

1 10 20 30 40  
QUERY A S K R A L V I L L A K G A E E E M E T V I P V D V L M R R R A G I K V V T V A G L L A G S K S  
UniRef90\_F7A9B9 A S K K A L V I L L A K G A E E E M E T V I P V D V L M R R R A G I K V V T V A G L L A G S K S  
UniRef90\_B4GNB4 S K T A L I V I L A P E G A E E E M E T F V I A A D V L R R R R A G I K V V T V A G L L A G S K S  
UniRef90\_A0A044RAP4 A S K T A L V I L L A E G G A E E E M E T V I P V D V L R R R A G I K V V T V A G L L A G S K S  
UniRef90\_D2A3Q0 K A L V F L A G G A E E E M E A V I A I D V L R R R G G V E V T V A G L L A G S K S  
UniRef90\_G7E7C6 S E K R L L L V A H G A E E E M E V S T P Y D V L V R R A G G I K P L L L V A G L V A D K T  
UniRef90\_C3XYI0 T A L V I L L A E G A E E E M E T V I S V D V L M R R A G G I K V V T V A G L L A G S K S  
UniRef90\_D3SLI6 K K V A I L L A D G G F E E E V I E A V I A V I D V L R R R G G V Q V V L I A G L V A S K Q  
UniRef90\_W9S9W0 S R K V L L P I A N G T E P L E A V T T I D V L R R R A G G A D V L T V A S I V S E K Q  
UniRef90\_X2GUN3 K K A L V F L S E G G C E E T E A V T T I D V L R R R A G G I E V L T A S I V M T A N K  
UniRef90\_F3NGE7 R N V L V V L F D G V Q S L D V T G P V E V L F A G A E Y R V V T T V A S I L T D G A N  
UniRef90\_K5Y1Y6 K K A I V F L A N G F E E E M E A L G T V D I L R R R A G G I E V L T T V S I V M T A N K  
UniRef90\_D4LZ24 K K V V V F L A D G F E E E V E G L T V V D L L R R R A G G A V V E T V S I V M T A N K  
UniRef90\_UPI000479B39E K T A I F L A D G F E E E I E A L T V V D L L R R R A G G I E I T M A S I L M G R D  
UniRef90\_U2RAI1 N K K V A V F L V D G F E E E I E A V T P I D V L Q R R A G G I T V D T V A S I L T K E R  
UniRef90\_K5XBV8 S K R V L I P I A D G G S E D L E A V T T I D V L R R R A D L D V L T V A S I S A E T E E R  
UniRef90\_I0X9J7 K K A A V F L A D G G F E E E V I E A L T P V D Y L R R R A G G V E V I T I A I P S S S  
UniRef90\_F2RF31 R P V L V V L F D G G V Q S L D V T G P F E V F A G A G Y P L R T A S L D D G G S  
UniRef90\_S4PYG8 S K S A L V I L A Q G A E E E M E T V I T V D M L R R R A G G V T V T L A G L V E D G S  
UniRef90\_S8CKY5 S S P Q I L V P I A N G T E E M E A V I I V D V L R R R A K A N V V V A S I V E G S  
UniRef90\_UPI0003317B22 S T K T A L L V L A D G G S E E M E A V I A D V L R R R A G G I D V L I A G L I Q Q E E  
UniRef90\_F4P7U3 T V V V L L A N G T E E M E A V I T I D I L R R R A Q A K V I V C S I L Q E E  
UniRef90\_H3FSP8 R R A L I L L A D G A E E E M E V I I T S D V L R R R A G G I E V V T L G G L F G M  
UniRef90\_R7JUH8 K K I Y V F L A D G G C E E E A L T P V D I L R R R A G G E D V C T V S I M G R N  
UniRef90\_H9KDP7 T K K T A I L L A D G S E E E M E A V T T I D V L R R R A G G V D V T V A G L L E T E  
UniRef90\_D3SC10 T P R V L V P L A A G A E E E L E A V T I I D L L R R R A R F E V V T V A G L L E Q  
UniRef90\_A2EJC2 K V L V L L A A T G F E P M E L V N P T D I L R R R A G A D V K V A A S L V S G T E D  
UniRef90\_L1K0T4 S K R A L C I L L A E G F E E L E A V A P I D I L R R R A N I E V I A A S L V S Q D S  
UniRef90\_Q9FPF0 R S V L V V L F D G G V Q S L D V T G P M E V F A G A S Y E L R T A S L V S G N S  
UniRef90\_UPI000382A534 L L V L L A D G G F E E E T E F V V P V D V L W R R R A G G Y K V T V A S L V S G A  
UniRef90\_C9RKY9 A S K R A L V I L L A K G T F E E E M E M I I P V D V L I R R R A G G I E V T V A G L I A G K E  
UniRef90\_F7GQC4 K V Y E F L S N G F E D L E A L A V I D V L R R R A G G L E V K T V S I T D G E  
UniRef90\_R6VXB9 S G K T A L L V L L A E G A E E E M E S V I T I D V L R R R A K L E V T V A G L I T G E H  
UniRef90\_T2M6B2 K K V L V P I A N G T E E P M E A V I T I D V L R R R A G V D V V A V A S L V E T P G S  
UniRef90\_I1GY83 K T A I F L A N G F E E E T E G L T V V D I L R R R A G L D I T M V S I L T  
UniRef90\_UPI00047B555D R R V G F V I F E G F Q S L D L V G P Y E V F Q A A G Y D V V V L A T T R A  
UniRef90\_K0JTB8 S D K K L A I F F A D G G F E D V E A I A V Y D I L Y R A G I D T L K V S I M P D  
UniRef90\_UPI000405C27B K K V L V F L V D G G F E E E I E A M A P I D L R R R A G I V V D T V S I I N E S N  
UniRef90\_U2SKR0 K V L V F I A E G F E E E I E A L T V V D V L R R R A N I R C D M C S I L T S N  
UniRef90\_A5I5K3 K R V L V A V A A G T E P L E A A A T A D I L N R A G A R V A V A T A S E G E  
UniRef90\_F2EGX7 A R R R I G I L V F D G G V K M L D Y T G P A E V F V E A G Y D V V V S I P D  
UniRef90\_H6RBC0 S K S V V V F L A D G G C E E L E A V T I I D V L R R R A G G V E V I V A G L K P P L  
UniRef90\_R9KX36 K V L V P L A D G G C E E L E A V T I I D V L R R R A G G V E V I V A G L K P P L  
UniRef90\_Q3SHT5 K R V A M L L F P G V Q A L D V S G P L D V F A E A G Y Q V I T L A A P P L  
UniRef90\_M4WXD4 R A L I A V A D G V E D L E T V T L I D V L R R R A E V E V V V A S I E A R  
UniRef90\_UPI000364DE93 K T I A F Y L Q D G V E V L D F A G P L E V F S Y A G Y E V Y T V S K N R  
UniRef90\_UPI00037D6BBB K Q V S V L L A D G G F E T V E A L T P V D I L R R R G G V S V E L V S V M D R  
UniRef90\_UPI000471C873 I L V P I A N G T E E M E A I M I D I L R R R A K A N V V V A S I V E S T  
UniRef90\_W5H8W7 K V Y E F L A N G F E E E T E G L A P V D I L R R R G G V E I K T V S I E T G S  
UniRef90\_D3HWJ8 R T V L V V L F D G G V Q S L D V T G P M E V F T G A P Y R V R T A S L D G A  
UniRef90\_S4AWG4 T P R V L V P V A N G S E E M E A L N L I D V L R R R A G A R V T V A S V E D T  
UniRef90\_W5AMX9 T R T I A I L A L I Q G V Q L L D V S G P L D V F A Q A N A E L L G R P F Y A  
UniRef90\_UPI00035D786D A Q R T V L V V L F D G G V Q S L D V T G P L E V F A G A D Y R L R T A S L D G R  
UniRef90\_UPI000471C873 T R H V V F V I Y E G F Q S L D L A G P L E V F G H A G H S C R I V A P R P G  
UniRef90\_C6CBD7 V L V C L A P G S E E I E A V T A I D L L V R A G I K V T T A S V D G A  
UniRef90\_UPI0003B74CEC T V G F L L F D D L T Q L E D F T G P L Q V L N R L P D A E I A L T A K S E  
UniRef90\_E0E1N5 K K V A V L L A N G F E E I E A L A S V D I L R R R A E F E V D T V S M N D D  
UniRef90\_B1G9P6 K V A I V I F E G A Q A L D V A G P L D V F A E A N Y E V S L V G S K A G  
UniRef90\_E1TH76 T V A I A I F P G V Q A L D V A G P V D V F E S E A N Y T V T L L S A T Q  
UniRef90\_F8F3W0 A K R V L E F I A E G F Q A L D E A V T P A D Y L R R R A G I E V T L V A V G A N  
UniRef90\_X5M4T4 S R E V V I V V F D G M K L L D A A G P A E V F A E A N Y R L R I A S V D G A  
UniRef90\_E3HQC9 T K T I A I L A L P G V Q M L D V S G P L D V F A Q A N A E L R V V G Y E A G  
UniRef90\_R6RJU6 K V C V F T A D G F E E I E G L T V V D L L R R R A G A E V L M V S I S D G  
UniRef90\_A6SUG5 R T V D I I Y P G F K A L E A I G P L S V F E Y A G Y D V R F V S T G V  
UniRef90\_R1E2I3 R V L V P I A D A S E E E L E S C T T D T L V R G G V E V T A S P E G R  
UniRef90\_I2BBR5 V L I C L A P G C E E T E A V T T I D L L V R A G I Q V T T A S V D G S  
UniRef90\_R5P517 K K S F L F L A D G F E E E V E A L G T L D V L R R R G G V E V Y T V S V Y D R  
UniRef90\_UPI0002625618 R R L A L L V F D E F K L D V A G P S E V F A E A N Y R L V L C S V G G R  
UniRef90\_D8IEU4 S K K V L V P L A E G F E E V E A V T I I D I L R R R A N I E V T T A S L T D N  
UniRef90\_UPI0003FB0AA7 K K I G I Y L F D E V E V L D F A G P Y E V F S V A Y F D V T T I S E T G D  
UniRef90\_S6EY58 K K V A I L L A D G F E T I E A L T V V D V L R R A D V T C N T F A L K D  
UniRef90\_UPI00047D57C2 G F L I F D G V S L L D F A G P A E V F T R A H Y E T V L I S P H G G  
UniRef90\_UPI00037C25C1 R I V F V V F D G F Q A L D L V G P R E V F Q Y A G Y D C Q I L A P T A G  
UniRef90\_F0WIG1 T A L I P V A D G T E E I E A I T L A D V L R R A G N V K V T M A S V K P E  
UniRef90\_R5JCL0 T V Y A F F A D G F E E I E A I T A I D T L R R A G N V E I V S V T P D  
UniRef90\_A0A031FQV1 K T V A M V L F P D F L L L D M A G P L E V F S V A N Y Q L T T L G T E R G  
UniRef90\_UPI00039DFC34 G P R V G I L L Y F D G F S L L D P T G P A E V L S R L D A T V T M I A E Q R G  
UniRef90\_A8I942 R F G I L A F P D V Q Q L D L T G P Y E V F A S A P E T E V L L I G R E  
UniRef90\_R7Z3U3 L I L I A D G T E E I E F V T P Y D V L T R A G I T V R S A G V K N E  
UniRef90\_D0BJF4 K R A A I V L T T G F E E I E A I A P M D I L R R R A G G V E V D L V G V D A K  
UniRef90\_UPI0003830757 T R K I G I L L F P D V E E E L D A I G P W E V F A E D G W Q V F C F S V D G N  
UniRef90\_UPI0003808C30 R I G L V L F P E L T Q L D L T G P A E V F G R M G A E I H L L W K T L  
UniRef90\_UPI00038308BC T V T V F V F D G V R L L D V T G P I E V F A S A N Y R T A S I G D G A  
UniRef90\_D9V7F1 V V F V V F D G V K M L D V T G P A E V F A E A N Y S G A G Y S I S Y R  
UniRef90\_UPI0003816001 N K K I A I L L E N G F E Q V E M T Q P R Q A L D E A G A Q T H L V S P Q A G  
UniRef90\_E6QUV0 R T V D I I V Y P G F K A L E A I G P L K V F E D A G G E V V I A S T I A  
UniRef90\_C0W6P5 K K V A V L V A D G L E E V E A L A P L D I L F R A G G I P A H L I S I T H S  
UniRef90\_B2T4L1 K V A I V V L D V Q A L D V A G P L D V F A E A N Y E V F L V G N E A G  
UniRef90\_R8W437 V Y V F L A D G F E E V E A L T P L D V L R R A G V D A V R T V G V T G K  
UniRef90\_UPI00016A6AB5 H I G F L V F P G V Q Q L D L T G P H D V L A S L P D A A H L V W K T R  
UniRef90\_A0A023NRN6 A K T I A V V A L P G V Q L L D V S G P L D V F A Q A N V I E A K V V G S Q H G

QUERY UniRef90\_F7A9B9 UniRef90\_B4GNB4 UniRef90\_A0A044RAP4 UniRef90\_D2A3Q0 UniRef90\_G7E7C6 UniRef90\_C3XYI0 UniRef90\_D3SLI6 UniRef90\_W9S9W0 UniRef90\_X2GUN3 UniRef90\_F3NGE7 UniRef90\_K5Y1Y6 UniRef90\_D4LZ24 UniRef90\_UPI000479B39E UniRef90\_U2RAI1 UniRef90\_K5XBV8 UniRef90\_I0X9J7 UniRef90\_F2RF31 UniRef90\_S4PYG8 UniRef90\_S8CKY5 UniRef90\_UPI0003317B22 UniRef90\_F4P7U3 UniRef90\_H3FSP8 UniRef90\_R7JUH8 UniRef90\_H9KDP7 UniRef90\_D3SC10 UniRef90\_A2EJC2 UniRef90\_L1K0T4 UniRef90\_Q9FPF0 UniRef90\_UPI000382A534 UniRef90\_C9RKY9 UniRef90\_F7GQC4 UniRef90\_R6VXB9 UniRef90\_T2M6B2 UniRef90\_I1GY83 UniRef90\_UPI00047B555D UniRef90\_K0JTB8 UniRef90\_UPI000405C27B UniRef90\_U2SKR0 UniRef90\_A5I5K3 UniRef90\_F2EGX7 UniRef90\_H6RBC0 UniRef90\_R9KX36 UniRef90\_Q3SHT5 UniRef90\_M4WXD4 UniRef90\_UPI000364DE93 UniRef90\_UPI00037D6BBB UniRef90\_UPI000471C873 UniRef90\_W5H8W7 UniRef90\_D3HWJ8 UniRef90\_S4AWG4 UniRef90\_U5AMX9 UniRef90\_A9BYH7 UniRef90\_UPI00035D786D UniRef90\_D7BYR1 UniRef90\_C6CBD7 UniRef90\_UPI0003B74CEC UniRef90\_E0E1N5 UniRef90\_B1G9P6 UniRef90\_E1TH76 UniRef90\_F8F3W0 UniRef90\_X5M4T4 UniRef90\_E3HQ9C UniRef90\_R6RJU6 UniRef90\_A6SUG5 UniRef90\_R1E2I3 UniRef90\_I2BBR5 UniRef90\_R5P517 UniRef90\_UPI0002625618 UniRef90\_D8IEU4 UniRef90\_UPI0003FB0AA7 UniRef90\_S6EY58 UniRef90\_UPI00047D57C2 UniRef90\_UPI00037C25C1 UniRef90\_F0WIG1 UniRef90\_R5JCL0 UniRef90\_A0A031FQV1 UniRef90\_UPI00039DFC34 UniRef90\_A8I942 UniRef90\_R7Z3U3 UniRef90\_D0BJF4 UniRef90\_UPI0003830757 UniRef90\_UPI0003808C30 UniRef90\_UPI00038308BC UniRef90\_D9V7F1 UniRef90\_UPI0003816001 UniRef90\_E6QUV0 UniRef90\_C0W6P5 UniRef90\_B2T4L1 UniRef90\_R8V437 UniRef90\_UPI00016A6AB5 UniRef90\_A0A023NRN6

QUERY UniRef90\_F7A9B9 UniRef90\_B4GNB4 UniRef90\_A0A044RAP4 UniRef90\_D2A3Q0 UniRef90\_G7E7C6 UniRef90\_C3XY10 UniRef90\_D3SL16 UniRef90\_W9S9W0 UniRef90\_X2GUN3 UniRef90\_F3NGE7 UniRef90\_K5Y1Y6 UniRef90\_D4LZ24 UniRef90\_UPI000479B39E UniRef90\_U2RA1I UniRef90\_K5XBV8 UniRef90\_I0X9J7 UniRef90\_F2RF31 UniRef90\_S4PYG8 UniRef90\_S8CKY5 UniRef90\_UPI0003317B22 UniRef90\_F4P7U3 UniRef90\_H3FSP8 UniRef90\_R7JUH8 UniRef90\_H9KDP7 UniRef90\_D3SC10 UniRef90\_A2EJC2 UniRef90\_L1K0T4 UniRef90\_Q9FPF0 UniRef90\_UPI000382A534 UniRef90\_C9RKY9 UniRef90\_F7GQC4 UniRef90\_R6VXB9 UniRef90\_T2M6B2 UniRef90\_I1GY83 UniRef90\_UPI00047B555D UniRef90\_K0JTB8 UniRef90\_UPI000405C27B UniRef90\_U2SKR0 UniRef90\_A5I5K3 UniRef90\_F2EGX7 UniRef90\_H6RBC0 UniRef90\_R9KX36 UniRef90\_Q3SHT5 UniRef90\_M4WXD4 UniRef90\_UPI000364DE93 UniRef90\_UPI00037D6BBB UniRef90\_UPI000471C873 UniRef90\_W5H8W7 UniRef90\_D3HWJ8 UniRef90\_S4AWG4 UniRef90\_W5AMX9 UniRef90\_A9BYH7 UniRef90\_UPI00035D786D UniRef90\_D7BYR1 UniRef90\_C6CBD7 UniRef90\_UPI0003B74CEC UniRef90\_E0E1N5 UniRef90\_B1G9P6 UniRef90\_E1TH76 UniRef90\_F8F3W0 UniRef90\_X5M4T4 UniRef90\_E3HQC9 UniRef90\_R6RJU6 UniRef90\_A6SUG5 UniRef90\_R1E2I3 UniRef90\_I2BBR5 UniRef90\_R5P517 UniRef90\_UPI0002625618 UniRef90\_D8IEU4 UniRef90\_UPI0003FB0AA7 UniRef90\_S6EY58 UniRef90\_UPI00047D57C2 UniRef90\_UPI00037C25C1 UniRef90\_F0WIG1 UniRef90\_R5JCL0 UniRef90\_A0A031FQV1 UniRef90\_UPI00039DFC34 UniRef90\_A8I942 UniRef90\_R7Z3U3 UniRef90\_D0BJF4 UniRef90\_UPI0003830757 UniRef90\_UPI0003808C30 UniRef90\_UPI00038308BC UniRef90\_D9V7F1 UniRef90\_UPI0003816001 UniRef90\_E6QUV0 UniRef90\_C0V6P5 UniRef90\_B2T4L1 UniRef90\_R8V437 UniRef90\_UPI00016A6AB5 UniRef90\_A0A023NRN6

90 100 110 120

L S E S S A A V V K E T L L K E Q E E N R K G G L I A A V C A G P T A L L A H E H I G F G S S  
L C E S S A A V V K E T L L K E Q E E N R K G G L I A A V C A G P T A L L A H E H I G F G S S  
M G D S S A A V V G D T L L R A Q Q E H E T A G G G L I A A A I C C C C A A A P T V L A K S H G H G I G A A P G L  
L A A S S D E V G E L L R E Q E A A G R L T G A I I C C C C A A A P T A L K A S H G V I Y A V G K  
L A A S S D Q H V K E V L K S H Y E G K G S I V G A I C C C C A A A P T A L V K T S N G I A R R G K  
L A A S S P K V K E V L Q E E G K G S L V V A A V C C C C A A A P T A L V L V S H G I A R G K  
L K A D N P R V E K L I Q Q A M Y Q K R K L V G A I C C C C A A A P T A L A K A F G V L E G K  
L K N N G V L L E S L V R K Q A A A D G G V I A I C C A S P A V L A L G A W G L L K N G  
F R D C S L L I E L L R R R H G P R A G R L V S V C C C T G A L L L A E A G L L E G R  
L N D S E A V K E A L L Q Q Y N E K D S K L V A A I C C C C A A P M V L G G A L G L L K K E K  
L L G A C D K L K D Q I S S F N Q D K G K M L A A I C C C C A A P T V Y G K M G I L D G K  
F N S Q I L L D N I L K F Q S K A D D E N K K L A A I C C A A P T V L L A S L K I L E G K  
L G E L E P L A E R V R Q Q A A G R E F A A I C C A A P A V A L H A Y G V L K G  
L S E C A D L L E H L K C Y D Q G R Y V S A I C C A S P A V V L G K T K V L E G K  
U n i R e f 9 0 \_ F 2 R F 3 1 A P D D P A L L D W L R T H A P A A A R L V S V C C C T G A L L L A E A G L L E G K H  
U n i R e f 9 0 \_ S 4 P Y G 8 L S K S S V V G T L L Q E H E N T A G K I V A A I C C C A A P T A F V L H A G V L A K G  
U n i R e f 9 0 \_ S 8 C K Y 5 F A N S D E L V D S L K K Q R E S G R F Y G A I C C C C A S P A L V L L E H H G L L K G  
U n i R e f 9 0 \_ U P I 0 0 0 3 3 1 7 B 2 2 L A T N Q K D V G A L L K A Q E E Q G R L I A A I C C C C A A P I A L M S A H G V L A V N R  
U n i R e f 9 0 \_ F 4 P 7 U 3 F S E S S K D V H G Q L L K A N T E N G K L I G V I C C C C A A P I A L K A A G I L L F G K  
U n i R e f 9 0 \_ H 3 F S P 8 L A K T A K V G D I L R S Q L S C G G F I A A I C C C C A A P I A F A S H S I L Q K G A  
U n i R e f 9 0 \_ R 7 J U H 8 L A G S N E T L A A A L L R S Y D D E E N K K L A A A I C C C C A A P S L L G V M G I L K K G  
U n i R e f 9 0 \_ H 9 K D P 7 F A S S A E V G K L L R Q R Q D Q E E N R F I A A I C C C C A A P T A L K A H G I A K K G  
U n i R e f 9 0 \_ D 3 S C 1 0 L R D N P H V Q A M L R A Q A E R D G W L G A I C C C C A A G P K A L A Q A G V L E G H  
U n i R e f 9 0 \_ A 2 E J C 2 L A A N Q D V L E F I R Q H E K A G K L V A A I C C A A P G S V L A Q A G C G I M K G  
U n i R e f 9 0 \_ L 1 K 0 T 4 L K A K D K R V L E L L R Q Q M S A G R V V S A I C C C C A A P G S V L H E A P V L E G K  
U n i R e f 9 0 \_ Q 9 F P F 0 F A S C E K L V N M L R K Q A E A N K P Y G G I C C C C A A S P A Y V F E A P V L L K G  
U n i R e f 9 0 \_ U P I 0 0 0 3 8 2 A 5 3 4 L L K A S A A V E N T V C S H G P L D P K E R L V S V C C C S G A L L L A A A G Q L D G H  
U n i R e f 9 0 \_ C 9 R K Y 9 L S E S A A V V K E T L L N K Q E N W K G L R A A I C C C C V G P T A L L A E E I G F G S  
U n i R e f 9 0 \_ F 7 G Q C 4 L N K R M L R E I L L E J E Y Q N K G R I V A A I C C C C A A P L V L G S D H G I L E G K  
U n i R e f 9 0 \_ R 6 V X B 9 L S E S T V V K L L E K H F H Q E K L I A A I C C C A G P T V L D A H N V L G K G  
U n i R e f 9 0 \_ T 2 M 6 B 2 F R D C K L L E N M V K K H A E K G K Y A A I C C A A P A V A L G S W G L L D G L  
U n i R e f 9 0 \_ I 1 G Y 8 3 L D A C T A P L K A K I L E A F N N E R G K M L A A I C C C A A P T V Y G K M G L L K K G  
U n i R e f 9 0 \_ U P I 0 0 0 4 7 B 5 5 5 D I G D T A L T G W L T E A A A H A R R V A S V C C C S G A F L L A E I G L L D G R R  
U n i R e f 9 0 \_ K 0 J T B 8 L R A C D K L C D E L V R F A A G S G K T V G A I C C A A P Y V F A E L G L L K G K  
U n i R e f 9 0 \_ U P I 0 0 0 4 0 5 C 2 7 B Y M K S E K L Q E K L K E F S L N R K L G A I C C A P T I L S A L G L L K G K  
U n i R e f 9 0 \_ U 2 S K R 0 L R D N N K V I N L V K E F N R D E K L I A A I C C A G P I V L S K A N I I K G K  
U n i R e f 9 0 \_ A 5 I 5 K 3 L R D C K Q L E K M V R K H A E S G R C G A I G A S P A V A L A H W G V L Q G F  
U n i R e f 9 0 \_ F 2 E G X 7 F V T P E V L A A T A H L A R R T R R L A S I C C S G A F V L L A E L G V L N G R R  
U n i R e f 9 0 \_ H 6 R B C 0 L G K S A R V M A E L L T R R M E A G E S V A A I C C C A G P M L L A R A G L L N G R  
U n i R e f 9 0 \_ R 9 K X 3 6 L K D S V R V V D L L K K M A S A G K Y T A A I C C C A A P M V L A E A G L L R G K  
U n i R e f 9 0 \_ Q 3 S H T 5 T P G A E L L D G W L R A A C A Q A G V P R Y G S I C C T G A F L L G H A G L L D G K R  
U n i R e f 9 0 \_ M 4 W X D 4 L A G H G P L G E L R V R Q A K A G K L F A A I C C C A A P A L L G Q Q Y G V L R Q R  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 4 D E 9 3 L A G H G P L G E L R V R Q A K A G K L F A A I C C C A A P A L L G Q Q Y G V L R Q R  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 D 6 B B B L R D D V R V I E W L Q S V N L D H T M V A A I C C A G S P A I A L D R A N L L A N H  
U n i R e f 9 0 \_ U P I 0 0 0 4 7 1 C 8 7 3 Y A K S D K L I G L I K Q Q A E A N K L Y G A I C C C C A S P A I A L L E P H G L L K G  
U n i R e f 9 0 \_ W 5 H 8 W 7 L K A H E G V C Q A L L K Q H A A G K R I G A I C C C C A A P L V L G S L G L L K G R  
U n i R e f 9 0 \_ D 3 H W J 8 R A E D A E L V A M L R A H A P R A R R L V S V C C C C T G A F V L L A R A G L L D G R  
U n i R e f 9 0 \_ S 4 A W G 4 F T S S E K L V G M L K K Q A E S G R P Y G A I C C C A S P A Y V L E P H G L L K G  
U n i R e f 9 0 \_ W 5 A M X 9 M L L G E P T L Q W L R T M A R Q S R R F G S V C C C S G A L F L A A A G L L D G R  
U n i R e f 9 0 \_ A 9 B Y H 7 L L L G E P T L Q W L R T M A R Q S R R F G S V C C C S G A L F L A A A G L L D G R  
U n i R e f 9 0 \_ U P I 0 0 0 3 5 D 7 8 6 D L A R H D P E L I G W V R A A A A A G A R R I T S V C C C S G V F L L A A A G L V D G L  
U n i R e f 9 0 \_ D 7 B Y R 1 F R D S P L L V E R L R Q T H Q E G K I V A A I C C A S P A V V L E Y H K L F P V  
U n i R e f 9 0 \_ C 6 C B D 7 V M Q D A A M L D F V R R Q A A Q A Q Y I T S V C C C T G A F L L A E A G L L D G R  
U n i R e f 9 0 \_ U P I 0 0 0 3 B 7 4 C E C Q R V I D L V G V N Q E N K Y I G A S I C C C C A A P M A M G R A G I I G G K  
U n i R e f 9 0 \_ E 0 E 1 N 5 N P P N E L L T W L Q N Q A R G A A R F G S V C C C C N G A F V L G H A G L I D G K  
U n i R e f 9 0 \_ B 1 G 9 P 6 E P P A A P L L D W T N V A P Q C S R Y G S I C C C C T G A F A L G H A G L L D E R  
U n i R e f 9 0 \_ E 1 T H 7 6 I A G S V T A V T F L K D M H H A G K V V A A I C C C C A S P A V V L A P L G I L A G  
U n i R e f 9 0 \_ F 8 F 3 W 0 P I D P A L V A A L R D L P T R P R L V A A I C C C C T G S F L L A A A G L L D G R  
U n i R e f 9 0 \_ X 5 M 4 T 4 A M L S S S A L Q W L R A T A R G A R R Y G S V C C C C T G A F M L A A A G L L D G R  
U n i R e f 9 0 \_ E 3 H Q C 9 L G E H E G L C H L L Q E F A D Q G K M V A A I C C C C A A P S V L G K L G I L E G K  
U n i R e f 9 0 \_ R 6 R J U 6 L E N A G P I V D W I V A V H P Q I N R L A A L C C C C S G A F F L A S A G V L E G K  
U n i R e f 9 0 \_ A 6 S U G 5 L S E N A K L T E T L K A Q V A A G K C T A A I C C C C A A P A V L L K A H G L L P A  
U n i R e f 9 0 \_ R 1 E 2 I 3 L H D S L L V E T V R Q F H L S G R L V A A I C C C C A A P G M V L P H D I F T P  
U n i R e f 9 0 \_ I 2 B B R 5 L S E S S V L M E M L N R H F E K K K P I A A I C C C C A A P A L V L G K L P L D K S  
U n i R e f 9 0 \_ R 5 P 5 1 7 A V P K R I E A E A A R T I A G R A K R I A S I C C C C T G S F V L A A A G L L D G R  
U n i R e f 9 0 \_ U P I 0 0 0 2 6 2 5 6 1 8 L K N D K R I I S K L Q M Y A E A K K L V S A I C C C C A S P I V L G E A S V I K G  
U n i R e f 9 0 \_ D 8 I E U 4 E A Y N E K L I K W L R A C Q D S A E V I A S V C C C C T G A L V L A N A G L L D G K  
U n i R e f 9 0 \_ U P I 0 0 0 3 F B 0 A A 7 L R D N K K V L S A L K E F Y K K G F V C A I C C C C A A P I A L G K A G I T T G K  
U n i R e f 9 0 \_ S 6 E Y 5 8 E F D P V L L D A A A L L T T R H R V A S V C C C T G S F I L A E L G L L D D H  
U n i R e f 9 0 \_ U P I 0 0 0 4 7 D 5 7 C 2 A A E V G T L T G W I A A A G K S A R V T S V C C C S G V F L L A A A G L V D G R  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 C 2 5 C 1 L R D K C E F L L K L K Q Q K H E G K W Y G A I C C C A S P A V I L S A H D L L P  
U n i R e f 9 0 \_ F 0 W I G 1 L D K H E G L R K L I L D F A E K N K P I A A I C C C C A A P M V L G K L G L L K G R  
U n i R e f 9 0 \_ R 5 J C L 0 K H P A L L A W L K A A V P C A E R Y G S I C C C C T G A F V L G H A G L L D G Y  
U n i R e f 9 0 \_ A 0 A 0 3 1 F Q V 1 A M G N R V L L D W I R E I H R G T R W T S V C C C C T G S L V L A A A G L L D G R  
U n i R e f 9 0 \_ U P I 0 0 0 3 9 D F C 3 4 L M E D A D A L D F I R S R A G E V R Y L T S V C C C C T G S L V L G A A G L L K G K  
U n i R e f 9 0 \_ A 8 I 9 4 2 F C D S K T V L Q L L R D F R E K G K L V G C L C A G T T E T E G G E R N K R V  
U n i R e f 9 0 \_ R 7 Z 3 U 3 L K N H G A V Q D F V K R H Y D V G K L V A A N C C C C A A P I A I E N S G A L K N C  
U n i R e f 9 0 \_ D 0 B J F 4 Q L G D E R H L D W L R A Q R S S V P L M T S V C C C C T G S L V Y A A A G L L T G Y  
U n i R e f 9 0 \_ U P I 0 0 0 3 8 3 0 7 5 7 L M E D E I T L Q F L R T A A A H C K L V T S V C C C C T G S L I L A A A G L L S G Y  
U n i R e f 9 0 \_ U P I 0 0 0 3 8 0 8 C 3 0 L T K D E A L L D V I R R L H E K A R C T A S V C C C C T G S F L L A A A G L L D G R  
U n i R e f 9 0 \_ U P I 0 0 0 3 8 3 0 8 B C R G V P V E L V D A I R G I J A P R A G R L V S I C C C C T G S F L L A K A G V L S G R  
U n i R e f 9 0 \_ D 9 V 7 F 1 L R M N K D A V Q F V R S F F D A R K P V A A I C C C H G P W T L A E A D V V Q G R  
U n i R e f 9 0 \_ U P I 0 0 0 3 8 1 6 0 0 1 L Q D A P E I V E W A R N A A P K M N R L A A I C C C C T G S F L L A E E G V L E G R  
U n i R e f 9 0 \_ E 6 Q U V 0 L K A D A R V T E L V T Q R V R A D R P V A A I C C C C A A P S I L A E L G L L N G R  
U n i R e f 9 0 \_ C 0 V 6 P 5 Q P Q P E F L K W L Q D Q A G G A S R F G S V C C C C N G A F V L A H A G L L D G K  
U n i R e f 9 0 \_ B 2 T 4 L 1 Y A S D F V T R N A V E K V L A D G H Y V S A I C C A A P S I L L G G M G I L N G K  
U n i R e f 9 0 \_ R 8 V 4 3 7 L I S D R E T I D F V R E R S A A R Y V T S V C C C C T G A L V L G A A G L L R G R  
U n i R e f 9 0 \_ U P I 0 0 0 1 6 A 6 A B 5 I A L S S H V L Q W L R A T A A R S R Y G S I C C C C T G A F M L A A T G L L D G R  
U n i R e f 9 0 \_ A 0 A 0 2 3 N R N 6

QUERY UniRef90\_F7A9B9 UniRef90\_B4GNB4 UniRef90\_A0A044RAP4 UniRef90\_D2A3Q0 UniRef90\_G7E7C6 UniRef90\_C3XYI0 UniRef90\_D3SLI6 UniRef90\_W9S9W0 UniRef90\_X2GUN3 UniRef90\_F3NGE7 UniRef90\_K5Y1Y6 UniRef90\_D4LZ24 UniRef90\_UPI000479B39E UniRef90\_U2RAI1 UniRef90\_K5XBV8 UniRef90\_I0X9J7 UniRef90\_F2RF31 UniRef90\_S4PYG8 UniRef90\_S8CKY5 UniRef90\_UPI0003317B22 UniRef90\_F4P7U3 UniRef90\_H3FSP8 UniRef90\_R7JUH8 UniRef90\_H9KDP7 UniRef90\_D3SC10 UniRef90\_A2EJC2 UniRef90\_L1K0T4 UniRef90\_Q9FPF0 UniRef90\_UPI000382A534 UniRef90\_C9RKY9 UniRef90\_F7GQC4 UniRef90\_R6VXB9 UniRef90\_T2M6B2 UniRef90\_I1GY83 UniRef90\_UPI00047B555D UniRef90\_K0JTB8 UniRef90\_UPI000405C27B UniRef90\_U2SKR0 UniRef90\_A5I5K3 UniRef90\_F2EGX7 UniRef90\_H6RBC0 UniRef90\_R9KX36 UniRef90\_Q3SHT5 UniRef90\_M4WXD4 UniRef90\_UPI000364DE93 UniRef90\_UPI00037D6BBB UniRef90\_UPI000471C873 UniRef90\_W5H8W7 UniRef90\_D3HWJ8 UniRef90\_S4AWG4 UniRef90\_W5AMX9 UniRef90\_A9BYH7 UniRef90\_UPI00035D786D UniRef90\_D7BYR1 UniRef90\_C6CBD7 UniRef90\_UPI0003B74CEC UniRef90\_E0E1N5 UniRef90\_B1G9P6 UniRef90\_E1TH76 UniRef90\_F8F3W0 UniRef90\_X5M4T4 UniRef90\_E3HQ9C UniRef90\_R6RJU6 UniRef90\_A6SUG5 UniRef90\_R1E2I3 UniRef90\_I2BBR5 UniRef90\_R5P517 UniRef90\_UPI0002625618 UniRef90\_D8IEU4 UniRef90\_UPI0003FB0AA7 UniRef90\_S6EY58 UniRef90\_UPI00047D57C2 UniRef90\_UPI00037C25C1 UniRef90\_F0WIG1 UniRef90\_R5JCL0 UniRef90\_A0A031FQV1 UniRef90\_UPI00039DFC34 UniRef90\_A8I942 UniRef90\_R7Z3U3 UniRef90\_D0BJF4 UniRef90\_UPI0003830757 UniRef90\_UPI0003808C30 UniRef90\_UPI00038308BC UniRef90\_D9V7F1 UniRef90\_UPI0003816001 UniRef90\_E6QUV0 UniRef90\_C0W6P5 UniRef90\_B2T4L1 UniRef90\_R8V437 UniRef90\_UPI00016A6AB5 UniRef90\_A0A023NRN6

130 140 150 160

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

QUERY	F	E	F	A	L	A	I	V	E	A	L	N	G	K	E	V	A	A	Q	V	K	A	P	L	V	L	
UniRef90_F7A9B9	F	E	F	G	L	A	I	I	A	E	L	M	G	K	S	V	V	D	Q	V	K	G	P	L	V	L	
UniRef90_B4GNB4	Y	D	F	A	L	K	I	A	E	E	L	A	G	L	E	K	V	K	E	V	A	K	G	L	L	L	
UniRef90_A0A044RAP4	L	E	F	A	L	K	L	V	E	L	L	L	G	T	E	K	V	K	E	V	A	L	P	M	V	V	
UniRef90_D2A3Q0	F	V	F	A	L	T	L	V	D	K	L	V	G	K	D	K	A	K	A	E	V	A	K	A	M	L	L
UniRef90_G7E7C6	L	L	W	A	L	T	L	V	E	A	M	C	G	K	A	K	R	D	E	V	A	S	P	M	I	V	
UniRef90_C3XYI0	F	E	F	A	L	Q	I	V	E	T	L	R	G	K	E	V	A	D	K	L	V	S	P	M	L	V	
UniRef90_D3SLI6	L	L	F	G	L	K	L	L	E	K	L	E	G	R	E	K	A	V	E	V	A	K	R	M	L	V	
UniRef90_W9S9W0	M	E	F	S	V	A	L	V	E	Q	L	Y	G	R	E	K	A	D	E	V	S	G	P	L	V	M	
UniRef90_X2GUN3	I	D	F	A	L	K	I	I	D	V	L	V	G	R	K	K	A	A	E	V	A	Q	Q	L	V	L	
UniRef90_F3NGE7	I	D	L	A	L	A	L	V	E	E	D	L	G	R	E	V	A	L	T	V	A	R	H	L	V	V	
UniRef90_K5Y1Y6	I	N	F	G	L	A	L	V	E	A	I	K	G	N	E	A	V	A	E	E	V	A	A	G	L	L	V
UniRef90_D4LZ24	I	P	F	A	L	E	L	I	R	Q	L	F	G	N	E	K	A	S	E	L	A	E	S	I	V		
UniRef90_UPI000479B39E	I	P	F	G	L	A	I	I	E	H	F	Q	G	K	E	A	A	D	E	M	A	A	K	I	V		
UniRef90_U2RAI1	M	D	F	S	L	M	I	S	E	F	L	G	R	E	K	A	E	K	T	A	K	E	L	V	L		
UniRef90_K5XBV8	L	E	F	A	L	T	L	V	E	R	L	V	G	K	A	R	R	R	E	V	A	A	D	M	L	V	
UniRef90_I0X9J7	E	E	F	A	M	E	L	I	R	L	L	C	G	D	E	V	A	K	K	I							
UniRef90_F2RF31	I	D	L	A	L	A	L	V	E	E	D	H	G	R	D	V	A	L	T	V	A	R	H	L	V	V	
UniRef90_S4PYG8	Y	W	F	G	L	K	L	I	E	M	L	T	G	K	E	T	A	D	Q	V	E	K	G	M	I	I	
UniRef90_S8CKY5	M	E	F	A	L	A	I	T	E	K	F	L	G	R	E	K	A	D	E	L	A	E	A	M	L	F	
UniRef90_UPI0003317B22	F	E	F	A	L	Y	L	T	Q	V	M	L	G	K	D	K	A	D									
UniRef90_F4P7U3	I	D	F	A	L	A	L	V	E	K	L	L	G	A	V	R	S	K	V	E	A	P	M	C	I		
UniRef90_H3FSP8	F	E	F	A	L	K	L	V	E	I	L	V	S	A	E	S	K	K	L	H	E	G	M	L	L		
UniRef90_R7JUH8	T	D	F	A	L	E	L	I	R	V	L	Q	G	E	Q	T	A	K	E	M	A	E	K	L	V	F	
UniRef90_H9KDP7	F	A	F	G	L	A	I	A	E	K	L	I	D	K	T	A	D	N	V	A	Q	A	M	L			
UniRef90_D3SC10	M	D	F	A	L	T	L	I	E	Q	L	A	G	R	E	A	R	E	A	V	E	G	P	L	L		
UniRef90_A2EJC2	Q	Q	F	G	L	A	L	V	E	A	L	I	S	K	E	T	A	A	E	V	A	K	G	A	L	L	
UniRef90_L1K0T4	T	Q	F	G	L	A	L	V	E	K	L	K	E	Q	A	T	A	D	E	I	A	A	S	I			
UniRef90_Q9FPF0	M	E	F	S	L	A	L	V	E	K	F	Y	G	R	E	K	A	L	Q	L	G	K	A	T	L	V	
UniRef90_UPI000382A534	I	D	L	A	L	A	L	V	E	E	D	H	G	R	D	V	A	L	T	V	A	R	H	L	V	V	
UniRef90_C9RKY9	E	E	F	A	L	K	C	I	A	V	M	G	G	A	E	L	S	Q	K	I	Q	S	Q	I	V		
UniRef90_F7GQC4	K	F	F	A	L	A	I	V	E	A	L	S	G	R	E	V	A	A	R	V	K	A	P	L	V	L	
UniRef90_R6VXB9	M	D	F	G	Y	A	I	L	G	K	F	V	A	P	E	A	V	A	E	V	L	K	A	Q	M	M	
UniRef90_T2M6B2	F	N	F	S	L	E	I	V	K	L	V	V	G	S	D	I	A	E	E	V	S	T	G	M	L	L	
UniRef90_I1GY83	M	E	Y	S	V	I	L	V	E	Q	L	Y	G	K	E	K	A	D	E	V	A	G	P	M	V	M	
UniRef90_UPI00047B555D	I	P	F	A	L	A	I	L	V	E	H	F	D	N	G	E	A	A	E	Q	M	A	Q	A	I	V	
UniRef90_K0JTB8	M	D	L	A	L	A	L	V	E	D	H	G	R	D	V	A	H	E	V	A	R	Q	L	V	L		
UniRef90_UPI000405C27B	I	D	F	G	L	K	I	V	E	H	F	L	G	K	D	K	A	D	E	I	A	C	S	I	V		
UniRef90_U2SKR0	I	D	F	S	L	A	L	I	E	E	L	L	G	K	N	K	S	E	E	I	R	K	Q	L	L		
UniRef90_A5I5K3	M	Y	F	A	F	K	I	L	E	N	L	K	K	D	S	A	K	G	I	K	E	D	M	L	L		
UniRef90_F2EGX7	I	E	F	A	L	A	L	V	E	Q	L	Y	G	K	P	K	A	E	E	V	A	G	P	L	Y	V	
UniRef90_H6RBC0	I	D	L	A	L	A	L	V	E	D	D	H	G	S	A	V	A	R	R	V	A	Q	S	L	L	V	
UniRef90_R9KX36	L	P	F	G	I	Q	L	V	R	T	L	E	G	D	E	T	A	D	E	V	A	V	G	M	L	V	
UniRef90_Q3SHT5	M	D	F	A	L	Q	L	V	E	T	L	V	G	R	A	K	R	E	Q	V	E	T	A	L	V		
UniRef90_M4VXD4	I	D	L	A	L	A	L	V	E	A	E	D	H	G	A	V	A	L	S	V	A	K	R	L	L	V	
UniRef90_UPI000364DE93	L	A	F	A	L	T	L	V	E	Q	L	A	G	K	G	K	R	N	A	V	A	K	A	M	L		
UniRef90_UPI00037D6BBB	I	D	G	A	L	H	L	V	A	K	L	K	G	F	E	A	A	K	R	T	A	Y	Y	M			
UniRef90_UPI000471C873	F	P	F	G	L	E	L	L	A	S	L	E	G	T	E	R	A	L	E	V	Y	Q	A	M			
UniRef90_W5H8W7	M	E	F	S	L	A	I	V	E	K	L	V	F	G	R	E	R	A	F	E	L	A	K	A	M	V	F
UniRef90_D3HWJ8	F	P	Y	A	Y	R	I	L	S	Y	F	A	G	E	E	T	A	K	E	V	Q	Q	G	M	M		
UniRef90_S4AWG4	I	D	L	A	L	A	L	V	E	E	D	L	G	R	D	T	A	L	T	V	A	R	Y	L	V	V	
UniRef90_W5AMX9	T	E	F	A	L	A	I	V	E	K	L	F	G	E	K	A	V	A	L	A	K	E	L	V	F		
UniRef90_A9BYH7	L	D	L	A	L	S	L	V	E	E	D	C	G	R	E	V	A	A	R	V	A	S	Q	L	V	M	
UniRef90_UPI00035D786D	I	D	L	A	L	A	L	V	E	E	D	L	G	R	D	A	A	L	A	V	A	R	H	L	V	V	
UniRef90_D7BYR1	M	D	L	A	L	A	L	V	E	A	D	L	G	R	E	A	A	H	T	V	A	R	E	L	V	L	
UniRef90_C6CBD7	I	D	F	A	L	K	L	I	D	L	L	A	G	K	A	K	A	D	V	A	S	Q	L	V	L		
UniRef90_UPI0003B74CEC	I	D	F	A	L	S	L	V	R	E	I	A	G	E	D	H	A	S	A	V	Q	L	S	L			
UniRef90_E0E1N5	F	E	F	A	Y	T	L	V	E	L	L	G	G	D	H	S	L	R									
UniRef90_B1G9P6	I	D	L	C	L	S	L	V	A	E	D	W	G	H	E	M	A	V	R	V	A	K	R	L	V	V	
UniRef90_E1TH76	I	D	L	S	L	A	L	V	A	E	D	H	G	A	N	I	A	L	A	V	A	K	R	L	V	L	
UniRef90_F8F3W0	G	E	W	A	Y	E	I	V	K	K	L	M	G	S	D	G	A	E	K	V	A	S	A	V	L	L	
UniRef90_X5M4T4	I	D	L	A	L	A	L	V	E	S	D	Y	G	A	E	L	V	R	E	V	A	R	S	L	V	V	
UniRef90_E3HQC9	L	D	L	A	L	S	L	V	E	E	D	L	G	R	D	V	A	A	S	V	A	A	Q	L	V	M	
UniRef90_R6RJU6	I	P	F	A	L	D	L	I	T	Q	L	Y	G	E	K	A	E	E	I	R	K	S	I	I	F		
UniRef90_A6SUG5	I	D	L	A	L	A	F	V	E	E	D	F	G	R	E	L	A	L	D	V	A	T	D	M	V	V	
UniRef90_R1E2I3	L	P	F	G	L	K	L	V	E	L	L	V	S	R	E	K	A	E	V	A	K	G	L	L			
UniRef90_I2BBR5	I	D	F	A	L	K	I	I	D	L	L	A	G	K	A	E	V	A	A	Q	L	V	L				
UniRef90_R5P517	F	A	F	G	L	A	L	L	E	H	I	T	G	Q	E	T	A	R	E	V	A	E	G	M	L	L	
UniRef90_UPI0002625618	I	D	L	A	L	A	L	V	E	R	D	H	G	P	E	L	A	R	R	V	A	R	S	L	V	V	
UniRef90_D8IEU4	V	F	F	A	L	E	L	V	K	Y	L	L	G	N	N	E	E	V	S	K	G	L	V	V			
UniRef90_UPI0003FB0AA7	I	N	M	A	F	H	L	M	E	K	F	E	G	K	E	A	V	T	Q	T	A	R	W	M			
UniRef90_S6EY58	I	P	F	A	F	E	I	L	S	K	V	K	P	E	K	V	D	E	T	K	R	G	M	L	F		
UniRef90_UPI00047D57C2	I	D	L	A	L	S	L	V	E	G	D	R	G	A	A	V	A	R	D	V	A	R	D	M	V	M	
UniRef90_UPI00037C25C1	M	D	L	A	L	A	L	V	E	D	D	L	G	Q	D	I	A	R	A	V	A	Q	E	L	V	L	
UniRef90_F0WIG1	M	E	M	G	V	K	L	V	E	L	L	C	G	T	E	K	A	A	E	V	A	K	G	L	L		
UniRef90_R5JCL0	M	D	F	V	L	A	I	V	E	K	L	V	G	K	E	K	V	D	E	L	V	E	A	M	C		
UniRef90_A0A031FQV1	I	D	L	A	L	A	L	V	A	Q	D	H	G	K	K	L	A	Q	D	V	A	K	V	L	L	V	
UniRef90_UPI00039DFC34	I	D	M	A	L	Y	L	A	A	L	I	A	G	T	A	T	A	R	A	V	Q						
UniRef90_A8I942	I	D	F	G	L	T	V	I	A	E	L	L	G	A	E	T	A	Q	R	V	Q	L	A	L			
UniRef90_R7Z3U3	M	L	F	A	L	T	I	V	E	Q	L	C	G	K	E	K	R	E	E	L</							

UniRef90\_R5BAG9  
UniRef90\_T1W6C9  
UniRef90\_H2JPR9  
UniRef90\_E3DP93  
UniRef90\_UPI0003653EF5  
UniRef90\_E3HDH7  
UniRef90\_I7FEJ3  
UniRef90\_E3J471  
UniRef90\_F3P8S3  
UniRef90\_I2J066  
UniRef90\_C1N0W5  
UniRef90\_F7T123  
UniRef90\_K4E585  
UniRef90\_H2BYJ3  
UniRef90\_UPI0003B7067F  
UniRef90\_A4VRN1  
UniRef90\_L0IT14  
UniRef90\_M5NZG5  
UniRef90\_UPI0003194194  
UniRef90\_UPI00037223C6  
UniRef90\_U4VG07  
UniRef90\_UPI00037D511C  
UniRef90\_E1KQW3  
UniRef90\_UPI0004015B1D  
UniRef90\_G7JL67  
UniRef90\_D3NWX1  
UniRef90\_R5Y64  
UniRef90\_R4XXU8  
UniRef90\_W5DN13  
UniRef90\_F9T5Y4  
UniRef90\_UPI00046668E1  
UniRef90\_F0SPV8  
UniRef90\_UPI000418B975  
UniRef90\_J7QVK3  
UniRef90\_I117U5  
UniRef90\_F6CXQ0  
UniRef90\_UPI0003F848A2  
UniRef90\_D8TQ46  
UniRef90\_H0JHA9  
UniRef90\_G9AHP9  
UniRef90\_C7RJX2  
UniRef90\_V8D5U9  
UniRef90\_W0L8D8  
UniRef90\_UPI00035ED839  
UniRef90\_B1QXC7  
UniRef90\_UPI0003716705  
UniRef90\_I4VTA0  
UniRef90\_R7FFS7  
UniRef90\_J3FZU8  
UniRef90\_J7LBI6  
UniRef90\_UPI000288C312  
UniRef90\_B5GB68  
UniRef90\_A8INV5  
UniRef90\_UPI000468A361  
UniRef90\_Q73ZF1  
UniRef90\_B9TI86  
UniRef90\_U4WRM9  
UniRef90\_E4KZH3  
UniRef90\_I2QDK8  
UniRef90\_UPI00037F4315  
UniRef90\_G2RZ77  
UniRef90\_J3KXN9  
UniRef90\_S6KF94  
UniRef90\_UPI000404CF62  
UniRef90\_A1UAW9  
UniRef90\_H1Z9K7  
UniRef90\_U3H5Y1  
UniRef90\_B0SX12  
UniRef90\_UPI00036827ED  
UniRef90\_W5W911  
UniRef90\_R6RK95  
UniRef90\_H0F5D4  
UniRef90\_C3XF88  
UniRef90\_G9YXD7  
UniRef90\_UPI000478A44E  
UniRef90\_UPI00041D4DE6  
UniRef90\_F0RWE4  
UniRef90\_UPI00047BC617  
UniRef90\_UPI00028978DD  
UniRef90\_R5CHR0  
UniRef90\_W6RYM3  
UniRef90\_K4QTA3  
UniRef90\_W0UWN6  
UniRef90\_UPI00034842C1  
UniRef90\_R6KCP9  
UniRef90\_C9LJQ9  
UniRef90\_UPI0003666FE8  
UniRef90\_D8IPT5  
UniRef90\_F7YMB9  
UniRef90\_UPI00047A15F4  
UniRef90\_F3NHQ0  
UniRef90\_A5EJE2

1 10 20 30 40

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

UniRef90\_R5BAG9  
UniRef90\_T1W6C9  
UniRef90\_H2JPR9  
UniRef90\_E3DP93  
UniRef90\_UPI0003653EF5  
UniRef90\_E3HDH7  
UniRef90\_I7FEJ3  
UniRef90\_E3J471  
UniRef90\_F3P8S3  
UniRef90\_I2J066  
UniRef90\_C1N0W5  
UniRef90\_F7T123  
UniRef90\_K4E585  
UniRef90\_H2BYJ3  
UniRef90\_UPI0003B7067F  
UniRef90\_A4VRN1  
UniRef90\_L0IT14  
UniRef90\_M5NZG5  
UniRef90\_UPI0003194194  
UniRef90\_UPI00037223C6  
UniRef90\_U4VG07  
UniRef90\_UPI00037D511C  
UniRef90\_E1KQW3  
UniRef90\_UPI0004015B1D  
UniRef90\_G7JL67  
UniRef90\_D3NWX1  
UniRef90\_R5Y64  
UniRef90\_R4XXU8  
UniRef90\_W5DN13  
UniRef90\_F9T5Y4  
UniRef90\_UPI00046668E1  
UniRef90\_F0SPV8  
UniRef90\_UPI000418B975  
UniRef90\_J7QVK3  
UniRef90\_I117U5  
UniRef90\_F6CXQ0  
UniRef90\_UPI0003F848A2  
UniRef90\_D8TQ46  
UniRef90\_H0JHA9  
UniRef90\_G9AHP9  
UniRef90\_C7RJX2  
UniRef90\_V8D5U9  
UniRef90\_W0L8D8  
UniRef90\_UPI00035ED839  
UniRef90\_B1QXC7  
UniRef90\_UPI0003716705  
UniRef90\_I4VTA0  
UniRef90\_R7FFS7  
UniRef90\_J3FZU8  
UniRef90\_J7LBI6  
UniRef90\_UPI000288C312  
UniRef90\_B5GB68  
UniRef90\_A8INV5  
UniRef90\_UPI000468A361  
UniRef90\_Q73ZF1  
UniRef90\_B9TI86  
UniRef90\_U4VWRM9  
UniRef90\_E4KZH3  
UniRef90\_I2QDK8  
UniRef90\_UPI00037F4315  
UniRef90\_G2RZ77  
UniRef90\_J3KXN9  
UniRef90\_S6KF94  
UniRef90\_UPI000404CF62  
UniRef90\_A1UAW9  
UniRef90\_H1Z9K7  
UniRef90\_U3H5Y1  
UniRef90\_B0SX12  
UniRef90\_UPI00036827ED  
UniRef90\_W5W911  
UniRef90\_R6RK95  
UniRef90\_H0F5D4  
UniRef90\_C3XF88  
UniRef90\_G9YXD7  
UniRef90\_UPI000478A44E  
UniRef90\_UPI00041D4DE6  
UniRef90\_F0RWE4  
UniRef90\_UPI00047BC617  
UniRef90\_UPI00028978DD  
UniRef90\_R5CHR0  
UniRef90\_W6RYM3  
UniRef90\_K4QTA3  
UniRef90\_W0UWN6  
UniRef90\_UPI00034842C1  
UniRef90\_R6KCP9  
UniRef90\_C9LJQ9  
UniRef90\_UPI0003666FE8  
UniRef90\_D8IPT5  
UniRef90\_F7YMB9  
UniRef90\_UPI00047A15F4  
UniRef90\_F3NHQ0  
UniRef90\_A5EJE2

50 60 70 80  
K E V K G A H G V P V T A D L D W D K T E G T D R K D V M V F P G G L P G A R H  
E V T S S M G V K V G V H S S V E D A G Q L D T L V I P G S E R Q A P G V F T T  
P K E I E G D H G I K R L D A A G S W E D L P A R L G T L V V P G R R D W R E A V A  
R W D T D T P L R I T A S H T F D Q V P A P A V L V V P G G G V P T A K  
K R V V S S Q N L P F V E A D K L L S S E D Y L D G D M L L L P G G S G G Y E N  
D V T T S S G N I R V F V E A D Q T I E H A D T V L V S S G G D D L V N G  
P V R S S S G L V L T P H A D L R A L P R L D D V P A L D L L L V S G G S G G  
R A V T S S H N I V V T C D L T L A E A N L A S E Y D M L V L P G G L P G S T P N  
UniRef90\_I2J066 R N V V C S R G V R I V A D K N L A G R G A P S D W D L I A V P G G M P G A E R  
UniRef90\_C1N0W5 A V P C S N G M L L T P Q R H Y A E V A D V P D L L L A A G G P G L P A  
UniRef90\_F7T123 Q N L L L S R G L K L T T D S L D L K D E S A A A Y D G V F L P A G G L P G A D H  
UniRef90\_K4E585 K W D K T D W S K E Y E V N Y T L L D Q V K P S D Y N A L M L P G G V L N P D K  
UniRef90\_H2BYJ3 A V T T S I G I R I G V D G G P D F Q P A P D T F L T A G A D S Y P R  
UniRef90\_UPI0003B7067F G E V T G W N H T T P A S K F H V D N T F R M E D Y D A V L L L P G G V V N S D T  
UniRef90\_A4VRN1 P I A A D S G A L L V G A T H S F D E T P S P D T I L V P G G M T T F E H  
UniRef90\_L0IT14 A V T A R N G L T V V P D F S I E N A P R F E E Y D C I V V P G G V E G A R C  
UniRef90\_M5NZG5 L T V T C S R N G V K I L A D A P L V K V A D P E Y D C I V V P G G V E G A R C  
UniRef90\_UPI0003194194 P A R T D N R G M L A L S A D A T L A E V T A P D V V V V P G G P G Q T E  
UniRef90\_UPI00037223C6 N P V K S S S G L T F I P T A T F D D C P Q L D V I C I P G G G G V N P  
UniRef90\_U4VG07 G W D K S D W G R P V P V D K T L D A V R P Q D Y D A L V L P G G Q I N P D L  
UniRef90\_UPI00037D511C L M V E S A N G V T M K A D L L F T A D F M D A D M L L L P G G M P G A N  
UniRef90\_E1KQW3 A L R A S N G V R V N A D L C I D Q A Q S A Y D L L L V P G G P G A Y N R N H  
UniRef90\_UPI0004015B1D L G V M A S O G T K I V A D K L I S D I Q E S A H D L I L P G G T A G A E R  
UniRef90\_G7JL67 R I Q G W N H H D R V D V D V T L D Q T D A D R Y D A L L L P G G V M N P D S  
UniRef90\_D3NWX1 L I E R S S H G I S V Q A D C T V E Q M K L A D T D M V L L P G G L G G V H S  
UniRef90\_R5Y64 E V R S S C G I G V Q T R P W R G T P A D T L V V P G G E G A R E T  
UniRef90\_R4XXU8 T N V V I G S Q R M K I V A D K C I L G A S D S K H D L I I I P G G P A G A E R  
UniRef90\_W5DN13 G N L T M K A S R D V T L S A D C K L V D L A D D F D A V I L P G G V G G A E V  
UniRef90\_F9T5Y4 A T V K A S N G L P L A P D T T F D C P T L D V I C I P G G A G V G E  
UniRef90\_UPI00046668E1 K I Q G M N H S E K G D Q F D V D E T V G N V S A Y D G L V L P G G V L N P D T  
UniRef90\_F0SPV8 D F V E T S G I T V K A D L K F E D V T N F S D A D M L L L P G G M P G S T N  
UniRef90\_UPI000418B975 S V I E J A Q T A G P V R T M S G L Q I M A S H S Y G E M V E V V G G T G C E A  
UniRef90\_J7QVK3 L E V E A S C G T H L J A D K L I S A C A D Q V F D L V A L P G G M P G S V R  
UniRef90\_I117U5 T N V T L A N G C Q L T A D T L L S E H T E K M F D A I A L P G G M P G A E H  
UniRef90\_F6CXQ0 E Y V T G A H N I T V K A D L L I D D V N Y V D M V V L P G G M P G A T N  
UniRef90\_UPI0003F848A2 I D V V C S R G V K L J A D K H I N E C S K C S Y D L I A C P G G M P G A E R  
UniRef90\_D8TQ46 G E V R G W D G T E P A D S F P V D K A A N A G D Y D A V L L P G G V V N A D T  
UniRef90\_H0JHA9 L T V V J A E D D E P V T S S G L V L K A T H P L P H D H T L I V A G G R G V N A  
UniRef90\_G9AHP9 A Q L R T S L G V E L A G L J A A L P A R L P P D S L V I V T G N A C E A E D Y A  
UniRef90\_C7RJX2 P V V A D S G V L L I G A T H T L D E T P S P D V V L V P G G N A S V M N  
UniRef90\_V8D5U9 K P V J A D R G M A L P A T V T F D T C P A L D V I C I P G G P G Q I N  
UniRef90\_W0L8D8 G P V R T D A D Y A I L V E H G P E A L G T A D T V I V P S S Y T L G P V Y E E  
UniRef90\_UPI00035ED839 K K V T S S H G V S I E A D K L F D E S M E Y D L I V L P G G L P D G T N  
UniRef90\_B1QXC7 A V R T S A G V R L V P D L T F D E V G Q V D T L L V P G A V D M T D D G P V  
UniRef90\_UPI0003716705 T Q I R G W D K K N W G D P V N V D V A L Q D D N Y D A L M L P G G V M N P D K  
UniRef90\_I4VTA0 K T V T S S H G I P L T A D L T A E E L N G A D M E M I V L P G G M P G T L N  
UniRef90\_R7FFS7 P Q M A S T S G I G L M A H T L E H E R R A D A I D T L I V A T G W Q A I D Q  
UniRef90\_J3FZU8 P I Q A M N G D I E P A D R F A V D R E V S K D D Y D A L V V P G G T I N P D H  
UniRef90\_UPI000288C312 A I L T S A G L P V V T V A T A S L J A N R P I D T L I A P G G C V G E D  
UniRef90\_UPI00036827ED G P V R A E A D F L V A H G P E A L H A D T V L I P A S Y E L G P V H E E  
UniRef90\_B5GB68 P S I G G T G Q L R F L A D R S I F D P D E P I D T L L V A G D P S F Q D I D P  
UniRef90\_A8INV5 P V K T S S G L E V M T A L A D C H K T I D T L M V G G G P G V H R A  
UniRef90\_UPI000468A361 P V T T P A G L G F V A T A L P D G R P I D T V V L P G G A G V D A  
UniRef90\_Q73ZF1 G E V Q G F N H L T P A N T F D V E L D V R D A D F D A L V L P G G V A N P D N  
UniRef90\_B9TI86 M I T A R N G L K V Q P D Y S F D N A P S F D L L I V P G G P G S R T  
UniRef90\_U4VWRM9 L E V K G A H G V T V L A D K A F D E N I E D Y R A M Y I P G G Q P G A T N  
UniRef90\_E4KZH3 D P V R G T G G L R F V A D R H I F D P D E P I D T L L V G G D P S F A I V D P  
UniRef90\_I2QDK8 G V R L A K K R I L P A H G A D D V G P L H V L V Y P G G L G T R P  
UniRef90\_UPI00037F4315 L E V V G A H K I L T L K A N G W D I N N D Y D G M F L P G G S G V V S  
UniRef90\_G2RZ77 G G L V V E A M Y V A P A A D D V D D S A A R F D L I V L P G G V P G A N  
UniRef90\_J3KXN9 T A L R A S N G V L V H A D H L L E Q S L D S Y D L L L V P G G P G A Y N Q R H  
UniRef90\_S6KF94 P V R N D S G S L V A D R T L E E V P A P D L L I V P G G P G Q S A  
UniRef90\_UPI000404CF62 P V T T G T G L T L A A E P L P K P D T P L D T L V L P G G Q G T Q T  
UniRef90\_A1UAW9 L K I K T S A G I E V Q C D Y T I Y D H N I P L D T L L L T G S K S D L S  
UniRef90\_H1Z9K7 R T V R A S N G L A M Q A D L L I E D A E P T Y D L L L V P G P G A Y N D  
UniRef90\_U3H5Y1 A I V C N S G L G I A G S V A F A D L P T D L D T I L V A G G D E E G L L  
UniRef90\_B0SX12 K E V T S S H G L R L C A D Y S I E E V K D E L V D A V V L P G G M P G A T N  
UniRef90\_UPI00036827ED L G V R S S T G L R V H A D L L A A S E V D R V D T L V V P G P A D W A G  
UniRef90\_W5W911 R Q V T G S H G F T V T A D A L F E E L T D D A D V L F L P G G L P G A D H  
UniRef90\_R6RK95 E P V R C D R G L R F V P T Q T L A S A P P C D L L V V P G G P G T D D  
UniRef90\_H0F5D4 G N I K G A N G I E I K A E L A L S S I D I N S L D G I A L A G G F E G M Q N  
UniRef90\_C3XF88 P A V T S A H G V T V A D L T L A E L D R E A V D M L V L P G G L G G V E V  
UniRef90\_G9YXD7 E I R G W D W G R S V R V D K P L T E A K A S D Y D L V L P G G V M N P D H  
UniRef90\_UPI000478A44E E P V P S D S V L T L T P T T F A D C P C D V V C V P G G A G T D D  
UniRef90\_UPI00041D4DE6 L L V K G S H G L V V G C D R H L S E C M D D S Y D C V V L P G G G K G S L N  
UniRef90\_F0RWE4 L K V M G S H Q I E I N T D Y S C H N F I D N D Y Q G L I P G G P G V N G  
UniRef90\_UPI00047BC617 P V R T H T G H L A I T A D R T L A E V T R P D I V V V P G G P G Q T R  
UniRef90\_UPI00028978DD R T V T S S H N I T I T A D T L A E M D P E E F C M L V L P G G I P G T P N  
UniRef90\_R5CHR0 E Y V T G S H D I T I K S D L I E N I D I D Q Y Q C I V L P G G L P G A T N  
UniRef90\_W6RYM3 P V R T D T G N L A T A D R T F A E V P S P D I V I V P G G P G Q T P  
UniRef90\_K4QTA3 S S V M C S S G I E F K V H C H Y L D F Q A E S D L L V A G G P A Y P A Y  
UniRef90\_W0UWN6 E V R T S A G S L G L T V D A E L A D V P A P D I I V V P G G P G Q A D  
UniRef90\_UPI00034842C1 K L V E S A Q N L K V E A D E L I E N V S C D K E D V L F L P G G P G H K S Y  
UniRef90\_R6KCP9 K L V A S S H G F K I M A D A V F T E I D L T Q A A A L I M P G G M P G A Q N  
UniRef90\_C9LJQ9 G W D Q T D W G Q S V P V D K T L S E V T V A D Y D A L V L P G G Q I N P D K  
UniRef90\_UPI0003666FE8 L L R T R S P L S L A G I V P L S S I E G R L D T V L V A G G H E Q A I H Q A  
UniRef90\_D8IPT5 L M M K A S R G V T L A D C K L L D V I D E E F D V I A L P G G V G G A E I  
UniRef90\_F7YMB9 G P V R C N K G M R V L P D H T I D D H P D L D V L V P G G N G R V I A  
UniRef90\_UPI00047A15F4 P P V R S A Q G L P L S G T E W P A L D A E D L V V V P G W R A P T L R G G  
UniRef90\_F3NHQ0 A P V P T D S V L T L L P T T T F A D C P Q S D I I C I P G G F G V D A  
UniRef90\_A5EJE2

UniRef90\_R5BAG9  
UniRef90\_T1W6C9  
UniRef90\_H2JPR9  
UniRef90\_E3DP93  
UniRef90\_UPI0003653EF5  
UniRef90\_E3HDH7  
UniRef90\_I7FEJ3  
UniRef90\_E3J471  
UniRef90\_F3P8S3  
UniRef90\_I2J066  
UniRef90\_C1N0W5  
UniRef90\_F7T123  
UniRef90\_K4E585  
UniRef90\_H2BYJ3  
UniRef90\_UPI0003B7067F  
UniRef90\_A4VRN1  
UniRef90\_L0IT14  
UniRef90\_M5NZG5  
UniRef90\_UPI0003194194  
UniRef90\_UPI00037223C6  
UniRef90\_U4VG07  
UniRef90\_UPI00037D511C  
UniRef90\_E1KQW3  
UniRef90\_UPI0004015B1D  
UniRef90\_G7JL67  
UniRef90\_D3NWX1  
UniRef90\_R5Y64  
UniRef90\_R4XXU8  
UniRef90\_W5DN13  
UniRef90\_F9T5Y4  
UniRef90\_UPI00046668E1  
UniRef90\_F0SPV8  
UniRef90\_UPI000418B975  
UniRef90\_J7QVK3  
UniRef90\_I117U5  
UniRef90\_F6CXQ0  
UniRef90\_UPI0003F848A2  
UniRef90\_D8TQ46  
UniRef90\_H0JHA9  
UniRef90\_G9AHP9  
UniRef90\_C7RJX2  
UniRef90\_V8D5U9  
UniRef90\_W0L8D8  
UniRef90\_UPI00035ED839  
UniRef90\_B1QXC7  
UniRef90\_UPI0003716705  
UniRef90\_I4VTA0  
UniRef90\_R7FFS7  
UniRef90\_J3FZU8  
UniRef90\_J7LBI6  
UniRef90\_UPI000288C312  
UniRef90\_B5GB68  
UniRef90\_A8INV5  
UniRef90\_UPI000468A361  
UniRef90\_Q73ZF1  
UniRef90\_B9TI86  
UniRef90\_U4WRM9  
UniRef90\_E4KZH3  
UniRef90\_I2QDK8  
UniRef90\_UPI00037F4315  
UniRef90\_G2RZ77  
UniRef90\_J3KXN9  
UniRef90\_S6KF94  
UniRef90\_UPI000404CF62  
UniRef90\_A1UAW9  
UniRef90\_H1Z9K7  
UniRef90\_U3H5Y1  
UniRef90\_B0SX12  
UniRef90\_UPI00036827ED  
UniRef90\_W5W911  
UniRef90\_R6RK95  
UniRef90\_H0F5D4  
UniRef90\_C3XF88  
UniRef90\_G9YXD7  
UniRef90\_UPI000478A44E  
UniRef90\_UPI00041D4DE6  
UniRef90\_F0RWE4  
UniRef90\_UPI00047BC617  
UniRef90\_UPI00028978DD  
UniRef90\_R5CHR0  
UniRef90\_W6RYM3  
UniRef90\_K4QTA3  
UniRef90\_W0UWN6  
UniRef90\_UPI00034842C1  
UniRef90\_R6KCP9  
UniRef90\_C9LJQ9  
UniRef90\_UPI0003666FE8  
UniRef90\_D8IPT5  
UniRef90\_F7YMB9  
UniRef90\_UPI00047A15F4  
UniRef90\_F3NHQ0  
UniRef90\_A5EJE2

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

UniRef90\_R5BAG9  
UniRef90\_T1W6C9  
UniRef90\_H2JPR9  
UniRef90\_E3DP93  
UniRef90\_UPI0003653EF5  
UniRef90\_E3HDH7  
UniRef90\_I7FEJ3  
UniRef90\_E3J471  
UniRef90\_F3P8S3  
UniRef90\_I2J066  
UniRef90\_C1N0W5  
UniRef90\_F7T123  
UniRef90\_K4E585  
UniRef90\_H2BYJ3  
UniRef90\_UPI0003B7067F  
UniRef90\_A4VRN1  
UniRef90\_L0IT14  
UniRef90\_M5NZG5  
UniRef90\_UPI0003194194  
UniRef90\_UPI00037223C6  
UniRef90\_U4VG07  
UniRef90\_UPI00037D511C  
UniRef90\_E1KQW3  
UniRef90\_UPI0004015B1D  
UniRef90\_G7JL67  
UniRef90\_D3NWX1  
UniRef90\_R5Y64  
UniRef90\_R4XXU8  
UniRef90\_W5DN13  
UniRef90\_F9T5Y4  
UniRef90\_UPI00046668E1  
UniRef90\_F0SPV8  
UniRef90\_UPI000418B975  
UniRef90\_J7QVK3  
UniRef90\_I117U5  
UniRef90\_F6CXQ0  
UniRef90\_UPI0003F848A2  
UniRef90\_D8TQ46  
UniRef90\_H0JHA9  
UniRef90\_G9AHP9  
UniRef90\_C7RJX2  
UniRef90\_V8D5U9  
UniRef90\_W0L8D8  
UniRef90\_UPI00035ED839  
UniRef90\_B1QXC7  
UniRef90\_UPI0003716705  
UniRef90\_I4VTA0  
UniRef90\_R7FFS7  
UniRef90\_J3FZU8  
UniRef90\_J7LBI6  
UniRef90\_UPI000288C312  
UniRef90\_B5GB68  
UniRef90\_A8INV5  
UniRef90\_UPI000468A361  
UniRef90\_Q73ZF1  
UniRef90\_B9TI86  
UniRef90\_U4WRM9  
UniRef90\_E4KZH3  
UniRef90\_I2QDK8  
UniRef90\_UPI00037F4315  
UniRef90\_G2RZ77  
UniRef90\_J3KXN9  
UniRef90\_S6KF94  
UniRef90\_UPI000404CF62  
UniRef90\_A1UAW9  
UniRef90\_H1Z9K7  
UniRef90\_U3H5Y1  
UniRef90\_B0SX12  
UniRef90\_UPI00036827ED  
UniRef90\_W5W911  
UniRef90\_R6RK95  
UniRef90\_H0F5D4  
UniRef90\_C3XF88  
UniRef90\_G9YXD7  
UniRef90\_UPI000478A44E  
UniRef90\_UPI00041D4DE6  
UniRef90\_F0RWE4  
UniRef90\_UPI00047BC617  
UniRef90\_UPI00028978DD  
UniRef90\_R5CHR0  
UniRef90\_W6RYM3  
UniRef90\_K4QTA3  
UniRef90\_W0UWN6  
UniRef90\_UPI00034842C1  
UniRef90\_R6KCP9  
UniRef90\_C9LJQ9  
UniRef90\_UPI0003666FE8  
UniRef90\_D8IPT5  
UniRef90\_F7YMB9  
UniRef90\_UPI00047A15F4  
UniRef90\_F3NHQ0  
UniRef90\_A5EJE2

130 140 150 160  
Q R F T C Y D G F E E P A K G G E Y V K T P A V T S G N L T G R G P G C A  
S T T T H W K F A S T L E R P S G V T V S R D A I F V Q D G G R F H S G A G V A A G  
A A T H W R L A R E L A L A Y P S G V T V E T D A L F V D G N V L I T S A G V T A G  
K A T S Y P G F D K D M S S C N T Q N D R V V I D G N V L I T S A G G P G V A  
E A T S H W S F V D L L S E F G A T P V S R R W V E D G P V L T A S G V A A G  
K I I C H Y R G V K D L I K D G G T L G N E K V I L D G N V L I T A S G V A G L G  
R A T T H W R H A G L L Q R A Y R D V E P D A I F V R D D G N I Y T S A G V T A G  
A A T T H W A H C A E F A R R F P E V E L R P D F V R D G N V L T S G G V T A G  
Q A T S Y P G F V G V L A E H G A Q V S Q A A V V T D G P V L T S R R G M G T A  
V F T C Y D G V Q E Q I A D G H Y R K E T V V V D D G Q L T T S R G P A T A  
F A A T A H P A F V D E L G G R V V V D D Q H V V T S R R G P G T A  
T V T T H W N D A P A L A A R Y P R V E T D R L Y A Q D D G R L H T S A G V T A G  
V K T V T C Y P A M K E K I P S H V H W S T D P V V R Y G K C L T S K G P G T A  
K M T S F S S L R K D L E N A G A N W V D Q E V V V D E G F T S R N P D D L  
R A T T H W A H T L A S R Y P K T H V Q P D A L Y V R D G T T Y T S A G V T A G  
R M T S W P S L T D J L N A G A E W Q D E Q V V V D G H T I S A R K P D D I  
R A T S H W L V L P M L K P F G V E T V G D E R I V H E G K L V T A A G V S A G  
S A T T H W A S Y D R L E Q E F P N V V R G V K F V D E G N I V T S G G I S A G  
A H K A C H P A F I E Q I N A F K R N S K R V F T D H H K L I T S Q G P G T A  
R A T S H W L A T D Q L S R Y G A T P A E E R V V V D G K Y I T A A G V T A G  
R A T T H W N A M D F L E H F A G A I A T E A R V V V R D G N L T A G N V T S G  
R V T S Y K S I K T D V I N A G G K W E D S E V V T D Q G V L A T S R G P G D L  
R A T C Y P G F E K R L T G A E H T G E L C T I D K N I T T S G K G P A A A  
R V T T H W N Y T E R L S K A F P T V E V D R I C L R D G N L T S E G L A T V  
K A T A H P S A L N K L K D G A V N D A V V V I D G K V I T S E G L A T V  
R M T S W P S L R T D L G N A G A A W V D E E V V T D H G L V T S R K P D D I  
R A T C Y P G L E D Q M D A A K M I P C G A V Q D G N V L T G R A A G S A  
A T T H W R H A A A L A R N H P A V R V E P D R I H V D G D T W T S A G I T A G  
T V T A H P S I V D Q L T C Q V I D G S K V V I D G N L I T S G K G L G T V  
A L M T C H P S F E S H I S E K K N W R V K R V T Y D V N H N L L T S Q G P G T A  
R A T T H W A Y H A L L S R F F G A Q P V V Q E R V V R D G N L L T S G G V T A G  
T V T S W P S L K T D L K N A G A N W V D E E C V C D E G L V T S R N P D D L  
K A T C S P G F Q K Y L T G A E Y T G E L F Q E D G N I V T S G G I P A T A  
R A T T H W T Y A D R L L A K A Y P S I E V D A I F V R D G N V Y T S G G I T A G  
K I T S H P S F I G D L P T F R A V E S N V Q V S G E L T T S R G P G T A  
Q A T C Y P G F E S G L T G A E Y V A D E P V V M D G N I L T A K G P A V S  
D V T S Y P G F E N E L R G A N Y K E D L V V V S G N I I T S R G P A T A  
V A T A H P A F S D G L K D Q S K V L D R V V V D G N L T T S R R G P G T A  
T M T S W P S L T D D L K N A G A T W Q D Q E V I V D G Q L V S S R K P D D I  
R A V T H W K R C A E F A R F P K V D P D P I F V R D D G T L W T S A G V T A G  
R C T T H H S L I D A L R L A A P A A K V E E N F V D D G P L L T S A G I T T G  
R A T S H W Q T L S A L K L F L G T A P V G D Q R I V H E G K R I A T S A G V T A G  
Q A T T H W A S L Q Q L A L L G L G E P V N A R V V R D R N R I T S A G V T S G  
A T T H W A D A E H F Q R T Y P A V L V D P D V F I D D G D I L T S A G V A A G  
K I T S Y P G Y E D E L P N C D Y L E D A V V V D G N I L T S R G P A T A  
R A T T H W S T A Q L A A A H P E V T V D A D P I D R G R V W T S A G I S A C  
K L T S W P S L R K D L E N A G A Q W E D S E V V R D G Q L I T S R K P Q D I  
T A V C Y T G F E K E L T G A Q I G S T G V V T D G K I V T A R G A G V A  
R A T T H W R M A R D E R Y P Q V Q V D P N P I W I K D G N V Y T S A G I S A G  
T L T S Y P S I R T D I R N A G G T V V E E P V V T D Q G V T T S R D P G D L  
R V A T H W A W L D K H R H P T L D I D S D S I E I R D G N L W T S A G V S S G  
A A T H W S A D R F Q R L F P R V A V D A D V L F V D G N V L T S A G V A A G  
R V T T H W E C A E R F C R Q F P D I D T D A I Y L R D G G P L I T A A G V T A G  
R A V T H W G S C D L L R A K H P D V Q V D P V F V H D G G I W T S A G V T A G  
R V T T H W A F A D R E F P A V D V D A D P I F V R S S D T L W T A A G V T A G  
R M T S W P S L K Q D L S N A G A Q W V D E Q V V V D G K L V T S R K P D D I  
T V T T H W N S Y D R L E K K D Y P K K V K R D V K F V D G K I V T S G G I S A G  
K F T C Y P G V I E K R L K V K D P Q D A A V V V E E N I T A M G P A L A  
R V T T H W E C A T R L R N E F P N I D S D Q I F I R D G N L C T T A G V T A G  
P A T T H E H Y D T D L D P S V L V D T E A R Y V D D G D V I T S A G V S S G  
N V T Y F P G C D F L K N A N Y V K K A F V T D N N F I T S A G I S G S A  
K A T A H P L F V D K F P P E V A A V D A S V V D G S A V T S R R G P A T S  
R V T T H W H Y T E R L S K S F P R V E T D H I Y L Q D R R L I T S G G V T A G  
R G T S H W L A L D S L K E Y G V E P T G E R V V I D G K Y V T A A G V S S G  
P A T T H W A Y A D A F A K R Y P A V A V D P D P I F S P R V W T A A G V T A G  
K A T T H W Q F A S A F R Q L Y P T E I V D Y H Q I Y T K D G N R Y T S G G I T A G  
R V T T H W H Y I E R L A R A C P I E T D Q I Y I R D G K L L T S G G V T A G  
R A T T H W E V C D E M R A F R P A V R P D A I F V A D P P Y Y T S A G V T A G  
K A T S Y P G F E S E L M G A K Y M A K P A V V D D K V I T G R G P G Y V  
R A T T H W E H A E A L A R R Y P A V E V D E I F V R A G P V L T S A G V S A G  
R A T C F P G F E E K L A G A V C T G E G V V T D G P V T T S G K G M G S W S  
R A S S H W R A R E L L S R F G A T P S D E R M C V D G N V Y T A G G V T S G  
V L S S E F T C Y P G C E E G I N A K R L N E A V V I R D N V I T S A G P A T A  
R A V C Y P G M E E L M G S A V V Q K G A P V V A D G H I I T G E A A G S S  
T V T S W P S V K T D L E N A G A H W V D Q Q V A V D G N L I T S R K P D D I  
R A A T H W N A R D H L A A F G A I V S D E R V C V D R N R V T G G V T A G  
R V T G Y P S T E E H C P G L V L E N E R V I T D G R L I T A Q A A G S A  
K I T G Y P G C N R F L D E A L L N K P Y S I D E N I V T G Q S A G T A  
R A T S H W L G L D T L R T F G A E P T G E R V V F D G K Y V T A A G V S A G  
K A T C N P C V I E S F L D E H G A K L T Y S R V T V D D N L I T S Q G M G T A  
E I T S Y P G S L E N S E K F N Y K D E I V V R S E N L I T S R R G P A T V  
R A T S H W L A L D Y L K R F G V E P T G E R V V M D G K Y V T A A G V S S G  
E I T T H W D H A Q R L S A Q F P A A R V R P D F V R D G N L F T C G V T A G  
R A T S H W L A L G N L R A L G A V P C E E R V V F D G K Y V T A A G V S S G  
N A T C F P G F E D M L E G A K L V P S D V R V V T D N N I T S R R G M G T S  
R A T C Y P G F E K Y L D C K V Y T E R L V E E D G H I I T G R G P G A A  
D V T S F K S I K T D V L E N A G G R W H D E T V V T D Q A L I T S R N P G D L  
Y V T T H W A V K T D L V Q Y F P K V D P D A I Y R I D G P I C T S A G V T T G  
A L M T G H P A F R D H I P T D L W R D Q R V T I D T N H Q L I T S Q G P G T A  
A A T H W A A E D E L D A R E D V T V L V R G E R F V D G N V T S G G V S A G  
H C T L H H D L Q D E L A A R H P L V R D G V L F T T D D R V V T S A G I A S G  
R A A T H W S A R E C L A L F G A T V S T E R V C I D R N R I T G G V T A G

UniRef90\_R5BAG9 I D F A L A I V G H V T S P A L A E G I R A A M M L  
UniRef90\_T1W6C9 I D L A L A L L E Q D Y G A D V A R N V A Q L L L V  
UniRef90\_H2JPR9 I D L A L A L L V E E D H G P D E E T K R E L V A R E L V V  
UniRef90\_E3DP93 M E F A M T I V E C L I D E E T K R E L Q K S M I V  
UniRef90\_UPI0003653EF5 I D M A L H L V E R F A G A E V A K Q I Q  
UniRef90\_E3HDH7 I D F G L K L A E V L V G P E K V E E V K K K M  
UniRef90\_I7FEJ3 I D L A L A L V E L D H G S E L V R E V A R S L V V  
UniRef90\_E3J471 V D L T L A L V A E D L G R E V A L T V A R H L L V  
UniRef90\_F3P8S3 I D F G L E I V R H Y L G G E A V D D V K A K L V  
UniRef90\_I2J066 L A F A Y N L V E Q L G G D A N A L R E A M L  
UniRef90\_C1N0W5 L E W A L C L V E Q L F G G E D K A K E V A G P M V V  
UniRef90\_F7T123 I D L A L Y L V A Q D H G P E V A L N V A K R L V V  
UniRef90\_K4E585 L A F G L A I V A A L L T K D C A L R L A K E L L V  
UniRef90\_H2BYJ3 P A F N A K L I E E I K  
UniRef90\_UPI0003B7067F I D L A L A L V E E D H G P D L T R E V A R A L V V  
UniRef90\_A4VRN1 P A F S Q A L I D A L  
UniRef90\_L0IT14 I D L A M W L F G Q I C G E A K A K A V Q  
UniRef90\_M5NZG5 I N M S F H I V K R L L G E E T A R Q T A K R M  
UniRef90\_UPI0003194194 L E F A V E I V L V L A G K E K A K E V T D P M V M  
UniRef90\_UPI00037223C6 I D M G L T L A A R I A G E D A A R A I Q L G I  
UniRef90\_U4VG07 I D F G L S I L E E V F G Q T E A E T V Q L T L  
UniRef90\_UPI00037D511C D A F C G K L A E E I R E G R H E R R A A  
UniRef90\_E1KQW3 F M Y G F A I L T Q L T S E A K A K E I K D A M L I  
UniRef90\_UPI0004015B1D I D L A L A V V A E D H G K K V A Q D V A K V L L V  
UniRef90\_G7JL67 T D F A L A L V S K L F G N G R A R S V A E G L V F  
UniRef90\_D3NWXQ1 P A F C R K M I E E F A E G R H A  
UniRef90\_R5IY64 D E F G L A C L R A L K G E D T A R Q V A S D L V  
UniRef90\_R4XXU8 I D L A L A M V E A D L G V D V A A E T A R E M V V  
UniRef90\_W5DN13 M D F S L A I V R K F F G H G R A K G V A N G M V F  
UniRef90\_F9T5Y4 L E F A M E I I N L S G K A H A W T V A E P M V  
UniRef90\_UPI00046668E1 I D F A L T L V G E L V G V D E A Q A I Q L Q I  
UniRef90\_F0SPV8 P A F C D K A I E E F A E G K H A E Q T  
UniRef90\_UPI000418B975 L P Y A Y Q I L S Y F I G E T A V K E L Q V K M  
UniRef90\_J7QVK3 I D L A L S L V E E D L G R E T M L G V A R A L L V  
UniRef90\_I117U5 F Q F A L S F V E Q L F G A H A A E D M N S T L M  
UniRef90\_F6CXQ0 M V F A L T L A N L K G V E E A K K V A E G L L  
UniRef90\_UPI0003F848A2 L E F S Y N I L K E L G S D K E K S L R E E M L  
UniRef90\_D8TQ46 F E F A L S L V K Q L F G E E K A M Q V A G P M V M  
UniRef90\_H0JHA9 P A F N R E F I K L L A G  
UniRef90\_G9AHP9 I D L A L A M V E A D L G R T V A L A V A R H L V V  
UniRef90\_C7RJX2 I D L A L Y L J E R H A G A E L A A R V A R R L V V  
UniRef90\_V8D5U9 I D L A L W L A A Q I A D E K R A R A I Q  
UniRef90\_W0L8D8 I D F A L N V V A E I Y G D N I A Q N I Q L H M  
UniRef90\_UPI00035ED839 I D L C L H I V R R D H G T A V A N D V A R R T V V  
UniRef90\_B1QXC7 M V F S Y K L L E V L G Y S H E V D G I A S G M L  
UniRef90\_UPI0003716705 L D L A L A L V A E D R G E D V A L A V A R Q L V M  
UniRef90\_I4VTA0 P A F S G A V I A A L E Q A D A V  
UniRef90\_R7FFS7 V D F G L A L V G A L A G A E T Q A Q I R A S I L L  
UniRef90\_J3FZU8 I D L A L A L V S E D L G D D A A L D I A K N L V L  
UniRef90\_J7LBI6 D A F C E R I V S E F A G  
UniRef90\_UPI000288C312 I D L A L A L I E Q D Y G P R V A L D A A R Q M V V  
UniRef90\_B5GB68 I D L C L H V V R R D H G A V A A D V A R H T V V  
UniRef90\_A8INV5 I D L A L A L V E E D H G R H I A M I T A R Y M V V  
UniRef90\_UPI000468A361 I D L A L T L L E D D L G H R E A M R I A R R L V V  
UniRef90\_Q73ZF1 I D L A L A L V E D D H G T E A M R I A R W L V L  
UniRef90\_B9TI86 P A F N K A L L K E L S G T R H  
UniRef90\_U4WRM9 I N M S F Y L V K R L L G K E T A E K T A K Q M  
UniRef90\_E4KZH3 I L L G V K L V E V L V S K E K A E E V A E G L L L  
UniRef90\_I2QDK8 M D L A L A L V E E D Y G R D L A L I V A R Y M V M  
UniRef90\_UPI00037F4315 I D M A L H I V E R L E T P A V G R S V R R A I  
UniRef90\_G2RZ77 I L F A L E I V S R L L G S K V S A E I E K S L V I  
UniRef90\_J3KXN9 S E F A L A L V E Q L Y G K G K A E Q I A E E M L V  
UniRef90\_S6KF94 I D L A L S I V A Q D H G K K V A L D V A K V L L V  
UniRef90\_UPI000404CF62 I D M G L T L L G R I A G D R R A Q A V Q  
UniRef90\_A1UAW9 I D L A L A L V E D D H G T E A A Q T V A R W L V M  
UniRef90\_H1Z9K7 I D L A L A L V E E D H G Q L V A A D V S R Y L V V  
UniRef90\_U3H5Y1 I D L A L G V V A E D H G R K L A L D V A K V L L V  
UniRef90\_B0SX12 I D L C L S F V E E D C G P E L A L A I A R N L V L  
UniRef90\_UPI00036827ED F N F G A A L L G E L E G Y E K A Y E V A  
UniRef90\_W5W91 I D L C L A M V E Q D H G P D L A R T V A R D L V V  
UniRef90\_R6RK95 I D L G L E L V R L L D G E T A E A L K K K I  
UniRef90\_H0F5D4 I D M G L K V V A A L C G D D V A K L I Q L Q I  
UniRef90\_C3XF88 I L F G L A I T K A L M G E D V Y K G L Y E G L Q V  
UniRef90\_G9YXD7 F P F G L K L V E V L K G A E A R Q V  
UniRef90\_UPI000478A44E P A F C K A V M E L L T N R A H A A A  
UniRef90\_UPI00041D4DE6 I D F A L T L V S H L V D R K T A E A I Q L R L  
UniRef90\_F0RWE4 V Q F S L A I I A A L F D T K T A D S I A E Q I  
UniRef90\_UPI00047BC617 I K F A L T I V G Y L K D Q T I S E K V A K A L V I  
UniRef90\_UPI00028978DD I D M G L A L L G R I A G D T V A Q T V Q L V I  
UniRef90\_R5CHR0 I A F G L A I V E Y L K D H A A K E L A S K I L  
UniRef90\_W6RYM3 L E F A Y N I L N A M D L K D K A D A L R E G M M V  
UniRef90\_K4QTA3 I D M G L T L L G R I A G D E H A Q A V Q  
UniRef90\_W0UWN6 I D L C L A L I A E D W G H E L A M K V A K R L I V  
UniRef90\_UPI00034842C1 I D M A L A L A G R I V G D K A A Q E I Q  
UniRef90\_R6KCP9 I D L G L E L V R I I A G E Q M A D R L A  
UniRef90\_C9LJQ9 A E F G F T I A E R L T S A D C V A Q L R Q G M I  
UniRef90\_UPI0003666FE8 D A F V A K I T E E  
UniRef90\_D8IPT5 I D L A L A L V R D D L G Q E I A S A I A R D L V L  
UniRef90\_F7YMB9 L E F A M E I I I S L S G K A H A W S V A Q P M V  
UniRef90\_UPI00047A15F4 I D M A L W L V G R L H G V D H A R G V Q K Y  
UniRef90\_F3NHQ0 I D L A L H L V A L R H G P A L A R V A R T M V V  
UniRef90\_A5EJE2 I D F A L T V V S Q L L D R P T A E A I Q L R L

UniRef90\_C6KTB1  
UniRef90\_U1HD85  
UniRef90\_UPI00028883A4  
UniRef90\_U1R8Y0  
UniRef90\_F2NTU9  
UniRef90\_Q6LU01  
UniRef90\_C7PZY3  
UniRef90\_N6W4B1  
UniRef90\_C8RVK2  
UniRef90\_X7F8A1  
UniRef90\_J2GXM9  
UniRef90\_B2UHE7  
UniRef90\_D9V5Z7  
UniRef90\_U5V7I8  
UniRef90\_I4VSW3  
UniRef90\_UPI00037724B5  
UniRef90\_Q89CW7  
UniRef90\_I3BT97  
UniRef90\_S1T9I8  
UniRef90\_E3G6Y9  
UniRef90\_I2GGY4  
UniRef90\_D9XA93  
UniRef90\_D9UPI0  
UniRef90\_U5F7K2  
UniRef90\_I0QN97  
UniRef90\_UPI0003810F13  
UniRef90\_UPI0004768E6B  
UniRef90\_UPI0003671D58  
UniRef90\_W4QE59  
UniRef90\_UPI000400CCC1  
UniRef90\_W8H9F9  
UniRef90\_A0A022FPE8  
UniRef90\_S1S9L5  
UniRef90\_H3GIJ0  
UniRef90\_R5YW39  
UniRef90\_G2P806  
UniRef90\_UPI00047BEC62  
UniRef90\_D2RR72  
UniRef90\_D5WEY0  
UniRef90\_I4TVQV2  
UniRef90\_C1ABV7  
UniRef90\_V6UUV0  
UniRef90\_S5JG0  
UniRef90\_S6CDP7  
UniRef90\_X8C9C5  
UniRef90\_F4AQ21  
UniRef90\_R6ZUB6  
UniRef90\_W3VRT6  
UniRef90\_R5I2Y6  
UniRef90\_A3W9T3  
UniRef90\_I4JY17  
UniRef90\_A9GTW9  
UniRef90\_M4D4T1  
UniRef90\_UPI0004015C94  
UniRef90\_UPI00034993ED  
UniRef90\_UPI00036553F5  
UniRef90\_E7G8S9  
UniRef90\_C7PMZ4  
UniRef90\_R4KB08  
UniRef90\_G9ZAK2  
UniRef90\_I4C8Q4  
UniRef90\_C0ZDV9  
UniRef90\_S3L6E1  
UniRef90\_UPI0002631680  
UniRef90\_UPI000348C69F  
UniRef90\_T2KIV4  
UniRef90\_UPI00039C606F  
UniRef90\_UPI000469202B  
UniRef90\_D9T7K8  
UniRef90\_D2B545  
UniRef90\_Q2NCQ5  
UniRef90\_C7PMZ5  
UniRef90\_V5WEY6  
UniRef90\_UPI00047B3C21  
UniRef90\_U7DJX7  
UniRef90\_UPI00035EABE5  
UniRef90\_G0LB91  
UniRef90\_F8GX15  
UniRef90\_E1TJA9  
UniRef90\_UPI00031C2142  
UniRef90\_UPI00045E7484  
UniRef90\_S6AXI3  
UniRef90\_G2P4T0  
UniRef90\_I0GDP9  
UniRef90\_UPI000376ADC9  
UniRef90\_V2K0J3  
UniRef90\_A6DBT8  
UniRef90\_R5G230  
UniRef90\_UPI0003043B9F  
UniRef90\_UPI0004073BDF  
UniRef90\_UPI00031737AB  
UniRef90\_UPI00047863A8

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

UniRef90\_C6KTB1  
UniRef90\_U1HD85  
UniRef90\_UPI00028883A4  
UniRef90\_U1R8Y0  
UniRef90\_F2NTU9  
UniRef90\_Q6LU01  
UniRef90\_C7PZY3  
UniRef90\_N6W4B1  
UniRef90\_C8RVK2  
UniRef90\_X7F8A1  
UniRef90\_J2GXM9  
UniRef90\_B2UHE7  
UniRef90\_D9V5Z7  
UniRef90\_U5V7I8  
UniRef90\_I4VSW3  
UniRef90\_UPI00037724B5  
UniRef90\_Q89CW7  
UniRef90\_I3BT97  
UniRef90\_S1T9I8  
UniRef90\_E3G6Y9  
UniRef90\_I2GGY4  
UniRef90\_D9XA93  
UniRef90\_D9UPI0  
UniRef90\_U5F7K2  
UniRef90\_I0QN97  
UniRef90\_UPI0003810F13  
UniRef90\_UPI0004768E6B  
UniRef90\_UPI0003B71D58  
UniRef90\_W4QE59  
UniRef90\_UPI000400CCC1  
UniRef90\_W8H9F9  
UniRef90\_A0A022FPE8  
UniRef90\_S1S9L5  
UniRef90\_H3GIJ0  
UniRef90\_R5YW39  
UniRef90\_G2P806  
UniRef90\_UPI00047BEC62  
UniRef90\_D2RR72  
UniRef90\_D5WEY0  
UniRef90\_V4TQV2  
UniRef90\_C1ABV7  
UniRef90\_V6UU00  
UniRef90\_S5JG0  
UniRef90\_S6CDP7  
UniRef90\_X8C9C5  
UniRef90\_F4AQ21  
UniRef90\_R6ZUB6  
UniRef90\_W3VRT6  
UniRef90\_R5I2Y6  
UniRef90\_A3W9T3  
UniRef90\_I4JY17  
UniRef90\_A9GTW9  
UniRef90\_M4D4T1  
UniRef90\_UPI0004015C94  
UniRef90\_UPI00034993ED  
UniRef90\_UPI00036553F5  
UniRef90\_E7G8S9  
UniRef90\_C7PMZ4  
UniRef90\_R4KB08  
UniRef90\_G9ZAK2  
UniRef90\_I4C8Q4  
UniRef90\_C0ZDV9  
UniRef90\_S3L6E1  
UniRef90\_UPI0002631680  
UniRef90\_UPI000348C69F  
UniRef90\_T2KIV4  
UniRef90\_UPI00039C606F  
UniRef90\_UPI000469202B  
UniRef90\_D9T7K8  
UniRef90\_D2B545  
UniRef90\_Q2NCQ5  
UniRef90\_C7PMZ5  
UniRef90\_V5WEY6  
UniRef90\_UPI00047B3C21  
UniRef90\_U7DJX7  
UniRef90\_UPI00035EABE5  
UniRef90\_G0LB91  
UniRef90\_F8GX15  
UniRef90\_E1TJA9  
UniRef90\_UPI00031C2142  
UniRef90\_UPI00045E7484  
UniRef90\_S6AXI3  
UniRef90\_G2P4T0  
UniRef90\_I0GDP9  
UniRef90\_UPI000376ADC9  
UniRef90\_V2K0J3  
UniRef90\_A6DBT8  
UniRef90\_R5G230  
UniRef90\_UPI0003043B9F  
UniRef90\_UPI0004073BDF  
UniRef90\_UPI00031737AB  
UniRef90\_UPI00047863A8

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

UniRef90\_C6KTB1 L S E C S E F I D M L K E Q K A N N R R L Y A A I C A A P E T V L D R H S L T D D D  
UniRef90\_U1HD85 A S S D R L L V D M V R R K Q R A A D A R R R T A S V C C C A A G A F L L A A S G G W L D D G R R  
UniRef90\_UPI00028883A4 A A E D P Q L V E V E V L R R Q R A A D A G E P V A A I C C C T T A A P S F L L A E L G V L D D R R R  
UniRef90\_U1R8Y0 L K A C P A V P V E V L R R Q R A A D A G E P V A A I C C C T T A A P S F L L A E L G V L D D R R R  
UniRef90\_F2NTU9 L S E C A K A M E F I N Q M F K A K K V A A I C C A S A P A V V L G K T E L L N G K T  
UniRef90\_Q6LU01 F R D S P L L V E F V E Q A F F K Y E A D G K L I A A I C C A A P A V L V L J E H H N M F P T  
UniRef90\_C7PZY3 L R T D A P S V R F V I E Q A F F K Y E A D G K P V G V I C C C A A P W M L A E A D V M V R G T R  
UniRef90\_N6W4B1 L A A N E Q V C R E I V D R R F A K A G L D L A A I C C A A P S T L A S A R G H L R R G R Y  
UniRef90\_C8RVK2 L V K D A D F L A R I H K R M A S C T S L V C S A I C C C T G T G A F V L A A A G L L E G Y  
UniRef90\_X7F8A1 A T T R R V L S W L R R E F A A R N G T P K M G A L C C C C T T G A F T L A A Q A G L L D D G K  
UniRef90\_J2GXM9 L R M N E K A V A L V R S F A Q A G K P V A A I C C C H G P W L L V E A D L L V Q G R R  
UniRef90\_B2UHE7 A M A D A R T R R F V Q R C A A R T A R R V A S V I C C C T G S G L L L A A A T G L L E N G R  
UniRef90\_D9V5Z7 D E T A P D L L D G I R R L G E T A R R V A S V I C C C T G S G A F L L A E A G L L E N G R  
UniRef90\_U5V718 V A L P A L E R W L P Q A A R S A R R F G A I C C C T G V F L L G R A G L L D D G Y  
UniRef90\_I4VSW3 E W V A P L T V I T E M A A A R S R T A C V C C T G A F L L A A S G L L D G E R A  
UniRef90\_UPI00037724B5 L R D H A C V K T I T E L R L R K S R K T L A A I C C C A A P L L A A A G L L D G V I E D H  
UniRef90\_Q89CW7 E P E P C L L Q W V K E L P W R S S V Y G S I C C T G A F V L L G Y A G L L D D R R  
UniRef90\_I3BT97 L N A D P P R L H R L I N R L J A A A D K H V A A I C C C A A P K V L V G N G V A N G H  
UniRef90\_S1T918 T V P P R A L L A L R R V R P G A R N G L V S I C C C A A P L L A A A G L L D G R R  
UniRef90\_E3G6Y9 F R D S P L L V E T V R Q F H S G R I V A A I C C C A A A G T V L V P H A I F P V G  
UniRef90\_I2GGY4 F R A E T H D F L A W L R E Q H R Q A A W V H G V I C C C T G T G F L L A A A G L L D G R  
UniRef90\_D9XA93 Q V R N T V V T D W L G R T A K R A A W V H G V I C C C T G T G F L L A A A G P A R R G R  
UniRef90\_D9UPI0 A R P P E E V L D T L A Q A R E R G R V M S I C C C T G A F A L A E A G V L D G L  
UniRef90\_U5F7K2 L E A N D N V M A L L K A F M D A D K V V A A I C C C A A P T I L G R G Y L K G K  
UniRef90\_I0QN97 F R D S P L L V E K V R H L N V T D G K L V A A I C C C A A P G L V L E Y H D L F P V  
UniRef90\_UPI0003810F13 D G V P A D V L R A L T G L R P G T R V V G L C C A A A F A L L A A A G L L D G R P  
UniRef90\_UPI0004768E6B L M E D A E V L D F V L R R Q A S A A R F V T S V I C C C T G A L V L G A A G L L R G R  
UniRef90\_UPI0003B71D58 G S Y D P A F V S W I A D A A K R S R R L A S V I C C C T G T G F L L G A A G L L D G K  
UniRef90\_W4QE59 E I D N P K V I E W I Q H Q Q P K V E F M T S V I C C C T G A L L L A K A G I L D G R  
UniRef90\_UPI000400CCC1 L F D N K T L L K I L T D F N D E E K M V A A I C C C A A P Q L L G Q A G I V K G Y  
UniRef90\_W8H9F9 T P V S P E L A A A A T T L A A K A D R M A S I C C C T G A F L L A A A G L L D G R  
UniRef90\_A0A022FPE8 M D E A Q G I V P W A R A V A P R I G R L J A L C C C S G T F F L A A A G L L D G R  
UniRef90\_S1S9L5 A V T D P V V V E W R R L J A A R T R V T S V I C C C V G A H V L A A A G L L D G K  
UniRef90\_H3GIJ0 L H D C A E L I T M L Q K Q A R Q G R Y Y G G I C C C A A P A V V L L P H G L L D A  
UniRef90\_R5YW39 L K D H E G L G K L L Q K A Y K N E K Y L A A I C C C A A P T V F E K Y G F L E G R  
UniRef90\_G2P806 A A A P D P Q V L A A L S R V R P G T R L V S I C C C T G A F L L A A A G L L D G R  
UniRef90\_UPI00047BEC62 L R M E P D A V V Q F A R A F V E S G K P V A S I C C C H G P W N F V E A D V A R R G R  
UniRef90\_D2RR72 E G V R A V E D G V L P D K V D A C Y T E G S T V A S V C T G A M V L A E A D  
UniRef90\_D5WEY0 A S A D R R L T R W T Q R H A P H C R R V A S V I C C S G A F L L A E A G L L D G R  
UniRef90\_V4TQV2 Y S A I S A S P A L V L E P H G L L K G K K A T  
UniRef90\_C1ABV7 R T L K A L G D W L R R H H A A F V R I A S V I C C T G A Y A V A E S G L A D G R  
UniRef90\_V6UUU0 L R L I P G A Q E L V K S H D S A G K P L A V I C C H S G G W L L V S T G L V K G K  
UniRef90\_S5JJG0 L K N S N V I L N I K S Q L H S S K N K L V A A I C C C A S P L V L N E A G V L E G E  
UniRef90\_S6CDP7 L G K S T R V V A E L R R R M E A G E Y V A A I C C C A G S P M V L A N A G L L S G R  
UniRef90\_X8C9C5 H A R D E K L L Q W L R R A R H T A A W T A S V I C C C S G S I L L A S A G L L H G R  
UniRef90\_F4AQ21 L R T S D A A I A F J K R D F A D E K Q R P V A A V I C C H G P W I E A G I V K G R  
UniRef90\_R6ZUB6 L E K N E E V L D L I K T F A N E K I T A A I C C A A P T L L G H L G L L K G K K  
UniRef90\_W3VRT6 I S S S D V H A L L K H M H D A G K V V G A I C C C A G S L A I Q A A H L L A P G A  
UniRef90\_R5I2Y6 L G E F K L R Q L L K N H A S V K G N I A A I C C C A A P S V L G D L G L L N G K  
UniRef90\_A3W9T3 L R M E E S V I N L I K E F D N A G K P I A A I C C C H A P W L L T E A D L V D G K  
UniRef90\_I4JY17 I R I D V L D A Q K L V K G F E A A G K P I A V I C C C H G S W L L V S S G L V K G K  
UniRef90\_A9GTW9 L G D R E L V A H V Q R L G R A A G R V T S V I C C C T G S L L L A A A G L L E G K  
UniRef90\_M4D4T1 L Q K S K F L K K L L K E Q Q E A G R I Y G A T N S A S T V L H K H G L L K E K  
UniRef90\_UPI0004015C94 L R R T R A A V T D E V R R L E A A D L P L A A S V I C C C A A P S I P A E L G L L E G R  
UniRef90\_UPI00034993ED D P A L V T A F V R E L A G R A Q R V A S V I C C C S G A F V L A H A G L L E G R  
UniRef90\_UPI00036553F5 L R L S E P S I A F I R D F G A T G K P I A S I C C C H G P W T L J D A G L V D G R  
UniRef90\_E7G8S9 M R D S E E V I S L H S M N E K G K Y I C A M C C A A P I V L E K A N L L V N R  
UniRef90\_C7PMZ4 H T A D D Q W L H W L Q H A A A L G A T V C S V C C A A F V L A V A N L L N G R  
UniRef90\_R4KB08 E I H N P K I I N W I K K N M N N V Y I M A S V I C C C T G A F L L A E A G L L D G K  
UniRef90\_G9ZAK2 L G S D N V V A F V R R H D D A G K W I C P I C C S A A R V L A A N Q L L K G  
UniRef90\_I4C8Q4 E I G N S V M L D W L R A R A T E V E M L T S V I C C C T G S M L L G F A A G L L E G H  
UniRef90\_C0ZDV9 E I H N K V L L D W I R K H S E E V Q W M T S V I C C C T G A L L L A E A G L L D G K  
UniRef90\_S3L6E1 L A Q N A D V A F V L R H K R I A A L C A S P A V V L A P L G L L D G K T F T  
UniRef90\_UPI0002631680 R D P P R T Y C F L A A Q A A R C A D W V C S V I C C C E G A L L L A G A G L L D G Y  
UniRef90\_UPI000348C69F E G L T T A I T T L A D R A T R V A S V I C C T G A F A L A R T G L L D N R R A T T  
UniRef90\_T2KIV4 L R R D T K A L S F V K S F F E N H K P V A A I C C C H A P W L L A E A D V L K G R  
UniRef90\_UPI00039C606F L E E D P R V Q V L L R R Q V A A G R F V A A I C C C A A P K V L A A A G L L D G K  
UniRef90\_UPI000469202B A T D D P E V T S W I K S R D S A T K S Y F S V I C C C T G A F L L G K A G L L D Q L  
UniRef90\_D9T7K8 L R T D P E A V R F V K A F F D A G K P V G V I C C C H G P W T L V J E A D V V R G R  
UniRef90\_D2B545 A A T D S K A L D A L S R V F P G T R L V S I C C S G A F L L A G T G L L D G R  
UniRef90\_Q2NCQ5 L R M N D T V I G L I R E F N E A N K P I A A T I C C C H A P W L L A E A N I I R D R  
UniRef90\_C7PMZ5 L A A D Q K L R S M L V K G R N D G K L M C G I C C C A A P A V V F G N T A A D L L  
UniRef90\_V5WEY6 L R Q S A A A R K F V R R F D A T G K P I A T L C C C H G P W L L A S A G L L T R G R  
UniRef90\_UPI00047B3C21 N R E L T H W I T H N A Q K V D R E A A L C C C S G A F L L A A T G L L N G R  
UniRef90\_UPI00035EABE5 L M D D E T L N F L R R I J A P G C R L O V T S V I C C C T G S L V L G A A G L L D G Y  
UniRef90\_GOLB91 L R R E G K V L T F V R D F F K Q E K P V A A I C C C H A S W T L I S A E V V K G R  
UniRef90\_F8GX15 L M H D Q V V L D W L R A Q A A G A R K V F S V I C C C T G A L L L G A A G L L R D R  
UniRef90\_E1TJA9 I R L L P Q A Q A F V K A A D S A H K P I A V I C C C H G T W L P V S A G I I K G R  
UniRef90\_UPI00031C2142 A R I D Q D V V T W V K A T A P Q A R R V A S V I C C C V I G A H V L A A A G L L D G K  
UniRef90\_UPI00045E7484 L M G D D E V L N F L R A Q A A G A K F V T S V I C C C T G S L V L A A A G L L E G R  
UniRef90\_S6AXI3 L C K D A A L L E W L R Q A E P R V R R L G S I C C C S G A L V L A A A G L L D G R  
UniRef90\_G2P4T0 A V A D T D L V G L V T R L S V R A K R V A S V I C C C A G A F V L A E A G I L D G R  
UniRef90\_I0GDP9 L M D D E E V L G W L Q Q Q A A G A G S V F S V I C C C T G A L L L G A A G L L R G R  
UniRef90\_UPI000376ADC9 L L E D A Q L L D W L R E Q S T R V K T L A S V I C C C T G S L L L A S A G L L D G R  
UniRef90\_V2K0J3 A A D N A A L I H W L R E M A P R V R R L G A V I C C C T G A F V L A R T G L L D T Q  
UniRef90\_A6DBT8 L A K D E Y V Q N L L K E M D K K G K Y L G A I C C C A A P Y A L K E A G V L K D K  
UniRef90\_R5G230 L K A H K G L A E M L K S H A A A G K R L A A I C C C A A P S I L G E L G L A E G H  
UniRef90\_UPI0003043B9F L R I Q A K A L A F I K S F F D A S K P V A S I C C C H G P W T I I E T G A A R G R  
UniRef90\_UPI0004073BDF L R V D K D A Q A F T R A F F E Q H K P V A S I C C C H G P W L L I D A G V I S G R  
UniRef90\_UPI00031737AB L R V D E T A M A L T S A F F A D A G K P I A A V I C C C H A P W L L I D A G V I S G K  
UniRef90\_UPI00047863A8 L K K N H R V T A L I K E M I G K N K L I G A I C C C A A P I I L E E N G L L E K R

UniRef90\_C6KTB1  
UniRef90\_U1HD85  
UniRef90\_UPI00028883A4  
UniRef90\_U1R8Y0  
UniRef90\_F2NTU9  
UniRef90\_Q6LU01  
UniRef90\_C7PZY3  
UniRef90\_N6W4B1  
UniRef90\_C8RVK2  
UniRef90\_X7F8A1  
UniRef90\_J2GXM9  
UniRef90\_B2UHE7  
UniRef90\_D9V5Z7  
UniRef90\_U5V7I8  
UniRef90\_I4VSW3  
UniRef90\_UPI00037724B5  
UniRef90\_Q89CW7  
UniRef90\_I3BT97  
UniRef90\_S1T9I8  
UniRef90\_E3G6Y9  
UniRef90\_I2GGY4  
UniRef90\_D9XA93  
UniRef90\_D9UPI0  
UniRef90\_U5F7K2  
UniRef90\_I0QN97  
UniRef90\_UPI0003810F13  
UniRef90\_UPI0004768E6B  
UniRef90\_UPI0003671D58  
UniRef90\_W4QE59  
UniRef90\_UPI000400CCC1  
UniRef90\_W8H9F9  
UniRef90\_A0A022FPE8  
UniRef90\_S1S9L5  
UniRef90\_H3GIJ0  
UniRef90\_R5YW39  
UniRef90\_G2P806  
UniRef90\_UPI00047BEC62  
UniRef90\_D2RR72  
UniRef90\_D5WEY0  
UniRef90\_V4TQV2  
UniRef90\_C1ABV7  
UniRef90\_V6UUU0  
UniRef90\_S5JG0  
UniRef90\_S6CDP7  
UniRef90\_X8C9C5  
UniRef90\_F4AQ21  
UniRef90\_R6ZUB6  
UniRef90\_W3VRT6  
UniRef90\_I4JY17  
UniRef90\_A9GTW9  
UniRef90\_M4D4T1  
UniRef90\_UPI0004015C94  
UniRef90\_UPI00034993ED  
UniRef90\_UPI00036553F5  
UniRef90\_E7G8S9  
UniRef90\_C7PMZ4  
UniRef90\_R4KB08  
UniRef90\_G9ZAK2  
UniRef90\_I4C8Q4  
UniRef90\_C0ZDV9  
UniRef90\_S3L6E1  
UniRef90\_UPI0002631680  
UniRef90\_UPI000348C69F  
UniRef90\_T2KIV4  
UniRef90\_UPI00039C606F  
UniRef90\_UPI000469202B  
UniRef90\_D9T7K8  
UniRef90\_D2B545  
UniRef90\_Q2NCQ5  
UniRef90\_C7PMZ5  
UniRef90\_V5WEY6  
UniRef90\_UPI00047B3C21  
UniRef90\_U7DJX7  
UniRef90\_UPI00035EABE5  
UniRef90\_G0LB91  
UniRef90\_F8GX15  
UniRef90\_E1TJA9  
UniRef90\_UPI00031C2142  
UniRef90\_UPI00045E7484  
UniRef90\_S6AXI3  
UniRef90\_G2P4T0  
UniRef90\_I0GDP9  
UniRef90\_UPI000376ADC9  
UniRef90\_V2K0J3  
UniRef90\_A6DBT8  
UniRef90\_R5G230  
UniRef90\_UPI0003043B9F  
UniRef90\_UPI0004073BDF  
UniRef90\_UPI00031737AB  
UniRef90\_UPI00047863A8

130 140 150 160  
VE AVAYPSFERNFKHILGKGRVCSKNCLITSVGPGSA  
RAVTHWGFWEELAEARFDPVVRVDPIFVRDGGTFWT SAGVTSAG  
RATANHWRMEELAEARFDPVVRVDPIFVRDGGTFWT SAGVTSAG  
RATANPAFMEALAEARFGATAPEEPPVVVDGGAITTS SRGAGTAA  
NWTYPEMEKSLSAEIQKNHKTIQPVVVTDESNLITTSRGGPGTAS  
AIMTASPAPFQDYIQPEIQRARRAKRVVYDVNSNLITTSRQNPDDL  
TVTISWPSLRDQLQNAAGVATRAVQVVDGDTLVTTSRQNPDDL  
RATANKPLFMEALAEARFGAHAL EERVVIDGGPFLTTSRGGAGTAA  
AATSNKLEAFDWAATSFDEKDIIDWKARWVH DGRDRWTSAGVTAAG  
RATTHWENHDFSEFEFDEVTITLTKSVFVA DGRNRLTASAGVTAAG  
RVTISWPSLRDQLRNEAGADTVVDQEVVD GGNLITTSRKPDDL  
RATTHWRSSEQFAARAFPGVVRQLEPDHLY DGGPIVTSAGVTSAG  
QATTHWAMCAEALAEARFPKQVVRPDAIYTR DGRITVTSAGVTSAG  
RCTTHWNYVERLAEARFPKQVRET EQIYVMDRNLITTSAGGITAG  
ATTHSWFAAGDLQERAYPALRVVDGDRMWTEDDGLITTSAGGMSAG  
RVTISWPSLRDQLQAA PAALRVYVD DAVVE DDFLITTSRGGPGTAA  
VTTHWQDAQALAEARFPKAKVEPDLIYVDGRLITTAAGVTSAG  
RLTAFPLGALDALELDT SQVQLLTGQPVVEVDNGKFLITTSRGGAGTAA  
ATTHWAFLTDHFRLELFPRVLELADAVL FVDGNLITTSAGVTSAG  
NMTGYPLKDAIPEDQWVDKRTVWDPRVNLITTSQGGPGTAS  
KCTHWRKLDLQLTTPRIVTQPDFVNDGGGLITTSAGVTSAG  
RVA THWRSQEDALEAGDVTTVRDRYVVDGGGLITTSQGVTSAG  
HATTHWLEHTELERNFPSVTVECDVLYVDGDLVLTTSAGVCCG  
NYTCFSTSMNED FGGTYVDQYTVTDGNLITTSRSGAAAV  
ANMTCFSPSLKDKKISVNGKWMKRVMFDP RVNLITTSQGGPGTAA  
ATTHWR EAEDEFRVSFDPVRLDRDVL FVDGGDLVLTTSAGVTSAG  
RATTHWAFHELDLEPLGALPVR ERVVRDGLITTSAGVTSAG  
QVVVTHWKFCDQLAESEFPRAVVRPEPIQDGGPIYTSAGVTSAG  
KATTHWMDIDQEQSFPSSVSVQRGVK FVDGSLITTSAGGITAG  
RVVNYPGCDMYLAEARFPKQVVRQLEPDHLY DGGPIVTSAGGMSAG  
RATTHWQHADTLARGYPRIITVVEPDFVEDGKTI FSSAGVTSAG  
RATTHWVJALAEARFPKQVRET EQIYVMDRNLITTSAGGITAG  
GPTVTHWYSTARQLAGDEHPPEVDADADPILFIREG DVTWTSAGVTSAG  
KATSYPA MEEELKKSAD YQTDKVVVDGDKLITTSRGMGTAA  
RATTHWASLTDHFRLELFPRVLELADAVL FVDGGDLVLTTSAGVTSAG  
RLTISWPSLRDQLRNEAGADTVVDQEVVD GGNLITTSRSGPDDL  
LLEGRPAATHQDLLEAHAANVVDERVVD DGGDLVLTTSAGVTSAG  
RVA THWARCDLELQKAYPQLQVDPILFIR DGGDLVLTTSAGVTSAG  
TTLTHWAHANDLARRYPRVQSDALCTQDGGPLYSSSGVTSAG  
RMTSYKTLQYDDELQVNGGGSWIDKAVVVVDGKNLITTSRTPDDL  
FACYPGCEEGWPAGVYQA GKDV FVDGGNLITTAAGPGTAA  
AATVCHYPGCEEGWPAGVYQA GKDV FVDGGNLITTAAGPGTAA  
RATSHWMAISALALGALPVDNE RIVQEGDGLVITTSAGVTSAG  
NLTSHYPIQTDLRNAGANWQDQVVLIDGGQLITTSRNPDDL  
YTCTFSMNE DFGGE YIDQYAVVDGKNLITTSRKSAAAAC  
KLTSHYPIQTDLRNAGANWQDQVVLIDGGQLITTSRNPDDL  
NATCYPGFESHLAGGT YTAKEAVVSDRNLITTSRGGPGMVT  
TVTGWPSLRDQLRNEAGADTVVDQEVVD GGNLITTSRNPDDL  
TMTSYKTLKDDLVAENAGANWVDKKEVVK DGTLITTSRNPDDL  
RATCHYWA FRPDLLEALGLIQNT EAAARVVR DGNVITTSGGVTSAG  
RTAVYVSDT DGPASDQMIEGAEVVIDGKNVITTSGLLATV  
RATANPAF TGVLEEDNGAEVVDGSGVVVDGKNLITTSRGMGTAA  
RATTHWRHGERLAREFRVEDADP VVFRVSRGRLVTSAGVTSAG  
KLTISWPSLRDQLRNEAGADTVVDQEVVD GGNLITTSRKPDDL  
HYTAYKGYDQKIKQGH YLEDKVVIDGDLMTSRGGPATA  
DCTTHWGYTKALAEARFPRTNVITENFVKSDNITTSAGVTSAG  
QATTHWMDIDREKEYTKVRVQRNVKFIIDEPIITTSAGVTSAG  
RRYVCSG DLWQDQVTDGVSVDADAVVE DGGNLITTSRGLGKAV  
KATTHWKS LDWMRDSSFPDVTVSYDEHVVEDGSLFTSAGVTSAG  
RATTHWASLD SMRYPKVTVVIEGVK FVDDEDRIVTTSAGVTSAG  
CYPTGMENLT KYAPAAK PEGFAAEKVVRSGLTTSRGGPATA  
RATTHWAFRNCLKAY PAVTVVHPRFVQDRNR LVTTSAGVTSAG  
HWRHTALAEARVHPR VHVVEPDALHIRDGGHILTTSAGVTSAG  
KVTISFHSIKTDLVNA GA E WVDQEVVVDGGLVITTSRSGPEDL  
RATAYPGSVADADFP RMMLTDA P VVDGGLVITTSRSGPDTAA  
TVTTFHKSITNLQKAVPKAKQNVRYVDNNGRVLITTAAGVTSAG  
TTLTISWPSLRDQLRNEAGADTVVDQEVVD DGGNLITTSRKPDDL  
ATTHWA LSHDFRKLNFPRVLELADAGVLFVTDGDLVLTTSAGVTSAG  
TVTGWPSLRDQLRNEAGADTVVDQEVVD DGGNLITTSRNPDDL  
TVTTFHNSIQNLQKAVPKVLTNRVRYVDNNGRVLITTAAGVTSAG  
GTRKFTCYPGFEERTDATHLTRQVRVETDGNLITTSMGPGTAA  
RMTS WAGVRDGMVNA GATWLDEEVVRDGNLITTSRGGPQDM  
RATTHWRMAGEFQSPNVTIMDIDSLFIR DGGNLITTSAGVTSAG  
RATSHWTSVEQLALFP GAKPVH EERVVDRNRITTSAGVTSAG  
KMTSFHSLKDDL VNA GA H WV DEEVVVDQGFVITSRNPDDL  
RATTHWNSQHLPLFGATPV D EERVVVDGDLVITTSAGVTSAG  
TVTISWPSLRDQLRNEAGADTVVDQEVVD DGNLITTSRKPDDL  
TATTHWSTAAQLAADHPRVVD PDI FVR CGD VWTGAGVTSAG  
KAA THWASALDVLPLIFGVITASRE R VCLITDGNRITTSAGVTSAG  
LATTHWASALV ALNEHC AVEVQGRHLHTDAH RVTTSAGVTSAG  
RATTHWELASQLAAAYP CVDGN PVFVVRDGHVATTSAGVTSAG  
RATTHWASHLPLFGATAVN EERVVVDGSRVWVTSAGVTSAG  
EATTHWRS LA F MKERFP DAVR VHEDLHV DGSITTSAGVTSAG  
RATTHWRHAEKLA RHPMVDAADPTWQA GRLYTTSAGVTSAG  
YATYPGW EENIKK EGY VADAKVVE DKNVLTTSRGGPGTAA  
RATCYPGFESQMKGADY C RGDGVITDR LSTGRGLGWA  
RTAAWPSLKTDLRNEAGAEWVDQKVVVDGKNLITTSRMPDDL  
NVTISYHTLQTDLKNAGANWSDQEVVVDGGLVITTSRNPDDL  
TLTCHYPIQTDLRNAGANWSDQEVVVDGGLVITTSRNPDDL  
KRTSHPSVKE SLLG DFYVE DRAVVDHN LITTSRSGTAA

UniRef90\_C6KTB1 V E F G L K I V I E H L L G R Q V A L S L A S G F L L  
UniRef90\_U1HD85 I D L A L A L V I E D D L G R A A A L A V A R Y L V V  
UniRef90\_UPI00028883A4 I D L S L A L V I E A D D L G R A P M A L E V V A R H L V V  
UniRef90\_U1R8Y0 F D L G L E L V R Q M L G R D E A A D A V R A G L V  
UniRef90\_F2NTU9 E Q F S M E I V R I L F S E E T K A K I  
UniRef90\_Q6LU01 Q E F A L E I I V R L A G K E K A A E V A G P M V V  
UniRef90\_C7PZY3 P A F C A E L V K Q F A G  
UniRef90\_N6W4B1 F E L G F A L V E R F L G E K A A G A V R E A L V  
UniRef90\_C8RVK2 I D M A V A F V S H F F G A S D L A E K I A H D L  
UniRef90\_X7F8A1 I D L M L K I V A D D H G P D L A N A V A D Q L I  
UniRef90\_J2GXM9 P A F S E A V I K A V K E Q V A A V A A A  
UniRef90\_B2UHE7 I D L A L A L I A D D L G E R L A R A V A R Q L V V  
UniRef90\_D9V5Z7 I D L A L A L V E E D L G P D V A R D A A R Q L V V  
UniRef90\_U5V718 I D L A L A V V A E D H G K S L A L E V A K V L L V  
UniRef90\_I4VSW3 I D M S L A M I E R D L G K E A A L E V A R M L V V  
UniRef90\_UPI00037724B5 I P F A L R L I A K L C G P E N V A E Q V K K E I V  
UniRef90\_Q89CW7 I D L G L A L V G Q R H G A E T A L K V A K R L V V  
UniRef90\_I3BT97 M D F S L Q L I E T L L G K A A R D Q V E A P L  
UniRef90\_S1T918 V D V C L H L V R R D H G S E A V A N Q V A R R C V V  
UniRef90\_E3G6Y9 I D F A L K I I D L L V G R E K A H E V A S S L V M  
UniRef90\_I2GGY4 I D L A L A I L E E Q Q G S L F A S K I A R E L V V  
UniRef90\_D9XA93 I D S A L W L V G R L H G R D H A R A V R R Q I  
UniRef90\_D9UPI0 I D L C L H L V R R D L G A T V A N R I A R G L V  
UniRef90\_U5F7K2 I D F A F A L I E K L A G K E K A E A V K N E I  
UniRef90\_I0QN97 I E F A L C M I D L I G K E K A E V A S Q L V L  
UniRef90\_UPI0003810F13 I D L C L H L V R R D H G A S V A N D V A R A C V V  
UniRef90\_UPI0004768E6B I D F A L T L A S E L V D E N T A Q A V Q L Q L  
UniRef90\_UPI0003B71D58 I D L A L A L V I E E D Q G H A T A L N V A R F L V M  
UniRef90\_W4QE59 I N M S F H L I S R L H G K E V A V A T A N R M  
UniRef90\_UPI000400CCC1 I P F A L E I V K Y L T N T E E N F K E V K E K L V I  
UniRef90\_W8H9F9 I D L A L A L V E R D H G T E L A R T V A Q S L V V  
UniRef90\_A0A022FPE8 I D L A L A V V E E D L G R E L A L D L A R E L V V  
UniRef90\_S1S9L5 L D L S L A L V A D D L G E A V A L R V A R Q L V M  
UniRef90\_H3GIJ0 I E M G L K L V E L L C S P E K A K S V A Q A M V V  
UniRef90\_R5YW39 I D F A A K L V E I I K G T K E K D E L L K S I V  
UniRef90\_G2P806 V D V C L H L V R Q D H G S E V A N H V A R C V V  
UniRef90\_UPI00047BEC62 P A F C E R I V Q E F A K A P V P A E  
UniRef90\_D2RR72 L D L A L W L V E R E F G A D V A S E V S E E M  
UniRef90\_D5WEY0 I D L A L A M L E D D H G R A L A L D V A R E L V V  
UniRef90\_V4TQV2 T E F A L A I V E K F F G R N K A L E L A K I M L F  
UniRef90\_C1ABV7 I D L A L S I I E K D L G V R T A A A T A R E L V V  
UniRef90\_V6UUUV0 P A F N E Q L I A A L  
UniRef90\_S5JG0 I L F G L E L A K K L C G D E I Y Q K L Y E G M L L  
UniRef90\_S6CDP7 L P F G I Q I L R T L E G D K V A D D V A S G M L L  
UniRef90\_X8C9C5 I D L A L W L A G Q V G G E S R A K V I Q L A M  
UniRef90\_F4AQ21 P A F S E Q I I K A L  
UniRef90\_R6ZUB6 V D F G F A L E K L G G K E L A D K V K E  
UniRef90\_W3VRT6 F E F A L A L V T T L V G A S K A Q E I A P P M L L  
UniRef90\_R5I2Y6 I A F T L A I I V K S L G K D K A H E V A Q S M L L  
UniRef90\_A3W9T3 P A F T E A L M D A T T I S S E A D R V  
UniRef90\_I4JY17 P A F N R E L I S A L  
UniRef90\_A9GTW9 I D F A L T L V A E I A G A D V A R S I Q  
UniRef90\_M4D4T1 T N F S L A I V S K L F G H G R A R S V S E G L V  
UniRef90\_UPI0004015C94 V D L G L E I I R F L L D D A A V E R V E R G I V  
UniRef90\_UPI00034993ED I D L A L A V V E Q D L G R Q V A L A L A R T L V V  
UniRef90\_UPI00036553F5 P A F N K A L Q Q Q L L  
UniRef90\_E7G8S9 Y A F A Y K L V D L L G G D S L A V K K R M V  
UniRef90\_C7PMZ4 I D L A L Y L V E A D Y G P A F A Y T V A K D M V V  
UniRef90\_R4KB08 I N M S F Y I I K K L L G E E I A N A T A K R M  
UniRef90\_G9ZAK2 F D F A L T L A A R L A G D E M P A R  
UniRef90\_I4C8Q4 I D M A L K L V T R C Y G E A V A R A T A R H M  
UniRef90\_C0ZDV9 I H M A F H M V S R L L G T K V A A D T A K F M  
UniRef90\_S3L6E1 S D L G F A L A A M L T D E K T A A E V Q K G M L F  
UniRef90\_UPI0002631680 L D E A L E L I R L L L G Q A A A E E V Q R  
UniRef90\_UPI000348C69F I D L S L A L V E D D H G P Q P A R D T A R D L V V  
UniRef90\_T2KIV4 P A F N A K V I E E I K E G K H D M Q T A  
UniRef90\_UPI00039C606F M D F A L Q L I A L L M G E A S R Q T V E S Q L V  
UniRef90\_UPI000469202B I D G A L H L V S K L R G K E A A E A V A K Q I  
UniRef90\_D9T7K8 P A F C A K I V E E F A E G R H A A R  
UniRef90\_D2B545 F D V C L H L V R Q D H G T E V A N Q A A R F C V V  
UniRef90\_Q2NCQ5 P A F S N A L I E Q  
UniRef90\_C7PMZ5 I D G A L H L V A R L R G E E A A L R I A K H M  
UniRef90\_V5WEY6 A E F A V A I I R R L L T D N T A D T I  
UniRef90\_UPI00047B3C21 V P F V R A L L P F F A G H P Q T A Q T A  
UniRef90\_U7DJX7 I D L A L A F V E E D H G H K L A L E V A Q D L V I  
UniRef90\_UPI00035EABE5 I D F A L R V V E D M T D R A T A Q Q I Q L Q M  
UniRef90\_G0LB91 P A F N S K L V E E I K E G K H E E Q  
UniRef90\_F8GX15 I D G A L R L A A E M F G D A V A Q R I Q L Y M  
UniRef90\_E1TJA9 P A F N K A L I G Q L S K R K A A  
UniRef90\_UPI00031C2142 M D L A L A L V A E D L G E E V A L D V A R Q L V M  
UniRef90\_UPI00045E7484 I D L G L T V I S E L V D R R T A E A I Q L R L  
UniRef90\_S6AXI3 I D L A L A L V E T D L G R P L A L A V A R H L V L  
UniRef90\_G2P4T0 I D L S L S L V E E D W G A D V A R N V A R Q L V V  
UniRef90\_I0GDP9 I D G A L R L A A E L R G D D A A R A L Q L Y M  
UniRef90\_UPI000376ADC9 I D L A L K L V A R Q H G D E V A L N A A R N M  
UniRef90\_V2K0J3 M D L S L A L V E D D L G H A V S L A V A R E L V L  
UniRef90\_A6DBT8 I C F G L E I V K K F S G E E V Y K Q L K E G L L  
UniRef90\_R5G230 I D L G L E L I R L L V I S E E E A E Q I R A A I  
UniRef90\_UPI0003043B9F P A F N R E M I G L F S H A G Q A Q P V  
UniRef90\_UPI0004073BDF P A F N D K L L E E I E E G E H A G Q T A  
UniRef90\_UPI00031737AB P A F G E A I A K M V S E M D A R  
UniRef90\_UPI00047863A8 M E F V F K L V I E I L F G K D

UniRef90\_UPI0004679493 1 AGRK V A M L V H P R M V L M D L V V 20 P Q T I F R I L G C D I Y L V A K T 40  
UniRef90\_W9B4A3 V I L G F G G V Q S L D V V G P Q D V F T G A G Y D V R L I S V D G R  
UniRef90\_J2XVF6 K T V G I L V F F A G V Q S L D V L T G P M D S V L T A E A N Y R L E V I G V D G Q R  
UniRef90\_A9G5A8 R V G M V L Y P G L T A L D L D L T G P Q S V L T A H A T T Y L L W K T R  
UniRef90\_J1EIF2 V V F I A F D G V Q M L D V A G P M E V F G A A P Y R L T L C S P T G Q Q  
UniRef90\_F5SHC6 K V G I L L F D R R V D V M S F A G S A Y E V F T Y T A Y Q V S T V S E T G G E  
UniRef90\_A3SPA4 A P R R F V F V L M E G F T L S F A S A V E C L R I T A N S V W Q V S G D T E  
UniRef90\_G9Z7E2 K I G I V V F D G I I P F H L S V P C A V F E K A G G D A L T V I C A T R P  
UniRef90\_U1IG16 I G I L I F P D F Q L L D V A A G P I A A F E I A A R F A N N P P A T K T Y  
UniRef90\_A8TKA7 R R V A I V A V P D F E L L D V A G P L S L F G S A T H D G T V D G T P A Y  
UniRef90\_K0ZES7 G K K I A V I A T D G F E D S E L T S P A Q A V K E A G A E V V V L A P E A  
UniRef90\_U2U390 G K R V A C I V G D G F E D S E L R V P Y D Q L R G A G H E V V L I G K K A G  
UniRef90\_X8CJ94 V V I V V F D G V T L L D V A G A G E V F V E A N Y R L K I A S V D D G R  
UniRef90\_A1UWL3 V Y I L V F P D L N L L D L S G P L Q V L S S A N Y D I R V V A R G G  
UniRef90\_W0HMMV6 A M R E V Y F L L L P H V M S L D I T G P A E V L T L A G G F R L H Y L G E P Q  
UniRef90\_N6VWV26 G K K V A F L C T D G V E Q I E L T R P W K D L E G A G A T L E L V S L G E S  
UniRef90\_J2ITU1 K K V A V L L A P G F E E A E A I I T I D T L R R L N I E V L I A C A E S  
UniRef90\_U1X3H2 S Q R Y L V E V L F E R T K L T D V T G P L Q V F N D A A Y R V V S L V S E A D G R  
UniRef90\_L2TB59 I V V L A L D G V I P F E L G I P S R V F G R A H Y D V Q T C T A D G G R  
UniRef90\_J3E VW2 I D I L L Y D G F D E L D A I A P Y E V F Q D A D F S V R L V T L D D R  
UniRef90\_UPI00047B722C G R R I A V L A A D G F E K V E L T V P L R A L R A A G A K V D V V S L R K G  
UniRef90\_V8RCL5 A P R D V V F I A Y P R L S L D L S G A Q T V F W A A G Y Q L H T A S L N G G  
UniRef90\_UPI000310E448 K T V A C I V Q D G F A P F E F G V A C E A F G L P N F D F R I V T P D P G  
UniRef90\_D3F1P7 I V I V L Y D R V T A L D A I G P Y E V L S R M G A E V V F A A V E A G  
UniRef90\_R7EX69 L F L L A K G F E E V E A L T A V D V L R R A G I P V K T V S I T D V  
UniRef90\_E3CZC2 T V G F L A F P R M E E L D F V G P Y E V F G M A S F R P R V L G A D L  
UniRef90\_M4ZYP7 H R V V V V A F P G V Q S L D V A G P A E V F R A A N G Y H V T I G M S L D G G  
UniRef90\_S6I2W8 S P R A V H I L A F P N V Q L L D V A C G P L Q V F A S A N I Q A H G M S P A Y L  
UniRef90\_UPI00029AF192 R H I A F V A Y P Q M G L L D L T G A Q T V F W A A G Y Q L H T A S L E G G  
UniRef90\_UPI000262E9A6 V A L A V T D G M L H F E L S L A Y E V F G S A P A D V D V L P W Y D  
UniRef90\_R2P3U3 T K K I A A I V T D L V E D V E L S S P K E A L E K D G N E V T I I S F E A D  
UniRef90\_UPI00037D94A7 R V H T V L F D E V E E Q D F A G P V I E V F G I T G A E Q S F V T A D G P  
UniRef90\_UPI00026273FD G K R V A L L I E D D Q E E M A W Y P T Y R L Q R E E G A T V E V V V G S G R K  
UniRef90\_R6FBJ6 T V Y V F F A D D G F E E M E A F S A V D V M K R A G L Q V E M V S V T P N  
UniRef90\_D0LYJ4 K I A M I M G P G F E D S E F R V P Y D R L Q D A G H Q V T L M V S T E S G  
UniRef90\_UPI000465A1CF R V A I V A D G F E E I E A V V P M D L K R G N V D L K V V S L N D N  
UniRef90\_UPI00026C73DE G K R I A I L A D G V E R T E L E Q P R Q A L Q D A G A T I V L L S L H E G R  
UniRef90\_V6KUE9 R V A V L A L D G V Y P F E L G I P S R I L G A A D Y E V L T C T V D G R  
UniRef90\_F4B0K1 N K R I A I L A T D G F E E S E L K S P M E A M K A E G F T V D I I S E K T G  
UniRef90\_UPI000441369F L I F I A D G T E E M E F T I A Y D T L V R A G G V E C T L V G V T R  
UniRef90\_A0A031GK74 A P L T V A V I A F D G M T P F H L S V P C L V F G A Q T D E A D L P P F H V R  
UniRef90\_Q1LHN9 V V I V A A P D P A Q E L D V T G P T A V F G A A N Y D L H V V S V S D D  
UniRef90\_J2EHT3 R T L V F L A Y P Q M G L L D L T G A Q T V F W A A G Y R I H T A S L D G G  
UniRef90\_U7VB12 N K K I F V M L A N G F E L I E A M S P V D V L R R A G L N V V T V S M E N T  
UniRef90\_UPI0003B66D89 A G H I V V F L V F P D A K Q L D L A G P A E V F A E A D Y E L E Y C S P A G G  
UniRef90\_UPI0003812503 H R I G F L L T D G F Q V M T L A T Q S V F E Y A N L V E T A Y C I D N  
UniRef90\_UPI00037EC212 A P T T I A F Y L Q S G V E V L D F A G P L I E V L T Y A G F K V F T V S K S L  
UniRef90\_R6NRT7 K K I G I F M A D G F C E E I E G L T V V D V V R R A G I A L D M I S I T G K  
UniRef90\_L9W5U6 I V L F E G F D E L D A I G P Y E V L E N A D L E T S L V T L E E T  
UniRef90\_UPI0004633E9A V W F V M L P G M L A L D M T G P A E T F S L A P E H F S L H Y I G P E  
UniRef90\_D7UZP1 G K R I L A L V S D D F E D L E L W Y P V L R V R E E G A T V D V L V G E E A G  
UniRef90\_C5D1X3 K V A I L V A D G F E Q A E M T E P R K A L D A E A G A T K I V S P K D  
UniRef90\_UPI000349E498 I G F L V Y P D V I Q L D V M A A Y Q V L A F P P N T T I H I L L G K T L  
UniRef90\_J4SHA0 A N C K V A I L A V D G F E E A E L V E P Q R A L S A E G A Q V D V I S Q Q P Q  
UniRef90\_B8HQH4 K I Q I I I F D G F D E L D A I A P F E V L Q T A A A A V E L V T L D G S  
UniRef90\_F4F712 S G K R V A L L I E D E Y Q I L E G W Y P L R L Q E A G A D V R V I G S G T K  
UniRef90\_F4CC05 T K H I V I I V P M T S I L D I A G P L E V F T K A G H K P E I K G A Y V T  
UniRef90\_I4BRC6 G R R I A F L A A D M T S I L D I A Q P L E V F T K A G H K P E I K G A Y V T  
UniRef90\_G4HWR3 V A I A L F P R N T A L D A I G P Y E V L Q R V P I D V V F V G H R R G  
UniRef90\_A3XNX4 K K V A I L A T N S G F E E S E L T S P L E A M K K E G F Q V D I V S E K S K  
UniRef90\_A0A023BTT9 K V G L Y L Q S G V E L D L A G P M E V F A Y A G Y E V V T I S K T K  
UniRef90\_E3J472 I A I L L F E G I T P L D A V G P Y E V L R S L G A E V V F A G H R V G  
UniRef90\_UPI00036F9EF0 I V V Q L L D V A G P A D V F A E A N Y L P R V L A A T P G  
UniRef90\_K8AH53 G H E I A V L A V P G V Q L L D V S G P L D V F A E A N Y L V K L I A F E S E  
UniRef90\_UPI000344CFD1 V Q F I V A P G T H L L D L S G P A Q V F S D A G L D Y E L R Y A G D T  
UniRef90\_UPI0002D7F69F S G K K V A F L L T D G V E Q I E L T S P W D A V K Q A G G K P E V L V A P G S G  
UniRef90\_A0A024DQW3 K K I L L L L A D G F E A V E A S V F T D V L G W N K W E T E V V T V G L R  
UniRef90\_UPI00045E6D43 I G I L I F P D F Q L L D A S G P A S V F E I A R R L V I P T A I A A Q P  
UniRef90\_UPI00042317C5 R V V F L L T P Q V H L L D L A G P A Q V F S T A G F G Y E S Y Y V A E H  
UniRef90\_UPI000262B275 G K R V A V L A T D G F E D S E L T E P I S A V Q E H G A E V T V S T Q T  
UniRef90\_UPI0003B3D315 K V A V I V T D L V E D A E F S D P V A A L Q E A G H E V V T I S G F E K G  
UniRef90\_U1YHJ5 R S V A A V V C P D G L A P F E F G V V C E V F G L P S F D F R V C G P V I A G G  
UniRef90\_K9DL47 R R I G F L F P G F Q A L D L M A T V F E I A N Y D M T M L S E H G  
UniRef90\_H7F1V3 S K K I A T V L T N L F E D V E F T S P A E A F R E A N H E V V T I E K K A G  
UniRef90\_A0QPF1 R T V I F A L Y D K V T L A D V A A P L E I F A R A N Y T V L L A S L T G T  
UniRef90\_UPI00036F8D82 G R R I A I L A A D G F E E S E L F E P K S A L E D A G A E V H V I S L N T G  
UniRef90\_E6N966 K A V I L V G P E F E D L E L F Y P L I R L R E E G Y A V E I V G P D R  
UniRef90\_UPI00037F2871 S R L I V V A L F D R I D L D V T G P P E V F A L L G Y R V V L A A E S L  
UniRef90\_S3H5E7 V A I L V T D G F E Q V E L T E P R K A L D E A G A T K V I V S P K H Q  
UniRef90\_UPI000379DF82 H V A I P L Y P R F T A L D A V G P Y T V L A F A G W R V T F V A A E P G  
UniRef90\_A0A024JSD0 V A I P L F P R F T A L D A V G P Y E V L Q R I P E V T F V G H R R G  
UniRef90\_F0FYE5 S A R D I V V V G F D G V Q S L D I T G P M E V F A V A N Y R L T L A S P H G D  
UniRef90\_UPI000405FC95 A R R Q L G I L L F D Q V E V L D F C G P F E V F S V S P F Q V S L I S E S G A  
UniRef90\_Q46NF7 S P K R V C I L F N G F Q I L D V C G P M Q V F R E R A Y D I E L R G A P G G  
UniRef90\_UPI0002196CCB K V A V L V T N D V E D V E L T S P V D A L K K A G H D I L I D Q K A G  
UniRef90\_J3DWC4 A T Q S V G F L L L D K F T L M S L A S A V E P L R M A N Y R W H T F S A N G A  
UniRef90\_U7DKP6 I G L I V Y P G F Q V L G L A M C A F E M A N G A V D T P M Y D  
UniRef90\_A0A059E3Y6 G R K M A I L A A D G F E E L E L T S P K E A I E A A G G E T M I V S T E K H  
UniRef90\_I2B9I9 K T A A V L L A P G F E E G E A M V V I D L R R L D I R V Q T I L S C A G T  
UniRef90\_Q5HN59 A K K V A I L A D E F E D I E L T S P K E A L E N A G F E T E V I S G D T A N  
UniRef90\_UPI00034CDC3D V G P F F V Y P G Y Q I L D L A G P A F A F G R P L G Y R L E V L S G G  
UniRef90\_NOCS51 H I V F L L V P G V H L L D L A G P A Q V F S T A G H P Y T L S Y V A E Q

UniRef90\_UPI0004679493 E P V S T D V G L S V T P D I T F E H C P K D L D V L F V P G G L M G S L V  
UniRef90\_W9B4A3 P I A T M T G L E S V V A A P A P P R E Y P I D T V V I P G G F G V I E E  
UniRef90\_J2XVF6 A M P C S N S G L S I L N A H R H F S D S Q A Y D L L L V F A G G P R L P S  
UniRef90\_A9G5A8 D L I M S T D S G V P L I Q P T A T F S D A S C P D D L D I L F V P A G M G T P D A  
UniRef90\_J1EIF2 P L A T H A G L Q L G P V V A L Q D A P P G I D T L V V T G G S E Q A L L A  
UniRef90\_F5SHC6 P T I R A N C H G L T F Q P D F S F K N A P R F D L L V T P G S P L E P L H H  
UniRef90\_A3SPA4 E T I S C S A G S R F Q I D I P L S E L N R D D T V M L C G G M D I H  
UniRef90\_G9Z7E2 G T L N T N A G F A I V E N G L D A L G D M D M I V I P S W D T P Q H  
UniRef90\_U1IG16 I A V K A G P V R S S S G V E M L A R G L K P S A A I T T L I I A G G N G V R T  
UniRef90\_A8TKA7 Q C I E T A S I G A A L N A D A A L G V A E P E S Y D T T L V A G G V G A R D  
UniRef90\_K0ZES7 G Q I E G K K G T K V D V D A T T A D S V I E A S F D G I L L P G G T T N A D H  
UniRef90\_U2U390 D S V E S K R G K E K F R L E R G I D E V D V K D F D M L L T P G G H S P D N  
UniRef90\_X8CJ94 D V T S S I G T R L G V T Q R L S A I D S A D I V L V A G S D H L P G  
UniRef90\_A1UWL3 R S V R T S T G I L S T Q P L A P T D A P A D T V I V A G A G V D A A  
UniRef90\_W0HMMV6 P D V V T S T G L T L G H T E P L P A T L P D D S L V F V P G V I S D S R Q L E  
UniRef90\_N6WVW2 G Q V G G Y N H L D K A D T F R V D R A I L N D D Y D A L V L P G G V A N P D D  
UniRef90\_J2ITU1 R A V V I S Y H A L P M V A D S T L A E R Q A K L Y D A V V L P G G P Q G S V N  
UniRef90\_U1X3H2 P V V T D T G F A L E T Q P F E I C R A S A P D T V I V S G G D S A I P A  
UniRef90\_L2TB59 P V R S D A D F S V S V D H G P E L L A E A D T V V I P A S Y E L G P A Y D D  
UniRef90\_J3EVW2 T Q V T A S H G L R V E P D G R L D L A D D R P D V L V V P G G G W N S R S  
UniRef90\_UPI00047B722C R I R G L N L N L P A T R V R V D T T V D Q A D D Y D G L L V P G G F I N P D L  
UniRef90\_V8RCL5 L I Q T V E G L A I D T Q A L T T L D T A A L D T L V P G A P D I C Q T  
UniRef90\_UPI000310E448 A V S S K M G F S I N V D A D L S F A Y E A D I V V S P V P H Q Y W A H T D  
UniRef90\_D3F1P7 T V R T D V I G L G L V A D V A L A A V P S P D V V L V P G G P G Q M E Q M E D  
UniRef90\_R7EX69 L Q V E G A H N I T V T A D C L F S D T N F E S A P W L I L P G G M P G A T N L  
UniRef90\_E3CZC2 S P L R A Y H G L R I L P E T S L E E A P K L E D L L V P G G D G R K E A  
UniRef90\_M4ZYP7 V I V T T E S A V R L D T E S F A S L L E P I D T L V V A G G F A V W R H  
UniRef90\_S6I2W8 L K V I A E A H G V E S S A G L W P L P D V D E P T H T L I V A G G R G V H V  
UniRef90\_UPI00029AF192 L V P S A E G L A V D T S R L E Q L A A V A I D T F L V P G A P A I C Q T  
UniRef90\_UPI000262E9A6 V R I V C G V D A V R V G R F R L E P D Q G L D G L R D A D T V I V P G W A D T D  
UniRef90\_R2P3U3 Q E I T G K K T K F K S D K G I D E V K P E D F D A L L I P G G F S P D Q  
UniRef90\_UPI00037D94A7 R T V T T A S G I E L V V R T P W S P R S A D I T V V P G A G Y G P G S G I D  
UniRef90\_UPI00026273FD S T Y H S K L G Y S M D A D K A A D E V K V D D F D A V I V P G G F A P D H  
UniRef90\_R6FBJ6 E I V T G S H G I P V L C D K N I V N C D F F D A E L I L M P G G L P G A T T  
UniRef90\_D0LYJ4 Q T L E G K Q G N E S A R V I E A T P K Q R K P D E F D A V V I P G G H A P D S  
UniRef90\_UPI000465A1CF K L V S S R N D G F I F G A D E K I I S N C T S D H F D L I L P G G M P G A T N  
UniRef90\_UPI00026C73DE E I K A R E N D L D E A G T F V D A L V K S D E Y D A L L L P G G T V N P D Q  
UniRef90\_V6KUE9 P V R T N A D F T I G V A H G P E I L D T A D T V V V T S M P P A Y I P T E L  
UniRef90\_F4B0K1 T L K G W A D G N W K S I S Y D V T D T L D N V S A K D A L M L P G G V I N P D K  
UniRef90\_UPI000441369F D S V A C S R G V K N I J A D T L E S R D V A D K F D L I V V P G G A E G A K T  
UniRef90\_A0A031GK74 V C A A D P T P L R T A A G F G I T P E F G L E G L D G A D I V I M P A W H D D  
UniRef90\_Q1LHN9 A I V R T E S G L R I L V A D A P Y H R V I E Q V G R P I D T L L I S G G S G H A R  
UniRef90\_J2EHT3 L M Q T A E G L V D A D G S L R Q F D G A A I D T L I V P G A P D I R Q A  
UniRef90\_U7VB12 L E V E S A Q K V K V V A D I N I S D I N V G E G V M V V I P G G F P G Y V N  
UniRef90\_UPI0003B66D89 S I I R T S I G I S I D T V A A N T V T R A D T V V I V G G D A L P V  
UniRef90\_UPI0003812503 Y S I G G P V V S S M G M T V D T R A A T T R V T V D T W V V A G V G D P L E  
UniRef90\_UPI00037EC212 D P I I S Q G V L K V L P D Y S L E D A P E A D T I A V F G N G F N  
UniRef90\_R6NRT7 K E V A G A H G I T F A A D V L A E E A D F D S Y D G I V L P G G M P G T N  
UniRef90\_L9W5U6 D M V T A S H D L R V E S Q G T L G Q P D I L I V P G G G W T T R A  
UniRef90\_UPI0004633E9A R E V A T S L G L T M G G I A P L P D A L P P G S L L V I P G V S D S R Y Q F D  
UniRef90\_D7UZP1 H V I H G K Y G V P A T S D Y S F D E I K P E D Y D G I L V P G G W S P D K  
UniRef90\_C5D1X3 N T V R G W K H H K P A D E F N V D I L P P Q A E F D A L V L P G G V M N P D A  
UniRef90\_UPI000349E498 T P I T S N E G L I T P T T L D N C P T L D I C V P G G G I G Q I E  
UniRef90\_J4SHA0 G F R H V D K G A R V K V N H T F D D A K Q G D Y D A I V L P G G V V N G D A  
UniRef90\_B8HQH4 T D V V J A A H G L R I Q P S G K L E R D Q P L D I L I V P G G G W A M R A  
UniRef90\_F4F712 E S Y D S K E H Y P M R A D A G A P D V S A A D F D A V I I P G G F A P D N  
UniRef90\_F4CC05 H V L S A D S S F V N T S A G L P L I V C E G G D Y E I D T I L F A G K G N A G  
UniRef90\_I4BRC6 E I D A R N H D L E P A G T I P V D R V R V D E Y D G L V V P G G T V N A D K  
UniRef90\_G4HWR3 E V R S D N G M L G L T C D A T F D E V T T P D V L V F P G G I G T R T  
UniRef90\_A3XNX4 A W A E T D W G K D Y N V D K T L D E V S A K D Y N A L V L P G G V M N P D Q  
UniRef90\_UPI00023BTT9 E P I Y A Q G I L T V I P D Y D L S D A P E V D I L V F F G G N A M L P  
UniRef90\_E3J472 P V R S E G G R L G L I V D A E L A D V P A P D V V L V P G G P G Q V A  
UniRef90\_UPI00036F9EF0 T I R A S S G M R L T P D D V L G Q G H P P F D T L L V A G A P H L D R  
UniRef90\_K8AH53 T I A S S G M R V T A D M T L G A T S F Y T P D T F L V A G A P G L E Q  
UniRef90\_UPI000344CFD1 E R V P T A Q G V D V H T G T E P A D L G P D D I V L V P G W A G R F P G A  
UniRef90\_UPI0002D7F69F T V Q G T D K G D T F T I D L T V A D A N A D D F H A L V L P G G V V A D A H  
UniRef90\_A0A024DQW3 N K L T C T W N F T V I P E K T V D I Q L D E F D A L A I P G G F E E F Y R  
UniRef90\_UPI00045E6D43 G P V R S S C G V E V V A S S L K S A K S I T T L V V A G G L G V I E A  
UniRef90\_UPI00042317C5 E D V P T A Q G L S V R A S T D W P E L D V G D L L F V P G W R S P G R V R H P  
UniRef90\_UPI000262B275 G S I T G K N G H E Q E V S L T S A D A K A D D F D A L V L P G G V V N G D Q  
UniRef90\_UPI0003B3D315 T T V K G K H G L A I P I D E G I A D V K P T D F D A L F I P G G F S P D Q  
UniRef90\_U1YHJ5 R P V R T S V G A H V V P D H D L S A T D D A D L V V V P A I R I G T D Y P  
UniRef90\_K9DL47 V L S S S G V G V F T E A F D R R D Y D T L I V A G I M T P V G  
UniRef90\_H7F1V3 N E V T G K Q G K T T V K I D K G I D D V T P D E F D A L F I P G G F S P D Q  
UniRef90\_A0QPF1 A V G T T A F A K L D A N V A L D E V P A A V D T L V V P G G H D I P E E P T  
UniRef90\_UPI00036F8D82 E I E A N R H R E T G K T I P V N D V L G N A E R F D A L V I P G G L F S P D A  
UniRef90\_E6N966 K A Y R G K H G I E I T A D K S V E E A K P E E Y S C L I I P G G W A P D R  
UniRef90\_UPI00037F2871 A P V T T S A G V R I L P D V T F D D V S R A P V D T L I V V T P G G D R T V T  
UniRef90\_S3H5E7 R W N M T D W G I R L P V D V E L D Q A K P E D F D A L L V L P G G V I N P D S  
UniRef90\_UPI000379DF82 P V T D D R G T L S L T A T A C Y A D V P D P D V I V V P G G I G T F D V  
UniRef90\_A0A024JSD0 E V R T E N G M L G V T C D A S F D E L S A P D V V V V P G G I G T R K  
UniRef90\_F0FYE5 D I V T H A G L R L A G P T A S L A A L P E R I D T I V I A G G S E A L R R Q  
UniRef90\_UPI000405FC95 P V L I T T G G M K V L A D F S F E N C P E L D I L L V P G G W G T R Q  
UniRef90\_Q46NF7 L I A S S C G A R M E A R D L A R A R R P L H T I L I P G P G V W E G  
UniRef90\_UPI0002196CCB E E I T G K H H K T K V D A G I A D V M P E N F D A L L V P G G F S P D Q  
UniRef90\_J3DWC4 A V W A S D G V P I T P D G S W S N P S V A D T V I V C G G V G I Q S  
UniRef90\_U7DKP6 I T L S E H G G T V R T S A G E T T A F H H G P F D T L L V M G D N L I R  
UniRef90\_A0A059E3Y6 A N Q H R E H G D K Y Q V D L S L D E A K A E D F D A L L I P G G L F S P D A  
UniRef90\_I2B9I9 R E V T S Y H G I P V L A D A T L A E S L D L T F D A L I L P G G P E G S M N  
UniRef90\_Q5HN59 H E V I G K H G E K V T V D V S L A D A K P E N Y D A L L I P G G F S P D H L R  
UniRef90\_UPI00034CDC3D G A V P S S G G V P V T T M T A G D A S V D T L V I S G G D I A  
UniRef90\_NOCS51 P Q V T T A Q G L P L V A G L D W P E L G P G D L I V V P G W R A V T L A D A

UniRef90\_UPI0004679493 A M E D Q Q T L N F L A D R G A A A R Y V T S V C T G L V L A A A A G L L L N G Y  
UniRef90\_W9B4A3 A R S N P A I I E W I R T A A G S A R Q R V V T V C C C G A F L L A A E A G L L L D D G C  
UniRef90\_J2XVF6 M D V G D P A F D A W L R D R A G G R A Q R Y F G S V I C C C N G S F M L A A A R A R L L D D G G R Y  
UniRef90\_A9G5A8 M V D Q E I L R F W L R D R A G A R S R Y V T S V C C C T G T G A F L L A A A G L L M D Q G R Y  
UniRef90\_J1EIF2 A A S H P A L R D W M Q A R A P A A R R V V T V G V V C C C T G A L V L A A A G L L D D G G R K  
UniRef90\_F5SHC6 A L Q N R N L L L S W L S K R H E A R R G V E L M T M S V C C C G A F F L A A K A G L L S G K K  
UniRef90\_A3SPA4 L A T T K R N L L S W L R R E A E R R G L P V A G L C C C T A S Y T M A R A G L L S D G K  
UniRef90\_G9Z7E2 L I P E P E L V A A L Q R A H T A G A L V V G L C C M G A F V V A A A A G L L L A G R Q  
UniRef90\_U1IG16 P A S C P S T T L S F V R R R A A S G V R V A S V V C C C S G A F V L A E A G L L D D G R  
UniRef90\_A8TKA7 V R P D P S L L L A W L R R A A A G S V R R V G S V V C C C T G A F V L A E A G V L L D D G R  
UniRef90\_K0ZES7 I R M D E A A V T V L K K H V E A G M P L G A I C C C H G A W I L T D A E V L L E E R R  
UniRef90\_U2U390 L R A D E A R F I R F V K E F D D R G K L I A A V C C C H G P Q L F L A Q A G L L V D D G R  
UniRef90\_X8CJ94 R P I D D P A L V E A V R S V A A R T G R M A S I C C C T G T G A F L L A A A G L L D D G R  
UniRef90\_A1UWL3 A R C A D T L A W L R A H A R T Q F A R R V V S L C C C N G A F L L A A C G L L L D D G R  
UniRef90\_W0HMMV6 T P Q A Q S A Q R W L Q Q H R T E F H S R L W T L V C I C S G A L L A A R A G L L  
UniRef90\_N6WVV22 L R T N E R A V A F V R R D F M E K G K T V A A I C C H A P W T L V E A G V L L K D R  
UniRef90\_J2ITU1 L A S K A V V Q F I E Q H D T A G K L I C P I C C S A A A R V L G G N G L L K G R  
UniRef90\_U1X3H2 A R S T A L L S F A L E E M A G P G C R R L G S V I C C L G A F I L A Y A G G H L N G R R R  
UniRef90\_L2TB59 G H L P N L E A A L S F V R Q G T R Y V S I C T G S Y L L A A A G L L D D G L R  
UniRef90\_J3EVW2 E A G A W A E A R G V V P D A V A T L H D S G V T V A S V C T G G M L L A R A  
UniRef90\_UPI00047B722C L R Q S A P A R A L V A E F V E S G K P V V T L C C H G P W V L A S A G V L L Q G R  
UniRef90\_V8RCL5 L E K H R E L S D W L Q D H A H L A R R V V S V C C S G A F L L A Q A G L L D D G R  
UniRef90\_UPI000310E448 E R V L L D V I R A A V A T A W V L S V C C S G S F V V A A S G V L L D D G R  
UniRef90\_D3F1P7 G P L H A W L R A A D A T S T W T T S V C C T G S I L L A A A G L L R G R  
UniRef90\_R7EX69 H E Y A P L N E L L K Q A S S H R G T A I C A S P A I I L S P I G L L R G R  
UniRef90\_E3CZC2 S R D P V V L D F L R R T A R S G A L V A S V C C T G A F V L A A A G L L E G K E  
UniRef90\_M4ZYP7 R S D P R F V A A L D D L A R S T R L V T V C C T G A T L A A V T G A L L D D G H R  
UniRef90\_S6I2W8 A A D D P Q L V Q W L R V R A Q R S A Q R V A S V C C T G T G A F L L A A T G L L E E G R  
UniRef90\_UPI00029AF192 L D D Y S T L T D W L H A N A A A R G R I A S V C C S G A F L L A K A G L L D D G G R  
UniRef90\_UPI000262E9A6 L E P D P A E L V G A V R A A H E A G A R V A S L C C T G S G A F L L A S A G L L D D G G R  
UniRef90\_R2P3U3 L R S D S R E F V A F V T Y F L D K N E P L F A I C C H G P Q F V L I Q T G L T K G R  
UniRef90\_UPI00037D94A7 E Q I R R G V L P K A L J A A A R R P G L V L S S V C T G T M L L S A A G L T A G  
UniRef90\_UPI00026273FD M R L C E P M V D L V R E A Y E S G K L I A A I C C H G G W M L A S A G V L H G R  
UniRef90\_R6FBJ6 L D A C E D L H R L I Q R F A D E N K P I A A I C C A P M I L A S M G L L K G R  
UniRef90\_D0LYJ4 I R T D T D I V A F V R D F A S S G K P I A A V C C H G P Q L L T E A D V L K G K  
UniRef90\_UPI000465A1CF L F E S K D L D N L L R S M N Q G K L T A A I C A S P V V V L A A K G L L G K N  
UniRef90\_UPI00026C73DE L R V D T D A V G F V R D V M A A D K P V A A I C C H G P W T L I E A G V L A K G R  
UniRef90\_V6KUE9 P D E V T A A L A R I R P D A R I V S I C C T A A F V L A E A G L L D D G R  
UniRef90\_F4B0K1 L R R N D D A L L F I R S D F F K Q S K P V A A I C C H A P Q L L T E A D V V K G R  
UniRef90\_UPI000441369F I S K N A Q L Q E M L R S Q I N V G R F V G M I C C A G S L A A L E A K L P S Q P  
UniRef90\_A0A031GK74 C R D A A A P L V A A L I Q A S R R G A R M V G L C L G A F P L A Q A G L L D D G  
UniRef90\_Q1LHN9 A A E D E Q L I G W L R T Q A T Q V R R M G A V C C T G A F V L A A G T G L L D A Q  
UniRef90\_J2EHT3 M I D C V E L V A W L Q N A S A R A R R T A S V C C S G T F L M A Q A G L L D D G R  
UniRef90\_U7VB12 L R S D S R V V E I V K E Y N S N D K F V G A I C C G G P T T L G I N G L I G D Y  
UniRef90\_UPI0003B66D89 E P I P P L R A A T A H L V E V A E R V T S V C C T G A L L A H V I G A L D D G K  
UniRef90\_UPI0003812503 Q T P P Q P V L E F A K A A A R A R T V S I C C T G A F V L A E A G L L E D R  
UniRef90\_UPI00037EC212 T S Q D T A V T N W I R H Q E N T Q L H F S V C C T G A L I L A E A G I L D G K T  
UniRef90\_R6NRT7 L G K H E L V K K V I T S Y A A G G K L T A A I C C A A P S V L G E N G I L E G K  
UniRef90\_L9W5U6 A V D D G A L A A V I D E R F T E G A T V A S V C C T G G A M V L A E A G L L E G R  
UniRef90\_UPI0004633E9A T P Q A E A V R R W L T R Q Q P A L Q R G D M S L V C I C S G R A G L M N G V Q  
UniRef90\_D7UZP1 L R R Y E K V L D F I K Y F D R E K K P I G Q I C C H A G W V L T S A G L L D D G V  
UniRef90\_C5D1X3 L R I N E E A I A F V R D F F K A G K P V A A I C C H G P W T L I E A D A V L R G Y  
UniRef90\_UPI000349E498 V M K D R E I L N F L Q Q K S N T A K Y I T S V C C T G S L I L A A A N L L Q G Y  
UniRef90\_J4SHA0 M R M P A A R E F V T A A I G A D K P V A V I C C H G G W L L V S A G L V D D G R  
UniRef90\_B8HQH4 P K G A W G E V A I A Q I H Q R G A T I A S V C C T G A M L V A A A G L L K G R P  
UniRef90\_F4F712 M R L H P E M I D L V R E A Y E A G K L V A A I C C H G G W M L A S A G A T K G R  
UniRef90\_F4CC05 S S I T E K I A S W L K E N I S K L R R I G S I C C A G A F L L A E A G L L N G K R  
UniRef90\_I4BRC6 L R L D E S A V A F V G D F V R S G K P V A V I C C H G P W T L V E A G V L N K D R  
UniRef90\_G4HWR3 L V I E D T A V L D W I R Q V H R H T V F T T S V C C T G S L M L A A A G L L T G L  
UniRef90\_A3XNX4 L R R N E N A L V F I R D F F K K H K P V A A I C C H A P Q V L T S A D V V E G R  
UniRef90\_UPI00023BTT9 S R K D Q E L I D W I K S L K E T K Y H F S V C C S G A L I L A A A G L L D G Q  
UniRef90\_E3J472 L M D D E P V H A W L R A V D A T S V W T T S V C C T G S L V L A A A G L L T G R  
UniRef90\_UPI00036F9EFO R A R D E R L L D R L R I E A T A A R R F G S V C C C T G A F L L A E T G L L D D G R  
UniRef90\_K8AH53 V D P E P A A V A Q I R A L C E R S R R F G S V C C S G A L L A R T G L L D D G R  
UniRef90\_UPI000344CFD1 G E L S G R L L S A V I R A H H D A G G A V A S V C C S G A D A L G R A G V L D D G R  
UniRef90\_UPI0002D7F69F L R V D K D A Q E F A R A F F A Q H K P V A A I C C H A P W L L T D A G V V S G R  
UniRef90\_UPI00024DQW3 D A Y S R E F L H V I Q H F Y A K Q K P I A S I C C V A S L T L L G S G I L V G K  
UniRef90\_UPI00045E6D43 A I D C R T T L A F V R R H A T R G A R V A S V C C S G A Y V L A A A G L L D D G R  
UniRef90\_UPI00042317C5 R L T E A H A A G L A A H H E R G G T V A S V C C A G A F A L G Q A G L L D D G R  
UniRef90\_UPI000262B275 I R L D A D A V A F T K S F F A Q H K P V G A I C C H G G W I L A D A D V L H G R  
UniRef90\_UPI0003B3D315 L R A D E R F V D F V R Y Y M L S D K I V G A I C C H G P Q I M I Q T G L V K G R  
UniRef90\_U1YHJ5 P E V L D A V R R A S D R G A L L L S V C C C G V F V L A A A G V I E G R  
UniRef90\_K9DL47 F K S S A P F L D F L R E A S A S R R T A S I C C C T G A F I L A E A G L I D D G R  
UniRef90\_H7F1V3 L R A D T R F V Q F V D A F I K E D K P I F A I C C H G P Q L F I Q T D R L K G R  
UniRef90\_A0QPF1 P D T P D A V H L V R H L A P R A R R V A S V C C C T G A F V L A A L G L L N G R  
UniRef90\_UPI00036F8D82 L R I N D D V K S F V R D F F A Q K K P V A A I C C H G P Q I L I D A D V V K G R  
UniRef90\_E6N966 L R R D Q R V V Q F V K R F F E T G K P V A A I C C H G P Q L L I S A K V L K G F  
UniRef90\_UPI00037F2871 A V C D P S V V E R V L L A E R A R V A S V C C C V G A H V L A A A G L L D D G R  
UniRef90\_S3H5E7 L R I E P N A I T F A K A F F D A G K P V A A I C C H G P W T V I E T G S A R G R  
UniRef90\_UPI000379DF82 L A D E A L L G W I R R A H E H T S W T T S V C C C S G S L L L G A A G L L G G L  
UniRef90\_UPI00024JSD0 L L H D E S I R D W L R A V H P A T T F T T S V C C T G A L L L A A A G L L D D G L  
UniRef90\_F0FYE5 A A S D D S V L P W L Q A R V A D T R I A S I C C C T G A F L L A A A G G W L N G K  
UniRef90\_UPI000405FC95 E M F N E T L L D F V R T R A P R V I E I A S V C C T G A L I L A S A G L L D D G L  
UniRef90\_Q46NF7 A A H E T L V K W L N A A A K R A S R V A S V C C C T G A F V L A A R T G L L D D G R  
UniRef90\_UPI0002196CCB L R G D P R F V K F A R S F L S D K P T F A I C C H G P Q V L F M Q T G L V K G R  
UniRef90\_J3DWC4 A I T R E H T T W L Q A L A R Q S K R L G G V C C C T G S W A L A K A G L L D D G Y  
UniRef90\_U7DKP6 P V S P G M V E F L R S A S R T S R L G S I C C C T G A I A L A E A G L L D D G R  
UniRef90\_UPI0004059E3Y6 L R T N D K A K S F V R S D F F A Q K K P V A A I C C H G P Q V L I S A N L V N G R  
UniRef90\_I2B9I9 L A R N G Q V I E F V R R H D G Q Q R L I C P I C C S A A A R V L G G N G L L N G  
UniRef90\_Q5HN59 G D E E G R Y G T F A K Y F T K N D V P T F A I C C H G P V L V L D T D D L K G R  
UniRef90\_UPI00034CDC3D P M L N S E I V Q A V Q Q L A R R T P R I T S V C C C T G A F L L A E A G L L D D G K  
UniRef90\_NOCS51 P A L G S A T L K V L R D H H A G G T V A S V C C C A G A E A L G Q A G L L D D G R

UniRef90\_UPI0004679493  
UniRef90\_W9B4A3  
UniRef90\_J2XVF6  
UniRef90\_A9G5A8  
UniRef90\_J1EIF2  
UniRef90\_F5SHC6  
UniRef90\_A3SPA4  
UniRef90\_G9Z7E2  
UniRef90\_U1IG16  
UniRef90\_A8TKA7  
UniRef90\_K0ZES7  
UniRef90\_U2U390  
UniRef90\_X8CJ94  
UniRef90\_A1UWL3  
UniRef90\_W0HMMV6  
UniRef90\_N6VWW26  
UniRef90\_J2ITU1  
UniRef90\_U1X3H2  
UniRef90\_L2TB59  
UniRef90\_J3EVW2  
UniRef90\_UPI00047B722C  
UniRef90\_V8RCL5  
UniRef90\_UPI000310E448  
UniRef90\_D3F1P7  
UniRef90\_R7EX69  
UniRef90\_E3CZC2  
UniRef90\_M4ZYP7  
UniRef90\_S6I2W8  
UniRef90\_UPI00029AF192  
UniRef90\_UPI000262E9A6  
UniRef90\_R2P3U3  
UniRef90\_UPI00037D94A7  
UniRef90\_UPI00026273FD  
UniRef90\_R6FBJ6  
UniRef90\_D0LYJ4  
UniRef90\_UPI000465A1CF  
UniRef90\_UPI00026C73DE  
UniRef90\_V6KUE9  
UniRef90\_F4B0K1  
UniRef90\_UPI000441369F  
UniRef90\_A0A031GK74  
UniRef90\_Q1LHN9  
UniRef90\_J2EHT3  
UniRef90\_U7VB12  
UniRef90\_UPI0003B66D89  
UniRef90\_UPI0003812503  
UniRef90\_UPI00037EC212  
UniRef90\_R6NRT7  
UniRef90\_L9W5U6  
UniRef90\_UPI0004633E9A  
UniRef90\_D7UZP1  
UniRef90\_C5D1X3  
UniRef90\_UPI000349E498  
UniRef90\_J4SHA0  
UniRef90\_B8HQH4  
UniRef90\_F4F712  
UniRef90\_F4CC05  
UniRef90\_I4BRC6  
UniRef90\_G4HWR3  
UniRef90\_A3XNX4  
UniRef90\_UPI00023BTT9  
UniRef90\_E3J472  
UniRef90\_UPI00036F9EF0  
UniRef90\_K8AH53  
UniRef90\_UPI000344CFD1  
UniRef90\_UPI0002D7F69F  
UniRef90\_UPI00024DQW3  
UniRef90\_UPI00045E6D43  
UniRef90\_UPI00042317C5  
UniRef90\_UPI000262B275  
UniRef90\_UPI0003B3D315  
UniRef90\_U1YHJ5  
UniRef90\_K9DL47  
UniRef90\_H7F1V3  
UniRef90\_A0QPF1  
UniRef90\_UPI00036F8D82  
UniRef90\_E6N966  
UniRef90\_UPI00037F2871  
UniRef90\_S3H5E7  
UniRef90\_UPI000379DF82  
UniRef90\_UPI00024JSD0  
UniRef90\_F0FEY5  
UniRef90\_UPI000405FC95  
UniRef90\_Q46NF7  
UniRef90\_UPI0002196CCB  
UniRef90\_J3DWC4  
UniRef90\_U7DKP6  
UniRef90\_UPI0004059E3Y6  
UniRef90\_I2B9I9  
UniRef90\_Q5HN59  
UniRef90\_UPI00034CDC3D  
UniRef90\_NOCS51

130 140 150 160  
R A T T H W G V A D L L P L M G A V H D T G R V V Q D R N R F T G G G V T A G  
T A T T H W A F A P R L A D E Y T P D V T V D P E P I F S D Q N T W T A A G V T A G  
T V T T H W G V A L Q M C P F T T R V E A D R L Y V Q D Q N T L Y T A S A G V T A G  
K A T T H W S T R L I L E A F T G V E C V R A R V V V D R N R S A G G V T A G  
R A T T H W N R C E G S L G T A I E V E P D A I F V A S H P V Y T S A G G V T A G  
K A T T H W G A Y D S F E E F D E P D I L V K N V K F V D D G K I R M T S A G G V T A G  
R A T T H W E N H D S F E E F D E V N L T K S V F T V D S G I N R M T T A G G T A S S  
A T T H W R W A A D F Q R R Y P N V R V D H D V L Y I D D G D V T T S A G T A A S  
R A T T H W Q R T P H F V K T Y P E I K P D Q D L F V R D D G S G I W S A G I T A S G  
R A T T H W R H A D L L A A R Y P E I R V E P D Y V H D D S G I W S A G I T A S G  
T L T S Y P S L K T D L L I N A G A I W T D Q E V V C D D Q G L V T S S R T P D D L  
T L T A W T T L Q R D L L K M I P N V R V R D A S V V R D D G N W I T S S R K P D D L  
R A T T H W D A R D L L A R A F R D V T V E P D F V R D D G D V F T S A G I T A S G  
R A V T H W Q C C D A L A R R H P R V R H A P I F V Q D D G P I W T S A G I T A S G  
L D G Y C C T T H H Q V M A R L R Q Q R D N R L F V E D D R G L Y T S A G I T A G  
T L T S F P S V K T D I L K N A G G H W V D E Q V V D D K N I T S A R K P D D L  
R R Y V C S G D L Y E T V N D G E Y V D A P V V E D D G N L I S G K G L G L A  
A T T H W E N C A E L R E E F P Q V I D V R D D I E E E D D G G V W T S A G V T A G  
A T T H W R N A E H F Q R T Y P Q V R V D D D V L F V D D G H I L T S A G V A A G  
G L T D G R P A V T H D L R D S G A D V V D A R V V D D D G D L L T A G G V T A S G  
T V T S W A G C R D D V V N A G A T W L D Q E V V V Q R E G N L T T S R G P Q D M  
R A T H W A M C D H D R F P A E V D A D A I F I Q G G K V W T S A G V T A G  
K A T T H W M Y A Q K M A E M Y P R I D V D P D Y V Q D D G R I T T A G T A A G  
R A T S H W L A E Q L T G R G A E P A H E R V V F D G K F Y V L A A G V S A G  
K A T C Y P G M E D N A G G A E W T G M P V V A D K H V V L G N G P A T A  
A T T H H F Y D E L L G T F P G I R L V K R R W V R D D G N V A T A G G V T C G  
V T T H W A R A N R L A E A H P A V T V D A D P I F I R H Q D F V W S A G V T A G  
A V V T H W N S C R A L E A R R Y P R V D P D P I F I N D Q H F W T S A G V T A G  
R A T H W A M C D T L K Q A F P E V D A D A I F I Q Q G T V W T S A G V S A G  
R A T T H W A H T G A L A A R Y P R V E V D P D Y V D N G S L V T S A G K A A A  
T M T A Y D T V R P D V G Y A G A I L V K D E P V V V D N G K L V T S R T P D D L  
R P C T T H H V A K E D L R A Q G G K V V S G R V V D D D G D L V T S G G V T S G  
K V T G Y L P L R D D V E N A G G E W V D A E V V C D D G N V I T S R T P V D L  
K A T C Y P G F D K D Y L E A G Q Y T G A L V E K D D G N Y I T S G K P A A A  
T M T S W P S V R T D L E N A G A N W V D E E V V Q D D G N F I T S R K P D D L  
K F T C Y P G L E N G V I D G K F V D E A V V I S D N F I T S K G V G T A  
L T T S Y P S I R T D L R N A G A N V V D E E V A R D S G N L I T S R S P E D L  
R A T T H W Q V A D A F R R R F P R V D L D P D F V A D G R M L T S A G A A S G  
T M T S F N S I K T D L E N A G A L W V D K E V V V D E A L V T S R N P D D L  
V T S H P S V K D S L K D S F E Y R E D D S V V S G K L V T S R G P G T A  
K S A A T H W G M A D R L A A R Y P K V K V D R Y V D D G A V L T S A G V A A G  
R V T T H W H A E R L A H R H P E D V D A D P I F I R A G D S F Y T S A G V S A G  
R A T H W A M C D M L K S G F P E V D L D A I F I Q Q D S V W T S A G V S A G  
K F T C H T S V K E E M A S E K Y E H K D V V V D R N L I T S P G A G K S  
R A T T H W A H A A A R Y P Q I D V T P D A D L F V H D G P F H T S A G V S A G  
R A T T H W A Y A R D M Q R R H P I K I V E D D D Y I I D G P I W T S A G M T A G  
A T T F H N T L D Y L E E S Y P K I K V L R D V R Y V D D G N V I T S A G I S A G  
H A V S Y P G F E E K L L G A K V G A E K V A V D D G N I V T S R G M G T A  
P A A T H P V A E E D L E A S A A N V V D E R I V D D D G D V L T A G G V T S G  
C T T H H D V I A R L K T A A P Q A I V R D N R I F V D R G I W S A G I T S G  
N V T S T P G I K D D M T N A G A I L W H N E A V V T D R H I T S R R P P D L  
T M T S W P S L R S D L T N A G A K W V D R E V V V D D G N L I T S R K P Q D L  
K A T C H W A F R D Q L A M L G V E V I P E R V V I D R D R I T G A G V T S G  
T M T S W P S L Q D D L R N A G G K W V D E R V V R D D G N L I T S R K P D D L  
A I T H H V A I E D L R A S G A E I N A R V V D D D G D L V T A G G V T A G  
R I T G Y L P I K T D V E N A G G T W V D E P V V E D D G N L I T S R T P V D L  
R A T S H W Q V C D K M L Y P E I K V E K D A I Y V K D D G N L Y T S A G I S T G  
T L T S Y P S L R T D L R N A G A T V V D Q E V C I D D G N L I T S R S P K D L  
T A A T H W R A T E L L E S G A S Y T P D R V V E H L P E R I I T A A G V S S G  
T L T S F S S I K K D L E N A G A L W V D K E V V V D E A L V T S R N P N D L  
A T T F R Y T L D L E K E Y P K V E V I R G A R Y V D G K V V T A G V S A G  
R A T S Y W L A L D Q L A E L G A V P T A E R V V V D D G K Y M T A A G V S A G  
R V T T H W A L A D R F A Q A F P M L E A D A H V R D P A R T A A G V T A G  
R A T T H W A C V G T L A A R Y P Q V K V D A D Y I A D D G Q V R T A A G V T A G  
R C T T H H A L Q D R L A A R F P R V V R D V L F V E D G T V S T A A G I A S G  
D L T S Y H T L Q T D L R N A G A N W S D D E V V T D D Q G F V T S R T P D D L  
K A T H P T S K R K Q L N F G A I V Q N D L I V Q D D G N I T S S N P G T A  
K A T T H W C R T Q D F V S R Y P K V R L D P D R I R D D G N V W T S A G I T A G  
C T T H H A L Q D E L A Q R F P A A S V V R D R F T T D D Q R I V T S A G I A S G  
T V T S Y A S L R T D L R N A G A T W V D E E V V V D D Q G L V T S R T P D D L  
T L T A Y K T V Q P D L Y A G A T I K D E P V V I D D G Q L I T S R T P D D L  
R V T T H W M H A D E L R R R Y P S L D I D P D F V D D D G N L I T S A G T A A G  
R A T T H W A L A R D L Q R A C P K S R I E D Y I N D G R V W T S A G M T A C  
T V T G F T S I R K D L E N A G A D V K D E E V V V D N N I V T S R T P D D L  
R A T T H W A H C Q T L A N Y P H V R V D P D F V Q D D G R F E T G A G I S A G  
T L T S V E A I R T D L A N A G A K V V V D E A V V V D E G L V T S R T P K D L  
K L T S A S A I K D D V E N A G G V Y H D A P V V V D R N L I T S R G P G D L  
R A T T H W S T A R Q L A N S D H P Q I L D A D P L F I R D R I L W T G A G L T A C  
R M T S W S T K T D L N A S G A D W V D E A V V D K G L V T S R S P T D A  
R A T S H W A V L E M L R E Y G A E P V S E R A V V Q G K V V T A A G V S A G  
T A T T H W R A A D L L N E G A R Y V A D R V V E H L P Q R I T A A G V S S G  
R A T T H W N Q C S T L Q A L C P H I E P D A I Y V S D P P F H T S A G V T A G  
P A T T H W K S L D L L Q S R F P R V Q R Q A R V V K A G H I I T S A G I A A G  
Q A V T H W D L C E R F S A E F P G I A V Q P D Y C R Q D R I W T S A G V T A G  
T M T A Y K T V Q T D L Y A G A I L V K D E P V V K D H N L I T S R T P D D L  
E C S V H W F L A A M Q E A F P R V S V S T S L F T L D R N R F T S S G G T A P  
R A T T H W C H A P A L Q R A Y P K I R V E E D F N D G N L V T A A G M S A C  
E V T G F P A I Q Q D L K N A G G V R V D E Q S V V V D G G L V T S R S P D D L  
R R Y V C S G D L W Q Q V T D G V V V D A H V V E D R N L I S G R G L G R V  
T T T G V L N V R K D L S N A G A N V V D E S V V V D N N I V T S R V P D D L  
R A T T H W R M A K Q L Q R S Y P T V E V D A D F I A D R N V W T S A G V T A G  
R C T T H R D V I Q D E L A L R H P V V V R D V L F T A D D R V I T S A G I A S G

UniRef90\_UPI0004679493 L D F G L M L A A Q L C G E E A A K H V Q L V I  
UniRef90\_W9B4A3 I D L A L H L V E D D H G T E T A Q T V A R W L V L  
UniRef90\_J2XVF6 I D L S L F L L L A Q D H G P D V A L S V A K R L V V  
UniRef90\_A9G5A8 I D F G L T L L L A L L R G D D A A K L T Q L M L  
UniRef90\_J1EIF2 I D L C L A L V E A D C G A A T A L A V A R E L V L  
UniRef90\_F5SHC6 I N M A L H I V V N R L L G S E M A H T T A K A I  
UniRef90\_A3SPA4 I D L M L H I I A K D H D G E K L A N A V A D Q L I  
UniRef90\_G9Z7E2 I D C C L H V V R R L W G A E I A T T V A R Q L V V  
UniRef90\_U1IG16 I D L A L A M I T E D Y G D E V A Q N T A R Q L V L  
UniRef90\_A8TKA7 M D M A L A M I A D D L G R R A A L E L A K S K V M  
UniRef90\_K0ZES7 P A F N A K L V E E F A  
UniRef90\_U2U390 E D F S K A I L E E D L K S A  
UniRef90\_X8CJ94 I D L A L A L V E M D H G T E L V R D V A R W L V V  
UniRef90\_A1UWL3 I D L C L R L V S N D C G H T L A L A L A R Y L V V  
UniRef90\_W0HMMV6 I D L A L H L V S Q Y A G P Q V A M S V A R E M V V  
UniRef90\_N6VWV2 D A F C A K I I E  
UniRef90\_J2ITU1 F N F A L T I A A R L Q G D E T A A R  
UniRef90\_U1X3H2 I D M A L A M V E Q D L S R A E A L R L A Q S L V L  
UniRef90\_L2TB59 L D L C L H I V R R D H G S G V A N Q V A R R C V V  
UniRef90\_J3EVW2 L D L A L H L V D R L A G S A I A D R V A  
UniRef90\_UPI00047B722C A A F V P A M L D A F A A G T L A E T T S  
UniRef90\_V8RCL5 I D L A L A L V E A D C G R E V T L Q V A R E L V V  
UniRef90\_UPI000310E448 L D A C L H L L R Q E L G A E L T N K I A R R M V V  
UniRef90\_D3F1P7 I D M A L T L A G R I A G D E V A Q T I Q L G I  
UniRef90\_R7EX69 M L W A L N I V E Q T I G A E Q A R A V A A G L L F  
UniRef90\_E3CZC2 V D L S L A L V A E L A G R E T A L R C A E A L  
UniRef90\_M4ZYP7 I D L C L A I V E H D H S T E I A Q E V G R W L V M  
UniRef90\_S6I2W8 I D L A L A L V E A D L G H A M A L A V A R D L V V  
UniRef90\_UPI00029AF192 I D L A L A L V E A D C G R E V S M A V A R E L V V  
UniRef90\_UPI000262E9A6 M D L C L H L V R L D H G S A V A N A V A R R L V V  
UniRef90\_R2P3U3 P D F N E K I V E V L H  
UniRef90\_UPI00037D94A7 I D L G V W L V E R F H G A E A A L S V E  
UniRef90\_UPI00026273FD P A F G R E I V K Y L E P A S V S S S V  
UniRef90\_R6FBJ6 L P F A L A V V E H L L G A E K V A E L K Q A M C V  
UniRef90\_D0LYJ4 D A F T G V L L S A L  
UniRef90\_UPI000465A1CF F E F A F A L L K I V K G E S V L E D V A K A L L  
UniRef90\_UPI00026C73DE P A F N A A M I E L F  
UniRef90\_V6KUE9 V D I C L H I V R T D H G S E L A N A V A R R C V V  
UniRef90\_F4B0K1 P A F N A K L I E E I K  
UniRef90\_UPI000441369F P F A L K L V E L L C G E A K M R E V H A P M I F  
UniRef90\_A0A031GK74 L D C C L Y L L R Q L A G A E V A N R V A R R L L V  
UniRef90\_Q1LHN9 M D L S L A L V E E D L G H T V S L D V A R D L V L  
UniRef90\_J2EHT3 I D M A L A L V E A D C G R D V A L Q V A R E L V I  
UniRef90\_U7VB12 V E F G L A L A S V F V D E A T I T K V K K G M  
UniRef90\_UPI0003B66D89 I D L A L S L V E A D H G P E L A R A V A Q Q L V V  
UniRef90\_UPI0003812503 L D L A L A L V E K D L G A E I A R S V A H K L V M  
UniRef90\_UPI00037EC212 I D G A L H L V A K L K G Y N A R A T A Y N M  
UniRef90\_R6NRT7 I E F A M A I V K W L  
UniRef90\_L9W5U6 L D L A L W I V E R E F G E E I A S E V S A L M  
UniRef90\_UPI0004633E9A I D L S L H L I H R L Y G P R A A L E V A R E M V V  
UniRef90\_D7UZP1 P E Y L P A Y I K A F  
UniRef90\_C5D1X3 P A F D R E M V R L F A D A R A  
UniRef90\_UPI000349E498 I D F G L T L L N L I C G E D T A K M A Q L M M  
UniRef90\_J4SHA0 D A F N G A L I E C L A A D R A  
UniRef90\_B8HQH4 I D L S L R L I E R Y F N P Q V A Q T V E Q G L  
UniRef90\_F4F712 P H F G R A I V E Y L  
UniRef90\_F4CC05 M D L S L A M V E E D F G R D I A V M V A K I L V L  
UniRef90\_I4BRC6 P A F C Q A I V D Q F A  
UniRef90\_G4HWR3 I D M A L R L V E L L V G P E A A Q A S Q L M I  
UniRef90\_A3XNX4 P A F N A K V I E E I  
UniRef90\_A0A023BTT9 I D G A L H M V A K L E G L E T A A E T A F Y M  
UniRef90\_E3J472 I D M A L T L A A R L A G D S V A Q A L Q  
UniRef90\_UPI00036F9EF0 L D L A L A L V E E D L G P D L A R Q V A S Q L V M  
UniRef90\_K8AH53 L D L A L R L V E E D L G R D V A L E L A A Q L V M  
UniRef90\_UPI000344CFD1 I D L A L H M L E R R D G P A A A A Q V A R D M V V  
UniRef90\_UPI0002D7F69F P A F N D K M I E E I A E G E H E G Q T A  
UniRef90\_A0A024DQW3 F D V A F L L L E K L T S K K N A E H V K D L M  
UniRef90\_UPI00045E6D43 I D L A L A I A A E E H G D A V A K D I A C Q L V L  
UniRef90\_UPI00042317C5 I D L S L H L T G V R H G H A A A A R L A R G M V V  
UniRef90\_UPI000262B275 P A F N A K L V E E I G E G E H P G Q T A  
UniRef90\_UPI0003B3D315 P A L N E A L L K A L A  
UniRef90\_U1YHJ5 I D A C L H L V R R E L G A R V A N T I A R R M V V  
UniRef90\_K9DL47 I D L C L A M V E E D L G K D A S K H I A R H M V V  
UniRef90\_H7F1V3 P A F N R E A L K L L  
UniRef90\_A0QPF1 T D L A L A L V E S D H G P T M A R R V A R W M V V  
UniRef90\_UPI00036F8D82 E A F C A K L V E E V C E G Q H A A Q A Q  
UniRef90\_E6N966 H V F V K A L I E  
UniRef90\_UPI00037F2871 L D L S L A L V A D D F G P E L A A R V A R Q L V M  
UniRef90\_S3H5E7 P A F N R E T I K L F S G  
UniRef90\_UPI000379DF82 I D M A L T L L A R A R D E E T A Q T V Q L A L  
UniRef90\_A0A024JSD0 I D M A L R L T E L L V D R E A A Q A A Q L M I  
UniRef90\_F0FYE5 I D L C I A L V E A D C G A P T E L A V A R E L V L  
UniRef90\_UPI000405FC95 M D M A L T L V A D L H G E T I A R Q T A R H M  
UniRef90\_Q46NF7 I D M A L A M V E E D L D R E I A M A V A K T L V V  
UniRef90\_UPI0002196CCB D Q F N A A I V E D L  
UniRef90\_J3DWC4 L D M M L H L I A R D H G R E L A T A I S E M F V L  
UniRef90\_U7DKP6 V D L A L A L V E K D L G A D V A R R V A R Q L V V  
UniRef90\_A0A059E3Y6 G D F N A K I V E E I C E G K H E R Q  
UniRef90\_I2B9I9 F D F A F T V A A R L T G D D P A R E Q A E H I  
UniRef90\_Q5HN59 D D F N R E I V K K L  
UniRef90\_UPI00034CDC3D I D L A L A L I E A D H G V E L T R K V A R E L V V  
UniRef90\_NOCS51 I D L A L H L V A T D H G P A A A A Q A R E M V V

1 10 20 30 40  
UniRef90\_W4JQV7  
UniRef90\_UPI00046A455C  
UniRef90\_G2MK10  
UniRef90\_UPI00037E58BE  
UniRef90\_A0A023X287  
UniRef90\_UPI00035C92C8  
UniRef90\_G4TP46  
UniRef90\_K3X676  
UniRef90\_R9N3B0  
UniRef90\_I2ERH8  
UniRef90\_L0LT09  
UniRef90\_UPI0003D2E006  
UniRef90\_G2I427  
UniRef90\_D5ZYP2  
UniRef90\_W5W3G9  
UniRef90\_U2RNJ1  
UniRef90\_D4AKW3  
UniRef90\_C7D5J3  
UniRef90\_V3T479  
UniRef90\_A0A031IW95  
UniRef90\_V4XRE3  
UniRef90\_G2S317  
UniRef90\_C3G589  
UniRef90\_UPI000289101B  
UniRef90\_F0LEX7  
UniRef90\_Q4U192  
UniRef90\_R6BK05  
UniRef90\_M6D3H9  
UniRef90\_J2IZ98  
UniRef90\_W1S5K2  
UniRef90\_D8MKC4  
UniRef90\_W0U2K7  
UniRef90\_D2PRV2  
UniRef90\_Q825K3  
UniRef90\_Q39SZ0  
UniRef90\_U2Q212  
UniRef90\_UPI0003B47FF0  
UniRef90\_UPI000262A2BF  
UniRef90\_L8PMH1  
UniRef90\_F9FIY9  
UniRef90\_G2PE64  
UniRef90\_R4SZF8  
UniRef90\_A0R3R0  
UniRef90\_R4JXM4  
UniRef90\_I4BE03  
UniRef90\_W3ADJ9  
UniRef90\_K9NK03  
UniRef90\_C6B5B2  
UniRef90\_A4XCG4  
UniRef90\_U7D857  
UniRef90\_D4X5Q4  
UniRef90\_G2GN04  
UniRef90\_W8QJQ4  
UniRef90\_E1PKD2  
UniRef90\_G4L5U9  
UniRef90\_D8MTY3  
UniRef90\_H1D0R9  
UniRef90\_UPI000348AB69  
UniRef90\_D4E0X3  
UniRef90\_H1UK63  
UniRef90\_A0A024JQB1  
UniRef90\_UPI000469D64B  
UniRef90\_UPI00039556E1  
UniRef90\_R9APH6  
UniRef90\_S5YCI7  
UniRef90\_Q1QJ72  
UniRef90\_A5FVT5  
UniRef90\_UPI0003AAA8B1  
UniRef90\_H2ABF1  
UniRef90\_U7G499  
UniRef90\_I3XFB4  
UniRef90\_B5QN61  
UniRef90\_G1Y4D1  
UniRef90\_T0R8P2  
UniRef90\_I0GXT6  
UniRef90\_I4EHK8  
UniRef90\_L9YYS9  
UniRef90\_G0N4R2  
UniRef90\_G8RSZ3  
UniRef90\_A7IEV1  
UniRef90\_UPI000362F2E1  
UniRef90\_K1N7F0  
UniRef90\_UPI000361DFFB  
UniRef90\_UPI0003C7FD66  
UniRef90\_A9AKK7  
UniRef90\_UPI000360F04B  
UniRef90\_UPI000374642A  
UniRef90\_M3DY57  
UniRef90\_X0Z9R3  
UniRef90\_J0D7L7  
UniRef90\_A1RPN8  
UniRef90\_K9D9X5

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

UniRef90\_W4JQV7 P F A K G S R G L R I Q P D T Y F S Q A L R V E K F G A L I T I P G G A Q G G A R T  
UniRef90\_UPI00046A455C L T V T C A E A P G R I G T A S G I S L F V D H D E A A D T V I V P A W P G P D A  
UniRef90\_G2MK10 E R V T A S G H G L D V G V D G Q L A A P G D D A D P D I L V V P G G G W S G E R S  
UniRef90\_UPI00037E58BE P A S T S G L G L F N K V L N Y K E A Q L K E D D D F V F V P G M S W Q Y V D S I S  
UniRef90\_A0A023X287 D A V R G K N A L E A S A D A L A S D V D A R E F D G V V T P G G W A P D K  
UniRef90\_UPI00035C92C8 I T D E L G M K V K V Q K T R P H L A D Y D M V F V P G G L G T R K  
UniRef90\_G4TP46 V T V T C S R G V R I V A D T T L E A L L A E P T Y D I V I V P G G A K G A E T  
UniRef90\_K3X676 H L V T L M K G T M I T G D K A I E H C G H E E Y D L I V V P G G S G A K I  
UniRef90\_R9N3B0 K T V T S G S H Q I P V V M D A L E D E V D F D N V D M I V L P G G M D G T N R  
UniRef90\_I2ERH8 S T L S A R N N L V I T P T Y T F E N C P I P D L L L I P R P D G T P F G S R K  
UniRef90\_L0LT09 T Q T Q T S S G L S L I T T P L T D T D T P L D T L I I A G G W G V N K A C E N  
UniRef90\_UPI0003D2E006 P G L R A G S S R L S V M P D G D L S L L E Q A D T I I V P G W R G V D T  
UniRef90\_G2I427 G G L V M S S S G V A V Q T V A V E G A G F D T L I I V G G E G H R A  
UniRef90\_D5ZYP2 P V R S N A D F G I T V D H G P E A L A T A D T V V I A P V S P D R V T G G L  
UniRef90\_W5W3G9 V A T N A G F T L V A S G Y D L S K Q V R A A D T V I V P G F A P V  
UniRef90\_U2RNJ1 E P L A G R N G V R L I A P G Y D L S A M E D A D T L I A V P A A D I R D S Y P E E  
UniRef90\_D4AKW3 P V S T K P P P L I V N L K T H S Y D D L P T D I D V L I V P G G L G T S H  
UniRef90\_C7D5J3 D L V T S S G G I G F K V D F D L E R N L G R D D T V M V C G G L I N V Q  
UniRef90\_V3T479 L E L R S Y H N I R M F A D A L L E R N M D I L F D A I V I P G G P V G T A N  
UniRef90\_A0A031IW95 Q V S S V S G I S A S T Q S L E Q I D Q Q A P D I D T L I V A G G P G M D A  
UniRef90\_V4XRE3 D G V T A S H G T Q L D V D E V L A D P D F E S A P D L L V V P G G G W N D W S  
UniRef90\_G2S317 G E L R A T G G I R I L A D G D L R L L E H A D L I V V P G W R G V D T  
UniRef90\_C3G589 R E V T T S F G V T R I Q L H D F L R M D N R P D L L I V P G G G W N H K A K H G  
UniRef90\_UPI000289101B G P L R T T G G L E L T A P H G L E A T S R A G T V V V P A W R S I T  
UniRef90\_F0LEX7 G T I R C A S G L K I T D C A F D A Y L G S P D T L L V A G S V G V P Q  
UniRef90\_Q4U192 Y D V K S D T L I V L E A T K A L D T L A V P D T A I A V G A R D I E R A  
UniRef90\_R6BK05 R V V T G S H G V R F V C D L A A E E Q V T E E Q M Q M L V L P G G M P G T K H  
UniRef90\_M6D3H9 E L L H A R N R F P V F P H L T L E E A G L P D I L V I P G G Y G A E E I  
UniRef90\_J2IZ98 A E V P T S I G L N M G N I S P L P E T L P A G S L L V L P G V S D S A N F F N  
UniRef90\_W1S5K2 P I Q G M E H D D T I R P D I T L A D A V R I D D Y D G L L P G G V A N P D T  
UniRef90\_D8MKC4 P V V V E S F S F S G L A A D E I T E C D L L C V P G G T C T N  
UniRef90\_W0U2K7 G T V R T M S G F N I E V E H D L S A V E Q A D T V I V P A W R D P D  
UniRef90\_D2PRV2 E P L R T S S H S A V I A P Y G L E E L A D A D L V A L P A T T W R D E Y D E  
UniRef90\_Q825K3 K P V R S N A D F S V M V E R G P E V L R T A D T V V I P P V T P A S V T A E L  
UniRef90\_Q39SZ0 G T I T G K H G Y E V Q A D K S L A E V N P E G Y A L L V L P G G K A P A A  
UniRef90\_U2Q212 E L V K G S H D I V V K A D K I S D E I K D Y D M I V L P G G L P G A T N  
UniRef90\_UPI0003B47FF0 A I S A R A G Y R V M P N Y G F N D H P M I D V L I V A G G V H S N E  
UniRef90\_UPI000262A2BF L I A G G D G L S Y H V E H G L E A L D E A D L V F V P G Y R F P D R D  
UniRef90\_L8PMH1 R T V T A A Y G T R L R A D H A W A P E E A D L V V P G G G Y A R R E  
UniRef90\_F9FY9 S T L E D D S P G R I Q S S V V P T H T Y D N A P E D I V L L V P G G R G S R R N  
UniRef90\_G2PE64 V V I T S A G F A L V A D G E L E Q V R T A D T V V V P G F E P I L Q L P D A  
UniRef90\_R4SZF8 T T R S S G L M L A G A R R L A E V S G R V D T V I V V G G A G T G A A A D T  
UniRef90\_A0R3R0 P V R T D T F T I N V A N G P E V L A Q A D T V V I P A S D E D Y A P A T Q  
UniRef90\_R4JXM4 K E V K S T F N L R I T T D I T I D E V N V D D Y A A A I P G G F E E Y G F Y E  
UniRef90\_I4BE03 P V A A D S G V L L V G A T H S F D E T P S P D V V L T P G G F A T M E  
UniRef90\_W3ADJ9 V K Y I G S Y G V P A E S D F S F G D I S P K D Y D A I L L V P G G W A P D K  
UniRef90\_K9NK03 I V V D Q G P M R A M G G I Q V L A D G G M E L L A D A R T I I I P G W R D R S  
UniRef90\_C6B5B2 A T V G S S V G L A V T G V A A L P E V I A G S A D A P M K N S A P G N E Q E  
UniRef90\_A4XCG4 E P L R S N H L D T S T Y E V D R A V A D A D Y D A L V L P G G V A N P D F  
UniRef90\_U7D857 H T Y H G K Y G V P A V S D I T Y E E A L G Q D Y A G L L I P G G W A P D K  
UniRef90\_D4X5Q4 P M H H D K P G D R F P V D L T F A Q A E E A G V F D G L L L P G G V M N S D E  
UniRef90\_G2GN04 P V R A D T G F L T L M A G K A L A D V P R P D V V V V P G G P G T A A  
UniRef90\_W8QJQ4 K T V K G K G E A E V R V D A S I D N V K P E D F D A L L L I P G G F S P D I  
UniRef90\_E1PKD2 G P V T S N D M G L S I M E A N G L G L L D R A D I I V P Y W H N P A E K  
UniRef90\_G4L5U9 Q E V T G N H I L T V K A D Q V L D E S L Q D Y D M I V L P G G M P G A K N  
UniRef90\_D8MTY3 V L R T N A G F S I V A E H G L E A L Q E A E M V I V P S W T D P A  
UniRef90\_H1D0R9 P V S N E K G L V V M T E A L S S P G P G D L L L I P G G M G S R Q  
UniRef90\_UPI000348AB69 R I A G G D G L A Y A V D D G L D A L D W A E T V F V P G Y R F P A D T  
UniRef90\_D4E0X3 G P L R T N A G F S I J A E R T L S A L E Q V D M V T I P S W N D P A  
UniRef90\_H1UK63 K N I R S S C G F S L R A D L L L S D V S T K C V D T L L V A G A P D A A A  
UniRef90\_A0A024JQB1 E I Q A R E H D L E P A G R F S V D R A V S D A E F D G L V L P G G T V N P D K  
UniRef90\_UPI000469D64B V V R S K I G F S I N V E H D L S F A A E A D L V F C P V P R E V W  
UniRef90\_UPI00039556E1 G P L L S D I G M E I H T E H Q L D A L A H S D I I V V P Y W R T I D E  
UniRef90\_R9APH6 T H A V C T R G V K I L P D V L L D N L S D D D L H S I V V V P G G Y P G A N T  
UniRef90\_S5YCI7 D G H G I A R C S N G T A L A I D S G L E E G S R E D T I L V C G G L H V A  
UniRef90\_Q1QJ72 A V T S I N G V S S F E A Q A S F S Q T P A L D I L W V P G G D P V A L Q T I M  
UniRef90\_A5FVT5 S A S G G P V R S S S G A V L G S E P A S A A G A L D T L I V T G R G C R R A  
UniRef90\_UPI0003AAA8B1 N E I T S H Q G L Q F S N I K A P P D T L E D N A I I V G A S H Y N D T I Y S  
UniRef90\_H2ABF1 K E V T G K H G E K V K I D Q A I S D A D P K E F D A L L P T G G F S P D L  
UniRef90\_U7G499 P V R C T P S I R M A V D A S I D Q I D K V D L V V I P T I G A P I E Q V  
UniRef90\_I3XFB4 E V K S S A G F G V L T K A F D E T P Y D T V M F G A G A T I  
UniRef90\_B5QN61 K Q L I T G K H G A T A T I D T T I T D V K P E D Y D G L L P G G G F S P D E  
UniRef90\_G1Y4D1 P W N H T D W G E T V E A D L R I A D T K V E D Y Q A V V L P G G Q I N P D L  
UniRef90\_T0R8P2 A G T I W T N P P M A G T P M V A S H S F E S A P R V D I L L L P G G L G T D V  
UniRef90\_I0GXT6 E I Q A R V N H M D K A G T Y P V E K S V S D A D P Y D A L V L P G G V A N P D F  
UniRef90\_I4EHK8 Q A M R G D E K A G S Y P V D L T L D Q A N P D D F D A V L L P G G A L N A D A  
UniRef90\_L9YYS9 D L V T A S H G L R V E P D G T L G N P D I L L V P G G G W T T E A  
UniRef90\_G0N4R2 K P V K C A K G A Q I M P T A A F D D V K D K K Y D I V I P G G P G S N T  
UniRef90\_G8RSZ3 K P L R T S V G A T I L P H G L D D V L G A D L V A I P A I G S S D Y L P E A  
UniRef90\_A7IEV1 P V R N S L G F A I E T A P F G A Q I H D T T I T I G S L V V K P S A P A  
UniRef90\_UPI000362F2E1 P Q T T S I G L G L T A S E A L P D Q L P D N T L F F V P S S H D V R Q S M R  
UniRef90\_K1N7F0 S P V R A R A G L K I D P D S F L E N H P E I D C L I V P G G V V S A E L  
UniRef90\_UPI000361DFFB V F T V G R N R D A V K A R A G L K I E P D H T L A D H P A I D C L I V P G G V  
UniRef90\_UPI0003C7FD66 P I Q T V E G D T P K Q K I D V D G T Y D V A A V D A V I V P G G T V N A D R  
UniRef90\_A9AKK7 D V R S S L G L A I A T R E L S Q R L R I D T W V V A G V N D P L A  
UniRef90\_UPI000360F04B T H T T G G F A V I A E A G P E Q L S R A D T V I V P G S E P P R R Q P E A  
UniRef90\_UPI000374642A K E L K G K G T I A Y R S H L A K E A N P D D Y E A V V P G G Q S P A A  
UniRef90\_M3DY57 S V R A S T G F T L Q V E H G L E R L E T A D L I T V P A G A S Y A S R  
UniRef90\_X0Z9R3 K T Y A G K H E I A V S A G S F I E A S L D G V K A V V I P G G L A P D R  
UniRef90\_J0D7L7 D I T V A S C G L V I K P G S T Y A R E L A A G T Q Y D V L L V P G G M S P  
UniRef90\_A1RPN8 M L L P C D A G V N L P G N Y D F H C P L I D I L L V P G S A N P L A  
UniRef90\_K9D9X5 E E I Q G F N H L T P D Q K F K V E Q D A R P G D Y D L L L L P G G V A N P D N

UniRef90\_W4JQV7 MAE S P A V Q R L V R E F Y E Q K K I V G M I C A G S M A A L T S K L P K Q P  
UniRef90\_UPI00046A455C A P P D V L L E A L Q R A H A R A G A R T L V G L C V G A G F V L L A E A G L L D G R R G  
UniRef90\_G2MK10 E Y D S R G D L F E E I L S A H H A A G M T T I A S V C C T G G A M L L E R A G L L R N D G T  
UniRef90\_UPI00037E58BE F R A E R E D F F K W L S K D C A S E N K M T V C S I C C N G F A L L E R A G L L K R N T  
UniRef90\_A0A023X287 L R R Y G E V L D V L R G V H E Q Q G G T V G I I H G G L V A T S A G I V L G G G V  
UniRef90\_UPI00035C92C8 L R F D S E T F V S W L R E A Q D S G K Y K V S V C C C G S L L W G A A G V L Q Q G K  
UniRef90\_G4TP46 L S Q S V Q V Q R L L T D Q Y S A G K L V G M I C C T A G S L L A A K T S K L P S S Q P  
UniRef90\_K3X676 L G A N S T L A E L I R K Q K E A G K L Y G G I C C C A A P V D V L L R H A I V T G  
UniRef90\_R9N3B0 L E A C D Y L M E Q V D A F I N S A G K A V A A I C C C A A P T V L G H R G H L K G K  
UniRef90\_I2ERH8 E M N N Q R L L D W V K A M N E K V E L L L S V C C C T G S L I L A K A G L L E G K  
UniRef90\_L0LT09 L V P T E L V L A L Q R A H A R A G A R L V S I C C S G V F V L A A T G L L D G R R  
UniRef90\_UPI0003D2E006 A M E C G V L R A F M Q A R M A H T R R I C S V C S G A F V L A A G A G L L D G R R  
UniRef90\_G2I427 P D G V A A A L A L V R P E A R I V S I C T G A F V L A A A G L L D G R R A T T  
UniRef90\_D5ZYP2 L R P P Q A A L D V L A E V R D Q G R R V V S V C C T G A F A L L A A G V L D D G R  
UniRef90\_W5W3G9 L A A N P L V V E F I R R E A D A Q K L I C P L C C S T A G A A R V L A K A G L L D G K  
UniRef90\_U2RNJ1 C A N I E P T V K L A R K L Y P E V K Y L F S I C C C T G S K V L A E A G L L D G K  
UniRef90\_D4AKW3 A A T T K R V L N W L R R R E A R A R G V T I A G L C C S T A G A H T L A K A G L L D G K  
UniRef90\_C7D5J3 L A A N P L V V E F I R R E A D A Q K L I C P L C C S T A G A A R V L A K A G L L D G K  
UniRef90\_V3T479 L E A N E H A C A W L R G R A P A T R R L C S I C C T G T G A F A L A A A G L L D G R  
UniRef90\_A0A031IW95 E A Q R G E I P Q S L R A A S A R G C H R L L A S V C C T G G M L L A E A G V L D G R  
UniRef90\_V4XRE3 S V P E A L C D S L R Q A S A R G C Q V M S I C S G V F V L A A A G L L G G R R  
UniRef90\_G2S317 A R K Q A E L G N L T K M I K E M N N E G T I V A G V C T G G M A A S G M L N G  
UniRef90\_C3G589 A P P P E E A L D W L R R A H E E G A R R I V G L C C T G A F V L A A A G L L D G R  
UniRef90\_UPI000289101B L S P P G R V V D W I V K I A A Q A R R Y G S V C C T G A F V L G E A G L L K D R  
UniRef90\_F0LEX7 L R D T S M L V G W C R D V S A R I G R M V G L C C S G C F F L A E A G M L D G R  
UniRef90\_Q4U192 L G S S P L V D R L R Y A Q Q K G V F I G A I C C A P S V L G E K G M L Q D R  
UniRef90\_R6BK05 E I H N K K L L S W I K E M E P K G V K L A S I C C T G A F L L A E A G L L D G M  
UniRef90\_M6D3H9 T P Q A S L V L H W L M R L Q P Q I H N Q S I T L M C V C S G A V L A A K G V Q  
UniRef90\_J2IZ98 L R M N D K A V G L V R D F V A S G K P V A A I C C H G P W L L V E A G C V S G R  
UniRef90\_W1S5K2 A I E N A D F L A I R R L G L N A S Y V T S V C C T G S M I L A A A G L L K G K  
UniRef90\_D8MKC4 E T P P E V L L E A L R S A Q R R G A R I V G L C C C L G A F V L A A A G L L D G R  
UniRef90\_W0UJZK7 R V L T A L R Q A A D R G A L L L T V S I C C C T G A F V L A A A G L L D G R  
UniRef90\_D2PRV2 P A E V T A A L A Q I R P G A T R I V S I C C C T G A F V L A A A G L L E G R  
UniRef90\_Q825K3 V R K E P A A L E I C R S F F A H N K P V A A L C H G P Q L L I S A G L L S G R  
UniRef90\_Q39SZ0 L R D N E K V L E L V K Y F N E N K S K F A A I C C A P M V L E R A G I I K G  
UniRef90\_U2Q212 I G K S Q V M E W I S Q Q S T N A S I T A S V C C T G A F L L A K A K V L K H  
UniRef90\_UPI0003B47FF0 A A P R V L T E A L G R A H A R G A I L A A I S T G A F A L L A A T G L L D G R R  
UniRef90\_UPI000262A2BF A P G V W A E T R A L A R A P R P G L T I S A L C C T G G V M L S A A G L L D G R  
UniRef90\_L8PMH1 P E N V K R V R E F V K E R Y P K L R F L L T V C C T G S A I V A S A G L L D G K  
UniRef90\_F9FIY9 V L I G T L A E A R D R G T R V V S I C C T G A F A L L A A A G V L D G L H  
UniRef90\_G2PE64 E R L S P E L A T A L S R H I K A G W S R R M A S V C C T G A F V L A A A G L L D D R  
UniRef90\_R4SZF8 G R L S P E L A T A L S R H I K A G W S R R M A S V C C T G S F V L A A A G L L D E R R  
UniRef90\_A0R3R0 D A Y N E K F L Q L I R K F H E K N K I A S T C C V A A L P V G K S K I L E G K  
UniRef90\_R4JXM4 H A R D E K V L D V W R R A H R T S T W T A S V C C S V I L A A A G L L E G K  
UniRef90\_I4BE03 I R R F P E V L N I V Q F M D E H K L P I G Q I C C C H A G W V L S A G I L T G K  
UniRef90\_W3ADJ9 A T V P A E L I D A L R Q A H A R G A R L L S I C C C S G V F V L A A T G L L D G H  
UniRef90\_K9NK03 R A D Q A A I V A W L R T H A I R S P G I R L V S I C C C S G A L L A A E A G M V D G R  
UniRef90\_C6B5B2 L R A D A N I V A R F V R T F V E S G K P V A A I C C C H G P W T L V E A N V V R G R  
UniRef90\_A4XCG4 I R R F P A A L E I V R T L N E K G R I G Q I C C C H A G W V T I S A G I L E G K  
UniRef90\_U7D857 I R R H P K A Q A L V R A M F D A G K P V A V I C C C H G G W L L V S S G V V R G R  
UniRef90\_D4X5Q4 E T G N V A L Q D W L R T A D A T S T W T S V C C C T G S L L L A A A G L L D G R  
UniRef90\_G2GN04 L R A D D R Y V Q F T K A F M D E K K P V F A I C C H G P Q L L I T A K T L E G R  
UniRef90\_W8QJQ4 P S Q A L L D K L V A A W Q R G A E V V G L C L G T Y V L A Y A G L L D Q H R  
UniRef90\_E1PKD2 L K E N T T V I E S L R E A H Q L G A T I V G L C C C M G A F V L A A A G L L D G R  
UniRef90\_G4L5U9 R S P C P T L L T S L R E A H Q L G A T I V G L C C C M G A F V L A A A G L L D G R  
UniRef90\_D8MTY3 L V L Q D D F L A A L R K A A L A S T L V M T V C C T G S A L L A A A G L L D G L  
UniRef90\_H1D0R9 P P P A D V V A A L G R A H E R G V R I A A I S T G A F A L L A A A G L L D G R R  
UniRef90\_UPI000348AB69 L M P S A E L V A A L H R A H A R G A R L V G L C C M G A F V L A A A G L L D G R  
UniRef90\_D4E0X3 R A S D P V F T S W L R D E A P R A R F G S I C C G G V F P L A E T G L L D G H  
UniRef90\_H1UK63 L R N D A T A V A F V R D F E A P R A R F G S I C C H G P W T L V E A G V A A G R  
UniRef90\_A0A024JQB1 G D I D P L V D L A R E A V A R G A W V M S V C C S G S F I L A A A G V L D G R  
UniRef90\_UPI000469D64B R P N E A L L A A L Q R A H A R G A F V V G L C L G S Y V L A Y A D L L V G R  
UniRef90\_UPI00039556E1 L K S N L R I Q S L F R N F K A S D K L L G T I C C C A G S L I I K S A D I A K G Q  
UniRef90\_R9APH6 Q A T T R P I L A W L R R E A R R G A R I G A L C C C T G T W T L A E A G L L H G R  
UniRef90\_S5YCI7 K A P Y S P Y L Q Y L R Q A A N A K W V C S V C C E G A L L L A R A G L L D D H  
UniRef90\_Q1QJ72 M E C P E I R A F V Q A Q A R G A R R L C S V C C S G A F L L A A A G V L D G R  
UniRef90\_A5FVT5 D S S S F K S I A W L K Q I A N N T P D L S A D H S Q T P L I V G I C T N G R R  
UniRef90\_UPI0003AAA8B1 L R G D R D P G E F T K S F V E N A G K P V F A I C C C H G P Q L L L D T D L L K G K  
UniRef90\_H2ABF1 L E Q Q R D V L P W L R R I H S A N Q K D L A S N C C T G A F V L A A A G L L D D C  
UniRef90\_U7G499 E P M T P G L I A F S R R A L E T S R R V A A P C C C T G A F V L A A A G L L D G R  
UniRef90\_I3XFB4 L R A D D R F V N F V K A F L L D D K P V F A I C C C H G P Q F F I Q T A G L T K G R  
UniRef90\_B5QN61 L R V N P D A M R V F G F L D S G K V V A A I C C C H G P W L L V E A D A L R G R  
UniRef90\_G1Y4D1 F A K D P A Y L A F V R A R A S A T Y V L S V C C C T G S S F L A A S G L L D G K  
UniRef90\_T0R8P2 L R A D S D A V R F V R D F V N A G K P V A A I C C C H A P W T L V E A G V V D G R  
UniRef90\_I0GXT6 L R L Q P K A Q A F V R R I D E A G K P I A V I C C C H A P W L V S A G V L G G R  
UniRef90\_I4EHK8 V V D D G A V P A A V G E R F A A G S T I A S V C C C T G A M V L A E A V L A G R  
UniRef90\_L9YYS9 L A E N S S V G E L I K S Q F K S A G L I G A I C C C S G A P T V L L S H G I M V D E  
UniRef90\_G0N4R2 L L L L D Y L R S A G T A S R R V A G I C C C T G A Y V L A E A G L L D G R  
UniRef90\_G8RSZ3 A A S T G H V I R W L A R Q A P Q A R R I L T V C C C S G S F L L A G E A G L L D G Y  
UniRef90\_A7IEV1 E K Q N V L E W A K Q A F T T T I T A S V C C C T G T F L L A A A G I M E G K  
UniRef90\_UPI000362F2E1 V G A E L E K P D V I A W I A A Q A G R V P L V A S V C C T G A F A G L F D G R R  
UniRef90\_K1N7F0 L R G D E T A Q K L V S V L N D A D K P L A V I C C C H G P W V L V S A G L L A D G R  
UniRef90\_UPI000361DFFB S P P P D G V V A F L R R P N A R A R R I A G I C C C T G A F V L A A A G L L E G R R  
UniRef90\_UPI0003C7FD66 V L A A L A E A H E Q G K R I V S I C C T G A F A L A T A G V L D G L H  
UniRef90\_UPI000360F04B L R E D E A V L G F V K R A H D K G V P I A A I C C C H G P V V L A S A G L L K G K  
UniRef90\_UPI000374642A E F P P E L L D A L R R A V D R G A R V L S V C C S G V F V L A A A G L L E G R R  
UniRef90\_M3DY57 L R L H K D A L D L V R Q A D K K G I V I A A T C C C H A G S V L V S A G I V T G R  
UniRef90\_X0Z9R3 G K T P E V L I K F L Q A Q A P R V R Y I L S V C C C S G S W I L Q Q A G L L K G K  
UniRef90\_J0D7L7 Q I Q D E Q V I S F L K H K G E Q A Q Y I T S V C C C T G A L L L A A T A G L L N G Y  
UniRef90\_A1RPN8 L R L S A E S I A F I K A F G D E D K P L A A L C H G P W P L I D A G V A E S K  
UniRef90\_K9D9X5

UniRef90\_W4JQV7  
UniRef90\_UPI00046A455C  
UniRef90\_G2MK10  
UniRef90\_UPI00037E58BE  
UniRef90\_A0A023X287  
UniRef90\_UPI00035C92C8  
UniRef90\_G4TP46  
UniRef90\_K3X676  
UniRef90\_R9N3B0  
UniRef90\_I2ERH8  
UniRef90\_L0LT09  
UniRef90\_UPI0003D2E006  
UniRef90\_G2I427  
UniRef90\_D5ZYP2  
UniRef90\_W5W3G9  
UniRef90\_U2RNJ1  
UniRef90\_D4AKW3  
UniRef90\_C7D5J3  
UniRef90\_V3T479  
UniRef90\_A0A031IW95  
UniRef90\_V4XRE3  
UniRef90\_G2S317  
UniRef90\_C3G589  
UniRef90\_UPI000289101B  
UniRef90\_F0LEX7  
UniRef90\_Q4U192  
UniRef90\_R6BK05  
UniRef90\_M6D3H9  
UniRef90\_J2IZ98  
UniRef90\_W1S5K2  
UniRef90\_D8MKC4  
UniRef90\_W0U2K7  
UniRef90\_D2PRV2  
UniRef90\_Q825K3  
UniRef90\_Q39SZ0  
UniRef90\_U2Q2I2  
UniRef90\_UPI0003B47FF0  
UniRef90\_UPI000262A2BF  
UniRef90\_L8PMH1  
UniRef90\_F9FIY9  
UniRef90\_G2PE64  
UniRef90\_R4SZF8  
UniRef90\_A0R3R0  
UniRef90\_R4JXM4  
UniRef90\_I4BE03  
UniRef90\_W3ADJ9  
UniRef90\_K9NK03  
UniRef90\_C6B5B2  
UniRef90\_A4XCG4  
UniRef90\_U7D857  
UniRef90\_D4X5Q4  
UniRef90\_G2GN04  
UniRef90\_W8QJQ4  
UniRef90\_E1PKD2  
UniRef90\_G4L5U9  
UniRef90\_D8MTY3  
UniRef90\_H1D0R9  
UniRef90\_UPI000348AB69  
UniRef90\_D4E0X3  
UniRef90\_H1UK63  
UniRef90\_A0A024JQB1  
UniRef90\_UPI000469D64B  
UniRef90\_UPI00039556E1  
UniRef90\_R9APH6  
UniRef90\_S5YCI7  
UniRef90\_Q1QJ72  
UniRef90\_A5FVT5  
UniRef90\_UPI0003AAA8B1  
UniRef90\_H2ABF1  
UniRef90\_U7G499  
UniRef90\_I3XFB4  
UniRef90\_B5QN61  
UniRef90\_G1Y4D1  
UniRef90\_T0R8P2  
UniRef90\_I0GXT6  
UniRef90\_I4EHK8  
UniRef90\_L9YYS9  
UniRef90\_G0N4R2  
UniRef90\_G8RSZ3  
UniRef90\_A7IEV1  
UniRef90\_UPI000362F2E1  
UniRef90\_K1N7F0  
UniRef90\_UPI000361DFFB  
UniRef90\_UPI0003C7FD66  
UniRef90\_A9AKK7  
UniRef90\_UPI000360F04B  
UniRef90\_UPI000374642A  
UniRef90\_M3DY57  
UniRef90\_X0Z9R3  
UniRef90\_J0D7L7  
UniRef90\_A1RPN8  
UniRef90\_K9D9X5

UniRef90\_W4JQV7 F P F A L T L I E 170 H L C G A T K R E E 180 V Q G P M M F  
UniRef90\_UPI00046A455C I D C C L H L V R R D H G A E V A N R V V A R R M V V  
UniRef90\_G2MK10 L D L A L G L L V K R E F G E A L J A D D V A  
UniRef90\_UPI00037E58BE I D L A L G L L E N L K G P L F T H K V A R E L V V  
UniRef90\_A0A023X287 P D F C R E L V A A L S G E  
UniRef90\_UPI00035C92C8 I D L G L Y I I E W L A G V D A M L E V K Q Q L  
UniRef90\_G4TP46 F P F A F K I V E L L C G E A K V K E V R S P M I F  
UniRef90\_K3X676 M A M A L K L V E L L R G E K I A Q E L S K S I  
UniRef90\_R9N3B0 I E F A L M I V E Y F V D K N A A D A M A E K I V  
UniRef90\_I2ERH8 I D M S L Y V V S K L Y G Q S A A S D T A T Y I  
UniRef90\_L0LT09 I D L S L A L V E A D L G R Q S S A L S V A R E L V V  
UniRef90\_UPI0003D2E006 L D L C L H V V R Q D F G A K I A N Q V A R R L V I  
UniRef90\_G2I427 I D L A L A L V G H D L G Q S A A R Q A R Q M V V  
UniRef90\_D5ZYP2 V D V C L H L V R E D H G S R L A N T V A R C V V  
UniRef90\_W5W3G9 I D L C L H L V R R D L G S A A A N Q I A R G L V  
UniRef90\_U2RNJ1 L D A C L H L V R R E L G S A A A N A I A R N M V V  
UniRef90\_D4AKW3 T D A M L A F I G M V Y G R E Y A Q A I A K R M  
UniRef90\_C7D5J3 I D L M L K L V A D E H G E E L A N A V A D Q L I  
UniRef90\_V3T479 F D F A F T I A S R L T G D  
UniRef90\_A0A031IW95 I D L A L G L V E Q D L G A D A A L S L A R Y F T V  
UniRef90\_V4XRE3 L D L A L H V V E E A A G G T V A A Q V S E  
UniRef90\_G2S317 I D L C L H V V R R D F G M E A N R V A R R L V I  
UniRef90\_C3G589 I D L G L W I T E K F A S S K I A A A V E Y R M  
UniRef90\_UPI000289101B I D L C L H I V R T D H G N E A A G A L A R R L V V  
UniRef90\_F0LEX7 I D L G L S L V E E D L G R E I A L Y V A R R L V V  
UniRef90\_Q4U192 L D L A L A M V E E D L G R E I A L A V A R D L V I  
UniRef90\_R6BK05 I E F G L E L V S C L A G E A T A R Q L K E E L  
UniRef90\_M6D3H9 I L M S L H L V E K L V G K K I A E F T A R R M  
UniRef90\_J2IZ98 I D L A L H L I N R L R G P E T A L A V A R E M V V  
UniRef90\_W1S5K2 P A F V E A F R K A M T E S A T A  
UniRef90\_D8MKC4 I D F A L V V I A E I A G E E M A Q S I Q L G L  
UniRef90\_W0U2K7 I D C C L H L L R R D H G A E A A N K I A R R M V V  
UniRef90\_D2PRV2 I D A C L H L V R R E L G S A V A T R I A R R M V V  
UniRef90\_Q825K3 V D A C L H I V R R D H G S A L A N S V A R R C V V  
UniRef90\_Q39SZ0 P A F M R E L M K K L K G  
UniRef90\_U2Q2I2 L P F A Y L V D L L G G D S E A L K K G M L  
UniRef90\_UPI0003B47FF0 I D M S L H L V S G L H S N D L A E K T A R Q M  
UniRef90\_UPI000262A2BF I D L C L H L L R R E S G M A V A N H A A R R L V  
UniRef90\_L8PMH1 L D L A L R L V R R E L G V D A A L G L E S M L  
UniRef90\_F9FIY9 I D M I Y A F I A E Q Y G F E I A D D T A D G  
UniRef90\_G2PE64 I D L C L H L V R R D L G A V V A N E I A R G L V  
UniRef90\_R4SZF8 L D L T L A L I E D D C G P T L A R E V A R E L V  
UniRef90\_A0R3R0 L D L C L H M I R S D F G A V A N E V A R G T V  
UniRef90\_R4JXM4 M D V A F K L L E L L T S K E K S D F I R E I M  
UniRef90\_I4BE03 I D L G L W L A G R I G G E A K A K A I Q L S M  
UniRef90\_W3ADJ9 P D Y M R E F I K  
UniRef90\_K9NK03 I D A C L H L V A R D F G T Q V A N S V A R R L V M  
UniRef90\_C6B5B2 I D L M L H I V A E A A G H A C A L A V A R Y L V V  
UniRef90\_A4XCG4 P A F C A T L I S E I A D  
UniRef90\_U7D857 P E Y M Q A F L A A L  
UniRef90\_D4X5Q4 P A F S D A F I K V L Q G A K  
UniRef90\_G2GN04 I D M G L T L V G R I A G D E R A R T V Q  
UniRef90\_W8QJQ4 P A F N R E S L K L L A  
UniRef90\_E1PKD2 I D C C L D I R Q H Y G S A V A N R V A R R M V V  
UniRef90\_G4L5U9 L A F S Y Q L V D L L G G N S D E I K E A M  
UniRef90\_D8MTY3 I D C C L H L V R K L R G A D V A N S V A R L L V V  
UniRef90\_H1D0R9 I D M A L G F V A D R F G R E R A L S L A E S M  
UniRef90\_UPI000348AB69 I D L C L H I V R Q D H G V A L S N H V A R R L V  
UniRef90\_D4E0X3 I D C C L H L V R Q Q C G A E V A N T V A R Q L V V  
UniRef90\_H1UK63 L D L A L S L V R E D M G E R I A R D V A R Q L V L  
UniRef90\_A0A024JQB1 P A F C S T I I K F A  
UniRef90\_UPI000469D64B I D A C L H L L R Q E L G A E I T N R I A R R M V V  
UniRef90\_UPI00039556E1 I D C C L Y I F R K F Y S S T I A N R V A R R M V V  
UniRef90\_R9APH6 F D F V L T L I E I T A G K Q K R N D V A G P M I F  
UniRef90\_S5YCI7 I D L M L R Q I S R D Q G S D L A A R V A D Q M I  
UniRef90\_Q1QJ72 L D E A L K L I S L L F G D K S A E Q V Q  
UniRef90\_A5FVT5 I D L S L A L I A G D L G E A V A R R V A Q E M V V  
UniRef90\_UPI0003AAA8B1 L D L A L H L I E R Y F G Y E M S L Q I A R D L V I  
UniRef90\_H2ABF1 E A F N R E S L N L L K  
UniRef90\_U7G499 R D L T I L L V E R Y C G P D L A R E L S R A F V I  
UniRef90\_I3XFB4 I D L A L A M I E K D H G Q D V A R S V A R K L V V  
UniRef90\_B5QN61 P E F N Q A M L A Q L K  
UniRef90\_G1Y4D1 P A F V A K L I E  
UniRef90\_T0R8P2 I D M A A A F L T A V V G I E R V Q P I  
UniRef90\_I0GXT6 P A F C E A M L D Q I A  
UniRef90\_I4EHK8 P A F N Q A M I E L F  
UniRef90\_L9YYS9 I D L A L W L L E R E F D A T I A A A V E T E M  
UniRef90\_G0N4R2 F E F A L K I V E I M E G K E K A E S L K K P I  
UniRef90\_G8RSZ3 I D A C L H L V R R E L G S E V T N K I A R R M V V  
UniRef90\_A7IEV1 I D L A L A L V E D D F G Q E V A K A T A R N M V V  
UniRef90\_UPI000362F2E1 Q D M T L H L I E E V C G P Q I A A D V A Q E A V I  
UniRef90\_K1N7F0 I D M S L H L V E R L K S R E L A L L T A K Q L  
UniRef90\_UPI000361DFFB I D M S L H L V E R L H S R E L A V R T A R Q M  
UniRef90\_UPI00037FD66 P A F V D A I G A A L  
UniRef90\_A9AKK7 L D L A L A M V E K D L G A E A A R S T A H K L V M  
UniRef90\_UPI000360F04B I D L C L H I V R R D L G A V V A N R I A R G L V  
UniRef90\_UPI000374642A P A F I K E I I D K I  
UniRef90\_M3DY57 I D A C L H L V R K E Q G P E V A N R I A R R M V V  
UniRef90\_X0Z9R3 P H F L P A L L N A V K G  
UniRef90\_J0D7L7 M D M T I A F I T H L S G P T V A A Y V  
UniRef90\_A1RPN8 L D F A L A L I A N I E G E Q Q A K T L Q  
UniRef90\_K9D9X5 P A F N E A I Q K Q L

UniRef90\_UPI0004675EE1 1 H R V V V L L A L E G V Y P F E L G I P N R V F G A V P Y E V V T C S V D G P 40  
UniRef90\_W5IQN4 F L L L P G F S L M G F I S A V E P L R V A N Y R W H L L S V D D G G G  
UniRef90\_UPI000050FD02 S D K K I A F L L T S G V E Q V E L T S P R T A L D E A G A T T V V S V S E S G  
UniRef90\_D7W9N9 N K T I A I L S T N F D D S E L T S P R D A V H E A G A T T V V V S T E S  
UniRef90\_UPI00035FF550 K R I L T V V S N D F D D L E L W Y P L R R L R E A G A R V D I A G E V I A G  
UniRef90\_UPI0003613386 K A L F L I A D G Y E D Q L D F F H P Y Y R A L S R E E G I T V J A A A T N A  
UniRef90\_K5YU66 K I G G L I F P N L D Q C Q F F P F E A L S R I P N S T F Y T L W K D K  
UniRef90\_Q9YFC2 R A L I I S A D G F E D V I E L L Y P Y Y R L V I E A G F E T L V I A A P S R  
UniRef90\_UPI0003B41420 G K K I A V L L T T N G V E Q P E L T Q P V A A I Q E H G G T P V I V S P E E K  
UniRef90\_A6FRQ3 A P R R F V F V L L D N F T L V S F S A A V D S L R I A N Y E W K L A G E P E D  
UniRef90\_I4ETQ5 G K R I A V L L A K G V E Q V E L I E E P R K A V E A A G A T T H L L S V P D G N  
UniRef90\_B6K6R6 K V C L F V A D G S D E L I E F S A P Y G I F T R A N T P I D T V Y V G D N G  
UniRef90\_D9VG25 S S H R V V M I V G D G S N P F E M G V A T E L F R R P W Y D F A L A A P G G N Q  
UniRef90\_G9EE02 R R V A F L L L P G F S L L I T H A S A L I E P L Q M A N Y Q T V T L S L N D E T  
UniRef90\_I0K2M9 H R V A V L L A L D G V I P F D L G I P A R V L S E A H Y D L V T C S L D G T  
UniRef90\_I3IH00 K I A V L I L E D H Y Q I L E V W Y P Y L R L R E E G I E T V F V G T G T K  
UniRef90\_A0A023X755 V A L V V F D G M P A F E M A V P C E V F G T P N Y R F M V C A A E P G  
UniRef90\_UPI0003675DD1 N K K V I A L V D E D F E D L E L W Y P V L R L R E E G A T V H L V G K E A N D  
UniRef90\_Q65FN6 G K K V I A L V S D E F E D L E L W Y P V L R L K E E G A L V H F I L G E K A D  
UniRef90\_A9DZA8 K I I L L A T D G F E Q S E L E K P L N D L R A R G A T V H V A T P D G N  
UniRef90\_UPI0002556C1C T I G F L L L D N F T L T I S L A S A L E P L R M A N Y R W Y T I T L T G E  
UniRef90\_L7ZFB2 V Y F L L L P N V L S L D V S G P A E T L R L A G S F S F A L A A P L S P A  
UniRef90\_E8RSB6 V C A L L A F D G M P L F E F S I A V I E L F G L E W Y R F Q V V N V E D G  
UniRef90\_UPI0002E36893 T I G I L L S P G F G M L C L S N S T V F E F A N Y R V D L I S E H G  
UniRef90\_E8XSL2 R N V I F V T L P G V M S L D L T G P A E A L R L S G Q F R L H Y I G P Q  
UniRef90\_S9SZV5 S G K R I V A F V D E E F E D L E L W Y P V H R V R E E G A E V H L V G L E R G  
UniRef90\_F7SZT5 A P H R I A V L L A F D G L V A G D L A A P C E I E Q L A E T L D G R R P Y D  
UniRef90\_A0A017SUC1 V G M V L Y P G F T L D L V G P Q A V L G L H G Q T H L L W K T R D  
UniRef90\_G8S5Q2 G H K V A M F L M P G A A P L D V G I P A Q V F A R H G L D Y R A V P C A E A  
UniRef90\_T3D527 K I L V F L A K G F E T M E F S V F I D V M G W A G C D D V V T C Q H G K  
UniRef90\_UPI00036EDA49 R V S F L V F S D F Q I L D V T G P V A V F E T A G Y D L E L V S Q F G G  
UniRef90\_I9N889 T I L F Y L T P E F T M L A F S S A L E S L R L A N Y D W R L V S S D G K  
UniRef90\_A3PJ22 G K T I A I L I A P G T E D V L Y V R P K E A L T Q A G A T V V T V S L E P  
UniRef90\_C3PET1 R L A V V L F E G F E L L D V Y G P V Q L L Q V V S E V T V V F A G P D G  
UniRef90\_R5RGC1 R K A A V L V V D G Y E E S E T V T I V D L L R R A G I E C H T F G F A E  
UniRef90\_Q26C05 V G F L V M D G T F N T E L T A P Y D L F E Q H T F R N T F T V A Q T N  
UniRef90\_V8CRV8 S G Q K I A F L V A P G V E Q V I E L T E P W E A V K K A G G T P S L S L E S G  
UniRef90\_D0SXB4 K K V L F I T S N G I E H D E L T E P L N F L K S K G F E V I H A A L E K N E  
UniRef90\_F7Z9V4 R T M A A L V F P G F E T L D Y F G P M E M L G G A G T E I I T V A Q S R  
UniRef90\_A0A024RGY3 H R I G F L I S D G F Q I M A L A A Q S V F E Y A N L S V A F Y A L Q S Y  
UniRef90\_UPI0004416C70 L I L I A E G T E E M F V I T Y D T L V R A G V Q C T S A Y V T D T  
UniRef90\_A3YGC6 A S A K I G V I V F D G V L T S D V T A P I E V E G A A D Y E V V V V S A T K N  
UniRef90\_R9PD41 L I L I A E D G T E E S E F T I V Y D L L V R A S V S T T S A S S C  
UniRef90\_R4XLT1 V Y F V L P R G I V L L D V A G P A E A F R V A N F A Q H F C G P S T E  
UniRef90\_G4RD77 G K S V A I L I A M D G T E E P E F S K P K Q A I E E A G G K V T V V S F E T G  
UniRef90\_R4XZC1 V A I L V M D G F E E Q V E L T P R D A L R A Q G A R T V I V S A R H  
UniRef90\_UPI00035DE045 R V Q L L M F D G V E E Q D F A G P L I E V L A L A P V I T M T M V T A D R P  
UniRef90\_UPI000468E675 R V D L L L F P E V E I L D F A G P P Y E V E S H A A F E V R T V A A S A S  
UniRef90\_I9C2A6 H V A M L A Y P K L T Q L D T G P Y E V L A R F P E L S I D L V W K S L  
UniRef90\_V6KLU0 H R V V V I V D E N S N P F E L G C A T E V F G R E L Y D F H L C S P E P  
UniRef90\_E6ZM31 L I L I E E G T E E A E Y T I T Y D V L V R A S S V T S A T P H S A  
UniRef90\_UPI000299DBD0 S G P R I L I F V G D D Y E D L E L W Y P K L R L I E A G C R V T V A G A N A K  
UniRef90\_UPI00047599CC H R V A V L V L I E G A K P L D V G I P A Q V F A S M P Y E V R V C G A A P G  
UniRef90\_G4YST3 R A L I V V A D G S E E L E T L A L S D V L T R G G L H V V V V G R T K N  
UniRef90\_U3BKP3 A D K R I G I L V Y D G V L T S D V T A P L E V F G V A D Y D V L T I S V S D Q  
UniRef90\_V5UKH4 R Q V G L I L E D G F Q L M G L A A L T A F E F A N A E L G A Q G Y R L T G  
UniRef90\_D8RAE6 V A I P L F N N I T V L D A I G P Y E A L H R L G I V S V T F V S D K L G  
UniRef90\_F7XP85 K A I I F A A D G F E D L E L F Y P Q H R L K E E G I S V K I A S M Q K  
UniRef90\_A0A023J5V5 K N V A I L I F E D V E I L D F C G P F E V F R D T N L N V Y T V A E K I  
UniRef90\_WOLEF1 K A V Y F L M L P N V L S L D V I S G P A E V L R L I S S Q F Q L H Y S P V  
UniRef90\_D0L713 R R V L I V G Y P A A E L L A C V V S A L Q I A N Y Q P R L A S P G N  
UniRef90\_G9Y3D5 V Y F L V L P N M M V L D I V G P S E T L Q L A G D H F K I H Y I S P K  
UniRef90\_UPI000466BAC6 T S R R F V F V L L D R F T L S F A S A L I E C L R I A N Y E W L L I G E G G  
UniRef90\_UPI00047B35FA S S H R V V M I V E D G S N P F E L G V A T E L F G R P W Y D F T L C A P G P I  
UniRef90\_K0JV17 S S H R V V M I V D N G S N P F E M G V A T E L F G R P W Y D F T L C A P G P I  
UniRef90\_K9WWT3 N K K I A F L I E H G V E D V I E F T V P Y N G L R Q A G M E I V V L G S R M N  
UniRef90\_Q21DM0 A D K R I G I L V Y D G V L T S D V T A P L E V F G I A D Y Q V I T I G L T P A  
UniRef90\_A7I8I8 K K I A V L I T D M F Q D V I E Y Q R P V D A F R N A G H T I V H V G L V I A G  
UniRef90\_UPI00035D6CBD K V G I F L F D G V E P T D F I G P Y D V I F T A A M Y D V E T V S E T K K  
UniRef90\_G7VW62 S K K V A G I L A N E V T E F D F L V P Y E M F S M T G S Y N V F A A P D K  
UniRef90\_E8TI01 I A V L L A F D G I S P F H L S V P C L V F G E P R F D F R I C A V K A G  
UniRef90\_UPI000468B34F R R I G F L L T P G I A L M S Y A S A V E P L R A A N Y R W R H I A I R G S  
UniRef90\_E3HNS5 H T I A V V A F A G I S S F H L S V P C M V F G D D L A R L G V P R Y R  
UniRef90\_UPI000372E7F2 V A V V L L D G V H P F E L G V C E V F G L P A Y D F A V A S A E G P  
UniRef90\_UPI00037B7A3B G P K V A V L V Y D G L C T F E F G L A Y E V F G L A N W Y R F A C G V I P  
UniRef90\_K5ZGC1 H Q I G L F V C P N H Q T L D L A G P L A A F E K A N G F V E G N P Y R  
UniRef90\_UPI0003674018 R T V S V V V T E P V S V F E L G L A T E V F G E F D F R V C A A V P G R P  
UniRef90\_Q2NV90 K S I L L C L A D G S E E T E A V T T F D L L V R A G M Q V R A A S V D D G G  
UniRef90\_I3DW57 K V A F L F L D K M T T L D F I T G F Y D R L K T M G F N E D L S W N L C  
UniRef90\_B8CVA2 R V L A L V F D D Y E T L D L H G P I E M L G M P N V I E I K L V G P T E F  
UniRef90\_D6V5V7 I G S L L F E G D L D Q L D L T G P F E L L S R M P N S T Y R L Y S G K T T  
UniRef90\_UPI0003658A98 H R I G F L L S D G F Q V M A L A T Q A V F E C A N Y E L D N F S V D D G G  
UniRef90\_Q5WKN5 I Q I V L F D G F D L L D A I A P Y E V F H A A N F S V E F V T A E G P  
UniRef90\_A4A717 V L V L P G F E M L D Y F G P L E L F S V L G T I H T V A E T G A  
UniRef90\_R4WTL6 H R I G Y L L S D G F Q V M A L A S Q S V F E Y A N A G I T F Y R I E N Y  
UniRef90\_F9TV12 I G I Y I Y E Y A E P I D F T G P Y E V F A A A N Y D A Q F L P Y E S G  
UniRef90\_L7EGU1 S D K S V L L L A E D E F E D L E L Y P L R L R E E G R V I V V G T G L K  
UniRef90\_K4QXH5 H R V A V I V D E G T N P F E V G V A T E L F G L P R P E L G L P G P L Y  
UniRef90\_W9GP27 K K I A F L T A N G V E Q V I E L T E P W K A V T D A G H E A V M L A P D S G  
UniRef90\_V5XHY0 V A I L V Y D G M T G F E S G L A A E I F G M A E L P G R F V A S A P A G Y  
UniRef90\_UPI0003663D93 K N V A V V L D G V H P F E L G V C E V F G D E G L P V Y A V A S A E G  
UniRef90\_A0A011QW37 S K Q V A V V I T K L F E D V I E F T S P K E I L E K A G H A V T I I G F E A G

UniRef90\_UPI0004675EE1 T V R T N S D F S V T V A H G P E V L R T A D T V V L L P F F D L S L L T R E P  
UniRef90\_W5IQN4 P V L A S S G M S M N A D G A L E A L R T A G R G D T L F V V A G F D P L Q  
UniRef90\_UPI000050FD02 T L Q A M E G D W E H A K T F D V D P V S V D D F D A L L V L P G G T L N S D A  
UniRef90\_D7W9N9 G S I E G K N G T E V A S K T F D T T S E A N A A D Y D A L L L P G G T S N A D Q  
UniRef90\_UPI00035FF550 L T Y Q G K F G L S V V S D A S F D T V D T Q Y D G I V I P G G W A P D Y  
UniRef90\_UPI0003613386 Q S A E G L H G Y T V E P D M P I E E L S P N E Y E I L L I P G G R S P E K  
UniRef90\_K5YU66 N I V R D M Q M Q L V P D M T S F E D A P Q L D V L L I P G G Y G Q E E  
UniRef90\_Q9YFC2 G E I K G K M G Y K V E A K L S F E E V K P E E F D V L V I P G G R A P E R  
UniRef90\_UPI0003B41420 Q L Q A M S G D W E H A D H F D V D V A A D P N D Y D G L V L P G G T L N A D T  
UniRef90\_A6FRQ3 G R V S C S A G A V F Q T D M G L D E L N R D D T L V I P G G A D V Q R  
UniRef90\_I4ETQ5 V E D G A V Q A V T T F P V D A L V S D V S P D D Y D G L L L P G G A V N P D T  
UniRef90\_B6K6R6 K D V N M S R G I Q L Y A K R S L S E F Q S T E E Y D V A I I P G G W Q G S L T  
UniRef90\_D9VG25 V R M H L G F F T A D V A G L E A V D A A D T V I V P N R P D Q T  
UniRef90\_G9EE02 P V R S G A Q L S L T A Q H E L S T A L G P L D L L F I C A P T P L P Y T  
UniRef90\_I0KZM9 Q S Y H T N A G F T L Q V R H S D R D A L A Q A D T L V V A T Q E P S T A M L T A  
UniRef90\_I3IH00 K S Y E S K E G Y P A Q E E L S I K N I N T H D F E G V I I P G G Y A P D V  
UniRef90\_A0A023X755 P L L T A G G M T V E A P F G L A D L R Q A D T V I V P A W R D P D  
UniRef90\_UPI0003675DD1 Q K Y I G K Y G V P A E S E Y A F S D I N A E D Y D G L L V P G G W A P D K  
UniRef90\_Q65FN6 H E Y K G K Y G V P A V S Y E L S K V N I E E Y D A V L V P G G W A P D K  
UniRef90\_A9DZA8 G I K G W D D W G D T T P A D L A L K D V V V D D Y H G I V L P G G Q I N P D L  
UniRef90\_UPI0002556C1C T V S A S D G L N I S P D A S L S S V P K L D S V I V C G G V D I Q R S  
UniRef90\_L7ZFB2 P Q V V C S I G M T L S G L Q P L S P E R L E D G A I L V L P G V G S Q R Y F A  
UniRef90\_E8RSB6 P C R T T A G L S L T A T G P R E W L E T A G T L I I P G W P L D K P I P E H  
UniRef90\_UPI0002E36893 L V P S S M G F S V E T Q A F G Q R S Y D T V L V L G A E N F S L  
UniRef90\_E8XSL2 P E V M M S T G L M V S H L Q P L P Q S L P E G S I L I M P G V A E S A E N F S  
UniRef90\_S9SZV5 K T Y I G K Y G V P A T S D Y A Y A D I D A T Q Y D G V L V P G G W A P D K  
UniRef90\_F7SZT5 Q V C A S K P R V R T H A Y D L H I R A R L D T A R H A H T V I V P G L A D P S  
UniRef90\_A0A017SUC1 P V V S D S G P A M L P T T T F A A C P E D L D I L F V P G G M G T A D A  
UniRef90\_G8S5Q2 G P V R G R D G L G F F V D A G L E A L D D A D T V I V P G F L N P A  
UniRef90\_T3D527 N K V M S T F N I P V F V D K T I E E V C V D D Y D A L A I V S G F F G F Y E  
UniRef90\_UPI00036EDA49 L I K S S S G I Q L Q T R R W D E V E E D V L I V S G G L G T R S  
UniRef90\_I9N889 P V K A S C G I S I A T D I S L T Q A R A M L V N G A P P R M A M V C A G R N  
UniRef90\_A3PJ22 E A Q T V N G D L D P R A T H R V D R T F A D D G F D G L V I P G G T V G A D K  
UniRef90\_C3PET1 E P V A S S Q G V E V V P T I S Y E R V E P T D A L L V P G G K G T R Q  
UniRef90\_R5RGC1 Q Y V R G M Q G M M I K V D K I F S D E I K N Y D M L V L P G G R P G G V N  
UniRef90\_Q26C05 D I T T T F E G L R L Q P D Y S F D D V P Q Q I D L V V P S A E H A L D S  
UniRef90\_V8CRV8 Q I Q A F N H L D K A D Q F A V D K V V V P S A D F D A L V L P G G V A N P D N  
UniRef90\_D0SXB4 D V A T V K G D T K A A T Q Y T P D T S F D H N D Y D L L V I P G G T V N A D T  
UniRef90\_F7Z9V4 E A V P S V H G Q R I V V D K T I A E K N D Y D L L F I P G G V D S A L E A  
UniRef90\_A0A024RGY3 S V E G G D V R S S L G L V A T R P L R G R I D V D T W I V A G V N D P V A S  
UniRef90\_UPI0004416C70 P H A T C S R G V R I V P D A F F N D D I A S D A F D A I V V P G G A K G A E T  
UniRef90\_A3YGC6 K T I K T E E G L T I T A D K T I Y D P L T D V V I V A S A Y N M S P V  
UniRef90\_R9PD41 N Y V T C S R G V R I V P D L T L T D L T K S F D Y D C I V I P G G A G G A K A  
UniRef90\_R4XLT1 V E S G I P G L H L A R I Q P L P E K L P P E A L V I V S G V V G K H I R L D  
UniRef90\_G4RD77 K A R T V N S D L D E G G S Y T I L D K T F K A D D F D G L V V P G G T V G A D K  
UniRef90\_R4XZC1 D V Q G M R H H D R V Q V D L T F A Q A R E A D R F D A V L L P G G V V N A D E  
UniRef90\_UPI00035DE045 G R I R A S F G T E I A V G N G W S P G D A D L L V V P G G G Y T N P D  
UniRef90\_UPI000468E675 P L T A R H G L R L T P D A S F A D E L P C D V L I V P G G V V T Q P L Q D R  
UniRef90\_I9C2A6 G P I D D A L E L R L T P T R A F A D C P P A D I L F V P G G P Q L A  
UniRef90\_V6KLU0 R T L M R D G F F T L T G V A E L V L A D T A D T L I V P N R P D V E V P  
UniRef90\_E6ZM31 A Y V T C S R G V K I V P D V R L P D L G K A L Q Y D A I I V P G G A K G A E T  
UniRef90\_UPI000299DBD0 A V Y Q G K N G Y P C L V S D A I E E V K S T D F H G L I C A G G W M P D K  
UniRef90\_UPI00047599CC L V T G G D G L S Y A V A H G L E A L E W A D I V F V P G Y R H P D R  
UniRef90\_G4YST3 N L I M G N Y G L R V Q A E K P I E E C S F E T F E I V L V P G G A G A S H  
UniRef90\_U3BKP3 K T I T T E E G L K I G V D A W I G D L P E L D V L V L T S S Y D M D A  
UniRef90\_V5UKH4 I L S E R G G T I R S S M N A G I E T V P I G V M P D T L M V A G E L L P Q E V  
UniRef90\_D8RAE6 L V V A D E G R F K I E A S A S F E D L P N P D I L V P G G T P K L L P  
UniRef90\_F7XP85 N R I T G K H G Y T S H V D L R F E D I D P K L F D I L V I S G G K G S P E K  
UniRef90\_A0A023J5V5 T P I L T Y N K L S V N P H Y S I F D C P E P D I V L I P G G K G S R K  
UniRef90\_WOLEF1 P Q V T C S I G M T I G V N L P L P A Q L A D G P I L V V P G V A D S T F F A  
UniRef90\_D0L713 A I H T I G T G L V N A E I A L E R V R G P I D T L V V S G I G Y V D A  
UniRef90\_G9Y3D5 Q S V R C S T G M M V G D L K P L P E T L P N G S L L V L P G V T N S L V D F D  
UniRef90\_UPI000466BAC6 E T A R C S A G T E F R L D G D L J E L T R D D T V L I C G G M D V Q R  
UniRef90\_UPI00047B35FA Y D F T L S A A G P V A M H A G L F T M S D V P G L D A V T V I V P N R P D P E  
UniRef90\_K0JV17 T M N S G F F T L S G V P D L S A T D D A D T L I V S N R P D A P T R  
UniRef90\_K9WWT3 E K Y K G K R G K L T V Q P D G T T E A A A S E F D A V I L P G G L A P D K  
UniRef90\_Q21DM0 K T I K T E E G L V L G V D T W V G A T P E D A I I T T S A Y D M D A P V  
UniRef90\_A7I8I8 S T V K G E Y G T P V L I E K A A R D V T A D D F D A L F I P G G Y S P D R  
UniRef90\_UPI00035D6CBD D I H V S A G G L V F K A E Y D F S D C P A I D L L V V P G G R I T E A  
UniRef90\_G7VW62 N I K S L T G G L D V A P H Y T F D E L D K L T G K G P D I I V I P F M I L D  
UniRef90\_E8TI01 P I H T E A G L T I A A P H G L E G L D G A D I V I I P S W H H L S E P V S P  
UniRef90\_UPI000468B34F D I I A A S N G V R I Q A D A S I N N A G R L D A I V V C A G G N P Q  
UniRef90\_E3HNS5 L V C G E A V G P V A T M S G F D I H V P H D Y S A A D T V I V P A W R D P D  
UniRef90\_UPI000372E7F2 T L T S P A G F T I G T R H G L E R L E E A D L I A V P A G D S Y V H R  
UniRef90\_UPI00037B7A3B G P L R A A G G L S V T V D G G L D D L E D A D T V I V P G W R A I D  
UniRef90\_K5ZGC1 L A V I S E F G G T V V G S A G V P Q T Q P F R S M T F A D T V I V I G G I G P  
UniRef90\_UPI0003674018 M A M K T T T P L S I T P T H G L D A V P G S D L V I I C P T P S G P Y P E E V  
UniRef90\_Q2NV90 L T I V G S R G V R L L A D A P L A P L A E Q P F D A I V L P S D M Q G A E C  
UniRef90\_I3DW57 G T K D E I D R G I T F K I K E V S P D L S Q Y D L L Y V P G G F G T R Q  
UniRef90\_B8CVA2 V K S Y Q G P R V A A D V L M D S T Y D D L L L I P G G L G T R T  
UniRef90\_D6V5V7 D T V R D L R G L R L A A D A L L A D A P Q L D V L H V P G G Y G Q E M  
UniRef90\_UPI0003658A98 D T V R S L G M V L G A R S V R R E R E V H T W I V A G V I D P T  
UniRef90\_Q5WKN5 R S V K S G V N D V L L E A K E K L D P T R P G I I L V P G A P D S I P A L L G  
UniRef90\_A4A717 V A A A I G S E G A V G P K V V A D Y S F A D A P A F D V L L T P G G S G T L T  
UniRef90\_R4WTL6 S M T G E V R S S L G M K V E T R A V T S R T A M D T W I A A G V N A P L D  
UniRef90\_F9TV12 D A V T A R H G Y Q V V P H R S I H N H P E L D V L I V S G G V A H E  
UniRef90\_L7EGU1 D S Y V I G K H G Y T I D I D E N A N T I N P L D Y D G L I V P G G W A P D R  
UniRef90\_K4QXH5 E V V L C P T R A Y R M N H G F N T T G T A E L D A V D L V V P G R P D N V  
UniRef90\_W9GP27 T V Q M F N H L D K A D T Q Q V D Q T V G S V D D Y D A L V L P G G V A N P D A  
UniRef90\_V5XHY0 A V K L C S E Q P E I R M L G G A V V R T S Y G I E D A D T V L I P S V Y R D V E  
UniRef90\_UPI0003663D93 P T L A T H A G F S L A V Q H G L E R L E T A D L I A V P A G A T Y A A R  
UniRef90\_A0A011QW37 E T V D G K K G T A S V K I D K S I D E V S P D N F D A L L I P G G F S P D Q

UniRef90\_UPI0004675EE1 R P A V A E A L A S I P P G V R L V S I C T G A F V L A A A G M L D G R P A T T  
UniRef90\_W5IQN4 A C T P A L L H W L R R L D R E G V T L G G T I D T G S F V L A E A G V L L D R H  
UniRef90\_UPI000050FD02 I R L N E D A V N L V K A F F A A D G K P V A A I C H G A P W I L A E A G V L A K G R  
UniRef90\_D7W9N9 L R T D E A A V K L V R E F T Q A G D K P V G V I C H G W W I L A D A E A V A S K G V  
UniRef90\_UPI00035FF550 L R R L E P V L E F V R Y M D A H Q K V I G Q I C H G W V L L S A A G V L A S G K  
UniRef90\_UPI0003613386 L R L R E E A V N L V R M F A Q D G G L V A A I G H G T Q L L S A A G V L D N K G  
UniRef90\_K5YU66 A A A D E E V L T F I R K Q S S H A L Y V Y S V C T G T G A L I C G A G V L L H G K  
UniRef90\_Q9YFC2 V R L H E A A L N L V R H F F E K N K P V A T I C C H G P Q V L T S A G V V S K G R  
UniRef90\_UPI0003B41420 L R I N E D A Q R F V K A F F D A R D G K P V A A I C C H G P W I L T E T A G V V S D G K  
UniRef90\_A6FRQ3 A T T K K L L N W L R R E A R R G K I G G A I C C C T A A Y V M A R A G L L S D G K  
UniRef90\_I4ETQ5 L R Q D D D A L A F V K A F M D A G K P V A A I C H A P W T L L E A G T L L S G R  
UniRef90\_B6K6R6 L S G N K K V Q E L V K E M Y N K P G K R W V A M I C A G S L T A K A S G L G V K  
UniRef90\_D9VG25 P A D P E I L A A I Q R A D A R G A R L M S F C T G A F T L A E A G V L D D R  
UniRef90\_G9EE02 L P A K L N D W L R G H Q G R G V A L G G L A G G T E V L A R C G L L D S Y  
UniRef90\_I0K2M9 G E L D P R V A E L L Q T L H D P A T R V L V S T C T S A F N L A A A G L L D G L A  
UniRef90\_I3IH00 L R R Y E E I N T F V K T M L Q K G K L V A A I C C H A G W V L V S A A G I L K G K  
UniRef90\_A0A023X755 E T P P P A L L G A L R A C H E R G A R I A S L C C L G A F V L A H A G L L D G L  
UniRef90\_UPI0003675DD1 L R R F P E V L E M V R S M D Q A K K P I G Q I C C H A G W V L I S A G I L R G K  
UniRef90\_Q65FN6 L R R Y P E V L E M I R W F N E R K K P I G Q I C C H A G W V L I S A G I L E G R  
UniRef90\_A9DZA8 L R A N K D A V A L I R K F H D S G K T V A A I C C H A P W L L I E A G I L K G R  
UniRef90\_UPI0002556C1C V T R E H L Q W L Q Q Q A R Q Q G R H I G A V C T G S W A L A K A G L L D G Y  
UniRef90\_L7ZFB2 G E E A E Q A R R W L A T L Q R P D L Q R Q R I T L V C I C S G A L L A Q A Y Q  
UniRef90\_E8RSB6 L K P T G L L P F L Q S A L T T S R R L A S A C T G S F L L A A A G L L D G R  
UniRef90\_UPI0002E36893 S M V A Q T L C D W L H Q Q A G N L T G V C I C S G S L L A G K A G L L D G Y  
UniRef90\_E8XSL2 I R R Y A D A L R T V K E M D A A G T P V G Q T C H A G W V L I S A K I L N G R  
UniRef90\_S9SZV5 H D V P R D I L D F L R D H A A A G A R I A S I C C C T G A F A L A A A S G I L D G L  
UniRef90\_F7SZT5 L E D T E I L Q L I R D H A P A R A R Y V T S V C C T G S L L G A A A S G L L R G Y  
UniRef90\_A0A017SUC1 G P I D P R V L A A L R T A A F R G A R M V S I C C T G A F A L A A A G L L D G L  
UniRef90\_G8S5Q2 E A Y D M S F L N L I R E F D L K E K I A S I C C C V A A L P V G K S A S G V L D K N R  
UniRef90\_T3D527 A I K D K A L L E C I R T F K K L N S L C S V C C S G S L L A A A S G V L D G K  
UniRef90\_UPI00036EDA49 V Q N H C D R L G W L R E C R N K R V A I G A I C C C T G A H L L A R T G L L N N K  
UniRef90\_I9N889 I R A S E E A V A F V R G F V S A G K P V A A I C C H G P W A L V E A D V L K G R  
UniRef90\_A3PJ22 L V I E D E S F L S W L R G V Y G A Q A G P V W A S V C C C T G S A V L A A A G L L E G Y  
UniRef90\_C3PET1 L G A N P L V I E M V Q Y V N E N G K Y L A A L C C S G T I V L S K A R V L D G K  
UniRef90\_R5RGC1 D L K N K E I L K W V S G F T G T E A T Y V T S H C D D G A F L L A Q A G L L D D V  
UniRef90\_Q26C05 L R M N D E A V K F I S G F T T E G K P V A A I C C H A P W T L I E A G V L S D R  
UniRef90\_V8CRV8 L R I N Q D A V K I I Q H F A D N H K P I A A I C C H G P W T L I D A Q R I K D K  
UniRef90\_D0SXB4 A K D Q A L M Q W I R E A S A N A E R I A G V C T G T V L L G M T G V L D G R R K  
UniRef90\_F7Z9V4 P A P A A V V A F L R R P S N R A R R I A G V C T G A F V L A E A G L L A G R R  
UniRef90\_UPI0004416C70 I S G N S R V Q S L I K S F Y D Q G K V V G M I C A G S L A A L S A K L P K Q Q  
UniRef90\_A3YGC6 L N N E T L D K F I E A D Q H G Q A S W M A S N C S G A M L L A E A G V L D G K  
UniRef90\_R9PD41 L A E K E S V T D I I A A M Y G K G K I V A A I C C A G T L A L K A A G V L G K D A  
UniRef90\_R4XLT1 E P E A R L I I D W L R H P A D G F T L M T V C A G A L F A A A G L T R Q R E  
UniRef90\_G4RD77 L R G S V E A L G F I R A F F D Q K K P V A A I C H A P W T L I E A G V L K G R  
UniRef90\_R4XZC1 I R L H P D A R E L V R A L H E A G K P V A V I C H G A W L L I S A G L V K D R  
UniRef90\_UPI00035DE045 G P G V H Q V I K Q Q R T L A A L A A A M T A L C C T G V M V L S A A G L T K G R  
UniRef90\_UPI000468E675 A T L N W L G A T A V R A Q L L A S V C T G A F V L A E A G L L E G Q M  
UniRef90\_I9C2A6 L M Q D T D T L A F L R A Q A Q G A R W I T S V C T G S L V L A A A G L L T G Y  
UniRef90\_V6KLU0 R R P A V L D A V R R A H G R G A R L V I G F C C S G A F T L A E A G V L D G R  
UniRef90\_E6ZM31 I G A N P D V Q L L A A A Y G A G K V V A A I C C A G S L A L K H A G V G K D A  
UniRef90\_UPI000299DBD0 L R R D A T P V L K L T R E A F A E A G K L V A A I C C H G G W I P I S A N V Y R G V  
UniRef90\_UPI00047599CC E A P P R T V V D A L T I G A H T R G A R L A A L S T G A F A L A A A T G L L D G R  
UniRef90\_G4YST3 V R D S D L V I K M L L W Q K Q A G R W L A A S S A P A V V L N P H G L L G E  
UniRef90\_U3BKP3 L J E N K D L I H F I K T T S K A A D W M A S N C S G A Y L L A E A G L L N G K  
UniRef90\_V5UKH4 S P G L N D Y V A R A G D E A R R V A G V C T G A F V L A Q A G L L D G R A  
UniRef90\_D8RAE6 L D H K P L L D Y I R K A H F C T T F T S V C T G A L L L G A A G L L K G V  
UniRef90\_F7XP85 M R L D M S A L D I I K H F D E Q K V V A A I C C H G P Q M L I S A R V I K D R  
UniRef90\_A0A023J5V5 E M N N P T I I N W I K S V S K N A E L V L S V C T G A F L L A K A D L L D N L  
UniRef90\_WOLEF1 N Q E A A Q A R Q W L S G L Q P A L A Q Q R F S L V C V C S G A L L A Q A Y H  
UniRef90\_D0L713 M A D H L L A H V G R L G R L S R R V A S V C T G A G I L L A G A G L L D N R R  
UniRef90\_G9Y3D5 T E A L T A L I E W L K G W S R Q E L S I V C T C S G A L L A A R A G L L D G I  
UniRef90\_UPI000466BAC6 A T T K R M L S A I R R E A A R G K L K L G G L C C T A S Y T L A R A G V L D G K  
UniRef90\_UPI00047B35FA T A P S A P V L S A I K A A A R G A R L V S F C T G A F T L A H A G V L D G R Q A  
UniRef90\_K0JV17 P P E D L L A A I R R A R A R G A R L V S F C T G A F T L A H A G V L D G R Q A  
UniRef90\_K9WWT3 M R L N L N T V R F V Q E A V Q G G K L V A A V C H G P Q V L T E G D L L K G K  
UniRef90\_Q21DM0 N A S Q A L M T L I Q K T A A K G G V L A S N C S G A F L L A Q A G V L D G K K  
UniRef90\_A7I8I8 L R A D A N A V R F A A D F F E K K K P V F A T C H A A Q L L T A Q V L K G R  
UniRef90\_UPI00035D6CBD L L S N P N V I D W L Q N Q S K N A E I T F S V C S G A L L L A K A G L L K E S  
UniRef90\_G7VW62 E A K Y R P V R D W I R K H S G K E T L L S I C C N G A E N L A D T G L L N G K  
UniRef90\_E8TI01 L L M E A L R H A H Q R G A L I V G L C C L G T F A I A A A G L L S G R  
UniRef90\_UPI000468B34F A F D H T P T L F L R K A A R H G V Q L G G V S A G P Y L L A Q A G L L E G Y  
UniRef90\_E3HNS5 E R P P E T M L Q A L R D A H A R G A R V I G L C C L G A F V L A E A G L L D G R  
UniRef90\_UPI000372E7F2 E Y P P E T L L E A L N R A V I G R G A R V L S V C S G V F V L A A A G L L D G R R  
UniRef90\_UPI00037B7A3B A P V P E G L T K A L Q A A H G R G A R I M S L C S G V A V L A A A S G L L A G K  
UniRef90\_K5ZGC1 F Q E P G V I A A A K D L A A R A R V A S V C T G A F L L A E A G L L D G R R  
UniRef90\_UPI0003674018 L R A A H E S G S V L L S L C S G A F L L A A A G L L D G R  
UniRef90\_Q2NV90 F Q R S P L L L E C V R R M H L D G K L V A A I C C A A P A L V L Q H H Q L F S Q  
UniRef90\_I3DW57 L L H D S E F I E W L K T G R N A N Y K V S V C C T G S L L L F G V A G F L N G K  
UniRef90\_B8CVA2 L V D N V P M L Q W L A A Q V E C S E K V F S I C C T G S A L L A K T T K L S G V  
UniRef90\_D6V5V7 L M E D E E V L S W L R R Q A A G A K C V L S V C T G A L L C G A A G L L K G R  
UniRef90\_UPI0003658A98 S S A P A E V L S F V R K A G Q R R I A G I C C C T G G F V L A E A G L L A G R  
UniRef90\_Q5WKN5 R A M N T E L T R M V E H A L H Q K D M V I A G V C C G S L L L A M G G L L E G  
UniRef90\_A4A717 E L E N P A M L E F L R L Q S E R A Q W V S S V C C T G S A L L A K A G L L D G H  
UniRef90\_R4WTL6 T P P S A A L L A F L R R A S T R S R R I A G I C C C T G G F V L A E A G L L A N R  
UniRef90\_F9TV12 M K N M R A I N W I Q E Q A S K V K I V A S V C C N G V F L L A Q A K L L S D R  
UniRef90\_L7EGU1 L R T N I Y V K N L I K D M A E N N R A I G C L C C H G A S V L V S A N V I D G Y  
UniRef90\_K4QXH5 V P R S A D Q L D A I R R T H A R G A R I L S F C C C T G S F A L A E A G V L D G L  
UniRef90\_W9GP27 L R Q D Q A V R F I K E F V A S G K P V A A I C C H A P W T L V I E A D V V S G R  
UniRef90\_V5XHY0 Q A P S D D L L D A I R A A D A R G A R L V S I C S G A F A L A A A G V L D G R  
UniRef90\_UPI0003663D93 E Y P E E L L D A L R A A V D R G A R V L S V C C S G V F L A A A G L L D G R R  
UniRef90\_A0A011QW37 L R K D D R F L A F T K A F S D H K K P I F S I C H G P Q L L T N A E V V K G K

UniRef90\_UPI0004675EE1 H W A L V E T F R S W F P G V E L D P D V L F V D D G S V L T S A G A A S G  
UniRef90\_W5IQN4 R C T L H W E A L D A F R E T Y P Q Q A D T Q E L F E I D D G S R I T T S A S G G T A S  
UniRef90\_UPI000050FD02 K L T S F L S T K T D L S N A G A D W A D T E E V V V D D G N L I V T S S R T P D D L L  
UniRef90\_D7W9N9 R M T S Y P S L K T D L S N A G A D W V D E E V V V D D G R I V T S S R T P D D L L  
UniRef90\_UPI00035FF550 T V T S T P G I K H D L M Y A G A H W V D E P A V R D D G H V V T S S G R R P P D D L L  
UniRef90\_UPI0003613386 L A T G D P G L R D D I R N A D A G Y R A D E G V V I D D G N V I C R G V N T P D D L L  
UniRef90\_K5YU66 K A T T H W T A M E V I R P L Y G A I P S A D R V V I D D G N V Y V T S A G G V T S G  
UniRef90\_Q9YFC2 R L T S Y W G V K D D V I A A G G N W V D E P V V V D D G N L V T S S R Y P P D T L  
UniRef90\_UPI0003B41420 R M T S Y T A L R T D L K E N A G A Q W V D E S A V V D D G N L V T S S R T P D D L L  
UniRef90\_A6FRQ3 R A T T H W E N H R D F I E E F D E V E L T K S V F V V D D G S R M T T A G G T S S  
UniRef90\_I4ETQ5 T L T S Y P S I R G D L R R G G A T V V D Q E S V C V D D G N L V T S R D P G D T  
UniRef90\_B6K6R6 T L T S H P C L T K D L Q E A G Y E W K N E S V V V T D N L I T A A G S A A A  
UniRef90\_D9VG25 R A T T H W Q W A E A F T A R Y P R V R L E P D F V E D G T L L T A A G S A A A  
UniRef90\_G9EE02 R A T L P W Q R F E A F S Q A Y P Q T L S Q Q L F E I D R D R L T C A G G T A A A  
UniRef90\_I0KZM9 A T T H W A L S D R F A A L F P A G E V R P D V L F V D D G R V L T S A G A A A G  
UniRef90\_I3IH00 K A T C F Y A I K D D F V N A G A G A E F L D K E V V V D D G N L I T S A R N P F D L  
UniRef90\_A0A023X755 R A T T H W V H A D A F A R K F P D V D L D P L Y V D E G K I L T S A G T G A A  
UniRef90\_UPI0003675DD1 K V T S T P G I K D D M T N A G G L W S D E P V V T D D G H I V T S S R R P P D L L  
UniRef90\_Q65FN6 K V T S T P G I K D D M E N A G A I W V N E A A V V D D G H I V T S S R R P P D L L  
UniRef90\_A9DZA8 K A T C Y A S I A T D V K N A G A H Y E D S E V V A D Q G I V T S S R S P E D L  
UniRef90\_UPI0002556C1C D C S V H W E C L A S M Q E A F P R A A I T T R F S I D R G N R N T S S G G T A P  
UniRef90\_L7ZFB2 C T T H H D V I E R I R L Q A P A A Q V K E N R I F V D R G V Y T S A G I T T G  
UniRef90\_E8RSB6 R A T T H W K Y V E H V K C H W P E V V P D V L Y I D E G Q I M T S A G S A A G  
UniRef90\_UPI0002E36893 K A T T H W F H A R T F R E A F P R V K L E E D C V D D G K L W T S A G M T A S  
UniRef90\_E8XSL2 C T T H H D V I G R Q L R Q V P A A Q V K D N R I F V D R G V Y T S A G I T T G  
UniRef90\_S9SZV5 T V T S T P G I R D D M E N A G A T W L D E E V V V D D G N L V T S A R R P P D L L  
UniRef90\_F7SZT5 K A T T H W K A A A Q L A R R Y P V I D V N P N F V D N G Q L I T S A G V A A G  
UniRef90\_A0A017SUC1 R A T T H W A C H A L L S A F G A E R V E A R V V T D R N R V T S G G V T A G  
UniRef90\_G8S5Q2 R A T T H W L M A P T L A R E Y P K V T V D G R F V D E G Q I L T S A G V A A G  
UniRef90\_T3D527 K A T T Y H L K N G Q R Q F D V V N V I N E P I V V D D K S I L T S Y C P E T A G  
UniRef90\_UPI00036EDA49 T A T T H W S V A Q L F E K Y F P K V N P D K I Y I R E D S I W T S A G V T A G  
UniRef90\_I9N889 R C T H W N Y S S F A E E F P T A E L S S H I F E I D D G I Y T C A G G T T P  
UniRef90\_A3PJ22 E V T S Y P S L A T D I R N A G G R W V D R E V V V D D G L V T S R K P D D L L  
UniRef90\_C3PET1 A A T S N K R A F A W A S S F S V T W K P K A R W V Q D R N R W T S S G V A A G  
UniRef90\_R5RGC1 N V T G Y T G Y A D K L V G G E F V D K V V V F D Q N I T T S Q G P A T S  
UniRef90\_Q26C05 V S T T F P S D I T G K M R N Q F P H L D V R E N V W H D G K V I T S A G G A R S  
UniRef90\_V8CRV8 T L T S W P S L R T D I T N A G G Q W T D E E V V V D D N N T L I T S R K P D D L L  
UniRef90\_D0SXB4 N L T S Y K S I K L D L E N A G G K W V D E Q V H R C D W V L I T S R N P D D L L  
UniRef90\_F7Z9V4 A T T N K D F N D T P L A P N V D L W V K E A R W V E D G K F F T S S G V S A G  
UniRef90\_A0A024RGY3 A T T H W A Y G R A M Q Q R F P D I R V Y E A R I Y V D D G P V W T S A G M T A G  
UniRef90\_UPI0004416C70 I T S H P S V R S K L E K E F E Y S E D P V A L S G K L V T S R G G P G T A  
UniRef90\_A3YGC6 N A T T W A G G E E D F A Y P K V K V Q F D K N F V I D E G L V T S N G G P V S  
UniRef90\_R9PD41 A V T S H P S V K A E L D K E Y T Y K E E R V V V S D K L V T S R A P G T A  
UniRef90\_R4XLT1 C T T H H S C L A Q L A D L D P S A R V H D N R I F V D G N L V T S A G I T A G  
UniRef90\_G4RD77 T L T S Y P T L Q V D I E N A G G A W T N E E V V V D N G L V T S S R D P N D L L  
UniRef90\_R4XZC1 K M T S W P S L A D D L R N A G A G A Q W V D E E V V V D D G R W I S S R K P D D L L  
UniRef90\_UPI00035DE045 P C T T H R G A R A D L A A Q G G K L V D A R V V D D G D L V T S G G I T S G  
UniRef90\_UPI000468E675 V T T H W E D I A D L Q R Q Y P H L K V V E G V P Y V D D G T R I T S A G I S A G  
UniRef90\_I9C2A6 R A T C H W M S L D Q L A M F G C T P V S E R V V L D D G N R L T A G A V T S G  
UniRef90\_V6KLU0 R A T A H W Q W A D S F R A R F P R V R F E S D F V D D G D I L T A A G S A A A  
UniRef90\_E6ZM31 A V T S H P S V K A E L D K E Y A Y K E D R V V V S D N I T S R G P G T A  
UniRef90\_UPI000299DBD0 R V T G S P G I K D D L N A G C L F E D A P V V V D R H F V I S S R K P D D L L  
UniRef90\_UPI00047599CC R A T T H W H Y T Q A L A E Q Y P H V R V D E N F V D E G T V L T S A G A A G  
UniRef90\_G4YST3 R A T C S L S H E R E M T R E F V D E D V V V D T R C V T S S Q G P G S V  
UniRef90\_U3BKP3 K A T T W A G G E N G F Q R D Y P K R V Q V D Q N F V I D D G V I T S N G S L V S  
UniRef90\_V5UKH4 A T T H W A H A R T L Q A R F P K V R V D E D R I F R D G N I W T S A G M S S A  
UniRef90\_D8RAE6 K A T T H W A Y P Q L K E Y G A K V T S Q R Y I K Q G K I V T A A G V S S G  
UniRef90\_F7XP85 K A T S Y I G I K D D I A A G A E Y L D Q E V V V D N G N L I T S R H P A D L  
UniRef90\_A0A023J5V5 E I T T H H L S L E F I A P S S A K V R E G V R F I D N G K V V L S A G I S A G  
UniRef90\_WOLEF1 C T T H H N V L T R L R Q Q P A A Q V R E N R I F V D R G V F T S A G I T A G  
UniRef90\_D0L713 A A T H W R H A A Y L R T R R F P V T F D P V P I F I R D D G T Y T S A G V T S A  
UniRef90\_G9Y3D5 Q C T H H D I L D R L R A L A P A A L V K E N F I E D K G V C T C A G I M A G  
UniRef90\_UPI000466BAC6 R A T H W E N Q D S F E E F D V T L T K S V F V I D D G N R M T A G G T S S  
UniRef90\_UPI00047B35FA R A T T H W R W A D A F R A R F P S V R L E P D F V D D G D V L T A A G S A A A  
UniRef90\_K0JV17 T T H W Q W A D T F H A L F P A V D L V P D V L Y V D D D D I H T A A G S A A A  
UniRef90\_K9WWT3 Q V T G F S A T R K D L I N A G A N Y L D E P V V V D D G N L I T S R E S P G D L L  
UniRef90\_Q21DM0 A T T W A G G E K D L Q K F P K V N V Q V D N V V V D D G N I V T S N G S L V S  
UniRef90\_A71818 R V T G W M S L V Q D I R N A G A E Y V D K E V V V D D G N L V T S S R K P A D I  
UniRef90\_UPI00035D6CBD S A T T H H L A F D A L L A P Y I T L K K D E R F V P D N G R I T S A A G V T A G  
UniRef90\_G7VW62 S A A T H W G D I G R L E K K T I T D W K D Q R F V P D G N M V T S A G L T S G  
UniRef90\_E8TI01 R A A T H W A Y C E Q L Q T L H P D I A V D A A Y V D N G D V V T S A G V A A G  
UniRef90\_UPI000468B34F R C T V H W H P A F T E T F P F L H L S R S L F E I D D R D R F C A G G I A A  
UniRef90\_E3HNS5 P A S T H W V W S D D F A R K Y P R I D R K A L Y V D D G D I L T S A G T A A A  
UniRef90\_UPI000372E7F2 C A V H W R H A Q E L A R R H P H V R V E P D V L Y V D E D V I T S A G T A A G  
UniRef90\_UPI00037B7A3B R A T T H W R Y A S V A E R Y P E I D A D V L Y M D E G R M L T A A G S A A G  
UniRef90\_K5ZGC1 A T T H W R L A P E L Q Q R Y P L V R V E A D R I F I D N N I W T S A G I S A G  
UniRef90\_UPI0003674018 R C T T H W M Y A D D L R R Q F P A T I V D P L Y V D S G D I T S A G T A A G  
UniRef90\_Q2NV90 A Y M T G F P A L K D R I P A D R V W D Q R V V H D A R Y R L L T S Q G P G T A  
UniRef90\_I3DW57 K A T T H P A Y D L R P Y C L E V I E N R I V K D G N L I T G G V G T A A  
UniRef90\_B8CVA2 T A T T N K M A Y K W V L A E N V N W Q P K A R W V D D G K F L T S S G V S A G  
UniRef90\_D6V5V7 R A T T H W S A F E L L P I F G A L P V N Q R V V A D D G N M V F A A G V T A G  
UniRef90\_UPI0003658A98 R A T M H W A F A R E M Q K R F P D I R V E D D Y I V D G S V W T S A G M T A G  
UniRef90\_Q5WKN5 R H G V T H H L G M D A L A T G V T V Q A R V V D D G N F V S S G G V T S G  
UniRef90\_A4A717 R A T S N K Q V F A I M Q S D K V D W V E A A R W V E D G K F F T S S G V S A G  
UniRef90\_R4WTL6 R A T M H W A F A R L Q R L F P D V R V E E D Y I V D G P V W T S A G M T A G  
UniRef90\_F9TV12 R V T A H E Q H L D D L A Q Q F P D V V K N T R W V E D G E I T S A G M S A G  
UniRef90\_L7EGU1 K L T C T D S L I D D V I N A G G D Y T S E G N C V D R N I S A K I P G N L L  
UniRef90\_K4QXH5 R A T T H W M W A E A F R E L H P R V R L E P D F V D E G R I I T A A G S A A A  
UniRef90\_W9GP27 R L T S W P S L I Q T E D I R N A G G D W V D E A L V Q D D G N I T T S R K P D D L L  
UniRef90\_V5XHY0 T A T T H W L Y A D A Q R Y P A I D V D P A P L Y V D D N G R V I T S A G T A A G  
UniRef90\_UPI0003663D93 C A V H W H H A E L L A R R Y P K I V V E P D V L Y V D D P V I T S A G T A A G  
UniRef90\_A0A011QW37 D I T A V K Q V I A V D L K N A G A H F H D K E V V I D D S G L I S S R T P D D L L

UniRef90\_UPI0004675EE1 V D V C L H L V R K D H G A A V A N R V A R M C V L  
UniRef90\_W5IQN4 I D L M L D L I A R A Q G P E L A V Q V S E Q F V V V  
UniRef90\_UPI000050FD02 D A F N K A I A D K F  
UniRef90\_D7W9N9 P A F N K A I I E E F A  
UniRef90\_UPI00035FF550 P T Y L P L L I E A L K D  
UniRef90\_UPI0003613386 P L F C E Q M L A A I S T R  
UniRef90\_K5YU66 I D G S L I L A A L L R G D Q V A K E L Q L Y M  
UniRef90\_Q9YFC2 P Y W M R E F M R L L  
UniRef90\_UPI0003B41420 E D F N R A F L Q L  
UniRef90\_A6FRQ3 I D L F L K L I A D E H G E K L A N A V A D Q L I  
UniRef90\_I4ETQ5 P A F N E A A V R L F A G  
UniRef90\_B6K6R6 M L F A L K I A E Q V L D K D T Y Q K V Y D S L  
UniRef90\_D9VG25 L D L S L Y V I Q R D H G A E I A N A V S R R L V F  
UniRef90\_G9EE02 L D L M L T L I G Q H H G A R L A E Q V S E Q F V  
UniRef90\_I0KZM9 I D L F L H I V R T D H G A S I A N D A A R R C V V  
UniRef90\_I3IH00 P A F C T Q L V K F L K  
UniRef90\_A0A023X755 I D L C L H M V R E D H G A E V A N G F A R R M V V  
UniRef90\_UPI0003675DD1 P P Y V K A Y A D Y L A  
UniRef90\_Q65FN6 P I Y V K A F A D L L A  
UniRef90\_A9DZA8 D A F V A K I V E E I E E G K H E R K A A  
UniRef90\_UPI0002556C1C M D M M L H K I G R E H G R E L A A A I S E M F I  
UniRef90\_L7ZFB2 I D L S L H L V H R H C G S G R A R D V A R D M V V  
UniRef90\_E8RSB6 I D L C L H V I R R D F G P E A A N K V A R R L V V  
UniRef90\_UPI0002E36893 I D L A L A L V E Q D L G V E V A R A V A R K L V V  
UniRef90\_E8XSL2 I D L A L H L I A T H L G P Q A A L D V A R E M V V  
UniRef90\_S9SZV5 P A Y G K A F C D K L A E K  
UniRef90\_F7SZT5 M D L C L H M I K R D H G A A V A A N S A R L A V V  
UniRef90\_A0A017SUC1 I D F G L T L L A Q L R G E Q V A K  
UniRef90\_G8S5Q2 I D V C L H L V R R D H G V I Q A S N A I A R V L V  
UniRef90\_T3D527 P H V A F K L L E M L T S R E Q M E T V K L A M  
UniRef90\_UPI00036EDA49 I D L A L A L V S E E W G E I G R A V A Q E L V V  
UniRef90\_I9N889 L E M M L E L I G H D C G M D V A V E V C Q Q A V L  
UniRef90\_A3PJ22 D A F C A K M I E E F A  
UniRef90\_C3PET1 V D M T V A L I A H L T S E V V A I D A A  
UniRef90\_R5RGC1 Y P F A F K I L E V L G Q D V S E M K E R L L  
UniRef90\_Q26C05 F E A A M Y L C D V L Y G P E I A N D L A G G L V L  
UniRef90\_V8CRV8 P A F C E A L I R E F A  
UniRef90\_D0SXB4 P A F N E A I L K E L E G D A A  
UniRef90\_F7Z9V4 M D M S L A V I A D L Y G M A A A E K V A  
UniRef90\_A0A024RGY3 L D L A L A M V E K D L G A D A A R T V A R K L V M  
UniRef90\_UPI0004416C70 F P F A L T L A E L L V G K S K R D E I Y G P M V F  
UniRef90\_A3YGC6 Y Q A A F A L L E Q L S S D E F S Q E I A E  
UniRef90\_R9PD41 F E F A L T L V E M L V G K D K R K E V E G G L L L  
UniRef90\_R4XLT1 I D L A L H M V S R H C G P R V A S E V A R D M V V  
UniRef90\_G4RD77 P A F C A K L V E E I  
UniRef90\_R4XZC1 P A F N R E L L R V F A  
UniRef90\_UPI00035DE045 L D L A L W L L E R E L G A A T A V K V E N I L  
UniRef90\_UPI000468E675 I G M S L H L V A R I L G D E V A R A T A R Q M  
UniRef90\_I9C2A6 I D F A L T L G A E L F G D R A S A  
UniRef90\_V6KLU0 L D L G L H V V R R D H G A E V A N S V S R R L V F  
UniRef90\_E6ZM31 F E F A L A I V D A L V G T D K R T E I V P P M L L  
UniRef90\_UPI000299DBD0 P A F C Q G I L Q V L  
UniRef90\_UPI00047599CC I D L C L H I L R G D L G V A A A N H A A R R L V  
UniRef90\_G4YST3 I K F A L T L V K L L N G E L A A E K A A R E L L  
UniRef90\_U3BKP3 Y Q A A L K L L H L M T S E S K A Q E V A D A I  
UniRef90\_V5UKH4 I D L T L A L L E D D H G P A L S R A I A R K L V V  
UniRef90\_D8RAE6 I D M A I Y L A S I T T N E K I A K A V Q  
UniRef90\_F7XP85 Y A F G R E L V K L I  
UniRef90\_A0A023J5V5 I D M S L Y V V E R I F G K E K A L N T A S I M  
UniRef90\_W0LEF1 I D L A L H L V N Q Q C G A N R A L E I A R E M V I  
UniRef90\_D0L713 I D L T L S F I E A D A G P A L A R D V A R D L V  
UniRef90\_G9Y3D5 I D L A L H L V H R F C S P Q E A M R V A R E M V V  
UniRef90\_UPI000466BAC6 I D L M L K I V A D D H G E E I A N L V A D Q  
UniRef90\_UPI00047B35FA L D L G L H L I R R D H G A E V A N T V A R R L V F  
UniRef90\_K0JV17 L D L G L H L I R Q D H G S E V A N T V S R R L V F  
UniRef90\_K9WWT3 A L F T T A I L N R L G G K E A A  
UniRef90\_Q21DM0 Y Q A A L T L L K L L S S E S K A K E V A D V L  
UniRef90\_A7I8I8 P A F I R E S L A K L  
UniRef90\_UPI00035D6CBD Y D A A M H I A Y K T A G R D A  
UniRef90\_G7VW62 I D A T L Y V I S S Q M G E P T A K K V A K E M  
UniRef90\_E8TI01 L D C C L H I V R A R Y G A E A A L R L A R Q I V L  
UniRef90\_UPI000468B34F L D M M H A I I R I D H G A A L A S A V S D W F L  
UniRef90\_E3HNS5 I D C C L H L L R C D H G A E L A N R V A R R M V M  
UniRef90\_UPI000372E7F2 I D A C L H L V R R E Q G S D V A N A I A R R M V V  
UniRef90\_UPI00037B7A3B I D L C L H V V R G D F G A E A A N S V A R R L V V  
UniRef90\_K5ZGC1 I D L A L A L I E I D F G T E I A R E V A R E L V V  
UniRef90\_UPI0003674018 V D A C L H L V R R E L G A S A N A L A R R M V M  
UniRef90\_Q2NV90 M D F A L N I I A L L C G  
UniRef90\_I3DW57 I D L G L Y I L C E L L G G A D A V L S I Q K Q M  
UniRef90\_B8CVA2 T D A A L Y W V K T L H G E V E A R R I E  
UniRef90\_D6V5V7 I D G G L R V A A D L R G A E A A Q T I Q L Y M  
UniRef90\_UPI0003658A98 L D L A L A M V E K D L G A D V A R S V A H K L V M  
UniRef90\_Q5WKN5 L D L A L Y L V E R E L G P R I A H A V E Q  
UniRef90\_A4A717 M D M S L A L I Q K L F G E E A A E T A A S Y  
UniRef90\_R4WTL6 L D L A L A M V E K D L G A D V A R S V A H K L V M  
UniRef90\_F9TV12 I D M S L Q L V S R L S K L E L A K K T A D Q L  
UniRef90\_L7EGU1 P E F M K N I L D Y L N S E  
UniRef90\_K4QXH5 L D L G L Y L V R Q D H G A E I A N A V S R R L V F  
UniRef90\_W9GP27 P K F C S A L L E S I H G S A S A  
UniRef90\_V5XHY0 L D L C L H I V R A D H G V R V A N D V A R R L V I  
UniRef90\_UPI0003663D93 I D A C L H I V R K E Q G P E V A N A I A R R M V V  
UniRef90\_A0A011QW37 P A F N Q A M V N A L

UniRef90\_UPI00037CC547 1 S K R V A I L I E Q G V E D A E F Q L P Y N A L K K A G A E V V V L G S R I N 40  
UniRef90\_J3X9J3 K V A V I F A D G C E E V E G L S V V D V L R R L N V E C D M V G L H S  
UniRef90\_UPI00035CE237 V A L A V T D G M L H F F E M S L A L I E V F G T D L T H L V D P W Y Q  
UniRef90\_E8WRQ9 V A V V A F D N F S P F H L S V P C L I F G R K L F E L R I C A G E P  
UniRef90\_UPI0003959D26 V I V L F D R V D L L D I S G P P E V F A L L G Y Q V L R L A A E S L  
UniRef90\_G8PXQ7 V A I L A Y D G L C T F E F G V A V E I E G L E R P E F D F W Y T H R L  
UniRef90\_R5K591 K T V Y A F L A D G M E E V E A L M V I D L L R R T K L N V V T V S V K D D  
UniRef90\_Q10356 K V C L F V A D G T D E I E F S A P W G I F K R A E I P I D Y V G E N K D  
UniRef90\_UPI0003A08A2C R V H T V L Y D G V E Q D F A G P V E V F G I S R L Q Q T F V T A G E P P  
UniRef90\_A4X8W5 H R V V V I V D E N S N P F E L G C A T E V F G R D L Y E F R L C S T E P S  
UniRef90\_UPI000479C45D R V A I L C H P N V A L F E M A C A S E L F A E Q W Y R C D M V S F E D T R  
UniRef90\_A0A038GE34 I G I Y V Y D D V E V L D F A G P Y E V F T T A T R M H A R K S R D D R  
UniRef90\_J2HAN2 A N R L V V A L A Y D G L C T F E F G V A V E L F G E M G P D W Y R F A T A E P  
UniRef90\_UPI000372B92E R R I G V L L I P G F A L L I T Y A C A V I E P Y R A A N Y R W M H V S P D G G  
UniRef90\_D7UW55 G K K I A T V I T D L F E D V E Y A T D P A E A F K K E G H E V T I I E K E S T H S  
UniRef90\_W0V5E1 K R I G L I V F P E F G L L E L A A P F E M A N A S Y T L E V L S V D G G  
UniRef90\_W0NB65 V A A L A Y D G L C T F E F G I A Y E V F G E N W Y R F S V C G I E P G G  
UniRef90\_UPI00047A4DD0 R V A V L V A N G V E Q I E L T E P W K A I E N A G G R F E L V A P Q G G  
UniRef90\_Q7UF17 G K R V L S F V G E I Y D E L L W Y P K L R L I E A G A G E F F V A G P K A G  
UniRef90\_W1ND40 R I G V L M L P G Q V P L D L V G P W Q V L A R I S G R Y Q I D Y F G P H  
UniRef90\_A8HA05 R V L A L V F D D Y E T L D L H G P T E M L G M P N T E T K L V A A K E  
UniRef90\_U5W2G3 R N V A V I A L P E V A V F L G V L C E L F G Y P G Y T F S V C S V D G A  
UniRef90\_C6AW07 I G F L L Y P G F Q I M S L A A V I S A F E F A N L E L I E K V Y E  
UniRef90\_X4Z466 V Y F V V Q E D I V L D L D L A G P A E A L R I A N H Y V R Y A L H Y C  
UniRef90\_H5XQ83 G R R V A F V V A P G T E Q V E L T E P W K A V E N A G G R P E L I S T K A G  
UniRef90\_F6DG02 R R I G I L L A D L F D E R E F L Y P Y Y R V Q E A G Y A P M V L G P E A R G  
UniRef90\_F4CIR3 I A V P L F P R M T A L D A I L G P Y E V L Q R V D H D V V F V G E R R G  
UniRef90\_UPI000288EED1 K I A F L L G P G F E D S E M K K P Y D A L R E A G H E A V I V G L K E G  
UniRef90\_D2VFF1 V L F C I A D G S E E M E S V T V I D V L R R A K F N V L V A S H D H S  
UniRef90\_G9YCW1 V A T L V Y D G L C S F E F G L A L E A L P R P E F D F P W Y Q H C  
UniRef90\_V4QCY3 M T D G F E Q V E L T G P K K A L E D A G A T V R I L S D K S  
UniRef90\_W8A4Y5 A P R T I V F V V F Q G M Q I S E L A G P L D V F A L L N Y R L L T A S P G G R  
UniRef90\_UPI000362C6FD T R S L A I L M F D D V E V L D A C G P F E V F S V A N F D V V L V G V D D G  
UniRef90\_G8S3R0 R V A V L A L D T V I P F D L A T P I E V F G R T G Y E V R I C A P T S T  
UniRef90\_UPI000362E7DC H R I G Y L L S D G F Q V M A L A S Q S V F E Y A N V A A E T F Y R I E N  
UniRef90\_X5L0B2 V A I L A Y D G M S G F E S G L A A E L F G S A G L A R P W Y S V R L C  
UniRef90\_UPI0003683472 A P R Q M G F L L L P G F S M I S L A A A I D P L R M A N R L S G R H L Y E W P  
UniRef90\_H2FTT3 R V G F V L L L H F S M M A F T A A V D A L V I T A N F T I T S Y G L D S T  
UniRef90\_UPI000463B13D G R R F A F L V D K F P M F S V I A A A I D V V R S A N Y S W T I V S P D G D  
UniRef90\_L1M4U1 R S I V F F L I P Q F T M L P F A A A V E T L R I A N Y E W R L S S L D G Q  
UniRef90\_Q7CYK8 R V G F L L V P D F S M M A L A S A S E P L R A A N Y E C E L I G L A P G  
UniRef90\_K9H456 V V L F D G F D P M D V I A P F E V L Y A G G L T V E L V S A E G A  
UniRef90\_UPI0003470950 K V A T L I T D M F E D V E F T G P R D A L V D A G H D V V T I E K K A G  
UniRef90\_C4L0V7 V A F L I M D G T Y N T E F T A P Y D I F Q H T Q F R V F T V A N T L  
UniRef90\_E6XA41 K V A T L L D R V S M F E F G V V C E V F G R T E H G V P F D F R I C  
UniRef90\_Q0SAE9 A K K Q V A L L L A D G F E E G E A V I V L D I L E R L E I Q V T T L A C Q K S  
UniRef90\_UPI0003655941 K I T M V A F E G I S A F H L S V P C L V F Q D I G Q P V R F I C C E N S  
UniRef90\_C3MPE6 S E K V L F I V G E F E D I E L L Y P Y R V I E E G F R P V I A W K E A N  
UniRef90\_X6A925 V Y V V I P H L L L L D V A G P V I E V L R K A G V H F I V S Y V G P A  
UniRef90\_K0F5M9 R N V V V V G Y P D A I L L E L A C T T E V F D F A N R A V E R V G L A G V  
UniRef90\_UPI00040FF726 R I V F A I Y S G M T Q L D F T G P Y Q F F A R L P N S E L I V A S G A G  
UniRef90\_B2UHY7 I A V L A F N D I S P F H L S V P C L V F E W A G Y N L R I C A P A R K  
UniRef90\_UPI000478A874 S S H R V V A L V E D G S N P F E L G V A T E L F G R T W Y D F A L A A A P E  
UniRef90\_UPI0004663F95 K I V I L A T D G Y E R S E L R V P A Y E E L Q R R G A N I A S I A S Q S G  
UniRef90\_H3M754 K K V A V L L A S G F E E G E A I V V V D I L R R L H L N V E L L S C A E S  
UniRef90\_G5H5N7 N K K V V V F L A K A F E T E M F C T F L D V L G W A G H N I I V D T C G E F T  
UniRef90\_M0AAM4 T V G L F I A P G T E E I E F T E P K Q T V A D A G A T V D V L G S E T G  
UniRef90\_K5XPQ4 H H I G F F L Y P G H Q I L D F A G P F G A F E R P L Y A L E V L S R A G G  
UniRef90\_B8GG15 I L L Y D E F E T L D V I G P E I L G R L S F N P R F Y S L T G G  
UniRef90\_C6HU78 P G F N A L N L V G P H E V L S R L D A R C Y L V S E K A  
UniRef90\_G4I4B9 S G K R I A F L V A P G A E Q V E L T A P W E A V E Q A G G T P E L V S T E V G  
UniRef90\_D1Z2X1 G K R V V M L A G E G F E D M E L M Y P L Y R L R E A C A D V K V A G L E K G  
UniRef90\_R0FTZ2 H H I G Y L L T D G F Q V M G L A T Q T V F E Y A N A G E D F Y A L R N F  
UniRef90\_R6GV17 K K Y A V I I A D G S E E T E I T V P T D I L R R S G A T C E L I S V N C  
UniRef90\_F3NAQ0 H R V V V L A L D R V T P L D L G I P A R V F N E A R Y S V T T C S L G G R  
UniRef90\_U7FJ34 S G Q K I A F V L M E R F S M N A F A S V I E P V R I A N Y Q W T T Y S L D G N  
UniRef90\_A0A023C3Z4 H R I G Y L L S D D F Q V M S L A T Q T V F E Y A N A P A P F Y A I E I F  
UniRef90\_B2JRS7 V A A L V Y D R L C T F E F G C V T E L F A E L G V E W Y R F A V C A V  
UniRef90\_M9R795 A P H R F I F V L N D F T L S F A A A I D C L R L A N Y S W R I G E G G  
UniRef90\_G7STC4 I Y C L L F D D Y E T L D L M G P I E L F R L P N V I Q L H Y I S K Q G  
UniRef90\_E1THK1 R I G Y F L T D D F Q V M A I G T Q T V F E I A N I V A R E P  
UniRef90\_UPI0003696183 R V A F L V A P G V E Q V E L T A P W R A V G E A G G N A E L V S V S S G  
UniRef90\_U5W6D7 V A L A V T D G T P L F E L A A C E V F G V D R G L A E P W Y D  
UniRef90\_F0C3B9 L L A H E D M N V L D L T G P V Q A L H T A N Y Q I T V A S E S G G  
UniRef90\_D3Q8L2 V A V V G Y D D A M L L D I A C V T S T L A R A G A D P T V L A A P G G  
UniRef90\_U1K3F7 I G I Y I Y D D A E V L D F S G P F E V F S T A Q R L A K N E W N  
UniRef90\_UPI00035F6908 G F L L S D N F T L S L A S A I E P L R M A N Y R W Y T L T Q D G S  
UniRef90\_Q2LUE8 K A L I L S A D K F D E S E L L F P Y Y R L K E V G V E V V V A S L R R  
UniRef90\_K4YQZ4 V A I V A V D G F S P F H Y S V P C I L F G E K R F N V T I C A E T P  
UniRef90\_UPI00037D1CD3 R M G I L A D L F I D E R E F I Y P Y Y R V E E A G Y A P V V I G S E A R  
UniRef90\_UPI0003B74512 V V V V A F D R I S P F H L A Y P C A V F G E E H F E F K V C A S E P G  
UniRef90\_Q2SNJ8 S M Q Q V T I L L G F D Y A V I S S A I T G V V D L L A M A G V T W I R V A T R D S  
UniRef90\_W4NUHO R H I V F A V A P E L V L L D A C G P L E A F H R A E L T V T V A S I D G K  
UniRef90\_UPI000464D21E R S I V F F L V P D F T M L A F A T A L E P L R S A N Y K W R L A S A D G  
UniRef90\_UPI0004710A4A G K K I L T I V S N D Y D D L E F H Y P L I R L T E A G A K V T I A G E E T N  
UniRef90\_C6WIS8 V A M L L Y P G F T H L D L I G M P H A V W S P W M D V H L V W R T L  
UniRef90\_UPI00034DE34F R Q I A V L A L D E V V A F L D L G M P T Q I F H A A F Y R V R L C T P G G R  
UniRef90\_S3IN95 I G I L L Y P H V Q L A A V Y G L T D L F N L A N R F A T R Q R P S G S  
UniRef90\_UPI00047BF271 G K R I A I C C T N G V E E V L L G A H R W L T R E H G A T V H L V S L P P P  
UniRef90\_G0HHQ9 V D V L F F D G A E E L D A I G P W E V L R D R R V D V R A V S L D G K  
UniRef90\_C4TT16 M Q M L D I S G P L D V F A E V N Y H S R I M G L E R

UniRef90\_UPI00037CC547 E E Y K G K Q K L T I K A D A T T T E A I A T D F D A V I V P G G Q A P D K  
UniRef90\_J3X9J3 K D V D D G D H H I K L T C D K V V D D S L L D R L D Y D L V A F P G G M T G S A N  
UniRef90\_UPI00035CE237 F S L C G P H P V L R S I E T D R F L L E P D H G L D R L Q A D A D T V I V P G W A D T D  
UniRef90\_E8WRQ9 G R L R S G Q Q L V R S I E T F F L G L D A L S Q A D I V I V P Y W R D P A E  
UniRef90\_UPI0003959D26 E P V T T A A G V R V L P D I R L S S L Q H Q A I D T L I V V N T D A Q G R V Q  
UniRef90\_G8PXQ7 V A V D D G S K M R A M G G F Q V L A D G G M E L L E T A K T I V V P G W R N R S  
UniRef90\_R5K591 L L V E S H K I K L F A D K N I N E I D F E K G D C I F L P G G I P G T P N  
UniRef90\_Q10356 R L V K M S R D V E M Y A N R S Y K E I P S A D D Y D T A I I P G G G L G A K T E  
UniRef90\_UPI0003A08A2C G T V T T S S G M E I V I R A P W S P R S A D V I V P G G G Y G K G S G V S E  
UniRef90\_A4X8W5 T L M R D G F F T L T G V Y G L E A A D T A D T V I V P N R P D T D  
UniRef90\_UPI000479C45D P I A S L G G L T L Q A Q T V T S L S D Y E M V V I P S W T T T N P T L G E P  
UniRef90\_A0A038GE34 Q F T T G R S M A P V R A R A G L K V D P D F S I T D H P P V D C L I V P G G V  
UniRef90\_J2HAN2 G P D L R G L G G V Q V T A D G G L E L V E Q A D T I I V P G W R G A E  
UniRef90\_UPI000372B92E P V P A S N G V A V I P D Q G L D R P L A V D D L F V C A G G N P T A F D D R  
UniRef90\_D7UW55 K T V K G S K A E Q T P V T V D K G L D E V N A K E F D F D A L F I P G G F S P D Q  
UniRef90\_W0V5E1 L V K S S M G V E I R T V A L A D Q E F D T L L M A G S T Q V  
UniRef90\_W0NB65 P L R A A G G L T V G V D K G L E I L D E A D L I V V P G W R A I D  
UniRef90\_UPI00047A4DD0 E V Q A F N H L D K A D T F P V D H T V N P D D Y D A L M L P G G V A N P D Q  
UniRef90\_Q7UFI7 E K Y D G K L G Y P C V S D L A I D A C E A D S F D G L L V P G G F M P D K  
UniRef90\_W1ND40 N S L D W M G P L Q L Q G T A P L A P E D A S D L E L L V V P G Q Y R N A I E  
UniRef90\_A8HA05 V S S Y Q G P R V L A D C L T E Q T Y D C D L L L P G G L G T R T  
UniRef90\_U5W2G3 P V R T H A G F S I T P D H D L A P A E A D L V A I V P N D T D  
UniRef90\_C6AW07 I R Y L S E N G G P V A N S L G M M E T E A F G T P A L D T L I V A G A P D I  
UniRef90\_X4Z466 P Q Q E V Q S G L Q G L Y L S R L A P L P Q S L P S H A L V V I S G Q V N A R H  
UniRef90\_H5XQ83 K I Q A F N H L D K G D T F S V D K T V T E V D D Y D G L V L P G G V A N P D F  
UniRef90\_F6DG02 E Y R A K S G F A W K A E A A G E A P P L E G L L I P G G F A P D Y  
UniRef90\_F4CIR3 E V R T E N G M L G L S V D A T F A D I P S P D V V V V P G G I G S R A  
UniRef90\_UPI000288EED1 E K L E G K M K K A S Y K V E K A I S D I N A K D F D G A V I P G G S S P E A  
UniRef90\_D2VFF1 L K V L G S R N V K L E A D V H F D Q S V A D K E F D A I V L P G G M K G A E T  
UniRef90\_G9YCW1 V V V D D G W M R T T N G V T M L A E H G L E Y L A Q A N T I V I P G W R S N D  
UniRef90\_V4QCY3 G E V R G W N H H Q P A D A F R V D G E T F E D D Y D A L L L P G G V N S D Q  
UniRef90\_W8A4Y5 P I T C D G G L T L S V A H S L A E L A A G E D Y D T L I V V G G N V S G P G  
UniRef90\_UPI000362C6FD P V H A R G G M R I A V D T T I D D T R R Y D V V L V P G G V V D E V P  
UniRef90\_G8S3R0 V D A G A G F T I N T R Y G L D T L L E A D T I I I P G C A D T A  
UniRef90\_UPI000362E7DC F S V A G G E V R S S L G M S V V T R A L G V R A A I D T W I A A G V S A P L T  
UniRef90\_X5L0B2 A E Q P E L R M V G G A T V T T P Y G L A D L A T A D T V V I P S V P D V T R  
UniRef90\_UPI0003683472 L Y C P G D A P V T A S N G M L F R P T R R F G D G E G L S A L F V A G Y D A  
UniRef90\_H2FTT3 T V R S D L A I D I S A T Q T L N A L P L D G T E A L D V V V V C G G F R C S  
UniRef90\_UPI000463B13D A A V E A S N D L P L K N D Y S V A D I P A V D I L F V C F A L N L E  
UniRef90\_L1M4U1 A V E A S N G M S V N A D G P L E P L G K G A T L L V A G F E P L H  
UniRef90\_Q7CYK8 K V M S S S I C L E V D T C L A D E R R Y V S G E N R P E M A I I C S G I D V D  
UniRef90\_K9H456 P V T S S A G F P I L R D K T L A E G A D A R A Y D L V V L V A S I N V R R  
UniRef90\_UPI0003470950 R E V P S S G N G V P L R A T A R L D P A H V P G D G D G E V D S I P A I L A  
UniRef90\_C4L0V7 N T V E G K Q G E A K V N I D Q S I D D V S P E D F D A L L L P G G F S P D L  
UniRef90\_E6XA41 K P I T T F E G V R I L P D F D Y T K N N L P N I D L V I P S A E H H I D T  
UniRef90\_Q0SAE9 G I R P G E P L A S I L P G L T L S A D H G L D S L R D A D L V V V P P G A Q  
UniRef90\_E8XSL4 L T L R T Y H G I Q M Q A N E L L S A Q G D R L F D A V V M P G G P E G S V A  
UniRef90\_UPI0003655941 L Q F E T S S G F G V V I D R L A S A T K E A D I V I V P S W P N D L  
UniRef90\_C3MPE6 A R V T G K H G Y T V I S D I A F K A D V R P E D Y V A L V I P G G R G P E H  
UniRef90\_X6A925 H S V G T S I G L A V S G T S P L P M R L P D N A L V I L A G S A E H P D A A E  
UniRef90\_K0F5M9 E E G P M R C S S G L S L L A A Q R I D R L D G P L D T L I V A G G P G S R W V  
UniRef90\_UPI00040FF726 G D V M S E G L T F A G T H R L A D I A A C D M I C V P G G N A T T  
UniRef90\_B2UHY7 G G L R T T A G F A V Q T D F T L E D A A R A D V L V V P S W R D T E  
UniRef90\_UPI000478A874 V R M H L G M F T I T D V A P L A A V D T A D T V I V P N R P D P V S P  
UniRef90\_UPI0004663F95 A I K S W D N W G D S V N V D F L A E D V N V E D F D A L V L P G G Q I N P D K  
UniRef90\_H3M754 R A V V S Y H D I P M V A D S T L A E R A G M L Y D A V V L P G G P Q G S V N  
UniRef90\_G5H5N7 E K V I S T F N V P V I V D R T I E E I N V D E D A L A I P G G F G E F G F Y E  
UniRef90\_M0AAM4 E A Q S V N N D L K E S E T Y A V D K Q F S E D E Y D A L I V P G G T V G A D T  
UniRef90\_K5XPQ4 K V R G S G G A M V E S R A P K G V A L D T L I V V G G D I A P  
UniRef90\_B8GG15 I V T S S Q Q V P V M T G S L S D L T S T R Y V L L I P G G T G A R D  
UniRef90\_C6HU78 G K V L S E K G I A V E A D V G F L D C P S I D T F V V I T G G L G Q M D  
UniRef90\_G4I4B9 K I Q A F N H L T P A D T F G T P A D S V S A A D Y D G L V L P G G V A N P D F  
UniRef90\_D1Z2X1 K T I T G K H G M P V A A D I A F K D L S P D D Y D C L V T P G G Q G P D H  
UniRef90\_R0FTZ2 S V A G D G V R S S L G M S I A T L P V E Q A D H I D S W M V C G V G N P L E S  
UniRef90\_R6GV17 L T V T G S H G I K I T A D K L I A E V D Y S A Y D G V I V P G G M D G A K A  
UniRef90\_F3NAQ0 P V R T H E D Y R I L V D H D E S A L E G A D T V V L A T Q E P G A T L L S T  
UniRef90\_U7FJ34 P V T A S N G C E V A V K S S R D L H D A D I T L L C T G I D V E R  
UniRef90\_A0A023C3Z4 S I T G G M V H S S I G L G A Q T R A V D S P G L A D T W M V T G V N K P L E  
UniRef90\_B2JRS7 E P I R A A G G I S V A A P Y T L R M L D R A S T I V V P G W R D P D E  
UniRef90\_M9R795 G T I N C S T G T T F T L D G D L D E L H R D D T V M L C G G R D V Q  
UniRef90\_G7STC4 G L T K S Y Q G F K T D T V S I T C L P E K S I L L I P G G Q G T R Q  
UniRef90\_E1THK1 Y H V T N Y S L Q G G E I R S S L G V S V T R P A D S T W M V S G V A N P T G  
UniRef90\_UPI0003696183 P V R A F E H L D K A D T F T V D R L V D E A D Y A G L V L P G G V A N P D M  
UniRef90\_U5W6D7 F T V C G D D G A A V G G W L T A G I R H G L D A A D A D T V I V P S C R D A E  
UniRef90\_F0C3B9 L V T T S S G L Q V M S V A I L A S L D D V A I D T L M A P G G C R G A V  
UniRef90\_D3Q8L2 N P V R C D S G Q T L H A Q A S L E K L T G P F D T L V V S G G W H D S  
UniRef90\_U1K3F7 I F L V A Q H N Q P V N A R G G F S V N P H Y S F A D H P P I D V V I G V H N N  
UniRef90\_UPI00035F6908 P V R A S D G L Q V T P D A S I T I P L S L D W V V C G G V P P R  
UniRef90\_Q2LUE8 G A I K G I H G Y E V V A D K T L D E V D P S D Y A I L V L V P G G K A P L  
UniRef90\_K4YQZ4 G F L T S K D G F S L N A T Q D F T A I G Q A D I V V V P Y W Q H V P E R  
UniRef90\_UPI00037D1CD3 E Y R G K S G L A W R A E V A A R E A P E L Q G L L T P G G F A P D Y  
UniRef90\_UPI0003B74512 L R T T A G F S L S V D H G L E A L D D A G L I V P S W R D P A  
UniRef90\_Q2SNJ8 Q P V R C H N R L L I Q A D A C F D A I E P S D I L V I P S I A G D I E K T  
UniRef90\_W4NUHO G V L D T F P G L P V V T Q R L D A L D D E P L D T L L V P G I P V D D P  
UniRef90\_UPI000464D21E P V R A S N G V E C G V D T S L E E H M S G E G R P S M V I V C S G L N V E  
UniRef90\_UPI0004710A4A K V Y H G K Y G L Q T K S E I S F K D V D I T E Y D A L I P G G W A P D Y  
UniRef90\_C6WIS8 D P V A S D S G L R V V P T T T F E D C P R D V D V L F V P G G T G T G D V  
UniRef90\_UPI00034DE34F P V R S N A G F T V T P E C G L E L A E S D T V L V A G V H Y S A P V M T D  
UniRef90\_S3IN95 P A L R V S H W Q E T E A A E A V E R V F D P G P D V L L P P S F G E P M T  
UniRef90\_UPI00047BF271 Q C A T H V L A I R L M E N A G W L K I D R Y A D Y D A V L L P G G W N P D A  
UniRef90\_G0HHQ9 S V R C A K G L T V I D V D G S L G D R P I D L L V P G G R G A D I  
UniRef90\_C4TT16 Q D I T T S S G V R I M A D M L I T D P D L S S L D S F L V A G A P G I D D Y

UniRef90\_UPI00037CC547 M R T N L K T V I Q F V E D A L E N G V L V A S V C H G P Q V L I E G D M L K G V
UniRef90\_J3X9J3 L R D D E K L R D L M V K R H E A G K W D A A M C C A G A P R A L A R Y G V L K D A
UniRef90\_UPI00035CE237 Q A P P A E E L T D A V L S A A H H S E A G A R V V S L C C C T G T G A F V L A A A G L L E H R R
UniRef90\_E8WRQ9 R P N Q E L L T D A L S A A H H S E A G A R V V V G L C C C L T G T Y V L A A A G L L E H R R
UniRef90\_UPI0003959D26 A L A D P A L V V Q W V Q T L A G Q S R R V A S V C C C L V G A H I L A A A G L L S G K
UniRef90\_G8PXQ7 E P P S P A L L E A L R R A H A R Q G A R L L S I C C C S G A F V L A A A G L L D D G L
UniRef90\_R5K591 L A A C K K L T D N I V J E Y N R G A R W L A A L C C C A A P S I Y G Q L G L K D V
UniRef90\_Q10356 L S T T P F V Q Q V V K E F Y K K P N K W I G M I C A G T L T A K T S G L P N K
UniRef90\_UPI0003A08A2C Q I R L G T L P K A I L A A A R R P G L T L A G V F C C C T G T G M L L S A A G L L T G G R
UniRef90\_A4X8W5 V P R R P A V L D A I R R A H A R G R R L V G F C C C S G A F T L A E A G V L D G G R
UniRef90\_UPI000479C45D L R S E L L Y S E L L H A H Q R G C R L V S F C C S G A F L L G E L G V L D G Q R
UniRef90\_A0A038GE34 V T A E L E K A D V I G W I S D Q S Q P G R V V I A A V C T G A F M L A R T G K Q
UniRef90\_J2HAN2 T P V P Q P L I D A L Q V A H H R G A R V M S I C C C S G V F V L A A A G L L T G R
UniRef90\_UPI000372B92E A A L A W L R R Q A R R G I R I G G L S C G G P L V L A A A G L L R D R
UniRef90\_D7UW55 L R A D E R F V K F A T E F L Q A R R P I F A I C C C H G P Q L L A Q T G Q L K G R
UniRef90\_W0V5E1 L T A P P G L L N K L R S A A P H A N R R L G S V C C C T G T G A F I F A E A G L L D G R
UniRef90\_W0NB65 A P V P E P L A Q A L R A A H Q R G A R I M S L C C C S G V A V L A G C G L L A N R
UniRef90\_UPI000474ADD0 L R L S A D A V A F A R A F F D A G K P V A A I C C C H A P W T L I E A D V V R G R
UniRef90\_Q7UF17 L R R D P K V L Q L V R F D A A K K P I A A I C C C H G G W I P I S A G V Y R G V
UniRef90\_W1ND40 I G V Q Q L A L H W L R T I G H Q A R T I M S V C C C S G T L L L A E A G L L D N R
UniRef90\_A8HA05 L Y N D T E L R Q W L J A Q I A R S Q N V F T I C C C G T A L L A M T S V L N D D R
UniRef90\_U5W2G3 R E P P E A V L D V L R A A H A R G A W V M S V C C C T G A F V L G A A G L L D G R
UniRef90\_C6AW07 R L P N A A E A D F I R A A L P A T R R L A S L C C C T G A F F L A E A G I L D G R
UniRef90\_X4Z466 A L E R P D R Q A F I A W L I R R A A A D G F G L M S V C A G A L M L A A A G L
UniRef90\_H5XQ83 L R M D A D A V G L V R E F F T Q H K P V A V I C C C H G P W T L I E A D V V R G R
UniRef90\_F6DG02 L R R S P E V L A L V R K V A E E G K P L G A I C C C H G P W V L V S A G L V R G R
UniRef90\_F4CIR3 L L A G G P L V D W V R A A H P D G T F T S A V C C C S G A L V L G A A G L L D G L
UniRef90\_UPI000288EED1 L R M D K D V Q A F R L D E L G K P I S A I C C C H G P Q V L I S A D I L K G R
UniRef90\_D2VFF1 F A A N E L L H R L Q R H S D K I C A A T C A S P A L V F S K H K I L L A G I S
UniRef90\_G9YCW1 V P P P P A L L E A V R A A Y E R G V R F L T I C C C S G V F V L A A A G L L S G K
UniRef90\_V4QCY3 L R S L A K A Q E L V I R A E Q A S K P V A V I C C C H G A W L I S A G L V Q G R
UniRef90\_W8A4Y5 A A E V V P E L P A L A R K A R R V A S V C C C A G A L L L A A A G L L D G Y R
UniRef90\_UPI000362C6FD M I V P P E V V H L R K A A A G G A R L A S V C C C T G A F L L A D A G V L D A R
UniRef90\_G8S3R0 A P P P A E M L A F L R K A A A T R A R R I A G I C C C T G G F V L A A E A G L L A N R
UniRef90\_UPI000362E7DC S P P P P D V V D A I R S A R D R A G I L V S L C C C S G A F A L A A A G V L D G R
UniRef90\_X5L0B2 P P S P D I Q W L R Q L A R A G I T L G A T S T G T L L L A A A G L L Q D R
UniRef90\_UPI0003683472 L A E H P E L S R K L R L A A R R E K V L G G L W N G A V A L A A Y A G A L D G L
UniRef90\_UPI000463B13D F P G K S K V L G L R A W G R E G G A L G A L S V G S F E V L A E A G Q L E G H
UniRef90\_L1M4U1 S Y S P A L H A L R K L D H E G V V L G G I D T G T L L L A E A G L L D E G H
UniRef90\_Q7CYK8 Q H V N K S V N A W L R E A Y N R G I A I G S L C C T A A H I L A Q A G L L N G K
UniRef90\_K9H456 L Q H Q A L F D W L R R S A R H G S R L A A V S T G S L M A R A G L L E G R
UniRef90\_UPI0003470950 R S L T T E L P G L L G A A M A R P S D T L V A T V C G S G S L M G M A G L L T E G R
UniRef90\_C4L0V7 L R E D E R F V S F A K A F M D A K K P V F A I C C C H G P Q L L I T A K T L E G R
UniRef90\_E6XA41 D L D D V V M L S F V K K V D E A L F M T S H C C C D G A F V L A K T G L L D T V
UniRef90\_Q0SAE9 S D F P V E A L T A V R G A A D A G A I V L S L C C C S G V F L L G E A G L L D G R
UniRef90\_E8XSL4 L A A S K E V V E F V R R H D D A G K L I C P L C C C S A A A R V L G G N G L L K G
UniRef90\_UPI0003655941 P E P S E R L J E A L T E H H G K G K L L V G L C C C L G S Y V L A C A G V L D G K
UniRef90\_C3MPE6 I R T L E E V K N L T R K F F E L K K P V A A I C C C H G P Q I L I S A N L V K G R
UniRef90\_X6A925 H A H E E E I V G W L K S A V R P G L R L V T I C C C S G A L L A A A G L L D D C
UniRef90\_K0F5M9 T H G P T L T H I R L L A A S R R R V S I C C C S G A F L L A A A G L L D G K R
UniRef90\_UPI00040FF726 V A L D A A F V G E I R R L A A G A R Y V T S V C C C T G S L L L G A A G L L A G R
UniRef90\_B2UHY7 E R P P A A M V N A V R D A Y E R G A T V V G L C C C L G A F V L A E A G V L D G H
UniRef90\_UPI000478A874 A R P E V L A A I A R A A A R G A R L V S F C T G A F T L A D A G V L D G R V
UniRef90\_UPI0004663F95 L R T E N A M R V V R E F T Q S G K I V A A I C C C H A P W L L I E A D A I R R
UniRef90\_H3M754 L A A S Q D V V A F I T A H D K A G M L I C P I C C C S A A A R V L G G N G L L R G
UniRef90\_G5H5N7 E A Y D E R F L K L I K E F N A G K I A A V C C C S G A F P V A K S G V L Q N R
UniRef90\_M0AAM4 L R L D E D A V S L L R E H V E A G K P A G V I C C C H G P W L V A E A G V D D G R
UniRef90\_K5XPQ4 M R A P G E V A A V R A L A A K A A R V A S V C C T G A F L L A E A G L L A G R R
UniRef90\_B8GG15 L V N D E T E F S L G S L A E H A E F I L T V C C C T G S I L L S A R T G I L N G R
UniRef90\_C6HU78 M M S H P G L M T F L R N Q G S H A R F V A A V C C C T G A L L L A A A G L L Q G R
UniRef90\_G4I4B9 L R T K P A A V G L A K S F F D A G K P V A V I C C C H G P W T L I E A D V V E G R
UniRef90\_D1Z2X1 I R I Y P E V I R F V Q D D F D T R G K P V A A I C C C H G V Q L L I T A R L L K G K
UniRef90\_ROFTZ2 P S S Q E E R S F L Q T D Q R A R R I A A L C C T G G F V L A E S G L L S K R R
UniRef90\_R6GV17 I A A C K Q A T D F I Y G L Y N R Q K L V A A T C A A P A I V L S E I P Q I C D
UniRef90\_F3NAQ0 G A I P P D V A A A L A R I N G P H T R L V S L C C C T S A F L L A A A G L L D G G R
UniRef90\_U7FJ34 L P L D T E L G N K L R R L N A M G R T F G A Y L L A R Y H L L D D G R
UniRef90\_A0A023C3Z4 I G P C D S T L E F V R N A A Q Q A R R V A G V C C C T G A F V L A Q A G V L D G R
UniRef90\_B2JRS7 R P P P L L K K V R A A L A R G A R V C S I C C S G V F V L A E A G V L D G K T
UniRef90\_M9R795 A A T T K R I L N W V R R E A R R G I J M G G L C C C T A A F S L A K A G L L D G K
UniRef90\_G7STC4 L V K D M P F L T W L T Q L V D E A E F C L S V C C C T G S A L L A A M K Q L D G K
UniRef90\_E1THK1 R T T N A E A L R F I S G A A A R S R T A G L C C C T G A F V L A E A G L L N G K
UniRef90\_UPI0003696183 L R R H E E A V R F V G D F F R E S K P V A A I C C C H A P W M L I E A D V V R G R
UniRef90\_U5W6D7 E T P P P T L V A A V R A A H H A G A R I A S L C C C T G A F V L A E A G L L D G R
UniRef90\_F0C3B9 Y A A V S P G L V E W V A A R G A S V R R L C S I C C C T G A F L L A A A G L L D G R
UniRef90\_D3Q8L2 A A A D R R I V A H V R R A R E S V R V A S V C C C T G A D I L A A A G L L D G K
UniRef90\_U1K3F7 E L T K A P V I D W I K R T A Q L A P V V A S V C C C T G A F L L A K A E L L N G K
UniRef90\_UPI00035F6908 N S V S R E H I H W L Q S Q S R L R L G A V C C C T G S W A L A K A G L L D H Y
UniRef90\_Q2LUE8 L R K E Q K A L E I A R Y F S A R N K P I A A I C C C H G P Q I L I S A G L L E G R
UniRef90\_K4YQZ4 P P Q T L L D S L V Q A R D R G A E I V G L C L G S F V L A W A G I L D G K R A
UniRef90\_UPI00037D1CD3 L R R S P E V L S L V R R V A E G R P L G A I C C C H A G W V L V S A G L V R G R
UniRef90\_UPI0003B74512 E R P Q Q A L L D A L Q A A H A R G A R I V G L C C C L G A C V L A D A G L L A G R
UniRef90\_Q2SNJ8 L A Q N P Q L I D V L K N M N S Q G T V I A G N C C C T G A F F M A E A G I L D N R
UniRef90\_W4NUHO R T L Q P A L I D W L A R R A P H V R V V C S G C C C T G A F Y L A A A G L L D G R
UniRef90\_UPI000464D21E K Y H Q K S V F A W L R E E Y N R G V A I G G L C C C T G A H I L A Q A G L L S G K
UniRef90\_UPI0004710A4A L R R L P E V L N F V K Y L N E H K K V I G V I C C C H A G W V L S A H I L K G V
UniRef90\_C6WIS8 L L D A G A L A L T A E L G A S A R Y V T S V C C C T G S L V L G G A G L L D G H R
UniRef90\_UPI00034DE34F L X R G E P V R E A L R A A R R G A R I M S I C C C T G A F V L A A A G L L D D L
UniRef90\_S3IN95 S E E A A P L A R W L R Q R H A E G T T L S S V C C C T G A F L L A E T G L L A H R
UniRef90\_UPI00047BF271 L R M D Q H A R A F I R A M H E A G K P T T A I C C C H G Q W V M V S A G I L K G R
UniRef90\_G0HHQ9 L A G D L E Q V A R V I S R L A E O G A T M A S V C C C T G A Q V L G A A G L L D G
UniRef90\_C4TT16 R S H N G L M N A L V A Q T Q R S R R Y G S V C C C S G A L L L A A A G L L D G H R

UniRef90\_UPI00037CC547 R A T G F R A I R K D M Q N A G A E F V 140 D E P L V T D D N L I T S R R R P G D L 160  
UniRef90\_J3X9J3 E F T C Y P G L E E E C E K Y D P S A H F S E R I L T V E H K S V L L T S R R G P A T A  
UniRef90\_UPI00035CE237 R A T T H W A F T G E D F L A R R F H P K V T T V D P D Y V D D N D R L V L T S R A G T A A A G  
UniRef90\_E8WRQ9 R A A T T H W E F E R D F L V S R R F P D A D T N A L Y V D D D G R L V L T S A G T A A A G  
UniRef90\_UPI0003959D26 E A T T H W S T A A Q L A S Q D H P D I R V D A D Y I Q Q D G R I W T S A G G L T T C  
UniRef90\_G8PXQ7 G A T T H W R Y T D E L A A F P A V R R V D P D V L Y V D D G Q V I T S A G S A A G  
UniRef90\_R5KS91 N A T S Y P G F E D K M D C K N Y G G R V V T D K N F V I T S G K G L G V A  
UniRef90\_Q10356 Q I T G H P S V R G Q L E E G G Y K Y L D Q P V V L E E N L I T S Q G G P G T A  
UniRef90\_UPI0003A08A2C P C T T H H I A K K E L T E A G G K V V A G R V V D D D G L V L T S A G G V T S A A  
UniRef90\_A4X8W5 R A T T H W Q A D S F R D R F P A V R L E E N F V D D D G D I L T A A G S A A A  
UniRef90\_UPI000479C45D A T T H W R Y A E L F Q R R F P K V S Y V D D V L Y V H G N V A C A A G S A A A  
UniRef90\_A0A038GE34 V T T T H W E D I N D L K E M F P L V D V L S T L R W V D D G S F V T S A G S I S A G  
UniRef90\_J2HAN2 K A T T H W R Y V D T L R A Y P D I D V Q P D V L Y V D D G D V L T S A G S I S A G  
UniRef90\_UPI000372B92E R C T I H W E Y R P A L V E A F P D D V T S S L F E I D R D R V T S A S G G T A T  
UniRef90\_D7UW55 T V T G F T S I L L D L E N A G P A N V K D E E A V V D D N N I V T S R N G M T D D  
UniRef90\_W0V5E1 H A T T H W R Y L A R Q L Q R F P K I H V T E D F T A E G S L L T A A G S A A G  
UniRef90\_W0NB65 R A T T H W R Y V A S I A A R Y P D I A L D A L Y I D E G S L L T A A G S A A G  
UniRef90\_UPI00047A4DD0 L T L T S W P S L Q T D L R N A G A T W V D E E V H T D H G L V T S R R K P D D L  
UniRef90\_Q7UF17 R V T G S P G I K D D L R N A G A I F E D A S V V V D D G H H V S S R R P D D L  
UniRef90\_W1ND40 R C T S H E L L E R Q I A P A A R V Q E D C I F T D D G R F L T S A G I S T G  
UniRef90\_A8HA05 K A T T N K M A Y E W L N D N P P S A Q W Q P K A R W V F D G K F L T S S G V S A G  
UniRef90\_U5W2G3 R C T T H W R H T E A L A R F P S A K V D P N Y V A D G N I L T S A G T S A A  
UniRef90\_C6AW07 R A T T H W Y V S R E L Q S R Y P K I K M E E D F I I D G S I W T S A G M T A G  
UniRef90\_X4Z466 L G G R E C T S H S C L E A L R A L A P D A R V L E N S G L W T S A G I T A G  
UniRef90\_H5XQ83 R M T S W P S L Q T D L R N A G A E W V D E E V V D D G S G L V S S R K P D D L  
UniRef90\_F6DG02 K V T G F F S I Q T D L R N A G G L Y R E E G V V D D G L V T A Q G P K D L  
UniRef90\_F4CIR3 T A T T H W G A F D L V A R F G A T P V T Q R V E H L P E R I V T A A G V S A G  
UniRef90\_UPI000288EED1 L T T S Y P A L E H D L V N A G A T F K N E E V I V D R N L V T S R T P D D E  
UniRef90\_D2VFF1 K V T C Y P S L K D K L T N S H E F V D E K V V V E K N V V T S Q G P F T A  
UniRef90\_G9YCW1 R V T T H W R Y C Q Q L A E R Y P D I L Q V D A D Y V D S G Q I M T S A G S A A G  
UniRef90\_V4QCY3 T L T S W P S L K D D L N A G G H W V D Q E V I A V D Q K L V S S R K P A D D  
UniRef90\_W8A4Y5 A T T H W G S T A L M A R R Y P R V T V E P D R I Y V D R N R W T S A G M S A G  
UniRef90\_UPI000362C6FD P V T T H W E D V D L R R R W P S L D V R E R Y L D H G D I A T S A G I S A G  
UniRef90\_G8S3R0 R A T T H W L A T G A L A R R Y P E I T V D P D Y V D D N G Q F L T S A G A A G  
UniRef90\_UPI000362E7DC R A T T H W A H A R D M M S R F P E I H V E E D Y I V D G P I W T S A G M T A G  
UniRef90\_X5L0B2 R A T T H W L Y V D Q L A R F H P Q I V V D P L Y V D E G D V L T S A G C A A G  
UniRef90\_UPI0003683472 R C T I H W N A D S L R E E F P R L H V T N E L Y E A D E G V L T C S G G V A G  
UniRef90\_H2FTT3 C C A I H P D N H S F A R E H F P L D V S N Q A M V V D A R T L T S A G P S S A  
UniRef90\_UPI000463B13D R C T I H W E N R A G F M E R Y P D I E C T N V F E I D R R K R Y T S A G G T T S  
UniRef90\_L1M4U1 R V T L H W E A L E A F K E R Y P R L D T E L F E V D R R R R T S A G G T A S  
UniRef90\_Q7CYK8 R C A I H W N L P G F S E A F P Q V E V Y A D L F E V D S N I Y T C A G G T A S  
UniRef90\_K9H456 R C T I H W M L R D M Q E E F P E L A V E R A L Y V F D R D R L T C A G G T A S  
UniRef90\_UPI0003470950 R T A T T H H M G L D V L E A T G T T V V D A R V V D D G D L V T A A G V T S G  
UniRef90\_C4L0V7 D A T G Y K S I K V D M E Y A G A K Y A D K E V V V C Q N Q L V T S R Q P D D  
UniRef90\_E6XA41 A S T T F P G D L L K Y Q E K F P Q V K K N S L E V H D K G Y I T S A G G A K S  
UniRef90\_Q0SAE9 K C T T H W E Y V E E L A R F P T A T V D P D V L F V D D G N L V T S A G T A A G  
UniRef90\_E8XSL4 R R Y V C S G D L Y K D V K D G V Y V N Q S F V E D G N L L S G K G L G L A  
UniRef90\_UPI0003655941 R A T S H W A F S E Q F V Q A G F P N F D P N P L F V E H E T I I T S A G V A A S  
UniRef90\_C3MPE6 R L T S V T S I K D D V I A A G G I Y I D N D V L D V V D E N L I T S R R V P S D L  
UniRef90\_X6A925 E C T T H H G C I D E R L A P T A R V K E N R L Y V E D G E R L T S A G V T A G  
UniRef90\_K0F5M9 A T T H W E Y A A D L A R M Y P L V I T V D P A P L F I D G A V Y T A A G V T S A  
UniRef90\_UPI00040FF726 R S A C H W A W R H L P Q F G A I D E R R V V R D G N V I T G G V T A G  
UniRef90\_B2UHY7 E A T T H W S A A D A F S Q R Y P R V K L V P D D A A D G R L V T S A G T A A G  
UniRef90\_UPI000478A874 T T H W R W V A E F A R R H P T V H L E P D V L F V D D G D I V T A A G S A A A  
UniRef90\_UPI0004663F95 N V T S Y G S I K T D V R N A G G V W S D E K V V V D D G Q I I T S R S P A D L  
UniRef90\_H3M754 R R Y V C S G E L W Q N V A D G E Y V D Q P V V E D A N L I S G K G L G H V  
UniRef90\_G5H5N7 K G T T Y H G Y W Q N K L K E L G V N V V N E P V V V D D G N I I T S Y C P E T A  
UniRef90\_M0AAM4 T L T S Y P S L Q T D I R N A G G E W V D D E L V T D Q G L V T S R N P D D L  
UniRef90\_K5XPQ4 A T T H W R V A H L L Q R E Y P A V R V E A D R I F I D R D V W T S A G I T A G  
UniRef90\_B8GG15 R A T S N K R V F A W T K T A P G V T W E K A R W V R D G K I Y T S S G V S A G  
UniRef90\_C6HU78 Y A T T H W L A R E E L V K Y G A I P N P E R V V W D G K F V T G A G V S P G  
UniRef90\_G4I4B9 R I T S W P S V A T D L R N A G A E W V D E Q V V V C T G G L V S S R K P D D L  
UniRef90\_D1Z2X1 R A T G W K S L V V D L E D A G A T Y V N E P L I T D A Q Y I F S R Q P T D L  
UniRef90\_R0FTZ2 A T T H W F F A R D M Q A R F P D I Q V E D D R I Y V D D G A I W T S A G M T A G  
UniRef90\_R6GV17 R T I T C Y P D K D L T S R I K Y C R Y R K S E V V S S A N L I T S G N G P L A V  
UniRef90\_F3NAQ0 A T T H W A L C E A L A R T F P R V E V D P D V L F V D D G R V L T S A G G A A G  
UniRef90\_U7FJ34 R C T I H W N L R S L R E E F P D V E V T S D I F A I D R N C I T C A G G A S  
UniRef90\_A0A023C3Z4 R A T T H W A Y A P A L I Q R L H P Q I E G D R I F I T D G S L W T S A G M T A G  
UniRef90\_B2JRS7 V T T H W R Y A D K L Q R F P Q L H V K P D A L Y V D G Q V I T S A G S A A G  
UniRef90\_M9R795 R A T I H W E N H D S F E F L E V E L T K S V F V K D G N R W T A G G T S S  
UniRef90\_G7STC4 W A T S N K L A F E W Q I N P D V K W K A V A R W V R D G K F Y S S S G V T A G  
UniRef90\_E1THK1 R A T T H W A F A E A L Q A R W P L I Q V E A D F I V D G A I W T S A G L T A A  
UniRef90\_UPI0003696183 R L T S Y P S L A T L R N A G A H I W T D E R V V V D S G L V T S R S P A D L  
UniRef90\_U5W6D7 R A T T H W A H T T G D R Y P A V S V D P D V L Y I D D G D V L T S A G K A A G  
UniRef90\_F0C3B9 R A A T H W G W A D R L S N L H P G I R V D A D F V R D G S Y V W S A G V T A G  
UniRef90\_D3Q8L2 R A T T H W Y F A D R L A A A H P T I D P A P I F V R D G S V F T A A G V T S A  
UniRef90\_U1K3F7 N V T T H W E D I N D L A A M F P N V I S N K R W V K H D K F T T S A G I S A G  
UniRef90\_UPI00035F6908 E T S T H W E C L A S M Q E A F P K V A L S T R F S I D R D R E T S G G T A P  
UniRef90\_Q2LUE8 R a t C Y K T V J A A E L K R A G A R L Y E D R E V V V D S N L V T S R Q P S D F  
UniRef90\_K4YQZ4 A T H W E F E R Q F Q S L F P N V R L D I N A L Y V D D G N I I T S A G T A A A  
UniRef90\_UPI00037D1CD3 R V T G F S S I R D D L R N A G G L Y Q E E G V V V D D G N L V T A Q G P K D L  
UniRef90\_UPI0003B74512 R A T T H W G Y A A E L A R Q H P D I D V D A D Y L D D G L I T T S A G T A A G  
UniRef90\_Q2SNJ8 T A T T H W A F V D M F R Q R Y P K V D L R P E Q M A S E N V F C S G G G I A W  
UniRef90\_W4NUHO R A T T H W R D A H R L A E R F P R V H V D A E P D D S R A V W T S A G V T A G  
UniRef90\_UPI000464D21E R C A I H W N L P G F A E A F P K A N V Y A D L F E V D G N I Y T C A G G T A A  
UniRef90\_UPI0004710A4A K M T S T P G I K D L M Y A G A I W M D E P V V V Y N H I V T A R R P I D L  
UniRef90\_C6WIS8 A G T H W A F R E L L A P L G A Q V V P E R V V V D R N R I T G G V T A G  
UniRef90\_UPI00034DE34F R A T T H W A H A D N F R L F P R V D L D A D F V D E G H V I T S A G V T A G  
UniRef90\_S3IN95 M A T T H W T Y A A V L A E R F P D V R V D T D I I D E G D V I T A G G L M A W  
UniRef90\_UPI00047BF271 R A T A V W N I Q D L E N A G A V V L D E P C V V D D G N L I T A R F Y D L  
UniRef90\_G0HHQ9 N A T T H W M A R G Q L Q N S H P S A R I S E R W V D S G D V V T S A G V S A G  
UniRef90\_C4TT16 V T T H W A V A G Q L A K E Y P Q V Q V E A D A I C I D G P L R T A A G V T S G

UniRef90\_UPI00037CC547  
UniRef90\_J3X9J3  
UniRef90\_UPI00035CE237  
UniRef90\_E8WRQ9  
UniRef90\_UPI0003959D26  
UniRef90\_G8PXQ7  
UniRef90\_R5KS91  
UniRef90\_Q10356  
UniRef90\_UPI0003A08A2C  
UniRef90\_A4X8W5  
UniRef90\_UPI000479C45D  
UniRef90\_A0A038GE34  
UniRef90\_J2HAN2  
UniRef90\_UPI000372B92E  
UniRef90\_D7UW55  
UniRef90\_W0V5E1  
UniRef90\_W0NB65  
UniRef90\_UPI00047A4DD0  
UniRef90\_Q7UFI7  
UniRef90\_W1ND40  
UniRef90\_A8HA05  
UniRef90\_U5W2G3  
UniRef90\_C6AW07  
UniRef90\_X4Z466  
UniRef90\_H5XQ83  
UniRef90\_F6DG02  
UniRef90\_F4CIR3  
UniRef90\_UPI000288EED1  
UniRef90\_D2VFF1  
UniRef90\_G9YCW1  
UniRef90\_V4QCY3  
UniRef90\_W8A4Y5  
UniRef90\_UPI000362C6FD  
UniRef90\_G8S3R0  
UniRef90\_UPI000362E7DC  
UniRef90\_X5L0B2  
UniRef90\_UPI0003683472  
UniRef90\_H2FTT3  
UniRef90\_UPI000463B13D  
UniRef90\_L1M4U1  
UniRef90\_Q7CYK8  
UniRef90\_K9H456  
UniRef90\_UPI0003470950  
UniRef90\_C4L0V7  
UniRef90\_E6XA41  
UniRef90\_Q0SAE9  
UniRef90\_E8XSL4  
UniRef90\_UPI0003655941  
UniRef90\_C3MPE6  
UniRef90\_X6A925  
UniRef90\_K0F5M9  
UniRef90\_UPI00040FF726  
UniRef90\_B2UHY7  
UniRef90\_UPI000478A874  
UniRef90\_UPI0004663F95  
UniRef90\_H3M754  
UniRef90\_G5H5N7  
UniRef90\_M0AAM4  
UniRef90\_K5XPQ4  
UniRef90\_B8GG15  
UniRef90\_C6HU78  
UniRef90\_G4I4B9  
UniRef90\_D1Z2X1  
UniRef90\_R0FTZ2  
UniRef90\_R6GV17  
UniRef90\_F3NAQ0  
UniRef90\_U7FJ34  
UniRef90\_A0A023C3Z4  
UniRef90\_B2JRS7  
UniRef90\_M9R795  
UniRef90\_G7STC4  
UniRef90\_E1THK1  
UniRef90\_UPI0003696183  
UniRef90\_U5W6D7  
UniRef90\_F0C3B9  
UniRef90\_D3Q8L2  
UniRef90\_U1K3F7  
UniRef90\_UPI00035F6908  
UniRef90\_Q2LUE8  
UniRef90\_K4YQZ4  
UniRef90\_UPI00037D1CD3  
UniRef90\_UPI0003B74512  
UniRef90\_Q2SNJ8  
UniRef90\_W4NUH0  
UniRef90\_UPI000464D21E  
UniRef90\_UPI0004710A4A  
UniRef90\_C6WIS8  
UniRef90\_UPI00034DE34F  
UniRef90\_S3IN95  
UniRef90\_UPI00047BF271  
UniRef90\_G0HHQ9  
UniRef90\_C4TT16

170  
180  
P I F V T A I L Q H L  
W A F A Y A I A E A L  
M D L C L H L V R L D H G S A N A N K I A R R L V V  
L D C C L Y L V R H Q Y Y G R A I A N K V A R R M V V  
L D L A L A L V A E D F G N T L A T R V A R R Q L V M  
I D A C L H L V A R D Y G V Q L A N C V A R R L V M  
L E M G L E L I S V L V D E E T A G Q V A A A I Q F  
M L F G L K L L E Q V A S K D K Y N A V Y K S L  
I D L A L H L V R R D H Y G P R T A L V A E E V L  
L D L G L H L V R R D H G V Q V A N S V S R R L V F  
I D L G L A L I R E D Y G Y A I A N Q V A R R L V V  
I D M S L H L V R R D H S R E L A E R T A L Q L  
L D L G L H L V R R D H G P E A A N L V A R R L V V  
L D L M L A L I A A R H G R A L A A A V G E W F L  
P A F I K E S L K Q L  
I D M V L A M V G D D L G L A A S R F I A R Q M V V  
I D L C L H V V R G D F G S E A A N S V A R R L V V  
P A F C A K M V E E F A E G R H P A Q A A A  
P D F C R H F I A L L A  
I D T M L H W L T R H A G H E L A L A V A R D M V L  
T D A A L F W I K Q L H G D Q E A K R I Q  
V D C G L H L I R E E Q G S A V A T M L A R R M V V  
L D L A L A M V E K D H G F A V A R A V S R K L V V  
I D L A L Y L V A R D C G A R V A S A V A R E M V V  
P A F C S K L V E E I A E G K H S K Q K A  
P A F M R A F L G L F K G  
I D M A L R L L E L L V D D V A A Q A A Q  
P A F I R E T L K V I  
I H F G V K L I E V L D S K H A S E E V A K G L L L  
I D A C L Y L V A K D F G V K I A N R V A R R L V M  
P A F S R R F I D I L A G  
V D L A L A L V E D D H G S E T A A L I A R V Y V V  
L D L A L H L V S R L V S P D V A T S T A R Q M  
L D L C L H L I R R D H G S A V A A D A A R L S V M  
L D L A L G M V E K D L G A D V A R S V A H K L V M  
L D L C L H I V R T D H G T Q V A N D V A R R L V V  
L D M M L E L I A R D H G E A L A N A V A E Q  
L E M M L M M V E R L H G P D T V R A I R E I L  
I D L M L E I V R G D F G T N I A N A V A N Q F  
I D L M L D L I G Q A H G A E L A I Q V S E Q F V L  
L D M M L S L I G Q D F G E N L V N R V E Q  
L D M M L A W I A N E H G G D L T A A I A E N F L  
L D L G I H L L E R E L G P R I A H A V E Q  
P A F N R E M L N L L K  
F E A A L Y L C E Y L Y G K E V A Q S L A K G L V I  
I D A C L H V V R R E L G S T V A N T I A R R M V V  
F D F A F Q L A Y R L T G D A  
L D C C L H I V R R L C G S E L A N D L A R K M V  
P A F A F T L V K A L K S  
I D L M L H M V A Q Q T S H A C A L S V A R Y L V I  
L D V T L A L I E E D H G P T L A R D I A K S L V V  
I D F A L T V L A E I A G A N A Q M I Q L G L  
L D C C L H L V R R W H G A E V A N R M A R R L V V  
L D L G L H I I R R D H G A E T A N A V G R R L I F  
D A F V N K I V E I  
F D F S F T V A A R L L G D E V  
P K V A F E L L K M L T S E K E M E V I K K A M  
D A F C E G I V E A F A D  
I D L A L A L I E A D H G V I E M A R E V A R E L V V  
M D M A L G F V A D L L G S S L A H Q V G R E I  
I D L A L D L A G K I A G P E A A Q L I Q  
P A F C S E L V A F A S  
G Y F C D A V L R  
L D M A L A M V G K D L G E D V A R G V A H N L V M  
F K F S M V I C R H E H  
I D L C L H L V R R D H G A A V A S A A A R R C V V  
L D M M L R L I A I Q H G A Y L A H E V A E  
L D L A L S M V E Q D L G A D I A R S V A H R L V M  
I D M L L H L V R R D Y G G S A I A N R V A Q R L V V  
I D L F L Q L I A D Q Q G D E L A N A V A D Q  
M D M T L G F I H D H Y G Q G L A Q Q I A N Q  
M D L A L G L V E K D L G A D F A I R V A R A M V M  
E A F C A K L V E I A  
L D L C L H L V R T D H G T A V A N A L A R S L V V  
I D L T L A L I E D D H G H R L A I D V A R Q L V V  
L D L T L A L I E D D N G P D L A R F T S R V L V  
I D M S L H L V A E H I S P E L A K L T A K Q M  
L D M M L N L I S R D H G R E L A A G I S E M F I  
P A F M R E M M K Q L  
L D C C L Y I T R Q R F G S V V A N Q I A R R M I V  
P A F M R A F L G L L  
L D C C L H L L R G L C G S E I A N K V A R R L V V  
L D L C L Y L I E H F C G H E V A V Q T A K T F V I  
I D L A L A L I Q E D Y G H P V A M E V A R R L V V  
L D M M L K L I G D D F D N L V N R V C E Q V L  
P Y Y L P A L I D A I K  
I D F G L T V L A E L L G E P R A R F T Q L G L  
V D L C L Q V V R D D H G S G I A N M A A R R C V V  
T D L G L K L V D R L L G S A V M L E T A R Y L L V  
P R L V Q A M V Q L L  
I D M A L H L V D R F D S R A V A H R I C S V M  
L D L A L M M V E E D M G H D V A L A V A A Q L V M

1 10 20 30 40

UniRef90\_D3Q4X4 H K V A V L A L D D V Y P F D L G I P A R V F R A M P Y E V V T C S V D G A

UniRef90\_Q82NU2 H R L A V L A L P G V P P F E L G I P S R V F G R P L Y E V T V C Y A D D G A

UniRef90\_M9TR97 I V L F D G F D P L D V I A P Y E V L H A G G A T V E L L A S V A E G P

UniRef90\_U0F491 K T I G I L V Y D G V L T S D V T A P L E V F G V A D Y D V V T L S V E T D T

UniRef90\_J7KSF3 T V A V V V S E N F S P F H L S T I P S M V F S D M L Y E E K F F C A E K P

UniRef90\_X0MQU6 H R V A V F V R P G M L P I E V G I V H R I E G E A R Y E P V T C T L E P G G

UniRef90\_A8U2U5 A T R L V V L L R D G G F A S A V V G P A E I L R M A G F R V T I A S P S G G

UniRef90\_F8G774 I I V V L F N E F E T L D V F G P V E V F G K E H F K L E Y S L E G G

UniRef90\_F3NQ12 T M R I A F L T A P G V E Q V E L T E P W Q A V T D A G H E P V L V S T A S G

UniRef90\_UPI00016A7468

UniRef90\_B9TFX6 H T V A I L L A L D K V I P F D L I A T P L Q V I F S F A G R P A Y R V R V C G N

UniRef90\_A4FHL2 I L V P P H A L L L D I A G P L Q V I R Y A N D E F D C H Y I A S R

UniRef90\_UPI0003C19712 K K I L M V I A P D F E D Y C E V V E P T A I L K A N G A E V T I A S T T A S R

UniRef90\_UPI000465F841 S D K K I L F L C G D Y M E D Y E V M V P F Q S L Q A L G C H H V D A V C P D A L

UniRef90\_K3Z6Y9 H R V A V W T Y E G M T P F E G V V V E V F G L P W Y S L D V C S A T P G

UniRef90\_UPI00038223F0 I V L F D G F D P L D V V A P Y E V L Y A G G I T V E L V S A E G P

UniRef90\_UPI00036AD70E R I V F A I L Y P D M T Q L D F T G P H Q F F R W P D S E V I I A S P A G G

UniRef90\_K5ZGH6 H T V A I V A L E G V L P F D L S I P T E V F G R A G Y A V R V C G V T P E

UniRef90\_H8MX12 K M A F V L F D G M T S M D V M G F Y E A V S W A K E N V S W T F C A N K

UniRef90\_W4EI07 H R V A V F V R H G M L P I E A G I V H R L E G R V R Y E V A T C A L E G V

UniRef90\_UPI00034B25D4 I G S L V F R D M D Q I D F T G P F E V L S R L P G G H H R V Y G I T G

UniRef90\_UPI00046E94BA S R H R V V L A Y D G L C T F E F G T A V E I F G E M G E R W Y Q F A V A A

UniRef90\_C2EV55 K L A V V E A P G C E E V E G L T V I D V L R D L G I D A K M V G L E E D

UniRef90\_UPI00046E94BA K L A T V L T N M F E D S E Y A D P A K A F Q D A G H E V V T I E K E A G

UniRef90\_UPI00036B1DDB A V K T F G F L L I P N F T T I G F A S A I E T L R M A N L I A A T L L I A A D H

UniRef90\_V8QMD6 I A I V I N D A T E T T D Y L L A V P Y G V L R N A D V A D V T L S T G D

UniRef90\_W9DAX5 R I A V Y A F D G I S M F H L A A P Q L V F G E T A R X D P G S W T T V

UniRef90\_G0Q1A3 R H V A V L V L E G A K P V D V S I P A Q V F T S M P Y E V R V C G A A P G

UniRef90\_I4ZQ29 K K V L I I T S N G I E H D E L V Q P L D F L Q S H G F V V I H A A E K N E

UniRef90\_Q8FSF5 S K K I L V V T S D G T E K D E L V V P V D K L R E L G H E V T V T P N G K

UniRef90\_D2QX69 A G Q K I L F F T G D I Y E D L E L W Y P K L R L I E A G A E V V I A A D E A K

UniRef90\_I4MYX5 V A L V G Y P Q F P L S L S I G S V E C A N Y E F H L V S E T G G

UniRef90\_L9PM86 V A V V G E N G T E L T D F S I P Y G V L A R S G A V Q L L S V A T K A

UniRef90\_L0GVL9 A A K R I L M L V G D Y V E D Y E V M V P F Q I L V M V G H Q V D A V C P D G A

UniRef90\_Q2JEF7 R K I A F L V A P G V E Q V E L T E P W K A I E Q A G L S P V L V S T E G

UniRef90\_C7LNF0 G K K F V L L V E T Q F N D H E F W Y P Y F R L K E A G A Q V V V S G K A G

UniRef90\_M3FLI8 R I A F L T A P G V E Q T I E L T E P W Q A A K N A G H E P V L V S T T S

UniRef90\_S5EWB0 L F F E S A G I A D I L M Q A N Y Q M A L V T T Q T P V

UniRef90\_UPI00046E94BA H K I G L I T A D H F Q M L A I S T L T V F E F A N M A T G K A F Y Q P H

UniRef90\_J1YKW3 R T V S V V V I D G I A P F E F G V V C E V E G I P A F D F R V C G E R P G

UniRef90\_G0ETY6 A V A L F E G F Q A L D A F G P L D V L A A T K D A V S T A A P D A H

UniRef90\_C7QKC0 R T V A V L A F D G I S P F H L S V P C L V F G D R L G T E H L Y D V Q V F

UniRef90\_J5JT27 I A I V I N D M T E T T D Y L M P Y G I L A R A D I A D V L T L A T Q Q

UniRef90\_D2Q481 V A V L V R H G L L P M E L G I V H R L F G Q A L Y E V L T C T P D P G

UniRef90\_UPI000477536C T V Q I V L F D G F D L L D A I A P Y E V F C A A A M S V E L V T A E G P

UniRef90\_W5RB99 R R I L V L T N G T E S D E L T K P I A A L R E A G A T V T V A A T S E P G

UniRef90\_UPI00026C7429 V A I V A D N G T E T D F I V P Y A I L K T S G A A D V V A V S A D E

UniRef90\_U2FLT4 M F D G V E E L D C I A P Y E V L S A G A D I R Y V T T G E P

UniRef90\_S2YH44 G R T F A F L L V D K F P M F S L A A A D T M R T A N Y S W I T V S A T G A

UniRef90\_UPI0002E30698 K R V L L L L A D G F E S V I A S F T D V F G E G N G E T E L V T A G L R

UniRef90\_B1Y2Y5 T R L I G L L I Y D G V E L L D H A G P Y E V F T T A S A R L H G A G L P P P

UniRef90\_D2PWQ7 V A V V A A H V K S L E L A I P A Q V F G T A S Y E V V V C G E R A D

UniRef90\_UPI00029A862F V A V L A L D E V S A F D L A L P C Q V F A L V T G P E G T P A Y E V R

UniRef90\_Q3KCP7 H R V G Y L I T E G F Q V M S L A T Q A V F E F A N I V A G E E I

UniRef90\_UPI0002E4184C K R I L M L L A N G V E P L E I A A F T D V E G W A D F T L V H A G L R S E

UniRef90\_D4X8C3 R H F G F L P L Q F T M L S T T A I E V L R M A N Y R W S V V A P K G G

UniRef90\_M0QCQ2 A F D G I S M F H L S V P A D H F G T A G Y E L T V C A V E P G

UniRef90\_Q2JBH2 A T R H A V V L A V P A T V A M D L A I P A Q V F G H L D L A E H Y T F T

UniRef90\_R1FVY7 H R M V V V L L E D V L P L D Y A I P I H V F R E A P E A Y D L V T V S V G

UniRef90\_Q0TKL8 V G L F L E N V H N D H E L W Y P L Y R L R E A G M K V T V I G P E R K

UniRef90\_K8NXL8 T V A V L V A P G T E R V E L E Q P R R A L T D A G A E V D V L S T D D G

UniRef90\_M0CME6 H R V V V L A L D G V I P F D L G I P A R L F G A A P Y D V V T C G V S A G

UniRef90\_C7Q6K3 I V L F D G F D P L D V I A P Y E V L V A G S D D V E L V T A E G P

UniRef90\_K0UYH4 G R K V A F L V A E G I E Q V E L T E P W K A V E A G G T P E L V S V R P

UniRef90\_A4FGZ7 R V A F L I E N H F E D S E Q I P Y T A L K Q A N A E V V L G S R M N

UniRef90\_B1WZ24 S K R I A V L V T F D F E D I A Y S E P V I Q A F R A A R H S L L N I E N R A G

UniRef90\_N8Q7P6 R V A L V A T P G V R A F D V S I T E V W G V D R T D R G V P A F E L R

UniRef90\_E8VZ77 V V A L A Y D R L C T F E F G C V A E V F A R P E L G V D W Y R F A V C

UniRef90\_UPI00046B6A05 Y D G I S P F H L S V P S V V E G K E R D A D S P A F E

UniRef90\_A9AFW6 V A I L A E P G T E T T D L I A P Y A V L A E S G A D V R I V A A G M T

UniRef90\_ROD4T9 K K V L L L A K G F E S F E A S V F I D V L V D G D K T K L Y T C G F T

UniRef90\_N1W4V7 K I A C L I T D M F E D V I E Y T D P A K S Y K E A G H E V D V I E K E S G

UniRef90\_UPI0001850B5E G K K I A M L I G P G Y E D L E F W V Y M R M K E E G A E I D V V G M E K N

UniRef90\_E3DNZ8 R I G L L A L P E T T P A A V Y G L Y E V L S A A G S I W D R L T G Q E T

UniRef90\_UPI00037103C5 V A I L L F D Q Y E T L D A M G P A E I F G S L P N T A I H C L I S L D G

UniRef90\_W01338 V C F L L L P G T L I M D V A G P A E V F R L A N A Q F A L Q F I S P E

UniRef90\_I3U7H9 I A I L L A F D G V P M F H L S V P Q V V F G E A D W R T D L V A E R A G

UniRef90\_A6WBK8

UniRef90\_J2JYQ3 R S V G F I L E D G F Q V M G L A A L S A F E F A N Q D Q G T E A Y K L T

UniRef90\_UPI00035D07FB R S I V F F L V P N F S M I A F A T A I E P L R I A N Y R W R L T S V D G K

UniRef90\_A6X027 I L V A A L P G C L V S S V T G V L D V E A V A N H A Q R S A G N G L

UniRef90\_UPI0003B5F2B2 I A I L I N D M T E T T D Y L M P Y G I L K R A D V A D V V T L A T G P

UniRef90\_UPI0003625B8F R V A I L S H P N V S L F E L G C A V I E M F A L P R P E F D N W Y Q T E I

UniRef90\_F9RYS7 A A K K I L M L V G D Y V E D Y E V M V P F Q A L Q M V G Y T V D A I C P E G D

UniRef90\_UPI000345C3B0 A A K K I L M L V G D Y V E D Y E V M V P F Q A L Q M V G Y T V D A I C P E G D

UniRef90\_A0ZEY7 R R V A F L L E N F S M M A F T G A L D A L V I T A N Y E V L V G S N G G

UniRef90\_S2LHJ3 A I K K I L M L V G D Y V E D Y E A M V P F Q M L Q M V G Y H Q V H A V C P T A I

UniRef90\_D3RQ19 H V N V V L Y N F T A L D A F G P V E V L N R E D Y K I C F V S L N G G

UniRef90\_K9D1D3 K V L L F C K G F E T M E F A P F V D V M G W A D M P V E V V T A G F S

UniRef90\_UPI0003B6EDE5

UniRef90\_D3Q4X4 P V R T N A D Y S T 50 L V D H D A S L 60 L A E A D T V I V P P H G D P Y P F G L 80  
UniRef90\_Q82NU2 P V L S D A G F T V Q P A A G P E A L L A A A D T V I V P P T H A M P E L G R G  
UniRef90\_M9TR97 R E V A G T E G L K I G R A T A A L G D P A R A P D D E A D G P A P D A G D R Q Q D A  
UniRef90\_U0F491 H T V T T E E G L K I G R A T A A L G D P A R A P D D E A D G P A P D A G D R Q Q D A  
UniRef90\_J7KSF3 G M V A S E H G F S I N V E H G F S A L E K A D L I V V P H I T S S Y D M D P  
UniRef90\_X0MQU6 A V P T D A D F T V N V A H G P E V L G T A D D T V V L P A S A V D Y D P G P E  
UniRef90\_A8U2U5 P A A C V G G L T V P A E A A L A D T G V P D L V L G S S G I A G M A J A D  
UniRef90\_F8G774 N V Y S S Q N V C I N T K K L S D A N S K D S I L F V P G G I G T R E  
UniRef90\_F3NQ12 E I Q A F N H L D K A D T F P V G E V V G E A G S F D A L L V L P G G V A N P D A  
UniRef90\_UPI00016A7468 E P S D T L I V A G G W G V Y D A  
UniRef90\_B9TFX6 D Y D M V A L P G G M P G S E H  
UniRef90\_A4FHL2 A P A V D A G A F T L Q P R W G L E A L L A D A D T I V L P G C S E P E  
UniRef90\_UPI0003C19712 D R Q Q S S I G L D L C G L E A L P E N A F L L I S T S R S E S E P D T  
UniRef90\_UPI000465F841 P A I G T N G F R V T P D I K I S D A N A D D Y D A I V L P G G T G V I S H  
UniRef90\_K3Z6Y9 H D F E G D Q T Y S E K P G H D F T L T A S F E S M D A A L V I P G G R A P E Y  
UniRef90\_UPI00038223F0 Q P M R A V G G F A L T A D H G P E L V L A A A D T I I I P G V P D  
UniRef90\_UPI00036AD70E R E V V I G T G L T L R A T A A L D P A R P G E P A D G P D E H I P A L L G R A  
UniRef90\_K5ZGH6 D V L S E G L I F A G T R R L A E I E A C D L I C V P G G R G T T A T  
UniRef90\_H8MX12 V H A G A F R V K T Q H G L G V L A R A D T I V L P G I A D V S  
UniRef90\_W4E107 A E V T D D R G L T M K A N E V L P D L G T F D L V F L P G G M P T R T  
UniRef90\_UPI00034B25D4 I G T D S D S D L T L N V R H G P E A L L A D A D T V I L P A A E E D Y G E R P H  
UniRef90\_W7SVV7 Q P V R D V R G L T I V P D A I G D A P A L D V L H V P  
UniRef90\_M9W3H1 V D D G E L R A T G G I R L M T D G G M N L L Q D A Q T I V V P G W R G I D  
UniRef90\_C2EV55 R E V L G A H N I K L T C D E L M G D Q L L K Y D L V A F P G G M G G S K R  
UniRef90\_UPI00046E94BA T V V K G M K K G T P V R I D K G I D E V K P E D F D A L F I P G G F S P D Q  
UniRef90\_UPI00036B1DDB E P V Q A S N G M R V V P D Y S L E D A P A L D A L F V V G S N P M P  
UniRef90\_V8QMD6 G P V R L Y P A L T V R A Q A T V A Q F D Q R N P Q G A D Y V I V P A M S R D D  
UniRef90\_W9DAX5 L W S A A G G E V G V G E G Y K I S G L V G P E A A A D A D M I V V P S W P E D  
UniRef90\_G0Q1A3 L V A G G D G L S Y H V A H G L D V L A W A D T V F I P G Y R S P D R D  
UniRef90\_I4ZQ29 P V H T M E A D S K P S A Q Y T P D T T M H E E N D Y D L L V I P G G T V N A D K  
UniRef90\_Q8FSF5 D V Q T V D W D L E F P S A Q Y T P D T T M H E E N D Y D L L V I P G G T V N A D K  
UniRef90\_D2QX69 Q L Y A G K H S Y P C K S D V A I A S V D P T Q F D G L V V P G G F M P D K  
UniRef90\_I4MYX5 A V M S S Q G F S V N T P L R D E G Y D T L I S G Y L D Y  
UniRef90\_L9PM86 P L S M R P T L T L Q A D A T T A E F D Q R Y P Q G A D Y V I V P A V S  
UniRef90\_L0GVL9 Q T Y S E K P G H N F T V N A D F N A V D E T A Y D G L V I P G G R A P E Y  
UniRef90\_Q2JEF7 G R V Q A F R H L N P A D T F P V D I T V D P A D F D A L V L P G G V A N P D E  
UniRef90\_C7LNF0 Q S Y E G K Y G T P A K S E K A P A D I N V A E F A G I I V P G G Y A P D H  
UniRef90\_M3FLI8 G R V Q G F D H L D K A D T F P V D A V V G E T P F D A L V L P G G V A N P D F  
UniRef90\_S5EWB0 R V V H G S S G L N L A D H R L A D L P S E V I R D T I V T G K G A T E E E  
UniRef90\_J1YKW3 V Y S E F G S G T V R S S S G I G V D S L P L S D D T Q V D W L V A G V L T P V E  
UniRef90\_G0ETY6 S S V T S F Q G P A L G R V E R L P A R L E A G D V V I A V G S K L L D T L T T  
UniRef90\_C7QKC0 E P L A M G V G A Q L P E Y G L E A L R D A D L V A V P A A R L R D E Y  
UniRef90\_J5JT27 Q T I E Q W V L P T H T F D D A P D N I E V L I I P G G Q G T R K P E T  
UniRef90\_D2Q481 A E Q A G R L G T N A G F G L H V E R E L D V L R T A D L V I L P S W T P G  
UniRef90\_W1JW89 G P V T L Y P A L K V Q P H A T I A D F D A A H P D G A D Y V I V P A M S R D D  
UniRef90\_UPI000477536C E I R T D A D F T I M V G H G P E L L A Q A A T V V V P A S D E D Y R P Q D G  
UniRef90\_W5RB99 R S V P S G A I N L K I E A S G R L D P E C P G A S G D V E D G P D S I P A T L G  
UniRef90\_UPI00026C7429 V V K T L A G D R D P G P E V P V D T T Y E Q V D F D A L V I P G G T L N A D Q  
UniRef90\_U2FLT4 G E V E L M P A R L R M L A D T T F D R F D A T V P A G A D V V I V P A L H G A D  
UniRef90\_S2YH44 G P V R C G H G T E I Q V R H R W A P Q E A D L I V V P G G G Y A R R D  
UniRef90\_J3HTK1 P V T A S N G L Q I N V E Y A L A E L P A A D I F F I C A G L T T E  
UniRef90\_UPI0002E30698 E E L K C T W N F R V K P E M L L Q D V K V E D D A L A I G G G F E Q A G Y F T  
UniRef90\_B1Y2Y5 F E V L S A S Q A P I R A R A G L Q L L P D Q T I D A H P P L D L L M I P G G V  
UniRef90\_D2PWQ7 L V V C G R G G T E L Y R M T A P H D L T A A L T A D T V I V P G A R T D  
UniRef90\_UPI00029A862F V C V D R E T A A T A G P T A P F R V S S P Y G W D D V L H A D T V V V P G N P  
UniRef90\_Q3KCP7 Y K V Q N F S I G G G T V R S S L G M Y I D T L P L I G A P G L A D T W M I T G T  
UniRef90\_UPI0002E4184C I L L T T A S N G L R I S N L L D E L D L G D Y D A L A L P G G S E P F Y E  
UniRef90\_D4X8C3 P I T A S N G L Q V Q A T E L D E D A P P D A V F V C G G K R S N M D  
UniRef90\_M0QCQ2 S L A T S A G V P I S V T E D L G A F E S A D T V V I P S W A D R  
UniRef90\_Q2JBH2 L C T E Q P G S L P T T T G F A L E V A H G L A A L D A A D T V V V P G Y A P L  
UniRef90\_R1FVY7 G G P V P V A G G T V V P D G G L E L L R R A G T I V V V P G Y A D A A G  
UniRef90\_Q0TKL8 D Y V S K L G Q V L P A E T V A E K D A V A T L Y D A L I I P G G Y A P D M  
UniRef90\_K8NXL8 E A Q T V D N D L E A A D T V E I G A G T I D E S D Y D A T H V P G G T V G A D R  
UniRef90\_MOCME6 P V T T S G D Y S L Y V E H G A E A L A E A D T V I V P P A Y P T V D D L A D  
UniRef90\_C7Q6K3 R T V V S S R G L T L Q A T A G L D P A K A G Y V I V P G A S G P L A G D P D E  
UniRef90\_K0UYH4 G S V Q A F N H L D K A D T F T D K V V R P T D Y D G L V L P G G V A N P D N  
UniRef90\_A4FYZ7 D T Y K G K R G K V S I K P D A T A T E V R S E D F D V I I I P G G A P D A  
UniRef90\_B1WZ24 N I V Y G Q K C K S A V T I D R S I D H V S V H D F D A L L I P G G H S P N Q  
UniRef90\_N8Q7P6 R V A T A D P V Q L R G G L S L T P D R T L A W L A A D L V V V P G L D D H E  
UniRef90\_E8VZ77 A V D R G P L R A A G G I S V T V P Y T P K L L D H A T T I V V P G W R D A D E  
UniRef90\_UPI00046B6A05 F R V C S A D R G P L A T T G G Y T A L V A P Y A L D D A D I V I V P S W R D E N  
UniRef90\_A9AFW6 P I R L M P G Q A F V R Q A T Y A D L R P D V I V V P F M M P A A D P  
UniRef90\_R0D4T9 K E V T G S F G V K L Y V D Y L I N E I D I N D E A L A I P G G F E E Y G F Y E  
UniRef90\_N1W4V7 K T V T G K Q G D A K V T I D K S I D D V Q V E D F D A L F I P G G V S P D D  
UniRef90\_UPI0001850B5E K E Y S K H G C L T K K A D F T A T E V L E E Y D G V L V P G G W T P D K  
UniRef90\_E3DNZ8 R A R R I V P S I V A R R K E T F T C A I G T A D C D V V I V T D L A L P L D D  
UniRef90\_UPI00037103C5 G P V Q S A Q G V V V M T H P V S H W T E P M D I A L L P G G K S T L S  
UniRef90\_W01338 H T I T S S V G L S F H D I A P L P D L R Q L R K S G P V W I H H D P V W L K A  
UniRef90\_I3U7H9 S I R T A S E G H S I G G V L I G P R A F E D A D V V V V P S W F E D G R E  
UniRef90\_A6WBK8 W R S I T  
UniRef90\_J2JYQ3 V M S E K G G T V R S S L K I G V E T E P L G D F P D T L M V V G E L T P S S S  
UniRef90\_UPI00035D07FB P V T A S N G V E C A V N A S L E D E R R F E Q R P S M V F V C S G V I V I E E  
UniRef90\_A6X027 A P V R G F D G R T L P D V D L A R S K D E A P P D L Y V L P A I F D N L I Q G  
UniRef90\_UPI0003B5F2B2 G P V A L F P V L K V E P D A T L A A F D A A H P D G A D Y V I V P A M S R D D  
UniRef90\_UPI0003625B8F V N L I D Q P I T T T G D I V M Q T R H V A G L D G Y D M L V I P S W P T Q S G  
UniRef90\_F9RYS7 Q T Y S E K R G H N F L N A T F E V I A D T Y D G L I V P G G R A P E Y  
UniRef90\_UPI000345C3B0 Q T Y S E K P G H N F L N A T F A E V E A T Y D A L V I P G G R A P E Y  
UniRef90\_A0ZEY7 D T V L S D L G I D I S V D C Q L S Q L D E R Q L D L V L C G G L R V Q P  
UniRef90\_S2LHJ3 H D F E G D Q T Y S E K P G H N F A I N A D F A T V D P A K V I P G G R A P E Y  
UniRef90\_D3RQ19 L I T N E N Q N I R I E T E P M S V I E D G G I L L I P G G W G S C D  
UniRef90\_K9D1D3 K T V I S T F G I P I L V D K S F D E I D V S E Y D A L A I P G G F F G F Y E  
UniRef90\_UPI0003B6EDE5

UniRef90\_D3Q4X4  
UniRef90\_Q82NU2  
UniRef90\_M9TR97  
UniRef90\_U0F491  
UniRef90\_J7KSF3  
UniRef90\_X0MQU6  
UniRef90\_A8U2U5  
UniRef90\_F8G774  
UniRef90\_F3NQ12  
UniRef90\_UPI00016A7468  
UniRef90\_B9TFX6  
UniRef90\_A4FHL2  
UniRef90\_UPI0003C19712  
UniRef90\_UPI000465F841  
UniRef90\_K3Z6Y9  
UniRef90\_UPI00038223F0  
UniRef90\_UPI00036AD70E  
UniRef90\_K5ZGH6  
UniRef90\_H8MX12  
UniRef90\_W4EI07  
UniRef90\_UPI00034B25D4  
UniRef90\_W7SVV7  
UniRef90\_M9W3H1  
UniRef90\_C2EV55  
UniRef90\_UPI00046E94BA  
UniRef90\_UPI00036B1DDB  
UniRef90\_V8QMD6  
UniRef90\_W9DAX5  
UniRef90\_G0Q1A3  
UniRef90\_I4ZQ29  
UniRef90\_Q8FSF5  
UniRef90\_D2QX69  
UniRef90\_I4MYX5  
UniRef90\_L9PM86  
UniRef90\_L0GVL9  
UniRef90\_Q2JEF7  
UniRef90\_C7LNF0  
UniRef90\_M3FLI8  
UniRef90\_S5EWB3  
UniRef90\_J1YKW3  
UniRef90\_G0ETY6  
UniRef90\_C7QKC0  
UniRef90\_J5JT27  
UniRef90\_D2Q481  
UniRef90\_W1JW89  
UniRef90\_UPI000477536C  
UniRef90\_W5RB99  
UniRef90\_UPI00026C7429  
UniRef90\_U2FLT4  
UniRef90\_S2YH44  
UniRef90\_J3HTK1  
UniRef90\_UPI0002E30698  
UniRef90\_B1Y2Y5  
UniRef90\_D2PWQ7  
UniRef90\_UPI00029A862F  
UniRef90\_Q3KCP7  
UniRef90\_UPI0002E4184C  
UniRef90\_D4X8C3  
UniRef90\_M0QCQ2  
UniRef90\_Q2JBH2  
UniRef90\_R1FVY7  
UniRef90\_Q0TKL8  
UniRef90\_K8NXL8  
UniRef90\_M0CME6  
UniRef90\_C7Q6K3  
UniRef90\_K0UYH4  
UniRef90\_A4FGZ7  
UniRef90\_B1WZ24  
UniRef90\_N8Q7P6  
UniRef90\_E8VZ77  
UniRef90\_UPI00046B6A05  
UniRef90\_A9AFW6  
UniRef90\_R0D4T9  
UniRef90\_N1W4V7  
UniRef90\_UPI0001850B5E  
UniRef90\_E3DNZ8  
UniRef90\_UPI00037103C5  
UniRef90\_W01338  
UniRef90\_I3U7H9  
UniRef90\_A6WVBK8  
UniRef90\_J2JYQ3  
UniRef90\_UPI00035D07FB  
UniRef90\_A6X027  
UniRef90\_UPI0003B5F2B2  
UniRef90\_UPI0003625B8F  
UniRef90\_F9RYS7  
UniRef90\_UPI000345C3B0  
UniRef90\_A0ZEY7  
UniRef90\_S2LHJ3  
UniRef90\_D3RQ19  
UniRef90\_K9D1D3  
UniRef90\_UPI0003B6EDE5

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

UniRef90\_D3Q4X4  
UniRef90\_Q82NU2  
UniRef90\_M9TR97  
UniRef90\_U0F491  
UniRef90\_J7KSF3  
UniRef90\_X0MQU6  
UniRef90\_A8U2U5  
UniRef90\_F8G774  
UniRef90\_F3NQ12  
UniRef90\_UPI00016A7468  
UniRef90\_B9TFX6  
UniRef90\_A4FHL2  
UniRef90\_UPI0003C19712  
UniRef90\_UPI000465F841  
UniRef90\_K3Z6Y9  
UniRef90\_UPI00038223F0  
UniRef90\_UPI00036AD70E  
UniRef90\_K5ZGH6  
UniRef90\_H8MX12  
UniRef90\_W4EI07  
UniRef90\_UPI00034B25D4  
UniRef90\_W7SUV7  
UniRef90\_M9W3H1  
UniRef90\_C2EV55  
UniRef90\_UPI00046E94BA  
UniRef90\_UPI00036B1DDB  
UniRef90\_V8QMD6  
UniRef90\_W9DAX5  
UniRef90\_G0Q1A3  
UniRef90\_I4ZQ29  
UniRef90\_Q8FSF5  
UniRef90\_D2QX69  
UniRef90\_I4MYX5  
UniRef90\_L9PM86  
UniRef90\_L0GVL9  
UniRef90\_Q2JEF7  
UniRef90\_C7LNF0  
UniRef90\_M3FLI8  
UniRef90\_S5EWB0  
UniRef90\_J1YKW3  
UniRef90\_G0ETY6  
UniRef90\_C7QKC0  
UniRef90\_J5JT27  
UniRef90\_D2Q481  
UniRef90\_W1JW89  
UniRef90\_UPI000477536C  
UniRef90\_W5RB99  
UniRef90\_UPI00026C7429  
UniRef90\_U2FLT4  
UniRef90\_S2YH44  
UniRef90\_J3HTK1  
UniRef90\_UPI0002E30698  
UniRef90\_B1Y2Y5  
UniRef90\_D2PWQ7  
UniRef90\_UPI00029A862F  
UniRef90\_Q3KCP7  
UniRef90\_UPI0002E4184C  
UniRef90\_D4X8C3  
UniRef90\_M0QCQ2  
UniRef90\_Q2JBH2  
UniRef90\_R1FVY7  
UniRef90\_Q0TKL8  
UniRef90\_K8NXL8  
UniRef90\_M0CME6  
UniRef90\_C7Q6K3  
UniRef90\_K0UYH4  
UniRef90\_A4FGZ7  
UniRef90\_B1WZ24  
UniRef90\_N8Q7P6  
UniRef90\_E8VZ77  
UniRef90\_UPI00046B6A05  
UniRef90\_A9AFW6  
UniRef90\_R0D4T9  
UniRef90\_N1W4V7  
UniRef90\_UPI0001850B5E  
UniRef90\_E3DNZ8  
UniRef90\_UPI00037103C5  
UniRef90\_W01338  
UniRef90\_I3U7H9  
UniRef90\_A6WVBK8  
UniRef90\_J2JYQ3  
UniRef90\_UPI00035D07FB  
UniRef90\_A6X027  
UniRef90\_UPI0003B5F2B2  
UniRef90\_UPI0003625B8F  
UniRef90\_F9RYS7  
UniRef90\_UPI000345C3B0  
UniRef90\_A0ZEY7  
UniRef90\_S2LHJ3  
UniRef90\_D3RQ19  
UniRef90\_K9D1D3  
UniRef90\_UPI0003B6EDE5

130 140 150 160  
A T T H W V A A E H F Q L Y P D V D L D P G V L F V D D G D V L T S A G A G A A  
A T T H W H L A P E F R R A Y P R V K V D E E V L F V D D G D V L T S A G V A A G  
R H A T T H H L G L D M L D A T G V H A V R A R V V D D D G D V L T S A G V T S S G  
Q A T T W A G G E R D F Q O Y P Q V N V L S D K N Y V I D D K V L T S A N G S L V S  
R A S T H W A F E R Q D F I A R F L H V D T N A L Y V E D E H L I T S A G T V A A  
A T T H W R S V D D F R R L F P Q V E L D A D V L Y T D G R V L T A A G V N A S A  
R A T T H W A F A D E L R R M F P A A D V R P A R M V E D R I V T A A G V I N A G  
K A T S N K K A W T K S I A P D V N W I D K A R W V K D G N I Y T S S G I S A G  
T L T S W P S L R T D L R N A G A T W V D E Q V K V C D G G L V T S R K P D D L  
R V V T H W S R C E E Q R Y P D V R V D P D P I F I R D D G D V W T S A G V T A G  
R A T S F P G V I E E M P G T H R Y Q T D A V V V D G N I V T S R G P G T A  
U N I R E F 9 0 \_ U P I 0 0 0 3 C 1 9 7 1 2 S C T T H A D C I E R L A Q R H P S G I E V D P D Y V D N G Q F L T S A G A A A G  
T V T M F P W D D G I K E T T R G A T Y V N E E T V T D G N I V T G K N P A S  
K A T A Y P A V K L N V V L R G W L E P D P I D R C F T D R V L T S A G A W A P G H  
R A T T H W R Y A L D L A R R Y P Q V T V D D E D D V I T G A G A S A A G  
R H V T T H H L G L D L L D A T G A H A V P A R V V D D G D V V T A A G V T A S G  
A A C H W A W R H L L P L F G A I A D D G R V V R D G N I I T G G G V T A G  
U N I R E F 9 0 \_ H 8 M X 1 2 R A T T H W L G T E E L A R R H P L I Q V D P N Y V D N G Q L T S A G A A A G  
K A T T N S S A Y D L L A P Y C G E V I K A R A V R D G D T F T G G G V T S S G  
U N I R E F 9 0 \_ U P I 0 0 0 3 4 B 2 5 D 4 V T T H W M S A G Y F R A M Y P H I D L D P D V L Y T D G R V L T S A G V A S G  
R A T T H W A S L H L L P E F G A E A V D E R V V V D D G D W I F A A G V T S S G  
K A T T H W R Y T E N L R Q R Y P D V V A D V L Y V G S D G I M T S A G S A A G  
U N I R E F 9 0 \_ C 2 E V 5 5 D Y T C Y P S M N E E L Q K E A V T P S A R F H K D I T V E A K I L T S R R Q P E A T A  
U N I R E F 9 0 \_ U P I 0 0 0 4 6 E 9 4 B A D A T G Y T S G R E V D M E Y A G T K F H D K E V V V C H N Q L V T S R Q P E D I  
R C T V H W E D I E H V K D K F P G I V I N Q L F E L D R D R Y T C S G G T A S  
U N I R E F 9 0 \_ V 8 Q M D 6 R A T T H W W Y L K T R D Y K N I R Y V P D R R W V V D D G V A T T T G I T A S A  
U N I R E F 9 0 \_ W 9 D A X 5 A V T H W A M D A L R K R H N D I P L V L Y V D D G D V L T S A G T A S A  
U N I R E F 9 0 \_ G 0 Q 1 A 3 A T T H W H Y T R A L A A K H P L V Q V D E N V L F V D D G V L T S A G A A S G  
U N I R E F 9 0 \_ I 4 Z Q 2 9 N L T S Y K S I K L D L E N A G A K W V D E E V H R C N T N L I T S R N P D D L  
U N I R E F 9 0 \_ Q 8 F S F 5 N L T S Y I S V R I D L E N A G A N W H D V P V Q V C D W K L I T S R N P D D L  
U N I R E F 9 0 \_ D 2 Q X 6 9 R V T G S L G I K D D L V N A G A I W E D A A V V V D R H F V S S R K P D D L  
U N I R E F 9 0 \_ I 4 M Y X 5 R A T T H W L H A P S F Q K R Y P H I H L E E D F V V D G H L W T S C A G M S A C  
U N I R E F 9 0 \_ L 9 P M 8 6 R A T G H W A T E S Y R K H Y P Q W I S N T R Y V A D G N V I T S A G V S A S  
U N I R E F 9 0 \_ L 0 G V L 9 V C T A Y P A V I Q P E T E A A G G T W H Q L J A N A C A D G N L V T S A P A W T A H  
U N I R E F 9 0 \_ Q 2 J E F 7 R I T S W P S L R T D D L R N A G A E V V D E Q V V I C P N T I S S R R P D D L  
U N I R E F 9 0 \_ C 7 L N F 0 T V T S F F A I K D D L R N A G A K W Q D N E V V I D K N M I T S R R P D D L  
U N I R E F 9 0 \_ M 3 F L I 8 V L T S W P S L R T D I R N A G G T W V D E Q V R I C D H K L V T S R K P D D L  
U N I R E F 9 0 \_ S 5 E W B 0 R A T T H W R L L E T L Q A R F P K V K N G P L Y V Q D G A V W T S G G V T S S G  
U N I R E F 9 0 \_ J 1 Y K W 3 R A T T H W A H A R S L L Q A L H P D I L Q L E D D F I I D D R V W T S A G M T A G  
U N I R E F 9 0 \_ G 0 E T Y 6 C T T H H A H I K R L R A R H P D A S V I D N R V F V D G N V W T S A G V A S G  
U N I R E F 9 0 \_ C 7 Q K C 0 R C T S H W R Y A A Q V A E R F P G A R I D P D F V D E D G I I T S A G T A A G  
U N I R E F 9 0 \_ J 5 J T 2 7 R A T T N K C A F D W V E A K V E W R R A R W V D T G K I W T A S G V T A G  
U N I R E F 9 0 \_ D 2 Q 4 8 1 V V T H W Y W A E D L Q K R Y A D L R V R A D V L W S D G D V V T S A G T A S S  
U N I R E F 9 0 \_ W 1 J W 8 9 R A T T H W S V R D L R K H A T I R Y A P D R R L V V D D G V V T T T G V T A S  
U N I R E F 9 0 \_ U P I 0 0 0 4 7 7 5 3 6 C A T T H W R S A A E F R R L H P E V H L D P D R V L Y T D D R V L T A A G V T A S G  
U N I R E F 9 0 \_ W 5 R B 9 9 R P A V T N R L G M D F L G A T G A V P V P A R V V D D G N L V T A G G V T S S G  
U N I R E F 9 0 \_ U P I 0 0 0 2 6 C 7 4 2 9 D L T S V P A L R T D L V N A G A R W A D R E V V I D D E R L T S R T P D D L  
U N I R E F 9 0 \_ U 2 F L T 4 T A T S H W Y S R D R L R R R F T T W V D D R R Y V M D G N V M T T T G V S A S  
U N I R E F 9 0 \_ S 2 Y H 4 4 P C T T H H R A K A H L I E E Q G G D V K N A R V V D D G D L V T A G G I T S G  
U N I R E F 9 0 \_ J 3 H T K 1 R C T T H W S N R A G F Q E R F P Q A I E C T N V E E I D R K R Y T C A G S T S  
U N I R E F 9 0 \_ U P I 0 0 0 2 E 3 0 6 9 8 K A T Y S S T R K Q E L Q K F G A E V V Q A P L I D E G N I I T C A S P S V G  
U N I R E F 9 0 \_ B 1 Y 2 Y 5 C T T H W E D I D D L Q R A H P T L K I H S S M R W V N R P L Y T S A G I S A G  
U N I R E F 9 0 \_ D 2 P W Q 7 R A T T H W T S A G G L A Q R F P Q V E V D P L F V D D G D V L T S A G A A T A G  
U N I R E F 9 0 \_ U P I 0 0 0 2 9 A 8 6 2 F R A T T H W R F A D A L A E R F P G V D V D P L Y V D E G Q V L T S A G V A A G  
U N I R E F 9 0 \_ Q 3 K C P 7 R A T T H W A Y A N K L R E L H P R I E V E E D F I V D G P V W T S A G M T A A  
U N I R E F 9 0 \_ U P I 0 0 0 2 E 4 1 8 4 C N A T V Y H Q T G G K R K Q Q L V D R F V D R P V V V D G N F M T S S G P T A  
U N I R E F 9 0 \_ D 4 X 8 C 3 T C A M H W D L V A L Q R Q F P H S R L S H D L F V I D R D R I T C T G G T A P  
U N I R E F 9 0 \_ M 0 Q C Q 2 E V I T H W D A E R S R R Y P A V I Q V R S D V L W T D G D V I T S A G T V A S  
U N I R E F 9 0 \_ Q 2 J B H 2 R A T T H W D A G D L A A R H P T V Q V D P N V L Y V D G R I L T S A G V C A G  
U N I R E F 9 0 \_ R 1 F V Y 7 T V T T H W L C A D L A E R F P A V T V D Q S V L V A G T V L T S G V T A G  
U N I R E F 9 0 \_ Q 0 T K L 8 G N M T G F P T L K D K I P A E Q W Q D K R V V W D A R V K L L T S Q G P G T A  
U N I R E F 9 0 \_ K 8 N X L 8 R V T G A P S I K D D L V N A G G Q F E D A E V V V D G S I I T S R K P A D D L  
U N I R E F 9 0 \_ M 0 C M E 6 R L T S Y P S L E T D L E N A G G E W V D E T V T D D G L V T S R K P D D L  
U N I R E F 9 0 \_ C 7 Q 6 K 3 K V T T H W H Q A E R M E E L F P T L S V D P N F I D D G D V L T S A G V A A A  
U N I R E F 9 0 \_ K 0 U Y H 4 R P A N T H S L G V E M L E A A G A V P V A A R V V D D G D L V T A G G V T S G  
U N I R E F 9 0 \_ A 4 F G Z 7 R L T S Y P S L A T D L R N A G A E W V D E E V V V D A G L V T S R R P Q D L  
U N I R E F 9 0 \_ B 1 W Z 2 4 R A T G F Q A I R K D M Q N A G A I Y I D E P V I V Q E N L I T A R R P G D L  
U N I R E F 9 0 \_ N 8 Q 7 P 6 L M T T I Q T V A L D L I N A G A V Y Y D V D V V N D N N L Y I T S S R S P D D L  
U N I R E F 9 0 \_ E 8 V Z 7 7 R A V T H W N L T E L L K A R H P R V M R D A L F L H E D N I W T S A G T A A G  
U N I R E F 9 0 \_ U P I 0 0 0 4 6 B 6 A 0 5 V T T H W R Y A E E L Q R R Y P Q L R V Q S D A L Y I D G Q I T A A G S A A G  
U N I R E F 9 0 \_ A 9 A F W 6 P A T T H W A W A D F A R R F P R V K L D P D Y V D D G N V M T S A G T A A G  
U N I R E F 9 0 \_ R 0 D 4 T 9 D A T T H W F E L G R L A K A Y P Q W R R D R R W I V D G N V T T T A G V T A S  
U N I R E F 9 0 \_ N 1 W 4 V 7 K A T H K K S V R Q K Q L E E L G A I V Q N S P I V V D K N I I T S W S P A T A  
U N I R E F 9 0 \_ U P I 0 0 0 1 8 5 0 B 5 E T A T G F K S I Q V D M D Y A G A N V K D V E V V V C G N Q L V T S R N P D D L  
U N I R E F 9 0 \_ E 3 D N Z 8 P A T G S E G I K D D I I N A G G S W V D E A A F R D N N L V W G R V V K D I  
U N I R E F 9 0 \_ U P I 0 0 0 3 7 1 0 3 C 5 D A S H W I A A D I F R D R Y P L V R F R P E R I V D G R L I T T G G A S S W  
U N I R E F 9 0 \_ W 0 1 3 3 8 Q A T S N K S A W Q A V I D D K V N W Q H K A R W C V D G K Y Y T S S G V S A G  
U N I R E F 9 0 \_ I 3 U 7 H 9 T L T T H H D F L D E R L A P Q A Q V M R N R L Y V D D G N L L S A G I T A G  
U N I R E F 9 0 \_ A 6 W V B K 8 A V T H W Q A V G L L A L R H P D V Q I D S S V L Y V D D G D V L T S A G T A S A  
U N I R E F 9 0 \_ J 2 J Y Q 3 P A T T H W M Y A P T L A K R Y P S V H V D P R F V D D G D V P T S A G T A A G  
U N I R E F 9 0 \_ U P I 0 0 0 3 5 D 0 7 F B A T T H W A H A R D L Q R R F P L A H V D E D R I F H D G N I W T S A G M S A  
U N I R E F 9 0 \_ A 6 X 0 2 7 C A I H W E N L P G F S E A F P K A E V Y A D L F E V D G N L Y T C A G G T A S  
U N I R E F 9 0 \_ U P I 0 0 0 3 B 5 F 2 B 2 P A T T H W S L A K E F R R R Y P K V R L R A D R M D N G D Y V C A G G A T A Y  
U N I R E F 9 0 \_ U P I 0 0 0 3 6 2 5 B 8 F R A T T H W F Y L K N W R K H P Q Y V A D R I V V D R G L V A T T G I S A S  
U N I R E F 9 0 \_ F 9 R Y S 7 A T T H W A F E T K F R A R S F A N V D Y A S N V L Y V D G Q Y G C A G S A A G  
U N I R E F 9 0 \_ U P I 0 0 0 3 4 5 C 3 B 0 T C T A Y P A C A P D V R S A G G N Y V D I E Q A E V D G N L V T A A A W P A H  
U N I R E F 9 0 \_ A 0 Z E Y 7 S C T G Y P A C S P D I L G G I Y N V I P V D E A V D G N L V T A P A W P A H  
U N I R E F 9 0 \_ S 2 L H J 3 E C A F H P D G R A M M E E F P N V V V S N S F V D R D R V S C A G A S S S  
U N I R E F 9 0 \_ D 3 R Q 1 9 Q C T A Y P A V R P E L E R A G G T W C E V N N A Y V D G K L V T A P A W P A H  
U N I R E F 9 0 \_ K 9 D 1 D 3 T A T T N K R A F D W V L C R A P E V T W R M A R W V H T D N I Y T S A G V S A G  
U N I R E F 9 0 \_ U P I 0 0 0 3 B 6 E D E 5 K A T T Y H L R Q K Q L A E F G V E V I P D Q S V V I D K N I I T S F C P E T A

UniRef90\_D3Q4X4  
UniRef90\_Q82NU2  
UniRef90\_M9TR97  
UniRef90\_U0F491  
UniRef90\_J7KSF3  
UniRef90\_X0MQU6  
UniRef90\_A8U2U5  
UniRef90\_F8G774  
UniRef90\_F3NQ12  
UniRef90\_UPI00016A7468  
UniRef90\_B9TFX6  
UniRef90\_A4FHL2  
UniRef90\_UPI0003C19712  
UniRef90\_UPI000465F841  
UniRef90\_K3Z6Y9  
UniRef90\_UPI00038223F0  
UniRef90\_UPI00036AD70E  
UniRef90\_K5ZGH6  
UniRef90\_H8MX12  
UniRef90\_W4EI07  
UniRef90\_UPI00034B25D4  
UniRef90\_W7SVV7  
UniRef90\_M9W3H1  
UniRef90\_C2EV55  
UniRef90\_UPI00046E94BA  
UniRef90\_UPI00036B1DDB  
UniRef90\_V8QMD6  
UniRef90\_W9DAX5  
UniRef90\_G0Q1A3  
UniRef90\_I4ZQ29  
UniRef90\_Q8FSF5  
UniRef90\_D2QX69  
UniRef90\_I4MYX5  
UniRef90\_L9PM86  
UniRef90\_L0GVL9  
UniRef90\_Q2JEF7  
UniRef90\_C7LNF0  
UniRef90\_M3FLI8  
UniRef90\_S5EWB0  
UniRef90\_J1YKW3  
UniRef90\_G0ETY6  
UniRef90\_C7QKC0  
UniRef90\_J5JT27  
UniRef90\_D2Q481  
UniRef90\_W1JW89  
UniRef90\_UPI000477536C  
UniRef90\_W5RB99  
UniRef90\_UPI00026C7429  
UniRef90\_U2FLT4  
UniRef90\_S2YH44  
UniRef90\_J3HTK1  
UniRef90\_UPI0002E30698  
UniRef90\_B1Y2Y5  
UniRef90\_D2PWQ7  
UniRef90\_UPI00029A862F  
UniRef90\_Q3KCP7  
UniRef90\_UPI0002E4184C  
UniRef90\_D4X8C3  
UniRef90\_M0QCQ2  
UniRef90\_Q2JBH2  
UniRef90\_R1FVY7  
UniRef90\_Q0TKL8  
UniRef90\_K8NXL8  
UniRef90\_M0CME6  
UniRef90\_C7Q6K3  
UniRef90\_K0UYH4  
UniRef90\_A4FGZ7  
UniRef90\_B1WZ24  
UniRef90\_N8Q7P6  
UniRef90\_E8VZ77  
UniRef90\_UPI00046B6A05  
UniRef90\_A9AFW6  
UniRef90\_ROD4T9  
UniRef90\_N1W4V7  
UniRef90\_UPI0001850B5E  
UniRef90\_E3DNZ8  
UniRef90\_UPI00037103C5  
UniRef90\_W01338  
UniRef90\_I3U7H9  
UniRef90\_A6WVK8  
UniRef90\_J2JYQ3  
UniRef90\_UPI00035D07FB  
UniRef90\_A6X027  
UniRef90\_UPI0003B5F2B2  
UniRef90\_UPI0003625B8F  
UniRef90\_F9RYS7  
UniRef90\_UPI000345C3B0  
UniRef90\_A0ZEY7  
UniRef90\_S2LHJ3  
UniRef90\_D3RQ19  
UniRef90\_K9D1D3  
UniRef90\_UPI0003B6EDE5

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

UniRef90\_H4GK82  
UniRef90\_G0Q3X9  
UniRef90\_W9FW06  
UniRef90\_UPI00036E7280  
UniRef90\_U0DZ12  
UniRef90\_M6LPC5  
UniRef90\_K9GLZ2  
UniRef90\_S6H613  
UniRef90\_V5X6D1  
UniRef90\_Q2RQG9  
UniRef90\_A1SGT6  
UniRef90\_H0Q525  
UniRef90\_D8HYU8  
UniRef90\_UPI0002884FAB  
UniRef90\_S3TMI9  
UniRef90\_K0UCB8  
UniRef90\_E8W8G0  
UniRef90\_S8EM04  
UniRef90\_UPI0004779AEC  
UniRef90\_S3EBS5  
UniRef90\_UPI0002FBFA82  
UniRef90\_LOAMG1  
UniRef90\_UPI00036A9C30  
UniRef90\_M7YUM7  
UniRef90\_V9RAS3  
UniRef90\_W1PP51  
UniRef90\_I4KPD0  
UniRef90\_K1W8D9  
UniRef90\_A3YAS3  
UniRef90\_J1H818  
UniRef90\_UPI0002887749  
UniRef90\_UPI000370CFFF  
UniRef90\_D9UFK1  
UniRef90\_B9E927  
UniRef90\_V5XEQ4  
UniRef90\_B8IMC5  
UniRef90\_UPI000379B842  
UniRef90\_K6VYP8  
UniRef90\_C7IVE7  
UniRef90\_U5E6C3  
UniRef90\_Q5LT30  
UniRef90\_G2PEY8  
UniRef90\_G4I9T7  
UniRef90\_A8TTU1  
UniRef90\_UPI00036CB150  
UniRef90\_UPI0002EE9509  
UniRef90\_W7ZBC9  
UniRef90\_E1T5Q5  
UniRef90\_UPI000373D349  
UniRef90\_A9DGU3  
UniRef90\_M3VFL0  
UniRef90\_F2LET6  
UniRef90\_W7QDA8  
UniRef90\_Q881P0  
UniRef90\_UPI000344EBF7  
UniRef90\_UPI0002E2AFEF  
UniRef90\_D3PXB7  
UniRef90\_V5PPG0  
UniRef90\_E3IHE6  
UniRef90\_K8R8G9  
UniRef90\_M4JY43  
UniRef90\_I3CC76  
UniRef90\_U5QH16  
UniRef90\_F5XMM9  
UniRef90\_UPI00035C8D2A  
UniRef90\_J2AXS2  
UniRef90\_Q4K5P5  
UniRef90\_B2JTG9  
UniRef90\_Q11BU0  
UniRef90\_Q5Z1C1  
UniRef90\_D6DDX6  
UniRef90\_T0B3P3  
UniRef90\_UPI0003B3E28A  
UniRef90\_A0A010RD83  
UniRef90\_U7Q1Y2  
UniRef90\_A0A017HSA9  
UniRef90\_A0A021XC01  
UniRef90\_Q9M8R4  
UniRef90\_W7ZLG0  
UniRef90\_F5SRD4  
UniRef90\_I0WTX8  
UniRef90\_UPI000376119E  
UniRef90\_M2CEC5  
UniRef90\_UPI00047215B0  
UniRef90\_UPI00036C62EB  
UniRef90\_UPI000361BF7C  
UniRef90\_B9J7H4  
UniRef90\_UPI000475CA75  
UniRef90\_UPI000379880D  
UniRef90\_U3AHL6  
UniRef90\_D5URC9  
UniRef90\_B1K788

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

UniRef90\_H4GK82  
UniRef90\_G0Q3X9  
UniRef90\_W9FW06  
UniRef90\_UPI00036E7280  
UniRef90\_U0DZ12  
UniRef90\_M6LPC5  
UniRef90\_K9GLZ2  
UniRef90\_S6H613  
UniRef90\_V5X6D1  
UniRef90\_Q2RGQ9  
UniRef90\_A1SGT6  
UniRef90\_H0Q525  
UniRef90\_D8HYU8  
UniRef90\_UPI0002884FAB  
UniRef90\_S3TMI9  
UniRef90\_K0UCB8  
UniRef90\_E8W8G0  
UniRef90\_S8EM04  
UniRef90\_UPI0004779AEC  
UniRef90\_S3EBS5  
UniRef90\_UPI0002FBFA82  
UniRef90\_L0AMG1  
UniRef90\_UPI00036A9C30  
UniRef90\_M7YUM7  
UniRef90\_V9RAS3  
UniRef90\_W1PP51  
UniRef90\_I4KPD0  
UniRef90\_K1W8D9  
UniRef90\_A3YAS3  
UniRef90\_J1H818  
UniRef90\_UPI0002887749  
UniRef90\_UPI000370CFF5  
UniRef90\_D9UFK1  
UniRef90\_B9E927  
UniRef90\_V5XEQ4  
UniRef90\_B8IMC5  
UniRef90\_UPI000379B842  
UniRef90\_K6VYP8  
UniRef90\_C7IVE7  
UniRef90\_U5E6C3  
UniRef90\_Q5LT30  
UniRef90\_G2PEY8  
UniRef90\_G4I9T7  
UniRef90\_A8TTU1  
UniRef90\_UPI00036CB150  
UniRef90\_UPI0002EE9509  
UniRef90\_W7ZBC9  
UniRef90\_E1T5Q5  
UniRef90\_UPI000373D349  
UniRef90\_A9DGU3  
UniRef90\_M3VFL0  
UniRef90\_F2LET6  
UniRef90\_W7QDA8  
UniRef90\_Q881P0  
UniRef90\_UPI000344EBF7  
UniRef90\_UPI0002E2AFEF  
UniRef90\_D3PXB7  
UniRef90\_V5PPG0  
UniRef90\_E3IHE6  
UniRef90\_K8R8G9  
UniRef90\_M4JY43  
UniRef90\_I3CC76  
UniRef90\_U5QH16  
UniRef90\_F5XMM9  
UniRef90\_UPI00035C8D2A  
UniRef90\_J2AXS2  
UniRef90\_Q4K5P5  
UniRef90\_B2JTG9  
UniRef90\_Q11BU0  
UniRef90\_Q5Z1C1  
UniRef90\_D6DDX6  
UniRef90\_T0B3P3  
UniRef90\_UPI0003B3E28A  
UniRef90\_A0A010RD83  
UniRef90\_U7Q1Y2  
UniRef90\_A0A017HSA9  
UniRef90\_A0A021XC01  
UniRef90\_Q9M8R4  
UniRef90\_W7ZLG0  
UniRef90\_F5SRD4  
UniRef90\_I0WTX8  
UniRef90\_UPI000376119E  
UniRef90\_M2CEC5  
UniRef90\_UPI00047215B0  
UniRef90\_UPI00036C62EB  
UniRef90\_UPI000361BF7C  
UniRef90\_B9J7H4  
UniRef90\_UPI000475CA75  
UniRef90\_UPI000379880D  
UniRef90\_U3AHL6  
UniRef90\_D5URC9  
UniRef90\_B1K788

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

UniRef90\_H4GK82  
UniRef90\_G0Q3X9  
UniRef90\_W9FW06  
UniRef90\_UPI00036E7280  
UniRef90\_U0DZ12  
UniRef90\_M6LPC5  
UniRef90\_K9GLZ2  
UniRef90\_S6H613  
UniRef90\_V5X6D1  
UniRef90\_Q2RQG9  
UniRef90\_A1SGT6  
UniRef90\_H0Q525  
UniRef90\_D8HYU8  
UniRef90\_UPI0002884FAB  
UniRef90\_S3TMI9  
UniRef90\_K0UCB8  
UniRef90\_E8W8G0  
UniRef90\_S8EM04  
UniRef90\_UPI0004779AEC  
UniRef90\_S3EBS5  
UniRef90\_UPI0002FBFA82  
UniRef90\_LOAMG1  
UniRef90\_UPI00036A9C30  
UniRef90\_M7YUM7  
UniRef90\_V9RAS3  
UniRef90\_W1PP51  
UniRef90\_I4KPD0  
UniRef90\_K1W8D9  
UniRef90\_A3YAS3  
UniRef90\_J1H818  
UniRef90\_UPI0002887749  
UniRef90\_UPI000370CFF5  
UniRef90\_D9UFK1  
UniRef90\_B9E927  
UniRef90\_V5XEQ4  
UniRef90\_B8IMC5  
UniRef90\_UPI000379B842  
UniRef90\_K6VYP8  
UniRef90\_C7IVE7  
UniRef90\_U5E6C3  
UniRef90\_Q5LT30  
UniRef90\_G2PEY8  
UniRef90\_G4I9T7  
UniRef90\_A8TTU1  
UniRef90\_UPI00036CB150  
UniRef90\_UPI0002EE9509  
UniRef90\_W7ZBC9  
UniRef90\_E1T5Q5  
UniRef90\_UPI000373D349  
UniRef90\_A9DGU3  
UniRef90\_M3VFL0  
UniRef90\_F2LET6  
UniRef90\_W7QDA8  
UniRef90\_Q881P0  
UniRef90\_UPI000344EBF7  
UniRef90\_UPI0002E2AFEF  
UniRef90\_D3PXB7  
UniRef90\_V5PPG0  
UniRef90\_E3IHE6  
UniRef90\_K8RBG9  
UniRef90\_M4JY43  
UniRef90\_I3CC76  
UniRef90\_U5QH16  
UniRef90\_F5XMM9  
UniRef90\_UPI00035C8D2A  
UniRef90\_J2AXS2  
UniRef90\_Q4K5P5  
UniRef90\_B2JTG9  
UniRef90\_Q11BU0  
UniRef90\_Q5Z1C1  
UniRef90\_D6DDX6  
UniRef90\_T0B3P3  
UniRef90\_UPI0003B3E28A  
UniRef90\_A0A010RD83  
UniRef90\_U7Q1Y2  
UniRef90\_A0A017HSA9  
UniRef90\_A0A021XC01  
UniRef90\_Q9M8R4  
UniRef90\_W7ZLG0  
UniRef90\_F5SRD4  
UniRef90\_I0WTX8  
UniRef90\_UPI000376119E  
UniRef90\_M2CEC5  
UniRef90\_UPI00047215B0  
UniRef90\_UPI00036C62EB  
UniRef90\_UPI000361BF7C  
UniRef90\_B9J7H4  
UniRef90\_UPI000475CA75  
UniRef90\_UPI000379880D  
UniRef90\_U3AHL6  
UniRef90\_D5URC9  
UniRef90\_B1K788

90 100 110 120  
LRDHEALKSLIMVQRQNDGKWNAAAMCAAFPLAFARYGLFKDA  
RDPAELVDVAVRTAHERAGGARVAVSLCCGTGAFVLAARAAGLLDGG  
GVPVDDDLVLDALRGAHJADAGARTVVAIACCCTGAFVLAARAAGLLDGG  
LRMDKDAQRVVVKRAHJADAGARTVVAIACCCTGAFVLAARAAGLLDGG  
LSPISSESLRRLCRAHARGSTPLVGLCCGTGAFVLAARAAGLLDGG  
LMEEFVTLDFLKERAKAVNSRFLITSVLCCGTGAFVLAARAAGLLDGG  
PVDDEFRVLTWYLRKEAASAGTRRLVGLCCGTGAFVLAARAAGLLDGG  
YGRTEELNWLRAQANAKDVMLGSIYCCGTGAFVLAARAAGLLDGG  
TQTPAAVVLELVRAAYRANGATIASIACCCTGAFVLAARAAGLLDGG  
LRLENDERLLEAVVREARAAREVELLGLSVCCGTGAFVLAARAAGLLDGG  
LEPGGRPVLEKLRREVAARRRVLGLWNGSYDLAAHAGLLDGG  
IEGGLDGRLLAAAGRSELEPNRLLREALAGPDYAAVATVCCGGS  
VLRNQREHVWVWLQSQAARLSRRLGGTICCTGSSWALAKAGLLDGG  
LNLNQQLDELKTLATQSAARHVLTLTCCGSSLVAAATGLLDGG  
EPLVSPQLLDALKAADARSDARLVLSIACCCTGAFVLAARAAGLLDGG  
LRQLQNSATNGTIRSFDTDSGRPIVAVSIACCCTGAFVLAARAAGLLDGG  
LAMNESVLRKLVIREKFDDESGKPIVAVSIACCCTGAFVLAARAAGLLDGG  
RAPSPRALRLVREVAADRGGKRVAVASLCCGTGAFVLAARAAGLLDGG  
LQPAVDYVASIFPSLQYFLTVCSSGSLAAARAGVLDGKYAT  
LRTYDDHAFIEVWGTSKFPCYKKAASVLCCTGSLLLGSAAGFLQGGKS  
LRTYDGDVLELVQRHFFEAEKPIVAVSLLCCGTGSLLLGSAAGFLQGGKS  
FPAIGAAAALVRRQHAGALVAVSLLCCGTGSLLLGSAAGFLQGGKS  
LAMDEKVLJALVLRKFDSDAKKAIASVCCGTGSLLLGSAAGFLQGGKS  
FAPHLAVKVKFYKRDENKWLVAICAAAPALMSLIEREVDPD  
LSMNESSLKLVCKFSESGKPIASITCCGTGSLLLGSAAGFLQGGKS  
LQGHPLRLRQKLRHAASGALGGLWNGAFVLAADANLLDGG  
LRLENPVNLVQAVKHFFAETNKPIAAAIACCCTGAFVLAARAAGLLDGG  
KYTSDACIQWVRELRQRQTCCMLGALDGTGAYLLAKAKLLIEDQR  
LVHDHGFLLQLGEAAQKRDYCLTVCCTGSLLLGSAAGFLQGGKS  
EIHNEVNLRLWQGTQNTKQVDLAVSVCCTGAFVLAARAAGLLDGG  
VRTFPEAVSVLWKDFAAAGKPIAVIACCCTGAFVLAARAAGLLDGG  
EPEPEAVVAVREKAAAGARRVVTSLIACCCTGAFVLAARAAGLLDGG  
GDEPQGRFGEFTKGAAGFVSVNEKPIVAVSLLCCGTGAFVLAARAAGLLDGG  
TLEPAVRAALAGLRPGRTRLVSIACCCTGAFVLAARAAGLLDGG  
LLDHRALNAAALRRGAKELGALGAVIACCCTGTYVLAARAAGLLDGG  
LRNRPVNVQRVLRHFFEAADKPIAQIACCCTGAFVLAARAAGLLDGG  
LRINEQVQQLIQHFTDNGKPIAAAIACCCTGAFVLAARAAGLLDGG  
MRRCCNDTINFLKEMDKLQKTIAAAIACCCTGAFVLAARAAGLLDGG  
LPTPEVLDLALRAAADRGTIIASIIACCCTGAFVLAARAAGLLDGG  
EFLIPVTLGRLLKAAAMDPRPEVTVAVTVCCTGAFVLAARAAGLLDGG  
LDLDRALNAAALRRGAKELGALGAVIACCCTGTYVLAARAAGLLDGG  
LRNRPVNVQRVLRHFFEAADKPIAQIACCCTGAFVLAARAAGLLDGG  
MRRCCNDTINFLKEMDKLQKTIAAAIACCCTGAFVLAARAAGLLDGG  
LPTPEVLDLALRAAADRGTIIASIIACCCTGAFVLAARAAGLLDGG  
AAVDPDLVLAALRGAAMDRGARIVASIIACCCTGAFVLAARAAGLLDGG  
VAPVAVLVAALVRRQGARAAALVGGVVEAGSVVLAARAAGLLDGG  
SPQIGALLSVALRRQGARAAALVGGVVEAGSVVLAARAAGLLDGG  
LRAADPKNAEFAAHFMKEEKPIVAVTCCCTGAFVLAARAAGLLDGG  
PPSPRVLAAALREAAAAGTRIAASVCCAGAFVLAARAAGLLDGG  
VMQQRVHGAALRRLLAARQGVRIIGSISGAYILAAAGLLDNRD  
SGEMRWVYRDSLTHDPTGVVMSVVCVIGAADVADAGLLDGG  
VPMGRPEYQALIRRLAESARHVTVSVCNGSLLVLAARAAGLLDGG  
DAIVHRLRAQLRRTGVAVLVGVGGTELLAARAGVLDGYRATL  
AASDAETLAFMADRGARAKYITSVCCGSLLLGSAAGFLQGGKS  
AVPPVAVITGALRAAHRRGARIVAVIACCCTGAFVLAARAAGLLDGG  
ASDPQVILDFIRRWVPGATICSVCCCTGAMILLAEAGVLDGLA  
DDIPVILDALRRKHSDGARIVASIIACCCTGAFVLAARAAGLLDGG  
LRLENDVLEAVKHFHAGNDKPIAAAIACCCTGAFVLAARAAGLLDGG  
VIPGGRAPEYIRLDADLQRLVRFHFFEANKPIAAAIACCCTGAFVLAARAAGLLDGG  
NAPFDVTAQWLRCAPAEEDTRIASIACCCTGAFVLAARAAGLLDGG  
LRQDAAALRLINDFAKAGKTIASIIACCCTGAFVLAARAAGLLDGG  
LRLENDVLEAVKHFHAGNDKPIAAAIACCCTGAFVLAARAAGLLDGG  
AADDAVREAVLESLSLAASREEVGSLICCTGAFVLAARAAGLLDGG  
HRVRENVLNGLRAAATRGTRIASVCCGAFVLAARAAGLLDGG  
WHYPVLSCLRQLQALREGVRLGGISGGPYLLAEAGLLDGG  
LAAHQPLVQLKLDQAAGRVLFAAGIAEAPALQAAGVLRQ  
RATLQFIQHAAATTPATLVGIACCCTGVFALMRADVMDGYRI  
FRDQRLEVLQQAQAAGKRLLAPIIGSAVLLAARIGLLNNGYR  
RALPAELVLDLVAHAHRRGARLVVALCCDGVFLAAAGLLDGG  
LGSCEKLVCSALVKAAGEGKRLAAIACAAPSVLGSLGLLKGK  
LTPHRPVLERLRALAVHTLTMGGLLWNGSYLLAQAAGLLDGG  
STARVAVSLELRMSRGTTRLIAGDCCGAFVLAARAAGLLDGG  
APGLEPILVIEYVRKHAPRVKYLVTITCCCTGAFVLAARAAGLLDGG  
LEQKNDTKDFVRRERYPELELVLVSVCCCTGAFVLAARAAGLLDGG  
ERLHPDHTJAFVLRRAEAAGLVLVGVCCCTGAFVLAARAAGLLDGG  
LALTAQSVVLEWKEFSRSGKPIASLACCCTGAFVLAARAAGLLDGG  
VMEEDQQIIGVWGAQPNALIASVCCCTGAFVLAARAAGLLDGG  
LASNRELISHLQRQLADTQTDIASNCCGAFVLAARAAGLLDGG  
LVVINDGLKTLAAHARGAVIAGLCCGTGAFVLAARAAGLLDGG  
RYLSPALVLRRLRLSAGVLLGGLLDGTGCFVLAARAAGLLDGG  
LAGSGAVREFAKKTLAGGGIVAAIACAAPALALIGSWGLLJEG  
YNKETSRLINWLRQEMERKGCGLGALICCTGAFVLAARAAGLLDGG  
APSNELKSKLIAANRRGAHVVGLCYGAYALAYAGLLDGG  
EPELDLTAWLKTLIRPGLITLVTIACCCTGAFVLAARAAGLLDGG  
APDTRALLDWLRPLQGRLELITLCAAGVLAARAAGLLDGG  
DHPDLRLRLMGRKGTILGAEEGTIVLAARAAGLLDGG  
GDHPELAAALRAMDRFKETRIGALVCCGSSWLLAARAAGLLDGG  
VPLSATTLHRIARDHRAAGETVMSVCCGAFVLAARAAGLLDGG  
ATTPAHLSTRRFARSGLPLGSLCCCTGTYALAKSGLLAGY

UniRef90\_H4GK82  
UniRef90\_G0Q3X9  
UniRef90\_W9FW06  
UniRef90\_UPI00036E7280  
UniRef90\_U0DZ12  
UniRef90\_M6LPC5  
UniRef90\_K9GLZ2  
UniRef90\_S6H613  
UniRef90\_V5X6D1  
UniRef90\_Q2RQG9  
UniRef90\_A1SGT6  
UniRef90\_H0Q525  
UniRef90\_D8HYU8  
UniRef90\_UPI0002884FAB  
UniRef90\_S3TMI9  
UniRef90\_K0UCB8  
UniRef90\_E8W8G0  
UniRef90\_S8EM04  
UniRef90\_UPI0004779AEC  
UniRef90\_S3EBS5  
UniRef90\_UPI0002FBFA82  
UniRef90\_L0AMG1  
UniRef90\_UPI00036A9C30  
UniRef90\_M7YUM7  
UniRef90\_V9RAS3  
UniRef90\_W1PP51  
UniRef90\_I4KPD0  
UniRef90\_K1W8D9  
UniRef90\_A3YAS3  
UniRef90\_J1H818  
UniRef90\_UPI0002887749  
UniRef90\_UPI000370CFF5  
UniRef90\_D9UFK1  
UniRef90\_B9E927  
UniRef90\_V5XEQ4  
UniRef90\_B8IMC5  
UniRef90\_UPI000379B842  
UniRef90\_K6VYP8  
UniRef90\_C7IVE7  
UniRef90\_U5E6C3  
UniRef90\_Q5LT30  
UniRef90\_G2PEY8  
UniRef90\_G4I9T7  
UniRef90\_A8TTU1  
UniRef90\_UPI00036CB150  
UniRef90\_UPI0002EE9509  
UniRef90\_W7ZBC9  
UniRef90\_E1T5Q5  
UniRef90\_UPI000373D349  
UniRef90\_A9DGU3  
UniRef90\_M3VFL0  
UniRef90\_F2LET6  
UniRef90\_W7QDA8  
UniRef90\_Q881P0  
UniRef90\_UPI000344EBF7  
UniRef90\_UPI0002E2AFEF  
UniRef90\_D3PXB7  
UniRef90\_V5PPG0  
UniRef90\_E3IHE6  
UniRef90\_K8R8G9  
UniRef90\_M4JY43  
UniRef90\_I3CC76  
UniRef90\_U5QH16  
UniRef90\_F5XMM9  
UniRef90\_UPI00035C8D2A  
UniRef90\_J2AXS2  
UniRef90\_Q4K5P5  
UniRef90\_B2JTG9  
UniRef90\_Q11BU0  
UniRef90\_Q5Z1C1  
UniRef90\_D6DDX6  
UniRef90\_T0B3P3  
UniRef90\_UPI0003B3E28A  
UniRef90\_A0A010RD83  
UniRef90\_U7Q1Y2  
UniRef90\_A0A017HSA9  
UniRef90\_A0A021XC01  
UniRef90\_Q9M8R4  
UniRef90\_W7ZLG0  
UniRef90\_F5SRD4  
UniRef90\_I0WTX8  
UniRef90\_UPI000376119E  
UniRef90\_M2CEC5  
UniRef90\_UPI00047215B0  
UniRef90\_UPI00036C62EB  
UniRef90\_B9J7H4  
UniRef90\_UPI000475CA75  
UniRef90\_UPI000379880D  
UniRef90\_U3AHL6  
UniRef90\_D5URC9  
UniRef90\_B1K788

130 140 150 160  
D F T C F P G F D Q V I L S E E P S A R F H E D I T V Q R H L I T S R S G P A T A  
R A T T H W A H R E L A V R H P G V M V D P E D V L Y V D G R V L T S A G K A A A  
R A T T H W R W T A Q L L A N A G A F P E V S V A E D Y V D H G R V L T S A G N G A G  
M L T S Y P S L E L D L T A N A G A D W A D E E V R I C H G L I T S A R N P G D L  
A V T H W E M M P A L A K N H P S T R L D E S V L Y I D D G D V M T S A G G T V I S S  
K A T T H W M S L D V L K L F P V Q V I S S E R F V K D R G N R I T G G G V T A G A  
Q C C V S W Y H Y T D L A D R F P D P V I A D Q L F V V D G P R I T C A G G V T G A  
D C S A H W E Y I A P L L Q E A F P K V N C N R R F T H D R N R L T C S G G G A P  
R A T T H W A A A D L F R A T H P A V D L D P D Y V D E G R I L T S A G A S A G  
A C T A Y P A L K P E V E N A G G R W V E V E V D Q V D G N L V T A P A W P A H  
P A T T H H D A Y D E L A A L S P T T Q V Q R F V R S T E T L L T S A G V S A G  
S C T V H P D S R A G L E E L R P Q V R L L P N P F V D D R I L T S S A G A N S A  
L L J A H A G L A D A G R P L T G T K A V P V E A R M V D D G N L L S S G N V N S G  
E T S V H W E C L A A M R E S F P R T V L T T R F T I D R D R A T A S G G T A P  
K A T S N K M A F E F V Q K L N D Q W Q A Q A R W V I D G R K F Y T S S G V S A G  
R A T T H W I Y A D L L A R Q Y P A I D I D P L Y V D N G R V L T S A G C A A G  
R L T S Y P S L R T D I R N A G G E W T D E P V V T D G T L I T S R N P G D L  
K A T T A Y P P V K P T L I S A G A H W V T M A F C T V D D G N I L T G A T Y K G H  
R A T T H W M F A G Q L A N A G R F P D V E V D P L F V D N G Q I L T S A G V A A G  
T N K Q V W D L T V A K G K K T K W V G K A R W V I D G K I W T S S G V Q A G S  
A T T H P R A F N L K K Y C T V V D D R I V D E D G V L T A K G V S S  
T C T A Y P A L E A D V I A A G A E W E D V T R D E N L V T A Q A W P A H  
R C T T T W W R H N K T R Y P R A D A A W G A S L I E D G R I V T A G G P L S W  
T C T A Y P A V K P V L V A A G A K W V T M K K C V V D D G N L T A A A Y D G H  
K F T C Y N D P R L I G D Y S K L W V D T P L I Y V D Q K K F I T A Q A A A C  
K C T A Y P A V K P V A V A A G A Q W V E M A A C V I D G N L I T G A T Y M G S H  
E C A V H P E S R A M M A E F G Y H V K V S S R A Y V A D R E V L S C A G A N S S  
R C S A Y P A C S P D V A G F Q Y Y A D I A V D D A I A D G N L V T A P A W P A H  
T V I T L H W E A K P A F Q E R Y P H N V S N E L F E I D G R S L T C A G G T A A  
R A T S N K R A M D W V V N P A V D W V H R A R W V V D G K F Y T S S G V S A G  
K A T T H W M D T H R L E N E F P T V S V Q R N F I E E G H I L I S S G G I S A G  
T L T S W P S L Q T D Y R N A G A T V W D E E V V V D D G P L V L S S R K P D D L  
A T T Y A D L A Q E L R A R Y P A V D L A G D V L F V D S G R I V M T S S G Y A A G  
K L T G Y L S V R K D L E N A G A T V V D E S V V V D S S I V T S R T P D D L  
T T H W R Y A D A L R A L H P A V C V D E N V L F V D D G D V L T S A G L A A G  
R A T H Y W N L P G L A S E H A G L E L G S D L F E I D R N R E T C S G G T A S  
R T A A Y P A I A S D I K A A G G T W V D G E A V V D D G T L V T S A R S W D H  
T V I T G Y Q S L E L D L K N A G G L W K D E A V A Y C K A H L I T S R N P G D L

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

	170	180
UniRef90_H4GK82	MA F A Y E I   A E Q L	
UniRef90_G0Q3X9	MD L C L H L V R L D H G S S V A N A L A R R L V V	
UniRef90_W9FW06	I D L C L H L V R S D L G S S Y A A Q V A R S M V L	
UniRef90_UPI00036E7280	P A F N K A I T D E L A	
UniRef90_U0DZ12	V D A C L H L V R K H L G S A V A T R V A R N L V V	
UniRef90_M6LPC5	I D F V L F L T A E F F G S E L A E E I Q	
UniRef90_K9GLZ2	I D L A A W L V D R H V G P A A A Q K A L H I M V	
UniRef90_S6H613	MD M M L Y V I T M Q H G R A L S G A I S D M F V	
UniRef90_V5X6D1	V D L C L Y M V R R D H G	
UniRef90_Q2RGO9	P E W L A K F L H V L G T K	
UniRef90_A1SGT6	V D L S L H A V Q L L A G Q V T R D L V V	
UniRef90_H0Q525	L G M M L A V I R H H H G E E M V R G I E E I L	
UniRef90_D8HYU8	I D L A L H L V E R E V G P R V A H A V	
UniRef90_UPI0002884FAB	L D M M L T L I E R E H G R E L S A G I S E M F I	
UniRef90_S3TMI9	MD M T L A F I H N T Q G E K V A Q L C A E E	
UniRef90_K0UCB8	L D L C L H I V R S D H G G R V A N D V A R R L V V	
UniRef90_E8W8G0	E P F V R E I R T A L G A R	
UniRef90_S8EM04	P E F I R L F I K A L G G Q	
UniRef90_UPI0004779AEC	L D L C L H M V R R D L G A A A A A R T A R M I V M	
UniRef90_S3EBS5	MD L M Y A F V G E V W G K E F A V S S A Q G M	
UniRef90_UPI0002FBFA82	I D L G L Y L C E K L A G F D A K E K I R I Q M	
UniRef90_L0AMG1	P E W L A E F L E V L	
UniRef90_UPI00036A9C30	I D L S L H I I R A L L G P E A A K T A A D F T V V	
UniRef90_M7YUM7	P E F I S L E V K A L G G	
UniRef90_V9RAS3	L P L A F L V V E L F S G K E E A I R L A N S I M	
UniRef90_W1PP51	P E F I R L F V Q A L G G	
UniRef90_I4KPD0	L R M M L Q L I R Q T G G A A L V G A I E E I L	
UniRef90_K1W8D9	P R W L A E F V K L L	
UniRef90_A3YAS3	T D M M L Y L I E H Y F K P E L A I L V C E Q L I	
UniRef90_J1H818	I D M A L G F L A D R L G Q	
UniRef90_UPI0002887749	I N M A F H L V A R I C G K T V A N E T T K R	
UniRef90_UPI000370CFFF	D A F D R E L V K A F	
UniRef90_D9UFK1	I D L C L H M V R T D Y G A V A N D V A R R T L V	
UniRef90_B9E927	E D F N R E S L A L L K	
UniRef90_V5XEQ4	I D L C L H I I R S D H G V Q V A N D V A R H C V V	
UniRef90_B8IMC5	A D M M L S M I M Q D H G P D I A S D V A D Q L I	
UniRef90_UPI000379B842	P A W M R E F V R V L	
UniRef90_K6VYP8	P E F N E A I L L K E L	
UniRef90_C7IVE7		
UniRef90_U5E6C3	L D L C L H I I A R R E L G A A A A D L A R W N V V	
UniRef90_Q5LT30	F D L A L S L I E A A L G A N V A N E V A	
UniRef90_G2PEY8	L D L G L Y L L E R E L G P Q I A H A V E E	
UniRef90_G4I9T7	L D L C L H M V Q L D H G	
UniRef90_A8TTU1	L D L C L H L V R R D F G P R I A N D V G R R L V L	
UniRef90_UPI00036CB150	L D F M L A L V R A R Q G F D A A L N V A S L Y V	
UniRef90_UPI0002EE9509	I D L C L H V V R S L C G A E A A K I A A D F A V V	
UniRef90_W7ZBC9	P A F N K E S L N L L	
UniRef90_E1T5Q5	I D L A L A L I E E D L G H A V A M Q A A R R L V V	
UniRef90_UPI000373D349	L D M C L H M I R R D L G S A V A A H A A R M S V M	
UniRef90_A9DGU3	L D M M H T L I A E R M G T H F A R R V S D W Y L	
UniRef90_M3VFL0	I D A A M R V V E R L G G S A E L P R I A D E I	
UniRef90_F2LET6	I D F A L R V A E K L R G R Q A A E	
UniRef90_W7QDA8	MD M M M T L I A L H H G S E L A E R V S E H F V L	
UniRef90_Q881P0	I D F G L S M V A E L R D Q T Y A E	
UniRef90_UPI000344EBF7	I D L C L H L V R S D H G A Y A A R V A R N M V L	
UniRef90_UPI0002E2AFEF	I D T A L Y L I E S R Y G E E A A D E I A R I M	
UniRef90_D3PXB7	I D L C L H L I R R D H G A A V A A E V A R R I V M	
UniRef90_V5PPG0	P A W I A Q F L A V L G T K	
UniRef90_E3IHE6	P G F M R E F L R L L	
UniRef90_K8RBG9	I D L S L Y L I E H Y A G A E R A A D I A R R Q V V	
UniRef90_M4JY43	P A F N E A I A K A L A G	
UniRef90_I3CC76	P Q W L A K F L E L L G T K	
UniRef90_U5QH16	P R W L A A F V E V L A S R D V L A A V	
UniRef90_F5XMM9	I D L S L E I L S T H H G A T I A A E T A R C L V V	
UniRef90_UPI00035C8D2A	L D L C L H I I R R D H G	
UniRef90_J2AXS2	L D M M H A L I A E R M G P D F A R R V S D W F L	
UniRef90_Q4K5P5	L A F A L A L V E A L C G R A K R A Q V A A E L L V	
UniRef90_B2JTG9	I D V A A A I L L R H V E A T I V Q K A L R I M L V	
UniRef90_Q11BU0	L D L G L S I I S R G L G S T L A K Q V A D E A L L	
UniRef90_Q5Z1C1	L D L C L H L V R R D L G A T V A N R L A R R M V I	
UniRef90_D6DDX6	L D L G L E L L G L L T S R E H A A E V K A A I	
UniRef90_T0B3P3	L S M M L A V I R H Q H G D D V V R G I E E I L	
UniRef90_UPI0003B3E28A	L D M M L A L V G R T F G P A A A	
UniRef90_A0A010RD83	L D L T M E F I K Q V Y G E E L A T K V A T I M	
UniRef90_U7Q1Y2	MD M A Y A F L R E L Y G D	
UniRef90_A0A017HSA9	A H L A A F L V D R H I G P A A A R K S L A I M I I	
UniRef90_A0A021XC01	L D L M L E I I R R R Q G Y S L A L E V S R Q F I	
UniRef90_Q9M8R4	P E F I Q L F V K A L G G K	
UniRef90_W7ZLG0	I S M T L S L V E R L Y G K E M R D R T	
UniRef90_F5SRD4	Y D L A L L L I E R Y C G R E V S A Q V A K T Q V I	
UniRef90_I0WTX8	I D A C L H L V R T H L G S A I A T R I A R S L V V	
UniRef90_UPI000376119E	MD M A L D V I A R R H G Q R L A I D V S E Q L V	
UniRef90_M2CEC5	E E F A F A L V E A I C G K T A L N K L K T E V V	
UniRef90_UPI00047215B0	I E F I Y E M V R I L F N L K K A E A L M N H L V	
UniRef90_UPI00036C62EB	L D M M L N V I K L E H G Y Q L S A I S E M F I	
UniRef90_UPI000361BF7C	L D C C M Y L V R K L C G A R E A N K I A R L M V L	
UniRef90_B9J7H4	T D L M L H I A S K L T S P V T A L T I A R H M V V	
UniRef90_UPI000475CA75	L D L I L H R I E A I C G P A L A Q V A Q I M V V	
UniRef90_UPI000379880D	L D M M L R D I E K R H N K S L A T E V A D Q L V	
UniRef90_U3AHL6	A D L M L H L I S E D H G H E L S V A V A D Q M V	
UniRef90_D5URC9	I D A T L A L L A D R H G	
UniRef90_B1K788	L D M M L N L I A A R V I G T A R V T Q I A E Q F I V	

UniRef90\_D5DG81  
UniRef90\_A0A031JDD1  
UniRef90\_D9VBT2  
UniRef90\_L7UN81  
UniRef90\_S5S985  
UniRef90\_F6EGE7  
UniRef90\_S6GW44  
UniRef90\_UPI00037BC8F7  
UniRef90\_F3IR99  
UniRef90\_H1VM89  
UniRef90\_E5XQE7  
UniRef90\_D9ST75  
UniRef90\_5KDS0  
UniRef90\_S9UH71  
UniRef90\_I2BX85  
UniRef90\_UPI0003AB05AA  
UniRef90\_D0L712  
UniRef90\_H6MWN7  
UniRef90\_B1ZG82  
UniRef90\_C9NPC5  
UniRef90\_E3G8Y2  
UniRef90\_UPI000478183B  
UniRef90\_J0KIW7  
UniRef90\_UPI0003AD2A15  
UniRef90\_Q8DL3  
UniRef90\_MOQKE8  
UniRef90\_J3HKK6  
UniRef90\_UPI00037253B0  
UniRef90\_W2UE83  
UniRef90\_Q8ZZH1  
UniRef90\_F9TSW6  
UniRef90\_K0F8N5  
UniRef90\_D9ULQ6  
UniRef90\_T1XF24  
UniRef90\_UPI00042B2E44  
UniRef90\_C5CLK2  
UniRef90\_T0KX04  
UniRef90\_I4N979  
UniRef90\_N6VXP8  
UniRef90\_H8INI6  
UniRef90\_UPI000362C64D  
UniRef90\_I2NA86  
UniRef90\_G5P7M4  
UniRef90\_UPI000468DB88  
UniRef90\_G8LH57  
UniRef90\_N9SIR5  
UniRef90\_UPI0002260A82  
UniRef90\_R6PAR3  
UniRef90\_W9S280  
UniRef90\_D1J8B4  
UniRef90\_F7SLI9  
UniRef90\_UPI000375C51A  
UniRef90\_B0T7F9  
UniRef90\_A0A021XAM6  
UniRef90\_UPI0002ED18AD  
UniRef90\_W4K8E4  
UniRef90\_Q16E45  
UniRef90\_Q54LR7  
UniRef90\_J9MYL6  
UniRef90\_V4T235  
UniRef90\_UPI000471E6A1  
UniRef90\_S4Z3Y4  
UniRef90\_J3HQF0  
UniRef90\_K7MPX8  
UniRef90\_S2KN48  
UniRef90\_S4Z0J2  
UniRef90\_G0ACQ8  
UniRef90\_UPI0004036B2B  
UniRef90\_A31B4  
UniRef90\_J3BS23  
UniRef90\_K6FMD2  
UniRef90\_Q13G29  
UniRef90\_C7RHW9  
UniRef90\_B6QLV5  
UniRef90\_N8S7H7  
UniRef90\_B8HZN5  
UniRef90\_U5VXQ7  
UniRef90\_V8D3I6  
UniRef90\_A0A024HBV7  
UniRef90\_UPI000371F1BD  
UniRef90\_A3V8F3  
UniRef90\_X8M2A2  
UniRef90\_Q08QT2  
UniRef90\_C6B551  
UniRef90\_A3X723  
UniRef90\_S3UQ57  
UniRef90\_D0KBF0  
UniRef90\_A2WJ79  
UniRef90\_U4T4B6  
UniRef90\_A1B693  
UniRef90\_D2ZHR5  
UniRef90\_H5UCY4

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

UniRef90\_D5DG81 E T F T E K T G Y K I L D S H A S V D E V D P A D Y D G L I P G G R A P E Y 80

UniRef90\_A0A031JDD1 P V A S S S G F D V P T V P L G K A G P V D T L L L M A G L M P P P

UniRef90\_D9VBT2 W Y D V V V A C S E R S P R H W L P H L P A I G A A D L I V V P S T D S P G E E Y

UniRef90\_L7UN81 D T Y T E K P G Y T W Q A D L W A F S E V K P A D Y V A L V I P G G R A P E Y

UniRef90\_S5S985 P V Q T S C G L C L A A D Y D L E I A R T A R A L D Q S Y F M A L L P G N N C

UniRef90\_F6EGE7 A V Q T F L H D T D K D A V V T A D V A V N A A E Y D A I T I P G G T V N A D K

UniRef90\_S6GW44 S V R S F S E V I L P V D G D L A Q S D V I V I P A F W D F D A

UniRef90\_UPI00037BC8F7 P R R A S C G V V I S D S A P L L D P A Q F D Y T A V C G G N D Y L N

UniRef90\_F3IR99 V Q T R S F D L Q I R F S L D E I A R A D T L I V P G L S D P T G H V P D

UniRef90\_H1VM89 S A A M N S K N S F F P V I L L P T H T Y E T A P E D I E V L I I P G G L W T R

UniRef90\_E5XQE7 G T V W T P D G F T I E V E R G L D A L R S A D V V V V P G R A P H D

UniRef90\_D9ST75 K L V T S T F G V S V M M D V L I D D I N V E E D A L A I P G G F R E F G F N E

UniRef90\_T5KDS0 T L R T S A D F D I D V R H G L E A V R G A D V V V V P W W G E P D R

UniRef90\_S9UH71 E I L G D F Q G K T T A E V I F S D V S A A D Y D V V A V I G G S G T N D Y

UniRef90\_I2Bx85 R V S H W Q V D A R G T P A R T F D S H P G P D P M M A V L V P P S I A E F T E

UniRef90\_UPI0003AB05AA K V R A S C G L T L E A D N S V T V E R Q H L G S R L V S V I C G G K N V E R

UniRef90\_D0L712 R P V T L G G G L T V V P Q H S F A S L A A T V P D G P A T I V V P Q L H G H R

UniRef90\_H6MWN7 S I V S P R R R V V A S G D T P L Q V S A A G D G I D V L V I P P G E N V S D R

UniRef90\_B1ZG82 V I V Q A S N G L G I L S T D V A I G S G D I A A D R V F V C A G G N P A E F D D

UniRef90\_C9NPC5 G K I T S R S G L A F D T V A L D T V E V F E N D I V W V V G S E D H

UniRef90\_E3G8Y2 Q T Y S E K P G H R F L N A D F A P V K E Q D Y D A L L P P G G R A P E Y

UniRef90\_UPI000478183B P V R S F S E V L V P V D G A L E D A E I I L L P P F W G D F Q A L C

UniRef90\_J0KIW7 S V Q A S C G V P V P V Q D S L S S E S D Y D Y I A V I G G L L P A I

UniRef90\_UPI0003AD2A15 G P V A T H A G Y D M L V T T G L E A L D E A D T V I V P G W L P T Q E

UniRef90\_Q8DL3 Q T Y S E K R G H N F T L N A T F L E I D P T T Y D A L V V P G G R A P E Y

UniRef90\_M0QKE8 G R V T T A A G Y S I D V P T G L D A L E T A D T I V P G W L P V D V

UniRef90\_J3HKK6 P T M T T C G L P I A V A S G S F N A R E K G D M L L V V G G F G T A D

UniRef90\_UPI00037253B0 D R T Q V S P F G E V A A T H G L S G L S G C D L V L A P G R D N P L A

UniRef90\_W2UE83 A V L S S S G L E I R P D G V L D S A T E L K I L M V C G G Y N I K Q H C T K

UniRef90\_Q8ZZH1 E T Y S E K P G Y L F K W V I K T S A E V K P E Y D G L V I P G G R M P E Y V

UniRef90\_F9TSW6 Q T Y T E K P G H N F A L N A S F A N A K A S D Y D A L V I P G G R A P E Y

UniRef90\_K0F8N5 P V W T P N G F D L R V D S G L E S L E Q A D I V V V P G I A L P T

UniRef90\_D9ULQ6 P V V G D K P G E V V E P D A T F D V V D P G D H Q L L L L P G G T L N A D Q

UniRef90\_T1XF24 R V S L Y P A L E V D G A Q D F A S F D R S N P S G A D Y V I V P A M I A D D

UniRef90\_UPI00042B2E44 Q T Y S Q S R G H N F T L N A S F D E I D H T Q Y H G L I L P G G R A P E Y

UniRef90\_C5CLK2 P I T S M N G V T H A S S T F E A A E A G A V L V G S G I R T R E I

UniRef90\_T0KX04 P I A G V V N A S D P A L N K F E G S N F W P D D L D L D V L I V P G G V R

UniRef90\_I4N979 P V Q T F S G V Q V P V D G T L E D A D I V L P A F W D D F D A L C

UniRef90\_N6VXP8 Q T Y S E K P G H N F T L N A T F A S V K P S D Y D G L V V P G G R A P E Y

UniRef90\_H8INI6 E P V V T A G P I R I A T D H G L A E L G D A D T I V V P G R N D A A

UniRef90\_UPI000362C64D D P I R S S C G V R V Q P D M P L R R A A F D Y L V V V G G L I S D R

UniRef90\_I2NA86 G P V R T E S G Y D M L V T A G L D A L E R A D T V V V P G W R Q P T G A

UniRef90\_G5P7M4 R A V V S Y H D I P M V A D S T L S E R Q Q A L F D A V V L P G G P Q G S A N

UniRef90\_UPI000468DB88 Y A R A S N G T E T R V S K S Y K D V G Q T D Y L F V L S G L G V Q R

UniRef90\_G8LH57 R A V V S Y H N I P M V A D S T L S E R S D S G L Y D A I V L P G G P Q G S A N

UniRef90\_N9SIR5 N K L V T G Q F G I A Q I Q G Q N H W K S G D F D A I F I P G G F A A Q L

UniRef90\_UPI0002260A82 N S I R A S C G I S V S R T S D L I N P A E F D Y I A V V I G G L L H G R R

UniRef90\_R6PAR3 V A P I D E N S L E C K N P T E W D Y T K K Y L D Y D A I F I P G G H G P M F D

UniRef90\_W9S280 S C V T A V H D F E E K P G H N F T L N A F D G L D V A L V I P G G R A P E Y

UniRef90\_D1J8B4 L G I E A T G A H K I V K L Q T T S N I N V D E Y D V L F I P G G P A A K S

UniRef90\_F7SLI9 R F K Q D D E A N A A L A A T H L L S D M Y A G D F D A V F Y P G G H G P L W D

UniRef90\_UPI000375C51A R P V M A R N Q L S I N P D Y S F E T M P D A D V F V V P G G F G T R R E

UniRef90\_B0T7F9 Q E T G S G L S Q R T P Q Q G L S G H L A D L V V V C D I H L D P G L S P A G R W

UniRef90\_A0A021XAM6 P V I Q T L E N G Q R V E P D L T L E E V D P A S Y D L L H V S G G T L N A D S

UniRef90\_UPI0002ED18AD N V V S T K V F L G V E Q R M V A D F S L D N A P D V D V I V V P G G T A S E E

UniRef90\_W4K8E4 G P V A S S A G I P F G P Q S L L A D V D A P D Y L L L S A P S V

UniRef90\_Q16E45 K S I K G S H Y L E L V T E Y K F Q D F I E T L S N Y N G I I I P G G P I V Q

UniRef90\_Q54LR7 P L I A M N K F N S S F F P T I P P T N T F N D D L D L D L I V P G G P G A R N

UniRef90\_J9MYL6 Q T Y S E K P G H N F T L T A N F E S V D V S G Y D A L V V P G G R A P E Y

UniRef90\_V4T235 Q T Y R E T P G H Q F A I N I D F D K V N P A D Y D G L Y V C G G R A P E Y

UniRef90\_UPI000471E6A1 Q L V T S A I G I P I T P H A V I G P D H R P D V I I V C D I E L P L K G G P E

UniRef90\_S4Z3Y4 Q T Y S E M I G H K F V L N A T F D E V D A S Y D V L W V P G G R S P E Y

UniRef90\_J3HQPX8 G V R S A A E L S L T P Q D A I G E E T G A L D M L L V C A P S P L P A V D L

UniRef90\_S2KN48 S V V A S N L L A L Q Q T V A I C D A A A P L N L F V C S S F N P K

UniRef90\_S4Z0J2 A V T A S N G L S V T T I R A D E C P A A D V V F V C G G T D I D

UniRef90\_G0ACQ8 H E K A W G H Y F A V D V P L S N A L A A D F D A V L I P G G E R G V A K

UniRef90\_UPI0004036B2B Q T Y T E K P G H N F A I N Y S F D D V N V E D Y A G I A I A G G R A P E Y

UniRef90\_A31B4 V L S M N G L M E A Q M S L E D A C G A D A V L V G S G R M T R D V

UniRef90\_S3BS23 H D F E G D Q T Y S E K P G H N F G L N F D F D A V D P A A V V I P G G R A P E Y

UniRef90\_K6FMD2 R I A S S S V F V C T D T I S K S G G R T D E F H A L F I A A G A G V H S M

UniRef90\_Q13G29 V E Y P S K A G Y K V K S D I I S K E A Y P S E F D G V Y I L P G A Y S P D G

UniRef90\_C7RHW9 N P A G S K I G Q S V V P T H T F D N P P A K I E V L L V P G G S G T R S E A S

UniRef90\_B6QLV5 N I V Y S K Q R K S V S I D L G I R D E I S V R D F D A L M I P G G Y S P Y H

UniRef90\_N8S7H7 P F V C G N G L P V R P D L S V R D S Y T P E I V I L P E L W L G P D E D M

UniRef90\_B8HZN5 I N A G P F R L A T D H R L D A L A T A G T I V L P G R E D P A

UniRef90\_U5VXQ7 L W S D S P G S I R T L E G Y T V D S V G P E L A D G A D I I V V P S W P V D

UniRef90\_V8D316 R V Q A F K H L D K A D T F P V D A T V A D S S D Y D A L V L P G G L A N P D A

UniRef90\_UPI000371F1BD D V A L T C G I A L T A G P L A A A D G A D A L I V V A G Y N Q S

UniRef90\_A3V8F3 W K R K E L L E G L P A G W P T M P T M T F D E C P D D L D V L V T G M V P S

UniRef90\_X8M2A2 P A L R V S H W E G Q S V E R V F D T H G G S G D R L A V L I V P P S L I E E S

UniRef90\_Q08QT2 Q T Y T E K L G H N V T I N K T F S A E A N Q L D Q Y H A V I C A G G R G P E Y

UniRef90\_C6B551 Q I Y R W R F L T D G A P A T S A G M E V N P H D K L A R C Q G D M L I A M

UniRef90\_A3X723 S R V R T A A M L H G S V Q I K P D I T G R C E K V D L V I I P I G N V V N V

UniRef90\_S3UQ57 Q T Y T E K P G H L F R L T A S F D E V R M Q E Y G G V Y I A G G R A P E Y

UniRef90\_D0KBF0 E I Q G F R H V D R V K V D R T F D D A R E G D Y D A V V L P G G V I N G D A

UniRef90\_A2WJ79 K E V Q A M K Q D V D K G D T F F A T E A K S N D Y D A L V L P G G T V N A D T

UniRef90\_U4T4B6 A P V Q S S G M R I E P E E R L G D P G R F D Y I T I V G G L I D G G

UniRef90\_A1B693 I P L C S N G V S I R P D A A H A P E H F N Y V A V I G G G L K Y G L

UniRef90\_D2ZHR5 T V Q A F D H A D T F P V D L T L E D A R V M D F D A L V L P G G V A N P D F

UniRef90\_H5UCY4

UniRef90\_D5DG81  
UniRef90\_A0A031JDD1  
UniRef90\_D9VBT2  
UniRef90\_L7UN81  
UniRef90\_S5S985  
UniRef90\_F6EGE7  
UniRef90\_S6GW44  
UniRef90\_UPI00037BC8F7  
UniRef90\_F3IR99  
UniRef90\_H1VM89  
UniRef90\_E5XQE7  
UniRef90\_D9ST75  
UniRef90\_T5KDS0  
UniRef90\_S9UH71  
UniRef90\_I2BX85  
UniRef90\_UPI0003AB05AA  
UniRef90\_D0L712  
UniRef90\_H6MWN7  
UniRef90\_B1ZG82  
UniRef90\_C9NPC5  
UniRef90\_E3G8Y2  
UniRef90\_UPI000478183B  
UniRef90\_J0KIW7  
UniRef90\_UPI0003AD2A15  
UniRef90\_Q8DL3  
UniRef90\_MOQKE8  
UniRef90\_J3HKK6  
UniRef90\_UPI00037253B0  
UniRef90\_W2UE83  
UniRef90\_Q8ZZH1  
UniRef90\_F9TSW6  
UniRef90\_K0F8N5  
UniRef90\_D9ULQ6  
UniRef90\_T1XF24  
UniRef90\_UPI00042B2E44  
UniRef90\_C5CLK2  
UniRef90\_T0KX04  
UniRef90\_I4N979  
UniRef90\_N6VXP8  
UniRef90\_H8INI6  
UniRef90\_UPI000362C64D  
UniRef90\_I2NA86  
UniRef90\_G5P7M4  
UniRef90\_UPI000468DB88  
UniRef90\_G8LH57  
UniRef90\_N9SIR5  
UniRef90\_UPI0002260A82  
UniRef90\_R6PAR3  
UniRef90\_W9S280  
UniRef90\_D1J8B4  
UniRef90\_F7SLI9  
UniRef90\_UPI000375C51A  
UniRef90\_B0T7F9  
UniRef90\_A0A021XAM6  
UniRef90\_UPI0002ED18AD  
UniRef90\_W4K8E4  
UniRef90\_Q16E45  
UniRef90\_Q54LR7  
UniRef90\_J9MYL6  
UniRef90\_V4T235  
UniRef90\_UPI000471E6A1  
UniRef90\_S4Z3Y4  
UniRef90\_J3HQF0  
UniRef90\_K7MPX8  
UniRef90\_S2KN48  
UniRef90\_S4Z0J2  
UniRef90\_G0ACQ8  
UniRef90\_UPI0004036B2B  
UniRef90\_A31B4  
UniRef90\_J3BS23  
UniRef90\_K6FMD2  
UniRef90\_Q13G29  
UniRef90\_C7RHW9  
UniRef90\_B6QLV5  
UniRef90\_N8S7H7  
UniRef90\_B8HZN5  
UniRef90\_U5VXQ7  
UniRef90\_V8D316  
UniRef90\_A0A024HBV7  
UniRef90\_UPI000371F1BD  
UniRef90\_A3V8F3  
UniRef90\_X8M2A2  
UniRef90\_Q08QT2  
UniRef90\_C6B551  
UniRef90\_A3X723  
UniRef90\_S3UQ57  
UniRef90\_D0KBF0  
UniRef90\_A2WJ79  
UniRef90\_U4T4B6  
UniRef90\_A1B693  
UniRef90\_D2ZHR5  
UniRef90\_H5UCY4

UniRef90\_D5DG81 REVTAYPA CRPEVEA AGAVFVE QTLHVDRNLVIT GQAWPDL 130 140 150 160  
UniRef90\_A0A031JDD1 ATTHWAYARMMRDGF PNRVVEEDRIFIDE GSVLWTSAGGLTAA G  
UniRef90\_D9VBT2 IATTHYWHADDDLVQRRYAPRVRVRAADYVDE GDLILTSAGWPTAA G  
UniRef90\_L7UN81 KSAAYLPAKLDLVQAGAGAEFVDSRAAVL DGNMVLSTRAWKPDH  
UniRef90\_S5S985 RCAVHWSMFA SVENF PEVVISRA FYEIDG LFLHT CAGEAAS  
UniRef90\_F6EGE7 KATSYKRLRTD LTNAGGVEWVDE P VVRSTWTLT SRNPTGDL  
UniRef90\_S6GW44 EATTYWTFRDQF SQRFP NGLNQEKHDA DNL YC AAGTTS A  
UniRef90\_UPI00037BC8F7 T VCLHWNVLEA FQAQFP NAVITDK L FVDE GDL LLS C A G S T A A  
UniRef90\_F3IR99 RATTNWKAAADK LARQY P KLEVN P NFVDN GQILVTS SAGAAAG  
UniRef90\_H1VM89 RATTNKA SWT L V H G P R T E W V A K A R W V D D G N V W S S G V S A G  
UniRef90\_E5XQE7 PATTHEWY CDDMRRL Y P L V D L R P E Y V D D G D V L T S A G L C A G  
UniRef90\_D9ST75 NATTYHLDNQGE LAKYGI N I L N K P V V I D G N I I V T S A G L C P E T A  
UniRef90\_T5KDS0 AATHWK WADVF R H R F P R V A L E P D E L Y I D G Q I I V T G A G A T A G  
UniRef90\_S9UH71 EATCYPLTIQIDQLKANNV TYIAQH VVVHDDI IITADG PDGA  
UniRef90\_I2BX85 SATTHWWSAKSFAASYP AVRLLEA P I V D D G D L I V T S A G L M A W  
UniRef90\_UPI0003AB05AA CAIHWNHHP GFIERFRASVSTG LFEVDG S I Y T C A G G T A S  
UniRef90\_D0L712 TSHWLKLTIGLR RGY P G I T V V A G K R F V E D G R V I S T A G V L I S G  
UniRef90\_H6MWN7 T V T T A W L F A D A L R Q A F P C A V V D D E K L V D G G V T T T A A F S A M  
UniRef90\_B1ZG82 HWEHVPAFAEERYPE I D V V R S L F E I L Q G G D R I T C S G G I A A  
UniRef90\_C9NPC5 TATTHWRF TKNLIESQY ENVHVKH DYATG P I W S C A G S S T A  
UniRef90\_E3G8Y2 TCSAYPACAPEVVRGGHYAEI G L D Q A Y V D G N L V T A P A W P A H  
UniRef90\_UPI000478183B AATYWRFRHREFAERFP RVL LNQE K H L S D D N L Y C A S G S A S A  
UniRef90\_J0KIW7 RA CVHPYHV EDWKAAFP TLDHATD CHY D G D R I S C A G G I S I  
UniRef90\_UPI0003AD2A15 ATTHWALADEFAARFP QVVKVD PDVLYVD DGNL V T A S A G A G A G  
UniRef90\_Q8DL3 TCTAYPACGPEVVS AKFTNVAVD AVVDGNL V T A P A W P A H  
UniRef90\_MQKE8 ATTHESTRIGLLQKMFPAVRV VETL FV D H G D V A T S A G A G A G  
UniRef90\_J3HKK6 ATTHWEDMEETAEFP EADIRPDRYV I D G P V E T S G G A S P T  
UniRef90\_UPI00037253B0 AATHWRLDADLAAVA PSADLRRRDV LFTEDG V L T S A G V V T G G  
UniRef90\_W2UE83 RCTHWNLSMREEF PKLQLSS S L F A I D R D R Y T C S G G I S S  
UniRef90\_Q8ZZH1 RMTSYLAVKPEVNSGG L W V D Q E V V V D G N L V T S R A W P D N  
UniRef90\_F9TSW6 AVISAYPACAPEVNSA QYQDIAMDQA HTDGNKLVTA P A W P A H  
UniRef90\_K0F8N5 PATTHWAYCDEFA DLFPAVKLD PA Y V D D G D V L T S A G L S A G  
UniRef90\_D9ULQ6 TLTSYPSLRTD LNSGASVW DKS VVS DSTG V L T S R T P D D L  
UniRef90\_T1XF24 RFA GHYDRGT KR H A G A T Y V P H Q R Y V M D R G V A T T G I T A S  
UniRef90\_UPI00042B2E44 KCTGYRAVR PALIAAGA L W V E P E A C V V D G N I I T G C T Y K G H  
UniRef90\_C5CLK2 ACTDLTKP W V Q E A G V E V L N Q P F F A K G N V A T A G G C L I S A  
UniRef90\_T0KX04 RATTNKRAWAQMTAF G P N W V A P A R Y V I D G N I W S S G V T S S  
UniRef90\_I4N979 ATTYWRFFGQFAERFP QVILLNQDK H L T D D N L Y C A A G T T S A  
UniRef90\_N6VXP8 ECSAYPACGPEVTNAGGKFS TEANHV D G K L V T S A P A W P A H  
UniRef90\_H8INI6 RATTHWLA AETATYPAVRVDA DADALY I D E G K L V T S A G A S A G  
UniRef90\_UPI000362C64D R C C V S W F H H Q E D F I D R F D N P I S D Q I F V V D R D R L T C S G G H G A  
UniRef90\_I2NA86 AATHWARA AELASRY PKVRVDPAVLYVDGD IAT SAGAAAG  
UniRef90\_G5P7M4  
UniRef90\_UPI000468DB88 MAATHWDFHDSFE EFPQVGLSRS V F V P D A P V I T A S G G A A T  
UniRef90\_G8LH57 RRYVCSG DLWETV K D G E Y V D A P V V Q D K N L L S G K G  
UniRef90\_N9SIR5 LFSYSPNENNI K I T R Q R Q E T A T T I D K N Y I S A R N A A S S  
UniRef90\_UPI0002260A82 CCVSWYHRQDFLEEF PDQQVTSE QMYVDG DRI T C S G G G G T  
UniRef90\_R6PAR3 PLVKGMR L T S F T N E I E D A A P W S E H V V V D E N L I T G Q N P A S A  
UniRef90\_W9S280 KCTAYPAVKLNVAE I W L E P D P I H R C F T H E N L V T G A A W P G H  
UniRef90\_D1J8B4 TKFSSFP I N D S V K E I S N R S K E L V S I S P D K K L I T G K C A A A V  
UniRef90\_F7SLI9 L T T L V P H L V E N A L Q Q C G G I Y S K A D D F T D G Q L I T G Q N P P S S  
UniRef90\_UPI000375C51A AITHRGAL E E A L D A D D G C T I W P E A R V V D D G K I V V S A G I S M G  
UniRef90\_B0T7F9 T V T T H W S F E P Q F R S R F P R I D T D R L I I D D G D I I T A G G V M A W  
UniRef90\_A0A021XAM6 HWLMA D L F R D H Y P K A F R P E R I L C D S G S D G R L I T T G G A T S W  
UniRef90\_UPI0002ED18AD T L T S Y P S L E T D I R N A G G S W V D Q S V S R D D W T L V T S R T P N D L  
UniRef90\_W4K8E4 RAAGSKS FWSWV S SQGTNWI PKARFMNDGN I W T S S G L T A G  
UniRef90\_Q16E45 R L S V H W P C Y E A A F A A F P D M L Q S D E V I E T S D R C V T A S G A A A  
UniRef90\_Q54LR7 K V T H F P G C N Q F M Q D S I E L L D Q T L V V D G N I I T A S S A G V T  
UniRef90\_J9MYL6 L A T T N K N A W A T M M G P R V N W V S P A R Y V I D G K V W S S S G V T S G  
UniRef90\_V4T235 KCTAYPAVKLNVLJAWLE P D P I N R C F T D G N L V T S G A A W P G H  
UniRef90\_UPI000471E6A1 T L T A Y V A V G P D I E L G G T W K N I P A D Q A I V D G N L V T S P A W P G H  
UniRef90\_S4Z3Y4 K A T T H W G Y V E Q F E K R F P D I D V D R I I E D G D I V T A G G A M A W  
UniRef90\_J3HQF0 N A T S H W S A S E L F R D R Y T A V K F R P E R L H D G R L I T T G G A S S W  
UniRef90\_K7MPX8 KCTGFPSLK PVLVDA GADWVD P D T M T T D G G F I T T G T Y E G S Q  
UniRef90\_S2KN48 R A T L P W R I D A V S R D Y P R I N L S H Q L F E I D R D R L T C G G G T A A  
UniRef90\_S4Z0J2 K I A L H W E A A P S F Q E D H P E E L T N E L F E V E H N L I T C A G G T S A  
UniRef90\_G0ACQ8 CATH W E N L S S L K R A H P A I S F A P D L F V I D R D R I T C T G G I A P  
UniRef90\_UPI0004036B2B T I V A N D S V R E T L E A A G A K L A D D T V V V E G N L I T A R D D L D M  
UniRef90\_A31B4 K L T A Y P A V G P T I A G G D Y Q D I P V T D A Y V D G N L V T S P A W P G H  
UniRef90\_J3BS23 V P A C T D L I T K P W V E E A G V A L N Q P F V A K G N V A T A G W C L I S S  
UniRef90\_K6FMD2 Q C M A Y P A V Q P D I E R A G A T Y V G P N E T F T N G N I V T G P A W P A H  
UniRef90\_Q13G29 K L R R S E G A H A V A W N G L K A P V S Q R T S T P  
UniRef90\_C7RHW9 K A S S T P I K K A D L I N A G A K W E D R E V V V Y N N I I T R R S P K D L  
UniRef90\_B6QLV5 S N K R A W N E V I A L R D E P T W I R R A R W V A E G N I W S S S G I S A G  
UniRef90\_N8S7H7 R L T S I E D L K E L K D A G A V V F D R E V V N D N G L Y I T S R S T F E L  
UniRef90\_B8HZN5 D A T S H W G Y Q D L F R K R F P T I R F K P A P N A S G Q L V T A G G T T S W  
UniRef90\_U5VXQ7 R A T T H W A A G L F R R T H P A V T L D P D Y V D E G G F V T S A G A T A G  
UniRef90\_V8D316 A V T H W E A M P Q L S R R H P D I V L D D S V L Y V D G D V L T S A G T A A A  
UniRef90\_A0A024HBV7 A T T H W A L A D D F R Q R Y P A V Q L E A D L C T E D G A R F C S G G A Q A G  
UniRef90\_UPI000371F1BD T L T S W P S V R T D I R N A G G T W V D E E A V V C H A T L V I T S R K P A D L  
UniRef90\_A3V8F3 R A T V H W E D L E D F A S A H T V D V V P D R F V I S R N R F T A G G A P A  
UniRef90\_X8M2A2 R A T S N S N V P D M L P D V G A I A V G S D V V I D G S I Y T S G P A T G S  
UniRef90\_Q08QT2 R A T T H W N L A E K L A G K F P Q L D V D K L I I E D G D I I T A G G V M A W  
UniRef90\_C6B551 K K V G A L G A C E P E A G G T Y I D L S P T E A Y V D G T M V S A K G W T A L  
UniRef90\_A3X723 R A T I H W E L A G F T E D F E V H A Q R L R H V Q D G N R I T C T G A L A  
UniRef90\_S3UQ57 R A T T H W L F A P F R R M F P S V H L D V D R L V I D G N F L T S G G S N A F  
UniRef90\_D0KBF0 K L T G Y F T L K P E M A G G K W I T A A D D E A L Q D G N L V T A A T W M G H  
UniRef90\_A2WJ79 T M T S W P S L Q D D I R N A  
UniRef90\_U4T4B6 T L T A Y N S L Q T D L E N A G A T F I N K T V Q V D G N L I T S R N P D D I  
UniRef90\_A1B693 R C C V S W F H H Q E D F L A E F M R P V S D Q L F V V D R D R I S C S G G V S A  
UniRef90\_D2ZHR5 R A S L H P F H L Q D F L Q H A F M P Q V Y A E Q D F I N E G D V L T C P G G I S T  
UniRef90\_H5UCY4 T L T S F P S V R T D V I N A G G T W V D E E V V T C D N L V I T S R K P D D L

UniRef90\_D5DG81 P K F M K E F F N V L K K A E K V N A 170 180  
UniRef90\_A0A031JDD1 L D V V V A M V E K D L G A D V A R S V A R R L V M  
UniRef90\_D9VBT2 L D L C L H L V R R D F G A A V A N D L G R R L V V  
UniRef90\_L7UN81 P A W M R E F M K L L R A K A P A A  
UniRef90\_S5S985 F D L T L E I T R Q D Y G Q E L R D A I  
UniRef90\_F6EGE7 E D F C A A I D E A L  
UniRef90\_S6GW44 C D L Y I Y L I E R F C G A N V A Q A V A R D I L  
UniRef90\_UPI00037BC8F7 I D L G L Y L V T R H C G A T K A N Q A V R H M M L  
UniRef90\_F3IR99 L D L C L H M I K Q D H G  
UniRef90\_H1VM89 I D A T L A F V E A V Y G A E N A T Y V A D M M  
UniRef90\_E5XQE7 M D L C L H V V R R E M G A A A S D L A R W N V M  
UniRef90\_D9ST75 P E V A F K L L E M L T N T E K M Q Q V K G A M  
UniRef90\_T5KDS0 I D A C L H L L A R R E G Q L V A N R V A R R I V  
UniRef90\_S9UH71 A Q F G A S L V Q A L  
UniRef90\_I2BX85 S E L G L R L V D R L M G P S V A A D T A R F L V I  
UniRef90\_UPI0003AB05AA F D M M L H I I G R D F D E S V V S G I C E L A L V  
UniRef90\_D0L712 I D G A L R L T E R F L G A D A A T V V A D E I  
UniRef90\_H6MWN7 Y D F V I D L T E S R H G V D V A R R T A R I A L L  
UniRef90\_B1ZG82 L D L M L D L I G R D H G A G L A G V S D W F L  
UniRef90\_C9NPC5 I D M S L H L L N L F G S R K L F N V V S K K M V M  
UniRef90\_E3G8Y2 P Q W L A K F V E V L  
UniRef90\_UPI000478183B C D L Y I H L I E Q F C G A N V A Q A V A R D I  
UniRef90\_J0KIW7 V E L T A E L V R L H C G P D R A A K V I H Q M T V  
UniRef90\_UPI0003AD2A15 F D L C M H L L R N D Q G A R Y A A H V A R T M V M  
UniRef90\_Q8DLD3 P Q W L A A F L E V L G T K  
UniRef90\_M0QKE8 I E L C L H L V E H D H G A Y A A A I A R S M V V  
UniRef90\_J3HKK6 F D L M L H L I R S R Y G M S V A L D V A  
UniRef90\_UPI00037253B0 L D L C L H L V R R D H G A D V A T R L A R R L V M  
UniRef90\_W2UE83 I D L M L N L V A S I H G H Q L V Q Q I S E Q F  
UniRef90\_Q8ZZH1 P A W M R E F I K L V K A K K  
UniRef90\_F9TSW6 P A W L A Q L L K L L  
UniRef90\_K0F8N5 F D L C L H I A R R E L G A G P A A E L A R W N V  
UniRef90\_D9ULQ6 D D F L G A V G K A L V G  
UniRef90\_T1XF24 V P T M L A L V E A I G G Q E K A K A L A A E L  
UniRef90\_UPI00042B2E44 P E F I R L F V K A L G G  
UniRef90\_C5CLK2 P Y L A A W L I A R S E G I E A A K  
UniRef90\_T0KX04 L D L T Y A F V A E V Y G Q N Q S T L I A N T M  
UniRef90\_I4N979 C D L Y I Y L I E R F C G A S V A Q A V S R D I L  
UniRef90\_N6VXP8 P A W L A R F L E  
UniRef90\_H8INI6 L D L C L H L V A R D Y G  
UniRef90\_UPI000362C64D A H L A A F L V Q R H V G Q S A A T K S L N I M M I  
UniRef90\_I2NA86 V D L C L H L V S A D Q G A A H A L R I A R Q M V  
UniRef90\_G5P7M4  
UniRef90\_UPI000468DB88 A D L M L Y L I R Q K H G E D I A T E V A D Q M V  
UniRef90\_G8LH57  
UniRef90\_N9SIR5 A D L A F A V I E N L G S K E V A E K I K N G F  
UniRef90\_UPI0002260A82 A E L A L H L I E K H L S R P L A R K A S H I L L L  
UniRef90\_R6PAR3 K L T A E H T L K K L K  
UniRef90\_W9S280 P E F L Q Q L M A L L  
UniRef90\_D1J8B4 F D F G L A V T E V L G G N Q L A K L V  
UniRef90\_F7SLI9 A A T A E A L M A R L A  
UniRef90\_UPI000375C51A I E A S L Y T V A K H H G Q A Q A L E T A R Y M  
UniRef90\_B0T7F9 I D V A L K L V D R F L G P K V M L E T A R V L L V  
UniRef90\_A0A021XAM6 Q D L A L Y L I G R F C G A E E A T R I A R L F L I  
UniRef90\_UPI0002ED18AD S D Y  
UniRef90\_W4K8E4 L D L S Y A F L K E V Y G E E V A E K A A  
UniRef90\_Q16E45 F D L A L G F I D T A L G P N V A T E V A  
UniRef90\_Q54LR7 I P F A L K I V E F L K G I D A S N  
UniRef90\_J9MYL6 L D L M F A F I G T F W G A E Q S E R I A  
UniRef90\_V4T235 P E F I S Q L M A L L  
UniRef90\_UPI000471E6A1 P A I L K E F Y K L L  
UniRef90\_S4Z3Y4 T D L G L R M V D R F L G S Q V M N E T A R A L L I  
UniRef90\_J3HQF0 Q D L A L Y L I G R Y C G P A E A V R A S K I F V I  
UniRef90\_K7MPX8 P E I I S L L V K A L G G K  
UniRef90\_S2KN48 M D M M M T L I G M H H G Q R L A D R V S E H F V  
UniRef90\_S4Z0J2 I D L M L Y I I Q A E L G H G L A I K V C E Q F I  
UniRef90\_G0ACQ8 L D L M L N L I S S Q V G K T T I A A I A D Q F I L  
UniRef90\_UPI0004036B2B E A F K A S I V E H F  
UniRef90\_A31B4 A A W I R E F L K L L  
UniRef90\_J3BS23 Q Y L A A W F I S R L A G E E A A R  
UniRef90\_K6FMD2 P Q W M R Q F L D L L G T K I E A  
UniRef90\_Q13G29 L R A A L A M I E E D F G A E A A R E I A S S L Q L  
UniRef90\_C7RHW9 P A H V K A F V D A L K  
UniRef90\_B6QLV5 M D M M F A Y V E Y I W G K E F A T V V S K R M  
UniRef90\_N8S7H7 P I F I N E C L N V L  
UniRef90\_B8HZN5 H D L A I F I I S R H C S P G E A L R I A K V Y L L  
UniRef90\_U5VXQ7 I D M C L H L I G R D H G  
UniRef90\_V8D316 I D A C L H L I R N H I G A A V A A R V A R S L V V  
UniRef90\_A0A024HBV7 L D L C L H L I A L H G G R A L A R Q V A S T L V F  
UniRef90\_UPI000371F1BD K A F N K A F L A E F A  
UniRef90\_A3V8F3 A D L M L H L I G A R C G A G L A G Q V A A S F  
UniRef90\_X8M2A2 F D A S L L V L K A L C G E E V A S L V E  
UniRef90\_Q08QT2 V D L G L R L I D R L L S P G I M L A T A R F F V V  
UniRef90\_C6B551 A A F I R E C L K V L  
UniRef90\_A3X723 F D L M M E L I G Q A H G Q A L R L E V A A L F M  
UniRef90\_S3UQ57 Y D L G L H V L E Q S L G R E V A L K C A K H F L L  
UniRef90\_D0KBF0 P A I L R Q F I S L I  
UniRef90\_A2WJ79  
UniRef90\_U4T4B6 K N F V E A I D K A L  
UniRef90\_A1B693 A H L A A F L I D R H L G R A A A R K A L S I L M I  
UniRef90\_D2ZHR5 I T L A T E L I R L H A G N D T A K T A A Q Q L  
UniRef90\_H5UCY4 A A F N A A L V A E F A H S N A A

UniRef90\_B9S JL8  
UniRef90\_X1K435  
UniRef90\_W8I2U1  
UniRef90\_W6XCT4  
UniRef90\_UPI00035DA41A  
UniRef90\_UPI0003B4BEE8  
UniRef90\_A6FTT9  
UniRef90\_L0J1X0  
UniRef90\_F6BYU0  
UniRef90\_R5ZZR7  
UniRef90\_E7C8F8  
UniRef90\_A0L2C4  
UniRef90\_A5FX86  
UniRef90\_J2GZ22  
UniRef90\_R6WZIO  
UniRef90\_UPI00036CC123  
UniRef90\_G7D7T4  
UniRef90\_D6YQ81  
UniRef90\_Q466K3  
UniRef90\_R8B1M5  
UniRef90\_UPI0003B38C52  
UniRef90\_V6J1Z3  
UniRef90\_C3BIK1  
UniRef90\_UPI000237AF2D  
UniRef90\_I4CR68  
UniRef90\_UPI00035D0C1D  
UniRef90\_J3F7Q6  
UniRef90\_L8GCZ7  
UniRef90\_B8KHD0  
UniRef90\_UPI00037EDBE9  
UniRef90\_C7D6R0  
UniRef90\_K6YW94  
UniRef90\_UPI000368D300  
UniRef90\_W8X4L0  
UniRef90\_UPI0003721080  
UniRef90\_E4R2T6  
UniRef90\_E8M1I7  
UniRef90\_S2KIS3  
UniRef90\_D3BBC8

1 10 20 30 40

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

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









