

QUERY 1 10 20 30 40  
 UniRef90\_C9W8B3 D N V L L S G Q T L H A D H S L Q A G A Y T L T L Q N K C N L V K Y Q N G R Q I  
 UniRef90\_B2KNH9 D N H L L P G E T L S P G E F L N Y G R Y T F I M Q E D C N L V L Y D V D K P I  
 UniRef90\_E7CG22 N I L L N G E G L N Y A G Q S L V I E Y Q T F I M Q E D C C N L V L Y E Y S T A V I  
 UniRef90\_K4P0T2 N I L R N D E G L Y A G Q S L D V I E P Y H F I M Q E D C C N L V L Y D H S T A V I  
 UniRef90\_Q41625 N N V L T S P G E S L Y G G Q S L T W E S Y T F I M Q T D C C N L V L Y D E G S G S I  
 UniRef90\_Q5EER7 N S L T S P G S L P S G H S L N S D S Y R L I M Q G D C C N F V L Y Y S G S P V  
 UniRef90\_F8UZ3X E D T M F S G E S L Q T N Q Y L E S G P Y R F I M Q G D C N L V L Y N K T R A L  
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QUERY 50 60 70 80  
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UniRef90\_Q5EER7 WA S N T G G L L G S D C C R L T L H N N G N L V I Y D R G N N V I W E T K T N G K A  
UniRef90\_F8UZx3 WS S R T N G Q G S T A C I L R S M Q S D D G N L V V L S G S N V V W T S N S A R G Q  
UniRef90\_Q40232 WA S G T N G R G S N A C I L R S M Q S D D G N L V V Y S S N G R A L W A S N T N R R Q S  
UniRef90\_UPI0004760AF1 UniRef90\_UPI00034876B2 UniRef90\_S9QKL5 UniRef90\_U0ZK24 UniRef90\_F5Z3L1 UniRef90\_Q39991 UniRef90\_M3C3Y8 UniRef90\_UPI000376F933 UniRef90\_Q6Q5X6 UniRef90\_Q42385 UniRef90\_Q5YQP5 UniRef90\_H6CHQ2 UniRef90\_B1YUE6 UniRef90\_V6JWN0 UniRef90\_Q9ZP48 UniRef90\_UPI00019249B1 UniRef90\_I2DKH4 UniRef90\_D5UG11 UniRef90\_UPI0002B49138 UniRef90\_K0KAK1 UniRef90\_A5KSB1 UniRef90\_W8A7U0 UniRef90\_W7IGL3 UniRef90\_Q22M82 UniRef90\_G2GLC4 UniRef90\_D9UFB6 UniRef90\_F3N9X4 UniRef90\_G8P176 UniRef90\_P86626 UniRef90\_R4L3V1 UniRef90\_A0K746 UniRef90\_C7LYR2 UniRef90\_J2GNY8 UniRef90\_UPI000462B934 UniRef90\_F4H3F9 UniRef90\_B1W5L7 UniRef90\_UPI00037604D0 UniRef90\_A0YSJ1 UniRef90\_K8GMT8 UniRef90\_UPI000369444D UniRef90\_A9GRM0 UniRef90\_K9CMF5 UniRef90\_W3X9A1 UniRef90\_S1SIR3 UniRef90\_E8W321 UniRef90\_F6HW92 UniRef90\_A0K747 UniRef90\_B9H1U8 UniRef90\_UPI0003702FDD UniRef90\_B3GS84 UniRef90\_UPI000023F49B UniRef90\_W475B1 UniRef90\_I1JNE6 UniRef90\_M0U942 UniRef90\_B9T444 UniRef90\_F7VP95 UniRef90\_A6GRE1 UniRef90\_Q24273 UniRef90\_U9PI97 UniRef90\_Q4KEU9 UniRef90\_Q41622 UniRef90\_W9SAT2 UniRef90\_I7ZKQ0 UniRef90\_F4KTN6 UniRef90\_C7ZDZ1 UniRef90\_D8TAP4 UniRef90\_U5D6T5 UniRef90\_D9W4W0 UniRef90\_UPI0003EC4C96 UniRef90\_UPI00036E30C3 UniRef90\_K7K9A9 UniRef90\_B9T0N0 UniRef90\_D8SXN0 UniRef90\_M1PB08 UniRef90\_E7DQE2 UniRef90\_F4PSU3 UniRef90\_I3ZE06 UniRef90\_Q5DWD7 UniRef90\_A0A024YMM9 UniRef90\_A0A059BMJ2 UniRef90\_A2YSP4

|                        |  | 90  | 100 | 110 |
|------------------------|--|---|-----|-----|
| QUERY                  |  | N G K Y A L V L L Q K D G R F V I Y G P V L W S L G P N G C R R |     |     |
| UniRef90_C9W8B3        |  | N G N Y V C V L L Q K D R N V V I Y G T A R W A T G T           |     |     |
| UniRef90_B2KNH9        |  | N G N Y V I L L Q K D G N L V L Y S K P I F A T G T N R         |     |     |
| UniRef90_E7CG22        |  | N G N Y I L V L Q E D R N V V I Y G S D I W S T G T Y R K K     |     |     |
| UniRef90_K4P0T2        |  | N G N Y V L V L Q E D G N I V I Y G S D I W S T N T Y R K       |     |     |
| UniRef90_Q41625        |  | E G N Y V L V L Q K D R N V V I Y G S S L W A T N T             |     |     |
| UniRef90_Q5EER7        |  | D D H Y V L V L Q Q D R N V V I Y G P A V W A T G S G P A       |     |     |
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| UniRef90_X7VTB9        |  | T D V K L V L Q D D R N L V L Y S G A V W S S G T Q             |     |     |
| UniRef90_A2ICN3        |  | Q G D Y A F I L Q D D G F A V L Y G P A I F S T G S             |     |     |
| UniRef90_UPI00034876B2 |  | Y Q G S Q L I M Q D D G N L V A Y G K P Y W A S G T Q           |     |     |
| UniRef90_S9QKL5        |  | G G A M F Y L Q N D G N L V I Y G S P L W A S N T               |     |     |
| UniRef90_U0ZK24        |  | P G C F V T M Q D D G N L V I Y E P V W A S N T A Q             |     |     |
| UniRef90_F5Z3L1        |  | K D V K L V L Q D D R N L V L Y D G A A W S T K T               |     |     |
| UniRef90_Q39991        |  | T   |     |     |
| UniRef90_M3C3Y8        |  | D A D R L V V Q D D R N V V L Y G K P L W A S D T               |     |     |
| UniRef90_UPI000376F933 |  | E A D R L V V Q P D R D V V L Y G R M L W S A G T Q             |     |     |
| UniRef90_Q6Q5X6        |  | M G N Y A L V V H P D G R L V I Y G P S V F E I N P             |     |     |
| UniRef90_Q42385        |  | N G N Y V C I V Q K D R N V V I Y G T A R W A T G T             |     |     |
| UniRef90_Q5YPQ5        |  | S A D R L V V Q A D R N V V L Y G T A L W A S G T N             |     |     |
| UniRef90_H6CHQ2        |  | G N A F L V V Q D D G N V V I Y G T A A W A T G T N R           |     |     |
| UniRef90_B1YUE6        |  | T F D Q R L S V Q D D G N M V I Y S V P V F A T S T S           |     |     |
| UniRef90_V6JWN0        |  | S S A Y A Y M Q T D G N L V V Y G G A L W S T G T W G H         |     |     |
| UniRef90_Q9ZP48        |  | I G N Y V L V L Q P D R T V T L Y G P G L W D S G T S N K       |     |     |
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| UniRef90_I2DKH4        |  | S Y S Q F L A V Q D D G N L V I Y R S P V F A T S T             |     |     |
| UniRef90_D5UG11        |  | G A G F L Q V Q D D G N L V M Y D A A T W Q S Y T Y P G         |     |     |
| UniRef90_UPI0002B49138 |  | G S P H R L V M Q T D D G N L V I Y N R P T W A T G T N R G     |     |     |
| UniRef90_K0KAK1        |  | T A D R L V V Q D D G N V V L Y G P A                           |     |     |
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| UniRef90_Q22M82        |  | G G P Y R L T M Q D D G N L V L Y D C P T W S T N T K R         |     |     |
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| UniRef90_D9UFB6        |  | R P G W L V L G D D G S L R L Y G K Q I W                       |     |     |
| UniRef90_F3N9X4        |  | E G S V L L L L E N G N V V V Q S D V L W E A G S D R           |     |     |
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| UniRef90_K9CMF5        |  | P N A A L Y V K N D G N V V M R G A L L W S T N T               |     |     |
| UniRef90_W3X9A1        |  | N E N S I L V V Q D D G N V V Y T E A L W D T G T               |     |     |
| UniRef90_S1SIR3        |  | R G K F L L V M Q T D G N L V Q Y E A A Y W N T K T Y G A       |     |     |
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| UniRef90_M0U942        |  | Q G K Y A A V L K P D G N L G I Y G P P I W S T                 |     |     |
| UniRef90_B9T444        |  | S G R F E L I M Q T D G N L V L Y N S A Y W H T E T             |     |     |
| UniRef90_F7VP95        |  | E R N S G L I L S N N G K L R L Y G S L I W T S G               |     |     |
| UniRef90_A6GRE1        |  | N N A T L H L Q S D G N M V I Y N S V A F A T G S               |     |     |
| UniRef90_O24273        |  | T N N Y V L G L R P D G K L D T Y N A P I W S                   |     |     |
| UniRef90_U9PI97        |  | G G V K A Q M Q Y D G N F V V Y D N A I W H T H T D G N Q       |     |     |
| UniRef90_Q4KEU9        |  | P G A T I R L Q A N G S F T I V T R P I W A                     |     |     |
| UniRef90_Q41622        |  | V G R Y A A V L R P T A D V A L Y G P A I W S T N               |     |     |
| UniRef90_W9SAT2        |  | S G R F Q L R M Q R D G N L V Q Y P T S Y W A S D T             |     |     |
| UniRef90_I7ZKQ0        |  | I G D H S V C V Q D D G N V L Y R N A I W S S R T               |     |     |
| UniRef90_F4KTN6        |  | W K P V R A V L E N D G T L C L Y N R K V W N S N T G G A       |     |     |
| UniRef90_C7ZDZ1        |  | T A D S E L I I Q D D G N V I S G K V F W S T N S T Q A         |     |     |
| UniRef90_D8TAP4        |  | S Y K C Y L I M Q N D C N L V L Y                               |     |     |
| UniRef90_U5D6T5        |  | T G K Y Q L I M Q T D G N L V L Y A N A Y W F T R T Q G K       |     |     |
| UniRef90_D9W4W0        |  | N P Y A Y L H M Q A D S N L V L Y K Q A L W A S N T V G G       |     |     |
| UniRef90_UPI0003EC4C96 |  | L A K C R L Q L T D D G K L V V N R E C I W S S                 |     |     |
| UniRef90_UPI00036E30C3 |  | N V I G T A L A V Q D D G N A V V Y G K A V W A S K T Q V S R   |     |     |
| UniRef90_K7K9A9        |  | S V A S A S L L D N G N L V L M D K I I W Q S F D T P S         |     |     |
| UniRef90_B9T0N0        |  | E T I Y M I R L D F D G I F R L Y S                             |     |     |
| UniRef90_D8SXN0        |  | G G G C T L T L Q R D G N L V F L G R D F W A T N               |     |     |
| UniRef90_M1PB08        |  | Q G P W R A I L Q P D R N F C V Y D S                           |     |     |
| UniRef90_E7DQE2        |  | K S G S F L E M E N N G R A V V Y K T S V W S T N P A P G       |     |     |
| UniRef90_F4PSU3        |  | T G P Y K L N V L S D G D V V L Y S T V I W N S A T G G         |     |     |
| UniRef90_I3ZE06        |  | G G V E L K L Q S D G N L V L Y G S S I W T T G T D G S         |     |     |
| UniRef90_Q5DWD7        |  | A P N C R L Q L T D K G S L V V Y G E S I W K S                 |     |     |
| UniRef90_A0A024YMM9    |  | T P G S Y A M L Q P R G V L V V Y G Q S L W T S G T Q           |     |     |
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| UniRef90_A2YSP4        |  | I G K Y R I S N Q P D G N L V M Y N S A Y W N T G T             |     |     |

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UniRef90\_J3IU55 I L P A Y Q T M S A G Q F L L S G R F K L L Q A D G N L A L Q D N G V V V  
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UniRef90\_U7DZU3 WVA NR E N N P A S S K L E L S P D G I L V L L T N F T K T V W S T A L A S N  
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|                        | 90  | 100 | 110 |
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| UniRef90_MOUQL7        | T R A N R L V S Q S D S Y H V L Y                             |     |     |
| UniRef90_U5GHR8        | M T N C T A Q L L D S G N L V L S N G V L W Q S F D H G       |     |     |
| UniRef90_J3L2Q5        | K G T A A V L L D T G N L V I R D S T L W Q S                 |     |     |
| UniRef90_UPI00046DF384 | T S T C V A Q L L D T G N L V L F P D S I W Q S               |     |     |
| UniRef90_K7LUS0        | A Q N P V A Q L L D S G N L V V R D E G L W Q S F D Y P S     |     |     |
| UniRef90_C2FV01        | P G N A R Y V L Q D D G N L V L Y F A I N S S F T             |     |     |
| UniRef90_A2YDY8        | A V A S V R L A D S G N L V L F G S P V W Q S F D H P A       |     |     |
| UniRef90_UPI00019835CB |   |     |     |
| UniRef90_U5GWQ3        | A R N P T A Q L L E S G N L V V L E N S L W Q S F E H P       |     |     |
| UniRef90_UPI0002B42A86 | A N N T I A Q I L D T G N L V L K D T S K W E S F E H P T D K |     |     |
| UniRef90_Q27I24        | R S P V V A E L L D N G N F V L N S N D L W Q S               |     |     |
| UniRef90_UPI00042B6C23 | S D I L R L R L D S D G N L R I Y S S A R W A A V S D Q C E   |     |     |
| UniRef90_A5BLK3        | R G X F M F S L Q T D G N L V L Y T T A Y W E S D T V G S     |     |     |
| UniRef90_B8A780        | R I K R R I T I D Y D G N F R M Y S                           |     |     |
| UniRef90_W5AS71        | A S A A V V Q L L D S G N L V V H N A A L W Q S F D H P       |     |     |
| UniRef90_R7W886        | T A S T T V Q L L E S G N L V S R G A I T W Q S F D H P S     |     |     |
| UniRef90_T1LM22        | S V V G L M L T E I G N L V L F D H T V W Q S F D H P         |     |     |
| UniRef90_UPI000198370A | S G R F M L I L Q T E D G N L V L Y N Y A Y W A T A T         |     |     |
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| UniRef90_A0A059CXA1    | G Y Y Q R A I L E Y D G V F R Q Y                             |     |     |
| UniRef90_B8A781        | S G Y F N L Y F D N D N V L R L M S S I Y W P S               |     |     |
| UniRef90_A0A059C5L8    | L Q N P I A Q L L D T G N F V L W D N F V S S S D             |     |     |
| UniRef90_A5C0M0        | T G N F M L A M Q S D G N L V L S D P G Y W D T S T           |     |     |
| UniRef90_G7IK54        | M N N T E A F V R D D G N L V L S N D V L W E S F K H P S     |     |     |
| UniRef90_W5FS23        | S V A A A A V L E N T G N L V V R G T M L W Q S F D H         |     |     |
| UniRef90_C5XG13        | G I K R R I T I D Y D G N L R M Y S                           |     |     |
| UniRef90_V4US05        | A E N P V A Q L L D T G N L I V R G S C L W Q S F D Y P S     |     |     |
| UniRef90_UPI00042B4B23 | E D P S V L R I D S D G N L R I Y S                           |     |     |
| UniRef90_D2VTE9        | T A P Y K L L V Q N D G N I V L Y G A V C F A S G T S Q G     |     |     |
| UniRef90_U7DZU3        | N S T A Q A A L L D N G N F V I K S A L Y W Q S F D N P       |     |     |
| UniRef90_A0A022QZT5    | A R N P F A K L L D S G N L V V                               |     |     |
| UniRef90_I1M3Z1        | D S V V V A V L L D S G N L V L T N R P L W Q S F D H         |     |     |
| UniRef90_K4BHA7        | T S V E S A V L L D D G N F V L L N S T V W Q S F E S P S     |     |     |
| UniRef90_W1NTK9        | S S Y Y S L A L D D T G Q L E L K W E T Y W R S G T           |     |     |
| UniRef90_B9T4Z1        | G S D R F L K L D S D G N L R I Y S S A R W S A L A D Q C Q   |     |     |
| UniRef90_B9RI66        | G V S Y A A M L D T G N F V L A D K T L W E S                 |     |     |
| UniRef90_F2DWF4        | S E A A V R L L D S G N L V V R N T S L W Q S F D Q P S       |     |     |
| UniRef90_A0A059CE56    | N N S R V A R L L D S G N L V L S K V V I W Q S               |     |     |
| UniRef90_M5WX54        | S G S V Q A V L L D S G N L V L R S E P L W Q S F D H P A     |     |     |
| UniRef90_U5G353        | A R N P V A Q L L D T G N L V                                 |     |     |
| UniRef90_U7DSM0        | F N L S T A Q L T D D G N L V L K G N P V W Q S               |     |     |
| UniRef90_F6HPV7        | T G Y Y R A T L D F D G V F R I Y T R P K L Q S N             |     |     |
| UniRef90_V7B6U7        | V L Q R R L K V D C D G N V R V Y S R V S W Q A I S S G C     |     |     |
| UniRef90_UPI0003D77177 | Q T P V V L Q L L D S G N L V L R G E Q E G D S G T           |     |     |
| UniRef90_W5APK9        | S S V E A Q L L E S G N L V V H D T I L W Q S F D H P S       |     |     |
| UniRef90_M1BGB2        | F V S G V N L T D M G N L V L F D K A I L W Q S F D H P       |     |     |
| UniRef90_W5HYX0        | S Y H Q H A T L D P D G L V R V Y T R P                       |     |     |
| UniRef90_M5W6E4        | S L D V R A E L L N S G N L V L H G K I L W Q S               |     |     |
| UniRef90_UPI00042B3A7C | A Q N P I L Q L L D S G N L V V R D N Y L W Q S               |     |     |
| UniRef90_N1R3W9        | T G R F S L A A H S D G N V V L L Q N A Y W A T A T N G       |     |     |
| UniRef90_UPI0002C2F5AF | M N H T T G L L A D T G N V V L F G E V L W Q S F D H P S     |     |     |
| UniRef90_A0A059CX92    | G L A Y A A M L D T G N F I L A S A S L W D S                 |     |     |
| UniRef90_UPI0003D7180A | A Q N P V A L L L E S G N L V V S D N F L W Q S               |     |     |
| UniRef90_UPI00042B7ABE | E G R F R M V L Q S D G N L V L F N E P Y Y K S D T A G       |     |     |
| UniRef90_K3Y5A9        | N G R F I L S L E T D G N L T F Y T V A V W S T N T S G       |     |     |
| UniRef90_D9W429        | P G A Y A T M Q A D G N F V V Y K K A L W H S N T Y G         |     |     |
| UniRef90_UPI0003D27478 | L K D P K A R T L D S G N L V V                               |     |     |
| UniRef90_A2Y9R2        | P T D T L L P L Q P   |     |     |
| UniRef90_UPI0003509987 | G G P A V A V L L D T G N F V L R G T D I W Q S               |     |     |
| UniRef90_UPI00042B1721 |   |     |     |
| UniRef90_F4Q6K0        | H G P Y K V I Q Q Q D G N L V L Y N K A L W A A A T           |     |     |
| UniRef90_UPI000350DB5D | M T K R R L T L D Y D G N L R M Y S                           |     |     |
| UniRef90_D8QZK2        | S Q A D N L I F Q D D G N V I L F G P P V W S T G T N G       |     |     |
| UniRef90_UPI0004765580 | T G A K L V I Q N D G N V T I L S Q T L W A A G T Q           |     |     |
| UniRef90_M0XH32        | T T G T S A I L L N S G N F V I R G T D I W Q S               |     |     |
| UniRef90_UPI000379BF50 | S M A A L M I Q D S G R L V L R D T I P W A S                 |     |     |
| UniRef90_W5EEG1        | P T A S R A R L R D T G N L V V V G R A L W Q S               |     |     |
| UniRef90_K4A115        | D A S P M A V L Q N T G N L V V R G T A L W Q S F E H P G     |     |     |
| UniRef90_A0A059BRE6    | K I Q R R L T V D P D G N L R V Y S Q A S W Q A K S D P C     |     |     |
| UniRef90_A0A059CD83    | G A N A K A Q L L D A G N L I L                               |     |     |
| UniRef90_F8A1R9        | L A K G R L L R D D G D L V L Q D P T V W A T G T G           |     |     |
| UniRef90_M0Y2Q7        | S V A G F R L D V S G N L V L F N S P V W Q S                 |     |     |
| UniRef90_A5BHL4        | A Q N P T A Q L L E S G N L V L K N N F L W Q S F D H P C     |     |     |
| UniRef90_M4EE74        | S N E Y S A T L S D D G N L V I L D N V I W Q S               |     |     |
| UniRef90_M8CLW8        | S S P P V A V L L N N G N L V I R G T T L W Q S F D H P       |     |     |
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| UniRef90_W5KPS8        | E R T T Q L T I N D D G R L T V W R S V F W S S N T K R E R   |     |     |
| UniRef90_H1Y2T1        | S G A Q Y L Y F Q D D A N L V L T K T S V W S S N             |     |     |
| UniRef90_Q7XQT9        | D G A Y A A L L D T G N L V L Q E T I W Q S F D H P           |     |     |
| UniRef90_UPI00042B17CC | G V T G I K L L T N G N L V L F G K F V W Q S                 |     |     |
| UniRef90_K4ALTO        | P S T P A A V L L N N G D L V I R G T A L W Q S F E H P A     |     |     |
| UniRef90_V4TDY3        | N V T S A S L D D S G N L V L L G V S A W S S F D N P         |     |     |
| UniRef90_K7VRP4        | E T M R R L T L D Y D G N L R L Y S                           |     |     |
| UniRef90_M0Y2Z6        | G I M R R L T L D Y D G N L R L Y S                           |     |     |
| UniRef90_UPI000350D5F3 | T G S T A V L Q N D G N L V I L S P P L W Q S F D H P         |     |     |
| UniRef90_K3XEL5        | N S T T V G V I L D T G N L V L T S A V R W Q S F D H         |     |     |
| UniRef90_M5WNI3        | A E D P V A E L L E T G N L V V R D K A I W E S               |     |     |
| UniRef90_K7TKD2        | S N D T V A V L L D S G N L V L R S S V F W E S               |     |     |
| UniRef90_M4FIP3        | L N N T V A V L L E T G D L V L R D T R F W E S F N N P       |     |     |
| UniRef90_O64477        | S S V S A L V L Q D D G N L V L R A N V L W Q S F D H P G     |     |     |

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N F L E V I Q D P K V V  
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UniRef90\_UPI0001983709 W S A N G N L K K G S K V Q L T S D G N F V L N D Q E G E K I W P [V] D S T [I] T  
UniRef90\_V7B7X1 W S S N T D S F A S P V L H L K D N G N L V L S D L Q G T V L W Q S S T N H S  
UniRef90\_UPI00046DCAD8 W[V]A N R E K T D T L A S L T I N S N G N L E L V D G K Q S S I W S T K I S V S  
UniRef90\_M0ZEF7 W T A N P [V] N G R V S R L S F R A D G K L A L A D A N G T T V W D S K N A G  
UniRef90\_A5BQQ0 E [I] A N S A S A S A S M L D S G N F V L Y N S D G D I V W Q S K L T P S  
UniRef90\_UPI00042B1F5C W M A N R D K N G K G S R V S L L R D G A L V L K D V D G S T T W E T N T S S T  
UniRef90\_Q5QNL1 W S A N R D Q [L] R Q N S T L S F T A E G D L V L Q H P D G S L V W S T N T S G Q  
UniRef90\_A0A059CAI8 W[V]A N R D H T D K S A S L I G N D G N L K L L D G Q Q N T V W S T N V M A K  
UniRef90\_I1HQ85 W L T N G R N R Y N S T R V A F L D D G N F V [ ] S S D G F K I E A S D S G P  
UniRef90\_A0A059B9B2 W S T N T Q E K I N A T Y T L L Q D R [V] A L L F V G G L V T L Q A N S S D P  
UniRef90\_UPI0002C36BA3 W[V]A N R D N N D S S G V L T I N R Y G S L V M Y N R E D L V I W S T K V Q T T  
UniRef90\_UPI00032A910B W Q T N T S N K G V V A F R L L S N G N I V L I D S K G N F V W Q S  
UniRef90\_I1IXN8 W[V]A N G D K P V A G S T L I I S G D G N L V L D Q A K I V W S T Q A N T T  
UniRef90\_A0A058ZZN8 W S T N T S G K S V I G L N L T D S G N L V L L G A N N A P V W Q S  
UniRef90\_K7K6Z0 S A G N G A A V D S A G S L Q F L R S G H L R L F N G S G A T V W D T G T A

|                        | 90              | 100             | 110             |                       |             |
|------------------------|-----------------|-----------------|-----------------|-----------------------|-------------|
| UniRef90_K7KD15        | VWN PVAE LLD    | DSGNLVIRDE NLL  | WQSFDYPS        |                       |             |
| UniRef90_UPI0002C3006D | NLAESAEL LNS    | GNLVLRLG PILL   | WQS             |                       |             |
| UniRef90_UPI0002C33D08 | DGPYS LKVE      | PKGLAMY YNS     |                 |                       |             |
| UniRef90_UPI00042B6467 | IKETAKLL H      | SGNLVPLVDGT     | VWQSFDYPG       |                       |             |
| UniRef90_Q5VRS2        | RADRAE L LNS    | GNLVVMD PEL     | WRSFDS P        |                       |             |
| UniRef90_M5X6Z5        | AGN PVS QLM     | DSGNLVVKDN LL   | WQSFDY P C      |                       |             |
| UniRef90_I1IE63        |                 |                 |                 |                       |             |
| UniRef90_M4C7T3        | DSPLVAE LLD     | NGNFVLRD VFL    | WQS             |                       |             |
| UniRef90_A0A059C8V4    | SQS VVAKLL      | DSGNLVL SGNYL   | WQSFDHP S       |                       |             |
| UniRef90_V7CIH4        | QGNFM LLMQND    | GNL LLS DPAY    | WFSST           |                       |             |
| UniRef90_U5GK26        | DFYLRATLDY      | DGVFRQYAY P     | KTASSSTR        |                       |             |
| UniRef90_J3L2Q3        | SGYHVLVYFD      | NDNVLRLL        |                 |                       |             |
| UniRef90_B9RHL2        | SGTVEAVLND      | TGNLVL NGS      | SLWQSFDHP A     |                       |             |
| UniRef90_B9H1V2        | RNPV MQLL       | DSGNLVL S       | GQFLWQS         |                       |             |
| UniRef90_D8SYC0        | QGSFFLJELQ      | PRG             |                 |                       |             |
| UniRef90_D8RPT7        | N               |                 |                 |                       |             |
| UniRef90_W9QUJ3        | NGRFL LLMQ      | EDGNLVA YEES    | YWASSGFY G      |                       |             |
| UniRef90_W1PV92        | IDDYRATLD       | DSNGYFRQYS      | HRKSSSG         |                       |             |
| UniRef90_M4DK77        |                 |                 |                 |                       |             |
| UniRef90_M1CVL4        | QVNSIA LLLQ     | DSGNFVLRVGS     | TWQSFEHP S      |                       |             |
| UniRef90_UPI0003D72EE2 | TGNYTLEMQA      | DGNLVL S        | DPGYWYTGT       |                       |             |
| UniRef90_F6H559        | SVVGLNLTET      | IGNLVL F        | DSVWQSFDHP      |                       |             |
| UniRef90_UPI00042B17D8 | D               |                 |                 |                       |             |
| UniRef90_M0VMR6        | RNSTTAML L      | NNGNL LIT       | DSVLWQSFDHP     |                       |             |
| UniRef90_Q5NB60        | TSSVVLVLLD      | IGNLVI RDE      | VLWQSFDYPS      |                       |             |
| UniRef90_M1CVM0        | QVNSI GLLQ      | DSGNFVLRVDS     | TWQSFEHP S      |                       |             |
| UniRef90_Q40101        | P GTTVAE LLD    | DSGNFVLR        | RNYLWQS         |                       |             |
| UniRef90_A9RE79        | G PLRRLVLT      | SNGNL           |                 |                       |             |
| UniRef90_V4KTJ8        | GVVISASIE       | DSGNL L         | RSN P VW        | SSFDHP                |             |
| UniRef90_C5XQQ7        | GGS LAAJAL      | LDTGNLVI        | SGRFVWQS        |                       |             |
| UniRef90_UPI0002B41D2B | VQYPIAQLLD      | TGNFI           | LRESNVWQS       | FDYPS                 |             |
| UniRef90_I0JTU1        | SSPSMAVLE       | NTGNL V         | RGSM            | LWQSFDH               |             |
| UniRef90_V4W080        | KGRFRFEL        | NSDGNLVL        | YNEPY           | YESKTN                |             |
| UniRef90_UPI00046E04CE | PNNSTAKLL       | DTGNLVL S       | QSP             | LWQGFDP               |             |
| UniRef90_M1BIU4        | G VNP I AQL     | LD              | DSGNL V         | RSNYVWQS              | FDYPG       |
| UniRef90_A0A059A790    | D A C S L E L L | NSGNL V         | LRGP            | KLWQS                 | FDHP        |
| UniRef90_R0HEM0        | SKDVQA V L      | H D N G N L     | V L R D P       | V L W Q S             | F D H P S   |
| UniRef90_K4CX76        |                 |                 |                 |                       |             |
| UniRef90_M5WMF2        | APSAATVE        | LLD             | DSGNIVL         | RGTYL                 | WQSFDYPS    |
| UniRef90_W9QXB6        | S D I L R L K L | D N D G N L     | K I F S S       | A R W A V A           | D Q C E     |
| UniRef90_UPI00032AC5AD | T K K P I L K L | L E N G N L     | V V K N E       | F L W Q S             |             |
| UniRef90_C5XG17        | G L S V I S     | L L N S G N L   | V V S G R T     | L W Q S               |             |
| UniRef90_C5XIK1        | SVAAMA V        | TRDGNL          | VLRNAT          | VWQS                  | FDHP        |
| UniRef90_V7C9Y5        | NSIYRATL        | AADGNFI         | LY              |                       |             |
| UniRef90_M8C7I9        | QAPAAAVL        | TNEGDL          | VVQGP           | ALWQS                 | FDHP        |
| UniRef90_UPI0002C2F930 | GVVIGFTLL       | PTGNM           | V L N G N F V   | W Q S F D S P         |             |
| UniRef90_M8AR11        | EADHAE          | LMDSGNL         | VVMKGN          | LWQS                  | FDHP        |
| UniRef90_B9SIQ7        |                 |                 |                 |                       |             |
| UniRef90_F6H2C0        | AQDPNAQL        | LD              | DSGNLIM         | RNSL                  | WQSFDY P C  |
| UniRef90_I1M3F1        | ARYPVA          | KLLD            | DSGNL V V       | QDD LL                | WQSFDY P G  |
| UniRef90_UPI0002C32247 | D               |                 |                 |                       |             |
| UniRef90_M4EZL4        | STNCHAK         | LLDT            | GNL V V         | S GT LL               | WQS FEN P G |
| UniRef90_B0TWB4        | SGATKLV         | LKDD            | GKLVLY          | NNS                   |             |
| UniRef90_UPI00023B34F1 | AANSSAQ         | LLD             | DSGNL V L       | RGRIT                 | WES         |
| UniRef90_K4A5Y3        | G I K R R L T L | D P D G N L     | R L R L Y S     |                       |             |
| UniRef90_A5BUD0        | GVVGLK          | LLSNGNL         | V L H G K F     | I W Q S               |             |
| UniRef90_B9S6C8        | S V N V M G L   | S Y A G N L     | R L Y N S R     | M W Q S               |             |
| UniRef90_B9I1L7        | P T D T L L V G | Q N L R         |                 | S S G P N R           |             |
| UniRef90_A0A059CWX8    | I G F R L I F N | Q S G Q V Y L T | D R             |                       |             |
| UniRef90_UPI0002B44B30 | GVV K L L D L L | P N G N M V L L | G K F V         | W Q S F D S P         |             |
| UniRef90_I1KZA4        | APAE L L H L    | K D D D G N L   | V L R G T I     | L W Q S               |             |
| UniRef90_M8A6L0        | K H T I V S     | L L D T G N L   | V I S N K I     | V W Q S F D S P       |             |
| UniRef90_M1BP22        | V Q N P V A Q L | L L D T G N F   | V R D N F L     | W Q S F D Y P S       |             |
| UniRef90_A0A059CDU0    | LSNYTAR         | LMDSGNL         | V L S K S V I   | W Q S                 |             |
| UniRef90_K7L9Y8        | D Y Y H R A T I | D E N G N F     | Q Q Y A Y P     | R N E N D T T G W R R |             |
| UniRef90_A0A059C0W1    | V T N A K A Q L | L D S G N L     | V L K Q S S     | N S S                 |             |
| UniRef90_M0X3E0        | K H T I V S     | L L D T G N L   | V I S N K I     | V W Q S F D S P       |             |
| UniRef90_UPI00046DBB74 | R V K R R L T   | T D Y D G N L   | R L Y S         | L N S T G S           |             |
| UniRef90_U5GWZ8        | A Q S A M G E   | L L D S G N L   | V L R G S Y L   | W Q S F D Y P S       |             |
| UniRef90_V4KDS9        | S N K C H A E L | L D T G N L     | V V S G K T     | L W Q S F E N         |             |
| UniRef90_A0A059B897    | D M I Y L A R L | D P D G I F R L | Y S             |                       |             |
| UniRef90_K4B8R0        |                 |                 |                 |                       |             |
| UniRef90_Q24571        | T G V Q R A R H | L D T G N L     | V I E G N T     | V W Q S F D S P       |             |
| UniRef90_C5XY18        | T G G T V A T L | T N E G C L     | V L R G T T     | L W Q S F D H P       |             |
| UniRef90_M5XGL2        | G V E G A T     | L A E S G N F I | L Y N R P       | V W Q S F S H P S     |             |
| UniRef90_UPI00032ACEE5 | G D D D V L R L | L D G D G N L   | R I Y N S       |                       |             |
| UniRef90_UPI0002C350C7 | S S A F         | L L D N G K     | F V V M G A D L | W E T F D N P S       |             |
| UniRef90_UPI0001983709 | G V J A Y A M L | L D S G N F     | V L V R Q D L   | W E S F D N P         |             |
| UniRef90_V7B7X1        | S G F Y K L F   | F D D D N V     | L R L           |                       |             |
| UniRef90_UPI00046DCAD8 | S N G S A A L L | F D S G N F     | V V Q G A Q L   | W R S F D Y P G       |             |
| UniRef90_M0ZEF7        | N K H F T V     | S L L D T G N L | V V T G R A V   | W Q S                 |             |
| UniRef90_A5BQQ0        | T G M F R L K   | M Q N N G N L   | V Q Y           |                       |             |
| UniRef90_UPI00042B1F5C | D V Q K A E L   | L D N G N L     | V L K D S T     |                       |             |
| UniRef90_Q5QNL1        | S V A G M T     | L T E S G N L   | V L Y N H P     | V W Q S F D H P       |             |
| UniRef90_A0A059CAI8    | S N Y S A A H   | L S D Y G N F   | V L Q D N I     | L W E S               |             |
| UniRef90_I1HQ85        | G I K R R I T   | M D Y D G N F   | R L Y S         |                       |             |
| UniRef90_A0A059B9B2    | D Q K Y R A T   | L D Y D G N F   | R L Y           |                       |             |
| UniRef90_UPI0002C36BA3 | S S T T S A R L | L D T G N L     | V L F G D V     | L W Q S               |             |
| UniRef90_UPI00032A910B |                 |                 |                 |                       |             |
| UniRef90_I11XN8        | A K N T V A M   | L L K T G N L   | V L L Q N T V   | L W Q S               |             |
| UniRef90_A0A058ZZN8    |                 |                 |                 |                       |             |
| UniRef90_K7K6Z0        | G A S S A T L   | E D S G N L     | V I S N S S L   | W S S F D H P         |             |

1 10 20 30 40  
UniRef90\_M0Z4D0 DT I L P T Q V L S V G Q Q Y S N G R F L L A V Q T D G N L V F Y P R Y N A Y  
UniRef90\_O81905 NT L S A S E S L S S N N T I V S G F F K P G L D S R W Y L G I W Y K A I Y V  
UniRef90\_UPI000350E5F1 DT I S P G Q E L A S G D K L M S T N G R F A L R N S S N N V T I Q K F T P V  
UniRef90\_V4SY14 DT L L V G Q K L A K D S E L Y S G N F K L W M Q S D G N L S I Q D D K Y G Y  
UniRef90\_K7KXD7 N H L A V S Q S L R D G E T L V S G I T E L G F F S P G N L A I W Y T N T V V  
UniRef90\_B9HXU6 S A G G T Y E L G F F S P G K S R N R Y L G I W Y G K I A V  
UniRef90\_I1M308 F N S P F H R M G L R R S E Q L F R W  
UniRef90\_V4U0T3 P N Y R W V  
UniRef90\_C5YV85 DT L S L G S S L S S D G T F S S G F Y Q V Y F T F S I W Y S K A A N K T I V  
UniRef90\_B9R761 NR D Q P I N G K R S K L S L L K N G N L I L T D V N D I V V  
UniRef90\_G7LEC1 DT L L P S Q V I L K D G K L S S G R F E L V L K N D S N L V I H S N E E N Y  
UniRef90\_T1LD28 D D Q L T Y A K P L T S G N T L V S G D F A L G F S S N R T L Y L I P K H T V V  
UniRef90\_A2ZQF5 D Q L I R Q N S T L S F T A E G D L V L H P D G S L V  
UniRef90\_B9I035 DT I N T T H S I R D G D T I V S G T Y V L G F F S P G K S K N R Y V I G I W Y  
UniRef90\_UPI0003D257C7 I S T G S T F T A G E S L S S G D F A F G F S D T V F L V G I W F S K I Q  
UniRef90\_UPI00036603CE G L L E V W R D G G H V  
UniRef90\_UPI00042B75EF DT I L P N Q T L K A G T A M Q S K N D K F I F Q N S K L L V  
UniRef90\_C5YIW8 V S Q N A L T T F T G E G D L L L Q D G G T L L  
UniRef90\_W5C4E1 D D R L V P G K P L S P G S T I V S G A F A L G F F S P N N L G I W I N D I P E  
UniRef90\_M8BNQ4 N A T L E F T A D G N L V L L D D G T H V  
UniRef90\_UPI00042B1C6F D S I D T T H P I R D G E T L V S A S F E L G F F S P G Y L G I W Y K K T V V  
UniRef90\_T7KXF1 N T I S Q L Q P L R D G T L V S E D G T F E L S T N R Y L G I W K P K T V V  
UniRef90\_A0A059BUZ7 S A G G T F E L G F F S L H Y P P K H Y L G I W Y K K T V V  
UniRef90\_F6H294 DT I L Q G Q S I T T S Q T I I S G N F E L G F F S P G N S T N Y Y V I G I W Y  
UniRef90\_G7LFU6 N D T I T P S K S L K D N E T I T S N N T N F K L G F F S P L N S T N R Y L G I  
UniRef90\_B9I1U3 R W V  
UniRef90\_F2D2H9 N A S V Q L T E L G D L V L Y D D G T Q V  
UniRef90\_M5Y3U1 DT L L P H Q P L T R N T L L V S G F Y K L F F D N D N L R L L Y D G S V Y  
UniRef90\_G7I217 NT L T P N Q F M Q Y H E T L V S G M Y E A G F F N F G D S Q R Q Y F G I W Y  
UniRef90\_Q025AB6 N R L I S P G D V L S K G R V F A L G F F S P T A S N Q S F F L G I W Y H N I V  
UniRef90\_A0A059CF15 T L A S N N T V K D G E V L I S R K F A L G F F S P G N S S L R Y V I G I W Y  
UniRef90\_V7BRW9 D S I T Q S Q P L H D G S T L V S N D G T F E L S T N R Y I G I W Y K I I P V  
UniRef90\_W1PN32 S A G I T W T S G P Q P V I D S G A S L S L L S N G N L R L N G S G A Q  
UniRef90\_V4W873 DT I S L S Q P I K D G D V I V S S R Y A L G F F S P G N S V K R Y V I G I W Y  
UniRef90\_C5Z547 L S P D G T F M C G F Y N I S P N A S T F S I W F A N A T I V  
UniRef90\_B9RXY2 DT L T S T Q S S I N G Q T L L S T R F E L G F F S P G N S K N W Y V I G I W Y  
UniRef90\_I1IUS5 DT L Q L G S S I Y R S E L L Q S P D G T F S F T F S I W Y S D A A N K T V V  
UniRef90\_A5BHL9 DT I T V D L V I R D G E T I T S G S F E L G F F S N R Y V G I W Y K K T V V  
UniRef90\_W5F9J2 D N R L V P G K A L S P G T T I V S G M F A L G F F N P S N L G I W Y N N I P K  
UniRef90\_M0X5T2 N T I L A G Q A L V V N D K L V S K N R Y A L G F F Q T S S K S S Q D T N  
UniRef90\_UPI00046E26E5 D S L R H G Q Y L Y R N E T L V S G V F E L G F F S N G Y L G I W K N Q K P V  
UniRef90\_Q5JQW1 D D Q L T L G K P I F P S E M L I S G I F A L G F F P P A N E V W F H N R T V V  
UniRef90\_M8CC39 DT I D Q A S I T G N Q T L V S G I F R L G F Y N P Y L G I W Y A G I P V  
UniRef90\_C5WVWH2 DT L L L G S S L S V I E H L Q S P E G T F S F T F S I W Y T N S V N K T V V  
UniRef90\_Q70I28 Q S I Q D D E T L V S G T F E A G F F R F G N S L R R Y F G I W Y  
UniRef90\_UPI0002C32D73 D S L I A N S D K F A F D K D G N V Y L D S S D G V V  
UniRef90\_A0A059BNR9 N A T F A L G A D G N L V L A N D S D G Q V A  
UniRef90\_UPI000350E340 DT I T P G Q A L V G S E K L I S S N G K F A L Q N T L N W Y L V P K L T Q V  
UniRef90\_M1CRP0  
UniRef90\_M5WVY5 Q S I A D G E T V V S T G A T F E L S K S R Y V A I W Y K K I P V  
UniRef90\_D8R007 DT L L P G Q E L R G N T S L V A G K Y R L S M N R R G G Y L N H S Y W G L I N  
UniRef90\_J3LWL4 E S P V G E N A T L E L T G G D L V L R E D G K L V  
UniRef90\_M0T6Z8 N A T F S L L P S G N L V L A E D G R V V  
UniRef90\_K7KT18 DT L L P Q Q V F T R H A K L V S G F Y T L F F D N D N L R L L Y D G P A S  
UniRef90\_Q40096 D S I T P T Q P L A G N R T L V S S D G L F E L G S D Q S Y V G I W P K T V V  
UniRef90\_M0XKB6 T L L Q G Q S L A G D K L L S G A F S L S F F S D G Y L G V M Y A K T V P  
UniRef90\_J3LB65 R L V K D N A S L Q F T K D G N L L R D D G S L V  
UniRef90\_UPI0002B4A08B D F L T S S Q N L T D G N T L V S G F F R P G I S N N R Y L G I W Y K T I P I  
UniRef90\_M7ZNB1 Q V V  
UniRef90\_A5AS83 N T I T P N Q P F R D G D L V A S S R F A L G F F S P R N S T L R Y I G V W Y  
UniRef90\_R1DGU9 V M V P G D T L S R G Q C L A N G D D T L V L Q A D G N L V H Y T G N A E  
UniRef90\_U7DYV4 S A G K R F Q L G F F K P V N S T Y R Y V G I W Y S N P V L  
UniRef90\_J3L5D6 R V V A G T G G L E G L S M C S L V V L L G D V T A  
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UniRef90\_K7KBW2 W Y T Q P P R T V V  
UniRef90\_W1P1F1 V R E Y A P Q L L  
UniRef90\_J3L6J2 L S S N G V F A F G F Y N L S F T L S V W F A A S A D R T V A  
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UniRef90\_K3Y545 N D Q L T Q A K P L F L K D K L V S G D F A L G F F S P T N S S R L P E R T V V  
UniRef90\_UPI0002B45338 D S I K A G E F I N A S Q I L V S A K Q K F V L G M F N Y L G I W Y N N I P Q  
UniRef90\_UPI0002C3643D D A L T P N Q P V R D G D V L V S S R F A L G F F S P G N S Q H R Y V I G V W Y  
UniRef90\_V7BXM2 H N G F F L V S N S S A F A F G S S F V L V L H S Y K V V  
UniRef90\_Q9ZVA2 N A T L S L G R N G L V L A E D G R V K  
UniRef90\_UPI00032AD253 T A N R D D P P V T L T A T L Q F T M N G S L I L I D E Q G Q K  
UniRef90\_U5G0S1 N Q T I K E G D V L S K G N N F A L G F F S P G S S S N R Y L G I W Y H K V I P E  
UniRef90\_M0UDY0 D D Q L T H A K P L S A G D T I V S K G G H F A L S N S P N T S L Y P G R T I V  
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N G T I S I G Q Q L T A A E S T E S K D F A L G F H D S K D L F L I P S K T I V  
D T L L P T Q H I V A T T K L V S G H Y M F H F T D S S V L S L I D V H D I Y  
S E R C L L D F T V A G N L E L K D R G S I G  
T I S G N R T L S P G D V F E L G F F K T T L S S R W Y L G M W Y K K V Y F  
N R G T P L I S N P D S Q L T I A T D G N M V L D N S T A I  
L F P N Q T L S S G Q L F E L G F F T P N G S E N Q Y V G I W Y K N L A P  
N T L S S T E S L S S N R T I V S G V F E L G F F E T V S T S R W Y L G I W Y  
C S L V V L L G G V K V  
D T I L P G E P I S G N Q T L V S G A F D L G F F P P G Y F L G V R L R N M A  
D I I V S P K R I F T A G F Y P V G A Y S F A I W F T Q K H K H L N N A T I V  
D D Q L T Q V N R L S P S G K L V S K S G V F A L T S N Q S L F L W Y N N I P E  
E D V I V S S N G T F S A G F Y Q I P G E N A F S F F T E L Q N Q S H N P V N I V  
H A T D F L V S P D G T F V F T V S V W F A R A G R T V V  
D T I L P N Q Q I N G T E L V S R N G K Y K F K N S M K L V F N S D S Y  
G K L V A N F D K F V I T K D G N V Y L W K S G D D T P E  
S P S G E F A L G F H Q L G N Q S L F L L A I W F E K I V E  
N N G F F L L S N N S A F A F G F F T T L I H L S S Y K V V  
I L L K G D S F S V S H F I T S P Q K T F T C S N A Y Y F G I W Y T N T V V  
D T L V P G Q P L T R Y T Q L V S G F Y K L F F G D D N L R L V Y D G P D V  
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N T L S S T E S L S S N R T L V S P G F E L G F F R T N S S S R W Y L G I W Y  
D T I A A N E S I A S D Q T L A S A N D V E Q L L N A N Y Y V G I W Y K N L P D  
D S V L V P G M G L T P G K T L T S G S F A L G F F T P S N S T K N W Y H T V V  
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D G A L S L R D S G N E V  
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N C L L P G K P L S S R S T I T S D D G T F A L T K H Y Y V G I W Y K N I P E  
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G S P V S Y S D K F I F G G D G K V S L Q K G E A V V  
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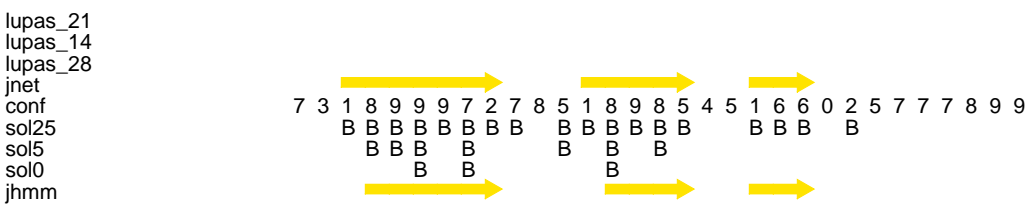
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UniRef90\_B9R757 F S T E L R L Y D S G N L V L R G V V L W Q S F E S P  
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UniRef90\_M7YPH8 S G G V A A Q L L D S G D L V V



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