

| QUERY | 1 | 10 | 20 | 30 | 40 |
|------------------------|-------------------------------------------------------------------------------------------|----|----|----|----|
| UniRef90_A7N3F8 | M S T I Y Q T S A T A S A G R N G V V S T E D K L L E L N L S Y P K E M G G S G G | | | | |
| UniRef90_B5ETB0 | M T T L Y K T Q A T A L A G R N G Q V K T D D G L L D L E L A L S Y P K E M G G G T G | | | | |
| UniRef90_A8FT24 | M T T L Y T T K A T A L A G R N G Q V K T D D G L L D L E L A L S Y P K E M G G G S G | | | | |
| UniRef90_A6WS37 | M K A L Y S T Q A T A S A G R N G N V A T D D G K L S L A L S Y P K E M G G G S G | | | | |
| UniRef90_L2TTL8 | M K A L Y E T R A T A K A G R Q G Q V S T D D G L L D V A L L A Y P K A M G G S G G | | | | |
| UniRef90_UPI000255F269 | M K A L Y T A E A L T T G G R N G H A R S S D G K L D L A L S P P K E M G G T G | | | | |
| UniRef90_X4Z8Q2 | M K A L Y T A E A L T V R G G R E G S F E S S D G A L K H N L S M P K E G G P | | | | |
| UniRef90_Q46PN0 | K V L Y T A H A T A T G G R D G R A V T S D G Q L D A K L A L S P P K E M G G K G | | | | |
| UniRef90_Q08XP6 | I T P L Y T A T A T A Q G G R N G R V R S T D G V L D L A L S M P K E L G G G A G | | | | |
| UniRef90_Q82D91 | M D A L Y T A V A T A T H G R E G R A I S S D G K L D V Q L A P P A E L G G G N G | | | | |
| UniRef90_J9S9Z6 | M K A I Y T A E A I A T G G R N G H G R T S D G Q V D V A L A T P P A L L G G G S G | | | | |
| UniRef90_T0BZ91 | M Q N L Y T A T A T V Q G G R N G H V T S S D G M L D D V R M P K E L G G G A G | | | | |
| UniRef90_Q2W218 | K I L Y T A K A H T T G G R D G R S V S S D D G L L N V K L S P P K A M G G A G | | | | |
| UniRef90_J1AI15 | M K I L Y T T S V S A K G G R N Q V K S E N G V L N L E V R M P K A L G G N D G | | | | |
| UniRef90_Q65KU4 | M T A L F T A K V T A K G G R S G H V K S D D G V L D H N I V M P N E K K E G | | | | |
| UniRef90_Q5QZZ0 | M D I L Y K A V A T S T G G R D G Q S E S S D D G K L V K V K L T T P K E L G G G G G | | | | |
| UniRef90_UPI000376B352 | M E T V Y T A E A L A T G G R D G H V R S S D G G L L D V E V A V P Q E M G G Q G | | | | |
| UniRef90_UPI0003B5E029 | M D T L Y T A T A L A T G G R N G R I E S S D G I L L A A D V R G P K E M G G P G | | | | |
| UniRef90_C2FU63 | M K T L Y T A V A T A T G G R N G H V K T T D N E V L D L Q V D P L S M P K E L G G G D G | | | | |
| UniRef90_K4HQ2 | M K T L Y T A K A T A K G G R K H V K T E D G S I D V K L S T P K E L G G G G G | | | | |
| UniRef90_UPI0002631DDC | D V K Y T T K A T A T G G R D G S A R S E D G V L D V K L S T P A P M G G S G | | | | |
| UniRef90_A0A010PL41 | M E T V Y T A E A L A T G G R N G R T R T S D G M I D L N L S S P G A G G G | | | | |
| UniRef90_S2EY88 | K V L Y T A K T H T G G R D G A S R S S D G L D I K L S M P K S L G G G N G | | | | |
| UniRef90_U5LAP7 | M D K L Y T A K A T A E G G R S G K V R T D D G N D F N L S M P K S L G G G N G | | | | |
| UniRef90_C2N6Y6 | M D K L Y T A S V T A T G G R N G K V V S S D D G L L N L D V K M P K A L G G G G G | | | | |
| UniRef90_S4AM20 | I D V K Y T A V A T A E N G R D G R V A S S D D G N D F V V V A S P P K E M G G S G | | | | |
| UniRef90_K8R738 | M S I L Y K A T A T S T G G R D G R A I S S D E Q L N V K L D M E L K K P E G L G G P | | | | |
| UniRef90_A0LYQ6 | M K N L Y K T K V T T H G G R N G H T R S S D G I L D M E L K K P E G L G G P | | | | |
| UniRef90_C6XKD8 | K V A Y T T K A T A T G G R T G S A K S E D G Q L N V T L T T P K E L G G P | | | | |
| UniRef90_D7BR51 | M D A L Y T A V A T A N G R D G R A V S S S D G Q L D L A L A M P P E L G G S G | | | | |
| UniRef90_L8TLY5 | M K P L Y T A V A V A S G G R D G R T A R T R D G R I D V S L A S P V E L G G T G | | | | |
| UniRef90_JOLQ54 | M E K V Y T A E V T A T G G R R G H V T S S D G V I L D M P L S L P E G L G G E K | | | | |
| UniRef90_UPI00036BF64D | M D A L Y T A T A T V H G G R T G H V A S S D G V L K H D L S M P K E L G G G G G | | | | |
| UniRef90_W5Y5C0 | M N P L Y T T E A L A T G G R N G T V Q V A D G N L S F D L A V P P K E M G G S G | | | | |
| UniRef90_D2PNT3 | K V V Y T A R A T A E G G R E G H T A S S D D G K L D V T V A P P K E M G G N G G | | | | |
| UniRef90_F2GAZ5 | Q V V Y T G T A T A T G G R D G R E G T A K S S D D G K L D L S T P K E L G G G G G | | | | |
| UniRef90_D5USS9 | I D V K Y T A E A I A T G G R D G H V R s D D G R V D L D L A I P V G M G G S G G | | | | |
| UniRef90_K4R260 | D V L Y T A V A T A E N G R D G R V A T D D G R L D V V V V N P P K E M G G S G | | | | |
| UniRef90_W8YZJ1 | M D A L Y T A E V T A R G G R Q G S V K S S D G V L D L P L A M P K G L G G S J | | | | |
| UniRef90_C5CBF8 | M E T I Y T A E A L S T G G R D G H V R T T D G R V D L D L A V P T E M G G S G | | | | |
| UniRef90_UPI00047B92D3 | N V L Y T A H A S A T T G G R D G R A T S S D N V L D V R I L A T P R E L G G G G G | | | | |
| UniRef90_Q2RX64 | M T I A Y R T K A T A V G G R E G R A T S S E D G L L D V A L A T P K E L G G P | | | | |
| UniRef90_E4PLG4 | Q V L Y R A H A E A T G G R D G R A I S S D G L L D V E L A T P K E M G G A G G | | | | |
| UniRef90_UPI000248E836 | M K T L Y T T S A T T A G G R A G K A T V N N D G L S L D I E L S T P K Q L G G G G G | | | | |
| UniRef90_K2KII2 | N V L Y T A I A T A T G G R T G S A R S S D D G K L D I K L S T P R E L G G G G G | | | | |
| UniRef90_I1DV18 | M D I L Y K A V V T S T G G R D G A A K S N D G L L E V K L A P P K E L G G A G G | | | | |
| UniRef90_S7VR86 | M K T L Y E A T T K A D G G G R S G H I T S E D G P L D H N I S V P K S M G G E G G | | | | |
| UniRef90_M7NBH3 | M T A I Y T A E A L S T G G R N G R V S T S G T I D L D A L A T P K E M G G A G G | | | | |
| UniRef90_P0A0V4 | K V L Y T A H A T A T G G R E G R A V S S S D K A L D Y K L S T P R E L G G G G G | | | | |
| UniRef90_A0A021W461 | K V L Y T A H A H V T G G R D G R A V S S S D N V L D I K L T T P R E L G G G G G | | | | |
| UniRef90_UPI00037C87B2 | I K A L Y T A T V T A T G G R D G R A V S S T D G N L D V K L T T P H E L G G Q G | | | | |
| UniRef90_UPI00037C47E4 | M S V L Y T A K A S V Q G G R K G R G S T D D G R L D V E L S V P K G M G G D G | | | | |
| UniRef90_I3UG38 | K V L Y T A T A T A T G G R E G R A T S S S D K V L D V Q L S T P R E L G G G G G | | | | |
| UniRef90_UPI00037B5FD9 | M D T V Y T A E A L A T G G R D G R T R T T D G R I D L G L A V P Q E M G G S G | | | | |
| UniRef90_UPI0002D51531 | M K E V F T A T V T A T G G R E G R V R S S E D G V L D L A L A M P G V K E G T | | | | |
| UniRef90_D4HC98 | I E P V Y T T E A I A T G G R N G H V Q S S P D G R V S E D L A V P V E M G G S G | | | | |
| UniRef90_F4AHE6 | M N V L Y T A K A T A T G G R E G R T A S D D G R L D L E L S T P K G L G G D G | | | | |
| UniRef90_D7C4U6 | K A L Y T A E A N V A G G R S G R G R T S D G R L D L E L R L P K E L G G D G | | | | |
| UniRef90_UPI000474083E | M S V L F T S K A T A V G G R E G H V K S S D D G L L I N L D L V M P S P N N T K | | | | |
| UniRef90_UPI0003B6A701 | M S V L Y T A R A S A N K G R Q G R A Y S D D E R L D V Q L S T P A A L G G D G | | | | |
| UniRef90_L7FIR8 | K I M Y V A E A T A H G G R N G D V T S Q D Q G Q I A L K V A M P P Q L G G D G | | | | |
| UniRef90_U2ENS4 | K V L Y R A Q A K A T T G G R D G R A T S A D D Q I D L K L T T P K A L G G G G G | | | | |
| UniRef90_K6VDM2 | K V V Y R A H A K A T T G G R D G R A T S S S D E L L D V K L L A V P K E M G G P | | | | |
| UniRef90_UPI00035CFCE1 | K I L Y T A R A E A T T G G R E G H H I K S S D D G A L D L A L S T P K E L G G A G G | | | | |
| UniRef90_A6VSD1 | M Q A I Y S A T A T S T G G R D G R A T S S D N K L D V R I L A F P P A L G G D G | | | | |
| UniRef90_UPI00037D0E8F | M D A V Y T A V V T A N G R D G R A T S S D D G H D L D V R I L A P N A L G G K G | | | | |
| UniRef90_U8MM47 | T T L Y S T K V T A V G G R N G T I H S S D D G L L D L Q L A V P K E M G G A G G | | | | |
| UniRef90_I0H8Q1 | M S A L Y T A S A T A T G G R N G H V R S S D D G V L E F D L A V P K E M G G A G G | | | | |
| UniRef90_E1SUE9 | M L Y T A T A F A S A G R N G Q A R S S D D G L L D L S T Y P K A L G G S G G | | | | |
| UniRef90_U7KQ59 | M D A M Y T T E A L A T G G R N G H A T V K D S D L D F A L A P K E M G G S G | | | | |
| UniRef90_L0LWS8 | K V L Y T A K T H T G G R D G S A R S S D D N Q L D V K L S P P G S A H | | | | |
| UniRef90_UPI00035D4244 | K V L Y T A D V T S T G G R E G R A V S S S D G L L D V K L S P P K E L G G A G | | | | |
| UniRef90_UPI0003814910 | M N A L Y T A V A T A N G R E G R A V S S S D G H D L P L A H P Q A L G G N G G | | | | |
| UniRef90_J2K9A3 | M D A L Y T A V A T A N G R E G R A V S S S D G R I D L A L A M P P E L G G N G G | | | | |
| UniRef90_D3F2E1 | K V L Y T A E A T V S T G G R E G H G R T S D G A L E V D L R L P A E M G G E G | | | | |
| UniRef90_G7UWP6 | K I L Y T A T A I A K G G R D G R N A K S S D G I L D L Q L S T P K E L G G G G | | | | |
| UniRef90_UPI00041788D4 | M E K C L Y T A V V T A K G G R D G N A K S S D G I L D L H L Q K P H E M G G Q G | | | | |
| UniRef90_F5J0U3 | M E K M Y T A V A T S V G G R S G S V K S S D G V L L N L E V R P P K E M G G P G | | | | |
| UniRef90_UPI00029A461B | M K T L Y Q T S A S V T G G R N G K V T S S E D G A L L S L E V R M P K E L G G N G | | | | |
| UniRef90_E6V7M3 | K I L Y T G K T H T T G G R D G A S T S S D D G R L D D V K L S S P P G G P | | | | |
| UniRef90_S3HH12 | K V L Y T G K T H T T G G R D G A S R S S D G R L D D V K L S S P P G S A | | | | |
| UniRef90_UPI00029A552F | D P L Y T V E A L S T G G R D G H V A T S S D G S I L D E M A P P K E L G G S G | | | | |
| UniRef90_C7R3U9 | M N V L Y T T E A L A T G G R D G H V A V A G T D L A F D L A V P T S M G G S G | | | | |
| UniRef90_UPI000363FA9D | T I L Y I G R T H T T G G R D G S A K S S D G W L D I R L S P P G G A G G | | | | |
| UniRef90_UPI00041CDA3F | D K V F S T K A T A T G G R E G H V K S S D G F D L L P L Q M P D K N G I P D | | | | |
| UniRef90_D2QM88 | I Q P L Y T A H A T A T G G R D G H V T S S D K V L D D V R I P R E M G G A G G | | | | |
| UniRef90_H8KJM4 | I K P L Y T A T A F A T G G R N G K V T S S D N V L D D V K L S S P P G S S G | | | | |
| UniRef90_J2XBQ8 | K V L Y T A K T H T T G G R D G A S R S S D G I L D D V K L S S P P G S S S G | | | | |
| UniRef90_A0A022LG47 | D I V Y T A A A A H A T T G G R D G H V R S S D D R L D D V R I P R E M G G A G G | | | | |
| UniRef90_X4YYL4 | K I L Y R A H A Q V T G G R D G R A V S S D K H L D V Q L S T P K E L G G G G | | | | |
| UniRef90_W8F786 | M K I I F T A Q A K A K G G R D G A I T T S S D N V L N L I S T P K E M G G P B | | | | |

| QUERY | 50 | 60 | 70 | 80 |
|------------------------|-----------------------------------------------------------------------------------------|----|----|----|
| UniRef90_A7N3F8 | T A T N P E Q L F A V G Y A A C C F S N A I L H V A R E A K V A L K E A P V T A T | | | |
| UniRef90_B5ETB0 | A A T N P E Q L F A A G Y S A C C F S N A I L H V A R E G K V V N L K S A P V T A E | | | |
| UniRef90_A8FT24 | E A T N P E Q L F A A G Y S A C C F S N A I L H V A R E M K I V K L T Q A P V T A E | | | |
| UniRef90_A6WS37 | L A T N P E Q L F A A G Y A A C C F S N A V L H V A K I G K V D I T E A P V S A V | | | |
| UniRef90_L2TTL8 | V G T N P E Q L F A V G Y A A C C F H S A L R M I G R Q D E A D V S D S A V G A R | | | |
| UniRef90_UPI000255F269 | N G A N P E Q L F A A G Y A A C C F H S A L Q M V A R Q A K K N L G E S S V G A R | | | |
| UniRef90_X4Z8Q2 | S G T N P E Q L F A A G Y G A C C Y E S A L A N V A R K E G V K L Q D V E V T S N S | | | |
| UniRef90_Q46PN0 | D G L N P E Q L F A A G Y S A C C F I G A M R H V A A Q Q K I V L P D T S I E G S | | | |
| UniRef90_Q08XP6 | G A T N P E Q L F A A G Y A A C C F E S A L R L V A G K A G K N V K E A A I T G S | | | |
| UniRef90_Q82D91 | G Q T N P E Q L F A G G Y A A C C F A S A L G L V R G Q A K V D V S D A A V T A E | | | |
| UniRef90_J9S9Z6 | Q G T N P E Q L F A I G Y A A C C F H S A L R L V S K Q A G A N V E D S S V G A Q | | | |
| UniRef90_T0BZ91 | G A T N P E Q L F A A G Y A A C C F D S A V N L V A R S K K I I A V K D T S V T A H | | | |
| UniRef90_Q2W218 | D A T N P E Q L F A A G Y S A C C F M G A L K F V A G V K K I T V P D A A I D A S | | | |
| UniRef90_J1AI5 | N Y T N P E M L F A A G Y A S C C F D S A L N L I S K S K I I E T G E T S V T A Q | | | |
| UniRef90_Q65KU4 | S G T N P E Q L F A A G Y Y A A C C F G G A L E H V A K Q K G I D I D S E V E G H | | | |
| UniRef90_Q5QZZ0 | D G T N P E Q L F A A G Y S A C C F G I G A L K F A A G Q E K V K L P D T E V K A E | | | |
| UniRef90_UPI000376B352 | G A T N P E Q L F A A G Y A A C C F H S A L H V V A R R E K A D V N G S E V S A K | | | |
| UniRef90_UPI0003B5E029 | G A T N P E Q L F A A G Y A A C C F H S A L R G V A K R S G A D V T D S E V V V A D | | | |
| UniRef90_C2FU63 | D Y T N P E Q L F A A G Y Y A A C C F D S A L N L V I S K S N I K T G E T S V T A H | | | |
| UniRef90_K4HQ2 | D G V N P E Q L F G S G Y S A C C F G S A L S L V A D K H V D L G D F S V V S A Y | | | |
| UniRef90_UPI0002631DDC | D G T N P E Q L F A A G Y S A C C F G I G A L K A V G G A G M K I V P D V S V T A T | | | |
| UniRef90_A0A010PL41 | E G A N P E Q L F A A G Y A A C C L H G A L R K I A S G E G A D V S D S S V G A K | | | |
| UniRef90_S2EY88 | G T N P E Q L F A A G W S A C C F G I G A M G V A A K E L K V A L L P D V A V D A E | | | |
| UniRef90_U5LAP7 | N G T N P E Q L F A A G Y Y A S C C F D G A L N L V A R Q D R K I E S K V T A E | | | |
| UniRef90_C2N6Y6 | E A T N P E Q L F A A G Y A A C C F D S A L Q L V I R T K R V K V E S T E V T A H | | | |
| UniRef90_S4AM20 | A G T N P E Q L F A A G F S A C C F Q G A L G V V A R R E K A D I S G S T V T A K | | | |
| UniRef90_K8R738 | P G T N P E Q L F A A G Y S A C C F L S A M K F V A G Q Q K R A V P D T S V T A D | | | |
| UniRef90_A0LYQ6 | D Y S N P E Q L F A A G Y S A C C Y G S A L E V V A E K H V D L G D Y S V T A T | | | |
| UniRef90_C6XKD8 | D G T N P E Q M F A A G Y S A C C F G I G A M K A V A A Q D T K V P D D V S V T A T | | | |
| UniRef90_D7BR51 | K G T N P E Q L F A A G Y A A C C F A S A L G L V G R Q A K V D T K D I S V T A E | | | |
| UniRef90_L8TLY5 | D G T N P E Q L F A A G Y Y A A C C F H S A L R L V A R Q R E A D L T D S A V A A K | | | |
| UniRef90_J0LQ54 | G K S N P E Q L F A A G Y Y A A C C F H S A L K L V A R R A Q R Q D L P E S T V K A H | | | |
| UniRef90_UPI00036BF64D | N G T N P E Q L F A A G Y G A C C Y E S A L S N V A R K A G V K L D N P E V T S H | | | |
| UniRef90_W5Y5C0 | N G N N P E Q L F A A G Y A A C C F H S A L Q L V A R A A K Q D L G D S S V G A R | | | |
| UniRef90_D2PNT3 | E G T N P E Q L F A A G F S A C C F H S A L K L V A R R A Q R Q D S E G S T V T A E | | | |
| UniRef90_F2GAZ5 | E G T N P E Q M F A A G Y S A C C F H S A L K H V A A S Q K I K L D D I S V T G D | | | |
| UniRef90_D5USS9 | E G S N P E Q L F A S G Y A A C C F H S A L Q L V A R T R K V I V A I D G S S V G A R | | | |
| UniRef90_K4R260 | T G T N P E Q L F A A G Y S A C C F Q G A L G V V V A R Q E K A D I T G S T V T A K | | | |
| UniRef90_W8YZJ1 | E A T N P E Q L F A A G Y S A C C F E S A L Q L A A R K Q G I D A G G A E V T G H | | | |
| UniRef90_C5CBF8 | Q G S N P E Q L F A A G Y Y A A C C F H S A L Q M V A R A S R A S R A D T D S S V G A R | | | |
| UniRef90_UPI00047B92D3 | E G T N P E Q L F A A G Y S A C C F L G A M K F V A G Q Q K I I A L P D T R R V D G S | | | |
| UniRef90_Q2RX64 | K A T N P E Q L F A A G Y Y A A C C F E S A L R H V A R G R R K I L A L A S T T V T A E | | | |
| UniRef90_E4PLG4 | K G T N P E Q L F A A G Y S A C C F L G A M K F V A G R D K L K P E D A S I E G V | | | |
| UniRef90_UPI000248E836 | N G A N P E Q L F A M G Y S S Y G S A L Q H V A A Q K Q K V D L G D F T V T A E | | | |
| UniRef90_K2KII2 | D G S N P E Q L F A A G Y S A C C F I G A L Q H V A A S Q K I K L G N N V Q V T G E | | | |
| UniRef90_I1DV18 | G A T N P E Q L F A A G Y S A C C F I G A L K F V A G A A K I V S L P D V S V L R A E | | | |
| UniRef90_S7VR86 | N G T N P E Q L F G A A Y A A C C F G G A L Q S V A K N E G I L E I D D L S S V T A I | | | |
| UniRef90_M7NBH3 | N G A N P E E L F A A G Y Y A A C C F H S A L Q M V A R T Q K I L T D T S V G S R | | | |
| UniRef90_P0A0V4 | D G T N P E Q L F A A G Y Y A A C C F I G A M K A V A A Q D K I K P E V S I D S S | | | |
| UniRef90_A0A021W461 | E S T N P E Q L F A A G Y S A C C F I G A L K F V A G R E K I I A P A D A A V D G S | | | |
| UniRef90_UPI00037C87B2 | N A T N P E Q L F A A G Y S A C C F I G A L K F V A S Q K K I V D A A D S T T V S A A | | | |
| UniRef90_UPI00037C47E4 | P G T N P E Q L F A V G Y A A C C F H G A L K F V A A K Q K V D L P D T T V T G Q | | | |
| UniRef90_I3UG38 | P G T N P E Q L F A A G Y S A C C F H G A L K F V A A K Q K V D L P D D A R V D A E | | | |
| UniRef90_UPI00037B5FD9 | D G A N P E Q L F A A G Y Y A A C C F H S A L Q M V A R Q E K I V K G D S S V G A R | | | |
| UniRef90_UPI0002D51531 | T N P E Q L F A A G Y Y A A C C F D S A I S L V A A Q K E K I K H G G S E V T A H | | | |
| UniRef90_D4HC98 | K G T N P E Q L F A A G Y Y A A C C F H S A L Q M V A R Q A K I D L G D S S V G A R | | | |
| UniRef90_F4AHE6 | Q G T N P E Q L F A A G Y Y A A C C F I G A L K V V A G Q Q K I I A P T D V I N S E | | | |
| UniRef90_D7C4U6 | E G A N P E Q L F A I G Y Y A A C C F G A T L A L I Q G Q R G N L K A D D A E I D A S | | | |
| UniRef90_UPI000474083E | E G T N P E Q L F A A G Y Y A A C C F D G A L Q N L I A K K Q K Y S I E S S I T A E | | | |
| UniRef90_UPI0003B6A701 | P G T N P E Q L F A A G Y Y A A C C F M S A M G L V A Q Q K A L K P D D A R V D A E | | | |
| UniRef90_L7FIR8 | N G T N P E Q L F A A G Y Y S S C C F H S A L L V L V G R R E G Y D L S G S T V A A K | | | |
| UniRef90_U2ENS4 | D G T N P E Q L F A A G Y S A C C F I G A M K V V A G K Q K V V S P D L S V T G E | | | |
| UniRef90_K6VDM2 | G G T N P E Q L F A A G Y S A C C F I G A M K F V A G R K Y S S M P K D A Y I D G E | | | |
| UniRef90_UPI00035CFCE1 | F G V N P E Q L F A M G Y Y A A C C F I G A L K V V A G Q E K I I T L P D T K I A S E | | | |
| UniRef90_A6VSD1 | E G T N P E Q L F A A G Y Y A A C C F I G A L K L A A S Q Q K I V K P D V N V T A E | | | |
| UniRef90_UPI00037D0E8F | R G T N P E Q L F A A G Y Y A A C C F T S T L G V V G R A A K I I P T G E I S V T A E | | | |
| UniRef90_U8MM47 | N A T N P E Q L F A A G Y Y A A C C F G N A V I H V T R E Q K I I K D D D V E V S A R | | | |
| UniRef90_I0H8Q1 | G A T N P E Q L F A A G Y Y A A C C F H S A L K M V A G K Q K I I T L T D T A I T V D | | | |
| UniRef90_E1SUE9 | T G T N P E Q L F A A G Y Y A A C C F F S N A I L Y V A K E Q G V V A L T E A P V T G Q | | | |
| UniRef90_U7KQ59 | E G A N P E Q L F A A G Y Y A A C C F H S A L Q A V A R N Q K V V E L G D S A V G A R | | | |
| UniRef90_L0LWS8 | A G T N P E Q L F A A G W S A C C F I G A M G L A A G K R K V V K L P D L A V D A E | | | |
| UniRef90_UPI00035D4244 | G A T N P E Q L F A A G Y S A C C F M G A L K H V A G A A K I A P S A T I Q A K | | | |
| UniRef90_UPI0003814910 | Q G T N P E Q L F A A G Y Y A A C C F F A S A M G V I A R Q E K I I D L K D V S V T A E | | | |
| UniRef90_J2K9A3 | A G T N P E Q L F A A G Y Y A A C C F F A S A M S N V G R Q M K I I D T K D V S V T A E | | | |
| UniRef90_D3F2E1 | G G T N P E Q L F A V G W A A C C F E G A L G V V V A R R Q G V V G A D D A S I D S R | | | |
| UniRef90_G7UWP6 | U R F T N P E Q L F A I G Y Y A A C C F I G A M R A V G A R E N I K P D D V A I E S H | | | |
| UniRef90_UPI00041788D4 | P G T N P E Q L F G A A W G A C C F I G A M R A V G A R E N I K P D D V A I E S H | | | |
| UniRef90_F5J0U3 | G A T N P E Q L F G A A W G A C C F I G A M R A V G A R E N I K P D D V A I E S H | | | |
| UniRef90_UPI00029A461B | N Y T N P E Q L F A A G Y S A C C F G S A L S H V S L A K K I I H K P E V T A K | | | |
| UniRef90_E6V7M3 | A G T N P E Q L F A A G Y Y A A C C F D S A L N L V M H Q A G V K A E P T T V K A N | | | |
| UniRef90_S3HH12 | T G T N P E Q L F A A G W S A C C F I G A M G L A A G K L K I V K P D L A V D T E | | | |
| UniRef90_UPI00029A552F | Q G T N P E Q L F A A G Y Y A A C C F I G A M G F A A K S L A V A P T D L A V D T E | | | |
| UniRef90_C7R3U9 | E G N N P E Q L F A A G Y Y A A C C F L S A L Q S A A R M K K V V K I D G A S S V G A R | | | |
| UniRef90_UPI000363FA9D | N G A N P E Q L F A A G F A A C C F H S A L Q L V A R Q R K V V S V D G S S V V A G R | | | |
| UniRef90_UPI00041CDA3F | Q G T N P E Q L F A A G W S A C C F I G A M G L A A Q Q A A G V V K L P D T A V D A E | | | |
| UniRef90_D2QM88 | D A T N P E Q L F A A G Y Y A A C C F D S A L N L V T R M S K V V K T G I T T V T A D | | | |
| UniRef90_H8KJM4 | G A T N P E Q L F A A G Y Y A A C C F D S A L S L V I R M A K V V E I A G T N V T A H | | | |
| UniRef90_J2XBQ8 | E Y T N P E Q L F A A G Y Y A A C C F D S A L S L V I R M A K V V E I A G T N V T A H | | | |
| UniRef90_A0A022LG47 | G G T N P E Q L F A A G W S A C C F I G A M K A V A G Q Q K I I S P D L A V D A E | | | |
| UniRef90_X4YYL4 | E G T N P E Q L F A A G Y Y A A C C F L G A L H A A G K E L E L T T G A E V S A E | | | |
| UniRef90_W8F786 | Q G S N P E Q L F A A G Y Y A A C C F I G A M K F V A A R E R M S L P E L S V Q G A | | | |
| UniRef90_KATNPEQ | K A T N P E Q L F A A G Y Y A A C C F E G A L G V A A R Q A G V V K L N D V T V E A L | | | |

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|------------------------|-------------------------------------------------------------------------------------------|--|--|
| QUERY | G P N G Q G G F A L S V A L A A H I A L E D E Q A R Q L V T V A H Q V C P | | |
| UniRef90_A7N3F8 | G P N D N G G F A L L T V S L L A V E L D M P Q E Q A L E L T R I A H Q V C P | | |
| UniRef90_B5ETB0 | G P N S A G G F A L T V A L A V V L D L E D Q Q A Q Q L V K T A H Q V C P | | |
| UniRef90_A8FT24 | G V R E E G G F G L S V A L A V E L D L P Q A Q A V A L V R N A H L V C P | | |
| UniRef90_A6WS37 | G A N D A G G F A L L A V A L L E V S L D L P Q E A A E A L V R H A H Q V C P | | |
| UniRef90_L2TTL8 | G N L D N G G F V L L A V E L E I T P N V D H A T A Q Q L A E K A H Q V C P | | |
| UniRef90_UPI000255F269 | G P N D A G G F G L E V T L L E V V I P D P R D E A Q E L A D A A H Q V C P | | |
| UniRef90_X4Z8Q2 | G K D E D G G F K L S V R L D V K I S V D H D K A E D L A K K A H A F C P | | |
| UniRef90_Q46PN0 | G P I P Q G F G I Q A E L K I S V P G F E R E A V E K L V E Q A H Q V C P | | |
| UniRef90_Q08XP6 | A T I G K T P D G G F G L A V E L K G K P G L S Q E E A Q Q L M H A A H E V C P | | |
| UniRef90_Q82D91 | V G I G K Q G E G F G L K V T L R I E L P D S V D E A R K L V I E T A H Q V C P | | |
| UniRef90_J9S9Z6 | V S I G A L D G G F A F G L A V N L L E V T P H L D H D Q A Q E L A D K A H E V C P | | |
| UniRef90_T0BZ91 | T T I G K E D D G T F A L S V R L D V K I P V S Q E T A Q E I L V E A A H Q V C P | | |
| UniRef90_Q2W218 | V S I G P I P Q G F G I S A Q L V I S L P G M D R Q V A Q E L L T E K A H Q V C P | | |
| UniRef90_J1AI15 | V S I G Q N E D S G F G L A V K L D V N I P V S L E E A Q E L V E A A H D F C P | | |
| UniRef90_Q65KU4 | V S I L K D E D G G F K I G V K L L T V G V E K E K A K E L V E A A H D F C P | | |
| UniRef90_Q5QZZ0 | I G I G Q I E E G G F G I D A T L N I H L P G M S Q D E A E S L A E E K A H Q V C P | | |
| UniRef90_UPI000376B352 | V G I G P N G E G G Y Q L E V S L H V V P N V D Q A T A E S L T E E A A H K V C P | | |
| UniRef90_UPI0003B5E029 | V A I G P N G E G G F G L A V G L E V T P H V E R A D A E K L V E Q A H Q V C P | | |
| UniRef90_C2FU63 | V G I G S L E E G G F G L E A E L I V N I P I E L K T G E N L I V E K A H R I C P | | |
| UniRef90_K4HQ2 | V S I G K V E D G N L Q L S V I L D S F L P E D L T G E N L I V N E A H E L C P | | |
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| UniRef90_A0A010PL41 | V S I G K D E D G G F G L A V V I E V V I P H D Q A Q A E A L A E K A H A F C P | | |
| UniRef90_S2EY88 | V D L G T N E G G Y L L Q A R L N V S L P G L D R E T A Q K L V D T G H K Y C P | | |
| UniRef90_U5LAP7 | V T I G K E N D D G G F G L A L A V V L N A V S G V S L E E A K E L T E K A H G V C P | | |
| UniRef90_C2N6Y6 | V S I G K D T D G G F G L S A V L D V H V G V S H A E A Q E L V E A A H G V C P | | |
| UniRef90_S4AM20 | V G I G A N G S G G F G L E V E L V A S I P N D A A T A Q S L V E E K A H E V C P | | |
| UniRef90_K8R738 | V G V G H N D A G G F K L D I E L R V S P G L D A P P D A Q A L V D A A H K V C P | | |
| UniRef90_A0LYQ6 | V K L G K T D S G N L Q L S A T L D S Y I P V D V V E T G E K L V N E A H E I C P | | |
| UniRef90_C6XKD8 | V G I G P R S E G G F G L E V A L E V V N P G V D Q E A A Q A L I V E K A H Q V C P | | |
| UniRef90_D7BR51 | V G I G K D E D G G F G L K V T L R V E L P E E L E T G R S L V E Q A H Q V C P | | |
| UniRef90_L8TLY5 | V H L G K L D G E G F G L A A E L E V L P A L L D R K T A E A L V A R A H E I C P | | |
| UniRef90_J0LQ54 | V D L L K S E E G K Y K G L V G V K L E V H Q G L E K D K A K E L V D E A H E V C P | | |
| UniRef90_UPI00036BF64D | V S I G K D P D G G F F R L A V V R L E V K P G I E R E Q A E K L A R D A H A F C P | | |
| UniRef90_W5Y5C0 | V S I G K G E G E F G L L A V E L E V V P A L L P H E V S Q Q L A E K A H E V C P | | |
| UniRef90_D2PNT3 | V G I G P N G G A A Y G L E V A V L L V V S P G V E R V I A E E L V A K A H Q V C P | | |
| UniRef90_F2GAZ5 | V S I G P I D Q G F A I A V K L T V T W D G D M D K T Q A Q S L V D T A H Q V C P | | |
| UniRef90_D5USS9 | V G I G P N G D G G F G L T V T L E V V I P E D A T T A Q S L L A D A A H Q V C P | | |
| UniRef90_K4R260 | V G I G K N A E E G F G L I V E I S A S I P N V D A E T A Q S L L K K A H E E L C P | | |
| UniRef90_W8YZJ1 | V S I G F K E G E S F A L A V V R L D I S I P G A E E Q T R K L A E K A H E L C P | | |
| UniRef90_C5CBF8 | V G I G R Q G E G F G L E V T L V V L P H V P A E Q A R A L M E Q A H Q V C P | | |
| UniRef90_UPI00047B92D3 | V G I G P I P A G F F G I N A T L R V H V P G M P R E Q A E E L V Q K A H G V C P | | |
| UniRef90_Q2RX64 | V G I G P R A D K G F S L E V A L D I T G G V D Q A T A E D V V A E A H E V C P | | |
| UniRef90_E4PLG4 | V G I G Q I P N G F G I E V E L R I S P G M D D A E A K Q L I D E A H K V C P | | |
| UniRef90_UPI000248E836 | V S I G L G K N D E G D F G L A V V I L D T Y I P V S L E E G E E L L N E A H E V C P | | |
| UniRef90_K2KII2 | V G I G P A G A G F A L T V V K L L V K L P D L D K A S A Q Q L A D Q A H Q V C P | | |
| UniRef90_I1DV18 | V G I G G K I E E G G F G L D V D L F V N L P G M D K A A A D E L V A K A H Q V C P | | |
| UniRef90_S7VR86 | V I G I F C K D E D G G F F L E A T L D C Y I P G V D L E T G E D L V I E K A H E A C P | | |
| UniRef90_M7NBH3 | V G V L P N G E G G F F I L A V T L E V V I P M A H E Q A R A L A D A A H K V C P | | |
| UniRef90_P0A0V4 | V G I G Q I P G G F G I V V E L R L A V P G M D K A E L Q T L V D K A H Q V C P | | |
| UniRef90_A0A021W461 | V G I G Q I P T G F G I E V E L K I S P G L P R E Q A Q E L I I A A A H Q V C P | | |
| UniRef90_UPI00037C87B2 | V G I G Q I P G G F G I L A V T L N I S P G L D R A V A E E L V D A A H Q M C P | | |
| UniRef90_UPI00037C47E4 | V S I G L G K D D G F G L S V E L L T V T I P Q D Q P S A Q K L V D Q A H V V C P | | |
| UniRef90_I3UG38 | V G I G Q I P T G F G I Q A R L T I T A P G I D H D T L Q A L A D K A H Q V C P | | |
| UniRef90_UPI00037B5FD9 | V G I G G N G Q G G F G L E V D L V V L P D L D P A T A Q A L V E A A H K V C P | | |
| UniRef90_UPI0002D51531 | V T L I N Q D E D G Y A L S V K L L D V L V R E V D K D D V A Q K L V E A A H K V C P | | |
| UniRef90_D4HC98 | V S I G Q A G E G F G L A V A L E V V I P A H D E A Q R L A D K A H Q V C P | | |
| UniRef90_F4AHE6 | V S I G G I E H G F G I L A V K L L A V S V G D M D K T Q A Q L V E K A H Q V C P | | |
| UniRef90_D7C4U6 | V S I G I P I D G G R F K L G A E L R I S P S V T G E Q A V E L V S A A H E V C P | | |
| UniRef90_UPI000474083E | V S I G M K D P D D G F K L L A V T L N I H K G V S Q E E A E K L V K A A A H E F C P | | |
| UniRef90_UPI0003B6A701 | V G I G P R E A G G F G L E V T L I G Y P G L E T E Q A N E L M A K T E K V C P | | |
| UniRef90_L7FIR8 | V G I G P N K Q Q G Y G L A V A L S V S P I L D Q D L A A K L V D A A H M V C P | | |
| UniRef90_U2ENS4 | V G I G P S G E A F G I E V T L N I S L P G M D K D Q A D K L V E A A H Q V C P | | |
| UniRef90_K6VDM2 | V G I G P I P T G F G I E V T L N I H E G M D D Q T E A E K L V E A A A H I V C P | | |
| UniRef90_UPI00035CFCE1 | V G I G P I T G G F G I T A S L S I S L P G I E K A K A E D L I A K A H Q V C P | | |
| UniRef90_A6VSD1 | I G I G G A N T K G E F T I T A S D L E V N V P V E K D V V E K L V E E A A H K V C P | | |
| UniRef90_UPI00037D0E8F | I G L I A K D A D D G G F A L T A V L R V K L P E A D E T G R K L V E Q A H A G C P | | |
| UniRef90_U8MM47 | V S I G V P N G S G G F A L L S V A L E V L A G V D Q A L A E E V V A E A H R V C P | | |
| UniRef90_I0H8Q1 | V G I G P L P S G G F G L L T V T I E A E L P G L D E T A R G I L D A A H Q V C P | | |
| UniRef90_E1SUE9 | V S I G L P Q P V G F A F L V G V S L A V E L V S I P Q D K A T A Q Q L V A T A H Q V C P | | |
| UniRef90_U7KQ59 | V G I G G K Q E G F Q L L A V D L E V S I P Q D K A T A Q Q L V E E A A H Q V C P | | |
| UniRef90_L0LWS8 | V D L I G T T E G A Y F I L Q A R L T V S M P G I E P E L A R T L V E E A A H Q T C P | | |
| UniRef90_UPI00035D4244 | V G I G P I P A G F G I L E A H L T I P G I E R A V A E D L V A K A H G V C P | | |
| UniRef90_UPI0003814910 | V S I G S N Q D G N A N T L S A E L D V H I P G I T L E E A Q Q L V D A A H Q T C P | | |
| UniRef90_J2K9A3 | V S I G L G K D T D G G F G L L A V V M R A E F H L Q G E P G R E L L E K T H A F C P | | |
| UniRef90_D3F2E1 | V Q L I L P T G D G G F K L L A A A L D V T S I A D D A V A A E I V R A A H Q V C P | | |
| UniRef90_G7UWP6 | V G I G P A G S A F T I A V E L K I P G M D R E T A Q K L V D T A H Q V C P | | |
| UniRef90_UPI00041788D4 | V S I G F N Q D G N A N T L S A E L D V H I P G I T L E E A Q Q L V D A A H H R V C P | | |
| UniRef90_F5J0U3 | V S I I G T K E G G G F G L L A V E M D V H I K I S Q Q E A E E L V K E A H Q V C P | | |
| UniRef90_UPI00029A461B | I S L I H P D G K G G F F V L G A N L Q I S P G I E T V R A Q E L I D T A H N I C P | | |
| UniRef90_E6V7M3 | V D L I L A N T D G A Y F I L Q A R L L N V S V P G I E R E V V Q S L V D A A H Q T C P | | |
| UniRef90_S3HH12 | V D L I C S N A G G Y E L Q A R L L N V S L P G V D H E T A R A I V D A A H Q T C P | | |
| UniRef90_UPI00029A552F | V S I I V P A G E S S I E L L A V E L E V V I P D D D R E Q S D E L A K Q A H E L C P | | |
| UniRef90_C7R3U9 | V S I I G A T D G G G F G L L A V E L E V S P G V D K E V A Q E I A E E A H Q V C P | | |
| UniRef90_UPI000363FA9D | V D L I L G K G D N G Y F I L Q A R L L N V S L P G I D A G T A R A I V D Q A H Q T C P | | |
| UniRef90_UPI00041CDA3F | V S I I L K D P D N G F G K L L A V T L H V H I K G D Q D Q A E E L A H R A H E F C P | | |
| UniRef90_D2QM88 | V S I I G K L A D D G G F G L L A V T L D V N V P V E V Q A V V E E L V A K A H Q V C P | | |
| UniRef90_H8KMJ4 | V S I I G K N E A E G Y G Y G L G V I L H V N V P V S E E L A K N L V E K A H Q V C P | | |
| UniRef90_J2XBQ8 | V D L I L G T N S G G Y F I L L Q A R L L N V S L P G M E R G A A Q Q L V D A A H Q V C P | | |
| UniRef90_A0A022LG47 | V G I I G G I G N G G F G L L A V E L D V Y P N A P Q E R Q R L A E R A H E I C P | | |
| UniRef90_X4YYL4 | V S I I G P L P H G F G I E V E L T I S P G M D R D A A R Q L I D N A H I V C P | | |
| UniRef90_W8F786 | I G F G K A E D G G G Y G I S A D L H V N P G F E Q A Q A E Q L V E A A H G I C P | | |

QUERY

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

| | 50 | 60 | 70 | 80 |
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| UniRef90_A8IDQ5 | E G T N P E Q L | F A A G Y S A C C F [L] G A L K F V A G L E K V R P E A T V T A T | | |
| UniRef90_Q1J185 | P G T N P E Q L | F A A G Y A A C C F Q S A L G V V A R R E K V R P E D S T V T A R | | |
| UniRef90_W2US06 | D Y A N P E M L | F A A G Y S A C C F D S A L N L V I N K A K I I N T G P T T V N A K | | |
| UniRef90_UPI00038051CC | G D T N P E Q L | F A A G Y A A C C F I G A M K A V G G K I L G V K V P D V S I S S N | | |
| UniRef90_UPI000373A03B | D A A N P E K L | F A A G Y S A C C F L G A M K F V G G Q T G V K V P D T T V T A T | | |
| UniRef90_W8WSQ0 | D G T N P E Q L | F A A G Y S A C C F L G A L K L V A G K D G V K L L P D A E V S G S | | |
| UniRef90_UPI000378E484 | D G T N P E Q L | F A A G Y S A C C F I G A L K H V A G T Q N L K L S D V S V T G E | | |
| UniRef90_K6ZM12 | Q G T N P E Q L | F A A G Y A A C C F I G A L K F V A G Q Q E K T S L P D T H I N S E | | |
| UniRef90_F7RX61 | K G T N P E Q L | F A A G Y S A C C F M G A M K A V S D K L N L K V P D A K I D A A | | |
| UniRef90_U3TVT5 | G E T N P E Q L | F A A G Y S A C C F L G A M K F V A G R D K I A P K D A W I E G E | | |
| UniRef90_F1ZDN1 | A G N N P E Q L | F A A G Y A A C C F I G A I K Y A A S Q D K N V P V D V S V T S T | | |
| UniRef90_U7KSC4 | E G A N P E Q L | F A A G Y A A C C Y H S A L K A V A K D K G V D V E N S S V G A R | | |
| UniRef90_UPI0002E11937 | K G T N P E E L | F A A G Y A T C C Y D G A L N L V A K A N N G K D I D S T T H G E | | |
| UniRef90_Q48FP8 | G A T N P E Q L | F A A G Y S A C C F [L] G A L K F V A G Q S K R S I P D A S I T A H | | |
| UniRef90_UPI0004236610 | E G T N P E Q L | F A A G Y A A C C F H S A L R L V G R Q Q K A D L T D S A I V A A R | | |
| UniRef90_UPI000467A54C | E G V N P E E L | F S A G Y A A C C F L G A L R L V A K N E K V N L D E A S I T A Q | | |
| UniRef90_W0QKW3 | [L] G T N P E Q L | F A M G Y A A C C F D S A M N H V A P A L G I K P T K S S T T V G | | |
| UniRef90_A0A022FS73 | G T N P E Q L | F A G W S A C C F L G A I G R A A Q A K V A L P D A A V V D A E | | |
| UniRef90_A0A024HHS7 | R G T N P E Q L | F A A G Y S A C C F L G A M K F V A A R D K L V A I P N P S I E G V | | |
| UniRef90_15C972 | G Q T N P E Q L | F A A G Y A A C C F G G A L G A V A K G V S S D A E V A V A V K | | |
| UniRef90_UPI0004779063 | Q V T N P E Q L | F G A G F A A C C Y H S A L K A I A Q G K N M D T S D S E V T A H | | |
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| UniRef90_S4YXY8 | E G V N P E Q L | F A M G Y A A C C F D S A L N M T A Q Q M K L P V T A S K T S A Q | | |
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| UniRef90_UPI00047B6DE3 | D A T N P E Q L | F A A G Y S A C C F D G A L Q L M G K R E K V V H F E S E V T A N T | | |
| UniRef90_G2P7Q4 | S K T N P E Q L | F A A G Y A A C C F H N G L R L I A G Q Q K V N K L P D T A V V D A E | | |
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| UniRef90_K1LA99 | N Y T N P E Q L | F A A G Y A A C C F D N A L N Y I A K S Q R L L A I S S K V T A H | | |
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| UniRef90_UPI000381381E | G T N P E Q L | F A A G W S A C C F I G A M G L I A A G Q R K V V L P D M A V D A E | | |
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| UniRef90_UPI0002558CE6 | D G T N P E Q L | F A T G Y A A C C F L S A L K A V A R M Q K K T V P D T A T T A E | | |
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| UniRef90_D1P3H0 | D G V N P E Q L | F A L G Y A A C C F D S A M E I T A K Q L K L N A K G A K T S I E | | |
| UniRef90_UPI0002556965 | G T N P E Q L | F A A G W S A C C F V G A L G L A A R S C K V K L P E V A I I D A E | | |
| UniRef90_S2CXR1 | G K T N P E Q L | F A A A W S S C C F A G A L A A V V S K R V S T E D A K I S V Q V H | | |
| UniRef90_B6IS28 | D A T N P E Q L | F A A G Y A A C C F G N A V L H A S R S G R L R D S D V E V A A T | | |
| UniRef90_F0SBH3 | G Y A N P E E L | F A A A W G S C C Y L G A L G S V V G K R D G I V D V S N A T V N V Y | | |
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| UniRef90_UPI00026CAB33 | G A T N P E Q L | F A A G Y A A C C F E N A V I H V G K A E K V K D D D I V V I A E | | |
| UniRef90_T0J5T8 | T G S N P E Q L | F A A G Y A A C C F L G A L K F V A S Q R K V M K I D E A S V T A A | | |
| UniRef90_M5P3K3 | D A T N P E Q L | F A A G Y A A C C F D S A L Q L T A K K A R L H I D T E V T A H | | |
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| UniRef90_M1KTF7 | Q A T N P E Q L | F A A G Y S A C C F D S A L Q L V A R K E R L S S E T V T A H | | |
| UniRef90_F3Y945 | N A T N P E Q L | F A A A Y S T C C F N S A L I S V M K Q E K V V Q G E S T V D A H | | |
| UniRef90_E8RN07 | G E T N P E Q L | F A A G Y A A C C F I G A L K F V V G G Q K K V I K V P E T K V T A T | | |
| UniRef90_UPI000472785A | D G T N P E Q L | F A G G G W S A C C F I G A M G R V A K E M D V Q L P D T A V D A E | | |
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| UniRef90_G6E763 | D G N N P E Q L | F A S G F A A C C F L S A M K F V A S Q D K D V P A D A S V N A T | | |
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| UniRef90_R4V7A8 | E G T N P E Q L | F A C G Y S A C C F L G A M Q F V G G Q E G I K V P E T K V T A T | | |
| UniRef90_D8JXL5 | E G H N P E Q L | F A L G W S S C C F F G Q A V V L L A K K H G L D G Q A A R V G C K | | |
| UniRef90_UPI000287A5C2 | S K S N P E E L | F A S G Y A A C C Y D F G A L N L M A K K A G H Q I D S T T T A K | | |
| UniRef90_H8GYH5 | P G T N P E Q L | F A L G Y Y A A C C F F Q Q G A L A V V A R R Q K V I E P E G S T V T A R | | |
| UniRef90_H0E7K5 | P G T N P E Q L | F A V G W A A C C F E G A I G A V A G D T D V S Q V S I D A T | | |

90 100 110 120

| | |
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| UniRef90_A8IDQ5 | I G I G P R S E G G F G I T A A L A V S P G I E R A Q A E D L V A K A H Q V C P P |
| UniRef90_Q1J185 | V G L Q R N G L A F A L D V E L E G H F P G S S E Q A H A L M H A A H Q V C P P |
| UniRef90_W2US06 | V S I Q G I D S G G F G L A V E L D V N I P I S L D E A R S L T K K A H Q V C P P |
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| UniRef90_UPI000373A03B | V G I G P R S E G G F G L E V S L A V S L P G P Q E Q A Q K L I E E A H Q V C P P |
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| UniRef90_UPI000378E484 | A A I G P I D K G F A I A V T L T V D G D M P E A D A R K L V D A A H E V C P P |
| UniRef90_K6ZM12 | V S I L G A I D G G F G I A V K L L E I S G D M D K A Q A Q T M V D K A H K V C P P |
| UniRef90_F7RX61 | V S F G P I E Q G G F G I A V K M D I S L P G L D R A D A E K L V E T A H K V C P P |
| UniRef90_U3TVT5 | V G I G S I L P T G F G I E A K L N I H L P M D M A A E A Q K L V D A A H I V C P P |
| UniRef90_F1ZDN1 | V G I G P R A E G G F G L T V A L E V S P G V E R A G G E E L I A R A H Q I C P P |
| UniRef90_U7KSC4 | V K L G K N D E G F F L G V D L L E V T I P V E D D K A Q E E L A D A A H Q M C P P |
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| UniRef90_Q48FP8 | V G I G Q I P G G F G L D L D H V S P G L E Q A D A Q L V D A A H V V C P P |
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| UniRef90_UPI000467A54C | I G I G K D V D G G F G L T A Q L I G Y P G L D Q D V A D D L M E K A H G V C P P |
| UniRef90_W0QKW3 | V G I G Q K E S G A F S L D L D I T I T V E G S L E E A K K L I E K A H E V C P P |
| UniRef90_A0A022FS73 | V D L G Q A G D A Y F L A A R L N V S L P G L D R E V A Q S L A T A A A H Q I C P P |
| UniRef90_A0A024HHS7 | V G I G A V P T G F A I E V E L R I S L P G P R D Q A E E L V N R A H I V C P P |
| UniRef90_15C972 | A H L G K T A A G G F G L A V D I E V K I P Q A A E E A Q K L V D A A H E V C P P |
| UniRef90_UPI0004779063 | V S L L H K G D D G Y M L S V L L E V A I P G L D E P Q I M E L A E A A H Q M C P P |
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| UniRef90_C5AKT9 | V G I G A I P N G F G I E V E L R I L P G M D R E A A Q A L V D K A H I V C P P |
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| UniRef90_UPI00037347A2 | I D L L N L G D D G Y G L A A R L N V A V L P R L P A D T A R A L V E A A A H R T C P P |
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| UniRef90_D8MRU8 | P G T N P E E L I G A A H S A C C F S M A L S L M L G N A G F T P E S I D T V A D | |
| UniRef90_UPI0003070B7D | T E S N P E E Q L F A A G Y S A C C F F N N A L M H I L K G A D K G T I E P E V R A T | |
| UniRef90_R4X3G6 | G G T N P E E Q L F A A G Y A A C C F H G A L S L L A A R A G I E T P D A S V A V T | |
| UniRef90_I7A544 | P G T N P E E L I G A A H A G C C F S M A L S L M L G Q A G L T A E R I E T R A E | |
| UniRef90_V8A6H5 | P G T N P E E L I G A A H A G C C F T M A L S M I L G E A G L T A T S L E T K A T | |
| UniRef90_M5TWX6 | T G T N P E E Q L F A A G Y S A C C F L G A L R H V A G H E G V S P D A S V T G R | |
| UniRef90_Q0B3D7 | N G T N P E E Q L F A A G F A A C C F H G A L N L L T Q R A D I E P A D T V V E V R | |
| UniRef90_J2L426 | A G T N P E E L I G A A H A G C C F T M A L S L I L G E A G L K A D H M E T S A K | |
| UniRef90_G6XGT3 | P G T N P E E L I G A A H A A C C F T M A L S L F L G E A G F T A T S L D T K A T | |
| UniRef90_C8WBN7 | E G N N P E E Q L F A A G Y S A C C F L G A M K A V A P K L N L T V P D A T V E A T | |
| UniRef90_UPI0003B68CCF | E G T N P E E Q L F A A G Y S A C C F F L G A K F V A G Q K K L K D D T T V T A T | |
| UniRef90_UPI00046ACCD3 | P G T N P E E L I G A A H A A C C F S M A L S L M L G N E G Y V P E S I D T E A D | |
| UniRef90_H0JBA5 | P G T N P E E L I G A A H A G C C F S M A F S M L L G Q N G L T P E R I E T K A D | |
| UniRef90_D4Z3Z2 | P G S N P E E L I A A A H A S C C F T M A L S L I L G E A G L T A E K M E T N A V | |
| UniRef90_UPI00016A43CF | D G P N P E E Q L F A A S Y A A C C F H G A L S L L A A R A T V P I D G A S V S A S | |
| UniRef90_C1DH35 | P G T N P E E L I G A A H A G C C F S M A L S L A K L L G D A G L T P E R L E T R A D | |
| UniRef90_Q1IUZ2 | A G T N P E E L I A A A H A G C C F S M A F S A E L G K A G F T P T S I D T S A T | |
| UniRef90_UPI0003658B99 | K G S N P E E L I A A A H A G C C F T M A L S L I L G N A G Y T A T A L D T K A V | |
| UniRef90_C6B1Y3 | P T A E N L F G I A W S A C C Y I G A I E F A A S Q R K I K L T P D P E V D A E | |
| UniRef90_H0J5D1 | P G T N P E E L I G A A H A S C C F S M A L S M I L G E K G Y T A E A I D T N A R G | |
| UniRef90_G7H005 | N G S N P E E L F S A G Y A A C C F L G A L R L V A K N A G V A V P D V T V T A G | |
| UniRef90_UPI0004412E93 | K G H N P E Q L L A L G Y G A C C F L G A L R A V A G Q K S V V K P E G V E V K T S | |
| UniRef90_UPI00035C6E79 | N G T N P E E Q L F A A G Y A A C C F H G A L L F H A K A K G L D H R S S V G A A | |
| UniRef90_UPI00022603DB | P G S N P E E L I G A A H A S C C F T M A L S L I L G N A G Y T A T A L D T K A V | |
| UniRef90_UPI00036A20EF | P G T N P E E L I G A A H A G C C F T M A L S G K L E Q A G L K A Q E L R T T A T | |
| UniRef90_W8IIQ9 | P A A E N L F G A A W S A C C Y I G A I E F A A S Q R K I K L T P D P E V D A E | |
| UniRef90_UPI00035DBCAC2 | T G T N P E E Q L F A A G W S A C C Y I G A I E F A A S Q R K I K L T P D V A V D A E | |
| UniRef90_M5FRU1 | D G H N P E E Q L F A L G Y A A C C F I S A M G V V V A S K M K V K L P D V A V D A E | |
| UniRef90_S4YU45 | D G N N P E E Q L F A M G Y A A C C F D G A L G A V K G A E K A K F D S T T E V S | |
| UniRef90_H0FTC0 | P G T N P E Q L F G V G Y S A C C F M G A M K R A G A T H G I T A V P D V A I D A S E | |
| UniRef90_Q5WG52 | I G T N P D E M L L G A A A T C C F L I T Y A A M L E R A Q I E V E S L T L H A E | |
| UniRef90_B7L2D5 | P G T N P E E L I A A A H A S C C F T M A L L A F Q L S O S A G L K A T S L D T K A V | |
| UniRef90_UPI00046866D3 | K G T N P E E L I G A A H A S C C Y S M A L S M I L G E H D L V A D S I D T K A T | |
| UniRef90_Q04CY8 | G T N P E E L F A A G Y S A C C F N S A L D Y I I K K S D G I N G S S T V K V R | |
| UniRef90_K5W6N6 | D G Q N P E Q L F A M G Y S S C F L G A L Q L M G S R A G K T D K A Q V H A T | |
| UniRef90_W9AQH9 | L G T N P D E M L L G A A A T C C Y I L T L A A M I R E S S L P L K H M A L E S E | |
| UniRef90_UPI0004727B17 | P G T N P E E L L L G A A H A A C C F S M A L S L I L G E A G L T A K S I D T K A V | |
| UniRef90_W7AWA2 | G G T N P E E L F S M G Y A A C C F G S A F Q S V A R K N K S K A K A E I T V E | |
| UniRef90_I4WF76 | P G T N P E E L L G A A H A G C C Y S M A L L A L G L E S A G I T A E R I E T R A D | |
| UniRef90_F2HIS0 | V G T N P D E M L L G A A A S T C C Y S I T L A A M L E R N D I L L E H L K V D A K | |
| UniRef90_UPI0003748418 | S G T N P E Q L F A A A A Y G A C C F H G A L H M L A T R V G L E P A A R V D V Q | |
| UniRef90_S4D2P9 | G A T N P E Q L F A A G Y A A S C C F F N S A L E L I M E K K G I K A A S T I S A T | |
| UniRef90_UPI00036BBB29 | K G T N P E E L I G A A H A S C C F S M A L S L M L G E A G F T P D E I N A S S A R | |
| UniRef90_G8N948 | P G T N P E E L I A A A H A G C C F S M A L S A A L E R E G F P P K R V A T E A R T | |
| UniRef90_R2RFE0 | L T D P E R L F A A A Y S S C F N Q A L T V A K E R F S I A A H S I V S A T | |
| UniRef90_Q3K451 | S G T N P E Q L F A V I C W S A S C C Y I G A I E F A A S Q R K I K A F P A I A I E A Q | |
| UniRef90_G0HAP4 | D G A N P E L F A A G Y A A C C F H S A L Q M V A R T K K V S V A D S S V G T R | |
| UniRef90_UPI00047305FE | I G T N P D E M L L G A A A T C C Y I L T L A A M L E R S G I M D S E A V V V D V T | |
| UniRef90_K9XKQ6 | P G T N P E E L I A A A H A A C C Y S M A L T L T L N Q K G Y Q P Q Q V Q T Q A T | |
| UniRef90_UPI0003727DBB | K G T N P E E L I G A A H A G C C F F A M Q L S F F L N E A D F T A T T L D V D A T | |
| UniRef90_L8WVA2 | Q G N N P E Q L F A L G Y A S C C F F N S A L D Y I K R A K N I S G N S I L K V R | |
| UniRef90_S2TN64 | D G T N P E E L F A A G Y S A C C F F N S A L S L E L G N A G F T A D S I D T K A T | |
| UniRef90_I4WQ80 | P G T N P E E L I A A A H A G C C Y S M A L F A F T L T E K G Y Q P E S V Q T Q A T | |
| UniRef90_UPI00047BDC8C | P G T N P E E L I A A A H A G C C Y S M A F A F T L T E K G Y Q P E S V Q T Q A T | |
| UniRef90_UPI0004133E18 | I G T N P E E L I A A A H A G C C F T M Q L S F S L I S E A G F T P E N L D T V A H | |
| UniRef90_UPI00040D0069 | I G T N P D E M L L G A A A T C C Y I L T L A A M L E R A E L P L K Q M Y V D V T | |
| UniRef90_H4F938 | P A A E N L F G A A W S A C C Y I G A I E V A A S Q R K I K L P G I A V D A E | |
| UniRef90_F2GD75 | K G T N P E E L I G A A H A S C C F T M A L S F A L S D A G Y D D D G E L N T T A K | |
| UniRef90_UPI000347422B | P G T N P E E L I G A A H A S C C F F S M A L S L V L G E S G Y T P D E V D T Q A R | |
| UniRef90_Q2N5Y5 | P G T N P E E L I A A A H A S C C F T M A L S F K L A E E G F E N G T V T T S A E | |
| UniRef90_A0A016QS20 | N G T N P E E L L L A A A H A G C C F T M Q L S A L L A S D G H D P Q D L R T E A T | |
| UniRef90_D1CDN8 | G G T S P E E L I A A A H A G C C Y A M A L S N T L A K H G S P P E N L S V D A T | |
| UniRef90_C1ADY9 | E G N N P E Q L F A A G Y S A C C F L G A L K F V A S Q R K I V T V P E S T V T A A | |
| UniRef90_UPI00026CC10D | I G T N P E E L I A A A H A S C C F T M A L S F A L G A G F T A G K L E T T A K | |
| UniRef90_UPI000361BB90 | G A T N P E Q L F A A G Y S A C C F F N G A L G A V L K Q K G I V A E A T V S A T | |
| UniRef90_A3VIB9 | P G T N P E E L I G A A H A A C C F S M A L S N I L G E S D I V P D K I E T T S T | |
| UniRef90_G7DT64 | D H S N P E A L F A S T Y S A C C F I G A M G L A A G Q L K A K L P P T V T D V S | |
| UniRef90_G2M083 | UniRef90_S1NAB1 | K G T N P E E L I A A A H A G C C F T M A L S A Q L T E A G F P P A S L D T R A D |
| UniRef90_A1WDC6 | R G T N P E E I L G A A H A A C C F T M A F S F A A D K A G F A T E R V D T T A S | |

| | | 90 | 100 | 110 | 120 |
|-------------------------|-------------------------------------------------------------------------------------------|----|-----|-----|-----|
| UniRef90_UPI000368D65D | V G F G P R D D G K F G I E V A L E I L P G L E Q A A A E D L V Q K A H V V C | | | | |
| UniRef90_UPI0003B498CA | V S F G P S E D G G F G L L A V E I V A V N I P V D A A K A Q E L I E L A H G F C | | | | |
| UniRef90_A0A019Q9N9 | V N L K D K P D D G F K L L S V A V E G I D M N E E A Q K L A D K A H A F C | | | | |
| UniRef90_I6T517 | V A L L N H G E A D F T I E V L L T V F I D M P K D E A I R F V E E A D D Q V C | | | | |
| UniRef90_Q5FPG8 | V S L L D K S G E G F A I T Q S H L T L R P G A S E A Q F I L E I A N K A K E G C | | | | |
| UniRef90_A0A023XW23 | I D L L D E G T Y A L R A R L N V S L P G L D R E V A R G I V D E A H Q T C | | | | |
| UniRef90_A0A023NSQ5 | V T F G R D P D G L F T L I T K I R I S P G L D R V L A A E L V R N T R I C | | | | |
| UniRef90_UPI000219269B | S T I N R D G E G F S I S A A I T A T F H G V E Q A V A D D L V A K A H E F C | | | | |
| UniRef90_UPI000374441D | V D L L N Q G E N H D Y S I A A K I H V I A S N T D D D V Q K A V E A A H E V C | | | | |
| UniRef90_B1V142 | C T L L N S V D E G F R I T S R I E A T L F G V E Q A Q A Q D E L V Q Q A A H A F C | | | | |
| UniRef90_J0Y801 | V D L V N S P E D G Y Y L Q A R L R V S P G L E H S A A Q A L V D R A H Q T C | | | | |
| UniRef90_D4YFC3 | V R L Y K K P D A D F Q L L A V E I T V A L R D D T L E V Q K L A D E A H K V C | | | | |
| UniRef90_UPI00034A3B18 | V S I I E K Q A S G F G L S V A N L T A K M E V T Q V E A E E L M E K A H K A C | | | | |
| UniRef90_H5UYM6 | V S L L D K A G G G F E I T K V A V L T S E P G V D K N E F D E I Q K A K A G C | | | | |
| UniRef90_UPI000477A5A6 | V T L L E Q D D S G F T I S A I H E T R A V R D V R D Q A A F D K C C A Q T A K E N C | | | | |
| UniRef90_W6WAR4 | V G L G P V P V G Y A L A V E L V A S L P G I E R A V A I E E I V A G A H Q R C | | | | |
| UniRef90_UPI000370198E | I T F G N D G A G Y G L K A A L T A R V S G V T P D V A A D L A T A A H A V C | | | | |
| UniRef90_V2JFK0 | V T L L E K E G G G F S I T A I H L D V A V R L D Q A A F D K C C A Q T A K E N C | | | | |
| UniRef90_F5STJ3 | V D L L Q S D N H D Y N L A V T L H V I A S N T D E D V Q K A V E K A H E V C | | | | |
| UniRef90_UPI0003A1EC53 | V S I I L G K R E P T Q F G L A V T H D I H A P N T K D E A A E V A R V A H E L C | | | | |
| UniRef90_K8P8V1 | V S L L D K D G D G F S I T A V H L T L K A K I I P Q E Q F E K L T G M A K A G C | | | | |
| UniRef90_G7FBX3 | V S L L D E V D D G F A V S E I I E L L V V N A K V A D E Q F Q T L C E D T K K G C | | | | |
| UniRef90_D8MRU8 | V S L L D K S G D G F K I T K I A L V K L P G I D S S K F D E I I N Q A K A G C | | | | |
| UniRef90_UPI0003070B7D | A Y L L P D K D G D G V K L A A E L D V S L K D S Q E E A E M F V E K A H N Y C | | | | |
| UniRef90_R4X3G6 | V E F G R D P D G L F V L T A H T R V Q M P V E R T V A E E I V R N T E R Y C | | | | |
| UniRef90_I7A544 | V T L L D K E G E G F A I T A I A L L T L E A R I I D E A Q F Q Q I L A N Q A K E G C | | | | |
| UniRef90_V8A6H5 | V S L L D K T E G G F E I S A I H L D L K P G A D Q A K F E E I L A T K A K E G C | | | | |
| UniRef90_M5TWX6 | V G I I G P V S T T G F A I D V A L T I S L P G V D S E Q A R D V S K A H V V C | | | | |
| UniRef90_Q0B3D7 | V S F G R D P D G G H A L L I D V Q V R M P V D R S I A E E L V V R A A E R L C | | | | |
| UniRef90_J2L426 | V T L L E S V I E G G G F A I T A L H L D S L S P G A D Q A K F E E I L A G M A K A G C | | | | |
| UniRef90_G6XGT3 | V S L L D K K G D G F A V T R S H L E L A A Q I P D A Q F K E L I A N K T K V G C | | | | |
| UniRef90_C8WBN7 | I G I G P R S E G G G F G I T A D L S I S V S I P T D R E T A E A L I V E T A H Q V C | | | | |
| UniRef90_UPI0003B68CCF | V G I I G P R E D G K F G L E I I A L C Q P G I E D G A F F D K I L V A N Q A K E G C | | | | |
| UniRef90_UPI00046ACCD3 | V S L L V K S G D G F K I D A I A L K C Q P G I E D G A F F D K I L V A N Q A K E G C | | | | |
| UniRef90_H0JBA5 | V T L L D K V G D G F E I T T D L T M K A K I P Q E Q F T T I A N Q A K E G C | | | | |
| UniRef90_D4Z3Z2 | V T L L E Q Q E G G G F A I T A S R I S L S K A T I D D A H F Q E L I A A A K A K A N G C | | | | |
| UniRef90_UPI00016A43CF | I I D F C O R D P D G L F M L N A N I R V R P G V E R A V A I A E I V R H A E R F C | | | | |
| UniRef90_C1DH35 | V T L L E K Q G E G G F A I T V I D L T L K A R V P S E R F N E I I A N Q A K A G C | | | | |
| UniRef90_Q1IUZ2 | L T L L D K T D A G F T I T A I H L D V H P N I D Q A K F E E I I A N G A K K G C | | | | |
| UniRef90_UPI0003658B99 | V T L L E Q V T D G Y A I T A V H L T L K A K I D Q E T F F E K I I A A A K A G C | | | | |
| UniRef90_C6B1Y3 | I D L L N V D N G S F F L R A R L N V S L P G I D R D V A Q E I I D A A H G C | | | | |
| UniRef90_H0J5D1 | V T L L S Q S T D G F D I S K I H L E V E A S V D E A A F K E A A E M A K D N C | | | | |
| UniRef90_G7H005 | I I G K D T A D N G F G L V A D I A V A L P G L D Q A K A D E I A Q A A H G F C | | | | |
| UniRef90_UPI0004412E93 | V T I I G P V G M P G F G L K V S L R V T G L D G V E D K A G L V V Q A A H E F C | | | | |
| UniRef90_UPI00035C6E79 | V G I I G Q A E G L W L T V T L V N L P E E V S A D G R D L V L A A A D M T C | | | | |
| UniRef90_UPI00022603DB | V S L L D K L D A G F A I T S I H L T L P G V S Q E E F K K D L V A E K A K E N C | | | | |
| UniRef90_UPI0003620EF | V S L L D K V D D G G F S I T A V H L D L V V A K I I S Q E T F D K V L V A K D A K E N C | | | | |
| UniRef90_W8IIQ9 | I I D L N V N D G S Y F Y F L R A R L N V S L P G I D R D V A H E L I H A A H E I C | | | | |
| UniRef90_UPI00035DBCAC2 | I I D L C O N S G D Y V F L R A R L N V S L P G I D R D V A H E L I H A A H E I C | | | | |
| UniRef90_M5FRU1 | V H G P Y P G F A I A V D L D I H M E A K K E K V Q E A V D K A H E V C | | | | |
| UniRef90_S4YU45 | V D L L K K G E G L D F F K L A V K I I H V I G E N T E D E F Q Q L V V E K A N K V C | | | | |
| UniRef90_H0FCT0 | V S V S G K V D N G N F A L G V T L A V S P G I T A E Q K Q L L V E S A N H N L C | | | | |
| UniRef90_Q5WG52 | A D V D V T N N F E F F R A I T V L V L K E P T Q L D Q A K F D E I A F K A E E S S C | | | | |
| UniRef90_B7L2D5 | V T L L V Q D G D G F K V T K S A L T V I P G I D Q A K F D E I A G N A K E K G N C | | | | |
| UniRef90_UPI00046866D3 | V V H L E E K D G G F T V T K V H L D V S P N A T Q E Q F F D A T T N N A K Q N C | | | | |
| UniRef90_Q04CY8 | V S L L S Q N E I P D V V L L G V E I K V I E G I S L D K A Q A L L N L N K A H E T C | | | | |
| UniRef90_K5W6N6 | V Y V Y H P T D P N F G L R V E T V E G C E D D E K L R R L I V D K A H E E S S C | | | | |
| UniRef90_W9AQH9 | G H V D V T D D P N G V I T Y K K I V H T A T E R E Q E K L Q R R L A N D K A K T G C | | | | |
| UniRef90_UPI0004727B17 | V S L L T K A A D G F E I D A V A L T L K P G T T D E Q F Q A L L A N K A H E T C | | | | |
| UniRef90_W7AWA2 | I I A M E D D E D G G Y K L I A A K I T G F I T E T R E E A E H L M Q E A H K K M C | | | | |
| UniRef90_I4WF76 | I T L E Q E T N G F S I T A I R T C R P R I D I A M F E Q I A E A T K Q H C | | | | |
| UniRef90_F2HIS0 | G I V D V T K G T F T Y E K I T Y H V A M K L T K E K A I K L A K R A E E S S C | | | | |
| UniRef90_UPI0003748418 | V A F G R D P D G L Y M L T T D V R I L P G V E R R V A E G L V V R N A E R L L C | | | | |
| UniRef90_S4D2P9 | V S V Y S E G E A D F K L G V E L E G K I D G S Q E E T Q E L L E E A H H V C | | | | |
| UniRef90_UPI00036BBB29 | V S V I I E S Q G G F Q I T F I D L S V T P G I D E A A Q F K E I I A T K A K D G C | | | | |
| UniRef90_G8N948 | V H I I E M V E G R P T L A R I E L V T E P G I S P E K F K Q E I A Q A A K E G C | | | | |
| UniRef90_R2RFE0 | V D L L Y E E E D A T F S L G V K L S I Q M P N S K K Q A E L V V K Y A D R I I C | | | | |
| UniRef90_Q3K451 | I I D L L H G E K G F F L Q A L I R V S L P E I D P E E M A H R I L I E A A Y R N C | | | | |
| UniRef90_G0HAP4 | V G I V P G G G N G G F E L S V H L E V T I P M P T Q E A Q T L A D A H A H Q V C | | | | |
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| UniRef90_L8WVA2 | V S V I I G E V K G G G F G I G V E I T A I G A D A S L V H E A D D M C | | | | |
| UniRef90_S2TN64 | V S V I I L S K E S V P D V V L L G V E I E G F I A N P L S K V Q E L L D E A A C C | | | | |
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| UniRef90_UPI00047BDC8C | C I I E P Q T G G F K I K I H E L E T V P G I D T A T F Q Q I A Q E A E Q I C | | | | |
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| UniRef90_D1CDN8 | C N F E F G E G G A R I T S I D L N V T G R V S E E E F K S I I A E E A E K G C | | | | |
| UniRef90_C1ADY9 | V G I I G K R D D G Q F G L D V E L T I S P G V D A A T A T E L I M Q Q A A H V V C | | | | |
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| UniRef90_Q5FPG8 | Y S Q V I K A K I T L D A T F E G |
| UniRef90_A0A023XW23 | Y S K A V C G N I D V A V A L |
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| UniRef90_G7FBX3 | I S S K L L N T S I K L T A T L N |
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| UniRef90_H0JBA5 | V S K V L K G K I N L N A T L E G |
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| | 90 | 100 | 110 | 120 |
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130 140

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| UniRef90_F8KZ32 | V S K [L] F K A E [I] T V S A T [L] K |
| UniRef90_B2JWW2 | Y A K M A R Q G [T] V N I V A V |
| UniRef90_UPI000287CEC4 | I S K A I [K] G N [V] Q [L] E [E] E A T |
| UniRef90_UPI00036BF653 | I S R A I [K] G N V E L V L E |
| UniRef90_A2TQL8 | L S K [L] M K A E I T L Q A T [L] |
| UniRef90_UPI0004449DA7 | Y S R A F A H G A V V N V S |
| UniRef90_A4T1G9 | Y S S N A T R G N I E V T L T V T |
| UniRef90_UPI000411933D | L S K [L] L N A E I T L E Y D L K |
| UniRef90_X3WEF8 | V S S K A L S I K I T L L E A T L |
| UniRef90_G2EAP0 | I S S K [L] L N A E I T L L E K T L K |
| UniRef90_UPI0003686019 | I S S K [L] L N C T I E L N S E L K |
| UniRef90_UPI000346DA6A | I S S R L L D T K I T S E A T L |
| UniRef90_UPI00040CECF2 | L S S K A L A G V P E V T L V A T |
| UniRef90_A9BLN9 | I S S R A I Q G N V D I Q L E V T |
| UniRef90_UPI00018514C9 | L S R L L F N A M V T I E T E L S G |
| UniRef90_I4VSU2 | Y S S K A T R G N I A H T V T |
| UniRef90_UPI00047EB4C7 | V S S K [L] L N V P I T L N F E |
| UniRef90_K6YMJ9 | V S S K V L N A E I T L T T A T L |
| UniRef90_UPI00047B18AC | V S Q A L A G S I T I E A T L Q |
| UniRef90_UPI0004786A01 | Y S R A R A H G A V V K V T |
| UniRef90_UPI0004412262 | V S R V L N A T I T L D A R L E |
| UniRef90_H8GG52 | I S S K [L] L Y A G G I T M D A K L |
| UniRef90_X7EE5 | Y S S N A T R G N V D V |
| UniRef90_T1GLD5 | I S R A V V K G N V E I S L |
| UniRef90_U5LEG0 | Y S R A L R H G A E V T V |
| UniRef90_UPI0004622252 | I T R A L A G N V K V S L E |
| UniRef90_B1YFS3 | I S S K A L Q G N V Q I E C Q I Q I V |
| UniRef90_R7ZJG5 | I S S K [L] L N A H I T M D A Q L |
| UniRef90_B4D606 | V S R L L A A A E I T L D A E L L |
| UniRef90_UPI00025589D6 | Y A K M A R Q G [T] V N I V A V |
| UniRef90_U3QRK4 | I T R A I K G N V E V K L E |
| UniRef90_R9C345 | V S S Q A L T G T T I T L T A K |
| UniRef90_UPI00046601B0 | V S S K A L Q A |
| UniRef90_UPI0004275194 | I S S K [L] F N A E I T L K A T L |
| UniRef90_UPI0003FFAEET | I A N S L K [L] P V E C E |
| UniRef90_A0A052JEL9 | I S S K A I H G N V E V M V E A N V I |
| UniRef90_U1X920 | I S S R A V V K G N V E I E L E I D |
| UniRef90_G9QJU3 | I S S R A L K [L] E I S S E Y T L T A |
| UniRef90_UPI0004099E05 | Y S R A T Q G N V T T N I K V E |
| UniRef90_G3JIS3 | Y T K A V V K G N I E V T Y E A E |
| UniRef90_R2Q8K6 | Y S K A T E G N I P T E T |
| UniRef90_U1QTQ5 | V S K [L] Y Q G E I T L E A T L K G |
| UniRef90_UPI0003B5726D | Y S K A V V Q N G D I D V E V V A V |
| UniRef90_K9EA59 | V S S K A L A G P E L T L T A |
| UniRef90_D4GXH4 | I S R A V V Q G N V E L K I E |
| UniRef90_E3E227 | F S K A L A G E F D A E A V L |
| UniRef90_UPI00035C283C | Y S K A T R G N V Q I A I N L |
| UniRef90_X5PVY5 | V S K [L] L K A A E I T L L S A V L L |
| UniRef90_UPI0004103FEE | V S S K A F N L E I S L E A N L E |
| UniRef90_UPI00035D4681 | V S R A L A G V A D I R L K |
| UniRef90_X6GDC9 | I A N S V N F P I E C R A E I E G E A V |
| UniRef90_C6M7M5 | I S A V L N A E I S L S A E L |
| UniRef90_UPI0004716BD5 | V S K [L] V C E I T L D A S L |
| UniRef90_G8T827 | V T R A L A G V A T I T L S L V G A A I |
| UniRef90_UPI00042337C4 | V S S Q A L A G V K N M T L R A E |
| UniRef90_X0MY56 | L S K V I N A E I S L D A A L |
| UniRef90_W0AJV6 | V T R A L A G N V Q V |
| UniRef90_UPI0002EBD2B5 | Y S R A T R G N I V |
| UniRef90_A0A016Q824 | Y S N A I R G N I Q V S T T V |
| UniRef90_N8TS61 | I S V L L D T E I V V E Y S L S K |
| UniRef90_S2DHK7 | V S S K A L S A V P I T L E A E |
| UniRef90_UPI00047C3232 | I S S K A L N V P I T L T A T |
| UniRef90_H1Y4D1 | I S R L L D T K I T S S A T L |
| UniRef90_UPI0003FB68D0 | Y S K A T R G N I D V T L N V |
| UniRef90_J3H8I4 | I S S N S I R N N V E V D I E |
| UniRef90_C5QT97 | I S S R A L A G V G E I T L D A T |
| UniRef90_D3F0L1 | Y C R A T R G N I H |
| UniRef90_KOPTW6 | V S K [L] L N T H I T L D A R L E |
| UniRef90_UPI000346EA4D | V S S K A L F K T E I S S E A K L |
| UniRef90_R9GUR5 | Y S R A L K H G A V V N I S |
| UniRef90_B0D1K4 | V S V A F S F P L E L E A I L |
| UniRef90_E4RW96 | V S S Q A F S F E I V L Q A N L |
| UniRef90_J3C523 | V S S K A L S G V E I T L D A K L V |
| UniRef90_Q0G1P9 | I S S N A V R N N V D I K I |
| UniRef90_I0C573 | V S S D M L R Q P V P T E T I L E |
| UniRef90_B9L0V0 | I S K [L] F A N N T E I V L D A K |
| UniRef90_E6QL97 | Y S R A F K G N V D V K L S V E |
| UniRef90_W1S6K2 | I S K [L] L N C E I T L L E R S L |
| UniRef90_M7XHC3 | V S S K A L S G D I E L E A T L |
| UniRef90_A0A031JID8 | V S S Q A L T G T T I T L S A K |
| UniRef90_Q9CJD0 | V S S K A L A S V E L H L N A T L V |
| UniRef90_S1SL96 | Y S K A V N G N V K V T Y E A E |
| UniRef90_I0I9F8 | I A K A V K G N V Q I D I E P K F I A V |
| UniRef90_S0NQ49 | V S S K A L A G T T I T L D A A L V |
| UniRef90_UPI000255BCF1 | I S S R A L K G N V V I E L E A K I E |
| UniRef90_UPI00035FCB60 | V K D T L R G V P T V S I T |
| UniRef90_A0A059FKD5 | V S S A A L T G T I T L E A T L E |
| UniRef90_UPI0002F834E2 | I S S K A L S S V P I A L S I T |
| UniRef90_C9RSK6 | I S R L L K A A E I T L D A Q L V |
| UniRef90_A9WS34 | V S S K A L S S V P I A L S I T |
| UniRef90_R7ZPY8 | I S S K A L S S V P I A L S I T |
| UniRef90_G8NZT0 | I S R L L K A A E I T L D A Q L V |

1 10 20 30 40

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 UniRef90_U5EHN0
 UniRef90_V5U9Y9
 UniRef90_G9ATP5
 UniRef90_B1EM08
 UniRef90_UPI000475417E
 UniRef90_UPI0002D554A6
 UniRef90_G7GYF5
 UniRef90_S7XMV0
 UniRef90_D5T390
 UniRef90_K7SM48
 UniRef90_M2ULA4
 UniRef90_Q1R1K6
 UniRef90_UPI00036F963D
 UniRef90_H3VIK9
 UniRef90_I4XPZ1
 UniRef90_C5CFU7
 UniRef90_Q0S8C4
 UniRef90_K9NL47
 UniRef90_C7PPSS4
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 UniRef90_D5WH36
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 UniRef90_A9A2Z64
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 UniRef90_E4RZE1
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 UniRef90_UPI0003742475
 UniRef90_UPI000372B6E2
 UniRef90_G2M056
 UniRef90_I3CCQ7
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 UniRef90_W6M8W6
 UniRef90_K0DEE6
 UniRef90_B0RS49
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 UniRef90_UPI00037EA2A9
 UniRef90_A0A024HXA2
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 UniRef90_W0F4W9
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 UniRef90_A0A017SY70
 UniRef90_G9EKT4
 UniRef90_K2BED5
 UniRef90_UPI00037F9696
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 UniRef90_U5EHN0
 UniRef90_V5U9Y9
 UniRef90_G9ATP5
 UniRef90_B1EM08
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 UniRef90_G7GYF5
 UniRef90_S7XMV0
 UniRef90_D5T390
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 UniRef90_M2ULA4
 UniRef90_Q1R1K6
 UniRef90_UPI00036F963D
 UniRef90_H3VIK9
 UniRef90_I4XPZ1
 UniRef90_C5CFU7
 UniRef90_Q0S8C4
 UniRef90_K9NL47
 UniRef90_C7PSS4
 UniRef90_F0RT46
 UniRef90_V8QUM6
 UniRef90_B8P0Z8
 UniRef90_G7F849
 UniRef90_M7NHL7
 UniRef90_H3L757
 UniRef90_I0QUX9
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 UniRef90_Q9A445
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 UniRef90_M6D072
 UniRef90_D0LW96
 UniRef90_X5K475
 UniRef90_D3Q7R9
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 UniRef90_H5XMA3
 UniRef90_W6M8W6
 UniRef90_K0DEE6
 UniRef90_B0RS49
 UniRef90_UPI00024902EC
 UniRef90_UPI00037D18D5
 UniRef90_Q15VV8
 UniRef90_A0A010PJ97
 UniRef90_A0A023NQ16
 UniRef90_K9Q1W7
 UniRef90_UPI000403840E
 UniRef90_UPI00037EA2A9
 UniRef90_A0A024HXA2
 UniRef90_R4WPL0
 UniRef90_W0F4W9
 UniRef90_UPI00037F3514
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 UniRef90_A0A017SY70
 UniRef90_G9EKT4
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 UniRef90_UPI00037F9696
 UniRef90_X1A374
 UniRef90_N9GN44
 UniRef90_W6U0Z5
 UniRef90_E3Q379

50 60 70 80

The alignment shows a vertical yellow bar running through the sequence at approximately position 55, indicating a highly conserved motif across all the UniRef90 entries listed. The sequence at this position varies, but the overall conservation is very high.

90 100 110 120

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|------------------------|-----------------------------------------------------------------------------------------|
| UniRef90_K5BQ21 | I D K R S P E D H K F T R V V V L L S V A N A C P |
| UniRef90_S9S6K5 | V R L V T Q G E G F L I D R I A L T L L T D V D P A R F H Q I A E G A K R D C P |
| UniRef90_UPI00035EA81B | V E F T P G T G I T G I K L T V R G V V P G I D N D T F V K L A Q E A K A G G C P |
| UniRef90_UPI000455F60F | V H L G K P A E M E F A L A V D I K V E G V E D E E L I K A G H E A C P |
| UniRef90_UPI00036C85A5 | G Q M E E D G G G C F E L V V V V T I T D A S R Q T V A L E L H Q R A H G L C F |
| UniRef90_UPI00041748F9 | V T L R I V D G A P A I T A I K L V A V P G I D D D A K F Q E A A A A A K A G G C P |
| UniRef90_U5EHN0 | V T L G P D P A G G F R I K I K L T V R P G L D A E G F Y A A A V A A K N G C P |
| UniRef90_V5U9Y9 | G T M I D T A T Q G G G F T R I V L V H P R V T I D V A L A E R L H H A A H E K C Y |
| UniRef90_G9ATP5 | G T M V E G D R G H F T L K P R V A L R N K D D V A R A E A L H H H A H E A C F |
| UniRef90_B1EM08 | V S L L D K V D A G F A I T K I A L K L L Q I A N A C P |
| UniRef90_UPI000475417E | L E S G N D G T K I S R T I V L H G A L S D E Q R E R L L Q I A N A C P |
| UniRef90_UPI0002D554A6 | I V L L D K Q G E G F A I T H A K L T L E A E I P E A Q F K E L A E K A K A G G C P |
| UniRef90_G7GYF5 | G T M R Q D G N G G S F S E V V L L R P R V T V A D E D A L A A H D R A H E W C F |
| UniRef90_S7XMV0 | V T F D P A E G I T G S H L L V S A K V A G L S D E D F Q R L A Q E A K E G G C P |
| UniRef90_D5T390 | V D M A P D H E G F Q F V H A Q V K I P Q V N E Q E A L D I L A A E K R C P |
| UniRef90_K7SM48 | G D M E E D E R T G S V T L H P R V T L S A T S D A E K A L D L H H K A H D M C F |
| UniRef90_M2ULA4 | V E L L G S M K D L L D G L R V N L L V K V R G S E Q E L E K V V N K A R E V C P |
| UniRef90_Q1R1K6 | G R M I E T K S G R H F D K V T L K I G E N D D S D L A T S L H E K A H S L C F |
| UniRef90_UPI00036F963D | G I M S N E S G K F V V M S E I I L R P K L V I M D E K A L R I L Q K A E E A C L |
| UniRef90_H3VIK9 | G S A V F E N G K F K M E K I T H Y P T I S L T E E K T R L L D I A D H H C M |
| UniRef90_I4XPZ1 | H D N S Q E Q K G K Y A L H V K L T L K G V L T D A Q R E E L H R V A D R C P |
| UniRef90_C5CFU7 | G V L L D P E R E A G Y K K I D V V M K V D T D A D E D T L K K W L E T I E Q R C P |
| UniRef90_Q0S8C4 | V S L L G P D N P G F K L T G L K L T V R G E V D A D G F A K A A Q A A K E S C P |
| UniRef90_K9NL47 | V D L G Q T G A A Y F L Q A R L T L R V P G L D H G V A T E L A H N A D A I C |
| UniRef90_C7PPSS4 | V T I I A P S K G S I S D D E L T L D A S P I E S E E A F L E Y A I G A K Q N C L |
| UniRef90_F0RT46 | G K L L D K V E K G F L M T K I H I R P T V V I A E E S R R E L F E K A E K Y C L |
| UniRef90_V8QUM6 | G V M Q T H A Q G G A F T H I L L K P T I T V S R E Q A M N L H H D A H E K C F |
| UniRef90_B8P0Z8 | V F L G H P D D P T F G L R V E I T V E G C E D D D V I T A A H E Y C A |
| UniRef90_G7F849 | |
| UniRef90_M7NHL7 | V D F D T D G P K I S A I R L T L K A T V P G E D E T E F Q K H A Q A A K E G G C P |
| UniRef90_H3L757 | G T M R E G K K G C F T L K P E I T I I R P G D D I N R A Q A L H H R A H D L C C Y |
| UniRef90_10QUX9 | G T M V E G E K G R F T R I V E V T V K P E T N I E L A T D L H H K A H E L C C P |
| UniRef90_D5WH36 | V N I I Q G T G A A W F L G A E F D I R V P G V E R E V V E K I A H L A H Q I C C P |
| UniRef90_L8WRP9 | F S I I G D A E G S G F G L G V E L T V I G A D S A L A Q A A A H E I C C P |
| UniRef90_A9AZ64 | V H I I E R G D A G F S I T K I E L H T E P N I D A A A F A E F A E K A K V N C P |
| UniRef90_H4F5M5 | G V M E I D A E G T G R F T D V L T I K A G T Y P D I A A E L H A E A H E K C C F |
| UniRef90_Q9A445 | S S F D K E T T P H E R F E R I I T L E G D L T D E Q R E R L F Q I A E K C C P |
| UniRef90_UPI0001FFF202 | V S L L G P D K D G F K L T G I T L K V R G E V D D D G F Q Q A A R A A K D G C C P |
| UniRef90_A0A023CAB4 | R D D A E E Q K G K Y K L N V K L T L K G V L S D E Q R N D H R I A D R C C P |
| UniRef90_UPI0003125A8B | V S F S P A D G I T G V H L Y V V G S V P N L S E P D F R T I A E R A K K D C C P |
| UniRef90_K2KA44 | L S H Q R N D D G S Q Q L K Q L R Q I E L R G A L T D D Q R Q R L L E I A N K C C P |
| UniRef90_S7XD03 | G D L E V N A S G S S F K S V R L K P I V T I K D E A A L S H N K A N S C C P |
| UniRef90_F6EGX5 | V T L L G P D P A G G F R V K I T V R A E V D G D E E A F L K A A S A A K E G G C P |
| UniRef90_UPI0003B6A5B4 | V T F D P A E G V T G S H L L V S A V V P G I S E A D F Q R I A A E E A K A G G C P |
| UniRef90_A0A024M1I3 | G T M S E N A E Q S G S V T F T D V T L R P Q V T I T D G E A T E R L H H E A H R M C F |
| UniRef90_E1TK45 | G T M L D S P Q Q G R F S Q I V L R P R V L I D V E L A R R L H H S A H E K C Y |
| UniRef90_Q1IQA2 | G V M Q E N A D G S G Q G L C P K V K I T A G S D P G K A A A L H D E A H H L C C F |
| UniRef90_K0EXV2 | G T M V E D P E G E V V L R P R I Q I A D S Q H R E R A R S A H H D A H Q Q C C F |
| UniRef90_D9WAG6 | G T M E E E G H S G R F T E V V L R P V V T V A D E R A R S A H H D A H Q Q C C F |
| UniRef90_UPI0003A59CF8 | V T F D P A Q G I T G S H L T V T A S V P G L S D E D F Q R L A D E A K S T C C P |
| UniRef90_UPI000468EC59 | L L Q A P S A Q H Q T R I G R N I H L S G E L S D A Q R Q R L L E I A N A C C P |
| UniRef90_E4RZE1 | G V M V E N A D G S Y F S E I T L H P K V L V K D A K A L E L H H E A N K L C C F |
| UniRef90_UPI0004779337 | G V V E P G G A G R F T L R P K I T V R P G T D L A A A E A I H H R I H S V C C P |
| UniRef90_I1D7K5 | V T V E P S D G G L S I N T V D I T A V D G V D E E R F S R L L A K Q A K E T C C P |
| UniRef90_UPI0003705580 | G T M E T A D G G G H F T E V T L Y P S V V V A D E K K A N A L H Q K A N Q L C C P |
| UniRef90_W8F430 | V T L L N T S G E V P K I V K I S L K T E G E V E Q E E F Q T Y A E T A K K N C P |
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|------------------------|--------------------------------------------------------------------------------------------------------------|
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 S H R Y A T T L T W T G N G E G T A S Y R D G K P A I L A S S D P S F R G D P
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 L Y E T E A V N K D G L N G Y T Y V E N A L K L K I S N P R S K A
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 M A A T R S A N A V W N G N L E G S G T T S S G L G T F D V T W K A R T E A A N
 H Y Y N V N L T W I S D R K G E I S S P E L E K T L E V A T P P Q F K G I E
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 V S A T T C G Q T A F A L T S E S H S L V S D Q S P E Y G G E G
 P T R S A R T A W T G S L S G Q V E T S S G V G K Y D V S F P K R S A E E A
 M A I K K Y G T A H W T G P L K G K V S T E T G A L T D Q P Y G F K Q R F E G V
 E L L M D E P E T I L G G Q D D
 T T F R A T A R Q K K G L A V T A E A R G F K V D I D E P E K I L G G T D
 M A V T V K A S L G K T K Y Y T E V T A G D N T I I T D E P I D K G G Q N D
 G A T G F T T Q I I A G N H H L V I A D E P I K V G G G S D
 H D I S G A G K P T I P G S A D P S F R G D P
 M A I T S N A S T S W N G P L S S G S G T T L G T G S S F D T W K A R A E E G
 T H Q Y R L Q T E W T G N L K G T A S A Y D R S Y K I A V S S D P A F R G D R
 R T T Q T T W D G G E G K L S Q G S S G A L D L P L T W A S R T E Q P G
 T Y E V N V H W Q N G R I G K M M S S P E L E H S F S C A T P P E F P E G V
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 R T E A E L T P G K N S H S I M Y N D D N K V I V D A A P D W G G N I
 Q T P Y R T D I V A S G H H L I A D E P L T V G G T D
 T G S L T G K V A L R S G R H A V T V D E P P A L G G A D
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50 60 70 80

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| | 90 | 100 | 110 | 120 |
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| UniRef90_U1HGB7 | G T I L D L R G F G F Q G I E A E V I L D S S A P Q A E E A Q E I L L A K C E R R C P P | | | |
| UniRef90_R4RKC4 | V D M G K D T E G Y Q F F L D C Q V R I P Q V A E A E A Q E I L R K V E E H C C P P | | | |
| UniRef90_H5X456 | V T V G P S N G G L S I D T V A I T L S A E V D E D T F A R L A Q Q A K D T C P P | | | |
| UniRef90_E5XL57 | G E M P S D S K P V R I T R I T L T V A P G T D H A L V V E L A H K A H D I C F F | | | |
| UniRef90_UP10003811E19 | G I M T E N K N G E V V L Y P V V T V E S E D M K H K A M E I H K G A H E H C C P P | | | |
| UniRef90_H0E8I3 | Y K P A P E R G C P T R F E L V M H H D D A M D D E Q L E R L R V I A T K C C P P | | | |
| UniRef90_UP10003B31A53 | G P I D L R G F G E I E V T A R I S G P E P A G A Y D E L I R K V E E H C C P P | | | |
| UniRef90_UP10003B6D72A | V V F V A G Q G I T S I A L D V I G Q V E E E D F V K L A E E A K K N C C P P | | | |
| UniRef90_K4QTF0 | V T F Q P G E G I T G I H L T V E G T V P G I S E A D F L A A A E D A K A N C C P P | | | |
| UniRef90_C7RD45 | H D C E T E K G F V D V L E R Q I K V T G D L D R E Q Q E R M L E I A N K C C P P | | | |
| UniRef90_A0A023CXI1 | V T M V K K T T G L E F L V K A R V H I P S V D L E T A E R F V K L A E K R C C P P | | | |
| UniRef90_D5W639 | M E T G N A G S T I D R Q I M L D G E L S D E Q R E R R L L Q I A N A C C P P | | | |
| UniRef90_E4TR44 | G V L E K V D G K F K M S E I I L P K S I V L H D E K A I R L M E K A E A A C L | | | |
| UniRef90_J9W4L8 | V A Y I G E R A E Y Q F L V H A Q M V K G V D F E T A D Q F A Q E A E N R C P P | | | |
| UniRef90_A0A024H3N0 | V T F V P G T G I T G S H L T M S A R V P G I S E D E F Q K I A A D A K V G C C P P | | | |
| UniRef90_I2EPY5 | G K L E Q V E G K F L M T E V T L V I K N E A D K E R A E R I L Q K T E A A A C L | | | |
| UniRef90_UP10002FEB466 | V D F Q P G T G I T G I H L T V R G E V P G I D Q T F A A A A A D A A R N C C P P | | | |
| UniRef90_UP100047E982B | H D C E T Q D G K V D V R R S V R L E G D L S D E Q R Q R L E I A D K C C P P | | | |
| UniRef90_M0LX93 | G E I D P A K F G Y R G I D V T I D V E A D A D E D T E A W F A E V E E R C C P P | | | |
| UniRef90_R7WIL4 | G T M T E L P D G D V T I L R P V V T V T E A A V A E R A R A L H A D A H E K C C F | | | |
| UniRef90_N9DP46 | L N P E A G Q N I V V R K I V L K G D F N E E Q H K R L K V A E N C C P P | | | |
| UniRef90_G0ABZ2 | F S R D E Q G R E K I D R T V A F G A R L S P E Q I G R L G E I C E K T C C P P | | | |
| UniRef90_Q28RG8 | H N R V H A Q D A G V E I T R M I T L T G A L D D D Q R A R L L E I A D K C C P P | | | |
| UniRef90_UP100039EBF3D | L A R G D D G T V I T R T L H L T G A L D D A E E Q V A R L A D I A E R T C P P | | | |
| UniRef90_UP100031FC6DD | R D D Q D E K K G V Y R L A V Q L E L H G I S D P E Q K A R L E E I S H K C C P P | | | |
| UniRef90_W3RQV9 | F G R D E A G N E S I D R E V S F G Q T L T K E R Q D R L L A D I C E K T C C P P | | | |
| UniRef90_Q2BIY9 | H D K I H A Q D C S T Q F V R K I T L V G Q L S D D E R Q K L L E I A D K C C P P | | | |
| UniRef90_UP1000316B9BB | L Q L D R D D D G R L R H V M R T L H A S A P L T T D D Q W N R L L E I V A N T C C P P | | | |
| UniRef90_UP100037DCBC5 | G T M A E T P D G E V T L N P T V V T E A W M V D K A N A H H Q A N Q V C C F | | | |
| UniRef90_G8R310 | Y D C D S E E R K I G K F I R I I E V E G D L D E K Q R E R I L Q I A N K C C P P | | | |
| UniRef90_A0A024H1S3 | G R L N R D G S G Q F T L R P R V T V A D G S Q A D L A A R L H H D A N Q V C C F | | | |
| UniRef90_F4C2A2 | M E V V V P S S H Q Q T T I K N H I K L V G N L D D D Q R Q R L L Q I A E C C P P | | | |
| UniRef90_M1YVC0 | G D L D P D G F G F S E I R S K I Y I E S N S P K E K I E F V E F I D R T C C Y P | | | |
| UniRef90_A4FA85 | G T T L A E N A D G E V V L A P E V T V A D R A S V D V A E A L H E R A H E L C C Y P | | | |
| UniRef90_R1ITJ6 | V H L G D E D G P K I T L I E L E S E V S A D D S S L L Q E L L G S I A K Q K C C P P | | | |
| UniRef90_UP100031AA5A8 | G T M V E M E D G S Q G F S K V L T V T P Q S D A A V V A A Q V H G Q V H Q K C C F | | | |
| UniRef90_V5WXH0 | G D L D P D G F G F Q E I R F V M H F K T E T S Q E K A E A F A A F L E K T C C F | | | |
| UniRef90_W8HDR8 | G T M V E H P D G E V V L H P T V T V A D A A M A A R A E S L H A R A H A R C C F | | | |
| UniRef90_I3BZ83 | H S R D V N K Q S V F E R D I R I G E L T D D D Q R R E R L L D I A D R C C P P | | | |
| UniRef90_UP1000479246B | G T M R L N P D G S E F L S V T I L R P R V T I T D P T A Q S L H K D A A A S C C F | | | |
| UniRef90_W7IMZ7 | G A M E K P G N S G R F T E V V L R P E V T V A D E R A E A L H E R A H D T C C F | | | |
| UniRef90_A5V4Y0 | H A K R K G E A P A D L F T R R I A F G G E V D A E R R A R L L E I A D R C C F | | | |
| UniRef90_G9ZP53 | H N K E H R T D C D H V F Q R R I H L S G D L G A E D R Q R L L E I A D K C C M | | | |
| UniRef90_U5T4C7 | V D I V K D T K G Y K F I V Q A Q I F F N K L L D N D Q G Q Q Q M V D E A L D Q C C P P | | | |
| UniRef90_Q5HN13 | H N K E H R T D C D H V F Q R R I H L S G D L G A E D R Q R L L E I A D K C C M | | | |
| UniRef90_U3BAW8 | G T A S F E N K K F K M E R I T H Y P S I K V P S S Q T E K L L V I A D N N N C C M | | | |
| UniRef90_S6AUE4 | G V L E E D E S G R T V T R V T L R P K V V F S G E Q L E K M H H T A H E N C C F | | | |
| UniRef90_UP100047BB155 | R D D S E E R K G H Y R L D V K L T L R G V L T D E D Q R A T L L R I A D K C C F | | | |
| UniRef90_UP100036C1CAB | F Y Q E S N P D L T T T I K R I T F P V T V D E D I K K R L L I I A E K C C F | | | |
| UniRef90_UP1000478FAAF | G I M D E G G F T K I I L R P S I T I T A E S D A E K A M S L H H V A N E K C C F | | | |
| UniRef90_I3VXV3 | G K L N K D G S G Q F T L K P R V T V A D P A H A D V M E Q L H H E A N Q V C C F | | | |
| UniRef90_UP10003637345 | G D I D L D G F G F L E I R F R K M H M K T D A P K E K A E E F A K F L E R T C C P P | | | |
| UniRef90_UP100036F5346 | V D L G A G G N E Y F L Q A R L N L I V P G L D H E V A T A I A H A A D A M C C P P | | | |
| UniRef90_W9GLJ6 | G D L D V R G F G F Q Q I R V T V N V I S G P E T A E R Y R E L Q D A V D A H C C P P | | | |
| UniRef90_UP1000405F7B5 | G I M P T T E R P V R I T H V T L T V A A G T D V E L V D R L V E K G H R G C C F | | | |
| UniRef90_K0K5T7 | Y H C E E D S A K I D T F N R D I R F K G N L T D E Q K N R L L I A D K C C P P | | | |
| UniRef90_A6EP79 | V H L V Q T P E G F R I P T V E L S S C V V H A P E E R V L E M A E Q A E R T C C P P | | | |
| UniRef90_A5P7G3 | Y S C E E E K D K I D T F S R D I K L I S D L D E K Q L K R I I L Q I A D K C C P P | | | |
| UniRef90_A3UK49 | H S R D H A K D H Q L L T R V I A I T G S K L L D E D Q R K R L L E I A D K C C P P | | | |
| UniRef90_E9T1M9 | H S K V K A E G P S D L F E R E I E V E G L E D E S S L Q L K L L E I A N K C C P P | | | |
| UniRef90_E3DRR3 | V S L G P H D P G F K L T G I V L T V R A E V D A A G F A R V A Q A A K E S C C P P | | | |
| UniRef90_K6GE9 | G Q L D P A K F G Y Q K I E V K M I A D T D A D Q A T L L A K W L K T V E A R C C P P | | | |
| UniRef90_K0ELX4 | A D K D P A A A F R F G E I T L V V R A L P G Q R L E A I V E Q A R R Y C C P P | | | |
| UniRef90_UP10003707534 | G E L D P D G F G Y Q K I R Y N M H I K S D A S E E K I K F V E L I E K R C C P P | | | |
| UniRef90_UP1000468BCD8 | V E N F P L T K R A I F R R D I S F E G I L D E E Q L L K R I I L H T I A D A C C P P | | | |
| UniRef90_C6PS26 | Y S C E N D M A K I D S F E R E I S I E G N L D E K Q L L K R I I L H T I A D A C C P P | | | |
| UniRef90_W4TDF6 | G T M E T E D G G G H F T E V V L R P E V R V D D D A L S A I H E R A H H L C C F | | | |
| UniRef90_A0M050 | H S C E T R E G M L D Q I E R D I T M D G A L D A E Q R K K L M E I A D K C C F | | | |
| UniRef90_V5XET7 | V S F E P G K G I T T S V L T V S G K V P G I D Q E Q F A K H A E E A K A G C C P P | | | |
| UniRef90_W1JW09 | A S M E T N E G G G A F S E A H L H P S V I I A E E D A I A L L H K K A N E L C C F | | | |
| UniRef90_U1LQP1 | V T L D A V D G V P T I T T S R L K V R A R M G D E A F A A V V G Q A A A L C C F | | | |
| UniRef90_F4C311 | G R L S R E S G K W M M T E I V L K P E L T I C T E E A L K V L E K S E N A C C P P | | | |
| UniRef90_A0A051TVM3 | F D W N N E E T K S V F T R K I E L I G D L T E E Q R E R R L L K I I A D K C C P P | | | |
| UniRef90_S2DC99 | V K M S R D R F G Y Q F L V D A A V T L P G V E P T T A K R W L A L A E R R C C P P | | | |
| UniRef90_V6SFE4 | G E T E A N G A S R F T L R P R I V L A E G A D P A R A D A V H G E I H K V C C F | | | |
| UniRef90_W6T9B0 | G L M V E D G R G E V V L R P R V T V A A A S M V D A A T S A H A Q A H E W C C F | | | |
| UniRef90_A3SI58 | H D N C E Q T D K L E A I T T R K I T L V G D L T N E Q R Q R L L E I A D K C C F | | | |
| UniRef90_UP10003756F8D | A H L G K N S K G Q M S V E V T F D D G F Y V V D K K I L Q E M Q K R A H N Y C C F | | | |
| UniRef90_UP10002F196D7 | H T C E T E S G K V D W I D R E I E L V G A L T T E Q R A R L R G I A D R C C P P | | | |
| UniRef90_Q0FF48 | G E L D L R G F G F T D V R I V V T P K G P E P A E R Y R E L A A E A V D Q H C C P P | | | |
| UniRef90_W4LCK2 | H S K I H A E D C I D Q L E R E I H M D G T L D A E Q R K K L M E I A D K C C P P | | | |
| UniRef90_D3F7P8 | G D L D P D K A G Y Q E I R L R V K P D S S A T P E Q P L K K W D E V E S R C C P P | | | |
| UniRef90_A4YR22 | G I M V E Q A N G Q I V L R P R V T L D A A S D E Q K A R A L H A E A H K M C F | | | |
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| UniRef90_W3REG3 | | | | |

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| UniRef90_B5ED30 | V H R T L S G E I R I D T R L R |
| UniRef90_UPI00035E28B8 | V S N A L L A G T T I N L D A A L V |
| UniRef90_H3NL01 | V A D C L T N G V P L K L S |
| UniRef90_F4GY16 | V S K A L T T G T D I T L D A A |
| UniRef90_X5KLL9 | V H Q T L T S E V H I T T S |
| UniRef90_B0SVJ9 | V A N S L N F P V G H E A T V E V E |
| UniRef90_UPI0002D80ACF | V S R L F S G T D I T L S L S |
| UniRef90_U1HGB7 | V L D I L R N P T P V Q L L S L R |
| UniRef90_R4RKC4 | V S K I V G S S Q N V R V H L |
| UniRef90_H5X456 | V S N A L L A G T I T L D A R L L A G |
| UniRef90_E5XL57 | I A N S I N S E V V V E P K I |
| UniRef90_UPI0003811E19 | I A N S C N F P I |
| UniRef90_H0E8I3 | V H R V L D G E V M F D E R V E R I S |
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| UniRef90_UPI0003B6D72A | V S V A L A G V P E I T V T |
| UniRef90_K4QTF0 | V S Q A L K A V P I T L T A K |
| UniRef90_C7RD45 | V H R T L M G E L K I R S K L |
| UniRef90_A0A023CXI1 | V S K L L S G S A N Y T I E |
| UniRef90_D5W639 | V H K I L T H T I S I R S A L |
| UniRef90_E4TR44 | I S N S I T S S V K L D F S |
| UniRef90_J9W4L8 | V S K L L K N |
| UniRef90_A0A024H3N0 | V S G A L A S I D I T L D A T L E A |
| UniRef90_I2EPY5 | I S N S I K S K V S M I P T I Q |
| UniRef90_UPI0002FEB466 | V S Q A L Q A P I T H E A E L |
| UniRef90_UPI00047E982B | V H K T L H S S S V I E T E L |
| UniRef90_M0LX93 | V G D N I Q N E T P A T I D L E |
| UniRef90_R7WIL4 | I A R S V V A F P V H H E P T V |
| UniRef90_N9DP46 | I H K L L T S N I Q I Q T E L |
| UniRef90_G0ABZ2 | V T K T L R Q G T E I Q T T L N P A P L |
| UniRef90_Q28RG8 | V H R S L E A G A R I K T E L T Q A A |
| UniRef90_UPI00039EBF3D | V T L T L K T G A R I D T T V |
| UniRef90_UPI00031FC6DD | I Q R M T Q A T I E I T T |
| UniRef90_W3RQV9 | V T K T L L K R G T P I R T T L |
| UniRef90_Q2BIY9 | V H K T L E E G K I N I V T A L V G |
| UniRef90_UPI000316B9BB | V T K A M R E G A E I N |
| UniRef90_UPI00037DCBC5 | I A N S C N F P V R H S P T |
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| UniRef90_A0A024H1S3 | I A R S V N F P V I E |
| UniRef90_F4C2A2 | V H K I L S N P I V V D S N L |
| UniRef90_M1YVC0 | V A D T L A N S P K L E L T I E K E K V |
| UniRef90_A4FA85 | I A K S V T F P V H H E P S |
| UniRef90_R1ITJ6 | V S R L V T G E V T L Q I T L |
| UniRef90_UPI00031AA5A8 | I A R S V T F P V Q C E P T I Q L E S |
| UniRef90_V5WXH0 | V G D C L A N G V K L |
| UniRef90_W8HDR8 | I A R S V V A F P V H H R P T V |
| UniRef90_I3BZ83 | V H K T I I S N G A N I |
| UniRef90_UPI000479246B | I A R S V N F P V N H E P V L |
| UniRef90_W7IMZ7 | I A N S V N F P V R H E P T |
| UniRef90_A5V4Y0 | V H R T L E A S A R V E T S L G G |
| UniRef90_G9ZP53 | V A K L L K A N E N V T F E V |
| UniRef90_U5T4C7 | V H R T L L E S S I V I D T E L |
| UniRef90_Q5HN13 | I S N A I R N N V I I S I E P N |
| UniRef90_U3BAW8 | I A N S V K T Q I T T E I |
| UniRef90_S6AUE4 | V H K M T Q V E V S I E T H L |
| UniRef90_UPI00047BB155 | V S K L L K N N I V I N T |
| UniRef90_UPI00036C1CAB | I A N S L K C P V E H E A T I T K E |
| UniRef90_UPI000478FAAF | I A R S V V N F P V |
| UniRef90_I3VXV3 | V G D S L A N P V K L V L S |
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| UniRef90_UPI00036F5346 | V L D L T T A T T P V H T Q L T |
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| UniRef90_UPI000405F7B5 | V H K T L H S K T Q V I T K L |
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| UniRef90_A6EP79 | V H K T L H N K T Q V I T T L |
| UniRef90_A5P7G3 | V H K T L E G R I S V E T R |
| UniRef90_A3UK49 | V H R T L E E R G A H V E |
| UniRef90_E9T1M9 | V S K A L T G V A I T L D A A |
| UniRef90_E3DRR3 | V S D N L L S K Q T P V E I G L K |
| UniRef90_K6GJE9 | V T N S L S V P I R L E I Q A I |
| UniRef90_K0ELX4 | V S K A L A G V D H I T L |
| UniRef90_UPI0003707534 | V S K L L N C E V T L D A K L |
| UniRef90_UPI000468BCD8 | V S K L L K N K V S I I N T Q L |
| UniRef90_C6PS26 | V G D T L G N A V E L E |
| UniRef90_W4TDF6 | V H K I L T N D I E I |
| UniRef90_A0M050 | V H K T L S A K A Q I I A T R L |
| UniRef90_V5XET7 | I A N S V N F D V R C E |
| UniRef90_W1JW09 | V H R T L T S E I R I V T K |
| UniRef90_U1LQP1 | V S Q A L A G I E I Q L E |
| UniRef90_F4C311 | I A N S V N F K V H H P T |
| UniRef90_A0A051TVM3 | I S R L F A G T I S V D A E L D |
| UniRef90_S2DC99 | I S N S I K T M V I M E P Q I |
| UniRef90_V6SFE4 | V H K V L M H P T E V E T T L |
| UniRef90_W6T9B0 | V A K L L G D N A N V Q I H |
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| UniRef90_UPI0002F196D7 | V H K T L H N N |
| UniRef90_Q0FF48 | I A N T L A D S V M I N N |
| UniRef90_W4LCK2 | V H R T L H S E I V V N T E L K |
| UniRef90_D3F7P8 | V L D L F S N A T P V E R E L A I A A |
| UniRef90_A4YR22 | V H R T L T S E I R I V T |
| UniRef90_UPI00029AC4F6 | V N D N L L A N T T P V K V E V |
| UniRef90_W3REG3 | I A N S L T C E M M L E P S |

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 UniRef90_F6FUB5
 UniRef90_L0IU97
 UniRef90_C0ZQV4
 UniRef90_A0K6L5
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 A A V D P E E A F I A A S S C C H M L W F L D I A A R A G F R V D E Y H D V A V
 A A V D P E E A F I A A S S C C H M L W F L D I A A R A G F R V D E Y H D V A V
 S A P S P H D Y F D A S S L A S C C K A L T A M W Y A K K Y G M A L E R V E T L V E
 E N A N P V E Y L L A G L A G C V N V G H L V A K E L L G F S I K K L K I E V T
 T G P T P G E L L L S A L G S C C T A I T L R M Y A Q R K Q W P L T G I E V A A
 S A V N G G E F L M L A L A T C C H M L W F L A F A A A N A G L V V D S Y R D A A S
 S A V D P E E A M V A S S L S S C C H M L W F L S I A S K K K Y V V E R Y E D H P V
 S A V D P E E A F I A S S L S S C C H M L F F L S I A S K K K Y V V E R Y E D H P V
 T G M N P Y Q F L V A S V G A C C T S V T V R L Y A N R N N I P L E R I R V F T K
 D R W N P E E L L V A S V A Q C C H M L W Y L H F C S T E G V T V L A Y E D H A V
 T M T S P E E L L L A A A Y A S C C Y A M Q L T A L L D A G P D E P V G L H V E V V
 A G P N P H D L Y D A A L G L S C C K A L T V L W Y A R R K G I P V N D V R T V I E
 V A A S P P V E I A L G A L I A C C Q V V V F R L Y A Q A L D I R V D D I S V K A E
 I G P A P F E L L L A S S L C A C T A A T L R M Y L Q R K D W P A V P L H V H A E
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 E Y W S P E H L F V A A I D V C I M T F L W L K N N N L I S Y K S N A R
 L A P P S P Y D Y L L T A L G T C T A I T V R W Y A Q Q K G W P L D D V A V R L T
 E G F R P H E L L E A A L G S C C L V M I M T M Y A A A H D I P R G A T V T V T
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 T G P S P H D L Y D A A L G A C C K A V T L M W Y A R K K G I P V D D I H T V V E
 E N V D P E E A F I A A S S C C H M L V F L S I A A K K K Y V I E S Y T D N A I
 T G P T P Y D L L N A A L G T C T A M T M K M Y A D R K G L P F E G A R V A V T
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 L G F S P P V E F L L A G I S M C K V A T I R N V A R R K G W E I G N V D A D L S
 H G P G P Y D L V L A G L S C C T S I T I R M Y A D R K K M P L D G V S V R L T
 V T L P E E M I A A A Y A S C C H M L F F L S I A A K N K F I V E R Y V D R P V
 E N V D P E E A F I A S S L S S C C H M L F Y L H M A R D A G F V V N S Y E D E A T
 S G T N P E E L I G A A H A A C C Y A M A L S L E L G K A G L T A D D D I D A K S T
 T K H N P E D L F L S A L S S C C H M L W Y L H C T T A G I N V L S Y E D N P V
 Q G P N P M Q T A L A S L S C C E N I T A N M V A R E M G L E L E G I E F T I E
 L G P T S P E I Q L G V L G S C C L T H T Y L I Q A A T L G V P L D S L D I D V T

| | 90 | 100 | 110 | 120 |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----|-----|
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| UniRef90_A0A011Q8I9 | H S K K D D K R S K I T R L L T K G A L D E A Q R A R L A E V V E R T C P | | | |
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130

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

1 10 20 30 40

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

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

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

T K A E S E G H N V V I D E P A N M G G T D

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

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

| | 50 | 60 | 70 | 80 |
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| UniRef90_UPI0003B3C38E | T G P S P Y D F L S I A L L G A C T S M T L R I Y A D H T K L T L G R I G V D V S | | | |
| UniRef90_UPI00047E75CB | D F P N P G D L L C A A L L A S C F E S T L R M I A N R L Q I T L I K T K I K A T | | | |
| UniRef90_M1XJS5 | E G P T P N E V L V A D Y A S C F T F A C H R A G A N R H D V D L G E I E T E A E | | | |
| UniRef90_U5HBV4 | T R P A S S R P S A Q P T A P C C S P Q H K P L P K S T T V R A L | | | |
| UniRef90_V4PAW8 | A G L A P Y D F L L S A L L A S C C T A I T L R M Y A N H K G W P V T S I D V A L H | | | |
| UniRef90_A9WD70 | A G P S P M E T V L M A L L A G C C S A M D V I S I L R K K R Q P V T G L E V K A Q | | | |
| UniRef90_UPI0002DDE0E3 | E N I D P E E A F I A S L L S C C H M L F F L S I V A K H Q I K I D S Y I D N A V | | | |
| UniRef90_A3W7E2 | A L H N P E D M L I S A L S A C C H M L W F L H L A S D A G I A V Q S Y E D D P I | | | |
| UniRef90_U2J125 | K G V R P M E L V L M A L L G S C C S V F D L T T I L Q O K Q R Q D I Q D I K V E V E | | | |
| UniRef90_E7RDF4 | T G P D P L S T L L A A L L A G C C E N V I A N L V A K E M K F D L Q G I E F D V K | | | |
| UniRef90_UPI0002E9969F | N A I D P E E A F I A A I I S S C C H M L M T F L T V A E K Q R F V V E S Y Q D V A I | | | |
| UniRef90_UPI00047DB195 | A N V D P E E A Y I A A I I S S C C H M L T F L S L A A P K R I V V E S Y T D K A T | | | |
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| UniRef90_C5CWI2 | T G I S P A E Y I L Q A L G G C C Y T V T L A S M A A A K G I E L D G I E L N L S | | | |
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| UniRef90_I01571 | K G F R P M E L M A I S L A G C T A M D V I S I L R K K R Q E V T G F E E V K V N | | | |
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| UniRef90_UPI00047CBDE3 | S E P T P H E L L D S A L L A A C T L L T L Q L Y A R R K Q Y P L T G A Q V R V R E | | | |
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| UniRef90_A4EFY0 | H G P N P Q E L L M S G L G S C C M M V A F V T G A T A E G I Q L E S V K I D F D | | | |
| UniRef90_X0QKS7 | □ A P N P V Q Y L L G S L G S C C L A I T V K G Q A G K R H I E Q D F E V T V S | | | |
| UniRef90_UPI00030FC329 | S R W S P E D L L V G A L L S Q C C H M L W F L H L A A A A G V V V V V G Y S D S A A | | | |
| UniRef90_UPI00037ACF8D | S G P D P Y D Y L L M G M G S C C T L M T V K M Y A R K G W V I E D M Y L E L R | | | |
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| UniRef90_C0GJS9 | K P P D L L L M S L G S C C T G L F F P A A K E □ G L A I E H F E V V V T | | | |
| UniRef90_W6R7V1 | P G F N P L D L L Y A S S L S A C C L V L S A R I A A S Q M G I L D R V T E I T A D | | | |
| UniRef90_B4D3T6 | D P E E A Y V A S L L S C C H M L T F L W L A G K A G F L V E S Y R D E A A | | | |
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| UniRef90_E0MQ35 | T G P S P Y D F L S I A L G A C C T A G C T M G T L R M Y A E R K G I E L G R I S V H A T | | | |
| UniRef90_H5WKW1 | T G P S P Q Q L L G A A V G N C C L S A S S L I F A L R K Y K Q P E P L Q C E V D | | | |
| UniRef90_D7CJH2 | N M M T P E D A F M M A V N T C C V H M M V I W A A E R L Q L D L V A F E C V A E | | | |
| UniRef90_W6RWL7 | □ L G F N G A Q L L A L L G G C C F C N D L R Y A A D E M G V S L L G K I A I S V I | | | |
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| UniRef90_UPI000470B42F | Q G T E P Q R L L M L S S A V A C C H Y I M T L A Y M L D R K K V P V S G L F M D T E | | | |
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| UniRef90_UPI0004702F09 | T A P A P G E I V L S A L G G C C L A V G I T A V A T Y R Q V R L S S K L E L W L H E | | | |
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| UniRef90_UPI0004706645 | Q G M N P I E A M L S A V G G C K L I V A R S F S K L H N I H L K D I T V E V S | | | |
| UniRef90_E6S7M5 | R G P T P V E L L L H A I A A C I T A G I A N I A S A R K V T L T E V R S T V | | | |
| UniRef90_A9AMX8 | A A V D P E E A F V V A A L S S C C H M L W F L S I A A Q R R F A V T R Y R D A A E | | | |
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| UniRef90_U7NPR6 | T G P R P M E L L L M G M G G C C T S F D I L N I L E K K A R A E V S D A S I E A E | | | |
| UniRef90_I9LNR9 | □ L G P G S P E L Q L G V L G S C C L A H T I L I Q A A L Q A I P T A L E V A V T | | | |
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| UniRef90_I4KR26 | S G P D P H Q L L L S A L G A C C T A I T V S M F A K R K A I P L A G I H V E L L S | | | |
| UniRef90_UPI0003FC6D35 | E A F S P T D L L A A N A L G S C C M I S I M A L K S K D L D V N L E G S T V E V T | | | |
| UniRef90_UPI000409C743 | E G A N P L E T L L A S L A G C C E N A V A N M V A K E M D F N L K G L D F Q V K | | | |
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| UniRef90_B8GM09 | U G L R P V E H L A V A L G G C C L S E F A G R F L E R R K L P P T L R I E M H | | | |
| UniRef90_J0V988 | M F L S A L L E K A N H E P E S V Q T T A T | | | |
| UniRef90_UPI0002002631 | E R F S P T D L V A T A L S T C I L T I M G I V A E R H G W D L T G T D A K V E | | | |
| UniRef90_UPI00036BA721 | Q G P R P M E L L L M G L G G C C T G I D I V M I L E K M R L L M V E E F R M E I E | | | |
| UniRef90_K4QSH3 | T A P T P T E L F A A S L A T C V A F Y A G R Y H R H N L P R A G L R V T E | | | |
| UniRef90_UPI000465FEB9 | M K F V A G Q S K R S I P D T S I T A H | | | |
| UniRef90_D3SAT4 | E G A N P V E Y L L H A L A G C C V T T T T V L H A T A R G I I H R S L S T E L K | | | |
| UniRef90_A0JXF8 | T G P T P T E L F I A S S L A G C C V A F Y A R R Y L D R H G L P T E G L A V D A D | | | |
| UniRef90_UPI0003B5AC9B | N G P T P A Q Q L I A G V V A N C L S D S L T F A L G K Y K Q Q A G P L R T E A E | | | |
| UniRef90_H5SN13 | T G P R P T E M V L I A L G G C C T G M D V V S I L K K M Q V K F T R F E M E I H | | | |
| UniRef90_T1AT81 | T A P T P T D L F I G S L A A C V A Y Y V R R F L S R H G H Q V E G L A V I S E | | | |
| UniRef90_A0A024ILD2 | S A T N G G E F L M L A L A T C Y C N D L Y R E A A R L G V A L D R V E V W A E | | | |
| UniRef90_KOT3Q4 | E A P Q P V E H L L A A Y L G G C C T Q A T A L Y V G R M M S L R V E S M E Y D V T | | | |
| UniRef90_UPI00046AF37A | □ L G P T P L E S L L L G S L A G C C K S V V L R L V A N A I N F D Y S G L K V D C V | | | |
| UniRef90_UPI00047AA80D | K G P R P K P F V L L A L A G C C T G M D V V S I L K K M R V E F E G L E I K V E | | | |
| UniRef90_W0RGP4 | E G A T P Y D L L L G A V G A C T A I T V R M Y A R R K G W P L E D V V V V H A A | | | |
| UniRef90_B5ILF6 | S C F S P T D L I G T S L A T C C L L T V M G I V A E R H G W T L E G A T A R V V | | | |
| UniRef90_UPI000463C08B | M N P V E M M L G S I L A A C L T L T I S I Y A E A M G V N V E D I Q V D V E | | | |
| UniRef90_F2KQJ2 | T G F K P T E L L L T S L G G C C M G T T I L T I A K L Q G I E L T E L L R L D V K | | | |
| UniRef90_C8X7G1 | T A P T P T E L F V A G G L A S C C V A F Y A R R Y L A R H Q I D A A G L T V S A S | | | |
| UniRef90_L9WRB8 | A P D T L E T L L T A T Y A S C C Y V P A L R V G G E Q R R D A D L G R V E I D A T | | | |
| UniRef90_K2GMC2 | E G A N P L G T L L A S L A G C C E N A I A N F V A K E M E F D L Q G I D F E I D | | | |
| UniRef90_A6WYS6 | G F N P L P D L L Y S S V V A A C M A L S A R I A A T K L E L K T D V R V E V K | | | |
| UniRef90_R4K160 | K Y F R P H D F L E A A Y A S C C L N I T T R M I L E F M N I R Y E K V T V K V D | | | |
| UniRef90_I8UDK9 | □ L G P T P L Q M L L F A V G G C C I A T I A R I A A F Q Q K I V L R G M K I K V V D | | | |
| UniRef90_B2KD04 | R K F S A T D I F T A S L A A C C Y V P A L R V G G E Q R R D A D L G R V E I D A T | | | |
| UniRef90_D5HBM2 | R S F S P T D L V A T A L L G T C A T I L G I Q A E K H A L D L D G I E I S V E | | | |
| UniRef90_A0A024QIQ1 | Y G F R P Y Q L M I A S I A G C S G S V F R K I L A K Q R I E V E D I Q I T A E | | | |
| UniRef90_UPI0003609DD6 | A P S P M E L L I M G T A G C C S S I D I V H I L K K Q N L E I D N L D V V E V E | | | |
| UniRef90_Q31J02 | K G A R P M E M V L L G L G G C C T S I D V I M M L Q K S Q K Q A V D D C Q V E I T | | | |
| UniRef90_I3Z415 | E A F S P T D L V I A A A L G S C C M V T I M G I V A E R D G L E M E G L S W E V T | | | |
| UniRef90_UPI0003B63663 | A G P T P T E F L L M A L A S C C T A I T L R E Y A D R K Y D Y A G G I T V D V A | | | |

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| UniRef90_B4RBB9 | G V M E K N A E G R L A I T R V V Y A G R R P T P E E A D H L H H L A H E E C F | | |
| UniRef90_UPI0003B3C38E | H A K I H V K D C I D R F E R V I S I D G E V S G E L R S K I A E I A D K C P | | |
| UniRef90_UPI00047E75CB | A N V D P V A F Q H M G L E V E I T V V S S T V Q K E L A D K L I K A T E R S C I | | |
| UniRef90_M1XJS5 | A D L D D S D D L T A I R F H L Y V E A D L D D D Q I E E V V E L G E G I C H | | |
| UniRef90_U5HBV4 | V S I G K D K T E K F L L A V E L E V P K K P E D A E I H K L V Q Q A H Q L C P | | |
| UniRef90_V4PAW8 | F Y R D G E K E V I D R V V T I E G D L S A D Q H E R L L Q V T E R T C P | | |
| UniRef90_A9WD70 | G V R G D E P K P Y T N I E L V Y R C S G E V D P A A L E R A L E L S E R Y C P | | |
| UniRef90_UPI0002DDE0E3 | G V M E K D N Q G R M A M Q V T L K P G H K L S L A Q L E S F H H Q A H E L C F | | |
| UniRef90_A3W7E2 | A I G E T D S T G A S R L R P R I A V P A G T D L S R A N G L H G Q V H A V C F | | |
| UniRef90_U2J125 | G D R R E E P N I F T K I H I S F Y L K G D I D E I K A Q K A A E L A K K Y C S | | |
| UniRef90_E7RDF4 | G D L D P D R G P Y F N Q V Y V Y A K V T T D E T V E R I Q E L K E K T D A R C C P | | |
| UniRef90_UPI0002E9969F | G T L G K N A Q G R T V T D V V L K P K I C F S S A M L N K M H K L A H K H C F | | |
| UniRef90_UPI00047DB195 | G V M E K I D G K I L V V S R V E L L K P T I V Y A G E Q P A E L H H L A H E Q C F | | |
| UniRef90_D6E613 | G D L D P D G F T G K A P D V E V R F S M H S D E A A A R A L A A L V E E R C P | | |
| UniRef90_A0A059GAS8 | G V M G K N P A G R M I T R V T L N P V V S Y E A D Q I E A L H H E A H E L C P | | |
| UniRef90_UPI0003624DF8 | H G K V H A A D C E D R F E R Q I R I D G D V D D A T R A R L E I A D K C F | | |
| UniRef90_D3P583 | G L M A E E A D G A G Q F T A V L T L A P G S D A D A A L A L H H Q A A E K C F | | |
| UniRef90_C5CWI2 | F D I N L N G K G A Q G I N I D V K L I E S S S S R E Q L E E L V R E L P M N S P | | |
| UniRef90_K2GX31 | G T L G K D E Q G V L Y M R V K F A G E A Q P D R E A V E A L H R E A R K K C F | | |
| UniRef90_UPI0003A89CEE | G D I N V T P L G F T D V R V K V T L E G D A S R E E L E D V A H A N H W S P | | |
| UniRef90_I01571 | A E R A T E P H P V F T M E V T Y V V R G R N I D P A A V I E R A L Q L E K Y C P | | |
| UniRef90_B8DZ27 | G D L D P R G F G Y Q E V R A K V K I I S P V E R E R I E E L M K E V E R R C P | | |
| UniRef90_UPI00047CBDE3 | H V E D T A V Y V R M E R H I V L E G E L G E A Q R A D L L R V A N A C P | | |
| UniRef90_W6WFA8 | V T G E K A H E G P S R I I V D F R V E G E F D D E E K K Q I A H I A E E I C T | | |
| UniRef90_A4EFY0 | G E L D L L R G F G F P E L S Y S R I H V V G D G T K E Q F D E H K K A I A H S P | | |
| UniRef90_X0QKS7 | G N L E M G G N Q F T E I I T Y H V V M H S N L N P T D Q S A F L L Q D C V D L C P | | |
| UniRef90_UPI00030FC329 | G T M R I E A A G H Q F R D V T L H P R V P L T D E H L A D L H H A A H E H C F | | |
| UniRef90_UPI00037ACF8D | H N K R H A K D C I D H I E K E L I I K G D L S Q E Q L D K L L D I S K K C | | |
| UniRef90_F2NNW2 | G T L A E A P P R F S A I E L R V V H A D H A D R A L M E K V L V Q I S E R A C C | | |
| UniRef90_C0GJS9 | G E K A N N P P K L F S I H I H I D V V W G Q V T E D K V E K A I E K G H D K C F | | |
| UniRef90_W6R7V1 | V T G E K A S E G P S R V Q V I A F S I K G D L L D E E T R L I K I A H A A E E I C T | | |
| UniRef90_B4D3T6 | G V M A K N E R G S W V S K V T L H P Q I V W S A E E I D K L H H R S H E E C C | | |
| UniRef90_UPI00047B6AD4 | G V M G K N P E G K T R P R I E F S G S K Q P D A H E I E E I H H D A H G Q C F | | |
| UniRef90_V5C6A0 | D C T E C D G G R I D S F E R V I S V A G V A P A F N D K L E I A G K C | | |
| UniRef90_H5SL98 | V D V G R N P Q G R M R V A R L T L G V A A E S L E H L D R V L A S F E E F C T | | |
| UniRef90_E0MQ35 | G E V E E I D R T S W F K K V V L K P R V T V S R K K V E R A L E M A R K Y S T | | |
| UniRef90_H5WKW1 | L E L E G K P I I A K S A V M K V A C H G Q D G T S A E Q V V E R A K A I C M | | |
| UniRef90_D7CJH2 | G E I E P S Q M G F Q P Q I R V K V L V E G D A T R E E L D D I V R H A N Y F S P | | |
| UniRef90_W6RWL7 | G E L L D I D G F G F S K I T T H F Y I Q A D N S S K T E I E A F I A F I E R T C P | | |
| UniRef90_D8D4N6 | R A D A V P S V F T K I H V H F T V T G K G L K E Q V Q R A V E S A D K Y C S | | |
| UniRef90_B4EZM5 | A A F G K T E R G K T W I A I V F S G D K T P T A E D V A A L H D K A H D E C C F | | |
| UniRef90_W1N3J5 | G T T A N G D Q L V F T H R P H I V L T S E A S K E D A E L M L Q A E K D C H | | |
| UniRef90_UPI00045E5BCF | G V M A R N S E G K L R P Q V A F S G S R L P T P A E V V I E M H H Q A H A E C C | | |
| UniRef90_UPI000470B42F | Y D N E A T P R R F D V E I R L P A G L S D D Q V T R L R R V A D T C P | | |
| UniRef90_C7RS85 | G D I I G P E E M G F R Q V V R V R V N V E G D A P R E E V L N Q I V E H A N Y F S P | | |
| UniRef90_H0E719 | G Q L D D P R A N Q P G F E H V H V R I V S P A S E T E L K E L H A A V E R S C P | | |
| UniRef90_UPI0004702F09 | G E V V P G G P G F K Q V R F M V Q V K T K N S K E K I E Q V H Q L A Q Q V S P | | |
| UniRef90_UPI00035E536D | G I L D I T D G F G L S E L L K S I Y H I K A D N T K E E I E A F V D F L E K T C P | | |
| UniRef90_UPI0004706645 | G D I I D L N G N G F Q H V T V T F Q V K G D A P E A V L R E I V E Q S R Q R S A | | |
| UniRef90_E6S7M5 | G T M A K N D A G K L P A V T F G G E R A P T D D E V A A L H H A A H D A C F | | |
| UniRef90_A9AMX8 | V S L H A D H D G N Q Y I R R G V A V E G P L E E T Q R A R L A E I C E K T C S | | |
| UniRef90_W4NP17 | A D A T P S V F T R I H V H F T V T G K G L K E Q V Q V A R A V E L S A E K Y C | | |
| UniRef90_U7NPRL6 | G T F D P R A G A E G F L A Y T V Q I D S P A D P A V I A A L Q V R V E K A C C | | |
| UniRef90_I9LNR9 | A Q T G R N A E N R L R V A R L T L G V P A A S L E R L D R V L D Q F E A F C T | | |
| UniRef90_B1Y5V5 | V E D Q Q I A S T R T E I V R T I T L Y G E L E H T Q R L L Q V A N A C C | | |
| UniRef90_B14KR26 | K I L M Q P E P R K I I S K I I V M N L S V A V D E K S K T I L E R A A M H C P | | |
| UniRef90_UPI0003FC6D35 | G E L D P R G M G T E G V R R H F E T V T V D S D E R I Q E L K E K T D D R C C P | | |
| UniRef90_UPI000409C743 | G D L D L L Q G F G Y E G I R V I C H R V K S S A T D A E L Q D L W T T S Q E I S P | | |
| UniRef90_I0INT6 | W G V S V V Q Q C C I D A L R V R L H V D A Q L D E M G R Q T L Y R M L D Q C | | |
| UniRef90_B8GM09 | V H L G E K D G G P H I M L I E L N T E A R I D E D E F Q K L A Q E A K A N C C | | |
| UniRef90_J0V988 | K T M T S E A P R R I A Q L S V W I Q L P A H L D E Q Q R A V L M R A G E Q C P | | |
| UniRef90_UPI0002002631 | G E E Y P P Q K F T E I H V K Y I L K G A N L T P D K V E R A I R L S E D K Y C S | | |
| UniRef90_UPI00036BA721 | G F Q M G S R P A R V A R I E V R L T I P A D V P A E R R E P L L A V A S R C T | | |
| UniRef90_K4QSH3 | A T I I G R N E E N R L R I R V Q L H A V V A G S E E H L D R I L S Q F E G F C C | | |
| UniRef90_UPI000465FEB9 | G D R A A E H P K Y F K I K V I Y K V W G D V P E E K K L K K A I D L S E K Y C S | | |
| UniRef90_D3SAT4 | V D F A S Q P H R V G A I N L R V E V P G E L S P E Q Q A S L L A V A S R C T | | |
| UniRef90_A0JXF8 | G T I I D E V P A G Y Q D I T I Q M Q V D A D C S Q Q E L D D L L R F A Q E H S P | | |
| UniRef90_UPI0003B5AC9B | F F Q M G S R P A R V A R I E V R L T I P A D V P A E R R E P L L A V A S R C T | | |
| UniRef90_H5SN13 | A T I I G R N E E N R L R I R V Q L H A V V A G S E E H L D R I L S Q F E G F C C | | |
| UniRef90_T1AT81 | G D R A A E H P K Y F K I K V I Y K V W G D V P E E K K L K K A I D L S E K Y C S | | |
| UniRef90_A0A024ILD2 | V E D Q Q I A S T R T E I V R T I T L Y G E L E H T Q R L L Q V A N A C C | | |
| UniRef90_KOT3Q4 | A E F E G I G L A A R D V R Y H A R V V Q S P A S P D A I A R L L R E T D A V A E | | |
| UniRef90_UPI00046AF37A | A F R D E R G R I S G T V A V H F K A G I D V T E G Q L I Q T L A E Q T E T R C P | | |
| UniRef90_UPI00047AA80D | G T R G V E G V R P Y F T H V K L T D L T T D E D R I D L L K R N V E L R C P | | |
| UniRef90_W0RGP4 | G D I A D E H P K T F E N M K V I Y E F R G K D L E K A V S L S E E K Y C G | | |
| UniRef90_B5ILF6 | D C A E C V D R A V S A P A V E V E L H G P L S D E Q R A R L R Y I A G R C P | | |
| UniRef90_UPI000463C08B | K T M S P E G P R R I A G L E V W I A L P A H L E E R Q Q A T L R R A A E T C P | | |
| UniRef90_F2KQJ2 | G D L N S A G P G F N R I R P H I T V K T D V A P E M F Q Q V I D L A V L R C P | | |
| UniRef90_C8X7G1 | V E R L I C G D V E W K F T V N V H I D G K L S Q E D K E K L I K A A E E T C K | | |
| UniRef90_L9WRB8 | Y E I I G G R P T R V L R I I I V V T P P A D L P A E R R D A F L A V A S H C T | | |
| UniRef90_K2GMC2 | G D L N D D D K L I E S V S F D V R V I E A S V V D D E T A E K V I E R A N E L C K | | |
| UniRef90_A6WYS6 | G E M D P R G M M F K K V S V H A K V H T S E T E E R V K E L Q E K V D R R C P | | |
| UniRef90_R4K160 | G D K A H E G P S R I R F N I T F H F G G D L T D D E K H R L A E M A E E I C T | | |
| UniRef90_I8UDK9 | L N R E N E D K T S F K Y A I D I D A D I N E D I K N K V M R K V R N C P | | |
| UniRef90_B2KD04 | G D Y N P D R A G F Q Q I R I S A E I D A D L N A E Q K Q R F L D E V C A R C P | | |
| UniRef90_D5HBM2 | K I M E S N P R R I G K F I I D I F P E G I S K E K M E M Y S K V I H T C P | | |
| UniRef90_A0A024QIQ1 | K E M A S N P R R I A S L R T D V T M P T A L L D A Q T R E R V E A R A R H C P | | |
| UniRef90_UPI0003609DD6 | A T R N P D E A N R I E K I T H F I H H L D P E K M Y K N L A I A R K N C S | | |
| UniRef90_Q31J02 | G R Q D T D P K V F H T I K L L V K L E G D I P A N K A K R A A Q L S E E K Y C S | | |
| UniRef90_I3Z415 | A E R S D S I P K V F T K I H V H F K I T G Q D L N L K K V V E R A A E K Y C S | | |
| UniRef90_UPI0003B63663 | K V M N P Q P R K I A E I V I F H W E N A P Q D E K M L Q K L K N A A K T C P | | |
| UniRef90_F2KQJ2 | Y H E P T E E G A E R F L R R T I T L S E K V P E P D Y E H M D I V E K T C P | | |

UniRef90_B4RBB9
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 UniRef90_C5CW12
 UniRef90_K2GX31
 UniRef90_UPI0003A89CEE
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 UniRef90_W6WFA8
 UniRef90_A4EFY0
 UniRef90_X0QKS7
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 UniRef90_C0GJS9
 UniRef90_W6R7V1
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 UniRef90_V5C6A0
 UniRef90_H5SL98
 UniRef90_E0MQ35
 UniRef90_H5WKW1
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 UniRef90_D5WTN5
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 UniRef90_C6WE97
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 UniRef90_C4L1G0

50 60 70 80

| | 90 | 100 | 110 | 120 |
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| UniRef90_G0HX89 | A G L D E D D D D L E Y | I D F H V E V E A S L A D E E | Q D I V E L A E D I C H | |
| UniRef90_U1LA65 | G E L D V R G P G F A G V R | V V V D I D G P H E R E R F E E L | R R V V D A H C P | |
| UniRef90_S3GGW0 | V R A T E H P M R F T T L | H I L Y V L D G E M P E E R V R R A I E S V | D R Y C S | |
| UniRef90_UPI000248F5E3 | G D R T P M G E A K P F T K I | H A T I F I K G K V A P K K A L | K A A F E K Y C S | |
| UniRef90_J2J630 | V T K I M N A E P R R I G A L | E I A F E M K G E D E K S K T I | L E R A A M T C P | |
| UniRef90_UPI00046AB5C1 | A T L L D L R G F G F P E | I R Y Q I H V T G D A T A E E F F A E L | H R K S V A H S P | |
| UniRef90_W0HN31 | A E I D H R A T Q E A F L | R Y T V Q V S S P A S D E Q | L A A V L A A V E K T C P | |
| UniRef90_M0L4Q5 | G E L N D D D K L E S E I V | S V H F D I R V E A D V | D E T G E E I I I E R A F E L C K | |
| UniRef90_W0JNY6 | G E L N D D D K L E S E I Q F D I | R V E A T V D D D T A E D | V L D R A D Q L C K | |
| UniRef90_K9XDA5 | G D I N I T G V G F T D V | R V K V D L E G D A T R E E L E E L | V A H S N Y W S P | |
| UniRef90_R7X579 | A N I D H R A G Q P G F E N | V T A H I E S P A S R E Q I A A L | H E A V E R T C P | |
| UniRef90_I3E370 | G L M G E E G V S P H F Q K I | R F R V N I Q T E E R I E Q L | K N E V E R R C P | |
| UniRef90_G2Z7H0 | G T R E E E A N P F K T I | K V Q F F L E G R V D P D K A W R A A Q L S | D K Y C S | |
| UniRef90_UPI000237EAA0 | A L I D E Y E D G S F I L R P H A A I | S T P H D I Q Q V I D L | H Q D A T T M R S C | |
| UniRef90_U6E1R1 | L E M A K D D K G F Y F K P T A I L | G I E N M S L Q Q V Q I | L L A A D Q R C P | |
| UniRef90_D7JDB6 | K I M N T S P R R V A E I V I E | I T F P H N D Y S E K E R K I | L N A C V R E C P | |
| UniRef90_UPI0003655FD1 | R A D S V P S V F T K I H I | H F V V T G N D L K E A A R A V | S L S A E K Y C S | |
| UniRef90_F4GYZ8 | G T M R V I E A A G H Q F T E | V V L R P R V P V T D A V L A G L | H H A T R E H C F | |
| UniRef90_K2C9B7 | G E Q D Q D P P W T F R K I H I | N Y R F G T E K A V S Q A | Q L S E E K Y C S | |
| UniRef90_E6QJN1 | A T R Q D R P P I L T Q I R F M L | H L K S D A P P E Q L D H | L V D L A K R N S T | |
| UniRef90_U5WML9 | G D I D I S A V G F T A V R C R V | T L A G G D A D D A T L Q E I | H D N A I A W S P | |
| UniRef90_B5JXZ2 | A D A I P P A V F T K I H V E | F E F E V V G K D L S E K Q V A R A | V D M S A E K Y C S | |
| UniRef90_E6PGV0 | I H K T R N E R G R L R I E V E | V E L Q A E V P E Q E Q R F E R | C R A L F E D Y C T | |
| UniRef90_L8MB27 | G D I D L R G F G Y D Q I S Y T | H I K G D G T P E E Q F E Q I | H N F V K K T T S P | |
| UniRef90_UPI000423141B | K I M A S E P R R I S E I H I | V F N F D I S V D E K T K T I | I L E R T A N T C P | |
| UniRef90_UPI000200162A | V M T S E A P R K I A Q L E V W I E | P A H L D E K A R K I I L R K A A E N C P | | |
| UniRef90_K1ZWU5 | K E M I A D P H R R I G K L I V D F | V C D K E I P P E A Q T I L E K G A L L T C P | | |
| UniRef90_UPI000262ADD2 | G W L E H P G R G G R F F R E V A | T L A I A D S D A A R A H A L H A Q A H A Q C F | | |
| UniRef90_G8PMW0 | A E K A S T L P H R F G F H L E F A L | P E F E D R E K A E A M L K A A K E I C T | | |
| UniRef90_UPI0002D44ED1 | L T L T R N E H G R L R I T H I | G V D L Q L A D K A E L L D R V L A Q F E D F C I | | |
| UniRef90_U4TBK0 | K V M A A D P R R V S E I H I | V F N N E L D D R T Q T I F Y N T A L T C P | | |
| UniRef90_UPI0003819C48 | A H V G R N E A G R L R L R M E V K L R L G R P A A E L Q H | M D R I F E A F C T | | |
| UniRef90_F8F4D6 | G D L T E E H P K T Y T T I K I I I Y E F K A S D G L K D E N V R K A D R Y C G | | | |
| UniRef90_Q2HI45 | A D L A E G N P N W E G V R L R V R V Q T D A E G E R W E R F V S E V E R R C P | | | |
| UniRef90_J9HA73 | G E R R E P P Q A F T R I H T Y R M T G E V P A A K A W R A I R L S E K Y C S | | | |
| UniRef90_B2T283 | G D I D L R G N G Y E S L R Y T V R I K G S G T R E Q F A E I H S A V M A T S P | | | |
| UniRef90_L9XAA8 | G F L G I S E D G Y D A V D C T V H I D A D A S E S E S L V I E L Q E R V E A T S P | | | |
| UniRef90_J2LKW0 | F S R R D D C G L E N I E R T V T F G N A L T P E Q I T R I L G E I C E K T | | | |
| UniRef90_L5MYC6 | V T R N E A E A N R V E K I H L F I I T G E Q E R V Q K A V E A A S K N C | | | |
| UniRef90_U7JZF0 | S D I E D A R P G V S D V R V K V D V D G D A D R E T I L E K V V A D A I Q W S | | | |
| UniRef90_UPI00041D1ACB | L N V K R G E A G K L T S N V T I K I | E G N L T A E Q K A E L L K Q A D A C Y | | |
| UniRef90_UPI000381F9CC | G E V D T T P K V F K A I H V H Y K L F G D L L D E K K A E R A C | R S M E K L C | | |
| UniRef90_UPI000401B0F8 | K F M E A D P R R I V R I D V K F K P K N I S E K N R K I L E N T A R T C P | | | |
| UniRef90_V6J0N6 | Y E I N E N L E T H P I S L I H V H F V L N V D E A D Q E K A I K D L R K N C | | | |
| UniRef90_H3NEN3 | A H K A D N P N R I E S I D L V V H I V T D I P K N R I E R A L Q L S H K Y C T | | | |
| UniRef90_M0CNU6 | G C A D M R G P G F D H I E C T A H I E S P A S T A E L E E I Q E A A H A S S P | | | |
| UniRef90_UPI00035ED01A | F R V E R N E A G R L R I T I E V G I L A L G A P A E T L L D R V L E Q F E R F C T | | | |
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| UniRef90_UPI00036879D4 | A Q K A Q K P A R I L M D F R I G L S I P G L D D D P R H R E G I L R A A K N C | | | |
| UniRef90_A7H770 | N H F D P E T G V L A R V E L D I E V P P S F P E K Y R E A L V R V A D Q C | | | |
| UniRef90_Q2KXQ9 | G D L D P R G G Y P H N I R Y T A H L V S P A S E A E V K A V H E A V Q A W C | | | |
| UniRef90_R0P6Y3 | G Q L D E G N P G F N E I D V Q F T I D S D A D D K Q L E E L V S K A M E I S P | | | |
| UniRef90_M0D2X2 | G E V D L R G F G Y N T V T C T A Y I D A D A S E E L A E L R D R V E T T S P | | | |
| UniRef90_Q0A6F0 | A E R A E Q P P K V F H L H F Q V A G E G E G L S E K A V A R A V Q L S A E K Y C S | | | |
| UniRef90_E8U1P4 | A E V G R N A E G R L I L Q M T A T R L R L G V P A Q Q L Q H L D R Q F E S F C T | | | |
| UniRef90_UPI00047C6AC8 | G E R F A G V P G R G L T K V H L I V G A D V E R V H A E R A E L A T K Y C S | | | |
| UniRef90_D8J2B8 | E A D L D D D D D L T A I R F D I Y V E E D L D D S E E L D G I V E R A E G C H | | | |
| UniRef90_Q0ID77 | K T M T T E G P R R I E S L Q A Q I S L P V A L S Q E Q K T I L L K R V A N D C | | | |
| UniRef90_UPI0004164D18 | K V M V S D P R R R V G K I V A H M Y M P A G Q V D E K T K E I I L E R T A R T C P | | | |
| UniRef90_M0LHC9 | G D V D Y D P R G L Q G L T V S V A I E S D A D E D R L E E W L A A V E R R C P | | | |
| UniRef90_M3J901 | Y E Q D L E Q A V H V I K K I D V N F Q V K V A Q E K A E K V H L V K N G C | | | |
| UniRef90_D5U0V2 | G E F G I G E G V K S L R I K Y H I S G I E E E T A L A I I N Q V K T T C P | | | |
| UniRef90_UPI00038187CE | K I M A T D P R R R V A Q I D V M L I V K G V A T D K D Q Q I L T N T A L T C P | | | |
| UniRef90_UPI00036A9331 | R E L D E R D P D R F R L S F D V D L S G M G D R T E R A K L V E A V E R K C P | | | |
| UniRef90_UPI000379D287 | K V M G V N P R R V V E L T I T L P H N Q Y S P K E R K I L L E L T A K E C | | | |
| UniRef90_V7I3Q8 | G D E N G S A F S L I R V M P K V T V C G A G T E E K A K S C S L A S S S P | | | |
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| UniRef90_A0LJ17 | G S I D | | | |
| UniRef90_UPI00037A36ED | G E N S A E H P K V Y Q D V E L V Y S F W G D E S K L Q K A V E L S E K Y C G | | | |
| UniRef90_UPI0004756DC9 | A D M D I Q Q N G F G A I R V H F E I R A D A S E D D I K A L V A Q S Q K R S A | | | |
| UniRef90_C1B649 | T D F D L Q Q G F G A Q E I R I D V H A E S P N S T E Q L Q E L T D A V Q K R S P | | | |
| UniRef90_G5H5U0 | K V M A A D P R R I G E I V I D V H F P S A Y E P K Q R K L L E N A A A T C P | | | |
| UniRef90_A6GR69 | A D V D P V G F Q G M R C N V Q F K V K I G E T P A D L I K A L T Y A A K R S C V | | | |
| UniRef90_A3J0Y9 | K I M G T E P R R I T E I H V T F H F S I N P D E K T K T I L E R T A M T C P | | | |
| UniRef90_Q7CZ00 | G E K S A D E P Y R I R F D I R I E I T G D F D E A T R A A I A H A A E D I C T | | | |
| UniRef90_D5WTN5 | A E R A E K H P Q R F T K I A I D Y I L D G P E H D K V K R A V E L S H T Y C S | | | |
| UniRef90_W4T547 | G E R I P V D A K P F R S I N V K F E G E D P K K A Q K A A Q L S E K Y C S | | | |
| UniRef90_F2IAS9 | K I M A V S P R R I G K L V I D I D L R N N G W D E A T I E K V K R A A L A C | | | |
| UniRef90_UPI000401A7FB | K V M Q A A P R K I S E I V I T F F W E D P V A D P S M I Q K L K N A A K T C P | | | |
| UniRef90_X5PV89 | G D M D D V R N G F S G I T V K Y N I D A D A K R E D I E A I V A Q S Q K R S A | | | |
| UniRef90_UPI00041240BE | G Q R K D T G D A K P F E A I H V N L H L E G E D E A K I R A A A E K Y C S | | | |
| UniRef90_UPI00024848CC | G H L D L R G F G Y Q S L D W T L I V K G D A S A E Q F Q Q I Y E A T I T A S P | | | |
| UniRef90_F9F4C0 | G Q L E Q Q N G P N W E S V D L E V N V Q T S A D D A A F E H F V A E V E R R C P | | | |
| UniRef90_C6WE97 | V G L R H D G A E R L D F E V R F K V I L P A D E A A R R D L V D L S V I S H C P | | | |
| UniRef90_K2P35 | K V M D T N P R R I S E I K V I F D P S V A E Q K H R K I L E N A A L T C P | | | |
| UniRef90_A3I287 | K V M Q S A P R K I Q E L I V D F S W E N P V T E P S M V Q K L K N A A K T C P | | | |
| UniRef90_H6RDS2 | G D R K E V G G A K P F K A M V V K V E G E I P P E K A L R A A K L S E K Y C S | | | |
| UniRef90_I3BT87 | A E R E K E P K V F T R I H H F I V T G R S L A E D K V I E R A I K A E K Y C S | | | |
| UniRef90_I2F0D3 | K I M S A E P P R K I V I D F K M K T P E P L S D E V K A K Y V R A A H T C P | | | |
| UniRef90_UPI00035F30C2 | G V K G D P P K G Y E N I H V I F Y V D T D A S E D V I R D I I E H S K T S P | | | |
| UniRef90_C4L1G0 | G L R A T D H P K R F T I H I L Y I L K G E L S E E R V R R A L E S V E R Y C S | | | |

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|------------------------|-------------------------------------------|
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| UniRef90_G0HX89 | V H S A L Q D E L H A E I T I E |
| UniRef90_U1LA65 | V H D L F S N P T P I E T R L |
| UniRef90_S3GGW0 | V S H S L N A T L T Y S Y Q L N G |
| UniRef90_UPI000248F5E3 | V S K T L E P T A T V T V V V N G E K V |
| UniRef90_J2J630 | V F L S L N S E I E K R I T F N |
| UniRef90_UPI00046AB5C1 | N A Q T I L N P V H L N |
| UniRef90_W0HN31 | I Y D F L I R P Q T I T |
| UniRef90_M0L4Q5 | V H D A L K E S L H A E T T F E G D A |
| UniRef90_W0JNY6 | V H D A L K S D L H A D R S L E G D A |
| UniRef90_K9XDA5 | V A N T L R L P V N M E V S L |
| UniRef90_R7X579 | I Y N F L L I N P Q T I Q G Q L E |
| UniRef90_I3E370 | V M N L L D A G V K V D |
| UniRef90_G2Z7H0 | V S K T V E P T A T V E V F V N G T P I |
| UniRef90_UPI000237EAA0 | I A R S V V S F P P V L C E P R V T G A |
| UniRef90_U6E1R1 | I S R L I S A N D N V K T Q V |
| UniRef90_D7JDB6 | V S Q S L H P D V K Q T V S |
| UniRef90_UPI0003655FD1 | A S I M L K G G V E I T |
| UniRef90_F4GYZ8 | I A R S V V N F P V R H E |
| UniRef90_K2C9B7 | V A A T L R A T A Q I T T D F E I L A |
| UniRef90_E6QJN1 | V F Q T M S L A V S V E |
| UniRef90_U5WML9 | V V N T F R R P A T V D S T L T |
| UniRef90_B5JXZ2 | V S K M L E H S V E M T |
| UniRef90_E6PGV0 | V T A S V R Q G I A V E V K L T A |
| UniRef90_L8M2B7 | |
| UniRef90_UPI000423141B | V H Y S L H P D I K K E I T F N |
| UniRef90_UPI000200162A | V K L S L E G A V A M Q L |
| UniRef90_K1ZWU5 | V I H S L N P K I E V V T N F K |
| UniRef90_UPI000262ADD2 | I A N S C A V A V R C E A T V H G E A |
| UniRef90_G8PMW0 | V S N T L N A E I S F S L |
| UniRef90_UPI0002D44ED1 | V T Q S V R Q G I K V D V S V E G T A L |
| UniRef90_U4TBK0 | V A K S I H P D I T Q N L T |
| UniRef90_UPI0003819C48 | V G E S V R A G I P T E V S V |
| UniRef90_F8F4D6 | V S A L L K K A L P V E F E V Q |
| UniRef90_Q2HI45 | I T R L F R |
| UniRef90_J9HA73 | A I A S V R A E V I P H L V L N D S D I |
| UniRef90_B2T823 | N F Y N L A K A V P L K S T L |
| UniRef90_L9XAA8 | L L D D V A N P V R V E P E L |
| UniRef90_J2LKW0 | V T K T L R E G T P I R T |
| UniRef90_L5MYC6 | M V Q S V K G S I V V T |
| UniRef90_U7JZF0 | V V N T Y T R P A K L T H E L |
| UniRef90_UPI00041D1ACB | V H R M I E G E W N I E |
| UniRef90_UPI000381F9CC | V S M M L E K S V D I T W S Y E I L A |
| UniRef90_UPI000401B0F8 | V H Y S L H P D I |
| UniRef90_V6J0N6 | V A Q S L N P S I E I S E T V S |
| UniRef90_H3NEN3 | I S N T I R A D I Q V T L I Y N G E A I |
| UniRef90_M0CNU6 | I L D N L E N E V T V D I |
| UniRef90_UPI00035ED01A | V S E S V K A G I P V T V A V R |
| UniRef90_X5DD5 | V S A L Y R K V I E V T S E I K I I |
| UniRef90_UPI00036879D4 | I H N T L L H A P R I D I E L E |
| UniRef90_A7H770 | V K K A I Q A Q F E V Q T V V A G |
| UniRef90_Q2KXQ9 | I L N L K Q G Q P V H A T L R |
| UniRef90_R0P6Y3 | V K N S L E R N V Q V N S T F K |
| UniRef90_M0D2X2 | L M D N I T N A V P L E T E V |
| UniRef90_Q0A6F0 | A S I M L S K A A K V T |
| UniRef90_E8U1P4 | V T Q S V G Q G I P I A V K V |
| UniRef90_UPI00047C6AC8 | V R D S L D P N L P V T L L E L N G A A V |
| UniRef90_D8J2B8 | V H S A L R E E L H A D I S V E G |
| UniRef90_Q0ID77 | V K R N L D T S I T I D L |
| UniRef90_UPI0004164D18 | V E R S L H P D V A L D I I |
| UniRef90_M0LHC9 | V T D N V V N E T G L S I D V E |
| UniRef90_M3J901 | V A R S M H P D I Q I T E H V T |
| UniRef90_D5U0V2 | I Y N T L |
| UniRef90_UPI00038187CE | V A K S L H |
| UniRef90_UPI00036A9331 | V S R S V E H G T P V E I S L P G |
| UniRef90_UPI000379D287 | V F N S L H P E L K K S I T |
| UniRef90_V7I3Q8 | I T A S I K S E I A L E P E I |
| UniRef90_UPI000472562B | V S K T L E P T A A I E Y K V |
| UniRef90_A0LJ17 | |
| UniRef90_UPI00037A36ED | V A A T L R G V G T I T |
| UniRef90_UPI0004756DC9 | V F D I V T N P T N V F V T V N |
| UniRef90_C1B649 | I R D T L A N P V Q V V T T L |
| UniRef90_G5H5U0 | V A K T L H |
| UniRef90_A6GR69 | V Q Q T L L K N P P K V E T S |
| UniRef90_A3J0Y9 | V F Y S L H P D I K K E I V F N |
| UniRef90_Q7CZ00 | V S N T L K G N A E F A L S T T G |
| UniRef90_D5WTN5 | A L N S L N A D F E I R Y T L N G E |
| UniRef90_W4T547 | V S K T L E P N V E I E V F V N G E K I |
| UniRef90_F2IAS9 | V A K S V S E E L E L E I T F N |
| UniRef90_UPI000401A7FB | V A L S L D P E I K Q T I H F N |
| UniRef90_X5PV89 | V Y D I V T N P T N V T V V V N |
| UniRef90_UPI00041240BE | V S I T M Q A S V K V T I V L N G K S L |
| UniRef90_UPI00024848CC | N L W N M A H P V T L V P Q L Q I E A |
| UniRef90_F9F4C0 | I T Q L F K |
| UniRef90_C6WE97 | M |
| UniRef90_K2PV35 | V Y Y S L H P D I K K D I Q F N |
| UniRef90_A3I287 | V A L S L D P S I K Q T I N F N |
| UniRef90_H6RDS2 | V S I T M Q A T V D I T Y Q V N G E A L |
| UniRef90_I3BT87 | A S I M L A K T A E V T |
| UniRef90_I2F0D3 | V S L S L H P E I E |
| UniRef90_UPI00035F30C2 | V A S S L K S K I T Y E L K L |
| UniRef90_C4L1G0 | V S H S L N A T L T Y S Y Q L N |

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| UniRef90_R5DB89 UniRef90_W7L5B3 UniRef90UPI000471F5B8 UniRef90_M1IN16 UniRef90UPI0003FB23C4 UniRef90_M0M3Z1 UniRef90UPI0002D38CEF UniRef90UPI00035E9434 UniRef90UPI000374EEB8 UniRef90UPI0003B4BF74 UniRef90UPI00046AC87B UniRef90_F8A7W3 UniRef90UPI00041F3256 UniRef90UPI00047E6ADE UniRef90_M3IZB1 UniRef90_Q2BR34 UniRef90_F6B530 UniRef90_I7C7H1 UniRef90UPI0004742511 UniRef90UPI000288B75F UniRef90_A5FJU7 UniRef90_A6ESK4 UniRef90UPI00029A3BCB UniRef90_F8A620 UniRef90_LONEE9 UniRef90_R9T5G8 UniRef90_F5YXL1 UniRef90_N1ZUQ2 UniRef90_W0EVV8 UniRef90_Q0A9K9 UniRef90_W9WL95 UniRef90_I3CEB9 UniRef90_V4IMB9 UniRef90UPI0003B7AD80 UniRef90UPI000475DAFC UniRef90_J0W2P9 UniRef90_D3PL1 UniRef90_X1KKP4 UniRef90_W5YQY7 UniRef90_M4V658 UniRef90UPI00035FE610 UniRef90_L7VQ74 UniRef90_G0S374 UniRef90UPI00040C1625 UniRef90UPI0003B55A8B UniRef90_E6U0M9 UniRef90_U3TFN6 UniRef90_I1YQW8 UniRef90UPI00036BE2CA UniRef90UPI00034633B4 UniRef90_N9DJ00 UniRef90_E7QS87 UniRef90_I0JJA1 UniRef90UPI0003662450 UniRef90UPI000364F299 UniRef90UPI00047EAA07 UniRef90UPI00035E8D62 UniRef90UPI000380894E UniRef90UPI00037AD8E6 UniRef90_G7WBK2 UniRef90_Q31JN7 UniRef90_U5WK53 UniRef90_R7DSH0 UniRef90_W2RW78 UniRef90_G2EEK7 UniRef90_L8DLM4 UniRef90_Q2FMJ1 UniRef90UPI00035E611 UniRef90_M4UM56 UniRef90UPI0003169DA8 UniRef90UPI0002EF13F2 UniRef90UPI000476F09F UniRef90_Q5YS18 UniRef90_C9SCR7 UniRef90_W8KGT6 UniRef90_B6VMA7 UniRef90UPI00036FD3FF UniRef90_E1QHT9 UniRef90_KOB0K9 UniRef90_U4KSU0 UniRef90_H1XW92 UniRef90_F4DAX5 UniRef90_E5WQU9 UniRef90_F6DIF6 UniRef90UPI00040B1D94 UniRef90_G0A4P6 UniRef90_V6S4H2 UniRef90_A9BI22 UniRef90UPI00040B06D0 UniRef90UPI0003607900 UniRef90_M2XFL8 UniRef90UPI0003687016 | R K Y G S V I S N G K V S V D C D N P T E Y G G D G |
| MTI I F T A E G E F S G D K V T I T M D D Q I L E V G T K II Y N G S L R T T S T H V Q S G K E I I T D A P I D N K G K G T V S S T S E E G F S T T S R V G E F E L T I D A T N E M T H Y T A S V R T G A D G H D V T V G V G Q D R T L T P A R E G S S G Q I S T K W L G G M A F E A T N P G G N F K I D A D I E I G G T N T S K V T Y N G A L R T E C V H L K S N D S F V T D A P V D N N G L G S A R V V A E G R S G I R R L F I R D F Q I I T D G S P A G G G F D L K T I S V T A N M A A G W A I N A D I R D H K V V I D Q P Q A G G G T N K V Q V S W E G N M K F V G T D E T G F K I P M D A A A I Y G G Q N G E T Y S R D F E I A A D E P N E L L G Q N I H L Q S G S L I K T D A P L D H F G K G H E L T V D Q P V E E E G G D N V D V D S R A E F G G G S D T A T V T Y L G G R T E C T H I R S G N V F L T D A P L D N N G K G V Y L D N K S E P N P T G K R R Y V G R S S R G A R V E I G D I A Y D A S A T A R L G R T G R P V V T S G G G K T I D V A P A G L D E G Y R F R S F S S N K E D I H M D E P E P L G T G M T K L W V E R T G T R R Y T G R S S R G A Q V L I G S E G V D K D G T I Q V D T K I G D H K L I S D E R M G G Q N V K M D S N P E M G G T E G R V G E G V S C S G K A L V E A G L H P A T G G P G T I D V E G K P Y K I Q T D T Y Q V L G G N D Q V I T E F D G F H V L A D Q P K D N G G Q G K T T L K W I D G V C F M A E T G S G H A V V M D G A P E G G G R N G L R T D C V H I Q S G T H I N T D A P T D N Q G L G F N V K T K W Q G Q T R T V A S V D A R H F E I A A D E P A Q L L G Q N P L K E N G T N G Y H T A T Y L G E K H C K V E H E P S K T L L D T D A P K D N Q G R G T F K V Q V T S T G Q P N E Y Q A A V R D F K V K L A P D S T A H I S V P G K T Y S F T A D T Y P I L G G E D Q I I Y T S R T T A T H L Q S G S A I E T D A P T D N K G K G M T V T K T M T L H H G E Q R Y V G H S A S G H Q I L L D N S P I K E V T A E A S P A G E V K V D V G G V S I T V Y P E R E A G G P E G N F R V E A T Y E T S G Q T L T T D A G K V S G G G L G V I R I D G D R K I G G L E Q S S V H W L E N V A F E A K T Q S G H T I I M D G S P E Y G G E N E V R T S F D Y G Q L N I S G D E A F F P V H A E G T G V Y Q T L T A G G E G G H V F H T D A Y P A F G G K D T A T N G R G G E V T I S T E E T P T I I T D A P T D N N G K G Q A T I K W T D G R Q F V A E S G S G H A T I I I D G N P D N G G R N K V S V R H I K G L H F Q G E G S S K V L I N I D A S V T A G G T G D T H Y T S E T E N V G Q F R C E T T Y I P S N I T F A T D L P A S F E G R A M T N T N K V T T H W K G N M Q F E S D N P S G K T V L I D T S P E N G G H N T G T R R Y T G R S S R G A E V L I G S E S V D T M T V R H T G N M S F S A H T S T G L T I P I D A H V H L G G G G H Y Y H V Q S H A S P S N Y L R V K S H S I P D L N V A S P L E F D G P G Y Q W S V R V Q S G N Q L T A K V H T R N H T F V I A G Q P A D F S S K V F N V K T K W H G Q T R S V A T V H E R H F E I A A D E P T E L L G Q N L S V D Q P L G S G G T D T G T R A Y T G R S S R G A E V K I A S Q G V P G A K Q H V T I Q G K P Y S F T T D T Y T T L G G E D K T R I K W L D N A T F V G E S G S G H A V V M D G P P E H G G R N Q A R V K W V E G L S L L G E S S S G H Q I M M D G N A G D T G T R R Y T G H S S R G A Q V L I G S E D V E G V T G G K K I E V R W D D F V V E A D Q S K A A G G E G A T Y K D G L T V Q S I S R D H N L I M D V S K E D M A T Q V K G K V V H I K G V T F N G I T D S N H W V P M D G P P K F G G E N G K A K V S W V E G M K F V G E S E S G H K V I L D G A N P G M E D Q A T V K W D G R L F V G E S G S G H A V V M D G P P D H G G R N N T H G S H F Y M K T P S G H D I H V D A D P E N L G Y D Q A Q V K W D G L K F I S I G D S G H A I V M D S S T S G E E S S R L G P G K A R V K W L D H M S F V G E S D S G H S I V M D A S P E V G G R N | |

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|------------------------|---------------------------------------------------------------------------------------------|--|--|--|
| UniRef90_R5DB89 | Y V F G P H D F I E A G Y A A C L D V C A R K I C E A D G I E F K K V I V T V A | | | |
| UniRef90_W7L5B3 | P T P E E V L L A S A L S C M L L T V R Y V A R E K G V E I E L S G Y I E | | | |
| UniRef90_UPI000471F5B8 | G F R P Y Q L M V S S I A A C T G G V M R K I L E K K R M P A E S I D I E V K | | | |
| UniRef90_M1IN16 | N Y V K P E E L C L A S A L S C L I L T V N Y I A K E K G V D V K G I E G Y I E | | | |
| UniRef90_UPI0003FB23C4 | E A F S P T D L L A T S F G N C C M M T I M G I A A S T H G I D L T G L S A E V T | | | |
| UniRef90_UPI0002D38CEF | N G P D P N Q T L V A D Y A S C C Y I P A F R V G A Q Q N D Y D L G K V E I D A | | | |
| UniRef90_UPI00035E9434 | E G M T P P E W F L S S L G A C C V G F Y A V K Y L E I R H L D A K G L A I S V T | | | |
| UniRef90_UPI000374EEB8 | L A P S P T A Y L L G A L A G C C A V A F L H L A P Q L G V K I D D V T A T A R | | | |
| UniRef90_UPI0003B4BF74 | K G P R P M E M L L M G L L G G C S G I D V V M M L E K G K Q D I K D C Q I E I T | | | |
| UniRef90_UPI00046AC87B | T A P T P M E F V A A A L N G C C I T V V I E T V A A E L G V P L D D V K I A I N | | | |
| UniRef90_F8A7W3 | K G F R P R M E M L L L I G L L G G C S G I D M V N V L T K Q K E P L D D V K I A I N | | | |
| UniRef90_UPI00041F3256 | S A V S G G E L L F L L A T C C A N D V F R E A A S R S L P V E S V A V E V T | | | |
| UniRef90_UPI00047E6ADE | N G L R P K A L M L D A L A G C C T G I D V A S L L P K M K V V A D D T F H I D V E | | | |
| UniRef90_M3IZB1 | H A F S P T D T V A T G L A S C M L T M M G I K A N G L E V V D L K G T T A S V T | | | |
| UniRef90_Q2BR34 | L G P A P G E L L L I G A V A G C C L N H G F L I Q A S L L D I E D A L E V V A E | | | |
| UniRef90_F6B530 | E G P T P L E F F L F S I A G C C I G T I G R I A A S A Q K R I E L R S M E I K V D | | | |
| UniRef90_J7C7H1 | Q G V R P M E L M L M S L S G G C T G I E V G H I L N K M R V K F D S L N I E V T | | | |
| UniRef90_UPI0004742511 | T A P N P Q E L L L M A A L N A C M S V G Y A A N A A M M G I K I H S L E I E T D | | | |
| UniRef90_UPI000288B75F | K F S F S P T D L L A T S L G T C C L L T I M A I K A K A K G Y D L G G I Y L N I E | | | |
| UniRef90_A5FJU7 | D G P T P L E L F V S A S C A A S A D T R F L R L L D Q P Y E H L R V K A D | | | |
| UniRef90_A6ESK4 | L G A S P P M E L V L M G V V A G C C S A I D M M I S L L K K Q R Q E I T S F N A E V E | | | |
| UniRef90_UPI00029A3BCB | E A F S P T D T V A T G L A N C M L T V M G I K A N Q M D L L S I D G A S A V V T | | | |
| UniRef90_F8A620 | Q G A S P P M E L L L M G I L A G C C S G I D I V M I L L K K Q H I E L E D L Q M E V E | | | |
| UniRef90_L0NEE9 | E A F T P G E L L L K I A L A G C S G L S A D A A R R L R G D D V P V T I E V Q Q | | | |
| UniRef90_R9T5G8 | P G F T P L D L L Y S S L A S C C L A I S A R I A A S E L R L L D R L E V V T V Q Q | | | |
| UniRef90_F5YX1 | N F P N A G K L L A A A V G N C C L C A S L T F C L E K S R L D C S N I C A E V M S | | | |
| UniRef90_N1ZUQ2 | G V I F T P G E L L L K I A L A A C C S G M S G D A A L A S R L G D G Y P A T I Q V S H | | | |
| UniRef90_W0EVV8 | A G P D P V E Y L A T A V N S C I A I S A G A L A K A N T Q T I T D F H V E N H | | | |
| UniRef90_Q0A9K9 | Y G A R P M Q L L L N A L A G C C A S I D V I S I L L K K Q R Q E I K D Y S V T V T | | | |
| UniRef90_W9WL95 | T Q A C S G D M L L E A L V A C A G V T L S A V A T S L E I P I E E C T L R A E | | | |
| UniRef90_I3CEB9 | S S P S P V S Y S L A S L L G S C C T Q V T G S V V V A K D H N I K L G R W D V A V E | | | |
| UniRef90_V4IMB9 | T A P D P F S Y F L L S S L A A C C A G G F F V L R F C Q S R Q L E I A D I R L S L L H | | | |
| UniRef90_UPI0003B7AD80 | L G P R P M E M L L L I G M G G C C T Q F D V L T I L R R G R Q N D V R D V K V E V E | | | |
| UniRef90_UPI000475DAFC | E A F S P T D L V A N A L L G T C I I T T M A I F A R R E D I D L L K G S Q L A V T | | | |
| UniRef90_J0W2P9 | T A P N P Q E L L L M A A L N A C M S V G Y A A N A A M M G I L H S L E I E T D | | | |
| UniRef90_D3PLL1 | G L R P M E M L L L A A L A G C C T A Y D V V D I M E K K R Q P L A R Y R V E A V | | | |
| UniRef90_X1KKP4 | L G P K P A E L S L Q A L L G G C C I I L F A Y L Y A A E K L R V D V E D L K V D V E | | | |
| UniRef90_W5YQY7 | D A P N P G D L L C T S L A A C C L S T T R M I A Q W L D I V E L A D I E V D V R | | | |
| UniRef90_M4V658 | E S F S P T D L V A T A L L G T C C V L T T M A I M A E K D G V S L I G S R R M S V E E | | | |
| UniRef90_UPI00035FE610 | A V S S H E A L L Q A L G A C C E A I V M A S F N K Q Q D F T Y R D F Y Y T V E | | | |
| UniRef90_L7VQ74 | P D P H D L F D S S L I A C C K A L T A H V Y A K S R G Y A L D R V E I T V D E | | | |
| UniRef90_G0S374 | S A P P S P V V Y S L A A L S A C C N Q V T G A V V V A K D H G I R L G Q W H V D V E | | | |
| UniRef90_UPI00040C1625 | E R F S P T D L V A T A L A S C C M I T T M G I K A Q T M N I V L D G T K A D V T | | | |
| UniRef90_UPI0003B55A8B | I G V R P S E A L L A A V A G C C T A Y D V V E I M R K K R T P L A E Y R V E L V | | | |
| UniRef90_E6U0M9 | Y G F R P Y Q L M V S S V A V G G G V L R K V L E K Q R M N V K D I T V E A N | | | |
| UniRef90_U3TFN6 | K G L T P L G L L A A S L A S C C E V L M S R L V G R M L G Y N S F D V R V S V T | | | |
| UniRef90_I1YQW8 | E Y A T P A D I L L A Q S L L A A C C A L T T I A M R A F R E N I D L T G Y A V V G E | | | |
| UniRef90_UPI00036BE2CA | G G M S P P M Q L L L A A G L G G S A I D V I S I L E K Q K Q K L L T D L T V E V D | | | |
| UniRef90_UPI00034633B4 | K A F S P P M Q L L V L A A T G A C C A A V A D V I V Q I L K K K R K T V L D L R I L E S E | | | |
| UniRef90_N9DJ00 | R G A R P P M E L L I L T G L G G C C A S F D I V T I L K K K A R Q D I T D V R C E L K | | | |
| UniRef90_E7QS87 | D A P D T L E T L L A A Y G S C C Y V P A L R V G G E Q R G A D L G K I E I D V S | | | |
| UniRef90_I0JJA1 | G F R P P Y Q L M V A S I A G C C S I G V F R K I L D K Q R I E F E D I K V T A D | | | |
| UniRef90_UPI0003662450 | S A P P S P L F Y L L G A L L T S C C N Q V T G S I L V A K D D L G I T V T D L D T A V F | | | |
| UniRef90_UPI000364F299 | D S F T P P G E L L L L A A V A G C C Q A Q L T G E N L L T R R V G E R S P I T V H A D | | | |
| UniRef90_UPI00047EA07 | Y G F R P P Y Q L L V S S I A V A G C C S G G V V L R K V L T K K R M T Y S D I E V T A D | | | |
| UniRef90_UPI00035E8D62 | E A F S P T D L L C S T S L A A A C A M T I M G I Y A K N N G I D L T G T E I E I T | | | |
| UniRef90_UPI000380894E | Q G L S P P R E L L E A S L L G L C C I S I S L Q K V M D V D G V D Y D K S E L V V E | | | |
| UniRef90_UPI00037AD8E6 | T G P R P M E M L L M G M G G C C S A Y D V L N I L D K S R A R V T V D C V A R L E | | | |
| UniRef90_G7WBK2 | H G V S P P M E L L L L M S I A G C C S G M D I V T I L E K M D V K F R R F E T T V E | | | |
| UniRef90_Q31JN7 | T A P N P S E M A L L L S L G S C C L S V G V Q A N A S A R G I N L N K L E I D L E | | | |
| UniRef90_U5WK53 | N G A A P P V E Y V L V A L L G G C C L T A G I A S I A Q R R G I Q L R S V R A T V E | | | |
| UniRef90_R7DSH0 | E F P P S P G V M L G S T L A S C C M M S L V S V V A A R K G G V D L K G M R V L A R | | | |
| UniRef90_W2RW78 | D M L L E S L V A C C Y G V T V R A V A T A M G I V A I Q G G G T V I V E | | | |
| UniRef90_G2EEK7 | S G L S P K A M M L S A L A G C C S G L D V V S V L D K M K V Q V S E F R M D T Y | | | |
| UniRef90_L8DLM4 | G V F T P P G E L L L K I A L A A C C T G M S S D L P L S R R L G D D Y S A T V E V S | | | |
| UniRef90_Q2FMJ1 | A I P N P I D Y L F A S L L G G C C I G I K I L L D L G D K G I I K P E Q L L I E T T | | | |
| UniRef90_UPI00035E6E11 | T A P N P S E M A L L L S L G S C C L S V G V Q A N A T Q R G I P L L N K L E V V Y L E | | | |
| UniRef90_M4UM56 | G Q W S P A T L L L M S S S L S S S Y L I S F K T L A R H A Q L D W V E I D C V S N K | | | |
| UniRef90_UPI0003169DA8 | D A P S A I D Y L L A S S L G S C C L T V G Y K A L S S K R N V D V I D H A E L S L K | | | |
| UniRef90_UPI0002EF13F2 | S A P N P Q E L L L M A A L N A C C L T V G Y V V N A A A M G I T V T H S L E I E T D | | | |
| UniRef90_UPI000476F09F | T A P T P V E L L F V A S S V A S S V A L G A G E F L R Q R G I D Q D E L K V H A S S | | | |
| UniRef90_Q5YS18 | G A F T P P G E L L L K I A L A A C C S G L S A D F P L S R K L G D H F D A T I R V S E | | | |
| UniRef90_C9SCR7 | S A P P S P V S Y S L A S L T S C N Q V T G G V V A K D H G V K L G K W D V S L E V S T | | | |
| UniRef90_W8KGT6 | L G P R P M E M L L L M G G C C T A F D V M Q I L R K S R Q S V T D C E E L E V S | | | |
| UniRef90_B6VMA7 | K A P S P M E M V L L M A A G G C C S T I D V V S I L L Q K G R Y D V I D C E V K L T | | | |
| UniRef90_UPI00036FD3FF | F T P P G E L L L K I A L A A C C T G M S S D R P L S R R L G D D Y D A T V R V S K | | | |
| UniRef90_E1QHT9 | D A P E P F M L L F L A S S L G A C C S G M Y A L S F C Q A R D I P T A G L K L R Q K | | | |
| UniRef90_K0B0K9 | R G M T P P G E M I N A L A G C C K L L S F V S L S R F R N I I F E N L S I E I S | | | |
| UniRef90_U4KSU0 | Q G F R P P Y Q L L F G A L L G S C C F Y A T F L S V S K K M R L L S F D E A I V T V D | | | |
| UniRef90_H1XW92 | G A I R P R K E L L L L S L A L G G C C T G S D V V A S I L T K M R Q K F Q R F E V H V E S | | | |
| UniRef90_F4DAX5 | E G A S P P M E M I L L L A G G C C S S I D V V S I L L E K A R Q S V T A C H V D V S | | | |
| UniRef90_E5WQU9 | H G F R P P Y Q L L V A S A L V A C C S G G V L R K I M K K M R M E F E D I E I K T N | | | |
| UniRef90_F6DIF6 | G P R P M E L L L L M A L G A C C T A Y D V V D I M R K K K Q P L L A R Y R V E V E | | | |
| UniRef90_UPI00040B1D94 | Y G F R P P Y Q L M V S S I A G C C S A S V F R K I V E K Q R M E L E D W K I T A D | | | |
| UniRef90_G0A4P6 | M G P R P M E M I L L L M G L L G G C C S S F D V I D L Q K G R H D V I D C V A E L T | | | |
| UniRef90_V6S4H2 | G P S P T D Y L L L A G F A G S I N A V G L L V A E E L G I A L Q S V Q V E I V | | | |
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| UniRef90_UPI00040B06D0 | S G M N P P K R M L L G S L A G G C C S G M D V V D I L R K M K V V N F T K L E I D T S | | | |
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90 100 110 120

This sequence logo displays the conservation of amino acids across 120 positions. The positions highlighted in yellow (90, 100, 110, 120) are likely to be highly conserved or functionally important. The sequence logo uses a color-coded scheme where darker shades of blue represent lower information content (more conservative substitutions) and darker shades of red/yellow represent higher information content (more non-conservative or specific substitutions). The x-axis represents the 120 positions, and the y-axis represents the amino acids: A (blue), C (green), D (red), E (purple), F (orange), G (light blue), H (yellow), I (light green), K (dark blue), L (light orange), M (brown), N (dark purple), P (pink), Q (dark red), R (dark green), S (light red), T (light pink), V (light blue), W (dark orange), and Y (yellow).

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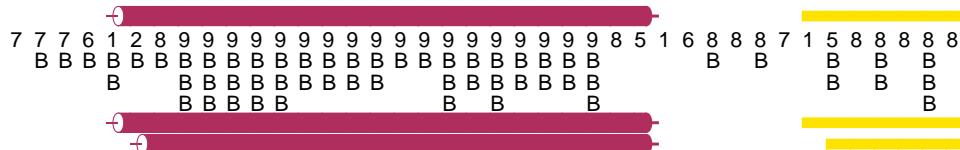
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| | 50 | 60 | 70 | 80 |
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| K G Y S P V Q M L | V S A V A A C | G G Y V Y A S V L E | E N S K I T A E I E K I E V S | |
| T G F S P T Q V T | V A A V A A C | S G Y V Y D A I L E E K K R I D Y T I E N I H A D | | |
| L A P R P M E L | M L A G A G G C | T A F D V V L I L K K R G R H D V R G C S V R L E | | |
| L G P R P M E L | L L L L G T A G C | T S Y D V L G I L K K S R Q D V H D C W V D I D | | |
| H G F R P Y Q L L | V S S L A I C | S G G V M R K V F D K M R M S F E D I Q I E V K S | | |
| F T P G E L L K I A L A A C | T G F S S D V T L A R R L G D D Y A A T I H V S | | | |
| N F P S P P N L | F V A S L A T C S A I F A S R F C V Q H G M D P A A V G V R M V | | | |
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| D G P S P V E A V L M A L C S C C T S V D V V S I L K K K R Q P L T S L E V V A K | | | | |
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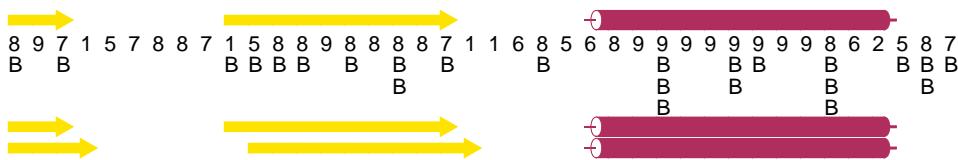
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| | 90 | 100 | 110 | 120 |
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| F E Q D Q E A T V R V L K K I E V T F T A P E N R E K A E K A H L V K K S C P | | | | |
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| G V S D P D E D R Y P R L V E R L E L D L S G L D D E K M P R I L E L T R K N C S | | | | |
| C E T N E K D N M I T K M T V Q L T L P E G F P E K Y R E A I M R S V S M C H | | | | |
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| G A L G A P E G N P N W E S V V L K V A V Q T D I D K F Q H F V S E V E R R C P | | | | |
| G E R Q E N P P R Y F H H L M Y R I G G R V S R K A A E D A V A L S K K Y C S | | | | |
| V V R A L D H P R R F L T I T V R H V G S G P D E A A F Q H A V G L S H R Y C S | | | | |
| V V K G T L A G R G V E V V T N L D I E S D E S E E T I R Q M I E V G K N S C F | | | | |
| C D A D A R G A D L T D L S L D V R I R S P D G A D A V A R L S R A W H E R C P | | | | |

lupas_21
 lupas_14
 lupas_28
 jnet
 conf
 sol25
 sol5
 sol0
 jhmm
 jpssm



| UniRef90_V4NZI9 | T | L | T | L | K | E | G | A | D | I | S | T | T | 130 | 140 |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|
| UniRef90_UPI000255CAA3 | V | P | L | S | L | S | S | E | L | K | Q | T | I | R | F |
| UniRef90_L8A8U8 | V | I | Q | S | L | D | P | A | I | E | V | T | E | T | V |
| UniRef90_W7D3Q7 | V | A | M | S | L | D | P | K | I | E | | | | | |
| UniRef90_N6Y0S2 | A | S | I | M | L | G | K | T | A | E | I | | | | |
| UniRef90_G2J2H3 | A | S | I | M | L | G | K | T | A | D | I | T | | | |
| UniRef90_M3F925 | M | V | Q | S | V | Q | D | S | I | E | V | | | | |
| UniRef90_D1BCH8 | V | G | R | T | L | K | A | G | A | E | V | E | L | T | I |
| UniRef90_S7TJK6 | V | K | K | Q | V | Q | A | A | P | E | F | A | V | E | I |
| UniRef90_J1FNH1 | V | A | A | I | L | Y | K | T | A | T | I | T | | | |
| UniRef90_UPI0001850A60 | M | V | Q | S | V | I | G | S | I | E | V | E | E | T | F |
| UniRef90_UPI0003FD7FD4 | M | A | R | S | V | E | N | C | I | D | I | K | E | T | F |
| UniRef90_Q65QZ9 | V | G | R | S | L | R | A | | | | | | | | |
| UniRef90_V5XCF2 | V | G | N | T | L | K | A | G | T | E | V | T | L | A | V |
| UniRef90_E4NKD4 | M | L | R | M | V | R | A | E | H | A | V | V | L | | |
| UniRef90_I0DTE7 | V | S | L | M | L | E | K | A | V | K | V | T | | | |
| UniRef90_H8FIB5 | I | H | R | L | L | T | G | E | V | R | I | E | T | R | L |
| UniRef90_U7PUY5 | I | T | A | L | F | R | | | | | | | | | |
| UniRef90_E6PZ08 | V | S | A | M | L | D | G | K | A | M | I | N | A | A | I |
| UniRef90_D3FUK8 | M | V | Q | S | V | K | E | S | I | E | I | T | | | |
| UniRef90_F3L064 | A | S | I | M | L | A | A | G | V | E | V | T | H | T | F |
| UniRef90_Y0KEK2 | A | S | I | M | L | S | K | S | V | D | I | T | | | |
| UniRef90_K9B3J6 | V | S | R | T | I | E | H | P | T | P | V | D | V | R | I |
| UniRef90_T0YZ57 | V | S | A | S | L | S | A | N | V | H | E | I | R | L | E |
| UniRef90_M5SVW3 | I | H | Q | S | I | M | N | P | V | P | E | A | T | V | G |
| UniRef90_A7HC11 | V | Y | L | A | L | V | K | A | T | P | V | R | T | S | F |

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm