

1 10 20 30 40  
QUERY G M A S V L S A A T A T D Q G P V R E N N Q D A C L L A D G I L Y A V A D D G F G A  
UniRef90\_C8W8H6 G S N T F I S W G A R S S D V G L V R D H N N E D S F L L R T P L F A L A D D G M G G  
UniRef90\_A4F5S7 MT L V L H Y A A R S D D R G L V R S N N Q D S V Y A G N P R L L L A L A D D G M G G  
UniRef90\_C8XIT0 MT H Q L L A Y A A R T D R G L V R S N N Q D A V F A G N T L L L V A D D G M G G  
UniRef90\_F7UXT5 T F G S R T D V G C L R D H N E D S L V V A P P L F A V A D D G M G G  
UniRef90\_C4RII5 MT L T L R Y A A H S D R G L I R D G N Q D S V Y A G P R L L A V A D D G M G G  
UniRef90\_D3Q5N0 MT L T L R Y A A I S D R G L V R S N N E D S V Y A G P R L L A V A D D G M G G  
UniRef90\_B1ME75 MT L V L R Y A A R S D R G L V R S N N E D S V Y A G A R L L A L A D D G M G G  
UniRef90\_UPI0001FFE2D5 MT L V L R Y S A R S D R G L V R S N N E D S V Y A G P R L L A L A D D G M G G  
UniRef90\_MOQNY7 MT L V L R Y I A R S D R G L V R S N N E D S V Y A G A R L L A L A D D G M G G  
UniRef90\_UPI00040A7E2F MT I S L R Y A A R S D V G L V R A S N N Q D S G Y A G P H L V V L A D D G M G G  
UniRef90\_M1P2Y9 MT L R L H Y A V A S D R G L V R S N N E D S A Y A G P N L L A L A D D G M G G  
UniRef90\_UPI00047595CA MS L S L R F A A G S H E G M I R D H N E D S G Y A G P R L L A I A D D G M G G  
UniRef90\_UPI0003497981 MT L A L R Y A A Y S D V G C L R E G N E D S G Y A G Q H L L A V A D D G M G G  
UniRef90\_M5PD21 M K T A L K T D R G K I R S H N E D D A G I D R V L A V A D D G M G G  
UniRef90\_B8HRV8 T F A G L T D R G L L R S A N Q D A Y H I D G R F F I V A D D G M G G  
UniRef90\_UPI00047AADF7 I R Y S A R S D V G M L R E G N E D S G Y A G A H L L A V A D D G M G G  
UniRef90\_F9ED60 M T T T L R Y A A R S D I G L V R S N N Q D S G Y A G P H L A V L A D D G M G G  
UniRef90\_F8FC26 S M L R Y C A R S D I G R V R T V N E D R A V V G W S L A I V A D D G M G G  
UniRef90\_H5X0I3 A L T L R Y A A G S D V G Q R R S E N E D S A Y A T A H L L A V A D D G M G G  
UniRef90\_A8LWU3 MT L K L R S F G V S D R G L V R S N N Q D A L Y S G S W L V A V A D D G M G G  
UniRef90\_R6M082 M K A Y S K T D E G S K R T M N Q D S V Y C N Q N L F I V A D D G M G G  
UniRef90\_UPI0003611C85 M T L A L V S I A A S D R G L V R E N N E D C A F A G Q H V L A L A D D G M G G  
UniRef90\_X6DDA6 A L P I E S F G V S H K G C V R D H N E D S Y L I E D P G L W V V A D D G M G G  
UniRef90\_HOQMJ4 L R L R S Y G Y G T D R G L R R E N E D S Y I A S D P V F A V A D D G M G G  
UniRef90\_B7KER0 R S T G L T D P G L I R S V N Q D S Y Y I D P R F F I V A D D G M G G  
UniRef90\_UPI000307CAC6 M Q F R W T S A A C T D V G L V R T R N E D A C L P E R G L W A V A D D G M G G  
UniRef90\_R6IB29 M F V I S K T H V G M V R T V N E D A L L T P E L F A L A D D G M G G  
UniRef90\_D5NWB5 L K L N F A A A S D R G L V R G N N E D S A Y A G P Y L L A L A D D G M G G  
UniRef90\_UPI0003B5D695 L G F A L E T H P G L R R P K N E D A V G P W G I F V V A D D G M G G  
UniRef90\_C2CSP0 MT L S L K F T A I T D R G L V R Q N N E D S A H A G P H L L L A D D G M G G  
UniRef90\_K9VH99 S F A G K T D T G L V R S V N Q D S Y Y I D G R F F I V A D D G M G G  
UniRef90\_D9V7X7 F T L R Y S A G S D Q G R R R P N N E D S V Y A S G R L L V V A D D G M G G  
UniRef90\_UPI0003B57A7A M A L K L K F A A K S D V G R I R P K N E D S A Y A G E Y L A V L A D D G M G G  
UniRef90\_G1WIH8 G T T T Q L M W G A R S D V G C V R S H N E D S Y L V Q S P L F C A D D G M G G  
UniRef90\_F8LDB3 P F T F R S S G L T D T G Q V R E N N E D A V I P E S N V L V A D D G M G G  
UniRef90\_I5AV85 M R V F S A T D V G Q K R H M N Q D F I Y T S P N L F V V A D D G M G G  
UniRef90\_A0A011R4K2 Y T I E T C M A T D I G C V R T S N Q D S I A F R G V L A V V A D D G M G G  
UniRef90\_UPI0003129103 I N Y I G A S D P G L I R F S N Q D A Y Y T D P R F F V V A D D G M G G  
UniRef90\_UPI00047D8F1E L N F T G I S D P G L I R S N N Q D A Y Y I D P R F F V V A D D G M G G  
UniRef90\_D7E597 L N F T G C T D P G L I R S N N Q D A F Y I D G R F F I V A D D G M G G  
UniRef90\_G7GQ54 M T L V L R Y I A R S D R G L V R A N N E D S V Y A G A R L L A L A D D G M G G  
UniRef90\_UPI000255ED76 P F R L N Y G F G T H R G L R R Q L N E D S L V V T G N L F A V A D D G M G G  
UniRef90\_U2AL13 M K A F S I T D I G K K R Q L N Q D H L Y A S P N I F L V A D D G M G G  
UniRef90\_R7QUJ3 M K T F S I L D I G Q L R D T N Q D Y F Y T S P N L F I V A D D G M G G  
UniRef90\_UPI00047AEED2 M K A V F K T D Q G R V R Q N N E D N G G V G H F L A I V A D D G M G G  
UniRef90\_R5SFP7 M K A Y A K T D I G S K R S M N Q D Y M Y C N Q N L I V A D D G M G G  
UniRef90\_K9PYX4 H F T G L T D P G L R R S A N Q D S A Y P E G R F F I V A D D G M G G  
UniRef90\_B8H853 P L I M R Y A A R S D V G R I R S K N Q D S A Y A G R H L A V V A D D G M G G  
UniRef90\_G9PGF1 I S L H Y A A R S D V G L V R S N Q D S G Y A G P H L C V L A D D G M G G  
UniRef90\_T0JJE1 M L A F A Q S D I G M V R K T N E D S Y F L P H L F V V A D D G M G G  
UniRef90\_G9RXL9 M K L V A K T D I G S Q R S E N Q D S Y R D D A V W G A V A D D G M G G  
UniRef90\_B1XP18 M L M K C R F T G Q T D P G L V R S A N Q D S Y Y P D G R F F I V A D D G M G G  
UniRef90\_I0U292 A L T L R Y A A A S D V G R H R G G N E D S A Y A T V R L L A V A D D G M G G  
UniRef90\_R6RHX2 M K S Y S V T D V G Q K R Q V N Q D Y V Y A S P N L F V V A D D G M G G  
UniRef90\_T0RQG7 L T A A G K T D I G R K R K T N Q D A I F V G H N L F V V A D D G M G G  
UniRef90\_G5GS70 M L E V I S S A S D I G R V R T S N E D S Y G V S P A V Y V V A D D G M G G  
UniRef90\_F0PBQ6 M E I N V Q S D V G R K R N T N Q D Y A N V H I T F A V L A D D G M G G  
UniRef90\_UPI00037AC36F M S S L V G V T V R S D T G A V R H V N E D S A L A Q D P V F V V A D D G M G G  
UniRef90\_L7U7U5 R I E V A G S T H V I G M K R N H N E D N F L P D E F L F I V A D D G M G G  
UniRef90\_M1URA6 L K L N Y A A V S D R G L V R G N N E D S A Y A G P H L L A L A D D G M G G  
UniRef90\_UPI00016C3C83 V R Y A A L T D V G V K R S H N Q D A C A A Q P H V F V V A D D G M G G  
UniRef90\_UPI00034C0C59 F A G R T D K G L V R A N N Q D A Y Y I D P R F F I V A D D G M G G  
UniRef90\_UPI000418EA0E M K Y A L K T D T G K V R Q H N E D S G G V E H F L A I V A D D G M G G  
UniRef90\_W6SHB1 F G F V S D V G N V R T L N E D Y Y G Y D Y S I Y V V A D D G M G G  
UniRef90\_UPI000474D94E M K S I Y M T D K G R V R Q N N E D N G G V G Q R L L A I V A D D G M G G  
UniRef90\_A6GAV1 L K Y W A A T D V G R K R T H N E D N F L I D M R L F V V A D D G M G G  
UniRef90\_UPI000470BEBE M S V Y F K S D V G K R R P N N E D N G G Y N Q L L T V V A D D G M G G  
UniRef90\_D5BXP9 A L H W R S A A R T H K G C I R K I N E D S F L S D Y G I W A V A D D G M G G  
UniRef90\_UPI00036512B8 G C L R E G N E D S A Y A G P Y L L A V A D D G M G G  
UniRef90\_UPI0002E6385F M R I Y S A T D V G Q K R K M N Q D Y V F A S P N L F V V A D D G M G G  
UniRef90\_UPI000479682D D R G R K R S N E D A F G V E H G V Y A V A D D G M G G  
UniRef90\_UPI00047D2BC0 M L K T F S V T D I G K K R K L N Q D Y V F S S N V F I V A D D G M G G  
UniRef90\_K6BYX8 M K A V Y K T D Q G R V R Q N N E D S G G T G H R L A I V A D D G M G G  
UniRef90\_R6NNB7 M R L A A R T D I G L V R E N N Q D S Y T A G E A F A V V A D D G M G G  
UniRef90\_UPI000362CF17 L H F T G A T D K G L V R P N Q D A F F V D P R F F I V A D D G M G G  
UniRef90\_C5C5D4 M T V S F R F A A I T D L G T V R T N N E D T A L A T P H L L A L A D D G M G G  
UniRef90\_S1TA44 A L G M R Y A A A S D T G L V R E S N Q D T A Y A G S R L L A V A D D G F G D  
UniRef90\_UPI0002F767DF M K T Y G R S D Q G L V R S E N Q D D F L A G G F L L A V A D D G M G G  
UniRef90\_S0NXR1 M E I R Y K S D V G K R R N T N Q D Y A A V G Y T L A L L A D D G M G G  
UniRef90\_S7KHN7 T V E L E Y F G L S D I G M V R T R N E D F W Q V D S R V V A I A D D G M G G  
UniRef90\_S0JJ19 M Q I E Y Q S D V G R R R N T N Q D Y A S V G I K L A I L A D D G M G G  
UniRef90\_W7ZES1 S T T F L T D I G K I R S H N E D N G G I F G T L A V V A D D G M G G  
UniRef90\_E6SEM7 M A I A L R Y A A R S D L G P K S R N E D S G Y A G P N L L V L A D D G M G G  
UniRef90\_UPI0003B741E3 T L Y M I Y S T I V S D V G T V R S N N Q D S S F A G A H L V A I C A D D G M G G  
UniRef90\_UPI0002491323 M D Y A L T D V G R L R E N N Q D Y V N V G I I F G I V A D D G M G G  
UniRef90\_D1A0U3 F D Y F G L S D I G R V R A R N E D F W Q V N S Q V V A V A D D G V G G  
UniRef90\_R7AE22 M R A C S L T D I G K T R L M N Q D Y V Y Y S P N L F I L A D D G M G G  
UniRef90\_C5CRB5 L S W D F A A L T D V G R A R A H N E D D L H I D P G L A V L A D D G M G G  
UniRef90\_F4FCE8 M T L I L R S A L L N D I G L V R T N N E D S A L A G E R L V A V A D D G M G G  
UniRef90\_W7CVF0 M H A E F R T D R G K I R N H N E D N G G I G N P L V I V A D D G M G G  
UniRef90\_L1L2W9 L E L R Y A A L S D T G L V R A A N Q D T A Y A G T R V L A V A D D G F G P

QUERY  
UniRef90\_C8W8H6  
UniRef90\_A4F5S7  
UniRef90\_C8KIT0  
UniRef90\_F7UXT5  
UniRef90\_C4RII5  
UniRef90\_D3Q5N0  
UniRef90\_B1ME75  
UniRef90\_UPI0001FFE2D5  
UniRef90\_M0QNY7  
UniRef90\_UPI00040A7E2F  
UniRef90\_M1P2Y9  
UniRef90\_UPI00047595CA  
UniRef90\_UPI0003497981  
UniRef90\_M5PD21  
UniRef90\_B8HRV8  
UniRef90\_UPI00047AADF7  
UniRef90\_F9ED60  
UniRef90\_F8FC26  
UniRef90\_H5X0I3  
UniRef90\_A8LWU3  
UniRef90\_R6M082  
UniRef90\_UPI0003611C85  
UniRef90\_X6DDA6  
UniRef90\_H0QMJ4  
UniRef90\_B7KER0  
UniRef90\_UPI000307CAC6  
UniRef90\_R6IB29  
UniRef90\_D5NWB5  
UniRef90\_UPI0003B5D695  
UniRef90\_C2CSP0  
UniRef90\_K9VH99  
UniRef90\_D9V7X7  
UniRef90\_UPI0003B57A7A  
UniRef90\_G1WIH8  
UniRef90\_F8LDB3  
UniRef90\_I5AV85  
UniRef90\_A0A011R4K2  
UniRef90\_UPI0003129103  
UniRef90\_UPI00047D8F1E  
UniRef90\_D7E597  
UniRef90\_G7GQ54  
UniRef90\_UPI000255ED76  
UniRef90\_U2AL13  
UniRef90\_R7QUJ3  
UniRef90\_UPI00047AEED2  
UniRef90\_R5SFP7  
UniRef90\_K9PYX4  
UniRef90\_B8H853  
UniRef90\_G9PGF1  
UniRef90\_T0JE1  
UniRef90\_G9RXL9  
UniRef90\_B1XP18  
UniRef90\_I0UZ92  
UniRef90\_R6RHX2  
UniRef90\_T0RQG7  
UniRef90\_G5GS70  
UniRef90\_F0PBQ6  
UniRef90\_UPI00037AC36F  
UniRef90\_L7U7U5  
UniRef90\_M1URA6  
UniRef90\_UPI00016C3C83  
UniRef90\_UPI00034C0C59  
UniRef90\_UPI000418EA0E  
UniRef90\_W6SHB1  
UniRef90\_UPI000474D94E  
UniRef90\_A6GAV1  
UniRef90\_UPI000470BEBE  
UniRef90\_D5BXP9  
UniRef90\_UPI00036512B8  
UniRef90\_UPI0002E6385F  
UniRef90\_UPI000479682D  
UniRef90\_UPI00047D2BC0  
UniRef90\_K6BYX8  
UniRef90\_R6NNB7  
UniRef90\_UPI000362CF17  
UniRef90\_C5C5D4  
UniRef90\_S1TA44  
UniRef90\_UPI0002F767DF  
UniRef90\_S0NXR1  
UniRef90\_S7KHN7  
UniRef90\_S0JJ19  
UniRef90\_W7ZES1  
UniRef90\_E6SEM7  
UniRef90\_UPI0003B741E3  
UniRef90\_UPI0002491323  
UniRef90\_D1A0U3  
UniRef90\_R7AE22  
UniRef90\_C5CRB5  
UniRef90\_F4FCE8  
UniRef90\_W7CVP0  
UniRef90\_L1L2W9

50 60 70 80  
R G H H A S A T A V L K T L S A G F A A P D R D G L L E A V I Q Q A N Q R V F F L  
UniRef90\_C8W8H6 H G E V A S S I A V K V I A E Q A P S D A P D D D V R L L G A A V I E S A N Q R V F F L  
UniRef90\_A4F5S7 H G E V A S S K R V V V A A L A P L D D A R D P G D G D D A L R A K A T R E S G N R S I S A S E L V  
UniRef90\_C8KIT0 H G D M A S R L V V V I N A F V P L D A R D P G D G D D A L R A K A T R E S G N R S I S A S E L V  
UniRef90\_F7UXT5 H G E V A S S E I A V T V L A E R A P E H P P D G D E A L L A H A V I E E A N R Q R L R R D T  
UniRef90\_C4RII5 A G D V A S N I V I G A M A P L D D E V P G D D A A L R S A V V E T E A N S Q R L R R D T  
UniRef90\_D3Q5N0 M A A N I V I G V L A A L A D E D V P R G E L T A A L R S D S V E T E A N S Q R L R R D T  
UniRef90\_B1ME75 H G E V A S S Q L V I A A L A P L D D D D E P G L D A L L A R D A V H A G N G A I R A D H  
UniRef90\_UPI0001FFE2D5 H G E V A S S S L V I S A L A R L D D D D V P G D D D E L R D D A T H H T G N D A I S R A H  
UniRef90\_M0QNY7 H G E V A S S Q L V I S A L A R T L D D D D E P G G D L R D K A T H H T G N D A I S R A Q  
UniRef90\_UPI00040A7E2F G G D I A S S A V A I E H L A D S H Q A D G E L L L G L L R R E A V Q Q A H T E I L V I T L  
UniRef90\_M1P2Y9 H G E I A S S Q L M V T S H L A R L D D E D P G G D N D M L A G V A D D D A N R R L A K M M  
UniRef90\_UPI00047595CA A G E V A S S E V I S T V M V J A L D E D V P G S D S D S L A G T T V I E H A N D A I R R M  
UniRef90\_UPI0003497981 Y G E V A S S S I A I S T I R R R L D E D D V P R S D E L L Q N A V V Q A N A S L R S Q R  
UniRef90\_M5PD21 H G D V A S R M A V T S T A L R A H V W E A G Q T K S P E N L L Q Q A F L K A N Q V I V Q E  
UniRef90\_B8HRV8 H G Q E A S R L A T Q T I R A V W Y A G L S P E N L L Q Q A F L K A N Q V I V Q E  
UniRef90\_UPI00047AADF7 H V E I A S A A A T S E I R K L D K A M P A A E A L L E H T V K A A N E N L H R T L  
UniRef90\_F9ED60 P A G G D I A S A I T L E H L V P L D A D A H Q Q R L R D A V I Q Q S H S E L V A L  
UniRef90\_F8FC26 H Q D I A S S Q M A V E L I A Q V G I Q F L D A D A H Q Q R L R S A I E V A N A S K V F F  
UniRef90\_H5X0I3 H G E V A S S A L A I A M E A L D N R L A E T E E L A A G V A D A S E R L D R R A  
UniRef90\_A8LWU3 A G D L A S S M A I D S I A P L D D V E T P E D A A L L E E A V A I Q A G S A R G I R Q A E  
UniRef90\_R6M082 H K D Y A S R L C V E K I V Y A V E Q I T P V T L L Q E E A V I T E A N S K G V L R A E  
UniRef90\_UPI0003611C85 H G E V A S S R L I I E S V M V L E D I A P T E D A L Y D A M L E G N S Q I A G E  
UniRef90\_X6DDA6 H E E V A S S I V D R H L A T I G L A S S A P D R F E D R L S R A N S E I R N T  
UniRef90\_H0QMJ4 H E E V A S S G M C V R L A A Q L G L A T A G E R T A T A G V V R Q Q S L S S A D E  
UniRef90\_B7KER0 H G Q E A S S Q I A T K R I Q H W D S D T P S E E L L Q E A L Q Q A N K G I L J E D  
UniRef90\_UPI000307CAC6 H A S G A T V Q A L A A L A P Q E A K L D Q A I T E A A R A E T V I Q Q S V N K L V D E A M  
UniRef90\_R6IB29 A G E T A S R E A L Q V L A Q Q E A S K F K E L T A M R E T V I Q Q A N K H I R O M  
UniRef90\_D5NWB5 H G E V A S S Q L M I T H L M G L D K F P G D N D M L A T V S T E A N W S I S E H  
UniRef90\_UPI0003B5D695 H R E V A S R L A V E T L E G Y L K E A E P S P K A L L A E A F E R A N A S I Y Q E  
UniRef90\_C2CSP0 H G E V A S S K L M V E H L E H L E Q E P E D N D M L A A A F E R A N A S I Y A H  
UniRef90\_K9VH99 H G Q E A S S R I A T E A L E H W E G P E D S P L L L S K A F L T A N Q A I L T D  
UniRef90\_D9V7X7 H G E V A S S T A S T S V L A S L D A E H N L S N L S D G V R R A A G Q L A R N E L  
UniRef90\_UPI0003B57A7A H V I G D V A S A S T V L D L S V H L D H A D Q N A L P D E V R Q A A N L V L N E L  
UniRef90\_G1WIH8 H G E V A S S I A V E T I A K T A P H T A D P A L L G A A I E A A N A A V I E A  
UniRef90\_F8LDB3 H T R E I A A Q E A V H Y A S F I E P R N A K S L L A E A V I K E A N N R E V F R L  
UniRef90\_I5AV85 H N R Y A G V S V I V E S I R K D K N F N P V K I M R N I E A A N S R E V V Y N Q  
UniRef90\_A0A011R4K2 H N E V A S R V A V E S T I C R R Y F A S H D D D A I E Q A L L E A N A A I F R Y  
UniRef90\_UPI0003129103 H G E E A S R I A T Q E E I A N W D S S Q P S E K L L E E A L L Q A N E A I T R D  
UniRef90\_UPI00047D8F1E H G E Q A S R I A T E E M K N W D S S K S P Q L L L E E A L W R A N E A I L Q D D  
UniRef90\_D7E597 H G E E A S R I A T Q E E L A N W E S F Q S A T Q L L L E Q A L W S A N K A I L Q D D  
UniRef90\_G7GQ54 H E A Q L V I G A M R E T L A S D G V K Q V R D D L L D K L E Q A T R R R G N D A I A A Q  
UniRef90\_UPI000255ED76 H E E V A S R L I C V E T L A S G V K Q V R D D L T A E Q L H L M V J A S D D A  
UniRef90\_U2AL13 H K A Y A S S C A V E T I I R E S E S S D P E E I L T E A T I Q K A N E V I E R R  
UniRef90\_R7QUJ3 H N D Y A S R Y T V E I I V S V V G Q S K E T E D P I R E G I E Q A N T M L L A R  
UniRef90\_UPI00047AEED2 H G D I A S E M T V R H L K D L W E Q A E A E W L K T H I N Q V N K L L F E H  
UniRef90\_R5SFP7 H R D Y A S R L C V E T M V I Q K S A H K T P V S L F E E A V T A A N K A V F E E  
UniRef90\_K9PYX4 H G Q A S R L A A E S I R H W K S S E K S E E L K T A I K E A N N A J L V D  
UniRef90\_B8H853 H A G G D V A S A T V L D M I H L D R A D Y E G L A D E I Q T A N S L L S E L  
UniRef90\_G9PGF1 G D I A S A V A V S H L A P L D N D T H G A E D L R G A V A D T H A E L A A L  
UniRef90\_T0JE1 H V A I G A N T I Q E D Y I E R N L P P A E W Q S L Q A A I V Q A N T R I Y Q M  
UniRef90\_G9RXL9 A R R L A S T M A V E D A L Q Q A H T P Q A E G R A L L E S A I V E Q A N S R I Y E K  
UniRef90\_B1XP18 H G E E A S R I A V E T I Q Q W E S P E S S E D L L E T A L I K A N E A I L A D  
UniRef90\_I0UZ92 H G E V A S A E A V T A L E E L D T R L A D E N D L A E A I G V A A S R L D E R  
UniRef90\_R6RHX2 H N D F A S S F A V Q T L V R T I L E D E N Q N V I R H A V I E A N S R K V L E E  
UniRef90\_T0RQG7 H N D I A S A M A V K L I P E Y F D Q N P N S E N S K K A V L Y A N Q N I K N H  
UniRef90\_G5GS70 H G E V A S R M V V A A V H D M A N E G A S P M D A L K S A V L R A N A Q V L S A  
UniRef90\_F0PBQ6 H Q D V A S Q M A V N N L G E S W N S A S A Q W L I Q A I D E A N A K I Y E R  
UniRef90\_UPI00037AC36F H G D L A S R T A V E S L A R T L Q P R P T P D E V I R A I D E A N A A V R S L  
UniRef90\_L7U7U5 H S E I A S R I A V D E L G E F Y K M T S D N R L A T G L K L A N A S I F E A G  
UniRef90\_M1URA6 H G E V A S S Q L M V N H L R A L D V D P G D N D M L A V A N E A N S I A A G  
UniRef90\_UPI00016C3C83 H G E K A S A K A R D I P F L Y A K H A A L P A L R R A F Q E A N S G I H E I  
UniRef90\_UPI00034C0C59 H G Q E A S R I A K E T I C A Y A K M E T P E V L L K E A F R S A N R A I T E D  
UniRef90\_UPI000418EA0E H K D V A S S K S V L N E K W K D T D A E K W L L D A V E D T N Q R L F Q H  
UniRef90\_W6SHB1 H N E V A S K I A V E E T I K N F K V N K S I T E S I R K A N E K I Y L L  
UniRef90\_UPI000474D94E H R D V A S E M T V T T L Q S L W E Q S E A I E W L R T N I E V N K I F E H  
UniRef90\_A6GAV1 H S D V A S A M A V H T I R D P L W H M E V C M V L E H A V L M A C N E T I Y R K  
UniRef90\_UPI000470BEBE S G E V A S S Q L V V K S L K Q F N T I E E A K S F I I N I V K D V N H T I Y E R  
UniRef90\_D5BXP9 H G D V A S Q M V V S T L A E M P D Q E A L E A E V R R R L V E A N H R L A R E E  
UniRef90\_UPI00036512B8 H G E I A S A I A I S A L M P L D D D V P S T D A L R R H A V L E A A N T T L A Q R  
UniRef90\_UPI0002E6385F H N A H A V S V V E E I L R Q D R D F N P V K V I R H A I E S A N R E I T E Q  
UniRef90\_UPI000479682D A G E I A S S I A I D E L L R V I F S E R S P E S K L E E A V C A N N A V Y S R K  
UniRef90\_UPI00047D2BC0 H N D Y A S R F T V D T M V E I E K S F E Q S P V K K A I K T A N T K L R E K  
UniRef90\_K6BYX8 H R D V A S K M S V A H L Q E S W E Q D D A E K W L R T H I I E V N Q L V F D H  
UniRef90\_R6NNB7 A A E L A S R S A V K V I R E K M S D I A V K S L L I S A L E N A N K Y I Y E L  
UniRef90\_UPI000362CF17 H A G G Q E A S T I A T L E H W E G K E S S P N L L K D A L L K A N L A I L N D  
UniRef90\_C5C5D4 H G E V A S A V A M R A V L D L V R D P P A G D A V V G A A Q R A R G A L H A M  
UniRef90\_S1TA44 E G A P A S A A A V E S L R R L S G G V P A D G L L D A V E S E A E R A V F H D A  
UniRef90\_UPI0002F767DF G P A R A S H M A L E A M D R V G V N V I D V S R L V S A V S E A N R R I F F E  
UniRef90\_S0NXR1 H Q D V A S H D T V E E I G S K W Q A S D I S D W L I Q H I Q A E N E T I Y Q R  
UniRef90\_S7KHN7 R G E V A S Y E A V V R L T E M I N A Y H E K E A L Q M L I Q K E V N G L I Y E H  
UniRef90\_S0JJ19 H R D I A S Q M A V N L G N A W E Q D L T D W F I Q A I S Q E E N A L I Y Q R  
UniRef90\_W7ZES1 H S D V A S R I A T E V L E A E W Q A V E A E T F L Q N A F K H V N D A I Y H Y  
UniRef90\_E6SEM7 H G D V A S S M I V G E L A P L D D E D I G A D Q L E R S L R S A N A R L T R A K  
UniRef90\_UPI0003B741E3 H G D T A S T I A I R S L A H L I Q D S P N G D V M E A S A M A H D A I V I G K  
UniRef90\_UPI0002491323 H R D V A S D M A I S H L G H T F E E D D L R E W L K E I S K E N D R I I S V  
UniRef90\_D1A0U3 R G D L A S Q E A V T S L M M G Y E D D D Q Y K E T L K K A L L Q E V N G V V Y E H  
UniRef90\_R7AE22 H K D M A S R Y T V E T M V K L V S D S D E N T P L N S A L I Q Q V N T D I I R K  
UniRef90\_C5CRB5 Y K E V A S A M A V S L V H A S F A R W F A R R A L Q A A T D E A N S A I L E A  
UniRef90\_F4FCE8 A G E V A S E I V D E L I P T A P D A A D A L R A V V S T A N Q R I H A A  
UniRef90\_W7CVP0 H R D V A S E M A V R L L S D M W Q G V S D M K W F R E A I Q A V N E E L V A H  
UniRef90\_L1L2W9 A G A P A S T A A V E A L K T L D R E T L P A G G V L N L L E D A V R G A T T A

QUERY UniRef90\_C8W8H6 UniRef90\_A4F5S7 UniRef90\_C8XIT0 UniRef90\_F7UXT5 UniRef90\_C4RII5 UniRef90\_D3Q5N0 UniRef90\_B1ME75 UniRef90\_UPI0001FFE2D5 UniRef90\_MOQNY7 UniRef90\_UPI00040A7E2F UniRef90\_M1P2Y9 UniRef90\_UPI00047595CA UniRef90\_UPI0003497981 UniRef90\_M5PD21 UniRef90\_B8HRV8 UniRef90\_UPI00047AADF7 UniRef90\_F9ED60 UniRef90\_F8FC26 UniRef90\_H5X0I3 UniRef90\_A8LWU3 UniRef90\_R6M082 UniRef90\_UPI0003611C85 UniRef90\_X6DDA6 UniRef90\_HOQMJ4 UniRef90\_B7KER0 UniRef90\_UPI000307CAC6 UniRef90\_R6IB29 UniRef90\_D5NWB5 UniRef90\_UPI0003B5D695 UniRef90\_C2CSP0 UniRef90\_K9VH99 UniRef90\_D9V7X7 UniRef90\_UPI0003B57A7A UniRef90\_G1WIH8 UniRef90\_F8LDB3 UniRef90\_I5AV85 UniRef90\_A0A011R4K2 UniRef90\_UPI0003129103 UniRef90\_UPI00047D8F1E UniRef90\_D7E597 UniRef90\_G7GQ54 UniRef90\_UPI000255ED76 UniRef90\_U2AL13 UniRef90\_R7QUJ3 UniRef90\_UPI00047AEED2 UniRef90\_R5SFP7 UniRef90\_K9PYX4 UniRef90\_B8H853 UniRef90\_G9PGF1 UniRef90\_T0IJE1 UniRef90\_G9RXL9 UniRef90\_B1XP18 UniRef90\_I0UZ92 UniRef90\_R6RHX2 UniRef90\_T0RQG7 UniRef90\_G5GS70 UniRef90\_F0PBQ6 UniRef90\_UPI00037AC36F UniRef90\_L7U7U5 UniRef90\_M1URA6 UniRef90\_UPI00016C3C83 UniRef90\_UPI00034C0C59 UniRef90\_UPI000418EA0E UniRef90\_W6SHB1 UniRef90\_UPI000474D94E UniRef90\_A6GAV1 UniRef90\_UPI000470BEBE UniRef90\_D5BXP9 UniRef90\_UPI00036512B8 UniRef90\_UPI0002E6385F UniRef90\_UPI000479682D UniRef90\_UPI00047D2BC0 UniRef90\_K6BYX8 UniRef90\_R6NNB7 UniRef90\_UPI000362CF17 UniRef90\_C5C5D4 UniRef90\_S1TA44 UniRef90\_UPI0002F767DF UniRef90\_S0NXR1 UniRef90\_S7KHN7 UniRef90\_S0JJ19 UniRef90\_W7ZES1 UniRef90\_E6SEM7 UniRef90\_UPI0003B741E3 UniRef90\_UPI0002491323 UniRef90\_D1A0U3 UniRef90\_R7AE22 UniRef90\_C5CRB5 UniRef90\_F4FCE8 UniRef90\_W7CVF0 UniRef90\_L1L2W9

90 100 110 120

L G D E P T V S G T T L T A V A V F E P G Q G G P L V V N I G D D S P L Y R L R D  
P A K G V G K P G M G S T A S A V L I E G Q G Q M A V A H V G D D S R L Y R L R H H  
V A G D N P E L D D G M G T T L T A V L F A G S R K L G L V A H H I G G D D S R R A Y L L Y R R D  
V H D N P E L D D G M G T T V T A L L F D G E S R L A M A H H V G G D D S R R A Y L L Y R R D  
V Y E G R G R E E G M G T T M T A A M L E E G E R L V I A Q V V G D D S R R A Y L L R N Q  
V D A N P Q H L E E G M G T T L T A T L F S G T K L G M V H I I G G D D S R R A Y R L R N Q  
V V E E H P Q L M E G M G T T L T A F L F A G S S R L G M V H I I G G D D S R R A Y L M R R D  
V R A E P E L D E G M G T T L T A F L F A G K S R I G L C H H I G G D D S R C Y Q L R R D  
V A D A P E L D E G M G T T L T A I L F A G S R R I G L C H H I G G D D S R R A Y L L R R D  
V E Q A P E L D E G M G T T L T A I L F A G S R I G L C H H I G G D D S R R A Y L L R R D  
S A S N P E L S G L G T T C I A I M R S G N K L A M I H H I G G D D S R R A Y L L R R D  
V R E R P E T D G M G T T L T A L M F N G R D R L G L V H H V G G D D S R R A Y L L R R D  
V E E D P R L E G M G T T L T A L L W T G Q E R V A L L H I I G G D D S R R A Y L L R R D  
I M E E P Q L E N M G T T L T A M L W A K E G R V A L L H I I G G D D S R R A Y L L R R D  
S R A H E E C Q D M G T T V V C A C A L Y T G K T L T V A H H I G G D D S R C Y Q L R R D  
Q L Q H P E R A D M G T T A V A V I L L E D G R T W C A H H V G G D D S R R A Y R L R R D  
V E S D P A L Q G M G T T L T A M L W A G N Q I A L V H H I G G D D S R R A Y L L R R D  
S A G N P D L A G L G T T C I A L M R S G N K L A M I H H I G G D D S R R A Y L L R R D  
A S Q R E H Y H G M G T T V V A A L A S P D R A V I A H H I G G D D S R R A Y R L R R D  
A A E D P A L T G M G T T L T A M L W A Y P S F A L A H H V G G D D S R R A Y L F R R D  
V S E D P E R Q G M G T T L T A L L F A R T G C L A L A H H V G G D D S R R A Y L F R R D  
A K A N A E Y E G M G T T M V A C T L Q K D T L Y I A N I G G D D S R R A Y I I R R D  
I S T N P T T K G M G T T L T S V L F D G H G L T L L H V G G D D S R R A Y L L R R D  
A R S R G T T G S T F A A L L A M D G R F A G L W A G D D S R T Y L V R N Q  
S I R S A T G S R A G T T L S G V V V M G V P Y W L V M N I G G D D S R T Y R L S Q  
Q S D H P E R A D M G T T A V V V A F R K D E S W Y A H I G G D D S R R A Y L F R R D  
Q R M K V R V L G S T V V T L V A C E R R C G C L W A G D D S R R A Y L Y R R D  
A Q S E V Q Y H D M G T T L T S A V V L A A D G K A Y A V N V A G D D S R R A Y T W S A  
I K K N P E T D G M G T T L T S M M F A N G S Q F A V C H A H V G G D D S R R A Y L L R R D  
A R P E N R G M G T T A T C L L L D L P Y A L I A H H V G G D D S R R A Y L L R R D  
V E Q H P E T E G M G T T L T A M M F N G S E F G V C H H V G G D D S R R A Y R L R R D  
Q L D H P E R A D M G T T A V V L M F R D E T G R P W C A N I G G D D S R R A Y R L R R D  
A E E T P A T H G M G T T L T A L L F D G S H F A A A H H V G G D D S R R A Y R L R R D  
V G A N P K L S G M G T T V T S L L L S G T S T L H M A H H V G G D D S R R A Y R L R R D  
A L N G L G K P G M G C T A T A A Y I E G N T I A I A H H V G G D D S R R A Y L L R R D  
A K A D R E L M G M G T T L C C G C T I F V E D F Y F F A H H V G G D D S R R A Y R L R R D  
S R S D P S M A G M G T T M V V C T I V G G Y A Y L A N V G G D D S R R A Y L L R R D  
A E A D R A L S G M G T T A T V L A L I G R R M C F G H H V G G D D S R R A Y R C S D  
Q Q S H P E R A D M G T T A V V I L L R D P E S P L C A H H V G G D D S R R A Y R W R K E  
U P I 0 0 0 4 7 D 8 F 1 E Q S G E P P W C A H H V G G D D S R R A Y R L R R D  
Q E N H P E R G D M G T T A V V V F R S S Q E Q P L C A H H I G G D D S R R A Y R F R R D  
V S R S P E L D G M G T T L T A I L F A G S R I G L C H H V G G D D S R R A Y L Y R R D  
R R V A D S R A G T T L A G A I V R E R Q G L Y W M V F N G G D D S R R A Y R M S E  
A G E D E R L S G M G T T V V A A C W D G K E L H T A N V G G D D S R R A Y V V N G D  
A N E D I T R K G M G T T V V V L A V C D N R L V V A N V G G D D S R R A Y I V N D  
S K S H P E C E G M G T T I E A L I A T D N R F T S V A H H V G G D D S R S Y I L R R D  
S A S H V E Y E G M G T T V V A C T L E E N T L Y I A N I G G D D S R R A Y L I R R D  
Q V I E N P E R Q D M G T T A V I V A F R Q K E Q V W R A H H I G G D D S R R A Y R L R R D  
V H I N P K L A G M G T T V T A L L L A J A G K L H F A H H I G G D D S R R A Y R L R R D  
S A A D P S L S G L G T T C I A V M R S G N K L A M V H H I G G D D S R R A Y Q L R R D  
S Q A K I E C Q G M G T T V T A V Y L D N E E L Y W G H H V G G D D S R R A Y L L R R D  
A R G T P S L S G M G T T V V C A L V R G G L A Q Y V H H V G G D D S R R A Y L F R R D  
Q L D N P A R Q D M G T T A V M V L F R G D H V W R A H H V G G D D S R R A Y S F R R D  
V A D S P A L T G M G T T V T A M L W D C P R F A L G H I G G D D S R C Y Q L R R D  
S K S H A E M A G M G T T M V L V T I D D T Y A Y V A N V G G D D S R R A Y L I E R D  
A L T D P N L Q G M G T T V N M L K F K G D T L Y I G N V G G D D S R T Y L I N K  
A A G N S L Y E G M G T T A T V L H I D E S G T A Y A H H V G G D D S R R A Y L L R R D  
G Q S K P E Y L G M G T T V V G A I L L P D S G V L A N V G G D D S R R A Y L V R R D  
S G A D E S G A A A G L V R V R V P E L A A E Q W M V V N V G G D D S R V Y A W D G  
A S S E S K Y K G M G T T I V S V H F A S D D A Y V G H H V G G D D S R R A Y V F R R D  
I D E D P A R D G M G T T L T A F M F N G T D D L A L C H H V G G D D S R R A Y V M R R D  
G Q Q N P E F R G L G T T S T A L V L R P E G A W I G H V G G D D S R R A Y R L R R D  
Q T V H P E N A D M G T T A Y Q P E D S A P P E L W C A N L G G D D S R R A Y R F R R D  
A K E N K E C D G M G T T L V A A I C T P A S V S L L H H I G G D D S R C Y V L R R D  
S V I E D K N L S G M G T T I T V A V I E N N I E I G H H I G G D D S S C F V V D G  
A R V N S E C D G M G T T I E A V I V T E L R F T T V A H H V G G D D S R S Y I L R R D  
G V Q E P E K K G M G T T V V A L L I A G D R G Y I A Y V G G D D S R R A Y L L R R D  
A Q T E L E N E R M G T T M V V A I I G Q Q A L I L N V G G D D S R R A Y L Y R R D  
A A A R Q E R L G S T V V V L L G Y Q Q R C L Y L W A G D D S R R A Y L F R R D  
V R E R P R L E N M G T T L T A M L W S G A R V A M I H H I G G D D S R R A Y L L R R D  
A Q K D E K L K G M G T T M V V S T I V I G Q Y A Y V A N V G G D D S R R A Y V A N R R D  
A Q R N P R L S G M G T T L V A L V I E D T H V W V A N V G G D D S R C Y R L R R D  
A S E D P A L F G M G T T V V A C T V L G K Y L Q V A N V G G D D S R R A Y V I T R D  
A N N H E E C D G M G T T I E A V I A T N Q F A T I A H H V G G D D S R C Y I F N D  
S L T K E E Y E G M G T T A V A A I V S G A R F V Y L A H H V G G D D S R R A Y M T C G  
Q I A H P E R S D M G T T A V V I L F D D S A R P W C A H H V G G D D S R R A Y Q T C G  
S R A D P E L E G M G T T L V V L A A G G D G L T L A H H I G G D D S R R A Y R M R R D  
V G S G P A R Q A G T T L T A M L W T G S R L G L V H H I G G D D S R R A Y L L R R D  
Q Q G D T R L E Q M G T T L T A A V L F P D R L L S H H V G G D D S R R A Y R I R R D  
G Q A T P E L S G M G T T L E A V V I L D D Q F T L A H H V G G D D S R T Y L L R R D  
S L V E A H L R G M G T T L S F M H F L Q N K A W L F H H I G G D D S R R A Y R L R R D  
G Q E Q P E Y N G M G T T L V A A A L S E E R F T I A H H V G G D D S R R A Y L I R R D  
A K E H P E C E G M G T T A I A L L C T Q E Y T T V A H H V G G D D S R R A Y V F D D  
M R E N S D L A G M G T T I V M L R T G N K I A M A H H I G G D D S R R A Y M L R R D  
A K R E R K L A G M G T T I T A I T L V A D Y W V L A H H I G G D D S R R A Y L L R R D  
S N Q F D L N G M G T T M V G V F F T K D K M V V N V G G D D S R C Y V Y R R D  
G Q M E E H L Q G M G T T L S F I Q F R K D R A W L F H H V G G D D S R R A Y R I R R D  
A Q E S E D Y N G M G T T L V S V C I R D S I L H V A N V G G D D S R R A Y I L R R D  
G L A N A E L Q G M G T T L V L A A F R P Q R V L V G H H I G G D D S R C Y R L R R D  
I V A Q D P A R D G M G T T L T A A L L A G N T L V L A Q V G G D D S R C Y L L R R D  
S K A D P S L Q G M G T T L V A A V F S N S Q I V A N V G G D D S R R A Y L L R R D  
V R E I A G G E D G T T L T A M L W T G S Q L A L V H H I G G D D S R R A Y L L R R D



QUERY UniRef90\_C8W8H6 UniRef90\_A4F5S7 UniRef90\_C8XIT0 UniRef90\_F7UXT5 UniRef90\_C4RII5 UniRef90\_D3Q5N0 UniRef90\_B1ME75 UniRef90\_UPI0001FFE2D5 UniRef90\_MOQNY7 UniRef90\_UPI00040A7E2F UniRef90\_M1P2Y9 UniRef90\_UPI00047595CA UniRef90\_UPI0003497981 UniRef90\_M5PD21 UniRef90\_B8HRV8 UniRef90\_UPI00047AADF7 UniRef90\_F9ED60 UniRef90\_F8FC26 UniRef90\_H5X0I3 UniRef90\_A8LWU3 UniRef90\_R6M082 UniRef90\_UPI0003611C85 UniRef90\_X6DDA6 UniRef90\_H0QMJ4 UniRef90\_B7KER0 UniRef90\_UPI000307CAC6 UniRef90\_R6IB29 UniRef90\_D5NWB5 UniRef90\_UPI0003B5D695 UniRef90\_C2CSP0 UniRef90\_K9VH99 UniRef90\_D9V7X7 UniRef90\_UPI0003B57A7A UniRef90\_G1WIH8 UniRef90\_F8LDB3 UniRef90\_I5AV85 UniRef90\_A0A011R4K2 UniRef90\_UPI0003129103 UniRef90\_UPI00047D8F1E UniRef90\_D7E597 UniRef90\_G7GQ54 UniRef90\_UPI000255ED76 UniRef90\_U2AL13 UniRef90\_R7QUJ3 UniRef90\_UPI00047AEED2 UniRef90\_R5SFP7 UniRef90\_K9PYX3 UniRef90\_B8H853 UniRef90\_G9PGF1 UniRef90\_T0JE1 UniRef90\_G9RXL9 UniRef90\_B1XP18 UniRef90\_I0UZ92 UniRef90\_R6RHX2 UniRef90\_T0RQG7 UniRef90\_G5GS70 UniRef90\_F0PBQ6 UniRef90\_UPI00037AC36F UniRef90\_L7U7U5 UniRef90\_M1URA6 UniRef90\_UPI00016C3C83 UniRef90\_UPI00034C0C59 UniRef90\_UPI000418EA0E UniRef90\_W6SHB1 UniRef90\_UPI000474D94E UniRef90\_A6GAV1 UniRef90\_UPI000470BEBE UniRef90\_D5BXP9 UniRef90\_UPI00036512B8 UniRef90\_UPI0002E6385F UniRef90\_UPI000479682D UniRef90\_UPI00047D2BC0 UniRef90\_K6BYX8 UniRef90\_R6NNB7 UniRef90\_UPI000362CF17 UniRef90\_C5C5D4 UniRef90\_S1TA44 UniRef90\_UPI0002F767DF UniRef90\_S0NXR1 UniRef90\_S7KHN7 UniRef90\_S0JJ19 UniRef90\_W7ZES1 UniRef90\_E6SEM7 UniRef90\_UPI0003B741E3 UniRef90\_UPI0002491323 UniRef90\_D1A0U3 UniRef90\_R7AE22 UniRef90\_C5CRB5 UniRef90\_F4FCE8 UniRef90\_W7CVF0 UniRef90\_L1L2W9

130 140 150 160

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

QUERY  
UniRef90\_C8W8H6  
UniRef90\_A4F5S7  
UniRef90\_C8XIT0  
UniRef90\_F7UXT5  
UniRef90\_C4RII5  
UniRef90\_D3Q5N0  
UniRef90\_B1ME75  
UniRef90\_UPI0001FFE2D5  
UniRef90\_MQNY7  
UniRef90\_UPI00040A7E2F  
UniRef90\_M1P2Y9  
UniRef90\_UPI00047595CA  
UniRef90\_UPI0003497981  
UniRef90\_M5PD21  
UniRef90\_B8HRV8  
UniRef90\_UPI00047AADF7  
UniRef90\_F9ED60  
UniRef90\_F8FC26  
UniRef90\_H5X0I3  
UniRef90\_A8LWU3  
UniRef90\_R6M082  
UniRef90\_UPI0003611C85  
UniRef90\_X6DDA6  
UniRef90\_HOQMJ4  
UniRef90\_B7KER0  
UniRef90\_UPI000307CAC6  
UniRef90\_R6IB29  
UniRef90\_D5NWB5  
UniRef90\_UPI0003B5D695  
UniRef90\_C2CSP0  
UniRef90\_K9VH99  
UniRef90\_D9V7X7  
UniRef90\_UPI0003B57A7A  
UniRef90\_G1WIH8  
UniRef90\_F8LDB3  
UniRef90\_I5AV85  
UniRef90\_A0A011R4K2  
UniRef90\_UPI0003129103  
UniRef90\_UPI00047D8F1E  
UniRef90\_D7E597  
UniRef90\_G7GQ54  
UniRef90\_UPI000255ED76  
UniRef90\_U2AL13  
UniRef90\_R7QUJ3  
UniRef90\_UPI00047AEED2  
UniRef90\_R5SFP7  
UniRef90\_K9PYX4  
UniRef90\_B8H853  
UniRef90\_G9PGF1  
UniRef90\_T0JE1  
UniRef90\_G9RXL9  
UniRef90\_B1XP18  
UniRef90\_I0UZ92  
UniRef90\_R6RHX2  
UniRef90\_T0RQG7  
UniRef90\_G5GS70  
UniRef90\_F0PBQ6  
UniRef90\_UPI00037AC36F  
UniRef90\_L7U7U5  
UniRef90\_M1URA6  
UniRef90\_UPI00016C3C83  
UniRef90\_UPI00034C0C59  
UniRef90\_UPI000418EA0E  
UniRef90\_W6SHB1  
UniRef90\_UPI000474D94E  
UniRef90\_A6GAV1  
UniRef90\_UPI000470BEBE  
UniRef90\_D5BXP9  
UniRef90\_UPI00036512B8  
UniRef90\_UPI0002E6385F  
UniRef90\_UPI000479682D  
UniRef90\_UPI00047D2BC0  
UniRef90\_K6BYX8  
UniRef90\_R6NNB7  
UniRef90\_UPI000362CF17  
UniRef90\_C5C5D4  
UniRef90\_S1TA44  
UniRef90\_UPI0002F767DF  
UniRef90\_S0NXR1  
UniRef90\_S7KHN7  
UniRef90\_S0JJ19  
UniRef90\_W7ZES1  
UniRef90\_E6SEM7  
UniRef90\_UPI0003B741E3  
UniRef90\_UPI0002491323  
UniRef90\_D1A0U3  
UniRef90\_R7AE22  
UniRef90\_C5CRB5  
UniRef90\_F4FCE8  
UniRef90\_W7CVF0  
UniRef90\_L1L2W9

170 180 190 200  
G S D P H I G P D V F G I D C G P G D D R L L L S S D D G L L F A A A D E A L I V D A  
UniRef90\_C8W8H6 G S D P D M Y A D H F S L E V S D G D R L L L C C S S D D G L L F A A A D E A L I V D A  
UniRef90\_A4F5S7 N T G H E V D P S A L T V R E A R S V G D D R Y L L C C S S D D G L L F A A A D E A L I V D A  
UniRef90\_C8XIT0 T N G T E V D P S A L T V R E A R S V G D D R Y L L C C S S D D G L L F A A A D E A L I V D A  
UniRef90\_F7UXT5 G S D A N L Q P D Y E I N V S E T G D R L L L V C C S S D D G L L S T G M L R S A D E A I A E R L  
UniRef90\_C4RII5 L D G R D I D P P E Y S V R L V L P G D D R Y L L C C S S D D G L L S G V V S S A D D T I A E D T  
UniRef90\_D3Q5N0 G S N E V I E P T F A T L R E A V L A G D D R Y L L C C S S D D G L L S G V V S S A D D T I A E D T  
UniRef90\_B1ME75 T G A P V E P T L I M R E A H A G D D R Y L L C C S S D D G L L S D P V V S S H E T T I A E A  
UniRef90\_UPI0001FFE2D5 I T G Q T V D P S L S T I R E A R A G D D R Y L L C C S S D D G L L S D P V V S S D E E T L A Q D T  
UniRef90\_MQNY7 L T G T E V D P T L S T I R E A R A G D D R Y L L C C S S D D G L L S D P V V S S D E E T L A E E V  
UniRef90\_UPI00040A7E2F G D A E D V Q L D E S I R E A V P G D D R W L L C C S S D D G L L S D P V V S S T G E T T L A E E V  
UniRef90\_M1P2Y9 T G R P V D P T L A S T L D A R A G D D R L L L C C S S D D G L L S D P V V S S T G E T T L A E E A  
UniRef90\_UPI00047595CA G S G D Q V E P D L S I R E A R A G D D R Y L L C C S S D D G L L S S V V S S H E T T M E E A  
UniRef90\_UPI0003497981 D G K S P V D P D V S I N E A E V G D D R Y L L C C S S D D G L L S G V V S S Q K E T I R E T M  
UniRef90\_M5PD21 G T D P E V A V I E H S V E I E P Q G D R K V L L C C S S D D G L L T E N K V D D D K L A K E M  
UniRef90\_B8HRV8 G R E D L Q R L E V A Q V F D V Q G D R L L L C C S S D D G L L T E E L T P L A I A E Y  
UniRef90\_UPI00047AADF7 D G R G E T D P D L S L R E A K A G D D R Y L L C C S S D D G L L S T V V T T A G E T I A F Q V  
UniRef90\_F9ED60 G D A E D V Q L D E S I R E A V P G D D R W L L C C S S D D G L L S G P V V D G E R I A E V  
UniRef90\_F8FC26 G T E P T L E V D V Q E V S V K G D R L L L C C S S D D G L L C G L V D A D E R I L E A  
UniRef90\_H5X0I3 M A G S P G E P D L S L H T A R P G D K Y L L C C S S D D G L L T D V A T A E D L S E V  
UniRef90\_A8LWU3 L Q G E E V S P A Y A T M A P W A G D D R W L L C C S S D D G L L T S N M V R E D D T L S E V I  
UniRef90\_R6M082 G I D E V V H A D Y F E L D V K P G D D K I L L M C C S S D D G L L T S N M V R E D D T L S E V I  
UniRef90\_UPI0003611C85 T G D P V E P T I Q Q L N I F E G D R L L L C C S S D D G L L S D P V V S S F D D T I Q T C  
UniRef90\_X6DDA6 G V S D E L E D F Q Q G E L M E P G D V F V L S T D D G L L T A H V D D A G E I K A A  
UniRef90\_HOQMJ4 G A G D E T E A D Y W L L P I E E G D R M M V C C S S D D G L L N G E E L T D D G Q M L E I  
UniRef90\_B7KER0 G R K D L R Q V D V Y P L E V Q T G D W L L L C C S S D D G L L T E E V L S D D D I A T E I  
UniRef90\_UPI000307CAC6 G A A P K L L D L T L D I L G T A D T K L L L C C S S D D G L L S D N E V D D D D I A T E I  
UniRef90\_R6IB29 G A E D E L E V D C F T L E L T A D T K L L L C C S S D D G L L S D N E V D D D D I A T E I  
UniRef90\_D5NWB5 N G R D V Q P T L F L F D A Q P G D R I L L L C C S S D D G L L S D P V L T A S T I S E S A  
UniRef90\_UPI0003B5D695 G S F P Q A R V D L L G L K L T P E D T F L L C C S S D D G L L S D G V L T A S T I R E L V  
UniRef90\_C2CSP0 T G R P V D P T L F M L D A K V P G D R L L L C C S S D D G L L S D P V L T A S T I L E L A  
UniRef90\_K9VH99 G R D D L R E I D I L P V D V Q P G D R L L L C C S S D D G L L T E E L S A S P I A S P  
UniRef90\_D9V7X7 L S T G S A E P D V Q W E F T H P G D D R Y L L C C S S D D G L L T A G A V P A I Q E V I  
UniRef90\_UPI0003B57A7A D S D A S P E L D V V Q I D A E P G E R W M L C C S S D D G L L T D A V P I E E Q I  
UniRef90\_G1WIH8 G S D P A M Y A D H F S L N I E E G D R L L L C C S S D D G L L S S M I P D G E I E N I  
UniRef90\_F8LDB3 G T E P Q V E P S L D S C D I R P G D V M M C C S S D D G L L S D L L S G N K N E K I  
UniRef90\_I5AV85 G T S E T I K I D F F D M K P E T G D Q I L L M C C S S D D G L L S N M V L G A D D R I Y E I  
UniRef90\_A0A011R4K2 G T H P D L R V T A E G G D P Q L G D T F V L C C S S D D G L L Y D S V E A R E I A E V  
UniRef90\_UPI0003129103 G R E D L Q G V D V I Q P L S L K P G D R L L L C C S S D D G L L T E E L V D E K I A S Y  
UniRef90\_UPI00047D8F1E G R E D L N Q V D V Q L D V K I G D R L L L C C S S D D G L L T E E L V D E K I A S Y  
UniRef90\_D7E597 G R E D L H H V D L Q P L D V K V G D R L L L C C S S D D G L L T E E L V D P K I A S R C  
UniRef90\_G7GQ54 L T G Q P V E P T L T V R E A R P G D D R Y L L C C S S D D G L L S D V V T D S E T L A D T  
UniRef90\_UPI000255ED76 T G E A S E A D F W M L P V H D G D R L M L C C S S D D G L L S D V V T D S E T L A D T  
UniRef90\_U2AL13 G L E R Y L R V D C F R R T L E P G N I V L L C C S S D D G L L T D M L E D D A E I Y R I  
UniRef90\_R7QUJ3 G V G E E V A I D F F E E V F H G D F V L M C C S S D D G L L T N M V E D D D E I R N I  
UniRef90\_UPI00047AEED2 G T E Q E I K I D F F E E I M F E E G D F L L L C C S S D D G L L T N M V K E D Q E M Q I  
UniRef90\_R5SFP7 G I N E E V Q A D F F E I D V E Q G D V I M L C C S S D D G L L S N M I E D E D M E Y I  
UniRef90\_K9PYX4 G R K D L F Q I D I D A P I E L G D G D R L L L C C S S D D G L L T E E V A D D E E I K T I  
UniRef90\_B8H853 D V D A S P E L D L D T L E A R P G D D R W L L C C S S D D G L L N Y V A S G E H A V E R T V I  
UniRef90\_G9PGF1 G D A Q D V M L D E S I R E A K V G D D R W L L C C S S D D G L L S G L V A S K E T I E S I  
UniRef90\_T0JE1 G T S D T L A V A D S G K F L W Q S G D N L L L C C S S D D G L L T N M L S E E T I L N I  
UniRef90\_G9RXL9 G V G R D V E A D F G K E V S P R D L L L L C C S S D D G L L S N C V S V P Q I E E T  
UniRef90\_B1XP18 G R K D L S L I D L A T L E I H S G D R L L L C C S S D D G L L T E E V D D S E I Q F T  
UniRef90\_I0UZ92 L A G V P A E P D L S E H T A E A D D V V L L C C S S D D G L L T D V V K P P E I Q R V I  
UniRef90\_R6RHX2 G I G P E I E V D F D H L K E N S V L L L C C S S D D G L L S N M V A D E D I Q R V I  
UniRef90\_T0RQG7 G F D D E I E V D I F T Y K V S R G D I F L S C C S S D D G L L H G K V A D D A D I L F L  
UniRef90\_G5GS70 G I E E H L H V D G D S F P L E T G D R L L L A T D G L L T N M V P D D A D I A S L  
UniRef90\_F0PBQ6 G M P G T V E V D V T N H E W L P G D R L L L C C S S D D G L L T N M V P D D A D I A S L  
UniRef90\_UPI00037AC36F G A E D F V D T D S G L V A E T G R Q I F L I C C S S D D G L L T R E L T S D Q R I A E I  
UniRef90\_L7U7U5 G M K E A V Q V D V S R V E P A Q P G D V F L L C C S S D D G L L S D G M V T D P Q M Q E  
UniRef90\_M1URA6 T G H P I E P T L E Q F P P G D R L L L C C S S D D G L L S D P V T H S T E E E T  
UniRef90\_UPI00016C3C83 P D R E V E V D I E G P Y P V E P G D T F L L C C S S D D G L L T G V V T P S T E V G A V  
UniRef90\_UPI00034C0C59 G R E D M G E V E T L S L D L Q P G D R I L L C C S S D D G L L T E E L S R E Q I A E E L  
UniRef90\_UPI000418EA0E G T E E T I N V D I S F T W E K P G D V V L L C C S S D D G L L T N K V S R E T M E E M  
UniRef90\_W6SHB1 G T N D S I D I D V Y K L E L S G R E K F I L C C S S D D G L L S N Y V E Q D E M L S I  
UniRef90\_UPI000474D94E G T E L E I K I D K T I M F E E D Y S F L L C C S S D D G L L S N K V S N D E M N E L  
UniRef90\_A6GAV1 G P N E S V E V D T L D F D M I P G D S F L L C C S S D D G L L Y E Y L D D D D L S R M  
UniRef90\_UPI000470BEBE G L D K D V E V D E W T I D L H D A K W L L L C C S S D D G L L T N M L N D D Q I E H I  
UniRef90\_D5BXP9 G A V D T L E L D R G A L E A R P G D V F L L C C S S D D G L L H N E V S A A T I K E T  
UniRef90\_UPI00036512B8 D G R S Q V D P D J A I S E A R P G D R Y L L C C S S D D G L L S G V V S A A T I K E T  
UniRef90\_UPI0002E6385F G A E R T V D V D F F D L K L E P E S V I L M C C S S D D G L L S N M V E A D S R I K E T  
UniRef90\_UPI000479682D G T Q N C I T P D C F Q F E A Q P G D L F L L C C S S D D G L L T R E L P D E K I R L L  
UniRef90\_UPI00047D2BC0 G A T E T V D I D F N V E L N R G D I V L L M C C S S D D G L L T N M L E D D E Q I R Q I  
UniRef90\_K6BYX8 G T E Q D V K I D T K T I I F E E G D I L L L C C S S D D G L L S N K V K E D D Q M S I  
UniRef90\_R6NNB7 G V D S E V R V D F C Q E P F D D G S L L L L C C S S D D G L L T N S V K E D D Q I F N L  
UniRef90\_UPI000362CF17 G R E D L Q Q L D I Q D V D V L P G D R L L L C C S S D D G L L T E E L P D D D Q I S Q Y  
UniRef90\_C5C5D4 D D T S D D E P D I A V P D I A P G D R L L L C C S S D D G L L S D Y V A D E H L S E A L V  
UniRef90\_S1TA44 G R G A D A T A E M R L Q D A R P G D D R Y L L C C S S D D G L L S A V V P G E E I R R V  
UniRef90\_UPI0002F767DF G P F D R V R I D V A D M P W S D E D R L L L C C S S D D G L L T S V V A G D E I L R Y  
UniRef90\_S0NXR1 G M P G V E V D V A T H F I A D N D Y L M L C C S S D D G L L T N M V S E E I Y E I  
UniRef90\_S7KHN7 G S R P Y I V P D I R E I T Y E K E D L Y V L C C S S D D G L L T N M V S E A D I R E I  
UniRef90\_S0JJ19 G M P G T V E V D I S T Y I W Q L K D R L L L C C S S D D G L L T N M L S E E M I E T  
UniRef90\_W7ZES1 G T E E Q V K I D S Y T L Q S D L I R V L M I C C S S D D G L L S N K L K G T S E L V E V  
UniRef90\_E6SEM7 T G Q P D D P D T S L R E A K V G D R F L L C C S S D D G L L S D F V G A D S V I E E E  
UniRef90\_UPI0003B741E3 D F D D A R P D I S R T A R A G D R L L L C C S S D D G L L C G V L E G S D T I E E E  
UniRef90\_UPI0002491323 G V S Q T V Q P R I K N F D L M D D A T I L L C C S S D D G L L T N M V S Q A E I I D V  
UniRef90\_D1A0U3 G S R P Y V M P D L R N L P C E K E D L Y C L C C S S D D G L L T N M V P D I D I R D I  
UniRef90\_R7AE22 G G D T T V L P D F F P I D I L K P G N R V L M C C S S D D G L L T N M V E D N V I R E I  
UniRef90\_C5CRB5 G V E P Q V V L E M H E H T A R P D D L Y M L C C S S D D G L L S E M V P D A Q L F T L  
UniRef90\_F4FCE8 V Q G A D A P T M G M L T I A A G D R L L L C C S S D D G L L S D Y V T D D A I A A T  
UniRef90\_W7CVF0 G I E G N V E T D V F I L P F Q A Q D Q L L L C C S S D D G L L S N M L T E Q A I E A T  
UniRef90\_L1L2W9 T T D D T L S T P D L R L D A H P A D R Y L L C C S S D D G L L S G V V P E P A I Q R I

QUERY  
 UniRef90\_C8W8H6  
 UniRef90\_A4F5S7  
 UniRef90\_C8XIT0  
 UniRef90\_F7UXT5  
 UniRef90\_C4RII5  
 UniRef90\_D3Q5N0  
 UniRef90\_B1ME75  
 UniRef90\_UPI0001FFE2D5  
 UniRef90\_MOQNY7  
 UniRef90\_UPI00040A7E2F  
 UniRef90\_M1P2Y9  
 UniRef90\_UPI00047595CA  
 UniRef90\_UPI0003497981  
 UniRef90\_M5PD21  
 UniRef90\_B8HRV8  
 UniRef90\_UPI00047AADF7  
 UniRef90\_F9ED60  
 UniRef90\_F8FC26  
 UniRef90\_H5X0I3  
 UniRef90\_A8LWU3  
 UniRef90\_R6M082  
 UniRef90\_UPI0003611C85  
 UniRef90\_X6DDA6  
 UniRef90\_HOQMJ4  
 UniRef90\_B7KER0  
 UniRef90\_UPI000307CAC6  
 UniRef90\_R6IB29  
 UniRef90\_D5NWB5  
 UniRef90\_UPI0003B5D695  
 UniRef90\_C2CSP0  
 UniRef90\_K9VH99  
 UniRef90\_D9V7X7  
 UniRef90\_UPI0003B57A7A  
 UniRef90\_G1WIH8  
 UniRef90\_F8LDB3  
 UniRef90\_I5AV85  
 UniRef90\_A0A011R4K2  
 UniRef90\_UPI0003129103  
 UniRef90\_UPI00047D8F1E  
 UniRef90\_D7E597  
 UniRef90\_G7GQ54  
 UniRef90\_UPI000255ED76  
 UniRef90\_U2AL13  
 UniRef90\_R7QUJ3  
 UniRef90\_UPI00047AEED2  
 UniRef90\_R5SFP7  
 UniRef90\_K9PYX4  
 UniRef90\_B8H853  
 UniRef90\_G9PGF1  
 UniRef90\_T0JE1  
 UniRef90\_G9RXL9  
 UniRef90\_B1XP18  
 UniRef90\_I0UZ92  
 UniRef90\_R6RHX2  
 UniRef90\_T0RQG7  
 UniRef90\_G5GS70  
 UniRef90\_F0PBQ6  
 UniRef90\_UPI00037AC36F  
 UniRef90\_L7U7U5  
 UniRef90\_M1URA6  
 UniRef90\_UPI00016C3C83  
 UniRef90\_UPI00034C0C59  
 UniRef90\_UPI000418EA0E  
 UniRef90\_W6SHB1  
 UniRef90\_UPI000474D94E  
 UniRef90\_A6GAV1  
 UniRef90\_UPI000470BEBE  
 UniRef90\_D5BXP9  
 UniRef90\_UPI00036512B8  
 UniRef90\_UPI0002E6385F  
 UniRef90\_UPI000479682D  
 UniRef90\_UPI00047D2BC0  
 UniRef90\_K6BYX8  
 UniRef90\_R6NNB7  
 UniRef90\_UPI000362CF17  
 UniRef90\_C5C5D4  
 UniRef90\_S1TA44  
 UniRef90\_UPI0002F767DF  
 UniRef90\_S0NXR1  
 UniRef90\_S7KHN7  
 UniRef90\_S0JJ19  
 UniRef90\_W7ZES1  
 UniRef90\_E6SEM7  
 UniRef90\_UPI0003B741E3  
 UniRef90\_UPI0002491323  
 UniRef90\_D1A0U3  
 UniRef90\_R7AE22  
 UniRef90\_C5CRB5  
 UniRef90\_F4FCE8  
 UniRef90\_W7CVP0  
 UniRef90\_L1L2W9

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

UniRef90\_F4H2X0  
UniRef90\_UPI000347973D  
UniRef90\_R7GPPQ0  
UniRef90\_UPI0003B47FBF  
UniRef90\_UPI0003620B51  
UniRef90\_D0YP62  
UniRef90\_I9L0X3  
UniRef90\_UPI0003755EB8  
UniRef90\_A0A031FR99  
UniRef90\_UPI0003800209  
UniRef90\_R3U6S9  
UniRef90\_W8JFV5  
UniRef90\_R6EPI0  
UniRef90\_R5NX45  
UniRef90\_K4IJZ8  
UniRef90\_F6FQ88  
UniRef90\_A1VUB7  
UniRef90\_R7BF17  
UniRef90\_D0LU16  
UniRef90\_UPI0003B57AD8  
UniRef90\_U3GS64  
UniRef90\_A0A015LLT1  
UniRef90\_F5RDT5  
UniRef90\_A7GRJ3  
UniRef90\_D4YGE6  
UniRef90\_G8MF20  
UniRef90\_C0XTL4  
UniRef90\_B8G544  
UniRef90\_UPI00034A2E0A  
UniRef90\_UPI000369736A  
UniRef90\_E9SEQ8  
UniRef90\_K9YIF0  
UniRef90\_G7WG39  
UniRef90\_A3ZYP0  
UniRef90\_G0H9V0  
UniRef90\_UPI00040F8F7B  
UniRef90\_M1MAS8  
UniRef90\_K8EQV1  
UniRef90\_R6SVC8  
UniRef90\_D5WPP79  
UniRef90\_H5WMS8  
UniRef90\_UPI0002DCFA06  
UniRef90\_B3PES2  
UniRef90\_U7UMU6  
UniRef90\_I4CW58  
UniRef90\_UPI0003B39ECB  
UniRef90\_D7C4W9  
UniRef90\_D9X6K5  
UniRef90\_UPI00036139C3  
UniRef90\_D4W3V3  
UniRef90\_A7I5E6  
UniRef90\_A1ZLP5  
UniRef90\_UPI000411C685  
UniRef90\_F0SQX3  
UniRef90\_UPI00037D92F0  
UniRef90\_A9GB18  
UniRef90\_UPI0003B3F375  
UniRef90\_I0R1T3  
UniRef90\_I2N146  
UniRef90\_UPI00035F6D1C  
UniRef90\_S4XSF2  
UniRef90\_F4DV28  
UniRef90\_E8WVKN6  
UniRef90\_B9MR41  
UniRef90\_I2BL34  
UniRef90\_H1G3L3  
UniRef90\_UPI00022GQD1  
UniRef90\_F8A1V3  
UniRef90\_UPI0003033D3C  
UniRef90\_UPI00037EA712  
UniRef90\_I1DYA5  
UniRef90\_K9YIJ3  
UniRef90\_F9DPF8  
UniRef90\_UPI0002EA8187  
UniRef90\_L0DET7  
UniRef90\_UPI00047D1D8D  
UniRef90\_C9XMU7  
UniRef90\_F0GWJ0  
UniRef90\_F3KWP8  
UniRef90\_A6C5E5  
UniRef90\_H0DHFV5  
UniRef90\_U1ERL6  
UniRef90\_D1VSE1  
UniRef90\_UPI00036890FC  
UniRef90\_R7HJA0  
UniRef90\_UPI00047C9CE2  
UniRef90\_UPI00046B0952  
UniRef90\_U2YUG0  
UniRef90\_UPI00037CF80C  
UniRef90\_R5AUT9  
UniRef90\_UPI000255C70F  
UniRef90\_A6LSK2

1 10 20 30 40

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



UniRef90\_F4H2X0 H H D D L A S R R I A V I E E F A Q L A G K L A A T A A D D V H A C F T R T A G R L R T 80  
UniRef90\_UPI000347973D H H G E E A S S R I T T E S I G A Y W G K N S P Q E L L I Q Q A V L K A N Q T A G E I L R N R T  
UniRef90\_R7GPPQ0 H H N D G Y A S S H A V I R A T D A V D E I R S A D A D Y A N A V I R E G A L I E A A N R Q L E I A R N E T  
UniRef90\_UPI0003B47FBF H H A G G D V A S A I T A T D A D Y D S A P E D A E A A L I L I G A L I A A N R Q L E I A R N E T  
UniRef90\_UPI0003620B51 H H A G G D V A S A I T A T A A L V G L D R S P D H A S S L L E R T A I D R E A A R Q Q D L A V D E A  
UniRef90\_D0YP62 H G G D T A S S E V A V S H L A P L D Q D S T H A A Q D D L R A S E V I Q Q E A H Q Q D L E I E L  
UniRef90\_I9L0X3 H Q Q D V A S S E L A V E A F R E A T Q A S E A E L L I R E Q A I L Q Q A N E V V Y G I  
UniRef90\_UPI0003755EB8 H H E I A S S E R T V E R L R A A V K R E I V S P D V I E E A L E V R A N D D I A S H  
UniRef90\_AA0A31FR99 H T E I A S S E M A V L T I R P A V L N K E I L K K L M I D A V L A Y T N A S I Y E H  
UniRef90\_UPI0003800209 H H G D V A S S Q M A V N D L G N A W E E A E L L D W F I Q Q L Q L E N D R I Y E K  
UniRef90\_R3U6S9 H H G D V A S S H E A I L N L M I R F A D D D Q Y R E T V R G I L S K I N E L I Y D H  
UniRef90\_W8JFV5 H Q Q D F A S S K Y T V E V L K R E L A A S Q E E D A L V S A I K T A N H E I Y K K  
UniRef90\_R6EPI0 H H R D K A S S R M A I D I F V I E K S T I E N E P V A L L K R A M L F V N N E I Y K K A  
UniRef90\_R5NX45 H H G D T A S T I A I R S A L A H I T R D D D R E Q P E D M M E R T S V I A A H D A I V G H  
UniRef90\_K4IJZ8 H H G D V A S S T I A I R S A L A H I T R D D D R E Q P E D M M E R T S V I A A H D A I V G H  
UniRef90\_F6FQ88 H H G D V A S S T I A I R S A L A H I T R D D D R E Q P E D M M E R T S V I A A H D A I V G H  
UniRef90\_A1VUB7 Y N E I A S S G M A V T F I K Q E L G S W E L R R T L E T T C V H V N H S I F S A  
UniRef90\_R7BF17 H H K D L A S S R Y T V E R T L D T D S I K N S A S R N Q A L R T Q D A I V E A N T K L I E K E  
UniRef90\_D0LU16 H H G E V A S S M A V R A M S M A M R A Y A E R Q A L R T Q G V V N A H L D I I E K E  
UniRef90\_UPI0003B57AD8 A G H I A S S Q L F A D S A R N L F S A M P E T E D V Q K I F L N A N D A I I D Y E  
UniRef90\_U3GS64 H G E V A S S Q L M V T E F R E L D A S V V A G D A L A D T A A A G N Q A I A E E M  
UniRef90\_AA0A15LLT1 H Q Q D V A S S Q L A V D T F R E S L R D Y K D K T L I R Q A I L Q A N E I V Y E E M  
UniRef90\_F5RDT5 Y N E V A S S G M A T A V I G T E L E Q G L R E E L L E A V I G H A N E S I Y Y R A  
UniRef90\_A7GRJ3 H H R D V A S S M A T I Y L F H D Y W K K K E E W L H N N V E M I N E R I Y E Y E K  
UniRef90\_D4YGE6 H H N D V A S S M A I Y H V I G N A W E S T E N S E W L T D Q I Q A A N E H I F E K A  
UniRef90\_G8MF20 H H G D L A S S R M V I E S L A K A A G A N G L A S V V A D A L L D V N E R L R E A S S E  
UniRef90\_C0XTL4 H G E V A S S Q L M V R R H M E R L D A D P G D A D M L A L L G A A A D D A N A S S E  
UniRef90\_B8G544 H H G E V A S S Q L M V R R N A R L Y H E S E M R E L V R Q A V L A A N E A I Y H E  
UniRef90\_UPI00034A2E0A H H A G G A D R R A V E S F R S V G R R Q V S A D D M R R A F E D A V A G V G E I  
UniRef90\_UPI000369736A H S E V A S S K C A I E Y I N D N L A L T D L K N D Y L Q A F T R V A N S C V Y Y E K  
UniRef90\_E9SEQ8 A V D R F I G R V Q E N F R P Q M N D N S I R N L L N A V H Y A N T C V Y Y E K  
UniRef90\_K9YIF0 H G E Q A S K I A V I E V I K N W E A P I E S Y D L L E K A V F Q A N E A I L I E D  
UniRef90\_G7WG39 H R E E V A S S K A L Q E I E V W L P R L D G E N S D L A E A F R E A N R V V I Y E S  
UniRef90\_A3ZYP0 H H G E L A S S E I A V D H L Y R K Y V E K T P P G P D A L V A A V F E A N A V I N R K  
UniRef90\_G0H9V0 H H G E V A S S Q L M I E A L L P L N A E F L G D G A L V E A M D N G N R A I A A H  
UniRef90\_UPI00040F8F7B H H G E V A S S M M A I N F L I E A E W K S T E A E S W L K N I V I E K V N R D L F N Y  
UniRef90\_M1MAS8 H H N E V A S S M A V K R I I N Y S S K E I N N L L A E A I E K V N R D L F N Y  
UniRef90\_K8EQV1 H H K D V A S S E M A V S H L G H A W E E T E V T Q W M L K Q I T L I E N E R I V I G K  
UniRef90\_R6SVC8 A I D A V V K R I K E N F R K D M K S T N S I R N L L M L T A S V H Y A N T V V Y G K  
UniRef90\_D5W7P9 H R E V A S S Q L A I D E V I G R H S S T G P A Q R R L I R E A N R V I Y Y E R  
UniRef90\_H5WMS8 H G E V A S S K L A V D E V H S E L G S S A L P H E D M R F A A S R A N R D S I L N L  
UniRef90\_UPI0002DCFA06 H E D V A S S R T A L A S P H Y L G A D N P I S D A L M E C L G V G R A A R D V I D A L  
UniRef90\_B3PES2 H H E E V A S A T V R A D T L S P H R L H A N P D I P I L D Q A V A S G R A A R A I L E S  
UniRef90\_U7UMU6 Y V I E I A S K T V V I E A V L Y Y F Y T Y A S T R Q L E K A I Q Q A A N S C I L S K  
UniRef90\_I4CW58 H Q E V A S S L A L V S A L Q Q A I T E R G S D S D L Q A A V Q R A A N S A V L D A  
UniRef90\_UPI0003B39ECB H G D R A S S Q A A V A L E A A A H V P G S E P D D V L A A V R A A N S A V R A L  
UniRef90\_D7C4W9 A G A P A G E A A V Q V L K R G V P A G D L L N A L E D A V E R A G R A V R D I  
UniRef90\_D9X6K5 A G G P A S S A A V E A L R F L D T D E I P A G G V I N Q L I N R D A V R G A A E A  
UniRef90\_UPI00036139C3 C G E V A S K M V T D H L P Y P L H S Q D A A N S I R Q D A I N R L N G M V R E A  
UniRef90\_D4W3V3 H H E A E M V I K V V I E H S F N E T L S F D D S E D L R K W I H Q I N Q D I L I O Y  
UniRef90\_A7I5E6 H R A V A S R M A I K A I K H S W H G G N A E R T I S R A I Q Q A N Q Q I F C V  
UniRef90\_A1ZLP5 A A G R M A V N S I K T F F Q H Q Y Y P N P I E A S Q A I Q Q A N Q Q I F Q A  
UniRef90\_UPI000411C685 H N E V A S S E M A V S N V I E F V K N N I N E C V L E D A I E N V N K K I Y N Y  
UniRef90\_F0SQX3 H H E E L A S K T A I D T L P H V F F K S P A V A A L R R A L S E A N A A I H K  
UniRef90\_UPI00037D92F0 H H S G G E V A S A I A S L V V H Q R V A A G G L S L R E A I S Q D A H L A I L A  
UniRef90\_A9GB18 H H R D V A S S Q L A V S T L S D F L S V T V G R D A V V T G L R L A N R I F D R  
UniRef90\_UPI0003B3F375 H Q E V A S S Q M A I D T L G R S W E P T E M T E W L K E N I E K N A A A I Y K H  
UniRef90\_I0R1T3 H H A G G D I A S A I T S Q R K Y D T V E E A I E T L K A G V L A A N A M L T G T  
UniRef90\_I2N146 G G A P A S S A A A V E A L R S L E D G S I P A A G L N A L E D A V D R A R Q A  
UniRef90\_UPI00035F6D1C H Q D V A S R L V V D T L E F T E N L D N Q V E A V L S R K L H K I N E D L C R F A  
UniRef90\_S4XSF2 A G E V A S A L V V E A L R R E A M A R G N W D D A T L S Q A V L Q R A N R E V W R Q A  
UniRef90\_F4DV28 H H A G D Y V D S L R N L N A S D S L N D Y E Q V L R H S L S Q V N A A V R E Q  
UniRef90\_E8WNNK6 H N E V A S R L C V E T L R D V Q F L G S E P E N I L R K G L E A G E N I M R Q  
UniRef90\_B9MR41 H H S E V A S S F A C E Y T L N Q V K M L K Y S L K E I I K E A Y R Y A N Q K I N H  
UniRef90\_I2BL34 H H A G D Y V D S L R H V P L G R S L D E Y S A A L R N D L L R I N A A V R E E  
UniRef90\_H1G3L3 H H G E V A S R L A V D T V L Q N L R Q C D D S L A V R R A I I N A N T A I Q Q A  
UniRef90\_AA0A22GQD1 H H G D Y A S N L V V E T L A R L G V P S L E D D A V R A A L Q E V N R E L Q E A  
UniRef90\_F8A1V3 H H D D L A S R I A V I E E F A Q A G Q A A A T A D D I H S C F A R T S A R I R G E  
UniRef90\_UPI0003033D3C H H A L A S R L I V T E Q L A A L P E G S M A E R G L R R D E C L H D L N R L G G E  
UniRef90\_UPI00037EA712 H H A G G D V A S A S T T L D L I H L D H S S D Y A S L R A D E I Q T A N S L S E M  
UniRef90\_I1DYA5 H H G D T A S S Q L V V D T I A V Q R A A Q V S V R I L L T E S L L Q A N E E L C R Y  
UniRef90\_K9YIJ3 H H A G L A T Q A I L S D Y L E E H W D C D L N S E V L L Q A V E E A N E K I A D  
UniRef90\_F9DPF8 H H K D F A S S T A V R I G E E Q F M S A S D D D L L Y D T V V D I N F L Y T K  
UniRef90\_UPI0002EA8187 H Q D I A S S R L A V E T L P Q D L Q A N Q L E R A L E A A L R A N Q T I F H I  
UniRef90\_L0DET7 H H G E L A S K M A C D N I P H N Y K T T P S E A I T K T A Y R E V G T L H S R Y  
UniRef90\_UPI00047D1D8D H H K E L A S K M A V D T I A D V L K N K N D E D A I R T S I V S A N S I Y K Y  
UniRef90\_C9XMU7 H H K E V A S K L A V E N I H D N V K I D Y T D D I L K Q A Y N N V N S I V H K K  
UniRef90\_F0GWJ0 H S E V A S S K L A S L T Y Q D F I K N A D I E D L Q E E A S K A N S A V Y E L  
UniRef90\_F3KWP8 Y N E V A S S M A C A N I Q R D L S G W F R A D D L E R S V A H A N S A V L Q A  
UniRef90\_A6C5E5 Q C E K A S S Q L A I E I P Q K L N E L I D T Q A I D Q A V A H A N L E I M A L  
UniRef90\_H0DHV5 H Q E V A S S Q Y V T E A L Q N F I E P E R A E R W L N T T L K S V N R R E L Y D Q  
UniRef90\_U1ERL6 H H G E I A S S Q Y V T N E L Q N C F L E P D Q A E S W L R T T L K R I N R D L Y Q  
UniRef90\_D1VSE1 H H G E T A S S G L A T Q T L S K N P K D S D I E E I K K S I K A D A N E E I F N E  
UniRef90\_UPI00036890FC H H K E I A S A T V V I E V F E G L V G R Q S T Q D D M H A A L A S A R R A A L P  
UniRef90\_R7HJA0 H H K E I A S N I A I E H I V E Q S F E S M E T I D W L R K I V K E I N E K I F E Y  
UniRef90\_UPI00047C9CE2 Y N E I A S S G M A V A F I K S E M G R W E V R Q A L E I C V E N A N H S I F N A  
UniRef90\_UPI00046B0952 H H A A G D Y T G L I A T I D F D L P A A E T M H A L R G A I Q T A H G V I L K E  
UniRef90\_U2YUG0 H H E A G A R A S A A V A E F P L V V V T N Q D V R A I E R A R A N I D A L  
UniRef90\_UPI00037CF80C H I Q W A S S T I V R A L S E A T L G G T F E E A V I A A L E E A N G E I C Q A  
UniRef90\_R5AUT9 A G A A S T F L A D F R E R M M A G S A V E P A M R H A C D A A N R A V Y D C  
UniRef90\_UPI000255C70F H H G E V A S K M A V D Y V R E N F S S R A E N L V E A I E K V N K D I F T F  
UniRef90\_A6LSK2 H N E V A S S Q M A V D Y V R E N F S S R A E N L V E A I E K V N K D I F T F



UniRef90\_F4H2X0 E F T G G R R G G T T V S G V A V T E H E G G S Y W L V F N G D S R V Y R W A D  
UniRef90\_UPI000347973D Q N I H P V R G D S G T T V V V V M F I D E Q P W F C H I G G D S R L Y R L R G D  
UniRef90\_R7GPQ0 A Q E D E S E L L R T G M G T T M V V A T I V D Q R Y A Y V A N V V G G D S R L Y V I R Q S D  
UniRef90\_UPI0003B47FBF V S E R H S E L L T G M G T T V S S M L H L R G D R V V I S H I L G G D S R L Y L L R S D  
UniRef90\_UPI0003620B51 T T A D P D L A G M G T T V T A L L K S G N T L A M A H L G G D S R A Y L L R R D  
UniRef90\_D0YP62 S E S Y E S E L L A G L G T T C V A L L R S G N K M G M V H I G G D S R A Y L L R R D  
UniRef90\_I9L0X3 A R E F S E D L N G M G T T M V A A L L F D Q K F L M A N I G G D S R A Y L L F R D  
UniRef90\_UPI0003755EB8 A S Q N E Q Y H N M G T T V V A A L I Q D K L G V I G H I G G D S R A Y H I R G D  
UniRef90\_A0A031FR99 T E T T D D D G T G M T T V T G V Y L G L D L T G E E T W V T L N I G G D S R V Y R L R D  
UniRef90\_UPI0003800209 S Q T Y S Q C A G M G T T L V L G L F I N N E L L A G H I G G D S R I Y R L R R N  
UniRef90\_R3U6S9 G Q S M P E Y N G M G T T V V A V A I F E H N F V I A N V V G G D S R A Y L I R R N  
UniRef90\_W8JFV5 S L M E S H L Q G M G T T L S Y M Q F L R R N K A W V V H V G G D S R I Y R L R N Q  
UniRef90\_R6EPI0 A S E D P H L K G M G T T I V V A T I V R H N M M Y F A N V V G G D S R I Y L I N I G  
UniRef90\_R5NX45 A C A D P D L N G M G T T M V A A V A Q D G K L Y V A N V G G D S R L Y A I G  
UniRef90\_K4IJZ8 A K R E H R L L K G M G T T V T A L A L L A D D S W V L A H I G G D S R G Y L L R E R  
UniRef90\_F6FQ88 S E A D P D L A G M G T T V T A L L R S G N T L A M A H L G G D S R A Y L L R R D  
UniRef90\_A1VUB7 A C S N P D Y E G M G T T L V A G V F V E G R L V L G H V G G D S R C Y R L R R G  
UniRef90\_R7BF17 A A E S E D Q Y T G M G T T L V V C T I I G E S M Y A A N V G G D S R L Y L Y D G D  
UniRef90\_D0LU16 A R R D E D K A G M G T T F T G F M I A G G D A I F A H A G G D S R A Y L V R D  
UniRef90\_UPI0003B57AD8 A G T H A G C E G M G C T A E L L V L A G K R F I L G H I G G D S R T Y R F R S D  
UniRef90\_U3GS64 V R V R P E T E G M G T T L T A V S F D G V G S Q L H W C H I G G D S R G Y V L R R D  
UniRef90\_A0A015LLT1 A S Q N D R Y H N M G T T V V A A M L F E G S G I I G H I G G D S R A Y R L R L D  
UniRef90\_F5RDT5 A E S Q P Q Y A G M G T T L V M A A F H D D H V S V A H I G G D S R M Y R L R S D  
UniRef90\_A7GRJ3 S K Q H V E C S G M G T T I A A A I C T K G F V T I G H I G G D S R C Y M L R G D  
UniRef90\_D4YGE6 A N Q Y H D L S G M G T T V A A V P L E D L A Q V V L A H V G G D S R I Y L H Q A  
UniRef90\_G8MF20 A R R Q V S R I G S T V V L L A A R D G A C A Y L W A G G D S R I Y L F R R Q  
UniRef90\_C0XTL4 V E E N P E Q D M G T T L T G L M F N G S Q L G L T H V G G D S R G Y R L R R E  
UniRef90\_B8G544 G H A Q A N D M G A T L T M A L V V G D R A V I A N V G G D S R T Y L F R D  
UniRef90\_UPI00034A2E0A S S R S P A P G T T L S G V A V C E E R G V P H W L V L N I G G D S R T Y R F L R Q  
UniRef90\_UPI000369736A A Q R D K Q L S K M G T T L I V A V Y I K E G C L Y Y A H V G G D S R L Y I C R Q  
UniRef90\_E9SEQ8 S I E D I D K N G M G T T C V A A L V I E R R V Y V V N V V G G D S R A Y L L R N K  
UniRef90\_K9YIF0 Q A V H P E R A D M G T T V V V I I F R Q G E T W R A H V G G D S R L Y Q L H A  
UniRef90\_G7WG39 S I T D S P E N A G M G T T L T V L L I T R N E K V V I A H V G G D S R A Y L W R N  
UniRef90\_A3ZYP0 G E E N S A F H K M G T T C S S L L L P Q G A L V A Q V G G D S R V Y R L R G  
UniRef90\_G0H9V0 V D E N P T L D G M G C T L S A L L F F D G R M G V C H V G G D S R G Y L L R R D  
UniRef90\_UPI00040F8F7B S E Q N E S C K G M G T T L E A I I C T P L F F F T I A H V G G D S R S Y L R N D  
UniRef90\_M1MAS8 S N T N E S L S G M G T T V A S F I T K D F V H I A N V G G D S S C F G I R K  
UniRef90\_K8EQV1 S T Q F S D L D G M G T T L V A A V L F E E E L V I A N I G G D S R G Y L Y S N  
UniRef90\_R6SVC8 S K E I D D K N G M G T T C V A A L V V D K R E I V Y M V S V G G D S R G Y L L T K  
UniRef90\_D5WPF9 S H D P T D L A G M G T T V V A A L F D E R E I W V G H I G G D S R A Y L I A G  
UniRef90\_H5WMS8 A K R E S D Y E G M G S T L V V A V L L G D R I C I G H I G G D S R A Y R W R E  
UniRef90\_UPI0002DCFA06 G A D R D P L M G L P G C V V V T S L D G R A C L R V L N I G G D S R T Y R M T P  
UniRef90\_B3PES2 A S Q G I G V S L G M G S T L V A L K A N N K Y Q V A W V G G D S R A Y L W T P  
UniRef90\_U7UMU6 I A I E P S L Q G M G T T L S L L T L S E G N A F W G H V G G D S R I Y L F R D  
UniRef90\_I4CW58 A V D D G M G T T L V A A D F T G A D F E L T W V G G D S R A Y L V T A  
UniRef90\_UPI0003B39ECB S G V D D T G P G T T L T V A R V T T G G A E F W M V V N I G G D S R V Y S W D G  
UniRef90\_D7C4W9 A G A G P A P H E V G T T L T A M L W T G S R L A L V H I G G D S R A Y L L R D  
UniRef90\_D9X6K5 V R D G A D D G T T L T A A L W T G S G A M L I A H V G G D S R V Y L L R D  
UniRef90\_UPI00036139C3 G W E H P E L R G M G S T L V L A M I R D S G A M L I A H V G G D S R I Y L L H D  
UniRef90\_D4W3V3 I E Q Q H I S H G M G T T V I V T V I T K S F I A F A H A G G D S R A Y V L A H  
UniRef90\_A7I5E6 A Q T D P E L F Q K M G T T I L V L V L E N D S L V C G H V G G D S R L Y R M R E  
UniRef90\_A1ZLP5 A Q K A P G M Q G M G T T C V L M L V R N D Q V Y Y G H V G G D S R L Y R L N Q  
UniRef90\_UPI000411C685 S V S N L K L S G M G T T I T A C L R Y D G K I V I A N V G G D S S C F G I K D  
UniRef90\_F0SQX3 G V K N R D I N R M G T T C S S L I I N A E G F L V G H V G G D S R V Y R L R E  
UniRef90\_UPI00037D92F0 A E Q G D G I N K M G A T L V A L H A R D L H Y E I A W V G G D S R A Y L W D S  
UniRef90\_A9GB18 S L K T L A D F G M G T T I V A A M F S K D E H V T V G H V G G D S R C Y R L R D  
UniRef90\_UPI0003B3F375 G Q E N F S L K G M A T T L V A T A L L G D T L V L V N V G G D S R A Y L Y R S  
UniRef90\_I0R1T3 V V I E H P E L Q G M G T T F S G A L L V H G S Q I I T A H I G G D S R I Y R V R S  
UniRef90\_I2N146 V R P A P E D A G T T L T A M L W T G S Q L A L V H I G G D S R V H L L R R D  
UniRef90\_UPI00035F6D1C A S G I Q Q G S I V G T T V V A L L A K G D K C A A I W A G G D S R L Y Q L R R Q  
UniRef90\_S4XSF2 A Q Q P G R H G M G A T L T A I C V H G T E A H V A E V G G D S R A Y L I R N  
UniRef90\_F4DV28 T Q L R G V S M M G S T V V L M A T R G A R G L C L W A G G D S R L Y L L R S  
UniRef90\_E8WVKN6 G S A D I N L R G M G T T V V A A V I R G R Q C W Y S H I G G D S R L Y L F Q P  
UniRef90\_B9MR41 Q I K N P L L Y G M G T T L A G L F C Y K D K I L V S N I G G D S R V Y L I D N  
UniRef90\_I2BL34 T A N R G V T M M G S T V V V F A A R G L R G V C L W A G G D S R L Y R L R D  
UniRef90\_H1G3L3 G R I N A G H A G M G T T V L M A L F N H H A L L A H V G G D S R I Y R F R E  
UniRef90\_A0A022GQD1 A R R Q V R R I G S T V V V L M A C E R F C G C L W A G G D S R I Y L Y R D  
UniRef90\_F8A1V3 F T G G R Q G G T T V A G V A V I V H D D T S Y W L V F N V G G D S R V Y R W A D  
UniRef90\_UPI0003033D3C A D R P D P V I G S T V V A L L M E A E R A A C V W A G G D S R C Y L W R R  
UniRef90\_UPI00037EA712 V S I N P K L T G M G T T V T A L L S E G R L Q F A H I G G D S R A Y R L R K N  
UniRef90\_I1DYA5 S E K H L N G H T A G S T V V L L L L D K W H Y H F L W A G G D S R G Y L L R N  
UniRef90\_K9YIJ3 Q Q T H P E R A E M G T T V V G V I F R K N Q A W C V H V G G D S R L Y L W R D  
UniRef90\_F9DPF8 A Q Q D E S F K G M G T T L D L A L L R D Q C L V F H V G G D S R I Y Q V T R  
UniRef90\_UPI0002EA8187 A S Q D E K Y Y H M G T T V A A L F D H S Q C N G Y I G H I G G D S R A Y S V D R  
UniRef90\_L0DET7 A T A N R D F Q G M G T T C S T L L L L P Q G A L I A H V G G D S R V Y R I R E  
UniRef90\_UPI00047D1D8D S K F N K E C E G M G T T V L V C A Y Y K N T C L I A H V G G D S R A Y L I R E  
UniRef90\_C9XMU7 S M E D I E F E G M G T T L V T A I V Y N N V L V A N V G G D S R C Y L L T D  
UniRef90\_F0GWJ0 A D D S E G R S M G T T V C L A I D N K N K K Y I I S H V G G D S R A Y L F R D  
UniRef90\_F3KWP8 A R E H S E Y A G M G T T L V V G V F H G R D L V L G H I G G D S R C Y R L R E  
UniRef90\_A6C5E5 G E L D P N C R S M G T T L V F A I Q V I G E K F F I G G V G G D S R V Y L L R N  
UniRef90\_H0DHV5 A E S H A S Y H G M G T T C V C A M V F D N H V V V A N I G G D S R A Y L V N S  
UniRef90\_U1ERL6 S T D R P E Y S G M G T T C V C A M V F D E Y V V A N I G G D S R A Y L V N S  
UniRef90\_D1VSE1 S K D I E Q Y R G M G T T L T L A Y I N N D E L F F A N I G G D S R I Y K I N Y  
UniRef90\_UPI00036890FC A G G G A G A G T T L A G V V A A I D G D G Y W L A V N I G G D S R T Y R L S D  
UniRef90\_R7HJA0 T S I H P E S K G M G T T L V I A I K T D D Y I L Y G N I G G D S S G Y V V K N  
UniRef90\_UPI00047C9CE2 A H S N P Q Y A G M G T T L V V G V F Q G D R L L L G H I G G D S R C Y R L R G  
UniRef90\_UPI00046B0952 A Q A R Q V E V I G A T V A C L V L A N S H F V G I W A G G D S R I Y R F R D  
UniRef90\_U2YUG0 A T G Q R A A G T L T G V V L T R V G D A Y W L T L N I G G D S R T Y R W A R  
UniRef90\_UPI00037CF80C A W E A G A G I G S T V A V L L I R S G R C A V L W A G G D S R V Y R C R D  
UniRef90\_R5AUT9 A C A E P D L R G M G T T L V A A C V R R G R L T V L H V G G D S R A Y L V L G  
UniRef90\_UPI000255C70F A E S H D T C K G M G T T F A A A L C T N E F I A V S S V G G D S R I Y L W K H  
UniRef90\_A6LSK2 S N T S E N L S G M G T T V I T C F M T K N F I Q V A N V G G D S C C F A V K N

	130	140	150	160
UniRef90_F4H2X0	D	V	L	E
UniRef90_UPI000347973D	P	R	L	E
UniRef90_R7GPQ0	G	T	L	S
UniRef90_UPI0003B47FBF	G	T	L	S
UniRef90_UPI0003620B51	G	T	L	S
UniRef90_D0YP62	A	D	L	T
UniRef90_I9L0X3	G	K	L	H
UniRef90_UPI0003755EB8	E	Q	M	K
UniRef90_A0A031FR99	G	A	L	A
UniRef90_UPI0003800209	Q	K	L	L
UniRef90_R3U6S9	E	E	F	Y
UniRef90_W8JFV5	G	T	L	T
UniRef90_R6EPI0	G	E	I	R
UniRef90_R5NX45	G	K	L	T
UniRef90_K4IJZ8	G	V	L	T
UniRef90_F6FQ88	Q	A	F	Q
UniRef90_A1VUB7	R	L	S	Q
UniRef90_R7BF17	D	I	A	M
UniRef90_D0LU16	K	E	L	K
UniRef90_UPI0003B57AD8	G	V	L	Q
UniRef90_U3GS64	G	R	L	R
UniRef90_A0A015LLT1	G	V	F	E
UniRef90_F5RDT5	G	E	M	S
UniRef90_A7GRJ3	D	A	L	K
UniRef90_D4YGE6	G	R	L	V
UniRef90_G8MF20	G	T	L	A
UniRef90_C0XTL4	G	K	L	A
UniRef90_B8G544	G	E	L	D
UniRef90_UPI00034A2E0A	G	T	L	Q
UniRef90_UPI000369736A	D	G	I	S
UniRef90_E9SEQ8	D	M	L	T
UniRef90_K9YIF0	E	T	L	P
UniRef90_G7WVG39	D	K	L	E
UniRef90_A3ZYP0	D	V	L	T
UniRef90_G0H9V0	E	G	F	K
UniRef90_UPI00040F8F7B	N	E	I	K
UniRef90_M1MAS8	K	K	L	V
UniRef90_K8EQV1	D	G	I	A
UniRef90_R6SVC8	A	A	I	R
UniRef90_D5WPP79	G	R	L	E
UniRef90_H5WMS8	D	G	V	E
UniRef90_UPI0002DCFA06	G	H	L	E
UniRef90_B3PES2	G	D	L	T
UniRef90_U7UMU6	N	G	I	E
UniRef90_I4CW58	R	K	L	A
UniRef90_UPI0003B39ECB	R	K	L	A
UniRef90_D7C4W9	G	E	L	F
UniRef90_D9X6K5	G	E	L	F
UniRef90_UPI00036139C3	G	S	L	S
UniRef90_D4W3V3	Q	Q	L	R
UniRef90_A7I5E6	G	G	V	N
UniRef90_A1ZLP5	G	G	I	S
UniRef90_UPI000411C685	N	N	L	F
UniRef90_F0SQX3	D	R	I	L
UniRef90_UPI00037D92F0	A	E	P	A
UniRef90_A9GB18	S	Q	I	T
UniRef90_UPI0003B3F375	G	A	T	N
UniRef90_I0R1T3	G	E	V	T
UniRef90_I2N146	G	E	L	F
UniRef90_UPI00035F6D1C	G	E	F	T
UniRef90_S4XSF2	G	Q	I	L
UniRef90_F4DV28	G	E	L	Q
UniRef90_E8WVNK6	G	K	L	E
UniRef90_B9MR41	N	E	I	R
UniRef90_I2BL34	G	V	L	E
UniRef90_H1G3L3	D	R	L	E
UniRef90_A0A022GQD1	S	H	L	T
UniRef90_F8A1V3	D	V	L	E
UniRef90_UPI0003033D3C	R	R	L	F
UniRef90_UPI00037EA712	G	I	F	E
UniRef90_I1DYA5	N	V	L	R
UniRef90_K9YIJ3	H	E	L	Q
UniRef90_F9DPF8	K	A	I	R
UniRef90_UPI0002EA8187	Q	G	I	L
UniRef90_L0DET7	G	H	E	I
UniRef90_UPI00047D1D8D	H	E	L	A
UniRef90_C9XMU7	E	K	F	D
UniRef90_F0GWJ0	G	D	F	K
UniRef90_F3KWP8	G	Q	L	T
UniRef90_A6C5E5	D	V	L	H
UniRef90_H0DHV5	R	E	V	N
UniRef90_U1ERL6	R	E	V	N
UniRef90_D1VSE1	K	K	L	E
UniRef90_UPI00036890FC	G	H	F	E
UniRef90_R7HJA0	E	K	L	H
UniRef90_UPI00047C9CE2	Q	A	F	Q
UniRef90_UPI00046B0952	G	E	L	Q
UniRef90_U2YUG0	G	R	L	E
UniRef90_UPI00037CF80C	R	A	L	E
UniRef90_R5AUT9	R	R	M	Q
UniRef90_UPI000255C70F	P	Q	P	V
UniRef90_A6LSK2	N	E	I	K

UniRef90\_F4H2X0 GTGEAPEP D Y W L L P A G L T D R L L L C T D D G L L T R E E L L G D D D D I I A A S L Q  
UniRef90\_UPI000347973D GRE D L K E I T A Q K V D F Q P G D R L L L L C S S D D G L L T S R E N M V V T E D D D R I A A S L Q  
UniRef90\_R7GPPQ0 G A E K T V E I D F F D L K L E K G C T I L L M C S S D D G L L T S G V V V S F D D E K I Q H E F  
UniRef90\_UPI0003B47FBF D V I E A S P E I V D Q M V L D T R E K G D R W M L C S S D D G L L S G F V V P D D E I V A G E V  
UniRef90\_UPI0003620B51 D F D L D L T P D L S I R E A V P G D R W M L C S S D D G L L S G F V V P D D E I V A G E V  
UniRef90\_D0YP62 D S K G E V D I D E S M R A A V M G D R W M L C S S D D G L L S G V V V S T A D D Q L A G T V  
UniRef90\_I9L0X3 G L S P D A L D I T N L Y A Q M Q A G D Q L L L C S S D D G L L T N M V T D D A H M L E T L  
UniRef90\_UPI0003755EB8 G T D S Q V E V D L L T I D W Q P G D I L L L C S S D D G L L S N M I T D D A H M L E T L  
UniRef90\_A0A031FR99 G P S D G V V P M D Y V R L E V V D G D R F V V C S S D D G L L T K E L T D D Y G I L Q S L  
UniRef90\_UPI0003800209 G V D P K V E M E L N E F D V E I A D V Y L F C S S D D G L L T D L V T D D E L I A H S T  
UniRef90\_R3U6S9 G M P G L L E V D V T N Q E W L D K D F V L L C S S D D G L L T N M V S D E E E I V N D I  
UniRef90\_W8JFV5 G S R P H V V P D L Q D I S Y E E N D L E L F C S S D D G L L T N M V S D D R E D V R D I  
UniRef90\_R6EPI0 G A K A D V E V D F Y E H R L K R G N D L L L M C S S D D G L L T N M V S E D D E I L F D I  
UniRef90\_R5NX45 G S R D E M M P D F F E I D I N T E E K Y L L C S S D D G L L S N M V E D D D E I R D I  
UniRef90\_K4IJZ8 G D F D I D P R P D M S I S K A P A D R W M L C S S D D G L L G V L C S S D D D S T A E V  
UniRef90\_F6FQ88 D F D V D L T P D M S I R E A R P G D R W L C S S D D G L L S G F V V P P E Q L A T E V  
UniRef90\_A1VUB7 G V I E D S V L I D I N E Y R V E L G D V Y L M C S S D D G L L S D M V P D G E L A A I  
UniRef90\_R7BF17 G G A K E L M A D F F E A E L T A G N R I L M C S S D D G L L S N M V E S E E I E R V  
UniRef90\_D0LU16 G I A D G T R V A T F I L S L T A G N K I L L C S S D D G V L T E Y V E S E G E I A Q V  
UniRef90\_UPI0003B57AD8 G L K K N P A L D V L R G N L F S G D I F L L C S S D D G L L T D M V S D D A I K T L  
UniRef90\_U3GS64 T G R P V E P T V W S S E A R S G D R V L L C S S D D G L L S D P V V S F S D E L E E A  
UniRef90\_A0A015LLT1 G T D R H V E V D V K G F A W T P G D M L L L C S S D D G L L Y S M V S G E D E M L A A  
UniRef90\_F5RDT5 G V D P V V E P E I H T Y A V E P G D V Y L F C S S D D G L L N D M V E S D D I A L T  
UniRef90\_A7GRJ3 G T E E K V L D V K T L V L E E N D Q L L L C S S D D G L L T N K V A I N T D M Q R I  
UniRef90\_D4YGE6 G I A A N V G D V D I E N D V F L E G E T L L L C S S D D G L L T D M V V E E T E A L A S E  
UniRef90\_G8MF20 G A L D V L E L D I E N T L A L N D G D T F L L C S S D D G L L S D N E V T S E A T A S E  
UniRef90\_C0XTL4 T G R P E V D H L E Y L S V R L F A G D A L L L C S S D D G L L S D P V V T A E T A T  
UniRef90\_B8G544 G D R A E P D L L E Y S V R L F A G D A L L L C S S D D G Q W E M T R D P E M E R T A  
UniRef90\_UPI00034A2E0A G A G S A G L P D Y W L L P V R H G E R I L L V C S S D D G L L P K E V S P V I E V I T A V  
UniRef90\_UPI000369736A G A Q D D V E V D T G Y L I E K D D I L L L C S S D D G L L T S N M L S E E T N L Q A V  
UniRef90\_E9SEQ8 G V I E P D V E V D Y F E C S E S N D F A V V L C S S D D G L L T S N M L S E E E F I Y C  
UniRef90\_K9YIF0 G R R D M F E D I H Q I E T I D K G D R F L L C S S D D G L L T E E V T S D P I S K L  
UniRef90\_G7WG39 G A E A V T V E V D C R S I N L Q K N D V F L L C S S D D G L L T S N L I R N D E L E E F  
UniRef90\_A3ZYP0 G P G P T V E V D E G P F P Q V G D T F F V C S S D D G A T S D G P V S A D T I R E V  
UniRef90\_G0H9V0 T G R P V E P T L Q L L E V H A G D R F M L C S S D D G L L S D P V S A D T I R E V  
UniRef90\_UPI00040F8F7B G T E E S V V D I K T L T W E E Y D L L L L C S S D D G L L S N K I L S N D T I L F N E K  
UniRef90\_M1MAS8 G T G S S V C V D I F E L E N K E Y D L Y L L C S S D D G L L T N M V T E D S A I S E I  
UniRef90\_K8EQV1 G V S S E I D I D L T I F S I L K D D L L L L C S S D D G L L T N M V T E D S A I S E I  
UniRef90\_R6SVC8 G V E S D V E V D Y F E L E E N D N F A V L L C S S D D G L L T N M V C E E N M I Y E T  
UniRef90\_D5WP79 G M E P R V E V D I A R V S W E A G G I L L L C S S D D G L L T N M V T E D E G E I L E T  
UniRef90\_H5WMS8 G I E E E V D L E V H E H D A R K D D I F L L C S S D D G L L T D M V T D L Q I E A V  
UniRef90\_UPI0002DCFA06 G L G P V A L A D H F L I P A R A G N D R L L V C S S D D G L L T S G E V D D D S I S S I  
UniRef90\_B3PES2 G M Q P Q V K V D V I E G V Q W K N Q W I L L C S S D D G L L P Q V I D D E V S S A Q I  
UniRef90\_U7UMU6 G V D Q E L E V A V G A F P V R E N D R L L L C S S D D G L L T S S L T S E E I V I E A  
UniRef90\_I4CW58 G R E A P L E V G A R S G T L Q Q P G E R L L L C S S D D G L L T N E L P D A Q I H A A  
UniRef90\_UPI0003B39ECB G A D E D A D V D V W L P V R S V R S F L L C S S D D G L L T K E L P T E E R I G A I  
UniRef90\_D7C4W9 G G G A G G A A D I R L H D A R P G D R Y L L C S S D D G L L S V V P T E E R V R Q V  
UniRef90\_D9X6K5 G G S D A L P D L R L H D A R P G D R Y L L C S S D D G L L S G V V P E D R I H A I  
UniRef90\_UPI00036139C3 G T Q G S V S P D I R C L D F Q S G D R L L L C S S D D G L L T N M L A D P I A A I  
UniRef90\_D4W3V3 G V N K D L K F D Y L V L E N Y D L K A I L L C S S D D G L L T S L V E D R D I E K V  
UniRef90\_A7I5E6 G G D P F L K T D V F R Q Q A M P G D T Y L L C S S D D G L L W S E L K E E E I R A A  
UniRef90\_A1ZLP5 G T Q P E V E V S F S P I P N K N D I F L L C S S D D G L L N G L V H E D K S I E G T  
UniRef90\_UPI000411C685 G T H E S V E V D I F K F D S D E Y D K Y L I C S S D D G L L T N E V S T E K I T E I  
UniRef90\_F0SQX3 C L G P E A E V S L D T F E Y L P G D V F V L C S S D D G V L T K Y L N D A V E I G T I  
UniRef90\_UPI00037D92F0 P E R H E L R V S R S S G Q W R G Q R I L L C S S D D G L L S G E L D A V E L G Q I  
UniRef90\_A9GB18 G I R E D V L V D L V T D E T R H G D V Y L L C S S D D G L L S G L V S D D Q I L E L  
UniRef90\_UPI0003B3F375 G L E Y N V Q V A D I L S L K V K A E D V L L C S S D D G L L S D I V P L D K I N D I  
UniRef90\_I0R1T3 D V Q G D P E L D I A L H D A R L P G D R W M L C S S D D G L L S G V V P G E V M A K I  
UniRef90\_I2N146 G R G A D S T P D M R L H D A R G D R Y L L C S S D D G L L S T V V P A E E I R R V  
UniRef90\_UPI00035F6D1C G G Q L D T L A K A S V L R F Q A A G G D R Y L L C S S D D G L L D K E L S A E A L A E L  
UniRef90\_S4XSF2 G L D P D V L A D S V A R L D R R D D R Y L L C S S D D G L L S N K L S A E D M L A E L  
UniRef90\_F4DV28 G V Q D Q L E L A G S Q F E V I P G D T W L L C S S D D G L L T R T A S E D H E I R D V  
UniRef90\_E8WNNK6 G V P D T T D A D Q V R K I T L P E E L L L C S S D D G L L T D Q Q L D D E I Y R K  
UniRef90\_B9MR41 G I E E L E V D I Q E I E R E Q N K D Y C M C S S D D G L L T N M V F D T Q I H E I  
UniRef90\_I2BL34 G V I E A Q L D V A S V D L I A P G D S Y L L C S S D D G L L N K T V E D H E I R E V  
UniRef90\_H1G3L3 G L D T T V A V D I R N E M V L G D L Y L L C S S D D G L L N D M L R D D A I K D I  
UniRef90\_A0A022GQD1 G A N T T L E L D Q A W V E V A D A D I F L L C S S D D G L L S N E L R D D P E I A S V  
UniRef90\_F8A1V3 G T G Q E P E P D Y W L L P A G L T D R L L L C S S D D G L L T R E L L S G D A I A G V  
UniRef90\_UPI0003033D3C G A S E Q L T L D L E F D V Y P G D T L L L C S S D D G L L Y Q S L S P D S L G A A  
UniRef90\_UPI00037EA712 D V D A S P E L D L T F E A D P G E R W L C S S D D G L L N F V P L E V V G A Q V  
UniRef90\_I1DYA5 G V D P H L S I D V I S G V W Q P G D V F L L C S S D D G L L N K E L S D D E I Y Q Y  
UniRef90\_K9YIJ3 G R K E L Y S I D I D L N I Q P R D R L L L C S S D D G L L T G K E V R E E E I N R Y  
UniRef90\_F9DPF8 G S E K S I V P D I Y T I P V P S Q S Y L L L C S S D D G L L T N K V E K E M L D I  
UniRef90\_UPI0002EA8187 G T D A Q V E V D M K P I T L G S G Q Y L L L C S S D D G L L T N M M N S D Q I W S A  
UniRef90\_L0DET7 G P D P N V E D I E G P L A V E P N D V Y L L C S S D D G L L S G P V T D D P E L G V F  
UniRef90\_UPI00047D1D8D G T E K T V I D T Y K F I H R S N D I V L L C S S D D G L L N K E V E D D S I L A I  
UniRef90\_C9XMU7 G T D D M V V D I F K K E I K K S D I L L A T D G L L T G F I D D E D I R D L  
UniRef90\_F0GWJ0 G T E D E L E V D T E V I D M V K E D V L L L F T D G L L S D N E V A D D E I R N V  
UniRef90\_F3KWP8 G V D P A V M L E V H T H P V E A G E D V L L M C S S D D G L L S D M L R D T D I A K L  
UniRef90\_A6C5E5 T K D G S A G T Q A R H L D P T P Q D R M I L C S S D D G V T D G I S D E K L Q E L  
UniRef90\_H0DHV5 G T D R R V A P D L F V K K T N F Y D Y L L L C S S D D G L L T D Y V R N H H A Q L  
UniRef90\_U1ERL6 G T D K L V S P D I F V K K T N F Y D Y L L M L N T D G L L T D Y V R N K P I Q D  
UniRef90\_D1VSE1 G T N E K I D F E L S K I K L E K S D I L L L C S S D D G L L T N M V S N D D I L N L  
UniRef90\_UPI00036890FC G A G S D A A A D Y W L I P A E E G D R I L V C S S D D G L L S G E L E Q D A I H G I  
UniRef90\_R7HJA0 G A N D P I E I D I F D I D N T I N G L F L C S S D D G L L T N M V L T D D E I A E K V  
UniRef90\_UPI00047C9CE2 G V I E D T V L V E V N E H R V E V G D I Y L M C S S D D G L L S D M L V D E I A A I  
UniRef90\_UPI00046B0952 G V G E D L E L D K V R G E V E P G D R F L L C S S D D G L L T K Y A T D F A M L E R V  
UniRef90\_U2YUG0 G A G S V G Q A D F W M L P A E S G D R I L V C S S D D G L L S T E L D D F A M L E R V  
UniRef90\_UPI00037CF80C G V R E T L A L D R I D G E V E A G D I F L L C S S D D G L L S R M V H A P E I Q R L  
UniRef90\_R5AUT9 G V V P Q V E P D C R T L P F P L G A R L L L C S S D D G L L S N K L T S E G Q M H D F  
UniRef90\_UPI000255C70F G T E P T I A L D T A L V E W S H V L L L C S S D D G L L S N K L T D E Q R L T E I  
UniRef90\_A6LSK2 G T S I N V N V D I F Q L E N R E Y D L Y I L C S S D D G L L T N E L T K E I I L Q V



UniRef90\_F4H2X0 L R T A D P Q D A A T L L V Q H A L G R G A R D N V S A V V V D V A  
UniRef90\_UPI000347973D L K G N S C H K A V E A L I K A A K S H G G R D N V T V V V I D V A  
UniRef90\_R7GPQ0 L S E A D D L D Q K G S A L L V R E A A N Q N G G K D N V T A V V L V E  
UniRef90\_UPI0003B47FBF M S A D G A K Q V A D R L V K A S L D G G G A P D N V T V V L V D I G  
UniRef90\_UPI0003620B51 L N T P E P Y D A V E R L V S M A M R A G S T D N V L T  
UniRef90\_D0YP62 L R S Q N P E A C C E Q L V A L A L K S G A P  
UniRef90\_I9LX3 L T R Q Q T A T Q K C E T L I K L A N A A G G K D N V T A L I M A L  
UniRef90\_UPI0003755EB8 V L A P D L D A K A D R L V E L A L Q A G G D D N V T V V L L Q  
UniRef90\_A0A031FR99 L Q H E D P A A A V D A M L E A A L E N G G R D N V S I I V V  
UniRef90\_UPI0003800209 L N S H E D L T K A A D A L V K L A N E H N G G N D N V S I V L A K V N  
UniRef90\_R3U6S9 V H G G S L E E K V N E L I S E K A N A A G G A D N V T V L I I Q  
UniRef90\_W8JFV5 L Q G S S L E E S G N L I S L A N S R G G V D N V T V V L V R I  
UniRef90\_R6EP10 V Q G G D I V E S G T S L V E T A K E N G G T D N V T G V V L  
UniRef90\_R5NX45 V S E D D L D R I A G Q E L V D R A N Y Y G G S D N V T S V I I I  
UniRef90\_K4IJZ8 L S S S D Q A E C A A D L V T F A L K A G S T D N V T V V I A D  
UniRef90\_F6FQ88 L E S E T P D E A A D M L V T L A M T A G S T D N V T  
UniRef90\_A1VUB7 L H S G T L Q Q K A L K L V H A A N E G G G R D N V S V L L V  
UniRef90\_R7BF17 L A S A D I P E D K T K Q L L G R M A N E N G G K D N V A V V I I E L  
UniRef90\_D0LU16 L S A S P N R A A Q S L V D R M A N E N G G A D N S T A V V I K V  
UniRef90\_UPI0003B57AD8 L S K A D L E E K V N R L V Q E A N A N G G K D N T S V V L A Q I  
UniRef90\_U3GS64 L G V G D P A Q A A R K L I D L A L R S G G P D N V  
UniRef90\_A0A015LLT1 L A E P N L D G K A E R L I E L A L H A G G D D N V T V L L I D  
UniRef90\_F5RDT5 L Q S A N L D L A A E Q L V Q M A N D N G G R D N V S V I L V K V  
UniRef90\_A7GRJ3 L Q N E Q L I E T K G E H L I Q L A N D R G G E D N V T L V I V D  
UniRef90\_D4YGE6 L S D E T I L E A K A E R L I A A A N D R G G R D N V S V V V A  
UniRef90\_G8MF20 L A P G N C E A A A Q R L L E T A L A R G G R D N V S V V V A  
UniRef90\_C0XTL4 L G T G T P E A A A Q R L L E L A L R S G G P D N V T V V I  
UniRef90\_B8G544 I A E A D P Q R A C E A A L V A A A N Q A G G E D N V A V I L V R I  
UniRef90\_UPI00034A2E0A L A S E T A S G A A Q R L V R E A L A R G G R D N V T V V V D  
UniRef90\_UPI000369736A L S S K D L D L M A E E L I A A A N N A G G L D N V T L V L C K  
UniRef90\_E9SEQ8 V F G N N L D D A V R A L I D H S N E N G G R D N V T V A I I  
UniRef90\_K9YIF0 L G G D D L D K V A D N L V T E A K N N G G S D N V T V V L V K I  
UniRef90\_G7WG39 L E P Y S W E R E L Q K L R Q L T L E R G A P D N F T A J L  
UniRef90\_A3ZYP0 L K T L D P S H A V Q L M V D L A N L R G G P D N V T V I V A K I  
UniRef90\_G0H9V0 L A T G T P D E A A K L I D L A L R G G G P D N V  
UniRef90\_UPI00040F8F7B L N E N D P I E I L N Q L I S I A N D L G G E D N V T L A I I K F  
UniRef90\_M1MAS8 M E E D D Y V K I A N K L V S I A N E K G G R D N V T V L L  
UniRef90\_K8EQV1 L S Q D S I E E K V N A L V S L A N E K G G A D N V T V L L A D F A  
UniRef90\_R6SVC8 V F G N N L D E A I K Q L I A F A N E C G G K D N V T A A V I  
UniRef90\_D5WPF79 M R T V P L E G R L D R L I E A A L G R G G P D N V T V V A V E H G  
UniRef90\_H5WMS8 L A E S D P E Q R A R K L V D M A N S Q G G K D N V S V V L M R  
UniRef90\_UPI0002DCFA06 V R G Q R P Q E T A D S L D A A L G A G G R D N A T V I V I D V  
UniRef90\_B3PES2 L S T A T P N A A V D Q L L H A A L T S G G R D N V T L Q I I E  
UniRef90\_U7UMU6 L S D R S E K E I I R R L F D L V Y E A G A K D N V T A I L A T L  
UniRef90\_I4CW58 C A D T L E S L V D Q L I E Q A N A H G G R D N V S C I V I  
UniRef90\_UPI0003B39ECB L A G D P P R H T A E L V E A A V E A G G H D N V T A I V V E W  
UniRef90\_D7C4W9 V T A A D P E Q A V R E L I A L A N G A G G P D N V S C V V A D V  
UniRef90\_D9X6K5 L T S R T P D E T V E A L V G A A N E A G G P D N V S C V V A D V  
UniRef90\_UPI00036139C3 L Q Q A D I E T V S H D L I Q A A N D A G G E D N V T V V I V E  
UniRef90\_D4W3V3 L K N P S T N E K V N T L I Q M A N E N G G T D N V S V A L  
UniRef90\_A7I5E6 L E G P D T S R E C E K L V R F A L S G G A P D N T A I M F R I  
UniRef90\_A1ZLP5 L N S P D V E H K A I K L V Q M A N N L G G Y D N T T V Q L I E F  
UniRef90\_UPI000411C685 I R E K D N K L A C C E L V D E A N K N G G R D N V T V I L  
UniRef90\_F0SQX3 S K N L P S E A V R L I V N L A N L R G G A D N S T A V I V R I S  
UniRef90\_UPI00037D92F0 L G S G D E Q V Q A D R L I Q A A L T H G G R D N V S A I V V  
UniRef90\_A9GB18 V S S G S L D A A C K A L I D R A N Y F G G T D N V T V V L A R V  
UniRef90\_UPI0003B3F375 L N E K T L D E A S S A L I D L A N N A A G G F D N V T V L L A  
UniRef90\_I0R1T3 L A S N I P E E A S E L V G E A L E H G A P D N V T V V I T D I  
UniRef90\_I2N146 L S E A E P E Q A V R E L V A L A N G S G G P D N V S C V V A D V  
UniRef90\_UPI00035F6D1C M G L G S C Q Q A A E A L I N Q A L S R S G R D N V T V L V A E E S  
UniRef90\_S4XSF2 I R G P S I E A A C E R L V A L A N D R G G E D N V T A I V A E L  
UniRef90\_F4DV28 L A H A D P Y Q V V R S L V H L G L T R G A P D N V T A I V I K  
UniRef90\_E8WVNK6 V T I G R N P Y K A C K D L L E L V L A R G A H D N V S I Q I  
UniRef90\_B9MR41 F K K N D F Y D V G K N D L I E K A L E A G G I D N V T I V  
UniRef90\_I2BL34 L S H D A P D E I I V R S L V H L G L N R G A P D N V T T L V V K V S  
UniRef90\_H1G3L3 L R N H D L E Q A T H L I D K A N E Y G G R D N V S V V L A R  
UniRef90\_A0A022GQD1 L A C G D C E Q A A Q A L L V A A A L G R G G H D N V T A V V V R  
UniRef90\_F8A1V3 L A R A D A Q D A A N E L V H H A L E A G A R D N V S A V V V D V A  
UniRef90\_UPI0003033D3C L N A P S T G L A L Q R L F E E A M D G P C R D N S A V V I R L  
UniRef90\_UPI00037EA712 F R T P S L A E T A D R L I E L T L E A G A P D N  
UniRef90\_I1DYA5 L A H N N I A E A N R A L L H S T L V A G A R D N V T C I L V K V  
UniRef90\_K9YIJ3 L N A E T C D K A V T Q L I E T A K E N G G S D N V T V I V I E  
UniRef90\_F9DPF8 L R D V S L A D K V D T F V I E L A N E R G G E D N V T A I L L E  
UniRef90\_UPI0002EA8187 V I D P S L E A K A D R L L G Q S L D A G G D D N V T V L L E  
UniRef90\_L0DET7 A A N F H P K D A C R Y L V S L A N L R G G H D N V T V L V L R V G  
UniRef90\_UPI00047D1D8D V K S D S M Q K V A E E L K D R A I L M G G R D N V T I I I K V  
UniRef90\_C9XMU7 I L D Y E Y E R I S E E L T S M A N D V S G K D N V S V I V I K V  
UniRef90\_F0GWJ0 V N D D D A Y E I S S K L V E L A L N E G G H D N V T  
UniRef90\_F3KWP8 L R L P L S L E L A E A L V D M A N D R G G R D N V T V L L V  
UniRef90\_A6C5E5 L G Q F D P Q Q A A E I V K A A Q E G G S K D N V T C I V I F I  
UniRef90\_H0DHV5 A E G G D L Q T Q G H A L R L L S E D K A S K D N V S V V L A E I  
UniRef90\_U1ERL6 L N E D D A D S L G H S L I D L A L T N D S N D N V S I I L A K I  
UniRef90\_D1VSE1 I T K N E S T K I H E I L I D E A L K N G G I D N V T L I L V  
UniRef90\_UPI00036890FC L A E T D P Q A A A T R L V H E A M V R G G R D N V T A I V V D  
UniRef90\_R7HJA0 L N S K S I E E Q V E K L I K K S N I R G G T D N V S I A Y L K  
UniRef90\_UPI00047C9CE2 L G A E T L E K K A R Q L I V A A N A A G G H D N V S V L M A C  
UniRef90\_UPI00046B0952 L A Q S P L E T I T D R L I Q L A L D G G G A D N V T V I V V D V  
UniRef90\_U2YUG0 L D E E P Q D A A Q R L V H E A L L H G G R D N V T V I V I D  
UniRef90\_UPI00037CF80C L T D K P R A V A A Q L V D M A L D R G A P D N V T V A V V  
UniRef90\_R5AUT9 C R S R D A K Q L C G R L I T A A L A R G A R D N V T A L V L  
UniRef90\_UPI000255C70F M K S M N L E E K T G M M V K E A N R A G G E D N V S V I L  
UniRef90\_A6LSK2 V T E E S Y V N I A N K L V Y L A K Q N G G R D N V T V L L

UniRef90\_G2DHM1  
UniRef90\_R9LY85  
UniRef90\_U7JQB8  
UniRef90\_R5F079  
UniRef90\_I0HY96  
UniRef90\_UPI0004692D83  
UniRef90\_UPI000377FCE7  
UniRef90\_M2P727  
UniRef90\_W6M4Q5  
UniRef90\_D9R250  
UniRef90\_R7IDK8  
UniRef90\_D6ZKP9  
UniRef90\_UPI0002376463  
UniRef90\_B7R0M2  
UniRef90\_UPI00046AA68  
UniRef90\_UPI00031F1C58  
UniRef90\_A0A031ME90  
UniRef90\_R7L2J4  
UniRef90\_A0A011Q6B5  
UniRef90\_A9GS47  
UniRef90\_R9IWQ9  
UniRef90\_K2FSX6  
UniRef90\_UPI00037C1583  
UniRef90\_C9LLK3  
UniRef90\_K0WN29  
UniRef90\_A9G6B7  
UniRef90\_L7WXE8  
UniRef90\_K6NXZ0  
UniRef90\_UPI0004662499  
UniRef90\_UPI00046829F9  
UniRef90\_S2Y383  
UniRef90\_E4U9K6  
UniRef90\_UPI0003B313F4  
UniRef90\_E4RLT6  
UniRef90\_J3JQT0  
UniRef90\_MOT3Y0  
UniRef90\_A0A023NTE0  
UniRef90\_R5DYY8  
UniRef90\_UPI00037DE958  
UniRef90\_UPI00040C8F57  
UniRef90\_UPI000379B093  
UniRef90\_UPI000468D7B7  
UniRef90\_N6VR70  
UniRef90\_B8G543  
UniRef90\_D4H942  
UniRef90\_UPI00037620CC  
UniRef90\_UPI00035DACA7  
UniRef90\_V9QY79  
UniRef90\_W4QAW0  
UniRef90\_UPI00037DA7B7  
UniRef90\_D5SP79  
UniRef90\_UPI0004652113  
UniRef90\_Q47HU9  
UniRef90\_I3BV42  
UniRef90\_X0SWP3  
UniRef90\_UPI000381333D  
UniRef90\_G8ALX0  
UniRef90\_R6YL98  
UniRef90\_UPI00037B74A9  
UniRef90\_HOPX13  
UniRef90\_UPI00037D1184  
UniRef90\_U2KDT5  
UniRef90\_B2GL70  
UniRef90\_UPI000370A031  
UniRef90\_I0HV51  
UniRef90\_R7C211  
UniRef90\_C6WAT5  
UniRef90\_B8ILY9  
UniRef90\_D6TCN0  
UniRef90\_W0J7U4  
UniRef90\_R6CKT9  
UniRef90\_C1F4X3  
UniRef90\_G4T180  
UniRef90\_UPI00047DCB83  
UniRef90\_W6QV40  
UniRef90\_R6D7K1  
UniRef90\_Q7UUK3  
UniRef90\_W4BM81  
UniRef90\_UPI0003F6E084  
UniRef90\_UPI0004660060  
UniRef90\_B5Y951  
UniRef90\_Q1DCF4  
UniRef90\_Q31N24  
UniRef90\_I4VZN0  
UniRef90\_U5DLG1  
UniRef90\_Q6AKH8  
UniRef90\_L8EZA3  
UniRef90\_B7ZX32  
UniRef90\_UPI00035D2872  
UniRef90\_UPI00030D7D52  
UniRef90\_B4CZ18  
UniRef90\_S8BT30

1 10 20 30 40

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

UniRef90\_G2DHM1  
UniRef90\_R9LY85  
UniRef90\_U7JQB8  
UniRef90\_R5F079  
UniRef90\_I0HY96  
UniRef90\_UPI0004692D83  
UniRef90\_UPI000377FCE7  
UniRef90\_M2P727  
UniRef90\_W6M4Q5  
UniRef90\_D9R250  
UniRef90\_R7IDK8  
UniRef90\_D6ZKP9  
UniRef90\_UPI0002376463  
UniRef90\_B7R0M2  
UniRef90\_UPI00046AA6A8  
UniRef90\_UPI00031F1C58  
UniRef90\_A0A031ME90  
UniRef90\_R7L2J4  
UniRef90\_A0A11Q6B5  
UniRef90\_A9GS47  
UniRef90\_R9IWQ9  
UniRef90\_K2FSX6  
UniRef90\_UPI00037C1583  
UniRef90\_C9LLK3  
UniRef90\_K0WN29  
UniRef90\_A9G6B7  
UniRef90\_L7WXE8  
UniRef90\_K6NXZ0  
UniRef90\_UPI0004662499  
UniRef90\_UPI00046829F9  
UniRef90\_S2Y383  
UniRef90\_E4U9K6  
UniRef90\_UPI0003B313F4  
UniRef90\_E4RLT6  
UniRef90\_J3JQT0  
UniRef90\_MOT3Y0  
UniRef90\_UPI0003NTE0  
UniRef90\_R5DYY8  
UniRef90\_UPI00037DE958  
UniRef90\_UPI00040C8FF7  
UniRef90\_UPI000379B093  
UniRef90\_UPI000468D7B7  
UniRef90\_N6VR70  
UniRef90\_B8G543  
UniRef90\_D4H942  
UniRef90\_UPI00037620CC  
UniRef90\_UPI00035DACA7  
UniRef90\_V9QY79  
UniRef90\_UPI00037DA7B7  
UniRef90\_D5SP79  
UniRef90\_UPI0004652113  
UniRef90\_Q47HU9  
UniRef90\_I3BV42  
UniRef90\_X0SWP3  
UniRef90\_UPI000381333D  
UniRef90\_G8ALX0  
UniRef90\_R6YL98  
UniRef90\_UPI00037B74A9  
UniRef90\_HOPX13  
UniRef90\_UPI00037D1184  
UniRef90\_U2KDT5  
UniRef90\_B2GL70  
UniRef90\_UPI000370A031  
UniRef90\_I0HV51  
UniRef90\_R7C211  
UniRef90\_C6WAT5  
UniRef90\_B8ILY9  
UniRef90\_D6TCN0  
UniRef90\_W0J7U4  
UniRef90\_R6CKT9  
UniRef90\_C1F4X3  
UniRef90\_G4T180  
UniRef90\_UPI00047DCB83  
UniRef90\_W6QV40  
UniRef90\_R6D7K1  
UniRef90\_Q7UUK3  
UniRef90\_W4BM81  
UniRef90\_UPI0003F6E084  
UniRef90\_UPI0004660060  
UniRef90\_B5Y951  
UniRef90\_Q1DCF4  
UniRef90\_Q31N24  
UniRef90\_I4VZN0  
UniRef90\_U5DLG1  
UniRef90\_Q6AKH8  
UniRef90\_L8EZA3  
UniRef90\_B7ZX32  
UniRef90\_UPI00035D2872  
UniRef90\_UPI00030D7D52  
UniRef90\_B4CZ18  
UniRef90\_S8BT30

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



UniRef90\_G2DHM1  
UniRef90\_R9LY85  
UniRef90\_U7JQB8  
UniRef90\_R5F079  
UniRef90\_I0HY96  
UniRef90\_UPI0004692D83  
UniRef90\_UPI000377FCE7  
UniRef90\_M2P727  
UniRef90\_W6M4Q5  
UniRef90\_D9R250  
UniRef90\_R7IDK8  
UniRef90\_D6ZKP9  
UniRef90\_UPI0002376463  
UniRef90\_B7R0M2  
UniRef90\_UPI00046AA6A8  
UniRef90\_UPI00031F1C58  
UniRef90\_A0A031ME90  
UniRef90\_R7L2J4  
UniRef90\_A0A011Q6B5  
UniRef90\_A9GS47  
UniRef90\_R9IWQ9  
UniRef90\_K2FSX6  
UniRef90\_UPI00037C1583  
UniRef90\_C9LLK3  
UniRef90\_K0WN29  
UniRef90\_A9G6B7  
UniRef90\_L7WXE8  
UniRef90\_K6NXZ0  
UniRef90\_UPI0004662499  
UniRef90\_UPI00046829F9  
UniRef90\_S2Y383  
UniRef90\_E4U9K6  
UniRef90\_UPI0003B313F4  
UniRef90\_E4RLT6  
UniRef90\_J3JQT0  
UniRef90\_MOT3Y0  
UniRef90\_A0A023NTE0  
UniRef90\_R5DYY8  
UniRef90\_UPI00037DE958  
UniRef90\_UPI00040C8FF7  
UniRef90\_UPI000379B093  
UniRef90\_UPI000468D7B7  
UniRef90\_N6VR70  
UniRef90\_B8G543  
UniRef90\_D4H942  
UniRef90\_UPI00037620CC  
UniRef90\_UPI00035DACA7  
UniRef90\_V9QY79  
UniRef90\_W4QAW0  
UniRef90\_UPI00037DA7B7  
UniRef90\_D5SP79  
UniRef90\_UPI0004652113  
UniRef90\_Q47HU9  
UniRef90\_I3BV42  
UniRef90\_X0SWP3  
UniRef90\_UPI000381333D  
UniRef90\_G8ALX0  
UniRef90\_R6YL98  
UniRef90\_UPI00037B74A9  
UniRef90\_HOPX13  
UniRef90\_UPI00037D1184  
UniRef90\_U2KDT5  
UniRef90\_B2GL70  
UniRef90\_UPI000370A031  
UniRef90\_I0HV51  
UniRef90\_R7C211  
UniRef90\_C6WAT5  
UniRef90\_B8ILY9  
UniRef90\_D6TCN0  
UniRef90\_W0J7U4  
UniRef90\_R6CKT9  
UniRef90\_C1F4X3  
UniRef90\_G4T180  
UniRef90\_UPI00047DCB83  
UniRef90\_W6QV40  
UniRef90\_R6D7K1  
UniRef90\_Q7UUK3  
UniRef90\_W4BM81  
UniRef90\_UPI0003F6E084  
UniRef90\_UPI0004660060  
UniRef90\_B5Y951  
UniRef90\_Q1DCF4  
UniRef90\_Q31N24  
UniRef90\_I4VZN0  
UniRef90\_U5DLG1  
UniRef90\_Q6AKH8  
UniRef90\_L8EZA3  
UniRef90\_B7ZX32  
UniRef90\_UPI00035D2872  
UniRef90\_UPI00030D7D52  
UniRef90\_B4CZ18  
UniRef90\_S8BT30

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

UniRef90\_G2DHM1  
UniRef90\_R9LY85  
UniRef90\_U7JQB8  
UniRef90\_R5F079  
UniRef90\_I0HY96  
UniRef90\_UPI0004692D83  
UniRef90\_UPI000377FCE7  
UniRef90\_M2P727  
UniRef90\_W6M4Q5  
UniRef90\_D9R250  
UniRef90\_R7IDK8  
UniRef90\_D6ZKP9  
UniRef90\_UPI0002376463  
UniRef90\_B7R0M2  
UniRef90\_UPI00046AA6A8  
UniRef90\_UPI00031F1C58  
UniRef90\_A0A031ME90  
UniRef90\_R7L2J4  
UniRef90\_UPI0004011Q6B5  
UniRef90\_A9GS47  
UniRef90\_R9IWQ9  
UniRef90\_K2FSX6  
UniRef90\_UPI00037C1583  
UniRef90\_C9LLK3  
UniRef90\_K0WN29  
UniRef90\_A9G6B7  
UniRef90\_L7WXE8  
UniRef90\_K6NXZ0  
UniRef90\_UPI0004662499  
UniRef90\_UPI00046829F9  
UniRef90\_S2Y383  
UniRef90\_E4U9K6  
UniRef90\_UPI0003B313F4  
UniRef90\_E4RLT6  
UniRef90\_J3JQT0  
UniRef90\_MOT3Y0  
UniRef90\_UPI0003NTE0  
UniRef90\_R5DYY8  
UniRef90\_UPI00037DE958  
UniRef90\_UPI00040C8FF7  
UniRef90\_UPI000379B093  
UniRef90\_UPI000468D7B7  
UniRef90\_N6VR70  
UniRef90\_B8G543  
UniRef90\_D4H942  
UniRef90\_UPI00037620CC  
UniRef90\_UPI00035DACA7  
UniRef90\_V9QY79  
UniRef90\_W4QAW0  
UniRef90\_UPI00037DA7B7  
UniRef90\_D5SP79  
UniRef90\_UPI0004652113  
UniRef90\_Q47HU9  
UniRef90\_I3BV42  
UniRef90\_X0SWP3  
UniRef90\_UPI000381333D  
UniRef90\_G8ALX0  
UniRef90\_R6YL98  
UniRef90\_UPI00037B74A9  
UniRef90\_HOPX13  
UniRef90\_UPI00037D1184  
UniRef90\_U2KDT5  
UniRef90\_B2GL70  
UniRef90\_UPI000370A031  
UniRef90\_I0HV51  
UniRef90\_R7C211  
UniRef90\_C6WAT5  
UniRef90\_B8ILY9  
UniRef90\_D6TCN0  
UniRef90\_W0J7U4  
UniRef90\_R6CKT9  
UniRef90\_C1F4X3  
UniRef90\_G4T180  
UniRef90\_UPI00047DCB83  
UniRef90\_W6QV40  
UniRef90\_R6D7K1  
UniRef90\_Q7UUK3  
UniRef90\_W4BM81  
UniRef90\_UPI0003F6E084  
UniRef90\_UPI0004660060  
UniRef90\_B5Y951  
UniRef90\_Q1DCF4  
UniRef90\_Q31N24  
UniRef90\_I4VZN0  
UniRef90\_U5DLG1  
UniRef90\_Q6AKH8  
UniRef90\_L8EZA3  
UniRef90\_B7ZX32  
UniRef90\_UPI00035D2872  
UniRef90\_UPI00030D7D52  
UniRef90\_B4CZ18  
UniRef90\_S8BT30

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

UniRef90\_G2DHM1  
UniRef90\_R9LY85  
UniRef90\_U7JQB8  
UniRef90\_R5F079  
UniRef90\_I0HY96  
UniRef90\_UPI0004692D83  
UniRef90\_UPI000377FCE7  
UniRef90\_M2P727  
UniRef90\_W6M4Q5  
UniRef90\_D9R250  
UniRef90\_R7IDK8  
UniRef90\_D6ZKP9  
UniRef90\_UPI0002376463  
UniRef90\_B7R0M2  
UniRef90\_UPI00046AA6A8  
UniRef90\_UPI00031F1C58  
UniRef90\_A0A031ME90  
UniRef90\_R7L2J4  
UniRef90\_UPI0001106B5  
UniRef90\_A9GS47  
UniRef90\_R9IWQ9  
UniRef90\_K2FSX6  
UniRef90\_UPI00037C1583  
UniRef90\_C9LLK3  
UniRef90\_K0WN29  
UniRef90\_A9G6B7  
UniRef90\_L7WXE8  
UniRef90\_K6NXZ0  
UniRef90\_UPI0004662499  
UniRef90\_UPI00046829F9  
UniRef90\_S2Y383  
UniRef90\_E4U9K6  
UniRef90\_UPI0003B313F4  
UniRef90\_E4RLT6  
UniRef90\_J3JQT0  
UniRef90\_MOT3Y0  
UniRef90\_UPI0003NTE0  
UniRef90\_R5DYY8  
UniRef90\_UPI00037DE958  
UniRef90\_UPI00040C8FF7  
UniRef90\_UPI000379B093  
UniRef90\_UPI000468D7B7  
UniRef90\_N6VR70  
UniRef90\_B8G543  
UniRef90\_D4H942  
UniRef90\_UPI00037620CC  
UniRef90\_UPI00035DACA7  
UniRef90\_V9QY79  
UniRef90\_W4QAW0  
UniRef90\_UPI00037DA7B7  
UniRef90\_D5SP79  
UniRef90\_UPI0004652113  
UniRef90\_Q47HU9  
UniRef90\_I3BV42  
UniRef90\_X0SWP3  
UniRef90\_UPI000381333D  
UniRef90\_G8ALX0  
UniRef90\_R6YL98  
UniRef90\_UPI00037B74A9  
UniRef90\_HOPX13  
UniRef90\_UPI00037D1184  
UniRef90\_U2KDT5  
UniRef90\_B2GL70  
UniRef90\_UPI000370A031  
UniRef90\_I0HV51  
UniRef90\_R7C211  
UniRef90\_C6WAT5  
UniRef90\_B8ILY9  
UniRef90\_D6TCN0  
UniRef90\_W0J7U4  
UniRef90\_R6CKT9  
UniRef90\_C1F4X3  
UniRef90\_G4T180  
UniRef90\_UPI00047DCB83  
UniRef90\_W6QV40  
UniRef90\_R6D7K1  
UniRef90\_Q7UUK3  
UniRef90\_W4BM81  
UniRef90\_UPI0003F6E084  
UniRef90\_UPI0004660060  
UniRef90\_B5Y951  
UniRef90\_Q1DCF4  
UniRef90\_Q31N24  
UniRef90\_I4VZN0  
UniRef90\_U5DLG1  
UniRef90\_Q6AKH8  
UniRef90\_L8EZA3  
UniRef90\_B7ZX32  
UniRef90\_UPI00035D2872  
UniRef90\_UPI00030D7D52  
UniRef90\_B4CZ18  
UniRef90\_S8BT30

170 180 190 200  
G I F P Y V I E V D L I E K T R L E T G D L Y L L L C T D D G L L N G M L S S S N E I L H E Y  
G P D Q A E C D G Y I C P L A A G E F L L L L C S S D D G L L V N T V T D D Q E M L S V  
N G Q A Q H S P D A S L V D V R L G D R L L L L C S S D D G L L C G L L V L T D D D E T I K R L V  
G T E T T V L C D D I F H L D V R G K G D Y L L L L C S S D D G L L S N L L V L D D D Q A I G R L V  
G V I E D T V L L I E M H P H D V M P G D L Y L L L C S S D D G L L S D M L D D D G A I G R L  
G V I S E K P I C E R V T G E L Q L Q L G D V F L L L C S S D D G L L T E H I P A D A E A I R Q M  
G I E P D V E P D V V E E I L Q P G D I Y M M C S S D D G L L T D V V I A D A E A I R I  
G V S E P L K I S F Y K E K F N Q S F L I C S S D D G L L Y N S L S S D G Q I L D T  
G S A D E L L V D E A V Y P L E Q T G D M F L L L C S S D D G L L N K N T V L S D D A E H T  
G T E D K L E I D F E A V S L E P G D Y V L L L C S S D D G L L N K N T V L S D D A E M E E I  
G A A E K C E P D D I F D V D N E S N A V F L L L C S S D D G L L T G M L S D D E Q I E E K V  
G A G Q A P Q I I D D W T Y P V A S P R R F L V C S S D D G L L H S M I S D D D Q A I G R A T  
G V D E Y V T I D Q V S G Q L L D G D Q F L L L C S S D D G L L T K E L S D D D Q A I K A T  
G I S P E I R I D P N T I Q L K E G D Y L L L L C S S D D G L L S D V L T D D E E I A K V  
G V S P E P L T I V D V I E K I R G Q I A S G D R F L L L C S S D D G L L S K G Y A T F D E M L R R A  
G S P E P L T I V D V I E K I R G Q I A S G D R F L L L C S S D D G L L S K G Y A T F D E M L R R A  
G A H E K L D L D M I R F T V Y P G D T L L L L C S S D D G L L Y Q S L L P D T I G A A  
G V A Q D V E P D Y F E S E L P K S G A A V L L L C S S D D G L L S N F C D E G Q V I F R T  
G M A V G F A P E M N L C E P L N K S G A R V L L L C S S D D G L L W E M L S D D D Q A I A D A  
G M G K T V D V A T R V E R P E A G D L L L L C S S D D G L L S G P V L P E Q E I A E L  
G G G Q N I E V S D F F E V G L R E G Q I L M S T D D G L L T D M L E S D N S D I F E I  
G T H P T V E P S I G K I A Y N L G D I F L M S T D D G L L T D Y I L E S D N S D I K T I  
G V I E D A I L I E V S E C R V E N G D L Y L L L C S S D D G L L S D M I G A S E I A E L  
G L K K A L E V D T G T I R L K N N T L I L L L C S S D D G L L T I G M V S D D H I A K L  
G A A E Q L T L D V L E L E V Y P G D A F L L L C S S D D G L L Y Q G L S D D A L G N A  
G M R P E V E V I E V R P E P M E L Y P V L I Q S S S D D G L L T D L V L P G D I L Q A  
G T D K R V S P D L F T K R L K F A D F L L L L C S S D D G L L T D Y L R N S E I Q E E  
G T D V S V P V D E T T V K Q L E P A Y D V L L L L C S S D D G L L T S E A L P R N S E I A A  
G L G G S S R E D L W M V P M A A G D R L L V C S S D D G L L T K E L L S D D S T L Q E F  
G V T D T P N C E V I L G H E V Q V G D A F L L L C S S D D G L L N E H L L E D S D I V I G T  
G T A A P E L R L G H E A A P G D R Y L L L C S S D D G L L C G V V P D A R I R T V  
G V I E D A E F E I T P V E L V R G D V Y V F T T D D G L L Y N L V P P E E W V V D  
G I G P H P N T D H A V C D L A G G D R L L L L C S S D D G L L S S M V D D S A I E C T  
G I Q K D L P D S G Q K N L K N E D I V L L L A T D D G L L T D M L R N S E I L E N L  
G Q A N P V E P D L G I T Q S L E S G D Y L L V A N S D G L L T N M I S N K V I V N A  
A F G D R L L K Q F V V V D P E I W E F L L L A S D G L L W D V V T S N E A A V A M  
T A P E R L H I G M A R G R L E P G M C F L L L C S S D D G L L T E E V T S D A A M A V  
G I K P S V R L D Y I E A N F I Y G D V L L L L C S S D D G L L S N C V S T T A G D M V K I  
G Q A S P L D L D L G I T Q P L Q S G D F R L L V N S D G L L S N M V S R Q Q L E I  
G A E P P F D P D F W L V P M V T G D R L L L L C S S D D G L L R E T P L P R V E E I  
G Q A Q P V H P D L G Q Q E L E A D D Y L V I N S D G L L T N M I S N S E I V I T L  
G I D P S V S F D L E G A G F S H D I E L L L L C S S D D G L L T D M V A D S A I Q E I  
G I D F A V D I Y K K E L K S G D I L L L L C S S D D G L L H D Y V T D E E L A Q L  
G T D Q P F V A D T R V Q A L A P G D L L L L L C S S D D G L L V N H V T D E E L A Q L  
N G Q P Q H I P D T Q F L V D L R L G S R I L L L C S S D D G L L C G L V N G D T A I G E H  
G G V A S A V P D D F H M M L P P G S R V L L L C S S D D G V S G M I S G P T A I A E I  
G Q S A P L E T D L G V K I L E G N D Y L V I N S D G L L T N M V S N A E I A E I  
G A R E P L N L E V L E L S T R P G D V F L L L C S S D D G L L Y Q S L S S H G E L G R A  
G T G L D L K V D V S T F Q A D E S Y V L L L C S S D D G L L T N K L S E D E I E Q L  
I D T L Q P M T T Q T T I E L Q T E D V L L L L C S S D D G L L W E P L L E Q D M A E V  
G A K D G S Q G S G A K Y P L Q P G D R L L L L C S S D D G A T G G I P D P Q L Q L L  
G V M D E V K V D V I K N E L K T G D I F L L L C S S D D G L L T G E L S D D D J I R Q L S  
G L D P R V L M D F A D G E L A L N D R F L L L C S S D D G V W G V L P D A L I A D L  
G G N G I L E P E L V R F P V Q I P D D I F L L L C S S D D G L L T A M L D D S E I A T E  
G T S K N V N A F T N F F N V I P D D R I L L L C S S D D G L L W D V L S D G E I T T I  
P E D S H N Y F D I G E H S F L P E D I A L F C S S D D G L L T D L V T Q A Q M A I  
G T G E Q V I P D I A V H D L Q P D D L Y L L L C S S D D G L L T G I V P E G L I Q R I  
G A N N P A E V D I F V D D E E I E G V F L L C S S D D G L L T S M L N Q T Q I E K V  
G A G M E Q E A D F F T F P V A V G D R I L V C S S D D G L L T G E L A D I V I A Q I  
G L D A Q L L D F A D G E L A V D D R F L L L C S S D D G V W N T L G D E G M G E L  
G A N E I K L V D F Y P L E Y H A F H Y V L L L C S S D D G L L S N F V T L N E M K Q I  
G S D R K K T G L N A D L P L E V G T K F V L C S S D D G L L T N M C S D E E I A E L  
G T G Q I W E P D V V V L P A V P G Q R L L M C S S D D G L L T G E L S P A H I A R V  
G M G S Y L R P T V Q R L I L D E D C V Y L L L C S S D D G L L S D N V W Q T E I A P L  
S P G K P V V D T T G P L L L Q T G D R I L L L C S S D D G L L W G H L S D A V I T E Q  
G S Q V A T P D F F E F E A E E G Y L L L C S S D D G L L S N M I S N D E I K E L  
G S G A E S T P Q V V L R P A T A G A L V L C S S D D G L L W N Y L P E P E I A D A  
G V Q A R P E L D L D H G L L E P G D L F I L L C S S D D G L L T S H V E D G E I L A A  
G M E G E V T P V V Q R T L P L L A G D R L L L C S S D D G L L T S L V P D D Q H I A Q L  
G Q P G G I S P A L R S L P V M P G D L Y L L L C S S D D G L L T R L V N D T E L E T M  
G A D S G D P Q P C M P V P A K A G V K L L L C S S D D G L L T D M C S R E E I A Q T  
G P E R F V T A D S T T A M L Q P R D L L L L C S S D D G L L S N A L T S A Q I A R T  
G S S D K E V V Q V D V V E R D K R D I V L L L C S S D D G L L T G Q V P S S T I A T I  
G P R D Q I S A D V Q F F E I A E D S L F I L A S D G L L S D H Y S T H L L P L L  
Q V G Q V P D V G L L R A R L A P D E L L L L C S S D D G L L T S E L D D A A I Q R C  
G A N N P I D V D I F D V D T S C D G I F L L L C S S D D G L L T N M L S V S Q I E K V  
H G H N E L I A E V R R V E L Q K N D I V V L C S S D D G L L T R Y I D D A T L L S I  
G T D A E V K V D L S D T V K I E E G E V L L L C S S D D G L L S N L V S N E Q I Q V I  
G V M E E L V V D S G Q L T I H D G E I F L L L A T D D G L L M K H V E D T A I H I  
G V D R E L V L E S A E L Q L Y P D D M L L L C S S D D G L L Y R E L S T G I I Q C  
L E G G T V Q T V I K Q F S L E Y D A F L L L C S S D D G L L T D A L N D E I S A C  
E N A E P T V Q R L Q T E P G D V F L L L C S S D D G L L Y E P L G V E I G L M K R  
R N N D W L D P E V R F L E V R E D T V F L L L C S S D D G L L S D F D L V I E V T E L  
T A S D S L H V I G M A R G Q L A R G M A F L L C S S D D G L L T E D V G D K A I A G V  
R E S N S L S P E I Q T L D V T E D T L L L L C S S D D G L L S D H A D D Y L V P L L  
K R D S L K R T V V D V Y E L Q Q G D Q F L L L C S S D D G L L Y G M I C A D E I T A V  
G S G A R D W E P E V G L R E A R P G D R Y L L L C S S D D G L L S A V V P S D A V Q D A  
A F G N R L K Q F V I A D P E I Q E F L L I A S D D G L L W D V V P S N E D A V S L  
G F Y P Q I D T P D D Y I E T G Q S P F L L L C S S D D G L L T D F V P K G E I T A I  
G W D N V R V D I A R I N N D Y S Q L L L C S S D D G L L H G Y V H K S G V I H E I  
G G R E V H T H I H Q L N I E E K A R F L L L C S S D D G L L T D M L H S P E I L E V  
C P L S S E P E V E E T T L T E E D E F L I M G C D D G L L W D V M S S Q Y A V T I



UniRef90\_G2DHM1  
UniRef90\_R9LY85  
UniRef90\_U7JQB8  
UniRef90\_R5F079  
UniRef90\_I0HY96  
UniRef90\_UPI0004692D83  
UniRef90\_UPI000377FCE7  
UniRef90\_M2P727  
UniRef90\_W6M4Q5  
UniRef90\_D9R250  
UniRef90\_R7IDK8  
UniRef90\_D6ZKP9  
UniRef90\_UPI0002376463  
UniRef90\_B7R0M2  
UniRef90\_UPI00046AA6A8  
UniRef90\_UPI00031F1C58  
UniRef90\_A0A031ME90  
UniRef90\_R7L2J4  
UniRef90\_UPI00011Q6B5  
UniRef90\_A9GS47  
UniRef90\_R9IWQ9  
UniRef90\_K2FSX6  
UniRef90\_UPI00037C1583  
UniRef90\_C9LLK3  
UniRef90\_K0WN29  
UniRef90\_A9G6B7  
UniRef90\_L7WXE8  
UniRef90\_K6NXZ0  
UniRef90\_UPI0004662499  
UniRef90\_UPI00046829F9  
UniRef90\_S2Y383  
UniRef90\_E4U9K6  
UniRef90\_UPI0003B313F4  
UniRef90\_E4RLT6  
UniRef90\_J3JQT0  
UniRef90\_MOT3Y0  
UniRef90\_UPI00046829F9  
UniRef90\_R5DYY8  
UniRef90\_UPI00037DE958  
UniRef90\_UPI00040C8F7  
UniRef90\_UPI000379B093  
UniRef90\_UPI000468D7B7  
UniRef90\_N6VR70  
UniRef90\_B8G543  
UniRef90\_D4H942  
UniRef90\_UPI00037620CC  
UniRef90\_UPI00035DACA7  
UniRef90\_V9QY79  
UniRef90\_UPI0004652113  
UniRef90\_Q47HU9  
UniRef90\_I3BV42  
UniRef90\_X0SWP3  
UniRef90\_UPI000381333D  
UniRef90\_G8ALX0  
UniRef90\_R6YL98  
UniRef90\_UPI00037B74A9  
UniRef90\_HOPX13  
UniRef90\_UPI00037D1184  
UniRef90\_U2KDT5  
UniRef90\_B2GL70  
UniRef90\_UPI000370A031  
UniRef90\_I0HV51  
UniRef90\_R7C211  
UniRef90\_C6WAT5  
UniRef90\_B8ILY9  
UniRef90\_D6TCN0  
UniRef90\_W0J7U4  
UniRef90\_R6CKT9  
UniRef90\_C1F4X3  
UniRef90\_G4T180  
UniRef90\_UPI00047DCB83  
UniRef90\_W6QV40  
UniRef90\_R6D7K1  
UniRef90\_Q7UUK3  
UniRef90\_W4BM81  
UniRef90\_UPI0003F6E084  
UniRef90\_UPI0004660060  
UniRef90\_B5Y951  
UniRef90\_Q1DCF4  
UniRef90\_Q31N24  
UniRef90\_I4VZN0  
UniRef90\_U5DLG1  
UniRef90\_Q6AKH8  
UniRef90\_L8EZA3  
UniRef90\_B7ZX32  
UniRef90\_UPI00035D2872  
UniRef90\_UPI00030D7D52  
UniRef90\_B4CZ18  
UniRef90\_S8BT30

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

UniRef90\_D2NNZ4  
UniRef90\_A1SI57  
UniRef90\_UPI00046630B9  
UniRef90\_E6USJ1  
UniRef90\_UPI000347766C  
UniRef90\_B1ZQU3  
UniRef90\_C6WCL7  
UniRef90\_UPI0004664EA8  
UniRef90\_F2LJL4  
UniRef90\_L1LV70  
UniRef90\_E8TTC3  
UniRef90\_A0A010RV10  
UniRef90\_E1TE92  
UniRef90\_E7GD93  
UniRef90\_H5SD03  
UniRef90\_UPI00033CWJ0  
UniRef90\_I1HZ44  
UniRef90\_UPI0003B7310B  
UniRef90\_G0A448  
UniRef90\_Q2FNR9  
UniRef90\_L8LQ18  
UniRef90\_UPI000288C229  
UniRef90\_E0RY76  
UniRef90\_A4VM58  
UniRef90\_B1WV81  
UniRef90\_R6WW92  
UniRef90\_UPI0002893DA4  
UniRef90\_W8NSX9  
UniRef90\_I1LX68  
UniRef90\_UPI000466E4C0  
UniRef90\_Y0KDU6  
UniRef90\_C5BKX9  
UniRef90\_UPI00047D2E31  
UniRef90\_Q47A3  
UniRef90\_M5VKG9  
UniRef90\_H2LB00  
UniRef90\_UPI0003749007  
UniRef90\_I3JF86  
UniRef90\_UPI0003668914  
UniRef90\_UPI00020D9C8C  
UniRef90\_UPI00036BFD9F  
UniRef90\_K0CAQ0  
UniRef90\_UPI00037BWM7  
UniRef90\_UPI00023B2915  
UniRef90\_V4KMB1  
UniRef90\_A0A059DFM6  
UniRef90\_V9ILY6  
UniRef90\_UPI00042B3013  
UniRef90\_D8U4A7  
UniRef90\_Q9LME4  
UniRef90\_UPI00037AF47A  
UniRef90\_UPI0003D6FBB3  
UniRef90\_K7IR67  
UniRef90\_M4WXR5  
UniRef90\_UPI0002B40B49  
UniRef90\_UPI000395C025  
UniRef90\_UPI00041EC11B  
UniRef90\_V4TAV5  
UniRef90\_R6GDL1  
UniRef90\_UPI00035F931C  
UniRef90\_Q46YE5  
UniRef90\_G7ZAL0  
UniRef90\_W2C841  
UniRef90\_C4K995  
UniRef90\_C5WTK7  
UniRef90\_A0A011QKQ3  
UniRef90\_K9QWU7  
UniRef90\_I11Z9  
UniRef90\_K9WXM5  
UniRef90\_O64583  
UniRef90\_S3VV98  
UniRef90\_UPI0003FE8274  
UniRef90\_G0AH36  
UniRef90\_H2LRL3  
UniRef90\_R7DP96  
UniRef90\_UPI0001CC0B63  
UniRef90\_A0A034VHQ0  
UniRef90\_G1URD8  
UniRef90\_A7MBY9  
UniRef90\_Q3EN65  
UniRef90\_A0A023D9S8  
UniRef90\_R8AYN4  
UniRef90\_A1KCM2  
UniRef90\_K4ABK3  
UniRef90\_A0A022PTU7  
UniRef90\_E1RFS6  
UniRef90\_M0TQT7  
UniRef90\_E8U1H5  
UniRef90\_UPI000388AF48  
UniRef90\_UPI00038000E1

1 10 20 30 40

MT LKLRRTGGATHRGGAHRENNEDSMVVAAGSLC V V V A D G M G G  
UniRef90\_A1SI57 LRFSGAGVSDVGLVLRPNQNNEDSAFVVGPLYVA V V A D G M G G  
UniRef90\_UPI00046630B9 ADTWRSAARTDPGKLVRSANEDDAFYPPQQGLWAV A D G M G G  
UniRef90\_E6USJ1 ILLRAT AATHDGLYVRSANEDDAFYPPQQGLWAV A D G M G G  
UniRef90\_UPI000347766C PSTIKIFTKTDITGRYTRQRNNEDAYCYPQTALFAI V C D G M G G  
UniRef90\_B1ZQU3 VLRWSGLTHVGRYRQRNNEDDAFLATDFVFAV A D G M G G  
UniRef90\_C6WCL7 QLTAGMATDVGVRVRRHNNEDCALVGAHVFAV A D G M G G  
UniRef90\_UPI0004664EA8 RWHHSFGRTETGKVVRRNNEDAILDDAGLWAV A D G M G G  
UniRef90\_F2LJL4 MTHSYVLSAQAASASGKPRRENNQDAALVLDLGLWV A D G M G G  
UniRef90\_L1LV70 MSKARLRSIAQASASGKPRRENNQDAALVLDLGLWV A D G M G G  
UniRef90\_E8TTC3 MTKAFRLISAASHTKGDRTYQQDQVFNGLVGLV A D G M G G  
UniRef90\_A0A010RV10 MSLLQLSFAEASATGGLP R DENQDAALASKGFLFAI A D G M G G  
UniRef90\_E1TE92 MTTLCRSAGHTEGTGNVRRRNNEDAILVLDLGLWV A D G M G G  
UniRef90\_E7GD93 MEVIAMS DIGNVRRVNNQDYVRYNECLIVL C D G M G G  
UniRef90\_H5SD03  
UniRef90\_UPI00033CWJ0 MTQGFRLAAATHRKGD RPYQQDQVLLPGCVLGLV A D G M G G  
UniRef90\_I1HZ44 LKCGYSSFRGKR RATMEDFYDVKLTLFGV F D G H G G  
UniRef90\_UPI0003B7310B APRFQVAAASHTVGR RQNNEDFHRVLRLLLA V A D G M G G  
UniRef90\_G0A448 ALTRISLGAYS DKG IKAENEDFWRVLRLLLA V A D G M G G  
UniRef90\_Q2FNR9 LRIVIEAFFFTNKGGLVRSNNEDGLVLP G AL F C V A D G M G G  
UniRef90\_L8LQ18 LLSLSDAAVTDITG HQRT HNNEDYFYTARGLLV A D G M G G  
UniRef90\_UPI000288C229 ACGLSDVVGPRRESNEDNFLLDQLLAV A D G M G G  
UniRef90\_E0RY76 RVKACGLTCDLIGNTRDINQDASALIKVALIA V C D G M G G  
UniRef90\_A4VM58 MPLRRLSYGEAASAGP RPENQDALRLIKGYLFAI A D G M G G  
UniRef90\_B1WV81 QLIFTLTSDSGP SRHNNEDACYPDPGFITIV C D G M G G  
UniRef90\_R6WW92 LRLISCVSDVGRIRDNQDASASAGMYLILV S D G M G G  
UniRef90\_UPI0002893DA4 MAFLI HAYGITHVGG RKKTNQDAMLVKTGMFV V C D G M G G  
UniRef90\_W8NSX9 VYGLITHVGG RKNHNNEDGLLIDGYLLAV A D G M G G  
UniRef90\_I1LX68 RLSCGYSSFRGKR RVTMEDFYDIKTC L FGI F D G H G G  
UniRef90\_UPI000466E4C0 PYGLLSAALSERGRV RASNQDRA YAGPCLLAV A D G M G G  
UniRef90\_Y0KDU6 FTIYQSSRQGP RAYNNQDSYKDALLMV A D G M G G  
UniRef90\_C5BKX9 EYCAVTDVGLQLQNNEDCHLPLQLGLWV A D G M G G  
UniRef90\_UPI00047D2E31 MTHPTVVGATDVGRLRRTVNNEDGCLJALS P V FIV A D G M G G  
UniRef90\_Q47A3 RFTVLYQESRQGG RSNNNEDCYSRDLMLMV V A D G M G G  
UniRef90\_M5VKG9 RFSYGFSSFKGKR RPSMEDYFEANVAF FGV F D G H G G  
UniRef90\_H2LB00 R V G S T S V V G L R K Q N N E D R F H D S L L Y F A V F D G H G G  
UniRef90\_UPI0003749007 FGA T T I G P S R T T N E D S Y G I R W L V A C V A D G M G G  
UniRef90\_I3JF86 LNYAVASMQG WR AQMEDA H A C M P Q L F A V F D G H A G  
UniRef90\_UPI0003668914 MALEVAISQHSDSAGA RSRNNEDFAGARGVLC A V A D G M G G  
UniRef90\_UPI00020D9C8C MEVAJYQTD PGNRKGNNEDYVVGAGLWMLIV A D G V G T S  
UniRef90\_UPI00036BFD9F MSLLQRAGRDVGRRNRQDNQDFTFAHRALLVV I D G M G G  
UniRef90\_K0CAQ0 SLLQVSLGQYSDKGRK AVNNQD F H G A K G L V L A V A D G M G G  
UniRef90\_UPI00037BWM7 MIDTIGMTDIGNGR PSNNQDA Y L L R W Q L A V V C D G M G G  
UniRef90\_UPI00023B2915 LKYGFSLVKGGK ANHPMEDYHVAKFHLFAI Y D G H M G  
UniRef90\_V4KMB1 ILSHYGHLMLKGGK SNHAMEDYVVSDFRFAI F D G H G G  
UniRef90\_A0A059DFM6 LHYGVASMQG WRMEMEDA H L S D W S Y F A V F D G H A G  
UniRef90\_V9ILY6 MANKNLT HGYHLLVKGK H H P M E D Y V V A E F G L F A I F D G H L S  
UniRef90\_D8U4A7 SYGFSLLRGGK R T S M E D Y H A A E Y G L F G I F D G H G G  
UniRef90\_Q9LME4 MLKYGFSLVKGGK ANHPMEDYHVA NFGLFAI Y D G H M G  
UniRef90\_UPI00037AF47A FTIYQESRQGG RKNNNQD S Y S R D A L L M V V A D G M G G  
UniRef90\_UPI0003D6FBB3 LRVASGFASDTIGH R DENQDFAA A H G L V A A V A D G M G G  
UniRef90\_UPI0003K7IR67 SNKVS HGYHLVVEGQS GHNNEDYLVAEYR LFAI F D G H L G  
UniRef90\_M4WXR5 LKYGVASMQG WRLEMEDA HQA D W S F F A V F D G H A G  
UniRef90\_UPI0002B40B49 MTLLQLSFAQASATGP R DENQDALRVKGH LFAI A D G M G G  
UniRef90\_UPI000395C025 GFLPVFRSGSSESRGPK QYMEDEHICLIGAFYGV F D G H G G  
UniRef90\_UPI00041EC11B SYRLSAATGHLHKGDR P Y Q M E D Q V I M G C V L A V V A D G M G G  
UniRef90\_V4TAV5 VLRSGS CAE T G P R K Q Y M E D E H I V P G A F Y G V F D G H G G  
UniRef90\_R6GDL1 RLSAA CGCHTGRKRKNNNEDNFVFAGRFFAV F D G M G G  
UniRef90\_UPI00035F931C VITVIALSHPLRE H N E D S L V A G P W V V A V A D G M G G  
UniRef90\_Q46YE5 RFSVYQESRKGGR RNQD C F T R D A L F M V L A D G M G G  
UniRef90\_G7ZAL0 AFVLTAAGLTDVGRTRSRNNEDDFHVDALIFAIV A D G M G G  
UniRef90\_W2C841 F A A S E T G G R A N N E D A I Y P T G A L F V V C D G M G G  
UniRef90\_C4K995 RFTLYQESRPGKR RDNQD C Y S R D A L L M L V A D G M G G  
UniRef90\_C5WTK7 A P G A F Y G V A D G M G G  
UniRef90\_A0A011QKQ3 FTIYQETRTGK RANNEDACYSRDSLLMVV A D G M G G  
UniRef90\_K9QWU7 TSTQVITKTDITGPRRERNEDACYPASGLAIV C D G M G G  
UniRef90\_I11Z9 SNKVT HGFHLVEGRS GHNNEDYHVAEYGLFAI Y D G H L G  
UniRef90\_K9WXM5 TRTYQIFTRTDSG PSRS HNNEDACYPASALFAI V C D G M G G  
UniRef90\_O64583 FDHYGHLVKGKMGHGMEDFLVADTGLYAI F D G H S G  
UniRef90\_S3VV98 LRYAYITDKGNFMS HNNEDSFLADSGLFAI A D G M G G  
UniRef90\_UPI0003FE8274 LVVDWSVVC H V G R V R E A N E D A A L A L P G R Y L V A D G M G G  
UniRef90\_G0AH36 RFSVYQESSHIGGR RKNNNQD S F T R D A L L L L F D G M G G  
UniRef90\_H2LRL3 MKVGCASLIGG R K V N E D R F Q V S Q H Y F A V F D G H G G  
UniRef90\_R7DP96 DFCALYTLDTIGNKRSTNEDKALIGNVLMVV C D G M G G  
UniRef90\_UPI0001CC0B63 MSA SYVSAAGRT EQGNVRRNNEDAILDDLGLWAV A D G M G G  
UniRef90\_A0A034VHQ0 FGVSSMQG WRCEMEDA Y Y A D W S F F A V F D G H A G  
UniRef90\_G1URD8 GFPLVTL E S W G W S Q K G D I R P E N Q D S F L S E R L L W A V A D G M G G  
UniRef90\_A7MBY9 LTYALASMQG WR A H M E D F H L S H W A F F A V F D G H A G  
UniRef90\_Q3EN65  
UniRef90\_A0A023D9S8 ALREHSYHATHKGPFR TENQDA CRPDI G V Y A V A D G A G G  
UniRef90\_R8AYN4 LHLTLIGQHS S A G R K E T N Q D S L G I K G A V A V I A D G M G S A  
UniRef90\_A1KCM2 RFTLYQESRIGR RKTNNQD C Y S R D A L L M L I A D G M G G  
UniRef90\_K4ABK3 GFLPLVFRSGS CAE I G P K S Y M E D E H V A P G A F Y G V F D G H G G  
UniRef90\_A0A022PTU7 FSVCC K K G R N E M E D R Y S A N K A L F G I F D G H G G  
UniRef90\_E1RFS6 GVKRL Y D I S G V S V Q G R R P K N E M E D T F Y I D A C I F A V A D G M G G  
UniRef90\_M0TQT7 I R H G Y H L V K G K A S H P M E D Y L V A E F G L F A I F D G H L G  
UniRef90\_E8U1H5 FS V F Q L S R G G R E K N E D C Y T R A S A L F V L A D G M G G  
UniRef90\_UPI000388AF48 LRYGLGAMGG WR A H M E D T H L A T W A F F A V A D G H A G  
UniRef90\_UPI00038000E1 M L P G L A W G L D S Q A G Q K A S N E D A W L V K G L L L L A D G M G G

UniRef90\_D2NNZ4 H E E V A S R L C V R Q L A Y S P F F T M D E S D P A K R R R R A N T E T N E E 80  
UniRef90\_A1SI57 A A A G E V A S A T A A Y A V A R P G E Q D P E E L L L D G G L R E A A R N R I R R G E  
UniRef90\_UPI00046630B9 Y G D T A S S Q L I V A N L A A K A P L H Q L D L R N E N V I R N S Y I L K N T N N L I Y N S Q M  
UniRef90\_E6USJ1 R G D E A S L T A M R E L A K K A H N L L I K N L M L I K N T N N L I Y N S Q M  
UniRef90\_UPI000347766C H E G V A S N L A T E T I S Q Q Q V Q Q K E L T D D L E K A V A T A N D K Q R N D  
UniRef90\_B1ZQU3 A K E F A S R L T V D R L S A A G L D A T G F Q D L L V E L F S A I H N D L L K L  
UniRef90\_C6WCL7 H A A G E V A S A L A V A A L R D L D A T P A R D V L E E A N D A M L A E  
UniRef90\_UPI0004664EA8 H S D Y A S R L I V E R L A A V P R A C D F V D A I E D A L L E A V N A E L L R A  
UniRef90\_F2LJL4 H G D Y A S A L I V E R L G A L L T R D G D H E A V A E E A L Q Q V N E L R A E A  
UniRef90\_L1LV70 C A D L A A R A S L Q A L A M D Y Y A T P P T W G V A Q A L D R L L S A Q N R W  
UniRef90\_E8TTC3 A S D Q V M L T A R Q L F E R Y S P A T D D A A A L L K H I V Q E A H I V I R L  
UniRef90\_A0A010RV10 C A D L A S R T T L V E R L A L L D Y Y A T P Q T W A V A Q A L D Q R L L A Q N R W  
UniRef90\_E1TE92 H G D Y A S T L I V E R L G A L L T R G A D V N D A L E D T L Q R Q V N A E R A A  
UniRef90\_E7GD93 H N Q L T C D D I I E H Y Q N H G D F H N E E D W M M E M I N H A H E L V K S K  
UniRef90\_H5SD03 A G E V A A A M A L Q I T Q R R F L Q S R E Y A N T L L D Q F R E E D S N Q Y M Y Q F  
UniRef90\_J3CWJ0 A S D Q V L M T A R Q L F A R Y Q P S R D D P E A V L K Q I L E D S H T V I K L  
UniRef90\_I1HZA4 S R A A E Y L K E H L F E N L M K H P T K L A I S E T Y Q K T D S D F L E S  
UniRef90\_UPI0003B7310B A G E W A S K L A I T A L S E A A R A Y A E H S R V M E K A F A L A Q R R V E S E Q  
UniRef90\_G0A448 S E A E A S H C C I T A F L E D Y Y A T P D S W S V V H A L L S A T N S W L Y S Q  
UniRef90\_Q2FNR9 E Q E V A A Q L V L T Y L Q D H F T E I T D S E S F N S V V Y A A K E Q L E A Y  
UniRef90\_L8LQ18 H E G V A S R M A V E S L N Q N W G E Q L P T E T S S I R D A G I L L A N Q K I Y Q E  
UniRef90\_UPI000288C229 H E A G A L A S A M E H L N A H G T D A P A Y S S L H D A I D Q V N A Q R V Y A R  
UniRef90\_E0RY76 K G E V A S C K A T R T L E S W F H W D A V E S S F D R M I R R I N G D L K R Y  
UniRef90\_A4VM58 C A D L A A R A T L Q A L A F K D Y Y A T P E T W A V A Q A S L N D R V L V A H N R W  
UniRef90\_B1WV81 A G E V A S Q R L A I D T L V E F K I P Q L P G L Q D L A E A I L T N L N D A E  
UniRef90\_R6WW92 H E E Y A S S Q F T L E T L R A Y L E H H N P I F E L K L K I E S I S A N L N A K  
UniRef90\_UPI0002893DA4 Q G E L A S R T A V I R G L S N W F E E E L P R E H A L L E A C I S R Q N E K I L E S Y  
UniRef90\_W8NSX9 H N E V A S R A L E T L A E E Y V E E G L E E D L L A L L R K A H E I A H S V  
UniRef90\_I1LX68 S R A A E Y H L F D N L L K H P N F L T D A K L A I S E T Y Q Q T D A N F L D S  
UniRef90\_UPI000466E4C0 A G E R A A T A A L A E I E G V R A P R D R A G D L L T N A L E D G V R R A D T A  
UniRef90\_Y0KDU6 H R H V A A Q L A V K T L T E A F Q R P S P A K F L T D H I Q Q V H D M I E N K  
UniRef90\_C5BKX9 H G E V A S S I A C N T L R E A F L G G A S L D A D A V Q T S H K A I L D A  
UniRef90\_UPI00047D2E31 H A A G Q A A S R A A T L A H S L V G V P I T S I D Q V D A V A A A Q A S  
UniRef90\_Q479A3 H E I A A Q I A V Q T L A D A F Q R N D P F R F L Q K G M T N A H H A I L D Y  
UniRef90\_M5VKG9 A E Y L K K N L F K N L S S H P N F I K D T K A A I V E V F K Q T D V D Y L L N E  
UniRef90\_H2LBU0 S Y V A S E Y C Q T Y M E K F I R N A L E E D S D D L E K V L K K A F L D V D K A  
UniRef90\_UPI0003749007 A G E V A S D I A V K T V H S V P S F E E Q S Q W V H K A N E K V C E A  
UniRef90\_I3JF86 T T V A Q Y C A R H L L D H N E D P E Q V K E G I R E G F L D I D R H M H K L  
UniRef90\_UPI0003668914 H G R E A A E Y T V R G L L N D Y Y A T P E T W R V A D A D L D T V N D A M L Q A  
UniRef90\_UPI00020D9C8C N E E V A S A M A V E H F G N A W M M K A T V D W L K N R A Q L E N D A M L Q A  
UniRef90\_UPI00036BFD9F Y A G G A Q A A A L A R E A I H Q Y M G H T L M L C E A V V H A N N Q I V R Q  
UniRef90\_K0CAQ0 S N H I A S E T A V S F L E D Y F S T P E T W S V R Q S I N A T N A W L H R Q  
UniRef90\_UPI00037A47A K G E I A S R Y I V E V L K Q W M G I N M I E Q N L I D L I R K I N Q N L L M  
UniRef90\_UPI00023B2915 D S V P A Y H L F S N I L K E E N F W T D P H G S I S K A Y E R T D Q A I L L S H  
UniRef90\_V4KMB1 A R Y L K N N L F K N L V T H D E F I L S D T K K A L V E G F K Q T D E Y L I E  
UniRef90\_A0A059DFM6 H E V A N Y L Q T H L F D S L K Q P D F W A D T E A A I R R A Y H E T D K V  
UniRef90\_V9ILY6 A L V S A H S A E H L L I E C I M Q T E E F K A I H S G F L R L D D E M R E L  
UniRef90\_UPI00042B3013 H L Y L K S N L F D N L L N E P G F W T E P E N A I R K A Y R L T D T L L E K  
UniRef90\_D8U4A7 A D Y V R S N L F I N M M Q S N K F V S D L P A C V A E A Y E T T D N Q Y L R H  
UniRef90\_Q9LME4 D S V P A Y L Q F S N I L K E G E F W V D P R R S I A K A Y E K T D Q A I L S N  
UniRef90\_UPI00037AF47A H L H V A S H I C V Q F I T E A F Q R D D P S M F L S R A L T N A H N A I L D Y  
UniRef90\_D6WTT9 A K H C A E H L L D A I M Q T E E F Q K D V M K G I H N G F L E L D N K M R S L  
UniRef90\_F4QLW9 A K R V A E L T V R S F I D D Y L S Q P P R K T A A R A L E S I N H W L H V Q  
UniRef90\_UPI0003D6FBB3 D R Y L K D N L F N N L L E E S N F W K D P K A A I T N A Y R S T D Q F I L E N  
UniRef90\_K7IR67 A K V S A H S A E H L L E C I M Q T E E A E D V I R G I H S G F L R L D D K  
UniRef90\_M4WXR5 C T D L A A R L T L Q A L A A D Y Y A T P E T W A V A Q A L D R L L I S Q N R W  
UniRef90\_UPI0002B40B49 T D A A A F N L R F I V E D S C F P S V E K A L K S A F L K A D Y A F A D A  
UniRef90\_UPI000395C025 A S D Q V M L T A K Q V F E R Y S P E T D N A E E M L G N L V R E A H L L I R L  
UniRef90\_UPI00041EC11B K G E V A S N V I E A F S D W F E Q E L P F Q L A Q E N W S E I Q Y R W D R L  
UniRef90\_V4TAV5 T D A A L Y I R A N L R F I V E D S H F P L C V I E K A K S A F V R A D Y A  
UniRef90\_R6GDL1 Y G E I A S Y I A A K A T E Q Y L N A E E A D V L R E K M C T H V N D R I F Y K E  
UniRef90\_UPI00035F931C A G E V A S A L A V R Q L A A L G P T L G T E E A V L R D A L N L C N G A V Y A A  
UniRef90\_Q46YE5 H G E V A S Q Q A L Q T L A R Q F Q T Q A P A D F L Q R D T I M L A H R S I H R Y  
UniRef90\_G7ZAL0 H G D I A A R K A V E V I S G L L K D Y A P S E P I L R S A V Q M A N R S I H D L  
UniRef90\_W2C841 A E E V A S A L A C E A L A D G M A A T G G R D V Q E V V R Y A E R R F D A Y  
UniRef90\_C4K995 H L H V A A Q I A V Q C I A E R F Q A D H P Q L F L A R A I E R A H A I L D H  
UniRef90\_C5WTK7 A D A A C F V R K N L K A F I T E D C H F P N S I L E K A I R S A F V K A D H A  
UniRef90\_UPI00038AF48 H Y E V A A Q I A V Q T L S E S F Q R Q D P F L F L Q T G M L S A H S A I L D F  
UniRef90\_K9QWU7 H E G V A S N L A E T I Q Q H I E P S L L L A D L E M A V A S V N D K Q R N D  
UniRef90\_I11Z9 D T V S S F L K A N N L K E P L F W T N P Q E A I K N A Y S T N K Y L E N  
UniRef90\_K9WMX5 H E E V A S N L A I D T L R E Q V E Q L P N D P D L E Q A T C A A N Q Q N D S E  
UniRef90\_O64583 S D V A D Y L Q N H L F D N L S Q P D F W R N P K K A K T R A Y K N S T D D Y  
UniRef90\_S3VV98 H E E I A S R V A L E K L S W M E R A R P I E E L P S S L R K I N N E V N S Y  
UniRef90\_UPI0003FE8274 H D E L A S E A L Q T L A S S P S V E A T Q D H V G A L L R E A Q D R I G E F  
UniRef90\_G0AH36 H L H L A A N I A M Q T I G S Q P Y I K K P E R F L E D A F Y A A H M E I H R Y  
UniRef90\_H2LRL3 S E A A D F C E K Y M E K F I K S F L A E E D N L E T V L S K A F L E I D K A  
UniRef90\_R7DP96 H R D V A S S L A M R L L E K A F Q K K E A K H W L E K T I R D I N E T I Y N E  
UniRef90\_UPI0001CC0B63 H S D L A S R M V D A L G G L R D G D L A D A I D A Q L S Q V N Q Q L R T L  
UniRef90\_A0A034VHQ0 C K V S K H C A S N L D C I S T D E F R A N G I R T G F L R I D E M M R V L  
UniRef90\_G1URD8 S A H G G E A G R L V T R M L L T T P H A A S L D E H V N N V G G L R Q G  
UniRef90\_A7MBY9 S A Q N C S R N L L D H I L G T G K I R A D E D G F K E G F F L M D K H L H A M  
UniRef90\_Q3EN65 S A Q N C S R N L L D H I L G T G K I R A D E D G F K E G F F L M D K H L H A M  
UniRef90\_UPI00038000E1 H K D F A A T T V I D A I A A L P P W L P P E E R L P A L R Q A V D D A H R R L  
UniRef90\_R8AYN4 S E R E A A E A C V K G V L H D Y Y S T P D S W S V E T S V G R V N R W L H G K  
UniRef90\_A1KCM2 H L H V A A H L A V Q F I T Q A F Q R E D P G L F L S R A L M N A H R A I L D Y  
UniRef90\_K4ABK3 T D A A C F V R K N I L K F I V E D M H F P N N V E K A I R G A F L K A D H A  
UniRef90\_UPI00022PTU7 A K E F A A E N L E K N I V D E L N T R E D D G E L E A V A K G G Y L T T D S E  
UniRef90\_E1RFS6 H G D V A S G I A I D T L S L F Q H E K E M K A F L V K I H E T A H K R I I D E  
UniRef90\_M0TQT7 H D V A D Y L R S H L F E N I L K E P E T W S D I E S A T R K A Y D R T D Q K  
UniRef90\_E8U1H5 H P E V A A Q L A I Q T V S A M F Q H H D V P E F L S A A L L A A H Q I L S Y  
UniRef90\_UPI000388AF48 G T V A Q F C A R H L L G E V E S P E A V K E A V I R S A G F L R I D S H M Q A L  
UniRef90\_UPI00038000E1 C A D L A A K A T V R Q L A A D Y Y T L P D T W D V I P A L Q S L I E A Q N Q W



UniRef90\_D2NNZ4  
UniRef90\_A1SI57  
UniRef90\_UPI00046630B9  
UniRef90\_E6USJ1  
UniRef90\_UPI000347766C  
UniRef90\_B1ZQU3  
UniRef90\_C6WUL7  
UniRef90\_UPI0004664EA8  
UniRef90\_F2LJL4  
UniRef90\_L1LV70  
UniRef90\_E8TTC3  
UniRef90\_A0A010RV10  
UniRef90\_E1TE92  
UniRef90\_E7GD93  
UniRef90\_H5SD03  
UniRef90\_J3CWJ0  
UniRef90\_I1HZA4  
UniRef90\_UPI0003B7310B  
UniRef90\_G0A448  
UniRef90\_Q2FNR9  
UniRef90\_L8LQ18  
UniRef90\_UPI000288C229  
UniRef90\_E0RY76  
UniRef90\_A4VM58  
UniRef90\_B1WV81  
UniRef90\_R6WW92  
UniRef90\_UPI0002893DA4  
UniRef90\_W8NSX9  
UniRef90\_I1LX68  
UniRef90\_UPI000466E4C0  
UniRef90\_Y0KDU6  
UniRef90\_C5BKX9  
UniRef90\_UPI00047D2E31  
UniRef90\_Q47A3  
UniRef90\_M5VKG9  
UniRef90\_H2LBU0  
UniRef90\_UPI0003749007  
UniRef90\_I3JF86  
UniRef90\_UPI0003668914  
UniRef90\_UPI00020D9C8C  
UniRef90\_UPI00036BFD9F  
UniRef90\_K0CAQ0  
UniRef90\_R7BWM7  
UniRef90\_UPI00023B2915  
UniRef90\_V4KMB1  
UniRef90\_A0A059DFM6  
UniRef90\_V9ILY6  
UniRef90\_UPI00042B3013  
UniRef90\_D8U4A7  
UniRef90\_Q9LME4  
UniRef90\_UPI00037AF47A  
UniRef90\_D6WTT9  
UniRef90\_F4QLW9  
UniRef90\_UPI0003D6FBB3  
UniRef90\_K7IR67  
UniRef90\_M4WXR5  
UniRef90\_UPI0002B40B49  
UniRef90\_UPI000395C025  
UniRef90\_UPI00041EC11B  
UniRef90\_V4TAV5  
UniRef90\_R6GDL1  
UniRef90\_UPI00035F931C  
UniRef90\_Q46YE5  
UniRef90\_G7ZAL0  
UniRef90\_W2C841  
UniRef90\_C4K995  
UniRef90\_C5WTK7  
UniRef90\_A0A011QKQ3  
UniRef90\_K9QWU7  
UniRef90\_I11I29  
UniRef90\_K9WXM5  
UniRef90\_O64583  
UniRef90\_S3VV98  
UniRef90\_UPI0003FE8274  
UniRef90\_G0AH36  
UniRef90\_H2LRL3  
UniRef90\_R7DP96  
UniRef90\_UPI0001CC0B63  
UniRef90\_A0A034VHQ0  
UniRef90\_G1URD8  
UniRef90\_A7MBY9  
UniRef90\_Q3EN65  
UniRef90\_A0A023D9S8  
UniRef90\_R8AYN4  
UniRef90\_A1KCM2  
UniRef90\_K4ABK3  
UniRef90\_A0A022PTU7  
UniRef90\_E1RFS6  
UniRef90\_M0TQT7  
UniRef90\_E8U1H5  
UniRef90\_UPI000388AF48  
UniRef90\_UPI00038000E1

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

UniRef90\_D2NNZ4  
UniRef90\_A1SI57  
UniRef90\_UPI00046630B9  
UniRef90\_E6USJ1  
UniRef90\_UPI000347766C  
UniRef90\_B1ZQU3  
UniRef90\_C6WCL7  
UniRef90\_UPI0004664EA8  
UniRef90\_F2LJL4  
UniRef90\_L1LV70  
UniRef90\_E8TTC3  
UniRef90\_A0A010RV10  
UniRef90\_E1TE92  
UniRef90\_E7GD93  
UniRef90\_H5SD03  
UniRef90\_J3CWJ0  
UniRef90\_I1HZA4  
UniRef90\_UPI0003B7310B  
UniRef90\_G0A448  
UniRef90\_Q2FNR9  
UniRef90\_L8LQ18  
UniRef90\_UPI000288C229  
UniRef90\_E0RY76  
UniRef90\_A4VM58  
UniRef90\_B1VW81  
UniRef90\_R6WW92  
UniRef90\_UPI0002893DA4  
UniRef90\_W8NSX9  
UniRef90\_I1LX68  
UniRef90\_UPI000466E4C0  
UniRef90\_Y0KDU6  
UniRef90\_C5BCKX9  
UniRef90\_UPI00047D2E31  
UniRef90\_Q479A3  
UniRef90\_M5VKG9  
UniRef90\_H2LBU0  
UniRef90\_UPI0003749007  
UniRef90\_I3JF86  
UniRef90\_UPI0003668914  
UniRef90\_UPI00020D9C8C  
UniRef90\_UPI00036BFD9F  
UniRef90\_K0CAQ0  
UniRef90\_R7BWM7  
UniRef90\_UPI00023B2915  
UniRef90\_V4KMB1  
UniRef90\_A0A059DFM6  
UniRef90\_V9ILY6  
UniRef90\_UPI00042B3013  
UniRef90\_D8U4A7  
UniRef90\_Q9LME4  
UniRef90\_UPI00037AF47A  
UniRef90\_D6WTT9  
UniRef90\_F4QLW9  
UniRef90\_UPI0003D6FBB3  
UniRef90\_K7IR67  
UniRef90\_M4WXR5  
UniRef90\_UPI0002B40B49  
UniRef90\_UPI000395C025  
UniRef90\_UPI00041EC11B  
UniRef90\_V4TAV5  
UniRef90\_R6GDL1  
UniRef90\_UPI00035F931C  
UniRef90\_Q46YE5  
UniRef90\_G7ZAL0  
UniRef90\_W2C841  
UniRef90\_C4K995  
UniRef90\_C5WTK7  
UniRef90\_A0A011QKQ3  
UniRef90\_K9QWU7  
UniRef90\_I11Z9  
UniRef90\_K9WXM5  
UniRef90\_O64583  
UniRef90\_S3VV98  
UniRef90\_UPI0003FE8274  
UniRef90\_G0AH36  
UniRef90\_H2LRL3  
UniRef90\_R7DP96  
UniRef90\_UPI0001CC0B63  
UniRef90\_A0A034VHQ0  
UniRef90\_G1URD8  
UniRef90\_A7MBY9  
UniRef90\_Q3EN65  
UniRef90\_A0A023D9S8  
UniRef90\_R8AYN4  
UniRef90\_A1KCM2  
UniRef90\_K4ABK3  
UniRef90\_A0A022PTU7  
UniRef90\_E1RFS6  
UniRef90\_M0TQT7  
UniRef90\_E8U1H5  
UniRef90\_UPI000388AF48  
UniRef90\_UPI00038000E1

UniRef90\_D2NNZ4 GT G N Y W E P D F W V L P A R A G D R L M L C S D D G L L S G E L S H E Y M A R V  
UniRef90\_A1SI57 DG D P V H D G V D L P L A V Q P G D R L L L C S D D G L L S D L L V P E P V I G E L G  
UniRef90\_UPI00046630B9 G A A P E L L T L E V L E L A D V Q P G D T F L L L C S D D G L L S H Q D L L T E N Q R T L G D G  
UniRef90\_E6USJ1 K E G I E A D I S E S F F V K K G D V F L L C S T D D G L L S L T N M V L E T N M V L E T N M V L  
UniRef90\_UPI000347766C G M N P S V S L H P T S F L D E D A V F L L L T S D D G L L S D F Y W D N E T E I L P I  
UniRef90\_B1ZQU3 G A G Q F L P D P Q V G A V G H P A G D R F L L C S D D G L L S V D G L L W D D R E I Q E I  
UniRef90\_C6WTCL7 G V D R L I T P D D L L V M P P A A G D R F L L M C S D D G L L S T D D G L L T D D R E I A H V  
UniRef90\_UPI0004664EA8 G A Q P Q L F V D W T L V D S R R G G R F V L C S T D D G L L S N K E I L G D D E E L A R E C  
UniRef90\_F2LJL4 G V E D H L L F L D W A V A G S R A Q G D R F L L C S D D G L L S N K E L G N D R E I A A A V  
UniRef90\_L1LV70 G L D E H L L V D Y Q E G E L R A Q G G E R F V L L S D D G V V W C M L N G D R Q I A A S V  
UniRef90\_E8TTC3 G A E S D P P V T T H L I P Q L L Q P G D M L L C S D D G V V W H Y F S S A E L A A S V  
UniRef90\_A0A010RV10 G L D Q H L V L D F L D G E L R A G G E S F V L L C S D D G V V W A T L T G D A I A A A L  
UniRef90\_E1TE92 G V E D E L F V D W A V A G S R P G M L F L L C S D D G I L N K E L T D G E L A A D A  
UniRef90\_E7GD93 G V S D I L K L S F M F Q E I D N G I L V L C S D D G L L Y N S L F D S Q L T D I  
UniRef90\_H5SD03 G A Q P F V E P Q T Y L T L K L K P G D W L L L C S D D G L L T N H V F D H A T E M V  
UniRef90\_J3CWJ0 T T T P P P I D P P T Y I P K M E P G D L L M A C S D D G L L T N H V F S P E E L A S V  
UniRef90\_I1HZA4 A F G N R L L K P F V V A E P E I Q E E L V L A S D D G L L W D A V E N E E A V S L  
UniRef90\_UPI0003B7310B G L L P E A R V D L K G V R L S P G G E G V L L V T D D G L L Y G L V P E E E W T  
UniRef90\_G0A448 G L E P H L E V D Y K T L A L E P G D G C F L L T T D D G L L H D F V D D K T L Q S L  
UniRef90\_Q2FNR9 S G D D S V H L W F K T I G L R D Q D Q F F I C S D D G L L W E C F S S Q D E L E M I  
UniRef90\_L8LQ18 R D N S C V E P E I Q F I D F K E D T D L F L C S D D G L L S D N A K S H Q E I A Q V  
UniRef90\_UPI000288C229 P A A R V E P Q I R V Q P V L P G D L L M L C S D D G L L H G C V P H Q E I A Q V  
UniRef90\_E0RY76 G T S H V P M H E L R K G V L K D N T T I T A C S D D G F W R T L E T E E I A R K C  
UniRef90\_A4VM58 G L D Q H L V M D Y L D G E L Q E G E S Y L L L C S D D G V L W S C V P E R D I A H I  
UniRef90\_B1WV81 S N A N S L H P N V S R L I D D D C V F L L C S D D G L L S D Y W Q L E I A P I L  
UniRef90\_R6WW92 T E A Y I L D I T D R L M E S D R I L L C S D D G L L S D M L E D D A I E R L  
UniRef90\_UPI0002893DA4 G A T R D L D V V I T T G E T E G A T V E L L L C T D D G F Y H K I T D E E L L E F  
UniRef90\_W8NSX9 G R R L M V D V Y R W E V E G A N H I L L L S T D D G L L H D Y V P K E E L L R A  
UniRef90\_I1LX68 A F G N R M L K Q F V V A E P E I Q D L L L L A S D D G L L W D V V Q N D D A V S L  
UniRef90\_UPI000466E4C0 G A G G S P V P D L G L Y E G R P G D R W L L C T D D G L L S A V V P E A E L H G V  
UniRef90\_Y0KDU6 G D N I P Q I D L A R H E M M D G D I M L C S T D D G L L W N E I P D D R E I K N I  
UniRef90\_C5BKX9 G A L D L P E V N V G L F D A Q W Q P W L L L C S D D G L L T D A V S D D D I A A S  
UniRef90\_UPI00047D2E31 G G S D T A I P D L Y T L A V E P G D R L L V C S D D G L L S D E L D D E A L A T I  
UniRef90\_Q479A3 G S P T P P E J E F S R T P L D H G D L L L C S D D G L L W G E M S G D M M A V A  
UniRef90\_M5VKG9 K P F V V A E P E I Q E E E I E G V D F I I A S D D G L L W N V T S N K D A V A L  
UniRef90\_H2LBU0 G V I A E P E T Q R L N I H H T S D S F L A L T T D D G I W F L L S D Q E E L C D I  
UniRef90\_UPI0003749007 E G F P T E V T Q K A V L E L Q D G D T L L C S D D G V I N F L V T E E M A I A  
UniRef90\_I3JF86 L V S P E P E V Y E L E R T P E D E F L I L A C D D G V W D A I G N E E L C A F  
UniRef90\_UPI0003668914 G L D P R L N I D H F D G E L Q A G D I E V L V T D D G V W N T L D A G I Q R T  
UniRef90\_UPI00020D9C8C G V D T R V D L E S Q H E F L P G S N L L L L T S D D G I T K V L T K D D I K A T  
UniRef90\_UPI00036BFD9F R V E D A G F L E S G E T D F N P G D T L L L C S D D G L L T D M L T R Q Q L V D V  
UniRef90\_K0CAQ0 G M N A R A E I D H L S M P V T E G D W F V L A T D D G V H E Y L D D D T I S T L  
UniRef90\_UPI00036B7M7 G V I T K D V R V D C Y K M L H P G M E F L L C T D D G F Y G L L E E I L Y Q V  
UniRef90\_UPI00023B2915 G D K S L K S H L R S D P D I R H C E I L I L A S D D G L L W K V M D N Q E A V D I  
UniRef90\_V4KMB1 K P Y V I A E P E I Q E E D I G T L D F I V I A S D D G L L W N V L S N K D A V A L  
UniRef90\_A0A059DFM6 A F G D K S L E K I H V E T I N E E S E F I I A S D D G I W K V M S N Q E A V D S  
UniRef90\_V9ILY6 L V S P E P E I F V R D R D D E H D E F L V L A C D D G I W D V M N N E D L C N F  
UniRef90\_UPI00042B3013 G D K S L K E H L S S E P D V T V E M I I L A S D D G L W K V M T N Q E A V D A  
UniRef90\_D8U4A7 A V S R A F G D R P L K R Y V I P F L M L A S D D G L W D V M T N Q E A V T L  
UniRef90\_Q9LME4 G D K G L K T H L S S E P D I K Q T D V L L A S D D G I W K V M T N E E A M E I  
UniRef90\_UPI00037AF47A G G N H A P Q V F S R L P L R N G D V L A L C T D D G V W G P L G D A A L T A A  
UniRef90\_D6WTT9 L V S P E P E I F V R D R D D K E D E F L V L A C D D G I W D V M S N E D L C Q Y  
UniRef90\_F4QLW9 G M E E S V R I D Y R V H D V A I H D R I L L S S D D G V H G P L K M A Y M T D V  
UniRef90\_UPI0003D6FBB3 G D Q S L K A H L S S E P D V R H V P F L I L A S D D G L W K V M K N Q E A V D L  
UniRef90\_K7IR67 L V S P E P E I F V R D R D D Q H D E F L V L A C D D G I W D V M T N E N L C N F  
UniRef90\_M4WXR5 G L D Q H L V V D Y C D G E L E A G Q R F L L V S D D G V W A T L G D S A I Q R L  
UniRef90\_UPI0002B40B49 G S A C P L S A E P E L Q E T E E D E F L L M G C D D G L W D V M S S Q Y A V J L  
UniRef90\_UPI000395C025 G T A D D P P L I H H R I P M L K Q G D V L L C S D D G L L W H Y F S P D E L S S I  
UniRef90\_UPI00041EC11B G A S K R V I E A D F I Q G K A K I G E V Y L L C S D D G F R H K V I T E E E I Y T A  
UniRef90\_V4TAV5 C P L S A E P E L Q E T L L T E D D E F L L M G C D D G L W D V M S S Q G A V J L  
UniRef90\_R6GDL1 P E E V R V L P Y A D C L Q L K K G D R F L I C S D D G V L S D M V S J E F L K T L  
UniRef90\_UPI00035F931C V T E V P L S A G D R Y L V C S T D D G L L T D P V P E D A L N D V  
UniRef90\_Q46YE5 G S P N P L I D I G G P L R L E P D D V A L L G S D D G L W G P L D E P E I V D R  
UniRef90\_G7ZAL0 G T G E E V E P E V A V H S L L P D D V V M I C S D D G L L N G M V P D G A I A R I  
UniRef90\_W2C841 Q G S S A P A E A D V V R D V R P G D R F L L C T D D G V T D V I T D D A L S S L  
UniRef90\_C4K995 G G N Y N P Q V E Y S R T P L R D G D L A L C T D D G V W G P L D D D G L V V N  
UniRef90\_C5WTK7 P L T P E P E F R E Y R L T E E D E F L I I G C D D G L L W D V M S S Q F A V E L  
UniRef90\_A0A011QKQ3 G G Q Q T P E I E F S R T T L E A E D V L V L C T D D G A W S G L P G N T M A T A  
UniRef90\_K9QWU7 G M S P S L H P T A Q R F L C D E D T V F L L T T D D G L S D F Y W D T E I L P V  
UniRef90\_I11Z9 A F G D Q S L K A H L S S E P D F K H F A I L A S D D G L W K V I K N Q E A V D L  
UniRef90\_K9WXM5 G M A P T L H P T V Q R F V L D E D C V F L L C S D D G L L S D Y Y W Q T E I L P I  
UniRef90\_O64583 F G D G G L K E H L S V I P H D D T K F L I L A S D D G L W K V M S N D E V W D I  
UniRef90\_S3VV98 Q A D K E I F D Y T G K I E E G D M I L V C T D D G L T E V L N D Q I E K I  
UniRef90\_UPI0003FE8274 G A G M E P V A D F Y S F P A A D G D V I L V C S D D G L D G E L E D D E I S V I  
UniRef90\_G0AH36 A T N M P V E L S R R V S L Q A G D V M L L C S D D G L W S M L P D H V L A Q R I  
UniRef90\_H2LRL3 G V I A E P E T K R I L L H H V H H S D F L A L T T D D G V N F I M S Q E I C S I  
UniRef90\_R7DP96 G L F P S V R L I E M K V L S F K E K K H L L L C S D D G L F S M V G K E E M I S L  
UniRef90\_UPI0001CC0B63 G A D D A L Y V D W T V C A R R P G Q H F L L C S D D G N K E L S D D E I A H C  
UniRef90\_A0A034VHQ0 L V S P E P E I F V Q S R Q D T D E F L V L A C D D G W D V M T N E D L C S F  
UniRef90\_G1URD8 G A R D A L R L D E V R F S L R G G D K F L L C S D D G L S N L L G P D A L A A R  
UniRef90\_A7MBY9 E Q M V S P E P E V S V V E R S P D E F L V L A C D D G L W D T V S N E E L C A F  
UniRef90\_Q3EN65 G T E K K G L D V K T L V L E E D D Q L L L C S D D G L S N K V S D D M Q Q I  
UniRef90\_A0A023D9S8 G S E P D F K L D K C T G V A L P N D R F L L C S D D G L L K A M D E D E I C H L  
UniRef90\_R8AYN4 G V J E L N V E I D M S R V S L Q P G D R L V L T T D D G V H G Y L S D G A M V E K  
UniRef90\_A1KCM2 G G N H A P Q L E F S R R T A H D G D A L L C T D D G L W G P L N D D A L L G  
UniRef90\_K4ABK3 L G D W H M K G P K G S I S P E E D E F L I I G C D D G L W D V M T S Q C A V T I  
UniRef90\_A0A022PTU7 W L T A E P E T K V L E H E H E F L L L A S D D G L W D K V S N Q E A V D I  
UniRef90\_E1RFS6 G G N F V V D T Y S L E L E S E Y D V L V L C T D D G F Y A Y T T G E F F S L  
UniRef90\_M0TQT7 A F G D C S L K A H L S S E P D V A D D I L I A S D D G L W K V M S N E E A V D L  
UniRef90\_E8U1H5 S P T K P L F D T A G P V P L Q E G D R L L L C S D D G L W S Q L D D A I A R Q  
UniRef90\_UPI000388AF48 L V S P E P E I F V Y E L A R C P G E D E F L V L A C D D G V W D A F D T E G L C A F  
UniRef90\_UPI00038000E1 G L D K Q V I M A D F A E G E L K V G D R F V L V T D D G V W E T L G D S R L H E L



UniRef90\_D2NNZ4 L T S R H P Q D A A A D V L Q H E A L R S G G R D N N I T V I V A D  
UniRef90\_A1SI57 L A V A S P H Q S A A A V L T R A A L D A G G R D N N I T A V V L D V  
UniRef90\_UPI00046630B9 I S L A N S P S K M A A S D Y L F E Q V L H G S G R D N N I T A V V I K V  
UniRef90\_E6USJ1 I N T E N S P Q K A A L S K L I T F N E A L E N G G F D N N I T C I L V V K I  
UniRef90\_UPI000347766C L T G E D V A A V A P K L I E T A N E K N G G H D N N I T T A L V E  
UniRef90\_B1ZQU3 I L R A P P R S I A A Q L V R E T A V Q K N S G R D N N T T A I V L E  
UniRef90\_C6WCL7 L S R A E P G S I A A D E L V R R A V E A G V G R D N N  
UniRef90\_UPI0004664EA8 L R A R D P Q A L V T R L F E L A L A R A A R D N N V T A V A V Q  
UniRef90\_F2LJL4 F G E P P P Q Q R V D R L F E L S M S R R A R D N N S A V I V R L  
UniRef90\_L1LV70 L R T P D L R Q Q A A D T L V R M A H L A G S Q D N N S A V L A G V I  
UniRef90\_E8TTC3 L D S L A P R E A S E F L I D K A R A R G S G D N N S L L V V K I  
UniRef90\_A0A010RV10 L R Q Q P D L D S A A Q T L V N A A H L A G S Q D N N S A L L V R V L  
UniRef90\_E1TE92 C R H P S P Q Q L V D R L F A L S L A R R A R D N N L S A V I V R L  
UniRef90\_E7GD93 L Q K E S L E K M G K E L M E S A N T Y G G K D N N I G F A L I  
UniRef90\_H5SD03 L Q R A D A E M C A A R L V N L A N A Y G G S D N N T T V I A I R  
UniRef90\_J3CWJ0 L L Y A Q P P R M D A V E L V G E A R R R G T G D N N T S I L V V L K F  
UniRef90\_I1HZA4 A K T E D P E S A A R K L T E T A Y S R G S A D N N I T C I V V Q F  
UniRef90\_UPI0003B7310B L G K D L N G G S L E A L V R S E A L R R N G G D D N N V T A V A L R V I  
UniRef90\_G0A448 L S A D D L N Q A A E T L V R T A L A N H S G D D D N N V T C Q I V R I  
UniRef90\_Q2FNR9 L Q K H P G Y A F L D K V L V A S L A R Q S Q D N N V T A I L L  
UniRef90\_L8LQ18 S S K V S L E Q E L K Q L M E L A N Q Y S N G H D N N L T G I V I K V  
UniRef90\_UPI000288C229 L A A H T L Q T A C E R L L D L S V E Y S G R D N N V T V L L A  
UniRef90\_E0RY76 L T D E D M L H Q C K K L V E K A K S R N E E D N N L T V A A A C L  
UniRef90\_A4VM58 L H Q P D L G A A A R A L V S N V A H Q S G S Q D N N S A L L L R V  
UniRef90\_B1WV81 A Q E K D L P T A G A R L I N V N J A N N K N G H D N N V T I  
UniRef90\_R6WW92 L A S G S T E E S C A A L I D A A K R N G G V D N N V T A I V A D V S  
UniRef90\_UPI0002893DA4 L N E K Q L K Y K A I K L V D A V K E R K E V I S V V L A H V  
UniRef90\_W8NSX9 L T G K T A R D L A K T L V E R A L P A T E D N N V T V V V  
UniRef90\_I1LX68 A R E E E P E A A A R K L T E A A F S R G S A D N N I T C I V V R F  
UniRef90\_UPI000466E4C0 L A G S G P E E D T V R A L A D L A J A R G G P D N N V S C V V A D V  
UniRef90\_Y0KDU6 L I S G V I D E T V V H L L D M A N S D Q T G D N N M S V I G L Q W G  
UniRef90\_C5BKX9 L K Q N S V A A T A A L L E A A L K N G G R D N N I T I Q L I Q  
UniRef90\_UPI00047D2E31 L A A G F P Q R T A E L V A A S L E E G G H D N N T T A L V V D V  
UniRef90\_Q479A3 L K G T N L Q A V P M V L N Q A E L K G G A D N N S V V A V R W  
UniRef90\_M5VKG9 V Q D A D A E E A S P K L I Q E A F A R G S S D N N I T C V V V Q F G  
UniRef90\_H2LBU0 I S Q H D P T E A A D V I A Q Q A L Q Y G S E D N A T I V L V P L G  
UniRef90\_UPI0003749007 L R N D D L R E I C T Q V I D L C L Y K G S L D N N S I I V C F  
UniRef90\_I3JF86 I A H L D M D A L A T E L V M Q S E A R G A Q D N N C T A L V A K V  
UniRef90\_UPI00020D9C8C L S Q Y D L T E R A N A L V Q Q A N D N D V P Q D N N V T A L L C Q  
UniRef90\_UPI00036BFD9F I S Q Q D T P E E Q V A E L L R L A N E Q G G Q D N N I T V V L A R  
UniRef90\_K0CAQ0 A S Q T D P Q Q A A K T L A A A L A Y E R G S E D N N L S V Q V L R V  
UniRef90\_R7BWM7 A S R E Q M K E W V E R C F R K V K K R G E L D N N L T C V I V K V  
UniRef90\_UPI00023B2915 A R K K D P Q K A A K H L T A E A L R R E C K D D I T C I I I K L  
UniRef90\_V4KMB1 A R D S D A E T A S R K L V I Q E A Y A R G S C D D I T C I V V R F  
UniRef90\_A0A059DFM6 I K N K D A Q S A A K H L I D E A L N R N S C D D I T C I V V K L  
UniRef90\_V9ILY6 I H S D D L E A V T N Q L V I D T C L Y K G S R D N M S I V V T F  
UniRef90\_UPI00042B3013 I R N K D A R S A A K R L T E E A V K R N S T D D I T S C V V V R F  
UniRef90\_D8U4A7 I R D S D A E Q A A K R V T E E A Y Q R G S N D N I S C V V V R F  
UniRef90\_Q9LME4 A R R K D P Q K A A K E L T A E A L R R E S K D D I T C V V V R F  
UniRef90\_UPI00037AF47A L S A P D I M Q A V P A L L G R A L A G P S C D N N L S M I A M R W  
UniRef90\_D6WTT9 I H A N D N L Q E V T S Q V I D T C L N K G S R D N M S I V L V  
UniRef90\_F4QLW9 L N A A A P D E T A R K L V A D A L A A G G T D N A T A L V I D I  
UniRef90\_UPI0003D6FBB3 V K S K D P Q A A A K R L T T E A L A R K S K D D I T C I V I T F G  
UniRef90\_K7IR67 I H S D D L E A V T N E V I D T C L Y K G S R D N M S I V L I R F  
UniRef90\_M4WXR5 L E A Q S L Q A C A D A L V S A A H L A G S Q D N N S A L L L Q V S  
UniRef90\_UPI0002B40B49 M L H N D P E R C S R E L V R E A L K R N T C D N N L T V I V V C F S  
UniRef90\_UPI000395C025 T R L L S P R E A S Q F L I E R A R M R G S G D N N M S L A I V K V  
UniRef90\_UPI00041EC11B F N E M E M E K Q A K R L V E L N K E R Q E T D N N I T S V V I K I  
UniRef90\_V4TAV5 M L H N D P E R C S R E L V R E A L K R N T C D N N L T V I V I C F S  
UniRef90\_R6GDL1 L Q T Q S P A K C V D T I L A A A L E A G G K D N N I T A I V L E I N G  
UniRef90\_UPI00035F931C L Q L H S G G R A A F E L W K S A I E A G G P D N N L T L A L I E I G  
UniRef90\_Q46YE5 L T R L S V V Q A A V P E L T S R A L E K A G E D N T T G I A M  
UniRef90\_G7ZAL0 L T E E D P A R A A A A L V D A A N R S G G Q D N N V T V V V G R F  
UniRef90\_W2C841 A T H P T P E A V G R A I I D A C S V R A R D N F S F Y I V P I  
UniRef90\_C4K995 L T A G V L S R A V P R L M D T A E R K A G A D N L S M V A M C F S  
UniRef90\_C5WTK7 M E H N D P Q R C S R E L V Q E A L R R D C C D N N L T V V V V R F S  
UniRef90\_A0A011QKQ3 L K T N A L M R A V P T L L D Q A E V N G G P D N N L S M I A V R W  
UniRef90\_K9QWU7 L T G E N L A N V A D Q L L E L A N T K N G H D N N V T T A L V  
UniRef90\_I111Z9 V K S K D P Q T A A K R L T S E A L A R M S K D D I T C I V I R F  
UniRef90\_K9WXM5 L D G R D L P T A G T R L T E T A N S Q N G H D N A T T A L L  
UniRef90\_O64583 K K R G N A E E A A K M L I D K A L A R G S K D D I T C V V V S F  
UniRef90\_S3VV98 L R N H D L R E T S R A L S E A N L R L T R D N H T I L L I Q F  
UniRef90\_UPI0003FE8274 L A S P D N E V A A A L V E A A L E C G A H D N N V T V T V L S V  
UniRef90\_G0AH36 I L Q T S T I V R A V P E L V N D N A L A G K T S D N N V T A L A M A W G  
UniRef90\_H2LRL3 I G Q H D P K E A Q R I S N Q A L H Y G S E D N N S T I I V V P F G  
UniRef90\_R7DP96 L A D E D T E N K V E T L T A L A K N N G G D D N N I T A V A L  
UniRef90\_UPI0001CC0B63 R R E R Q P S A L L A R L F D T A L S R A G R D N N L S A V A L R L A  
UniRef90\_A0A034VHQ0 V H S N D L V N I A N Q V V D T C L H K G S R D N M S I I I I A F  
UniRef90\_G1URD8 L A R T S A R E A A E D M A R A V D G V P Q P D N N I T L V A V F I S  
UniRef90\_A7MBY9 V H S T D L R E V C S Q V I D L C L Y K G S L D N N I S I I L V C F  
UniRef90\_Q3EN65 L Q N E Q L E G K G Q R L I Q L A N D R G G E D N N I T L V L I D  
UniRef90\_A0A023D9S8 L G Q D G D V A E A M L T T A L R R R A R D N N V  
UniRef90\_R8AYN4 V C D T D P E E A R A L V D A A M E R G S P D N N L S A Q V L  
UniRef90\_A1KCM2 L A D E N L M A A V P R L L T R A E A G A S C D N N S A V A M R W  
UniRef90\_K4ABK3 V R H N N P E R C S S E L V Q E A L K R D S Y D N L T V V V I C F S  
UniRef90\_A0A022PTU7 A R K P Q P L S A C R K L V D L S V S K G S N D D I S V M L I Q L G  
UniRef90\_E1RFS6 R D Y T H S N H I A Q S L V N S V I A K S D D N N V T V I A A R F  
UniRef90\_M0TQT7 I K T R D P Q A A A K H L T E E A V A R K S K D D I S C I V V K F  
UniRef90\_E8U1H5 I T R Q A V S H A V P E L V E D A L R R G S G D N N V T V V A M E W  
UniRef90\_UPI000388AF48 V R S G D P Q A V C E E V L D A G L Y K G S R D N N M T C M V V C F  
UniRef90\_UPI00038000E1 V Q H P D A G A A Q T L V R N A L Q A G S E D N N V T A L V V D I

UniRef90\_B8FMR0 1 M E S F A 10 L S D M G L K R N E N 20 Q D R R L V G A 30 V L L A I 40 A D G M G S  
UniRef90\_W5D957 Q W E R G V A S E Q G S R H E Q Q D R W G I Q G L L A V V V F D G H G G  
UniRef90\_W6M9C5 G R P V I E A A M S T D T G L R R A V N E D L A L A Q E P V F V V V A D G M G G  
UniRef90\_UPI00040DFA07 M S F E V D I G Y S S Q R G P R R E L N E D F A G A R G L I A A I A D G M G G  
UniRef90\_J3CM85 N L P H R W Q W G G A S Q Q G G R H E Q Q D R W A V S G L L A I L A D G M G G  
UniRef90\_W6LSB1 L R Y G L S S M Q G W R V E M E D A H T A D W S F F A V Y D G H A G  
UniRef90\_UPI000440BD97 M I K L S S I S E K G N V R S N N E D R V G Y N I Y L G I L C D G M G G  
UniRef90\_I1A4R5 P L D I R S G S Y S D K G P K Q Y M E D E F I C I A A F Y G V F D G H G G  
UniRef90\_V7CII1 L D I R S G S Y S D K G P K Q Y M E D E T L F P N P R W F L V C D G V G G  
UniRef90\_I2GM41 S I G Q L S L Q G R R P E N E D R I L V E P L L L A I F D G H G G  
UniRef90\_R7THH9 G P K S T F R V G V W E D R N K R R T M E D T H A S D N G Y F A I F D G H A G  
UniRef90\_GOREI3 V V R S G G W A D I G S R S T M E D A Y I C C D N F Y G V F D G H G G  
UniRef90\_I1GXM2 L R L T L G Q H S A A G R K P H N Q D F H G A K G A A V I A D G M G S  
UniRef90\_A9W1T0 K V A E I S D I G N Y R K S N Q D Y L G D G D L F G I V C D G M G G  
UniRef90\_UPI00047DF99C S R R I T H G F H L V K G K S N H A M E D Y L V S E M R L F A I F D G H M G  
UniRef90\_Q7XR06-2 Q I F S L T D P G P T R E K N E D S C S P H P R V I V C D G L G G  
UniRef90\_S8CIE7 F Q I A Y H T D A G I R K S R N E D G L L I K T G L F V V C D G M G G  
UniRef90\_L8LKV2 T L S W G S F S T C G M R E T M E D S H F L L P H F C G I F D G H R G  
UniRef90\_N0AYF9 Y S V Y C K R R R E A M E D R F S A K Q A F F G I F D G H G G  
UniRef90\_E5GBP3 A V H F Q Y G S A T H T G W F R T I N E D R S L I P Y A A A I A D G M G G  
UniRef90\_B9GGP6 V F G L T H P G E R I Y N E D C F D P Q G R Y A V V C D G M G G  
UniRef90\_UPI0004702B47 N M T F D I S I S T H S G L V R E V N E D S F S L N G Y M L E V C D G M G G  
UniRef90\_U5QPL7 M T S Q L K V G Q Y S T R G R K R T N Q D F H G I K G I A I E V A D G I S S  
UniRef90\_R6CC38 G E G N S L R Y G L S S M Q G W R V E M E D A H L S A W S F F A V Y D G H A G  
UniRef90\_UPI0002556782 I F R S G S C A E R G P K Q Y M E D E H I C I G A F Y G V F D G H G G  
UniRef90\_W5LJC2 M Q S V G T S H R G K V R S E N Q D T I F H S D N L Y I V A D G M G G  
UniRef90\_I1K7B1 M A L Q L D I G Q L T T A G I K P L N E D A V A S K G A V F L V A D G V S S  
UniRef90\_R6QMR2 M I R S G E W T D I G G R G L M E D A H V A S G A F Y G V F D G H C G  
UniRef90\_UPI000376CEBD E Q A F F A V F D G H G G  
UniRef90\_D8S222 K Y G F S L I K G K A N H P M E D Y H V A K F G L F A I Y D G H L G  
UniRef90\_UPI0002A4B500 Q V D I V T V T D A G P T R K S H N E D A C Y R S A Y L A I V C D G I G G  
UniRef90\_A0A022PRV3 M K V Y A A T Q N G I H K R N N E D R V L I G S G I V A V A D G V G G  
UniRef90\_K1VNR1 L R Y G L S S M Q G W R V E M E D A H T A D W S F F A V Y D G H A G  
UniRef90\_N9VRD8 S Y E I S V A V I T S I G E R K T N E D A Y L P D K K Y F L V C D G L G G  
UniRef90\_I3IX31 A L E I S V G Q Y S D K G R K D I N Q D F H G V K G I A I A I A D G I S S  
UniRef90\_R7C9P0 L L L K C Q L A C D M G C L R T N N E D M I L F N G G L Y F V A D G M G G  
UniRef90\_UPI000471E863 M S T R L K V G Q H T D K G V K E T N Q D F H G A K G V A L A V A D G I S S  
UniRef90\_U3HR18 M S L S V S F G Q Y S D K G R K P A N Q D C H G T K G I A V A L A D G I G S  
UniRef90\_K2GH14 L R I S L I G H A S D K G I K A D N E D F Y G A K G L A V A I A D G M S S  
UniRef90\_UPI000378DC51 E D S V D R A Y F A V F D G H G G  
UniRef90\_E1BF95 I R S G S F A D I G P R R Y M E D N F P Q P S A F Y G V F D G H G G  
UniRef90\_I1JBC4 I R I T Y G F S L L K G T A D H P I E D Y H V A K F G L F A V F D G H L G  
UniRef90\_M0RL32 L K L S A A Q R S E A G R K P C N E D S I A I K G I V V A I A D G V S A  
UniRef90\_E1VMR9 F T I Y Q R S R P A G A R P N N Q D S Y T R D A L L M V I A D G M G G  
UniRef90\_UPI0003603199 M S K H I T H G F H L V K G R S Y H A M E D Y L V A E L G L F A I F D G H A G  
UniRef90\_D3P061 L P S L W P S A G L T R Q G V G R S V N E D A I L P D L G L W A V A D G I G G  
UniRef90\_UPI0003813994 E I A T L S D R G P S R V R N E D A C Y P T R Q L A I V C D G V G G  
UniRef90\_Q82CH5 V A A V S D R G L R H H R N E D A F A V S A V A V V C D G V S S  
UniRef90\_D4IY25 S F K V D A Y S D K G V R K N Q D A L V I K Q C M G L I C D G M G G  
UniRef90\_UPI0002B49775 S L R S G S F A D I G P R R Y M E D E H I K P S A F Y G V F D G H G G  
UniRef90\_UPI000474973E L I S L S Y G G C S L K G V R D E N Q D A F L V K G A V A C I A D G C S D  
UniRef90\_T2DN72 V R S G C C A D I G P R G S M D D E H I Q I D S A F Y A V F D G H G G  
UniRef90\_Q9LNF4 T I R S G S F A D I G R S R E T M E D N F S V P S A F Y G V F D G H G G  
UniRef90\_UPI00034C1E8A L A H G G K T D I G R H R P R N E D T F A I S R G L Y V L C D G M G G  
UniRef90\_Q6F1P6 R Y K I Q S M S D I G R V R K S N Q D F L G E G C L F A I V C D G M G G  
UniRef90\_V9KL82 L R Y G L S S M Q G W R V E M E D A H T A S W S F F A V Y D G H A G  
UniRef90\_A1VM46 M A F N I D I G F T T Q A G R K T G N E D F C A M G S I V A I A D G V G G  
UniRef90\_M7PPI8 M S L K V R C G Q F S S P G V K P E N Q D A V G F H G L G C A L A D G I S S  
UniRef90\_UPI00032AB6C9 G A T H P G S R K A N E D C F I H D P T Y G L V C D G M G G  
UniRef90\_G5BKG0 N T R R R M E D R H V V D R A Y F A V F D G H G G  
UniRef90\_L0WUAU2 L P L M Q T I A G V T N T R G P I M K N E D A C Y P S A K L S I V C D G D G G  
UniRef90\_UPI0004782A6E T F R L N A T T A L H R G D R A Y Q D Q V A I G C A L A V V A D G M G G  
UniRef90\_UPI000476B24F M R L V T Q H A F E T A T G Q R P D N Q D Y A G N S G I A A I A D G V G G  
UniRef90\_M4Z916 K Y T S V K D I G R F R R T M E D E H V P D Q A Y F A I Y D G H G G  
UniRef90\_F4Q934 R V K H G Y H L V K G K S N H P M E D Y L V A D L G L F A I F D G H L G  
UniRef90\_Q0D673 L R Y G L A S M Q G W R S S M E D A H C A D W S F F A V F D G H A G  
UniRef90\_U6IMW4 A Y H T D K G I V K N T N Q D A L L I K T G L F V V C D G M G G  
UniRef90\_E6TRI0 Y F V C S K R G R G G I L E D R Y Y S K Q A L F G V F D G H G G  
UniRef90\_B9HHR7 S Q R F G I G Y S A T M G V R P N M E D T Y P N D Q H L F G L F D G H Q G  
UniRef90\_A2F0M6 L R F G A S A V Q G W R A H M E D A H C A G W A F F A V L D G H G G  
UniRef90\_M3XB35 F S V Y C K R G S R K H M E D R Y S A N Q A F F G I F D G H G G  
UniRef90\_UPI00032AB6C9 N T R R R M E D R H V V D R A Y F A V F D G H G G  
UniRef90\_G5BKG0 G R S H A G R R V R N E D S F V C Q D G L W A V I D G M G G  
UniRef90\_L0WUAU2 L R S G G C A D I G F R S N M E D V Y V C P S A F Y G V F D G H G G  
UniRef90\_G7JBP1 G E N E T L S F G S S C M Q G W R S N M E D S H L E D G G F F G I Y D G H S G  
UniRef90\_W6L817 S A F Y G V F D G H G G  
UniRef90\_G3ECQ8 E N F H I S L L A F Y G V F D G H G G  
UniRef90\_K7UQ02 A F A E S R I G G R R E N Q D S F G W N G Y L V T V C D G M G T  
UniRef90\_R6WQH7 V T V T A L T H R G A V R P A N E D A V L T E P V V L A V A D G L G G  
UniRef90\_UPI0004782A6E N E D A Y V V S D G L L A V A D G V G G  
UniRef90\_UPI000476B24F S L S I R F A Q H S D Q G R K P E N Q D T V G A K G I A I A I A D G V S S  
UniRef90\_Q21IE0 L Q I S V H A T R N T R K M E D R H V V D R A Y F A V F D G H G G  
UniRef90\_UPI000441F723 E M E D R H V A Q V A L F A V F D G H G G  
UniRef90\_W5DZB4 R F S V Y Q E S H I G G R K N N Q D S F T R D A L L L L A D G M G G  
UniRef90\_UPI0003127F3B G Y S K K G S K S D E N E D S F L S P A L F V V A D G V S S  
UniRef90\_E1VJZ6 T L R V S L G Y S S K G A K A V N Q D A L G A K G I T L A I A D G V S G  
UniRef90\_C5BUK3 G A S K R I T H G S H L V K G K S N H A M E D C L V C D L G L F A I Y D G H M G  
UniRef90\_K4CFS1 L K I S V H A I R G G R R K M E D R H V V E R A Y F A V F D G H C G  
UniRef90\_V9KL12 L Q L S H G T V S T I G R R R E M E D A V A V E Y N F Y G V Y D G H G G  
UniRef90\_UPI0002QFC1 I I R S G S F A D I G P R R F M E D E H I A P S A F Y G V F D G H G G  
UniRef90\_B4FT19

UniRef90\_B8FMR0  
UniRef90\_W5D957  
UniRef90\_W6M9C5  
UniRef90\_UPI00040DFA07  
UniRef90\_J3CM85  
UniRef90\_W6LSB1  
UniRef90\_UPI000440BD97  
UniRef90\_I1A4R5  
UniRef90\_V7CII1  
UniRef90\_I2GM41  
UniRef90\_R7THH9  
UniRef90\_G0REI3  
UniRef90\_I1GXM2  
UniRef90\_A9W1T0  
UniRef90\_UPI00047DF99C  
UniRef90\_Q7XR06-2  
UniRef90\_S8CIE7  
UniRef90\_L8LKV2  
UniRef90\_N0AYF9  
UniRef90\_E5GBP3  
UniRef90\_B9GGP6  
UniRef90\_UPI0004702B47  
UniRef90\_U5QPL7  
UniRef90\_R6CC38  
UniRef90\_UPI0002556782  
UniRef90\_W5LJC2  
UniRef90\_I1K7B1  
UniRef90\_R6QMR2  
UniRef90\_UPI000376CEBD  
UniRef90\_D8S222  
UniRef90\_UPI0002A4B500  
UniRef90\_A0A022PRV3  
UniRef90\_K1VNR1  
UniRef90\_N9VRD8  
UniRef90\_I3IX31  
UniRef90\_R7C9P0  
UniRef90\_K7AEP8  
UniRef90\_UPI000471E863  
UniRef90\_U3HR18  
UniRef90\_K2GH14  
UniRef90\_UPI000378DC51  
UniRef90\_E1BF95  
UniRef90\_I1JBC4  
UniRef90\_M0RL32  
UniRef90\_E1VMR9  
UniRef90\_UPI0003603199  
UniRef90\_UPI00032A8FF3  
UniRef90\_D3P061  
UniRef90\_UPI0003813994  
UniRef90\_Q82CH5  
UniRef90\_D4IY25  
UniRef90\_UPI0002B49775  
UniRef90\_UPI000474973E  
UniRef90\_T2DN72  
UniRef90\_Q9LNF4  
UniRef90\_UPI00034C1E8A  
UniRef90\_Q6F1P6  
UniRef90\_V9KL82  
UniRef90\_A1VM46  
UniRef90\_M7PPI8  
UniRef90\_Q7NKS2  
UniRef90\_E2R912  
UniRef90\_K9ZKH2  
UniRef90\_F3LPJ1  
UniRef90\_M4Z916  
UniRef90\_F4Q934  
UniRef90\_Q0D673  
UniRef90\_U6IMW4  
UniRef90\_E6TRI0  
UniRef90\_B9HHR7  
UniRef90\_A2F0M6  
UniRef90\_M3XB35  
UniRef90\_UPI00032AB6C9  
UniRef90\_G5BKG0  
UniRef90\_L0WAU2  
UniRef90\_G7JBP1  
UniRef90\_W6L817  
UniRef90\_G3ECQ8  
UniRef90\_K7UQ02  
UniRef90\_R6WQH7  
UniRef90\_UPI0004782A6E  
UniRef90\_UPI000476B24F  
UniRef90\_Q21IE0  
UniRef90\_UPI000441F723  
UniRef90\_W5DZB4  
UniRef90\_UPI0003127F3B  
UniRef90\_E1VJZ6  
UniRef90\_C5BUK3  
UniRef90\_K4CFS1  
UniRef90\_V9KL12  
UniRef90\_A0A022QFC1  
UniRef90\_B4FT19

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



UniRef90\_B8FMR0  
UniRef90\_W5D957  
UniRef90\_W6M9C5  
UniRef90\_UPI00040DFA07  
UniRef90\_J3CM85  
UniRef90\_W6LSB1  
UniRef90\_UPI000440BD97  
UniRef90\_I1A4R5  
UniRef90\_V7CII1  
UniRef90\_I2GM41  
UniRef90\_R7THH9  
UniRef90\_G0REI3  
UniRef90\_I1GXM2  
UniRef90\_A9W1T0  
UniRef90\_UPI00047DF99C  
UniRef90\_Q7XR06-2  
UniRef90\_S8CIE7  
UniRef90\_L8LKV2  
UniRef90\_NOAYF9  
UniRef90\_E5GBP3  
UniRef90\_B9GGP6  
UniRef90\_UPI0004702B47  
UniRef90\_U5QPL7  
UniRef90\_R6CC38  
UniRef90\_UPI0002556782  
UniRef90\_W5LJC2  
UniRef90\_I1K7B1  
UniRef90\_R6QMR2  
UniRef90\_UPI000376CEBD  
UniRef90\_D8S222  
UniRef90\_UPI0002A4B500  
UniRef90\_A0A022PRV3  
UniRef90\_K1VNR1  
UniRef90\_N9VRD8  
UniRef90\_I3IX31  
UniRef90\_R7C9P0  
UniRef90\_K7AEF8  
UniRef90\_UPI000471E863  
UniRef90\_U3HRH8  
UniRef90\_K2GH14  
UniRef90\_UPI000378DC51  
UniRef90\_E1BF95  
UniRef90\_I1JBC4  
UniRef90\_M0RL32  
UniRef90\_E1VMR9  
UniRef90\_UPI0003603199  
UniRef90\_UPI00032A8FF3  
UniRef90\_D3P061  
UniRef90\_UPI0003813994  
UniRef90\_Q82CH5  
UniRef90\_D4IY25  
UniRef90\_UPI0002B49775  
UniRef90\_UPI000474973E  
UniRef90\_T2DN72  
UniRef90\_Q9LNF4  
UniRef90\_UPI00034C1E8A  
UniRef90\_Q6F1P6  
UniRef90\_V9KL82  
UniRef90\_A1VM46  
UniRef90\_M7PPI8  
UniRef90\_Q7NKS2  
UniRef90\_E2R912  
UniRef90\_K9ZKH2  
UniRef90\_F3LPJ1  
UniRef90\_M4Z916  
UniRef90\_F4Q934  
UniRef90\_Q0D673  
UniRef90\_U6IMW4  
UniRef90\_E6TRI0  
UniRef90\_B9HHR7  
UniRef90\_A2F0M6  
UniRef90\_M3XB35  
UniRef90\_UPI00032AB6C9  
UniRef90\_G5BKG0  
UniRef90\_L0WUAU2  
UniRef90\_G7JBP1  
UniRef90\_W6L817  
UniRef90\_G3ECQ8  
UniRef90\_K7UQ02  
UniRef90\_R6WQH7  
UniRef90\_UPI0004782A6E  
UniRef90\_UPI000476B24F  
UniRef90\_Q21IE0  
UniRef90\_UPI000441F723  
UniRef90\_W5DZB4  
UniRef90\_UPI0003127F3B  
UniRef90\_E1VJZ6  
UniRef90\_C5BUK3  
UniRef90\_K4CFS1  
UniRef90\_V9KL12  
UniRef90\_A0A022QFC1  
UniRef90\_B4FTI9

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

UniRef90\_B8FMR0 G R L R Y V T K D Q N M A W F L Y D E G E T T A E E A R R H P G L R L L D Q C V  
UniRef90\_W5D957 G K A I A L S D D H S D E R E R I E N A G G V V T F S G T W R V G G V L L A M S R  
UniRef90\_W6M9C5 G R R L Q M R T R D H S L V Q A L L M D L G E I E E S Q M A S H P A Q N R L Y R C L  
UniRef90\_UPI00040DFA07 G S L A Q I T A D H S A Y A E L L T A A G H A D A A T A P R N V I T R A  
UniRef90\_J3CM85 E P A V P L T Q D H A F D H P D M R S R L T R A I  
UniRef90\_W6LSB1 G Q R L M R T R D H S A V Q L L M D L G E I N E S E M A T H P A Q N R L Y R S M  
UniRef90\_UPI000440BD97 A H V C F S T L D H K P C N P R E K E R I Q N A G G S V M I Q R V N K G P T E R Q  
UniRef90\_I1A4R5 N E L T I Q V T R D H N L M N R W I D E G I D P K I D E S M P I Y R F L T V G A N  
UniRef90\_V7CII1 G R A V E L S K D H K P N C T S E R N G Q L S V A R A L G D W H I K G T K G S K  
UniRef90\_I2GM41 G A I L Q W R T S D H S Y V N E L V Q S G V L T A D E A R L H P Q R N I I T R A I  
UniRef90\_R7THH9 G Q S L R L T T D H E P D L P E E R E R I Q E S G G K V L M S L G K P R V M G  
UniRef90\_GOREI3 G K A L R L S Y D H K G S D E N E G K R I L S N A G G L L N N R V N D T Y M K D  
UniRef90\_I1GXM2 G K A I E M S R D H K P S C S R E K M R N V A R A I G D W H M E G V K A C D G L  
UniRef90\_A9W1T0 R S L E Q L T E D H R L V L S A E E S Y L G R A L G A  
UniRef90\_UPI00047DF99C D K V Y Q I T K D Q N L W N S T P E E E R N K I N Q E G A F G A R F N E V T Y W  
UniRef90\_Q7XR06-2 G N A I J A V S K D H T D E R Q R I E D A G G F V M W A G T W R V G G V L A V I S R  
UniRef90\_S8CIE7 G A A K Q L S V D H E P S K E E R K G G F V S R F P G D V P R V D G G L A V A R  
UniRef90\_L8LKV2 N G G Y Q I T V D D D L A S R E V R L E G Y S T Y R D A L E S P N S G A L I Q A L  
UniRef90\_N0AYF9 R T I L K L T K D Q T L V A R E L V R L E Y G N I T E A Q A R I D P R R N I L L Q C V  
UniRef90\_E5GBP3 G D P I V L S K D H V A S C L E E R E R V I N A G G Q V K W Q V D T W R V G P A  
UniRef90\_B9GGP6 G V A E A L T T D H R P S R E D E K D R I E S M G G Y V D L I H G T W R I Q G C  
UniRef90\_UPI0004702B47 G R C K R L R T R D Q T W V S A Q V R R G R M S R R A R S H P K R N V L L H S L  
UniRef90\_U5QPL7 H H C Q Q I S V D D D L N R E V S S A R V I T R Q T L Q Q T K G C G Q L T Q A L  
UniRef90\_R6CC38 G N I D Q I S F D H T L A M R K Y M A N I Y T L E E A E N S P D S H K L L F L  
UniRef90\_UPI0002556782 G N L E Q L T E D H R L W I S R D K S Y L S R A M  
UniRef90\_W5LJC2 G R V H F F T Q D H K P S N P L E K E R I Q N A G G A V M I Q G D F D Y K C V H  
UniRef90\_I1K7B1 G R A I E M S K D Q K P D C I S E R L R I E K L G G V V Y D G Y G D W H M K G S  
UniRef90\_R6QMR2 Q D L V Q V I T D H S F V E E L V K A G E I D R R Q M R Q H P K R N V L L T R A I  
UniRef90\_UPI000376CEBD G E L Q Q L T K D H H P V V E R T R I Y L N G Q L A V A R A L G D W H M K D L K  
UniRef90\_D8S222 G K A V E M S R D H K P V D R E D K K R I E A L G G C V I W F G T W R V N R A I  
UniRef90\_UPI0002A4B500 Q Q V L V E L M K P H K P D V R E D K K R I E A L G G C V I W F G T W R V N R A I  
UniRef90\_A0A022PRV3 G H A I P L T V D H E P N A E R D S I E N N M P G D V A R V N G Q L A V S R A F  
UniRef90\_K1VNR1 E G C Y Q V T L D D D V A S R E V R L E G Y T I Y R E A L Q Q V S S G A L I Q A I  
UniRef90\_N9VRD8 S Y L R Q L T E D D T V N Y L V H S G K M T E E E A E N Y H A R S E I T A C F  
UniRef90\_I3IX31 A Q V C F S T L D H K P C N P R E R E R I Q N A G D Y D Y K C V D G K G P T E Q  
UniRef90\_R7C9P0 N K Y K L R T K D H S V P Q M L V N S G A I K E K D I R H H E D R S R R V M G T  
UniRef90\_K7AEF8 G E L T Q L T E D H R T W V S S E K S Y L S R A M  
UniRef90\_UPI000471E863 G I L K Q L S A D H S M R E L T G D E S A P S N M I Y N S L I G A G T  
UniRef90\_U3HR18 T A L E Q L T Q D H R L W L G E D K N Y L S R A L  
UniRef90\_K2GHI4 G E L E Q L T T D H R L W V S R E Q H Y L S R A L  
UniRef90\_UPI000378DC51 G N L E Q L T R D H R V W V G K E K N Y L N R A M  
UniRef90\_E1BF95 G Q A V K L M E P H R P E R Q D E K D R I E A L G G F V S H M D C W R V N V S R  
UniRef90\_I1JBC4 G E A I D M S Q D H R P I R Y P S E R R R V E S V T R A L G D W D M K L P K G A P  
UniRef90\_M0RL32 R E V I Q M T T D H E P N S E R E R I E T R G G F V L N M P G D A F G D K C L K  
UniRef90\_E1VMR9 G E L E Q L T R D H H V A R I S A D Q Q Y L A R A L  
UniRef90\_UPI0003603199 G R T I Q Q T K D H S R L Q M M L D Q G L I D E E A A L H H P A R N R I F S C L  
UniRef90\_UPI00032A8FF3 G V A K Q L S V D H E P I T E H E D I K N R F P G D V P R V D G R L A V S R A F  
UniRef90\_D3P061 V H L Y R L T R D H T V A A D R M M A G L P P S P D P R A A Q S L T R A V  
UniRef90\_UPI0003813994 Y G C Y A I T L D D D V A T R E V R L G Y A F Y R E A L Q Q T S A G S L V Q A L  
UniRef90\_Q82CH5 D P P V R L T E D D S W A Q M V A A G L M S E A E A Y A D E R A H A I T G W L  
UniRef90\_D4IY25 R Q M E Q L S H D H S Y V Q Q Q L E L G R M S A Q E A N A S D K M S M L Q C I  
UniRef90\_UPI0002B49775 G E A V D M S Q D H R P V Y S L E K Q R V E S V S R A L G D W D M K L P D Q T P  
UniRef90\_UPI000474973E N T L K L L T R D H R Q R V N F G Q N P H L T R A L  
UniRef90\_T2DN72 G V A V D M S K D H S Y L P E R R V E E M G G Y I D D G Y L N G Y L S V T R A  
UniRef90\_Q9LNF4 G V A V D M S F D H R S T Y E P E R R R I E D L G G Y F D W E L K N P F T D S S  
UniRef90\_UPI00034C1E8A R G G L Q L L T T D H E V G Q Q A I R Q G I D P A D A Y S R P E A Y Q L T Q A L  
UniRef90\_Q6F1P6 G K L N Q L T V D Q N L W N D K D N E R K R K E E K N Y L G A K F N E M T Y W  
UniRef90\_V9KL82 A Q L C F S T Q D H K P C N P R E K E R I Q N A G G S V M I Q G D Y D Y K C V D  
UniRef90\_A1VM46 G E L L Q L T H D H V M N H P D F R H Q L L R A V G A  
UniRef90\_M7PPI8 Q D L E Q L T T D H R I T L E Q G K Y L G R A V  
UniRef90\_Q7NKS2 H H C Q Q L T V D D D V A N Q E V S L A R T T S S A V L R M D G S G Y L G R A V  
UniRef90\_E2R912 G Q V V K L M E P H R P E R E R I E A L G G F V S H M D C W R V N G T L A V I S R  
UniRef90\_K9ZKH2 N Y C Q L L T L D D D L A T R E V Q L G Q S L Y R Q A M Q H P N A N A L T Q A L  
UniRef90\_F3LPJ1 A E L V W R S T D H S F V Q R L I D D G K L T E E A A N H H P Q S N L L T G C G  
UniRef90\_M4Z916 D Q L Q Q M T A D H S A L G P G Q L N M L T R A V  
UniRef90\_F4Q934 A V A E R L S Y D H K G S D L E E R T K R I L N A G G F V V N N R V N G I L A V T  
UniRef90\_Q0D673 G V A K Q L S V D H E P N K E R H S F V S N L P G D V P R V D G O L A V A R A F  
UniRef90\_U6IMW4 G V V G F A T T D H K P A H P S E R K R I Q S L G D Y S Y K T V S N L G P T E Q  
UniRef90\_E6TRI0 E L K L L T K D Q T L I A K E I E R G N I T V E Q A K N D P R K N V L L Q C V  
UniRef90\_B9HHR7 G V A E A L T S D H Q P S R K D E K D R Y V C C H G V W R I Q S L A V T R G  
UniRef90\_A2F0M6 N S S K R L T V D Y S E Y E R L R K C G L T V N S E G R I G R K G D F W C E G P  
UniRef90\_M3XB35 G A V A F S T E D H R P L R P R E R E R I H N A G G T I R R R G D F A Y K E A P  
UniRef90\_UPI00032AB6C9 G V A E A L T S D H K P S R K D E K D R I E T Q G G Y V D M C R G V W R H M K Q  
UniRef90\_G5BKG0 G E V V K L M E P H R P E R W D E K A R I E A L G G I V Y F M D C W R V N G T V  
UniRef90\_L0WAU2 D H I D M L S R D H S P V Q A L V D A G E L T E Q Q A M D H P R G H V I W R A V  
UniRef90\_G7JBP1 G K A I D M S R D H K P G C M L N G Q L N V A R A I G D W H M E G M K G D G G  
UniRef90\_W6L817 S E A Y P L S L D H K P F N P I E Q I R I E R A G G F V M N R R V Q V S W D Q Q  
UniRef90\_G3ECQ8 G V A V D M S Q D H S Y L P E R R R V E E L G G F I D D G Y L N G Y L S V T R A  
UniRef90\_K7UQ02 G T A D A L T A D H T Y C A R E D E R A R I E R L G G Y V R C G G S G V W R V S R  
UniRef90\_R6WQH7 G R K V F R T F D H S M V F E M V K Q K V I T E E Q A R L S A Q S N I I T R A L  
UniRef90\_UPI0004782A6E N R L R Q L S Q D S P P L P P S E D G K P V T T N F I T Q S L G G S G S T A M  
UniRef90\_UPI000476B24F K R P H Q I T T P H A I K N G P L L N A V  
UniRef90\_Q21IE0 N V L E L L T R D H T Q K I D S K T T Y L S R A L G A  
UniRef90\_UPI000441F723 G K V I T L M E P H K P E R E D E R Q R I E A L G G C I T Y M D C W R V N G T L  
UniRef90\_W5DZB4 G T A E A L T S D H R A S R E D E R E R I E N L G G F V V Z N R G T W R V H L K  
UniRef90\_UPI0003127F3B G Q I L A R T R D H S R I E T L I A Q G K V D P A E R D T H P D R N K L F N C L  
UniRef90\_E1VJZ6 S G I T Q L S V D H S H V N G D A V S R N K I T N A V  
UniRef90\_C5BUK3 N Q L E Q L T E D H R Y Q D S A N S Y L T S A V  
UniRef90\_K4CFS1 G V A E Q L S V D H E P N R E R E I F V S N I P G D V P R V D G Q L A V A R A F  
UniRef90\_V9KL12 G E V M T L M D P H K P E R E D E K Q R I K E L G G C D C W R V N G T L A V I S R  
UniRef90\_UPI0002QFC1 G E V P V Q L S D D H K P P D E L E R I E V C G G K V I N W N G Q R V L G V L A T  
UniRef90\_B4FT19 G T A V E V S K D H R P T Y D A E R Q R V I S V I T R A L G D W D M K L P Q G S P

UniRef90\_B8FMR0  
UniRef90\_W5D957  
UniRef90\_W6M9C5  
UniRef90\_UPI00040DFA07  
UniRef90\_J3CM85  
UniRef90\_W6LSB1  
UniRef90\_UPI000440BD97  
UniRef90\_I1A4R5  
UniRef90\_V7CII1  
UniRef90\_I2GM41  
UniRef90\_R7THH9  
UniRef90\_G0REI3  
UniRef90\_I1GXM2  
UniRef90\_A9W1T0  
UniRef90\_UPI00047DF99C  
UniRef90\_Q7XR06-2  
UniRef90\_S8CIE7  
UniRef90\_L8LKV2  
UniRef90\_NOAYF9  
UniRef90\_E5GBP3  
UniRef90\_B9GGP6  
UniRef90\_UPI0004702B47  
UniRef90\_U5QPL7  
UniRef90\_R6CC38  
UniRef90\_UPI0002556782  
UniRef90\_W5LJC2  
UniRef90\_I1K7B1  
UniRef90\_R6QMR2  
UniRef90\_UPI000376CEBD  
UniRef90\_D8S222  
UniRef90\_UPI0002A4B500  
UniRef90\_A0A022PRV3  
UniRef90\_K1VNR1  
UniRef90\_N9VRD8  
UniRef90\_I3IX31  
UniRef90\_R7C9P0  
UniRef90\_K7AEF8  
UniRef90\_UPI000471E863  
UniRef90\_U3HR18  
UniRef90\_K2GH14  
UniRef90\_UPI000378DC51  
UniRef90\_E1BF95  
UniRef90\_I1JBC4  
UniRef90\_M0RL32  
UniRef90\_E1VMR9  
UniRef90\_UPI0003603199  
UniRef90\_UPI00032A8FF3  
UniRef90\_D3P061  
UniRef90\_UPI0003813994  
UniRef90\_Q82CH5  
UniRef90\_D4IY25  
UniRef90\_UPI0002B49775  
UniRef90\_UPI000474973E  
UniRef90\_T2DN72  
UniRef90\_Q9LNF4  
UniRef90\_UPI00034C1E8A  
UniRef90\_Q6F1P6  
UniRef90\_V9KL82  
UniRef90\_A1VM46  
UniRef90\_M7PPI8  
UniRef90\_Q7NKS2  
UniRef90\_E2R912  
UniRef90\_K9ZKH2  
UniRef90\_F3LPJ1  
UniRef90\_M4Z916  
UniRef90\_F4Q934  
UniRef90\_Q0D673  
UniRef90\_U6IMW4  
UniRef90\_E6TRI0  
UniRef90\_B9HHR7  
UniRef90\_A2F0M6  
UniRef90\_M3XB35  
UniRef90\_UPI00032AB6C9  
UniRef90\_G5BKG0  
UniRef90\_L0WAU2  
UniRef90\_G7JBP1  
UniRef90\_W6L817  
UniRef90\_G3ECQ8  
UniRef90\_K7UQ02  
UniRef90\_R6WQH7  
UniRef90\_UPI0004782A6E  
UniRef90\_UPI000476B24F  
UniRef90\_Q21IE0  
UniRef90\_UPI000441F723  
UniRef90\_W5DZB4  
UniRef90\_UPI0003127F3B  
UniRef90\_E1VJZ6  
UniRef90\_C5BUK3  
UniRef90\_K4CFS1  
UniRef90\_V9KL12  
UniRef90\_A0A022QFC1  
UniRef90\_B4FT19

170 180 190 200  
G A G D C E P V T G A L E F S P G A L F M L T T D G V H D H I T P K A L T A I  
A F G D R L L K P F V V A E F E I Q E Y L T L A S D D G L W D V V S N E H A V A F  
G G P D D P K P D K G H F S I Q S G D V L A L C S D D G L W E Y V L S E E E L W E A V  
L G S D D A R H D G W L F P I R T G L R L L I C S D D G L T S E L A S D E E L R A A V  
G L D D Q V R V D Y V Q G D V R V G D C F V L S S D D G V H G V L R P Q E Q V A A L  
G G D D A P K P D L G R V S I R P G D L L A L C S D D G I W E H V T E S E E L W S A F  
L V I S P E P E V F E L V R S E A E D E F V V L A C C D D G I W D V M S N D D I H F T  
L E T R V D F I T I D D V E K N E L H K V L L T S D D G I H E F L S S N D D I H F T  
S P L S C E R A P E L E E L V L T E E D E F L I M G C C D D G L W D V M S S Q C A V I L  
Q A G H K R A Q A D S V Q L D L R P N D Y L F M C C T D D G I L E R I S S D E L L E K I  
R L D M E P D R S I Q I K H G R D A F L V L T T D D G I H R V L N S T E V V S L  
L V T G H P Y T T E T V I Q H D L D E F L I A C C D D G L W D V C S Q N A V D L  
G P L S A E P E V M T R N L T E E D E F M I G C C D D G I W D V F R S Q N A V D F  
G G R V E I D H A S V R T E P G D V F V L T T D D G V H E H V D P E T I A G L  
K V L T S A L G P N K T L K I D L T Y L I Y F L T T D D G L H D Y V D E E E L L K E L  
A F G D K L K Q Y V V D P E I R E F L I L A S D D G L W D V V T N E E A V D M  
A F G D K S L K R H L S S E P D D V E F V I L A S D D G L W K V M T N E E A V G A  
G M G S S L H I N R K R L L D E D C V F L F C C T D D G L S D Y W E S Q L P V I  
G A T K D L N V I T S R G D I E P G T L F M L C C T D G F Y H E I T S E A E L L T A  
A L Q V I T R S I T E T V L T S Q D D C L V M A S D D G L W D V L S N S E V V D T  
W V I A E P D T K I V T I K P E D E F L I L A S D D G L W D V K V G N Q S E A V D L  
G M G E P P D V Y I R S G Y C A P G T L F L L S S D D G F H D R F H P G S I A A L  
G V I P H L I Q P M V Q T F L L P E D C L I L L C S D D G L S D Y H W Q T L L P L  
G V D V D T A Q T Y R P I Q L E P G M K L L L C S D D G L Y D M C P L E E I A R I  
G L N A H L E L D Y R R F Q L E P G D H F V L A T D G V Y E F T S A A R V V E L  
G K G P T P E P E V Y E I K R E E D D F V V L A C C D D G I W D V M T N E E L C D F  
K G S A C P L S A E P E L Q T E D D E F L I M G C C D D G L W D V M S D N Q C A V I L  
G A G I E S V P D F F E L P K K N G Y L L L C S D D G L T S M V A D E I K E L  
G M D S V I Q I D Y G Q S P V I E N D I F L L T S D D G I H D F L N A D E Q L T S L  
V G G P L L S E P R Q A I L H S T E E D E F L I I G C C D D G L W D V F T S Q N A I D L  
G D S E H K P Y I C G A D A D H S V F P Y L L L A C C D D G F W D T V S P E E A V R V  
G D K N L K S H L R S D P D R E D T E L L I L A S D D G I W K V M S N Q E A V D F  
T H S G L N L H P T I Q R F P V D S D C Y F V L C S D D G L S D Q Y W E S E D L P V  
G G G D Q K L R I R K R K N I E G N R T Y L M T T D D G V H E K L S V E D D M E D F  
L V I S P E P E V F V M V R A P E Q D Q F V I L A C C D D G I W D V M S N E E L C E F  
Q W N T P K Y Q I M D E F D I S A K S S F L L C T D D G F W E L T E S E K E M G M C  
G I Y P H L D Y D Y Q S L V I E Q G D I F I F V I T D G V Y E H V S D F M I A A  
S A F A D F I E L T G Q L L D E D L F L L C S D D G L S D M L T D D Q I E L G A  
G I H P Q L L D L D Y R A E S V D V G D T F L L A T D D G V Y E Y I S A A S M I G A  
G I Q P H L E L D Y L H C T S L A A G D L F L L V T D D G V Y E Y L G H A E I T E L  
G I E P R L I E V D Y Q A L P L E K D D L F L L M T T D D G V H D F I N E K A L K K L  
A I G D V F Q K P Y V S G E A D S E E Y L L L A C C D D G F F D V V P H Q E V A S L  
S P L I A E P E F R Q V A L T D D E F L I I G C C D D G I W D V M S N S Q H A V V S L  
P H L S S D P D I Q V E D T N S E A E L L I L A S D D G L W K V M N N E E A V D L  
G D V N L E V D F R V L E L R V R D V F L L T T D D G V H E H I P Q G G L Q R L  
G G S H S P Q I E F S S V L E L F A N D L I A M C C T D D G V W G N L A P D E V A E R  
G D K S L K K H V T V E K I N D D A E F V I L A S D D G L W K V M S N Q E A V N T  
G A R D A L T L D L A V L G T R P G D L F L V C C T D D G L W Q A I P P E Q E L A G S  
G M G S I L D L H P T I T R F E D D C I C L L L C S D D G L S D Y I W Q Q E I Q P L  
G A D A Y L E P H T A S F K P D R P G V V V C C T D D G L W N Y A E A E I V P L  
G A S E T V I P E F F T G T I E K N Q H F L L C S D D G L W R K L E A K E I M D I  
S P L I A E P E C R Q M V L T E E D E F L I I A C C D D G I W D V M S S Q Q A V N V  
G M D N R L D V D Y Q M V E L Q T G D R F I L T S D D G V H D A F T E E Q L S K Y  
L G D W D F K P L G G S V S P E E D E F L I I G C C D D G V W D V M S S Q N A V S L  
S P L I S D P E I G Q I I L T E D E F L I I A C C D D G I W D V L S S Q N A V S L  
P R D N V R P D V R F L N L S E N T L F L L A S D D G L T D N H W E T H L K P F  
K V P N K N T K I D T Y L L N D A N V I G T F V L T T D D G V H D Y D A E T F T E  
G K G P T E Q E V Y E L L R A E E D E F L I L A C C D D G I W D V M S N E E L C E F  
E D H V V V D Y L Q G E L L V G D V F V L V I T D D G V H G V T A D K E L S D L  
G I D Y T L E I D Y R S V D L E A G D L L V L M T D D G V Y E F L S D A S L K N H  
I A M E A L Q P T V R T F V L P E A D C L V L L C S D D G L C D E R C W Q T V L L P  
A I G D V F Q K P Y V S G E A D S E D Y L L L A C C D D G F F D V V P H Q E V A G L  
G T K E S L H F S I Q R F L L E E D G L L L L C S D D G L S D H W R D Y A I P V L  
T H A D P P L T L H R I G R L E P G D T L L A C C S D D G L W H Y F T T K E L G A I  
G A E G E L R I D Y V N E P A E A H D R F L L C C T D D G V Y K S M S D R V L R E V  
R S L G D H S M K E Y V I G D E G H S H L L L A C C D D G L W D V V G D Q E A I D L  
G D R S L K K H L S S E P D D E N T D F L L I A S D D G L W K V M S N Q E A V D E  
L V I S P E P E T V I N R D L E K D Q M L V L A C C D D G V W D V M S N E H L C S V  
G A T K G L E V V I D K G Q I E K G E M Y I L C S D D G F H H R L S N D E E L F S E  
I G D G H L K R W V I A E P E T K C E F L I L A S D D G L W D K V T N Q E A V D V  
G L Y V P P D V S S F E I N E E D I L A L I A C C D D G V W D V I Q D D D A E I  
G R P P E L Q L V S A E P E V T E D E F M L L A S D D G L W D A M S G A A V A R L  
W V I A E P E T N I K I E H H H D F L L L A S D D G L W E K V S N Q E A V D I  
F Q K P Y V S G E A D V A S W E S E D Y L L L A C C D D G F F D V I T F P E I T S L  
G A A E S L E V A Q C R F A L E P A V R F L L T T D D G V H G K L D R A A L L A L  
P L S A E P L M T K L T A E D E F L I I G C C D D G I W D V F R S Q N A V D F  
A V T S A P E V R T H H L N R D R D E F A V I A C C D D G I W D V M S N E Q V I D F  
L G D W L K D V Q V V T L T E D D E F L I I G C C D D G L W D V T S S Q E A V S F  
A F G D G A L K R W V A E P A D C E F L V I A S D D G L W D K V S N Q E A V D A  
G A A E T V D V I E I A E V A Y E K G D R F M L C C S D D G I H G T M P E K E L L K L  
V P H V D R D A E P L D P S A W L M C C S D D G L S D L V A Q D E M E R I  
G L A H I E A D L R E P V R A G D R V I L A S D D G I T K V M T P E Q D L L G L  
D S A L E I D M H S E E L R V D D V F I L T T D D G L H D S L N A H D F E C T  
A V S R A L P D L M Q K P Y I S G C E Y V L L A C C D D G F F D A I Q P V E V V D H  
Q W V V A G D T R T L L V D P G A G E F V L L A S D D G L W D K V D N Q E A I D I  
G A P T M P I T E L S R R V L Q A G D I L L C S D D G L W S V L P D H V L A E K  
G R K E I R I E V A S F E V P K R G Y L L L V S D D G I S D P L T D E R I R A E  
G M Q Q N L V L A Y R A L A V E E G D T F M I A S D D G V Y E H T T P E L V S A A  
G D K S L K R H L S S E L M D N D V D L I T L A S D D G L W K V M S N Q E A V D C  
A I G D I D Q K P Y I S G D A D E D Y I V L G C C D D G F F D T V I S P K V V D L  
S R S I G D E Y L K P Y V I T E P E V R I I L A S D D G L W D V I S N D V A Q V  
S P L I A E P E I H W T T L T E D E F L I I G C C D D G I W D V M S S Q H A V S T



UniRef90\_B8FMR0 L S G P S L E H K A Q A I L R R I R D D G S T D D A T M V L A 210 220 230  
UniRef90\_W5D957 V K E E G P E A A A R K L T Q I A F A R G G S T D N I T C I V V E F  
UniRef90\_W6M9C5 T L A S E G P V T A A D A L A T Q A V Q A G G G A D N A T L I L L R  
UniRef90\_UPI00040DFA07 L T E S G R V G A V A E A D L V R R A C A A G G R D N  
UniRef90\_J3CM85 A L Q G D A E A A S E A L V R A A L E A G T R D N A T A L V I R V  
UniRef90\_W6LSB1 T L A S G G P E D A A A R L L T E Q A T R R G G A R D N A T L V L L R  
UniRef90\_UPI000440BD97 V R S D D L E K V C A R N E V V D T C L H K G S R D N M S V V L V C L  
UniRef90\_I1A4R5 L R N E E P N Y I M Q K F I E K A I I M E S T D N M S A V L M E I N  
UniRef90\_V7CII1 M Q H N D S P N K C A K V L V L E A L Q R N T C D N L T V V I V C F S  
UniRef90\_I2GM41 L G S D D S A E K T I N T L L A C C N G H T R D N F T A Y L I Q I A  
UniRef90\_R7THH9 L S S R D P P E A C R M L L D Q A L M F G S E D N C T A L V V P F G  
UniRef90\_G0REI3 V R D Q D P S E G S K L L V E H A L S R F S T D N L S C M I V R L  
UniRef90\_I1GXM2 A R H N D P V A C C K E L V D E A L K R K S G D N L S V V V V C F  
UniRef90\_A9W1T0 I H A A D L D T A A R E I I R H A Y E A G S S D N L T A Q I V R I  
UniRef90\_UPI00047DF99C V E S N E L K R K C Q K L V D Q E A Y K G N L S S D N L S T L M I E R V S  
UniRef90\_Q7XR06-2 T r S H D P E E A A K D L L V E E A Y K R E S S D N I T C V V V R L  
UniRef90\_S8CIE7 I R G M D A R S A A K H L I E E A V S R K S K D D I S C I V V K F  
UniRef90\_L8LKV2 T Q G I N V A T V A Q Q L L E I A N E K N G H D N V I T V A L L K  
UniRef90\_N0AYF9 M N P E S M K E T I L E L V E L I K E R K E T D N I S V I T V K  
UniRef90\_E5GBP3 I R D K D P G M C S K R L A T E A A A R G S R D N I T V I V V  
UniRef90\_B9GGP6 A R S A D P L S A C K L A D L S V S R G S C D D I S V M L I H L G  
UniRef90\_UPI0004702B47 L R A A D L Q E M A C D L L T K A L Q R K S D D N I S V V L L K  
UniRef90\_U5QPL7 L E K Q N L Q T A E N L I K L A L Q K M G H D N I T F V L L  
UniRef90\_R6CC38 M S G E T L G C A K E L V K S A L A H G G I D N I T C A A A G F  
UniRef90\_UPI0002556782 I A E A D L D S A A R A I V E H A Y E Q G S D D N L T L Q L V R L  
UniRef90\_W5LJC2 V R S E D L I E R V C N E I V D T C L Y K G S R D N M S V V L V C F S  
UniRef90\_I1K7B1 M I H N D P Q R C S R E L V R E A L K R N S C D N L S V I V I A C F S  
UniRef90\_R6QMR2 L L D H S Q L E N K A A Q L V N A N E Y G K D D N I S L V I V A L V G  
UniRef90\_UPI000376CEBD L D E L S A H D L A D L M V D R A L R A G S D D N I S V I V A R V  
UniRef90\_D8S222 A R S H N D P D L C S K Q L V A E A L R D N S D N I T V V T V C F  
UniRef90\_UPI0002A4B500 V S S G D T T M V A H K L V A S A R D A N G S S D N I T V I V V  
UniRef90\_A0A022PRV3 V N K K D P Q K A A K Q L A M E A V N R E S K D D I S C I V V R F F  
UniRef90\_K1VNR1 L Q G Q T L P S V R D R L L K L A N T Q N G H D N V T I A L L H F  
UniRef90\_N9VRD8 A A G Q D Y A A V C R N I L D A A V G A E D D C I V V V V E  
UniRef90\_I3IX31 V K S D D L E K V C N E V V D T C L H K G S R D N M S V V L V C L  
UniRef90\_R7C9P0 L K K S S P K E W L S S M E Q I R Q N G K M D N Y T A I A V F V I  
UniRef90\_K7AEF8 V S D E D I N D A A K I L V D T A Y K L G S T D N L T A Q V V  
UniRef90\_UPI000471E863 L Q Y T P T A V H L I E A A K A A G G R D N I S V V L L Q R V I  
UniRef90\_U3HR18 I A A H D D L D A A A R A I V E Q A L D Q G S D D N V T V Q I L R I  
UniRef90\_K2GH14 L R T A T L D D T A K H I A D Q A L A H G S D D D N V T V Q I L R V I  
UniRef90\_UPI000378DC51 L E N S D L T L A A E K I I Q L S A D N K S T D N L T C Q L V R I  
UniRef90\_E1BF95 V R S G S G L R V A E E L V A A A R E R G S H D N I T V V V V  
UniRef90\_I1JBC4 V R H D D P E K C A R D L V M E A L R L N T F D N I T V I I V C F S  
UniRef90\_M0RL32 A R K K N P L S A A K R L T L E A F N R D S K D D I S C I V V R F  
UniRef90\_E1VMR9 V Q N G D L D A L A E R L L T Q T A M E N G A C D N V S C Q L M R W  
UniRef90\_UPI0003603199 L A E G D V L E T S P R L L D R A E A N G A C D N S S I L T M R W  
UniRef90\_UPI00032A8FF3 I K D K D A R S S A K R L T E E A V N R K S S D D I S C I V V K L  
UniRef90\_D3P061 F E A D P D A T V R L A E R A L A G G T R D D L S A V V T R V  
UniRef90\_UPI0003813994 I E N G N L R Q G V K R L V A J A N T S N G H D N V T V A L T R V  
UniRef90\_Q82CH5 D A A L R P L H S A Q V L V G H A L D G G G H D N V T V A V L P F  
UniRef90\_D4IY25 A P Q R N G I N K L A E L V I R R G E T D N I S G L I V S V  
UniRef90\_UPI0002B49775 V R H R D D P E R C A R D L V L Q A L R L D R D S F D N L T V V V V C F S  
UniRef90\_UPI000474973E L R E E D K E R L S N K I S S E A I E Q G S A D N A T C L L L D V S  
UniRef90\_T2DN72 V R H D N P R Q C A R E L V K E A L R L H S S D N L T V I V I C L S  
UniRef90\_Q9LNF4 R R H G D P E Q C A M E L G K E A A R L Q C S S D N M T V I V I C F S  
UniRef90\_UPI00034C1E8A L R E P N L D A A E K L T D L A N D R N G R D N I T A V L V R V S  
UniRef90\_Q6F1P6 L S S K R L K S K A K D I I E F A M N F S T D N L S L L I V E  
UniRef90\_V9KL82 V R S D D L E K V C N W V V D T C L H K G S R D N M S L V V I G F  
UniRef90\_A1VM46 Q A Q P S A Q L A S H N L V N A A L A A G S Q D N V T A V V V R V  
UniRef90\_M7PPI8 L K Q Q D P N S S A Q A L C E L A L N Q G S Q D N V S C Q I L C V  
UniRef90\_Q7NKS2 M L T G D L A A G A R Q L I D L A L N Q G S H D N I T F I L L K  
UniRef90\_E2R912 V H S H L A R Q V A E E L V A A A R E R G S H D N I T V M V V  
UniRef90\_K9ZKH2 T G R L S V J E D A A Q K W V K L A N E K N G Q D N T S V V L  
UniRef90\_F3LPJ1 V H A L P P R E A G E M L V N K A R Q R G G G D N T S L A L T R I  
UniRef90\_M4Z916 L M H A T P T E T C R D L I E R A L A T S V G D N A T A I V L D L  
UniRef90\_F4Q934 I T G S N A K Q M S E K L L L T A L R K G S T D N I S I M V M  
UniRef90\_Q0D673 I K D K D A Q A A S E K H L T E Q A V N R K S K D D I S C I V V K F  
UniRef90\_U6IMW4 V S E D D L S R I C N E V I D Y C L Y S G S S D N M S M V L V A F  
UniRef90\_E6TRI0 I L N E E Q M K D R A L S L V H L V K E R Q E T D N I S I L L V K  
UniRef90\_B9HHR7 V H K L D P L S A C K L V D L S L S R G S V D D T S V M I I Q L  
UniRef90\_A2F0M6 V R S E N A Q D A A T T L R N V A F A L G S K D N I S A M I V F F  
UniRef90\_M3XB35 V A S R A P E L L C A Q L L D T C L C K G S L D N M T C V L V C F  
UniRef90\_UPI00032AB6C9 A R R Q G P F Q A C K K L V D T S A S R G S I D D V S V M I I K L  
UniRef90\_G5BKG0 V H S H L V K Q V A E E L V A E A R E R G S Q D N I T V M V V  
UniRef90\_L0WUAU2 S Q R H Q P G A L L R E A L A R K S R D N V T A L L V R  
UniRef90\_G7JBP1 A R H N D P A V C S K D L V D E A L K R K S G D N L A V V V V C F  
UniRef90\_W6L817 V R S K S L G E I A E M L I D Q C L S G M G C D N M S V V I I K F  
UniRef90\_G3ECQ8 V R H D D P Q Q C A R E L V K E A L R L H T S D N L T V I V I C L S  
UniRef90\_K7UQ02 V S R S R A T A C R E L V D M A R R R G S R S D D V T V M V V D L  
UniRef90\_R6WQH7 V R S V S L A T V T D D I A T H V N A G G G H D N L T L A L V E  
UniRef90\_UPI0004782A6E I A E A D D E G A V H A L W R A A M H A S G R D N L S I L L A R  
UniRef90\_UPI000476B24F M A E E P P E R A D A L V E A A L A G A R D D T T I V V A D V  
UniRef90\_Q21IE0 V R K N D P E A L T K A L E A E A L D A G S K D N I S V Q V A  
UniRef90\_UPI000441F723 V K Q G D G L Q T A E R L V A V A K Q S G S T D N I T V L V V  
UniRef90\_W5DZB4 A R K A S R M A A C R R L V E T A G S R G S T D D S V L I I Q L  
UniRef90\_UPI0003127F3B L H N N T V V R A V P E L L T T A T A G K S S D N V T A L A V  
UniRef90\_E1VJZ6 V L R S D L S E K C L V L T S E A E N H G G R D D K T V I L I  
UniRef90\_C5BUK3 L A A N D D A A A R L L V A Q A L A A G S D D N L S V Q L V R V  
UniRef90\_K4CFS1 I K N K D A K A A K H L S E V A I S R K S K D D I S C I V V K F  
UniRef90\_V9KL12 V R E H D G S E I A K K L V E A A K E N G S R D N I T V I V V  
UniRef90\_A0A022QFC1 T R E S R C A A G L L A E A M A K G S T D N I S V I V D L  
UniRef90\_B4FT19 V R H D D P G R S A Q E L A M E A K R L E T F D N L T V I V V C F

1 10 20 30 40

UniRef90\_A6D3U0 T L T T S Y G G V S S A G T R S E N Q D A F V V K G M L A C I A D G G V S C

UniRef90\_R5WNP6 R F S A V Y N T D V G I K K K T N Q D S L A I K A L F S L V C D G G M G G

UniRef90\_U7G581 V R I G Q Y S M A G P K L H N Q D A L A T K G L V A A L A D G G L S G G

UniRef90\_T0RT20 L N L R S I G Y S S M Q G W R D S M E D A D L V N G A C F A I F D D G H G G

UniRef90\_J3MBT1 L R S G D W S D I G G R Q Y M E D A H V C I A S F Y G V F D D G H G G

UniRef90\_A7TIL7 K F R R T M E D A S R L D W G Y F A V F D D G H A G G

UniRef90\_N6XTX3 R F T Y Q E S R T G K R N D N Q D C Y S R D A L L M L V A D G M G G

UniRef90\_T1IXX6 G F F A I F D D G H A G G

UniRef90\_K9TM75 L A T G T D R G P T R R R N E D A C Y P T S G L A I V C D G G I G G

UniRef90\_K6Y8Y4 L E L T F G G F S S Q G L K S E N Q D A F A A Q G G A A A I A D G V S V

UniRef90\_UPI0004573E31 Y F A V F D D G H G G

UniRef90\_U5GBQ9 T L R S G E W S D I G G R P Y M E D T H L C L S S F Y G V F D D G H G G

UniRef90\_K6TWD2 I S A F S Y T N R G K R T H N E D S V R C D R G V F V V S D G L G G

UniRef90\_H2U271 K V G C A S L I G Q R K E N E D R F Q V S Q M Y F A V F D D G H G G

UniRef90\_S6CGV5 R Q N N Q D R S T V S T T L L A V A D G L G G

UniRef90\_Q0DBU3 R L S W D Y S S F K G R P S M E D R F S I K M T L F G V F D D G H G G

UniRef90\_V4LB14 F S Y G Y A S S A G K R A S M E D F F G I D G G L F G V F D

UniRef90\_K6DG14 M S F Q M A Y H T D A G I K K K T N Q D A L L L K T G L F I V C D G M G G

UniRef90\_W4TW32 M N T M A S T S N Q G D R A T N Q D Q V G N R S A C F V V C D G G I A G

UniRef90\_UPI0004780F0F A A A S D R G L R H H R N E D F F H I S A A I A V V C D G G V S S

UniRef90\_K7GBW9 N V G C A T Q I G K R K E N E D R F T D D V L Y F A V Y D G H G G

UniRef90\_H3AUD4 I V Y G L S S M Q G W R V Q M E D T H L A D W S F Y A V F D D G H A G

UniRef90\_Q69QZ0 V I R S G D W S D I G G N R D Y M E D A H V C I S S F Y G V F D D G H G G

UniRef90\_UPI00035130BB N R R K M E D R H V I D R A Y F A V F D D G H G G

UniRef90\_UPI0003FF43FB T L K V C I G G Y S T A G K R S V N Q D A F A V K G L V A C V A D G G V S C

UniRef90\_E0TKD9 M K Y S I L T E T G A R K N N Q D S V L F D F W L A M V C D G L G G

UniRef90\_UPI0002B474E8 A P A L R S G E W S D I G K R P Y M E D T H V C I H S F Y G V F D D G H G G

UniRef90\_W9RFQ9 M E D Y I A A E N R L Y A I F D D G H S G

UniRef90\_A8PU48 R Y A V A S M Q G W R I D M E D A H V V N W S F Y A V F D D G H A G

UniRef90\_S8E832 T I K Y G F C L T K G K A S H P M E D Y H V A K F G L F A I F D D G H L G

UniRef90\_UPI0001C37282 A A A D T D I G I H K S V N Q D S V C V K T A L I M V C D G M G G

UniRef90\_K3WKK1 D T E L Y G I Y D G H G G

UniRef90\_R7GH02 M I K A Y A K S D V G K V R E I N E D S Y Y I S E Q L Y I A D G M G G

UniRef90\_D9PLE3 L V Y G T S T M Q G W R K S M E D A H L A D V S F F A V C D G H G G

UniRef90\_F0W2P8 G K D T R L S F G A S S M Q G W R I T M E D A H T T G A G F F A V F D D G H G G

UniRef90\_S2JA73 M I N A Y S Y T D I G G R S H N E D A V C I N Q F L A V L A D G L G G

UniRef90\_R6DL19 I A G V T D R G L R H E R N E D A M A S P A M I G V V C D G V S S

UniRef90\_UPI00034B497A V S F G F S C M Q G W R R A M E D D H V T C D G G F F G V F D D G H S G

UniRef90\_E1VTY2 T L K V A I G Q Y S T A G I K D Q N Q D F Y G I K G I A C A I A D G I G G

UniRef90\_D0AA51 L P L N L E V A G A T D T G R E L K Q N E D A C Y P N S W L A M V C D G I G G

UniRef90\_N8WSP3 V A V V T D R G I A H A R N E D A V A A A V V I A V A D G V S T

UniRef90\_UPI00034D7751 G Q N K R V A Y A V I G N M Q G W R D S M E D A H V T E N T F F G V F D D G H A

UniRef90\_K0F083 L R Y G L S S M Q G W R I E M E D A H A A D W A F F A F F D D G H A G

UniRef90\_UPI000441147F R V G A V C D R G I R H A D N E D A M A V G R V A L V V C D G V T T

UniRef90\_U3U968 W D M A S L S T V I G L S R L K N E D N Y G I K Y L L A G M A D G M G G

UniRef90\_UPI0003B6A9DB V L R S G V W S D I G D R S D M E D T H I C I P D L C G V F D D G H G G

UniRef90\_D4TJ32 S K R F N F E M A E M I G R K R R S M E D A L R V R H G F F G L F D D G H G G

UniRef90\_S8D303 S L Q V A V G Q H T E P G R K P V N Q D F H G A K G V A I A L A D G I S S

UniRef90\_A0A024UBP4 S L T V S T A E A M N P T R R N T M E D R Y V I D M A Y L A V Y D G H G G

UniRef90\_F4PYC5 I R F G L S S M Q G W R V E M E D A H S A D W S F F A V F D D G H A G

UniRef90\_Q8CGA0 F T L G Q T S H K G A K A Q N E D A I G I K G S V A I A D G V S A

UniRef90\_D4XET3 V L E V G A A T S I G P D R P Y N E D A F A A N H T L A C V A D G M G G

UniRef90\_B7FVW1 S F I I G S A N D K N K R K T M E D T H V A D Q G Y F A I F D D G H A G

UniRef90\_UPI0001CBC39A L S W E V A G R S T G G L S R L Q N E D N Y G V R Q I L G I V A D G M G G

UniRef90\_R4YSL7 T F T F G S A E M C G K R D Q M E D A L I L G V H L I G L F D D G H G G

UniRef90\_D7BCX3 Y A M R T K A G C Q I N K A T K I N Q D S A L V G Y K L F A V S D G H G L

UniRef90\_L0P913 K V G C A T H I G K R K E N E D R F D Y G Q L Y F A I F D D G H G G

UniRef90\_K9TMQ1 I F R C G S S C V N G Y R E S M E D A H L V H W G Y F G V F D D G H S M

UniRef90\_UPI0002C3D09D L K V T I S S H S V A G I K P E N Q D A C A Y H G V V G V I A D G H G G

UniRef90\_R7M733 V A A V S D R G L R H H R N E D S F A V S A V V A I V C D G V S S

UniRef90\_R5GLA9 M Q T E I R E F Y Q L S S V G D R E I N Q D C V C A D A V F V V A D G L G G

UniRef90\_A0BL11 I R V G T S S M Q G W R S T M E D A H A I D A M A A V F D D G H S G

UniRef90\_V8NNE5 L A I A A G F A T R T G P R S D N Q D F G G I H G V I A A I A D G V S G

UniRef90\_S9UDN6 Y S L R Y A F Y S K R G S R K P N Q D S Y Y A S K A E F A V F D D G H G G

UniRef90\_K2HH33 L N V G Q H S I A G L K S V N Q D Y C G S K G Q V L V I A D G I G S

UniRef90\_D1KDS4 S L K V G S S C M Q G W R I N M E D A H T H E A A F F A V Y D G H G G

UniRef90\_D6AC66 L D W G A C S D I G P R D Y M E D A Y Q V D H F F A A V Y D G H G G

UniRef90\_F9ZWV4 L Q C F Q L T S A G D R E V N Q D S I Q D D Y A L F I V A D G L G G

UniRef90\_C9ZJK2 I T I A S T S N Q G G R A S N Q D Q L I G N R A A C F V V C D G L A G

UniRef90\_F1Z356 T L R S G E W S D I G G R P Y M E D T H I S I E S F Y G V F D D G H G G

UniRef90\_A0A024GB75 V T W G F T S V I G R R R E M E D A V A L I P H F F G V Y D D G H G G

UniRef90\_W5BVS9 V A M V T D R G L E H A R N E D A G A V G A I A V V V C D G V S T

UniRef90\_K6ZPH1 S D I G V A R N E N Q D R V A V S F L V A A L C D G M G G

UniRef90\_T1IP45 K F S S V K D I G R F R R T M E D E H V I Q Q G Y A I Y D D G H G G

UniRef90\_A4RT10 P D C R E F G V F D D G H S G

UniRef90\_G4SZX5 M D T A V A M E I G G R R E Q Q D A A R V Q H A L L V V A D G M G G

UniRef90\_L7ZNX0 V I G S S C M Q G W R V D M E D A H T P K C A F F A V Y D G H G G

UniRef90\_G7JHS4 R R D Y N E D R F G P D T F F A V F D D G H G G

UniRef90\_M5VQQ7 A A A V T D R G L R R G R N E D A L A L R S T V T V V C D G V S G

UniRef90\_W9ATD4 S I N Y G S L S V I G R R R E M E D A V R V E Q G F F G V Y D D G H G G

UniRef90\_Q1NPG2 T L T F R T A Q L S V A G G R T L N E D A L G Q G E G I W V L A D G G H G

UniRef90\_D3B4Y1 N V G C A S H I G K R K E N E D R F T D D L Y F A V Y D D G H G G

UniRef90\_B4JBZ2 S F R V G S S C M Q G W R V E M E D A H T P Q A S F F A V Y D D G H G G

UniRef90\_UPI0003826EBC

UniRef90\_P49596

UniRef90\_E9C2M2

UniRef90\_UPI0003626FEA

UniRef90\_A0A059DFZ5

UniRef90\_H8YXL5

UniRef90\_G1KMY3

UniRef90\_B3M8H8

UniRef90\_A6D3U0 S E H K A S H T S V M Q F V A D Y Y A T P E S W S V R R S L T S L N T W L Y E Q  
UniRef90\_R5WNP6 K G E V A S K E V I C A F C N W F D Q Q F A E M V K N E S F S E M N E K I K A Y  
UniRef90\_U7G581 A A R E A A E S C V L G F L S D Y A T P A L W S V P R S S A Q R V L E A L N R T W  
UniRef90\_T0RT20 D L V A K I V A K D L Q N I A A T D E Y K Q A L S K G F L N T D E M L R T N  
UniRef90\_J3MBT1 K D A A H F V R D N L P R V I A E D A D P V E L E K V V R R S F V Q T D S Q  
UniRef90\_A7TIL7 W C G S H L H T I V E S Q I L N D E T R D L R D I L N S D S F V T A D R E I T T  
UniRef90\_N6XTX3 H L H L A A H I J A A R H V L Q A F Q R P D P G L F L S R A L A G A H H A I L D D  
UniRef90\_T1IXX6 T E A A N Y A S V H L H H H I V R H P D H A A V K D G F K K T D D L F I E K E  
UniRef90\_K9TM75 H E G V A S N L A I E T L Q Q H E N T Q S A P D R I M E Q I E R A A S R N D E E  
UniRef90\_K6Y8Y4 C T R A A A L I T C V T N F I Q D Y Y Q T P A T W T V K R A L R G L N R W C H G Q  
UniRef90\_UPI0004573E31 A I Y A S I H L H V N L Y R Q E V F Q D D P I E A L C R A F R L T D E H F V I Q K  
UniRef90\_U5GBQ9 K S A A H F V C E H L P R V I V E D A D E K V V A R S F I E T D A A F E K  
UniRef90\_R6TWD2 H Q E V A S A L A A D T L L D G C L Q A E D C D S L T D L F R A A N A Q I L S Q  
UniRef90\_H2U271 P E A A D F C E K Y M E K F I K D L V T E E C D I L T K A F L E V D K A L E K H  
UniRef90\_S6CGV5 H P E V A A Q L F I D T C E H M Q P I R D P R R F M Y E C I Q R A H H A I L N F S  
UniRef90\_Q0DBU3 S L A A E Y L K E H L F E N L V N H P E K L A I S Q T F L K T D A D F L E S  
UniRef90\_V4LB14 A D A Y N H T D S E L L K S  
UniRef90\_K6DG14 Q G E L A S A T V I R G M S D W F D T E L P K Q Q L A H R V J E V L N R K I L D Y  
UniRef90\_W4TW32  
UniRef90\_V5CKV6 G G D I A A K V A R D T I L L Q H F E K H L D A Q C I R Q Y I S H A N H A I R E Q  
UniRef90\_UPI0004780F0F A T R P D E A S A A A R A A G S A L E E P Q Q A M H E A L V T A A E N V L A E  
UniRef90\_K7GBW9 A N A A A D F C D K Y M E K Y I Q E F L A Q E V L T K A F L E I D K A F A R H  
UniRef90\_H3AUD4 S K V A E Y C C I T T N Q D F G A E E A P S V E N V K N G I R T G F L Q I D S K  
UniRef90\_Q69QZ0 K D A A H Y V R D N L P R V I V E D A D E K V V R S F V Q T D S Q F A E R  
UniRef90\_UPI00035130BB A N Y S A T H L H V N V G L H E E L V K N P A K A L K C S F O K T D E M F L S K  
UniRef90\_UPI0003FF43FB S D Q Q A S H T S V T Q F I A D Y Y S T N K S W D V K Q S L N S L N S W L Y Q H  
UniRef90\_E0TKD9 H F E V A S S L V V K T F K S F F N K K N L P D W Y L N T I S A A R E Q M F E L  
UniRef90\_UPI0002B474E8 K G A A Q F V R D H L P R V I V D S D P L E L E K V V I R S F M E T D A A  
UniRef90\_W9RFQ9 R D V A E Y L Q G R L F D N I L S E P D F W T S P K K A V R K A Y E A T D D E  
UniRef90\_A8PU48 N K A A Q H S Q I V Q K L N H S S G V M D A E E G I K E G F L T D A K L R E R  
UniRef90\_S8E832 D T V P A Y H L F S N I L K E E H F W T D P G T S I A R A Y E S T D R A I L S H  
UniRef90\_UPI0001C37282 K G E L A S A E V V R S F S D W F P Y E I D D W N W E T A A R R T N D K L V R Y  
UniRef90\_K3WKK1 A R C L A L L L P L Y L L R H P D F A Y S I E N A A K Q A C L A I N D E I L K R  
UniRef90\_R7GH02 Y N E I A S S L A I K S A K N Y I E N N F A Q A D V A S S L E Y A N M V V Y E K  
UniRef90\_D9PLE3  
UniRef90\_F0W2P8 K Q H V M G Q L M R K N K V F D T E G D L C P H A I G A S M R E A Y L V L L D T Q  
UniRef90\_S2JA73 A N A A A D K Y S Q N L S R I V I E S D D T D A L R K G F L K I D Q D L R  
UniRef90\_R6DL19 H G E I A S E I A V E T L E N G W K G I S S P A V L Y D L L L Q A H R R I L S S  
UniRef90\_UPI00034B497A S P R P D D A S L V A A E T G A A A V A E A L R G G A D H R E A A A A G L T R A  
UniRef90\_E1VTY2  
UniRef90\_D0AA51 A N V A K F C G G N I F G F I S Q T E A Y K N G N Y S R A I Y D G F M T I D K H  
UniRef90\_N8WSP3 S N H I A A E T A V S S F L S D Y S T S D A W S T Q T S I R A T N S W L Y Q Q  
UniRef90\_UPI00034D7751 H Q E V A S Q L A L R S L K L Q I Q A L L A E Q Q L E A S L R V V N A R N D E Q  
UniRef90\_K0F083 S E D V A S G T A A K T G V D A C R G R P A R E A V M A G L E A A A T A V R G I  
UniRef90\_UPI000441147F D Q G A I S G F A A E H V W K L K D H D S R K K D Y Q R A L E S A F L D S T D A A  
UniRef90\_U3U968 A R V S A H C S E H L L N S I T S G E E K K G I H A G F L R L D E S M R Q M  
UniRef90\_UPI0003B6A9DB A T R S A E A S L A A A E A A L Q V L T G A T D A P A E R L V R A T D A A A E A  
UniRef90\_D4TJ32 M S E L A S K L A I E T V L E S P L P L E N K E E C Q E W L T S L F V Q A N E K  
UniRef90\_S8D303 K G A A Q F V R D H L P R I V I Q D S D P L E L E K V I T R S F M E T D S A  
UniRef90\_A0A024UBP4 R E H I A V E N E L T H L D N D K D G S V D V E T C I K C A F V V A D M D C C E  
UniRef90\_F4PYC5 Y S C E W F P V I L K T L T D R Y P S L P P L Q W L K Q A Y S E V S L Q F K Q Y  
UniRef90\_Q8CGA0 V D A A R Y A S V H V H T N A S H Q P E A A A L K E A F R L T D E M F L Q K  
UniRef90\_D4XET3 S Q H I A S E T A V A S F L E D Y Y C P E T W S V K K S A H K A N S W L H A Q  
UniRef90\_B7FVW1 R D H G M A Y H V A Q E L L T D Q T D D A P T T R L E R A F L M A D H S K H A G  
UniRef90\_UPI0001CBC39A S K V A K Y C S E H L L D E V T S T Q E R D G L R T G F L N I D K K L R S L  
UniRef90\_R4YSL7 A E A E A S E T C V R N F L S D Y Y S T P D T W S V K Q S L T A L N R W L Y S Q  
UniRef90\_D7BCX3 A G E R A S Q A A V E T F V A P A P P Y P Q A D W A V R L V W E A N A A V L Q A  
UniRef90\_L0P913 N Q A N F C K E Q F H V I L Y D L L C N M P S S T I P D I F N A T F S S V D D  
UniRef90\_K9TMQ1 M G E V A S R I A V I Q T I L E A P M E G E L S Q W L R S T V Q K A N E A  
UniRef90\_UPI0002C3D09D A N Y V A C H F A R I L L K K H L L T E N N L G V D A A L I E T F N E L T A D  
UniRef90\_R7M733  
UniRef90\_R5GLA9 K G E L A S A T L I R D F S D W F D S E F P E K S W E R V V S I C A K E L E R Y  
UniRef90\_A0BL11 N G H L V S N F I K N Q T L P K H F H K Y D N Q E E D T K M Q I A R A F T I T N R E  
UniRef90\_V8NNE5 V A A A D F C N N Y M R K Y I R E F L S E E R L I K A F L E I D K A Y M R H  
UniRef90\_S9UDN6 H L L E G A W R A A L D K E R S A I P I T D N R L K E I A L Q I D Q E W M D S  
UniRef90\_K2HH33 S E T S F Y C V I S K E T E I E K L F I L Q K P E A G I S N I L I Q T F L E L N K N  
UniRef90\_D1K104 C E R A A S G C C V K G F L S D Y Y A T P D S W S V E H S V I S A L N N W L Y S  
UniRef90\_D6AC66 A A A A N A A N E S L L E S L P R G T H P Q Q A M H E A I V A S E A V N A L  
UniRef90\_F9ZVW4 H Q E K A S R F F C Q G L T E Q A Q A F Q P E Q G M R D W I A A A V N R M R D L  
UniRef90\_C9ZJK2 C K T A Q F A T H M A R W I T S S E S F V S G N V E N A I F E A F I S G D A A  
UniRef90\_F1Z356 A G R M A S E L T V R T L T D G Y A S P P T L G P A Q A M A R A F N D W L H G  
UniRef90\_A0A024GB75 F G D V C S Q F A E Q L P R N M E K C M S E K S I Q S A L T Q A H V Q T N T E  
UniRef90\_W5BVS9 A K Y V K H N L F S H L L R H P K F M S D T K V A I D D S Y K S T D S E F L E S  
UniRef90\_K6ZPH1 S T Q V A S K A A V I N S F L I Q D Y Y A T S D A W S V E Q S I N A W L H G Y T K Q  
UniRef90\_T1IP45 A K Q Y A G N H V H K K I H S F K Q Q G D T E A L K Q G F L E V D Q D M L N D  
UniRef90\_A4RT10 C R S N F Y K F V S A M I G K N R K L S D E T T D D A D S A L I D Y I A T  
UniRef90\_G4SZX5 H Q E K A S R Y F C Q G L Y R G H L T Q A P D E T M I A W F N S A I E E M K K L  
UniRef90\_L7ZNX0 F P D I A A K L A R D T I L Q N F E K H L N A Q S I R Q H I T R A N A A I H Q Q  
UniRef90\_G7JHS4 K T A A Q F V R D H L P K V I V E D A D E K V V T R S F L E T D S E F A K T  
UniRef90\_M5VQQ7 H E V I A Q E W D R E T V D G Y E W Q R K W E T A F S I G F E K A D N E L L E E  
UniRef90\_W9ATD4 S V N P Q V A S G A A A Q A A V A A M L D A L S G S R D A V A A M Y A G L A A A  
UniRef90\_Q1NPG2 M V E G S S C A A I A S F F A A C C S Y H D M A P S E R M V R A A H E A N R A V  
UniRef90\_D3B4Y1 R G A V D F T A K T L H L N L L I E L N K D P N D I L E H I K N S Y L T T D T Q  
UniRef90\_B4JBZ2 A L S A S Y V T A E Q L R R A P E S M S N A D F Y R T A F E T A F L Q A D E R  
UniRef90\_UPI0003826EBC H A D G A R I T T A E R L W D D C G G H P D D A L L E T L F R Q T Q A L R E P  
UniRef90\_P49596 S K V S Q Y S G I N L H K K V V A Q K E F S E G N M K E A I E K G F L E L D Q Q  
UniRef90\_E9C2M2 S S A A D F A T A H V H W E V H A L M Q S P S A A L V G A F Q K V N D D Y C A S  
UniRef90\_UPI0003626FEA S P R A D E A S A V A V E A S A A L I R G L S H E A F E L A G R A V T K L  
UniRef90\_A0A059DFZ5 A R A E A C R E R L H R L V A E E V I E G R D R E G R E M D W E G T M V G C F G K  
UniRef90\_H8YXL5 G G E I A S R L A N Y A L A T T Q V A J S T G L P N L T E I T A A A H Q T V V D G  
UniRef90\_G1KMY3 V A V A D F C A N K Y M Q K Y I R E F I A E E K N M E L V L M R A F L E I D K A  
UniRef90\_B3M8H8 A S K F A G K N M H K F V T Q R P E Y R E D T A A L K K A F L D F D R E I L M N



UniRef90\_A6D3U0 S L K Q P L K H N G L V T T F S A V V V K S N T A Y L F H V I G D S R I Y L R Q M S  
UniRef90\_R5WNP6 G E Q N G I M L G T T I S A I L M Y S R G R Y Y I V H V I G D S R I Y Q M S  
UniRef90\_U7G581 L C R Q T L A G E S H L C T L S L L L L R K S R T A H L F Q V I G D S R I W R L S R N N  
UniRef90\_T0RT20 E L T A T T S D E V I G A T G L L I M V T E K H I F S A N I G D S R C I L S R O N C  
UniRef90\_J3MBT1 F A E T T L S S G T T A L T A M I F G R S L L V A N A G D S R A V L S R C  
UniRef90\_A7TIL7 L P G S S G C T A P V C V L R W E L P D H R R K L Y T A N V G D S R I L F R N R  
UniRef90\_N6XTX3 A L D R A L T E A A P R T T I V A C V I Q E N A L H I A W V I G D S R L Y L L R R R  
UniRef90\_T1IXX6 C K R E N L K C G C T A I C S L I Q E N A L H I A W V I G D S Q A F L I E K  
UniRef90\_K9TM75 Q R Q A R Q R M G T T L V S M A L T H R H E I L Y I N H I G D S R A Y W I T S  
UniRef90\_K6Y8Y4 H D Y E Q G G H S Q M V T T F S G M V F K S T T G F I L H C G D S R I S R L Q N  
UniRef90\_UPI0004573E31 A A R E H L R C G T T G V V T F I R G N M L Y V A W L I G D S Q V M L V R R G  
UniRef90\_U5GBQ9 S C S L E G S A R S S G T T A L T A M I F G R S L L V A N A G D S R A V L S R G  
UniRef90\_R6TWD2 Q A L E G Q G D M K T T A A A L V L D G S Q A L R A H I G D S R I L Y H F S G  
UniRef90\_H2U271 L N Y N V P R T N P G T T S T V A L L R D G I E L V V G S V I G D S R A M L C R K  
UniRef90\_S6CGV5 G D R Q T P P L C P R S T A V M A I V Q Y G K A W W A H V I G D S R L Y L L K R E  
UniRef90\_Q0DBU3 V S S N P F R D D G S T A V T A I L V G N H L Y V G N V I G D S R V V A L T R A  
UniRef90\_V4LB14 E N S H N R D A G S T A S T A I L V G D R L L V A N V I G D S R A V I S R G  
UniRef90\_K6DG14 G E A A N I K L G T T T S L L V V Q S K Y F L L H V I G D S R A Y Q I H  
UniRef90\_W4TW32 M G T T F C G A M F S G T Q L G I V H I G D S R G Y L L R R Q  
UniRef90\_V5CKV6 Q Q S E Q Y R K M G T T L V S L F I D R D Y Q L A Y W A H A G D S R L Y L F R R  
UniRef90\_UPI0004780F0F D G P L E P S K N A P A C T I V A A L T L D G L L T V G W V I G D S R A Y W V P D  
UniRef90\_K7GBW9 A H V D A T L N A G T T A V A L L R D G I E L V V A N A G D S R A L L C R K  
UniRef90\_H3AUD4 M H S I W R L G G S G S T V V A V M I S P S H I Y F I N C G D S R A L L C R G  
UniRef90\_Q69QZ0 C S H Q N A L S S G T T A L T A M I F G R S L L V A N A G D S R A V L S R R  
UniRef90\_UPI00035130BB A K R E R L R S G T T G V S A L I V G N K L H I A W L I G D S R V M L V Q Q  
UniRef90\_UPI0003FF43FB N Q D D L R H N G L I T T F S S V V I K S T T A H I L H I G D S R V Y R Y Q D  
UniRef90\_E0TKD9 S K K D E R Y L D T T M T S V I F L K K V K K A F V L N S G D S R V Y S F S N  
UniRef90\_UPI0002B474E8 F A R S C T R E S S G T T A L T A M I F G R S L L V A N A G D S R A V L S R Q  
UniRef90\_W9RFQ9 I L K K V V I G S R G S T A V T A L I D Q R E L I V A N A G D S R A V L C R N  
UniRef90\_A8PU48 H E T N D E D N E R S G T T A I C A I V T P S H I V L A N I G D S R A V M A R K  
UniRef90\_S8E832 N P D L G R G S T A V T A I L V N R R Q L W V A N I G D S R G V L S R G  
UniRef90\_UPI0001C37282 G A E N N I R A G T T A T G I J A V N S G Y M T F H A G D T R I Y K I A  
UniRef90\_K3WKK1 E A A N Q C E G G S T A I T L L I R K D I A Y F C N T G D S R A L I V S R K  
UniRef90\_R7GH02 S K E N K E L N G M G T T L D I C L I Y N N K A Y I G H V I G D S R I Y R I R K  
UniRef90\_D9PLE3 I M E E S N A Q T C G S T S I S A I I T S K H I I V A N V I G D S R S V L G K D  
UniRef90\_F0W2P8 A D P E Y E H E A S G C T A I V A L L T K D N K D N S N A G D S R A I L C T D  
UniRef90\_S2JA73 Q T P V C R M R S T I T A L S F G S G H A D W A Y A G D S R L Y Q F Y N  
UniRef90\_R6DL19 A A A V A A L A G A C T Y V S A S M P E G G P V T I G W I G D S R A Y W L P G  
UniRef90\_UPI00034B497A V N V I G D S R G Y R L R D  
UniRef90\_E1VTY2 I Y S N F K D E K S G C T A V V L F V K G D N L Y C G N A G D S R S V L C S D  
UniRef90\_D0AA51 S Q G R F D K D R G Y V C T L S A L I L K Q H Q A H I F H V I G D S R I Y R I R D  
UniRef90\_UPI00034D7751 K R Q G R E R M A T T L V M S G Q L S E N A H E L Y L A N V I G D S R A Y W I T R  
UniRef90\_K0F083 A I T D G H A P S C T V S A V V Q A D A D G V E L L T V A N A G D S R A Y W L H N  
UniRef90\_UPI000441147F I R A N N L G Q D S G A T A I A I L Y T T D E E L K V A N A G D S R C V L S S N  
UniRef90\_U3U968 P E V A S G E D K S G T T A V C A L I S P T H I F V A N C G D S R A V L Y R G  
UniRef90\_UPI0003B6A9DB V A Q R D F P D S A P S C T F V S V V V E D G L A T F G S V I G D S R G Y W V P D  
UniRef90\_D4TJ32 V S A Q V K D G G T L S V I F A F S E Q L M I G H V I G D S R I Y L L R Q  
UniRef90\_S8D303 F A K S S T E S G T T A L T A I V S G R S L I V A N A G D S R A V L S R K  
UniRef90\_A0A024UBP4 L P E A E N A G S T A A I A L L R D E G N H R L L Y A A N V I G D S R I V L C R N  
UniRef90\_F4PYC5 I S H E K P E L Y C G A T A A A L T I N E R Y Y F V S N I G D T R I V L C R C  
UniRef90\_Q8CGA0 A K R E R L Q S G T G V C A L I A G A A L H V A W L G D S Q V I L V Q Q  
UniRef90\_D4XET3 T R Q R H H A D R G Y V C T M T V M V L K A S T A H I L H I G D A R I Y R L R A  
UniRef90\_B7FVW1 I T T S G A T V A V C L V Q R D P S T P Q K L R I F T A N A G D S R I V L G H D  
UniRef90\_UPI0001CBC39A P E L H T G E D K S G S T A V C V L I S P T H V F F A N C G D S R G M L I R N  
UniRef90\_R4YSL7 Q R R F T D A Q K G Y T S T L S C V V F K S N T A H I F H V I G D S R I Y R L R D  
UniRef90\_D7BCX3 L G G R D G G C T I S A V J L V G A R Y A L A H V I G D T R A Y L W S G  
UniRef90\_L0P913 A L J A N L P S R N S G C T A I T A L I R W E R L Y T A N V I G D A R A V L C R G  
UniRef90\_K9TMQ1 V A N E V R D G G T T L S I V L A V G A E L A I A H V I G D S R I Y L L R N  
UniRef90\_UPI0002C3D09D V N K K E F N D G T T A C V L L V T P N E Y Y T A H V I G D S R A V L V R K  
UniRef90\_R7M733 S S D N Q V R M G T T A A V L L L A Q H R Y F I L L N I T G D S R V Y E L T D  
UniRef90\_R5GLA9 I W N S N T D T N L S G S T T A S V L L T K D N I Y T A N V I G D S R A I L C K F  
UniRef90\_A0BL11 A H A D A T L N T N T G S T A V A L L R D G I E L V V A S V I G D S R A L L C R K  
UniRef90\_V8NNE5 G R E G G S T G T F F I A L K E G Q K V K L Q V G N V I G D S R V I A C I K  
UniRef90\_S9UDN6 I N V C G L D G S T C L C I F I C D K K L Y I A N T G D S C K C L L T K Q  
UniRef90\_K2HH33 Q S M R S D E V S S M L S T L S T V I K S N T A H V F H V I G D S R V Y R Y R S  
UniRef90\_D1KSD4 A H D A H R H Q N A P A C T L V G A V M A G E L L T V G W V I G D S R V Y W V P Q  
UniRef90\_D6AC66 F G D D P F A A D A H T T C A L I F L D D S R V I T A H C G D S R I Y R L N P  
UniRef90\_F9ZVW4 I R R S M P H E Q S G C T G N C I V L V Q N N L Y C G N V I G D S R A V M C R G  
UniRef90\_C9ZJK2 Q A R G N P A R A S A T T L T A L A L H G R R A H V V H V I G D T R A W R F A E  
UniRef90\_F1Z356 M H E A S F D D S M S G T T S I S V L F S G S E I H V A N V I G D S R A I R V K K  
UniRef90\_A0A024GB75 D S T Q N Q C G S T A T A V L V G N L F V A N V I G D S R A I L C R A  
UniRef90\_W5BVS9 S E F R Y D L E K G Y V C T F S A L I I K G S T A H I F H V I G D A R V Y L L R Q  
UniRef90\_K6ZPH1 E S M K E E L A G S T A L V I L I K N S G K I Y C G N V I G D S R A I A S A G  
UniRef90\_T1IP45 L G D P E C W S G T A T V C V V N S C L I M C A N V I G D S R A V L C R S  
UniRef90\_A4RT10 F G N D P S A S E A H T T C A L L Y I D P N Q T I T A H C G D S R I Y R M N A  
UniRef90\_G4SZX5 Q R Q S D E Y S K M G T T L V S L F I D R D Y Q L Y W A H A G D S R L Y L F R R  
UniRef90\_L7ZNX0 C S I E S S L S K M G T T A L T A I L L S G C Q I I T S N C G D S R A V L C R G  
UniRef90\_G7JHS4 A I A P E M V G S T A V V A I L L S G C Q I I T S N C G D S R A V L C R G  
UniRef90\_M5VQQ7 A A A P T A G P G T T A V I V L P G E G S A E V T V G N V I G D S R S Y W L P E  
UniRef90\_W9ATD4 Y S H Y Y A G G G A T L S A V L F D S Q A R G M A G L N V I G D S R I Y S Y L E  
UniRef90\_Q1NPG2 M G N E P I Q F S G T T I I R Y N E K G E K F L Y I A N A G D A R A V I S R N  
UniRef90\_D3B4Y1 F A R K R L T S G T T A V C G L I T D D R Q L Y I A V V I G D S K A L L V I G E  
UniRef90\_B4JBZ2 T V P P P Q Q P G T T L V A L Y I V G P E R A W W A H C G D S R L Y H F E D  
UniRef90\_UPI0003826EBC M R V D E E T K G T A V V V L I K E G D V Y C G N A G D S R A V S S V V  
UniRef90\_P49596 A R S S T S R T A G T T A V V A V V V G R T M Y I A N V I G D S R A L L C R S  
UniRef90\_E9C2M2 A T S V H D A P A C T Y V A A V V R D G R I S L A W A G D T R A Y W L P E  
UniRef90\_UPI0003626FEA M D G E V T S M K T V G S T A V V A V V G R E V V V A N C G D S R A V L C R G  
UniRef90\_A0A059DFZ5 Q Q E A A R L V A M R T L T V L L C S D G R N A R W A H V I G D S R L Y G F R A  
UniRef90\_H8YXL5 Y Q R H A E L S A N A T L T L A G T L R D G I E L V V A S V I G D S R A L L C R K  
UniRef90\_G1KMY3 G T W N D Q V A G S T A V V V L I R E R R L Y C A N A G D S R A I A C I S  
UniRef90\_B3M8H8

UniRef90\_A6D3U0 UniRef90\_R5WNP6 UniRef90\_U7G581 UniRef90\_T0RT20 UniRef90\_J3MBT1 UniRef90\_A7TIL7 UniRef90\_N6XTX3 UniRef90\_T1IXX6 UniRef90\_K9TM75 UniRef90\_K6Y8Y4 UniRef90\_UPI0004573E31 UniRef90\_U5GBQ9 UniRef90\_R6TWD2 UniRef90\_H2U271 UniRef90\_S6CGV5 UniRef90\_Q0DBU3 UniRef90\_V4LB14 UniRef90\_K6DG14 UniRef90\_W4TW32 UniRef90\_V5CKV6 UniRef90\_UPI0004780F0F UniRef90\_K7GBW9 UniRef90\_H3AUD4 UniRef90\_Q69QZ0 UniRef90\_UPI00035130BB UniRef90\_UPI0003FF43FB UniRef90\_E0TKD9 UniRef90\_UPI0002B474E8 UniRef90\_W9RFQ9 UniRef90\_A8PU48 UniRef90\_S8E832 UniRef90\_UPI0001C37282 UniRef90\_K3WKK1 UniRef90\_R7GH02 UniRef90\_D9PLE3 UniRef90\_F0W2P8 UniRef90\_S2JA73 UniRef90\_R6DL19 UniRef90\_UPI00034B497A UniRef90\_E1VTY2 UniRef90\_D0AA51 UniRef90\_N8WSP3 UniRef90\_UPI00034D7751 UniRef90\_K0F083 UniRef90\_UPI000441147F UniRef90\_U3U968 UniRef90\_UPI0003B6A9DB UniRef90\_D4TJ32 UniRef90\_S8D303 UniRef90\_A0A024UBP4 UniRef90\_F4PYC5 UniRef90\_Q8CGA0 UniRef90\_D4XET3 UniRef90\_B7FVW1 UniRef90\_UPI0001CBC39A UniRef90\_R4YSL7 UniRef90\_D7BCX3 UniRef90\_L0P913 UniRef90\_K9TMQ1 UniRef90\_UPI0002C3D09D UniRef90\_R7M733 UniRef90\_R5GLA9 UniRef90\_A0BL11 UniRef90\_V8NNE5 UniRef90\_S9UDN6 UniRef90\_K2HH33 UniRef90\_D1KDS4 UniRef90\_D6AC66 UniRef90\_F9ZVW4 UniRef90\_C9ZJK2 UniRef90\_F1Z356 UniRef90\_A0A024GB75 UniRef90\_W5BVS9 UniRef90\_K6ZPH1 UniRef90\_T1IP45 UniRef90\_A4RT10 UniRef90\_G4SZX5 UniRef90\_L7ZNX0 UniRef90\_G7JHS4 UniRef90\_M5VQQ7 UniRef90\_W9ATD4 UniRef90\_Q1NPG2 UniRef90\_D3B4Y1 UniRef90\_B4JBZ2 UniRef90\_UPI0003826EBC UniRef90\_P49596 UniRef90\_E9C2M2 UniRef90\_UPI0003626FEA UniRef90\_A0A059DFZ5 UniRef90\_H8YXL5 UniRef90\_G1KMY3 UniRef90\_B3M8H8

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

UniRef90\_A6D3U0 G M D S K L E V D F Q T V A V E T G D L F L L S T D G V H D F I T E K Q L V N V  
UniRef90\_R5WNP6 G A S P V V E P D F V A G D I Q A G A T Y M I C S D D G F R H K I S N D E I M S K  
UniRef90\_U7G581 D T R L D V D V Y S Q T D L Q V G D I Y L L T T D D G I H G F L S N R E R M Q Q R  
UniRef90\_T0RT20 L V I A E P C V N V S P R D H V K D E F L V L C C D D G I Y D V M S N Q N A V D F  
UniRef90\_J3MBT1 G G P L S A E P E L K V V T T K D D E F L I I G S D D G I W D V F S N Q N A V D F  
UniRef90\_A7TIL7 L G D K F F D F T T S V E I E E D Q F L I A C C D D G L W D V D D D A E A C E L  
UniRef90\_N6XTX3 G G S H A P Q I T E S A R T P R D G D I A L C S D D G V W G P A G D D A L V S G  
UniRef90\_T1IXX6 G D S E F K P Y V C S E P D I V I T I P R V I M A C D D G L W D V T T P E D A C L I  
UniRef90\_K9TM75 S A S S V L H P T V I Q R F L D E D S A F L L C S D D G L S D Q Y W E T E I L P V  
UniRef90\_K6Y8Y4 G I E S H L D V D F G T V E L Q V G D L Y I F T S D D G V H E F L S T K E V L Q K L  
UniRef90\_UPI0004573E31 G D A E H K P Y I C G D A D G G C T D Y L I I A C D D G F Y D T V N P D E A V K V  
UniRef90\_U5GBQ9 L G D W H L E G M K K T G D K K E D E F L I I G S D D G L W D V Y S N Q N A V D F  
UniRef90\_R6TWD2 G K P S C Q P E A E A E S V Q A G D A F L L C S D D G F W E F V Y N E E M L D L  
UniRef90\_H2U271 G V I A E P E T K R I T L H H S H D S F L A L T T D D G V N F I M N S Q D E I C N V  
UniRef90\_S6CGV5 E L S F G I P M S L Q E G D T L L L L C T D D G L W N Q V P R Q D D L T S L  
UniRef90\_Q0DBU3 F G N R A L K H Y V L K K V D E S L E Y L I L A T D D G L W D V M R N E D A V S L  
UniRef90\_V4LB14 A F G D R L L K Q Y V V A D P E I Q E F L L L A S D D G L W D V F S N E E A V A M  
UniRef90\_K6DG14 G A S P E L E L V I S S G E V K E G D L F M L C C D D G F Y H E I S E D D I F L F  
UniRef90\_W4TW32 N G O P Q H L P D T Q I V D L R L G D R I L F C S D D G L C G L V N D D D T I G E H  
UniRef90\_V5CKV6 L S D E R D A T Y G D V L Q L E D G D V F L L C C T D D G F W H N F T Q D E L E Q S  
UniRef90\_UPI0004780F0F G A D A Y L D P H T A A F R P E T A G A V V V C T D D G L W N Y A E S A E E L T A  
UniRef90\_K7GBW9 A M T R E P E T K R V Q L H H G S D G F L V L T T D D G I N F M V N S Q E I C D F  
UniRef90\_H3AUD4 L V S P E P E V Y E I E R S E K D E F I L A C D D G I W D T I N N E E L C K F  
UniRef90\_Q69QZ0 L G D W H L E G L K E V I G E P K E D E F L I I G S D D G L W D F S N Q N A V D F  
UniRef90\_UPI00035130BB A I G D V C Q K P Y I L S G D A D G D D Y L L L A C C D D G F D A I K P Y E V V D L  
UniRef90\_UPI0003FF43FB G M D C H L D I D Y Q T I P L Q V G D L F M L S S D D G V H D Y L T K E Q L T E E  
UniRef90\_E0TKD9 G P K S K F F L D I R F E I N A E D L T Y F L L S S D D G V F N F L S N K E F Q S  
UniRef90\_UPI0002B474E8 G G P L S A E P E L R L M T T K E D E F L I I G S D D G V W D V F T S Q N A I D F  
UniRef90\_W9RFQ9 L K E H I T S E P D I K V E N D D T E F I L A S D D G F W K V M S N Q E A Y S  
UniRef90\_A8PU48 L V S P E P D I Y T I V R S P K V D E F L L A C C D D G V Y D V M S N A E I C S F  
UniRef90\_S8E832 A F G D K N L K S H L R S D P D I K D L L L A S D D G L W Q V M S N Q E A V D V  
UniRef90\_UPI0001C37282 G A S G D V I E P E V K F G N L E S G A N Y M I C S D D G F R H V L E P K E I F D V  
UniRef90\_K3WKK1 G D S E L K E C V I S L P D V T T H E F I V L A S D D G L W D A L P N E Q V L S C  
UniRef90\_R7GH02 R M  
UniRef90\_D9PLE3 G V I E D T V L L L E V N E Y R V E D G D L Y L F C C S D D G L N D M L T D E R I A A V  
UniRef90\_F0W2P8 S L L G D F V Y K R C A D N L P P E E Q Q F F M L A C C D D G I W D V L S N D G I C Q L  
UniRef90\_S2JA73 R A L G D F E F K T A N L P P E E Q Q F F M V L A C C D D G I W D C L S N A E V T A F  
UniRef90\_R6DL19 G Q D G G L N V D T G S V D I P G Q Y A F L L C C S D D G F W E Y V Y E Q E M V I S L  
UniRef90\_UPI00034B497A G A D S E V D G H V I T V E P R G P G A L V I C C S D D G L W N Y A P E D E L A A V  
UniRef90\_E1VTY2 G A G A E S Q D V V T V L H P R I G D R Y M L C C S D D G L S D G E L T E D L Q T R  
UniRef90\_D0AA51 A V T S A P E V H R T L L D R T R D E F A V V A C D D G I W D V L S N E Q V V R F  
UniRef90\_N8WSP3 G V D Y R T L R I D Y Q S L E L K E K D V E L L M T D D G V Y K F V T D Y Q L L D F  
UniRef90\_UPI00034D7751 K D A E T D R L S V Q R F L E E D G I L L L C C S D D G L S D N W Q D D Y A V P V L  
UniRef90\_K0F083 G A D P W S D N C V R T L R T T G P G V L L L C C S D D G L W N Y L S D A A A L A E  
UniRef90\_UPI000441147F Q I V T A L P E V K T H R V T S D D E F V V L A C C D D G I W D V L S S Q Q V V D V  
UniRef90\_U3U968 G K G P C E Q E I Y K T R R Q S D D E F L V L A C C D D G V W D V M T N E D L C A F  
UniRef90\_UPI0003B6A9DB P D S P D H R P V I T T Q E V T A P G W V L V C S D D G L W N Y A S E A D L R A V  
UniRef90\_D4TJ32 G G K S R L S D G Y I T M R L E H E D I L L C C S D D G V W D V L V S N Q L A T N F  
UniRef90\_S8D303 A G P L T A E P E V K L I T S K E D E F L I I G S D D G I W D V F R S Q N A V D V  
UniRef90\_A0A024UBP4 F G D S S L K K W V I A Q P Y T S C A F F I L A C C D D G V W D E L E D Q A A V D L  
UniRef90\_F4PYC5 Y V I P D P H L S I T E S D K S A D Q F I V A C C D D G V W D E I G D Q A A C D I  
UniRef90\_Q8CGA0 A I G D V F Q K P Y I T S G E A D S E D Y L L L A C C D D G F F D V V H H E V T G L  
UniRef90\_D4XET3 G L A P H L E I D Y H T Q P L E A G D V F L L A T D D G V Y E H I D A Q D V A R V  
UniRef90\_B7FVW1 R S L G D H I F K T F V I A H P E P S F L I A C C D D G L Y D V M T D K E A V D L  
UniRef90\_UPI0001CBC39A G R G P C E Q E V L F D Q R S E K D E F I V L A C C D D G I W D V M S N D E L C E F  
UniRef90\_R4YSL7 G L D V K L D V D Y R S T D I E P G D I F F L S T D D G I H D F I T D Q Q L R N H  
UniRef90\_D7BCX3 G S L R Q P Q E G Y V D G L P D A P T A T L L V S D D G L W G E V S D H R M A E I  
UniRef90\_L0P913 F V I S R P F T T E T I L I P N E D E F V I L A C C D D G L W D V C T D Q Q A V D I  
UniRef90\_K9TMQ1 G S K R R L S D G Y F S L K L E P D D I L I L C C S D D G V W D E V K S E E L A K I  
UniRef90\_UPI0002C3D09D F V T S E P H V N R Y R R K D T D M C I F L M G C C D D G V W D V L T N E K V A D I  
UniRef90\_R7M733 G C S T Y V E P D I R A R N V E K N D I F L M C C S D D G L T N M I Q T E S K I Y A E V  
UniRef90\_R5GLA9 G A S D F I N P E F L T G Q M A E N A V Y M L C C S D D G F R H V I T P E E I V N M  
UniRef90\_A0BL11 P F R V W L Q Y I Q A P G L T K H N Q S F I V A S D D G V W D Y M S N E E V M G L  
UniRef90\_V8NNE5 L I S T P F V V R H E I S M N D F L V L A S D D G L H D A L A P S L I L D I  
UniRef90\_S9UDN6 G D R D Y A D V T H A E V T F G S D D F A I L C C D D G V F E N F S N E E V V I E F  
UniRef90\_K2HH33 Q P I L T P T P D I F L R E R E E D Q F L I V A C C D D G V W D F L R N E E V Y S T  
UniRef90\_D1K104 G F D L K I N V D Y Q T F D I E L N D Q F L M T T D D G V H D Y L R D N A L L E V L  
UniRef90\_D6AC66 G A D A Y L E P H T A A F K P D R P G L V V V C T D D G L W N Y A E S A E E M A A  
UniRef90\_F9ZWV4 N V N P G A V D I R A F T A M Q S G E T I I L C C S D D G F W E S I K E Q E F L Q L  
UniRef90\_C9ZJK2 Q A I S A V P D V L H V K L T P Q D E F V V I A C C D D G V W E K F S N E R V V K F  
UniRef90\_F1Z356 G L I E S D L R L D H G A F E L T E Q D R L V L T T D D G V H A P L G A R K I A A I  
UniRef90\_A0A024GB75 P Y G Q Y P G T A F T R T L N V H D R F I I A S D D G L W F E F L T S Q N A V D L  
UniRef90\_W5BVS9 A F G D K L L K Q Y V V V D P E I R F L L A S D D G L W D V V S N E E A V D M  
UniRef90\_K6ZPH1 G M H T Q L D I D Y V T L P I C Q D D I F I L C T D D G V H E Y L S P S D M L H N  
UniRef90\_T1P45 N E K K R P E E Q I V T A Y P D N H E F I V L A C C D D G I W D V M T N Q E V V D F  
UniRef90\_A4RT10 M E G P V P V H C F T I P R S T E D E F I L A S D D G I W D T M N S A Q A V T F  
UniRef90\_G4SZX5 N I K T H L P E I H V Y P P I K L G E T F L L C T D D G F W E F M K S A E I L D L  
UniRef90\_L7ZNX0 L N E E R D A T Y S D L K L E D G D V F L L C T D D G F W H S F S Q A E L E Q S  
UniRef90\_G7JHS4 R N G P L S A E P E D V L M T K D G D F L I I G S D D G I W D V F R S Q N A V D F  
UniRef90\_M5VQQ7 P W I I P V P E I S F M T R T D E D E C L I L A S D D G L W D V M T N E E V G E V  
UniRef90\_W9ATD4 E P T P W T A H S V H T I T V T G P G A L V V C S D D G L W N Y L P E D A L R D I  
UniRef90\_Q1NPG2 G V I G E G L E P H V V Q I T S S L K M I V L T S D D G V H C L D K N T L Q M I  
UniRef90\_D3B4Y1 R S L G D H S M K E Y V V G D P Y Y T H L I L A C C D D G L W D V V N D Q D S I D I  
UniRef90\_B4JBZ2 L E A V I A E P D F V D V P S E A H D F L V L G S D D G L W D H V P E A F I V D T  
UniRef90\_UPI0003826EBC G V I D P I K V D H D Q A P I T P N S R F L L C S D D G Y W E Q L A P E E S A H W  
UniRef90\_P49596 D T K P A E E Q I V T A F P D P D H E F I V L A C C D D G I W D V M T N Q E V V D F  
UniRef90\_E9C2M2 Q F G L I S T P F V V R H E I S M N D F L V L A S D D G L H D A L A P S L I L D I  
UniRef90\_UPI0003626FEA E D V R P H V R L E P Q G P G L L V C S D D G L W R Y L A G R P L P V  
UniRef90\_A0A059DFZ5 S R S I G D Q Y I K V S R R T D A D E F L I L A S D D G L W D V V S N E F A C N V  
UniRef90\_H8YXL5 E R P P K P A L T S E A T V A L H Q P G D V F L L C S D D G F W E W V D S E E M Q Q T  
UniRef90\_G1KMY3 G V I A E P E T K R I Q L H H A G S D V L V L T T D D G I N F M V N S Q E I C C D F  
UniRef90\_B3M8H8 D Q I V I T A D P D V I Q V R D I E D W E F V V L A C D D G I W D V M S N A E V C Q F



UniRef90\_A6D3U0 I Q N H G F E T R S Q A L T D L A I E N G S Q D N N V T S L L V S I  
UniRef90\_R5WNP6 I T E A E M E D G C K F L T E L V K Y R K E S T D N N I T V V L I K  
UniRef90\_U7G581 V R G E A P D V I A E Q T L V E A A L A N G S D R D N M S C Q V L R V  
UniRef90\_T0RT20 V R G K S P K D V I A E L L M D E C L N K G S R D N M S V I I V L F N  
UniRef90\_J3MBT1 A R H N D A K S C C K E I V E E A I R R G A T D N N L T A V L V S F  
UniRef90\_A7TIL7 I T S N D D P L S N E A A K T L V R Y Q A L E N G S T T D N N V L T V M V V S L  
UniRef90\_N6XTX3 L T G G P L S R C V I P Q L L V K Q A L T A G S T D N N L S I V A M C W  
UniRef90\_T1IXX6 N A P D N I L D D I S E K L V Q L A V Q R G S T D N N I T I I V I  
UniRef90\_K9TM75 L S G E F P L S R S V T K L I D L G N F H N G S H D N N V T V G L V  
UniRef90\_K6Y8Y4 L S I E S L E S I V S K N I V D A A L K A G S D D N N L T C L L V R V  
UniRef90\_UPI0004573E31 V N N G D S S M V A H K L V A S A R D A G S S D N N I T V I V V  
UniRef90\_U5GBQ9 V R H N D V K Q C R E M V L G E A I K R R G A T D N N L T V V I V S F  
UniRef90\_R6TWD2 A K A Q S P E H W A Q R L M L L R H I R R P G N D N Y S L I T V F V  
UniRef90\_H2U271 I N Q H D P K E A A Q R I S D Q A L H Y G S E D N S T I I V V P F G  
UniRef90\_S6CGV5 L S E Q D P L G A G L Q R A G H E V A A S R P R S D N N I T A I A L R W G  
UniRef90\_Q0DBU3 L K A Q D P K A A A M K L T E V A H S R L T L D N I T C I V L Q F  
UniRef90\_V4LB14 V K E E D P E E S A K K L V G E A I K R G S A D N N I T C V V V R F  
UniRef90\_K6DG14 S N E L Q M K E T V V D L V E L I K K R K E T D N N I T V L L T K V  
UniRef90\_W4TW32 L N T I N L D D V V D L T T D A H A G G G T D N N I T I V V A E V  
UniRef90\_V5CKV6 L H M V N S P T E W L S L M Q R A W D K G G H D N N Y S A I V V W I G  
UniRef90\_UPI0004780F0F A V P A D P L H S A Q H L V G Y A L D G G G H D N N V T V A V V P F  
UniRef90\_K7GBW9 I S Q H D P T E A A H V V T E Q A I Q Y G G E D N N S T A V I V P F G  
UniRef90\_H3AUD4 V C S E D L E S V C N Q V I D T C L Y K G S Y D N M S I I L I C F F  
UniRef90\_Q69QZ0 T R H N D L R L C C K Q L V E A A I R R G A S D N N L T A V M V S F  
UniRef90\_UPI00035130BB V L D H L M Q K A E R L V A A A K E N G S D N N I T V L V V  
UniRef90\_UPI0003FF43FB A T T Q E F E L L A K K I C D D A L T E G S S D N N I S C L L V K V  
UniRef90\_E0TKD9 L S S K E L K D N I A I L S L L K T A I N N Q S D D N N L S L I L V G L N  
UniRef90\_UPI0002B474E8 A R H N D V K I C C K E I V E E A I K R G A T D N N L T V V L V S F  
UniRef90\_W9RFQ9 E D M E D A Q E A A E T L I R E A L S R K S Y G D L S C I V V  
UniRef90\_A8PU48 V E S S D L S V A N Q L V L D A C L S K G S R D N M T I L V C F  
UniRef90\_S8E832 K R I K D P A R A A K Q L V Q E A V D R D S K D D I S C I V V R F  
UniRef90\_UPI0001C37282 A T K K A M E K S L R R L I D T V K E R S E R D N I T A A M F R  
UniRef90\_K3WKK1 I H N N S T Q E M A K V L I D R A I E L G S M D N I T V L I V D V  
UniRef90\_R7GH02  
UniRef90\_D9PLE3 L T A G T L T E K A S A L V D D A A N D A G G R D N N S V I L L  
UniRef90\_F0W2P8 V R E K D M G L I A E R I V D T C L K R R D N M S I V L I R L  
UniRef90\_S2JA73 V R K H P L K E I E C R L M D K C L A G V G C D N N M T V E I V A F  
UniRef90\_R6DL19 A K A S S P E D W V I E K M R S I L R Q R A P E D N N T A A A I W L  
UniRef90\_UPI00034B497A L T H G D P A G A A R A G V R F A L D A G G R D N I A V V V I S V  
UniRef90\_E1VTY2 L V N K D R A D A A R V L T G A L E A G G R D N I A V I V I D V  
UniRef90\_D0AA51 V R Q V P L D K I A E E L L D H C L S G V G C D N N M S V V I V K F  
UniRef90\_N8WSP3 T A A D H L N Q L A K F L V E Q A L K Q G S D D N L S L Q V L R I  
UniRef90\_UPI00034D7751 L G K L A L E D A V R N W I N L A N Q K N G H D N N T S L V M  
UniRef90\_K0F083 L A T A H A P A V A R E L V E F A L R C G G S D N N I T V A L V P I  
UniRef90\_UPI000441147F A S G A S L Q S D C C R L I E A C L Q Y G G C D N N M T V I V A L L  
UniRef90\_U3U968 V R S D D L E S I A N H V V D T C L Y K G S R D N M S I V L L T L  
UniRef90\_UPI0003B6A9DB V R E A D P L D L A Q A L V A W A N G R G G V D N N I T V A L A R T G  
UniRef90\_D4TJ32 I T E S N L Q T A V N L T I N Q V L E R G A L D N A T L L A L R F  
UniRef90\_S8D303 A R H N D A V L C C R D I V N E A K K R G A T D N N L T V V V V C F  
UniRef90\_A0A024UBP4 L S E P D R A Q A A E V L V G A A L E E G S C D N N I S A I V V  
UniRef90\_F4PYC5 V A S P N M R I A A Q R L R D Y S F F R G S H D N N I T  
UniRef90\_Q8CGA0 V H G H L R H I A E E L V A V A R D R G S H D N N I T V M V V  
UniRef90\_D4XET3 I A A H P D A L D A A A R D Q L A L E R G S T D N N L T A Q L V R I  
UniRef90\_B7FVW1 V R N G E R E D A A Q F L V Q Q A L R R G T T D N N V T A I V A W L  
UniRef90\_UPI0001CBC39A I R S D N L E F V C N Q V I D T C L S K G S R D N N M S I V V I T F  
UniRef90\_R4YSL7 L T T E N F E L N C Q Q L V D L A L Q Q K S N D N L S C Q I I R I  
UniRef90\_D7BCX3 L S H N T P Q A A A E A L V A T A L E A G A P D N A T A L I V R  
UniRef90\_L0P913 C R N Y D P N V A S R K L I D Y A I S Q S T D N N I T M V I R L  
UniRef90\_K9TMQ1 F S P D T L S D A V N Q A I N R V L E E G A S D N A T  
UniRef90\_UPI0002C3D09D C R K K E M S E I A G Y I R D M A F I L G S E D N N I S C V V C H F  
UniRef90\_R7M733 V E E N K E K A P E L I V S L A N D A G G Y D N N I T V I T I  
UniRef90\_R5GLA9 Q D E E T M R Q Q L V Y L I D L N K Y R R E D D N I S A A A I R I  
UniRef90\_A0BL11 V E K D N P E H A A E K V V K E A Q A W A R D D L T C I V I  
UniRef90\_V8NNE5 I N Q H D P T E A A H I V T E Q A M Q Y G T E D N S T A I V V P F G  
UniRef90\_S9UDN6 I K N N D L A E V A G K V C N E A I E R G S R D N N I S C V I V R F  
UniRef90\_K2HH33 V K K R E P S D I S S S I R D M A F A R G S T D N N V S C V V C K F  
UniRef90\_D1KDS4 M N K A S T V D D I V D R A L D K G S Q D N N V S A M I I S I  
UniRef90\_D6AC66 A V P A D A Q E G A Q V L V G H A L D G G G H D N N V T V A L L P F A  
UniRef90\_F9ZWV4 S Q P V S G K G E L K M A Q M S I L R G S D N N C T V I Q W V R  
UniRef90\_C9ZJK2 V R H G D L S L A C E R L M D S C L A A P G A R D N M T V I V V Q F  
UniRef90\_F1Z356 L A Q N S A E A T A E L L V I E K A L E A G G A D N A T A L V I D V  
UniRef90\_A0A024GB75 V K H D D P S D A C Q A L V E E A Y N R W S T D D I T A I C I Y L  
UniRef90\_W5BVS9 T R S Q D P E E A A K R L L Q E A Y K R E S S D N I T  
UniRef90\_K6ZPH1 V T T G T A V E L A E G L V Q Q A L A N G S D D N N L S L Q V V K V  
UniRef90\_T1IP45 V R K M E P E E I C E E L M T R C L A G L G C D N N M T V V L V C  
UniRef90\_A4RT10 V R S E S M Q D I A D A L I A R A L R C R T Q D N N V V C I V K L S  
UniRef90\_G4SZX5 A Q P E S G K N E L G K F A R A R G H S D N N V T V I Q W V R  
UniRef90\_L7ZNX0 L H M N S P S E W I A L M Q Q A W K N N N S D N N Y S A I A V W I G  
UniRef90\_G7JHS4 A R H N D V K C C K E I V G E A I K R G A T D N N L T V V M V C F  
UniRef90\_M5VQQ7 A R H P P A Q A V A D H L T E I A Y G R N S S D N N I S I I V D L G  
UniRef90\_W9ATD4 C V R T D A V T A A R A L T D H A L A A G G A D N N I T V A V I P I G  
UniRef90\_Q1NPG2 R S A S D P I A A K R I T E L A Q W C G G R D N N A S I A I A  
UniRef90\_D3B4Y1 I N E T E A Q R M S D K L L S S A L R K G S T D N N I S L M V I  
UniRef90\_B4JBZ2 V Y E A D P Q D I P K L L V E A A K E R D S Q D N N I T C I L V  
UniRef90\_UPI0003826EBC L G Q P D L Q A A C A Q A A S A A Q R G S T D N N V A I A  
UniRef90\_P49596 V R E K D P Q S I C E L L T R C L A G L G C D N N M T V V L V G L  
UniRef90\_E9C2M2 I R G A A P D E A A V R L T M S E M R D V E D N N T T V V V V R L  
UniRef90\_UPI0003626FEA P G D P R E L A R E L L R H A L D S G G Q D N N I T I A L I P L G  
UniRef90\_A0A059DFZ5 V R E N R A E A A M L V D F A M A R G S K D N N I S V V V V E L A  
UniRef90\_H8YXL5 L A E T S P T A W L E S L E Q R L E R A G H D N N Y S A M A I F V  
UniRef90\_G1KMY3 V N Q H D P S E A A H V V T E Q A I Q Y G T E D N N S T A I V V P F G  
UniRef90\_B3M8H8 V R S R P P E R I C E E I L M S A C L A S D G G D N N M T V I L V C F

1 10 20 30 40  
UniRef90\_A4VD11 E Y A Y K E D Q N P A R F S M E D A H F I V D G F Y G V L D G H G G  
UniRef90\_W9SK08 R R E V M E D G Y G V K Q A F F A V I D G H G G  
UniRef90\_UPI0001E2DF0B A L V S S I G L N H C E N Q D Y G N V E N I V M V V S D G V I S A  
UniRef90\_UPI0003B6B34A V G V A T E I G L R R H R T N Q D A Y S A D W A A L V V C D G V I S S  
UniRef90\_S9X411 V F D Y G A T A E Q G N R R T M E D Q H I E G I P F F G V Y D G H G G  
UniRef90\_T0N7V1 F T V Q Y S I D S D T G L I R N N N E D S A R I E S F I A A L A D G V I G G  
UniRef90\_U5EXW4 R V G S S C M Q G W R F N N E D S H T P G T S F F G V F D G H G G  
UniRef90\_N0DXH7 V G G V C D R G I V H T R N E D A M A P R R A V L V V C D G V I S S  
UniRef90\_A6GMT2 G R L L Q V Q V T Q R T D I G N R P E N Q D A V F G D W L V C A L A D G A G G  
UniRef90\_G3W3N1 N T R R K M E D R H V V D R A Y F A V F D G H G G  
UniRef90\_O66843 R R T Y A D R F W A D G E I F A V A D G M G G  
UniRef90\_A0CD97 Q Y A C K T K A G K T S K T N Q D S G I V G Y S M F G V C D G H G S  
UniRef90\_R5BHP4  
UniRef90\_A4HNR1 T S H L R V G C C S M Q G W R K S M E D A H V A D Q A F F G V F D G H Q S  
UniRef90\_B5DP50 S V F R V G S S S M Q G W R T E M E D A D T I T A S F F G V Y D G H G G  
UniRef90\_UPI000258E0CA S K Y R V G S S C M Q G W R I T M E D C H V P G T A F F A V Y D G H G S  
UniRef90\_UPI0002FA5CD6 L R V S L J A S D V G L K R T E N Q D K V I L S F I V G V L C D G M G G  
UniRef90\_W2NV31 L R V S Y G T Y S D T G I R K N N E D R Q A T T S R E F G L Y D G H G G  
UniRef90\_D2EXT4 M K Y V L N P L A I L Y E L G Q R S N Q E D S I F A E D R L F I V C D G M G G  
UniRef90\_DOA5L0 I F R C G S S C V N G Y R E S M E D A H L V S W G F F G V F D G H N D  
UniRef90\_UPI0003DEB6B9 R H A S L V F D G H G G  
UniRef90\_L8BGU7 I T T A S L S R Q G T R A S N Q D C V G E R S A C F V V C D G I A G  
UniRef90\_R7HPF6 Y S F T Q L G R R A N Q E D S R Y P D C P F F V V C D G V I G G  
UniRef90\_H2Z7Z9 G K G N A L E Y A V S S M Q G W R V D M E D S H L P S W S F F A V F D G H A G  
UniRef90\_K7M9R7  
UniRef90\_R5NQ20 R I T Y H L L S N K G S R K I N E D R V G S E E Y C F A L A D G L G G  
UniRef90\_S4RKU1 A V F D G H G G  
UniRef90\_C3XWL8 V G S S C M Q G W R I N M E D A H T H D A F F A V Y D G H G G  
UniRef90\_B5JDM7 A L K I E A G M A S V A G P N E Q N E D C L G V K G V A M V I A D G V I S V  
UniRef90\_E3J8M8  
UniRef90\_A9UYN7 K F G L A Y M Q G W R A H M E D A H L P G W S F Y S V I D G H A G  
UniRef90\_A0A023F0E8 R R T M E D R H I A I Q D L H A V F D G H N G  
UniRef90\_UPI00036DF0B9 R A A G V S D R G R H S R N E D Y L A P A G F A T V V C D G V I S S  
UniRef90\_S7Q3F7 G G N D R F M Y A V S E M Q G W R I T M E D A H T I A N A F F A V Y D G H G G  
UniRef90\_Q5SN75 V I S H G A V S V I G R R E M E D A I F V D E G F F A V Y D G H G G  
UniRef90\_M0XH11  
UniRef90\_UPI000273D6DE L R Y E L R S M Q G W R I E M K D A H R A R W S F F A V Y N G H P G  
UniRef90\_UPI00046383AE A L N I S V G Q F S D Q G R K D T N Q D F H G V K G T A V V L A D G I S S  
UniRef90\_F3NA83 V A A V T D R G L R H H R N E D A F A V P A V L A L V C D G V I S S  
UniRef90\_A0A024G352 R K T M E D R I K I K Q G F F A V Y D G H G G  
UniRef90\_L0PGH8 F G L S D M Q G W R I S M E D S H A A K V S F F G V Y D G H G G  
UniRef90\_I0XP94 L R Y Y A I T D K G N F R S H N E D S F L A S S G L F A L A D G L G G  
UniRef90\_R7AJR4 L E L E I G V Y S I W G N R N S Q Q D F A A I D E L L A V V C D G M G G  
UniRef90\_I3JWC1 V D R A Y A V F D G H G G  
UniRef90\_H2XNS7 V Y S A C G L K N T R R K M E D H H L I I T Q F Y G V Y D G H G G  
UniRef90\_UPI0003F89942 I D F G L F T M K G P D K K I N E D Y I N E E A H I L I A A D G M G G  
UniRef90\_UPI0002C31CF6 V R W G S T S L Q G A R E E M E D G V V V G Y S F A A V F D G H A G  
UniRef90\_I1C1C0 G K N K H L L Y G L S A M Q G W R L T M E D A H C A E A S F F G V Y D G H G G  
UniRef90\_U1N171  
UniRef90\_UPI00042B646D D M E T P S Y I Y C A I Y D G D G I  
UniRef90\_A0A024VC58 L R Y G L S S M Q G W R V E M E D A H L A D W S F F A V Y D G H N G  
UniRef90\_H2RX66 L R V R M G V S S M Q G R R S T Q E D R W V A I P N V H A L Y D G H G G  
UniRef90\_W4GXB7 Y G Y N L V R G M T N H P M E D Y H V A D L G L F A I D G H L G  
UniRef90\_K3Y978 L H W G H T S V I G R R R E M E D A I A V K P H F F A V Y D G H G G  
UniRef90\_UPI0002B426BF V G G V C D I G R R H A R N E D A M A L S R A V L V V C D G V I S M  
UniRef90\_E6S9B3 I T I A S T S N Q G D R A S N Q D Q I G D R S A C F V V C D G V A G  
UniRef90\_H8DNQ9 F R I G V A S D R G G R E L P M E D V C Y Y K W G L F C V C D G H G G  
UniRef90\_M4CDE2 S I R I A M T S D V G L R R K N N Q D T G F A Q Q G V F M V C D G M G G  
UniRef90\_F8ASE6 A V G V S D R G R R Y R S Y M E D R S A G V A Y L G I Y D G H G G  
UniRef90\_UPI00036C6772 T L V Y A V S E M Q G W R I S M E D A H A T K A S F F A V Y D G H G G  
UniRef90\_A8I8C0 A Y K I E A G T A K H I I G N R S Q Q N D R V A P G Y V M A V L A D G N T S  
UniRef90\_UPI0004560F85 F A E S R I G R S E N Q D S Y G S A E T P Y G V C D G M G G  
UniRef90\_UPI00036F498F S L L V E I G G Y S A A G R K P V N E D A F A A H G V V A C V A D G L S S  
UniRef90\_R5BB75 A A A Y A L Q G R R P H M E D R F N I G I S L F G I F D G H G G  
UniRef90\_E0THG9 F E V G V A S D R G G R P L P M E D V C L C E W G I F C V F D G H G G  
UniRef90\_K1QR40 L I W A L S S M Q G W R V E M E D A H L P G S S F F A V F D G H G G  
UniRef90\_A9T437 I E I G T S N M C G K R D S M Q D F L G I G F H L L S L F D G H N G  
UniRef90\_A9V3N5  
UniRef90\_B0EIL0  
UniRef90\_T2QWN8  
UniRef90\_R7C977 M V P E L A T L S Y T V T G N R Q Y Q Q D A V Y V S R V L A V V C D G M G G  
UniRef90\_A2FIP4 F G Y C E M K G M R E T M E D S L T I G Y D L F A V M D G H A G  
UniRef90\_UPI0003715A5D M E T A V A K E I G R R E Q Q D A C V Q H A L L V V A D G M G G  
UniRef90\_E4XN41 D I G V E S L K G R R R K Q E D R Y L I N T V L V A V F D G H G  
UniRef90\_F6HGQ0 Y L T A H F F G V Y D G H G G  
UniRef90\_A0E4A6 F A M R T K A G C Q P N K A T K I N Q D A A I V G Y K L F A V C D G H G L  
UniRef90\_T1EMF3 M E N G I R F G L C C M Q G W R M E M E D A H L P G W S F F A I L D G H A G  
UniRef90\_M5X068 I R W G S T S L Q G A R E E M E D G V V V G F S F A A V F D G H A G  
UniRef90\_W2UFD9 Q L D I A S F C E A G I K P I N E D A V R F E G I V L A L A D G V I S T  
UniRef90\_W9GQM7 I K I Q F G I A S E Q G R R P R N E D Y A A R R G I V A A L A D G V I G G  
UniRef90\_R9JHS5 M R W H Y T V A A Q T D V I G T T K T V N Q D C I Y G E A A F A V M C D G M G G  
UniRef90\_E5SF04 L R Y G S S M Q G W R I Q M E D A H T E K V S F F G V Y D G H G G  
UniRef90\_I1JU57 L R Y G L S S M Q G W R A T M E D A H A A S T S F F G V Y D G H G G  
UniRef90\_G3T6M5 M I F G L K G Y V A E R K G E R E M Q D A H I A R V S Y F A V F D G H G G  
UniRef90\_UPI00037B587C V A A V S D R G L R H H R N E D F F A I A A T V A V V C D G V I S S  
UniRef90\_B0TKA4 S I A M G S D V G N I R P E N Q D R V V C S F I G I L C D G M G G  
UniRef90\_S5Y4F7 V A A A A T I G A V R R Q M E D T L A V G R L I C G V F D G F R G  
UniRef90\_D5V5M7 L K V S I G Y S I K G I K D I N Q D T Y D I K G I A I A I A D G I S S  
UniRef90\_A0C9G7 G L K F V H K T K A G C Q V N K Q T K T N Q D A A T V N Y G L V G I C D G H G V  
UniRef90\_UPI0004648E4B M K Y I Y G G K S D K G F S R T K N E D F I Q E E N V L C I I A D G A G S  
UniRef90\_M0ZRP5 S H F Y G V Y D G H G G  
UniRef90\_L0BW65 S H F F G I Y D G H G G

UniRef90\_A4VD11 S E E S C V Q F I P E F F K K E Y K K E V P V K E L F T Q I F F K K T D D K L R L 80  
UniRef90\_W9SK08 A T D Y V A E N L G R N I V K G I E H V K K E E D H H Q I E E T I H G G Y L A T  
UniRef90\_UPI0001E2DF0B T S E D A A V N T V C G L L L L E Y T P D T D P K E E V M R N A I E E T A N I E I K K  
UniRef90\_UPI0003B6B34A A S Q V I A A T T V R N A L L D A V G P D A D R D W F G S A Y Q A A Q R A F L A L  
UniRef90\_S9X411 A E Y L R D N L H T W I L S H A E V R T N P E K A I F D S I V E A D R K F L S E  
UniRef90\_T0N7V1 M S E L A S R D S V N I F M E T M M L E I N S E A T F S S C M L E A N D Y V L S R E  
UniRef90\_U5EXW4 A N E Y A G K N L H K F I K R P E Y Q T D A E A M K K G F L D I D V A V L N E  
UniRef90\_NODXH7 S K D A A R E V L R P A M P Q G M G T A E S A D A A A T K V L T S A A A A A N T  
UniRef90\_A6GMT2 H R Q L A A A L A V I E M S L S A F E Q S P E R A S R L L E L M Q Q V N Q N I L H Q  
UniRef90\_G3W3N1 A S Y A A V H L H V N V A R H P E V T R D P A A A L R A A F K Q T D E M F L R K  
UniRef90\_O66843 K G A V I A A E K A V D L T P K F K P Y N S E E K L R E N F S K I N R E L I K E  
UniRef90\_A0CD97 N G H L V S Q F I R Q A L P K H L E M L L S K E D N K K A I Q K A F E Q T N K E  
UniRef90\_R5BHP4  
UniRef90\_A4HNR1 D E A S R Y C R A H M L D E L L K N I A I Y K D D I A K A F E V S F K E A D S Q  
UniRef90\_B5DP50 A A K F A G L H L H Q F I T K R R E Y F D N A G A I L K S G F L D F D K E I Q N  
UniRef90\_UPI000258E0CA A A F A M A G H A G K H L H E Y I T K R S E V Q A I Q Q G F L E L D K A M Q N D E  
UniRef90\_UPI0002FA5CD6 M V D G E A C A A L A I S S F I S S C I R N R S S V D Q R L L Y A V R H A N S E E  
UniRef90\_W2NV31 P E V I A E Y L A E K L H E N V I F S H P P A D I E L S D A V R T A Y A A T D E E  
UniRef90\_D2EXT4 H E E V A S Q T V C Q T M S E Y I L S Q T S P E G F S N E A L N A A Y D S L D Q K  
UniRef90\_DOA5L0 N C S Q F L E G A W R S A L E K E N M P M S D D R M K E L T L A I D K E W M D K  
UniRef90\_UPI0003DEB6B9 K H D F A C H H L P K F I V D D E D F P R D I E R I V A S A F L Q T D N A F A E  
UniRef90\_L8BGU7 G G E V A A E L A R N A I R F D G D N H L N A Q T I R Q Y V Q Q A N G A I L Q Q  
UniRef90\_R7HPF6 N E E V A S R T V C D A F G R D W S C P F T V R D F E Q A L D F A F N E L Q R V  
UniRef90\_K2Z7Z9 S K E H S S E H L L D S I L S H A N F I E D E K L V K K A L V D S F M R N I S D  
UniRef90\_K7M9R7 H D E V A S K I A V E T C I D L F K E D G F N E F I R N A F E E S Q E N I L N R  
UniRef90\_R5NQ20 A V I A A T H L H V N V L Q Q E M L A R D P A R A L R E A F S L T D R N F V Q K  
UniRef90\_S4RKU1 E R S L G H L S S K S V M H K S F L G K V E D A M R G G F L E V D T D M R N D  
UniRef90\_C3XWL8 A E K E A A E I C V K G F L N D Y Y D A P E A W T V I K V M Q S L N R W L F G L  
UniRef90\_B5JDM7 E A E L A L H H A V H A A Q D M I A Q L  
UniRef90\_E3J8M8 A D H L L A S V L Y E L L P V K D S L H A I S D A M H R A F L R H D R M I F A D  
UniRef90\_A9UYN7 C D A A T Y A N C H L H H Y H Y P H N P E A A L R E A F T T T D K H F I E K  
UniRef90\_A0A023F0E8 S P D A A E T G G A A L A E R L A A G D D P A D A T R A A L R A G D A V A A D  
UniRef90\_UPI00036DF0B9 S N R Y A G R N V H K R L A S Q E Y Q A K R E A L K R A F L G T D E D M L A D  
UniRef90\_S7Q3F7 H V V L A E E V R V R R L L I Q G G G G A D V E D W K E A M A A C F T R V D E E  
UniRef90\_Q5SN75 H V V L A E E V R V R R L L I Q G G G G A D V E D W K E A M A A C F T R V D E E  
UniRef90\_M0XH11 E T F T H T D S E L L K A  
UniRef90\_UPI000273D6DE S Q V A K Y C C K H L L D H I A N N Q D L K N G I R T G F L E I D E H M G V M  
UniRef90\_UPI00046383AE S S R I A A E S A V K S F L T D Y Y C T S E S W S V K S S A Q R V L E A T N S W  
UniRef90\_F3NA83 A P D D A S L Q A A A E T L R G T H P Q A A M H D A I L T A A R A A L A E E P E T  
UniRef90\_A0A024G352 M Q Q V L S H Q E I A A K I L S V E E S D C T I E K K L Q R A Y A V T D V M C C K S  
UniRef90\_L0PGH8 D A V A Q Y S G E H V H R I S Q D T S F I A G D Y E K A L K N G F L N T D K A  
UniRef90\_I0XP94 H E E I A S R V I A L E K L A W M E K A R P I E E L K N L R K I N N E V N A Y  
UniRef90\_R7AJR4 G G E R A S Q A A V S L T E A Y R R Q E T E D F L Q E E A L T A D E K V A K  
UniRef90\_I3JWC1 V D A A T Y A A T H L H Q E M L Q S D A T T A F K T A F K H T D D M F R N K  
UniRef90\_H2XNS7 V T A S N Y A A K Q L H V R Y V E N D S S D L K T C Q T L D D E F C A K  
UniRef90\_UPI0003F89942 H T D I A S F Y A A N Y I L S G W R T K D C Q D T I A G I F H V I N Q K L I D  
UniRef90\_UPI0002C31CF6 F S S V K C C E A L Q S L L S G K D I K A T R E A L Q E A F E R V D A K L L N W  
UniRef90\_I1C1C0 S A V A K Y T G E S L H R H V R G S E Y F D K K E Y I R A L T D A Y L K L D K E  
UniRef90\_U1NI71 A E G I K S G F L N D A K M L E R  
UniRef90\_UPI00042B646D T K Y I Q S H F F D K K P K E S Q V H R K S K E T M R R A Y L G A R A K V R E A  
UniRef90\_A0A024VC58 D N A V N I V Q K L H I H M Y Y F I N G E N S L K Y S F Q E I D N Y L C K N  
UniRef90\_H2RX66 S R V A N Y C S A H L L E H I L S G G A D K D G I R S G F L N I D E Y M R S F  
UniRef90\_W4GXB7 D G C A A E R L H V H L F Q H M A V P L P E A A S L I V I T L Q Q L C V A F D A T  
UniRef90\_K3Y978 D T V P A Y L Q F P N L K E E E F W T H T D R A I T K A Y E K T D Q A I L S H  
UniRef90\_UPI0002B426BF S Q V A K F C I A E E W G K E G I N D L E W Q K R W E V A F S N G F Q R T D N E  
UniRef90\_E6S9B3 A T D S H I A S L E A A A R A A R A V L D Q P L P R G A G T R A N D A V R S A  
UniRef90\_H4DNQ9 F P E A A S I A R S S L A F D G N A H L D A Q S I R R Y V N H A N H A I R R Q  
UniRef90\_M8CDE2 A G A A I K I I P E V L A N I L S D S L K K E K V S Q G D A S D V L R D E A  
UniRef90\_F8ASE6 G K E Q A S Q L A Q H F A Q L A A M P S T R Q D I D D T L A R A Q H D I L D L  
UniRef90\_UPI00036C6772 S P H P D A A S R A A E A G A A L R D R L A A G D D P A A A T R A A A L H A  
UniRef90\_A8I8C0 I D A S T F L Q R H L L S T I Q E H L Q P G C D V H D A L T T A Y S A T N A A  
UniRef90\_UPI0004560F85 K T E T L H K R L A E T E A Y K K G D Y P A A L K R A F L Q T D E D F L G D  
UniRef90\_UPI00036F498F A I G S D Q V L L T S K H L L E D M R V G D T P S I P R L Q E E L M R N I A E E  
UniRef90\_R5BB75 G P G G A S S I A V K E I L L G I K D G N P D D T V I K A I R R A N L A I E E A  
UniRef90\_E0THG9 A S Q L A V I G Q F I D D L Y S A S P T W T V E A T A R R S L T T L N S W L Y A Q  
UniRef90\_K1QR40 E F A A E F T E K T L F K Y L L I R I I S A E L D E Q T E N F T Q M I M E E A  
UniRef90\_A9T437 S A A A E T A S R L M P Q K M A E L L A V E E T R K G V R T A F R N V E E A  
UniRef90\_A9V3N5 G T D S L K A I L E T D I F K A A E D K L N P D M L K D A F R Q G L L D L D A S  
UniRef90\_B0EIL0 F C A S Q F P N C F A N I L S K N P H Q S I E D A L I Y S F K E I N Q K I N E Y  
UniRef90\_T2QWN8  
UniRef90\_R7C977 M A D G A S Q T A I Q M L V S A F K Q I E K S A S V R Q G I L A I D E A I Y N F  
UniRef90\_A2FIP4 N F T S S F V S R T F P A M I S S L D E I T I E K V A Q R I K D L N E P  
UniRef90\_UPI0003715A5D H A D G A F I T T A E R L W D D C A A H P P A L L E N L F R Q T Q A A L H D  
UniRef90\_E4XN41 N D L C A T Y A R D N F K R F L Q R N L K R K A L K K T I T D I D Q A F S D L  
UniRef90\_F6HGQ0 C Q H L A L A E E V L K E L C N G S A G G N W Q E K V F S N C F D A  
UniRef90\_A0E4A6 N G H M V S N Q I K Q Q L P K H G R L K D A E N I E N Q I Q K A F T I T N R E  
UniRef90\_T1EMF3 S F V S E N S A K L L L T A I L S T P E L K K K G I K N G F L L L P E  
UniRef90\_M5X068 F N S V K C C A A L Q L L R L G N D Y F K T R E A L Q E T F E K V D A K L L L N W  
UniRef90\_W2UFD9 A E R E A S R T A V A R F L E D Y Y Q T P D T W S V E K V L S T I N L R L F R K  
UniRef90\_W9GQM7 A K R V A E L A V R T F I D G Y H A Q P E T I G V Q H A I D A Y N G W L H Q L  
UniRef90\_R9JHS5 Q G E V A S T M V V R V Y E Q W F S K G L S E D S L R Q Q V W Y R L A N E C N D Q  
UniRef90\_E5SF04 A C A S R Y A S C H V H K A I A Q T D L V E A I K Q G F L D V D K D M L E N  
UniRef90\_I1JU57 K V V A K F C A K F L H Q Q Y L T G D I G T S L Q K A F L R M D E M M L E E  
UniRef90\_G3T6M5 I R A S K F A A Q N L H Q N I R L K F P K R C L L D T F K H T D E E F L K Q  
UniRef90\_UPI00037B587C A S R P D E A S A A S A A G A L S L Q A P Q Q A M H E A L L A A A G A V N E  
UniRef90\_BOTKA4 M A S G S K C A G L S T A S F I S S C V P V A E R L I K A V E E A N A D V Y S  
UniRef90\_S5Y4F7 H Q A S A F A A W H L P L T L A D A L D Q A P E A V D T A I A E A F R T Q T H R  
UniRef90\_D5V5M7 S K Q E A S K L S V I S F L Q D Y S T S E S W S V K N S L K A T N S W L Y R Q  
UniRef90\_A0C9G7 N G H F V S D L I K Q R L P S Q S Q N P D M E E C F R N A F E L T N S E I L Q  
UniRef90\_UPI0004648E4B H E G Q P G Q L V C N E I E L M I R R L F E Q D K M K E S I L M A N R V L G G K  
UniRef90\_M0ZRP5 S Q V A D Y C C K R V H L A L V I E L K L P K H D L V D S V R D T R Q V Q W E K  
UniRef90\_L0BW65 H Q V A N Y C C E R V L H S A L A E E L Q T I E D D L T D G I E K A F T S C F Q T



UniRef90\_A4VD11 V G A S D Q G A C A C I A L V R K E G L N D M K C Y V G N L G D T R A V L C E N 120  
UniRef90\_W9SK08 D K G F L S Q G V S S G A C A A S V L L R N D G H L H V A N V L G D D S R V V L S R K  
UniRef90\_UPI0001E2DF0B H S T E G F S L S G S A E C T V V A A L V V N N T V T I G W N V G D D S R A Y M I C  
UniRef90\_UPI0003B6B34A G E D G S F V G S C T L V A A L V L V H G H E I H L G N I P G V G D D T R A Y W A P A  
UniRef90\_S9X411 T D E T S N E S G C V C A V V L V L E D K L V I G N S V G D D T E A L L C R S E  
UniRef90\_T0N7V1 N K K K K S S E Y M A S T L S T F V L D E Q N I T F A N S G D D S R E L M L F D E  
UniRef90\_U5EXW4 E S L K E Q M A G S T A V A C L I K D K R L Y C A N A S G D D S R A E J A S I N  
UniRef90\_N0DXH7 A V V A H T D P A S E S P A S C T F V I D G N L L R H A N T G D D S R A Y W F A D  
UniRef90\_A6GMT2 Q T T H L D C S G M H T T V C A L L V I N Q R S Q A V W L H V G D D S R V Y H F Q Q  
UniRef90\_G3W3N1 A R R E K L H S G D T T G V C A F L V G R T I H V A W L V G D D S Q V L L V I Q Q  
UniRef90\_O66843 L G K L E D S V L S G T T L S L L S F N E R N F Y I G H V G D D S R I Y L F R K  
UniRef90\_A0CD97 L W D S E T D T S L S G S T T V S V I M K K D Q L W T A N V V G D D S R A T I C  
UniRef90\_R5BHP4 M G C T L T G L V W M Q G M T L L V N V G D D S R T Y R L R D  
UniRef90\_A4HNR1 I C K K F V S S G T T A N C V Y L A K Q R I V C A N A G D D S R A V L Y R G  
UniRef90\_B5DP50 G S W Q Q Q I A G S T A V V V L I K Q R L L Y C A N A G D D S R A I V A S I G  
UniRef90\_UPI000258E0CA V T L K Q D E A G T T V I A L L I K D N L Y S A N A G D D S R A V A S I N  
UniRef90\_UPI0002FA5CD6 V F L N E Y R G D G G A T L S A F L V D S S G N A S S V N V G D D S R L Y V V R G  
UniRef90\_W2NV31 I F K Q Q L P S G S T A V S V V I R S G T A L V S S V G D D S R I Y L S T N S  
UniRef90\_D2EXT4 D N G A A K K M G T T M L L K F H V I R S G G C L L A H I G D D S R I Y I R P S  
UniRef90\_DOA5L0 A C S L D A A L R A S G T T A L A T L V T G R L L V V A N A G D D S R A V L C R R R  
UniRef90\_UPI0003DEB6B9 Q Q A T P D Y R R M G T T V S L F I D R D Y K L A Y W A H A G D D S R L Y L F R R R  
UniRef90\_L8BGU7 S T P E N K G M A T T L T F V A F H S N G C F I A H I G D D S R L Y V R P G  
UniRef90\_H2Z7Z9 A K T G F D R S G S T C V C V L I T P H R E Y F I N C G D D S R G L L C R Q R  
UniRef90\_K7M9R7 S S D L G Q G G S T A V T A I L I N N Q K L W V A N V G D D S R A V L S R R R  
UniRef90\_R5NQ20 Q T R D M K P D D Y K T T L V L L C I K N G Y I N W G H I G D D S R L Y F F K K  
UniRef90\_S4RKU1 A V M R E L R S G S T G V V A L V R N G M L H V A W L G D D S Q A L L V R D  
UniRef90\_C3XWL8 E S R N D E L A G S T A V T V L L K N N K L Y C G N V G D D S R S I A S V R Q  
UniRef90\_B5JDM7 G Q S N S R N G R G Y V T T M T S L I F K G E S G H I F H V G D D T R I Y R L R G  
UniRef90\_E3J8M8 S A A E G R M A P S C T I A A A I I S P G P R T V T I G W V G D D S R Y Y L L G P  
UniRef90\_A9UYN7 N K V R L D N S M G T C T S A L V S P T H Y I F V N L G D D S R S L L C R G  
UniRef90\_A0A023F0E8 T A K G S S D S G T T A V C A L I R P E E S M L Y L A W L G D D S Q A L L V S R  
UniRef90\_UPI00036DF0B9 A P S P A E A P S C T Y V S A V T G P G T V T V G W V G D D S R A Y W D V L  
UniRef90\_S7Q3F7 P S Y T R E P S G S T A L A A L V T A D N K I Y A A N A G D D S R G V I S V K  
UniRef90\_Q5SN75 A D T G E Q T V I G S T A V V A V V G P R R I V V A N C G D D S R A V L S R G  
UniRef90\_M0XH11 D T A H N R D A D R S T A S T A I L V G D R L V V A N V G D D S R A V I C  
UniRef90\_UPI000273D6DE S E K K H R G A D R S E S T A V S V L L C P Q H T Y F I N C G D D S R G L L C R N  
UniRef90\_UPI00046383AE L H A Q Y D K D K G Y V C T L S A L V I R S T T A H L F H V G D D S R I Y R V A G  
UniRef90\_F3NA83 A Q E H T P H Q N A P A C T F E V G A V V T Q R G L L V I G W V G D D S R A Y W I P A  
UniRef90\_A0A024G352 V A G F A G S T A I T V L L E N E K H Q R V L Y T S N V G D D S R A V L C H R  
UniRef90\_L0PGH8 I R E E P R F D P S G C T A S V V L I T G D G R I F C A N A G D D S R S V L C V R  
UniRef90\_I0XP94 G S I G K P K M G T L V G C L L G R R K S W L F N V G D D S R I Y H F T K  
UniRef90\_R7AJR4 K N E K G D Y L R A G T T M A A V V V K G C F E W L S V G D D S R I Y L L R N  
UniRef90\_I3JWC1 A K R E R L R S G S T G V A V V L I Q D Q E L T V A W L G D D S Q A I L V R D  
UniRef90\_H2XNS7 A T K E D H L H C G S T A V V A T V T K S E L L N I A W V G D D S Q A V L I K N  
UniRef90\_UPI0003F89942 G K R E D H H L G T T L S V L I V D D Q Y L I C H V G D D T R I Y L E Q S  
UniRef90\_UPI0002C31CF6 L E R N G E E D E S G S T A T V M F V G N D M L F I S H V G D D S S V V Q S C S  
UniRef90\_I1C1C0 L A E D Q S F P S G C T A V T A L I T P D Q K S I F V A N A G D D S R A I I S S N  
UniRef90\_U1NI71 N E Q G D S N E R S G T T A I C A I V T P T H I F L A N A L G D D S R A V L S R R  
UniRef90\_UPI00042B646D Q K E D E T L R A G S A S V M L I N G E K L V T A N L G G Y R A V I C R D  
UniRef90\_A0A024VC58 I K E E N H S N Y S S G T A C V S V I F K N M L Y V A N G D D S R C I S K N  
UniRef90\_H2RX66 S D L R Q G L D R S G S T A V C V L L S P T H L Y F I N C G D D S R A V L S R D  
UniRef90\_W4GXB7 V C D E L Y A S G S T A T F C I L D G T A S G R L V V G H V G D D C R A L L C R K  
UniRef90\_K3Y978 T P N L G Q G G S T A V T A I L V N G R K L W A N V G D D S R A V L L K G  
UniRef90\_UPI0002B426BF V V S E A V I A T D M V G S T A V V V V L S G C Q I I A S N C G D D S R A V L C Q K  
UniRef90\_E6S9B3 V E G E Q E N P P S C T I A A A V I E D G A V V T G N V G D D S R V Y W L P D  
UniRef90\_H8DNQ9 Q K V S S E H S R M G T T M V S L F I D R D Y H L C W A H A G D D S R L Y L F R R  
UniRef90\_M4CDE2 R L D D H Q Y E G C T A T V L L V W K D N E E H L F C A N L G D D S A C V I N N D  
UniRef90\_F8ASE6 G D R L G G V A G T C S G L V L P Q D H A D Q T Y V V N V G D D S R T Y V W D A  
UniRef90\_UPI00036C6772 A R A V A A L A P S P A C T Y V S A V A S P G N R L I A N V G D D S R V Y W V A A  
UniRef90\_A8I8C0 F R A T G S L Q G S T A T T I L L K N R L I A A N V G D D S P A F V V K K  
UniRef90\_UPI0004560F85 D S W K H D P S G C T A V A D D P S A K A A R Q I I V A N A G D D S R C V L G V K  
UniRef90\_UPI00036F498F A H Q V I K M N P I A K T A E P M V L T P A G Q A V W A H V G D D A R V Y R F E G  
UniRef90\_R5BB75 G K E T P A L K G M G S T C T I L L I S N E S A I I A H V G D D S R V Y Q L R G  
UniRef90\_E0THG9 A R S P D G A M A T T F S A L V I K G C T V H L A Q V G D D S S I W R L R G  
UniRef90\_K1QR40 V N R V D T Q L I K A A K A N S D L S V G G F V S F N G V W R V A G V L A T S R  
UniRef90\_A9T437 L D F P Y E G C T A T V L L M W P D A T S G F V A Q C A N V G D D S H C I V S N G  
UniRef90\_A9V3N5 I R A T N S D L D S C A S T A V G V I V T P T H V I F G N C G D D S R A F I C R N  
UniRef90\_BOEIL0 K F N D G T A A N V V L I T P Q K Y F I A N V G D D S R S L V K K  
UniRef90\_T2QWN8 T V T A G R H D S I M G S T V V A L M V E G N R A Y L W R G  
UniRef90\_R7C977 P K E N G K G S G T T M V A V I A E D N K L Y W A S V G D D S R I Y I I R G  
UniRef90\_A2FIP4 I R K Q N F K D G T T L V A I L K K E D Q L L C F N L G D D S R A I I V K M  
UniRef90\_UPI0003715A5D G A A P D K Q P G T T L V A L Y V G P E R A W W A H C G D D S R L Y H F E G  
UniRef90\_E4XN41 A R R E Q N P I K S G S T C M A V V I E D G Y V M T W A W V G D D S R A I L C R N  
UniRef90\_F6HGQ0 S E A G P S E D S T L V A S E T T I I C Q T H I I V A N C G D D S R A V L C R G  
UniRef90\_A0E4A6 L W N S E I D T N L S G S T V S L I T K D I I Y S A N V G D D S R A I M C R F  
UniRef90\_T1EMF3 A K A I D D R S G T T V V C S F I T P T Q I I V I N C G D D S R G V L F Q N  
UniRef90\_M5X068 L E R N G E E D E S G S T A T V M F V E N D T L V I S H V G D D S C V V Q S C S  
UniRef90\_W2UFD9 S H E F V E T T K G Y L C T F S A L V I K S R T L H F H V G D D S R I Y L L R D  
UniRef90\_W9GQM7 G Q T D A A L E N A A C T F T A L I L L G R K A H V L H V G D D S R A Y R L R D  
UniRef90\_R9JHS5 I G A A G G K T A M G T T L T A L L L L E G R Y A L S H V G D D C R V Y V M G N  
UniRef90\_E5SF04 H G N L V G G V A G T A V A M L K N I P C S Q F A Y D G N V G D D S R A V I S A G  
UniRef90\_I1JU57 G P H S D F A G P T S G S T A C V A V I R N N Q L V V A N A G D D S R C V I S R K  
UniRef90\_G3T6M5 A S S Q K P A W K D G S T A T C V L A V D N T L Y I A N L G D D S R A L L C R Y  
UniRef90\_UPI00037B587C A A Q H S P H Q N A P A C T I V S V I A G L L T V G W I G D D S R A Y W V P D  
UniRef90\_BOTKA4 I Y N S N G G A T L S A F I Y D S H G Q F C A V N V G D D S R V Y A N F A  
UniRef90\_S5Y4F7 A R M A A G R A G T T A T L A V I E P A R I T L A W L G D D S P A Y L H L P  
UniRef90\_D5V5M7 S K Y H L D K D K G T V C T F S A L I K S N T A H I F H V G D D T R V Y K L K N  
UniRef90\_A0C9G7 S E F D T A L S G S T V T I A L I Q Q N Q L W T A N V G D D S R A I L C R N  
UniRef90\_UPI0004648E4B M G N E E R F G G F A A S V S M V L A D E D G Y L I T Y A H T G N T R I Y L M C P  
UniRef90\_M0ZRP5 V F T N C F L K G S T A V V A V I C S H I I V A N C G D D S R A V L Y R G  
UniRef90\_LOBW65 V S F E P I A P E T V G S T A V V A L V C S S H I I V A N C G D D S R A I L C R G

UniRef90\_A4VD11 D K A V R V S T D H K A T N D Q E I K R I K D M G G M I I R G R V S G S L A V 130 140 150 160  
UniRef90\_W9SK08 G I A H A L T K H H R L T R Q D E R L R I E N S G G F V Q C C N G V W R V Q G T  
UniRef90\_UPI0001E2DF0B P A T V K L L T I D D S W L E E T V S A G K M S Y K E A L E N K F V H C I T W Q S G  
UniRef90\_UPI0003B6B34A D A T V Q L S V D D S L A Q A Q I E L G Y S R E Q Q A E S S R Q A H A I T R W I G  
UniRef90\_S9X411 G K P I L L T T K H N L S S N P D E L E R V R G V G G R I F Q N R V G H P K F N  
UniRef90\_T0N7V1 K L R L L S E V H R E P F T G Y L T S C I  
UniRef90\_U5EXW4 S K L E I L S N D H K P N N D E L K R I C A G G W V E F N R V N G N L A L S R  
UniRef90\_NODXH7 G G V Q L T V D D S M A Q M L M A G G T A R A E A E A P Q A H A I T K W L G  
UniRef90\_A6GMT2 A V L C S K T R D H S V L Q W M I D H Q Q S D G Q A S R N A L Y T A L G E Q N E  
UniRef90\_G3W3N1 G R A L V L M E R P H S P E R Q D E K E R F V S Y V D C W R V N G T L A V S R A I  
UniRef90\_O66843 G R L Y R L T E D Q V K I K G N K K V V K V L  
UniRef90\_A0CD97 W K A I Q I T R D H K P N V E D E K Q R V L Q A G G R V E S Q K D Y Y G N S V G  
UniRef90\_R5BHP4 G M L R Q L T L D Q T L L E R D M V P L P A G K A L Y N C I G A  
UniRef90\_A4HNR1 G K A V P L S V D H K C H V E N G R V N M A L A V S R A L G D V D F K C C T E K  
UniRef90\_B5DP50 G K V R A L S W D H K P Q N E E E S R I S R A F G D C M Y K R N H M P P E Q  
UniRef90\_UPI000258E0CA G R A V P L S R D H K P T K D E R E R I E A A G W D F M F K R N E R K S A Q  
UniRef90\_UPI0002FA5CD6 S N V T Q L S T D D T L A G Q L N R K I E D S P M N G K L L Q F  
UniRef90\_W2NV31 G Q A K D L C I A H S T P D L S S E R D R I L K A K G Q I S K G R I Y G M L G V S  
UniRef90\_D2EXT4 E R Y I F H T R D H S L I N D L Y D I G E I T L E E M K T S K G R K N V I T R A M  
UniRef90\_DOA5L0 G K A R A M T E D H K P N N R R R I E E C G G R V E S N R V D G S L A V S R A F  
UniRef90\_UPI0003DEB6B9 G K A I E M S R D H K C N K E K K R I E A S G G Y V Y D G Y L N G Q L N V A R A  
UniRef90\_L8BGU7 G W L Y H V T T D H S L V Q K M K D A G H Q T D I N S N L L Y R A L G M A S D  
UniRef90\_R7HPF6 S G I V Y R T D D H S L V N A L V R A G V T T E K E A E T H P D R N V I T R S V  
UniRef90\_H2Z7Z9 G T V E F A T L D H K P C N P L E R E R I E A G G D Y E Y K N V I E D K S Q T E Q  
UniRef90\_K7M9R7 G V A E Q M T I D H S P N T E R G I E N N M P G D V A R V N G Q L A V S R A F  
UniRef90\_R5NQ20 N K I T L H T L D H S V P Q M L V N I G E T E D K D I R N H P D R S R S V M G I  
UniRef90\_S4RKU1 C P V E I M T P H K P E R E D E K K R C V V W F G A W R V N G T L S V S R A I  
UniRef90\_C3XWL8 G K V Q Q L S F D H K P S N E E T K R I A A G G W V E F N R V N G N L A L S R  
UniRef90\_B5JDM7 D S F E Q L T R D H S F S Y G K G G T G L A R A M  
UniRef90\_E3J8M8 R W S E R L S A D D T W A A E A A R A G L I P A S E A E T H R R A H T L T R W L  
UniRef90\_A9UYN7 G K L A F Q T R D H K P L I P Q E R T I R N A G D F D Y K R N P Q L G A L E Q  
UniRef90\_A0A023F0E8 G S A Y Q L V K P H R P M K R I I Q M G G S V L H V I G T W R V G G N L A V S R A  
UniRef90\_UPI00036DF0B9 G P S R Q L T A D D S W A A I M V A R G A L T E A E A E A P N A H V I T G W L  
UniRef90\_S7Q3F7 G E A K Q L S Y D H K P A N Q T E K D R I T A A G G Y I E Y G D F K K N Y K L S  
UniRef90\_Q5SN75 G V A V P L S S D H K P D R P D E M E R V E A A G G R V I N W N G Y R I D Y Y L  
UniRef90\_M0XH11 G D A I A V S R D H T D E R Q R I E D A G G F V M W A G T W R V G G V L A V S R  
UniRef90\_UPI000273D6DE R K V H F V T N X T N P L E K E X I Q N A G G S V M I Q H V K G S L A V S I A Q  
UniRef90\_UPI00046383AE N S L E Q L T N D H R V V V S S Q Q S Y L G R A L  
UniRef90\_F3NA83 D P P V R L T E D D S W A A Q M V A A G L M S E A E A Y A D E R A H A I T G W L  
UniRef90\_A0A024G352 G N A C R L S V D H A I Q P E E V D R I K C G G F V M H D R V L G V L A V S R  
UniRef90\_L0PGH8 G E A K P L S F D H K P Q N E L E K A R I C A A G G F V D F G R V N G N P P E Q  
UniRef90\_I0XP94 N G L S K V T V D H N I G E E L G S S Y G R N L L T S C I G G G  
UniRef90\_R7AJR4 G R L H Q I S V D H N Y K E I L N E D R Y H G K I T E E F Y Q R E V H G S K A E  
UniRef90\_I3JWC1 G H V V R L M D P H K P E R E D E K Q R I E D L G G C I T F M G C W R Y A V S R  
UniRef90\_H2XNS7 G K P V E L T T P H K P E R P D E K L R I E E L G G C V V W F G T W R V N G T V M  
UniRef90\_UPI0003F89942 K R F V Q L T K D H T W A R M Q V E N G A L S E R E A E K D D K S H L L T Q C M  
UniRef90\_UPI0002C31CF6 G K A E V L T S P H S N K V C L Q E I K R I R E A G G W I V N G R I C G D I A R  
UniRef90\_I1C1C0 G K S K P L S F D H K P S D P K E S E R I N N A G G F V E F N R F K Q N V T L P  
UniRef90\_U1N171 D Q V A F G T E D H K P F V P K E R D R I V N A G G S V M I Q R V N G N V T Q Q  
UniRef90\_UPI00042B646D G V A H Q L S S K R H S G A R R H W T R R L F P V R M L V C D S T N A A A I R H  
UniRef90\_A0A024VC58 G R A V L T V D H R A S I N K K E Q D R L K S G G L L D D E G Y L G G C L G  
UniRef90\_H2RX66 S Q V G F S T Q D H K P C N P R E K E R I Q K A G D Y D Y K C V D G K G P T E Q  
UniRef90\_W4GXB7 G K C I P L T S D H R C S S P S E H D K V V G S G G S I F N N R V N G V L A I T  
UniRef90\_K3Y978 G E P I Q M S I D H D P N V E E N R G G F V S N M P G D V P R V C G Q L A V S R  
UniRef90\_UPI0002B426BF N K A I P L T V D Q D R Q D E L M R I E R D G S G K V I N O W M G A R V L G V L A M  
UniRef90\_E6S9B3 R P P R Q L G R D D S Y A H E Q M A G V P R D A A E N G P H A H S I T R W L G T  
UniRef90\_H8NDQ9 G Y L Y L V T T D H S L V Q Q M K D A G H R T E G I N S N L L Y F A L L G M  
UniRef90\_M4CDE2 G R C V Q M T E D H S L R D K E T R I F G I N L A R M L G D K F P K Q Q D A R F  
UniRef90\_F8ASE6 A S L T R I T R D H S Q R Q E A I D S G Q M L P E E A E A T I P R N I T T Q C L  
UniRef90\_UPI00036C6772 S E P R Q L T D D S W A A L M V A R G A L S E A E A E A P N A H V I T A W L  
UniRef90\_A8I8C0 S G E V Y S V I Q E H K I E G E A A Y M G T P D E G T R W L N M S R A F G D F V  
UniRef90\_UPI0004560F85 G E A K A L S H D H K P T D E R E H S R I L S A G G Y V E M I G D F E Y K Q C S  
UniRef90\_UPI00036F498F E T C A M R S N D G A Y I E H L V Q Q D K L P L E A A K R H R S S K L L N N A N  
UniRef90\_R5BB75 K S K I F R T F D H S M V F D L V K Q K V I T E E A Q R L S A Q S N V I T R A L  
UniRef90\_E0THG9 E N W Q R L T R E H S L P L S L D E A V L T A A L G A  
UniRef90\_K1QR40 A L G D F P L K D T K M V I  
UniRef90\_A9T437 D Q Q L L M T E D H R V I C K E E R L R G M N I A R A L G D K F L K E E E S A F  
UniRef90\_A9V3N5 G N V V F A T D D H K P T N E V C G N L A V S R S L G D Y F Y K D M P D I L D A T  
UniRef90\_B0EIL0 D S I I L N E D H T I N N E I Q R I R K L N G F I D H S K V N G E I V L T R T  
UniRef90\_T2QWN8 Q R L Y Q L S K D H S I Q Q Q L I D E E K M S V E Q A S A H P S A H A L T R A V  
UniRef90\_R7C977 S Q M R Q V T R D H N Y W L R L Q E M V I Q M T K E E A M A K R Q K E A L I S F L  
UniRef90\_A2FIP4 D G S I F P L T Y D H K P D G I E E F D R I R E E K G G F V T D K R T S G I L S M  
UniRef90\_UPI0003715A5D E R L M T R T R D H T R V Q A L V D A G E I R E E D M A T H P E Q N Q L L Q A L  
UniRef90\_E4XN41 G V A K R L T F D H S L I E M K N N E Y R V H V P D H G S I N M T R P C S F E E L  
UniRef90\_F6HGQ0 K V P V P L S I D H K P S R E T I Q W D G L R V C G V L A M S R S I G D R Y L K  
UniRef90\_A0E4A6 W K V V P L S R D H K P F R V W L S Y I Q A P G L A M S R S I G D K V G A Q A  
UniRef90\_T1EMF3 G N V V L A T M D H K P I L P K E R E R I V S A G G Y V M I Q G D F D Y K A A Q  
UniRef90\_M5X068 G K A E L T H P H S N K V S L Q E I K R I R E A G G W I V N G R I C G D I A V  
UniRef90\_W2UFD9 G E M L Q L T T D H R T W I H V A T L D E N R T C L S R A M  
UniRef90\_W9GQM7 D R L D L L T E D H T L R H P D L R H V L F R A I  
UniRef90\_R9JHS5 G M E Q L T T D Q T Y V A R E V A L G H M T P E Q A L N D A R R N V L Q C L  
UniRef90\_E5SF04 G V A E P L S F D H K P V N E W V E F N R V N G N L A M S R A L G D F I Y K A C  
UniRef90\_I1JU57 G Q L R K I H E F M Y L D E Y K I T N E Q I S T C C D M E F K Q N K F L P A E K  
UniRef90\_G3T6M5 N E E S Q K H A A L S L S K E H N P T Q Y E E R M R I Q K A G G N V R D S R S I  
UniRef90\_UPI00037B587C D P S A R L T E D D S W A A Q M V A A G L M S E A D A Y A D E R A H A I T G W L  
UniRef90\_B0TKA4 H G I K Q Y S K D D T F A G Q N A D A A G V Y L S K G L L Q Y V  
UniRef90\_S5Y4F7 E R A D E A A R I A A G G S L R R E E R M M D S G E M V P W G P Q R V Y G A Q  
UniRef90\_D5V5M7 N N L E Q L T T D H R T W I S N E K S Y L S R A L  
UniRef90\_A0C9G7 W R A I P L T R D H S V I G P E R V W L S Y V D A P G L A M T R S M G D K I G A Q  
UniRef90\_UPI0004648E4B M R L T Q L T K D Q T G A R K L L D E G K L D E E T Y Y A A P E R L K V Y G G T  
UniRef90\_M0ZRP5 K E A V A L S I D H K P S R E V I Q W N G H R V F G V L A M S R S I G D R Y L K  
UniRef90\_L0BW65 K Q P V P L S V D H K P N R E V I Q W N G H R V F G V L A M S R S I G D R Y L K

UniRef90\_A4VD11 T R A L N V P D V Q D F M T S K T Q Y L I L A S D G G L W D V V D D Q K A V I D L 170 200  
UniRef90\_W9SK08 L A V S R A I G D Q H L K E W S D C E F L L I L A S D G G L W D K V D D Q D E A V V D V  
UniRef90\_UPI0001E2DF0B T S N Q D V D H L R I Q T E I E K G G L L L L C S D D G L W N Y C F E S A D D P E H V N E A  
UniRef90\_UPI0003B6B34A P D A P E L N P R M R H F R A E A G G L L L V V C S D D G L W N Y A S A P E A V A A  
UniRef90\_S9X411 P S V I S L A V T R A T G D T N E D E Y V V I G C D D G L W D V M T A Y E D I V E R L  
UniRef90\_T0N7V1 G V D N I P V L H A G S I K L H K W F L L L S S D D G L T D M V S D E Q E L I S N I  
UniRef90\_U5EXW4 A L G D F V F K R N T D K I T D E W E F L V L A C C D D G L W D V L T N Q E V I S I D F  
UniRef90\_N0DXH7 R D S P D I V P V V G S L V V D G P G W A M A C C S D G L W N Y A S E P S A I D A  
UniRef90\_A6GMT2 H L K H M D V T E P C C L L A G D W F L M C C H S G L W E H L N D D E L A L L  
UniRef90\_G3W3N1 G K E P L G G V D T Q G P R E G V D A P R F C C H S G L L E G P P D P F A S L W  
UniRef90\_O66843 G L E W N P E V Y T F S S H Y E E G D L F L L A S D G G F V E V L S E G E I E E A  
UniRef90\_A0CD97 P E R V W L S Y I D A F T L T Q Y D Q C I I I A S D G V W E F L S N E D V M N I  
UniRef90\_R5BHP4 G C D T E P L V Q D T G R V M E S D R I L I C S D D G L T D M L E N D E A V E R L  
UniRef90\_A4HNR1 S W T D Q A V T A C P D I T V T P D E F I V I G C D D G I W D V L S N E E C C N L  
UniRef90\_B5DP50 Q L V T A Y P D V E V A D L T E D W E F V V L A C C D D G I W D V M T S N Q S E V V C D F  
UniRef90\_UPI000258E0CA E Q I V T A F P E V Q E F K I T D W F V V L A C C D D G I W D V M T S S E V V D F  
UniRef90\_UPI0002FA5CD6 G I G E E L E P H Q L E V P D A S I S K L V M T S D G V H Y I N E D T F S T M L  
UniRef90\_W2NV31 R A F G D L D F K T G R G E F K N R F F M V L G C S D G L Y D V M A P Q Q D L V N F  
UniRef90\_D2EXT4 Q P R R P K A D L K H I T D I R P G D Y F F M C C S D G M L E E T D P F A S L L  
UniRef90\_D0A5L0 G D R D Y P D V T H V D V T W S K D F A V L C C S D G V F E Q F S N E E V V D F  
UniRef90\_UPI0003DEB6B9 L G D W H M E G M M T K L T T E D E F L I I G C D D G L W D V F R S E Q N A V D F  
UniRef90\_L8BGU7 G S E A S Y S D V V P V E D G D A F L L C T D G F W H G V F R G E E A V M K S S  
UniRef90\_R7HPF6 C V P D A E Q E R S A I T D V R P G D Y V F M C C S D G V L K N L S D D M L V I E T  
UniRef90\_H2Z7Z9 L V S P E P D S L T C I E R S F K E D E F I L A C C D G I F D V S N N E E L T S Y  
UniRef90\_K7M9R7 G D K N L K S H L R S D P S D I R Y V D L L L A S D D G L W K V M A N Q E A V D I  
UniRef90\_R5NQ20 E W E R P K Y E I A E P V E D E K R M A F L M A T D G F W E L T N E E E M I K C  
UniRef90\_S4RKU1 G D A D Y K P Y L C S V R L D G T E D Y L L L A C C D G F F D T V R P D E A V V I  
UniRef90\_C3XWL8 A L G D F V F K Q N D K K A E E H E F L V L A C C D D G I W D V M S N Q E V V D I  
UniRef90\_B5JDM7 G M D T G L D I E T S S F P L E L G D R Y L L T T D G V H E F V A Q Q T L K A V  
UniRef90\_E3J8M8 G G D E D V A P H T A V I P I E A P A T I L V C C D D G L W N Y A S P D V M A A L  
UniRef90\_A9UYN7 K V V A D P D V T L V E R D L E H D D F L L L C C C D D G L F D V M S N A T A I K F  
UniRef90\_A0A023F0E8 I G D K M Y K P Y I A S E P D G K E D Y L I L A S D D G L W D F L S E K M V V H A  
UniRef90\_UPI00036DF0B9 G A D E Q L D P H V R T F A V D R P G T F V L V C C D D G L W N Y L P A A G V L A A  
UniRef90\_S7Q3F7 P E K Q I T S D V P E I E H Q I D E F I V L A C C D D G I W D L C L S A Q D V V D I  
UniRef90\_Q5SN75 K P Y V I A E P E V T V M D R T D K D F L I L A S D D G L W D V V S N D V A C K I  
UniRef90\_M0XH11 A F G D K L L K Q Y V V A D P E I K E F L L L A S D D G L W D V V T S N E A V A M  
UniRef90\_UPI000273D6DE L V S P E P E V R Q V I E R S E E D D Q Q L L A C C D D G I W D V I G N K G L C D F  
UniRef90\_UPI00046383AE G V N P Q L E I D Y Q N L P L E R G D T F L L V I T D G V Y E H V P A R Q L A R T  
UniRef90\_F3NA83 G A D A Y L E P H T A A F K P S D R P G V V V V C T D D G L W N Y A E S A E L L P P  
UniRef90\_A0A024G352 S F G D R A F K N Y I A Q P S D F P F L V I G C C D D G L W N E F E D O E I I D F  
UniRef90\_L0PGH8 Q L V T A Y P D V T Q H I L L D K D D E F L V L A C C D D G I W D C Q T S Q A V V E F  
UniRef90\_I0XP94 T K S I E V D T F D Y S G K L S P G S D F I L I C C D D G L T E V L N D Q I E K I L  
UniRef90\_R7AJR4 A L T S Y I G M N G L K R I G Q E S D Q I L I C S D D G L Y K S L S F E Q I E I A M  
UniRef90\_I3JWC1 A I G D F D Q K P F V S G D A D C E D Y V L L A C C D G F F D A I K P H L V M D A  
UniRef90\_H2XNS7 D H K P Y I S G E A D T V T E G D E E Y L C L C D D G F W D V F N G T N L I N L  
UniRef90\_UPI0003F89942 G V K G E I D P F V S M D T C S E E E H F I L C C T D D G L Y S L F T K E D L H K L  
UniRef90\_UPI0002C31CF6 W T E K F V S R V Q F S G D G A D S E F L V L A S D D G L W D Y I N S S D A V S F  
UniRef90\_I1C1C0 P E E Q A V T C H P D V I E H T I D E F F L L A C C D D G I W D C M T N Q Q V V N Y  
UniRef90\_U1NI71 L V S P E P D V Y T I P R N P E V D E F L L L A C C D D G I Y D V M D N A E L C D F  
UniRef90\_UPI00042B646D G K S S E L L V G A E K V D A E T E F I I I A S N G I W E V M K N Q E A V N L  
UniRef90\_A0A024VC58 V C R G F G S F H K K T K E K D D E F L I I C C D D G I F D V T S N E A V S L  
UniRef90\_H2RX66 L V S P E P E V C V L E R V A E G D E F V V L A C C D D G I W D V M S N E E L C D F  
UniRef90\_W4GXB7 R T V G D L E F K G R E V K Q P D D A F V L F A C C D G V W E V M T N D V A V A F  
UniRef90\_K3Y978 A F G D R N P D I K V E D D H T A E L L V L A S D D G L W K V M N N Q E V V D L  
UniRef90\_UPI0002B426BF P W I P P E I L S T T R S D E D E C L L V L A S D D G L W D V M T N E E V G Q V  
UniRef90\_E6S9B3 D A P D D L T P H L I T L L A A D D T T A G W L C S D G L W N Y C S A A A D M R V  
UniRef90\_H8DNQ9 G D E Q R D A S Y S D V I E I E D G D A F L L C T D G F W H G V S L E J E Q M Q S  
UniRef90\_M4CDE2 S A E P Y I S E P L R I D Q S N K D A F A V L A S D D G L W D V V S P K K A V Q L  
UniRef90\_F8ASE6 G D P D G I M P D V Y V A D L T G R F I I C S D G L H G E V P D E Q I A A I  
UniRef90\_UPI00036C6772 G A D D E V E P H V R T E S V D R P G K T V V V C S D D G L W N Y L P D A A A L R A  
UniRef90\_A8I8C0 Y P A I S C E P Y V C S L D V S D G K F L V M G S D G L T E K W P V A E A A Q Y  
UniRef90\_UPI0004560F85 F L G P E H Q I V T A D P E I T H D F L V L A C C D D G I W D C M S N Q T V V D F  
UniRef90\_UPI00036F498F N F K A P F V T A G Y H D G L Q A G D A F L L C S D D G L W Q L F K S E T E L A A A  
UniRef90\_R5BB75 G I K P D I E V D V I E L P F D T G D R F L L T T D G I H G A I F K S E S E L I E M  
UniRef90\_E0THG9 E A H L S A S F T K D E A Q A G D L F V L L S D G V T A A V R A S E L Q R L  
UniRef90\_K1QR40 A D P D L T F N L K F L Q P Y F M I L A S D D G L W D V F S N Q E A V D F  
UniRef90\_A9T437 S A E P F S N V F R L S G D G L G L V V M A S D D G L W D V L S P R R A L Q L  
UniRef90\_A9V3N5 A Q K I S P E A D M T V I E R N P E D Q F M L A C C D D G I Y D V L T N A N A A F  
UniRef90\_B0EIL0 L G D L Q C S S V C T Y I P Q I T S Y C I V L C C D D G V Y D V L S N E L V G E  
UniRef90\_T2QWN8 G A A E Q L T L D V L E L E V Y P G D A F L L C S D D G L Y Q G L G S D A L G S A  
UniRef90\_R7C977 G I G N V M D V N T Q P F E M Q Y G D V V M L C S D D G I T K T L S D E Q I H G I  
UniRef90\_A2FIP4 S R S L G D F S V R G I S Q P N D F R I V I A C C D D G L Y D V M T N E E I L V V  
UniRef90\_UPI0003715A5D G V V D P L R V D H G D A P L T S D S R F L L C S D D G Y W E Q L G P E E S A R W  
UniRef90\_E4XN41 P I G D P D Y A R I T T V N H N C D A F L V L L S D G V S G P L S V S E I I Q I  
UniRef90\_F6HGQ0 P W I P P E P E V M Y I P R E K E D E C L I L A S D D G L W D V M T N Q E V C D T  
UniRef90\_A0E4A6 G V T A E P E I K Q Y T I T G Q D H F I V V A S D D G V W E Y L S N E E V M S I  
UniRef90\_T1EMF3 G R S P W E Q M V S S E P D N P Y D Q F L I L A C C D D G I W D V I S N R D S C D L  
UniRef90\_M5X068 S R A F G D M R F Q V G T F G K D S E F V L L A S D D G L W D Y I N S S D A V A F  
UniRef90\_W2UFD9 G M D S L L N L D Y G H R E L I P G D R L L L T S D D G V H D F I A A P E L Q Q L  
UniRef90\_W9GQM7 G I E R T V R L D H A V I E A L K P H D R F L L C S D D G V H G G L G D R R L R E L  
UniRef90\_R9JHS5 G T V N C V K P D F L M G D F Y A G D S F L L C S D D G F R H L Q T E A D I Y Q Y  
UniRef90\_E5SF04 H E K S P K E Q I V T A Y P D D A D E F I V L A C C D D G V W D V M T N Q E V V D F  
UniRef90\_I1JU57 Q I V T A N P D I N T V E L C D E D E F V V L A C C D D G I W D C M S S Q Q L V D F  
UniRef90\_G3T6M5 G D G Q Y K R C G V T S V P D L R C F I L L A C C D D G L F K V Y F P E E A V N F  
UniRef90\_UPI00037B587C G A D A H L P I D C H T A S F K P D P G V V V C C T D D G L W N Y A E A A E L A A  
UniRef90\_B0TKA4 G V G P E L K A Q I V S F P Y R N I K R I L L T S D G A H Y I E A S T F K Q I L  
UniRef90\_S5Y4F7 G E G A Q V P E I T Q L P R P E G R A R L L A S D D G V Y E V L N P A A V A D L  
UniRef90\_D5V5M7 G I D S Q L T I D Y E T T E I E K D D F L L M T D G V Y E F I D V E A F I N K S  
UniRef90\_A0C9G7 A G V S S V P E V F Q F T L Q H N D K F L I I A S D D G V W E Y L S N E D V M N T  
UniRef90\_UPI0004648E4B G V A L I E P E I E T G W L T L E R D D I L L T T D G I H Y A L R P E A M A E L  
UniRef90\_M0ZRP5 P W I P P E P E V M F V P R A R E D E C L I L A S D D G L W D V M T N E E A C E V  
UniRef90\_L0BW65 P W I P P E P E V M I V P A R A R D E F L I L A S D D G L W D V M T N E E A C E V



UniRef90\_A4VD11 C K N T D T G E M A K K L V K Y A V D N G S R D N T S V M I L K F N  
UniRef90\_W9SK08 V Q R E D S S K A C K T L V D M S S S R G G T M D D I T V M  
UniRef90\_UPI0001E2DF0B Y N L E D L L R L C N S F V D K A K L L G S N D D I T V A I  
UniRef90\_UPI0003B6B34A G A S T D L R D V A R T L T E T A C Q Q G G R N D D N I T V A L L A H V  
UniRef90\_S9X411 K S N Q N A Q S V A E E L V R A A L N N G S R D N D N V T A M L V R L N  
UniRef90\_T0N7V1 L R Q K T T D Q L T S D L K E A A F N N G G R D N D N T I L L C K I  
UniRef90\_U5EXW4 V R G L Y T E E I C E N L M T R C L S G L G G D N M T V I I V C F  
UniRef90\_N0DXH7 A G T T D P G A L A L A L V E F A K A A G G H D N I T V A L A R V V G  
UniRef90\_A6GMT2 G T S L W C P A E D C N A H I Q L A F N R G R A D N L S S I L I F V G  
UniRef90\_G3W3N1 A S A T A P P R I A E E L V A A A R E R G S R D N I T V L V V  
UniRef90\_O66843 L S C C D L E K G A E R L V A N M A R Q K G G R K E M V F L I V V K  
UniRef90\_A0CD97 V E K D N L D L A A D R L M A E S L N A W G R D D I T C I V V Y D L V  
UniRef90\_R5BHP4 L Q S G S P E E S C A E L V D A A K R N G G A D N V T V I V A D V  
UniRef90\_A4HNR1 V K T L D I S L V C E Q V L D R C L A K A G T D N M T I I V V E F  
UniRef90\_B5DP50 V R G M T P E E I C C E E L L N S C L A T D G G D N M T A I L V C F  
UniRef90\_UPI000258E0CA V R A M D P E I C E E E L I K H C L A G T G C D N M T V V L V C F  
UniRef90\_UPI0002FA5CD6 V Q K I E S S D L S N R L I Q V A K W C G G H D N A T N L V I  
UniRef90\_W2NV31 V R H G D V Q H A T E E L V S H A I A L G S T D N V S A L I V C F N  
UniRef90\_D2EXT4 L S D P D T D E K I Q L L T K V S E N N R D N H S A F L I H I  
UniRef90\_D0A5L0 L K E D D L G L I A G R V C E E A V N R G S R D N V S C V I V Q F  
UniRef90\_UPI0003DEB6B9 A R H N D P A M C S K D L V D E A L K R K S G D N L A A V V V C F  
UniRef90\_L8BGU7 L Q M V N T P Q E W L T L M N Q Y L Q R N S Q D N Y S A V A V W M G  
UniRef90\_R7HPP6 L G K P D A E K C A R I A A M S V D S D D N N T A Y L V S V  
UniRef90\_H2Z7Z9 V L S D N L V T V C N D V V D M S L N K G S R D D N M T L V L L A F  
UniRef90\_K7M9R7 A R R K D P Q K A A K Q L L V E S L N R E S K D D I S C I V V H F  
UniRef90\_R5NQ20 L K K H D V H E W V N S M E R I V V K N G K N D N Y S A I G V W I  
UniRef90\_S4RKU1 A A A H R P A G L A Q R L V T A A R D A G S G D N I T V I V L  
UniRef90\_C3XWL8 A Q K M E P P E I C E E L I N C L A G L G C D N M T V I V T L  
UniRef90\_B5JDM7 A G K A K L D A A C S E L C Q I A L G M K S N D N C S A I L V A V  
UniRef90\_E3J8M8 V N Q L P P Q D A T A R H L I E F A I D Q G G H D N I T V I T A R V  
UniRef90\_A9UYN7 U N T D N P K A V C Q A L L K R C L E L G S R D N M S A C L V V F N  
UniRef90\_A0A023F0E8 V D S Y L A E N V S K H L V Q L A K K R L S R D N I S C I T I V I  
UniRef90\_UPI00036DF0B9 V R G D A A A P L D A A V R H A L E A G G R D N V T V L L V A I V  
UniRef90\_S7Q3F7 V R G K E L P E I V E F L C D H C L A P N G C D N M T V L L V A I  
UniRef90\_Q5SN75 A R N S T A A D A A A L L V E L A I S R G S K D N I T S V V V V E I  
UniRef90\_M0XH11 V K P L D S Q Q A A K K L V E A T R R K S A D N I T C I V V R F  
UniRef90\_UPI000273D6DE V R S D D P E K V C N E I V D T C L Y K G S Q D N V I S V L L I C F  
UniRef90\_UPI00046383AE I R D G A A D L D A K S I V E Q A Y E N G S P D N L T A Q I L R I  
UniRef90\_F3NA83 D A A A R P L H A A K Q V L V G H A L D G G G H D N V  
UniRef90\_A0A024G352 V S H S K R E N A A K L L T G L V L E K N G D D N V T A V V I Y I G  
UniRef90\_L0PGH8 V R K Q E L H K I C E N L M D N C L A S S G C D N M T V I I V G F  
UniRef90\_I0XP94 R E H D D L R E T C R L S E E A N L R L T R D N H T L V I I R I  
UniRef90\_R7AJR4 M C E N D M T V S S R R L I R M A L E Q K K Q D N T T A I L I Q  
UniRef90\_I3JWC1 L K S E D D A R V A Q Q L V G N A K T A G S S D N I T V M V V  
UniRef90\_H2XNS7 V T G G E R T G I A R H C I K A K D K G S T D N I T V V I V  
UniRef90\_UPI0003F89942 E R E H S L Q K I A E H F C N M A R D A N Y H D D V S V L I L  
UniRef90\_UPI0002C31CF6 V R H G D V Q L A C D A L A Q A A L D N K S Q D N L S I V I A D L G  
UniRef90\_I1C1C0 I R H Q R L S E I I C E Q L I M D H C N D G G G C D N M S V I V A I  
UniRef90\_U1NI71 V Q S D D L S N V A N Q I L D A C L S K G S R D N M T V I L V C F  
UniRef90\_UPI00042B646D I R H G D P Q E A A E W L T K E A L S R M S K N S I S C V V I R F  
UniRef90\_A0A024VC58 I Q S R D A K T A A E A L C Q L C A Y K K K S L D N L S V L V V  
UniRef90\_H2RX66 V R S D D L E K V C N S V V D T C L H K  
UniRef90\_W4GXB7 V Q H G S L H V A A D E L A H E A I Q R L S S D N V T V V L V Q L N  
UniRef90\_K3Y978 A R Y K D P Y A A A R Q L T A A A L K R N S S D D I S C I V V R F  
UniRef90\_UPI0002B426BF A C H P P A Q I V A N N L T E I A Y G R N S S D N I S V I V I D L G  
UniRef90\_E6S9B3 L V H P T P T A V A Q A L V D F A N E Q G G R D N I T V A L A R L G  
UniRef90\_H8DNQ9 L H M V N T P E E W L T L M Q Q I T D A G Q Q D N F S A L A V W I G  
UniRef90\_M4CDE2 V K E S S A E K I A N G L V L N E A R V M R T K D N T S I I Y L D F  
UniRef90\_F8ASE6 A A H S S P Q E A V D A L V A A A L D A G G T D N I T V I V A D  
UniRef90\_UPI00036C6772 A A G A T P L D A A R A L V G H A L E A G G R D N I T V T V L D P V  
UniRef90\_A8I8C0 V Q Q L S L P A I C R C L V E R A L A R G S T D N I T C C V V D L L  
UniRef90\_UPI0004560F85 V R G K E L Q T I C E E M M E F C L E S V G C D N M T V C I A L  
UniRef90\_UPI00036F498F V A R N T P R Q A A E R L T S K A G E R G K G H D N C S M A I I K  
UniRef90\_R5BB75 A S K H A L E V T D E I A T T I N E G G G H D N L T L A I I E  
UniRef90\_E0THG9 L T Y P D L E T L S R S L C E R A I E N G S E D N V T A L C V R V  
UniRef90\_K1QR40 L K D H E P L F G A K S L V L D Q A Y Y R G S S D N T S V M V V N F S  
UniRef90\_A9T437 A S H S S A Q G I A K L L V D Q A R E K R T K D N T S V I I L D F A  
UniRef90\_A9V3N5 I T N Q K A E E V V I E R L L D Y C L H L D S K D N M S A I L V  
UniRef90\_B0EIL0 C R K K S N E S A S S L I R D I A Y N N G C K D N T S C I V C K L  
UniRef90\_T2QWN8 L S L T A P Q V A L E R L F D G A L R G S A R D N I T A V V I R  
UniRef90\_R7C977 I V S D S M E D K A K T L V N A A I T G N S Q D N T S V A I L Q  
UniRef90\_A2FIP4 A S E E N V H R C S A T L R N L A F T R M S Q D N I S V I V I D V  
UniRef90\_UPI0003715A5D M S H P D L  
UniRef90\_E4XN41 L S R D Q A L E S A R H L V E T A L H M G S T D N C T A I V V P L G  
UniRef90\_F6HGQ0 A R D P A A Q A A E E C L S K L E A L Q K G S K D D I T V V V V D L G  
UniRef90\_A0E4A6 L E K D N P E Q A A E R I I L E A T Q A W A R D D I T C I V I  
UniRef90\_T1EMF3 V R S K D L K T V T C N L I D T C F A K G S K D N M S A I V V C F  
UniRef90\_M5X068 V R H G D V Q L A C D A L A Q A A L D Q R S Q D N I S L V I A D L G  
UniRef90\_W2UFD9 L S T S S A S D I L S K A I H S A A M A T G S S D N T S A L V A L V N  
UniRef90\_W9GQM7 L S R R L A E E T A R E I A A A A L D A G S A D N V T A L V I D V  
UniRef90\_R9JHS5 C H T T L E Q Q V A K R L L D S I K E L G E R D N I T A V L V K V  
UniRef90\_E5SF04 C R E R A P E K I C E E L L Q C L A G L G C D N M T V I L V C L  
UniRef90\_I1JU57 V R E Q K L S A V C E S V L D R C L A G E G C D N M T M I V V Q F  
UniRef90\_G3T6M5 I R E G K P E A A C N R L A S K A V D Q R G S A D N V T V M V V R I G  
UniRef90\_UPI00037B587C A V P P D P L H A A Q R L V G H A L D G G G H D N V T V A V L P F  
UniRef90\_B0TKA4 N Q K L S A C E L C S R L I Q V I S K W C G G Y D N T S I L I V  
UniRef90\_S5Y4F7 V W T A D L Q G A A D Q I I A S A L R A G A P D N A S L V L I K L  
UniRef90\_D5V5M7 L K N D D Y N E A A K V I V Q K A L K N H S D D N T I Q I I K L I  
UniRef90\_A0C9G7 V E K G E L D Q A G E K L M E A I H S W A R D D I T F I I V Q L N  
UniRef90\_UPI0004648E4B I N A S N C Q E G I E L T K A A I S E Q Y P D N A S G I A I  
UniRef90\_M0ZRP5 A R D P A A Q A A E Y L S S M A L Q K G S K D N I S V I V V D L  
UniRef90\_L0BW65 A R D P A A Q E A A Y L S T L A L Q K G S R D N I S V V L V D L

1

```

UniRef90_Q9VBF9      1  L R Y C V I S S M Q G W R L E M E D S H F A T W S Y F A V F D G H A G
UniRef90_Q9M9C6      V A A V S D R G L R H H R N E D A F A V S A T V F A V F D G H N G
UniRef90_I2MYD5      M E V Y M H T V S G S H K A Q N E D R I L A G P Q V Y A D M D F A G G
UniRef90_C9KKX7      A A G A S D R G R R Y S R N E D A L A I A G I A A V V S D G V I G S
UniRef90_UPI000466123D R Y S H G S I S L I G G R R Q M K D A L S V N Y D F F G V Y D G H G G
UniRef90_E3KA89
UniRef90_C1MZC9      R S G S A T V K G T S R K Q N E D R F A S Y A A I Y G V V D G H G G
UniRef90_C1E4B0      P I A L R S A S R S S P G K P P R M E D A R V L A E C A L F A V F D G H G G
UniRef90_C4XWF9      L A Y G L S C M Q G W R I N M E D A H A T Q V A F F G V Y D G H G G
UniRef90_UPI000463B782 L D T A F L T D R G G R A H N E D S W C S G L T A W V V A D G L G G
UniRef90_UPI00036FC03D S F S H I G Q R T V N Q D T L F P K T P L F L I C D G M G G
UniRef90_A9SM83      H V A E V R T I N E E E V A F F G I F D A H N G
UniRef90_A9TPF9      V R L G N A Q T I G R R Q E Q D D Y F A T S G T M A V I A D G I S G
UniRef90_UPI00037BAABF T H G S I S V I G R R R A M E D A V M V G Y D F F A V Y D G H G G
UniRef90_V7CM12      M A F F F A S E L N R R S S N E D S Y C A A V K A M V V A D G M G G
UniRef90_R6G7E6      L A L C V I G Q H T D K G R K P L N E D A I G S K G A V V A M S D G V S L
UniRef90_A8H3K0      G E N D R V V Y A V S E M Q G W R I T M E D A H A T T S M F F A V Y D G H G G
UniRef90_UPI000455FAA0 G G N D R L R Y G L S S M Q G W R A A M E D A H A A S T S F F G V Y D G H G G
UniRef90_W9RZH9      G E N Q R V K Y A S S T M Q G Y C P T M Q D A L A V N T S F F A V Y D G D G G
UniRef90_B8AF29      F E L R F S F L S Q R G Y Y D K A N Q D S F C V N D H F F G V F D G H G E
UniRef90_E3KQ24
UniRef90_D8RBZ0
UniRef90_A0A058ZSW5
UniRef90_G0MYZ3      R N K Q E D R F V A D I S L L A V F D G H G G
UniRef90_G1N1J4      G Y V A E R K G E R E D M Q D A H V I R V S Y F A V F D G H G G
UniRef90_B9I570      V L S Y G S V S V I G G R K E M E D T V K V E Y D F F G V Y D G H G G
UniRef90_UPI00038024E0
UniRef90_Q014H2      S V G T A T V R G T V R K Q N E D R Y A A P T T I A S V F D G H G G
UniRef90_R9LWY5      A A D I G K H R E V Q E D N C A A E G L A V L A D G M G K
UniRef90_B3S663      S H H V H N Y L T G V A D G V G G
UniRef90_B2W1K2      S L I F G V S S M Q G W R I S M E D A H A T R L A F F G V Y D G H G G
UniRef90_C5LIU1      P H R R K M E D A H I S R T S L T A I L D G H G G
UniRef90_U6KXS6      S H A S L S R A G G T R K T N Q D A C R V D A L W V S V L D G H G P
UniRef90_UPI0003794892 A L T L H T A T L S S A G G R A D N Q D V C A W R D G C W V L G L G H A
UniRef90_UPI0002D57669
UniRef90_G0UQ48      N L P I K L T A G V G C V Q G H R P T M E D E H F V R L H L L G I L D G H C G
UniRef90_UPI000459CVR5 V G M A S D R G G K R F P M E D V C Y Y Q W G L F G V C D G H G G
UniRef90_U77CGA3      V N E N G K Q S L A H F F A V Y D G H G G
UniRef90_C6T8C6      L S L K A H V A E R R G E R E E L Q D A H T I C D S Y F A V F D G H G G
UniRef90_L7N3N0      A A G V S D R G L R R G V N A D A L T V A W T V G V V C D G M S P
UniRef90_UPI00034AEDB4 V G C A S H I G L R R N N E D R L R V N T M Y F A L F D G H G G
UniRef90_UPI000440C47E V G Y S S M Q G W R K T M E D A H L I D K G L T I G I Y D G H G G
UniRef90_B0EN33      L D V A S L S V E G S Q G H V N E D R F V V A S H L L A V M D G H G G
UniRef90_H3GT78      L R Y S F L S Q R G Y P E S N Q D S Y C I D D H F F G V F D G H G E
UniRef90_K3YPH4      L R Y A T I S K T G R R H N N E D A Y K V N R F M G I V C D G M G G
UniRef90_K1SSP4      K T N Q D S F I L A P N L F G V C D G H G G
UniRef90_J9I2U6      P L E I L L G H A S R T G P R P A N E D F V A A K G V L L A I A D G V G G
UniRef90_UPI000256XN4 V F A I F D G H N G
UniRef90_N6XN81      R L A Y G V S E M Q G W R L T M E D A H A T R H S F F A V Y D G H G G
UniRef90_K4BX81      V F A I F D G H N G
UniRef90_F4S992      F V L E Y T F L T L R G Y Y D K Q N Q D S F C I N I H F F G V F D G H G Q
UniRef90_B9HJ53      G M S L C L S Y G S I S V M G R R R N M K D A V V D S Y Q F F A V Y D G H G G
UniRef90_G7JHV5      Y E L K Y S Y L S Q R G Y Y D K A N Q D S F C I D D H F F G V F D G H G E
UniRef90_M5WFD5      M S I G L S E D Q N K R R T M E D K V T V N Q L Y A G L F E D G H A G
UniRef90_UPI00042AFCE5 A M I P H I D K R K D G E D A C Y A N K D F L V V L D G V G G
UniRef90_L1JRM2      F K L S F S T R T R Q G Q L A S N N Q D T F I C D M H L F S V C D G H G Q
UniRef90_R9AG42      S G F C D V R G R R E T I E D H Y A V N F T L W G V F D G H E G
UniRef90_J9ISA0      R L Y F G L S T M Q G W R I S M E D A H A A R V S F F G V Y D G H G G
UniRef90_A0C8P9      M F E F G H A T H P G L K R Q F N E D A Y A V D A G M F V V D G M G G
UniRef90_F0YDB1      R L L Y G V S A M Q G W R I S M E D A H A S K I S F F G V Y D G H G G
UniRef90_S7ZZ58      V L T S Y G F S D M Q G W R M S M E D S H I A D I A F Y S I F D G H G G
UniRef90_T0YK94      R R E T Q E D A F D I S D V L M L L A D G M G G
UniRef90_U7PXG5      L V I K A G Q Y S D K G V K T A N E D A I G I K G V V A A I S D G V S T
UniRef90_G8BMQ4      G E N D Q L K F G L S S M Q G W R A S M E D A H S A G T S F F G V F D G H G G
UniRef90_A3PRH8      Q L H F S A L S D R G I R S I N N D A F C A N Y Y V F G V A E G D S D
UniRef90_C2KJY4
UniRef90_B8CQW9      I K Y S I K T K P G K I Q K I N Q D S A I L N P N L F A I C D G H G L
UniRef90_W5HNC6      L R F G L S S M Q G W R V E M E D A H T A D W S F F A V Y D G H A G
UniRef90_UPI0003616EF3 Q L A T A S L T D R G D R P R N E D S F G D W S Y C V V A D G A A S
UniRef90_A7I8G7      A H I G F F G V Y D G H G G
UniRef90_H2S5W1      T L Q L G V S G Y P K R G K V V E S Q D D A Y F K R H D A L G I A D G V I G G
UniRef90_D9WQC4
UniRef90_G1U570      G Y V A E R K G E R E D M Q D A H V V R V A Y Y A V F D G H G G
UniRef90_G0QJP2      R N K Q E D C L L C K G F L G I V A D G M G G
UniRef90_UPI000443DE6A F T A F G L C D M Q G W R M S M E D A H I T H I A F Y S I F D G H G G
UniRef90_UPI00036C4E8A R R P E M E D A V V A K S S F M G V Y D G H G G
UniRef90_B9WKY2      A F F G V Y D G H G G
UniRef90_I1CQ89      M I E L I T S S F F S L P K E E Q R K N Q D S I L L P D N Y L F A V A D G V I G S
UniRef90_M4DPY7      E D N Y F A H D I F A G V A D G V I G G
UniRef90_UPI00005249B3
UniRef90_R5K0A5      R D N Q E D A V I F D C C M A V L C D G M G G
UniRef90_L9L4T6      I D G A L G T H P G L K R K R N E D R L A V G S Y C A I L C D G V I G G
UniRef90_A7TQD3      M R C G G S Q I V I G A R R Y Q E D A F G Y G E G Y G A V A D G M G G
UniRef90_B1B5N6
UniRef90_A1D3E6
UniRef90_U4ST78
UniRef90_J8PMU4
UniRef90_G1Y0U3
UniRef90_D7TVG7
UniRef90_R5JLA4
UniRef90_K0Q8U4
UniRef90_H0UN36

```

UniRef90\_Q9VBF9 S Q I S L H C A E H L M S T I L E 50 60 70 80  
UniRef90\_Q9M9C6 K A A A V Y N H V T S A L P S G L S R D E W L H A L P R A L V S G F V K T D K E  
UniRef90\_I2MYD5 A D E A S Q G A A R A A C D V L V A S L P R G T H P Q Q A M R D A L V A A L A A  
UniRef90\_C9KXX7 F V A V A D G V G G Q F L C F E R I A G L P R P E L E S L R A V N E A L L A A H  
UniRef90\_UPI000466123D S Q R A A D T G A A E L V A R L D A G E D P E D A T R H A A L R A A A A V A A L  
UniRef90\_M1BQA9 S C D L L H K V L M E V I L E E D G K F E E I N W A K V M M T S F Y K M D K E V  
UniRef90\_E3KA89  
UniRef90\_C1MZC9 F A V S E W L K T N L A D I I L K E W P R A D F C L E A L S Q A C K A D Y E L  
UniRef90\_C1E4B0 H E A A V R A K Q S L P A A V A R T P S A R G C E R V L S E A F A E C D A A  
UniRef90\_C4XWF9 E K A A I F T G L H L H E L I Q Q T E A S T A L K D G F L S C D Q A I L Q N  
UniRef90\_UPI000463B782 E R G G A S R L A V S R F L Q A F R D H P S L S S A A L S V L Q A D R A I H E R  
UniRef90\_UPI00036FC03D A D Q L L C D A V A G Y I E S M G S P L L D S V H L R S A L D T A Y R A Y L D F  
UniRef90\_A9SM83 D A A A K Y L Q D H L F D N I L N E G G Q S D P A G A T R D A Y L L T D R D  
UniRef90\_A9TPF9 D A V A K Q L Q K N L F N N I V N E G G V W S D P A G A T R D A Y L L T D R H  
UniRef90\_UPI00037BAABF N G R M A S T L A V I T M F S K E Y L K V N E P G E L P G F F H K A A L M S N R A  
UniRef90\_V7CM12 T L V A N A C R D R L H L L A D E V R K N A E K G L D W Y E V M C S C F M K H  
UniRef90\_R6G7E6 A V N L W Y Q E L L Q L L M S D R F K G N P L D R Q L I E I L Q E F S E E I Y S K  
UniRef90\_A8H3K0 A E Q G A A A S A V S N F L A D Y Y S T P D L W S V K Q S L T A L N R W L Y G L  
UniRef90\_UPI000455FAA0 S T K F A G K N V H Q R L V A E E S Y R E K R E A L K K A L T G T D E D L L A D  
UniRef90\_W9RZH9 K V V A K F C S V Q K A F F R M D E M M R G Q R G W R E L A E Q A D D W A F E E  
UniRef90\_B8AF29 A E V A M Y C A K R F H A M L C E D E N Y L N L P N A I T S V C S R L D D D D  
UniRef90\_E3KQ24 S T V A K F S G D T H F R L R S T A E Y Q S G D Y E A A L K R A F L A T D E R  
UniRef90\_D8RBZ0 F G A E C S Q F A K K H L C E N L K H G C F T A D V V Q A Y Q S A F I T T N L Q  
UniRef90\_A0A058ZSW5 L Q N F G S P T K S P P D A L L E A F I K T D M E F R N E  
UniRef90\_G0MYZ3 H E A A H F W E A W S Q V Q H H H S E S M K L D E L L E A L E T L D E R M T V  
UniRef90\_G1N1J4 V R A S K F A A Q N L H L N L T K S K F P K G E L L D T F K H T D E E F L K Q  
UniRef90\_B9I570 A V A E A C K E R L H R V L V E E I M E G K E G G G V E W E K V M E E C F R K  
UniRef90\_UPI00038024E0  
UniRef90\_Q014H2 S A V S E W L R E R L N D M I A R E W A E A E D A L R T A C L K A D K E L V Q P  
UniRef90\_R9LWY5 R Y R V A S R L A V Q I E S D L F L D Y N A F D N F R K A F H A A N R Q I L L E T  
UniRef90\_B3S663 W K E Y G V D P S L V L M K N C K S Y A K N Y C V D S A F K I L K T G Y D T M  
UniRef90\_B2W1K2 D K V A L Y A G E Q L H Q T V A K Q E A K K A L Q D G F L A T D R A I L S D  
UniRef90\_C5LIU1 S L Q A I S T V L D R F P C I I G D E M E R K S I K A V M S D A F A R M D Q E  
UniRef90\_U6KXS6 S G H L V S A F V N Q R L P R V I G E S W R P G D L Q K A L S A G F L A A N Q E  
UniRef90\_UPI0003794892 G G A V A A R I A V D H I L D T G A P L P T G A A L T R A I T G A H Q A I Q D Q  
UniRef90\_UPI0002D57669 M A R R L W T R G T W R H Q P T S L F L E S L C Q L A H A E L R H  
UniRef90\_G0UQ48 R R E L A A K H V P D N F I A H P A L G E N N A A F V E S I I Q A D R A I F H S  
UniRef90\_A0A059CVR5 S Q V A S Y C R A K R G F R N G S W S N G K E Q L E K A F S N C F L K V D D E  
UniRef90\_V7CGA3 D P E L V A S L L S D S L R R E R S C G D A S D I L R E A F S Q T E  
UniRef90\_C6T8C6 C Q E R L H S K L I E I E T A Q S T S A E T N D W Q D W F K A F I N C F Q K  
UniRef90\_L7N3N0 T R A S R F A A Q N L H Q N F V K K I P R G E I L D A F K Q T D E D F L K Q  
UniRef90\_UPI00034AEDB4 R A E R A A Q L A V I E V A E R L T A G D L P E T A L C R S V A R A G Q A A A L  
UniRef90\_UPI000440C47E A Q A A D F C S T H M E R Y I R D G D L E K E W D L E V V L S E A F L Q V D A A  
UniRef90\_B0EN33 S Q Y C A N E M K K T L L N S P H F P S S I Q E S L T E T Y L S A D I C K T E N  
UniRef90\_H3GT78 S W D F L V D E L F K A I D K V Y D D G F D Q T K L K D A M E H L D R S F C A M  
UniRef90\_K3YPH4 Y G A Q C S Q F V K R R L C E N L R D N R F R T D A V L A H E S A F V A T N S Q  
UniRef90\_K1SSP4 H S E T A S E T V C N T I S D F W K K H P D C D S K V K L A C K K A S C A I D Q  
UniRef90\_J9I2U6 Y G K E V S N Y V K T S L P Q N N L V P N I H Q S L K N S F I R C N T D L P K  
UniRef90\_N6XNQ4 H A H E A E Y S V R S L L A D Y F S T A H T W S V Q K S L D A N R W L L A Q  
UniRef90\_K4BX81 T A A A V Y D H L L N H V L G A I P C G L G R D E W L Q A L P R A L V V G F V K  
UniRef90\_F4S992 S S V A R F S G D T V H Y R L R S T E E Y Q R R D F P A A L K R A F L A T D E D  
UniRef90\_B9HJ53 N A A A I Y T N L L N H I L G A M P R G L G R E E W I Q A L P R A L V A G F V K  
UniRef90\_G7JHV5 F G S Q C S N F V R D R L V E K L S N D P G V E D P V R A Y N S A F S A T N H E  
UniRef90\_M5WFD5 C R D R L H H L L E Q E V E Q W K L G K G A V D W E K V M T A C F T K M D E E  
UniRef90\_UPI00042AFCE5 F G A Q C S Q F V K R K L C E N I R N N K F H V D A I E A C H A A Y I T T N T Q  
UniRef90\_L1JRM2 T V L N H M H R S F P S N S L D N S F E S V R N K M L Q Q  
UniRef90\_R9AG42 K S L S D Y C G D N L H Q T I L N N F T K F K S V S D N L N Q S F L S V  
UniRef90\_J9ISA0 W N E V G V D P G L F T K Q L I K L I E G E F Y R D Q Y Q S L K D M L D N S  
UniRef90\_A0C8P9 N G H F V S Q Y V R D H F R D H L L K Q H P R Q A I V K S I S L L A N L I N Q Q  
UniRef90\_F0YDB1 R E A A R Y A A H A L P R L E E K A D L R R P R A A D V A A A F R A A D A  
UniRef90\_S7ZZ58 D F S G Q N H K I I A K Q T D F S T G N Y E K A M K D G F L A S D R A I L Q D  
UniRef90\_T0YK94 P G H G E A V A A L A R D E T L R A A R L G M P L D T A  
UniRef90\_U7PXG5 D K V A L F A G E N V H K I V A K Q E S E Q A L K D G F L A T D R A I L N D  
UniRef90\_G8BMQ4 S N K F C G E K V S I L L G L V S F T E N S D I L V E L Y L N A D I E L L K D  
UniRef90\_A3PRH8 H G E V A S G L A L R A F A H H F T Q V A P A D R L Q E A L I E A A N E A L R G A  
UniRef90\_C2KJY4  
UniRef90\_B8CQW9 A E A G A A S A I S N F L A D Y Y S T P D L W S V Q K S L T A L N R W L Y G L  
UniRef90\_W5HNC6 K V V A K F C A M D E M M R G Q R G W R E L Q A L G D K I N R H D D W A F E E  
UniRef90\_UPI0003616EF3 A D L V E R S A A V A D E A I R A A  
UniRef90\_A7I8G7 H E G A A S S T A I S C L K E K S P A H S P A A T L V R A V Q K S D A R I S A H  
UniRef90\_H2S5W1  
UniRef90\_D9WQC4  
UniRef90\_G1U570 E P E G V R G A L R Q A F L S A D A R H  
UniRef90\_G0QJP2 N G H L V S Q L I S K V L P Q K H L Q Q D L K Q T L T I S F K E T N K E I C S Q  
UniRef90\_UPI000443DE6A S R V A T Y C S K H L L E H P P A V E A V K A G I R T G F L R I N D E H M R S F  
UniRef90\_UPI00036C4E8A H L V V A S V L A D L R Y L T V A E L P T G D R I S A L T H A N E I V R E  
UniRef90\_B9WKY2 E K A A I F T G E K L H Y E F K Q K D Y I N A L K Q G F L S C D Q E I L K D  
UniRef90\_I1CQ89 W R H A G A N P A L Y S R K L M H Y A Q L E L D R I K T N V R P Q Q P R V N P  
UniRef90\_M4DPY7  
UniRef90\_UPI00005249B3 K R A S E H S A R R L H V H L A H K L P K R Q I L E S F K V M D E E F L K E  
UniRef90\_R5K0A5 M E E V A A R M V A D C G A M A Y E D M E Q E E K G D R I L R D I A L S A N E A  
UniRef90\_L9L4T6  
UniRef90\_A7TQD3 S T V S Q F C G E K C T S I L Q K E P N F I K G D L K Q C L L S T D K E L L K E  
UniRef90\_B1B5N6 S Q E R L H Q A L A E E V E S C F A Q G Q D L D Q W Q T A M T Q C F R R I D A E  
UniRef90\_A1D3E6 A G E N V H K I V A K Q E A F A K G D I E Q A L K D G F L A T D R A I L E D  
UniRef90\_U4ST78 Y A G A K E A S T I A I N Y I L N Q L Q E D Q L H N I D N I F N N I R N Q I I E L  
UniRef90\_J8PMU4 W A E H G Y D S S A I S R E L C K K M D E I S T A L S E T P K N I M G A A Y S K  
UniRef90\_G1Y0U3  
UniRef90\_D7TVG7  
UniRef90\_R5JLA4 K G E V A S N T I V S T L L E D Y K G A R P I E N Y P E F F Y K I D N I V H S L  
UniRef90\_K0Q8U4 S G D L A S S L A I A T I F G Y L S T E N T N E H L Q K K I E N A V L Y A D K T  
UniRef90\_H0UN36 M G A E A S R I A V E A A M G A L R G G G T P L Q A V M R A Q E D V Q S W



UniRef90\_Q9VBF9 MRKLYHDQQGGSTALCVFVIVS PDKIYLVINCGD SRAVVISRN 120

UniRef90\_Q9M9C6 FQSRGETSGTAT FVI VDWGWTVTVA CVG DSRVYVWVQAD

UniRef90\_I2MYD5 VNALAJAPAGGGA CTIVGAVVA AGEGLPVLVHAG GNTRVYIIPAG

UniRef90\_C9KXK7 GRGTNSGKMAATF SGLFFV GAVTVVGVG DSRAYWLSA

UniRef90\_UPI000466123D STSPSDA PSCYVISA VTRG PAVTVVGVG DSRAYWLSA

UniRef90\_M1BQA9 NRINNGAEVA TIGST I VVA VVG KEETVTVAN CVG DSRAVVLSRG

UniRef90\_E3KA89 RTLYTANVVG DADARAVL CRG

UniRef90\_C1MZC9 VQPPPGLMGTAVVA TLFQEGG SSTKLCTANVVG DARIILVRD

UniRef90\_C1E4B0 MSCEYEGCAATVMMAWRE PSTGSLYVQ TANAAGD CHVAFGRAN

UniRef90\_C4XWF9 QETRNDESGCAATSA IITPKQVVICANAG DSRVLSSTK

UniRef90\_UPI000463B782 QA AEPALRRMGSTITVA AVVCDG RLLRAVHLG DSRFYWFR

UniRef90\_UPI00036FC03D LNRHP L VNRMGSTLALLQFHE QG SATVAHLG DSRVYVQTR

UniRef90\_A9SM83 MLASPLLEKGGSTAVTAMVYV GKSRLIVANLGD DSRVLSSTK

UniRef90\_A9TPF9 IL DST EKGGSTAVTAMVCELG GRLLIVANLGD DSRVLSSTK

UniRef90\_UPI00037BAABF LLEQLGGATGGTTLVAVV VSGD LHLHWGAVVGD DSRMLLFRD

UniRef90\_V7CMI2 KSRDDGGGNTMGSTAAVV VVVGEEELVVANVCG DSRVLSSTK

UniRef90\_R6G7E6 LNRRLYKKGGLG GTLSAVI HFWDTFIVSN CGD SPFYRTRKN

UniRef90\_A8H3K0 GQDYRDARRRGYVCTFSALIFKSKH VHQHLHLG DGRILYRYRN

UniRef90\_UPI000455FAA0 PAHTRDRPSGCTAVCAAL IITDKRI FVANAG DSRVLSSTK

UniRef90\_W9RZH9 GPHSDFSGPTSGSTACVAI VRNKQLVANA GDSRCVVISRN

UniRef90\_B8AF29 LQRSDNWKETGVCANLWHI LRGNKI TVGNVVG DSRVLSSTK

UniRef90\_E3KQ24 ANP DFNVDPSGCTAVCAALIT P DNGKI TVGNVANA GDSRCVLSSTK

UniRef90\_D8RBZ0 LHR SQVDDDSMSGTATITVLRV RGTLYVANVVG DSRVLSSTK

UniRef90\_A0A058ZSW5 LDQKDWHPGGCTAVI VARNMLYVANAGD CKTLLCRAN

UniRef90\_G0MYZ3 RSLRESWKGGTAVVCCAVDNLNANI QIAFAWLG DSGYIMSN

UniRef90\_G1N1J4 ASSQKPAWKD GSTATCVLAVD NTLYIANLGD DSRAILCRY

UniRef90\_B9I570 MDEE VVKDKMIPACTAVVAVVVG KEETVTVAN CVG DSRAVVLSRG

UniRef90\_UPI00038024E0 SPAGSTFVGVAVVVD EATLVVVGWLG DSRAYLVDS

UniRef90\_Q014H2 PEGFFASFGSTA AIVALLYEEGGSTRI ATANVVG DARIILVRD

UniRef90\_R9LWY5 VDEQR GSAVAAAM I RSGKLYYALAGD VRIALVFRH

UniRef90\_B3S663 LSEHPNLLGSSATA CVMVIDKLTGMLYSVNLGD DSGFVIRD

UniRef90\_B2W1K2 PKYEEEVSGCTASV GILLSKDKIYVANA GDSRTVLRGVK

UniRef90\_C5LIU1 I R PCTWRNGLTATVLRVRRKSNK LITCANVGD DSRAILTPS

UniRef90\_U6KXS6 LKRGNIDILVCGTTCVVCVLRKERTLYVANVVG DSRAILGRP

UniRef90\_UPI0003794892 QASDPRLERMRTTLVVLVLSGDGERAL WAHVVG DSRILYHFRG

UniRef90\_UPI0002D57669 RQKQLIAGAPHS TIVALLVKDHRIAWAHVVG DSRILYRFHG

UniRef90\_G0UQ48 LKKGGGGFGSGSTLIIAAAVH GRMLYVAVAGD DADARAVLYDGD

UniRef90\_A0A059CVR5 VCD ESMAPETV GSTAVVGLVCGSTH I IANVCG DSRVLSSTK

UniRef90\_V7CGA3 AHMNHHEGCTATV LVAITD GEEFAQC ANVVG DSRCTIMSLN

UniRef90\_C6T8C6 MDDDVGGIGTAGSTAVVAVI DSGQT H IIVANVCG DSRVLSSTK

UniRef90\_L7N3N0 AASQKPAWKDGT TAVLVA DNTLYIANLGD DSRALLCR

UniRef90\_UPI00034AEDB4 AGTEPTAPACTYVAGA VVGPEGLVWVAVVVG DSRAY

UniRef90\_UPI000440C47E LAEQM QYGVITATVA LLRDGLIELVVGSGVGD DSRAILCRK

UniRef90\_B0EN33 YDNQMLVNGSC E VAKDI GVINENE LVIANVGD DRCLLLRKN

UniRef90\_H3GT78 ATRKMDTSGACLLAVLIVDDT P QKLYVNLGD DSRAILAEK

UniRef90\_K3YPH4 LHDNDLD DSGSGTATITLIVR GKTLYVANVGD DSRVLSSTK

UniRef90\_K1SSP4 KAFELHHAEMGTTMVMVSIEN DVATL IAHVVG DSRCYVQRP

UniRef90\_J9I2U6 FTDP PQYSGTCC T VLN GTKVVYSANSG DSRAILVNRK

UniRef90\_N6XNQ4 SARTAEAGMATTALVLRG RRWHLAVHVG DSRAYLWTRD

UniRef90\_K4BX81 TDKEFKKKG LITSTTATFVIVD RWTVTVA SVVG DSRCTLDTQ

UniRef90\_F4S992 LRP EFNNDPSGCTAVAAALIT HDGRILVANAG DSRVLSSTK

UniRef90\_B9HJ53 TDKEFGSRGETSTTATFVIVD RWTVTVA SVVG DSRCTLDVQ

UniRef90\_G7JHV5 LHTSDIDDTMSGTATITVLRVIGD TLYVANVGD DSRVLSSTK

UniRef90\_M5WFD5 VQD D TNWGN T VGS AVVVMVVGQNEV VVANSG DSRVLSSTK

UniRef90\_UPI00042AFCE5 LQADNLD DSGSGTATITVLRVIGD TLYVANVGD DSRVLSSTK

UniRef90\_L1JRM2 LGNRVWD DSGSTAI CC L VQGNRVIVANLGD DSRVGYVVG

UniRef90\_R9AG42 DNEQSLSSGCTAVVLDKQNP QGTRTLYTANVVG DADARAVLCRS

UniRef90\_J9ISA0 LKQRTNK G SSTAVMLQIPKE PRQITRTINLGD DSRVLSSTK

UniRef90\_A0C8P9 PFD T QFSGT T MNS I I I QDGGHLITCSNVGD DSRAILNQK

UniRef90\_F0YDB1 GFAAGT RRRSGT TATVA AVADNGA LLVANVVG DSRVLSSTK

UniRef90\_S7ZZ58 PKYANDEL RSGCTAST A IITNEKI FVANAG DSRVLSSTK

UniRef90\_T0YK94 VRSAAA AVARHLVQHPA AHPA GAA LA VLR LAE P DFE LA WV

UniRef90\_U7PXG5 PRYEEEVSGCTACV GLITDDDK IYCANAG DSRVLSSTK

UniRef90\_G8BMQ4 PVLKNDHSGCTATSLVSLDLQK KIYCANSG DSRVLSSTK

UniRef90\_A3PRH8 LAR D A S L R G M G C T L I A A I K L P D R L V W V I S V G D S A I Y L L R R

UniRef90\_B8CQW9 GQDYRDARRGYVCTLSALVFKSRHMLHFHVVG DSRVYRYRN

UniRef90\_W5HNC6 GPHSDFSGPTCGS TACVAMI RNSQLV VANA GDSRCVVISRN

UniRef90\_UPI0003616EF3 APDAAQRDD PPSCTFVA AVLDGP L LTVVGVG LG DSRAYLPDE

UniRef90\_A7I8G7 AAGSPGRTP DATHLISA CLINDNLECTIL D T I GEGNAYI VSP

UniRef90\_H2S5W1 EEPQQRQNA PACTLVSAVITGD LTVGWLGD DSRVYVWVPD

UniRef90\_D9WQC4 LRALWPRGD PGGSTAVALLVSPRFLLYLAHVG DSRVLSSTK

UniRef90\_G1U570 NFD SYLSGSTLVSI L I NKNKLYIANVGD DSRAILNNG

UniRef90\_G0QJP2 S D L R N G M D R S G S T A V G I L L S P A H F F F I N C G D S R A V L Y R N

UniRef90\_UPI000443DE6A QGTGNEKDMRSTAVVLA I DRECA TAAWAHCGD TRLYCFRH

UniRef90\_UPI00036C4E8A FYMRDDDSGCAATS A IITPD L I V C G N A G D S R T I M S T N

UniRef90\_B9WKY2 D P V Q V L E N A Y H L T T L D A Q N E V Q Q K G I V G S T A C I A I L S Q D

UniRef90\_I1CQ89 SGTITVTFVIVD GWTITTVGSGVGD DSRCTLDTQ

UniRef90\_M4DPY7 ASTHKP VWKDGT TACCVLVLN DTLYITNLGD SKAILCRY

UniRef90\_UPI0005249B3 VNT EKNE D G V G S T M V G V Y I K D G R M D Y S V G D S R I Y M I R D

UniRef90\_R5K0A5 SVHKATL L J A S G T A T V A L L R D G I E L V V A S V G D S R A I L C R K

UniRef90\_L9L4T6 P A I R N D H S G C T A T S I L V S K L I Q N L V V C A N A G D S R T V L S T N

UniRef90\_A7TQD3 VGGFCLEEGT VGTATVA VVGA CQI I I G N C G D S R A V L S R G

UniRef90\_B1B5N6 PKYEEEVSGCTAAVSVISKNKI WVANAG DSRVLSSTK

UniRef90\_A1D3E6 SDSISEFDKATTLTFG I FNHNGLI GHITGD CRLYVAEN

UniRef90\_U4ST78 IKDEKIVKVG T T A I M A H F P P D R G K L Q V A N L G D S W C G V F R D

UniRef90\_J8PMU4 T T I L T A V I L R D R R A H I L H V G D T R L Y R L R D

UniRef90\_G1Y0U3 M G S T A V V V V V G A E K L V I A N C G D S R A V L C C N

UniRef90\_D7TVG7 TDEQGERLEJCGS T M V A V A I D G D R L Y W L S V G D S R I Y L I R N

UniRef90\_R5JLA4 IQDKL LIGD GAT T L S M L V A S S S G E I Y A L N I G D S R I F S W E P

UniRef90\_K0Q8U4 A R G L G I L G L T G T T L S V A A V D S C G L I D W A S V G D S R I Y L F R R

UniRef90\_H0UN36

UniRef90\_Q9VBF9 G A A V T S T I D H K P F S P K E Q E R I Q N A G G A F G D Y D F K N D G S K S  
UniRef90\_Q9M9C6 G G S V S N T V D H R L E D N T E E R E R R V T A S G G R Y W P G G L C D M D V G  
UniRef90\_I2MYD5 D R S A R Q L T E D D S W A A Q Y M V L A A G L M N E E A E A Y A D E R A H A I T G W L  
UniRef90\_C9KXK7 K Y L R Q L T E D D S V V Q Y L L A D T G K L T E A E E A E S Y A R N E I T S C F  
UniRef90\_UPI000466123D D P S R R L T E D D S W A A F M I A E R G S L S E A E A E A H P N A H V I T A W L  
UniRef90\_M1BQA9 G V A L A L S N D H K P R P D D E L E R I E K S G G K V T N W N G H R V L G V L A  
UniRef90\_C3KA89 T K A V R L T Y D H K G S D Q Q E A Q R I T D A G G G Y V M N G R V N G V L A V T  
UniRef90\_C1MZC9 G K P V Q M S V D H I P D D E M E R R R I D A G N P N L R K S L V T F T E G S W  
UniRef90\_C1E4B0 K N P K F L T K E H R V T S P E E E R R L R S A G G I K L P R G A R R L H V I G L  
UniRef90\_C4XWF9 G F A K A L S F D H K P Y N E G E K A R I C A A G G Y V E M G R V N G N A E E Q  
UniRef90\_UPI000463B782 K R V F F Q S K D Q S V P Q A L C D A G I L R P E E I R S H P R R N I L L C C L  
UniRef90\_UPI00036FC03D G K V F Q T S D H R Q V N D M V E A G I L T A A G Q A A T H P W R N R L L S R A V  
UniRef90\_A9SM83 G E P M Q L S V D H P G R P T E R H V T H L P A G D Q W R V D G L L A L T R A F  
UniRef90\_A9TPF9 G K K H D P T R P V E K A N I E T R G G H V T R F P G D Q L R V D G K L A V I T R  
UniRef90\_UPI00037BAABF G E L M H V N T K H T L E G V L E A R Y E T E E E A R N N P Q R N R L L V N Y L  
UniRef90\_V7CMI2 G L A V P L S L D H K P D R P D E R E I E A A G G I V I N W N G S Q R S R H S M K P  
UniRef90\_R6G7E6 G T I E L I S E V Q N V A E E M V R E G K T A G S V L Y Y Q N K N R L L D Y L  
UniRef90\_A8H3K0 H G L Q K L T T D H T S V V A N R S K Y L T R A L  
UniRef90\_UPI000455FAA0 G E V K P L S F D H K P S S D T E R A R I V G A G G Y I E Y G R R A L G D F E F  
UniRef90\_W9RZH9 G Q A Y N L S R D H K P D L E V E K E R I L K A G G F I H A G R R A L G D M E F  
UniRef90\_B8AF29 G Q A D L S L D H K P T R V L V K R I P V M G S D G R L M R G W G Y F E L K K  
UniRef90\_E3KQ24 G L A E P M S H D H K P V N R G E N N R I V A A G G F V E F G R R A L G D F E F  
UniRef90\_D8RBZ0 I N G K L T A V D L S S D Q T P F R T D E C E R V K T C G A R V L T L D Q L E G  
UniRef90\_A0A058ZSW5 G R P L A L S K D H V A S C P K E E R E I V N A G G Q V K W Q L D T W R V G A A  
UniRef90\_G0MYZ3 L E F R K F T E H S P D P E E C R R V E E V G G Q I F V I G G E L R V N G V V  
UniRef90\_G1N1J4 N E E S Q K H A A L S L S K E H N P T Q Y E E R M R I Q K A G G N V R D G Q Y K  
UniRef90\_B9I570 G V A V R L S V D H K P D R R R V I N W N G H R V L G V L A T S R S L G D Q Y L K  
UniRef90\_UPI00038024E0 A G A R R L T E D D T V A A E A V R A G R L A P E L A E R G R D A H A I T R W L  
UniRef90\_Q014H2 G A A V Q L S V D H V P D A E N E R K R I D R G N P N L R K S L V S F T N G S W  
UniRef90\_R9LWY5 G D L V P V S E G H T V D Q R E F R R G R L T Y F N D A V A M L E R H R L Y N Y V  
UniRef90\_B3S663 H F I L Y Q S K E Q Q H Y F N A P Y Q L T C K T P D Q S F  
UniRef90\_B2W1K2 G R A K P L S F D H K P Q N E A E K A R I Q A A G G F V D F G R R A L G D F E F  
UniRef90\_C5LIU1 G R F T R L T E D H R P T T N A A E A D R V V R C G G M V L F G R V G G S W C L  
UniRef90\_U6KXS6 W T A V P L T T D H K P E L E T E R Q R I V A A G G R I A P L Q E E D G S P C G  
UniRef90\_UPI0003794892 G R L C F Q T A D H S V P Q V L A R A G E I R S P D E I R F H E D R N R L L R T L  
UniRef90\_UPI0002D57669 R R L M G R T E D H S L A Q L K Y R R G E I S E R E L V T H A D Q Q Q L L R L G L  
UniRef90\_G0UQ48 N T T I P M S E D H K P T N K K E H T R I L Q C G G F F K F N G N R F I S N R E  
UniRef90\_A0A059CVR5 K E T V P L S V D H K P N R E D E C A R I E A A G G R V I L W D G F R V C G V L  
UniRef90\_V7CGA3 G K Q L K M T E D H T N Y S E R L I E E T A G E P L K E G E T R L Y G I N L A R  
UniRef90\_C6T8C6 K E A M P L S S D H K P N R E D E W A R I E A A G G R V I H W K G Y R V L G V L  
UniRef90\_L7N3N0 N K E N Q K H V V L S L S R E H N P T Q Y E E R M R I Q K A G G N V S R D G R V  
UniRef90\_UPI00034AEDB4 W L P E R G G P A L P L T E D D A G E F G A I S A W L G  
UniRef90\_UPI000440C47E G K A H K L T N D H T P E R K D E G K Q R I R N S G G F V T W N S L G O A N V  
UniRef90\_B0EN33 D N E I L Q L T T D Q R P N V K S E V D R V S C G G V I R N G R V N G N L S Y  
UniRef90\_H3GT78 D H C A S N V K E R M R A L R S G A Y L Q N N R I A G V L E P F R T I G D I D V  
UniRef90\_K3YPH4 R G D N I V A V D L S I D Q T P Y R F D E L E R V K E C G A R V L T L D Q I E G  
UniRef90\_K1SSP4 G D G L Y Q T K D H I R L D F G W E I V A K C F F S  
UniRef90\_J9I2U6 F F K D Y M T G E E M G P Q R V W L M N E D V P G L A M S R S L G D Y V A Q S V  
UniRef90\_N6XUN4 G A L L R L S E D H T W P H P E L S N V L R R A L  
UniRef90\_K4BX81 G G A V S E T V D H R E V G R L C I F G G T E I G P L R C W P G G L C D M D V G  
UniRef90\_F4S992 G V V K P M S Y D H K P S S R T E N S R I V A A G G F V E F G R F K Q N K S L G  
UniRef90\_B9HJ53 G G A V S S T V D H R L E E N V I E R K R V T A S G G R C W P G G L C D M D V G  
UniRef90\_G7JHV5 G E D R I T A E D L S S D Q T P F R R D E Y E R V K L C G A R V L S V D Q V E G  
UniRef90\_M5WFD5 G V A T P L S R D H K P D L P D E R E R V E A A G G R V I N W N G Y R V L G V L  
UniRef90\_UPI00042AFCE5 R G K D I V A V D L S I D Q T P F R V D E L E R V K L C G A R V L T L D Q I E G  
UniRef90\_L1JRM2 G K V T P L T I D H K P N L P S E R D R I Q S A G G V V T C M M G C H R V M G M  
UniRef90\_R9AG42 G Q A R L R L T Y D H K G S D E N E Q K R I M D A G G Y L N G R R A L G D S P M  
UniRef90\_J9ISA0 D K A T Y N Q G S N S I N D D L S L Q Y R S K E Q Q H G Y D F P F Q C G T  
UniRef90\_A0C8P9 F K P F P L S I D H K P C L I E K E M N R I H M H G G R V D T Y Y D D Q G N S I G  
UniRef90\_F0YDB1 P C C V D A S Y D H V A A D A E A A R I V P R V E G R V V T R S I G N R D L  
UniRef90\_S7ZZ58 G R A K P L S F D H K P Q N E G E K A R I T A A G G F V D F G R G D F E F K K S  
UniRef90\_T0YK94 G D C S I L F G G S D A A Q V A A A A L P C S D E D A A H Q P A A T A L L I G L  
UniRef90\_U7PXG5 G R A K P L S F D H K P Q N D G E K A R I T A A G G F V D F G G D F E F K K S A  
UniRef90\_G8BMQ4 A A A K A L S Y D H K P T L A S E R S R I V A A K G F V E M D R V N G N A H E Q  
UniRef90\_A3PRH8 G T I R R I N A D H S I F G E L M E A G R M T R A E A A S H P R R N V L R S A L  
UniRef90\_C2KJY4 N Q L T Q L S N D H I L K N E I V R G A M A S A D A S N M V H A N S V T R F L  
UniRef90\_B8CQW9 G T L D K L S Q D H T S I V G N N Q R S V J A R A L  
UniRef90\_W5HNC6 G Q A Y N L S R D H K P E L E A E R Y Q M G R V N G T I N L S R A I G D M E F  
UniRef90\_UPI0003616EF3 G A A Q Q L T Q D D S W A T E L V A Q G M S R A E A E A S R Q A H A I T R W L G  
UniRef90\_A7I8G7 D G I H V P D G E H A L S L H A Q E P G F P G Q G N D E E K K R E G M I S H  
UniRef90\_H2S5W1 G K S V T Q T V I E D E A A Y R R V R Q H N A V I T E D N K V I G V T G S I G I M  
UniRef90\_D9WQC4 D R T T R P T E D D S W A A Q Y M V L A A G L M S E A E A Y A D E R A H A I T G W L  
UniRef90\_G1U570 G A V A F R T E D H R P L R P R E R E R I H D A G G T R L R R V E D F A F K Q  
UniRef90\_G0QJP2 F Y F Q T L T I D H K P C L I E R E R Q R V R V Q S Q S D F N G Q P I G P L R V W  
UniRef90\_UPI000443DE6A S Q V C F S T L D H K P C N P R E R E R I Q N A G G S V M I Q R V N G  
UniRef90\_UPI00036C4E8A G E L C A R T R D H S M V Q Q M V D A R L L A E E E M H H P R R N V L Y A A L  
UniRef90\_B9WKY2 G F A K A L S F D H K P S N E G E K A R I C A A G G Y V D M G R V N G N A E E Q  
UniRef90\_I1CQ89 E L K T A N I G D C G V S I V R K N N Y I F R S E E Q H S F N F P Y Q L G T A  
UniRef90\_M4DPY7 G G V V L L T V D H R L E E N V I E R E R I T A S G G E V G R L N V F G G N P V  
UniRef90\_UPI00005249B3 H V S V P L S K D H N P S N Y E E R M R I Q K A G G N V R E G R I N G D G Q Y K R  
UniRef90\_R5K0A5 G E L K L L T H E H T Y D V K L K R V T S D E Y E A A T G K S A L T S Y G I G  
UniRef90\_L9L4T6 G K P M K L T I D H T P E R E K E R I K K C G G F Y A A W N S L G O P H V N G R L  
UniRef90\_A7TQD3 G I A K A L S Y D H S E K S R I V A A G G F V E M D F E F K S N D E L S P E E Q  
UniRef90\_B1B5N6 G V A P L S V D H K P E R E D E M A R V E A A G G R V I Y W N G Y R V L G V L  
UniRef90\_A1D3E6 G R A K P L S F D H K P Q N E G E K A R I S A A G G F V D F G R R A L G D F E F  
UniRef90\_U4ST78 G K L R Q K T K D H T S H Q R L L D K I Y T K K E L K E I S G K N V I N E A I  
UniRef90\_J8PMU4 S K L V F Q T E F Q T V I G F N A P Y Q L S I I P E Q M L I E A E R K G G K Y  
UniRef90\_G1Y0U3 G R L T Q L T E D H V G S G P D Q R H I L R R A I  
UniRef90\_D7TVG7 G V A V P L S R D H K P D R P D E R E R V E A A G G N V I N W D G F R I G D Y F  
UniRef90\_R5JLA4 E Q I M V V N E E H N Y E T K L N K L M A G Q I D M E I Y S T E M K R G A A L  
UniRef90\_K008U4 S K K T Q V S C D D T I E N E V S K L N L K D K T A L E A F G L K G T L S A Q L  
UniRef90\_H0UN36 G S M E L L S R D H T V A E A V R A S G G D P A S L G A E G D L I T S F I G I

UniRef90\_Q9VBF9 PVDQMVSPPEPDIIVCEHDEFLIVVA CDGGIWDVMTSSEVCEEF  
UniRef90\_Q9M9C6 EFLVVPVFFVKQVKLSNLGGRLIIVASDGGIWDVALSSEVAAKT  
UniRef90\_I2MYD5 GADAYLDPHTAFAFKPDRAPGQVVVVC DGGIWDVALSSEVEMARA  
UniRef90\_C9KXX7 GGGPDDLRLTIRRRLPDDAQQVYLLTTDGGIHEYASTPDELEDER  
UniRef90\_UPI000466123D GADAQVITPHVATFRFPAGDPGTLVLVCS DGGIWDVYFPADAGDLJAA  
UniRef90\_M1BQA9 TSRSLDES PKVTFVSKRTDYGDFLLI LASSDGGIWDVYFPADAGDLJAA  
UniRef90\_E3KA89 RSLGDSISMKETFVVGSPDYDQDFLLI LASSDGGIWDVYFPADAGDLJAA  
UniRef90\_C1MZC9 RVIGGVLPDICYIEQLITDKDTWLMMS S DGGIWFENFTNEEELADF  
UniRef90\_C1E4B0 IATPDVVSPPVEIVISTGDGWDVAVL LASSDGGIWDVYFPADAGDLJAA  
UniRef90\_C4XWF9 I VITCYPEVIVSHDLIDYEKGDEFV L LASSDGGIWDVYFPADAGDLJAA  
UniRef90\_UPI000463782 GSPEPPNPIVQEGEIEP GDALLL LASSDGGIWFGLPLPEEEMERE  
UniRef90\_UPI00036FC03D TASAGDTCMLLCLTDIQQP GDFV L LASSDGGIWFGLPLPEEEMERE  
UniRef90\_A9SM83 GDKELEKHEHSSKLDLVA DCEFLVL GSNGLWF SMDNQEVLVDR  
UniRef90\_A9TPF9 AFGDKEMKEHISARPDVCHFLVL GSNGLWF SMDNQEVLVDR  
UniRef90\_UPI00037BAABF GYGGFKSMETVGDVLELRPDGDFV L LASSDGGIWFGLPLPEEEMERE  
UniRef90\_V7CMI2 FVLSQPKSMEVTKVYERELPDGDFV L LASSDGGIWFGLPLPEEEMERE  
UniRef90\_R6G7E6 GKRKECKPYCR LFPAAEELDGL LMG S DGGIWFGLPLPEEEMERE  
UniRef90\_A8H3K0 G L G N I D V D Y A V I S E T E S G D F L V L L T T D G G I H D V L S S D D I F A E R  
UniRef90\_UPI000455FAA0 KKNYAALTPQKQVITTEDDEDFLVL LASSDGGIWDVYFPADAGDLJAA  
UniRef90\_W9RZH9 KQNKFLPAEKQIVTCD DDDDFLVL LASSDGGIWDVYFPADAGDLJAA  
UniRef90\_B8AF29 NQNPLASQMQVTC DPEFTIFLVL LASSDGGIWDVYFPADAGDLJAA  
UniRef90\_E3KQ24 KQNKELSP EAQVVTANPD D L L T H L A C D G G I W D V Y S S N Q Q V V D R  
UniRef90\_D8RBZ0 LKS PALQ CWGGEEDDT H P F F V L A S D G G I W D V Y S S N Q Q V V D R  
UniRef90\_A0A058ZSW5 ALQVTRSLITETL L S V I E D E Y L V M A S D G G I W D V Y S S N Q Q V V D R  
UniRef90\_G0MYZ3 PGRPMISNKPTDTLLKTI D Y L V L L A C D G G I W D V Y S S N Q Q V V D R  
UniRef90\_G1N1J4 RCGVIVSVPDIKRQLT H N D R F I L A C D G G I W D V Y S S N Q Q V V D R  
UniRef90\_B9I570 P F V S S K P E V T V D V A K R T E N D E F L V L A S D G G I W D V Y S S N Q Q V V D R  
UniRef90\_UPI00038024E0 GVGSSAVPRITRAVALPCAGRVV L LASSDGGIWFGLPLPEEEMERE  
UniRef90\_Q014H2 RVIGGVLPDICYIESVTEADT W I L L S S D G G I W D V Y S S N Q Q V V D R  
UniRef90\_R9LWY5 GQDRDLIEFFDTPLTL D A Q D T V V L M S D G G I W D V Y S S N Q Q V V D R  
UniRef90\_B3S663 LGNMPS EADEYSFLLKSD D I I M A T D G G I W D V Y S S N Q Q V V D R  
UniRef90\_B2W1K2 KKSADLPEEQQIVT N Q D D E F L I V A C D G G I W D V Y S S N Q Q V V D R  
UniRef90\_C5LIU1 KDA G V I S E P T S V K K E G V Q I V V A S D G G I W D V Y S S N Q Q V V D R  
UniRef90\_U6KXS6 PLRVWLRTDSDVPGVGEVDRQL L LASSDGGIWFGLPLPEEEMERE  
UniRef90\_UPI0003794892 GNA DT VRPTVLEVALARGD V F L L A C D G G I W D V Y S S N Q Q V V D R  
UniRef90\_UPI0002D57669 GGPPEPVVIEHGS GDLRHGCAFV L LASSDGGIWFGLPLPEEEMERE  
UniRef90\_G0UQ48 L M V S N V A D V R Q I N L T D A S K F L L A C D G G I W D V Y S S N Q Q V V D R  
UniRef90\_A0A059CVR5 AMSRAIGDRYFFPRAKED E C L L A S D G G I W D V Y S S N Q Q V V D R  
UniRef90\_V7CGA3 M L G D K F L K G Q V H I D Q A S K A F A I L A S D G G I W D V Y S S N Q Q V V D R  
UniRef90\_C6T8C6 AMSRSIGDRYIVRRKND E C L L A S D G G I W D V Y S S N Q Q V V D R  
UniRef90\_L7N3N0 LGV L I E V S R S I G D G Q Y K R Y R F I L L A C D G G I W D V Y S S N Q Q V V D R  
UniRef90\_UPI00034AEDB4 ADAEPGE PGVRSR L P T G P G A L L A C D G G I W D V Y S S N Q Q V V D R  
UniRef90\_UPI000440C47E NSRLAJAMTRS I G F D L K N L G V I A E P E T T R T T W V C E L F A V  
UniRef90\_B0EN33 I I S P I P E I T T Y E L E G T E D F L V M A C D G G I W D V Y S S N Q Q V V D R  
UniRef90\_H3GT78 KGPDMKNWVJATEPEIRKQSE L L V I A T D G G I W D V Y S S N Q Q V V D R  
UniRef90\_K3YPH4 LKNPDVQCVWGT EESDDKQSPFFV L LASSDGGIWFGLPLPEEEMERE  
UniRef90\_K1SSP4 YRPEVAVPDITRQIKLQT GDRV L LASSDGGIWFGLPLPEEEMERE  
UniRef90\_J9I2U6 GVI PDPEILEYELI C P D D L F M I A S D G G I W D V Y S S N Q Q V V D R  
UniRef90\_N6XNQ4 GLESRLLVDHDDGELALGDV F V L L T D G G I W D V Y S S N Q Q V V D R  
UniRef90\_K4BX81 EFLVPIPYVKQVKLSTVGGRLIIVASDGGIWDVALSSEVEMARA  
UniRef90\_F4S992 PEDQVV TADPDIIT H Q I D E F L I L A C D G G I W D V Y S S N Q Q V V D R  
UniRef90\_B9HJ53 EFLVPIPYVKQVKLSTVGGRLIIVASDGGIWDVALSSEVEMARA  
UniRef90\_G7JHV5 IKDPNIQH WGN E E S W H N H L F F I V A S D G G I F E F L S S S Q T V V D M  
UniRef90\_M5WFD5 ATSRSLIGDHYLSEERT E C C D F F V L A S D G G I W D V Y S S N Q Q V V D R  
UniRef90\_UPI00042AFCE5 LKNPDVQCVWGT EESDDKQSPFFV L LASSDGGIWFGLPLPEEEMERE  
UniRef90\_L1JRM2 LAMSRADPDVSEI GLSD HD F V V L A S D G G I W D V Y S S N Q Q V V D R  
UniRef90\_R9AG42 KQYVVGSPYTT E I D L T H D E D E W I A C D G G I W D V Y S S N Q Q V V D R  
UniRef90\_J9ISA0 NGDPA SDAV E Q I H Q M Q H N D I V V G S D G G I L D N M Y D K D I K T C  
UniRef90\_A0C8P9 PARVWVRDGN Y I F E Y Q Q D K F I I L G S D G G I W D V Y S S N Q Q V V D R  
UniRef90\_F0YDB1 AKYLVPEPHVIVVAESDA Y E F L I A T D G G I W D T T S S D E A V R F  
UniRef90\_S7ZZ58 ADSLPEEQQLVIT SF P D V V I H F M V I A C D G G I W D T T S S D E A V R F  
UniRef90\_T0YK94 GASDALRITGLRKGKLRHPVA I L LASSDGGIWFGLPLPEEEMERE  
UniRef90\_U7PXG5 ELSPELQIVTAYAPDVTVHDFLVL LASSDGGIWFGLPLPEEEMERE  
UniRef90\_G8BMQ4 I V I T C V P D I A E H N I D Y D N D E F V I L A C D G G I W D C L T S S Q A V V E F  
UniRef90\_A3PRH8 TGGPLTLVDLNSATLEP GDVV L I A S D G G I D A L S E A E V V E I  
UniRef90\_C2KJY4 GVD E H A D I E L S Q H D F V A D D I L F L T S D G I T K V L D Y K T I K Q L  
UniRef90\_B8CQW9 GLD V N V E V D Y R M L E A G D I L Y L L T T D G G I H D V V T D F E V E Q K  
UniRef90\_W5HNC6 KQNKFLSPDKQMLTCD DDDDFLVL LASSDGGIWDVYFPADAGDLJAA  
UniRef90\_UPI0003616EF3 PDAVDTEPRTIATRTRGAGWV L LASSDGGIWDVYFPADAGDLJAA  
UniRef90\_A7I8G7 T L G E P L A K T D L V T V N L V N R F L L F S S G G L Y E Y V K K D R I A E I  
UniRef90\_H2S5W1 GYSTPRPHVCTVITLMPQDEFFL L G S S R G L W D F L S P D E A V I E A  
UniRef90\_D9WQC4 GADAYLDPHTAFAFKPDRP G Q V V V V C D G G I W D V Y S S N Q Q V V D R  
UniRef90\_G1U570 V P G R P P E Q Q L V S A F P E E D F V L L A S D G G I W D V Y S S N Q Q V V D R  
UniRef90\_G0QJP2 Q N N I D I P G L A M T R S M S E D K F I V L A F D G G I W E Y M N N I D V I K C  
UniRef90\_UPI000443DE6A SLAVSRA L G D Y D Y K C V D G K G P T E Q L V S P E P E V L  
UniRef90\_UPI00036C4E8A GTRDALSIVGVTFAL HDGDAFLI C T D G G I W E Y A D D A G I A D A  
UniRef90\_B9WKY2 I V I T C Y P D V I Q H N I D Y N S D E F V V L A C D G G I W D C L T S S Q K C V I E C  
UniRef90\_I1CQ89 SFDSPSDAQQFTVVKI E E D D I V L G S D G G I W D N L F S D D E I L E E  
UniRef90\_M4DPY7 G P L R C W R W F V S F E L S D A G G R L I I A S D G G I W D I L S S D M A K A  
UniRef90\_UPI00005249B3 CGVJNVIPDVKRCILNSNDRF I L I A C D G G I W K V F D A D Q V L Q V  
UniRef90\_R5K0A5 EELKELDSTDEPVLEKSGDS I L M S D G G I F N T L D S E Q E I M E Y  
UniRef90\_L9L4T6 AMTREPETKRIKLVK H A E D S F L V L T T D G G I N F M V N S Q E I C D F  
UniRef90\_A7TQD3 I V I T C V P D V M E H S L D Y S K D D F V I L A C D G G I W D C L T S S Q E C V I D L  
UniRef90\_B1B5N6 AMSRALGDRYQVVKRTEDDFL L I A S D G G I W D V M P S N E V A C D V  
UniRef90\_A1D3E6 KKSPELSP EQQLVITDDDFLVL LASSDGGIWDVYFPADAGDLJAA  
UniRef90\_U4ST78 TKRFE M N Y D T L F I P M S D I R R F Y I M S D G A H Q Y W E H R P R F S L  
UniRef90\_J8PMU4 L N T P A D A D E Y S F L K K N D V V E L A T D G G I T D N T A T E R D I E R F  
UniRef90\_G1Y0U3 G L E D A L R A D Y T A E P L R E G D R V L L T D G G I H G V L S S R D L A R L  
UniRef90\_D7TVG7 LR P Y V I S E P E V T V W K E S D E F L V I A T D G G I W D V V T N E L A C K L  
UniRef90\_R5JLA4 G N I S L M D I N D N P Y L E D G D I L L A S D G G I Y R K V S E D I L D V I  
UniRef90\_K0Q8U4 G E S N R N S N D N F V F Y D K S Y F F L V S D G G I W K D S E T S F E K V I  
UniRef90\_H0UN36 E E I A E I S I P E E P V R L E K G D V V L V S D G G I H R V L S P A E M A L



UniRef90\_Q9VBF9  
UniRef90\_Q9M9C6  
UniRef90\_I2MYD5  
UniRef90\_C9KXK7  
UniRef90\_UPI000466123D  
UniRef90\_M1BQA9  
UniRef90\_E3KA89  
UniRef90\_C1MZC9  
UniRef90\_C1E4B0  
UniRef90\_C4XWF9  
UniRef90\_UPI000463B782  
UniRef90\_UPI00036FC03D  
UniRef90\_A9SM83  
UniRef90\_A9TPF9  
UniRef90\_UPI00037BAABF  
UniRef90\_V7CMI2  
UniRef90\_R6G7E6  
UniRef90\_A8H3K0  
UniRef90\_UPI000455FAA0  
UniRef90\_W9RZH9  
UniRef90\_B8AF29  
UniRef90\_E3KQ24  
UniRef90\_D8RBZ0  
UniRef90\_A0A058ZSW5  
UniRef90\_G0MYZ3  
UniRef90\_G1N1J4  
UniRef90\_B9I570  
UniRef90\_UPI00038024E0  
UniRef90\_Q014H2  
UniRef90\_R9LWY5  
UniRef90\_B3S663  
UniRef90\_B2W1K2  
UniRef90\_C5LIU1  
UniRef90\_U6KXS6  
UniRef90\_UPI0003794892  
UniRef90\_UPI0002D57669  
UniRef90\_G0UQ48  
UniRef90\_A0A059CVR5  
UniRef90\_V7CGA3  
UniRef90\_C6T8C6  
UniRef90\_L7N3N0  
UniRef90\_UPI00034AEDB4  
UniRef90\_UPI000440C47E  
UniRef90\_B0EN33  
UniRef90\_H3GT78  
UniRef90\_K3YPH4  
UniRef90\_K1SSP4  
UniRef90\_J9I2U6  
UniRef90\_N6XNQ4  
UniRef90\_K4BX81  
UniRef90\_F4S992  
UniRef90\_B9HJ53  
UniRef90\_G7JHV5  
UniRef90\_M5WFD5  
UniRef90\_UPI00042AFCE5  
UniRef90\_L1JRM2  
UniRef90\_R9AG42  
UniRef90\_J9ISA0  
UniRef90\_A0C8P9  
UniRef90\_F0YDB1  
UniRef90\_S7ZZ58  
UniRef90\_T0YK94  
UniRef90\_U7PXG5  
UniRef90\_G8BMQ4  
UniRef90\_A3PRH8  
UniRef90\_C2KJY4  
UniRef90\_UPI00036C4E8A  
UniRef90\_B9WKY2  
UniRef90\_I1CQ89  
UniRef90\_M4DPY7  
UniRef90\_UPI00005249B3  
UniRef90\_R5K0A5  
UniRef90\_L9L4T6  
UniRef90\_A7TQD3  
UniRef90\_B1B5N6  
UniRef90\_A1D3E6  
UniRef90\_U4ST78  
UniRef90\_J8PMU4  
UniRef90\_G1Y0U3  
UniRef90\_D7TVG7  
UniRef90\_R5JLA4  
UniRef90\_K0Q8U4  
UniRef90\_HOUN36

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

UniRef90\_U6PYW3  
UniRef90\_M8CPK0  
UniRef90\_G8S2L6  
UniRef90\_A2EQP7  
UniRef90\_D9V9A1  
UniRef90\_A0CD95  
UniRef90\_K4AXT4  
UniRef90\_Q5YW98  
UniRef90\_A0D387  
UniRef90\_UPI00034DF2B1  
UniRef90\_W5F8C2  
UniRef90\_G3VWT9  
UniRef90\_UPI00032AD39C  
UniRef90\_A0CVH1  
UniRef90\_UPI00042B3680  
UniRef90\_A0A024TZ95  
UniRef90\_R9VXR3  
UniRef90\_A0A059D8V1  
UniRef90\_UPI0003C18B19  
UniRef90\_V9FR36  
UniRef90\_F0YDH6  
UniRef90\_A0D6B7  
UniRef90\_I3SJH7  
UniRef90\_A9SWS6  
UniRef90\_U6GG58  
UniRef90\_UPI0003EA989F  
UniRef90\_B7LHM8  
UniRef90\_G0TUP1  
UniRef90\_R5EBR4  
UniRef90\_UPI0002B452D6  
UniRef90\_E3GME5  
UniRef90\_G7IFP5  
UniRef90\_F6H6X4  
UniRef90\_B9HPC5  
UniRef90\_M0TP86  
UniRef90\_R0GDGX0  
UniRef90\_D8RAP2  
UniRef90\_UPI00040DEE03  
UniRef90\_Q0C010  
UniRef90\_UPI00037D896F  
UniRef90\_C4M0D7  
UniRef90\_Q9CS46  
UniRef90\_M0T2M4  
UniRef90\_R7WIFY8  
UniRef90\_M0TRG8  
UniRef90\_W4FKQ3  
UniRef90\_C5YSF7  
UniRef90\_G7KNY4  
UniRef90\_M5RKM8  
UniRef90\_K4AAU8  
UniRef90\_A0C6L8  
UniRef90\_S8CPI3  
UniRef90\_W7JU52  
UniRef90\_G5EDI3  
UniRef90\_A2FKA0  
UniRef90\_UPI0002B4CD20  
UniRef90\_B2TKG4  
UniRef90\_S3DKL8  
UniRef90\_O49973  
UniRef90\_UPI0002C341BB  
UniRef90\_B9HXE7  
UniRef90\_W9SDF3  
UniRef90\_UPI00042B41F2  
UniRef90\_W6MAA9  
UniRef90\_J9FFG5  
UniRef90\_B6HF86  
UniRef90\_M7AV73  
UniRef90\_M4BV30  
UniRef90\_J9INI8  
UniRef90\_G9BWD9  
UniRef90\_M5XFL5  
UniRef90\_W7AA91  
UniRef90\_UPI0002C3E842  
UniRef90\_U2WFO6  
UniRef90\_H2MW32  
UniRef90\_B9RCS1  
UniRef90\_O64730  
UniRef90\_J9IT05  
UniRef90\_Q84J10  
UniRef90\_W1P6A0  
UniRef90\_UPI0002C35A83  
UniRef90\_F6HNU4  
UniRef90\_V5G8D8  
UniRef90\_V4KUM6  
UniRef90\_Q23AG9  
UniRef90\_UPI000349AF52  
UniRef90\_R9XQM1  
UniRef90\_I8IBD0  
UniRef90\_R0IN96  
UniRef90\_M5VQH8  
UniRef90\_C5Y322  
UniRef90\_I1L484

1 10 20 30 40

D V V R S D V A L M A V F D G H G G  
S F R L P A H F F A V Y D G H G G

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

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

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

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

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

UniRef90\_U6PYW3 A E C A A Y C C A H L P A E F V R A L N A N P T S L E A S M K Q A F E R L D T R 50 60 70 80  
UniRef90\_M8CPK0 A Q V A D Y C R D K L H A A L A E E L R A A E D R V K K Q W E K A F V D C F C R  
UniRef90\_G8S2L6  
UniRef90\_A2EQP7 S K T S N F A A C D L F N N L S K L E K V D E N T L S G S V S A T L K S  
UniRef90\_D9V9A1 D D P G A G R A A Q V A A A A A R T P V E S G P V Q A I L A A Q Q A V R R L  
UniRef90\_A0CD95 S R D N L H Q F V T K E L D E F P W N P Y E A L R K G F A A E E Q Y F F A L  
UniRef90\_K4AXT4 F G T E C S V F V R K D R L V E L I S N D S T L D D P V K A Y N S A F S I T N E E  
UniRef90\_Q5YW98 S P Q A A S S G T A V R A L A A L R Q G A T A P D A A Q A G L A A A D A V R A I  
UniRef90\_A0D387 S G K E A S Q A A N D Y I Q T F L E K N P K R D K Q R E S F K S A F A K N A E A K  
UniRef90\_UPI00034DF2B1 H P D T A R A A A Y L A A D T A T S A P G E A A D A L L A A R A I T R A H  
UniRef90\_W5F8C2 R L A A E Y A Q K H L H P H M N V K V A K K A T I E G F R K A D E S I L Q E  
UniRef90\_G3VWT9 V R A S K F A A Q N L H Q N L T R K F P K G E L L D T F K H T D E E F L K Q  
UniRef90\_UPI00032AD39C P E A S R F V N N R L F P Y L H K F A S E D V I K K A F S A T E E D F L H L  
UniRef90\_A0CVH1 S G I S Q F L A E N F M N V L I S Q P A F E D F M Q S L H D T F L Q L D D M  
UniRef90\_UPI00042B3680 H D V A K Y L Q V H L F D N L L E G E H D F W T E M E D A I R R A Y H S T D A E  
UniRef90\_A0A024TZ95 W N E R A M M Y R S R Q L V Q G Y E K D P A M L S T L D I L T E A Y A L T L K D  
UniRef90\_R9VXR3 Y T G E A S E K V I S F L Y E N S N N L I S N F E H L F T G L K E A V N E L  
UniRef90\_A0A059D8V1 A A D Y V A E H L H E N I L F E K M G N A D A S S D K E A A I K A G Y L K T D R E  
UniRef90\_UPI0003C18B19 A A T A E F C A R N F L G H F I Q R N L Q M D S D L A L I M K A F A I T R A H T  
UniRef90\_V9FR36 Q G A F V S H F V R E Q Y Y R A V A E A Y T E D V V A E I F Q R A A P A V V D A  
UniRef90\_F0YDH6 R G D L V S D Y C M R Y I R D T L C T H P K E S D L K T A L I E T F V R C D E K  
UniRef90\_A0D6B7 K G H E V A Q F V Q E R L P T I D Q D M I Q M L K Q A F E R T T K E L Y Q  
UniRef90\_I3SJH7  
UniRef90\_A9SWS6 N A V S E M L Q K S V W R I Y K R K L S G S P D V V V R A T R E T Y L N E L D Q L  
UniRef90\_U6GG58 F G H E I C H V V Q Q D L W R L T I T D N P D R S V L Q E A F L K A H S N K C D A  
UniRef90\_UPI0003EA989F R A A V D F P A P S S S P P A A A A D H V A A A I R A A Y L A T D G D F L S Q  
UniRef90\_B7LHM8 Y S G A S Y A S S M A L A E L S A L T S L S F D A V P N V F A E V K R K V M S L  
UniRef90\_G0TUP1 Y A R V G V D P A S I R N V M K H T R C A L I E E D N N C G T V S A L Q A L T Y G F  
UniRef90\_R5EBR4 G E R V S Q K I V M E A L T F G S T L Q A N P T A L P G M V A G I N R A V N Q M  
UniRef90\_UPI0002B452D6 P D A S R F I C D H L F R N L M R N I T E D I L R S A V C A T E E G F L T L  
UniRef90\_E3GME5 K G E A A S S I A I D E I N H W A N T C R H L L T D K A V K Q I N K H I L C Y  
UniRef90\_G7IFP5 F G G L C S N F V A K N K L V E K L S N D S A L E D P V K A Y N S A F L A T N D E  
UniRef90\_F6H6X4 W G H V A V K R V R K L M S F L L C H W Q E D I W R Q S Y L K T C A A I D E E  
UniRef90\_B9HPC5 S H V A V K C K E R M H E L S V K E E V E S K E E W K S A M E R S F R R M D K E  
UniRef90\_M0TP86 W G H Y V A K V L K S L P S S L L C N W Q E D L W K Q A Y L R A C G V V D K E  
UniRef90\_ROGD X0 A A E F A S E N L H K N V L E M M K N C K D K E E K V E A F K A A Y L R T D R D  
UniRef90\_D8RAP2 A A E A S R I L P Q K L S D I L T V E G E R I D V L K V L K D A F K E T E E A  
UniRef90\_UPI00040DEE03 G G E R A S A I A V E E L A Q L A R E A T R T R A S I E E T L E R A Q S R T R A  
UniRef90\_Q0C010 S R G E A A E L A V K S F L T D Y Y C T S D A W S V K T S A R V L E A T N S W  
UniRef90\_UPI00037D896F E P S A R A A Q A V A I A T A V Q V P A S Q G P A A A L J A A  
UniRef90\_C4M0D7 K D A A K K A M E T F H K L L D E Y L I K S D H Y L E H L N H I C N E I  
UniRef90\_Q9CS46 L L D T F K H T D Q E F L K Q  
UniRef90\_M0T2M4 S H H E V V A E E V E T L A P G A G T P S Q A W A M E R S F A R M D D C R C E L  
UniRef90\_R7WVY8 P R E N L P N N V L A A I P P N L T S E E W T A A L P R A L V A G F V K T D K D  
UniRef90\_M0TRG8 A K E N L L N N V L S A I P S D L S R E E W I Q A L P R A L V A G F V K T D K D  
UniRef90\_W4FKQ3 D L A S E F V K T H L V D L D S E E P D T A S L R H A T A T L E R R F G E L  
UniRef90\_C5YSF7 V L V A V Y E H L L E H V M S A L P P N I G R E D W L Q A L P R A L I A G F V K  
UniRef90\_G7KNY4 F G A E C S Q F V K R R L C E N L D R N S K F N D P V E A C H A S F L A T N S Q  
UniRef90\_M5RKM8 C P A I A V H C I A E M V A A S D P D A D L R A I L D G I E K A N T E I L D L  
UniRef90\_K4AAU8 P E R F I N D H L F N H L M K F E H K C I S V D V I R K A F Q A T E E G F L S L  
UniRef90\_A0C6L8 N G H V S N F L K Q Q F L A Y I T Q F S E N N P Y I A I S T I F T H V S Q A  
UniRef90\_S8CPI3 P N E N L F K Y L Q K F V A E N N D Q T L S M E A I H K S F Q A T E D G F F S L  
UniRef90\_W7JU52 W I K Y G I N P R K Y P E K F L Q L L Q K K I N E N E N I Q L N Y  
UniRef90\_G5EDI3 P R A A E H C Q V K E K L A K F S D F P T L T K S L K Q T F K A V D D G F L A I  
UniRef90\_A2FKA0 W A E H F G A N S A H K L M N L S C E Y S D L P S P I E I F K A A F N D H E T  
UniRef90\_UPI0002B4CD20 W G H F V A K T V R E S L P P S L L C H W Q Q G L A Q A F L D P E L D S E K K H  
UniRef90\_B2TKG4 D T E N A A Q I A V T T F K L F T Y Q N P T M N T L K K Y L N K V N E E I V K T  
UniRef90\_S3DKL8 W V D S G V D P A D F S H G F C D Y H K P E E W K V P L G A R S L M Q R G Y E D  
UniRef90\_O49973 A A K A V S K I L P E H L G Y I L S H P E T K E R V Q D V L R Y A F T L T E D T  
UniRef90\_UPI0002C341BB A E A A K S A S K L L P E I V A Q C D A S D V L R D A F Y Q T E  
UniRef90\_B9HXE7 W G H F V S K R V R E S V R N L H Q F D I W K Q S Y L K T Y A A I D H E L K Q H  
UniRef90\_W9SDF3 A A I F A K E N L L D N V L S A I P Q G I S R E E W L Q A L P R A L V A G F V K  
UniRef90\_UPI00042B41F2 W R E K A V I E W K Q T M E R S F E R M D K E V Q D W T V D A K E S S C R C E L  
UniRef90\_W6MAA9 D R R I A P Q A L K A V R E H P E W L Q D G F V A N R H V R A Q A R L A E R  
UniRef90\_J9FFG5 N E D F V R D H L V D E L K K L P S F Q G S E Q A L K D I Y I H L D E M L I T R  
UniRef90\_B6HF86 W T E S R V D P A D F S H G L C N Y M A H T A Q T W H E P A E R L L Q A G Y D Q  
UniRef90\_M7AV73 P P Q D D L C I K V A L S N F G I P L L  
UniRef90\_M4BV30 D F C A K Y A A K H F H W M Q V I K H D T K K G R Y Q S L E A A I D K E L Q D  
UniRef90\_J9INI8 I E V A E F C S R Q L T Q I Q A S Y P P Q V S P V I E R A L M L A G R Q P M S I  
UniRef90\_G9BWD9 M V S G G D C A A I S T F V A I S L V H S N T P T L I E K A V R D A N E S V Y A A  
UniRef90\_M5XFL5 A R Y V K Q N L F S N L I R H P K F I S D T K S A I A D A Y S H T D S E F L K S  
UniRef90\_W7AA91 R P A R A S R F V V E A L S R F G S H E R L T G K Q V R K I Q D Q L A D K Y  
UniRef90\_UPI0002C3E842 V I Q T A Y F N V M F P D I F Y E V L K K P I T I E E A F K E A F E V I Q C E  
UniRef90\_U2WF06 G A K V A A R I A V E S A T E Y F M L R P N Y D V I K E M M D Y A N L K V K E K  
UniRef90\_H2MW32 A R A S R F A A E H L H N H L D K L R K C L L D T F R Q T D E D F L K K  
UniRef90\_B9RCS1 A C K E R M H Q L V A N E L I K K E R S S D E S Y W G K V M T E C F K K M D D E  
UniRef90\_O64730 W A E Q D V D P S L F S K E L M A N A S R L V D D Q E V R Y D P G F L T D K  
UniRef90\_J9IT05 N E E F V R D H L V D E L K K L D S Y K D Y E Q C L K D I Y L K I D E Y Q K S Q  
UniRef90\_Q84J10 S H E E A R W R G V M E R S F A R M D A E A V A S S R G S V A P A T C R C E M  
UniRef90\_W1P6A0 P E T A R Y I C D N L F R H F R E F S S E E D V I R R A F M E T E E G F V I S E  
UniRef90\_UPI0002C35A83 W G H F V A K R I R E T M P A S L L C N W Q E T D L K E L E L E S D K F M D Q R  
UniRef90\_F6HNU4 S H V A M K C K D R M H E I A K E I L E R C G S W E Q V M E R S F S R M D K E  
UniRef90\_V5G8D8 W T E S R V D P A S H G L C S Y M A Q T A L I E W D I E A H A K N L L Q K G Y D L  
UniRef90\_V4KUM6 R L A A E F A K K H L H L N V D V K V A K A L E G F R K T D E L L Q E  
UniRef90\_Q23AG9 A F R C A D F L R D H L H Q Y N V P E N P R Q A L I N G F A K A E K E F I E R  
UniRef90\_UPI000349AF52 H P R T R E A A E F A A I T A T E A D G D A L D A V L A A T R A L I S R A H  
UniRef90\_R9XQM1 Y K E I A S R I A K N L E L A Y N N V F S A S L A E I K K  
UniRef90\_I8IBD0 W A E S R V D P A S H A L C G Y M A Q S A D W D A P A E Q L R A L L Q A G Y D Q  
UniRef90\_R0IN96 W V E S G L D P A D F S H G L C E Y M A C A A R S W P H G F N T T S L H P Y D K  
UniRef90\_M5VQH8 P D A S R F I S D H L F L H L M R H A S E D I L R S A F S A T E D G F L T L  
UniRef90\_C5Y322 K N I L L V K T F E Q V D G E L R Q H  
UniRef90\_I1L484 R L A A E Y A Q K H L H R N F D A K E A R R A I L N G F L K T D E S L L Q E



UniRef90\_U6PYW3 A R C E H E R W R S G T T A V A A A I 100 D A K S M V T A W V G D S A A Y V L S S D 120  
UniRef90\_M8CPK0 V D A E V E A P D S A G S T A V A A V L C S S H I I V S N G C D S R A R A Y V V T A P  
UniRef90\_G8S2L6 L K A Q H F N D G S T M A L A V I T P N R H I V G F G W V V G D S R T I V V T A R R  
UniRef90\_A2EQP7 G S Q F N K G I A E R S G S C A I V A L L V G D V C Y V A N V G D S R A Y S W D G  
UniRef90\_D9V9A1 L H D S E I D D S M S G T T A I T A L L V G D M L Y V A N V G D S R A V L M A V K  
UniRef90\_A0CD95 A T D D L H A P S C T Y V S A V V R G A G G A V D V A N V G D S R A Y W P G C  
UniRef90\_K4AXT4 L R S S G I D Y S N S G T C A L S I F V V K N M C Y I A N L G D S R A V L F R Q  
UniRef90\_Q5YW98 P G T D C V M A H A R Q D A P D D P I D I A W V G D S R V W T W S P  
UniRef90\_A0D387 S A K G N W Q D G A T A V C V W V L G Q T V L V A N A G D A K A V L A R S W  
UniRef90\_UPI00034DF2B1 A S S Q K P C G S S R F C A G G I W A G P A Q R R R A H L G S V S R D P L T S W  
UniRef90\_W5F8C2 V K L S L P V S P Q I A S V G S C C L L G N N V L Y V A N L G D S R V V L N C P  
UniRef90\_G3VWT9 I K N N E I K N T F I G S T A V V A L I A G D K M L Y V A N L G D S R C L L M R D  
UniRef90\_UPI00042B3680 L L D K A R L L G G S T A V T A L L N G E Q K L V V A N V G D S R A V I C K  
UniRef90\_UPI00042TZ95 D A V E A G S T T A C I I K I R A G K D G E P M L D Y T N L G D S R V F A I V R G  
UniRef90\_R9VXR3 S I Q N S E L T N A A T T L T L C Y I T D R H L K I A H V G D C R L Y V K K D  
UniRef90\_A0A059D8V1 F M T Q G L S S G A C V T A L T I Q G Q E I A I S N L G D S R A V L C R G  
UniRef90\_UPI0003C18B19 F L H N V F L G S G T T A T V V L L E N E T E L I V A N V G D S R A V L C R E  
UniRef90\_V9FR36 L E A S A I D I S V S G T T A V A M L V R K T D V F I A N I G D S R A V V D Q R K  
UniRef90\_F0YDH6 M A Q D D V P V I H S G T T A V V A V L V G N K M T I A S V G D S R A V L G R K  
UniRef90\_A0D6B7 S G I D I T Y S G A T T V C L L I E H T G W C A N I G D S R A I I G R Q  
UniRef90\_I3SJH7 A G G S K C G A T A A T A V L F S K P D G S K E L V T A N V G D S R A V L Y R G  
UniRef90\_A9SWS6 F Q L D S K L S G T T V T L L V Y L R E Q N K L F I A H V G N S R A V L C K F  
UniRef90\_U6GG58 G T R G G A C A A T A L V I D G D L Y V A T L G A C C R L Y C I G E S  
UniRef90\_UPI0003EA989F A E V N D E F D Q A A T T L T F C Y V C D S G I I I G H I C C G T I C I G E S  
UniRef90\_B7LHM8 T E A N K L D Q P G G C P V T L V T L L N G H F A S V L N L G D C C G T I C I R S  
UniRef90\_G0TUP1 L G P K G L Y T S G S T V V S A L I T G N A L R W I S V G D S R V Y L Y R D  
UniRef90\_R5EBR4 V R R S W G I K P T I A A M G S C C V I W R G T L F V G N V G D S R A V I S N K  
UniRef90\_UPI0002B452D6 G K K R N I K L G T T L T M I V I N E E G R I L Q V G D S J A Y L I E K  
UniRef90\_E3GME5 L H K S E I D D C M S G T T A I T V L V I G D T L Y V A N V G D S R A V L A V K  
UniRef90\_G7IFP5 L E Q H A D L D S G T T A L T L V R Q G E L I T I A N V G D S R A V L T K S  
UniRef90\_F6H6X4 V I J A W N Q G M E I R A N C R C E M V V T P D K I I V A N C G D S R A V L C R N  
UniRef90\_B9HPC5 L E H D R S L D S F H S G T T A L T I V K Q G E L M I A N V G D S R A V L T E S  
UniRef90\_M0TP86 F L E Q G V V S G A C C V T A L I Q D Q E M I V S N L G D S R A V L C R G  
UniRef90\_R0GD X0 L N C E Y E G C T A T V L L W S T V G Q E Y F V Q C A N L G D S S C V L S V G  
UniRef90\_D8RAP2 L G L T L G G T A G T V T V G V V L P Q W F A A A D E L I E C G C A D G A T H F A  
UniRef90\_UPI00040DEE03 L F G Q T R A R G P G Y V T T F S A L V T K G R V A H L L H V G D G V I G R L R Q  
UniRef90\_QOC010 A Q R A V R A E P A G D C V L V V A T P V D G G Y G V G V W V G D V R A Y A W N G  
UniRef90\_UPI00037D896F Q Q L I S F T T A S G T T A S V I I R E D D V I F C Y I G D S P I Y I K S N  
UniRef90\_C4M0D7 A S S Q K P A W K D G S T A T C V L A V D N L L Y I A N L G D S R A I L C R Y  
UniRef90\_Q9CS46 Q P P R C E H V G S T A V V A V I G P T R I V V A N C G D S R A V L C R N  
UniRef90\_M0T2M4 F Q T K A A R S G T T V T F V I I D G W V V T V A S V G D S R C I L E S A  
UniRef90\_R7WVY8 F K K I A S V S G T T V T F V I I D G W V V T V A S V G D S R C I L E S A  
UniRef90\_M0TRG8 A T A A N D F S G A C F V A L V V V E D G S R T R F V I N C G D C R I L K K H R  
UniRef90\_W4FKQ3 A D I D F Q R K G Q C Y C V W N H G D T G G R R W V H G H V G D S H C I L D T Q  
UniRef90\_C5YSF7 L H A D V L D D S M S G T T A I T L V R G K T V Y V A N C G D S R A V I E V P  
UniRef90\_G7KNY4 G I G A A T T L S V E M V E G R V R A Y T V G D S M T M I V G Q R  
UniRef90\_M5RKM8 V S R E W P Q I A S V G S C C L V G V I C S G T L Y V A N L G D S R A V L G R L  
UniRef90\_K4AAU8 L N Q S G I D L K Y S G S T V I G L F M L H N K I Y C A N L G D S R A I R T N R  
UniRef90\_A0C6L8 V K T L W P I J A A V G S C C L V G I C N G T L Y V A N V G D S R A V L G R K  
UniRef90\_S8CPI3 A Y I N N D K E G S T T I C L I F N K N D N T V S T A N I G D S Q F L I T R N  
UniRef90\_W7JU52 A K Q N K P I W K D G T T A T T M I L L N N V I Y F A N I G D S R A V V A R K  
UniRef90\_G5EDI3 I H G S T T I S I A K L E N D T M I F Y N L G D S G C A I F A K N  
UniRef90\_UPI0002B4CD20 Q R Y D I W K H S Y T C A A I D R E L E Q H R K I D T A N V G D S R A V L I Q C  
UniRef90\_B2TKG4 S K N V R L K A S M T I A I T N Y S K V R Y I V I G N S R F Y F K D  
UniRef90\_S3DKL8 I S N D E T V P A G G S T A C V A I V R E S G K L E V A N L G D S G F V Q L R S  
UniRef90\_O49973 I D H Q Y E G C T G T A L L I W F D Q N K D C F A Q C A N L G D S A C V M S V N  
UniRef90\_UPI0002C341BB A S I L N Y H Y E G C T A T V L L V W T D G D D F A Q C A N L G D S A C V I N V N  
UniRef90\_B9HXE7 P E I D S F C S G S T A T T I L I K Q G E H L V I T N V G D S R A V L T R S  
UniRef90\_W9SDF3 T D I E F Q Q K G M G T T V T F V V I D G W T V T V A S V G D S R C I L D T Q  
UniRef90\_UPI00042B41F2 Q T P Q C D A V G S T A V V A I V T P D K I L V A N C G D S R A V L C R N  
UniRef90\_UPI00042B41F2 L G S H R K T Y G A S T L A V A H V R G Q N S A I L N V G D S R V Y V N R E  
UniRef90\_W6MAA9 G G S E E I A M G T G C T A V S A I T P T D I Y V G N S G D S R V V L A D Q  
UniRef90\_J9FFG5 V V A D P S I R A G G S T A S V G V A L P D G R V E L A N L G D S G S V L L R R  
UniRef90\_B6HF86 G W L Y A T L N A G T T A V A L L R D G I E L V V A S V G D S R A L L C R K  
UniRef90\_M7AV73 F D E S S D S G S T A V T C L I R R C N G R T M F Y I A N V G D S R A I F C C D  
UniRef90\_M4BV30 G N P N D P A E S K G C T A N V L L T K D N T M F I A N A G D A R C V M A V T  
UniRef90\_J9INI8 Y K G K G G S T L S A I I C D Q D T Q W A I N V G D S R I Y V L N N  
UniRef90\_G9BWD9 E N N Q N R D A G S T A S T A I L V G D R L L V A N V G D S R A V I C R G  
UniRef90\_M5XFL5 A G G D T H G S S T T L V A A R V T E N R C E I V N V G D S R A V L F C P  
UniRef90\_W7AA91 F V K M G V K D G A C V T V V F L T P L K I Y T A Q C G C R A V Y V T S  
UniRef90\_UPI0002C3E842 Q E E T Q K Y S L M H T S L L I I S N Y N S I L Y G N I T G N T R F Y H I R G  
UniRef90\_U2WF06 A S S Q K P S W N D G S T A T C V L V V D D V L Y V A N L G D S R A V M C R T  
UniRef90\_H2MW32 V T G G K G N N T V G S T A T L V V M V G K E E L V V A N C G D S R V T V C R T  
UniRef90\_B9RCS1 A H T A T T S R G S A T I L A M L E E V G I L K I G N V G D C G L K L L R E  
UniRef90\_O64730 D R A S S M F G G G G C T A C S A I T P N E I I V V G N A G D S R A V L A V K  
UniRef90\_J9IT05 Q L P K C D H V G S T A V A V L G P R H V V V A N C G D S R A V L C R G  
UniRef90\_Q8AJ0 L W P G R P Q M A T V G S C C L V G V I R E R T L Y V A N L G D S R V V L G R R  
UniRef90\_W1P6A0 F N I W K H S Y I K T C A A V D Q E L E Q D R K I N S F Y V G D S R A V L T Q R  
UniRef90\_UPI0002C35A83 V V E W C N G Y Q W S N C R C E L R T P Q C D K V V V S N C G D S R A V L C R N  
UniRef90\_F6HNU4 L V E D P S I Q A G S T A S V G V A Q T D G K V E L A N L G D S G S V L L R L  
UniRef90\_V5G8D8 S V S G G W Q D G A T A V C V W I D Q K V F I A N I G D A K A V L C N P  
UniRef90\_V4KUM6 A E Q F N P Y D K S G S C A I V V L L V G E I C Y I A N V G D S R A I L S M N  
UniRef90\_Q23AG9 P G A D C V M V H A R Q D A P E D P I D I A W V G D C R I W T W A P  
UniRef90\_UPI000349AF52 L D P E Y N Q A S T T L T F G Y L T Q E G R C I G H I G D S C R L Y I K Q G  
UniRef90\_R9XQM1 V V J A D E S I R A G G C T A S V G V G L D D G R V E L A N L G D S G S V L L R L  
UniRef90\_I8IBD0 V T D D A T I E G G S T A C L A V A E P D G N V E L A N L G D S G F M H L G L  
UniRef90\_R0IN96 V R R T C P L M A I G S C C L V G V I W R G T L Y V A N L G D S R A V I S N K  
UniRef90\_M5VQH8 S G I D C I C S G T T A V A V R Q G D H L I V A N L G D S R A V L C N C  
UniRef90\_C5Y322 S A E G G W Q D G A T A V C V W V L G Q R V V V A N L G D A K A V L A R S  
UniRef90\_I1L484

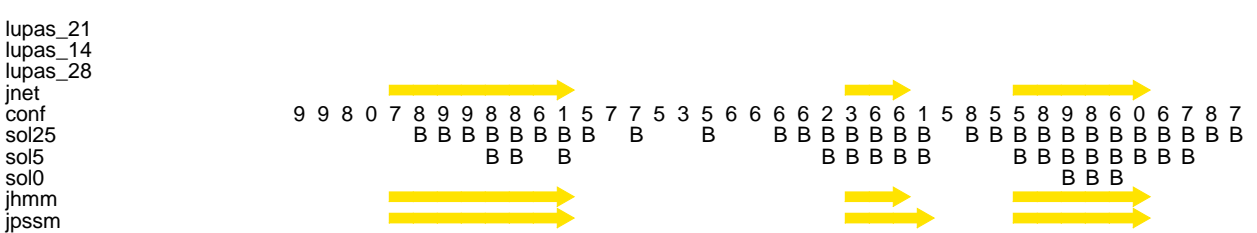
UniRef90\_U6PYW3 N N L R K L I T N A H V P T N E E E A R R V E Q D G G Q L L Y I Q G E L R V N G R  
UniRef90\_M8CPK0 N R E D E Y A R I E A L G G K V I Q W N G Y R V L G V L A M S R S I G D R Y L K  
UniRef90\_G8S2L6 G G S P A Q S T E D D S W A R H V I A M G A D P R V A M N D P K A H A I T A W L G  
UniRef90\_A2EQP7 D G S I S H F T K D H K P D E K S E V K R V L S Q H G F I L K H R V M D F E V V  
UniRef90\_D9V9A1 S M I H K L I T Q D H T M A E Y F R S R H Q P Y S P R M E H L V I T T S V  
UniRef90\_A0CD95 K S A L P L S R D H K P C D E L E K L R I Q K A G G K Y Q T Q Q Q Q D D Q Q V  
UniRef90\_K4AXT4 E G N R V L S A K D L S D Q T P F R K D E C E A R V K S C G A R V L S V D D Q V E G  
UniRef90\_Q5YW98 M P S Q R L I T V D D S W A Q A L V D A G A M D E Q A A M N D P R A H T L L R W L  
UniRef90\_A0D387 T Y D H K P T R P D E K E R I R C G G K I E R L L H D G Q P V I G P Y R I W A D  
UniRef90\_UPI00034DF2B1 G E G R Q H T R D H T H G Q E L R D R W A S D D L A R A C D H T V I T T  
UniRef90\_W5F8C2 T S T I V L T R E H K A I F P Q E R S R I Q K A G G S V I G P N G R L Q D R H F K  
UniRef90\_G3VWT9 P C H R W E P A S F S L W S A E G Q P A G D A G R A G R A R G H P P D G R R S I  
UniRef90\_UPI00032AD39C V E A V R L S T D H N V A D E V R R E V E A L H P D D S H I V V Y S R G V W R  
UniRef90\_A0CVH1 D E T I E L T K D H L P S N E L A R I R Y Q G R L N G T L S V S R A F G D F E F  
UniRef90\_UPI00042B3680 G V I A E Q L L S V D H E P S K E  
UniRef90\_A0A024TZ95 D K V V I F R S S F Q S M G L A P F Q L A K I P E R F K C Y G A M E S Q P S E A N  
UniRef90\_R9VXR3 N K L K Q L T K D H T Q H Q M L I D E G I F S S R Q L K N A K G K N L L T T A I  
UniRef90\_A0A059D8V1 G V A E A L T K D H R A D K E D E K Q R I E D M G G F V E M H R G S W R V H L  
UniRef90\_UPI0003C18B19 G K A E R L T E D H T P R R K D E K H R I Q Q C G G F I Q W N S A G E P  
UniRef90\_V9FR36 Y E L H C E T K D H K P D V P E E C A R I E R N N G R V F E W G S Y R V W L Q D  
UniRef90\_F0YDH6 D G T K D L T V D Q N P D H P L E M P R I L K A G G A M A R S L G D R C V K H V  
UniRef90\_A0D6B7 R V I Q A Y S D E E G N P I G P A R V W L K D E N V P G L A M S R S F D R Y V A A  
UniRef90\_I3SJH7 K E A L P L S I D H K P N R E D E R E R I E A A G R V I H W K G Y R D R Y L K  
UniRef90\_A9SWS6 G Q A L Q L T V D H K P D V K E E R E R I E A K N P T P K K P L V V I N V I G G T W  
UniRef90\_U6GG58 N R Y G C G V R A V D L T V D  
UniRef90\_UPI0003EA989F G A T A L T S D H T A A R D D E R T R I E T S G G Y V S C G S S G G G V Q D  
UniRef90\_B7LHM8 K K A Y Q L T K D D T R H Q M L I D Q N I F K P R D L K N K P G K N I L T T A I  
UniRef90\_G0TUP1 S K L F F A T E P Q Q H S N H R S Y L T S C I G  
UniRef90\_R5EBR4 G Q L S Q L S R D H D L L Q D W M P D I K R S M A E A L R D P N G R K L T S F I  
UniRef90\_UPI0002B452D6 I V A E Q L T R D H N A S I T E V R Q E L R S L H P D D S H I V V M K H G V W R  
UniRef90\_E3GME5 R Q A Y R I S D K H T Q Q K N H R S Y L T S C I G  
UniRef90\_G7IFP5 D G N R I V A Q D L S S D Q T P F R R D E Y E R V E G H K D P D I Q T W G D E E  
UniRef90\_F6H6X4 R G Q V I C L Q D E D G V Y R V W M P N T K T P G R L A I S R A F G D Y C M K D F  
UniRef90\_B9HPC5 G K P L P L S D H D R P V D E L N R I Q N A G G R V I Y W D G P R L G L V L A M  
UniRef90\_M0TP86 K G R V L C L R D E P G V H R V W L P D E D A P G L A M S R A F G D Y C I K D Y  
UniRef90\_ROGD0X0 G V I A E A L T T D H K A G R D D E K E R I E S Q G G Y V D I H R G S W R V H A H  
UniRef90\_D8RAP2 G K P V V L T E D H R L T S P E T R I C G M N I A R A L G D K F L K E E S C F  
UniRef90\_UPI00040DEE03 D A H R K P T A T H H P K H P H R V V L S P A E T Y L G R A L T  
UniRef90\_Q0C010 G A F E P L T E Y F R D R G Q V P T P R M E H L V I T  
UniRef90\_UPI00037D896F D S L D R Q L T R D H T L A Q Y F R D R G Q V P T P R M E H L V I T  
UniRef90\_C4M0D7 E Q V K K I S I D H N T S N E E E V K R I I N C G G S V V D I N G T K R V N S K  
UniRef90\_Q9CS46 N E E S Q K H A A L S L S K E H N P T Q Y E E R M R I Q K A G G N V R D S R S I  
UniRef90\_M0T2M4 G A P I P I S S D H K P D R E D E L Q R I E A I G R V I Y W D G A R V L G V L  
UniRef90\_R7WYF8 E G S V Y F S A D H R L D V N E E E V E R V T A S G G R C W P G G L C L S R S I  
UniRef90\_M0TRG8 E G S V Y F S A D H R L E A N E E E V E R L T A C G G R C W P G G L C D M D V G M  
UniRef90\_W4FKQ3 R E Y K A L S T D H K A S C P L M D R V A G V L A P S R S I G D L D M K V P G M  
UniRef90\_C5YSF7 G G E L Q L T M D H S L I E N V E E R E R V T A S G G E V G R L K V G P L W C W  
UniRef90\_G7KNY4 C W G S D E E G D D G S P P R L W V P N G M Y P G T A F T R S L G D S I A E T I  
UniRef90\_M5RKM8 G S L K W D E S T S H S P V G Y A I E S G M L D E A A A M T H D D R H V V S N L V  
UniRef90\_K4AAU8 V K A M Q L S S E H N A C Y E E V R Q E L Q S A H P D D P Q I V V L K H N V W R  
UniRef90\_A0C6L8 W L L K Y L S R D H K P Q C A D E R V W N N A N V P G L A M T R S M G D Q V A K  
UniRef90\_S8CPI3 V K A V P L S V E H N A C H E P I R R E L Q S L H P N D P H I G D V Y L K N A E  
UniRef90\_W7JU52 N Q I I Y R S K P Q Q Y E F N F P Y Q L G S N  
UniRef90\_G5EDI3 F A P V C L I T V D H D P M S H D E R M R I Q K A G A V V K D G R I N G V I E V S  
UniRef90\_A2FKA0 Y E M K F R T N F T V H S F N F P Y Q I N G S N N D S Q  
UniRef90\_UPI0002B4CD20 N G R V I F C L S D E P G V H R V W L P N E E S P G L A M S R A F G D Y C I K D F  
UniRef90\_B2TKG4 G Y L H K E K S R D Q L S L T A Q Q L S D K E M I A L D K A A K H I E R N N L S C Y G  
UniRef90\_S3DKL8 N A V I T Y S E P L T F A N Q T P Y Q L S I V P K K M R A R Q R A F G G T Q L C  
UniRef90\_O49973 G K T I D M T E D H R V I T S A T E R A R I A R T G Q R M F G D K F L K E Q D P R  
UniRef90\_UPI0002C341BB N G R Q M K M T E D H R L S S Y T E R L R I Q E T G E P L K E G E T R L C Q D S R  
UniRef90\_B9HXE7 G K R V F C L R D E P G V F R V W M P N G K T P G L A L S R A F G D H C V K D F  
UniRef90\_W9SDF3 G G V V L L T V D H R L I E N A E E R E R V T A S G G R C W P G G L C L S R S I  
UniRef90\_UPI00042B41F2 G S A I P L S C D H D R P D E L R I Q E A G G R V I Y W D G P R V L G V L A M  
UniRef90\_W6MAA9 G R W C R L S K D H T V L Q G M I D R G H A S P D Y A S V Y G M L E H V L C A D  
UniRef90\_J9FFG5 Y H G I E M S E D H K P D N R L E K Q R I E R A G G F V E D N R K S L S V D D  
UniRef90\_B6HF86 A A V H H Y S I P Q T H G F N T P Y Q L S V I P P R M R A Q A S V F G G A F  
UniRef90\_M7AV73 G K A I K L T I D H T P K D E K E R I K K C G G F I A W N S L G Q S P H V N K S S  
UniRef90\_M4BV30 G Q T S R L S V D H T A T N Q D E V E R I R A L N G I I V N K R V A G S I S V T  
UniRef90\_J9INI8 G K A F P L S T D H S A E G R I D G N L N L S R A I G D L R Y K R N K N I S Y P K  
UniRef90\_G9BWD9 G Q M K Q L S T D D T L E N Q L A D L N L P S P P P E F R Q L L Q Y I  
UniRef90\_M5XFL5 G N A I A V S R D H K P D Q T D E R Q R I E D A G G F V M W A G K V I Y H C F E H  
UniRef90\_W7AA91 E E C R Q L S E D H T P L N A L I A S G E V I P E E A Q M Y Q G L A H C L T A D  
UniRef90\_UPI0002C3E842 E K A I Q L C T E H E P T M K M E Q K R I L K K A G G F V D A A G R V S G L R V S  
UniRef90\_U2WF06 G Y I I S Q S R D D T I A Q L L V D E E A L N I S D M R F H R Q R N D L Q A I  
UniRef90\_H2MW32 E A A A D G Q K L L A L A L S K E H N P T I Y E E R M R I Q R A G G T V R D G  
UniRef90\_B9RCS1 G V I A V A L S R D H K P D R P H E R E R V E A A G R V V N G D G Q Y L R C V  
UniRef90\_O64730 G Q I I F A T A P Q E H Y F D C P Y Q L S S E G  
UniRef90\_J9IT05 K N D K F T A V D H S R V D H K P D R L P E E K Q R I E R E Y K T E T S V A V K D Q  
UniRef90\_Q84J10 G A A I P L S C D H D R P D E L E R I H A A G G R V I F W D G A R V F G M L A M  
UniRef90\_W1P6A0 V G N V Q L S T E H N A N M E A V R W R V K G I I Q V S R C I G D V Y L K H A Q  
UniRef90\_UPI0002C35A83 N G R V I S L D D E T G V Y R L W L P Y E E S P G L A M S R A Y G D Y C V K D F  
UniRef90\_F6HNU4 G V A I P L S D D H K P D R P R V I Y W D V P R V L G V L A M S R A I G D N Y L  
UniRef90\_V5G8D8 A A V H H Y S K P Q T H A F N T P Y Q L S I I P P R M R M Q A S I F G G N Y  
UniRef90\_V4KUM6 L K A L L L T R E H K A I Y P Q E R S R I Q K S G G V V S N G R F G D R Q F K  
UniRef90\_Q23AG9 K G E R T L S R D H K P C D L Q E K E R I I E A G G R I Y S Q Q T T K P D S E  
UniRef90\_UPI000349AF52 G E G R Q H T R D H T H G Q R L R E R W V A D A F A R V G D H A L I T  
UniRef90\_R9XQM1 N K L R Q K T K D H T H G K L F D E K I Y T K K E L K E L S G K N I S T T A I  
UniRef90\_I8IBD0 A A V H H Y S V P Q T H G F N T P Y Q L S I I P P R M R T Q A S I F G G A F  
UniRef90\_R0IN96 N A V R H F T Q P Q T H A F N T P Y Q L S K T P H R M L V Q M A V F G G P S T  
UniRef90\_M5VQH8 I V G E Q L N K E H N A S L E E V R Q E L R S L H P N D S H I V V M K H G V W R  
UniRef90\_C5Y322 K G R V F A M D D E P D V P R M W L P N Q D A P G L A M A R A F G D F C L K N H  
UniRef90\_I1L484 T D G S Q N T R E H K P I F P L E R A R I E K A G G F V C P D G R F G D R Q F K

UniRef90\_U6PYW3 P M I S P K A D I T V M E R D S S Q Y L L L L T C D G G I S E L F N D S E V L D M  
UniRef90\_M8CPK0 P Y I T P V P E V T V V A R A R E D E C L L L A S D D G L W D V L S N E E V C D A  
UniRef90\_G8S2L6 A D A G P L L P H L G A F T A Q S T P G H L V L C C C D G G L W N Y L T N D A E F G D A  
UniRef90\_A2EQP7 G I G H Q P L V I R E W V I D E S D K W L V L C C C D G G V F D V L T N E E V G G K I  
UniRef90\_D9V9A1 R T T R P E E L G T F E A P S G G L L L L T S D G V H K V L T P A T I D E I  
UniRef90\_A0CD95 L V G P S V S R T F G D I E Q E D H Q Y L V L A S D D G I F D K M S S S Q T V V D M  
UniRef90\_K4AXT4 L K D P D I Q S W T V H L T A H H P F F V V A S D D G L F E F L S S S Q T V V D M  
UniRef90\_Q5YW98 G A D P W S E N A V R T F R A V I G P G R L L L C S D G G L W N Y R P E P D L A A L  
UniRef90\_A0D387 D E G P G T A G M T R T L G D L Q A P D K F M V I G S D D G V W D V M S S A E V C G F  
UniRef90\_UPI00034DF2B1 S V A T A G P E D I G T T T A P A A D L T L F T C D D G V H D Y V D E R L M A E L  
UniRef90\_W5F8C2 K V G L I A T P D V H S F E L T K D H F I L L G C D D G L W G V F G P S D A V I F  
UniRef90\_G3VWT9 G D G Q Y K R C G V E T S V P D Q N D R F I M L A C D D G L F K V F T P E E L S C  
UniRef90\_UPI00032AD39C I K G I Q R P V M T A E P E S D D L F L I F A S D D G L F W E Q L S D E T A V D I  
UniRef90\_A0CVH1 K Q E P L P A N Q Q M V I A N K D D R F L F L G C D D G V F E T Q N S Y K V M E F  
UniRef90\_UPI00042B3680  
UniRef90\_A0A024TZ95 N G T V A L E D G D I I V E I P P F F P P V T S W R R Y W H G R I D S L V S V V  
UniRef90\_R9VXR3 S K T I D L N Y S M M K I D D N Q N L L L L M S D G A H H F W E K R P R F S V  
UniRef90\_A0A059D8V1 K Q W V M A E P D T R V L H L T D M E F L V L A S D G L W E E V G N Q E A V N I  
UniRef90\_UPI0003C18B19 Y V N G R L P I A M T R S I G D V Q V K P F G V I A S D D G L W E F L P S Q Y A V D L  
UniRef90\_V9FR36 V D M P G L A M S R S F G D E R P S A F A I L A S D G I W E F M T T D E C I D F  
UniRef90\_F0YDH6 G V I A E P A V V E Y A V D E A E D A F I I V A S D D G I W E F V L D S Q Y A V D L  
UniRef90\_A0D6B7 Q V G V I S L P E I I K H T F Q N D K F L I I A S D D G I W E F V L P S Q Y A V D I  
UniRef90\_I3SJH7 P W I I P D P E V T I M R R E K N D E L L I V A C D D G L W D V M T N E E A C D V  
UniRef90\_A9SWS6 R V G G L L P N I S V E T L T P E D Q M I L L G T D G L W E L G S N Q E A V D I  
UniRef90\_U6GG58 K E F R R I V K A E Y K I D G K R D K F L L L C T D D G V W N V I S N Q E A V E I  
UniRef90\_UPI0003EA989F C L A V T R A F G D G G I K R W V C E F L V I A S D D G L W N K V P N Q E A V D V  
UniRef90\_B7LHM8 A S N V D M E Y D C D T I P W K D L Y H L C I M S D G L H N V W E K R P R F T S  
UniRef90\_G0TUP1 P E D P S A G D C T T L E V S E G D I F L C A S D D G L L D N V S L D I L K H  
UniRef90\_R5EBR4 G M G E H V D Y N R T P I L L L P G D R V L L M S D G V Y G T V T S D A E M A A T  
UniRef90\_UPI0002B452D6 I K D A Y L K K P E F S L D P S F P R F H I F A S D D G L W E H L T N Q Q A V E I  
UniRef90\_E3GME5 T N E A V T L F Q N Q E I K L A A P S V L F I G S D G F F N C L D I Q S H I N L  
UniRef90\_G7IFP5 S Q G D D P P R L W T V Q L K P D H L F F V V A S D G V F E F L S S Q T V V D M  
UniRef90\_F6H6X4 G V I S V P E V T Q R N I T S R D Q F A I L A T D G V W D V I S N Q E A V E I  
UniRef90\_B9HPC5 Y L K P Y V S C E P E V T I M D R D D C L I L A S D D G L W D V V S N E T A C G V I  
UniRef90\_M0TP86 G L I S V P E V T Q R S I T S R D Q F V V L A T D G V W D V I S N Q E A V D I  
UniRef90\_ROGD X0 L K K W V I A E P D T R I L E Q D M E F L V L A S D D G L W D V V S N Q E A I D T  
UniRef90\_D8RAP2 S A E P Y V S K V L K I T K D S K G I V V M G S D D G L W D V L S P I R A I Q L  
UniRef90\_UPI00040DEE03  
UniRef90\_QOC010 G A G A D V E I D Y R S V A D L S E G D L F E V L A T S D G A A D H I P W R E A L S A H  
UniRef90\_UPI00037D896F S V I R T A R P D E F G H A D A M G P A G L L L L A S D D G I H K V L T R A A M A E L  
UniRef90\_C4M0D7 H P P L T N E P T F I S I P L N E P D S I I V A S D D G I S S I L S C E L L N E  
UniRef90\_Q9CS46 G D G Q Y K R C G V T S V P D I R R C F I L L A C C D G L F K V F T P E E A V N F  
UniRef90\_M0T2M4 A M S R A I G D S Y V T E R E E G C L I L A S D D G L W D V V S N E T A C G I  
UniRef90\_R7WYF8 G D E Y I V P V P H V K Q L S N A G G R L V I A S D D G V W D A L T R F Q E A L N Y  
UniRef90\_M0TRG8 E F I V P I P H V K Q V K L S N A G G R L V I S S D G V W D A L T A E K A L S C  
UniRef90\_W4FKQ3 E G W V V A D P E I N E D V L C R A D S L Y V L A T D G V W D V M S D R D L R L R  
UniRef90\_C5YSF7 P G G L C L I S R S I G D M D V G E F I R L I A S D D G I W D A L S N E A A A Q A  
UniRef90\_G7KNY4 G V V A N P E I V S F E T P N N P F F V I A S D D G L F E F L S S Q T V V D M  
UniRef90\_M5RKM8 G S K T M H I E V G P S R Q L A A R D R V I L A S D D G L F D N M H L S E V V A T  
UniRef90\_K4AAU8 F Q K P I L S S D P Q I T E H R I Q Q F V I F A S D D G L W E H L S N Q E A V D L  
UniRef90\_A0C6L8 K V G V I D K P E I F N F T M E I L M D R A L L G S D D G L F E F L T Q Q D I L D A  
UniRef90\_S8CP13 Y N K E P L Q P R F R R E Q P H D Q F I F A S D D G L W E H L S N Q Q A V D L  
UniRef90\_W7JU52 A V S K P N D A D I A H I E V K K N D I I V V G T D G L W D N L Y D S Q I L T I  
UniRef90\_G5EDI3 R S I G D L P E F K S L G I T K N D L F A I L A C D D G L W K S F S N L E A V S F  
UniRef90\_A2FKA0 I E N G T I E Y K V D V N D T M V C A S D D G L W D N L Y P E E I G Q I  
UniRef90\_UPI0002B4CD20 G L I S V P E V T H R S I T S R D Q F I L L A T D G V W D V V T N Q E A V I  
UniRef90\_B2TKG4 Q N K L S A P F I S K K T K L N D G D V E T L L T K G I W E N C D E K E I E D A  
UniRef90\_S3DKL8 D M P R D A N A S Q H S L R H G D V L V F A S D D G V W D N L S R H D I L K I  
UniRef90\_O49973 F S S E P Y V S Q A V R I T K A C T A F A V I A S D D G L W D V I S T K R A V Q L  
UniRef90\_UPI0002C341BB F S S D P F I S Q V V H I D Q G S K A F A L M A S D G F W D V I S A K K A V Q L  
UniRef90\_B9HXE7 G L I S E P D V I T Q R N I T S R D Q F V I L A T D G V W D V I S N Q E A V Q V  
UniRef90\_W9SDF3 G D T D P I P H V K Q V K L S N A G G R L I A S D D G I W D A L S S D M A A K S  
UniRef90\_UPI00042B41F2 F V I P D P E V T I T E R K C E D E C L I L A S D D G L W D V V T N D T A C G V L  
UniRef90\_W6MAA9 S E E S D F A I H R V Q A T L K P G D R L V L C S D D G V H D E I S E M L W E I  
UniRef90\_J9FFG5 Q M I T V V P E V R R E K I T N E T A F L L A C D D G I W D C L S S Q E V G E L  
UniRef90\_B6HF86 L E D F P R D A S V T N V Q M Q H G D V L M V A T D G V F D N L N S Q Q D I L K L  
UniRef90\_M7AV73 G V T A E P E T K R V Q L H H A S D S F L V L T T D G I F N F M V N S Q E I C D F  
UniRef90\_M4BV30 R A L G Q A D E K K F I T S A P H I M I L M L V S D G V T D V F R D E E L T E F  
UniRef90\_J9INI8 E Q P I T A F P D I K Q V Q L S N N D F L V I G C D D G L W E T K T N Q Q I V D F  
UniRef90\_G9BWD9 G M G K G I E L R E I E L K P S S D V K W I I T S D G A H D I P K D I F Q S I V  
UniRef90\_M5XFL5 F  
UniRef90\_W7AA91 A E E Y G F A L H F Q A S E L E E G A G L L L C S D D G L H D A I T G D G I R E L  
UniRef90\_UPI0002C3E842 R S V G D I E N K P V L T H I P E T T V Y I V A S D D G L W D E V I G N E M A Y Q L  
UniRef90\_U2WF06 G D F G K I K P N I I K V E L M E K D V F C L T T V G F W E N I D E H D M E D L  
UniRef90\_H2MW32 R V L G V L E V S R S I G D G Q Y D R F I L L A C C D G L F K V F S A D E A L R F  
UniRef90\_B9RCS1 T S E A E V A E V T V I K R T G S D E F V V I G T D G L W D V I S N E F A C E V  
UniRef90\_O64730 S A Q T Y L D A S F S I V E V Q K G D V I V M G S D G L F D N V F D H E I V S I  
UniRef90\_J9IT05 M I T A F P E V R R E R I V P G E T S F L I L A C D D G L W D C L S S Q E A V N L  
UniRef90\_Q84J10 Y V I C D P E V R V M E R K D G E D E F L L A S D D G L W D V V S N E V A C N V  
UniRef90\_W1P6A0 Y N R E P L N G K F R I P E P M N M P F L I F A S D D G L W E H L S N Q K A V D I  
UniRef90\_UPI0002C35A83 G L I S E P E V T H R N I T S R D Q F V V L A T D G V W D V I S N E E A V E I  
UniRef90\_F6HNU4 K P Y V I S E P E V T W D R S P P E D E C I L A S D D G L W D V V S N D T A C G V I  
UniRef90\_V5G8D8 L E D L P R D A S V T N V N M Q H G D I L L A T D G V F D N L S N Q D I L K I  
UniRef90\_V4KUM6 K F G V T A P D I H A F E T E R E N F M L L G C C D D G L W E V F G T S D A V G F  
UniRef90\_Q23AG9 G I T K T I Y G P I R T L P Q K S H D Y I F M G C C D D G I F D K M S S S E A I K I  
UniRef90\_UPI000349AF52 S M A T A V D D I G T A T A P A S E L V L F T D G V H D Y V D E R L L A E L  
UniRef90\_R9XQM1 S T Q V I E M K P D E F F I P M N N E V S I Y I M S D G A H H F W E H R P R F S E  
UniRef90\_I8IBD0 L E D F P R D A S V T N L Q M Q H G D V L L A T D G V F D N L N N Q D I L K L  
UniRef90\_R0IN96 L S D L P K E S S V T H H K V R H G D V L V F A T D G V W D N L S P Q D V L G I  
UniRef90\_M5VQH8 I K G I Q P S V C R K V Y Q P N D K F I F A S D D G L W E H M T N Q E A V E I  
UniRef90\_C5Y322 G L I C T P E V Y C R K L S E K D E F L V L A T D G I W D V L S N Q E A V K L  
UniRef90\_I1L484 K V G V V A T P D I Y N F E N T E H F I L G C D D G L W G V F G P S D A V D F

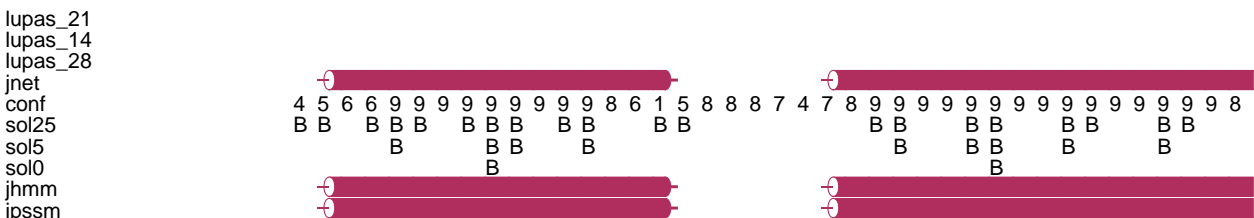


UniRef90\_U6PYW3 V S N K E F Y N L S D H L C R A A I A G G S I D N I T C V A V V 210 220 230  
UniRef90\_M8CPK0 A R K P A A Q A A A E Y L S K L A L Q K G S K D N I T V L V V D L V  
UniRef90\_G8S2L6 V R S A P L L E A A R A L V I A Y A N S A G G A D N I S C I A V D P L V  
UniRef90\_A2EPQ7 C Q N A S A S A L A A Y D I V K N I A F E L L S Q D N I S C I A V D P L V  
UniRef90\_D9V9A1 L A D P A R G A S A L V A T A I A L G G R D N A T A L F V E  
UniRef90\_A0CD95 M T H Q G C S I G V E Q V L A G E S Y K E N R T L D D N I T V V V V A F  
UniRef90\_K4AXT4 V R A A D P R D A S S A I L A G E S Y K E N R T D D I T I I I V H I  
UniRef90\_Q5YW98 A A A P D P M A A A R D L A D F A V R S G G N D N I T I A L A P V S  
UniRef90\_A0D387 V L K H E P K E V A E A I V T E C R S R W G C D D L T A V I A Y F  
UniRef90\_UPI00034DF2B1 V H A H D P D T L V R V L V D A A R E A E S T D N A T A L V I R  
UniRef90\_W5F8C2 V Q K Q S A T L A V R R L V K E A R E R R C K D N C T A V L I  
UniRef90\_G3VWT9 L E E K D E E A A C N R L V R T K A A V Q R G S A D D N V T V M V V R I G  
UniRef90\_UPI00032AD39C V F K Y P R A G I A K R L V R A A L Q R H F H D D L T V V V I Y L  
UniRef90\_A0CVH1 I L S A H E P S I V L E Q L L D T S L A A D G C D N M T A M L I L L N  
UniRef90\_UPI00042B3680 S S C N S T K E A A D A V V E A S L S H N K P D D V T V I V A K V S  
UniRef90\_A0A024TZ95 N T L S E P S R F C S S L K K R I E N G P P I D D Y S V I A V K V S  
UniRef90\_R9VXR3 V K R S C L A D K A  
UniRef90\_UPI0003C18B19 K A L Q Y G T Q D N V T S V V I P F  
UniRef90\_V9FR36 V S G M A P Q E A C T A L V I E E A R D R W D A D D I T A A V V F F  
UniRef90\_F0YDH6 A R S N D A A A A Q E E L L L E G A A R W S R D D I T C M V L  
UniRef90\_A0D6B7 V L K N D A E G A V E R L V I E A T E A W K D D I T C I V A F L N  
UniRef90\_I3SJH7 A R K P A A Q S A A E Y L S K L A L H R G S D D N I S I V I D L N  
UniRef90\_A9SWS6 C E S T S P E E L K E L F K V A V E R G V T D D L A G I I I R L S  
UniRef90\_U6GG58 A K Q K E W R T A P E E L A R E S W R W F A D D M T A L F L K L S  
UniRef90\_UPI0003EA989F V A A A A P S C R R L V D M A R R R G S R D D I T V M V V D L S  
UniRef90\_B7LHM8 N T M S N S Q K F S N G I L R R I E R A G P D D D F S L I M V R V  
UniRef90\_G0TUP1 L D D D G C Q R V A E A L V A Q A Y A G K Q D D V T V V I A Q V  
UniRef90\_R5EBR4 L R D G S V I Q L A A Q R I M G A A L P Y Q D N Y T L I V L  
UniRef90\_UPI0002B452D6 V Y N N P R A G I A K R L V K T A L R R F F H D D I T V V V I  
UniRef90\_E3GME5 I E K G K N K V L P T L K S V R D A G E T D N V T G I L V R I  
UniRef90\_G7IFP5 A A S S D P R D A C A I A G E S Y K E G R T D D I T I I V Q I  
UniRef90\_F6H6X4 V S S P D R N K S A K R L V E C A V D A W A T D D I T A I C L F F  
UniRef90\_B9HPC5 A R D K A C S D A S M L T K L A L A R H S T D N V S V V V D L  
UniRef90\_M0TP86 V S S K D R R K A A K R L V E R A K R R G A D D C S A I  
UniRef90\_ROGD X0 V  
UniRef90\_D8RAP2 A I E A N A E E I A Q L L V G N A R L L K T K D N T S V I V L D F S  
UniRef90\_UPI00040DEE03  
UniRef90\_QOC010 L Q A G D L D L A A A R L V A A A K A N G S D D N L T V Q I R I L A  
UniRef90\_UPI00037D896F L R V P S N S A Q A L V D A A L A A G G H D N A T A L M A D I A  
UniRef90\_C4M0D7 L R N P T L E Q Q A V N I R N I A Y E K N S P D N I T S V V V I Q I G  
UniRef90\_Q9CS46 I R E G K P E A A C N R L A N K A V Q R G S A D N V T V M V V R I G  
UniRef90\_M0T2M4 A R M S L C S D A A L L T K L A L A R Q S A D N I S V V V I D L  
UniRef90\_R7WVY8 T R G L P A E A A N R I V K E A V S K G L R D D T T C I V V D I  
UniRef90\_M0TRG8 S R G L P A E A A I R I I K E A V A Q K G L R D D T T C I V V D I  
UniRef90\_W4FKQ3 A E T S W L D S C E A I A Q D S V A R G S R D D I T C I V I R T G  
UniRef90\_C5YSF7 C R G L P A E L A K L V V K Q A L K S G L K D D T T C V V V N I G  
UniRef90\_G7KNY4 V A K K D P R D A C A A I V A E S Y R L W R T D D I T V I I V H I N  
UniRef90\_M5RKM8 M K S G K P L S C M Q Q L V Q T A S Q R G K P D D L T M L L  
UniRef90\_K4AAU8 V Q N S P R N G I A R K L V K V A M Q R H F H D D I T V V V I  
UniRef90\_A0C6L8 V T P N N I E K A C R N H L L E M A L Q R G S K D D I T F I L I  
UniRef90\_S8CP13 V N N R R R S G S A R R L V K A A L R R H F H D D I T V V V V  
UniRef90\_W7JU52 V K E N N F A T L S E K I A N E A  
UniRef90\_G5EDI3 A E A E L R V V A E K L A A E A V R R K C G D N V S V I I V K L  
UniRef90\_A2FKA0 L K K A S I N V A A R N L V R S A F T R G S  
UniRef90\_UPI0002B4CD20 V S S P D R A K A S K R L V E C A V R A W K R D D I S A I C L F F  
UniRef90\_B2TKG4 L E G A E P Q E V A D R I E D M I L S K N K L E N Y T L A V  
UniRef90\_S3DKL8 V S K  
UniRef90\_O49973 V A T S A A A R V A S R V L D E A R S L R T K D N T S V I F V D F  
UniRef90\_UPI0002C341BB V G E N L D A E K I A N M L L S E A R T V R T K D N T S L V F L D F  
UniRef90\_B9HXE7 V S T P D R E K I S A K R L V E C A V R A W A M D D I S A I C L F F  
UniRef90\_W9SDF3 C R G L P S E L A A K L V V K E A L R R G L K D D T T C L V V D I  
UniRef90\_UPI00042B41F2 A R A E S D K A K C G D L T K L A L A R H S T D N V S V V V D L  
UniRef90\_W6MAA9 F D P L D V A A Q A K T W R D A V W R H G A R D N L S V V V A  
UniRef90\_J9FFG5 L K K K D V I E M F D K I I D V A S S G G G C D N M T C V V V Q F  
UniRef90\_B6HF86 V T S  
UniRef90\_M7AV73 I N Q H D P P E A A H V V T E Q A I Q Y G T E D N S T A V I V P F G  
UniRef90\_M4BV30 V A K H L A E T I G N K L L D E A K A Q G S T D N M T A V I I C F G  
UniRef90\_J9INI8 I K K I P L D K I C E N L L D T L L E G K G C D N M T V I I V D F  
UniRef90\_G9BWD9 A H A K T A K D T V T R L I S L S E W L G R D N S T V A V L  
UniRef90\_M5XFL5  
UniRef90\_W7AA91 Y Q A D L P A D Q V D R W R Q A V I E A G V P D N L S I L F V R  
UniRef90\_UPI0002C3E842 L H S K R S G E L S M M K D L A F S D Q S A D N I S I V L C R F  
UniRef90\_U2WV06 S R F E D K K Q W L N S L E K R I L A S L R D N I T I A Q V E V S  
UniRef90\_H2MW32 V E E L R F E A A C Q K L A S E A V K R G C A D N V T V I L V S I G  
UniRef90\_B9RCS1 V K K C L R G Q I K H R F S D E Y N R K G S K D N I S V V V I E L  
UniRef90\_O64730 V T K H T D V A E S S R L L A E V A S S H S R D  
UniRef90\_J9IT05 V G E L L P E D M F D K I I D V A S S G G G C D N M T C V V I Q F  
UniRef90\_Q84J10 V R A  
UniRef90\_W1P6A0 V H N H P H A G S A R R L I K A A L Q R H F H D D I T V I V L F I N  
UniRef90\_UPI0002C35A83 V S T A E R E K C A K R L V E Y A K R R G A M D D I S A I  
UniRef90\_F6HNU4 A R D K A C L D A S M L L T K L A L A R D S A D N V S V V V V D L  
UniRef90\_V5G8D8 V T A  
UniRef90\_V4KUM6 V Q G L P V S T I S R R L V K E A K E R S C K D N C T A I V I  
UniRef90\_Q23AG9 N T H S L C A K G V E G V I Q E A L K R R S T D N T G L V I S F  
UniRef90\_UPI000349AF52 V A E D A P E I L A H V L L E A S R E A E S H D N A T A M V V R L  
UniRef90\_R9XQM1 K T M N S I V K F S A T L Q K R I E K S P I D D Y S L V A V Q F  
UniRef90\_I8IBD0 I T S  
UniRef90\_R0IN96 V S  
UniRef90\_M5VQH8 V H N N P R A G I A K R L L K T A L R R F F H D D I T I V V I F I L  
UniRef90\_C5Y322 V S S A D P S R A A R Q L I D R A V R A W R R D D C A V V C L Y L N  
UniRef90\_I1L484 V Q G L P V A T V S R R L V R E A R E R R C K D N C S A I I I

	1	10	20	30	40
UniRef90_G7IMT1				E D Q C Q I E G T F V G V Y D G H G G	
UniRef90_UPI00046DA827	M T	L V C G S C Y L P K D N P T K P L G E D A H F M D S Q I I G V A D G V G G			
UniRef90_B2BXQ2		K Y G V A S S R G G R R D M E D A V A I H P L L C G L Y D G H G C			
UniRef90_D9CJ57		L R S S V C Y L P H P E K V H Y G G E D A H F V G G G V L G V A D G V G G			
UniRef90_R4H537					
UniRef90_G0R4M5			G P K K T E C Q D S Y C I D C Y F F A V Y D G H G S		
UniRef90_G0QS42		M R T K A G C T V Q R M T K I N Q D T A I I N I Y Q F S V C D G H G E			
UniRef90_UPI00047CD8CB			R P A Q Q D S F G I S G L L A I V A D G M G G		
UniRef90_L1JJP1			R P R M E D S F H K D K H V F G V F D G H A G		
UniRef90_L8GW17	S K R F A F G C A K M I G L G R K N E D T L M V D E D Y F A V F D G H G G				
UniRef90_D8RXT2	R V V V Y A S S E E G M R R Q F L E D G Y A I G S T L V G V F D G H G G				
UniRef90_B7G668			R M T M E D E Y V V G G R F A G V F D G H G G		
UniRef90_UPI00019A5C58		E Y T G F C D V A M K R D D Q Q D R F S A D D A F F A V Y D G H G T			
UniRef90_M5XLD4				G T F V G V Y D G H G G	
UniRef90_T0RXB9			S N E D S S L M I E G L L A I S D G A G G		
UniRef90_I1L2L8				D A V F V G V Y D G H G G	
UniRef90_C1G5Q3			E D A F F V N S V A F G V A D G V G G		
UniRef90_G0TVE0		V A V G E M Q G W R A S M E D K H L V D E G L F C V F D G H S G			
UniRef90_C5LAH7	T I G Y V C K K G L K P D S N Q D D F D I D S E I Y A V F D G H G P				
UniRef90_W2TFT8	L R Y A M A S M Q G W R V D M E D A H V V D W S F F A V F D G H A G				
UniRef90_UPI0002B47A2F		A S V C S K R G N K G I N Q D S C Q G D V V L C G M F D G H G P			



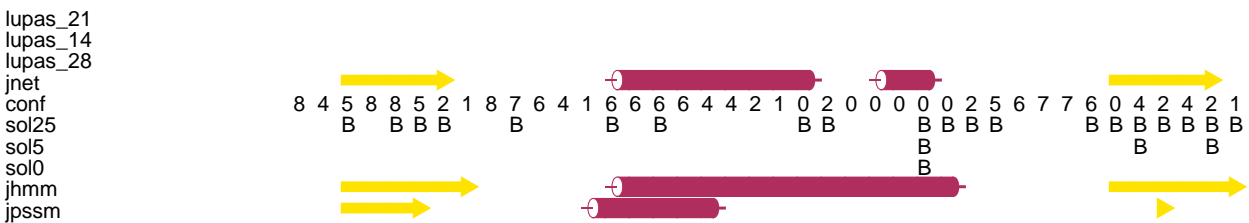
UniRef90\_G7IMT1 P D A A R Y V C D H L F R N F Q A A S S E E T I R S A F R E G F T A M V I T E  
UniRef90\_UPI00046DA827 W A K L G V D A G E Y A R G L M N N A K K M A A A N T A A T L D P R N V L S Q A  
UniRef90\_B2BXQ2 S H V A T R C R W N R T M E R S F T R M D K E V A L C K E T V T G A N C R C E L  
UniRef90\_D9CJ57 W Q E S G V N P A A R A Y L E G R D I F H D L A V S R H G L M V D P R G A L E A  
UniRef90\_R4H537  
UniRef90\_G0R4M5 S G K E A S Q A A N D Y I Q T Y L E K N Q S R E N F L R A A F K S A E S K L K S  
UniRef90\_G0QS42 Y G H L V S Q Y I K N N F P K I L Y K Y L K E N D I K N S I L S A T K Q T N Q E  
UniRef90\_UPI00047CD8CB G D R V S Q L V V V K M L Q G F D Q A T G D E N P A D L L L S L L D A V N R E L  
UniRef90\_L1JJP1 D R A A K L L S T I L R D Q I M Q R S G P Q D S A L G A S L T S S F L E A E K R  
UniRef90\_L8GW17 K H A S R F A A D N L H I I L S E Q D P E G A L R R S F A E V H Q R M L I Y  
UniRef90\_D8RXT2 R A A A S F C A K N L F P V F Q S G T G L K Q A L R N A F L K M D D L M R E E  
UniRef90\_B7G668 G G C A A L A R K Q H E L T D A S S V L S H V A A L R D A F D E M E Q D V L E D  
UniRef90\_UPI00019A5C58 S Y Q V K N N L H Q K I K E N K N Y P Q N I M A V K Q S F E Q I D K E I C N S  
UniRef90\_M5XLD4 P E A A R Y V C D N L F R H F Q A I S A E S D G I R N A F L R T E E G F T A L  
UniRef90\_T0RXB9 H P D L A S Q V V V E N L K S H F Q G E D Y F S I L E S V E S A N Q A V L D L  
UniRef90\_I1L2L8 A E A S R F I N D H L F A Q E N G S M S E D I I R S A V S A T E D G F L I T L  
UniRef90\_C1G5Q3 W A E Y G V D P A D F S H A L C S N M A Q V A L D W D R K F R T L M Q A G Y E R  
UniRef90\_G0TVE0 K E C A E R C S E L F P R L A R L Y L A R N K G S C S V I N F E S V F M E M  
UniRef90\_C5LAH7 C G H I V S K L C Q E L L P D L I T N D P N E D D L S K A F K T A F I R T H S Q  
UniRef90\_W2TFT8 N V A A D D A A E N I M K T L M E T P Q F E L L E D G L K A G F L S L D E N  
UniRef90\_UPI0002B47A2F W G H M L S K Q V R K S L P H L F P F N L W K Q S C L K T Y A T I D E E L K Q H



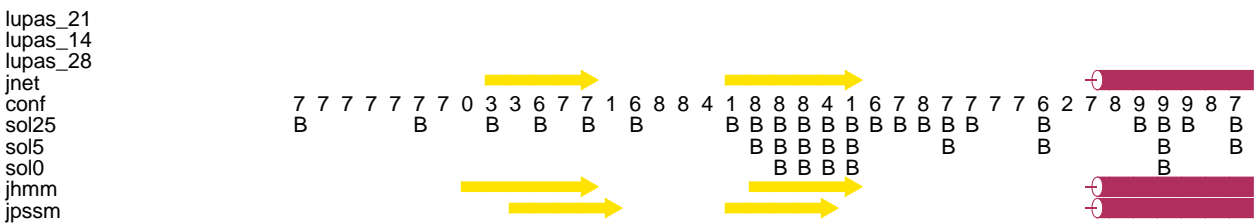




UniRef90\_G7IMT1 V G N I Q L S T E H N A N L E A I R W R V K G I I Q V S K S I G D V Y M K H A Q  
UniRef90\_UPI00046DA827 S K C W Y K S P S Q Q R M F N C P Y Q L G N H V G  
UniRef90\_B2BXQ2 G K P V P L S T D H K P D R R V I Y W D G P R V L G V L A T S R A I G D N Y L K  
UniRef90\_D9CJ57 G R E V V R S K P L Q H Y F D C P L I Q F G A F P E F V E  
UniRef90\_R4H537 A T P R P L T H D H P T M R P V E T R R L M R Y A S F G D M Q S K R L  
UniRef90\_G0R4M5 T Y D H K P T R P E E K E R I I R A G G K I E K L M H D G V P V G P Y R V W A D  
UniRef90\_G0QS42 F F F Q N I S T D H K P N L I E R E K W Q F K N D I P G L A M T R S L G D K A A A  
UniRef90\_UPI00047CD8CB G T L K Q L N R D H N Y A D E M V R N G E M S I E E A M T N P K R A A L T S Y I  
UniRef90\_L1JJP1 G E P M P M S T D H D P T V P E E R M S R C L G D K S L K Q Y R H F G T D T W I  
UniRef90\_L8GW17 N Q V Q R V S L D H K P Y L E E  
UniRef90\_D8RXT2 G E T K H L T K D H S P H V P E E R  
UniRef90\_B7G668 Q N A V D L T R D H K P N D D R E K A R I L L A M G E T I E W D L I S K V H R V R  
UniRef90\_UPI00019A5C58 Q N E T E L L N K L H K P S N E N E K I M L N Q K N A I Y T E Q R V D H E H K Q  
UniRef90\_M5XLD4 V G N I Q L S T E H N A N L E E V R H E L K D L H P H D P Q I G D V Y M K H A Q  
UniRef90\_T0RXB9 G K N R Y S N I P D S Q V G Y S I E A G H M T Q E Q S L D D P E R F Y V H N M M  
UniRef90\_I1L2L8 I I A E Q L T K E H N A S K E E V R R Q I V V M K Q G T W R I K G I I Q V S R S  
UniRef90\_C1G5Q3 A A I H H Y S V P Q T H N F N T P Y Q L T L V P P L M R L Q S S I F G G R V  
UniRef90\_G0TVE0 G S A V A L S E D K P E N T L E R E R I E A A G G V S D N R V N G Q L A M S R  
UniRef90\_C5LAH7 K S S V D L S R D H D I P Y R V F V K S A F Y P G L A M T R S I G D I V G V I S A  
UniRef90\_W2TFT8 D E G S F G T E D H K P Y H D K E R E R I R A F G D F E Y K N V P G L E P N K Q  
UniRef90\_UPI0002B47A2F K G K V L C L K D E P G V Y R V W T P D S G T P G L A I S R A F G D Y C S K Q Y



		170		180		190		200																																	
UniRef90_G7IMT1	F	N	R	E	P	I	N	A	K	F	R	L	P	E	P	M	H	M	P	F	L	I	F	A	S	D	G	L	W	E	H	L	N	N	D	Q	A	V	E	I	
UniRef90_UPI00046DA827	G	D	R	P	E	A	A	L	E	F	V	V	E	A	I	V	P	G	D	I	V	L	G	T	D	G	L	L	D	N	I	F	A	S	E	I	E	D	V		
UniRef90_B2BXQ2	P	Y	V	I	C	E	P	E	V	T	I	T	D	R	T	D	D	D	E	C	L	I	L	A	S	D	G	L	W	D	V	V	S	N	E	T	A	C	A	V	
UniRef90_D9CJ57	A	T	D	T	A	D	M	A	D	I	Y	N	I	A	L	R	P	G	D	I	V	A	G	T	D	G	L	W	D	N	C	Y	V	T	E	I	V	S	L		
UniRef90_R4H537	G	V	S	A	E	P	E	I	R	V	N	M	E	P	A	E	Y	S	F	L	V	L	M	S	D	G	V	S	G	T	L	S	D	Q	E	V	V	D	V		
UniRef90_G0R4M5	D	E	G	P	G	I	A	M	T	R	T	L	G	D	L	Q	Q	D	K	F	L	V	I	G	S	D	G	V	W	D	V	M	Q	S	A	E	V	V	Q	H	
UniRef90_G0QS42	I	A	G	V	I	C	E	P	E	I	Y	E	M	D	I	Q	D	E	D	K	F	I	A	S	D	G	V	W	E	H	L	N	D	Q	F	V	T	N	I		
UniRef90_UPI00047CD8CB	G	M	G	D	L	V	D	Q	N	S	N	P	I	L	L	K	Q	H	D	R	I	L	L	M	S	D	G	V	Y	G	T	L	G	D	E	N	I	C	H	A	
UniRef90_L1JJP1	P	I	D	D	C	I	I	P	D	P	E	I	K	E	T	K	Q	H	K	F	L	V	I	A	S	D	G	L	W	A	T	V	T	N	E	A	V	A	R	R	
UniRef90_L8GW17																																									
UniRef90_D8RXT2																																									
UniRef90_B7G668	N	V	S	G	Q	V	E	I	Q	H	Y	P	V	Q	E	Q	D	D	E	F	F	L	L	A	S	D	G	L	W	D	V	M	T	S	Q	D	V	I	S	Y	
UniRef90_UPI00019A5C58	F	I	T	S	E	P	E	I	F	Q	Y	T	I	N	E	N	Q	K	Y	L	F	L	G	T	D	G	F	W	D	I	I	S	Y	K	E	L	L	Q	K		
UniRef90_M5XLD4	F	N	R	E	P	I	N	A	K	F	R	L	P	E	P	M	H	M	P	F	L	I	F	A	S	D	G	L	W	E	H	L	S	N	E	K	A	V	E	I	
UniRef90_T0RXB9	G	D	K	I	L	R	I	E	S	S	K	I	S	T	K	K	G	H	T	F	V	M	G	S	D	G	L	F	D	N	F	S	H	E	R	L	Y	S	L		
UniRef90_I1L2L8	I	G	D	A	Y	L	K	R	P	E	F	S	F	D	P	S	F	P	R	F	H	I	F	A	S	D	G	L	W	E	H	L	T	N	Q	E	A	A	E	I	
UniRef90_C1G5Q3	F	E	D	F	P	Y	H	A	N	V	T	N	L	K	M	Q	H	G	D	V	L	I	L	A	T	D	G	V	L	D	N	L	F	N	Q	D	I	L	N	I	
UniRef90_G0TVE0	A	M	G	D	F	S	Y	K	M	Q	K	N	L	K	S	R	E	Q	A	F	V	V	L	A	C	D	G	I	F	D	V	L	N	N	Q	E	L	I	D	L	
UniRef90_C5LAH7	G	I	S	H	I	P	E	V	S	E	Q	T	I	N	E	S	A	D	K	F	V	I	V	A	S	D	G	V	W	E	F	I	S	S	Q	E	A	V	D	I	
UniRef90_W2TFT8	L	V	S	P	E	P	D	V	Y	V	L	E	R	Q	K	D	K	D	E	F	L	V	V	A	C	D	G	V	Y	D	V	M	E	N	E	E	L	C	R	F	
UniRef90_UPI0002B47A2F	G	L	I	S	V	P	D	V	S	H	R	V	I	T	T	K	D	Q	F	V	I	V	A	T	D	G	V	W	D	V	M	S	N	Q	E	A	V	H	I		





```

UniRef90_G7IMT1          V H R N P R A G S A K R L I K A A L R R H F H D D I T V I V L F L N
UniRef90_UPI00046DA827 L S G R D C E E L A S A I A N L A L A G G K I D D I T V V V A Q I
UniRef90_B2BXQ2         I S D Q A C G V A S V L L T R L A L A R Y S T D N V S V I V I D L
UniRef90_D9CJ57         L P K A P A D
UniRef90_R4H537         I K E A T P E E G A K N V I E Y A T E V S A D D N A T C L V V R L G
UniRef90_G0R4M5         I Q T E S Q E S V P E A I V Q E C R N R W G C D D I T A V V A F F
UniRef90_G0QS42         V N K G D C D L A A E K L M I E S I K S W C R D D I T C I V I F L N
UniRef90_UPI00047CD8CB M D V P E S G Q M I N E M I R A E N K Q N Q D N Y T C I L M E I
UniRef90_L1JJP1         L E E E D P A E E L Q K L I D R R E D N I T I V V V D L
UniRef90_L8GW17
UniRef90_D8RXT2
UniRef90_B7G668         V H R Q M E Q E M A K F V A R E A M R R G S A D N V C V L M V W L N
UniRef90_UPI00019A5C58 R N D Q N I Q N L S T Y L V E E A V T T T K K D N M T L L A I D L N
UniRef90_M5XLD4         V H K H P H A G S A K R L V K T A L Q R H F H D D I T V I V L F L N
UniRef90_T0RXB9         I G Q G G F E E S F D E L C K L C R D Q A E L D D I S F F V I R
UniRef90_I1L2L8         V H N N P R I G I A R R L L K A A L R R F F H D D I T V V V V F I
UniRef90_C1G5Q3         V T N Q M I S T G A
UniRef90_G0TVE0         I E G K T N K Q I C G E I C H E C L R S E G T D N M T I I I V D L N
UniRef90_C5LAH7         I R
UniRef90_W2TFT8         V E S
UniRef90_UPI0002B47A2F V S T P N R E M S A K R L V D C A A R A W A R D D M S A I C L F F

```

