

QUERY UniRef90_UPI00047DAA93 UniRef90_W4QW38 UniRef90_Q7N142 UniRef90_UPI0003B56C8A UniRef90_UPI000478ADA2 UniRef90_J3TZ17 UniRef90_T0N2Q3 UniRef90_R7AUJ5 UniRef90_T3QZ29 UniRef90_G4HAZ4 UniRef90_R6RJD7 UniRef90_UPI00031223E6 UniRef90_A0Q058 UniRef90_M8DLJ0 UniRef90_W4CLM9 UniRef90_I0JW34 UniRef90_D1P440 UniRef90_V6M4K4 UniRef90_R5YD72 UniRef90_A5N7E5 UniRef90_K6DET7 UniRef90_F8AAP7 UniRef90_C7M765 UniRef90_UPI00041A96A1 UniRef90_UPI00047D7000 UniRef90_V9G5H7 UniRef90_A0A024PDC9 UniRef90_R5K8W2 UniRef90_R5A706 UniRef90_F5LD18 UniRef90_R6G6M9 UniRef90_V9H2L5 UniRef90_G9QLT4 UniRef90_L0KBF2 UniRef90_UPI00035FC076 UniRef90_R6RNQ4 UniRef90_UPI00047C735F UniRef90_G2EDZ6 UniRef90_R6NN95 UniRef90_I1YUR4 UniRef90_R9GR21 UniRef90_UPI0003689B35 UniRef90_G1WCU7 UniRef90_V5CBH8 UniRef90_W7CFZ4 UniRef90_R9MAJ5 UniRef90_R6FLK5 UniRef90_S0JN01 UniRef90_D8FB14 UniRef90_R5XQV6 UniRef90_F8EAB3 UniRef90_Q65JY4 UniRef90_R7FRT5 UniRef90_UPI0002E6B4F6 UniRef90_F0SCX7 UniRef90_K6TVY4 UniRef90_UPI0003B38FF1 UniRef90_K9TA99 UniRef90_UPI00047AD5F7 UniRef90_UPI00047D755B UniRef90_R5CM28 UniRef90_P96613 UniRef90_W7CAC4 UniRef90_U2EEW7 UniRef90_R5V369 UniRef90_U3A6N6 UniRef90_R5RHS3 UniRef90_UPI000467E632 UniRef90_F6CIS4 UniRef90_UPI000360A698 UniRef90_G4KY03 UniRef90_E4TA46 UniRef90_C3WF82 UniRef90_H6L2F6 UniRef90_UPI0003F4F2CB UniRef90_D3E568 UniRef90_UPI00040C7227 UniRef90_UPI0003763F49 UniRef90_A0LNY5 UniRef90_A8ML44 UniRef90_H5SQX7 UniRef90_S2X735 UniRef90_L7W730 UniRef90_K1N0D1 UniRef90_R5CV33 UniRef90_J9D9V4 UniRef90_E3G9V4 UniRef90_I0QYX9 UniRef90_E6X5W3 UniRef90_X1KQ09 UniRef90_E8LFK2

1 10 20 30 40
R N L R D L L A P W V P D A P S R A V L E V T R G L Q T D S S R R V A A A G D L F F V V A V V Q G G
UniRef90_UPI00047DAA93 K T L N E L L A N P L I Q G D A D A D I N L T R E M T L D S S R R K L S A R A G G H L F F V V A V V Q G G
UniRef90_W4QW38 R N L R D L L A P L G I G D A P V R E I L T S G I T Q M D S S R R L V K P K G G D L F F V V A V V Q G G
UniRef90_Q7N142 Q N L L E F L H S L V P S G A N P E I L S S G I T Q M D S S R R K V Q K G G D L F F V V A V V Q G G
UniRef90_UPI0003B56C8A N L R T L L H S W V P C V K C I L S S G I T Q M D S S R R K V Q K G G D L F F V V A V V Q G G
UniRef90_UPI000478ADA2 L E N T L N Y N L S G G L D D V E I L N S V V Q Y D S S R R K V K S G G D L F F V V A V V Q G G
UniRef90_J3TZ17 L Q G L A Y E C V G G D T D R E I L N N Q V V Q Y D S S R R K V T T K G G T M F L C C C C I K G G
UniRef90_T0N2Q3 K S L T D L I L K T I T G T T S L E I L T N N L D Y D S S R R K V I K P G G G L F F V V A V V Q G G
UniRef90_R7AUJ5 K L Q S L L E S L S V H K G N P E I L S T S I E Y D S S R R K V S E N G D L F F V V A V V Q G G
UniRef90_T3QZ29 K L Q S L L E S L S V H K G N P E I L S T S I E Y D S S R R K V S E N G D L F F V V A V V Q G G
UniRef90_G4HAZ4 L K G L E Y E L L N G D D E L E I V S S I E Y D S S R R K V S E N G D L F F V V A V V Q G G
UniRef90_R6RJD7 L K G L E Y E L L N G D D E L E I V S S I E Y D S S R R K V S E N G D L F F V V A V V Q G G
UniRef90_UPI00031223E6 L S D L Q P L A I K G S I D W E I N N L V Y D S S R R K V V E G S D L F F V V A V V Q G G
UniRef90_A0Q058 R N L C E L L A P F G V S T T N I S E L R E M T L D S S R R K A A A G G L F F V V A V V Q G G
UniRef90_M8DLJ0 L A T S Q L Y G D D G D V E I T T L V Y D S S R R K V V E K T G G S D L F F V V A V V Q G G
UniRef90_W4CLM9 L S D L Q P L A I K G S I D W E I N N L V Y D S S R R K V V E G S D L F F V V A V V Q G G
UniRef90_I0JW34 R N L C E L L A P F G V S T T N I S E L R E M T L D S S R R K A A A G G L F F V V A V V Q G G
UniRef90_D1P440 K E L K Y E V L A G N E S V E I T T L V Y D S S R R K V V E K T G G S D L F F V V A V V Q G G
UniRef90_V6M4K4 R S L K Q I A A N D I N Q F A D V M I G E V I Q Y D S S R R K V K T A G N D L F F V V A V V Q G G
UniRef90_R5YD72 K R L E E I L K N L R P E R P E T P I A G L V T D S S R R K V K P G G Y A F V V A V V Q G G
UniRef90_A5N7E5 N L K T L L K N I T K T E D K V E I T S V T S D S S R R E V A N N G L F F V V A V V Q G G
UniRef90_K6DET7 L S S L L K S L V K G N L D V E I A G L E M D S S R R N V G K G S L F F V V A V V Q G G
UniRef90_F8AAP7 K T L T E L I L S K T I A G D D T V E I T T N M A D T D S S R R N V L P Q G G L F F V V A V V Q G G
UniRef90_C7M765 K L K E L L S F I D V N D D E R V E I G G L A Y D S S R R N V L P Q G G L F F V V A V V Q G G
UniRef90_UPI00041A96A1 K L A E L L S Q L L Q G S D E D T E V T E V E N D S S R R K V Q E G G Y L F F V V A V V Q G G
UniRef90_UPI00047D7000 K L S A L L S P L G I G F Q D C K T D G I A T D S S R R K A K P G G C A F V V A V V Q G G
UniRef90_V9G5H7 K L S A L L S P L G I G F Q D C K T D G I A T D S S R R K A K P G G C A F V V A V V Q G G
UniRef90_A0A024PDC9 K L S A L L S P L G I G F Q D C K T D G I A T D S S R R K A K P G G C A F V V A V V Q G G
UniRef90_R5K8W2 K L S A L L S P L G I G F Q D C K T D G I A T D S S R R K A K P G G C A F V V A V V Q G G
UniRef90_R5A706 K L S A L L S P L G I G F Q D C K T D G I A T D S S R R K A K P G G C A F V V A V V Q G G
UniRef90_F5LD18 K L N E L L K T T I I G S T E T E I N G V N D S S R R Q I A D G G H L F F M A M H G G
UniRef90_R6G6M9 K L N E L L K T T I I G S T E T E I N G V N D S S R R Q I A D G G H L F F M A M H G G
UniRef90_V9H2L5 K L N E L L K T T I I G S T E T E I N G V N D S S R R Q I A D G G H L F F M A M H G G
UniRef90_G9QLT4 N L K E L V E V L T V G N L D I D I T G I A Y D S S R K I R P G G E L F F V V A V V Q G G
UniRef90_L0KBF2 K V L K D I L L E K V V V G S T S V E V K E L I E F D S S R K I T K G G D L F F V V A V V Q G G
UniRef90_UPI00035FC076 K L A E L L Y K V V S G N V D V E I V K E L I E F D S S R K V T H G D V F V A V V Q G G
UniRef90_R6RNQ4 K K L Q D I L Y K V A T I G N T N I D I N N I V F D S S R R K V E S K N D V F V A V V Q G G
UniRef90_UPI00047C735F K K L Q D I L Y K V A T I G N T N I D I N N I V F D S S R R K V E S K N D V F V A V V Q G G
UniRef90_G2EDZ6 K L K D I L Y K V V G S T G V S I N N I V F D S S R R K V E S K N D V F V A V V Q G G
UniRef90_R6NN95 E L T Y T C L Q G G E M E K E I S S D I Y D S S R R K V E K D T V F V A V V Q G G
UniRef90_I1YUR4 K L N D L L K N T I V G N T D K D I K G I N D S S R R K I E Q G G H L F F V V A V V Q G G
UniRef90_R9GR21 K T L T E L L S G L I K G S D R I T V D K L C F D S S R R K V V P G G S D L F F V V A V V Q G G
UniRef90_UPI0003689B35 L L T S R I E G T A D V S I T T G M E I D S S R R K V K A G G D L F F V V A V V Q G G
UniRef90_G1WCU7 L R N I T P L Q V I G D A E M E I K G V N L D S S R R K I Q H G G H L F F V V A V V Q G G
UniRef90_V5CBH8 Q T L A E V L D A E L L G D D G Q I T E V M Q T T D T R Q V T P P G T L F F V V A V V Q G G
UniRef90_W7CFZ4 K M N A V L S K L A Y E G Q D I E I S D V S Y D S S R R A V R P G G L F F V V A V V Q G G
UniRef90_R9MAJ5 L K E L L E G I P V L S A E L E I N H L Q N D S S R R K V E K N D L F F V V A V V Q G G
UniRef90_R6FLK5 T Q E I A Q A V G S G N E S S K L T G V I F D S S R R K I K A G D L F F V V A V V Q G G
UniRef90_S0JN01 L K E L L E Y E V V V Q G S A D Q I E I S T L I E N D S S R R K V E N G S A F F V A V V Q G G
UniRef90_D8FB14 K L L E R N V L T G V V I G S A D L E I K S I E F D S S R R V A A G S L F F V A V V Q G G
UniRef90_R5XQV6 K L T K L L T P S Y A G Q E D P D I T S I E M D S S R R E V K A T G S L F F V A V V Q G G
UniRef90_F8EAB3 K L T Q L L Y E V V Q G D D I E V T S E L I E N D S R R K V T P E G S L F F V A V V Q G G
UniRef90_Q65JY4 L H T L L S S L P F Y S G N V S I E T S I E N D S R R K V K P E G S L F F V A V V Q G G
UniRef90_R7FRT5 L K D I L Y G V V V G S T E I E I S Q L Q F D S S R R K V S E E G T L F F V A V V Q G G
UniRef90_UPI0002E6B4F6 N L K S I L Y K V V K G S T D V S V N K I E F D S S R R K V S E E Q D D V F V A V V Q G G
UniRef90_F0SCX7 Q L R E I I D A F L I N S S D I S L T G I T T D T R L L S P G G E I F L A I K G G
UniRef90_K6TVY4 K L Q E L I D E E I K G E D D L T I E E H V Y Y N S R R K V I T P A G S L F F V A V V Q G G
UniRef90_UPI0003B38FF1 R T L R Q I A N M I T V K N E D V V V K E V V I D S S R R K I E A G S L F F V A V V Q G G
UniRef90_K9TA99 T L S E L I K N I T G S T D I E I Q E V D L D S S R R V A E A G H L F F V A V V Q G G
UniRef90_UPI00047AD5F7 K N I A E M V K G T L P Q Y E Q T V I H G A T D T R K I E A G H Q D L F F V A V V Q G G
UniRef90_UPI00047D755B L K D L L K G I I K G S A D I N I N K M Q Y D S S R N V E E N D I F F C I Q G G
UniRef90_R5CM28 L K E I G A K Q V C G P T D L D I R E V H F D S R R I G G Q G D L F F V A V V Q G G
UniRef90_P96613 Q L A E V L N A E L I G T N C E I H S V S T D T R K H I E A G G A L F F V A V V Q G G
UniRef90_W7CAC4 I K D L D F E C V Q G S T D I D I T T L V Y D S R R K V E N E G S V F F V A V V Q G G
UniRef90_U2EEW7 L S D V I K G L V V G D L D V E I K D V Q Y D S S R R K V S E E G T L F F V A V V Q G G
UniRef90_R5V369 L S D V I K G L V V G D L D V E I K D V Q Y D S S R R K V S E E G T L F F V A V V Q G G
UniRef90_U3A6N6 L S D V I K G L V V G D L D V E I K D V Q Y D S S R R K V S E E G T L F F V A V V Q G G
UniRef90_R5RHS3 L S D V I K G L V V G D L D V E I K D V Q Y D S S R R K V S E E G T L F F V A V V Q G G
UniRef90_UPI000467E632 L S D V I K G L V V G D L D V E I K D V Q Y D S S R R K V S E E G T L F F V A V V Q G G
UniRef90_F6CIS4 L S D V I K G L V V G D L D V E I K D V Q Y D S S R R K V S E E G T L F F V A V V Q G G
UniRef90_UPI000360A698 L K D L L A G V L H A D E N L D I S G V S Y D S S R R K A E A K S L F F V A V V Q G G
UniRef90_G4KY03 K L R E L L H N I T I G A L D V E I S S I V F D S S R R K A E A K S L F F V A V V Q G G
UniRef90_E4TA46 L R E L L H N I T I G A L D V E I S S I V F D S S R R K A E A K S L F F V A V V Q G G
UniRef90_C3WF82 L R E L L H N I T I G A L D V E I S S I V F D S S R R K A E A K S L F F V A V V Q G G
UniRef90_H6L2F6 T L K D L L A N I N Y N P A D L E L A G C C L D S R R Q A K Q G V L F A A L P G G
UniRef90_UPI0003F4F2CB K L K D I L Y K V I V I G S T D V E I T D L E I F D S S R R V K P G G D L F F V A V V Q G G
UniRef90_D3E568 K Q L S S V L A A V I I G S D T V E I T D I E T D S S R R V K P G G D L F F V A V V Q G G
UniRef90_UPI00040C7227 Q V L K D I L Y K V V S G S T A V E V T D I H F D S S R R K V S P N D L F F V A V V Q G G
UniRef90_UPI0003763F49 L A D Q L G A E V Q P S G A V E V T T G I H H D S R A V R P G G D L F F V A V V Q G G
UniRef90_A0LNY5 L R D V E I L Q T A G P L D V E P V T G I A Y D S S R R I Q A G N V F V A V V Q G G
UniRef90_A8ML44 K L K E L L S S I E D R D L E I Y G I S Y H S G R V E K G H L F F V A V V Q G G
UniRef90_H5SQX7 L K D L L A N I N Y N P A D L E L A G C C L D S R R Q A K Q G V L F A A L P G G
UniRef90_S2X735 K Q I A E W I C K I D S Q Y L D V E I K G V T D S S R R K I E K G G Q L F F V A V V Q G G
UniRef90_L7W730 L K D I L Y K I V I G A T D V A I N Q I Q F D S R A I S E K G G D A F V A V V Q G G
UniRef90_K1N0D1 N L H I L L R A I P I G D L D R A V S H L S Y D S S R R K T K Q G G D A F V A V V Q G G
UniRef90_R5CV33 K L K E L L K D I L A A S S D A E I N G I S Y D S S R R K T K Q G G D A F V A V V Q G G
UniRef90_J9D9V4 L A D L F E K L P V I G S M R S D V T G I E M D S S R R K V T P A G C L F F V A V V Q G G
UniRef90_E3G9V4 Q L A D V L Q G E L H G S D L A V D A V T T T D T R K V T A G C C L F F V A V V Q G G
UniRef90_I0QYX9 Q K L T E V L A A E L I G N D T A V I E A V T T D T R Q I T P A G C C L F F V A V V Q G G
UniRef90_E6X5W3 R A L K D I L F G V V S G S T S V M V N S I C A Y D S S R R V E T M G D V I F V A V V Q G G
UniRef90_X1KQ09 I A D L E I E R I K G E V N L E V E G L A Y D S S R R K V E S N F I F V A V V Q G G
UniRef90_E8LFK2 S E V L A A T K A V C A D F E F T G V A Y D S S R A V K P G E L F F V A V V Q G G

QUERY UniRef90_UPI00047DAA93 UniRef90_W4QW38 UniRef90_Q7N142 UniRef90_UPI0003B56C8A UniRef90_UPI000478ADA2 UniRef90_J3T217 UniRef90_T0N2Q3 UniRef90_R7AUJ5 UniRef90_T3QZ29 UniRef90_G4HAZ4 UniRef90_R6RJD7 UniRef90_UPI00031223E6 UniRef90_A0Q058 UniRef90_M8DLJ0 UniRef90_W4CML9 UniRef90_I0JW34 UniRef90_D1P440 UniRef90_V6M4K4 UniRef90_R5YD72 UniRef90_A5N7E5 UniRef90_K6DET7 UniRef90_F8AAP7 UniRef90_C7M765 UniRef90_UPI00041A96A1 UniRef90_UPI00047D7000 UniRef90_V9G5H7 UniRef90_A0A024PDC9 UniRef90_R5K8W2 UniRef90_R5A706 UniRef90_F5LD18 UniRef90_R6G6M9 UniRef90_V9H2L5 UniRef90_G9QLT4 UniRef90_L0KBF2 UniRef90_UPI00035FC076 UniRef90_R6RNQ4 UniRef90_UPI00047C735F UniRef90_G2EDZ6 UniRef90_R6NN95 UniRef90_I1YUR4 UniRef90_R9GR21 UniRef90_UPI0003689B35 UniRef90_G1WCU7 UniRef90_V5CBH8 UniRef90_W7CFZ4 UniRef90_R9MAJ5 UniRef90_R6FLK5 UniRef90_S0JN01 UniRef90_D8FB14 UniRef90_R5XQV6 UniRef90_F8EAB3 UniRef90_Q65JY4 UniRef90_R7FRT5 UniRef90_UPI0002E6B4F6 UniRef90_F0SCX7 UniRef90_K6TVY4 UniRef90_UPI0003B38FF1 UniRef90_K9TA99 UniRef90_UPI00047AD5F7 UniRef90_UPI00047D755B UniRef90_R5CM28 UniRef90_P96613 UniRef90_W7CAC4 UniRef90_U2EEW7 UniRef90_R5V369 UniRef90_U3A6N6 UniRef90_R5RHS3 UniRef90_UPI000467E632 UniRef90_F6CIS4 UniRef90_UPI000360A698 UniRef90_G4KY03 UniRef90_E4TA46 UniRef90_C3WF82 UniRef90_H6L2F6 UniRef90_UPI0003F4F2CB UniRef90_D3E568 UniRef90_UPI00040C7227 UniRef90_UPI0003763F49 UniRef90_A0LNY5 UniRef90_A8ML44 UniRef90_H5SQX7 UniRef90_S2X735 UniRef90_L7W730 UniRef90_K1N0D1 UniRef90_R5CV33 UniRef90_J9D9V4 UniRef90_E3G9V4 UniRef90_I0QYX9 UniRef90_E6X5W3 UniRef90_X1KQ09 UniRef90_E8LFK2

H Q A D G R R Y P Q A I A Q G V A A I T A E A K D E A T D G E I R E M H G V P
H I Y D G G H A F I V A D A I R N G A A A I I A D R K K V E I P D G E I R E M H G V P
Y E S D G H K F I E S A I Q N G A A V V I A G E A K E L Q E K F G S V P
H Q T D G R H Y I P Q A I A Q G V A A V I A E A Q G E V D N G T V Q I M H G V P
F T V D D G H Q Y I V S A A I Q N G A A A V M V E S P V D S D V P
Y T V D D G H R Y A Q A A V M N G A A A V L A E K T L P L D V P
H K I D A R R Y I P Q A I T Q G A I A V L S E T E S K D K E G E I H E L H G V P
F N V D D G H K F I N K A I D N G A K V I V V Q K S V E I E Y V E G I T
Y N V D D G H S F A M E A A E K G A S A A V V V Q K E D V E I P K D C S M T
F V S D G H K Y I K D A I E K G A S A F L V E E D V E I K G C
F R V D D G H D Y A R D A V T N G A V A V V A E Q D L P A D V T T
A A F D D G H K F I G Q V I E K G A K V I V V Q Q D V E A P K G V T
F T V D D G H N F I V N Q A I E N G A S A I I A E K E L P I I K N E S I P
F N V D D G H K F I E K A I E N G A K V I V V C S K E I E I K K G I T
F T V D D G H T Y A A Q Q A V A E S G A A A I V C C K D V D V P A T
H T V D D G H K Y A P Q A V A S G A A A I V C C H K L E L D I P
Q K T D D G H R Y I E E A I G R G A R G V I C S E M P A W Q T S K Q T T
H Q S D G R H Y I P Q A I A Q G V A A I A E A A Q G E A E E G E I R V V H G V P
Y T V D D G H D F A A K A I A E M G A A A V L A Q R E L D P A V I Q G S Q A T
S V R D A H E F I P D V V Q K G A T A I I V E K D V E I Q P E N V T
Y V T D D G H K Y I E S A F K N G A A A A L V L S K K V D F I P D C
E H A D D G H K Y V V I E S I R N G A A A A L W Q K D V P N A P A D L P
T S A D D G H K F I P Q A L E A G A V A T L A E R K L D L P D N I A
T Q S N G H E Y I D K A I R S G A T A I V C E Q L P Q Q P L P G V S
F V R D D G H S F I N K A I D S G A T A I V I V D R D I T S N D I T
F Q A D D G H S F I G Q A V Q N G A A A V I G E E D L S L Q L D I P
F H V D D G H E Y V H A V Q N G A V A L V T Q H K L S S L P E G V T
F K T D D G H K Y V A E A I K N G A V A I V V I E D Y Q N G W D V P
S V R D D G H S F A G E V V E K G A S V L V V E K P V I E V P E T V T
S A S D D G H K Y A K S A A E A G A V A V I A L E P V I E A P G A Q
F V S D D G H D F A K A I E L G A A A L V T E R K L E L D V P
T Q T D D G H A Y I P A A I E K G A V A I L C E D L P D E R K E D I T
F E V D D G H D Y A N K A I E A G A K V I L C E K K I D L P K S E G V T
D H T D D G H R Y I V E T A F Q N G A A A S L W Q K D V P N P P E H F P
F E V D D G H D F I N G A I A N G A Q A V L V E K D I A N K D V T
S I T D D G H E Y I D K A I K N G A T S V V C E A I P E K L V D S I T
A V V D D G H D F I T D V I A K G A A A V I V E R D T Q G I E T A D A V
V Q V D D G H L Y I D K A I S L G A S V I I C E D F P S D K K E G V T
T V V D D G H D F I Q T A I D G A A A V V C E N T P D K L T E N V V
A V V D D G H D F V E D A V K K G A A A L V V I E H A V I E T D I P E N T C
T Q T D D G H K F I K K A I E L G A S A V L L E D M P A E T A E K D I T
T Q S D D G H A F I L A K A I D L G A I A V C E S L P E E L I E S I C
F T V D D G H D F A E Q A I T O G A A A L A V E R I L P L D I P
T Q V D D G H Q Y I D K A I E Q G A T A V L C E T L P Q T L A K G V T P
E R F D A H D F A N D A V T A G A G A L L V S K R L L V G V P
Y T V D D G H D Y I V E K A I A N G A V A I L A E K P V I E V T V P P
F A A D D G H D F I E K A M E A G A A A V L C Q K A P E G N V P
A G F D D G H K F V K D V I D K G A V A V V M E D V I E P V I E G L T
A R D D G H E F I Q Q A I E Q G A S A T L W S K E P A K A P Q G I P
E R F D D G H D F V H Q A V R E G A S G V V V Q R E Y T I S V E N R P E I A
A V V D D G H E F V Q V A E K G A S A V I V E D E V D A P K D M T
T Q V D D G H Q F I R Q V I E M G A A A I L C E D F P A D L V D G I T
Y T V D D G H D Y A R Q A E K G A A A I V A E R E V D A D V P
A V S D D G H A Y I V Q Q V A E K G A A A V I E K D V E A P E G L T
Y T V D D G H D F A P A A V K S G A A A V I V S E K P L D L P V P
T R S D D G H D F V K D V T E N G A K A A I V I E T L P E V I A E G V T
Y A T D D G H R Y I D K A I E K G A K V I I Q D D V I E I K G N S L T
T L S D D G H A F I E K A V S Q G A V A V V C E T L P E S V N F P K K V P
E R T D D G H L Y V E D A I K N G A K A L L C E D M I E S D G V T
E R V D D G H K F V E E S I K K G A A A L W Q S D V P N P E V A E G V T
T Q V D D G H T F I G K A V A Q G A A A T L C E D M P A E V A E G V T
E R F D D G H S F V E Q A Y D A G V A A V L W D R S V P N P P E N H A
E S R D D G H A F V E K D A F D A G A S A A L W Q K D V P N P P E G V P
F K V D D G H K Y A Q K A A D S G A T V T V C E N I V S I E S D C T
V N V D D G H L Y I E K A I E A G A V A V V C E Q L P E Q L H A G L C
E R F D A H D F V P Q A I D A G A A A L L V S R K L D V A A P
A V R D D G H D F A K D V V K A G A K A L I V I E K N V D V P D D V T
F V S D D G H R Y I N S A I E K G A K A F L V I E E D V F V E G C
F T T D D G H K Y I V E Q A V S R G A V A V V V Q K E I P L P S G I A
E R F D D G H D Y I T Q A V R N G A A A C L S E E V I A G L T V P
Y A M D D G H A Y I G K A E E A G A V C A V C E R K P E T G I P
S V S D D G H Q F I G S A V E K G A K V I V L E D L P E I L D E T I T
S I S D D G H K Y I K Q A I E N G A K G V L V S K K V I E P E F P V E
S Q V D D G H D Y I E Q A L A N G A S A V L C E R W P Q K I A A K Q E N V T
T S S D D G H I F L S Q S V K A G A I A V I C E T F P N D I Q E N V T
H T V D D G H Q F A A Q A A G K G A A A L V V I E R K L E I V D L P
S L S D D G H D Y I T K N A E N Q G A L A I V C E E L P K E E K V N G V T
A R L H G A D F V T Q A A G L G A V A V L T D P T G A E R A A A T G L P
V R V D D G N R F I P E A V R S G A S A V I T E T V G F S E C P A T
Y K T D D G H R Y I L G K A A Q N G A V A A I V I E E L Q E D V D I P
T K H D D G H Y I L G T A L A K G A V A V V G Q R A D L R L P A H V P
E N V D D G H Q Y A E Q A L R D G A G A T F F E A Q S S V E F P Q A G P
T A V D D G H E Y I E K A V S Q G A T A I I L E E L P D Y Q E E S V T
V A V D D G H Q F I G K A I D N G A G V I V C E N F P E Q K N E N I T
F E T D D G Y A Y I P S A A Q K G A A V I C E K K P Q V D I P
T Q A D D G H T F I P K A L E L G A K A L L V S D E L A T I D L P E G V T
E R F D A H D F V E Q A K E G G A G A L L V S R K L A C P S L P
E K F D A H D F A A D A L K S G A A A L I V S K R L A L D A P
T I T D D G H E Y I E K A I A L G A K T I I C E T M P S I T I V D D V T
F R Q D D G H Q F I A Q A I E K G A R T I V M E K D V I S I S I P Q N V V
D N F D D G H D Y C A K A V E L G A A G V V V S H E V S G L P A G V A

QUERY	V	I	Y	L	S	Q	L	N	E	R	L	S	A	L	A	G	R	F	Y	H	E
UniRef90_UPI00047DAA93	Q	I	V	V	P	D	T	D	K	A	L	A	V	L	A	S	H	W	Y	R	
UniRef90_W4QW38	Y	V	Q	V	R	D	S	R	E	A	L	S	N	L	A	N	H	F	Y		
UniRef90_Q7N142	V	V	Y	V	N	D	L	N	N	K	L	S	Q	L	A	G	E	F	Y		
UniRef90_UPI0003B56C8A	V	I	M	V	P	D	S	R	R	A	L	A	V	V	A	A	E	Y	Y	R	
UniRef90_UPI000478ADA2	V	I	L	V	K	D	T	H	R	A	M	A	V	L	A	D	A	Y	Y	G	Q
UniRef90_J3TZ17	L	I	Y	L	Y	Q	L	K	T	R	L	S	L	L	A	G	R	F	Y		
UniRef90_T0N2Q3	Y	I	S	V	E	D	S	R	K	A	L	A	L	A	A	S	S	Y	Y	G	
UniRef90_R7AUJ5	V	I	R	V	E	D	T	R	Y	A	M	A	F	I	A	A	A	Y	F	G	N
UniRef90_T3QZ29	F	I	K	V	K	D	T	R	K	D	M	A	K	V	A	D	N	F	Y	N	
UniRef90_G4HAZ4	C	I	K	V	P	D	V	R	R	A	L	P	I	L	A	N	A	F	F	G	
UniRef90_R6RJD7	V	I	R	F	D	D	T	R	K	A	L	A	E	M	S	A	A	Y	F	G	
UniRef90_UPI00031223E6	Y	I	V	V	Q	D	T	K	R	A	L	A	Y	L	A	D	F	F	Y	G	Q
UniRef90_A0Q058	Y	I	K	V	E	N	T	R	K	A	L	A	I	M	A	S	N	L	Y	N	
UniRef90_M8DLJ0	I	V	R	V	P	D	T	R	R	A	M	M	L	A	D	R	F	Y	G		
UniRef90_W4CLM9	Q	I	V	V	D	D	C	R	F	A	M	S	V	M	S	N	A	F	F	G	
UniRef90_I0JW34	F	I	Q	V	K	D	P	R	R	V	L	G	K	V	A	S	V	F	Y	G	
UniRef90_D1P440	V	I	Y	L	H	D	L	N	N	R	L	S	A	L	A	G	E	F	Y	H	Q
UniRef90_V6M4K4	V	I	T	V	S	D	T	R	R	A	M	A	L	L	A	D	R	F	Y		
UniRef90_R5YD72	V	I	K	V	E	D	S	R	L	A	L	A	Y	M	S	A	A	Y	F	G	
UniRef90_A5N7E5	V	I	E	V	K	D	T	R	K	A	L	A	L	M	S	S	N	Y	Y		
UniRef90_K6DET7	L	I	I	V	D	D	C	L	V	A	L	Q	E	L	A	R	K	Y	R	Q	E
UniRef90_F8AAP7	Q	V	V	L	P	D	T	R	K	A	L	P	E	L	A	S	A	F	Y		
UniRef90_C7M765	Y	I	V	V	P	N	S	H	S	A	L	A	L	I	A	N	F	Y	G		
UniRef90_UPI00041A96A1	V	I	R	V	N	N	C	R	L	A	L	A	S	V	S	A	Q	F	Y	G	E
UniRef90_UPI00047D7000	Y	I	R	V	A	D	S	R	T	S	L	G	K	L	A	S	C	F	Y	G	
UniRef90_V9G5H7	Q	V	V	V	P	D	T	R	R	V	L	P	I	L	A	N	A	F	Y		
UniRef90_A0A024PDC9	Q	Y	R	V	E	D	S	R	R	R	A	L	A	A	L	S	D	A	F	Y	H
UniRef90_R5K8W2	V	I	Q	V	P	S	S	R	Y	A	M	G	V	M	S	S	Y	F	Y	G	E
UniRef90_R5A706	V	V	L	V	E	D	T	R	K	A	L	A	L	M	S	A	A	F	F	G	
UniRef90_F5LD18	Q	L	L	V	K	D	A	R	Y	A	M	S	V	L	S	A	C	V	Y	G	
UniRef90_R6G6M9	Y	I	Q	V	K	D	S	E	E	A	V	G	K	V	A	T	L	F	Y	G	D
UniRef90_V9H2L5	V	L	L	V	N	E	G	R	K	A	L	A	T	M	S	A	N	Y	Y	G	
UniRef90_G9QLT4	L	I	M	V	D	D	T	L	E	A	L	Q	R	L	A	K	A	Y	R	D	E
UniRef90_L0KBF2	T	I	K	V	S	N	T	R	K	A	L	A	R	A	S	A	K	F	Y		
UniRef90_UPI00035FC076	Y	I	E	V	D	N	T	S	K	A	L	A	V	M	A	S	N	Y	Y		
UniRef90_R6RNQ4	L	I	R	T	P	D	T	R	L	A	L	A	Y	M	S	A	A	F	F		
UniRef90_UPI00047C735F	Y	I	Q	V	A	D	A	N	V	A	L	A	I	M	A	N	Y	Y			
UniRef90_G2EDZ6	Y	V	E	V	T	N	T	S	S	A	L	A	I	M	A	S	N	F	Y	G	
UniRef90_R6NN95	V	L	Q	V	E	D	A	R	Y	A	L	A	I	M	S	A	A	F	F	G	
UniRef90_I1YUR4	Y	I	Q	V	K	S	T	E	D	A	V	G	K	V	A	T	T	F	Y	G	D
UniRef90_R9GR21	Y	I	V	V	A	D	S	A	E	T	L	G	T	I	A	T	H	Y	Y		
UniRef90_UPI0003689B35	Q	L	V	V	S	S	C	R	H	A	M	A	V	L	G	D	A	F	Y		
UniRef90_G1WCU7	F	V	Q	V	A	D	T	E	D	A	V	G	K	V	A	T	L	Y	Y	G	D
UniRef90_V5CBH8	Q	L	V	V	N	D	T	R	L	A	L	G	Q	L	A	A	W	V	R	Q	Q
UniRef90_W7CFZ4	V	I	Y	V	E	D	T	N	R	A	M	A	L	L	A	G	A	F	F	N	
UniRef90_R9MAJ5	Y	I	Q	V	A	D	S	R	R	A	L	A	A	V	A	N	F	F	G		
UniRef90_R6FLK5	I	I	K	V	E	D	T	R	L	A	L	A	Y	M	S	A	A	Y	F	G	
UniRef90_S0JN01	V	I	L	V	K	D	T	L	V	A	M	Q	D	L	A	K	Y	Y			
UniRef90_D8FBI4	V	I	A	V	D	N	T	L	R	A	L	G	D	L	A	A	W	W	R	R	Q
UniRef90_R5XQV6	V	I	R	V	P	D	T	R	Y	A	L	A	L	M	S	A	A	Y	F	G	
UniRef90_F8EAB3	Y	I	H	V	A	D	S	A	R	T	M	G	L	M	A	N	F	Y			
UniRef90_Q65JY4	V	I	I	I	R	H	T	K	R	A	L	A	V	L	S	D	A	F	Y	G	Q
UniRef90_R7FRT5	V	I	K	V	E	N	T	R	Y	A	L	A	L	T	S	A	A	Y	F	G	
UniRef90_UPI0002E6B4F6	V	I	L	V	K	D	T	T	R	A	M	A	V	L	A	N	Y	F	Y	N	Q
UniRef90_F0SCX7	Y	I	K	V	A	N	S	A	T	A	L	G	V	V	A	S	N	F	Y	H	
UniRef90_K6TVY4	V	L	K	S	D	D	T	R	K	A	L	A	L	M	G	S	N	Y	Y		
UniRef90_UPI0003B38FF1	Y	L	E	V	G	N	S	H	S	A	L	A	F	M	A	T	N	F	Y	G	
UniRef90_K9TA99	Q	F	K	V	K	N	T	L	E	A	Y	Q	K	T	A	R	W	W	R		
UniRef90_UPI00047AD5F7	V	I	R	V	K	N	T	R	R	A	M	A	K	I	A	N	K	F	Y		
UniRef90_UPI00047D755B	L	L	L	V	D	D	C	L	T	A	L	Q	E	L	A	R	S	Y	R	Q	E
UniRef90_R5CM28	Y	V	Q	V	S	T	E	D	T	V	G	K	V	A	T	Q	F	Y	G	D	
UniRef90_P96613	V	I	L	V	D	D	T	L	T	A	L	Q	Q	L	A	K	A	Y	L	Q	E
UniRef90_W7CAC4	I	L	M	V	E	D	T	L	S	A	L	Q	D	L	A	K	A	Y	L	Q	E
UniRef90_U2EEW7	I	V	K	V	P	D	S	R	K	A	L	A	I	A	S	N	Y	F	G	E	
UniRef90_R5V369	Y	V	S	V	A	D	S	A	F	A	L	G	N	I	L	S	A	F	F	G	
UniRef90_U3A6N6	Q	L	C	V	E	D	T	R	Q	A	L	G	A	L	A	A	W	V	H	Q	Q
UniRef90_R5RHS3	V	I	K	V	A	D	T	R	L	G	L	A	V	S	A	A	A	Y	F	G	
UniRef90_UPI000467E632	F	V	R	V	D	N	S	R	M	N	M	A	K	V	A	D	N	F	Y	N	
UniRef90_F6CIS4	F	A	R	V	P	D	T	R	L	V	L	A	L	L	A	A	R	F	Y	G	
UniRef90_UPI000360A698	V	L	L	V	K	D	S	L	R	A	L	G	D	I	A	S	A	V	R	Q	Q
UniRef90_G4KY03	Y	V	L	V	R	E	S	R	R	A	L	A	M	L	G	V	N	W	F	G	
UniRef90_E4TA46	Y	I	K	V	K	N	L	S	K	V	L	G	Q	L	A	S	N	F	Y	G	
UniRef90_C3WF82	Y	I	L	V	K	D	L	R	K	N	L	G	K	I	A	S	N	F	Y	G	
UniRef90_H6L2F6	Y	I	K	V	E	K	V	A	D	A	L	G	P	L	A	A	N	F	Y	E	Q
UniRef90_UPI0003F4F2CB	Y	I	E	V	E	D	S	A	A	A	L	G	L	M	A	N	Y	Y			
UniRef90_D3E568	Q	V	I	V	K	D	S	R	F	A	M	A	G	L	A	N	A	F	Y	H	Q
UniRef90_UPI00040C7227	Y	I	E	V	A	D	S	K	R	A	L	A	Y	I	A	N	Y	Y			
UniRef90_UPI0003763F49	V	L	V	V	D	D	P	R	G	R	M	G	A	L	A	A	T	I	Y	G	D
UniRef90_A0LNY5	V	V	R	V	S	D	S	R	K	A	M	A	R	M	A	N	Y	Y	G		
UniRef90_A8ML44	Q	Y	V	V	S	N	S	R	I	A	L	A	K	L	G	A	R	F	Y	G	D
UniRef90_H5SQX7	Y	V	L	V	S	N	S	R	R	A	L	A	E	L	A	C	A	F	Y		
UniRef90_S2X735	V	I	V	V	S	D	T	L	V	A	L	Q	Q	L	A	K	A	Y			
UniRef90_L7W730	Y	V	K	V	S	N	A	H	N	A	L	A	L	M	A	N	F	Y			
UniRef90_K1N0D1	Y	I	K	V	T	N	T	L	K	T	L	G	I	L	A	S	N	F	Y	G	
UniRef90_R5CV33	Y	V	I	V	A	D	C	R	Y	A	L	A	L	L	S	R	N	Y	F	G	D
UniRef90_J9D9V4	V	V	R	V	A	D	T	E	D	A	V	G	K	V	A	T	R	F	Y	G	E
UniRef90_E3G9V4	Q	I	V	V	K	D	T	R	L	A	F	G	E	L	A	A	W	V	R	Q	Q
UniRef90_I0QYX9	Q	L	V	V	A	D	T	R	I	A	L	G	K	L	G	A	W	V	R	Q	Q
UniRef90_E6X5W3	Y	V	E	V	D	N	G	N	K	A	L	A	I	M	A	S	N	F	Y		
UniRef90_X1KQ09	L	I	K	V	P	S	S	R	L	A	L	A	Q	L	S	D	C	W	Y	R	
UniRef90_E8LFK2	V	F	M	V	E	D	T	L	L	A	Y	Q	Q	L	A	H	A	Y	R		

UniRef90_R6UP74 UniRef90_H3NIR2 UniRef90_E3DQH2 UniRef90_S5ZJ8 UniRef90_R5QCZ4 UniRef90_UPI0004121367 UniRef90_M7X1E4 UniRef90_UPI00040CF9F3 UniRef90_L7UIV9 UniRef90_T0LF04 UniRef90_R5T8S1 UniRef90_E1GTR1 UniRef90_B2UPL3 UniRef90_K1HVY7 UniRef90_UPI00025586BD UniRef90_K2A8M2 UniRef90_K2A061 UniRef90_X1VRG5 UniRef90_UPI000255C2AF UniRef90_UPI0003715922 UniRef90_UPI0002FD8397 UniRef90_UPI000299D7A8 UniRef90_V4IFQ6 UniRef90_I0JW37 UniRef90_UPI00047E19C8 UniRef90_C7XTT5 UniRef90_A8UJX8 UniRef90_D7UXP7 UniRef90_R5T6D5 UniRef90_K2XQI3 UniRef90_D9R258 UniRef90_Q9X6N4 UniRef90_R9XQR7 UniRef90_U2ZMJ6 UniRef90_T0PFT5 UniRef90_M1MNU1 UniRef90_W7D4B6 UniRef90_S2YDG0 UniRef90_U5F993 UniRef90_R3WL74 UniRef90_S6ARZ2 UniRef90_I3IQL7 UniRef90_D6S422 UniRef90_UPI000476DAA6 UniRef90_V6T4G1 UniRef90_U1QKB3 UniRef90_G0AF42 UniRef90_D4LDA2 UniRef90_B5YEL7 UniRef90_A8PLS5 UniRef90_D4MWP9 UniRef90_B7K2J2 UniRef90_K8ENJ4 UniRef90_G2FVK6 UniRef90_A0A022GW13 UniRef90_I3Z4T7 UniRef90_S9SWM6 UniRef90_X1LFU7 UniRef90_UPI00047E00C5 UniRef90_A0A033ULP2 UniRef90_UPI000287D4DC UniRef90_W1DQ33 UniRef90_D9QVM2 UniRef90_M5X0D3 UniRef90_UPI0003B4A58D UniRef90_R7L875 UniRef90_R7FDS3 UniRef90_R6YN41 UniRef90_R6B111 UniRef90_K2BHZ5 UniRef90_F7NPZ1 UniRef90_U6B719 UniRef90_F6D9R1 UniRef90_UPI0003636600 UniRef90_UPI00037A35ED UniRef90_A1SU15 UniRef90_UPI0003B7AF9E UniRef90_R6U0Q0 UniRef90_W0EA52 UniRef90_UPI00047CDC80 UniRef90_D9TJ32 UniRef90_B4VYD3 UniRef90_E8WSG6 UniRef90_R9M770 UniRef90_UPI0002DA3A69 UniRef90_I4EDS2 UniRef90_UPI00047CCBC2 UniRef90_G8M886 UniRef90_R5BM18 UniRef90_B0JGD5 UniRef90_C9KQK2 UniRef90_H2IDV8

1 10 20 30 40

L D A D Y I E N A D I E I V Q G V C I D S R K V V I E G N L Y I P I H
S A T H P V D Q D V E Q I E S E V I F D S S R K V V I T P G N L Y I V P I L I G
K I L K N I N Y E I K A G N I K K E A V S S G V S I D S R R T I I K T A G N L Y I V P I L I G
K N P E D I A F S G V S I D S R R T I I S E G D T I F F A I K G G
K A L K D I L Y G V V I G S T E V E V A Q D I A F D S S R K V V I T P G N L Y I V P I L I G
L K D I L Y K V T I G S T M E V G V A S D I A F D S S R K V V I T P G N L Y I V P I L I G
K L T D V L A G C G G G R S A V D I T Q D S R R V L K K G N L F V A I P Q G G
K K L N E L F D C N Y D T E I K G I K I N S K E I L E P G D L F V A I T K G G
K L T D L L S E V I T G D T D I D I S N I N D S S R K I D V I G S H L Y I V A I L K G G
L K D L P S H T L T G S P Q V K I S H L C D S S R R I L P G S C Y V I A L R G G
R A L D A L L R P F G I Q A P A L T L S T D I Q L D S S R R V V P G G S L F V A I L R G G
L L V P G Y A G Q P D I S L S G V A A L D S S R K V V K G G L F F M A L R G G
K R L T S L L E D L V F G Q K D I L D V T N I Y D D S R K V K K G G L F V A I K G G
I A D L L A I P F P G Q D A S F Q G I S I D T R T L L P G N L F V A I P G G
G E L V S G D L N T R I T D G V S T D T R T I E P G D L F F A L T K G G
K L S D C L K A L D I G A G N P E I V D D L M I D S R L V K P G S G L F F C A I K G G
L K D I L Y G V V I G S T D V E I V A V Q F D S S R K A T N D S L F V A I K G G
T F K D L I A A L S V G D T N I E L T G I A Y D S R H V E A G N L F C A I P G G
L A H W L N G Q H V G T D P I F N S V S L D S S R V L E K G N L F V A I L R G G
V I G G K G S N C S M V G S I S T D S S R R L S P G D L F V A I L R G G
K V L K D I L F G V V S G T T N V S V N A V C F D S S R R N V K M D D V I A I K G G
L K D I L Y K V V V Q D S T S V S V N K I E F D S S R K I Q V I N D V F V A I S G G
K L Q T L L T S I T S G D S S G E I T N I E Q D S R K V V S G T L F V A I S D G G
K K L S E L L Y N C N F D I P I K D I K I N S K K V E K Y D L F V A I T K G G
R A L S E L I A P W L A D L A D L A I R E H E L D S R K I K D G D L F V A I Q G G
L K D L T Y E V L Q G S L D V E V I Y D S R K A R N G A V F V C M K G G
I S E L I A P W L P K L A A L V I T H L E L D S R L I K S G D T F V A I Q G G
Q Q L A Q D L K G K L L G S G E V A E N I S T D T R Q A V E K G D L F F V A I L K G G
T L S G L L S P W I P H L J A A M P V A H I L E L D S R R K V A T G D V F V A V I G
L K N L N Y R T I Q G G N E N I E I A S I G W D S S R N V A S N S L F I C V K N
Y E L I E G E I D V E I N K I N Y D S S R K I N Q L D V L F V I C V V K G G
T L A Q W V N G T I E G D Q A T E V K G I S S F D T R K I S R R G N L F I P F V G G
K S L Q T V A G W L N I N D P N V I T V S G V S I N T K T I Q P G D L F I P F K G G
L S L L F E N A P D I E I G G L C F D S S R K I Q P M D M Y F C M D G G
T K E L L Q A T G G N T P E L M I S G V S S D S S R K I T K G D L F V I P L A G G
L S E L L A P L Q A E G A D V A F T G V S S D S S R K I E P G Q L F F V A L V G G
D K N A R I R G S V S T D S S R N V Q N G D L F F A I P G G
Q L A E I A K A L I E G N S D P V I S S V S F D S S R K I N E N A L F V A I K G G
L R D I L Y K V V K G P T D I A I A K I E F D S S R L I S T G D L F V A I K G G
V S K F A E N V I K G V S I D T R K I E A G N L F V A I P F K G G
L T D L L G V S H I A E N V N L T E M T L D S R T A K A K A G C L F V A I K G G
S L S Q L L P S V G A G Q D Q V V V N G L C D S S R A V T P G C C L F V A I L R G G
I A Q A V G G T L S N C P D C A V T E I S T D S R R T I T P G C C V F L A L R G G
T V E D I L K A L I K G N F K D K V D S I S T D S R R I K K D D D L F A L A K G G
L S Q L L R G M N I S A T D P I I K G L C Q D S S R Q I K P G D L F F A Y K G G
L N S E I D V I D D F L D G I T T D S R Y I N P G E I V F L A L R S G G
L S D W T T I E V D K V E F D S S R K L E K G S L F V A L L K G G
S L L E I L N G I S S G D L Q V V V S G M S M D S R R V Q S G D L F Y A C I P G G
G A A S R A F S R V L T D S R T V Q P G D L F V A L R G G
K I L K D I L Y K V T I G N M D R R I S E L V F D S S R K V V I E D S V F V A I S G G
L T A K C K G D E H T V V T G L A M D S R H V A Q Q D L F F C I S G G
K I R E L I K K I I Q G N Q D C C L I S R I S I D S R T L P G D L F F A I I G
L K D I L Y G V V S G T T S C N I A S V R F D S S R E V Q K G D A F V A I K G G
R K I K E W I C D I L Q D E Y L D V V V Q G I C I D S S R K I A K S N L F F I P F K G G
D P E I S N L V I D S R L A G P G S L F F C I K G G
M T L D S S R V A A S G D L F I A V I Q G G
S L A E L L S K V V P G D L D S R I A G T I A Y D S S R N V E T S D L F V C I E G G
L A D V T V T S Q H G P T D V E V Q A L T L D S S R Q A A P G F V F F A L R G G
K L K E I L V G L A K G E L L P D V E V S N I S S N S K E V K K G D M F V A I N G R G
N L P D M E I T G L T D D S R K V K P G M L F V A C I R G G
L K K V L I G L A K G N L D V E I N N L D S N S K N I K E G D M F V A I K G G
L Q G S M D A E V R D I Y D S R K I A K E T M F V C M V G G
K L S D L L T N L C P P A L D A K D I A D I S L D S R L I K P E G A L F L A L P G G
P E S K A L L F A S V S T D S S R S I A S G D L F I A L L Q G G
L T Q Q L L S F S A D C L E R D I C H L S S D S R A I K K G W M F V A I A G G
L N V I L P A E W Q A Q A D L A L S Q M V T D S R A V K P G D V Y I A I E G G
L S K T F K N V P T V N T E G L S F D S S R N V K P G D T Y F C L P G G
Q L K E L A S Q L L T G D G D T E I S G I S F D S R R V R S G D L F V A I V R G G
T L A E I A K A I N C E H P E A E V N N I S T D T R Q I K P G Y L F F A V K G G
K L S Q L I E K I D I E A E D C I I R G I S E D S R Q I K P G Y L F F A V K G G
I E N L T N E V I G T T N V E I G K V E Y D S R K I K E K D V F V A I K G G
Q R I A E I L G A E C L G D P N V P V F G C V I D S R N Q A R G E L F F A L V G G
K L A E L L N G L T V S P P D L E I S G L C L D S S R N I K T G E A F I A L N G G
K L K D L I E N I N V G D F D K D I T D I A Y N S K N A K E G S A F V C I K G G
T T D T R N L E P G S Q I T F L A L R G G
Q E I A E A T G G R L I G E A Q A V V C A V S T D S S R Q V L E P G E L F V P L K G G
P R A D A P A V S A V S T D S R K I Q P G C L F F V P W V G G
Q D I A N W L N I E A G E H G E K I V T G V S I D T R T I K E G D L F I P F R G G
S L A D L L T G I L A G D S T V I S N L C Y D S R L A G P G S L F V A L R G G
K Q L N Q Y L E V I T P G Q T N V P I S E I T F D S R K A G D G S M F V S M R G G
I P G A V L K G D E N V A I D R V V T D S R G V Q A G D L F V A V K G G
K T V Q E L I N V I V K G A T D T V I S H I T A D S R E V K Q G S L F I C L T G G
Q L A Q L L S G D I S F S P D S L V S G I N T D S R S I E K S Q A L F L A I K G G
Q L A D L L T A V V I G N R D T V I T G I E H D S S R K V I Q S G T L F C I P G G
Q L A E I T H G E L V G E N I T I A A V S T D T R T I E S G S L F V A L V G G

UniRef90_R6UP74 A N N N G H A Y V 50 Q Q A I I D N G A R A V L W E R R E A N P P K E 70 I 80
UniRef90_H3NIR2 G N T D G G H D Y V Q Q A I I D Q G A T A V A C F W S A N P D Q A P V D Q I V
UniRef90_E3DQH2 A K F I D G H A Q Y V S Q A I I E N K G A T A A I T I W S E K E L E V Y E K D I V T P
UniRef90_S5ZJZ8 A K F N G H A F I V N E A V Q E K G A T A A V L W S E T E G T P P E S D I T P
UniRef90_R5QCZ4 E K F D G G H D F I P A A I R Q G G A C C V V A E R A P E P E S D I T P
UniRef90_UPI0004121367 T Q T D G H A Y I S T A I I E K G A D A I V L E T L L P E S N I I V Q D G I T T
UniRef90_M7X1E4 T Q V D G H A S F I S T A L E K G A K A I V C E E L L P A D I I Q E G I T T
UniRef90_UPI00040CF9F3 T V S D G G H Q F I K K A A D Q G A L A I I C E E L L P A D I I V N G I T T
UniRef90_L7UIV9 T K E D D G A Q F I G E A V S R K G A K A V V S E K P V P S S S Q S K L N K V P E N L A V P P
UniRef90_T0LF04 E K F D G G H D F I G E A V S R K G A K A V I V I E K P V P S S S Q S K L N K V P E N L A V P P
UniRef90_R5T8S1 V N T D R H D F I E D A I I K N G A S A I V V S H D V N F D V P S E L K D G I V P
UniRef90_E1GTR1 T Q V D G H C F I N K A I I E S G A K A I L L E D V P S E L K D G I V P
UniRef90_B2UPL3 T R A D G H H F I P E A I I R S G A C A V V A E M P C T Q E A R E P P S T P A G V V S
UniRef90_K1HVY7 H Q V D D G R R F I E Q A V A R Q G A T A V V F E E D G E F I P P S T P A G V V S
UniRef90_UPI00025586BD T V V D D G H R F I E S A I I A S G A A A V L A D G D T L D S V E R D G V Q T
UniRef90_K2A8M2 L R S D D G H N F V D Q A I K N K A A V V V V E R I L P K S Y K G E I P
UniRef90_K2A061 E Q F D D G H Q F V K A A L E K G A A V V L V S K P I D C A I P
UniRef90_X1VRG5 E N S D D G H K F L A R Q A Q A S G A S A I V A Q D A V D V C L
UniRef90_UPI000255C2AF H H I D D G H R F A R Q A Q A S G A S A I V A Q D A V D V S I P
UniRef90_UPI0003715922 T V A D D G H Q F I A K T I E Q G A K V I V C E E L P A V F A E S V T
UniRef90_UPI0002FD8397 D R T D G H L F C Q E A A N R G A V A F L V E R A D A L P S G K A G
UniRef90_UPI000299D7A8 F Q T D D G H K F I E Q A Q Q H G A V A L V E Q A I P S S S S R L P A T E I P
UniRef90_V4IFQ6 E S F D D G H E F L A Q A V L N G A A G L L V E E S S R L P A T E I P
UniRef90_I0JW37 E K Y D D G L D Y V A T A A Q K G A V A I V D R E L P L S I P L S I P
UniRef90_UPI00047E19C8 T L T D D G H N Y I R K A I I D L G A K A I I C E Q L P E D M V N E I T
UniRef90_C7XTT5 A N V D D G H Q F I P Q A I I A K G A Q M I I A Q E P V I E T T K D D V T P
UniRef90_A8UJX8 T V T D G H R Y I D R V I D A G A T T I V C E V L P E A L K D D V T P
UniRef90_D7UXP7 E I V D D G H Q F A K Q A E A N G A T A I L A E K E I D V S I P
UniRef90_R5T6D5 V N T D R H D F I D E A I I K N G A S A L V I E K E E N Y K V P
UniRef90_K2XQI3 H A T D D G R T Y I D K A I I T Q G A H S V L A Q A D T E H Q H G L I E Y R Q S A
UniRef90_D9R258 T R T D S H F I P E V V N A G V Q I L V V E R K T E L P D G V T P
UniRef90_Q9X6N4 H A V D D G R Q F I D K A I I A Q G A N L V L A E A D A Q H L N G W V E Y R A G V P
UniRef90_R9XQR7 E K F D A H D Y V E K A I I E Q G A V A L V Q A R E L A V
UniRef90_U2ZMJ6 H S V D D G R R F I P A A I E Q G A A A V I A Q A C E R Y P H G Y I D S Q H R A P
UniRef90_T0PFT5 K N V D R H E F A T L A I I E K G S T A L V I E H D I E N I P E D I T
UniRef90_M1MNU1 Y A T D D G H N Y I N K A I I E N G A K V I V V Q D K V D I E N K E V T
UniRef90_W7D4B6 Y E R D G H A F V V D A Y Q K G A V A A L W Q V D S E A N K P E G L P
UniRef90_S2YDG0 E K V N G H Q Y V T Q A F E K G A S A A L W Q K D E P N P P Q N L P
UniRef90_U5F993 M T F D D G H Q F V E E V E K G A V C I V H A K D I E T M H K G V A
UniRef90_R3WL74 A R D D G H F F I H E Q A I I E N G A V A T F W A H P I E E A P A I P
UniRef90_S6ARZ2 P R F D D G H D Y L A D V A A K G A V A A L V Q R E V A D A P H T L D L K G R S S S
UniRef90_I3IQL7 E H F N G H Q F I V Q S A I I D D G A I G V V S R E H T L D L K G R S S S
UniRef90_D6S422 E R D D G H D F I N S A I I A N G A V A T L W E K G H P N K P D N F P
UniRef90_UPI000476DAA6 T L S D D G H D Y I E K A I I S L G A L A V V C E T M P D V T T E G V T
UniRef90_V6T4G1 A R T D D G H N F V A D V I Q N G A S A A L W Q Q D V P N P P P E D L P
UniRef90_U1QKB3 H Q T D D G R Q Y I Q D V I Q N G A S A V I F E A D S E S Q H L Q V R Y E Q Q V P
UniRef90_G0AF42 E R F D A H D F L D Q V I A Q G V A A V V I E R T P A T L T A L A V P
UniRef90_D4LDA2 A R F D D G H T F A R Q A C E Q G A V A V I S D H V I P D C
UniRef90_B5YEL7 E K F D D G H F V K D A I I L K G A K G V I V S R D V N L E D K A F
UniRef90_A8PLS5 L K S D D G R Y F I K D A I I K K G A A I L V I E P D E N Y T I H L K S S S I P
UniRef90_D4MWP9 A A F D D G H K F V A Q A A E L G A A A V V E K D V E V P H I S V K S T K Q I P
UniRef90_B7K2J2 N T F D D G H D F A N I A V D K G A I A L I V D H H I S V K S T K Q I P
UniRef90_K8ENJ4 D N D D G H D Y I Q S A I I E K G A S A A F W S E A I E K A P V G F P
UniRef90_G2FVK6 F Q V D D G H D F A A G A I A S G A V A L V I E R F L P L N V P
UniRef90_UPI00022GW13 E R F D A H D F L A D V A R G A A A V L V E R E P D A G L G I P
UniRef90_I3Z4T7 T Q V D D G H V F I D A A L D K G A K V I V C E T L P E V L H E E I T
UniRef90_S9SUM6 T A E D D G H R Y A E Q A V Q A G A A A L V I E R E L E L P P M V D E V T
UniRef90_X1LFU7 P S F D D G H D F I I E A F N K G A M G A V A C K S V S L L Q N E E I D K N K V
UniRef90_UPI00047E00C5 T L T D D G H K Y I D A V V A G A R A I V C E Q L P A N M V D E V T
UniRef90_UPI00037A35ED E N V D D G H K F V R Q T L D D G A G A S F W Q K D V P N P P D G P
UniRef90_UPI000287D4DC H A L D D G H R F A S M A E K N G A A I V A Q E P V I E A N V P
UniRef90_W1DQ33 H Q A D D G R R Y I P Q A I I A Q G V A A I I A E A Q G E A K D G E I R E M H G V P
UniRef90_D9QVM2 F T D D D G H N Y I E E A I I D S G A T A L L V I E K E V E V D S E V T
UniRef90_M5X0D3 S K T D D G H L Y L S E A I I K R G A V A V A S K E I Y M E E N L G C K A
UniRef90_UPI0003B4A58D A A T D D G H L F V P K A V E Q G A S V V I C E D L P A D L Q A G T A
UniRef90_R7L875 F E S N G A E Y L E E A I I Q N G A E V I M A Q N D I D K D A I L K I P D G I T
UniRef90_R7FDS3 E H F D D G H A A G K A L E S G A A A V L A D H D L G L G D R S I E L P D D V T
UniRef90_R6YN41 F S T D D G H K Y I N N A I I K A G A K V V M V I E G A D L L S Q I E L P D D V T
UniRef90_R6B111 A V T D D G H K Y I P D A V E K G A S V I V V E R D E E A A Q I P D T I T
UniRef90_K2BHZ5 T Q L N G Q A F I D E A M E K G A A A V L I E A E N D A V N W H R T L P
UniRef90_F7NPZ1 E T F D D G H D Y L S Q A R Q K G A G G I I V S R R D A S L P Q D C
UniRef90_U6B719 N K L N G H D F I S Q A L Q L G A T A V I D S C N L Y C Y P D N L K F D V P
UniRef90_F6D9R1 T R F D D G H R F I S Q A I I E Q G A V A C I V S N K Q Y A K Q S V P
UniRef90_UPI0003636600 L T Y D D G H D F I D Q A V E K G A L A T V H S K V T D H P T S G A V
UniRef90_UPI00037A35ED K L Y D R H E F A R Q A V L Q G A A A L V I E R D V E A E V P
UniRef90_A1SU15 E R Y D A H Q F L E K A V Q Q G A G A L L I D Q K K R S D L P
UniRef90_UPI0003B7AF9E F Q A D D G H N Y I E N A I I S K G A V A I I G T D R K A L K K A A E K G V T
UniRef90_R6UJQ0 Y E K D G N D Y I D E A I I G N G A L C I V I E N D I D T S K Y L D K G I T
UniRef90_W0EA52 E K V D D G H D Y L E V A W K N G A N L A I A E K T K M K D R T K L N V P E G K A
UniRef90_UPI00047CDC80 A I Q H G I A H A E Q A I T N G A I V L Y D P I G A N V D K L K V P
UniRef90_D9TJ32 F K T D D G H E Y I D E A I I Q N G A R L V V D E F F D T S K I E G K I D
UniRef90_B4VYD3 E T F D D G H D Y A E V A I L K K G A I A V I A N R D Q G Y H L Q D I P
UniRef90_E8WSG6 E R F D D G H D F I T T A A G R G V T A F L M A E S W L A A H G L P A G A S
UniRef90_R9M770 E R F D D G H D Y I D Q A L E G G A G C L C A R L P E T L R P D K F
UniRef90_UPI0002DA3A69 E K T N G H K Y V L Q A F E K G A S C S L W L K D E P N P P K D V P
UniRef90_I4EDS2 S Y T D D G H R Y L R D A R A R G A H A A L V I E S W E P E V A G F P A
UniRef90_UPI00047CCBC2 A S A D D G H E F I P K A I E A G C K I V V C E A V P E V T S P Q V T
UniRef90_G8M886 D R F D A H D F L E Q V A K S G A A A L V I S R E P S N S G A W P L V
UniRef90_R5BM18 A H V N G H D Y V E K A V E A G A V A L L A S E P I D V P A A V S
UniRef90_B0JGD5 D N F N G H D F I D M A I I E K G A A T L I V D Q P V S V N S S S N I P
UniRef90_C9KQQ2 V H V D D G H K F I P Q A V A A G A S A I V T T R E D V E V P E G I A
UniRef90_H2IDV8 E R F D A H D F C Q Q A V D A G A G A L L V Q K R L D V E V P

	90	100
UniRef90_R6UP74	V I L V D D T T A A L Q Q L A K A Y R D Q	
UniRef90_H3NIR2	V I F V K D T L R A M Q Q L A H Y Y R Q	
UniRef90_E3DQH2	Y L K V E N S R Q V M S I L A A K N F F	
UniRef90_S5ZJZ8	A I V V D D T L S A L Q R L A A R Y R Q Q	
UniRef90_R5QCZ4	Y I L V A D T T R A L G L L A R E Y R R	
UniRef90_UPI0004121367	Y L V V S N S A K A L G T M A A N F Y	
UniRef90_UPI0004121367	Y V Q V L N S A K A L G I M A S N F Y Y	
UniRef90_UPI00040CF9F3	Y V Q V V D S H K A L A I M A A N F Y G	
UniRef90_L7UIV9	F F K V G S A R K A L A L I A A N F H G	
UniRef90_T0LF04	V G L V E D S K K T L H E L A K W Y R Q K	
UniRef90_R5T8S1	T I K V E D T N K I L P I I S K F Y	
UniRef90_E1GTR1	Y I Q V E S T E K E V G K L A T M F Y G	
UniRef90_B2UPL3	W V E V N D S R L A V S L M G A A W N G	
UniRef90_K1HVV7	C I G M R E L P A H L S A L A G Y F Y D Q	
UniRef90_UPI00025586BD	V I T V P G L A A R V G E I A A R F Y G	
UniRef90_K2A8M2	V V K V N D T R S A L A L I S S S W F G	
UniRef90_K2A061	Q L L V A D T L L A L G K I A A D W R	
UniRef90_X1VRG5	A V R V E D T M K A L G D L A Q F Y R	
UniRef90_UPI000255C2AF	V I R V N D T H R A L A M I S D Y F Y G	
UniRef90_UPI0003715922	Y V K V T D A G K A L G L I A A N F Y N	
UniRef90_UPI0002FD8397	V I V P N A R Q A M A L V A D K F Y G	
UniRef90_UPI000299D7A8	Y V Q V A D T R Q A L G L L A H R R Q Q	
UniRef90_V4IFQ6	V I V V G D T L H A L G D L A N Y	
UniRef90_I0JW37	V I R V K N T L E A L Q Q L A F F Y R K Q	
UniRef90_UPI00047E19C8	Y V E V A N G N S A L A V M A S N F Y G	
UniRef90_C7XTT5	V V Y V K D T H R A M A F L A D K F Y G	
UniRef90_A8UJX8	Y I E V A N S N K A L A Y M A A N F Y	
UniRef90_D7UXP7	V V Y V K D S K R A M A I L A D R F Y G	
UniRef90_R5T6D5	F I K V E D T N K E L G Y L S K R F Y D D	
UniRef90_K2XQI3	V I Y L A E L N L H L S Q L A G R L Y G	
UniRef90_D9R258	A I L V H N A R E A L A L L S A A R F G	
UniRef90_Q9X6N4	V I Y L A E L G Q H L S E L A G R L Y G	
UniRef90_R9XQR7	Q I I V E D T R L A L G Q L A K W	
UniRef90_U2ZMJ6	V I Y L A D L N Q H L S H L A G R L Y	
UniRef90_T0PFT5	V I K V S D S K K A M A S I A S I F F G E	
UniRef90_M1MNU1	I I K C E D T R K A L A L L G A N Y Y	
UniRef90_W7D4B6	I I L V E D T L V A L Q T L A S V Y L Q Q	
UniRef90_S2YDG0	L L F V E D S E I A L Q Q M A R A Y R K D	
UniRef90_U5F993	Y I K V E N V N R T L N M V A S K F Y G	
UniRef90_R3WL74	V I Q V D D P L A A M Q K L A A F Y	
UniRef90_S6ARZ2	Q L V V R D T R E G L G R L G A Y	
UniRef90_I3IQL7	I I Q V A N T I T A L G D L A K Y Y R Q K	
UniRef90_D6S422	V V E V D D T L A A M Q E L A K Y Y L N K	
UniRef90_UPI000476DAA6	Y I G V K K A S S A L A Y M A S N Y Y G	
UniRef90_V6T4G1	I I V E D T T T A L Q E L A R S Y R N	
UniRef90_U1QKB3	L I A F Y R L S E H L S H L A D V F Y G Q	
UniRef90_G0AF42	A L V V N D T R V A L G T I G Q R W R Q Q	
UniRef90_D4LDA2	C I V V D S T G K A L L A F A A Y R R K	
UniRef90_B5YEL7	I I K V Q D T L K A L Q D I A N Y Y	
UniRef90_A8PLS5	I I A L H H L T S Q L G S L A A R F Y G	
UniRef90_D4MWP9	V I K F D N T R L A L A E M S A A Y F G	
UniRef90_B7K2J2	Q I Q V K D T L L A Y Q Q V A H W W R E Q	
UniRef90_K8ENJ4	V L V V E D T L K A L Q D L A K Y Y	
UniRef90_G2FVK6	Q V K V S N V R Q A I G R L A A K V Y G	
UniRef90_A0A022GW13	A I V V P D T R L A L G Q L A A G W R R	
UniRef90_I3Z4T7	Y V Q V V N S A R A L G I M A A N Y Y	
UniRef90_S9SWM6	Q L I V K S A R H A L A V L S D A F Y G	
UniRef90_X1LFU7	I V E V K D T L S A L Q N W S K Y Y	
UniRef90_UPI00047E00C5	Y V E V K S G N Q A L A L M A S N Y Y G	
UniRef90_A0A033ULP2	I I F V D D T L A A L Q S L A K A Y	
UniRef90_UPI000287D4DC	V I Y V N D T H R A L A M V A D H F Y G	
UniRef90_W1DQ33	V I Y L S Q L N E R L S A L A G R F Y H Q	
UniRef90_D9QVM2	V I K T D D T R L G L A E V S A A F Y	
UniRef90_M5X0D3	L V I V E D T N A D L P A L A A S F Y R	
UniRef90_UPI0003B4A58D	Y V Q V P D S G E A M A H M A A A F Y G	
UniRef90_R7L875	I V L V E N V R H A L A I S A C N F Y	
UniRef90_R7FDS3	Q I L T D D T R K L Y G Q L C A A W F G	
UniRef90_R6YN41	L I M A K D T R E A L A I C S C N F Y	
UniRef90_R6B111	V L K V E S A R Y A L A L M S A A L F	
UniRef90_K2BHZ5	V I S I P E L K A R V G E L A A R F Y	
UniRef90_F7NPZ1	V I L V Q D T L K A L Q D L A R F H R Q	
UniRef90_U6B719	L I V V D N T R R F L A I I S T R L Y G	
UniRef90_F6D9R1	C L I V A D T T R A L G R L G Q A H R Q	
UniRef90_UPI0003636600	Y I R V D D T T N A M N Q A A R I F Y N	
UniRef90_UPI00037A35ED	K L Y V K D G W R A L A E L S A H F Y G	
UniRef90_A1SU15	C V L V Q D T R I A L G L L A S Y V R Q Q	
UniRef90_UPI0003B7AF9E	A L L T R E I R K T E G I I A H R F F D K	
UniRef90_R6U0Q0	I I K V E N S R I A L A V V A S T Y Y	
UniRef90_W0EA52	L I L V E S G L S A M Q E L A K A W R	
UniRef90_UPI00047CDC80	S L P I T D L P Q K L G E I A A R F Y G	
UniRef90_D9TJ32	Y I K T S N T R K A L A V M S A N F F	
UniRef90_B4VYD3	Q L Q V D D T L Q A Y Q Q L A R W W R D Q	
UniRef90_E8WSG6	A V A V E D T L R A L G D L A A W	
UniRef90_R9M770	Y I Q V P D T R L A L R A L A S A Y R	
UniRef90_UPI0002DA3A69	L L F V E D S G L A L Q Q M A R M Y R N E	
UniRef90_I4EDS2	V V Q V P S T R V A L A P L A A R F F G	
UniRef90_UPI00047CCBC2	Y V Q V E D T A E A L G L L A A F H Y	
UniRef90_G8M886	V I K V K D T R A A L G A L A H G W R	
UniRef90_R5BMI8	V L T V D D T R I A M Q Q C V P F F Y	
UniRef90_B0JGD5	V F L V H N T L E T Y Q Q L A H W W R N Q	
UniRef90_C9KQQ2	V L R V K E L Q P A L D T I V P Y F H	
UniRef90_H2IDV8	Q V V V T D S K I A L G E I A A W V H Q	

UniRef90_UPI0004797A3D
UniRef90_A1AU65
UniRef90_D3V4L9
UniRef90_UPI0004753C74
UniRef90_UPI0003B39ABA
UniRef90_J8TL72
UniRef90_E3BQ99
UniRef90_UPI0003656F84
UniRef90_UPI0003B6CCCB
UniRef90_L1PYS9
UniRef90_K7WFFJ1
UniRef90_UPI0003B774F5
UniRef90_N2A187
UniRef90_R6U4T1
UniRef90_A8UY80
UniRef90_Q83F28
UniRef90_UPI000413A7B5
UniRef90_D9QVM3
UniRef90_Q4FQ09
UniRef90_P45450
UniRef90_R5QS19
UniRef90_W4BBL7
UniRef90_Q04C48
UniRef90_B8FBS3
UniRef90_C8WRE7
UniRef90_M3J6S5
UniRef90_X4ZMB7
UniRef90_B1HP37
UniRef90_D3QIL5
UniRef90_Q24TE2
UniRef90_J6UGV5
UniRef90_K7AA13
UniRef90_K0NKW5
UniRef90_Q8CZE4
UniRef90_E1YBU9
UniRef90_Q89AQ1
UniRef90_U1MR71
UniRef90_W7CLF6
UniRef90_K4KTW9
UniRef90_A3WNF7
UniRef90_C7HVE4
UniRef90_J0YR17
UniRef90_D5A2D1
UniRef90_UPI00030A8B18
UniRef90_UPI0002D9D62C
UniRef90_F2JSA5
UniRef90_V9TUN1
UniRef90_C4K741
UniRef90_UPI000466965B
UniRef90_A8ZXW8
UniRef90_M3F513
UniRef90_R6Q8C0
UniRef90_K4HK10
UniRef90_F2IEJ3
UniRef90_UPI00029A3D94
UniRef90_E6UEC3
UniRef90_W0QVT1
UniRef90_Q7VP58
UniRef90_L0FAH5
UniRef90_R5GQ66
UniRef90_W7YDV7
UniRef90_R6MK06
UniRef90_UPI00036ECD73
UniRef90_D1VS57
UniRef90_K2AUG8
UniRef90_B4SHE8
UniRef90_R6GSL8
UniRef90_L5N2N8
UniRef90_I5C2D3
UniRef90_C6X983
UniRef90_UPI00040625AD
UniRef90_UPI0002D334D3
UniRef90_UPI00034CE047
UniRef90_E4LK47
UniRef90_G2KU52
UniRef90_D3DK23
UniRef90_UPI00041013E4
UniRef90_F4LT13
UniRef90_Q87WY0
UniRef90_U1LZ62
UniRef90_J9ZAW3
UniRef90_D3SP23
UniRef90_R5R607
UniRef90_J0LIY7
UniRef90_UPI000375C178
UniRef90_K9YMT7
UniRef90_Q0YPU6
UniRef90_B0TGB5
UniRef90_F4XD96
UniRef90_I7LNA6
UniRef90_N6VD38
UniRef90_UPI0003695126

1 10 20 30 40
A R H T H G P V Q A E I Q Q Q I R S D S R R Q V Q A G G Q G D L F V A L V S
A G G F Q G D R S A R V I S Q G V S T D S R R K V A A G G Q G D L F V A L V S
K Q L T K L T G G V L Q Q A A T C Q I N T S Q V V T D T R K Q M V R P G G C L F F I A L L K K G G
P L A D D A T D V S I S S G M T L D S R R H V K K G D L F F I A L L Q G G
L K A L L S P W L T S T E S A L I S S G M T L D S R R H V K K G D L F F I A L L Q G G
K L S E L M N V I I D L K A D P L I S E K V S T D S R R K V A A G G Q G D L F F I A L L Q G G
T L A E I A R A V G G E G E D I S V S G V S T D S R R K V A A G G Q G D L F F I A L L Q G G
D L A E L A A R L G V I E P P S G A V T G V I T H D S R R A V V R K G D L F F I A L L Q G G
T L Q E I I S G T C K G D V S L Q F K D I S T D S R R K V A A G G Q G D L F F I A L L Q G G
T I S Q L L E E L Q A E S V N V S A S S G I Q S T D T R T L Q P A G G E L F F I A L L Q G G
L A K A L N T T C V G D E Q T V I R G V S T D S R R K V A A G G Q G D L F F I A L L Q G G
L A K V L R G E L R G D P Q A R V I E G F S I D S R R K V A A G G Q G D L F F I A L L Q G G
K Y L S Q L L A K N K A L T A D V L I K A L K A L S T D S R R K V A A G G Q G D L F F I A L L Q G G
I S E I D G R L I S G N L K E E L K Q R I A T D T R T I K T R I A T D T R T I K T R I A T D T R T I K T
S E D I R I N N I C T D T R S L V S G D L F F I A L L Q G G
N L H T A L K P F V Q D Y A N M N I Q F H S Q Q G D L F F I A L L Q G G
I A Q A L N T S C E G D A E T V I T S V A F D S R R K V A A G G Q G D L F F I A L L Q G G
D P D V I S I A Q Y N S R L V R P Q G D L F F I A L L Q G G
I R G V A I D S R R E V T A G T L F F I A L L Q G G
K L K E L L R P L C H T N A D L D I K K I A Q D S R R E V T A G T L F F I A L L Q G G
R T L Q S I A A E L S P G S A E A L I T G V I T D S R R K V A A G G Q G D L F F I A L L Q G G
L S A L P L K K I I G M L D Q V I T D I V V D S R R K V A A G G Q G D L F F I A L L Q G G
R Q L K S W I C D I D D Q F L D V K I K G V T I D S R R A V V Q P Q M L F F I A L L Q G G
G E L T G D S Q V R A S G C C L T A D S R R G V K A G E L F F I A L L Q G G
Q L R D L F G P L D G P L G D L P I S G L T A D S R R T V E P G F L F A A V P G
Q S I K P L L A Q F G T I S A D I S I E S L V L D S R R Y V A I H S A F I A L L Q G G
D I H D P N T I S S N S R K Q V R D N S L F F I A L L Q G G
I S S L K I K Q Q I G K L P N D I S S I S H N S Q Q V D D N S L F F I A L L Q G G
D P D I A S V H Y K S Q D V K P S G I F F I A L L Q G G
S I E V T H S I T T D T R K I T P K C D L F F I A L L Q G G
D L D G I E V T G V T L D S R R K V A A G G Q G D L F F I A L L Q G G
Q T V A R W V D G L V E G D N S I E I T G I S F D T R R K I N K G N L F F I A L L Q G G
K T L A E I I D G E V L G D T Q T V I N G I T H D S R R T V A S P G N L F F I A L L Q G G
Q L R D L P L P L T F P N V A V S G I K L D S R R Q V A N G D L F F I A L L Q G G
R N L E E I A K M L G G E I S N T K I K G I S I D S R R T I K K D N L F F I A L L Q G G
G F V V G C M P E N F S G I T D S R R T L V E G D L F F I A L L Q G G
T L T Q L L Q I L T I N S A N F P V I G I T T D T R N L Q R G E V I F F I A L L Q G G
L P A K E I Y G L P K E V F A I A V D S R R S V L Q L E S V F F I A L L Q G G
L S K L L T G L V K G N E H Q E V D H M I Y D S R R K T N A G S L F F I A L L Q G G
L S S I A L I S E D P E I L G L T T D S R R K I Q P G F L F A A I P G G
R N L C D L F A P W E Q Q K E I T L K G I T L K S D E V T T G D L F F I A L L Q G G
L S E L L L P V C P E S P D P E I A S I H Y R S D E V R P G G L F F I A L L Q G G
I Q D V T G V S I N T R T L K P G C D L F F I A L L Q G G
T L K E I A K A L T K T D F D V Q I N A V C I D T R K I T K P G C L F F I A L L Q G G
S M E I T G I T A D S R R Q V L P G Y V F F I A L L Q G G
T G I E T D T R R K I Q K G S L F F I A L L Q G G
K R L S D I I K G V E I G G A D P L I A D L T E T D S R R N V E Q H S L F F I A L L Q G G
K L Y E L I K D V A E T S P D M E I T G I T S D T R R E V T E G S I F F I A L L Q G G
T K L N Q I V L D S R R V E Q G D L F F I A L L Q G G
K Q V A Q I L N G Q L I G D E Y L V V E T V N T D T R Q A V E N G L F F I A L L Q G G
I A T L L E G E L R G D S Q A K A H G C C I D S R L V K D G N I F F I A L L Q G G
I A E V T G K R L T I G A D V T V T G V S T D S R T R T I E K G M L F F I A L L Q G G
K R F V I G N K D V E F S E I T F D S R R M A S S N A L F F I A L L Q G G
T I E D V L K A L L S G D I H Q T F N D V I S D S R R K V T A G V L F F I A L L Q G G
L A E L A V Q L G V P A P A L E V T G L T H D S R R A V R P G D L F F I A L L Q G G
K L R E L L K D I G K I D L D T E I S N M S Y N S I N I E A S G L F F I A L L Q G G
P N F L P N E A D F D V K N L A L D S R R K I T E N S V F F I A L L Q G G
V V I D S R R E V R G G E L F F I A L L Q G G
D L R D L L A G V P I R D A S R D V T G A G Y D S H T I L Q P G Q A F F I A L L Q G G
D S I R I E S V M T D S R R K E A K Q S L F F I A L L Q G G
Q G D M E L G V T S G I Y F D S R R K V R Q D G L F F I A L L Q G G
L S K W F T H F Q G S I D E G R I E A V F T D S R R K Q V A N G L F F I A L L Q G G
Q S L I A A M D G F V V I G C I P E T F S G I S I D S R T L V E G D L F F I A L L Q G G
D Q Q I Q G V I D S R R D I V K S Q N L F F I A L L Q G G
A F A G I T T D T R K V Q A G D L F F I A L L Q G G
K L E E I A K A V N G N A N D I E I T S V G F D S R R K M E P D S L F F I A L L Q G G
R E L A S I C R G K L Y G A N E S T T E F S G F C I D S R E V K E G N V F F I A L L Q G G
L S E L L E G L T V D P A S V E I K D V V N D N R K I A E G S L F F I A L L Q G G
T I K E V I K E Y L G N Q F N I Q I T G V S T D S R R T I N K G L F F I A L L Q G G
N L S K I F A H T D R D P L I R E L T L D S R R V R P G D L F F I A L L Q G G
L A D V L K A P F D G Q N C S V S N I N T D T R T I S E N E V F F I A L L Q G G
D D T P F A G V S T D T R D L R P G D M L F F I A L L Q G G
S I S V I T G G R L I G E N C E V K R F V T D S R R Q V E E G D V F F I A L L Q G G
G K L I S G D E T M E I T G F S Q D S R R Q A E V G M M Y I P I I G
Q L L Q D I L K D V T H G P L D V Q I V E S I T F D S R R Q V Q Q G V L F F I A L L Q G G
I T S V S T D T R A I V D G A F F I A L L Q G G
Q E C R G I S T D T R S L Q G G E L F F I A L L Q G G
E V T C V T S D S R R E V P P G A L F F I A L L Q G G
I S T G L A Y D S R R V P G F L F F I A L L Q G G
K L W Q L L A G V P P Y S Q D M E I T S I S Y D T R T L P P G A L F F I A L L Q G G
K I G Q I L H A P T Q L G D V I T V R G S F D S R R Q V K P G D L F F I A L L Q G G
Q T L L S V M N G L S I G C L P E T F S G I S I D S R R S L I E G D I F F I A L L Q G G
D I K T L L S S I H Q T T E T F D V S G L S L N S N T L S K G D L F F I A L L Q G G

UniRef90_UPI0004797A3D L Q T D G H Q Y I 50 P Q A V A Q G A S A I V C 60 L N T P S G L P Q T L S 80
UniRef90_A1AU65 E R F D G H D F V I P Q V A A K G V A A V L A D Q S F D G E L P P G L T
UniRef90_D3V4L9 R K F D A H D F V A D V A A K Q G A G A L L V N R R L E L P V D S P D C P
UniRef90_UPI0004753C74 P R F D G H D F V E Q A R E K Q G A G A L L V E H P V D S P L P
UniRef90_UPI0003B39ABA A L L D G R L F I E K A I T A G A C V V L S E T K Q A D K H A L I S H Q N D V M
UniRef90_J8TL72 Y T V D G H D F A E S A V E R G A V A V L A E R P L A L D V P
UniRef90_E3BQ99 E N F D A H D F I E Q A V I K G A A A L I V S Q K L Q I T T L D V P
UniRef90_UPI0003656F84 A R L H G A D Y V A Q A R D L G A A A L L T D P T G A E R A A G T G L P
UniRef90_UPI0003B6CCCB A R V N G H D F I P Q V I E K G A T A I V E K K L H D A K Y R S V D G I P
UniRef90_L1PYS9 D T F D G H D F I N T A I E K G A T A A I V E K G R S V D G I P
UniRef90_K7WFFJ E K F D G H D F V A T A I A K G A V A I V D H A Y K N P S H Q P V P E T Q P I P
UniRef90_UPI0003B774F5 E R F D G H D F L N S A V D K G A A A L L W S S H Q P V P E T Q P I P
UniRef90_N2A187 D R D G H D F I N S A L I N N G A S A T L W Q T G H P N K S H Q P V P E T Q P I P
UniRef90_R6U4T1 E N T D G H R F V S C A A D A G A S A V L I S D P D A A G N L P E G C S
UniRef90_A8UY80 E R H D G H D F V T D A V D R K A V G C V V E A R D V E H A G K F S
UniRef90_Q83F28 L Q V D G R D Y I K E A L D R K A A A V F Y E A N Q Y N P S I Q T K V P
UniRef90_UPI000413A7B5 E R F N G H A F V E Q A F R E G V A A V L W N R S E P N P P E G K A
UniRef90_D9QVM3 D R F D G H D F V M D A L S R A E A I V A V V D N E Q V E R Y N N V D S D E V
UniRef90_Q4FQ09 D N F D G H D F I D M A V S G A I A I V S R P I P S T D I P
UniRef90_P45450 E S F D G H S F I P Q A L T A G A I A V V T D R P V E G L G E T V A
UniRef90_R5QS19 E R V D G H S F I G S V M E K G A L A V V S E Q K L P D A D F P
UniRef90_W4BBL7 T K E D G H H Y I Q S A I K A G A S A V V G E Y E I T D L P V P
UniRef90_Q04C48 E R D G H D F V G S A I E A G A S A T L W E A G N P N K P E G I A
UniRef90_B8FBS3 N A V D G H I F V Q D A V K K G A A A V V T E E D V E A P L G V A P L
UniRef90_C8WCE7 Q R A D G H A F I L G E A V S R G A V C V L V G E E D A S L V D V P P D V P
UniRef90_M3J6S5 E V D G H K F A Q V A E E N G A S V L L A E R P V D V V S I P
UniRef90_X4ZMB7 D S F D G H D Y A S E S A L K A G A A A T L W T R N K G A V P Q G N A
UniRef90_B1HP37 Y T V D G H D Y A Q K A V D G G A T I V V T E R N E L P L G E M I A
UniRef90_D3QIL5 E H V D G H R F V K Q S I Q D G A A A F Y Q T G Q E I D S S L E E Q P
UniRef90_Q24TE2 E R T D G H D Y I E G A W K G A S V V I G E K E R L E H R R E V R V P E G K A
UniRef90_J6UGV5 E R A D G L A F V A A A L S R G A V A V I A E K P P A E P L P G I G
UniRef90_K7AA13 H V R D G R D F I P Q A L S L G A K V I I A E C D S Q A E H G Q T S M R E Q S L
UniRef90_K0NKW5 F E A D G H D Y I E A A F E K G A A A V I A Q T N P K N I N N
UniRef90_Q8CZE4 F T V D G H N F V A E A V E N G A T C I V A E R E V N L D T N K A T
UniRef90_E1YBU9 H R A D G H D F V D M A I E K G A F A I V V Q K K T V K D S I
UniRef90_Q89AQ1 K N F D A H M F V N E A I S K G A A A L L L E K Q C Y P K N V I P
UniRef90_U1MR71 A R R H G A E F A A A L E Q G A V A V V T D P A G A A M L E T G A P
UniRef90_W7CLF6 E R D G H A Y I E D A R E K G T Y A S F W Q A D S T V E K P T G L A
UniRef90_K4KTW9 Y Q A D G H A F A E A A I V A R A S A T A L A V E E F L P L A V P
UniRef90_A3WNF7 Y V T D G R D Y I N T A I A A G A R A L L A E G S S L R Y E E N G G A V
UniRef90_C7HVE4 E K F D G R I F I E E C E N S G A V A F L I D E N Y K I P K S I S I P
UniRef90_J0YR17 H L D D G H D F A E Q A Y A R G A S A L V V S R E N R L A E M G K I S A P
UniRef90_D5A2D1 D R F D G H D F V A A A I A K G A L C A V V S R E F A V S H P E F L D Y T R V A
UniRef90_UPI00030A8B18 Y T V D G H D Y V M Q A I E S G A K I I V S E K Y L E T V L E D L S V P
UniRef90_UPI0002D9D62C N R G D G R H Y I H D A I E R G A R A I V I D S H T V L E D L S V P
UniRef90_F2JSA5 F K T D G H Q F I E A A I A N G A K A I L V Q K D V E I K E D V T
UniRef90_V9TUN1 S R V D G R N Y I P E A I A N G A V V V L T T P N I I E C A V G
UniRef90_C4K741 H E T D G R H Y I P Q A L S Q G A G A I L A E A E G V V D D V S V D Q I Q G V P
UniRef90_UPI000466965B V R F D G H G F I Q Q A V Q Q G A A V I L S S E V I E T S V P
UniRef90_A8ZXW8 S A R D G H D F I D Q A L A R G A V A V V A E K E V D A R D A V T
UniRef90_M3F513 E N V N G H K Y V R S A I E L G A S V S L W Q R D E P G A P E D L P
UniRef90_R6Q8C0 E R F D A H Q F A N E A L S L G A A A V M I S E D I E V N G A
UniRef90_K4HK10 N Q D D G R H Y I N D A I K R G A Q A I T D C N A V L E N F S V P
UniRef90_F2IEJ3 L N F D G N K F A Q E A I Q Q G A T A A V V D N P E Y H I E G K T
UniRef90_UPI00029A3D94 S L A D G H A F I D K A I A S G A L V V V C E F Q G G S H P N V V
UniRef90_E6UEC3 K T F D G H D A A Q Q M L D K G C A A V V C E R D L G L E R
UniRef90_W0QVT1 H N V D G R K F I H K A I E Q G A T L V L A E A E N D V Q A V Q I D E N A N C T
UniRef90_Q7VP58 N F D A H H Y V D Q A I A Q G C I A L V V E Q R M L I N A P
UniRef90_L0FAH5 E K V D G H D Y I K A A W Q K G A S V V V A E K E R L K N R P E I S I P E G K A
UniRef90_R5GQ66 E S F D G N D F I D A A A E K G A S A V I S D R E E G A G S H S V T
UniRef90_W7YDV7 V H V D G H D F I S K A I E A G C S L V V C E R E L P N G E Y E N T T
UniRef90_R6MK06 E K F D G H E F I K A A F D L G A S A V L T Q R D T E L L V D K T
UniRef90_UPI00036ECD73 A R A H G A D F A A Q A A T L G A V A A L T D P A G A D R V A E A G L V
UniRef90_D1VS57 K I T D G H K Y I K N A K N H G A L V A V V E D F K E V Y
UniRef90_K2AUG8 T Q L D G R K Y I T D A I K N G A K A V L I E A E N E D E T V T F I E K I P
UniRef90_B4SHE8 E N A D G H C F I L G T V F E K G A S W A M V S R Q W Y E E Q G S V D P P P G K G
UniRef90_R6GSL8 A A A D G H D Y T A L A R Q R G A C A I S T H P V E G L P
UniRef90_L5N2N8 E S F D A H R F I G D A I K H G A V A A V W Q K D V E V P A L V P T D F P
UniRef90_I5C2D3 T Q V D G H A F I P K A I D Q G A R V I V C E V L P E E T R R V H V T
UniRef90_C6X983 D A A D G R A Y I P Q A I A N G A G A V L W E A E G F S W P A D L Q A V N
UniRef90_UPI00040625AD E N F D G H T F I D S A I D Q G A V A T F W N R E K E L P A H L P K D F P
UniRef90_UPI0002D334D3 H R F D G H D F A A Q A Y A R G A G V L I A E S R L A E M K T L L S A P
UniRef90_UPI00034CE047 E H V D G H Q Y V A Q A L R D G A G A S F Y Q K D T L L D E N V E G P
UniRef90_E4LK47 E K F D G A D F A A G A L R A G A V A V M L P E P V S D A H R K E L D R T P G A
UniRef90_G2KU52 E H D G H D Y I Q S A I H G A V G T F W K A D H A N Q A P D D F P
UniRef90_D3DK23 G R H D G H D F A Q E A F S R G A V G A I V Q R G I K V P K G K F
UniRef90_UPI00041013E4 A N F D G H S C A A E A S E K K A G A I V V C H D V E L P E G C E M P
UniRef90_F4LT13 P N F D G H D F I E R A F E K G A A A I L C D K N K R S K V D N L P I K N
UniRef90_Q87WY0 I K V D G R A H I A D A L K R G A A A V A Y E V E G A T V L P I T D V P
UniRef90_U1LZ62 P N F D G H K F V A Q A Q K G A I A I V D H P V D V D I P
UniRef90_J9ZAW3 D A F D G H D Y V E E A F R K G A R A A L V S R S V E A T G
UniRef90_D3SP23 Q K H D G H S F V E E A F R R G A V G V V E R E V P V K E G K F A
UniRef90_R5R607 E R Y D G H D F I E S A F T N G A S A I I T D R L I E D D K H V
UniRef90_J0LIY7 V Q V D G H D F M A K A A E A K A V A I V C E E L P A E L A S G V T
UniRef90_UPI000375C178 D H F D G H A F L D Q A I D Q G A K A I V D H L P E G F T K T G I A
UniRef90_K9YMT7 E N F D G H D F L T E A I S K G A I A L M V D E N H L S E E N F N V P
UniRef90_QOYPU6 Y C T D G H R F L R S A D A V E R G A G S V I C E E I P S G I E D G V L
UniRef90_B0TGB5 Q K T D G H R F A D A V E R G A A A L V V E R Y V D V D A L
UniRef90_F4XD96 A K T D G S L Y I D E A L A K G A A A V C R R R P Q R E G V
UniRef90_I7LNA6 Q K D G H D Y I E A Q A F N G A V A V L A D N Q H Q I P S T I A
UniRef90_N6VD38 N S L D G H D F A A Q A Y A K G A G V L V V A Q N R L A E M K K L A A P
UniRef90_UPI0003695126 E N S H G V E Y I D S A I E N G C V A V L I E G K D F E C D V P

	90	100
UniRef90_UPI0004797A3D	C Y E V P D T A Q A L G L L	A A N Y Y
UniRef90_A1AU65	V V R V V D T L V A L G D L	A A A Y R R R
UniRef90_D3V4L9	Q V V V E N T R L A M G K L	A A W V R R Q Q
UniRef90_UPI0004753C74	Q L C C P D T R L G L G L L	A G A W R R
UniRef90_UPI0003B39ABA	I I H F Y Q L S K T L S E L	A Y R F Y
UniRef90_J8TL72	V I V V S D T K R M M A R I	A N H F Y
UniRef90_E3BQ99	H I L V E D T R I A L G K L	A G S I V H Q
UniRef90_UPI0003656F84	V L V T E D P R G R M G E L	A A E L Y G
UniRef90_UPI0003B6CCCB	Y I L V K D T Q Q A L K D I	A K F Y R E
UniRef90_L1PYS9	C V E V E N T L K A Y Q D L	A N
UniRef90_K7WVJ1	V L R V K D T L K A Y Q Q I	A K W W R
UniRef90_UPI0003B774F5	L I V V D D T L S A L Q R I	A S S Y R D E
UniRef90_N2A187	V L E V D D P L Q A M Q D L	A R Y Y
UniRef90_R6U4T1	A I L V P D T V A A L G K L	A E A
UniRef90_A8UY80	I K V S S T Q E A L R E L	A G I F R G E
UniRef90_Q83F28	L I P F E N L Q H R I G E I	A A R F Y D D
UniRef90_UPI000413A7B5	V I I V D D T L E A L Q N L	A K A Y R H Q
UniRef90_D9QVM3	L I G V E D T T R A L Q D L	A E Y Y R
UniRef90_Q4FQ09	Q L V V N D T R L A L G Q L	A S Y R R R Q Q
UniRef90_P45450	Q F L V E D T L V A Y Q H I	A A G W R Q
UniRef90_R5QS19	Y L L V K D S F T A L K Q I	A A F Y R E
UniRef90_W4BBL7	Y Y R V S N T R R A L A A L	V G H L Y
UniRef90_Q04C48	V L E V A D T L K A M Q D L	A R Y Y L Q K
UniRef90_B8FBS3	V I R V K D S R R A L A N M	A S E F F G
UniRef90_C8WRE7	Y V R V T S A R R A A S A L	A S N R V Y G
UniRef90_M3J6S5	V I L I R D T K R G M A I L	A D H F Y
UniRef90_X4ZMB7	V L V D D T L E A L Q R L	A S A Y L K E
UniRef90_B1HP37	Q V I V K D T D R A V G L L	A A K F F
UniRef90_D3QIL5	L I Y V S D T L T A L Q Q L	A K A Y
UniRef90_Q24TE2	L I R V E S G L A A M Q T L	A Q A W R K E
UniRef90_J6UGV5	L V L V D D V R Q T L A L A	A A R F Y
UniRef90_K7AA13	I V H F Y A L T E H L S A L	A A A F Y G Q
UniRef90_K0NKW5	V I L V E N T R L A M A S I	A A A N F Y G
UniRef90_Q8CZE4	L I I V P D T N K A I A T L	A A T F Y
UniRef90_E1YBU9	I I E V E N T R K A L G R I	A A E F Y G
UniRef90_Q89AQ1	Q I I V Q N T T I A L G K I	A S W I R D Q
UniRef90_U1MR71	V I V L D D P R A A L G E I	A S A W V Y R
UniRef90_W7CLF6	L I I V E D T L V A L Q K L	A K S Y
UniRef90_K4KTW9	Q L K F T D T R K A M G F L	A A E V F G
UniRef90_A3WNF7	C V F M P G V K E Q L S E I	A A G R F F N
UniRef90_C7HVE4	F V K V S D T K K A L Q D L	A R A Y R D E
UniRef90_J0YR17	L I V V P D V L Q A L E K L	A K A
UniRef90_D5A2D1	L I P V A D T L Q A Y Q T L	A R S W R
UniRef90_UPI00030A8B18	C I V V S D T T R A I G L L	A S K F Y G
UniRef90_UPI0002D9D62C	V L R V C N V R H S L A I	A A A H F Y G
UniRef90_F2JSA5	I I K V E D T R L A M A L V	A A N N A Y G
UniRef90_V9TUN1	I L R D K N P R R Q L A L I	A A R F Y G K
UniRef90_C4K741	I V Y L F N L N Q Y L S Q L	A G E F Y H
UniRef90_UPI000466965B	V V L V K D T R I A L G L F	A A W H R Q Q
UniRef90_A8ZXW8	V R V A D A R N A L A L L S	A V F Y G
UniRef90_M3F513	L L F V D D C E V A L Q E	M A R A Y R D E
UniRef90_R6Q8C0	F V K V E N T S K A L L D L	S A Y Y R
UniRef90_K4HK10	V L H V L D V R H S L A I	A A A R F Y G
UniRef90_F2IEJ3	I L V D D T L L A L Q N L	A A K H
UniRef90_UPI00029A3D94	F L K V K D T H Q A M A F	M A R N F F
UniRef90_E6UEC3	Q I I V T D T R A A F P M L	C S A W F G
UniRef90_W0QVT1	V L N V P N L P Q M L S A I	A G A F Y G
UniRef90_Q7VP58	Q I I V A D T R L A L G E I	A G A K W
UniRef90_L0FAH5	L I Q V D L G L I A M Q S L	A Q T W V R Q
UniRef90_R5GQ66	V I L V R D S R A A Q L A L	A R H
UniRef90_W7YDV7	F V L V E D S A L A L G E I	A A G F Y G
UniRef90_R6MK06	I V K V E D T L K A F G D I	A K Y Y K Q
UniRef90_UPI00036ECD73	P L V V E N P R A R M G E L	A A T I Y G
UniRef90_D1VS57	Q I K V D N T R K S L A D L	A K N F Y K D
UniRef90_K2AUG8	L I P V T F L R H K M G V	M A A K F Y
UniRef90_B4SHE8	F I V T D D T V A G L Q Q L	A T I Y R H Q
UniRef90_R6GSL8	Y V I V P D T R Q A L A R M	A G N F F R
UniRef90_L5N2N8	L F F V D D T T K A L Q D	V A D Y Y
UniRef90_I5C2D3	Y V Q V A S A A V A L G E	M A A N F Y G
UniRef90_C6X983	L P V K D L R K Q A G E I	A D E F Y G
UniRef90_UPI00040625AD	V F F V E D T L V A L Q Q L	A H Q Y R
UniRef90_UPI0002D334D3	L I V V P D V L R A L E K L	A Q A
UniRef90_UPI00034CE047	I I W V E D T L T A L Q Q L	A K A Y
UniRef90_E4LK47	V I G V T D T L A A Y Q Q I	A H A W R
UniRef90_G2KU52	V I L V S N P L Q A L Q T L	A K Y Y
UniRef90_D3DK23	Y V L V D D T L E A L R R I	A
UniRef90_UPI00041013E4	V V H V E D T R Y A M A F I	S A A Y F G
UniRef90_F4LT13	I I F V D N P Q S A L L S L	S A Y Y R R
UniRef90_Q87WY0	L I P V K G L A A Q L S D V	A G R F Y G D
UniRef90_U1LZ62	Q L V V K D T R L A L G Q L	G Q A V I R Q
UniRef90_J9ZAW3	L L I V G D T R L A L Q G L	A R A
UniRef90_D3SP23	L V V E D S L K A L R S I	A
UniRef90_R5R607	V I L V D N T L K A L Q K M	A H Y
UniRef90_J0LIY7	Y I K V K N S G Q A L G L	M A S A F Y G
UniRef90_UPI000375C178	V V V V D D T L R A L Q S L	A A W
UniRef90_K9YMT7	I L K V K D T L E A Y Q K I	A H G W R E Q
UniRef90_Q0YPU6	F I K V T D A R I A L A E A	A R L Y Y G
UniRef90_B0TGB5	Q L R V P S T R K S M A Q A	A R V F Y G
UniRef90_F4XD96	F F T T P D P R R A L A L	L A E N W F G
UniRef90_I7LNA6	A V I V P D T L T A L Q A L	A Q Y R R Q D
UniRef90_N6VD38	L I V V P D V L K A L E K L	A Q A
UniRef90_UPI0003695126	T I R I D N L K T H L S K L	A Q N F Y

UniRef90_H1X5X7
UniRef90_F7RZJ0
UniRef90_UPI00035EDC3F
UniRef90_UPI0003B58B38
UniRef90_R5N0R0
UniRef90_F4HCG4
UniRef90_R9PSC1
UniRef90_UPI0003696010
UniRef90_R7MQZ4
UniRef90_G8QMT1
UniRef90_R5SA40
UniRef90_I4WVP7
UniRef90_J2KYA4
UniRef90_C0AWG4
UniRef90_UPI00037FE18A
UniRef90_BOVH53
UniRef90_L0LJU8
UniRef90_F9T623
UniRef90_D8MN40
UniRef90_A0A059FPY9
UniRef90_A7HVU2
UniRef90_R7CIK9
UniRef90_V9G3M7
UniRef90_L7VWM1
UniRef90_I3I4M9
UniRef90_I4CCN4
UniRef90_C5ZD37
UniRef90_U2LQM8
UniRef90_UPI00046A9145
UniRef90_UPI000369C056
UniRef90_M3KH62
UniRef90_D2NU61
UniRef90_F6DKE0
UniRef90_UPI00047AD845
UniRef90_UPI000374AF36
UniRef90_C6Y481
UniRef90_R6BVB1
UniRef90_I7I2I6
UniRef90_A0A023NTX7
UniRef90_U2RW02
UniRef90_E7NQ68
UniRef90_C7XXD0
UniRef90_X5H4A2
UniRef90_E0I3F1
UniRef90_R5ADW4
UniRef90_C0EHB2
UniRef90_Q5LU76
UniRef90_U5SA52
UniRef90_I5B3S6
UniRef90_Q8CZE5
UniRef90_K6YTE5
UniRef90_Z9JNK9
UniRef90_R5U726
UniRef90_S0L5M2
UniRef90_N2JBG3
UniRef90_UPI00047C3987
UniRef90_L0EUR8
UniRef90_V7I6P3
UniRef90_R6XKP8
UniRef90_D0YW90
UniRef90_M3F953
UniRef90_UPI00036B0B28
UniRef90_E8VRF4
UniRef90_UPI00042260B1
UniRef90_V8G9F1
UniRef90_R7M3N6
UniRef90_K9Q9S5
UniRef90_R9KDP1
UniRef90_UPI00036921F5
UniRef90_UPI00036A1E1A
UniRef90_E8SEQ8
UniRef90_K2K010
UniRef90_K9QCA8
UniRef90_W9EGP5
UniRef90_U2M7T6
UniRef90_UPI00047EB467
UniRef90_D0J958
UniRef90_C2MK79
UniRef90_UPI00040ED933
UniRef90_W1RW96
UniRef90_A0A010SY98
UniRef90_E0MJH0
UniRef90_E7GE13
UniRef90_G5GPV4
UniRef90_R5XQ13
UniRef90_M0RG08
UniRef90_UPI000371B6F1
UniRef90_H8Z3I7
UniRef90_A4TQ87
UniRef90_L0DE01
UniRef90_S0JBD8
UniRef90_G7VA06

1 10 20 30 40
T L K E M L N A S V S T E A D V T V T S T F D S R K A T A G S L F I P L V 40
S L A A L L P D C P F P L P D L A V L T S G L V K L D D S R K I A T A G D A F I A V L P G
Q L S Q L V N P L L I G A D Q A A L E F S A L V S S D S T R K Q I V P G G Q L F F V A L K R G G
L S E L L K G I D T K S N D T E I T D I T D N T S A R K L C E G S G Q L F F V A L K R G G
L S E L L S A V N P P S A S E L E I V D K V I T S T D T R E S Q I S Q M S Q A L F F A L R G G
L T Q A L D A Q L V G D S L I E I K D I I S Y N S R S C K E G G F I F V A L V G G
L S E I A S A I N A E S H E A E I T E I C S T D S R S Q L V S K G G C L F F A L K R G G
K K I S E I C N G K L K S I E N I E I T S S I T D S R K V E K D C M F V A I K G G
E L K A E L E G P A G A L D I S G L A D T R R I E P G D L F V A I K G G
K L K D L L S E L P L G I A D T D V S G L A Y T D S R K I D E D C L F F A L A G G
E L N T H I G G A L G D L E I S G I S A D S R K I V A P G M V F V A L V A G G
Q I A E S L D A E L T I G N D L V I N S V S T T D T R K A I E T G A L F F I A L V G G
Q K L A D L T G K L L F G D L S V D Q V T T D T R K V S A G C L F F I A L V O G G
K L K D L F P L A E D G E T D I L T G M T A D S R A V K P G G D L F A A L N G G
G P A L P E G G A T E I L G L T A D S R A V E P P G G L F F A A L P G G
D L E K E A C G I T W D S R E V E P P G F V F V A L P G G
Q S I A D L C G G E L L R N Q D L M I Q G V G T D S R T I Q P G N L F V V P I V G G
L C D L L P N L L E K A A T I T I E I G E V R D D S R Q L V K T G D A F I A L V G G
L L C G S P E T A F A A I S T D S R R D I T A G D L F F V A L K G G
I P G A T V L G D E R A S F E R V S T D S R S A G P G D L F F A L K G G
K K L A E C L A Q T L N S D K N P V I K S L V F D S R K A V N A G S L F F A L P G G
Q L A E I A R A L G V E A Q D I F V T N I C F D S R Q V K P G G A L F F V P L M G G
L E E P E G D D L E S I E V T G V S S D S R H Q H V E R S G D L F F A L P G G
K L K E L F K E L A S G A E S V D I V G V I T S D S R K V E R G G F L F A A L K G G
E S V E V T G I S M D S R R G V R P Q D L Y V A L P G G
Q L S E L L T A F I D G S P D L Q I R H H L C Y E T D S R K V K D G D L F F V A L K G G
T L E E L L H A T K G T L Q N T Q I R S V S V E T D S R A L K D G S L F F I P L I G G
I A T L L Q G Q F T I G Q D H Q I S E S V S T D S R T I S R G A L F F A L K G G
Q L Q D L L Y G V T I G V T N R K V S A L V F D S R Q V A K G C L F F V A I P G G
K I A Q A C G G V Y H G S E I E M K V E S I T T D S R Q A A K G C L F F V A I P G G
Q L A E T A K A L D I G N K E L E V T S V A F D S R K I S A G G D L F F V P L E R G G
L D Q L L H G I T P G V G D I V V S G L T L D S R R E T A P G D A F F A L R R G G
L K T L L A G L A T A D M E T E I T R I S Y D S R T T A P G D V F V A M T G G
F S S V S I D S R T V K D G S L F F V P L R G G
I R S V L K A E V I S K Y E I V R I S S G V A F D S R K I K N G D L F F V A L Q G G
I L A A K L E G D G N V Q I T G L N N D S R S V Q P G T L F F C L P G G
K L S D I L K K L L C G D E N V V T S F I T D S R R Q G K A G A M F V A I K R G G
K I S E L L K D I T G T Y D V D C D I T D V S C D S R K L T P N S V F A C I K R G G
R R L S Q L A L T A R G R D P D I S G L A V D S R L V R E G F L F A A L P G G
D E K I T S V E F D T R K L V K G S L F F A L L G G
K T V T D V K R A V I K G I S T D S R T R L S P D M V F L A L A G G
Q S L A E L F P K H G K I S T D I T I Q E E V T R D T R E P S S N S L Y I P I V G G
S S K P L L A H F G I D A P D I M I S D L V L D S R D V A I H K A F V A I N G G
L A Q L L P D I P Q A R D V I S G L V M D S R E V Q P G D A F V A I A G G
L K Q L L Y E V I V Q G S D K I E I T T L I N D S R K V E E G S V F V C I A S G G
S D P R M I T G V E F D S R K I K P G S N L F V P L A G G
L T R L I P Q A S D V S V K A L C L D S R R I Q P G S V F V A P L P G G
Q E F S G V F T D S R K E M K D G L F F V P L V G G
K G R I F G D S S N D V N G I S V D S R S I A G D A F F A L P G G
E D L E I A D T V D S R E V R N G F L F F A L K G G
K T L K D L L K D T L H G D G S T T V A A L A Y D S R A V T R S D C F F A T R G G
S L A Q A V E G Q L I G S D T T I S E V T D T R N I A A Q T S L F F A I K G G
L A S I P Y K Q I L K G P L P E H I E H L T D S R D I K T N S A F I C I T G G
S G D L D I I I K Q V T S D S R L V Q K G A L Y V A V K G G
L A Q L T Q G Q L I G D D A T E F C T V S T D T R H I P Q Q A L F F A I L V G G
N T H V T G V S V N S R R D I D N G G I F V A I P G G
S H L R L D S R R D I Q K G D V F V A C K G G
I K D I I K K L L S G D E N I V I N N I K L D S R K I N D G D I Y F V G M P R G G
K L R E L L A P N N P D L A D A E V K G L K T N S H A C G E G D L F I G M P G G
R E I C G A S T D S R Q V G E G F L F I P I K G G
T R I A T D T R K I E A G D L F L A I V G G
S V S V T S I A F D S R R H L Q P G G I F F I P L T G G
I L L I K Q V I G R L D I E V N D I T T D S R Q A K A G S I F V A S K G G
I A A T L D I L E G L T A D S R Q V R P G E Y L F A A L P G G
T L S Q L L Q V L S A Q S T N L S A T G I Q T D T R L Q P G E V L F A L R G G
V P V A A S E L V T S V D F D S R K L T T G A L F F V P L T G G
L A A L V P G A R L A G N D A E I K S I E R D S R R Q V E G T L F F C I S G G
K L R Q L I A T V E H P A L D S E V K G L T T N S H A T S P G D L F L G M P G G
I I G N P Q K W I K G I S I C S Q L V E I D T I F F A K K G G
K K L E V I E G L Y E S F H H I E I H G C L D S R K N M K S G N L F F V P I T R G G
I K D W P C T W L H G S F N E W I R G V K E D S R E V Q S G D V F V I T K G G
T L S D I A Q A C G G E G V D Q V V S S V V T D T R K I S E G G C V F V A L K G G
K L S E V A G P L A G R T A D S S F D G S I D S R A I Q P G Q L F F V A L T G G
E A T K G W L P G D T E I A I T G L S I D S R S L Q P G D A Y F A I R G G
Q I K E I I G Q L L S G D M E Y D V N G F T Q D T R K I E S G N M Y I P L V G G
A I P K I T T D T R K I E T G D L F F A L R G G
K G F D D I E I V D A Y S S L K C Q E G Y M F V A L K G G
T L A E L L E K T I Y G D L D A L I T G V Q D D S R E V C Q G D L F F S R V G G
L E C T A I S T D T R R I L P G C L F F A L K G G
E G A D L A F T D G V T D T R Q D C Q G K L F F A L K G G
S D D I E I T E V T I D T R K V T A G G C L F F A L K G G
S L R R L L P E A F V I G C H D W E V S G C T A D S R R L D P G Q L F F V A V R G G
R L L E H L N Y T V V Q G R T E L E I T E L V Y D S R K I T R G C L F F V C I K G G
S Q E I S D C F H D S K E V T K G S I F A C I R G G

UniRef90_H1X5X7
UniRef90_F7RZJ0
UniRef90_UPI00035EDC3F
UniRef90_UPI0003B58B38
UniRef90_R5N0R0
UniRef90_F4HCG4
UniRef90_R9PSC1
UniRef90_UPI0003696010
UniRef90_R7MQZ4
UniRef90_G8QMT1
UniRef90_R5SA40
UniRef90_I4WVP7
UniRef90_J2KYA4
UniRef90_COAWG4
UniRef90_UPI00037FE18A
UniRef90_B0VH53
UniRef90_L0LJU8
UniRef90_F9T623
UniRef90_D8MN40
UniRef90_A0A059FPY9
UniRef90_A7HVU2
UniRef90_R7CIK9
UniRef90_V9G3M7
UniRef90_L7VWM1
UniRef90_I3I4M9
UniRef90_I4CCN4
UniRef90_C5ZD37
UniRef90_U2LQM8
UniRef90_UPI00046A9145
UniRef90_UPI000369C056
UniRef90_M3KH62
UniRef90_D2NU61
UniRef90_F6DKE0
UniRef90_UPI00047AD845
UniRef90_UPI000374AF36
UniRef90_C6Y481
UniRef90_R6BVB1
UniRef90_I7I2I6
UniRef90_A0A023NTX7
UniRef90_U2RW02
UniRef90_E7NQ68
UniRef90_C7XXD0
UniRef90_X5H4A2
UniRef90_E0I3F1
UniRef90_R5ADW4
UniRef90_C0EHB2
UniRef90_Q5LU76
UniRef90_U5SA52
UniRef90_I5B3S6
UniRef90_Q8CZE5
UniRef90_K6YTE5
UniRef90_Z9JNK9
UniRef90_R5U726
UniRef90_S0L5M2
UniRef90_N2JBG3
UniRef90_UPI00047C3987
UniRef90_L0EUR8
UniRef90_V7I6P3
UniRef90_R6XKP8
UniRef90_D0YW90
UniRef90_M3F953
UniRef90_UPI00036B0B28
UniRef90_E8VRF4
UniRef90_UPI00042260B1
UniRef90_V8G9F1
UniRef90_R7M3N6
UniRef90_K9Q9S5
UniRef90_R9KDP1
UniRef90_UPI00036921F5
UniRef90_UPI00036A1E1A
UniRef90_E8SEQ8
UniRef90_K2K010
UniRef90_K9QCA8
UniRef90_W9EGP5
UniRef90_U2M7T6
UniRef90_UPI00047EB467
UniRef90_D0J958
UniRef90_C2MK79
UniRef90_UPI00040ED933
UniRef90_W1RW96
UniRef90_A0A010SY98
UniRef90_E0MJH0
UniRef90_E7GE13
UniRef90_G5GPV4
UniRef90_R5XQ13
UniRef90_M0RG08
UniRef90_UPI000371B6F1
UniRef90_H8Z3I7
UniRef90_A4TQ87
UniRef90_L0DE01
UniRef90_S0JBD8
UniRef90_G7VA06

E N D G H D Y I A S A I A N G A T A T L W Q A D H G N V P T D I 80
A E V D G R D Y I Q S A I A A G A S V V L A D M D E W T H G E L E G V P
P R F N G H D F I G Q A H E Q G A T A A L V I E E P V D S P E T A D L A I P
E R F D G H S Y L A D V A K R G A V A V V I E E T A D L A I P
A H F D G H S A A E E A V N K G A R A V V A E Y D T G V E N S V P
E S F D A H R F L A A Q Q A I E Q Q G A T A L L V I E H A D P A V S V P
E R F D A H N Y A Q Q A I E Q Q G A T A L L V I E R E L A L D V P
E T V D G H K F A K N A Y D N G A R V F L L Q K G M E S S K Y V I E L P N D T V
E N F D A H D F V P K A F E R L G A A A C I T E R K I D G C D
E R F D G H E Y L A Q A G E R G A A A V V I A V D T V E Q L Q G K V S L P
E R V D G N K F I N G A Y E D G A T V C L S E D E P D K N S I N I S E K N G
E R A D D G H D Y L A E A A T R G A V A A L V I T R K V D S A S V P
S K A D G A G F I A D A V A K G A T A V I A S H A A E T S V P
E R F D A H D F L A D V K E K G S V A V L V N R E I D V D C P
A K V D G A Q F A A V A I A K G A V G V G D H P R P P G F H D A
A N F D G H N F I N S A L E K G A I I V C R E I N K R D I P
T K A D G A S F I A D A V S R G A S V I V A G H A A D A K R D I P
E R F D A H D F A A Q A V E S G A G A L L M S R I V E A G N V P
E R F D A H D F V G E A M A A G A S A L L V S K H V T V A V P Q V V V A D V P
T V T D G R K Y V P Q A I E A G A A A I L S D G G L E K V P Q V V V A L P
T K L D G T K F I A Q A I E K G A A A L L V P L D A A V A A N S V P
E R V D G H D F V E S A C K S G A V A V L V M K D L P E E V I A C A E S A T A
E K F D G H E F A E Q V L A S G A G A A L W Q R D R Q P V I P N L P
Q T V D G H H F I T S A A Q R G A R A A I V E Q V H P D C P L
N K V D G R D F I L A K A I E L G A S V I L V E A D K N W Q G I D W L G S V P
D S F D G H D F A L P A L E A G A R G C L W S G D D T R E N L K R F P N I V
E R F D A H D F V G D V A A R G A S A A I V S R S P A E W Q V H P D C P L
T H V H G S F V A E A V E S G A C A V V Y E G E L G K D A V F A A R K S G A V
T N D G H N Y V Q S A I D G G A V A T L W Q A D H V N Q Q I A D F P
E R T H G A N F V A D A V E S G A V A V L T D P A G R V V A A E A S V P
V K A D G S A Y A V D A V K R G A V A I A G K N A A I E N L G V P
A K V H G A Q F A E A A L K L G A S A I L T D A A G A Q L L G E A P V P
Y R T D G H Q Y I A D A V A A G A T A V V L E E K V E V P P G V T V V T V T
E R F D A H D F L D M A L S G G A A G C L T M R A P E R F Q P G K F
P N F D G S R F A A D V S A K G A A A I V A D R P L I E C D I S
T L A D G H T Y I A S T V S A G A G V V I C E V L P A E I A P D V T
E R V D G H D F I A S T V F E K G A L A V L S E K E L E N P A G P
E R D G H D F V A S A I G N G A V A T F W K Q G H P N K P K N I A
T R E H G H F A K G A V A R G A R V V L A E A P A A D A S G I D V P
F A T D G H A Y I G K G A V A A G A A V V C E R P P E D R S V P
E K Q D G H R Y I R S A L E K G A V L F F A D E K F L S V D E K L C D E F S A S
A R D G H E F V A T A F Q N G A S A T L W A A D R S Y E D D G Y P
E R C D A H T F L E S A Y L N G A S A I T R K H L E C P E L A I P
Y K V D G H D F A A A A S N G A A A L V I E R K L D V A I P
E R A D D G H D Y I Q T V L E S P A A A T F T D H E I P T G E K P
V Q S D G H D F A Q A L A K G V P C I L C E R D L G L N N
S R V H G G D F I Q Y A L R M G A S A I L T D A E G A R I A A A E L A A S Q A A
N N D G H E F I L K A I E N G A V V S L W S K S L A K L P I E V E D V R F P
E H F D G H N F I P D L A E K G L I V F V V R Q G Y D L N Q K R L M D K P R V C
E R F D G H N F I F D A I K N G A I A T L W D K S I P L P S E W D N S F P
H A L D G R D F I P Q A V S L G A K I T V A Q C D D M A N H G H V E M R E Q S V
F G A H G L G F I E Q A C A K G A V V I L F E P P A P E G L P V P D E A
A V S D G H Q Y V A D V A K K G A K A V I V Q Q D V E A P A G M T
A R D G H E F I D Q A I E N G A A T F W S Q D E A A P S T I T
G V R D G R L H I A E A I A N G A S A I V Y E A D Q A P D L P P A S V P
E R F D G H E F L L H A I Q N G A T A A V W E K G K Q I P R E I P N Q F P
K R F D G H D Y I S T A I M K K A S L T V A C E K R L S A L G H V K V P
H R S D G H M Y L K D A E A R G A A C A V V E S P S D D I P G I P
T Q S D G H D F I P D A V A K G A S A V V C E Q L P A E T A D G V A
E R F D A H D F C Q T A K D N G A V A L L V S R H L P V I E L P
Y T V D G H D F A Q Q A A N Q G A T L I V T E K P M T I D N A T
I E N D G H R F I D N A I A N G A V A V L S E V I A Q P A D F D Q A V T
E R F D A H D F C Q Q A V D A G A V A L V I E R A L D L P V A
M K Q H G I E Y A R G A L T R G A V A I V T D Q A G A D R A H R Y L A E A D I P
H Q V D G A R F I Q N A I D N G A V A V L V I E K G L V V P P T N I P
E V N D G N I F F E D A I N R G A K A I V D N S K L D Y D K Y G D V T
T R V D G G E F W P S A I A S G A V A I V S A E A A E K N P T P E A V
A R A D G H D F I P D V F A K G A A A V L S E K K L E G C Q N P
E K F D G H H F V E A A V D K G A V A A I V S S V N D K V T V P
E Q D G H Q F I Q S A I D H G A A A T L W A R D L A T A S V N D K V T V P
Y T V D S H R F A Q D V V E Q G C Q I V V V N R A L E P A G L T L Q G D V T
A R E D G S A F I G D A V Q R G A R A V L A P A G L T L D S P V P
E N F D G H D F I P T A I G K S A L A A I V D F D Y E N S L Q G D V T
T H D G H Q Y L A N A I E K G A V A A L W S E D H R D T A P A D F P
A H V D A H S F P N A A R A G A R A V L T E R T L D V P A G I S
T R V D G G D F W Q S A I A S G A V A I V S P S A A H K H P P T P E A C
K K T D G H Q F I T E A I Q K G A N T V V C E K K P V L L H K N I T
V K D G H E Y I V K E A M D N G A V A S L W K S Y G T P P K G I P
R H A N G A V Y I L Q E A I R N G A V C I I S E N R E D G Q F C R D V A
E R F D G H D Y A L N A I K A G A V A V T D R D L D L P S
P R F D G H D Y L N D V A A K G A V A A L V I E R E V T N S T L P
D V H D G H K F V A A A H A A G A T V S V V A K D W V G R L E G D C G R
E N A D G H Q Y I A A F N L G A S S T I T A H K V H Y P D K N
E N F D G A E F A D A D A L Q K G A S A V L V Q V P L S K S V I E K A L K N A K G A
E T V D G H K Y V F D A Y S R G A S V F V L G Q D D I E M A D D A I K
S K T D G H L Y L T E A C N R G A V A V I D R E T D K D Q I L L G Y G C K A
D K F D G N Q F A E Q A L A S G A R Y A L V D D A D V A D R V S L A G S
E R F D G H A Y V A T A A E R G A V A A M V S R P V A V D L P
E R F D G H D F A E D A I A A G A G A L L V S K R L L V G G P
V R H D G H A F V E Q A L E R G A A G V V E R P C P E A G R L
T V A D G H T V A E A E K G A A A V L V Q Q D V E A P D S L T
S K F D G H D Y V E S A R Q K G A S A I L A E K T V K V D V P

		90	100
UniRef90_H1X5X7	A	I T V P D T L D A F Q K L A A Y Y	
UniRef90_F7RZJ0	L	I G V P K L A T E V S H I A G R F Y Q Q	
UniRef90_UPI00035EDC3F	Q	L V C P D T R L G L G L L A G A W R	
UniRef90_UPI0003B58B38	Q	L L V A D T R I A L G Q I A	
UniRef90_R5N0R0	Q	I L V K N T R D A Y S L L C A N F Y G	
UniRef90_F4HCG4	Q	L V V A N T K K A L G Q L A L W V R Q Q	
UniRef90_R9PSC1	Q	L L V K D T R L A L G Q L A S Y V R	
UniRef90_UPI0003696010	K	L F V E D T R I S L S R I S H N F F	
UniRef90_R7MQZ4	C	I V D D C R K A L R D I A H F Y R N K	
UniRef90_G8QMT1	L	V A V A D T R L A L G A L A G Y W R	
UniRef90_R5SA40	Y	I V V K S C F Q A L K D I A E Y Y R E	
UniRef90_I4WVP7	Q	V L V G S T E L A L G D L A S A V R A Q	
UniRef90_J2KYA4	V	L V V S E P R R F L S V A A S H F Y G	
UniRef90_COAWG4	Q	L I V K D T H L A M G E I A A H I R	
UniRef90_UPI00037FE18A	W	I Q V S H G R R A L A V A A R N F Y N K	
UniRef90_B0VH53	Y	I K V K D T R K A A A V I A	
UniRef90_L0LJU8	L	L Q V G E P R R F L A V A A S R F Y G	
UniRef90_F9T623	Q	L L V K D T K L A L G Q L G S L V H H	
UniRef90_D8MN40		D T R I A L G Q L A G W V R Q Q	
UniRef90_A0A059FPY9	H	V I A D E P R L A L A L A A K R F F	
UniRef90_A7HVU2	V	I A D R N P R R R L A L M A A A F F G D	
UniRef90_R7CIK9	I	L R V S T H E A F T Q L A S G Y R G	
UniRef90_V9G3M7	L	I L V E D T	
UniRef90_L7VWM1	Q	I P V E N A T N A L A Q L A	
UniRef90_I3I4M9	V	I A V E Q L A S Q V S A I A A A R F F D E	
UniRef90_I4CCN4	L	I Q V Q D T L R S L S D L A S A	
UniRef90_C5ZD37	A	L K V A D T R A A L G A L A H G W R	
UniRef90_U2LQM8	L	I Q T K S S R F A M S P I A A A F Y	
UniRef90_UPI00046A9145	S	L V V E N C L E A L Q A L S K Y Y	
UniRef90_UPI000369C056	V	L V V D D P R L A L G H V A R W V Y R	
UniRef90_M3KH62	V	L H V E D P R H A L A V A S A Q F Y G K	
UniRef90_D2NU61	V	L V T E N L R E Y V G P L A A L I Y G	
UniRef90_F6DKE0		D S R K A L A L L A D R F Y H	
UniRef90_UPI00047AD845	Y	I Q V E D T Q K A L G D L A S Y Y R K K	
UniRef90_UPI000374AF36	Q	I V V A D T R L A L G Q L G A A	
UniRef90_C6Y481	Y	I Q V A N S A V A L G R M A A N F Y G	
UniRef90_R6BVB1	Y	I Q V A S S L E A V K G I A E Y Y R Q Q	
UniRef90_I7I2I6	V	L E V K D P L N A M Q E L A R Y Y L Q K	
UniRef90_A0A023NTX7	V	L W V D G L H G K V G E L A A R F F G	
UniRef90_U2RW02	Y	V L V E N S R R A L A V M A A N Y Y G	
UniRef90_E7NQ68	C	I Q V K N T L A A L Q A A A R F Y	
UniRef90_C7XXD0	R	I V V D D P L A A L Q Q L G K Y Y L H K	
UniRef90_X5H4A2	L	I K V D D P V A A M Q K L A	
UniRef90_E0I3F1	Q	L I V K D S R L A M A I I S D R Y Y	
UniRef90_R5ADW4	I	V L V K D C R E A L Q K A A A W Y R E Q	
UniRef90_C0EHB2	Q	L L V Q D T H F A F A K M C A N F Y G	
UniRef90_Q5LU76	L	V V E D P R Q T L A L T A A L W F G	
UniRef90_U5SA52	V	I Q V K D T L Q A L Q D L A K F Y	
UniRef90_I5B3S6	F	F E V P D T L A A L G R L A	
UniRef90_Q8CZE5	V	F F V E D T I L A M Q Q L A N S Y	
UniRef90_K6YTE5	I	V S F Y Q L A E K L S E L A G H F Y Q	
UniRef90_Z9JNK9	I	A V P G L R G R L G A M A D H F H G	
UniRef90_R5U726	V	I R V E D T R	
UniRef90_S0L5M2	S	I K V T D V L A A F Q T L A T Y Y R E	
UniRef90_N2JBG3	L	V P V K E L G A E L S A I A G R F Y G E	
UniRef90_UPI00047C3987	L	F F V E D T L V A L Q E M A K V Y L E Q	
UniRef90_L0EUR8	V	I V D D V F A A L N R L A	
UniRef90_V7I6P3	Q	L R V A D T R R A H S R I C S N Y Y G	
UniRef90_R6XKP8	Y	V V V P D A A G A L A D M A A A F Y G	
UniRef90_D0YW90	Q	I L V K D T R I A L G L L G A W	
UniRef90_M3F953	V	V E V E S T S R T V G L L A A K F Y	
UniRef90_UPI00036B0B28	W	I H C A N N R K N L G L V S S Q F Y G Q	
UniRef90_E8VRF4	Q	V V V K D T K M A L G Q L G A N V H Q	
UniRef90_UPI00042260B1	V	V V V D D P R L A A A R I A H A V Y R	
UniRef90_V8G9F1	V	Q E I V G L R Q Q L G S L A D E W Y G	
UniRef90_R7M3N6	I	V L V K D T V W C L Q E L A	
UniRef90_K9Q9S5	V	I S A S D M N Q A C A Q I A A A F Y	
UniRef90_R9KDP1	Y	I L V E S S A Q A L K D I A E F Y R	
UniRef90_UPI00036921F5	Q	L Q V A D T R L A F G Q I A A Y R R Q Q	
UniRef90_UPI00036A1E1A	V	I Q V A D S L K A L Q A L A Q Y Y	
UniRef90_E8SEQ8	Q	V I V P D T L R V A S H L V H H L Y G	
UniRef90_K2K010	V	I A D A N P R L R L A R M A A R F F G Q	
UniRef90_K9QCA8	V	L Q V K N T L A A Y Q T I A R W W R	
UniRef90_W9EGP5	V	I I V P N P L A A L Q T L A R Y Y	
UniRef90_U2M7T6	V	L H V P N L Q E A L D T I V P Y F Y N	
UniRef90_UPI00047EB467	V	I T A T D M T K A C A Q I A A A F Y	
UniRef90_D0J958	Y	V I V K N S M D A L G T I S S N F Y	
UniRef90_C2MK79	I	L F V D D T L F A L Q Q L A Q F Y R R E	
UniRef90_UPI00040ED933	F	G I V P N T R T F L S H A S S R I H G	
UniRef90_W1RW96	Y	V K V V D T R L A Y G A T A A A F H G	
UniRef90_A0A010SY98	Q	L Q V L D T R Q A L G E L G A	
UniRef90_E0MJH0	L	L V V D D V L H A L V R L A R	
UniRef90_E7GE13	V	I L V K D T L Q A M S D M A K Y	
UniRef90_G5GPV4	V	L T V S N T L A A Y Q A T A H A W R	
UniRef90_R5XQ13	I	I V E D S R I A L S K I S A N Y F G	
UniRef90_M0RG08	A	V V V N S T N S V L P V L A A T F F G	
UniRef90_UPI000371B6F1	C	L L V A D T L T A L Q D L A R H H R Q	
UniRef90_H8Z3I7	Q	W I V D D P L Q G L G R L A A A W R	
UniRef90_A4TQ87	Q	L V V K D T R L A L G Q F A A W V R Q Q	
UniRef90_L0DE01	Q	V I V P D S R A A L A K L C Q A L A G D	
UniRef90_S0JBD8	V	I K V T D T R Y G L A V T S A A W F H	
UniRef90_G7VA06	C	I V V S D V R S V L G E V I A S A V H	

UniRef90_X5A212
UniRef90_UPI000255EF9F
UniRef90_G8PUR7
UniRef90_UPI0002D47587
UniRef90_UPI0003B72B63
UniRef90_UPI00036C7BB5
UniRef90_G2KMC0
UniRef90_Q38V61
UniRef90_UPI00037DC5DB
UniRef90_Q5WFG6
UniRef90_C0QZ37
UniRef90_UPI000381C0F9
UniRef90_S3LSS0
UniRef90_A4SI52
UniRef90_R6YUA1
UniRef90_I2JGJ1
UniRef90_E8WXA0
UniRef90_UPI00036320D4
UniRef90_U9WFI3
UniRef90_UPI0003B2FC0A
UniRef90_UPI000371AAE5
UniRef90_UPI000478613C
UniRef90_K6UWW2
UniRef90_H7EI08
UniRef90_D2U1S2
UniRef90_R7GQE2
UniRef90_F8L102
UniRef90_K9VMS9
UniRef90_R51Q1
UniRef90_U5LJA9
UniRef90_R2SF66
UniRef90_A0A017SWR8
UniRef90_K2GT03
UniRef90_UPI00035FFAC8
UniRef90_UPI00047991B1
UniRef90_M1E518
UniRef90_U9VLJ9
UniRef90_Q7MWM7
UniRef90_UPI0003075400
UniRef90_U8CWT5
UniRef90_UPI00046A24CA
UniRef90_R5E2S7
UniRef90_C6Q0P8
UniRef90_A0A022LYC2
UniRef90_D7E0D6
UniRef90_UPI0003764F7D
UniRef90_W7BBC9
UniRef90_UPI000413D17B
UniRef90_H3RN09
UniRef90_R5K2E9
UniRef90_UPI0003B5DAAD
UniRef90_G8QXE3
UniRef90_UPI0003B41080
UniRef90_F7RT07
UniRef90_H1CZ44
UniRef90_U5N9X6
UniRef90_I3D907
UniRef90_G6FQ08
UniRef90_Q837J3
UniRef90_B9DQ99
UniRef90_E4UB25
UniRef90_W4HIU6
UniRef90_UPI0003675497
UniRef90_UPI0003476DCE
UniRef90_I3ZK95
UniRef90_UPI000409062C
UniRef90_UPI00047DD908
UniRef90_UPI0002DE2C07
UniRef90_UPI00037E004F
UniRef90_F5ZJL5
UniRef90_R1ISP7
UniRef90_L0B4P9
UniRef90_S5ZTB0
UniRef90_R6K6P6
UniRef90_UPI00047A4D7F
UniRef90_V6JNY4
UniRef90_Q2S532
UniRef90_F5SD50
UniRef90_UPI000379C86D
UniRef90_B2GJQ2
UniRef90_UPI0003454999
UniRef90_UPI00035EE3EA
UniRef90_O83903
UniRef90_R5PJF1
UniRef90_D5QGN8
UniRef90_F8EFN2
UniRef90_L0LKA6
UniRef90_UPI0002001FB3
UniRef90_D7B104
UniRef90_R2RBL1
UniRef90_UPI0003811D51
UniRef90_K9PN91

1 10 20 30 40
[L]A[V]S[R]L[G]S[G]E[T]E[I]T[D]L[Q]A[D]S[R]K[V]K[P]G[D]L[F]I[C]L[P]G
S[P]D[L]L[V]S[A]A[T]D[S]R[E]V[V]T[P]G[G]T[L]F[F]I[A]K[P]G
[L]K[D]L[T]K[Q]E[I]D[S]A[A]A[L]T[L]S[S]G[L]Q[T]D[S]R[A]V[V]P[E]P[G]G[E]V[F]V[A]A[L]K[R]G
D[L]A[K]M[T]N[G]V[L]H[G]N[D]L[S]I[D]S[V]A[T]D[S]R[S]V[T]A[D]G[D]L[F]I[A]I[K]G
[L]N[P]S[L]V[G]D[F]D[K]T[A]T[R]I[I]T[D]S[R]A[V]N[Q]P[G]G[E]V[F]V[A]I[A]I[K]G
P[D]I[N]I[S]G[I]A[L]D[S]R[A]V[K]P[G]G[Y]V[F]V[A]V[P]G
A[T]V[E]V[T]S[V]A[F]D[A]R[E]L[V]P[G]G[A]L[F]V[V]A[L]A[G]G
D[V]E[I]T[G]I[S]T[D]S[R]T[V]E[P]G[G]L[F]V[V]A[L]P[G]G
A[S]L[L]K[S]I[A]K[G]S[D]R[R]G[F]S[G]V[S]T[D]T[R]Q[R]E[P]G[G]L[F]V[V]A[L]P[G]G
S[Q]L[T]K[E]C[L]N[T]E[I]V[K]G[A]Y[D]S[R]L[I]K[K]N[Y]L[F]V[V]A[L]I[K]G
Q[L]A[E]I[A]Q[A]L[N]I[E]P[Q]D[I]T[F]N[S]V[T]T[D]S[R]T[V]N[P]H[A]L[F]V[V]A[L]I[K]G
D[L]A[Q]V[L]D[A]R[L]I[G]E[D]G[E]I[T]T[V]S[T]D[S]R[T]L[G]K[G]S[L]F[V]A[L]L[R]G
L[K]A[V]D[G]T[L]L[W]G[D]K[N]G[V]V[T]N[V]V[T]D[S]R[K]A[G]K[D]S[L]F[V]A[L]I[K]G
Q[T]I[A]A[A]T[G]V[L]T[G]T[D]I[S]V[D]R[I]C[T]D[S]R[K]V[Q]A[G]D[L]F[V]A[L]S[G]G
G[S]G[S]A[D]V[T]G[V]Q[Y]D[S]R[R]V[V]A[G]D[L]F[V]A[L]M[K]G
[L]R[E]L[L]S[Q]V[S]H[P]A[L]D[R]E[V]K[G]L[E]F[D]S[R]K[I]T[K]G[D]L[F]L[P]L[K]G
V[S]D[L]D[V]P[L]H[H]I[E]F[D]S[R]K[I]T[K]G[D]L[F]L[P]L[K]G
V[V]S[G]I[T]L[S]S[R]D[V]M[P]G[D]L[F]V[V]A[L]L[K]G
K[T]I[A]Q[V]T[D]G[Q]L[Q]G[P]E[K]T[I]E[K]V[V]T[D]S[R]V[D]C[R]D[L]F[V]A[L]I[K]G
L[P]E[L]L[K]T[V]G[K]K[Y]P[E]Q[P]I[K]R[I]L[T]D[S]R[Q]A[E]A[G]D[A]F[L]A[L]K[G]G
L[D]E[L]L[A]D[N]E[I]G[G]G[N]P[E]I[V]D[L]A[F]D[S]R[S]V[S]E[G]T[L]F[F]A[L]P[G]G
Q[Q]A[G]S[L]W[L]N[A]V[T]T[N]S[R]Q[R]P[L]K[G]L[F]V[V]A[L]L[K]G
K[K]L[N]E[L]F[K]V[E]S[D]I[K]I[E]S[I]H[S]D[S]R[Y]V[R]K[D]S[L]F[F]C[L]E[G]G
K[V]L[K]D[I]P[V]V[P]K[G]S[K]E[L]E[I]S[G]I[C]A[N]S[Q]L[I]A[P]G[N]L[F]I[A]K[K]G
Q[L]A[E]I[L]T[V]Q[L]P[A]V[S]E[G]V[L]T[G]I[A]T[D]T[R]I[E]G[G]E[V]F[L]A[L]R[G]G
E[I]E[Y]T[L]L[Q]S[L]E[T]E[V]R[D]V[I]Y[D]S[R]K[I]A[P]E[T]M[F]V[V]C[M]V[G]G
G[S]P[S]Q[K]I[N]S[I]S[Y]D[S]R[N]A[G]P[Q]S[V]F[V]V[C]M[G]G
P[D]F[D]L[T]G[I]E[F]D[S]R[L]I[K]G[S]N[N]L[F]V[V]P[L]K[G]G
D[V]Q[G]I[S]T[D]S[R]A[L]A[P]G[A]A[F]V[V]A[L]V[G]G
R[T]L[S]Q[L]L[P]L[P]A[S]L[A]A[T]P[I]S[A]L[C]L[D]S[R]R[I]S[A]G[D]T[F]V[V]A[L]F[A]G
L[R]E[I]A[N]A[C]G[L]Q[Y]E[N]L[Q]V[H]A[V]E[L]D[T]R[K]L[H]E[G]C[L]F[V]P[L]A[G]G
L[S]S[S]A[Q]E[N]P[S]L[T]V[T]S[A]T[D]S[R]E[C]T[A]G[S]L[F]I[A]K[P]G
E[F]E[R]T[S]T[D]S[R]D[I]K[G]K[E]L[F]I[A]G[M]P[G]G
T[L]R[E]L[L]A[K]L[P]A[E]G[L]D[Q]A[V]T[G]L[C]T[D]S[R]K[T]C[Q]P[G]N[L]F[V]A[L]P[G]G
L[S]E[L]R[P]I[A]V[I]G[N]I[E]Q[E]V[S]D[I]A[S]D[S]R[K]A[T]D[G]A[L]F[V]A[L]V[R]G
A[Q]L[N]S[K]L[H]G[D]D[M]I[T]D[V]S[T]D[S]R[T]I[K]S[G]D[L]F[V]A[L]S[G]G
P[E]L[L]A[S]G[V]S[V]D[S]R[Q]V[P]G[G]D[I]F[V]A[L]P[G]G
L[V]P[G]A[S]G[A]A[P]E[T]T[V]L[G]A[S]T[D]S[R]E[V]G[P]G[G]Q[I]F[F]A[R]R[G]G
L[L]C[G]D[E]N[T]P[V]T[D]I[C]L[N]S[K]I[K]E[K]D[D]I[F]V[A]L[R]G
F[N]Q[I]S[T]D[S]R[K]I[K]K[D]D[I]F[V]A[L]R[G]G
R[T]L[L]S[L]I[A]H[W]A[G]G[D]D[V]A[L]D[A]V[S]N[D]T[R]N[L]G[P]G[S]L[F]V[V]A[L]R[G]G
K[S]I[Q]T[D]T[R]L[K]Q[P]G[E]V[F]V[A]L[R]G
T[L]S[E]V[F]A[A]V[V]L[Q]T[K]Q[N]K[F]C[D]I[V]T[D]T[R]F[V]K[K]G[V]L[F]V[A]L[I]G
D[V]L[H]I[E]I[N]A[V]E[Q]D[S]G[Q]V[R]D[G]T[L]F[V]C[L]D[G]G
I[K]G[V]S[T]D[S]R[T]L[E]E[G]N[L]F[V]P[F]K[G]G
S[L]A[E]I[A]K[A]I[R]V[Q]N[D]D[L]E[V]T[N]V[A]F[D]S[R]L[E]A[G]N[L]F[V]I[A]L[M]G
T[G]V[T]D[S]R[N]C[P]K[G]S[L]F[I]A[L]K[G]G
E[K]E[A]S[V]D[S]R[L]I[E]K[D]G[V]F[F]A[L]T[K]G
A[S]L[C]G[G]T[L]V[K]N[G]A[L]D[A]E[D]V[Q]F[D]S[R]L[C]S[R]G[T]V[F]F[A]L[P]G
K[L]L[E]L[I]K[P]L[H]G[L]S[E]N[P]E[I]V[S]I[R]S[D]S[R]D[I]K[P]N[S]L[F]I[A]V[K]G
L[R]D[L]L[A]P[W]F[E]Y[S]G[N]Q[S]F[N]D[L]T[L]D[S]R[A]I[C]R[G]D[V]F[L]A[L]P[G]G
A[S]L[L]Q[K]G[E]D[A]F[V]E[G]V[S]T[D]T[R]I[S]R[G]E[L]F[V]A[L]I[G]G
G[A]A[L]Q[I]Q[R]V[H]I[D]T[R]T[L]Q[S]G[D]L[F]V[V]A[L]T[G]G
M[T]D[S]R[K]V[S]N[G]D[L]F[V]A[L]K[G]G
Q[L]I[D]I[L]A[A]K[G]A[N]L[S]D[A]A[L]H[G]I[Q]T[D]T[R]L[K]P[G]E[V]F[L]A[L]R[G]G
Q[Q]W[P]D[F]P[L]T[G]I[E]F[D]S[R]K[I]V[K]G[N]L[F]V[V]P[L]Q[G]G
Q[V]L[G]S[L]D[R]E[I]V[T]D[I]T[D]S[R]T[A]E[E]G[S]V[F]V[A]T[K]G
L[H]A[I]Q[G]K[A]L[G]E[V]P[L]D[R]E[F]V[Q]G[S]I[D]S[R]S[I]A[P]K[E]A[F]F[A]I[K]G
K[S]L[G]E[L]G[L]T[A]R[G]G[R]D[V]R[V]S[G]L[V]V[D]S[R]E[A]G[P]G[T]L[F]A[A]M[P]G
G[Q]N[T]R[D]W[Q]A[T]G[L]S[L]N[T]R[T]L[E]K[G]D[L]F[F]A[L]Q[G]G
V[V]T[D]T[R]S[I]V[P]G[C]L[F]V[A]L[V]G
V[G]D[A]R[A]E[L]L[G]V[E]Y[D]S[R]A[V]R[A]G[S]L[F]V[V]A[M]R[G]G
I[S]T[D]S[R]K[I]S[E]G[C]L[F]F[A]L[K]G
L[P]E[D]T[D]V[A]V[S]G[V]I[S]D[S]R[T]V[Q]P[G]D[L]Y[I]G[L]P[G]G
N[E]N[I]M[I]D[E]V[F]T[D]S[R]K[P]V[R]K[G]L[F]I[P]I[T]G
G[E]P[Q]A[E]I[T]G[S]I[D]T[R]T[I]A[P]G[E]A[F]V[A]I[V]G
L[S]E[F]D[V]P[L]N[Q]I[E]F[D]S[R]K[I]V[K]G[D]L[F]V[V]A[L]K[G]G
S[F]K[E]L[L]A[P]W[Y]D[A]I[P]E[T]P[I]T[G]L[L]D[N]R[Q]I[Q]P[G]D[V]F[V]A[V]Q[G]G
D[S]R[K]I[H]G[D]V[F]V[L]N[G]G
K[T]V[S]E[C]I[K]N[I]S[P]G[D]L[G]I[K]I[S]V[E]Y[D]S[R]K[V]T[K]G[A]F[F]A[L]P[G]G
N[L]D[K]E[V]T[D]I[T]D[S]R[K]V[K]D[G]L[F]I[A]I[C]G
T[G]V[S]I[D]S[R]K[I]E[K]G[S]F[F]V[A]L[K]G
I[P]D[P]A[V]Q[V]T[G]V[V]D[S]R[Q]V[A]A[G]S[L]F[A]F[A]G
A[D]L[L]D[E]T[I]A[G]A[E]A[L]A[I]G[G]L[T]D[S]R[A]V[T]P[G]G[G]F[V]A[I]R[G]G
N[L]N[T]L[I]D[S]L[I]T[G]N[T]D[L]E[I]T[G]M[E]V[D]D[S]R[R]V[P]G[D]L[F]I[A]L[K]G
N[F]A[Q]L[A]K[L]V[R]K[G]L[P]V[H]T[D]S[R]N[V]K[E]G[D]C[F]V[A]M[P]G
V[A]D[P]D[G]V[S]A[T]S[V]T[D]S[R]E[V]T[A]G[T]L[F]V[V]A[K]P[G]G
D[L]R[P]D[T]P[E]E[A]P[S]R[E]V[H]G[I]T[H]D[S]R[Q]A[G]P[G]M[L]Y[A]A[L]P[G]G
D[L]K[L]D[S]R[D]I[Q]A[G]D[V]F[V]A[S]K[G]G
A[C]D[V]S[S]I[A]Y[D]S[R]A[V]R[E]G[S]V[F]F[A]L[R]G
D[P]E[V]S[S]I[T]D[S]R[N]I[Q]P[G]D[V]F[F]A[L]R[G]G
D[P]E[V]S[S]I[T]A[D]S[R]Q[V]R[P]R[M]I[F]A[L]I[A]G
T[G]V[S]T[D]T[R]Q[I]T[E]G[C]L[F]V[V]A[L]R[G]G
I[S]D[S]R[S]I[K]P[G]E[A]F[F]A[L]K[G]G
L[R]Q[V]G[L]A[V]P[P]G[L]A[N]A[D]V[T]S[V]S[C]D[S]R[R]V[G]P[G]T[V]F[V]G[L]P[G]G
K[L]S[E]L[L]Y[G]V[L]H[G]D[Q]D[T]P[I]T[G]P[C]L[D]A[D]R[V]T[P]G[S]L[F]V[V]A[L]P[G]G
A[D]F[D]L[T]G[I]E[F]D[S]R[L]I[T]Q[G]N[L]F[V]P[L]K[G]G
N[V]T[D]S[R]N[C]P[K]G[G]D[L]F[F]A[L]K[G]G
K[L]R[E]L[I]A[A]V[N]P[G]F[A]D[A]E[V]T[G]L[K]T[N]S[H]A[C]G[V]G[D]L[F]I[G]M[P]G

UniRef90_X5A212 F T V D D G H D F A P Q A A A S G A A A L V V E R Q L D L L 70 80 D L P
UniRef90_UPI000255EF9F E Q A D D G H D F I P A A A R S A G A T L V L A E R E T A D S G G Q A D P
UniRef90_G8PUR7 A K V D D G A Q F I E Q A A V E A G A M A A L L T D A D R L D D D V R K T A K Q V A
UniRef90_UPI0002D47587 E K F N D G H D F V R M A I E E K G A M A A I V D F E Y D Y S E F Y V E C D L P
UniRef90_UPI0003B72B63 E R F D A H D F V A D L A G K A G A A L V H Q P T G T T P D G K A I
UniRef90_UPI00036C7BB5 D N F D D G H D Y V E T A K D K G A V L A I V S R Q L D S P T G T T P D G K A I
UniRef90_G2KMC0 A K V D D G R D F I S A A I E S G A V A I V V P T G T T P D G K A I
UniRef90_Q38V61 N R D G H D F I N Q A R E N G A V A T L W A S A R D D Q P T D F P
UniRef90_UPI00037DC5DB A S R H G A D F A T D A I G A A A A V L T D E A G A R L L A L S A D T P V P
UniRef90_Q5WFG6 E R F D G H D F I E Q A I E A G A T G A L W K E A Q E P V P E Q L P E T F Q
UniRef90_C0QZ37 L K D D D G H K Y I E S A I N N K A S I I I Y D A D K E F L K K L Q D N H K D V H
UniRef90_UPI000381C0F9 D N D D G H H F V E A A K D N G A V A T L W Q E D H S D F P E D L P
UniRef90_S3LSS0 M Q Q D D G H R Y I E Q A L Q Q G A D C V L A D A E N A Q H I L V L C K R Y E A T
UniRef90_A4SI52 E R F D A H D F C D Q A V A A G A S A L L V E R E L L A S L A I P
UniRef90_R6YUA1 E R V D A H R F I P Q V A M Q A G A S V T F S S K K D V A P E D S G S
UniRef90_I2JGJ1 D N F D G N Q F V G V A K Q A G A V A S V V S E A T D L
UniRef90_E8WXA0 E S S D G N R F I E T A I A H G A R A I V T D S R E A W A A G G A V P
UniRef90_UPI00036320D4 T R V D D G G E F W Q S A I N E G A I A G L T S P A A A E K C P P S P D V C
UniRef90_U9WFI3 Q R D D G H F I D L A F N G A V A T F S K E L P P A A A E K C P P S P D V C
UniRef90_UPI0003B2FC0A K R F H G A S F A T A A R E A G A V A V L T D E E G V A L A L E S G L P
UniRef90_UPI000371AAE5 E N F D G H K F V G K A K A E G A J A L L V E H A V D S D L P
UniRef90_UPI000478613C N K I A G T K F I Q K A I L K V S A I V V D S K I K F K S F K I P
UniRef90_K6UWW2 E R F D A H N F V A Q V L D K G C Q V A I V E R P L D L D M M
UniRef90_H7EI08 T H T T G N A F V E K S A L D A G A K A V V Y E G E L D E N I L A R K E I A
UniRef90_D2U1S2 K H F D D G H F A E Q A T I A G A S A L L V E R P L T I L D E N I L A R K E I A
UniRef90_R7GQE2 L V T D D G H K Y V D D A I F Q G A K C I V H S K P L T I R R Y Y Q G I V
UniRef90_F8L102 L K F D D G T S Y I P E A I E N H G A T A L V T D I Y D P S F K E I T
UniRef90_K9VMS9 E N F D G H Q F V A K A R D L G A I A I V D R H W Q E E L P N F P
UniRef90_R51Q1 A V T D D G H K Y I P D A I D K G A S V T V L E R E E E A A Q I P E N I T
UniRef90_U5LJA9 E N H D G H T F L E E A I E K G A A V L A G A E N A A I L E E F S R K F P E L T
UniRef90_R2SF66 E N D G H S F I E S A I E K G V G A T L W S A T K A A P E K L P
UniRef90_A0A017SWR8 E R F D G H A F L D Q A V R H G A G A V V I S R E V P L P A G V G
UniRef90_K2GT03 H Q Q D D G R I Y I E Q A I A G G A T L V L A E A D E T R V V M Q Q V P
UniRef90_UPI00035FFAC8 E R F D G H D F V G T A L E Q G A Q A A F W P V H R A Q P E V N G A
UniRef90_UPI00047991B1 E S S D G H L F V P Q A H G R G A V L V L A E R P V S A T E D G T D F P
UniRef90_M1E518 K N F D G H N F I L K N A L E E Q G A F G L I S E A E V A N T L G N I V F G T D F S
UniRef90_U9VLJ9 T R V D D G G E F W P S A L E K G A I A I S P N A C Q K Q P A T D A S T L
UniRef90_Q7MWM7 T L T D D G H R Y I P Q A Y T Q G C R A F V V E D L P D E K P E G C C
UniRef90_UPI0003075400 D N F D A N R F V A K A A E Q G A I A I V T K K Q A V I P T S I D I P
UniRef90_V8CWT5 D R F H G D F V G E A A R R G A V A V V S D V P T S I D I P
UniRef90_UPI00046A24CA E E T D G H R F V P Q A I D A G A I L V V A E R E T D D R V P
UniRef90_R5E2S7 E R V D A H R F I E S A I D K G A S T L T S Q H N G V V I A D K P
UniRef90_C6Q0P8 E N F N G N E Y I L K V A S D N G A S M C I I D E I K Y R E D E I E K G T T
UniRef90_A0A022LYC2 E R F D G H D F A A D A Q A R G A S A L L V E R L L L P V I E L P
UniRef90_D7E0D6 E K F D G H E F V A M A I V K G A I A I V D Y A Y E N P V F V E L P
UniRef90_UPI0003764F7D E K F D G H F L Q A A I E N G A G V L V S R K Y S E A E L H D L P V T
UniRef90_W7BBC9 E V V D D G H D Y A K I A Q E Q G A V A I V A E R V L A D V T L P
UniRef90_UPI000413D17B E H A D D G H K F I E M A F S K G A G V T L S E E P Y G E S D Y S T D Q P
UniRef90_H3RN09 E Q D G H K Y V A N A F E N G A V A S L W A S D H D L P
UniRef90_R5K2E9 D N F N G N A F A A K A L E A G S A Y A I V D E A D Y V P A G D T H
UniRef90_UPI0003B5DAAD E R V D D G H D F I P Q V A F E K G A L A V V C E K L P E N P A G P
UniRef90_G8QXE3 E K E D G F S F I G D A F A S K G C S A V I V S L A N A N E A K Q R L S S S P C A
UniRef90_UPI0003B41080 H A A D D G H D Y I D Q A L E K K A A V I A Q E N P H N R E R
UniRef90_F7RT07 H K V D D G R Q F I D K A L A Q G A S V V L V H T D N P S E H G K V L T S E H T V
UniRef90_H1CZ44 E N F N G H E F L K R A V L S G A S V M I S D A S Y G K D I D A H V
UniRef90_U5N9X6 P R F D G N A L L A Q A C D A G A V A V V C A G E V A R K T L P T L G C P
UniRef90_I3D907 H N V D D G R T F I P K A I E K G A S L L A E A D E G V Q A V E I A K E A T A C
UniRef90_G6FQQ8 E K F D G H E F V P M A I E K G A L A I L V D F A Y P N P Q F
UniRef90_Q837J3 E N D G H R F I E S A M A N G C Q A A F W G Q D L V D A P Q Q L P
UniRef90_B9DQ99 Y T V D S H K F C Q D V N Q G C K L T V V I S E Q E V I E G D V T
UniRef90_E4UB25 D H Y D G H D F V L H V V Q K S A C L V V I N A E M M S I G P L S V P
UniRef90_W4HIU6 T R I H G A E F A R A A L A Q G A V A L L T D A E G A E I A A E A V A E H D T A
UniRef90_UPI0003675497 P N F D G H D Y V A Q A F E K G A A A V V H N R P E H L G D D V S
UniRef90_UPI0003476DCE E R F D G H D F V V I E A Q R R G A A A V L V E R P C A G T L P
UniRef90_I3ZK95 E T T D G N R Y V R A A L D A G A V A I V T D S R E S F A F A D A R G V P
UniRef90_UPI000409062C D N F D G N Q Y A A E A L G K G A Y A V V D D P E V A I N E Q
UniRef90_UPI00047DD908 A R S H G A E F A P Q A V E A G A T V V L T D D A G A R R L G E C G V P
UniRef90_UPI0002DE2C07 D R F D D G H D F L M D A I H N G A V A V L W Q K D K P I P S F V P T E F P
UniRef90_UPI00037E004F D R L D D G H D Y V A K A L E A G A S L A L V A R H K L V D L P R D G R
UniRef90_F5ZJL5 E R D G H D F I E L A F E K G A A A T F S E H P I E G K P
UniRef90_R11SP7 H S L D A R R F I P A I E A G A A A V I A D D G D T N G Q F D V T L Q N G V P
UniRef90_L0B4P9 N Q N D L S L Y I A E A I N K K A S A I V E K N F E V S N E L L K Q N N I K
UniRef90_S5ZTB0 I H T D D G K F I N S A I Q N G A S C I F Y E G E L N E F K S D I C
UniRef90_R6K6P6 E R T D G H K Y I D G C F E A G A L C V I S E K E L P E Q E N S
UniRef90_UPI00047A4D7F E R F D A N T F A A E A L E K G A S F V I D N K T Y Y I D E R T
UniRef90_V6JNY4 E N V D D G H D Y A R K A V D A G A V A V L A V R P V G V P
UniRef90_Q2S532 V D A D D G H S F I D M A V D N G A R L V V C E A L P T R A R E R F P G V V
UniRef90_F5SD50 F T V D D G H R F I R Q A V E K G A R A V V L I E E A D R D V I G P E V E D K A A V C
UniRef90_UPI000379C86D T T V R G D F I P M A L V I N G A S C I V A E A D R D V I G P E V E D K A A V C
UniRef90_B2GJQ2 E T T D G H A F V P Q A A A A G A V L N L T E R E V L D D T G A P Y P
UniRef90_UPI0003454999 T R A H G A D F A D Q V A R A G A G A I M T D E A G A D R A V A T G L P
UniRef90_UPI00035EE3EA Q Q N D G A Q Y I Q G A I E N G A G A V A L L D A D S E K I V D A N I P
UniRef90_O83903 T H A H G A Q Y I H A A I D A G A C A L V H D C P L D T Y V V G V Y
UniRef90_R5PJF1 D N F N G N K F A Q Q A L S Q G A T A I I D D P P D A C A A V R Q A G H D I A
UniRef90_D5QGN8 N R A D G R A F I T Q A L Q Q G A C A I I S T P D A C A A V R Q A G H D I A
UniRef90_F8EFN2 D K F D G N L Y A K D A L E K G A K Y A I V D N S D V A V D N R
UniRef90_L0LKA6 D R V D D G H D Y A N I A M A N G A A F L V I S E A R L P A M G S L T V P
UniRef90_UPI0002001FB3 A Q V D D G G V F A W P Q A I E A G A V L A V I G R A A E A C P P A D Q D P
UniRef90_D7B104 H R A G G P E A L G E A L A R G A A A V L V E G P D P A G H R P A D T G A C
UniRef90_R2RBL1 E N D G H S F I L K N A M D K E A K A F W S S A K A A P E Q F P
UniRef90_UPI0003811D51 D N F D G N K Y A A S A L E N G A Y A V V D N P E V I P S H T D R
UniRef90_K9PN91 T R V D D G G E F W P S A I A S G A V A I I V S P E A V Q K Q P T S E A L

	90	100
UniRef90_X5A212	Q I I V G D S R F A M A V L A N T F F G	
UniRef90_UPI000255EF9F	A V I V D D V V L A M G R L A A	
UniRef90_G8PUR7	L I A A K D A R R E L A L M A A T F A G	
UniRef90_UPI0002D47587	V L Q V K D T L E A Y Q K I G R W W R N Q	
UniRef90_UPI0003B72B63	Q V V V S D T R Q A L A D F A A A W R Q Q	
UniRef90_UPI00036C7BB5	Q L I V N D T K L A L G Q L	
UniRef90_G2KMC0	F I T H D H P R H V A A I M A A R F Y G	
UniRef90_Q38V61	V L L V K D P L A A Y Q Q L A K R Y	
UniRef90_UPI00037DC5DB	V L V L D N P R N E V G P L S A M I Y R	
UniRef90_Q5WFG6	L Y Y V E D T L K A L Q A L A Q A Y R	
UniRef90_C0QZ37	F V A V K N P R E C L A Y I S A K F Y	
UniRef90_UPI000381C0F9	F L T V E N S L K S L Q Q L G R Y Y	
UniRef90_S3LSS0	C I R V E H T L K A L Q D A A A Y	
UniRef90_A4SI52	Q L V V T D S L K G L G H I	
UniRef90_R6YUA1	C I Y V E D T L A A L Q K T A A Y Y R	
UniRef90_I2JGJ1	N I R V S D T R R A L G L I A	
UniRef90_E8WXA0	F Y L V G N G R R A L A G V A A N V F G	
UniRef90_UPI00036320D4	V I P V E N M T Q V C A E V S S A F Y G Q	
UniRef90_U9WFI3	H L L V E D C L K A F Q K L A H Y Y	
UniRef90_UPI0003B2FC0A	V I V T P E P R L A L G E L A A W I Y R	
UniRef90_UPI000371AAE5	Q V I V A D T S K A L G A L A G Y V R D Q	
UniRef90_UPI000478613C	L L R V C D V R K S L S E A C S N F Y K E	
UniRef90_K6UWW2	Q L V V T D T R Q A L G R L G A Y R R Q Q	
UniRef90_H7EI08	F V K V G S A R K A M A P I S A S F Y G	
UniRef90_D2U1S2	Q V I V E D T R L A M G K L A A W V R S Q	
UniRef90_R7GQE2	Y I Q V S D V L D E L N R V A D L F Y	
UniRef90_F8L102	Q I I C K N V A E V E G R F S A N F Y Q	
UniRef90_K9VMS9	L L R V D D T L K A Y Q S I A R W W R D Q	
UniRef90_R51Q1	V L K V A	
UniRef90_U5LJA9	F L Q T E D A R A F L A Q L S I I F H G	
UniRef90_R2SF66	T L Q V S D T L K A M Q D L A V Y Y	
UniRef90_A0A017SWR8	A V L V T D T L A A L G A F A G E	
UniRef90_K2GT03	V I G I T A L R Q Q L G V I A A R L E G E	
UniRef90_UPI00035FFAC8	L I L V D D P L L A L Q R L A A S V L R E	
UniRef90_UPI00047991B1	A V L V P D A V L A M G A L A A E	
UniRef90_M1E518	F I K V P N T I L A M H D I A R G F R Q	
UniRef90_U9VLJ9	L I P V D D I P T V C G E L A A A F Y N	
UniRef90_Q7MWM7	F V Q V S D T A E A L A S L A S A Y Y G	
UniRef90_UPI0003075400	Q I I V K D S R V A L G L L G K M V R E Q	
UniRef90_V8CWT5	A L V V D R P R A V L G P L A S A V Y G	
UniRef90_UPI00046A24CA	Q I I V A D T T D A L G A L A	
UniRef90_R5E2S7	Y I R V D D T V D A L R R I G K A I R Q	
UniRef90_C6Q0P8	L I K V E D T K K A L L Q L A K A Y R N K	
UniRef90_A0A022LYC2	Q V L V A D S E L A L A K I A	
UniRef90_D7E0D6	V L Q V T D T L K A Y Q Q I G R W W R	
UniRef90_UPI0003764F7D	V I Q A A D T L K A Y Q L L A K V Y R R	
UniRef90_W7BBC9	I I L V Q D G K R A M A M L A A A F Y	
UniRef90_UPI000413D17B	V I H V A D G L A A L Q S I A R E Y	
UniRef90_H3RN09	L L V V D D P L Q A L Q E L S Q Y Y L H K	
UniRef90_R5K2E9	Y I L V D N S L R T L Q Q L A N Y	
UniRef90_UPI0003B5DAAD	C I L V K D S F E A L R K I A A Y Y R T E	
UniRef90_G8QXE3	V I A V A N P L R S L Q L L A K N Y	
UniRef90_UPI0003B41080	V I L V K D S R Q A L A A L A A R F Y G	
UniRef90_F7RT07	Q I Y F Y R L S Q Q V S T L A A V R Y	
UniRef90_H1CZ44	V F L V K D T K K G L E D L A H	
UniRef90_U5N9X6	A F V V P D T R R A L G Q I A H A	
UniRef90_I3D907	V L S V P H L P K L L S Q I A G E F Y	
UniRef90_G6FQQ8	V L Q V K D T L Q A Y Q K I G R W W R	
UniRef90_Q837J3	V L H V T D P L V A M Q K L A T Y Y L N K	
UniRef90_B9DQ99	Q V I V P K T R R V A S L I V H K L Y N	
UniRef90_E4UB25	V F V V E D V L S A L N K L A S A	
UniRef90_W4HIU6	L I V A A D P R Q A L A M T A A L W F G	
UniRef90_UPI0003675497	L L L V D D T L G A L N R L G A	
UniRef90_UPI0003476DCE	T L T C S D T R L A L G L L A R H W R H	
UniRef90_I3ZK95	A A L T A D G R R A L A E V S A N F F G	
UniRef90_UPI000409062C	F L L V E N V L E A L Q D L A R H	
UniRef90_UPI00047DD908	V L V G T S L R S A V G P L S R L I F Q	
UniRef90_UPI0002DE2C07	I F F V S D T I K G L Q A L A R N	
UniRef90_UPI00037E004F	Y V V V D D P L E A L R N L	
UniRef90_F5ZJL5	Y L L V N D C L H A Y Q T L A K Y Y	
UniRef90_R1ISP7	V V A F P H L K S T L S E I A D R F Y Q	
UniRef90_L0B4P9	C L K V H N L G A T L G Y L A D K W Y G Q	
UniRef90_S5ZTB0	Y I Q V E N I R H V M S K V S A E F Y G	
UniRef90_R6K6P6	Y I K V K S S L Q A L K D L A L L Y R N	
UniRef90_UPI00047A4D7F	I L V E D S L T A L Q E L A K	
UniRef90_V6JNY4	A I V V E D V V Q A L G A L A R A	
UniRef90_Q2S532	F A R V T D T R T A L A E G A A A L H G D	
UniRef90_F5SD50		
UniRef90_UPI000379C86D	Y V P D T A D A L G E L A A E A F G	
UniRef90_B2GJQ2	S V V V A D V V I Q A M G A L A S H	
UniRef90_UPI0003454999	V L V V P D A R A A L G R A A S W L F A D	
UniRef90_UPI00035EE3EA	I L S V S N L R S L L G E L A D E W Y G K	
UniRef90_O83903	Y A R V P D A R C A L S S A A A F Y	
UniRef90_R5PJF1	Y I L V E N T L T F L Q E T A A Y H R H	
UniRef90_D5QGN8	C I A T D D P R H A L S V M A A	
UniRef90_F8EFN2	Y L W V E N S L E S L Q Q L A A Y H R K Q	
UniRef90_L0LKA6	K V V V D D V L A A L A R L A A R	
UniRef90_UPI0002001FB3	V L V V T D P V A R A G M L A A E F W Q Q	
UniRef90_D7B104	V V R V P D A R I A T A L V S A R Y H G E	
UniRef90_R2RBL1	V L Q V T D T L K A M Q D L A V Y Y	
UniRef90_UPI0003811D51	Y I L V H D T L L A L Q L M A N Y H R Q	
UniRef90_K9PN91	V I S A V N M T Q A C G Q I A S A F Y G	

UniRef90_Q12SD0
UniRef90_D5EEG5
UniRef90_UPI000380C79C
UniRef90_F8F1Y2
UniRef90_D2RKR5
UniRef90_UPI0003796C05
UniRef90_R9A782
UniRef90_D5WQF2
UniRef90_L8JSN7
UniRef90_UPI000478CD0A
UniRef90_A7IGF0
UniRef90_E6WQP4
UniRef90_A0A010ALA8
UniRef90_U7UWM6
UniRef90_A3U7G8
UniRef90_K4KR14
UniRef90_UPI00047D6837
UniRef90_R4YQ21
UniRef90_UPI000466C96E
UniRef90_UPI000362E073
UniRef90_H5XYJ4
UniRef90_R0NFL0
UniRef90_E2CKE8
UniRef90_R5J978
UniRef90_Q0A6J7
UniRef90_F3LHA0
UniRef90_NODZ09
UniRef90_T1C6K3
UniRef90_F5SD48
UniRef90_K9VSPQ7
UniRef90_R7FBH6
UniRef90_W7T8X2
UniRef90_R5HV11
UniRef90_M8E5J5
UniRef90_R9N2T7
UniRef90_G9YX96
UniRef90_D7GX33
UniRef90_Q0ICH2
UniRef90_UPI000363DA31
UniRef90_UPI0003688C39
UniRef90_U7G1D6
UniRef90_UPI000470E238
UniRef90_C4FE37
UniRef90_S0JZM8
UniRef90_J3HZK9
UniRef90_UPI0003B44697
UniRef90_W4U3G4
UniRef90_UPI0003B53A5A
UniRef90_UPI00037114C9
UniRef90_UPI000472799E
UniRef90_R5EHF1
UniRef90_B1YIU0
UniRef90_D3PZY0
UniRef90_E4KP67
UniRef90_N1V0P4
UniRef90_A7NIN0
UniRef90_UPI000255C2AE
UniRef90_K7SNV0
UniRef90_K2LWG4
UniRef90_UPI00047B65D7
UniRef90_R9MDA6
UniRef90_W7YW16
UniRef90_D1Y638
UniRef90_Q1GF15
UniRef90_R6PTT2
UniRef90_UPI0003F64921
UniRef90_UPI00038145A5
UniRef90_V2USP7
UniRef90_UPI000237A074
UniRef90_F3BAV7
UniRef90_J0UKY4
UniRef90_S6AFX0
UniRef90_UPI00025598A1
UniRef90_R6YE20
UniRef90_Q8A1L7
UniRef90_R5M9D6
UniRef90_B5ELC7
UniRef90_V8C8X6
UniRef90_UPI00037CFC3E
UniRef90_FOREB4
UniRef90_W0EY64
UniRef90_UPI000362B853
UniRef90_G2I534
UniRef90_W6M474
UniRef90_UPI0001D2F20A
UniRef90_M1P4D8
UniRef90_W8TUW6
UniRef90_W1S786
UniRef90_C8WBC5
UniRef90_B3DQM7
UniRef90_F8I4C4
UniRef90_UPI000377BE30

1 10 20 30 40
K A L K E L K E A R N I S N P S L V L W D V F N K T S R A L P A C L F V A L K G G
R S S V A I D D S R R K V K A G D L F F A L K K G G
R N L Q D V I A V V T G N G A D R T V S D L T I D D S R T A G P G S L F F I C K G G
S L S T I L S L F S K D T D N P T F R W I T T S T G E I Q A G S D L F F V A L L R R G G
L Q D L V S A L L H E I S A V E V T D V T A D S S R T A G P G S L F F I A L L R R G G
L K D I L Y K V T S G D M G R V V D H I A F D S S R T K V K E G T D A F F A I V A K G G
T A I D G I S I D S S R T L V P G D A F F A I T G G
D V T G I S I D S S R T L V P G D A F F A I T G G
L L A H W A G G G P D V A I D A I A H D S T R A L S A G S D L F L A L L K G G
Q I P Q S E I K R L L T D S R H A E S G D A F L A L L K G G
A A L G L Q D P E T V F T F A T T D S S R E V V P G T L F F I A K P G G
T G I T S T D S R K I K K D N Y I F F A L K G G
L K H L L P A L A P S L A E I S V T G V T L D S R E V N S G D Y I F F A L M Q G G
E D R E I S A T G I D T R T L P P G A L Y I A I T K G G
K E L A Q V I S A I I Q Q A D E I Q A L R I N T D S R K V I Q Q G D I F F A L L R R G G
K L A D L A P A V P P E A G A I E V K G F A L D S R K V E P G D Y I F F A L A F D
D L A I A L G V N V P D I S V T G V F N S K D V Q P G D L F F A L S G G
K S L T E I I S G I E V Q A S S V I V R G M S M D S S R Q V P G G D L F F A C V P G G
E D T Q L E K A E F D S R L I G T G D L F F A I K G G
K G E L G Q D I T G I S I D S S R T I E V G E A F F A I K G G
I T T D S S R K I C T P G S I F F A L K G G
L R T L L Q P W L D D A D D R P V G G L A V D I E P G G F V F A L R G G
Q N L S R R F G G E V I N N S A V N F S S V S I N T S R T M S V G D L F F V A L K G G
L A N A L S V D P A P A P D T V V S G V T L D S R S V S G D L F F A A L P G G
S L A A C L A G F A T E V G P D E P V G S F V L D S H A V V P G S V F F A V L Q G G
K T L R E I T G K L V G G V S D L L V D G G V S T D S T R T L Q R N N L Y F V P L K G G
K L R E L L E T V N H P A L D A E I V K G L K T N S H A C Q A G G C L F F I G M P G G
L K D V L Q C E I N P V E A E I T C V L S T D T R N L P Q G C L F F A L L R G G
A R L E R A D A K P V T G V T L R A Q H V Q R G D L F F A A L P G G
L N E I I D C P Y D I L I N D I K T N S L N V K K N D L F F A C I N T Q G
V L S G D P A L L A L T S V H F D T R Q L V L D A G A L F F V A I L Q G G
N F E A S C V V I D S R K M T M G G V F I A T K G G
G D I N R M V G R V E T D S R T I H A G S L F F V P I V G
G D D G N G V M L N K I R L D S R Q V E T H A G S D L F F V P I I G
Q R L H A L L H P V P Q G L S D A V I E S I T C D S R C V G P G S V F F L G L P G G
P E L A I L T G L T L R A Q D V Q P G D L F F A A L P G G
D R Q A G A V T T D T R S L K P G D I F F A A L C G G
Q G E D L T V P A V V T D T R N M T P G S L F F A L L K G G
T G I T A D S S R K V L A G N V F F A Y P G G
V S D S R K V E N G S V F F A I Q G G
A E T A I S G V E F D S S R N I T P G G L F F V P L A G G
D I H D W L Q A N A P G A Q L A A N S R R I A P G D I F F A Y V G G
L N K A L D G V T D C S V L G I L A S T N S K E I I P G D I F F A Y I R G G
A I T G I T L D S R Q V R P G D L Y F V A L H G G
L H D L L A G E V P A L P N P M I R G L S A D S R E L G A G D A F F V A L A G G
E A A N M A L E R V E R D S R A V Q Q G D V F F A L L K G G
V T S V T I D S R R I Q K D C L F F I A L R G G
A D V E F L G A A N D S R V M Q P G Q L F I A L Q G G
Q I A Q W L G L E E T D T R A L R N F A T D S R S I L T E G L Y I P I L Q G G
L A R L L S P V D A E P G R V E V T G V S L A S A R V R P G D L Y V A V P G G
D L D Q T V T K L V N D S R E A G A C F I A L K G G
V E T A S V T V D S A V T D S R E A G P G T L F F V A K P G G
L R T L C D P A H L P R A N P A I T A T V Y D S R A V M P G A L F F V A Y R G G
L S E L L G S V L S P S V D P E I L T V T A D S R Q V R P G T L F F A L R G G
S G V S I D S R K A A K G D L F F A L K G G
K I Q D L H S A F L A N P S I S V T D S R K I K T N D I F F A L K G G
P A K L S L K V E G V I D S R K V E K D Y L F F A I S G G
D L Q T L L K S I T D E N V S V Q V T G L S N H S S T V Q K G D L F F A I S G G
L T D I L G G D W N K I P A D C T L K S D S R T V G P G D I F F A C V V G G
D W Q V N G T S I D T R T I E P G D L F F A V K A
K L S L L A A E L G L K A E D K D I T F I T D N S A K V C D G S I F F V C I E G
T F D E L L K E I I L D N E N K K F N K L M L D S R K I E N N N L F F A L K G G
L N R L V K T D S E Y I I D H L M L D S R D R V K N G M F F C L K G G
P E Q V I K R V L T D S R H A E A G D A F F A L K G G
S T D W Q V T G V S I D S R T L H P G D L F F A L K A
L L E E E L Y G K E Q T T I E Q L T F D S K K V T E N T L F F I C K G G
L N Q L L L Q A Q S A T L I R E L T L D S R K V R Q A G D L F F A V P G G
A N V N V S G L A L D S R R V Q A G D L F F A R N G G
L E C Q G V T T D S R N C P A G S L F F I A L K G G
T T D S R N C P E G S L F F I A L K G G
N I K T D S R K I K P G D T F F A I K G G
K E I A E I T G G L L P G S D S Q T I Q G V T T D S R E V L S G Q F F V A L R G G
S L K E I A A G T Y H G D P A L E A S S V A I D S R K V K Q K D T L F F A L K G G
T L Q A L L A G V V S A I A E L A V S S G V Q V D S R A I N A G D V F F I A S A G G
S T V C T D T R K I T K D C I F F A L K G G
N V Q T D T R K I K E G E L F F A L K G G
G S G D P L I R R L V Y D S R K A G P D S A F F A L P G G
A D L L A A T A P P G A D I A G T G V S I D T R T L Q P G D V F F A L R G G
L L K G E L F G A D A T F S E V S T D S R R L P E G A L F F V A I S G G
L L R A R V S G G L P R D A S G I S I D T R T L A P G D L F F A I K G G
E L L A G F A T I G H L P E T F S G V S I D S R T L V I E G D I F F C I K G G
Q A D A E R M V E G V F T D S R R P Q S L G L F F V P L A G G
S A P F A V S G V A F D S R E V T D G D L F F V A M P G G
S E A I A R A V K G S A D F S V R N V A F D S R E I Q K G D L F F A L K G G
T N T V S D S R Q A G P G S V F F A I R G G
D I T G V A I D S R M V Q P G N I F F A I P G G
R A V A D L A R A R Y S G D P D V V V T G V E Q R S Q A V R P G D L F F A G L A G

UniRef90_Q12SD0
UniRef90_D5EEG5
UniRef90_UPI000380C79C
UniRef90_F8F1Y2
UniRef90_D2RKR5
UniRef90_UPI0003796C05
UniRef90_R9A782
UniRef90_D5WQF2
UniRef90_L8JSN7
UniRef90_UPI000478CD0A
UniRef90_A7IGF0
UniRef90_E6WQP4
UniRef90_A0A010ALA8
UniRef90_U7UWM6
UniRef90_A3U7G8
UniRef90_K4KR14
UniRef90_UPI00047D6837
UniRef90_R4YQ21
UniRef90_UPI000466C96E
UniRef90_UPI000362E073
UniRef90_H5XYJ4
UniRef90_R0NFL0
UniRef90_E2CKE8
UniRef90_R5J978
UniRef90_Q0A6J7
UniRef90_F3LHA0
UniRef90_N0DZ09
UniRef90_T1C6K3
UniRef90_F5SD48
UniRef90_K9V5Q7
UniRef90_R7FBH6
UniRef90_W7T8X2
UniRef90_R5HV11
UniRef90_M8E5J5
UniRef90_R9N2T7
UniRef90_G9YX96
UniRef90_D7GX33
UniRef90_Q0ICH2
UniRef90_UPI000363DA31
UniRef90_UPI0003688C39
UniRef90_U7G1D6
UniRef90_UPI000470E238
UniRef90_C4FE37
UniRef90_S0JZM8
UniRef90_J3HZK9
UniRef90_UPI0003B44697
UniRef90_W4U3G4
UniRef90_UPI0003B53A5A
UniRef90_UPI00037114C9
UniRef90_UPI000472799E
UniRef90_R5EHF1
UniRef90_B1YIU0
UniRef90_D3PZY1
UniRef90_E4KP67
UniRef90_N1V0P4
UniRef90_A7NIN0
UniRef90_UPI000255C2AE
UniRef90_K7SNV0
UniRef90_K2LWG4
UniRef90_UPI00047B65D7
UniRef90_R9MDA6
UniRef90_W7YW16
UniRef90_D1Y638
UniRef90_Q1GF15
UniRef90_R6PTT2
UniRef90_UPI0003F64921
UniRef90_UPI00038145A5
UniRef90_V2USP7
UniRef90_UPI000237A074
UniRef90_F3BAV7
UniRef90_J0UKY4
UniRef90_S6AFX0
UniRef90_UPI00025598A1
UniRef90_R6YE20
UniRef90_Q8A1L7
UniRef90_R5M9D6
UniRef90_B5ELC7
UniRef90_V8C8X6
UniRef90_UPI00037CFC3E
UniRef90_F0REB4
UniRef90_W0EY64
UniRef90_UPI000362B853
UniRef90_G2I534
UniRef90_W6M474
UniRef90_UPI0001D2F20A
UniRef90_M1P4D8
UniRef90_W8TUW6
UniRef90_W1S786
UniRef90_C8WBC5
UniRef90_B3DQM7
UniRef90_F8I4C4
UniRef90_UPI000377BE30

50 60 70 80
E R F D A H D F A A T A I E N G A K A L L V E R E L A L D I P
E K H D G N S F A S D A V Q R G A A V L L C Q H A L L P L Q V P
P T F V N G N T Y F A E K A L E M A G A S Y V I V D E A D V V K D D R
S V I Q D G H H Y I S S A F N A G A S I V L M Q E A D Y K D I A R A S A Q Q Q D G A
V N T D G G H K Y V A K A A A Q G A V A A L T E Q E T E V P D G M T
E R F D G G E F V T Q A I A A G A V A A L V H P E T A V K L A Q Y T A F C A H P
T R D G H G F I P D A L S K G A H A F L C E R N H P L L K K L S V A D Q A K
H T V D G H A F V D E A R R S G A V A A V V E D C L D T P E V T D S V T
T Q V D G H D F I L Q A A V N A G A A A V V C E L L P E E V T D S V T
D R F D G H D F V A A A F E K G A A V A V V S E E K R A A V P D G A G
E N S D G H A Y V E K A L G A G A A L C V V A R D R A D G F P A D A P
E R F D G H D F A A D A L A R G A V A A L V E R L L D V D A P
E R F D A H N F V A Q V A A N G C Q V A I V E R P I D A E I A P
E S T D G H R F V A A A F N S G A S V A L V E R P V T A E P S G E L Y P
D N F N G N T Y A D Q L A I D Q G A S V V V I D E E Q F K K D D R
T R E H G R Y L D D Q V L Q A G A V A L V E Q A D D L P A A L P E N A
K N F D G H S F I L D K A E Q A G A A A L L I E Q A C S S A L P
D H T D G H D Y L E Q A V K S G A V A A I V D A Q Y V A G K D S L P
A K T S G A K F V S D A V A R G A T A I L A A P G T D V P A G V P
G K G D G H K F V L J E A C N F G A V C I I T S K P I D N I A K D K
F K V D G H D F A A S A V A S G A V A L V E R L L P L E V P
A R D D G H D F I E R A F E N G A A A T L S E K E V A N H P
D R F D G H D F V G T A L A N G A S V A V V S A D K L D S L P S T G R
E N F N G N Q F A T Q A L K D G C S Y A I V D E A D Y V T D D K R
S R H H G L G Y L G D A L A A G A G A V L W E P A G D V A E R T A A E R A G V P
D Q F D G H Q F V A N A Q N Q G A T A L V V I E K E I V D S D L P
A T T H G A R F A S G A R D A G A T A I L T D P V G A Q L V A E Q G V V L P
T L R H G L E F L D E A R R R G A R M I V Y E P G P G I P K D P P I P
E R F D G H A F W M D A V R A G A A A L W N R E V P I P K D P P I P
T R V D G H G F W H S A L A S G A T A A I V S P Q A A Q K H P I A D A C
E R F D G H D F V P Q A I A A G A V A A V T E P I E G C P
S R A H G A D F A H E A L R A G A V A A L T D P A G A E R E S L K D V P
G T M D R H D F I L D D A I K N G A S A I A N K E L K K S V P
V R D G H D F I L Q A V E R G A S A A I I S N Q Q K I P E N L P E G F G
E R A D G H D F I P Q M G E M G A L A V V C E R E P V D C Q V P
E R F D G H A Y I N A A L E G G A A G C F T Q S E R E R E S Y L P G K F
E K V D A H K F L E Q V A E K G A G A V L T S E H K E K T E E M A E T S C A
G R V D G G S F W P K A L V D G A S A V L I G S A A A A T L P P E Q S D A
A T T H G A R F V A E A I A R G A V A A L V S D G S G A A E I A D S A T A P D T P
E R F D A H D F L A Q A R E A G A V A A I V S R P V D D R L P
D R F D A H D F L T Q A Q A N G A S A A L V D R E Q E V F A S A
E H A D G R Q Y I T Q A I D K G A S A V V W E S E G F T W N A N W Q L D N Q
E R V D G H D Y V A S V A D Q G A V A A I V D H E V P G A A V P
E R D G H D F V T A A K E N G A I A T F W S Q D I K K A P Q D M I
D A D G R S Y I A D A I E R G A A A V L F E A D G Y Q W P Q Q L Q V P
T N F D G N D F L D E A L D R G A I C A I T D S K D I K D T N K
L H A H G A S F A A S A V E S G A V A A L T D E D G A T L A A E A G V P
A S T H G L N F V D K A Q A A Q V A A L L F E L P A P Q D V V V P A N
E R F D A H D F V A Q V A G K A S A A L V S H A I E A P I P
A R V D G H M F I P Q S I Q D G A L C A V S E K R I E S A S Y P
A R D G H D F I K K A M D R G A A A L C S R K V G M D Y P
A R V D G H T F I E G A V A Q G A T A T L W K G I P L P E M D I T
A R R H G A E F L A E A V E R G A V A A L S D S W G V E A A V E H G L P
E N F D G H Q A I A E V A A Q G A K L I I V I E Q L P A N Y Q T I P A N
E S T D G H R F V L P V A F K A G A V L A L T E H E I T D D G G R V L P
F H T D G H L Y I P Q A I E R G A A A V V Y E D P A W D G R I P V P
D H F N G H Q F I N K A I E N G A A A A L W M E R E P L P Q D L P A S F P
A K Q D G A A F L P Q A V T N G A V A I I A D H P A E A D V P
P N F D G H K F A Q A A L D N G C A A A M V S D T K T L G N G A P
E N F N G N L Y A Q K A L D S G A S L V I S H E E Y L L N D R T
E K V N A H R F I P D T I E K G A L C V V I S H E D L G E T D Y P
F A V D G H E Y V D E A I A A G A V A A V G E R D L P S L K V P
L H A D G H R F I E Q V L K A G V S Y L L T Q R P V S G L P A E D A P
A R D G H D F V A Q A L E K G A G A A L V S H I P E G V A E D A P
K H F D G H T K A A E A L E N G A A A V V V Q K D M G L D R
E N F N G N K Y V K E A F E N G A S I A I V D E V L F D S E E V N G V I
L T V D G H R F V H Q A I E N G A I A I V H S D D L E P I N G I E
E R F D A H N F V K N V A V I Q G C Q V V I V E R P I E Q L D I A
A R D G H D F V A Q A L E K G A G A A L V S R I P E G V S E D A P
M A F K E E Y L K E A V K N G A G A C Y I S E Q K Y E L D E D V P
E Q F D G H R Y L E K A K E Q G A V A A I V A Q R D P G V D L P
A Q Q D G R A H I A D A V A R G A V A I A Y E A L G A E T P E A S T A E
A Q L R G A D F L S D A A Q T K G A C A A L V P R G E L S D D E R Q G L T L P
A S F D G N R F A A Q A L A Q G C R Y A V V D N P E Y A I E G D Q R
E S F N G N A F A G K A L E T G C A Y A V L D E S E Y A I E G D Q R
L T V D G H D F V E K A I E L G A S K I V C E H G S Y S V E T
T R C N G A D F V P G A I A Q G A G G V L V D I P V S A P
A R V D G H S F I P Q V M E Q G A I C S L S E Q D L G D V T Y P
A A V N G E D F I L D Q A I Q Q G A V A A L V D S H S T L K S C A V A
D N F N G N T Y A S E A L E K G A A Y A V V D E K E Y A I N N K
P N F N G N S F A Q Q A I D A G A A K V I D E A D Y E I P G K T
I H V D G H D F I A P A I A A G A R A V F C E A I P D E P D P R A V
E N S N G H D H V A R A L Q A G A A C V V A H E D C G A D P R
P N F D G H D F I A A A R A H G A C A A L V S R R V D D P L P
E A R D G H D F V A A A F E R G A A G A V V D E A H A G A L A G R A P
A H L D G H D F A A R A Y E R G A G V L I I A Q D R L A T M K K L S A P
E R F D G H H Y V Q Q I V S E G A T A Y L W Q K D H G T P P S V N
E T T D G H R F V D K A F A Q G A A G A I V S Q A V D H P
T E S D G H N Y V E A A F K R G A A G A V V M S P V P Y P
E R V D G H D F V A K T A Q Q G A T V A I V D H E V K S D G L P P
A V A D G H Q F L A D A I Q R G A V A V V G E K P L N L A A L V P
A Q A H G A R F A P D A I A A G A V A A L T D P A G A E L I G A V D V P

UniRef90_Q12SD0 Q L T V A N S Q K A M G E L G A
UniRef90_D5EEG5 Q I I V E N S R W A M G F A A A A V Y G
UniRef90_UPI000380C79C Y V L V D D V L T T L Q Q L A N
UniRef90_F8F1Y2 V V V V P D T L R A L Q K A A K A Y L D Q
UniRef90_D2RKR5 V I R V P S T Q E A V K T L A P W F Y
UniRef90_UPI0003796C05 V I V V S D T R L A L G Q L A A Y W R E Q
UniRef90_R9A782 A I L V S D C L L A L G V L S R Y H R K
UniRef90_D5WQF2 Q I V V P D T
UniRef90_L8JSN7 Y V A V K N S A G A L G L I A S N F Y
UniRef90_UPI000478CD0A L V V V D D V L A G L R R R L G M R
UniRef90_A7IGF0 L L V V D D V L A A L
UniRef90_E6WQP4 Q L L V E D S E L A L A R I A A
UniRef90_A0A010ALA8 Q L V V A D T R L A L G Q L G A Y
UniRef90_U7UWM6 A V Q V D D A V L A M G R L A A Y
UniRef90_A3U7G8 Y I L V D D V L Q T L Q E L A S
UniRef90_K4KR14 V V I D A L S A K A S E I A A R F Y G
UniRef90_UPI00047D6837 Q L I V T D T H L A L A E L A G F W R K Q
UniRef90_R4YQ21 L L V V A N T L Q A L G Q A S L W N R Q
UniRef90_UPI000466C96E L I E T A D P R R S L S L A L A A F Y G
UniRef90_UPI000362E073 C I L V N D T A E A L L K L A N Y
UniRef90_H5XYJ4 Q V K V P N V R Q V M G T L A A N L Y
UniRef90_R0NFL0 Y I L V D D V L T A F Q Q L A A Y Y
UniRef90_E2CKE8 Y L I V D D P L A A M E R L A
UniRef90_R5I978 I I L V D N C L S T L Q A L A H Y
UniRef90_Q0A6J7 L I A V P D L G R R L G P I A A R L Y G D
UniRef90_F3LHA0 Q W L V G D T T L A L G H I A E A
UniRef90_NODZ09 V L V H P E P R A V L G H L S A L V Y G
UniRef90_T1C6K3 A V P V P G L R Q H V G E I A A R F Y G
UniRef90_F5SD48 L I Q V E D T L I A L Q E L A A G Y R R E
UniRef90_K9VSQ7 V I S A A D M T Q A C A A V A T A F Y G
UniRef90_R7FBH6 C L V V E N T G R A L L K I A R F Y R E
UniRef90_W7T8X2 V L V H E D P R A V L G A A A E V Y G
UniRef90_R5HV11 V I K V D D V N K T F S E I V P K F Y
UniRef90_M8E5J5 L L L V N D T L R A F Q K L A K N Y R R
UniRef90_R9N2T7 Y I L V Q D S F Q A L K D I A E F Y R
UniRef90_G9YX96 Y I K V D S T Q R A L R D L A K Y Y
UniRef90_D7GX33 W I A V D D T K K A L Q A V
UniRef90_Q0ICH2 V L V V P D P V A R A G E L A A A F W N
UniRef90_UPI000363DA31 V L V H P A P R S V L G D L A A E V Y R
UniRef90_UPI0003688C39 Q I Q V T D T R L A L G L L G Q A
UniRef90_U7G1D6 V Q V A D T R Q G L G R L A S G Y A D Q
UniRef90_UPI000470E238 P V A K L R E Q A S A I A G S Y Y G Q
UniRef90_C4FE37 Q I V V D N T V T A L G D L A K A
UniRef90_S0JZM8 V I F V E D V L G A F Q A L A Q Y Y L Q K
UniRef90_J3HZK9 H L A V E G L K Q V A G E I A A A W Y R Q
UniRef90_UPI0003B44697 I I K V K N C R K V V G K I S A N L Y
UniRef90_W4U3G4 I I V V D D P R
UniRef90_UPI0003B53A5A A I G V S D L R H K L G R L A D R F Y G
UniRef90_UPI00037114C9 Q V I V P D V R L A L G E L A K A W R
UniRef90_UPI000472799E Y I M V N S C A Q A L K D I A E H Y R R
UniRef90_R5EHF1 A I Y V D D P R L A L G R I A
UniRef90_B1YIU0 V L E V E D P L Q A L Q I I A K R Y L Q Q
UniRef90_D3PZY1 A L H H P D P R A A A G V V S S A V Y G E
UniRef90_E4KP67 F V L V D S S F R A Q A L L A N K F Y Q E
UniRef90_N1V0P4 Q V I V E D T V V A M G A I A S
UniRef90_A7NIN0 A L R T P N A R A A L A P L A A A F Y G
UniRef90_UPI000255C2AE L F L V H D T L K A L Q N M A K G Y L N Q
UniRef90_K7SNV0 V L L T P D A K H
UniRef90_K2LWG4 A L V V D D T L D A M V R L
UniRef90_UPI00047B65D7 I L V K D V L T A L Q E L A N F H R K
UniRef90_R9MDA6 Y I L V E S T G Q A L L D I A K L Y R
UniRef90_W7YW16 Y I K V E S T R L T L P L L A K Q F Y
UniRef90_D1Y638 W I Q V T D V R A A M G Y V A A A
UniRef90_Q1GF15 L L L V E D V Q T A L E A L G R A
UniRef90_R6PTT2 Q L I V D D T R A A Y T K L C A A F Y
UniRef90_UPI0003F64921 V I K V K D T K R A L L N I A K G Y R
UniRef90_UPI00038145A5 F I R V D D V M T E L H R I T D R F Y N
UniRef90_V2USP7 Q L V V A D T R L A L G Y L G Q F R R Q
UniRef90_UPI000237A074 L L I V D D V L E A L G Q S A R A
UniRef90_F3BAV7 Y I L V K D I L R K A M P V L A N K F F N E
UniRef90_J0UKY4 Q I V L G D T R R A L M S L A T E W R
UniRef90_S6AFX0 L I P I T G L A G Q L S A I A G R F Y G E
UniRef90_UPI00025598A1 I I E V D D L D R C I G E V S S R F Y D E
UniRef90_R6YE20 I L L V D D C L K T L Q Q L A N Y H R R K
UniRef90_Q8A1L7 Y I L V D D C L Q T L Q Q L A N Y H R R Q
UniRef90_R5M9D6 L V V P N T K E W L Q E
UniRef90_B5ELC7 G V L V R D T L V A L Q T L T A H W R Q
UniRef90_V8C8X6 Y I Q V A T C T D A L K D L A E H Y R R
UniRef90_UPI00037CFC3E M L A I A N L N Q K I S A I A N F Y G
UniRef90_F0REB4 F I L V D D V L Q A L Q Q L G K Y H R K Q
UniRef90_W0EY64 I L V E D V L T T L Q Q L A A Y H R E Q
UniRef90_UPI000362B853 Y I Q V A D S R H A M S T L A A R L Y A D
UniRef90_G2I534 I L R V T D T L A A M Q A M A
UniRef90_W6M474 Q V R V A D T L L A L G Q L G A W R
UniRef90_UPI0001D2F20A L Y V V K D V Q E S L E R L G A R
UniRef90_M1P4D8 L F V V A D V L R A L E E L G K A
UniRef90_W8TUW6 A I E V E D T L E A L Q H L A A A Y L R E
UniRef90_W1S786 H I L V P D S A A L E A L G K A
UniRef90_C8WBC5 H I L V D D S Y Q A L K D L A
UniRef90_B3DQM7 Q L V V K D T V D A L G E L A
UniRef90_F8I4C4 Y F Q V P S S R
UniRef90_UPI000377BE30 V L V H D D P R A V L G G L S A A L Y G

1 10 20 30 40
UniRef90_U2WW33 L N E L L G Q D F K D D V N V E I L G M T A D S R N V L P G Y M F A A A L P P G G
UniRef90_D5P6X5 L A D R A A A V P D V A V T G V T L R S A Q R N D V I R P P G D L F A A L P L R G G
UniRef90_UPI00040513DC I S T D T R K I A P H P N S L F F V A L P L R G G
UniRef90_UPI0003B5A28F I S T D T R K I A P H P N S L F F V A L P L R G G
UniRef90_A6FQT2 S T D W E A T G V V S I D T R T Q L R P P G D L F F V A L S A G
UniRef90_J1HEU8 A D A H V V T R V V T D S R S Q L A G P P G G A L F F V A L S A G
UniRef90_A0L5N5 Q T L S A T R V D A Q D G T L P E V F H S L S S D T R S L L Q P P G G A L F F V A L S A G
UniRef90_B0TGB6 L A E W M Q G R V E G D G T A R I T S G A V V D S R K V A P P G D L F F V A L P G G
UniRef90_UPI0003828250 K L H T L V S S L V I P K E N P E I L T S I E A D S R K V T T G S L F F V A L P K G G
UniRef90_Q92H60 K T L S A V L G I T I L S N S I S C N E V Q F N S K D V K K G N L F F V A L L Q G G
UniRef90_A0Z7D0 H M T L D S R K V G E G D I F V A L P G G
UniRef90_D3NWD6 P A G A D P D I A G L T A D S R A V R P P G G L F F A A L P G G
UniRef90_A0A011MD90 H G A T D D S R Q V R P P G D L F F A A L P G G
UniRef90_K2JF07 K T L S E L G L T A Q G G R E C T I T G L S V D S R Q T M E G D H L F F A A L P G
UniRef90_A1UTC9 G V A I G C L P E S F P G V L T S D S R T K V K G D L F F A A L P K G
UniRef90_R6E168 K G D L T M E V N G L I E T D T R R L A P N D L F F A A L P K G
UniRef90_UPI0003659A08 H P A P H D T P D T V V D G V D T D S R T R I S A G N L F F V A L P K G
UniRef90_A0A011U118 G F Y A G T S T C S F A D V I T A D S R A V Q P G Y L F F A A L P K G
UniRef90_F9N7L2 K A I E G K L I V K G S K E N F N S I D S R T K L E Q G S I F F A A L P K G G
UniRef90_K5XU27 K R V I G T L N R E I E D I T T D R T A T A G S I F F A A L P K G G
UniRef90_UPI0002882261 L N A E W I G N T P E A E V E A I S I D S R S L Q S H T L F F A L V G G
UniRef90_G5JKA8 R T L S Q L K I K T A Y G N F P E N V T D I T T D S R R E A G P A S V F F A L L R G G
UniRef90_H7FP24 L A Q A V T G T L H G P D R M V T G V V T D S R E A Q E G S C Y V A R R G G
UniRef90_UPI0002DE7963 S L A Q L L A H G L V P A L A T T I V S D L I L D S R K A A S G N A F F I A L Q G G
UniRef90_D5QG9 K I K E L L E P L K L R D A D K E I K R F I I D S R K A K S D S F F V P L P K G G
UniRef90_N6XDC1 E I V S S L G A R S L P D I W M D S R K I T P G D L F F A L P K G G
UniRef90_H3NY73 S L A Q L I A S L P G A G A D V G F D G V V T D S R T A N A G A L F F V A L L R G G
UniRef90_C0QU93 V T T D S R A I S G G E L F F A L K G
UniRef90_U7D9U6 I A Q A V T G T L H G P D R M V T G V V T D S R E A Q E G S C Y V A R R G G
UniRef90_UPI00035C49AB S L A Q L I A S L P G A G A D V G F D G V V T D S R T A N A G A L F F V A L L R G G
UniRef90_R5BBX4 V T T D S R A I S G G E L F F A L K G
UniRef90_A3K0H4 L P G A K I L L G A E D I V V R S C A A N S K L C L P D D L F F V A L M V G
UniRef90_A4A2C4 S Q L I H V D A K S A G A I S I S R V G S A D S R Q I Q S E E L F F A I A L S G
UniRef90_M1SSL7 A A L T G G R L H G A D A I V R G V S T D S R G V T A G Q L F F V A L K G G
UniRef90_H1G0R8 A T S F E G V A I D S R K C Q K E Q L F F V A L L Q G G
UniRef90_UPI00035DABAF S K E I L N A A D I E I K N V V N D N R K I E E G S L F I C I K G G
UniRef90_UPI0004671C43 G K L L C G D I N L V I D N F S H D T R T I Q E G D I Y V G L K G G
UniRef90_R6MCG4 A P W L A Q E S D R C V T G L S T N S H A C P P G T L F F G M P
UniRef90_Q55469 T L A E L L P Q L A Q D L A G M K V S G I C G P P G D L F F A R D G
UniRef90_UPI0003804E2E L D L V G G A D A E S T V T G V L R A Q E V R P G D L F F A A L P G G
UniRef90_J9SLP5 L G D L M A G L L E P A A E L Q V P D L S L D S R S T L T P G A L F F A L C Q G G
UniRef90_W9VES4 I S G A T V I G D E Y V T F E R V V T D S R S A G P G D L F F A L P K G G
UniRef90_B2SYY0 L N D L L P D A A G H A G N I T G V S L A S Q Q V A S G D L Y A A L P G G
UniRef90_R5FBB0 G K L L S A G A N A P V Q F L L T D S R K L A S G A V F F A I K G G
UniRef90_UPI00046CB862 S L Q D V L A K I L Q A N A D S F A G V T T D S R Q I P P D S I F F A L K G G
UniRef90_UPI000348ED18 V T T D S R K I V T E G A L F F L G L K G G
UniRef90_T2NFK6 Q N L L A A P I P D G L D R R V T G L T C D S R Q V A P G T L F I R K G G
UniRef90_U2SV00 A Q L L A D E A G G P A E V R V R R V H T D S R T L R E G D L F F V A L P G G
UniRef90_Q3B125 T L E E L F A P F D Q K A P L P V A G L A W D S R Q V E R G F V V A I P G G
UniRef90_F4XFT6 G E G S E S V K A I V I D S R L A K E D T A F V A I V G G
UniRef90_F3KQ66 K N I S T D S R K L Q K G D I F F A L L K G G
UniRef90_UPI0003B6F132 I T T D T R K D C T P G S L F F A L K G G
UniRef90_B6FYU4 D S R Q V Q A G D L F F A L P G G
UniRef90_B9E0V9 N V S T D T R K I S K N D I F F A L K G G
UniRef90_J9F703 I S T D T R K I I P G S L F F A L K G G
UniRef90_UPI0003716392 A A C L L N Q L D V K V R H L V A D S R K L K P G D T F L A C A G G
UniRef90_UPI00047B6526 S L K K I L P E Y H L S A E S R L I A G L R V D S R K V Q P G D V F F A C C Q G G
UniRef90_H1YIT3 R N L A D L I P G N H T A N P L I A I T C D S R K V G P G T L F F A L S S G
UniRef90_Q82VS8 A A C L L N Q L D V K V R H L V A D S R K L K P G D T F L A C A G G
UniRef90_X2H6P4 S L K K I L P E Y H L S A E S R L I A G L R V D S R K V Q P G D V F F A C C Q G G
UniRef90_V6F2S7 R N L A D L I P G N H T A N P L I A I T C D S R K V G P G T L F F A L S S G
UniRef90_I0S213 P D L R I S G I T L R A Q D A Q P G D L F F A A L S S G
UniRef90_R5S5T1 L L R A D A R T E I H D L T L S D S R A A G E G S L F F A L L H G
UniRef90_A6DMM0 L N P R L S G V L P E L I Y G F S S D S R K I K E G F A F S V L K G G
UniRef90_UPI0004786D33 I C T D T R K I T E N C L F F A L K G G
UniRef90_V5PLL9 V T G A Q T T A F A R V V T D S R S V Q P G D L F F A L K G G
UniRef90_X7XWX8 D V Q V T G V T L R A Q D V R P G D L F F A A L P G
UniRef90_K7RVT9 Q E L A S A V G A R L E G D P A A P V G D V I D T R K A V A G S L F F A L P G G
UniRef90_A5IK15 D L L T R R F V L N S K E V R E G D V F F A V K G G
UniRef90_M2P8Z0 K K I N E L F D V K E D F K I V S L H S D S R Y V G K D S V F F C I E G
UniRef90_R9L2T2 G V V H D S R Q A E R G F V F I A T T G
UniRef90_I3BX11 S L R T L L A G I V E S A P D M S V N G L T L D N R N I C R L G S F F A L R G G
UniRef90_H1PZE5 D I T T D S R D C R L G S F F A L K G G
UniRef90_R4SXL9 P A A A E L T V T G S T L R A Q H V L P G D L F F A A L P G G
UniRef90_A6EPV7 T G I C T D T R K I T E G C L F F A L S G N
UniRef90_R6YBI5 I K T D S R K V K P G D T F F A L K N
UniRef90_Q6MEG1 K L K E L F R N I F K G S Q E V L L T G L T A N S K S L S P G N L F I A K K G
UniRef90_A4SH07 R L L D A L T A P E I L S D A P C S L S M I S S D S R D I E Q G G L F F A L V A R G
UniRef90_B4RFS4 G V S I D T R T I Q P G D L F F A L A G
UniRef90_B5JR24 G L T N D S R K I E S G E L F F A A L K T
UniRef90_A0A059MPJ2 V S V T G V D L R A Q G V Q P G D L F F A A L P G
UniRef90_F0GXQ2 E K N I V A V A N N S K E G Y A F V A I K G G
UniRef90_D6V2T6 V G A L P E G V T G I S I D S R T I A P G E A Y F A I K G G
UniRef90_UPI0003C7F8F4 R S L V D L V A P T A S V S G D A R I A G L A V R T D D V R P G D L F F A A L P G G
UniRef90_Q47VQ5 E L I V I P A I Q T A D E L V I D D L V I D S R A I K E H S A F L A L K G G
UniRef90_C0BKQ3 K S V S T D S R K I E S N S I Y F A L S G G
UniRef90_UPI0004276406 T G L S V D S G D I L P G E L F F A A L P G G
UniRef90_UPI000465696A L S H L L P D V A L P R D I A V S S G L V M D S R E V R P G D A F F A I A G
UniRef90_K8EM05 L E E E E D V E I S G I V S D A R Y A I P G D L F F A V D N
UniRef90_D3IC90 L E C K E I T T D R D C P K G S I F F A L K G G
UniRef90_D4DX67 Q A L A D V L S A E L I G A D C Q N E V T T D T R Q I T P G C L F F A L K G G
UniRef90_R5J396 K A L A Q A A G G V L A H E G N E P V E H I S L D S R K M A G N D L F V P I G

UniRef90_U2WW33
UniRef90_D5P6X5
UniRef90_UPI00040513DC
UniRef90_UPI0003B5A28F
UniRef90_A6FQT2
UniRef90_J1HEU8
UniRef90_A0L5N5
UniRef90_B0TGB6
UniRef90_UPI0003828250
UniRef90_Q92H60
UniRef90_A0Z7D0
UniRef90_D3NWD6
UniRef90_A0A011MD90
UniRef90_K2JF07
UniRef90_A1UTC9
UniRef90_R6E168
UniRef90_UPI0003659A08
UniRef90_A0A011U118
UniRef90_F9N7L2
UniRef90_K5XU27
UniRef90_UPI0002882261
UniRef90_G5JKA8
UniRef90_H7FP24
UniRef90_UPI0002DE7963
UniRef90_D5QGN9
UniRef90_N6XDC1
UniRef90_H3NY73
UniRef90_C0QU93
UniRef90_U7D9U6
UniRef90_UPI00035C49AB
UniRef90_R5BBX4
UniRef90_A3K0H4
UniRef90_A4A2C4
UniRef90_M1SSL7
UniRef90_H1G0R8
UniRef90_UPI00035DABAF
UniRef90_UPI0004671C43
UniRef90_R6MCG4
UniRef90_Q55469
UniRef90_UPI0003804E2E
UniRef90_J9SLP5
UniRef90_W9VES4
UniRef90_B2SY0
UniRef90_R5FBB0
UniRef90_UPI00046CB862
UniRef90_UPI000348ED18
UniRef90_T2NFK6
UniRef90_U2SV00
UniRef90_Q3B125
UniRef90_F4XFT6
UniRef90_F3KQ66
UniRef90_UPI0003B6F132
UniRef90_B6FYU4
UniRef90_B9E0V9
UniRef90_J9F703
UniRef90_UPI0003716392
UniRef90_UPI00047B6526
UniRef90_H1YIT3
UniRef90_Q82VS8
UniRef90_X2H6P4
UniRef90_V6F2S7
UniRef90_I0S213
UniRef90_R5S5T1
UniRef90_A6DMM0
UniRef90_UPI0004786D33
UniRef90_V5PLL9
UniRef90_X7XWX8
UniRef90_K7RVT9
UniRef90_A5IKI5
UniRef90_M2P8Z0
UniRef90_R9L2T2
UniRef90_I3BX11
UniRef90_H1PZE5
UniRef90_R4SXL9
UniRef90_A6EPV7
UniRef90_R6YBI5
UniRef90_Q6MEG1
UniRef90_A4SH07
UniRef90_B4RFS4
UniRef90_B5JR24
UniRef90_A0A059MPJ2
UniRef90_F0GXQ2
UniRef90_D6V2T6
UniRef90_UPI0003C7F8F4
UniRef90_Q47VQ5
UniRef90_C0BKQ3
UniRef90_UPI0004276406
UniRef90_UPI000465696A
UniRef90_K8EM05
UniRef90_D3IC90
UniRef90_D4DX67
UniRef90_R5J396

S V V D G A K F I G D A V K N G A R L I L A A P E V D F P D G V E T
S S T H G A R Y A A E A I E R G A V A V L T D A A G V A E M G A S A S A V P
A K A D G A F I S Q L I E E G V A A F L V H E D F F E I S S E L E K K A L L
D K F D A N I F A Q K A I E E A G A A Y A V I D N P E Y Q L G D R
A R D G H D F V A Q A L D K G A A A L V S H V P P G V D A A R A P
D R T D G H A H V G Q V A S A G A S A L V S D P A A A R S S L A A D P D G F P
P N H D A N L Y V Q Q A V T A G A S G L C S R P P A Q S L P
E K V D G H D F V P A A L A G A A A V V R R I D D G W T A A L R P G Q G
F T V D S H E L A M Q A A A Q G A A A V A E R P I D V D V P
N R D G H D Y V L D A I D K G A A A V I T S K R V E I N D K D K
V Q R D G R D Y I K Q A L A Q G A A L V L A E A N D F N I S T D A D S S S R I
V K A D G R A F I A D A L A K G A A V L A P E G T E L P A G S T A L L L T D P
D S V D G R Q F I A D A I A R G A E A V L W E T C E D D R A D V S W R G D W R V P
A R A H G A E F V Q I A L A R M G A R A I L T D P E G A R I A Q D A I K D H D P A
N R L D G H D F A A Q A L A R G A A L V T A Q N R L D D M K Q L S A P
F A G D G H K F I A S A L A K G A A A I M Y E D P Q E A R Q E G I V N A D G A A
E R F D G H D Y L Q T A A E R G A A G A L V E R R V A S S L A
E V T D G H N F V A G A V A S G A V L A I V E R R V E A P V S
M T F D G H D F L T V A K A R G A T G A V V K R G K T I E G L V
V K A D G R R F I A E A V A R G A I A V L A P E G T L W P P G V P P R R
E N F N A N N F T V J E A S R K G A A L C I V D E I K F K D K E L S K D T S
Y T V D S H K F C Q N V V N Q G C N I V V N K E Q Q L S G D V T
P N N D A H L Y I K D L I E I G V Q N F V V T Y I P E E C K A K A N
H Q V D G Y S F I P Q A V E A G C R F I V T D R Y I E L P E D A G
E N S D G H A H I L T R A L D A G A A V I A H R D P G V E D A R Y I E L P E D A G
E M S D G H D Y A Q A A V E R G A A G V I V E R I L D L D P R I A
A Q T D G H R F I A D A L A K G A S V L A E S L A A E G Q D A R
S K A D G H D F I D D A L K K G S S G Y L T S I E T D Y K N G
E E R D G H D Y V V T A L E Q G A C A A L V S S L E K I P G A F R D R
E T F D A H N F L D Q V A A R G V A A V V V Q Q L P E G W T L P
E N F D G N E Y A L K A L D A G A R Y A V V D E K A G V A A S G D P R
A R D G H D F V A Q A L E K G A A A L V S R I P E G V D N S E K
A H Q D G H D F V E E A I A N G A S A L L S E R A L P T T R P
D R F D A H D F L G D V T I A G A S A L I S H K E K C P T N L P
P R F D A H D F I V P Q L P A A A G L L V S R D V G L Q D D R P
R K V D G H A F I L G D A L K R G A S G V L V E R W E E T A E T T
A N F D G H S C A S Q A A E A G A A A V V V E H E V D L P E D C K M P
E S F D G N K F Y K D A L E K G A K A C I L D N I D V N D I P L E Y K D R T
T R V D G G E F W S G A L E A G A I A V V S E K A L Q K F P P Q N G E C
V S H K G I D F V C S A A A E G A V A I V D D V A L A A D S I N V T I P
S S T H G A R F A D Q A V A A G A S A L T D P A G R A E L A R V L P P E A V A
R R R H A L D F A E E A K R R G A V A I L A E S G A A D A M R D L Q D R L G L P
D R F D A H D F L P D V A A R N V T A V L I T R T P Q D W T V P
E S F D G N K F A K A L E Q G C S Y A V V D D P A V V P E G D A R
S R R H G A E F T S D A V S R G A V A V L T D P Q G A D L I D A D I P
E R H D G H A F A G E A Y K R G I R Y F V V E E G A D F I P E Q L P E A G
E L F D G N R F A S S A L E K G C A L A V V D D P S V V R D E R
D R F N G D F A H E A A K K G A A G L I V S S T C P A D K L A G I R A T
E S T D G H R F V Q D V F R R G A D F A M V S T R E W H S L E K D P V P P P G K A
A H F Q T K F L E M A R D Q G A M A C V S Q E E D T V P G L P
D R F D G N A F L A Q A R A A G A V A A L C S D A A A L R Q A Q L P
V P L D G H A F I P E A L K R G A I A V V G E R N L T L P V P
E N N D A H K Y I G S A Y D L G C R V F I V N K G K D I D I K S D M N
E K F N G N E Y V E S A S K K G A S L C I V D E V K F E S E K I S E F T T
T S F N G N A F A Q S A L D S G C A Y A V V D D P S V V S D E R M
Q R T D G R R F I D A A I E R G A C A V L C E A G G A P T A A A V P
D N F N G N E Y A L K A I E K G A S Y V I D E K E F A I S E R T
D K F D A N T F A Q Q A L D A G A Y A V I D N G D Y N V S Q K
E R H D A R N D I P Q A I A R G V N A T I W E K Q G F S W K P E W K I P
E Y S D G R D F I Q A A I D N G A E F V E W D D G Q F V W Q T G W K V A N E A
S K A D G R A F I P Q A V A Q G A V V I V A E T G T Q A D T G T A L
A T T H G A R Y A R E A V E R G A A A V L T D A A G V S E M G D D V G V P
A R E D G A D Y A K E A A A R G A V C V V T E H A A E G V P
T Q Q D G K A Y I T E A L A K G A R L L L C E F L D V A I P
D N F D G N N Y A L J E A L K K G A S H V I V D D Q K L E N T E E S
E R F D A H D F L A D V A R A G A A A V V A S R V P D G F E T P
S T T H G A R H A V D A I E R G A V A V L T D A D G V A A M G A H A A S V P
E R V D G H D F T P V A E R A G A G A V L A T R A T D S S L P
K R F D G H D F I D E A L K N G A Y A V I A E R K T V N S D R
L S T D G H K Y A D D A V F Q G A K C I V H S K P F K R E Y P G V L
E R V D G H D F I G S V W E K G A L G V V C E R E P K D P E G A
T R F H G L A Y A E A A A R V G A V A V L Y E P E D G L Q Q P P L S V E
E T F D G N K F A A A A L E K G C R F A V V D E K E Y A I D D R
A R A H G A D F S D Q A I A G A A A V L T D E A G A E R P V L R D A G V P
E N F N G N T F A K Q A L E L G A H K V V T D Q K E Y H Q V S G E T
V N T D G H D F I E S A I K N G A T K V I C E K G S Y S V E T
K M F D G N S Y I K E A I Q S G A C A I L T D L F D P C L K K V V
F Q A D G H D F V A D A V S R G A A A V I C E E F P G G D V P P G V C
V R D G H D F L E S A R R S G A A G A I V D R F Q E E I E L P
A A R D G H D F L E S A R R S G A A G A I V D R F Q E E I E L P
A R A H G A E Y A A E A L E R G A V A V L T D A A G C E H L A A V V T R P V P
N I E D G H K Y I D S A I E N G A S L I H T E D I A Y K E G I S
D V H D G H A F V E A A L K N G G G V A V I A Q S H R A E F P D D L P
A R S H G A V H A A T A L S A G A Q A V L T D A G E A H L D A D P A L A G V P
P N F D G H R F A E Q V I K Q G C V L L V D H H L S A V T D T A
E R F N G N D F A I D A L N N G A L Y A V V D A A K Y K D H P G
F N A H G A R Y A A Q A V Q A G A A V V T D S Q G A G I V A E T C P G T P
F G T H G L A F A K Q A Q E Q G A A A V L F E P P A P A E Y P A P A D A
S S H D G H D D V S D A I A R G A V A V S E R E D G V A E N A N G A P
A N F N G N S F A H K A L E H Q G C A Y A V V D E S T P D M I G N E Q
E R A D G H D Y I C M A I G N G A T V V I F T S R H K T E E E V Q E A I L T Q C A

	90	100
UniRef90_U2WW33	VLRDANPRRQLALLAQRFF	
UniRef90_D5P6X5	TLVHPAPRGVLAGALAAATVYG	
UniRef90_UPI00040513DC	FLKVPEDTRKALQQLLAA	
UniRef90_UPI0003B5A28F	YLVVEDVLTTLQDLARHHR RQ	
UniRef90_A6FQT2	LLIVDDVQTAL EAM	
UniRef90_J1HEU8	LLTVPTDVTVEALGELARA	
UniRef90_A0L5N5	LWVVTDPPLAAMTQLARAWR	
UniRef90_B0TGB6	LVVNDGGLQALQDCARHYRTQ	
UniRef90_UPI0003828250	VVLVKDVTVRSLAMLLADYFYGQ	
UniRef90_Q92H60	ILLVDDCFEALQKMA	
UniRef90_A0Z7D0	MRVPLDLSAELPSLAKDFYGD	
UniRef90_D3NWD6	QVPLVSPRLAFAARMAAAFHG	
UniRef90_A0A011MD90	AVPVSGLRRLRGP LAHAAVHG	
UniRef90_K2JF07	LVVVEDP RQ	
UniRef90_A1UTC9	LVVVPDVLKALEQLA	
UniRef90_R6EI68	FVQVENSRRHAEAMAAADFYG	
UniRef90_UPI0003659A08	QIVVADTRLALGLLARA	
UniRef90_A0A011U118	QIVVADAVAAALSDLA	
UniRef90_F9N7L2	CEVVEDTLQAYQQLA	
UniRef90_K5XU27	LIITAPDPRAKLAELAVEFFGK	
UniRef90_UPI0002882261	LVIVENTKKALLKLA E F Y R	
UniRef90_G5JKA8	QVIVPDTLRVASTLLAHTLFN	
UniRef90_H7FP24	FIVVQNTLEALQQAAYYR	
UniRef90_UPI0002DE7963	LLIVKDP SKVAVSLFSGY Y	
UniRef90_D5QGN9	LLLVDDTLSALNAMA	
UniRef90_N6XDC1	QILVPESTKALGDFASAHLDH	
UniRef90_H3NY73	VVSVPLGLKQIGALAKRFYAD	
UniRef90_C0QU93	ILVDDTLKALTEI	
UniRef90_U7D9U6	VLLVHNPLEAVSAAARAYRR	
UniRef90_UPI00035C49AB	AVVVPDTLAAALGKTAHHRWSQ	
UniRef90_R5BBX4	LIAVPTLAAALQALRH	
UniRef90_A3K0H4	LLLVDDVLEALGEAARARFG	
UniRef90_A4A2C4	VCLVVENTQSAYAQITCQALAGD	
UniRef90_M1SSL7	AVCVQDVVKQSLGELAKAWRAQ	
UniRef90_H1G0R8	RVLVDDTRRALADLATA GWR R	
UniRef90_UPI00035DABAF	VFVVPSTKEALFAL	
UniRef90_UPI0004671C43	VIRVESTRYAMAFISAAYF	
UniRef90_R6MCG4	IVLVEDSLKCLQDLA	
UniRef90_Q55469	VI AVPDLVPCAGLAAAFYQ	
UniRef90_UPI0003804E2E	LIGVPDVAAALIGGVASRFYGE	
UniRef90_J9SLP5	VLIHPAPRTVLGNVSARVYG	
UniRef90_W9VES4	VIPVARLSSRLSEIADR FHG	
UniRef90_B2SYY0	ALKVTDTRVGLGALARGWRRK	
UniRef90_R5FBB0	YVLVADTLVAFKELARAHRRE	
UniRef90_UPI00046CB862	VLVAEEDPRS L TGVI AARVW	
UniRef90_UPI000348ED18	ILEVKSAVHALQQIAAHHR RQ	
UniRef90_T2NFK6	YLLVDDVLTALQQLAA	
UniRef90_U2SV00	LLCVPTDLVAYQGLAAHAWR	
UniRef90_Q3B125	YIVVQDTEKGLQELASLYR	
UniRef90_F4XFT6	RIAI T DTRKALAPLADR FY	
UniRef90_F3KQ66	GI VVSDTRRALGQLA QGWR Q	
UniRef90_UPI0003B6F132	YLRVED	
UniRef90_B6FYU4	IIEVDDTSKALGDIJGHYY	
UniRef90_B9E0V9	LKVKQNGNTALLLELAAEFYR	
UniRef90_J9F703	LLVDDVLTHTMQDLAAAYHRR RQ	
UniRef90_UPI0003716392	VIEVASLRS HAGALAD	
UniRef90_UPI00047B6526	ILVADVLTTLQKLLAS FHR RQ	
UniRef90_H1YIT3	CLLVDDVLSCLQNLAARYHRKQ	
UniRef90_Q82VS8	NLGVAGLRHEAGKIASEAYG	
UniRef90_X2H6P4	LVVVKDLRQRAGLVAAAC Y	
UniRef90_V6F2S7	LVTVDNPRRAYALAAARFHG	
UniRef90_I0S213	VLIHPRPREVLGELAGTVYG	
UniRef90_R5S5T1	CVLVVDAHEAAAKLAAARWYGE	
UniRef90_A6DMM0	QICIDDIRKANALLADLFH	
UniRef90_UPI0004786D33	VILVNNVLETLQQLAKY	
UniRef90_V5PLL9	ALIVPDTRIALGELAAAWR R	
UniRef90_X7XWX8	VLVHPAPRSVLAGLAAATVYG	
UniRef90_K7RVT9	HLIVDDTRQGLADLARH	
UniRef90_A5IKI5	IFLVESSVDALAKLA	
UniRef90_M2P8Z0	YIKVNNVLDDELNRVANIF Y	
UniRef90_R9L2T2	YILVKDSFQALKDMA E F Y	
UniRef90_I3BX11	LTVPVPSLREHLGVLADR FY	
UniRef90_H1PZE5	YILVDDALIAAYKELAREHRR RQ	
UniRef90_R4SXL9	ILVHPDPRALGELIAAWLYGE	
UniRef90_A6EPV7	ILITDNSLECLQKLLAS FHR RQ	
UniRef90_R6YBI5	VVVV PNTKEYL	
UniRef90_Q6MEG1	QIIHPNPNELLESILLARDYYQ	
UniRef90_A4SH07	FIIKAPD	
UniRef90_B4RFS4	AVMV P DTLHAL EKLGA A	
UniRef90_B5JR24	QLVVDEVEGELLALLAGGYR	
UniRef90_A0A059MPJ2	VLVHPDPRSVLGVVSAAL YGD	
UniRef90_F0GXQ2	YIKV EDGR CALAEISN	
UniRef90_D6V2T6	LLVV PDVLA GLVDLAKA	
UniRef90_UPI0003C7F8F4	RIVL EAPRSVLGALSAE VY	
UniRef90_Q47VQ5	QLIVSDTRIALGKIAA	
UniRef90_C0BKQ3	CIYVADV LKALQAL	
UniRef90_UPI0004276406	VLLASDPRAVVGPLAAE VYH	
UniRef90_UPI000465696A	IAVPG LRA RLGAMGDEFH	
UniRef90_K8EM05	VAVVKSTKGLGKLGKAFYED	
UniRef90_D3IC90	YIIVDNVLTTLQQLANH	
UniRef90_D4DX67	QLVVK DTRLALGQLAAWVRQQ	
UniRef90_R5J396	WL CV P DTRKALQDFGAY	

1 10 20 30 40
UniRef90_UPI00047DB8AD D I L Y Q L F L Q S T G V I S T D T R K I D Q G N L F F A L K S T G G
UniRef90_UPI00047AC494 L N A R W E G T N P E A L I D N I V S I D S R S L Q E H S L L F F A L L S T G G
UniRef90_UPI0003821DE7 D F A V D R G V A F D S R R E V G P G G D L F V A A L L T G G
UniRef90_UPI000347BF46 E E V H V R G I T H D S R R Q V H P G G D L Y A A L L P G G
UniRef90_Q9PKC6 Q L L R D I P A K I Y G K V E S I P V R N L T R D S R R C T G V G G D L F I A R Q G G
UniRef90_G2E028 L P P E S E S V L D L R V S G L A L D S R R T L T P G G A L F F L A C Q G G
UniRef90_M5ABP3 H D L L R N T T L Q V D D T D V V G L T Y D S R Q V Q A N T L F F L V C K Q G G
UniRef90_UPI000478174E G N L L I K G T Y C E F N K I S T D T R T S I G K D E L F L A L S G G
UniRef90_G2IDU6 P A V I S T D T R T S I G K D E L F L A L S G G
UniRef90_X5LIV9 G Q V R V T G V I S I D T R K I N S G S F F V A I K G G
UniRef90_G2YZW4 I K D L H E K F L Q C N A T S I N S L V I D S R K I A N K N S V F F A I K G G
UniRef90_R5Y3K4 K D I A L I L N A K L I G N N C K I N S L S I D S R K I K K N C L F F V A V H G G
UniRef90_Q8D2Z2 S L S Q I A A A V G G R G P D A P V T G V V T D S R Q A A E G S L F F V A V C Q G G
UniRef90_F2UU1 L P P L L R E Y A A G A V L H S D S R A V K V Q A G S L F F V A C Q G G
UniRef90_G2DT81 R A V K V G S I F F I A L D R G G
UniRef90_W1WPP8 I T T D S R I C P K D S I F I A L L R G G
UniRef90_V8BUS5 N G V L T T D S R H C P K G S L F F A L L K G G
UniRef90_R5CFX4 T L S A L L T P A G G R G G D I A V T T G L A V D S R Q V R P G G T L F F A L L P G G
UniRef90_A3PHS0 T L S E L L V A T V G E R G N P V I E A V R I D S R A V S P G G C L F F V C I P G G
UniRef90_UPI000465AC6F P D G L P S S L H A L T T D S R E V I P G S V F F A I P G G
UniRef90_W1N5B5 T R V T D V V T D S R Q V A E E G S L F F V A I V G G
UniRef90_C0W7F7 P D V R V T G V T L R G Q N A Q L G D L F F A A L P G G
UniRef90_L0IXT9 V V F D S I S Y D S R R K V T E D T L F F A K G G
UniRef90_G6J556 Q L P Q I K A L H V Y G P S M Q L T A G I V Y D S R D V Q N Q Y A F F C I I G G
UniRef90_S2XJY5 L R T D S R Q V E P G D I F I A W P G G
UniRef90_A1TKC6 R Q I L I E L L K P E V S I D K N C A I V R G F S I D S R T I K G G E A F V G I R G G
UniRef90_UPI00046C9865 G G R L L G P S E D A L I S M V S I D S R L L E S T L F F V A L K G G
UniRef90_M7Y1Z1 G G R L L H A D P D V T V T G V I I D S R Q A A P S G A L F F V A L P G G
UniRef90_UPI00037E4BA4 D T E L T V S G V S V S I D I E D N W L F F V A I P G G
UniRef90_L1PFQ3 L L A K V G E G L M V R T D S R E V C D G D V F F A I S G G
UniRef90_UPI00038097B3 I A E A L N R T C K N S D T I L A G R V V T D S R E V A P G G L F F V A R V G G
UniRef90_W1TN57 E N V T F S G V S T D S R A I A P G E L F F V A L R G G
UniRef90_A0A011QJ85 K E I A N I I Q G K L R Q G I P V E I T E Y S L D S R S V V E H T L F F A L T R G G
UniRef90_UPI0003760B18 K T L A D L G L T A K A G Q E A R I T G L A V D S R A V K P G G F L F A A L P G G
UniRef90_C8S467 V T T D S R D C P M G S I F I A L K G G
UniRef90_F8N6P5 D P A L A G L T V D S R A V Q P G G F L F A A M P G G
UniRef90_K2BFG6 K T I Y G T L P E N V N T I S Q D S R N I G E S S V F F V A I A K G G
UniRef90_UPI00037630DD L V A G D P N R I A K G V A I D S R A V G T D G L F F V A F V G G
UniRef90_U2S1A1 I S T D T R K I T E N C L F F A L K G G
UniRef90_U2TM82 K L A Q L S H G R V I G D G T V E V S A C G L D S A S L P E G A L F A A L P G G
UniRef90_G2PRZ3 L L A A P A D R D A V T G T C N D S R Q A R P G G L F I C K G G
UniRef90_U7M1Y4 N V E N T I Q E V T K D T R V P S V K S L Y V P I I G G
UniRef90_R6GTK0 D L A Q A V G G T V H G D G R V R G A V I D N R A V R G G E L F F V A M P G G
UniRef90_UPI0003FCCEF6 P D D Q R V T G T E F D S R K V T T G G L F F A L P G G
UniRef90_D6ZGY8 L A S L L Q A K I E G I Q S T P L T D V V T D S R N L E Q S L F F V A L K G G
UniRef90_U7KLP3 D P S A L M T G V T W D S R E M Q P G W L F F V A L P G G
UniRef90_K1L688 L V E L L S A Q G P G L A K V A V T G I T H D S R Q V L P G D L Y V A L P G G
UniRef90_R9L448 T L A E I V E A I Q G G R E Q Q S C A G V S T D T R A L Q Q G G E L F F A L V G G
UniRef90_D1A7V1 D L K E L L A K I Y G K V R P L E V R N L T R D S R C V S V G D I F I A H K G G
UniRef90_UPI0003666AB6 L I T G N E N D R I N D V I I D S R S A N K E N I F F A I V G G
UniRef90_Q9Z8C5 L H S D S R Q I K Q G D I F F A C P G G
UniRef90_UPI00047A281C L A I E K I V V D S R E D C S A L F V P I R G G
UniRef90_Q9JSZ0 L A I E K I V V D S R E D C S A L F V P I R G G
UniRef90_F5T5R7 T L A D I A E A V V P D A H A Q V T G G V E F D S R K I G P G G L F F A L N G G
UniRef90_UPI000465E203 N L K D I A Q A I D A D I S S I E I T S L V L D N R Q V T K G S L F F A L K G G
UniRef90_UPI00025564A4 P D V Q I D G A S I D S R S I R P G G L F F V P I V A
UniRef90_J9S0R9 P E V E V A D L T S D S R E V R P G W G F F A L K G G
UniRef90_B1VHC9 Q L A E W L H L D V K D D R I V R H F A T D S R A Q L E D G L Y V P I Q G G
UniRef90_UPI0003FDFAFB T D S R A Q L E D G L Y V P I Q G G
UniRef90_U6BEQ0 L E A L L K G V V C G T L D K E A G T L I Y H S D K S S P D A V F F A I R G G
UniRef90_UPI00047EE805 R R L A E I T G G L D P A S G D V L V D G V V T D S R E A S G P G S L Y V A R V G G
UniRef90_R6EMV8 D V V I T G V C F D T R Q I E T G N L F V P F I G G
UniRef90_H5UQG8 G V S T D S R R I E P G V M F F A L R G G
UniRef90_W7DCS3 V R T D S R K I Q D G E C F V A M P G G
UniRef90_R5I0V7 V I S G V A I D S R Q V P G D L F F A L P G G
UniRef90_F0JF46 V R T D S R K I Q D G E C F V A M P G G
UniRef90_U3P052 G G R L A G P T D W T A R G V S I D T R T L R R G D L F F A L K G G
UniRef90_W4HKK8 K I L T K L L K E K F K L D K L D E I L K V M D S R K I E K D S L F F A I N
UniRef90_C3WFS2 K M L S E L I A L L C Q G N G G A V I T S I T Q D S R Q V K K G S L F F A L P G G
UniRef90_UPI00037176E8 S T D S R S C G P A S L F F V A L K G G
UniRef90_E5ALG0 G A T V L G D D T V A F D Q V V D T D T R K I R E N T I F F A L K G G
UniRef90_UPI0004089C2B V D T D T R K I R E N T I F F A L K G G
UniRef90_A4X9S0 L A T A I G G R V F G S A D V S I T G V S L R A Q S I S P G D L F F A A L P G G
UniRef90_H0R2N7 L A G A V A G R L H G D G E R S F R G V S R D S R A S W P E A L F F A L R G G
UniRef90_L0DXC5 S R I S T D S R R H I V P D S L F F A L H G G
UniRef90_UPI0002DEEC6A A D T A F S S V G T D S R R D C T Q L F F A L R G G
UniRef90_UPI000379BC29 P G S A G I D V T G I T D D S R K A A P G V L F F A L S G G
UniRef90_UPI0003A7BD91 G Q P V A A I T G I S I D T R T L Q P G D A F F A I Q G G
UniRef90_I5BQZ3 K R L S E I L R Q T V L G D G E R P V G G L T Y D S R A V K P G D C F F A V R G G
UniRef90_R6VU96 V T Q D S R R A C P G A V F V C A R G
UniRef90_G9RUM0 D L S A L L G G A I P T E D R E I E L L S I D S R S L E P G D L F F A L V T
UniRef90_UPI00037BF9E6 D F E A T G V I N T D T R Q I D H G S I F F A L K G G
UniRef90_B0T835 L T Y D S R E V K A N T M F I C K G G
UniRef90_UPI0004648610 I N T D T R Q I D H G S I F F A L K G G
UniRef90_L8JTDQ I A A L T G G T L V G T D I A I E R V I S T D T R T L Q A G D F F V A L R G G
UniRef90_K2HD61 Q Q L A E I T N A Q L I G D P N K V V K N L A F D S R I V Q D T A F L A I K T
UniRef90_K1MF39 T I K D I I G K L M Q G N E N L P F D K C K D T R T L N K G E I Y L G I Q G G
UniRef90_R7MA48 N L E K L L S D A G I G P T D I E I S A I V S D S R R V C N N C L F L C I R G G
UniRef90_UPI00037ET47 L A S D S R R I G R G D V F F A Y P G
UniRef90_UPI000369AD83

UniRef90_UPI00047DB8AD P N F N A N E F A A K A L E M G A S A V V T D E A K Y F V E D D E R 70 80
UniRef90_UPI00047AC494 S N N D A H H Y I K D L I A I G V Q N F V V T R I P D D C A A K A N
UniRef90_UPI0003821DE7 E T T D G H R F V D R A V A Q G A T A G A L V S R P Q T E
UniRef90_UPI000347BF46 A R A H G D F A A Q V A E A G A T A L T D A A G A E R A S A T G L P
UniRef90_Q9PKC6 Q M C N G N D Y S A G A V E N G A T A I L S S L Y N P F L S L V
UniRef90_G2E028 R C V H A L S F A D E A R R N G A T A L L A E E W P I E V M R H L E G R L G L P
UniRef90_M5ABP3 N F S V D Y L H S A I E N G A T A Y L A E E D Y G V L A E E G R L G L P
UniRef90_UPI000478174E E N F D G H N Y L A Q A Q S A G A C A V V V A H R V A D C V Y K E F E L Y D V S P
UniRef90_G2IDU6 E N F D G N K Y L F D A V S K G G A V A V L T D P A G A A E L A G R S E V P
UniRef90_X5LIV9 A S A H G V R Y A P D A V S G G A V A V L T D P A G A A E L A G R S E V P
UniRef90_G2YZW4 T Q F D A N S F A A E A L T K G A L F V V T D N P Q Y Y I D E R T
UniRef90_R5Y3K4 E S L D G H K F I N S A I E N G C K T I I K N K S N D F E I I G E D L N
UniRef90_Q8D2Z2 K K F N G E C F I K E S I K N G A G A V I V I N A R K V N I
UniRef90_F2UUI1 E R T D G H A H L G S A R D L G A V A I V S D L E A A R S G L S Q G Q A E E V P P
UniRef90_G2DT81 E Y T D G R N F I P S A V E A N G A A F V E W D D D G K F A W N P E W N V P
UniRef90_W1WPP8 A T V D G H N Y V N K A V E A N G A V A V L V S K P V E V S
UniRef90_V8BUS5 E N F D G N K F A E T A L E K G C A Y A I V D E Q K Y Q K P D D S R
UniRef90_R5CFX4 D T F N G N A F A A K A L E S G C A Y A V I D E A E Y L V P G D N R
UniRef90_A3PH0 S R S H G A S F V P A A L A A G A T A I L T D A A G A A L A R E A L A G S G A A
UniRef90_UPI000465AC6F A R L D G H N F A A E A V A K G A A V L A D R P L A G L A R E A L A P E G T P
UniRef90_W1N5B5 V G A D G R D Y I D Q A L A A G A R A L V L A E R G E A P L T H A G E P
UniRef90_C0W7F7 E R T D G H R H V P Q A A A A G A R A A L V E A V R A A M A E A G R D P E S L P
UniRef90_L0IXT9 A S S H G G R Y A A D A V A R G A V A V L T D P A G V E A M G D I A L V P
UniRef90_G6J556 A A F K K E Y L L S A I T Q G L A W Y V A E K D Y E V L E S Y A S S H P L L S
UniRef90_S2XJY5 E E T D G H Y I D E A I N Q G A T T I V G S D K S T L E S Y A S S H P L L S
UniRef90_A1TKC6 A A T D G R M H V G E A L A R G A A A C L V E R E G V E A F R F G A E G V A
UniRef90_UPI00046C9865 G R F D G V T F A C D A V R K A K T F A I V E K R I P D A A S I S H R A S
UniRef90_M7Y1Z1 A K F D G H T F V P S L D L G V S C F L V K N D F P D A A S I S H R A S
UniRef90_UPI00037E4BA4 E R V D G H D F A R A V A A G A T L V L A A R E L D S E R A R E K N P D I P
UniRef90_L1PFQ3 L V Q H G R F L H A A V E A G A T A V V T D R E G S E R A R E K N P D I P
UniRef90_L0RAB2 P L L D G T D F I P A K A L E N G A S Y I V C A N E V D T K S A E
UniRef90_UPI00038097B3 T R V N G E D F I P A A L E A G A V A L V A R T D A R V E G V L
UniRef90_W1TN57 E N S D G H N Y L E N A W R A G A A A L V E R K E P A E Q V G I P
UniRef90_A0A011QJ85 E H F D G H H Y L A A A M A R G A T A A V V A A D C A D G L L V A G L P
UniRef90_UPI0003760B18 S N H N A H D Y I Q T L Y S E G V R A F V I S E N R K E F E H L P E A N
UniRef90_C8S467 V K A H G G E F I Q Y A L R M G A S A V L T D V E G A K A I A D D V L A G S S A A
UniRef90_F8N6P5 A S F D G N K F A A A L K Q G C S Y A V I D E K E Y A E D G D D R
UniRef90_K2BFG6 A K V H G A S F I D T A L A K G A S A V L T D A T G A R L A A D A L A A S G V A
UniRef90_UPI00037630DD E H V D G H S F V S K L S G L V V A V D H A I E D A A
UniRef90_U2S1A1 Y T V D G H N Y I E K V I K Q G A S L V I A S R Y E D Y P T D T C A
UniRef90_U2TM82 E R T D G N A Y A P A A I Q N G A A C V V L T A D P T E E L L A L A A E K H C A
UniRef90_G2PRZ3 P N F N G N A F A Q E A L N K G A A Y A I I D Q E E F K T S D R
UniRef90_U7M1Y4 T R V H G A Q F V G D T K A G A V L T D A A G L D H L R Q A N E A R P
UniRef90_R6GTK0 Y G F K P E Y L E M A R S R G A V C A L A E T D F P G V D H L R Q A N E A R P
UniRef90_UPI0003FCCEF6 E R F N G H H F L M D A I K N G A I A I W K Q G E P L P D D L D P S F P
UniRef90_D6ZGY8 F H V H G A K F A A D A A S R G A G A V L S D P A G M A F L T D L D I P
UniRef90_U7KLP3 A R V D G H D Y A E K A I E Q G A V A V L A A R P V G V P A V V V K P Q G R V T
UniRef90_K1L688 A K F D G H N F V E R V E D K I R T F L V Q E D F S P T A S I S K K A C
UniRef90_R9L448 E R V D G H D F V E A A L R A G A G A L V M Q S P G R A A C L L A R E M G A
UniRef90_D1A7V1 T R A H G A E F A A Q A A A G A V A I W T D P A G R H R A A A T G L P
UniRef90_UPI0003666AB6 D S F D G H F L A N A L D A G A A A L V V Q R E E A V L E N A L I P
UniRef90_Q9Z8C5 Q R Y I D G N D F A V D A L A N G A I A I A S S L Y N P F L S V V
UniRef90_UPI00047A281C E S L D G H E F I K S A Y E N G C R N F I K N E S T S I K L D S S D I N
UniRef90_Q9JSZ0 E Y A D G R S Y I P A A V A N G A A F V F W D D D G K F A W N P E W K V P
UniRef90_F5T5R7 E K V D G H R F I P M A I S H G A K E I F T E E D F S D L G K Q Y P D V H
UniRef90_UPI00037F7DF9 N S F D G N L F A E E A L K K G A L Y A V V D N P N I K L S E R T
UniRef90_UPI000465E203 A N S D G H E F A A T A V G Q G A V A V L A A R P V G V P A I V V D P R N D
UniRef90_UPI00025564A4 L N F D A R S K L Q D V E A Q G A I A I Y E D T A D F T P P K L N I P
UniRef90_J9S0R9 E R D G H D F I P A A I D G G A G A Y L T S R T D P V G G T
UniRef90_B1VHC9 S R V H G A T F A A D S G A A A V L T D A E G A E I L L A D A D L P
UniRef90_UPI0003FDFAFB E K A D G G V A Y V P Q A L A G A S A I F S P S G V N T P E A V A D C T F T G
UniRef90_U6BEQ0 A R V D G H R F L E G A K N Q G A I V T L W K K G I D R P D I D I V
UniRef90_UPI00047EE805 A N R D G H D F I G E L V G K G V A Y F V V S Q M E K I S P E W L E E A D
UniRef90_R6EMV8 E K T D G H Q F T E K A A E K G V R I F V V E D S N G N F P D G A T
UniRef90_H5UQG8 E H A D G H V Y V P A A K E K G A V A A L V T T P V E Q
UniRef90_W7DCS3 E S R D G H A F V G Q A H E A G A A A F W Q K D V P N P V G V P V
UniRef90_R5I0V7 D N F D G N L F A A A L E S G A A W A V V S R D S G I P D G G R
UniRef90_F0JF46 T A V R G L D Y I P N A L D N G A R Y I V A P E A A R D L V A P V V E K K A V A
UniRef90_U3P052 K T T D G H N F L Q H A A Q A G A V A A V I S Q E Y K G D N Y G L E
UniRef90_W4HKK8 V R D G H D F V A Q A L E K G A A A A L V T H R P E G V S E D A P
UniRef90_C3WFS2 N G N K Y I D E V L E R G A T L V I A D D Y S G D D S R
UniRef90_UPI00037176E8 S K V D G H D F A E K A V A A G A V A L L A D R P L T V A G A A V V V V
UniRef90_E5ALG0 E R F D A H D F L P D L A R G V A A V L V S R S P G D W R V P
UniRef90_UPI0004089C2B V N F N G N E Y A R E A L E R G A A F S V V D E E K Y Q V D E N
UniRef90_A4X9S0 A R R H G A E F V S A A A R A G A V A V L T D P D G A A A T A E V D L P
UniRef90_H0R2N7 S R V H G A R F A A D A V R A G A A A I F T D P A G R E L I E T E L S D A G L S
UniRef90_L0DXC5 E R F D G H D F V R P E L E A A V L L V I E R P L D D P R P
UniRef90_UPI0002DEEC6A E R F D G N S Y A E N A L K A G A A A V V D D P S V A E T L R Q H W P D R C A
UniRef90_UPI000379BC29 E R F D G H A Y A A A R D R G A A A A M V D H P L A L D L P
UniRef90_UPI0003A7BD91 S K A D G A K F I A D A A V K G A V A V L A A E T A S V P D G L D I P
UniRef90_I5BQZ3 E R F D G H D F A T A A M A A G A S V L V S E G K L P A L G R L G V P
UniRef90_R6VU96 T Q A D G H A F I P A A V A A G A A A V V C E Q L P A D P A P G V T
UniRef90_G9RUM0 M T T D G H D H A R K A L E A G A V C I V T E R P L G L P G E
UniRef90_UPI00037BF9E6 P R G D G H S Y I P Q L Y N E G V R A F V V S K A I E G T Y P G A V
UniRef90_B0T835 A R D G H E F V V I Q T A D R G A G A L I S K P V A I P
UniRef90_UPI0004648610 A A F R E T Y L V S A I E K G A V L Y I S E R K Y E T G K D V P
UniRef90_L8JTK4 P K F N A N E F A S E A L A K G A S F A V I D A R Y R E D E R
UniRef90_K2HD61 E H F D A H D Y L D Q A A A G A R A A L V E Q P T G A F A H
UniRef90_K1MF39 E K N N G E K Y I A S A I E K G I H V I A E Q K T I D H D E V S
UniRef90_R7MA48 E N F N G S T L Y E Q A L E K G A I A C I L Q D V E I S D E I L K K Y P E S T
UniRef90_R7ET47 I K N D S H R Y I G D V C A G A A A V A V E D D V E H A L P H T P A G V T
UniRef90_UPI000369AD83 E A G D G R A F I E K A I E Q G A A A L V F D D A G Y A W N A W T V P

90 100

UniRef90_UPI00047DB8AD Y F I C E D V L S T L Q Q L S

UniRef90_UPI00047AC494 F L I V I G N T L V A L Q Q F A A Y Y R G

UniRef90_UPI0003821DE7 V V A V A D T F A A L E D L G R A

UniRef90_UPI000347BF46 V L V V P D A R A A L G T A A G W V F G D

UniRef90_Q9PKC6 Q I V T E D L T A L E A C L A A R F Y N D

UniRef90_G2E028 V I P V V G L S S R L A A L A D R F H G

UniRef90_M5ABP3 V I L V K N V R K A L S L A A Q L Y F

UniRef90_UPI000478174E Q L V L G D T R L A L G R I G A A W R

UniRef90_G2IDU6 V V L V D S T L D A L K K L A

UniRef90_X5LIV9 V L V H P E P R R V L G R A A A V Y G

UniRef90_G2YZW4 I L V I D N S L E T L Q Q L A K Y H R Q

UniRef90_R5Y3K4 L I E V E N T E F A L G D I A R Y Y

UniRef90_Q8D2Z2 H L I V K N T I I S L L R L S K W I R

UniRef90_F2UU1 I V L V E D T V A A L G A L A

UniRef90_G2DT81 N Q G I K N L K T R A G I V A A Q V Y G

UniRef90_W1WPP8 V I T V E D T R K A M M A C V P Y F F

UniRef90_V8BUS5 Y I L V I D N C L K T Y Q Q L A

UniRef90_R5CFX4 Y L L T D N C L L T L Q R L A R H H R R Q

UniRef90_A3PHS0 L V L A E D P R Q T L A G A A L W F G

UniRef90_UPI000465AC6F V L L V R D T V A A L G K L A R S W R

UniRef90_W1N5B5 V M W L E H L R A Q V G E L S R E V H Q

UniRef90_C0W7F7 L V I V P D T V A A L G G L A

UniRef90_L0IXT9 V L V H P H P R S V L G D L A A T V Y G

UniRef90_G6J556 V I I V N D I K K A M S L I A M E F Y G

UniRef90_S2XJY5 F V L V H D S Q E A L A F I A I E F

UniRef90_A1TKC6 A L R D L K A A T G L L A A D W F G

UniRef90_UPI00046C9865 H M V V D D A L E A L K R L A A

UniRef90_M7Y1Z1 F I L V D N T H T A L H Q L A A Y

UniRef90_UPI00037E4BA4 T V V V D D P Q E A L G E L A

UniRef90_L1PFQ3 I V I V A D P R R A S A T I A N I Y R

UniRef90_L0RAB2 L I L H D S P H E A L G E L A T A Y F

UniRef90_UPI00038097B3 H I A D H S P R E C F A K L A A R F F

UniRef90_W1TN57 Y V Q V P E A T R A L G W L A H

UniRef90_A0A011QJ85 L L R V A E T R L S L G A L A A D W R N

UniRef90_UPI0003760B18 L I I V E N V L A A L Q Q L A A Y H R Q Q

UniRef90_C8S467 L V V A Q D P R Q

UniRef90_F8N6P5 Y I L V K D C L T T F K E L A R E H R R Q

UniRef90_K2BFG6 L I V A E D P R E A

UniRef90_UPI00037630DD Q L V V M D T V K A L G D I A

UniRef90_U2S1A1 V V V V K E T

UniRef90_U2TM82 V V R A D D G E E F L L R L T Q A W R Q K

UniRef90_G2PRZ3 L L L V D D V L A T L Q Q L S

UniRef90_U7M1Y4 I I V V D D I R A V L G P I A E I Y G

UniRef90_R6GTK0 C V R V S D V R K A Q S L A A R W F Y D E

UniRef90_UPI0003FCCEF6 I L E V E D T I S A L Q K M A K L Y

UniRef90_D6ZGY8 A I I V P D V A S V A G Q A A A

UniRef90_U7KLP3 F L K V N K P L Q A L Q K L A S H

UniRef90_R9L448 V I E V A N T A S A V T D L R A R A W R G

UniRef90_D1A7V1 V L V T D D V R A R L G E A A S W V Y G D

UniRef90_UPI0003666AB6 V V L V A D T R K A L Q D L A R F H R

UniRef90_Q9Z8C5 Q I I T P N L E E L E A E L S A K Y Y

UniRef90_UPI00047A281C L I E V K D T E I A M G D I G K Y Y

UniRef90_Q9JSZ0 N Q G I K D L K H R A G I L A A Q V Y G

UniRef90_F5T5R7 F H R V E N T L A A L Q D F G A R Y R G K

UniRef90_UPI00037F7DF9 I L V E D V L T T L Q K L A N Y H R R K

UniRef90_UPI000465E203 L V V E G V L Q A L G A L A R A

UniRef90_UPI00025564A4 L I P C Q N L V V K Q A D I A S T F Y D E

UniRef90_J9S0R9 A I R V A D T A F A L A D L G R A V R

UniRef90_B1VHC9 L L V V D D V R R W M G P V A A A V Y G

UniRef90_UPI0003FDFAFB D P R L Q M A E L A R R L H G

UniRef90_U6BEQ0 F L E V D E P L V A L Q H I A K R Y

UniRef90_UPI00047EE805 F F L V P D T L Q A L Q E L A A

UniRef90_R6EMV8 V L K V K D A R Q T L A A A S R N F F G K

UniRef90_H5UQG8 A V L V D D V Q E A F A A L A

UniRef90_W7DCS3 L M V E D T L L A L Q S L A K A Y L K Q

UniRef90_R5I0V7 Y I A V D D T L E A L Q A L A R R

UniRef90_F0JF46 V Y V D N P A V A L G E L A R A H F Q

UniRef90_U3P052 F V R V E D P R K A L Q E

UniRef90_W4HKK8 L L V V D E V L S G L D A L G R R

UniRef90_C3WFS2 V I V V E D T I K A M Q D L A Q E Y R

UniRef90_UPI00037176E8 P D V R E A M G R I V P F F Y

UniRef90_E5ALG0 A I R V A D T R

UniRef90_UPI0004089C2B I I L V D N V L A T M Q N L A H Y

UniRef90_A4X9S0 M L V V P D P R A V L G D L A S V V Y G D

UniRef90_H0R2N7 V I V H P D P R S V L G E L S S L I Y G D

UniRef90_L0DXC5 Q V V V D D T T G A L A R L G V Y W R

UniRef90_UPI0002DEEC6A E V P D T L A A L Q E L A A R H R R E

UniRef90_UPI000379BC29 Q W I V D D T R A G L G R L A A A W R

UniRef90_UPI0003A7BD91 V L R A P E P R R

UniRef90_I5BQZ3 K V V V P D V Q K A M E D L G R A

UniRef90_R6VU96 Y V A V P D S A G A M A D L A A A F Y

UniRef90_G9RUM0 V Q V A S G R K A Y A Q L C Q N F F G

UniRef90_UPI00037BF9E6 F I Q V P D T L E A L Q

UniRef90_B0T835 A V L V E D T F L A L E R L A A R

UniRef90_UPI0004648610 F L L V S D I R K A M A I L A N A F Y G

UniRef90_L8JTK4 Y I L V D N V L K T L Q E L A R H H R D Q

UniRef90_K2HD61 Y V Q V Q D S R R G L G L A A G W A D Q

UniRef90_K1MF39 W I L V E N A I D F V Q K L A R Y H F N Q

UniRef90_R7MA48 I V L V E D T V K T L Q K L A

UniRef90_R7ET47 L I Y T K D T R A A L A R L W Y

UniRef90_UPI000369AD83 H L A V A E L K K N A G P I A H A V A G

UniRef90_D3I0L3
UniRef90_R5Z8G9
UniRef90_D1Q0G2
UniRef90_UPI000237551C
UniRef90_S5T3L3
UniRef90_J0V658
UniRef90_UPI00031C50CC
UniRef90_J9YSM1
UniRef90_R6FWC5
UniRef90_UPI0003480518
UniRef90_S7J4B7
UniRef90_UPI0003631DF8
UniRef90_A0JV89
UniRef90_U2HWS4
UniRef90_Q47QX3
UniRef90_R7AJ64
UniRef90_Q07PT8
UniRef90_R4T1M4
UniRef90_L1MFV0
UniRef90_UPI0003B36072
UniRef90_UPI00035EFB0C
UniRef90_B2J8S4
UniRef90_Q01Q44
UniRef90_UPI0003B721DD
UniRef90_UPI000469FDEC
UniRef90_I3QH69
UniRef90_UPI00037DBFA6
UniRef90_A1HTF6
UniRef90_D2Q5A3
UniRef90_M1R920
UniRef90_I0L8V2
UniRef90_H6N076
UniRef90_G8TX26
UniRef90_UPI0002F71A55
UniRef90_D2SA56
UniRef90_M2U2R4
UniRef90_B8IMW8
UniRef90_U2SGX6
UniRef90_Q0EYH0
UniRef90_D0J9W8
UniRef90_Q11GS1
UniRef90_UPI000370CF67
UniRef90_E0Y0J8
UniRef90_L8EEN6
UniRef90_B7IGZ4
UniRef90_L7LMF8
UniRef90_Q98KA8
UniRef90_K7S3C6
UniRef90_R6TIB6
UniRef90_F8DJE0
UniRef90_B0C6L4
UniRef90_E2SK13
UniRef90_UPI00036EB132
UniRef90_K5YBM0
UniRef90_T0AR03
UniRef90_X4ZPF3
UniRef90_UPI000374E00F
UniRef90_R6FR47
UniRef90_Q47VQ4
UniRef90_UPI000407CFAE
UniRef90_D1C0C1
UniRef90_A2SCY1
UniRef90_UPI00035CC1DA
UniRef90_UPI000368CAA0
UniRef90_UPI000382395D
UniRef90_UPI00046EF7FF
UniRef90_A1KVL9
UniRef90_UPI0002D44138
UniRef90_UPI00037DB9A
UniRef90_A4XQR9
UniRef90_G2IM09
UniRef90_UPI00037E62C9
UniRef90_UPI00047BA7B5
UniRef90_D5SR59
UniRef90_I0TE03
UniRef90_UPI0002DB7811
UniRef90_UPI00047070B4
UniRef90_UPI00037DF9EF
UniRef90_F3WYJ8
UniRef90_UPI0002558A44
UniRef90_C7PDB0
UniRef90_F0GHG3
UniRef90_UPI0003B73D81
UniRef90_A4YZK7
UniRef90_UPI00047E2939
UniRef90_I3YIB0
UniRef90_B4RFS5
UniRef90_A0A024YJK5
UniRef90_UPI0002EF7E9F
UniRef90_S4ZZ77
UniRef90_H8MMB6
UniRef90_R7FST6

1 10 20 30 40

D L V V S R P S A S C D Q R I E F A T D D S R R Q V C P E G S I F F A L K G G
V T T T D S R R Q V C P K G D S L F F I A L K G G
V T G L Q T D S R R Q V C P K G D S L F F I A L K G G
L A E L A G A R I V G A L A A P V T A V D L D S T K L E P G A L F F A A V I P G G
R Q L Q A I T G G T V V Q L Q D S P V V R H L L T D S R K V L E S A G T L F F A I K G G
L G D L L P D A F A G T A P V R I N K A V I N S K E V K K D D I F F T L K G G
R A L E G T V V V N N D N K N F K G T C L D N R K V T E D C I F F A L K G G
D L K E L L A K V Y G K V R P L E V R N L T K N S R Y V G V G D I F F I A H K G G
D L S T L L A A I P F Y S Q D P A V T S I E N D H R L V S D G G S L F F I C T K G G
T L D T I L P H I G S T S P H A T F S A L A Y D T R K I R I G S L F F A L V
V T T D S R E A A P G G I F F V A L R G
A V R G M T V D S R A V V Q P G N L F V C K G G
L R D L F S D D T V E A A A T Q I T G L A V D S R A V K P G G E L F F A L A G G
S L A E I A A R L H R T D G T A E V T H V S T D T R H L V K D S L F F A L K G G
T G V S I D T R T L Q P G G D L F F A L T
I A S I T G G V L H G Q D V T V T G V E F D T R E I L P G G M F V A F E G
T L S Q L V E V L L A S P I N L S E T G L Q T D S R T L K L G E V F V A L R G G
G W S V D T R T Q I A G D V F F A L R G G
V R V D S R V N S G D I F F V A L P G G
K I T T L I G A H R Y G E N S D V A F I L T D S R S L C E E T L F F A L Q S G
S G I E I N S K K V K K G S I F F A L K G G
V L S A D A V P G S L F F A L R G G
G I S C H S G E I K P G W V L F F A L R G G
L N A D G T D N A D V P F T H I T Y D T R T V R E G T L L V C K G R
N I T Y D T R T V R E G T L L V C K G R
T L A E V A A A L V H A D P A A T V T G V E F D S R K V G P G S L F F A F P G
I A D V V G G E L T N G E D V T V T G A T I D S R A V A A G Q L F F V P I V A
D T A R S I A R L I I D S R A G P D A L F F A L P G
I A E I V G G Q P H D I P D V T V T G V V I D S R E V A P G S L F A F A G
L T P D A A G T V P G K V T V D S R A V A P G D L F F A V P G
D S V T F D S R E V T G G E L F F A M R G
Q P V A G L S I D T R T L K V G D L F F A I R G
R R L D E L A T G L G A D A G G T V L V D L T L D S R Q L G P G C L Y V A L P G
G E W L H G M P E W V S E I A T D T R G F K S G Q C F F A L R G G
S G I E I N S K K V K N G S I F F A L K G G
D L V A A V G G G A L P E G V T G I S I D S R T L Q R G E A F F A L K G G
I A E I T N G R L D A D P G I T P L S I V T D S R E A T Q G S L Y V A K P G G
C T D T R S I V P G S V F F A L K G G
I P D P E A R V T G V V F D S R E V R P G S L F A A F A G
D E E L E F N Y S S N S K D I Q E N T L F F C R K G G
K I K D I L R E L V N C P D V T V D S A S I D S R S A R P G Q L F F V P I V A
P D V T V D S A S I D S R S A R P G Q L F F V P I V A
R D L A G V L P V E G T A S A D L E V T G I S S D S R Q V K P G V V F F A L A G
Q L E E V L G H I H G E L P G R G V R G I T L D S R V S A G D L Y V G L P G
K K Y F D I Y Y K D M I V N H N H S V K D I V E N S K M A S L N S V F V A I R G
T R F D A I S Y D S R K V S A S T L F F V K G G
K L R T L L A P T D H P A L D A E I T G L T S D S W A V Q P G Y L F F G M P G G
L N E L F T L L H I P C E D T R I Q G I S D D T R D L K K D W L F V C R K G G
R P L S G L A A L L G I D D P P V E V T G I T H D S R A V R P G D L Y A A L P G
L N Q L L P Q A D S V L I R E L T L D S R K V L P G D L F F A V P G G
E A L R F D G V S T D T R S I A A G Q L F F A L A G G
V S G V S T D T R S I A A G Q L F F A L A G G
V F D S R L A T P G C F F F A L K G G
N I A E V T G A R R V G D V P A T I D W L L T D S R S L S E E T L F F A L T T
D L H N D S R A I V D G D I F C A I I G
L A A R V S G G M P K R G A T G I S I D T R S L R E D E L F F A I K G G
R D L A H T F D L R V A G A D Q A V T S V A S D N R V V A A G D L F F A L P G
L P G S T L V G D A P T P L L R V H S D T R T L R A G D L F F A L K G G
V G D L H N D S R L I V T G D I F C A I I G
D N P E A E V T G V E F D S R K V A E T G G L F F A L P G
R G I S T D S R R L R A G D L F F A L R G G
S E S K P V S R I V T D S R D I R A G D V F F A L A G G
A T Q G S A S A D F T V S G V A F D S R E V V G P G D L F F A L K G G
Q I A D I V G G R L D N V P D P L D V R S V E F D S R K V S P G G L F F A L P G
L N Q L L P A A E S G P V L I R E L T L D S R K V R P G D L F F A L V P G
N S S F D V T G V A F D S R E V A P G D L F F A L R G G
I A E I V G G R L H R A D S E T V T G V E F D S R K L S H G D L F F A L P G
V T G I T L N S R A V E P G D L F Y M A L P G
L A T I L C G T I L L G A E K K F S G V S I D S R K L K E G D L F F A L S T
K V T T L I G A R R Y G D T D A N I S F V L T D S R S L C E E T L F F A L K T
L Q A R I S G A L A R E A N G V S I D T R T L Q P G D L F F A I K G G
D P D L P V D G V V D S R E V A A G A L F F A V P G G
E G T D Q P F V A P R T D S R A V A Q G D L F F A M R G
D P D L P V D G V V D S R E V A A G A L F F A V P G G
K L N Q L D Q S I T G E G D A L V T G F A I D H R K V A P G T I F V A F Q G
T L E Q L Q Q R F G G E N G S V Q F D A V C T D T R K L D P A A L F F A L R G G
L K G E L Q Q T G N P E I E H I L L D S R K L S E T S L F F I P L V S
I P G A T V H G D A G V T F E R V S T D S R T V G P S G D L F F A L K G G
S L A R L V A G F T P E I D E I P V R G V S M A S D E I L A G E A F I A V G G
G L A G D Y P E T A I D F V T Q D S R A V K P G S L F F A L S G G
S G A S T D T R K I Q H G S M F F A L K G G
D S E V R S V T D S R S C E L G C M F V A M R G
K R L S A I V K R G L P A D P E I T G V T A D S R K V R A G T L F A A L P G
I A D I T G G R P H D I P D V R V T G V V Y D S R E V R Q G S L F A A F V G
K L G E L L H A A G V A G G G E A A T G F A I D H R K V A P G T V F G A F E G
T L A E I A Q P L S E T V G S Q V A T G V A F D S R R L K P G M L F F V P L R G G
V C I D T R S L T P G C L F F V A L Q G
K L S E L I H Q L P K E I G D I E V N G V G A D S R R I K P G E L F F S L D G

UniRef90_D3I0L3 E S F D G N R F A K A A L E K G C A Y A V T D E R E F A E E G N G R 80
UniRef90_R5Z8G9 R A F K R E Y L L S A I A D G A V A Y V S E V D Y D V D L P
UniRef90_D1Q0G2 A S F D G N K F A K A A L D K G C S Y A V I D E K E Y D D E A D D R D L P
UniRef90_UPI000237551C A A T D G R A H V G D A F A R G A V A C L V E H E G A D A F V L L E G L P
UniRef90_S5T3L3 T R V H G A S Y A F D S P A G A L T D E D G L A L L G Q T D E R R P
UniRef90_J0V658 R H N D G H V Y L S Q L Y K L G V R Q F V A E E S E G L G E L Y P E A N
UniRef90_UPI00031C50CC A R E D G R R Y I A D A L A R G T A A V V A E
UniRef90_J9YSM1 K K N D A H N Y L N E V F K N K A S I A V V N K I H K N S K N T K
UniRef90_R6FWC5 E R F N A N N V A I D V L E K G A S I A V V D E V N F K K E D A E G K G I
UniRef90_UPI0003480518 E T T D G H L F P A I E R G A L A L V E R E L D E P V T Q V V V P D V V V
UniRef90_S7J4B7 S Q Y D G N D F A S S A V D N G A I A V V S S L Y N P F L S V V V
UniRef90_UPI0003631DF8 Y T F D G H S A A K E A A K G A V A I I A E Q P V D V P L L A L S A D T P V P
UniRef90_A0JV89 A A R H G A D F V S Q A V A A G A V A V T D D D D G A R L L A L S A D T P V P
UniRef90_U2HWS4 Q Q R D G H R Y I E E A Y A K G V R N F V I S D N D F D I S P Y I D A N
UniRef90_Q47QX3 S R V D G H D F A E A A V R A G A T A V L C S R P V D A P H L L V D G G D D
UniRef90_R7AJ64 A A F R P A F L A S A I E R G A C A Y L C P N D A A I L E Q L E L V A P G A P
UniRef90_Q07PT8 A K T D G A R F I A Q A I A A G A V A V A G D H L P T D E Q G V A
UniRef90_R4T1M4 A K V D G H D F A A R A V E A G A V A V L A A R E V D A P A V I V P L A A
UniRef90_L1MFV0 A S F D G N Q F A L Q A L E A G A G A Y A V V D D Y Q L A Q K D E R
UniRef90_UPI0003B36072 D R R D G H D F A Q A A L D K G A A V L V S R P P V D A P H L L V D G G D D
UniRef90_UPI00035EFB0C A K V D G H D F A G K A K D L G A V A V L G S K P V P Q E V C S G P
UniRef90_B2J8S4 D K F D G H K F V P T A I A K G A V A I V D F E Y E N P G F P
UniRef90_Q01Q44 P N H D G H D F I A A A V E K R A S A L V V E R A Y G V P G E
UniRef90_UPI0003B721DD V N E D G A R F I P A A V A A G A S I V V C R P G G A E E A A A L A G G C R
UniRef90_UPI000469FDEC D R N D G H K Y I L P E L Y R R G V R N F V V A H V P A D W A E R Y P E A D
UniRef90_I3QH69 K N F D G N Q F A Y E A I L N G A L L S I V D N K K Y V F C K K
UniRef90_UPI00037DBFA6 E N V D G H D F A T D A F S H G A V V A L V T K A I S G N
UniRef90_A1HTF6 R A A D G N A Y A A E A V R H G A K A V V T D A P D R L P P L A I P
UniRef90_D2Q5A3 F R P E F L D G L K E R G L V A Y V S E R D F S D H T E V P
UniRef90_M1R920 V S K D G H D F I E E A I G K G A P Y V V A E K P F K D F K N
UniRef90_I0L8V2 A R K V D G H D Y A A T A L A A G A V A V L G T R E L P E V P
UniRef90_H6N076 A R D G H D F I G S A V A A G A T A Y L T S Q P P A D G R S G R A E V A A A
UniRef90_G8TX26 T K T D G H Q Y V H Q V W A A G G L A V V R H D W H P A D G R S G P
UniRef90_UPI0002F71A55 E R V D G H D Y A Q R A V E A G A A A V L A A R P V G V P
UniRef90_D2SA56 E R V D G H D F L T A A A A G A V A A L T T R P D G A L P
UniRef90_M2U2R4 E Q M D G H S F V A S A F E R G A G A L V S E A V D G P
UniRef90_B8IMW8 E T R D G H S D F V R D A L A R G A G A A V V S Q A R A A E L A G S G P L V V V P
UniRef90_U2SGX6 T R T H G A R F T A Q A A G A G A A V L T D D E G A A L A A G S G I P
UniRef90_Q0EYH0 P H F D G H R F A A P L A D A A C A L I G D A R G M R Y W E S L P V P
UniRef90_UPI000370CF67 N N F D G N Q F A H E A I S N G A M I A I V D N I K Y S F S K N
UniRef90_Q11GS1 D R F D G H D F A T L A M A A G A G L L V I S E E K L P A L G R L T V P
UniRef90_UPI000370CF67 E Q A D G H D F V D A A F A A G A L L A L V E R P V A A P D G R G Y P
UniRef90_E0Y0J8 V S F N G N T F A L Q A L E A G A F A V V D E N V G D D E R
UniRef90_L8EEN6 E R V D G H D Y A G R A V I E A G A A A V L A A R P V G V P
UniRef90_B7IGZ4 T S F D S H N I V D D L Y K E G A N V F V V J E R E L R K Y P
UniRef90_L7LMF8 A R D G H D Y L P A A V Q A G A P V Y L T D R T P D P A L A A T
UniRef90_Q98KA8 T K A D G A A Y A A D A A R R G A L A V V A G K S N S V A G L P V P
UniRef90_K7S3C6 T R F H G A S F A A A V A A G A C A V L T D P R G E A L I D D Q G V P
UniRef90_R6TIB6 Y K H N G I N F I E E A I K N G A K T I F D E E I S Y F N K N V N
UniRef90_F8DJE0 A N F K K E Y L E Q A I S N G L G F Y V S E K D Y E V G I P
UniRef90_B0C6L4 T R V D G G S F W K S A I E A G A A A L V S E D Q V D R A D V G T H C
UniRef90_E2SK13 S A Y D G A T F L Q E A L D K G A V I L C D E P L K Q E H V Y Y T P
UniRef90_UPI00036EB132 A R A H G A Q F A A Q A A A G A A A I L T D P A G L P A A R A A G P P
UniRef90_K5YBM0 L Q H D G R S H I A D A I A R G A A A V A Y E A E G A A L Q P A G D A V
UniRef90_T0AR03 E R F D G H D F V A A A A R A G A A A L V D A R W H A D N P T P L P V V V V
UniRef90_X4ZPF3 E S F D G H D Y L A Q A A A A G A C A A V V A H A V A D A A L P
UniRef90_UPI000374E00F E N A D G H E F A E A Y R N G S M F S L T S Q R I D G P
UniRef90_R6FR47 K R N D G T R Y I P E L Y A R G V R N F V V S E E K F Q Q L E S E K L A G C N
UniRef90_Q47VQ4 H D Q D G R Q Y I E Q A I K Q G A K L V V A E C E N I T E H G D V T F A S S V A
UniRef90_UPI000407CFAE E N S D G H D H V A A A F D K G A L A V V D E A H A D A L A G Q G S
UniRef90_D1C0C1 A R A H G A Q F A A D A F A R G A A A V L T D D D G A A L L G D L A V P
UniRef90_A2SCY1 E R F D A H D F L P Q A R A A G A V A A I A E H G L A E A G L A
UniRef90_UPI00035CC1DA H Q Q D G R H Y I E R A I S Q G A K L T I A E C D S A T E H G E I E A N S N V G
UniRef90_UPI000368CAA0 A K V D G H D Y A Q T A M D K G A T G V L A A R T I G V P S V V V P P L E A
UniRef90_UPI000382395D A A F K K E F L Q G A V D Q G L G F Y V A E K D Y Q V G I P
UniRef90_UPI00046EF7FF E S F D G H D Y L T A A A A R G A C A A I V D A T A A P R H P P L P L L P
UniRef90_A1KVL9 G R F D A H D F V E D V L A A G A A A V V V S R E D C V A M D G A
UniRef90_UPI0002D44138 E S T D G H R F L N Q A F A Q G A A G A V V C D P T D H P
UniRef90_UPI00037DB9A A K V D G H D F A H K A H E A G A V V T L A A R P V G T P A I I V P
UniRef90_A4XQR9 T Q Q D G R V H I A D A V A R G A A A V A F E A E G A A P M H A E S A V
UniRef90_G2IM09 E H A D G H D F I P M A L A A G A G G L L V I E R E V N G P
UniRef90_UPI00037E62C9 E R V D G H T F A K A I E A G A S G V L A A R A V D A P A V I V P P A S A
UniRef90_UPI00047BA7B5 A S R H G A D F V P Q A V E A G A A V V T D D A G A R Q L A L A G E Q P V P
UniRef90_D5SR59 G Q R D G H L F L S D A A K A G A A F A I I E R H F E A E F A S L K L S M P
UniRef90_I0TE03 E R N D G H N Y I P E L Y A R G V R N F V V E V V P D K W E T L Y S G S N
UniRef90_UPI0002DB7811 E A R D G H D F V R A F E K G A A A V I D E A H A A L A G S G S
UniRef90_UPI00047070B4 E A M D G H L F V A T A L E A G A A A V V V D H D T S V I Q V P A A I G R
UniRef90_UPI00037DF9EF E R V D G H D F A G A A I A A G A R A V L A T R P V L A G S G S
UniRef90_F3WYJ8 A R V N G E D F I A D A V R S G A I A V V T R P G V T V E G A V H I A S D E P
UniRef90_UPI0002558A44 E T F D A H D F L A D V D G K V L G V V S E K R L E N S A L P
UniRef90_C7PDB0 S R R N A H Q Y I Q E L Y E K G V S N F I V S E P V P E G K Y P K A N
UniRef90_F0GHG3 E R F D A H D F L G D V A A R G A A A L V A H A P A G L A M P
UniRef90_UPI0003B73D81 A N V H A K F A G E V I E S L G A A A V I T D A K G A Q I A T S Q G V K I P
UniRef90_A4YZK7 T S R D G W E F A A N A E Q A G A V A M I V P H R I E G V T V P
UniRef90_UPI00047E2939 A N F D G N L F A A D A L A A G A R Y A V V D D K L V A E S S E Q
UniRef90_I3YIB0 A N H D S H D F I A D M Q S R G V R A F L V E R G V E A S S C T G E C G
UniRef90_B4RFS5 T K V D G H D F I A A S F A A A A I Q A G A A A V I A D R D L G L P V P
UniRef90_UPI00024JK5 E R V D G H D Y A E G A L A A G A V G V L A T R
UniRef90_UPI0002EF7E9F A A V N G E D F I P A A I E A G A L A V V A R P E A R V I E G A L H L A D V
UniRef90_S4ZZ77 E R D G H E F I P A A Q R A G A V A T F V A E D H L P M T T K L P
UniRef90_H8MMB6 E R F D A H D F V D G A Q Q G A A G A V V K R G R A L P A L P G F A
UniRef90_R7FST6 S I A N M Y D A V I K G A S A V V T D T V T D G R F P V P

	90	100
UniRef90_D3I0L3	L I L V D N V L T T F K E L A	
UniRef90_R5Z8G9	A V I V S D I R R T L A V V A D A F Y G	
UniRef90_D1Q0G2	I L L V D D C L L T Y K E L A R E H R R Q	
UniRef90_UPI000237551C	V A A L H G L K A A T G P I A A D W F E Q	
UniRef90_S5T3L3	I L V V E D V R R V L G A V A A E V Y G	
UniRef90_J0V658	I L Q V Q S S L K A L Q A V A A W H R G Q	
UniRef90_UPI00031C50CC		
UniRef90_J9YSM1	Q I K V K E T L K F L S K S A S I F R	
UniRef90_R6FWC5	V I K V D N T V K A M L K L A N F Y R	
UniRef90_UPI0003480518		
UniRef90_S7J4B7	Q V V S P H L Y L T E S R L A A K Y Y	
UniRef90_UPI0003631DF8	V I Y V R S T K R V M A Q L A A H F Y	
UniRef90_A0JV89	V L V V D E P R S A V G G L A A L I Y Q	
UniRef90_U2HWS4	F V W V E N A L R A L Q Q L A A Y H R N	
UniRef90_Q47QX3		
UniRef90_R7AJ64	H I V A S D V R R A M A L V A P V V Y Q	
UniRef90_Q07PT8	L V R V D N P R R A L A L A S K F Y	
UniRef90_R4T1M4		
UniRef90_L1MFV0	C I Y M D D A L V A L Q V L A A Y H R R Q	
UniRef90_UPI0003B36072	R L V V S D V L D G L I K L	
UniRef90_UPI00035EFB0C	T V V V G D P R A A M	
UniRef90_B2J8S4	V L R V K D T L K A Y Q Q I G R W W R	
UniRef90_Q01Q44	L V V P D T L R A L Q N L G A W	
UniRef90_UPI0003B721DD	V V H H S D P R E A L W R L A A R W R	
UniRef90_UPI000469FDEC	F L E V A D T L T A L Q R L A A E R H R D E	
UniRef90_I3QH69	I I Y V Y N T L Y F L H E L A	
UniRef90_UPI00037DBFA6	Y L F V D D V T R A L G A L A H H V R K E	
UniRef90_A1HTF6	V A V V P D A R Q A L A A L A A H F Y N	
UniRef90_D2Q5A3	G L I V N D A R K A L S L L S A A F Y G	
UniRef90_M1R920	I I V V E D S K K A F G E C V K A H F	
UniRef90_I0L8V2	M V L V D D A L T A M G R L A R A	
UniRef90_H6N076	A I T C A D T A T A L A D V	
UniRef90_G8TX26	A I R V P D P L L A M G Q M	
UniRef90_UPI0002F71A55	A I V V D D V V G A L G A L A	
UniRef90_D2SA56	C V V V D E P V A A L G R L A A A V H	
UniRef90_M2U2R4	H V R V A D G L T A L Q A L	
UniRef90_B8IMW8		
UniRef90_U2SGX6	V V V A D S P R V A M A H L A A R L F G D	
UniRef90_Q0EYH0	Q L Q V E D T L R A L G D I A H A W R M Q	
UniRef90_D0J9W8	I F F V K N A L S S L Q E L A	
UniRef90_Q11GS1	K V V V P D V	
UniRef90_UPI000370CF67	T V L V A D A V L A M G A L	
UniRef90_E0Y0U8	L I K V S D V L T A M Q G C A	
UniRef90_L8EEN6	A I V V D D V V A A L G A L A R A V V G	
UniRef90_B7IGZ4	Y I Q V V D S R I A E S I I A S M F Y	
UniRef90_L7LMF8	A V Q V A D T A E A L A D L	
UniRef90_Q98KA8	V L T V D D P R L A L A L S A A R Y F G K	
UniRef90_K7S3C6	V L V V A D P R V A M A R A S A L I F G E	
UniRef90_R6TIB6	F V K V S D A R V E L A R L L N W F Y Q K	
UniRef90_F8DJE0	A I L V N D I K Q A M S L I A M E F Y G	
UniRef90_B0C6L4	V L A L K D M P R A C A E V A A T F Y D Q	
UniRef90_E2SK13	Y V E R I R Q A L L E L Y Y G D	
UniRef90_UPI00036EB132	V L V T A D P R A R L G E V A A W V Y G E	
UniRef90_K5YBM0	L V P V R Q L A S Q L S A I A G R F Y G E	
UniRef90_T0AR03	D D S R L A L G T L A G A W R	
UniRef90_X4ZPF3	Q L V L G D T R Q A L G R L A K A W R	
UniRef90_UPI000374E00F	C I V V K D V L E A L S I L A G	
UniRef90_R6FR47	F L V V P N T L K A L Q K L A	
UniRef90_Q47VQ4	I V K F Y Q L N Q H L F T L T K N Y Y Q	
UniRef90_UPI000407CFAE	L F V V R D V L R A L	
UniRef90_D1C0C1	V L V S P E P R A I L G H V A A W V Y G	
UniRef90_A2SCY1	G L H V A D S R A A L G T L G A N W R	
UniRef90_UPI00035CC1DA	I V I V K Q L N Q Q L F S L T K A Y Y Q	
UniRef90_UPI000368CAA0		
UniRef90_UPI000382395D	A I L V N D I K Q A M S L I A M A F Y G	
UniRef90_UPI00046EF7FF	V A D T H Q A H Q N L A R A W R R Q	
UniRef90_A1KVL9	L K V D D T L A A L Q T L A K V W R	
UniRef90_UPI0002D44138	S V R V A D T T H A L N A L G A A	
UniRef90_UPI00037DDB9A		
UniRef90_A4XQR9	L V P V K G L A G Q L S A I A G R F Y G E	
UniRef90_G2IM09	F V K V A D A A R G L E D L G R A	
UniRef90_UPI00037E62C9		
UniRef90_UPI00047BA7B5	V L I V D E P R T V V G P L A A L I Y R	
UniRef90_D5SR59	A V V V A D S V L A L Q L L A A S H R D E	
UniRef90_I0TE03	F L K V V G S L E A L Q R L A E R H R D E	
UniRef90_UPI0002DB7811	L F V V K D V Q R S L E L L G M R	
UniRef90_UPI00047070B4	Q L V V K D T R L A L G L L G G S V R Q Q	
UniRef90_UPI00037DF9EF	A V I V D D T V A A L G K L A G	
UniRef90_F3WYJ8		
UniRef90_UPI0002558A44	Q W L V K D T R V A L G Q I	
UniRef90_C7PDB0	I T L V K D T M Q A L H A L V A Y H R Q Q	
UniRef90_F0GHG3	L I V G G E T R A A L G A L A H G W R	
UniRef90_UPI0003B73D81	V V T V P D P R E A A S P L A I R A F	
UniRef90_A4YZK7	Q L V V T D T L I A L A R A A S R F H G	
UniRef90_UPI00047E2939	Y I L V K N V L E A L Q K L A	
UniRef90_I3YIB0	F V Q V D N A I E A L Q R L A A Y H R A Q	
UniRef90_B4RFS5	T I V A K D P R R A Y A L A A A E F W G	
UniRef90_A0A024YJK5		
UniRef90_UPI0002EF7E9F		
UniRef90_S4ZZ77	T L V V R D P L A A M Q K L A Q Y Y	
UniRef90_H8MMB6	L Y E V E D T	
UniRef90_R7FST6	T V I T K D A R E A F A L A C L R I Y G D	

UniRef90_E0UBJ0
UniRef90_K0P5I0
UniRef90_A0A017PS90
UniRef90_UPI000255D639
UniRef90_V8D3V8
UniRef90_U2PUR0
UniRef90_UPI000415DF21
UniRef90_R5FPP8
UniRef90_D8KNM7
UniRef90_UPI0003B33059
UniRef90_X1SUZ1
UniRef90_C0W7F6
UniRef90_Q821R9
UniRef90_K5YYR8
UniRef90_UPI0004230E5D
UniRef90_R6TH35
UniRef90_N0B7B7
UniRef90_I4EZQ9
UniRef90_M6ZNS7
UniRef90_B0JYD6
UniRef90_G4E186
UniRef90_H8FMQ9
UniRef90_R7L791
UniRef90_B4UER7
UniRef90_E8TR75
UniRef90_R5HFU0
UniRef90_UPI00036C188F
UniRef90_C7MV98
UniRef90_A8AYQ5
UniRef90_C6X3P0
UniRef90_D6TBH4
UniRef90_V4JHX1
UniRef90_F4FHR7
UniRef90_U2XRJ5
UniRef90_Q0BXT8
UniRef90_N0DYV3
UniRef90_R6D4Z7
UniRef90_E8UBL5
UniRef90_U7VB20
UniRef90_UPI0001DD112C
UniRef90_A1A2D3
UniRef90_C9LEZ6
UniRef90_Q1D0S6
UniRef90_K0ZJC6
UniRef90_C9RM18
UniRef90_W9G127
UniRef90_G2J912
UniRef90_Q2W0H8
UniRef90_F9Z9V4
UniRef90_A9WD45
UniRef90_UPI00036C9DEE
UniRef90_L1Q759
UniRef90_UPI000262A309
UniRef90_Q12EM0
UniRef90_R2QAR1
UniRef90_X0Z5B8
UniRef90_UPI0003B61CA6
UniRef90_F6EFG2
UniRef90_A0A015N0M5
UniRef90_UPI000413E6B1
UniRef90_F2J119
UniRef90_D0GI6
UniRef90_L0EF60
UniRef90_D5W4W4
UniRef90_B8HUW1
UniRef90_J7QLW1
UniRef90_UPI0004790C06
UniRef90_UPI00030B26FA
UniRef90_M4SDZ0
UniRef90_S1P2Q3
UniRef90_I3TVR8
UniRef90_D8UHG1
UniRef90_H3NY72
UniRef90_UPI0003821C79
UniRef90_C3JBX9
UniRef90_UPI0002FE2163
UniRef90_UPI0003B4BD91
UniRef90_K9V1D6
UniRef90_UPI00047A6960
UniRef90_E6J8U7
UniRef90_R7I2Q9
UniRef90_C2G497
UniRef90_UPI000225E770
UniRef90_UPI000349FCA8
UniRef90_G0HEC2
UniRef90_H2G5H7
UniRef90_UPI00036F273C
UniRef90_S2R8W2
UniRef90_T0G919
UniRef90_I2GHH0
UniRef90_U2V9D4
UniRef90_UPI0002E88FB7

1 10 20 30 40
K L R E L L T L I P H P A L E K E V K G I S T N S H A C Q L G D V I F I G M P G
G Q V I V K A A N F P I T E L I I D S R S N T T P F P I F F A I V G
N L K Q L L A K V Y G K I S P L E I R N I T K D S R S V G V G D I F F A H R G
V I T D T R K L E P E S I F F A L K G
P D T T I D G A S I D S R S V L P D Q L F V P I V A
D L E I K N V I S L D S R K K L E K S D V F V A I R G
L S A L L A T V L S A T H P D I T A I T A D S R K E A A P G V L F V A A L P G
N Y E V S G I S I D S R K T K K N D I F V C I D G
T I A E I V G G S L T S G T D P I V T G V E F D S R K V T A G G G L F V A L N G G
A P D T I I D G V T T D S R E V T A G G V G D L F V A K R G
R S I S I D S R I V Q L G D L F F I P I K G G
D L G Q V L I H G V S V I D S R Q D V A P G G E L F F V A L P G
D I T G L S I D T R T L R P G D L F F V A L Q G G
A H I P E A R L V G D P G L V L A R V H T D T R T L Q V G D L F F V A L K G G
I G N A P A R I D W I L T D S R S L C E E T L F F A L K K T
T F S E L S A A L G V G G V D R P V A G V S I D T T T L Q P G D L F V A L K D
L A D L I G P P V Q G D P A T P V G G V T L A S T T V E G P G D L Y A A L P G
E A E E N S L F V P L L G
K L Q E L L T T I S P I A L E T E I T G I S T N S H A C Q P G D L F I G L P G G
G H W L S P P A D V C L Q A L G T D T R K P A P P A L F F A L A G G
L T D L L P G H S G P D P I I T G L T A D S R K V R P G G F L F A A L P G
D V V I N K V C Y N S N D V E K D T L F V C K G G
G A P P S A V A G V S T D T R T L A S P G Q L F V A L K G G
I P A A R L V G D G A T P L M R V H T D T R T L A A G D L F V A L K G G
N I K D D S R K I N K G D I F V A L K K
D D P E L T F S A L S Y D S R V S N Q D T L F F A K G
A E S V R V T G A T L R A Q H V L P G D L F F A A L P G
D G G L T F D K I S Y D S R N V T N T T L F F V K G G
T D S R T L K K D D I F F A F S G
D P A L V F R S A H H D S R L I T P G D L F I A R K G
A N V A Y T G V V T D S R S D C H G Q L F V A L R G G
S L A E I A S A L V A A D P A Q V T G V E F D S R K V T S G G L F V A F D G G
V P S Q A E W Q A G V S I D T R T L S H G D I F V A I R G G
L A T G G D A S A F E V T G I S I D T R T L Q K G D L F V A L K D
Q I A A L T G G V V G T D D V L V T G V V T D S R A A Q A G S L Y F V A R I G G
K L L I G N L D E V K E C F I D S K K V K E E G C F I G I K G
K L H D L A A E L T P P A E N P D V T G V T H H A G W V R P G F A F V A V R G
N L E I L D N I Q M D S R K V E K G S L F V A I N
S G D F Q C S G V E M D S R K D V R P G D L F V A L K G
L D P H D I K G F D E P F S A I T Y D T R K V E P G T F L C C K G
A H R F G A N S D K N I D W L T D S R S L A E A T L F F A L R S
V C T D T R A L T P G C L F V A L V G
K A L A D A V G G V L V R D S D A A L T D A T T D S R E A K A G G V F F A R I G
E I L E T E A V G V P A R T L K N L C M D S R E S A K G V V F W P I K G
R D L T G G A L H G A P D D E V D G V T T D S R E C G P G G L Y V A R V G
N L H A D S R A I Q P G D A Y L A Y A V
A R D V T I T G L T A D S R A V R P G Y L F A A L P G
P A I R G H R I T T D S R Q L I R P G D I F A L K G
Q L A E L I E A V I G P I H A D T F T D W S Y D S R L T V A G E C F I A L R T
S V L L S G V T H D S R A V L P G D L Y A A L P G
P D A S V S G L T Y N S R E I Q P G D L F V A L H G
L T V T G V S L D S R D V R P G D L Y V G M P G
S L R T D S R M V G G D G F I A W P P G
I Q G W H L D V P E P V F N K L S Y D S R Q V D A D T L F F C K G
G Y L F V A V P G G
A D S V V G G S V H T D S R E V V P G A I F V A K P P G
R E V A D L T G G T L H D V P D A V V T G V E F D S R K V T A G G I F L A L P G
G N K P A A I D W L L T D S R S L C E E T L F F A I P T
L S L L L A P P L P G F D P R V Q G L V G D S R A L R P G D A F V A I A G G
V L G D V P G A I G G I S I D S R T L Q P G D A F V A I E G
I I D N E N I D N D L T D I N K I S M N S K E C G K N D L F V A I R G G
A D A V I C G V A T D S R R P A E G R L F P L S G
H L H A D T R S L A A G D A F F A Y A V
K L R E L L T A V I C H P A L D R E I T S L S T N S W A C Q P G S L F I G M P G
L S E L L A D L E P A L R G L A V S G L T A D S R M A R G G F A F F A I P G
S V V S D S R Q A H D N S I F V A I P G
I D C S E L N F D Y V S Y N S K D I K A T T L F I C K G
L G A L T G A D E D L T V T G F A I D H R K V A P G T V F G A F T G
L K E M I T P T G K K L P Q K E F K T V T Y D S R K A D S N S L F F C K G
D T R I T G I T A D S R A V R P G M L F A A V P G
P D V L V T G L Q S N P H L V V P G D I F V L H P G
Q L D A P L L C D D A A L T G L A I D S R Q V K P G D L F A A I E G
S D L L E A T A A N L G D L D I A G V T A D S R D V R E G Y A F F A V P G
E V F I E H F L T D S R S L M Q S T L F F A I A R T
L G A R V H G G L P D T I S G V S I D T R T L A P G D L F C A L A G
A A I A A T G G Q T A T D W Q A T G V S I D T R T L Q K G D L F V A L T D
K L R E L L A A V D H P A M D M E I E G L T T N S H A T N V G E L F V G M P G
K L K E L L A K V G I S A M D Q E I V K G L T T N S I A C Q P G D L F L G M P G
R Q L A D A V G A R I L L G D A D V D L I G A T I R A Q D C G P G I L F A A L P G
L R A A T G A Q V K G N L D G E Y E I S T D T R T I K P R D I Y L P L K G
I Q D I I K P R R S Y L A D V S I H Y L L Y D S R K I E K L G V F F A F T G
G V E M D S R D V R P G D L F I A L K G
I A E I T H T A I G G S P D T V V D G V V I D S R Q A P G A L F V A L A G
V T G V E F D S R R A A G S V L F V A L P G
D P E T V T G V E F D S R K V S E G S L F V A L A G
V T A V T D S R K A G P G A L F V A I K G
T L A E I A Q P L S E A D G S H V V T G L A F D S R K L K P G M L F V P I R G
D T S V T G F A I D N R K V A P G T V F G A F Q G
T D S R Q V S R S A V F F A M Q G
V E I S D F E I N N T S I N S K E L D K N D I F V A I R G
K D L A G I L P V E G T F P D E V E T G G V T S D S R R V G P G D I F V A L Q G

UniRef90_E0UBJ0 T R V D D G G E F W S S A L E A G A I A A 60 I L S P A A A L Q Y P P T G D A Y 70 80
UniRef90_K0P510 I N H D D G H N Y I A A A Y E K G I R Q F V V V A H P Y H C A I T I E K L H G V N
UniRef90_A0A017PS90 R K Y D D G N T F S F S V L Q N S G G A L A V A S S L Y N P F I P V V V Q I V S S N V P
UniRef90_UPI000255D639 Q H F D D G N T F S F S V L Q N S G G A L A V A S S L Y N P F I P V V V Q I V S S N V P
UniRef90_V8D3V8 E R D G H D F I G K A R E A G V T T Y L T S R E A E G S G R L K N E K G T
UniRef90_U2PUR0 G N N F V N E A L E K G A V V V Y D S E A V K I D E K Y V D R A
UniRef90_UPI000415DF21 A K T D G R R F I P S V I A A G A A A L L A P A D T P D I E Q A N V A
UniRef90_R5FPP8 E N V S G N D F I D E L I K K K V R T F V T N N I D I Y K K Y V N E K L N
UniRef90_D8KNM7 A R V D D G H R F A A A A A D G A V I G C L L S R P V
UniRef90_UPI0003B33059 E F D D G H R F A A A A E Q G A A L L I V E H P L D L A V P
UniRef90_X1SUZ1 P N Y D G H D F M D E A R K K G A D
UniRef90_C0W7F6 F R R H G A E F A A Q A V A G G A V A V L T D A D G A T R L G A S L G Q V P
UniRef90_Q821R9 Q C T D G H R F L K H A A Q A G A V A A V V S K D Y C G D S F G L E P
UniRef90_K5YYR8 E R D G H D F V A A A F A K G A A A L V S R P V E G G A V A A V A H G G L Q V A G L S
UniRef90_UPI0004230E5D E R F D A N D F L S Q A K A A G A V A A V A H G G L Q V A G L S
UniRef90_R6TH35 K R N D D G H K Y I H E L A Y E R G V R N F V V S D L P E N G E A Y V I D T N
UniRef90_N0B7B7 Q R D G H D F V S A F E A G A A A L V V V E S Y R R Q P K D G A
UniRef90_I4EZQ9 A R T H G A R Y A A D A A A R G A V A V L T D P A G E A E A R A T G L P
UniRef90_UPI00062NS7 N R D G H E F I R D A I S K G A T Y F L V E E N H P I Y K N L N L E K S K A
UniRef90_B0JYD6 T R V D D G G E F W S S A L E T G A V I A I S P A A A A K F P P P E D A S
UniRef90_G4E186 A R F D A H A L L E Q G I P A E R Y A A V M V S R P C A I A
UniRef90_H8FMQ9 T R T D G R A F I P A A A A G A V A I L V P D G T V P E G V P D S V A
UniRef90_R7L791 V K F K E E Y L K D A I V S G A I A Y I S E I L V P D G T V P E G V P D S V A
UniRef90_B4UER7 E R F D A H D H L E A A A A A G A A A L V V S E A W A A A H P A P P R P A L A V
UniRef90_E8TR75 E R F D A N S L L P Q A R A A G A A A I A H G A L E A A G L P
UniRef90_R5HFU0 E H D G H D Y V L D A I K A G A S E V V V I H G L Y S V K T T V D Y Q V A I P
UniRef90_UPI00036C188F A G F K P A Y L E A A I T N G L K A Y I S E V D Y Q V A I P
UniRef90_C7MV98 A R A H G A D F T A D A V A G G A V A V L T D E E G A S R P A V R E S G L P
UniRef90_A8AYQ5 E N F K K E F L E G A V E S G L K F Y I S E S D F E V G L P
UniRef90_C6X3P0 D S F N A A T L A E D A A D K G A L A V I V E Q K A Y E N P A R D
UniRef90_D6TBH4 T N S D G H H F I P A A A R A G A L A A L C S T P A N D V P P D F L
UniRef90_V4JHX1 K Q F D D G H D Y V A K A A A N G A V A A M V I E R P L D S E L P
UniRef90_F4FHR7 E K V D D G H D Y A A A A V Q A G A A A V L G T R E V P G V P
UniRef90_U2XRJ5 D R L D D G H D Y V S N A F E N G A A V I V A A D A K L N D I N G V D E T H
UniRef90_Q0BXT8 Q R D G H D F V E A A F K A G A A G A L V S R P A D A K L N D I N G V D E T H
UniRef90_N0DYV3 E H A D G H A F L P S A L A N G A V A A L V S R V A P D E M P G G P
UniRef90_R6D4Z7 N K T D G S L Y K E A F A N K A S I C I L L N K I L D L D L N G Y D D K T
UniRef90_E8UBL5 A R V D D G H A F M A E A A A N G A V C V F G E G L P D G V L D L N G Y D D K T
UniRef90_U7VB20 N G Y N I D E A L K K G A E L L C D K S P T N E S E K P S P L P
UniRef90_UPI0001DD112C E A M D G H R F I D K A F A A G A A A I V D R P I D W
UniRef90_A1A2D3 R F K A E Y L Q G I D E R G L A A Y V S E N D F S D A T Q A P
UniRef90_C9LEZ6 Q R N D D G H K Y V A D L Y R R G V R D F V V S A L P D D Y A S R F P A A T
UniRef90_Q1D0S6 E R F D A H A F V D A A A K G G A G A V V A R G R P L P A L P D G L T
UniRef90_K0ZJC6 E Q N D G L D Y L P K A A G A G A G A V V T Q N A Q K A L D L D P K I A
UniRef90_C9RM18 A R F D A H Q F V S Q M E K D G A L M S V V N Q T A I D P N F K M Y A P
UniRef90_W9G127 E T S D G H A Y V G A A A A G A V A A L T S R V V D G L P
UniRef90_G2J912 Q G A D S R T Y I D D A I A R G A A V I W Q P S S E H A A P A W T V P
UniRef90_Q2W0H8 T K A D G R A F I P A A L A A G A V I A V L A P E G S R P D L P P E V V
UniRef90_F9Z9V4 E N F D G N R Y A A A A L E Q G A A L A I T D N A D Y L S P G C E
UniRef90_A9WD45 T R A D G H D Y I P A A L A A G A R G I L C T R P P H D A G T A T
UniRef90_UPI00036C9DEE A H A H G A D F A Q A A V A A G A V A V L T D P A G A A R L A G R G L G V P
UniRef90_L1Q759 A R D G H E F A A A F A A G A T V A L V D R P V I E G G S
UniRef90_UPI000262A309 A Q R H G A E F A G Q A A A S G A S V L T D A A G A E L V A A A A P D L P
UniRef90_Q12EM0 A A T D G R K E Y L G D A L A S G A R A C L V E L Q G F E P R G P D D E R
UniRef90_R2QAR1 L N F K E E Y L T N A I L S N G L A Y Y V A E Q P Y E N S A T
UniRef90_X0Z5B8 E R G D G H D F V H Q A F G Q G A K L A F I Q K D L T S T K G K I Q E V F E A P
UniRef90_UPI0003B61CA6 E V T D D G H L F A P A A V A N G A A L L I V E H A L E L P V A
UniRef90_F6EFG2 A Q A D G H D Y A R A A V D A G A
UniRef90_A0A015N0M5 K R N N G A R Y I P D L Y E R G V R N F V V T S E D D S E Q L K V T M A Q E C N
UniRef90_UPI000413E6B1 A S T H A L K H D L P A A L A P Q L A A V L F E P P A P A D V A L P A N A
UniRef90_F2J119 E R F D G H D F V A A A L E A G A A L A L V A R D R L E R L P A D G R
UniRef90_D0G116 G N N Y I N E A L E K G A Y A V Y D N A H A D I K E E Y K N K
UniRef90_L0EF60 E R F D A H D Y V G D A F A G G A A S L W Q A G R P V P E A L A G R P
UniRef90_D5W4W4 D G A D N R A F I D A A I E R G A A A V L V Q P E G F T G K L D A S V T H A V P
UniRef90_B8HUW1 T R V D D G G N F W A S A I S A G A V A A L V S A A V P L P D P A E A C
UniRef90_J7QLW1 H A G D G L S Y V A D A K S R G A C V V V A Q R R A E C P I A
UniRef90_UPI0004790C06 E R V D D G H D F V A Q V A G Q G A A A I V Q H P V I E A P L A
UniRef90_UPI00030B26FA G N F K V E Y L K E A A K L G A T A Y L S E E V Y Q E I H N N L P
UniRef90_M4SDZ0 T R F N G E D F I P A A I A A G A I A V V A R P E A T V I E G A V
UniRef90_S1P2Q3 L N F K V E Y L I S A L E N G L E V Y V A E E P F E V K A P C
UniRef90_I3TVR8 T V R D G R D F I P E A V A A G A V A V L A P T G T V V P A G V A L V E T
UniRef90_D8UHG1 L I P D D L D A I S V A V E Q G A T V I V A D P A P D P V G L A G I L P D E V I P
UniRef90_H3NY72 A T V N G N D F I D A A I A N G A A A V I S K Q S V A Q P
UniRef90_UPI0003821C79 H A G D G L A Y V A D A R A R G A R V I V A P R T A E V G L P
UniRef90_C3JBX9 V T G D G H L Y I D Q L Y N H G V R S F V V K D E F D K L T Q Q Y P D A N
UniRef90_UPI0002FE2163 S R D G H E F V A D A L A K G A A A L V D E A H F D A L S H L G P
UniRef90_UPI0003B4BD91 I R D G H D F V A A A L E K G A A A L V T H I P K G V P A D A P
UniRef90_K9V1D6 T R V D D G G E F W S A I A S G A V A A I I S P A A I E K T Q D R I T A E H P C
UniRef90_UPI00047A6960 T R V D D G G E F W S A I A S G A V A A I I S P A A I E K T Q D R I T A E H P C
UniRef90_E6J8U7 T R V H G A S F G A T A V E A G A S A V L T D P E G I E L M A A V A G R L P
UniRef90_R7I2Q9 A S F D G E N F C D K A I E A G A A G C F C T K D S C P S D F S M
UniRef90_C2G497 R Q D G H L Y I Q D A Y N K G V R N F V L E K D A E Q E V Q M P D A N
UniRef90_UPI000225E770 E E M D G H R F I D N A F A G A A A I V D R P I D W P H V L V E D
UniRef90_UPI000349FCA8 A R V D D G H D F A A A A V E A G A A A V L A S R P V D A P H L L V D G G D
UniRef90_G0HEC2 A R V D D G H D F V G P A L E A G A A L V M A G R P T A L P E L L C P A V I E
UniRef90_H2G5H7 S R V D D G H D F V P A A L E S G A A A L V A H P V K I D S G L A P
UniRef90_UPI00036F273C E R A D G H A Y I A A V A R A G A A A L V S D G A S Q P D G P A A P G A M A
UniRef90_S2R8W2 E R D G H E F I P A A A T A G A V A T F V A A D H L P V T T K L I
UniRef90_T0G919 L R V N G E D Y I P D A V K A G A V A V V A S P Q A K V E G A I
UniRef90_I2GHH0 E H H D G H A F V G E L Y Q K G V R Q F V V E R A A L T P A R R T E F A Q D A Q
UniRef90_U2V9D4 G N N F V N E A L E K G A F A V Y D S K N L K I D E K Y A N R
UniRef90_UPI0002E88FB7 A K L D G A A Y A A D A A K R G A A A L V A G K D A A I T S D R V P

UniRef90_E0UBJ0 V I Q V E D V V S V C A E I A A A F Y G 90 100
UniRef90_K0P5I0 I L Q V T H T L E A L H Q
UniRef90_A0A017PS90 L L E A E I S A K Y Y
UniRef90_UPI000255D639 C F W V P N A L K M L Q N L A R Y H R E
UniRef90_V8D3V8 A I V V R D T A L A L A D L G R A R G
UniRef90_U2PUR0 F F V K D S I E F L Q K F A K E W R
UniRef90_UPI000415DF21 L V K S A D A R R T L S L L A A A F V G
UniRef90_R5FPP8 I V L S H D V K K D L G F Y C K K F Y

UniRef90_UPI0003B33059 Q I I V D D S V D A L G A L A
UniRef90_X1SUZ1 V L D V E D G L K A L Q E L A A
UniRef90_C0W7F6 V L T H P D P R A V V G P L A A E V Y H
UniRef90_Q821R9 L I I V N D P T E A L
UniRef90_K5YYR8 H I L V P D V L K A L E Q L
UniRef90_UPI0004230E5D G I E V P D S L K A L G A L A Q S W R A Q
UniRef90_R6TH35 F L K V A N P L R A L Q R L V A K H R E Q
UniRef90_N0B7B7 L L R V P D T L R A L G R A A R A
UniRef90_I4EZQ9 T C V V D D P R G V L G A V A S R V H G
UniRef90_M6ZNS7 I P V K N T L T A L G K L A S
UniRef90_B0JYD6 V M V V A D L V T A A A A I A K F Y H
UniRef90_G4E186 Q L L V A D T R R A L G Q L A R A W R
UniRef90_H8FMQ9 L I Q A P H P R R R L A L L A T A F A G
UniRef90_R7L791 C I L V I S D I Q K A L A I V S K M Y F N
UniRef90_B4UER7 A D P L A A L G A I A R H
UniRef90_E8TR75 G V E V P D T L A A L G V L A A G W R A Q
UniRef90_R5HFU0 I V V N N T H E Y L N Y L K E N Y Y D E
UniRef90_UPI00036C188F A I L V T D I K K A M A L I A M N F Y Q
UniRef90_C7MV98 V L I H P D P R G V L G S V A A W I Y G E
UniRef90_A8AYQ5 V L V V N D I K Q A M S L I A M E F Y G
UniRef90_C6X3P0 I F Y V P S T L N F L Q E L A T H H R D Q
UniRef90_D6TBH4 Q I I V P D V L T A L H A T A R A
UniRef90_V4JHX1 Q W V L N D T R I G L G Q L A A A W R
UniRef90_F4FHR7 M V V V A D A L T A M A R L A R A
UniRef90_U2XRJ5 L L R V T D T Q D A L E R L A R
UniRef90_Q0BXT8 V V Q V E D V L E A L T Q I A A R V R

UniRef90_N0DYV3 V L I A N D T K Q V L K E L A
UniRef90_R6D4Z7 Y V R V P
UniRef90_E8UBL5 I I K V L N S I D F L Q N I A K L Y R
UniRef90_U7VB20 H V L V E D T
UniRef90_UPI0001DD112C G L I V D D V R K A M A L L S A E F Y G
UniRef90_A1A2D3 F Y V V A D P L K A L Q H L A
UniRef90_C9LEZ6 L Y E V D D T L R A L G A L G R H H R Q
UniRef90_Q1D0S6 V I E V D D V T Y A Y G Q A A A F H
UniRef90_K0ZJC6 V E D T T K A L L K L A K G Y
UniRef90_C9RM18 C I V V D D V Q T A F G R L A
UniRef90_W9G127 N F E A S D L P D L A G F I A R Q W Y G
UniRef90_G2J912 L V T D A N P R R R F A L M A S A F H G
UniRef90_Q2W0H8 L V A D S L L F L Q Q L A H Y H R Q Q
UniRef90_F9Z9V4 V V V C P D P Q A L L L R W A S N
UniRef90_A9WD45 V I A T D D P R R D L A P V A A W I Y G
UniRef90_UPI00036C9DEE Y V L V P D T L K G L E A L A R
UniRef90_L1Q759 V L V S E H P R T I L G D V A A A V I Y G
UniRef90_UPI000262A309 V A A Y A G L K A A T G P I A A A Y F D E
UniRef90_Q12EM0 G I I V T D I R K A M A V L S M A F Y Q
UniRef90_R2QAR1 C I R V D D T V A A L Q V T A R F W R Q K
UniRef90_X0Z5B8 Q I V V P D A V V A L G E L A
UniRef90_UPI0003B61CA6

UniRef90_F6EFG2 F L I V P N T L K A L Q K L A E Q H R G
UniRef90_A0A015N0M5 V A V P R L R A R Q G E L A D R F H G
UniRef90_UPI000413E6B1 Y V V V D D P L E
UniRef90_F2J119 T F F V N D S V E F L Q K F A K K W R
UniRef90_D0GII6 L L L V D D T L A A L Q R L A A A Y R G Q
UniRef90_L0EF60 A L N E L A G T I A S A W Y R D
UniRef90_D5W4W4 V I P V Q D V S R A C G A I A A A L Y N
UniRef90_B8HUW1 L V V V D D V
UniRef90_J7QLW1 Q I I V K D S V E A L G R L A
UniRef90_UPI0004790C06 Y I K V S D V R K A M A V I G M L Y Y
UniRef90_UPI00030B26FA H I A D A E P R R A F A R L A A K F F
UniRef90_M4SDZ0 A I I V T D I K K A M A L L G M A F Y G
UniRef90_S1P2Q3 A I I V T P E V R G A L A R M A S R F Y
UniRef90_I3TVR8 L I R V E D S L A M G A R L A A A F Y
UniRef90_D8UHG1 S L Q V E S V E K A C A D
UniRef90_H3NY72 L L V V A D V
UniRef90_UPI0003821C79 F L E V R D V I R S L Q K I A A E W R R E
UniRef90_C3JBX9 L L V V P D V L
UniRef90_UPI0002FE2163 L L I V P N V L R A L E A L G T A
UniRef90_UPI0003B4BD91 V I T T S D M T K A C A K I S A A F Y G
UniRef90_K9V1D6 I I P S D N L T Q V C A Q I A T A F Y
UniRef90_UPI00047A6960 V L V H P A P R A V L G A V S A A V T G D
UniRef90_E6J8U7 K V S D S L I A Y L N I A N Y
UniRef90_R7I2Q9 I L W V A N S W T A L Q S L A K H
UniRef90_C2G497

UniRef90_UPI000225E770 D E V V A A L T R L A A H V A G E
UniRef90_UPI000349FCA8

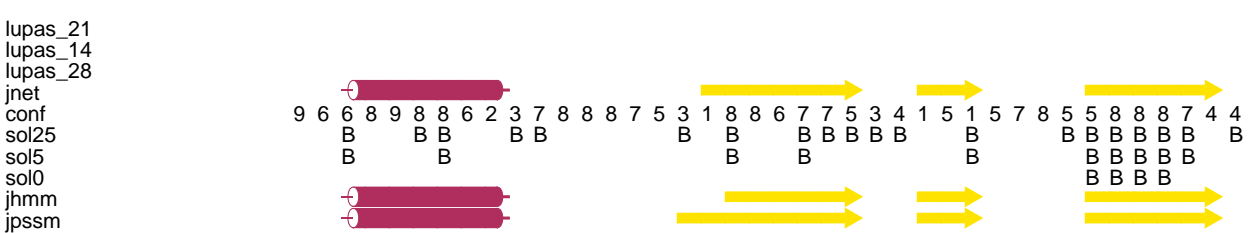
UniRef90_GOHEC2 A I V V P
UniRef90_H2G5H7 I I V V D D T V A A L G R I A
UniRef90_UPI00036F273C T L V V P D P L K R C
UniRef90_S2R8W2 H I A H P N P R R L F A L L A A R Y F
UniRef90_T0G919 F T E V D S S L R L L Q E L A G S Y R Q
UniRef90_I2GHH0 A F F V N D S V E F L Q N F A R E W R
UniRef90_U2V9D4 V I L V D D P R H
UniRef90_UPI0002E88FB7

UniRef90_S1R101
UniRef90_M4RZ70
UniRef90_UPI000375DFFF
UniRef90_UPI000371F8CA
UniRef90_R6C774
UniRef90_W0F4H5
UniRef90_X1ICK3
UniRef90_F3KQ67
UniRef90_C7QDM9
UniRef90_J3CEJ2
UniRef90_UPI0003B3A696
UniRef90_R6TDQ2
UniRef90_UPI00036217DA
UniRef90_G1UNK6
UniRef90_W1JPC0
UniRef90_UPI00022606F0
UniRef90_UPI00037110AA
UniRef90_X0P926
UniRef90_G7H2U5
UniRef90_U1ERB4
UniRef90_E3BU69
UniRef90_X8B0U6
UniRef90_UPI000376BF07
UniRef90_V4YUM8
UniRef90_D4YK18
UniRef90_Q5YY13
UniRef90_K0VE81
UniRef90_UPI00037BB43B
UniRef90_G0JS11
UniRef90_Q9RWA1
UniRef90_A8J617
UniRef90_A1QZA0
UniRef90_UPI000378F9F5
UniRef90_UPI0004630272
UniRef90_A0A059FKU0
UniRef90_UPI00046481F0
UniRef90_UPI00034BF894
UniRef90_R6UEH1
UniRef90_U2YLF2
UniRef90_W8AHH6
UniRef90_UPI000344AE88
UniRef90_E6J6N5
UniRef90_Q3AVW8
UniRef90_D5BPS9
UniRef90_F1ZD57
UniRef90_K9WBE6
UniRef90_UPI0003761676
UniRef90_I4VKY1
UniRef90_A5PCA5
UniRef90_V2Q8N5
UniRef90_R5CD69
UniRef90_F9U8G0
UniRef90_X7URQ5
UniRef90_UPI00046491E7
UniRef90_UPI0003B56AB6
UniRef90_N9M7L4
UniRef90_W8ES20
UniRef90_UPI0003771697
UniRef90_UPI000476087E
UniRef90_F8E007
UniRef90_UPI0002485C9D
UniRef90_UPI00047C72EE
UniRef90_UPI000255F7B1
UniRef90_N9D0Y4
UniRef90_U5VTH0
UniRef90_B0UFH7
UniRef90_A1TAX2
UniRef90_V2UWP1
UniRef90_F9V705
UniRef90_UPI00021941FC
UniRef90_F2JVX3
UniRef90_G9WG53
UniRef90_A0A014MH13
UniRef90_C5CNE9
UniRef90_E4TYT7
UniRef90_D9SQQ9
UniRef90_N9Q2Y9

```

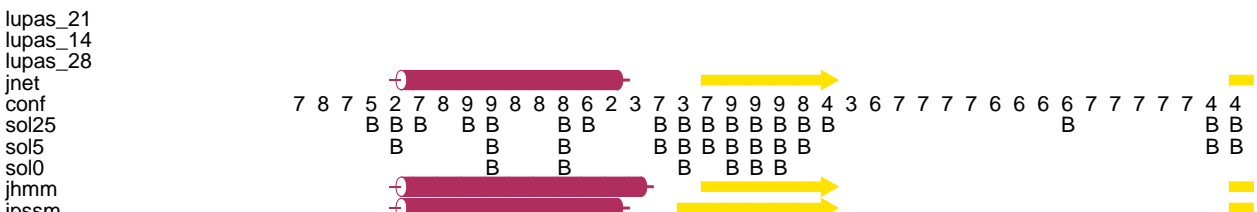
1      K Q L L K E I I I D G Q A K I F H H M T Y D S R E V G R D S L F F C K G
      10      20      30      40
UniRef90_M4RZ70      D F A A N G V A F D S S R E V G P D S L F V A M K G
UniRef90_UPI000375DFFF      L A K V V G G G E D F Y F S H I A F N S S D C D T D T L F V A L P G
UniRef90_UPI000371F8CA      N L R E V M G H Y H Y N L L T S L T F E K L S Y S S A D V T D E S T L F F A K G
UniRef90_R6C774      P Q L L E H R F S H L S Y S S A D V T D E S T L F F A C K G
UniRef90_W0F4H5      T L A E I A A A V D G E L A D L V V D G V L S T D S R R V G A G D G F I A W P G
UniRef90_X1ICK3      A D G N V D T L L T D S R K L N A A S L F F A L P G
UniRef90_F3KQ67      L S T D S R R V G A G D G F I A W P G
UniRef90_C7QDM9      A L D G R K A E P G G L F V A F A G
UniRef90_J3CEJ2      I T G F A I D T R T L R D G E A F F A L K G
UniRef90_UPI0003B3A696      L G D V L P D L A E E A A R Q P I T G F A L D H R K V A P G N V F G A F K G
UniRef90_R6TDQ2      G D A S V P V D Y L S F D T R D I R K N T L F F C K G
UniRef90_UPI00036217DA      N I N I N G V T N N S R H N I K D Q G D I F V A L D G
UniRef90_G1UNK6      V R S D S R V V G Q G D I F V A V P G
UniRef90_W1JPC0      K L C D L L G N I E P A A A A L D V S G L A L D S R Q V R P G D L F F A L A G G
UniRef90_UPI00022606F0      D D P E I L T S V T A D S R Q V R P G S L F V L P G
UniRef90_UPI00037110AA      R N F S I N S K K V N K N D I F F A L D G
UniRef90_X0P926      D L N Q S F K A T A Y N S K V V S A D C L F F C K G N
UniRef90_G7H2U5      L A E L I G A T G P K A A G S A V T G V T L R A Q R A A P G D L F A A L P G
UniRef90_U1ERB4      E V N F D Q L S Y D S R R K S T E N T L F F A
UniRef90_E3BU69      I S Y D S R D I K T N T L F F C K G
UniRef90_X8B0U6      P D V T V T G V T L R A Q D V L P G D L F A A L P G
UniRef90_UPI000376BF07      S L R E L L D G G G P A D E D I Y I M G I C D D S R F V K P G Y A M M C L P R
UniRef90_V4YUM8      V H S D T R S L Q R E D C F V A I Q G G
UniRef90_D4YK18      Q Q I A D I V G G E L Y G D P Q T T L S G V E T D S R R E V S P G D I F V A R R G G
UniRef90_Q5YY13      R E I A D V V G G T L H D A P D P E V R T A E F D S R R I G S G D L F L A L P G
UniRef90_K0VE81      P E V L V T G V T L R G Q D A Q P G D L F A A L P G
UniRef90_UPI00037BB43B      L V S D S R R V A R G D V F F A Y P G
UniRef90_G0JS11      T L A S L L P A T P A A L A G I A L Q G I E T D T R R L R P G M L Y V G L N T
UniRef90_Q9RWA1      R R L T W D S R E A G P D T A F V A L P G
UniRef90_A8J617      P N I E V T G V Q S N P H L V T P G D V I F A H E K G
UniRef90_A1QZA0      S L K D I K F V G Y A S S M Q K I V S F Y S L D S R E I N A K S L Y F A Y K G
UniRef90_UPI000378F9F5      I A A L T G G S V T G A E H P V V V D V V I D G R E A E A G S L F V A F V G G
UniRef90_UPI0004630272      K I K D L L D S L G D V R F V G D V R N V S L D S R E I N S K S L Y F A Y K G
UniRef90_A0A059FKU0      L A T G G V A T A P F T V T G V S I D T R S L E R G D L F A L K D
UniRef90_UPI00046481F0      G G R L S A D P A V R V G G V V D S R R V P G G S L F V A L P G
UniRef90_UPI00034BF894      S L D S R R V H P G G L F A A V P G
UniRef90_R6UEH1      D I L D I E I N Y M T Y N S N N V D F D T M F I C K G
UniRef90_U2YLF2      K L G E L A A S C G Y G V G D D T V T G F A I D H R K V A P G T V F G A F Q G
UniRef90_W8AHH6      R E L A E V V G G T L H D A P D P E V T G A A F D S R R I G S G D L F F A L P G
UniRef90_UPI000344AE88      L A S D S R R I Q A G D V F F A Y P G
UniRef90_E6J6N5      A D L V V V D I T D D S R S V S T G H A Y L A L P G
UniRef90_Q3AVW8      Q L L D E L L R D V G A G G T N P Q I E A V T S D S R L A G P G S L F V G L P G
UniRef90_D5BPS9      P I D H I T M D S R M C A R K G S L F V A L P G
UniRef90_F1ZD57      K L R Q L L A T I D H P A L E A E V K G L S T N S H A C K A G D L F L A M P G
UniRef90_K9WBE6      G E L H H I D P T P I E G V E F D S R N V T R G S L F A L P G
UniRef90_UPI0003761676      Q R I D Q L L H G I V G K H G D L A V T G L N L D S R R V R E G D A F F A L H G
UniRef90_I4VKY1      K L S K L C V G A G I D C P E I N V T G F A L D S R N K V A P G T V F G A F Q G
UniRef90_A5PCA5      K I K E L V S K L N P G K E N I E V K N I A Q D S R N P K G T V F F A Y K G
UniRef90_V2Q8N5      Q I A E M I G A R R I G E A P A T I D W L L T D S R S L N E E T L F F A L P A
UniRef90_R5CD69      E G E D C T F V S V G T D S R V D C A G Q L F V A L P G
UniRef90_F9U8G0      L A E I V G G R L D G I S A Q E V T G V E F D S R Q V S P G G L F L A L P G
UniRef90_X7URQ5      L D A Q G I P D A T P F D A V T Y D T R E V R P G T L L F I K G
UniRef90_UPI00046491E7      P G T E D L R V T G V V T D S R E A G P G A L Y V A R R G
UniRef90_UPI0003B56AB6      V A G W M S Q P F A G F S L D S R K V T A G Q I F I A L T S
UniRef90_N9M7L4      A T P A A I Q R L L L D S R R V Q A D S L F L A L R G
UniRef90_W8ES20      F N K V A I D S R R V T P G C I F F A L P G
UniRef90_UPI0003771697      K I A E I T G G E L V D D P D T K V L G V E F D S R R I K P G G I F M A L P G
UniRef90_UPI000476087E      T L S E V L A G G T L H G A D A T A E G V A T D T R R L R A D G L F V A L R G
UniRef90_F8E007      P D T A A T L I T G V V T D S R E A G P G G L Y V A R R G
UniRef90_UPI0002485C9D      A N F S A G W M A Q P F Q G F V L D S R K V Q A G Q I F I A L T S
UniRef90_UPI00047C72EE      T L D E I A A H L V N A D P A A T V T G V E Y D T R A L L P G G L F V A F A G
UniRef90_UPI000255F7B1      T L G A L F P E A A G A S A L P V A A L T A D S R R V T P G G A V F V A V P G
UniRef90_N9D0Y4      D A A R T V V T G V E F D S R A V T P G G L F L A L P G
UniRef90_U5VTH0      Q P F Q G F C L D S R H V E A Q I F I A L T S
UniRef90_B0UFH7      E D F T F D Q L S Y D S R N T S A S T L F F A
UniRef90_A1TAX2      E Q V F D F L H Y D S R R V S K E N T L F V A K G A
UniRef90_V2UWP1      D V N Y P I Q V K T D S R K V S S E T L F V A L P G
UniRef90_F9V705      K T L R E A G V L L K Q T P D T V F Q D L Q F D T R K V K P G T L F V V K G D
UniRef90_UPI00021941FC      V T G L R T D S R Q V Q G D G F I A W P G
UniRef90_F2JVX3      L H A D S R P V G A G D G F I A W P G
UniRef90_G9WG53      N I L L A L S K G S L L G D P A V S V E N V V F D A S K V K R G S F F V A Y S P
UniRef90_A0A014MH13      G K L I N C N K D I L L K S V S T R V F G V K P E Y L Y I Y L T Y
UniRef90_C5CNE9      I H P I S I D A A T Q P F Q G F S L D S R K I E K G Q I F I A L S S
UniRef90_E4TYT7
UniRef90_D9SQQ9
UniRef90_N9Q2Y9

```



UniRef90_S1R101
UniRef90_M4RZ70
UniRef90_UPI000375DFFF
UniRef90_UPI000371F8CA
UniRef90_R6C774
UniRef90_W0F4H5
UniRef90_X1ICK3
UniRef90_F3KQ67
UniRef90_C7QDM9
UniRef90_J3CEJ2
UniRef90_UPI0003B3A696
UniRef90_R6TDQ2
UniRef90_UPI00036217DA
UniRef90_G1UNK6
UniRef90_W1JPC0
UniRef90_UPI00022606F0
UniRef90_UPI00037110AA
UniRef90_X0P926
UniRef90_G7H2U5
UniRef90_U1ERB4
UniRef90_E3BU69
UniRef90_X8B0U6
UniRef90_UPI000376BF07
UniRef90_V4YUM8
UniRef90_D4YK18
UniRef90_Q5YYY3
UniRef90_K0VE81
UniRef90_UPI00037BB43B
UniRef90_G0JS11
UniRef90_Q9RWA1
UniRef90_A8J617
UniRef90_A1QZA0
UniRef90_UPI000378F9F5
UniRef90_UPI0004630272
UniRef90_A0A059FKU0
UniRef90_UPI00046481F0
UniRef90_UPI00034BF894
UniRef90_R6UEH1
UniRef90_U2YLF2
UniRef90_W8AHH6
UniRef90_UPI000344AE88
UniRef90_E6J6N5
UniRef90_Q3AVW8
UniRef90_D5BPS9
UniRef90_F1ZD57
UniRef90_K9WBE6
UniRef90_UPI0003761676
UniRef90_I4VKY1
UniRef90_A5PCA5
UniRef90_V2Q8N5
UniRef90_R5CD69
UniRef90_F9U8G0
UniRef90_X7URQ5
UniRef90_UPI00046491E7
UniRef90_UPI0003B56AB6
UniRef90_N9M7L4
UniRef90_W8ES20
UniRef90_UPI0003771697
UniRef90_UPI000476087E
UniRef90_F8E007
UniRef90_UPI0002485C9D
UniRef90_UPI00047C72EE
UniRef90_UPI000255F7B1
UniRef90_N9D0Y4
UniRef90_U5VTH0
UniRef90_B0UFH7
UniRef90_A1TAX2
UniRef90_V2UWP1
UniRef90_F9V705
UniRef90_UPI00021941FC
UniRef90_F2JVX3
UniRef90_G9VG53
UniRef90_A0A014MHI3
UniRef90_C5CNE9
UniRef90_E4TYT7
UniRef90_D9SQQ9
UniRef90_N9Q2Y9

50 60 70 80
L N F K E S F L A Q A I A Q G L T C Y V S E N Y Y E H Q A A I A
E T T D G H R F V N G A F A A G A A G A L V I S D P V D G P H V R V
A K T H G K F W A D A R A K G A T G V L T D V S P S T G S
S T F K S E Y L E K A I A Q A G L K Y I S E I D Y Q V G I S
A A F K E E Y L R D A I A K A G A G V Y L A Q S L Y E G V D C P
P Q R D G Q A F I P E L Y K K D V R Y F V V P E D M D T S G Y P D A V
E V T D G R R F V P A A T E A G A A L V I T P E R V E T A
A A R D G R A F V P A A L A Q G A A A C L V D A P G L A A D A S A R A E R I A A
E Y A D G H D F V D Q A A R A G A A A V L G T R P G L A A D A S A R A E R I A A
D A L D G H D Y A T A A V A A G A A L L V V A E A K L P A L G K L K A P
A T F N A E D V I P Q A V A A G A L L V V A E A K L P A L G K L K A P
A H F K A E Y L S D A E R L G A S A Y V S E K E Y D S S L P
L H A H G S K Y I S H A I E L G A S M V I H N D L E Y L S N K E N
V N E D G A R F I P A A V E A G A A V V C R P P E D A A L Q A S V R A E G C R
S K T D G A R F V D A A V A A G A A V A V V G D H A P D D I K V P
T Q E D G S I Y L P D A L A A G A A A I L V P D G E Q A I E G Q V P T A
S K Q S G N L Y S T E A L S R G A F K V V T S K N I K N K N
F R E A Y L Q D A E Q R G A A G Y V S E K V Y G K A T I P
A R T H G A A Y A G A A V E A G A T A V L T D S V G A D L I S E S L P A A E R P
K G F R P T Y L S Y A K E N G A I C Y V A E Q P Y L T D L E A A F Y V S E F D Y E V A L P
A T T H G A R H A A E A I E R G A V A V L T D A A V Y P E G K G M H
S R D H A S E Y A E S A C L N G A V V I I S V G V E V D T G L P
E R F D A N A L L A Q V I S A A G V G V A L A S S G L A G A K L A G
E T T N G I E F A P S A I A A G A A I V I A E A V P T V G D D T L P
E R A D G H D Y
A A V H G A R Y A A D A V A A G A V A V L T D A V G A A D L A G L D V P
E A A D G R N Y I G A A V A A G A A A V V Y E E N G Y S W D E A L A V P
N H D G R Q F L E Q A W A A G A A A V L L E G S A E R I Y T E Q G H P
E K M H G N R F V E R A L A A G A P F V L T D L D V P R A
T D E D G V A A V S V A L E Q G A V L V A P H L P K D S T G E G V V P D E V P
D R V D G F S F V E Y L I D I G V K C F V C S K D C E S L C L E L N R D E N L V
E H T D G H L H V P Q A A A V I G A V A V L G K R P T E L P
D R V D G F S F V E Y L I A I G V K C F V C S K D C E F C V K Y L N R D N D L T
Q R D G H D F V E A A F E A G A A G A L V I S R K K G D G P
E H V D G H D F A A G A V A A G A T L V L A R E L D V P C V V V D D V I Q
R H T D G H E H A P A A I A A G A A L V L A S R P V A A P
D n f k e e y l n s a i k n g a i v y v s e k k Y N V N I P
A T V N G E D F I P A A I A A G A I A V V A R P E A A V V E G A D
A H A D G H D F A A Q A V A Q G A V A V L A A R P V G V P
D A G D G R G F I A A A I A Q G A A A V V Y E G A D F A W D A A W G V P
S H H H G L D F E G R A A E A G A A V A I S D R A S A T L P
E R V D G G L F W R Q A L N A G A A A A V T G P A A A A S D P P G D H D Q V
A Q A D G H D F L A K A A N A D A S A A L V T T P D I S I E L A
A R V N G E D F I P A A I A A G A V A V V A R P E A A V V E G A V
T R V D G G E F W Q S A I A S G A I A A L T S T Q A A E K S P S P E A G A S A C
A R V D G H D F A A G A V A D G A A L V L A A R D I G V P A V V I K P
T R E H G I A F A A G A V A R G G A V A V V A R A A A K V E G A L
A Q V N G E D F I P A A I A A G A V A V V A R A A A K V E G A L
E S Y N S N K D A E N I Y K S G A E F I I C E E D L G D N I A
K R N T G A N Y I P E L I E R G V R C F V V I S E E Y E S N E E L K M K N S L N
E R F D G H D H V I A A A R A A G A V A A M V D H P L P V D L P
A R A D G H D H A R G A
Q F R P E F F E A I P A Q T L R C Y V A E T D Y S A H T D A P
E V A D G H D F V D A A A A R R G A L A A L T N R V V E G L P
F S Q K T V Q F A E A A L A R G A L A I I A E S D L G L P N
P Q H D G H R Y L P E L Y R A G V R Q F L V I Q D D V P L A D F P E A G
D H D D G H R Y V S G V L K N K N L A I I S K G P K N T R S
E R V D G L D F A A A V E A G A A A V L G A R G I E L G A P
A Q V D G H D Y A A S A E Q G A A L L V V G K R V G A P A L V A P S V I E
A R V D G H D F V P G A L A D G A A L A L V G H R V G V P A L L C P P V I E S T P
E N F D A H D H L D R E I A D R V A G V L V S R P V N A G V P
E S A D G H D F V A G A A G L G A A A A L T N R P V D D L P
L S Q K T V Q F A Q I A L D K G A L G A V V S E T E L A L E N S
E K V D G H D F A A G A I A A G A T G V L G T R D T G Q P
T R A D G R L F A A Q A A A G A V A M V A E G P R P A D L P Q A V A Y L S V P
A R S D G H D F A A T A V A A G A V G V L A A R P V G V P
Y S Q K T L H F A Q A A L Q R G A I G I I A E Q P L P L E N
K G L N F K A E Y L E N L S A P F Y I S E I D Y E V D I P
F K A A Y L D G V Q G V T G L V A T K D L G L D V P
V S S N G W D Y L S L V A E K G C R Y A V V I P T Y V A K G L I A S N S T D L N
F K A D Y L T R D L L E K I S A F V S S K S I Q T E K P
G V T D G R A H V A S A I A R G A A A C L V I E H D G V E A F S L P G A V A S Y
A A T D G R R H V A S A I A Q G A A A C L V I E Q Q G A E A F G F D G D E R I A S
E D I P E A L Q N G A Y G V M F D K P T Q I S D S E I A
S K S D Y N P D V E Q A I K N G A A A I M V P C K I D C K V P
Y S Q K T R Q F A Q N A L D A G A L A I I S E T A L G F A N E W V C P E



90 100

UniRef90_S1R101 V V V T D I R E A M V V L A Q A F Y Q

UniRef90_M4RZ70

UniRef90_UPI000375DFFF Y V L V K D S L Q A M E L L

UniRef90_UPI000371F8CA A I I V N D I K Q A M S L V A M I F Y G

UniRef90_R6C774 H I L V S D I R K A M S L V S I A F Y Q K

UniRef90_W0F4H5 F L K V P E P L H A L Q T I A A F H R H Q

UniRef90_X1ICK3

UniRef90_F3KQ67 Y A G P E G L K A A S G P I A A N Y Y G Q

UniRef90_C7QDM9 T V V V Q D A R E A L Q R L A K H

UniRef90_J3CEJ2 M I V V D D V L A A M T R L

UniRef90_UPI0003B3A696 L I A D A A P R R R F A R I A A Q Y Y R

UniRef90_R6TDQ2 H I T V T D I R R A M S L S A

UniRef90_UPI00036217DA I I Y V E D L

UniRef90_G1UNK6 V V Y H E D P R E A L W R L A A R W R

UniRef90_W1JPC0 F L A V A N P

UniRef90_UPI00022606F0

UniRef90_UPI00037110AA Y L I V K N V R K F L A E A C S I K Y K E

UniRef90_X0P926 G I I V Q N I Q K A M S L L S A A F F G

UniRef90_G7H2U5 A V L V P D P R R V L G Q V S A R V Y H

UniRef90_U1ERB4 A I I V T D V K R A M A L I A S F Y

UniRef90_E3BU69 A L I V S N V T K A M S L L S A A F Y R

UniRef90_X8B0U6

UniRef90_UPI000376BF07 H L H L N N M E K A G Q L L

UniRef90_V4YUM8 V Q V P D T R I A L G Q W A A A W R N

UniRef90_D4YK18 S C V V T D A T V A L G K L A S A

UniRef90_Q5YYY3

UniRef90_K0VE81 V L S H P D P R T V L G E V A A E V Y G

UniRef90_UPI00037BB43B R L A V P E L K K N A G P I A H A L L G Q

UniRef90_G0JS11 V W Q S P Q A R T L L A R S L R R W H G

UniRef90_Q9RWA1 V R V D D A R G A L F A W A

UniRef90_A8J617 L V R V K D S T E A G S R L A A A F Y

UniRef90_A1QZA0 F L L T S N V V I L L Q N L A A H F

UniRef90_UPI000378F9F5 T V I V E D V Q Q A L Q R L A K A

UniRef90_UPI0004630272 F L L T S N V V S C L Q N L A A H F

UniRef90_A0A059FKU0 Q V V A E D T L T A L E Q L A A R

UniRef90_UPI00046481F0 A A L G E L A R H

UniRef90_UPI00034BF894 A V Q V A D V T V A L G A L A R H V A G Q

UniRef90_R6UEH1 G I I V K N I R N S L S L S D M Y F

UniRef90_U2YLF2 H I A D A E P R R A F A R L A A P F F

UniRef90_W8AHH6 A I V V E

UniRef90_UPI000344AE88 H L A L A G L K R L A G P I A H A R Y G

UniRef90_E6J6N5 T L V V G D P R A V S G P L S A W F H G

UniRef90_Q3AVWW8 L V V S E P V A S T L G E L A S S F W N

UniRef90_D5BPS9 Q I I V P D C

UniRef90_F1ZD57 H I P D A E P R R L F A R I A A G F F

UniRef90_K9WBE6 V I S A T D M T I A C A E A A A A F Y G

UniRef90_UPI0003761676

UniRef90_I4VKY1

UniRef90_A5PCA5 H I A S D I P R K C F A E L A A G F F

UniRef90_V2Q8N5 H A V I K N G R K L L A A A V S A F Y N E

UniRef90_R5CD69 F L L V P S P L K A L Q K L A

UniRef90_F9U8G0 Q W I V E D T R

UniRef90_X7URQ5

UniRef90_UPI00046491E7 G I I V S N V Q Q A M S L L A A E F Y

UniRef90_UPI0003B56AB6 C V V V P E D P D R L S A

UniRef90_N9M7L4 Q L I V P E V R H L M G Q W Q K Q Y L H

UniRef90_W8ES20 F L R V P D T

UniRef90_UPI0003771697 I R S K N T L E S L R N L A S Y

UniRef90_UPI000476087E Q L V A D D A G A A L T T L A

UniRef90_F8E007

UniRef90_UPI0002485C9D E V R V A D T

UniRef90_UPI000255F7B1 C V V V E E D P A R L S

UniRef90_N9D0Y4 I V V P N V R H L M G

UniRef90_U5VTH0 G I V V D D P

UniRef90_B0UFH7

UniRef90_A1TAX2 A V V V D P V R

UniRef90_V2UWP1 C V V C P D V R Q R M G T W Q K A Y

UniRef90_F9V705 A I I V S N V K R A M S L L A Q A F Y

UniRef90_UPI00021941FC L W L V T D T Q K A L A V L S A A F F

UniRef90_F2JVX3 I I G S D D V Y A L L S S I

UniRef90_G9WVG53 Q W L V S D S Q I A L A S L S A A F F G

UniRef90_A0A014MHI3 R G L K A A T A E L A A Q W

UniRef90_C5CNE9 Y P G L K A A T G P I A S A F Y

UniRef90_E4TYT7 W I K V D N I D N A L K K L L R F Y

UniRef90_D9SQQ9 Q I I V E N T D T A L R T L C K H Y R K K

UniRef90_N9Q2Y9

lupas_21 C C C C C C C C C C C C C C C

lupas_14

lupas_28

jnet

conf 7 7 7 3 3 4 6 8 9 9 9 9 9 9 9 8 5 1 9 9

sol25 B B B B B B B B B B B B

sol5 B B B B B B B B

sol0 B B B B B

jhmm

jpssm