

QUERY 1 10 20 30 40  
UniRef90\_L0A5B4 H K E R Q V E V G V S L G I G I Q A D E Q A T D L V D L V V R R H V I E A N T Q Q Q Y Y R R R K K L K I K K  
UniRef90\_U1X5W3 K T R E I V E V G V S L G I G I Q Q N P S T T I D D E L L L Q R V L V D E R E Y V V I E A N T Q Q Q Y Y R R R K K L K I K K  
UniRef90\_A4IL19 K T R E I V E V G V S L G I G I Q Q N P S T T I D D E L L L Q R V L V D E R E Y V V I E A N T Q Q Q Y Y R R R K K L K I K K  
UniRef90\_C7QI75 R T S E I V P V G V S L G I G I M P S P S T T I D D E L L L Q R V L V D E R E Y V V I E A N T Q Q Q Y Y R R R K K L K I K K  
UniRef90\_UPI0004069525 K K E I E V G V S L G I G I Q Q D S S P E K L L L K L I E G E G N R Y V L L K A E E G G Y Y K R R R M K K V K I K K  
UniRef90\_UPI000378B21C K T E I E V G V S L G I G I Q Q D S S P E K L L L K L I E G E G N R Y V L L K A E E G G Y Y K R R R M K K V K I K K  
UniRef90\_UPI0004786B7B E K I E V G V S L G I G I Q Q D S S P E K L L L K L I E G E G N R Y V L L K A E E G G Y Y K R R R M K K V K I K K  
UniRef90\_A0A024PMC5 K K N I D V G V S L G I G I Q Q S T T Q D D L L L E L L I K V V V V R E K G Y Y K R R R M K K V K I K K  
UniRef90\_X2GR01 K D L I D V G V S L G I G I Q Q S T T Q D D L L L E L L I K V V V V R E K G Y Y K R R R M K K V K I K K  
UniRef90\_UPI0004717CB1 Q T E I A V G V S L G I G I Q Q D S S P A K L L L V E K V V R E F V V D A E E G G Y Y K R R R M K K V K I K K  
UniRef90\_A0A024PMR1 K K E I D V G V S L G I G I Q Q S T T P S V E N D L F D T V G E D F F L A E E G G Y Y K R R R M K K V K I K K  
UniRef90\_M8DYG2 K D K I D V G V S L G I G I E A D I S V L L A A L L D A T D V V G E R Y Y L L A E E G G Y Y R R R I K L K I K I K E  
UniRef90\_UPI00036112C2 R D R R V P C G V S V G I G I M D S S I V L P E L L L D A T V V G E R Y Y L L A E E G G Y Y R R R I K L K I K I K E  
UniRef90\_K6PN80 R R R R V P V A G V S V G I G I K P P T L L A A L L D A T D V V G E R Y Y L L A E E G G Y Y R R R I K L K I K I K E  
UniRef90\_G2GP81 R E R V P A G V S V G I G I M D S S I V L P E L L L D A T V V G E R Y Y L L A E E G G Y Y R R R I K L K I K I K E  
UniRef90\_UPI0003B33D9C E R V P C G V S V G I G I M D S S I V L P E L L L D A T V V G E R Y Y L L A E E G G Y Y R R R I K L K I K I K E  
UniRef90\_C8XA11 R P T V P A G V S V G I G I Q Q S S E A T L L S A V V A D F V A E E G G Y Y S R V K K I K I K A  
UniRef90\_W7CIB8 R D E V A V G V S I G I G I Q Q S S E A T L L S A V V A D F V A E E G G Y Y S R V K K I K I K A  
UniRef90\_C1A995 R D A I A T G I S I G I G I Q Q S S E A T L L S A V V A D F V A E E G G Y Y S R V K K I K I K A  
UniRef90\_UPI0002E5EAF6 K K I D V G V S I G I G I Q Q K T P K V D L L K K K T E G D A L A V G Y Y K R R I K K M K I Q  
UniRef90\_E4T1P4 R T K I D A G V S I G I G I Q Q E T P K V M I Q K G Y L K E G Y Y K R R I K K I K I K A  
UniRef90\_H7F3I2 Q K K I P V G V S I G I G I Q Q S S E E E L I S S V I R N Y V L A E E G Y Y T R V K I K I K K  
UniRef90\_UPI0002892FB7 R A Q I P V G V S I G I G I E S T T D D L L Q R V V E G F V I R D G G Y Y K R R I K L K I K I K A  
UniRef90\_G8SLH7 R D R V A A G V S L G I G I E P T T V D D L L Q R V V E G F V I R D G G Y Y K R R I K L K I K I K A  
UniRef90\_V6MGD8 R A A I D V G V S I G I G I E P T T V D D L L Q R V V E G F V I R D G G Y Y K R R I K L K I K I K A  
UniRef90\_UPI00037DC5F0 R T C I V P S G V S I G I G I A E T T D D L L Q R V V E G F H I R D D A G G Y Y K R R I K L K I Q  
UniRef90\_R2QHL1 R T Q I V P V G V S I G I G I M D S S I V L P E L L L D A T V V A S G Y L L D A G G Y Y R R I K L K I E  
UniRef90\_S2ZZK6 R D R V A C G V S V G I G I M D S S I V L P E L L L D A T V V A S G Y L L D A G G Y Y R R I K L K I E  
UniRef90\_D0L512 T V P V G V S I G I G I R D A D I P E T L L D D E V A S L L D A G G Y Y K R R I K L K I A  
UniRef90\_A6X759 R D A I D V G V S L G I G I K A S V E E L L R E V R R R L E D A G G Y Y Q R I K V K I K K  
UniRef90\_A1RWU3 R Q E I E A G V S I G I G I K A S V E E L L R E V R R R L E D A G G Y Y Q R I K V K I K K  
UniRef90\_V8QQ32 F R D S T Y A A T I D M D R S L I A E E A V L E E A Q A Y A Q E N G Y Y S A I K M K I G  
UniRef90\_W9B8L2 R K T I E A G I A I G M Q S I I A E L H K I A L S Q E A N G Y Y K R R V K L K I K I S  
UniRef90\_K7RPB1 R E R V R A G V S L G I G I E A T L L D E L L A Q V E R Q V E A G Y H R T F K V K I K I S  
UniRef90\_UPI000479AEF8 R D R I P V L W T L A S G D P G Q E E L E E A E G K L A A R L H R T F K V K I K I S  
UniRef90\_A0A024PAS6 R K S V A A G A V L S L T D S S I E E D V L A E E G L L K K E G F H Q R F K L K V V  
UniRef90\_A9WN93 R A T V P S G V S V G I G I M D S S I P E L L L A T V A D Y Q D E G G Y Y R I K L K I K  
UniRef90\_A5UX74 R Q R V S V G V S V G I G I E P T L L A A Q L E R A Q F V L A E G G Y Y A G A V K I K  
UniRef90\_UPI00034702D0 H R D S V R T Y N T S G L N A S S I D D Q V R E R A S R S I L A D G G L G G I K I K V G  
UniRef90\_UPI0003643817 H H R D S V R T Y N T S G L N S S I D D Q V R E N A S R S I L A D G G L G G I K I K V G  
UniRef90\_Q11AL7 H Y R N R S I P T Y V A G G Y Y A K L K D E L Q E M A L H V I R G G A R G G I K I K V G  
UniRef90\_S2WJ16 H R D S V R T Y N T S G L S S P L E E V I E N A S A K E K G G I K I K V G  
UniRef90\_W9AW84 H R D S V P T Y N T S G L H T P L E E Q V I E N A S A A L A A G G I G G I K I K V G  
UniRef90\_K4I259 R D R V P L Y G S I N L N L S A D E I V D Q V K R W K A K G F F K A A K V K V G  
UniRef90\_S2KHL5 D S V P A Y A S G G Y Y K T P Q K L A E E M T G Y V A K G F F K A A K V K V G  
UniRef90\_UPI0002DA8E1B R L Q V E T G V S I G I G I Q K T P N D L L R V T E G H L E E G G Y Y R V K V K I K  
UniRef90\_NOBIA6 Y R E K I E T D L T I G I D T P E I V R K K A L E A L S R G Y Y R L K I K V E  
UniRef90\_Q11GY6 F R D S V R A Y A T G S F K R D I A D N V A E M V R H R D A G G F H A A K L K I G  
UniRef90\_UPI000368B6AB H R D R V E T Y A S L W L D R S R E E L V D E A H G L A E A G F F R A V K M R A G G  
UniRef90\_UPI0003678C70 R D R V P F S A Y L G E A V S P E G I V A Q A G Q L I E R G F F T A I K L K G G  
UniRef90\_V8CRW5 R D R V R V Y A N G W Y S N A S P E D F A E K A K E T V R R G Y T A L K F D A G G  
UniRef90\_A8M9P7 R S S V P V Y A S L W L G S S I D Q L Q R D A A D L V A R G G F R A V K T R V G G  
UniRef90\_UPI000378DB0A F R R E V P V F F W S T S T L D E V R Q E A K V R A A Q G Y K V L Y T K V G  
UniRef90\_UPI00036599E7 R D R V R V Y A N G W Y S N A S P E D F A E K A K E T V R R G Y T A L K F D A G G  
UniRef90\_D7C2F4 Y R K E I P I Y I A G G Y Y S T H K E L Q D E M A S Y V A L G A K A V K M K V G  
UniRef90\_A0A024KC87 F R D R V K A Y A S S V L F M S P E D T V K E V E R L V Q E G A F R Y V K V K I G  
UniRef90\_E1QTZ4 R D R I R A Y A S L Y A D R D L D R L A A A R K Y V D A G F T A V K M R F G G  
UniRef90\_UPI00029AE669 V P D A W G E V L T P E E D I V R S A R Q M I D Q G F Q S I K L K G G  
UniRef90\_Q1QUM5 R D R I R V Y S W I G G D R P A D T A Q A V R A V V D R G F T A I K M H A K  
UniRef90\_UPI000376DD7E H R K R V M P Y A T G L Y F S P E E K L L E A Q E Y V A Q G F K A I K M K V G  
UniRef90\_B5ZCC2 R D R I R V Y S W I G G D R P A D T A Q A V R A V V D R G F T A I K M H A K  
UniRef90\_UPI00037CCD77 Q K S E S D L T I G I D T P L E E K M A E Q A L A F K A K G V N I K V K L G  
UniRef90\_UPI0003FFE253 R E K I P L G W V L S A G E P E K V A E L A Q Q V R D N G F S A F K L K V G  
UniRef90\_UPI00036746E2 N R K K V E T D M T I G I S S P E K M A Q L A Q H Y Q R A G G C S I K V K L G  
UniRef90\_UPI00039B7EE2 R D A V R T Y A T S G L H A S I D E E I T A R A D E S L D A G G I K V K I G  
UniRef90\_A6EGX4 H R D A V R T Y A T G S F K R D I A D N V A E M V R H R D A G G F H A A K L K I G  
UniRef90\_D3Q7W1 R E S I P L Y D T G W L H F S T E E L V A Q A L E S R A R G G I G A V K I K I G  
UniRef90\_UPI000255C88D S I P L Y D T G W L H F S T E E L V A Q A L E S R A R G G I G A V K I K I G  
UniRef90\_S9RBG8 T V E L G W L V S G D S P A E V G D S V A E G R D E G Y T A F K V K I G  
UniRef90\_UPI00046A53CF R D R I K R Y S W I G G D R P A E T A K A R E V V D R G F T A V K M N G K  
UniRef90\_V6KK20 R D R I K A Y A N G W Y E R S P E E F H A A A R T V V E R G Y R A L K F D F G  
UniRef90\_A0R5F9 R D R I K A Y A N G W Y E R S P E E F H A A A R T V V E R G Y R A L K F D F G  
UniRef90\_UPI000416EB00 K E S C P L Y T T G W L H I L E K A L V D D A L Q A K A K G F S S G S K V K I G  
UniRef90\_UPI00037DBA6B R E S K V P A Y A S L I T R Y A N P E S I A T N V R R A S I D E G G Y Y R S L K I K  
UniRef90\_UPI000377CCD77 F R D Q V L T Y A N V G H Q L P P E E K L G E K A V E Y V E R G H T A V K I R V S  
UniRef90\_UPI00036746E2 E R L P V Y D T G W L H L P I E E V V A G A Q R S A A A G L R G V K I K V G  
UniRef90\_UPI00039B7EE2 R T E V Q A Y A T G L Y G D P F R Y L P E A A G Y V A E G F F A V K V K I G  
UniRef90\_UPI000378DB0A F R N S V R A Y A T G S F R R E V Q D L A A E V S G Y A R E G F F H G V K I K I G  
UniRef90\_UPI00036599E7 R D R I P L Y S W I G G D R P A E T A R Q A R D A V R A G G F T A V K M N V D  
UniRef90\_UPI00036746E2 R D S V E F F Y Y V A A P D P D T V K A E G T R A T A A G F T T C Y L K V G  
UniRef90\_UPI000378DB0A R D K V R A Y A W I G G D R P D D I A N A A K A R R Q G G F T A I K M N A T  
UniRef90\_UPI00036746E2 H R D S V Q C Y N T S G G Y T P L E K V L E N V Q T S R A N G G I K I K V G  
UniRef90\_UPI00036746E2 F R E R V E C F F Y V A R S D P A E V A R E A R R A S E S G F S T C Y L K V G  
UniRef90\_UPI00036746E2 H A D D V P S Y A S G G Y R D R E E L R E E M R Y L E E G V D V K M V G  
UniRef90\_UPI00046264A6 F T D Q L Q V S H M L G F D D P E V V A A E A Q L R E T L G I S S F K I K V G

QUERY UniRef90\_L0A5B4 UniRef90\_U1X5W3 UniRef90\_A4IL19 UniRef90\_C7QI75 UniRef90\_UPI0004069525 UniRef90\_UPI000378B21C UniRef90\_UPI0004786B7B UniRef90\_A0A024PMC5 UniRef90\_X2GR01 UniRef90\_UPI0004717CB1 UniRef90\_A0A024PMR1 UniRef90\_M8DYG2 UniRef90\_UPI00036112C2 UniRef90\_K6PN80 UniRef90\_G2GP81 UniRef90\_UPI0003B33D9C UniRef90\_C8XA11 UniRef90\_W7CIB8 UniRef90\_C1A995 UniRef90\_UPI0002E5EAF6 UniRef90\_E4T1P4 UniRef90\_H7F3I2 UniRef90\_UPI0002892FB7 UniRef90\_G8SLH7 UniRef90\_V6MGD8 UniRef90\_UPI00037DC5F0 UniRef90\_R2QHL1 UniRef90\_S2ZZK6 UniRef90\_D0L512 UniRef90\_A6X759 UniRef90\_A1RWU3 UniRef90\_V8QQ32 UniRef90\_W9B8L2 UniRef90\_K7RPB1 UniRef90\_UPI000479AEF8 UniRef90\_A0A024PAS6 UniRef90\_A9WN93 UniRef90\_A5UX74 UniRef90\_UPI00034702D0 UniRef90\_UPI0003643817 UniRef90\_Q11AL7 UniRef90\_S2WJ16 UniRef90\_W9AW84 UniRef90\_K4I259 UniRef90\_S2KHL5 UniRef90\_UPI0002DA8E1B UniRef90\_NOBIA6 UniRef90\_Q11GY6 UniRef90\_UPI000368B6AB UniRef90\_UPI0003678C70 UniRef90\_V8CRW5 UniRef90\_A8M9P7 UniRef90\_UPI000378DB0A UniRef90\_UPI00036599E7 UniRef90\_D7C2F4 UniRef90\_A0A024KC87 UniRef90\_E1QTZ4 UniRef90\_UPI00029AE669 UniRef90\_Q1QUM5 UniRef90\_UPI000376DD7E UniRef90\_B5ZCC2 UniRef90\_UPI00037CCD77 UniRef90\_UPI0003FFE253 UniRef90\_UPI00036746E2 UniRef90\_UPI00039B7EE2 UniRef90\_A6EGX4 UniRef90\_D3Q7W1 UniRef90\_UPI000255C88D UniRef90\_S9RBG8 UniRef90\_UPI00046A53CF UniRef90\_V6KK20 UniRef90\_A0R5F9 UniRef90\_UPI000416EB00 UniRef90\_UPI00037DBA6B UniRef90\_F6C4T2 UniRef90\_E3GKX2 UniRef90\_U3QI95 UniRef90\_A9BJU2 UniRef90\_D3FWQ6 UniRef90\_D7CBT5 UniRef90\_G9ZV30 UniRef90\_UPI00037FB4EB UniRef90\_A1TPD4 UniRef90\_D5WJK7 UniRef90\_D3PVP4 UniRef90\_Q1GV60 UniRef90\_V7D5T2 UniRef90\_H5X3C0 UniRef90\_K2PVW1 UniRef90\_MOD2L2 UniRef90\_UPI00046264A6

P G W D V Q P V R A V R E A F P D D L T M T V D A N S A Y T L A D A G R F R Q L D D  
UniRef90\_L0A5B4 P G W D V E V M R E V R R K H F P D D L T M T V D A N S A Y T R L S K L A D D I V E R T R F A K A L A L D D  
UniRef90\_U1X5W3 P G W D V E V M R E V R R K H F P D D L T M T V D A N S A Y T R L S K L A D D I V E R T R F A K A L A L D D  
UniRef90\_A4IL19 P G W D V E V M R E V R R K H F P D D L T M T V D A N S A Y T R L S K L A D D I V E R T R F A K A L A L D D  
UniRef90\_C7QI75 P G W D V E V M R E V R R K H F P D D L T M T V D A N S A Y T R L S K L A D D I V E R T R F A K A L A L D D  
UniRef90\_UPI0004069525 P G W D V E V M R E V R R K H F P D D L T M T V D A N S A Y T R L S K L A D D I V E R T R F A K A L A L D D  
UniRef90\_UPI000378B21C P G A D L E Y I D E A V R K K A V F P D D L T M T V D A N S A Y T R L S K L A D D I V E R T R F A K A L A L D D  
UniRef90\_UPI0004786B7B P G W D L N I L L A E I V R K R Y F P D D L T M T V D A N S A Y T R L S K L A D D I V E R T R F A K A L A L D D  
UniRef90\_A0A024PMC5 P G R D I D V L K E A I R Y A H F P D D L T M T V D A N S A Y T R L S K L A D D I V E R T R F A K A L A L D D  
UniRef90\_X2GR01 P G Y D V E V I R A I V R A V F P D D L T M T V D A N S A Y T R L S K L A D D I V E R T R F A K A L A L D D  
UniRef90\_UPI0004717CB1 P G A D I E Y L K A V R D A F P D D L T M T V D A N S A Y T R L S K L A D D I V E R T R F A K A L A L D D  
UniRef90\_A0A024PMR1 P G W D V D V L R A Q L R E R K F G N D T P M M A D A N S A Y T L L E D D I V E N L L K K Q L D D  
UniRef90\_M8DYG2 P G K D V Q V I R A V R R E R F G D L V L Q V D A N A A Y T L S D T Q Q R L L A G L D D  
UniRef90\_UPI00036112C2 P G W D L D P V V R A V R R E R F G D L V L Q V D A N A A Y T L S D T Q Q R L L A G L D D  
UniRef90\_K6PN80 P G Y E V E E P V R A V R R E R F G S G A P L M V D D A N T A Y T L L A D A E R H L R R V L D D  
UniRef90\_G2GP81 P G W D L E P V V R A V R R E R F G S G A P L M V D D A N T A Y T L L A D A E R H L R R V L D D  
UniRef90\_UPI0003B33D9C P G W D V D V V R A V R R E R F G D V L L Q V D A N T A Y T L L R A D A R R H L L A R K L D D  
UniRef90\_C8XA11 P G W D V A P V V R A V R R E R F G E I P L Q V V D A N A A Y T L L A D A R R V I L L R L D D  
UniRef90\_W7CIB8 P G Q D L S Y L A A V R E R Q F P N L V L F V D A N A A Y T L E A E F D I E V L L K M D  
UniRef90\_C1A995 P G Q D I A Y V R A A R E A L P D A P L M A D A N S A Y T L D D I L L L A K E L D D  
UniRef90\_UPI0002E5EAF6 P G W D V D V V R A V R R E R F P N D L Q L M A D A N S A F T R M K D I E L L F K K M D  
UniRef90\_E4T1P4 P G N D L N V V E A L R K E Y P N D L Q L M A D A N S A Y T L K K D I E L L F K K M D  
UniRef90\_H7F3I2 P H A D L S F L K Q V R E E F P D D L L M A D A N S A Y T T E Q I L P L L K Q Q L D D  
UniRef90\_UPI0002892FB7 P G Q D V E S L I K T I R A R A Y P D G I P L H V D D A N G A Y P A A E T G V F R S L D D  
UniRef90\_G8SLH7 P G W D V E P V M R A I R R Q K F P D V L L M A D A N S A Y T L N D D L E R M L K A Q L D D  
UniRef90\_V6MGD8 P G F D V E E P P R A I R R Q K F P D V L L M A D A N S A Y T L N D D L E R M L K A Q L D D  
UniRef90\_UPI00037DC5F0 P G W D V E P P I R A I R R Q K F P D I L L Q V V D D A N T A Y T R P G D D I E R H L L A Q L D D  
UniRef90\_R2QHL1 P G Y D L K P I R A I R R Q K F P D I L L Q V V D D A N T A Y T R P G D D I E R H L L A Q L D D  
UniRef90\_S2ZZK6 P G W D V E P V V R A V R R E R F G D L L L Q V V D A N T A Y S L A D A R R H L L A K L D D  
UniRef90\_D0L512 P G W D L V P V A A V R D H F P D E V L V L Q V V D A N T A Y G P A D L L P L L K A K L D D  
UniRef90\_A6X759 R G H D L A M I Q A A V R E R F P E A K L T V V D A N T A Y R S L R D I G V F R E L D E  
UniRef90\_A1RWU3 P G Y D V E V V K E I R E E F G D I R L R L Q V V D A N G A Y S L R D I G V F R E L D E  
UniRef90\_V8QQ32 P K L D L A R V V K E V R K A I G D D L P I L M V D D A N H C F T V P A A I R G K E L D D  
UniRef90\_W9B8L2 P G K D I D V L K E V R R K A H Y P D D L P I L M V D D A N S A Y T E D I A R L S P E L D D  
UniRef90\_K7RPB1 H G W D V E P V A R A V R S A Y P E L D L H V D D A N Y E S D D E T I A H L S P E L D D  
UniRef90\_UPI000479AEF8 P A A D L E A R R A V R A G V L G D A A A L I V D A N G A W D E T A A H C P V L A D D  
UniRef90\_A0A024PAS6 K G N E I E A I R Q A V K T I D P Y L P I M I V D A N G Q Y T E S D M G H L H P T L D D  
UniRef90\_A9WN93 P G W D L E P V R A V R R E L I G D M G L K V D A N S A Y S L L D A P L L R R E L D D  
UniRef90\_A5UX74 P G W D V T V R V R G I R E R H I P D D V P M M V D A N Q Q W D R A T A I R A K R V E E  
UniRef90\_UPI00034702D0 L A E D L R R V R R V R E H I P D D V P M M V D A N Q Q W D R A T A I R A K R V E E  
UniRef90\_UPI0003643817 L P E D L E R I R N A V R K A L P D D V K L M M V D A N Q Q W D R A T A I R A K R V E E  
UniRef90\_Q11AL7 A A E D Y E R I K A V R R E A L P D D V K L M M V D A N Q Q W D R A T A I R A K R V E E  
UniRef90\_S2WJ16 H P D D Y T R I K A V R R E A L P D D V K L M M V D A N Q Q W D R P T A M R M R L E  
UniRef90\_W9AW84 P D W D I A R L K E V R E H L G D V P L M V D A N Q Q W D R P T A M R M R L E  
UniRef90\_K4I259 I E E D E E R L K A V R E A V P N V Q V L M L D A N N A W R P S A L A F M K M A  
UniRef90\_S2KHL5 R E D E E A R L K A V R E A V P N V Q V L M L D A N N A W R P S A L A F M K M A  
UniRef90\_UPI0002DA8E1B P G Q D F S Y L E E V R K Q F G N I M L M A D A N S A Y S L K D I E L L K Q L D D  
UniRef90\_NOBIA6 G D R D F K R I R A I S D L V E V R I R L D A N Q G F T P K T A V I R F R Q V R  
UniRef90\_Q11GY6 P D E D L A V I R A V R E A V P G V K V M I D A N Q A W D L K E T L R M A Q E A F  
UniRef90\_UPI000368B6AB P D E E V E A L R A L R S A Y P D L M P L R L D P N A A V W T V P T A V I A S E T  
UniRef90\_UPI0003678C70 P E Q E L A A M K A L R S A Y P D L M P L R L D P N A A V W T V P T A V I A S E T  
UniRef90\_V8CRW5 I K D A E R V K A V R E A V G D V D I L I E A H G R F N A E S A I R A A W L E  
UniRef90\_A8M9P7 P T D P F E R V A A I R E A I P D D I G L M V D D A N Q Q M T V K Q A I H M R M L E  
UniRef90\_UPI000378DB0A F D Y D I E M V A A I R E A I P D D I G L M V D D A N Q Q M T V K Q A I H M R M L E  
UniRef90\_UPI00036599E7 P D E E I A A I R A L R E A F P E L P L R L D P N A A W S E E T S L H V A R E L  
UniRef90\_D7C2F4 A K D D I A R I K A V R E V I P D D I A L L D A N C A Y R A Y E A I K F A R A E  
UniRef90\_A0A024KC87 R G Y D M A V I K A I R D S L G E V E I M V D D A N T A Y N V S T A I K V R M L E  
UniRef90\_E1QTZ4 Y G K N A E L V R T V R N A I G D V D L M A D A Y M G W T T Q Y A L M I R M L E  
UniRef90\_UPI00029AE669 P E Q E L L A V R A L R E A F P E Y P L R V D D P N G G W T P E T T R R L L P Q M  
UniRef90\_Q1QUM5 F K E D V K F V K A I R E A G P Y L G I G V D F H G R V H K P M A K V A R E L L E  
UniRef90\_UPI000376DD7E V D D V I A R V K A I R E A G P Y L G I G V D F H G R V H K P M A K V A R E L L E  
UniRef90\_B5ZCC2 R A E D V A R V K A I R E A I P D D I T F M V D D A N Y S Q T V E E Q A I T M S K A F  
UniRef90\_UPI00037CCD77 P A T D I E R I R Q I R Q S I G D I G L M V D D A N Q G W S Y E A L K I L T L F  
UniRef90\_UPI0003FFE253 P A R E I E A I R A L R E A F P D D L P L R L D P N T A W T V E T S K W V A A E T  
UniRef90\_UPI00036746E2 R D N D I A T V R E V R A A V G D A K I T L D D A N Q G S W S Y E Q A L Y M K R L D  
UniRef90\_UPI00039B7EE2 K D E D I A T V R A I R A A V G G M M I R L D D A N Q G W S Y E D A L Y G G A L L A  
UniRef90\_A6EGX4 P A E E I A A I R A L R E A F P E H P L R L D P N A A W K V A T S I W V A A E T  
UniRef90\_D3Q7W1 A R E D L H R V I D A V R E A I P E V D L M V D D A N Q Q W D R A T A L R M R Q L E  
UniRef90\_UPI000255C88D V I E E D L R V I E A V R E A I P E T R L M V D D A N H G Y D A M E A I R G Q Q A A  
UniRef90\_S9RBG8 G H E D Y E R L A A V R D A V G D A D I M V D D A N Q S L T S A E A I R R A A L F  
UniRef90\_UPI00046A53CF L H D D A A V V A A V R H A P D D A P L W V D D A N Q A Y T V P V A L R M R L D D  
UniRef90\_V6KK20 V D R A V A S V A A V R D A V P N D I G I G V D D F H G R V H K P M A K V L R R L E  
UniRef90\_A0R5F9 P G R S V S L V E A V R D A V P D V E L L V E M H G R F T A A T A S R A R L L E  
UniRef90\_UPI000416EB00 P D E E I A A I K A L H A F P G V F P I R L M D P N A A G W T V A T S I R V G R E L  
UniRef90\_UPI00037DBA6B G A E D Y D R L S A M R A A L P G D F E I R L D C N A A G F T V D E A I R R A R L R  
UniRef90\_F6C4T2 V E A D V A R V K A I R D A A V P D D V K I R L D A N Q G W T P K E A I V I N K L A  
UniRef90\_E3GKX2 E V D L T V I R A A R D A A P D D V E I R L D A N Q G W T P K E A I V I N K L A  
UniRef90\_U3QI95 V D L D V E A I R I R N R A V G D V E I R L D A N Q G W N L H D T L T A I K M M  
UniRef90\_A9BJU2 I K E S T M R V Q A V R E A I P D I K L L V D V N G T W D A D T A I Q Q L K A W  
UniRef90\_D3FWQ6 P A E D A E R L A A V R V A I P E L E V L M V D D A N Q A F T A A E A I R R R T Y E  
UniRef90\_D7CBT5 F G E D A A I T R A V R E A I P D V L A M V D D A N H A Y D A V A A I K R R M L E  
UniRef90\_G9ZV30 F D E D L R V I A A V R E A I P G R R L M I D A N H G Y D L E A L E V K R A Q  
UniRef90\_UPI00037FB4EB T F D K V E R V A A V R E A I P H V I G I G V D D F H G R V H R P M A K V I K E L  
UniRef90\_A1TPD4 R D N D V A T A R E V R K A L P D D A M I R L D A N E A W T A G T A L R V R A K L  
UniRef90\_D5WJK7 S D S D I E R V A A L R D G I P H M N I R L D A N E A W T A G T A L R V R A K L  
UniRef90\_D3PVP4 S E I D F E R V A A Q N E Q L D V G V L D D F H G R V H R P M A K Q L A K L E  
UniRef90\_Q1GV60 Q P D D F K R V Q A V R E Q L G E F P L M V D A N Q Q W D R V T A R F C  
UniRef90\_V7D5T2 S D E D I E R V E A L R D A G P S A R L R I D A N E A W A P G T A V R M R E L A  
UniRef90\_H5X3C0 P E D G F E R I A F A V S R Y P Q D I Q W A V D A N E S Y G F N L N Q L K A L D  
UniRef90\_K2PVW1 R E E A D R V A A V R D E I P Q D R T L L D A N G V S P E A I L R A C A F E  
UniRef90\_MOD2L2 R P L D V A V C K A V R E A L P E A E L Y L D G N R G W T A E S A L A V R Q L E  
UniRef90\_UPI00046264A6







QUERY UniRef90\_L0A5B4 UniRef90\_U1X5W3 UniRef90\_A4LI9 UniRef90\_C7QI75 UniRef90\_UPI0004069525 UniRef90\_UPI000378B21C UniRef90\_UPI0004786B7B UniRef90\_A0A024PMC5 UniRef90\_X2GR01 UniRef90\_UPI0004717CB1 UniRef90\_A0A024PMR1 UniRef90\_M8DYG2 UniRef90\_UPI00036112C2 UniRef90\_K6PN80 UniRef90\_G2GP81 UniRef90\_UPI0003B33D9C UniRef90\_C8XA11 UniRef90\_W7CIB8 UniRef90\_C1A995 UniRef90\_UPI0002E5EAF6 UniRef90\_E4T1P4 UniRef90\_H7F3I2 UniRef90\_UPI0002892FB7 UniRef90\_G8SLH7 UniRef90\_V6MGD8 UniRef90\_UPI00037DC5F0 UniRef90\_R2QHL1 UniRef90\_S2ZZK6 UniRef90\_D0L512 UniRef90\_A6X759 UniRef90\_A1RWU3 UniRef90\_V8QQ32 UniRef90\_W9B8L2 UniRef90\_K7RPB1 UniRef90\_UPI000479AEF8 UniRef90\_A0A024PAS6 UniRef90\_A9WN93 UniRef90\_A5UX74 UniRef90\_UPI00034702D0 UniRef90\_UPI0003643817 UniRef90\_Q11AL7 UniRef90\_S2WJ16 UniRef90\_W9AW84 UniRef90\_K4I259 UniRef90\_S2KHL5 UniRef90\_UPI0002DA8E1B UniRef90\_NOBIA6 UniRef90\_Q11GY6 UniRef90\_UPI000368B6AB UniRef90\_UPI0003678C70 UniRef90\_V8CRW5 UniRef90\_A8M9P7 UniRef90\_UPI000378DB0A UniRef90\_UPI00036599E7 UniRef90\_D7C2F4 UniRef90\_A0A024KC87 UniRef90\_E1QTZ4 UniRef90\_UPI00029AE669 UniRef90\_Q1QUM5 UniRef90\_UPI000376DD7E UniRef90\_B5ZCC2 UniRef90\_UPI00037CCD77 UniRef90\_UPI0003FFE253 UniRef90\_UPI00036746E2 UniRef90\_UPI00039B7EE2 UniRef90\_A6EGX4 UniRef90\_D3Q7W1 UniRef90\_UPI000255C88D UniRef90\_S9RBG8 UniRef90\_UPI00046A53CF UniRef90\_V6KK20 UniRef90\_A0R5F9 UniRef90\_UPI000416EB00 UniRef90\_UPI00037DBA6B UniRef90\_F6C4T2 UniRef90\_E3GKX2 UniRef90\_U3QI95 UniRef90\_A9BJU2 UniRef90\_D3FWQ6 UniRef90\_D7CBT5 UniRef90\_G9ZV30 UniRef90\_UPI00037FB4EB UniRef90\_A1TPD4 UniRef90\_D5WJK7 UniRef90\_D3PVP4 UniRef90\_Q1GV60 UniRef90\_V7D5T2 UniRef90\_H5X3C0 UniRef90\_K2PVW1 UniRef90\_MOD2L2 UniRef90\_UPI00046264A6

170 180 190 200

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

QUERY UniRef90\_L0A5B4 UniRef90\_U1X5W3 UniRef90\_A4IL9 UniRef90\_C7QI75 UniRef90\_UPI0004069525 UniRef90\_UPI000378B21C UniRef90\_UPI0004786B7B UniRef90\_A0A024PMC5 UniRef90\_X2GR01 UniRef90\_UPI0004717CB1 UniRef90\_A0A024PMR1 UniRef90\_M8DYG2 UniRef90\_UPI00036112C2 UniRef90\_K6PN80 UniRef90\_G2GP81 UniRef90\_UPI0003B33D9C UniRef90\_C8XA11 UniRef90\_W7CIB8 UniRef90\_C1A995 UniRef90\_UPI0002E5EAF6 UniRef90\_E4T1P4 UniRef90\_H7F3I2 UniRef90\_UPI0002892FB7 UniRef90\_G8SLH7 UniRef90\_V6MGD8 UniRef90\_UPI00037DC5F0 UniRef90\_R2QHL1 UniRef90\_S2ZZK6 UniRef90\_D0L512 UniRef90\_A6X759 UniRef90\_A1RWU3 UniRef90\_V8QQ32 UniRef90\_W9B8L2 UniRef90\_K7RPB1 UniRef90\_UPI000479AEF8 UniRef90\_A0A024PAS6 UniRef90\_A9WN93 UniRef90\_A5UX74 UniRef90\_UPI00034702D0 UniRef90\_UPI0003643817 UniRef90\_Q11AL7 UniRef90\_S2WJ16 UniRef90\_W9AW84 UniRef90\_K4I259 UniRef90\_S2KHL5 UniRef90\_UPI0002DA8E1B UniRef90\_NOBIA6 UniRef90\_Q11GY6 UniRef90\_UPI000368B6AB UniRef90\_UPI0003678C70 UniRef90\_V8CRW5 UniRef90\_A8M9P7 UniRef90\_UPI000378DB0A UniRef90\_UPI00036599E7 UniRef90\_D7C2F4 UniRef90\_A0A024KC87 UniRef90\_E1QTZ4 UniRef90\_UPI00029AE669 UniRef90\_Q1QUM5 UniRef90\_UPI000376DD7E UniRef90\_B5ZCC2 UniRef90\_UPI00037CCD77 UniRef90\_UPI0003FFE253 UniRef90\_UPI00036746E2 UniRef90\_UPI00039B7EE2 UniRef90\_A6EGX4 UniRef90\_D3Q7W1 UniRef90\_UPI000255C88D UniRef90\_S9RBG8 UniRef90\_UPI00046A53CF UniRef90\_V6KK20 UniRef90\_A0R5F9 UniRef90\_UPI000416EB00 UniRef90\_UPI00037DBA6B UniRef90\_F6C4T2 UniRef90\_E3GKX2 UniRef90\_U3QI95 UniRef90\_A9BJU2 UniRef90\_D3FWQ6 UniRef90\_D7CBT5 UniRef90\_G9ZV30 UniRef90\_UPI00037FB4EB UniRef90\_A1TPD4 UniRef90\_D5WJK7 UniRef90\_D3PVP4 UniRef90\_Q1GV60 UniRef90\_V7D5T2 UniRef90\_H5X3C0 UniRef90\_K2PVW1 UniRef90\_MOD2L2 UniRef90\_UPI00046264A6

210 220 230 240

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

QUERY	H R A
UniRef90_L0A5B4	F R
UniRef90_U1X5W3	Y
UniRef90_A4IL19	Y R
UniRef90_C7QI75	F
UniRef90_UPI0004069525	Y
UniRef90_UPI000378B21C	
UniRef90_UPI0004786B7B	F H S
UniRef90_A0A024PMC5	F
UniRef90_X2GR01	Y K
UniRef90_UPI0004717CB1	
UniRef90_A0A024PMR1	
UniRef90_M8DYG2	
UniRef90_UPI00036112C2	
UniRef90_K6PN80	W H A
UniRef90_G2GP81	
UniRef90_UPI0003B33D9C	V A A
UniRef90_C8XA11	I Q A
UniRef90_W7CIB8	
UniRef90_C1A995	
UniRef90_UPI0002E5EAF6	Y
UniRef90_E4T1P4	F
UniRef90_H7F3I2	
UniRef90_UPI0002892FB7	F
UniRef90_G8SLH7	
UniRef90_V6MGD8	Y F A
UniRef90_UPI00037DC5F0	
UniRef90_R2QHL1	
UniRef90_S2ZZK6	
UniRef90_D0L512	I P A
UniRef90_A6X759	F V A
UniRef90_A1RWU3	W T A
UniRef90_V8QQ32	
UniRef90_W9B8L2	F
UniRef90_K7RPB1	
UniRef90_UPI000479AEF8	
UniRef90_A0A024PAS6	F
UniRef90_A9WN93	I K
UniRef90_A5UX74	
UniRef90_UPI00034702D0	
UniRef90_UPI0003643817	
UniRef90_Q11AL7	
UniRef90_S2WJ16	
UniRef90_W9AW84	
UniRef90_K4IZ59	
UniRef90_S2KHL5	
UniRef90_UPI0002DA8E1B	F
UniRef90_NOBIA6	
UniRef90_Q11GY6	
UniRef90_UPI000368B6AB	
UniRef90_UPI0003678C70	
UniRef90_V8CRW5	
UniRef90_A8M9P7	
UniRef90_UPI000378DB0A	
UniRef90_UPI00036599E7	
UniRef90_D7C2F4	
UniRef90_A0A024KC87	
UniRef90_E1QTZ4	
UniRef90_UPI00029AE669	
UniRef90_Q1QUM5	
UniRef90_UPI000376DD7E	
UniRef90_B5ZCC2	W R
UniRef90_UPI00037CCD77	
UniRef90_UPI0003FFE253	
UniRef90_UPI00036746E2	A R
UniRef90_UPI00039B7EE2	H R
UniRef90_A6EGX4	
UniRef90_D3Q7W1	
UniRef90_UPI000255C88D	G R
UniRef90_S9RBG8	
UniRef90_UPI00046A53CF	
UniRef90_V6KK20	H R S
UniRef90_A0R5F9	W R
UniRef90_UPI000416EB00	
UniRef90_UPI00037DBA6B	
UniRef90_F6C4T2	F R
UniRef90_E3GKX2	
UniRef90_U3QI95	
UniRef90_A9BJU2	
UniRef90_D3FWQ6	
UniRef90_D7CBT5	
UniRef90_G9ZV30	
UniRef90_UPI00037FB4EB	
UniRef90_A1TPD4	W R
UniRef90_D5WJK7	H R
UniRef90_D3PVP4	H
UniRef90_Q1GV60	W R
UniRef90_V7D5T2	
UniRef90_H5X3C0	
UniRef90_K2PVW1	F R
UniRef90_MOD2L2	
UniRef90_UPI00046264A6	



UniRef90\_UPI00047B09D4  
UniRef90\_UPI000348A350  
UniRef90\_UPI000046CABA6  
UniRef90\_Q96XE5  
UniRef90\_B1FUB8  
UniRef90\_A6CDL0  
UniRef90\_B6G1W7  
UniRef90\_M0CXZ9  
UniRef90\_S4ZIP0  
UniRef90\_F9RV61  
UniRef90\_F2N5J1  
UniRef90\_UPI000289C070  
UniRef90\_E8TPT3  
UniRef90\_UPI0002FA6668  
UniRef90\_F2R487  
UniRef90\_M7NIN4  
UniRef90\_M0ALU8  
UniRef90\_H2IFX0  
UniRef90\_K2PQ44  
UniRef90\_UPI00047B6DA4  
UniRef90\_L8EGG1  
UniRef90\_V9H3K9  
UniRef90\_B3T359  
UniRef90\_J4KPF2  
UniRef90\_S6I772  
UniRef90\_K6DRN6  
UniRef90\_S3ESB6  
UniRef90\_R6T3Q5  
UniRef90\_G0J859  
UniRef90\_D5EN34  
UniRef90\_W6VZT5  
UniRef90\_C0CWC1  
UniRef90\_J2LFY4  
UniRef90\_M7PBF2  
UniRef90\_A0A034ULJ2  
UniRef90\_S9QAI3  
UniRef90\_A0A022GEX4  
UniRef90\_P95608  
UniRef90\_UPI000371031E  
UniRef90\_UPI0003683A86  
UniRef90\_UPI00047831A2  
UniRef90\_Q1IU00  
UniRef90\_L0JM21  
UniRef90\_A4VK55  
UniRef90\_Q0KJT6  
UniRef90\_UPI0003F63093  
UniRef90\_H1HV81  
UniRef90\_L1N8V8  
UniRef90\_D6A8F1  
UniRef90\_C9ACN4  
UniRef90\_F2N5I4  
UniRef90\_D9WSG7  
UniRef90\_UPI00047EAD82  
UniRef90\_S5NP37  
UniRef90\_UPI000467B542  
UniRef90\_UPI00047E0222  
UniRef90\_Q8EMK6  
UniRef90\_G0L8J1  
UniRef90\_UPI00047A348B  
UniRef90\_U4KUK6  
UniRef90\_M5STW8  
UniRef90\_H0BW10  
UniRef90\_A6VZS4  
UniRef90\_X5LFM2  
UniRef90\_F4GNS5  
UniRef90\_K4L2U8  
UniRef90\_H5SVN5  
UniRef90\_C9SBL2  
UniRef90\_A4XRL5  
UniRef90\_C3WYM5  
UniRef90\_W8YW31  
UniRef90\_W0HU80  
UniRef90\_B9JB22  
UniRef90\_A0A059KN07  
UniRef90\_UPI00037323D3  
UniRef90\_C6J2Y1  
UniRef90\_P83763  
UniRef90\_D8JBS9  
UniRef90\_D9T567  
UniRef90\_UPI00036B4CD0  
UniRef90\_N8Y804  
UniRef90\_UPI0003614DEA  
UniRef90\_G8QCM5  
UniRef90\_C3N467  
UniRef90\_H8G8X3  
UniRef90\_HOPTN2  
UniRef90\_F5XLP1  
UniRef90\_UPI00047D2CE5  
UniRef90\_I3ZIT4  
UniRef90\_UPI0003728086  
UniRef90\_UPI0003649983  
UniRef90\_UPI0003824B66

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



UniRef90\_UPI00047B09D4 P D Y E L E C Y 50 A E A F P G D R L M T V H D P N G A L S A E E A L I R F A R A F 80  
UniRef90\_UPI000348A350 P V E E E A R V I R A A L R E A F I P G D V E L L M T V D D N N G W H A D E A L Q F V R R F E  
UniRef90\_UPI00046CABA6 G A E E E K R V I R Q A A L R R E A V P G D V E L L M T V D D N N G W H A D E A L Q F V R R F E  
UniRef90\_Q96XE5 L K E A E E K R V I R Q A A L R R E A V P G D V E L L M T V D D N N G W H A D E A L Q F V R R F E  
UniRef90\_B1FUB8 A R D D I G H V K A R I V K K A L G D G A L V L R V I D D V N M A W S E T S Q A A W L P A L L A  
UniRef90\_A6CDL0 P D E D I V A R K Q M L V R E A V G P D L E L R L V D D A N A N G G Y C V L V R V L K E F  
UniRef90\_B6G1W7 P D E D I V A R K Q M L V R E A V G P D L E L R L V D D A N A N G G Y C V L V R V L K E F  
UniRef90\_M0CXZ9 V D S D V E R V R A A L R R E A V G D A R L L M V D D N G N Y R P R Q A I R I K A I F E E  
UniRef90\_S4ZIP0 S E E M H L D R V R A Q A L R D D A V H G D L M G I G I D D F H G R V H R P G M A K V L A H L E E E  
UniRef90\_F9RV61 S E E L N L D R V R A Q A L R R D A V H G D L M G I G I D D F H G R V H R P G M A K V L A H L E E E  
UniRef90\_F2N5J1 R R E R D L R R V R A A L R R E A L G D V A L L M V D D V N Q Q W D R T T A L R M R A L L E E D  
UniRef90\_UPI000289C070 P E D G V L K L R K A I R R E R K Y T N L Q L L A D D A N Y A L T V P Q I D E L K K L L D  
UniRef90\_E8TPT3 K D E D V A R V K A V R R E R I P D D T L F M V D D A N Y A L T V P Q I D E L K K L L D  
UniRef90\_UPI0002FA6668 V D A V L E R V I R A A L R R E M G P N F G I G L V D F H G R V H R P M A K V A R A E L D  
UniRef90\_F2R487 P D E E I V A A I R A L R R E A F H P L R L V D D P N N A S W D E P A T A A R V A D E L  
UniRef90\_M7NIN4 K G D N V E R I L E I R Q K A V G D A R L R L V D D P N N A S W D E P A T A A R V A D E L  
UniRef90\_M0ALU8 V D R D V E R I V R A V R D A L P D D L T L M L D D A N Y S L T V E T A R D T G R L L D  
UniRef90\_H2IFX0 R E E D I A D R I K A V R R E A L I P D D L T L M L D D A N Y S L T V E T A R D T G R L L D  
UniRef90\_K2PQ44 V K D D L A H V I R A A I R A R A V L G D D G T F M I D D V N Q A W N L T E A R Y V R G L Q  
UniRef90\_UPI00047B6DA4 E E M E I D R V I Q S I R R E A V L G D D I D I A L V D F H G R V H K S M A V M M K E L L E  
UniRef90\_L8EGG1 T R Y A V S L I K E A V R D A I P D D R E S I G V D D F H G R V H K S M A V M M K E L L E  
UniRef90\_V9H3K9 T E E L H V D R V I K S I R R D A V G D D L S I G V D D F H G R V H K S M A V M M K E L L E  
UniRef90\_B3T359 G E M D I E T V R A V R A A V G D I E I L V D V N G A F T T H H A L E I K A L L E  
UniRef90\_J4KPF2 S D D L G L V E R V R A V R A L G L G L V P V L D D F H G R A H R P T A R M Q A A A L L A  
UniRef90\_S6I772 P D D L K R V S T V R K H L G E F G L M V D D A N G Q W D R E K P T A R M C R Q F E  
UniRef90\_K6DRN6 P E S D R E R V K L T R Q I T G E V L I L V D A N G N Y K R D S A Y K S A R K L I  
UniRef90\_S3ESB6 Q A E D I R R L R I R R E A L G G E F P L M V D D A N Q Q W D R E K A V R M R K M E  
UniRef90\_R6T3Q5 T E E D I A R I K A I V R E A V L G D V K L I R I D A N Q Q W A K E A V R M R K L N  
UniRef90\_G0J859 D G R D Y A A I A A V R A E V G D V D L L M L D D M H G R Y D Y T G V K M A R M Y E  
UniRef90\_D5EN34 R D E D I A E R L I R R E L I P D D L T F M I D D A N Y S M S V E K A T E C A Q A K  
UniRef90\_W6VZT5 F D E D I A L A E T S R K V I G D H P L R L D V N G A W N P A T A K R Q E K K  
UniRef90\_C0CWC1 A K E D A R R V I Q A V R Q V L G D V K L L M L D D A N C A Y R F F E A I E F R M V E  
UniRef90\_J2LFY4 V D R D L K R I K A V R R A I P S I T L A T D G V N G K W D L P C Q R F C R A A E  
UniRef90\_M7PBF2 P K E D V A R I R A I R A A E A F P G H P L R L V D V N G G W S L A T A A V A E Q L  
UniRef90\_A0A034ULJ2 P A A E V A A I R A L A E A F P G H P L R L V D V N G G W S L A T A A V A E Q L  
UniRef90\_S9QAI3 V R E D V A H V A A I R D A V G D A S I T R V D V N Q A W S L D D A A R W G R G L Q  
UniRef90\_A0A022GEX4 V R D D V A H V S K I K A A L G D D A K V I R V D V N Q A W N E D A A L G J A L L E  
UniRef90\_P95608 P A V D T A R V V Q I A Q A L G K A G V L R I D V N A R W D R L T A L K Y P R L V  
UniRef90\_UPI000371031E A E D D I R R L R I R R E A V I P E G E N L M A D D A N Q V G W D L P P Q A I E I R Q L A  
UniRef90\_UPI0003683A86 K N L D K K F I V A L R E A L P D T E L M A D D S N H G F D L P Q A I E I R L L D R  
UniRef90\_UPI00047831A2 P S R D V E R V R K V R E A L P D D I G L M T D A N N C W D A T A I Q F A N V R  
UniRef90\_Q1U00 P D E E I S D T F I S L R K D Q F P K H R I R L D P D A N A V W T A T A I D V R R L H  
UniRef90\_L0JM21 M E R D V S V V E A V R D A V G E I D L A F D C H W D Y T V E S A V R A R T L E  
UniRef90\_A4VK55 A G E D L N H V I A V I K Q A L G D A S V R V D V N Q A W D E S V A L R C R V L G  
UniRef90\_Q0KJT6 V A D D V A H V I G A I K K A L G D A S V R V D V N Q A W D E S T T A R T V A M L A  
UniRef90\_UPI0003F63093 S E R D I E A R L E A V R K A V G D Y V I M T D C V N Q M S F D E S T T A R T V A M L A  
UniRef90\_H1HV81 A D L D V A R L S A V R E A V A G D I R L R I D A N Q A W E P K Q A V R I L N E M  
UniRef90\_L1N8V8 I D L D V A A C L R A L R E A V G D V I R I D A N Q A W K P R E A V R I L A Q M  
UniRef90\_D6A8F1 R R E D V A A C L R A L R E A L G D I E L Y I D G N R G W S A E S A R A L R E M A  
UniRef90\_C9ACN4 L A E D I A R T K A V R E L I P E V V F M V D A N M S W S T E K A I K A A K L M  
UniRef90\_F2N5I4 G E E E V E A I R A L A A R F P G Q R V T L D P N G A W S L D E A S G L C R D L  
UniRef90\_D9WSG7 P A E E I A I R A L A E R F P G Q R V T L D P N G A W S V P T S L H V A E E L  
UniRef90\_UPI00047EAD82 V H D D V S R I K A I R N A V G E I T R I D A N Q G W T F E E A L Q A L Q A M  
UniRef90\_S5NP37 R P D E A R R L D A V R R T L G D F E L M V D D A N G S F T L A E A R R A A A L D  
UniRef90\_UPI000467B542 G D A E I E A V T A L A E R F P D A R I T L D P N G A W S L A E A R R A A L D  
UniRef90\_UPI00047E0222 G D D E V D A V V A L K E R F P D A R I T L D P N G G W L L A D A I R L G K R M  
UniRef90\_Q8EMK6 G E E E M E A L I K E K F P N A R I T L D P N G G W L L E D A I R L G K D K  
UniRef90\_G0L8J1 S D D M R R A A I R E E I G E L R I M M D A N Q K W D V D E A I R N M A L K  
UniRef90\_UPI00047A348B P D A D V R R L Q H L R A G L G D V R L I V D V N Q A W T E A L C I R F P A L L E  
UniRef90\_U4KUK6 E D L G V D R L A A V K A V G L D A G L D D F H G R V H K P M V R Q L R A K L E  
UniRef90\_M5STW8 K N L D A K Q I E T A L R D A L P N D M M A D D S N H A F D L P E A I Q I R L L E  
UniRef90\_H0BW10 P G D N V R R A V A I R E A L P E A T V R V D V N Q A W D E A T A R W L P A L H  
UniRef90\_A6VZS4 V N D D V A H V A I K A A L G N A S V T R V D V N Q A W D E A T A K G M A A L Q  
UniRef90\_X5LFM2 A A D E A K A V T A L A E R F P D A R I T L D P N G G W L L A D A I R L G T C R Q L  
UniRef90\_F4GNS5 G E E E V E A I R A L H E R F P Q A R C T L D P N G G W L L K D A V R L T R D L  
UniRef90\_K4L2U8 K P E D V A R V Q A V R D T I G D T E F M V D D A N Y S L T V E Q A I R F S R A I  
UniRef90\_H5SVN5 E D V D V K V A R A V R E H F P K I E L I V D A N M G W H W D J A T A Q R E L K  
UniRef90\_C9SBL2 P A Q E V E A T K A L H A A F P N V P L R L D P N A A W T V E T S K W V A A E L  
UniRef90\_A4XRL5 G E A E V E A I R A L A A R F P N A R V I R L D A N Q G W S L D Q A I A L C R D L  
UniRef90\_C3WYM5 I D L D V A R I S A I R D A I P E G D Y R I R L D A N Q A W S P K Q A I R L N Q M  
UniRef90\_W8YW31 K D E D I E R I R E I R S R V G G V K I R L D A N Q G W Q V K D A V R A I R R M  
UniRef90\_W0HU80 V A E D V A N T R A V R Q A I P E G D I L V D A H W N Y S L S E A A E L A A A R  
UniRef90\_B9JB22 V E K A V A N T I A T I R E A I P Y V G I G V D D F H G R V H R P S M A K V A K E L E  
UniRef90\_A0A059KN07 Y G E N L K S V A A V R E V I G D T D L M L E C Y M G W N L E Y T K R M P K L A  
UniRef90\_UPI0003723D3 K N D D L K R V A K I R E V I G D T R L R D A N Q G W T F E E A L G L N L E N  
UniRef90\_C6J2Y1 F G E D L T L I R S I R E A V G D L L M A D A N G A Y N A G L A R R L L E L E S  
UniRef90\_P83763 P A Q D L E H I R S I V K A V G D A S V R V D V N Q G W D E Q T A W I P R L E E  
UniRef90\_D8JBS9 V K V E V D I V R A V R E E I G E P T L G F D L H W N F S V E T A T K I A Q E E  
UniRef90\_D9T567 T D A D L D R V R A V R A A V P D V R I R L R D A N Q G W T P R E A V R V I R A E I  
UniRef90\_UPI00036B4CD0 A G Q D A E R V R M I S Q A A V G D V P L R L D A N Q G W T P D L A I E L L C M A  
UniRef90\_N8Y804 V E A D V E H V L A I K K A L G D I S L R V D V N R A W S E L E A I R R Q M L Q  
UniRef90\_UPI0003614DEA R G L D L A T L D A V R T A A P E V R F A V D A H W A Y S L P Q A I R A R E L A  
UniRef90\_G8QCM5 P E H E I D V V K E L A E R L P Y T K F R L E P N G N W S L E T S I R M A E L L  
UniRef90\_C3N467 P K H E I D V V K E L A E R L P Y T K F R L E P N G N W S L E T S I R M A E L L  
UniRef90\_H8G8X3 P G R S I E L V E A V R D A V P D V E I L V D E M H G R F A P A E A V R I R S I A  
UniRef90\_HOPTN2 L A E D C I L V E L I R R R A I G D V A L M V D Y N Q S L S V P E A M H R R A L Q  
UniRef90\_F5XLP1 G E D D I R R L A L A R E L G P S I K I A V D A N Q R W D V E Q A I W V R R L Q  
UniRef90\_UPI00047D2CE5 S D E D V R R L R L A R E A V P D L R I A I D A N Q R W D V E Q A I W T R R L L A  
UniRef90\_I3ZIT4 G D D D L R R G H I V R E E I G D H K L M V D A N Q K W D V G Q A L D R R Q L A  
UniRef90\_UPI0003728086 P G R S T E R V A A V R D A I P D V D L F V E G H A R F A M P T A A R R R E L E  
UniRef90\_UPI0003649983 R Q Q D V E R V A A M R A H I G D V F A L M A D A N M R W S A D E A I R A R A Q  
UniRef90\_UPI0003824B66 P E A E I E T I L A L R K A F P Y H P L R L D P N G A W S V P T S V L A G E Q L

UniRef90\_UPI00047B09D4 E D L D N D Y F E D P T F G M N G L R R V R E S A T R T I V P I A T N T V V V N F E  
UniRef90\_UPI000348A350 A Y D P Y F I E E E P F S A R P D D V D M E H A R R L A K S A E T R V P I A T N T V V V N F E  
UniRef90\_UPI00046CABA6 K Y N P L Q H C E E E P I A R E D W N F M E L P R K Y L A K S A E T R V P I A T N T V V V N F E  
UniRef90\_Q96XE5 P Y N P L F V E E E P T V A P P F A A L K R L M R Q R F A V A L I M A D D E V L I Q G L P Q  
UniRef90\_B1FUB8 D A G C E L F V E E E P T V N S A A A L K R L M R Q R F A V A L I M A D D E V L I Q G L P Q  
UniRef90\_A6CDL0 D C N V V A L F V E E E P T V N S A A A L K R L M R Q R F A V A L I M A D D E V L I Q G L P Q  
UniRef90\_B6G1W7 E V G V E A V E E E C L P R H W D F A M D A R L I J V R E K V G L K V M L A D D E V L I Q G L P Q  
UniRef90\_M0CXZ9 E F D V T W V E E E V L P P E N L S G Y R E V I K S R V D V P I A T A G E A H Y S G R F W  
UniRef90\_S4ZIP0 P Y H P M F L E E E V V L P P E N W D S F D D I A R E Y V S A I P I A T A T G E R L F Y T R W  
UniRef90\_F9RV61 P Y R P M F V E E E V V L L P E H L D S I H E I A A Q Y G A I P I A T A T G E R L F Y T R W  
UniRef90\_F2N5J1 E L E L A W I E E E P L D A H D L L D G H A A L A A Q L V T S P I V G S G E M L A S A A  
UniRef90\_UPI000289C070 K L N L L C I E E E P L I I P V D F L E Y Q S I A Q K A T L Q T S I C L D G E S L I Q T I N E  
UniRef90\_E8TPT3 P Y D L L W F E E E P L I I P D D D Y E G Y A S I A Q K A T G M P I A L A M G E S L I H V I E  
UniRef90\_UPI0002FA6668 P F K L M F I E E E P V L S E H A E A L K E I A N H T A T P I A L A L G M E R L F S R W  
UniRef90\_F2R487 T G V L E Y L E E D P V A G L P A E A M A D L A R R L A P M P I A L A T N D E G V A T S W E  
UniRef90\_M7NIN4 D G G I S M I E E E P L P G W H E G M A R L A D R Y R V P I A L A D E N G A T S I Q  
UniRef90\_M0ALU8 D V A I T W L E E E P L P K G D Y V S Y A D L R E R D V P I A T A G E N F Y N E T  
UniRef90\_H2IFX0 E Y D I T W F E E E P T L P D D Y K G F A E A D N T A I A I A M D E N L Q T I H  
UniRef90\_K2PQ44 E I G C V L V E E E P V L P R D D Q L S N L R A L S Y A Y E I A I A M D E V L Q G P A  
UniRef90\_UPI00047B6DA4 P Y K L M F V E E E P V L T E N E E A F V I E L R R H C A L P I A T A T G E R N Y T R W  
UniRef90\_L8EGG1 P F D P A W L E E E V P P P E N E K A L A K V A A G K V D T P I A T A T G E R L Y H D R W  
UniRef90\_V9H3K9 P Y K L M F V E E E V V L P E N E E A F R E V A N H T A T P I A T A T G E R L Y H D R W  
UniRef90\_B3T359 D L G V F H F E E E P R P H Y D L P G L A T I A D T L D I P I A S G E M I Y T H W  
UniRef90\_J4KPF2 P L R P L F I E E E P L L C A E H V E G V A A L A G L T T T P I V A L G E R L H S S R W  
UniRef90\_S6I772 E Y N L I W I E E E P L L D A E H V E G V A A L A G L T T T P I V A L G E R L H S S R W  
UniRef90\_K6DRN6 E Y D I H W Y E E E P V L S P E D T E G F R Y L K E Q Q T S T P I A T A S G E A L F T S R Y  
UniRef90\_S3ESB6 Q F N L I W I E E E P L D A Y D I E G H A A A A L D T T P I A T A S G E M L T S F R K  
UniRef90\_R6T3Q5 E Y N L E L V E E E P L V A Y H D I E G L E Y V T K H T N V P I A M S D E S C F T A K  
UniRef90\_G0J859 D L D L M W L E E E P I P A D N P K L Y Q K L T Q Q T S T P I C T G E N V Y L A Y  
UniRef90\_D5EN34 P Y N L H W F E E E P T L P D D Y L D Y A K L A E E G S V P I A M G E N L H T I L S  
UniRef90\_W6VZT5 A F D P A Y V E E E P L E L D D L A G H A A L A A N S S V P I A L D E S A Y T L S  
UniRef90\_C0CWC1 E Y R P Y W L E E E P V D A D D Y D G Y R K V A A K S N I P I A A G E N E V T T R F  
UniRef90\_J2LFY4 A F D L K W I E E E P L W Y D D V K G L S A Q L A R R G T R I P V V A L G E S L Y H D  
UniRef90\_M7PBF2 G E N L K W I E E E P L R M G D V I R G L S D V L R R K R V T V P V M A D E S L H T G M E  
UniRef90\_A0A034ULJ2 T G V V E Y L E E D P T A R L A D M A E L H R R T G M T L A T N M I V T A T A  
UniRef90\_S9QAI3 E I G V D L V E E E P I G A R H M R G L K S A L T D G Y E T P V M A D E A L Q G P E  
UniRef90\_A0A022GEX4 A A G I D L I E E E P T P R E H R G A L A R L A A R F T V P V M A D E A G I T G P E  
UniRef90\_P95608 E G G V E L I E E E P T P G E Q L E V L A E L N R L V P V P V M A D E S V Q T P H  
UniRef90\_UPI000371031E E F N P L W F E E E P T S P D D V L G H A E I R R A V Q P I G V T G E H G M N R V  
UniRef90\_UPI0003683A86 E Y A Y R W F E E E P V S P E H V G L F R Q L H H R D K L D I A I A T G E C E G M T R F  
UniRef90\_UPI00047831A2 E Y N P M L L E E E P V F A D D I P G L A R F K R G T D I A I A T G E H E Y T K W E  
UniRef90\_Q1IU00 D Y N M E Y L E E E P V W G M R A M Q R V N A K A P W V T L A T S N G M S V F A F E  
UniRef90\_L0JM21 P Y D L M W L E E D L V P P E T A D A Q R E V A R R T E T P I A L A T N M S R F R I H  
UniRef90\_A4VK55 D N G L D L I E E E P I S R E N R G G Q V R L N A Q R S A P A P I M A D E S T E S V E  
UniRef90\_Q0KJT6 E V I G C D L V E E E P L I R H N L A G M A R L L A A R S A T I P V M A D E S L I Q S P T  
UniRef90\_UPI0003F63093 E H N L S W I E E E P F L A R Q N D V D S H K K L C E A S T T I P V A V G E S I Y S I Q  
UniRef90\_H1HV81 Q L K L E F V E E E P V K A H D I E G L K Y V T E H S F V P V L A D E S V F S P P R  
UniRef90\_L1N8V8 A L D I E L V E E E P V A A A D I D G L A Y V T R E S D I P V L A D E S V F S P P  
UniRef90\_D6A8F1 D L G L L F A E E E C P A D D V L G R R W L V A Q S P V P I A D E S A T R T G  
UniRef90\_C9ACN4 P Y D I L F L E E E P T I P E D Y E G Y A R I A K E G Q L A V A G G E N L R T P I  
UniRef90\_F2N5I4 H G V L A Y A E E D P C G A E N G Y S G R E V A M A G F R R A P T A T N M I A T D W  
UniRef90\_D9W5G7 R D V L E Y L E E D P T S G T P S G A E V A G A G V P I A T N M C V T T F G  
UniRef90\_UPI00047EAD82 E D N I Q F C E E E P M R T W H D D L L P E L R R K S P V V K I M A D E S C F N H H  
UniRef90\_S5NP37 P F H L A W L E E E P M P A E N V D A H R R L C A T T T V P I A V G E S L Y H P G  
UniRef90\_UPI000467B542 H H V L A Y A E E D P C G A E N R E V M A E F R R A T T G L P T A T N M I A T D W R  
UniRef90\_UPI00047E0222 Q D V V A Y A E E D P C G A E G R E V M A E F R R A T T G L P T A T N M I A T D W R  
UniRef90\_Q8EMK6 H D I L A Y A E E D P C S Y S A R E V M A E F R R A T T G L P T A T N M I A T D W R  
UniRef90\_G0L8J1 K F D P Y W I E E E P T S P D D L L G H A K I K A V A P I K V A T G E H C Q N R V  
UniRef90\_UPI00047A348B E I G V A L I E E E P V P A S Q R D A M A R V A S R T R I P L L I D E A A F T N T  
UniRef90\_U4KUK6 P H Q P L F I E E E P L L S P E H P E A I K A F S Q H T T I P I A L G E R L Y S R W  
UniRef90\_M5STW8 E N D F S W F E E E P L L S P E F E G Q F R Q L Q S D K L E I P V A T G E C E Q T R Y  
UniRef90\_H0BW10 A G G I A V I E E E P V N A A S I D A L R R L T H A S P I T V M A D E A V A T P Q  
UniRef90\_A6VZS4 E A G V D L V E E E P T P A K E W D A L V E R L S Q K F T I P L A D E G V A D A S  
UniRef90\_X5LFM2 T D V L A Y A E E D P V G P E K G R E V M A E F R R A T T G L P T A T N M I A T D W R  
UniRef90\_F4GNS5 H G V L A Y A E E D P C G A E G R E V M A E F R R A T T G L P T A T N M V A T D W R  
UniRef90\_K4L2U8 E N D I T W F E E E P T I P D D D Y E G Y A Q L A R A T S I A L A M G E N L H T I Y  
UniRef90\_H5SVN5 E L G V L W L E E E P L D K H D Y R G Y R L R Q R V G I A L A G G E M N S D L H  
UniRef90\_C9SBL2 K G I V E Y L E E D P A P E I E G M A A V A K D A S M P I A T N M A V V A F S  
UniRef90\_A4XRL5 H G V L A Y A E E D P C G A E N R E V M A E F R R A T T G L P T A T N M I A T D W R  
UniRef90\_C3WYM5 Q L D I E L V E E E P V K A H D I E G L K A V T D A V I Q T P I M A D E A V F S P A  
UniRef90\_W8YW31 E L D I E L V E E E P V K A H D I E G L K A V T D A V I Q T P I M A D E A V F S P A  
UniRef90\_W0HU80 P Y G V R F I E E A P L L S E N D V A G H A A L R Q K S A T P I A L G E R T E R T R Y  
UniRef90\_B9JB22 P Y K L L F I E E E P V L S E N R E A L K E I A N H C S T P I A L G E R L F S R W  
UniRef90\_A0A059KN07 Q Y Q P R W L E E E P V I A D D I D G Y A E L N A M N I T P I S G G E H E F S L Y  
UniRef90\_UPI00037323D3 K Y K I D F C E E E P M R T W F D D E Y L P E L V K R S P L K I M A D E S C Y N H H  
UniRef90\_C6J2Y1 A S N L Y F M E E L L A P E D I E G Y K A I R H L T G T L A S G E N L F G K I  
UniRef90\_P83763 E A G V E L V E E E P V P R A N F G A L R R L T E Q N G V A I L A D E S L S S L S  
UniRef90\_D8JBS9 E Y D L D W L E E D P V P P R E S A E T H H K V E S T S T P I L A G E N L T R V E  
UniRef90\_D9T567 E L D V E L V E E E P V H R R D L D G L A W V S D R V D L P I L A D E S V F D V R  
UniRef90\_UPI00036B4CD0 D L N I Q H C E E E P I P R H D F L E L P R I R A A S P I P I M A D E S C W D H R  
UniRef90\_N8Y804 D G G I D L I E E E P C A L D N I D A M E R L T R K F D I A I M A D E S L S G P Q  
UniRef90\_UPI0003614DEA A R E V F L I E A P L A P E D L A G H A E L C G R S E L A V G I A D E S L R H P R Y  
UniRef90\_G8QCM5 G D D L Q Y Y E E D P T P G L A G M A E L H K R T G L P L A T N M V T D F D  
UniRef90\_C3N467 G V N L E Y F E E D P V W T N G L K A K F R E L S K Y P V V A T N T G V A I K F E  
UniRef90\_H8G8X3 K F D P S W L E E E P V P P E N L K A K A V A E O V D F P V A T G E R I H D R A  
UniRef90\_HOPTN2 P Y G L A W L E E E P T L Q E D Y A G H A R I R A A A G M P V V Q M G E N W C G V G  
UniRef90\_F5XLP1 P Y D L A W I E E E P T S P D D L V G H A T I R K A G S T P V V A T G E H A N R V  
UniRef90\_UPI00047D2CE5 P F D L A W I E E E P T S P D D V L G H A R I R A R E V A P V P V T G E H M A N R V  
UniRef90\_I3ZIT4 E L D L W W M E E E P T S P D D I L G H R R I R Q E T N V R I A T G E H C Q S K V  
UniRef90\_UPI0003728086 P F D I G W L E E E P M P W T H I I E R Y A E L R Q R A P P I A S G G E H F H N R Y  
UniRef90\_UPI0003649983 P Y G L V W L E E E P T I P D D I A G Q A R I V R E P G F P I A A G E N L K S L W  
UniRef90\_UPI0003824B66 A G V I E Y L E E D P T T G L E G M A K V A R E V P M P L A T N M C V V A F D

UniRef90\_UPI00047B09D4 Q|L|A|A|N|V|R|D|P|A|V|D|V|V|L|L|D|T|T|F|W|G|G|I|R|A|C|V|K|A|A|G|V|C|E|T|F|Q|L|G|
UniRef90\_UPI000348A350 Y|H|K|E|L|L|D|K|Q|A|A|S|I|L|L|Q|T|D|A|L|V|C|G|G|I|S|E|W|R|R|A|A|T|A|A|S|Y|G|V|V|
UniRef90\_UPI00046CABA6 D|V|K|R|L|L|G|L|K|A|C|D|R|Y|L|N|Q|I|K|D|L|G|K|S|G|G|V|Y|T|E|N|A|L|Q|M|I|R|M|A|E|D|A|F|G|M|E|
UniRef90\_Q96XE5 Q|A|L|E|F|M|K|E|G|L|C|V|D|L|N|Q|I|K|D|L|G|K|S|G|G|V|Y|T|E|N|A|L|Q|M|I|R|M|A|E|D|A|F|G|M|E|
UniRef90\_B1FU88 S|A|F|D|I|A|K|N|E|G|A|D|V|F|A|I|K|L|E|Q|S|G|G|L|F|A|A|Q|R|V|A|I|A|D|A|F|A|G|V|I|E|
UniRef90\_A6CDL0 D|A|K|E|C|L|R|N|N|A|C|D|V|L|N|V|P|G|K|N|G|G|L|S|Y|N|A|K|I|N|A|S|Y|A|A|E|A|H|D|V|P|
UniRef90\_B6G1W7 D|A|A|K|A|C|K|M|D|A|D|V|I|L|N|L|K|L|M|K|C|G|G|L|T|E|A|N|R|I|A|D|M|A|T|E|N|D|V|A|
UniRef90\_M0CXZ9 E|F|K|R|L|V|D|D|R|T|V|D|V|V|Q|P|N|L|G|R|C|G|G|L|T|E|A|N|R|I|A|D|M|A|T|E|N|D|V|A|
UniRef90\_S4Z1P0 A|F|K|N|L|E|Q|G|G|A|D|I|V|Q|P|D|V|A|M|C|G|G|L|L|E|T|R|K|I|A|A|M|A|E|A|F|D|V|A|
UniRef90\_F9RV61 E|F|K|N|L|L|Q|R|G|G|I|D|I|V|Q|P|D|V|A|M|C|G|G|L|L|E|T|R|K|I|A|A|M|A|E|A|F|D|V|A|
UniRef90\_F2N5J1 D|A|C|A|F|V|E|R|G|A|V|D|V|I|M|H|D|A|P|R|I|G|G|L|T|P|F|L|Q|V|A|E|A|A|R|R|R|D|L|V|
UniRef90\_UPI000289C070 D|L|V|T|A|L|K|L|K|A|F|K|V|L|N|Q|D|A|V|G|R|N|C|G|G|V|Y|T|G|W|L|R|V|A|A|L|C|R|S|R|R|R|A|G|I|P|
UniRef90\_E8TPT3 E|F|E|H|A|F|A|W|S|K|L|G|Y|I|Q|P|D|P|S|H|A|G|G|L|T|E|T|R|K|I|A|A|M|A|E|A|F|D|V|A|
UniRef90\_UPI0002FA6668 D|F|K|N|I|L|H|A|G|Y|V|D|I|I|Q|P|D|P|S|H|A|G|G|L|T|E|T|R|K|I|A|A|M|A|E|A|F|D|V|A|
UniRef90\_F2R487 H|L|P|R|A|V|P|S|R|R|A|V|G|S|I|L|G|D|H|H|F|W|G|G|L|K|A|S|Q|H|L|A|T|C|H|Q|F|A|G|G|
UniRef90\_M7N1N4 E|L|F|H|L|A|K|H|R|R|A|G|N|S|I|L|G|K|I|G|K|T|G|G|L|T|A|V|K|Q|A|A|G|L|A|E|A|T|G|L|A|
UniRef90\_M0ALU8 Q|F|R|Q|A|I|A|Q|D|A|V|D|Y|V|Q|P|D|V|C|R|V|G|G|L|T|P|W|M|N|V|A|E|Q|A|A|A|T|G|L|A|
UniRef90\_H2IFX0 E|F|G|Y|A|M|D|A|K|L|G|Y|C|Q|P|D|A|S|N|C|G|G|L|T|G|W|L|K|A|A|D|L|T|E|A|H|N|I|P|
UniRef90\_K2PQ44 D|A|M|R|V|A|A|D|R|S|A|D|V|F|A|V|K|D|L|S|Q|S|G|G|L|A|P|A|Q|V|I|A|I|A|R|A|N|G|I|E|
UniRef90\_UPI00047B6DA4 G|F|K|R|I|L|H|D|G|G|V|D|I|I|Q|P|D|L|S|H|T|G|G|L|L|E|T|R|K|I|A|A|M|A|E|A|F|D|V|A|
UniRef90\_L8EGG1 E|F|F|R|E|L|F|E|S|Q|A|D|I|V|Q|P|D|V|A|G|H|F|G|G|L|L|E|T|R|K|I|A|A|M|A|E|A|F|D|V|A|
UniRef90\_V9H3K9 D|F|K|N|I|L|K|E|G|V|D|I|I|Q|P|D|V|A|L|C|G|G|L|L|E|T|R|K|I|A|A|M|A|E|A|F|D|V|A|
UniRef90\_B3T359 Q|Y|R|D|L|L|L|Q|G|R|V|D|I|L|Q|P|D|I|V|K|V|P|G|F|T|E|F|Q|K|I|A|A|L|A|S|A|F|G|K|P|
UniRef90\_J4KPF2 D|V|K|P|F|L|E|A|N|C|V|D|V|L|Q|P|D|L|S|H|V|G|G|L|T|S|E|L|R|R|I|A|A|M|A|E|A|F|D|V|A|
UniRef90\_S6I772 E|H|A|E|F|I|K|R|G|A|D|F|L|M|P|D|A|P|R|V|G|G|L|T|P|Y|L|K|I|V|A|S|M|A|E|Q|A|G|L|M|
UniRef90\_K6DRN6 G|F|R|N|Y|I|E|R|G|L|D|F|V|Q|P|D|L|S|K|C|G|G|F|T|E|A|L|K|I|T|T|L|A|Q|T|Y|N|L|N|
UniRef90\_S3ESB6 E|H|E|Q|L|L|G|N|S|D|F|V|Q|P|D|A|P|R|V|G|G|L|T|S|E|L|R|R|I|A|A|M|A|E|A|F|D|V|A|
UniRef90\_R6T3Q5 D|A|L|R|L|V|R|R|A|N|D|Y|L|N|Q|D|A|P|R|V|G|G|L|T|S|E|L|R|R|I|A|A|M|A|E|A|F|D|V|A|
UniRef90\_G0J859 G|F|V|N|L|L|S|E|G|G|A|D|I|I|Q|P|D|L|S|K|C|G|G|L|T|S|E|L|R|R|I|A|A|M|A|E|A|F|D|V|A|
UniRef90\_D5EN34 E|F|G|Y|A|F|E|Q|S|K|L|S|F|I|Q|P|D|A|S|N|C|G|G|L|T|G|W|L|K|A|A|D|L|T|E|A|H|N|I|P|
UniRef90\_W6VZT5 D|V|G|N|I|R|R|A|N|A|D|V|V|L|D|P|H|E|A|G|G|L|W|Q|T|L|K|A|A|L|C|S|E|S|V|G|I|T|
UniRef90\_C0CWC1 G|F|R|D|L|I|N|T|Q|A|V|S|I|L|N|P|D|A|A|S|L|G|G|V|T|E|F|M|K|I|A|G|Y|A|D|A|N|G|L|V|
UniRef90\_J2LFY4 A|F|A|E|F|H|Q|E|A|I|H|V|V|Q|P|D|V|T|R|M|G|G|L|T|E|V|L|H|V|C|D|T|A|H|S|A|F|R|L|P|
UniRef90\_M7PBF2 E|F|L|E|V|R|L|E|A|H|D|V|L|N|K|L|M|K|C|G|G|L|Y|P|A|I|H|V|C|A|K|A|E|A|G|M|P|
UniRef90\_A0A034ULJ2 E|L|R|P|A|F|D|A|D|A|V|Q|V|V|L|S|D|H|H|F|W|G|G|L|H|A|T|R|E|L|A|A|V|C|Q|A|Y|G|K|G|
UniRef90\_S9QAI3 D|A|M|A|C|A|T|D|R|A|A|D|V|F|A|V|K|I|A|Q|S|G|G|L|K|K|G|A|E|V|A|A|I|A|R|A|A|G|I|G|
UniRef90\_A0A022GEX4 D|A|I|E|L|V|R|D|A|C|A|D|V|F|A|L|K|I|A|K|S|G|G|L|Y|K|G|A|E|V|A|A|I|A|R|A|A|G|I|G|
UniRef90\_P95608 D|A|L|E|V|A|R|R|G|A|A|D|V|A|L|K|T|T|K|C|G|G|L|Q|K|S|R|E|V|V|A|I|A|K|A|A|G|V|A|
UniRef90\_UPI000371031E L|F|K|Q|L|F|Q|A|G|A|I|D|Y|C|Q|L|D|A|Y|C|L|A|S|V|S|E|V|L|A|V|Q|L|M|A|K|F|V|P|
UniRef90\_UPI0003683A86 G|F|Q|R|L|E|A|G|G|V|Q|L|V|Q|P|D|L|A|Y|C|G|G|V|P|S|N|E|V|L|A|V|Q|L|M|A|K|F|V|P|
UniRef90\_UPI00047831A2 G|V|R|D|L|L|M|A|D|A|D|I|V|Q|V|D|G|A|R|A|G|G|Y|T|E|M|M|K|C|A|L|C|E|A|W|N|V|K|D|
UniRef90\_Q1IU00 D|L|A|P|N|I|M|A|D|V|L|D|V|I|L|D|P|H|H|E|R|A|K|L|A|G|Q|I|C|E|A|L|G|V|D|
UniRef90\_L0JM21 E|L|S|D|L|D|D|Y|A|V|D|V|I|T|P|D|T|T|C|G|G|L|A|E|S|K|R|I|A|Q|R|A|E|E|Y|I|V|P|
UniRef90\_A4VK55 D|A|F|S|L|A|A|D|G|A|A|S|I|F|A|L|K|I|A|K|N|G|G|P|R|A|V|L|R|T|A|Q|I|A|E|A|A|G|V|A|
UniRef90\_Q0KJT6 T|A|Y|D|H|A|N|Q|A|A|A|D|V|F|A|V|K|I|E|Q|S|G|G|L|F|A|A|K|Q|V|A|A|I|A|D|A|A|G|I|A|
UniRef90\_UPI0003F63093 H|F|K|E|Y|L|Q|N|N|A|A|D|I|I|Q|V|D|V|A|R|I|G|G|L|T|P|W|L|K|V|A|H|M|A|E|C|F|N|K|I|
UniRef90\_H1HV81 D|A|M|R|V|L|E|Q|R|A|A|D|L|I|N|I|K|L|M|K|C|G|G|L|Y|N|A|L|K|I|V|A|A|A|E|I|Y|G|V|E|
UniRef90\_L1N8V8 D|A|L|R|I|L|Q|L|H|A|A|D|M|V|N|I|K|L|M|K|C|G|G|L|Y|P|A|Q|Q|I|A|A|A|E|V|Y|G|V|E|
UniRef90\_D6A8F1 E|V|T|R|E|L|L|G|G|S|A|T|A|I|S|I|K|T|A|R|T|G|F|T|A|S|Q|R|V|H|E|C|E|G|V|E|S|
UniRef90\_C9ACN4 E|F|A|H|M|I|K|Y|G|N|V|D|F|P|Q|P|D|A|S|N|C|G|G|L|T|G|W|L|K|I|A|A|L|T|Q|T|S|N|L|S|T|
UniRef90\_F2N5I4 R|Q|M|S|H|A|V|C|L|H|S|V|D|I|P|L|A|D|P|H|F|W|T|M|A|G|S|V|R|V|A|Q|M|C|A|D|F|G|V|G|
UniRef90\_D9WSG7 E|L|R|E|A|F|T|K|G|A|V|Q|V|V|L|S|D|H|H|Y|W|G|G|L|R|N|T|R|E|L|A|A|I|C|R|D|F|G|L|T|
UniRef90\_UPI00047EAD82 D|A|R|K|Q|I|N|S|G|S|C|D|Y|I|N|I|K|F|S|K|S|G|G|L|A|E|A|L|K|I|H|Q|V|A|T|E|A|G|I|P|
UniRef90\_S5NP37 Q|F|A|D|Y|L|K|A|D|A|C|A|I|V|Q|A|D|V|A|R|V|G|G|L|T|P|W|L|K|V|A|H|A|A|E|A|H|N|V|A|
UniRef90\_UPI000467B542 Q|M|G|H|A|V|Q|L|Q|S|I|D|I|P|L|A|D|P|H|F|W|T|M|Q|G|S|V|R|V|A|Q|M|C|A|D|W|G|L|T|
UniRef90\_UPI00047E0222 E|M|A|H|A|V|R|V|N|A|V|D|I|P|L|A|D|P|H|F|W|T|M|A|G|S|V|R|V|A|Q|L|C|H|E|F|G|L|T|T|
UniRef90\_Q8EMK6 Q|M|G|H|A|L|Q|L|N|A|V|D|I|P|L|A|D|P|H|F|W|T|M|Q|G|S|V|R|V|A|Q|L|C|H|E|F|G|L|T|T|
UniRef90\_G0L8J1 M|F|K|Q|L|M|Q|A|N|D|I|G|I|C|Q|I|D|S|C|R|V|G|G|L|L|A|L|F|M|A|K|F|N|I|P|
UniRef90\_UPI00047A348B E|L|A|S|V|A|S|R|A|C|G|S|V|Y|S|L|K|L|V|K|S|G|G|L|L|E|L|K|R|A|A|G|I|A|Q|A|F|G|I|E|
UniRef90\_U4KUK6 D|V|K|P|L|E|S|T|G|S|I|D|V|L|Q|P|D|V|S|H|C|G|G|L|S|E|C|R|R|I|A|A|M|C|E|A|S|Y|D|V|G|N|
UniRef90\_M5STW8 G|F|Q|R|L|L|S|T|G|S|I|D|V|L|Q|P|D|V|S|H|C|G|G|L|S|E|C|R|R|I|A|A|M|C|E|A|S|Y|D|V|G|N|
UniRef90\_H0BW10 D|A|L|A|Y|T|S|N|H|A|C|D|A|L|S|I|K|V|S|K|H|G|G|L|L|R|T|A|Q|I|A|Q|I|A|S|A|G|G|L|A|
UniRef90\_A6VZS4 D|V|F|Q|L|A|Q|R|G|F|N|G|G|I|A|L|K|L|A|K|A|G|G|P|I|E|A|L|Y|A|A|T|V|S|S|A|S|G|G|M|G|
UniRef90\_X5LFM2 E|L|G|H|A|I|R|A|G|A|V|D|I|P|L|A|D|P|H|F|W|T|M|S|G|S|V|R|V|A|Q|L|C|Q|A|F|G|L|T|T|
UniRef90\_F4GNS5 E|M|A|H|A|L|S|L|Q|S|I|D|I|P|L|A|D|P|H|F|W|T|M|S|G|S|V|R|V|A|Q|L|C|Q|A|F|G|L|T|T|
UniRef90\_K4L2U8 E|F|E|Y|A|I|A|Q|A|K|L|G|F|L|Q|P|D|A|S|N|I|G|G|L|T|G|W|L|K|V|A|H|Q|A|H|A|A|N|L|P|
UniRef90\_H5SVN5 E|F|R|E|L|I|N|Q|S|L|D|I|L|Q|P|D|A|T|L|S|G|G|L|L|T|A|K|K|I|A|A|I|C|A|E|A|F|G|L|R|
UniRef90\_C9SBL2 H|L|P|S|S|I|Q|Q|D|A|V|Q|V|I|L|S|D|H|H|F|W|G|G|L|R|K|S|Q|Q|L|A|A|I|C|A|T|W|G|M|R|
UniRef90\_A4XRL5 Q|M|G|H|T|I|S|L|Q|S|V|D|I|P|L|A|D|P|H|F|W|T|M|A|G|S|V|R|V|A|Q|M|C|N|D|W|G|L|T|E|
UniRef90\_C3WYM5 D|A|F|K|I|L|Q|M|R|A|A|D|L|I|N|I|K|L|M|K|S|G|G|L|Y|N|A|L|K|I|N|L|A|E|V|V|G|E|
UniRef90\_W8YW31 E|A|L|R|V|L|Q|M|R|A|A|D|L|I|N|I|K|L|M|K|S|G|G|L|Y|K|A|Q|L|I|N|G|M|A|E|Q|Y|G|V|E|
UniRef90\_W0HU80 Q|F|R|P|F|I|S|E|R|G|A|V|D|I|L|Q|P|D|V|G|R|T|G|I|T|E|L|M|H|I|A|S|L|A|E|A|E|W|L|K|A|
UniRef90\_B9JB22 D|F|K|Q|V|L|S|D|G|Y|V|D|I|L|Q|P|D|L|S|H|A|G|G|L|E|T|R|K|I|A|A|M|A|E|A|Y|D|V|A|
UniRef90\_A0A059KN07 G|F|K|Q|L|D|R|K|A|V|S|V|V|Q|Y|D|T|N|R|V|G|G|L|T|M|A|H|K|I|N|A|L|C|E|A|Y|S|V|P|
UniRef90\_UPI00037323D3 D|A|R|R|L|I|N|N|A|C|D|M|I|N|K|L|A|K|S|G|G|L|N|E|A|L|K|I|Y|H|T|A|T|M|N|N|I|P|
UniRef90\_C6J2Y1 G|Y|R|N|W|I|A|Q|G|A|V|D|I|V|Q|P|D|L|C|S|S|G|G|F|T|E|C|K|K|I|A|T|L|A|Q|A|W|N|T|
UniRef90\_P83763 S|A|F|E|L|A|R|D|R|A|V|D|A|F|S|L|K|L|C|N|M|G|G|L|A|N|T|L|K|V|A|A|I|A|E|A|A|G|I|S|P|
UniRef90\_D8JBS9 D|F|L|P|F|F|T|Q|R|R|A|D|I|V|V|A|V|D|I|Q|K|C|G|G|L|L|E|F|R|K|I|A|A|V|A|D|A|F|D|V|P|
UniRef90\_D9T567 D|L|V|E|V|I|R|R|A|A|D|M|V|N|P|D|I|K|L|A|K|C|G|G|L|L|Q|P|A|R|T|L|D|L|A|A|H|G|M|G|
UniRef90\_UPI00036B4CD0 D|A|R|R|L|D|L|K|A|I|D|K|I|N|I|K|V|S|K|S|G|G|L|Y|K|A|L|K|I|M|R|I|A|A|A|A|G|V|P|
UniRef90\_N8Y804 S|A|Y|Q|L|A|K|R|S|A|A|S|V|F|A|L|K|I|A|Q|S|A|G|L|H|E|A|C|E|A|N|I|A|K|L|A|G|I|D|P|
UniRef90\_UPI0003614DEA E|T|T|P|W|L|A|G|R|A|A|G|I|L|Q|P|D|V|A|R|T|G|L|T|E|G|L|A|E|L|S|A|H|H|I|P|
UniRef90\_G8QCM5 E|F|R|R|S|V|A|L|D|S|V|Q|I|V|L|A|D|H|H|Y|W|G|G|L|R|D|T|Q|V|L|A|K|M|C|S|T|F|G|L|G|E|
UniRef90\_C3N467 D|L|P|N|V|F|L|R|D|A|V|D|I|V|L|G|D|P|H|W|W|Y|G|I|Y|G|F|L|E|L|S|A|S|L|W|S|L|G|L|E|
UniRef90\_H8G8X3 E|F|R|E|L|F|E|L|Q|A|A|D|V|I|Q|P|D|I|G|H|L|G|G|L|L|E|T|R|K|I|A|A|T|A|E|T|H|F|V|L|
UniRef90\_HOPTN2 E|M|Q|R|A|L|D|A|N|A|C|D|L|V|M|P|D|V|M|K|I|G|G|V|T|G|W|L|K|A|A|L|A|E|L|R|G|L|P|
UniRef90\_F5XLP1 M|F|K|Q|L|L|Q|L|G|A|V|D|V|Q|I|D|A|R|V|A|G|V|N|E|N|I|A|N|L|L|L|A|A|K|F|G|V|R|
UniRef90\_UPI00047D2CE5 I|A|K|Q|L|L|Q|S|G|A|V|Q|V|L|Q|I|D|A|R|V|A|G|V|N|E|N|I|A|N|L|L|L|A|A|K|F|G|V|R|
UniRef90\_I3ZIT4 M|F|K|Q|L|L|Q|A|E|A|I|D|V|C|Q|I|D|S|C|R|V|A|G|V|N|E|N|I|A|N|L|L|L|A|A|K|F|G|I|P|
UniRef90\_UPI0003728086 E|Y|K|L|I|A|T|A|A|V|D|I|L|Q|P|D|L|S|M|A|G|G|L|T|E|V|R|K|L|A|A|I|A|D|S|H|G|M|L|
UniRef90\_UPI0003649983 E|F|K|E|L|I|A|A|G|V|T|F|P|E|P|D|V|A|I|V|G|G|L|T|V|F|K|V|L|A|A|L|A|E|A|F|D|V|P|
UniRef90\_UPI0003824B66 Q|V|K|P|A|V|A|A|D|A|V|R|V|I|L|S|D|H|H|F|W|G|G|L|D|R|S|R|S|L|A|R|I|C|D|T|F|G|M|G|



UniRef90\_UPI00047B09D4 VAVHSSGELGLQLLATMLHLGA VVPNLSFSADAHYHHLTG D 170 180 190 200  
UniRef90\_UPI000348A350 VCPHWFHDLVHAPLVAATPNA RYVIEFFRD DQV LNF R  
UniRef90\_UPI00046CABA6 LQIFGAFLESLRLAMTAFALHLALCS PNNTVYFDFDTALMFS SED  
UniRef90\_W9F6XE5 MAFHNAQGPPLANAVTLQLD T V I P N F L I Q E S F Y E W F S W K R  
UniRef90\_B1FUB8 LYGGT MLEGA VGTIA SAHLFASIPNLQWGT E L F G P L L T I T E  
UniRef90\_A6CDL0 CSMVIGSMLLELDIASAAMGCHAVVAGKPNMNLTEQY PG D L L G P E Y D  
UniRef90\_B6G1W7 CMVIGSMLLELDIASAAMGCHAVVAGKPNMNLTEQY PG D S F M Y C V E Y D  
UniRef90\_M0CXZ9 VRPHIWN SQFAASVSDYPHTRNVPD P M M V E F D R S E N P L R D  
UniRef90\_S4ZIP0 CAPHAPYGPVLSLAATLQVVDAC T P N V F I Q E Q S L G L H Y N Q G F  
UniRef90\_F9RV61 LAPHCPLGPIALAA S C I Q V D A V A L N A V I Q E Q S I G L H Y N Q G F  
UniRef90\_F2N5J1 LAPHFVME L H I H L A A A Y E H V A W V E H F E W L E  
UniRef90\_UPI000289C070 YWVGS GMV E S G I S K I L H V H L A S L K D T Y I P G D L S S S N R Y F K R  
UniRef90\_E8TPT3 VCSHG MQE L H V S L V A G Q T N A G W V E A H S F D I D  
UniRef90\_UPI0002FA6668 LALHCP L G P I A L A N L Q L D A V C Y N A F I Q E Q S L G L H Y N T T  
UniRef90\_F2R487 MSHS NSHLGLSLAAAMVHLAAATPALLG HDL D T H W P W E D  
UniRef90\_M7NIN4 LYGGT MLESGD LGTAMT VQLYSTMP P M K F G T E L F G P L L F K D  
UniRef90\_M0ALU8 VSPHYIEPLH A H L A R A V D N V P Y I E H H S T V L D  
UniRef90\_H2IFX0 VCTHGMQE L H V S L V S A F D T G W L E V H S F P I  
UniRef90\_K2PQ44 LYAGT MLE T G L G T A A A T Q L F A T V P E L Q W G T E L F G P L L L T E  
UniRef90\_UPI00047B6DA4 VAPHCPLGPIALAAALCLQLD L F C T P N V F I Q E Q S L G L H Y N K G  
UniRef90\_L8EGG1 VAPHNVIGGGVLTAAASLQLLAGCT P N F K I L E H F N D F A D S E I K  
UniRef90\_V9H3K9 VAPHAPYGPLALAA TLQLD V C T P N V F I Q E Q S L G L H Y N K G  
UniRef90\_B3T359 ITVHNTQPTIS T V A H L H V C A A Y A N I P Y A Q E Y N I E P L S I R D  
UniRef90\_J4KPF2 IAPHCPLGPIALAAALCMQV D A A T P N F A I Q E M S L G L H Y N V G E  
UniRef90\_S6I772 LAPHFAME L H V H L A A A Y P T E P W V E H F E W L E  
UniRef90\_K6DRN6 VSAHVWGTAVGVAAATQFMAYLPIHPHTMNEPA P L L F E Y  
UniRef90\_S3ESB6 LAPHFAMEVHLHLASAAYPLEPWL E H F E W L N  
UniRef90\_R6T3Q5 CMLGCGMEEVSNLAAITAAASLGGAAVKNI TRADLDATFS L T D  
UniRef90\_G0J859 FSPHGMVJASFLGAMASCHVCA S V P N F Q I M E W Y M D T D Q M W Q D  
UniRef90\_D5EN34 VCAHGMQE L H V S L T S S Q T N A G W L E I H S F P I  
UniRef90\_W6VZT5 VTLHSGAELALHVSQSAYIHLAAALPNMSIAI D T E R A Y L G G  
UniRef90\_C0CWC1 MSPHGQQLHLVHLDC A A P N V N L A E F Y P P Q Y D A K V Y E A F V N  
UniRef90\_J2LFY4 VAPHAGDMSQVHVHLNH AHPACA A V L E Y I P W I K  
UniRef90\_M7PBF2 CQVHSGMVESSVGSAAAGYHVVT SRANIE SA E L T G P L L F S E  
UniRef90\_A0A034ULJ2 ISMHSNTHLGLSILAAMTQVAATVAHLDYACDTH Y P W Q P E  
UniRef90\_S9QAI3 LYAGT MLEAGVGTAAALQLFSTLPSLAWGT E L F G P L L M K V  
UniRef90\_A0A022GEX4 LYGGT MLEAGVGSIA SAHLFASIPNLQWGT E L F G P L L L K D  
UniRef90\_P95608 CHGATSLIEGPIGTAA S I H F A C A E P G I D F G T E L F G P L L F S E  
UniRef90\_UPI000371031E VCPHAGVGLCE L Q H L S I F D F I A V S G D L A G R V T E F V D  
UniRef90\_UPI0003683A86 CLP H V W G T Q L N L A A A T H F L A T A Y P E P L L L E Y D R T E N P L R D  
UniRef90\_UPI00047831A2 FAPHAMEHLHIPIAAS T V A I V P F L E R L R L F E P I T H A V Y L N A  
UniRef90\_Q1U00 AGMHS GA E F G I SQAAM L H L A A C L P N A L T L A C D S H Y H V L K D D  
UniRef90\_L0JM21 FSPHNVCSPVGTMACVHLHLCAA V P N A D V L E Y H A L E H D W W D D  
UniRef90\_A4VK55 LYGGT MLEGA IGTIA SAHAFVTLNR L T W G T E L F G P L L L T E  
UniRef90\_Q0KJT6 LYGGT MLEAGI GTI A SAHVFATFPQLSFGT E L F G P L L L T E  
UniRef90\_UPI0003F63093 VCPHFLME L H I S L C A I T N S R W L E Y I P Q L D  
UniRef90\_H1HV81 CMIIGCML EAKI SVNAAVELACAKK V E T R I D L D G P V L C S E  
UniRef90\_L1N8V8 CMLGCMLEAKI SVNAAVALACAKK I V T R I D L D G P V L C S E  
UniRef90\_D6A8F1 VVMGNQLIDGQIGTLCSVA FGA A H R W T R H A G E L S N G L D M T D  
UniRef90\_C9ACN4 VSTHGMQE L H V S L L A A M P N A G Y L E M H S F P I D Q Y T T R P L V I  
UniRef90\_F2N5I4 WGSHSNNHFDI SLAMFTHVAA A A P G R V T A I D T H W L W Q D G Q  
UniRef90\_D9WSG7 LSHSNTHLGLSILAAMT HVAATVPNL D Y A C D S H Y P W Q T E  
UniRef90\_UPI00047EAD82 CMMGGMLESRIALSAK L H L V Y A C P N I Q F Y D L D T C M I G H L I  
UniRef90\_S5NP37 ICPHF L M E L H V S L C A A V P N A A W V E Y L P Q L D  
UniRef90\_UPI000467B542 WGSHSNNHFDI SLAMFTHVAA A A P G K I T A I D T H W L W Q D G Q  
UniRef90\_UPI00047E0222 WGSHSNNHFDI SLAMFTHVAA A A P G E I T A I D T H W L W Q D G Q  
UniRef90\_Q8EMK6 WGSHSNNHFDI SLAMFTHVAA A A P G N I T A I D T H W L W Q D G Q  
UniRef90\_G0L8J1 VCPHC E Y V Q H L S M I D Y I A I S G S L E N R I E F V D H L H E H F F D  
UniRef90\_UPI00047A348B LYGGCLLE S I G A A H M A V F S T L P K L E W G S E H F G P R I L V D  
UniRef90\_U4KUK6 LAPHCPLGPIALAA S I F I A S T S P N F V I Q E M S L G L H Y N E Y  
UniRef90\_M5STW8 VVPHCWG T M L N L A S A T H Q I A S G Y R P S P L L E Y D R T P N A L R D  
UniRef90\_H0BW10 LFGGT MLEGA IGTAA CAQLYSTLPDLQWGC Q L F G P Q L L V D  
UniRef90\_A6VZS4 LYGGT LLEEGSI GTAA S I H A W S T L P K L H W G S E M F G P L L L Q D  
UniRef90\_X5LFM2 WGSHSNNHFDI SLAMFTHVAA A A P G D I T A I D T H W L W Q D G Q  
UniRef90\_F4GNS5 WGSHSNNHFDI SLAMFTHVAA A A P G R V T A I D T H W L W Q D G Q  
UniRef90\_K4L2U8 VCSHGMHE L H V S L M A S Q P H A G Y L E V H S F P I  
UniRef90\_H5SVN5 IAPHTWTNGLSGLAANLHVMGACPNCEWA E F P Y E P P G W T R  
UniRef90\_C9SBL2 LSHS NSHLGLSILAAMTQLA S A T T N L D Y A C D T H W P W K R R D  
UniRef90\_A4XRL5 WGSHSNNHFDI SLAMFTHVAA A A P G R I T A I D T H W L W Q D G Q  
UniRef90\_C3WYM5 CMIIGCML EAKI SVNAAVHLACAKK V I T K I D L D G P V L C S E  
UniRef90\_W8YW31 CMVIGSML ESRVA V T A A A H L A A S K K N I T R F D F D A P L L L R S  
UniRef90\_W0HU80 VAPHL SVGLA P C I A A S L Q V D A A L P N L Y L L E F Q P V F A L N K  
UniRef90\_B9JB22 LAPHCPLGPIALAAALCLQV D A V S Y N A F I Q E Q S L G L H Y N K G  
UniRef90\_A0A059KN07 VTIHAGQM HNYHLT M S T L A S P M A E Y F P M F D V E V G N E L F Y Y  
UniRef90\_UPI00037323D3 CMIIGGML ESRLAATAC L F A F A C K K I N H F D L D T S L L G H L V  
UniRef90\_C6J2Y1 MMLPHVWGSVGLGALASLQF IASLAAPA P L G L F P E E P H F R A  
UniRef90\_P83763 SYGGT MLDSTVGTAAALH V Y A T L P S L P Y G C E L I G P W V L S D  
UniRef90\_D8JBS9 IAPHNLS S P L G T M A S V H V C A T V P N A F A L E W H A R E V P W W E D  
UniRef90\_D9T567 TIVGSMMEG P V G A A S L V A A Y G T A V S D L D A W W L J A W  
UniRef90\_UPI00036B4CD0 LQIIGGFLE S R L G F T A A A H L A L C S P Q A V Y Y D F D T P L M Q S K D  
UniRef90\_N8Y804 LYGGT MLEGPVGTIA SAHAFSTFENL A Y G T E L F G P L L L T Q  
UniRef90\_UPI0003614DEA VA PHHSVGF A V A L A A G L H L S A A G N L L F E Y Q P V S T Q V I G  
UniRef90\_G8QCM5 VSMHSNSHLGLSILAMAMA HVA A A V P N L D Y A C D T H Y P W P D E E  
UniRef90\_C3N467 LGMHSPTETGIALAAM L H A A S A S P N L A Y A I D T H Y V H L S D  
UniRef90\_H8G8X3 VAPHNVIGGPLT MAN L H L A A C T P N F K I Q E H F N D F A D E H V K  
UniRef90\_HOPTN2 MS SHIFQE ILSAHL L J A V T P T A H W L E R M G L A D  
UniRef90\_F5XLP1 VCPHAGGVGLCE A Q H L S M L D Y V A V S G T E N R Y I E F V D  
UniRef90\_UPI00047D2CE5 VCPHAGGVGLCE A Q H L S M F D Y V A V S G T E D R Y I E Y V D  
UniRef90\_I3ZIT4 VCPHAGGVGLCE Y Q H L S A F D F I W A G A S L Q D R V I E Y V D  
UniRef90\_UPI0003728086 VAPHNNSN S P L C T T V I S V H A G L G I P N L K I L E T F D G L L E D H V F  
UniRef90\_UPI0003649983 VTHGVHDL T V H L L A A A P N R S Y L E V H G F E L D  
UniRef90\_UPI0003824B66 LSHS NSHLGLSILAAMT H L A A A T P N L T Y A C D T H W P W P A E D



UniRef90\_UPI00047B09D4 V I T G G P F T Y R D G A I D V P D A P G L G V T L D R D K V A E Y A E Y R E  
UniRef90\_UPI000348A350 R L I D R Q L T H K N G R I V L H Q E P G L G G F N F D E T Q V A K Y  
UniRef90\_UPI00046CABA6 P V E G G T V Y K A N G G V I E V P D E K P G I G G A V P K A H F L K  
UniRef90\_Q96XE5 E L I R D S T V K V E N G E A L V P E K P G G I G G I E L D K D R I K E R F T R D G S E  
UniRef90\_B1FUB8 E I L V K P L D Y S D F E L T V P D G P G L G G I E L D K D R I K E R F T R D G S E  
UniRef90\_A6CDL0 H L V K N K L I E N G D P V I T I S D S P G L G G I E V D W G L V E A H A A D  
UniRef90\_B6G1W7 N G M E G G F E L I N G D T F V L S D K P G L G G I D F D  
UniRef90\_M0CXZ9 E I L T T P F D P T G G E V S V P Q G P G L G G V D V D E D A V E R Y R A D R  
UniRef90\_S4ZIP0 D L L K K I F Q Y K D S Y V E L P K G P G L G G I D M D E D K I K K V A Q E G L V  
UniRef90\_F9RV61 C D V K D V F S F K D G Y C E L P T G P G L G G V D D E E F L R E M T K I G H R  
UniRef90\_F2N5J1 P L F E E Q L E I S G G I Q V P T R L G L G G V D L S E  
UniRef90\_UPI000289C070 D L I K E P E I T A K N G I I K L P K G P G L G G V D I D E T L L K N Y T L D Y E K  
UniRef90\_E8TPT3 Q Y T A E P L R L K N G L A L A P D G P G V G V D F D W Q K L A A F T T S A  
UniRef90\_UPI0002FA6668 S D L L D Y F E Y R D G H V A I P Q G P G L G G I E V D E D F V R K A A E T G H R  
UniRef90\_F2R487 D V V K Q P W T F R D G A I T V P R T P G L G G I E L D R D A L A R L H E Q Y  
UniRef90\_M7NIN4 S I T T N R V F E F R D G N V I V P D G P G G F G V E V D H E K V E H Y S R E K  
UniRef90\_M0ALU8 E L L A D P L V E D G E I R P P A R P G G H G M T F  
UniRef90\_H2IFX0 E Y T K R P L V V E N F R A V A S N E P G G I G V E F D W D K I A Q Y E V  
UniRef90\_K2PQ44 E I L G L D P L D Y A D F S V A V P K G P G L G G I E P D P D K L N F Y R R D R  
UniRef90\_UPI00047B6DA4 D Y L K D P F Q Y D K G Y V A K L T K P G L G G I E I D E E K V R E M A K I G H Q  
UniRef90\_L8EGG1 R V V K G A P E V V D G Y F T L P D A P G L G G I E L D T D A A A E F P Q Q P A R  
UniRef90\_V9H3K9 D L L K E I F Q Y K D G Y L E L P T K P G L G G I E L D E E L V E K V S A E G  
UniRef90\_B3T359 E I L K E P L Q V K D G Y L K V P D G P G L G G A E F D E A V V K R L A A A  
UniRef90\_J4KPF2 D L L P E I W Q V E D G Y V L M T G P G L G G I E V D E Q R V M E A S K N A E P  
UniRef90\_S6I772 P L F N E R L E T R D G Y M M V P T R P G L G G I E L S E  
UniRef90\_K6DRN6 D I I N E N I T V R N G F I E V S E G S G L G G V T L N T E L I N K Y A A E G  
UniRef90\_S3ESB6 P L F N E Q L E L R D G R M W I S D R H G L G G F T L S E Q A R R W T Q L T C E  
UniRef90\_R6T3Q5 L P F K G G I R V E D T R I N V L P E E P G F F  
UniRef90\_G0J859 I V I Y D G E R T V D G F I N L S E K P G G I G V E I N E E G M K K Y A V  
UniRef90\_D5EN34 E Y T T R P L V L E N Y R A V A P D T P G G T G V V F D W D K L N P F E A A  
UniRef90\_W6VZT5 D V S I R P V L K K D G R F E V P E G P G L G G V E V D I E M L E K Y R V P G  
UniRef90\_C0CWC1 P V V F N K D G T V S P S Q A P G A G L D I N R E L L A P Y R I Q  
UniRef90\_J2LFY4 D C F L E P A Q V V D G H F S L S Q R P G A S T T P T E S A W A K F R Q A T  
UniRef90\_M7PBF2 E I I G D L N Y E L P Q V L L S G R P G L G G I I V D E A Q L E K L T V K K E T  
UniRef90\_A0A034ULJ2 D V I T E P F G F T D G A L T V T D T P G L G G V E L D R D A L A R L H R R W Q E  
UniRef90\_S9QAI3 D L L E R P I R Y A D F A V H L P D G P G L G G I L N D P D V V A Q Y R R D R Q  
UniRef90\_A0A022GEX4 D I V T A R P Q Y R D F A D L H I P E G P G L G G I Q I L D D K L A F Y R R D K H  
UniRef90\_P95608 E L L Q E P I R Y A D G Q V F L P E G P G L G G V E L N M D A V K T W T R  
UniRef90\_UPI000371031E H L F V D P C I R D G A Y I M P A N G P G Y S S E I L K E Q T L Q A Y S F P R G S  
UniRef90\_UPI0003683A86 E L Y K Q Q V R V E S G S A I V P E G P G L G G V E I D E A Q L P D F V V T T T E  
UniRef90\_UPI00047831A2 Q V P T D G Y L D V I E A P G H G L Q L N M D F I R  
UniRef90\_Q1IU00 I L E G G M L K F E N G A M K V P T G P G L G G I S L D R D K L A R Y H E L S K Q  
UniRef90\_L0JM21 L L A R K G P L I E D G Y I D V P T E P G L G G I L D E D V L E A H  
UniRef90\_A4VK55 E I V T Q A P V I R D F Q L E V P R T P G L G G I S L D E E R L A F F A R  
UniRef90\_Q0KJT6 E I L Q E P L D Y S D F S L A V P K G P G L G G I E L D D D R L S F L R R D A S R  
UniRef90\_UPI0003F63093 S I T L S K V N I T G F A Y P E T P G L G G I H W D W Q K I N Q Q T L V H H  
UniRef90\_H1HV81 D P I L G G A R F E E K F I T V S D E A G M G I R  
UniRef90\_L1N8V8 D P I E G G A T F D R D I T A S S A P G L G G I R  
UniRef90\_D6A8F1 D L L T E P L R I K D G T L R V R E G A G L G G I A I D P E K L D R Y R K D R  
UniRef90\_C9ACN4 D P S D G G A I A P E E P G I G V T F D W E K L A P H K Q P  
UniRef90\_F2N5I4 H L T R E P L K I V S G K V A V P Q K P G L G G V E L D W R A L E Q A H A H Y Q E  
UniRef90\_D9WSG7 D V I T E R L T F R D G R L D V S D A P G L G G V E L D R E R L A V L H Q R  
UniRef90\_UPI00047EAD82 D P V I G R V E Y K G Y F L D L P D K P G I G G A D A D E N F L K  
UniRef90\_S5NP37 A L T G E R V Q M E G G H A V A P M R P G I G V E D W D W D A V S A  
UniRef90\_UPI000467B542 R L T R A P F Q I V G K V V V P Q T P G L G G I E V D Y D E L E K A H A L Y L Q  
UniRef90\_UPI00047E0222 G L T V D P L Q I R G G E I R V P D A P G L G G I E L D R T R L E E A H A L Y L E  
UniRef90\_Q8EMK6 G L T K N P F Q I K D G A K V P K T P G L G G I E L D D M E K V E A H Q L Y  
UniRef90\_G0L8J1 P V V I K N G A Y M P S M A G Y S I T M K P G S L A E A S F P  
UniRef90\_UPI00047A348B D L V A A P L V F E E F E I H V P S G P G L G M I L D E D K V R F M A R K A  
UniRef90\_U4KUK6 D L C P E V F A V K D G I V Q T P K G P G L G G I E I D E E A V R K V A V D C K A  
UniRef90\_M5STW8 E L F E V P V V R D G I A Q V P T G P G L G G I V I N E E K M Q S F V V N Q T E  
UniRef90\_H0BW10 D V A T S A L R Y E D F A L C V P D G P G F G A T L D P D K L A Y H Q R R Q  
UniRef90\_A6VZS4 D I T K Q P L R Y H N G Y D V P D A P G L G G I E I D E E K L A L Y R R  
UniRef90\_X5LFM2 R I T K Q P Y R I V N G Y L D V P D T P G L G G V E I D E E R V A A A H H L Y  
UniRef90\_F4GNS5 R L T K E P L Q I V D G Y V Q V P Q K P G L G G V E L D M A E V E K A H Q L Y L Q  
UniRef90\_K4L2U8 Q Y T T R P L I V R D G I A V A P D T P G T G V E F D E Q L L G P H R  
UniRef90\_H5SVN5 D F F K P L M I D P D G Y I S V P S G P G L G G V E L D D E A L V R Y A K  
UniRef90\_C9SBL2 E V V D G A L K W S E G G V I V P K T P G L G G V E L D R G R L A R L H Q Q Y  
UniRef90\_A4XRL5 Y L T R N P L R I E G G L V Q V P K T P G L G G V E L D W D A L A K A H E L Y Q  
UniRef90\_C3WYM5 D P I A G G A V F N E K E I T V S D D F G L G G I  
UniRef90\_W8YW31 D I V D G G V R Y D G R V M T F P D A P G L G G I R  
UniRef90\_W0HU80 S L L K T P L V C R M G A Y Q L P S G P G L G G I E V D E A Y V I R E Y C E  
UniRef90\_B9JB22 N D I K E V F H Y A D G F V S I P Q G P G L G G I V D E A Y V I J E R A K E G H R  
UniRef90\_A0A059KN07 I F D G E P V I A E N G F L D L R D D P G L G G L S L K T E F L D Q F  
UniRef90\_UPI00037323D3 D P I V G G I L T Y H N Y E M T L P Q T P G I G A D V N E D Y L K  
UniRef90\_C6J2Y1 D L I G H A I T M Q D G M V S I P D G P G I G V E I N R E I V E K Y A V  
UniRef90\_P83763 R L T Q Q D L E I K D F E V H L P V G S G L G G V D L D H D K V R H Y T R A A  
UniRef90\_D8JBS9 M H A E D E D V I Q D G S V I Q V P E K P G I G V M L D P D T I E E H L A S G E E  
UniRef90\_D9T567 S P V S G G L R Y E G A S V L L P D A P G L G G V T L R E A K I Q T H A  
UniRef90\_UPI00036B4CD0 P M A G G M T Y G P G G R I I L N D E S G L G G V R P L A A Y L D K L  
UniRef90\_N8Y804 E I L K T P L R Y E N F E L V L P T G A G L G G I E L D E D K I D N L R R  
UniRef90\_UPI0003614DEA R I L T K P V P G G A E G F P P D A P G L G G I D V D E Q A V A R L A E S S T E  
UniRef90\_G8QCM5 V I K G G K L P I V D G C V K I T R A P G L G G I E L D R D Q V L G K L H E Q  
UniRef90\_C3N467 D L I K R P F K I S E G K L K V P T E P G L G G V D V D E N K I D K Y Q Q L Y E E  
UniRef90\_H8G8X3 Q A A P G L P V E D G Y F A L P M A P G L G G V E D T D F V A E H P F Q A A R  
UniRef90\_HOPTN2 R I L R E P L R F E N G S A I V S D A P G T G V S W N E S E V A R Y  
UniRef90\_F5XLP1 H L F V D P V R I V D G H Y V A P T A P G A G T E M T A D S L V H Y R H D G R  
UniRef90\_UPI00047D2CE5 H L H E H F V V P T D G R Y W P S A P G A G T E M T P G S V E H Y Y F A G  
UniRef90\_I3ZIT4 H L H E H F L Q I Q R G R Y M L P Q T A G F S I E T Y P E S L R E Y E F P S G T  
UniRef90\_UPI0003728086 Q A L R E G V L P I E D G H I G L P T A P G G V E L V D E V F A E H P P T H R F  
UniRef90\_UPI0003649983 R F I A E P M R I V E G G R A I A P E R P G H G V A F D T A L A P F S T  
UniRef90\_UPI0003824B66 V I V P G V L A F E G S V A V P A G P G L G G V E L D R D A L A R L H E R Y

UniRef90_UPI00047B09D4	
UniRef90_UPI000348A350	
UniRef90_UPI00046CABA6	
UniRef90_Q96XE5	F
UniRef90_B1FUB8	
UniRef90_A6CDL0	
UniRef90_B6G1W7	
UniRef90_M0CXZ9	
UniRef90_S4ZIP0	W
UniRef90_F9RV61	WR
UniRef90_F2N5J1	
UniRef90_UPI000289C070	
UniRef90_E8TPT3	
UniRef90_UPI0002FA6668	WR
UniRef90_F2R487	
UniRef90_M7NIN4	
UniRef90_M0ALU8	
UniRef90_H2IFX0	
UniRef90_K2PQ44	
UniRef90_UPI00047B6DA4	WK
UniRef90_L8EGG1	F
UniRef90_V9H3K9	
UniRef90_B3T359	
UniRef90_J4KPF2	W
UniRef90_S6I772	
UniRef90_K6DRN6	
UniRef90_S3ESB6	F
UniRef90_R6T3Q5	
UniRef90_G0J859	
UniRef90_D5EN34	
UniRef90_W6VZT5	
UniRef90_C0CWC1	
UniRef90_J2LFY4	
UniRef90_M7PBF2	
UniRef90_A0A034ULJ2	LP A
UniRef90_S9QAI3	
UniRef90_A0A022GEX4	
UniRef90_P95608	
UniRef90_UPI000371031E	Y WA
UniRef90_UPI0003683A86	
UniRef90_UPI00047831A2	
UniRef90_Q1IU00	H
UniRef90_L0JM21	
UniRef90_A4VK55	
UniRef90_Q0KJT6	
UniRef90_UPI0003F63093	
UniRef90_H1HV81	
UniRef90_L1N8V8	
UniRef90_D6A8F1	
UniRef90_C9ACN4	
UniRef90_F2N5I4	
UniRef90_D9WSG7	
UniRef90_UPI00047EAD82	
UniRef90_S5NP37	
UniRef90_UPI000467B542	H
UniRef90_UPI00047E0222	H
UniRef90_Q8EMK6	
UniRef90_G0L8J1	
UniRef90_UPI00047A348B	
UniRef90_U4KUK6	WR
UniRef90_M5STW8	LK A
UniRef90_H0BWIO	
UniRef90_A6VZS4	
UniRef90_X5LFM2	
UniRef90_F4GNS5	H
UniRef90_K4L2U8	
UniRef90_H5SVN5	
UniRef90_C9SBL2	
UniRef90_A4XRL5	
UniRef90_C3WYM5	
UniRef90_W8YW31	
UniRef90_W0HU80	
UniRef90_B9JB22	WR
UniRef90_A0A059KN07	
UniRef90_UPI00037323D3	
UniRef90_C6J2Y1	
UniRef90_P83763	
UniRef90_D8JBS9	
UniRef90_D9T567	
UniRef90_UPI00036B4CD0	
UniRef90_N8Y804	
UniRef90_UPI0003614DEA	GE A
UniRef90_G8QCM5	
UniRef90_C3N467	
UniRef90_H8G8X3	F
UniRef90_H0PTN2	
UniRef90_F5XLP1	
UniRef90_UPI00047D2CE5	
UniRef90_I3ZIT4	YW
UniRef90_UPI0003728086	W
UniRef90_UPI0003649983	
UniRef90_UPI0003824B66	

UniRef90\_E8RVF8  
UniRef90\_UPI000381677A  
UniRef90\_C5EGC7  
UniRef90\_UPI0003711A2F  
UniRef90\_UPI00036E1C22  
UniRef90\_V4Y0E7  
UniRef90\_Q1ARR0  
UniRef90\_R4XPR0  
UniRef90\_R7Y170  
UniRef90\_UPI0003649046  
UniRef90\_UPI0003B42C47  
UniRef90\_UPI00047B25D9  
UniRef90\_A8RT54  
UniRef90\_H1YET5  
UniRef90\_K2AEY4  
UniRef90\_D5G4N6  
UniRef90\_T1WCH2  
UniRef90\_L0MGR7  
UniRef90\_UPI0003687364  
UniRef90\_UPI000380174A  
UniRef90\_H6RN53  
UniRef90\_C7NW98  
UniRef90\_C8NQR6  
UniRef90\_M5U5X3  
UniRef90\_B0K1J0  
UniRef90\_UPI00047D069D  
UniRef90\_A0A024QFF8  
UniRef90\_R7CEK6  
UniRef90\_UPI00047712AE  
UniRef90\_F8DDG3  
UniRef90\_T0MEU9  
UniRef90\_W3ACV6  
UniRef90\_D6KF87  
UniRef90\_C0D3V1  
UniRef90\_UPI000248CF32  
UniRef90\_UPI00047EF6A9  
UniRef90\_A0A023F7X0  
UniRef90\_J2L613  
UniRef90\_E1QXN6  
UniRef90\_A1W2C0  
UniRef90\_L0MB23  
UniRef90\_I2GB30  
UniRef90\_K0CFK4  
UniRef90\_G0E6D5  
UniRef90\_C5D0Z8  
UniRef90\_A0A022GF86  
UniRef90\_L0FZ31  
UniRef90\_A0A024KAT3  
UniRef90\_C9YBT4  
UniRef90\_M9W5Z4  
UniRef90\_UPI0003706ED7  
UniRef90\_M5QH52  
UniRef90\_C4SWN6  
UniRef90\_E8W6V6  
UniRef90\_A0A024PQN2  
UniRef90\_V4GNN2  
UniRef90\_G0L7B8  
UniRef90\_L0K001  
UniRef90\_H0A3U4  
UniRef90\_U1NKKX6  
UniRef90\_UPI000369DA7D  
UniRef90\_X0P928  
UniRef90\_UPI00037F0D56  
UniRef90\_F7NLK3  
UniRef90\_D8J0Z1  
UniRef90\_A6UJC0  
UniRef90\_UPI0002625967  
UniRef90\_M2NN60  
UniRef90\_I3ZME7  
UniRef90\_W2F1G5  
UniRef90\_M0LX16  
UniRef90\_UPI0003B31B6D  
UniRef90\_UPI000417A66E  
UniRef90\_UPI0002886935  
UniRef90\_B9TP22  
UniRef90\_A4XFH6  
UniRef90\_R2P088  
UniRef90\_UPI0003B5419D  
UniRef90\_E3DX39  
UniRef90\_UPI000310B233  
UniRef90\_F9FWI6  
UniRef90\_V5FET0  
UniRef90\_H0I3Y4  
UniRef90\_U2RX84  
UniRef90\_UPI0003670679  
UniRef90\_UPI000478655B  
UniRef90\_D4K4M3  
UniRef90\_UPI000380122C  
UniRef90\_C7NXXD2  
UniRef90\_UPI0004692295  
UniRef90\_D9UQV1  
UniRef90\_UPI0001FFE917

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

UniRef90\_E8RVF8 E E M T V S R L E 50 K A E G M D A G L 60 D F H G R V H K P M A K Q A R A L 80  
UniRef90\_UPI000381677A P P T E E K R M M G A L R R S A V I G D D K S E L M V D D A N N G W D E V Q T A M Q Y L E M A R R L E E  
UniRef90\_C5EGC7 G N E D I A S R R V R K A A V R R E A I G D D K S E L M V D D A N N G W D E V Q T A M Q Y L E M A R R L E E  
UniRef90\_UPI0003711A2F P A G E E E A R R V R K A A V R R E A I G D D K S E L M V D D A N N G W D E V Q T A M Q Y L E M A R R L E E  
UniRef90\_UPI00036E1C22 A K F D I E R L V A A V R R D A V P D D V I D L L C H D D L H A R Y D V L S A S R L I A S E M  
UniRef90\_V4Y0E7 P E A A V D R L A A V R R D A V P D D V I D L L C H D D L H A R Y D V L S A S R L I A S E M  
UniRef90\_Q1ARR0 V P H M V S L V A A V R R D A V P D D V I D L L C H D D L H A R Y D V L S A S R L I A S E M  
UniRef90\_R4XPR0 E E L Q L E N V A A V R R D A V P D D V I D L L C H D D L H A R Y D V L S A S R L I A S E M  
UniRef90\_R7Y170 R R L D T A V V R A L R R A E S E L G G D V E L L Y A D D A N N R G W S P E S A R A M H E M A  
UniRef90\_UPI0003649046 R E L D L A A V V R A L R R A E S E L G G D V E L L Y A D D A N N R G W S P E S A R A M H E M A  
UniRef90\_UPI0003B42C47 V E E A V A R V R A L R R A E S E L G G D V E L L Y A D D A N N R G W S P E S A R A M H E M A  
UniRef90\_UPI00047B25D9 P R E D I A S R R V R K A A V R R E A I G D D K S E L M V D D A N N G W D E V Q T A M Q Y L E M A R R L E E  
UniRef90\_A8RT54 I E R D A E R L L A K C R E A L G G D V A R V I M M D A N N G G F N V P D A L R F A R R R A S  
UniRef90\_H1YET5 D A R D I E R L I A A V R K E V G H I D I C M L D M H G R Y D G T T A G R K V A K M M  
UniRef90\_K2AEY4 A A D D I R R L H V R D K A V G P D D F K G M L D A N N G Q K W D V N T A I W M K Q L E  
UniRef90\_D5G4N6 G D I G V E R R L K A V I K R R F L D D A G A T R V I D V N Q A W D A A T A I W M K Q L E  
UniRef90\_T1WCH2 P E E E V A A V A I K R R F L D D A G A T R V I D V N Q A W D A A T A I W M K Q L E  
UniRef90\_L0MGR7 A A D D V L A R R T A A V R A L G A D A F G I T R V I D V N Q A W D A A T A I W M K Q L E  
UniRef90\_UPI0003687364 I D Q A V A R V I A A V R A L G A D A F G I T R V I D V N Q A W D A A T A I W M K Q L E  
UniRef90\_UPI000380174A V A E D V A H A V R A L G A D A F G I T R V I D V N Q A W D A A T A I W M K Q L E  
UniRef90\_H6RN53 G T E E V A A V R A L A E A R F V D D A R I M V D D V N M A W S E T E A V R A P A L A  
UniRef90\_C7NW98 H E E I V D R V A E L A R E A V G D I D I T G V D P N G R V S K S M A K T H C R L S  
UniRef90\_C8NQR6 P A E D T R R V A E L A R E A V G D V S L L R I D I N A R W D R L T A L R Y P E L A  
UniRef90\_M5U5X3 R E Q E C E R I A A S I R D A F I G D K K L M V D D V N M K W S V E Q A L R V R A F E E  
UniRef90\_B0K1J0 E E L H I E R V A S I R D A V I G E M E A V R V D V N Q A W D E V T S L Y C E A L E  
UniRef90\_UPI00047D069D K G D N V A H V I K I K E A V G D A A V R V D V N Q A W D E V T S L Y C E A L E  
UniRef90\_A0A024QFF8 P K E E M K A V R A L A E A C F P D D A R I M L D A N N Q S F D E S N L D L R C R D L  
UniRef90\_R7CEK6 P D T V L A C V A V R E A H P P D D A R I M L D A N N Q S F D E S N L D L R C R D L  
UniRef90\_UPI00047712AE E K M E A A K M A I R E A G G D L L I G V D L H G R V H K G Q A K A I A K L E  
UniRef90\_F8DDG3 M K K N E E I V K T I R D A V G D L E I A A D A Y M G W S V R Y A K K M D R L E E  
UniRef90\_T0MEU9 I E K N I E L V K A I R D A V G D L E I A A D A Y M G W S V R Y A K K M D R L E E  
UniRef90\_W3ACV6 G S D D I A R L Y A V R E A V G S A P I R T D V N Q G W T V G H A V Q I N Q L A  
UniRef90\_D6KF87 A D D D I R R R M G A A R T A C P D P R I A I D A N Q G R W N V A E A L W T R A L S  
UniRef90\_C0D3V1 I D Q V L E R V G A I R D A C G K F G R I A I D F H G R V H K P M A K V A K K L E  
UniRef90\_UPI000248CF32 R D R D I E L V S L I R K A I A D A K L R L D A N N Q G Y D V P T A I R V I R E I  
UniRef90\_UPI00047EF6A9 G D E E M E A I Q M L H E A F P E A R K L N L D A N N G A W S L E E A I R L C K G K  
UniRef90\_UPI00023F7X0 L E N D I K R C R A M V R E T I G E N K R L M L D A N N Q G W D V D V A I W M K N F A  
UniRef90\_J2L613 V R D D V A H V A S I R D A V I G D G S V R V D V N Q A W S E T D A M G M R L L E  
UniRef90\_E1QXN6 E E L A V A D R I A S I R D A V C L G D L E S V G I D F H G R V H R P M A K V L A N I V  
UniRef90\_A1W2C0 P Q D D V A H V A R I A R A L G R A S M T V D V D N Q G W D G A T A R R Y P E M I  
UniRef90\_L0MB23 G E Q E I E A V V R A L A Q R F P Q A R I T T V D P N Q A W R L D E A I A L C R G M  
UniRef90\_I2GB30 T N D D I R R R E A L R T A L G E T P I R T D A N S L Y T M D V R V L P R L G A  
UniRef90\_K0CFK4 V E R D L A R L E A L R T A L G E T P I R T D A N S L Y T M D V R V L P R L G A  
UniRef90\_G0E6D5 R D D D I R R V R T A R E V I P E R K L M I D A N N Q V W E V D A A I P W V K A L  
UniRef90\_C5D0Z8 V D R D I D M V R T I R G A V G D I E I C Y D A N N E G Y R T E A I A T V R A M E  
UniRef90\_UPI00022GF86 L Q E D I S V V R A I R E A V G D N V E I F V D Y N Q G L T V P E A I R R R A L E  
UniRef90\_L0FZ31 A N D D I R R A G I R E E I F G D M Y L M M D A N N Q R W E V A E A I N M K E L A  
UniRef90\_UPI00024KAT3 P D H D I E V F S A L A D A F P D D R F L M L D P N G A W S V E E A I R V I A G A L  
UniRef90\_C9YBT4 V D L D I K A C A A V R A V P D D A R I M L D P N G A W S R V D A L R I R A L E  
UniRef90\_M9W5Z4 G E Q E I E S A R A L K K R F P D A R I T V D P N G A W L L D E A L E L C K G L  
UniRef90\_UPI0003706ED7 L Q D D I E R V A R E M S L G D K E L M M D A N N M G N P W D L A T A C E R L K  
UniRef90\_M5QH52 A D Q D M R R A Q I L R E E L G D R K L M M D A N N Q T W D V D Q A V N M R R L A  
UniRef90\_C4SWN6 P Q M D V R A C A A V R E A V P D I A L M L D G Y H W Y S R S D A L Y I R E L Q  
UniRef90\_E8W6V6 A D D D V R R L A V A R R A V P G L R I A V D A N N Q R W D V A D A V W M K A L A  
UniRef90\_UPI00024PQN2 V A D D V A R I K A V S D R V G N A I A R V D V N Q G W Q S A K T L Q A L K  
UniRef90\_V4GNN2 M K E N E E I V K T V R D A V G D I G I A G D A Y M G W T V R Y A K K M D R L E  
UniRef90\_G0L7B8 I E Q D L K Y I A A I R K A I P D M R L M I D S N H A Y C Y K E A K E A R K A E  
UniRef90\_L0K001 H E K D R A I V E A I R D T F G D V D L R L D Y N Q A L E P F R A M T V R D V D  
UniRef90\_HO3JU4 V A E D M E R H L E A I R D T F G D V D L R L D Y N Q A L E P F R A M T V R D V D  
UniRef90\_U1NXX6 A P Y D M E R V T I A L R D R I G D V D L R L D Y N Q A L E P F R A M T V R D V D  
UniRef90\_UPI000369DA7D R D D D I R R L T I A R E T V P D I N L M L D A N N Q W E V D Q A I W V K Q L A  
UniRef90\_XOP928 E R A D V Q R V A I R Q A V P S V K L R L D A N N Q G W H H K Q A I N R M A Q M  
UniRef90\_UPI00037F0D56 P D R D P E R V K A A R A A I G N C E L F D A N N G A Y M R K Q A I A M A E A F  
UniRef90\_F7NLK3 G D D E M E A V A A L A R R F P K A R I T L D P N G A W S L E A I R L C R N K  
UniRef90\_D8J0Z1 I E L T L A N V Q A V R E A V P N V G I L G V D F H G R V H K P M A K A I K E L E  
UniRef90\_A6UJC0 R D D D M R R L R I A R E V I P D D R Y R I M I D A N N Q V W E V G E A I D W Q K L A  
UniRef90\_UPI0002625967 A D E D L R R L R I A R E V I P D D R Y R I M I D A N N Q R W D V G E A I W E R L L R  
UniRef90\_M2NN60 E D V G V E R L K L V K A L G M D A A L D D F H G R L H K P M A K Q L A K L E  
UniRef90\_I3ZME7 G D A E I E A V T A L A E R F P E A R I T L D P N G A W S L Q E A I R L C S G K  
UniRef90\_W2F1G5 A D D D M R R L A I A R E E I G D R T L M I D A N N Q W D V P E A I W V N R L A  
UniRef90\_M0LX16 R D W D V E R I R A M H D A V I G E L E F R L D P N Q G Y S F E D A V R R L E D A  
UniRef90\_UPI0003B31B6D K R D L A S V A A T R K A I G D V E K L R L D V N Q G W S R R E A V T M A Q M E  
UniRef90\_UPI000417A66E E A K D I D R I A S T R E A V G E V Q I R V D V N G G W N Y S T A V Q I R L L E  
UniRef90\_UPI0002886935 L G N D I Q L V Q E L R K T V G D Y Q I M V D A N H C Y S V G D A L Y V G H L D  
UniRef90\_B9TP22 P E Q E A A G I L A I A D A F P G T P L R V D P N G N W T V E T S L K I V Q Q L  
UniRef90\_A4XFH6 I E Q D V A H V R V A S I H N H F G K M S I G V D F H G R V H K P M A K V L A K L E  
UniRef90\_R2P088 S E L V V E R V A S I H N H F G K M S I G V D F H G R V H K P M A K V L A K L E  
UniRef90\_UPI0003B5419D K E E D I Q R I E A V I E V T G D G K L R L D A N N G R F D L D E A I A Y A K L E  
UniRef90\_E3DX39 G D K D I A R I H E I R K R V G N K L R V D A N N Q G W T P K E A V S A I R K M  
UniRef90\_UPI000310B233 T N E D I K R I K A V R E Q V G D I S I R V D V N Q G W S S T T L M A L H Q L Q  
UniRef90\_F9FWI6 E D L T V E R R L K Q V K A L G L D A G L D D F H G R C H K A M A K Q A R A L E  
UniRef90\_V5FET0 G S D K V E R L K I A R E A I G G N I M V D A N N Q V W S V P E A I Q M Q L A  
UniRef90\_H0I3Y4 P A V D A E R F M A M K A G G D F I L M A D A N N Q G Y T Q A E A L E F A A R V  
UniRef90\_U2RX84 G E E E M R A V A L A K E R F P Q A R I T L D P N G A W S L Q E A I A L C R D K  
UniRef90\_UPI0003670679 I D Q A V A R V A E I R S A V G D V E F T G L D F H G R V A A P E A K V L R L E  
UniRef90\_UPI000478655B P A L D L V R I T A I R D A V P G V A F R L D A N N Q G W N P K E A V R I L R E T  
UniRef90\_D4K4M3 G E R E V E K V R V C R E A V P D D F D F I L E V H R G M T P E A V A F R A I V E  
UniRef90\_UPI000380122C G P A T V K R F A T L R E A M G D I D I M V D A N H H G R T Y P A M A L Q Y I N A I  
UniRef90\_C7NXD2 V P S G L E K D R A N R H L R P E A D V A F D C H W T F S G G S G K R L A D A I  
UniRef90\_UPI0004692295 G K E D L Q H L R A L F D V E D V G M A T D G N E S Y D L S T T F Q W I K I L  
UniRef90\_D9UQV1 V A G D V A L L R A L R A E V P A I D V L R V D P N A A W S V P D S R A G I A L  
UniRef90\_UPI0001FFE917 V A L D T G A C R A L R E A L P D A E L Y V D G N R G W T S E A R A L D E M A



UniRef90\_E8RVF8 P L R P L F I E E E 90 P L L S E H P E A I E Q I S K L T T I P I A L G E R L L Y S R W  
UniRef90\_UPI000381677A P Y R P Y F I E E E P V P P E N V D V M A E I R R A S T P V P I A T G E R L L V T T R Y  
UniRef90\_C5EGC7 E F R L T W L E E E P T F S P D D D Y E A Y A R L R G A K L T R I P V I A T A M T A E N L H T I Y  
UniRef90\_UPI0003711A2F Q Y D P Y F I E E E P D S P D D D Y E S H A R L R G A K L T R I P V I A T A M T A E N L G Y G R W  
UniRef90\_UPI00036E1C22 E F N L L W L E E E P I P A E N D V I E A L K Q I A R M R T T K T P I A L G E N L Y L R F W  
UniRef90\_V4Y0E7 P H E P M F L E E E A V L P E N H L D A L D D E R A A R S H T T T V P I A S G E N L Y L S R F  
UniRef90\_Q1ARR0 P Y G L M W L E E D P V P P E N V E A L K R R V A R S T R T P I A S G E N L Y L R F H  
UniRef90\_R4XPR0 P F K L M F I E E E P V L S E H Y E A L K E L A P L T S T P I A L G E R L L F S R W  
UniRef90\_R7Y170 D L D L T L A E E E L C P A D D D V L G R R W L V Q Q V E V P F V A D D E S V I T P A  
UniRef90\_UPI0003649046 D H G V T M L E E E P N P A D D D V L G R R R I V A T S P I P V V G D E S T I T L G  
UniRef90\_UPI0003B42C47 P Y H P M F I E E E P V L T E N M E A L Q E L R Q H T H I P I A T G E R M Y S R W  
UniRef90\_UPI00047B25D9 S M G I A L I E E E P C S A L N M E A M A R L R A G R S N V P L A M V D E A A F T G Q E  
UniRef90\_A8RT54 S M G I Q W F E E E P V V H T D Y A G Y Q L L R N Q C G L A L M V D E A A F T G Q E  
UniRef90\_H1YET5 P L N L M W L E E E P V P A D N I D I Y K T I T Q E T S T P I C A G E N F Y L A Y  
UniRef90\_K2AEY4 P F N P W W I E E E P T S P D D D V L G H A T L R K N Q T H P I R V T G E R C Q N R  
UniRef90\_D5G4N6 P H Q P L F I E E E P L S E H V P E A I K H F R S Q Q T T I P I A L L G E R L L R W  
UniRef90\_T1WCH2 G H V L A Y A E E D P C G P E N R E I M A E F K R A T G I R T A T N M V A T D W R  
UniRef90\_L0MGR7 D L G L D L V E E E P V A L W D R A A L T Q L R Q R F T L P I A T A D E A V A S D A H  
UniRef90\_UPI0003687364 P F R P M F I E E E P N P A D D D V L G R R R I V A R H V I P I A T A D E R M F S K W  
UniRef90\_UPI000380174A D A G C E L V E E E P V A S L A A M R R L M R R F P I P I A T A M A D E M L S G P E  
UniRef90\_H6RN53 G D V L A Y A E E D P V G P E N G R E T M A E F A R A Q T G L P T A T A N G M L S D W R  
UniRef90\_C7NW98 D L G L M F I E E E P V V P E N V E H L P A I R A A Q T R A P I A A G E R L Y S R W  
UniRef90\_C8NQR6 D A G I E L F E E E P T P A D D L E T L R E I T R R T R N V S V A M A D E S V W T P A  
UniRef90\_M5U5X3 K Y R D L Y I E E E P T L P D D D L E G H R R I E T E T G S I P V V A T G E N L H S I Y  
UniRef90\_B0K1J0 K Y R P M F I E E E P V L P E N N E A L K E I A S Y T S I P I P I A T G E R L Y T R W  
UniRef90\_UPI00047D069D N G G V D L I E E E P L V R W N N E A G M S K L S S R F K V P I A T A M A D E S L G T I Q  
UniRef90\_A0A024QFF8 D G L L A Y A E E D P C G Y S A R E V M A E F K K R Y T G L P T A T A N M I A T D W R  
UniRef90\_R7CEK6 E F D L A C I E E E P Y N P S F F A R L S D L K Q E H Y K T P V C L D N E S V V T A Q  
UniRef90\_UPI00047712AE P Y H P F F L E E E L V L A E N N E A L K S L H D Y T S T P I I A T G E R M F S R W  
UniRef90\_F8DDG3 P Y D M A W I E E E P V L A D D D D G Y A E V S R E A A P M P I S E G G E H E F T R W  
UniRef90\_T0MEU9 R Y D I A W I E E E P L M P D D D F E A M K M L S W K T G P I P I S E G E H H Y H I Y  
UniRef90\_W3ACV6 D A H L T W I E E E P L R M G D I R G L A D V R R K T S T P I A M A D E S V Q T M E  
UniRef90\_D6KF87 E F E P Y W I E E E P T S P D D D L E G H A E I A V H V N I P V K V A T G E R L V T R Y  
UniRef90\_C0D3V1 E Y D P M F L E E E P V L C E H M E N F K E I A A C C C N I P I A T G E R L F T R Y  
UniRef90\_UPI000248CF32 E G E V E C V E E E P V R K W N M L G V K E L R D K V K T P I M I D E A V F G P E  
UniRef90\_UPI00047EF6A9 H D L K A Y I E E E P C G P E S R E L M A E F K D A T G L P V A T A N M I A T N W R  
UniRef90\_UPI00023F7X0 E F K P T W I E E E P T A P E D D L E G H A T I R A A L D Q Y N I T G M C A N R I  
UniRef90\_J2L613 Q A G V D L I E E E P I A A G N L D G L R R L A R D K A N R M P L M A D E T L H G P A  
UniRef90\_E1QXN6 P Y H P M F I E E E P V L A E N N E S F A S L A A E V P I P I A T G E R L Y T R W  
UniRef90\_A1W2C0 D A G V G L I E E E P V A Q W N E E A L R Q L T A T L P H T V I A M A D E T V C T P Q  
UniRef90\_L0MB23 N G I L S Y A E E D P C G A E Q R E V M A E F R R A T G L P V A T N M I A T N W R  
UniRef90\_I2GB30 G W N V Q Y C E E E P L R R W D V S G L R Q V A S P I P I A M A D E S L F D A Q  
UniRef90\_K0CFK4 E L G V R W L E E E P F M P Q E R R R Y Q D A S L A R V P I A A G E N L F T R Q  
UniRef90\_G0E6D5 A F N P W F I E E E P T S P D D D I E G H R K T R E N I G V K V A T G E M C Q N R I  
UniRef90\_C5D0Z8 P Y R L K Y V E E E P V M G L Y E R I A S V A R A I D P P V M A D E S A W N A H  
UniRef90\_A0A022GF86 Q E G L A W L E E E P T L Q H D Y E G H A S V R N A L N V P V Q M G E N W F T E  
UniRef90\_L0FZ31 K F N P L W I E E E P T S P D D D L G H K A I A D A V I Q P I V A T G E H C Q N R V  
UniRef90\_A0A024KAT3 A H L R N D Y E E D P C H G L E G M R R L A R D R I S I P I A T A N A V V S N F E  
UniRef90\_C9YBT4 K L E F S W F E E E M N E Q S M E S Y A W L A G Q L D I P I L G P A E S L V S G K H  
UniRef90\_M9W5Z4 Q D V L I T Y A E E D P C G A E Q R E V M A E F R R A T G L P V A T N M I A T N W R  
UniRef90\_UPI0003706ED7 G F Q P S W V E E E P L H P E E Y S W Y K A L R S Q Q V I V N I A M G E S F S G M H  
UniRef90\_M5QH52 E F D P W W I E E E P T S P D D D V L G H A A I R S Q R I H P I G V T G E H A H N R V  
UniRef90\_C4SWN6 K L N F S W F E E E P M E E Q S M A S Y C W L R E N L Q I D T I G P E S L A G K Y  
UniRef90\_E8W6V6 P Y D P Y W I E E E P T S P D D D V L G H A A V R A G Q S T P I M A D E H V A N R V  
UniRef90\_A0A024PQN2 N V J A L D W L E E E P V V A E D I D A L A E A V K A K S T P I M A D E A L V G F K  
UniRef90\_V4GNN2 P Y D M E W V E E E P V I P D D D I D G Y A A V R E A A P M P I S G G E H E F T R W  
UniRef90\_G0L7B8 K F D T S W F E E E P V S P E N Y D G Y K R L R N Q T T P I S G G E C E Y L K Y  
UniRef90\_L0K001 E Y D V W W L E E D P V P P E N H D V Q R E V T Q S T S T P I T V G E N V Y R K H  
UniRef90\_H0A3U4 R F R P T F I E E E P V P R R H L D A M A G F A H A L D T P I L A D E S C F D A T  
UniRef90\_U1NKX6 P Y D L M W L E E D V V P P E N T E A Q R E V I A R S S S T P I A T G E N R F V H  
UniRef90\_UPI000369DA7D F A R P W F I E E E P T S P D D D E G H R K I A R E V A P I Q V A T G E M C Q N R I  
UniRef90\_X0P928 G L A T E L V E E E P V P A D F E G L A Y V T R H T Q T M I M A D E S V F S V A  
UniRef90\_UPI00037F0D56 A G G V T W F E E E P V T S D D L D G L C E S R R A P A G M R I G E Y G D I T  
UniRef90\_F7NLK3 R D V L A Y A E E D P C G Y S G R E V M A E F R R A T G L P V A T A N M I A T D W R  
UniRef90\_D8J0Z1 P Y K L M F I E E E P V L S E N A E A L K E I A H L T S T P I A L G E R L Y S R W  
UniRef90\_A6UJC0 F A K P F F I E E E P T S P D D D V A G H R K A I R E I G P V K V A T G E M C Q N R I  
UniRef90\_UPI0002625967 P F D L A W I E E E P T S P D D D L G H K A I E A V A P I P I A T G E H G A N R V  
UniRef90\_M2NN60 P H G P L F I E E E P L L S E H P E S I K E L Y G L T T C P I A L G E R L Y S R W  
UniRef90\_I3ZME7 H D V L A Y A E E D P C G A E D R E L M A E F R R A T G L P T A T A N M I A T D W R  
UniRef90\_W2F1G5 P Y E P L W I E E E P T S P D D D V L G H A A I R K V A P V G V A T G E H C H N R V  
UniRef90\_M0LX16 E Y L Q Y L E E E P V R V D S F G T L K R L R Q R L T T P I A V N E D L Y Y P H  
UniRef90\_UPI0003B31B6D E Y S L R W L E E E P V S P M D Y D G L S F I R R K S N I S I A A G E N E Y T H Y  
UniRef90\_UPI000417A66E P L H I S W V E E E P I K M G D D L G L A E I K K S V I P I M A D E T H H G G  
UniRef90\_UPI0002886935 E L D V Y W F E E E P V A P E D Y N G Y R R L R N Q I K T N I A G G E A E F T R W  
UniRef90\_B9TP22 Q G V L E Y E E D P A P G L D G M A A V A R E C D V P L A T A N M I A T D W R  
UniRef90\_A4XFH6 D A G C L V E E E P I T R H N R D G M A R L V A L G L V P V I M A D E S L T G P A  
UniRef90\_R2P088 P Y H P M F I E E E V V L P E N E E H F K E V A N A G L A V P L A T G E R L Y T R W  
UniRef90\_UPI0003B5419D P Y G L F W Y E E E A G D P L D Y A L Q N T L S R Y Y S H P M A T G E N L F S M Q  
UniRef90\_E3DX39 E L D I E L V E E E P V H K D D L A G L K Q V L T D A T E T P I M A D E S V F T P R  
UniRef90\_UPI000310B233 D C Q I D W I E E E P V L A D D L A G M V E V K A K S I F P L M I D E G I K G S R  
UniRef90\_F9FWI6 P H R P L F I E E E P L L V E H P E A I K K L S D Q T V P I A F G E R L Y T R W  
UniRef90\_V5FET0 E F K P W F I E E E P T S P D D D L G H A A I K K A L A N T P H T G E M C Q N R V  
UniRef90\_H0I3Y4 A D G P R W L E E E P V R W D N R N D L R D V R L R T G I P V T A G Q S E T G R A  
UniRef90\_U2RX84 V G V L A Y A E E D P C G A E G R E L L A E F R R A T G L P T A T A N M I A T D W R  
UniRef90\_UPI0003670679 P Y R P L F I E E E P V L A E Q A G Q Y R R L A D G T P I P I A A G E R M Y S R F  
UniRef90\_UPI000478655B D Y N L E L V E E E P V A E D T E G M K L V A N A V S V P V L A D E S V Y S P R  
UniRef90\_D4K4M3 P Y R P M L I E E E P V P P D N V D T M A E V A S K V G V P I A T G E R A I D L R  
UniRef90\_UPI000380122C E F H P Y F C E E E P V P P E N V P A L L E V R Q S T R V P I A T G E R L V S R H  
UniRef90\_C7NXD2 E Y D V W W L E E D P V P P E N L E V Q E E V T K S T K T P I A V G E N R Y S V T  
UniRef90\_UPI0004692295 E H P L L W F E E E P M P M N Q I E N D Y Q L V R M K S T P I A G G E N K K S V K  
UniRef90\_D9UQV1 E E L D L E Y L E E D P C V G I E G M S Q L R A K V R I P I C A T N M C L V R F E  
UniRef90\_UPI0001FFE917 D L G L T L S E E E L M P A D Q V L G R R W L T G R T S V P T V A D E S A T R P G

UniRef90\_E8RVF8  
UniRef90\_UPI000381677A  
UniRef90\_C5EGC7  
UniRef90\_UPI0003711A2F  
UniRef90\_UPI00036E1C22  
UniRef90\_V4Y0E7  
UniRef90\_Q1ARR0  
UniRef90\_R4XPR0  
UniRef90\_R7Y170  
UniRef90\_UPI0003649046  
UniRef90\_UPI0003B42C47  
UniRef90\_UPI00047B25D9  
UniRef90\_A8RT54  
UniRef90\_H1YET5  
UniRef90\_K2AEY4  
UniRef90\_D5G4N6  
UniRef90\_T1WCH2  
UniRef90\_L0MGR7  
UniRef90\_UPI0003687364  
UniRef90\_UPI000380174A  
UniRef90\_H6RN53  
UniRef90\_C7NW98  
UniRef90\_C8NQR6  
UniRef90\_M5U5X3  
UniRef90\_B0K1J0  
UniRef90\_UPI00047D069D  
UniRef90\_A0A024QFF8  
UniRef90\_R7CEK6  
UniRef90\_UPI00047712AE  
UniRef90\_F8DDG3  
UniRef90\_T0MEU9  
UniRef90\_W3ACV6  
UniRef90\_D6KF87  
UniRef90\_C0D3V1  
UniRef90\_UPI000248CF32  
UniRef90\_UPI00047EF6A9  
UniRef90\_A0A023F7X0  
UniRef90\_J2L613  
UniRef90\_E1QXN6  
UniRef90\_A1W2C0  
UniRef90\_L0MB23  
UniRef90\_I2GB30  
UniRef90\_K0CFK4  
UniRef90\_G0E6D5  
UniRef90\_C5D0Z8  
UniRef90\_UPI00022GF86  
UniRef90\_L0FZ31  
UniRef90\_UPI00024KAT3  
UniRef90\_C9YBT4  
UniRef90\_M9W5Z4  
UniRef90\_UPI0003706ED7  
UniRef90\_M5QH52  
UniRef90\_C4SWN6  
UniRef90\_E8W6V6  
UniRef90\_UPI00024PQN2  
UniRef90\_V4GNN2  
UniRef90\_G0L7B8  
UniRef90\_L0K001  
UniRef90\_H0A3U4  
UniRef90\_U1NXX6  
UniRef90\_UPI000369DA7D  
UniRef90\_X0P928  
UniRef90\_UPI00037F0D56  
UniRef90\_F7NLK3  
UniRef90\_D8J0Z1  
UniRef90\_A6UJC0  
UniRef90\_UPI0002625967  
UniRef90\_M2NN60  
UniRef90\_I3ZME7  
UniRef90\_W2F1G5  
UniRef90\_M0LX16  
UniRef90\_UPI0003B31B6D  
UniRef90\_UPI000417A66E  
UniRef90\_UPI0002886935  
UniRef90\_B9TP22  
UniRef90\_A4XFH6  
UniRef90\_R2P088  
UniRef90\_UPI0003B5419D  
UniRef90\_E3DX39  
UniRef90\_UPI000310B233  
UniRef90\_F9FWI6  
UniRef90\_V5FET0  
UniRef90\_H0I3Y4  
UniRef90\_U2RX84  
UniRef90\_UPI0003670679  
UniRef90\_UPI000478655B  
UniRef90\_D4K4M3  
UniRef90\_UPI000380122C  
UniRef90\_C7NXD2  
UniRef90\_UPI0004692295  
UniRef90\_D9UQV1  
UniRef90\_UPI0001FFE917

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

UniRef90\_E8RVF8 I A P H C P L G 170 P I A L A A C M Q V A L S T P N F V I Q E M S L G L H Y N T H  
UniRef90\_UPI000381677A V A P H N P L G P V A N A A A L H F D L S T P N F L I Q E D M L A D V P W R W  
UniRef90\_C5EGC7 V H S H G M Q E L V H A N I L A A G L E N R G Y I E F H S F P L W  
UniRef90\_UPI0003711A2F M C P H W F H D V L H A N P L V A A T Q N A R Y V E F F W D D Q V L N F R  
UniRef90\_UPI00036E1C22 F A P H L V S T P L G T M A T C H V C A S V P N F L V L E W H A L E E R E A W D  
UniRef90\_V4Y0E7 L A P H C P L G P S V A L J A A C L Q V D A V A A N A L I Q E Q S L G L H Y N R E A  
UniRef90\_Q1ARR0 V A P H C H I A S P V L G T V A A A H V A A A V P N F L A L E W H G M S V N P F W E  
UniRef90\_R4XPR0 L A L H C P L G P I A L A T C L Q I D A G C Y N A F L I Q E Q S L G L H Y N A A N  
UniRef90\_R7Y170 V V M G N Q I D G Q L G S L C S V A F G A A F E L T R R P G E L S N F L D M T D  
UniRef90\_UPI0003649046 T M V G N Q I D G M V N T V A S T A L G C G L A A A L A R H P V E V T N L L M T D  
UniRef90\_UPI0003B42C47 V A P H C P L G P I A L A A C L Q V D A T S H N A F I Q E Q S L G L H Y N Q S  
UniRef90\_UPI00047B25D9 L Y G G C L L E S G I G T A A H L A V F S S L P R L E W G T E H F G P R I L V E  
UniRef90\_A8RT54 V L P H Y Y K L D Y D V P L L C T V R S P Y G A E S F D W I D  
UniRef90\_H1YET5 F S P H M V G S F L G A M A T A H V C A S V P N F H I L L E W Q T L S D T E W K E  
UniRef90\_K2AEY4 V C P H A G G V G L C E H Q H L A M V D F I C I S A S E L E N R V L E Y V D  
UniRef90\_D5G4N6 L A P H C P L G P I A L A A S I Q V A L S T P N F V I Q E S L E M S L G L H Y N K N  
UniRef90\_T1WCH2 W G S H S N N H F D V S L A M F T H C A A A P G A L T A I D T H W W Q E G R E  
UniRef90\_L0MGR7 L Y G G T M L E G S I G T V A S L H A W S T L K L A W G T E M F G P L L L K D  
UniRef90\_UPI0003687364 A A P H C P L G P I A L A A C L Q V D A T C H N A F I Q E Q S L G L H Y N Q G  
UniRef90\_UPI000380174A L Y G G T M L E G A I G S I A S A H V F A T F P H L Q W G T E L F G P L L L T E  
UniRef90\_H6RN53 W G S H S N N H F D I S L A M F T Q V G A A P G K I T A L D T H W I W Q D G Q  
UniRef90\_C7NWX98 V A P N C P L G P I A L A A S L Q V D T Y V P N F F V Q D H G F D H L P A S D  
UniRef90\_C8NQR6 C H G A T S L E G P I G T A A S L Q F A A S T K A V S Y G T E L F G P Q L L K D  
UniRef90\_M5U5X3 L T T H G L Q E M H V S C L A A I P N A S L L E I H A F R L D  
UniRef90\_B0K1J0 V A P H A P Y G P I A L A A T L Q L D I C T P N V F I Q E Q S L G L H Y N Q G F  
UniRef90\_UPI00047D069D M Y G G T M L E S S L G T A T L C A Q L Y S T I P E L T F G T E L F G P L L F K D  
UniRef90\_A0A024QFF8 W G S H S N N H F D I S L A M F T H V A A A A P G K I T A L D T H W I W Q D G Q  
UniRef90\_R7CEK6 T W M G M F D T G V S K A M F A F A T L P G M D L P A D V S D F T E Y F E H  
UniRef90\_UPI00047712AE I A P H C P L G P I S L A A A L Q I D F N C Y N A L I Q E T S L G L H Y N V G  
UniRef90\_F8DDG3 V I P H A G T N P T L H A I A A H T N M P M A E Y W F E E Q Q E E Q E S T Y A D  
UniRef90\_T0MEU9 V V P H T G N V Y N L H V I G S E P E S V T P V A E F L T K Y R E W M E  
UniRef90\_W3ACV6 A Q I G S M V E S S V G S A A G Y H A V M A R R N I Q S A E L T G P L L F S E  
UniRef90\_D6KF87 V C P H A G G V G L C E L Q H L S M F D Y V A L S G T E N R V L E Y F V D  
UniRef90\_C0D3V1 L A P H C P L G P I A L A S C L Q V D A T S Y N A V I Q E T Q S M G L H Y N V G  
UniRef90\_UPI000248CF32 C T V G S N L E L G I G I A S A H F V T G T P V V T Y P S D F T C G A Y L H E H  
UniRef90\_UPI00047EF6A9 W G S H S N N H F D I T L A A F A Q V A A A P G N I S P L D M T H Y I W Q D G Q  
UniRef90\_A0A023F7X0 V C P H A G G I G L C E M Q H L Q Y W D Y L C L T G D M E D K W I E Y V D  
UniRef90\_J2L613 L Y G G T M L E G A I G T M A S A Q L F S T F S N L A W G T E L F G P L L L T E  
UniRef90\_E1QXN6 A A P H A P Y G P I A L A A T L Q V D V C S P N V F I Q E Q S L G L H Y N Q G F  
UniRef90\_A1W2C0 W Y G G T M L E T S V G S A A S A H V F A T L G G T H H N C L F G P Q L L V D  
UniRef90\_L0MB23 W G C H S N N H F D I S L A M F T H V G A A P G H P T A I D T H W I W Q E G Q  
UniRef90\_I2GB30 C M I G C M S E S R L A A I T A N A H F A S A R Q N V T F F D L D A P F H A L  
UniRef90\_K0CFK4 V H P H A S M T A I N A A T L H F L C A I E D G G Y L E S D V S K F N P L R D  
UniRef90\_G0E6D5 V C P H A G G V G L C E Y V Q H L S M I D Y L C I A G T H E G R V I E F V D  
UniRef90\_C5D0Z8 C N V N G S V E T G I G N L A N V H L A A A A P A A T W Q H G Q V G G L Y Y R D  
UniRef90\_A0A022GF86 M S N H I F Q E F S A H L L A V I T P T R H W L E R M D L A G  
UniRef90\_L0FZ31 V C P H A G G V G L C E Y Q H L S M V D Y I S I S G S M E G R V I E Y V D  
UniRef90\_A0A024KAT3 A S V H S S G E A G I Q L A S M L H K N G A A L P N M S F A S D A H Y H H L D D  
UniRef90\_C9YBT4 C E V H G N G A N L A V C A M L K N C A W Y E R G L H P L F L D Y D E V P A Y  
UniRef90\_M9W5Z4 W G C H S N N H F D I S L A M F T H V G A A P N P T A I D T H W I W Q E G D C  
UniRef90\_UPI0003706ED7 V A L H G V W G S S L S F L A N L H L A C A M P N V K W L E I P Q V K L E L L S  
UniRef90\_M5QH52 V C P H G G G V G L C Q Y S Q N I L F D Y L A V S A S L E K R V L E Y V D  
UniRef90\_C4SWN6 C E I H G N G A P N L A V V G A I R N C R W Y E R G L S H P L F L D Y D E P A A Y  
UniRef90\_E8W6V6 V C P H A G G V G L C E L Q H L S M F D Y V A V S G S R E D R V I E Y V D  
UniRef90\_A0A024PQN2 C Q V G S M V E S S V G S A A G F H V A F S K K A I S S V E L T G P L K F S K  
UniRef90\_V4GNN2 V V P H S G T N P H L H F I A G S T N A P M A E Y F P I P E W Y T E Q R E Y A D  
UniRef90\_G0L7B8 L V P H N T W G T W I A I T S A A V H V A A L S D K N P G R M Y N D L P T M L R D  
UniRef90\_L0K001 V A M H N V S S P V A T M A S A H V G A I L S N S L A V E Y H S Y E L D W W E  
UniRef90\_H0A3U4 G Y G G T L W E G G I A L A A G T Q F I A A T P G I S L G C E F Y M P H H L T E  
UniRef90\_U1NKKX6 F S P H N V C G P I G T M A C E V I H L G A S I A N F G V L E Y H A L E V P W W D  
UniRef90\_UPI000369DA7D V C P H A G G V G L C E Y V Q H L S M I D Y L C I A G T Y E G R V I E Y V D  
UniRef90\_X0P928 C M V G S M I E S S V S V T A A H L A A A K R N V K Y V D L D A S M M F S S  
UniRef90\_UPI00037F0D56 F S A T H S P S L D I V H L C C A A P N C M N L E Y F H D H G R L E H  
UniRef90\_F7NLK3 W G S H S N N H F D I S L A M F T H V G A A P G K I T A L D T H W W Q E G C E  
UniRef90\_D8J0Z1 L A L H C P L G P I A L A S C L Q V D A G S Y N A F I Q E Q S L G L H Y N E S  
UniRef90\_A6UJC0 V W P H A G G V G L C E Y Q H L S M I D Y V A V S T K D G R V I E Y V D  
UniRef90\_UPI0002625967 V C P H A G G V G L C E A Q H L A M F D F V A V S T E D R M I E F V D  
UniRef90\_M2NN60 V A P H C P L G P I A L A A C L Q I G I C T P N H V I Q E M S L G L H Y N V E  
UniRef90\_I3ZME7 W G S H S N N H F D V S L A M F T H V A A A P G R T A I D T H W I W Q D G Q  
UniRef90\_W2F1G5 V C P H A G G V G L C E L Q H V S V I D Y V C V S G S L E G R V L E Y V D  
UniRef90\_M0LX16 L S H H S G R D L G I K T A A L Q T V A T T P A I A L P P D T V Y Y W A D  
UniRef90\_UPI0003B31B6D L T T H S F Y Y G A G V A A T A H F V I S N P F G N E M E I C T T P I E E  
UniRef90\_UPI000417A66E S Q I G S M V E S S I G S A A G Y H A A M S R K N I E S T E L T G P L L F I K  
UniRef90\_UPI0002886935 V V N H V W G S A L S I A T N L H L L A A M P P E P M L E F D T T K N L F V D  
UniRef90\_B9TP22 L S M G H S N S H L G V S L V A M T H L C A S V P L L T Y A C D T H Y P W Q D E E  
UniRef90\_A4XFH6 L Y G G T M L E G A I G T I A S A H A F A T F P A L K W G T E L F G P L L L T E  
UniRef90\_R2P088 V A P H A P Y G P I A L A A T L Q V D S C T P N V F I Q E Q S L G L H Y N K G F  
UniRef90\_UPI0003B5419D V S T R R C L P H G G H Q M S L N I A A G L G L G G N E S Y P G V I E P F  
UniRef90\_E3DX39 C M V G S M I E T K L G I T A A A H F A A G K N V T R F D F D A P L M L K Q  
UniRef90\_UPI000310B233 C Q I G S M V E S S I G S A A G F H V A F S K K I I T S V E L T G P L K F  
UniRef90\_F9FWI6 I A P H C P L G P V A F A A S V Q V A L S S P N F A L E M S L G M H Y N T E  
UniRef90\_V5FET0 L V P H S G G V G L P A Y T Q H L S T I D Y V V V S G K S V E Y V D H L H  
UniRef90\_H0I3Y4 M A H H E E P Q I A A H L L A A F A H G T Y L E C F H P D R D P I F W  
UniRef90\_U2RX84 W G C H S N N H F D I S L A M I S H C G A A P G E Y N A L D T H W W Q E G L E  
UniRef90\_UPI0003670679 L A P H C P L G P V A L A S C L H L D F V A H N A V I Q E Q S M G L H Y N Q G  
UniRef90\_UPI000478655B A M I G S M M E T K L S V T A A A H V A A A C P C I T R I D L D T P D L C A E  
UniRef90\_D4K4M3 V I P H N P L G P V S T A A C L Q I C A S T P N L G I Q E L P G F C L N G A E D  
UniRef90\_UPI000380122C V A P H N P L G P V A N A A A L H F A L S T P N F L I Q E D M L T D V P W R W  
UniRef90\_C7NXD2 V A M H N V S S P I A T M A S A H V G T A I P N S L A V E Y H S Y E L G W W E  
UniRef90\_UPI0004692295 V S P H S F D G I L S R L Y A A F A Q A C L V P W S K M N E D I E P I E W  
UniRef90\_D9UQV1 M N L H S G G E L G I A T A A H A A V V A S T P V L S R A I D S M Y L H A  
UniRef90\_UPI0001FFE917 V V L G N Q I D G Q V G S A C S V A F G A A H R H T S A A G E L S N F L D M A D



UniRef90\_E8RVF8 D L L P E L F D V K D G M V A A L S G P G L G V I E V D E D K V R R L S R D C P P 210 220 230 240  
UniRef90\_UPI000381677A D V V K H S L K S E A G F W L P T S E A P G L G V I E V D E T A A A K H P F K Q E  
UniRef90\_C5EGC7 R Y T K R P L T I R E G Y L E P S D L P G S G V F D D E W E K L E K M  
UniRef90\_UPI0003711A2F Q L V D R Q L T H K E G R V L L L H Q T P G L G F N F D E A E V A R Y  
UniRef90\_UPI00036E1C22 S Y I R A R S L V E D G H I V V P D L P G L G V I E L D M N G V R K H A V P G  
UniRef90\_V4Y0E7 D L L D D V F A S E D G Y V D L P E A G P G L G V E L D E A A V R R E A A V E E E P D  
UniRef90\_Q1ARR0 E M A A G F P V I R D G Y I E V P E A P G L G V E L D N E E V A R R Y A R E G E P P  
UniRef90\_R4XPR0 D L L D E V F A Y E N G M V A I P Q G P G L G L E V N E E Y V K E R A A V G H R  
UniRef90\_R7Y170 D L L A E P L E I T R G G E L V V R P G P G L G A T I D P D K L A R Y R Q D  
UniRef90\_UPI0003649046 D V L A E P V I T G G R L A A R Q V P G L G A T I D P D K L A H Y R V D Q  
UniRef90\_UPI0003B42C47 N D L L D Y I E Y E D G A V K M P Q G P G L G L T I T I N E D Y V R E R A K E S H N  
UniRef90\_UPI00047B25D9 D L I R G G I V Y R D F Q L H C P E G P G L G L E V N E D T L S R L A R  
UniRef90\_A8RT54 G I L D N A M E I E N G F A S P R E G D G W G F R F R E E  
UniRef90\_H1YET5 I V T Y D K P F I E K G F L T V S D K P G G L G V I E I N E E G L K K Y A V K G  
UniRef90\_K2AEY4 H L H E H F T K I K K G Y M P P T L P G G Y S I T I K P A E S L A H Y  
UniRef90\_D5G4N6 N Y V K D T T V F E E G Y V K V P T G V G I T G A E V R R V S K D C K A  
UniRef90\_T1WCH2 Q L T R E P L R I V G G Q V A V P E R P G L G I E P D M D R I M Q A H E L Y K K  
UniRef90\_L0MGR7 D L L A E P L R I V G G Q V A V P E R P G L G I E V D E D K L R F Y Q R  
UniRef90\_UPI0003687364 S D L L D Y F E Y K A G Y V N I P G Q P G L G I V V N E A H V R K M A A G H N  
UniRef90\_UPI000380174A E T L A E P L R Y E D F H L H V P R A P G L G I A L D E A R V D A F R R D R R R  
UniRef90\_H6RN53 P L T R S P L Q I E D G A I A V P T T P G L G V E L D R D S L V D A A H Q L Y L E  
UniRef90\_C7NW98 R V T D D P F V I T G G Y I E V L D D P G L G V N I D D R S L V E E R A E A N V D  
UniRef90\_C8NQR6 T Y V V Q D I E Y R D G L V I V P Q G P G L G V E L D M D K I N F Y T R  
UniRef90\_M5U5X3 D F L V H Q L E I R D G Y A Y A S D R P G H G V E I D W E K I A A H R V A F S E  
UniRef90\_B0K1J0 D L L K E I F A Y K D G F V D I P T G P G L G L E I D E E L V K K  
UniRef90\_UPI00047D069D N V T V N Q I E Y E N F E L K I P N G P G F G M E I D K E K L K H Y S R  
UniRef90\_A0A024QFF8 R L T K E P F R I S G G H V T V P N K P G L G V E V D M D Q Q I K N A H R L H D E  
UniRef90\_R7CEK6 D T A L P P L Q L H E G E L V L N T V A G L G V L D D K D Y L R  
UniRef90\_UPI00047712AE T D L V D Y L K L R D G H V S L M T K P G L G T E I D E E K V R E A A K I G H S  
UniRef90\_F8DDG3 A L F E N P P S P E D G S L P L P D E P G L G S T Q L N H E A L E H F A V  
UniRef90\_T0MEU9 Q H M G T P F P K N G Y F T L S D K P G G L E  
UniRef90\_W3ACV6 E T G N L D Y Q L P Y V K L S G E P G L G I R V D E S Q L Q K L T V A  
UniRef90\_D6KF87 H L H E H F V T I R D G Q Y Q A P E A A G F C A E M H P R E T L A A Y T Y P  
UniRef90\_C0D3V1 K T V K E D F E F T D G Y V K L P V A K G I G V E V N R E L V L E S V C P H K  
UniRef90\_UPI000248CF32 D L L K T P I Q V A E G H I R V T A K P G L G I D V R T D L V L N Q  
UniRef90\_UPI00047EF6A9 E L C D N P M Q I R D G Y I K L P E G P G L G V E I N M D K V M K A N E L Y R K  
UniRef90\_A0A023F7X0 H F K N P V V I J Q G R Y I P G Q E P G Y S C E I H E T T F R K Y E F P G E V  
UniRef90\_J2L613 E I T V P L R Y R D F S L E L P D A P G L G I T L D E D R V N F L R R D R K  
UniRef90\_E1QXN6 D L L K D V F E F T D G Y I R V P T E P G L G L V M D E E K I Q A V S A E G L I  
UniRef90\_A1W2C0 D I V E Q Q M V L S D F A L Q L P D G P G F F L T V V P E R L E R F D R A R Q  
UniRef90\_L0MB23 H L T K N P L Q I V D G S I A L P D A P G L G L E L D W Q A L E Q A H R L H Q T  
UniRef90\_I2GB30 D P V V G G A L Y A G Y A L S L P D S P G L G A N V D P D F I R S K L  
UniRef90\_K0CFK4 D L V L G G S R I V Q G T F S E A P G L G I E V D E H F I R E H  
UniRef90\_G0E6D5 H L F L H P C E I R G A A Y M P P Q A P G Y S I E M H Q A S I E Q Y R Y R G E V  
UniRef90\_C5D0Z8 D L I V A P M K L V D G G I E V P T A P G M G I D V D L A K V E R Y T V R  
UniRef90\_A0A022GF86 P I L E P V L A F K D G M A I F G D A P G A G I V W R E D Q V E R F T V  
UniRef90\_L0FZ31 H L F I D P V V I K K G R Y Q V P K L P G Y S I Q M K A A S L E E Y D F A T  
UniRef90\_A0A024KAT3 I V V G G K M R Y V D G Q T E V P S K G P G L G L E V D R D K L E R Y A A H F R E  
UniRef90\_C9YBT4 L H A L V D P M N R D G F V H L S Q K P G L G E D I N F D Y I E A H T V S R  
UniRef90\_M9W5Z4 R L T K N P L Q I E N G K I A V P D A P G L G I E L D W A Q V Q K A H Q A Y Q  
UniRef90\_UPI0003706ED7 D T I S D H I K V R D G S L S A P R M K P G L G I G L D E N S R Q K Y A  
UniRef90\_M5QH52 H L F L E I L V I R R G R Y M P P Q Q P G Y S V T M K E S T L E H F E Y P  
UniRef90\_C4SWN6 L N S I D P M D S D G Y V S L P T R S G L G E D I N F D Y I A A N T L S A E  
UniRef90\_E8W6V6 H L F A D P A V Y E D G H Y V A P R A P G F S A R M L P A S I A G H R Y P Q  
UniRef90\_A0A024PQN2 D I G N L H V D P F I Q L N E K A G L G S V D V N E D L H A L T V Y S K E  
UniRef90\_V4GNN2 A I Y A N P P N A E D G V I Q L P D G V G L S S E L N R E A L D H F A  
UniRef90\_G0L7B8 E V T L H K I K L E N G H I L E V P C T P G L G V D V D M D K L E H Y  
UniRef90\_L0K001 D L V E E D V I E D G Y I E I P E E P G L G V T L D M D V E E Q M V E G E E  
UniRef90\_H0A3U4 D V L E A R I P N E N G A V V P T G P G L G I T V T E A S L R  
UniRef90\_U1NXX6 L V T T D Q D L I Q D G Y L E V P E D P G L G V E L D E D V A R E H  
UniRef90\_UPI000369DA7D H L F V E G C L I R D A A Y M P P Q L P G F S L E M K P A S L A A Y R  
UniRef90\_X0P928 N P V Q G G L I N Q K A R I Q L P D V P G L G F Q  
UniRef90\_UPI00037F0D56 M L F D G A P K P K D G M L S P D A S P G L G L D F K R E D A A K F L V F A R E  
UniRef90\_F7NLK3 R L T K E P Q L V N G K L V A V P D A K P G L G I E L N D M K V E K A H Q V Y Q K  
UniRef90\_D8J0Z1 N D L L D Y I R Y E D G Y V K I P Q G P G L G I E L N E E Y V R Q R A E V G H R  
UniRef90\_A6UJC0 H L F L D P C V I S D A A Y M P P S R P G F S L E M K E S I E D Y T F R G  
UniRef90\_UPI0002625967 H L H E H F V T P V D G R Y F A P K A P G A G T E M H A A S L Q E Y A  
UniRef90\_M2NN60 A N N P E V F A V K E G H V E K L T G P G L G I E V N E D L V R K V A E T S V V  
UniRef90\_I3ZME7 R I T K D P L K I E G G M L S V P E A P G L G L D R D M Q Q V E  
UniRef90\_W2F1G5 H L F T D P R V R E R G R Y L P E A P G Y G A R M H A G S V D G Y R Y P  
UniRef90\_M0LX16 A V I E S P F E F D D G R L S V P D D P G L G V T V D T E A I E R H R V E E  
UniRef90\_UPI0003B31B6D N F I S P D F R P V H G K I T V S D A P G L G I D V D E D V V K H Y R I D  
UniRef90\_UPI000417A66E D I G D L H Y S I P L V H L S E K P G L G V H V D E V A L N E L T V K K E  
UniRef90\_UPI0002886935 D L L V E P L D I E K G F V K I P D G P G L G V E P N L E W I R S F R  
UniRef90\_B9TP22 V V E G G R L Q F E Q G S L R V P T A P G L G V A L D R E A L A R H H D N Y  
UniRef90\_A4XFH6 E I L E R P L T Y A D F S L E V P A G P G L G I A L D E D R V E H F R R D R  
UniRef90\_R2P088 D L L K E V F Q Y K D G Y V D L P D K P G L G L E M D E A K I E E I A Q E G L V  
UniRef90\_UPI0003B5419D G G F A D D Y P V E N G Y V Q L P E V P G L G F F E  
UniRef90\_E3DX39 D L I Q G G I I Y S G S A I T I P D E P G L G I  
UniRef90\_UPI000310B233 S L D T G D L H Y D V P F I R L T N Q P G L G I T V N H D I L K R L T K  
UniRef90\_F9FWI6 D L L T Y V F D L E G G H V K A P T G Y G L G I E L D E E M V A R L A K E T A P  
UniRef90\_V5FET0 E H F K H P A S V K D G Y V T P M Q P G Y S V E M K A E S M D E F S F P G E E  
UniRef90\_H0I3Y4 N L L A S R G E C K N G I Y V V P T G P G L G I E L N E D Y V A K Y A V  
UniRef90\_U2RX84 R L T K E P P V I V D G Q V T L P D R P G L G V E P D M D R I L A A H E S Y R E  
UniRef90\_UPI0003670679 G E L K E D F R I T G Y I A P L P K P G L G V E D E E R V I E A S R N A P D  
UniRef90\_UPI000478655B D P V E G G I T C D G P R I L L G E G P G L G F R  
UniRef90\_D4K4M3 K M V K E P L R F E N G Y M L P E A P G L G I E L A D E K A A E L Y P A N E R  
UniRef90\_UPI000380122C D V V K S D L Q T K N G Y W L P C E T P G L G I E V L A D E K A A A K H P F K Q E  
UniRef90\_C7NXD2 E L V E E S V I E N G Y T E I P E E P G L G L T L D M D A V E E H M V D G E T  
UniRef90\_UPI0004692295 D V M E N P F Q P S A G K V R V P T G P G L G V S I D V E L L Q K Y S W K G E I  
UniRef90\_D9UQV1 D D I I E P L T I R G S G L T V P T G P G L G V T V D V E K L H H Y A E  
UniRef90\_UPI0001FFE917 D L L A E P L V I T G G E L R V P A G A G L G I T V D P D K L A H Y R T D T



UniRef90_E8RVF8	WR
UniRef90_UPI000381677A	
UniRef90_C5EGC7	
UniRef90_UPI0003711A2F	
UniRef90_UPI00036E1C22	
UniRef90_V4Y0E7	W
UniRef90_Q1ARR0	F
UniRef90_R4XPR0	WR
UniRef90_R7Y170	
UniRef90_UPI0003649046	
UniRef90_UPI0003B42C47	WK
UniRef90_UPI00047B25D9	
UniRef90_A8RT54	
UniRef90_H1YET5	
UniRef90_K2AEY4	
UniRef90_D5G4N6	WR
UniRef90_T1WCH2	
UniRef90_L0MGR7	
UniRef90_UPI0003687364	WR
UniRef90_UPI000380174A	
UniRef90_H6RN53	H
UniRef90_C7NW98	W
UniRef90_C8NQR6	
UniRef90_M5U5X3	
UniRef90_B0K1J0	
UniRef90_UPI00047D069D	
UniRef90_A0A024QFF8	
UniRef90_R7CEK6	
UniRef90_UPI00047712AE	WK
UniRef90_F8DDG3	
UniRef90_T0MEU9	
UniRef90_W3ACV6	
UniRef90_D6KF87	
UniRef90_C0D3V1	WK
UniRef90_UPI000248CF32	
UniRef90_UPI00047EF6A9	
UniRef90_A0A023F7X0	WK
UniRef90_J2L613	
UniRef90_E1QXN6	WR
UniRef90_A1W2C0	
UniRef90_L0MB23	
UniRef90_I2GB30	
UniRef90_K0CFK4	
UniRef90_G0E6D5	H <input type="checkbox"/> A
UniRef90_C5D0Z8	
UniRef90_A0A022GF86	
UniRef90_L0FZ31	
UniRef90_A0A024KAT3	
UniRef90_C9YBT4	
UniRef90_M9W5Z4	
UniRef90_UPI0003706ED7	
UniRef90_M5QH52	
UniRef90_C4SWN6	
UniRef90_E8W6V6	
UniRef90_A0A024PQN2	<input type="checkbox"/> K
UniRef90_V4GNN2	
UniRef90_G0L7B8	
UniRef90_L0K001	
UniRef90_H0A3U4	
UniRef90_U1NKX6	
UniRef90_UPI000369DA7D	
UniRef90_X0P928	
UniRef90_UPI00037F0D56	
UniRef90_F7NLK3	
UniRef90_D8J0Z1	WR
UniRef90_A6UJC0	
UniRef90_UPI0002625967	
UniRef90_M2NN60	W
UniRef90_I3ZME7	
UniRef90_W2F1G5	
UniRef90_M0LXI6	Y R S
UniRef90_UPI0003B31B6D	
UniRef90_UPI000417A66E	
UniRef90_UPI0002886935	
UniRef90_B9TP22	
UniRef90_A4XFH6	
UniRef90_R2P088	W
UniRef90_UPI0003B5419D	
UniRef90_E3DX39	
UniRef90_UPI000310B233	
UniRef90_F9FWI6	WQ
UniRef90_V5FET0	G K S
UniRef90_H0I3Y4	
UniRef90_U2RX84	R <input type="checkbox"/> A
UniRef90_UPI0003670679	WR
UniRef90_UPI000478655B	
UniRef90_D4K4M3	
UniRef90_UPI000380122C	
UniRef90_C7NXD2	
UniRef90_UPI0004692295	Y
UniRef90_D9UQV1	
UniRef90_UPI0001FFE917	

UniRef90\_UPI0003B6BD5A 1 D K V K A Y N S S G W L D D P Q T L Y D E A L T L T S 30 E G F D A V K V R L G 40  
UniRef90\_K5DVM6 R D R V P F S A Y L G E V L T P D Q M V G E A R R M V D K G F Q Q S L K L K G G  
UniRef90\_N9X766 V Q N D I T I G I T S T P E A M A A E A K R L V C T E G F R L L K K A G  
UniRef90\_W8QZ97 T P A A I V R L A E A A T A R E G F K D F K L K G G  
UniRef90\_G2R5R1 R D K L K V Y A W I G G D R P G D V E A Q A L A R K A Q G F Q A V K M N A T  
UniRef90\_H1SGW5 R V F V Y A A G G Y Y Y P G K A L R A E M R S Y L N R G Y N V V K M K V G  
UniRef90\_UPI000320515 R D G F P S Y T T G W L G Y P D E Q V R A L T Q E A Y A N K G W R A M K M K V G  
UniRef90\_I4X6U2 P V Y N L L G G Q A T P K I M A E K A K K A V E M G Y A S L K L K V G  
UniRef90\_F8D433 E T L E T S Y T I G L D D L E T M R E K T E T A L W E R G Y G R L K V K L G  
UniRef90\_D0D090 A N P D F E G K D L E D V A A M W E D G V R I F K M K A G  
UniRef90\_B9JQ28 I Q A Y D S H S M D G E A L A V E R A V R S A K A G F R G I K T K I G  
UniRef90\_A6WA68 R T R V P V Y S S M V R D R G P Q E E L A H L Q A L T E R G G T G V K I R I G  
UniRef90\_UPI00047EF14A Q S L H T S M T V G V D D P A K M A D A K K W V E A G F Y S R L K I K V G  
UniRef90\_G5IN17 M M T P E Q I V Q Q A C V L Q E K Y G F R N F K L K G G  
UniRef90\_I3R9G0 R D K I R V Y Q W V G G D R P D D V I E E A H R L V D T G Y T A L K M D A T  
UniRef90\_A1HSF1 G F Q D F K L K G G  
UniRef90\_Q5V3S6 N R V P V N A T V I G D G S P A E T A D A V E R A V E A G Y D C C K V G  
UniRef90\_G0C976 R I T T D I T I S A N P I E V M V A D A H D A L A R K G Y R A L K L K V G  
UniRef90\_G0ECY5 E P L R T S F T I S L D E P I E V M A S K A A E A V E K G F R R L K L K L G  
UniRef90\_UPI000237505D V P A Y G S G V I G P T D V E L L T E R A L E R A G F L G A V K I K V G  
UniRef90\_UPI0003831315 R K G Y P A Y T T G W L G Y S D E K L A R L A R E A V A G F A Q I K L K V G  
UniRef90\_UPI00036B651B R D K I R A Y A S F G W G K E P Q Q Y A E A L A A V D E G F D S I K I D V L  
UniRef90\_T0IGY6 R D K I R A Y T T G W L G Y S D A K L V R L A E Q A V A D G F G M I K L K V G  
UniRef90\_UPI00035F745A T V P T S F T V G L D T L E R I A E K T R S A V E A G Y P V L K V K L G  
UniRef90\_MOLTJ3 A V P A Y T T G W L G Y G E E K M R A L L E E T L A K G Y K H F K L K V G  
UniRef90\_G4MY85 Y G D S V R L Y R A I S T Q L P E D E M A S N V A K Y S S E G Y R F Q L K V G  
UniRef90\_M5UJV0 Y G D D V G L Y R A I S Q E S P E Q M A A K V A G Y R A E G Y R R F Q L K V G  
UniRef90\_UPI0002E3A67A P C Y T T G W L G Y S D E K L A R L C Q E A I D Q G F N Y I K L K V G  
UniRef90\_W0P8J6 R D G F P S Y T T G W L G Y P D E K V R A L T R E A Y A Q G W R A V K M K V G  
UniRef90\_C4REQ5 Y R H E I S D Y T V S V G T S E M I D H A K S L V A K G F H C L K A K V G  
UniRef90\_UPI0002490A71 D S L P I Y G S G C Y R G G H D G M I E K A Q N Y V S M G F R S I K M Q V G  
UniRef90\_UPI00036A70D1 K K L R T Y A S S M R R T P K D E A E R L V K L R D E F G F D A F K W R V D  
UniRef90\_UPI000369E8FF D R I P A Y A S S A T L R D D A E M A E T A A R F H G A G F A M K V R F D  
UniRef90\_UPI000478AC32 Y R E S V R M Y A H C M S T D V D E A V A T A Q D L V A H G L T A I K V G V S  
UniRef90\_UPI00045E6BFC R D R I P I Y S H A N T A E R A L A V K S R G F L N T I K C G G  
UniRef90\_I3X5H7 R V R A N A T I G D A D P A E T A R L T R E A V E R G F D C C K L K V G  
UniRef90\_MOLZ40 F R S V V P A Y A N G W Y Q G D P E A I G E L A K T V V A R G Y R G L K L D P F  
UniRef90\_UPI0003B79259 D K V K A Y A N G W Y E R T P E A F H K A A S T V V E R G Y R A L K L H A E  
UniRef90\_G2P715 P A Y T T G W L G Y S D E K L A R L C R E A V A D G F E Q V K L K V G  
UniRef90\_UPI0003B2EC1D P A Y T T G W L G Y S D E K L E R L A R E A M A D G F T Q I K L K V G  
UniRef90\_T5L6E0 Q E R M P Y Y A S A G Q E K P A D A L E R E M A G Y V R D K G V P A V K I R V S  
UniRef90\_W9H730 K E K I W C Y A S L Y N D N R D A D F L A E A Q G Y L R D Q Q F T A M K M R F V S  
UniRef90\_R4WPN5 I K A Y N S N G L N W S K E R L L K D V T E I V E S G F T G V K I K V G  
UniRef90\_C6D1J0 K S L E T C Y T V S L N D A D E M V E D G L R Y V E R G F N H L K L K V G  
UniRef90\_A0A033U9T5 P A Y T T G W L G Y S T P E G V R L A E A A H A R G F N D F K L K G G  
UniRef90\_S4XWV3 R E R I K L Y A H V S G E E D L G A A A R N R V E E G F S A I K S G S  
UniRef90\_N6Y0U1 R N K V K A Y A S T G G L S T P E E Y A F A E T L V A R G F Y Q G I K L H P S  
UniRef90\_MOCSN7 P A Y T T S W L G Y S D E K L K Q L G N E A L K D G W T R F K V K V G  
UniRef90\_UPI00037CFD7F G F A D F K L K G G  
UniRef90\_H3B9I8 L P V Y G S G C Y R G G H D G M I Q K A K K Y V G G F K S I K M Q V A  
UniRef90\_UPI000367D3B2 K Q K I K V Y A S G I N P I G S E R T A E A A L S R G Y R A L K L K V I G  
UniRef90\_UPI0003FE67D0 F R D D V P C Y G Y G S V D D L T A R F K D E A A E I D A G F I A T K M K V G  
UniRef90\_U4V3Z0 D K V P S Y G A T G V G A P D D I A R L A A E D K Q S E G Y P R L Q I K V G  
UniRef90\_UPI000237B22B R Q E V L V N A L L S A E E P E A L A Q E A R A A V E E G Y Q T L K V K V A  
UniRef90\_H8MGN5 R V P V N A T V G D G S V E E T V S A R D A V E R G F R C C K L K V G  
UniRef90\_L9WZB5 I T T D I T I S V D Y I D E K M V A D S V S A V E R G F E S L K I K V G  
UniRef90\_M4NHS2 R E Q V P V Y A S F Q T Y T E D D T W L R R I E E A L A Q G F T H M K V K V G  
UniRef90\_UPI000474C895 Q R D R V G V Y G Y G S T D D H V A R F K D E A Q V I R D A G F H A T K M K V G  
UniRef90\_E0MRY2 V K A Y N S N G W L T P A Q L G E E A A R L I Q E G F A G L K I R L G  
UniRef90\_UPI0003708418 D R L R V Y A N G W Y A R T P E M F Y E K A K Q V A A K G Y T A L K F D P D  
UniRef90\_UPI0002890D7E R D R M R L Y G S A G M H M A P E K H A E E A G A L S E L G F R A Y K M Q I G  
UniRef90\_G8DPM0 D T V P S Y A S G G F Y A P I D G L R A E L E G Y M E K G Y Q A D A K I K I G  
UniRef90\_C5EQ28 M Q R L A E A S Y D R G F K D F K L K G G  
UniRef90\_A0A010JSV4 P A Y A S G G Y Y Q T E A L V K E T A F N A A Q G F T D H K I K V G  
UniRef90\_UPI000377533B R D E V P F I A Y L F W D E T A E D M A D F C V E L H E L G V K S M K L K A G  
UniRef90\_I2GQ20 R D R V R M Y A W V G G D D P G E L A E S T A A R V D A G F T A V K M N A A  
UniRef90\_W2EZ52 V Y N D P S D L A A A C A L E Y V E Q G F N A V K L M D I D  
UniRef90\_F7YEL6 R Q K V Q V Y A W I G G D R P S D V E V A A K A R L A Q G F L K C V K M N A T  
UniRef90\_B8N4D1 T P D A V V R E A K A A Q K R G F H S F K L K L D  
UniRef90\_J9VY40 Y R E R I E T D F T V S V N S P R E M G D D A V R L V S E G F N L K I K V G  
UniRef90\_UPI0002FC8ACE Q E K V A L Y R A I S Q E A P E A M A R K I A G Y K A E G Y T K F Q L K V G  
UniRef90\_D7A0Y2 R K R I P I T W A F S A G S A S D L I D E A A Q K L D V G H R S F K F K M G  
UniRef90\_Q8G9L1 R D E L Q C Y A T T G R P D V A K E L G F L G G K M T L G  
UniRef90\_A4FLW9 R D R L K V Y G W I G G K P R D V V E G A M K R V Q Q G F T A V K M N I G  
UniRef90\_M2PH9 D R I R A Y T Y L G F W T S P E Q A G E S A A E M V R R G Y T A I K F D P A  
UniRef90\_UPI000237AEE1 Y R N S I P T S I T V G I L S L E E T L K H A K E Y V A Q G F S L K I K G G  
UniRef90\_UPI00047B61B8 R S S V E I Y A S L G F S L E S E E K V R A Q A L A N K K E G Y R Y Q K W F M G  
UniRef90\_UPI0003B325BF D T I E T S Y T I G I D D T E T M K E K T E L A L E R G Y T I L K V K L G  
UniRef90\_L0AG00 V F V Y A A G G Y Y Y P D E K L Q E D E M K S Y R D R G Y R V V K M K I G  
UniRef90\_J6LCEO D A M P V Y A A G G Y Y Y P E D R L Q D E M R Q Y Q D L G Y V R F K M K I G  
UniRef90\_UPI000370D114 D E L Q Q L V K K H M A M G Q T A V K T K V G  
UniRef90\_UPI0004779F50 D R L P A Y A S G W E S A E K L G G Q L Q S Y L A S G F K A V K M R V G  
UniRef90\_M4MI92 S V A L S Y T V T A A S P E A A S R E V S A R A K G F E H F N F K V G  
UniRef90\_D1CGG4 R D K V L V Y R H T G G G T P E Q L I E T A Q R Q L E E G W K V L R I K L A  
UniRef90\_UPI00036CE738 Y R D R I R L Y A D T P A K W T P E G Y T E R V L A R K K M G L T F I K F D V G  
UniRef90\_X1RCJ0 R G T V P A Y A S S I N K F D D A S V E A E V A A A L D A G F H Q I K V K T G  
UniRef90\_UPI0002FC2E58 R D K I K A Y S W V G G D R P A D V V E G I N K L R E I G F D T F K L N G C  
UniRef90\_E8LMQ2 E K I L T G A V V G I A P V E E V R A A V D S L V A Q G Y T R V K M K I E  
UniRef90\_R6H8E6 T A V P T A Y T V G I L S S P Q D A T K A E A L V A K G F S V L K I K A G  
UniRef90\_W7IJG7 F H E K L R A Y A T E G I W E N P E K A G E I A I K L V E E G N T A C K F D P T  
UniRef90\_D2DIQ2

UniRef90\_UPI0003B6BD5A R D E D L K A T E N V K K G L G N S E L C D F N Q C L S L P Q A I H R N D L D  
UniRef90\_K5DVM6 P D L E I E T M L K L R E A F P D H P L L R T D D P N N G G W T I D S A V I Y I A R K L D  
UniRef90\_N9X766 I D E E I R A M K L R E A V F P D A V R L R V L D D A N N G G A Y S V L S E A V C A E G F K Q  
UniRef90\_W8QZ97 G S E E M Q A T A G I R K A R F P D A R L V L T L D P N G A W S L A E L D L C K G K G  
UniRef90\_G2R5R1 E D V G V E R V R T V K R L G M D A A V D D F H G R V H L P M A K Q A R A L E R  
UniRef90\_H1SGW5 G E E D S A R L E A V Q E I G P D A Q L L M M D A N G R F D L D T A I A Y A M L R A  
UniRef90\_UPI0003820515 G E D D V R R A R L R E V I G P D A L L M M D A N Q V W V P E A I N M A R L L A  
UniRef90\_I4X6U2 K G E D V D R T L A V R E A V G D T P I L R V D V N Q G W K T P G I A V I K Q L E A  
UniRef90\_F8D433 T D R D I E I V E T I R D G V A P E A D L R F R D D A N E A W T P R E A V R I R D L L E  
UniRef90\_D0D090 H A F D L M R L E K L R S A V P Q F E I M V D D Y N Q A L S V P E A I T R R A L L A  
UniRef90\_B9JQ28 F A E E L T V I R A L R S A V P Q F E I M V D D Y N Q A L S V P E A I T R R A L L A  
UniRef90\_A6WA68 P G R T E Q L I K S M R D G L G D L S L R R A D A N G G Y S A A E A V I T R R M L E  
UniRef90\_UPI00047EF14A P E L D I A R V S A I R E A I P D V L L R L R D A N Q G W Q P K Q A I K V E M E R M  
UniRef90\_G5IN17 G D Q E M E A V R A L K K Q F P E G R I N I D P N G A W S L L E A L E L C R P M  
UniRef90\_I3R9G0 I E Q V V D R I R K V L R A V F D N Q V D I G V L D F N G R V S K S M A K M T N R L S  
UniRef90\_A1HSF1 G E E E M E A V T A L R A K R F D N Q V D I T I D P N G A W S L D E A A K M T L C R N K  
UniRef90\_Q5V3S6 V D E D V A R V R T V L R E R V G D V T L R A D A N G A W S R D R A Q E F D R L L A  
UniRef90\_G0C976 K D S D L A R V Q A I H A A V G G R A S L L R L D A N Q G W T P K Q A V R T M R T L  
UniRef90\_G0ECY5 P S L D I A R V E A I R K A V G E A D L R I R D A N Q A W S L A A A K V I P R L E  
UniRef90\_UPI000237505D P G R T E A I V P A V R R A A L G D A R L L V D G N S A Y T P R K A I D V R M L E  
UniRef90\_UPI0003831315 F E T D L A T V R A V A A G P D L P V F A D A N Q A W D V P T A R M C A L L G A  
UniRef90\_UPI00036B651B A D D D I L R R C R V A R S V V P H V R M A I D A N Q R W N V D D A V W V G A L L A  
UniRef90\_T0IGY6 A M D D K A R L K A V R E A V P D V D T I V E M H A F T D T T A A I Q F K M I E A  
UniRef90\_UPI00035F745A G D D D V R R M K L A R E T V G D V R I A V D A N Q R W D V D A A V W M R E L A  
UniRef90\_MOLTJ3 T D R D R A V V E T V R E A A G D A R I R V D A N E A W T P H E A V R I E T C R  
UniRef90\_G4MY85 G E Q D R R R L G I A R D V I G H D R L M V D A N Q V W S V P E A I Y M K A L L A  
UniRef90\_M5UJV0 P D T D I E R I H A A R S V I P S D R L V A D A N T G W T Q H E A Q R V V N A V  
UniRef90\_UPI0002E3A67A G D V D I V E R I K A V A E L R P G D R L V A D A N T G W L M H D A L R V V K A V  
UniRef90\_W0P8J6 R D E D K R R V R T A R D I I P D D R K L M I D A N Q T W E T E Q A I T W V Q E L  
UniRef90\_C4REQ5 P D D D L R R A R L R E L G P D D A L L M M D A N Q V W D V D E A I T N M T L A  
UniRef90\_UPI0002490A71 S D H D L E K V R E L R K A I P D I K I L M I D V N Q G W S V E E T I N C K K I E  
UniRef90\_UPI00036A70D1 H S E D I Q N V K D M R S T I G N I G L M I D V N Q G W S V E E T I N C K K I E  
UniRef90\_UPI000369E8FF P G R T E E V V P V S R A L G D I S K L V D G N S G F S P K R A L E V G A L L  
UniRef90\_UPI000478AC32 W R E D I A A L Q A A R D V V G D L T L M V D F H G R L S P D A A S L I D A I  
UniRef90\_UPI00045E6BFC A E A E A R R F Q A V R E A V G D L D V A I D F H G R L S P D A A S L I D A I  
UniRef90\_I3X5H7 V S D P V R K V A M L R E A T V G D M D I A I D L H G P P W M T P A A D A C R A L E  
UniRef90\_M0LZ40 L R D D V V R S A R E A V G D V E L R V D A N E A W T Y E A E A R L E A F  
UniRef90\_UPI0003B79259 G A R S V S I V E A V R D A V P D V D I M I E M H G R F R S A T A V R V A G A L  
UniRef90\_G2P715 T L H S I S L V E A V R D A I P E A E L L V E M H G R F R S P A T A V R V A E L E  
UniRef90\_UPI0003B2EC1D A D D D I R R F R E A R E V L G E F P I A M D A N Q R W G V Q E A I D W S A L L A  
UniRef90\_T5L6E0 Y N G D I R R F R K A R E V L G P D F P I A T D A N Q R W E V S E A I E W N A L L A  
UniRef90\_W9H730 T L K D V E K V E T C R E L L A P D D I Q I M V D A V M G W D R K T A L R F A K A I  
UniRef90\_R4WPN5 Y G K N L E Q V R L R E L L A G D V D I M L E C Y M G W T L E Y A R R M P R L A  
UniRef90\_C6D1J0 P R E D Y D R C K A V R K A I G D V I F M I D V N Q Q W N I N T A M T W K K L E  
UniRef90\_A0A033U9T5 K D D D I N R L Q A L R S S L G P E V I L M S A D A N Q A W D E K H A L K H F D E A  
UniRef90\_S4XWV3 A D D D I R R A Q I L R E E I G H R R L S M M D A N Q V W D V D Q A L S M Q R L A  
UniRef90\_N6Y0U1 G E E E V E A V R A L H E R F P Q A R V T L D P N G G W L L K D A V R L R D L  
UniRef90\_M0CSN7 P G V D I R A H V R T M R E A V G D V D L M L D D F H G K P S K P M A K R V R G E L A  
UniRef90\_UPI00037CFD7F V E M D I R A C E A V R E A V P N V A L M L D D G Y H V N R L D A L K R V R L S  
UniRef90\_H3B918 A E D D I R R C R L V R E M I P N N S L M L D A N Q R W E V I E A I E W S K L A  
UniRef90\_H6MZF2 P V E E A A A V R A L H E R F P D A R I T L D P N G G W L R E A V D I C R D L  
UniRef90\_UPI000367D3B2 H D E D I V N V R D M R D E L G D V G I M I D V N Q W T V E E T I K V C K Q I  
UniRef90\_UPI0003FE67D0 P A G D R A N L A A L R R L V G E G L L A A D V N Q G W I I A Q A L E L A H L D  
UniRef90\_U4V3Z0 P H D D V K L A T A V A E G V G N A K F M V D A N H C Y T T S D A F Y V R A L E  
UniRef90\_UPI000237B22B G E L D I E T I R K V W E V I S G A M R L A V D G N R G W T T R D A L R V S R E C  
UniRef90\_H8MGN5 G D V D E A R V R A V R E A V P R V R L R L D A N G G W T E P E A N R A D R L G  
UniRef90\_L9WZB5 V E A D V E R M R R V R E A V P S V E L R R A D A N G A W D Y E E A L A E A F D  
UniRef90\_M4NHS2 K D V D I E R V K A I Y A A V G R A L L R D A N Q G W T A K Q A V Y A L Q T L  
UniRef90\_UPI000474C895 G A D D M R H I H S L Q S R F G G I A L A L D A N Q S Y D A A A C A W Q P L Q  
UniRef90\_E0MRY2 L G L D I R L A Q A V R E G V D F P L M V D A N H C Y T A G D A L H V G Q L D  
UniRef90\_UPI0003708418 A D Q D L R A J E A V R A A G P D V H L M A D F N Q G L D L A E A L V R C Q S V  
UniRef90\_UPI0002890D7E F Q L A I E I I A A V R D A V P E R D I L T E G H N R F S V H A L Q F A E A M  
UniRef90\_G8DPM0 P D Q D L E T V R T R D V V P D F D L I V D A H A W W Q M G D R N Y A Q K M G  
UniRef90\_C5EQ28 V E E D I R R M E T A R E L L G P G R L I V D T N A S W D S Y T A I Q G P E L H  
UniRef90\_A0A010JSV4 G E Q E A E A V T A I A R R F P D A R V T L D P N G A W F L D E A I A L G K H L  
UniRef90\_UPI000377533B G A E D A R R V A A A V E A I G D G K L S L D A N N A Y H V A I E A F E R A A G  
UniRef90\_I2GQ20 P K E A R V L E L C R Q K L G D F G L R I D P N G L W S V Q T A V Q I R R L E  
UniRef90\_W2EZ52 G A A V D R V A L A R D V L G P A R V A V D F H G R T S A A D A R R L P L T  
UniRef90\_F7YEL6 I D V S T R M I K A I R E A V G N A D I L F G T H G Q F T A S G A L R M A R A I  
UniRef90\_B8N4D1 E D V N V E R L K Q V K A L G L D A G L D F H G R L H K P M A K Q L A K L E  
UniRef90\_J9VY40 G E T E M A T V D A L H D A F P N C R I N I D P N G A W S L D E A I K L T N D H  
UniRef90\_UPI0002FC8ACE K D E D L A R I K E I R Q R L G S V I R L D A N Q G W S T K E A L S I I R K I  
UniRef90\_D7A0Y2 G D Q D I L D R I R V T R E R L D A T D L V D A D A N T G W T R A E A R L A A E V  
UniRef90\_Q8G9L1 A D T D S R R V L D V L I E C I P D C A V I V D P N G R W S E L E A H R W P L L A  
UniRef90\_A4FLW9 L H A N I E R L R K M R E Q V P D F V L M F D C H W M A L D V G E Y A T Q L A H A A  
UniRef90\_M2PHP9 L E E T V N R V R D V R S I G L D V G I D F H G R V H K G M A T K Q A K R L E  
UniRef90\_UPI000237AEE1 G P M S V A F C K A I R E A V G D A D L L F G T H G Q F N T A G A I R G Q A L L E  
UniRef90\_UPI00047B61B8 V A E D V E K M T K L H E T F P K V I T W R F D G N Q G Y T V A E S L E F A K T A  
UniRef90\_UPI0003B325BF M R K N V E L V R L R E T V G D T E L M F D A F S G W D Q T Y A L E W A H Q V  
UniRef90\_L0AG00 T D R D L E I V E T I R S V A P D V R L Y V D A N E A W T P R E A V R I D E L A  
UniRef90\_J6LCE0 G A E D L R R I E A V L S V V G E G K L A V D V N G R F D L E T A V I Y G R A L E  
UniRef90\_UPI000370D114 G A E D V A R I E A A L K V V G D P R L A V D A N G R F D T S T A I Y G R A M Q  
UniRef90\_UPI0004779F50 R E E D V E R V A I R E V L G D D N L M V D A N W S Y T K E R A I E F S N V S  
UniRef90\_M4MI92 A M D G A P Y V A A R K A L G P S V D I M V D A H G T Y T V A D A K R F I Q L R  
UniRef90\_D1CGG4 P E T D V Q V A R A I R E A A P E A F V I W A D A N Q G L A V E R A A R V L E A  
UniRef90\_UPI00036CE738 V M R G V E H F S A L R K A I G D A E V I F E V H T R L T P T R A T E L C N A I  
UniRef90\_X1RCJ0 I A R F V E I V A V R E A V G W I P L A V D H F G P L V N D A I R L G H L E  
UniRef90\_UPI0002FC2E58 V P A S I D R I R L V R R A G W I G L S V D A N W A Y D L D D A I R V R A L E  
UniRef90\_E8LMQ2 E D L G I H I A E Q I R K E F G D I E F G L D F H G R V I T A P M A L M M K E L E  
UniRef90\_R6H8E6 P E T A L E C V A A V R A H S D L T L M L D A N Q A S F D E S H L N V L Y K L D  
UniRef90\_W7IJG7 D E H D L A R L T A V R A A A P E A R L L D P N G A W T P E H T V R F E R T A  
UniRef90\_D2DIQ2 I R H V A K I F Q C I R D A V G D L E L G I G T H G Q F S T A G A I R V A L E

UniRef90\_UPI0003B6BD5A D Q Q G L Y W F E E P I K Y Y E F E G Y K E L R K R M K T P I I L G E N F H G Y D  
UniRef90\_K5DVM6 E G V L E Y L E E D P V I G M D Q M A Q V L A K A T S G I P L A T N M I V L E F D  
UniRef90\_N9X766 E Y G I E A V E E C L G P H W D M E G S A Y L R A K K A T G G I Q I M N E S I H G P V  
UniRef90\_W8QZ97 G H I L S Y A E E D P C G P H E N M R E I M A E F K R K R A T G I P T A T N M V A T D W R  
UniRef90\_G2R5R1 P H A P L F I E E P L L S E H L P G I R A L H G L T T C P V A L G E R L H S R W  
UniRef90\_H1SGW5 D Y R P L F W Y E E A G D P L D D Y L H L Q A L A R E Y Y P G A M A T G E N L F S H Q  
UniRef90\_UPI0003820515 E F R P Y W I E E P T H A D D V L G H A A I R V S K T A V P I M A D E S I A N R V  
UniRef90\_I4X6U2 G A N I A W I E E Q P I R M G D V L R G L A E V R S K T A V P I M A D E S I Q S M E  
UniRef90\_F8D433 E Y D L L E F V E E Q P V P A E N P E E G L R F V Y T E R S P L P I A A D E S C V F T L E R  
UniRef90\_D0D090 A F R P T F V E E Q P V K M H E R E A L A H I T H V I D T P I A M A D E S V F G V R  
UniRef90\_B9JQ28 E E G I T W I E E P T L Q H D Y D G H G Q I T R A L L T T S V I Q M G E N W F G P E  
UniRef90\_A6WA68 E H G Y F H F E E Q C P Y P Q D L E Q T G S V A T Q A L D Q P I A G D E S Q D T S L E  
UniRef90\_UPI00047EF14A D S G I E F I E E Q P V K A K D L E G L K F V T D H V Q T A I M A D E S I F S P L  
UniRef90\_G5IN17 E G I L S Y I E E D P C G P E E R E I M A E F K N A V H L P T A T N M I A T N W R  
UniRef90\_I3R9G0 D L D L M F V E E P V L P E N R V E Y L P E E A T Q S Q I P I A T N M I L Y S R W  
UniRef90\_A1HSF1 Q D I V L A Y A E E D P C G P E N R E I M A E F F R R A T Q G I P I A T N M I A T D W R  
UniRef90\_Q5V3S6 P L D V A Y V E E Q P L P A D D L T G H A G L R G N G V G V A L D E S I V D R R V  
UniRef90\_G0C976 E H A P E L L E E Q P V K A A D L R G L A F V T A H I D T P V M A D E S V M A P A  
UniRef90\_G0ECY5 S L G V M L V E E Q P L P A W H E R E A L A H I T H V I D T P I A M A D E S V M D M H  
UniRef90\_UPI000237505D D H G V I H F E E P C P Y W E H H W T K E V L R E N L Q L D V T G G E N Q D C D L T  
UniRef90\_UPI0003831315 A Y G L E W F E E P T L A E D R P E E L A E L A R D R T G I R V L A G G E N V Y G A E  
UniRef90\_UPI00036B651B E F D P Y W I E E P T S P D D L G H A A I R D V A P V K V L A G G E H V Q N R I  
UniRef90\_T0IGY6 E L G V Y Y F E E P V M P L N P K Q M K K V A D N V A I P I A A G E R I Y T R W  
UniRef90\_UPI00035F745A P Y D P Y W I E E P T S P D D V L G H A R I A R E A P I R V I A A G E H V H N R V  
UniRef90\_MOLTJ3 E F G V E F V E E Q P V P A E N P S G L E Y V H H E R A A L P I A A D E S C V T L A  
UniRef90\_G4MY85 D F K P W F I E E P T S P D D V L G H K A V R K P Y G I G V A T G E M C Q N R V  
UniRef90\_M5UJV0 R D L D V Y I E E Q P C L S Y E E Q C L A V R R N T T L P F A L D E N I D S L A  
UniRef90\_UPI0002E3A67A Q D I V D V Y I E E Q P C L T Y E E C L L T V R R K H T D H P F V L D E V I D G M D  
UniRef90\_W0P8J6 A F N P W F I E E P T S P D D I E A H R R I R E I A P I Q V A T G E M C Q N R I  
UniRef90\_C4REQ5 E V D P Y W I E E P T H A D D L G H A R I A R A V R C R V A T G E A A A N R V  
UniRef90\_UPI0002490A71 H L D I E L I E E Q P V P A T D F F E G M A Y V T Q N V L T P I L A D E S I F S V T  
UniRef90\_UPI00036A70D1 E Y R P E W L E E P V M A D D F E G Y E K I C N L T E I P I V T G E N N F T H H  
UniRef90\_UPI000369E8FF E E G T S H F E E P C K Y W E D A E E T K Q V T S D A T T I D V T G G E Q D W L V  
UniRef90\_UPI000478AC32 R L G V Y W M E E P L F R G W L A A G M R R L S D A T D I R V A G G E M N R L H  
UniRef90\_UPI00045E6BFC P Y R P M F V E E P C L P E N T A A L V H I A E R T N V P L A T G E R L F T R W  
UniRef90\_I3X5H7 P Y E L L W V E E D P I A P A N L E G Y R A I R D A A H L P L A S G E R T A T I F  
UniRef90\_M0LZ40 D L E V S L L E E Q P L P A G A L E G H A A L R D V S G D V A V A L D E G L L E H  
UniRef90\_UPI0003B79259 E H L P K W L E E P V P P A N V H G L R N V R L G T R L P I A T G E R I H G I E  
UniRef90\_G2P715 E F H P S W L E E P V P P E N L K A L A K V A E K T R L P I A T G E R I H D R I  
UniRef90\_UPI0003B2EC1D R F E P T W I E E P T S P D D I L G H A A I R G V A P V R V A T G E H V Q N R V  
UniRef90\_T5L6E0 E F H P A W I E E P T S P D D V L G H A E I R G V A P I R V A T G E H A Q N R V  
UniRef90\_W9H730 E Y D I T W L E E P C A A D D Y E G L A E I R R E S P V P I S G G E T T F G L I  
UniRef90\_R4WPN5 E F N P R W L E E P V I G D D V E G Y Q E L K K M N I V P I S G G E H E F T V Y  
UniRef90\_C6D1J0 E F D L F W L E E P L N P D D I M G H K K L A D E L N V P I A L G E H V Y N K Y  
UniRef90\_A0A033U9T5 D L N L E S I E E Q P T S G R Y E Y K V L G A L S Q E F K L P L M V D E G L N I H  
UniRef90\_S4XWV3 A F D P W W I E E P T S P D D L G H A A I L A R A I A P I G V T G E H A H N R V  
UniRef90\_N6Y0U1 H G V L A Y A E D P C G A E G R E V M A E F R R A T S L P T A T N M V A T D W R  
UniRef90\_M0CSN7 E F D P M F Y E E L L G P E K N D L P D L A T E R T A V P I A T G E R L Y G R W  
UniRef90\_UPI00037CFD7F R L D F A W F E E P M P E D S M S Y R W L T Q Q V D V P V I G P E T I G G K H  
UniRef90\_H3B9I8 E F K P L W I E E P T S P D D L G H A T I S E S L G I G V A T G E Q C Q N R V  
UniRef90\_H6MZF2 T D V L A Y A E E D P V G P E G R E V M S E F K R A T S L P T A T N M I A T D W R  
UniRef90\_UPI000367D3B2 E Y E P E W L E E P I M A D D F E Y G E V C N S T S I P I V T G E N N F T H H  
UniRef90\_UPI0003FE67D0 R F G L A W L E E P I R A R P R E E W K Q L H E I V R F P L A A G E N I A S R A  
UniRef90\_U4V3Z0 E L G A Y W F E E P V A P E D L E G Y R L R Q G L R L N I S G G E A E F N R W  
UniRef90\_UPI000237B22B P D I P F I M E E Q P C N T I E D L Q K I R P Q V G H A Y M D N E S T S L N  
UniRef90\_H8MGN5 W Y D L E L V E E Q P T P E D L Q A L W R V Q R R A P C I I A A D E T L A T P A  
UniRef90\_L9WZB5 E D D V A L I E E Q P L P A G A L E G H A E L T E R G R G V G I A L D E G L L E H G V  
UniRef90\_M4NHS2 E I K L E L I E E Q P V K A R D L A G M R Y V T T E R V H T P V M A D E S V F G P M  
UniRef90\_UPI000474C895 W D N W M W F E E P L P M H Q W E Q Y L Y C R Q K L S L P I S G G E N V A E A R  
UniRef90\_E0MRY2 E L N A D W F E E P V A P E D H D G Y R L R E R L T T R I A Q G G A E F T R F  
UniRef90\_UPI0003708418 D L G L D W I E E P I V Y P N D D G Y A R L A S Q L K T P I A G G E N F Y G H R  
UniRef90\_UPI0002890D7E K Y E P T W F E A P V P P Q K I S M I E V A K R S P V P I A C G E D Y Y C R E  
UniRef90\_G8DPM0 E Y N V A W L E E P L P F D E H A G Y R R L K E L D L S P A R P A F F T S R T N  
UniRef90\_C5EQ28 R L G V C W L E E P V P F E D L E G M Q R I S R E P D I L V A G C E T Q Q G L K  
UniRef90\_A0A010JSV4 K G V L A Y A E D P C G A E Q G Y S S R E I M A E F K R P T A T N M V A T D W R  
UniRef90\_UPI000377533B D V L N L W F E E P L S P E A I V G H G E L A R K Q I R T P V A T G E I H Q T R W  
UniRef90\_I2GQ20 E L N L E Y F E D P S W G L E G N A A V R K Q I R P V A T N E M Y P A K F D  
UniRef90\_W2EZ52 A L Q P M F A E E P V L P D R P H L L R D V V T A S S V P I A T G E R L Y S R W  
UniRef90\_F7YEL6 P Y D P L W F E E P V P P D M P E V M A Q V A R A T S I P I A T G E R L Y T K F  
UniRef90\_B8N4D1 P Y R P L F I E E P L L C H P E A L K Q L S D L T T I P I A F G E R L Y T R W  
UniRef90\_J9VY40 R D S L T Y I E D P T G P E N R E I M S F Y K N A T N M P V A T N M I A T D W K  
UniRef90\_UPI0002FC8ACE D L G L E Y L I E E Q P V H K D D R R G L K T V T D S V D T L I M A D E S V F S P N  
UniRef90\_D7A0Y2 G D L D V Y I E E Q P C P T Y E E C L L S V R A R T A R P F V L D E V I D G V G  
UniRef90\_Q8G9L1 D A G V T V A E E Q P I A R W N T D G L A R L R D K L S I P I M A D E S V T T V Q  
UniRef90\_A4FLW9 E Y D L K W I E E A L L P D D Y A W E Y G E L A R R R M P S T M L M T E H E H T R Y  
UniRef90\_M2PHP9 P L Q P L F I E E P L L A T F P A E I A D L S Q T V S T P I A L G E R L Y S R F  
UniRef90\_UPI000237AEE1 P Y S P L W F E E P T P P D M I E D M A R V A R N V R I P V A T G E R M T T K A  
UniRef90\_UPI00047B61B8 A V G L E W F E E Q P T K I E S E E R L G A T T D K T T I P V M A D E S L K T L A  
UniRef90\_UPI0003B325BF E Y R P R W M E E V T K I E K I E S F A A M H R S T T I P I A S G E H F Y G R W  
UniRef90\_L0AG00 A Y D L E F V E E Q P V P A E D P E G L E F V Y E R A A L P I A A D E S C I T V E  
UniRef90\_J6LCE0 P Y D L R W Y E E L G D P L D Y A G L Q A A M A G V Y R P P M A T G E N L F S M Q  
UniRef90\_UPI000370D114 D F G L R W Y E E P G N P L D Y A L M S E L G A V Y P H R L A T G E N L F S V A  
UniRef90\_UPI0004779F50 K Y N I S W F E E P V S P D E F E D Y A A I A E A T D I P L A M G E N L H L V E  
UniRef90\_M4MI92 D C D L A W F E E P V I A D D K A G M A E V A R A G N V P I A T G E S E A T R F  
UniRef90\_D1CGG4 E A G V D V E E Q P F A A D K P H L M R V F R G R C P L P I A V D E A S V S P S  
UniRef90\_UPI00036CE738 E Y H P F F V E D P I R S E N P V S F A T L R E H T N V P I G T G E Q L P T K W  
UniRef90\_X1RCJ0 P Y G L A W M E D I M P W W N V E G N L Q V L T R S I N V P T L A G E D L Y L W D  
UniRef90\_UPI0002FC2E58 E C G Y D W F E E P L R P W E D R A G Y R L L R D K L D V R L A A G E S D F T A L  
UniRef90\_E8LMQ2 P Y H P Y F I E E P V L A E N C E Y Y R D L A D C S S L I I A A G E R M Y S R F  
UniRef90\_R6H8E6 A L N P A C I E E P Y N P S Y V P S S G E L Q D E L K T M V C L D E S V T A S  
UniRef90\_W7IJG7 D L L L D A V E E Q P I A P G T P D R L A W V L G A R S P V P L I A D E D A S T L D  
UniRef90\_D2DIQ2 E F D P F W F E E P V P P E N I D E M A R V A A H T S I P I A T G E R L V T K F



UniRef90\_UPI0003B6BD5A D A F T A L K N Q I S D F I M P D L L R I G G V S A W L K T A S I A E A F Q L S G  
UniRef90\_K5DVM6 Q I A R A F R K N A V Q I V L S D H H Y W G G L Y R A S T H L G K I C E T L G L S G  
UniRef90\_N9X766 D A M G H S L R L E A A D I L N L K L M K C G G L Q Y P A A K I L N A I A E A N G L V T  
UniRef90\_W8QZ97 Q A M G H S L R L E A A D I L N L K L M K C G G L Q Y P A A K I L N A I A E A N G L V T  
UniRef90\_G2R5R1 D V R P F L E A G C V D I L Q P D I S H V G G L S E M R R I A A M A E A Y G D V A  
UniRef90\_H1SGW5 D A R N L I R Y G A M R Y L D C A L S Y G L V E Y E R T L E V L K T F F G  
UniRef90\_UPI0003820515 I F K Q L L Q A N A I G V C Q V D A C R V G G V I L L L A A K F G V P  
UniRef90\_I4X6U2 D L L E I I R L Q A A D V T N I K L M K S A G I F H A G Q M A K A A E S A G M L  
UniRef90\_F8D433 D V P R I A D R C D I A N L K L M K C G G L R R E A R R M I S T A R A A H G L E  
UniRef90\_D0D090 E A L Y G A Q I R M A D I F S L K V M K S G G I R R E A R R M I S T A R A A H G L E  
UniRef90\_B9JQ28 E M M L S V K A G A S N L A M V D V M K I G G V C G W M K A S A I A E Q H G L P  
UniRef90\_A6WA68 Q F A R I L Q H G F L D I V N Q P D I G Y L G G V G R A R E V I A M A D V F H R I P  
UniRef90\_UPI00047EF14A D A F T L V S G H Y V D L L N I K L M K C G G L R R E A R R M I S T A R A A H G L E  
UniRef90\_G5IN17 Q F Y H A A A L K S V D I V L A D P H F W G M E S G S V R M G Q V L Q D W G L T  
UniRef90\_I3R9G0 D F K Q L L Q G G G A I D I L Q P V S H A G G L S E M V K L A T M A E A Y G D V L T  
UniRef90\_A1HSF1 Q M G H A I F Q L H A V D I P L A D P H F W T M Q S G S V R V P I A Q M C H E F G L T  
UniRef90\_Q5V3S6 D S V L D A D A A D V I L K P M V L G G P G N A H T L A L R A R E Q G L V E  
UniRef90\_G0C976 Q V I D I L Q R R A A D I V N I K L M K T G G L S Q A R I R I A D I A A L Y G M P  
UniRef90\_G0ECY5 D L A E L V G I R G V V N V K V S R V G P L R A R I L Q A S V D M G L E  
UniRef90\_UPI000237505D L W K Y M I D N R V V D V V Q P D A F Y I G G V T R M L R V A R L A E Q A G I K  
UniRef90\_UPI0003831315 A C A A Y A A L P G F A H L Q Q D P A K T M G V S M S D A A G R L P G S A R L  
UniRef90\_UPI00036B651B V F K Q L L Q A G A I D V L Q L D A A R V G G V N E N L G I L L L A A K F G V P  
UniRef90\_T0IGY6 G Y S P F F E D G S I D V I Q P D I C T C G G L T E V K K I C D M A H T Y D V T  
UniRef90\_UPI00035F745A V F K Q L L Q A R A I S V L Q L D A C R V G G V N E N L A L L L A A K F G V P  
UniRef90\_MOLTJ3 D V I P E L V G R A D I A N I K L M K C G G L R T A R R M I H T A H A N G L D  
UniRef90\_G4MY85 V F K Q L L L A S G A I D V C Q I D A C R M G G V N E V L A V L L M A R K F G V P  
UniRef90\_M5UJV0 M L M R A N R D L A M D I V N I K I S K F G G L T K A K Q A R D L C V S L G I A  
UniRef90\_UPI0002E3A67A V L L R A N R D Q A M D V V N I K I S K F G G L T K A K Q A R D L C V S L G I A  
UniRef90\_W0P8J6 M F K Q F M S R Q A I D V V Q I D A C R M G G V N E V L A V M L L A A K F K L A  
UniRef90\_C4REQ5 I F K Q L L Q A E A I G V M Q I D A C R V G G V N E V L A E I V M A A K F G V P  
UniRef90\_UPI0002490A71 D A A R L I N M G G C D L I N L K L M K A G G L D N A L K I N A L A E A A G I E  
UniRef90\_UPI00036A70D1 D L L P L M K S K K I S V L Q P D I M R G G Y T N L L H T C N L A N K Y G I K  
UniRef90\_UPI000369E8FF T W K R M I D M H A V D V L Q P D I M Y M G V T W R T L K V V E M A K K A G M P  
UniRef90\_UPI000478AC32 E F R A L I E G R C L D V L Q P D A A L V G G I T G L R R V A V M A E E A G L  
UniRef90\_UPI00045E6BFC Q F R E I L E R R A V A V V Q P D L C H A G G I F E A R K I A A A E V G F A  
UniRef90\_I3X5H7 G E R Q R I E E E L V D V I Q P D T G R A G G I D Q M K K I A A M A E A H I Q T  
UniRef90\_MOLZ40 G V D R I C E T G A A D V V V L K P M A L G G V D V A R E V A A W S E F H G L T  
UniRef90\_UPI0003B79259 D A A P L L E E G L V D T L Q V D V T H F G G I T G L H K L A G W A A Y N V L P  
UniRef90\_G2P715 E F R E L F E S Q A A Q I L Q P D V G H I G G I G E A R K L A A T A E T H Y V L  
UniRef90\_UPI0003B2EC1D V F K Q L L Q A G A V Q V M Q I D A A R V G G V N E N I A N L L L A A K F G V P  
UniRef90\_T5L6E0 I F K Q L L Q A E A I S V M Q I D A A R V A G V N E N I A N L L L A A K F G V P  
UniRef90\_W9H730 E F G H F L K A G S L D I V Q P D A C T S G G M L E C M R I A A A A S L F G V R  
UniRef90\_R4WPN5 G F K D L L E R R A V D V I Q Y D T N R V G G I T A A R K I N A M A E A F W S V P  
UniRef90\_C6D1J0 A F R D Y I H N G A L E Y C Q V D A T R V A G I T E W L Q V A G L A A S Y D V P  
UniRef90\_A0A033U9T5 D A E R L V E V I G A T N I W N I K L M K T G G I H Q A L K I H D L I A K G E A I P  
UniRef90\_S4XWV3 M F K Q L F O T G A I R F C Q V D G A R L G G V N E V L A V L M A A K F G V P  
UniRef90\_N6Y0U1 Q M G H S I Q L Q S V D I P L A D P H F W T L A G S V R V A Q I C H E W G L T  
UniRef90\_MOCNS7 E F K P L L E S G A V D V I Q P D I S H A G G I T E L R K L A S M A E T Y D V A  
UniRef90\_UPI00037CFD7F Q S R S W V H N A C D I L R A G V A N G G I T P C I K A A H L A E A F G M D  
UniRef90\_H3B9I8 M F K Q F L Q A K A I Q F L Q I D S C R L G S V N E N L S V L L M A K K F Q I P  
UniRef90\_H6MZF2 E M G H A L R S G A V D I P L A D P H F W T M N G S V R V A Q L C D A W G L T  
UniRef90\_UPI000367D3B2 D L L P F M R G Q K V I P I L Q P D I M R G G Y T N L I Y S K L A K F G I T  
UniRef90\_UPI0003FE67D0 G F A E V L R E P V L G V V Q P D I A K W G G L S A C A G T A R D I L A S G K  
UniRef90\_U4V3Z0 N W R R L L E A R T L D I A Q P E V C A L G G I S E Y L R V L A L C H A H L T P  
UniRef90\_UPI000237B22B T V I T A A G T G L V D G F G M K V T R I G G L H P M R A F R D L C E A R N L  
UniRef90\_H8MGN5 A V R T L L T M P A V G A V V I K P M V L G G L L P S M V V A L R A A R L G M H  
UniRef90\_L9WZB5 D A I C E A R A A D A V V L K P M A L G G L D V A Q Q V A T W V D Q F G V T  
UniRef90\_M4NHS2 E V I E L I R A A D I N I K L M K T G G I S N A V R I A D I A A M H G I E  
UniRef90\_UPI000474C895 I F M N A V Q Q Q A F D I I Q P D P V H V G D L D E Y R G I L Q L A R F A G V R  
UniRef90\_E0MR Y2 G W R D L L A S K G L S L A Q P E V C A L G G I S E Y L K V L A L C Q A N M V P  
UniRef90\_UPI0003708418 D L H R A L Q M K A C D L V M P D V F M R I G G V T G W L K S A I A A F G A P  
UniRef90\_UPI0002890D7E Q F S E L L M H N A V H I I Q L E P Q Y L G L T A A K Q T S A M V H A H N G V  
UniRef90\_G8DPM0 L S F L D L I P G V D Y Y Q L D V F S Q G G Y P T A R R V L G E V S R V G L K  
UniRef90\_C5EQ28 N F E T M V R M D A V D I L Q P D I G W A G G F T E C R K I G A M G E A A G R K  
UniRef90\_A0A010JSV4 E M S H S I Q L Q A V D I P L A D P H F W T L E G S V R V S Q L C K M Y N L T  
UniRef90\_UPI000377533B E F R S L I E A G S A S I L Q T D A G V V G G V T E W L R V A H T A D S F G L Q  
UniRef90\_I2GQ20 D L A P A I R M G S V D I V L T D I H Y W E G V P R G V K D L A A V C Q T F N L G  
UniRef90\_W2EZ52 D F R Q V L E A G V A V V Q P D L S H A C G I S E T R R I A A L A E V W D A K  
UniRef90\_F7YEL6 E F A R V I E N R A A T I L Q P D I L A G R S G G I S E T K K I A A M A E A Y H I Q  
UniRef90\_B8N4D1 D A K R F L E D A S V D I L Q P D I J A H A G G I S E T K R I A T M A E Y D V A  
UniRef90\_J9VY40 Q I Y P S L M M K S V D I I L A D P H F W G I N G S L R V A S I M N D W G L T  
UniRef90\_UPI0002FC8ACE D A F E A I R T R S A D L I N I K L M K S G G I Y K A S L S K M A E L F G M E  
UniRef90\_D7A0Y2 T L M K A L A D D A M D I N L K I S K V G G L T K A R L M R D I C V A S G T P  
UniRef90\_Q8G9L1 Q A I A L A D A G A V S A F A I K I P K S G G L S R A R E T A A I A E A S G L A  
UniRef90\_A4FLW9 G F R P L L E M G R P D I I Q P D V A N W C G G I S E L T K I S A L A D A H G A M  
UniRef90\_M2PHP9 D F R P Y L E A R A I D I A Q P D V A H C G G I S E L H R I A S L T E M Y D V A  
UniRef90\_UPI000237AEE1 E F G A V L R A G A E I L Q P A L G R A G G I W E M K K V A A M A E V F N A Q  
UniRef90\_UPI00047B61B8 D A F R L A Q N E R V N V N K L Q K V G G L M V G T H I N S V A K S A K L E  
UniRef90\_UPI0003B325BF E V E R Y L E A G A L S M V V Q A D P E W C G G T S E L K I G T V A S L H D V P  
UniRef90\_L0AG00 D V P Q I A G R C D V A N L K L M K C G G L R E A K R L I H T A R A H G L Q  
UniRef90\_J6LCE0 D A R N L T R F G D R D F L Q F D C A L S Y G L V E Y L R T L A M L D D H G  
UniRef90\_UPI000370D114 D V I E N L V R F G G M R Y F Q M D P G L S Y G I T E F A R M V A V M E K H G  
UniRef90\_UPI0004779F50 E F E R A I K Y S D L A Y L Q P D C S N I G G I T G F L K V A E L A D K A G L K  
UniRef90\_M4MI92 A F R D L A V L R S A D I F Q P D P A F C G G I T E A M R L G A I A S A F N L R  
UniRef90\_D1CGG4 D F L L Y A S E G L V D Y L V V K I V T F S G G L W P S I A Q V H I A Q A F G L P  
UniRef90\_UPI00036CE738 M F R E L I T E Q E L I D Y I R V D I C H S G G I T E G K K I A T M A E V H Y Q E  
UniRef90\_X1RCJ0 G W R E M I E K R A I D I I Q P D L L T A G G M L E T K K I A D Y A E R Y G L P  
UniRef90\_UPI0002FC2E58 D A L P M L Q D R S I G L I Q P D V L A R A G G I T E T W R I A E L A Q S F N V A  
UniRef90\_E8LMQ2 E F K R V F E A R G V S I L Q P D L S H A G G I T E C M K I A S M A E A Y D V A  
UniRef90\_R6H8E6 D M E A A M G L D N L R C Y A L K I A K F G G I Q P T L D F Y H W M R S L G K T  
UniRef90\_W7IJG7 D V J R G L V G A V D G I N V K I A K C G G L R A R E I V T V A R G A G M D  
UniRef90\_D2DIQ2 E F A E L L R K Q A A Q I I Q L D V G Q C G G I L E S K K I A G I A E A H Y A M

UniRef90\_UPI0003B6BD5A V S S H L Y H E V S S H L M R 170 180 190 200  
UniRef90\_K5DVM6 V S M H S N S H L G I T L A A M T H V A A A T P N L S Y D C D T H F P W T G V D  
UniRef90\_N9X766 C M V G C M L E T K L A I L T A G L S L V A A A K K N V T E A D C H D S F L Y Y K E  
UniRef90\_W8QZ97 W G S H S N N H F D I S L A M F T H A A A A P G N I T A Q I D T H W I W Q E G S E  
UniRef90\_G2R5R1 L A P H C P L G P I A L A A N V Q V D A V S A N F A I Q E M G L G I H Y N D H  
UniRef90\_H1SGW5 W S P S R Q L P H G G H Q M S L N I A A G L G L G G N E S Y P D L F K P Y  
UniRef90\_UPI0003820515 C P H C E Y V Q H L S I F D Y L R V G T S L E G R M V E Y V D H L H F F E D  
UniRef90\_I4X6U2 C Q I G S M V E S S V S G S A A G Y H V A M S R I N I E S T E L T G P L L F S E E  
UniRef90\_F8D433 V M L G C M T E S D A S I A A A G H L A P L L D Y A D L D G A L L L A E  
UniRef90\_D0D090 V Y G G C M F E T G L A H A A G A H L M A A L P E L R L D C E Y M S T Y Y A E  
UniRef90\_B9JQ28 L S S H L F Q E I S V H L L J A A S P T A H R L E H M D I A G  
UniRef90\_A6WA68 C T P H C A N H S L L E V F T L H L A A A M P A C G Q A Q E W S A E D V A W A R  
UniRef90\_UPI00047EF14A C M I G S M M E S S Y S V G A A A H F A A A P N V L Y D L D A P L W L V E Q  
UniRef90\_G5IN17 W G S H S N N H F D I T L A T F A Q V A A A V P G Q P T A L D T H W I W Q D G Q  
UniRef90\_I3R9G0 I A P H C P L G P A A S L Q V D T H I P N L V V Q D N G F D I H S P D R G P A Y  
UniRef90\_A1HSF1 W G S H S N N H F D I S L A M F T H V A A A P N I T A I D T H W I W Q E N Q E  
UniRef90\_Q5V3S6 P V V T T T I D A V V A R L J A A L H V A A A I P D V A A C G L A T G D R L J A A  
UniRef90\_G0C976 C M I G C M I E S I S V A A A V H L A V A K A D S I T L A D L D A P A L G Q F  
UniRef90\_G0ECY5 A M V G C M L E T S L G I S H A V H A V S T V K P S F V D L D A P L L E R  
UniRef90\_UPI000237505D V T P H S A N R S P V T L H V M G A L T N A G D Y V I E Y S I E G A D Y Y P W E Q  
UniRef90\_UPI0003831315 S P H C E Y G A A P C L A S S V H L V A A A P R P G L V E L D L R P N H L R T  
UniRef90\_UPI00036B651B V C P H C E L V Q H L S M F D Y V A L S R T T Q D R V I E Y V D H L H F H T A  
UniRef90\_T0IGY6 V Q I H V C G G P I S T A A A L Q M E A A I P N F M I H E L H R Y A L L E A N T  
UniRef90\_UPI00035F745A V C P H A G G V G L C E L R H L A M F D Y V A V S G T D E D R A I E W D  
UniRef90\_MOLTJ3 V M L G C M V E S N A I A G A H L L V P E V E Y A D L D G S L L L A N  
UniRef90\_G4MY85 I V P H S G G V I G L P E Y T Q H L S T I D Y V V V S G K L S L L E Y V D H L H E  
UniRef90\_M5UJV0 M T I E D S W G G D V I T A A I A H L A H S T P E E F R F T S T D F N S Y N T V  
UniRef90\_UPI0002E3A67A M T L E D S W G G D I V T A A I S H L A H S T P E E F L F S T D F N S Y V T V  
UniRef90\_W0P8J6 V C P H A G G V G L C E Y Q H L S M I D Y L C F S G T H E G R V T E Y V D  
UniRef90\_C4REQ5 I C P H A G G V G L C E Y Q H L A I F D F L R V G T S L D G R M V E Y V D  
UniRef90\_UPI0002490A71 C M V G S M I E S S V S V T A A H L A A K E N I K Y V D L D A S M M F S K  
UniRef90\_UPI00036A70D1 I A P H M F P E L S I H I V A S I E N P S W L E Y M G W Y D  
UniRef90\_UPI000369E8FF I T P H S A N L S L V T I C T J A H L L G A L P N P G K Y L E F Y F E Y Y P W Q K  
UniRef90\_UPI000478AC32 V F T P H T W T N G L G L I J A N A H L T A G L A A A P F I L E Y F F D P P E W R D  
UniRef90\_UPI00045E6BFC T I A P H N P L G P I S L A A C L Q L D V C T P N F L V Q E Y P S D H A D L G V  
UniRef90\_I3X5H7 M A P H S G S L G P V A E A A L H V L A S I P N A L L E R I T D D D W E G R R  
UniRef90\_MOLZ40 P L V T T T I D G V A R T G A V H L A A A I P D V P A C G L A T A D L L S E  
UniRef90\_UPI0003B79259 L A P H N V C G P V S T A A N V H L G V A T P N F Q V L E H F N D F A D T W V L  
UniRef90\_G2P715 I A P H N V G G S V L T A A S L Q L A G C T P N F K I L E H F N D F A D A E I K  
UniRef90\_UPI0003B2EC1D V C P H A G G V G L C E A Q H L S M F D F V A I S G T M E G R M I E F V D  
UniRef90\_T5L6E0 V C P H A G G V G L C E A Q H L S M F D F V A V T G T R E G R M I E F V D  
UniRef90\_W9H730 V A P H A W G S G A T V M A N V H W S F T Q P N I M V Q E I P T W G F P L R D  
UniRef90\_R4WPN5 V I P H A G Q M H N Y H L T M A S T A S P M S E F F P V F D V E V G N E L F Y Y  
UniRef90\_C6D1J0 V C P H V G D M G Q I H Q H L V A S T P S A I M L E Y I P W I R  
UniRef90\_A0A033U9T5 C M V G C M M E T H V S V T A A L H F S L A A E Q V N R V D F D A P L M V V E  
UniRef90\_S4XWV3 V C P H A G G V G L P E I V M Q H L S L F D Y I C V S A S L E D R V E H V D H L H  
UniRef90\_N6Y0U1 W G S H S N N H F D I S L A M F T H C A A A P G R I T A I D T H W W Q E G S E  
UniRef90\_M0CSN7 L A P H S P L S S V A L A A S I Q V D A C T Q N A I L Q E Q V L N E D V P N  
UniRef90\_UPI00037CFD7F C E I H G N G A P N L A V V A S I T N C Q W Y E R G L H P H M D Y D E A P A Y  
UniRef90\_H3B9I8 V C P H G G V G L C E L V Q H L I L F D Y I A V I S A S L I E N R M C E Y V D H L H  
UniRef90\_H6MZF2 W G S H S N N H F D V S L A M F T H V A A A P G T I T A I D T H W I W Q D G Q  
UniRef90\_UPI000367D3B2 I A P H M F P E L S I H I V A S I E N H S W L E Y M G W Y D  
UniRef90\_UPI0003FE67D0 M F C P H Y L G A S I G L L A S A H L L A G V G G D G L L E V D C N E N P L R D  
UniRef90\_U4V3Z0 V I N H V W G S A I S V A T N L Q L A A M P H L P G G L H P W E P M L E F  
UniRef90\_UPI000237B22B H T C D D S W G G D I J A A A C T H I G A T V K T E L L E G V W L A A P Y I E G  
UniRef90\_H8MGN5 A Y V T S S I D G V V A R A G A A H L A S A L P S G D L A S G L A V G R L F A D  
UniRef90\_L9WZB5 P L V T T T I D G V A R T A G A V H L A A S L P D P P A C G L A T G D L L A E  
UniRef90\_M4NHS2 C M I G C M L E T S I S V A A A V H V A V A K S N V I T K V D L D G S L C Q F  
UniRef90\_UPI000474C895 V S P H T Y D G A L A R C Y A A L Y A Q A C L K P W S K M E Q D S I E P V I E W D D  
UniRef90\_E0MRY2 I S T N H V W G S A V A V A T N I H L V A A L E P M P W L E F D T T H N A F R D  
UniRef90\_UPI0003708418 V M H L Y P E V G A H V M R V S E T S H W L E W Q N W F V N  
UniRef90\_UPI0002890D7E I A P H S A Q G P L C S L V C A H L N T A T P N F F I H E I F D D F N N D W T Q  
UniRef90\_G8DPM0 F A F H S T A A A H L G V C W P D Q V V E W P C Y S T P T R A G M Y P F P L T A  
UniRef90\_C5EQ28 V S L H C F G S A V L F G A S L H L A S M A N T E M M E S E N P N P L K A  
UniRef90\_A0A010JSV4 W G S H S N N H F D I S L A M F T H V A A A V N V I T A I D T H W I W Q E G T D  
UniRef90\_UPI000377533B M A P H W H H N L H V H L T A A V A N P L V V E Y F A L E K G I Y N F E L L L T  
UniRef90\_I2GQ20 V A M H S G A E F G I E L A A M I H T A A T I P H M T F A G D A H Y H Y L T D  
UniRef90\_W2EZ52 L A P H C P L G P I A L A A S L Q V A F A T P N F L I Q E H S I G I H Y N E G  
UniRef90\_F7YEL6 I A P H C Y C G P I V G A A N I Q L A V T L P N F L I Q E S L K Q W D G F H A  
UniRef90\_B8N4D1 L A P H C P L G P I A L A A S I Q V A L S T P N F V I Q E M S L G H Y N V E  
UniRef90\_J9VY40 W G S H S N N H F D I T L A L F A Q A S A A P G K I T A I D T H W I W Q D D Q  
UniRef90\_UPI0002FC8ACE C M V G S M I E T K L G I T A A A H F A A S Q K N I T R Y D F D A S L L L A K  
UniRef90\_D7A0Y2 M T I E D T W G G D I V T A T I A H A R S T P E E F S F S A T D F N S Y G T V  
UniRef90\_Q8G9L1 C F G A A T P E S S V M G A I S A Q L Y G T M P D L S V G C E L F G P G L L I D  
UniRef90\_A4FLW9 V V P H G S S V Y S Y H F V I T R H N S P F T E F L M M H P Q A T E V V P M F S  
UniRef90\_M2PHP9 L A P H C P L G P I A L A A C M Q V D T A P N F F I Q E M S L Q M H Y N E G  
UniRef90\_UPI000237AEE1 M A P H L Y A G P I E W A A N I H L A A S I P N L L L L E S I E T P F H D  
UniRef90\_UPI00047B61B8 V M V G C I D E C G L G I A A G L H F A L S R P N I L Y A D L D G H L L E L L D  
UniRef90\_UPI0003B325BF V I P H G H S L R A A L H V I S S Q S P M T F P L G E Y L I L K M R H Y Q  
UniRef90\_L0AG00 V M C G C M N E S N A S I A A A C H L A P L L D Y A D L D G S L L L D D D P Y D  
UniRef90\_J6LCEO W S W R R C P H G G H Q L S L N I A A G L G L G G N E S Y P D L F K P F  
UniRef90\_UPI000370D114 Y S R K E V H P H G G H M L A L H I V V G L G L G G S E A Y P G V F S P F  
UniRef90\_UPI0004779F50 I C S H G M H E L H V S L L A A L P H S G M L E V H S F P I D  
UniRef90\_M4MI92 L A P H L W A G A P C F F S G L H I C A A S F A S F V E Y S V G A N P M I H  
UniRef90\_D1CGG4 L L I S G L T D S M L T K M A C Q L G A A F G C Q G V P A A L N G S Q F I D D S  
UniRef90\_UPI00036CE738 L A C H Y T S S P V S A A M L L N M S I P N C A V Q E Y A P S S G W M D  
UniRef90\_X1RCJ0 T V L H F A G S P I A F M A N L H C A A A I P S F I A L E H H A L D L P F W K  
UniRef90\_UPI0002FC2E58 Y A P H V G W S G A I C V A A S L Q V A A A A E N C L A F E C M V Y R N P L R E  
UniRef90\_E8LMQ2 I A P H C P L G P V A L A S C L A A V D M V S W N A A L Q E Q S M G I H Y N Q G  
UniRef90\_R6H8E6 V W M G G M F D T G V S K R M H A A F A T L P G M D L P P D V S D Y S A Y F A H  
UniRef90\_W7IJG7 V M L G C L V A S L G I A A A V Q L T P H A R W V D L D G H L L A R  
UniRef90\_D2DIQ2 I A P H M Y C G P V A A A A V Q L D T C S P N F L I Q E Y N G G G L H Q

UniRef90\_UPI0003B6BD5A  
UniRef90\_K5DVM6  
UniRef90\_N9X766  
UniRef90\_W8QZ97  
UniRef90\_G2R5R1  
UniRef90\_H1SGW5  
UniRef90\_UPI0003820515  
UniRef90\_I4X6U2  
UniRef90\_F8D433  
UniRef90\_D0D090  
UniRef90\_B9JQ28  
UniRef90\_A6WA68  
UniRef90\_UPI00047EF14A  
UniRef90\_G5IN17  
UniRef90\_I3R9G0  
UniRef90\_A1HSF1  
UniRef90\_Q5V3S6  
UniRef90\_G0C976  
UniRef90\_G0ECY5  
UniRef90\_UPI000237505D  
UniRef90\_UPI0003831315  
UniRef90\_UPI00036B651B  
UniRef90\_T0IGY6  
UniRef90\_UPI00035F745A  
UniRef90\_M0LTJ3  
UniRef90\_G4MY85  
UniRef90\_M5UJV0  
UniRef90\_UPI0002E3A67A  
UniRef90\_W0P8J6  
UniRef90\_C4REQ5  
UniRef90\_UPI0002490A71  
UniRef90\_UPI00036A70D1  
UniRef90\_UPI000369E8FF  
UniRef90\_UPI000478AC32  
UniRef90\_UPI00045E6BFC  
UniRef90\_I3X5H7  
UniRef90\_M0LZ40  
UniRef90\_UPI0003B79259  
UniRef90\_G2P715  
UniRef90\_UPI0003B2EC1D  
UniRef90\_T5L6E0  
UniRef90\_W9H730  
UniRef90\_R4WPN5  
UniRef90\_C6D1J0  
UniRef90\_A0A033U9T5  
UniRef90\_S4XWV3  
UniRef90\_N6Y0U1  
UniRef90\_M0CSN7  
UniRef90\_UPI00037CFD7F  
UniRef90\_H3B9I8  
UniRef90\_H6MZF2  
UniRef90\_UPI000367D3B2  
UniRef90\_UPI0003FE67D0  
UniRef90\_U4V3Z0  
UniRef90\_UPI000237B22B  
UniRef90\_H8MGN5  
UniRef90\_L9WZB5  
UniRef90\_M4NHS2  
UniRef90\_UPI000474C895  
UniRef90\_E0MRY2  
UniRef90\_UPI0003708418  
UniRef90\_UPI0002890D7E  
UniRef90\_G8DPM0  
UniRef90\_C5EQ28  
UniRef90\_A0A010JSV4  
UniRef90\_UPI000377533B  
UniRef90\_I2GQ20  
UniRef90\_W2EZ52  
UniRef90\_F7YEL6  
UniRef90\_B8N4D1  
UniRef90\_J9VY40  
UniRef90\_UPI0002FC8ACE  
UniRef90\_D7A0Y2  
UniRef90\_Q8G9L1  
UniRef90\_A4FLW9  
UniRef90\_M2PHP9  
UniRef90\_UPI000237AEE1  
UniRef90\_UPI00047B61B8  
UniRef90\_UPI0003B325BF  
UniRef90\_L0AG00  
UniRef90\_J6LCE0  
UniRef90\_UPI000370D114  
UniRef90\_UPI0004779F50  
UniRef90\_M4MI92  
UniRef90\_D1CGG4  
UniRef90\_UPI00036CE738  
UniRef90\_X1RCJ0  
UniRef90\_UPI0002FC2E58  
UniRef90\_E8LMQ2  
UniRef90\_R6H8E6  
UniRef90\_W7IJG7  
UniRef90\_D2DIQ2

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

UniRef90\_UPI0003B6BD5A  
 UniRef90\_K5DVM6  
 UniRef90\_N9X766  
 UniRef90\_W8QZ97  
 UniRef90\_G2R5R1 W  
 UniRef90\_H1SGW5  
 UniRef90\_UPI0003820515  W A  
 UniRef90\_I4X6U2  
 UniRef90\_F8D433  
 UniRef90\_D0D090  
 UniRef90\_B9JQ28  
 UniRef90\_A6WA68  
 UniRef90\_UPI00047EF14A  
 UniRef90\_G5IN17  
 UniRef90\_I3R9G0 W  
 UniRef90\_A1HSF1  
 UniRef90\_Q5V3S6  
 UniRef90\_G0C976  
 UniRef90\_G0ECY5  
 UniRef90\_UPI000237505D  
 UniRef90\_UPI0003831315  
 UniRef90\_UPI00036B651B  
 UniRef90\_T0IGY6  
 UniRef90\_UPI00035F745A  
 UniRef90\_MOLTJ3  
 UniRef90\_G4MY85 W R S  
 UniRef90\_M5UJV0  
 UniRef90\_UPI0002E3A67A  
 UniRef90\_W0P8J6  
 UniRef90\_C4REQ5  
 UniRef90\_UPI0002490A71  
 UniRef90\_UPI00036A70D1  
 UniRef90\_UPI000369E8FF  
 UniRef90\_UPI000478AC32  
 UniRef90\_UPI00045E6BFC  
 UniRef90\_I3X5H7  
 UniRef90\_M0LZ40  
 UniRef90\_UPI0003B79259  
 UniRef90\_G2P715 F  
 UniRef90\_UPI0003B2EC1D W R  
 UniRef90\_T5L6E0  
 UniRef90\_W9H730  
 UniRef90\_R4WPN5  
 UniRef90\_C6D1J0  
 UniRef90\_A0A033U9T5  
 UniRef90\_S4XWV3  
 UniRef90\_N6Y0U1  
 UniRef90\_M0CSN7  
 UniRef90\_UPI00037CFD7F  
 UniRef90\_H3B9I8  
 UniRef90\_H6MZF2  
 UniRef90\_UPI000367D3B2  
 UniRef90\_UPI0003FE67D0  
 UniRef90\_U4V3Z0  
 UniRef90\_UPI000237B22B  
 UniRef90\_H8MGN5  
 UniRef90\_L9WZB5  
 UniRef90\_M4NHS2  
 UniRef90\_UPI000474C895 Y W  
 UniRef90\_E0MR Y2  
 UniRef90\_UPI0003708418  
 UniRef90\_UPI0002890D7E  
 UniRef90\_G8DPM0 W  
 UniRef90\_C5EQ28  
 UniRef90\_A0A010JSV4  
 UniRef90\_UPI000377533B  
 UniRef90\_I2GQ20  
 UniRef90\_W2EZ52 W R  
 UniRef90\_F7YEL6  
 UniRef90\_B8N4D1 W  
 UniRef90\_J9VY40  
 UniRef90\_UPI0002FC8ACE  
 UniRef90\_D7A0Y2  
 UniRef90\_Q8G9L1  
 UniRef90\_A4FLW9  
 UniRef90\_M2PHP9 E K A  
 UniRef90\_UPI000237AEE1  
 UniRef90\_UPI00047B61B8  
 UniRef90\_UPI0003B325BF  
 UniRef90\_L0AG00  
 UniRef90\_J6LCE0  
 UniRef90\_UPI000370D114  
 UniRef90\_UPI0004779F50  
 UniRef90\_M4MI92  
 UniRef90\_D1CGG4  
 UniRef90\_UPI00036CE738  
 UniRef90\_X1RCJ0  
 UniRef90\_UPI0002FC2E58  
 UniRef90\_E8LMQ2  
 UniRef90\_R6H8E6  
 UniRef90\_W7IJG7  
 UniRef90\_D2DIQ2



1 10 20 30 40  
UniRef90\_UPI00016C0F24 T V K T Y G G I D L M L T E K E L L E S L D V K L K E G H T R V K I K V G  
UniRef90\_UPI00037E93FF R E V L T T D V T L S A G A A D A L L A D T A R A R V S D G F R T L K M K V G  
UniRef90\_A0RF52 K K E I H T D I T L V S V F D S P F E I M A K Q E A K Q H V E K G F Q A V K I K V G  
UniRef90\_Q3JDV3 R A E A P V Y G S G G F T S S P E I Q L Q Q K L G G W A N E G G I Q A V K M K V G  
UniRef90\_UPI0003B377A3 P C Y V T T G W L G Y S D E K L K R L C V D A K Q K G F E R V V K L K V G  
UniRef90\_UPI0003B4C6F6 S V P V S A A I G I Q T Q Q V R A L N Q V T R K G F Q R A I K M K V D  
UniRef90\_UPI0003698D63 R E K I R V Y K W I G G D R P G D V A S E A T R L A E A G F T A L K M H V E E  
UniRef90\_M0MPZ1 R S R I R M Y K H V I G D S T T E E A V Q S A K Q A V E G F T M V K A G L I G  
UniRef90\_C6J516 R A H A D I Y G S G G F T S D D R Q L R G Q L A G W V E R G C R A V K M K I G  
UniRef90\_UPI000463EC8B S V A A D A T L S E T V E A Y K P L I A K A K E R G A K A V K V K V S  
UniRef90\_A8H7M5 T T S A G S W L G Y S E D K V R R L A R E G V A E G W T H F K Q K V G  
UniRef90\_Q126W9 F R T S L P A Y A S S A V L P T P S A Y A E E A Q E F K A N N W A Y K I H P P  
UniRef90\_UPI0003743106 Q A V P A Y T T G W L G Y S E D K M K R L L Q E S V Q Q G F K Y F K I K V G  
UniRef90\_C7ZQR1 A D P E A C A D E A E R V V D E G Y D A L K F D L G  
UniRef90\_L5NJ36 T P V A V V R L A E A A R E R G F R A V K M K I G  
UniRef90\_W0RG79 S H E Q I V E Q A C C L Q D K G Y R N F K L K G G  
UniRef90\_G5HGL7 R D R V R V Y G W V G G D E P T E V A D H I R E Q V E A G L T A V K M N A S  
UniRef90\_UPI00045E7A2C P A Y T T G W L G Y D E D K V R R L C R E A L D D G W E H F K Q K V G  
UniRef90\_W1N198 R T A I P L Y A N T W F M N A E E D F A C S A V K T V N L G F K A I K W K V A  
UniRef90\_U2LIN4 R D A V P A Y A S V N L D Y S P K E E L L D Q V R R W K A A G H R A F K M K V G  
UniRef90\_UPI0003496C13 R E R V P L Y G S G G F Y S D D E M R E Q L S R W V F E D G C R W W K I K I G  
UniRef90\_G8MKU1 Q E T L A C Y G S A G M Y Q S P E K Y A E E A A V C E L G F E A Y K F R I L G  
UniRef90\_UPI0003715FEA R N K I L M Y A H I T V N P T T E E L C E K A Q L R V R Q G F D A V K L H I D  
UniRef90\_F0Z003 D K L R T Y A S F D W D T E P E E Y A E A L K A V A Q G Y D A V K V D I V  
UniRef90\_E3BJS5 P A Y T T G W L G Y D D A K L A R L T R E A V A D G F T Q I K L K V G  
UniRef90\_UPI00047E22D6 S Y T T V G L D D L D H M R E K T A E A Y E A G Y G V L K V K V G  
UniRef90\_D4GUW6 P A Y T T G W S G Y S D E H M R N L C R T A L A E G W T R F K L K V G  
UniRef90\_U6U064 R P E V L V S A L L S E E N P E A L A E Q A R K A V A E G Y A T L K L K V A  
UniRef90\_L7UDQ1 P A Y T T G W M G Y S D E K I R S L A K E F M A K R F N T A Y K M K V G  
UniRef90\_C1C1W7 R S A I P I A W T L A S G D T K R D L D S A V E M I R R F H N R F K M K L G  
UniRef90\_P05404 R D R V R V Y G R A S S G E E I K K R K A E G Y T V I K F K K D  
UniRef90\_D2QIL3 R D R V P A Y A S L D I G L D D E E L A D A Y R R Y A E R G V R A A K L K L D  
UniRef90\_UPI00040439C4 K Q R L P V Y S T I S I G W N Y S D D K V A D N I K A M D N G F T A M K L K V G  
UniRef90\_K1PQQ4 S I G W N Y S D D K V A D N I K A M D N G F T A M K L K V G  
UniRef90\_UPI0003F72A85 T V E D I I E E A H A V R E R G V K D F K L K G G  
UniRef90\_U5RU29 F R D S V P T Y R T T S P M L D K S C R E F A D Q V K S H G F K A V K L D W V  
UniRef90\_UPI0003B6E886 D K V W V Y A A G G Y Y P G K K L Q D E M R S Y L D R G Y S V V K M K I G  
UniRef90\_HOHHV6 R D A I P V N C T V P A V I G P E R A A E I V R A S G C R T A K V K V A  
UniRef90\_D2PVS3 K V R A Y G S S M R D I T A Q D E A D R L K R H V R E R G F T A F K F R I G  
UniRef90\_B9QYL8 F R D T V T A Y A T I D M D R L V E E A V E E A L E Y K H G G F S A I K M K I G  
UniRef90\_I3U6Z0 T S F T I S Y D A D P K E M N A K L D E T P A Y K V I K I K M G  
UniRef90\_R7IY91 R D E M R C Y A N G W Y E A S P D D F A R A T E R P L K D G Y T A L K F R E A  
UniRef90\_D0DD19 P V Y A L L G G A V R D E A T G A R P D L A Q Q L G F I G G K M P L G  
UniRef90\_F5XJ21 R T A L T A G V T L P R Q A T V E S Q L V T E V N R Q V G A G F R R I R L S V G  
UniRef90\_UPI00034BD811 K D R L S Y A K V L S V K T F F E S L K N D I D V L E G G Y N V I K V K L G  
UniRef90\_B9E714 R T E V E C Y A W F A G A R T A A E F A E R A R D A V E W G Y R A V K W D P S  
UniRef90\_C5C209 G W F A Y S D E R I M E N A R H A L D L G F T A M K L K V G  
UniRef90\_UPI00035FB506 Q D G I L A Y V S G L P E P T R E K R A E L A L S W Q E K G F H A F K F A S P  
UniRef90\_G8PGS1 R D H I E I Y G S G G F T T S D Q Q L A Q Q L H R W V D A G C R A V K I K V G  
UniRef90\_W5YE95 R A S I E A Y G S L G Y S L E P D K A Q S R A V Q L K K E G Y R Y Q K W F L G  
UniRef90\_Q024C6 Y R D S V R V Y C H A G E E E D P Q A N A D E A E R V V E E G Y D A L K F D L G  
UniRef90\_M0MDD7 H R T P L P V Y A N I W S D T D D D S L A M R A S D L V A Q G Y V A V K I H P S  
UniRef90\_A6FP69 Y R E R I P T Y A S T G G L D S P E A F A D F A E E C R D E G F G G F K I H W G  
UniRef90\_G0HRT2 Y R E S I P A Y A S S A V L A S R E A Y A E E A V G F R D G G W A Y K I H P P  
UniRef90\_A8TWF3 R D G V L V Y C H S F G E D L A A L E D V A R H K E L G Y R A I R V Q S G  
UniRef90\_UPI000479A33D K D R M D F Y C T G P N P P A A K A M G F W G A K V H I G  
UniRef90\_G2X969 Y R S S L P V Y A S G N F H S T V K E Y V D E A L H Y K A L G V P G Y K A H P A  
UniRef90\_UPI00045E78B8 I T I G I D T P E N M A K K A Y D Y V N M G Y R I L K I K I G  
UniRef90\_J4WDC4 R D Q I E L Y C T G I R P D I L D G L R K E L S A Q Q A G F I G G K M P L G  
UniRef90\_UPI000289B8ED Q K I P T Y A S G G F Y A P L D G L R K E L S A R K K G Y K D A K I K I G  
UniRef90\_D2RMR1 Q M P V I S S I Y M G D P D D M R R R V A E S H R Q L G Y L A H S V K I G  
UniRef90\_B5ZZ45 M P L Y H S I T C V M S D D M A R I A R Q A Y A T G I R Q F Q V K L G  
UniRef90\_UPI0002378B12 P A Y T T G W L G Y S D E K L R L S R E A V A D G F G M V K L K V G  
UniRef90\_W9GDS6 R D K M R T Y S W V G G D R P A D V I A G M K A L Q A G G F D H F K L N G C  
UniRef90\_B2UCA8 R D E I E L Y C T G I R P D A A K E A G F I G G K M P L P F A P V D R H E G  
UniRef90\_UPI000369CBA5 P A Y T T S W L G Y S D D T L K Q L C A Q A L K D G W T R F K V K V G  
UniRef90\_Q7L5Y1 R V P T T W V V G L G G V A E S A E E A A R Y A E C G F P H I K L K G G  
UniRef90\_UPI0003804466 E A V P A Y I S G L P K P T L R E R Q A M A V E W Q G R G F Q R F K F A P  
UniRef90\_G9ZY7 M P L Y H S I T C V M S D D M A R I A R D A Q A Q G M T Q F Q V K L G  
UniRef90\_A3SNF6 D H L L S D I T I S M N S A E E M V K D S Q Q A I E N G F S I L K I K V G  
UniRef90\_G8QRB7 R T E V A V Y G S G G L T R D D D A K L R R L A Q E A V D A G F R H I K L K V G  
UniRef90\_M3BJM7 P C Y T T G W L G Y D D A K L R R L A Q E A V D A G F R H I K L K V G  
UniRef90\_J2H037 R D V L D F Y C T G P E P V A A R E M G F F G A K V P L G  
UniRef90\_U4LA97 Y G D D E L R G Q L A H W V H E Q G F T R V K I K V G  
UniRef90\_UPI000381C288 Y N T K I A V Y Q A N G R D I T A E E T I E H I K R D V A S N A K A I K F K L G  
UniRef90\_UPI000364AF6A F T D G M R V S H M L G F A E S Q K L L D E A L R M R D Q Y G I D T F K L K V G  
UniRef90\_UPI00047AD7D7 R S A V T V Y G H A S G T D I D A A L A D V A R L V D L G Y R A V R V K G G  
UniRef90\_R4LFS4 V P V I S S I G G D T P E A M R A K V A R H R A Q G F K G H S I K I G  
UniRef90\_A3SNG0 E V H T D V T L S A G E A A D L A A A K A R V I G E G F D V L K V K I G  
UniRef90\_UPI00035EF86F T P K D E A A R L S R L R D R F G F D A F K F R I G  
UniRef90\_A9D2J3 R D K V R V Y N H V S G R T E E E L V S A I R G K E E G F T A L G H I L N  
UniRef90\_W3ASZ5 Y A S Q L F G D T P E E T Y Q K A K Q T N A A G Y K A V K F G W G  
UniRef90\_UPI000360AD5C Q V P V G I A L G V N S P T E I K Q A M V D G Y R R I K L K I T  
UniRef90\_B1MZ25 F R D R V R I Y G D T P A T A T P P E G Y V E I V K Q R A V L G T F I K F D L G  
UniRef90\_UPI00047781F6 R Q R M P A L W V L G H G E A R R D I E A Q S L L E S R S H R L F L V K V G  
UniRef90\_UPI00046EFF50 R N K I S V Y A W L G G D R P A D Q M L S Q A T A Y M E R G F N H L K L R V G  
UniRef90\_F2RU64 C Y A T T L F W S Q E Q M L S Q A T A Y M E R G F N H L K L R V G  
UniRef90\_I0QS13 R E R I R A Y A W I G G D E P E E I R D A L T A Q I E A G F T A V K M R A E  
UniRef90\_A0A014M7L1 R D R V R A Y A W V G G D P A E V R D A V T A Q L E A G F T A V K M R A E  
UniRef90\_X0MUQ6 R D R Q P F Y A T G A R P D L A E G M G F L G G K M P V G  
UniRef90\_UPI000367987A T A M P A Y A S G I N H P G V A E T V A R T R Q E G Y R A F K V K I G  
UniRef90\_G1UVE5

UniRef90\_UPI00016C0F24 R E E D I V D R V I A S V R R D A V P D D V A I R L D D A N Q G W T R E E A V I R V F A Q N I  
UniRef90\_UPI00037E93FF T D A D L V Q R V I E A L R R E A I P G E V T T A I R L D D A N Q G W T R E E A V I R V F A Q N I  
UniRef90\_A0RF52 A H L Q D P K R V I E A L R R E A I P G E V T T A I R L D D A N Q G W T R E E A V I R V F A Q N I  
UniRef90\_Q3JDV3 P E Q D D P K R V I E A L R R E A I P G E V T T A I R L D D A N Q G W T R E E A V I R V F A Q N I  
UniRef90\_UPI0003B377A3 K N D D M R R L A I A R T L G P E V I K I M I D A N A Q V W E V D Q A L W M K S L S  
UniRef90\_UPI0003B4C6F6 P Q T A L T L I K A M R K Q H F G N G Q M V S L D A N A A W S N Q D P A S W L R A R A M F  
UniRef90\_UPI0003698D63 R H E D I E R V I E A M R A K A I P G N G F P L M A D D A N M K W G V D A I R A R A R A F  
UniRef90\_MOMPZ1 G R E I V S R V L E H V R S E V D D D V D M A V I D C R G R V S K S M A K T T R R R L T  
UniRef90\_C6J516 A A A Q V E R M A V I R A A I P H D L F A I D F H G R V S P T F A I Q L J A K R F  
UniRef90\_UPI000463EC8B P A R D P A R M A V A K A A I P G D A H L F I D A N G A F T P K R A I I G A A Q V A  
UniRef90\_A8H7M5 D K E I V A Y L R E L R E V I G D M D M M V D C L Y R W T D W Q K A R W R Q L E  
UniRef90\_Q126W9 G E E D I R R A T L R E E I G D R Y T L M M D A N Q V W E V D E S I R M V R R L A  
UniRef90\_UPI0003743106 A R W D L A V C E A L R R A V G D Y T L M L D A T W S Y D F P D A L R V G R A I  
UniRef90\_C7ZQR1 T D E D R R R L K I A R E V L M G N V L M V D A N Q V W S V P E A L H M Q A L E  
UniRef90\_L5NJ36 H E K D A E I V E K V T E R V K D D A D V A F D C H W T F S G G S A K R A A E R L E  
UniRef90\_W0RG79 G D A E A E A V V A L A E R F V K D D A R V T L D P N G A W S L D E A V R L C E R G L  
UniRef90\_G5HGL7 G D Y E M D T V R A L K K Q F P Q G R V I N I D P N G A W S L E E A V R L C R G M  
UniRef90\_UPI00045E7A2C G D S V V Q R R V A A A R G D E I G D G Q R V L M M D A N Q V W F T L A N E T R R V J A P L E A  
UniRef90\_W1N198 G E E D R R R A A I R D E I G E Q R L M M D A N Q V W V D I D N A T I R N M R L L A  
UniRef90\_U2LIN4 G G I E C V K A V R E A V G D I E L F T E L H G S L S Y D G A L D F R N L V S E  
UniRef90\_UPI0003496C13 P A R D A D R V A A V R E V G P E A V L M V D A N Q R W N L P S A V L R A G E L S  
UniRef90\_G8MKU1 P A R D P H R V R V A R K A I G D A G L F V D A N G A L D C K P A L R D Y A Y F S  
UniRef90\_UPI0003715FEA P A E D L R T V E L M R E A V P E V G L C L D A H T W S M G D D S Y S P G I V  
UniRef90\_F0Z003 T D E A D I E K F G E L R K A V G D D I H I A L D F H G R V S P A M A K R C M E K I E  
UniRef90\_E3BJS5 Y D A D G Q R L R A I R D A V P D D V D I I F E S H S L M G A A S A K Q M E V I E  
UniRef90\_UPI00047E22D6 G D D D V R R L G I A R E I G P D V R I A V D A N Q R W D V D E A V R M T E F L L A  
UniRef90\_D4GUW6 T D R D R A I I E A V R D E A P G V V I R V D A N E A W T P R E A A L H M R D L A  
UniRef90\_D6U064 P E D D A R R A R I M R E A G P Q N L M M D A N Q V W E V P D A K R S D R L G S  
UniRef90\_L7UDQ1 G E E D E R R V K A V R E A V P D V K L R L D A N G G W S E P D A K R S D R L G S  
UniRef90\_C1C1W7 R D D D K R L R V I R D I I P D D S K L M V D A N Q V W G V Q E A T V W M K E L S E  
UniRef90\_P05404 P Q D D L I H M E A L S N S L G K A Y L R V D V N Q A W D E Q V A V Y I P E L E E  
UniRef90\_D2QIL3 P A N I V E N P R F I R N A I D D M D I A I D F H G S I P Q Q T A I L I K E L E  
UniRef90\_UPI00040439C4 V E R D R T R L T V R E L T E A G L M L D A N E T W T R K Q A V R H V E A L E  
UniRef90\_K1PQQ4 L K K N V E I F K R W R E T V P D F P L M L D C Y M A L T Y T V I K A R A L E  
UniRef90\_UPI0003F72A85 A G R D I R R A A L V R K I A G D A T I M F D A N Q Q W N L P Q A I I C K E L R  
UniRef90\_U5RU29 G E K E I E T I K A L A K E F P D D A N V N I F D P N G A W S L E E A I R L C K D A  
UniRef90\_UPI0003B6E886 R R Q D I D E I R L R E A L G D D E A V H C H W E F D W A D A L A R A R A V  
UniRef90\_H0HYV6 G E E D I A R I E A V I D V V G D G R L R V D A N G R F D L Q T A I A Y A E L K  
UniRef90\_D2PVS3 E A D D L E R V I E A V R D A L G D G R L R V D A N G G W S V D E A V R A K D L S E  
UniRef90\_B9QYL8 P G R T E L V P L M R K S F D D T A L V D A N S C Y S P G K A M E V R L E E  
UniRef90\_I3U6Z0 P K L D L A R V E A V R K A I G D I R L M V D A N H C F T V P A A I R G R E L E  
UniRef90\_R7Y91 E D H D K E L V E A I R A R T V P I C V D A N G G W D N K E L E M C H Y L L A  
UniRef90\_D0DD19 E D L A V A R V R A V R D A V P D D V D L M L D S G G V I A P E A I R C E R F A  
UniRef90\_F5XJ21 L R A N V A E L A A M R E K V G D F W L M W D C W M S L E R E Y A V R L A G A N  
UniRef90\_UPI00034BD811 G G W D A D V I H Q A I R A Y P F L V L R V D A G G R Y T E D P A D I L R V L D  
UniRef90\_B9E714 P G S D C R K L Q A I L D Y V D E I E V I R V D C N Q A W S S P K A Q M V N Q L D  
UniRef90\_C5C209 A F R T V D R G E V A E A V G D D A G L I V E A H G R F E V P T A L R V R A L E  
UniRef90\_UPI00035FB506 P E R D V R R V K I R E A V G D V R I M V D A N H Q A W S L P K A L S C Q Q L A  
UniRef90\_G8PGS1 V A D D V A E I E H I R S A L P K A L I A A D M A N Q N Q T A D E A L S J E G M A  
UniRef90\_W5YE95 P A R D P H R L E I A R C A I G D A A L F M D A N G A M D V K A A I G R R A M E  
UniRef90\_Q024C6 P G D N V D I V R V L R E A V G D T E L A M F D V Y S G W D L S Y A L S W A R Q V  
UniRef90\_M0MDD7 H E K D A E I V R A V T E R L G R A D A F D C H W A F T G G S A K R I A H E X  
UniRef90\_A6FP69 A P Q A V D V V R H V R D A I G D I H L M V D M D S Q D D L E T S L F V A E R I  
UniRef90\_G0HRT2 G G D D V E A V H A V G E A V G D M D L M H D A C E L E T F A D A L E G R A L D  
UniRef90\_A8TWF3 G P W D L I C R A V R A A V P E Y R L M L D S T W S Y K Y E H A I K V G R A I  
UniRef90\_UPI000479A33D I E W E T E L F A R V R Q A F G D L Y L L H D C H H R L T P E A A R L G K E L E  
UniRef90\_G2X969 L K K N V E Y L R A M R E S V P D F P L M V D C Y M S L N V I T E L A K A C  
UniRef90\_UPI00045E78B8 G A F D M E V H K A L R D A V G D Y I L M S D P V A E Y T M G D A V I G R Q L E  
UniRef90\_J4WDC4 P K D D L S A I K S I R D K V G D I K L R L D A N Q G Y S I S T A I Q F E D V K  
UniRef90\_UPI000289B8ED L K A N V K Q F Q E A R E R V P D F L L M A D C W M A L T D L S Y A V E L A Y L R  
UniRef90\_D2RMR1 R E E D W Q R I Q A A H E I M E D G M L M V D T N A T W T A D Q V I Q N A P L Q  
UniRef90\_B5ZZ45 P A I D A A R I A A L A D K R P G E F F I V D A N G G M T V E T A L R M L R L L  
UniRef90\_UPI0002378B12 A D A D A E R L A K V R E A V G D G P P V L V Y D W N C G A T K L Q A T R T G R A V  
UniRef90\_W9GDS6 G E D D R R R L G L V R H E L P Q L P V I A I D A N Q R W D V A Q D A T R W S A L A  
UniRef90\_B2UCA8 E E M G I A R V A E I R S A F G N V I F G L D F H G R V S A P M A K V I K E L E  
UniRef90\_UPI000369CBA5 L K A N V E H F Q E M R N K V I G D F W L M A D C W M S L D V S Y A V E L A N A M  
UniRef90\_Q7L5Y1 A D D D M R C Q I E R D M I P E K T L M M D A N Q R W D V P E A V W M S K L A  
UniRef90\_UPI0003804466 P D R D V E L V S A V R K S V P D V A L S L D A N E G Y A P G S A L R T A R L S  
UniRef90\_G9ZY7 V A D D V A E I A G L R G A L P D A A I A C D M H W A H T A E Q A L A I R G M E  
UniRef90\_A3SNF6 A D A D V A R L S H V R E A V G P G P L V Y D W N C G S D S L T A S R V G R A V  
UniRef90\_G8QRB7 G D L D M H R L E A I C A V L P D V K L R V D A N Q G W D A P T A T K I I R E Y  
UniRef90\_M3BJM7 E S W D L H R T A L A R R T A G D A E L M Y D A N G G Y T R K Q A V R M A A A M  
UniRef90\_J2H037 A A D D I R R V S L A R E V L P D R T E L M I D A N Q V W D V E E A I D W V N A L  
UniRef90\_U4LA97 P D D N I E F L R K H R E S V P D F P I M V D C Y M A L T V P Y T I Q L A T A C  
UniRef90\_UPI000381C288 E G R D L E R L R L A R E A I P E A E L F A D A N G G Y T A K Q A I R L A P L A  
UniRef90\_UPI000364AF6A G R S E K L I P L V R K T F G D M V I S A D A N G G Y T A E A I P I G K L M  
UniRef90\_UPI00047AD7D7 R G L D I E A C H V L R D G L G E T E I Y L D A N R G W T A N E A M E V L R Q T  
UniRef90\_R4LFS4 P T Y E P A V F A V R A D E F P A L R L L H D V H H R L T P E A A R L G R S L E  
UniRef90\_A3SNG0 P A L D A E R I T A L A D R Q P A G E W Y L L A D A N N G L T V E H A L R M L S L L  
UniRef90\_UPI00035EF86F A A A D I A R V K A V R E A S G D V R I R L D A N Q G W T P R E A V R V I R A A  
UniRef90\_A9D2J3 P G R T E E I V P T I R A A M D D V A L L V D A N S C Y G P E Q A I E V S K M L E  
UniRef90\_W3ASZ5 P Y L D E R R I A K V R E A V G D V D L H R R R L E P G L A V Q S A R L E  
UniRef90\_UPI000360AD5C P E K D I A H L K A A R E G M G D A F L M I D A G T V W G E A V T A A Q A L R  
UniRef90\_B1MZ25 P E V L R Q L K A Q H E H F P E Q K F S L D A N G S F A Q S P N E L I Q Y D L E  
UniRef90\_UPI00047781F6 V E L A A E I T A V R A A V G D I S V L R D H G F V T A D E A I R I G O A L L E  
UniRef90\_UPI00046EFF50 P A E N V R R A L D I K A A L G E A S V R V D A N Q G W D E A T A S W C E R L E  
UniRef90\_F2RU64 A A A S V E R L K T V K N L G L D A A L D F H G R L H Q P M A K Q L A K M E  
UniRef90\_I0QS13 I D D D I D R L T A L R R R F G D A V D L S A D A N G Q W Q P E Q A R S H L A L Q  
UniRef90\_A0A014M7L1 I R A A V R R A E T A R E V L G D R D F G L D F H G R V S P A N A R R L L P L A  
UniRef90\_X0MUQ6 V R A V L R R A E T A R Q V L G D A F L G L D F H G R V S P A N A R R L L P L A  
UniRef90\_UPI000367987A L A E T V E Q F R A M R D V D E A F W L M A D C W M A L D V D Y A T R L A G L H  
UniRef90\_G1UVE5 F G R D E A N I R A A L D L L P G E R L A A D V N Q A W T L E Q A L E A P R L S

UniRef90\_UPI00016C0F24 E Y D I A W F E E P T N P D K Y K D Y A K I S E N T I P I A M G E N L H T A Y  
UniRef90\_UPI00037E93FF D L G V E F V E E Q P V V A D D V E G L A W V V R E R V G L T P I V I M A M D E S S Y G Y G S A Y  
UniRef90\_A0RF52 E L N I E F I E E E Q P V V H A S K D D W D G L K Y R L K R D R H V Q T M D I A M A G E E Y G Y F S A Q Y  
UniRef90\_Q3JDV3 K Y R V I T F I E E E P V S S A K D D L E G L K R L L R G D R G P M D I A M A G E E Y G Y F S A Q Y  
UniRef90\_UPI0003B377A3 E F N P Y F I E E E P T S P D D I I G H K K I R E G Q Y P Q K I V A T G E A S V I Q N R I  
UniRef90\_UPI0003B4C6F6 K A G L L A L I E E E P T H I D T T L H E F H Q L Q Q G Q F Q Q K I S A L D G E N L L R N L R  
UniRef90\_UPI0003698D63 P H D L T W L E E E P T I P D D D P A G H A R I V R E G G G L P L A A G E E N L R S N L R W  
UniRef90\_MOMPZ1 E F D L L F V I E E E P V L I P E N L I E H L P V I A N Q S G T P L A A G E R L Y S R W  
UniRef90\_C6J516 E L D L L F I E E E P C L L P E N V D A M V T V A R A P A S T S P I A A T G E R L Y T K W  
UniRef90\_UPI000463EC8B E F G V T W F I E E E P V S S D D D P A G M A S V V A R A P A G M E V I A A G E E R V Y V I T L D  
UniRef90\_A8H7M5 D I D L Y F I E E A C L Q H D D L I G H Q K L A A A I N T R L C G A G E M S T T R F  
UniRef90\_Q126W9 A F E P W W I E E P T S P D D D I L G H A A I R A R I A P I G V T G E E Y C H I T N R V  
UniRef90\_UPI0003743106 E L G F H W Y E D P L S D Q D I L Y N S A K L K Q H L N I P L M A T E Y P I T N G L  
UniRef90\_C7ZQR1 E F K P W F I E E P T S P D D I L G H A A I R K K G L S D T T Y G P E M C Q N R I  
UniRef90\_L5NJ36 D Y D V W W L E E P V P P E N L D V I Q E E V T K K S T L T P I T V G E N R Y R V T  
UniRef90\_W0RG79 R G V L A Y A E D P C G A P E N G R E I M A E F F R A R I A L P V T A T N M I A T N R V  
UniRef90\_G5HGL7 G S I L S Y I E E D P C G P E S R E I M A E F F T N A T G L L V A T N M I A T N W R Q  
UniRef90\_UPI00045E7A2C P F R P L F L E E E P V L P E N S H L M A D F T R N R I F D S G I T G E R C H Y N R V  
UniRef90\_W1N198 E F N P H W I E E E P T S P D D I L G H A A I R R N R I F D S G I T G E R C H Y N R V  
UniRef90\_U2LIN4 L F K P G F I E E E P M H P D N F T G Y R K L A K S D I P I A A G E R Y F T R F  
UniRef90\_UPI0003496C13 R F A P A F V E E P L P A E D L A A H A R L R S R P A L P F A M G E N L R T E R  
UniRef90\_G8MKU1 E E N V A W I E E E P V S S D D V V G L S S L R S D P A H M E L V A A G E E Y G Y T Q D  
UniRef90\_UPI0003715FEA E H G V T W L E E D P L P V E D R D G Y A R L K A I S Y I D I A A G K H E Q D L L  
UniRef90\_F0Z003 K Y D C M F V E E P V L P E N T S A I L K R V A D N V K V I P I A A G G E R L Y F T T W  
UniRef90\_E3BJS5 E V G C M F Y E E P V N Y N S A I H K K V A D N V K V I P I A A G G E R L Y F T T W  
UniRef90\_UPI00047E22D6 A F D P W W V E E E P T S P D D V L G H A A I E R I A P V R V A T G E E H V A N R V  
UniRef90\_D4GUW6 D H G V E F V E E Q P V P A E D H E G L K F V Y D R A G A L P I A A G E S C I T A A  
UniRef90\_D6U064 Q F Q P W W I E E E P T S P D D I L G H A R I V Q R A A P I H V I A T G E S H V Q N R I  
UniRef90\_L7UDQ1 W Y G L E L V E E Q P T P A D D L S A L W R V Q R R A P C M V A A T G E S L V G S P E  
UniRef90\_C1C1W7 E F Q I T W I E E E P T S P D D L L G H I T I R R P F K I G I A T G E S V C N R V  
UniRef90\_P05404 A L G V E L I E E Q P T S G R E N T Q A L R R L S D N N R V A I M A D E S L S T L A  
UniRef90\_D2QIL3 R Y Q P M F V E E E P C Q A Q N V D T M V D I A R G T H L P I A A G E N I F T K W  
UniRef90\_UPI00040439C4 E L D L T W I E E P V R R W D A E G L A A V Q R A L R S V A S G E N L T G I E  
UniRef90\_K1PQQ4 P L G L K W I E E E F L P P D S Y D G Y R E V R E A L R S S T T A E H E Y S R Y  
UniRef90\_UPI0003F72A85 E L D P F W I E E E P T H P D D V I Q A H V K L A S T V D V K L A L G E H V P N K M  
UniRef90\_U5RU29 G T A L S Y A E E D P C G P E K R E I M T E F K R A T G L R V A T N G M I A T D W R  
UniRef90\_UPI0003B6E886 P I N P M W L E E D P M P P L Y A D T W V K L A A A S P W L A T M G E N L F T R H  
UniRef90\_HOHYV6 P Y N L F W Y E E A G D P L D Y A L Q A E L A G H Y D L P M A T G E N L F S H Q  
UniRef90\_D2PVS3 R F R L E Y V E E Q P C C A S V E D L A L V R R R T D V L V A A D E S L R S A E  
UniRef90\_B9QYL8 A N G I S H Y E E P C C P Y W H F D Q T K Q V T D A L S D L D V T G G E S Q D C S M V  
UniRef90\_I3U6Z0 K L D V E W F E E E P I S P E D L D G Y V Q V T Q A L D M A V A G G E N E Y T R W  
UniRef90\_R7Y91 G K N C L F V E E Q P M D K S R L D D T A W L R E R S P L I A I A G E F L Q R L P  
UniRef90\_D0DD19 E F D I Y F V E E E P V D P A D T A G L A E V L A R A V P M P V I A G G E R H Y T R E  
UniRef90\_F5XJ21 A Y G L K W L E E E P L T P D D Y W G Y R D L R A R Q L P P G M T T G E H E S T R Y  
UniRef90\_UPI00034BD811 E L D L L A I E E D P F A P D D L R A G H A R F A Y A T A R T P V A L H D R S L D S V A  
UniRef90\_B9E714 Y P N L M W I E E Q P L S Y N E L I G L N Y L A Y A N H M K V P L M V G E R L Y T R W  
UniRef90\_C5C209 P F D L L W L E E E P L T P G N T A A L A E V R A A T S T P I G V G E R L Y T R W  
UniRef90\_UPI00035FB506 S M Q P Y W V E E E P T Q P D D I L A H Q T I A R A A P V P V V G E A V S N R V  
UniRef90\_G8PGS1 P Y G L W F A E A P V R T E D I N A L A Q V I A S Q S T S Q K I A V V G E A V S R T W V  
UniRef90\_W5YE95 A W G V C W F E E E P V S S D D I E G L T A I R A H L P A P M E A G E E Y T Y N V D  
UniRef90\_Q024C6 E Y R P R W I E E A T Q A E K L D S F A A L T R S G T S T P I A A G E H I Q G R W  
UniRef90\_M0MDD7 D H D V W W L E E D P V P P E N H D V Q H E V L R S T T T P I A A G E N V Y R K H  
UniRef90\_A6FP69 E Y R P Y W F E E E P V D G Q D I E A L S R L R K T T R M R L V T G E K N C G L P  
UniRef90\_G0HRT2 E Q G F F W Y E E D P F R D S Q H A K K L A Q K L D T P I L Q T E H Y R G L E  
UniRef90\_A8TWF3 E L G F Y W Y E D P L A D D D L M G C I K L A R E K L D P L M A T E Y P G G F T  
UniRef90\_UPI000479A33D P F H L F W I E E D P A E L Q E G F R V I R E H T T T P I A V I G E V F N S I W  
UniRef90\_G2X969 E D N L N W W E E C L S P D D T D G F E Q I K R H P T K K F T T G E H E Y S R Y  
UniRef90\_UPI00045E78B8 G L G Y K W I E E E P F R D F E L Y K Y T E L C R T L D I P I A A T E T T R G H W  
UniRef90\_J4WDC4 K Y K I D A I E E Q F L P H W N I E G S A T I R K N S Q G I R I M D E S I H S P Y  
UniRef90\_UPI000289B8ED D L D L W I E E E V L H P D D F D G H K L L K D R V P W M R W T T E H E Y T R Y  
UniRef90\_D2RMR1 A Y G V K I L E E P L P F E D V D Y R K I L A D A V P S V I A G C E T Q G L K  
UniRef90\_B5ZZ45 P A G L D F V L I E A P C A T W R E C M S L R R R T D V P I I F D E L A T D D A  
UniRef90\_UPI0002378B12 A H L D V M L E E Q P C K T L E D C A A V R R G A T G L P M K L D E A V Y D L A  
UniRef90\_W9GDS6 D F E P Y W I E E E P T S T D D I L G H A A I R R G V P T R V A T G E A V H N R I  
UniRef90\_B2UCA8 P Y R P L F I E E E P V L A E Q A E T Y A R L A A H T H L P I A A G E R M F S R F  
UniRef90\_UPI000369CBA5 D V D L Y W I E E E A L H P D D M D G H K L L K E R P W M R W T T G E H E Y T R Y  
UniRef90\_Q7L5Y1 K F K P L W I E E E P T S P D D I L G H A T I R S K P L G I G I A T G E G C H Y N R V  
UniRef90\_UPI0003804466 D A G L D L V E E Q P L P R W D L A G L A A L R A Q G G A R V M A D E S L Q S L H  
UniRef90\_G9ZY77 P H G L W F A E A P V R P E D V D G L A H V A R N V S T V V A A G E E W R T V F  
UniRef90\_A3SNF6 A H L D V M L E E Q P C R T I Q E C A A V R D A T G L P M K L D E T A H D I P  
UniRef90\_G8QRB7 E Y P T D L I E E Q P L P A K D L K G M A V R N A V G L P I M A D E S I F N S N  
UniRef90\_M3BJM7 D L G V V W L E E E P V S S D D L A G L R D V R H A V A A D V A A G E Y G Y D L P  
UniRef90\_J2H037 A F K P W F I E E E P T S P D D L Y G H A R I R G I L G E V K I A T G E M C Q N R I  
UniRef90\_U4LA97 D L N I N W W E E E V L H P D D F D G F E K L K Q A P Q L K F T T G E H E Y T R Y  
UniRef90\_UPI000381C288 E L D V R W L E E E P V S S D D L D G L R R V A D A V I T A D V I A G G E Y G F D L A  
UniRef90\_UPI000364AF6A D Y K Y A F Y E E P V P F D W Y E D N K V V A D A L E I P I A A G G E Q E P S T H  
UniRef90\_UPI00047AD7D7 D L G L S L L E E E P C D A K E A M S R K R L V E K S P I P V V G D E S V I P T A G  
UniRef90\_R4LFS4 P Y Q L T W M E D P V P A E L Q S G F R H I R A R H T T P I A V I G E V F N S V W  
UniRef90\_A3SNG0 P P G L D I V L E A P C A S W A E T K S L R A R C A L P L A L D E L I Q T E T  
UniRef90\_UPI00035EF86F D L R I E L V E E Q P V A A A D L D G L A W V S E R V D T P I L A D E S V Y G I R Q  
UniRef90\_A9D2J3 Q N G L S H Y E E E P C P Y W Y E Q T Q V V T N A L S I D V T G G E Q D C E L Q  
UniRef90\_W3ASZ5 P Y N P M F L E E D P L R P D N F D E M G R V A S Q C R P I A T G E R I N T Y H  
UniRef90\_UPI000360AD5C E V N T F W F E E E P F I N G A L S P Y K E L S N S N P K V P A G G E G C N N F V  
UniRef90\_B1MZ25 Q N I C F I E E Q P E T S H D F V R H A A F Q A K T K Q V L S A D E S I N N L D  
UniRef90\_UPI00047781F6 P Y N L A W V E E D P L P W T D I A N H K K V A D A D A L L P V A A G E S D L Y L W E  
UniRef90\_UPI00046EFF50 A G G I D A V E E Q P V P A W N R A A M Q R L A A R F T V P I M A D E A V C T L Q  
UniRef90\_F2RU64 P Y Q P L F I E E E P L L S E H P E G L K Q L S S Q S T T P I A L D E R L Y N R W  
UniRef90\_I0QS13 K F E L S Y I E E Q P V S D A N A H F Y P T L A A N S T P I A M L D E S M S S E A  
UniRef90\_A0A014M7L1 E A A P L F V E E E P V L S E H M D I V P D L V N A S P I P I A L G E R L Y S R R  
UniRef90\_X0MUQ6 E Y A P M F V E E E P V L P D H A H V L P D L V N A S P V P I A L G E R L Y S R R  
UniRef90\_UPI000367987A E V G L R W L E E E P L I P D D Y W G H A E L R T A S P V K G M T T G E H E A T R W  
UniRef90\_G1UVE5 R Y P L L W V E E E P L A C D R P A A E W A A L A A A G R F T A A G E N I R S D T



UniRef90\_UPI00016C0F24 E H E L A F D T G K V S E I T P D C S N V C G I T G F F D V A H L A K V R G R N 130 140 150 160

UniRef90\_UPI00037E93FF D L E R I T V R L G A A D L V N V K L A K C C G G I L T V G R D M L R R A H D A G L R

UniRef90\_A0RF52 D A L K L V Q A G R Y A D L I N L K L M K C C G G I R E A W R M A D I A E A G V I K

UniRef90\_Q3JDV3 Y F R R M L A A G A V D V L Q A D A T R C A G G I T G F M A S A L C A Q A Y G V P

UniRef90\_UPI0003B377A3 I F K Q L I S E N A I D I V Q V D A C R M G G G L N E V L A V Q L M A A K N N L P

UniRef90\_UPI0003B4C6F6 T V E K A L Q V D A A A Y T L K Q G K L C G G V V T D T L K A I T A L L Q A N R L

UniRef90\_UPI0003698D63 E F K A Y I A A G A V T Y P E P D V T N C G G G V T T A F M K I A R L A E A F N L P

UniRef90\_M0MPZ1 D Y Q P V F E D S A I D V I Q P D V S H A G G G I S E M R R L A S A A E T H D V A

UniRef90\_C6J516 G F R E L L E K Q A A A I V Q Q A D L A H C C G G I S E G R R I A A M A E V Y Y A G

UniRef90\_UPI000463EC8B D L R G L L D M G A V D V A Q A D V T R C C G G Y S A F L K R I A A L C E A H L D

UniRef90\_A8H7M5 E A Q E W L E K T G I S V V Q S D Y N R C G G G V T E L L R I M D I C E H H N A Q

UniRef90\_Q126W9 M F K Q L L Q A K A I D F C Q V D A A R L G G G L N T E V L V V L M A A K F G V P

UniRef90\_UPI0003743106 D A Y P W I L A R A T D Y L R G D V A V K G G I L T T L V K A A H L A E S F R M N

UniRef90\_C7ZQR1 M F K Q L L Q A G A V D V I Q P D A C R V G G G V N E V L A I L L L A R K F D V P

UniRef90\_L5NJ36 E L R R L I E N Q A V D I V A P D M P K V G G M R A E T Q K I A D V A N Q Y Y V L T

UniRef90\_W0RG79 Q L A H A L I Q A V D I P L A D A H F W T M A G A V R V A Q L C D M F G L T

UniRef90\_G5HGL7 Q F Y H A A A L K A V D I V L A D P H F W G L E G S L R M A A L L N D W G L T

UniRef90\_UPI00045E7A2C E F L P V L Q A G I A V A Q P D L S H A G G I T E T R K I A S L A E V Y D V Q

UniRef90\_W1N198 M F K Q F M Q A G I D Y C Q L D A A R L G G L N E V I M V L L A A A K F D L P

UniRef90\_U2LIN4 Q H R I L N E E G F Y S I V Q P D V T H S G G I L E L K K M A S A A A Y G L K

UniRef90\_UPI0003496C13 A F A E A L A A G V C D V A Q A D A V R V G G I T P F L R I A R A A A E A S V P

UniRef90\_G8MKU1 D F R T L L A R N A V D V L Q A D A V T R C G G G I T G F M R V A A M C D A F H R P

UniRef90\_UPI0003715FEA G F R T L L G R D C V D I V Q A D V S H H G G L S G L S K I I D L C E R H N W G S

UniRef90\_F0Z003 G Y R E L L K R G S V Q V P D L C H C G G L L Q A F K I A A M A E N N Y C

UniRef90\_UPI0003E3BJS5 D A R P Y F E D Q S I D V L Q P D V G L C G G G F T E A K K V C D Y A D V Y D I R

UniRef90\_UPI00047E22D6 V F K Q L L Q A R G T G F V Q I D A T R V A G V N E N I A L L L A A K F G V P

UniRef90\_D4GUW6 D I P R I A D R V D I A N L K L M K C C G G L T E A K R A I H A R A R H G L E A

UniRef90\_D6U064 V F K Q L L Q A G A I G V C Q I D A C R L G G V L N E V L A V L M A A K C G V A

UniRef90\_L7UDQ1 T L R F L G G G P A I V G A V V L K P M V L G G L L P G L V V A M R A A R L G M Q

UniRef90\_C1C1W7 M F K Q F L S S G D A M Q Y C S I D A A R M V G L N D A L A V Y L M A Y A K F G V P

UniRef90\_UPI00040439C4 S A F D L A R D R S V D V F S L K L C H N M G G V N S A T Q K I A V A E A S G V I A

UniRef90\_D2QIL3 G F R E L L E K K A V S I V Q P D L C H A G G I T E G R L I A G M A E A Y V P

UniRef90\_UPI00040439C4 Q Y R P L L K A G G L D V I V Q A S A V W G V T H F L R V A A L A H A H D L P

UniRef90\_K1PQQ4 G Y Q L L L N S K C G I L L Q P D I S W L G G I T E A R R V A M A S A H D V L

UniRef90\_UPI000372A85 V F K N F I Q S G C M S F N Q V D A V R V G G V S E F I L S L L S K K Y N I P

UniRef90\_U5RU29 Q F G H C L S L N Q S L D I L L A D P H F W T M N G A V R A A Q I C N E W G Y T

UniRef90\_UPI0003B6E886 G F K S F I L N Q S G C H L V H P D F Q R A G L E S K K I A D F A D V F Y M P

UniRef90\_H0HYV6 D A R N L R Y G G M R W L Q F D C A L S Y G L V E Y L R T L D V M Q E L G

UniRef90\_D2PVS3 D P L R V R E L E A A D I A V L K V I P L G G V R A C L E I A E Q I G L P

UniRef90\_B9QYL8 D W K R M I D H K V D I I Q P D I C Y L G G M V R T M K V A Q M A H E A I G L P

UniRef90\_I3U6Z0 G F R D I V S R K A M D I I Q P D I C A A G G F S E C Y K I A A L A T A H G V E

UniRef90\_R7Y191 D V R R A A G V Y D G I N K L M K S T G M H E A Y K M A V Q A R A M G M K

UniRef90\_D0DD19 G F R P L F E A R A V S I V Q P D P G N T G L L E T K K I A A R A F M G L

UniRef90\_F5XJ21 G F R M L L E M G C A D I L Q P D V G W C G G I T E L I R I S A L A D A Y G A L

UniRef90\_UPI00034BD811 D L G E A L R M E A G G A V L N V D P S R L C G G L T S A R R A V D R A V D A G W R

UniRef90\_B9E714 Q L V Q L N I N T D L V N V K L M K C C G G I K A A H I I N Y A E A H D I P

UniRef90\_C5C209 D F R E V F D A R A A D V V Q P D V S H V G G I W E A R T V A S L A E L W Q V G

UniRef90\_UPI00035FB506 M W K N F L Q A G A V G V V Q A D C T R L A G I S E Y L A V S L L A T K Y P V I K

UniRef90\_G8PGS1 D M R H R I E R C R I S I V Q P E M G H K G I T S F M R I S G R L A G E L G I D

UniRef90\_W5YE95 M A R Q L L A C H A V D V L Q A D I T R C G G V T S G L R I A D L A D A F H I P

UniRef90\_Q024C6 E V Y N Y L K E G A L S V V Q A D P E W C G G T T E L Q K I C V L A S I F D V P

UniRef90\_M0MDD7 G Y R R L L E E Q A V D V V A P D L P K M G G M R E T R K V A D M A D S Y V P

UniRef90\_A6FP69 H F R S V L A A D A D I L N P D I A G M G G T L D M L E L A E E A H R Q D V R D

UniRef90\_G0HRT2 I K S D F A A S E A T D F Y L R A D P E Y D A G I T G A I K V A R M A E A Y G L D

UniRef90\_A8TWF3 N Y A P W I L N K A T D F Y L R G D V A V K G G I T A L K T A H L A E A F A M N

UniRef90\_UPI000479A33D D A H D L I R N Q W I D Y I R A T L S H A G G F T Q L K K L A D F A E L Y H V K

UniRef90\_G2X969 G F R K L V E G R N L D I I Q P D V M W L G G I T E L L K V S A M A A Y D I P

UniRef90\_UPI00045E78B8 G V A Q A I A Q R S A D I V R A D V S W K D G G I T G T L K I A H M A E A G F G L N

UniRef90\_J4WDC4 D A A R S A K I D A A D V F N I K L M K C C G G L F N A E K I N S I A E G F G L N

UniRef90\_UPI000289B8ED G F R K L I E S R S V D I L Q P D V M W C G G L T E L L R I G S M A A A Y D I P

UniRef90\_D2RMR1 N F Q N L L K E N Q I D I L Q P D V G W A G G I S E V K K I G A A A L A A N K K

UniRef90\_B5ZZ45 A I A Q L V S D D A A E G I G L K I S K N G G L T R G R R H R D I S V A A G Y T

UniRef90\_UPI0002378B12 S L M H A H E L G V L D A V A L K L S K F G G L S A M R R A R D L T V H L G A E

UniRef90\_W9GDS6 M F K Q L L Q A G A I D V L Q L L D S T R V A G V N E N V A T L L L A A R F G V P

UniRef90\_B2UCA8 D F K R V L E A G G V S I L Q P D L S H A G G I T E C V K I A A M A E A Y D V A

UniRef90\_UPI000369CBA5 G F R K L I E T R A I D I L Q P D V T W C G G I T E L L R I S S M A A A Y D I P

UniRef90\_Q7L5Y1 I F K Q L L Q A K A L Q F L Q I D S C R L G G V L N E N L S L M A K F Y P

UniRef90\_UPI0003804466 D A L E I V R R G A A D V L N I K I L K V G G L H R A R Q I A A V A E A A G L A

UniRef90\_G9ZY77 D A V P R L S R R A C G I L Q P E M G H T G I S E F M R M G Q Y A Q A H H L S

UniRef90\_A3SNF6 S L L D G H R R G C M D A V A L K L S K F G G L T S A T R R A R D L C L A L G T R

UniRef90\_G8QRB7 D V K K V L D L G C A D I I N I K L S K C C G G L T E A L H M C S L A E E A G V S

UniRef90\_M3BJM7 Y L A R M A A S G A V D C L Q Q A D V S R C G G I T V W L R A A A V A E G L G H

UniRef90\_J2H037 L F K Q F I M N G A I D V L Q I D A C R L G G V L N E V L A V L M A A K Y E L P

UniRef90\_U4LA97 G F R K L I E G R N L D I L Q P D V M W V G G V L T E L L K V T A M A A A Y D I P

UniRef90\_UPI000381C288 Y F Q R M C A A G A V D C L Q Q A D I T R C G G I L E L R R A A T V A A A H G L E

UniRef90\_UPI000364AF6A N F R W L I A N G G L S I V Q Q A D M F Y F G G M I R C M Q V A R M A N A F G K Q

UniRef90\_UPI00047AD7D7 D V S R E L A A G G C N A I S I K T A R S G F T E A Q R I L S L C E G L G V D

UniRef90\_R4LFS4 D C Q Q L I T E D L I D Y I R A T V V H A G G I T H L R R L F D L A A L Y H V R

UniRef90\_A3SNG0 D L I A A I R D D L C D G V I G L K V S K Q G G I T P M L R Q R A I A A A G M V

UniRef90\_UPI00035EF86F D L V E V I R R R A A D L V N V K L A K C C G G L G P A R T L L D L A D A Y G L G

UniRef90\_A9D2J3 N W R M I E M K A V D I V Q P D I C Y L G G L T R T L R V A E M A H K A G L P

UniRef90\_W3ASZ5 E F E M L L E K N A C S Y V R A S L G V C G G F T G L K K I A A V A E A H H K S

UniRef90\_UPI000360AD5C Q A Q A M I D Y S G V S Y I Q I D A G R I G G I T T A K R V A D L A T S R N V T

UniRef90\_B1MZ25 D I K T L I A L Q A A Q A V T L K Q G K I G G I T A A L R A I K L C H Q A G I P

UniRef90\_UPI00047781F6 G F R E A L E T R A F D I L T P D M L S S G G L T E T K K I A D H A E R Y G I R

UniRef90\_UPI00046EFF50 D A M A F A G E A A D A F S I K V S K H G G L M R A R Q V A D V A E A A G V S

UniRef90\_F2RU64 D V K R F L E D S V D I L Q P D I S H C G G I S E L R R I A A M A E T Y D V A

UniRef90\_I0QS13 D L Q R I L A M Q G K V A H I K I S K M G G I A P A I R A A Q R L N A A G V P

UniRef90\_A0A014M7L1 E F I A P L R A G V A I L Q P D I S H A G G I S E L R R I A A L A E P H G A Q

UniRef90\_X0MUQ6 E F L A P L H A G V A V L Q P D V S H A G G I S E L R R I A A L A E T Y G A Q

UniRef90\_UPI000367987A G F R M L L E M R C C D I I Q P D V W C G G L T E L L K I S A L A E S A G V L

UniRef90\_G1UVE5 A F D A A I A A A S V R V V Q P D V C K W G G L T G C L R V A R A A L A A G L H



UniRef90\_UPI00016C0F24 V N S H G M Q E L H V 170 N V L G A V D N P G L V E Y H S F P I Y L 190 200  
UniRef90\_UPI00037E93FF T I V G S M M E S H V G V G A A A A L V A A E P T T E V S D L D A A W W S V A S  
UniRef90\_AORF52 C M V G S M M E S S L S V S A V A H L A A A H P N I H Y F D L D A P L W L M E E A  
UniRef90\_Q3JDV3 L S A H T A P S L H A H P V C A L P H I R P L E Y F H D H V R I E E A  
UniRef90\_UPI0003B377A3 L W P H A G G V G L C Y S Q H L A M I D Y V C I S G R K D K Q V I E Y V D  
UniRef90\_UPI0003B4C6F6 P F I G G M L A S G L G R S L D L V L A A K A Y P P F P A D I G A S D H Y F E K  
UniRef90\_UPI0003698D63 V T S H G A H D V T V H L L A A C P N R S Y L E A H G F G L E A H G F G L E  
UniRef90\_MOMPZ1 V A P N C P L G P I A L A S S L Q V V T H V P N F L V Q D H G F D V H S D A R E  
UniRef90\_C6J516 F A P H N P L G P I N L A A S L Q V S A H A A N F V A Q E H H V T L G E R  
UniRef90\_UPI000463EC8B L S G H C A P A L H L P V A V A A P R F R H L E W F H D H V R I E R  
UniRef90\_A8H7M5 L M P H N W G I T A A A A R H F G I V C H I S E Y V E Y L H P D F W N G T L T Q  
UniRef90\_Q126W9 V C P H C E Y V Q N V S L F D Y I A V S G S L E N R V L E Y V D H L H E H F I D  
UniRef90\_UPI0003743106 L E I H H G N S L N N V A I R N T E F F E V L L P D A A Q K Y  
UniRef90\_C7ZQR1 I V P H S G G V G L P E Y T Q H L S T V D Y I A I S G N R S V L E F V D H L H E  
UniRef90\_L5NJ36 V A M H N V S S P V A T M A S A H V G A A I P N S L A V E Y H S Y E L G W W E  
UniRef90\_W0RGT9 W G S H S N N H F D V S L A M Y V H V A A A P G R V T A I D T H W I W Q D G E  
UniRef90\_G5HGL7 W G S H S N N H F D I T L T T F A H V A A A P G S P T A L D T H W I W Q D G Q  
UniRef90\_UPI00045E7A2C L A P H C P L G P I A L A A C L Q V A F A T P N F L I Q E Q S I G L H Y N Q G  
UniRef90\_W1N198 V C P H G G V G L C E Y T H A V S M F D Y I A V S G S L E G R L E Y V D H L H  
UniRef90\_U2LIN4 F A P H N S G S P V G T M A S V M V D V N S E N F F Y Q E F S V E N F E L N K  
UniRef90\_UPI0003496C13 V A P H L L P E L S T Q L A L C V P R A A M V E D D R A W L E  
UniRef90\_G8MKU1 L S A H C A P S M H L H V A C A A P R L R H Q E W F H D H V R I E Q  
UniRef90\_UPI0003715FEA T A L E T V V D G L I G S C F P R E T A R W L E Y P Q Y A H R D T R P F P L S D  
UniRef90\_F0Z003 I A P H N P L G P L S L A S C L Q L E D A C I P N F T A Q E H L T E K T E L G V  
UniRef90\_E3BJS5 V Q A H V C G G P V A T A A S L H L E T A I P N F L I H E H T Y A I K D W N R  
UniRef90\_UPI00047E22D6 V C P H A G G V G L C E A Q H L A M F D Y V A V S G T T D R V I E Y V D  
UniRef90\_D4GUW6 V M L G C M I E S N A A I A A G C H L A P L L D Y A D L D G S L L L A D  
UniRef90\_D6U064 V C P H A G G V G L C E Y Q H L A M L D Y I A I S G T I E Q R M L E Y A A  
UniRef90\_L7UDQ1 A Y V T S S L D G V A R A G A A H L A A A L P S G A L L A S G L A V G Q L F A R  
UniRef90\_C1C1W7 V C P H A G G V G L C E M Q H L Q V F D Y V S L S G T F E N R M I E C V D  
UniRef90\_P05404 S Y G G T M L D S T I G T S V A L Q L Y S T V P S L P F G C E L I G P F V L A D  
UniRef90\_D2QIL3 I A P H N P M G P I S L A V G L Q L A A S V P N F L V Q E Q V S L G E G Y I K  
UniRef90\_UPI00040439C4 V S P V G N T P V G L H A A T A V P N H I A S E L Q D L L P P V I G L S V  
UniRef90\_K1PQQ4 V I P H G S N I Y S Y H L Q Y A F R N C P L A S E F I N L S P K A D K I V P Y F G  
UniRef90\_UPI000372A85 V V P H V G D M G Q I H Q H L V L Y N H V S V G H P A L L L E H I P H L R  
UniRef90\_U5RU29 W G S H S N N H F D I S L A V F T Q V A A A P G E I T S M D T H W L W D G Q  
UniRef90\_UPI0003B6E886 T G A H N M A S P V G Y L A S H S A S I R N F I F H E F N G N T E N W E Q  
UniRef90\_HOHHV6 W S S R R V V P H G G H Q M S L N I A A G L H L G G N E S Y P D V F Q P F  
UniRef90\_D2PVS3 V V V S S A L E T S V G I A A G V A L A A A L P E L P Y A C G L A T V A M F T G  
UniRef90\_B9QYL8 C T P H A A N L S L V T L F T M H L L R A I P N A G K Y L E F S D Y P W Q Y D  
UniRef90\_I3U6Z0 C V P M H  
UniRef90\_R7Y91 I M L G C M T E T S C A V T A A A Q L A P M V D W A D L D G N L L I A N  
UniRef90\_D0DD19 C A P H V C T E A A L Q V G A T L P N F A I M E L Y P Y F R H H D G W N A F V A  
UniRef90\_F5XJ21 V V P H G S S V Y S Y H F V I T R T N S P F S E F L M M A P E A D E V V P M F Q  
UniRef90\_UPI00034BD811 V W C G S S A V T S V I G R S A T V A L A S L A G A T L P V E A P P A G T R G R  
UniRef90\_B9E714 C Q I L G S M V E S G I G S A A G Y H V A M S H H N V Q S T E L T G P L L F S E  
UniRef90\_C5C209 F A P H N P S G P I A N A A T L Q L A A C V P N F T L L E T M A T D V P W R A  
UniRef90\_UPI00035FB506 V I P H V G D M G Q I H H H L V E F N H I A L G H E K L F L E Y I P H L R  
UniRef90\_G8PGS1 V I P H A T I G A G I F L A A S L Q A S A A L S A T R G H E F G H S I F E P N R  
UniRef90\_W5YE95 F S A H C A P A L H L H A L C A V R N L R H L E W F H D H V R I E Q  
UniRef90\_Q024C6 V I P H G H S L H A A L H L I A S Q S P A V C P L A E Y L I L K M R S Y Y  
UniRef90\_M0MDD7 V A M H N V A S P I G T M A S A H V G A A I P N S L A V E Y H S Y L G S W W E  
UniRef90\_A6FP69 I S P H C W N S M T V A A A M L H I C A A I P N A E M A E I Y P E Y I E P G T  
UniRef90\_G0HRT2 V E F H A P G P H C I A A C R N S N Y E M A L V H P D C Q N T Q P P V Y E G G  
UniRef90\_A8TWF3 F E I H H G G N S L N N W A N L H V A L S I P N T Q F F E V L L P A Q A Q K Y  
UniRef90\_UPI000479A33D T G C H G A T D L S P V C M A A A L H L D T A I H N F G I Q E H M P H T D E T D  
UniRef90\_G2X969 V V P H A S G P Y S Y H F V L S Q P N T P F Q E Y L A N S P D G K S V L P V I G  
UniRef90\_UPI00045E78B8 C E I H T T T M N Y M D L V N L H S V C A I R N C E Y F E Y F V P E N Y Q L  
UniRef90\_J4WDC4 C M V G C M L E T K I A I T A G I S L V A A K N N I D A D C D S F M Y A K D P  
UniRef90\_UPI000289B8ED V V P H G S G A Y S Y H F V S T Q P H C F C E Y L N T S P D C K S F P P V I G  
UniRef90\_D2RMR1 I S L H C F G S A V L F A V S L Q T A A A M S N T I A M E S E N P N P L K T D  
UniRef90\_B5ZZ45 V S V Q E T T G S D I A F A A I V H L G Q T V P E K N L R C V L E C R D I V A T  
UniRef90\_UPI0002378B12 I C A E C T W G S D I V T A A S L F F A A S T P R D A L L N C D L S S Y V G P  
UniRef90\_W9GDS6 V C P H A G G V G L C E L V A Q H F S F F D Y A A V S T S Q E N G R F E Y V D H L H  
UniRef90\_B2UCA8 L A P H C P L G P I A L A A C L H V D F V S W N A T L Q E Q S M G I H Y N K G  
UniRef90\_UPI000369CBA5 V V P H G S G A Y S Y H F V I S Q P H C P F C E Y L N T S P D C L S F P S V I G  
UniRef90\_Q7L5Y1 V C P H A G G V G L C E L Q H L I F D Y I S V S A S L E N R V C E Y V D  
UniRef90\_UPI0003804466 V K I G T M P E L G V A T L J A A H L A A A L P H A T V P P D L V G P L L V I E Q  
UniRef90\_G9ZY77 I M P H A T I G A G I F L A A S L Q A S A A L S G L V C H E F Q H S V F E P N R  
UniRef90\_A3SNF6 M C I E D T W G S D V T T A A L L H L A A A T P A R G L M N T C D L S H Y V P  
UniRef90\_G8QRB7 C M L G C M M E G P I G I L J A A C Q V A A S Q P I T R I D L D G P M L Y E R  
UniRef90\_M3BJM7 I S G H C A P H L H A H V A A A V P N T R H L E W F H D H V R I E T  
UniRef90\_J2H037 V C P H A G G V G L C E Y V Q H L S M I D Y L C F S G T R E G R V I E Y V D  
UniRef90\_U4LA97 V V P H A S G P Y S Y H Y V I S Q S N C P F Q E Y L A N S P D G K S V M P V F G  
UniRef90\_UPI000381C288 L S G H C A P A L H R H T A L S L P N L R H L E W F H D H V R I E T  
UniRef90\_UPI000364AF6A C I P H I S S T G L G Y V Y M M H F V S A I P N S G P Y H E F K E F N T E L P Y  
UniRef90\_UPI00047AD7D7 V V I G N Q I D T Q I G T L J A S V T F G S A F E T T R R A G E L I S N F L D M S D  
UniRef90\_R4LFS4 S G S H G A T D L S P V C L S A A L H L D V I S P N F G L Q E Y M S H T P L T D  
UniRef90\_A3SNG0 M S V Q D T V G S Q I S F A A L L H L A Q S T P R H L R C A L D T R A M I T A  
UniRef90\_UPI00035EF86F T M V G S M M E G P V G V G A A S L V A A R G T T L V N D L D A W W L J A D  
UniRef90\_A9D2J3 C T P H A A N L S M V T L F T M H L L R A I P N A G K Y L E F S I E Y Y P W Q  
UniRef90\_W3ASZ5 L I P H N P C S P V M T N A V L Q F V A A T D N V A I T E Y T S G V K L R Q C  
UniRef90\_UPI000360AD5C Y V N H T F T S H L A L S A S L Q S Y A G I E K D F I S E Y P V E L K S L J A Q  
UniRef90\_B1MZ25 P W I G G M L S N I G R A V D L A L T S L P E I A F P S D I S D S Q R Y F E Q  
UniRef90\_UPI00047781F6 T A L H A C C T P I G F M A N V H L G A S I A S L I A V E H H G L D Q D Y W P  
UniRef90\_UPI00046EFF50 L F G G T M L E G G I G T S A C A Q L F A T L P S L A W G C Q L F G P R L L K D  
UniRef90\_F2RU64 I A P H C P L G P I A L A A C M Q V D L S I P N F V I Q E M S L G I H Y N T T  
UniRef90\_I0QS13 F M I G Q M N E G A A A T A A L H V A H A C Q P A H A E L Y G A D G L G N  
UniRef90\_A0A014M7L1 L A P H C P L G P V A L I A A S L Q I A F T T P N F L I Q E Q S I G I H Y N Q G A  
UniRef90\_X0MUQ6 L A P H C P L G P I A L A A C L Q L A F T T P N F L I Q E Q S I G I H Y L D Y  
UniRef90\_UPI000367987A V V P H G S S V Y S Y H F A A I T R Q H S P F S E F L M M H Q Q A S E V I P M F H  
UniRef90\_G1UVE5 Y C P H Y L G G G I G L L J A S A H L L A A V G G D G L L E V D C N P N P L R E

UniRef90\_UPI00016C0F24 Y T N E P R I V K G G D L V P S K I P G T G V S F N F E K M E K 210 220 230 240

UniRef90\_UPI00037E93FF P V V G G I S Y S G N Q L R V P M A D G L G L

UniRef90\_A0RF52 P

UniRef90\_Q3JDV3 M F F D G V L K P V N G A L Q P D T R P G L G L E L R E A D A V Q Y A V

UniRef90\_UPI0003B377A3 H L F I N P C T I K N A A Y M L P K E S G F S V E M K P E T L K

UniRef90\_UPI0003B4C6F6 D L I K E R L T I H D E G R M N L P T E P G L G V T I D W T N V A N L Q V

UniRef90\_UPI0003698D63 R Y L A E P L A I A E G K R A R P D R P G H G I V F D W D G L E Q L

UniRef90\_M0MPZ1 G P A H E Y F V F D D G Y L D T L D E P G L G I E I D E S V V A E K S T M E T D

UniRef90\_C6J516 G Y L K K P F E V N E G Y I E L S D Q P G L G I E V D E I Q L K D M M Y E G N

UniRef90\_UPI000463EC8B M L F D G A P V R I R D G V I T P P T R P G H G I E T L K A R D A D A Y A V

UniRef90\_A8H7M5 Q L T L N E P K I T D G A L E V S D K P G L G I E L N I E F V E Q V I T

UniRef90\_Q126W9 P V V I R K G R Y M P Q R P G Y S L E M H A A T L K E F E F P

UniRef90\_UPI0003743106 G L V Q D I V V D R Q G L V H A P D Q P G L G Y E I D T G L V K R K T I A

UniRef90\_C7ZQR1 H F H H P S R I E N G Y Y V T P L E P G Y S V E M L P E S M E R Y N Y P G G E

UniRef90\_L5NJ36 D L V E E T V I E D G Y I E I P E K P G L G V T L D M D T V E E H M V D G E T

UniRef90\_W0RG79 R L T R E P L R I E G G A V A I P K R P G L G V E L D M A V E R A H A L Y E R

UniRef90\_G5HGL7 N L L K D T P A I K N G Y L E V P D R P G L G V T L D M D Q V M E A N K L Y N R

UniRef90\_UPI00045E7A2C A E V L D Y V V F A D G H I E R L T A P G L G I E V D E R A V R D A D R R G H A

UniRef90\_W1N198 D H F L D P V R I R D G H Y L P T E A P G Y S I T M K A A S L D D H T Y P T G R

UniRef90\_U2LIN4 S F F K K G F E Y K D G K I M L N D S P G L G L I P D W D T I R R

UniRef90\_UPI0003496C13 D L H P S G V K V S G G R A T A D T G A G H G L A F R K D L

UniRef90\_G8MKU1 M L F D G A P R A V N G A I A P D S R P G C G L D F K H A D A Q R Y A

UniRef90\_UPI0003715FEA E L V P E A P V P K K G E L P L P D G Y G L G V E I N E K V F E K Y P Y Q K G P

UniRef90\_F0Z003 Q L L K Q P F K I E D G Y I V P P Q G A G L G V E V D E Q V R K M E Y D G R W

UniRef90\_E3BJS5 E L C I Q D P Q P K D G F F Q A P D T P G L G I E L N D E V V R R

UniRef90\_UPI00047E22D6 H L F S D P V R I E R G R Y L A P Q R P G A S T E L L A P T L A A H R F P

UniRef90\_D4GUW6 D P Y E G V P M P N G E I D L D D R P G T G

UniRef90\_D6U064 H L H E H P V G H Y L V P T E P G Y S I E M R P E S L Q E Y R Y P

UniRef90\_L7UDQ1 E P P M H P Y Q P V H G R I R L P E T P G L G L D

UniRef90\_C1C1W7 H L F K E P V I I G K S V Y Y P P M D P G Y S T Q F K K S S V E D Y E F P S G R

UniRef90\_P05404 T L S H Y P L E I R D Y E L Q V P T G V G H G M T L D E D K V R Q Y A R

UniRef90\_D2QIL3 N P F K L Q K D G T V M I P Q G P G L G V E L D E A Q L K

UniRef90\_UPI00040439C4 D L I E D G S F V L G D A P G L G I R V D E E R I A A L

UniRef90\_K1PQQ4 G L F P D E P L P S N G F I D L P D R P G F G V T L C K D S L R R F Q R S D E E

UniRef90\_UPI000372A85 E H F K F P V R I E N S R Y Q T P Q E P G M S S D L

UniRef90\_U5RU29 Y L T K T P Y K I S N G L T E L P S K K P G L G V E V D M D K V M K A N E L Y

UniRef90\_UPI0003B6E886 I V I H D G P I V K D G R I Q I S D R P G L G V E L N E D Y V R K Y L T D G E E

UniRef90\_H0HYV6 G G F A D G I A V E D G N V G L P Q I P G V G F E

UniRef90\_D2PVS3 E V V D E P L L P V D G F L P V K R

UniRef90\_B9QYL8 L F V K S P F D I D G N A I V T D A P G W G V E V N P E W L A K S T Y

UniRef90\_I3U6Z0 D R F D G I K I V D G K V T R P D R P G L G V E I L D A A A I A

UniRef90\_R7Y191 D P A E A R V R D G G H L R L P S D A P G L G V E I L N P E V I A

UniRef90\_D0DD19 P L L L G E P V P V D G R L R L P S D T P G F G V E I L N P E V I A

UniRef90\_F5XJ21 D L V V P V R A H D G V L V P V T E S G L G H G V I D R S L V A A R T A R A

UniRef90\_UPI00034BD811 E I G N L K Y E I P Y V Y V L S D A P G L G I E I D Q Q S L V A N A T T R Q F E

UniRef90\_B9E714 D V V V S E P S I T H G R A P I P T A P G L G V E I L D A E A L T R F P Y V R H D

UniRef90\_C5C209 E H F M H P A L V K D G A Y Q L P Q E P G C S T D L

UniRef90\_UPI00035FB506 R L L V G N M D C K A G T Y F L P E P G L G V K P S P E A L

UniRef90\_G8PGS1 R L F D G A P V P H D G R I A P D T Q P G C G L T F R Y A D A A P F A V

UniRef90\_W5YE95 H F E K N P A P K N A H F D L P A G P G Y G I E F D E G K V E K

UniRef90\_Q024C6 E L V E E S V I R E G A I E P E Q P G L G I T L D M D V A E H M V D G E E

UniRef90\_M0MDD7 G Y A T T G F R V D G T D A H L S G L P G L G V E I D T G A L G K L S E H F Q S

UniRef90\_A6FP69 Y S D L M D A V D D G T V S V P D G P G L G V E Y D W D Y I E D N T T

UniRef90\_G0HRT2 A I A D D L E P D A Q G L I H A P S G P G L G A T I D F E L I R A

UniRef90\_A8TWF3 A V F P H N Y H F K D G F M Y P G D A P G L G V D L D E N L A A K Y P Y Q R

UniRef90\_UPI000479A33D D L F L D E P L P N K G F L T A A D K P G F G L T L N P A A R S K L

UniRef90\_G2X969 P M K G K L P I K N G I T V P D K P G I G A E L D W E L I E K S C R S H R K

UniRef90\_UPI00045E78B8 N M M T G G F T F E K D I F T L S E N P G L G I N L G W

UniRef90\_UPI000289B8ED N M F T N E Q A P V N G T L L P S D E P G W G L K L N R D H L N L I R P F N E E

UniRef90\_D2RMR1 I L K T P F Q T D P E M F F V P D G P G L G I E L N R D E R I E K Y

UniRef90\_B5ZZ45 K T A D G D F T V R N G R V T A P T A P G L G I T P R L D V L

UniRef90\_UPI0002378B12 R I A P D C P S R K D G R L A P P E G P G L G V R P D L D L R L

UniRef90\_W9GDS6 E H F A E P V R I A G G R Y A P Q L P G N G A E M L D S R L R W S Y P

UniRef90\_B2UCA8 A E L L D Y V R L E G G Y I R P P R L P G L G V D I D E A L V I E R S K E A P D

UniRef90\_UPI000369CBA5 N L F E N E I L P V N G S K L K L N K P G F G M K L N R K D L

UniRef90\_Q7L5Y1 H L F K Y P V M L Q R A S Y M P K D P G Y S T E M K E E S V K K H Q Y P G E V

UniRef90\_UPI0003804466 E L A P E T F A A T D G H V Q L P D L P G L G H R L A P

UniRef90\_G9ZY77 R L L K G D L D C R E G A Y H L P T G A G L G V E P T A E A I A

UniRef90\_A3SNF6 R L A P D G P T R H M G R I A P P E G P G L G I T P D M D V L

UniRef90\_G8QRB7 L P G R Y A T L F K G Q D I F I G A A P G L G I

UniRef90\_M3BJM7 M L F H G T L D P Q G G T A Y S P S G E P H G L T L D R A A D R Y R T A

UniRef90\_J2H037 H L F V E P C V I R D A A Y M P P E A P G F S I E M K

UniRef90\_U4LA97 D L F L D E P I P I N G K M H V G D K P G F G M T L N P K A

UniRef90\_UPI000381C288 L F F E G A D P P R E G E L P P D R P G H G L T L R E A D A E R Y R T

UniRef90\_UPI000364AF6A H C E T S L R S D N G V I Q V P T G P G F G V D I D E F V K K C A V

UniRef90\_UPI00047AD7D7 D L L A D P L L I Q D G R I N A R E V P G V G A A I D E E K L A R Y R Q D Q

UniRef90\_R4LFS4 R V F P H G Y R F D D G C L H A P S E E P G L G V R D I D E E L A A Q Y P Y R A

UniRef90\_A3SNG0 E L A E I D A P L R D G G A S A P S D P G L G L R V N R D A L

UniRef90\_UPI00035EF86F S P V R G G L A Y H G A T V V L P D A P G L G V T

UniRef90\_A9D2J3 D L F A S P Y E I V D G K A T V T D L P G W G V E V S P T W L E

UniRef90\_W3ASZ5 D M V D Q I A E F K D G Y L T V P E R P G I G I E V L I P D V E D R F P F R P H Q

UniRef90\_UPI000360AD5C E T I G K E K I L P D D G Y I H L P D K P G L G I E V D K E A C R N Y L V D V I E

UniRef90\_B1MZ25 D V S E T S F T Q E N G F I A V P N Q P G I G I K L Y Q E I D D R L A

UniRef90\_UPI00047781F6 N L V T G D D Y M S G G Y V T V P D A P G L G V D L N E E V I R E H L R E G A S

UniRef90\_UPI00046EFF50 D V A C A P V S Y D A F D L V L G D S V G L G V E I D P D K L R F Y Q V P R

UniRef90\_F2RU64 E S G E E Y F D V K D G Y V K A L E G P G L G I E V D E E V R R V S K G A K P

UniRef90\_I0QS13 D P V T G L T Y C Q G L V S S S E L P G L G I E V D P A Q A E

UniRef90\_A0A014M7L1 E L L D E P F R F T A G Q L S R T D R P G L G I E V D E A A V R A A D R R G H S

UniRef90\_X0MUQ6 V V D P E P F R F D R G A L L R T E R P G L G I D V D E A A V R A A D R R G H A

UniRef90\_UPI000367987A P L L L G E P V P E N G T L S L D E T P G F G V E L N P E A L R A Y T H G P D T

UniRef90\_G1UVE5 L L A A P F P L R D G R F L L S D A P G L G V A P D M G A L E K L L T F H A R

UniRef90_UPI00016C0F24	
UniRef90_UPI00037E93FF	
UniRef90_AORF52	
UniRef90_Q3JDV3	
UniRef90_UPI0003B377A3	
UniRef90_UPI0003B4C6F6	
UniRef90_UPI0003698D63	
UniRef90_M0MPZ1	W
UniRef90_C6J5I6	W R S
UniRef90_UPI000463EC8B	
UniRef90_A8H7M5	
UniRef90_Q126W9	
UniRef90_UPI0003743106	
UniRef90_C7ZQR1	
UniRef90_L5NJ36	
UniRef90_W0RG79	V G A
UniRef90_G5HGL7	
UniRef90_UPI00045E7A2C	W R
UniRef90_W1N198	
UniRef90_U2LIN4	
UniRef90_UPI0003496C13	
UniRef90_G8MKU1	
UniRef90_UPI0003715FEA	W
UniRef90_F0Z003	
UniRef90_E3BJS5	
UniRef90_UPI00047E22D6	
UniRef90_D4GUW6	
UniRef90_D6U064	
UniRef90_L7UDQ1	
UniRef90_C1C1W7	
UniRef90_P05404	
UniRef90_D2QIL3	
UniRef90_UPI00040439C4	
UniRef90_K1PQQ4	S R S
UniRef90_UPI0003F72A85	
UniRef90_U5RU29	
UniRef90_UPI0003B6E886	W W
UniRef90_H0HYV6	
UniRef90_D2PVS3	
UniRef90_B9QYL8	
UniRef90_I3U6Z0	
UniRef90_R7IY91	
UniRef90_D0DD19	
UniRef90_F5XJ21	
UniRef90_UPI00034BD811	
UniRef90_B9E714	
UniRef90_C5C209	L R
UniRef90_UPI00035FB506	
UniRef90_G8PGS1	
UniRef90_W5YE95	
UniRef90_Q024C6	
UniRef90_M0MDD7	L F A
UniRef90_A6FP69	S R
UniRef90_G0HRT2	
UniRef90_A8TWF3	
UniRef90_UPI000479A33D	
UniRef90_G2X969	
UniRef90_UPI00045E78B8	
UniRef90_J4WDC4	
UniRef90_UPI000289B8ED	
UniRef90_D2RMR1	
UniRef90_B5ZZ45	
UniRef90_UPI0002378B12	
UniRef90_W9GDS6	
UniRef90_B2UCA8	W R
UniRef90_UPI000369CBA5	
UniRef90_Q7L5Y1	W K
UniRef90_UPI0003804466	
UniRef90_G9ZYY7	
UniRef90_A3SNF6	
UniRef90_G8QRB7	
UniRef90_M3BJM7	
UniRef90_J2H037	
UniRef90_U4LA97	
UniRef90_UPI000381C288	
UniRef90_UPI000364AF6A	
UniRef90_UPI00047AD7D7	
UniRef90_R4LFS4	
UniRef90_A3SNG0	
UniRef90_UPI00035EF86F	
UniRef90_A9D2J3	
UniRef90_W3ASZ5	
UniRef90_UPI000360AD5C	
UniRef90_B1MZ25	
UniRef90_UPI00047781F6	Y F A
UniRef90_UPI00046EFF50	
UniRef90_F2RU64	W
UniRef90_I0QS13	
UniRef90_A0A014M7L1	W R
UniRef90_X0MUQ6	W R
UniRef90_UPI000367987A	H
UniRef90_G1UVE5	C R

UniRef90\_MOM778  
UniRef90\_W3ANI5  
UniRef90\_B3PDB1  
UniRef90\_J7LSP1  
UniRef90\_UPI0003AD224F  
UniRef90\_F9T9Q1  
UniRef90\_UPI0001FFE551  
UniRef90\_F0RI36  
UniRef90\_UPI0003B3C6DB  
UniRef90\_UPI0003728937  
UniRef90\_U2J3U3  
UniRef90\_B4RGH9  
UniRef90\_UPI000288C528  
UniRef90\_M0AC37  
UniRef90\_J1F5K1  
UniRef90\_UPI00036827A8  
UniRef90\_X6AER9  
UniRef90\_I2GHK1  
UniRef90\_Q5X3U6  
UniRef90\_U2FBT1  
UniRef90\_UPI00036F63B2  
UniRef90\_Q8XRK2  
UniRef90\_H2K6A7  
UniRef90\_UPI000419932C  
UniRef90\_UPI00035FD58C  
UniRef90\_UPI00036FB766  
UniRef90\_K6Q5I7  
UniRef90\_UPI000237A585  
UniRef90\_V4XPJ1  
UniRef90\_Q5LT19  
UniRef90\_M3C318  
UniRef90\_I0RX63  
UniRef90\_UPI000360078A  
UniRef90\_UPI0003B791A  
UniRef90\_UPI000372654D  
UniRef90\_V2J2W4  
UniRef90\_G4RFL5  
UniRef90\_H2M636  
UniRef90\_UPI0004766CA9  
UniRef90\_U2YTG4  
UniRef90\_F5IYT7  
UniRef90\_E4U6G4  
UniRef90\_UPI00036AM36  
UniRef90\_E4SWZ6  
UniRef90\_X0SPD1  
UniRef90\_A6NS26  
UniRef90\_UPI0003F89005  
UniRef90\_Q9A4L8  
UniRef90\_D5P334  
UniRef90\_Q1LBZ4  
UniRef90\_Z5XR81  
UniRef90\_J9H5C7  
UniRef90\_E1R995  
UniRef90\_S6KKK2  
UniRef90\_UPI00031BC207  
UniRef90\_UPI00036835CE  
UniRef90\_UPI00030BE50D  
UniRef90\_A3ZMQ8  
UniRef90\_UPI0002485ACC  
UniRef90\_X5JXU3  
UniRef90\_E1T8J0  
UniRef90\_F4F2S1  
UniRef90\_O06741  
UniRef90\_X1R713  
UniRef90\_UPI0002DB58A7  
UniRef90\_K7W1Y1  
UniRef90\_D4GQU4  
UniRef90\_A4EPB0  
UniRef90\_I4YXF2  
UniRef90\_L8P332  
UniRef90\_Q1Q7G6  
UniRef90\_D8G9G6  
UniRef90\_UPI00047A304E  
UniRef90\_M0PBM4  
UniRef90\_A8RRR0  
UniRef90\_V7D2V3  
UniRef90\_Q15Z65  
UniRef90\_B6H6S0  
UniRef90\_N6V0R7  
UniRef90\_UPI00035ED3F8  
UniRef90\_UPI0003B39103  
UniRef90\_D7AZ54  
UniRef90\_M0EJL5  
UniRef90\_A3K5L7  
UniRef90\_UPI00035H5WW92  
UniRef90\_W6MG72  
UniRef90\_Q7UJR2  
UniRef90\_H0A533  
UniRef90\_H0QJT5  
UniRef90\_M0ML93  
UniRef90\_A6LL23  
UniRef90\_UPI00037171D7

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



UniRef90\_MOM778  
UniRef90\_W3ANI5  
UniRef90\_B3PDB1  
UniRef90\_J7LSP1  
UniRef90\_UPI0003AD224F  
UniRef90\_F9T9Q1  
UniRef90\_UPI0001FFE551  
UniRef90\_F0R136  
UniRef90\_UPI0003B3C6DB  
UniRef90\_UPI0003728937  
UniRef90\_U2J3U3  
UniRef90\_B4RGH9  
UniRef90\_UPI000288C528  
UniRef90\_M0AC37  
UniRef90\_J1F5K1  
UniRef90\_UPI00036827A8  
UniRef90\_X6AER9  
UniRef90\_I2GHK1  
UniRef90\_Q5X3U6  
UniRef90\_U2FBT1  
UniRef90\_UPI00036F63B2  
UniRef90\_Q8XRK2  
UniRef90\_H2K6A7  
UniRef90\_UPI000419932C  
UniRef90\_UPI00035FD58C  
UniRef90\_UPI00036FB766  
UniRef90\_K6Q517  
UniRef90\_UPI000237A585  
UniRef90\_V4XPJ1  
UniRef90\_Q5LT19  
UniRef90\_M3C318  
UniRef90\_I0RX63  
UniRef90\_UPI000360078A  
UniRef90\_UPI0003B7991A  
UniRef90\_UPI000372654D  
UniRef90\_V2J2W4  
UniRef90\_G4RFL5  
UniRef90\_H2M636  
UniRef90\_UPI0004766CA9  
UniRef90\_U2YTG4  
UniRef90\_F5IYT7  
UniRef90\_E4U6G4  
UniRef90\_W6AM36  
UniRef90\_E4SWZ6  
UniRef90\_X0SPD1  
UniRef90\_A6NS26  
UniRef90\_UPI0003F89005  
UniRef90\_Q9A4L8  
UniRef90\_D5P334  
UniRef90\_Q1LBZ4  
UniRef90\_Z5XR81  
UniRef90\_J9H5C7  
UniRef90\_E1R995  
UniRef90\_S6KKK2  
UniRef90\_UPI00031BC207  
UniRef90\_UPI00036835CE  
UniRef90\_UPI00030BE50D  
UniRef90\_A3ZMQ8  
UniRef90\_UPI0002485ACC  
UniRef90\_X5JXU3  
UniRef90\_E1T8J0  
UniRef90\_F4F2S1  
UniRef90\_O06741  
UniRef90\_X1R713  
UniRef90\_UPI0002DB58A7  
UniRef90\_K7W1Y1  
UniRef90\_D4GQU4  
UniRef90\_A4EPB0  
UniRef90\_I4YXF2  
UniRef90\_L8P332  
UniRef90\_Q1Q7G6  
UniRef90\_D8G9G6  
UniRef90\_UPI00047A304E  
UniRef90\_M0PBM4  
UniRef90\_A8RRR0  
UniRef90\_V7D2V3  
UniRef90\_Q15Z65  
UniRef90\_B6H6S0  
UniRef90\_N6V0R7  
UniRef90\_UPI00035ED3F8  
UniRef90\_UPI0003B39103  
UniRef90\_D7AZ54  
UniRef90\_M0EJL5  
UniRef90\_A3K5L7  
UniRef90\_H5WVW92  
UniRef90\_W6MG72  
UniRef90\_Q7UJR2  
UniRef90\_H0A533  
UniRef90\_H0QJT5  
UniRef90\_M0ML93  
UniRef90\_A6LL23  
UniRef90\_UPI00037171D7

UniRef90\_MOM778  
UniRef90\_W3ANI5  
UniRef90\_B3PDB1  
UniRef90\_J7LSP1  
UniRef90\_UPI0003AD224F  
UniRef90\_F9T9Q1  
UniRef90\_UPI0001FFE551  
UniRef90\_F0RI36  
UniRef90\_UPI0003B3C6DB  
UniRef90\_UPI0003728937  
UniRef90\_U2J3U3  
UniRef90\_B4RGH9  
UniRef90\_UPI000288C528  
UniRef90\_M0AC37  
UniRef90\_J1F5K1  
UniRef90\_UPI00036827A8  
UniRef90\_X6AER9  
UniRef90\_I2GHK1  
UniRef90\_Q5X3U6  
UniRef90\_U2FBT1  
UniRef90\_UPI00036F63B2  
UniRef90\_Q8XRK2  
UniRef90\_H2K6A7  
UniRef90\_UPI000419932C  
UniRef90\_UPI00035FD58C  
UniRef90\_UPI00036FB766  
UniRef90\_K6Q5I7  
UniRef90\_UPI000237A585  
UniRef90\_V4XPJ1  
UniRef90\_Q5LT19  
UniRef90\_M3C318  
UniRef90\_I0RX63  
UniRef90\_UPI000360078A  
UniRef90\_UPI0003B7991A  
UniRef90\_UPI000372654D  
UniRef90\_V2J2W4  
UniRef90\_G4RFL5  
UniRef90\_H2M636  
UniRef90\_UPI0004766CA9  
UniRef90\_U2YTG4  
UniRef90\_F5IYT7  
UniRef90\_E4U6G4  
UniRef90\_W6AM36  
UniRef90\_E4SWZ6  
UniRef90\_X0SPD1  
UniRef90\_A6NS26  
UniRef90\_UPI0003F89005  
UniRef90\_Q9A4L8  
UniRef90\_D5P334  
UniRef90\_Q1LBZ4  
UniRef90\_Z5XR81  
UniRef90\_J9H5C7  
UniRef90\_E1R995  
UniRef90\_S6KKK2  
UniRef90\_UPI00031BC207  
UniRef90\_UPI00036835CE  
UniRef90\_UPI00030BE50D  
UniRef90\_A3ZMQ8  
UniRef90\_UPI0002485ACC  
UniRef90\_X5JXU3  
UniRef90\_E1T8J0  
UniRef90\_F4F2S1  
UniRef90\_O06741  
UniRef90\_X1R713  
UniRef90\_UPI0002DB58A7  
UniRef90\_K7W1Y1  
UniRef90\_D4GQU4  
UniRef90\_A4EPB0  
UniRef90\_I4YXF2  
UniRef90\_L8P332  
UniRef90\_Q1Q7G6  
UniRef90\_D8G9G6  
UniRef90\_UPI00047A304E  
UniRef90\_M0PBM4  
UniRef90\_A8RRR0  
UniRef90\_V7D2V3  
UniRef90\_Q15Z65  
UniRef90\_B6H6S0  
UniRef90\_N6V0R7  
UniRef90\_UPI00035ED3F8  
UniRef90\_UPI0003B39103  
UniRef90\_D7AZ54  
UniRef90\_M0EJL5  
UniRef90\_A3K5L7  
UniRef90\_H5WW92  
UniRef90\_W6MG72  
UniRef90\_Q7UJR2  
UniRef90\_H0A533  
UniRef90\_H0QJT5  
UniRef90\_M0ML93  
UniRef90\_A6LL23  
UniRef90\_UPI00037171D7

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

UniRef90\_MOM778  
UniRef90\_W3ANI5  
UniRef90\_B3PDB1  
UniRef90\_J7LSP1  
UniRef90\_UPI0003AD224F  
UniRef90\_F9T9Q1  
UniRef90\_UPI0001FFE551  
UniRef90\_F0RI36  
UniRef90\_UPI0003B3C6DB  
UniRef90\_UPI0003728937  
UniRef90\_U2J3U3  
UniRef90\_B4RGH9  
UniRef90\_UPI000288C528  
UniRef90\_MOAC37  
UniRef90\_J1F5K1  
UniRef90\_UPI00036827A8  
UniRef90\_X6AER9  
UniRef90\_I2GHK1  
UniRef90\_Q5X3U6  
UniRef90\_U2FBT1  
UniRef90\_UPI00036F63B2  
UniRef90\_Q8XRK2  
UniRef90\_H2K6A7  
UniRef90\_UPI000419932C  
UniRef90\_UPI00035FD58C  
UniRef90\_UPI00036FB766  
UniRef90\_K6Q5I7  
UniRef90\_UPI000237A585  
UniRef90\_V4XPJ1  
UniRef90\_Q5LT19  
UniRef90\_M3C318  
UniRef90\_I0RX63  
UniRef90\_UPI000360078A  
UniRef90\_UPI0003B7991A  
UniRef90\_UPI000372654D  
UniRef90\_V2J2W4  
UniRef90\_G4RFL5  
UniRef90\_H2M636  
UniRef90\_UPI0004766CA9  
UniRef90\_U2YTG4  
UniRef90\_F5IYT7  
UniRef90\_E4U6G4  
UniRef90\_W6AM36  
UniRef90\_E4SWZ6  
UniRef90\_X0SPD1  
UniRef90\_A6NS26  
UniRef90\_UPI0003F89005  
UniRef90\_Q9A4L8  
UniRef90\_D5P334  
UniRef90\_Q1LBZ4  
UniRef90\_Z5XR81  
UniRef90\_J9H5C7  
UniRef90\_E1R995  
UniRef90\_S6KKK2  
UniRef90\_UPI00031BC207  
UniRef90\_UPI00036835CE  
UniRef90\_UPI00030BE50D  
UniRef90\_A3ZMQ8  
UniRef90\_UPI0002485ACC  
UniRef90\_X5JXU3  
UniRef90\_E1T8J0  
UniRef90\_F4F2S1  
UniRef90\_O06741  
UniRef90\_X1R713  
UniRef90\_UPI0002DB58A7  
UniRef90\_K7W1Y1  
UniRef90\_D4GQU4  
UniRef90\_A4EPB0  
UniRef90\_I4YXF2  
UniRef90\_L8P332  
UniRef90\_Q1Q7G6  
UniRef90\_D8G9G6  
UniRef90\_UPI00047A304E  
UniRef90\_M0PBM4  
UniRef90\_A8RRR0  
UniRef90\_V7D2V3  
UniRef90\_Q15Z65  
UniRef90\_B6H6S0  
UniRef90\_N6V0R7  
UniRef90\_UPI00035ED3F8  
UniRef90\_UPI0003B39103  
UniRef90\_D7AZ54  
UniRef90\_M0EJL5  
UniRef90\_A3K5L7  
UniRef90\_H5VW92  
UniRef90\_W6MG72  
UniRef90\_Q7UJR2  
UniRef90\_H0A533  
UniRef90\_H0QJT5  
UniRef90\_M0ML93  
UniRef90\_A6LL23  
UniRef90\_UPI00037171D7

130 140 150 160  
VHTDFV DAEATDFVRA DPEYDAGLIT GAMK IAHMAEGHGLD  
QMRHCQIQKSV DIFPLAD P HFWTME GSVRVIGQLCNEFGGLM  
DCRELIEQNWLDYLR TTVHAGGMSQMRRLA QDFASFTANLKR  
EMMALIEADAYDIYQTDVLAJAVGMYSRARAR QVVAESTANLKR  
DFLPALQAGVAVVQPDVLSHAGGITS EVRRITASLSAEVY GALL  
EWKALINRNVDFVRC HDVSVQITGGITSPALKLGHL CQSFGRVRS  
EILRWLIDEDRVLDVYQMDHVLSVVGMS RARARTLAEELAMLGRHS  
DVEQC GYHFNGLNTKLT KCGGLT PALRMIKKGKELGLK  
LAKQFLQAEALDVLQI DARSRVAGVNT ENLJAML LAAEFGLPI  
DLLLLATEAQPSYGLIFNIKL MKCGGVTE ARRTIAFLVAERSGVI  
DVPKLDKDVYS GINIKL MKCGGMRE AKQMAELARALEM K  
DCKQLTIEEQGLIDYIRAT VVHAGGILT HLLRRITASFADLYGVR  
QFRPLLAAGAVDILVQ T SAVVWGILT HFLRRVAMLAHADLHP  
SHADFVVG DGTDFVRA DPEYDGGILT GAMKLVHMAESFGLD  
DVEHEITGKNNAADAV HLLKXYIKAGG YETKLLKAMLDIFAEVNHQD  
DCHQLIREQQLIDYIRASV VVHAGGILT QLRKRVAFIAEPYHVK  
MVRRLVIA DRSAEV VCLKLSKQGGILT SKARRMRDMLINDNRP  
MVESSLIKKIPKPDINNTDFIKS GGILT EGGLEKICHI VAGLHKKQ  
DALNIAKINACD GVINIKL MKCGGILT EKASQSIYHIAQA AKMQ  
DFLRLLEARAVDVLQADATRC GGILT SGFLAAALADADAHVVD  
EQWPLIAGQLIDYIRVIVS QVGGFT PSARKITAJLAEAFGLVKT  
QILGHAVP LQAVDIP LADP HFWTMQ GSARVAQLCNDWGILT  
EFLPVL TAGLIVAVQ PDPS HAGGIT SEVHRITIALADTFGAQ  
DVEKCAPIYFH GVINIKLTKCAGGIT PGRRMINKNARSGLK  
GFRTLIEESQACAGV HLLDIPKSGGILT SEKRISDLAADMWEI  
YFRHMLAAASVDCLQADVTRC GGILT VWMRAAALAEASGLQ  
DALALLSRHAVNHINIKL MKTGGILT AEAARKIDAAACASFGVPT  
EYTYA AQQG PWNADVRFDA LMTSGGILT SAQAKLVALADCLGL  
DIPALAD RC DIANL KLMKTGGILT LEAKRAVATARS HGL  
SLLTAHR LGIMDAVAVD LKLSKFGGILT STTRRARDLCLHLGAR  
GFRKLIIEGRNIDILQADKLVWVGGILT TELLKVVSAMAAAYDIP  
YFQQMLDAGAVDCLQADVTRALGILT GVLKLVGALCDARSMD  
EFGPLIAGRLIDFIRMAHV S QMGGILT PARHVAAFANMYGV  
EFGALLRHGGLV LQALGRVGGITWE AKKIAAFAMAEVFNAE  
DVERC VNHFHGLN IKLTKCSGIT PALRMI RQARRLGLK  
EFHLQLAKGGGVRFAR TSVVCGGGITSGAKKLAALAEAFQNV  
YAREWILKSGGACDILRTSGV HDVGGITSPSLKSIALLADSFQGMN  
MFKQFLQAGALQFVQTD S RLLGSSV NENLJAVLLMAHKFRVLP  
QMLPGIEEQNAWDALRTD VTYAGGFT AARTIASL LAQA HGL  
RFAEMLR RRGAAQVDP NINIRVGGIT PLQRITATVAEDA GAE  
DVLRL KGAFTGVN IKL MKCGMRE AWKLTVAARAANMQ  
DVEVW APYVDGVI KLMKSGGLA PARAMILETARGLGLQ  
DAKRLLED EKC CDDILN IKLAKMSGGILT KEARVHNLAESEYNV  
DAQRVLAKNADYI NIKL MKTGGILT SEAKKIINDLAE SRGV  
GFRMLIEAKAVDILV MYD LWC GGILT TEAKKIINDYADTYI  
GFRQFFE DRTLDIIV QPDDL TCGGIT TETKKI CDMAQVYDVG  
EFQRVLELGAASIL QP DVG RVGGILT LESKKIAGMAEA CYAQ  
DCKQLIEEQGLIDYIRAT VVHAGGILT HLLKRLASFAADLHV  
YFNRM LIAQAQAVDCLQADVTRC GGILT TDWLRRAAVAAANNV  
DVKNLVLF GGMRIIF QMD SGLSYGV TGYLHMLHEMEERGFS  
QVILQLLEDLGAVDILN IKL MKTGGILT SNAYQIAQYANKKGVK  
QGKQLLDGKGVGFI QIDAGYVGGIT SNAYQIAQYANKKGVK  
DAFH LARKKLV DMLN IKL MKTGGITR PAERIIA A IARAAGQEK  
GLRAMFEQGALDIAQPS VAKLGGIT SAMVQVVFELARRYQVK  
YFQQMLAAGAVDCLQADVTRALGILT TGMVLRVAALCDARGMK  
DLJARVIRLDADLVVKI C KSGGILT RNALKTATQVALS GGVE  
MARIRVANDRGA EI CCLKISNLGGILT SKARRVRDFLIDHGLP  
MIVRC AADRADVNV LKIKS LGGILT TKARQARDL CASGLA  
KFIN FIDQGGLEIL QP DVAKYGGV SGAFAVIGETAIKHEKR  
DLSPLVNGYALDGV NIKL MKSGGILT EAARRIVHTARA HGLQ  
EFFRLLQTYGASIL NQKLVARVGGILT LEAKKVAALAEVHYAQ  
DYQTLIREQLIDYIV RSAVHTGGIT TAMRKLLDFAAQYQIK  
QYVPLLSQRCLDI IQP DVMH VNGITDEFRDCLQLLARYGVR  
GFRLELITRRAVDILV QP DVC IAGGFT TEMFKI IAMASAWNLIQ  
QFAQAFQAGAVDILV QPSVTKVGGIT SEFLALIEQA GKA GSQ  
DPLQLANVYDGI NIKL MKSGGITSE AMRMVHTAKA HNLQ  
DFERTLELDALDVLV QPS PS HAGGILT SEVRKIATTAEA KNDML  
EFARILETGAA SILL QMDLGRVGGILT LEAKKIASMAETRQAQ  
QFPYILIERDHLQFNRLD VNCVGGILT TESMKVVAAWS ETRHYVD  
DFVNLIEPSAVDCLQADVTRC GGILT TGVLEVAAGLSATRHIID  
DIPRLAGMV DGINIKL MKCGGITRE ALRMIHTARA HRLK  
DM PRLANCLV HGINIKL MKKAGGILT TEAMRMIMHA AKAYGLIQ  
DYQTLIREQLIDYIV RSAVHTGGITSPMKIMDYAAQYQIK  
DIPALAD RC DIANL KLMKTGGILT LEARRMI AARA HGLD  
EYILRYFMDNSI QVTPD IGVNAGGILT TETKRICADMAYTFDVG  
QFEQALLLAGAVDSI QP DSVTKVGGITSE CLRIADLADQ HDLG  
DCKDLIQNQGLIDYIRVAAT HAGGILT PLRRIADFASTY NVK  
TFKQLLQAEATDFV CGLD AVRLGSSV NEECLAVMLMALKFP  
TVLRVAVGDGIC DVGFMKTRILGGIT HAMATFRDI CETRSM  
WALELVAAARAVDVLN VGLFALGGIT PARRVAAIAEAAGLR  
VFAAAGARRLV DIFQ PVDVLWCGGIT TAAATKICHLIAEANGIS  
DARNLIRYGGMR FVQPDV PALSYGLT TEYRRVLDMLARHG  
GLDAVLEADAADAVL KPMALGGP DRAALAAALARS SGVD  
EFATVRLTGGA KILQPA LGRVGGILT WEARKLALAEESFNAE  
PRDFVLDLVGDVCLQADVTRC GGILT TGLVQVSGMCTFHQLD  
IFKQLLQADALD VCLQIT DSVRLGGV NECLAVMLMALKFP  
DVA DFGVYS GI NIKL MKSGTGLVRE AQKMITVARALDMK  
DARNLIRYHGRDIL QFD PALSYGLT VREYLRITL DMLVSHG  
DCEQLITERLIDFIR TAVVHAGGIT SHVRKITLALAEVYQIK  
PHVDFEIASEATDSLRADPEYDGGITSGAMKLAHAEAGFAD  
DVMRLIKEEATDYV NIKL MKSGITSDALSIVEIVK ANLR  
DCHELISRRLV DYIRCSVSHAGGIT HLLRRIIFDLAALY GVR



UniRef90\_MOM778  
UniRef90\_W3ANI5  
UniRef90\_B3PDB1  
UniRef90\_J7LSP1  
UniRef90\_UPI0003AD224F  
UniRef90\_F9T9Q1  
UniRef90\_UPI0001FFE551  
UniRef90\_F0RI36  
UniRef90\_UPI0003B3C6DB  
UniRef90\_UPI0003728937  
UniRef90\_U2J3U3  
UniRef90\_B4RGH9  
UniRef90\_UPI000288C528  
UniRef90\_MOAC37  
UniRef90\_J1F5K1  
UniRef90\_UPI00036827A8  
UniRef90\_X6AER9  
UniRef90\_I2GHK1  
UniRef90\_U5X3U6  
UniRef90\_U2FBT1  
UniRef90\_UPI00036F63B2  
UniRef90\_Q8XRK2  
UniRef90\_H2K6A7  
UniRef90\_UPI000419932C  
UniRef90\_UPI00035FD58C  
UniRef90\_UPI00036FB766  
UniRef90\_K6Q5I7  
UniRef90\_UPI000237A585  
UniRef90\_V4XPJ1  
UniRef90\_Q5LT19  
UniRef90\_M3C318  
UniRef90\_I0RX63  
UniRef90\_UPI000360078A  
UniRef90\_UPI0003B7991A  
UniRef90\_UPI000372654D  
UniRef90\_V2J2W4  
UniRef90\_G4RFL5  
UniRef90\_H2M636  
UniRef90\_UPI0004766CA9  
UniRef90\_U2YTG4  
UniRef90\_F5IYT7  
UniRef90\_E4U6G4  
UniRef90\_W6AM36  
UniRef90\_E4SWZ6  
UniRef90\_X0SPD1  
UniRef90\_A6NS26  
UniRef90\_UPI0003F89005  
UniRef90\_Q9A4L8  
UniRef90\_D5P334  
UniRef90\_Q1LBZ4  
UniRef90\_Z5XR81  
UniRef90\_J9H5C7  
UniRef90\_E1R995  
UniRef90\_S6KKK2  
UniRef90\_UPI00031BC207  
UniRef90\_UPI00036835CE  
UniRef90\_UPI00030BE50D  
UniRef90\_A3ZMQ8  
UniRef90\_UPI0002485ACC  
UniRef90\_X5JXU3  
UniRef90\_E1T8J0  
UniRef90\_F4F2S1  
UniRef90\_O06741  
UniRef90\_X1R713  
UniRef90\_UPI0002DB58A7  
UniRef90\_K7W1Y1  
UniRef90\_D4GQU4  
UniRef90\_A4EPB0  
UniRef90\_I4YXF2  
UniRef90\_L8P332  
UniRef90\_Q1Q7G6  
UniRef90\_D8G9G6  
UniRef90\_UPI00047A304E  
UniRef90\_M0PBM4  
UniRef90\_A8RRR0  
UniRef90\_V7D2V3  
UniRef90\_Q15Z65  
UniRef90\_B6H6S0  
UniRef90\_N6V0R7  
UniRef90\_UPI00035ED3F8  
UniRef90\_UPI0003B39103  
UniRef90\_D7AZ54  
UniRef90\_M0EJL5  
UniRef90\_A3K5L7  
UniRef90\_H5VW92  
UniRef90\_W6MG72  
UniRef90\_Q7UJR2  
UniRef90\_H0A533  
UniRef90\_H0QJT5  
UniRef90\_M0ML93  
UniRef90\_A6LL23  
UniRef90\_UPI00037171D7



UniRef90\_MOM778 G G Y E D Q L V D E D G T V P V P D G P G L G V I E Y D W E F I D E Q K E G G R T 210 220 230 240  
UniRef90\_W3ANI5 R L T K N P M Q I V I G G I D I D K T V G L G V I E V D R E Q I M K A N K L Y  
UniRef90\_B3PDB1 A V F P H A Y T D I N D G Y F T P G E K P G H G V D I D E K L A A Q Y P Y K R  
UniRef90\_J7LSP1 D F F M E P L D I D D G A L R V P D L P G L G V I D Y D A V K K Y S V  
UniRef90\_UPI0003AD224F A D V L D Y L V F V D G S I E R W D A P G L G V I E L D E D A V R R A D E V G H R  
UniRef90\_F9T9Q1 A V F P N A A E P D N G Y L Y A S E R P G I G V I E M N L E M A K E F P V T Y R P  
UniRef90\_UPI0001FFE551 P L A A P V T V G P D G G L A V P D A P G L G V I E L D E D A V A R W R V  
UniRef90\_F0RI36 D I A K G I K I E P N G N L I F P N T G G S G I T L  
UniRef90\_UPI0003B3C6DB H L H E H F V T P V I G G R Y H A P T A P G A G A E M L A T S I E R Y R  
UniRef90\_UPI0003728937 D L V T G G F I L K D G Y L Q A G P G L G L  
UniRef90\_U2J3U3 D I Y D G M T V R D G Q C I L P D R P G I G V  
UniRef90\_B4RGH9 A V F P H A Y R F Q D G M L H P G E A P G L G V I D I D E A E A A R H P Y R R  
UniRef90\_UPI000288C528 H V D L H V E G G E F I L G D S P G L G V I R I D E E A I R S A P R R  
UniRef90\_M0AC37 G G Y S D M I D T V D G H V T V P D G P G L G V I D Y D W D Y I E E  
UniRef90\_J1F5K1 D P G K G I R L K D G G I Y L P G E A P G L G V I C V D K S L L K  
UniRef90\_UPI00036827A8 E V F P H A W S F S D G Y L H P G E A P G L G V I D I D E K L A A R Y P Y D R  
UniRef90\_X6AER9 R T G T P G P F T S E G K M F A S D A P G L G V I E P D L E S L  
UniRef90\_I2GHK1 S V F D E G I Q F Q D G D M L P K G N G L G L V I N E K R A K A L  
UniRef90\_Q5X3U6 N Y I L G G A Q N L S N K I L A D K P G L G I E  
UniRef90\_U2FBT1 M L F D G A P V L V D G T L G I D T R A G L G L E L R A A D L R D F A  
UniRef90\_UPI00036F63B2 E I F R G C P E M K D G Y L W A N E K P G W G I E I D E K L A A K F  
UniRef90\_Q8XRK2 R L T R E P L H R I E G Q V R V P Q Q P G L G I E L D M D R V M Q A H A L Y Q T  
UniRef90\_H2K6A7 A D L P E P F R F V D G H A R R N D A P G L G L T L D E A A V R A A D R G G H A  
UniRef90\_UPI000419932C D I A E G V K V Y D G K V H F P D R N G T G A K L  
UniRef90\_UPI00035FD58C L V T H E G P F W K D G Y F T I E D K P G L G V I E I N P D V A K A H L A P G E T  
UniRef90\_UPI00036FB766 S L F D G G L Q P S G G V L R V I P G R T G H G L S L R E E A  
UniRef90\_K6Q517  
UniRef90\_UPI000237A585 G I L N P I R V I G K D G M V R P P S G N G L G L D I D W P A M D A A T V S Y E T  
UniRef90\_V4XPJ1 D P Y E G V D V T G G P L R L N D R A G T G A R P  
UniRef90\_Q5LT19 R L A P D A P V R A N G R I A P P E G A G G L G I T V D R G A L  
UniRef90\_M3C318 N L F T N E P I P T N G F I L D V S D L P G F G L E L N P A A  
UniRef90\_I0RX63 M A F D G A L A P Q P G G V L R P D R P G H G L T V K E A D L E G F R V  
UniRef90\_UPI000360078A E I E P G L P E V R N G Y M Y P S D K P G L G I D I N E D L A A K Y  
UniRef90\_UPI0003B791A A L I K N S I K W E R G Y I I P P E G P G L G I D F D E D L A R A H P Y T G T R  
UniRef90\_UPI000372654D D V A T G L G F D Y G K L I Y N N E P G L G I E  
UniRef90\_V2J2W4 D L V K R Y P V P E N G F I A V S D A P G L G I E L V D D V E Q R R A P L Y R  
UniRef90\_G4RFL5 L N S L A D P M D E N G F V H L S D K P G M G E D I N F A F I D  
UniRef90\_H2M636 P V V I H N A R Y M P P K I P G Y S C E M L E S S V K K H Q Y P  
UniRef90\_UPI0004766CA9 E Y C R T P I R T D N G V V H A P M A P G L G I E M D W Q Q V K R H T  
UniRef90\_U2YTG4 L R D P S P V V I R D G R L R E T D H V G L R G I F  
UniRef90\_F5IYT7 D I Y K G T T V V D G K L I L N D L P G I G I E R P  
UniRef90\_E4U6G4 D P F T G L D Y D G P R L V G P T G P G L G V R P  
UniRef90\_W6AM36 N I T D I G L E I G Q Q V L L T E E S G I G I  
UniRef90\_E4SWZ6 P D L N S Y A E C V I G D N I V V  
UniRef90\_X0SPD1 N Y V N D L Y E P V V N G F V T P S D K P G L G V I E L K P E L F R  
UniRef90\_A6NS26 N S G K Y Y A P V N G S Y D I P E L P G I G Q E M S E D Y M A  
UniRef90\_UPI0003F89005 E T L K K P L A F E D G Y L L P P H E P G L G V I E L D L E V V A R H S P Y T G E  
UniRef90\_Q9A4L8 A V F P H A Y T P K D G M L H P G D A P G L G V I D I D E D L A A K Y P Y Q R  
UniRef90\_D5P334 M L F D G A L S P E G G E L R D Q R P G L G L E L K E A D A Q R Y R K S  
UniRef90\_Q1LBZ4 G G F G D D T R V D A G A V A L P S L P G F G F E G K A E L W Q E L A  
UniRef90\_Z5XR81 D P V Q G G V E F N G P Q I T L S D A P G L G I E  
UniRef90\_J9H5C7 E L T T N R I E L K N G M I S A P D K P G T G M D I N L D A V K K Y L V Q T Q  
UniRef90\_E1R995 D T T A S A V Q V K N G L L Y P T G E P G L G F E V  
UniRef90\_S6KKK2 E R L L Y P Q L A F T P Q M S L P Q Q P G L G F A P D A E V L K A Y T V  
UniRef90\_UPI00031BC207 L A F D G V I E P E P G G V L R P D R P G H G L T V K Q V D L D E F R V A  
UniRef90\_UPI00036835CE D L Y V I E G L T I T K A V A T V P T A P G L G V I Q V D E E R I R A  
UniRef90\_UPI00030BE50D S T G L G G P A A R D G K L Y A S D T P G L G V T P D  
UniRef90\_A3ZMQ8 S I A D G A P Q R D N G R L A A A R E P G L G V K P K L D V L G K  
UniRef90\_UPI0002485ACC E L G T L D L T L T N G F L S I P D G H G H G F T P D P I A L K E M T  
UniRef90\_X5JXU3 D P F T G A T L E E Q G I L I P T H L P G L G V I E  
UniRef90\_E1T8J0 A V L K K P L Q W E D G Y I L P S R E P G L G V I E L N M E V V A R H S P Y T G E  
UniRef90\_F4F2S1 E V F R Q S F T F T D G Y L H P G E Q P G I G V I E L D E E A A A R F P Y Q P  
UniRef90\_O06741 N P F T D S L Q P S K G M V H I T P K G K G I G T E I N M E I V N R Y  
UniRef90\_X1R713 E A T Y E R F A L K D S Y I D I P Q K P G L G V T V N M D F L N A  
UniRef90\_UPI0002DB58A7 D V I E G L R S G D L I K V P Q V P G L G F E P D Y D V M N K Y R R  
UniRef90\_K7W1Y1 D P F T G A V V E N G R V L P N N L P G L G V I  
UniRef90\_D4GQU4 N D L L G Y L D F D D G F V S A P D A P G L G V K I D E E A V R E H A Q S R V D  
UniRef90\_A4EPB0 C L K S S I T W E E G Y V I P S A E P G L G V I E L N D E A I A A  
UniRef90\_I4YXF2 D F F P V Q P R L V I G A H Y P V P D A P G L G I E V N E E L I A K Q S F E F W E  
UniRef90\_L8P332 L L F D G T L S P D G G A L R P D T G P G I G L E I K W A D A E P Y R V Y G A R  
UniRef90\_Q1Q7G6 D P Y E G V H F E K G R L S L P E R D G L G V R L K  
UniRef90\_D8G9G6 D P F A G A V L E N G C L L P N D L P G L G V I  
UniRef90\_UPI00047A304E E V F E Q S F T F E D G Y L H P G N E P G L G V I E L N E E A A A K H P Y  
UniRef90\_M0PBM4 D P Y D G T E M P A G E I R L G E R S G T G A R L A D E  
UniRef90\_A8RRR0 E L T A K V V M P K N G Y L D V T D D I G L G N E W S D K A L A  
UniRef90\_V7D2V3 Q L R R G N L L H I P Q G P G L G L D L A V A E R F H R  
UniRef90\_Q15Z65 R I F K H T V E V K D G L A N V S E A P G L G I D F D E Q A A K E Y P Y K R  
UniRef90\_B6H6S0 E N L R H P S K I E N A H Y V T P L D P G Y S T G Y T H T A L E K Y T Y P  
UniRef90\_N6V0R7 H Y A E N G V A I V D G H I K L P R G S G L G V I P D E  
UniRef90\_UPI00035ED3F8 D V V E R P V E Y R D G R L V V P Q G P G L G V A L D P E R L A A A A  
UniRef90\_UPI0003B39103 M V L P G T S V I K D G H V A P S D A P G F G L E L D E A W I E  
UniRef90\_D7AZ54 G G F A D E A V T R G R V A P G D L P G I G L E  
UniRef90\_M0EJL5 D L A P D P C P I D D G R I A V I P T G P G L  
UniRef90\_A3K5L7 R L I K G A I E V E N G F V S A P T A P G L G I E V D E D L A R A H P Y T G G E  
UniRef90\_H5WVW92 I A F D G T L S P E G Q L R P H R P G L G I E V R W R D L E P L R V H G S R  
UniRef90\_W6MG72 N L A H P C E I R D A H Y V T P M D P G Y S I G Y T P G A I E K Y  
UniRef90\_Q7UJR2 D L Y E G V K V I D G K L T L N N L P G T G L R  
UniRef90\_H0A533 G G F A D D T P V E D S R I K L P D S P G G F E  
UniRef90\_HOQJT5 E V F R S S F R F E D G Y L H P G D E P G L G V I V D E Q A A A R F P Y K Q  
UniRef90\_M0ML93 E G Y D D Q L D D S D G T V P V P D G P G L G V I D Y D W S Y I E D Q M K G G R T  
UniRef90\_A6LL23 K E F R G K Y K I Q K P Y Y V A  
UniRef90\_UPI00037171D7 E V F M T H Y R F E D G Y L K P G D R P G L G V I E I D E D A A A R Y P Y E P R

UniRef90_M0M778	Y
UniRef90_W3ANI5	
UniRef90_B3PDB1	
UniRef90_J7LSP1	
UniRef90_UPI0003AD224F	WR
UniRef90_F9T9Q1	H
UniRef90_UPI0001FFE551	
UniRef90_F0RI36	
UniRef90_UPI0003B3C6DB	
UniRef90_UPI0003728937	
UniRef90_U2J3U3	
UniRef90_B4RGH9	
UniRef90_UPI000288C528	
UniRef90_M0AC37	
UniRef90_J1F5K1	
UniRef90_UPI00036827A8	
UniRef90_X6AER9	
UniRef90_I2GHK1	
UniRef90_Q5X3U6	
UniRef90_U2FBT1	
UniRef90_UPI00036F63B2	
UniRef90_Q8XRK2	
UniRef90_H2K6A7	WR
UniRef90_UPI000419932C	
UniRef90_UPI00035FD58C	WW
UniRef90_UPI00036FB766	
UniRef90_K6Q5I7	
UniRef90_UPI000237A585	
UniRef90_V4XPJ1	
UniRef90_Q5LT19	
UniRef90_M3C318	
UniRef90_I0RX63	
UniRef90_UPI000360078A	
UniRef90_UPI0003B7991A	
UniRef90_UPI000372654D	
UniRef90_V2J2W4	
UniRef90_G4RFL5	
UniRef90_H2M636	
UniRef90_UPI0004766CA9	
UniRef90_U2YTG4	
UniRef90_F5IYT7	
UniRef90_E4U6G4	
UniRef90_W6AM36	
UniRef90_E4SWZ6	
UniRef90_X0SPD1	
UniRef90_A6NS26	
UniRef90_UPI0003F89005	
UniRef90_Q9A4L8	
UniRef90_D5P334	
UniRef90_Q1LBZ4	
UniRef90_Z5XR81	
UniRef90_J9H5C7	
UniRef90_E1R995	
UniRef90_S6KKK2	
UniRef90_UPI00031BC207	
UniRef90_UPI00036835CE	
UniRef90_UPI00030BE50D	
UniRef90_A3ZMQ8	
UniRef90_UPI0002485ACC	
UniRef90_X5JXU3	
UniRef90_E1T8J0	
UniRef90_F4F2S1	
UniRef90_O06741	
UniRef90_X1R713	
UniRef90_UPI0002DB58A7	
UniRef90_K7W1Y1	
UniRef90_D4GQU4	WQ S
UniRef90_A4EPB0	
UniRef90_I4YXF2	
UniRef90_L8P332	
UniRef90_Q1Q7G6	
UniRef90_D8G9G6	
UniRef90_UPI00047A304E	
UniRef90_M0PBM4	
UniRef90_A8RRR0	
UniRef90_V7D2V3	
UniRef90_Q15Z65	
UniRef90_B6H6S0	
UniRef90_N6V0R7	
UniRef90_UPI00035ED3F8	
UniRef90_UPI0003B39103	
UniRef90_D7AZ54	
UniRef90_M0EJL5	
UniRef90_A3K5L7	
UniRef90_H5VWV92	
UniRef90_W6MGT2	
UniRef90_Q7UJR2	
UniRef90_H0A533	
UniRef90_H0QJT5	
UniRef90_M0ML93	Y
UniRef90_A6LL23	
UniRef90_UPI00037171D7	

UniRef90\_UPI00036A9C6D 1 R D R A R A Y C W V G G D E P A Q I H E E V T A Q V E A G F T A V K M N A S 40  
UniRef90\_K5WIR1 E Q V Q V Y G S G G F T S D D A R M V Q Q L T S W V A Q Q V H R V K I K I G V A  
UniRef90\_UPI0003B3EC5D R D R V P V N A T V P A V P A E R M V D V L G G Y A G Q V H A V K I K I V A  
UniRef90\_B2GHP1 T D Y T I G I A S I E K M V A K M K E L P W P I Y K I K L G  
UniRef90\_UPI00046801F6 R T A V T L Y A H A S G D T I E D T I D K A Q A H I D A G F K A V R L Q A A  
UniRef90\_F5ZB77 R V R A Y A S L D Y H L S D S H Y S H F F A Q A K A K G Y E A F K I K V G  
UniRef90\_I4YYH2 R D E L Q F Y A T G A R P D L A K E M G F I G G K L P V G  
UniRef90\_UPI00045EB3DE P A Y T S T G W L G Y S D E K V R R L T K E S L A R Q G F N H F K I K V G  
UniRef90\_J9VFH5 T R L P L I S S I P V D D P E A M R N N V A D H R K R G G Y K H S V K I G  
UniRef90\_A0A017SR78 R E R V P T Y N T I G F G A V H E D A G A L A K S L L A D G V R A M K I P A Q  
UniRef90\_I012R2 K L T T D Y T L S I G S D D E H M V S E A K S L L V K D G G F T A I K I K L G  
UniRef90\_Q040J3 R D A I P A Y T H A S G E T P E A L F I A V E R L L E E G Y R H I R C Q L G  
UniRef90\_H3N193 R R L V P I S S T V G I S D P D K A R Q R V Q D W I P I T G A H V L K I K L G  
UniRef90\_F4XVU6 L P I F E S V P L T S I E E G I D F M R E R S A A G L R R F Q L K V G  
UniRef90\_E0DSL0 P A Y V T G W L G Y D D E K V A R L T K E A V L Q G F N H F K M K V G  
UniRef90\_M5GDB3 A Y T H A G R D F E E V A D Q V R Q A V E R G F R V V R A Q V E  
UniRef90\_UPI00047DC4BB Y R S R V E C R Y W M C D K P P E D Q A G E A I K A V E A G F K A L K I K I G  
UniRef90\_X1FU17 R D R L D F Y C T S S R P E A A K E M G F W G G K V H L G  
UniRef90\_K0KVM0 Y N D P D L A A E E A I R M V E A G F T G L K F D P A  
UniRef90\_K2R0Q4 R D A V P A Y T H A V A D N I D E E L Y H E V D T L A Q S Y K H I R C Q L G  
UniRef90\_UPI00035EC6D9 P S Y T T G W Y G Y S D E K V A R L T R E A I A S G W N H F K V K V G  
UniRef90\_U5H1Z7 P E S Y A E A E L V V D E G H D A I K F D L D  
UniRef90\_M0D422 H V P V G I S L G L Y T D V D R M K K V V K N A L E T G Y K R L K F K I S  
UniRef90\_A9DU98 P E E Y A Q V T L R A M E E G Y D A V I K V D P G  
UniRef90\_UPI0004670A3A M P L Y H S I T C I A P D E M V K I A K E K Q K E G I T Q F Q V K L G  
UniRef90\_J9YX83 R Q F A A T A R T V G I V P V E R A A A Q A R C L A D S G F S I K I K A G  
UniRef90\_F1DGI7 S V S V Y A S G L H V S A G E E I A A A R A R G I K A F K V K V G  
UniRef90\_A6FPX0 P A Y V T G W L G Y D D E K I K R L T K E A V A A G F N H F K M K V G  
UniRef90\_UPI00044082B2 H R Q A I A I N G L I W M G N K Q F M K D Q I K E K L T Q G F R C I K M K I G  
UniRef90\_UPI00036F4C34 R D R V R V Y A W V G G D E P A R L T D E V T A Q V E A G F T A V K M N A  
UniRef90\_V6KT20 R D E L P V N V T V P A V G P V R A H D L V R D S G C T T A K V K V A  
UniRef90\_A9ZNU3 A K V M G F I G G K L P L G  
UniRef90\_T1XJ81 H K N S I E V A H S L G I M D L D K C Y A E A E A A V A E G A L T I K C K T G  
UniRef90\_UPI00040A5D1C H R E V P V Y G S G G F N Y P L G R L V E Q L A G W V E Q G I P R V K L K T S  
UniRef90\_UPI000474C4BE  
UniRef90\_C6WS62 H R T I P V Y A S F Q S Y A E R E D W L N Q V A A A L A A G F T R F K V K I G  
UniRef90\_L5MQK8 R D E I Q F Y V T G A R P D L A K E M G F I G G K M H W G  
UniRef90\_N8X8V5 R T S I V T A A R I S P E P V L D T V V G R V N R A V G A G H T R V T V E I R  
UniRef90\_UPI00047E3F99 S L Q T D Y T I S I G S K E K M V A D A Q G Y V G Q G F T E L K V K M G  
UniRef90\_E6LFV9 R D G V L V Y S H A S G T D V P S L L D D V E R H L E L G Y K A V R A Q A A  
UniRef90\_P32426 R K S L P V L W P L N N G T A E D D I R V I D E R A A Q G F S S F M L K M G  
UniRef90\_Q123K1 Y R D K I R I Y A T S W P L P T P E D Y A K E A L S C K Q R G I T A Y K L H V D  
UniRef90\_X1S5S7 E S V P V N A T V G D G S V E E T V E A A E T A V A D G F D C L K C K V G  
UniRef90\_V4ZL3 R N N I P I T Q M V A G L S L D E E I S N V K N A V S N G F T C F K I K V G  
UniRef90\_UPI000361F6E5 R E S V M V Y G H A T G R D I P E A L D R Y G E H I E Q G Y K A I R I Q C G  
UniRef90\_E1T608 Y R D K V R L Y A D T P E A S S V E E Q K K L T Q R I Q E Q G Y T W L K M D V G  
UniRef90\_F4C1P2 N T V T T D I T I P I S T V E E A Q L A A K Y R G Q G F Q T L K L V G  
UniRef90\_M0XRZ3 R D R V P G Y A S G L C M G D D D A L Y A L Y G E W A D R G Y S A K L K V G  
UniRef90\_H6RM20 V E T D M T I P I V S T E D A T R R A T E A A A G G Y E H L K I K T G  
UniRef90\_V4NQG1 N Y S I G I N S I E N T I T R I Q S L S D W P I F K I K L G  
UniRef90\_UPI0003A0B00E T Y S G V I S A G K P E H V K K F V D A F Q A M G V T E Y K V K V G  
UniRef90\_G2MN08 L A E S L J A E G I T A M K I Q E T  
UniRef90\_D0LLD5 R T E I P I K L S L S G D G E R L E R V H A A A T K A G F A F K V K V G  
UniRef90\_C5BI23 V A T Y A S V N L D Y E L P D L L D Q V G R W M D G F D A V K I K I G  
UniRef90\_UPI00030546D1 T N F T I G I D S I E K M V E K M K E V D W P L Y K I K L G  
UniRef90\_UPI00037CD543  
UniRef90\_D6V855 R D A I P Q S R I L A I K A P S E M A R K A E E L V T A G Y T Q L K L K L S  
UniRef90\_C5D0U2 R E R V P V Y N T C A G Y T Y N K A P A A L A E S L L S E G Y K A M K I W P D  
UniRef90\_A0A031Q69 R D E L Q F Y A T G A R P D L A Q K M G F I G G K M P L G  
UniRef90\_J7KR75 T P G I Y F D P D A Y A R S I P A F F D H L R N K I G  
UniRef90\_Q020Z3 R E A A D C Y A H A D G A D F P N V V E A A K R Y M A Q G F R H V R V Q I G  
UniRef90\_H8GV01 E S S Y T V S I A A L P E M R R Q A R E A A A R G H G V L K V K L G  
UniRef90\_E7C870 R D R V R T Y T S T D V Y L D P E L A A R A A Y A R G F T A V K F D V G  
UniRef90\_UPI000364D1CA E R D A G A L A R S L L A M G I G A M K I A A E  
UniRef90\_K9R9F9 P V S V T I G I S S P E A A R N R V R D W L Q M D V K M L K V K L G  
UniRef90\_C6C9Z0  
UniRef90\_I3C9Q5 S I P I N G L I W M G E E A F M K E Q I K D K I E A G F D C I K M K I G  
UniRef90\_R4W079 H L R V N A T I G D A S V S D T V E A A E H A V A D G F D C L K L K V G  
UniRef90\_UPI0003618A6B R D R V P V N V T V P A V G P E R A A E I V A A G G C T T A K V K V A  
UniRef90\_UPI00034B6603 Q R D V I P T F A S F M A D N I E Q T L N D T R T L T E A G W D C V R I Y P S  
UniRef90\_UPI0003618A6B T S F T I G M A P L P E M V A K L Q E A P W P L Y K V K L G  
UniRef90\_W9AWF7 R D R I R V Y G H A S G P D Y A A L K D A I T G Y V I E A G Y T A V R V K P G  
UniRef90\_K9TLD6 V P T S L T I G I S S P E A A R T R V R H W F N Q G C A I K V K L G  
UniRef90\_X4J4E3 M H T P L D Q V L K N V I S R E N G I G G I K L K V G  
UniRef90\_D2EG65 I S M T I G I E N E R L S I R H A K L Y K R Q G F K V I K V K V G  
UniRef90\_J4SK37 D R L R T E M R G Y L D A G Y D A V K M K I G  
UniRef90\_UPI0004640C2C  
UniRef90\_A4U8Q8 P V Y E L L G G P A H A E A T G H D V A W M L E S G F E A V K L P V A  
UniRef90\_D7CRZ6 R E R I P V S F I L G M D A L E A T L Q E A E R V Y A A G V R V F K V K V G  
UniRef90\_UPI000409F24E G S L S L E D E L V A D M V R Y V N E G Y K T I K F K V G  
UniRef90\_B5YB43 K E E I E T D K T V S V G S I E E R V K E A E E I F K E G F R V I K I K V G  
UniRef90\_UPI0003B2F046 R T R I D V N A T V P A V D P H E V A G V L A R F P G C C T A K V K V A  
UniRef90\_C7R0P0 H R T R I P V N V T I P A T T P E H A H A R V L A S H G C T T A K V K V A  
UniRef90\_UPI00036556B5 Y E D P G L G A E C A I K Y K E K G F T A I K F D P A  
UniRef90\_F8GV68 A K Q Q G F I G G K L K E G  
UniRef90\_UPI00036FB9A7 R P D A A V Y G S V N L H Y P L A E L V A Q A E R W V A A G F D T G M K V G  
UniRef90\_M0N1V8 D D L P V N A T I G D G S I D E T V A A T A A V E Q G F E A L K I K V G

UniRef90\_UPI00036A9C6D G R T D R L P S V A D L G P T G D F A V D F H G R L S V A G A I R V A A L E E  
UniRef90\_K5WIR1 A D D D L R R R G T L I R S L I D D P Q L M L D A N Q V W D V Q Q A I I D Y K K L E E  
UniRef90\_UPI0003B3EC5D T D R D L Q R R I H A R A R E A I P D Q A E L F T D A N A G A Y S A K K H A I R L J A H A A S  
UniRef90\_B2GHP1 E A D D V A R V A A V R H L L P D A A E L R V D A N A G W D E D H A V I R T A S A L S  
UniRef90\_UPI00046801F6 T K E D I E I V T E L R K H L T D A I F R I D A N C G W G V E E E T S L N S I L K E  
UniRef90\_F5ZB77 P G L E V D L F K Q A R A R A V G N E V H L L H D V H S R L T P K E S A R L G K L L E  
UniRef90\_I4YYH2 V A W D L N R L S L L R D A R A V P G E A L I M V D S N E A W T P K E A I R R I L N A Y  
UniRef90\_UPI00045EB3DE L K K N I E K L A D M R S K V G D F W L M Y D C W M S L D L N Y S I V R L A Q A Q  
UniRef90\_J9VFH5 P E D D L R R G R L I R S L I D D C V L M V D A N Q V W D V P Q A V A L R L K L E  
UniRef90\_A0A017SR78 G D D A A R L A A S L A D K Q P G E L F I V D A N G G L S V E I A L R L L R L L  
UniRef90\_I012R2 V E A G L T P I R Q I R D A V G E M E I G I E C H F R W N R A M E R I I A A L E E  
UniRef90\_Q040J3 V S H D I K T I Q K I S K A V P D L S L R L D C Y H Q A W N Y K D A S R I L W A Q D E  
UniRef90\_H3N193 F D Q D V E M F R L L R A R Y G H F H I L H D V H H E R L F P Q Q A L Q A K Q L E  
UniRef90\_F4XVU6 S P D G I A A L L A I R D E A P E A E L S V D A N G G W S L E E G I M C N W L A  
UniRef90\_E0DSL0 P H A D A R T R T J I E A A D D I F F F A D A N A G W T F L E A S I A M R A M  
UniRef90\_M5GDB3 L E N D L R R A K I R S I I D N P E F M I D A N G G L S V E I A L R L L R L L  
UniRef90\_UPI00047DC4BB T G W D S S R F E H L R N A L G D V I E L L H D V H E R L S P I E A C R A A D L E E  
UniRef90\_X1FU17 P E H D V A C V K A V R E A V G D I E I G F D C Y M G G Y T A G E A I W I K K M E  
UniRef90\_K0KVM0 L K K N V E F L M T K H R R A V P D F P I L M V D C Y M S L N V I D I D L V K A T  
UniRef90\_K2R0Q4 G D R C E E F C R K I R D A I G N A D I L F G T H G Q M V P S S A I R A K R L E E  
UniRef90\_UPI00035EC6D9 F D Q D V R M F A Q L R S K Y Q D H F H I L H D V H E R L F P N Q A V Q F A D L E E  
UniRef90\_U5H1Z7 V D D D L R R L A L V R S I I D N P E F M I D A N G G L S V E I A L R L L R L L  
UniRef90\_M0D422 A D Y K A S V V E A V T E R V G D A D V A F D C H W N Y A G D S A R R L A A A E A  
UniRef90\_A9DU98 P K V R I D R F E E L N P M L G E A D V S F D A N G S F G E N D L D I F H Y E A  
UniRef90\_UPI0004670A3A K S W N I D P I V A M R E A G G D L D I I I E M H S N T D T V A A I R T S R A V  
UniRef90\_J9YX83 V D N D T E R L I K I R E E V I D D G F L V Y D W N C G A T P L D A I R T S R A V  
UniRef90\_F1DGI7 P E D D V E R V R A V T A A A P T A R L L D P N G A W T V A A R E L P R F A  
UniRef90\_A6FPX0 F D R D L R L R V L T A G I Q Q G E L M A D A N Q A W S L H E A E E F A R Q S  
UniRef90\_UPI00044082B2 A E A D L R R G K I I R S V I D D C V L M I D A N Q V W D V P E A T Y V Q S I S  
UniRef90\_UPI00036F4C34 A E T E I A L A S I R K E F L D L E R V D A N G A F T P G E A L E K K L L S  
UniRef90\_V6KT20 G A V V E R V A A R A V L S G P H R D V F H G R F S P A G A R R V S E L A  
UniRef90\_A9ZNU3 A A D D I A R V I E A V R D A L P H G R L R I D V N G R W D E A Q A V R M R L L C  
UniRef90\_T1XJ81 L R R N L E K L A H M R E L V P D F W L M Y D C W M S L D L N Y A T R L J A H A A  
UniRef90\_UPI00040A5D1C L D R D V T L V R E L R R R L G D I K I R V D G N E G Y A S E A V A V T R R Q E  
UniRef90\_UPI000474C4BE P A H D P A R L T A V R R A I G D A P L M A D A N G A L S G K A L Y W R L A E  
UniRef90\_C6WS62 L A A V L R E R E F G G F H L H D V H H R L T P E A A R F G K S V E  
UniRef90\_L5MQK8 G R E D Q A H I V Q L M D M L P E V Q V A L D A N Q S Y D A T T R Q W T R I I  
UniRef90\_N8X8V5 P H D D A E M V K H Y R E K C G D F W L M L D C W M S Q D V N Y A V K L A Y A C  
UniRef90\_UPI00047E3F99 P G W D V E P V R E I R A A L Y P A L A L V A D A N H G Y T E S S A H A L A L D  
UniRef90\_E6LFV9 P E V E V A K L K A M N Q A L G K I Q F R I D A N Q G W E P R E A V E I I Q S W  
UniRef90\_P32426 V P W D T E A L E A V R E R F G G F H L L H D V H H R L T P N E A A R F G K S V  
UniRef90\_Q123K1 V R D E V Q R V A T L E A R Y G K V A L I A D A N Q G W S R D E A R E F L D G V  
UniRef90\_X1S5S7 P E I A I E C Q A V A R Q A V G D M K L M L D H G T D D N R E Q A L K V R E L E  
UniRef90\_V4ZL3 A D A D L D R L R A V R D A V G D V T L R A D A N G A W E R R E A E R V D A L A  
UniRef90\_UPI000361F6E5 S K Y D L E R C A K I R S S V D C I F S A D A N E G Y T R K D A L N F A E A K  
UniRef90\_E1T608 V D F V P K L F E A V R S G F G D T H L H D V H H R L T P E A A R L G K S V E  
UniRef90\_F4C1P2 L E E L A R I V E N V R G M V G D I P I S T D H Y G H F D L N N G I R G R A L E  
UniRef90\_M0XRZ3 K N L D I E V L K A I R L V H P C S F I L D A N E G Y T A N Q A R E V D R L N  
UniRef90\_H6RM20 G P G D L A R L E A I R S A C G A R L R I D G N E G W T F E E A R D T P R L R  
UniRef90\_V4NQF1 R D R D I R R M V G V R E V L P R P A I M F D V N E S W S R K E A V R H E I E Q  
UniRef90\_UPI0003A0B00E N R D D P R R L G V A R S A I G D E A L F V D A N G A Y S R K E A A G R A E E F  
UniRef90\_G2MN08 P D E D V E R V V A R E A A P D A A L K I D A N G G W T P K E T A A F A D A H  
UniRef90\_D0LLD5 S E H D V E L I A E V R K H A T S A R L R V D A N C G W S V A E A L E K A E L R  
UniRef90\_C5BI23 A D D D E A I L S T L R N A G P E I D I R A D A N E A W D L D L A T Q R G Q L A  
UniRef90\_UPI00030546D1 G G L D I E P F E K L R K A V G D M D I M V E F H S L W N L P T A K I R A L E  
UniRef90\_UPI00037CD543 L G V D L A R V A H A R G L V P D T F L G V D A N G G W S R A D A A V R G L A  
UniRef90\_D6V855 V D P D L A R V G A V Q Q A G T D V N I R I D A N Q G F S P E D G V R F R S L S  
UniRef90\_C5BYU0 S P D D V T R V R A V R D A G T P D R A L M V D A N Q R W D L P T A Q H I D T L A  
UniRef90\_K1LH01 T N H D L E I K A L R K H L T T A T F R I D A N C A W T A E Q A T R Y E A L A  
UniRef90\_F3HUX1 V A A V R D A V P N V G I G V D F H G R V H K P M A K V M K E L D  
UniRef90\_V8QV52 G D L D I E R V A A V R A A G P M A T I M V E L H S M W N L P M A V R I A Q L E  
UniRef90\_C5D0U2 L D T A L E P F R E I R R A A V G E M D I M V E L H S M W N L P M A V R I A Q L E  
UniRef90\_A0A031Q69 L R K N L E Q L A D M R E R V P D F W L M L D C W M S L D L N Y A T K L A T A H  
UniRef90\_J7KR75 F D V E I H D V H H E R V S P N Q A V Q F K D A E  
UniRef90\_Q020Z3 G D T K V Q A L R A L K E L G E E I E L L H D M H E R V S P N Q A V Q F K D A E  
UniRef90\_H8GV01 T A Q D E Q I V A A L R E E A P E S A A L R V D A N A A W S R P Q A R R M G V L E  
UniRef90\_E7C870 P D R A T E F T R C I R E A V G S A D L L L G T H A G Q L T P T G A R R A K R L E  
UniRef90\_UPI000364D1CA I D R A L E P L R R I R D A V G D A E V M I E L H A L W D L P A A L A T A R A A  
UniRef90\_K9R9F9 S P D G I E A L D A V R Q E A P I P D L Y V D A N G G W N L E D A R K L C F L A  
UniRef90\_C6C9Z0 L F E A V R N K F G D E L L H D M H H R L T P E A A R F G K S V E  
UniRef90\_I3C9Q5 A D A E F E L L K A I R R N F K E I E L R V D A N G A F S T H E A K N K E R L A  
UniRef90\_R4W079 A D E D A E R L E A V R S A V G D V T L R A D A N E A W D R A T A A A F E R F A  
UniRef90\_A0A022LIG4 F E A V R N E F P E L P L H D G H H R M T P Q A A K L G K S L E  
UniRef90\_UPI00034B6603 E R E D V A R V I E A V R A A I P S G R V R V D A N G A W D V D T A V R M R E L D  
UniRef90\_UPI0003B40D35 G F D N A Q H L I A M R E E F G N L C I G I D L H R Y T P A E I A S F S N M M  
UniRef90\_UPI0003618A6B T D H D L E I M R T L R L Y T D A I F R V D A N T G W T A Q Q T I E Y A H L K  
UniRef90\_W9AWF7 A R Y D Y E I F A K I R E D F G Q L R L L H D G H H R M T P E A A R F A K D V E S  
UniRef90\_K9TLD6 S P A G I A A D R A M E E A P P G S G F S I D A N G G W T L E T A I M S H W L S  
UniRef90\_X4J4E3 Q A E D I R R L T A V R E A L G D S F P L M V D A N Q Q W D R E T A I R M R K M E  
UniRef90\_D2EG65 L D L D I K R I Q R I R E E V G N I K I V D A N Q G Y T L R E A L F L S K I E  
UniRef90\_J4SK37 G G E D L A R V E A V I E T H G N G D A R V A V D A N G R F D R A E A T R W A G L A  
UniRef90\_UPI0004640C2C L E R I E K V A H A R E M I P E R E L M L D C W V A G D V I E F M V R G E R L R  
UniRef90\_A4U8Q8 P A H D A R V L G A L K H L E A G V T L Y A D A N E S F A P E T A A R E A R L A  
UniRef90\_D7CRZ6 S D W D V R R M R K V R Q A V P D I E L A I D G N Q V W N V K D A L T F A M V R  
UniRef90\_UPI000409F24E L N E D I A M E E I A K R T K G A T Y I V D A N T A Y T P K Q A L I F T Y K R  
UniRef90\_UPI0003B2F046 E P D D A R V R A V R D A I G E G R I R I D A N G L W N V D E A E H H A L V  
UniRef90\_C7R0P0 E A H D Q E R L E A V R D A L P T G H I R I D A N G A W D P D T A L H N R H L D  
UniRef90\_UPI00036556B5 G E H S E N Y C R K I R D A V G D C D I L I G T H G Q M T P S S A I R A K R L E  
UniRef90\_F8GV68 L R K N L E L L A D M R E K G P D F W L M Y D C W M S L D V D Y A L A Q A Y A N  
UniRef90\_UPI00036FB9A7 R P D D L A R V R A V R E V I P E R T L L V D A N Q R W D L Y Q A E R V E T L A  
UniRef90\_M0N1V8 A A E D V E R V A T V R K A V G D I E L R A D A N G A W D R E A A T A L D G F A



UniRef90\_UPI00036A9C6D P Y A P M F V E E P V L P E H T H L I G R V T E S T T L P L I A T G E R L Y S R A  
UniRef90\_K5WIR1 P K P W F I E E P T A P D D I L G H A A I R K A V L K P H G I T G E H A H N R M  
UniRef90\_UPI0003B3EC5D E A N F I T W L E E P V S S G V D L P G S H L V R R E K A V Q T A D V T A G E Y G S D V G  
UniRef90\_B2GHP1 E F R I A Y A E E Q P V A S G D E G L A S V R R R L R E Q G V G T L I A A G D E S V R  
UniRef90\_UPI00046801F6 K L G V E F L E E Q P M K A D N W E A H K E V I F K H S A L P T I A D E A S C I T I E S  
UniRef90\_F5ZB77 P Y N L I F L E E D P S V A E N Q E G N Y K V I R G E A H T T T P L A L T G E Y N T L W A  
UniRef90\_I4YYH2 Q F P I Y W I E E D P C L A R E N D F E G L R Q V R G E A H T Y T H L I N T G E Y L D L A  
UniRef90\_UPI00045EB3DE E F G L K W I E E C L S P D D Y W G Y A D L K R N V L P K G M T T G E H E A T R W  
UniRef90\_J9VFH5 P L K P W F I E E P T A P D D A V G H A A I R R K P L N I G V A T G E H A H N R M  
UniRef90\_A0A017SR78 P D G L D F I E E A P C P T L R E C L S L R R R R T D I P M S M D E L A I D E I  
UniRef90\_I012R2 P Y D I L F I E E D V L P A V Y P D E I K L L S Q R T R L P T V G S D E L A I M T R W  
UniRef90\_Q040J3 N L N I L D F I E E Q P V L K D A L S D L T L L S E N Q S S A P Y P I M A M D E S V A S Y Q  
UniRef90\_H3N193 P Y Q P W F I E E D L L A P Q Q S A W L A Q I R S E Q Q S A T P L A M D E L F N N P A  
UniRef90\_F4XVU6 S Q G V R H V E E Q P L A P G K E V D L P Q L Y K Q S P L P I F V D E S C K T S Q  
UniRef90\_E0DSL0 E D L D I Y I E E P C L D F A D C A M L R K G I S P L P I M D E S V V T R L A  
UniRef90\_M5GDB3 E V K P W F I E E P T A P D D I L G H A T I R R K A L K P Y G I T G E H G H N R I  
UniRef90\_UPI00047DC4BB P Y R L F F L E E D P L R P E H A D S F R V L R G S S T T P T A M G E L F T S K Y  
UniRef90\_X1FU17 K Y D P S H I E E P V N S A N I R A M A R V I R A R R V Y V P L C C P G C I T K E Y  
UniRef90\_K0KVM0 K H N I N W W E E V L H P D D F G F A Q I K R R H P D V K F T T G E S V A S Y K Y  
UniRef90\_K2R0Q4 K Y D P L W F E E P V P P G Q E A A M A E V A R A T S T P V S T G E R L T T K Y  
UniRef90\_UPI00035EC6D9 P Y K P Y F I E E D L P P D D Q N E W L Q Q L S R M Q S T S T P M A T G E L F N N P L  
UniRef90\_U5H1Z7 V H R P W F I E E P T A P D D V L G H A S I R M Q L K M G V A T G E H A H N R M  
UniRef90\_M0D422 D Y D V W W L E E D V V P P E N L K V I Q R E V T Q A T D T T I C A G E N V F R T H  
UniRef90\_A9DU98 N T Y Q S M L E E P F A P T R F D L S K V K K H P E T Y I C Y A G E E I K S I G  
UniRef90\_UPI0004670A3A P L R I F Y Y E E P V H P L N R P E N F T E L K K K T R I P I A S G D E R I Y T R Q  
UniRef90\_J9YX83 A H L D I M L E E Q P C V I T L S E C A L V K Q A T G L P M K L D E G V Y D T K  
UniRef90\_F1DGI7 D L T V E A V E E P I A P G D S P E A L A R L R G A S P L P V I A G E N D A V D H E  
UniRef90\_A6FPX0 E L H L A W L E E P I R A D S L G W Q R L A Q A S A T P L A A G E N I V D G F Q  
UniRef90\_UPI00044082B2 E I R P W F I E E P T A P D D I L G H T A V L R N A L K P Y G I T G E H A H N R I  
UniRef90\_UPI00036F4C34 H Y N L H S I E E Q P L Q Q P E H Q E M A S L C A S S A V P L P I A L D E E L I G V F  
UniRef90\_V6KT20 P L H P L F V E E P L L P P E G H G H L A G L I A S S A V P L P I A T G E R L Y G R A  
UniRef90\_A9ZNU3 R F D L E Y V E E Q P L C A G L E E L A A V R R R V D V P I A A D E S I R S A E  
UniRef90\_T1XJ81 E F R L L K W I E E A L P P D D Y W G Y A A L R K N M P M M V S T G E H E A T R W  
UniRef90\_UPI00040A5D1C D F N I L L C E E Q P V M G A A G L G K V A A R L E S P M M A D E S A W T V Q  
UniRef90\_UPI000474C4BE E W G V G W F E E P V S S D D P R G L A L L R E R G P A G L D I A A G E Y A Y L  
UniRef90\_C6WS62 D L R L F W M E E D P T P A E N Q E E F R L I R A A H T T P I A G E N L S I W  
UniRef90\_L5MQK8 E P N W L W E E P M P M E R T E E A Y A K L R A A L P I A A G G E N L V R C A  
UniRef90\_N8X8V5 P Y N L K W I E E C L P P Q Q Y E G Y R E L K R Q A P P G M M V T T E H H G T V  
UniRef90\_UPI00047E3F99 G Y D V T A V E E R P F A A D D L A A H A R A L V Q R G V D S A V A P E I G D L D T L  
UniRef90\_E6LFV9 K L P I Q F I E E Q P V K A H D L D G L A F V T K N S T F P I M A D E S L Y N I L A  
UniRef90\_P32426 E A R L F W M E D P T P A E N Q E S F R L I R Q H T T T P I A V I G E V M N S I W  
UniRef90\_Q123K1 R G Q L A F V E E P V K D D L E G M A L L A S G S T L Q I S A D E S V V G L A  
UniRef90\_X1S5S7 K L N F Y W E E P L P D Y D I E G L I N L R E K L D V P I C G T E K V P S M F  
UniRef90\_V4ZL3 D L E F A Y V E E Q P L P A D D F D G L A T L R G R G I D I A L D E S L N G G A W  
UniRef90\_UPI000361F6E5 N C G L K F F E E P L P S K D L D F M N T I T A K S S L P I C S D E G V H S K K  
UniRef90\_E1T608 P Y R L F W M E D P T P A E N Q A G F R L I R E H T V T P I A V I G E V F N S I W  
UniRef90\_F4C1P2 K Y R L A W L E E D V V P W Q Y T E Q W K S I T E A I E T P T I T G E D I Y L I S  
UniRef90\_M0XRZ3 E M G V V L F E E Q P H R A D D W E G L R E V S T A A M E K Y R V D E S C R G K L  
UniRef90\_H6RM20 E L G V E M V E E P F P A A D D S F A R Y R E L P G R L P V F V D E G C K D L  
UniRef90\_V4NQF1 H I D L T W I E E P V R R W D A E G H A L T S R A S K C A V A T G E N L T G L D  
UniRef90\_UPI0003A0B00E E F G V S W L E E P V T S D D L E G L H L L R D R A P M D I A A G E Y G Y H L P  
UniRef90\_G2MN08 G T I E L D I E E Q P V A A D D I A G L A D A R R R R D V P I A A D E A V F T P E  
UniRef90\_D0LLD5 E L D V E F I E E Q P R D D W Q G M K E L Y A R S P I P I M A D E S C A T E A  
UniRef90\_C5BI23 D L G V T S C E E P M P A S L K Q S Y P A L V A R S V I E G R I C L D E S L C T L D  
UniRef90\_UPI00030546D1 P Y K P T W F E E D P I R M N S Q Q A L A E Y A R S T D V W V C A S E T L G S R W  
UniRef90\_UPI00037CD543 P Y D I A F V E E Q P V A A D D L E G M A A L R A E G C P V V A D E S V F G M A  
UniRef90\_D6V855 P D H V E L F E E A C D A D D W E S A Y A V K N A A R V P I M L D E S L Y D M A  
UniRef90\_C5BYU0 A F D L T W V E E P L R A D D T R G Y A A L A R N A S P V P L A W D E N G H V H  
UniRef90\_K1LH01 K L N V E F M E E Q P L G K D D L E G M K E V F R Y S K L P V I A D E S C I V E A  
UniRef90\_F3HUX1 A Y K L M F I E E P V L S E N Y E A L K E L A P L T S T P I A L G E R L F S R W  
UniRef90\_V8QVS2 R H D L A L I E E Q P V P A S D T E G L A L L T R T L P T A I E A D E S A Q T V D  
UniRef90\_C5D0U2 E F K P Y W V E D P I Q M S N L D T I A E F R S R T R I P V C G S E T L A T V Q  
UniRef90\_A0A031Q69 E H G L K W I E E A L S P D D Y W G Y A A L R N N V P K G M T T G E H E A T R W  
UniRef90\_J7KR75 D Y K L F Y L E E D V A P E N V D F G L S V M R Q Q T S T P I A M G E L F H V A  
UniRef90\_Q020Z3 K F K M F F M E D P L S P E D I A Y F R Q T R Q Q C A T P I A M G E L F N S P H  
UniRef90\_H8GV01 A A G V E F V E E P L A A G D L E G H A A L R G V S A V P I V A D E S L S H V S  
UniRef90\_E7C870 P Y D P L W L E E P V P P E N E A M A Q V A R G T S I P I A S G E R L S T K Y  
UniRef90\_UPI000364D1CA P F R P F W M E D P L R N L D P L A L A D Y R R R S G L P V C A S E T L A T A A  
UniRef90\_K9R9F9 D L G V K Y V E E P T A R E N Q E C F R L I R K Q H T V T P I A V G E V F N S I W  
UniRef90\_C6C9Z0 P Y R L F W M E D P T P A E N Q E C F R L I R K Q H T V T P I A V G E V F N S I W  
UniRef90\_I3C9Q5 S L D L H S I E E Q P I K Q G N W H E M A K L C K H T E L P I A L D E E L I G V F  
UniRef90\_R4W079 D A S V S Y V E E P L N A D D L I G H A K L R G G S V D V A L D E T L A V A N H  
UniRef90\_A0A022LIG4 P Y D L F W L E E D C T P A E N Q E A L Q L V R Q H T T T P L A I G E V F N T L W  
UniRef90\_UPI00034B6603 R F D L E Y V E E Q P S A T L D E L A A V R R R R V D V P V A A D E S V R R A E  
UniRef90\_UPI0003B40D35 P A G L D F I E E P L R S E S P E A Y A A L R K L T N I P F A V I G E E F S S K W  
UniRef90\_UPI0003618A6B Q L G V E F I E E Q P Q K A D A W A D H R K A L A E S V L P I I A D E S C H V I A  
UniRef90\_W9AWF7 P Y D L F W L E E D C T P A E D A Q A A L R L V L R S H S T T P L A I G E V F N S V Y  
UniRef90\_K9TLD6 T R G V K Y I E E Q P L V A A Q E E L R H L Y R E S P L P I F V D E S C F T F R A  
UniRef90\_X4J4E3 Q F N L W I E E P L D A Y D I E G H A Q L Y A A L D T P I A T G E M L T S F R  
UniRef90\_D2EG65 A F N I S F L E E Q P V K F S D F Y A L K R L K E S S S P I M A D E S M K S I E  
UniRef90\_J4SK37 P Y G L R W Y E E P G E L D Y A L N R A V T E H Y D G A V A T G E N L F N S V P  
UniRef90\_UPI0004640C2C P Y R L F W L E E D A T P A E H Q A S F E L I R K E S V T P L A V G E V F N S I W  
UniRef90\_A4U8Q8 P Y G L K W L E E D C L Y P E D F A S Y E E L R R R P W Q T L A T G E R W F T H L  
UniRef90\_D7CRZ6 R L G V A Y V E E P L P V H L L K A R A A L R A A A V L P I V A G D D A C F N T P  
UniRef90\_UPI000409F24E P Y E P A A W Y E E P V H S H D M N A I K S L R E A Q V N M K I G Y G E S M R N Y F  
UniRef90\_B5YB43 G I D I A L L E E Q P V S A H D L E G L K Y V R F N S A F P I A G D E S T K N R Y  
UniRef90\_UPI0003B2F046 E F D L E Y V E E Q P C G S P D E A Q I R E R T H Y L D L P I A A D E S V R K A E  
UniRef90\_C7R0P0 K A A G G L Q Y A E E Q P C P T V E I A L A T L R R R T T I P I A A D E S V R R T G  
UniRef90\_UPI00036556B5 Q F D P L W F E E P V P P G Q S R A M A E V A K K T S L P V A T G E R L T S K Y  
UniRef90\_F8GV68 E F G M K W I E E A L P P D D Y W G Y A E L R R N V P R G M S T G E N E A T R W  
UniRef90\_UPI00036FB9A7 E A G L G W I E E P L R A D D L T G Y V G L R R I C A V P V A C G C A H T R Y  
UniRef90\_M0N1V8 D T G L A Y V E E Q P L P A D D L A S H A D L R G R L P I A L D E S L A T H

UniRef90\_UPI00036A9C6D E V L P A L R S G V A V L Q P D L S H A G G I S E S R R I A V L A E T F D V V A  
UniRef90\_K5WIR1 V F K Q L L Q A Q A I D V C Q V I D S C R L A G G V S E V L S V L L M A A K F G V V  
UniRef90\_UPI0003B3EC5D Y F Q R M C A A R A V D G C L R I D A T R C G G Y T E W L R A A A V V A Q A H E L T  
UniRef90\_B2GHP1 K A E D P L A V A R A G A A D L I V V K V A P L T G G V R R A L D V V A Q A Q A H E L T P  
UniRef90\_UPI00046801F6 D V A K C H N H F H G V N V K L V K C G G L T P G K R M L E E A K K L G L K  
UniRef90\_F5ZB77 E C K N L I Q D Q A L D Y I R A A A T H A G G I T S D S L R R A D F A N T Y N V K E  
UniRef90\_I4YYH2 G K R A L I A A R A V D I L N V H G K I T S D S L R R A G W L A A E H Y L G L E  
UniRef90\_UPI00045EB3DE G F R M L L E M D C C D I L Q P D V N W C G G V V T E L I K I S A M A D A H G K L  
UniRef90\_J9VFH5 V F K Q L L Q A D D A I V C Q I D S C R L G G G N T E L R S V L L M S A K F G V P  
UniRef90\_A0A017SR78 S I V Q L V A D D A A E S I G L K V S K T G G L T R C R R V R D I A L A A G Y T  
UniRef90\_I012R2 Q L R E W L E K H V S Q I V M T D P V W N G G I A E T R K I A A L A E T Y G V P  
UniRef90\_Q040J3 D A I N L I K H H A C I F I R K L M K T G G L S E A L K I N D L A Q A F G I K R  
UniRef90\_H3N193 E W H D L I V K R Q I D F I R C H V I G G I T P A L K L A V L C Q A F G V R  
UniRef90\_F4XVU6 D I P P L A N C V H G I N I K L M K S G G L T E A I R M V H T A K A C G L Q  
UniRef90\_E0DSL0 D L Y R T K Y E Q A T A G A V N I K L G R V G G L T R A V T M R N A A Q D L G M H  
UniRef90\_M5GDB3 L F K Q L L Q A Q A I D V C Q I D S C R L A G G V T E V L S V L L M A A K F G V P  
UniRef90\_UPI00047DC4BB E C L S L V T E Q A I D Y I R C D I G H I G G L T E A R K I A A I C E P F Q V R K  
UniRef90\_X1FU17 G I Q E L I F Q G A A D G V N L D L C R N G G F L E T L R C A A V A A A G Y L K  
UniRef90\_K0KVM0 G F R K L I E G R N L D I I Q P D V M V W G G L T E L L K V A A Q A A A G Y D I P  
UniRef90\_K2R0Q4 E F Q R V L Q L G S A S I L Q M N V A R V G G L L E A K K I A G M A E S F Y A Q  
UniRef90\_UPI00035EC6D9 E W R S L I A N R Q I D Y I R C H V I G G I T P A L K L G A L C E A F G V R P  
UniRef90\_U5H1Z7 V F K Q L L Q A E A I D V C Q I D S C R I M S G V N E L L M V L L M A A K R G V P  
UniRef90\_MOD422 G V R D M V E R Q Q I D V L Q P D M P K F G G M R E T V K A A N L A D D Y Y T P  
UniRef90\_A9DU98 D L I K L H L I G M L D E V I Q L V G R V G G V M K S E I I Q Y C A E H N I P  
UniRef90\_UPI0004670A3A G F R E F F E K R L D V V Q P D L C L C G G L T S E A K K I C D M A W L Y D A S  
UniRef90\_J9YX83 T L L E G H E K G I M D V A A L K L S K F G G V S A V R Y A R E L C N Y F G T K  
UniRef90\_F1DGI7 D V R R L T G R V R G V N V K L A K C G G V H A A L R I A S L I E G S G T E  
UniRef90\_A6FPX0 D F A A A I E S G A F T V L Q P D V L A K W G G V S G C L A V A R Q T V A A G L R  
UniRef90\_UPI00044082B2 I F K Q L L Q A N A I D V V Q L D S C R L A G G V S E V L S V I L L A A K F G V P  
UniRef90\_UPI00036F4C34 D T S K K I K T I N P Q Y I L L K P S L V G G F K S G S K Q W I D L A E Q N T I G  
UniRef90\_V6KT20 E n l P A L A A G V A V A Q P D V L S H A G G I T S E V H R I A S L A D T Y G A Q  
UniRef90\_A9ZNU3 D P L R V R A N E A A D L V V L K V A S L T G V R A A L E I A D A C A L P  
UniRef90\_T1XJ81 G F R L L D E M G C C D I S P D V N W C G G L T E L V K I S A L A D A H G A L  
UniRef90\_UPI00040A5D1C D I L E L D A L D A A A C I S L Y V T K P G G L T F K A R Q V S G D I A H L G M Y  
UniRef90\_UPI000474C4BE L R D V T D L I E V V D C L Q A D V T R C G G I T A L L R I G G L S A A R H I D  
UniRef90\_C6WS62 D V Q H L I T E Q A L I D Y V R T V V H A G G I T H L R R I F D L A A L H Q V R  
UniRef90\_L5MQK8 Q F L P L F K A G A L D I A Q P D L H T E G G I E S Y R T H L Q M A R E F Y G Y R  
UniRef90\_N8X8V5 Q S F R T L S E T G I D I M Q P D V G W C G G L T T L I E I A A I A K S R G Q L  
UniRef90\_UPI00047E3F99 E A A V D L G A G R A L N L R I G R F G G L T A A R A A H D R A Y A S G W D  
UniRef90\_E6LFV9 D A Q A L I Q H K A C H M F N L R I M K T A G I T Q G A L E I F Q L A Q K E Q I P  
UniRef90\_P32426 D V I Q H L I T E Q A L I D Y V R T V V H A G G I T H L R R I F D L A A L H Q V R  
UniRef90\_Q123K1 H A A R I A S L G A A S I F S C D T S K N G G P L T R A Q R I A A V A E A F G I G  
UniRef90\_X1S5S7 S M P Q Y I I H R V L D I I R C D T V M S G G I T P C K K I A D M C D A F G V K  
UniRef90\_V4IZL3 P D P I D E Y A D V A V T K P M A Q A G V V P T A S L A R H L D S R G V D  
UniRef90\_UPI000361F6E5 D N D I T N N R T S N G V S L K T I T K L G G M V D V M N C A F A N E N I S R  
UniRef90\_E1T608 D C K Q L I E E Q L I D Y I R A T L T H A G G I T H L K R I A D F A S E Y N I V  
UniRef90\_F4C1P2 N F K N L I H N R A V D L I H P D L A S S G G L L E T K R I G D Y A Q E F G I G  
UniRef90\_M0XRZ3 D A Q K L I H G N L A H V I N I K L A K L G V L G G L E Q E V I D A A R K A G I A  
UniRef90\_H6RM20 G S V A A V A G Y A D G I V V K L A K C G G L R E A Q R M L A A A A L D L R  
UniRef90\_V4NQG1 Q Y L A L F T A G A V D V V Q A G M V W G I T H F N R V A T A A H A H N L P  
UniRef90\_UPI0003A0B00E Y F H R M L A A E A V D C L Q A D V T R C L G V S G L L R V A A L C D A R S M E  
UniRef90\_G2MN08 D A I R V V R E E A A D I V N A K L G C S G P L A V A E I V A I A Q G A N L D  
UniRef90\_D0LLD5 D I E R C H G H F H G V N L K L M K C G G I T P A R R A I Q R G R E L G M T  
UniRef90\_C5BI23 D A K W F I A N S G A T I E N L R V S K N G G I M N T L K L G R M A H E H G I K  
UniRef90\_UPI00030546D1 S Y K E Y L D R D A A H V V M V D C W T G G L T E G R K I A A M A E T Y H R P  
UniRef90\_UPI00037CD543 D L R R V I R S D A A D V V S V Y V G K A G G P G R A V I E L G R V A E A F G L Q  
UniRef90\_D6V855 D V E R A A K L Q A A N L V K L M K L G G L T S L E R A L S R T K A L A G M E  
UniRef90\_C5BYU0 R F R D M V D N A A H V R L L Q P N I V R V G G Y T P F L R A L E A I A A G I E  
UniRef90\_K1LH01 D V K K C H D L F H G I N V K L V K A G G I T P G L R M I H E A K T L G M K  
UniRef90\_F3HUX1 D F K R V L S E G Y V D I I Q P D A S H A G G I T E T R K L A N M A E A Y D V A  
UniRef90\_V8QVS2 D V I F K L V T D R Q A D I V N L K D T K L G G I G R E M Q A V H I C E A G N V I  
UniRef90\_C5D0U2 P F I Q L L K N N A V D Y V M L D L G W V G G L S E A R K I A T L A K A F H K P  
UniRef90\_A0A031Q69 G F R M L L E M G C C D I F I R C H V I G G I T E L V K I S A L A D A H H N A M  
UniRef90\_J7KR75 E Y K H L I T N H L I D I R Q P D V W C G G L T P A K K L A T L A E F H G V M  
UniRef90\_Q020Z3 E W T P L I S E R L I D Y I R V H V S Q A G G F T P A R K I A T L G E T F G V K  
UniRef90\_H8GV01 D I V A L A G A F D G V N L K L A K L G G P L R A L E A L R L A R A H Y L G  
UniRef90\_E7C870 E F N R L L L G L R A V G L L Q M N L G R V G G L L E S K K I A A M A E A H Y C Q  
UniRef90\_UPI000364D1CA Q F L D L L R A E A V D Y V M L D I G W C G G L T Q A R R I A A L A E A H Q R P  
UniRef90\_K9R9F9 D I P R L A K C A D G V N L K L M K S G G L T E A M R M I H T A R A Y G L Q  
UniRef90\_C6C9Z0 D C K Q L I E E Q L I D Y I R T I T H A G G I T G M R R I A D F A S L Y Q V R  
UniRef90\_I3C9Q5 S V R E L L Q T V Q P Q Y I I L K P S L V G G F K G S Q E W I S L C Q E L N I G  
UniRef90\_R4W079 D R V L D V D A A D V I V C K P M V L G G P D R T L G L A R R G R A G V R  
UniRef90\_A0A022LIG4 D F K D I J R D Q L I D Y V R G A V T H M G G V T P L K K T M E Y A A L Y Q V K  
UniRef90\_UPI00034B6603 D P L R V R A A G A A D I V V L K V Q P L G G V R A A L R V A E A C G L P  
UniRef90\_UPI0003B40D35 Q A A P F I E Q G L T Q Y M R F D I S N V G G F T E A M K V A G W S E Q H Y I D  
UniRef90\_UPI0003618A6B D V A R C A N H F D G T N I K L V K C G G L T P A R R M I K E A R T L G L K  
UniRef90\_W9AWF7 D Y Q T L I T E R L I D Y V R S A V T H T G G V T A M R K L I D F A G I Y G I R  
UniRef90\_K9TLD6 D I T P L A D R V H G I N I K L M K C G G L T E A M G M I H T A H A C G L Q  
UniRef90\_X4J4E3 E H E Q L I L G N A S D F V Q P D A P R V G G I S F L K I M D L A A K H G R K  
UniRef90\_D2EG65 D F R K L N S M D A V S M I N I K L M K V G G I T K A I Q I A K E S M S K N I G  
UniRef90\_J4SK37 D A T N L V R Y G G M R V F Q M D P G L S Y G L T E Y L R M L D V L E S H G F D  
UniRef90\_UPI0004640C2C D C K H L I E R Q L I D Y I R T I T H A G G I T H I R R L A D F A G L H Q V R  
UniRef90\_A4U8Q8 P F G E A A A R R T V D I F Q P D V R W V G G V T A C I K I G H I A E G A G L Q  
UniRef90\_D7CRZ6 D L L R E L E A E T F D I L N I K T A R T G F S T S Q R M L T L A R E A G K G  
UniRef90\_UPI000409F24E A F E T Y A E K G V D H L M P L V G R M S R M E D L M K I R G L A H Q K G L R  
UniRef90\_B5YB43 D A L R A I K M E A V D Y I N I K L M K C G I T S D A L S M V E L A N T A N I K  
UniRef90\_UPI0003B2F046 D P L A V A R A G A A D I L V I K A Q P L G G I R A A L G I A E A G L P  
UniRef90\_C7R0P0 D P H R V V A A H A A D I L V K V C G G L T P A R R M I K E A R T L G L K  
UniRef90\_UPI00036556B5 E F Y D I L K S N S A S I I Q M N L G R V G G I L E A K K I A S L A E V Y Y A Q  
UniRef90\_F8GV68 G F R M L L E M E C C D I L Q P D V W C G G I T E L T K I S A L A D A R A G L  
UniRef90\_UPI00036FB9A7 R F R E F A R L G A A D V L Q P N V V R V G G L T P F L R I A R D V I E A A G L R  
UniRef90\_M0N1V8 S V E R V L A A D A D V L I V K P M A L G G P D R A R S A V L A A H E A G C E

UniRef90\_UPI00036A9C6D V A P H C P L G P L A L A A S L Q L A F C T P N F L I Q E Q S I G I H Y H S G A  
UniRef90\_K5WIR1 V C P H G L C E Y V I H L S L I D Y I A V S G S M E R N V L E Y V D H L H E  
UniRef90\_UPI0003B3EC5D V S G H C A P H L H A P V L A A A T P N L R H L E W F H D H V R L E N  
UniRef90\_B2GHP1 A V V S S A L D S S V G I R A G V A L A A A L P E L P Y A C G L G T D H L S L M T A  
UniRef90\_UPI00046801F6 T M V G C M T E S S V G I S A T A H L L P L L D Y V D M D G A L L L D Q  
UniRef90\_F5ZB77 T A P H G A P D S P I C F A A H M H L N I W A P N F G L Q E F V G F G N E Q L N  
UniRef90\_I4YYH2 V L G N T S M E I G V H V A C A L P E C H W L E Y S F Q N T T  
UniRef90\_UPI00045EB3DE M V P H G S G V Y S Y H F V I T R H N S P F T E I I M S A P N A D E V R P A F S  
UniRef90\_J9VFH5 V C P H A G S G V L C E Y I H L S L I D Y I C V S G D M E R N V L E F V D  
UniRef90\_A0A017SR78 M S V Q E T T G S D I A F A A I V H L G Q T V P A R S L R C I L E S R K M V T L  
UniRef90\_I012R2 L V L H N V A G P T C H A A C M H L A A H I P N L Y F V E S V R A F Y K S Y F P  
UniRef90\_Q040J3 T M V G C M I E P V E S I A A A A F A V A N K N V K F I D L D S F M A T Q D  
UniRef90\_H3N193 V A W H G P G D M P I G V A V N T H L N I Y L S N A A I Q E F I P R S G A T D  
UniRef90\_F4XVU6 V M F G C Y S D S T L A N T A A S H L S P L A D Y L D L D S H L N L V D  
UniRef90\_E0DSL0 F C I E D V W G G D V T A A A V I S H V A A S A Q P A N L M H T S F N D W T Q E  
UniRef90\_M5GDB3 V C P H A G G V G L C E Y I H L S L I D Y I A V S G S M E R N V L E Y V D  
UniRef90\_UPI00047DC4BB T A W H G P G D I G P T H A A N V H L D C A L P N F G V Q E M T F F P D A V H  
UniRef90\_X1FU17 A S C H S S P G  
UniRef90\_K0KVM0 V V I P H A S S G P Y S Y H F V V S Q Q N T P F Q E Y L A N S P D S R S V L P V F G  
UniRef90\_K2R0Q4 I A P H L Y N G P V G A A A S I Q L A A T C P N F L I H E A T M D F G G F H A  
UniRef90\_UPI00035EC6D9 I A W H T P S D I P I G I A V N T H L N I H L H S A A L Q E N I P I K E N T R  
UniRef90\_U5H1Z7 V C P H G L C E Y V I H L S L I D Y I V C V S G S I D T N V L E Y D H L H E  
UniRef90\_MD422 L A L H N V S S P L G T K A G A H V G V S V S N F L A L E W H G R D D P D W D  
UniRef90\_A9DU98 C W I G G M F E T G I G R T L N L R E M A S Y L P N A R A H D L S P S D R Y F L E  
UniRef90\_UPI0004670A3A M Q I H V C G S P I S K A A A L Q I E A A I P N F L I H E H Q R A L N P T N R  
UniRef90\_J9YX83 M C I E D T W G S D I T T S A L L H L G T S C E P S R L L N V C D L S G Y V I S P  
UniRef90\_F1DGI7 L M L G C L T A S T I G L A P A V H L V G R A R W I D L D A G H L L L A H  
UniRef90\_A6FPX0 Y C P H F L G G G I G L A S A H V L A A A G D G M L E L D A N A N P L R D  
UniRef90\_UPI00044082B2 V C P H A G G V G L C E Y I H L S L I D Y I V V S G S M E R N V L E F V D  
UniRef90\_UPI00036F4C34 W W V T S A L E S N V G L N A I A Q W T A T L N N T L P Q Q G L G T G G L F T  
UniRef90\_V6KT20 L A P H C P L G P I A L A A S L Q I A F C T P N F L I Q E Q S R G L H Y N K D A  
UniRef90\_A9ZNU3 V V V S S A L E T S V G I A A G M A L A A A L P E L P Y A C G L G T V S L L I E H  
UniRef90\_T1XJ81 V V P H G S S V Y S Y H F V I T R H N S P F A E F L M M A P K A D E V Y P M F N  
UniRef90\_UPI00040A5D1C A D I G G S L E T G I G N A A N L H C P V I S T P E G A A G P K T A G I Y Y L D  
UniRef90\_UPI000474C4BE V S A H C A P A V S A H A F C A V P R L R H L E Y F H D H V R V I E G  
UniRef90\_C6WS62 T G S H G A T D L S P V I S M A A A V H V D I S V P N F G I Q E H M G H T P E V A  
UniRef90\_L5MQK8 V S P H S F D G G L A R L Y T L F A Q A C L P A W S K M D S E Q I E P V I E W D E  
UniRef90\_N8X8V5 V V P H G S S V Y S H H A V I T F T N T P F S E F L M T S P D C S D L R P Q F D  
UniRef90\_UPI00047E3F99 V W C T G A G A F G I G Q A A A V A L A S L P G V T L P S E V T D P A G G P V  
UniRef90\_E6LFV9 C M M G S M I E G Y G M A A A V H F A G M N T L A Y N D L D V P F M W E Q  
UniRef90\_P32426 T G S H G A T D L S P V I S M A A A V H L D I A V I P N F G I Q E Y M G H A D E T A  
UniRef90\_Q123K1 C Y M N S M L E F G I T Q A A S L Q H A V T I G N L V F G H A Y M S T L R L A E  
UniRef90\_X1S5S7 C E I H S L A N P I T G N F A N L H V E C A V K N C E F Y E M W P  
UniRef90\_V4IZL3 V I T T T V D A A V A R A A A V H A A A V V P G G A D R A Q G L A T G G M L A E  
UniRef90\_UPI000361F6E5 V N L A G K V A E T S I S Y A I A N I A T S I P Q M K W D L S I T N Q Y L V E  
UniRef90\_E1T608 T G C H G P S D L S P V S M G A A L H F D L W V P N F G V Q E Y M G F P K E A L  
UniRef90\_F4C1P2 M A M H Q A G T P I S F M A N V H C A A A T E N F L S L E H H S V D V P W W E  
UniRef90\_M0XRZ3 L M I G G M V E T R I A M G F A G H L A A G L G C F S F I D L D T P L L L S E  
UniRef90\_H6RM20 V M L G C M I E T R I G I A Q A A Q L G A L A D L I D L D A H L L I S D  
UniRef90\_V4NQF1 V S P V I G Y N A N P L A H A A A A V P N L L T V E V Q D W K T  
UniRef90\_UPI0003A0B00E L S L H C C A P Q V S A Q V G T A V W H L R H L E Y F H D H V R I E R  
UniRef90\_G2MN08 C M I G C M L E S A V G I H T S A H V V A G T G A F S Y V D L D G N R L A E  
UniRef90\_D0LLD5 V M L G C M P E S S V G A S A I A Q L A P L L D A V D M D S I V L I E N  
UniRef90\_C5BI23 C Q I G S C V E T S I L S R A A Q I V S A C L G D V I H H E G A F G T M L L E F  
UniRef90\_UPI00030546D1 F A P H D C I L P V G F A A A V H A S F S Q P N T L I Q E S V R A F Y R G W Y N  
UniRef90\_UPI00037CD543 A L I G S N G E L G L G A A A Q V H V A A A L P G L T T V F P S D G A H Y Y A D  
UniRef90\_D6V855 A V L G N G V A T E I G C W M E A C V A A V R L R D V A G E M N G F L K Q K I  
UniRef90\_C5BYU0 V A P H L L P D L S A Q A A L T L P A P T R V E S I D G A W L G D L G L L S A  
UniRef90\_K1LH01 T M V G C M T E S S V G I T A I A H I A P L L D Y V D M D G A M L L A K  
UniRef90\_F3HUX1 L A L H C P L G P I A L L A A C L Q L D A V I C Y N A F I Q E Q S L G I H Y N E S  
UniRef90\_V8QVS2 C R V G A A F G P A L L Q A M G A Q V A S V I K N L P Y G C E L S E H Q H L N D  
UniRef90\_C5D0U2 V A P H D C T G P V V L A A S L H L A M S T T N V V L Q E V V R A Y L G G W Y R  
UniRef90\_A0A031Q69 V V P H G S S V Y S Y H F V I T R H N S P F A E F L M M A P K A D K V Y P M F H  
UniRef90\_J7KR75 T A W H G P G D I S P I G H M A N V T L D L V S Y N F G I Q E Y S P F N G R T Q  
UniRef90\_Q020Z3 T A W H G P G D V S P I G H M A N V T L D L V S Y N F G I Q E Y S P F N G R T Q  
UniRef90\_H8GV01 V M M G C M I E S S L G I A A A A H L A G L C D W A D L D G A L L L A D  
UniRef90\_E7C870 I A P H M Y C G P V V A A A S V Q L A V C S P N F L I Q E G I L D W S G F Q A  
UniRef90\_UPI000364D1CA V A P H D C T G P V V F A A S T H L A C A L P N A V F M E S V R A Y W S G W Y R  
UniRef90\_K9R9F9 V M F G C Y S D S A I A N T A L A Q L S P L A D Y L D L D S H L N L I N  
UniRef90\_C6C9Z0 T G S H G P S D L S P I C M A A A L H F D L W V P N F G I Q E Y M G Y S E Q M L  
UniRef90\_I3C9Q5 W W V T S A L E S N I G L N A I A Q W T A T L Q N K M P Q G L G T G S L Y T  
UniRef90\_R4W079 P V V S T T I D G V A R L G A L H V A G A L A P I D A C G L A T G D R L A N  
UniRef90\_A0A022LIG4 S G F H G P T D I S P V G L A A Q M H L G L A I H F G I Q E Y M Q H G P Q T N  
UniRef90\_UPI00034B6603 V V V S S A V E T S V G L A A G V A L A A A L P E L P Y A C G L A T M Q M L T A  
UniRef90\_UPI0003B40D35 L M P H N P L G P I C T A A S V H M S A A V P N L S W L E T R Q S P V E N L G F  
UniRef90\_UPI0003618A6B V M M G C M T E S S V G I S A I A H I A P L L D Y V D M D G A L L L A K  
UniRef90\_W9AWF7 S G M H G P T D I S P V G M A A A L H L D L A I H N F G I Q E Y M P H S D T T L  
UniRef90\_K9TLD6 V M F G C Y S D T V V A N T A L S H L S P L A D Y L L D L D S H L N L I D  
UniRef90\_X4J4E3 L A P H F A M E V H L H L S A Y P L E P W L E H F E W  
UniRef90\_D2EG65 I M V G C M E E S R V G L A A G M H L D L S I K D I G F A D L D A H I T H R N  
UniRef90\_J4SK37 R R F A F P H G G H L I N L H V A A G L G L G G C E A Y P G V I F A P F  
UniRef90\_UPI0004640C2C T G F H G A T D L S P V T M G A A L H F V D T W A P N F G I Q E Y M F H S E A T D  
UniRef90\_A4U8Q8 V A L H G G V N D S F G Q H L C H A M P S N M W G E L Y I D S A P G I P L E E G  
UniRef90\_D7CRZ6 V M V G S Q A S A G L G T H A A I F S S K E G V T H P C E L S F P L K L A R  
UniRef90\_UPI000409F24E F S S G G T V W V N A V F G A L Y D E N E L E N H E P M T S P I G  
UniRef90\_B5YB43 L M I G C M G E S L G I N Q S I H F S A G L G V F E F H D L D S A L M I K E  
UniRef90\_UPI0003B2F046 V V V S S A L E D T S V G L S M G A Y L A A A V P E L I E F D C G L G T A S L L A A  
UniRef90\_C7R0P0 V V V S S A L E S S V G I S A Y G L Q L A A S L P T L D Y A C G L A T T S L L F T T  
UniRef90\_UPI00036556B5 I A P H V Y N G P V G A A A S I Q L A T A T P N F L I Q E S I K T W D G F Y Q  
UniRef90\_F8GV68 V V P H G S S V Y S Y H F V I T R H N S P F A E F L N M S P G A D E I V P M F H  
UniRef90\_UPI00036FB9A7 L A P H L L E V S G Q L A L A L R Q E T A V E D V M E D A G F Q L G A L M S D  
UniRef90\_M0N1V8 A V L T T T I D G A L A R A G A V H V A A S L P D P P A A G L A T A D R L A E

UniRef90\_UPI00036A9C6D E L L D E V F R F H E G H L L R P T G P G L G V I E L D E R A V R R 230 240  
UniRef90\_K5WIR1 H F V T P C S I N D K G R Y N V P N N P G Y S I E M R E E S I A E Y E W P N G T  
UniRef90\_UPI0003B3EC5D L A F D G V L R D P G G G A L T P D T A P G H G L A T L R A A D L E T Y R V I R  
UniRef90\_B2GHP1 D V T A E P L R P V D G F L P V R D T A P G H G L A T L R A A D L E T Y R V I R  
UniRef90\_UPI00046801F6 D I A T G V T L D F G K V N Y S D G N G T G V V T L L  
UniRef90\_F5ZB77 E I E P H R Y E V I K N G T V A L D A P G L G V D F D E S A A Q K Y P Y K R  
UniRef90\_I4YYH2 L L V E E T R V I E G G Y A Y A P D R P G H G I R L S D R A R A E F R  
UniRef90\_UPI00045EB3DE P L L L D E P V I V N G R M K A S D K P G F G V R L N S P E V  
UniRef90\_J9VFH5 H L H E H F L Y P V I G R Y N V P T D A G Y S I E M F E K S M E D Y A F P G G A  
UniRef90\_A0A017SR78 K T A D G G F D V H D G Y V T A P T A P G L G V I E P R L D V L G E  
UniRef90\_I012R2 I L S T L E V T V C E G H L S L P T G P G L G V T L R T E A L T R  
UniRef90\_Q040J3 P D L G K Y L K I K N N E I L L K D  
UniRef90\_H3N193 T V F P G A P V V K N G F I Y P P K A A G T G V G F N Q Q M A Q A Y P V V Y R P  
UniRef90\_F4XVU6 D P F L G A T L Q N G H L I P N N L P G L G V I E L D R S M I  
UniRef90\_E0DSL0 H L V A G Y E P R V K N G R G T A P V G A G L G I Q F K E S A F E E F E Y P Q G R  
UniRef90\_M5GDB3 H L H E H F L Y P K D G R Y N V P S Q A G E G I E P R L D V L G E  
UniRef90\_UPI00047DC4BB E V C P G A P E Y R D G A L W P S D A P G L G V D L N E E V A A R H P Y R R  
UniRef90\_X1FU17  
UniRef90\_K0KVM0 E L F L D E P L P Y K G F L N V S D K P G F G L T I N P K  
UniRef90\_K2R0Q4 E V L K T K L G V D D G Y L I P S R E P G L G I E L N H D V I A R H T  
UniRef90\_UPI00035EC6D9 S V F S P V L D A R N G Y L Y P L E H P G L G V I E F N E A A A L N F P V E Y R M  
UniRef90\_U5H1Z7 H F T D P C T I N S N G H Y D V P S N P G Y S I Q I K D E S K A Q Y L F P H G S  
UniRef90\_M0D422 T F V E E D V I E G S V P V S D E P G L G V T L D L D V V E E H M K D G E T  
UniRef90\_A9DU98 D L V Q P N V Q M N G L V N M E S L K N C T L Q P N L I D K Y T L D Q K T  
UniRef90\_UPI0004670A3A A T C K Y D T E P V N G V Y Q V P D L P G L G Q E P T E E C I A K  
UniRef90\_J9YX83 R L D K N G P T R N K G K I S A P D G L G L G V I E P D L N L L G K P T V  
UniRef90\_F1DGI7 D P W T G I G G T D G V V R T S G R P G L G V R  
UniRef90\_A6FPX0 S F V A Q H P V T E G A F P T A E G P G L G I D T L P D E I A H F R T  
UniRef90\_UPI00044082B2 H L H E H F V Y P K Q G R Y N V P E G E G Y S I E M H R K S I E E Y  
UniRef90\_UPI00036F4C34 N N F E S P L E V K N G Y L H  
UniRef90\_V6KT20 D L L T E P F R F V D G H A H R T D L P G L G V T V D E D A V R A A D R A G H A  
UniRef90\_A9ZNU3 D L V E D P L V P V N G S I A L  
UniRef90\_T1XJ81 P L L D E P L P Q Q G R M S V N D K P G F G V R L N P E  
UniRef90\_UPI00040A5D1C D L I A E P R K F E N G R V F A N D E G P G L G I E V N R E K L A R Y A V  
UniRef90\_UPI000474C4BE L L F D G V P Q P A A G V R P D T G P G L G L E V R W A D A E P W R V H G E R  
UniRef90\_C6WS62 E V F R S D V R F E N G M L H P S D A P G L G V I E Y D D A A A R F P Y D P R  
UniRef90\_L5MQK8 N P F T H P L Y P V N G E V A I P S G V G I G M E P N W E I I N A  
UniRef90\_N8X8V5 P V L V I N E P V P V N G K I H V L D K P G F G V I E L N  
UniRef90\_UPI00047E3F99 F V T P P V R S S G G V V G V T Q P G L G H R I D E E A I A R L A R E R L R  
UniRef90\_E6Lfv9 A K K Q M G F T L S K N T L T L S N Q A G V G I W L I E  
UniRef90\_P32426 E V F R T G V T F A D G M L H P S D E P G L G V I E Y D E K A A E R F P Y Q R R  
UniRef90\_Q123K1 D P T D F S S F V R D G V V H F P G T T G L G I Q V D E P H V R R L A V D  
UniRef90\_X1S5S7  
UniRef90\_V4IZL3 D V T P T D P P V V D G A V R V P D G P G L  
UniRef90\_UPI000361F6E5 D P V L E P L N I K D G K V Y L K E T G L G T E I D M G K A K K Y  
UniRef90\_E1T608 D V F H A W T F E R G M M H P G E P G H G V I E I D E E A A A R Y P Y D P  
UniRef90\_F4C1P2 D L V K G R K L I E K G Y A N V P N A P G L G I E L N D E V V K E H  
UniRef90\_M0XRZ3 D P V Y G G Y E A S G P V Y K F K N A R G H G  
UniRef90\_H6RM20 R P F T G L G L D D G R L V L P D A P G L G L V A E E A A  
UniRef90\_V4NQF1 P F L T V D Q Q I V D G G I V L G D A P G L G I A V D E D L I  
UniRef90\_UPI0003A0B00E I A F D G V L T P E S G L L R P N R P G L G L E V R H A D L E R F R  
UniRef90\_G2MN08 D V I E T G D G P M H D I S G P G H G V T P D  
UniRef90\_D0LLD5 D V A T G A K L E S G T I V Y P D A P G C G V T  
UniRef90\_C5BI23 D L C D R P I N F Q Y G K Y R P N D G P G L G I D V S T E N L Q K M  
UniRef90\_UPI00030546D1 E L V T A V P R I E N G Y V Y P M E G E G L G L R L R D D V L A  
UniRef90\_UPI00037CD543 D L L A E P L D S D G R N V R L P S G P G L G V R L R D D V L A  
UniRef90\_D6V855 P T L K N P L T I K G A I V I P N G Y L P E L D E K A V A A M Q V S S E S  
UniRef90\_C5BYU0 P S P V R R R G T R L E V A R A P G W G L T F  
UniRef90\_K1LH01 D I A K G V E I T P E R V T F P E G N G T G A V L  
UniRef90\_F3HUX1 N D L P E V E D Y D K G M V I T P N G P G L G I E L N E E Y V I E R A A I G H R  
UniRef90\_V8QV52 D P F E S L P V D N G L K I T V P T G P G G G L  
UniRef90\_C5D0U2 E L V T Q L P D V R A G H A T V P P G A G L G L A L S P A L L Q R  
UniRef90\_A0A031Q69 P Q L L G E P V P V N G R M L S D K P G F G V D L N P D  
UniRef90\_J7KR75 D V F P G C P D I E G G Y A Y L N D K P G L G I D I D E Q K A K Q F P V E G  
UniRef90\_Q020Z3 E I F S G C P V M K D G Y L Y A S E K P G W G I E V D E K L A A K  
UniRef90\_H8GV01 D P Y R G L E W T A G H L A R P Q G A G W G V E  
UniRef90\_E7C870 Q L V Q R P I Q W E A G Y V I P T E P G L G V I E L D E S V A Q A H P Y E G D  
UniRef90\_UPI000364D1CA D L V T A L P I V A D G M I A P T R G P G L G L A L T P A A L A G A I R R T T  
UniRef90\_K9R9F9 D P F T G A F I Q E G K L P N N L P G L G V  
UniRef90\_C6C9Z0 E V F P H S W T F D G Y M H P G D K P G L G I E F D E K L A A K Y  
UniRef90\_I3C9Q5 N N I E S A L E V K N G A L H  
UniRef90\_R4W079 D L G P D P A P V E D G T M T P R G A G T G L R L A D D  
UniRef90\_A0A022LIG4 Q V F H Q T F T F T D G Y L H P G D E P G L G V S L D V D E A G K Y P Y E Q  
UniRef90\_UPI00034B6603 D V T A V P L L P E D G F L P V R P A V V D E E A L K A  
UniRef90\_UPI0003B40D35 H L F P V Q L E L E G A V Y V P D S P G L G I E V D E D A L R A  
UniRef90\_UPI0003618A6B D P A K G V V I D D Q A K L H Y A D L P G T G V L K S E W  
UniRef90\_W9AWF7 E V F R T S F T F E R G F L H P G D T P G L G V I E L D E D  
UniRef90\_K9TLD6 D P F T G A I V Q D G R L L P N D L P G L G V Q  
UniRef90\_X4J4E3  
UniRef90\_D2EG65 K F V Y G G L K T S N G K N I I S N G N G L G L K F K  
UniRef90\_J4SK37 G G Y P D A C A L S A G R V S P T D A A G F G L E  
UniRef90\_UPI0004640C2C A V F P H D Y R F R D G R L H V G D T P G H G V D I D E A L A A K Y P Y A P K Q  
UniRef90\_A4U8Q8 R P T P G M A I P K D G R L V P A T P G F G I E L T R D E L E A M T  
UniRef90\_D7CRZ6 D L L S A P L R F R E G G L E V A S L R E L H L E L R E  
UniRef90\_UPI000409F24E D C L S V K P E E K G G R L Y L P D I E G S P V R L N L K K L E E  
UniRef90\_B5YB43 D K F R G K Y R I K I P Y Y I P  
UniRef90\_UPI0003B2F046 D V T T D P L V P S D G S I T V  
UniRef90\_C7R0P0 D T V P T P L T P T N G M M N L P  
UniRef90\_UPI00036556B5 E V L Q E P I K W I H G H I I P S T K P G L G I E L N H D I V K A  
UniRef90\_F8GV68 P Q L L D E P V P V N G R M K A S D A P G F G V R L N P E L  
UniRef90\_UPI00036FB9A7 S P V S V G A R V R F I P A P G L G I A F R P A A  
UniRef90\_M0N1V8 N L V Q D P A P I D D G H A R V P Q E P G



UniRef90_UPI00036A9C6D	
UniRef90_K5WIR1	Y W
UniRef90_UPI0003B3EC5D	
UniRef90_B2GHP1	
UniRef90_UPI00046801F6	
UniRef90_F5ZB77	
UniRef90_I4YYH2	
UniRef90_UPI00045EB3DE	
UniRef90_J9VFH5	Y W A
UniRef90_A0A017SR78	
UniRef90_I0I2R2	
UniRef90_Q040J3	
UniRef90_H3N193	H
UniRef90_F4XVU6	
UniRef90_E0DSL0	
UniRef90_M5GDB3	Y W
UniRef90_UPI00047DC4BB	
UniRef90_X1FU17	
UniRef90_K0KVM0	
UniRef90_K2R0Q4	
UniRef90_UPI00035EC6D9	H
UniRef90_U5H1Z7	Y W S
UniRef90_M0D422	
UniRef90_A9DU98	
UniRef90_UPI0004670A3A	
UniRef90_J9YX83	
UniRef90_F1DGI7	
UniRef90_A6FPX0	
UniRef90_UPI00044082B2	
UniRef90_UPI00036F4C34	
UniRef90_V6KT20	W R
UniRef90_A9ZNU3	
UniRef90_T1XJ81	
UniRef90_UPI00040A5D1C	
UniRef90_UPI000474C4BE	
UniRef90_C6WS62	
UniRef90_L5MQK8	
UniRef90_N8X8V5	
UniRef90_UPI00047E3F99	LP A
UniRef90_E6LFV9	
UniRef90_P32426	
UniRef90_Q123K1	
UniRef90_X1S5S7	
UniRef90_V4IZL3	
UniRef90_UPI000361F6E5	
UniRef90_E1T608	
UniRef90_F4C1P2	
UniRef90_M0XRZ3	
UniRef90_H6RM20	
UniRef90_V4NQG1	
UniRef90_UPI0003A0B00E	
UniRef90_G2MN08	
UniRef90_D0LLD5	
UniRef90_C5BIZ3	
UniRef90_UPI00030546D1	
UniRef90_UPI00037CD543	
UniRef90_D6V855	H R S
UniRef90_C5BYU0	
UniRef90_K1LH01	
UniRef90_F3HUX1	W R
UniRef90_V8QVS2	
UniRef90_C5D0U2	
UniRef90_A0A031IQ69	
UniRef90_J7KR75	
UniRef90_Q020Z3	
UniRef90_H8GV01	
UniRef90_E7C870	
UniRef90_UPI000364D1CA	G R
UniRef90_K9R9F9	
UniRef90_C6C9Z0	
UniRef90_I3C9Q5	
UniRef90_R4W079	
UniRef90_A0A022LIG4	
UniRef90_UPI00034B6603	
UniRef90_UPI0003B40D35	
UniRef90_UPI0003618A6B	
UniRef90_W9AWF7	
UniRef90_K9TLD6	
UniRef90_X4J4E3	
UniRef90_D2EG65	
UniRef90_J4SK37	
UniRef90_UPI0004640C2C	
UniRef90_A4U8Q8	
UniRef90_D7CRZ6	
UniRef90_UPI000409F24E	
UniRef90_B5YB43	
UniRef90_UPI0003B2F046	
UniRef90_C7R0P0	
UniRef90_UPI00036556B5	
UniRef90_F8GV68	
UniRef90_UPI00036FB9A7	
UniRef90_M0N1V8	

UniRef90\_UPI0003B42023 1 N K K S L P L N G L V W M G E P S Y M K E Q I E Q K I A E G F N C I K L K I 40  
UniRef90\_D8MSE5 T P G I Y F D P D A Y A R A V P R L F D H L R N K L G G  
UniRef90\_UPI00047B48C8 D E I S F Y C T G P A P D A V K E L G F W G A K V P L G  
UniRef90\_R4Y7G7  
UniRef90\_UPI00036DC4E7 R S E I P F Y A S L V R Y S E H D L V V A A S K E V L D A G F R R I K L H  
UniRef90\_A4F106  
UniRef90\_Q9RJV2 V P G Y A S L D Y A L S D D E L V A F H G R W A R R G F T G A K V K L D  
UniRef90\_U5LH57 K D A I G A Y A H A D G L T L E E L F S N V D S L V K K G Y R H I R C Q L G  
UniRef90\_L2FCM5 R T K A R V Y G H I Y E S T L E K V L E E C K R K M E M G F S A F K T H V L Q  
UniRef90\_R6W5Y7 D Y V D T D V T V S I G N P K K V A S D I A R A I D D G F R S L K I K L G  
UniRef90\_UPI000375C936 M K V L G  
UniRef90\_E3J814 R E A V P V Y G S G G F T T D D A Q L A E Q V A G W Q A A G T S L K I K L G  
UniRef90\_L2PPJ2 R T A I P A Y T H A V A D N L K D L Y S E L D H F L A K G Y R Y I R C Q L G  
UniRef90\_D7RYL3 R S K I S V Y A W I G G D R P A D V E A A G K A R L A Q G F K A V K M N A T  
UniRef90\_A1WNS2 R T G V M V Y G H A N G S D I E E Q T V D E V L R Y V E A G Y Q A I R A Q S G  
UniRef90\_L2FPB5 D S V P A F T V V G L G T P E S G A K K A I A E Y E R G V C A L Q L K V G  
UniRef90\_UPI000237BE56 R N R V L V Y A H A N G V I D L D H A L E S V A S E L D N G F K A I R V Q S G  
UniRef90\_Q022L8 R K D M P Y Y V A S G R D T P E Q E I E Y L Q K L L D S G A K A L K F R V G  
UniRef90\_D7UWR3 R D A I A A Y T H A V A D D L D E L V Y G Q I D Q I R A E S G Y H I R C Q L G  
UniRef90\_UPI000255856C Y V S G L P A P D R R G R I E M A E A W K A R G F D A V K I P I S  
UniRef90\_UPI0003677479 S V R V Y G S G G F T T D D A R T R A Q L E G W L A R G M T A V K I L G  
UniRef90\_C5CZC2 R E G V P V Y R H A D G S L S E L C D N I Q K Y R E Q G I T H V R C Q S G  
UniRef90\_A4FJU2 R E R C L V Y G H A S G K D T P E L F D S V R E H L E E G F R A I R V Q T G  
UniRef90\_C5EHH2  
UniRef90\_I0WJ35 R M S T S K T I G I D S A Q I I A Q R V A E A N S F K F L K I K L G  
UniRef90\_H8G5D5 R D R V P I N C T V P A V G P E A A Y E I V T R S G C R T A K V K V A  
UniRef90\_J9G103 I P I N G L I W M G S F E D R M L S Q I E E K M K A G F R C I K L K I G  
UniRef90\_H9UEW0 K T K I E T D Y T I S I G T I E R M V D A R K L V E R G H S V I K I K V G  
UniRef90\_R0D5Z5 D S I E V D L T I G I N P T A K M R A D A V S A V K R G Y R I K I K A N  
UniRef90\_X1G6M5 F R D E I P V A S E I G I D T P E V M A Q N A L D V L K I G F K V I K I K G S  
UniRef90\_X1SMD3  
UniRef90\_W4PV01 T T F T I G I D T P D V V R A K T Q E C A G L F N I L K V K L G  
UniRef90\_UPI0003607914 R D R V P I N A T V P A V D A A R V P E V L D R G A R T A K V K V A  
UniRef90\_V9G6R1 R S A V P C Y A H A N G H T Y E E L E E V A T F Q E Q G F G V I R C Q L G  
UniRef90\_G5ID53 R D K V L V Y G H V I A S S D E E L V E N C K K R K E Q G F K A L G H L S  
UniRef90\_M5WUB5 S P G E A A T A S K Y R E Q G F R T L K M K V G  
UniRef90\_I2F7Z6 K D F V E T D K T V S I G S L E E T V H D A K E I F D A G H K V I K M K V G  
UniRef90\_E8NBV2 R D R I P G Y A S L D I A L D S A G L A E F Y S S M R E R G F T A A K L K G G  
UniRef90\_UPI000373AD57 R T D V P V Y G S G G F T T D E H Q L D R Q L W G W V E E G P R V K I K I G  
UniRef90\_I0KB13 R R A I P I N G L I W M G S H E A M R A Q I D Q K L A A G Y T T I K L K I G  
UniRef90\_K5ZFT8 I P I N G L I W M G S Y E E M L G Q V T D K I E S G F R C I K L K I G  
UniRef90\_H8XPE7 W M G S P E F M K A Q L E E K L E Q G F R C I K L K I G  
UniRef90\_UPI00036139A0 R G D V P V Y L H A S G E T I D K T L D H A A L V G A G F S H V R L Q T G  
UniRef90\_A9SGD4 H S N T V V T D I T I P I C S A N E A G M L A S E Y E A R G F Q T I K T K V G  
UniRef90\_N9ZSF9 R Q G I P V Y R H A D G R D L D E L C E N I Q R F Q E M G I R T I R C Q C G  
UniRef90\_UPI00047CC650 W M G E P G Y M H E Q I Q K K I E E G F R C I K M K I G  
UniRef90\_G2PG87 F R H R A A A Y T H V D G R D A E E L A D K V A A A R E R G F G H V R V Q T G  
UniRef90\_A8F493 K K I E T D R T V G I D T V E N R V R E A K S I F D D G F K V I K I K V I G  
UniRef90\_W010V2 F W T S E A F L R Q A G D Y V A R G F T S L K V R I G  
UniRef90\_I7LMK9 V V T D Y T L S I S Q K N Q M L Q D A D G I V S R G F S A L K I K V G  
UniRef90\_UPI0003818C3E  
UniRef90\_UPI000479E8D9 G C Y F D P E A Y A K S I D K L F E H L R S K I G  
UniRef90\_UPI00026CD5CE R D A V M V Y G H A N G G D I A E T V D A V A R Y I D L G Y K A I R A Q T G  
UniRef90\_A0A011AUD0  
UniRef90\_UPI0002A54BDE R D R V P V Y A T G P Y D D Q V A F M R D A A E S L V A E G Y A A M K I W  
UniRef90\_UPI0003796202 R D R V F V T Q C T G Y K T P Q H T A E D A Q W G W E H G F R A Y K M K C I  
UniRef90\_V8QLZ9 A E L A Q S L T I E E G F G A M K I Q T G  
UniRef90\_R7EYU7 W M G D I D T M R R R A Q E K I D A G F H C V K F K I G  
UniRef90\_UPI00045E5E9E R D K L R T Y A S H L W A V T P E D Y A Y N V R L A V G E G F D A V K I D F  
UniRef90\_UPI0003B3F0CC  
UniRef90\_Q8YH38 A L E T A I T V S L G T P E E M A Q S T A K V A H Y P L I K V K M G  
UniRef90\_B0R4T7 H D S V P V N A T V G D G T A A A T S A A V A D A A A D G F D T V K V K V G  
UniRef90\_E8NG43 R D T V P V N A T M P A V A S E V P M L L A R Y D G C R T V K V K V A  
UniRef90\_A0A021VMJ1 R D R V P V N A T V P A V D G T T A R G I V E R G C R T A K V K V A  
UniRef90\_UPI00028860F4 K E S I V I N G L I W M G E P G F M K E Q I D E K L A T A G F K C V K L K I G  
UniRef90\_I4Z9E6 K E G I P I N G L V W M G T F E D M F E R L E E K L D A G F H C V K L K I G  
UniRef90\_F5JJ12 F R R E V R S I P I V G F H R P L E G I K E E I Q K H L D E G E S L I K V M I K  
UniRef90\_UPI000237BB02 I P I N G L I W M G A P D Y M L Q Q I E E K I L A G F T C L K M K I G  
UniRef90\_D2B0H0 R T S L M A T V R I G A D R N L E S L V A R V N R H V C A G Y A H I T L D V H  
UniRef90\_C6WHW8 R E R V A V N C T V P V V S P E R A H A L V S A G C G T A K V K V A  
UniRef90\_A3ZY35 Y W S I I H E P V A L A Q E L L S E G Y D A L K L H V S  
UniRef90\_B3QUY9 I S G T Q Q E L K V A S T E L L F E G Y R T L K M K V G  
UniRef90\_K2PTY1 W M G D E D F M R S Q I Q K I E Q G F C I K M K I G  
UniRef90\_UPI00047CB601 W M G E E H F M K T Q I E E K L A Q G F S C I K L K I G  
UniRef90\_F5IT38 I P I N G L I W M G D Y D Y M L E Q I E S K L E Q G F H C V K L K I G  
UniRef90\_K8CVR1  
UniRef90\_B9NSP7 T A Y T L S L D T P Q A M R A Q A A K N A A R P M L K I K L G  
UniRef90\_R4W9W7 R E Y A T V Y D H C G D D S I D A I V E N A E A S L D R G I D H F R V N V G  
UniRef90\_UPI0003B3554D R Q W V A M G W W M P C M S P E D T I V E V Q V A A E R G Y R G Y K C K A R  
UniRef90\_H8KSQ8 T T F T I G I D T Q E V V R E K V K E P F N I K V K L G  
UniRef90\_Q9HIE5 Q K I A R Y A S L S R Y A N Y E A V I R A S K N I V E S G F K A I K L H Q T  
UniRef90\_UPI0002492CD9 T I S I M D E I S T R N A T S A T I Q A G Y K C I K Y K V K  
UniRef90\_I8JDQ8 E T V A M A Q T V S I G T P E A M A C S A K A L V Q L I G A H L K V K L D  
UniRef90\_E3CAT8 Q R S K V R A Y A S M G W G A T E E D Y A T N T R I A M E K G F D A V K I N F L  
UniRef90\_F0RAE8 I P I N G L I W M G E E S F M H Q Q I Q K L K D G F N C I K M K I G  
UniRef90\_T0J9W2 R D R L P V L W T L A S G D T A R D I A E A E T M I D Q R R H K A F K L K I G  
UniRef90\_C7MFJ1 R E Q V E V N V T I P V V P P A L A H R L A K V G G A R T A K L K V A  
UniRef90\_S3ZET7 R D D V P V Y G S G G F T T Y H D T L A A Q L N G W V G S G I P R V K I K I G  
UniRef90\_A0YBG8 V Y M D P D L A A Q R A L E Y A D L I G F T A V K F D V G  
UniRef90\_UPI00046EE75D T A Y T L S L D T P E K M A A A Q V N A H R P L M K L K L G  
UniRef90\_UPI00046BCFE4  
UniRef90\_B8KVM7 R L D S D V S I G I G T P A E T T A K A I D L R G A S C I K L K L G

UniRef90\_UPI0003B42023 A N K E L E L L Q F L I R T H F D T I E I R V D A N G G F S P E E A L S K N Q L H  
UniRef90\_D8MSE5 F G  
UniRef90\_UPI00047B48C8 L V K N V A Y L S A Q R R E K V G D Y P L M L V D C Y M S Q D V N Y A T K L A K E A A  
UniRef90\_R4Y7G7 L R K D V A M V A D M R E K G P G D F W L M L D C Y M S Q D V N Y A T K L A H A C  
UniRef90\_UPI00036DC4E7 E I T T L P A L A S C R G F V G S D I C Y D V N C A W S V E F V E Q N R K L D R  
UniRef90\_A4F106 D A R I L R L D A N E A W S P G T A V R V L A R A L R  
UniRef90\_Q9RJV2 V D R D V R R L A A V R D V F E R P A R L M Y D V N E A W G R H Q A V R L A R Q V  
UniRef90\_U5LH57 L K D V V K M F K A L R E K Y G D I H F L H D V H E R L T P N Q A L Q T A K D L E  
UniRef90\_L2FCM5 K M R D L E N V R K M R E V V G D V D L L V E L H R R L T P A E A V T F C N I A  
UniRef90\_R6W5Y7 R G R D E D L I R E I A A L V P G G I R V R F D A N G G Y T V G Q A R R V G W L D  
UniRef90\_UPI000375C936 E N E D Y R R V E A V R N A V G D L E I F I D A N G G W S P G E A V R N L E L F  
UniRef90\_E3J814 E D R D L A R V L A R L R E L A G D A Q L M V D A N G G Y T V G Q A R R V G W L D  
UniRef90\_L2PPJ2 F Q T T L K M F E A I K K K Y G N F Q M L H D V H E R L H P N Q A L Q F A K A E  
UniRef90\_D7RYL3 E D M N V Q R L Q L V K A L G L D V A L L D F H G R L H K P M A K Q L A K A E  
UniRef90\_A1WNS2 A D A D L R L F E R I R E K I G E P H L H D V H H R L T P E A A R L G K A L L  
UniRef90\_L2FPB5 D D N D A R R V T A I R K A V P E V V C F A D A N C G W N L E Q A L I Y S R S L  
UniRef90\_UPI000237BE56 P G L D H K L F S K V R E H F G E L L L H D V H H R L T P I E A R L G K E L E  
UniRef90\_Q022L8 P Q R T T E K L T P L V R K T F G D F E I H A D A N S S Y D P K E A L R V G H L E  
UniRef90\_D7UWR3 F R T T V K M F Q A I R E K Y G D F E I L H D V H E R L F P N Q A L Q F A D V E  
UniRef90\_UPI000255856C H T E A G D V V A A L R A A L G D H R I A V D M H W A Y T A D E A V A L G A A L  
UniRef90\_UPI0003677479 E D R D L E R L R L A D A S V L G R A E L L Y A D A N G A Y D A P A A I R V A A E A  
UniRef90\_C5CZC2 G R E T L A L F D G L R S K Y G D V A L L H D V H E R L K P V D A I R L A C L E E  
UniRef90\_A4FJU2 V G D D T R V F E A V R G E F G D I A L L H D A H H R L T P I Q A A K G K S L E  
UniRef90\_C5EHH2 L D Y L E E D Y V K Q A R D M V G D N V P L A I D H G H V N Y Q S C H L K L A K R L E  
UniRef90\_I0WJ35 A D N D E I L M Q A V R S A C L T N Q V P L Y I D A N G G W K D K H L E K I H W L K  
UniRef90\_H8G5D5 L G E D Q A R V E A V R S A L G D G A I R V D A N G A W D V E T A V R H I R V L  
UniRef90\_J9GI03 A E E E L A L L R H I R S H F S K G E L L R V D A N G A F S P A D A L K F K R L  
UniRef90\_H9UEW0 E E E D I Q A M M A I Y E V S K G L K Y I V D A N T G Y T P K Q A V K F I Y R A  
UniRef90\_ROD5Z5 S E D V L E R V E A I A A A C P G V R F I V D A N E A W T I E T L N S S P E L A  
UniRef90\_X1G6M5 D D M D I K R I K T V R E A V G D A D L R L D P N A A W T I E T I K V M K E V E  
UniRef90\_X1SMD3 A G V G G H L Y Q V R F V Q M V E  
UniRef90\_W4PV01 K E N D K E M I E T V R S V T S L P L A V D V N Q G W K D R Q L D M I H W L K  
UniRef90\_UPI0003607914 E A D D V A R V I N T A I R E M F P L I V R V R F D A N A G W T V P Q A V D A A V A L  
UniRef90\_V9G6R1 P A R D D S R V I T A I P D R M V E K L R V R F G M N L A F T H D V H E H S R L L D  
UniRef90\_G5ID53 P F L D I R R T H L M R E T V G D V D L C I E L H R R S L P A E A V V T Q E I A  
UniRef90\_M5WUB5 K N L D I E V L L A I N D A V H A D C D R Y I L D A N E G Y T S E E A I Q V D K L Y  
UniRef90\_I2F7Z6 E D S D V A R V L A V R D E I K G V F V I D A N T G Y T T S K E A I D A M Y R N  
UniRef90\_E8NBV2 R N H D A E R L A L V R D V L G E A T V M L D A N E S W N L P Q A I R Y I Q H L  
UniRef90\_UPI000373AD57 E S W D R E R V A Q A R R S L G Q D T R L R V D A N G G Y T R K Q A L R M R H L D  
UniRef90\_I0KB13 A D Q E C A L L G Y I R E R Y E Q D T L R V D A N G A F R P D E A M T K E R L A  
UniRef90\_K5ZFT8 A D K E L E L L R I R K Q F D E I E L R V D A N G A F S P N E A M R K N C L A  
UniRef90\_H8XPE7 A Q Q E L D L L A Y L R S H F D E I E L R V D A N G A F H S S E A L N K I Q L H  
UniRef90\_UPI00036139A0 L A Q T P R L F A A A R D R L G D I E L L H D V H S R L T P K Q A V M A R S L E  
UniRef90\_A9SGD4 G Q D D I D M L I A I R Q N H P K C S L I L D A N G G Y N A N D A L K Q L H E L  
UniRef90\_N9ZSF9 G R D T V N L F E G I R S K I G E M N L V H D V H E R F A P V E A L R A R L L E S  
UniRef90\_UPI00047CC650 A D A E V N L L E S I R K K F D K I E L R V D A N G A F S P D A A L G K R L L S  
UniRef90\_G2PG87 R W D S A A Y L R A V R E L V G D V E L L H D A H E R L D P R Q A V E F R R V A  
UniRef90\_A8F493 E N E D I D A M L R A I H E V T G D G A K Y I V D A N G M G Y S P K Q A V N F A Q Q A  
UniRef90\_W0I0V2 I G Q D V D R L R A L R S R F G D V H L A D A N G W Q P D H A A D N A A L A  
UniRef90\_I7LMK9 G D T E I D K I A Q L N H R Y Q K I H F R I D A N Q A W T V A Q T I E M A L T K  
UniRef90\_UPI0003818C3E L N K N I A E L A E M R A R V G D F W L M Y D C W M S L D L N Y A V R L A Q A H  
UniRef90\_UPI000479E8D9 F N M E F I H D I H E R I P P I E A V R L A K R L D  
UniRef90\_UPI00026CD5CE V P K D A A L A S V R K A L N H V P K L F D T L R A K P Q E A A N L G R M L E  
UniRef90\_A0A011AUD0 E Y L G R V R D V I G K V E L A M C D H F G H F P P D M I K I A R R L E  
UniRef90\_UPI0002A54BDE P F D D L E P F R K I R A V G Q V E I A M C E L H S L W T H A A R L C N A L A  
UniRef90\_UPI0003796202 T S R E A D R I E A I H K V L P N M A V R P D I R W R L E E V W V A Q E R R L Q  
UniRef90\_V8QLZ9 G Q Q G L A V F E K I R L A V G D T E I V M C E F H S M W N L T S A L A M R E L K A  
UniRef90\_R7EYU7 A D A E L G L I T E I R K A N N D L E I R V D A N G G L P Y D R A E K M G Q L A  
UniRef90\_UPI00045E5E9E F D R D E E R M K A A R E A A G D V D I I M E N H S Y P D A L G A V Q L A R L A  
UniRef90\_UPI0003B3F0CC A V F I E A V R N E F P E L P L I H D A H H R L T P I Q A A K G K S L E  
UniRef90\_Q8YH38 G E N D I E R I H A V A K A A P G S R I I D A N E G W T D A N I E N M K A A A  
UniRef90\_B0R4T7 V R A D L D R L R A A S D T A P G L S L R A D A N G A W D L D A R Q A A D A C  
UniRef90\_E8NG43 E D D D V A R V R A V R E A G P E G R V I D A N G A W N V D E A E R V H A L A  
UniRef90\_A0A021VMJ1 V D D D E V R L E A V R D A L P D G R V I R I D A N G G W D V E A V A R L A V L  
UniRef90\_UPI00028860F4 A E K E L A L L R Y I R S H F S D I E L R V D A N G G F E K S N A L D K N Q L V  
UniRef90\_I4Z9E6 A A K A L E L L K H I R E A F D Q I E L R V D A N G G F T S A E A M E R A L A  
UniRef90\_F5JJ12 G A D A V K Y L Q A L S S T F G D V S F A V D C H W S W R S E A L D T C M R I D  
UniRef90\_UPI000237BB02 A D E E Y R I L E A L S R R R F D Q L E L R V D A N G A F S P A Q A P G L D K L A  
UniRef90\_D2B0H0 P G W D I E P L R A V R Q A Y P A L G I G V D A N A G A Y T D I G A L E A L D  
UniRef90\_C6WHW8 L A E D L E R V A A V R D A L P G G A V R V D A N A A W D V D T A V T A I R A L  
UniRef90\_A3ZY35 L A E D G V E P F R K I R E E L G D T E L I I D G H G F F Q L P M A I R I A Q L R  
UniRef90\_B3QUT9 R E E E A D T V R M L R R L F G D V A I R L D A N G S W S F D R A I R F E T I S  
UniRef90\_K2PTY1 A A T E L K L T A I R K E F T D I E I R V D A N G A F N L E D A L P K Q Q L A  
UniRef90\_UPI00047CB601 A E K E L G L L R A I R Q N F D T I E I R V D A N G A F S P K D D A P E K K R L A  
UniRef90\_F5IT38 A D Q E L D L L R Y I R K H Y P G D I E L R V D A N G A F S P M A L I K E L E  
UniRef90\_K8CVR1 M A R I R E E F G D I E F G L D F H G R V S A P M A L I K E L E  
UniRef90\_B9NSP7 T P D D M P R L E A V R A G A P E A K I I V D A N E G W S A E Y A D L A P H L V  
UniRef90\_R4W9W7 D P M G V D G V L E V R D R L P D P E L I V D V H S R A S P R E A R Q I R G L E  
UniRef90\_UPI0003B3554D A F Y D V E Q S K A I Q T A P P D F R V R D V N G S I N V E K A L P I L R E L  
UniRef90\_H8KSQ8 V E S D K M M V Q T I R E Q T N K P L T V D A N Q G W K D K Q Y D M A Y W L K  
UniRef90\_Q9HIE5 K D D T L E S V K R F R E E I G G V D L M V D L N C A M N D E A I K F A N V Q  
UniRef90\_UPI0002492CD9 S G T D L N R V L S V A D L D D I S R I D P N Q A W S R Q E A I S N I G K L  
UniRef90\_I8JDQ8 E H L T A E R L V A I R S A V P E V T L I V D A N E A W Q P E G A A R C Q L L A  
UniRef90\_E3CAT8 T F D E K R R L Q A V R E V L P N N D L I L E N H A L T G K L A A L Q V A R L A  
UniRef90\_F0RAE8 A D T E V S L L K A S I R K T Y K E I E L R V D A N G A F K E D A L D K L K L A  
UniRef90\_T0J9W2 K R E D V A H V A A I K R A L G D A S I R V D V N G A W D E A T A K R V A M L A  
UniRef90\_C7MFJ1 L A E D A Q R L E A V R E A M P D Q A R L R I D A N A A W T R E E A L A L P V L  
UniRef90\_S3ZET7 E G W D V A R V R T A R D V I G Q A E L Y V D A N G A Y T R K Q A V R I R V L A  
UniRef90\_A0YBG8 P D R S E Q F C R K I R E A V G H V D L L F G T H G Q M T P S S A I R A K R L E  
UniRef90\_UPI00046EE75D G E G D I D R V T A V R K A A P K S R L I V D A N E A W S H D M L E D Y I Q A M  
UniRef90\_UPI00046BCFE4 M D V K A C A A V P K S R L D L M I D G Y W S R T E A L Y I K E L E  
UniRef90\_B8KVM7 G E D D L G C V R A V R D T V P D T P L F V D V N C G W N L Q Q L N E S P Q L H

UniRef90\_UPI0003B42023 Q F D L H S I L E E Q P V I K Q H Q I I A E M A E L C K Q T P F P I A L D E E F S L D  
UniRef90\_D8MSE5 P Y Q L F F L E E D P V A P P E N I D W L K M I R K A Q Q S S T P I S M G E E L F T H V L N  
UniRef90\_UPI00047B48C8 K H G L F F W W E E E V L H P P D D Q V E D G F Y R L E K K R Q A H P A P K W M T T G S E H E Y T R Y  
UniRef90\_R4Y7G7 P Y N L K W E E E C L P P P Q D Q Y E D G F Y R L E K K R Q A P P A G M M V T G S E H H G T L  
UniRef90\_UPI00036DC4E7 D L Q L T W L E E E P V Y P P P E D F K A L J A S L R G R G K G L A T L A A G E N S W C H T S F  
UniRef90\_A4F106 P Y D L E F I E E P V S G R W N D D E M A Y V V A T G R S D L P L L A N A G E N S W T R H  
UniRef90\_Q9RJV2 E E R V L E W I E E P V R R R W D V A G H R A V A T G G L R A A V L A N G E N L T G L E  
UniRef90\_U5LH57 P Y K L F F L E E D L P P D Q N E W L S Q L R A S Q C T T P L A T G E R L F N N P A  
UniRef90\_L2FCM5 D T F P M L V E E D P I R D A D A D A M A R V V A T A N T S V I D I A T A D E R F C T I Y A  
UniRef90\_R6W5Y7 P L Q I D L F E E D P V S S D D L A G L A A V V R S A A V R C D V V I A T G E Y A A D L Y  
UniRef90\_UPI000375C936 D L G V T W F E E P V S S D D L A G L A A V V R S A A V R C D V V I A T G E Y A A D L Y  
UniRef90\_E3J814 P Y H L F F L E E D L P P D Q N E W L S Q L R A S Q C T T P L A T G E R L F N N P A  
UniRef90\_L2PPJ2 P H N P L F L E E D L P P S E H P E G L K Q L S S L V T C P I A L G E R L Y S R W  
UniRef90\_D7RYL3 P C Q L F W M E D A T P A E N Q Q A F R L E I G K R H T T T P I A V A G E E V F N T I W  
UniRef90\_A1WNS2 G D G L C V P M E D A V T G E L Q E G L R L V R Q H T T T P I A L G E E V F N S V Y  
UniRef90\_L2FPB5 P F K P Y Y L E E D L P P D D Q N E W L A Q I R V R Q Q T A T V P I A T G E E F N N P M  
UniRef90\_UPI000237BE56 E A D A P W F E A P V A P E D V A T Q A R V V A A G I S M P L A L G E E W R T D W  
UniRef90\_Q022L8 P P L G W F E E P V S S D D L A G L R R V L R A A A V D C P V L A A G E E Y G Y D L P  
UniRef90\_D7UWR3 P F D L F F L E E D A I P S L E E G A W L R Q L R R E A K T T T P L A A G G E L F N N P A  
UniRef90\_UPI000255856C P Y D L F W L E E D V T P A E N Q E A L R W V R H H T T T P L A T G E E V F N S V W  
UniRef90\_C5CZC2 K F N I F W M E D C V L K S A Y T D Q W K V L S A S D S T T V P M C T G D E S I F G R D  
UniRef90\_A4FJU2 E Q N V I F I E E Q P L L K S A I E D Q Q W L S A A H S P L P I V G D E S I R R L Q  
UniRef90\_C5EHH2 D D G L E Y V E E Q P C R T V P E L A Q V R R R V N V R I A A D E S I R R L A D  
UniRef90\_I0WJ35 E L D L H S I E E Q P I R A M N D V E G L K Y V R W N D T P P I A D E S L I G C N Y  
UniRef90\_H9UEW0 R L G V E L I E E Q P L H H K R D E A L V D Y R G A I P L C A D E S C S G E D Y  
UniRef90\_R0D5Z5 D C D L Q L L E E Q P L P G W D L K G F A R L R N S G I G I P I M A D E S I W T R Q  
UniRef90\_X1G6M5 H L N L F W L E E D P M P P E R N A D G A F A R L T A V S K V P I A T G E N L F T R Q  
UniRef90\_X1SMD3 E K G V V M V E E Q P M P I E R T D D T A W L T G H S P L P V F A D E S V I R K L K  
UniRef90\_W4PV01 T A D G D L E Y L E E Q P C A T V E E L A S R R M T S T P Q A A D E S I R K A E  
UniRef90\_UPI0003607914 P Y R L F F L E E D L P P G S N E A M A Y V V R H S K V P I A T G E R L H T I Y  
UniRef90\_V9G6R1 D V H P L F V E E D L P P P A E D D F E G L G Y V S R I A R D K Y G V D E S C R S L Y  
UniRef90\_G5ID53 E V G V V L F E E Q P V H R D D W E G L K I I R Q Q S M Y P V G A D E S A K T K Y  
UniRef90\_M5WUB5 D V P V G L F E E P V P A E D D F E G L K I I R D A T S P A V V A T G E N L T G L E  
UniRef90\_I2F7Z6 E V E I A W V E E P V R R W D A S G L R R L R A G V A P E V A T A G E E Y G Y T L P  
UniRef90\_E8NBV2 E H G V T W F E E P V S S D D L A G L A Q I R A G V A P E V A T A G E E Y G Y T L P  
UniRef90\_UPI000373AD57 Q Y G L H S I E E Q P I R A G Q W E D M A L L A A S S P V P I A L D E E L I G Y N  
UniRef90\_K5ZFT8 K L D L H S I E E Q P I R A G Q W E D M A L L A A S S P V P I A L D E E L I G Y N  
UniRef90\_H8XPE7 V Y K L H S I E E Q P I K A G Q H T E M S D V C Q A A S P P P I A L D E E V F T Y E  
UniRef90\_UPI00036139A0 P Y R L F F L E E D P V A P E H Y D R L P E V R A A S P V P I A C G E L T V S V T  
UniRef90\_A9SGD4 E L S P V L L E E Q P V A R D D W E G L H Q V T T E A F D R F G V D E S C R N M E  
UniRef90\_N9ZSF9 P Y D L F F L E E D P V I K Q E Q T E W L R Q L R R Q N T P L A T A E G E L F N N P A  
UniRef90\_UPI00047CC650 Q L D L H S I E E Q P I K Q E Q Q E Y M K T L C Q E N T P L A L D E E L I G V T  
UniRef90\_G2PG87 D A G L Y F V E E D V L A P E D A A H F A R L R A A S P V S L A M G E E L F S D L T  
UniRef90\_A8F493 G I D V A V Y E E Q P V A T A D D G L R F L V A F N S P F P V L A M D E S V A R T R F A  
UniRef90\_W010V2 P L R L G Y L E E Q P L A P A Y D D R L P A L A A Q S A T P L A M D E S V S H E A  
UniRef90\_I7LMK9 E L P I D F I E E Q P L K V G F E H Q L K A L V V K S K P I M L D E S V F N H H  
UniRef90\_UPI0003818C3E V H G L K W I E E A L S P D D Y W G Y A E L K R Q Q A P R G M T T G E H E A T R W  
UniRef90\_UPI000479E8D9 P Y H L F F L E E D P V A P E N I E W L Q M I R Q Q T S T P L A T G E E L F N V N  
UniRef90\_UPI00026CD5CE P Y Q L F W L E E D A T P A E N Q E A F K L I R Q Q H T T P L A V G E L F N T I W  
UniRef90\_A0A011AUD0 K Y N L A W L E D M L P W Y L T D Q V K E L K H R A T T S P L A T G E N M Y L T E  
UniRef90\_UPI0002A54BDE D Y G V L W V E E D P I K M D N I P A V A D L R R A Q T R A P L C G G E N L A G T R  
UniRef90\_UPI0003796202 G H R V E S L E S P I T K R A A G G T F S E W R R L R Q T I H L P V G D H V I S N  
UniRef90\_V8QLZ9 Q Y R P F W A E E D P I K M D S P G L L A D Y R C H A Q V C G S E T L Y A Q P E  
UniRef90\_R7EYU7 D L G V E S I E E P F P A R Y Y R E T G R L C R T S P V P I A L D E D I Y A D S P E  
UniRef90\_UPI00045E5E9E E Y N I L A F E E P N T P T A Q T V E Y I A K Y T S V P I A A N G E R L Y S R W  
UniRef90\_UPI0003B3F0CC P Y D L F W L E E D V T P A E N Q A A L R R V I E R P T T T P L A A G E E V F N T V W  
UniRef90\_Q8YH38 E A G V I L I E E P L A P T R L D A T R S L G G V P I A L D E A L C A D E S A H T S E  
UniRef90\_B0R4T7 G L P I E Y I E E Q P L A P T R L D A T R S L G G V P I A L D E A L C A D E S A H T S E  
UniRef90\_E8NG43 V F D L E Y V E E Q P C A E V D E A Q L R E R I A Y L D I P I A A D E S V I R R K A D  
UniRef90\_A0A021VMJ1 D G G L E Y V E E Q P C P G V D E A Q L R E R I R R R S G V R V A A D E S V I R R K A D  
UniRef90\_UPI00028860F4 E F E L H S I E E Q P I K Q K Q H D S M S D L C L K T P L P I A L D E E L I G V T  
UniRef90\_I4Z9E6 K Y D L H S I E E Q P I R Q H Q W R Q M A T C Q Q N T P L P I A L D E E V N L N  
UniRef90\_F5JJ12 D C G L A F L E E D P F L P Q Q W R H G E L R S K L K T Q I A V G D V L D P Y  
UniRef90\_UPI000237BB02 R L D I H S V E E Q P I R A G H W E M A A L C E S S P I P I A L D E E L I G I N  
UniRef90\_D2B0H0 A Y T L S S I E E R P F A N L T D H A D L Q E R V A A P V L A D E E L I G I N  
UniRef90\_C6VHW8 D G G L E Y V E E Q P C R T V E E L A A V R R R V D V R I A A D E S R R A E  
UniRef90\_A3ZY35 E F D I L W A E E D L R V D A I D T L A D F R E K A G I P L A V S E M F S G P D  
UniRef90\_B3QUY9 C N V A Y I E E P L M D V S R A T I F V R K T G V K I A L D E E T V A E P N E  
UniRef90\_K2PTY1 D L D L H S I E E Q P I K Q G Q W E M A E L C S K T P P I A L D E E V F E L E  
UniRef90\_UPI00047CB601 E F E L H S I E E Q P I K A N Q L Q E M K L L C Q Q T P P I A L D E E L I G V F  
UniRef90\_F5IT38 E L D L H S I E E P V I R A G Q W D D M S R L A T E I T P L P I A L D E E V N H P E  
UniRef90\_K8CVR1 P Y R P L F I E E P V L A G E Q A E Y P R R L A A Q T H P I A A G E R M V S R F  
UniRef90\_B9NSP7 R L G V A L V E E Q P L P A G E D E A L I G L Q R R P V P V C A D E S C H D R A  
UniRef90\_R4W9W7 P A E L F F L E E D P L A P E H D A E Y G A L R N A T T P I A Y G E L A T D P R E  
UniRef90\_UPI0003B3554D E K I P V V K E E D L F A Y D V I E G W R R L H Q E R T P F Y L H G V G V I R E  
UniRef90\_H8KSQ8 E Q G A V F L E E Q P M P K E M R D E I A W V T E R S P I P I I G D E S V I Q R L P  
UniRef90\_Q9HIE5 R Y E L K W V E E P I W P D D L A S L K K I N D I V P I A A G E N F F D F  
UniRef90\_UPI0002492CD9 Q O K V D F I E E Q P V K V D D L D G M K E I T R F S R I P I V A D E S V F G L D  
UniRef90\_I8JDQ8 D L G V V M L E E Q P L P A G E D S S L Q N F I H P L P L C A D E S C H T R A  
UniRef90\_E3CAT8 E P D A P L Y E E P V K P D A Q L L K A A V H Q E T G L P V A S G E R L Y S R W  
UniRef90\_F0RAE8 E L D L H S I E E Q P I K G A N Y A K M A N L C A M V T P I A L D E E L I G V F  
UniRef90\_TOJ9W2 D A D V D L I E E Q P I S G A N V S G M A R L T A M G R T A I M A D E G L R G P I  
UniRef90\_C7MFJ1 D G G L E Y A E E P C A E L E D L A A L R R A L D P L A A D E S V Y R R A E  
UniRef90\_S3ZET7 E H G V L F W E E P V S S D D L R G L S L V R D A L V C D V A A G A Y R G C D  
UniRef90\_A0YBG8 Q F E P L W L E E P T P P E M P E M A L V A R A T S I P V A T G E R L A T K Y  
UniRef90\_UPI00046EE75D D L N G V E L I E E P L P S S D D E N L S E V A R A V P I C A D E S C H G D T A  
UniRef90\_UPI00046BCFE4 K L N F A W F E E P M E E S S M S Y V W L A E N L S I P I I G P E S L G D K H  
UniRef90\_B8KVM7 Q L G V F M I E E Q P L A I G R D E E L D A Y T G P V A L C A D E S C H D R S



UniRef90\_UPI0003B42023 D K E R I L Q E E I K P Q Y I I L K P S L V G G F Q G T Q E W I T L A E K Y K I G R  
UniRef90\_D8MSE5 E W K P L I Q Q Q L I D Y I I R C H V S T I V G G L T T P A K K I L A T Y A E L H G V I R  
UniRef90\_UPI00047B48C8 G S F R E L I K E R T G I D I L Q P D V V G W V G G L T T A L L Q E I I A S A H A A A Y G D I P  
UniRef90\_R4Y7G7 Q S F R T L I K S E T G I D I L M Q P D D V V G W V G G L T T L T L L V E I I A A I A K A R G Q L  
UniRef90\_UPI00036DC4E7 Q I A Q A L L E A G A V D F L Q P S I T K V G G G L S E Y L R L V D L A E A T K S G L V  
UniRef90\_A4F106 D Q L A V I R A G A A D A I S A D N T G A D G G G L L N L K R S A G L C E A A G L P  
UniRef90\_Q9RJV2 H F R P L L A A D A V G V V Q I N G A V W G G I T N G A V W G G I T P A L K L V A A L C E A A G L P  
UniRef90\_U5LH57 E W R N L I V N R Q I D Y I I R C H V S Q I V G G I T P A L K L V A A L C E A A G L P  
UniRef90\_L2FCM5 E F Q A L L A R K A A L E Y A R V D V L V M C C G G G I Y E A K K V I H E A M A A Q A N G H I V Q  
UniRef90\_R6W5Y7 D A I R V I K A K A A D L I N I N I K L M K S G G G L H N A K K L A D I S E A A R N G I P  
UniRef90\_UPI000375C936 D A I K I V K A E A A D F I N I K L M K S G G G L H N A K K L A D I S E A A R N G I P  
UniRef90\_E3J814 D V Q A L L P V V D C I Q Q L D V V T R C G G G Y T G W L R A A A L A Q A R N G I E R  
UniRef90\_L2PPJ2 E W K E L V R N R Q I D F M R A H V S R I G G G I T P A L K L A H F C E A V G I R  
UniRef90\_D7RYL3 D V K R F L E D G S V D I L Q P D I S H C G G G I T S E M R R I A S M A E T Y D V A  
UniRef90\_A1WNS2 D C K E L E E N Q L I D Y I R S T V P S H A G G G I T H L R R L A D L A A L Y Q V R T  
UniRef90\_L2FPB5 D L J A A A H A G G A T G I N L K P S R V G G F T K A R A M R D A A V A L G I V  
UniRef90\_UPI000237BE56 D Y T T L I S E Q L I D F V R M P I V H G G G I T H L Q K V A A F A S I Y H V I Q  
UniRef90\_Q022L8 R F R W M I A N H G A D I V Q P D L F Y Y G G L I R S L R V A R M A G V A G L P  
UniRef90\_D7UWR3 E W K A L V T G R Q V D F M R C H V S Q I V G G I T P A L K L A H F C E A V G I R  
UniRef90\_UPI000255856C D Y R P R L E A R A C S I V Q P E M G H T G I T Q F T R I A R M A Q G A G A Q  
UniRef90\_UPI0003677479 Y F E R L L D A I D A P Q A D V T R V G G G V T E F L R V G A L A R A R N G R E  
UniRef90\_C5CZC2 E W K F L I T E Q L I D Y I R V H L S Q I G G I T P G R K L Q I F A E Q F G V K  
UniRef90\_A4FJU2 D Y Q H L I R E Q L I D Y V R S P I T H A G G G I T S V R R I M D Y A A M Y Q V K  
UniRef90\_C5EHH2 A F R P L I E N R A V S V I H P D V L T A G G I G E S M R L I E M A E E K G I A  
UniRef90\_I0WJ35 D V I Y K A A N L F H G V N I K L M K S T G L R E A F K M G A A A Q S M G L K  
UniRef90\_H8G5D5 D P L R V A V A E A D V A V L K C L P L G G V Q R A L R V A E A C G L P  
UniRef90\_J9G103 E K Q R L L A T I R P H Y L I L K P S L H G G M C G G A E W M A E A E K L G I G  
UniRef90\_H9UEW0 E V M R L L K E E A V D Y I L I L K P S L M K S G I G G A L A I V E M V R A A N Q R  
UniRef90\_ROD5Z5 D L P R L S K L Y Q A I N I K L M K V G G L T P G L S L N R A H A L G L K  
UniRef90\_X1G6M5 D V I K I A E Y G A  
UniRef90\_X1SMD3 S F R S F I E K Q A C D I I Q P D M Q K C G G L L E A K R I A D W A D L Y Y I N  
UniRef90\_W4PV01 D V A A L I R G V I F T G I N I K L M K C G T G M R E A W K M V N L A H A L G M R  
UniRef90\_UPI0003607914 D P L R V V Q A R A A D V A V L K V A P L G G G V I S R M L D I A A Q I D I  
UniRef90\_V9G6R1 D L L P L V Q R G R L I D F V R M R K V S K A G G I T P C R K I A A V C A F G V R  
UniRef90\_G5ID53 E F Q D L L D R Q A A N Y I R V S L T T V G G L T G A R K I A T L A E S K M C P  
UniRef90\_M5WUB5 D V K K I V A E N L A D V V N I K L A K V G L V G A L A I I E V M A K S S G I T  
UniRef90\_I2F7Z6 D V M R L I K E G A V D Y V N I K L M K S G L S D A L A I V E M C N S A G I G  
UniRef90\_E8NBV2 Q Y R Q L F D A E A V D I V Q A A A V W G V T H S L R V A V A A H A R D L P V S  
UniRef90\_UPI000373AD57 Y F G H M L G A G A V D C L Q A D A T R C G G G I T V W L R A A A L A E  
UniRef90\_I0KB13 E Y V D K F R K I Q P Q Y I L K P S L L H G G L Y G C S E W I K E A Q D R Q I G  
UniRef90\_K5ZFT8 T P E K K K E F I N P Q Y I I L K P S L H G G L Y G C S E W I K E A Q D R Q I G  
UniRef90\_H8XPE7 E K V T L D T G P Q Y I I L K P S L I G G I K G S L R E W I R I A E E R N I G  
UniRef90\_UPI00036139A0 E A A R L V T S G G V D I L R C H T S A I G G L T P A R K L A D L C E L S N G V Q  
UniRef90\_A9SGD4 D V I T I V N N K L A H V V N L K L C K M G V L V A L E V V S L V Q Q A G L G  
UniRef90\_N9ZSF9 E W K M L T E H L I D F I R V H L S Q I G G I T P A R K L Q I F A E Q F N I R  
UniRef90\_UPI00047CC650 D F T E K E E R I N P Q Y I I L K P S L V G G F Q G S E W I A L A K K Y N I G  
UniRef90\_G2PG87 Q F L P L L A G P V I D F A R I R I P T L G G L T P A R K L A A A C E L H G V R R  
UniRef90\_A8F493 D V I R L I K E E A V D Y V N I K L M K S G I S D A L S L V E L A R S A N L R  
UniRef90\_W010V2 D I D R V I A L G G R V W H L K L V K L G G I A P T V R A R R L R D A N G V P  
UniRef90\_I7LMK9 Q A F Q Y M H E T A V R L I N V K L E K A G S I T E A Q K I F Q T V N D F N G Q  
UniRef90\_UPI0003818C3E G F R M L I E M G C C D I I Q P D V V G W V G G L T E L K I S A L A D A R G A L  
UniRef90\_UPI000479E8D9 E W K S L I A N Q Q I D F I R C H V S S I G G I T P A K K L A T F S E L A G V R  
UniRef90\_UPI00026CD5CE D C K D L I Q N Q Q I D Y I R T T I V G A G G V T H L R R I A D L A A L Y Q I R  
UniRef90\_A0A011AUD0 T F E P L F E A G A L D V V H P D L L T S G G I L V T K K L A G D M A A R Y G V S  
UniRef90\_UPI0002A54BDE R F H E M L C A D A I D F V M D L L T W C G G L S E G R K I A A E T H A R P  
UniRef90\_UPI0003796202 S E D L I Q R F Q A E A L D Y A I V G G Q T A F E A I N C S R L A H E L G M G  
UniRef90\_V8QLZ9 T F R D L A A H A L D I V M L D L S W C G G G T F E A R K I A S L A D A Y Q K P  
UniRef90\_R7EYU7 E R R A M L K H V H P Q L I V L K P A L C G G F N G A E D W I E A E L E G I R  
UniRef90\_UPI00045E5E9E Q Y A D H F K R N L L Q L A Q P D I G N C G G I T S E V K K I C D M A H A Y D A G  
UniRef90\_UPI0003B3F0CC D Y R E L F E E Q L I D Y V R S P I T H A G G I T A L R L I D Y A A L Y Q I K  
UniRef90\_Q8YH38 G L E E L A R R Y D A V N I K L D K T G G L T E G R L I M R D K T I D L G L K  
UniRef90\_B0R4T7 Q H P L D A A L A V A D Y V L K P M V L G G I D R A R D A A R T A R Q A G V E  
UniRef90\_E8NG43 D P L R V A R M G A A D L V I K A A P L G G V R A A L D I V A Q A G L P  
UniRef90\_A0A021VMJ1 D P L A V V R A G A A D V V L K V I Q A P L G G V R A C L R L A E Q V G L P  
UniRef90\_UPI00028860F4 S L I E G K L E K I K P Q Y I I L K P S L V G G L K G S M E W I K L A E E R N I G  
UniRef90\_I4Z9E6 E K Q H L L D I I K P Q Y I I L K P S L H G G M M G T R E W I K L A N E R N I G  
UniRef90\_F5JJ12 N I Y A D L V P N V D I L R I D A T A S G G I F A A M N S L A L A S A H G R R  
UniRef90\_UPI000237BB02 D I E E K K Q M M R P Q F I I L K P S L T G G L K A S E E W I Q I A G D N G T G  
UniRef90\_D2B0H0 E L D E A L V J N A G R A L L R P A A L G S P L R E V R R A H D H A V A A G W E  
UniRef90\_C6WHW8 D P L R V A V A G A A D V A V I K V A P L G G V R R A L R V A E A C G L P  
UniRef90\_A3ZY35 D F R L V L E K R A A D Y V M I D P T W V G G I S Q T R N I T R L A E A F Y N L P  
UniRef90\_B3QUY9 A I Y R E I P T E C I G A F V L K P S G A L G S V E K T V E L A R Y A S E S N I G  
UniRef90\_K2PTY1 E K E K L K L I S P Q Y I I F K P S L I G G V F K G T E Q W I D L C Q S K S I N  
UniRef90\_UPI00047CB601 G V R K L L E I I Q P Q Y I I L K P S L V G G F K G T L E W I S I A E S L N I G  
UniRef90\_F5IT38 E K K R L L E T I K P Q Y I I L K P T L H G G I T G A T E W I E L A R S M D I G  
UniRef90\_K8CVR1 E F K R V L E A G G L A I L Q P D L S H A G G I T E C A K I A M A E A Y D V G  
UniRef90\_B9NSP7 S L P K L K G K Y D V V N I K L D K T G G L T E A L E L R Q A A L A E G Y G  
UniRef90\_R4W9W7 A L Q P L T I E D G A I D F V R L R A G H V G G L T A A R K L A T V A E G N G T K  
UniRef90\_UPI0003B3554D G A S R Q P S G P W I G V D A D G D F D G A L C S H E G V K S A L A S G W A  
UniRef90\_H8KSQ8 D V M K A H G V Y N G L N I K L M K C G T G M R E A H K M L T L A R A L D M K  
UniRef90\_Q9HIE5 K F E D A V H L E A L T Y Y Q P D V T K V G G L T P T L K I L D L L K K N H E Q  
UniRef90\_UPI0002492CD9 D A K K V I A E R C A D L I N I K L I K C G G P I E A I R A N F A K E K G I G  
UniRef90\_I8JDQ8 D L A G L V I G R Y D M V N I K L D K S G G L T E A L L L A E Q A K S M G F A  
UniRef90\_E3CAT8 E F K R A F D Q G A I Q V A Q P D I G T A G G V T E T K K L C D L A T I Y D I G  
UniRef90\_F0RAE8 S V I T K K Q E T I Q P Q Y I I L K P S L V G G V F K G A Q E W I S I A E A Y N I G  
UniRef90\_T0J9W2 D A L R H A T D A A D V F A V K I A Q S G G L R A G A A V A S I A E A A N I G  
UniRef90\_C7MFJ1 D P L R V A R A E A A D V L V M Q V P L G G G V L Q R C L E L A E Q T G L P  
UniRef90\_S3ZET7 L A Y F A R M V P A V D C L Q A D A T R C G G L T E W L R A A A L A Q A H G L E  
UniRef90\_A0YBG8 E F S R V L R N Q S A A I L Q M A I G R V G G L E A K K I A A M A E A H Y V Q  
UniRef90\_UPI00046EE75D T L D R V A S N Y D F V N I K L D K T G G L T E A L Q M A E A A R E F G L G  
UniRef90\_UPI00046BCFE4 H S R D W V K A G A C D L N R A G A N G V G G I S P T L K V A H L A E S F G M D  
UniRef90\_B8KVM7 D L P L L K E R Y Q Y I N I K L D K T G G L T E A L S L A N A A K G S G F R

UniRef90\_UPI0003B42023 WWI L T S A L E S N I G L N A I A Q F T F V L Q S P M P Q G L G T G G L Y T 170 180 190 200

UniRef90\_D8MSE5 T A W H G P G D I S P V G V A A N L H L D M S V T N F G I Q E Y T P V N D A L M

UniRef90\_UPI00047B48C8 V I P H G S S P Y S Y H F I A S Q P A E P L C E Y V A A S P D G R T I R P V F G

UniRef90\_R4Y7G7 V V P H G S S Y S H H A V I T F T N T P F S E F L M T S P D C A T L R P Q F D

UniRef90\_UPI00036DC4E7 L M P H S P Y F G P G F F A S L Q I A A A R G S I T A L E Y N F V K P D A W L A

UniRef90\_A4F106 V V K H S L G E L G V A L A A A T H L T A A T P N F R H A S Q A Y G A L L S D

UniRef90\_Q9RJV2 V S P V G Y N A N P V I H A A A A V P N H L V T E V Q D L A F P V G

UniRef90\_U5LH57 I A W H G P S D M P I G V A V N T H L N I H L H N A A I Q E V Q E P E E T I K

UniRef90\_L2FCM5 I T P H N P C L Q V A A A I P N F A I Q E Y A T G F E A G V F E S T S R H L G S

UniRef90\_R6W5Y7 C M V G C M M E G P

UniRef90\_UPI000375C936 N M V G C M M E G A I G I A A G V H F S L H H R N V K F V D L D S D L D M K N

UniRef90\_E3J814 V S A H C A P A L H A P V A A A V P N L R H V E W F A D H A R L E P

UniRef90\_L2PPJ2 I A W H T P S D I P I G L A V N T H L N I H L H N A A I Q E T I D V P I N T Q

UniRef90\_D7RYL3 I A P H C P L G P I A L A A C M Q V D L A T P N F V I Q E M S

UniRef90\_A1WNS2 T G C H G A T D L S P V C M G A A L H F D I W V P N F G I Q E Y M H H T E E T D

UniRef90\_L2FPB5 V T V D D T W G C A L T A Q N V F F A G I P S G R L R A V D A Y A E W T E

UniRef90\_UPI000237BE56 T G F H G A T D L S P I N M A A A L H F D Y A I N N F G I Q E Y M P H E E I V N

UniRef90\_Q022L8 I A L H V S G G F G F V Y V L H F A S C T P N L A R Y Q E Y K L G M E K Y G

UniRef90\_D7UWR3 M A W H T P S D I P I G M A V N T H L N I H L H N A A I Q E N I D I K E N T E

UniRef90\_UPI000255856C I T P H A T I G L I F A V S A S L R A A L A M G A G C H E F Q H S I Y T R N A E

UniRef90\_UPI0003677479 L S A H C A P N L H A A V L A A L P N A R H I E W F H D H E R V E G

UniRef90\_C5CZC2 T A W H G P G D M P L G H A A N I H I D L A A R N F G V Q E W S G I E P N F V

UniRef90\_A4FJU2 S G M H G P T D V P V G L A A A V H L G L A L H N F G I Q E Y M V H S E Q T R

UniRef90\_C5EHH2 A A V H M A E T P V G C M A A A H V C T A A G D N L L A M E Y H A H D V A W W D

UniRef90\_I0WJ35 I M L G C M S E T S C A I G A A Q L G S L A D W V D L D G N L G L N

UniRef90\_H8G5D5 C V V S S A L E T S V G L A A E V A L A A A L P E L P F A C G L L G T L S L L N G

UniRef90\_J9GI03 W W I T S A L E S N I G L N A I A Q W C A T F R N P L P Q G L G T G L L Y T

UniRef90\_H9UEW0 L M L G C M A E S N I G V N Q S V H F A L G T G A F D F H D L D S P L M L K E

UniRef90\_ROD5Z5 V M L G C S G P T S L G A A P A Y V L G T R C D F

UniRef90\_X1G6M5 M L C H N M C T P V G T I A S G H A C S A I R S F V A L E S D S V E L P H W Q D

UniRef90\_X1SMD3 A M I G C M T E T S C A V S A A A Q L S P L A D F A D L D G N L L I S N

UniRef90\_W4PV01 I V V S S A L D S A V G I G R G L L A A A L P E L R H A C G L G T G G L F V E

UniRef90\_UPI0003607914 T A W Q E G G E N D P V N Q L A A V H L D M A I M S F G V Q E I N H F R A P E Q

UniRef90\_G5ID53 I V P H N P L S P V C T A A E M Q L C A C I D N L L I C E Y P S G D G R I S W D

UniRef90\_M5WUB5 L M I G G M V E T R L A M G F A G H L A A G L G C F K F V D L D T P L L L S E

UniRef90\_I2F7Z6 L M I G C M S E S I G V S Q S V H F A A G T G A F T Y H D L D S H L L L K D V

UniRef90\_E8NBV2 P I G M T S N P S T M A V A T A I P N H L L T E V T T A Q M P T G

UniRef90\_UPI000373AD57 A A G L E L S G H C A P H A H A H A A A A I P N L R H L E W F Y D H T R I E D

UniRef90\_I0KB13 W W I T S A L E S N I G L N A I A Q Y A A F K N L M P Q G L G T G Q L Y H

UniRef90\_K5ZFT8 W W I T S A L E S N I G L N A I A Q W C A T F D N P L P Q G L G T G G L F T

UniRef90\_H8XPE7 W W I T S A L E S N I G L N A I A Q F T F T L K S D M P Q G L G T G G L Y T

UniRef90\_UPI00036139A0 T A W H A P A D V S P V G A A A N L A L D L A S P A F G I Q E G H I Y P D V V H

UniRef90\_A9SGD4 L M I G G M V E T R L A M G F A A H M A A G L N S F R F I D L D T P L L L A E

UniRef90\_N9ZSF9 T A W H G P G D M P L A H A A N I H I D L A A P N F G V Q E W S G I E P N F V

UniRef90\_UPI00047CC650 W W V T S A L E S N I G L N A I A Q W T A T L N N P L P Q G L G T G G L F T

UniRef90\_G2PG87 L A P H G P G D V S P L A Q A A T V A L D I S S P A F G V Q E A A T F R E A V L

UniRef90\_A8F493 L M I G C M S E S V G I N Q S V H F A L G T G V F D F H D L D S H L M M K E

UniRef90\_W010V2 F M I G Q M N E G A A T A A A L H V T H L T R P R F A E L Y G A D M L G D

UniRef90\_I7LMK9 A M I G C M I E S K I S I A F A V A L A N T N K T V K Y V D L D A P F M F D Y

UniRef90\_UPI0003818C3E V I P H G S S V I S Y H F V I T R H N S P F A E F L M M A P K A D E V V P M F H

UniRef90\_UPI000479E8D9 T A W H G P G D I S P V G V A A N L H L D L S S P N F G I Q E W T P F N D A L Q

UniRef90\_UPI00026CD5CE T G C H G A T D L S P V T M G T A L H F D T W V P N F G I Q E Y M R H S P E T D

UniRef90\_A0A011AUD0 M A L H M C E S P I S A L A G A H M A T A S E N F F V Q E H D A F D S E W W Q

UniRef90\_UPI0002A54BDE L A P H D C T G P V A L M A G L H L A L H A P T A I F V E V R A S L A T W Y A

UniRef90\_UPI0003796202 G W S Q T V A Y G P G A M G L H V A A C M P H L T Q P Y D M V G P M A W E D

UniRef90\_V8QLZ9 I A P H D C T G P V V L W A S L H V A L A S P N A I F Q E V V R A F L N T F Y K

UniRef90\_R7EYU7 W W V T S A L E S N V G L N

UniRef90\_UPI00045E5E9E I Q I H V A G S P L A T N A A L Q V E C T I P N F V I H E H H T C N R M E T C L

UniRef90\_UPI0003B3F0CC S G M H G P T D V S P V G L A A G I H L G L A I Q N F G M Q E Y M M H S P A T L

UniRef90\_Q8YH38 I M V G C M V G T S L G M A P A V I L L A Q K A T V V D L D M G P L L L A R

UniRef90\_B0R4T7 P V V S T T I D G V S A R T A A V H L A A S I P D V P A C G L A T A D R L L A D

UniRef90\_E8NG43 A V V S S A L D T S I G L S M G V A L A A A L P T L D Y D C G L G T A S L F T A

UniRef90\_UPI00021VMJ1 V V V S S A L E S V G L A A G V A L A A A L P D L P Y A S G L A T A Q L L T H

UniRef90\_UPI00028860F4 W W I T S A L E S N I G L N V I A Q W T F T L N S T L P Q G L G T G A L Y T

UniRef90\_I4Z9E6 S W I T S A L E S N V G L N

UniRef90\_F5JJ12 A L P H V F P Y L H I H I A C A H P A I M G V E Y I P Q H T G T D P V R

UniRef90\_UPI000237BB02 W W I T S A L E S N I G L N A I A Q W T Y T L D N R M P Q G L G T G Q V F S

UniRef90\_D2B0H0 I A C A G G Q G T G L R A A T V A A A S L P G C D L P C D V A E P P R S A

UniRef90\_S6WHW8 C V V S S A V E T S V R M A A G L A G A L P E L D F A C G L G T L P L L D G

UniRef90\_A3ZY35 V V M H D C T G P L T L L S G V Q V A V A S N N V A W Q E S V R A H V R M L L Y P

UniRef90\_B3QUT9 V V L S S A F E S G L S L A F Y S S L A A S L N A T E T A C G L D T Y K F F K H

UniRef90\_UPI00021VMJ1 W W V T S A L E S N V G L N A I A Q W T Y T L N N P M P Q G L G T G S L Y

UniRef90\_UPI00047CB601 W W I T S A L E S N I G L N A I A Q F T F T L H N P M P Q G L G T G G L Y T

UniRef90\_F5IT38 W W I T S A L E S N I G L N A I A Q W C S T Y N N P L P Q G L G T G G L Y

UniRef90\_K8CVR1 L A P H C P L G P I A L A A C L H V D F I S R N A V F Q E Q S M G I H Y N Q G

UniRef90\_B9NSP7 I M V G C M V G S S L A M A P A T L L A Q G A M V T D L D G P L L L A E

UniRef90\_R4W9W7 T A F H G P P D S P I G Q A A T V H L D L A L P N F G V Q E L T D Y E E R Y G D

UniRef90\_UPI0003B3554D F A A N T P I Q Y V G T G I T A F A C H L G A V M P T A T L P G V H A Y Q D

UniRef90\_H8KSQ8 V M I G C M T E T S C A I S A A A Q L A P M M D W A D L D G S L L I K N

UniRef90\_Q9HIE5 V A F H N R P H N G W I G I F A S I A A A R M N G V D A L I E T P N G V P S

UniRef90\_UPI0002492CD9 C L F G C T S E V N I S L S M A C L S A G L S N V H F I D L D G L D Y V D N

UniRef90\_I8JDQ8 I M L G C M L C T S R A I S A A L P L A P G A R F I D L D G P T W L A N

UniRef90\_E3CAT8 V Q I H I T G S N L M T A V S L N L E A T L P N F I I H E Y N V N T A M P K M L

UniRef90\_F0RAE8 W W V T S A L E S N I G L N A I A Q W T Y G L Q S K M P Q G L G T G S L Y T

UniRef90\_T0J9W2 L Y G G T M L E G P I G S I A S A H L F A T I D E F D V S E D E F W H A

UniRef90\_C7MFJ7 V V V S S A L E S V G L S A G L A L A A A L P E L R H A C G L G T A M L L I G

UniRef90\_S3ZET1 M S A R G A P H A H A A V A C V P N L R H V E W Y H D V R L I E S

UniRef90\_A0YBG8 I A P H L Y C G P I E A A A N I Q L G L C S P N F L I Q E S I E T F D G F H A

UniRef90\_UPI00046EE75D I M V G C M L G T S L A M A P A M L L G N F A R F

UniRef90\_UPI00046BCFE4 C E V H G N G A A L A M A I G A I K N C R W Y E R G L L H P L D Y D E P A A Y

UniRef90\_B8KVM7 I M V G C M L G T G V A M

UniRef90\_UPI0003B42023 N N F D S P L E V K E G Q L W 210 220 230 240  
UniRef90\_D8MSE5 E V F P G C P E I D R G Y A Y L S D R P G L G V D I D E E K A K R F P V  
UniRef90\_UPI00047B48C8 K L F S G E E L P E G N G R L K I G S A P G F G M E I A D R A L  
UniRef90\_R4Y7G7 P I L L G E P V P E S G R I H V L D K P G F G V E L N R D  
UniRef90\_UPI00036DC4E7 D V E E G L R R G E M I S V S E L P G L G F E P D L D V L K K F  
UniRef90\_A4F106 D V T A G F G N Y H H G H L A V P A G H G L G V I Q L D E E K V A H Y A E L Y  
UniRef90\_Q9RJV2 L R V D Q N E I A D G G I V L G D A P G L G I E R I V A R A S G  
UniRef90\_U5LH57 R M F P N S I E V I D G Y I Y P I E R V G I G V D F N E E M A K E Y P V I Y R K  
UniRef90\_L2FCM5 D I V D H V P T P K E G F V D I P S T P G L G L N L  
UniRef90\_R6W5Y7  
UniRef90\_UPI000375C936 T L T G G K I L P L K G S Y R S S D G P G L G F  
UniRef90\_E3J814 L L A D G V P P V A A G A L Q L A D R A G H G L T L A A G A E R  
UniRef90\_L2PPJ2 K V F G N I P T P D K G F F Y P I E E S G I G V T F D E K M A E E F P V V Y R S  
UniRef90\_D7RYL3  
UniRef90\_A1WNS2 A V F P H S Y R F E R G M L V P G D S A G H G V E I D E A L A A K Y P Y Q R  
UniRef90\_L2FPB5 P M I A D C P R M T N G R L V P T N L P G N G  
UniRef90\_UPI000237BE56 E V F K T N Y H F K D G Y M Y I D D T P G I G V D I D E K A A E K F P Y S R  
UniRef90\_Q022L8 K W L D P G I Q V K D G K M S I P T G P G V G I  
UniRef90\_D7UWR3 K L F T N I P R P K A G Y F Y P I E K A G I G V A F A E E L A A D Y P V A Y R P  
UniRef90\_UPI000255856C L L D G A A P C K D G H F H I D D T P G L G V R P N R A A F D H L T  
UniRef90\_UPI0003677479 L L F D G A L T V A D G E V R P A D A P G H G L R L R G A D A E R Y R T R  
UniRef90\_C5CZC2 D V F P G L P E F R D G Y V A N D K P G L G V D I D E A E A M Y R  
UniRef90\_A4FJU2 S V F G P T Y E F A L G G L R P S E E P G L G I H F D D D L A A K Y P Y E R  
UniRef90\_C5EHH2 S M V K G R P L V Q N G W L E L T D R P G L G I Q L D D E V L A E H  
UniRef90\_I0WJ35 D P F V G H P V E K G I I N V N K L P G V G L Q P D W D R I A A  
UniRef90\_H8G5D5 D V V A D A V Q P V D G H V R V P T T P E P D P T L V E A H A  
UniRef90\_J9GI03 D N V P M P L E I R K D C L W  
UniRef90\_H9UEW0 T E F R G K Y K V D V P Y Y Y V  
UniRef90\_R0D5Z5  
UniRef90\_X1G6M5  
UniRef90\_X1SMD3 I I K R D G P I Y K D G Y L E M P N K P G L G I E L N E E V C R K H  
UniRef90\_W4PV01 D R F K G M Q V V K G K I A L N D L P G L G V V P  
UniRef90\_UPI0003607914 D V V A P T V P V D G F L P V G P V P D P D R L A A L A T P P D R  
UniRef90\_V9G6R1 E A F P G L A E L V A G H L H V N D K P G L G I D I D E V K A A A L L R D P E G  
UniRef90\_G5ID53 D M V T N W D K P V D G Y I T P S S A P G L G I D L I P D I E K H F  
UniRef90\_M5WUB5 D P V R E G Y E V S G A V Y T F K N A R G N G G F L H W K N I A W  
UniRef90\_I2FZ6 D P V  
UniRef90\_E8NBV2 I T V D Y E V A D G G L V L G D L P G G G I A I D E A L  
UniRef90\_UPI000373AD57 L F F D G T L D P H G G N I R P G A A P G H G L T L R A E Q A E K Y R T  
UniRef90\_I0KB13 N N I D S P L R I D H G T L R  
UniRef90\_K5ZFT8 N N I D L P L S I N N G Q L I I D N G  
UniRef90\_H8XPE7 N N F E C P L R I E K G E L I  
UniRef90\_UPI00036139A0 E I F P G T P V V E A G Y A R P S T A P G W G V D L D E K L A A E H P P V H E R  
UniRef90\_A9SGD4 D P V L G G Y N A E G P L Y K L G N K P G H G  
UniRef90\_N9ZSF9 E V F P G L P E Y K D G Y V A N D K P G L G V D L D E K E A V K Y  
UniRef90\_UPI00047CC650 N N F D S P L T V S N G G Y I  
UniRef90\_G2PG87 E V F P G T I V P R L G A M E P R E A P G L G V D F D E S A A R R Y P A P E  
UniRef90\_A8F493 H E F R G K F V Q N G P E T K A  
UniRef90\_W010V2 D P V S G L R Y Q H G T V Q C L S P L G L G V T F  
UniRef90\_I7LMK9 D L V S D G L R L D Q T Q L I P S N R S G L G I  
UniRef90\_UPI0003818C3E P L L L D E P V L N G R L S L A D K P G F G V R L N P A  
UniRef90\_UPI000479E8D9 E V F P G C P V V E E G F A Y V N D R S G L G V E I N E E L A K K F P V A G  
UniRef90\_UPI00026CD5CE A V F P H D Y S F K D G H L Y C G E A P G H G V D I D E K L A A K Y P Y D P R Q  
UniRef90\_A0A011AUD0 D L I T G K P I V I Q E G F T A V T D A P G L G L E L N E E L I R E H  
UniRef90\_UPI0002A54BDE D L V D H L P I V I Q E G I A L A P T R P G L G T A L  
UniRef90\_UPI0003796202 T L V N E D F P F E D G C F L V P D R P G L G Y T L N H D A V K K Y L V T K R D  
UniRef90\_V8QLZ9 D L V T Q L P V L E K G F L L R P T E P G L G T T L  
UniRef90\_R7EYU7  
UniRef90\_UPI00045E5E9E N L T K Y N L Q P E G G Y F T V P E C P G I G N E F L Q S A I N H  
UniRef90\_UPI0003B3F0CC E V F R T T F S F E N G M L A P S E A P G L G I E Y D D E  
UniRef90\_Q8YH38 D R E G L H Y D G A L V Y P E P G L  
UniRef90\_B0R4T7 A L A P D P A P V A G G R I Q V P A D P G H G V E V T A D A  
UniRef90\_E8NG43 D V L A S P L R A R D G V L P V  
UniRef90\_A0A021VMJ1 D V V P D P L P V D G A L P V R R P E P D A R R L A A T A A D  
UniRef90\_UPI00028860F4 N N F E S P L E V H N G A L H  
UniRef90\_I4Z9E6  
UniRef90\_F5JJ12 S L L R E F P K I K R G N F Q I T D M P G A G C D L H W D A V E R  
UniRef90\_UPI000237BB02 N N V P S R L Y T D K G H L W M H D  
UniRef90\_D2B0H0 Q I V T P V G A T G G V V A V P T Q P G L G H T V D V D R V R R L A K  
UniRef90\_C6WHW8 D V A T A S L V P V D G W L P V P T A P P V P D R A E R F A A D P E R  
UniRef90\_A3ZY35 K L I D T E V K I E Q G R I P I P Q Q A G I G A G W R S E L F Q S D K N Q  
UniRef90\_B3QUT9 D I L L S R F K A K K G I V N V P E A Y Q N S R H L D W T Y L E E  
UniRef90\_K2PTY1  
UniRef90\_UPI00047CB601 N N F D C P L E I V N G H I Q  
UniRef90\_F5IT38  
UniRef90\_K8CVR1 D F V K D D F K M E G G Y F Q P L M K P G L G V E I D E E Q V V A R S Q G C A D  
UniRef90\_B9NSP7 D R N T P L I F D D A G V H P P E A G L W G  
UniRef90\_R4W9W7 E V I A G N F D P S V G G L D V P D E P G L G I D V D L D A A A S F E Y E R  
UniRef90\_UPI0003B3554D D L I V T P H K V Q R G F M Q V P E G P G L G V L D E D A V K R Y S Q T P E  
UniRef90\_H8KSQ8 D V Y K G M E V V K G K T I L I D K P G I G I  
UniRef90\_Q9HIE5 Q Y F R Y N A M I T S E V I A P N G V G L S I E P I E  
UniRef90\_UPI0002492CD9 T P F S G G I H T D N G L T Y I P Q A M G L G I D  
UniRef90\_I8JDQ8 D V E G G L H F S T G T I D L  
UniRef90\_E3CAT8 S L T K Y D Y E P Q G G Q L T V P D L P G I G N E L  
UniRef90\_F0RAE8 N N F N S P L E V S N G A I  
UniRef90\_T0J9W2 L N F M A S A A P E F G L F A A G L G F E  
UniRef90\_C7MFJ1 D L V D R P L H A S G G M L P V G R Q D P A P E L L E R H S A G A E  
UniRef90\_S3ZET7 M F F D G A L P T G T V R P D G G T G H G L L L R T P D V E E Y R V A  
UniRef90\_A0YBG8 E L L K K P I Q W Q E G F L L P L T E P G I G V E L N E E  
UniRef90\_UPI00046EE75D  
UniRef90\_UPI00046BCFE4 L N S L V D P M D E H G M V S L P T R P G L G E D I N F A Y I E A N T V S H D  
UniRef90\_B8KVM7

UniRef90\_UPI0003B42023  
UniRef90\_D8MSE5  
UniRef90\_UPI00047B48C8  
UniRef90\_R4Y7G7  
UniRef90\_UPI00036DC4E7  
UniRef90\_A4FI06  
UniRef90\_Q9RJV2  
UniRef90\_U5LH57 H  
UniRef90\_L2FCM5  
UniRef90\_R6W5Y7  
UniRef90\_UPI000375C936  
UniRef90\_E3J8I4 WR  
UniRef90\_L2PPJ2 H  
UniRef90\_D7RYL3  
UniRef90\_A1WNS2  
UniRef90\_L2FPB5  
UniRef90\_UPI000237BE56  
UniRef90\_Q022L8  
UniRef90\_D7UWR3 H  
UniRef90\_UPI000255856C  
UniRef90\_UPI0003677479  
UniRef90\_C5CZC2  
UniRef90\_A4FJU2  
UniRef90\_C5EHH2  
UniRef90\_I0WJ35  
UniRef90\_H8G5D5  
UniRef90\_J9GI03  
UniRef90\_H9UEW0  
UniRef90\_R0D5Z5  
UniRef90\_X1G6M5  
UniRef90\_X1SMD3  
UniRef90\_W4PV01  
UniRef90\_UPI0003607914  
UniRef90\_V9G6R1 □ K S  
UniRef90\_G5ID53  
UniRef90\_M5WUB5  
UniRef90\_I2F7Z6  
UniRef90\_E8NBV2  
UniRef90\_UPI000373AD57  
UniRef90\_I0KB13  
UniRef90\_K5ZFT8  
UniRef90\_H8XPE7  
UniRef90\_UPI00036139A0 WA A  
UniRef90\_A9SGD4  
UniRef90\_N9ZSF9  
UniRef90\_UPI00047CC650  
UniRef90\_G2PG87  
UniRef90\_A8F493  
UniRef90\_W0I0V2  
UniRef90\_I7LMK9  
UniRef90\_UPI0003818C3E  
UniRef90\_UPI000479E8D9  
UniRef90\_UPI00026CD5CE  
UniRef90\_A0A011AUD0  
UniRef90\_UPI0002A54BDE  
UniRef90\_UPI0003796202 F  
UniRef90\_V8QLZ9  
UniRef90\_R7EYU7  
UniRef90\_UPI00045E5E9E  
UniRef90\_UPI0003B3F0CC  
UniRef90\_Q8YH38  
UniRef90\_B0R4T7  
UniRef90\_E8NG43  
UniRef90\_A0A021VMJ1  
UniRef90\_UPI00028860F4  
UniRef90\_I4Z9E6  
UniRef90\_F5JJ12  
UniRef90\_UPI000237BB02  
UniRef90\_D2B0H0  
UniRef90\_C6WHW8 WR  
UniRef90\_A3ZY35 Y R A  
UniRef90\_B3QUT9  
UniRef90\_K2PTY1  
UniRef90\_UPI00047CB601  
UniRef90\_F5IT38  
UniRef90\_K8CVR1 WR  
UniRef90\_B9NSP7  
UniRef90\_R4W9W7  
UniRef90\_UPI0003B3554D  
UniRef90\_H8KSQ8  
UniRef90\_Q9HIE5  
UniRef90\_UPI0002492CD9  
UniRef90\_I8JDQ8  
UniRef90\_E3CAT8  
UniRef90\_F0RAE8  
UniRef90\_T0J9W2  
UniRef90\_C7MFJ1  
UniRef90\_S3ZET7  
UniRef90\_A0YBG8  
UniRef90\_UPI00046EE75D  
UniRef90\_UPI00046BCFE4  
UniRef90\_B8KVM7



1 10 20 30 40  
UniRef90\_UPI0003796B63 A L V T A H T L S L A T P E E M A D A T R R E L A G G A R L L K L K L D  
UniRef90\_X0Z4E0  
UniRef90\_U2KNF2  
UniRef90\_D6EGB5 V P G Y A S L D L A L D E E E L V A L Y S G W A A R G F T G A K L K L G  
UniRef90\_E0XT98  
UniRef90\_UPI0003B43EA2 V K N S L A N G F T A C K M K E I G  
UniRef90\_UPI00029AE79C V E R A E A L A A L G Y R A F K V E P T  
UniRef90\_M0PIU9 D S V P V N A T I G D S P P A A T A S E A E R A A A A G F D C V K V K V G  
UniRef90\_UPI000475D850 R N Y C E C Y N T A G I T P G I T H Q K E R A R A T M E A G Y R A F R M D L P  
UniRef90\_UPI0001FFEF66 R D R I P V N A T V P A V G P D H A Q R I V R A S G A T T A K V K V A  
UniRef90\_M0DCV9 Y R T E F P A Y A S T G G L D S A E A F A E F A E E C R D M G Y Q A F K I H G D  
UniRef90\_H5UU59 E D P E V M A G H A R E A V A G G V R L L K V K L G  
UniRef90\_A0A038CLZ0 R D R I A L Y P S V S Y D N Q P D V V A H Q V S Q V F N L G Y D A L K L H  
UniRef90\_B5WQM5 R V R V Y A G G Y R Y P H D D L A D E I R R F A D L S Y T H A K I K I G  
UniRef90\_F9DJ66 D G I P I N G L V W M G T F N E M F N R M E E K L K A G Y H C V K L K I G  
UniRef90\_E1KRQ7 K E G I P I N G L V W M G T F N E M F Q R L E T K L K G G F H C V K L K I G  
UniRef90\_UPI0002488637 R E G V M V Y G H A N G R D I E E T A D E V A R Y L D M G Y K A I R A Q S G  
UniRef90\_UPI0003651FAB  
UniRef90\_UPI00029AEB65 D S I P I N G L V W M G E K S F M K E Q I L D K I K N G F K C I K L K I G  
UniRef90\_B8HDT3 R T A I P V N A T V P A S R V P E V L A R F G R V D A V K V K V A  
UniRef90\_UPI0003C7DF6A R T A I P V N C I V P A V D P V R A A A L V R A S G C A T A K V K V D  
UniRef90\_UPI00035D5ECF L P A T A I V G Y P P T P E E L A G Q I K D L Q R G W N R F K I P I S  
UniRef90\_UPI000416816C G R D L A E I E E N V A A F M E Q G I R Y I R C Q W G  
UniRef90\_D9VRK1 G F T A L K V K A G  
UniRef90\_D5ETM4 I P I N G L V W M G N Y E E M L Q R M E E K L K L G F R C V K L K I G  
UniRef90\_UPI00036A6F58 V A R A E K L A G L G Y R A F K L E P T  
UniRef90\_F3ZPG2 I P I N G L I W M G S Y E K M Y Q Q I K K I R K G F R L I K L K I G  
UniRef90\_UPI0003B3ED8A T A Y T L S L D T P E N M R A A A K N A F R L I K L K I G  
UniRef90\_D7C5Y3 R V R T G A T H V D G A D A E E I A D K V G A A R Q R G Y R H V R I Q A A  
UniRef90\_J9DCM9 R E G I P I N G L I W M G D F D T M Y Q R I E E K M R L G F R S C I K L K I G  
UniRef90\_UPI000467F67A W M G E P S F M K A Q I E E K I A Q G F S C I K L K I G  
UniRef90\_UPI0003FB9B87 T L E T A Y T L S L G E P E A M A A Q A R A N A A R P L L K V K I G  
UniRef90\_QOYUC8 K Q V P L N A L L F G D T A K L I E R A E L L F N K G Y R T F K I T  
UniRef90\_D7W6S9 W M G D A A Y M E E Q I Q D K L K V G F H C I K L K I G  
UniRef90\_UPI000478A3B3 R E R V P V N C I V P V V P P A E A H R L V R A S G C R T A K V K V A  
UniRef90\_A1T3Q9 R P R I P I N A T V P A V A A H D V P G V L A R F P G V R T A K V K V A  
UniRef90\_R7P974 I S M A Q T V S I G T P E A M A Y H A C L L A Q Q G A K L K I G  
UniRef90\_C4UFL7 I S M A Q T V S I G T P E A M A Y H A C L L A Q Q G A K L K I G  
UniRef90\_G21RR3 V R T A F T I S L D E P D V M A A A A R A A A R G F S L L K C K L T  
UniRef90\_UPI0004783C81 E A I D I N G L I W M G E K D F M K A Q I K E K L K A G F S C I K M K I G  
UniRef90\_G3D5J2 A V R T L R T V S V D S P E N M K T A A A E L E H A P V I K V K V D  
UniRef90\_UPI00026CA731 R T K V G V Y A S L D Y H L S D H D F T E L F G K A K E R G F L G Y K I K V G  
UniRef90\_X5LBA1 R D R V P V N A T V P A V P A G Q V P E I L T R F P G A R T A K V K V A  
UniRef90\_UPI000369A5D9 W M N E P E H M L T Q A L Q K I E S G F S C I K L K V G  
UniRef90\_UPI000381D93E T A Y T I S L G E P E K M R A Q A A E N A H R P L L K V K I G  
UniRef90\_UPI0003606493 L I E E C R A D A A L G F R D F K L K I G  
UniRef90\_K4RG09 R P K V P A Y A S L G L D P A H P S A P E A A W I T A A G F W G Q K W P L G  
UniRef90\_UPI0003FAFAF1 R E T V E V N A T I P A V Q A G Q V A E L L D R G C R T V K V K V A  
UniRef90\_UPI0002F796BF R D R I P I N A T V P A V D A A R V P D V L A R F P G A T T A K V K V A  
UniRef90\_UPI00020021BD T S V T L G L G A I E A V L A R L E R W R L Q L P S T R I K L K I G  
UniRef90\_R6CED9 K E I P I N G L I W M G N F D E M Y S R I E E K M K L G F R C I K V K I G  
UniRef90\_R4YH47  
UniRef90\_A3U9X5 D S I P I N G L V W M G E K S F M K S Q I E T K I K E G F K C I K L K I G  
UniRef90\_D8MSL7 I D M A Q T V S I D A P E M M A S S A L A L W E N G A R L L K I K M D  
UniRef90\_W8F0Q5 W M G D A F M R Q Q I E K K L T E G Y S C L K L K I G  
UniRef90\_L7KF13 Q R D S V P V N A T V P A V A E Q V A E I V A R G A T T A K V K V A  
UniRef90\_A9D616 L P T A V T V S L G D T P A D M A D E A R A H S S Q K L L K V K V G  
UniRef90\_A8AGC3 G T P E Q M A S A A A L W E K G A K L L K I K L D  
UniRef90\_UPI0004772EAA F N K T A P V Y A N G W N Y N D A V E W A K A A E R P L K D G Y K M L K L S A G  
UniRef90\_X4REP1 R Q T I P V N E T I P A L S P E A A H A L A A A S T C G T F K V K I A  
UniRef90\_F6F1Y9 R H E I P V N I V A G Y Q R S T V E D L C A E V E R R C E E G Y E R I K I M L G  
UniRef90\_L0MGH4 Q V T T A Q T V S I D T P E A M A R A A L E L S R R G A T E R I K I K L D  
UniRef90\_C6BRL8 T A Y T L S L D T P E K M E E Q A A K N S N R P L L K T K L G  
UniRef90\_U1VEN1 Q E I V T A H T V S I D T P E A M A S S A L A L W Q H G A R L L K I K L D  
UniRef90\_Q6D2H9 L E T A Y T L S L D T P D R M H H A A I H N A N R P L L K I K L A  
UniRef90\_W0Z832 R T D I M V N A T I P A V P A A S V P E V L A R F P G C R T A K I K V A  
UniRef90\_UPI0003B38265 R P R F Q S D I T I V I G S L E E A E T A A R H Y A G Q G F T A F K I K V G  
UniRef90\_B3E4C1 G C F T A K V K V A  
UniRef90\_UPI00034619E3  
UniRef90\_R6YGX2 W M G T Y E E M L A R L E E K L K A G F H C V K L K I G  
UniRef90\_C6X1M6 W M G E A G F M Q T Q I E E K I S E G F T C I K L K I G  
UniRef90\_M9RKA0 R D N A P V H V T C G F P A D N G A L V A A C A E V A A G A G G I K V L V G  
UniRef90\_UPI0003731A4F W M G D H A C M M T Q I E S L S L S R G F R C I K L K I G  
UniRef90\_M7Z1Y0 N T V T T A M T I P I V A P N E A A Q L A A K Y Q G Q G F Q T L K I K V G  
UniRef90\_UPI00047DBFE4 V E T A F T I S L D T P G R M A D A A R A A S H R A V I K I K L G  
UniRef90\_Q7UMP9 S F T I G I D T V Q E M R R K L D A G W D L Y K I K L G  
UniRef90\_E6MBX9 R D C I K V Y S W I G G D R P S D V A R E A Q K V A D K G F N A I K M N A K  
UniRef90\_W9QZ33 K V K I C G L V D S D G T P T E V A D V V A A L V K E G F A A I K V K V A  
UniRef90\_UPI000262A43A R E R I E V N A T V P A V R A D E V E A L V R F P G C R T A K V K V A  
UniRef90\_UPI0002DB1DB5 T A Y T L S V G T P E E M R A A A L K A A D R P L L K I K L A  
UniRef90\_E8JJV6 R K S V P V N V T I P V L S P E A A A A R V E E S H S G G C A T A K V K V A  
UniRef90\_K0YSZ8 D R V P V N V T I P V V C A S A D A Y Q R V I S S G G C A T A K V K V A  
UniRef90\_V8QYF1 V P I N A T D E P G I E K E L H L L L E E G F T T F K V K V G  
UniRef90\_F8EFF6 R S E Y P V Y I S F N R E G N P E K L A D Q L L E K L T T G A N G V K I K V G  
UniRef90\_UPI00047C7E7D Q S V I T A E T L S L D T L E N M V K A A A D A V S R G A L L K I K L N  
UniRef90\_D1BVZ3 R A T V P V N V T I P A V G P D R A R A I V L A S G G C R T A K V K V A  
UniRef90\_C5CCQ7 R Q A V P V N A T V P A V D A A D V E A V L A R Y G D G L T A V K V K V A  
UniRef90\_UPI00036AB6BE V R T A V T I G I R P L S A Y E S A A R R L A D H P W I K I K V G  
UniRef90\_D7GCL8 R D L V E V N V T I P V V S P T Q A R R L T A A G C M T A K V K V D  
UniRef90\_UPI000479043A R D R V A L Y A N M N R D R S P T G F F L S A Q Q A V A G Y S A L K I K V T  
UniRef90\_A1ZMA5 L P I N G L I W M G E P T G F M Q Q I A Q K V L G Q G G F C I K M K I G  
UniRef90\_R7WYM8 P A Y A S G A L Y R D D T A L H D E I A G Y R S R G F R H V K M K I G

UniRef90\_UPI0003796B63 D D R V I E R M Q A V R A A A P E A R L T I D A N E A W P A S Q L A W C H A L A 80  
UniRef90\_X0Z4E0 A E K E L D L I R H I R A Q A F T Q N T R L R M L V D D A N G S Y A P P R A I E V R M L E A  
UniRef90\_U2KNF2 T E R D I G R L R A V A E V L P N T V R L R M L V D D A N G S Y A P P R A I E V R M L E A  
UniRef90\_D6EGB5 P E D V V E L V Q R L A R R F R R A V L G D T P L M V D V G Y L F N P T A V R V C R Q L E  
UniRef90\_E0XT98 V D E D V D R L A R R F R R A V L P A V A I L R A D A N G A W D R R T A E S V D R L L A  
UniRef90\_UPI0003B43EA2 R D N S V E E C A A A R E G V G D G D W V T D A H Q R F D L P D A I R G C N E I  
UniRef90\_UPI00029AE79C A A E D E E R V A A V R D A L P S G L V R V D D A N T A W T V D E A V A I A R L E  
UniRef90\_M0PIU9 L G R E L E T A L L L G E R V G D M D L M H D A C E L E T F A D A L K G R A L D  
UniRef90\_UPI000475D850 V D A D D R E R L A E V L S A V P D V R L R L D A N Q G W D A E Q A V R I V T G F  
UniRef90\_UPI0001FFEF C6 E T T R E A V A A A R E A V G D A R I R L D A N Q G W T A D E A F R Q A Q W R  
UniRef90\_A0A038CLZ0 S D R D R R R I E A A A A Q L A D A H L A V D A M N T Y D A D T G R S A A A L D  
UniRef90\_B5WQM5 A E Q E L Q L I R H I R Q S F S D V E L R R V D A N G G F T P K E A L R I E A L A  
UniRef90\_F9DJ66 A E R E L D L I R H I R Q S F S D V E L R R V D A N G G F T P K E A L R I E A L A  
UniRef90\_E1KRQ7 P A E T I D R L R A R F G F D H H L L H D V H H R L T P I E A A S L G K A L E  
UniRef90\_UPI0002488637 F N H M L D C V A M K E V L G D V E S L A L D C G P G W M L P D A I R F A Q A V  
UniRef90\_UPI0003651FAB A N E E L D L L K F I R A E F E E I L R V D A N G A F S P E D A L P K Q R L S  
UniRef90\_UPI00029AEB65 E A D D A A R V E A V R A L P G A A I R V D A N G G W D V P A A V K A T R L S  
UniRef90\_UPI0003C7DF6A L A D D L A R V E A V R A L G S G H L R V D A N G G W G L A E A I A I A T L  
UniRef90\_UPI00035D5ECF P D L E L S R L R A A R E A A P T D W V L G F D I N M R T S E A V L D F E K R I R  
UniRef90\_UPI000416816C G P D A Y A R F D R M R E R F G E L E L L H D V H E R L A P I E A V R A K Q L E  
UniRef90\_D9VRK1 P A Q D L A R V A A V R D G A P E A A L R L D A N G A W T E R Q A I E L P R F A  
UniRef90\_U5ETM4 A E K E F D L V K R I R E R F H E V E L R L R D A N G G F T Y D E A L V K E L L S  
UniRef90\_UPI00036A6F58 P H D V V E L A R R F R K S L G R Q P L M I D V G Y L F H P T A A R V C Q E L E  
UniRef90\_F3ZPG2 A E E E L L L T Y I R E H F G Q M E L R V D A N G A F S T T D A L S K E R L A  
UniRef90\_UPI0003B3ED8A T P D D M P R L E A V R E G A P K T R I I J D A N E G W T A E Y A E L A P H L V  
UniRef90\_D7C5Y3 V P W D S A A L A R V R E L V G D V E L L H D V H E R L D P R Q A A D F R R V E  
UniRef90\_J9DCM9 A D Q E L A L L A H I R R T G F S E I E I R V D A N G A F T P E E A P R K E Q L A  
UniRef90\_UPI000467F67A A D K E L A L L A Y I R T H F S E I E I R V D A N G A F D S N E A L Y K N Q L A  
UniRef90\_UPI0003FB9B87 G D N D I A R I R A V R Q A A P Q S R I I L D A N E G W T D D N I V A N A F A A  
UniRef90\_QOYUC8 A D D A L R S L E A L H R T F G Q I E L R L D A N G G L M M D E A L D F A R S A  
UniRef90\_UPI000478A3B3 V D W K S E R H I Q K L R E K F D Q Q L E L R V D A N G G F S K D E A I V V Q Q L A  
UniRef90\_UPI000478A3B3 L A E D A D R L A A V R D A L P A G A I R V D A N A A W E V D A A V G A I A V L  
UniRef90\_A1T3Q9 E A D D V A R V N A V R D A V P T V R V D A N G G W T V D E A V A A A R A L  
UniRef90\_R7P974 A D D E L Q L V K K I R R Q Y T D V E I R V D A N G G F Q P G C M K K L E Q L A  
UniRef90\_C4UFL7 D H L T A E R L V A I R T A V P E I T L I V D A N E S W Q P E G A G R C Q L L A  
UniRef90\_G21RR3 G E G D P A R I E A V R Q G A P D A D L I V D A N G S W G M D I A V Q A R A L A  
UniRef90\_UPI0004783C81 A E T E M E L L Q S I R N E F D E I T L R V D A N G A F N P K N A L E K R L A  
UniRef90\_G3D5J2 G G A D M E R V E A V H Q S A P D D A L V D A N E A W S A Q Q L A W L P R L P  
UniRef90\_UPI00026CA731 H E R D L H R L D L L R D V V G D R P V M L D A N A W T A Q T A V R F E R A  
UniRef90\_X5LBA1 E A D D V A R V N A L V P V R V D A N G G W R V H E A T A A A T A L T A  
UniRef90\_UPI000369A5D9 A E K E C W V L E K I R E Q H P E V V L R V D A N G A F T E E N V W Q R E A L S  
UniRef90\_UPI000381D93E T D D D L G R L E A V R A G A P D S A I V D A N E G W S A E A A E A T A L T  
UniRef90\_UPI0003606493 R G R D I E V T R A V R D A F P D A R L I V D A N D G Y D R H G F I T Y L E A V  
UniRef90\_K4RG09 P R V V A K M L G R L R E A A G D G R F M V D A L G R C R L D E A M Q V P V L A  
UniRef90\_UPI0003FAFAF1 G E E D I A R V E A V R A A R P D M A V R C D A N G N W S A E A A E A T A L T  
UniRef90\_UPI0002F796BF E A D D V A R V E A V R A V I P T V R V D A N G G W S V E Q A V Q A A K A L  
UniRef90\_UPI00020021BD S D H D R A L V Q A V R S A L R A G D L Q I D A N G G W D L E G A R Q M P W L A  
UniRef90\_R6CED9 A N K E L E L L E H I R Q H F E Q I E L R V D A N G A F S P A D A P F K E S L H  
UniRef90\_R4YH47 A I D E I E L L K Y I R S Q F K D I E I R V D A N G A F S T K D A L E K K T L S  
UniRef90\_A3U9X5 N A L I T E R L V A I R T A V P Q Q A T L I R V D A N G A F S H S E G A A R C Q Q L L A  
UniRef90\_D8MSL7 G A A E L E L L R E L R A V A G Q Q L T L R V D A N G A F S P H E G A L P K E Q L A  
UniRef90\_W8F0Q5 E P D D V D R V A A A R A V I P R V R I D A N G K W T V P Q A I S A I R A I  
UniRef90\_L7KF13 T S D D R A R M Q A V A S A A R G A E I I L D A N E G W D E S N I R E H L L L A  
UniRef90\_A9D616 D R L I S E R M Q A I R S V V P D A T I I V D A N E S W T E G L A A R C Q L L A  
UniRef90\_UPI0004772EAA F K R A I D R T R L L K D V V G D A E L L I D L S G G V N N D Q L V R L D V C  
UniRef90\_UPI0004772EAA L A E D L A R L E A V R A A Q P S A K I R V D A N A A W D V D T A V T H I R Q M  
UniRef90\_UPI0004772EAA T D R R L E R V I A Q A Y A I A G D R L C A D A H W A F D G D A A F G L R G I D  
UniRef90\_L0MGH4 D R L I S E R L V A I R D A A P E A T L V V D A N E S W Q A E G A A R C Q L L A  
UniRef90\_C6BRL8 G G E D I A R I E A V R R G A P D A R I I V D A N E G W T A D I Y R E M A P L V  
UniRef90\_U1VEN1 N H L I S E R L V A I R S A V P D A T I I V D A N E S W Q A E G A A R C Q L L A  
UniRef90\_Q6D2H9 D A D D L A R V A A V R E G A P L A R L I V D A N E G W N T E R Y L T V P E L A  
UniRef90\_W0Z832 E A D D V E R V A A V R H E L G E G R I R V D A N G G W N V D E A E H V H A L A  
UniRef90\_UPI0003B38265 G A D E M Q A I A L K A R F P Q A R I T L D P N G A W T L D E A I R L C K G Q  
UniRef90\_B3E4C1 K D L D L Q R V L A V K R I A P D S C L V L D A N M G F D M R R F L Q Q L E Q H  
UniRef90\_UPI00034619E3 E A D D I A R V R A V R E A M G P A A L R V D A N C G W T V D E A V T A L T L T  
UniRef90\_R6YGX2 A I D E L D L I K R I R E V Y E Q V E L R V D A N G G F S P E D A M S R E A L A  
UniRef90\_C6X1M6 T D W E K K I L Q Q L R N A F P Q L E L R V D A N G A F D A E E A L S V D D L A  
UniRef90\_M9RKA0 A G E D V A R L T L V R E A H Y K E T D L I A D A N C A W S R E T A Q D M V R A V  
UniRef90\_UPI0003731A4F A E R E L D L L F V R S A V G E T L R V D A N G N F E Y R N R V L D K H Q L S  
UniRef90\_M7ZIYO K N L D I E V L K T I R L V H P D C S F I L D A N G G Y T A N Q A I E V D R L N  
UniRef90\_UPI00047DBFE4 G D N D I A C M H A V T A N A P S S R I I D A N E A W T S D F A K M M R E A S  
UniRef90\_Q7UMF9 T D H D L E I R Q L R Q C N E A T F R V D A N C A W S A Q Q T I D Y K E L R  
UniRef90\_E6MBX9 V E D V V A R V D A I R K R M G N F G I G I D F H G R V H K P M A L L I K E L E  
UniRef90\_W9QZ33 P T H D A E V I Q E V R K K I G D I E L R V D A N R N W T Y E E A L Q F G S L K A  
UniRef90\_UPI000262A43A E A D D I A R V R A V R E A L P E G R V R V D A N G G W S D E A V A L A Q L A  
UniRef90\_UPI0002DB1DB5 G E G D E A R L A A V R E G A P H A R L I V D A N E A W R D E T L E A Q L D A C  
UniRef90\_E8JJV6 D P E D C A R V E A V A D A L T E R W I R L D A N G A W D V D Q A V T A I H E L  
UniRef90\_K0YSZ8 D P E D I A R V E A V A Q A L V D G R I R V D A N A A W D V D Y A L D R A A M Q  
UniRef90\_V8QYF1 K D V D A D I A R T L R L L A D R A T I R L D A N R A Y C K E D A I R F S H G I  
UniRef90\_F8EFF6 G A Q T R K Y I P M L R K V L G N E I I M Y D A N G S Y T P R E G I E T G K L L  
UniRef90\_UPI00047C7E7D A E Q I V E K V A A I R Q V A P N V T I I V D A N E A W E H D L G P L I Q Q L A  
UniRef90\_D1BVZ3 L A A E V E R V A A V R A A L D E L R I R V D A N G G W T V D Q A V T H L R A L  
UniRef90\_C5CCQ7 R E A D L A R V R R V R A L L P H A Q V R V D A N A G W T P T E A V D V L T A M  
UniRef90\_UPI00036AB6BE H S E P V E A V R I V R H A A P N A R L V D P N Q A W S I A E L E A Y A P A M  
UniRef90\_D7GCL8 L R Q D C A R V A A A R E L G P E G R I R V D A N A A W S V D E A V A A V I E L  
UniRef90\_UPI000479043A P D N D P E G R R F I D E G L P V Q V Y V D C H W R F P L T A S G V L R E L  
UniRef90\_A1ZMA5 A D Q E C A L L A N I R E R F D Q V T L R V D A N G A F S P K D A L K K E K L S  
UniRef90\_R7WYM8 G A D D L A R L A T V R N A L P D G L L W V D V N Q L D S A T S D D W L A D L R

UniRef90\_UPI0003796B63  
UniRef90\_X0Z4E0  
UniRef90\_U2KNF2  
UniRef90\_D6EGB5  
UniRef90\_E0XT98  
UniRef90\_UPI0003B43EA2  
UniRef90\_UPI00029AE79C  
UniRef90\_M0PIU9  
UniRef90\_UPI000475D850  
UniRef90\_UPI0001FFFC6  
UniRef90\_M0DCV9  
UniRef90\_H5UU59  
UniRef90\_A0A038CLZ0  
UniRef90\_B5WQM5  
UniRef90\_F9DJ66  
UniRef90\_E1KRQ7  
UniRef90\_UPI0002488637  
UniRef90\_UPI0003651FAB  
UniRef90\_UPI00029AEB65  
UniRef90\_B8HDT3  
UniRef90\_UPI0003C7DF6A  
UniRef90\_UPI00035D5ECF  
UniRef90\_UPI000416816C  
UniRef90\_D9VRK1  
UniRef90\_D5ETM4  
UniRef90\_UPI00036A6F58  
UniRef90\_F3ZPG2  
UniRef90\_UPI0003B3ED8A  
UniRef90\_D7C5Y3  
UniRef90\_J9DCM9  
UniRef90\_UPI000467F67A  
UniRef90\_UPI0003FB9B87  
UniRef90\_QOYUC8  
UniRef90\_D7W6S9  
UniRef90\_UPI000478A3B3  
UniRef90\_A1T3Q9  
UniRef90\_R7P974  
UniRef90\_C4UFL7  
UniRef90\_G21RR3  
UniRef90\_UPI0004783C81  
UniRef90\_G3D5J2  
UniRef90\_UPI00026CA731  
UniRef90\_X5LBA1  
UniRef90\_UPI000369A5D9  
UniRef90\_UPI000381D93E  
UniRef90\_UPI0003606493  
UniRef90\_K4RG09  
UniRef90\_UPI0003FAFAF1  
UniRef90\_UPI0002F796BF  
UniRef90\_UPI00020021BD  
UniRef90\_R6CED9  
UniRef90\_R4YH47  
UniRef90\_A3U9X5  
UniRef90\_D8MSL7  
UniRef90\_W8F0Q5  
UniRef90\_L7KF13  
UniRef90\_A9D616  
UniRef90\_A8AGC3  
UniRef90\_UPI0004772EAA  
UniRef90\_X4REP1  
UniRef90\_F6F1Y9  
UniRef90\_L0MGH4  
UniRef90\_C6BRL8  
UniRef90\_U1VEN1  
UniRef90\_Q6D2H9  
UniRef90\_W0Z832  
UniRef90\_UPI0003B38265  
UniRef90\_B3E4C1  
UniRef90\_UPI00034619E3  
UniRef90\_R6YGX2  
UniRef90\_C6X1M6  
UniRef90\_M9RKA0  
UniRef90\_UPI0003731A4F  
UniRef90\_M7Z1Y0  
UniRef90\_UPI00047DBFE4  
UniRef90\_Q7UMP9  
UniRef90\_E6MBX9  
UniRef90\_W9QZ33  
UniRef90\_UPI000262A43A  
UniRef90\_UPI0002DB1DB5  
UniRef90\_E8JJV6  
UniRef90\_K0YSZ8  
UniRef90\_V8QYF1  
UniRef90\_F8EFF6  
UniRef90\_UPI00047C7E7D  
UniRef90\_D1BVZ3  
UniRef90\_C5CCQ7  
UniRef90\_UPI00036AB6BE  
UniRef90\_D7GCL8  
UniRef90\_UPI000479043A  
UniRef90\_A1ZMA5  
UniRef90\_R7WYM8

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



UniRef90\_UPI0003796B63 D L E A L G D R Y D M V N I K L D K S G G L T E A L A M A A L A A E C D M A  
UniRef90\_X0Z4E0 T W K R M I D M R A V D I P Q P D V Y L G G G L S R T L R V C R M A E A A G N L P  
UniRef90\_U2KNF2 E K A L L L D T I R P Q Y I I L K P S L H G G M I G T R E W I A M A K E A H N I G  
UniRef90\_D6EGB5 Q F R P L L J A A D A L Q V V I Q A A G V W G I T H F L R V A T L A H G H D L P  
UniRef90\_E0XT98 E F R P F F E H A A V D V A I T D I P W N G A W L G L K I A G M A E A Y E V N K  
UniRef90\_UPI0003B43EA2 E F Y D P F F E A G A D I D V I Q H D M K G L G V T G W R R L A D M A T T H N V K  
UniRef90\_UPI00029AE79C E F L D P M F D R G Q V T V V I Q P Y V T T C G G F T E A K R L V E L A V P R G A Q  
UniRef90\_M0PIU9 G L E S V L A A D A A D A V V L K P M A L G G G P D R A L A A A V R A R E T A G V D  
UniRef90\_UPI000475D850 D F N P L V E R E H D I D F V R A T L P N V G P I T G E M M K L A A I C E H F I G L P  
UniRef90\_UPI0001FFFC6 D P M R V V R A E A A D V V V L K V S P L I G G V R R A L R I A Q E C H G L P  
UniRef90\_M0DCV9 Q A T D F I A N E A T D F L R A D P E Y D A G I T G A M K R A K V A E G F G L D  
UniRef90\_H5UU59 D A T R I V E A G A A D M L N I K L A K T G G L S R E A L A V A D V A A A A G L T  
UniRef90\_UPI0003CLZ0 E L I Q L M A S G A V D I V Q P S V C K V G G I S A M L R L F A L A H Q Y P V R  
UniRef90\_B5WQM5 E A R H G G L R C D R D V L V F D P V H C Y G V P G Y L R I V D T L S A N G W P  
UniRef90\_F9DJ66 D K Q K K I E T I R P Q Y I V L K P S L H G G M A G T K E W I Q L A R A R N H I G  
UniRef90\_E1KRQ7 E H D E K V E T I R P Q Y I I L K P S L H G G M A G T K E W I Q L A R A R N M G  
UniRef90\_UPI0002488637 D C K D L I Q N Q L I D Y I R T T V V R A G G I T H L R R I A D F A A L Y Q V R  
UniRef90\_UPI0003651FAB N F K E L I E T Q A V R V G P D P A D V G G L A E L K W I T E H A Y M H S I L  
UniRef90\_UPI00029AEB65 G V T N K K J O T I N P Q Y I I F K P S L I G G Y R G T E E W V E L A N E K S I L  
UniRef90\_B8HDT3 D P L K V A R A G A D I L V V K V A P L G G V R R A L R I A Q A G L P  
UniRef90\_UPI0003C7DF6A D P F R V A E L E A A D I A V L K V H P L G G V L A C L D I A E Q N I G L P  
UniRef90\_UPI00035D5ECF H P E A L L T A G A V D V I R V D A T T N G G V I T G L K K S L E R V R N A Q V K  
UniRef90\_UPI000416816C E W V P L I S G G L I D F I R V H V S A I G G I T P A R K L A V L S E S F G V R  
UniRef90\_D9VRK1 D A V A L A G L V H G V N V K L A K C G G V R A A L R H E A L R S G S G T D  
UniRef90\_D5ETM4 D A R H M L E I L K P R Y I I L K P S L H G G M M G S K E W I D I A R S L H I G  
UniRef90\_UPI00036A6F58 E F L D M M D R G R V S V V Q P Y M A T C G G I T E A K R I V E L A R M R G A V  
UniRef90\_F3ZPG2 E K K A L L D M I R P Q Y I I L K P S L H G G I V G C E E W I K E A E A R N I G  
UniRef90\_UPI0003B3ED8A S L P N L K G K Y D V V N I K L D K T G G L T E G L A L K Q A A L A E G Y G  
UniRef90\_D7C5Y3 Q F V A V L R G P D I D F A R V R I P L G G L T P A R K L A A L C E L H G V R  
UniRef90\_J9DCM9 P R E R K I E T I R P Q Y I I L K P S L H G G L Y G S E E W I S L A R E R G I G  
UniRef90\_UPI000467F67A D K E K L L K D I Q P Q Y I I L K P S F V G G F R G T Q E W I S L A D K Y K I G  
UniRef90\_UPI0003FB9B87 E T L V G L Y D A V N I K L D K S G G L T A A L T L R D R A R D L G F G  
UniRef90\_QOYUC8 E M L S H L P V A A L K P A L I K P N R L G G L S V A L H F A R Y A Q E N R I K  
UniRef90\_D7W6S9 D P E K K K E K I L K P Q Y I I L K P A L V G G F S G S D E W I F L A E N Q N I G  
UniRef90\_UPI000478A3B3 D P L A V A V A G A D V A V L K V A P L G G V R A A L A V A E A C G L P  
UniRef90\_A1T3Q9 D P L H V V R S G A A D V A V L K V A P L G G V H A M L D I A A Q L I D I P  
UniRef90\_R7P974 E K K E L L Q Y V R P Q Y I V L K P S L H G G F Y G A E E W I N E A R K L N I K  
UniRef90\_C4UFL7 D L P R L V N R Y E M V N I K L D K S G G L T E A L L L A K E A R Q L G F D  
UniRef90\_G2IRR3 S L A D I E G L G A Y Q A I N I K L D K A G G L T E A L A M A K A A R D H G Q K  
UniRef90\_UPI0004783C81 E K K K L I Q T I K P Q Y I I L K P S L V G G F A G T Q E W I D I A E N N A D  
UniRef90\_G3D5J2 S F P E V V N R Y D V V N I K L D K T G G L S E A L H C A Q E A K R R G L Q  
UniRef90\_UPI00026CA731 G K R K L V E G R A C D M L N V H G Q V S D V M R A G W D I A A N E A N V E  
UniRef90\_X5LBA1 D P L R V V R A R A D V A V L K V A P L G G V G R M L D I A A Q I D I P  
UniRef90\_UPI000369A5D9 E K E N L L E E I D P P F T I L K P T L L G G F R E T D E W I K A E Y R G I E  
UniRef90\_UPI000381D93E S L A D L K G K Y D A I N I K L D K T G G L T E A L L L K Q E A E A M G F Q  
UniRef90\_UPI0003606493 A L R P V A A A G S I D V I L M D V M S Y G L T A W R R L M P E L A E A H G S P  
UniRef90\_K4RG09 E Q T R L I T G E A V D V W Q V D P G W S G G L A R S L H T T E L A A D L G M A  
UniRef90\_UPI0003FAFAF1 D P W E V V R A D A A D V A V K A A P L G G P R A L V R L G S Q L A E H G V A  
UniRef90\_UPI0002F796BF D P L A V T K A G A D I A V L K V A P L G G I S K L L T I A G Q I G I P  
UniRef90\_UPI00020021BD D L L R L A P H V Q G I N I K L V K C G G L S E G L S M A R T A R R L G I G  
UniRef90\_R6CED9 T I A R K L E T I R P Q Y I I L K P S L H G G L S G A T E W I K L A K E R G I G  
UniRef90\_R4YH47 D G Y Q L A Q Q G F T G A Y A L K I A K A G G P N S V L A L A R V A Q A A G I G  
UniRef90\_A3U9X5 K S E N K S K T I K P Q Y I I L K P S L I G G F K G S K S W I S L A R S L K V G  
UniRef90\_D8MSL7 S L A G L K G R Y E M V N I K L D K T G G L T E A L A L A Q E A R A A G F E  
UniRef90\_W8F0Q5 E P A Q Q Q E L I R P A Y I L K P T L L G G L R A S L N W V A Q A E T R Q I G  
UniRef90\_L7KF13 D P M R V V S A D A A D I A V L K V A P L G G M R A V I R L S E L I G L P  
UniRef90\_A9D616 D L D K L V S L Y D A I N I K L D K T G G L T E A L Q M R D R A R E L G F G  
UniRef90\_A8AGC3 S L K A L Q G R Y D M V N I K L D K T G G L T E A L A L A A E A R E Q G F  
UniRef90\_UPI0004772EAA G F K N L L E S G A I D V V M P D V G N C G G V F E L I Q I A A M A E A Y N A R  
UniRef90\_X4REP1 D P L E V A R R H A A A D I A V V K N P L G G V R A A L E L A E R L D M P  
UniRef90\_F6F1Y9 A L M E L S R H I D I L R I D V T T C G G V S A N A L M A M A D L S G K T  
UniRef90\_L0MGH4 D L A R L A G R Y Q M V N I K L D K T G G L T E A L A L A A Q A A E Q G F T  
UniRef90\_C6BRL8 S L P A L K G K Y D M I N I K L D K T G G L T E A I K L R E A A L A E Q G Y A  
UniRef90\_U1VEN1 S L A A L H G R Y D M V N I K L D K T G G L T E A L A L A T A A R A Q G F A  
UniRef90\_Q6D2H9 S L T A L V A R Y D M I N I K L D K T G G L T E A L R L R Q Y A Q A Q G L K  
UniRef90\_W0Z832 K A E D P I A V A R A G A A D L V I K A Q P L G G I R R A I D I V E R A G L P  
UniRef90\_UPI0003B38265 Q L H H S V R L E A V D I P L A D V H F W T M Q G S V R V A Q L C D D W G L T  
UniRef90\_B3E4C1 A A E L A V A L K A V N A I N I K F M K S G I T E S V R I A E L A C R N N I K  
UniRef90\_UPI00034619E3 D P L E V A R S G A A D L I I K A P L G G V R R A L A L V E Q A G L P  
UniRef90\_R6YGX2 M K E A L L D T I R P Q Y I I L K P S L H G G M Y G C Q E W I Q L A E Q R G I G  
UniRef90\_C6X1M6 D K R E L L E K I K P Q Y I I L K P S L A G G F S G S D E W I S I A E D M G I G  
UniRef90\_M9RKA0 R F D Q L I G A G V S M I Q P N A V F T G G F N A A A T N A A Q R A I A A N L Q  
UniRef90\_UPI0003731A4F D P R K L E T I R P Q Y I I L K P S L H G G I A G C T E W I G I A G E M N I G  
UniRef90\_M7Z1Y0 D A Q K I I H G N L J A H V I N T K L A K L G G S W S P R S N R C C  
UniRef90\_UPI00047DBFE4 E L G N L R G K Y D F V N I K L D K T G G L T E A L K L R D K A R E L G F G  
UniRef90\_Q7UMP9 D L E T C F Q F H G I N V K L C K C G G L T P A R K M L T E A K R R E K L  
UniRef90\_E6MBX9 D Y K D A L J A S G Y I D I I Q P D L S H A G G I T E C K K I S M A  
UniRef90\_W9QZ33 E L D M K Y T H P G I V A L V I K P S V V G G F E S A A L I A Q W A Q Q H E K M  
UniRef90\_UPI000262A43A K A E D P L A V J A R G A A D L I V K A Q P L G G V R R A L S I V E Q A G L P  
UniRef90\_UPI0002DB1DB5 T A S L A A L R G R Y D A V N V K L D K T G G L T E A L A M A Q A A S K M G F E  
UniRef90\_E8JJV6 R A P N P V A A A R M S G A V A V I K I A P L G G R P E R A L R I A R D T G L R  
UniRef90\_K0YSZ8 D P Q A V A R A Q A A D V A I K I A P L G G I E R A L Q I G E Q T G L D  
UniRef90\_V8QYF1 D I E R A A G I P N V G Y C K L K L K R F G S L D A L A A G I Q S V H D H G M L  
UniRef90\_F8EFF6 R F R L A R E N V Y D L L Q P D M Y N G G I L R T L Q V A E I A K K Y G V G  
UniRef90\_UPI00047C7E7D D I A A L R D R Y E M I N I K L D K C G G L T E A L A M V N E A K R C G L R  
UniRef90\_D1BVZ3 D P L R V V A L D A A D V V L K V Q P L G G V R A C L E L A E R V G L P  
UniRef90\_C5CCQ7 K A E D P L A V A A A G A D L I V V K V Q P L G G V R R A A L V A A A G L P  
UniRef90\_UPI00036AB6BE E L P H L I G R Y Q F I N I K L D K T G G L T E A L R L A H A R A A Q G L R  
UniRef90\_D7GCL8 D P V A V A R A G A A D I V I V K A Q P L G G V A R A L D V D R A G L D  
UniRef90\_UPI000479043A A F R P W L E A G C Y D V V M P D V K Y A G G I S G V L R V A E L A A E H A T A  
UniRef90\_A1ZMA5 E K E K L L E V I Q P Y I I L K P T L L G G F I A T K E W I D L A K R R I G  
UniRef90\_R7WYM8 E F K A L L Q A Q A I S H I Q Y C L T L C G G V S G G L A L D E I A Q A A G V T



UniRef90\_UPI0003796B63 I | M V G C M L G T S M A M R A A L P V A A Y A S I V D L D G P I W L A E  
UniRef90\_X0Z4E0 V T P H C A N L S L V T L F T M H L L R A I P N A G K Y L E F S D Y Y P W Q E G  
UniRef90\_U2KNF2 S W I T S A L E S N I G L N A I A Q L T D I Y G P N I T T P Q G L G T G Q L F T  
UniRef90\_D6GEB5 V S P V I G Y H A N P L A H A A A A V P N H L V T E V Q D I G T P A G  
UniRef90\_E0XT98 C A P H N F Y G H L S L M S A H F C T A I P N F R V M E I D I D D V P W K D  
UniRef90\_UPI0003B43EA2 C A P H N W G S L L G F F L S L Q F A K T I P H F L Y G E V A T L T S D  
UniRef90\_UPI00029AE79C V C P G N W S T Q I L G A S S V H L A A Y S P V T P F I E F A P A E V F P L R R  
UniRef90\_M0PIU9 P V V T T T I D A V V A R T A A V H V A A A I P D I A P C G L A T G S L L A G  
UniRef90\_UPI000475D850 I V P H F T G P I A T A A L V N C L G T Y S G P V L M E Y N Y Q G R T L  
UniRef90\_UPI0001FFFC6 V V V S S A V E S G V G L A A G L A L A G A L P E L H H A C G L G T A S L L A A  
UniRef90\_M0DCV9 V E F H A P G P A Q R Q C I A G L R N T N Y E L V H P D C P N T Q P V Y E G  
UniRef90\_H5UU59 C M V G A M M E P R I S V T A A A H L A L A H P A V T A I D L D S P A W F A S  
UniRef90\_A0A038CLZ0 V I P H C F Y Y G A G M L A T A H L V A L L P E T R L E V P W L Q W P A L H  
UniRef90\_B5WQM5 R H A F W P H G G H L F S L H L V A A L G L G G A E V S P F A F Q P F R G  
UniRef90\_F9DJ66 S W I T S A L E S N V G L N A I A Q L H I Y G T N L H H A Q G L G T G Q L F A D  
UniRef90\_E1KRQ7 S W I T S A L E S N V G L N A I A Q L T K I Y G S G I T H A Q G L G T G Q L F A  
UniRef90\_UPI0002488637 T G C H G A T D L S P V T M G A A L F D S W V P N F G I Q E Y M R H T P E T D  
UniRef90\_UPI0003651FAB M A P H G T A N G L L G L G A L I N V C T L P A N Y I A F E Y P S A S E P F W N  
UniRef90\_UPI00029AEB65 W W V T S A L E S N V G L N A I S Q W T Y T K K S Q L P Q G L G T G G L Y T  
UniRef90\_B8HDT3 A V V S S A L D T S V G I R A G L A L A A A L P E L P Y A C G L G T V S L F E S  
UniRef90\_UPI0003C7DF6A V V V S S A V D S V G L A A G L A L A A L P E L P Y A C G L A T T S L L G G  
UniRef90\_UPI00035D5ECF V S P H M F P H L H S R L P I F G K D V P I E W G I P G T G V H P M D D  
UniRef90\_UPI000416816C T A W H G P G D V S P V G H A A N L H L D L N A V N F G I Q E W Y E L T D R L R  
UniRef90\_D9VRK1 L M L G C L T A S S L G I A P A V H L A D R A R W V D L D G H L L L A D  
UniRef90\_D5ETM4 S W I T S A L E S N I G L N  
UniRef90\_UPI00036A6F58 V C P G N W S T Q I L G A A T V H L A A Y S P I T P F I E F A P A E V Y P L R Q  
UniRef90\_F3ZPG2 W W I T S A L E S N I G L N A I A Q L A T L H P T L P Q G L G T G M L F E  
UniRef90\_UPI0003B3ED8A L M V G C M V G S S L A M A P A T L W A Q G V A F T D L D G P L L L A E  
UniRef90\_D7C5Y3 L A P H G P A D V S P V A Q A A T L A L D V S S Q A F G V Q E A A V F K E P V H  
UniRef90\_J9DCM9 S W I T S A L E S N I G L N A I A Q W C A T L P S A C P  
UniRef90\_UPI000467F67A W W I T S A L E S N I G L N A I A Q W T Y L Q N S K M P Q G L G T G A L Y T  
UniRef90\_UPI0003FB9B87 V M V G C M V G T S L A M A P A V L L A Q D A D F V D L D G P L L L A R  
UniRef90\_QOYUC8 A V F S S A F E S G V S L S F Y T M L A A S L S T E P A A C G L D T F R Y L E Y  
UniRef90\_D7W6S9 W W I T S A L E S N I G L N A I A Q Y T F T K K N P M A Q G L G T G A L F  
UniRef90\_UPI000478A3B3 C V V S S A L E S G V G L S A G V A L A G A L P E L D F A C G L G T G S L L T S  
UniRef90\_A1T3Q9 V V V S S A L D S A V G I G V G L V A A G S L P T L D H A C G L G T G G L F V D  
UniRef90\_R7P974 W W V T S A L E S N I G L N A I A Q W T A L Q S N Y S M A Q G L G T G L F V R  
UniRef90\_C4UFL7 I M L G C M L C T S R A I R A A L P L A P A A R F I D L D G P T W L T R  
UniRef90\_G2IRR3 V M V G C M L G T S L G I A P A F L A G S A S W V D L D G A L L A R D R D E  
UniRef90\_UPI0004783C81 W W I T S A L E S N I G L N A I A Q F T F T L Q S N L P Q G L G T G G L F T  
UniRef90\_G3D5J2 I M V G C M V S T S L A I E P A L L L A S Q A E F I D L D G P L L L E R  
UniRef90\_UPI00026CA731 V L G N T F L E L G V N M A L A L P G V R W L E Y S F Q N F D  
UniRef90\_X5LBA1 I V V S S A L D S A V G I A C G L L A A A L P E L R H A C G L G T G F F V E  
UniRef90\_UPI000369A5D9 W W M T S A L E S N I G L N A I C Q F T S T Y S I Y M P Q G L G T G S L Y H  
UniRef90\_UPI000381D93E I M T G C M L G T S L A M A P A M L V A E G A F V D L D G P L L L A Q  
UniRef90\_UPI0003606493 W W I T S A L E S N I G L N A I A A G L G N V E I V E G V P G T V A G V D  
UniRef90\_K4RG09 T F P H D R L P A A I A L A G A C C R D K I P A I E W H L T L E P L R Q  
UniRef90\_UPI0003FAFAF1 L T V S S A I D S S V G M Y A G L S A A A L P N C Q P S G L A T G S L F L E D  
UniRef90\_UPI0002F796BF V V I S S A I D S A V G I A T G L Q A A A L P A L Q H A C G L G T G S L F V E  
UniRef90\_UPI00020021BD V M V G C Y S D G G L L N S A A A Q L L P L V Q W P D L D S H L N L I D  
UniRef90\_R6CED9 S W I T S A L E S N I G L N A I A Q W C A T L S P D I P Q G L G T G M L F T  
UniRef90\_R4YH47 L Y G T M L E G T V A S L H A W S T L P L Q W G T E M F G P L L L K D  
UniRef90\_A3U9X5 W W L T S A L E S N V G L N A I S Q F T Y N L D T S M Y Q G L G T G S L Y T  
UniRef90\_D8MSL7 I M L G C M L C T S R A I A A A L P L V N S A R F I D L D G P T W L A V  
UniRef90\_W8F0Q5 W W L T S A L E S N I G L N A V S Q L A G S Y A T P G F P Q G L G T G Q L Y H N  
UniRef90\_L7KF13 V V V S S A L D T A V G V A A G V A A A A G L D S L D L A C G L G T G S L F T T  
UniRef90\_A9D616 V M V G C M V G T S L A M A P A V L L G Q D A D W  
UniRef90\_A8AGC3 L M L G C M L C T S R A I S A L P L A P Q V R F A D L D G P T W L A V  
UniRef90\_UPI0004772EAA M S P H N C A S S L C T A A T L Q V W A A C A N A M D L E I Y P Y L P E S Q G Y  
UniRef90\_X4REP1 V V V S S A L E S S V G L R A G L A F A A A L P Y A C G L A T P S R L F I D  
UniRef90\_F6F1Y9 V L P H V L P V H A Q L A G H R A V A S V E L I P D E A E A C M R F  
UniRef90\_L0MGH4 L M L G C M L C T S R A V A A A L P L A P A A R F V D L D G P T W L A Q  
UniRef90\_C6BRL8 V M V G C M V G S S L A M A P A V L V A S G A D V V D L D G P L L L A E  
UniRef90\_U1VEN1 I M L G C M L C T S R A I R A A L P L T P Q A T F A D L D G P T W L A A  
UniRef90\_Q6D2H9 I M V G C M V S T S L S M A P A F V V A Q G A D V V D L D G P L L L Q R  
UniRef90\_W0Z832 V V V S S A L D T A I G L S M G V A L A A A L P D L D Y D C G L G T S A L F E T  
UniRef90\_UPI0003B38265 W G S H S N H F N V S L A M F  
UniRef90\_B3E4C1 L M L G A M M E S S L A I T A A A H F A A T L G C F E V I D L D T T F F I N G  
UniRef90\_UPI00034619E3 V V I S S A L D T S V G I A M G V Q L A A A L P V G K L A C G L G T V A L L D G  
UniRef90\_R6YGX2 S W I T S A L E S N V G L N  
UniRef90\_C6X1M6 W W I T S A L E S N I G L N A I A Q Y T F T K K S K I P Q G L G T G G L F  
UniRef90\_M9RKA0 V S P A G G W D I N L H W M C G A M N N G A V E L H R A Q A R I S  
UniRef90\_UPI0003731A4F W W I T S A L E S N I G L N S I A Q W C A T F N N P L P Q G L G T G T L Y  
UniRef90\_M7Z1Y0  
UniRef90\_UPI00047DBFE4 I M V G C M V G S S L A M A P A V L L A Q D A E F A D L D G A N L I S D  
UniRef90\_Q7UMP9 T M V G C M V E S A V G I S G A A Q L T P L L D F  
UniRef90\_E6MBX9  
UniRef90\_W9QZ33 A V I S S A T F E S G L G S A Y I H L S C Y L  
UniRef90\_UPI000262A43A V V V S S A L D T S A G I A M G L Q L A A A L P T D L L A C G L G T V A L L D G  
UniRef90\_UPI0002DB1DB5 I M A G C M V G T S L A M A P A A F I G Q M A A F V D L D G P L L L A R  
UniRef90\_E8JJV6 V V V S S A L E S V G L A A G V R T A A A L P G R A L A C G L A T A S L L A A  
UniRef90\_K0YSZ8 L V V S S A L E S V G L A V G V R A S L L P G M I R A C G L A T S H F L A C  
UniRef90\_V8QYF1 A V L G D G L G S E I N N W M E A A V A A R L I R T K G E F N G F L K H V D  
UniRef90\_F8EFF6 I A P H T P K A D P L I A P F W Q V A A L I P N L Y G L Q E F V Y N P T E K K  
UniRef90\_UPI00047C7E7D I M I G C M L G S S L A M E A A L P V T L S A I H V D L D G P L W L A A  
UniRef90\_D1BVZ3 V V V S S A L E S S V G L A A G V A L A A A L P E L P Y A C G L A T S Q L L V H  
UniRef90\_C5CCQ7 A V V S S A L D T S V G I A G A A L A A C L P S L P H A C G L G T A A L F E H  
UniRef90\_UPI00036AB6BE L M V G C M T G S L A M A P A M V L A Q I C E V V D L D G P V L Q Q E  
UniRef90\_D7GCL8 A V V S S A L D T S V G L G I G T A L A A S L P R L G H A C G L A T I E L F T G  
UniRef90\_UPI000479043A C A P H N P T G P V C H A A S L A A C A I G T N M E M L E H Q F D E T P V F W D  
UniRef90\_A1ZMA5 W W I T S A L E S N I G L N  
UniRef90\_R7WYM8 S T P Q C F V A Q A V T L H F A A A R R N V V S A E Y H G F H D H L K S L A E Q

UniRef90\_UPI0003796B63 DD E P A L D Y S D G T V R 210 220 230 240  
UniRef90\_X0Z4E0 L F A R S P Y Q I A D G K A T V T D A P G W G V E I C Q D W L E K S T Y R Q  
UniRef90\_U2KNF2 D N I P M P L E I R G D Q L W I S D  
UniRef90\_D6EGB5 L T V D Q A I E D G G I V L G D A P G L G T R W T R A  
UniRef90\_E0XT98 D I L T W S P S F K N G L Q A P S G P G W G A Q L N E E I I A Q H  
UniRef90\_UPI0003B43EA2 V I D T S G Y G F T D G T F T V P D T P G L G L E L N Q D V Y D A K Y A G K E D  
UniRef90\_UPI00029AE79C A L Q E A G F P V R G T I A L V P D C A G V G Y V L P D D I V K H F S  
UniRef90\_M0PIU9 D L V A D P C P V D A G S I A L P T A D G L  
UniRef90\_UPI000475D850 P H L P V C L D F K N G K L Y P N D R P G L G V E L D F K Q L K Q V A E I T E P  
UniRef90\_UPI0001FFEF6C D V V A E P Y L P D G G F L P V P R R  
UniRef90\_M0DCV9 D Y S D M I D T I E N G M V E V P E G P G L G V E Y D W D Y I E D H  
UniRef90\_H5UU59 D V P A G G Y R E D D  
UniRef90\_A0A038CLZ0 P F L H F Q P E M R L P D V P G L G F T P D  
UniRef90\_B5WQM5 L A D G A R V E A G M A G V P E V P G L G F E T H R E A W Q A F R E A  
UniRef90\_F9DJ66 N V R M P L K V I D D  
UniRef90\_E1KRQ7 D N I A M P L E I R G D Q L W I S Q K  
UniRef90\_UPI0002488637 A V F P H A Y Y F D Q G S L Y P G D A A G H G V D I D E A E A A K Y P Y K P  
UniRef90\_UPI0003651FAB E L V T G L P K V K D S M I D V L E A P G L G V D I D P E A G K K Y  
UniRef90\_UPI00029AEB65 N N F D S P L E V K N G T I T  
UniRef90\_B8HDT3 D I T L D P L T A D D G A I T L R D A A A D P G L L E Q Y A A A P E R  
UniRef90\_UPI0003C7DF6A D V V A E P L R P V A G V L P V V R P E V D P D A L A A V R A D A D T  
UniRef90\_UPI00035D5ECF G L E Q P V I E N G M M P L T T T V G L G K L V D Y E W I  
UniRef90\_UPI000416816C E V F P G C P T V R N G Y A Y V N E A P G L G I D I D E K L A A K Y  
UniRef90\_D9VRK1 D P W T G I G G T D G T V R A A D R A G L G V R  
UniRef90\_D5ETM4  
UniRef90\_UPI00036A6F58 E L Q N A G F P V R D G V I D L P L S P G I G Y D L P M E I I E R Y R  
UniRef90\_F3ZPG2 D N I E I P L E I R E D Q L W F P N K P  
UniRef90\_UPI0003B3ED8A D R E D P L V F D A Q G V H P P S A K F W G  
UniRef90\_D7C5Y3 E V F P G T V V A H G G L L V P S G V P G H G V D F D E A A A R R H P V P E  
UniRef90\_J9DCM9  
UniRef90\_UPI000467F67A N N F D C P L E V E K G Q L W  
UniRef90\_UPI0003FB9B87 D R V P S L V Y Q G S L V S P P D T A L W G  
UniRef90\_Q0YUC8 D L L E S P F G T E N G V L D A E A L Y L G G Q K V N E H L L K R  
UniRef90\_D7W6S9  
UniRef90\_UPI000478A3B3 D V T S D G P V P A G G W L P V P R A  
UniRef90\_A1T3Q9 D V A A P V V P V D G Y L P A A P V T P D L D R I A A L A A P P D R  
UniRef90\_R7P974 N F D E V P L K L A N G K L Y  
UniRef90\_C4UFL7 D V A D G  
UniRef90\_G2IRR3 G L I V S D G M L Q P G R L W G T G  
UniRef90\_UPI0004783C81 N N F E S P L E V K N G T L K Y N P T L D W D F  
UniRef90\_G3D5J2 D R E G A L H D R G A G L L R P S G P I W G  
UniRef90\_UPI00026CA731 H L V E E P Y A M A D G F I H G R D A P G H G L V L S A E A R A  
UniRef90\_X5LBA1 D V A E V A A P V D G Y L P V E A V V P D P A R L S A L A A A P Q R  
UniRef90\_UPI000369A5D9 N N I P S P L T V Y R G G I H  
UniRef90\_UPI000381D93E D R A N A L R F D G S V M H P A E P  
UniRef90\_UPI0003606493 P A L L G P V D G V L R L G D A P G F G I V P D E A H L R P I A  
UniRef90\_K4RG09 Q I Y S T P L H V E D G M L H V R T V P G L  
UniRef90\_UPI0003FAFAF1 V T E P R R L I D G H L A A T D L V P D P A R L D S L E A P A D R  
UniRef90\_UPI0002F796BF D V A E T P Q I L D G Y L P V I Q P I T P D L E R L H G L A A S P Q R  
UniRef90\_UPI00020021BD D P F A G P E R E G D V Q R P A P R P G L G V  
UniRef90\_R6CED9 D N I D Y P L H I Q G D W L W  
UniRef90\_R4YH47 D I V S V P L T F A D G Q V A L P Q T P G L G V E L D E D K L H F Y T R Q P  
UniRef90\_A3U9X5 N N F E S P L Y I K K G H I  
UniRef90\_D8MSL7 D V D P A L P F S C G R I A  
UniRef90\_W8F0Q5 N L A A P L H I R A G Q L H  
UniRef90\_L7KF13 D V A E P F V P E C G V L V P R W F G S T V D L A P E A L A A P E R T A W W  
UniRef90\_A9D616  
UniRef90\_UPI0003B38265 D V E P A L R F T T G Q L H L  
UniRef90\_UPI0004772EAA Q V L K N P P R I R N G F L D V G T D P G L G A E V D V E R L K P Y  
UniRef90\_X4REP1 D V A A D P L T P V G G L I R I R D  
UniRef90\_F6F1Y9 D L L E G R P D I R N G M L T R D E T P G A G F R L R W P E V V R Y A  
UniRef90\_L0MGH4 D V E P G L D F A C G V I R L G D A  
UniRef90\_C6BRL8 D R E S P L E Y D D K F V F P P Q S S L W G  
UniRef90\_U1VEN1 D V E P S L H F S H G V L  
UniRef90\_Q6D2H9 D R T N G L H Y N G S E I L P P D A L L W G  
UniRef90\_W0Z832 D V A V L E Q N A G S I A V G R I R P D A D A I E R L A A A P E R  
UniRef90\_UPI0003B38265 P L S R S P Y L D Q S G R F D L G A G P G I G V A L K  
UniRef90\_B3E4C1 D V T R D S L V P V G G A I A V R R P A L D A E L L A Q Y R A D P D R  
UniRef90\_UPI00034619E3  
UniRef90\_R6YGX2 R L L R P S H V L R N G R L W M S D A A G L G L N L D D K E L A R C R V  
UniRef90\_C6X1M6  
UniRef90\_M9RKA0  
UniRef90\_UPI0003731A4F  
UniRef90\_M7ZIY0  
UniRef90\_UPI00047DBFE4 S P A R G V E V T R G H L K M P A E L G T G A E L V S T A L P H F  
UniRef90\_Q7UMP9  
UniRef90\_E6MBX9  
UniRef90\_W9QZ33  
UniRef90\_UPI000262A43A D V T A S P L V P E C G S I P V R R P A L D A A L L E H H R A S P E W  
UniRef90\_UPI0002DB1DB5 D R E P G L V Y E G S T M T P P A A A L W G  
UniRef90\_E8JJV6 D V T A P L E V S S G G R I H V A T R S P D P K L I D H S P V D G D  
UniRef90\_K0YSZ8 D V V P Q R L L P V D G F L P V R D V E P D Q S L V D A R P V D A E  
UniRef90\_V8QYF1 R L F L N S L S C Q K G K I H L K A G Y F P Q L D K E A V D R L T I D K  
UniRef90\_F8EFF6 P T W H T D I R L T N G K M T I P D R A G L G I N Y D  
UniRef90\_UPI00047C7E7D D S A P Y L I T Y N L G R I W L  
UniRef90\_D1BVZ3 D V V A D P L L P V D G A L P V  
UniRef90\_C5CCQ7 D V V A P A W G P R A G A L P A P R A P A P D P G L L D R V R A A R Q A  
UniRef90\_UPI00036AB6BE D W P G G I V Y E R G T M Q P P  
UniRef90\_D7GCL8 D V T T S P L L P E G G A L V P  
UniRef90\_UPI000479043A L V G G D L L R P H G G V S A L P T G K G L G V A I R R G L L  
UniRef90\_A1ZMA5  
UniRef90\_R7WYM8 D L G A V H D G L A S A G R G D G L G V R I

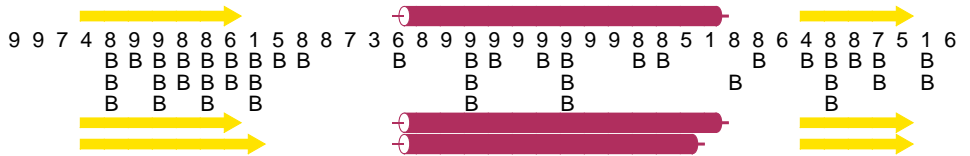
UniRef90\_UPI0003796B63  
UniRef90\_X0Z4E0  
UniRef90\_U2KNF2  
UniRef90\_D6EGB5  
UniRef90\_E0XT98  
UniRef90\_UPI0003B43EA2 W Q  
UniRef90\_UPI00029AE79C  
UniRef90\_M0PIU9  
UniRef90\_UPI000475D850  T A  
UniRef90\_UPI0001FFEFC6  
UniRef90\_M0DCV9  
UniRef90\_H5UU59  
UniRef90\_A0A038CLZ0  
UniRef90\_B5WQM5  
UniRef90\_F9DJ66  
UniRef90\_E1KRQ7  
UniRef90\_UPI0002488637  
UniRef90\_UPI0003651FAB  
UniRef90\_UPI00029AEB65  
UniRef90\_B8HDT3  
UniRef90\_UPI0003C7DF6A T R  
UniRef90\_UPI00035D5ECF  
UniRef90\_UPI000416816C  
UniRef90\_D9VRK1  
UniRef90\_D5ETM4  
UniRef90\_UPI00036A6F58  
UniRef90\_F3ZPG2  
UniRef90\_UPI0003B3ED8A  
UniRef90\_D7C5Y3  
UniRef90\_J9DCM9  
UniRef90\_UPI000467F67A  
UniRef90\_UPI0003FB9B87  
UniRef90\_Q0YUC8  
UniRef90\_D7W6S9  
UniRef90\_UPI000478A3B3  
UniRef90\_A1T3Q9  
UniRef90\_R7P974  
UniRef90\_C4UFL7  
UniRef90\_G2IRR3  
UniRef90\_UPI0004783C81  
UniRef90\_G3D5J2  
UniRef90\_UPI00026CA731  
UniRef90\_X5LBA1  
UniRef90\_UPI000369A5D9  
UniRef90\_UPI000381D93E  
UniRef90\_UPI0003606493  
UniRef90\_K4RG09  
UniRef90\_UPI0003FAFAF1  
UniRef90\_UPI0002F796BF  
UniRef90\_UPI00020021BD  
UniRef90\_R6CED9  
UniRef90\_R4YH47  
UniRef90\_A3U9X5  
UniRef90\_D8MSL7  
UniRef90\_W8F0Q5  
UniRef90\_L7KF13 H  
UniRef90\_A9D6I6  
UniRef90\_A8AGC3  
UniRef90\_UPI0004772EAA  
UniRef90\_X4REP1  
UniRef90\_F6F1Y9  
UniRef90\_L0MGH4  
UniRef90\_C6BRL8  
UniRef90\_U1VEN1  
UniRef90\_Q6D2H9  
UniRef90\_W0Z832  
UniRef90\_UPI0003B38265  
UniRef90\_B3E4C1  
UniRef90\_UPI00034619E3  
UniRef90\_R6YGX2  
UniRef90\_C6X1M6  
UniRef90\_M9RKA0  
UniRef90\_UPI0003731A4F  
UniRef90\_M7ZIY0  
UniRef90\_UPI00047DBFE4  
UniRef90\_Q7UMP9  
UniRef90\_E6MBX9  
UniRef90\_W9QZ33  
UniRef90\_UPI000262A43A W R  
UniRef90\_UPI0002DB1DB5  
UniRef90\_E8JJV6  
UniRef90\_K0YSZ8  
UniRef90\_V8QYF1  
UniRef90\_F8EFF6  
UniRef90\_UPI00047C7E7D  
UniRef90\_D1BVZ3  
UniRef90\_C5CCQ7 W W A  
UniRef90\_UPI00036AB6BE  
UniRef90\_D7GCL8  
UniRef90\_UPI000479043A  
UniRef90\_A1ZMA5  
UniRef90\_R7WYM8

UniRef90\_C0D8K7  
 UniRef90\_M0Y879  
 UniRef90\_F2ES83  
 UniRef90\_UPI00047043A0  
 UniRef90\_E2MUW7  
 UniRef90\_UPI00046F2E35  
 UniRef90\_I2AJIO  
 UniRef90\_UPI000378F998  
 UniRef90\_G7DPX4  
 UniRef90\_V4MAY8  
 UniRef90\_L3UP66  
 UniRef90\_C6CNT5  
 UniRef90\_I0W6G2  
 UniRef90\_J1HEB9  
 UniRef90\_MOKTS1  
 UniRef90\_UPI0003626F80  
 UniRef90\_UPI000367DF2D  
 UniRef90\_W0HV86  
 UniRef90\_A4AFX8  
 UniRef90\_S5TG91  
 UniRef90\_UPI000314B5DA  
 UniRef90\_L7KS65  
 UniRef90\_UPI0003746E10  
 UniRef90\_B3QJ26  
 UniRef90\_K6Z5T5  
 UniRef90\_UPI000477E151  
 UniRef90\_A0A017T6B2  
 UniRef90\_B9F0R7  
 UniRef90\_T0MQG8  
 UniRef90\_V6SF36  
 UniRef90\_Q5HNB3  
 UniRef90\_UPI0004760406  
 UniRef90\_V7FS16  
 UniRef90\_F8L8Z8  
 UniRef90\_T0YCG6  
 UniRef90\_UPI00042B5309  
 UniRef90\_K2LMP7  
 UniRef90\_U7GIA9  
 UniRef90\_UPI000348F8FC  
 UniRef90\_Q05X17  
 UniRef90\_I2N1G2  
 UniRef90\_UPI0002DE5D37  
 UniRef90\_UPI0003B771F1  
 UniRef90\_A0A017IGH2  
 UniRef90\_UPI00035CEDDA

```

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

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

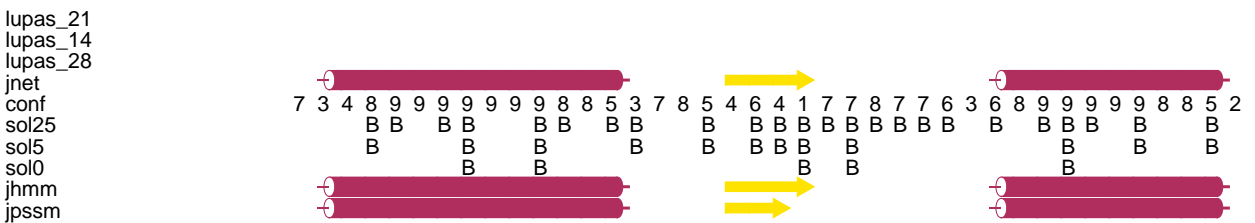




UniRef90\_C0D8K7  
UniRef90\_M0Y879  
UniRef90\_F2ES83  
UniRef90\_UPI00047043A0  
UniRef90\_E2MUW7  
UniRef90\_UPI00046F2E35  
UniRef90\_I2AJIO  
UniRef90\_UPI000378F998  
UniRef90\_G7DPX4  
UniRef90\_V4MAY8  
UniRef90\_L3UP66  
UniRef90\_C6CNT5  
UniRef90\_I0W6G2  
UniRef90\_J1HEB9  
UniRef90\_M0KTS1  
UniRef90\_UPI0003626F80  
UniRef90\_UPI000367DF2D  
UniRef90\_W0HV86  
UniRef90\_A4AFX8  
UniRef90\_S5TG91  
UniRef90\_UPI000314B5DA  
UniRef90\_L7KS65  
UniRef90\_UPI0003746E10  
UniRef90\_B3QJ26  
UniRef90\_K6Z5T5  
UniRef90\_UPI000477E151  
UniRef90\_A0A017T6B2  
UniRef90\_B9F0R7  
UniRef90\_T0MQG8  
UniRef90\_V6SF36  
UniRef90\_Q5HNB3  
UniRef90\_UPI0004760406  
UniRef90\_V7FS16  
UniRef90\_F8L8Z8  
UniRef90\_T0YCG6  
UniRef90\_UPI00042B5309  
UniRef90\_K2LMP7  
UniRef90\_U7GIA9  
UniRef90\_UPI000348F8FC  
UniRef90\_Q05X17  
UniRef90\_I2N1G2  
UniRef90\_UPI0002DE5D37  
UniRef90\_UPI0003B771F1  
UniRef90\_A0A017IGH2  
UniRef90\_UPI00035CEDDA

50 60 70 80

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













UniRef90\_C0D8K7  
UniRef90\_M0Y879  
UniRef90\_F2ES83  
UniRef90\_UPI00047043A0  
UniRef90\_E2MUW7  
UniRef90\_UPI00046F2E35 Y  
UniRef90\_I2AJI0  
UniRef90\_UPI000378F998  
UniRef90\_G7DPX4  
UniRef90\_V4MAY8  
UniRef90\_L3UP66  
UniRef90\_C6CNT5  
UniRef90\_I0W6G2  
UniRef90\_J1HEB9  
UniRef90\_M0KTS1  
UniRef90\_UPI0003626F80  
UniRef90\_UPI000367DF2D  
UniRef90\_W0HV86  
UniRef90\_A4AFX8  
UniRef90\_S5TG91  
UniRef90\_UPI000314B5DA  
UniRef90\_L7KS65  
UniRef90\_UPI0003746E10  
UniRef90\_B3QJ26  
UniRef90\_K6Z5T5  
UniRef90\_UPI000477E151  
UniRef90\_A0A017T6B2  
UniRef90\_B9F0R7  
UniRef90\_T0MQG8  
UniRef90\_V6SF36  
UniRef90\_Q5HNB3  
UniRef90\_UPI0004760406  
UniRef90\_V7FS16  
UniRef90\_F8L8Z8  
UniRef90\_T0YCG6  
UniRef90\_UPI00042B5309  
UniRef90\_K2LMP7  
UniRef90\_U7GIA9  
UniRef90\_UPI000348F8FC  
UniRef90\_Q05X17  
UniRef90\_I2N1G2  
UniRef90\_UPI0002DE5D37  
UniRef90\_UPI0003B771F1  
UniRef90\_A0A017IGH2  
UniRef90\_UPI00035CEDDA

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

8 9 9  
B