D2R171         Q L G V Y L R L L G A K V P S S Y
UniRef90_UPI00041C5C3A  Q M L V Y M R L N Q L V P P
UniRef90_E6X6L0         Q L I A Y A R S N N V T P P
UniRef90_W4T3M2         Q L G V Y Y R L N N I P L P G S Y
UniRef90_UPI0003B313B5  Q L S V Y L R L L D V P V P S I Y
UniRef90_Q025A5         Q L M V A Q R L I G V V P
UniRef90_A3ZLS2         T V R V Y L R M N D I P V P G V Y
UniRef90_C6VW51         Q L T V Y M R L N D I A V P S I Y
UniRef90_U5C334         Q T T L Y L R L A G V V P P
UniRef90_W0RQF1         Q L A V Y A R L A G V V P P A S
UniRef90_H3SA77         Q L F V Y A R M L G L P F P
UniRef90_UPI00028989D8  Q V G L Y L R L N N I S V P A S Y V S S
UniRef90_UPI00036BFC9E  Q L T I L M R Q A G L V A P G I Y
UniRef90_A3I1Q1         Q G Y V Y L R A L G I E P P F F W E R D
UniRef90_I3ZK40         Q L T V Y L R L L D V K V P G I F
UniRef90_Q026A3         Y I S V Y M R L K G V V P P T S
UniRef90_UPI0003601192  Q A A V Y L R L K D I T P P K
UniRef90_W2UR81         Q M L V Y M R L N G L K P P
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UniRef90_UPI00045E7AD1  S A I A Y L R A N G A Q P P
UniRef90_UPI00037EF2BE  N M I V Y L R L S G V E P P
UniRef90_G0J0K6         A A I A Y I R A Q G I D P P G
UniRef90_S3FEJ1         Q M T V L L R Q A G Q H V P G
UniRef90_Q01WE7         Q L S V Y L R P M G G K V P A I Y G E S Y
UniRef90_UPI000428A349  Q G Y V Y L R A L G V E P P A F W
UniRef90_UPI000479A234  Q M T V L M R Q A G L R V P D V Y
UniRef90_A3XNJ7         Q G Y V Y L R S L G I E P P F F W E R
UniRef90_L0G4G7         Q G Y V Y L R S L G I E P P F F W E R
UniRef90_X2GLI8         Q M T V L L R Q A G L P V P G
UniRef90_UPI000248FCC7  Q M G V Y L R L N N I S V P A S Y V S S
UniRef90_Q1IVL4         E L I V Y L R L L D V P V P G L Y
UniRef90_UPI0003F6F501  Q L G V Y Y R L L D I P V P G S Y
UniRef90_G4H9A6         Q L T I L M R Q A G L A A P G V Y
UniRef90_UPI000344C966  Q G Y V Y L R A L N I E P P F F W E R
UniRef90_C1ACX5         Q G Y V Y L R A L G I E P P P F W
UniRef90_UPI0004786BEC  Q T T I Y L R M K G V K P P
UniRef90_G8T7I1         Q S Y V Y L R S L G I E P P A F W
UniRef90_U2HFN5         Q L S L Y L R L L D I P V P G I Y
UniRef90_W0REA9         N I V T Y M R M K G M V P P S S
UniRef90_R9CMW5         Q L S L Y L R L L D I P V P G I Y
UniRef90_UPI0004777AA3  Q G Y V Y L R A L G I E P P
UniRef90_J3CN88         Q L G V Y Y R L N D I P L P G S Y
UniRef90_R7ZY42         Q L V V Y L R M N A I K P P
UniRef90_UPI000463D307  Q I M A I A S R N S L E L D K S
UniRef90_G2RMV9         Q L L Q Y L R T T G V D R P K V W
UniRef90_W7ZZW3         Q M T V L L R Q A G L A V P G V Y
UniRef90_UPI00047B7E26  Q L I A Y A R S N G V V P P
UniRef90_UPI00040E00CE  Q G Y V Y L R A L G I E P P F F W E R
UniRef90_UPI000429EEA4  Q C T I Y I R T Q G I K P P Q E
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UniRef90_UPI000470A321  Q M L V Y M R L N G L K P P
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UniRef90_UPI0003B53ABC  Q G Y V Y L R A L G I E P P
UniRef90_UPI0003FFB5C8  Q M T V L L R Q A G L R V P G
UniRef90_Q26GY9         Q L I V Y L N M C Q I D L P
UniRef90_UPI00035F4694  Q G Y V Y L R A L G I Q P P
UniRef90_I2GSP3         Q L I V Y L R L K G I T P P K
UniRef90_Q1IN78         Q L V E Y L R M N G I V P P A S
UniRef90_R9GP19         Q M T V I M R M L G L P V P G I Y K E E W
UniRef90_UPI00042700A4  Q M T V L M R Q A G L H V P S I Y K E G W
UniRef90_H5SAS6         H L C V Y L R L L D V P V P G L Y
UniRef90_J1FEK9         H I Y T Y L G I L G I P T P P I F
UniRef90_G0IXE3         Q G Y V Y L R A L G L E P P Y F W E
UniRef90_Q1ISR4         Q L S T Y L R A M G G A V P G I Y
UniRef90_UPI0003607E23  Q L E V F L R L K G Q Q P P E
UniRef90_Q1IHV3         Q L T V Y L R L T S T P V P A I Y
UniRef90_X5K2D3         Q L S L Y L R M L D I P V P G L Y
UniRef90_I6Z6Y3         Q L T V V M R F A G L K V P G V Y K E E W
UniRef90_UPI00029A74B2  H L C V Y L R L N N V P V P G M Y
UniRef90_I3YT25         Q L G V Y Y R L D I E V P G S Y
UniRef90_K2Q4I2         Q G Y V Y L R S L N I E P P
UniRef90_S2XCR1         Q M T M L M R L A G L P M I G V Y R E E W
UniRef90_UPI000255B335  Q M I V Y L R L N G I T P P
UniRef90_U1X8W9         Q L S I Y L Q M N G I E P P Q I F
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                          1        10           20           30           40
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UniRef90_F8FJH9                                        S I P K E Y L D W S P D S D A M S M K E M I
UniRef90_G8TCP7                      N Y T L Q V A N A M P D K E Y H Y K P A G A G W D F G E L L
UniRef90_UPI00036916A2         N H W I G H R A L T R K V I D K F P E N D F E F S I G G M R P F A K L V
UniRef90_UPI00041758F2         Y W R N A R A R T V R L E A L E P G D L A W A P A P G A F T F G D L F
UniRef90_W0RCL8                      F A K N L T   A A A E A M P A D K Y G F K P T P A Q M S F G D V V
UniRef90_R9GVC3               E F E H E V E S S R K L L Q A I P E K D L G Y K P S A T S W T M G E L A
UniRef90_I8UBE2            F I Q E W N R E A S L T Q A V L D R L T D E S L T Q R V D H E G R T L G E I A
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UniRef90_UPI00046E9A78               H R S L T R R A I E I P E K E F Y E F S I G G M R P F A Q L C
UniRef90_W4T8H5                       H R N L T R R V I E A F P E K D L F E F S L G G M R P F A K M A
UniRef90_V6M8E8             F A A E W E Q E S A I T V K L L E A L T D E A L N Q R V A E G H W T L G E L A
UniRef90_E8UA40                       H R H L T R R V I E A F P E Q L F T F T A A P P M R T F G E L A
UniRef90_I3Z2K7                 W E N G K Q F T L E V V D K M P D D L Q N Y K P H E T A M S F N E Q I
UniRef90_UPI00036D5E33                       L A E A M P A D K Y D F A P F K G V R T F G G Q M
UniRef90_K1M0D2            F A A K W E N S K Q F T L E V V D K M P D D L M N Y K P H E S A M S F A E Q I
UniRef90_UPI00047A1F32                                               Y R T L G H L A
UniRef90_A0A016QMK2              F R M H R A A L I A C Y E L L P D E Q G T F A A W E G G M S L I G I A
UniRef90_UPI000255B6FA         K G M L Y R V D Q V E Q L A S A F E E E Q Y D W K P A E G I R S V R E S I
UniRef90_F4KX66            F V R D W Q R A K A Y T K E Y L D A M P K D K Y N Y R A H D S I R T F G Q Q M
UniRef90_UPI00047CBC7B            E L D Q E Y K T T K K F I E N F P E G K N D F R P H E K S F K M M P L A
UniRef90_UPI0003B30DDA  L F L E T L E R E A P A T R K T L E R V P E G A N D W A P H E K S M K L G Y L A
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UniRef90_J7ZZM3                       R R R S I K L W E S L P D N W I T W R P D K E A L S F G E M I
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UniRef90_L5MP13                F E E V R R R S I K V W R A I P D D R L N W K P D D K A F T C A Q M I
UniRef90_L7WGJ9              R L E T S R N Y L V L V A R S M P E E H Y S F K A T P A S M S F E E H L
UniRef90_S2E1Q1            F L N H W Q G H R L L T R K V I E T F P E K E L F E F S I G G M R T F A Q M V
UniRef90_E8WZQ5               K S W Q G H R R L T R K T I E A F P E E K L F E F S L G G M R T Y G H M V
UniRef90_W2UL37                            I I P V E Y L N W R P D K N A F S F I E I I
UniRef90_G8NXT2                   Y Y A G V I L K S A T E M P D D A Y P F K P E P D I R T F A R V V
UniRef90_A3VJX2                   Y A N R V L F G A L G E L D S D A F T A P R P G F F G S L A A T M
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UniRef90_G0LBR3                       H R T L T R K V I E A F P E K D F F E Y S I G G M R P F S K M V
UniRef90_A3HVH9                     K Y T L D V L A K M P D S G M D Y K T D P E A M S F K E Q I
UniRef90_UPI0003B516CD       W R G H R A V T R R T I E R F P D E H L S F T P A P P L R P F G E M M
UniRef90_B5JGI3                   F S T G R L I E L A N A F S E E G Y D W Q P A E G I R S V K D A V
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UniRef90_F0SRA2                       T R R V L E R L P D D K V N W K A H P R S N S I G W V A
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UniRef90_UPI00047EDDE2               T R R M F E R L P V D K L D F T P H A K S W P L G K L A
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UniRef90_A0A023BNM2                  T K N L L G I L P E D R L H Y K P H E K A M P L G Q L A
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UniRef90_G2PSH3                     H R G L T R R V I E A F P E E F F N Y S I G G M R P F S E M V
UniRef90_UPI00047E5CBF              T L D V L A K M P D S G M D Y K T D P G A M S F K E Q I
UniRef90_W4TFI0              E F L H E A E N T R K I L K A I P D S A L D W K P S E K N W T T G Q L A
UniRef90_UPI00041F82A7       N H W Q G H R A L T R R I I E A F P E K D F E F S I G G M R P F A K L V
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UniRef90_B1HXV6                F E E V R R R S I K L W T S I P Q E K L L W K P D N E A M S C I E M V
UniRef90_UPI0002F460D0                   N A I P E D K L N W K P D E A M T C I E M V
UniRef90_A6EJU5              W E A E S E G T I K I F T A L T D E L L A N T I H E H V R P L G R L A
UniRef90_UPI00040945EA     T Q E F E Q E V K S T R N L L Q A V P E K D L D F K P S H I S W S M G E L A
UniRef90_UPI00047D6522              T R R T L E R V P E N L A D Y R P H E K S M P M G R L A
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UniRef90_G8R1A5                       H R S L T R R I E A F P E K D F F E F S I G G M R P F A Q L T
UniRef90_UPI00047BEBD2               L A K V T P A E K L S W R P A P G V R S I G E V L
UniRef90_W0RR57                     V T A F L V E R I P P E L W E A V P G A P R R T V R G V A
UniRef90_F4C1K7               W L G H R N L T R R V I E A F P E K E L F G F S I G G M R P F S Q L A
UniRef90_UPI00036F733A              Q L T L I T A N Q M P A E S Y D F K Y T A E A M S F A Q G Q W
UniRef90_UPI00047C6885              M S L A K A M P A E K Y S F A P Y E G V R N F G Q M V
UniRef90_W6TP77             W K Y E S E G T A K V F S V V T S E T S K E K I H E N V R S L Q R L A
UniRef90_E4RRT4                       R R L T R R V I E A F P E K D F S F S L G G M R T F G D M I
UniRef90_T0NR48             T T E F E Q E V N N T R K L L Q A V P E K D I H Y K P A D I S W T M G E L A
UniRef90_S7VGW4              K H W Q G H R G L T R R I I E A F P E E Q L F H F T L G E M R P F G E M A
UniRef90_Q1IMY9               E W T H V S R Q L I A L A E A I P A D K Y A W R P A P G V R S T G E V I
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UniRef90_UPI00036819F0           Y W Q G H R D L T R R I E A F P E E G F R T H H A P D M R P F Q A E L
UniRef90_G0L1Y7                       V I A L A E A F S E E Q Y A W R P T E G V N S V A E A L
UniRef90_F0S9Y3              K N W Q G H R N L T R K V I E L F P E K E L F E F S I G G M R P F S E M V
UniRef90_L5N1Z8                           K S I P E E A Y N W R P D I N A M S C L E M I
UniRef90_UPI000379D699     F A R T L Q G H R A A L M D L Y A D L P D E Q A Q F A A W E G G M S F V G L A
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UniRef90_UPI00047B4E03             L A A T L P A D K L T W R P S A D T R S F A E V F
UniRef90_B7IMI6                     R R R S E K L W N S L P D N F L N W R P D N E A I S F G E M I
UniRef90_T0LGH9           M D Y K E L L S V R E R L L R F L K T V P F K L T A E S N L G Y S S A R N M L
UniRef90_V6M7Q6                           L V R K I S P Q D W E F K P R E N M R T I R E L V
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                                    50           60           70           80
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UniRef90_UPI00036916A2   T E L L A I G A P G I K A I V E R S A S T F N E E A A T F T T K A D Y L A A A T
UniRef90_UPI00041758F2   R H L A G E R F M Y A E N V Q   G R P S Y P G H G A E L S D G L R A Y L D R C H
UniRef90_W0RCL8          V H L I Q G N D   Y L C G A I S G T P A P S K V A A T D A K D L K E T F A F C D
UniRef90_R9GVC3          Q H I A T I Y Y V G T Y T Q D V Y D M A T D E S G D T N D I K E S L F E S N
UniRef90_I8UBE2          W H F T T N I P E Y L Q H F V R M S A D Y L G K V P A S A K E I A H V F T E A S
UniRef90_UPI000371C42D   Q H I A E A N Y F F F S G F L S G A P D D A K K A L K S K D E L V Q A L K D S F
UniRef90_UPI00046E9A78   M E L I D I A G A G V R G M A T G D W S G P D M P P A T K A G L L A L W D A D T
UniRef90_W4T8H5          T E L I S I G G P A L K G I L I E N N M K A Y S E E P T T K E E I L K K W D E E T
UniRef90_V6M8E8          W H L V Q S I N Y M S S M   G L S F P A Q P T S A A A I A A E Y R A I S R
UniRef90_E8UA40          W E C Y G V A A Y T L S G L V T D E W P A P G P S P Q D K R A L L D A L T R L D
UniRef90_I3Z2K7          T H L S S A I A G I S K G F L S G E   D P A F D L T S N K E E L K D Y G K A T F
UniRef90_UPI00036D5E33   T H I A S V   M Y S I S G T V L G E K P P A D I L K G K D A I I K Y L K E S H
UniRef90_K1M0D2          I H L A G I S Q R F L N G A   A P S F D I G A K   P S N K A E M K A F V T A C F
UniRef90_UPI00047A1F32   W H I A C S G M M V A A G V K F E H P D E R G G I P S S A Q A I A D A Y R K A V
UniRef90_A0A016QMK2      D H L A G S S Q R L L G M L G E E A P A P S A D L P S A R S R L Q E S T E N A L
UniRef90_UPI000255B6FA   L H V A A A N   Y F L A T K L G D T D F M T M E V N G K E N V L A A L K S N
UniRef90_F4KX66          L H L A A N R I W M G K N L E   Q I P   S I Q S A D S V A H Y V L T S Y
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UniRef90_UPI0003B30DDA   S L V A W M P A W V E R M I T H D E L D F A D Q E K R F K S E L M G L L E E S M
UniRef90_E4RSV8          R H I A A I R Y M F A E T I   L G N   S C T Y N G C G K E L A D G Y H E E A
UniRef90_E8X7J8          K H V A E V I Y S V M S G L K P D D M D S I R D L   K S K D E I I S A L S R S F
UniRef90_J7ZZM3          R H V W S A S F H Y H M S V K T E T P T P Y D Q E P K K E I L S E L Y F E D F
UniRef90_A8ULV4          M E L L A I G V P G L R E I V E G K R E V F N E N L N K K E T F L K L W D E T T
UniRef90_L5MP13          R H V I E G E F L Y H Q I L Q R G S A A L S A L P N P Y E T D L A Q P Y R E Q F
UniRef90_L7WGJ9          M H I T W A M D W H S Q S L M D G E L Q V D Q K S K E E M I A K I N E T F D T T
UniRef90_S2E1Q1          S E L L A I A A P G A K G L A T D I W E E L D E S G N S K E R L L E L W D K S T
UniRef90_E8WZQ5          L E M I G M T G P V V E G V L S G M W T T F G K V A T K K E V L A L W D E Q T M
UniRef90_W2UL37          R H V L E G E Y L Y H K I I E E G V L G V Y K S P V E N E L D F A Q K Y R E S F
UniRef90_G8NXT2          N H V T E A Q L R S C G A V N H T A F K V P A E   T A D K A T I L E A L K A S F
UniRef90_A3VJX2          N H I Y E V D L Y Y L D A E E G G L V Y D R D P V E E V A A L G Q L Q A E A D
UniRef90_UPI00047241C8   K H I L Q G M N S I F L N D Q P P   I A P P S D F E K T K S E I K E F V N A S F
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UniRef90_C1AD22          R H L A A I R W M Y A E T V   S G R P S R Y E K V L A D G L P A V M
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UniRef90_G0LBR3          D E L L S I A G P G M K E I V S G K A A A F T E A V N S K A K V L A L W D E A T
UniRef90_A3HVH9          H H I G N A I V G I S Q G F L G G G   D P G F T I N S K A E L A E Y V G K C M
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UniRef90_J3C4Z3          D E L L A I A A P A L K G I V N R D S K P Y T E G T E K L I F K A Q Y L E K W D
UniRef90_F0RP42          L E I L G M M D Y Q L E W L R S G K P H W P E Q K L P S R A E I L Q R W D K Q T
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UniRef90_U2H8R4          K E M L S I A V P G L E S I V S N K I E K Y D H P L A T K E E L L A R W D A D T
UniRef90_UPI00047EDDE2   I H L L D P G L W G T V T C T T T E L A F P A K V D P K T I D I H D E R V A S D
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UniRef90_W2UQ37          Q E L L A I A G P G I E G L V T D K W G D F D L N S K K D L L K A W D T L T
UniRef90_G2PSH3          K E L F A I A V P G L T E I K I G D F D E N R N Y G S T K A Q F L E K W D Q D T
UniRef90_UPI00047E5CBF   H H I G S A I I G I S Q G F L K G S S D T P D V K T A T R A Q L A E F V G K A Y
UniRef90_W4TFI0          S H I A E V N W Y E P T F N Q D T F D   M G L Y V Y D K G D F E E N V A K A Q
UniRef90_UPI00041F82A7   D E F L A M G A P A M K G I V N K D T A P F A E E S E G L I F K A Q Y L E E A T
UniRef90_W0F5M1          V E L L A I G G P A L K N I V S R N T N S Y N E I V N T K K E L L E K W D E E T
UniRef90_M7NJB4          F H I I D V E H S W I R G I Q G K E D I V F D F A D C D T L V K V R S L S R C R
UniRef90_B1HXV6          R H V L E S E H Y Y H L A I K K G S L T D Y D S P F E D S T V E A E L L T A A F
UniRef90_UPI0002F460D0   R H V E A E H Y Y C L A I R N E N F D S P F D S I K D E L D F A E P Y H R Q F
UniRef90_A6EJU5          W H L T Q T I T   E M G K R A G L   F A D D E L E D K T D I L E S Y K Q L L
UniRef90_UPI00040945EA   Q H I A T I Y Y W Y V G T L T Q D V Y D M A A D E L K D T N D I K A L K T L T E
UniRef90_UPI00047D6522   M H C A T I P I F G L Y I I E D D S M D L A A R N R R S T A D C L A Q L E D A A
UniRef90_D7W3A3          S H I A E V Y N W Y E P T F N Q D I F D   M G A Y R Y D K G D A Q K A L E N S D
UniRef90_G8R1A5          M E L L A I G A P G I R E I A T G K L D E H F D H K N S K A N I L K K W D E D T
UniRef90_UPI00047BEBD2   L H V A S D N Y F I T T G I K A G D F K L T A Y E T R T R E Q I V A E L E Q S F
UniRef90_W0RR57          A H L H N A R A Q W L K T L E H G I T A P A D R G R V S R A D L L A A L R R S G
UniRef90_F4C1K7          M E L L S I G G P A M E S I V K D E P L P Y N E   E A L R L F T
UniRef90_UPI00036F733A   R H C C E   F T T T L L A E R L G I D N P Y R E L S K T K Q E V V D E V A L M
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UniRef90_E4RRT4          K E L L A V E G P G I E E I V T G V R Q K F D E H A S Y K H E L L D K W D A E T
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UniRef90_S7VGW4          Q E L I G I A G P G I K G L V T R E W E P L N E E E S K E K L L A L W D Q A T
UniRef90_Q1IMY9          M H I A G A   N F Y F L S L M G Q K L   P P D K V A P E K A K V V D W L K R S L
UniRef90_W6U5R8          S E I T S M S G P G K G I A T D E W T T I N E E V N S K E A L L K E W D R I T
UniRef90_C1CYK8          D H L S G S C Q R L L S M V K P G A V A S S A T L   Q E A R G R E T T G
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UniRef90_G0L1Y7          L H V A G   G N Y Y L A S K M G   F A P P E V I T G K E N I I A A L K K S N
UniRef90_F0S9Y3          K E F L A I A V P G L K E F V S D T T K P F   E E D H Q L K T K A Q L L Q A W D
UniRef90_L5N1Z8          R H V L E S E H Y Y H L A I K N S V P D F P L I S P E D E V D F S Q S L R D E F
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UniRef90_G8TCP7         D T L L K T I K N Q P G N E Q T G N G           V H A T L D H I T H H R G
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UniRef90_A0A016QMK2     L A L R A L N E E D L G R H V Q A F G R E M P V A A L L D F L I Q H E A H H K G
UniRef90_UPI000255B6FA  E F I L S K I T E E K G S E V D F G F A K F N R L A G L L I I L E H A G E H K G
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UniRef90_UPI0003B30DDA  Q R A R G A L E S T T D E H L Q L I T D E P R Y I N I Q Q G M L M H W A H H R G
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UniRef90_J7ZZM3         I E Y V Q S L S V E E L E S I M I D R S D V G Y Q R Y L G D M L Y H D A V H A G
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UniRef90_G0LBR3         E E I N A N W A K D K F D S I K L F G Q Y E T I Q S S I L Y F V D N E I H H R G
UniRef90_A3HVH9         S G L S P E Q M A E K       K D V F G N N V S G R Q V M A L L M D H S T H H R G
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UniRef90_W2UQ37         D K I N N Y W S K I Q K E I L A F G L Y E G T V Q S T I L Y F I D N E I H H R A
UniRef90_G2PSH3         E E I N K L W S Q I D L E R V K L F G Q Y E T V Q S S I F Y F I D N E I H H R G
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UniRef90_UPI00041F82A7  A E I N K Y W N Q L R I E D F N F G Q Y N F P V I Q N I F Y L I D N E I H H R G
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UniRef90_M7NJB4         N E V V E   F L K V K G E R V P W D D Q E Y T L D E V L H H L I A H E I H H I G
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UniRef90_UPI00047D6522  A K C R K A L T S A S D E H L K W G D Q V I S N S S R V Q T F R Q H M V H H H V A
UniRef90_D7W3A3         E N T Y F N E W K M E M D G N V L F P P M P K V Q V I R A F L Y N H L Y H H R G
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UniRef90_UPI00036F733A  R Q T I T T I P D A K L F E Q E F V G G K I P H W R Y L Y A M E N H I I H H R G
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UniRef90_W6TP77         S R A V H L K W T D S S E K V P M Y G E A W E K G K I L R V L A S H Q S H H R G
UniRef90_E4RRT4         A R I D K D L T P S E K L E R N V L F G Q Y E S V I D A I L Y F V E N E I H H R G
UniRef90_T0NR48         E E K L R D H W T M K G E R I L L G P M E R G I V A R   G F L F N H I Y H H R G
UniRef90_S7VGW4         I E I D E W F E D F Q D T V K A F G Q Y E N K V Y C S L M Y F I D N E V H H R G
UniRef90_Q1IMY9         D A T A A D L K K T A       K F L D H T V T H D D I Y L R M V I H N N E H M G
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UniRef90_C1CYK8         E Q I A R A I E D L E R R V V A F G G R E M P A A A L L D A M V S H E A H H K G
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UniRef90_F0S9Y3         E A T V S D L W S E K F R E M N F G Q Y N F P V I D N I Q Y F I D N E I H H R G
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UniRef90_B7IMI6         I E Y V Q S I N I A E L D S T L I D R S D V G Y Q R Y L G D M L Y H D A V H A G
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UniRef90_W0RCL8       Q V A I Y M R L N G L L P P T A K K Q
UniRef90_R9GVC3       E M I V Y L R A T G N K V P G M Y
UniRef90_I8UBE2       Q V T V L M R Q A G V V P
UniRef90_UPI000371C42D Q M V E Y L R M N G I V P P A S Q K Q
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UniRef90_V6M8E8       Q M T V L M R Q A G M E I P S I F
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UniRef90_F4KX66       Q T T I Y I R L L G I K P P
UniRef90_UPI00047CBC7B Q L G V Y Y R L N N I P L P G S Y
UniRef90_UPI0003B30DDA Q L S V Y L R L K G S A V P S L Y
UniRef90_E4RSV8       Q L Y I Y L N L L D V K T P
UniRef90_E8X7J8       Q L S E Y L R M N G I V P P Q S R K
UniRef90_J7ZZM3       Q F L Q Y L R M V G L E R P M I W
UniRef90_A8ULV4       Q G Y V Y L R S L G I E P P
UniRef90_L5MP13       Q L L D Y M R T M G V K R P N I W
UniRef90_L7WGJ9       Q M L V Y L R L K G M K P P
UniRef90_S2E1Q1       Q G Y V Y L R A L N I E P P A F W E R
UniRef90_E8WZQ5       E G Y V Y L R V L G I E P P
UniRef90_W2UL37       Q V L S Y L R T L G V D R P L V W
UniRef90_G8NXT2       T L A L Y M R L K G L T P P S S E K
UniRef90_A3VJX2       Q A H V Q L S H A G I E P P Q
UniRef90_UPI00047241C8 Q T L V Y L R L N R I T P P A Q
UniRef90_B5V244       Q F L Q Y L R M V G L E R P L I W
UniRef90_C1AD22       Q L Y L T L G L Q G I V T P P I Y
UniRef90_L0A3V2       Q G F V Y L R L L G I E P P
UniRef90_G0LBR3       Q G Y V Y L R T L G I E P P M F W
UniRef90_A3HVH9       T A I A Y L R V Q G V E P P
UniRef90_UPI0003B516CD Q G F I Y L R L L G V E P P
UniRef90_B5JGI3       Q L I A Y A R S S G V V P P
UniRef90_J3C4Z3       Q G Y V Y L R A L N I E P P F F W E R
UniRef90_F0RP42       Q G F V Y L R E L G V T P P G F Y E R G
UniRef90_UPI0004253C67 Q A Y V Y L R A L G V E P P A F W E R
UniRef90_E8WW24       E L S T Y L R L K N I A P P T S E K
UniRef90_F0SRA2       H M C V Y Y R L N D I P V P G M Y
UniRef90_UPI0003700561 Q M T V L M R Q A G L R V P G V Y R E E W
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UniRef90_U2H8R4       Q G Y V Y L R A L G I E P P F F W E R
UniRef90_UPI00047EDDE2 Q M T M Y Y R L L E V P V P G
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UniRef90_W2UQ37       Q A Y V Y L R S L G I E P P M F W D K
UniRef90_G2PSH3       Q G Y V Y L R A L G V E P P
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UniRef90_W4TFI0       E L V V Y L R S T G N T V P G L Y
UniRef90_UPI00041F82A7 Q G Y V Y L R A L N I E P P F F W E R
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UniRef90_A6EJU5       Q M T V I M R I L G L P V P G L Y K E E W
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UniRef90_UPI00047D6522 Q L G V Y L R L N H L A V P
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UniRef90_F4C1K7       Q G Y V Y L R A L G I E P P M F W E R D
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UniRef90_S7VGW4       Q G Y V Y L R A L G I V P P N F W E
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UniRef90_V6M7Q6       Q L F T Y L K T L G Y E I
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UniRef90_UPI000429ED18    Y I N H R T N L K L L N S I T E D S L E F T T S K R G G T V G H Q L
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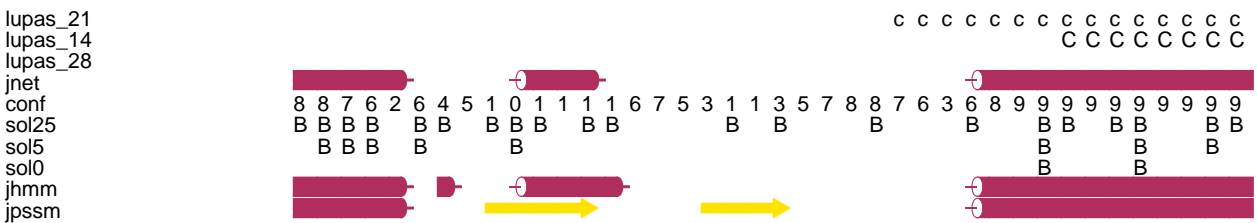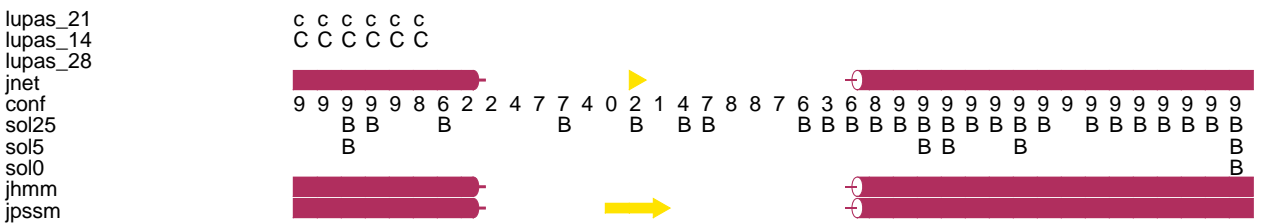
Multiple sequence alignment (positions 1–40)

Sequence	Alignment
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UniRef90_U5LGA4	R R R S I K V W T T I P D E K L F W K P D N E A L S C L E M I
UniRef90_UPI0004656B28	I K L L N A I T D E Q Y S N K E V P P Y Y S I G N N M
UniRef90_UPI0003611B28	
UniRef90_UPI0003666451	H R R L S R K V I E A F P E D Q F Y T F S I G G M R T Y A E L T
UniRef90_C2M843	R A L T R K V I E A F P E K D L F E F S I A N L R P F S E M V
UniRef90_U6B9U2	S I P E D K L N W K P D E N A M T C F E M I
UniRef90_U6SPI4	
UniRef90_D6U226	G W D S H Q Q A L M H A V T P L M P E Q L A W R P A P N Q S S V N E L I
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UniRef90_X1EZX5	S L R D I Y
UniRef90_A2U0U6	I K L L Q T V S N E E Y N S I P P Y N S T I G C H I
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UniRef90_J9HGD1	I D K M V E N L T D D E W I K K P L P N F N N I A S V V
UniRef90_M5TDH5	L T R S V L E I T P D A L M D Y Q A D E S L H S V R W N V
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UniRef90_L8JY85	M D S K E I I L L R R R S I K L W G A I P E E Y L G W R P D K N A F S I I E M V
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UniRef90_UPI0003666451   M E M I G L A A P G I R G I A F G D W T F S T P A P A T K A E V L N L W D L V T
UniRef90_C2M843          E E M I T N   Y I F R E T L H E K H T P F Y G E F P T T K E G V L A L W D K V T
UniRef90_U6B9U2          R H V L D S E Y Y Y Y L A L Q N G S L S S Y E S P V Q A E L D F A A V Y R E E F
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sol0                                                                        B             B
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sol0                                                                                 B
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UniRef90_W9BDN9          Q L S V W A R E L N K K P
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