

QUERY 1 10 20 30 40  
UniRef90\_D1CBQ9 MY L R I I D R L L Q Q V I E L L P M P K E H Q D P P N A A A A A V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_UPI0004759F9A MY L R I I D R L L Q Q A I E L L P K M P K E H Q D P P N A A A A A V V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_UPI00046F0F52 M F K R I I H K L L I I A I E L L P K A P K E H H A D P P N A A A A A A V V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_E3DYC7 M I K R S N K L L I I D L L P A P K P E H H A D P P N A A A A A A V V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_UPI00034B010E M F K R I I D R L L I I A I E L L P A K P D H H P D D A N A A A A A A V V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_J2HQZ9 M F K R I I N R L L P I I A I E L L P V P K P E H H P D D A N A A A A A A V V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_D7CXZ9 M Y L R I I D R L L Q I I E M P A A R E A D P P N A A A I R V Q Q E E L L M G G G R F F G E E M S S T L L  
UniRef90\_UPI00037033C5 M F K R I I N R L L P I I E L L P K P K E H A D P P N A A A S A V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_DOMH63 M I L R I I D R L L I I E L L P M P K P E H A D P P N A A A A A V V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_UPI000308A5D4 M F K R I I N R L L V I I D L L P A P K K H G D P P N A A A A A V V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_UPI0001E894CB M F C R T N R L L I I P L P K P K N A P D P P N G A S A V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_C6I7Z3 M F K R V I N R L L A I I E L L P R P K N A P D P P N G A S A V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_U5LCD9 M F K R I I N R L L A I I E L L P E P S T E H G D M N A A A A A V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_I4EMZ5 M Y M R I I D R L L Q Q I I E L L P K P S T E P S A D P S A N A A A A V V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_UPI0003B42EDD M F K R I I D R L L Q I I E L L P T P S N P D A N S A N V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_B7GHX9 M F T R I I N K L L Q I I E L L P K S T Y A D A K A A A A A V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_UPI0002F70265 M I K R I I D R L L I I E L L P K S V Y H P D D A N A A A A A V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_F8FQ03 M I T R I I H N K L L Q I I E L L P E S L N E P S D P E S A G V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_Q5WCG2 M F K R I I D R L L Q I I E L L P E L N E P S D P E S A G V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_UPI0003661753 M M H R I I N K L L I I E L L P V P E K H G D M N A A A A A V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_UPI00047E11C4 M I K R I I R M D K L L I I D L L P R P K N A P D P P N A A A S A V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_J2HID5 F T R I I N R L L A I I E L L P E P E Y G D A N A A A A A V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_F9DRV4 K R R V K K L L P I I E L L P V P E Y G D A N A A A A A V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_UPI000376EF25 M F T R F N Q L L I E L L P Q P D Y A D A N A A A A A V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_UPI000366FBA9 M F Y H V K E L L A Q Y P A K P D R P D P L F A K Q L L Q Q E E L L L G G G Q F F G E E I S S V T  
UniRef90\_B7KXP5 M F M R V D K L L Q A E E L P A A K R K D P P N A A A A A L V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_UPI0002EA3832 M I E R F N R I I A I I E L L P R K R D D P P N A A A A A A V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_F2F3H3 M F Q R V N R L L I I D L L P Q V E Y G D A N A A S A V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_UPI00047CAE5E M F Y H V K E L L Q Y T A K P S E P S Q P D P V Y A K K L L Q Q E E L L L G G G R F F G E E I S S V M  
UniRef90\_Q1AY77 M Y L R V D R L L Q Q V I E L L P M P S E P D P D A N A A N V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_Q5WBV0 M M K R V N R I I A I I E L L P R P E H G D A N G A A A A V V Q Q E E L L M G G G R F F G E E M S S T L L  
UniRef90\_A4WK01 M Y L R I I D R L L Q Q I I E L L P A P K E P D P N A A A A A V V Q Q E E L L L G G G R F F G E E M S S T L L  
UniRef90\_W8QY80 M F Y H I K E L L Q Y E A K P S K P D P L Y A K K L L Q Q E E L L L G G G Q Y F G E E I S S V M  
UniRef90\_U5LE73 M F Y H I K E L L Q Y Q A K P D R P D P L F A K K L L Q Q E E L L L G G G Q F F G E E I S S V A  
UniRef90\_UPI00036B74EA M F L R I I D R L L Q F D L L P L P K R A N P N G A A T V V Q Q E E L L M G G G R F F G E E M S T L L  
UniRef90\_B2J4P9 M F Y H T K R L L Q Y Y T R P Q R P D P I Y A K K V V Q Q E E L L L G G G V F F G E E M T V M  
UniRef90\_UPI00047A3EA4 M F T H R K E L L Q Y N A K P T S P D P V Y A K K L L Q Q E E L L L G G G Q F F G E E I T V M  
UniRef90\_UPI000288E7B1 M F F H I K E L L Q Y H A K P E K P D P L Y A K K L L Q Q E E L L L G G G R F F G E E I T V A  
UniRef90\_UPI00036B75DD M F L R I I D R L L P V I E L L P V S K E V D P V S A R N L L Q Q E E L L L G G G R F F G E E M S T L L  
UniRef90\_B8HQI0 M F Y H T K R L L Q Y Y T R P D N P D A V Y A K K L L Q Q E E L L L G G G P V F F G E E M T V M  
UniRef90\_UPI00036FB29C M F I H M K E L L Q Y H A K P A K P D P V Y A K K L L Q Q E E L L L G G G Q Y F G E E I S S V M  
UniRef90\_A0A023X4S6 M F L R I I D R L L Q Q I I D L L P R P G S A D P N S A A A V V Q Q E E L L M M G G G R F F G E E M S T L L  
UniRef90\_UPI000382BA41 M F F H K Q T L L Q Y P A K P E K P D A V Y A R K L L Q Q E E L L L G G G Q Y F G E E I T V A  
UniRef90\_B6IU72 M F I R Q N R L L Q Y H A R P S K P D P L Y A R K L L Q Q E E L L L G G G Q W F G E E M S V M  
UniRef90\_UPI000318326E M F F H T K E L L Q Y R A K P E R P D P L Y F A K Q L L Q Q E E L L L G G G Q F F G E E I S S V A  
UniRef90\_A0A024PFB0 M F S H I K D L L Q Y N A K P S Q P D P V Y A K K L L Q Q E E L L L G G G Q F F G E E I S S V M  
UniRef90\_T0J5F3 M F Y H V K E L L Q Y H A K P D R P D P V Y A K K L L Q Q E E L L L G G G Q F F G E E I S S V M  
UniRef90\_UPI0001850890 M F Y H I K E L L Q Y E A N P S R P N P V F A K Q L L Q Q E E L L L G G G Q Y F G E E I S S V M  
UniRef90\_E5WQ44 M F Y H I K E L L Q Y H A K P E R P D P V Y A K K L L Q Q E E L L L G G G Q F F G E E I S S V A  
UniRef90\_UPI00034DAD13 M F Y H F K E L L Q F E A K P S R P D P V F A R K L L Q Q E E L L L G G G Q Y F G E E I S S V M  
UniRef90\_UPI000365F81C M F M R I I D R L L Q A E L L P K R R A D P P N A A A A A L V Q Q E E L L L G G G R F F G E E M S T L L  
UniRef90\_U5LBN8 M F Y H V K E L L Q Y N A K P E K P D A V Y A R K L L Q Q E E L L L G G G Q F F G E E I S S V M  
UniRef90\_F5UJZ2 M F Y H K K P L L Q Y Y K R P E K P D A V Y A K Q I L Q Q E E L L L G G G T F F G E E M T V M  
UniRef90\_UPI00030B0E21 M F F H V K E T L Q Y R S K P D R P D P V Y A K K L L Q Q E E L L L G G G Q F F G E E I S S V M  
UniRef90\_G2TNN7 M F L H K K E L L Q F E A K P E R P D P V F A N K V L Q Q E E L L L G G G Q Y F G E E I S S V M  
UniRef90\_UPI0003B79E36 M F F H R Q E L L Q F S S T P D V K P D A V F A R K L L Q Q E E L L L G G G Q Y F G E E I T V A  
UniRef90\_UPI0003769BFA M F T R L D Q I I M I E I P D V D R P D P N A A A A A V V Q Q E E L L L G G G R F F G E E M S T L L  
UniRef90\_UPI00037967FC M F F H I K E L L Q Y T A K P D K P D P I Y A K K L L Q Q E E L L L G G G Q Y F G E E M S V M  
UniRef90\_E5WRA6 M F F H V K E L L Q F E A K P E R P D P V F A K K L L Q Q E E L L L G G G Q Y F G E E M T V A  
UniRef90\_K9WWS9 M F F H V K K L L I N E I V A D E P D A A A A I L L Q Q E E L L L G G G Q F F G E E M R T M  
UniRef90\_A0A022LLA4 M F Y H R Q K L L Q F Q S K P E K P D A V Y A R K L L Q Q E E L L L G G G Q Y F G E E I T V A  
UniRef90\_E6TUY4 M F Y H I K E L L Q Y D A K P T R P D P V F A K Q L L Q Q E E L L L G G G H F F G E E I S V A  
UniRef90\_Q11H56 M F F R T N Q F L Q Y N A K P T R P D P V Y A K K L L Q Q E E L L L G G G Q W F G E E I S S V M  
UniRef90\_I0K439 M I L K M D R L L P V I E L L P T P T N P S A N D A A A A V V Q Q E E L L L G G G K F F G E E M S T L L  
UniRef90\_B7K8P4 M F Y H K K R L L Q Y F T K P E N P D P I Y A K K L L Q Q E E L L L G G G P F F G E E M S V M  
UniRef90\_G4HJC4 M F I H M K E L L Q Y R A K P E R P D P V F A R K L L Q Q E E L L L G G G Q Y F G E E M S V M  
UniRef90\_I9WYP3 M F M K I I D R L L A E L L P E P K K P E P N A A A A A L Q Q E E L L L G G G K Y F G E E M S T L L  
UniRef90\_F4F335 M F S H I K N L L Q F E A K P D G P D A A F A R R L L Q Q E E L L L G G G Q W F G E E M T V A  
UniRef90\_UPI00041DC863 M F R H Q K E L L Q F E V N V I D R P D P Q L A R Q I L Q Q E E L L L G G G Q F F G E E M T V M  
UniRef90\_U1LPV0 M F Y H R Q E L L Q H K A T P D K P D A V Y A R K L L Q Q E E L L L G G G Q Y F G E E I S V A  
UniRef90\_UPI000366B474 M F Y H D K E L L Q Y K V K V I D K P N P V F A R M L L Q Q E E L L A V G G G Q F F G E E I R V C  
UniRef90\_UPI000366B474 M F F H T K Q L L Q Y P V R V I D K P D P V Y A R Q L L Q Q E E L L L G G G Q W F G E E I S V M  
UniRef90\_UPI00035C5C10 M F Y H V K E L L Q Y H A K P E C P D P V F A K K L L Q Q E E L L L G G G Q F F G E E I S V A  
UniRef90\_Q6HGX0 M F Y Y K E E I I N M I K P D K P D P A A K V L L Q Q E E L L L G G G H Y F G E E M R T M  
UniRef90\_UPI00041D9339 M F Y H V K P I D L L Q Y N A K P V S P D P V Y A K K L L Q Q E E L L L G G G Q Y F G E E I T V M  
UniRef90\_F2F902 M F Y H I K E L L Q Y E A K P C K P D P V M A R K M Q Q E E L L L G G G Q F F G E E I S V A  
UniRef90\_T5HKK6 M F K H T K V L L Q Y P A K P E R P D P V F A K K M Q Q E E L L L G G G Q Y F G E E I S V A  
UniRef90\_U1YZJ0 M F F H R Q E L L Q H Q A T P D R P D A V Y A R K L L Q Q E E L L L G G G Q Y F G E E I S V A  
UniRef90\_I0V7J4 M F T H T K R L L Q F E A K P E Q P D P V F A R K L L Q Q E E L L L G G G A W F G E E T T V T  
UniRef90\_D2PR24 M F R H T K R L L Q F E A K P E R P D P V Y A R K L L Q Q E E L L L G G G A F G E E M S V T  
UniRef90\_D7CTK5 M F Y H D G K L L Q Y S V R V I D T P N P V F A R M L L Q Q Q A L L G G G Q E E E I R V A  
UniRef90\_UPI000346FA79 M F Y H A K R L L Q Y F T P P S K P D P V Y A K K L L Q Q E E L L L G G G S L G E E M T V M  
UniRef90\_UPI0004143434 M F F H R K E L L Q Y H A K P E T S D P L F A K Q L L Q Q E E L L L G G G Q F F G E E M S V A  
UniRef90\_L0A5T5 M F Y H D K Q L L Q Y T V R V I D T P S P L F A K M L Q Q Q A I L L G G G V E E E I R V M  
UniRef90\_UPI0003483E08 M F F R Q K Q M A Y H A K P E K P D P L F A K M L Q Q E E L L L G G G Q W F G E E I S V M  
UniRef90\_I4YVJ7 M Y Y T D K K L L Q Y P V R V I E T P N P V F A R A L L Q Q E E L L A I G G G V E E E I R V A  
UniRef90\_E8TPF1 M F R H T K H L L Q Y C E A K P E A P D A L Y A M K L L Q Q E E L L L G G G A Y F G E E M T V T  
UniRef90\_BORDI7 M F F H K Q A L L Q H E A T P D K P D P I Y A R H L L Q Q E E L L L G G G Q Y F G E E I S V A  
UniRef90\_D2ELU8 M F R H Q K E L L Q F E A K P T Q P D P T V A K Y L L Q Q E E L L L G G G Q Y F G E E M S V A  
UniRef90\_UPI0003632BE7 M F H S A K L L Q Y K V S V I D K P D P L F A K Y L L Q Q Q A L L G G G I E E E I R V A  
UniRef90\_UPI00047D9FEC M F F H I K E L L Q Y N A K P D R P D A A Y A K K L L Q Q E E L L L G G G Q F F G E E I S V A

QUERY UniRef90\_D1CBQ9 UniRef90\_UPI0004759F9A UniRef90\_UPI00046F0F52 UniRef90\_E3DYC7 UniRef90\_UPI00034B010E UniRef90\_J2HQZ9 UniRef90\_D7CXZ9 UniRef90\_UPI00037033C5 UniRef90\_DOMH63 UniRef90\_UPI000308A5D4 UniRef90\_UPI0001E894CB UniRef90\_C6I7Z3 UniRef90\_U5LCD9 UniRef90\_I4EMZ5 UniRef90\_UPI0003B42EDD UniRef90\_B7GHX9 UniRef90\_UPI0002F70265 UniRef90\_F8FQ03 UniRef90\_Q5WCG2 UniRef90\_UPI0003661753 UniRef90\_UPI00047E11C4 UniRef90\_J2HID5 UniRef90\_F9DRV4 UniRef90\_UPI000376EF25 UniRef90\_UPI000366FBA9 UniRef90\_B7KXP5 UniRef90\_UPI0002EA3832 UniRef90\_F2F3H3 UniRef90\_UPI00047CAE5E UniRef90\_Q1AY77 UniRef90\_Q5WBV0 UniRef90\_A4WK01 UniRef90\_W8QY80 UniRef90\_U5LE73 UniRef90\_UPI00036B74EA UniRef90\_B2J4P9 UniRef90\_UPI00047A3EA4 UniRef90\_UPI000288E7B1 UniRef90\_UPI00036B75DD UniRef90\_B8HQI0 UniRef90\_UPI00036FB29C UniRef90\_A0A023X4S6 UniRef90\_UPI000382BA41 UniRef90\_B6IUJ2 UniRef90\_UPI000318326E UniRef90\_A0A024PFB0 UniRef90\_T0J5F3 UniRef90\_UPI0001850890 UniRef90\_E5WQ44 UniRef90\_UPI00034DAD13 UniRef90\_UPI000365F81C UniRef90\_U5LBN8 UniRef90\_F5UJZ2 UniRef90\_UPI00030B0E21 UniRef90\_G2TNN7 UniRef90\_UPI0003B79E36 UniRef90\_UPI0003769BFA UniRef90\_UPI00037967FC UniRef90\_E5WRA6 UniRef90\_K9WWS9 UniRef90\_A0A022LLA4 UniRef90\_E6TUY4 UniRef90\_Q11H56 UniRef90\_I0K439 UniRef90\_B7K8P4 UniRef90\_G4HJC4 UniRef90\_I9WYP3 UniRef90\_F4F335 UniRef90\_UPI00041DC863 UniRef90\_U1LPV0 UniRef90\_UPI000366B474 UniRef90\_UPI0001D1C6Q0 UniRef90\_UPI00035C5C10 UniRef90\_Q6HGX0 UniRef90\_UPI00041D9339 UniRef90\_F2F902 UniRef90\_T5HKK6 UniRef90\_U1YZJ0 UniRef90\_I0V7J4 UniRef90\_D2PR24 UniRef90\_UPI0003D7CTK5 UniRef90\_UPI000346FA79 UniRef90\_UPI0004143434 UniRef90\_L0A5T5 UniRef90\_I4YVJ7 UniRef90\_E8TFF1 UniRef90\_UPI0003483E08 UniRef90\_BORDI7 UniRef90\_D2ELU8 UniRef90\_UPI0003632BE7 UniRef90\_UPI00047D9FEC

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

QUERY  
UniRef90\_D1CBQ9  
UniRef90\_UPI0004759F9A  
UniRef90\_UPI00046F0F52  
UniRef90\_E3DYC7  
UniRef90\_UPI00034B010E  
UniRef90\_J2HQZ9  
UniRef90\_D7CXZ9  
UniRef90\_UPI00037033C5  
UniRef90\_DOMH63  
UniRef90\_UPI000308A5D4  
UniRef90\_UPI0001E894CB  
UniRef90\_C6JZ73  
UniRef90\_U5LCD9  
UniRef90\_I4EMZ5  
UniRef90\_UPI0003B42EDD  
UniRef90\_B7GHX9  
UniRef90\_UPI0002F70265  
UniRef90\_F8FQ03  
UniRef90\_Q5WCG2  
UniRef90\_UPI0003661753  
UniRef90\_UPI00047E11C4  
UniRef90\_J2HID5  
UniRef90\_F9DRV4  
UniRef90\_UPI000376EF25  
UniRef90\_UPI000366FBA9  
UniRef90\_UPI0002EA3832  
UniRef90\_F2F3H3  
UniRef90\_UPI00047CAE5E  
UniRef90\_Q1AY77  
UniRef90\_Q5WBV0  
UniRef90\_A4WK01  
UniRef90\_W8YG80  
UniRef90\_U5LE73  
UniRef90\_UPI00036B74EA  
UniRef90\_B2J4P9  
UniRef90\_UPI00047A3EA4  
UniRef90\_UPI000288E7B1  
UniRef90\_UPI00036B75DD  
UniRef90\_B8HQI0  
UniRef90\_UPI00036B29C9  
UniRef90\_A0A023X4S6  
UniRef90\_UPI000382BA41  
UniRef90\_B6IUy2  
UniRef90\_UPI000318326E  
UniRef90\_A0A024PFB0  
UniRef90\_T0J5F3  
UniRef90\_UPI0001850890  
UniRef90\_E5WQ44  
UniRef90\_UPI00034DAD13  
UniRef90\_UPI000365F81C  
UniRef90\_U5LBN8  
UniRef90\_F5UJZ2  
UniRef90\_UPI00030B0E21  
UniRef90\_G2TNN7  
UniRef90\_UPI0003B79E36  
UniRef90\_UPI0003769BFA  
UniRef90\_UPI00037967FC  
UniRef90\_E5WRA6  
UniRef90\_K9WWS9  
UniRef90\_A0A022LLA4  
UniRef90\_E6TUY4  
UniRef90\_Q11H56  
UniRef90\_I0K439  
UniRef90\_B7K8P4  
UniRef90\_G4HJC4  
UniRef90\_I9WYP3  
UniRef90\_F4F335  
UniRef90\_UPI00041DC863  
UniRef90\_U1LPV0  
UniRef90\_UPI000366B474  
UniRef90\_D1C6Q0  
UniRef90\_UPI00035C5C10  
UniRef90\_Q6HGX0  
UniRef90\_UPI00041D9339  
UniRef90\_F2F902  
UniRef90\_T5HKK6  
UniRef90\_U1YZJ0  
UniRef90\_I0V7J4  
UniRef90\_D2PR24  
UniRef90\_UPI0003483E08  
UniRef90\_BORDI7  
UniRef90\_D2ELU8  
UniRef90\_UPI0003632BE7  
UniRef90\_UPI00047D9FEC

90 100 110 120  
I N S L L A K N T P G K D L E E G V D P A S T P L G F A K D V R N A A H F F I A G G  
UniRef90\_D1CBQ9 I N M M L T T G S T K T D E P V N A P L L G S A V N Y R N N V H H F F I A V N G  
UniRef90\_UPI0004759F9A I N N A L L T T G S T K P A D P D N A P L L G A V G K D A R N N S W H F F I A T A A  
UniRef90\_UPI00046F0F52 I V N L C L L T T G S T E P A D P N A A P L M M D A K D K R N N S H H F F I A S A A  
UniRef90\_E3DYC7 I T L M L T T G S T F K A D P D V T P M R D A K N K R N N S A Q H H F F I A E T A  
UniRef90\_UPI00034B010E I N L M I E G S T F P G D P D I L S P M Q R N G V D K D K R N N T Y H H F F I A T A A  
UniRef90\_J2HQZ9 I N L C L L T T G S T P P A D P D E S P L Q R N G V D K D K R N N T Y H H F F I A S A A  
UniRef90\_D7CXZ9 V N S L L N G S P E R P S E T P D P T G T P L L G F A K D A G N T P H H F F I A S G  
UniRef90\_UPI00037033C5 I N L L L T T G S T K P G D P D E A P L L A G K D A R N T Y H H F F I D T A  
UniRef90\_DOMH63 I V N A L L N G A S R K E D P S S Q T P L K A P G L K A R N T Y H H F F I V T A  
UniRef90\_UPI000308A5D4 I N L V L E G T T R P S A P D T T P L L A P G K N V R N N T Y H H F F I A T A  
UniRef90\_UPI0001E894CB I N L M L E G G V T Y P A P P D A T P L L R D T K D F R N T Y H H F F I A N A  
UniRef90\_C6JZ73 I N L M L E G T T R P P G D P D S T P L L R G N T K D L R F S P H Y Y I E N A S A  
UniRef90\_U5LCD9 I N L L S K G N T F P G D P D I A P L L Q N G K D A R N N T Y H H F F I A S A  
UniRef90\_I4EMZ5 I N S M L N D G A T E S V N P V D A P L L S E I L G A R N N L H Q X F I L T N G  
UniRef90\_UPI0003B42EDD I N L C L Q L G S T S Q S G Q D P A N P P D S T P L L S E A M D S R R N P Q S F I A T A  
UniRef90\_B7GHX9 I N L C L L T T G S T Y E P G A P D V T P M Q N G A D Q R N N T Y H H F F I A T A  
UniRef90\_UPI0002F70265 I N L M I E G T T F P E D P D I L G P M R N A K D K R N T H H F F I A T A  
UniRef90\_F8FQ03 I N M V L T G T E R R D T Y P G D P D I L G P M R N A K D K R Y S L H H F F I P A N A  
UniRef90\_Q5WCG2 I N L C L L D G S V G N G S T N P D H A P L K E V Q G G I N K F N F L L G G  
UniRef90\_UPI0003661753 I N L L S R G N T F P G D P D V T P L L Q N G K D D A R Y A L H H F F I V S T A  
UniRef90\_UPI00047E11C4 V N L M M T G S T F P G N P D I L T P M Q N A V D D R S H Y H Y I A T A  
UniRef90\_J2HID5 I N L C M K G I T R P G D P D T T P L L S N G L N K R N N T Y H H F F I A S A  
UniRef90\_F9DRV4 I N I V N K G T S F T A D P N L T P L L Q D A K N K R N S Y S H F F I A T A  
UniRef90\_UPI000376EF25 I N L M I E G T T F P A E P L L T P M Q N A K D K R S S Y H F F I D S A  
UniRef90\_UPI000366FBA9 I A R L L D D A P V G G D L E E A A K D P V L L G A I I G G M N P Q H A I V I S G  
UniRef90\_B7KXP5 I V A M L N G P N D G D E T D G G E D I L S G A P F F E D M K D L R L S A A H F L S N G  
UniRef90\_UPI0002EA3832 I N S M L E G A T Y A E D P D Q T P M R D G V D K R I S Y A H F I D T D  
UniRef90\_F2F3H3 I N L L S K D T T F S G N P N L A P M M N A K N M R N T Q S F I A S A  
UniRef90\_UPI00047CAE5E I A Q L L D G A P V I Q E Q E E A A K D P V I T E A V L G G M N P Q H A I V N G  
UniRef90\_Q1AY77 I N G L L T G A S E G D E V T D A P L K G L K G K G I P H H Y L N N G  
UniRef90\_Q5WBV0 I N L M S Y G N T F P G D P D T A P L L Q N G K D K R Y S L H H F T T T A  
UniRef90\_A4WK01 V N A L Y V I G S T K Y A P P E Q A P L K P L K D V R N T Y H H F I N T G  
UniRef90\_W8YG80 I A R L L D N A P V K E Q E E A Y Q S D P A L A V M G G M N P Q H A I V A G  
UniRef90\_U5LE73 I A R L L D G A P V G D L E E D A A K D P I M A A I L L G G M N P Q H A I V S G  
UniRef90\_UPI00036B74EA I G S L L D A K P D V K L Q E E A A D P T T H P F V S F A Q D V R Y T K H H I A G  
UniRef90\_B2J4P9 I N H L L D K A P V L K L Q E E A A D P V V G A V M G G T N A M N P Q H H I V T G  
UniRef90\_UPI00047A3EA4 I A Q L L D G A P A K E Q E E A A A K N P A V E A V L G G M N P Q H H I V S G  
UniRef90\_UPI000288E7B1 I A R L L D G A P V G D L E E S A A K N P V M A A V L G G M N P Q H A I V S G  
UniRef90\_UPI00036B75DD I N S C L T G P R R E F L D D S G D P A D S P W S D L P P G S L S S H F I A S A  
UniRef90\_B8HQI0 I A H L L D R A P L K L Q E E S G A D P I V G T V M G G N G M N P Q H H A I V S G  
UniRef90\_UPI00036B29C9 I A Q L L D G A P V D Q A E E A A K D P V I A A A L L G G M N P Q H H V I V S G  
UniRef90\_A0A023X4S6 V N L L L D K T V E S S D G T G S N P L G M G L G G Y P D H H F M N T G  
UniRef90\_UPI000382BA41 V A Q L L E K A P L G I T E K A I Q E D P A V A A I I G G T D L Q Q A I V S G  
UniRef90\_B6IUy2 V A R L L E S S P V E A Q E D A A K D S I V V E D V I L A G M N P Q H A I V S G  
UniRef90\_UPI000318326E I A R L L D G A P V G D L Q E E A A K D P V L G A I L A G M N P Q H A I V S G  
UniRef90\_A0A024PFB0 I A Q L L E G A P A H D Q D Q A A Q D P V V E A V L G G M N P Q H A V V N G  
UniRef90\_T0J5F3 I A R L L D G A P D V E L E E D A V K D P V V E A A I V L G G T N P Q H A V S G  
UniRef90\_UPI0001850890 I A K L L D G A P V S L Q E E M Y K S N P V L G A V M G G M N P Q H H I V S G  
UniRef90\_E5WQ44 I A R L L D G A P V G A Q E E A A K D P V L E A I L L G G M N P Q H H V I V S G  
UniRef90\_UPI00034DAD13 I A R L L N D A P F F T Q K N A Y D T D P A L A E A I L G G S N P Q H A I V S G  
UniRef90\_UPI000365F81C I T M L A N G P S P E K E H K G D I S Q A P F E D M K D I R S A S F L H A G  
UniRef90\_U5LBN8 I A Q L L D N A P V S K E Q E E A A Q D P I I R A A M G G M N V Q H A I V S G  
UniRef90\_F5UJZ2 I A H L L D K A P V S M Q E E G F K D A V V P R D T I T G S M N P Q H A I V S G  
UniRef90\_UPI00030B0E21 I A Q L L D N A P V E D Q E N A A K D P M M A S I M G G M N P Q H A I V N G  
UniRef90\_G2TNN7 I A R L L D K A P V K M Q E E A V A K D P A T A A V M G G M N P Q H A I V G G  
UniRef90\_UPI0003B79E36 I A Q L L E D A P L G V I T D D A V Q D D D P A V A A I V K G R D V Q H A I V A G  
UniRef90\_UPI0003769BFA I N K I Q S G S T S Y K E P D D T P L D S V K N A R L S Y P Y L A G A  
UniRef90\_UPI00037967FC I A Q L L D D A P L D Q V E Q M A K D P A I G A V L G G M N P Q H A I V S S  
UniRef90\_E5WRA6 V A R L L M D D A P V Y N Q Q E A A K D P V V G A I L M G G M N P Q H A I V S G  
UniRef90\_K9WWS9 I T H L L D G S P V R Y Q N G S P G E G G S T P L S M A P N A P N V H H F L V A A  
UniRef90\_A0A022LLA4 V A Q L L E K A P L G V I T D H A V Q N D P A V A A V V G G T N V Q H H G I L A G  
UniRef90\_E6TUY4 I A R L L D G A S V L G D Q E D A A K N P V V G A I M G G M N P Q H H V I V S G  
UniRef90\_Q11H56 I A R L L E T S P V E A K E G A A K N S A R L E D V I V S G M N P Q H H A I V S G  
UniRef90\_I0K439 I N L L L T G V I S K R G I D P T I A P L A D G V N A R N T Y H H F N N S G  
UniRef90\_B7K8P4 I A H L V D K A P P D V Q E K A A D P I V E G V M G G M K A M N P K H A I F S G  
UniRef90\_G4HJC4 I A Q L L D G A P A D Q V D E A A K D P A I A A A L G G M N P Q H H A I V S G  
UniRef90\_I9WYP3 I A M L N G P G N P A K D V D I S K A P F A E M Q D V R L A G S F L S N G  
UniRef90\_F4F335 I T R L L E H A P L S L Q A E A E G N P M V G A I Y G G S N P A H H F I H S G  
UniRef90\_UPI00041DC863 I S Q L L D G A S P S D D Q A E A A A K D P A T A A I I G G M N P Q H H I V S G  
UniRef90\_U1LPV0 I A Q L L E K A P L G I T D D A V Q S D P T V A A V V G G T D I Q H H G I V A G  
UniRef90\_UPI000366B474 V A L N L E G A P L S L K E E A A K D Q A I G A V M G G M D V R H H I L S S G  
UniRef90\_D1C6Q0 V G M L L D G A S P E Q Q E E A A K G D P V V Y G A V L S G M N P H H I L S S G  
UniRef90\_UPI00035C5C10 I A R L L E G A D V I A Q E E A A Q D P V L A A I M G G M N P Q H H A I V S G  
UniRef90\_Q6HGX0 I N Q L L T G S S E P T P G N A G I D D A P L D E A V K H A N P H H F I V G A  
UniRef90\_UPI00041D9339 I A R L L D N A P A K D Q E Q V V K S D P A I E A V M G G M N P Q H H A I V S G  
UniRef90\_F2F902 I A R L L D G V I E P T T L D E A A K D P L I A A I L G G S N P Q H H L I V S G  
UniRef90\_T5HKK6 I A R L L E D A P V Y G A Q E K A A D D P V I G A I M G G M N P H H A I V S G  
UniRef90\_U1YZJ0 I A Q L L E K A P V I G A V E G A V Q N D P T V A A I I G G T D P Q H H A I V A G  
UniRef90\_I0V7J4 V A R L L E G A P A T E T T R A V Q D P V M A A V I G G M D P Q Q A I V G G  
UniRef90\_D2PR24 V A R L L E G A P A T M T A E A V K D P V M A A V L G G M D P M Q A I V A G  
UniRef90\_UPI0003483E08 V A L N L E G A P A L Q E Q A A K E N P L V A A V L G G M D P R H Y L S G G  
UniRef90\_UPI000346FA79 V A Y L L D K A P I K S Q E D G A D P V V G A V M G G N N A M N P Q H N I V S G  
UniRef90\_UPI0004143434 V A R L L D G A P L N E Q E K A A E D P V I G A I M G G M N P H H A I V S G  
UniRef90\_LOA5T5 V A M N L E G S P A S V Q E E A A K A N P M I A A V L G G M N P R H H F L S T G  
UniRef90\_I4YVJ7 I A R L L E T S P I E Q Q E E M A K N S S V V V E D A I V A G M N P Q H H Y I V A G  
UniRef90\_E8TPF1 V A L N L E G A P L S L Q E E I S S D T V G G S V L N G M N F R H H I L S T G  
UniRef90\_UPI0003483E08 V G R L L E G A P A D T I V A E A V K D P A V A A V V G G M N P Q Q A I I A G  
UniRef90\_BORDI7 I A K L L E T A P V I E A T E D A M K D P T L A A V I G G G D I Q H A I V A G  
UniRef90\_D2ELU8 V A R L L E D A P V E D Q Q A A M E Q D P V V G A I V A G M N P Q H A I V A G  
UniRef90\_UPI0003632BE7 V A L N L E G A P I S E Q Q E A A Q E D P I V N A I L G G M N P R H H I L S S G  
UniRef90\_UPI00047D9FEC I G R L L D N A P L K D Q E E A A K N P V I E A V L G G M N P Q H H A I V S G

| QUERY                  | A | N | S | L | V | M | G | A | 130 | M | G | E | H | W | N | G | E | Y | V | F | 140 | G | N | L | V | L | D | L | L | 150 | H | N | F | F | F | L | E | V | A | A | R | L | T |   |   |   |
|------------------------|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_D1CBQ9        | Q | T | A | L | V | G | N | S | M   | G | E | A | W | R | G | G | D | Y | V | F | A   | S | G | N | L | V | L | D | L | L   | H | N | F | F | F | L | E | V | A | A | R | L | T |   |   |   |
| UniRef90_UPI0004759F9A | Q | T | A | L | V | G | D | S | M   | G | E | F | W | H | G | D | Y | V | F | F | N   | S | G | N | L | V | L | D | L | L   | H | N | F | F | F | L | E | C | G | G | A | R | L | T |   |   |
| UniRef90_UPI00046F0F52 | Q | T | A | L | P | F | D | S | M   | G | K | G | W | T | G | G | D | Y | V | F | N   | S | G | N | L | V | L | D | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_E3DYC7        | Q | T | S | Y | P | F | D | S | M   | G | K | A | W | T | G | E | N | V | V | F | N   | S | G | N | L | V | L | D | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | T | T |   |
| UniRef90_UPI00034B010E | Q | T | A | Y | P | M | D | S | M   | G | A | S | W | R | G | D | Y | V | F | V | S   | G | N | L | I | F | D | L | L | H   | N | F | F | F | L | E | C | C | C | G | A | R | T | T |   |   |
| UniRef90_J2HQZ9        | Q | T | S | L | P | G | D | S | M   | G | K | A | W | N | G | D | Y | V | F | N | S   | G | N | L | I | F | D | L | L | L   | H | N | F | F | F | L | E | V | C | C | G | A | R | T | T |   |
| UniRef90_D7CXZ9        | Q | T | I | L | P | A | N | S | L   | G | Q | A | W | S | G | D | Y | V | F | S | S   | G | N | L | I | L | D | L | L | L   | H | N | F | F | F | L | E | N | C | G | A | R | T | T |   |   |
| UniRef90_UPI00037033C5 | Q | T | A | K | P | W | D | S | M   | G | K | A | W | T | G | D | Y | V | F | N | S   | G | N | L | V | L | D | L | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_DOMH63        | Q | T | A | L | V | A | N | S | M   | N | T | P | W | Q | G | D | Y | V | F | N | S   | G | N | L | V | L | D | L | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_UPI000308A5D4 | Q | T | A | V | V | G | D | S | M   | G | R | P | W | A | G | D | Y | V | F | N | S   | G | N | L | V | L | D | L | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_UPI0001E894CB | Q | T | A | L | P | G | D | S | M   | G | R | A | W | T | G | D | N | V | F | N | S   | G | N | L | V | L | D | L | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_C6IZ73        | Q | T | A | L | P | Y | D | S | M   | G | R | P | W | N | G | S | Y | V | V | F | N   | S | G | N | L | I | F | D | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_U5LCD9        | Q | T | G | L | P | G | D | S | M   | G | R | A | W | T | G | D | N | V | F | S | S   | G | N | L | V | L | D | L | L | L   | H | N | F | F | F | L | E | V | C | G | A | R | L | T |   |   |
| UniRef90_I4EMZ5        | N | S | A | V | V | A | N | S | M   | N | A | P | W | Q | G | D | Y | V | F | N | S   | G | N | V | I | L | D | L | L | L   | H | N | F | F | F | L | E | N | C | G | A | R | L | T |   |   |
| UniRef90_UPI0003B42EDD | N | S | V | P | K | N | S | M | G   | A | P | W | T | G | D | N | V | F | F | T | N   | S | G | N | L | V | N | D | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_B7GHX9        | Q | T | A | L | P | G | D | S | M   | G | K | S | W | S | G | D | Y | V | F | N | S   | G | N | L | V | L | D | L | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_UPI0002F70265 | Q | T | A | L | P | A | N | S | M   | G | Q | P | W | T | G | D | Y | V | F | V | T   | N | S | G | N | L | I | F | D | L   | L | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |
| UniRef90_F8FQ03        | Q | T | A | Y | V | A | D | S | M   | G | R | P | W | V | I | G | D | N | V | F | N   | S | G | N | L | V | L | D | L | L   | L | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |
| UniRef90_Q5WCG2        | Q | N | A | L | P | T | D | S | S   | G | K | P | W | T | G | D | N | V | F | N | S   | G | N | L | V | N | D | L | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_UPI0003661753 | Q | T | A | Y | P | G | D | S | M   | G | R | P | W | N | G | E | F | V | T | N | T   | N | S | G | N | L | A | A | D | L   | L | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |
| UniRef90_UPI00047E11C4 | Q | T | A | S | L | P | G | D | S   | H | G | R | P | W | T | G | D | N | V | F | N   | S | G | N | L | L | D | L | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_J2HID5        | Q | T | A | L | P | G | D | S | M   | G | K | S | W | T | G | D | Y | V | F | T | S   | G | N | L | V | L | D | L | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_F9DRV4        | Q | T | S | M | P | G | D | S | M   | G | N | P | W | R | G | D | Y | V | F | S | S   | G | N | L | V | L | D | L | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_UPI000376EF25 | Q | A | S | L | P | G | D | S | M   | G | N | P | W | T | G | K | Y | V | F | T | S   | G | N | L | V | A | D | L | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_UPI000366FBA9 | L | G | A | M | P | G | D | S | V   | G | N | R | W | T | A | D | Y | I | I | A | S   | G | N | L | L | A | D | F | R | A   | N | L | N | A | E | S | Q | G | G | R | L | L | T |   |   |   |
| UniRef90_B7KXP5        | G | G | S | A | P | I | N | S | N   | G | A | S | W | N | D | F | I | T | S | T | N   | S | G | N | V | V | D | L | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_UPI0002EA3832 | Q | M | A | K | P | F | D | S | M   | G | A | P | W | T | G | D | Y | I | F | T | K   | S | G | N | L | V | V | D | L | L   | L | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |
| UniRef90_F2F3H3        | Q | T | A | L | P | V | D | S | M   | G | K | P | W | N | G | E | Y | V | F | T | S   | G | N | L | V | L | D | L | L | L   | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |   |
| UniRef90_UPI00047CAE5E | L | G | A | Q | P | N | D | S | A   | G | Y | P | W | N | A | R | Y | T | I | A | S   | G | N | L | L | A | D | F | R | A   | N | L | N | A | E | S | Q | G | G | R | L | L | T |   |   |   |
| UniRef90_Q1AY77        | L | G | A | L | A | T | N | S | L   | G | K | G | W | N | G | E | Y | T | I | A | S   | G | N | D | L | V | L | D | L | L   | L | H | N | F | F | F | L | E | C | C | C | G | A | R | L | T |
| UniRef90_Q5WBV0        | Q | T | S | Y | P | G | D | S | M   | G | R | P | W | N | G | D | F | V | T | N | T   | G | V | L | I | E | D | L | L | L   | H | N | F | F | F | L | E | J | G | A | R | L | L | T |   |   |
| UniRef90_A4WK01        | L | T | A | F | P | M | D | S | H   | G | N | P | W | R | G | Y | I | E | I | A | S   | G | V | L | E | L | D | L | L | L   | H | N | F | F | F | L | E | V | C | G | A | R | L | L | T |   |
| UniRef90_W8QY80        | L | G | A | M | A | A | D | S | Q   | G | Y | P | W | N | A | K | Y | I | I | A | S   | G | N | L | M | A | D | F | R | A   | N | L | N | A | E | S | Q | G | G | R | L | L | T |   |   |   |
| UniRef90_U5LE73        | L | G | A | M | P | A | D | S | V   | G | N | R | W | T | A | D | Y | I | I | A | S   | G | N | L | L | A | D | F | R | A   | N | L | N | A | E | S | Q | G | G | R | L | L | T |   |   |   |
| UniRef90_UPI00036B74EA | P | G | A | M | I | A | D | S | H   | G | K | A | W | T | G | D | Y | V | I | A | S   | G | N | L | M | L | D | L | T | L   | H | N | F | F | F | L | E | G | A | R | L | L | T |   |   |   |
| UniRef90_B2J4P9        | L | G | A | Q | P | A | D | S | V   | G | F | P | W | N | G | R | F | I | A | S | G   | N | L | L | A | D | F | R | S | N   | L | H | L | E | S | Q | G | G | R | L | L | T |   |   |   |   |
| UniRef90_UPI00047A3EA4 | L | G | A | T | P | T | D | S | V   | G | Y | P | W | N | S | R | Y | T | I | A | S   | G | N | L | L | A | D | F | R | A   | N | L | N | A | E | S | Q | G | G | R | L | L | T |   |   |   |
| UniRef90_UPI000288E7B1 | L | G | A | T | P | T | D | S | V   | G | Y | P | W | N | S | R | Y | T | I | A | S   | G | N | L | L | A | D | F | R | A   | N | L | N | A | E | S | Q | G | G | R | L | L | T |   |   |   |
| UniRef90_UPI00036B75DD | Q | T | A | L | P | V | D | S | R   | G | V | G | W | T | G | D | Y | V | F | S | S   | G | N | L | I | L | D | L | L | L   | H | N | F | F | F | L | E | N | C | G | A | R | L | T |   |   |
| UniRef90_B8HQI0        | Q | G | A | Q | P | A | D | S | T   | G | Y | P | W | N | G | R | F | A | I | G | S   | G | N | L | L | A | D | F | R | S   | N | L | H | L | E | S | Q | G | G | R | L | L | T |   |   |   |
| UniRef90_UPI00036FB29C | L | G | A | T | A | T | D | S | V   | G | Y | P | W | N | S | R | Y | I | T | S | G   | N | L | L | A | D | F | R | A | N   | L | N | A | E | S | Q | G | G | R | L | L | T |   |   |   |   |
| UniRef90_A0A023X4S6    | L | G | T | M | A | A | G | S | G   | G | A | P | W | S | G | D | Y | V | F | S | T   | N | S | G | N | L | K | L | D | L   | L | H | N | F | F | F | L | E | S | G | A | R | L | L | T |   |
| UniRef90_UPI000382BA41 | A | G | A | R | P | V | D | S | M   | G | N | P | W | S | G | S | Y | V | T | A | S   | G | N | L | L | A | D | L | T | S   | N | I | N | A | E | M | Q | G | G | R | L | L | T |   |   |   |
| UniRef90_B6IUy2        | G | G | A | A | P | S | D | S | N   | G | N | P | W | S | S | R | Y | I | V | A | S   | G | N | L | L | A | D | F | R | N   | V | T | A | E | S | Q | G | G | R | L | L | T |   |   |   |   |
| UniRef90_UPI000318326E | L | G | A | M | P | A | D | S | L   | G | N | R | W | H | A | Y | I | I | A | S | G   | N | L | L | A | D | F | R | A | N   | L | N | A | E | S | Q | G | G | R | L | L | T |   |   |   |   |
| UniRef90_A0A024PFB0    | L | G | A | Q | P | N | D | S | A   | G | Y | P | W | N | A | R | Y | T | I | A | S   | G | N | L | L | A | D | F | R | A   | N | L | N | A | E | S | Q | G | G | R | L | L | T |   |   |   |
| UniRef90_T0J5F3        | L | G | A | M | P | V | D | S | V   | G | N | R | W | T | A | S | Y | V | A | A | S   | G | N | L | L | A | D | F | R | A   | N | L | N | A | E | S | Q | G | G | R | L | L | T |   |   |   |
| UniRef90_UPI0001850890 | L | G | A | M | P | V | D | S | V   | G | N | R | W | T | A | S | Y | I | G | A | S   | G | N | L | L | A | D | F | R | A   | N | L | M | A | E | S | Q | G | G | R | L | L | T |   |   |   |
| UniRef90_E5WQ44        | L | G | A | M | P | A | D | S | V   | G | N | R | W | T | A | D | Y | I | I | A | S   | G | N | L | L | A | D | F | R | A   | N | L | T | A | E | S | Q | G | G | R | L | L | T |   |   |   |
|                        |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

| QUERY                  | 170 | 180 | 190 | 200 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|-----|-----|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_D1CBQ9        | H   | K   | L   | R   | V | Y | E | M | T | D | N | P | V | A | R | E | M | L | G | Y | L | L | V | R | G | G | V | H | A | A | A | Y | G | K | A | L | E | E | S | T | L | T |   |
| UniRef90_UPI0004759F9A | H   | K   | L   | R   | V | Y | E | M | T | D | N | P | V | A | R | E | M | L | G | Y | L | L | V | R | G | G | V | H | A | A | A | Y | G | K | A | L | E | E | S | T | L | T |   |
| UniRef90_UPI00046F0F52 | H   | K   | M   | R   | V | Y | E | M | T | D | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | A | V | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_E3DYC7        | H   | K   | M   | R   | V | Y | E | M | T | D | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | I | V | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_UPI00034B010E | H   | K   | M   | R   | V | Y | E | M | T | D | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | I | I | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_J2HQZ9        | H   | K   | M   | R   | V | Y | E | M | T | D | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | V | I | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_D7CXZ9        | Q   | K   | L   | R   | V | Y | E | M | T | D | N | P | V | A | R | E | M | L | G | Y | L | F | V | R | G | G | V | H | A | L | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_UPI00037033C5 | H   | K   | M   | R   | V | Y | E | M | T | D | N | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | T | A | Y | A | K | A | L | E | E | S | T | L | T |   |   |
| UniRef90_DOMH63        | H   | K   | L   | R   | V | Y | E | M | T | S | N | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | A | T | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_UPI000308A5D4 | H   | K   | M   | R   | V | Y | E | M | T | D | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | I | L | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_UPI0001E894CB | H   | K   | M   | R   | V | Y | E | M | T | D | N | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | V | V | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_C6IZ73        | H   | K   | A   | R   | V | Y | E | M | T | D | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | V | V | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_U5LCD9        | H   | K   | M   | R   | V | Y | E | M | T | D | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | I | L | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_I4EMZ5        | Q   | K   | L   | R   | V | Y | E | M | T | D | N | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | A | T | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_UPI0003B42EDD | H   | K   | M   | R   | V | Y | E | M | T | D | N | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | V | V | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_B7GHX9        | H   | K   | M   | R   | V | Y | E | M | T | D | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | V | I | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_UPI0002F07265 | H   | K   | M   | R   | V | Y | E | M | T | D | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | A | V | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_F8FQ03        | H   | K   | M   | R   | V | Y | E | M | T | D | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | I | I | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_Q5WCG2        | H   | K   | M   | R   | V | Y | E | M | T | E | N | E | T | A | R | E | L | L | G | Y | L | L | V | R | G | G | V | H | A | V | A | Y | A | R | A | L | E | E | S | T | L | T |   |
| UniRef90_UPI0003661753 | H   | K   | M   | R   | V | Y | E | M | T | D | N | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | I | I | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_UPI00047E11C4 | H   | K   | M   | R   | V | Y | E | M | T | D | N | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | V | V | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_J2HID5        | H   | K   | M   | R   | V | Y | E | M | T | D | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | I | V | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_F9DRV4        | H   | K   | M   | R   | V | Y | E | M | T | D | N | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | I | L | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_UPI000376EF25 | H   | K   | M   | R   | V | Y | E | M | T | N | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | I | L | N | A | Y | A | K | A | L | E | E | S | T | L | T |
| UniRef90_UPI000366FBA9 | Q   | V   | S   | R   | L | Y | E | M | T | S | D | R | G | V | K | D | M | L | S | F | L | I | A | R | D | T | M | H | Q | N | M | W | L | A | A | I | E | E | L | E | T |   |   |
| UniRef90_B7KPY5        | H   | K   | L   | R   | V | Y | E | M | T | S | D | P | T | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | A | H | A | Y | A | L | A | L | E | E | S | T | L | T |   |
| UniRef90_UPI0002EA3832 | H   | K   | M   | R   | V | Y | E | M | T | S | S | P | T | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | I | K | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_F2F3H3        | H   | K   | M   | R   | V | Y | E | M | T | D | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | V | V | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_UPI00047CAE5E | Q   | V   | C   | R   | L | Y | E | M | T | D | P | G | V | R | D | M | L | S | F | L | I | A | R | D | T | M | H | Q | N | Q | W | M | A | A | I | E | E | L | E | T |   |   |   |
| UniRef90_Q1AY77        | A   | K   | L   | R   | V | Y | E | S | T | D | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | A | L | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_Q5WBV0        | H   | K   | A   | R   | V | Y | E | M | T | N | P | T | A | R | E | L | C | G | Y | L | L | V | R | G | G | V | H | I | I | A | Y | A | K | A | L | E | E | S | T | L | T |   |   |
| UniRef90_A4WK01        | A   | K   | M   | R   | V | Y | E | M | T | D | N | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | A | M | A | Y | G | K | A | L | E | E | S | T | L | T |   |
| UniRef90_W8QY80        | Q   | V   | T   | R   | L | Y | E | M | T | D | R | G | V | K | D | M | L | S | F | L | I | A | R | D | T | Y | H | Q | N | M | W | L | A | A | I | E | E | L | E | T |   |   |   |
| UniRef90_U5LE73        | Q   | A   | V   | R   | L | Y | E | T | T | N | D | R | G | V | K | D | M | L | S | F | L | I | A | R | D | T | M | H | Q | N | Q | W | L | A | A | I | E | E | L | E | T |   |   |
| UniRef90_UPI00036B74EA | N   | K   | L   | R   | V | Y | E | M | T | D | D | P | T | A | K | A | L | V | S | F | L | I | A | R | D | T | M | H | Q | T | A | Y | G | K | A | L | E | E | S | T | L | T |   |
| UniRef90_B2J4P9        | Q   | A   | V   | R   | L | Y | E | M | S | D | D | P | G | V | K | D | T | L | S | F | L | I | A | R | D | T | M | H | Q | N | Q | W | L | A | A | I | E | E | L | E | T |   |   |
| UniRef90_UPI00047A3EA4 | Q   | V   | V   | R   | L | Y | E | S | T | D | R | G | V | K | D | M | L | S | F | L | I | A | R | D | T | M | H | Q | N | Q | W | M | A | A | I | E | E | L | E | T |   |   |   |
| UniRef90_UPI000288E7B1 | Q   | V   | A   | R   | L | Y | E | E | T | S | D | R | G | V | K | D | M | L | S | F | L | I | A | R | D | T | M | H | Q | N | Q | W | L | A | A | I | E | E | L | E | T |   |   |
| UniRef90_UPI00036B75DD | Q   | V   | L   | R   | V | Y | E | M | T | N | H | P | V | A | R | E | M | I | G | Y | L | L | V | R | G | G | V | H | A | L | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_B8HQI0        | Q   | A   | V   | R   | L | Y | E | M | S | D | D | P | G | V | K | D | T | L | S | F | L | I | A | R | D | T | M | H | Q | N | Q | W | L | A | A | I | E | E | L | E | Q |   |   |
| UniRef90_UPI00036B729C | Q   | V   | V   | R   | L | Y | E | M | T | D | D | P | G | V | K | D | M | L | S | F | L | I | A | R | D | T | M | H | Q | N | Q | W | M | A | A | I | E | E | L | E | M |   |   |
| UniRef90_A0A023X4S6    | Q   | K   | L   | R   | T | Y | E | M | T | D | N | E | T | A | R | T | M | I | G | Y | L | L | V | R | G | G | V | H | Q | E | A | Y | A | K | A | L | E | E | S | T | L | T |   |
| UniRef90_UPI000382BA41 | Q   | V   | A   | R   | L | Y | H | M | T | D | D | R | G | V | K | D | L | L | S | F | L | I | A | R | D | T | M | H | Q | N | Q | W | L | A | A | A | R | E | L | E | S | Q |   |
| UniRef90_B6IUy2        | Q   | A   | T   | R   | L | Y | A | L | T | E | D | H | G | V | R | D | L | S | F | L | I | A | R | D | T | M | H | Q | N | Q | W | L | A | A | I | E | E | L | E | Q |   |   |   |
| UniRef90_UPI000318326E | Q   | V   | V   | R   | L | Y | E | A | T | N | D | R | G | V | K | D | M | L | S | F | L | I | A | R | D | T | M | H | Q | N | Q | W | L | A | A | I | E | E | L | E | E |   |   |
| UniRef90_A0A024PFB0    | Q   | V   | V   | R   | L | Y | E | M | T | D | P | G | V | R | D | M | L | S | F | L | I | A | R | D | K | M | H | Q | N | Q | W | M | A | A | I | E | E | L | E | E | E |   |   |
| UniRef90_T0J5F3        | Q   | V   | A   | R   | L | Y | E | M | T | N | D | A | G | V | R | D | M | L | S | F | L | I | A | R | D | T | M | H | Q | N | Q | W | Y | A | A | I | E | E | L | E | E | E |   |
| UniRef90_UPI0001850890 | Q   | A   | V   | R   | L | Y | E | L | S | D | D | P | G | V | K | D | T | L | S | F | L | I | A | R | D | T | A | H | Q | N | Q | W | A | A | I | E | E | L | E | E | E |   |   |
| UniRef90_E5WQ44        | Q   | V   | A   | R   | L | Y | E | N | E | T | D | D | P | G | V | R | D | M | L | S | F | L | I | A | R | D | T | M | H | Q | N | Q | W | L | A | A | I | E | E | L | E | E |   |
| UniRef90_UPI00034DAD13 | Q   | V   | T   | R   | L | Y | E | M | T | D | D | P | G | V | R | D | M | L | S | F | L | I | A | R | D | T | Y | H | Q | N | Q | W | F | A | A | I | E | E | L | E | E |   |   |
| UniRef90_UPI000365F81C | H   | K   | L   | R   | V | Y | E | T | L | S | D | P | T | A | R | E | M | I | G | Y | L | L | V | R | G | S | V | H | A | H | A | Y | A | L | A | L | E | E | S | T | L | T |   |
| UniRef90_U5LBN8        | Q   | A   | V   | R   | L | Y | E | M | T | E | D | R | G | V | R | D | M | L | S | F | L | I | A | R | D | T | M | H | Q | N | Q | W | L | A | A | I | E | E | L | E | S |   |   |
| UniRef90_F5UJZ2        | Q   | A   | V   | R   | L | Y | E | M | S | D | D | A | G | V | K | D | T |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

QUERY UniRef90\_D1CBQ9 UniRef90\_UPI0004759F9A UniRef90\_UPI00046F0F52 UniRef90\_E3DYC7 UniRef90\_UPI00034B010E UniRef90\_J2HQZ9 UniRef90\_D7CXZ9 UniRef90\_UPI00037033C5 UniRef90\_DOMH63 UniRef90\_UPI000308A5D4 UniRef90\_UPI0001E894CB UniRef90\_C6JZ73 UniRef90\_U5LCD9 UniRef90\_I4EMZ5 UniRef90\_UPI0003B42EDD UniRef90\_B7GHX9 UniRef90\_UPI0002F70265 UniRef90\_F8FQ03 UniRef90\_Q5WCG2 UniRef90\_UPI0003661753 UniRef90\_UPI00047E11C4 UniRef90\_J2HID5 UniRef90\_F9DRV4 UniRef90\_UPI000376EF25 UniRef90\_UPI000366FBA9 UniRef90\_B7KXP5 UniRef90\_UPI0002EA3832 UniRef90\_F2F3H3 UniRef90\_UPI00047CAE5E UniRef90\_Q1AY77 UniRef90\_Q5WBV0 UniRef90\_A4WK01 UniRef90\_W8QY80 UniRef90\_U5LE73 UniRef90\_UPI00036B74EA UniRef90\_B2J4P9 UniRef90\_UPI00047A3EA4 UniRef90\_UPI000288E7B1 UniRef90\_UPI00036B75DD UniRef90\_B8HQI0 UniRef90\_UPI00036B29C9 UniRef90\_A0A023X4S6 UniRef90\_UPI000382BA41 UniRef90\_B6IUy2 UniRef90\_UPI000318326E UniRef90\_A0A024PFB0 UniRef90\_T0J5F3 UniRef90\_UPI0001850890 UniRef90\_E5WQ44 UniRef90\_UPI00034DAD13 UniRef90\_UPI000365F81C UniRef90\_U5LBN8 UniRef90\_F5UJZ2 UniRef90\_UPI00030B0E21 UniRef90\_G2TNN7 UniRef90\_UPI0003B79E36 UniRef90\_UPI0003769BFA UniRef90\_UPI00037967FC UniRef90\_E5WRA6 UniRef90\_K9WWS9 UniRef90\_A0A022LLA4 UniRef90\_E6TUY4 UniRef90\_Q11H56 UniRef90\_I0K439 UniRef90\_B7K8P4 UniRef90\_G4HJC4 UniRef90\_I9WYP3 UniRef90\_F4F335 UniRef90\_UPI00041DC863 UniRef90\_U1LPV0 UniRef90\_UPI000366B474 UniRef90\_UPI0001D1C6Q0 UniRef90\_UPI00035C5C10 UniRef90\_Q6HGX0 UniRef90\_UPI00041D9339 UniRef90\_F2F902 UniRef90\_T5HKK6 UniRef90\_U1YZJ0 UniRef90\_I0V7J4 UniRef90\_D2PR24 UniRef90\_D7CTK5 UniRef90\_UPI000346FA79 UniRef90\_UPI0004143434 UniRef90\_L0A5T5 UniRef90\_I4YVJ7 UniRef90\_E8TFF1 UniRef90\_UPI0003483E08 UniRef90\_BORDI7 UniRef90\_D2ELU8 UniRef90\_UPI0003632BE7 UniRef90\_UPI00047D9FEC

210 220 230 240

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

QUERY Y R D L G L T W K G A S P E D G T E V V V V D G P P T G G G P V F D A G H D A E 250 260 270 280

UniRef90\_D1CBQ9 Y K D V T R I W T G T H P T D G G G E L T V V V D D G G P P T A G G G E I V P E L N D V P E E E

UniRef90\_UPI0004759F9A Y K E I A K I W R G S P S P E T D G D G Q L V V V V D D G G T P P T G G G P V V P E V L P D E V P P E E E

UniRef90\_UPI00046F0F52 Y K D I R Q I W K G S H P P E D D G G Q L E V V V E G T P P E G G G P V V P E E L R D E V P P E E E

UniRef90\_E3DYC7 Y K D I N K I W K G E H P P E D G G E P L Q V V I E G T P P E G G A P V V P E H R E E V P P E E E

UniRef90\_UPI00034B010E Y K K I T Q I W K G S H P P T E D G G E L L E V V V P G G T P P E G G G E I V P N D L L Q E E V P P E E E

UniRef90\_J2HQZ9 Y E D I A Q I W K G S H P S D S D G S G R L E V V V R G G V P P E Q G G E V V P N D L L E E V P P E E E

UniRef90\_D7CXZ9 Y R D I A H I W Q G E S P D D G S G P L E E V V D G G P P E E G G G H L V A R L L D P I V G E S E E

UniRef90\_UPI00037033C5 Y E Q I A L I W K G N T H P Q D D G G Q L E E A I Q D G M P P E G G G P V L A R L L D P A V D D E E A

UniRef90\_DOMH63 Y R D I V R I W K G T H P Q D D G G Q P L E E V V D D G T P P G G H P Q L D L L D L P E A P E E E A

UniRef90\_UPI000308A5D4 Y R D I G L I W R G Q H P P E D D G G G P L E E V I E G T P P A G A P I P D D F D D L P E E E E

UniRef90\_UPI0001E894CB Y K D V A M I W K G S H P P E D D G G K L E E V I Q A G L P P G Y G E I P E L L Q E S V I Q E E E E

UniRef90\_C6JZ73 Y H G I A Q I W R G Q H P T P E D D G G R L E E A F A G L P P G Y G E I P E L L Q E S V I Q E E E E

UniRef90\_U5LCD9 F K G I G Q I W K G T N P S E N G G E P L K V I Y G T P P E G G G P V P D D L L D E P I P E E E E

UniRef90\_I4EMZ5 Y K D I A A I W R G S H P P S P E D D G G C E V V V N G S D M P P E G G G E I P A D N L P P A P E E E

UniRef90\_UPI0003B42EDD Y T M L D R I W N G P T P V I D G G P G E L E V V V S D M P P E G G G E I P A D N L P P A P E E E

UniRef90\_B7GHX9 Y Q D V R Q I W K G T H P P I D G G Q L E E V I Q D G T P T G A P I P D D L L E A I V I P E E T E E

UniRef90\_UPI0002F70265 Y K Q I A K I W K G Q H P P S D S D G S P V Q V V V D G T P P R G G T I P D D L L E P I V T P E E E

UniRef90\_F8FQ03 Y R D I A L I W K G Q H P E D D G S P L E E T V F G S P P G G A P I P D D L L E P V I P E E E E

UniRef90\_Q5WCG2 Y Q L L N R I W S G T P P I G P G E L E E V V D G T P P E G G K I P D D L L D E P V V P P E E E

UniRef90\_UPI0003661753 Y R D I A K I W K G R N P E D T G E S P L E R V I H G S P P E G G A P I P D D L L D E E V P P E E Q

UniRef90\_UPI00047E11C4 Y R D I D K I W K G T H P E D G G S P V E V V I G S P P E G G A P I P D D F F E E V P P E E E

UniRef90\_J2HID5 Y Q D I A L I W R G P L P D D G G T A E V I Q G V P D D G G P V I P D L L D E E L P P E E E

UniRef90\_F9DRV4 Y K D I R Q I W K G T N P S S T G E T L E Y V Q E G M P P K G Y D I P D F F E E L P P E E E

UniRef90\_UPI000376EF25 Y R D L D K I W K G S H P P E T D G G P L E E V V I G P P E G G A E M P D F F P I P E E E

UniRef90\_UPI000366FBA9 E S A E G R W A H G R S M D G C S N F R Y V Q N P P A Y G G I P S L K T P E P S L K T P E P S A

UniRef90\_B7KXP5 Y R D I A G I W N S P G D P P G E L E I V E G M P D D G G K I H Q L Y T G L P A P S A

UniRef90\_UPI0002EA3832 Y G E I R Q I W K G D P E T G M P L E E V I E G A P V D Y P P A P V P A P P A P E T E

UniRef90\_F2F3H3 Y Q D L N K I W K G T H P T T N A P L I V E E G T P K G A K M P D L L D E L P P E E L

UniRef90\_UPI00047CAE5E D S S N G S W A N G P T L D G Q A N F Q Y V D G H P Q P M G Q K P S D L L Q P G D K S L

UniRef90\_Q1AY77 F K D I S A I W R G E H P I D G T P L E E V V D G L P P E G G P A D P P P E G K P A V

UniRef90\_Q5WBV0 Y R D I R Q I W K G E N P E T G E P L H V I D G M P P E G G A P V P D F F E E K P E M

UniRef90\_A4WK01 Y K D I E L I W R G T H P Q D D G K G E F R Y V H S A P P P P G G S A P K L K P A P K E

UniRef90\_W8QY80 E S K E G R W A H G R S M D G K G E F R Y I S A P V V F G S A P K L K P A P K E

UniRef90\_U5LE73 Q S A E G R W A Q G V S M D C Q G T F N Y V E N P Q P F G K A P K L K P A P A

UniRef90\_UPI00036B74EA F T Q L G T I W N G T H P E D D G S E V F V D E Y N T S E G G K L V D G G H D S G A

UniRef90\_B2J4P9 D S A E G R W A K G P S M D G K G E F E Y V A N P Q P L G A E P Q L P A D P R L

UniRef90\_UPI00047A3EA4 Q S S N G R W A K G E S M D G Q G S F E Y V S R N P Q A M G Q N P Q L P A P A Y

UniRef90\_UPI000288E7B1 E S A S G R W A S G P S M D G C G T F Q Y V G N P Q P L A P A P H L L P A P A

UniRef90\_UPI00036B75DD F K S E L V W S G E A P M E D S R K L E F V D E P P T G S P Q L D L E G L A S A

UniRef90\_B8HQI0 E S H Q G R W A K G K S I D G K G E F E Y V A H P E P L G K A T P D P G D P R L

UniRef90\_UPI00036F29C9 E S A E G R W A K G Q T M D D G Q G K F E Y V A N P Q P P M G E K P M L T P A P D A

UniRef90\_A0A023X4S6 Y N Q I G E I W N G K Q A E T G E P R E V V D D L P P E G G P V P D L T E V P D E M

UniRef90\_UPI000382BA41 H M S E G S W A S G E A P D G L G K F T Y V D T P P E G V P M A P P T H P D A R L

UniRef90\_B6IU2 E S A Q G R W A R G R A P D D G R G D L E Y V A D N P R A P M G E A P V L K G Q D P R L

UniRef90\_UPI000318326E K S A T G R W A S G P S M D G E G T F Q Y V A Q N P Q A Y G G A P K L K P A P S

UniRef90\_A0A024PFB0 E S S Q G R W A Q G S S M D G K G T F S Y V Q N P D A V G Q K P E L L A P A P A

UniRef90\_T0J5F3 A S A E G R W A H G P S M D G Y G T F N Y V D R P L A F G G V P H L E P A P

UniRef90\_UPI0001850890 A S A E G R W A S G P S M D G K S T F K Y V S E P G P F G S K P K L S K A P

UniRef90\_E5WQ44 Q S A K G R W A S G P S M D G Q G T F Q Y V K N P Q P

UniRef90\_UPI00034DAD13 E S K K G R W A H G P S F D D G R G E Y K Y V S E P

UniRef90\_UPI000365F81C Y R E M E A V W G G P G D P P G D L E E V V S G H P D G G K I D E L K G A S S A

UniRef90\_U5LBN8 D S A E G R W A K G P S M D G Q G Q F E Y I E N P E P M G Q I P I L L A P G P

UniRef90\_U5UJ22 E S S E G R W A K G K S M D G K G E F E Y V A N P Q P L G

UniRef90\_UPI00030B0E21 E S S Q G R W A S G P S M D G L S Q F E Y V A H P V A T G Q A P I L V P A P

UniRef90\_G2TNN7 E S A K G R W A S G E S I D G K G E F K F V E P F A S H D R V G Q Q P A P P Y V

UniRef90\_UPI0003B79E36 A A A D G P W A W G P T P D G N G T F E S Y H E P T T S A P M P E P T P D A R L

UniRef90\_UPI0003769BFA F K A I D Q I W K G T H P E D G G L P L E E V I H G F P E G V P P E Y P E E E

UniRef90\_UPI00037967FC E S A A G R W A S G P A M D G T G D F E Y V Q Q P K A Y G Q A P I L K P A P

UniRef90\_E5WRA6 E S T G R W A W G P A L D D G Q G S T E Y K Y V G N P P K P E G D K P M L K P A P

UniRef90\_K9WWS9 S L M S A I F R G E S P T D G G T T V D N D P P E G F P I P L P E R P E E

UniRef90\_A0A022LLA4 T A A D G S W A S G P T P D G H G E F S Y S D E P L E G P P M P P T H P D A R

UniRef90\_E6TUY4 Q S S R G R W A K G K S M D G L D K F F E Y Y S K A P A Y G E K P F L K P A P

UniRef90\_Q11H56 E S S Q E G R W A K G P A P P D G K G E F E Y L A D P P M G E I V E Q G D P L L

UniRef90\_I0K439 Y K Q V A L I W N G T H P E D D G Q P L E E V I Q G A P P G H A V P D L D E E P Q L

UniRef90\_B7K8P4 E S Q E G R W A K G T S P P D G K G E F E Y L E N P E P Q G P Q G E A P N A K L

UniRef90\_G4HJC4 E S S M G R W A N G P M P D G T G N F E Y V A N P T A Y G E A P V L K P A N A K H

UniRef90\_I9WYP3 Y K E A A G V W S N D P G D P P G N L E E V I D G A P E G G K I P E L D G N Y G A

UniRef90\_F4F335 D A G Q G R W A S G P A P D G K G E F R Y D H S P R A H A P E L P P D P R L

UniRef90\_UPI00041DC863 E S S Q G K W A T G A P A P D G A G D F V Y L G D P A P Q G K P N P P D R T

UniRef90\_U1LPV0 A S A E G S W A K G P T P D G H G E F S Y R S E P E G G V P M P A Q P D A R W

UniRef90\_UPI000366B474 E T A P G R W T S G P S I D G K G E F S V T Y Q G K P A G Q E P K L A P A P K G

UniRef90\_D1C6Q0 A S R R G R W A H G R S I D G K G R F T Y V E Q P T A R G E

UniRef90\_UPI00035C5C10 E S E K G R W A H G R S M D G L G Y F T Y Q Y W P P P F G E A V H L R P P P Y M

UniRef90\_Q6HGX0 P T R M G E I F Q G E S P S R N K Y G T L T V T D P P K G P V P E L P E M P N E

UniRef90\_UPI00041D9339 E S S Q G P W A Q G L A P S H R Y Y F R Y V E H P M P Y G P R P Y L I P A P

UniRef90\_F2F902 E S A Q G R W A H G P S M D E E G V F N Y V E H P V P F A P A P V L R P A P

UniRef90\_T5HKK6 E S A Q F E W L I G K A P D G A E F H Y E S G P V A Y G E K P V L K P A P K R

UniRef90\_U1YZJ0 H A S E G R W A S G P T P D G K G E F T Y V A E P A G V P M P V T T P D E R

UniRef90\_I0V7J4 E S T Q G R W A H G T A P D G S H Q M G I I P E P L G G G P A D A P A P D K L

UniRef90\_D2PR24 D G T P R G G W T E G D D P L E E Y L T D P P L G G G P G T A P A P D P E L

UniRef90\_D7CTK5 P Q T E G R W T Q G A S L D D G K G Q F S Q R R A E P Q G G E P Q L A P P V P Q V

UniRef90\_UPI000346FA79 E S A E G R W A K G E S M D R K G Q F E Y V A N P Q P I G

UniRef90\_UPI0004143434 D S A R G I W A S G N A P D G H D F Y T E S E P V I G F G G K P E L K P A P

UniRef90\_LOA5T5 E P T G R W S S G P S L D D G K G V F T T R A L K P M G Q E P K L A P P I P Q G

UniRef90\_I4YVJ7 E S Q Q G R W A Q G P A P D G K G T F T Y V I D R P P A Y D E G Q L N P I D P R A S

UniRef90\_E8TFF1 E P A Q G R W S E G P S M D G K G E F S L V A G S P M G E E P M L S P P R P S S

UniRef90\_UPI0003483E08 A A A E G R W A S R P A P D G E H E L R Y L D S P L G G P A S V P P D P E L

UniRef90\_BORDI7 A A S E G T W A S G P T P D G K G T F T Y H D G P T T S V P M P A P P G N P L L

UniRef90\_D2ELU8 E S S Q G A W A H G E A L D G E G E Y K W A E P K A E G Q A P D L K P V P K M

UniRef90\_UPI0003632BE7 P T P E G R W T E G K S L D D G R S E F T V V E K P E P I G Q K P D L K G A R

UniRef90\_UPI00047D9FEC E S A R G R W A S G P S M D G Q G V F E Y V Q H P Q P H A P K P V P R P A P P E

| QUERY                  | 290   | 300 |
|------------------------|---|-----|
| UniRef90_D1CBQ9        | F A P E F H P G E L Y E I A K K L Y E K A K |     |
| UniRef90_UPI0004759F9A | F A P G Y D P E M L A E I A K K L M S       |     |
| UniRef90_UPI00046F0F52 | F A P G L T A E E L A E L A K K L A         |     |
| UniRef90_E3DYC7        | F A P G I G P E E F M E I A R R L Q R S A   |     |
| UniRef90_UPI00034B010E | F A P G I S K E D F D E I A K R L M S S A   |     |
| UniRef90_J2HQZ9        | F A P G I S E E D F L E I A K R L Q R S A   |     |
| UniRef90_D7CXZ9        | F A P E F H P E E I F E I A Q K L Y N K A K |     |
| UniRef90_UPI00037033C5 | F A P G I S A E D F N E I F K R L K D A A   |     |
| UniRef90_DOMH63        | S I P G F A P E E L H E I A Q R L L K E L   |     |
| UniRef90_UPI000308A5D4 | F A P G I S Q E D F M A I V R R L Q K S A   |     |
| UniRef90_UPI0001E894CB | F A P G I S Q E D F M E I A K R L Q R S A   |     |
| UniRef90_C6IZ73        | F A P G I S P E D L V E I A K R L Q R A A   |     |
| UniRef90_U5LCD9        | F A P G I T K D D Y E R I A K R L L E       |     |
| UniRef90_I4EMZ5        | Y A P G Y H P D E L A E I A Q R L M R A     |     |
| UniRef90_UPI0003B42EDD | F A P G F D E Q Q F R E M S K K L N Y E A   |     |
| UniRef90_B7GHX9        | F A P G I S Y E D F L E I A K R L Q R S A   |     |
| UniRef90_UPI0002F70265 | F A P G I S E E D F I K I L A R L K S S A   |     |
| UniRef90_F8FQ03        | F A P G I S A E D F L Q I A K R L Q S N A   |     |
| UniRef90_Q5WCG2        | Y A P G F D E E Q F R E L S K R L Q Y E A   |     |
| UniRef90_UPI0003661753 | F A P G I D R E D Y Q R I L K R L M E N L   |     |
| UniRef90_UPI00047E11C4 | F A P G V S E D D F M E I Y K R L Q         |     |
| UniRef90_J2HID5        | F A P G V S R E D F I E I A K R L Q R S A   |     |
| UniRef90_F9DRV4        | F A P G I G P D E Y Q Q I A K R L L S N L   |     |
| UniRef90_UPI000376EF25 | F A P G I T R E D Y E K I R K R L L E E K A |     |
| UniRef90_UPI000366FBA9 | A P Y T F N T N F H I P S L                 |     |
| UniRef90_B7KXP5        | F A P D Y A P E E M F E I A Q K L T K K A R |     |
| UniRef90_UPI0002EA3832 | F A P G I S R E D F E E I S K R L Q R Q A   |     |
| UniRef90_F2F3H3        | F A P G I G P E E F Q M I A K R L M         |     |
| UniRef90_UPI00047CAE5E | H G T N T E E L R V K Q G L G K M           |     |
| UniRef90_Q1AY77        | S S P G L H P E E L Q E I A Q R L S R L     |     |
| UniRef90_Q5WBV0        | F A P G I D P D D Y M K I V K R L K E N L   |     |
| UniRef90_A4WK01        | F A P G L Y K D D F V R I A K R L           |     |
| UniRef90_W8QY80        |   |     |
| UniRef90_U5LE73        |   |     |
| UniRef90_UPI00036B74EA | F S P E W D M G E I L E I A K K L H D K A R |     |
| UniRef90_B2J4P9        | H G T P T P E                               |     |
| UniRef90_UPI00047A3EA4 | I H G T A P P D T L                         |     |
| UniRef90_UPI000288E7B1 |   |     |
| UniRef90_UPI00036B75DD | F S P N Y A P E E I I E I A N I L Y K K S K |     |
| UniRef90_B8HQI0        | H G T V P G V S Q M A N V A S A V V D       |     |
| UniRef90_UPI00036FB29C | M H P G A L P K L A N E G M K               |     |
| UniRef90_A0A023X4S6    | F A P N I D P A D V I E L G K R F L K       |     |
| UniRef90_UPI000382BA41 | F G T T E L P N T V I E K I A G K V Q E K   |     |
| UniRef90_B6IUY2        | H G T P A K P                               |     |
| UniRef90_UPI000318326E | Y I H N T P P K D L R                       |     |
| UniRef90_A0A024PFB0    | F I H G T L P                               |     |
| UniRef90_T0J5F3        |   |     |
| UniRef90_UPI0001850890 |   |     |
| UniRef90_E5WQ44        |   |     |
| UniRef90_UPI00034DAD13 |   |     |
| UniRef90_UPI000365F81C | F T T D Y D P S E I F E I A S K L H A K L   |     |
| UniRef90_U5LBN8        |   |     |
| UniRef90_F5UJZ2        |   |     |
| UniRef90_UPI00030B0E21 |   |     |
| UniRef90_G2TNN7        | H G T                                       |     |
| UniRef90_UPI0003B79E36 | F G T T D A P N P V E K G A A R V Q D       |     |
| UniRef90_UPI0003769BFA | F A P G I S Q E D F A E I A K R L K A N     |     |
| UniRef90_UPI00037967FC |   |     |
| UniRef90_E5WRA6        |   |     |
| UniRef90_K9WWS9        | F A P G L T P E L M A L A Q Q L E Q M S R   |     |
| UniRef90_A0A022LLA4    | F G T T E L P N T V E K V A G T V Q D K L   |     |
| UniRef90_E6TUY4        |   |     |
| UniRef90_Q11H56        | H G T P K T P                               |     |
| UniRef90_I0K439        | N A P G Y D P Q M F A D M A K K M           |     |
| UniRef90_B7K8P4        | Y S T                                       |     |
| UniRef90_G4HJC4        | Q T P G T G P Y V V N E T V K               |     |
| UniRef90_I9WYP3        | F A P D Y A P E E I F E I A S K L Y K K G R |     |
| UniRef90_F4F335        | Y G T D P G M V Q G V M N K V K S K         |     |
| UniRef90_UPI00041DC863 | L H H D L D P G G V E K V V K Q V A D Q I K |     |
| UniRef90_U1LPV0        | Y G T T P K P N T M E K I A G E V Q D K L   |     |
| UniRef90_UPI000366B474 | H A Q K E Q M S T F D N I I D K A K D       |     |
| UniRef90_D1C6Q0        |   |     |
| UniRef90_UPI00035C5C10 | F N T P L P P                               |     |
| UniRef90_Q6HGX0        | H S P G L K D M D F                         |     |
| UniRef90_UPI00041D9339 |   |     |
| UniRef90_F2F902        |   |     |
| UniRef90_T5HKK6        |   |     |
| UniRef90_U1YZJ0        | F G T T G K P S T L E K A K G A V K D A L   |     |
| UniRef90_I0V7J4        | F A T                                       |     |
| UniRef90_D2PR24        | F S T Y S T V Q D V K G K A Q A V K K N A   |     |
| UniRef90_D7CTK5        | H A   |     |
| UniRef90_UPI000346FA79 |   |     |
| UniRef90_UPI0004143434 |   |     |
| UniRef90_LOA5T5        | H A Q T E Q M                               |     |
| UniRef90_I4YVJ7        | Y G T                                       |     |
| UniRef90_E8TPF1        | G A Q S E Q M                               |     |
| UniRef90_UPI0003483E08 | Y G T                                       |     |
| UniRef90_BORDI7        | H G P A K D P G L L K K A A S A V K D A     |     |
| UniRef90_D2ELU8        | Y G   |     |
| UniRef90_UPI0003632BE7 | P G T G A Q K A Q V                         |     |
| UniRef90_UPI00047D9FEC | Y   |     |

UniRef90\_D1BE63 1 MY L H V Q R K L T H D I V A E E P D 20 P A A A N A L Q E E G L 30 G G Q F F G E M R T M 40

UniRef90\_UPI00040511D6 M F R H Q K E F Q Y E V K V V D E R P D P L F A N A Q L V E E V L G G G Q F F G E M T V M

UniRef90\_D6U0Z7 M F F H V Q K L L I N E I V P P D E P D D A A A A R Q L Q Q E E G L G G G A W G E M T V T

UniRef90\_K0JXK1 M F L H T S R L Q Q F E A K V P A Q P D D A L F A R A K L L Q Q E E L L G G G Q Y G E I S V M

UniRef90\_UPI00041490EE M F Y H I K E L Q F E D A R P P A G P D D A L F A A R R L Q Q E E V L G G G Q Y F G E I S V A

UniRef90\_UPI0003B4B3C0 M F F H R Q E L Q F K A S V P S K P D D A V Y A K V L Q Q E E A L G G G R F G E M R T M

UniRef90\_W4BHJ8 M F F H M K E L Q Y E A K V V P D K P D P I F A T R L L Q Q E E L L G G G Q F F G E I S V A

UniRef90\_UPI0001E89ACD M F Y H D K K L L Q Y K V R V V D E K P D P L L F A K M L Q Q E E V L G G G I F G E I S R V C

UniRef90\_M7NAT0 M F R H Q K E L L Q Y K V R V V D E K P D P L L L A K Q I L Q Q E E V L G G G I F G E M S V M

UniRef90\_F2F903 M F Y H D R E L Q Y K V R V V D K P S P V F A R M L L Q Q E A I G G G I F G E I S V C

UniRef90\_UPI0003B6A79B M F Y H D Q R M I N E I V P D E P D P G A A N A L L Q Q E G L G G G I F G E M R T M

UniRef90\_A4FE49 M F Y H V Q R L Q Y T V K V P D K P D P Q F A R L L L Q Q A I L G G G I F G E I S V C

UniRef90\_UPI0004288D7A M F F H D K K L Q Y T V K V P E K P D P L F A K K L L Q Q E L I G G G A Y G E M T V T

UniRef90\_Q47RJ3 M F R H D K R L L Q Y F A K V P E K P D P V Y A R M L L Q Q E A I G G G I F G E I S V A

UniRef90\_B1LV19 M Y Y H D K R L Q Y F H A K V P D S P D P V Y A R K K L L Q Q E L L G G G I F G E I S V A

UniRef90\_UPI0003B31B10 M F F H R K E L Q Y F H A K V P D R P D P V Y A R K K L L Q Q E L L G G G I F G E I S V A

UniRef90\_D3FQM8 M Y F Y R E D L I N M I V P D K P D P H A A K V L L Q Q E A L G G G Q F F G E M R T M

UniRef90\_I2GDM8 M F Y H D K K L Q Y K V R V V P E K P D N A Q F A R L L Q Q E A I G G G I F G E I S V C

UniRef90\_M7MNY2 M F Y H D K K L Q Y K V R V V P D Q P D A V Y A R K L L Q Q E A I G G G I F G E I T V A

UniRef90\_J9RTG2 M Y L H T Q Q L I N E I A V D E P D P A A A N A L L Q Q E G L G G G Q F F G E M R T M

UniRef90\_V4T721 M F Y H S S K L L Q Y E V R V V D E K P N P L F A K M L L Q Q A I G G G V E G E I R V A

UniRef90\_UPI00037CF591 M F Y H D K N L Q Y K V R V V D K P N P Q F A T A L L Q Q A I G G G I F G E I R V C

UniRef90\_UPI000382C65F M F R H T Q K L Q F E A R V P E K P D P A Y A H K L L Q Q E L V G G G A Y G E M T V M

UniRef90\_D5ZU56 M F Y T D G K L Q F P V R V V P E K P D P V F A K A L L Q Q E A I G G G V F G E I R V A

UniRef90\_UPI00037F8128 M Y Y Y K E G L Q F I N G I K P D K P D P A A A K V L L Q Q E A L G G G Q F F G E M R T M

UniRef90\_D5DI81 M F K H T D Y L Q F D V K V P E K P D P V Y A H K L L Q Q E L L G G G A F G E M T V T

UniRef90\_V8CWV4 M F V H N K R L Q Y T V R V V A A P N P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_Q13JW1 M Y F H A Q T W I N E I A D G E P D P A A A N A L L Q Q E G L G G G Q F F G E L A A M

UniRef90\_A5CN12 M F Y H D G K L Q Y N V R V V E T P D P Q F A K L L Q Q A I L G G G I F G E I R V C

UniRef90\_UPI00041618F8 M F Y L D K R L Q Y Y V R V V E T P D P V Y A R M L L Q Q A I L G G G I F G E I R V C

UniRef90\_UPI000361FD12 M F R H T D Y M Q F D V K V P E K P D P I Y A R K L L Q Q E L L G G G A Y G E M T V T

UniRef90\_J9SCH2 M F V H N K R L Q Y T V R V V S E T P D P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_G8MKE9 M F N H K K E L Q Y F D A K V P D R P D P V F A K K L L Q E E V I G G G Q Y G E M S V A

UniRef90\_W9AMQ6 M F Y H D N K L Q Y P V R V V D T P S P L F A K M L L Q Q E A I G G G V E G E I R V C

UniRef90\_H8H0Z4 M F S H N K R L Q Y T V R V V S E T P D P G L A N L L M L L E Q F G G G P Q G G E L A A A

UniRef90\_UPI0003813891 M F F H R S E L Q Y Y H V K V P E S P D P V F A K Q V L Q Q E L I G G G Q F F G E M S V A

UniRef90\_W3AEP7 M L L R I D R W L A E L P P P T T P D P A Q A K V V E E L M G G G K F F G E M S T F

UniRef90\_UPI0003B6D24E M Y Y H D K R L Q Y P V V V D K P D P A A F A R M L L Q Q A I L G G G V F G E I R V C

UniRef90\_UPI0003B42A62 F L H V Q R L L I N E I V V P D E P D P A A A N A L L Q Q E G L G G G Q F F G E M R T M

UniRef90\_UPI0001FFDDAD M F R H D R Y L Q F Q A K V P E K P D P A L F A A K L L Q Q E L L G G G Q F F G E M T V M

UniRef90\_I0L7M5 M F Y T D G K L Q Y P V R V V E S P D P H F A R A L L Q Q A I L G G G V E G E I R V A

UniRef90\_W01LG7 M F Y T D G K L Q Y P V R V V E T P D P L F A R A L L Q Q A I L G G G I F G E I R V A

UniRef90\_C6B860 M Y Y H D K R L Q Y P V R V V E T P D P L F A R Q L L Q Q A I L G G G I F G E I R V C

UniRef90\_W9H2Q4 M F F Y T E A L I N E I P P D Q P D P S A A A K A M Q E L L G G G H Y G E M R T M

UniRef90\_F8FAH8 M I Q K F D K L A M A L P V V S E P D A N A A A A V Q E L L G G G K F G E M S T L

UniRef90\_UPI0001746577 M F A H N K R L Q Y T V R V V S E P N P A L J A N L M L E Q F G G G P Q G G E L A A A

UniRef90\_UPI00036EEA93 M F R H T K L L Q F E A K V P E K P D P V Y A H K L L Q Q E V L G G G A Y G E M T V T

UniRef90\_D9V198 M F E H R K G L Q F D V K V P E K S N P M L A K Q V L Q Q E V L G G G Q Y F G E M T V M

UniRef90\_UPI000288813F M Y Y H D K R L Q Y P V R V V C E S P D P L F A R M L L Q Q A I L G G G V E G E I R V C

UniRef90\_F3WV76 M F L H N K R L Q Y T V R V V A Q Q P N P G L A N L L L L E Q F G G G A Q G G E L A A A

UniRef90\_S3MV05 M F F H M Q D L Q Y F D A K V P E G P D A A F A N R L L Q E V L G G G K W G E M T V A

UniRef90\_UPI00035D2208 M F M H N K R L Q Y T V R V V A G A N P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_UPI000465B004 M F H H S S K L Q Y P V K V V D K P D P E F A M L L Q Q A I L G G G V E G E I R V A

UniRef90\_UPI0004686569 M F H H S S K L Q Y P V K V V D K P D P E F A M L L Q Q A I L G G G V E G E I R V A

UniRef90\_UPI0002885B4C M F Y H S K E L Q F N A R V V S K P D P R F A R L L L L E Q F G G G N G E L K A S

UniRef90\_R5VJ05 M F T H N K R L Q Y T V R V V S S A P N P V L G S L L L L E Q F G G G P D G G E L A A A

UniRef90\_W9BYN9 M F M H N K R L Q Y T V R V V S S A P D P A L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_L1LU10 M L Y H D K R L Q Y P V R V V E K P D P L F A R Q L L Q Q A I L G G I F G E I R V C

UniRef90\_J5PLQ4 M F L H N K R L Q Y T V R V V S E P N P G L A N L L L L E Q F G G G A F G E L A A A

UniRef90\_K6BJQ2 M F R H T K L L Q F E A K V P E K P D A V Y A H K L L Q E L I G G G A F G E M T V T

UniRef90\_D8I2L8 M F M H N K N L M Y T V R V V A E P D P K L J A S L M L E Q F G G G P Q G G E L A A A

UniRef90\_G8AMH9 M F Y Y D G K L Q Y E V R V V D E T P S P R F A R M L L Q Q A I L G G V E G E I R V A

UniRef90\_F0RQ30 M F Y H D G K L Q Y E V R V V D E K P S P L F A K A L Q Q A I L G G V E G E I R V C

UniRef90\_Q7UKC5 M F R H T D H L Q F D V K V P E K P D P V Y A R K L L Q E L I L G G G A Y G E M T V T

UniRef90\_A0A034UK19 M F H H V K E L Q F N A R V V S K P D P R F A R L L L L E Q F G G G N G E L K A S

UniRef90\_UPI0002D7953D M F A H T K R L Q Y T V R V V S K D Q T P N P G L A N L L M L L E Q F G G G P Q G G E L A A A

UniRef90\_UPI000375C75D M F V H N K R L Q Y T V R V V T S D T P N P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_B2JRY7 M F R H V K K L Q Y T V R V V S E P N P G L A N L L L L E Q F G G G A F G E L A A A

UniRef90\_D4E7A0 M F R H V K K L Q Y T V R V V P E K P D P V Y A R K L L Q E L L I G G G A F G E M T V T

UniRef90\_K0V251 M F F H E P E L Q Y E V T V E N S P D P H F A K L L L Q Q A I L G G G Q F F G E M R V A

UniRef90\_L0K4Q8 M F L H K K E L Q Y Y H A K V P D K S D P L M A R K M Q E L L G G G Q Y G E I S V A

UniRef90\_U5SAW0 M F A H T K R L Q Y T V R V V T E S P N P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_I0HT81 M F V H N K R L Q Y T V R V V A E P N P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_C1DI24 M F R H V K Q L Q Y T V R V V A E P N P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_W9BP02 M F V H N K R L Q Y T V R V V A E P N P G L A N L L M L L E Q F G G G P Q G G E L A A A

UniRef90\_H0J6V8 M F R H V K Q L Q Y T V R V V A E P N P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_A7MK77 M F Y H V K E L Q Y F N A R V V S K P D P A F A S L L L L E Q F G G G P N G E L A A A

UniRef90\_UPI0003FC3301 M Y F H D K R L Q Y P V R V V E T P D P L F A R Q L L Q Q A I L G G G V E G E I R V C

UniRef90\_D5RN05 M Y Y F D K R L Q Y P V K V V E K P D P L F A R Q L L Q Q A I L G G V E G E I R V C

UniRef90\_W1JWW3 M F L H N K R L Q Y T V R V V A E R P D P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_V2J7U2 M F R H V K Q L Q Y T V R V V A S E P N P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_A0A023MS02 M F S H N K R L Q Y T V H V S E P N P G L A N L L M L L E Q F G G G P Q G G E L A A A

UniRef90\_Q1H1D3 M F H H V K D L Q Y F N V R V V A P D P R F A A L L L L E Q F G G G A N G E L K A A

UniRef90\_C7PPR0 M F A H N K R L Q Y T V R V V A P N P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_I5CL80 M F K H V D H L Q F Q A K V P E K P D A F F A A K L L Q E L V G G G Q F F G E M T V M

UniRef90\_I0HAB6 M F K H I K Q L Q Y T V R V V A A G P D P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_H2J2B6 M F V H D K R L Q Y T V R V V A A P D P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_B7V9S2 M F M H N K R L Q Y T V R V V S E T D P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_E2SUZ1 M F Y H I K D L Q Y F N A R V V S A A D P R F A R L L L L E Q F G G G P N G E L K A A

UniRef90\_L8JVL8 M F R H V K K L Q Y T V R V V S A P N P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_U1TSF5 M F S H N K R L Q Y T V R V V N E T N P G L A N L L L L E Q F G G G P Q G G E L A A A

UniRef90\_UPI00046F2622 M F S H N K R L Q Y T V R V V N E T N P G L A N L L L L E Q F G G G P Q G G E L A A A

|                        | 50  | 60 | 70 | 80 |
|------------------------|---|----|----|----|
| UniRef90_D1BE63        | M Q Y L F Q S M N F R G A A A K P Y R D L L Q G I I G T E E I I S H H V I V E L L G T         |    |    |    |
| UniRef90_UPI00040511D6 | M Q Y L F Q Q F N C R G E E K A K P Y R D L L M D Q G I I G T E E I I S H H V I V E L L G T   |    |    |    |
| UniRef90_D6U0Z7        | M Q Y L F Q S F N F R G K A K P Y R D L L Q G I I G T E E I I S H H V I V E L L G T           |    |    |    |
| UniRef90_K0JXK1        | M Q Y L F Q Q G W N C R M E G K A K P Y R D L L M D Q G I I G T E E I I S H H V I V E L L G T |    |    |    |
| UniRef90_UPI00041490EE | M Q Y L F Q Q Y N S R A D A K Y R D L L L D I V G A T E E E E M A G H H V I V E L L G T       |    |    |    |
| UniRef90_UPI0003B4B3C0 | M Q Y G F Q A W N A H K P G K A Q Y R D L L Y G V F G A E E E E F G S H H V I V E L L G T     |    |    |    |
| UniRef90_W4BHJ8        | M Q Y F F Q S S N F R G N P K A Q Y R D L L R G V F G A E E E E F G S H H V I V E L L G T     |    |    |    |
| UniRef90_UPI0001E89ACD | V Q Y L F Q Q W G A R R R H D K Y R D L L M D T T G T E E E E I I A S H H I I E M L A T T M   |    |    |    |
| UniRef90_M7NAT0        | M Q Y L F Q A W N S R G P A K Y R D M L L E T T G T E E E E I I G H H V I V E M L S T A       |    |    |    |
| UniRef90_F2F903        | M Q Y L F Q Q W N C R G E E K Y K D L L M D I G T E E E E I I G H H V I V E M L C S L         |    |    |    |
| UniRef90_UPI0003B6A79B | L Q Y L F Q A W G A R G G P V K Y R D M L L E T T G T E E E E I I A S H H I I E M L A T T A   |    |    |    |
| UniRef90_A4FE49        | M Q Y L F Q S F N F R G A E A K P Y R D L L H G T T G T E E E E I I S H H V I V E L L A T T A |    |    |    |
| UniRef90_UPI0004288D7A | L Q Y L F Q A W G N R G P Q K Y R D M L L E T T G T E E E E I I S H H V I V E M L C A T T A   |    |    |    |
| UniRef90_Q47RJ3        | M Q Y L F Q Q W N C R E G K Y K D L L M D V A T T E E E E I I G H H V I V E M L A T T M       |    |    |    |
| UniRef90_B1LV19        | F Q Y F F Q A W N R A P T T K Y R D M L M N T A T T E E E E E G H H I I E M L A T A T A       |    |    |    |
| UniRef90_UPI0003B31B10 | M Q Y M F Q G W N T R G N E Q Y K D M L M D T G T E E E E F G H H I I E M I A T T M           |    |    |    |
| UniRef90_D3FQM8        | M Q F S F Q S A N F R G K A K Q Y R D L I R G V F L E E E E L S H H I I E L V Q S T A         |    |    |    |
| UniRef90_I2GDM8        | L Q Y L F Q A W N S R G P Q R Y R D M L L D T T G A E E E M A G H H V I V L L V T A M         |    |    |    |
| UniRef90_M7MNY2        | M Q Y G F Q A W N H R P G K Y K D L L Y G I A A E E E F G H H V I V E M L A K M               |    |    |    |
| UniRef90_J9RTG2        | M Q Y L F Q S M N F R G D P A S K P Y R D L L Q G V G T E E E E I I S H H V I V E I G T T A   |    |    |    |
| UniRef90_V4T721        | M Q Y F F Q A M G A R G P V K Y R D L L T A T A T T E E E E S H H I I E F L G H A             |    |    |    |
| UniRef90_UPI00037CF591 | L Q Y L F Q A W N S R G P V K Y R D M L L A N T G T E E E E M G H H I I E M L A T A T A       |    |    |    |
| UniRef90_UPI000382C65F |   |    |    |    |
| UniRef90_D5ZU56        | M Q Y L F Q G W N T R I Q G K Y K D L I M D T T A T E E E E L G H H I I E L V A T A T M       |    |    |    |
| UniRef90_UPI00037F8128 | M Q Y M F Q A F G A R G P A K Y R D M L L N T A T A T E E E E I I G H H V I V E M L A T A T A |    |    |    |
| UniRef90_D5DI81        | M Q Y F F Q S S N F R G K E T Q Y R D L L M K G V F L E E E E I I A H H I I E L V Q N T M     |    |    |    |
| UniRef90_V8CWV4        | M Q Y L F Q Q W N C R M E G K Y K D L I M D I A T E E E E I I G H H V I V E M L A V M         |    |    |    |
| UniRef90_Q13JW1        | C R Y F T Q A V S E D D P G R R D M L F D I A T E E E E I I S H H V I V G S L                 |    |    |    |
| UniRef90_A5CN12        | M Q Y L F Q A M N F R G A A A K P Y R D L I Q G V G T E E E E I I S H H V I V I G T T A       |    |    |    |
| UniRef90_UPI00041618F8 | L Q Y L F Q S W N S R G P Q K Y R D M L M E T T G T E E E E I I A H H I I E M L A T A T A     |    |    |    |
| UniRef90_UPI000361FD12 | M Q Y L F Q Q W G A R G P T T K Y R D M L L N T A T A T E E E E M G H H I I E M L A T A T A   |    |    |    |
| UniRef90_J9SCH2        | M Q Y L M Q G W N C R M K G K Y K D M I M D I A T E E E E I I G H H V I V E M I A T M         |    |    |    |
| UniRef90_G8MKE9        | C R Y F T Q A V G E D D P G R K D L L F D I A T E E E E I I G H H V I V I G S L               |    |    |    |
| UniRef90_W9AMQ6        | M Q Y L F Q G W N T R G N E Q Y K D L I D T G T E E E E I I G H H V I V E M L A T M           |    |    |    |
| UniRef90_H8H0Z4        | L Q Y L F Q S F G A R G P A R Y R D M L M D T T G T E E E E L G H H I I E Q M L A T A         |    |    |    |
| UniRef90_UPI0003813891 | C R Y F T Q A L G E D D P G R K D M L F D I S T Q E E E E L G H H I I E L I G T A T L         |    |    |    |
| UniRef90_W3AEP7        | M Q Y L F Q G W S T R G N E K Y R D L M D T T G T E E E E L G H H I I E M L A T T L           |    |    |    |
| UniRef90_UPI0003B6D24E | L N Y T F Q S F N F R E R Q A A R P F Y D L I S N I A A E E E F G H H I I E L V A A T A       |    |    |    |
| UniRef90_UPI0003B42A62 | M Q Y F F Q A W N R A P T T K Y R D M L L H T A T T E E E E I I G H H I I E M L A T A T A     |    |    |    |
| UniRef90_UPI0001FFDDAD | M Q Y L F Q S F N F R G P D K K P F R D L L Y G V I G T E E E E I I G H H V I V I A T T M     |    |    |    |
| UniRef90_I0L7M5        | M Q Y L W Q G W T C R V P G K Y K D M I M D I G T E E E E I I G H H V I V E M L T T M         |    |    |    |
| UniRef90_W0LIG7        | M Q Y F F Q A C G A R G N P K F R D L L M N T A A E E E L G H H I I E M L A T A T A           |    |    |    |
| UniRef90_C6B860        | M Q Y F F Q A C G A R G D P K F R D L L M N T A A E E E L G H H I I E M L A T A T A           |    |    |    |
| UniRef90_W9H2Q4        | L Q Y F F Q A W G A R G P T T K Y R D M L L H T A T E E E E I I G H H I I E M L A T A T A     |    |    |    |
| UniRef90_F8FAH8        | M Q F S F Q S A N F R G P A T Q Y R D L I R G N I F L E E E Y S H H I I E L V S Q T T         |    |    |    |
| UniRef90_UPI0001746577 | M N Y T F Q S F N F R G R Q I R P F Y D L I S N I A A E E E Y S H H I I E L V S A T           |    |    |    |
| UniRef90_UPI00036EEA93 | M R Y F T Q A V S E D D P G R K D M L F D I A T E E E E I I S H H I I E I G H I               |    |    |    |
| UniRef90_D9V198        | M Q Y L F Q Q W N C R E E G K Y K D L I M D T A T E E E E I I G H H I I E M L A T M           |    |    |    |
| UniRef90_UPI000288813F | M Q Y L F Q G W N C R G E E K Y K D M L M A T G T E E E E I I G H H V I V E M L C S L         |    |    |    |
| UniRef90_F3WV76        | M Q Y F F Q A W G N R A P T P K Y R D M L L H T A T E E E E I I G H H I I E M L A T A         |    |    |    |
| UniRef90_S3MV05        | A R Y F T Q A L A E E D P G R K D L L M D I A T E E E E L G H H I I E L V G S L               |    |    |    |
| UniRef90_UPI00035D2208 | M Q Y L Y Q G W N A R P G K Y K D L L J A T G T E E E E L G H H I I E M L C T M               |    |    |    |
| UniRef90_UPI000465B004 | C R Y F T Q A V G E D D P G R K D L L F D I A T E E E E L S H H I I E I G S M                 |    |    |    |
| UniRef90_UPI0004686569 | M Q Y F F Q A M G A R G D D P R I K D L L T S T A T E E E E L A H H I I E M L G H A           |    |    |    |
| UniRef90_UPI0002885B4C | M Q Y F F Q A M G A R G D D R I K D L L T S T A T E E E E L A H H I I E M L G H A             |    |    |    |
| UniRef90_R5VJ05        | M Q Y F V Q A F C C R D P Y P D K Y D M L M D I A T E E E E M G H H I I E V G A T             |    |    |    |
| UniRef90_W9BYN9        | M R Y F T Q G L A E E D P G R K D M L L D I A T E E E E L S H H I I E V I G S L               |    |    |    |
| UniRef90_L1LU10        | M R Y F T Q A V S E D D P G R K D M L F D I A T E E E E L S H H I I E V I G S L               |    |    |    |
| UniRef90_J5PLQ4        | L Q Y F F Q A W G A R A P N N K Y R D L L L N T A T A T E E E M G H H V I V E M L A T A       |    |    |    |
| UniRef90_K6BJQ2        | S R Y F T Q A L A E E D P G R Y K D L L F D I A T E E E E L S H H I I E V V G S L             |    |    |    |
| UniRef90_D8I2L8        | M Q Y L F Q G W N C R E G K Y K D L I M D T A T E E E E I I G H H V I V E M L A T M           |    |    |    |
| UniRef90_G8AMH9        | L R Y F T Q G L S D E D P G R K D M L I D I A T E E E E L S H H I I E I G S I                 |    |    |    |
| UniRef90_F0RQ30        | L Q Y L F Q S F G A R G P A K Y R D M L L A T G T E E E E L A H H I I E M L A T A T A         |    |    |    |
| UniRef90_Q7UKC5        | L Q Y L F Q A W G A R G P A K Y R D M L L E T T G T E E E E M A H H I I E M L A T A T A       |    |    |    |
| UniRef90_A0A034UKI9    | M Q Y L F Q G W N C R M P G K Y K D M I M D V A T E E E E I I G H H V I V E M I A T M         |    |    |    |
| UniRef90_UPI0002D7953D | M Q Y F V Q A F A C R N P Y P D K Y D M L M D I A T E E E E L G H H I I E V G A T             |    |    |    |
| UniRef90_UPI000375C75D | C R Y F T Q A L A E E D P G R K D M L F D I A T E E E E L S H H I I E V I G N I               |    |    |    |
| UniRef90_B2JRY7        | M R Y F T Q A V T E E D P G R K D M L Y D I A T E E E E L S H H I I E I I G S I               |    |    |    |
| UniRef90_D4E7A0        | C R Y F T Q G L G E D D L G R R D M L L D I A T E E E E L S H H I I E I I G S L               |    |    |    |
| UniRef90_K0V251        | M Q Y L M Q G W N C R M K G K Y K D L I M D V A T E E E E M G H H I I E M I A T M             |    |    |    |
| UniRef90_L0K4Q8        | M Q Y M F Q A W A L P E E Y E E Y R T L L M E T A V I E E E L G H H I I E M L A T A T A       |    |    |    |
| UniRef90_U5SAW0        | M Q Y M F Q G W N T R G N G K Y K D L L D T G A E E E E L G H H I I E M I A T M               |    |    |    |
| UniRef90_I0HT81        | T R Y F T Q Y L A E E D D P G R Y R D M L I D T A T E E E E L S H H I I E I G T I             |    |    |    |
| UniRef90_C1DI24        | M R Y F T Q G L A E D D A G R K D L L M D I A T E E E E L S H H I I E I I G S I               |    |    |    |
| UniRef90_W9BP02        | C R Y F T Q G L S D D D P G R K D M L M D I A T E E E E L S H H I I E I I G T L               |    |    |    |
| UniRef90_H0J6V8        | M R Y F T Q A I A E L D P G R K D M L F D I A T E E E E L S H H I I E I I G S M               |    |    |    |
| UniRef90_A7MK77        | T R Y F T Q G L G D E D P A R K E M L M D I A T E E E E L S H H I I E I I G S L               |    |    |    |
| UniRef90_UPI0003FC3301 | M Q Y F T Q A F A M R Q P H P D K Y D M L M D L A T E E E E F S H H I I E L V G A T A         |    |    |    |
| UniRef90_D5RN05        | L Q Y F F Q A W A R G P D T K Y R D M L L H T A T E E E E I I G H H I I E M L A T A T A       |    |    |    |
| UniRef90_W1JWW3        | L Q Y F F Q A W G A R G P A K Y R D V L L N T A T E E E E I I S H H I I E M L S T A           |    |    |    |
| UniRef90_V2J7U2        | L R Y F T Q A L A E E D D P G R K D M L L D I A T E E E E L S H H I I E V I G S L             |    |    |    |
| UniRef90_A0A023MS02    | C R Y F T Q G L S D D D A G R K R E M L M D I A T E E E E L S H H I I E I I G S L             |    |    |    |
| UniRef90_Q1H1D3        | C R Y F T Q A L A E E D P G R K D M L F D I A T E E E E L S H H I I E I I G S L               |    |    |    |
| UniRef90_C7PPR0        | M Q Y F V Q A F A R K P Y P D K Y D M L M D I A T E E E E F S H H I I E V G A T               |    |    |    |
| UniRef90_I5CL80        | C R Y F T Q A V A E D D A G R K D M L F D I A T E E E E L S H H I I E V I G S I               |    |    |    |
| UniRef90_I0HAB6        | M Q Y L W Q G W S C R V P G K Y K D M I M D I A T E E E E I I G H H V I V E M L T T M         |    |    |    |
| UniRef90_H2J2B6        | C R Y F T Q G L G E D D A G R K D L L D I A T E E E E L S H H I I E I I G T I                 |    |    |    |
| UniRef90_B7V9S2        | M R Y F T Q G L G E D D A G R K D L L M D I A T E E E E L S H H I I E I I G S I               |    |    |    |
| UniRef90_E2SUZ1        | M R Y F T Q A V A E E D A G R K D M L Y D I A T E E E E L S H H I I E I I G T L               |    |    |    |
| UniRef90_L8JVL8        | M Q Y F V Q A F A R Q P F P K E Y D L L M D I A T E E E E F S H H I I E V G A T               |    |    |    |
| UniRef90_U1TSF5        | M R Y F T Q G L G E D D L G R Y R D L L M D I A T E E E E F S H H I I E I I G S L             |    |    |    |
| UniRef90_UPI00046F2622 | C R Y F T Q A I A E D D A G R K D M L F D I A T E E E E L S H H I I E I I G S L               |    |    |    |

UniRef90\_D1BE63 I S R L L D G S P T D P L D T P G A G 100 D T P L R L A L D E G N H H Y L V A A  
UniRef90\_UPI00040511D6 I S Q L L D D G A S P T E A Q A E A A K G G D T P A T A A I I G G I N P Q H L L V A G  
UniRef90\_D6U0Z7 I N R L L V D D G A S P S E Y K T K G G A F D A E D P L N M A L H G Q G N I Q H Q F L V A S G  
UniRef90\_K0JXK1 V A R L L D E G A P S E V T A K G A V I A E D P V V A A V V G G M D V Q H Q A I V A S G  
UniRef90\_UPI00041490EE I A R L L D E K A P V I E Q S E A M A M Y R S Q P V V A A V M G G T N P Q H Q I A S G G  
UniRef90\_UPI0003B4B3C0 I A Q L L D E K A P V I E Q S E A M A M A D G A P V L G A V I R H A N P Q H Q A I V A G G  
UniRef90\_W4BHJ8 I N Q L L N G S G E E I P G N A G V D G A P L D E A V R H A N P H H Y I V G A  
UniRef90\_UPI0001E89ACD I A R L L D N A P V K A Q E E A A Q N P V M A A I M G G M N P Q Y A I V S G G  
UniRef90\_M7NAT0 V A L N L D G A S P A D Q E E V A S K N P L V Q M I L G G M D P R H Y L S G G  
UniRef90\_F2F903 I S Q L L D E G A S P D D Q Q K I A Q G D K V V G A I M G G M D P R H L I S S G G  
UniRef90\_UPI0003B6A79B V A L N L D E G A S P T S L K D E M A Q D K V V G A I M G G M D P R H L L S S G G  
UniRef90\_A4FE49 I A R L L D D G S P P T E L D E P A A G G G T P L S N A L S Q G N I H H F L V A G  
UniRef90\_UPI0004288D7A V A L N L D E G A K G N I I D E V V S S N P V V K I M G G M D P R H Y L S A G  
UniRef90\_Q47RJ3 V A R L L D E G A P S D T T A E A V R S D P V V A A V V G G M D V Q Q A I V S G G  
UniRef90\_B1LV19 V A L N L E N A P T K V Q E E A G A A D A I V G A V M G G E N P R H H A S T G  
UniRef90\_UPI0003B31B10 I A Q L L D D A P V I E Q E E A A K N P I V E S I M G D M N P Q H H A I V S G  
UniRef90\_D3FQM8 I N Q L L N E S G S G D M P G N Q A Q D G A P L D D V I Q A G A N P H H Y I V G A  
UniRef90\_I2GDM8 V A M N L E G A S S M G L V D E I I G S N N T M M K E V M G G M D P R H F L S G G  
UniRef90\_M7MNY2 I S R L L D G S P T D P V D K P G E K G S T P L K I A L D T S N I H H Y L V A G  
UniRef90\_J9RTG2 V A L N L D E K A S N D L V D D L V G K N P L V N A I M G G M N P R H L S S G  
UniRef90\_V4T721 V A L N L E G A S N D L V D D L V G K N P L V N A I M G G M N P R H L S S G  
UniRef90\_UPI00037CF591 V A L L T G V T K P A D P D Q A P L A V G K D A R N T W H F I A T A  
UniRef90\_D5ZU56 I A R L L D E G A P A T A T T K M A T S D P A V G A V L G G M D P Q Q A I A G  
UniRef90\_UPI00037F8128 V A L N L D E K A P L S L Q E D I T S A D T A A G A V L N G M D M R H H V L S A G  
UniRef90\_D5DI81 I N A L L D E S G G A G V G S Q G S D Q A P L D E A V K H A N P H H Y I M G A  
UniRef90\_V8CWV4 V A R L L D E G A P A T E S S K E A G G G D P V V A A V M G G M D P Q Q A I V A G  
UniRef90\_Q13JW1 V A M L N K G A K G R L A E A G V E Q E E L Y R S L T G G G N D S H H I T L Y G  
UniRef90\_A5CN12 I S R L L D G S P T D P L D T P G K G G A T P L S T A L D H G N I H H H L V G A  
UniRef90\_UPI00041618F8 V A L N L E G S S S A L K Q E M A K A N P M V E A V M G G R D P R H L S S G G  
UniRef90\_UPI000361FD12 V A L N L E T A P S K L Q E A G V D A V V G A V M G E N G M L H R H L L S T G  
UniRef90\_J9SCH2 V A R L L D E G A P V T N S T E N A L G D P V V A A V L G G T D P T Q A I F S G  
UniRef90\_G8MKE9 V A M L N K G A K G Q L A E A V E S E A E L Y R S L T G G G N D S H H I T L Y G  
UniRef90\_W9AMQ6 V A R L L D K A P V I Q A Q E E A A K D P V I G A V M G D M N P H H A I V S G  
UniRef90\_H8H0Z4 V A L N L D E G S S A A V Q E E A A R A N E P M V A A I L G G M E P R Q Y L S A G  
UniRef90\_UPI0003813891 V G M L N K G A K G R L A E G V E E E G E L Y R S I T G A G N D S H H I T Q Y G  
UniRef90\_W3AEP7 V A R L L D E G A P V I E Q E K A A A D P L V G A I M G G M N P Q H A I V H  
UniRef90\_UPI0003B6D24E I N S M L T D E R S I K D E V D V Q K S P L L G L A D P G N P H H F V N G G  
UniRef90\_UPI0003B42A62 V A M N L E T A P S S A Q E E G A A D A I V G A V M G G G N S A K T S I E G G  
UniRef90\_UPI0001FFDDAD I A R L L D G S P P R Y Q G A A T D D L D A T P L G M A L G G E G N I H H Y L V A G  
UniRef90\_I0L7M5 L A R L L D E G A P A E T T E K A V A A N P V L A A V I G G M N P Q H A I V G G  
UniRef90\_W01LG7 V A L N L D E G A P V L S V K E Q V I A G D P V A S A V L G G L N M K N L L S A G  
UniRef90\_C6B860 V A M N L E G A P V L K L K E Q I A A D P I G G A V L G G I N L K N L L S A G  
UniRef90\_W9H2Q4 V A L N L D E D A P L S L Q E T A A E S N P L V N A V M S G G M L H K H L L S T G  
UniRef90\_F8FAH8 I N K L L D G S G R S G K G E N E P L L A N A P G D G Q T Y H H I I G A  
UniRef90\_UPI0001746577 I N L L L T G T A K T P E T A N K V D P S P L A Q A M G A R N S Y H F I L A S G  
UniRef90\_UPI00036EEA93 V A M L N K G A K G R L S E A V D S E A E M Y R N I T G P G N D S H H I T Q Y G  
UniRef90\_D9V198 V A R L L D E G A P A T A T A E A V K D P V M A A V L G G M D P Q Q A I V A G  
UniRef90\_UPI000288813F I D Q L L D N A T P E A Q D Q A A K D P T M A A I M G G V N P Q H L I V S G  
UniRef90\_F3WV76 V A L N L D K A P A S L Q E E G A A D G I V G A V M G G G N P R H A I S T G  
UniRef90\_S3MV05 I V M L N K G A K G Q L A E G V Q E E G E L Y R A I N V G A S N P Q H Q I V N G  
UniRef90\_UPI00035D2208 I A R L L D E G A P M S V Q E T A Q K E N P M L A A V G A S N P Q H Q I V N G  
UniRef90\_UPI000465B004 V A M L N K G A K G Q L A E G V E E E A T L Y R A M T G G G N D S H I T S Y G  
UniRef90\_UPI0004686569 V A L N L D E G A P V L S Y Q E E S A K D P V V N A I L G G M N P R H V L S S G  
UniRef90\_UPI0002885B4C V A L N L D E G A P V L S Y Q E E S A K D P V V H A I L G G T N P R H L L S S G  
UniRef90\_R5VJ05 I Q M L L A G V N G E L K N A A D R T E T M K M L D G K A S F N P H F V V L S G  
UniRef90\_W9BYN9 V A M L N K G A K G D L A E A A L E E A D L Y R S L T A G G N S H T Q A I L Y G  
UniRef90\_L1LU10 V M L N K G A K G R L A E A G V E E A E G E L Y R S L T G A G N D S H I T S Y G  
UniRef90\_J5PLQ4 V A L N L D E K A P L I Q A E E A A S D A I V G A V M G G M E G M L Q R H I L S T G  
UniRef90\_K6BJQ2 I V M L N K G A K G K I A E G I Q A E G E L Y R E I N G A G N D S H I T S Y G  
UniRef90\_D8I2L8 V A R L L D E G A P A T A T A E A V K D P V M A A M I G G M D V Q Q A I V A G  
UniRef90\_G8AMH9 V A M L T K G V K G K L A E G A E E V T D L Y A D I A K G N G S H T L A L L Y G  
UniRef90\_F0RQ30 V A L N L D E G A S G A E K D L A A K N N P V V E A V M G G M D P R Q F L S A G  
UniRef90\_Q7UKC5 V A L N L D E G A P L I E Q E E A A K D P V V H A I L G G M N P Q H A I S T G  
UniRef90\_A0A034UK19 V A R L L D E G A P A T H A T Q A A M G D P V V A A V L G G M D P Q Q A I V S G  
UniRef90\_UPI0002D7953D I Q M L L S G I N G E L K D A A D R A D F A R M F G S K G N N P Q Q F G V L T G  
UniRef90\_UPI000375C75D V M L N K G A K G R L A E A G V D Q E G D L Y R T I T G A G N D S H I T Q Y G  
UniRef90\_B2JRY7 V A M L N R G A K G E L A E A V D E Q A E L Y R K I N G A G N D S H I V T Q Y G  
UniRef90\_D4E7A0 V G M L N K G A K G Q L A E A T E S E A E L Y R S L T G N G N D S H I T S Y G  
UniRef90\_K0V251 C A R L L D E G A P A T D T T Q N A L G D P V I A A V M G G M D P Q Q A I T G  
UniRef90\_L0K4Q8 V T K N L R G S S K Q M S E D A E A V A S T A A S M T G Q N P R Q F L S A G  
UniRef90\_U5SAW0 I A Q L L D D A P V D A Q E N A F E S D P T I A A V M G G M D P Q H A I V T G  
UniRef90\_I0HT81 V A M L N K G A K G R I A E G V D S E A D M Y R S I S G A G N D S H I V T Q Y G  
UniRef90\_C1DI24 V G M L N K G A K G Q L A E G V E Q E A E L Y R S L T G G G N D S H I T S Y G  
UniRef90\_W9BP02 V G M L N K G A K G A L A E G T E S E A E L Y R S L T A N G N D S H I T S Y G  
UniRef90\_H0J6V8 I A M L N K G A K G D L A E A T E T E G E L Y R S L T G A G N D S H I L L Y G  
UniRef90\_A7MK77 V G M L N K G A K G D L A E A T E T E G E L Y R S L T G A G N D S H L T Q Y G  
UniRef90\_UPI0003FC3301 I Q M L L G P I N G E L K D A A D K A E I M Q L L D G K D M M N P Q L L V L S G  
UniRef90\_D5RN05 V A L N L D K A P L S L Q E A A A N P V V N A V M G G E E G M L Q R H L L S T G  
UniRef90\_W1JWW3 V A L N L D E N A P A T M Q E T S G N P I V G A V M S G I E G M L H K H I L S T G  
UniRef90\_V2J7U2 V A M L N K G A K G Q L A E G V E Q E A E L Y R S L S G P G N D S H I V T Q Y G  
UniRef90\_A0A023MS02 V G M L N K G A K G E L A E A G T E N E A E L Y R S L T Q N G N D S H I T S Y G  
UniRef90\_Q1H1D3 V C M L N K G S K G K L A E G V N S E A E L Y R S L T G S G N D S H I T Q Y G  
UniRef90\_C7PPR0 I Q L L L Q G V N G E L K N A A D N S E A I M E T M Q G T A M M H S F L V H S G  
UniRef90\_I5CL80 V A M L N K G A K G Q L A E A V E E A A D L Y R S L T A G G N D S H T T L Y G  
UniRef90\_I0HAB6 L A R L L D E G G P A E A T E K A A A A N P V L A A V L G G Q N P Q H A V V T G  
UniRef90\_H2J2B6 V G M L N K G A K G E L A E A G T E K E A E L Y R S L T G G G N D S H I T S Y G  
UniRef90\_B7V9S2 V G M L N K G A K G R L A E A V E E E A E L Y R S L T G G G N D S H I T S Y G  
UniRef90\_E2SUZ1 V A M L N R G A K G E L A E A V D E Q A E L Y R K L N G A G N D S H V T Q Y G  
UniRef90\_L8JVL8 I Q M L N G V N G E L K D V A D K S E E I M Q L L D G K D A T N P Q F L N S S G  
UniRef90\_U1TSF5 V G M L N K G A K G K L A E A G T E E E G E L Y R S L T G A G N D S H L L Y G  
UniRef90\_UPI00046F2622 V C M L N K G A R G K L A E A G V D A E G E L Y R S L T S G S N D S H L T Q Y G

UniRef90\_D1BE63 Q G A L P V D S A G N P W S G S Y V Y N S G N L V L D L L Y N L M L E S T G R L L  
UniRef90\_UPI00040511D6 L G A M P T N S N G V P W N G A Y L V A S G N M L A D M R S N L H A E S S Q G R L L  
UniRef90\_D6U0Z7 Q G A M P L D S A G N P W S G S Y V Y N S G N L M A D L I Y N L M L E A T Q G R L L  
UniRef90\_K0JXK1 G G P T L S D S A G N V P W N G R F I V A S G N L M A D F R A N V L A E A Q G R L L  
UniRef90\_UPI00041490EE L G A M P V D S V G N R W T A S Y I G A S G N L L A D F R A N L T A E A S M G R L L  
UniRef90\_UPI0003B4B3C0 A G A R P V D S N G N P W Q G S Y V T A S G N L L A D F T A N A N A E S M Q G R V L  
UniRef90\_W4BHJ8 Q G S L P V D A A G N P W M G N Y V Y N H G N L V A D L L D N L V L E S T Q G R L L  
UniRef90\_UPI0001E89ACD L G A L P V N S V G V P W N G G Y V I A S G N L L A D F R A N L N A E S T Q G R L L  
UniRef90\_M7NAT0 L G A M P A D S N G V P F N G S W V V S S G N L A V D M R S N V M A E S S Q G R L L  
UniRef90\_F2F903 L G A T P K D S N G V P W N A G Y I I A S G N L L A D F R A N L N A E S S Q G R L L  
UniRef90\_UPI0003B6A79B M A A L A T D A N G V P F N G S W V V G S G N T A A D M Y A N V M A E S T G R L L  
UniRef90\_A4FE49 Q G A M P V D A V G N P W S G S Y V Y N S G N L V L D L L Y N L M L E S T G R L L  
UniRef90\_UPI0004288D7A L A A M A A D S N G V P F N G S W V V A S G N L A A D M Y A N V M A E S T G R L L  
UniRef90\_Q47RJ3 G G A T L A D S S G T P W N G K Y I V A S G N L L A D F Y A N V A A E A Q G R V L  
UniRef90\_B1LV19 M A A F P G N S D G Q S F F D M S H I Y A S G N I A A D M Y C N V A A E S T G R V L  
UniRef90\_UPI0003B31B10 L G A V P K D S N G V P W N A G Y I I A S G N V L L A D F R A N L N A E S S Q G R L L  
UniRef90\_D3FQM8 K A S L P V D A G N P W N G S W V Y D H G N L V A N L L N N V V L E S T G V L L  
UniRef90\_I2GDM8 L G A M A A D A N G V P F N G S W V V S S G N I A A D M Y A N V M A E S T G R A  
UniRef90\_M7MNY2 A G A R P A D S N G N P W N G S Y V T A S G N L L A D F M S N A N A E S M Q G R L L  
UniRef90\_J9RTG2 Q G A L P V D A A G N P W S G S Y V Y N S G N L V L D L L Y N L M L E S T G R L L  
UniRef90\_V4T721 L S A M P V N S N G V P F F D M S H I Y A T G N I G A D M L A N A T A E A S T G R V L  
UniRef90\_UPI00037CF591 L G A M A V D A S G V P F N G S W V V G S G N I A A D M Y A N V M A E S T G R V L  
UniRef90\_UPI000382C65F Q T S L V G D S M G G F W H G G Y V F N S G N L V L D L L H N F F L E C G A R L L  
UniRef90\_D5ZU56 G A A L P A D S N G V P W N G R Y V A V A S G N L L A D F Y A N V V A E A Q S S R L L  
UniRef90\_UPI00037F8128 L A A M P V D A N G V P F D M S H I Y A S G N I A A D M Y S N V C A E S T G R A  
UniRef90\_D5DI81 Q S S L P V D A G N P W N G S W V Y N H G N L V A D L L N N V V L E S T G V L L  
UniRef90\_V8CWV4 G G A L P A D S N G V P W N G R Y V I A S G N L L A D F R A N V T A E S Q R A K I  
UniRef90\_Q13JW1 G G P A L T N S A G V P W T A A Y I D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_A5CN12 Q G A L P V D A A G N P W S G S Y V Y N S G N L P L D L L Y N V M L E S T G R L L  
UniRef90\_UPI00041618F8 L G A M A T D A N G V P F N G S W V V S S G N I A A D M Y H A N V M A E A T G R V L  
UniRef90\_UPI000361FD12 M A A F P A N C D G V P F D M S H I Y A S G N I A A D M Y C N V A A E T T G R T  
UniRef90\_J9SCH2 G G P R L A D S N G V P W N S G Y I T H S G N L L A D F H A N V T A E A Q G R V L  
UniRef90\_G8MKE9 G G P A L T N S A G V P W T A A Y I D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_W9AMQ6 L G A A P E N S V G V P W N A G Y I V S S G N L L A D M R A N L N A E S S Q G R L L  
UniRef90\_H8H0Z4 M A A L A A D A N G V P F N G S H V Y A S G N I V A D M Y S N V A A E A T G R A  
UniRef90\_UPI0003813891 G G P A L V N S A G V P W T A A Y I D S I G E P T A D F R A N I A A E A R A K I  
UniRef90\_W3AEP7 L G A S P K D S N G V P W N A G Y I V A S G N L L A D F R A N V N A E S S Q G R L L  
UniRef90\_UPI0003B6D24E K G A L P Q D S R G L P W T G D N V V S T G D L L F D L T H N Y F L E T G A R S  
UniRef90\_UPI0003B42A62 L A A M P M D S D G V P F N M S H I Y A S G N V A A D M Y C N V A A E S T G R V L  
UniRef90\_UPI0001FFDDAD Q G A L P V D A Q G D P W T G K Y I Y D S G N L L A D L L Y N L M L E S T G R L L  
UniRef90\_I0L7M5 G G P L P R D S Q G V P W N A G Y I V A S G N L L A D F R S N V A A E A Q S R L L  
UniRef90\_W0ILG7 L S A M P V D S D G V P F D M S H I Y A S G N I A A D M T A N V A A E S T G R V L  
UniRef90\_C6B860 L S A M P V D S D G V P F D M S H V Y A S G N I A A D M T A N V T A E S T G R V L  
UniRef90\_W9H2Q4 L A A F P G N A D G V P F D C S H V Y A S G N L A G D M F A N V T A E S T G R T  
UniRef90\_F8FAH8 Q S S L P V D S S G N P W N G S W V Y D H G N L V S N L L D N L V L E A T G T L  
UniRef90\_UPI0001746577 Q T A L P M D S M G Q P W T G A H V T A T G N L V K M D L H N F F L E C G A R A  
UniRef90\_UPI00036EEA93 A G T P L V N S A G V P W T A A Y I D S I T E P T A D L R S N I A A E A R A K I  
UniRef90\_D9V198 G G A L P A D S N G T P W N G K Y I V A S G N L L A D F R A N A A E A Q G R L L  
UniRef90\_UPI000288813F L G A M P T N S N G V P W N G A Y I T A S G N L L A D F R A N L H A E A Q G R L L  
UniRef90\_F3WV76 L A A H P S D S D G V P F N M S H I Y A S G N I A A D M Y C N V A A E S T G R V L  
UniRef90\_S3MV05 A G A P L V N S A G V P W T A A Y I D T I G E P T A D F R S N V A A E A R A K I  
UniRef90\_UPI00035D2208 A G A Y P Q D S A G V P W S G A F V D T S G N L L A D F Q L N A T A E M Q G R L L  
UniRef90\_UPI000465B004 G G P A L T N S A G T P W T A A Y V D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_UPI0004686569 L A A M P V N A N G M S F D M S H I Y A S G N V A A D M L A N V T A E S T G R V L  
UniRef90\_UPI0002885B4C L A A L P E N A N G V P F D M S H I Y A T A S G N V G A D M L A N V T A E A G G R V L  
UniRef90\_R5VJ05 G G P M L T D S N G N P W S A T Y V N A D G D L T V D L R S N I A A E S R A K I  
UniRef90\_W9BYN9 G G P A L T N S S G V P W T A A Y V D S R G D P T C D L R S N I A A E S R A K I  
UniRef90\_L1LU10 A G A P L V N S A G V P W T A A Y I D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_J5PLQ4 L A A F P A N S D G V P F D C S H I Y A S G N I V A D M Y C N V A A E A T G R T  
UniRef90\_K6BJQ2 A G A P L T N S A G V P W T A A Y I D T I G E P T A D M R S N L A A E A R A K I  
UniRef90\_D8I2L8 G G A L P A D S N G Y P W N G A Y I V A S G N L L A D F R A N A A E A Q G R L L  
UniRef90\_G8AMH9 G G P A L T N S A G Q L W T G G Y I D S I G E P T A D L R S N I A A E S R A K I  
UniRef90\_F0RQ30 M A A L A A D A N G V P F N G S H V Y A S G N L A A D M Y A N V T A E A T G R A  
UniRef90\_Q7UKC5 M A A M P V D S E G V P F N C S H V Y A S G N V A A D M L A N A T A E S T G R M  
UniRef90\_A0A034UKI9 G G P V L A D S N G V P W N G R Y I V A S G N L L A D F R A N V T A E S S Q G R V L  
UniRef90\_UPI0002D7953D G G P R L T D S N G V P W Q G S Y V N A N G D L T V D L R S D I A A E S R A K I  
UniRef90\_UPI000375C75D A G A P L T N S A G V P W T A A Y I D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_B2JRY7 A G T P L T N S A G V P W T A A Y I D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_D4E7A0 G G P A L T N S A G V P W S A A Y I D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_K0V251 G A P T L S D S A G S P W N G K Y I V A S G N L L A D F Y A N V A A E A Q G R V L  
UniRef90\_L0K4Q8 Q S A M P V D S N G V P F S G G Y V V A S G N L A G D L Y A N V M A E G T G R T  
UniRef90\_U5SAW0 L G G P T A K D S N G V P W S G S Y V T A S G N L L A D F R S N I N A E S Q G R L L  
UniRef90\_I0HT81 G G P A L T N S G G V P W T S A Y I D T I G D P T A D L R S N I A A E A R A K I  
UniRef90\_C1DI24 G G P A L T N S G G I P W S A A Y I D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_W9BP02 G G T P L T N S A G V P W T A A Y I D T I G E P T A D L R S N V A A E A R A K I  
UniRef90\_H0J6V8 G G P Q L T N S A G V P W T A A Y I D T V G E P T I D L R S N I A A E A R A K I  
UniRef90\_A7MK77 G G P P L T N S A G V P W T A A Y I D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_UPI0003FC3301 G G T P V T N S Q G V P W S G T Y V N A N G D P T V D L R S N I A A E S R A K I  
UniRef90\_D5RN05 L A A M P T N A D G V P F D C S H V Y A S G N L A A D M Y A N V T A E A T G R T  
UniRef90\_W1JWW3 M A A F P S D S D G I P F D C S H I Y A S G N L A A D M Y C N V A A E S T G R T  
UniRef90\_V2J7U2 G G P P L T N S G G V P W T A A Y I D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_A0A023MS02 G G P A L T N S G G V P W T A A Y I D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_Q1H1D3 S G A P L T N S A G V P W T A A Y I D T I G E P T A D L R S N L A A E A R A K I  
UniRef90\_C7PPR0 G G P M L T N C Q G V P W T G A Y I N A N N D L T V D L R S N M A E S R A K I  
UniRef90\_I5CL80 G G P A L T N S A G V P W S A A Y I D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_I0HAB6 G G A M P T N S Q G V P W N A G Y I V A S G N L L A D F R S N V A A E A Q S R L L  
UniRef90\_H2J2B6 G G P A L V N S A G V P W S A A Y I D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_B7V9S2 G G P A L V N S A G V P W S A A Y I D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_E2SUZ1 G G P A L T N S G G V P W T A A Y I D S I G E P T A D L R S N I A A E A R A K I  
UniRef90\_L8JVL8 G G P T L T D S N G N P W T A A Y V T A N G D L T V D L R S N I A A E S R A K I  
UniRef90\_U1TSF5 G G S P L T N S G G V P W T A A Y V D T I G E P T A D L R S N I A A E A R A K I  
UniRef90\_UPI00046F2622 G G A P L T N S A G V P W S A A Y V D T I G E P T A D L R S N I A A E A R A K I

UniRef90\_D1BE63 Q K C R I Y E M T 170 EN K T A R S T L S Y L I V R D Q A H H E N A Y A K A L E E T L L E  
UniRef90\_UPI00040511D6 Q Q V A R L Y E M T D N D K E T G V A R S A T F S K M L A R R D D R Y H H Q N Y W M A A L I E E E L L E  
UniRef90\_D6U0Z7 Q K C R L Y E M T D N D K E T G V A R S A T F S K M L A R R D D R Y H H Q N Y W M A A L I E E E L L E  
UniRef90\_K0JXK1 Q T A R L Y E M T D D D P G G V K A M L K F N L A R R D D T A H H Q N N V Y A K A A I E E E L L E  
UniRef90\_UPI00041490EE Q A V R L Y E M A H D P G G V K R D D T L S F M I A R R D D T A H H Q N N Q W L A A A I I E E E L L E  
UniRef90\_UPI0003B4B3C0 Q A S R L Y E M S D N K K T F R E T L L A S F L I A R R D N A H H Q N N A F A K A A L E E E L L E  
UniRef90\_W4BHJ8 Q K S R I Y E M S S D N K T V R E T L L A S F L I A R R D N A H H Q N N A F A K A A L E E E L L E  
UniRef90\_UPI0001E89ACD Q A V R L Y E Q T T D D R G V R D M L S F L I A R R D R M H H Q N Q Q W L A A A I I E E E L L E  
UniRef90\_M7NAT0 L A I R L Y E L T D D P G G M R D M L S F L I A R R D T M Y H H Q N Q Q W L A A V I E E E L L E  
UniRef90\_F2F903 Q V A R L Y F H M T K D D E P G G V R T V F R K M L A R R D R Y H H Q Y Q W M A A A I E E E L L E  
UniRef90\_UPI0003B6A79B L A T R L W E M T D D D P G G M K D M L S F L I A R R D D T M H H Q N Q Q W L A A V I E E E L L E  
UniRef90\_A4FE49 Q K C R L Y E M S D N S R T R S T M L S F L I A R R D Q A H H Q N N A Y A K A A I E E E L L E  
UniRef90\_UPI0004288D7A L A T R L W Q S T E D D S T G M K R D M L S F L I A R R D T M H H Q N Q Q W L A A V I E E E L L E  
UniRef90\_Q47RJ3 Q T A R L Y A M T D D D P G G V K E M L K S F N L A R R D T V H H Q N Q W L A A A I E E E L L E  
UniRef90\_B1LV19 L A V R L Y E M T N D A D A G V R D M L S F L I A R R D T M H H Q N Q Q W L A A V I E E E L L E  
UniRef90\_UPI0003B31B10 Q V A R L Y E M T E D A G G V R Q M T I A S F L L A R R D T M H H Q N Q Q W A A A I I E E E L L E  
UniRef90\_D3FQM8 Q K S R I Y E M S D N K T L R E T L I A S F L I A R R D N A H H Q N N A F A K A A L E E E L L E  
UniRef90\_I2GDM8 L A T R L Y E L T D D A G G M K R D M L S F L I A R R D T M H H Q N Q Q W L A A V I E E E L L E  
UniRef90\_M7MNY2 Q V A R L Y E M T D D H G G V R D M L S F L I A R R D T M H H Q N N Q W L A A A I E E E L L E  
UniRef90\_J9RTG2 Q K C R L Y E M T D N K T A R S T I A S Y L I V R D Q A H H E N A F A K A A L E E E L L E  
UniRef90\_V4T721 L A E R L Y S M T D D A P G G M K D M L S F L I A R R D T M H H Q N Q Q W L A A V I E E E L L E  
UniRef90\_UPI00037CF591 L A T R L Y S M T D D A G M K D M L S F L I A R R D T M H H Q N Q Q W L A A V I E E E L L E  
UniRef90\_UPI000382C65F H K I R V Y E M T T N P V A R E M I G Y L L V R G S V H A T A Y G K A I E E E L L E  
UniRef90\_D5ZU56 Q T A R L Y N M T D D D P G G V K E M L K F N L A R R D T V H H Q N Q W L A A A I E E E L L E  
UniRef90\_UPI00037F8128 L A V R L Y N M T D D D P G G M K E M L K G F M I A R R D T M H H Q N Q Q W L A A A I E E E L L E  
UniRef90\_D5DI81 Q K T R I Y E M S S N Q T L R E T L G F F L I V R D N A H H Q N N A F A K A A L E E E L L E  
UniRef90\_V8CWV4 Q T A R L Y N M T D D D P G G V K A M L K F N L A R R D T M H H Q N Q W L A A A I E E E L L E  
UniRef90\_Q13JW1 V Y E R L I N V T D D P G G I Q E A L K G F L M T R E I A H H Q K S F E K A L H I E E L L E  
UniRef90\_A5CN12 Q K C R I Y E M T D N D P V A R A T V A Y L I V R D Q A H H E N A Y A K A A L E E E L L E  
UniRef90\_UPI00041618F8 L A T R L Y E M T D D S P G G M K D M L A F L I A R R D T M H H Q N Q W M A V I E E E L L E  
UniRef90\_UPI000361FD12 L A V R L M T A T N D P G G M R D M W S F L I A R R D T M H H Q N Q Q W L A A V I E E E L L E  
UniRef90\_J9SCH2 Q T A R L W H M T D D D P G G V K A M L R F N L A R R D T F H H Q N Q W L K G I E E E L L E  
UniRef90\_G8MKE9 V Y E R L I N V T D D D P G G I K E A L L S F L L M T R E I A H H Q K S F E K A L H I E E L L E  
UniRef90\_W9AMQ6 Q V A R L Y E M T D D R G V K E L L S F L L A R R D T M H H Q N Q Q W L A A A I E E E L L E  
UniRef90\_H8H0Z4 L A C R L F D M T D Y P G G M K D M L R Y L I A R R D T M H H Q N Q Q W L A A V I E E E L L E  
UniRef90\_UPI0003813891 V Y E R L I N L T D D D P G G V K E A L L S F L L M T R E I A H H Q K S F E K A L Y K E E L L E  
UniRef90\_W3AEP7 Q V A R L Y S M T D D K G V V K E A L L F S F L I A R R D T M H H Q N Q Q W L A A A I E E E L L E  
UniRef90\_UPI0003B6D24E G K L R V Y E A C H P A A R A L L T G Y L L V R G G V H H Q V A Y A R A V I E E E L L E  
UniRef90\_UPI0003B42A62 L A V R L F N A T D D D G G M K K M L H Y M I A R R D T M H H Q N Q Q W L A A V I E E E L L E  
UniRef90\_UPI0001FFDDAD Q K C R L Y E M T A N K T A R S T I A Y L I V R D Q A H H E N A Y A K A A L E E E L L E  
UniRef90\_I0L7M5 Q T S R V M N M T D D D P G G V K E M L I R F N L A R R D T Y H H Q N Q Q W L L G I E E E L L E  
UniRef90\_W01LG7 L A T R L F N L T N D D P G G M K D M L S Y L I A R R D T M H H Q N Q Q W M A A A I E E E L L E  
UniRef90\_C6B860 L A V R L F N M T N D P G G M K D M L S F L I A R R D T M H H Q N Q Q W L A A A I E E E L L E  
UniRef90\_W9H2Q4 L A V R L Y N A A H D P G G M K D M L S F L I A R R D T M H H Q N Q Q W L A A V I E E E L L E  
UniRef90\_F8FAH8 Q K S R I Y E M S T N K T F R E T L A G F L M V R D N A H H Q N N A Y A K A A L E E E L L E  
UniRef90\_UPI0001746577 G K I R V Y E M V S D P T A R A M V L A F L L V R G G V H I V I Y A R A L E E K L T E  
UniRef90\_UPI00036EEA93 V Y E R L I G L T D D D P G G V K E A L L G F L M T R E V A H H Q K S F E K A L Y E E L L E  
UniRef90\_D9V198 Q T A R L Y R M T D D D P G G V K A M L K F N L A R R D T V H H Q K Q W M E A A I E E L L E  
UniRef90\_UPI000288813F Q V A R L Y H M T D D E S V R M V F R K M L A R R D R Y H H Q Y Q W M E A A I H E E M E  
UniRef90\_F3WV76 L A T R L Y N A A H D Q G G M K D M L H F M I A R R D T M H H Q E Q W L A A V I E E E L L E  
UniRef90\_S3MV05 V Y E R L I M N V V D P G G I K D A L L R F L M T R E I A H H Q K S F E K A L H Q S E I L L E  
UniRef90\_UPI00035D2208 Q V A R L Y E M T D D P G G I K K L L R F L L A R R D H L H H Q Q K W V A A A H S E I L L E  
UniRef90\_UPI000465B004 I Y E R L I N V T D D A G V K D A L L G F L M T R E I A H H Q K S F E K A L H S E I L L E  
UniRef90\_UPI0004686569 L A T R L Y N L T E D K G M K D F L S F L I A R R D T M H H Q Q Q W L A A V I E E E M G  
UniRef90\_UPI0002885B4C L A S R L Y N W T D D H G G M K D F L A F L I A R R D T A H H Q Q Q Q W L A A V I E E E M G  
UniRef90\_R5VJ05 V Y E Y L L K F T D D D P D V I A T L N F L M T R E V A H H F Q Q F E A A L Y E E T I R A  
UniRef90\_W9BYN9 V Y E R L I N V T D D D P G G I K D A L L G F L M T R E I A H H Q K S F E K A L H S I L L E  
UniRef90\_L1LU10 V Y E R L I N V T D D P G G I K D A L L G F L M S R E I A H H Q Q S F E K A L H S I L L E  
UniRef90\_J5PLQ4 L A V R L Y N S T N D P G G M K D M L H F M I A R R D T M H H Q Q Q W L A A V I E E L L E  
UniRef90\_K6BJQ2 V Y E R L I M N V T D D P G G V K D A L L G F L M T R E I A H H Q Q L S F E K A L H S I L L E  
UniRef90\_D8I2L8 Q T A R L Y N M T D D P G G V K A M L K F N L A R R D T V H H Q K Q W L A A A I E E L L E  
UniRef90\_G8AMH9 I Y E R L I N I T P D P G G V K D A L T F L M T R E V A H H Q K M F E K A L Y E E L L E  
UniRef90\_F0RQ30 L A C R L F E L T D D D P G G M K D M L R F L I A R R D T M H H Q N Q Q W L A A V I E E L L E  
UniRef90\_Q7UKC5 L A V Q L W K M T D D P G G M K D M L S Y M I A R R D T M H H Q N Q Q W L A A W E E E L L E  
UniRef90\_A0A034UK19 Q T A R L Y H M T D D D P G G V K D I L K F N L A R R D T Y H H Q N Q W L S A T A D T I L L E  
UniRef90\_UPI0002D7953D V Y E Y L M Q F T E D P Y V L E T A L N F L M T R E V A H H F Q Q S F E A A L Y A D T T I R  
UniRef90\_UPI000375C75D V Y E R L I N V T D D A G V V K E A L L G F L M T R E I A H H Q K S F E K A L Y S I L L E  
UniRef90\_B2JRY7 I Y E R L I N V S D D A G V R K A L L G F L M T R E V S H H Q K S F E K A L Y S I L L E  
UniRef90\_D4E7A0 I Y E R L I N V T D D P G G V K Q A L L G F L M T R E V A H H Q Q S F E K A L Y A I L L E  
UniRef90\_K0V251 Q T A R L W H M T D D D P G G V K A M L K F N L A R R D T Y H H Q N N M W L A A A I E E L L E  
UniRef90\_L0K4Q8 L A T R L Y E Y T D D D P G G M R D M L S Y L I A R R D T M H H Q N Q Q W L A A A I E E L L E  
UniRef90\_U5SAW0 Q V A R L Y H M T N D A G V R K E A L L G F L L A R R D T M H H Q N Q Q W L A A A I E E L L E  
UniRef90\_I0HT81 I Y E R L I N A T D D D P G G V K E A L L G F L M T R E I A H H Q Q S F E K A L Y S I L L E  
UniRef90\_C1DI24 I Y E R L I N V T D D D P G G I Q D A L K A F L M T R E L A H H Q K S F E K A L H A I L L E  
UniRef90\_W9BP02 V Y E R L I N V T D D D P G G V K D A L A F L M T R E A A H H Q Q S F E K A L H Q S I L L E  
UniRef90\_H0J6V8 V Y E R L I N V T D D A G G I K D T L A F L M T R E I A H H Q Q K S F E N A L Y S I L L E  
UniRef90\_A7MK77 I Y E R L I N L T D D D P G G V K D A L L G F L M T R E V A H H M L S F E K A L Y S I L L E  
UniRef90\_UPI0003FC3301 V Y E Y L M Q F T D D D P Y V K E T L G F L M T R E V A H H Q M F E A A L Y S I L L E  
UniRef90\_D5RN05 L A V R L F M F N A H D P G G M K D M L N S F L I A R R D T M H H Q Q Q W L A A I E E E L L E  
UniRef90\_W1JWW3 L A V R L Y N S T S D P G G M Q D M L S Y L I A R R D T M H H Q Q Q W L A A V I E E E M  
UniRef90\_V2J7U2 I Y E R L I N V T D D D P G G V Q E A L L G F L M T R E V S H H Q K S F E K A L Y S I L L E  
UniRef90\_A0A023MS02 I Y E R L I N L T D D D P G G V K D T L S F L M T R E V A H H Q Q S F E K A L Y S I L L E  
UniRef90\_Q1H1D3 V Y E R L I N L T S D P G G V K D A L T F L M T R E I A H H Q K S F E K A L Y D I L L E  
UniRef90\_C7PPR0 T Y E Y L M K F T D D D P Y V K E T L G F L M T R E I A H H Q M F E A A L Y D I L L E  
UniRef90\_I5CL80 I Y E R L I N V T D D A G G I K D A L L G F L M T R E I A H H Q K S F E K A L H D S I L L E  
UniRef90\_I0HAB6 Q T S R I Y N M T D D D R G V K D M L Q F N L A R R D T Y H H Q Q Q W L L G I E E Q L L E  
UniRef90\_H2J2B6 V Y E R L I N V T D D D P G G I K D A L L S F L M T R E V A H H Q Q S F E K A L Y S I L L E  
UniRef90\_B7V9S2 V Y E R L I N L T D D D P G G I K D A L L T F L M T R E L A H H Q Q S F E K A L H S I L L E  
UniRef90\_E2SUZ1 I Y E R L I N V S N D P G G V R D A L L G F L M T R E V A H H Q K S F E K A L Y A I L L E  
UniRef90\_L8JVL8 V Y E Y L M Q F T D D A Y V K E T L Q G F L M T R E L A H H Q M F E A A L Y E N S I L L E  
UniRef90\_U1TSF5 I Y E R L I N V T D D V G V K D A L L G F L M T R E I A H H Q Q S F E K A L Y A I L L E  
UniRef90\_UPI00046F2622 V Y E R L I N I T E D P G G V K D A L T F L M T R E I A H H Q K S F E K A L Y A I L L E

UniRef90\_D1BE63 GVD WGK LLLPI P K T N A E K F P EVK K LVD LGLQS K Q Y T F D L T G  
UniRef90\_UPI00040511D6 T K N G V V V P E M E K E A Q S E A Y K F F N L S E G E  
UniRef90\_D6U0Z7 G L N W G K V L P I P N F D A T K F P E V R T L M E K G L H N Q Q Y H W R L D G T  
UniRef90\_K0JXK1 E D G L E G V L P I P A P S A L F D E E H Q E H A G T I W H N S D G T  
UniRef90\_UPI00041490EE Q R E G D L V V P T T F F P R H L Q K Q E V A Y D L Y N L S R G E  
UniRef90\_UPI0003B4B3C0 A E G T E K L P V P G N F P L S Q E Q R D V A Y Q Y I N F S D G A  
UniRef90\_W4BHJ8 G V E W G K L F P V P N Y D I N K Y P E C K K Y V D M G F H N A Q F N F R L D N  
UniRef90\_UPI0001E89ACD A Q E G V I V P S T F P T T K E K S E V S H T F I A L S E G E  
UniRef90\_M7NAT0 A L R D T I P N S T F P R D L E N Q D F N K F V V T N I N S P E D T  
UniRef90\_F2F903 E K K G F V V P A S F P P E D E L E A Q P H A Y E L W S L S E G T  
UniRef90\_UPI0003B6A79B G L Q N V H P I P N S F P Q S Q E V Q D F N Y A F V S T Y I N S G D  
UniRef90\_A4FE49 G V D W G R T L P I P K T R A E R Y P E V A A L L E Q G L E N R Q Y T F S L D N  
UniRef90\_UPI0004288D7A G L K G V H P I P N S F P Q D K E N L A F N Y A F V S T N I N N P E  
UniRef90\_Q47RJ3 E D G L E G A T L P I P A P N A L F D E E N Q K E H A D T I W G L S A G S  
UniRef90\_B1LV19 H A G T I P N S F P Q E K E N Q K F S Y I N F M S T S D G S  
UniRef90\_UPI0003B31B10 Q K E G F T A P N S T V P E Q W E A T E F S H Q L F M S S E G E  
UniRef90\_D3FQM8 G V D W G K L F P V P N Y D I N K Y P E C R K Y V E M G F H N A Q F N F R L D E  
UniRef90\_I2GDM8 H G D M R N V H P I P N S F P Q D K E A K E F S Y V F V I N T N L D P D E  
UniRef90\_M7MNY2 A E N A E S L P V P S N F P Q S K E H T P V S Y Q Y I I F S D G A  
UniRef90\_J9RTG2 G V N W G S I L P I P K T N A E R Y P E V K K L V D Q G L Q S V Q F T F S A D N  
UniRef90\_V4T721 G L E A A L P I P N S V P E S H E A T K H S Y V F L N T S L D K  
UniRef90\_UPI00037CF591 G Q D I R K V H P I P N S F P Q D K E L G K S Y S A F F N T C L D E  
UniRef90\_UPI000382C65F G V D M T K V L P I P N I P N S K F P E A R K Y E E A G I H R T L Y R F S P D D  
UniRef90\_D5ZU56 E D G L E N V V P P G G F E D V E Y R E H A Q T L W H L S D G A  
UniRef90\_UPI00037F8128 G D E M N L P I P N S F P Q E K E N Q K Y S A Y A F G H M V D G  
UniRef90\_D5DI81 G V D W G K L F P V P N Y D I N K Y P E C R K F V E M G Y H N T Q F D F R L D  
UniRef90\_V8CWV4 A D G L A S V V A P D A L L D E E Y A E H A T L W H L S D G E  
UniRef90\_Q13JW1 G V D W G K L L L P I P K T N A E Q F P E V K K L V D L G L Q S K Q Y S F D L D G  
UniRef90\_A5CN12 G P D T H P I P N S F P S N L Q N E N V A Y S F I S T S V I D G N  
UniRef90\_UPI00041618F8 G M E A N L P I P N S F P Q S E E S Q K H S Y S F V S T A D D S  
UniRef90\_UPI000361FD12 E D G L E G T I A P D D L F D E E F S E H A S T L W H L S D G E  
UniRef90\_J9SCH2 P N F P Q G K L P G K P E F T S V Y F N M S K G N  
UniRef90\_G8MKE9 A K E G V I V P S T V P A D W E A T E F S H Q L I N F S E G N  
UniRef90\_W9AMQ6 G H Q A N L P I P N S F D Q S Q E L L D V S Y D F F A T G I D G T  
UniRef90\_H8H0Z4 P P G K L S G D P R F T S V Y F R M S K G E  
UniRef90\_UPI0003813891 A K E G P I V P S T V P P E W E A Q E F S H I L Y V N P K E T S  
UniRef90\_UPI0003B6D24E G S D L T K L F P G R V P S D K I K E S R P Y I E K G D H R R L Y R F S P N D  
UniRef90\_UPI0003B42A62 G S S A N L P V P N S F P Q E L E D Q E N N Y F A T A A D G  
UniRef90\_UPI0001FFDDAD G V D W N K L L P I P K T N A E K F P E V A T L L E Q G L Q S K Q Y T F S L D Q  
UniRef90\_I0L7M5 I A D G Y A D H G I E N S N F D E E N K D H N H T F W S F G T D S  
UniRef90\_W0ILG7 G P S K V F P I P N S F P Q E Q E L Q E F S Y A Y L G F Q Q D G S  
UniRef90\_C6B860 G T S G V F P I P N S F P Q E Q E K Q E F S Y T F L G F Q A D A S D  
UniRef90\_W9H2Q4 G A A A L P I P N S F D Q S L E K Q E Y S Y A F F G T N K D G E  
UniRef90\_F8FAH8 G V N W G K V L P V P D Y D L T Q Y P E C R K Y I E R G W H N A Q F N F R L D  
UniRef90\_UPI0001746577 G A N V G A L L P I P N D V C N K K F P E A M V H E A K G I H R I M Y R W S P E D  
UniRef90\_UPI00036EEA93 P N F P G K M A A D P R F A S V Y Y N M S Q G P  
UniRef90\_D9V198 A D G L E S E I A P N A L F D E E N Q D H N N T V W H L S D G P  
UniRef90\_UPI000288813F E K N G L I V P A S F P A A E Q E A Q K H A Y E F Y N L Q E G T  
UniRef90\_F3WV76 A E T Q L P I P N S F P Q S K E H P E H N Y D F F V T S V D G  
UniRef90\_S3MV05 P N F P Q G K L P G M P E F A R T Y F S M S S G E  
UniRef90\_UPI00035D2208 D D G L D G M P V P E A F P L E E E E T G F A Y Q V M N F S D G T  
UniRef90\_UPI000465B004 P N F P Q G K L P G K P E F T S V Y Y N M S S E D  
UniRef90\_UPI0004686569 G I A A S M P I P N S F P R S D E A Q E H A Y Y C L N T S L D K  
UniRef90\_UPI0002885B4C G L E A Q L P I P N A T P E A H E A T E H S Y Y Y L N T L D K  
UniRef90\_R5VJ05 P N F P G V L Q S D P R Y S N L Y Y N N S A G E  
UniRef90\_W9BYN9 D N F P P G K L G A M G D Y D S L Y V N A S T G P  
UniRef90\_L1LU10 P N F P Q G K L P G H P E F N R T Y F N L S S G G  
UniRef90\_J5PLQ4 G A E T L P I P N S F D Q S K E H T D Y S Y F L M G T Q R D G K  
UniRef90\_K6BJQ2 P N F P Q G K L P G M P E F S R T Y F N M S S G D  
UniRef90\_D8I2L8 D G L E G D I V P D A L L D E E D Q T H N H T I W H L S D G P  
UniRef90\_G8AMH9 N N F P P G K L P G N P E Y T D K Y Y N M S Q G D  
UniRef90\_F0RQ30 G H Q G T L P I P N S F P L E E E L R E V S Y T Y F V P G V E G V  
UniRef90\_Q7UKC5 G P E N H P I P N S F P Q E N E N S D Y A Y A F M S F G I G D D F  
UniRef90\_A0A034UKI9 A D G I E D T I T P N A L L D E E H S E H T S L W H L S D G V  
UniRef90\_UPI0002D7953D P N F P G V L Q S D P R Y S N L Y Y N M S E G E  
UniRef90\_UPI000375C75D A P N F P P G K M P G D P R F T S V Y Y N M S Q G G  
UniRef90\_B2JRY7 G N F P P K M P P V P E F A S V Y Y K M S H G E  
UniRef90\_D4E7A0 N N F P P G K L P I E E E Y A D Q Y F N M S A E G  
UniRef90\_K0V251 A D G L E G V V A P N D L F D E E E E H A S T L W H L S D G A  
UniRef90\_L0K4Q8 N T P V P A S F P Q E E E N Q D V N Y A F M S T R R E Q Q  
UniRef90\_U5SAW0 A V E G I I V P S G V S E W E L Q D I N H I L Y N F S E G E  
UniRef90\_I0HT81 P N F P P G K L P G M A E F A N V Y F D M S Q G E  
UniRef90\_C1DI24 P N F P E G K L A G M P E F T N T Y F N M S Q G A  
UniRef90\_W9BP02 N N Y P P G K L P I S E Y A N T Y N M S E G G  
UniRef90\_H0J6V8 P N F P Q G K M P P R P E F A S V Y Y N M S Q G E G D M R G  
UniRef90\_A7MK77 N N F P P G K L P P V E Q Y T N V Y Y N M S K G D  
UniRef90\_UPI0003FC3301 G A A A L P I P N S F P G V L Q G D P R Y S N S Y F N L S N G A  
UniRef90\_D5RN05 G E A S M P I P N D S F D Q Q E R G E F S Y V F G T E V G G  
UniRef90\_W1JWW3 P S F P P G K A P M P E F A S V Y Y K M S Q G D  
UniRef90\_V2J7U2 N N F P P G K L P V E Q Y T D V Y Y N M S Q G D  
UniRef90\_A0A023MS02 P N F P P G K L P A V L Q G D P R F T D L Y L N M S S G D  
UniRef90\_Q1H1D3 P N F P P G K L P G D P R Y S N K Y F N M S D T N  
UniRef90\_C7PPR0 P N F P P G K L P G D P K F T S V Y F D L S K G D  
UniRef90\_I5CL80 I A D G F T E S G I E D S N A E F E H P E A N H T F Y S F D P E S  
UniRef90\_I0HAB6 D I A D G F T E S G I E D S N A E F E H P E A N H T F Y S F D P E S  
UniRef90\_H2J2B6 P N F P P G K L P L P Q F S Q V Y Y N M S E G G  
UniRef90\_B7V9S2 P N F P Q G K L Q G M P E F A R R Y L N M S R G G  
UniRef90\_E2SUZ1 N A N F P P G K L P V P E F S D A Y F K M S R G G  
UniRef90\_L8JVL8 P N F P P G L Q Q G D P R Y S N K Y F N M S N G S  
UniRef90\_U1TSF5 D N F P P G K L P I E Q Y A H N Y Y N M S E G D  
UniRef90\_UPI00046F2622 D N N F P P G K L P G D P Q F T N L Y L D L S K G D

UniRef90\_D1BE63  
UniRef90\_UPI00040511D6  
UniRef90\_D6U0Z7  
UniRef90\_K0JXK1  
UniRef90\_UPI00041490EE  
UniRef90\_UPI0003B4B3C0  
UniRef90\_W4BHJ8  
UniRef90\_UPI0001E89ACD  
UniRef90\_M7NAT0  
UniRef90\_F2F903  
UniRef90\_UPI0003B6A79B  
UniRef90\_A4FE49  
UniRef90\_UPI0004288D7A  
UniRef90\_Q47RJ3  
UniRef90\_B1LV19  
UniRef90\_UPI0003B31B10  
UniRef90\_D3FQM8  
UniRef90\_I2GDM8  
UniRef90\_M7MNY2  
UniRef90\_J9RTG2  
UniRef90\_V4T721  
UniRef90\_UPI00037CF591  
UniRef90\_UPI000382C65F  
UniRef90\_D5ZU56  
UniRef90\_UPI00037F8128  
UniRef90\_D5DI81  
UniRef90\_V8CWV4  
UniRef90\_Q13JW1  
UniRef90\_A5CN12  
UniRef90\_UPI00041618F8  
UniRef90\_UPI000361FD12  
UniRef90\_J9SCH2  
UniRef90\_G8MKE9  
UniRef90\_W9AMQ6  
UniRef90\_H8H0Z4  
UniRef90\_UPI0003813891  
UniRef90\_W3AEP7  
UniRef90\_UPI0003B6D24E  
UniRef90\_UPI0003B42A62  
UniRef90\_UPI0001FFDDAD  
UniRef90\_I0L7M5  
UniRef90\_W0LIG7  
UniRef90\_C6B860  
UniRef90\_W9H2Q4  
UniRef90\_F8FAH8  
UniRef90\_UPI0001746577  
UniRef90\_UPI00036EEA93  
UniRef90\_D9V198  
UniRef90\_UPI000288813F  
UniRef90\_F3WV76  
UniRef90\_S3MV05  
UniRef90\_UPI00035D2208  
UniRef90\_UPI000465B004  
UniRef90\_UPI0004686569  
UniRef90\_UPI0002885B4C  
UniRef90\_R5VJ05  
UniRef90\_W9BYN9  
UniRef90\_L1LU10  
UniRef90\_J5PLQ4  
UniRef90\_K6BJQ2  
UniRef90\_D8I2L8  
UniRef90\_G8AMH9  
UniRef90\_F0RQ30  
UniRef90\_Q7UKC5  
UniRef90\_A0A034UKI9  
UniRef90\_UPI0002D7953D  
UniRef90\_UPI000375C75D  
UniRef90\_B2JRY7  
UniRef90\_D4E7A0  
UniRef90\_K0V251  
UniRef90\_L0K4Q8  
UniRef90\_U5SAW0  
UniRef90\_I0HT81  
UniRef90\_C1DI24  
UniRef90\_W9BP02  
UniRef90\_H0J6V8  
UniRef90\_A7MK77  
UniRef90\_UPI0003FC3301  
UniRef90\_D5RN05  
UniRef90\_W1JWW3  
UniRef90\_V2J7U2  
UniRef90\_A0A023MS02  
UniRef90\_Q1H1D3  
UniRef90\_C7PPR0  
UniRef90\_I5CL80  
UniRef90\_I0HAB6  
UniRef90\_H2J2B6  
UniRef90\_B7V9S2  
UniRef90\_E2SUZ1  
UniRef90\_L8JVL8  
UniRef90\_U1TSF5  
UniRef90\_UPI00046F2622

250  
260  
270  
280

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

UniRef90\_D1BE63 F A P G L D P E L L S L I Q A T A D 290 300  
UniRef90\_UPI00040511D6 L H H D L D G K T  
UniRef90\_D6U0Z7 F S P G L T P E I M E  
UniRef90\_K0JXK1 Y A T S P A N L G L I E K A L R K  
UniRef90\_UPI00041490EE V H D T M V P M M K  
UniRef90\_UPI0003B4B3C0 F G T D A K P N V V D K A E G V V K D K L  
UniRef90\_W4BHJ8 H A P G L H  
UniRef90\_UPI0001E89ACD  
UniRef90\_M7NAT0  
UniRef90\_F2F903  
UniRef90\_UPI0003B6A79B H A Q T E Q M  
UniRef90\_A4FE49 F S P G L D P A L L E  
UniRef90\_UPI0004288D7A Y A Q T E Q  
UniRef90\_Q47RJ3 Y G T G A P G Q G S E K G A Q R A  
UniRef90\_B1LV19 G A  
UniRef90\_UPI0003B31B10 A P D Y M H N T L P D M D K K  
UniRef90\_D3FQM8 H A P G L T  
UniRef90\_I2GDM8 H A Q V E Q  
UniRef90\_M7MNY2 F G T T E L P N I V E K T A S A V Q D K L  
UniRef90\_J9RTG2 F A P G L D K D L L A L I Q A T A E  
UniRef90\_V4T721 A A  
UniRef90\_UPI00037CF591 Y A Q T E Q M K H Y G E  
UniRef90\_UPI000382C65F F A P G L T A E E I A E L A K K L A  
UniRef90\_D5ZU56 Y A T  
UniRef90\_UPI00037F8128  
UniRef90\_D5DI81 H A P G L  
UniRef90\_V8CWV4 Y A T  
UniRef90\_Q13JW1  
UniRef90\_A5CN12 F A P G L D K D L L Q E T A E R  
UniRef90\_UPI00041618F8 H G  
UniRef90\_UPI000361FD12 G A Q T  
UniRef90\_J9SCH2 Y A T  
UniRef90\_G8MKE9 D V E V L Q A M A S R T A S  
UniRef90\_W9AMQ6 Y M H N T P P N E  
UniRef90\_H8H0Z4 Y A  
UniRef90\_UPI0003813891 E A P V L Q Q M A A R T Q S M  
UniRef90\_W3AEP7 A H N T L P E E D L K  
UniRef90\_UPI0003B6D24E F A P S Y S T E E I R E I A D A L R K K A  
UniRef90\_UPI0003B42A62 G A Q D T Q  
UniRef90\_UPI0001FFDDAD F G P G L D P E L M A M V Q A V A E M  
UniRef90\_I0L7M5 Y A T G A H A Q G M S N V V K K V K D A L  
UniRef90\_W0ILG7 G A  
UniRef90\_C6B860  
UniRef90\_W9H2Q4 K G S G A Q S E Q M  
UniRef90\_F8FAH8 H S P G I P R E L T G A A R  
UniRef90\_UPI0001746577 C A P G I D P D M L  
UniRef90\_UPI00036EEA93 A L P G E D I D V L K Q M A M R T Q S N  
UniRef90\_D9V198 Y G T  
UniRef90\_UPI000288813F V A P V I P P D S L H H D I R K  
UniRef90\_F3WV76 G A Q A E Q I G E  
UniRef90\_S3MV05 V T L N E A D A T T L E M M K  
UniRef90\_UPI00035D2208 Y G P G T T P G S A T E  
UniRef90\_UPI000465B004 V A A L E A M A A R T A S N P K  
UniRef90\_UPI0004686569 P G S G A Q K E Q I  
UniRef90\_UPI0002885B4C  
UniRef90\_R5VJ05 K G T D R T L E S V E K D D R E L S R  
UniRef90\_W9BYN9 E L P K D Q L R T V L A M A E R T A S  
UniRef90\_L1LU10 D F S A S T L E S M K L R T M S N  
UniRef90\_J5PLQ4 H S G A Q R E Q I D R R M A  
UniRef90\_K6BJQ2 V L S E D D E A T L M I M K Q R T Q S  
UniRef90\_D8I2L8 F G T Y A P L Q D A K G T A K G K A K S V K  
UniRef90\_G8AMH9 R L A A E E M K A V N E A A K R T M S R T  
UniRef90\_F0RQ30 Y A  
UniRef90\_Q7UKC5 A A  
UniRef90\_A0A034UKI9  
UniRef90\_UPI0002D7953D T G T D R T L A S V E K A D K Q L G K K  
UniRef90\_UPI000375C75D Q V I G Q D D A E Q L D N L A A R T R S D P R  
UniRef90\_B2JRY7 K L D G T Q K S A L D A M S Q R L M S  
UniRef90\_D4E7A0 V L P L E Q Q S D V E A M A Q R T R S D P R  
UniRef90\_K0V251  
UniRef90\_L0K4Q8 Y N V P E D E  
UniRef90\_U5SAW0 A P P S L H N T V D M D A K K  
UniRef90\_I0HT81  
UniRef90\_C1DI24 N L P D K D A Q V W K Q M A M R T L S N  
UniRef90\_W9BP02 A S V G L T P E Q C K A M L K R T Q S  
UniRef90\_H0J6V8 S D P N A A P  
UniRef90\_A7MK77 Q A S V L T M A Q R L Q S  
UniRef90\_UPI0003FC3301 R G T D R T Q E S V E K K D K E M S K E  
UniRef90\_D5RN05  
UniRef90\_W1JWW3 A A Q V E Q M Q E  
UniRef90\_V2J7U2 Q L E P T Q A S A V E A A A M R T E S  
UniRef90\_A0A023MS02 A T V K L P R E Q M A L L K A M A E R T K  
UniRef90\_Q1H1D3 V S L N T D E E A L M Q M A L R T Q S  
UniRef90\_C7PPR0 E G T N R T L K D V N A L D Q Q L S E  
UniRef90\_I5CL80 N V P K A D L E T L K A M A S R T A S N T  
UniRef90\_I0HAB6  
UniRef90\_H2J2B6  
UniRef90\_B7V9S2 A S V N L S E T E Q E V L Q R M A D R T R  
UniRef90\_E2SUZ1 N L T D A E L A A L E A M K T R L A S  
UniRef90\_L8JVL8 S G T Q R T M E S A K E  
UniRef90\_U1TSF5 P S V T L S P D E Q R D I A A R T A S  
UniRef90\_UPI00046F2622 K L S S E E E K L N Q Q L A E R T A S D P K

|                        | 1 | 10 | 20 | 30 | 40 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|---|----|----|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_M4U0R3        | M | F  | M  | H  | N  | K | R | L | M | Y | T | V | R | V | A | S | Q | R | P | N | P | D | L | A | T | L | M | L | E | Q | F | G | G | P | Q | G | E | L | A | A | A |   |   |   |   |   |
| UniRef90_Q46SX3        | M | F  | I  | H  | N  | K | R | L | Q | Q | Y | T | V | R | V | S | G | S | R | T | D | P | G | L | A | N | L | L | L | E | Q | F | F | G | G | P | Q | G | E | L | A | A | A |   |   |   |
| UniRef90_UPI00036D3578 | M | F  | V  | H  | N  | K | R | L | Q | Q | Y | T | V | R | V | S | S | S | T | R | D | P | G | L | A | N | L | L | L | E | Q | F | F | G | G | P | Q | G | E | L | A | A | A |   |   |   |
| UniRef90_UPI0003B37409 | M | F  | Y  | H  | V  | K | E | L | Q | Q | F | N | A | R | V | V | A | S | R | P | R | F | A | N | L | L | L | L | E | Q | F | F | G | G | E | N | G | E | L | A | A | A |   |   |   |   |
| UniRef90_F4BNV7        | M | F  | K  | H  | T  | K | I | L | Q | Q | Y | N | A | V | L | V | A | D | K | P | D | A | L | M | A | R | R | L | L | Q | E | N | L | G | G | H | W | G | E | M | T | G | M |   |   |   |
| UniRef90_UPI0002F2EF7E | M | F  | M  | H  | N  | K | R | L | Q | Q | Y | T | V | R | V | A | S | A | E | P | N | D | P | V | L | A | S | L | M | L | E | Q | F | F | G | P | D | G | E | L | A | A | A |   |   |   |
| UniRef90_B7KDZ4        | M | F  | H  | H  | V  | K | E | L | E | F | F | N | A | R | V | V | A | S | A | P | D | P | R | F | A | S | L | L | L | E | Q | F | F | G | G | A | N | G | E | L | K | A | A |   |   |   |
| UniRef90_M0N535        | M | F  | Y  | H  | D  | D | E | L | Q | Q | Y | E | V | E | V | A | E | E | E | P | N | D | P | R | F | A | K | M | L | Q | Q | A | I | G | G | A | E | G | E | M | R | V | A |   |   |   |
| UniRef90_L0JKK3        | M | F  | F  | Q  | E  | P | E | L | Q | Q | Y | T | V | R | V | A | E | E | E | P | D | P | H | F | A | K | L | L | Q | Q | A | I | G | G | Q | P | D | G | E | L | A | A | A |   |   |   |
| UniRef90_T0HL93        | M | F  | I  | H  | N  | K | R | L | Q | Q | Y | T | V | R | V | S | E | S | E | T | N | P | V | L | A | S | M | L | L | E | Q | F | G | G | P | D | G | E | L | A | A | A |   |   |   |   |
| UniRef90_D4YJ06        | M | Y  | I  | R  | K  | S | K | L | Q | Q | Y | H | A | K | V | P | E | K | S | N | P | I | L | L | A | R | R | L | L | Q | E | I | L | L | G | G | Q | W | G | E | T | T | G | M |   |   |
| UniRef90_UPI0003F5B3A9 | M | F  | Y  | H  | V  | K | E | L | Q | Q | Y | T | V | R | V | V | S | R | P | D | P | A | F | A | S | M | L | L | L | E | Q | F | F | G | G | P | Q | G | E | L | A | A | A |   |   |   |
| UniRef90_K4QKB2        | M | F  | A  | H  | N  | K | R | L | Q | Q | Y | T | V | R | V | V | A | S | Q | T | N | P | G | L | A | N | L | L | L | E | Q | F | F | G | G | P | Q | G | E | L | A | A | A |   |   |   |
| UniRef90_T2GZS4        | M | F  | I  | H  | N  | K | R | L | Q | Q | Y | T | V | R | V | V | A | S | E | P | D | P | R | F | A | T | L | L | L | E | Q | F | F | G | G | A | N | G | E | L | K | A | A |   |   |   |
| UniRef90_B4WC28        | M | F  | I  | H  | N  | K | R | L | M | Y | T | V | R | V | V | A | E | E | D | P | P | P | G | L | A | T | L | M | L | E | Q | F | F | G | G | P | Q | G | E | L | A | A | A |   |   |   |
| UniRef90_M0LWD5        | M | F  | F  | H  | E  | P | E | L | Q | Q | Y | E | V | T | V | E | E | D | P | P | H | F | A | K | L | L | L | Q | Q | A | I | G | G | Q | E | E | M | R | V | A | M |   |   |   |   |   |
| UniRef90_Q5WIT1        |   |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | M | M |   |   |
| UniRef90_L1Q9I3        | M | F  | M  | H  | N  | K | K | L | M | Y | T | V | R | V | V | A | E | E | K | P | N | P | A | L | A | T | L | M | L | E | Q | F | G | G | P | Q | G | E | L | A | A | A |   |   |   |   |
| UniRef90_B0U8H6        | M | Y  | C  | H  | D  | K | R | L | Q | Q | Y | P | V | R | V | V | E | K | P | D | P | I | F | A | R | Q | L | L | Q | Q | A | I | G | G | V | E | G | E | L | R | V | C |   |   |   |   |
| UniRef90_UPI000375240A |   |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | M | R | T | M |   |   |
| UniRef90_F1TJC2        | M | F  | T  | H  | N  | K | D | L | Q | Q | F | E | V | A | R | V | I | D | R | P | D | P | Q | F | A | T | L | L | L | Q | E | Q | F | F | G | G | A | N | G | E | L | K | A | A |   |   |
| UniRef90_K5Z877        | M | F  | Y  | H  | V  | K | D | L | Q | Q | Y | E | V | A | R | V | S | A | S | K | E | P | D | P | R | F | A | V | L | L | L | Q | Q | A | I | G | G | V | E | G | E | L | R | V | A |   |
| UniRef90_I0IH43        | M | F  | Y  | Q  | D  | D | K | L | Q | Q | Y | E | V | K | C | S | G | K | E | P | D | P | P | R | F | A | V | L | L | L | Q | Q | A | I | G | G | V | E | G | E | L | R | V | A |   |   |
| UniRef90_T0J1P7        | M | F  | M  | H  | N  | K | R | L | Q | Q | Y | T | V | R | V | V | S | T | S | E | Q | P | N | P | A | L | G | S | L | L | L | L | E | Q | F | F | G | G | P | D | G | E | L | A | A | A |
| UniRef90_A0R5J4        | M | F  | I  | H  | N  | K | R | L | Q | Q | Y | T | V | R | V | V | A | S | Q | P | D | P | R | F | A | T | L | L | L | Q | Q | A | I | G | G | P | D | G | E | L | K | A | A |   |   |   |
| UniRef90_K9TJP1        | M | F  | Y  | H  | V  | K | E | L | Q | Q | F | N | A | R | V | V | S | K | E | P | D | P | R | F | A | T | L | L | L | E | Q | F | F | G | G | P | N | G | E | L | A | A | A |   |   |   |
| UniRef90_J7QIK3        | M | F  | T  | H  | N  | K | R | L | Q | Q | Y | T | V | R | V | V | A | S | E | S | E | P | N | P | V | L | A | S | L | M | L | E | Q | F | F | G | G | P | Q | G | E | L | A | A | A |   |
| UniRef90_F4SEN5        | M | F  | L  | H  | N  | K | R | L | Q | Q | Y | T | V | R | V | V | A | S | E | P | N | P | G | L | A | N | L | L | L | E | Q | F | F | G | G | A | N | G | E | L | A | A | A |   |   |   |
| UniRef90_F8EJH0        | M | F  | Y  | H  | V  | K | E | L | Q | Q | F | N | A | R | V | V | S | S | R | P | D | P | A | F | A | T | L | L | L | E | Q | F | F | G | G | A | N | G | E | L | A | A | A |   |   |   |
| UniRef90_R7KLV1        | M | F  | Y  | H  | V  | K | E | L | Q | Q | F | N | A | R | V | V | S | K | P | D | P | R | F | A | R | I | L | L | L | E | A | F | G | G | A | N | G | E | L | T | S | A |   |   |   |   |
| UniRef90_I4EQN5        | M | F  | T  | H  | T  | K | A | L | Q | Q | F | E | A | K | V | P | D | G | P | D | D | F | A | R | K | M | Q | E | V | L | L | L | G | G | Q | W | G | E | M | T | V | A |   |   |   |   |
| UniRef90_J3EWA6        | M | F  | Y  | H  | D  | D | E | L | Q | Q | F | E | V | E | V | E | E | E | P | N | D | P | Q | F | A | K | M | L | Q | Q | A | I | G | G | A | E | G | E | M | R | V | A |   |   |   |   |
| UniRef90_UPI00035CD9E5 | M | F  | Y  | H  | A  | K | R | L | Q | Q | F | N | A | R | V | V | S | K | P | D | P | K | F | A | S | L | L | L | E | Q | F | F | G | G | V | N | G | E | L | K | A | A |   |   |   |   |
| UniRef90_R3K2W9        | M | F  | I  | H  | T  | R | K | L | Q | Q | Y | N | A | K | V | P | D | R | P | D | P | I | M | A | R | K | L | L | Q | E | A | L | L | G | G | V | N | G | E | L | T | G | M |   |   |   |
| UniRef90_F2LMM3        | M | F  | S  | H  | N  | S | R | L | Q | Q | Y | T | V | R | V | V | A | S | E | T | P | N | P | G | L | A | N | L | L | L | E | Q | F | F | G | G | P | Q | G | E | L | A | A | A |   |   |
| UniRef90_A0A031JL19    | M | F  | M  | H  | N  | K | R | L | Q | Q | Y | T | V | R | V | V | A | S | E | P | N | P | A | L | G | S | L | L | L | E | Q | F | F | G | G | P | D | G | E | L | A | A | A |   |   |   |
| UniRef90_M0CLJ7        | M | Y  | H  | D  | D  | K | L | Q | Q | Y | P | V | E | V | V | S | D | E | D | P | D | P | A | F | A | K | M | L | Q | E | A | I | G | G | V | E | G | E | M | R | V | C |   |   |   |   |
| UniRef90_V7G7E8        | M | F  | M  | H  | N  | K | R | L | Q | Q | Y | T | V | R | V | V | A | S | E | E | P | N | P | R | L | A | C | M | I | M | E | Q | F | G | G | A | D | G | E | L | A | A | A |   |   |   |
| UniRef90_G7UPJ7        | M | Y  | M  | H  | N  | K | R | L | Q | Q | Y | T | V | R | V | V | A | S | E | A | P | N | P | Q | L | A | V | L | L | L | E | Q | F | F | G | G | P | Q | G | E | L | A | A | A |   |   |
| UniRef90_A9AQM9        | M | F  | I  | H  | N  | T | R | L | Q | Q | Y | T | V | R | V | V | A | D | A | P | N | P | G | L | A | N | L | L | L | E | Q | F | F | G | G | P | Q | G | E | L | A | A | A |   |   |   |
| UniRef90_B8HL30        | M | F  | Q  | H  | N  | K | E | L | E | F | N | A | R | V | V | S | S | G | P | D | P | R | F | A | S | L | L | L | E | Q | F | F | G | G | N | G | E | L | K | A | A |   |   |   |   |   |
| UniRef90_UPI0002F2F2BD | M | F  | V  | H  | K  | K | L | M | Y | T | V | R | V | V | V | S | S | K | S | N | P | A | L | A | A | L | M | L | E | Q | F | F | G | G | P | Q | G | E | L | A | A | A |   |   |   |   |
| UniRef90_D8MSR2        | M | F  | R  | H  | V  | K | Q | L | Q | Q | Y | T | V | R | V | V | A | S | A | K | G | P | N | P | G | L | A | N | L | L | E | Q | F | F | G | G | P | Q | G | E | L | A | A | A |   |   |
| UniRef90_D8J4K4        | M | F  | F  | H  | D  | D | E | L | Q | Q | Y | P | V | E | V | V | E | E | E | P | N | D | P | A | F | A | R | M | L | Q | Q | A | I | G | G | V | E | G | E | L | R | V | F |   |   |   |
| UniRef90_M0D2U3        | M | F  | Y  | H  | E  | N | G | L | Q | Q | Y | E | V | E | V | V | E | E | E | P | D | P | Q | F | A | K | M | L | Q | Q | A | I | G | G | Q | A | E | G | E | M | R | V | A |   |   |   |
| UniRef90_V4HDK9        | M | F  | Y  | H  | D  | D | E | L | Q | Q | F | E | V | E | V | E | E | D | P | D | P | R | Y | A | K | M | L | Q | Q | A | I | G | G | A | E | G | E | M | R | V | A |   |   |   |   |   |
| UniRef90_R7NRD0        | M | F  | V  | Y  | E  | K | R | L | Q | Q | Y | P | L | R | I | K | Q | T | N | P | K | L | A | K | I | I | V | T | Q | Y | G | G | P | D | G | E | L | G | A | S |   |   |   |   |   |   |
| UniRef90_UPI00036350A3 | M | F  | Y  | H  | V  | K | D | L | Q | Q | Y | F | N | A | R | V | V | S | S | K | P | D | P | A | F | A | T | L | L | L | E | Q | F | F | G | G | P | N | G | E | L | A | A | A |   |   |
| UniRef90_I4VT88        | M | F  | A  | H  | N  | K | R | L | Q | Q | Y | S | V | R | V | V | S | E | K | C | N | P | N | K | L | A | K | Y | I | I | S | Q | Y | G | G | P | D | G | E | L | A | A | S |   |   |   |
| UniRef90_E6UUC9        | M | W  | V  | Y  | E  | K | K | L | E | Y | P | V | K | I | V | K | N | P | N | P | K | L | A | K | Y | I | I | S | Q | Y | G | G | P | D | G | E | L | A | A | S |   |   |   |   |   |   |
| UniRef90_R9I335        | M | F  | Y  | H  | V  | K | D | L | Q | Q | Y | F | N | A | R | V | V | S | E | R | P | D | P | R | F | A | T | V | M | L | E | A | F | G | G | A | N | G | E | L | K | S | A |   |   |   |
| UniRef90_UPI00026CB123 | M | F  | M  | H  | N  | K | R | L | Q | Q | Y | T | V | R | V | V | A | S | E | P | R | L | A | T | M | M | L |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

UniRef90\_M4U0R3 M R Y F T Q A L G E E D D P G R 50 60 70 80  
UniRef90\_Q46SX3 T R Y F T Q A I A S E E D D P G R K D L L F D I A T E E L L S H L L E I I I G S L  
UniRef90\_UPI00036D3578 L R Y F T Q A F L S A E E D D P G R K D M L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_UPI0003B37409 M Q Y F T Q A F G A K M D P G R Y D M L L M D I A T E E E F S H L L E I I I G S L  
UniRef90\_F4BNV7 A A Y L F Q G W N T S T D P G N E K Y K D L L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_UPI0002F2EF7E M R Y F T Q G F A E R D D P G F P D K Y D L L L M D I A T E E E L L S H L L E I I I G S L  
UniRef90\_B7KDZ4 M Q Y F V Q A F A A R K P P G R Y D L L L M D I A T E E E L L S H L L E I I I G S L  
UniRef90\_M0N535 L Q Y M F Q A F A V P A E K K E Y R Q L L M E T A T E E E L L S H L L E I I I G S L  
UniRef90\_L0JKK3 L Q Y M F Q A W A V P E Q R H E E Y R N L L M E T A A T E E E L L S H L L E I I I G S L  
UniRef90\_T0HL93 M R Y F T Q G L G E D D P E G R K D M L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_D4YJ06 L A Y T L Q G W N T V G N E K Y K D L L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_UPI0003F5B3A9 M Q Y F T Q A F A M R Q D P G R Y D M L L M D I A T E E E F S H L L E I I I G S L  
UniRef90\_K4QKB2 C R Y F T Q A F A E D D P G R K D M L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_T2GZS4 M Q Y F T Q A F V L R D K N P K M Y D L F M D I A T E E E L L S H L L E I I I G S L  
UniRef90\_B4WC28 M R Y F T Q A L A E E D A G R K D M L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_M0LWD5 M Q Y M F Q A W A L P E E Y E A Y R D L L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_Q5WIT1 M Q Y L F Q G F N C R A D K K Y R D L L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_L1Q9I3 M R Y F T Q G L A D E D V P G R R D L L L M D I A T E E E L L S H L L E I I I G S L  
UniRef90\_B0U8H6 L Q Y F F Q A W G A R G V P D N T Y R D A L L H T A T E E E L L S H L L E I I I G S L  
UniRef90\_UPI000375240A M Q Y F F Q S N F R G K E K A Y R D L L R G V F L E E E L L S H L L E I I I G S L  
UniRef90\_F1TJC2 M Q Y F T Q A F V L R R K N P K M Y D L F M D I A T E E E F S H L L E I I I G S L  
UniRef90\_K5Z877 M Q Y F V Q A F S C R N P P E K Y D M L M D I A T E E E L L S H L L E I I I G S L  
UniRef90\_I0IH43 M Q Y M F Q A F G A Q G P K K Y R D M L M E T A A T E E E L L S H L L E I I I G S L  
UniRef90\_T0J1P7 M R Y F T Q G L A E D D P G R K D M L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_A0R5J4 M Q Y F T Q A F V L R E K N P K L Y D L F M D I A T E E E L L S H L L E I I I G S L  
UniRef90\_K9TJP1 M Q Y F V Q A F A A R Q A Y P E K Y D M L M D I A S E E E F S H L L E I I I G S L  
UniRef90\_J7QIK3 M R Y F T Q A L A E E D P G R R D M L F D I A T E E E L L S H L L E I I I G S L  
UniRef90\_F4SEN5 T R Y F T Q A L A E E D P G R K D L L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_F8EJH0 L R Y F E Q A F A A K N P H P D K Y D L L L M D I A T E E E F S H L L E I I I G S L  
UniRef90\_R7KLV1 M Q Y F V Q A F S C H N P P D K Y D M L M D I A T E E E L L S H L L E I I I G S L  
UniRef90\_I4EQN5 T Q Y L L Q G W N C R L P P G K Y K D M L L A L G T E E E L L S H L L E I I I G S L  
UniRef90\_J3EWA6 L Q Y M F Q A F A I P A E K Q E M R Q F L M E T A T E E E L L S H L L E I I I G S L  
UniRef90\_UPI00035CD9E5 M Q Y F T Q A F A S R Q P Y P D K Y D M L M D I A T E E E F S H L L E I I I G S L  
UniRef90\_R3K2W9 L S Y L T Q G W F A S S G S E K Y K D L L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_F2LMM3 M R Y F T Q A I T E E D P G R K D M L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_A0A031JL19 M R Y F T Q G L A E E D A G R K D M L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_M0CLJ7 L Q Y M F Q A F G V P D E H A E Y R K L L M E T A V E E I L G H L L E I I I G S L  
UniRef90\_V7G7E8 M R Y F T Q G L G E D D L G R R D M L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_G7UPJ7 M R Y F T Q A L A E E D P G R K D M L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_A9AQM9 M R Y F T Q A L T E E D P G R K D M L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_B8HL30 M Q Y F T Q A F T V R Q A Y P D K Y D L L L M D I A T E E E F S H L L E I I I G S L  
UniRef90\_UPI0002F2F2BD M R Y F T Q G L G E A D P G R K D L L L M D I A T E E E L L S H L L E I I I G S L  
UniRef90\_D8MSR2 C R Y F T Q G L G D E D P G R K D M L M D I A T E E E L L S H L L E I I I G S L  
UniRef90\_D8J4K4 M Q Y L F Q G M N Q P P D N E Q M R M L L Y E T A M E E L L G H L L E I I I G S L  
UniRef90\_M0D2U3 L Q Y M F Q S F A V P S E M S E Y K T L L M E T A V E E L L G H L L E I I I G S L  
UniRef90\_V4HDK9 L Q Y M F Q A F A I P K E K N E V R Q F L M E T A V E E L L G H L L E I I I G S L  
UniRef90\_R7NRD0 L R Y L S Q R Y T M P F P E L Q A T L T D I A T E E E L L G H L L E I I I G S L  
UniRef90\_UPI00036350A3 M R Y F V Q A F G A K N P Y P D K Y D L L L M D I A T E E E F S H L L E I I I G S L  
UniRef90\_I4VT88 M R Y F T Q A L G E D D A G R K D M L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_E6UUC9 L R Y L S Q R F S M P T N E A K G I L N D I A T E E E L L A H L L E I I I G S L  
UniRef90\_R9I335 L Q Y F V Q A F S C H N P P D K Y D M L M D I A T E E E F S H L L E I I I G S L  
UniRef90\_UPI00026CB123 M R Y F T Q G L G E D D A G R K D L L D I A T E E E F S H L L E I I I G S L  
UniRef90\_A0A052JCN7 C R Y F T Q Y L G E D D P G R R D M L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_R6GNX2 L R Y L S Q R Y S M P Y P E L K A L L T S I D I T A E E E F S H L L E I I I G S L  
UniRef90\_UPI000370D670 T R Y L Q Q R Y S M P Y A Q V K G I L T D I G T E E E L L A H L L E I I I G S L  
UniRef90\_B0P8M2 M Q Y S I Q R F L N C E D P D R Y K D L L L M D I A T E E E L L S H L L E I I I G S L  
UniRef90\_UPI00034ABD65 M R Y L S Q R F A M P Y K N V C G V L T D I G T E E E L L A H L L E I I I G S L  
UniRef90\_D4N145 M R Y L S Q R F A M P Y K N V C G V L T D I G T E E E L L A H L L E I I I G S L  
UniRef90\_D5WLY4 M R Y F T Q A V A E E D P G R K D M L L F D I A T E E E L L A H L L E I I I G S L  
UniRef90\_U2KUK7 L R Y M C Q R Y T A K P D K V K G V L T D I A T E E E L L A H L L E I I I G S L  
UniRef90\_R7H5D3 L R Y M C Q R Y A M P Y G E V S G I L L T D I A T E E E L L A H L L E I I I G S L  
UniRef90\_R7AZ04 L R Y L S Q R Y A M P Y G E V S G I L L T D I A T E E E L L A H L L E I I I G S L  
UniRef90\_G8TIS7 L R Y F G A F F G A R K P Y P D K Y D L L L M D I A T E E E F S H L L E I I I G S L  
UniRef90\_R7I6J8 M R Y L S Q R F T M P C K K V G G L L T D I A T E E E L L A H L L E I I I G S L  
UniRef90\_R5PVD5 M R Y L N Q R Y T M P Y N E V I G I L T D I A T E E E L L A H L L E I I I G S L  
UniRef90\_R6QM78 M R Y L S Q R Y S M P D N K V A G L L T D I A T E E E L L A H L L E I I I G S L  
UniRef90\_I0KNV8 M R Y F T Q G L G E D D P G R K D L L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_R5N4N3 L R Y L S Q R F S M P Y P E L K G L L T D I A T E E E L L G H L L E I I I G S L  
UniRef90\_UPI00031C5F27 L R Y L N Q R Y T M P N E R A K A V I A V L L T D I A T E E E L L G H L L E I I I G S L  
UniRef90\_X4ZY71 L R Y M N Q R Y T P G K V I A V L L T D I A T E E E L L A H L L E I I I G S L  
UniRef90\_R6EUZ4 M R Y L A Q R Y T M P Y N E V T G T L T D I A T E E E L L A H L L E I I I G S L  
UniRef90\_L0SZ67 M R Y F T Q A L G E V D P G R K D L L L Y D I A T E E E L L S H L L E I I I G S L  
UniRef90\_P60355 M S Y L S Q G W A S T G A E K Y K D L L L D I A T E E E M A H L L E I I I G S L  
UniRef90\_UPI000467BFB1 M Q Y S I Q G L N C E D P D R K D L L L M D I A T E E E L L S H L L E I I I G S L  
UniRef90\_R5D8C9 L R Y L S Q R Y T M P Y P E L K A L L T D I G T E E E L L G H L L E I I I G S L  
UniRef90\_R6CW11 L R Y L S Q R Y S M P Y P E Y A E L K A L L T D I G T E E E L L G H L L E I I I G S L  
UniRef90\_R5CVF1 L R Y L S Q R Y S M P Y P E Y A E L K G L L T D I G T E E E L L G H L L E I I I G S L  
UniRef90\_A0A010Z5Z1 M R Y L S Q R Y S M P Y K G V L T D I G T E E E L L A H L L E I I I G S L  
UniRef90\_UPI00037C2232 V R Y L N Q R Y T M P T N E R A R G L L T D I A T E E E L L A H L L E I I I G S L  
UniRef90\_A0A023NS66 M R Y F T Q A L A E E D H G R K D M L L D I A T E E E L L S H L L E I I I G S L  
UniRef90\_A6TUA7 L R Y L N Q R Y T M P T N E S K A L L T D I A T E E E L L A H L L E I I I G S L  
UniRef90\_UPI0002DD43F3 M R Y F V Q G I A E D D P G R K D M L L M D I A T E E E L L S H L L E I I I G S L  
UniRef90\_F6CJ63 V R Y L T Q R Y T M P T N K A K G L L T D I A T E E E L L A H L L E I I I G S L  
UniRef90\_R7BF28 L R Y L S Q R Y S M P Y P E L K G L L T D I G T E E E L L G H L L E I I I G S L  
UniRef90\_R5C9Y1 M R Y L A Q R Y T M P Y N E V L K E V S G L L T D I G T E E E L L A H L L E I I I G S L  
UniRef90\_R5HNQ9 M R Y L S Q R Y S M P D R R V C G V L T D I G T E E E L L A H L L E I I I G S L  
UniRef90\_R6FS71 L R Y L S Q R F S M P T N K S K G V L N D I A T E E E M A H L L E I I I G S L  
UniRef90\_K4LWC2 V R Y L S Q R Y T M P T G R A K G V L T D I A T E E E L L A H L L E I I I G S L  
UniRef90\_UPI0003B79C77 N Q Y L F Q G L G T R G P Q R Y R D M L L S T A T E E E L L G H L L E I I I G S L  
UniRef90\_W6SI54 L R Y L N Q R Y T M P T N K S K G L L T D I A T E E E L L A H L L E I I I G S L  
UniRef90\_R7EXI8 M R Y L N Q R Y T M P S N E T I G V L T D I G T E E E L L G H L L E I I I G S L  
UniRef90\_A6W664 M Q Y L F Q G W N C R V P G K Y K D M I M D I A T E E E L L S H L L E I I I G S L

|                        | 90  | 100 | 110 | 120 |
|------------------------|---|-----|-----|-----|
| UniRef90_M4U0R3        | I A M L N K G P K A V L S E G M E E A M E M R N M T Q N S T S H T Q Q I L L Y G         |     |     |     |
| UniRef90_Q46SX3        | I A M L N R R G A K G K G L A E G T E Q E A D L Y R S L S G A G N D S H V I T Q Y G     |     |     |     |
| UniRef90_UPI00036D3578 | V S M L N R K G A K G E M A A A V D Q Q A E L Y R K L H G A G N D S H V I T Q Y G       |     |     |     |
| UniRef90_UPI0003B37409 | I Q M L L K G G V N G E L K N A A A D T S E I M Q V M N G K A A A N D S Q F L V T Q Y G |     |     |     |
| UniRef90_F4BNV7        | I A H L L D D A P L E N I Q E N V Y N S G D P A I A A V M G G M N S P Q H A I V N G     |     |     |     |
| UniRef90_UPI0002F2EF7E | V A M L N K G G V K A H V S E G D M E E A E L Y M S L T Q G G N S H T Q Q A I L L Y G   |     |     |     |
| UniRef90_B7KDZ4        | I T M L L D G V N G E L K N A A A D N S E E K K E E M L H Q A M T N P Q F L A L S G     |     |     |     |
| UniRef90_M0N535        | V A K N L Q G A S N A Q R E E A R E D P V I A E M M D S G Q P R Q Q A L S A G           |     |     |     |
| UniRef90_L0JKK3        | V T K N L R G A T K S M S E E V R E T A D M A E S M T A Q G P R Q Q F L S A G           |     |     |     |
| UniRef90_T0HL93        | V A M L N K G G V K G A L A E K T M E E A E L F M Q M N A G G D S H T Q Q S L L Y G     |     |     |     |
| UniRef90_D4YJ06        | I N D L L R D A P T D T I E E F A R T S D P A T A A I L L G G M D P Q H A F V N G       |     |     |     |
| UniRef90_UPI0003F5B3A9 | I Q M L L G G P L N G E L K N A A E E S E I M Q L L D G K A M M N D S Q Q F L V L S G   |     |     |     |
| UniRef90_K4QKB2        | V A M L N K G A K G V L A E A T E S E A E V F R R L N G P G N D S H V I T Q Y G         |     |     |     |
| UniRef90_T2GZS4        | I T M L L D G G L N D N L K M A N E K C D W M P A V A S G D G R N P L Y M A L N G       |     |     |     |
| UniRef90_B4WC28        | V A M L N R G G A K G K M A E A A L D E E A D L Y M S L N D R G E S H T T S I L L Y G   |     |     |     |
| UniRef90_M0LWD5        | V T K N L R G S P K E M A E E T D E T A A A A A A M T G Q N P Q H A I V N G             |     |     |     |
| UniRef90_Q5WIT1        | I A R L L D N A P F E V Q Q N A Y E M D P A L A A V L L G G T N P Q H A I V S G         |     |     |     |
| UniRef90_L1Q9I3        | V A M L N R G G A K G L Q E A A E E E A D L Y A S M T A G G E S H T M S I L L Y G       |     |     |     |
| UniRef90_B0UH86        | V A L L N E N A P A T L Q E A Q A N P I V G A V M G G E E G M L H R H I L V S G         |     |     |     |
| UniRef90_UPI000375240A | I N Q L L N G S G E T N S A G N S G A D Q A P L N E A I K H A N P H H Y I M G A         |     |     |     |
| UniRef90_F1TJC2        | I T M L L D G L N D D L K Q A N E R C D W M P V V A T A D G R N P T Y L G L T G         |     |     |     |
| UniRef90_K5Z877        | I Q M L L G P V N G E M K D V V E N M E I N K M M N G R A T N P H F L V L A P           |     |     |     |
| UniRef90_I0IH43        | V A L N L K G A P T K L T D E M A A K D G A V A A A L G G M S P R Q Y L S T G           |     |     |     |
| UniRef90_T0J1P7        | V S M L N K G A K S A L L S E A S L E E A D L Y M S L N A G G N S H T Q S I L L Y G     |     |     |     |
| UniRef90_A0R5J4        | I T M L L D G L N G D L K N A A E N S E C D W M P A V A S R D G K D P L F L T L S G     |     |     |     |
| UniRef90_K9TJP1        | V T M L L D G I N G D L K N A A E N S E I M Q F M G G N K T G G P Q L L A V S G         |     |     |     |
| UniRef90_J7QIK3        | V S M L N K G A K G Q L A E A T Q S E A D L Y R S V T Q G A D S H T Q A I L L Y G       |     |     |     |
| UniRef90_F4SEN5        | I A C S R R R A V P D I N G A G N D S H A I T S Y G                                     |     |     |     |
| UniRef90_F8EJH0        | I Q M L L T G V N G D L K N A A E N S E I M Q L L D G K G M V A P Q F L V A S G         |     |     |     |
| UniRef90_R7KLV1        | I Q M L L G P V N G K K M K D A V E T M E I S K L M E G K S A T N P Q C V V V A P       |     |     |     |
| UniRef90_I4EQN5        | I D R L L D H V P L G K P D A A D R T K E A A A G Y G Q H N P Q H A I A N G             |     |     |     |
| UniRef90_J3EWA6        | V S K N L E G A S D E A R K A A R E D A V I D E M M R S G Q P R Q A L S A G             |     |     |     |
| UniRef90_UPI00035CD9E5 | I Q M L M N G V N G E L K D I E S E Q S E I M Q M V T G K A G T N P L F L G V S G       |     |     |     |
| UniRef90_R3K2W9        | I A Y L L E G A P T S I T D E E A K K D P A L A A V L L G G M D P E H A I V H G         |     |     |     |
| UniRef90_F2LMM3        | V A M L N R G A K G E L A E A V D G Q A E L Y R K L Q G A G N D S H V I T Q Y G         |     |     |     |
| UniRef90_A0A031JL19    | V A M L N K G A K G S L S E A S L E E A D L Y M S L N A G G D S H T Q S I L L Y G       |     |     |     |
| UniRef90_M0CLJ7        | V A K N L E G A P T E L R E E M S S D R A V N A A M S G M L P R Q Y L S A G             |     |     |     |
| UniRef90_V7G7E8        | V T M L N K G L K A Q L A E G Q M K E A D L Y L M I G A S G T T A K E S I L F G         |     |     |     |
| UniRef90_G7UPJ7        | I T L L N K G T K G E L A E A G M I E A A G M R L L T G N S T S Q T E A I L V G         |     |     |     |
| UniRef90_A9AQM9        | V A M L N R G A K G E L A E A V D E Q A E L Y R K L N G P G N D S H V I T Q Y G         |     |     |     |
| UniRef90_B8HL30        | I T M L L N G V N S E L K N A T M P G K P E K E Q M I H Q A M N P Q F L A L S G         |     |     |     |
| UniRef90_UPI0002F2F2BD | I A M L N R G P K A L Q S E G M M E A E D M R S M G Q N S T S H T E Q I L L Y G         |     |     |     |
| UniRef90_D8MSR2        | V G M L N K G A K G D L A E A E G T E K E G D L Y R S I T G N G N D S H L T L Y G       |     |     |     |
| UniRef90_D8J4K4        | V A K N L E G A P V G M R E E F A Q D G A V N A A M Q G Y L P R Q Q F L S A G           |     |     |     |
| UniRef90_M0D2U3        | V A K N L E G A S P E A R E A A R E D A V I D E M M R S G Q P R Q A L S A G             |     |     |     |
| UniRef90_V4HDK9        | I S K N L Q N A S D E A R R E A R E S D P M I A E M M R S G Q P R Q A L S A G           |     |     |     |
| UniRef90_R7NRD0        | V Y Q L T K D L T E D Q L K D A G F D A Y F V D H T                                     |     |     |     |
| UniRef90_UPI00036350A3 | I Q M L L T G V N G D L K K A A E N S E I M Q L L D G K A A K E P H F L V Q S A         |     |     |     |
| UniRef90_I4VT88        | V A M L N K G A K G D L A E A V E E E A A L F R S L Q G A G N D S H V I T Q Y G         |     |     |     |
| UniRef90_E6UUC9        | V Y Q L T R G V P A D V L E R V I G L G A Y Y T D H D                                   |     |     |     |
| UniRef90_R9I335        | I Q M L L G K V N G E M K N A L E D T P L H T M M S G K S A T N P Q F L V G A P         |     |     |     |
| UniRef90_UPI00026CB123 | V A M L N K G V K A Q L S E G L A E T E L Y Q M I G A S G A S A K E S L L F G           |     |     |     |
| UniRef90_A0A052JCN7    | V A M L N K G A K G V Q A E A T E K E A D L Y R R L Q G P G N D S H L T Q Y G           |     |     |     |
| UniRef90_R6GNX2        | V Y Q L T K N L S M E P I K K S G F D Q Y F V D H T                                     |     |     |     |
| UniRef90_UPI000370D670 | I N L L S I G N T I P G N P D T A P L Q N G K D A R Y S H F T T T A                     |     |     |     |
| UniRef90_B0P8M2        | I H Q L T R C L T P E Q I K R S G F D T Y F V D H G                                     |     |     |     |
| UniRef90_UPI00034ABD65 | A R M H L K P S K F D R Q A A E A D P L I A I A G G                                     |     |     |     |
| UniRef90_D4N145        | V H Q L T R D L T P E Q V K K S G F G A Y Y V D H T                                     |     |     |     |
| UniRef90_D5WLY4        | V A M L N R G A K G E L A E A V E Q Q A E L Y R K L N G A G N D S H L T Q Y G           |     |     |     |
| UniRef90_U2KUK7        | L Y Q L T D G L T P E Q I K E A G F D A Y F V D H T                                     |     |     |     |
| UniRef90_R7H5D3        | L Y Q L T K D L T P E Q I K E S G F D S Y F V D H T                                     |     |     |     |
| UniRef90_R7AZ04        | V Y Q L T R N L T P E E I K R S G F D T Y F V D H T                                     |     |     |     |
| UniRef90_G8TIS7        | I Q M L L T G I N G D L K N A A E N S E I M Q L Q M I H E G M T A T Q F L V G S         |     |     |     |
| UniRef90_R7I6J8        | V Y Q L T K N L T V E E A K T A G F D A Y Y I D H A                                     |     |     |     |
| UniRef90_R5PVD5        | I Y Q L T L G L S V D E I K K A G F D A Y F V D H T                                     |     |     |     |
| UniRef90_R6QMY8        | V H Q L T R N L T P E Q I M N S G F A P E Y Y T D H T                                   |     |     |     |
| UniRef90_I0KNV8        | I A M L N R G P K A I Q S E G L A E A E D M R L L G Q N S T S H T E Q I L L Y G         |     |     |     |
| UniRef90_R5N4N3        | V Y Q L T R N L T Q E Q I K Q G G F D A Y F V N H T                                     |     |     |     |
| UniRef90_UPI00031C5F27 | V H K L V K G A T P Q E M R D A G L G A H Y A D H D                                     |     |     |     |
| UniRef90_X4ZY71        | V Y K L T K D A T V Q Q L E E A G L L G A H Y V N H D                                   |     |     |     |
| UniRef90_R6EUZ4        | V H Q L T R N L T P E E I E K Y G F D K Y Y V D H T                                     |     |     |     |
| UniRef90_L0SZ67        | I A M L N Q G P K A V L S E G M V E A E Q M R N L T R N N N T S Q T Q Q I L L Y G       |     |     |     |
| UniRef90_P63555        | L G Y L L E D A P F G P E D L K R D P S L A T T M A G M D P E H S L V H G               |     |     |     |
| UniRef90_UPI000467BFB1 | A R L H L A P M K F D R E K A E A D P L I A I A G G                                     |     |     |     |
| UniRef90_R5D8C9        | V H Q L T R S M T E Q V K D A G Y E A Y F V D H T                                       |     |     |     |
| UniRef90_R6CW11        | V H Q L T R N L S D E D I R T A G F D A Y F V D H T                                     |     |     |     |
| UniRef90_R5CVF1        | V H Q L T R K M T P E E I K N A G F D A Y F V D H T                                     |     |     |     |
| UniRef90_A0A010Z5Z1    | V H Q L T R N L T P E Q V V J E S G F G P Y Y I D H T                                   |     |     |     |
| UniRef90_UPI00037C2232 | I Y K L T L G A T S D E M K A A G L G G Y Y T L H D                                     |     |     |     |
| UniRef90_A0A023NS66    | V A M L N R G A K G E L A E A V A A E A D L Y R S M Q G A G N D S H V I T Q Y G         |     |     |     |
| UniRef90_A6TUA7        | I Y Q L L M K D A T I A E I E E A G L G S F Y A I R D                                   |     |     |     |
| UniRef90_UPI0002DD43F3 | V G M L N K G A K G E L S E G V E K E A D L Y R S L T G G N D S H I T S Y G             |     |     |     |
| UniRef90_F6CJ63        | I Y R L M K G A T P E Q L R R E D L G A Y F A E H D                                     |     |     |     |
| UniRef90_R7BF28        | V H Q L T R N L T E D E I E K N P N F M A Y Y I D H T                                   |     |     |     |
| UniRef90_R5C9Y1        | V Y Q L T K N L T I E E A K T A G F D A Y Y I D H T                                     |     |     |     |
| UniRef90_R5HMQ9        | V R Q L T K G L S A E E L E A A G F A P Y Y V D H T                                     |     |     |     |
| UniRef90_R6FS71        | V Y Q I M E N A T I D E I K K A G L A G H Y A D H G                                     |     |     |     |
| UniRef90_K4LWC2        | V Y K L T K E A T P E E I R R A D L G G Y A A W D                                       |     |     |     |
| UniRef90_UPI0003B79C77 | V A M N L E G A P A A A A D D V V T N P L V A A R M G M E P R H F L T G G               |     |     |     |
| UniRef90_W6SI54        | I Y Q L L I N D A S V D E L K A A G L A T S Y F V D H G                                 |     |     |     |
| UniRef90_R7EXI8        | V Y Q L T R N L T P E Q I L A S P Y A S Y F V D H T                                     |     |     |     |
| UniRef90_A6W664        | Q A R L L E G A P G E T T A K A V A A N P A L A A V L L G G Q N P Q H A I V S G         |     |     |     |

UniRef90\_M4U0R3 G G P A L V N S S A G V P W T A A Y I V D S I I G C P T A D M R R S N N I A A E A R A K K L  
UniRef90\_Q46SX3 G G P A L V N S S A G V P W T A A Y I V D S I I G G E P T A D L R R S N N I A A E A R A K K L  
UniRef90\_UPI00036D3578 A G S P L T N S S A G V P W T A A Y I V D S I I G P T A D L R R S N N I A A E A R A K K L  
UniRef90\_UPI0003B37409 G G V T P R T N S S Q G I P W T A A Y I H I H G D L T V D L R R S N N I A A E A R A K K L  
UniRef90\_F4BNV7 L G A S L Q D A N G N P W T A A Y M E S S G N L L A D M R Y N I T R E S S M G R K L  
UniRef90\_UPI0002F2EF7E G G P A L T N S S G V P W T A A Y V N D S R G D P T C D L R R S N N I A A E A R A K K L  
UniRef90\_B7KDZ4 G S P L T N S S Q G V P W T A A Y V V N A N G D L T V D L R R S N D I A A E A R A K K L  
UniRef90\_M0N535 L H A M P V D S N G A P F S G G Y V V A S G N L A A D M Y A N V V M A E S T G R K L  
UniRef90\_L0JKK3 E S A M P V V D S N G A P F T G A Y I V D S R G D L A A G D L Y A N V I A A E A T R A K K L  
UniRef90\_T0HL93 G G P A L T N S S G V P W T A A Y I V D S R G D P T C D L R L R S N I A A E A T R A K K L  
UniRef90\_D4YJ06 L G A G L S D S N G A P W S A N F I T S S G N L L A D M R F N V V R E S S Q A R K L  
UniRef90\_UPI0003F5B3A9 G G P Q V L V N S S G V P W S G T Y V N A N G D P T V D L R R S N D M A A E S R A K K I  
UniRef90\_K4QKB2 G G P A L T N S S G Q L W N A G Y I V D T I G E P T A D L R R S N I A A E S R A K K I  
UniRef90\_T2GZS4 G S P D V S N S S Q G V P W M G S Y I T A N G D P T V D L R R S N I A A E S R A K K I  
UniRef90\_B4WC28 G A P A L V N S S A G V P W T A A Y I V D S I I G D P A C D L R Y A N V I A A E A L G R T  
UniRef90\_M0LWD5 L S A M P V V D S N G V P F D G S Y V A A S G N L A A G D L Y A N V I A A E A L G R T  
UniRef90\_Q5WIT1 L G A M A S D S E G Y P W N A K Y I I S S G N L L A D F R A N L N A E S Q A R K L  
UniRef90\_L1Q9I3 G G T A L T N S S A G V P W T A A Y I V D S I I G D P A C D L R A N I A A E S R A K K L  
UniRef90\_B0U8H6 M A A L P E N G A G L P F D C S H V Y A S G N L V G D M F A N V I A A E A T G R T  
UniRef90\_UPI000375240A Q S S L P V D A G G N P W N A S W V Y S H G N L I A D M L N N V V L I E S T G V L  
UniRef90\_F1TJC2 G G P D V V N S A G T P W S G T F V N S N G D P S V D L R R S N L A A E S R A K K I  
UniRef90\_K5Z877 G S P A L T N S S N G N P W S A T Y V V T A N A E P T V D L R R S N L A A E S R A K K I  
UniRef90\_I0IH43 L H A L P Q D S S Q G T P F D A S H V Y A S G N I A A D M L A N V V A E S T G R A  
UniRef90\_T0J1P7 G G P S L T N S S G V P W T A A Y I V D S R G D P T C D L R R S N I A A E S R A K K I  
UniRef90\_A0R5J4 G G P D V K D S A G T P W S G A F V N A N G D P T V D L R R S N I A A E S R A K K I  
UniRef90\_K9TJP1 G G P T V T N S S Q G V P W S G S Y V N A N G D L T V D L R R S D L A A E S R A K K I  
UniRef90\_J7QIK3 G G A G L T N S S G V P W T A A Y I V D S I I G E P T A D L R R S N I A A E A R A K K I  
UniRef90\_F4SEN5 G G A P L V N S S A G V P W T A A Y I V D T I G E P T A D F R S N I A A E A R A K K I  
UniRef90\_F8EJH0 G G P C Y T N S S Q G V P W T A A Y I N G Q G D L S S D L R R S D L A A E T R A K M  
UniRef90\_R7KLV1 G S P M L T D S N G N P W C A T Y V V T A N A E L T V D L Q S N M A N E C H A G R K L  
UniRef90\_I4EQN5 G G A S Y M D S M G N P W T G A Y V T A S G N L A A D F S Y N A T A E M Q R A K K I  
UniRef90\_J3EWA6 L H A M P V D S N G V P F T G N Y V V A S G N L A A D L Y A N V I A A E S T G R L  
UniRef90\_UPI00035CD9E5 G S P S V T N S S G V P W S G Y I V D A N G E L T V D L R R S N I A A E S R A K K I  
UniRef90\_R3K2W9 L T A G L T N S N G V S W N A G Y A T S S G N L V A D M R F N V I A A E S Q A R T  
UniRef90\_F2LMM3 A G T P L T N S S A G V P W S A A Y I D T I G E P T A D L R R S N I A A E A R A K K I  
UniRef90\_A0A031JL19 G G P A L T N S S G V P W T A A Y V D S R G D P T C D L R Y A N I A A E S R A K K I  
UniRef90\_M0CLJ7 M N A M P I D A N G N P F D A S Y V V A S G N L A A D M Y A N V I A A E S T G R L  
UniRef90\_V7G7E8 G A P A L C D S A G V P W T A A Y V D S R G E P T V D L R R S N I A A E A R A K K I  
UniRef90\_A7UPJ7 S G T A L V N S S G V P W T A A Y I D T I G E P T A D L R R S N I A A E A R A K K I  
UniRef90\_A9AQM9 A G S P L T N S S G A V P W S A A Y I D T I G E P T A D L R R S N I A A E A R A K K I  
UniRef90\_B8HL30 G G P M L T D S S Q G V P W T G A Y V N A N G D L T V D L R R S D L A A E S R A K K I  
UniRef90\_UPI0002F2F2BD G G P A L V N S S G V P W T A A Y V D S I I G E P T A D L R R S N I A A E A R A K K I  
UniRef90\_D8MSR2 G G P A L T N S S A G V P W T A A Y V D T I G E V T A D L R R S N I A A E A R A K K I  
UniRef90\_D8J4K4 F G A M P E D S S Q G N P F S T D H V Y A S G N P A G D L Y A N V I A A E A T G R T  
UniRef90\_M0D2U3 M H A M P V D S N G V P F T G N Y V V A S G N L A A D M Y A N V I A A E S T G R L  
UniRef90\_V4HDK9 L H A M P V D A N G N P F T G N F V V A S G N L A A D M Y A N V I A A E S T G R L  
UniRef90\_R7NRD0 T G V Y P C D A N G T P Y T T A S M Q V K G D A I T D L H E D M A A E Q K A R S  
UniRef90\_UPI00036350A3 G G P A Y T N S S G V P W T A A Y I N A Q G D L T S D L R R S D I A A E A R A K K I  
UniRef90\_I4VT88 G G P A L T N S S G Q L W T A G Y I V D S I I G E P T C D L R R S N I A A E A R A K K I  
UniRef90\_E6UUC9 H A V Y P M S A S G T P F T A A Y I Q S K G D P I A D L H E D M A A E Q K A R A  
UniRef90\_R9I335 G S P A L T D S N G N P W C A T Y V V S A T A E L T V D L R R S N M A G E A R A K K I  
UniRef90\_UPI00026CB123 G G P S L T D S A G V P W T A A Y V D S R G E P T V D L R R S N I A A E A R A K K I  
UniRef90\_A0A052JCN7 G G P A L T N S S G Q V W N A G Y I D T I G D P L A D L R R S N I A A E A R A K K I  
UniRef90\_R6GNX2 T G I Y P S S A G G V P F T A A Y I Q S K G D P I T D L H E N L A A E Q K A R T  
UniRef90\_UPI000370D670 Q T A F P G D A M G R P W N G S Y V N N S S G T L V E D L A N Y L L E G A R N  
UniRef90\_B0P8M2 T G V Y P Q A A A G V P F S T S V L Q V T G D T Y A D L Y E D L A A E Q K A R K  
UniRef90\_UPI00034ABD65 G G V N L F N S S Q G N P W T A D Y L K I T G E L D V D L R S N I A A E A R A K K I  
UniRef90\_D4N145 A G V W P Q A A S G V P F S A T F Q S V G D P I T D L R S N I A A E Q K A R T  
UniRef90\_D5WLY4 G G P P L T N S S G V P W S A A Y I D T I G E P T A D L R R S N I A A E A R A K K I  
UniRef90\_U2KUK7 L G I Y P Q S A A G V P F T A A Y F Q S K G D P I T D L T E D M A A E Q K A R S  
UniRef90\_R7H5D3 T G I Y P Q G A S G V P F T A A Y L Q S T G D P I T D L T E D L A A E Q K A R T  
UniRef90\_R7AZ04 T G I Y P I A A S G Q P F T A S F F Q S T G D V I T D L T E D L A A E Q K A R T  
UniRef90\_G8TIS7 A G T P Y T N T Q G V P W T A A Y F Q S K G D L T A D L T E D I A A E S R A K M A  
UniRef90\_R7I6J8 K G I W P Q A A S S L P F T S I E F Q S K G D L F A D L H E D L A A E Q K A R V  
UniRef90\_R5PVD5 V G V Y P Q A A S G V P F D M K Y I G V K G D T I A D L N E D L A A E Q K A R V  
UniRef90\_R6QMY8 V G V W P Q A A G G I P F N A C E F Q V K G D P I C D L T E D L A A E Q K A R V  
UniRef90\_I0KNV8 G G P A L V N S S G V P W T A A Y V D S I I G E P T A D L R R S N I A A E A R A K K L  
UniRef90\_R5N4N3 T G V Y P A G A N G V P F N A G A I A S K G D V I T N L H E N M A A E Q K A R T  
UniRef90\_UPI00031C5F27 R A L F Y T D A S G V P W T A A Y I Q A K G D P I A D L A E D I A A E E K A R A  
UniRef90\_X4ZY71 S A L Y E N A G G V P W T A A Y I Q A K G D P I A D L A E D I A A E E K A R A  
UniRef90\_R6EUZ4 L A L W P Q A A S G A P W T A T Y F Q S K G D P I T D L H E D M A A E Q K A R T  
UniRef90\_L0SZ67 G G P A L V N S S G V P W S A A Y V D S I I G E P T A D L R R S N I A A E A R A K K I  
UniRef90\_P60355 L N A S L N N S N G A W N A G Y V T S S G N L V A D M R F N V I A A E S R A R L  
UniRef90\_UPI000467BFB1 G G V N L F N S S Q G N P W T A D Y L K I T G E L D V D L R R S N I A A E A R A K K I  
UniRef90\_R5D8C9 A G V Y P T A A S G F P W N A A S M A V K G D L I A D L T E D L A A E Q K A R V  
UniRef90\_R6CWI1 T G V Y P T A A S G F P W S A A S I G V T G D M I A D L T E D L A A E Q K A R V  
UniRef90\_R5CVF1 A G V Y P Q F A S G T P W T A A T M Q V K G D V I T D L H E D M A A E Q K A R S  
UniRef90\_A0A010Z5Z1 T G I W P Q S A G G V P F T A N Q F Q S K G D P I T D L H E D M A A E Q K A R S  
UniRef90\_UPI00037C2232 H A L F P C D Q G V P W T A A Y I Q A T G D P V A D L H E N M A A E Q K A R V  
UniRef90\_A0A023NS66 G G P A L T N S S G M L W T A G Y I D S I I G D P S C D L R R S N I A A E A R A K K I  
UniRef90\_A6TUA7 G A Q F P S D S N G V P W T A A Y I Q A H A D P I A D L H E N M A A E Q K A R T  
UniRef90\_UPI0002DD43F3 G G P A L T N S S A G V P W T A A Y V D S I I G E P T A D L R R S N I A A E A R A K K I  
UniRef90\_F6CJ63 R A V Y P V D A S G V P W T A A Y I Q A T G D P V T D L H E N M A A E Q K A R T  
UniRef90\_R7BF28 A G V Y P T A A S G S P W N A A S L T S G D T I G D L H E N L A A E Q K A R V  
UniRef90\_R5C9Y1 T G L W P Q A A S G L P F T A K E F Q S K G D P I T D L H E N L A A E Q K A R T  
UniRef90\_R5HMQ9 G G I W P Q A A G G I P F N A C E F Q S K G D A L T D L F E D M A A E Q K A R T  
UniRef90\_R6FS71 K G V Y P T D T G N P W T A T F F Q S K G D V I A D L H E N L A A E Q K A R A  
UniRef90\_K4LWC2 K G I H P S D S N G V P W T A A Y I N T M G D P I A D L H E D M A A E Q K A R A  
UniRef90\_UPI0003B79C77 M G P T P A D A N G V P F N A A C I D S G N L S A N F L A N A A E A V G R T  
UniRef90\_W6S154 K A L F Y T D A Q G N P W T A T Y I Q A K G D P I A D L H E D M A A E Q K A R S  
UniRef90\_R7EXI8 T G I Y P A S A G V P N D M K Y I G V K G D P I A D L H E N L A A E Q K A R V  
UniRef90\_A6W664 G G A R P T D S L G N P W N A G Y I V A S G N L L T D F R S N V S A E A Q S R L

UniRef90\_M4U0R3 V Y E R L L I N V I T D D P G S G V I D A L R 170  
UniRef90\_Q46SX3 I Y E R L L M N V L S D D D P S G S V I D A L R 180  
UniRef90\_UPI00036D3578 I Y E R L L M N V L S D D D P A G Y I V R E A L R 180  
UniRef90\_UPI0003B37409 I Y E H L M K V F T D D D P G Y I H R E A T L R 180  
UniRef90\_F4BNV7 Q V I T R Q Y H M T E D D K T G I V R Q D D M L S S F F L M T R R E E V I A H Q Q K S F F F E E K A L L Y S I A E A Q E E E D D  
UniRef90\_UPI0002F2EF7E V Y E Y R L L M Q L T D D D T T G Y I V Q Q D D T L K G F F L M T R R E E V I S H H Q Q K S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_B7KDZ4 I Y E Y R L L M Q F T D D D P G V I V K D D T L S S F F L M T R R E E V I S H H Q Q K S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_M0N535 L A T R L L Y E M T D D D E G M R K D D M L S S F F L M T R R E E T T M H H Q N Q W H A A L L E T T T M D D  
UniRef90\_L0JKK3 I L A T R L L W N Y T D D D P G G V K K E A L S G Y L L I A R R E D T T M H H Q N Q S W F L E A L L Y E T T L L D D K E E  
UniRef90\_T0HL93 V Y E Y R L L I N I T D D D P G G V K K E A L S G Y L L I A R R E E V I A H H Q Q K S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_D4YJ06 Q V I S R N F L Q T E D D K G V V R D E M L S S F F L M T R R E E T T Q H H Q Q L Q F F L K A L L Y S I A E I E E E D D  
UniRef90\_UPI0003F5B3A9 I Y E Y R L L M Q F T D D D P G Y V K K D A L T G F F L M T R R E E V I S H H Q Q E M S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_K4QKB2 I Y E Y R L L I N A T D D D P G V V K K D A L T G F F L M T R R E E V I S H H Q Q R E M S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_T2GZS4 V Y E Y R L L K Q F T D D D P G G V V K D D T L S S F F L M T R R E E V T H Y Q Q S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_B4WC28 I Y E Y R L L I N V I T D D D P G G V K K D A L L M S Y L L I A R R E D T T M H H Q N Q S W F L E A L L Y E S I E E E D D  
UniRef90\_M0LWD5 L A T R L L W E Y T S D D P G G M E D D L L S S F F L M T R R E D T T M H H Q N Q S W F L E A L L Y E S I E E E D D  
UniRef90\_Q5WIT1 Q V I T R L L Y G M T D D D P G G V R D D M L S S F F L I A R R E D T T Y H H Q N Q M W Y E A A I L Y E K E I E E E D D  
UniRef90\_L1Q9J3 V Y E Y R L L I N V I T D D D A G V I K K D D T L R T F F L M T R R E E V I A H H Q Q K S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_B0U8H6 I L A G R L L F N A A H D P G G M Q D D M L S S F F L M T R R E D T T M H H Q Q K S W F L E A A V I E D L L G  
UniRef90\_UPI000375240A Q K T R I L Y E M S N N K T F Q R E T L G T F F L I V R D D N A H H Q N Q A F A K A L L E T E D L L G  
UniRef90\_F1TJC2 V Y E Y R L L K Q F T D D D P Y G A Q K E T L D F F L M T R R E E V I A H H Y Q Q Q F F E A A A L L N D S E I L K  
UniRef90\_K5Z877 M Y E Y L L I P F T D D P Y V K K E T L D F F L M T R R E E V I A H H Y Q Q Q F F E A A A L L N D S E I L K  
UniRef90\_I0IH43 I L A C R L L H H A A N C S D M K D D M L K G Y L L I A R R E D T T M H H Q N Q S W L A A W E S E I L K G R  
UniRef90\_T0J1P7 I Y E Y R L L I N V I T D D D P G G V K K D D T L K G T F F L M T R R E E V I S H H Q Q K S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_A0R5J4 I Y E Y R L L K Q F T D D D P G G V V K Q D D T L R G F F L M T R R E E V I S H H Q Q K S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_K9TJP1 V Y E Y R L L M Q F T D D D P E V V K K D D T L R G F F L M T R R E E V I S H H Y K M F F F E A A A L L Y S I A E I E E E D D  
UniRef90\_J7QIK3 V Y E Y R L L I N V I T D D D A G I K K E A L R G F F L M T R R E E I A H H Q Q I S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_F4SEN5 V Y E Y R L L M N V I T T D D P G G I K K D A L L S S F F L M T R R E E I A H H Q Q I S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_F8EJH0 V Y E Y R L L L Q F T D D D P Y V V K K E T L R T F F L M T R R E E V I A H H Y Q Q M F F E E A A A L L M S T I K Q K  
UniRef90\_R7KLV1 G Y E N L L S F T E D D P F V V K K E T L R T F F L M T R R E D T T H H Q Q Q Q F F E A A A L L M S T I K Q K  
UniRef90\_I4EQN5 Q V I A R L L W N M T D D D P G G V V K K D L R T F F L L T R R E D H M H H Q Q Q W L A A A M S E A L L G E E T  
UniRef90\_J3EWA6 L A T R L L Y E F T D D P G G M K D D M L E Y L L I A R R E D T T M H H Q N Q S W H A A L L E A T L G E E T  
UniRef90\_UPI00035CD9E5 T Y E Y R L L M Q F T D D D P G V V K K E T L K F F L M T R R E E V I A H H Q Q M F F E E K A L L Y S I A E I E E E D D  
UniRef90\_R3K2W9 Q V I S R L L Y H M T E D D K G V V R D E M L S S F F L M T R R E E T T Q H H Q Q L Q F F E K A A Q  
UniRef90\_F2LMM3 I Y E Y R L L I N V I T D D D P G G V R D D A L L K G F F L M T R R E E V I S H H Q Q L S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_A0A031JL19 I L A A R L L I N V I T D D D P G G V K K D A L L G S Y L L I A R R E E V I A H H Q Q K S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_M0CLJ7 L A A R L L W E M T D D D P G G M K D D M L S S F F L M T R R E D A M H H Q N Q S W F L E K A L L Y S I A E I E E E D D  
UniRef90\_V7G7E8 V Y E Y R L L I N I T D D D P G G I K K D A L L G T F F L M T R R E E I A H H Q Q K S F F E K A L L Y S I A E I E E E D D  
UniRef90\_G7UPJ7 I Y E Y R L L I N V I T D D D P G I K K D A L L G T F F L M T R R E E I A H H Q Q K S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_A9AQM9 I Y E Y R L L I N V I T D D D P N V R D A L L G T F F L M T R R E E V I A H H Q Q K S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_B8HL30 V Y E Y R L L M Q F T D D D P Y V V K K E T L L G F F L M T R R E E I A H H F K M F F E E K A L L Y S I A E I E E E D D  
UniRef90\_UPI0002F2F2BD V Y E Y R L L I N V I T D D D P G G I K K D A L L G T F F L M T R R E E I A H H Q Q K S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_D8MSR2 L Y E R L L I N M T D D D P G G V K K D A L L R G F F L M T R R E E V I A H H Q Q L S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_D8J4K4 L A T R L L W E M T D D D P G G M K D D M L S E Y L L I A R R D T T M H H Q N Q S W L A A S V L L E D D S F D D G  
UniRef90\_M0D2U3 L A T R L L Y E F T D D D P G G M E Q M L S E Y L L I A R R D T T M H H Q N Q S W H A A L L E D D S F D D G  
UniRef90\_V4HDK9 L A T R L L Y E M T D D D P G G M E Q M W E Y N I A R R D T T M H H Q N Q S W H A A L L E D D S F D D G  
UniRef90\_R7NRD0 T Y D N I L R F F C D D P D V I D P I R F L R E R E V V H Y Q R F G E A N L R E D L T K E  
UniRef90\_UPI00036350A3 V Y E Y R L L I N V I T E D D P G V V K K E T L R G F F L M T R R E E V I A H H Q Q K S F F F E E A A A L L R E Y A I  
UniRef90\_I4VT88 V Y E R L L I N V I T A D P G V V K K E A L L R G F F L M T R R E E M S H H Q Q K S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_E6UUC9 T Y E N L L I N L T D D D P D V I D P I R G F F L R E R E V V H F Q R F F G E A L L R A Y A I V Q Q  
UniRef90\_R9J335 G Y E N L L I N Q L T D D D P L V K K E T L L G F F L M A R R E E V T H Y Q Q S F F F E E A A A L L R A Y A I V Q Q  
UniRef90\_UPI00026CB123 V Y E R L L I N L T D D D P G I K K E A L L M T R R E E I A H H Q Q K S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_A0A052JCN7 I Y E R L L I N A T D D D A G V K K D A L L T F F L M T R R E E V S H H Q Q L S F F F E E R A L L H A I  
UniRef90\_R6GNX2 T Y D N I L R F F C D D P D V I D P I K F F L R Q R E E V V H Y Q R F V G E G L R E V I A T T  
UniRef90\_UPI000370D670 H K M R V Y E M T T H P T A L E M T K G Y L L V R G G T H I I A Y A G E G L R E V I A T T  
UniRef90\_B0P8M2 T Y D N I L R L A D D P D V R D A P I K F F L R E R E I V H F Q R F G D A L L R E V I T Q  
UniRef90\_UPI00034ABD65 V Y E Y R L L I N F C D D S D G T K D A L L K F F L M T R R E E I T H H M K A F A A A L L E S M K  
UniRef90\_D4N145 T Y D N L L R L I D D D P D V R D A P I K F F L R E R E I V H F Q R F F A A A L L R T R T V T T Q  
UniRef90\_D5WLY4 I Y E Y R L L I N V I T D D D A G V R E A L L G F F L M T R R E E V A H H Q Q K S F F F E E K A L L Y S I A E I E E E D D  
UniRef90\_U2KUK7 T Y D N I L R L L C C C D D P D V R D P I K F F L R Q R E I V H F Q R F F G E A L L R R Q V V  
UniRef90\_R7H5D3 T Y D N I L R L L C C C D D P D V R D P I K F F L R Q R E I V H F Q R F F G E A L L R R I T V  
UniRef90\_R7AZ04 T Y D N I L R L A D D Y D V R D A I R T F L R Q R E L V H F Q R F F G E A L L R I T V  
UniRef90\_G8TIS7 V Y E Y L L L Q F T D D D P Y I K E T L T F F L M T R R E E V A H H Y Q M F F G E A A I L G M T  
UniRef90\_R7I6J8 T Y D N L L R M I K D P E V R E P L K F F L R A R E I V H F Q R F F G E A I I N T T Q  
UniRef90\_R5PVD5 T Y D N I L R L V D D P D V R D P I K F F L R E R E I V H Y Q R F F G E A L L N T T Q  
UniRef90\_R6QMY8 V Y D N L L R V A L D D P D I V A P L R F F L M T R R E E I V H F Q R F F G E A L L N T T Q  
UniRef90\_I0KNV8 V Y E R L I T A T D D P G I K D A L L R F F L M T R R E E I A H H Q Q K S F F F E E K A L L H S I  
UniRef90\_R5N4N3 T Y D N I L R L V D D P D V R D V I K F F L R E R E V V H Y Q R F F G E G L R I T A T E  
UniRef90\_UPI00031C5F27 T Y Q W L I N L T D D P D V I E V L K F F L R E R E I V H S Q R F F R E A A L L E I V E  
UniRef90\_X4ZY71 T Y Q W L I N M T D D V D L Q D S L K F F L R E R E I V H S Q R F F R E A A V L L E I V K  
UniRef90\_R6EUZ4 T Y D N I L R L V K D P E I C D P I R F F L R K R E I V H Y Q R F F G E S L Y E I V L Q  
UniRef90\_L0SZ67 V Y E Y R L L I N V I T D D P G G V D A L L K F F L M T R R E E L A H H Q Q K S F F F E E K A L L Y E A I E E  
UniRef90\_P60355 Q V I S R L L Y S M T E D E G G V R D D M L K F F L M T R R E E T T Q H H Q Q L Q F F M K A Q  
UniRef90\_UPI000467BFB1 G Y E R L L I N F C D D A G T K D A L L Q F F L M T R R E E I T H H M K A F A A A L L E S M K  
UniRef90\_R5D8C9 T Y D N I L R L S D D P D V N D V I K F F L R A R E I V H F Q R F F G E A L L R L L A K  
UniRef90\_R6CW11 T Y D N I L R L S D D P D V N D A P I K F F L R A R E I V H F Q R F F G E G L R R L A K  
UniRef90\_R5CVF1 T Y D N I L R L S D D P D V N D V I K F F L R E R E V V H Y Q R F F G E G L R R N A L  
UniRef90\_A0A010Z5Z1 T Y D N I L R V I T D D P E I C D P I R F F L R E R E I V H F Q R F F G E A L L R T T Q  
UniRef90\_UPI00037C2232 A Y E H L I C C D D P G I K D T L R R F F L R E R E V V H F Q R F F G E A L L N N V Y  
UniRef90\_A0A023NS66 V Y E R L I N V I T A D P G G V K D A L L G F F L M T R R E E I S H H Q Q S F F F E E K A L L Y A I E  
UniRef90\_A6TUA7 V Y E N L L D L T D D P G G I K D P L R F F L R E R E I V H H Q Q S F F F E E K A L L R I V Q  
UniRef90\_UPI0002DD43F3 V Y E R L I N V I T D D P G G I K D A L L K F F L M T R R E E I A H H Q Q K S F F F E E K A L L H A I  
UniRef90\_F6CJ63 T Y E H L I R L L T D D P G G V K D T L R F F L R E R E V V H F Q R F F G E A L L V D V Q  
UniRef90\_R7BF28 T Y D N L L R L V D D P D I I E P L K F F L R E R E I V H Y Q R F F G E G L R L R V T T Q  
UniRef90\_R5C9Y1 V Y D N L L R M I P D P E I I E P L K F F L R T R E I V H F Q R F F G E A L L R I V K  
UniRef90\_R5HMQ9 T Y D N I L R L V K D P D V C D P I R F F L R E R E I V H F Q R F F G E A L L R I V Q  
UniRef90\_R6FS71 T Y E W L L N L T D D Y E I K K I L G R F F L R E R E V V H Y Q R F F G E T L M D H L Q  
UniRef90\_K4LWC2 T Y E N L I N L T D D P D V I D V L R F F L R E R E V V H F Q R F F G E T L M D H L Q  
UniRef90\_UPI0003B79C77 L A A R L R D L T D D P G M K D L L S Y L L I A R D S M H H Q M Q W L T A A E E L V Q  
UniRef90\_W6S154 T Y E H L I N L T D D S D V K D P I K F F L R Q R E I V H H Y Q R F F G E A L L R T V Q  
UniRef90\_R7EX18 T Y D N I L R L T D D P D V L D P I R F F L R E R E I V H H Y Q R F F G E A L L R T V Q  
UniRef90\_A6W664 M T S R I A N M T D D R G V V K D M L A F N L A R D T Y H Q Q Q W L L G Q M L

UniRef90\_M4U0R3 210 P N F P P G K L P 220 G D P R F T D K Y Y N T S Q Q G E 230 240  
UniRef90\_Q46SX3 A P N F P P G K T P G D E R F A S V Y F R M S Q Q G T  
UniRef90\_UPI00036D3578 G N F P P G K L A P D P R F A S T Y F K M S Q Q G E  
UniRef90\_UPI0003B37409 P N F P P G V L A A D P R Y T Q Q A Y N L S E G  
UniRef90\_F4BNV7 E K Y G V V V P H G T A D L Q H S E F S H T L Y N F S E G D  
UniRef90\_UPI0002F2EF7E D N F P P G K L P G V P E Y S S M Y V N T S Q Q G E  
UniRef90\_B7KZD4 P N F P P G V L Q G D P R Y T H I Y M N M S N G  
UniRef90\_M0N535 D H V P V P N S F P Q E K E N Q E H N Y E F M S T H V E D R  
UniRef90\_L0JKK3 D P V P V P A S F P Q E Q E N Q D V N Y T F M S T R R E E  
UniRef90\_T0HL93 E P N F P P G K L P G V A A Y A N L Y V N T S Q Q G E  
UniRef90\_D4YJ06 E K Y G P V V P H G T Q D L Q K Q G K E F T H T L Y N F S E G E  
UniRef90\_UPI0003F5B3A9 P N F P P G V L Q G D P R Y S N K Y F N M S S G A  
UniRef90\_K4QKB2 P N F P P G K L P G D P R F A N V Y F N M S Q Q G E  
UniRef90\_T2GZS4 P V N F P P G Q L A A D P R F Q N V A F N M S D G G  
UniRef90\_B4WC28 D P D P N F P A G K I G G V P E F S D K Y Y D L S Q Q G E  
UniRef90\_M0LWD5 D P V P V P A S F S Q E E E N Q A V N Y A F M S T R R D A  
UniRef90\_Q5WIT1 E C E E D I V V P T T F P R S L E K S E V S Y T L F N F S E G E  
UniRef90\_L1Q9I3 P A N F P P G K L P G H P D F A D K Y N M S Q Q G E  
UniRef90\_B0U8H6 G L R E S L P V P N S F D Q S K E A Q E F S Y M F V G T D R N G T  
UniRef90\_UPI000375240A G V D W G K A F P V P N Y D I N K Y E C R K Y V E M G Y H N A Q F N F R L D E  
UniRef90\_F1TJC2 P V N F P P G Q L P G D D R F Q N V A F N M S N G G  
UniRef90\_K5Z877 P N F P P G I F Q T N P K Y S N L Y F D M S  
UniRef90\_I0IH43 G V K Q H P I P D T F P M D E E M R E V S Y K F L G F K K D G G  
UniRef90\_T0J1P7 D N F P P G K L P G L A P Y A N L Y V N A S Q G E G D A V G  
UniRef90\_A0R5J4 P V N F P P G Q L P G D D R F Q N V A F N M S N G D  
UniRef90\_K9TJP1 P N F P P G V L Q A D P R Y S H L Y F N M S N G T  
UniRef90\_J7QIK3 P N F P P G K M P G M P Q F S H L Y V N T S Q Q A  
UniRef90\_F4SEN5 P N F P P Q G K L P G M P E F S R T Y F S M S N G E  
UniRef90\_F8EJH0 P S F P P G V L Q A D P R Y S N L Y F N F S G G  
UniRef90\_R7KL1 P N F P P G T L Q T S P K Y S N L Y F N L S K G G  
UniRef90\_I4EQN5 A D G L D G I P V P P E A F P L D E E L P E F A Y T F I D A S D G P  
UniRef90\_J3EWA6 E H R P V P N S F D Q S K E N Q E Y N Y T F M S T A H E E  
UniRef90\_UPI00035CD9E5 P N F P P G V V Q G D P R Y T N L Y F N M S Q Q G E  
UniRef90\_R3K2W9 E K Y G V V V P G N M K D I E H Q E F S H T I M S F S D G Q  
UniRef90\_F2LMM3 A N F P P G K L P P K P F D Q V Y F D M S P D S  
UniRef90\_A0A031JL19 D N F P P G K L P G L S A Y A N L Y V N T S Q Q G E  
UniRef90\_M0CLJ7 D P E D P D H L P I P N T F P E E E M P D E F D Y S F M S T T R D G  
UniRef90\_V7G7E8 N N F P S G K L P G V E K Y A S M Y V N T S Q Q D  
UniRef90\_G7UPJ7 P N F P P G K L P G D P A Y T D L Y F D L S Q Q A  
UniRef90\_A9AQM9 D A N F P P G K L P P M E P Y D R V Y F R M Q P D A  
UniRef90\_B8HL30 P N F P P G L L Q G D P R Y T H T Y V N M S N G  
UniRef90\_UPI0002F2F2BD P N F P P G K L P G D P A F T D L Y M D M S Q G D V E G  
UniRef90\_D8MSR2 N N F P P G K L P I E K Y A S A Y N M S A D G  
UniRef90\_D8J4K4 D P E D A D H L P V P D S F P Q E E E N Q E F N Y E F F S T T K E P T  
UniRef90\_M0D2U3 D H L P V P A S F P Q E K E N Q D Y N Y T F M S T M R E E  
UniRef90\_V4HDK9 E H R P V P N S F D Q S K E N Q E Y N Y T F M S T Y K D E R D  
UniRef90\_R7NRD0 D R L D C K N F Y A P E F D K N C L K K N R K  
UniRef90\_UPI00036350A3 P N F P P G L P G M G T L Q S D P R Y G N L Y F N L S S G N  
UniRef90\_I4VT88 D K L A E K P F Y V K K P D C M N G M P Q F A N T Y V N T S Q Q E  
UniRef90\_E6UUC9 P N F P P G V F Q T S P R Y S N L Y F D L S K G E  
UniRef90\_R9I335 N N F P P S G K L P G V E A F A N V Y V N T S Q Q G E  
UniRef90\_UPI00026CB123 P N F P P G K L P G D P R Y A N T Y F N M S Q Q G E  
UniRef90\_A0A052JCN7 P N F P P G K L P G D P R Y A N T Y F N M S Q Q G E  
UniRef90\_R6GNX2 D K L D S Q N F Y A F N P A F D N  
UniRef90\_UPI000370D670 G V D V G K M L P V P S L D N N K F D Y A K K F M D Q G L Y N V L Y T W G E A D  
UniRef90\_B0P8M2 E N T N A K N F Y A S F D K A C N P P D K L F  
UniRef90\_UPI00034ABD65 K P A F S I G A I A P T P G L V D Q F F N D S T G S G D E G E  
UniRef90\_D4N145 D H L D S K N F Y A I N P A F D  
UniRef90\_D5WLY4 P S F P P G K L P P R Q E F A S V Y Y K M S H D G  
UniRef90\_U2KUK7 D D L N S K N F Y N P S F D S  
UniRef90\_R7H5D3 D D L N A K N F Y A C N P S F D K S C G N K K  
UniRef90\_R7AZ04 D K L N A K N F Y A C N P A F D K  
UniRef90\_G8TIS7 P N F P P G V L Q S D P R Y S N L Y F N M S T G N  
UniRef90\_R7I6J8 K E L D S K N F Y N P E F D C N N F T E Q K  
UniRef90\_R5PVD5 D N L N S K N F Y A F N P S F D  
UniRef90\_R6QMY8 D K L D C K N I Y A I N P A F D  
UniRef90\_I0KNV8 P N F P P G K Q P G D P A F T D L Y M D M S Q G D G A  
UniRef90\_R5N4N3 D K M N E K N F Y A F N P S F D T  
UniRef90\_UPI00031C5F27 E Q Y N T R K Y  
UniRef90\_X4ZY71 H D Q D C K K I  
UniRef90\_R6EUZ4 E H L D S K N F Y A P E F D I R Q T C D C P Q H  
UniRef90\_L0SZ67 P N F P P G K V P G E P M F T D T F Y D M S Q G D G D I N G  
UniRef90\_P60355 E K Y G I I V P G D M K E I E H S E F S H V L M N F S D G D  
UniRef90\_UPI000467BFB1 K P A F S K L A P T P E L V N Q Y F N D S T G S G D K G E I D T R G P W N E G A  
UniRef90\_R5D8C9 E K M D Q K N L Y F V N P S F D Q  
UniRef90\_R6CWI1 D R L N E K N V Y F M N P S F D K  
UniRef90\_R5CVF1 E K L D K N F Y A V N P A F D  
UniRef90\_A0A010Z5Z1 D N L D S R N F Y A F N P S F D I R D Q C  
UniRef90\_UPI00037C2232 E Y M D S K R V  
UniRef90\_A0A023NS66 P N F P P G K L P G K Q E F A N V Y V N T S Q G E  
UniRef90\_A6TUA7 E Y K E T K K I Y  
UniRef90\_UPI0002DD43F3 E E L T R K K I  
UniRef90\_F6CJ63 D K L D S K N Y Y A F N P S F D K  
UniRef90\_R7BF28 E K I S S R N F Y Y F N P E F D K  
UniRef90\_R5C9Y1 D D L D S K N F Y A P E F D I P N C P R  
UniRef90\_R5HMQ9 E N L S S K N  
UniRef90\_R6FS71 G Y M N G K K Y Y  
UniRef90\_K4LWC2 N P Q H K A I P V E V A D E G E Y A Q W S H T F I A H H D E  
UniRef90\_UPI0003B79C77 D S I K C K  
UniRef90\_W6SI54 D K L D S K N F Y A F N P S F D T  
UniRef90\_R7EXI8 D D G F I E T Q I E Q S N G D W E N K D A A H V F Y T G T D G S  
UniRef90\_A6W664

UniRef90\_M4U0R3 G D M I G P W N A G E 250 Q W E V I A D R E A Q A A V D G G D G S A T V 280  
UniRef90\_Q46SX3 E P Q R G P W N D D K T F E F V E E P A P A V D G G D G L  
UniRef90\_UPI00036D3578 P P E R G P W N E G R G L E L V D D P P  
UniRef90\_UPI0003B37409 S V R G P W N E G E M P G L G K E W I Y V E N P L Q Q V K E T E G Q A N T S E  
UniRef90\_F4BNV7 E S R E I V E G K T A R D G Q P F K Y E E G K A M A E K P F S N P R P T E  
UniRef90\_UPI0002F2EF7E G D M R G P W N D G P E W D R V D D L Q Q T L P A D D G D G M P T V  
UniRef90\_B7KDZ4 A S V R G P W N Q G Q A W E A G E N W E Y V E N P Y Q Q V V E T N G L V D Q P I  
UniRef90\_M0N535 P D P E Q R W T Q G E S I D G N G E F S Y G E Q P G G G E P D L D E V  
UniRef90\_L0JKK3 Q P D P G P W T E G E A P D G K G Q F S Y A A E Q P G D G D V A A P D P D P  
UniRef90\_T0HL93 G D A Q G P W N T G D Q W E R I D D I E A N L P V D G G D G Q A S V  
UniRef90\_D4YJ06 A S Q A L E G E T A R D G N K F H Y S S D P I M A G G E P D L T A A P E R  
UniRef90\_UPI0003F5B3A9 D A R G P W N E G K T P N L G E T W Q Y I E E P  
UniRef90\_K4QKB2 G D M R G S W N S D A N F T Y V S E R D D Q Q A I D G D G L P Q V  
UniRef90\_T2GZS4 G E S I R G P W Q G P W P E G M E W E Y V E K P Q E  
UniRef90\_B4WC28 G N T R G P W N E G E Q W E Y V E D Q E  
UniRef90\_M0LWD5 Q P D P G Q P W Q G A T P D G N G E F S Y L A E Q P G D G D G V P S E P D P S T  
UniRef90\_Q5WIT1 A S R K G R W A Y G P S F D G R G N F H Y S P Q P Y A W G Q K P H L P P A P P A  
UniRef90\_L1Q9I3 G D A S G P W N E G E Q W E V V D D R E A Q A A V D G G A G D A S V  
UniRef90\_B0UH6 P V P P G R Y C E G P S M D G R G Q F T F K A F E P L G E E P V L G P A R P D S  
UniRef90\_UPI000375240A T R I A E I F S G M T P S R N G G E L Q V T Q P P E G F P V P M M P E M P N E  
UniRef90\_F1TJC2 S V R G P W N E G Q G P E G T E W R Y V E A P P E G G P A V H G T K P  
UniRef90\_K5Z877 E E A R G P W N E G S S T Q L K E E W Q Y I D K P Q E Y V T S T D G L T N V T P  
UniRef90\_I0IH43 P P P R G R W S E G E S I D G K G E F S S E V W E P R G Q T P D L G M A P P A A  
UniRef90\_T0J1P7 P W N E G E Q W E G N L P L D G G D  
UniRef90\_A0R5J4 G S V R G P W N E G Q G P W P G G E W E Y V E K P E L G G E K  
UniRef90\_K9TJP1 S A R G P W N E G Q S W P D G E N W V Y V D D P  
UniRef90\_J7QIK3 T D L K G P W N T G E N W Q R M D D V L G G I P L D G G D G A A S V  
UniRef90\_F4SEN5 P N V R G P W N S D A D F E Y V E N K P A V D G G D G T  
UniRef90\_F8EJH0 N D F R G P W N D G K S T Q L G E T F Q F I E D P I R H G I E T N G L T D Q E A  
UniRef90\_R7KLV1 D S R G P W N E G E S T R L K E E W Q Y I D D P L Q E V R N T N G L V D R K P  
UniRef90\_I4EQN5 E A A N G R W A N G P A L D G T D N V L R A A P I A A T A D A P I L P D P R L  
UniRef90\_J3EWA6 E N P E Q P W T Q G E A P D G K G E F S Y T P Q Q P G G G N P D L D E M I D E M  
UniRef90\_UPI00035CD9E5 D A R G P W N E G V S P L L G E P W Q Y I D D P R Q V V R E T N G L R D Q Q P  
UniRef90\_R3K2W9 G S R A F E G Q I A K D G E K F T Y Q E H P E A M G E V P V F K H  
UniRef90\_F2LMM3 E P I P G P W N R G D G L Q V R T G E P A V D G G D G M A D V T L D D E  
UniRef90\_A0A031JL19 G D T T G P W N S G E  
UniRef90\_M0CLJ7 D E Y E A P W T H G P S V D G T E D F S F V E G D M E G A M R D I S E A D P D T  
UniRef90\_V7G7E8 G D V A G P W N S G E E W D R I D D L E E V M P V D G G D G L A T V  
UniRef90\_G7UPJ7 G N A S G P W N Q G A Q W E V V D D R D A Q S A V D G G D G S A S V  
UniRef90\_A9AQM9 E P L I G P W N H G G D L E V R P A E P A V D G G T G I A E G  
UniRef90\_B8HL30 A S V R G P W N G Q T W K A G E Q W E Y I D E P H Q H V I Q T Q G M T E Q P I  
UniRef90\_UPI0002F2F2BD S W N G G E L W E  
UniRef90\_D8MSR2 D V R G S W N S D E N F D Y V A D P A P G G D G T A S V T L P A  
UniRef90\_D8J4K4 D N P E T A W T T G E S V D G K S E F S F G R Q P G G G K P N L P P D P R A  
UniRef90\_M0D2U3 R E D P G P W T T G P S H D G K S E Y S Y T S E Q P D G G P P S V E K V I D E M  
UniRef90\_V4HDK9 D P K Q P W T S G E S P D G K S E F T Y T P R Q P G G G Q P D L D E M I D E M  
UniRef90\_R7NRD0  
UniRef90\_UPI00036350A3 A I R G P W N Q G Q S T Q L G E T W Q Y I E D P  
UniRef90\_I4VT88 G D M R G S W N S D E N F D Y L S D R E K F L A M D G G S G L P E V  
UniRef90\_E6UUC9  
UniRef90\_R9I335 D A R G P W N E G E S T Q L K E Q W Q Y I E K P L E E V R S T N G L L D R K P  
UniRef90\_UPI00026CB123 G D A E G P W N S G E Q W D R I D D L E R T M P I D G G D G V T L Q E S D A E  
UniRef90\_A0A052JCN7 G D M R G P W N R D D M F E Y V S D R E A Q M G I D G Q G E A I V A  
UniRef90\_R6GNX2  
UniRef90\_UPI000370D670 Y R D I N Q I W K G A N P E T G E R L H V I D G M P E G A P V P D F P E L P E Q  
UniRef90\_B0P8M2  
UniRef90\_UPI00034ABD65 I D T R G P W N E G G D W E Y V A S P Q Q A A G D D A A T P I K A E  
UniRef90\_D4N145 A V I N T P W N S G T G L T I R T G E P A V D G G D G S A S  
UniRef90\_D5WLY4  
UniRef90\_U2KUK7  
UniRef90\_R7H5D3  
UniRef90\_R7AZ04  
UniRef90\_G8TIS7 D F S G P W N E G K S S Q L G E N Y Q Y I E D P I Q Y V L E T N G L L Q Q Q P  
UniRef90\_R7I6J8  
UniRef90\_R5PVD5  
UniRef90\_R6QMY8  
UniRef90\_I0KNV8 D D L L G S W N S G E L W E R V S D R E A Q A A V D G G D G S A T V G L D P R E  
UniRef90\_R5N4N3  
UniRef90\_UPI00031C5F27  
UniRef90\_X4ZY71  
UniRef90\_R6EUZ4  
UniRef90\_L0SZ67 P W N S G S Q W Q K V S D R N R Q A A V D G G S G V P S V G L S P A E  
UniRef90\_P60355 G S K A F E G Q V A K D G E K F T Y Q E N P E A M G I P H I K P G D P R  
UniRef90\_UPI000467BFB1 D W E E S P A L S A T G G D A G G L I K T E S S P L I A D E G V T E L L L E E L  
UniRef90\_R5D8C9  
UniRef90\_R6CW11  
UniRef90\_R5CVF1  
UniRef90\_A0A010Z5Z1  
UniRef90\_UPI00037C2232  
UniRef90\_A0A023NS66 G D M R G P W N S  
UniRef90\_A6TUA7  
UniRef90\_UPI0002DD43F3  
UniRef90\_F6CJ63  
UniRef90\_R7BF28  
UniRef90\_R5C9Y1  
UniRef90\_R5HMQ9  
UniRef90\_R6FS71  
UniRef90\_K4LWC2  
UniRef90\_UPI0003B79C77 P V P E D A I W T G G T A P D G G T F T T A Q P A P R L G E P A K L Q G A P  
UniRef90\_W6SI54  
UniRef90\_R7EXI8  
UniRef90\_A6W664 R A G E G L W A T A N S L V D G E P F R A E E L R P L T D D Q G I L P A P D P L

UniRef90\_M4U0R3 A L D A T Q T A A <sup>290</sup> L D A M S E R L L S N <sup>300</sup>  
UniRef90\_Q46SX3 A S V T L S P D E  
UniRef90\_UPI00036D3578  
UniRef90\_UPI0003B37409  
UniRef90\_F4BNV7  
UniRef90\_UPI0002F2EF7E A L G S A D K A A L T Q L A E R T K S  
UniRef90\_B7KDZ4 K G T T R T P Q Q A E E M S R K L  
UniRef90\_M0N535  
UniRef90\_L0JKK3  
UniRef90\_T0HL93 G L T D A E K E A A A L M L T R L Q S  
UniRef90\_D4YJ06 N T P P E D P N T T V E E G R R M L E  
UniRef90\_UPI0003F5B3A9  
UniRef90\_K4QKB2 A L K G G E K K A L Q A M V S R T A S  
UniRef90\_T2GZS4  
UniRef90\_B4WC28  
UniRef90\_M0LWD5 Y  
UniRef90\_Q5WIT1 Y  
UniRef90\_L1Q9I3 K L T T A D K K S V Q A F A A R T Q S  
UniRef90\_B0U8H6 G A Q K E Q M T E  
UniRef90\_UPI000375240A H S P G L  
UniRef90\_F1TJC2  
UniRef90\_K5Z877 K G T D R T E E M V K E K D E K L A K E R K  
UniRef90\_I0IH43 Y A T S Q T E A S A K S V A K G V K K A V K  
UniRef90\_T0J1P7  
UniRef90\_A0R5J4  
UniRef90\_K9TJP1  
UniRef90\_J7QIK3 H L G S S Q S E D L A N Y A A R T K S N  
UniRef90\_F4SEN5 A S V T L S E D D L T M M K E R L K S D L  
UniRef90\_F8EJH0 E G T S R T E K T V Q Q M E E E L S E  
UniRef90\_R7KLV1 E G T E R T E K Q V R A M D Q K L A K E  
UniRef90\_I4EQN5 Y G T P P A P M T G L L Q K A K D A L K  
UniRef90\_J3EWA6 Y  
UniRef90\_UPI00035CD9E5 Q D T A M S K D E A E K K S K E I S S M  
UniRef90\_R3K2W9  
UniRef90\_F2LMM3 Q A A A V E A M A K R L E S  
UniRef90\_A0A031JL19  
UniRef90\_M0CLJ7 H N E V A S D D D  
UniRef90\_V7G7E8 K L G A K D M K V V A R M A D R T L S  
UniRef90\_G7UPJ7 E L S K T Q K A A L Q A F A A R T A S N  
UniRef90\_A9AQM9 M L E A Q Q A E A I D A L A Q R L R S  
UniRef90\_B8HL30 K G T N R T P G E L E Q M D R Q L S Q Q  
UniRef90\_UPI0002F2F2BD  
UniRef90\_D8MSR2  
UniRef90\_D8J4K4 Y  
UniRef90\_M0D2U3 Y  
UniRef90\_V4HDK9 Y  
UniRef90\_R7NRD0  
UniRef90\_UPI00036350A3  
UniRef90\_I4VT88 T L T K D E Q A V L N Q M A R R T Q S  
UniRef90\_E6UUC9  
UniRef90\_R9I335 E G T D R S E K N I A K K  
UniRef90\_UPI00026CB123 A L T R L S A R T L  
UniRef90\_A0A052JCN7 L A P E E K Q A V E A M R N R L A  
UniRef90\_R6GNX2  
UniRef90\_UPI000370D670 F A P G I D L D D Y Y R I L K R L K S N  
UniRef90\_B0P8M2  
UniRef90\_UPI00034ABD65 S A P L P G D E E M N E L L V D E L R  
UniRef90\_D4N145  
UniRef90\_D5WLY4 V G L E A Q Q E T V T A M A T R L R S  
UniRef90\_U2KUK7  
UniRef90\_R7H5D3  
UniRef90\_R7AZ04  
UniRef90\_G8TIS7 S G T N R T T K K I E E M  
UniRef90\_R7I6J8  
UniRef90\_R5PVD5  
UniRef90\_R6QMY8  
UniRef90\_I0KNV8 Q A  
UniRef90\_R5N4N3  
UniRef90\_UPI00031C5F27  
UniRef90\_X4ZY71  
UniRef90\_R6EUZ4  
UniRef90\_L0SZ67 E S A L Q A L A A R T V S Q  
UniRef90\_P60355  
UniRef90\_UPI000467BFB1 R D I L H A E K Q L T K A L P R M A K A A R  
UniRef90\_R5D8C9  
UniRef90\_R6CW11  
UniRef90\_R5CVF1  
UniRef90\_A0A010Z5Z1  
UniRef90\_UPI00037C2232  
UniRef90\_A0A023NS66  
UniRef90\_A6TUA7  
UniRef90\_UPI0002DD43F3  
UniRef90\_F6CJ63  
UniRef90\_R7BF28  
UniRef90\_R5C9Y1  
UniRef90\_R5HMQ9  
UniRef90\_R6FS71  
UniRef90\_K4LWC2  
UniRef90\_UPI0003B79C77  
UniRef90\_W6S154  
UniRef90\_R7EXI8  
UniRef90\_A6W664 Q Y V T Y D G N Q

UniRef90\_U2NRU4 1 M W Y Y E K R L L E E Y P V V D I K Q P D 20 R F A K L L L T Q Q F G G P P D D G G E E L L S A A S  
UniRef90\_C5VPK8 M W I Y E K R L L Q Q F P I K I V I K K K D L K M A K Y L I T S Q Q Y G G G P P D D G G E E L L S A A S  
UniRef90\_E6U559 M W S Y E K R L L Q Q F P I K I V I K K K D L K M A K Y L I T S Q Q Y G G G P P D D G G E E L L S A A S  
UniRef90\_Q896X3 M W I Y E K R L L Q Q F H P V V R V I E K T C D L G M A K F L L F A S Q Q Y G G G P P D D G G E E L L S A A S  
UniRef90\_B0TGJ3 M W I Y E K R L L Q Q F P V V R V I E K T C D L G M A K F L L F A S Q Q Y G G G P P D D G G E E L L S A A S  
UniRef90\_D9R8D4 M W N Y E K R L L Q Q F P V V R V I K E T R P N P A K L A Q I I I M S S Q Q Y G G G P P D D G G E E M G A S S  
UniRef90\_R6P2L5 M W V Y E K R R L L E F Y P I K I V I T T R P N P A K L A Q I I I M S S Q Q Y G G G P P D D G G E E L L S A A S  
UniRef90\_R7JVK4 M W N Y E K R L L Q Q F P V V R V I T T R P N P A K L A Q I I I M S S Q Q Y G G G P P D D G G E E M G A S S  
UniRef90\_R5SYE8 M W N Y E K R L L Q Q F P V V R V I T T R P N P A K L A Q I I I M S S Q Q Y G G G P P D D G G E E L L S A A S  
UniRef90\_F0KDD4 M W I Y E K R L L Q Q F H P V V K I V I T T R P N P A K L A Q I I I M S S Q Q Y G G G P P D D G G E E L L S A A S  
UniRef90\_B0NKI2 M W T Y E K R L L Q Q F P V V K I V I S K T C N P A M A K V I I I S Q Q F G G G P P D D G G E E L L A A A S  
UniRef90\_U2DPZ4 M W T Y E K K L L Q Q F P V V K I V I G E P E P R F G N M L L E Q Q F G G G A N G E L L A A A S  
UniRef90\_UPI0002D504F3 M Y H H V K K L M F T V R I G E P E P R F G N M L L E Q Q F G G G A N G E L L A A A S  
UniRef90\_G9RT73 M W S Y E K R L L Q Q F P V V R I V I K T P N D A A A K V I I T Q Q Y G G G P P D D G G E E L L S A A S  
UniRef90\_D5XAM8 M W I Y E R K L L Q Q F P I R V I R K P D D P R M A K A I I T Q Q Y G G G P P D D G G E E L L S A A S  
UniRef90\_D7GUF9 M W V Y E K R R L L Q Q F P V V R V I K E P N A Q K A M Q F I M S S Q Q Y G G G P P D D G G E E M G A S S  
UniRef90\_R6ZS87 M W S Y E K R L L Q Q F P V V N I T K E P N A Q T A Q V I M S S Q Q Y G G G P P D D G G E E L L S A A S  
UniRef90\_U2CHP9 M W N Y E K R L L Q Q F P V V N I T T E K N P N P A L A K V I I I S Q Q Y G G G P P D D G G E E L L S A A S  
UniRef90\_R9LW95 M W I Y E K K L L Q Q F P V V K I V I C K P D V K M A K Y L I A Q Y G G G P P D D G G E E L L A A A S  
UniRef90\_B0K6N1 M W V Y E K K L L Q Q Y P A K V I C K P D V K M A K Y L I A Q Y G G G P P D D G G E E L L A A A S  
UniRef90\_R1AR87 M W I Y E K K L L Q Q Y P V I N V I D Q C C N P A L A A M I L E S Q Q F G G A D D G G E L L S A A S  
UniRef90\_R5NIP3 M W N Y E K R R L L E F Y P I N V I K Q T D P K A A M Y I I S Q Q Y G G G P P D D G G E L L S A S  
UniRef90\_R7CA72 M W T Y E R R L L E F Y P V N I I K T P N A K L A K V I I I S Q Q L G G G P P D D G G E L L S A A  
UniRef90\_T0N2E7 M W I Y E K K L L Q Q F P V I V I K T S K D P N M A K Y L E A Q Y G G G P P D D G G E L L S A S  
UniRef90\_F4X970 M F L Y E K K L L Q Q F P V V K V I A K N P D P A M A A M V I S S Q Y G G G P P D D G G E L L G A S  
UniRef90\_R7AGS6 M W N Y E K R L L Q Q F P V V N I S K N P D P A M A A M V I S S Q Y G G G P P D D G G E L L G A S  
UniRef90\_G9QPA5 M W V Y E K K L L Q Q F P V V K V I S K N P D P A M A A M V I S S Q Y G G G P P D D G G E L L A A S  
UniRef90\_R6TEJ6 M W G Y E K R R L L Q Q F P V V N I K N P N P K M A K Y I I T Q Y G G G P P D D G G E L L A S S  
UniRef90\_UPI00046EDF81 M W V Y E K K L L Q Q Y P V R I V I K N P N P K M A K Y I I T Q Y G G G P P D D G G E L L A S S  
UniRef90\_W6N371 M W N Y E K K L L Q Q Y P V N I V R K P D V K M A K Y L I S Q Q F G G A D D G G E L L S A S  
UniRef90\_R5QFH2 M W I Y E K R R L L Q Q Y P V N V R K P D A K T A K I V I S Q Q L G G G P P N G E L L S A A  
UniRef90\_UPI000478C821 M W N Y D K K L L E F Y P V K I G K N K D L N M A K F L V T Q Y G G G P P D D G G E L L S A A  
UniRef90\_Q2RIN4 M W I Y E K K L L Q Q Y P V R V V G G K G P R L A K E Y L S E Q Q Y G G G P P D D G G E L L A A S  
UniRef90\_W4CJW6 M W I Y E K K L L Q Q Y P V R V V G S K C C D V R M A K N L L E A Y G G G E S G E L L A A A  
UniRef90\_I3E755 M W I Y E K K L L Q Q Y P V R V V S S K T C C D D P G L A K L L I E Q Q Y G G G A D D G G E L L A A A  
UniRef90\_M1Z3R5 M W I Y E K K L L Q Q Y P V R V V S S K T C C D D P G L A K L L I E Q Q Y G G G A D D G G E L L A A A  
UniRef90\_A6LV57 M W Y Y V K T L E Y P V N L S R T C K D L N M A K L L V T Q Y G G G P P D D G G E L L S A A  
UniRef90\_F4LQK6 M W Y Y E K K L L Q Q Y P A N V V S R T C K D L N M A K L L V T Q Y G G G P P D D G G E L L S A A  
UniRef90\_K8E981 M W V Y E K K L L Q Q Y P V N V C G P N P R L A S F I I T Q Q Y G G G P P E G E L L G A S  
UniRef90\_Q1IR26 M Y H H V K K L M Y T V H V D A P D P R F G N M L L E Q Q F G G A N G E L L A A A  
UniRef90\_R7INT3 M W S Y E K R L L Q Q Y P I N V I K K N D A K A A M I I I S Q Q Y G G G P P D D G G E I S A S  
UniRef90\_F8FFU2 M F L Y E K K L L Q Q Y P V R V I S K K N C C N P T L A A M I I S Q Q Y G G G P P D D G G E L L A A A  
UniRef90\_C4Z3Q9 M W N Y E K R R L L E F Y P I N V I D Q C C D P P C F G N M L L E Q Q F G G A D D G G E L L A A A  
UniRef90\_D2QZE5 M Y H H V K K L L M F T V R V V G I C C N P D P K M A K F L L M A L Q Y G G G A D D S E L L A A S  
UniRef90\_V6J4Q9 M W Y Y E K K L L Q Q Y P V N I T T P D A R L A K I M I E Q Q Y G G G P P D D G G E L L G A S  
UniRef90\_R5B4W9 M W I Y T K Q L E F P V N I T T A A P D P R F G N M L L E Q Q F G G A N G E L L A A A  
UniRef90\_N1Z5M1 M W I Y E K K L L E F P I K I V I T T K T D A R T I A K I I A T Q Q Y G G G P P D D G G E I S A S  
UniRef90\_UPI00039F9D09 M Y H H V K K L M Y T V R V I T K T P N A K L A K V I I I S Q Q L G G G P P D D G G E L L S A S  
UniRef90\_R7E9L5 M W I Y E K R L L Q Q F P V N I K E T N A K L A Q D I I S Q Q Y G G G P P D D G G E M G A S  
UniRef90\_W7V0S9 M W Q Y E K K L L Q Q Y P V K I Q K E P N A G L A K L I I S Q Q Y G G G P P D D G G E M G A S  
UniRef90\_R5JYC1 M W I Y E K R L L Q Q F P V N I Q K P D P A M A K L I I T Q L L G G S D D G G E K G A S  
UniRef90\_R6S4J0 M W R Y E K R R L L Q Q Y P V N I K K K D L R M A K L L V D Q L L G G P P S D G E L L G A C  
UniRef90\_B9Y8Q1 M W I Y E K K L L Q Q Y P V N I K T P D D A R T A A L I I S Q Q Y G G G P P D D G G E A G A S  
UniRef90\_R5A450 M F K Y E K T L E F P V N V R K P D P A F A K I V I S Q Q L G G G P P D D G G E L L K A A  
UniRef90\_R5LSV4 M W I Y E K R L L Q Q F P I N V I D D Q P N A K A A V I I D Q L L G G G P P D D G G E L L K A A  
UniRef90\_R6U9L0 M W T Y E K K L L Q Q F P V N I R K P D P A F A K I V I S Q Q L G G G P P D D G G E L L K A A  
UniRef90\_H5XS38 M F K H I K D M E Y T V H V D D Q P D P R F A V L L L E Q Q F G G A N G E L L G A A  
UniRef90\_H1AGH1 M W I Y E K R L L Q Q Y P I N V I T K P N A K A A V I I D Q L L G G G P P D D G G E L L K A A  
UniRef90\_R5XQH6 M W V Y E K T L Q Q Y P V N L K C R D L R M A K V I M T Q L L G G G P N G E L L A A A  
UniRef90\_R5IUT6 M W A Y Q K K L L Q Q F P V D I K K K R D L K M A K N I I T Q L L G G A N G E L L A A A  
UniRef90\_R5KY11 M Y V Y E K R L L Q Q Y P V N I K C R N P K M A K N I I S Q Q Y G G G P P D D G E A S A A  
UniRef90\_R9JUQ1 M W N Y E K R L L Q Q Y P V K I T Q T N P Q I A Q V I I S Q Q Y G G G P P D D G E L L A A S  
UniRef90\_C0GCL3 M F K H E K P M L H P V V K V D A P N P Q Y A A M L Q E Q L G G S N G E L L K A G  
UniRef90\_A3ZNM8 M Y H H V K K L M Y T V D V G T P D P R F G K M L L E Q Q F G G A N G E L L A A A  
UniRef90\_E5WVF8 Y A K K L Q E L I G G Q F G E M S V A

UniRef90\_R7HEY4 M F K Y D K K L A Y P I N V I T K K D L V R F G N M L L E Q Q F G G G P N G E L L S A A  
UniRef90\_UPI0003B4E994 M Y H H V K K M M Y T V N I V G E P D V R F G N M L L E Q Q F G G G A N G E L L A A A  
UniRef90\_C9RAX5 M W I Y E K H L E Y R P I R V I S R C D V L G L A K L L I T Q Q F G G P P D D G G E F S A S  
UniRef90\_R7MEG7 M F R Y E K M L E Y R P I N V I N R T D L T M A K Y L Y A Q Y G G G P D S E L L S A G C  
UniRef90\_L0KBP2 M W I Y E K K L L Q H P V T V I N K K K D L R M A K F L V T S Q Q Y G G G P S S E L L S A S  
UniRef90\_R5TDJ6 M W R Y V K S L E Y P I N V I T K K D L K A K A M L S Q Q Y G G G P S S E L L S A S  
UniRef90\_R5HHD1 M W K Y E K K L E Y P I N V I T K K D L K A K A M L S Q Q Y G G G P S S E L L S A S  
UniRef90\_UPI0002DFB760 M F F H K K E P I H S V K I D E P N P R F A Q L L L E Q Q F G G A T T G E L L T A A  
UniRef90\_W0E6F6 M F K H I K D M E Y T V H V D D Q P D P R F A N L L L E Q Q F G G A T T G E L L T A A  
UniRef90\_D8FX38 M F F H K K E L M Y T V K I D D Q P D P R F A Q L L L E Q Q F G G A T T G E L L T A A  
UniRef90\_R7G4Z7 M F K H E K K L M H K V R V E K P N P Q Y A V L M Q E Q L G G G C N G E L L K A A  
UniRef90\_K9WFB1 M F F H K K L I M H P V K V D A P N P Q Y A Q L L L E S Q Q F G G A T D G E L L T A A  
UniRef90\_R5EZX8 M F V Y D K K L E Y P V K I A A V N P R L A A L I I S Q Q Y G G G P T D G E L L G A S  
UniRef90\_R6ASF1 M W I Y Q K K L E F P V N I T T P D L R V A R A L M A Q Y G G G P D S E L L A A G  
UniRef90\_UPI0002483FED M F F H T K E L I N K T V E V D E P D P R F A Q L L L E Q Q F G G A T T G E L L S A A  
UniRef90\_B8EQT1 M F I H R K E L I Q P V S V V G K P D A R F G V F L L L E Q Q F G G A T T G E L L T A A  
UniRef90\_K5YY34 M F Y H R K E L I F Y P V N I V G T P D P Q F G Q F L L L E Q Q F G G A T T G E L L T A A  
UniRef90\_R6YCC5 M W K Y E K K L Q Q F P V N I K K K N D L K M A K Y I I T Q Y G G G Y A G E L L G A T  
UniRef90\_R7FMC4 M Y K Y E K R L L Q Q Y P I D I K R K D L K M A K F I I A Q Y G G G P H G E M G A S  
UniRef90\_R7NJZ4 M F K Y L K H T N Y P V N I K K K D L K M A K Y L I T Q Q F G G A N G E L L A A A  
UniRef90\_B2A619 M F N H D K Q L L Q Q V V K V D R S P N P T Y A A M L Q E Q L G G P N G E L L S A A  
UniRef90\_R7F0A5 M F S Y Q K R R L Q Q Y P V N I K S K D L R M A K Y L I T Q Q Y G G G P P D D G G E L L A A A  
UniRef90\_UPI00047A40FD M Y H H I K K L M Y T V K I G T P D V R F G R M L L E Q Q F G G A N G E L L A A A  
UniRef90\_R6RB92 M F K Y C K L T P Y P I E I K R K D P K M A K Y I L S Q Q Y G G P Y G E L L G A A  
UniRef90\_R5NCZ4 M W T Y N K T L Q Q Y P I N I K Q K D P K L A G W I L S Q Q Y G G P D D G E L L G A S  
UniRef90\_T4VZL9 M W I Y Q K T L E Y P V N L K N S D P R M A K F I M T Q L L G G P N G E L L A A A



UniRef90\_U2NRU4 MYQLTKGTS90EELEKKA  
UniRef90\_C5VPK8 VHQQLVKGTTPKKEELEKKA  
UniRef90\_E6U559 VYQQLTRNDTMEEELEKKA  
UniRef90\_Q896X3 IYQLTREDATVIELEEA  
UniRef90\_B0TGJ3 IYKLTIDGVPAAKLERET  
UniRef90\_D9R8D4 IYQQLTKNLSVEEQ  
UniRef90\_R6P2L5 VYQQLTRNLSSEEE  
UniRef90\_R7JVK4 VHQQLTCNLSLEEE  
UniRef90\_R5SYE8 IYQQLTKNLSVEEQ  
UniRef90\_F0KDD4 VYQQLSRGLSVVEEL  
UniRef90\_B0NKI2 IYQQLTKDMSLEED  
UniRef90\_U2DPZ4 VHQQLTRCLLSMEEELEKKA  
UniRef90\_UPI0002D504F3 ARMHLKPTKSSREAAEADPLVVA  
UniRef90\_G9RT73 VYQQLTKGLSADE  
UniRef90\_D5XAM8 VYKLLLRDAPLKEE  
UniRef90\_D7GUF9 VHQQLTRNLTAAEELEEE  
UniRef90\_R6ZS87 VHQQLTRNLSMEEELEEE  
UniRef90\_U2CHP9 VYQQLTKNLSMEEELEEE  
UniRef90\_R9LW95 LYQQLTRNLSICD  
UniRef90\_B0K6N1 VFKLLKGVVVEEL  
UniRef90\_R1AR87 VWKLLIKDAPVVEE  
UniRef90\_R5NIP3 VHQQLTRNLTPEEE  
UniRef90\_R7CA72 VHQQLTKNLSNAKEELEEE  
UniRef90\_T0N2E7 IYQQLTKDAPPEEELEEE  
UniRef90\_F4X970 VHQQLTRNLSDEEVRN  
UniRef90\_R7AGS6 VHQQLTRNLTADQ  
UniRef90\_G9QPA5 VYKLLTKDAPPEEQMKEA  
UniRef90\_R6TEJ6 VYQQLTKDLTVEEQ  
UniRef90\_UPI00046EDF81 VYQQLMKGAPEEE  
UniRef90\_W6N371 FYQQLVKDASPKLEEE  
UniRef90\_R5QFH2 FYQQLTNGLTPEEQ  
UniRef90\_UPI000478C821 VYQQLKLGATPDEELEKAA  
UniRef90\_Q2RIN4 VYNNLTIKDASPEEE  
UniRef90\_W4CJW6 IYKLLTKDASVVEELEEE  
UniRef90\_I3E755 IYKLLTKDAPPEEQLEEE  
UniRef90\_M1Z3R5 VYKLLTKDAPPEEQLEEE  
UniRef90\_A6LV57 VYQQLMENATPEEE  
UniRef90\_F4LQK6 IYKLLTDGATPEEQMRA  
UniRef90\_K8E981 VHKLLRLEGASVVDQ  
UniRef90\_Q1R26 IRMHLRPMKTERTAEEADPLVVA  
UniRef90\_R7INT3 VHQQLTCNLSPEEE  
UniRef90\_F8FFU2 IYKLLTKDAPPEEQMRE  
UniRef90\_C4Z3Q9 VHQQLTRNLTMEQ  
UniRef90\_D2QZE5 ARHLRPMKLGREAAEADPLVVA  
UniRef90\_V6J4Q9 VYKLLTKDAPPEEQLEEE  
UniRef90\_R5B4W9 IYQQLCMRGSYAAQLEEE  
UniRef90\_N1Z5M1 VAQLTRGSLTKAQ  
UniRef90\_UPI00039F9D09 IRLHVAPMKVETARDAEE  
UniRef90\_R7E9L5 VHQQLTANLTVTEEE  
UniRef90\_W7V0S9 LYQQLTKDLSIDE  
UniRef90\_R5JYC1 IYQQLTRDLSLEEE  
UniRef90\_R6S4J0 VHQQLTRNLSAEELEEA  
UniRef90\_B9Y8Q1 VYQQLKKGCSAQQLKANAAD  
UniRef90\_R5A450 IYQQLTKDASINEL  
UniRef90\_R5LSV4 IYQQLTRNLTPEEE  
UniRef90\_R6U9L0 LYQQLTRNLSVEEE  
UniRef90\_H5XS38 IYQQLTIG  
UniRef90\_H1AGH1 LYQQLTDTIDQ  
UniRef90\_R5XQH6 IYQQLTDGATPEEELEKAA  
UniRef90\_R5IUT6 VYQQLTKDASVVEELEEE  
UniRef90\_R5KY11 VSQQLVKDLPCEEVDVA  
UniRef90\_R9JUQ1 VYQQLTRNLTPEEE  
UniRef90\_C0GCL3 IYQQLTNGH  
UniRef90\_A3ZNM8 ARMHLKPKDKGDRDEAEEAD  
UniRef90\_E5WV8 IARLLDGAPEVKEQEKDAQDPLLLAAILGGMNPQHVI VSG  
UniRef90\_W7RE32 IARLLDGAPEVGDLEKAAKDPVIGAILGGMNPQHAI VSG  
UniRef90\_R7HEY4 VHQQLTKNATIDLEKKA  
UniRef90\_UPI0003B4E994 IRMHLAPMKTNRREAAEADPLVVT  
UniRef90\_C9RAX5 FHMILRDAPPEEQLEEE  
UniRef90\_R7MEG7 ITQLMKDASIEELEEE  
UniRef90\_L0KBP2 IYKLLTEDEVPAAKVL  
UniRef90\_R5TDJ6 IYQQLTKDAPPEEQLEEE  
UniRef90\_R5HHD1 IYQQLMKGASIDLEKKA  
UniRef90\_UPI0002DFB760 IEAHTKNV  
UniRef90\_W0E6F6 ISLLEEG  
UniRef90\_D8FX38 IEAHTQKVDQTEVE  
UniRef90\_R7G4Z7 INLLNGGDVDYKK  
UniRef90\_K9WFB1 IENHTKNT  
UniRef90\_R5EXX8 VHQQLTRNLSKDSQ  
UniRef90\_R6ASF1 INQSMRNASLDELETEA  
UniRef90\_UPI0002483FED IEHTKKV  
UniRef90\_B8EQ1 IAQHTAKLDQTDVYDA  
UniRef90\_K5YY34 ITQHTAKLDQTKVYEA  
UniRef90\_R6YCC5 VYQQLLDGATPEEELEEE  
UniRef90\_R7FMC4 VYQQLTKGASLKEELEEE  
UniRef90\_R7NJZ4 VHQQLTKNATVKEEMEEA  
UniRef90\_B2A619 INMLYGH  
UniRef90\_R7F0A5 VTQQLMQGATIEEELEKKA  
UniRef90\_UPI00047A40FD IRMHLKPKKTEAAEAAEADPLVVT  
UniRef90\_R6RB92 IYQQLLDGASIKLEEEAGX  
UniRef90\_R5NCZ4 VHQQLTKDAPPEEQLEEE  
UniRef90\_T4VZL9 LYQQLMKDASPKLEEE

100

110

120

KKHGFDTNYYAVLHGG  
GFGGYTQHHG  
IKKAGFDAYFVDHT  
GLGGSNYAQRN  
GLGGSFYAQRHD  
AKTAGFDAYFVDHT  
IKKSGFDYFVDHT  
IQNSGFANYFVDHT  
IKASGFDKYFVDHT  
KKSGLDAYFADHD  
AKTAGFDAYFVDHT  
GFDAYFVDHT  
IRRQGFDTYFVDHT  
IKKAGLDYFADHD  
QGFDPYFADHD  
NSGFANYFVDHT  
NSGFDPYFVDHT  
IKKSGFDYFVDHT  
KREGLEGEYFTEHD  
IKKGTPLPEYFTEHD  
INNSGFGNFYFVDHT  
QGFAPYFVDHT  
GLGANFYFTEHD  
NASFAPYFVDHT  
IKKGTPEEAYFVDHT  
GLGDHYFVDHT  
IKKAGFDAYFVDHT  
IKMADMGTYYADHD  
SGLGDHYTQHD  
IKDGGLDAYFVDHT  
GLGGSNYAQRHD  
IKRAGLDYFADHD  
GLGGSFYAQRHD  
GLGGSFYAQRHD  
KKAHGLAHHVNHGG  
IKKAGLAHHVADHR  
GLGDYFADHD  
IKKAGWGSHYADHD  
IKASGFDKYFVDHT  
GLGDHYFADHD  
IKKGTPEEAYFVDHT  
GLGEHYFVDHT  
GMAGYFVDHT  
IKDSSGLDSYFVDHT  
INPLVSVPGG  
NQGFAFYFVDHT  
IKASGFDYFVDHT  
IKASGFDKYFVDHT  
QGFAPYFVDHT  
KLAAGLD SWYFVDHT  
IQNSAFAPYFVDHT  
IKKAGFDAYFVDHT  
IKKAGFDAYFVDHT  
IKKAGFDAYFVDHT  
GMDTNYAQFG  
INAGLDSTYEHG  
GFEKYYVDHT  
IKESGFDKYFVDHT  
DLEADAMS GGSILQAHV VLG  
PLIAAVVGG  
KNAAGLEGEYFVDHT  
KNAAGLSDYFVDHT  
KDAAGLGHYFVDHT  
GLDNTYFVDHT  
GLGGSFYFVDHT  
DQTEAYKSTLFAVIRG  
PTDNIISRDFPALHMAVIRG  
FKSTLFAVIRG  
IDSSELEETMVTFG  
DQTDLYKSTLFAVIRG  
MKDSAFAPYFVDHT  
GLIGYFVDHT  
DQTEAYKSTLFAVIRG  
PLFKLKG  
PLFKMKG  
KKAAGLGSQYFVDHT  
DAGLAPYFVDHT  
GLGGSFYFVDHT  
AGNVEPQV VGG  
GLEGNFYFVDHT  
IAAGG  
XXELEEAAGLGCNYALHGG  
IKKAGLGSNYATDHD  
KDAAGLGSNYATDHD

UniRef90\_U2NRU4  
UniRef90\_C5VPK8  
UniRef90\_E6U559  
UniRef90\_Q896X3  
UniRef90\_B0TGJ3  
UniRef90\_D9R8D4  
UniRef90\_R6P2L5  
UniRef90\_R7JVK4  
UniRef90\_R5SYE8  
UniRef90\_F0KDD4  
UniRef90\_B0NKI2  
UniRef90\_U2DPZ4  
UniRef90\_UPI0002D504F3  
UniRef90\_G9RT73  
UniRef90\_D5XAM8  
UniRef90\_D7GUF9  
UniRef90\_R6ZS87  
UniRef90\_U2CHP9  
UniRef90\_R9LW95  
UniRef90\_B0K6N1  
UniRef90\_R1AR87  
UniRef90\_R5NIP3  
UniRef90\_R7CA72  
UniRef90\_T0N2E7  
UniRef90\_F4X970  
UniRef90\_R7AGS6  
UniRef90\_G9QPA5  
UniRef90\_R6TEJ6  
UniRef90\_UPI00046EDF81  
UniRef90\_W6N371  
UniRef90\_R5QFH2  
UniRef90\_UPI000478C821  
UniRef90\_Q2RIN4  
UniRef90\_W4CJW6  
UniRef90\_I3E755  
UniRef90\_M1Z3R5  
UniRef90\_A6LV57  
UniRef90\_F4LQK6  
UniRef90\_K8E981  
UniRef90\_Q1IR26  
UniRef90\_R7INT3  
UniRef90\_F8FFU2  
UniRef90\_C4Z3Q9  
UniRef90\_D2QZE5  
UniRef90\_V6J4Q9  
UniRef90\_R5B4W9  
UniRef90\_N1Z5M1  
UniRef90\_UPI00039F9D09  
UniRef90\_R7E9L5  
UniRef90\_W7V0S9  
UniRef90\_R5JYC1  
UniRef90\_R6S4J0  
UniRef90\_B9Y8Q1  
UniRef90\_R5A450  
UniRef90\_R5LSV4  
UniRef90\_R6U9L0  
UniRef90\_H5XS38  
UniRef90\_H1AGH1  
UniRef90\_R5XQH6  
UniRef90\_R5IUT6  
UniRef90\_R5KY11  
UniRef90\_R9JUQ1  
UniRef90\_C0GCL3  
UniRef90\_A3ZNM8  
UniRef90\_E5WVF8  
UniRef90\_W7RE32  
UniRef90\_R7HEY4  
UniRef90\_UPI0003B4E994  
UniRef90\_C9RAX5  
UniRef90\_R7MEG7  
UniRef90\_L0KBP2  
UniRef90\_R5TDJ6  
UniRef90\_R5HHD1  
UniRef90\_UPI0002DFB760  
UniRef90\_W0E6F6  
UniRef90\_D8FX38  
UniRef90\_R7G4Z7  
UniRef90\_K9WFB1  
UniRef90\_R5EZX8  
UniRef90\_R6ASF1  
UniRef90\_UPI0002483FED  
UniRef90\_B8EQT1  
UniRef90\_K5YY34  
UniRef90\_R6YCC5  
UniRef90\_R7FMC4  
UniRef90\_R7NJZ4  
UniRef90\_B2A619  
UniRef90\_R7F0A5  
UniRef90\_UPI00047A40FD  
UniRef90\_R6RB92  
UniRef90\_R5NCZ4  
UniRef90\_T4VZL9

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

|                        |   | 170 | 180 | 190 | 200 |
|------------------------|---|-----|-----|-----|-----|
| UniRef90_U2NRU4        | A | Y   | E   | R   | L   |
| UniRef90_C5VPK8        | T | Y   | E   | H   | L   |
| UniRef90_E6U559        | V | Y   | D   | N   | L   |
| UniRef90_Q896X3        | T | Y   | E   | H   | L   |
| UniRef90_B0TGJ3        | T | Y   | E   | H   | L   |
| UniRef90_D9R8D4        | T | Y   | D   | N   | L   |
| UniRef90_R6P2L5        | T | Y   | D   | N   | L   |
| UniRef90_R7JVK4        | T | Y   | D   | N   | L   |
| UniRef90_R5SYE8        | T | Y   | D   | N   | L   |
| UniRef90_F0KDD4        | T | Y   | D   | N   | L   |
| UniRef90_B0NKI2        | T | Y   | D   | N   | L   |
| UniRef90_U2DPZ4        | T | Y   | D   | N   | L   |
| UniRef90_UPI0002D504F3 | V | Y   | E   | R   | L   |
| UniRef90_G9RT73        | T | Y   | D   | N   | L   |
| UniRef90_D5XAM8        | T | Y   | E   | H   | L   |
| UniRef90_D7GUF9        | T | Y   | D   | N   | L   |
| UniRef90_R6ZS87        | T | Y   | D   | N   | L   |
| UniRef90_U2CHP9        | T | Y   | D   | N   | L   |
| UniRef90_R9LW95        | S | Y   | D   | N   | L   |
| UniRef90_B0K6N1        | T | Y   | E   | H   | L   |
| UniRef90_R1AR87        | T | Y   | E   | K   | L   |
| UniRef90_R5NIP3        | T | Y   | D   | N   | L   |
| UniRef90_R7CA72        | T | Y   | D   | N   | L   |
| UniRef90_T0N2E7        | V | Y   | E   | H   | L   |
| UniRef90_F4X970        | T | Y   | D   | N   | L   |
| UniRef90_R7AGS6        | T | Y   | D   | N   | L   |
| UniRef90_G9QPA5        | T | Y   | D   | N   | L   |
| UniRef90_R6TEJ6        | T | Y   | D   | N   | L   |
| UniRef90_UPI00046EDF81 | T | Y   | E   | N   | L   |
| UniRef90_W6N371        | T | Y   | E   | H   | L   |
| UniRef90_R5QFH2        | T | Y   | D   | N   | L   |
| UniRef90_UPI000478C821 | T | Y   | E   | H   | L   |
| UniRef90_Q2RIN4        | T | Y   | E   | Y   | L   |
| UniRef90_W4CJW6        | T | Y   | Q   | W   | L   |
| UniRef90_I3E755        | M | Y   | Q   | S   | L   |
| UniRef90_M1Z3R5        | T | Y   | Q   | W   | L   |
| UniRef90_A6LV57        | T | Y   | E   | N   | L   |
| UniRef90_F4LQK6        | T | Y   | E   | H   | L   |
| UniRef90_K8E981        | V | Y   | E   | N   | L   |
| UniRef90_Q1IR26        | V | Y   | E   | R   | L   |
| UniRef90_R7INT3        | T | Y   | D   | N   | L   |
| UniRef90_F8FFU2        | T | Y   | Q   | W   | L   |
| UniRef90_C4Z3Q9        | T | Y   | D   | N   | L   |
| UniRef90_D2QZE5        | V | Y   | E   | R   | L   |
| UniRef90_V6J4Q9        | T | Y   | Q   | W   | L   |
| UniRef90_R5B4W9        | T | Y   | E   | H   | L   |
| UniRef90_N1Z5M1        | T | Y   | E   | Y   | L   |
| UniRef90_UPI00039F9D09 | T | Y   | E   | R   | L   |
| UniRef90_R7E9L5        | T | Y   | D   | N   | L   |
| UniRef90_W7V0S9        | T | Y   | D   | N   | L   |
| UniRef90_R5JYC1        | T | Y   | D   | N   | L   |
| UniRef90_R6S4J0        | T | Y   | D   | N   | L   |
| UniRef90_B9Y8Q1        | T | Y   | E   | N   | L   |
| UniRef90_R5A450        | T | Y   | E   | N   | L   |
| UniRef90_R5LSV4        | V | Y   | D   | N   | L   |
| UniRef90_R6U9L0        | T | Y   | E   | N   | L   |
| UniRef90_H5XS38        | I | Y   | E   | R   | L   |
| UniRef90_H1AGH1        | T | Y   | D   | N   | L   |
| UniRef90_R5XQH6        | T | Y   | Y   | Q   | L   |
| UniRef90_R5IUT6        | T | Y   | E   | N   | L   |
| UniRef90_R5KY11        | T | Y   | D   | N   | L   |
| UniRef90_R9JUQ1        | T | Y   | D   | N   | L   |
| UniRef90_C0GCL3        | V | Y   | E   | Y   | L   |
| UniRef90_A3ZNM8        | T | Y   | E   | R   | L   |
| UniRef90_E5WV8         | Q | A   | V   | R   | L   |
| UniRef90_W7RE32        | Q | A   | V   | R   | L   |
| UniRef90_R7HEY4        | T | Y   | E   | G   | L   |
| UniRef90_UPI0003B4E994 | V | Y   | E   | R   | L   |
| UniRef90_C9RAX5        | A | Y   | E   | R   | L   |
| UniRef90_R7MEG7        | T | Y   | E   | N   | L   |
| UniRef90_L0KBP2        | T | Y   | E   | N   | L   |
| UniRef90_R5TDJ6        | I | Y   | E   | N   | L   |
| UniRef90_R5HHD1        | T | Y   | E   | H   | L   |
| UniRef90_UPI0002DFB760 | T | Y   | E   | E   | L   |
| UniRef90_W0E6F6        | I | Y   | E   | R   | L   |
| UniRef90_D8FX38        | T | Y   | E   | R   | L   |
| UniRef90_R7G4Z7        | V | Y   | E   | Y   | L   |
| UniRef90_K9WFB1        | T | Y   | E   | E   | L   |
| UniRef90_R5EZX8        | T | Y   | D   | N   | L   |
| UniRef90_R6ASF1        | T | Y   | E   | H   | L   |
| UniRef90_UPI0002483FED | T | Y   | E   | S   | L   |
| UniRef90_B8EQT1        | T | Y   | E   | A   | L   |
| UniRef90_K5YY34        | T | Y   | E   | A   | L   |
| UniRef90_R6YCC5        | V | Y   | E   | N   | L   |
| UniRef90_R7FMC4        | T | Y   | E   | H   | L   |
| UniRef90_R7NJZ4        | T | Y   | E   | N   | L   |
| UniRef90_B2A619        | V | Y   | E   | Y   | L   |
| UniRef90_R7F0A5        | V | Y   | E   | N   | L   |
| UniRef90_UPI00047A40FD | V | Y   | E   | R   | L   |
| UniRef90_R6RB92        | T | Y   | E   | H   | L   |
| UniRef90_R5NCZ4        | T | Y   | E   | K   | L   |
| UniRef90_T4VZL9        | T | Y   | Q   | L   | I   |

UniRef90\_U2NRU4  
UniRef90\_C5VPK8  
UniRef90\_E6U559  
UniRef90\_Q896X3  
UniRef90\_B0TGJ3  
UniRef90\_D9R8D4  
UniRef90\_R6P2L5  
UniRef90\_R7JVK4  
UniRef90\_R5SXE8  
UniRef90\_F0KDD4  
UniRef90\_B0NKI2  
UniRef90\_U2DPZ4  
UniRef90\_UPI0002D504F3  
UniRef90\_G9RT73  
UniRef90\_D5XAM8  
UniRef90\_D7GUF9  
UniRef90\_R6ZS87  
UniRef90\_U2CHP9  
UniRef90\_R9LW95  
UniRef90\_B0K6N1  
UniRef90\_R1AR87  
UniRef90\_R5NIP3  
UniRef90\_R7CA72  
UniRef90\_T0N2E7  
UniRef90\_F4X970  
UniRef90\_R7AGS6  
UniRef90\_G9QPA5  
UniRef90\_R6TEJ6  
UniRef90\_UPI00046EDF81  
UniRef90\_W6N371  
UniRef90\_R5QFH2  
UniRef90\_UPI000478C821  
UniRef90\_Q2RIN4  
UniRef90\_W4CJW6  
UniRef90\_I3E755  
UniRef90\_M1Z3R5  
UniRef90\_A6LV57  
UniRef90\_F4LQK6  
UniRef90\_K8E981  
UniRef90\_Q1R26  
UniRef90\_R7INT3  
UniRef90\_F8FFU2  
UniRef90\_C4Z3Q9  
UniRef90\_D2QZE5  
UniRef90\_V6J4Q9  
UniRef90\_R5B4W9  
UniRef90\_N1Z5M1  
UniRef90\_UPI00039F9D09  
UniRef90\_R7E9L5  
UniRef90\_W7V0S9  
UniRef90\_R5JYC1  
UniRef90\_R6S4J0  
UniRef90\_B9Y8Q1  
UniRef90\_R5A450  
UniRef90\_R5LSV4  
UniRef90\_R6U9L0  
UniRef90\_H5XS38  
UniRef90\_H1AGH1  
UniRef90\_R5XQH6  
UniRef90\_R5IUT6  
UniRef90\_R5KY11  
UniRef90\_R9JUQ1  
UniRef90\_C0GCL3  
UniRef90\_A3ZNM8  
UniRef90\_E5WVF8  
UniRef90\_W7RE32  
UniRef90\_R7HEY4  
UniRef90\_UPI0003B4E994  
UniRef90\_C9RAX5  
UniRef90\_R7MEG7  
UniRef90\_L0KBP2  
UniRef90\_R5TDJ6  
UniRef90\_R5HHD1  
UniRef90\_UPI0002DFB760  
UniRef90\_W0E6F6  
UniRef90\_D8FX38  
UniRef90\_R7G4Z7  
UniRef90\_K9WFB1  
UniRef90\_R5EZX8  
UniRef90\_R6ASF1  
UniRef90\_UPI0002483FED  
UniRef90\_B8EQT1  
UniRef90\_K5YY34  
UniRef90\_R6YCC5  
UniRef90\_R7FMC4  
UniRef90\_R7NJZ4  
UniRef90\_B2A619  
UniRef90\_R7F0A5  
UniRef90\_UPI00047A40FD  
UniRef90\_R6RB92  
UniRef90\_R5NCZ4  
UniRef90\_T4VZL9

210 220 230 240  
D H F  
D R L S S K K Y Y  
D H L N E K N F Y A F N P S F D T  
G Y I D S K K  
F F M D R K  
S N L N S K N F Y Y Y N P E F D K Q  
D E L N S K N F Y A P S F D A K T F  
D E R D S R N F Y A F N P Q I D K  
D Y N E P K L A V I P K T D C M K  
D R L D A K N Y Y N P E F D K K L F  
D N L D C R N F Y A M N P E F D K  
I D P L V I G E I P P T P G L V D Q Y F N T S T G T G D D G E  
D T L D S R N F Y A V N P S F D  
M W M H K K K  
E K L D S R N F Y A F N P S F D P Q P A A  
D K L D S K N F Y A F N P E F D  
E K L D S K N F Y A F N P E F D R C K K  
D G L N S K N F Y A F N P S F D T H C N P P E  
E Y M E S K K F  
E E K D R K K Y Y  
E H L D S N N F Y F C N P A I D K  
D D L N K K N F Y A Y N P D F D K Q  
D N F M N K K  
E K M D A K N I Y L T N P A F D R S P  
D R L D A R N F Y A F N P A F D K Q  
E E R G K K Q F  
D S L D S K N Y Y F V N P S F N  
E Y M E S K K Y  
D G V G M K K  
S Q L N K K N Y Y A Y N P S F T S S K R E Q  
D L V D N K K C Y  
D Y L E R K K Y Y  
D D R N Q K R V  
E E  
D A M C L K K  
E Y L N K K H V Y  
E Y M K Q K K F Y P P F S I G T I A P T P H L V D Q Y V N A S T G T G D D G E  
K D E L D F K N F Y A F N P S M D  
E D Q A A Q K F  
S K L D S K N F Y A Y N P E F K K  
K D P I G K I P P T P G I V D E F Y N D S T G V G E E G E I D A R G P W N E G D  
E E Q N K K K V  
G  
D Y L K Q K V F D M G N T S N  
N L G L E P L E I G A I P P T A G L V D Q Y F N D S T G E G D E G E  
D Q L N S K N F Y Q M N P S F D T  
D K L S E K N F Y A M N P D F D C S P V C K E N E E K Q M  
K D L D C R N F Y R Y N P A F D  
K K  
D K L N K K N I Y A F N P  
S Q L D A E N Y Y N P A F D R D S D F S K K Y M N M S T G Q  
G S G V N K D F  
G H L N S D N Y Y A Y N P A F R N  
D F T E C K K I  
E K  
E D L D K K N F Y A F N P  
S K S K H K N H  
N D G S N K D F G V T E D S R L Y F D L S T P G K F F E H P F P T  
K G P L E I G D M P L V D E Y V N Q F Y N D S T G E G E M G E  
E A Q E G K T V P S T F P K E L E K  
A K E N V V V P S T F P R N L E K R E V S H V L F N F S R G N  
N K  
K P P F S I G M L K P T P G I V D E Y F N G S T G D G D E G D  
S Y L D S P R H L W P G F  
S I N M N  
D Y  
K K  
N K Y N K  
K L T D P M F G N I Q P D N T V D I Y Y N L S S A S Q E N G V  
G T G V N K N F R D S E F S K K Y M N L S T G M  
D K L T D P M F G N I Q P D Q T V D L Y F N L S T N G  
H D G S N K N F G I S E D S R L Y F D L S K P G R Y F D D  
N K L T D P F F G N I Q P D E T N L Y F N L S S D G Q G E S I A P N N  
E M F P D G N  
K L T D P F F G D I Q P D E T V D L Y Y N L S Q G E  
K L D D P F F G N I Q P D D T V K L V F N L S Q G E  
K L D D P M F G N V K P D D T V D V V F N L S Q G E  
K K M L G D K S Y  
K E  
K  
S K G S N K D F G V D Q D A R L Y F D L S T P G Q H F S A P Q P T  
K E  
K  
K E Y N K  
D L L T Q K  
E F T E S K K

UniRef90\_U2NRU4  
UniRef90\_C5VPK8  
UniRef90\_E6U559  
UniRef90\_Q896X3  
UniRef90\_B0TGJ3  
UniRef90\_D9R8D4  
UniRef90\_R6P2L5  
UniRef90\_R7JVK4  
UniRef90\_R5SYE8  
UniRef90\_F0KDD4  
UniRef90\_B0NKI2  
UniRef90\_U2DPZ4  
UniRef90\_UPI0002D504F3  
UniRef90\_G9RT73  
UniRef90\_D5XAM8  
UniRef90\_D7GUF9  
UniRef90\_R6ZS87  
UniRef90\_U2CHP9  
UniRef90\_R9LW95  
UniRef90\_B0K6N1  
UniRef90\_R1AR87  
UniRef90\_R5NIP3  
UniRef90\_R7CA72  
UniRef90\_T0N2E7  
UniRef90\_F4X970  
UniRef90\_R7AGS6  
UniRef90\_G9QPA5  
UniRef90\_R6TEJ6  
UniRef90\_UPI00046EDF81  
UniRef90\_W6N371  
UniRef90\_R5QFH2  
UniRef90\_UPI000478C821  
UniRef90\_Q2RIN4  
UniRef90\_W4CJW6  
UniRef90\_I3E755  
UniRef90\_M1Z3R5  
UniRef90\_A6LV57  
UniRef90\_F4LQK6  
UniRef90\_K8E981  
UniRef90\_Q1R26  
UniRef90\_R7INT3  
UniRef90\_F8FFU2  
UniRef90\_C4Z3Q9  
UniRef90\_D2QZE5  
UniRef90\_V6J4Q9  
UniRef90\_R5B4W9  
UniRef90\_N1Z5M1  
UniRef90\_UPI00039F9D09  
UniRef90\_R7E9L5  
UniRef90\_W7V0S9  
UniRef90\_R5JYC1  
UniRef90\_R6S4J0  
UniRef90\_B9Y8Q1  
UniRef90\_R5A450  
UniRef90\_R5LSV4  
UniRef90\_R6U9L0  
UniRef90\_H5XS38  
UniRef90\_H1AGH1  
UniRef90\_R5XQH6  
UniRef90\_R5IUT6  
UniRef90\_R5KY11  
UniRef90\_R9JUQ1  
UniRef90\_C0GCL3  
UniRef90\_A3ZNM8  
UniRef90\_E5WV8  
UniRef90\_W7RE32  
UniRef90\_R7HEY4  
UniRef90\_UPI0003B4E994  
UniRef90\_C9RAX5  
UniRef90\_R7MEG7  
UniRef90\_L0KBP2  
UniRef90\_R5TDJ6  
UniRef90\_R5HHD1  
UniRef90\_UPI0002DFB760  
UniRef90\_W0E6F6  
UniRef90\_D8FX38  
UniRef90\_R7G4Z7  
UniRef90\_K9WFB1  
UniRef90\_R5EZX8  
UniRef90\_R6ASF1  
UniRef90\_UPI0002483FED  
UniRef90\_B8EQT1  
UniRef90\_K5YY34  
UniRef90\_R6YCC5  
UniRef90\_R7FMC4  
UniRef90\_R7NJZ4  
UniRef90\_B2A619  
UniRef90\_R7F0A5  
UniRef90\_UPI00047A40FD  
UniRef90\_R6RB92  
UniRef90\_R5NCZ4  
UniRef90\_T4VZL9

250

260

270

280

K D V R G P W N K G N

G F R F V D S P A L K G

A M P I G A A A C P Q T A E

E V V V V P P C G

C G A P S E

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

D W

F D A L G P W N

D G G S W Q R V D A P A F Q G

G D S R G P W N Q G N

G F T Y E E N P N E G G P A Q Y G P A G A R E

P P S F A N P N Q A P  
D L D G P W N S G K

E W K R V D N P

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

K D M R G P W T S A

H G L H V V E D A P G G G

N K D E R G P W N S E P  
G D A R G P W N Q G N  
K D E R G A W N S E P  
P K P E  
G S D E R G P W N S E P

T F K Y I A D P V K A G  
G I Q Y E E N P N E G G P A Q Y G P D S P G E  
D F R Y V A D P T P K G  
T F K Y I A N P Q E

G D Q R G P W N S E P  
D A R G P W N E E P  
E G R G P W N E A P

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

P P A

UniRef90\_U2NRU4  
 UniRef90\_C5VPK8  
 UniRef90\_E6U559  
 UniRef90\_Q896X3  
 UniRef90\_B0TGJ3  
 UniRef90\_D9R8D4  
 UniRef90\_R6P2L5  
 UniRef90\_R7JVK4  
 UniRef90\_R5SYE8  
 UniRef90\_F0KDD4  
 UniRef90\_B0NKI2  
 UniRef90\_U2DPZ4  
 UniRef90\_UPI0002D504F3  
 UniRef90\_G9RT73  
 UniRef90\_D5XAM8  
 UniRef90\_D7GUF9  
 UniRef90\_R6ZS87  
 UniRef90\_U2CHP9  
 UniRef90\_R9LW95  
 UniRef90\_B0K6N1  
 UniRef90\_R1AR87  
 UniRef90\_R5NIP3  
 UniRef90\_R7CA72  
 UniRef90\_T0N2E7  
 UniRef90\_F4X970  
 UniRef90\_R7AGS6  
 UniRef90\_G9QPA5  
 UniRef90\_R6TEJ6  
 UniRef90\_UPI00046EDF81  
 UniRef90\_W6N371  
 UniRef90\_R5QFH2  
 UniRef90\_UPI000478C821  
 UniRef90\_Q2RIN4  
 UniRef90\_W4CJW6  
 UniRef90\_I3E755  
 UniRef90\_M1Z3R5  
 UniRef90\_A6LV57  
 UniRef90\_F4LQK6  
 UniRef90\_K8E981  
 UniRef90\_Q1R26  
 UniRef90\_R7INT3  
 UniRef90\_F8FFU2  
 UniRef90\_C4Z3Q9  
 UniRef90\_D2QZE5  
 UniRef90\_V6J4Q9  
 UniRef90\_R5B4W9  
 UniRef90\_N1Z5M1  
 UniRef90\_UPI00039F9D09  
 UniRef90\_R7E9L5  
 UniRef90\_W7V0S9  
 UniRef90\_R5JYC1  
 UniRef90\_R6S4J0  
 UniRef90\_B9Y8Q1  
 UniRef90\_R5A450  
 UniRef90\_R5LSV4  
 UniRef90\_R6U9L0  
 UniRef90\_H5XS38  
 UniRef90\_H1AGH1  
 UniRef90\_R5XQH6  
 UniRef90\_R5IUT6  
 UniRef90\_R5KY11  
 UniRef90\_R9JUQ1  
 UniRef90\_C0GCL3  
 UniRef90\_A3ZNM8  
 UniRef90\_E5WV8  
 UniRef90\_W7RE32  
 UniRef90\_R7HEY4  
 UniRef90\_UPI0003B4E994  
 UniRef90\_C9RAX5  
 UniRef90\_R7MEG7  
 UniRef90\_L0KBP2  
 UniRef90\_R5TDJ6  
 UniRef90\_R5HHD1  
 UniRef90\_UPI0002DFB760  
 UniRef90\_W0E6F6  
 UniRef90\_D8FX38  
 UniRef90\_R7G4Z7  
 UniRef90\_K9WFB1  
 UniRef90\_R5EZX8  
 UniRef90\_R6ASF1  
 UniRef90\_UPI0002483FED  
 UniRef90\_B8EQT1  
 UniRef90\_K5YY34  
 UniRef90\_R6YCC5  
 UniRef90\_R7FMC4  
 UniRef90\_R7NJZ4  
 UniRef90\_B2A619  
 UniRef90\_R7F0A5  
 UniRef90\_UPI00047A40FD  
 UniRef90\_R6RB92  
 UniRef90\_R5NCZ4  
 UniRef90\_T4VZL9

P A P

Q P G Y

G P G Y T D R T

DEKTSK K K K K A R

UniRef90\_B8D198 1 MWTYK K L Q Y P A N I I T R R K D P E F A S L V I T 30 Q F G G P D G G E L S A G 40  
UniRef90\_R7DLL5 MF K Y E K R L L Y P V N I I T K R R D L E M A K F I V T Q Y G G P Y G E E L G A A  
UniRef90\_R6Y2H3 MY T Y Q K R M Q F P I K I I K N K N D L Y M A K M I I A Q Q F G G S N G E M G A A  
UniRef90\_E7GD61 MWA Y S K K L Q Y P V S I I G K N K D L S M A K Y I I T Q Q F G G P N G E L G A S  
UniRef90\_W1FMJ9 MFR H V K Q L Q Y T V R V R V A E P N P G L A N L L L E Q F G G P Q G E L A A A  
UniRef90\_D4W6T8 MF K H E K Q F L H P T V R V V E K P N P Q Y A T L M Q E Q L G G G A N G E L K A A  
UniRef90\_B9TGD9 MY H H V K K L M Y T V R V V D E P D P Q F G N M L L E Q F G G A N G E L A A A  
UniRef90\_K6TT16 MF K H E K P L L R E V K V V E R P N A Q Y A V L M Q E Q L G G A N G E L K A A  
UniRef90\_K9S5C7 M F F H K K E A I H T V N V V N S E T A D P R F G Q L L L E Q F G G A T G E L S A A  
UniRef90\_UPI0003082BA8 MF F H K K D P V H T V V Q V V S S E T N P V F A Q L L L E Q F G G A T G E L S A A  
UniRef90\_B1C6I4 MW V Y K K M L Q H P V E V V S G K D L K M A K N V L T Q Y G G P D G E L G A S  
UniRef90\_R5M3H7 MF S Y N K R L L Q Y P I R D I K K K D L R M A K Y L V T Q Y G G A N G E L A A A  
UniRef90\_A1HMQ8 MW I Y E K K L E H P V R V I C R P D V K F A K M V I A Q Y G G P D G E L S A S  
UniRef90\_A6CC47 UniRef90\_UPI00034984D2 MF L H K K Q L M H K I E I N E S D P D P R F G K M L L E Q F G G A N G E L A A A  
UniRef90\_Q181Y5 MW I Y Q K T I Q H K V I N I N E K T C D P R M A K F L I T Q F G G P N G E L A A S  
UniRef90\_A0A037ZC87 MF K H D K K L L R D V Q I A E K P N P Q Y A T L L Q E Q L G G P N G E L K A A  
UniRef90\_R7GFK0 MW N Y E R H L M Y P V Q I T K P N L D Y A K Y L V T A L G S Y A G E L G A A  
UniRef90\_U2ECK1 MW I Y T K R F Q H P V D V K K T D L A L A K N I L T Q F G G Y P D G E L A A S  
UniRef90\_R6TL05 MF K H E K K L L F E V K V E K P N P E Y A N L L Q E Q L G G A N G E L K A A  
UniRef90\_R5L4L4 MF V F E K R T Q I P V C I K N R N P R L A G I I L E Q Y G G A N G E L S A S  
UniRef90\_V9H7H7 MF K H E K A L L H E V K V E R P N P Q Y A V L L Q E Q L G G A N G E L K A A  
UniRef90\_UPI00047C5724 MW I Y Q K T L Q H P I N L K N G D L Q M A K Y L I T Q F G G P N G E L G A A  
UniRef90\_U2DE51 MF K H D K K L L H E V K V D R P N P N Y A A M L Q E Q L G G P Q G E L K A A  
UniRef90\_Q7ND62 MF I H K K E P I L H A V K I D E A N P R F A Q L L L E Q F G G A T G E L S A A  
UniRef90\_K9VHN9 M F F H K K Q L M A V T V D E A N P R F A Q L L L E Q F G G A T G E L T A A  
UniRef90\_UPI00036D0B70 MF S H D K Q L L H E V K V D T P N P A Y A T M L Q E Q L G G P N G E L K A G  
UniRef90\_K9XRL6 MF F H K K E L I E K A V N I S D P N P R F A Q L L L E Q F G G A T G E L T A A  
UniRef90\_R6TFZ4 MF L Y D K I L E Y P V N I T K K D L K M A K I I A S Q Y G G P Q G E L A A A  
UniRef90\_E7GCB8 MF K Y E S R Y L H P V K I D K P N P N Y A T L L Q E Q L G G P Q G E L K A A  
UniRef90\_R5V5Q5 MW K Y N K Y L Q Y P I H I K K K D L K M A K Y L I T Q Y G G P Y G E L G A A  
UniRef90\_R5J328 MW K Y E K K L Q Y P V N I I K K K N L Q M A K C I L T Q Y G G P A G E L A A S  
UniRef90\_R5XB05 UniRef90\_R7P729 MF K Y V K H L S Y P V N V S K K D L K M A K L I I T Q V I G G Y A G E L G A T  
UniRef90\_B4VYQ0 MF F H K K E T I Q P V N I E T A H P Q F A Q L L L E Q F G G A T G E L T A A  
UniRef90\_A6TTA0 MF K H D K K L L R E V K V E G P N P Q Y A A L L Q E Q L G G A N G E L K A A  
UniRef90\_R5VGI3 MY K Y E K H L A F P V N I K K K D L R M A K Y I I A G L G G Y N G E L A A A  
UniRef90\_R6AU93 MF K Y E K K L P Y P I N I R K K N V K L A K Y I I T Q Y G G Y A G E L G A A  
UniRef90\_H2JJ77 MF K H D K A L L Q D V Q V D G P N P N Y A A M L Q E Q L G G P Q G E L K A A  
UniRef90\_J1H6A7 UniRef90\_G9YSN8 F K H E K Q L F H P V E V E Q P N P Q Y A A L L Q E Q L G G N G E L K A A  
UniRef90\_R5NAP4 M V N Y V K K L D Y P I N I R N K D L K M A K N L L A Q L L G G P D G E I G A A  
UniRef90\_Q97FE0 MF K H E K Q L L M Q V K V E R E N P Q Y A V L M Q E Q L G G A N G E L K A A  
UniRef90\_K4KV68 MF K H D K Q L L K D V R V D G P N P N Y A S L M L D Q L L G G P H G E L K A A  
UniRef90\_R4KEQ2 MF K H D K N L L E M V R V E R P N P Q Y A T M L Q E Q L G G P N G E L K A A  
UniRef90\_B1HTK6 UniRef90\_F9VLB0 MF K H E K Q L L C N V E V E K P N P H Y A A L L Q E Q L G G A N G E L K A A  
UniRef90\_F0HHA7 MW I Y E K K L L Q Y P V D I K K R D V R M A K A I Y E E L G G S D G E L S A S  
UniRef90\_B9YEF3 MF K H Q K K L L H P V K V K K P N P T Y A A L L Q E Q L G G P Q G E M K A A  
UniRef90\_UPI000419A660 MF S H K K E P I H F V K I G E A N P R F A Q L L L E Q F G G A T G E L T A A  
UniRef90\_R7KZX8 UniRef90\_C8W4C2 MF K H D K R L L E A V N V E R P N P N Y A A M L Q E Q L L G G P D G E L K A A  
UniRef90\_R5FR05 MF T Y E K K L L F P I N I T K K D L D M A K V L Y T Q Y G G P D G E L G A A  
UniRef90\_E5YY99 UniRef90\_R2SXA4 UniRef90\_L1KAA0 M L H E V K V D K P N P A Y A A M L Q E Q L G G A N G E L K A G  
UniRef90\_B8D1S8 UniRef90\_R7APP2 L L L L T Y G G P D G E I G A S  
UniRef90\_F0SWU7 MF K H D K Q L L M D V K V D R V N P S Y A V M L Q D Q L L G G P H G E M K A A  
UniRef90\_B2ID85 MF L H V K E T L H P V S I G T P D P S F G Q M L L E Q F G G A T G E L T A A  
UniRef90\_A0A024PFU7 Y A K K L Q E I L G G Q F G E I S V A  
UniRef90\_R6NMY1 MWT Y N K T L Q Y P I N I K C P D P R L A K V I I S Q Y G G P D G E L A A S  
UniRef90\_T0I8I2 MF K H E K Q L L S E V K V E R P N P T Y A A M L T E Q L L G G P N G E M K A A  
UniRef90\_F0HCT0 MW V Y E K R L L Q I P V D I K R R D L K M A K D I Y D A L G G A D G E L T A S  
UniRef90\_Q2RJQ9 MF K H D K K L L E M V R V E R P N P N Y A A L L Q E Q L I G G P H G E L K A G  
UniRef90\_S0FPX2 G G P D G E L A A S  
UniRef90\_R6U668 G G P D G E L G A A  
UniRef90\_UPI00047D2370 L Q K Q S G G P E G E L S A S  
UniRef90\_F6DTB2 F A Q L L L E Q F G G A T G E L T A A  
UniRef90\_UPI0003A96379 Y G G P D G E L G A S  
UniRef90\_R6D3X8 MF F H I K E L Q Y E A K V S K P D P I F A K Q L Q E V L G G Q W G E I S V M  
UniRef90\_B4WI95 UniRef90\_R6DP98 MS A A  
UniRef90\_R5U9G3 MW K Y S K K L Q Y P I N I R N K N L K M A K A V M S Q Y G G A Q G E L G A A  
UniRef90\_L5N164 MF Y H R K Q L L F P V S V S K P D P R F A V M L M E Q L A G Q N G E V A A G  
UniRef90\_T0BM18 UniRef90\_R6D4Z2 MG A S  
UniRef90\_C9R990 MF V H N K R L Q Y T V R V A A P N P G L A N L L L E Q F G G P Q G E L A A A  
UniRef90\_N9XBY8 UniRef90\_I5CJX9 MF V H N K R L Q Y T V R V A A P N P G L A N L L L E Q F G G P Q G E L A A A  
UniRef90\_R5JYR2 UniRef90\_G4KP74 MG A S  
UniRef90\_R5HN77 G G P D G E L G A S  
UniRef90\_Q63I50 MF F H N K R L Q Y T A R V A E T N P G L A N L L L E Q F G G P Q G E L A E A  
UniRef90\_R7DDX1 UniRef90\_R6ISS3 UniRef90\_D4L7C5 MF H Y R K H L F Y P I H V E R Q D P G F A K L L L E H Y A G R N S E I S S A  
UniRef90\_I4D2A4 UniRef90\_R5Z5B9 UniRef90\_C6LJ8 UniRef90\_UPI0002FACE89 MF S Y S K P L F F P V N V Q H R D P V F G Q V L L E H Y G G K D S E Y S A A  
UniRef90\_G2FV18

UniRef90\_B8D198 V R Y L S Q M Y T M P F P E G K A 50 60 70 80  
UniRef90\_R7DLL5 L R Y L N Q R Y T M P D E R G K A RT L L L S D I G T E E E L G H V E I I G T A M  
UniRef90\_R6Y2H3 T R Y L A Q R Y T M P C E E K G K A RS L L L T D D I G T E E E L G H H E E M V Q T A M  
UniRef90\_E7GD61 L R Y L T Q R Y A M P D D D K G K A K D M L M D I A A T E E E L S H H E E M V S T S M  
UniRef90\_W1FMJ9 C R Y F T Q Q S L S D D D D P G R VI K D L F L D I A A T E E E L S H H E E M V S T G T L  
UniRef90\_D4W6T8 L Q Y M S Q S F R I K D P D R K D L L M D I A A T E E E L S H H E E M V V A G G T L  
UniRef90\_B9TGD9 M Q Y S I Q G L N C E D P D R A G I K D L L M D I A A T E E E L S H H E E M V A G G L  
UniRef90\_K6TT16 L Q Y L S Q S F R I K D P A I H K D L F L D I A A T E E E L S H H E E M V A G Q T L  
UniRef90\_K9S5C7 L Q Y W V Q S F H T E D P G I R D M L Q D I A A V E E E F G H H E E M V G K M L  
UniRef90\_UPI0003082BA8 L Q Y W V Q S F H T E D A G I K D M L Q D I A A V E E E F G H H E E M V G K L  
UniRef90\_B1C6I4 L R Y L T Q R F N M P L K E G T A I L L T D I A G S E E E L G H H E E M V G T L  
UniRef90\_R5M3H7 L R Y L N Q R Y T M P D E R G K A L L L T D I G T E E E L A H H E E M I A S T A M  
UniRef90\_A1HMQ8 L R Y L N Q R Y S M P T S Q A K A L L L T D I G T E E E L A H H E E M I A S T A M  
UniRef90\_A6CC47 M Q Y S I Q G L N C E D P A R K D L L M D I G T E E E L S H H E E M V A G S L  
UniRef90\_UPI00034984D2 L Q Y W V Q S F H C E H A G I R D M L Q D I A T E E E F S H H E E M V G R L  
UniRef90\_Q181Y5 L R Y L S Q R Y T M P T G K T K A A G N M R A L L T D I A G T E E E L A H H E E M I C A T M  
UniRef90\_A0A037ZC87 L Q Y I S Q S F R I K D P A I K D L F L D I G A T E E E L A H H E E M V A Q T M  
UniRef90\_R7GFK0 L R Y L N Q R Y T M P T V E A K A L L L T D I G T E E E M G H H E E L L A S A N M  
UniRef90\_U2ECK1 M Q Y L S Q R Y T M P T G K T K A I K D L F L D I G T E E E L A H H E E M V S A L  
UniRef90\_R6TL05 M Q Y M S Q S F R I K D P A I K D L F M D I A S E E E L S H H E E M V G T L  
UniRef90\_R5L4L4 L R Y L S Q R F T M P D N M G K G I K D L F L D I G T E E E L G H H E E M I G S L  
UniRef90\_V9H7H7 M Q Y I S Q S F R I K D Q E I K D L F L D I A A T E E E L S H H E E M V A T T  
UniRef90\_UPI00047C5724 I R Y L S Q R Y T M P T G K S R A L L T D I G T E E E L A H H E E M I A T A T M  
UniRef90\_U2DE51 L Q Y L S Q S M R I K D P E I K D L F L D I V A A E E E F G H H E E M V A T A  
UniRef90\_Q7ND62 L Q Y W V Q S F H L E H P G I K D M L Q D I A A V E E E F S H H E E M V G K L  
UniRef90\_K9VHN9 L Q Y W V Q S F H C E D A G I K D M L Q D I A V E E E F S H H E E M V G K L  
UniRef90\_UPI00036D0B70 L Q Y F A Q S F R I Q D P E I R D M L Q D I A T E E E F S H H A E M V A G Q T L  
UniRef90\_K9XRL6 L Q Y W V Q S F H T E D P G I R D M L Q D I A T E E E F S H H E E M V A G K L  
UniRef90\_R6TFZ4 I R Y L N Q R Y T M P D E Y G K S L L L N D I G T E E E L A H H E E M L Q T M  
UniRef90\_E7GCB8 M Q Y F A Q S F R I D K E I R D L F L D I A T E E E L G H H E E M I A E L  
UniRef90\_R5V5Q5 L R Y L N Q R Y T M P D D L G K A I R D L F L D I A T E E E F G H H E E M I S T M  
UniRef90\_R5J328 W Q Y L D Q R Y N M P D D R G K A L L L T D I G T E E E L A H H E E M I S A M  
UniRef90\_R5XBD5 L R Y L S Q R Y S M P L P E L K G L L L T D I G T E E E L A H H E E M I G T L  
UniRef90\_R7P729 L R Y F H Q K F T M P D E K G S I R N M L Q D I A V E E E F S H H E E M V G K L  
UniRef90\_B4VYQ0 L Q Y W V Q S F H C E N P A I R D L F L D I A G S E E E L S H H E E M V A Q T M  
UniRef90\_A6TTA0 L R Y L S Q S F R I K D P A I R D L F L D I A T E E E L S H H E E M V A Q T M  
UniRef90\_R5VGI3 L R Y F S Q S F A M P D A K G K A L L L N M I A T E E E F G H H E E M I A T M  
UniRef90\_R6AU93 L R Y F S Q K F T M P D E G K A R A L L N D I A T E E E F G H H A E M I C I M  
UniRef90\_H2JJ77 L Q Y L S Q S F R I K D P E I K D L F L D I A S E E E L S H H E E M V A Q T L  
UniRef90\_J1H6A7 L R Y L S Q R Y T M P Y P E I K K A I L L T D I A G T E E E L G H H E E M V A G T L  
UniRef90\_G9YSN8 M Q Y M S Q S F R I R N P K I K D L F M D I A A T E E E L S H H E E M V A Q T L  
UniRef90\_R5NAP4 M R Y F S Q K F T M P D E R G Q A I K D L F N D I S T E E E L G H H E E M I A T M  
UniRef90\_Q97FE0 M Q Y L S Q S F R V K D I K D L F L D I G T E E E L S H H E E M V A E T  
UniRef90\_K4KV68 L Q Y L S Q S Y R I K D E K I K D L F M D I A S E E E L S H H E E M V A Q T  
UniRef90\_R4KEQ2 L R Y F S Q S F R I K D P E I K D L F Q D I A T E E E L S H H E E M V A T A  
UniRef90\_B1HTK6 L R Y M N Q R Y T I P D K V V I G L L T D I A T E E E F S H H E E M I A T M  
UniRef90\_F9VLB0 L Q Y M S Q S F R I K D Q E I K D L F L D I A A T E E E L G H H E E M I S Q T  
UniRef90\_F0HHA7 M E Y L Q Q R Y T M P T G Q S I A I K D L L T D I G T E E E L A H H E E M I V S A L  
UniRef90\_B9YEF3 M Q Y F A Q S L R I Q D K E I K D L F L D I A A T E E E L G H H E E M I V A E M  
UniRef90\_UPI000419A660 L Q Y W V Q S F H C E N T A I R D M L Q D I A T E E E F S H H E E M V G K L  
UniRef90\_R7KZX8 L R Y L N Q R Y T A P Y A Q V K G I K D L L T D I V A A E E E L A H H E E M I S S L  
UniRef90\_C8W4C2 L Q Y L N Q R Y S A P C R E V Q A Q I K D I F L D I A A T E E E L A H H E E M V A T A  
UniRef90\_R5FR05 I R Y F N Q S F T M P D S R G K A L L L M D I L S A E E E F S H H E E M I N A M

UniRef90\_R2SXA4 M Q Y V F R A C G A R G N P K V R D L L M N T A A E E E L G H H E E M L A T A T M  
UniRef90\_L1KAA0 L Q Y F S Q S F R I Q D P E I K D L F L D I A A T E E E F S H H A E M V A A Q T  
UniRef90\_B8D1S8 M R Y L S Q R Y T M P Y A E G K G L L T D I A G T E E E L A H H E E M V A A A I  
UniRef90\_R7APP2 M Q Y L S Q S F R I K D P A V K D L F L D I A A T E E E M S H H E E M V A T A  
UniRef90\_F0SWU7 L Q Y W V Q S F H V E D A S I R D M L Q D I A T E E E F S H H E E M V G K L  
UniRef90\_B2ID85 M Q Y L F Q S F W N A R G D E R Y K D L L M D T A G T E E E L A H H E E M I S T M  
UniRef90\_A0A024PFU7 L R Y L S Q R F G M P D Q K A K A I L N D I G T E E E L A H H E E M V G T I  
UniRef90\_R6NMY1 M Q Y M A Q S F R I K D P A I K D L F M D I A S E E E L S H H E E M V A T T  
UniRef90\_T0I8I2 M E Y L H Q R Y T M P T G Q S I A T L L T D I G T E E E L A H H E E M V A S L  
UniRef90\_F0HCT0 L Q Y L A Q S F R I Q D P A I K D I F L D I A A T E E E L S H H E E M V C T A  
UniRef90\_Q2RJQ9 L R Y L N Q R Y T M P Y R E T K G V L T D I G T E E E L A H H E E M I S A I  
UniRef90\_S0FPX2 L R Y L N Q R Y S A P C R E V Q A I L N D I G T E E E L A H H E E M I G T L

UniRef90\_UPI00047D2370 L R Y L N M R Y T M P T G K A K G V L T D I G T E E E L A H H E E M I V A T T L  
UniRef90\_F6DTB2 T R Y L S Q R Y T A P W G Q I K A G L T D I A T E E E L A H H E E M I V A T T L  
UniRef90\_UPI0003A96379 L Q Y W V Q S F H V E N K G I K D M L Q D I A T E E E F S H H E E M V G K L  
UniRef90\_R6D3X8 L R Y L S Q R Y S M P Y R S V A G L L T D I V A G T E E E F S H H E E M I A T I  
UniRef90\_B4WI95 M R Y L S Q R Y T M P Y K E V T A T L L T D I G T E E E L A H H E E M I C A I  
UniRef90\_R6DP98 M Q Y L F Q G M V R G N K K Y R D L L M D I G T E E E L A H H E E M L A T L  
UniRef90\_R5U9G3 L R Y L N Q R Y T I P D K V V I G L L N D I G T E E E F A H H E E M I A T M  
UniRef90\_L5N164 L R Y L N Q R Y T M P D A K G R A L L N D I G T E E E L A H H E E M I C T M  
UniRef90\_T0BM18 L Q Y I L Q G L K C K D P E I K D L L L D I G T E E E L A H H E E M L T H S  
UniRef90\_R6D4Z2 M R Y L S Q R Y A M P Y K E C K G R D M L F D I A T E E E L S H H E E M I V A T I  
UniRef90\_C9R990 M R Y L S Q R Y S M P Y P E L K G V L T D I A T E E E L G H H E E M V C A I  
UniRef90\_N9XBY8 L R Y L S Q R Y A M P Y P V Q V Q G L L T D I G T E E E L G H H E E M V A S L  
UniRef90\_I5CJX9 V D E Q A Q L Y R K L N G G G N D S H H V T Q L  
UniRef90\_R5JYR2 M R Y L S Q R Y S M K N N R V A G I K G L L T D I G V E E E L A H H E E M I G A M  
UniRef90\_G4KP74 L R Y L S Q R Y S M P Y P E L K G T L T D I G T E E E L N H H E E M I G A L  
UniRef90\_R5HN77 L R Y L S Q R Y A M P Y P V Q V Q G L L T D I G T E E E L G H H E E M V A S L  
UniRef90\_Q63I50 M R Y L S Q R F T M P N R M A M A V L N D I G T E E E L A H H E E M V S T I  
UniRef90\_R7DDX1 L Q Y L N H R S N M P N R Y V R D L L G L I A A E E E L G H H E E M I G A M  
UniRef90\_R6ISS3 M R Y M S Q K Y A M S N P K V A G L L N D I A T E E E L G H H E E M I G A L  
UniRef90\_D4L7C5 M R Y L S Q R Y A M P D R Q T M G V L T D I G T E E E L A H H E E M V A T L  
UniRef90\_I4D2A4 T Q Y L N H R S N M R N R Y L R D L L G L I A A E E M G H H E E M I A V A  
UniRef90\_R5Z5B9  
UniRef90\_C6LJ18  
UniRef90\_UPI0002FACE89  
UniRef90\_G2FV18

UniRef90\_B8D198 V Y K L V K D V P Q V L R E A 90 100 110 120 G F G A H Y A Q H G  
UniRef90\_R7DLL5 L Y Q L T K D A T L D E L R K V G L D K H Y A E H G  
UniRef90\_R6Y2H3 V Y Q L T K G A T F E E I R D S G L A P Y Y V D H G  
UniRef90\_E7GD61 V H Q L T A G A T M E E I K A A G L E A N Y T E H G  
UniRef90\_W1FMJ9 V G M L N K G A K G E L A E G V E N E A E L Y R S M T E N G N D S H I T S Y G  
UniRef90\_D4W6T8 I N L L N G H D L N Y E A A V A G E V Q A H V V H G  
UniRef90\_B9TGD9 A R M H L K P V K F N D R K E A D P L I A I A G G  
UniRef90\_K6TT16 V N L L N G H K V D Y T Q V D A G E I E T H T L T G  
UniRef90\_K9S5C7 I E A H T K N V D Q T D A F K S S L F A V R G  
UniRef90\_UPI0003082BA8 I E I H T K D T D Q S E A Y N S T L F A V R G  
UniRef90\_B1C614 F S K L V E G A T K D E L I E S G L A G Y N I E H G  
UniRef90\_R5M3H7 I Y Q L M K D A T L A E I K E A G L D T H Y A E H A  
UniRef90\_A1HMQ8 V Y K L T D G A S P E E F K E A G W E G Q W V Q H D  
UniRef90\_A6CC47 A R M H L K P L R K N G E A A L E D P L I A V V G G  
UniRef90\_UPI00034984D2 I E A H T K N V D Q T E A F R S T L F A V R G  
UniRef90\_Q181Y5 V Y Q L T S D A S P E E L K A A G L G S N Y A Q N G  
UniRef90\_A0A037ZC87 I N L L N G H D L A F E K I T A G Q I E S A V L G G  
UniRef90\_R7GFK0 I K D L T K G V S M E E I K K S E N L A N Y V D H G  
UniRef90\_U2ECK1 V Y Q L T V D A D P E E I E G S A F A P Y Y A I H G  
UniRef90\_R6TL05 I N L L N G H D V N Y K N I A N G T I E A Q V L T G  
UniRef90\_V5L4L4 V G Q L T D G E G A K S F D K Y G N G D Y Y A G H A  
UniRef90\_V9H7H7 I N L L N G H D V D Y K K V V S G E I Q G H V L G G  
UniRef90\_UPI00047C5724 V Y Q L T Y D A T P E Q L R A A G L G S N Y A Q N G  
UniRef90\_U2DE51 V N L L N G H D L D A A H A T V G N V E A H V L T G  
UniRef90\_Q7ND62 I E G H T K N V D Q T D A F K S T L F A V R G  
UniRef90\_K9VHN9 I E M H T K N V D Q T E A Y K S T L F A V R G  
UniRef90\_UPI00036D0B70 I N L L N G H D V A N T P D T V G Q I E G Q V L G G  
UniRef90\_K9XRL6 I E V H T K N V D Q T E A F T S T L F A V R G  
UniRef90\_R6TFZ4 M S Q L M K G A T I D E I K A A G L D A Y Y T E H G  
UniRef90\_E7GCB8 I N Q L N G H E P C A N K A T I G N V E A H V L T G  
UniRef90\_R5V5Q5 I Y Q L M Q G A T L E E L E K E G L G K N Y A Q H G  
UniRef90\_R5J328 L Y Q L M K G A T K E E L K A A G L D G M Y S Q F G  
UniRef90\_R5XBD5 V H Q L T K N L T E K Q I E E N P G F A A Y F V D H T  
UniRef90\_R7P729 V S Q L M R D A T L D E I K E A G L E S F Y T E H G  
UniRef90\_B4VYQ0 I E S H T K N V D Q T D A Y K S T L F A V R G  
UniRef90\_A6TTA0 I S L L N G H D L N V E N V S L G E I Q N Q V L T G  
UniRef90\_R5VGI3 F R Q L I K D A T L E E L E A A G L A E Y Y T E H G  
UniRef90\_R6AU93 V H Q L L H G A S K E E L M N A G L T G T Y V E H G  
UniRef90\_H2JJ77 V N L L N G H V L D A K N A T V G N I E A H V L T G  
UniRef90\_J1H6A7 V Y Q L T R N L T P E Q I K E A G F D S Y F V D H T  
UniRef90\_G9YSN8 I N L L N G H D V E A D K V I Q A G E I E T H V L L G  
UniRef90\_R5NAP4 V Y Q L M E G A T I E E L K E A G L I G Y Y T Q H N  
UniRef90\_U97FE0 I N L L N G H S V N Y E V V G V G E V E S H V L S G  
UniRef90\_K4KV68 V N L L N G H T L E A M N T S V G T V E S H V I G G  
UniRef90\_R4KEQ2 V N M L N G H D I D V T G T Q P A G N I E A N V L T G  
UniRef90\_B1HTK6 I Y K L T K D A T P E M L K E A G L G D H Y V N H D  
UniRef90\_F9VLB0 I M L L N G H D V N A E S T Q S G E I Q S Q V L F G  
UniRef90\_F0HHA7 I F Q L T E G A T I E E I K R A G F D G T Y A S R G  
UniRef90\_B9YEF3 I N Q L N G D Q L N A K E A T V G G M E A H V L T G  
UniRef90\_UPI000419A660 I E A H T K N V D Q T E A Y K S T L F A V R G  
UniRef90\_R7KZX8 V Y Q L L T K N L T P E Q I K Q G G L D A Y Y V D H T  
UniRef90\_C8W4C2 I N L L N G H D P Q A M N A N V G N V E A H V L S G  
UniRef90\_R5FR05 I D G L M K G A T I E E L K A H G L D K M Y A Q R G  
UniRef90\_E5YY99 M D E A V R H A N P H H Y I V G A  
UniRef90\_R2SXA4 V A R L L E D A P V E E Q E K A M A N D P T I G A I I S G M N P Q H A I V A G  
UniRef90\_L1KAA0 V A L N L E G A P L S L Q E K A A G N P V S G A L L G G I N L K D L L S A G  
UniRef90\_B8D1S8 I N M L N G H E V S N T N D N I G Q I E S Q V L S G  
UniRef90\_R7APP2 V C Q L T K N L T P D Q I E E S G F G P Y Y I D H T  
UniRef90\_F0SWU7 V N L L N G H K V D A I N A N I G N I E A H L T S G  
UniRef90\_B2ID85 I A Q H T S K I D Q T A V H A A P L F A S M K G  
UniRef90\_A0A024PFU7 I A R L L D D A P V N E Q E K A A E D P V I G A I M G M N P H H A I V S G  
UniRef90\_R6NMY1 V H Q L T D G A S I E E I E K A G L A P Y Y T D H G  
UniRef90\_T0I8I2 I N L L H G H D V N T E A V M A G H I E S Q V L T G  
UniRef90\_F0HCT0 I Y Q L T D G A S I E E I K A A G L D T S Y A G R G  
UniRef90\_Q2RJQ9 V N L L N G H E P Q A M N A T I G N V Q A H V T T G  
UniRef90\_S0FPX2 V Y Q L T K D L T V D E I K E S G F D T Y F V D H T  
UniRef90\_R6U668 I Y Q L T R D L S L K E I K D S G F D T Y F V D H T  
UniRef90\_UPI00047D2370 V Y K L L E G A S V E Q Q A I V A G  
UniRef90\_F6DTB2 V G M L N K G A K G A L A E G V E N E A E L Y R S M T E N G N D S H I T S Y G  
UniRef90\_UPI0003A96379 L Y Q L T K G L S V I E E I K E G G M E A Y F V D H T  
UniRef90\_R6D3X8 I E V H T K N A K Q A G Q E A A F N S L F A V R G  
UniRef90\_B4WI95 V H Q L T R N M T M E Q I K E A G S F E T Y F V D H T  
UniRef90\_R6DP98 V H Q L T K N L S P E E I E R S G F A P Y Y V D H T  
UniRef90\_R5U9G3 I A R L L D D T S L E Q Q E S A Y H S D P A I A A I M G M N P Q H A I V S G  
UniRef90\_L5N164 I Y K L T K D A T P E Q M R E A G L L G D H F V D H G  
UniRef90\_T0BM18 V H Q M I K G A S I E E L D E A G L L G H Y T E H G  
UniRef90\_R6D4Z2 I S L L T E G Q V S T E S P E E Y A L Q L L G G  
UniRef90\_C9R990 V H Q L T R N L T P E Q I V E S G F G P Y Y I D H T  
UniRef90\_N9XBY8 V A M L N K G A K G Q L A E G V E Q E A E L Y R S L T S G G N D S H V T L Y G  
UniRef90\_I5CJX9 V Y Q L T R R L S I D E I E K S G F D K Y Y T D H T  
UniRef90\_R5JYR2 V H Q L T R N L S E K D I K E G G F A P Y F I D H T  
UniRef90\_G4KP74 V H Q L T R N L T D E Q I Q S D P A F A S Y F V D H T  
UniRef90\_R5HN77 V H Q L T R N L T D E Q I Q S L Y G  
UniRef90\_Q63I50 V H Q L T K D L S M E E I E K S G F G P Y Y I D H T  
UniRef90\_R7DDX1 V H Q L T R N L T E K Q I E E N P G F A A Y F V D H T  
UniRef90\_R6ISS3 V Y Q L T K D L T E D E I K E Q G F G D Y F V D H T  
UniRef90\_D4L7C5 I T K L I K E Q G F G D Y F V D H T  
UniRef90\_I4D2A4 V H Q L T K D L P C N E V D T A G F E K Y Y V D H T  
UniRef90\_R5Z5B9 I H Q L T R N L S M E E I E N S G L G P Y Y I D H T  
UniRef90\_C6LJ18 I H Q L T R N L S M E E I E M P Q N P P S H T Q Q I L Y G  
UniRef90\_UPI0002FACE89 I N K L G  
UniRef90\_G2FV18 I N K L G

UniRef90\_B8D198 R A N Y P S D A A G V P W T A A F I Q S T H E D P V A S L H E D L A A E E K A R A  
UniRef90\_R7DLL5 F G L F P P D V N G V P F T V A N I V Q A S T G D W A A D L L E E D L A A E E K A R A  
UniRef90\_R6Y2H3 L G I Y P P A D A N G V P F T A A T V L Q A S T G D F I T A D L L E E D L A A E E K A R A  
UniRef90\_E7GD61 V S L Y P T D A D A N G V P F F T A Q Y F A V I G D G D F I T A D L L E E D L A A E E K A R A  
UniRef90\_W1FMJ9 G G T P L T N S S G G V P W T A A Y V D T I G E P T A D L L R S N I A A E E A R A K I  
UniRef90\_D4W6T8 L N P G L T N S S G G F P W T A T Y V N V I T G D L V A D L L R S N I A A E E A R A K I  
UniRef90\_B9TG09 G G V N L F N S S Q G N P W T A D Y V L N K I T G E L D V D L L R S N I A A E E A R A K I  
UniRef90\_K6TT16 L S P Y L A N S S G H P W N A D Y V L N V I T G D I A A D L L S D I A A E E A R A K I  
UniRef90\_K9S5C7 M G P H F L D S S Q G N A W T A N Y L N E G G D V V R D L R A N I A A E E A G A R Q  
UniRef90\_UPI0003082BA8 M G P H F L D S S Q G N A W T A N Y L N E G G D V V R D L R A N I A A E E A G A R Q  
UniRef90\_B1C6I4 C N P F Y L N V D G V P W T A A Y I G S K G D A E V D M Y E D M D A A E E Q K A R A  
UniRef90\_R5M3H7 H S L Y P T D A N G V P F T V G Y F A S T G D P L I T D L L S E D M A A E E Q K A R A  
UniRef90\_A1HM08 H A L F W T D V N G V P W T A K Y F A A L G D P L I T D L L V E D M A A E E Q K A R A  
UniRef90\_A6CC47 G G V S L N S S Q G V P W T A K Y I A I T G Q L E V D L L R S N M A A E E A R A K I  
UniRef90\_UPI00034984D2 Y G P H F L D S S Q G I A W S A K Y L N E G M S H L V R D L R A D I A A E E G G K A R A  
UniRef90\_Q181Y5 M G I Y P T D S N G V P F D V R P I A V M S N P V T D L L H E D M A A E E Q K A L A  
UniRef90\_A0A037ZC87 L S P M L A N A S G E P W T A N Y V N V I T G D L A A D L L S N I A A E E Q R A K V  
UniRef90\_R7GFK0 T S Y F P V D A S G N P F T V T Y F A S S T G N Y I T D L L Y E D L A A E E Q K A R A  
UniRef90\_U2ECK1 K G I Y P A A S T G E P F T A A Y F Q S T N D L K A N L H E D M A A E E Q K A R A  
UniRef90\_R6TL05 L N P G L T N A S G Y S W T S D Y V S V T G D L A D L L S N I A A E E Q R A K V  
UniRef90\_R5L4L4 N G V Y P V N A A G V P F S A A Y F A V K A D P I A D L L V E D M A A E E Q R A R A  
UniRef90\_V9H7H7 L S P L L I N S S G Y S W T S D Y V S C T G D L V A D L L S N I A A E E Q R A K V  
UniRef90\_UPI00047C5724 F G I F P S D A N G V P F S T S T I A V M G N A V T D L L H E D M A A E E Q K A L A  
UniRef90\_U2DE51 L T P M L A N A S G Y L W T A A Y V N E T G D L A A D L L S D I A A E E Q R A K V  
UniRef90\_Q7ND62 V G P H F L D S S Q G S A W T A A Y L N E G G D V V R D L R A N I A A E E A G A R Q  
UniRef90\_K9VHN9 V G P H L L D S S Q G S A W T G A Y V N E G G D V V R D L R A N I A A E E A G A R Q  
UniRef90\_UPI00036D0B70 L S P L L A N A S G E P F T A N Y V N V I T G D V I A D L L R A N I A A E E A G A R Q  
UniRef90\_K9XRL6 M G P H F L D S S Q G S A W T A N Y I N E G G D V V R D L R A N I A A E E A G A R Q  
UniRef90\_R6TFZ4 K D L F P E N A S G V P F T A Y I V S A T G D V I A N I V E D M A A E E Q K A R A  
UniRef90\_E7GCB8 L T P M L A N A S G Y L W T A A Y V N E T G D L A A D I L S D I A A E E Q R A K V  
UniRef90\_R5V5Q5 E A L F P S D A F G V P F T A G G I V G A T G D P L A D I A D I E S D M A A E E Q K A R A  
UniRef90\_R5J328 R D L F P S D S F G N P F N M T Y I K V S G D Y I A D I E S D M G A A E E Q R A R A  
UniRef90\_R5XBD5 A G V Y P A A A S G F P W N A A D S I Q S T G D P L A D L L S E N D M A A E E Q K A R A  
UniRef90\_R7P729 K G V F P M N A N G V S F N A A D T F A V I T G N P L A D L L S E N D M A A E E Q K A R V  
UniRef90\_B4VYQ0 M G P H F L D S S Q G S A W T A T Y I N E G G D I V R D L R A N I A A E E A G A R Q  
UniRef90\_A6TTA0 L A P D L V N A S G A P F T A D Y I N V I T G D L A A D L L S N I A A E E Q R A K V  
UniRef90\_R5VGI3 K G V Y P V N P S G V P F T A S Y F A S T G D P I V D L L C E D M A A E E E K A R A  
UniRef90\_R6AU93 F G I Y P M D V N G V A F D A K T F A S T G D A V V D L L A E D M A A E E E K A R A  
UniRef90\_H2JJ77 L T P M L S N A S G Q L W T A A Y V N E T G D P A D I L S N I A A E E Q R A K V  
UniRef90\_J1H6A7 T G I Y P V D A S G V P Y S A S T F A S K G D P I T D L L H E D L A A E E Q K A R T  
UniRef90\_G9YSN8 L N P G L I N A S G Y S W T A D Y V I T V I T G D L A D L L S N I A A E E Q R A K V  
UniRef90\_R5NAP4 R G I Y P V D A S G V P Y T A A Y I E S T G N Y I A D L L T S D M A A E E E R A R V  
UniRef90\_Q97FE0 L T P F L V N S S G E P W T A A Y V S V T G D I V A D L L S N I A A E E Q R A K V  
UniRef90\_K4KV68 L A P M L T N A S G Y P W T G A Y I E C T G D L A A D L L S D I A A E E T R A K V  
UniRef90\_R4KEQ2 L A P Y L T N G S G V P F T A T Y V N V I T G D L P A D I L S N I A A E E Q R A K V  
UniRef90\_B1HTK6 R A L F Y Q N A S G V P F T A T Y I Q A K G D P I A D L L Y E D I A A E E E K A R A  
UniRef90\_F9VLB0 L N P G L V N S S G Y S W T G D Y V S V T G D L A D L L S N I A A E E Q R A K V  
UniRef90\_F0HHA7 I S V F L A D P E Q T P W T S A Y I N E T G D P V A D I A S N M G A E E Q R A R A  
UniRef90\_B9YEF3 L T P L L A N A S G Y L W T A A Y V N E T G D L A A D L L S D I A A E E Q R A K V  
UniRef90\_UPI000419A660 M G P H L L D S S Q G S A W K A N Y L N E G G D I V R D L R A N I A A E E A G A R Q  
UniRef90\_R7KZX8 L G I Y P S S A A G V P F T A A Y F Q S K G D I L T D L L H E N M A A E E Q K A R V  
UniRef90\_C8W4C2 L S P M L T N A S G Q L W T A A Y V N V I T G D L A A D L L S N I A A E E Q R A K V  
UniRef90\_R5FR05 L D H F P Q D N N G V P F T A Y I G A T G D V I A D L L Y E N M A A E E Q K A R A  
UniRef90\_E5Y99 Q G S L P V D A A G N P W M G N Y V Y N H G N L V A D L L D N L V L E S T G V L  
UniRef90\_R2SXA4 L G P R P A D S M G N P W S G G Y I I A S G N L L A D F R A N L N A E S T Q G R L  
UniRef90\_L1KAA0 L S A M P V D S D G V P F Y M S H I Y A S G T A A A D M S A N V T A E S T G R I  
UniRef90\_B8D1S8 L A P M L A N G S G T P F T G N Y V N V I T G D I T A D I L S D I A A E E Q R A K V  
UniRef90\_R7APP2 T G I W P Q A A G G V P F N A C E F Q V K G D A I T D L T E D L A A E E Q K A R S  
UniRef90\_F0SWU7 L A P M M T N S S G Y P W T A A Y I E T T G D L A A D L L S N I A A E E Q R A K V  
UniRef90\_B2ID85 I G P H F L D S S Q G H W T A S Y I N E G G N V R D L R A N I A A E E A G A R Q  
UniRef90\_A0A024PFU7 L G A M P E N S T G V P W S G G Y I V A S G N L I T D L R A N I A A E E S Q G R L  
UniRef90\_R6NMY1 V D I Y P Q S A A G V P F D A T C L A C K G D P I A N L Q E D L A A E E Q K A R A  
UniRef90\_T0I8I2 L N P L M A N A S G Y L W T A A Y V N V I T G D L A A D L L S N I A A E E Q R A K V  
UniRef90\_F0HCT0 T G I F L A D P N G V P W N A G Y V A L K A D P V A D L L T A D M A A E E Q K A R A  
UniRef90\_Q2RJQ9 L N P F Y S N A S G Q V W T A S Y I E A T G D L P A D L L S N I A A E E Q R A K V  
UniRef90\_S0FPX2 L A L Y P V I A S G M P F T A T Y F Q S K G D P I T A D L L H E D L A A E E Q K A R T  
UniRef90\_R6U668 T G V Y P I A A S G V P F S A E I F Q S T G D A I A D L L H E D L A A E E Q K A R L  
UniRef90\_UPI00047D2370 A G A R P F D S M G N P W Q S Y I T A S G N L I A D F T A N A N A E M Q G R L  
UniRef90\_F6DTB2 K S L Y W E N A A G V P W V I A A Y V S A T G D P V A D L L H E N L A A E E Q K A R A  
UniRef90\_UPI0003A96379 G G T P L T N S A G V P W T A A Y V S D T I G E P T A D L L R S N V A A E E A R A K I  
UniRef90\_R6D3X8 T G I Y P Q A A S G V P F S A S T L Q S T G D I V C D L V E D L A A E E Q K A R V  
UniRef90\_B4WI95 I G P H F L D S S Q G S A W T A T Y L N E G G N V R D L R A N I A A E E A G A R Q  
UniRef90\_R6DP98 A G V Y A Q A A G F P F D A L C F A S K G D A I T D L T E N M A A E E Q K A R T  
UniRef90\_R5U9G3 L A L W P Q A A S G A P W T A T Y F Q S K G D P I T D L L H E D L A A E E Q K A R T  
UniRef90\_L5N164 L G A M P A D A S G N R W T A D Y I T S S G N L L A D F R A N L T A E S Q A  
UniRef90\_T0BM18 P S L F Y H N S A G V P W T A A Y I Q S K G D P I A D L L Y E D I A A E E E K A R A  
UniRef90\_R6D4Z2 F S L F P S D P N G Y S W T A D Y I S T T G D P I A D L L E E D L A A E E Q K A R A  
UniRef90\_C9R990 G G A V W L N S G G A P F C G S Y V D T V G D L V A D L L V S N I A A E E F R A K A  
UniRef90\_N9XBY8 T G I W P Q S A G V I F N A C E F Q S K G D P I T D L L V E D M A A E E Q K A R S  
UniRef90\_I5CJX9 G G P A L T N S A G V P W T A A Y I D T I G E P T A D L L R S N I A A E E A R A  
UniRef90\_R5JYR2 L G I W P Q A A G V P F N A C E F A V K G D P I T D L L H E D M A A E E Q K A R T  
UniRef90\_G4KP74 A S V Y P T A A S G S P W S A D G I A V T G D T I A D L T E D L A A E E Q K A R L  
UniRef90\_R5HN77 T G I Y P T A A S G F P W T A A S I G V K G D P I C D L T E D M A A E E Q K A R L  
UniRef90\_Q63I50 A G A P L V N S G A V P W T A A Y V D T I G E P T A D L L R S N I A A E E A R A K L  
UniRef90\_R7DDX1 V G V W P Q A A S G V P F N A C E F Q S K G D P I T D L L R S D L A A E E Q K A R A  
UniRef90\_R6ISS3 A G V Y P T S A S G S P W N A A S I G V K G D T I A D L L N E D L A A E E Q K A R V  
UniRef90\_D4L7C5 T G I F P Q A A A G F P Y T A A S M Q V K G D P I T D L L H E S M A A E E Q K A R T  
UniRef90\_I4D2A4 P P L T C Q A N A Q G A P W V S T Y I D Q S T D Y I A M L Q E V D I Q A E T R A R L  
UniRef90\_R5Z5B9 L G V W P Q A A G G I P F N A C E F Q S K G D P I T D L L F E D M A A E E Q K A R T  
UniRef90\_C6LJ18 I S L W P Q A A G V P F N A C E F Q A S K G D P I T D L L H E N M A A E E Q K A R S  
UniRef90\_UPI0002FACE89 G P A L V N S S G V P W T A A Y F Q S I G C P T A D M R S N I A A E E A R A K L  
UniRef90\_G2FV18 P P L S Y V N S Q G I P W N M S Y V D Q N L D P I A M L Q A D V E A E V R A R L

UniRef90\_B8D198 T Y E Y L I D M T 170 P A I I D T L S F L 180 R M R E V V H F 190 Q R F G E A L D L L Y 200  
UniRef90\_R7DLL5 A Y E H L I D L A N T D P N V I Q V L L Y L R R Q R E V V H Y Q R F F K E L L E T Y K  
UniRef90\_R6Y2H3 T Y E H L L D L L A S T D D D V L L A P L S F L R R Q R E V V H Y N R F F K E L L E Y Y K  
UniRef90\_E7GD61 T Y E H L M D L L A N D P G D V L A P L S F L R R Q R E V I I H Y A R F F K E L L Y D E Y  
UniRef90\_W1FMJ9 I Y E R L L T N V I T D D P G V V K R D A L A F F L L N R R E E A H N A L F R A E A L N K V Q  
UniRef90\_D4W6T8 I V Y E R L L Y R Q I I D D K Y V K E T I L D Q F L L M T R R E E A H N A L F R A E A L N K V Q  
UniRef90\_B9TGD9 V Y E R L L N F I C D D A G Y T K R D A L D Q F L L M T R R E E A H N A L F R A E A L N K V Q  
UniRef90\_K6TT16 V Y E Y L L Y R Q I I D D K Y V K E T I L D Q F L L M T R R E E A H N A L F R A E A L N K V Q  
UniRef90\_K9S5C7 T Y E Q L L T K L A P D D G T K K K T L V Q H L L T R R E I S H T K M F F M E A L L N S M G  
UniRef90\_UPI0003082BA8 T Y E S L L I K L A T D D D G T K K K T L R F L R R E I S H T K M F F M E A L L N S M G  
UniRef90\_B1C6I4 T Y E N L L I K M T D D P L L K N T L R L F L R R E V V H F Q R F F G E L L R L V Q  
UniRef90\_R5M3H7 I V Y E N L L I D L T N D D P D V I G T P L L W L R Q R E I V H Y A R F F K E L L F D N T Y Y E  
UniRef90\_A1HM08 T Y E H L I A A T D D P E L L A K D T L R L F L R R E V V H F Q R F F G E L L F D N T Y Y E  
UniRef90\_A6CC47 V Y E R L L I D Y T D D P G T K D A L K F L L M T R R E I T H L K A F F G Q A L L E S M D  
UniRef90\_UPI00034984D2 T Y E E L L V K L A P D A G T K D T L V Q H L L T R R E I S H T Q M F F M E A L L D S L G  
UniRef90\_Q181Y5 T Y Y Q L L I N L T D D V D V I G T P L L W L R Q R E I I H Y Q R F F G E A L L D S A Y E  
UniRef90\_A0A037ZC87 V Y E Y L L Y R Q I I N D K Y V K E T I L D F F L L N R R E E A H N A L F R E A L L N K V Q  
UniRef90\_R7GFK0 M Y E H L M D I T N D P E A I L A P L S G W L R R E I I H F N R F F G E A L L K L Y  
UniRef90\_U2ECK1 A Y E N L M L N T D D P A V L D V L L S G W L R R E V V H F Q R F F G E A L L T D K L Y  
UniRef90\_R6TL05 V Y E Y L L Y R Q I I E D K Y V R E A V I D F F L L N R R E E A H N A L F R E A L L N K V Q  
UniRef90\_R5L4L4 T Y D N I L R L S D D P D V R E A V I K F F L R A R R E V V H F Q R F F G E L L N H Y Y  
UniRef90\_V9H7H7 V Y E Y L L Y R Q I I E D K V V R A T I D F F L L N R R E E A H N A L F R E A L L N K V Q  
UniRef90\_UPI00047C5724 T Y Y H L I N L T D D A D I I D V L R F L L G E R R E I V H Y Q R F F G E A L L M D V Y  
UniRef90\_U2DE51 V Y Y Q L L Y R Q I I D D K G V R R T I D F F L L N R R E E A H N T M F F M E A L L N S L Q  
UniRef90\_Q7ND62 T Y E A L L I K L A P D D E G T R K T L V Q H L L T R R E I S H T Q M F F M E A L L D S L G  
UniRef90\_K9VHN9 T Y E E L L I K L A P D D T G T K K T L H F L L T R R E I S H T E M F F M E A L L E A L G Q  
UniRef90\_UPI00036D0B70 V Y E Y L L H R Q I I D D Q G G T K E T I D F F L L N R R E I S H N A L F R E A L L N S M G  
UniRef90\_K9XRL6 T Y E A L L I K L A P D D Q G G T K E T I V H L L T R R E I S H T N M F F M E A L L D S M G  
UniRef90\_R6TFZ4 I V Y E N L L I R Q A T D D P E V I Q E T P L V F L R Q R R E V V H Y Q R F F L E L L E H Y K  
UniRef90\_E7GCB8 V Y Y Q N L L Y R Q I I D D N G V R R E I D F F L L N R R E E A H N T M F F Q A F N K I Q  
UniRef90\_R5V5Q5 T Y E H L I N L T T D D P D V I Q P L I D F F L R Q R R E V V H Y Q R F F K D L Y D R Y A  
UniRef90\_R5J328 T Y E H L M D L T D D P D I L G P L A F L R Q R R E I I H Y Q R F F K E L L R D Y Y  
UniRef90\_R5XBD5 T Y D N I L R L V D T D D P V I E P L K F L R R E I V H Y Q R F F G E A L L T L T  
UniRef90\_R7P729 A Y E H L I D L A T D D K S V I E P L F L R R Q R R E V V H F N R F F K E L L Y D Y Y K  
UniRef90\_B4VYQ0 T Y E S L L I K L A P D P G T K E T I L V H L L T R R E I S H T K M F F M N A L D S M G  
UniRef90\_A6TTA0 V Y E Y L L Y R Q I I D D K Y V R E I D F F L L N R R E E A H N A M F F R E A F N R I S  
UniRef90\_R5VGI3 G Y E N M L S L A K D D P D L I E P L F F L R Q R R E V V H Y R Q R F K E L L Y E Y K  
UniRef90\_R6AU93 V Y E H L I D L A D D E D V I D V L L Y L R Q R R E V V H Y N M F F K E T L Y K K Y K  
UniRef90\_H2JJ77 V Y E Y L L Y R Q I I D D K G V R R T I D F F L L N R R E E A H N T M F F A F N K I Q  
UniRef90\_J1H6A7 T Y D N I L R F I C D D P D V I D P L I D F F L R Q R R E V V H Y Q R F F G E G L R I T T  
UniRef90\_G9YSN8 V Y E Y L L Y R Q I I E D K K V R E T I D F F L L N R R E E A H N Q M F R D A F N E V Q  
UniRef90\_R5NAP4 T Y E N L M N E T N D S K E V R R T I D F F L L N R R E V V H Y N R F F R E A L L N K V K  
UniRef90\_Q97FE0 V Y E Y L L Y R Q I I N D K G V R R T I D F F L L N R R E E A H N A L F F R E A F N M L Q  
UniRef90\_K4KV68 V Y E Y L L Y R Q I I N D K K V R R E T I D F F L L N R R E E A H N T L F F R E A F N M L Q  
UniRef90\_R4KEQ2 V Y E Y L L H R Q I I D D K H V R Q M I D F F L L N R R E E A H N T L F F R E A F Q K I  
UniRef90\_B1HTK6 T Y Y Q W I D L S D D T D L N D S L K F L R R E I V H S Q R F F R E A A V E L L K  
UniRef90\_F9VLB0 V Y E Y L L Y R Q I I H K K V K Q T I D F F L L N R R E E A H N A M F F R K A F N K I Q  
UniRef90\_F0HHA7 G Y E H L L D M T D D E D G V K K V I D F F L L R E R E I V H F Q R F F G E T L V H V I  
UniRef90\_B9YEF3 V Y Y Q Y L L Y R Q I I E D E G V R E V I D F F L L N R R E E A H N T M F F R Q A F N R I V  
UniRef90\_UPI000419A660 T Y E E L L I K L A P D D E G T K N T L I H L L T R R E I S H T Q M F F M E A L L E S L G  
UniRef90\_R7KZX8 T Y D N I L R F A D D P D V R D P I K F L R Q R R E I V H F Q R F F G E A L L R I S Q  
UniRef90\_C8W4C2 V Y E Y L L Y R E I N D R H V R M M I D F F L L N R R E E A H N T L F R Q C F Q K I Q  
UniRef90\_R5FR05 I V Y E H L L D L A K N E E V I A P L I Y L R R E R E I V H F A L F K E L L C E T Y E  
UniRef90\_E5Y99 Q K S R I I Y E M S N K T F R E T L A F L L V R D N A N A F A K A L E S L  
UniRef90\_R2SXA4 Q V A R I Y E M I D D R G V K D L L A V L L A R D S Y H Q N L W A S A V K E L L E  
UniRef90\_L1KAA0 L A T R L S N L T N D P G M K E M L A Y L L I A R D T M H H N Q W P A A L E V L G  
UniRef90\_B8D1S8 V Y E Y L L Y R Q I I D D Q G V R E I D F F L L N R R E E A H N A L F R G E A L N K V Q  
UniRef90\_R7APP2 T Y D N I L R L V V K D P D V R C D P I R Y L R R E I V H Y Q R F F G E A L R N L Q  
UniRef90\_F0SWU7 V Y E Y L L Y R Q I I N D N G V R E M I D F F L L N R R E E A H N T L F R Q A F N E L A  
UniRef90\_B2ID85 T Y E A L L Y K R C M D E G T K K V L V H L L T R R E I T H T Q M F F M K A L A A M  
UniRef90\_A0A024PFU7 Q V A R L Y E M T D D R K V K E M L S L R G I R  
UniRef90\_R6NMY1 T Y E K L I D L C D N P D V L D P L R Y L R Q R R E V V H F Q R F F G E A L R G V Q  
UniRef90\_T0I8I2 V Y E H L H R Q I I T D D Q Y V R Q T I D F F L L N R R E E A H N T L F R G E A F N K V A  
UniRef90\_F0HCT0 S Y E H L L D L A T D D E D V R Q V L S Y L R R E V V H F Q R F F G E T L M N V Q  
UniRef90\_Q2RJQ9 V Y E Y L L H R Q I I A D R Y V R Q M I D F F L L N R R E E A H N T M F F R E A L R V V R  
UniRef90\_S0FPX2 T Y D N I L R L A D D P D V K D P I K F L R R E R E V V H Y Q R F F G E A L R V V R  
UniRef90\_R6U668 T Y D N I L R L A D D P D V R D P I K F L R R E R E I V H Y Q R F F G E G L R V I Q  
UniRef90\_UPI00047D2370 Q V A R L Y H M T D D H G I R D M L S F L L A R D T M H Q N Q W I A A A R E L Q  
UniRef90\_F6DTB2 I V Y E N L L C L T D D P C V K D V L C W L R R E I V H F Q R F F G E T L Q M E V R  
UniRef90\_UPI0003A96379 I Y E R L L I N V T D D P G V K D A L A F L M T R E A A H Q L S F E K A L L M E S I R  
UniRef90\_R6D3X8 T Y D N I L R L V D D P D V R E P L K F L R A R E I V H F Q R F F G E A L R T A Q  
UniRef90\_B4WI95 T Y E S L L I K I A P D A G T K D T L V Q H L L T R R E I S H T K M F F M E A L L D S L G  
UniRef90\_R6DP98 T Y D N I L I R L C D D P D V L D P I R F L R R E V V H Y Q R F F G E G L R I V Q  
UniRef90\_R5U9G3 T Y D N I L R L V K D P E V C D P I R F L R Q R E I V H Y Q R F F G E N L R I V Q  
UniRef90\_L5N164 T Y Q W L I E I T D D V D I Q D S L K F L R R E R E V V H S I R F R E A V E I L K  
UniRef90\_T0BM18 V Y E N L I N Q T D D P D I I G P L L W L R Q R R E V V H Y N R F F K E L L S D E Y K  
UniRef90\_C9R990 V Y E R L H R Q A T D P K I K E M L E F L I S R E E A H A A M F R G A L E K L M  
UniRef90\_N9XBY8 T Y D N I L R L V V K D P E V C D P I R Y L R R E R E V V H F Q R F F G E A L R I T Q  
UniRef90\_I5CJX9  
UniRef90\_R5JYR2 T Y D N L L R L V C K D P D V Y E V L K F L R A R R E V V H F Q R F F G E S L R L R I V Q  
UniRef90\_G4KP74 T Y D N I L R L V S D D P D V T D V I R F L R A R R E I V H F Q R F F G G S A L R Q M V R  
UniRef90\_R5HN77 T Y D N I L R L V A D D P D V T D V I R F L R A R R E I V H F Q R F F G G S A L R Q M V R  
UniRef90\_Q63I50 I Y E R L I N V T D D P G I R D A L G F L L M T R R E V S H Q K S F F G E A L R Y S I V  
UniRef90\_R7DDX1 T Y D N I L R L V R D D P E I A D P I R F L R A R R E V V H F Q R F F G E A L R S V Q  
UniRef90\_R6ISS3 T Y D N I L R L V D D P D I I Q P I K F L R R E R E I V H Y Q R F F G G E G L R V A T  
UniRef90\_D4L7C5 T Y D N I L R L V D D P D Y D V K D P I R F L R A R R E V V H Y Q R F F G E N L R L L T  
UniRef90\_I4D2A4 L Y Q Q H L E S T D D P N M K K M I N F L I T R E G V H K R L L Q K A L L I R  
UniRef90\_R5Z5B9 T Y D N I L T L V K D N E V A D P I R F L R A R R E I V H F Q R F F G E A L R M L D  
UniRef90\_C6LJ18 T Y D N I L R V V R N P E V A D P I R F L R A R R E V V H Y Q R F F G E A A K S Y T  
UniRef90\_UPI0002FACE89 V Y E R L L I N V T D D P E G I V D A L R F L L M T R E V A H Q K S F F E K A L Y S I E  
UniRef90\_G2FV18 L Y N Q H F N L T N D P D L K K M L G F L G S R E D V H K H L F Q R A Q M L V Q

|                        | 210   | 220   | 230   | 240                   |
|------------------------|---|---|---|-----------------------|
| UniRef90_B8D198        | D Y M   |   |   |                       |
| UniRef90_R7DLL5        | R E Y K Q K   |   |   |                       |
| UniRef90_R6Y2H3        | D K Y N L K   |   |   |                       |
| UniRef90_E7GD61        | V K K Y Y Q P D F N Q N   |   |   |                       |
| UniRef90_W1FMJ9        |   |   |   |                       |
| UniRef90_D4W6T8        | N T G S N R D F G V T E D S K L Y F D L S   |   |   |                       |
| UniRef90_B9TGD9        | K P A F S I G R I A P T P   |   |   |                       |
| UniRef90_K6TT16        | D R A S N K D F G V T K   |   | D S K L Y F D L S T P G R F F A D P E P T   |                       |
| UniRef90_K9S5C7        | K L D D P   | F F G N V Q P D E T                                       | V D I Y Y N L S S N G                       |                       |
| UniRef90_UPI0003082BA8 |   | K L T D P M F G N I Q P D D T V E L                       | Y Y N L S T D D                             |                       |
| UniRef90_B1C6I4        | E D K A R K K V   |   |   |                       |
| UniRef90_R5M3H7        | K   |   |   |                       |
| UniRef90_A1HMQ8        | E W M   |   |   |                       |
| UniRef90_A6CC47        | K K P   |   |   |                       |
| UniRef90_UPI00034984D2 |   | L E I G N L K P D D K W V D Q Y F N D S T G S G D L G D   | Y F N L S S N G                             |                       |
| UniRef90_Q181Y5        | L E E S Q K M F   | K L T D P M F G N I Q P D E T V D L                       |   |                       |
| UniRef90_A0A037ZC87    | N A G S N R D F G V T   |   | P D S K L Y F D L S M P G K H F E P N P T P |                       |
| UniRef90_R7GFK0        | K E I G Q K   |   |   |                       |
| UniRef90_U2ECK1        | D Q L D N K S F H I D N R D N E I I R P N K                                       |   |   |                       |
| UniRef90_R6TL05        | K T G S N L S F G V T E D S K L Y F P T N N E F K N S N F S H                     |   |   |                       |
| UniRef90_R5L4L4        |   |   |   |                       |
| UniRef90_V9H7H7        | G T G S N R D F G V T E   |   | D S K L Y F D L S                           |                       |
| UniRef90_UPI00047C5724 | D   |   |   |                       |
| UniRef90_U2DE51        | D T G S Q K E W G T T V   |   | D S R I Y F D L S Y                         |                       |
| UniRef90_Q7ND62        |   | K L T D P L F G S I E P D E T                             |   | V R L Y Y N L S N G G |
| UniRef90_K9VHN9        | K L T D P M F G N I P   |   | P D S T                                     | V D L Y F N L S T N G |
| UniRef90_UPI00036D0B70 | Q K P Q Y S   | N Y N F G V T E D S K L Y F D L S T                       | P G R Y F N P N P T A                       |                       |
| UniRef90_K9XRL6        |   | K L T D P F F G N I K P D                                 | N T V D I Y Y N L S S N G                   |                       |
| UniRef90_R6TFZ4        | K   |   |   |                       |
| UniRef90_E7GCB8        | E S A S S Q Q   | D W G V T K D S R I Y F D L S N L D G Q                   | N F Q P N D                                 |                       |
| UniRef90_R5V5Q5        | K M L N K K V   |   |   |                       |
| UniRef90_R5J328        |   |   |   |                       |
| UniRef90_R5XBD5        | D K M N S K N F Y A P G F D G K K   |   |   |                       |
| UniRef90_R7P729        | K   |   |   |                       |
| UniRef90_B4VYQ0        |   | K L T D P M F G N I E P D S T                             | V D L Y Y N L S T E S D D N                 |                       |
| UniRef90_A6TTA0        | D T G S N R D F G V T S   |   | D S K L Y F D L S S P D R H F E S P N P V   |                       |
| UniRef90_R5VGI3        | K   |   |   |                       |
| UniRef90_R6AU93        | E M   |   |   |                       |
| UniRef90_H2JJ77        | D T G S L K D W G L T K   |   | D S K L Y F N L S T P G D Q F F N A D N     |                       |
| UniRef90_J1H6A7        | D H L D S K N F Y A F N P S F D K   |   |   |                       |
| UniRef90_G9YSN8        | D S G S N Q D F G T T K A A K M Y F   |   |   |                       |
| UniRef90_R5NAP4        |   |   |   |                       |
| UniRef90_Q97FE0        | N E G S N K D F G V T E   |   | D S K L Y F D L S T P G R Y V N P T E P S   |                       |
| UniRef90_K4KV68        | N T G S L Q D W G V T Q   |   | D S K V Y F D L S T P G K Y F N             |                       |
| UniRef90_R4KEQ2        | A N G S D R D W G V D E   |   | D A R L Y F D L S T P G V N H F N L N N     |                       |
| UniRef90_B1HTK6        | D D R D Q K I   |   |   |                       |
| UniRef90_F9VLB0        | E S G S N K D F G T T   |   | P D A Q M Y L N L S S D N K F S N I N I D P |                       |
| UniRef90_F0HHA7        | E H   |   |   |                       |
| UniRef90_B9YEF3        | D S G S Q K D W G V T S   |   | D S R I Y F D L S G D G Q H F D P A R K N   |                       |
| UniRef90_UPI000419A660 | K L T D P M F G N I E P D N T   |   | V D I Y Y N L S T Y T Q G E Q D             |                       |
| UniRef90_R7KZX8        | D N L N S R N F Y A F N P E F D   |   |   |                       |
| UniRef90_C8W4C2        | D S G S N R D W G V D R   |   | D A R L Y F N L S T P G N Y                 |                       |
| UniRef90_R5FR05        | K K S G K   |   |   |                       |
| UniRef90_E5Y99         | G V I E W G K L F P V P N Y D I N K Y P E C K K Y V D M G F H N A Q F N F R L D N |   |   |                       |
| UniRef90_R2SXA4        | E N E G S I L V P   | S T F N R E N E R K D I A Y D F Y N F S E G D             |   |                       |
| UniRef90_L1KAA0        | H D A A F P I P N   | S F L Q S E E K Q D F S C A F L G F Q R D G S             |   |                       |
| UniRef90_B8D1S8        | K N K R S S   | N D D F G V T E D S R L Y F D L S T P G K Y F D N P F P T |   |                       |
| UniRef90_R7APP2        | D H L D R K N F Y A F N P E F D   |   |   |                       |
| UniRef90_F0SWU7        | E T G S L Q D W G V T E   |   | D S K I Y F D L S T P G K Y F D             |                       |
| UniRef90_B2ID85        | G K L D D P M F G T I T P D E T V   |   | N V V F N F S A G E                         |                       |
| UniRef90_A0A024PFU7    |   |   |   |                       |
| UniRef90_R6NMY1        | D K L A G R K F Y T S N C S E N   |   |   |                       |
| UniRef90_T0I8I2        | G T G S T R D W G V D E   |   | N A R L Y F D L S T P G K Y F D L K N P Q   |                       |
| UniRef90_F0HCT0        | N H F E H   |   |   |                       |
| UniRef90_Q2RJQ9        | G T G S T Q D W G V D K   |   | D A R L V F N L S T P G N Y V G S S L H N   |                       |
| UniRef90_S0FPX2        | D H L D S R N Y A F N P A F D N K P R   |   |   |                       |
| UniRef90_R6U668        | D M L D S K N F Y A F N P S F D K   |   |   |                       |
| UniRef90_UPI00047D2370 | E E K L E Q M P V I P   | S N F P   | L K K E E R S V S Y Q Y L N F S D G P       |                       |
| UniRef90_F6DTB2        | D F C K Q K K F Y   |   |   |                       |
| UniRef90_UPI0003A96379 | N   | N F P P G K L P I E E F T                                 | N K Y Y N M S E G G                         |                       |
| UniRef90_R6D3X8        | E Q L D S K N F Y A F N P E F D   |   |   |                       |
| UniRef90_B4WI95        | K L D D P   | F F G N V Q P D E T                                       | V D I Y Y N L S T E G                       |                       |
| UniRef90_R6DP98        | D N L N S K N F Y A I N P E F D   |   |   |                       |
| UniRef90_R5U9G3        | E H L D S K N F Y A F N P E F D K N P N C   |   |   |                       |
| UniRef90_L5N164        |   |   |   |                       |
| UniRef90_T0BM18        | E Y N D S K K F Y   |   |   |                       |
| UniRef90_R6D4Z2        | K K   |   |   |                       |
| UniRef90_C9R990        | Q R E E G V R   |   | R D F A D T Q Y A Q Q Y Y N F S Q           |                       |
| UniRef90_N9XBY8        | D N L D S K N F Y A F N P S F D   |   |   |                       |
| UniRef90_I5CJX9        |   |   |   |                       |
| UniRef90_R5JYR2        | D D L D S K N F Y A F N P D F D T S A P C   |   |   |                       |
| UniRef90_G4KP74        | D R L N E K N V Y Y M N P S F D K   |   |   |                       |
| UniRef90_R5HN77        | E H L D Q K N V Y Y T N P A F D   |   |   |                       |
| UniRef90_Q63I50        |   | P N F P P G K L P A V P E Y A D L                         | Y Y A M S D G G                             |                       |
| UniRef90_R7DDX1        | E Q L D A K N F Y A F N P S F D K P C E A   |   |   |                       |
| UniRef90_R6ISS3        | D K L N S K N Y Y M T N P S F D K   |   |   |                       |
| UniRef90_D4L7C5        | D K L N E K N F Y A P S F D K K C F K N E L K K                                   |   |   |                       |
| UniRef90_I4D2A4        | E N G S P E E F   |   |   |                       |
| UniRef90_R5Z5B9        | D L N N K K N F Y L Y N P   |   |   |                       |
| UniRef90_C6LJ18        | S K I E K R N V Y   |   |   |                       |
| UniRef90_UPI0002FACE89 |   | T N F P P G K L P G D P R F T D K Y Y N T S Q G E         |   |                       |
| UniRef90_G2FV18        | H S A P S E Q F   |   |   |                       |

UniRef90\_B8D198  
 UniRef90\_R7DLL5  
 UniRef90\_R6Y2H3  
 UniRef90\_E7GD61  
 UniRef90\_W1FMJ9  
 UniRef90\_D4W6T8  
 UniRef90\_B9TGD9  
 UniRef90\_K6TT16 P P S  
 UniRef90\_K9S5C7 A T D E R G P W N S E P N F R Y I A D P V A  
 UniRef90\_UPI0003082BA8 G K D E R G P W N S E P D F K Y I A D P  
 UniRef90\_B1C6I4  
 UniRef90\_R5M3H7  
 UniRef90\_A1HMQ8  
 UniRef90\_A6CC47 D Y E G P W N T G D E W N V V E N P  
 UniRef90\_UPI00034984D2 Q V D E R G P W N S E P T F R Y I A D P  
 UniRef90\_Q181Y5  
 UniRef90\_A0A037ZC87 P S F E N P  
 UniRef90\_R7GFK0  
 UniRef90\_U2ECK1  
 UniRef90\_R6TL05  
 UniRef90\_R5L4L4  
 UniRef90\_V9H7H7  
 UniRef90\_UPI00047C5724  
 UniRef90\_U2DE51  
 UniRef90\_Q7ND62 Q A D E R G P W N T E P T F E Y V A D P  
 UniRef90\_K9VHN9 K D E R G P W N S E P T F K Y I A D P A P K G  
 UniRef90\_UPI00036D0B70 P S  
 UniRef90\_K9XRL6 Q D H R G P W N S D K D F R Y I A D P  
 UniRef90\_R6TFZ4  
 UniRef90\_E7GCB8 V P P  
 UniRef90\_R5V5Q5  
 UniRef90\_R5J328  
 UniRef90\_R5XBD5  
 UniRef90\_R7P729  
 UniRef90\_B4VYQ0 P Q Q G D K P W N S A P D F K Y V A N P  
 UniRef90\_A6TTA0 P P S F D D P N Q P T D P  
 UniRef90\_R5VGI3  
 UniRef90\_R6AU93  
 UniRef90\_H2JJ77 P Q P A  
 UniRef90\_J1H6A7  
 UniRef90\_G9YSN8  
 UniRef90\_R5NAP4  
 UniRef90\_Q97FE0 F S N P R R  
 UniRef90\_K4KV68  
 UniRef90\_R4KEQ2 P Q A P  
 UniRef90\_B1HTK6  
 UniRef90\_F9VLB0 P S  
 UniRef90\_F0HHA7  
 UniRef90\_B9YEF3 P P E  
 UniRef90\_UPI000419A660 Q V D R R G P W N S E P N F R Y I I Q P  
 UniRef90\_R7KZX8  
 UniRef90\_C8W4C2  
 UniRef90\_R5FR05  
 UniRef90\_E5Y99 T R I A E I F S G K S P S R N G G E L E I T D P P M G Y P V P V L P E M P N E  
 UniRef90\_R2SXA4 E S R E G S W A S G E A L D G E G E Y Q W L A E P K I E G A K P T L Q R V P K M  
 UniRef90\_L1KAA0 E P V Q G R W S E G A S I D G N G T F T P R P M E P M G E E P N L G P P A E R E  
 UniRef90\_B8D1S8 P P S F Q E P S Q K K E P Q G  
 UniRef90\_R7APP2  
 UniRef90\_F0SWU7  
 UniRef90\_B2ID85 D Y R G P W N E G N F K Y I S N P Q A E G G L P P D P I N P  
 UniRef90\_A0A024PFU7  
 UniRef90\_R6NMY1 P P Q  
 UniRef90\_T0I8I2  
 UniRef90\_F0HCT0  
 UniRef90\_Q2RJQ9 P Q P P  
 UniRef90\_S0FPX2  
 UniRef90\_R6U668  
 UniRef90\_UPI00047D2370 T A S E G S W A S G P T P D G Y G E F S Y H D G P T T R A P M P P P T H P D A R  
 UniRef90\_F6DTB2  
 UniRef90\_UPI0003A96379 E V R G S W N S D K H F D Y V E A P Q P G G D G S A S V T L S T E  
 UniRef90\_R6D3X8  
 UniRef90\_B4WI95 E D D H R G P W N S D E N F R Y I E N P M E K A S S D D M K E V  
 UniRef90\_R6DP98  
 UniRef90\_R5U9G3  
 UniRef90\_L5N164  
 UniRef90\_T0BM18  
 UniRef90\_R6D4Z2  
 UniRef90\_C9R990  
 UniRef90\_N9XBY8  
 UniRef90\_I5CJX9  
 UniRef90\_R5JYR2  
 UniRef90\_G4KP74  
 UniRef90\_R5HN77  
 UniRef90\_Q63I50 G A R R K S P W N D G H D L R L V E H P P V P A D G G D G K A T I  
 UniRef90\_R7DDX1  
 UniRef90\_R6ISS3  
 UniRef90\_D4L7C5  
 UniRef90\_I4D2A4  
 UniRef90\_R5Z5B9  
 UniRef90\_C6LJ18  
 UniRef90\_UPI0002FACE89 G D M I G P W N A G E Q W E V V A D R E A Q A A V D G G D G S A T V  
 UniRef90\_G2FV18

UniRef90\_B8D198  
 UniRef90\_R7DLL5  
 UniRef90\_R6Y2H3  
 UniRef90\_E7GD61  
 UniRef90\_W1FMJ9  
 UniRef90\_D4W6T8  
 UniRef90\_B9TGD9  
 UniRef90\_K6TT16  
 UniRef90\_K9S5C7  
 UniRef90\_UPI0003082BA8  
 UniRef90\_B1C6I4  
 UniRef90\_R5M3H7  
 UniRef90\_A1HMQ8  
 UniRef90\_A6CC47  
 UniRef90\_UPI00034984D2  
 UniRef90\_Q181Y5  
 UniRef90\_A0A037ZC87  
 UniRef90\_R7GFK0  
 UniRef90\_U2ECK1  
 UniRef90\_R6TL05  
 UniRef90\_R5L4L4  
 UniRef90\_V9H7H7  
 UniRef90\_UPI00047C5724  
 UniRef90\_U2DE51  
 UniRef90\_Q7ND62  
 UniRef90\_K9VHN9  
 UniRef90\_UPI00036D0B70  
 UniRef90\_K9XRL6  
 UniRef90\_R6TFZ4  
 UniRef90\_E7GCB8  
 UniRef90\_R5V5Q5  
 UniRef90\_R5J328  
 UniRef90\_R5XBD5  
 UniRef90\_R7P729  
 UniRef90\_B4VYQ0  
 UniRef90\_A6TTA0  
 UniRef90\_R5VGI3  
 UniRef90\_R6AU93  
 UniRef90\_H2JJ77  
 UniRef90\_J1H6A7  
 UniRef90\_G9YSN8  
 UniRef90\_R5NAP4  
 UniRef90\_Q97FE0  
 UniRef90\_K4KV68  
 UniRef90\_R4KEQ2  
 UniRef90\_B1HTK6  
 UniRef90\_F9VLB0  
 UniRef90\_F0HHA7  
 UniRef90\_B9YEF3  
 UniRef90\_UPI000419A660  
 UniRef90\_R7KZX8  
 UniRef90\_C8W4C2  
 UniRef90\_R5FR05  
 UniRef90\_E5YY99  
 UniRef90\_R2SXA4  
 UniRef90\_L1KAA0  
 UniRef90\_B8D1S8  
 UniRef90\_R7APP2  
 UniRef90\_F0SWU7  
 UniRef90\_B2ID85  
 UniRef90\_A0A024PFU7  
 UniRef90\_R6NMY1  
 UniRef90\_T0I8I2  
 UniRef90\_F0HCT0  
 UniRef90\_Q2RJQ9  
 UniRef90\_S0FPX2  
 UniRef90\_R6U668  
 UniRef90\_UPI00047D2370  
 UniRef90\_F6DTB2  
 UniRef90\_UPI0003A96379  
 UniRef90\_R6D3X8  
 UniRef90\_B4WI95  
 UniRef90\_R6DP98  
 UniRef90\_R5U9G3  
 UniRef90\_L5N164  
 UniRef90\_T0BM18  
 UniRef90\_R6D4Z2  
 UniRef90\_C9R990  
 UniRef90\_N9XBY8  
 UniRef90\_I5CJX9  
 UniRef90\_R5JYR2  
 UniRef90\_G4KP74  
 UniRef90\_R5HN77  
 UniRef90\_Q63I50  
 UniRef90\_R7DDX1  
 UniRef90\_R6ISS3  
 UniRef90\_D4L7C5  
 UniRef90\_I4D2A4  
 UniRef90\_R5Z5B9  
 UniRef90\_C6LJ18  
 UniRef90\_UPI0002FACE89  
 UniRef90\_G2FV18

H A P G L H  
 Y G T P  
 H A T V A T

F G T T E L P N V V E K A A G T I Q D K L

Q A T L V K A M S A R T K S

A L D G D E S T T L E A M R H R L K S

A L D A T Q T A A L D A M S E R L L S N

UniRef90\_R9LGS6 1 MYFYKEDL 10 INLTV 20 PDRPD 30 PAAAKVLLQET 40 LGGFRFGEMRTM

UniRef90\_X8ILH5

UniRef90\_W0E983 MFTFSNRLEFY P V Q V ERQDPKFGQIMFE H Y G G K D S E F S A V

UniRef90\_K4L4Z7 MFKYADALLF P V E V N Y P D P Q F G R I M L E H Y G G K D S E F S A A

UniRef90\_UPI0003EFAD31

UniRef90\_H5Y1Q8 MFNY H K R L F Y P I H V ERQDP P A F A H V L I D H Y T G T D S E L F S A

UniRef90\_B8FP08 MY I Y R K R F F Y P I H V ERQDP P V L A K E L L E H Y G G R D S E L T Q A

UniRef90\_K4KW63 MFSYQKRLLY P V Y V EKKNK L A R S L L E H I G G K D G E F T A F

UniRef90\_J7IRG3 MFNYSKRLLFY P I H V ERERED P A F A K L L I E H Y S G I D G E L S S A

UniRef90\_K4LK98 K C A Y P A P Y P E V P N P K Y A Q L L L E D Y A G M V S E L T A V

UniRef90\_UPI00036684AB

UniRef90\_H7D7A9

UniRef90\_G7W7X8 MFNY H K R L F Y P V H V ERQDP P A F A K V L L E H Y A G K D S E L S S A

UniRef90\_R6UU52 MF I Y D T K L P F E V R I T ERQDP M K Y Y L L L D R Q L K G G S S G L K Q A

UniRef90\_U2D114 KY I V N L P Y P Q P R I E R N P N V I Q Y A N I L L K D Y A G T V S E F T A I

UniRef90\_Q3A9V3 P Y P P V K V K V K N P N T M Y A E I L M D D Y A G T A G E L T A I

UniRef90\_UPI000288B629 K H T K N L P Y P K R V E R Q N V E Y A N I L L Q D Y A G A V S E F T A V

UniRef90\_R6D453 M I V K V K D I P Y P K V R V E R K N P Y Y A D L L S E D Y A G I K G E L T A I

UniRef90\_F4LS79 P Y P E I L K V A R E N P Y Y G K L L L E D Y A G R A G E L T A V

UniRef90\_U5RRU3 K Y I V N L P Y P K P R V E K T S I G Y A N V L L K D Y A G E V S E F T A V

UniRef90\_F0T0G7 H H Q Y R L P Y P E I K V M G E N L H Y A A L L H E D F A G K V S E M T A V

UniRef90\_R5L5T5 L P Y P E I K V K E R N K A Y A E L L A L D Y C G Q S S E M T S T

UniRef90\_A4XLT4 P Y P E P K V E E P N R H Y A E I L L D D Y A G Y A S E F T A I

UniRef90\_U5F547 MY L Y D N Q L P M E I N N I T P D P K L Y E Y M D H E C G C E K G L Q L A

UniRef90\_I4A8V9 P Y P E I L K V L I G E N P Y Y A Q E L L Y D D Y A G Q V S E L T A I

UniRef90\_R6XS18 K D L P Y T E P V I P Y P N P V E A K K L M N D Y G G R D S E T T A I

UniRef90\_C4IGK8 L P Y P K I Q V K N K N E K Y A Q I L L S Q D F C S S V S E F T A I

UniRef90\_H5XZ89 Y S D P S P Y P E I L K V Q G P N L H Y A E I L L M D D Y A G I V S E F T A I

UniRef90\_F0T0J6 M F S Y Q R R L F F P V A I E R K D P D A A N I L L R E S Y G G K F G E L S T A

UniRef90\_I7K843 Y P P K V E K S I N Y A N L L L L D Y S G L V S E L S A T

UniRef90\_C0EHX3 D N K H Q Y T A P G P Y P N P R Y A Q L L T I D F A S S K G E L T A I

UniRef90\_D7CNY4 H L P Y P P V M V E N P N P F Y A T L L M E D H A G R I S E M S A I

UniRef90\_G7WDA9 K Y A D P S P Y P E V K V L N P N L N Y A E I L L M D D Y A G V I S E F T A I

UniRef90\_I9MHH0 P Y P P R V M G K N P Y Y A S I L L E D Y A G I S G E L T A I

UniRef90\_T0JR89 Y Y S D P S P Y P E I R V V I E P N L H Y A R L L M D D Y A G V V S E F T A I

UniRef90\_R4KK76 P Y P E L R V Q R N R Y A E L L L E D Y A G Q V S E T T A I

UniRef90\_R9INQ4 L P Y P A I Q V R E K N P L Y A N L L S I D Y C G A V S E L S A I

UniRef90\_R9MCB8 L P Y P A I K V R E K N M A Y A N L L S A D Y C G A V S E L S A I

UniRef90\_R7FP19 L P Y P E V C V T E P N L Y A R L L S S A Y A G D G G E L S A V

UniRef90\_C5EPQ3 F R Y T A D L P Y P I Q V E M K N P A Y A K A M L D N I G L N S E M S A I

UniRef90\_R9K6S3 L P Y P I Q V R R E N P A Y A N L L L G M D Y C G P V S E L S A I

UniRef90\_UPI00036660C6 MF R C A Y P A P Y T A P N R Q Y A E L L L E D Y T G V V S E F T A I

UniRef90\_R7G504 M F A Y Q G K K A F E V R N I H P S V Q Y Y Q L L D Q Q L H G C E G L K Q A

UniRef90\_T3D9Y7 P Y P E I R V L I G P N K Y Y A E L L M D D Y S G R A S E F T S V

UniRef90\_R5Q1F4 P Y P E I K V P A K K D P A F A S L L S V D Y A G S G G E L S S I

UniRef90\_R9MTA1 L P Y P E I Q V Y G K N Q A Y A N L L S V D Y C G S V S E L S A V

UniRef90\_R9N2N0 P Y P E T K V K A Q N Q M Y A N L L S N D Y C G T T S E M S A I

UniRef90\_R7KT72 P Y P P V K V A T R E N V R F A A Q L L S S A F G G S G G E F G T I

UniRef90\_R6QJT9 P Y P P V K A A R R N P R Y A E M I L P A L R A Q S S E L T A V

UniRef90\_C6PWD0 K Y I A D G P Y P E P K V E G K N I F Y A N L L E D Y A G M V S E L T A I

UniRef90\_R6P172 Y P A V E V C G P N P S L A R L L N N D F A A K S E M T A V

UniRef90\_UPI0004645666 P Y P E I R V E V G P N P Y F A E I L M D D F A G V I S E F T S V

UniRef90\_N9W5S5 F H Y S D H T P Y P V K V D G K N P Q Y A A A I L S N I G S C N S E M T A V

UniRef90\_UPI00040AD20F N I A F F D L L P Q Q F R G T E G E L P M A

UniRef90\_R7KBH5 L P Y P V N V T K D L S E A R L I L P N Y A G R D S E M T A I

UniRef90\_G5HGB1 F H F S S D M P Y P V K A E E K N P A Y A R V I L D N V G G A N S E M S A I

UniRef90\_R9KHL1 L P Y P E I Q V R C Q N Q I Y A N L L S V D Y C G A T S E M S A I

UniRef90\_L1Q4F3 M Y S I D L P Y P I K V S K Q D P K Y I D L I L L N Y A S D I S E F D A I

UniRef90\_U2BCB2 Y P P I A V Q E K N P Q Y A Q L L M P D L A S A S E M T T V

UniRef90\_I4DBK5 R T Q E P A P I P E P N F T Y A I W L Y E A Y A G S D S E L T A I

UniRef90\_R5F2S7 F H Y S S D A P Y P I K A E S G N P A Y A R V M L D N I G G A N S E M S A I

UniRef90\_C0CWP1 L P Y P P V A V D G K N P A Y A K A M L D N V G G A N S E M S A I

UniRef90\_R7BUY9 K Y A S A L P Y P D V E V I E K N I A E S K L M P V Y S G S T G E L T A V

UniRef90\_S6EYC2 L P Y P K I E V D T I N L Q Y A N L I Q M N Y A G M I S E F S A I

UniRef90\_R7QX90 L P Y P V Q V A G K N S E Y A E L L K F D Y C G S V S E M S A I

UniRef90\_G5HL77 Y P P I R V A K K N L Q Y A E L L T P D L A S A S E M T T V

UniRef90\_R7M602 L P Y P K I R V E R K N L N Y A T K L L N D Y A G Y V S E L S A I

UniRef90\_R9J0A2 L P Y P L Q V R E K N Q L Y A E L L S I S Y C G M V S E M S A I

UniRef90\_N9XNR7 Y P P V A V T E K N L Q Y A Q I L M P D L A A A S E M T T V

UniRef90\_S0IM40 L P W P D I Q V K S Q N Q I Y A N L L S A D Y C G A T S E M S A I

UniRef90\_UPI00047DC610 Q D N A A K I V E L L T T A Y W M E I E T V

UniRef90\_R5FJU5 P Y P N V E N V R K N P M D A K K L M N S Y G G R N S E T G A I

UniRef90\_R9JAN9 L P Y P V V Q V R G E N Q Y A D L L R A D Y C G A G N S E L S A I

UniRef90\_F0HDF7 Y K A D L P Y P Q V E V G K P N D E Y A K L I Y E D Y A G R V S E L T A I

UniRef90\_R5QXC3 P Y P E I K V T V P N E T Y G L M I L D N V I G G M N S E T S A I

UniRef90\_UPI00047E3557 L P Y P E V C I D R K N K C Y A L L L D N Y A S C V S E Y T A I

UniRef90\_K6BKU4 N L A F F D L L L E Q F R G A E G E L P M A

UniRef90\_S2YSJ9 Y I Y A D K S E Y P E V C V E K N R Q Y A A M L G N V I G A C D S E M S A V

UniRef90\_UPI00047DC62C M S Y H V D L P Y P E I K V E K E N S R Y A N I L L H N Y S G I V S E F T A I

UniRef90\_J0N3D3 F P Y Q V N L P Y P Q V E V Q S P N R R Y A T L I S D G Y A G R G S E M T A V

UniRef90\_F0K571 E S K L P F P I E V C K C N I R Y A N L L Y D S Y A S S G G E L Q A I

UniRef90\_B0NK10 P N V A V S E K N I R Y A H I L M P D F A S A S E M T T V

UniRef90\_V9H7U6 L P Y P K I E L A E K N P T Y A N L I K K S Y A G T I S E L T A V

UniRef90\_S6GRR6 K F F D L L A Q F G G S E G E L P S A

UniRef90\_R7K4J2 Y P E I V I N A P N P A E A V L Q S D Y A G K G S E T T A I

UniRef90\_D4MSP6 P Y P P V K A G C Q N P R Y A S A M L D N I G G Q F S E M T A V

UniRef90\_UPI0004678DCB P Y P K V A I E A P N E T Y G L M I L D N V I G G M N S K T S A I

UniRef90\_R6PRF6 E Y P P V K V I E A K N P R Y A M A M L S N I G A C N S E M S A V

UniRef90\_R9M3L8 P Y P E I A V C C G Q D C R Y V E L L S K S F A S R R G E L T A I

UniRef90\_R4K778 L P Y P S V K I C C K K D K H D A A L L L D D Y A C C T S E M T T I

UniRef90\_F3BAV9 Y Q Y V D E A P Y P P V Q V C G R N Q D Y A I A I L L G N I G A C N S E M S A I

UniRef90\_UPI0003F8938A P W P P I E S I S Q N K Q Y A A M L S N I G A C N S E M S A I

UniRef90\_R9LGS6 MQ F F F Q S S N F R G N A P 50 Q Y R D L V R E V F L E E I S H V E L V Q H T 60 70 80

UniRef90\_X8ILH5 T Q Y Q N H R A N M P N P Y V S K L L G M I A A E E M S H M E M I S V A

UniRef90\_W0E983 T Q Y M N H R A N M P N H F V R E L L G L I A A E E H S H M E M I A E A

UniRef90\_K4L4Z7

UniRef90\_UPI0003EFAD31

UniRef90\_H5Y1Q8 I Q Y L N Q R S N I S N R H V R E L L G L I A A E E L G H M E L I S V A

UniRef90\_B8FP08 V Q Y L N H Q V N I D N R F V R E L L G L I A A E E L A H M E L I S A M

UniRef90\_K4KW63 T R H M Y Q C L H V T N P Y I R D L L G M M A S E E L A H M E I I S A M A

UniRef90\_J7IRG3 L Q Y F H Q R S F I S N R H I R E L L G L I T A E E F G H M E L I S V A

UniRef90\_K4LK98 T Q Y I Y H H F V L E D E N R E V A D L L S C I A L V E M H H Q E L L A Q T

UniRef90\_UPI00036684AB

UniRef90\_H7D7A9

UniRef90\_G7W7X8 L Q Y F N Q R S N I S N R P I R D L I N R K L S G E E L L G H M E L I S V A

UniRef90\_R6UU52 A V Y I R Q S F M I N N P T F H D I F M R L I G A R Q I L S D M E V L S C I

UniRef90\_U2D114 N L Y V V Y H F V S D G E D Q Y A E L I G G V S M A E M K H L L L G G E T

UniRef90\_Q3A9V3 T Q Y L Y H H F E S E K T N P Q I A K L F E G V A L V E M H H L L E I L A K L

UniRef90\_UPI000288B629 S L Y V Y Q H L V S K G E F E D Y A E I I G G I A S M A E M K H L L E I L G E T

UniRef90\_R6D453 T Q Y S Y Q Y M E K F P S S N I E E F S K I M E E I A K A E M H H L L G K T

UniRef90\_F4LS79 N Q Y I Y H H F V L E P E N Y E V A E L L G I A L V E M H H M E I L A D T

UniRef90\_U5RRU3 S L Y V Y Q H M V S E G I F E D Y A K I I G G I S M A E M K H L L E I L G K T

UniRef90\_F0T0G7 M Q Y T H H Q L E L D M M P G L Q E A A E L L E G I S V E M K H L L E M L G K T

UniRef90\_R5L5T5 M Q Y I N Q E G R M S G N K C L A Q I I L L G I A M A E M H H L L Q K L G E L

UniRef90\_A4XLT4 A L Y S Y Q H F I S D V R N K D F A E L I I G I A R V E M K H L L D L L G T T

UniRef90\_U5F547 L L Y L R Q S F M L H N P T F H E L F R R I A A R R L S D M E V L A E L

UniRef90\_I4A8V9 M Q Y V H H H M Q M D T H P A W S E V A A L Q R E G I S I I E M K H L L E M L G E T

UniRef90\_R6XS18 L Q Y V Y Q S Y V L S R E F P E F S K K L E E I A A C M K H Q K L G T A

UniRef90\_C4IGK8 S Q Y I N H E I R L K N K Y C K A S E T I L S I S K T E M M H M Q M I G E L

UniRef90\_H5XZ89 N Q Y L Y H Y F F F K D Y D K K L G E L E N I S I S E M L H M E I L A G E L

UniRef90\_F0T0J6 I Q Y L N H K S K M T N N Y I R D L L G M I A A E E L G H L L E L L E N V

UniRef90\_I7K843 L L Y V Y Q H L I S D G K Y E S A A R A M A V I E M K H L L E L L G E T

UniRef90\_C0EHX3 T E Y V Y Q S W M L V P E N A S A R A M Q S V A M V M H H L L D M L G T L

UniRef90\_D7CNY4 T Q Y L Y H H H L L N E H Y P D L A S L L E C I A L V E M T H M E M L A E A

UniRef90\_G7WDA9 S Q Y L Y H Y F L F K Q I D K E I A T L L E N I A T T E M L H M E I L A D T

UniRef90\_I9MHH0 H Q Y I Y H Y L T L E D C H T K I A T L A H Q I A I V E M H H L L A L L G K T

UniRef90\_T0JR89 S Q Y L Y H Y F F S K N I D E K L G K L F E N V S I N E M L H M E I L A D I

UniRef90\_R4KK76 N Q Y F H H H I V F E E K F A D L A E L E E C I S I I E M W H L Q E M L G E T

UniRef90\_R9INQ4 T Q Y I N N R L S C E N C P G A K T L L G I A M A E M H H L L Q K L G E L

UniRef90\_R9MCB8 A Q Y I N N E N R M N G E N C S L A K T I L L G I A M A E M H H L L Q K L G E L

UniRef90\_R7FP19 L Q Y T Y G N H L V T E G A E D P S Q I L S A V L S C V S V I T E M R H L L E I L G E L

UniRef90\_C5EPQ3 S L Y V Y N N I M E E K D E I A T I F R K V S I V E M H H L L F G K L

UniRef90\_R9K6S3 T Q Y I N N E N R I S H E K C A E V A K T L L G I G I A E M M H L L Q K L G E L

UniRef90\_UPI00036660C6 M Q Y L R H H A F T L K G I N E E V A D L E E C V S L V E M H H M E L L A E T

UniRef90\_R7G504 C Y I R Q Q F M I H N P K F S H E M Y M E L A V M L L S D M E V L S D M

UniRef90\_T3D9Y7 T Q Y L Y H D F D S D E N Y K E L N E M W V N I S I T E M L H M E I L A K T

UniRef90\_R5Q1F4 L S Y L Y G S T V L D G S K N Q T V S D V L R Y I S D V E M H H M N L A E L

UniRef90\_R9MTA1 T Q Y I N N R L S L R N C P I V A R T L L G I A V A E M M H H L L Q K L G E L

UniRef90\_R9N2N0 T Q Y I N N R L S C A K C P I A K S I L L G I A M A E M H H L L Q K L G Q L

UniRef90\_R7KT72 A E Y V F Q S V I F R S T Y P E Y A D I F G R I A M V E M R H H L N M I G E L

UniRef90\_R6QJT9 T T Y I Y Q N W I F F K K Y S S L A D T L M K I A K V E M H H M M I G T L

UniRef90\_C6PWD0 N L Y L F Q H I A S E G K Y D D F A E L I G G I A M A E M K H L L E L L G D T

UniRef90\_R6P172 H Q Y T Y Q A W R L E K D Y P E I L S K T L S E I A M V E M R H H F R L G Q L

UniRef90\_UPI0004645666 N Q Y R F A S D F V N L D P Y L I N M W T K I A D V E M W H M R V L S R L

UniRef90\_N9W5S5 S L Y F Y N S L V T R E Y Y H D V A E C F H R I S V E M R H L D I F G E L

UniRef90\_UPI00040AD20F T T Y L S Q A L A E E D P L H K A V L T R I A K E K I K S A T V L A S L

UniRef90\_R7KBH5 L T Y A Y Q S Y M T A D L K K I L E E I A V E M T H H E M L G E A

UniRef90\_G5HGB1 S L Y V Y N N L M T E S N K E I A D V F R R I S V E M H H L L E I F G K L

UniRef90\_R9KHL1 T Q Y I N N E N R L S L G N C P M A Q T L L G I A M A E M M H H L L Q K L G E L

UniRef90\_L1Q4F3 S Q Y I Y H E I A L K Y K N P D V S A T L K G I S I I E M H H L L E M L G E I

UniRef90\_U2BCB2 H T Y L Y Q S W T I G N D Y E T I R C V I K R L A A V E Q H H Y A I G Q L

UniRef90\_I4DBK5 T T Y L Y Q A V L L D R P E F D S L L R P I A Y D E M R H L E I L A Q A

UniRef90\_R5F2S7 S L Y V F N Q L I T G Y N P D V S A V F H K V S I V E M H H L L E I F G K L

UniRef90\_C0CWP1 S L Y V Y N N L R S G H T P D I A Q T F H K V S I V E M H H L L E I F G K L

UniRef90\_R7BUY9 T T Y I F Q T Y V T P F K Y P E I L Q E A L E G I A L T E M L H H K L L G E T

UniRef90\_S6EYC2 N Q Y I Y H E I S L F E D Y P D V T Y I L K G I S K V E M H H L L Q L L G E L

UniRef90\_R7QX90 T Q Y I N N E N R L S C G K C S L A K V I L G I A M A E M H H M Q K L G Q L

UniRef90\_G5HL77 H Q Y L Y Q S W T L S N D Y R T L R R V I Q R I A V V E Q H H F T I G Q L

UniRef90\_R7M602 H L Y S Y Q S F V S D K Y R E Y K D I M K L A E V E M H H L R L L G E T

UniRef90\_R9J0A2 M Q Y I N N E N R M F C E R C P M G K T I L G M A M G E M M H H M Q K L G E L

UniRef90\_N9XNR7 H Q Y L Y Q S W T A D S R A L H C K N I L R R V I Q R I A V V E Q H H F T I G Q L

UniRef90\_S0IM40 T Q Y I N N E N R L S G R N C P L R A R T I L G I A M A E M M H H L L Q K L G E L

UniRef90\_UPI00047DC610 T N Y L Q Q S V N L D G I R A K E I A A D L G Q D V G E E L G H A K Q F A E R

UniRef90\_R5FJU5 L T Y A Y Q S Y V V K K E C P E I A S M L E Q V A V V E M K H H L L G T A

UniRef90\_R9JAN9 A Q Y I N N E N R I S G E N C S I A K T I L G I A M A E M M H H L L Q K L G E L

UniRef90\_F0HDF7 T Q Y V Q Q N V L L Q K E Y E V A N D L L G I A E V E M H H L K I L A E V

UniRef90\_R5QXC3 C Q Y I Y A H S I A G E D F L E L K K T F L N I S M V E M H H L L D I E M T L

UniRef90\_UPI00047E3557 A Q Y I Y A H L V T C N E C I Q D V F L G I A Q V E M C H H L L A L L G D V

UniRef90\_K6BKU4 T A Y L S Q A I T E D D P V H K A A L I R I A K E K I K N A R V L A S I

UniRef90\_S2YSJ9 S L Y F Y N G V I A E G K F E I S V S E C F H K I S V E M H H L H T F A T L

UniRef90\_UPI00047DC62C D Q Y V Y H K V K L F K D C P E A V S Q A L G E I A M V E M H H

UniRef90\_J0N3D3 N Q Y L V H R Y Y L E K Y P Q I Y L A Y Q K I A Q V E Q H H L L Q L L G K L

UniRef90\_F0K571 T Q Y I Y H H E T I F N K E V S D T L L N M A T V E M R H H L D A L A S L

UniRef90\_B0NKI0 H Q Y L F Q S W T I S N D Y Q G I R R L I Q R M A V V E Q H H F S I L G Q L

UniRef90\_V9H7U6 S Q Y T Y Q G L V V K N A L G N L L K K I A E V E M H H L L E I L G E L

UniRef90\_S6GRR6 I A Y L T Q A S N E D H P T R K A S L T R A R V K L Q H A D I V G S L

UniRef90\_R7K4J2 M T Y I Y Q N Y I T R L Y N E D V A E V L F E R A I T E M H H H D I L G T T

UniRef90\_D4MSP6 G Q Y F Y S S L S A E C P E I S E N F H Q V N I V E M H H L K I F G Q L

UniRef90\_UPI0004678DCB S Q Y I Y N H T I T S K E F F E I L K Q L F L D I S V V E I H H L N I F M E L

UniRef90\_R6PRF6 S L Y F Y N S L I A N G K Y E E I L K Q T F H K I S M V E M H H M N Y G Q L

UniRef90\_R9M3L8 T R Y C Y Q S W M L Q K T T P E L S H L L T R I A M V E M K H

UniRef90\_R4K778 S Q Y I Y A H E L A G S K Y V A D V F L C I A M V E M S H L N S M L A N V

UniRef90\_F3BAV9 A L Y I Y N S I L L G E S Y E E V G R I F H K I S M V E M H H L N I F G R L

UniRef90\_UPI0003F8938A S L Y I Y N S M I T R S Y F F D I A E C F H K I S I V E M H H L N T F G E L

UniRef90\_R9LGS6      L N Q L L T G A      90      G E S T P G S A G V D G A P L D E A L K H A N P H H F L M G A      100      110      120

UniRef90\_X8ILH5      I K R L      M E N E A D L Y R S L T A N G N D S H L T S Y G

UniRef90\_W0E983      I K R L      G G

UniRef90\_K4L4Z7      I N R L      G G

UniRef90\_UPI0003EFAD31      A V H Y G

UniRef90\_H5Y1Q8      I K K L      G G

UniRef90\_B8FP08      I T K L L G G E V T

UniRef90\_K4KW63      V R K L      G

UniRef90\_J7IRG3      V S K L      G G

UniRef90\_K4LK98      I K M L G V N P R Y R T L E R

UniRef90\_UPI00036684AB      I M L L L N G H D V N A E S      T Q S G E L Q S Q V L F G

UniRef90\_H7D7A9      I S K L      G

UniRef90\_G7W7X8      I H Q M H G E D D R Y Y D E S N D D T      P V F E F L K      P C H T Q E K H

UniRef90\_R6UU52      I K L L      G L K P L Y L D

UniRef90\_U2D114      I K L L      L A F G G N P T Y R G S F G

UniRef90\_Q3A9V3      I K L L      G L K P L Y L N S V C

UniRef90\_UPI000288B629      I K L L L G K N P L Y S T C E A S R G D C

UniRef90\_R6D453      I K L L L G K N P L Y S T C E A S R G D C

UniRef90\_F4LS79      I L K L L G V D P R Q R T L A

UniRef90\_U5RRU3      V K L L L G L K P V Y L D S A C P P

UniRef90\_F0TOG7      I L L L L G G A P Q Y

UniRef90\_R5L5T5      I C L L L G G T L D F T T K

UniRef90\_A4XLT4      I Y L L      G A L P K Y

UniRef90\_U5F547      L H H L L H G E D D R Y Y D E S N D D T P V F A F L P P C D Q P T H K E L K Q H H

UniRef90\_I4A8V9      I L L L      G

UniRef90\_R6XS18      I A A      Y G S F P V I G G

UniRef90\_C4IGK8      I T L L      G G N L S Y S Y D N G

UniRef90\_H5XZ89      I K K L L G G K P V I R G S

UniRef90\_F0T0J6      I Y K L L S G E H P D

UniRef90\_I7K843      I K L L      G L K P M Y A L P H

UniRef90\_C0EHX3      I A M L L G G N P K Y      R S V S S Q N L R T V W

UniRef90\_D7CNY4      I I R L      G G K P K F G A P C N

UniRef90\_G7WDA9      I K K L L G G S P V      I R G S N S S L H

UniRef90\_I9MHH0      I R L L L G K Y P V M      H S N D H G

UniRef90\_T0JR89      I I M L      G G D P Q L

UniRef90\_R4KK76      I R L L      G V D P

UniRef90\_R9INQ4      I V L L L G G N L N F S A K Y R N G

UniRef90\_R9MCB8      I C L L      G G N V D Y T V

UniRef90\_R7FP19      I T K L L G G D P K F C D M Q R R G

UniRef90\_C5EPQ3      A L Q L L G E D P R M W T H Y

UniRef90\_R9K6S3      I C L L L G G K V D F L A R

UniRef90\_UPI00036660C6      I K L L L G G K V D F L A R      G V D P R Y R V L R

UniRef90\_R7G504      L H Q L L H G V D D R Y Y D E S N D D E L I A P C H Q S T E K E E E K H H V N N

UniRef90\_T3D9Y7      I R L L L G G N P V Y R G S

UniRef90\_R5Q1F4      I F R L      G G D P K Y A V A Q G

UniRef90\_R9MTA1      I I L L L G G G L D F

UniRef90\_R9N2N0      I F L L L G G D V S F V A V Q

UniRef90\_R7KT72      M K L L      G L P P V Y G E Y E

UniRef90\_R6QJT9      V S L L L G G D P R F A E D P C

UniRef90\_C6PWD0      I K L L      F F S Y Q

UniRef90\_R6P172      I S L L L G G T P K

UniRef90\_UPI0004645666      I V L L L G G K P V Y R G S A

UniRef90\_N9W5S5      A L K L      G T D P R L W S Y N

UniRef90\_UPI00040AD20F      L L A L L A K G R T A S V S G P S E N T E F G R L L K S N G L G N S L E R A E A S

UniRef90\_R7KBH5      I V K L      P R M W T Q Y G

UniRef90\_G5HGB1      A L Q L L G E D      V D F V A K Q Q N G R N L I

UniRef90\_R9KHL1      V C L L L G G T

UniRef90\_L1Q4F3      I V L L L G G K P

UniRef90\_U2BCB2      I A L L      G G E P E      C

UniRef90\_I4DBK5      L R Y L      G V D P R Y G S L S S G      H W V D

UniRef90\_R5F2S7      A Q Q L      G E E P R L W T Q H G

UniRef90\_C0CWP1      A C M L L G E D      P R M W T Q H G

UniRef90\_R7BUY9      I Y K L

UniRef90\_S6EYC2      I I V L      G G N P G Y W L N R K

UniRef90\_R7QX90      I F L L L G G T L D F S V R Q R G G K R

UniRef90\_G5HL77      I A L L L G G R P E C R S L E P

UniRef90\_R7M602      I Y L L L G G V P V F

UniRef90\_R9J0A2      I H L L      G G S V C Y V T K Q S

UniRef90\_N9XNR7      I T L L L G G P P E C R S A E P C

UniRef90\_S0IM40      I F L L      G G N V D F V A R H P

UniRef90\_UPI00047DC610      I K D L L Y G T V P      G S S D F P K D F D

UniRef90\_R5FJU5      I Y S L

UniRef90\_R9JAN9      I V L L      G G T V D

UniRef90\_F0HDF7      L V A L      F T A K G

UniRef90\_R5QXC3      I V D L      G A K P K Y G A Y T G

UniRef90\_UPI00047E3557      I V D L      G V K P K      A L E L G L D P R W W S C L N D Q C

UniRef90\_K6BKU4      L L E L L A K G H T S N L S G A P D S A D F G A L L K G K G L I N P L E A T E A S      F L S G C

UniRef90\_S2YSJ9      A N L L      G A D P R M      W S V E R G

UniRef90\_UPI00047DC62C      I F D L      L E M L G E L I L L L L G E D P R Y W L K K K      G

UniRef90\_J0N3D3      I V K L L G G R P A F      F N S N R D W F S T G

UniRef90\_F0K571      I T L L      G A Q P E      C R S S D P E S Y

UniRef90\_B0NK10      I V A L L G E N P D F S I N K K D K K

UniRef90\_V9H7U6      L L Q I      S T N R A G P L S T R L D R D E F K K F L N I K G L T L D D Y      D A A

UniRef90\_S6GRR6      I A R L      G G N P V I G A D N C

UniRef90\_R7K4J2      L A R L      A M Q L G A D P R L W T R S L R T G

UniRef90\_D4MSP6      A Q K L      A L K L E M D P R W W T C L N D Q C

UniRef90\_UPI0004678DCB      I C Q L      G A D P R L W S V E R R R F T      Y W S Y G

UniRef90\_R6PRF6      S E M L      L D I L L G Q L I L L L L G G E P R Y Y V P S P

UniRef90\_R9M3L8      I C Q L      G A E P R L W S V N

UniRef90\_R4K778      S E M L

UniRef90\_F3BAV9      A      L L L G A D P R L W S

UniRef90\_UPI0003F8938A      A      L L L G A D P R L W S

UniRef90\_R9LGS6 Q S S L S V D A A 130 P W N G N Y V Y S H G N L I S D L L D N L V F E 160  
UniRef90\_X8ILH5 A G T P L T N S A G V P W T A A Y V I D T I G E P T A D L L R Q S N V A A E A R A R A K I  
UniRef90\_W0E983 P P L S Y V N S E G I P W N L T N Y V D D Q S L D P I A M L R Q A D A E A E I R A R K M  
UniRef90\_K4L4Z7 P P L C Y V N S E G I P W N L T N Y V D D Q S L D P I A M L R Q A D A E A E I R A R K M  
UniRef90\_UPI0003EFAD31 G G P A L T N S A G V P W T A A Y V D D T I G E V I T A D L L R Q S N I A A E A R A R A K I  
UniRef90\_H5Y1Q8 P P L T L D N G S G G T P W S L I N H I N D Q S L D V I N M L K Q V D L Q A E A R A R A K I  
UniRef90\_B8FP08 R L S D H E D T P W S L S Y V N Q Y S E P D K L M L K A N A A L E K R A R A K I  
UniRef90\_K4KW63 L A D L P A N S G Q E S W N M E Y V E K S T D I N E M L K I N E E A E A R A R A K R  
UniRef90\_J7IRG3 P P L T L L N A Q D A L K E I K H I D D Q S F D L N K L L L Q M D V Q A E T R A I A  
UniRef90\_K4LK98 L N P G L V N S S G Y S W T G D Y V S V T G D L C A D L L R S N I A A E A R A R A K I  
UniRef90\_UPI00036684AB L N P G L V N S S G Y S W T G D Y V S V T G D L C A D L L R S N I A A E A R A R A K I  
UniRef90\_H7D7A9 G L P L T L N N I Q V P A E K L D L D K N L D V M L Q M D L K A E S R V A I A  
UniRef90\_G7W7X8 C S C Q P E S E E E Q H H V N N D L T A A V M R D M Q Q Y E E E Q I H  
UniRef90\_R6UU52 N A C P P G R L W T P R Y V N N Y S T T F I T E M I M E D I A A E E E Q K A I E  
UniRef90\_U2D114 N N F A Y W S G H Y V N N Y S Q N I R E Q L I A D I H A E E K T A I E  
UniRef90\_Q3A9V3 P H G Q L W T P C Y V N N F T F I K N M L L E D I K S E E R K A I E  
UniRef90\_UPI000288B629 I M W N S N F V N Y S T D L K D M L K L D I A S S E E A A I K  
UniRef90\_R6D453 T N E V E I L Y W D A G F V Y Y G T V L C D M I T A N I A G E W A A I S  
UniRef90\_F4LS79 G Q L W T P A Y V N F M T F L K D M L L E D I K G S E K K A I K  
UniRef90\_U5RRU3 N S N F Q L W T P L Y V Y C D F N P V L Q I Q E D I A G G E L D A I A  
UniRef90\_F0T0G7 N S T G R M W S P S N V K I G D I R N M L W A D I E G E R I A I N  
UniRef90\_R5L5T5 R G S Y T T Y G Q Y W N G Y F V N Y D K D L K D M I K L D I Q S E K E A I K  
UniRef90\_A4XL74 V N N D L S A A L C D I Q E E E Q A Y Q T  
UniRef90\_U5F547 G N A R Y W D G C Q Q P W T P L Y V S Y H D D F C A Q L R A D I Q A E E E A A I H  
UniRef90\_I4A8V9 R T A F W N G S Y V N Y A T D L I K L L E Y D I Q G E L C A I E  
UniRef90\_R6XS18 S Y S Y W T P K F V E F G T N Y V N M I L D I N D E Y K A I E  
UniRef90\_C4IGK8 Y S T S G N F W V G S Y I Y Y G S N L C E Q L R A D I N A E Y K A I E  
UniRef90\_H5XZ89 Y L D R Q K T G W E M N H V I Q T G S E V E M L E H N E E S E F Y A K K  
UniRef90\_F0T0J6 M G L Y Y P W N S K L L D Y S T N I N K M L D D I Q S E L D A I K  
UniRef90\_I7K843 T G S M P P Y C R T V R D A M K N N I R A E E E A I K  
UniRef90\_C0EHX3 Q T I S W W K G D R I Y Y G C G I C D M L A A D I Q G E K D A I S  
UniRef90\_D7CNY4 E N F W S G K Y I Y Y G S D L C M Q L K V D I Q A E E E A I A  
UniRef90\_G7WDA9 L T R F W N A D F V Y Y G D T V Y D K L S A N M K H E M D A I Q  
UniRef90\_I9MHH0 R G S F S T N N Q F W N G K F I Y Y G D D L C E Q L K A D T E A E Y T A I E  
UniRef90\_T0JR89 Q L R T L T N N K A T Y W C G N F V Y Y G N S V C D R L A A D V E A E K S A I  
UniRef90\_R4KK76 S M N K M W T P E Y L D I P S N I G K M I R A A I S S G E K A I A  
UniRef90\_R9INQ4 R L Q N G R Q K F W T P E Y L D I P S N I G K M I R A A I S S G E K A I A  
UniRef90\_R9MCB8 C F D A G K V N Y Q T S P D R I L R A A I S S G E K A I A  
UniRef90\_R7FP19 G C K K T Y W S P S Y N Q Y P S E L P A L M H N A I N S G E K A I A  
UniRef90\_C5EPQ3 P Y N G R P R M W T P E Y L T I P E H L G K M L Q A D L A A E K D A I S  
UniRef90\_R9K6S3 N N Q E I Y W N A A Y V Y Y C D K L A A D I A S E W A I A A Y R D  
UniRef90\_UPI00036660C6 D L T A C V M R D M A D I F E K K R V L  
UniRef90\_R7G504 T S S C G A Y W N G S F V Y Y G D S L C D R L K S D L H L L E Y V A I D  
UniRef90\_T3D9Y7 R T A K Y R N G S R R P F T A A N M H Y S E N P A Q I L K S A V I A G E E S A I Y  
UniRef90\_R5Q1F4 T A K Y R N G S R R M W T P K Y L T L S E S I K G V V I Q S A N I E A E E K A I E  
UniRef90\_R9MTA1 Q S G R Q K M W T P S C L D I P D K L E N M L R A D I E A E T A A I N  
UniRef90\_R9N2N0 N G V P F Y W N G T F P D Y T D D L A S A I L H D L D D G E Q K A A S  
UniRef90\_R7KT72 Q C W S G D A P D Y T K D L H Q A L K S N M E A E E A A A S  
UniRef90\_R6QJ79 G V K P V I Y A N S T C W T A K Y V N F T T V I K A M L A E A T R S E K K A I N  
UniRef90\_C6PWD0 R G I T L P W N G K M V D Y T A D I H K L L K L D I A A E E A A Y I  
UniRef90\_R6P172 S T N G D Y W Y G F V K Y G F G I C D Q L H N D L E T E L Q A I R  
UniRef90\_UPI0004645666 K G R M Y Y W C P G C N Q Y P T Q L H A L L T N A L E G E L Q A I R  
UniRef90\_N9W5S5 V H N M P D H S H T P S S G H F K N H R P D H S L R L R S N I A T E E R Q I A  
UniRef90\_UPI00040AD20F G G Y P I I G S G C F W N G S F I N Y T S N P K V Y L K N N I D G E K I A  
UniRef90\_R7KBH5 C K R T Y W T P G F L T P E H A K Q M L L A D I E A E K A I S  
UniRef90\_G5HGB1 G Y W I N D K K K K Y W T P G L V N Y I S S L Q T I L T I D L E D E K A A I K  
UniRef90\_R9KHL1 R S T M N N S Y W C N M I N Y S C D L R T L L S N N A K S E C F A A Q  
UniRef90\_L1Q4F3 W R S R F L N Y T S E L C A L L D N N I E D E A K A H R  
UniRef90\_U2BCB2 C K K I Y W S P S Y N Q Y P G E L R T L M R N V I D G E K A A I S  
UniRef90\_I4DBK5 C K K A Y W T P G Y N Q Y P V H F P E M M R G V I A G E N A A I K  
UniRef90\_R5F2S7 G G Y P V M G A R T Y W N G S F V A N Y T L S P Q K Y L R E N V I A E Q N A I M  
UniRef90\_C0CWP1 N K K L N W S P N F V Y G S T L K E M L A A D I A G E K D A I D  
UniRef90\_R7BUY9 Q L W T P E Y L K T P E N A R N M V L A D L E S E K A A I N  
UniRef90\_S6EYC2 G S Y W C G N M V D Y D C D L R T L L S K N A E S E Q F A A Q  
UniRef90\_R7QX90 G S V S E D K I L R L W N S G E I L Y N R D L K T M L K S D I E S E M A I K  
UniRef90\_G5HL77 G G R Q W M W S P Q C L T L P E K V G E M L Q A D L E S E Q A A I S  
UniRef90\_R7M602 S Y W R G N M V D Y S C D L R T V L A T D A E S E K F A A Q  
UniRef90\_R9J0A2 N G K N V M W T P G Y L N I P E N R R K M L M A D I E A E K S A I N  
UniRef90\_N9XNR7 S G L Q P L D D A T D V A T V I K G V I A A E A G A I S  
UniRef90\_S0IM40 G G L P V V A G R N A Y F S A G L D Y S V R A E E F L V R N I R E E E A A I R  
UniRef90\_UPI00047DC610 R N G R P V M W T P E Y L V L P E Q M K K M L L A G I R E S E E A A I R  
UniRef90\_R5FJU5 Q F K Y W N A S M D R Y A D T L M I I K N S I E D E N E M V T  
UniRef90\_F0HDF7 T Y W S P S Y L N Y P N S L E E V L K T A I N D A E Y Q A I D  
UniRef90\_R5QXC3 G E T W C S F V Y G C S T E E R L K I A I N S E Y Q A I L  
UniRef90\_UPI00047E3557 A E Q M D D N P Q Q P S D K V R D V A Q L G H Y L R S N I A T E E K Q I A  
UniRef90\_K6BKU4 R Y R Y W S G A C N Q Y S R N I T G E L L D Q N A L R G A E Q Q T I A  
UniRef90\_S2YSJ9 D K R Y Y W N G K F V D Y G N T L K E Y L Q D Y D I Q A E V V A I R  
UniRef90\_UPI00047DC62C G R P F L Q S C T N H Y W S G M F P D Y Q C T L E A I L K S D I E G E L D A I S  
UniRef90\_J0N3D3 Q L A Y G E N V Y K L E C P P C K E D L C E K L S A D L A G E K A A I R  
UniRef90\_F0K571 W C G D M V D Y S C D V Q T L L S K N A E S E R F A A K  
UniRef90\_B0NK10 L N W T S K F I C T C N S I K E M L L E D T K N E E E A I R  
UniRef90\_V9H7U6 P V S L R E F S K T K L K R P T G P N F S H N P Q K Y L A A N I L T E E H Q I V  
UniRef90\_S6GRR6 W W T G A N V Y A V N L K E M L R N N I E A E R F S C R  
UniRef90\_R7K4J2 R Y M Y W D A G Y L H Y S S S I K E L L S A A I A S E R E A C S  
UniRef90\_D4MJ2 C C N R Y P R Y W S P S Y L N Y P Q Q L D E L L Q T S L D N E G E Y Q A I A  
UniRef90\_UPI0004678DCB C N R Y P R R I D M V R H A Y E G E K L A I A  
UniRef90\_R6PRF6 P G C V P W N G G M V D Y T S S L A Q M L R N N I E A E R F S C R  
UniRef90\_R9M3L8 G V K P K F R S G S C W C S D C V P Y G H C T K D R I K L A L K G E C K A I E  
UniRef90\_R4K778 T Y W T P C C N N Y P R K I D S L L K N A Y K G E L D A I D  
UniRef90\_F3BAV9 R G R F Y Q N G R T R Y W T P A C N R Y P T R I G A L V A N S L A N E L E A I K  
UniRef90\_UPI0003F8938A Y Q N G R T R Y W T P A C N R Y P T R I G A L V A N S L A N E L E A I K

UniRef90\_R9LGS6  
UniRef90\_X8ILH5  
UniRef90\_W0E983  
UniRef90\_K4L4Z7  
UniRef90\_UPI0003EFAD31  
UniRef90\_H5Y1Q8  
UniRef90\_B8FP08  
UniRef90\_K4KW63  
UniRef90\_J7IRG3  
UniRef90\_K4LK98  
UniRef90\_UPI00036684AB  
UniRef90\_H7D7A9  
UniRef90\_G7W7X8  
UniRef90\_R6UU52  
UniRef90\_U2D114  
UniRef90\_Q3A9V3  
UniRef90\_UPI000288B629  
UniRef90\_R6D453  
UniRef90\_F4LS79  
UniRef90\_U5RRU3  
UniRef90\_F0T0G7  
UniRef90\_R5L5T5  
UniRef90\_A4XL74  
UniRef90\_U5F547  
UniRef90\_I4A8V9  
UniRef90\_R6XS18  
UniRef90\_C4IGK8  
UniRef90\_H5XZ89  
UniRef90\_F0T0J6  
UniRef90\_I7K843  
UniRef90\_C0EHX3  
UniRef90\_D7CNY4  
UniRef90\_G7WDA9  
UniRef90\_I9MHH0  
UniRef90\_T0JR89  
UniRef90\_R4KK76  
UniRef90\_R9INQ4  
UniRef90\_R9MCB8  
UniRef90\_R7FP19  
UniRef90\_C5EPQ3  
UniRef90\_R9K6S3  
UniRef90\_UPI00036660C6  
UniRef90\_R7G504  
UniRef90\_T3D9Y7  
UniRef90\_R5Q1F4  
UniRef90\_R9MTA1  
UniRef90\_R9N2N0  
UniRef90\_R7KT72  
UniRef90\_R6QJT9  
UniRef90\_C6PWD0  
UniRef90\_R6P172  
UniRef90\_UPI0004645666  
UniRef90\_N9W5S5  
UniRef90\_UPI00040AD20F  
UniRef90\_R7KBH5  
UniRef90\_G5HGB1  
UniRef90\_R9KHL1  
UniRef90\_L1Q4F3  
UniRef90\_U2BCB2  
UniRef90\_I4DBK5  
UniRef90\_R5F2S7  
UniRef90\_C0CWP1  
UniRef90\_R7BUY9  
UniRef90\_S6EYC2  
UniRef90\_R7QX90  
UniRef90\_G5HL77  
UniRef90\_R7M602  
UniRef90\_R9J0A2  
UniRef90\_N9XNR7  
UniRef90\_S0IM40  
UniRef90\_UPI00047DC610  
UniRef90\_R5FJU5  
UniRef90\_R9JAN9  
UniRef90\_F0HDF7  
UniRef90\_R5QXC3  
UniRef90\_UPI00047E3557  
UniRef90\_K6BKU4  
UniRef90\_S2YSJ9  
UniRef90\_UPI00047DC62C  
UniRef90\_J0N3D3  
UniRef90\_F0K571  
UniRef90\_B0NKI0  
UniRef90\_V9H7U6  
UniRef90\_S6GRR6  
UniRef90\_R7K4J2  
UniRef90\_D4MSP6  
UniRef90\_UPI0004678DCB  
UniRef90\_R6PRF6  
UniRef90\_R9M3L8  
UniRef90\_R4K778  
UniRef90\_F3BAV9  
UniRef90\_UPI0003F8938A

170

180

190

200

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

|                        | 210   | 220                         | 230                           | 240 |
|------------------------|---|-----------------------------|-------------------------------|-----|
| UniRef90_R9LGS6        |   |                             |                               |     |
| UniRef90_X8ILH5        | N N Y P P G K [L] P [V] N   |                             | E Y A S T Y Y N M S E G D     |     |
| UniRef90_W0E983        |   |                             |                               |     |
| UniRef90_K4L4Z7        |   |                             |                               |     |
| UniRef90_UPI0003EFAD31 | N T F P P G K [L] P   | P [L] E K                   | Y K N [V] Y Y N M S E G E     |     |
| UniRef90_H5Y1Q8        | E N G S P E E F   |                             |                               |     |
| UniRef90_B8FP08        | E   |                             |                               |     |
| UniRef90_K4KW63        |   |                             |                               |     |
| UniRef90_J7IRG3        | E N G T P E D F   |                             |                               |     |
| UniRef90_K4LK98        | Q P H F P K   |                             |                               |     |
| UniRef90_UPI00036684AB |   | P S F P P G K [L] P P R Q E | F A S [V] Y Y K M S H D G     |     |
| UniRef90_H7D7A9        | E S G S N K D F G T T   | P D A Q M Y [L] N [L] S     | S S D N K F S N [L] N [L] D P |     |
| UniRef90_G7W7X8        | K N G S Q E E F   |                             |                               |     |
| UniRef90_R6UU52        | T H T E M K D F G E G D T H N A W D [L] D T S N Y F D K P         |                             | N P T F [V] N P S D           |     |
| UniRef90_U2D114        |   |                             |                               |     |
| UniRef90_Q3A9V3        | E   |                             |                               |     |
| UniRef90_UPI000288B629 |   |                             |                               |     |
| UniRef90_R6D453        |   |                             |                               |     |
| UniRef90_F4LS79        | K P N [ ] K K   |                             |                               |     |
| UniRef90_U5RRU3        |   |                             |                               |     |
| UniRef90_F0T0G7        | Q W H [C] P K   |                             |                               |     |
| UniRef90_R5L5T5        |   |                             |                               |     |
| UniRef90_A4XLT4        |   |                             |                               |     |
| UniRef90_U5F547        | T H D E [L] K D F G E G D M H N A W D [L] D T S N Y F D K P N P Y |                             | F F N P N D                   |     |
| UniRef90_I4A8V9        |   |                             |                               |     |
| UniRef90_R6XS18        | E D   |                             |                               |     |
| UniRef90_C4IGK8        |   |                             |                               |     |
| UniRef90_H5XZ89        |   |                             |                               |     |
| UniRef90_F0T0J6        | G G S N E K   |                             |                               |     |
| UniRef90_I7K843        |   |                             |                               |     |
| UniRef90_C0EHX3        |   |                             |                               |     |
| UniRef90_D7CNY4        | [C] K N K N K   |                             |                               |     |
| UniRef90_G7WDA9        | G   |                             |                               |     |
| UniRef90_I9MHH0        |   |                             |                               |     |
| UniRef90_T0JR89        | G   |                             |                               |     |
| UniRef90_R4KK76        | K   |                             |                               |     |
| UniRef90_R9INQ4        |   |                             |                               |     |
| UniRef90_R9MCB8        |   |                             |                               |     |
| UniRef90_R7FP19        |   |                             |                               |     |
| UniRef90_C5EPQ3        |   |                             |                               |     |
| UniRef90_R9K6S3        |   |                             |                               |     |
| UniRef90_UPI00036660C6 | K   |                             |                               |     |
| UniRef90_R7G504        | T H Q E G K D F G [L] G D S H N A F D [L] D T G N Y F D K P       |                             | N P Y F [ ] N P G D           |     |
| UniRef90_T3D9Y7        |   |                             |                               |     |
| UniRef90_R5Q1F4        |   |                             |                               |     |
| UniRef90_R9MTA1        |   |                             |                               |     |
| UniRef90_R9N2N0        |   |                             |                               |     |
| UniRef90_R7KT72        | K   |                             |                               |     |
| UniRef90_R6QJT9        |   |                             |                               |     |
| UniRef90_C6PWD0        |   |                             |                               |     |
| UniRef90_R6P172        |   |                             |                               |     |
| UniRef90_UPI0004645666 |   |                             |                               |     |
| UniRef90_N9W5S5        |   |                             |                               |     |
| UniRef90_UPI00040AD20F |   |                             |                               |     |
| UniRef90_R7KBH5        | E T   |                             |                               |     |
| UniRef90_G5HGB1        |   |                             |                               |     |
| UniRef90_R9KHL1        |   |                             |                               |     |
| UniRef90_L1Q4F3        |   |                             |                               |     |
| UniRef90_U2BCB2        |   |                             |                               |     |
| UniRef90_I4DBK5        | T D [C] A T   |                             |                               |     |
| UniRef90_R5F2S7        |   |                             |                               |     |
| UniRef90_C0CWP1        | Q   |                             |                               |     |
| UniRef90_R7BUY9        |   |                             |                               |     |
| UniRef90_S6EYC2        | E K Y [ ] T K   |                             |                               |     |
| UniRef90_R7QX90        |   |                             |                               |     |
| UniRef90_G5HL77        | E   |                             |                               |     |
| UniRef90_R7M602        |   |                             |                               |     |
| UniRef90_R9J0A2        |   |                             |                               |     |
| UniRef90_N9XNR7        |   |                             |                               |     |
| UniRef90_S0IM40        |   |                             |                               |     |
| UniRef90_UPI00047DC610 | G   |                             |                               |     |
| UniRef90_R5FJU5        |   |                             |                               |     |
| UniRef90_R9JAN9        |   |                             |                               |     |
| UniRef90_F0HDF7        |   |                             |                               |     |
| UniRef90_R5QXC3        |   |                             |                               |     |
| UniRef90_UPI00047E3557 | H   |                             |                               |     |
| UniRef90_K6BKU4        |   |                             |                               |     |
| UniRef90_S2YSJ9        |   |                             |                               |     |
| UniRef90_UPI00047DC62C |   |                             |                               |     |
| UniRef90_J0N3D3        |   |                             |                               |     |
| UniRef90_F0K571        |   |                             |                               |     |
| UniRef90_B0NKI0        |   |                             |                               |     |
| UniRef90_V9H7U6        |   |                             |                               |     |
| UniRef90_S6GRR6        | H   |                             |                               |     |
| UniRef90_R7K4J2        |   |                             |                               |     |
| UniRef90_D4MSP6        |   |                             |                               |     |
| UniRef90_UPI0004678DCB |   |                             |                               |     |
| UniRef90_R6PRF6        | K T A [ ] P R [V]   |                             |                               |     |
| UniRef90_R9M3L8        |   |                             |                               |     |
| UniRef90_R4K778        |   |                             |                               |     |
| UniRef90_F3BAV9        | E   |                             |                               |     |
| UniRef90_UPI0003F8938A |   |                             |                               |     |

|                        | 250                               | 260                           | 270                                 | 280 |
|------------------------|-----------------------------------|-------------------------------|-------------------------------------|-----|
| UniRef90_R9LGS6        |                                   |                               |                                     |     |
| UniRef90_X8ILH5        | D [ ] R G S W N                   | S D R H F E Y [ ] A N P Q P A | [ ] D G G D G G [ ] S [ ]           |     |
| UniRef90_W0E983        |                                   |                               |                                     |     |
| UniRef90_K4L4Z7        |                                   |                               |                                     |     |
| UniRef90_UPI0003EFAD31 | D [ ] R G S W N S                 | D E N F D Y [ ] S D P [ ] S A | [ ] D G G D G K A S [ ]             |     |
| UniRef90_H5Y1Q8        |                                   |                               |                                     |     |
| UniRef90_B8FP08        |                                   |                               |                                     |     |
| UniRef90_K4KW63        |                                   |                               |                                     |     |
| UniRef90_J7IRG3        |                                   |                               |                                     |     |
| UniRef90_K4LK98        |                                   |                               |                                     |     |
| UniRef90_UPI00036684AB | A [ ] [ ] N A P W N S G T G [ ] T |                               | [ ] Q T G E P A [ ] D G G D G S A S |     |
| UniRef90_H7D7A9        | P S                               |                               |                                     |     |
| UniRef90_G7W7X8        |                                   |                               |                                     |     |
| UniRef90_R6UU52        |                                   |                               |                                     |     |
| UniRef90_U2D114        |                                   |                               |                                     |     |
| UniRef90_Q3A9V3        |                                   |                               |                                     |     |
| UniRef90_UPI000288B629 |                                   |                               |                                     |     |
| UniRef90_R6D453        |                                   |                               |                                     |     |
| UniRef90_F4LS79        |                                   |                               |                                     |     |
| UniRef90_U5RRU3        |                                   |                               |                                     |     |
| UniRef90_F0T0G7        |                                   |                               |                                     |     |
| UniRef90_R5L5T5        |                                   |                               |                                     |     |
| UniRef90_A4XL4         |                                   |                               |                                     |     |
| UniRef90_U5F547        |                                   |                               |                                     |     |
| UniRef90_I4A8V9        |                                   |                               |                                     |     |
| UniRef90_R6XS18        |                                   |                               |                                     |     |
| UniRef90_C4IGK8        |                                   |                               |                                     |     |
| UniRef90_H5XZ89        |                                   |                               |                                     |     |
| UniRef90_F0T0J6        |                                   |                               |                                     |     |
| UniRef90_I7K843        |                                   |                               |                                     |     |
| UniRef90_C0EHX3        |                                   |                               |                                     |     |
| UniRef90_D7CNY4        |                                   |                               |                                     |     |
| UniRef90_G7WDA9        |                                   |                               |                                     |     |
| UniRef90_I9MHH0        |                                   |                               |                                     |     |
| UniRef90_T0JR89        |                                   |                               |                                     |     |
| UniRef90_R4KK76        |                                   |                               |                                     |     |
| UniRef90_R9INQ4        |                                   |                               |                                     |     |
| UniRef90_R9MCB8        |                                   |                               |                                     |     |
| UniRef90_R7FPI9        |                                   |                               |                                     |     |
| UniRef90_C5EPQ3        |                                   |                               |                                     |     |
| UniRef90_R9K6S3        |                                   |                               |                                     |     |
| UniRef90_UPI00036660C6 |                                   |                               |                                     |     |
| UniRef90_R7G504        |                                   |                               |                                     |     |
| UniRef90_T3D9Y7        |                                   |                               |                                     |     |
| UniRef90_R5Q1F4        |                                   |                               |                                     |     |
| UniRef90_R9MTA1        |                                   |                               |                                     |     |
| UniRef90_R9N2N0        |                                   |                               |                                     |     |
| UniRef90_R7KT72        |                                   |                               |                                     |     |
| UniRef90_R6QJT9        |                                   |                               |                                     |     |
| UniRef90_C6PWD0        |                                   |                               |                                     |     |
| UniRef90_R6P172        |                                   |                               |                                     |     |
| UniRef90_UPI0004645666 |                                   |                               |                                     |     |
| UniRef90_N9W5S5        |                                   |                               |                                     |     |
| UniRef90_UPI00040AD20F |                                   |                               |                                     |     |
| UniRef90_R7KBH5        |                                   |                               |                                     |     |
| UniRef90_G5HGB1        |                                   |                               |                                     |     |
| UniRef90_R9KHL1        |                                   |                               |                                     |     |
| UniRef90_L1Q4F3        |                                   |                               |                                     |     |
| UniRef90_U2BCB2        |                                   |                               |                                     |     |
| UniRef90_I4DBK5        |                                   |                               |                                     |     |
| UniRef90_R5F2S7        |                                   |                               |                                     |     |
| UniRef90_C0CWP1        |                                   |                               |                                     |     |
| UniRef90_R7BUY9        |                                   |                               |                                     |     |
| UniRef90_S6EYC2        |                                   |                               |                                     |     |
| UniRef90_R7QX90        |                                   |                               |                                     |     |
| UniRef90_G5HL77        |                                   |                               |                                     |     |
| UniRef90_R7M602        |                                   |                               |                                     |     |
| UniRef90_R9J0A2        |                                   |                               |                                     |     |
| UniRef90_N9XNR7        |                                   |                               |                                     |     |
| UniRef90_S0IM40        |                                   |                               |                                     |     |
| UniRef90_UPI00047DC610 |                                   |                               |                                     |     |
| UniRef90_R5FJU5        |                                   |                               |                                     |     |
| UniRef90_R9JAN9        |                                   |                               |                                     |     |
| UniRef90_F0HDF7        |                                   |                               |                                     |     |
| UniRef90_R5QXC3        |                                   |                               |                                     |     |
| UniRef90_UPI00047E3557 |                                   |                               |                                     |     |
| UniRef90_K6BKU4        |                                   |                               |                                     |     |
| UniRef90_S2YSJ9        |                                   |                               |                                     |     |
| UniRef90_UPI00047DC62C |                                   |                               |                                     |     |
| UniRef90_J0N3D3        |                                   |                               |                                     |     |
| UniRef90_F0K571        |                                   |                               |                                     |     |
| UniRef90_B0NKI0        |                                   |                               |                                     |     |
| UniRef90_V9H7U6        |                                   |                               |                                     |     |
| UniRef90_S6GRR6        |                                   |                               |                                     |     |
| UniRef90_R7K4J2        |                                   |                               |                                     |     |
| UniRef90_D4MSP6        |                                   |                               |                                     |     |
| UniRef90_UPI0004678DCB |                                   |                               |                                     |     |
| UniRef90_R6PRF6        |                                   |                               |                                     |     |
| UniRef90_R9M3L8        |                                   |                               |                                     |     |
| UniRef90_R4K778        |                                   |                               |                                     |     |
| UniRef90_F3BAV9        |                                   |                               |                                     |     |
| UniRef90_UPI0003F8938A |                                   |                               |                                     |     |

UniRef90\_R9LGS6  
 UniRef90\_X8ILH5 K [L] S A E Q Q A [L] V K A M A E R T Q S  
 UniRef90\_W0E983  
 UniRef90\_K4L4Z7  
 UniRef90\_UPI0003EFAD31 N [L] S T K Q E A M [L] K A M A T R [L] K S  
 UniRef90\_H5Y1Q8  
 UniRef90\_B8FP08  
 UniRef90\_K4KW63  
 UniRef90\_J7IRG3  
 UniRef90\_K4LK98  
 UniRef90\_UPI00036684AB [V] G [L] E A Q Q E T [V] T A M A T R [L] R S  
 UniRef90\_H7D7A9  
 UniRef90\_G7W7X8  
 UniRef90\_R6UU52  
 UniRef90\_U2D114  
 UniRef90\_Q3A9V3  
 UniRef90\_UPI000288B629  
 UniRef90\_R6D453  
 UniRef90\_F4LS79  
 UniRef90\_U5RRU3  
 UniRef90\_F0T0G7  
 UniRef90\_R5L5T5  
 UniRef90\_A4XL4  
 UniRef90\_U5F547  
 UniRef90\_I4A8V9  
 UniRef90\_R6XS18  
 UniRef90\_C4IGK8  
 UniRef90\_H5XZ89  
 UniRef90\_F0T0J6  
 UniRef90\_I7K843  
 UniRef90\_C0EHX3  
 UniRef90\_D7CNY4  
 UniRef90\_G7WDA9  
 UniRef90\_I9MHH0  
 UniRef90\_T0JR89  
 UniRef90\_R4KK76  
 UniRef90\_R9INQ4  
 UniRef90\_R9MCB8  
 UniRef90\_R7FPI9  
 UniRef90\_C5EPQ3  
 UniRef90\_R9K6S3  
 UniRef90\_UPI00036660C6  
 UniRef90\_R7G504  
 UniRef90\_T3D9Y7  
 UniRef90\_R5Q1F4  
 UniRef90\_R9MTA1  
 UniRef90\_R9N2N0  
 UniRef90\_R7KT72  
 UniRef90\_R6QJT9  
 UniRef90\_C6PWD0  
 UniRef90\_R6P172  
 UniRef90\_UPI0004645666  
 UniRef90\_N9W5S5  
 UniRef90\_UPI00040AD20F  
 UniRef90\_R7KBH5  
 UniRef90\_G5HGB1  
 UniRef90\_R9KHL1  
 UniRef90\_L1Q4F3  
 UniRef90\_U2BCB2  
 UniRef90\_I4DBK5  
 UniRef90\_R5F2S7  
 UniRef90\_C0CWP1  
 UniRef90\_R7BUY9  
 UniRef90\_S6EYC2  
 UniRef90\_R7QX90  
 UniRef90\_G5HL77  
 UniRef90\_R7M602  
 UniRef90\_R9J0A2  
 UniRef90\_N9XNR7  
 UniRef90\_S0IM40  
 UniRef90\_UPI00047DC610  
 UniRef90\_R5FJU5  
 UniRef90\_R9JAN9  
 UniRef90\_F0HDF7  
 UniRef90\_R5QXC3  
 UniRef90\_UPI00047E3557  
 UniRef90\_K6BKU4  
 UniRef90\_S2YSJ9  
 UniRef90\_UPI00047DC62C  
 UniRef90\_J0N3D3  
 UniRef90\_F0K571  
 UniRef90\_B0NKI0  
 UniRef90\_V9H7U6  
 UniRef90\_S6GRR6  
 UniRef90\_R7K4J2  
 UniRef90\_D4MSP6  
 UniRef90\_UPI0004678DCB  
 UniRef90\_R6PRF6  
 UniRef90\_R9M3L8  
 UniRef90\_R4K778  
 UniRef90\_F3BAV9  
 UniRef90\_UPI0003F8938A

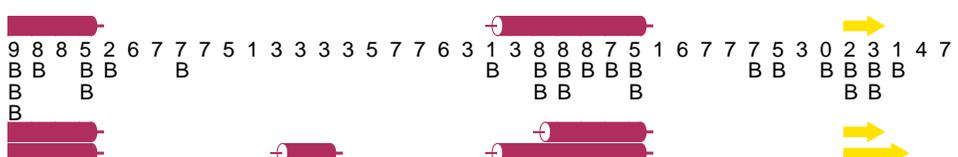




UniRef90\_W6SEZ9  
 UniRef90\_R5HRJ8  
 UniRef90\_D9R7F9  
 UniRef90\_E7GB21  
 UniRef90\_R5TR17  
 UniRef90\_R5W4S1  
 UniRef90\_U2DCL6

|  |    |  |     |     |
|--|----|--|-----|-----|
|  | 90 | 100  | 110 | 120 |
| <pre> L I E L A H Q M C C H L A D Q L M L K L A M Q L G E N </pre> |    | <pre> G V S P K Y G S K K N K F T Y L S I M L G A D P R L W S I Q N G G E S P R L W T H R G V N P R Y V Q V P R P R L W S R H P R N G R Y L Y W </pre> |     |     |

lupas\_21  
 lupas\_14  
 lupas\_28  
 jnet  
 conf  
 sol25  
 sol5  
 sol0  
 jhmm  
 jpssm









UniRef90\_W6SEZ9  
UniRef90\_R5HRJ8  
UniRef90\_D9R7F9  
UniRef90\_E7GB21  
UniRef90\_R5TR17  
UniRef90\_R5W4S1  
UniRef90\_U2DCL6

250

260

270

280

lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm

6 6 7 7 7 7 7 7 6 6 6 7 7 7 7 3 5 7 8 7 4 3 6 7 7 7 6 6 7 7 7 7 7 7  
B B



290

300

UniRef90\_W6SEZ9  
UniRef90\_R5HRJ8  
UniRef90\_D9R7F9  
UniRef90\_E7GB21  
UniRef90\_R5TR17  
UniRef90\_R5W4S1  
UniRef90\_U2DCL6

lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm

