

QUERY  
UniRef90\_G0HP62  
UniRef90\_O66448  
UniRef90\_F4HNL0  
UniRef90\_Q5JF26  
UniRef90\_Q9V1A7  
UniRef90\_D2RGE1  
UniRef90\_H3ZMD9  
UniRef90\_Q8PY20  
UniRef90\_A8UWT1  
UniRef90\_D3DYR0  
UniRef90\_A6LZY7  
UniRef90\_V4JCT7  
UniRef90\_A3MVE8  
UniRef90\_F9DRM7  
UniRef90\_A8MKV7  
UniRef90\_Q0W6D3  
UniRef90\_UPI00037E4247  
UniRef90\_G4RJP2  
UniRef90\_H8GQG2  
UniRef90\_UPI00030A85AB  
UniRef90\_UPI00036BE569  
UniRef90\_F8AIY5  
UniRef90\_Q29332  
UniRef90\_K8WCI0  
UniRef90\_F6DQY6  
UniRef90\_UPI00038228FB  
UniRef90\_X0SXF0  
UniRef90\_UPI0004009783  
UniRef90\_E8PN76  
UniRef90\_B4S5T1  
UniRef90\_A0LR82  
UniRef90\_UPI000472BF63  
UniRef90\_K9PYS3  
UniRef90\_W4LUN3  
UniRef90\_Q1JZK9  
UniRef90\_Q0A960  
UniRef90\_A7BY30  
UniRef90\_W6J0J6  
UniRef90\_W1SES3  
UniRef90\_I4C2X3  
UniRef90\_A5G7C8  
UniRef90\_E1RED5  
UniRef90\_G9XUG6  
UniRef90\_F0M0L6  
UniRef90\_F8I501  
UniRef90\_D9Q2T3  
UniRef90\_J7U9I2  
UniRef90\_G9Z5D8  
UniRef90\_A0A011P3W9  
UniRef90\_C8VN16  
UniRef90\_C6XA33  
UniRef90\_UPI00046D7BA2  
UniRef90\_UPI000374AB3C  
UniRef90\_B3EPM2  
UniRef90\_E1SHS7  
UniRef90\_D8MQ68  
UniRef90\_UPI0002892C3A  
UniRef90\_D7E052  
UniRef90\_T0JRB0  
UniRef90\_D7CKW5  
UniRef90\_B5FF37  
UniRef90\_M1JWE6  
UniRef90\_R1H314  
UniRef90\_T0MQF7  
UniRef90\_H5QB28  
UniRef90\_UPI0002D85019  
UniRef90\_W1J8N4  
UniRef90\_V5FBF7  
UniRef90\_B5EIK3  
UniRef90\_G7WMB2  
UniRef90\_Q2LT80  
UniRef90\_W3ABQ3  
UniRef90\_B4ESX7  
UniRef90\_S5Z067  
UniRef90\_E6QQA6  
UniRef90\_K2JLI3  
UniRef90\_UPI0002D9D24E  
UniRef90\_C9KLE9  
UniRef90\_D7DMN7  
UniRef90\_U7PI52  
UniRef90\_B9M604  
UniRef90\_E0SK83  
UniRef90\_F3KCN5  
UniRef90\_R5J2H8  
UniRef90\_W0Q7A2  
UniRef90\_D3QI37  
UniRef90\_UPI00036D6E6E  
UniRef90\_E8XTM5  
UniRef90\_U3CGS5  
UniRef90\_M1KL04  
UniRef90\_T0ND17

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

QUERY  
UniRef90\_G0HP62  
UniRef90\_O66448  
UniRef90\_F4HNL0  
UniRef90\_Q5JF26  
UniRef90\_Q9V1A7  
UniRef90\_D2RGE1  
UniRef90\_H3ZMD9  
UniRef90\_Q8PY20  
UniRef90\_A8UWT1  
UniRef90\_D3DYR0  
UniRef90\_A6LZY7  
UniRef90\_V4JCT7  
UniRef90\_A3MVE8  
UniRef90\_F9DRM7  
UniRef90\_A8MKV7  
UniRef90\_Q0V6D3  
UniRef90\_UPI00037E4247  
UniRef90\_G4RJP2  
UniRef90\_H8GQG2  
UniRef90\_UPI00030A85AB  
UniRef90\_UPI00036BE569  
UniRef90\_F8AIY5  
UniRef90\_Q29332  
UniRef90\_K8WCI0  
UniRef90\_F6DQY6  
UniRef90\_UPI00038228FB  
UniRef90\_X0SXF0  
UniRef90\_UPI0004009783  
UniRef90\_E8PN76  
UniRef90\_B4S5T1  
UniRef90\_A0LR82  
UniRef90\_UPI000472BF63  
UniRef90\_K9PYS3  
UniRef90\_W4LUN3  
UniRef90\_Q1JZK9  
UniRef90\_Q0A960  
UniRef90\_A7BY30  
UniRef90\_W6J0J6  
UniRef90\_W1SES3  
UniRef90\_I4C2X3  
UniRef90\_A5G7C8  
UniRef90\_E1RED5  
UniRef90\_G9XUG6  
UniRef90\_F0M0L6  
UniRef90\_F8I501  
UniRef90\_D9Q2T3  
UniRef90\_J7U9I2  
UniRef90\_G9Z5D8  
UniRef90\_A0A011P3W9  
UniRef90\_C8VNN16  
UniRef90\_C6XA33  
UniRef90\_UPI00046D7BA2  
UniRef90\_UPI000374AB3C  
UniRef90\_B3EPM2  
UniRef90\_E1SHS7  
UniRef90\_D8MQ68  
UniRef90\_UPI0002892C3A  
UniRef90\_D7E052  
UniRef90\_T0JRB0  
UniRef90\_D7CKW5  
UniRef90\_B5FF37  
UniRef90\_M1JWE6  
UniRef90\_R1H3I4  
UniRef90\_T0MQF7  
UniRef90\_H5QB28  
UniRef90\_UPI0002D85019  
UniRef90\_W1J8N4  
UniRef90\_V5FBF7  
UniRef90\_B5EIK3  
UniRef90\_G7WMB2  
UniRef90\_Q2LT80  
UniRef90\_W3ABQ3  
UniRef90\_B4ESX7  
UniRef90\_S5Z067  
UniRef90\_E6QQA6  
UniRef90\_K2JLI3  
UniRef90\_UPI0002D9D24E  
UniRef90\_C9KLE9  
UniRef90\_D7DMN7  
UniRef90\_U7PI52  
UniRef90\_B9M604  
UniRef90\_E0SK83  
UniRef90\_F3KCN5  
UniRef90\_R5J2H8  
UniRef90\_W0Q7A2  
UniRef90\_D3QI37  
UniRef90\_UPI00036D6E6E  
UniRef90\_E8XTM5  
UniRef90\_U3CGS5  
UniRef90\_M1KL04  
UniRef90\_T0ND17

50 60 70 80  
P I D V P P F D R A T V D G Y A V R A E D T F M A S E A S E P V R L K R V I G S V H  
UniRef90\_G0HP62 D T D K P L F D N R A A M D G Y A V R A E D T F M A S E A S E P V R L K R V I G S V H  
UniRef90\_O66448 P I D V P P F D R A A L V D G Y A V R A E D T F M A S E A S E P V R L K R V I G S V H  
UniRef90\_F4HNL0 P I D S P P F D R S A V D G Y A V R A E D T F Q A R E E Y S P I E L K R V I I D E I V P  
UniRef90\_Q5JF26 E F D V P P F D R A T V D G Y A V R A E D T F Q A R E E Y S P I E L K R V I I D E I V P  
UniRef90\_Q9V1A7 K C D V P P F D R A T V D G Y A V R A E D T F Q A R E E Y S P I E L K R V I I D E I V P  
UniRef90\_D2RGE1 P I D L P P F D R A A V D G Y A V R A E D T F Q A R E E Y S P I E L K R V I I D E I V P  
UniRef90\_H3ZMD9 E T N V P P F P R A A V M D G Y A V R A E D T F Q A R E E Y S P I E L K R V I I D E I V P  
UniRef90\_Q8PY20 D T D K P L F D N S A M D G Y A V R A E D T F K N A S E E N P A V L K R V I I D E I V P  
UniRef90\_A8UWT1 Y H N S P P F D K S A M D G Y A V I A E D T F G A S E N N V K E L K R V I I D E I V P  
UniRef90\_D3DYR0 R D N L P P F D K S A M D G Y A V I K S E D T D L Y G A S E D G V P I K L K R V I I D E I V P  
UniRef90\_A6LZY7 P I D Y P P F D R S T V D G Y A V R A E D T F G A S E V T P V S E L R V I I D E I V P  
UniRef90\_V4JCT7 P I D V P P F D R S T V D G Y A V I A E S T Y G A S E L T P V S E L R V I I D E I V P  
UniRef90\_A3MVE8 K H D V P P F D R S A M D G Y A V R A A D S A G A S H D S G P V V L L R V I I D E I V P  
UniRef90\_F9DRM7 D M N M P P F D R K S P Y D G G F A V R A E D I Q G A S S K E S P I T L R V I I D E I V P  
UniRef90\_A8MKV7 R V D V P G F D R A S M D G Y A V K A R D T W G A D S E A E P R S L R I I A G E I L H  
UniRef90\_Q0V6D3 R R N N P P F M D N S A M D G Y A L T V A N D L Q S A S E T S P V T L D T L K E R L V E  
UniRef90\_UPI00037E4247 P I D V P P F D R S T V D G Y A V I A S A D L A G A S E I S P V T L D T L K E R L V E  
UniRef90\_G4RJP2 D F N V P G H T N S A V D G Y A V L N G A D L P A E G T R I L E I A G K A Y  
UniRef90\_H8GQG2 K H D V P H F D R S A M D G Y A V R A E D T V G A T G D N R I S F K V I I D E I V P  
UniRef90\_UPI00030A85AB P L N V P P F A F T N S A M D G Y A I R H T D L A R Q P L K R V I I D E I V P  
UniRef90\_UPI00036BE569 P M D V P P F D R A T V D G Y A V R A E D T F M A S E A N P V R L K R V I I D E I V P  
UniRef90\_F8AIY5 G F D V P K F N R A A M D G Y A V R K A E D T F G A S V S N G P I M L P V A G K S V E  
UniRef90\_Q29332 P I N V P P F D R S A M D G Y G L K C A E D W D G K T P M P V A G K S F  
UniRef90\_K8WCI0 G F P L P P F D R S P L D G Y A V M A E D T F T A S K E T P V L L K R V I I D E I V P  
UniRef90\_F6DQY6 K E N I P P F D R S P Y D G G Y A I R S A A S T V A G A G H D S G P V V L L R V I I D E I V P  
UniRef90\_UPI00038228FB P F N I P P F D N S A M D G Y A L Q A S T V G A S P S G P V V L L R V I I D E I V P  
UniRef90\_X0SXF0 Q K N V P P F N N S A M D G Y A L H A D D L K N C V N N P V V K L T V I I D E I V P  
UniRef90\_UPI0004009783 L V N H P R F Q D D T A L D G Y A C R E E D T L G A S R E R R R V R L R V I I D E I V P  
UniRef90\_E8PN76 D F A L P P F D N S A M D G Y A V Q W A D I R D A R E R R P V T L R V I I D E I V P  
UniRef90\_B4S5T1 E Q P L P R F D N S A M D G Y A V R A D V A T A S A D H P V V L P V I I D E I V P  
UniRef90\_A0LR82 N R T Q P P A D L S A M D G Y A V R A A D L S A V P V T L E V I I D E I V P  
UniRef90\_UPI000472BF63 N L D I P P H W D N S A M D G Y A I R S A D L Q N E P V E I F E V I I D E I V P  
UniRef90\_K9PYS3 P R D I P P H D N S A M D G Y A V Q H H D V D G A T Q D K P A G L K V I I D E I V P  
UniRef90\_W4LUN3 P W S L P V W D N S A M D G Y A V R H A D D C S G N D G T L T I S G Y I P  
UniRef90\_Q1JZK9 P V P V P A H D N S A M D G Y A V R A A D V A G E G P T E L R V I I D E I V P  
UniRef90\_Q0A960 Q I N V P P Y D N S A M D G Y A V R G V D L P V D G Q A Q L L R V I I D E I V P  
UniRef90\_A7BY30 E E N V P G F D R S T V D G Y A V R L A E V Q S G S D A L P V A G K A F  
UniRef90\_W6J0J6 E E D V P G F N R S T M D G I A V R A A D T F G A S E S S P A L F L T G E I A  
UniRef90\_W1SES3 P W D M P F Y D R S A M D G Y A V T R T S D C L E G N C M L K L K G R I D  
UniRef90\_I4C2X3 D I D P P F D R S P L D G Y A Y C A Q P T D K A P L T L D M V S E I P  
UniRef90\_A5G7C8 P L N V P P F D R S A M D G Y A V R R A E L A T Q T P L P V A G K S F  
UniRef90\_E1RED5 P M A V P P F T N S A M D G Y A V I A D D T A S A T A E Q P V R L R N L A G T V S  
UniRef90\_G9XUG6 P L D V P P F D R S A V D G Y A V R S S D T L G A T L L N P V R L R I V I G E V Q  
UniRef90\_F0M0L6 P I N V P P F D N S A M D G Y G F R L S D W D G K T P L P V A G R A L  
UniRef90\_F8I501 P L D V P G F D N S A M D G Y A L R L A D L K S H A V L P V A G K A F  
UniRef90\_D9Q2T3 P F N V P A H D N S A M D G Y A L R H A D L A G S G E T R L R V I I D E I V P  
UniRef90\_J7U9I2 D T D I S P F A H A M D G Y A V R A A E L A Q E S Q E A P V E L D V V A E I A  
UniRef90\_G9Z5D8 P V N V P P H D N S A M D G Y A V R T A D S L Q S E D S G E T P V R L K R V I I D E I V P  
UniRef90\_A0A011P3W9 P R D L P P H D N S A M D G Y A V R H A D L R P G G V V L R V I I D E I V P  
UniRef90\_C8VNN16 S H P V P P F D R S P Y D G G F A V R S V D T E G A S G E S R I A F T V M D H I I G  
UniRef90\_C6XA33 G F A L P P F D N A A M D G Y A V Q W A D I Q E A S G D N P V T L R V I I D E I V P  
UniRef90\_UPI00046D7BA2 P I A V P P F D N S A M D G Y A V R L A D V S S G Q P L P L A G K A F  
UniRef90\_UPI000374AB3C P L D V P P F F A N S A M D G Y A L R M A D L A R Q P L K I A G K A F  
UniRef90\_B3EPM2 K D I L P P F D K S A M D G Y A I K F E D T T V C E S G I N A E L D I V I R  
UniRef90\_E1SHS7 S F D F P H W D N S A M D G Y A V R Y A D V Q Q A R A N K P I T L T V I E I P  
UniRef90\_D8MQ68 G E N L P P F D R S P L D G Y A L Q A K D T E L A N S L N P V I L E V I E V Q  
UniRef90\_UPI0002892C3A R E N I P P F P K S T V D G Y A V R A Q D T F G S S E S M P G F L T Y K G E I L  
UniRef90\_D7E052 P I N V P P F A N S A M D G Y A V R I A D L A S G A W Q P L P V A G K S F  
UniRef90\_T0JRB0 P L D V P G F D N A A M D G Y A V R L A D V A S G A W L P V A G K A F  
UniRef90\_D7CKW5 P L S V P P F D N A A M D G Y A V R L A D L A A G Q P L M L A G K A F  
UniRef90\_B5FF37 L N D V P S F T N S A M D G Y A V K S K Q T K A A T E D N P L A L K L I G S V K  
UniRef90\_M1JWE6 P I D V P G F D N S A M D G Y A V R L A D L A S G E S T N V L P V A G K S F  
UniRef90\_R1H3I4 P I N I P P F D N S A M D G Y A I R L T D L N D T Q V L P V A G K V L  
UniRef90\_T0MQF7 P L H V P P F D N S A M D G Y A V R I A D F E Q Q S T L L S V A G Q S F  
UniRef90\_H5QB28 P W D L P Q F D N S A M D G Y A V R A A N C S K V P A E L S T V I G F L P  
UniRef90\_UPI0002D85019 G I D V P G F H R A A M D G Y A L R S A E T V A A R E D R P I A F A L V I G R V P  
UniRef90\_W1J8N4 S T M I P P R D N S A M D G Y A V I A A D T K G A T E T S P V K L Q V I A E I R G  
UniRef90\_V5FBF7 G H P V P P F D R S P Y D G G F A I J S K H S G A S G D N R I R F D I V A E I I G  
UniRef90\_B5EIK3 P L N V P P F D N S A M D G Y G V R Y T D L N T Q S P L P I A G K A F  
UniRef90\_G7WMB2 K D N L P P F D K S C M D G Y A L K S E D T K E K M S K F Q I K S Q R I S  
UniRef90\_Q2LT80 S I D V P P F D N S A M D G Y A V A C T D L D S T S T H R I S Q R I S  
UniRef90\_W3ABQ3 R V T Q P P K P V A M D G Y A V K A A D V A C V P A T L T V I G E A P  
UniRef90\_B4ESX7 P L N V P P F F A N S A M D G Y A L R C A D L N N N M T L R I A G K E F  
UniRef90\_S5Z067 T F D N V P P F D R S P L D G Y A F A A S G T K G A Q K E V P A S F R I I G E E C  
UniRef90\_E6QQA6 P A N V P N Y D N S A M D G Y A F A A A D I G K S T E L K V I I G S A F  
UniRef90\_K2JLI3 T Y E L P R F N K S P Y D G G F A L R S E D T K G A S G D N R I E F E V T D H I I G  
UniRef90\_UPI0002D9D24E P W D M P P W N S A M D G Y A V R A E D C Q G P A T L R V I I D E I V P  
UniRef90\_C9KLE9 P L D V P P F D N S A M D G Y A V R C H E L T G Q P L P V A G K A F  
UniRef90\_D7DMN7 G L N V P P E D N S A M D G Y A L C S T D D L V A G T Q R T R L N V T G Q V I Y  
UniRef90\_U7PI52 P L D M P P F S R S A Q D G Y A L C S K D S V G V D A E N P V K L K V T G K I Y  
UniRef90\_B9M604 P L N V P N F D N S A M D G Y A V R I A D L E Q N L T L K V A G K A F  
UniRef90\_E0SK83 T S D I P R F N K S P Y D G G F A I R S E D S A G A Y H Q N R K K E V I D H I I G  
UniRef90\_F3KCN5 P S N V P N Y N S A M D G Y A L K A T D V S A S R L M V I I D E I V P  
UniRef90\_R5J2H8 P V F V P P F D N S A M D G Y A V R C T D L H D G A V F P V A G K A F  
UniRef90\_W0Q7A2 P L N V P P F D N S A M D G Y A I R L C D F K T P S T Y H D G A V F I A G K S F  
UniRef90\_D3QI37 D H D V P A F N R S P Y D G G F A I R S A D S K T A S R D N A V T F E I D H I I G  
UniRef90\_UPI00036D6E6E P M N T P P F N R A T M D G Y A V R S A D L A G C S S D N P A T L K I S G E S F

QUERY UniRef90\_G0HP62 UniRef90\_O66448 UniRef90\_F4HNL0 UniRef90\_Q5JF26 UniRef90\_Q9V1A7 UniRef90\_D2RGE1 UniRef90\_H3ZMD9 UniRef90\_Q8PY20 UniRef90\_A8UWT1 UniRef90\_D3DYR0 UniRef90\_A6LZY7 UniRef90\_V4JCT7 UniRef90\_A3MVE8 UniRef90\_F9DRM7 UniRef90\_A8MKV7 UniRef90\_Q0V6D3 UniRef90\_UPI00037E4247 UniRef90\_G4RJP2 UniRef90\_H8GQG2 UniRef90\_UPI00030A85AB UniRef90\_UPI00036BE569 UniRef90\_F8AIY5 UniRef90\_Q29332 UniRef90\_K8WCI0 UniRef90\_F6DQY6 UniRef90\_UPI00038228FB UniRef90\_X0SXF0 UniRef90\_UPI0004009783 UniRef90\_E8PN76 UniRef90\_B4S5T1 UniRef90\_A0LR82 UniRef90\_UPI000472BF63 UniRef90\_K9PY53 UniRef90\_W4LUN3 UniRef90\_Q1JZK9 UniRef90\_Q0A960 UniRef90\_A7BY30 UniRef90\_W6J0J6 UniRef90\_W1SES3 UniRef90\_I4C2X3 UniRef90\_A5G7C8 UniRef90\_E1RED5 UniRef90\_G9XUG6 UniRef90\_F0M0L6 UniRef90\_F8I501 UniRef90\_D9Q2T3 UniRef90\_J7U9I2 UniRef90\_G9Z5D8 UniRef90\_A0A011P3W9 UniRef90\_C8VN16 UniRef90\_C6XA33 UniRef90\_UPI00046D7BA2 UniRef90\_UPI000374AB3C UniRef90\_B3EPM2 UniRef90\_E1SHS7 UniRef90\_D8MQ68 UniRef90\_UPI0002892C3A UniRef90\_D7E052 UniRef90\_T0JRB0 UniRef90\_D7CKW5 UniRef90\_B5FF37 UniRef90\_M1JWE6 UniRef90\_R1H314 UniRef90\_T0MQF7 UniRef90\_H5QB28 UniRef90\_UPI0002D85019 UniRef90\_W1J8N4 UniRef90\_V5FBF7 UniRef90\_B5EIK3 UniRef90\_G7WMB2 UniRef90\_Q2LT80 UniRef90\_W3ABQ3 UniRef90\_B4ESX7 UniRef90\_S5Z067 UniRef90\_E6QQA6 UniRef90\_K2JLI3 UniRef90\_UPI0002D9D24E UniRef90\_C9KLE9 UniRef90\_D7DMN7 UniRef90\_U7PI52 UniRef90\_B9M604 UniRef90\_E0SK83 UniRef90\_F3KCN5 UniRef90\_R5J2H8 UniRef90\_W0Q7A2 UniRef90\_D3QI37 UniRef90\_UPI00036D6E6E UniRef90\_E8XTM5 UniRef90\_U3CGS5 UniRef90\_M1KL04 UniRef90\_T0ND17

90 100 110 120

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

QUERY UniRef90\_G0HP62 UniRef90\_O66448 UniRef90\_F4HNL0 UniRef90\_Q5JF26 UniRef90\_Q9V1A7 UniRef90\_D2RGE1 UniRef90\_H3ZMD9 UniRef90\_Q8PY20 UniRef90\_A8UWT1 UniRef90\_D3DYR0 UniRef90\_A6LZY7 UniRef90\_V4JCT7 UniRef90\_A3MVE8 UniRef90\_F9DRM7 UniRef90\_A8MKV7 UniRef90\_Q0V6D3 UniRef90\_UPI00037E4247 UniRef90\_G4RJP2 UniRef90\_H8GQG2 UniRef90\_UPI00030A85AB UniRef90\_UPI00036BE569 UniRef90\_F8AIY5 UniRef90\_Q29332 UniRef90\_K8WCIO UniRef90\_F6DQY6 UniRef90\_UPI00038228FB UniRef90\_X0SXF0 UniRef90\_UPI0004009783 UniRef90\_E8PN76 UniRef90\_B4S5T1 UniRef90\_A0LR82 UniRef90\_UPI000472BF63 UniRef90\_K9PYS3 UniRef90\_W4LUN3 UniRef90\_Q1JZK9 UniRef90\_Q0A960 UniRef90\_A7BY30 UniRef90\_W6J0J6 UniRef90\_W1SES3 UniRef90\_I4C2X3 UniRef90\_A5G7C8 UniRef90\_E1RED5 UniRef90\_G9XUG6 UniRef90\_F0M0L6 UniRef90\_F8I501 UniRef90\_D9Q2T3 UniRef90\_J7U9I2 UniRef90\_G9Z5D8 UniRef90\_A0A011P3W9 UniRef90\_C8VN16 UniRef90\_C6XA33 UniRef90\_UPI00046D7BA2 UniRef90\_UPI000374AB3C UniRef90\_B3EPM2 UniRef90\_E1SHS7 UniRef90\_D8MQ68 UniRef90\_UPI0002892C3A UniRef90\_D7E052 UniRef90\_T0JRB0 UniRef90\_D7CKW5 UniRef90\_B5FF37 UniRef90\_M1JWE6 UniRef90\_R1H3I4 UniRef90\_T0MQF7 UniRef90\_H5QB28 UniRef90\_UPI0002D85019 UniRef90\_W1J8N4 UniRef90\_V5FBF7 UniRef90\_B5EIK3 UniRef90\_G7WMB2 UniRef90\_Q2LT80 UniRef90\_W3ABQ3 UniRef90\_B4ESX7 UniRef90\_S5Z067 UniRef90\_E6QQA6 UniRef90\_K2JLI3 UniRef90\_UPI0002D9D24E UniRef90\_C9KLE9 UniRef90\_D7DMN7 UniRef90\_U7PI52 UniRef90\_B9M604 UniRef90\_E0SK83 UniRef90\_F3KCN5 UniRef90\_R5J2H8 UniRef90\_W0Q7A2 UniRef90\_D3QI37 UniRef90\_UPI00036D6E6E UniRef90\_E8XTM5 UniRef90\_U3CGS5 UniRef90\_M1KL04 UniRef90\_T0ND17

130 140 150 160

GEVLIYKPAAYPGLVGMKKKGADEIPKGGKRLVKKGTRELTGFFKQDTM  
EYVIVYKSPAYKQGAGNMRKRGGADVDIKKGGKTLVLPKGGTRELTRFFKQDTM  
GDKIRIYKSPAYKQAGNMRKRGGADVDIKKGGKTLVLPKGGTRELTRFFKQDTM  
DVI RVLRLPVAAGQGNVAFMKKGGEDVVKKGGKTLVLPKGGTRELTRFFKQDTM  
EYIVYVYKSPVAAPMENNVAFAKGGSDVDAKGGKTLVLPKGGTRELTRFFKQDTM  
NKIYVYVLRPVVATAGQNNVAFKAGSDDVKKGGKTLVLPKGGTRELTRFFKQDTM  
EYIVYVYKSPVAAPMENNVAFAKGGSDVDAKGGKTLVLPKGGTRELTRFFKQDTM  
GKVIYVYKRAFAFKGSENNVRLRGGEDVVKKGGKTLVLPKGGTRELTRFFKQDTM  
DNL E I H S Q V T P G G E N N I S P K A G E D I A K G G D E L L G E N V L I R R P Q E M  
D L L T Y I S E K V A K N G G E N N I S Q K L G G E D I V K V G D I A L R K G T M L T R T A R E T I  
D L L T V Y R K R A F A L Q E Y L R F S G G D D I A K Q G G E L L A N P G S L I H P A R E V I  
G V V R V F R P V A P G E N N I M T A G G S D A S A G G E V V L R R Y C T R L T T A R G E T V I  
A G F T L R K T F E E A G S E N N I S Q K L G G E D I V K V G D I A L R K G T M L T R T A R E T I  
K D V K I Y T P P A N S E N N I S S O Q L G G E D M R V G G E V V L M K K G L R I H D A S P E V I  
D T V N I R K P L P S P G E N N I M H A G A D V M Q G G E L V L R K K G T R L T D S A R E I I  
N R V V V Y K R A F A L Q E Y L R F S G G D D I A K Q G G E L L A N P G S L I H P A R E V I  
G A I R J P 2 N T V L I D G R H K P G Q N N V R R A G E D I R Q G G T I L Y P G K W L T P P D I  
U P I 0 0 0 3 0 A 8 5 A B D T F S V R K T F E K G E N N I S F S K G G D A K Q G G E L L A N P G S L I H P A R E V I  
U P I 0 0 0 3 6 B E 5 6 9 D L L T V Y R K R A F A L Q E Y L R F S G G D D I A K Q G G E L L A N P G S L I H P A R E V I  
F 8 A I Y 5 N E I T V A K P A Y P G M G V M K K G A D I P K G G K L L L K K G T V L G F K E T  
Q 2 9 3 3 2 U N F V E V L K S V T P Q M G N I S R K A G G E D I A A Q G S C V L A K G T L L Q S T A Q I  
K 8 W C I O N Q G I M F T R P I K Q G S N I R S K A G G E D I A A Q G S C V L A K G T L L Q S T A Q I  
F 6 D Q Y 6 D Q V L I F S P L R P G D N Y I N K G G D D V L E G E K I L A K G M T I T P A V I  
U P I 0 0 0 3 8 2 2 8 F B K E V C F F S P L R A S P G S N I V K R A G E D I V K K G G Q V L A K G E Y L S P A S E I  
X 0 S X F 0 E G V R I L R E A R P G G N I V R R A G E D I R K K G G Q V L A K G V V L S P A S E I  
U P I 0 0 0 4 0 0 9 7 8 3 A L I T F S H A P E V N N N V R F A G E D L S G Q Q V L Q K G H K L T P P R D I  
E 8 P N 7 6 D Y V L L F A P A S P A K D I V R Y A G G E D L R K K G G V Y L R R G D L L T P P G R L  
B 4 S 5 T 1 G T V D I F K P A A N A N N I R R Y A G G E V K P G G D L L M R K G M R L T P P A E L  
A 0 L R 8 2 A R V R I H R P A S P G L H I R R A G E D V R A G D T V L R A G T T L G A A Q L  
U P I 0 0 0 4 7 2 B F 6 3 S A V I I K Q T A H K G T Y V R S A G G E D F R N E A G E P L L K E G M K L T G A A R D V I  
K 9 P Y S 3 D T V K I T E N A P A P G K F V R S A G G D Y Y R A G A G E P L L K E G M K L T G A A R D V I  
W 4 L U N 3 T D V A I Y R A S P R V G S N L R Q R G E D I N A G D C I M A Q Q T R L R P A E L  
Q 1 J Z K 9 D Q L T I R G S V H T V G D H I R R A K G E D I A D E G E N I L A A G S L L G P A E L  
Q 0 A 9 6 0 D L I R V Q A P H T R A G N H I R R A K G E D I A D E G E R V L A A G Q R V L G P A E L  
A 7 B Y 3 0 D F I N I T A D H K K G Q H V R P V G E D I A G Q V V L T A G K R M L P A D I  
W 6 J 0 J 6 A G I R N T A E V R A N Q N I R R A G E D I R R G G A S V E A A G T K L T T A A E L  
W 1 S E S 3 D L L N T Y K Q V A P G E N N I V R R K G E D I R R E G E L L A A A G T K L R P P Q D L  
I 4 C 2 X 3 T T V E I L K S V A P Y E N N V V R K G E D F K A G E D V L L P A G H R L R P P Q D L  
A 5 G 7 C 8 G A V E L K E K V A P R Q G H I R F R K G M D V C P E G G T I L T A G T V I H S A S P P E  
E 1 R E D 5 G D V L V K R P V A V G E N N I V V K K G E D F P E G G V V F G R G E V L S S A S A V  
G 9 X U G 6 G Q V T I N Q P V K P Q A N I V Y Q G E E T K C G G D I V L R A G G E Y L S S P A A V  
F 0 M 0 L 6 G Q G V T F H T D I K P N D N I R P T G E D D H H Q G D V V L S R Q G A R L S P P P  
F 8 I 5 0 1 U N I F S P L R P G D N Y I N K G G D D V L E G E K I L A K G M T I T P A V I  
D 9 Q 2 T 3 E Y V E V K R Q V T P Y M N V S R K G E D F T K G K I V I R R G Y K V Q P W H V  
J 7 U 9 I 2 A G I T F T A G I T A G Q N I R R T R G E D I A K G H S E V L P A G T R L A A A Q L  
G 9 Z 5 D 8 E G V K F L A P V S A G Q N I R R Y R G E D I A K G A A V F T K G T R L T V A E L  
A 0 A 0 1 1 P 3 W 9 D R L I V P A G Q R A G Q N I R R A G E D L A A G K P A L A A G R V I R P A E L  
C 8 V N 1 6 G R V A F S A P T A V R S N I R E A G E E A K A G E T V V S K G E L G S A G D V  
C 6 X A 3 3 D T M R H A E P K P G S N I R L A G E D L R A G E V V L P Q G H L M H S A S P P E  
U P I 0 0 0 4 6 D 7 B A 2 G G V E I V S V P A A G A N I R P Q G E D V R Q G G T L V L P R G T R V R A A E V  
U P I 0 0 0 3 7 4 A B 3 C Q T F T I R K P A P M E N N V S Y A G G E D A K K E G E L V L V E A G A F I Q P P G V I  
B 3 E P M 2 G E V A V F K A P E F R A N N V R Y A G G E V P K E G E L V L S R G V R L T P P A E L  
E 1 S H S 7 D A I V I T A P V R Q G Q N I R L T G D D I Q P G N V V L E A G T R L G A A E L  
D 8 M Q 6 8 D A I R I L A D V T E G Q N I R L A G D D I L N V G G A T V L E Q G K I R L G A A E L  
U P I 0 0 0 2 8 9 2 C 3 A N K L I S D V T K E D T N I K M G E E L N V V G D L A I P K G K V I R P A E I  
D 7 E 0 5 2 N R I F I F A A P Q L E E F V R R K G D F Y Q A G K Q L L P A G I S L N A S E I  
T 0 J R B 0 N K V E L I Y R P L K A G N D I V T R A G E D V V R R Q G G E V I A K R G T V L T P P L V  
D 7 C K W 5 D T V L I N N P V G P G E N N I V R R V G G E D V R R Q G G E V V L C R G G H W L T P Q D L  
B 5 F F 3 7 A G I T F E E D V K P Q A N I R P L G D D V S Q G G T V L A K G H R L T P R D I  
M 1 J W E 6 A G V R F T A D V R A G Q H I R R R R G E D I R Q G G A V V M E A G Q K L S P A R E L  
R 1 H 3 I 4 D K V F T L S Q P M P G Q N I R R R R G E D I T E G A S V L G T G T R L T P R E L  
T 0 M Q F 7 G K V L I K K E V Q P G E N I R F Q G E E I K K G N L A L K K F M V L N P A A L  
H 5 Q B 2 8 N G V R F T A E V R S G Q N I R R R R G E D I S A G A V V E P A G T R L T T A E L  
U P I 0 0 0 2 D 8 5 0 1 9 Q G I V I N Q T A I P Q N N I R P L G D D I R E G D I V L E K G A R L T P P R D I  
W 1 J 8 N 4 S G V R F T Y P A H Q G Q N I R T I G D D I A Q N T A V L S Q G I K L S T A Q L  
V 5 F B F 7 A G I K F D A T P K H N N I R P V G G D D I Q V G A P I L E A G T R L T A R D L  
B 5 E I K 3 D R V V I R Q K P Q P R Q H L R H Q G S D V A A G A P I L E A G T R L R P A E I  
G 7 W M B 2 S S L L I R R P V H F G E N T H R A G G D V A M G E T V L L P G R R L S A R E I  
Q 2 L T 8 0 G Y L R I F N E T V K Y S N C R E A G G E D I K K G D K V L E K G D R L R S A D V  
W 3 A B Q 3 G F F T I R K E P F K P L E N N V S L Q G G E D V K K G G E T V I E S G N L I H P A R E L  
B 4 E S X 7 N G I L F P H P A K L G Q N I R R R G E D I K Q N D I V L A A G T K L S T A Q L  
S 5 Z 0 6 7 K E L H V L R E K V S P G T N I F K T G E E D I K T I G T V A L K K G K T V R P A E L  
E 6 Q Q A 6 R R L I L R K Q V I P G M N I R R A G E E L T I G T V A L K K G K T V R P Q E M  
K 2 J L I 3 T S V T V K E A P A L G N Y V R P A G L D F R M G D I G I P A G K L L N A R D T  
U P I 0 0 0 2 D 9 D 2 4 E D D I T F A H T A E L Q Q N I R P F A G E D V E A G D V V I P K G T L T A P R E V  
C 9 K L E 9 D C I L V P Y E L H H H E N Y C P A G E D V R A G T L A V K R G T E L T A A H V  
D 7 D M N 7 D L I R F T E A P K P K A N V R Y T G E D L Q L G K T V L P A G H M M R A S D L  
U 7 P I 5 2 H S F T I R K T F E H N E N I S L K G E E T E V G D V L K E A G Q R I N T A S G I  
B 9 M 6 0 4 D S V K L L E Q V K K R Q H I R F A G E D I K A G D K V L A A G T A I T A S G I  
E 0 S K 8 3 G R V H F T R A V K P G Q N I R R T G E D I R R Q Q A Q V L P A G T R L G T A E L  
F 3 K C N 5 D T V L L P E S V K V G N N I R R Q G Q D I K Q G S T V L E K G Q K I H P Q A L  
R 5 J 2 H 8 N V V Q I Y S K E V E P G S I C R K G G E Y K K G H I L H A G T K I D A A A L  
W 0 Q 7 A 2 G S V T F N N I P K L G S N I R R I G D D V K Q G A L V L K K G S L L N V A S L  
D 3 Q I 3 7 D T F T I R K S F P Y E N V C L K G E E T A T G D I V L Q R G Q L I N A G V I  
U P I 0 0 0 3 6 D 6 E 6 E K F I N I L E A P K P H A N N V R Y A G E D L K I G T V L A T G H L M R P A D L  
E 8 X T M 5 A G V R F T A T A Q K G Q N I R L T G D D I K Q G G S V L P A G V R L G A A E L  
U 3 C G S 5 E G V Q F L R N I A P F N I R Y Q G D D I K Q G A L V L T K G S R L T P R D L  
M 1 K L 0 4 D Y M S V K R P F H A G D N I S Y Q G E D A K K G S S L L K K G T K I T P G V T  
T 0 N D 1 7 G F V S V K T A T I R G E N I A E A G S D M A E G S M V L W K G R E I Q P H D V



QUERY	A	L	L	S	A	V	G	I	N	K	V	K	V	F	R	K	
UniRef90_G0HP62	A	L	L	S	A	V	G	I	N	K	V	K	V	F	R	K	
UniRef90_O66448	G	M	L	A	S	V	N	R	A	V	V	S	V	F	R	K	
UniRef90_F4HNL0	A	L	L	S	A	I	G	I	D	R	V	K	V	F	R	K	
UniRef90_Q5JF26	A	L	L	K	S	I	G	F	K	T	V	R	V	F	R	K	
UniRef90_Q9V1A7	A	M	L	K	A	L	G	I	K	S	V	P	V	K	R	K	
UniRef90_D2RGE1	G	L	I	A	S	A	G	V	D	R	V	K	V	F	R	K	
UniRef90_H3ZMD9	G	M	L	K	G	L	G	V	K	T	I	K	V	K	R	K	
UniRef90_Q8PY20	G	V	L	A	S	T	G	K	K	E	V	P	V	L	R	R	
UniRef90_A8UWT1	G	M	L	A	F	V	N	R	A	V	V	E	V	L	R	R	
UniRef90_D3DYR0	G	L	I	A	S	A	G	Y	S	E	V	E	V	Y	K	R	
UniRef90_A6LZY7	G	V	L	A	S	L	G	Y	S	K	I	K	V	H	R	R	
UniRef90_V4JCT7	A	V	L	A	G	L	G	V	S	R	V	R	V	Y	R	R	
UniRef90_A3MVE8	G	V	L	A	A	V	G	M	R	K	V	A	V	V	K	R	
UniRef90_F9DRM7	A	L	L	A	T	F	G	Y	S	Q	V	V	V	A	K	R	
UniRef90_A8MKV7	G	I	L	S	T	L	G	K	S	F	V	R	V	Y	R	K	
UniRef90_Q0W6D3	S	V	L	A	A	V	G	L	K	E	V	P	V	Y	R	R	
UniRef90_UPI00037E4247	G	M	M	A	V	V	G	R	S	S	V	L	V	G	R	R	
UniRef90_G4RJP2	G	V	L	A	A	A	G										
UniRef90_H8GQG2	G	L	L	A	S	L	G	I	P	E	I	N	V	V	R	K	
UniRef90_UPI00030A85AB	A	L	L	A	T	L	G	Y	G	K	V	T	V	S	K	K	
UniRef90_UPI00036BE569	G	L	L	A	S	Q	G	I	A	Q	V	P	V	L	R	R	
UniRef90_F8AIY5	A	L	L	S	A	V	G	I									
UniRef90_Q29332	G	V	I	A	S	L	G	I	E	S	V	R	V	Y	R	K	
UniRef90_K8WCI0	P	L	L	A	S	L	G	L	A	T	V	R	V	Y	R	R	
UniRef90_F6DQY6	G	L	L	A	S	M	G	K	K	R	V	K	V	F	K	K	
UniRef90_UPI00038228FB	G	L	L	A	G	L	G	Y	G	E	V	E	V	F	K	K	
UniRef90_X0SXF0	G	V	L	A	S	V	G	R	A	T	V	E	V	V	R	R	
UniRef90_UPI0004009783	P	L	L	A	S	L	G	I	A	N	V	D	V	Y	R	K	
UniRef90_E8PN76	G	L	A	A	A	M	G	Y	P	R	L	K	V	F	R	R	
UniRef90_B4S5T1	G	V	L	A	A	F	G	R	S	H	V	K	V	F	Q	R	
UniRef90_A0LR82	G	L	L	A	A	I	G	R	A	R	V	R	V	R	P	K	
UniRef90_UPI000472BF63	G	F	L	A	A	M	N	I	P	W	V	T	V	H	R	R	
UniRef90_K9PYS3	A	V	L	A	A	C	Q	C	P	K	F	P	V	F	R	R	
UniRef90_W4LUN3	G	V	L	A	S	V	G	K	A	Q	V	M	V	Y	Q	R	
UniRef90_Q1JZK9	G	L	L	A	T	F	N	K	V	I	V	P	V	Y	R	R	
UniRef90_Q0A960	G	V	M	A	S	S	G	L	V	E	V	S	V	F	R	R	
UniRef90_A7BY30	G	L	L	A	S	L	G	V	P	E	V	K	V	K	R	R	
UniRef90_W6J0J6	P	V	I	A	S	L	G	I	A	D	V	S	V	L	R	K	
UniRef90_W1SES3	G	A	L	A	S	L	G	L	T	H	I	V	V	F	R	K	
UniRef90_I4C2X3	G	M	L	A	A	M	G	K	S	E	V	T	V	Y	R	K	
UniRef90_A5G7C8	S	M	L	A	S	F	G	K	A	V	V	P	V	F	R	K	
UniRef90_E1RED5	G	A	L	A	A	I	G	Y	Y	E	V	P	V	M	K	K	
UniRef90_G9XUG6	G	L	L	A	S	L	G	V	E	T	V	E	V	Y	R	K	
UniRef90_F0M0L6	P	M	I	A	T	L	G	V	A	N	V	T	V	Y	R	K	
UniRef90_F8I501	G	I	L	A	T	L	G	W	A	E	I	P	V	A	R	R	
UniRef90_D9Q2T3	G	A	L	A	S	L	G	I	R	K	I	K	V	F	R	R	
UniRef90_J7U9I2	P	L	I	A	S	L	G	L	A	E	I	L	S	V	V	R	K
UniRef90_G9Z5D8	P	V	L	A	S	L	G	I	P	E	I	S	V	V	R	K	
UniRef90_A0A011P3W9	G	L	M	A	S	L	G	C	A	E	V	S	V	Y	R	R	
UniRef90_C8WV16	G	F	L	A	G	C	G	I	V	E	V	P	T	H	R	R	
UniRef90_C6XA33	G	L	I	A	S	L	G	L	G	E	V	S	V	Y	R	R	
UniRef90_UPI00046D7BA2	G	M	M	A	S	L	G	R	A	F	V	L	V	H	Q	R	
UniRef90_UPI000374AB3C	A	V	L	A	T	F	G	Y	A	N	V	Q	V	A	K	R	
UniRef90_B3EPM2	G	V	L	A	A	F	G	R	K	E	V	Q	V	Y	R	R	
UniRef90_E1SHS7	P	L	L	A	S	L	G	I	A	Q	V	S	V	L	R	K	
UniRef90_D8MQ68	P	L	L	A	S	L	G	V	A	D	V	K	V	L	R	K	
UniRef90_UPI0002892C3A	G	F	L	A	S	L	G	Y	S	K	V	L	T	Y	K		
UniRef90_D7E052	G	V	L	A	G	A	G	R	E	Q	V	C	V	F	R	K	
UniRef90_T0JRB0	G	L	L	A	A	I	G	V	D	E	I	P	V	F	S	K	
UniRef90_D7CKW5	G	V	L	A	S	L	G	I	V	R	V	S	V	F	C	R	
UniRef90_B5FF37	P	L	I	A	S	L	G	I	N	D	I	P	V	V	N	K	
UniRef90_M1JWE6	P	L	L	A	S	L	G	I	A	E	V	D	V	V	R	K	
UniRef90_R1H3I4	P	L	L	A	S	L	G	I	A	T	L	E	V	R	R	K	
UniRef90_T0MQF7	G	F	L	A	T	V	G	I	K	L	V	K	V	F	K		
UniRef90_H5QB28	P	V	I	A	S	L	G	I	A	E	V	P	V	T	R	K	
UniRef90_UPI0002D85019	P	M	I	A	S	L	G	V	S	H	I	L	V	V	R	K	
UniRef90_W1J8N4	P	L	L	A	S	L	G	I	A	Q	V	D	V	I	R	K	
UniRef90_V5FBB7	P	M	L	A	S	L	G	V	A	Q	V	S	V	Y	R	K	
UniRef90_B5EIK3	G	M	L	A	A	M	G	Q	A	L	V	P	V	H	R	K	
UniRef90_G7WMB2	G	L	L	A	A	V	G	R	R	D	V	R	V	R			
UniRef90_Q2LT80	G	I	L	A	S	L	N	Y	Q	T	I	K	V	Y	K	Q	
UniRef90_W3ABQ3	A	L	L	A	T	F	G	Y	A	T	V	R	V	A	K		
UniRef90_B4ESX7	P	L	I	A	S	L	G	I	A	N	I	N	V	Y	R	K	
UniRef90_S5Z067	G	L	L	A	S	L	G	Y	T	K	I	K	C	Y	K		
UniRef90_E6QQA6	G	L	V	A	S	V	G	I	A	S	L	S	V	Y	R	K	
UniRef90_K2JLI3	G	L	A	A	G	M	N	H	P	W	L	R	V	V	R	R	
UniRef90_UPI0002D9D24E	P	M	L	A	T	L	G	I	G	T	V	T	V	M	R	R	
UniRef90_C9KLE9	G	V	L	A	S	L	G	L	G	M	V	K	V	R	R	R	
UniRef90_D7DMN7	G	L	I	A	S	L	G	L	G	E	V	N	V	Y	R	Q	
UniRef90_U7PI52	A	V	L	A	T	F	G	Y	T	E	V	P	V	R	R		
UniRef90_B9M604	N	M	L	A	S	L	G	A	A	L	V	P	V	F	R	R	
UniRef90_E0SK83	P	L	L	A	S	L	G	I	S	A	V	E	V	V	R	R	
UniRef90_F3KCN5	G	L	L	A	S	V	G	I	V	E	V	S	V	Y	R	R	
UniRef90_R5J2H8	A	V	A	S	G	N	G	I	M	E	L	P	V	Y	E	R	
UniRef90_W0Q7A2	P	L	L	A	S	L	G	L	A	S	V	P	V	F	A	K	
UniRef90_D3QI37	A	V	L	A	T	F	G	Y	S	E	V	P	V	F	D	K	
UniRef90_UPI00036D6E6E	G	L	I	A	S	L	G	I	A	S	V	R	A	Y	R	K	
UniRef90_E8XTM5	P	L	L	A	S	L	G	V	T	H	V	K	V	W	K		
UniRef90_U3CGS5	P	M	I	A	S	L	G	L	S	H	V	K	V	F	R	K	
UniRef90_M1KL04	A	L	L	A	T	F	G	Y	A	S	V	P	V	V	R	K	
UniRef90_T0ND17	A	V	L	A	S	M	G	I	S	T	V	S	V	Y	R	R	

UniRef90\_G5JFN5  
UniRef90\_D2TYA4  
UniRef90\_F7XMW9  
UniRef90\_UPI000288E94E  
UniRef90\_E7B3P5  
UniRef90\_K9PK75  
UniRef90\_A0A014M6T8  
UniRef90\_X1PPZ5  
UniRef90\_Q1PZY9  
UniRef90\_G7VHQ6  
UniRef90\_G9YCC2  
UniRef90\_J2ICC2  
UniRef90\_UPI00037756A4  
UniRef90\_A8M9Q6  
UniRef90\_I2NKG7  
UniRef90\_J3A5W1  
UniRef90\_S6B371  
UniRef90\_UPI00047A4E71  
UniRef90\_UPI0003818A68  
UniRef90\_D5W7R2  
UniRef90\_UPI000479A3F9  
UniRef90\_X1ARB4  
UniRef90\_UPI000463D833  
UniRef90\_Q1MYT2  
UniRef90\_I3CET6  
UniRef90\_K1KK51  
UniRef90\_Q0FAN7  
UniRef90\_A8MF51  
UniRef90\_N0BCS4  
UniRef90\_D7B7T7  
UniRef90\_M1NE04  
UniRef90\_A0KRF6  
UniRef90\_UPI00047DD0ED  
UniRef90\_L7EKQ9  
UniRef90\_D8K022  
UniRef90\_B9XRT2  
UniRef90\_E8WN24  
UniRef90\_D1JGY9  
UniRef90\_I3E5V7  
UniRef90\_UPI00046A9668  
UniRef90\_R4TGV2  
UniRef90\_UPI000373A1CF  
UniRef90\_S4WA46  
UniRef90\_C7RTG1  
UniRef90\_C2PED7  
UniRef90\_J1L4N9  
UniRef90\_D5MFZ0  
UniRef90\_A3VKH9  
UniRef90\_F8C497  
UniRef90\_B0C6J1  
UniRef90\_G2MGQ7  
UniRef90\_A1RT85  
UniRef90\_G7LUL7  
UniRef90\_D6XTA3  
UniRef90\_UPI0004765AB5  
UniRef90\_UPI0003FC1A8E  
UniRef90\_F8AC92  
UniRef90\_E4NNG4  
UniRef90\_UPI000344F9B7  
UniRef90\_I1D6U5  
UniRef90\_F3LIL7  
UniRef90\_Q2FRD5  
UniRef90\_F9ZS20  
UniRef90\_UPI000475C31A  
UniRef90\_H5USJ5  
UniRef90\_W7SH01  
UniRef90\_X7E3V2  
UniRef90\_UPI000349D47D  
UniRef90\_U2SUK2  
UniRef90\_S9Z8Y4  
UniRef90\_D4K0W1  
UniRef90\_UPI000469CA04  
UniRef90\_I7KK92  
UniRef90\_K0D179  
UniRef90\_X1BUE5  
UniRef90\_G8AL02  
UniRef90\_UPI0002DC732F  
UniRef90\_A5UMX0  
UniRef90\_UPI00030A35C6  
UniRef90\_G4E1C2  
UniRef90\_E2SDJ4  
UniRef90\_UPI0003A54DFE  
UniRef90\_E9V141  
UniRef90\_W5IY83  
UniRef90\_UPI0003773197  
UniRef90\_H0A5V4  
UniRef90\_UPI00031465AD  
UniRef90\_A1RZ24  
UniRef90\_C5WCX8  
UniRef90\_UPI00047D62D8  
UniRef90\_C9P755  
UniRef90\_A3CS19

UniRef90\_G5JFN5 T Y D I P R F N K S P Y D G F A I R S Q D S A V A N G Q H R V E F K V I T D H I G  
UniRef90\_D2TYA4 P I N D V P P F D N S S A M D G Y A I R F N D W H D A T E T D P V T T L H L V I A G S K A L G  
UniRef90\_F7XMW9 D L D V P P A F D K R S V M D G Y A I R Y A A D T Y G A T E T D P V T T L H L V I A G S K A L G  
UniRef90\_UPI000288E94E P Q D V P P A F D K R S V M D G Y A I R Y A A D T Y G A T E T D P V T T L H L V I A G S K A L G  
UniRef90\_E7B3P5 P I A V P P F A N S A M D G Y A I R R Y E D V L K H S A E N S P S Q V L P E I V A G K A F  
UniRef90\_K9PK75 N L D F P P F W D N S A M D G Y A I R R Y E D V L K H S A E N S P S Q V L P E I V A G K A F  
UniRef90\_A0A014M6T8 P V C V P P F W D N S A M D G Y A I R R Y E D V L K H S A E N S P S Q V L P E I V A G K A F  
UniRef90\_X1PPZ5 K T N V P P F D R S A V D G Y A V R A T D T F G A S E T K P K K L R V V I G S K A K  
UniRef90\_Q1PZY9 D I D M P P F F N R S A M D G Y A V R A E D T T K T A P R T N P V V L K L I E N I A V  
UniRef90\_G7VHQ6 P I D V P P F F D R A A F D G Y A V R S A D T L G A S T P D A V L T I A G K A F  
UniRef90\_G9YCC2 P I N V P P F A N S A M D G Y A V R L Q D V V K A G Q T Q G L Q Q F R M I G S S A L  
UniRef90\_J2ICC2 S F D V P P G Y D N S A M D G Y A V R A A E V K A G Q T Q G L Q Q F R M I G S S A L  
UniRef90\_UPI00037756A4 P F D V P P Y R N S A M D G Y A V R K S Q G Q T Q G L Q Q F R M I G S S A L  
UniRef90\_A8M9Q6 K V D V P P F D R A T M D G Y A I L R A E D T F G A D E L H P V K L R L S N S I N  
UniRef90\_I2NKG7 P L N D V P P F D N S S A M D G Y A I K F A D L E T F T D F N I A G K S F  
UniRef90\_J3A5W1 T Y D L P S F D R S P L D G F A V R A A D T M G A S V D H P I T L T V I G K V A  
UniRef90\_S6B371 T V N V P P L D N S A M D G Y A V R I A D I I N A S T R L R V V T Q R I V A  
UniRef90\_UPI00047A4E71 D H P V P P S F D N S S F D G F A I I A E E T T N A S F Q E P I S C K V I G R I G A  
UniRef90\_UPI0003818A68 P L D L P P P W D N S A M D G Y A V R M A D V T G A S P E F P A E L D V I D D I G A  
UniRef90\_D5W7R2 P L D V P P M H T S A M D G Y A V R I A D L A H G S R L P V S Q D R I P  
UniRef90\_UPI000479A3F9 K R T Q P P F A A S A M D G Y A V R A L D A A H A G A T L K V L V G T V A  
UniRef90\_X1ARB4 E M D I P P F F D R S A M D G Y A I L K A E D S F K A S P R N P K M I R L V G T V A  
UniRef90\_UPI000463D833 G L N V P P G H D N S A M D G F A F R H A P E A T Q P L Q I V I G T A F  
UniRef90\_Q1MYT2 P F D I P P H A D N S A M D G Y A M K A E D S T A S L Q I V I A T V Y  
UniRef90\_I3CET6 A L N V P P A Y P N S A M D G Y A V R K G E D L P I V G I A S L Q I V I G S S F  
UniRef90\_K1KK51 P I A V P P G W D N S Q M D G Y A V R A A E L A E A S K D H P V V L P V S D R I P  
UniRef90\_Q0FAN7 N R D Q P P F F K S A M D G Y A I N A K R D L Q P G A E L K V I G Q S V  
UniRef90\_A8MF51 P I H V P P G F H R S T V D G F A V I A R D T F G S S E N I P S F L R Y R G K I E  
UniRef90\_N0BCS4 K R D V P P H F D R S A V D G Y A V I A E D T Y S A S T S N P I I F R V I D S K I E  
UniRef90\_D7B7T7 P V S L P P G F D N S S M D G Y A V R A A D L E G A S S P D H P V R L P E I V A D I P  
UniRef90\_M1NE04 P E D L P T H P R S T M D G F A V R A A D T F G A S S S M P C Y L E I V D G E V A  
UniRef90\_A0KRF6 C I D L P P F D N S S M D G Y A F R F A D L A T D T N Q T T L T I G E S S F  
UniRef90\_UPI00047DD0ED K V D L P P R F D N S A M D G Y A V R A E S L L A D A G D S P V R L R I I V G T A K  
UniRef90\_L7EKQ9 K D S L P P F D N K A A M D G Y A L R S E D T L E A S V D K P I E F N I V I G T A K  
UniRef90\_D8K022 T M S I P P F F D R A A M D G F A V R M A E D T F G A S R R Q P K Q L T I V I G K L Y  
UniRef90\_B9XRT2 P I N L P P V I F D N S A M D G Y A V R A E D V R T A A N S K S P V A L H I V G R V A  
UniRef90\_E8WN24 P W D L P P Q Y D N S A M D G Y A V H A S D C S V P A R L T I T G F L P  
UniRef90\_D1JGY9 P V D S P P F F D R A A M D G Y A I R G E D S F G A S P N K A V R L R I L  
UniRef90\_I3E5V7 T H D V P P H F D R A P Y D G F A V R A A D T K E A S Q T S P V E F E L L D Q S I G  
UniRef90\_UPI00046A9668 S I D L P P P F D N S A M D G Y A V R Y A A D L P E A S T E K A S L K L L G Q S S F  
UniRef90\_R4TGV2 G V S L P P P F D N S A M D G Y A V R A E D V A E V P V T L P V A E D I P  
UniRef90\_UPI000373A1CF P I F V P P F F D N S A M D G Y A L R R S E F S A D K I F P V A G K A F  
UniRef90\_S4WA46 N L S S P P S F D N S A M D G F A V R R S D T I G A T K N N C V S L I N I D V S S  
UniRef90\_C7RTG1 P F N V P P G H D N S A M D G Y A V R H A D V A N G G N T R L R V L G T A L  
UniRef90\_C2PED7 D Y D V P P H F D R S P Y D G F A I R A E D T K E A S S S M P I L F E V I G E I G  
UniRef90\_J1L4N9 G G D L P P G F D R S V D G Y A I R A S D T T G S S S M P A M L V L E G R I E  
UniRef90\_D5MFZ0 S M D V P P F T R A A M D G Y A V K A E D T F G A G N F S P R L E L I D V I H  
UniRef90\_A3VKH9 T R D Q P P F P A S A M D G Y A L R G V E A D M P E A Q F K V I G E A K  
UniRef90\_F8C497 P E N L P P G F K R S T V D G F A V R S Q D T F G A K E T M P V Y L T V I G H I P  
UniRef90\_B0C6J1 T L D F P P Y W D N S A M D G Y A V R Y V D V Q A C G P D T P A L L D V V T E I P  
UniRef90\_G2MGQ7 E L D V P P G F D R A S M D G Y A V R A A D T F G A D E A N P A T L T D V G T V H  
UniRef90\_A1RT85 S I D V P P P F D R A A F D G Y A V R S E D T L G A S R T N P I L L R I V I G K S L  
UniRef90\_G7LUL7 P L D V P P F A N S A M D G Y T V R R A D L S S A T P L P V A G K A F  
UniRef90\_D6XTA3 D H P I P P F D R S P L D G F A I Q S Q D S K N A S S E S P V K I E I V D T V G  
UniRef90\_UPI0004765AB5 T I D V P P S A D N T Q M D G Y A V R A A D C A S G S A T L R V A Q R V P  
UniRef90\_UPI0003FC1A8E T S D V P P L F T K S A M D G F A I N S K H S K G A S G E T R V A F K V V E E V P  
UniRef90\_F8AC92 R V D V P P N R D V S L K D G Y A V R A E D T F S A A N P E D P V L L K L I G E I V  
UniRef90\_E4NNG4 E M D V P P G F D R A S M D G Y A V R A R D T F G A D E A S P A E L E L I G E V H  
UniRef90\_UPI000344F9B7 Q R D F P H W D N S A M D G Y A V R Y E D V Q H C N V E S P T L E I V T E I P  
UniRef90\_I1D6U5 G V P L P P F F D N S A M D G Y A V R S A D V A N A R K D A P V E L P I S Q V I N  
UniRef90\_F3LIL7 T I H V P P F A N S A M D G Y A I N I D D L S T P A T E N S P V I L S L C G S I A  
UniRef90\_Q2FRD5 Q E N I P G F D R S W K D G Y A V I A Q D T Y P A T E N S P V I L S L C G S I A  
UniRef90\_F9ZS20 V Q P I P A W P N S A M D G Y G L R S A D G A Q R R H T N T R A Y R V I G T A F  
UniRef90\_UPI000475C31A P S N V P P Y A N S A M D G Y A L R G A T L P H T N T R A Y R V I G T A F  
UniRef90\_H5USJ5 R V S L P P G F D N S A M D G Y V L L J A S D T E R A T E K F P V R L P V D G D I A  
UniRef90\_W7SH01 P V A L P P F F D N S A M D G Y A V R A R A D I R D A P V E W Q A G K S F I V S Q R I P  
UniRef90\_X7E3V2 D I F V P P H D N S A M D G Y A L V J A K D W Q A G K S F I V S Q R I P  
UniRef90\_UPI000349D47D P M E V P P S F D N S A M D G Y A F A F A D F Q T E K P L K I S Y T I Q  
UniRef90\_U2SUK2 Q R T V P P Y W D N S A M D G Y A V R S A D L L A S T G P L P T R L T V G E T V Y  
UniRef90\_S9Z8Y4 P C N V P P A Y D N S A M D G Y A V R A A D L A S T G P L P T R L T V G E T V Y  
UniRef90\_D4K0W1 R M D Q P P F D R S P F D G Y A L H S A D A A G A S R E T P V T L P V T M K L Y  
UniRef90\_UPI000469CA04 T R T Q P P F F A A S M D G Y A L R R A E V E P D A M F K V V I G E A A  
UniRef90\_I7KK92 T Y E I P P F F N K S P Y D G F A I R S K D T T N V S G A H R L T F N V I D H I G  
UniRef90\_K0D179 H L D V P P W D N S A M D G Y A V N V D D L N H S N E L E V Q G V I T  
UniRef90\_X1BUE5 K I N L P P F F D R S A M D G Y A V K A E D T F G V S P S N P K V I K K I G T V E  
UniRef90\_G8AL02 R I T Q P P F A A A M D G Y A V R S A D I V P A S A D A P V T L R R I G E S A  
UniRef90\_UPI0002DC732F R R D Q P P F S A S A M D G Y A V N A A E V E L H A M F K V I G E A A  
UniRef90\_A5UMX0 F H D S P P F F D K S A M D G F A I K G V E N T F G A S Q S N P K H L K I V D S I G  
UniRef90\_UPI00030A35C6 T D D V P P L F T K S A M D G F A I R S E D S T G A S G E C R I A F K V V E I P  
UniRef90\_G4E1C2 R Q D S P P Y T N A M D G Y A L R A V D I T A P R G A T R L R V V G Q A L  
UniRef90\_E2SDJ4 P I D L P P R F D N S G M D G Y A V L A E D V R T A T R E T P V V L R I V V G E I H  
UniRef90\_UPI0003A54DFE A H D V P P W D N S A M D G Y A F N S A D L T E A L S T G P V L R I V S Q R I T  
UniRef90\_E9V141 E V A L P P G F D N S S M D G Y A V R Y A D V A T A S A D A P V R L P V L G E I G  
UniRef90\_W51Y83 P C D L P H W D N S A M D G Y A L R A A D V P A G G G S L A L A G C I A  
UniRef90\_UPI0003773197 P H P Y P P H F R R S G M D G Y A M I J A A D L L E A S S D H M I W L R V V D N I P  
UniRef90\_H0A5V4 R L T Q P P A D V S A M D G Y A V R A A D A V E G A V L R V T G A A P  
UniRef90\_UPI00031465AD T Y D I P P R F N K S P Y D G F A I R S Q D S I G A S G E N R V H F K V I D H I G  
UniRef90\_A1RZ24 P L N Y P P Y T R A L V D G Y A V R S Q D L V G V Y E D R P R K L R L V I G K V S  
UniRef90\_C5WCX8 P I A I P P I F D N S A V D G Y A I R F N D C T T Q A L L P V I A G Y S C  
UniRef90\_UPI00047D62D8 P M P L P P F F D N S A M D G Y A V J A S D I A G A T E E T P V T L P V V I G D I V  
UniRef90\_C9P755 P I P V P P F D N S A M D G Y A I R R A D I V H N Q P L P V A G K S F  
UniRef90\_A3CS19 D I D I P P G F D R S T V D G Y A V A A E T T G A S E A I P A M L Q C R G R I G

UniRef90\_G5JFN5 A G S V S N K L V G D H E A V R I | M T G A Q V I P P E G A D A V V M F E E Q T L E Q E  
UniRef90\_D2TYA4 A G S P F R E P L P A K S C I R I | M T G A Q I P P D D G A V D A V V M Q E N T T L L A N D  
UniRef90\_F7XMW9 P G F S P G L M I C Q P F A A E | S T M T G A Q I P P D D G A V D A V V M Q E N T T L L A N D  
UniRef90\_UPI000288E94E A G F V F S E E T V Q P F Q A A V R I | M T G A P I P P E G A D A V V M Q E E Q T T Q Q G H  
UniRef90\_E7B3P5 A G A P F K E E W P A N S C I R I | M T G A P I P P E G A D A V V M Q E E Q T T Q Q G H  
UniRef90\_K9PK75 A G Y Q P Q F T T Q S G Q A A R I | F T M T G A V M P P K G G T E A V V M Q E E Q T T Q Q G H  
UniRef90\_A0A014M6T8 A G A P W Q F Q W P A G S C I R I | M T G A P V P P R G G T E A V V M Q E E Q T T Q Q G H  
UniRef90\_X1PPZ5 I G V A T K S C V R K G E A V K L | M T G A P M P P R G G T E A V V M Q E E Q T T Q Q G H  
UniRef90\_Q1PZY9 A G D M Y P A K K V L S Q G S C I R I | M T G A S V L P P R G G T E A V V M Q E E Q T T Q Q G H  
UniRef90\_G7VHQ6 T G G E Y Q G L S P G P G E A V R I | A T M T G A P L P P R G G T E A V V M Q E E Q T T Q Q G H  
UniRef90\_G9YCC2 A G S P F S Q G E W P S G T A V R I | M T G A P V P P T G A D A V V M Q E E Q T T Q Q G H  
UniRef90\_J2ICC2 A G H A F T A A L V A G A G E C V R I | M T G A V M P P A G A D A V V M Q E E Q T T Q Q G H  
UniRef90\_UPI00037756A4 A G H P Y Q G S V L A G A G E C V R I | M T G A V V P P A G A D A V V M Q E E Q T T Q Q G H  
UniRef90\_A8M9Q6 A G D S N L P L V E K G S A V E I | A T M T G A P L P P P G S N A V V P V E E Y T K A V D D E  
UniRef90\_I2NKG7 A G K P F E G E T Q A G E C V R I | M T G S M L P P G G A D A V V M Q E E Q T T Q Q G H  
UniRef90\_J3A5W1 A G Q V P T R E T L K K G Y A T R I | M T G A M M P P A G A D A V V M Q E E Q T T Q Q G H  
UniRef90\_S6B371 A G T V G K P L E A G Q A A R I | F T M T G A P V P P A G C D A V V M Q E E Q T T Q Q G H  
UniRef90\_UPI00047A4E71 A G D V T D T V I Q K G E A I R I | M T G A Q M P P K G A N A I V A L E I A K E E Q T  
UniRef90\_UPI0003818A68 A G A V S K T V I K P G V E A C A R I | M T G A P V P P K G A N A I V P V E E I A K E E Q T  
UniRef90\_D5W7R2 A G H A P A P L A P N S T A R I | F T M T G A T V P P A G S D A V V M Q E E Q T T Q Q G H  
UniRef90\_UPI000479A3F9 A G Y M F D G V V N G A G E C V R I | F T M T G A P L P P E G G T D A V I L Q E E D A E P A G N  
UniRef90\_X1ARB4 I G E S T F G K L N K G D E G I R I | S T M T G A P I P P E G G T D A V V K I Q E E D T E I P A G N  
UniRef90\_UPI000463D833 A G N P F T G E L P A G G C V K I | M T G A V I P P S G V D T V V M Q E E H T A T E G S  
UniRef90\_Q1MYT2 A G H P F T G E V K K G C C V R I | M T G G E I P P K G G T D A V I M Q E E N A N V E E G  
UniRef90\_I3CET6 A G H P F F E H E V L T G Q C V R I | F T M T G G V L P P E G G T D T V V M Q E E H V E V T P  
UniRef90\_K1KK51 A G Q V G S R L A Q G S V A R I | F T M T G A P M P P E G A D T V V P Q Q E E T Q A Q G T  
UniRef90\_Q0FAN7 A G L G F D G K V S I G T A V R I | F T M T G A P V P P K G S D H I L Q E E D C I K S N G  
UniRef90\_A8MF51 M G M E A T E F I G S G E C Y Y V | P T M T G G M L P P K G S D A V V M V E E Y T E V L D E T  
UniRef90\_N0BCS4 I G E Q K D V A I E S G E A V R I V | S T M T G S P L P P K S N A N A V V M I E E Y T Q I D E T  
UniRef90\_D7B7T7 A G D P S P T A V L P Q G R S A R I | M T G A P M P P E G S D A V V P V E E W T D G G G T  
UniRef90\_M1NE04 M G Q M P T G K V L Q K C F R I | A T M T G G L L P P E G S D A V V M F E E H T I P V D  
UniRef90\_A0KRF6 A G H G F E G E I P P H S C V R I | M T G A P V P P A G Y D T V Q M Q E E T Q A Q G T  
UniRef90\_UPI00047DD0ED A G A D P T F S V G V G E A A R I | M T G A P I P P E S G A D T I A V E E D T D A A T  
UniRef90\_L7EKQ9 A G G S L E K V L H S V G E A V K I | M T G A P I P P E S G A D T I A V E E D T D A A T  
UniRef90\_D8K022 A G Q F P E I N I D S G Q A I Q I | A T M T G A P V P P K G A D A V V M V E E T E T K G D  
UniRef90\_B9XRT2 A G E M F S G D V E A P G T C V R I | F T M T G S P L P P K G A D A V V M Q E E D T V A D D D  
UniRef90\_E8WN24 A G G D A C P T V E A G C A V R I | M T G A P L P P A G C N A V V P I E E E T E P S G  
UniRef90\_D1JGY9 N K G V E I L G A G E C F P I | Q T M G M P V P P K G S N A V V M L E E Y T K E E R G  
UniRef90\_I3E5V7 A G M V S S K T A G L F Q G A V R I | M T G A Q I P P D G G C D A V V M L E E L T K E A Y G  
UniRef90\_UPI00046A9668 A G H P F E I G Q Y Q P G G C V R I | M T G A P V P P A G F D T V Q M Q E E K T E A Y G  
UniRef90\_R4TGV2 A G R V D G T K L E P G T A H R I | M T G A P L P P P G A D A V V M V E E H T D G G V  
UniRef90\_UPI000373A1CF A G A P F S G E W P A G S C I R I | M T G A Q I P P E G A D A V V M Q E E E A S V T D  
UniRef90\_S4WA46 A G S P S D L V L K K G E C I Q C | M T G A K I P P N G A D A V I M V E E D S G F S  
UniRef90\_C7RTG1 A G K A F A Q P I G E G E C V R I | M T G A P P P V G A D T V V V Q E E V V A L D G E  
UniRef90\_C2PED7 A G F V F T E E V K A F Q A V R I | M T G A A I P P K G C N A V V M L E E L T G G F E  
UniRef90\_J1L4N9 M G Q A P A G S V G P D R C W Y I | P T M T G G V M P P G A D A V A M V E E Y A E R A G  
UniRef90\_D5MFZ0 A G E S R L S V R S G S C I Q V | A T M T G A P M P P D G A D A V V M V E E D T E L D G G  
UniRef90\_A3VKH9 A G E R F T G K V G A G Q T V R I | F T M T G A P V P P E G A D R V I T Q E E D V D L R G  
UniRef90\_F8C497 M G V A P D F S L N P G E A S I G | G T M T G G M L P P E G A D A V V M L E E H V N V S  
UniRef90\_B0C6J1 A G T C P S L S L A P G Q A A R I | F T M T G A M V P P Q G A D T V V M Q E E N T L R Q G  
UniRef90\_G2MGQ7 A G S E P D V F V D K G E C A E I | S T M T G A V L P P E G A D A V V M I E E K T D E D S  
UniRef90\_A1RT85 P N S Y T N V L D P G E A V E I | A T M T G A P L P P E G A D A V V P Y E E A V K R D  
UniRef90\_G7LUL7 A G A P F T A W P T G S C I R I | M T G A P L P P A G A D A V V M Q E E H A E V S D  
UniRef90\_D6XTA3 A G H T F T G K L K P G H G V R I | M T G T I M P P D D C D A V V M F E E L A N D Y Q  
UniRef90\_UPI0004765AB5 A G S V G Q P L E P G T A A R I | F T M T G A L I P P P G A D A V V M Q E E Q C E T A G  
UniRef90\_UPI0003FC1A8E A G S S S D Y V L K D N E A F R I | M T G A E I P P E S A D T V V M F E E Q T K E T D  
UniRef90\_F8AC92 A G G D E D F E V L P G T C V R I | T A G A P L P P D G A N A V V I A E E F S R L E J  
UniRef90\_E4NNG4 A G V E P D V V V G E G A A E I | S T M T G A V M P P D G A D A V V I V E E R T E E R D  
UniRef90\_UPI000344F9B7 A G Y Q P Q C A V Q S G Q A A R I | F T M T G A V M P P Q G A D T V V M Q E E N T H T E E G  
UniRef90\_I1D6U5 A G R T D V P S P E L A P G T A H R I | M T G A P V P P R G A N S V V M V E E H T D G G G T  
UniRef90\_F3LIL7 A G H P P S P L A A G T A A R I | F T M T G A E I P P A G A D A V V M Q E E Q C Q Q V G G  
UniRef90\_Q2FRD5 M G K S K K G Q I Q S G E C M Y I | P T M T G G Q M P P D G A D A V V M I E E Y A E Q V G  
UniRef90\_F9ZS20 A G H P F H G T L G P G E C I R I | M T G A P V P P E S V D C D A V V P Q Q E C E T Q G D  
UniRef90\_UPI000475C31A A G Q A F Q G T L C H G G E C V R I | M T G A P L P P A G T D T V V T Q E E H T E V D D  
UniRef90\_H5USJ5 A G D T T R R R L R P G H A F R I | M T G A P V P P E G A D A V V P V E E Q T D A G V  
UniRef90\_W7SH01 A G K T E S T E L M P G T A Q R I | M T G A S V P P P G A D A V V Q V E E L T D G G V  
UniRef90\_X7E3V2 A G L H P E P L E P G T C A R I | F T M T G A S I P P E G A D T V V M Q E E N T Q P V N  
UniRef90\_UPI000349D47D A G D T R L P V L K R G E A A R I | F T M T G A P I P P E G A D S V V M Q E E K T E V N N  
UniRef90\_U2SUK2 A G A T P A R A L E P G V C A R I | M T G A P L P P E G A D A V V M R E E R T R P G A  
UniRef90\_S9Z8Y4 A G H P F A H T V G A G E A V R I | M T G A P V P P E G A D T I V M Q E E L T R R E G  
UniRef90\_D4K0W1 A G D A P A S P L P V G C A A R I | M T G A P L P P E G A D C V L M Q E E L T D S R G E  
UniRef90\_UPI000469CA04 A G H R F R G T L K A G Q A A R I | F T M T G A P I P P D G A D F V V T Q E E D T T R R Q G  
UniRef90\_I7KK92 A G A V S D K K V G A F E A V R I | M T G A A M P P E G A D A V V M L E E Q T V E O G  
UniRef90\_K0D179 A G M S A D E P L Q N G K A F K I | M T G A P M P V N A N A V V M V E E N T D S R D  
UniRef90\_X1BUE5 I G E Q T D L V L T S G E A V R I | S T M T G A A I P P Q G S D S V I K I E D T E I D G  
UniRef90\_G8AL02 A G H A F A G S V G A G E A V R I | F T M T G A P L P P A G A D A V V M Q E E D C E D A G  
UniRef90\_UPI0002DC732F A G H A F A G R V G A G Q A V R I | F T M T G A P V P P E G A S F V V T Q E E D V T R S G  
UniRef90\_A5UMX0 A G D F S D K T J A G E N E A I V | A T M T G S P V P P E G A D A V V M K E E Y T T T Q G  
UniRef90\_UPI00030A35C6 A G A S S D Y I V L A P N E A F R I | M T G A E V P P R S A D A V V M F E E Q A K E T E  
UniRef90\_G4E1C2 A G H A Y P H P L K A G E C V R I | M T G A G L P P Q G A D T V V M Q E E V V I T R H D  
UniRef90\_E2SDJ4 A G N A R P P F A I S P G T A A K I | M T G A P I P P R G A D A V V P F E E H T D R G G  
UniRef90\_UPI0003A54DFE A G M A P P P L E A G T C A R I | F T M T G A P L P P A G A D S V E M Q E E N I Q L D A  
UniRef90\_E9V141 A G Q A S L L A L P P G A A A K I | M T G A P L P P T G A D T V V P Y E W T D R G V  
UniRef90\_W51Y83 A G E A G D Q A L P A G C A V R I | F T M T G A P L P P G A D S V V A Q E E D C R A E G  
UniRef90\_UPI0003773197 C G Y T P S V F I R S G Q A S R I | M T G A M V P P D G A D V V M L E E M T E T K M  
UniRef90\_H0A5V4 A G H P F R G S V G A S E A V R I | F T M T G A I V P P A G A D G I L L Q E E D A V V E G  
UniRef90\_UPI00031465AD A G S V S D K K V G E H E A V R I | S T M T G A Q L P P E G T D A V V M F E E Q T V Q Q E  
UniRef90\_A1RZ24 T G E T R L V T I L G R G E C V E V | M T G A V V P P Y P A D A V V P V E E Y T H Q E G  
UniRef90\_C5WCX8 A G K P F L G P W P H N S V I R I | M T G A P L P P L G S E A I V M Q E E D V K I F S  
UniRef90\_UPI00047D62D8 A G D D G V A A L R P A G L T A R I | M T G A P I P P A G A D A V I P V E E W T D G G G  
UniRef90\_C9P755 A G Q P F T G E W P L T C I R I | M T G A Q I P P I T G C D A V I M Q E E Q A Q V T E  
UniRef90\_A3CS19 M G S A D A G S I S P S C R Y V | P T M T G G A L P P T G A D A V V M I E E H A E Q I G



UniRef90_G5JFN5	D	T	F	T	L	R	K	P	F	A	K	N	E	N	I	S	L	K	G	E	E	T	T	T	G	D	L	V	L	K	K	G	Q	T	V	N	P	G	V	I	130			
UniRef90_D2TYA4	N	A	I	S	F	T	Q	P	I	K	S	G	T	N	I	R	F	T	G	E	E	D	T	T	Q	G	D	S	V	L	P	I	G	T	K	L	S	A	T	Q	V	140		
UniRef90_F7XMW9	T	Y	M	T	I	Y	R	A	F	H	S	G	T	N	I	M	R	A	G	E	E	D	T	T	Q	G	D	S	V	L	P	I	G	T	K	L	S	A	T	Q	V	150		
UniRef90_UPI000288E94E	G	Y	M	T	I	Y	R	A	F	H	S	G	T	N	I	M	R	A	G	E	E	D	T	T	Q	G	D	S	V	L	P	I	G	T	K	L	S	A	T	Q	V	160		
UniRef90_E7B3P5	Q	G	V	I	F	S	G	N	A	R	I	G	Q	N	I	R	L	A	G	E	D	D	Q	Q	G	A	A	V	F	P	A	G	V	K	L	N	G	A	A	Q	L			
UniRef90_K9PK75	N	R	I	F	I	L	A	A	P	K	P	Q	E	F	V	R	H	K	A	A	F	Y	Q	Q	G	A	A	S	V	L	P	A	G	V	I	V	L	N	G	A	P	E	I	
UniRef90_A0A014M6T8	D	A	V	E	I	I	A	E	V	L	P	Q	R	N	I	R	L	A	G	E	D	D	V	Q	Q	G	A	A	S	V	L	P	A	G	V	I	V	L	N	G	A	P	E	I
UniRef90_X1PPZ5	K	R	I	A	V	L	P	L	T	P	S	K	N	I	V	S	A	R	G	E	D	D	V	A	G	E	V	V	L	G	C	Q	Q	Q	L	R	R	P	Q	D	I			
UniRef90_Q1PZY9	D	R	I	V	K	I	S	K	S	V	K	T	G	A	N	S	R	R	G	E	D	V	T	A	G	E	V	V	L	H	A	G	M	Q	I	R	K	R	P	Q	D	I		
UniRef90_G7VHQ6	D	R	I	V	E	V	Y	R	P	V	P	Q	Q	Y	Y	S	R	R	G	E	D	V	T	A	G	E	V	V	L	H	A	G	M	Q	I	R	K	R	P	Q	D	I		
UniRef90_G9YCC2	Q	G	V	R	F	T	V	M	P	Q	Q	G	Q	N	I	R	L	A	G	E	D	I	Q	Q	G	A	E	V	V	L	A	A	G	V	R	L	G	T	A	E	L			
UniRef90_J2ICC2	G	K	V	T	A	D	F	V	P	K	V	G	E	N	I	R	K	A	G	E	D	L	K	A	Q	S	E	V	L	S	A	G	C	R	L	T	A	P	Q	D	L			
UniRef90_UPI00037756A4	E	L	I	E	Y	Q	G	S	V	L	K	K	H	I	N	R	H	P	A	G	E	D	L	K	A	Q	S	E	V	L	S	A	S	G	R	V	L	N	A	A	R	E	V	
UniRef90_A8M9Q6	G	T	L	T	I	Y	R	S	V	T	P	M	D	N	I	M	S	A	G	E	D	I	M	M	G	E	L	L	L	R	R	C	T	L	L	K	E	A	R	E	V			
UniRef90_I2NKG7	N	Q	T	R	R	F	T	N	A	L	K	L	Q	G	N	I	R	R	V	G	E	D	V	A	M	A	T	G	L	L	A	K	G	S	L	L	N	A	V	A	S	T		
UniRef90_J3A5W1	D	T	V	R	I	K	R	E	M	K	P	G	E	N	I	R	R	R	G	E	E	M	A	K	G	T	L	I	V	K	A	G	E	R	I	N	A	G	S	L				
UniRef90_S6B371	D	T	V	T	V	G	K	H	P	K	V	G	E	N	I	R	R	S	G	E	D	T	A	A	G	A	E	I	L	P	A	G	I	R	L	R	P	Q	E	M				
UniRef90_UPI00047A4E71	K	W	I	T	V	Q	N	A	P	E	K	G	T	G	I	A	F	V	G	E	D	I	Q	K	D	V	V	L	H	K	A	G	R	R	L	A	S	A	G	E				
UniRef90_UPI0003818A68	T	R	V	S	I	Q	A	R	E	P	G	E	Q	F	I	R	V	R	G	S	D	V	A	G	Q	A	L	L	A	A	G	T	R	E	L	A	S	A	Q	V				
UniRef90_D5W7R2	D	E	V	T	I	V	H	E	R	P	Q	E	G	E	W	I	T	A	Q	G	A	D	L	R	A	G	S	I	L	L	P	A	G	T	R	L	T	P	Q	A	L			
UniRef90_UPI000479A3F9	E	S	I	T	V	T	E	S	T	V	T	S	G	T	Y	V	R	P	A	G	E	D	F	S	A	G	D	L	L	S	Q	G	T	R	L	D	A	G	A	L				
UniRef90_X1ARB4	D	L	I	N	I	Y	S	S	L	P	P	S	G	K	N	I	S	K	R	G	E	D	I	T	N	K	G	T	H	V	L	S	K	G	T	E	L	K	A	E	H			
UniRef90_UPI000463D833	K	M	V	T	V	L	K	I	P	A	Q	G	A	N	I	R	L	T	G	E	D	I	T	I	G	A	Q	T	V	L	A	R	G	H	Q	I	Q	P	A	D	M			
UniRef90_Q1MYT2	D	N	I	S	F	R	E	A	A	S	S	R	Q	F	I	S	H	V	G	E	D	V	A	K	G	A	C	Q	L	K	K	R	H	R	L	K	A	A	D	I				
UniRef90_I3CET6	K	T	I	R	I	H	A	E	N	R	A	Q	Q	F	I	S	H	V	G	E	D	V	K	I	G	Q	R	I	L	L	N	R	G	R	L	T	A	A	D	I				
UniRef90_K1KK51	E	G	V	C	F	K	S	P	V	R	E	G	A	W	I	R	R	V	G	S	D	V	F	Q	G	G	V	V	L	K	K	G	A	R	L	T	P	A	A	I				
UniRef90_Q0FAN7	D	K	I	I	N	K	V	F	D	K	N	N	F	I	R	R	K	G	G	D	F	K	V	G	D	C	I	D	A	P	L	R	L	R	N	A	S	Q	I					
UniRef90_A8MF51	R	E	I	C	I	K	Q	K	P	S	P	W	E	N	I	L	K	K	G	E	D	L	R	Q	K	E	L	L	F	K	K	H	R	L	R	N	P	Q	D	I				
UniRef90_N0BCS4	S	T	I	E	V	Y	S	S	V	P	S	F	K	N	I	S	R	A	G	E	D	I	R	K	G	E	L	V	V	K	R	G	E	I	Q	P	H	H	L					
UniRef90_D7B7T7	A	S	V	T	F	D	R	P	S	V	K	E	G	N	A	R	R	A	G	D	D	V	T	A	G	A	T	V	L	R	P	G	V	R	I	G	P	Q	D	E	M			
UniRef90_M1NE04	N	G	M	I	E	V	V	K	S	V	G	V	G	A	N	I	L	N	R	G	E	D	I	K	K	G	N	P	A	L	P	K	G	H	L	R	P	P	G	E	M			
UniRef90_A0KRF6	N	Q	I	Q	I	N	H	P	K	A	K	G	A	N	I	R	C	R	G	E	E	L	L	Q	G	T	K	V	L	K	A	G	I	E	I	K	A	A	E	L				
UniRef90_UPI00047DD0ED	G	E	V	E	C	R	T	E	V	T	R	G	R	Y	I	J	P	K	G	E	E	V	K	S	A	G	V	V	P	F	S	A	G	S	L	I	R	P	P	T	E	V		
UniRef90_L7EKQ9	E	H	V	F	V	K	T	A	V	K	P	Y	R	I	I	J	E	K	G	E	E	V	K	A	G	D	L	A	I	F	S	A	G	S	L	I	R	P	P	T	E	V		
UniRef90_D8K022	D	S	V	C	L	Y	K	S	A	F	P	G	L	N	I	G	R	E	G	E	D	I	R	I	G	E	T	I	L	K	R	L	E	V	F	N	P	G	K	I				
UniRef90_B9XRT2	G	R	I	L	C	L	D	A	V	K	P	W	E	N	I	R	L	V	K	G	E	D	I	K	T	A	G	V	S	I	G	Q	K	G	N	V	I	S	P	P	L	L		
UniRef90_E8WN24	D	Q	V	L	I	N	Q	K	V	L	P	R	Q	H	V	R	V	K	G	S	D	V	A	A	G	T	Q	I	L	P	E	G	S	G	V	I	R	A	H	D	L			
UniRef90_D1JGY9	S	D	L	E	I	N	F	R	P	V	T	P	G	K	N	I	S	F	I	G	E	D	V	N	K	G	D	V	V	L	K	E	G	R	V	L	R	A	H	D	L			
UniRef90_I3E5V7	K	F	M	S	I	K	R	P	F	N	K	G	E	N	I	S	F	R	G	E	E	D	A	K	D	G	V	L	L	K	K	G	T	K	I	N	P	G	I	Q				
UniRef90_UPI00046A9668	E	L	I	T	I	E	P	C	K	Q	A	G	D	N	I	R	G	R	G	E	E	L	L	A	G	T	V	L	L	R	A	G	T	L	R	G	A	E	M					
UniRef90_R4TGV2	T	D	V	R	I	L	R	T	A	V	L	G	A	H	I	R	R	R	G	E	D	V	V	E	G	T	V	A	L	S	A	G	T	V	L	G	V	A	Q	L				
UniRef90_UPI000373A1CF	A	G	V	R	F	T	A	L	E	A	G	Q	N	I	R	L	L	G	E	E	I	R	E	G	E	V	L	E	A	G	V	R	L	G	V	A	H	L						
UniRef90_S4WA46	N	N	V	Q	I	M	L	E	A	Q	V	L	G	H	I	R	K	M	G	E	E	I	N	K	G	D	T	L	I	K	A	G	T	T	L	T	T	S	E	I				
UniRef90_C7RTG1	D	H	L	V	V	P	P	G	Q	R	L	G	Q	H	I	R	R	A	G	E	D	L	A	A	G	K	P	A	L	V	A	G	R	L	L	R	P	A	E	I				
UniRef90_C2PED7	E	Y	M	K	L	K	R	S	F	A	G	D	N	I	S	F	L	G	E	D	V	K	A	Q	N	T	I	L	V	K	K	G	T	V	I	N	P	G	V	D				
UniRef90_J1L4N9	D	E	V	L	V	H	R	A	S	V	A	G	E	N	I	L	G	C	D	E	D	F	A	A	N	T	S	V	V	L	P	S	G	R	R	L	D	P	P	S	K	I		
UniRef90_D5MFZ0	D	K	V	R	V	Y	K	P	V	Y	P	Q	Q	H	A	S	P	M	G	E	D	I	K	V	G	S	L	V	L	Q	R	G	M	R	L	D	P	P	S	K	I			
UniRef90_A3VKH9	S	L	I	T	L	H	R	D	L	S	P	G	A	N	I	R	P	A	G	E	D	F	R	V	G	E	D	T	V	T	A	P	R	R	L	S	P	Q	D	V				
UniRef90_F8C497	D	L	I	E	I	L	K	P	L	S	G	P	G	A	N	I	F	E	D	E	D	I	K	E	G	E	L	V	I	P	K	G	H	K	L	S	P	Q	D	I				
UniRef90_B0C6J1	D	Q	V	H	I	L	Q	C	P	Q	P	Q	A	F	V	R	K	R	G	A	Y	Y	Q	A	G	A	P	V	L	K	Q	G	M	T	L	T	P	P	D	I				
UniRef90_G2MGQ7	D	A	V	E	I	R	T	S	L	A	P	P	G	D	H	V	M	P	A	G	A	D	I	A	A	G	Q	R	A	L	G	P	R	G	T	E	L	T	P	R	E	I		
UniRef90_A1RT85	G	Y	L	E	V	Y	R	P	V	P	R	F	Y	I	V	S	R	R	R	G	E	D	I	A	A	G	E	V	V	L	P	A	G	V	K	L	G	V	A	Q	L			
UniRef90_G7LUL7	A	G	V	R	F	T	Q	A	V	K	A	G	Q	N	I	R	L	A	G	E	D	L	R	A	G	A	E	V	L	P	A	G	V	K	L	G	V	A	Q	L				
UniRef90_D6XTA3	E	S	I	D	I	K	R	Q	F	S	G	D	F	I	V	S	K	Q	G	E	E	T	S	E	G	E	T	V	I	K	K	G	T	V	T	A	G	V	I					
UniRef90_UPI000																																												

UniRef90_G5JFN5	A	V	L	A	T	Y	G	Y	T	E	V	K	V	V	K	Q	
UniRef90_D2TYA4	S	L	I	A	S	L	G	S	E	I	E	V	F	R	Q		
UniRef90_F7XMW9	G	L	L	A	A	A	G	K	R	R	V	R	V	F	R		
UniRef90_UPI000288E94E	A	L	L	A	T	F	G	Y	A	D	V	P	V	F	K	K	
UniRef90_E7B3P5	P	L	L	A	S	L	G	A	E	L	T	V	F	F	R		
UniRef90_K9PK75	A	V	L	A	A	L	Q	C	S	Q	L	S	V	F	R	R	
UniRef90_A0A014M6T8	P	L	L	A	S	L	G	L	A	E	V	K	V	M	R	K	
UniRef90_X1PPZ5	G	M	L	S	S	I	S	H	L	K	A	R	V	F	R	R	
UniRef90_Q1PZY9	G	T	L	A	T	V	G	K	S	V	V	K	V	Y	P		
UniRef90_G7VHQ6	G	V	L	A	S	L	G	I	R	E	V	S	V	Y	R		
UniRef90_G9YCC2	P	L	L	A	S	L	G	I	A	R	L	Q	V	V	R	R	
UniRef90_J2ICC2	G	L	L	A	S	L	G	I	A	D	V	A	V	R	R	K	
UniRef90_UPI00037756A4	G	L	I	A	S	L	G	I	G	Q	V	T	V	W	R	K	
UniRef90_A8M9Q6	G	V	L	A	A	V	G	I	D	K	V	P	V	F	K	R	
UniRef90_I2NKG7	P	L	L	A	S	L	G	L	A	E	V	E	V	F	K	R	
UniRef90_J3A5W1	A	S	L	A	T	F	G	Y	S	K	V	E	V	F	C	K	
UniRef90_S6B371	G	L	A	A	S	V	G	A	T	L	P	V	Y	Y	C	K	
UniRef90_UPI00047A4E71	S	I	L	A	T	F	G	Y	A	K	V	K	V	Y	K	R	
UniRef90_UPI0003818A68	G	L	L	A	A	T	G	V	G	R	V	E	V	H	P	R	
UniRef90_D5W7R2	G	L	A	A	S	V	G	C	A	Q	L	E	V	R	R	R	
UniRef90_UPI000479A3F9	C	L	A	A	S	G	N	H	A	S	L	P	V	Y	K	K	
UniRef90_X1ARB4	A	L	L	T	S	L	G	F	N	K	I	K	V	R	T	K	
UniRef90_UPI000463D833	G	L	L	A	S	L	G	I	A	E	I	Q	V	Y	R	R	
UniRef90_Q1MYT2	G	L	L	A	S	L	G	L	S	K	V	S	V	V			
UniRef90_I3CET6	G	L	L	A	S	L	G	L	P	E	V	V	V	R	R		
UniRef90_K1KK51	G	M	V	A	S	L	G	R	A	Y	V	K	V	Y	R	R	
UniRef90_Q0FAN7	S	L	L	A	A	M	N	I	A	E	V	P	V	F	F	K	
UniRef90_A8MF51	G	M	L	A	G	L	G	L	I	D	I	D	V	P	V	E	K
UniRef90_N0BCS4	G	L	L	S	A	S	G	N	L	R	I	K	V	F	R	R	
UniRef90_D7B7T7	G	V	L	A	A	V	G	R	R	S	V	P	V	Y	A	R	
UniRef90_M1NE04	G	L	L	A	G	L	G	I	A	D	V	A	V	Y	T	R	
UniRef90_A0KRF6	G	V	L	A	T	L	G	V	S	Q	V	A	V	Y	R	Q	
UniRef90_UPI00047DD0ED	A	L	L	A	A	C	H	A	E	S	V	E	V	H	R	K	
UniRef90_L7EKQ9	G	I	L	A	S	L	G	Y	N	K	I	S	V	Y	Y	K	
UniRef90_D8K022	G	V	L	A	S	Q	G	L	S	G	A	N	V	I	R	K	
UniRef90_B9XRT2	G	L	I	A	A	L	G	V	N	E	V	T	V	G	R	R	
UniRef90_E8WN24	G	M	L	A	A	M	G	H	A	L	V	P	V	Y	R	K	
UniRef90_D1JGY9	G	M	L	A	S	F	K	S	T	V	R	V	Y	K	R	K	
UniRef90_I3E5V7	A	V	L	A	T	F	G	Y	A	K	V	P	V	A	K	K	
UniRef90_UPI00046A9668	G	V	M	A	T	I	G	I	S	S	L	R	V	I	R	K	
UniRef90_R4TGV2	G	L	A	A	A	V	G	L	A	E	V	P	V	Y	R		
UniRef90_UPI000373A1CF	P	L	L	A	S	L	G	L	E	K	V	E	V	S	N	R	K
UniRef90_S4WA46	G	V	C	A	S	F	G	Y	S	Q	L	S	V	S	K	K	
UniRef90_C7RTG1	G	L	I	A	S	L	G	C	A	E	V	S	V	F	R	R	
UniRef90_C2PED7	A	L	L	S	T	F	G	Y	S	T	V	H	V	V	K	Q	
UniRef90_J1L4N9	G	V	L	A	A	A	G	V	A	E	V	P	V	R	R		
UniRef90_D5MFZ0	G	V	L	A	A	L	G	F	Q	K	V	A	V	Y	Q	R	
UniRef90_A3VKH9	A	L	I	A	S	M	N	V	P	Q	I	V	A	R	K		
UniRef90_F8C497	G	A	L	A	G	L	G	L	S	Q	I	K	V	V	K	K	
UniRef90_B0C6J1	A	T	L	A	T	V	Q	C	T	E	I	P	V	Y	R	R	
UniRef90_G2MGQ7	G	L	L	S	A	L	G	K	D	E	L	R	V	R	G	K	
UniRef90_A1RT85	G	V	L	A	S	V	G	V	R	Q	V	V	Y	Y	K		
UniRef90_G7LUL7	P	L	L	A	S	L	G	L	A	R	V	E	V	V	R	R	
UniRef90_D6XTA3	A	V	L	A	T	F	G	Y	E	Y	V	P	V	I	R	K	
UniRef90_UPI0004765AB5	G	L	A	A	S	V	G	L	A	S	L	P	V	R	R	K	
UniRef90_UPI0003FC1A8E	A	T	L	A	T	F	G	Y	S	E	V	E	V	F	K	Q	
UniRef90_F8AC92	G	L	L	A	A	A	G	F	D	K	V	K	V	F	S	R	
UniRef90_E4NNG4	G	L	L	S	A	L	G	V	D	E	V	P	V	R	G	K	
UniRef90_UPI000344F9B7	A	I	L	A	A	A	S	C	A	C	V	S	V	Y	R	R	
UniRef90_I1D6U5	G	L	A	S	A	V	G	V	D	R	L	P	V	F			
UniRef90_F3LIL7	G	L	I	A	S	V	G	L	A	E	V	K	V	Y	R	K	
UniRef90_Q2FRD5	G	V	L	A	A	I	G	K	T	R	I	S	V	R	K		
UniRef90_F9ZS20	G	L	A	A	S	L	G	R	T	E	L	S	V	Y	P		
UniRef90_UPI000475C31A	A	V	L	A	S	L	G	I	A	E	V	S	V	V	R		
UniRef90_H5USJ5	A	L	A	A	A	V	G	H									
UniRef90_W7SH01	G	L	A	A	A	V	G	A	G	E	L	P	V	R	R	R	
UniRef90_X7E3V2	G	L	L	S	S	L	G	I	T	E	V	S	V	Y	K	Q	
UniRef90_UPI000349D47D	G	L	L	A	S	L	G	L	K	E	V	S	V	Y			
UniRef90_U2SUK2	G	L	L	W	G	Q	G	R	Q	S	A	P	V	H	R		
UniRef90_S9Z8Y4	G	L	I	A	S	L	G	I	A	E	V	V	V	H	R		
UniRef90_D4K0W1	G	V	L	A	G	Q	G	Y	A	E	V	P	V	Y	K		
UniRef90_UPI000469CA04	A	L	L	A	A	M	N	I	A	R	V	P	V	A	R	K	
UniRef90_I7KK92	A	V	L	A	T	Y	G	Y	A	Q	V	P	V	F	K	K	
UniRef90_K0D179	M	L	L	S	S	Q	G	N	S	T	V	P	V	F	R	K	
UniRef90_X1BUE5	A	L	L	S	S	L	G	I	K	H	V	K	V				
UniRef90_G8AL02	A	L	A	A	A	N	L	P	W	L	R	V	H	R	R		
UniRef90_UPI0002DC732F	A	L	L	A	A	M	N	L	P	S	V	P	V	T	R	R	
UniRef90_A5UMX0	G	L	I	A	S	A	G	Y	N	T							
UniRef90_UPI00030A35C6	A	T	L	A	T	F	G	Y	S	S	V	E	V	Y	R	R	
UniRef90_G4E1C2	G	L	L	A	S	Q	G	I	T	E	V	L	V	R	R	K	
UniRef90_E2SDJ4	G	L	L	A	S	L	G	A	A	R	V	S	A	R	P	R	
UniRef90_UPI0003A54DFE	G	V	I	A	S	A	G	I	P	A	V	S	V	R			
UniRef90_E9V141	G	L	I	A	S	V	G	R	A	Q	V	A	V	R	P	R	
UniRef90_W51Y83	G	L	L	A	A	V	G	Q	A	R	V	P	V	Y	R	R	
UniRef90_UPI0003773197	S	V	L	A	T	F	G	V	H	T	V	T	V	Y	R	R	
UniRef90_H0A5V4	G	L	A	A	A	G	N	H	A	W	L	S	V	Y	R		
UniRef90_UPI00031465AD	A	V	L	A	T	Y	G	Y	T	D	I	E	V	W	K	R	
UniRef90_A1RZ24	A	T	L	A	A	L	G	V	R	T	V	K	V	Y	R		
UniRef90_C5WCX8	P	L	I	A	S	L	G	L	S	N	I	K	V	F	R	K	
UniRef90_UPI00047D62D8	G	M	M	A	A	V	G										
UniRef90_C9P755	P	M	I	A	T	L	G	I	S	H	V	N	V	L	R	K	
UniRef90_A3CS19	G	V	A	A	A	V	G	A	D	R	V	S	V	V	K		

UniRef90\_M5JIT6  
UniRef90\_D9V3B4  
UniRef90\_Q2BLQ1  
UniRef90\_K9TQ82  
UniRef90\_A7HY00  
UniRef90\_A0A038CTP5  
UniRef90\_J4QAW7  
UniRef90\_UPI00037267B1  
UniRef90\_V8D0T4  
UniRef90\_UPI00037C598F  
UniRef90\_UPI0003765DCA  
UniRef90\_B7KHG0  
UniRef90\_A0A023CPJ4  
UniRef90\_L8M6B5  
UniRef90\_B6WUI7  
UniRef90\_G7Z7C4  
UniRef90\_E0R9V4  
UniRef90\_Q089V5  
UniRef90\_K0C4N7  
UniRef90\_UPI000470DFE5  
UniRef90\_H2TF73  
UniRef90\_J4V2E8  
UniRef90\_UPI000255B859  
UniRef90\_N6YFU2  
UniRef90\_UPI000237A622  
UniRef90\_B1YDB8  
UniRef90\_B0A723  
UniRef90\_R7B2S7  
UniRef90\_I3BR84  
UniRef90\_Q7M954  
UniRef90\_V6J7D5  
UniRef90\_M5IXN4  
UniRef90\_I3CUI8  
UniRef90\_UPI000463F797  
UniRef90\_W0PDG5  
UniRef90\_X0US67  
UniRef90\_N9XEN7  
UniRef90\_UPI000382C668  
UniRef90\_UPI00037E9692  
UniRef90\_N2JJK8  
UniRef90\_B1WRV5  
UniRef90\_R4WHR1  
UniRef90\_UPI00036B6245  
UniRef90\_K9XW20  
UniRef90\_F8I699  
UniRef90\_S6HJ66  
UniRef90\_D7DTL1  
UniRef90\_UPI00047B6961  
UniRef90\_D8NCL1  
UniRef90\_UPI000374B46C  
UniRef90\_K0NP88  
UniRef90\_M7P2T1  
UniRef90\_Q3ISS3  
UniRef90\_U2TXA2  
UniRef90\_F2NLR1  
UniRef90\_UPI00036EEB81  
UniRef90\_A0A023X0K6  
UniRef90\_Q2JPS1  
UniRef90\_V4C7T1  
UniRef90\_R3VX83  
UniRef90\_N6XM64  
UniRef90\_D0ZFG6  
UniRef90\_G4SZD5  
UniRef90\_K8NRI8  
UniRef90\_R0G4C7  
UniRef90\_UPI0004006BF9  
UniRef90\_X6L6L1  
UniRef90\_Q1ART2  
UniRef90\_R4KU61  
UniRef90\_A0YGK5  
UniRef90\_A6Q6R7  
UniRef90\_U1LEY5  
UniRef90\_UPI00047D63B4  
UniRef90\_A4ASN9  
UniRef90\_UPI000365506A  
UniRef90\_X1C8V3  
UniRef90\_G0A9V0  
UniRef90\_C3XA72  
UniRef90\_D8HJH7  
UniRef90\_C9LWF7  
UniRef90\_UPI000479F3C1  
UniRef90\_V5UIW9  
UniRef90\_UPI000475ADAA  
UniRef90\_UPI0004776C81  
UniRef90\_V4RBH0  
UniRef90\_W4DJU1  
UniRef90\_A3DPU6  
UniRef90\_UPI0003608A01  
UniRef90\_UPI0003693327  
UniRef90\_M4R8R9  
UniRef90\_A9SVY0  
UniRef90\_S7U672

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

UniRef90\_M5JIT6  
UniRef90\_D9V3B4  
UniRef90\_Q2BLQ1  
UniRef90\_K9TQ82  
UniRef90\_A7HY00  
UniRef90\_A0A038CTP5  
UniRef90\_J4QAW7  
UniRef90\_UPI00037267B1  
UniRef90\_V8D0T4  
UniRef90\_UPI00037C598F  
UniRef90\_UPI0003765DCA  
UniRef90\_B7KHG0  
UniRef90\_A0A023CPJ4  
UniRef90\_L8M6B5  
UniRef90\_B6WUI7  
UniRef90\_G7Z7C4  
UniRef90\_E0R9V4  
UniRef90\_Q089V5  
UniRef90\_K0C4N7  
UniRef90\_UPI000470DFE5  
UniRef90\_H2TF73  
UniRef90\_J4V2E8  
UniRef90\_UPI000255B859  
UniRef90\_N6YFU2  
UniRef90\_UPI000237A622  
UniRef90\_B1YDB8  
UniRef90\_B0A723  
UniRef90\_R7B2S7  
UniRef90\_I3BR84  
UniRef90\_Q7M954  
UniRef90\_V6J7D5  
UniRef90\_M5IXN4  
UniRef90\_I3CUI8  
UniRef90\_UPI000463F797  
UniRef90\_W0PDG5  
UniRef90\_X0US67  
UniRef90\_N9XEN7  
UniRef90\_UPI000382C668  
UniRef90\_UPI00037E9692  
UniRef90\_N2JKK8  
UniRef90\_B1WRV5  
UniRef90\_R4WHR1  
UniRef90\_UPI00036B6245  
UniRef90\_K9XW20  
UniRef90\_F8I699  
UniRef90\_S6HJ66  
UniRef90\_D7DTL1  
UniRef90\_UPI00047B6961  
UniRef90\_D8NCL1  
UniRef90\_UPI000374B46C  
UniRef90\_K0NP88  
UniRef90\_M7P2T1  
UniRef90\_Q3ISS3  
UniRef90\_U2TXA2  
UniRef90\_F2NLR1  
UniRef90\_UPI00036EEB81  
UniRef90\_A0A023X0K6  
UniRef90\_Q2JPS1  
UniRef90\_V4C7T1  
UniRef90\_R3VX83  
UniRef90\_N6XM64  
UniRef90\_D0ZFG6  
UniRef90\_G4SZD5  
UniRef90\_K8NRI8  
UniRef90\_R0G4C7  
UniRef90\_UPI0004006BF9  
UniRef90\_X6L6L1  
UniRef90\_Q1ART2  
UniRef90\_R4KU61  
UniRef90\_A0YGK5  
UniRef90\_A6Q6R7  
UniRef90\_U1LEY5  
UniRef90\_UPI00047D63B4  
UniRef90\_A4ASN9  
UniRef90\_UPI000365506A  
UniRef90\_X1C8V3  
UniRef90\_G0A9V0  
UniRef90\_C3XA72  
UniRef90\_D8HJH7  
UniRef90\_C9LWF7  
UniRef90\_UPI000479F3C1  
UniRef90\_V5UIW9  
UniRef90\_UPI000475ADAA  
UniRef90\_UPI0004776C81  
UniRef90\_V4RBH0  
UniRef90\_W4DJU1  
UniRef90\_A3DPU6  
UniRef90\_UPI0003608A01  
UniRef90\_UPI0003693327  
UniRef90\_M4R8R9  
UniRef90\_A9SVY0  
UniRef90\_S7U672



UniRef90\_M5JIT6 A E T V W E G P I E P H Q A V K I M T G A A I I P D G A N A V I M V E L T Q E V I T  
UniRef90\_D9V3B4 A G R V D V K P L E E P G T A Q R R I M T G A P L I P P D G A N A V I M V E L T Q E V I T  
UniRef90\_Q2BLQ1 A G T P P Q K T I K K P G T Q A A R I F T T G S E M M P P A G A N D S V V T M Q E E N D V T K Q R A D G G  
UniRef90\_K9TQ82 A G K P P Q K T I K K P G T Q A A R I F T T G S E M M P P A G A N D S V V T M Q E E N D V T K Q R A D G G  
UniRef90\_A7HY00 A G G A Y T E H L N E G S E A V R I F T T G A P L V P P Q G A D A V V V I Q E E D T T S E R Q E G  
UniRef90\_A0A038CTP5 A G Q F F H D A W P A G A G E C V R I M T M G G A I P P K G C C D C V V R Q E E D V R E Q T A  
UniRef90\_J4QAW7 A G D F F D G V V P A G A G E C V R I M T M G G A I P P K G C C D C V V R Q E E D V R E Q T A  
UniRef90\_UPI00037267B1 A G H G W H G T L A Q G G Q A L R I F T T G A P V P P D G A D A V V V I Q E E N V T A R D D G  
UniRef90\_V8D0T4 A G R T A D Q L T L S P A G T A H R I F T T G A P V L P P A G A D A V V I Q V E L T D D Q L E A  
UniRef90\_UPI00037C598F A G D A A D Q Q L L P A G T H A V R I F T T G A P L P P P A G A D A V V I A Q E E D C Q L E A  
UniRef90\_UPI0003765DCA A G K P F E G T L C G A N Q C V R I M T M G A P M P A G T D T V V V I Q E E Q V I E Q L D  
UniRef90\_B7KHG0 A G Q N P S I S I I Q S N Q T A R I F T T G A M L P P A G A D T V I M Q E E N T Q R E M Q  
UniRef90\_A0A023CPJ4 C G A V P T K K L I T A N T A A R I M T M G A M M P P E G S D T V I V M Q E E N T S R T P D G G  
UniRef90\_L8M6B5 A G S V P Q K T I S S Q Q A A R I F T T G S M L P P E G S D T V I V M Q E E N T S R T P D G G  
UniRef90\_B6WU17 M G A V P F D I L S I I Q S N Q T A R I L T T G G M L P P E G S D T V I V M Q E E N T S R T P D G G  
UniRef90\_G7Z7C4 A G S K F E G T V L Q P G G Q A V R I F T T G A P V P P A G V D T V V A M Q E E D C R T D D G  
UniRef90\_E0R9V4 C G T V S D K R V V E S G M A A R I M T M G A Q L P P E G A D T V V M L E A T Q Q L R E  
UniRef90\_Q089V5 A G H P F T K K H V L P N S E C I R I M T M G A P V P V D G F D T V V Q M Q E E K V H A N G  
UniRef90\_K0C4N7 A G K P F T K K V L A K G E C I R I M T M G A Y V P D D C C D C V V M Q E E N V H A R T G  
UniRef90\_UPI000470DFE5 T G E P D F K I Q E G Q A A K I F T T G G A V P P E G A D A V V M L E E N T V E Q E R  
UniRef90\_H2TF73 A G Q N P T H T I M P A G E T V R I V T T T G G A I P P C G A D A V V V Q V E E D T E L L R  
UniRef90\_J4V2E8 A G E F Y A G T V G A G E T V R I M T M G G A I P P A G C C D C V V I R Q E E D V T E D G  
UniRef90\_UPI000255B859 A G H P F D G T L E P G G Q A T R I T T T G A A V P P T G A D R V V Q M Q E E N C S I E A  
UniRef90\_N6YFU2 A G R P F E G K V V G A G Q A V R I M T M G A S I P P D G A D T V I V I Q E E V V R R R D  
UniRef90\_UPI000237A622 A G K R F E S G L V G P G Q A V R I F T T G A P M P P D G A D F V V I Q E E D V E R R D  
UniRef90\_B1YDB8 P G A P Y G G E V G P G E A V E I V A T G A P L P P R G A D A V V V P Y E E A A A R G M  
UniRef90\_B0A723 A G G Y T H R N I I G K G E A V R I M T M G A K I P P T E G A D A V V I R Q E E S T S E R Y G M  
UniRef90\_R7B2S7 I G H P A V S K L E P G T C A Y V P T G G M V P T E G A D A M V M V E Y S E R F T G  
UniRef90\_I3BR84 A G R P F T G T A Q A G E C V R I M T M G A V V P D G T D T V V M Q E E Y V I Q E R D E  
UniRef90\_Q7M954 A G N P C E M A L E E G S T C A I K T F T T G A R M P P R G A D T L L T V E N T V K E E E  
UniRef90\_V6J7D5 A G H A P E P L P G T C A R I F T T G A P V P P E G A D C V I M Q E E V E M Q E V H  
UniRef90\_M5IXN4 A G D I P E T L L K E N M A I R I F T T G S M L P P P G A D T V V V I Q E E N C Q E D E  
UniRef90\_I3CUI8 A G H V I G P P L E A G T A A R I F T T G A M M P P D E A D A V V M Q E E Q T Q E G S  
UniRef90\_UPI000463F797 A G Q Q T L P Y W P E G T V S R I M T M G A P V P Q D E A D A V V M Q E E A T Q E N S  
UniRef90\_W0PDG5 A G Q A P Q P Q E P G T V S R I F T T G S L I P P D G A D T V V V I Q E E V C K E E D  
UniRef90\_X0US67 A G R P F L E S V S T E Q C V R I M T M G A V M P P E G S D T V V M Q E E H V K L E D E  
UniRef90\_N9XEN7 A G S W P T R A E V G S G Q T A R I M T M G A P I P P A G A D C C C I I Y Q E K T D Y G E  
UniRef90\_UPI000382C668 A G R V H V D E L A P G A A H R I M T M G A Q L P P S G A D A T V I P V E R T D G G T D  
UniRef90\_UPI00037E9692 A G R P Y A G D T A R G Q C V R I M T M G A P M P P E G A D T V I M Q E E N T V I Q L S D  
UniRef90\_N2JJK8 A G Q S P Q L T P G T C A R I F T T G A P M P P E G A D T V I M Q E E N T V I Q L S D  
UniRef90\_B1WRV5 A G I H P K L S I Q S G E A C R I F T T G A M L P P N G V D T V I V M Q E E N T R P E E  
UniRef90\_R4WHR1 A G R P F A A T P G A A E C V R I M T M G A L M P P A G C C D C V V I P Q E H V T R A G  
UniRef90\_UPI00036B6245 A G G F S D I E I K N G E C I E I A T M G A P I P K G A N A V V M V E Y T E R I G  
UniRef90\_K9XW20 A G Y Q P K T T I K S G Q A A R I F T T G A M M P P A G A D T V I V I Q E E N T T R E G  
UniRef90\_F8I699 A G T V W P P T P L E K G Q A V R I L T T G A P V P V Q G A T A V V E Q E R N V I R Q D  
UniRef90\_S6HJ66 A G Q A P P L T L T P G T C A R I F T T G A P V P V Q G A D C V E M Q E E N A V I R Q A  
UniRef90\_D7DTL1 A G A F S D K K L T E K T C I E I A T M G A P M P K S A D A V V M V E Y T Q I S E  
UniRef90\_UPI00047B6961 A G R V I E V A E L S P G A Q R I M T M G A Q L P P P G A D A T V I P V E H T D D G G T  
UniRef90\_D8NCL1 A G T A F D G N L P G P G E A V R I M T M G A V M P P A G C C D T V I P Q E F T Q G D T  
UniRef90\_UPI000374B46C A G Q A G L T M A G G P S A V R I F T T G A R M P P D G A D T V V F M Q E D V T L E E G  
UniRef90\_K0NP88 A G K P C G A I V K E G E A V R I M T M G G L V P P E D C D T V V M Q E E D T S E V N D  
UniRef90\_M7P2T1 A G Q P F S G S L T A G Q C V R I M T M G A V V P P E D C D T V V M Q E E R S E V N D  
UniRef90\_Q3ISS3 A G V E P S V E V A I G E C V E V S T G A V V P P P G A D A V V M V E R T D E D A  
UniRef90\_U2TXA2 A G H V P T C S I L P G T V V R I M T M G A P L P P D G A D C V L R Q E E T D Y R G  
UniRef90\_F2NLR1 A G R P F P A R V G P G E A V A V M Y T M G A P L P P E G A D A V V R V E E T A R D G  
UniRef90\_UPI00036EEB81 A G H P F T G R V E S G Q C V R I M T M G A A L P L G A D S V E M Q E E N C T S A N  
UniRef90\_A0A023X0K6 A G R P S E R T V G E G E A V K I F T T G G V V P A G A D A V V M V E E D T S G W S  
UniRef90\_Q2JPS1 A G K A P T R E L V G P G Q A V R I Y T T G S L L P S G A D T V V M Q E E Y T Q Q P P  
UniRef90\_V4C7T1 A G D M P K S K V C P G I C M R I N T M G A P L P P P G A D A V I Q V E D T V L T K  
UniRef90\_R3VX83 A G D P E G E S T K P G T A V R I M T M G A L I P P A P Y D A V I K Q E W T D C H G K  
UniRef90\_N6XM64 A G S V Q H A L Q P G T A A R I F T T G A P L P P P G A D T V V M Q E E L C E H D G  
UniRef90\_D0ZFG6 A G A P F Q G D W P A H S A I R I M T M G A A V P P A G A E A V I M Q E E Q A Q L G E  
UniRef90\_K4SZD5 A G R P Y E G S I L P G Q C V R I F T T G G V I P P E A L D T V V M Q E E H V Q R I G  
UniRef90\_G8NRI8 A G A I A N E S V I R P G H V I R I F T T G A P M P P G A D T V V M Q E E D V E V G D  
UniRef90\_R0G4C7 A G Q R F E G S V Q R G Q C V R I M T M G A P M P P A G C D T V I P Q E L T T D A D  
UniRef90\_UPI0004006BF9 A G E A A S E R V A R A T A A R I F T T G A P M P P E G T D T V F M Q E D V V R D D  
UniRef90\_X6L6L1 A G H G F A G P V G P G Q A V R I F T T G A P V P P E G A T R V V I Q E E D V T R D G  
UniRef90\_Q1ART2 A G R P A R R G V G E G E A V K I F T T G G V I P P E G A D A V V M M E N T S G W G  
UniRef90\_R4KU61 A G R N P H F K V S G T A I K I V M T M G A P I P S G A D A V V M K Y E E V C R E G  
UniRef90\_A0YGK5 A G Q M G Q P L K V S G T A A R I F T T G A A I P P P G A D S V V M Q E E D T E T R G  
UniRef90\_A6Q6R7 A G D D P K N E L F A G S A M K I M T M G A P I P K G C N A I V P V E E V Q V Y E  
UniRef90\_U1LEY5 A G H V I G E P L C A G Q A I R I M T M G A K I P P D G A D A V I M L E L V Q A D E  
UniRef90\_UPI00047D63B4 A G Y Q P S T I L Q Q G Q A A R I F T T G A V M P P T S A D T V V M Q E E R T R R E D  
UniRef90\_A4ASN9 A G M P Q K K L G D I K N C V E I M T M G A V V P Q N A D T V I M Y E H L D I K D  
UniRef90\_UPI000365506A A G R P F E Q E V N A G E C V K I M T M G A V I P P K G A D T V V M Q E E R L S L A D  
UniRef90\_X1C8V3 M G V K P F E K I N P G E A V K I S T G G M L P P E G A N A V I M Q E E Y T E N I D  
UniRef90\_G0A9V0 A G R A Y L G A V A N S G Q A V R I M T M G A L M P P D G L D T V I P Q E F V S P G S  
UniRef90\_C3XA72 A G H I T G G K L Q N G E A A R I F T T G A P I P P E G A D T V V M Q E E W C E V D G T  
UniRef90\_D8HJH7 A G R V D V R P L E P G T T H R I M T M G A P L P P P G A D A V V M V E D S D G G T  
UniRef90\_C9LWF7 A G S F F T R K V G A G E A L R I M T M G A A M P P E G A D T V V R Q E D V R V E G  
UniRef90\_UPI000479F3C1 M G K A A K L T I K E G E A C Y I F T T G G M L P P Q G S D S V V M V E Y T E L D E D  
UniRef90\_V5UIW9 A G H A P A P L L K E G E A A R I F T T G A P V P P P G A D A V I M Q E E Q C E R E D  
UniRef90\_UPI000475ADAA A G H P F F E G C T S G E C V R I M T M G A V I P P A G C N T V I P Q E H V I E L G A  
UniRef90\_UPI0004776C81 A G M V S E K R L S S G Q C I R I M T M G A S V P P D G A D A V I K Y E M T E E D I  
UniRef90\_V4RBH0 A G E R F G G E V G P G E A A R I F T T G A P L P P T G A D T V I V I Q E E D A D R A G  
UniRef90\_W4DJU1 A G A V S Q I A I G P C E A V R L M T M G A A L P P A G A D A V V M F E Q A T A A G  
UniRef90\_A3DPU6 P S S T P D E Y L K N G E A V E I F T T G S P L P L G A D A V V M Y E D T Y R V G  
UniRef90\_UPI0003608A01 A G R P Y Q G L L A A G E C V R I T T T G A V V P K P A D S V L M Q E Q V R V D G  
UniRef90\_UPI0003693327 A G H G F D G A L K R G E T V R I F T T G A P V P P A G A D A I L I Q E N A T A H G  
UniRef90\_M4R8R9 A G N P F S G K I Q S G Q C V R I M T M G A K I P P E N T D A V V M Q E E D T E R D D  
UniRef90\_A9SVY0 A G Y S S Q L Q L Q S G S V V Y I T T T G G P I P D G A D A V V Q V E D T E V V E  
UniRef90\_S7U672 M G E V P G F A V G P G E A S R I S T G G M L P P E G A D A V V M I E R T E S L D

UniRef90\_M5JIT6  
UniRef90\_D9V3B4  
UniRef90\_Q2BLQ1  
UniRef90\_K9TQ82  
UniRef90\_A7HY00  
UniRef90\_A0A038CTP5  
UniRef90\_J4QAW7  
UniRef90\_UPI00037267B1  
UniRef90\_V8D0T4  
UniRef90\_UPI00037C598F  
UniRef90\_UPI0003765DCA  
UniRef90\_B7KHG0  
UniRef90\_A0A023CPJ4  
UniRef90\_L8M6B5  
UniRef90\_B6WUI7  
UniRef90\_G7Z7C4  
UniRef90\_E0R9V4  
UniRef90\_Q089V5  
UniRef90\_K0C4N7  
UniRef90\_UPI000470DFE5  
UniRef90\_H2TF73  
UniRef90\_J4V2E8  
UniRef90\_UPI000255B859  
UniRef90\_N6YFU2  
UniRef90\_UPI000237A622  
UniRef90\_B1YDB8  
UniRef90\_B0A723  
UniRef90\_R7B2S7  
UniRef90\_I3BR84  
UniRef90\_Q7M954  
UniRef90\_V6J7D5  
UniRef90\_M5IXN4  
UniRef90\_I3CUI8  
UniRef90\_UPI000463F797  
UniRef90\_W0PDG5  
UniRef90\_X0US67  
UniRef90\_N9XEN7  
UniRef90\_UPI000382C668  
UniRef90\_UPI00037E9692  
UniRef90\_N2JKK8  
UniRef90\_B1WRV5  
UniRef90\_R4WHR1  
UniRef90\_UPI00036B6245  
UniRef90\_K9XW20  
UniRef90\_F8I699  
UniRef90\_S6HJ66  
UniRef90\_D7DTL1  
UniRef90\_UPI00047B6961  
UniRef90\_D8NCL1  
UniRef90\_UPI000374B46C  
UniRef90\_K0NP88  
UniRef90\_M7P2T1  
UniRef90\_Q3ISS3  
UniRef90\_U2TXA2  
UniRef90\_F2NLR1  
UniRef90\_UPI00036EEB81  
UniRef90\_A0A023X0K6  
UniRef90\_Q2JPS1  
UniRef90\_V4C7T1  
UniRef90\_R3VX83  
UniRef90\_N6XM64  
UniRef90\_D0ZFG6  
UniRef90\_G4SZD5  
UniRef90\_K8NRI8  
UniRef90\_R0G4C7  
UniRef90\_UPI0004006BF9  
UniRef90\_X6L6L1  
UniRef90\_Q1ART2  
UniRef90\_R4KU61  
UniRef90\_A0YGK5  
UniRef90\_A6Q6R7  
UniRef90\_U1LEY5  
UniRef90\_UPI00047D63B4  
UniRef90\_A4ASN9  
UniRef90\_UPI000365506A  
UniRef90\_X1C8V3  
UniRef90\_G0A9V0  
UniRef90\_C3XA72  
UniRef90\_D8HJH7  
UniRef90\_C9LWF7  
UniRef90\_UPI000479F3C1  
UniRef90\_V5UIW9  
UniRef90\_UPI000475ADAA  
UniRef90\_UPI0004776C81  
UniRef90\_V4RBH0  
UniRef90\_W4DJU1  
UniRef90\_A3DPU6  
UniRef90\_UPI0003608A01  
UniRef90\_UPI0003693327  
UniRef90\_M4R8R9  
UniRef90\_A9SVY0  
UniRef90\_S7U672

UniRef90\_M5JIT6  
UniRef90\_D9V3B4  
UniRef90\_Q2BLQ1  
UniRef90\_K9TQ82  
UniRef90\_A7HY00  
UniRef90\_A0A038CTP5  
UniRef90\_J4QAW7  
UniRef90\_UPI00037267B1  
UniRef90\_V8D0T4  
UniRef90\_UPI00037C598F  
UniRef90\_UPI0003765DCA  
UniRef90\_B7KHG0  
UniRef90\_A0A023CPJ4  
UniRef90\_L8M6B5  
UniRef90\_B6WUI7  
UniRef90\_G7Z7C4  
UniRef90\_E0R9V4  
UniRef90\_Q089V5  
UniRef90\_K0C4N7  
UniRef90\_UPI000470DFE5  
UniRef90\_H2TF73  
UniRef90\_J4V2E8  
UniRef90\_UPI000255B859  
UniRef90\_N6YFU2  
UniRef90\_UPI000237A622  
UniRef90\_B1YDB8  
UniRef90\_B0A723  
UniRef90\_R7B2S7  
UniRef90\_I3BR84  
UniRef90\_Q7M954  
UniRef90\_V6J7D5  
UniRef90\_M5IXN4  
UniRef90\_I3CUI8  
UniRef90\_UPI000463F797  
UniRef90\_W0PDG5  
UniRef90\_X0US67  
UniRef90\_N9XEN7  
UniRef90\_UPI000382C668  
UniRef90\_UPI00037E9692  
UniRef90\_N2JJK8  
UniRef90\_B1WRV5  
UniRef90\_R4WHR1  
UniRef90\_UPI00036B6245  
UniRef90\_K9XW20  
UniRef90\_F8I699  
UniRef90\_S6HJ66  
UniRef90\_D7DTL1  
UniRef90\_UPI00047B6961  
UniRef90\_D8NCL1  
UniRef90\_UPI000374B46C  
UniRef90\_K0NP88  
UniRef90\_M7P2T1  
UniRef90\_Q3ISS3  
UniRef90\_U2TXA2  
UniRef90\_F2NLR1  
UniRef90\_UPI00036EEB81  
UniRef90\_A0A023X0K6  
UniRef90\_Q2JPS1  
UniRef90\_V4C7T1  
UniRef90\_R3WX83  
UniRef90\_N6XM64  
UniRef90\_D0ZFG6  
UniRef90\_G4SZD5  
UniRef90\_K8NRI8  
UniRef90\_R0G4C7  
UniRef90\_UPI0004006BF9  
UniRef90\_X6L6L1  
UniRef90\_Q1ART2  
UniRef90\_R4KU61  
UniRef90\_A0YGK5  
UniRef90\_A6Q6R7  
UniRef90\_U1LEY5  
UniRef90\_UPI00047D63B4  
UniRef90\_A4ASN9  
UniRef90\_UPI000365506A  
UniRef90\_X1C8V3  
UniRef90\_G0A9V0  
UniRef90\_C3XA72  
UniRef90\_D8HJH7  
UniRef90\_C9LWF7  
UniRef90\_UPI000479F3C1  
UniRef90\_V5UIW9  
UniRef90\_UPI000475ADAA  
UniRef90\_UPI0004776C81  
UniRef90\_V4RBH0  
UniRef90\_W4DJU1  
UniRef90\_A3DPU6  
UniRef90\_UPI0003608A01  
UniRef90\_UPI0003693327  
UniRef90\_M4R8R9  
UniRef90\_A9SVY0  
UniRef90\_S7U672

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

UniRef90\_UPI000419CDC2 1 M I S V T E A K K R I A Q A F H A L E P V T M H L A D A A A G K V L A E D L Q 40  
UniRef90\_U5VF86 L M S V E E A L Q R V L A E A A P I E A R E I V P L A E E A A Q G R V V L A E T D L V A  
UniRef90\_U2YXM3 L A S P A E A H D V V A S L L D V A P E S E T V P P L L Y R A L G R F V L A E A E D V D A  
UniRef90\_F9NVA8 T P E Q Y L A R I L E A L A R P V E S E T V P P L L Y R A L G R F V L A E A E D V D A  
UniRef90\_HOPT10 M L S F D D A L A K R L E H L V R P V D V E M A D T L I V I T Q G R R I L A S D D L R S  
UniRef90\_A6SXK7 M L S V A E D A L A F L L S A K I T V R E T E T L S A T L D A N S Q G R I V L A V A Q L E S  
UniRef90\_C4LFK5 M S V Q D A L N T M L Q Q I T P V R E C V T V R E S L A N S Q G R H L A E A E D V L S  
UniRef90\_D5DJ45 I S I P E A I E K V M T Y K R K G S I E R V V T S I T E S Y G R R Y L G E D V I L A  
UniRef90\_UPI00036DE7B3 K M L S A E E A L Q Q M L A Q Q V L P V Q Q E A V S L S A K A Q L D R V V L A E D P V C  
UniRef90\_UPI000466AF21 M K T F D E A L D L I Q A Q V P T D G H L T P L S L A K A Q G R V L A A Q D V I R S  
UniRef90\_Q67KA9 L K S V E E A R E F L L G A V T R R M P A E R V V S A R E E A A L G R I T L A A S P V P A  
UniRef90\_D7E870 T P V N Q A R K I F L N A F V S I L E T E Q V V S L D E S A S G R I L A A D S V T A  
UniRef90\_F8AW75 M K S V D A H L A D I L L A A V G S I L P P R P L P L D G S A H G C V L L A S A D L H A  
UniRef90\_UPI00037EB26D L L S V E E A R E I V A A V E S V A G R E K T S L L N E A L G R I V L A S Q T V T Y S  
UniRef90\_S6C117 E M I P L E A R A L V C G A V E K L P V T E V V D L L D A S G R V L A A A D Q T S  
UniRef90\_H0FDW9 M L D F D Q A Q T L L A N A A G P L R T E H V E D L T Q A S G R V L A A A D L D A  
UniRef90\_UPI000395D1F6 S V L T V E D A Q E K I V D A I E K N K T E I V Q L D A G G R Y L A A E D I F A  
UniRef90\_A4CL82 M I S F G K A Y E A V M A E R W T L A A E T V R V D D D A C G R R Y L A Q L V V A  
UniRef90\_UPI00028A3885 I A V G E A V Q R V M K Y A N V G K I E E V A R V L D D K C Y D R Y V A V D V V A  
UniRef90\_A0A059FH34 L I S V D D A R R A L A P H A L D A G E E T I A G I N D A L G R I L A A R D V V A  
UniRef90\_A4G4Y8 L P V A D A Q A L R Q L T Q P L A V E K I A L R R S A L L G R V L A L D I V S  
UniRef90\_A6WEB2 L T T V A A H R Q A C L D L V R P L P L D L A L R S A L L G R V L A E D V V S  
UniRef90\_W1Z2W3 L L P V E T A I N M L S A I N F N K A A E T I S I M H S V G R V L A S D I E S  
UniRef90\_A8G1K6 S L M H P D E A I R L L K Q V T V D D S E V V Q L D Q A L L A R V L A T D I V S  
UniRef90\_I4KMM6 L M P V D E A I R H L L D Q A P P P Q R V V L D Q A L L A R V L A T D I V S  
UniRef90\_E6VAU9 L M P L D E A I R Q L L A A L P K L P E E S V V T F D A D G R V L A Q D L V S  
UniRef90\_A8TUH6 L L P V S D A L S R I L A A L S P L P A E M V P L R Q A A L G R V L A R D V I R A  
UniRef90\_A3SWQ2 M I S V S D A L S H L F E N L V T A T E V E A V P L R Q A A L G R V L A R D V I R A  
UniRef90\_K0B4U4 N V V S V E E A R K L L L E N I N L E L S E Y V D I L Q S S A D R I L A C D D I V S  
UniRef90\_UPI0002F75759 L M P V E E A L E R L L A L A P L D S E S V L G A S D G R V L A H D I V S  
UniRef90\_UPI0004672AC4 M I T Y E E A F R R R M L Y T K D F G T V S V S V L M E S V N C V L A E T I Y A  
UniRef90\_M3UT95 M R T V D E H R A R I L G T A A P L P V E T I P L D R A R G R V L A S D I R S  
UniRef90\_B3Q6P1 L M P V D D A L A A V L A G A H G L D T E L V A L T Q A Y R G V L A R K D V A  
UniRef90\_K6X111 M I S V A E H R R A R I L E T V R R L A P Q Q V P V L T Q A Q G C V L A K D V A  
UniRef90\_Q8KCT1 M T T V H E A H E I I A T T P L I E T V S V P L L Q L Q G R V L A E D V R A  
UniRef90\_B8I2G5 M L G I E E A K D L V L E S V V K K D S E V V D I T K E S L N G R I L A C D I V S  
UniRef90\_R4K8T2 N V V S V E E A K D L I N D F K L N L K T E L I D L K E C N G R V L S R D I V S  
UniRef90\_W2EH10 M K P V D R H L A D I L A V V R P L A P M E V T E L E A A L G A V L A E N D V V S  
UniRef90\_E8T6G8 V I T R E E A L R L L S H V K P V G K E V K T H E C Y G R V L G E N D F S  
UniRef90\_H0I311 K V I P V D I A A A K A L T L A R V K L E T E H V P L I D A T G R V L A G D V R A  
UniRef90\_UPI000414CA9C I S V A E A R A R I L A G V S P R P T E L V P L A R A Y G R T L A E D L A A  
UniRef90\_I9W1W2 A V E T V N T L Y A N G R V L A E D I R S  
UniRef90\_M8E116 T V S E T L R I I N E Q F Q P R P P V E L P L I E V C A G M V L A E D V I S  
UniRef90\_UPI000361CAD9 V S M E E A Q Q L F A A Q A A P V G E R K I S L A E A A G S V L A S R D V F A  
UniRef90\_UPI00034C37B6 L P V A A A Q A I V R Q A T P V T A A E R V S L S Q D A L D R V L A A D I V S  
UniRef90\_UPI0003F0B1E5 M I T F D D A V E R V M S N T H V S D I S I S S Q D A L L G C I L G C A D V K A  
UniRef90\_Q6LQX9 M L S V D E G R D R I L S Q I E A L Q T Q K V D L K A A L G Q I V S R D I L S  
UniRef90\_UPI0002D6566C M L S V D A G R E K I L N A L S E P S I Q S L S L E S L H H C V L A E P V I A  
UniRef90\_F7Y9I7 L L P V A E A L E R L L D G A S P L A G E S V S L F E A I D R V L A E P V V A  
UniRef90\_C3XZE4 I P M E K A I N I V L D E A Y T L G T E I V N Y R D V L S R V L A Q D V V A  
UniRef90\_UPI0003B4FB9C I L S A D E H L A A I L A A T S M L A P Q S V P L P Q A L L G R V L A S D V L A  
UniRef90\_A8GYS0 S L M H P D Q A I K L E Q V N P I T D S E V V P L P Q A L L G R V L A E D V L A  
UniRef90\_Q6AIW1 M I S V P E A L S L L E K N L P E P R K V Q V V S L L E E A F A R R L A E D I A A  
UniRef90\_G7Q6W8 L L R T F P V L P S E T V D L D E A L G R F L A G D L V A  
UniRef90\_C7RIG3 M L S F E E A L S R L L Q R G A P T V L E V E W L P T L A T A G R V L A Q A Q H A  
UniRef90\_W8R8L5 L M P V E Q A L E A L L Q A A P I T G V E T I S I E E A A G R I L S E P L R A  
UniRef90\_D3SS70 L A S P T E E A R E A I D S L S I E G V E R V S L E D A R G R V L V A R L D A  
UniRef90\_F6ERB6 M R S V E E Q Q A R I R A A V A P Q P V R V A I S Q A H G L V C A E E V I S  
UniRef90\_E4NFT7 R L W T V D E H L A D V L A A V A P L P P I E L R L L D A Q G C R L A E D V R A  
UniRef90\_UPI000248DFCC I Q P D A A Q K M I Q Q H L R L G D V E R V P L T E A F G R V L A A D V F A  
UniRef90\_Q28R70 M I S V E D A L R A C L D L A A P G V S E T V P L T D A G G R V L T A P V T A  
UniRef90\_I1EQD4 L L P L D E A L R R I R V H V I E G L E S R R L A P L I E A G N K I A A N D I T S  
UniRef90\_W9TJC5 L L P V E E A L L L K Q A S T R E H E T V A A S A A L G R V L A E T L F V A  
UniRef90\_F4GQC5 M L D F D T A Q A R L A A A G G H P S I E T V P L I Q A R G R V L A Q T L F A  
UniRef90\_W4BW37 V P D A Q A K I A A R V I T V G S I E K V T H L E S A H G R T L A E T I Q A  
UniRef90\_M4XJ8 L L P V E D A L A R L L T A P I A E T D A V T L A E A D G R V L A S D V L A  
UniRef90\_B3SAE9 M L P V Q E A I K L V L E Q A K S V A G E E T K N L L D A D G R V L A S D V Y A  
UniRef90\_UPI0002DA56B7 L M S L D D A L K T L L A Q Q S P L G H E S V S A T L D A D G R I L A Q D L V S  
UniRef90\_L7ME56 L I S V A D A Q A I V L E Q C S E I G V E Q V S F Q V A C G R I L A E D V H A  
UniRef90\_UPI0004782D4E M M P V L T A A Q L V L E Q C A Q P L G P E W V P L A A A R D R I L A R D L S  
UniRef90\_W7Y927 K A L Q V A D A Q R L I A N Y I K P G T I E I I K I Q D S H G R Y L A E D V L S A  
UniRef90\_S0FSN0 K V K T L D D V L S M T R N F D P A D T E R V D I S D A F S R I L A Q N L T A  
UniRef90\_V7I293 E V K S V K V T F G I Y D N F R D P G S E K V S L D A L G R I L D E D L V S  
UniRef90\_UPI0003655F34 K A V T V A E G Q R Q I L A S V R T M P V E K V P L A E A Y G R Y L A A D V A A  
UniRef90\_B8HWY9 M I S A Q A A A D L I L G L V R P L D S E D A D L L A A G H R V L A R E I T S  
UniRef90\_UPI000379B8C4 H M L S V E E A R Q A L S A L I R P L A S E V I D L L A Q A H G R R L A Q D V I A  
UniRef90\_T4VF10 N V M S V D E V K K I L S N N F K K I E T E I V N I L E C E G R I L S N D I V S  
UniRef90\_M1ZKX3 V V S T Q E A R N R I M R N F K E Y E I E E I S I L E A T Q G R I L A E S I Y S  
UniRef90\_UPI00047749F9 M R S V D E Q L A R I L A A A V R P S P V R V A I A E A D G R L S C A E E V L A  
UniRef90\_UPI000471FE71 L L S V E D A L A R I G G A A R I S R T K T I D L F D A Q G R V L A E P V S A  
UniRef90\_E6PPE5 K A L P V D K V Q E V I R R F V Q P V R V E R V D L R A T A Q G R V L A E D V I A  
UniRef90\_C8X7R7 M R S V A E Q L E R V L A I A V T P P P V R T A I S E A Q G L L C A E E V V A  
UniRef90\_V6JY88 M D E H L A D I L A T I R P L D P I E L Q L P D A Q G C V L V E D I T V  
UniRef90\_S9QVWV6 M I S V A E A L E Q L F A L L G P V R E E T V P L E A A V G R V L L R P V P A  
UniRef90\_UPI0002FF987F I S V T E A L N L L K S V R R I E D S E Q I P L E Q C W G R T L A E E V V A  
UniRef90\_D6V9L6 L M P V A D A L N S I L N G I Q P L P A E D V A L D D A L H R T L A R D L A A  
UniRef90\_A8LMJ9 L I P V S Q A L D A L E A L I T P L D P E D V A L E S A A G R V L A R D A V A  
UniRef90\_D0IBP0 M L S V D A G R E K I L A A I S E P S V E V L A L E S L S G R V L S E D V I A  
UniRef90\_V6M9H5 Q V E L G E A Y G R I L A H D V I A  
UniRef90\_A0A011V424 L T S V D V A L R Q G L E A E P V A E E R L L P L G K A H G R I L G E T V R A  
UniRef90\_UPI000472629C L T D L D E A L A S I L T D A Q S P L R T E L L P L Q Q A N G R V L A E A V Y S  
UniRef90\_X5MAB7 M I S V E E A R A Q I A A A L S L S T E T V T A R A F G R T L S Q D V V A



UniRef90\_UPI000419CDC2 P F D I P A F A Q S A M D G Y A F A F Q D W Q P G K P L G I V A G E V P 80  
UniRef90\_U5VF86 T L D L P P W F P N S A M D G Y A L R L D D D W R G E P L P L V S Q Q R I F  
UniRef90\_U2YXM3 A L D V P P N F D R N S A M D G Y A V R R A R S D T F G A S E R D P V V L P L V T G D V A H  
UniRef90\_F9NVA8 P W P V P G F D N S A M D G Y A V R R A S D A V A G A R L R L V T G D V A P  
UniRef90\_HOPTI0 A I S V P P A L D T S M M D G Y A V R V A D V P G S G A T L R P V S Q R I P  
UniRef90\_A6SXK7 Q L N V P P V F D N S A M D G Y A V R A A D C V S G E A V L R V S Q R I P  
UniRef90\_C4LFX5 P L N M P P F D N S A M D G Y A F R A E W V D G Q T L A I V L A G T A L  
UniRef90\_D5DJ45 D Q N V P H F N K S L Y D G F A V R A Q D C V E V S S E H S V E F E V V G E I G  
UniRef90\_UPI00036DE7B3 E L N V P P G Y D N S A M D G Y A L R A A E V K P G Q P L V L V S Q R I A  
UniRef90\_UPI000466AF21 T L N V P P S F D N S A M D G Y A L C A E E D L K N N D V F T V S Q R I A  
UniRef90\_Q67KA9 P E D L P P F P R S S V D G Y A V L R S A D T F G A S E G L P A Y L T V T A E I P  
UniRef90\_D7E870 N R N V P P H Y R R A A M D G Y A V R S S D T V G A S P D N P I M L Q I V T G D I P  
UniRef90\_F8AW75 T T A L P P F D N S A M D G Y A L H A A D V A G A G P D H P V T L P V T G D I P  
UniRef90\_UPI00037EB26D P I D I P C D R N S A M D G Y A F S S R D I M P G Q P F S L R L A G S S W  
UniRef90\_S6C117 D I D V S P F A H S A M D G Y A L R A A E L A D A A E E S P A M L R A T A E I G  
UniRef90\_H0FDW9 T V D L P P A D N S A M D G Y A L R L A D W S L D A R L P I Q Q R I C Y  
UniRef90\_UPI000395D1F6 P F D T P F C D N S A M D G F G F H D D F K R H S E F K E V G E S L  
UniRef90\_A4CL82 D R P L P P Y D R A T M D G F A I C H R D F R D G H R E Y R I Q Q G M A R  
UniRef90\_UPI00028A3885 D Q D V P P A F D R S P Y D G F A I R A I D S E A A S S R D N P V A F E V V G T I G  
UniRef90\_A0A059FH34 G T T A P P A D V S A M D G Y A V R L A D T K D T G S Q K A D L S L K I T G T A Y  
UniRef90\_A4G4Y8 P L N V P P S H D N S A M D G Y A L H G S E L N P K A D L S L K I T G T A Y  
UniRef90\_A6WEB2 P R A L P P A F D N S G M D G Y A V R L R D V E G A G E D A P V L P V V G T I A  
UniRef90\_W1Z2W3 N I N V P P A H D N S A M D G Y A L C L S E G L T T Y Q Q V I G S V F  
UniRef90\_A8G1K6 S L D L P P F F N N S A M D G Y A F R F D D L A G N E S L G T I G Q S F  
UniRef90\_I4KMM6 P M N L P P A W D N S A M D G Y A L R A A D L P G D G G Y L L L G G R I A  
UniRef90\_E6VAU9 G L T V P P R D N S A M D G Y A V R A A D C A S V P E P G T V L Q V T Q R I P  
UniRef90\_A8TUH6 R R T Q P P M A V S A M D G Y A V R A L D V A S V P A T L R R T I G S A P  
UniRef90\_A3SWQ2 T R T Q P P F A A S S M D G Y A L C Q T E V E P D A M F K V I G E A A  
UniRef90\_K0B4U4 E E N V P P G F D R S T V D G Y A I K S S D S H G A S E S L P S F L S L N G E I R  
UniRef90\_UPI0002F75759 S L D L P P W P N S A M D G Y A L N R A D W S G E P L T V S Q R I I G  
UniRef90\_UPI0004672AC4 D R D F P P P R S A M T K D G I A L Q H S A F E T N E Q V F K I E G I F  
UniRef90\_M3UT95 R W P V P L F D N S G M D G Y A V H G A D A T V G A E L R V V A D V I P  
UniRef90\_B3Q6P1 L R T Q P P Q A M S A M D G Y A V R A A D V A A T V G A A T P A T L R V V I A  
UniRef90\_K6X111 L V P L P P G F D N S A M D G Y I V R A A D V A P E G A G A Q P V R L P V D G D I P  
UniRef90\_Q8KCT1 G F A M P P R F T N A A M D G F A V R F G E I A D A S D G A P V T L P V S Q E I A  
UniRef90\_B8I2G5 D I D L P P T F N N S A M D G Y A V S S E L K G A S F D M P I S L E V I G E I P  
UniRef90\_R4K8T2 P L N I P P G F K R S M V D G Y A V K F R D L Q G A S E S Q P S M L D L K E V K  
UniRef90\_W2EH10 P V P L P P F D N S A M D G Y A V R A A D V A S G V P V T L P V T E D V P  
UniRef90\_E8T6G8 P E E L P P N A D L S A V D G F A V V S S C R E L P A E L K V I G E T V E  
UniRef90\_H0I311 S I D L P P F D N S A M D G Y G V R I A D F I G A G P W E L L I G G R I A  
UniRef90\_UPI000414CA9C T R T Q P P S K A V S A M D G Y A V R A V D L A V L P T K L R Q I G E S A  
UniRef90\_I9W1W2 G L D V P P P R D R N T Q M D G Y A V R S A D L T A S D S P G R R L R V I A G R I E  
UniRef90\_M8E116 D E Q V P P H F R S T V D G F A V C A K D T F G A S D S L P A F L R V I E E V R  
UniRef90\_UPI000361CAD9 P L D L P P F D R S P L D G Y A L R A A D V R Q A S K V Q P V A L R V I E E V R  
UniRef90\_UPI00034C37B6 P I N V P P A H D N S A M D G Y A F D G T A L A S G D A P R T V E L K I A G K A F  
UniRef90\_UPI0003F0B1E5 K V A N V P P F P A S I K D G Y A V I J A S D G I G D R Q V I A G S D S L  
UniRef90\_Q6LQX9 P V N V P P Q H T N S A M D G Y A I R S D D L E R D N Y N V V A Q V M  
UniRef90\_UPI0002D6566C P V N V P P S T N S A M D G Y A I R S D D T S R D S Y Q L I A E V F  
UniRef90\_F7Y9I7 L R T Q P P P F N A S A M D G Y A V R A A D M A S V P S K L S V I G E M P  
UniRef90\_C3XZE4 Q D P L P P F P A S T K D G Y A V R A A D G H G D R V S K L S V I G E T T  
UniRef90\_UPI0003B4FB9C Q V D V P P S F D N S A M D G Y A V R L A D V A T A S T D N P V T L D V V A D L A  
UniRef90\_A8GYS0 H I D L P P F D N S A M D G Y A F N F A D L S A N A P L K I I V G E S F  
UniRef90\_Q6AIW1 P E A S P P R Y T S S A M D G F A V R W Q D L G G G K D P V S L A I V G E S Q  
UniRef90\_G7Q6W8 A E D L P P A A R A A M D G Y A V R A A D V F G A T E S N P A Y L D L A S M D R I P  
UniRef90\_C7RIG3 T V D A P P L D N S A M D G Y A L A V V D V P A A A T P A A A T R L P V S Q R I P  
UniRef90\_W8R8L5 T L D L P P W P N S A M D G Y A V C T A D L E G Q P L S V C Q Q K I F  
UniRef90\_D3SS70 E L D V P P G F D R A S L D G Y A L N A R D T F G A D E A D P A E L D V V G E I H  
UniRef90\_F6ERB6 E H P L P P F D Q A A V D G Y A V R S V D V T E A G P P D F K G Q L P V V G E I R  
UniRef90\_E4NFT7 G D D L P P F D N S S M D G Y A L R T A D T V R A T E R Y P S V L A V V G E I A  
UniRef90\_UPI000248DFCC S D P M P P H F C R S G M D G F A L R W E S T I G A S S D Q P V V L E V I G E I P  
UniRef90\_Q28R70 M R D Q P P F S A S A M D G Y A V R D M E A I P G R R L K I V G E A P  
UniRef90\_I1EQD4 P I D V P P G H T N S A M D G Y A V D G N S L V Q D A V R S F E P I G E A L  
UniRef90\_W9TJC5 G L D L P P W P N S A M D G Y A I R H A D L S G G P L P V S Q K V F  
UniRef90\_F4GQC5 A L D L P P A D N S A M D G Y A I R H A D Y V A G K S L P V S Q R C Y  
UniRef90\_W4BW37 P H P Y P P F R R S G M D G F A I I S T D T I D A S S D H Q V W F R V T D E I P  
UniRef90\_M4XJ8 G L D V P P P P N S A M D G Y A L R L A D W Q G E A L P V S Q K I F  
UniRef90\_B3SAE9 T D P V P P P S A I K D G Y A V V J A A D G P G K R S V I G P I T  
UniRef90\_UPI0002DA56B7 A L Q V P P A F D N S S M D G Y A V R S A D V Q Q V G V E L T V T Q R I  
UniRef90\_L7ME56 T D P L P P F P A S I K D G Y A V I A S D G D G P R E V V S A T A I P  
UniRef90\_UPI0004782D4E P Q D F P A A N T S S M D G Y A V R H A D I A T I P C Q L A V S A T A I P  
UniRef90\_W7Y927 P H P F P P R F R R S S M D G Y A V K S A D T V D C S S S H M V W L A E V I D E T V P  
UniRef90\_S0FSN0 P G D M P P G F R R A T M D G F A V N A A A T F G A S E S T P A W L E I Q G T V L  
UniRef90\_V7I293 D S D I P A F H R S S V D G Y A V K A K D T F G A S E S M P C Q L N I V G E V R  
UniRef90\_UPI0003655F34 A H P L P P H F R R S S G V D G Y A L R A A D T A P A R P G R T A E L D V L E T I L  
UniRef90\_B8HWY9 S L D F P Y W D N S A M D G Y A V R Y E D I A A A S Q E H P A V L R L G E I P  
UniRef90\_UPI000379B8C4 P I N V P P Q T N A A M D G Y A L A W P D T P Q H Q W P L I G S S L  
UniRef90\_T4VF10 K F N V P P E F N R S T V D G Y A I K S K E S H G C S E C M P T F L D I V G E V S  
UniRef90\_M1ZKX3 N I N V P P E F N R S T V D G Y A I K F K D S Q G A S E S V P S L E N I V G E V K  
UniRef90\_UPI00047749F9 E R A L P P M A D Q A A V D G Y A V R S V D V K H A D T E P A V L P V A G D T A  
UniRef90\_UPI000471FE71 N L T Q P P F D N S A M D G Y A L R A E D V T S L G T R L D V T G E S A  
UniRef90\_E6PPE5 P M D V P P A H N N S G M D G Y A L R S G D L G A D G A A T L R I A G T G L  
UniRef90\_C8X7R7 S S A L P P F D N Q A A V D G Y A V R S V D V A I A A E G H P V V L P V V G E I E  
UniRef90\_V6JY88 P V A L P P F D N S S M D G Y A V R T A D V S G A D E E F P A V L T V I G D V A  
UniRef90\_S9QVW6 L R D Q P P F D R S A M D G W A V R R A D A A P G A R L R I V G E S A  
UniRef90\_UPI0002FF987F Y S D S P P F H R A S A M D G Y A L R S Q D T P G T L T I V G Q V N  
UniRef90\_D6V9L6 R R T Q P P A P M S A M D G Y A I H L E D A L K G A R L G V I G E S A  
UniRef90\_A8LMJ9 R R D Q P P F A S A M D G Y A I R G D E A Q P G A Q F E V V G G S A  
UniRef90\_D0IBP0 P V N V P P S T N S A M D G F A I R S D D L E R A S Y Q I I V G E V Y  
UniRef90\_V6M9H5 T C D M P P F D R S P L D G F A V K A A D T V H A A V D Q P V Y L R V V E T V A  
UniRef90\_A0A011V424 E T P L P P L F D N S A M D G Y A I R L A D L A G E G P W R L P V A G R V A  
UniRef90\_UPI000472629C A V N V P P A D N S A M D G I A L R W Q D W C G K P L D V S Q R I P  
UniRef90\_X5MAB7 N R S Q P P S A V S A M D G Y A V R S A D L G K G T F S L R G E S R

UniRef90\_UPI000419CDC2 A G S G L V K K K M P G K A F R I | F T G A P L V P A G A D D T V I M Q E K T N A T Q  
UniRef90\_U5VF86 A G H A P Q P L Q P G T C A R I | F T G A P L V P A G A D D A V V V M Q V E N A T E V D D  
UniRef90\_U2YXM3 A G E E P A V D V S E G G T C V R I | S T G A V M P P D G A D A V V V P V E R T R E E Q G  
UniRef90\_F9NVA8 A G A T C A P A P L V K P G T A V R I | M T G A P V P P D G A D A V V V K V E D T R D Q D P  
UniRef90\_HOPT10 A G S V G H A L K Q P G T A A R I | F T G A P L V P S G A D A V V V M Q E L V C E L J A D K  
UniRef90\_A6SXX7 A G Q H V G Q P L E A G G C A A R I | F T G A M I V P A Q G L D A V V V M Q E L V C V A S T K  
UniRef90\_C4LKF5 A G Q V F T A D I P A G A C L R I | M T G A Q V P P A G L D T V I M Q E H M A Q T P  
UniRef90\_D5DJ45 A G S V F E E E V K P F Q A V R I | M T G A Q V P P H S C D A V V V M L E V T K E G K  
UniRef90\_UPI00036DE7B3 A G S H A F T D S V P A G G C V R I | T T G A V L P S G L D T V V M Q E Q V I E F H K  
UniRef90\_UPI000466AF21 A G S Q G T K L E P N T I A R I | F T G A P M P S G A D T V V M Q E D T E A F G  
UniRef90\_Q67KA9 M G Q V S A V P L H P G E A Q K I | A T G G A L P E E G A D A V V V M V E H T E Q S P  
UniRef90\_D7E870 A G S D D E E V A V E G T C V R I | H T G S S I P P D G A D A V V V M V E D T T P V G  
UniRef90\_F8AW75 A A P G T P A P A V A P L V K P G T A V R I | M T G A P L P P D G A D T V V V M Q I E W T D G R M  
UniRef90\_UPI00037EB26D A G R P F D G Q L Q A G E C I R I | F T G A V V P P A A D S V V M Q E A V A A E D  
UniRef90\_S6C117 A G D V F E E G T L G E G T C V R I | M T G A C L P P A D A D A V V V K Y E L V G V V E  
UniRef90\_H0FDW9 A G D V P E P L K P G H A I R I | F T G S V I P E A G A D A V V V M Q E E D A T E A D  
UniRef90\_UPI000395D1F6 A G H P F R G S L K S G E C I R I | M T G A T V P E G I D T V V M R E K V T V I Q G  
UniRef90\_A4CL82 A G D P R H R L S G A G Q A V R I | A T G A V L P A G A D A V V V R Y E D L L S S A K  
UniRef90\_UPI00028A3885 A G F V F N D V V G Q Q A V R I | M T G A P I P A G A D A V V V M L E L T Q D S K  
UniRef90\_A0A059FH34 A G T L P T H A I G P G E A M R I | F T G A S L P P D G A D H I L I Q E E A E R S G  
UniRef90\_A4G4Y8 A G R A Y D G K V T G S G T C V R I | M T G A V M P P D G C D T V I P Q E F V R D D A  
UniRef90\_A6WEB2 A G R A D A V R L T T G G T A R I | M T G A P V P A G A E A V V V P V E E W T D G R G V  
UniRef90\_W1Z2W3 A G Q T F K N T L T P G Q C V R I | M T G A A L P P P G A E A V V V M Q E N A S V D N  
UniRef90\_A8G1K6 A G H P F E G V P K A N T C I R I | M T G A P V P P D G Y D T V V M Q E K V E A K E  
UniRef90\_I4KMM6 A G D E P G E P L Q A G Q V V R I | F T G A P V P P D G A D T V V P Q E E C R V D G  
UniRef90\_E6VAU9 A G T V G T P L A A G T A A R I | F T G A Q I P E G A D A V V V M Q E D T T A T P  
UniRef90\_A8TUH6 A G G Q F A G T V K A G E A V R I | F T G G P V P P D G A D T V V L Q E D T D E D G  
UniRef90\_A3SWQ2 A G H R F D G V V K A G Q A V R I | F T G A P V P P D G A D F V V I Q E E D T R R G  
UniRef90\_K0B4U4 M G K E A V T E I H P G E A I Y V | P T G G M L P K G A D G V I M I E H V E K M D  
UniRef90\_UPI0002F75759 A G T A P E P L A P G T C A R I | F T G A P V P A G A D A V V V M Q E N A E V I K D  
UniRef90\_UPI0004672AC4 A G L A Q Q K L E N P K S C L E I | M T G A V V P A Y A D T I V M Y E D I E I K D  
UniRef90\_M3UT95 A G S S L D P A L G P G Q A A R I | M T G A P V P T D A D A V V V P L E H T D L G P  
UniRef90\_B3Q6P1 A G R P A T I G I G P G A L R I | F T G G V I P D G S D A V V V V Q E D T A R D G  
UniRef90\_K6X111 A G D T R Q L R L E P G H A Y R I | M T G A P I P A G G D V V I P V E L T A R D G G T  
UniRef90\_Q8KCT1 A G A L N V A P L E T G T C C R I | M T G A P I P E G A D T V V P F E E T S G F S  
UniRef90\_B8I2G5 A G Y T Y S G L L M N G K A I K I | M T G A P I P E G A D A V V V M I E Y T K A E G M  
UniRef90\_R4K8T2 M G K M P V K S L E P G E C M Y | P T G G M L P E G G T D S V I M I E Y I D K A M D  
UniRef90\_W2EH10 A G D G G L H A I G P G L V T R I | M T G A P L P A G A D A V V V P V E W T D G G T  
UniRef90\_E8T6G8 A G K E P V A G L P G E A A F V | M T G G L V P E G A D A V V V R V E D T L Q K G  
UniRef90\_H0I311 A G D F H A G Q A A P N E A I R I | F T G A P V P P E G F D V V V M Q E H C E R S G  
UniRef90\_UPI000414CA9C A G H G F S G R L G A G E T V R I | F T G A P L P D G A D A I L M Q E D A K A E D  
UniRef90\_I9W1W2 A G H V G E P L A P D T A A R I | F T G A M I P A G A D A V V V M Q E C Q T E V D G  
UniRef90\_M8E116 M G M A A D T A L H E G Q A Q A I | P T G G M L P A G A D S V V M I E H V I E V G  
UniRef90\_UPI000361CAD9 A G F V A S R E V D E G G C A V K I | M T G A P L P D G A D V V V P F E D V I E R K G  
UniRef90\_UPI00034C37B6 A G H P F D G K A A R G T C V R I | M T G A P M P T G C D A V V V L Q E L T K V I E G  
UniRef90\_UPI0003F0B1E5 A G D M P S L E V K A P G H I M R I | T T G A P L P P G A D T V V V Q V E D T Q L I K  
UniRef90\_Q6LQX9 A G H S Y D T P L E K G Q A V R I | M T G A P V P E C A D T V V M R E Q A E Q E G  
UniRef90\_UPI0002D6566C A G H G Y D K S I K A G E C V R I | M T G A P V P L A D A V V I M R E Q A Q D V N  
UniRef90\_F7Y9I7 A G R G F D G T I K G R Q A V R I | F T G A P L P D G A D T I V I Q E N V R L G G  
UniRef90\_C3XZE4 A G G L P E C E V T S G H V M R I | T T G A P L P D G A D A V V V Q V E D T E L V K  
UniRef90\_UPI0003B4FB9C A G T Q D D P L I R A G Q C A R I | M T G A P T P S G N A E A I V P I E D T D R G T  
UniRef90\_A8GYS0 A G H P F T G E C I E G G C I R I | M T G A P V P S F Y D T V V M Q E K V T A D G  
UniRef90\_Q6AIW1 A G A P C G R V V Q E G Q A V R I | S T G A M L A Q G V D T V I R V E D T E N G  
UniRef90\_G7Q6W8 I G V S P E K P L P P G H C A R I | V T G A L L P D G A D A V V V M V E Y T D L G A G  
UniRef90\_C7RIG3 A G S V G T R L P P G T A A R I | F T G A P L P P G A D A V V V M Q E L C A H A G  
UniRef90\_W8R8L5 A G T Q P K P L E A G R C A R I | F T G A P M P E G A D S V E M Q E N V I E L D D  
UniRef90\_D3SS70 A G E E P A V L E S G Q A A E I | S T G A V M P P D G A D A M V P V E R T H E S N  
UniRef90\_F6ERB6 A G S R Q P A R L G P R Q A V R I | E T G A P M P T L A D A V I P V G W T D A G R  
UniRef90\_E4NFT7 A G A A D L P R V G P G Q A A R I | M T G A P L P P G A E A V A P V E W T P V A D  
UniRef90\_UPI000248DFCC C G S T P T K A I T G N T A S R I | M T G A M V P E G A N A V V V M L E I A V C F E  
UniRef90\_Q28R70 A G H Y P H T G I G P G E A L R I | F T G A P L P E G T D R V V I Q E D A V T R D G  
UniRef90\_I1EQD4 A G H P F A G T V E P H Q T V R I | T T G A M M P A G T D T V V M Q E H I R V I E N  
UniRef90\_W9TJC5 A G M Q P I E L M P G T C A R I | F T G A P L P D G A D T V E M Q E N V R V D D  
UniRef90\_F4GQC5 A G V K P E A L L P D N T I R I | F T G S L L P E G A D T V V M Q E N D V D S D  
UniRef90\_W4BW37 C G Y T S D H T I V S G T T A R I | M T G A Q V P E G A D A V V V M M E M T E S K V  
UniRef90\_M4XJ8 A G Q A G E P L L P G T C A R I | F T G A P V P E G A D A V V V M Q E N V I E L F A D  
UniRef90\_B3SAE9 A G D M S D V R V K P G C I A R I | S T G A V V P E G A D A V V V M Q E N D T E L V Q  
UniRef90\_UPI0002DA56B7 A A G H F G Q P L L P G Q A A R I | F T G A P V P P G A D A I V M Q E Q T E W V P  
UniRef90\_L7ME56 A G S N P L H R I K P G C V R I | S T G A P V P P D G A D A V V V Q V E D T E L M Q  
UniRef90\_UPI0004782D4E A G T V T T E P L P P G R A V R I | F T G S Q L P P G A D T V V M Q E D T E R L D  
UniRef90\_W7Y927 C G S V S H K S I T S G T A A R I | M T G A A V P D G A D A V V V M L E V V I E V R K  
UniRef90\_S0FSN0 M G Q V P D F E L G P G K A V R I | S T G G M L P K G T D A V V V M V E H T Q T I D  
UniRef90\_V7I293 M G E K P G F A I K S D T A A Y I | P T G G E L P E G A D S V V M V E Y T E D F D  
UniRef90\_UPI0003655F34 C G M V P E R A I G P G Q A S R I | M T G A V V P D G A D A V V V M L E A T E Q P G  
UniRef90\_B8HWY9 A G T M P E Q L V P S G Q A A R I | F T G S R M P S G A D T V V P Q E Q Q T R R G  
UniRef90\_UPI000379B8C4 A G R A F D T H V P G A C V N I | T T G A P L P S G T D T V I M G E Q L T E H A  
UniRef90\_T4VF10 M G E S V S G D I K S G E C M Y V | P T G G M I P N S S D A V I M I E H A E K L D  
UniRef90\_M1ZKX3 M G E T P K S S I K S G E T M Y V | P T G G M I P E G A D G M V M I E Y T K L D E S  
UniRef90\_UPI00047749F9 A G S R Q S R R L G P G Q A V H V | G T G A P L P T L A D A V V V P V E D T E W S S  
UniRef90\_UPI000471FE71 A G R R F G G T V G K G Q A V R I | F T G A P M P E G A D A V V L Q E D A T R L D  
UniRef90\_E6PPE5 A G H E F S G D V P A G S C L R I | M T G A V L P A G C D A V V V P Q E H C R V G G  
UniRef90\_C8X7R7 A G A R T P H R L G P N Q T V Y V | A T G A A L P T L A D A V V V P R S H T Q V G G  
UniRef90\_V6JY88 A G G D S L P R V G P G Q A A R I | M T G A P L P P G A E A V V V P V E W T D G G T  
UniRef90\_S9QVW6 A G K G F A G R L A E G Q T V R I | L T G A P L P E G A D A V V V Q E E A V I R D G  
UniRef90\_UPI0002FF987F A G E V F T Q H V K G Q Y A V R I | M T G A P L P Q E L D T V I E Q E A V T R H N  
UniRef90\_D6V9L6 A G R P F D Q S V G K G Q A V R I | F T G G V V P D G A D T I V I Q E A D V Q R D R  
UniRef90\_A8LMJ9 A G H G W T G R L G P G Q A V R I | F T G A P V P P G A D R V V I Q E D V T V Y E  
UniRef90\_D0IBP0 A G H G F S K A L E P G C V R I | M T G A A L P P N A D T V V V M R E Q A C V D G  
UniRef90\_V6M9H5 A G Q V P R I P V D P G C A T R I | M T G A M M P A G A D A V I M F E Q T E V H S  
UniRef90\_A0A011V424 A G D A G N G P V P A G S V L R I | F T G A P I P P G C E A V V M Q E M T Q P E G  
UniRef90\_UPI000472629C A G V A P Q P L A S Q T A C R I | F T G A E I P E G A D T V V M Q E S C Q F A D  
UniRef90\_X5MAB7 A G A G L D T P I L G E M Q A V R I | S T G A R I P E G L D Q V V I Q E N V I E I S G

	130	140	150	160
UniRef90_UPI000419CDC2	D A L T L Q E H L R S G A N V R P K G Q S E E I K A G G E I A M K K S H L L T P A S L			
UniRef90_U5VF86	G R V R F L E P M K L E Q N V V R P Q G Q S E E I K A G G E I A M K K S H L L T P A S L			
UniRef90_U2YXM3	D A I A F E A A V A P G Q N I R M A S A G A D D V I R A Q G G E R A L G A G G T E I L T P P R E I			
UniRef90_F9NVA8	G P V K I V H A R V A S G Q N I R M A S A G A D D I V I A S A G A G E R A L G A G G T E I L T P P R E I			
UniRef90_HOPT10	D R V T T I N H V P R I G E A L R R R A G A G E S E I R A A G A G D V V L P A G G T R I L T R A Q E I L			
UniRef90_A6SXX7	G A V T V F H K H V P A S G E W I R R Y L G E E E I R A R T G D V V L T A G A G S R R L H A R A R A L			
UniRef90_C4LKF5	E G V L F T Q P P K A K A N I R Y L G E E E I R A R T G D V V L T A G A G S R R L H A R A R A L			
UniRef90_D5DJ45	T Y M A L S R P A S K W E H I A L K G E E E T K K G D V V L V S K G T R I N P G V T			
UniRef90_UPI00036DE7B3	Q T L L C Q F K S V A E H V R R A G G E D I S E G Q Q V F A A G H K V L N P Q A D L			
UniRef90_UPI000466AF21	E N Q I L T K S A K L G D N V R R V V G E D I S E G Q Q V F A A G H K V L N P Q A D L			
UniRef90_Q67KA9	D E I A V L R P V S P G E N V M Q R G E D C R A G G E P L L P A G G R M L R A Q E A			
UniRef90_D7E870	D M V E I L T H V H P N K H I G I I G E D I E K N D D T V L F E T D G H M L R A Q C Q I			
UniRef90_F8AW75	D Q N I V A R A P V P V P G Q N I R R A G A G E D V A V G G D V L V P A G R L L G A A Q I			
UniRef90_UPI00037EB26D	Q N I L F P A D T A A R Q N I R E A G A G E D V E V G G D L L V T E A G K K L T T A M D I			
UniRef90_S6C117	G D V S F S A R T K V P G Q N I R A A A G E E A H A G G D L V V V E A G D V L L T A A A G V			
UniRef90_HOFDW9	N L V Q I L S R E P K P G Q H I R R R R G E E D T R A G S P L L P A G T L L H A A H V V			
UniRef90_UPI000395D1F6	K R I Q V H S T P Q A G Q N I R L K G E D K E G G Q V V L K K N K K I N A A D I			
UniRef90_A4CL82	G A F T I Q S D P S E G Q N I H P A G E D A D A Q G A V L L E P G T S Y I N G P S G V A			
UniRef90_UPI00028A3885	T F M S I K R S F A S G T N I S Y R A G E D M K A G A V L L E P G T S Y I N G P S G V A			
UniRef90_A0A059FH34	H I R V T V P Q S A H Q H I R K A G R D F S A G D V L V P A G I C L T P A D L			
UniRef90_A4G4Y8	G M T I P A G A V K L G D N R R L Q G G E D L K A G T P A L L E A G K K L S P A D L			
UniRef90_A6WEB2	S H V L I R R V P S P G Q N I R R A G E D V D A G T L V L E Q A G T R L A P R H I			
UniRef90_W1Z2W3	D K I T F T G H I E L N N N V R F A G E E D I A K N S V V F K A G R K L K A V D V			
UniRef90_A8G1K6	N S I F I E A P S K A K G A N V R Y R G E E E L R K P G G K V L V S A G T Q I R A G A E M			
UniRef90_I4KMM6	E R V W L P S V N G G D H V R K E G E E L R R G D L L E A G T R L L A Q A E L			
UniRef90_E6VAU9	G S V R I A I V P A A G Q W V R R A G E D V A R S G D V V L K K G E R L T P A Q E L			
UniRef90_A8TUH6	A D V V V R E G A P A G T F I R P A G G D F K H T G D V G V P A G R R L S A R P A D I			
UniRef90_A3SWQ2	D L I M L G H D I P K T N I R P A G G D F H T G D T M D A P R L R S P A D I			
UniRef90_K0B4U4	E N I L I Y K P I S F G E N V I F K D D D K I G Q V A L E K G K K I T P Q D L			
UniRef90_UPI0002F75759	G R V V F S H E P L H A G Q N I R P Q G Q S E T T V G E V V L P A G T R L G P E Q			
UniRef90_UPI0004672AC4	G Y A T V H T E P V K G Q N I H L Q G S D K K K E V G T V L L E K G L R I S P A E I			
UniRef90_M3UT95	D R I T V T T A P R P G A H I R R A G E D A E A G G S V T V A A G T V L S P W Q L			
UniRef90_B3Q6P1	D R V T V N E A D A R P G R H I R R A G E D F K A G G D I V L R A Q G H R L G A R D R Q L			
UniRef90_K6X111	E Y V T L H A A D A P G R H I R R A G E D V H A G G D I V L R A Q T V L S A R Q L			
UniRef90_Q8KCT1	D A V E F Y K A P K K G A N I R H A G E E M Q P A G A L L A A A G T R I T P A E I			
UniRef90_B8I2G5	A L I K V L R G S V L K D K E N I R Y K G E D L A H G K L L K K G K L S P A D I			
UniRef90_R4K8T2	D T V L A N K S I S F G E N V L N E D E D V E L G E T V L K Q G T L L G P P A Q L			
UniRef90_W2EH10	I R V R I D R P A E P G N A I R R A G E D V A A G E D T V L P E G T L L G P A Q L			
UniRef90_E8T6G8	S S V V I E K A V K P G Q N I R N Y A G S E A K K G E K I L S E A G D Q L T P Q R V L			
UniRef90_H0I311	D E I T V A K R P Q G E N I R H A G E D V T A G S R L M S A G D Q L S P R K L			
UniRef90_UPI000414CA9C	G V I E P L R N V G A G R F I R A K A G L D F T A G S E T L L R R G T R L G P S E M			
UniRef90_I9W1W2	D D V V N H Q P A A G E W I R Y A G E D V E R N G E V I L P A G A T R L G A Q Q L			
UniRef90_M8E116	E M L N V F R Q V A P G E N I V R A G G D D V E R N G E L V M A C G H R L R A Q D L			
UniRef90_UPI000361CAD9	G V L C I T A P M A S G S N V I Y A G E D F A A G G E L A A K K G A L L T P P L V			
UniRef90_UPI00034C37B6	E T V S F A A S V R P G A N R R R A G E D L E A G Q P A L R A G R W M R A A S E I L			
UniRef90_UPI0003F0B1E5	D T V R I L K T P K T Q Q D I R P T G V D L E A A G Q T L L C R A F I L K L G P S E I L			
UniRef90_Q6LQX9	D A V T F M S P I Y A G Q N V R Q A G E D L A L G Q T A V A A G T K I E A P E L L			
UniRef90_UPI0002D6566C	G D I T F D T R I L P G Q N V R R Q A G E D L R K G S V L E D K G T R I G A A A L			
UniRef90_F7Y9I7	G D I E V I E P T A E G R N I R R T A G L D F A T G D V L L Q R G R V L D P P A A L			
UniRef90_C3XZE4	E Q V R I L T S V K K G Q D V R L T G S D I K K G E R V L E K G I R M G P S D V			
UniRef90_UPI0003B4FB9C	D R V V I H V A P A P A A V I R R A G S E D T R A G D P V L T A G I L L T A R A H L			
UniRef90_A8GYS0	E Q I T I E A P K E L G A N V R L R G E E L T S G T K V L T A G T L R I T A R A E M			
UniRef90_Q6AIW1	S R V I K K C K C Q G Q D V R Y A G E E F K Q G G S L L C R G Q E L K S R Q I			
UniRef90_G7Q6W8	G A I E I R R P L A P G E N M L A G S D A A K G S R L L A A G T K L R P Q E L			
UniRef90_C7RIG3	N E V V I N H L P Q V G E H I R R A G S D I A A G S E I L P A G Q R L R P Q D T			
UniRef90_W8R8L5	G R V R F I E P I R A G Q H V R P Q G G E A R A G D E V L A A G V L R G P I E L			
UniRef90_D3SS70	E T V L V R T S V A G D N V M F A G A D D V A R A G E R A L G P G T R I T P P R D I			
UniRef90_F6ERB6	A K V K I Y R P V R Q G D Y V R H A G A D D V A L G D V A V A E G A V I T P P A Q V			
UniRef90_E4NFT7	E E V R V L R P V A E G A H I R R R G S D V T A G D T V L E A G T V L G P T Q L			
UniRef90_UPI000248DFCC	Q F I S I K K E Q K G Q N I T L P G F E L A K G E L V L E K G R K I S A G E I			
UniRef90_Q28R70	D R I T L G R D L G S G H N V R P S G A D F L A A G D A M L A P R R L S P A D V			
UniRef90_I1EQD4	E G V V I P P G N R K G Q H V R R R G G E D I K A G A V V I E A C G R L M P A Q M			
UniRef90_W9TJC5	G R V S F L E P V R F G Q N V R P Q G G E A R R A G P V L E A A G M R L G P V I E L			
UniRef90_F4GQC5	N T L L I H R V P K Q G A H I R Y R G E D I R T G E Q L F A K G T R L G A A Q L			
UniRef90_W4BW37	E W I A L K R H I L S G A N I T P I G L E V Q E G G Q Q L L E A G T I I R A G E Q			
UniRef90_M4XJ8	S V R F L E A L R A G Q H V R P Q G Q E T R K A G C V L P A G A R L L G P I E I			
UniRef90_B3SAE9	S S V K L L S E P K V G Q D I R P V G G F D I R A G E K V L S A N D Y I G S A E L			
UniRef90_UPI0002DA56B7	D R V R F L T Q A E A G Q W V R R S G S D V R M G D T V L K R G Q K L G P A E L			
UniRef90_L7ME56	A K V N I I A A P A V L G Q D I R P V G S D I R R G Q R I L T Q R M K L G P A S D L			
UniRef90_UPI0004782D4E	E C V R I L E P Y S L G K F I R S A G Q F C R V G D V L V R K G Q R L A D A G E I			
UniRef90_W7Y927	D L V G L K R P I E D G K N V T P I G L E L Q S E G D S I L R K G S R I D A G E I			
UniRef90_S0FSN0	D S V E I N K A P L Q H V I D A N E D F S S G S V V L E A G T F I R P Q E A			
UniRef90_V7I293	G D I F I N K P C A P G N G L V Y R G D D V R Q G S V V L E A G Q K I R S Q D I			
UniRef90_UPI0003655F34	S K V S V K K R A V L G E N I T S V G E E V G G G E T L L H A G E A I G P G E A			
UniRef90_B8HWY9	E E V L I F T T G A L G D N V R Y Q G S Y Y R A G S A L L R A G T L I Q A A E L			
UniRef90_UPI000379B8C4	Q H L T I P E R V K R G Q N V R L A G E D I R A G S L A L A K G R L D A P A M			
UniRef90_T4VF10	E F I A I H K P T S T G E N V V L Y K G D D I K K D Q L I V I K K G K L N S Q D I			
UniRef90_M1ZKX3	E N L M V Y K P I S F N E N I V L R K G D D I K K G E M V L K K G R I N P E V I			
UniRef90_UPI00047749F9	D R I T V L R S V P S A A F V R R G G D D V R Q G G D V A V R R G T A I L G P A Q V			
UniRef90_UPI000471FE71	G N I E T G F V V T S E G R H V R P R G Q D F A E G G E V L N A G E I M D A G R L			
UniRef90_E6PPE5	E L I H I P A G V K R G D N A R M R G E D L R A G D P A L L A G A L L R A P A D I			
UniRef90_C8X7R7	A R V S V I K P V S G S Y A R R T G E D V Q P A G G D V A V R S G A F I L G A A Q V			
UniRef90_V6JY88	G E V R V Y R P V E P R A H V R A R G S D V Q A G D L A L E A G T L L G P P Q I			
UniRef90_S9QVW6	D H V R L S P D A V J A G H V R L R G G D F T A G M T F S A P R R L R P V I E L			
UniRef90_UPI0002FF987F	Q H L E V P H V V K T L R N V S T Q G S E I T R G T T V F P G Q Y I G S L E M			
UniRef90_D6V9L6	D F I T L S E A A P V P R H I R K A G I D F R E G D V L L K R G T L L G S D R D L			
UniRef90_A8LMJ9	G R I T L L D S L G S G D N I R P A G G E D F A V G D R M A A P R R L L G P A D V			
UniRef90_D0IBP0	D K V R F D T R A R P G Q N V R Q A G E D L F A K G L P V F V A A G T R M N A S V			
UniRef90_V6M9H5	E V V G I K R A L R P G E N L S R R G E E I A Q G T V V A H A G E R V N A G T I			
UniRef90_A0A011V424	G T I R L D R R P E G Q N I R R S G E D L A A G A E V M P A G R R I G P R A A			
UniRef90_UPI000472629C	D Q I N L V K L P E Q G K N I R R R Q G Q D V N A G S E L L A K G V R L Q P Q I			
UniRef90_X5MAB7	N T L T T D D L A N P G R H I R P A G S D Y E D G Q L L L E A G T L L S P A K V			

UniRef90\_UPI000419CDC2 GFLAAGIIGIEKATVY P  
UniRef90\_U5VF86 GLAATLGLGFATLEVV R K  
UniRef90\_U2YXM3 GLLSASLGLGVADAV P V R  
UniRef90\_F9NVA8 ASLASLGLGVADVA V R R  
UniRef90\_HOPTI0 GLAASVVGIIAQV P V F R R K  
UniRef90\_A6SXX7 GLAASVVGIIAQV P V F R R K  
UniRef90\_C4LFK5 PLLATLGLLSEIKV R R R K  
UniRef90\_D5DJ45 AFLATFGGYADVAV V K Q  
UniRef90\_UPI00036DE7B3 GLLASLGLFASIKV K R R  
UniRef90\_UPI000466AF21 GLIASLGLTSHI K V Y R  
UniRef90\_Q67KA9 ALLAHAGVREVDV V R R K  
UniRef90\_D7E870 AVLASLGINNV T V Y K K K  
UniRef90\_F8AW75 GLLAALNVAA P T V H P R  
UniRef90\_UPI00037EB26D ALLAAAGIV EVDV K R R R  
UniRef90\_S6C117 GFLAGCGVLE P V V R R  
UniRef90\_H0FDW9 ALLASQGLASIV P V F  
UniRef90\_UPI000395D1F6 AIMATFGMRESENV Y Q  
UniRef90\_A4CL82 AVLASVIGVIGK P K V Y  
UniRef90\_UPI00028A3885 ALLATFGYANV P V F K K K  
UniRef90\_A0A059FH34 GLTAAAGNNA T V T V R R R R  
UniRef90\_A4G4Y8 GLLASLGLIGEL P V Q R R  
UniRef90\_A6WEB2 GVLAAALGRA  
UniRef90\_W1Z2W3 GLLASIGINQV S V Y  
UniRef90\_A8G1K6 GVLATLGLASQLR V T R Q  
UniRef90\_I4KMM6 GLLAGTG VIGQVDV Y R R  
UniRef90\_E6VAU9 GLAASVIGFHKL Q V T R R K  
UniRef90\_A8TUH6 GLAASMNVPWI R V H A K  
UniRef90\_A3SWQ2 ALLASMNVA T V P V Y A K  
UniRef90\_K0B4U4 GVLASLGLIFK V K V Y K K K  
UniRef90\_UPI0002F75759 GLAASLGLCAEL Q V V R R  
UniRef90\_UPI0004672AC4 GLLASVIGKASV V Q  
UniRef90\_M3UT95 S S A A S A G H D T V D V H R  
UniRef90\_B3Q6P1 ALAAGMNHAA L P V H P R  
UniRef90\_K6X111 AIAAAVGA GEL S V Y P R R  
UniRef90\_Q8KCT1 GLFA TFGTAVAL V R R Q  
UniRef90\_B8I2G5 GMLAASQNLRTI SV S K  
UniRef90\_R4K8T2 SMLSSLGLITK V P V F R K  
UniRef90\_W2EH10 GTLA  
UniRef90\_E8T6G8 ALIAHVIGIY T V K V F R R  
UniRef90\_H0I311 ALLAGQGLADVE V L R K  
UniRef90\_UPI000414CA9C ALAASMNHADEIKV A R R R  
UniRef90\_I9W1W2 GLAASVIGCATL P V L R R R  
UniRef90\_M8E116 GVLASAI GRTSV R V H P R R  
UniRef90\_UPI000361CAD9 GLLAALGME T V P V Y G K  
UniRef90\_UPI00034C37B6 GLVASLGLTAEV P V R R R R  
UniRef90\_UPI0003F0B1E5 GLLASVGVTTT V D V Y R K  
UniRef90\_Q6LQX9 GMLASLGLIDSVKI  
UniRef90\_UPI0002D6566C GMLASLGLLAKAE C Y R  
UniRef90\_F7Y9I7 SLTASANHP R V S V V K R  
UniRef90\_C3XZE4 GLLAAVIGVIT E V E V Y K  
UniRef90\_UPI0003B4FB9C AAAAASGSDSL T V H  
UniRef90\_A8GYS0 GVLATIGASQLR V K R  
UniRef90\_Q6AIW1 ALLSAVIGFD F V P V Y  
UniRef90\_G7Q6W8 GILAAALGHV R V A V G R R R  
UniRef90\_C7RIG3 ALAASVGLI AQL R V F R R R  
UniRef90\_W8R8L5 GLAASLGLA AQL R V S R R K  
UniRef90\_D3SS70 GLLSALGLIDEV P V R R R K  
UniRef90\_F6ERB6 GLLAAVGRQRV L V R P R  
UniRef90\_E4NFT7 GLLAAALGRGT V R V S P R R  
UniRef90\_UPI000248DFCC ALLAAAFGMGT V NV F K R  
UniRef90\_Q28R70 ALAAMNA P E L T V S R K  
UniRef90\_I1EQD4 GLLASLGLTAEV E V F R  
UniRef90\_W9TJC5 GLVASLGLVTE F K V V R K  
UniRef90\_F4GQC5 AMLASQGYAEI S V Y P  
UniRef90\_W4BW37 SVLATFGI A E I P V F Q R R  
UniRef90\_M4XIJ8 GLAASLGLQAEL K V R R R  
UniRef90\_B3SAE9 GILATVGC T S K V Y K  
UniRef90\_UPI0002DA56B7 GLAASLGLLAHL Q V M S R  
UniRef90\_L7ME56 GLLATIGADT V R V Y R R  
UniRef90\_UPI0004782D4E ALLAAAVRQLN V R V Y R R  
UniRef90\_W7Y927 SVLATFGVHQV K V Y A K  
UniRef90\_S0FSN0 GLAAGLGF T T L P V H R  
UniRef90\_V7I293 GMMAAALGYE E V L V R K K  
UniRef90\_UPI0003655F34 ALLAAAFGH E L V P V Y R K  
UniRef90\_B8HWY9 AVLATVQCTQI P V F R R R  
UniRef90\_UPI000379B8C4 GLLASLGVASIEI AV V K Q  
UniRef90\_T4VF10 GVLAAALGVNEIE V Y R  
UniRef90\_M1ZKX3 GVLAAALGLP K V K V Y K K  
UniRef90\_UPI00047749F9 AMLLAAVGRD K V L V Q P K  
UniRef90\_UPI000471FE71 TVAAAMNRP QV T V Y R K  
UniRef90\_E6PPE5 GLTASLGLQA E V M V R R R  
UniRef90\_C8X7R7 GLLAAVGRDKV L V H P R  
UniRef90\_V6JY88 GLLSAALGRA T V R V H P R  
UniRef90\_S9QVW6 ALLAAAFGH P A L S V A R R  
UniRef90\_UPI0002FF987F GLLAALS GYAT V K V Y R K  
UniRef90\_D6V9L6 SLAASMNHP A L P V H R K  
UniRef90\_A8LMJ9 ALAASMNLP E L C V A R Q  
UniRef90\_D0IBP0 GMMASLGFNEAT C F K  
UniRef90\_V6M9H5 AVLATFGYSQV S V I R K  
UniRef90\_A0A011V424 ALLASTGC G E V L V R R R  
UniRef90\_UPI000472629C GLLASCGVJASL AV Y Q  
UniRef90\_X5MAB7 SLAASAGFGNI P V M R R



UniRef90\_G7G125  
UniRef90\_UPI000429B209  
UniRef90\_V9FK16  
UniRef90\_U1HMS9  
UniRef90\_UPI00039FF1EB  
UniRef90\_A0A024Q2N1  
UniRef90\_R5XCM9  
UniRef90\_R4KJL6  
UniRef90\_UPI0002F6AB65  
UniRef90\_N9TWP1  
UniRef90\_UPI00035C6CD8  
UniRef90\_J6IT43  
UniRef90\_UPI0003732323  
UniRef90\_U1HC03  
UniRef90\_A0P511  
UniRef90\_D3P8L2  
UniRef90\_C0QFJ5  
UniRef90\_B0R2L6  
UniRef90\_UPI00046F1EC9  
UniRef90\_UPI00035D000F  
UniRef90\_J0ZQ18  
UniRef90\_G2H732  
UniRef90\_B0TBJ1  
UniRef90\_B1XZV2  
UniRef90\_UPI0003B72E83  
UniRef90\_F5Z8C7  
UniRef90\_UPI00047B947A  
UniRef90\_I3TFZ1  
UniRef90\_Q1YLE1  
UniRef90\_UPI000407C82B  
UniRef90\_W5YNR4  
UniRef90\_M1SHZ6  
UniRef90\_UPI00046E242E  
UniRef90\_M3BZY4  
UniRef90\_A0A011TFL2  
UniRef90\_UPI0003B616BC  
UniRef90\_B5ZK07  
UniRef90\_W0DSV0  
UniRef90\_A6GQ81  
UniRef90\_UPI000248E9D9  
UniRef90\_S6BXL2  
UniRef90\_A717S6  
UniRef90\_UPI0003609BB0  
UniRef90\_G9QMW9  
UniRef90\_F2KED9  
UniRef90\_G8ALZ9  
UniRef90\_E8LSZ3  
UniRef90\_W4BYZ3  
UniRef90\_C6VPM2  
UniRef90\_UPI0004706694  
UniRef90\_UPI0003617B5D  
UniRef90\_L1LVQ5  
UniRef90\_A0A017TAP0  
UniRef90\_D0YY01  
UniRef90\_S2W1E4  
UniRef90\_B4WKM8  
UniRef90\_A0LYJ3  
UniRef90\_B0T085  
UniRef90\_W9GCH4  
UniRef90\_UPI0004286230  
UniRef90\_F4CP20  
UniRef90\_X6EWJ7  
UniRef90\_H5VWWW8  
UniRef90\_R5C236  
UniRef90\_Q21X62  
UniRef90\_U4JXY3  
UniRef90\_H2BW36  
UniRef90\_F0BBV0  
UniRef90\_UPI00016A6AF8  
UniRef90\_X0TCH2  
UniRef90\_C3MCF0  
UniRef90\_J7IN27  
UniRef90\_K2Q821  
UniRef90\_S2LIY5  
UniRef90\_E1V326  
UniRef90\_UPI00047B5B54  
UniRef90\_K8PUL0  
UniRef90\_K9DW19  
UniRef90\_Q31JB6  
UniRef90\_I4N5J1  
UniRef90\_M8BB75  
UniRef90\_W5XUF2  
UniRef90\_K0YT31  
UniRef90\_HORKW7  
UniRef90\_UPI00015KXV0  
UniRef90\_G8XAY3  
UniRef90\_I2GEI7  
UniRef90\_K9EMD6  
UniRef90\_D7BJX2  
UniRef90\_J3C432  
UniRef90\_B9JFE0  
UniRef90\_A6D133

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

UniRef90\_G7G125 T I N V P A H N S S A M D G Y A L C I S D K S L T Y T Q V G S V I 80  
UniRef90\_UPI000429B209 D H D V P F F D R S P Y D G F A V R A K D T E E A S R N N P I A F E V I G E R I V G  
UniRef90\_V9FK16 L E R P L P P F R A S I M D G Y A V R A A D A S L S A G V G T F P V V I G E R I V A  
UniRef90\_U1HMS9 V R T Q P P P L P M D G Y A V R A A D A S L S A G V G T F P V V I G E R I V A  
UniRef90\_UPI00039FF1EB P M A L P P P F A N S A M D G F A V R H A D V Q Q L H A R R L K E L I G E R I Q F  
UniRef90\_A0A024Q2N1 R L D V P P F A D N S A M D G Y A V R H A D A G Q W L P I S Q R I A Y  
UniRef90\_R5XCM9 E L D N P P P F P R S P V D G Y A V R S E D I R G A V R G N P A V L K V A G E I C I Y  
UniRef90\_R4KJL6 V D A V P G F D R S T M D G F A V R A R D T F G A T E S L P S Y L K D V T G E V L  
UniRef90\_UPI0002F6AB65 P I N V P S Y T A N S A M D G Y A I R G D D L L G R S F Y Q K L V V I G E I V L  
UniRef90\_N9TWP1 P I N V P P H A N S A M D G Y G L C G G A D L A C G Q W Q L V V I G E I V L  
UniRef90\_UPI00035C6CD8 P I N M P P F R Q S A M D G Y A L H L H E D L T Y T L I A G E I Q  
UniRef90\_J6IT43 D I D V S P F A H A S A M D G F A M R R E D V A S A C A E A P V E L D V I G E I P  
UniRef90\_UPI0003732323 R V S H P S A T E S A L D G V A A R R E V D T V N A S A T S P V R L R V V I G E S R  
UniRef90\_U1HC03 P L P L P P F M N S A V D G Y A V S G A D L P T D G E R A S T T F P V A G S R V Q  
UniRef90\_A0P511 F S D V P N Y D N S A M D G Y A I S G A D L P T D G E R A S T T F P V A G S R V Q  
UniRef90\_D3P8L2 K V N L P S F N N S A M D G Y A I K F E A L E N Y P N G D I P A H L K I V I G T I K  
UniRef90\_C0QFJ5 D Q D L P G F K R S T M D G Y A V K A D S T F G A S E S S P A W L T L T Q T A I P  
UniRef90\_B0R2L6 T I D V P G F D R A S M D G Y A V R A A D T F G A S E A D P A R L R V S A G R I H  
UniRef90\_UPI00046F1EC9 L S D S P P F R D A S M D G Y A L R A Q D Q G K R L R L R V S Q R I A  
UniRef90\_UPI00035D000F R I D V P P A A V S A M D G Y A L R A A D A T D G A S C L A L V I G T S A  
UniRef90\_J0ZQ18 K R T Q P P F R S S A M D G Y A F R R A D L N A L S S I H Y P L E K I E G V A S  
UniRef90\_G2H732 P E D L P L T D R A G M D G Y A V R A A D L F G T T E T N P A Y L E C D G R V D  
UniRef90\_B0TBJ1 A E N L P P F S R S T V D G F A V R S A D T F G A S E A A P S L F T V I G E V L  
UniRef90\_B1XZV2 P I D V P A H D N S A M D G Y A L H G A D L P A A G D I P A H L K I V I G T I H  
UniRef90\_UPI0003B72E83 K L N L P A K D N A M D G Y A V R F E D I K D I P A H L K I V I G T I K  
UniRef90\_F5Z8C7 S L S V P P W D N S A M D G F A I N A A D S R E D T L M P I Q G G T I T  
UniRef90\_UPI00047B947A D R D F P P F N R A T K D G I A I N Y A T L E G G R T T L K I E G V A S  
UniRef90\_I3TFZ1 L V D H P G F D R S A V D G Y A V I S A S D T Y S A S V F N P A E L E L V D A P V  
UniRef90\_Q1YLE1 S L P L P P F A N S A V D G Y A I R S A D L P Q E A E R R F S E L V S G R V Q  
UniRef90\_UPI000407C82B E L Q M P A F S Q A A I D G Y A V R A V D I N G D P R R G A V E L P V S G R V P  
UniRef90\_W5YNR4 P A D V P P A D N S A V D G Y A V R A G D L A G G G P L P V S G R T A  
UniRef90\_M1SHZ6 P I D V P A A D N S A M D G F A F H G D C L A D S E A I V T L K I V I G T A Y  
UniRef90\_UPI00046E242E R D P L P P Y P A S I K D G Y A V V A S D G P A D S E A I V T L K I V I G T A Y  
UniRef90\_M3BZY4 P V S L P P F D N S M D G Y A V R V A D I A G A S E E Y P A S L E V V I G D V A  
UniRef90\_A0A011TFL2 A T S L P L F D N S A M D G Y A I R V A D L A G A S G D G P W R L P L A G R V A  
UniRef90\_UPI0003B616BC R T A L P L F D N S A M D G Y A V H A A D L A G A G P D H A G P V T L P V A G D L  
UniRef90\_B5ZK07 R L D N P P A D I S A M D G Y A V Q A A H C R A G T T L P V I G E S P  
UniRef90\_W0DSV0 P V N V P P H D N A M M D G Y A V Y V D E A S N S T S D T Q Q A W S I S Q R I P  
UniRef90\_A6GQ81 S L N V P P Q H D N S G M D G Y A V R R A D I Q P S S C Y N Q V S Q R V P  
UniRef90\_UPI000248E9D9 L I N M P P F R Q S A M D G Y A V N T N E T N T Y N I I G E I K  
UniRef90\_S6BXL2 P I N V P P G H D N S A M D G Y A L D G S Q L P E D A Y V D I E V I V T L P  
UniRef90\_A7I7S6 N A D V P G F D R S I V D G F A I R A E D T S G A T D S A P A L L R S T G R V A  
UniRef90\_UPI0003609BB0 T F D Q P P A D Q S A M D G Y A I R H A D A V P G V A L R I Q Q R C Y  
UniRef90\_G9QMW9 D H D V P P F D R S P Y D G F A V R S E D T A D A T S D S P V F L E V I D E I G  
UniRef90\_F2KED9 T L D L P P W P N S A M D G Y A L R V A D W N G E P L K V S Q R I V  
UniRef90\_G8ALZ9 P F N V P P H D N S A V D G Y A V F F D D L T P D A T L L P V S T A R V A  
UniRef90\_E8LSZ3 P V N V P Q Y T N S A M D G Y A I R G D D L D R Q H Y Q I V A E V L  
UniRef90\_W4BYZ3 P H P F P A F R R S M D G F A V I A A D T L A A G D P D T V W E V V D V I P  
UniRef90\_C6VPM2 P F A Y P A F R R S G V D G F A I R H E D D H D Y P H E F K V V G N I P  
UniRef90\_UPI0004706694 R L S N P P V S I S S M D G Y A L R A E D A Q E G A S L R I I G E A P  
UniRef90\_UPI0003617B5D R S N A P A T D V S A M D G Y G V R D A D L A V L P A A L P V I G E S F  
UniRef90\_L1LVQ5 S I D L P P W P N S A M D G Y A L R I A D W A G E P L P V S Q R I F  
UniRef90\_A0A017TAP0 P I D V P G F D R S N M D G F A V R A E D T F G A S E Q E P R R L R C L A E A V  
UniRef90\_D0YY01 P V N V P P H T N S A M D G F A I R N D D L D R D S Y H P A R P V H F P V I G D Q I V  
UniRef90\_S2W1E4 T V D V P H T D L A A L D G Y A V R A D E T F G A E P A R P V H F P V I G D Q I V  
UniRef90\_B4WKM8 R V D F P H W D N S A M D G Y A V R A D D V R S V P T Q G I I Q E Y K I V G E V A  
UniRef90\_A0LYJ3 P F A M P S F D N S A M D G Y A L R R A D L A T G A A C G I I Q E Y K I V G E V A  
UniRef90\_B0T085 D R D Q P P F D A S A M D G W A I R R A D L A T G A A C G I I Q E Y K I V G E V A  
UniRef90\_W9GCH4 R V D L P G F D N S S M D G Y A V Q S V S L A G A A A R P V T L S L V G E V A  
UniRef90\_UPI0004286230 N Y D T P Q F D N S A M D G Y A L C D P E G D R L E F F R I V G E I L  
UniRef90\_F4CP20 S R P L P P G F D Q A A I D G Y A V R S V D L S G A S E A E P V S L P V V G E I P  
UniRef90\_X6EWJ7 P I D V P P F D R S N V D G F A G R S E D M T S A G E A V S I R L A L N E E V I  
UniRef90\_H5VWW8 E H A L P P G F D Q A A V D G Y A V R S V D V R T A S E A V V Q M P V V G E I P  
UniRef90\_R5C236 E V P L P S F L R S T V D G Y A V I A A D T Q G A S D G V P V F L D I M E E I E  
UniRef90\_Q21X62 D L Q V P P H D N S S M D G Y A I R C F D V A Q A L Q A T A P T L P V S Q R I A  
UniRef90\_U4JXY3 P I N V P A Y T N S A M D G Y A I R S D D I G R T E F Q I V A E V M  
UniRef90\_H2BW36 P F A M P S F D N S A M D G Y A L C G I F R E Y I I K G E I A  
UniRef90\_F0BBV0 P L A L P P F A N S A M D G F A L R H V D L A G A Q T R L Q L V I G E Q F  
UniRef90\_UPI00016A6AF8 P F D I P A Y D N S A M D G Y A F D G G E C A H A S P D G D V T L A I A G A A F  
UniRef90\_X0TCH2 D V D L P P F P R A I V D G Y A L Q G G A S T F G A S E G N P A Y L T L T V T G S V A  
UniRef90\_C3MCF0 R L T H P P F D N S A M D G Y A V R H D D I S N V G A E L T V T I G Q S A  
UniRef90\_J7IN27 T C A Q P P F R K S T M D G M A V R A A D T F G A S E S M P A L L E L I G E I R  
UniRef90\_K2Q821 R L T Q P P F N A S A M D G Y A L R A A D A A E V G S I L L T V I G E S A  
UniRef90\_S2LIY5 T I D V P Q N T N A A M D G I A L A W P Q D A S L L P E R W L R V I G E V L A  
UniRef90\_E1V326 R L D V P P F D N S A M D G Y A V R H T D A G R V L P V S Q R I V  
UniRef90\_UPI00047B5B54 P H P F P F R R S G M D G Y A V R A A D L R D A T P E R P V T L I V V I E V P  
UniRef90\_K8PUL0 A M D V P P F D R S N V D G F A V R S A D L E A A G E A S P V H L R L N D E T I  
UniRef90\_K9DW19 P I N V P P A H D N S A M D G Y A L R G G D L P A E G T V T L K V I G E V A Y  
UniRef90\_Q31JB6 G V N V P P H D N S Q M D G Y A I N L L D L T H E D T F H V S Q R I P  
UniRef90\_I4N5J1 T L D L P P W S N S A M D G Y A L R L A D W N G E P L V V S Q R I Q  
UniRef90\_M8BB75 R L T Q P P F D A S A M D G Y A L R S A D A A E I G S V L T V I G Q A A  
UniRef90\_W5XUF2 N Q P L P P F Q A A V I D G Y A V R A V D V V E E G V E I E R S L P V V G E V P  
UniRef90\_K0YT31 R L S V P P F T N S A M D G F A V R A Q E T A A G V G L P V A A D I P  
UniRef90\_HORKW7 P L S L P P G F D N S A M D G F A V R A A D V A A A T P A Q P V H L R V D A D I P  
UniRef90\_A0A015KXV0 T A D W P P F A R S G L D G Y A V Q A A D I A Q A T P E R P A L L R V D A D I A  
UniRef90\_G8XAY3 P I D M P P F K Q S A M D G F A V N K L D C L D F N I I G E I K  
UniRef90\_I2GEI7 D R D F P P F D R V S M D G I A I R Y E H Y A G G A R Q F R I A G A Q F  
UniRef90\_K9EMD6 Q L D F P H W N S A M D G Y A V R Y D D V K T V P A T L T V I E E I P  
UniRef90\_D7BJX2 K C A I P P F T N S A M D G F A V R A T D V V A N T P L I V I D D V P  
UniRef90\_J3C432 P I S M P P F R Q S A M D G Y A F N F S E R Q Q Y D V I S S S A  
UniRef90\_B9JFE0 R L T Q P P F D A S A M D G Y A L R F E D A A E P G A E L T V I G A S A  
UniRef90\_A6D133 P I N V P A F T N S A M D G Y A I I G A D A G L K Q F N V V A S V M

	90	100	110	120
UniRef90_G7G125	A G Q V F E G T L T P G Q C V R I	M T G A A I A P G A N G V V M Q E N A S V D G		
UniRef90_UPI000429B209	A G S V F E D H L V T G E R Q Q A V R I	M T G A Q I V P D D G A D A V V M L E L A N E G K		
UniRef90_V9FK16	A G D M F S S E R T L V G K H G A V S Y R I	F T T G S G V I P D D G A D A V V I K I Q E D T R P E R D G		
UniRef90_U1HMS9	A G R P F S E A L V L G K G A G E A V R I	F T T G G V I P D D G A D A V V I Q E E A D S L D G D		
UniRef90_UPI00039FF1EB	A G Q R W D G T V L H P G G Q C V R I	F T T G A P L I P D D G A D T V V P K E E A D S L D G D		
UniRef90_A0A024Q2N1	A G H A P E P A L A P G E A Y R I	F T T G G E I P P E G A D T V V M Q E E R D A D S Q G E		
UniRef90_R5XCM9	A G D N G S G A F I L K P G E A Y R I	M T G A P F P E G A D T V V A V M Q E D A D Y G E		
UniRef90_R4KJL6	M G R D A A G V V G V G Q A V R I	P T G G M L P P G A D A V V M L E Y T E E L D		
UniRef90_UPI0002F6AB65	A G H S Y P D K R L D K G E A V R I	M T G A P T P D L A D T V V M R E Q A S L E N G A		
UniRef90_N9TWP1	A G H P S P R R V A P G E A V R I	M T G A L L P A G V D T V V M R E Q A V E E A		
UniRef90_UPI00035C6CD8	A G D A S R L Q L K K G E A V R I	F T G A P V P D A A N A V V M M Q E K V K V D G E		
UniRef90_J6IT43	A G A T Y E S G P I A H G Q C V R I	M T G A A L P P G A D A V V K Y E L V D T V E		
UniRef90_UPI0003732323	A G V P F S G A V G P G E C V R I	Y T G A L P P A G V D A I C P V E Q L T D E G		
UniRef90_U1HC03	A G A P A Q P A R P G Q A V R I	F T G A P M P G G T D T V F M Q E D V R I D D G		
UniRef90_A0P511	A G S L E D F Y L I E T D S Q C A L E I	M T G G K I P R G G A D T V V P L E E L T N D D G G		
UniRef90_D3P8L2	A G D M K E Y N L T D S Q C A L E I	M T G A K L P R G G A D T V V E Y E E L T N D P E P		
UniRef90_C0QFJ5	M G K V P E F T L A P G E A A R I	S T G G M L P S G A D S V V M I E H T T D A V D		
UniRef90_B0R2L6	A G E E P A V E V T A N G R A V V	S T G A V M P P G A D A V V K V E A T T S E A D		
UniRef90_UPI00046F1EC9	A G Q S P A P E L A A N S C A R I	F T G A P L P P A G A D C V V M Q E R V T S E Q E		
UniRef90_UPI00035D000F	A G H P W D G E L Q P G Q C L R I	L T G A V V P A G A E L V I M Q E Q V Q R D G N		
UniRef90_J0ZQ18	A G Q R F K G Q I A G L N E A V R I	F T G A P V P D D A D C V V I Q E N T I Q L E D N		
UniRef90_G2H732	L E H P A T G F A V A P G R C A A I	V T G G V M P P E G A D A V I M V E H T T Q L G V		
UniRef90_B0TBJ1	M G K S T G I E L A P G Q A A A I	P T G G M L P V G A D A V V M L E Y A E R Q T D		
UniRef90_B1XZV2	A G D V P T L Q A G A G E C V R I	M T G A V M P A G L D S V V P Q E L C R E R T H		
UniRef90_UPI0003B72E83	A G D N I E G K V N K G C F R I	M T G A F I P E G A D T V V E F E A T T S E R N G		
UniRef90_F5Z8C7	A G M A E D E P L K P H A I K I	M T G A P V P P G A D A V V M V E N T H T K G N		
UniRef90_UPI00047B947A	A G M P Q Q K L F D K H A C L E V	M T G A V V P L E T D T V I M Y E H L A T K N G		
UniRef90_I3TFZ1		S T G A P L P S G A D A V V M E E D V A K R V G		
UniRef90_Q1YLE1	A G S R S D E D V Q P G E A A R I	F T G A P M P S G A D T V F M Q E D V Q E P D		
UniRef90_UPI000407C82B	A G S A Q P L K L P N Q A V R I	Y T G A P L P T L A D A V I P L D W T E R A G		
UniRef90_W5YNR4	A G E E R L T L K P G T A V R I	F T G S E I P S G A D A V I M Q E R V S V C G		
UniRef90_M1SHZ6	A G K P Y E G P V G P G E C L K I	M T G A L M P H D C D T V I P Q E F T E S A T E		
UniRef90_UPI00046E242E	A G D D G L G L V G T P G T V A Y I	M T G G Q I P D D G A D A V V Q V E D T Q I E		
UniRef90_M3BZY4	A G A A D P P H V G P G Q A A R I	M T G A P L P P G A E T V V P V E W T D G A T		
UniRef90_A0A011TFL2	A G D A G D T P V P V G A A L R I	F T G A A I P P G C D A V V I Q E L T R L E G		
UniRef90_UPI0003B616BC	A G A T D A P R I S P G T V A R I	M T G A P L P P G E P D A V V P V E D T D A G T		
UniRef90_B5ZK07	A G H P F P G V V T P D G C V R I	Y T G S V M P N G A D S V V I Q E N A T E S D		
UniRef90_W0DSV0	A G T D P Q P L A P N T V A R I	F T G A P I P A G A N A V V M Q E A A E V I D		
UniRef90_A6GQ81	A G A S P Q P L N Q P G T V A R I	F T G A P I P N S A N S V I M Q E D V V V N D		
UniRef90_UPI000248E9D9	A G D A A D V Q L N Q P G D A V R I	F T G A A V P N S A N A V I M Q E K T E V V K		
UniRef90_S6BXL2	A G G R F N G T C G P G Q C V H I	M T G A P M P A G T D T V V M Q E H V M A E D		
UniRef90_A7I7S6	M G E P D G G A V A P G N C V I	F T G G V L P C K G A D A V V M V E H T D T E S G		
UniRef90_UPI0003609BB0	A G D E P L P L E P G C A T R I	F T G S V I P K G D A D T I V I Q E H A R E S G		
UniRef90_G9QMW9	A G Q V S P F R V L G K M E A I R I	M T G A A I P E G A D C V V M L E L V H E E K		
UniRef90_F2KED9	A G Q A P E P L A V G T C A R I	F T G A P V P A G A D C V E M Q E N A V V E D		
UniRef90_G8ALZ9	A G H A L D R P G R G E A V R I	F T G A P M P E G F D T V L M Q E D C K A G E		
UniRef90_E8LSZ3	A G H A Y D R P L E K G Q A V R I	M T G A P T P E L A D T V V M R E Q A T E T S		
UniRef90_W4BYZ3	C G A V A S R E I T A G T A A R I	M T G A Q I P P G G A D T V I M M E A T E S R M		
UniRef90_C6VPM2	A G S T F H Q P L G K D E A V R I	M T G A D V P S G A D G V V M L E K T R E L A		
UniRef90_UPI0004706694	A G H P S R L T V E K G T C L R I	F T G S Q I P A G A D M V M I Q E N V R R E G		
UniRef90_UPI0003617B5D	A G S K P Q S S F D G P G C I R I	F T G A P V P A G I D R V V L Q E Y V E R I G A		
UniRef90_L1LVQ5	A G H A P Q P L P G T C A R I	F T G A P V P P G A D C V E M Q E N A E V L I A		
UniRef90_A0A017TAP0	M G D L P R G V V E P G C A M A I	P T G G V V P R G A D A V V M V E H T R L E G		
UniRef90_D0YY01	A G H S Y D L P L E E Q G Q A V R I	M T G A P V P K F A G A V V M R E Q A E V N G E		
UniRef90_S2W1E4	A V T T D R I A H T P G Q A A R I	A S G A R M P T G A D A V V P L I D T D H G E		
UniRef90_B4WKM8	A G R S P Q K R I D T G Q A A R I	L T G A M L P E G A D T I I M Q E E T E R V G		
UniRef90_A0LYJ3	A G N I S E I D L K E G E A V R I	F T G A K V P E N T T A V M M Q E K A K V N G G		
UniRef90_B0T085	A G R A H A H P V G Q A V R I	F T G A P V P A G A D A V V I Q E N A T R D G		
UniRef90_W9GCH4	A G D A P T V S V G K G E A V R I	M T G A P M P E G A D A V I A V E D T D A A T		
UniRef90_UPI0004286230	A G D A Q S S L E P G E A A R I	F T G A K V P G N S T T V V M Q E K T D K V E G		
UniRef90_F4CP20	A G S R Q S L R L Q P G Q A V R I	V T S G A P L P T L A D A V L P A D H T D A G T		
UniRef90_X6EWJ7	A G I A P K Q T V L P G T A T Q I	S T G G P M P R G A D C V V M V E Y T Q P A G		
UniRef90_H5VWWW8	A G S R Q P R R L Q S P G T A V R I	A T G G M I P T L A D A V V P T A F T D G H E		
UniRef90_R5C236	L G K P A K K R V V S G Q A C S Y V	P T G G M I P E G A D A V V M V E Y C E L F H Q		
UniRef90_Q21X62	A G S S G V P L A P M T V A R I	F T G A P I P F G A D A V V M Q E D C E V L P		
UniRef90_U4JXY3	A G N A F K S D L E A G Q A V R I	M T G A P T P S N A D T V V M R E Q A I E N S		
UniRef90_H2BW36	A G D T R I L E L K E G E A A R I	F T G A K I P E N T T A V M M Q E K T T V I G		
UniRef90_F0BBV0	A G E H W G G T L A H H Q C L R I	T T G A P L P A G A D T V V P K E D T E R D		
UniRef90_UPI00016A6AF8	A G H P F D G A V P A R G C I R I	M T G A P L P A G C D S V I P Q E R V T A L D		
UniRef90_X0TCH2	M G E S P E V T I V P G E A V R I	A T G G M L P Q G A N S V V M V E H T E I D E		
UniRef90_C3MCF0	A G R R F G G Q V G P G E A V R I	F T G A P L A A G A D T V V L Q E D T E R E G		
UniRef90_J7IN27	M G E A P T K S L L G K G E G I L P	F T G G M L P E G A D S V I M V E R L E H F G		
UniRef90_K2Q821	A G H G F G G T V G P G E A V R I	F T G A P V P D G A D S I L L Q E D A E T L G		
UniRef90_S2LIY5	G S R Y S G G E V A P G C A V A I	T T G A P L P A G T D T V I M R E Q L Q E M W		
UniRef90_E1V326	A G A S A E P L A P G S C A R I	F T G G A M P Q G A D C V V R Q E N A E V T A		
UniRef90_UPI00047B5B54	C G V E P A R M I L A G E Q Q A A R I	M T G G M V P D G A D A V V M L E A T D G E H		
UniRef90_K8PUL0	A G T A P E L P V V I Q G S A T P I	A T G G P I P R G A D A V V M L E H T Q P R N		
UniRef90_K9DW19	A G K P L D I L P G P G E C V R I	M T G G V M P A G C D S V L P Q E F A E T T I		
UniRef90_Q31JB6	A G S E P A S L E L G T V A R I	F T G A P I P A E A N A V I M Q E E A T E V G		
UniRef90_I4N5J1	A G Q A P A P L L A G T C A R I	F T G A P V P A G A D C V E M Q E N V I E L A D		
UniRef90_M8BB75	A G H A F T G T V G E G Q A V R I	F T G A P V P Q G A D T I L L Q E D A E V R G		
UniRef90_W5XUF2	A G S R Q P L R L Q P R Q A V R I	F T G A P L P T L A D A V I P L E W T D R D G		
UniRef90_K0YT31	A G R T D A L T L E K G T A M R I	M T G A P L P Q G A D A V I Q V E L T T P A A P		
UniRef90_HORKW7	A G R V S T P P L A P G T A H R I	M T G A P M P A G A D A V V P V E L T T A G E F		
UniRef90_A0A015KXV0	A G Q V S T A I V E P G T A V R I	M T G A A V P E G A D A V V M L E Q T P A V T		
UniRef90_G8XAY3	A G D A I Q L L L K E S Q A I K I	F T G A A V P N D A I A V I P I E K C K I E K		
UniRef90_I2GEI7	A G Q P Q K T L T D E T I C L E A	M T G G M L P A G A D T V R Y E D V T I A D		
UniRef90_K9EMD6	A G Q V P K C E L R T G E A A R I	F T G G M V P T G A D T V I I Q E N T Q R G G		
UniRef90_D7BJX2	A G G L S E K T V E P G T A I R I	M T G A P L P A G A D S V L K V E D T E N G M		
UniRef90_J3C432	A G D H S N I K L K D N E A I R I	F T G A Y V P D D A D T V V M Q E H V M A N E		
UniRef90_B9JFE0	A G H A F E G A V K G G E T V R I	F T G A P V P A G A D T V L L Q E D A E R P D		
UniRef90_A6D133	A G Y G Y D Q E L R S G E S V Q I	M T G A P M P A G A D T V I M R E Q A N V D G		

UniRef90\_G7G125 D K L T F T A Q S P E L N E N V I R F A G E D T K N G D V I L L K A G D K L K A V D V  
UniRef90\_UPI000429B209 P Y F E L K R T S S K L N G E N I S F T G E D T K N G D V I L L K A G D K L K A V D V  
UniRef90\_V9FK16 T A V N I L K T A A T K A T G R A R R A P G G D D F S P G G D V L L V D A H E S R L V S S D R A E I L V  
UniRef90\_U1HMS9 D H I A I R T T A A T S R G G A A V R R A A G G D D V F R A G G E T L V L I Q A G G Q V L T E F F A A A Q  
UniRef90\_UPI00039FF1EB T H V R I R T T D P S R G G A A V R R A A G G D D V F R A G G E T L V L I Q A G G Q V L T E F F A A A Q  
UniRef90\_A0A024Q2N1 A Q A H I P K S Q K P W D N Y C R R Q Q G G D D Y K A N S L L L A E A G G S R I L T E F F A A A Q  
UniRef90\_R5XCM9 E T V K V N K S Q K P W D N Y C R R Q Q G G D D Y K A N S L L L A E A G G S R I L T E F F A A A Q  
UniRef90\_R4KJL6 D M T I V T R S P V A S P G D Y I V R T G E D D I A P G G A G V L P R G T H I L R R P Q D L  
UniRef90\_UPI0002F6AB65 D T V T F D A S P S K Q Q N V R Q A G G E D L L A Q G G E V V F P H T T R L R Q S P E M  
UniRef90\_N9TWP1 G V V R F G A P I T R G Q N V R Q A G G E D L L A Q G G E V V F P H T T R L R Q S P E M  
UniRef90\_UPI00035C6CD8 N T I S I T H K I N Q E L N I R R P L G E E Q V K A G G D L A I K Q G T K L T S P A A I  
UniRef90\_J6IT43 G R V R F T H A P A K L R D N I R R E A G G E E A R A G E T T V I L E A G G T V L T T P A A G V  
UniRef90\_UPI0003732323 P D H V L L J A R P A S P A S P A D V R H E G G D F R A G E T T V I L E A G G T V L T T P A A G V  
UniRef90\_U1HC03 G N V I L P P G L K P G A N V R R P A G E D D I A S R G A V A L A S G R F L R P P Q D I  
UniRef90\_A0P511 S S L H I K T L P K L D A N I R R K M G E D I S K A G E L I L K S G K F L R P P A E W L  
UniRef90\_D3P8L2 D I C K I V G N V K P K P G A N I R R K M G E D I S K A G E L I L K S G K F L R P P A E W L  
UniRef90\_C0QFJ5 E T I E V Y K S V A P M T N V I D R N E D F K K N E T L L G V G T R V R P Q E A  
UniRef90\_B0R2L6 G G V D V R T S V A P S G T A V M L A G A G D I A A G G E R A I G P G T K L T T A R E A I  
UniRef90\_UPI00046F1EC9 G G V I E A P A S L T T G H N V R R Q R A G R E V H A A G G E T L I P S G S Q R I G A S A E I  
UniRef90\_UPI00035D000F E S I A L Q G G L T T G H N V R R G P G G S D T A A G S P L Y A S G S Q R I G A S A E I  
UniRef90\_J0ZQ18 D Q I V L T K P P Q W N A N I R R P E G G D D F K A G G C L L K A G A R V I R P P S A L  
UniRef90\_G2H732 G T I E M R R A V A P G N E N V R M R R G G E D A V A G T P A L A A G A R V I R P P S A L  
UniRef90\_B0TBJ1 P H L L I A K M I A P P R E N V I V S G E D D I A F G S I L L H R G G Q T I T P A H I  
UniRef90\_B1XZV2 A V I E I D A G V R G E N R R F R K G E D L L A Q G G R P A V Q A G R V L R N A D R I L  
UniRef90\_UPI0003B72E83 S M V K I L K V K K Y A N V R R F R K G E D L L A Q G G R P A V Q A G R V L R N A D R I L  
UniRef90\_F5Z8C7 N S V T I N K L P S S G E N I R K K E A D D K G Q S L V N Q G I R L Q P Q H L  
UniRef90\_UPI00047B947A G K W T I E K V Q K G Q N I H Y R R A G D E A R G A A L A K G K R L A S A D I R L  
UniRef90\_I3TFZ1 G K I L V Y K E V A Q G S N V S R R A E D F A R G E V L L V R A G T V L D F R K I  
UniRef90\_Q1YLE1 G A V M L P A G L K P G A N M R P A G E D D V A T G A I V L R S G R R L L P Q D I  
UniRef90\_UPI000407C82B S R I T V S R S V S G D F L R R P G G D D L A Q G G E L V A V A G T R I S P P A Q E M  
UniRef90\_W5YNR4 D G I T V N G P V S S E G Q N I R R R R G G D D L A Q G G E L V A V A G T R I S P P A Q E M  
UniRef90\_M1SHZ6 E L A V S F K Q V K R G E N R R L L G E D L Q S G K A A V S A S G R L L R P S D L  
UniRef90\_UPI00046E242E G K V R I L A Q T S K G V D I R R A V G G C D I E R A K G D D I V L T S A G G Q R I G A S E I  
UniRef90\_M3BZY4 G L V S V H R P A P A R A H I V R A Q G G D D V L E A G T V L G P P Q I  
UniRef90\_A0A011TFL2 D T V E I R R R P E P D E N I R R A A G G E D L T Y G S E L L P A G T R I G P P R A A  
UniRef90\_UPI0003B616BC T R Q V R I T A E A P A Q A G H I R R R A G G E D V A A D A I L V V A P A G T V L H A P Q V L  
UniRef90\_B5ZK07 G R M T A S A D A P A G A R H I R R R R G G Q D F A L G Q I V V A P G R L L J A R E V L  
UniRef90\_W0DSV0 T Q V R F T Q A V Q P G Q F I R R Q T G E D D I A Q G G D V I L T A G T R L L T P Q A L V  
UniRef90\_A6GQ81 E S V T F N A T P R L G Q Q W I R R T G E D D I A T K G A V L A K G T R L D A T H I  
UniRef90\_UPI000248E9D9 G A L Q V Q E P P V D E Q Q N I R R P L G E Q I A T K G A L A L A E R S K L T T P S K L  
UniRef90\_S6BXL2 G R I R I G S G H R R G Q N V R S A G E D D L A A G S A V L H A G K R L T T P A D L  
UniRef90\_A7I7S6 E T V L V K R P V A H G E N I L M H D E Y R T G E V I L P A G R R L T T P Q D A  
UniRef90\_UPI0003609BB0 E C V R F E A L V R P G T H I R R K G E E L R T G E K L V N A G T R L Q A A H I  
UniRef90\_G9QMW9 K F I A I K R P F Q K H D N I S F K G G E D A K K G G Q P L I E E G I Q I N P G V K  
UniRef90\_F2KED9 D Q V R F T E S M V G G Q N I R R P Q G G E T T V G E Q V L S A G T R L G P I E L  
UniRef90\_G8ALZ9 G T V V I P P G I R R G Q N I R R A A G G E D M A V G G S T V L T A G R R L R A E D I  
UniRef90\_E8LSZ3 D G V T F S A T I K Q G Q N V R Q A G E D L P M G S D V F S Q G G Q R L S S A E M  
UniRef90\_W4BYZ3 E Y V G I R K P Q E R G L H I T E P C G L E L R T A G D D V L P E K T L I N G A G E I  
UniRef90\_C6VPM2 D N R I N I V V P E K H S N I T E I G E E Y Q T A D V L I E K D T E L N P G G G L  
UniRef90\_UPI0004706694 D N A T L L S A G R K G Q F I R T E G Q D F R K G D I L V P A G T H R I G P R D I  
UniRef90\_UPI0003617B5D D V A H F N T E S G P G R N I R E A G G E D F K A G G C L V A K G T C L G P W R A I  
UniRef90\_L1LVQ5 D Q V R F T E E L S L G Q N I R P Q G Q E T R A G E L V L A T G T R L G P I E L  
UniRef90\_A0A017TAP0 G D V L V E K P V A P G R A I T W A G T D I A Q G G E V V L R A F E V L T S R E T  
UniRef90\_D0YY01 E N V S F N R N M K A G Q N V R M A G G E D L L A G Q V A I A K E G T R I T A P E I  
UniRef90\_S2W1E4 A Q V D I T A R V A P G E N V R A G G E D L L R A G T T I L A E G T R I G A R H I  
UniRef90\_B4WKM8 D R V T I L J A A A Q L G K F V R R K G G S F T Q A G A Q I L K K G T V V A P P E V  
UniRef90\_A0LYJ3 D K L L E E Q P K E G Q S I R R R K G G Q L E S G Q L V E E K G Y A I T P A G I L  
UniRef90\_B0T085 D T V S F I D R D P P P S R N I R P A G G G D F R S E G D P L L A E G A R L D A W R L  
UniRef90\_W9GCH4 G S V E C R A E A P V G R F V R R R G E D V A A G S V V V A E A G D V V G P R T V  
UniRef90\_UPI0004286230 S T I M L M E S I A S G Q N I R Y K A E E I K K G A V V L F H K G H L I D D T P A A I  
UniRef90\_F4CP20 A R I S V H R G V P S G A V F V R R G E D V P K G G D V A V G R D Q V L G T A Q V  
UniRef90\_X6EWJ7 D R V E I R R A A S P G Q F V S H A G S D I S R D E L L R A G T M L G S R E I  
UniRef90\_H5VWWW8 A N V T V Q R S V P S H G Y V R R T G E D V Q G G D V A V R R G T R I G A A Q V I  
UniRef90\_R5C236 Y C T A V Y H A L A S G R N V V Q I G E D V E K G E T I L P R R G T L A A A Q I  
UniRef90\_Q21X62 G V V R I K S V P A P G Q W I R R A G E D D V T R G A V V L S K G E L L T P A A L  
UniRef90\_U4JXY3 D I V T F N A S I K A G Q N V R R Q A G G E D L A E N Q V V F Q Q G K R I E S A E M  
UniRef90\_H2BW36 D K L L L E Q E P R E A G Q N I R R K G G E F T K K Q T V F E N G Y S I T P A G I  
UniRef90\_F0BBV0 G V V T I Q A A P S A G A S V R L A G S D V R A G D L V I Q T G Q V L T P A R I  
UniRef90\_UPI00016A6AF8 G A I R E A R D I S R G A N C R K A G E D L L A R G A C A L A A Q R L R P A D L  
UniRef90\_X0TCH2 A T I E V Y R S I A P G Q N M I A I G E D I L K K K S R V L K K G H P I R P Q D A  
UniRef90\_C3MCF0 G R I R T L F A P A K G R H I R L A G Q D F E Q G E V T L S A G N V L D A G R L  
UniRef90\_J7IN27 E T L Y V T K A V A P G E N I L E I G E D D F T E G E V L L S R Y T R L R A Q E M  
UniRef90\_K2Q821 N I R T T F A V T V L G Q N V R P R G G D F V E G D V A L S A G T H M D F S H I  
UniRef90\_S2LIY5 I T V E R A E T V R L G Q N V R Q A G E D I C R G T S L A L S R G T R L R P Q H L  
UniRef90\_E1V326 D G I R V P D D I P V H G N V A D H R G S D V V R A G E T L L S A G M R L D A A A L  
UniRef90\_UPI00047B5B54 G F V H I A K P I A S G L N V A D I G C E M R S A G E L L L P A G S I V Q A G A S  
UniRef90\_K8PUL0 D A I E I R R A V S P G Q F V S Y A G S D I A R G S E L L L R A G T L V G S R E T  
UniRef90\_K9DW19 D T V T L R A G A R P G D N R R L A G E D L L K A G S A A L K A G R V I R S E D L  
UniRef90\_Q31JB6 D K I K L T E R T R S G Q N I R H I G E D I E T G H V L F E K A G H R I R S E D L  
UniRef90\_I4N5J1 G R V R F T Q A L G L N Q N I R P Q G Q E T R V I G E Q V L P A G T C L G P I E L  
UniRef90\_M8BB75 G K I R T A F D V T A G R H I R P R G Q D F T E G E A A L T A G R E L G F T D Q  
UniRef90\_W5XUF2 K R V T A H R P V T S G D F V R R V G G D D T Q P E G D V A V S S G T V L G P A Q  
UniRef90\_K0YT31 A T V T F T D A V A K G A N V R R A G E D I A A G Q L L F T A G T R L S A A H L  
UniRef90\_HORKW7 S Q V G I T T A V P T G K H I R P A G S D I V A G S P A L P A G T R I G A A Q I  
UniRef90\_A0A015KXV0 A S V L V K Q P V A S G R N I R P A R G E E F S C A G S G I A R P G E R I R P A G H I  
UniRef90\_G8XAY3 N R L I L S E L P K Y E E N I R P I G E Q I R L G D I A L Q K G I P L T P A A I  
UniRef90\_I2GEI7 Q Q A T I T D D P P G Q N V H H R A T D R R A G D E L I S A G M L L G P S E I  
UniRef90\_K9EMD6 P Q V T V L T A P L J A Q A F I R K Q G S D F Y Q A G A E L L K P G I K I G A T E I  
UniRef90\_D7BJX2 A N V T P T A E V K Q G T N V R H A G E D T Q V I G D I V F T P G T I L T P A H V  
UniRef90\_J3C432 N S I L I A T M P E K F A N V R P K G E Q I E R E G I V E A N I L L T P A A I  
UniRef90\_B9JFE0 G R I R T T Y P L R K G Q H I R P R G G D F A E G E V V L P A G T V M D F S R L  
UniRef90\_A6D133 D R V S F D A G I K S G Q N V R Q A G E D L A N Q S V F D T G T L L Q A P E M



UniRef90\_G7G125  
UniRef90\_UPI000429B209  
UniRef90\_V9FK16  
UniRef90\_U1HMS9  
UniRef90\_UPI00039FF1EB  
UniRef90\_A0A024Q2N1  
UniRef90\_R5XCM9  
UniRef90\_R4KJL6  
UniRef90\_UPI0002F6AB65  
UniRef90\_N9TWP1  
UniRef90\_UPI00035C6CD8  
UniRef90\_J6IT43  
UniRef90\_UPI0003732323  
UniRef90\_U1HC03  
UniRef90\_A0P511  
UniRef90\_D3P8L2  
UniRef90\_C0QFJ5  
UniRef90\_B0R2L6  
UniRef90\_UPI00046F1EC9  
UniRef90\_UPI00035D000F  
UniRef90\_J0ZQ18  
UniRef90\_G2H732  
UniRef90\_B0TBJ1  
UniRef90\_B1XZV2  
UniRef90\_UPI0003B72E83  
UniRef90\_F5Z8C7  
UniRef90\_UPI00047B947A  
UniRef90\_I3TFZ1  
UniRef90\_Q1YLE1  
UniRef90\_UPI000407C82B  
UniRef90\_W5YNR4  
UniRef90\_M1SHZ6  
UniRef90\_UPI00046E242E  
UniRef90\_M3BZY4  
UniRef90\_A0A011TFL2  
UniRef90\_UPI0003B616BC  
UniRef90\_B5ZK07  
UniRef90\_W0DSV0  
UniRef90\_A6GQ81  
UniRef90\_UPI000248E9D9  
UniRef90\_S6BXL2  
UniRef90\_A7I7S6  
UniRef90\_UPI0003609BB0  
UniRef90\_G9QMW9  
UniRef90\_F2KED9  
UniRef90\_G8ALZ9  
UniRef90\_E8LSZ3  
UniRef90\_W4BYZ3  
UniRef90\_C6VPM2  
UniRef90\_UPI0004706694  
UniRef90\_UPI0003617B5D  
UniRef90\_L1LVQ5  
UniRef90\_A0A017TAP0  
UniRef90\_D0YY01  
UniRef90\_S2W1E4  
UniRef90\_B4WKM8  
UniRef90\_A0LYJ3  
UniRef90\_B0T085  
UniRef90\_W9GCH4  
UniRef90\_UPI0004286230  
UniRef90\_F4CP20  
UniRef90\_X6EWJ7  
UniRef90\_H5VWW8  
UniRef90\_R5C236  
UniRef90\_Q21X62  
UniRef90\_U4JXY3  
UniRef90\_H2BW36  
UniRef90\_F0BBV0  
UniRef90\_UPI00016A6AF8  
UniRef90\_X0TCH2  
UniRef90\_C3MCF0  
UniRef90\_J7IN27  
UniRef90\_K2Q821  
UniRef90\_S2LIY5  
UniRef90\_E1V326  
UniRef90\_UPI00047B5B54  
UniRef90\_K8PUL0  
UniRef90\_K9DW19  
UniRef90\_Q31JB6  
UniRef90\_I4N5J1  
UniRef90\_M8BB75  
UniRef90\_W5XUF2  
UniRef90\_K0YT31  
UniRef90\_HORKW7  
UniRef90\_A0A015KXV0  
UniRef90\_G8XAY3  
UniRef90\_I2GEI7  
UniRef90\_K9EMD6  
UniRef90\_D7BJX2  
UniRef90\_J3C432  
UniRef90\_B9JFE0  
UniRef90\_A6D133

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

UniRef90\_A0LMU7  
UniRef90\_UPI00041FBD78  
UniRef90\_D2S904  
UniRef90\_UPI00036A0AF3  
UniRef90\_B9HQF7  
UniRef90\_UPI00035FF216  
UniRef90\_B2JFH6  
UniRef90\_I3I5C5  
UniRef90\_W4L716  
UniRef90\_U7VGG8  
UniRef90\_M2W751  
UniRef90\_B2S5Z3  
UniRef90\_H0TYN4  
UniRef90\_UPI0002897211  
UniRef90\_G7D9R8  
UniRef90\_U5T3Z7  
UniRef90\_D5QFX8  
UniRef90\_V4ZJL0  
UniRef90\_S6GLY9  
UniRef90\_UPI00036902B1  
UniRef90\_C6W6E4  
UniRef90\_T3HWY4  
UniRef90\_D5SUC2  
UniRef90\_L0SRJ7  
UniRef90\_A4CWZ2  
UniRef90\_UPI0002488A51  
UniRef90\_UPI0004791AAA  
UniRef90\_K8PMQ9  
UniRef90\_Q316W5  
UniRef90\_G9E8M9  
UniRef90\_Q0FPZ1  
UniRef90\_A8TQU8  
UniRef90\_Q7VK47  
UniRef90\_Q1NWW6  
UniRef90\_UPI0002B49136  
UniRef90\_E7QQV6  
UniRef90\_N8VHH5  
UniRef90\_UPI000418F012  
UniRef90\_K2BJK4  
UniRef90\_J2KDH6  
UniRef90\_L0NGR3  
UniRef90\_UPI0003A60DC8  
UniRef90\_UPI00034A68BD  
UniRef90\_K0I888  
UniRef90\_C7N227  
UniRef90\_A3DPW8  
UniRef90\_UPI000378A263  
UniRef90\_UPI000407EE6C  
UniRef90\_UPI000464FD30  
UniRef90\_H0SHQ2  
UniRef90\_X5L9E9  
UniRef90\_K4RLA1  
UniRef90\_UPI000479B647  
UniRef90\_W0RK37  
UniRef90\_UPI00035F0EF1  
UniRef90\_UPI0004153B06  
UniRef90\_X5E2D9  
UniRef90\_C3X9J2  
UniRef90\_S2VZW5  
UniRef90\_X1UDX6  
UniRef90\_D9QIB8  
UniRef90\_UPI00037CEAA6  
UniRef90\_W7ZDX6  
UniRef90\_G7KHG7  
UniRef90\_L0AMC0  
UniRef90\_K9XFJ9  
UniRef90\_W7D4I3  
UniRef90\_D3ULV5  
UniRef90\_G2PN43  
UniRef90\_U9SKS5  
UniRef90\_Q0AWB3  
UniRef90\_E8QZK7  
UniRef90\_UPI0003771DDA  
UniRef90\_A1AP00  
UniRef90\_UPI0003B79E7B  
UniRef90\_UPI00037BB2E3  
UniRef90\_C7NK96  
UniRef90\_B0SEP3  
UniRef90\_UPI0003686E17  
UniRef90\_L7UK03  
UniRef90\_D3S6I5  
UniRef90\_U3GTE1  
UniRef90\_UPI0004166870  
UniRef90\_A0A024KJJ7  
UniRef90\_UPI0004776FE7  
UniRef90\_B2T5V5  
UniRef90\_B2I153  
UniRef90\_E5ANV8  
UniRef90\_Q1YRB9  
UniRef90\_UPI000370C525  
UniRef90\_D2A001  
UniRef90\_UPI00037C310D

1 10 20 30 40  
K V K T I D E M K K I L T N E T F K T L E N E T I E I S H G L G G R L V L G S R S D I V S S  
S V E Q H L D E I L S A V P V Q S P D P T E L S A S T L D A Q G R L V L C A E E D V V S S  
M I S A E E A L Q T I L K V A Q R L L P V S V P L H D A L G K V L V L A A E D V I R A S  
M I P L E E Q H R Q T I L D A V I R A L P S R P P C A S A R D A L G N R V L V L A A E D V I C  
M P V S A V Q A I V R E W A A P V T T E R V H L R D A L G N R V L V L A H D I V V S  
M L S Y H L A L E T H I R E A V S L L A S E R V V E L A F A L D R R V L V L A E S D V L A T S  
I S L E Y A L E T L L K Q I Q P L N T E E K Y I L D A S L G F V L V L A E A D I L F S  
M R S V E E Q Q A R V T A A A V A P R P V R V V A S I S E A Q G G R L V L C A E E D V I T A  
L L P V D E A L A Y I L N S A A P H G T E T E D V V P L T D A A G G R L V L A A E S D I T A A  
L M S I D D A V G I T A V S A V T E T E T V V P L I A A D G G R I L T A G D V I V L A A  
I S I E Q H L T R V L A S V T A L P P I S V V P V L E A A L N L T L A H D V I H A A  
M M S V D E A V G L I T T R V A I A D L E T V V A L I D A D G R V L A R D P I A A  
U n i R e f 9 0 \_ U 5 T 3 Z 7 R D L V T T L E P I S G Y H R V V L H A A L G Q R I L A E D P I L R T  
M L S V S E A R E R I L Q G L Q A T A P E T V V S L S T C G G G R V L T A L P L L A  
L A P P D A A R D A I A S L D L T P E P E T V D L T D A R G R V L A E E Q V D A  
L I P V V Q A L E K L L A D V Q T L V V E Q V D L N N A L G R F L A E E Q P V I  
N A L T L E Q A R A A I L Q A C E A L E A E T V V T L E S A L L G S R T L A E E P I A A  
M V T V N E A K E K I I A N T S P L I A A V T V N L S Q A L G S F L A E S D V I V A  
M I E L E D A I K I I E K N V L P I R V K L V N L I D A V L N K V V A E D I V S  
L L D I P A A L E L I S T S A H A L A E E T V L P L H E A L G R V L T S Q A I L S  
I L A Y S E A L R I V A S V A R P V L P T S E R L P L P R A D G R V L L A P L D A  
L P L D E A R Q R L D A L R P L T S E V V P L Q D A D G R V I L A D A V L L A  
S L L S V A E A Q A R L L A L A S P L D I E H A P L V A A L G R W A A A D I R A  
Q L L S V D E A L A T I E S Q A A K P D T E R V V A L T E A A V G R I L A S A V I V A  
M M S V D E A V S T I A S R V A E A V D T E W V D L T E A A D G R I L A S S D I K A  
N V L D V Q S F I D R L R G F D H L P A L Q T P L D E A H G C V L A A P V V V S  
Q M L S V D E A R Q A L A T L T R P L D S E Q I P L H R A H G R V M V E P V T A  
L I P V E V A L E R V R A L A P V T G I E T Q P L D A V L G R I L G T D V V S  
L I S Y E E A S E L I R Q N L K P L G T Q Q V H F K N A L H R I C A Q D V C  
S L L S W Q Q A S R L I R E A V S P D D D P E T V E L A D A L D R I P A A P V I R A  
M L Q V H K A L S I I L G S I Q P M K K R H V I N L H A G L G K I L M E D I V I R A  
L I T V D Q A L E L I L Q H T Q V L A T E R L K L N Q A L N R Y L A E D I V S  
L K P L D Q A L A E L L A Q A R L A G E S V D C F E A D G R V L R Q D A V S  
M L P L N Q A F Q L I L A R S L R L P S E E I S Q V I N G L N G R V L A A T Q F S  
V H A F S Q L T A S A V V T Q R E T V S S L D A G L N G R V L A E D I V S  
L L P V P E A K T R L L S R A R V I E T E T V V P L A E A N G R V L A K P L A A  
L S V D E A I R A R L S Q T P A A V E R V V L A A A C G R I L A A S V S S  
M L S V S D A E R L I F D A V R P L H P R E R V N L L D A T G R I L A A S V S S  
L K P L D E A L A D L L A Q A Q P L P T D T V V T F D A D G R V L A Q S C V S  
E V V L D D A R S A V A D R E F F P L G V R Q Q L P D A A A G C H V L A R D N I V A  
M D L D K F Q L V R E H V K Q T R I J E L D V R E S L H V L A E N I V S  
N I S V Q E A L Q T I L N N T Q D F G V E E I P F L K S V G R T L K E D I L A  
P I M V D E A I N K V M R H K W E A E T E T L V S L F N D L H R R L A A P F I A  
T E T L S L F D A D H R V L A Q D V V S  
L M P V S D A L S A V L A G A A P L A E E M V T L D E A H H R V L A R D V L A A  
M R T V S E H Q D I V A A L T K A R A P Q Q L P L A Q A L G L R V L A E E D V L A  
M L S F N E L E V I A S F L T R L G S E K L F A N A L G R V L A S E D I V S  
M I S V E T A L E C L H K H A T P L P A E S V I A T N D A L G R T L S A Q D I M A  
P L P A E S V I A T N D A L G R A L D D V I A S  
L L S V E R A G E I L L E H A P Q V D T E T M A L A D A N R R V L C E D I V A S  
M R S V E E Q L V L V T R A A V T P E P V R T A I S E A L G L M C A E E E V Q A  
M N Q F E K L Q Q L T G L L P P F F P T E K V Q L E N A F N R V L A Q E D V I A  
L S V R L A H D L T H S F V S P V G I E R V L K N S L G R V L A E E D I V S  
M R S V A N F Y R D C Q D A V G P Q P L D V M L P D S M G C V L A E D V I A  
F E K A E I V I G S A C R L G V E R V A I S D A L N R V L A E A V V S  
S L P T V E T A R A A M L T A V G T P A A E P V P L I E A D G R V L A E P V V A  
H V V S R D E A V S R F R A A I P S L S A E I V P L V G A L G R V L A R D I A S  
Q P I Q I D E A I N K V M Q H P L S P K E E S V P L L E S V G R S L A V N L Y A  
M L S V T H A L E T V L N A K R L P I S V S L H E A L G K V L A Q N V H A  
T P I D E A R Q V L R A A I P A T G T E R V T E L D R A D G R V L A A P V L E S  
M L P A S Q A E A M I L D L V Q P L D G E V V L T A D R I L A A P V V S  
I R V E A Q R R L L D K A V M L G A E R L G I A D V N G R I L A E T V H A  
N T I S M E Q A R E I L R N Q I T H L P V E K L N I G K A L N Q V L Q E P L F A  
M V T V D E A L R I I E D Q N I S L K S E T K P L E G E N A L G M Y A L S K N T V S  
M I T V D E A L R I I E D Q N I S L K S E T K P L E G E N A L G M Y A L S K N T V S  
M L S L E A A N E L I W K K F R E L P L E E V D V W E A V D R I M A E D V L S  
P V A E V I A W L E E S L A T P G V E T V P L A K A A G R V L T E A V V S  
M I S F A E A Y Q V L Q D S T R H F G I E T I P L A Q G I G R V L Q E D W H G  
V L P P A D A L R L L F D Q L P P I R L E T V S T L E A L D R A L A E N L L A  
M R S V A D A F Y Q D C I A A V G Q Q P L E V L A D A V L C V L A E N I Q A  
R M L S V D D A A A L R E L T P L A T E R L P L A S L G R V V A E E D I H S  
E V L S I E E Y R S E V A L V D P V A S E T V D T A S A V G R V L A R D A R S  
M I S Y T E A L N L V L K E T K S Y G T E F I P L S Q S M G R V L S E N I L A  
M L S V S D A F N L M Q Q H V T L P T E R V P I H D A T G R V L S R E A I K A  
L L S L S A A R L A S L E A V A P A S G R V P L L D A H G R F L A E E V R A  
M L S V R E A E K I L D R F S F N K T E Y I K I E D A Y G R V L A E E D V I S  
M R S V E E Q L A I V T A A A R A P E P V R L A I T E S L G L M C A E E V Q A  
M L P V E E Q A E S I I L S L V Q P L D A E K V A I T Q V S G R I L A K S V S  
S L L P V E T A L A K I E R I P A P Q P E I V A P E A N G R V L V L E D V L L A  
M W S V E E H L D D I L R Q I R P L E P L E M Q L D A A Q G C V L V E D V T A  
L P V P A A Q A I V R Q A V P V T A V E R V V A L R D A L D R V L A G D I V S  
N A V S F Q E A L Q L V L S L A R V R A E T V A L A Q C H G R I I E T D I V S  
N A L P V N A A R A I V N Q W A T P V A T E R L A R D A L D R V L A E D D V S  
M Y S V P E A I Q L V A T A D K T A A I E S L A V L D S L G R I L A A D I C A  
S V D E H R R A V T E A L R R V E T E V P L A E A A G R V L A E D V L A  
M L E V D A F E L V L K E S E R V E T E R L A V L E A A L F R V L A E D V L A  
M K S V E R H I T D I L G L V R P L P A I E L D L L R A Q G T V L A E D V A A

UniRef90\_A0LMU7  
UniRef90\_UPI00041FBD78  
UniRef90\_D2S904  
UniRef90\_UPI00036A0AF3  
UniRef90\_B9HQF7  
UniRef90\_UPI00035FF216  
UniRef90\_B2JFH6  
UniRef90\_I3I5C5  
UniRef90\_W4L716  
UniRef90\_U7VGG8  
UniRef90\_M2W751  
UniRef90\_B2S5Z3  
UniRef90\_H0TYN4  
UniRef90\_UPI0002897211  
UniRef90\_G7D9R8  
UniRef90\_U5T3Z7  
UniRef90\_D5QFX8  
UniRef90\_V4ZJL0  
UniRef90\_S6GLY9  
UniRef90\_UPI00036902B1  
UniRef90\_C6W6E4  
UniRef90\_U7NWH4  
UniRef90\_T3HWH4  
UniRef90\_D5SUC2  
UniRef90\_L0SRJ7  
UniRef90\_A4CWZ2  
UniRef90\_UPI0002488A51  
UniRef90\_UPI0004791AAA  
UniRef90\_K8PMQ9  
UniRef90\_Q316W5  
UniRef90\_G9E8M9  
UniRef90\_Q0FPZ1  
UniRef90\_A8TQU8  
UniRef90\_Q7VK47  
UniRef90\_Q1NWW6  
UniRef90\_UPI0002B49136  
UniRef90\_E7QQV6  
UniRef90\_N8VHH5  
UniRef90\_UPI000418F012  
UniRef90\_K2BJK4  
UniRef90\_J2KDH6  
UniRef90\_L0NGR3  
UniRef90\_UPI0003A60DC8  
UniRef90\_UPI00034A68BD  
UniRef90\_K0I888  
UniRef90\_C7N227  
UniRef90\_A3DPW8  
UniRef90\_UPI000378A263  
UniRef90\_UPI000407EE6C  
UniRef90\_UPI000464FD30  
UniRef90\_H0SHQ2  
UniRef90\_X5L9E9  
UniRef90\_K4RLA1  
UniRef90\_UPI000479B647  
UniRef90\_W0RK37  
UniRef90\_UPI00035F0E1  
UniRef90\_UPI0004153B06  
UniRef90\_X5E2D9  
UniRef90\_C3X9J2  
UniRef90\_S2VZW5  
UniRef90\_X1UDX6  
UniRef90\_D9QIB8  
UniRef90\_UPI00037CEAA6  
UniRef90\_W7ZDX6  
UniRef90\_G7KHG7  
UniRef90\_L0AMC0  
UniRef90\_K9XFJ9  
UniRef90\_W7D4I3  
UniRef90\_D3ULV5  
UniRef90\_G2PN43  
UniRef90\_U9SKS5  
UniRef90\_Q0AWB3  
UniRef90\_E8QZK7  
UniRef90\_UPI0003771DDA  
UniRef90\_A1AP00  
UniRef90\_UPI0003B79E7B  
UniRef90\_UPI00037BB2E3  
UniRef90\_C7NK96  
UniRef90\_B0SEP3  
UniRef90\_UPI0003686E17  
UniRef90\_L7UK03  
UniRef90\_D3S6I5  
UniRef90\_U3GTE1  
UniRef90\_UPI0004166870  
UniRef90\_A0A024KJJ7  
UniRef90\_UPI0004776FE7  
UniRef90\_B2T5V5  
UniRef90\_B2I153  
UniRef90\_E5ANV8  
UniRef90\_Q1YRB9  
UniRef90\_UPI000370C525  
UniRef90\_D2A001  
UniRef90\_UPI00037C310D

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

UniRef90\_A0LMU7 A G Y A S E T T V L G P G W C A R V L T 100 G A P V P C G A D L V I 110 P Q E K V F R R D  
UniRef90\_UPI00041FBD78 M G K E T T E S L I H Q G G E T L Y V V P T G G M V P S G T E A M I M I E Y T K L G T M  
UniRef90\_D2S904 A G P T A G E P S I L G P G M A Q K K I V A A G A M L V P S G A G A D V V V P A V Q T E D A A G G M  
UniRef90\_UPI00036A0AF3 A G H A A G T A A R R I V F T G G A P V P P A G A D A V V V M Q E E D T T R K V K  
UniRef90\_B9HQF7 A G N D G G V T L L T P G T V A Y I V F T T G G P L P P D G A D A V V V Q V E E D T T R K V K  
UniRef90\_UPI00035FF216 A G D T T T Y E R I V L T P G T Q T R R I V M T G A T M P P A G G C D T V V V P Q E E H T D D G G D T  
UniRef90\_B2JFH6 A G H P F E G R I D V T T G C V R I V M T G A T M P P A G G C D T V V V P Q E E A V T R T A  
UniRef90\_I3I5C5 A G H P F Q S A L G K M Q V V R I V M T G A M I P P G G A D A V V V M Q E E N V T R T A  
UniRef90\_W4L716 A G E T L Q Q P V L S S G Q A F R I V M T G A S M P P D G V D A V I R L Q E E D A A E T E D  
UniRef90\_U7VGG8 A G D F C N K K L S S K E A F R I V M T G A P L P P D G C N C V I K Q E E D V N E E T  
UniRef90\_M2W751 A G S R R Q P T R L Q P R Q A V R I V D T G A P M P P T L A D A V L P L D R T D G G R G  
UniRef90\_B2S5Z3 A G K R F E G T L R K G E A L R I V F T G A P M P P E N A D S I I Q E E H T E R E G D  
UniRef90\_H0TYN4 A G S A A A T P V P A A H A M R I F T G A P M P P G G A D T V F M Q E E D V R L D D  
UniRef90\_UPI0002897211 A G S A D N A P P L K P G E T A R I V M T G A P L P P D D A D T C Y A P I E E D T D E G V  
UniRef90\_G7D9R8 A G G L A G A P L I K A G E H T A R I F T G A P M P P A G D A E T V F M Q E E R V R L D D G  
UniRef90\_U5T3Z7 A G H P Y S G T L G A G E C V R I V M T G A V V P P A G A D A V V V M Q E E R V R R L D D G  
UniRef90\_D5QFX8 A G H P F G G T V G A G E C V R I V Y T G S I V P N G A D A V V L Q E E N A S Q R H D  
UniRef90\_V4ZJL0 A G A A P Q D V T V D S E C V R I V F T G A V M P P D G A D A V V M V E E R T S D E R P  
UniRef90\_S6GLY9 A G D D P Q P L A V G S V A R I V F T G A E I P P S D G A D A V V M Q E E Q V S V D A S  
UniRef90\_UPI00036902B1 A G H L W D G T V L E P G Q C V R I V L T G A V V P P D G A E V V I M Q E E Q T S R E S S  
UniRef90\_C6W6E4 A G Q A D L P S V L R P G T A V R I V F T G A P V P P E G A T A V V M Q E E N T S V I A G G  
UniRef90\_T3HWY4 A G D V F N R V L N K N E A V K I V M T G G K I P P Q G A N C V I K K E E D V T V I G  
UniRef90\_D5SUC2 A G Q T P S K S L A A G E A I Q I V M T G A P L P P S G T T A V V K I E G T T R K E  
UniRef90\_L0SRJ7 A G E D L Q Q A I G V G E C L R I T T G A P L P P A G A D T V V K E E N V V E C D  
UniRef90\_A4CWZ2 P A D P Y Q Q T L H P V G E A L R I L T G A P L P P A G A A W V L P Q E E L V A N Q N  
UniRef90\_UPI0002488A51 A G A H S G L T L A P G D A A R I V F T G A P V P P V G A D V I L I Q E E A A R D N G  
UniRef90\_UPI0004791AAA A G A C R D E H L A Q P Q T L A R I V M T G A P V P P D T D A V V M L E E H V E E N D  
UniRef90\_K8PMQ9 A G S S T S D G A I A A G Q A L R I F T G A P M P P V G A D T V F M Q E E D A R L D N Q  
UniRef90\_Q316W5 I E R P A D F S I A A G E C A A I V T G A L L P P R G A D A V V M V E E H T Q R E M G  
UniRef90\_G9E8M9 A G Q Y R F E L V P A G A H C V R I V T T G A P L P P E G T D T V V M S E Q L V R E D T  
UniRef90\_Q0FPZ1 A G S S F E S G P V G D A D A V R I V F T G A P V P P E G V T T V V I Q E E D V R D R G  
UniRef90\_A8TQU8 A G Q H L D R P Q R R G E T I R L V F T G A P M P P T G P D T V F M Q E E D C R V D G N  
UniRef90\_Q7VK47 A G N P T R P L L E K A G Y A I K T V M T G S L M P P I N A D T L I V F E E H I T L K N  
UniRef90\_Q1NWW6 A G A P P P A K L S S G E S Y R I V T T G G L V P P P G A D T V V F V E E V I Q R Q R  
UniRef90\_UPI0002B49136 A G H M P Q Q S L S S G E C S R I V T T G A P I P P P G A D A V V Q V I E D T E V V E  
UniRef90\_E7QQV6 A G Q Q N E L Q L Q D G Q A V R I V F T G S E V I H T F G S E V I H T F G S E V I H T F G S E V I  
UniRef90\_UPI000418F012 A G S V G R Q P L L E P G T V A R I V F T G A P V P P Q G A D A V V M Q E E D C E L D D  
UniRef90\_K2BJK4 A G E V A R Q K L G P G T T I K I V M T G A P V P P Q G A S V I V P I E N T E I K N G  
UniRef90\_J2KDH6 A G G A W R G T L Q P P G D A V R I V M T G A M M P P A G L D T V V P Q E E F C K V D G  
UniRef90\_L0NGR3 A G H P F E G V V A K G E A V R I V F T G A P L P P T G A D T V L L Q E E D A E L L E G  
UniRef90\_UPI0003A60DC8 A G E A A A T L T A G H A L R I V F T G A P L P P A L A D T V V A Q E E D C Q L L E A G  
UniRef90\_UPI00034A68BD A G T P P Q K T L Q P P G T A A R I V L T G S M M P P E G A D T V V M Q E E N T R R E G  
UniRef90\_K0I888 A G S A G D P L L P G T A A R I V F T G A P V P P A G A D A V I L M Q E E D C E A G L  
UniRef90\_C7N227 M G A K P E M A C S P G E C V R I V P T G G Q V P P D G A D A V V M L E E Y C E E Y D  
UniRef90\_A3DPW8 S R K A N D Y T L K N G E A I V E T E G Y L P L P I E G A D T V I P I E E D Y T I E N  
UniRef90\_UPI000378A263 A G A E Q K T M K V A S N C M E V M T G A V L P E N T D T I R Y E D V V I E N  
UniRef90\_UPI000407EE6C A G Q L P R N E L G E G Q A T R I V M T G A K I P P E G A N C V V M L E E D C Y T Y Q  
UniRef90\_UPI000464FD30 A G H V G P P L A A G T A A R I V F T G A P V P P E G A D A V I A M Q E E C T P L E E D  
UniRef90\_H0SHQ2 A G R P F D R V V R P G E A A R I V F T G G V V P P E G A D A V V I Q E E D T R A D D  
UniRef90\_X5L9E9 A G R T D P L T L K P G T A H R I V M T G A P M P P A G A T A V V P V I E A T D G S T  
UniRef90\_K4RLA1 A S L Q E P M L K P G C A L K S F V T G A K M P P I G A D A V V I V E E V Q Q A  
UniRef90\_UPI000479B647 T G D T A T Q V L Q P G E A L R I V F T G A Q L P P D T A N A V V M Q E E H V T A N G  
UniRef90\_W0RK37 A G G D A S V S L T G A G D A A R I V F T G A P V P P A S A D A V V R V E D T E A D G D  
UniRef90\_UPI00035F0E1 A G A M P D A H V L T A G T A M R I V F T G A P V P P Q G A D S V V I Q E E N T K R G D  
UniRef90\_UPI0004153B06 A G S Q Q P L R L Q P K Q A V R I V H T G A P L P P A L A D A V V L P L E W S D R G S  
UniRef90\_X5E2D9 A G K L A S L K I G K N Q C V K I V M T G A A V P P E C C D C V F M V E D A E E L L H  
UniRef90\_C3X9J2 A G H P Y T T R V G F G E C I R I V M T G A M I P P Q G C D T V V Q E E N V K L L D  
UniRef90\_S2VZW5 A G D V E P M A N I A G G A V R I V A S G A P I P P S G A D A V V A L E H T D H G V  
UniRef90\_X1UDX6 A G S L P T K A I G P G C A R I V M T G A V V P P E G A D C V I M V E Y T E S N S G  
UniRef90\_D9QIB8 A G R G R D T P L P P G E T V R I V F T G A P L P P P G A D R V I V I Q E E A S R D G  
UniRef90\_UPI00037CEAA6 A G V A P R H A V D P G T A T A I A T G G V I P P R G A D A V V M V E S T E I A S  
UniRef90\_W7ZDX6 A G F V F N R T V R N G E A V R I V M T G A K I M A V M Q L S C W K S V R E H G S  
UniRef90\_G7KHG7 A G D D A V G T V T P G T V A Y I V T T G G P I P P D G A D A V V V Q V E D T E K V N  
UniRef90\_L0AMC0 A E D D G T T V D P G T A A R I V H T G S A L P P D G A D A V V M I E R V S E A T  
UniRef90\_K9XFJ9 A G Q A P K R E V K P Q G A A R I V F T G G V M P P S G A D T V V M Q E E H T K R E G  
UniRef90\_W7D4I3 C G A T Y N H D L Q E N E T V R I V M T G A K V P P E N A S K I I M L E Q S K E T N  
UniRef90\_D3ULV5 C G E T Y D K P L M P G E T V R I V M T G A K V P P E N A S K I I M L E Q S K E T N  
UniRef90\_G2PN43 A G D S K E V L I G D G E A V R I V F T G A K V P P K N T S A V M M Q E K T S V K E  
UniRef90\_U9SKS5 A N V Q S D A M L K P G Q I T R I V T T G G P I P P N G A T A V V M Q E E D T S L Q E  
UniRef90\_Q0AWB3 P G E K A N M E V K E G Q C A Y V S T G S M I P P A G A D A V I M V E Q T K I L Q E  
UniRef90\_E8QZK7 P G V A A E V V V G S G E A V A I A T G A P L P P P G A D A V V P V E A T R L R V  
UniRef90\_UPI0003771DDA A G D P Q S E L F D A T Q C L E V M T G A V L P P G G C D T I R Y E D V D L V D  
UniRef90\_A1AP00 M G R A C P L T V A S G Q A V A V Y T G G M L P P A G A D A V V M V E R T Q K L D  
UniRef90\_UPI0003B79E7B A G D L N P A A L V A G T A I R I A S G A P M P P S G A D A V I A L D F T D R G L  
UniRef90\_UPI00037BB2E3 A G Q R Y E G K I T E G Q A V A I A T G A P L P P A G A D T V I M Q E E Q A G N S W  
UniRef90\_C7NK96 A G S A Q D P A L A A G E C A R I V M T G A A V P T D A D T V V P V I E L T D A G E  
UniRef90\_B0SEP3 A G S T F T K L P G E T V I R I V M T G A P V P P D G F D A V I K I E D A I P S E  
UniRef90\_UPI0003686E17 A G E P Q K K L T E S T T C L E V M T G A M L P I G I D T V V R Y E D V T I T D  
UniRef90\_L7UK03 A G A L P T R A L Q P G D A T R L V F T G A P I P P Q G A D A V V R Q E A A R A T P  
UniRef90\_D3S6I5 A G D D R D L E I N K N E C V L V A T G G K V P K N A K Y V I P I E N T V R R V K  
UniRef90\_U3GTE1 A G S G Q P L R L Q P K Q A V R V H T G A P L P P A L A D A V L P L E W S D R G T  
UniRef90\_UPI0004166870 A G S T P K S T I K M G Q A A R I V F T G S C I P P A G A D T I V I Q E E D T K R E G  
UniRef90\_A0A024KJJ7 A G S A H S G A L N S G E A I R I V F T G A P V P P D G A N C V M M Q E V A T V T E  
UniRef90\_UPI0004776FE7 A G G A G P H V H V G A G E A A R I V M T G A P L P P G T Q A V V P V E W T D G G T  
UniRef90\_B2T5V5 A G H P F A G R V E A A Q C V R I V M T G A C M P A D C D T V V P Q E E L V E R G A  
UniRef90\_B2I153 A G D P A G L L R S H T V C R I V L T G A P L P P E G A D T V I P Q E E D V L T A P  
UniRef90\_E5ANV8 A G R A Y D A R L R S G D C I R I V M T G A V L P A G C D T V I P Q E E Q V A I D V  
UniRef90\_Q1YRB9 A G T A P Q V L A A T T V A R I V F T G A E I P P G A D V A M Q E E N C S E Q N  
UniRef90\_UPI000370C525 P A G H V P G P L G P G E A A P V M T G A P L P P S G A D A V V P V E E S P A P G  
UniRef90\_D2A001 A G D A P H T P L Q P G E A I R I V M T G A P L P P G A D A V V Q V E E D T S V L R  
UniRef90\_UPI00037C310D A G D T G A H A V R S G Y C A R I V M T G A P M P P A G A D A V V P V E W T D G G R



UniRef90\_A0LMU7  
UniRef90\_UPI00041FBD78  
UniRef90\_D2S904  
UniRef90\_UPI00036A0AF3  
UniRef90\_B9HQF7  
UniRef90\_UPI00035FF216  
UniRef90\_B2JFH6  
UniRef90\_I3I5C5  
UniRef90\_W4L716  
UniRef90\_U7VGG8  
UniRef90\_M2W751  
UniRef90\_B2S5Z3  
UniRef90\_H0TYN4  
UniRef90\_UPI0002897211  
UniRef90\_G7D9R8  
UniRef90\_U5T3Z7  
UniRef90\_D5QFX8  
UniRef90\_V4ZJL0  
UniRef90\_S6GLY9  
UniRef90\_UPI00036902B1  
UniRef90\_C6W6E4  
UniRef90\_T3HWY4  
UniRef90\_D5SUC2  
UniRef90\_L0SRJ7  
UniRef90\_A4CWZ2  
UniRef90\_UPI0002488A51  
UniRef90\_UPI0004791AAA  
UniRef90\_K8PMQ9  
UniRef90\_Q316W5  
UniRef90\_G9E8M9  
UniRef90\_Q0FPZ1  
UniRef90\_A8TQU8  
UniRef90\_Q7VK47  
UniRef90\_Q1NWW6  
UniRef90\_UPI0002B49136  
UniRef90\_E7QQV6  
UniRef90\_N8VHH5  
UniRef90\_UPI000418F012  
UniRef90\_K2BJK4  
UniRef90\_J2KDH6  
UniRef90\_L0NGR3  
UniRef90\_UPI0003A60DC8  
UniRef90\_UPI00034A68BD  
UniRef90\_K0I888  
UniRef90\_C7N227  
UniRef90\_A3DPW8  
UniRef90\_UPI000378A263  
UniRef90\_UPI000407EE6C  
UniRef90\_UPI000464FD30  
UniRef90\_H0SHQ2  
UniRef90\_X5L9E9  
UniRef90\_K4RLA1  
UniRef90\_UPI000479B647  
UniRef90\_W0RK37  
UniRef90\_UPI00035F0E1  
UniRef90\_UPI0004153B06  
UniRef90\_X5E2D9  
UniRef90\_C3X9J2  
UniRef90\_S2VZW5  
UniRef90\_X1UDX6  
UniRef90\_D9QIB8  
UniRef90\_UPI00037CEAA6  
UniRef90\_W7ZDX6  
UniRef90\_G7KHG7  
UniRef90\_L0AMC0  
UniRef90\_K9XFJ9  
UniRef90\_W7D4I3  
UniRef90\_D3ULV5  
UniRef90\_G2PN43  
UniRef90\_U9SKS5  
UniRef90\_Q0AWB3  
UniRef90\_E8QZK7  
UniRef90\_UPI0003771DDA  
UniRef90\_A1AP00  
UniRef90\_UPI0003B79E7B  
UniRef90\_UPI00037BB2E3  
UniRef90\_C7NK96  
UniRef90\_B0SEP3  
UniRef90\_UPI0003686E17  
UniRef90\_L7UK03  
UniRef90\_D3S6I5  
UniRef90\_U3GTE1  
UniRef90\_UPI0004166870  
UniRef90\_A0A024KJJ7  
UniRef90\_UPI0004776FE7  
UniRef90\_B2T5V5  
UniRef90\_B2I153  
UniRef90\_E5ANV8  
UniRef90\_Q1YRB9  
UniRef90\_UPI000370C525  
UniRef90\_D2A001  
UniRef90\_UPI00037C310D

UniRef90\_A0LMU7  
UniRef90\_UPI00041FBD78  
UniRef90\_D2S904  
UniRef90\_UPI00036A0AF3  
UniRef90\_B9HQF7  
UniRef90\_UPI00035FF216  
UniRef90\_B2JFH6  
UniRef90\_I3I5C5  
UniRef90\_W4L716  
UniRef90\_U7VGG8  
UniRef90\_M2W751  
UniRef90\_B2S5Z3  
UniRef90\_H0TYN4  
UniRef90\_UPI0002897211  
UniRef90\_G7D9R8  
UniRef90\_U5T3Z7  
UniRef90\_D5QFX8  
UniRef90\_V4ZJL0  
UniRef90\_S6GLY9  
UniRef90\_UPI00036902B1  
UniRef90\_C6W6E4  
UniRef90\_T3HWY4  
UniRef90\_D5SUC2  
UniRef90\_L0SRJ7  
UniRef90\_A4CWZ2  
UniRef90\_UPI0002488A51  
UniRef90\_UPI0004791AAA  
UniRef90\_K8PMQ9  
UniRef90\_Q316W5  
UniRef90\_G9E8M9  
UniRef90\_Q0FPZ1  
UniRef90\_A8TQU8  
UniRef90\_Q7VK47  
UniRef90\_Q1NWW6  
UniRef90\_UPI0002B49136  
UniRef90\_E7QQV6  
UniRef90\_N8VHH5  
UniRef90\_UPI000418F012  
UniRef90\_K2BJK4  
UniRef90\_J2KDH6  
UniRef90\_L0NGR3  
UniRef90\_UPI0003A60DC8  
UniRef90\_UPI00034A68BD  
UniRef90\_K0I888  
UniRef90\_C7N227  
UniRef90\_A3DPW8  
UniRef90\_UPI000378A263  
UniRef90\_UPI000407EE6C  
UniRef90\_UPI000464FD30  
UniRef90\_H0SHQ2  
UniRef90\_X5L9E9  
UniRef90\_K4RLA1  
UniRef90\_UPI000479B647  
UniRef90\_W0RK37  
UniRef90\_UPI00035F0EF1  
UniRef90\_UPI0004153B06  
UniRef90\_X5E2D9  
UniRef90\_C3X9J2  
UniRef90\_S2VZW5  
UniRef90\_X1UDX6  
UniRef90\_D9QIB8  
UniRef90\_UPI00037CEAA6  
UniRef90\_W7ZDX6  
UniRef90\_G7KHG7  
UniRef90\_L0AMC0  
UniRef90\_K9XFJ9  
UniRef90\_W7D4I3  
UniRef90\_D3ULV5  
UniRef90\_G2PN43  
UniRef90\_U9SKS5  
UniRef90\_Q0AWB3  
UniRef90\_E8QZK7  
UniRef90\_UPI0003771DDA  
UniRef90\_A1AP00  
UniRef90\_UPI0003B79E7B  
UniRef90\_UPI00037BB2E3  
UniRef90\_C7NK96  
UniRef90\_B0SEP3  
UniRef90\_UPI0003686E17  
UniRef90\_L7UK03  
UniRef90\_D3S6I5  
UniRef90\_U3GTE1  
UniRef90\_UPI0004166870  
UniRef90\_A0A024KJJ7  
UniRef90\_UPI0004776FE7  
UniRef90\_B2T5V5  
UniRef90\_B2II53  
UniRef90\_E5ANV8  
UniRef90\_Q1YRB9  
UniRef90\_UPI000370C525  
UniRef90\_D2A001  
UniRef90\_UPI00037C310D

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

UniRef90\_A3SNU8  
UniRef90\_G7VA19  
UniRef90\_K5B7X9  
UniRef90\_UPI0002D87543  
UniRef90\_Q3AVP1  
UniRef90\_UPI00047E74BA  
UniRef90\_UPI0002D30E3F  
UniRef90\_W0AIS3  
UniRef90\_A9W903  
UniRef90\_E4TXT8  
UniRef90\_Q3ISS4  
UniRef90\_D0CQC8  
UniRef90\_K2QLQ5  
UniRef90\_UPI0002DFCAD0  
UniRef90\_U1PMH2  
UniRef90\_Q975A8  
UniRef90\_A0NTY1  
UniRef90\_A1B3Y9  
UniRef90\_H5WIA2  
UniRef90\_M4UBY0  
UniRef90\_UPI00047E5549  
UniRef90\_A3ZLK9  
UniRef90\_L7VCG7  
UniRef90\_A0A011PUE7  
UniRef90\_Q21YF4  
UniRef90\_UPI0003B690B2  
UniRef90\_UPI0003C7FEA8  
UniRef90\_B3DUM5  
UniRef90\_F4C4B1  
UniRef90\_L8DPR2  
UniRef90\_UPI000410C7B7  
UniRef90\_M0LSW1  
UniRef90\_V5SE98  
UniRef90\_S2WSK9  
UniRef90\_UPI0004690ABC  
UniRef90\_G0J845  
UniRef90\_F9N4Z1  
UniRef90\_M7YAU6  
UniRef90\_UPI00047A7E38  
UniRef90\_UPI0003B65AD2  
UniRef90\_A8FPG0  
UniRef90\_C5AFF9  
UniRef90\_UPI00016C59F0  
UniRef90\_UPI00037E707F  
UniRef90\_Q3J4Y6  
UniRef90\_E4TGD4  
UniRef90\_M2X490  
UniRef90\_N8UHY0  
UniRef90\_U7G0V5  
UniRef90\_Q2G6Q6  
UniRef90\_A0JUW8  
UniRef90\_UPI000345370C  
UniRef90\_L0DL23  
UniRef90\_A4G0V3  
UniRef90\_E2MY05  
UniRef90\_G6F230  
UniRef90\_UPI0003A3AD17  
UniRef90\_A6DBV9  
UniRef90\_UPI00047D0E6A  
UniRef90\_Z5XG16  
UniRef90\_H8I6N4  
UniRef90\_UPI000289F543  
UniRef90\_A0A023XCP5  
UniRef90\_B1LYB5  
UniRef90\_A1WLA1  
UniRef90\_A9CYD1  
UniRef90\_A0A058ZJN6  
UniRef90\_K9SWA9  
UniRef90\_UPI0002D47234  
UniRef90\_UPI0003B62D5B  
UniRef90\_E7RV99  
UniRef90\_UPI0004688E2B  
UniRef90\_A7GYG6  
UniRef90\_D0KYB9  
UniRef90\_UPI0004119F9B  
UniRef90\_N8P1H9  
UniRef90\_UPI0003645801  
UniRef90\_B5JMX7  
UniRef90\_UPI0002F75455  
UniRef90\_UPI00036F42BE  
UniRef90\_J0UEK8  
UniRef90\_K9FHE0  
UniRef90\_I5C8J2  
UniRef90\_E8TZZ0  
UniRef90\_D0SIX3  
UniRef90\_D0L6D9  
UniRef90\_C5ZWB1  
UniRef90\_A0A01779M6  
UniRef90\_UPI0003B691AE  
UniRef90\_E6QVH7  
UniRef90\_B7QS13  
UniRef90\_A0A024RUC9

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

UniRef90\_A3SNU8  
UniRef90\_G7VA19  
UniRef90\_K5B7X9  
UniRef90\_UPI0002D87543  
UniRef90\_Q3AVP1  
UniRef90\_UPI00047E74BA  
UniRef90\_UPI0002D30E3F  
UniRef90\_W0AIS3  
UniRef90\_A9W903  
UniRef90\_E4TXT8  
UniRef90\_Q3ISS4  
UniRef90\_D0CQC8  
UniRef90\_K2QLQ5  
UniRef90\_UPI0002DFCAD0  
UniRef90\_U1PMH2  
UniRef90\_Q975A8  
UniRef90\_A0NTY1  
UniRef90\_A1B3Y9  
UniRef90\_H5WIA2  
UniRef90\_M4UBY0  
UniRef90\_UPI00047E5549  
UniRef90\_A3ZLK9  
UniRef90\_L7VCG7  
UniRef90\_A0A011PUE7  
UniRef90\_Q21YF4  
UniRef90\_UPI0003B690B2  
UniRef90\_UPI0003C7FEA8  
UniRef90\_B3DUM5  
UniRef90\_F4C4B1  
UniRef90\_L8DPR2  
UniRef90\_UPI000410C7B7  
UniRef90\_M0LSW1  
UniRef90\_V5SE98  
UniRef90\_S2WSK9  
UniRef90\_UPI0004690ABC  
UniRef90\_G0J845  
UniRef90\_F9N4Z1  
UniRef90\_M7YAU6  
UniRef90\_UPI00047A7E38  
UniRef90\_UPI0003B65AD2  
UniRef90\_A8FPG0  
UniRef90\_C5AFF9  
UniRef90\_UPI00016C59F0  
UniRef90\_UPI00037E707F  
UniRef90\_Q3J4Y6  
UniRef90\_E4TGD4  
UniRef90\_M2X490  
UniRef90\_N8UHY0  
UniRef90\_U7GOV5  
UniRef90\_Q2G6Q6  
UniRef90\_A0JUW8  
UniRef90\_UPI000345370C  
UniRef90\_L0DL23  
UniRef90\_A4G0V3  
UniRef90\_E2MY05  
UniRef90\_G6F230  
UniRef90\_UPI0003A3AD17  
UniRef90\_A6DBV9  
UniRef90\_UPI00047D0E6A  
UniRef90\_Z5XG16  
UniRef90\_H8I6N4  
UniRef90\_UPI000289F543  
UniRef90\_A0A023XCP5  
UniRef90\_B1LYB5  
UniRef90\_A1WLA1  
UniRef90\_A9CYD1  
UniRef90\_A0A058ZJN6  
UniRef90\_K9SWA9  
UniRef90\_UPI0002D47234  
UniRef90\_UPI0003B62D5B  
UniRef90\_E7RV99  
UniRef90\_UPI0004688E2B  
UniRef90\_A7YG6  
UniRef90\_D0KYB9  
UniRef90\_UPI0004119F9B  
UniRef90\_N8P1H9  
UniRef90\_UPI0003645801  
UniRef90\_B5JMX7  
UniRef90\_UPI0002F75455  
UniRef90\_UPI00036F42BE  
UniRef90\_J0UEK8  
UniRef90\_K9FHE0  
UniRef90\_I5C8J2  
UniRef90\_E8TZZ0  
UniRef90\_D0SIX3  
UniRef90\_D0L6D9  
UniRef90\_C5ZWB1  
UniRef90\_A0A01779M6  
UniRef90\_UPI0003B691AE  
UniRef90\_E6QVH7  
UniRef90\_B7QS13  
UniRef90\_A0A024RUC9

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



UniRef90\_A3SNU8 A G H G F D G L V A E D Y A V R I F T G A P L P E G T D R V V T Q E D V T R E G  
UniRef90\_G7VA19 M G A V P N I K V S E G E A A L V Y T G G A L P E E G A D A V V M V E H T S V L Q  
UniRef90\_K5B7X9 A G A R T S P T R R L Q P R Q T A V R V Q T G G A P L P T T L A D A V V P L R W T D G G E T  
UniRef90\_UPI0002D87543 A G D T S S A R L V P Q R T A M L I Q S G A P L P V G L A D A V V P W I E T D R G R T  
UniRef90\_Q3AVP1 P G A P F Q G S L S R G E A I R I L T G A P L P P G A G W V L P Q E L V S T R D  
UniRef90\_UPI00047E74BA A G S E Q I T L K N K G E A I E V I M T G A V L P N S N G N T V I R Y E D F V T E N T  
UniRef90\_UPI0002D30E3F A G Q N Y P I H P L Q A G E A L K I M T G A P V P V N G N T T V I M R E E F T E Q G T  
UniRef90\_W0AIS3 A G R P F D G D V G A G Q A A R I L F T G A A L P P E G A D T V L L Q E E A E R E G G  
UniRef90\_A9W903 A G H G F S G T V L A A G A A V R I F T G A P V P E G A D A L I I Q E E N A E A E G  
UniRef90\_E4TXT8 A G A D E V I G V V G P N T A V R V V H T G S E L P E G A D A V V M V E A T E Q V G  
UniRef90\_Q3ISS4 A G V P F V I G V V P A G Q A A L R V I Y T G A P L P E E G V D T V I L K E E D V T V Q D N  
UniRef90\_D0CQC8 A G S N M E V S L R Q G E A V R I V L T G A R V P E E E A N K V V M K E E H V E V F N  
UniRef90\_UPI0002DFCAD0 A G R P F A G V I G T R E A A R I V S T G A M I P D G A D A V V V Q E E D V T V R D G  
UniRef90\_U1PMH2 A E S V P D T P V G P N E A A V R I H T T G S A L P D G A N A V V L M V E E T V T V K G  
UniRef90\_Q975A8 I G E Y K E I E I K D K E A V E V D T G S I L P D E N A T A V V L K V E E T E R K G G  
UniRef90\_A0NTY1 A G H A S N A D L G P W A A A R I F T G A V M P P G A D T V A M Q E D C E T H Q  
UniRef90\_A1B3Y9 A G V P Y Q G G T P P G S A I R I F T G A P V P A G Y D R V V M Q E E M V T R E S A  
UniRef90\_H5WIA2 A G A Q H R G D V P F G H G I R I F T G A V M P P G L D T V V P Q E E F V F K P G A  
UniRef90\_M4UBY0 A G Q V G R P L Q A G E A A R I F T G A L I P P G A D A V V M Q E E Q C D P D T  
UniRef90\_UPI00047E5549 A G F A Q P V E L K A P G S Q A A Q I M T G G Q L P A S A D T V A R Q E I V Q M R Q  
UniRef90\_A3ZLK9 A G N V P T K K V A A G S Q A A Q I M T G A P I P A S A D A V V M I E N Q T Q M I G  
UniRef90\_L7VCG7 A G A R T P T R L Q P K Q A A V R I Q T G A P L P T L A D A V V P L R W T D G G M  
UniRef90\_A0A011PUE7 A G S V I G S P L Q P G S A A R I F T G A A I P A Q G A D A V V M Q E E L C Q H V A  
UniRef90\_Q21YF4 A G K S W S G Q V H G E A C V K I M T G A V M P A Q G L D T V V P Q E E V S H S P  
UniRef90\_UPI0003B690B2 A G S N M E V S L R Q G E A V R I V L T G A R V P E E E A N K V V M K E E H V E V F N  
UniRef90\_UPI0003C7FEA8 A G G A R P F A I S A G T A A R I T A G A P V P E G F D A V I P V E E V N V K E  
UniRef90\_B3DUM5 A G G A V D E T F N K S Q C K V I A T A G A A V P R K G D L V V V Q E E E V S V K E  
UniRef90\_F4C4B1 A G S K G P L R V P E T N A A R I F T G A A L P L G V D T V V V K Q E E I E L K D  
UniRef90\_L8DPR2 A G H P T P M T S A V G T V A K I M T G A P V P A G S T G I V P V E G A Q V D G  
UniRef90\_UPI000410C7B7 A G V G P S P L E P G T A Q R I M T G A M L P P G A D A V V K V E D T Q D Q S P  
UniRef90\_M0LSW1 A G V G P S P L E P G T A Q R I M T G A M L P P G A D A V V M V E H T E Q V G  
UniRef90\_V5SE98 A G S T A G T V G P P G E A V R I F T G A P L P P A C A D A V V L Q E E D V T R D G  
UniRef90\_S2WSK9 A G A T A N A M T K P P G F A T R I M T G A A L P E G A D A V V K V E N T N I M P  
UniRef90\_UPI0004690ABC A G T A P E A L Q S G T C A R I F T G A P L P A G A D T V E M Q E H V E V E D  
UniRef90\_G0J845 A G Q E F Q K S L N K P E N C L E V M T G A V L P V D H T D C V I P Y E K L T I K N D  
UniRef90\_F9N4Z1 A G E V F Q Q G L E P G E G I H I M T G A M V P D T A D T V V V K E I A T W N D  
UniRef90\_M7YAU6 A G H G Y T G A I E G P G E T V R I F T G A P I P E G A D A V L I Q E E D A R T D G  
UniRef90\_UPI00047A7E38 A G S S G H A L A P A C A A R I F T G A P I P E G A D A V V M Q E E D C D P L H  
UniRef90\_UPI0003B65AD2 M G E Q T E K R V A E G E C V L V H T G G M I P E G A D A V V M V E D T V Q A G  
UniRef90\_A8FPG0 A G H Q Y S K V L Q T G E A V R I M T G A T V P A G A D T V Q M K E L A T E L E  
UniRef90\_C5AFF9 A A P L A A G T A A R I F T G A P L P P G A D A V V M Q E E Q A E A A G  
UniRef90\_UPI00016C59F0 A G K V P L I K S V G T G E A A R I F T G A P L P D G A D A V V M Q E E H T E K L G  
UniRef90\_UPI00037E707F A G S K H P L R L Q P R Q A A V R I F T G A P L P T L A D A V V P L S W S D R G Q  
UniRef90\_Q3J4Y6 A G H G Y E G A L R P G E A V R I F T G A P V P S G A T R V V L Q E E D V T A E G A  
UniRef90\_E4TGD4 A G D D V S G H V R K G E C Y K I M T G G F V P S G G S D V A E I L T D E A G A  
UniRef90\_M2X490 A G D A G P D R L A P G T A V K I M T G A P V P V G A D C V V P V E D T D T D G  
UniRef90\_N8UHY0 A G Q G A D L L E P G G Q A V R I F T G A K I P L Q T T T V A R Q E I V V L R D  
UniRef90\_U7G0V5 A A G D P P C T L M P G Q A A R I F T G A P V P T G A D T V L M Q E D C E I A D  
UniRef90\_Q2G6Q6 A G H P F G G T V G R G E A V R I S T G A M L P A G A D M V L L Q E D S A R D G  
UniRef90\_A0JUW8 A G A T A A A L E P G T A A P I M T G A M I P A G A D A V V P V E K A V P D S  
UniRef90\_UPI000345370C A G H V G E P L Q P G T A A R I F T G A L I P E G A D A V V M Q E Q C E L L D  
UniRef90\_L0DL23 P G H L C N L T V G P G E T I Q I T T G S A L P R G A D T V V R V E S T Q R E G  
UniRef90\_A4G0V3 I N E E E Y R L S T G M K L P S N S N A V V M K E Y T K E Y D  
UniRef90\_E2MY05 A G S H H P M R L Q P K Q A A V R I V S T G A P L P S L A D A V V P K E N W T D R G G  
UniRef90\_G6F230 A G D T A Q S M L K T G E A A R I F T G A P I P E G T T A V I Q Q E N T E V N D  
UniRef90\_UPI0003A3AD17 A G V P F E G S V R A G Q A V R I F T G A P V P V G A D A V V I Q E N T E R E A  
UniRef90\_A6DBV9 A G D K F D D F V K D D E C V K L M T G A K I P K V D N T V I P I E N C I E V N  
UniRef90\_UPI00047D0E6A A G N A Q D S I L P L H Q P I K T F T G A R I P Q N A D I L V P I E Q V K A E S  
UniRef90\_Z5XG16 A G R V D S L T L A A G T A H R I M T G A P L P A G A T A V V P V E A T N A G L  
UniRef90\_H8I6N4 L R P A A G G V L G P G T V V Q V H T G G A L P A G A D A V V R M E D T D P A D  
UniRef90\_UPI000289F543 A G R P G T V N V G R G Q C A R I M T G A V M P D G C D S V V P Q E L V R Q A S  
UniRef90\_A0A023XCP5 A G R P F A G S V G A G E A V R I F T G G V V P D G A D A V V L Q E E D T V A D G  
UniRef90\_B1LYB5 A G H P A A G D P G P G A A V R I F T G A P V P A G T D T V V M Q E D V R I D D  
UniRef90\_A1WLA1 A G S A C A A L P P G S A A R I F T G A P M P A G A D A V I V L Q E D C Q H G L  
UniRef90\_A9CYD1 A G H H F K G T L Q D G E A V R I M T G A P L P A G A D T I Q A K E L A I E Q G A  
UniRef90\_A0A058ZJN6 A G Q P Y D Q E V P G G H A I R I L T G A L P K G V D T V V L E E D C S T D A  
UniRef90\_K9SWA9 A G S T Q V S S I H A G E C V R I F T G G M L P Q G A D T V V M Q E E D V E V I G  
UniRef90\_UPI0002D47234 A G A P H A A A L G A G E A V R I V S T G A V V P E G A D R V L L Q E E D A V R E G  
UniRef90\_UPI0003B62D5B A G E P A D R E L R G P G Q T I R I A T G G V I P A G A D A V V P Y E V E E D G  
UniRef90\_E7RV99 A G D P P A T L P P G Q A W R I M T G A P M P A G A D T V V M Q E E H V Q R P Q  
UniRef90\_UPI0004688E2B A G H P H P G G T P A G A C V R I M T G A P M P L G C D T V I P Q E R V K V I P  
UniRef90\_A7GYG6 A G D K R T G T K D N E C I K I M T G A K M P L G A D T V M R F E D C R V D G  
UniRef90\_D0KYB9 A G D A P A V L P E G D F V W R I F T G A P L P D G A N A V I A Q E S V T S S D  
UniRef90\_UPI0004119F9B A G S V I G S P L E P G S V A R I F T G A K I P P G A D A V V M Q E E R C E P C A  
UniRef90\_N8P1H9 A G H D S E L Q L T Q G Q A V R I F T G A K I P L G T T V A R Q E I V K I I D  
UniRef90\_UPI0003645801 A G D S A E G Q L Q P G Q A V R I F T G A P V P A G T S A V V P Q E E I E A G D  
UniRef90\_B5JMX7 A G A P Q Q E L P D I K S C L E I M T G A R I P K L A D C C V R I E D V S I T A  
UniRef90\_UPI0002F75455 A G D A S P P L E K G V A C S I L T G A R I P A G A D A V V A Q E R T S I T D  
UniRef90\_UPI00036F42BE A G R P F A G T V G P G E T A R I F T G A A L P A G A D T V M V Q E E V A A S G  
UniRef90\_J0UEK8 A G S A G A P L Q P G T A A R I F T G A P I P E G A D A V V L M Q E E D C E A L D  
UniRef90\_K9FHE0 A N I G G N E P L Q P G T I A R I T T G A P I P P N A N A V V M V E D T T L D S  
UniRef90\_I5C8J2 A G N R F H G A V G A G E A V R I F T G A P V P E G A D T I L I Q E N A D L D D  
UniRef90\_E8TZZ0 A G G C G T P L A A G T A A R I F T G A P V P E G A D A V I V M Q E D C E A L D  
UniRef90\_D0SIX3 A G S E L D H Q L L Q G Q A I R I F T G G K I P T G T T H V A R Q E I V I E S N  
UniRef90\_D0L6D9 P G A R T P T R L Q P R Q A A V R I F T G A P M P T L A D A V V P L R W T D G G D  
UniRef90\_C5ZWB1 A G N K E L L E L P T N C A I K T F T G A A I P K N A D M L V P I E W V I E V K D  
UniRef90\_A0A01779M6 P G R P F G G A V G A R E A V R I F T G A P V P E G A D A V L M A Y A D E V P  
UniRef90\_UPI0003B691AE A G T S A D P A L A P G Q A A R I M T G A P L P T D A D T V V P F E Q T A G G L  
UniRef90\_E6QVH7 A G D M P S V L V R N G Q C A R I M T G A P L P L G A D A V I R M E D S Q V S A  
UniRef90\_B7QS13 A G L T Y D H A V P A G Y A I R I L T G A L P L E G V D T V I L M E D V T C D G  
UniRef90\_A0A024RUC9 A G H P F D G V V A P G T C V R I M T G A P M P A G C D T V I P Q E R V R V D G

UniRef90\_A3SNU8 D I T L K R K T S V L D E A A Y V R P A G 140 F A G M R L L 150 D A P R L L G P S D S 160  
UniRef90\_G7VA19 N T L E V L K R K S V L D Q S G G E N I V I C K G G A D D V V A K G G K L L L K K N S T I F I G F P S S A  
UniRef90\_K5B7X9 S R V E K V L R S G V V P S G E A N Y V R R R R A D D D V V A Q A P G G K L L L R A Q G T S R S R A Q Q I  
UniRef90\_UPI0002D87543 S Q R V E L R S G V V V P S G E A N Y V R R R R A D D D V V A Q A P G G K L L L R A Q G T S R S R A Q Q I  
UniRef90\_Q3AVP1 T E L T L K G N A S D N P W I R R A A D E E C K A A K D C L L L N P G Q R L V T S P A L L L  
UniRef90\_UPI00047E74BA G F A T T I D A I K N E H Q N V R H S A K G E K D G K V D D V L L E T E N T K I S A A A E E M  
UniRef90\_UPI0002D30E3F D F V T T F N A T I K N Q N V R S A G S D L A E F E Q S V F E K G C K I S G A A E E M  
UniRef90\_W0AIS3 D A L W L D G P L R R G G A H I R R R A A G S D F L T G D M L I E A G G I R L G D A R R A Q L  
UniRef90\_A9W903 E T V T A R E P V A A A G R F L R R A G S L S F R E G E D T L V A R A G G T K L G D A R R A Q L  
UniRef90\_E4TXT8 S V I I I E K P V A A N G F L R R A P V G I G E D Y R E G E V L I A K G T K L G D A R R A Q L  
UniRef90\_Q3ISS4 D E L E V F D A V L G A G E N T V G P I G E D V E D G G Q R L L Y E P G H Q L R P P S D L L  
UniRef90\_D0CQC8 G H I A F N G P L K A K T A N T K T A G G E D V R R A G E L L A L L S A G G R E L T T A A A I  
UniRef90\_K2QLQ5 S S I K V V K F Q E K T A N T K T A G G E D V R R A G E L L A L L S A G G R E L T T A A A I  
UniRef90\_UPI0002DFCAD0 E Q L T L D G A P P A P G A H I R R R A G H D F A S G S V L L A N A G S P I D A R S L I  
UniRef90\_U1PMH2 T E I E V F D A V T F E R E N V I A F I G S E D V I P E A G F S L L Y S P P G H Q L I K A E S D I  
UniRef90\_Q975A8 D K I E V G R K V T F G E N I A F I G S E D V I P E A G F S L L Y S P P G H Q L I K A E S D I  
UniRef90\_A0NTY1 D F V I V P Q G L K T G A N C R K A G E S D V A E G G T T L L S P G Q R L R P P Q D V  
UniRef90\_A1B3Y9 D R I T I A E A G N T G N I R R P K G E D F A E G G S R F Q P Q R P L V P S P A D L L  
UniRef90\_H5VIA2 D V I V P A G V V R T G D N R R R C H K G E D L A Q E G E A A L R A G R V V P S P A D L L  
UniRef90\_M4UBY0 G T V V I D H V P E A G E W I R R A G E E D I T A G A E T L P R G T R L G A S Q L L  
UniRef90\_UPI00047E5549 D R I Q L M Q S I D A G T D I R Y R A G E E S L A K G A T M L A K A Q G Q L L N S G L L  
UniRef90\_A3ZLK9 E A R V R I E A P N A G K N I P Y R K A S S L A R K G A T V L R A S G K R L P L E V  
UniRef90\_L7VCG7 N R V R V L R G A P S G A Y V R H A G S D D V Q P G D V A V R S A G T I R G A Q L V  
UniRef90\_A0A011PUE7 G E V T I L N H L V R E A G D H I R R A G S D D L A A G G S E L L A A G Q R L T P P A Q D T  
UniRef90\_Q21YF4 G Q T L A P G T V R A G D N R R R Q L G E D L L A Q G P A L K A G E L T T P A A L  
UniRef90\_UPI0003B690B2 G F I E I Y K S Y P P Y H D V R P V G E E D I V A T E M I I P E N S H F I R P F E I  
UniRef90\_UPI0003C7FEA8 S R V G V R V A P R P Q G Q N V R R R T G E E V S A Q S T V L P A G G S V L G A R E I  
UniRef90\_B3DUM5 G R V K I K G K Y K K G E N I K K A G E E I S Q R G G L L C R K A G R K V L D A R L I  
UniRef90\_F4C4B1 N Q I V I K D P I S L G D N V R L K G S E I K E G G E Q A L A A G T V L G P A T I  
UniRef90\_L8DPR2 M Q V E F D R P C D F G A H I R R R A G E E N L R A G E Q A R V L T P A G T S L T S A L P V  
UniRef90\_UPI000410C7B7 G P V E I R A Q A G Q G L N V R R A R K G E N L R A G E Q A R V L T P A G T S L T S A L P V  
UniRef90\_M0LSW1 D E I E V T A A V A G E N V A P A G E D V A A G G Q H L Y D A G H R L R P A D L  
UniRef90\_V5SE98 D A L V A D Q P T Q G G A N I R R A G E N F A A G G D V L L P R S H R L D A H S A  
UniRef90\_S2WSK9 D Q V T L F N P V Q P G T N V R Q A G E N V A V G D L L L Q A G I A V T P Q V L  
UniRef90\_UPI0004690ABC G R V R F S E P L R L G Q N T R P Q G Q E T R V G D S V L P A G T R L G P I E M  
UniRef90\_G0J845 G V A R L N T S R H K A F Q N T H K K G E D A K K G D Q L L A S G T W I H P G V K  
UniRef90\_F9N4Z1 I E V T V P S R I K E R G Q H I L L E G E D I Q I G Q E L L P A G T V L E A E Q V L  
UniRef90\_M7YAU6 D T V Q V V E P V E P D R F I R R A G E E D V A A G A V V L H S A G D R L S D A R R L  
UniRef90\_UPI00047A7E38 P G V R I Q N K A P K P Q Q N V R R R G E E V A A G A V V L H S A G D R L S D A R R L  
UniRef90\_UPI0003B65AD2 A W L E V R K A L Q S G E N L V F R R G E E I R Q N G E V I L S A G D R L S D A R R L  
UniRef90\_A8FPG0 Q V S F Q G D I T L G Q H I R L A G E D I A K G H T A L A A N A R L A Q A P E Q  
UniRef90\_C5AFF9 E A V D I L H T P K A G E W I T A Q G A D I R R A G T V I L P A G T R L A P P A A C  
UniRef90\_UPI00016C59F0 G V R I V D A G V K S R Q W V Y A Q Q G A E M R A G A V V L A A G T R L A P P A A C  
UniRef90\_UPI00037E707F K R V S P R R K V K T G D F V R R V G D D Q P G D V A V S S G S I G P A Q V  
UniRef90\_Q3J4Y6 G T I R L N A A M T G G T H I R P R G G D D F R T G D S L S P R R I T P P N D L  
UniRef90\_E4TGD4 Y K V Q I D G K M K Y G N H V R K A G E D D V L G D E I D I E G K E I R P P F L L  
UniRef90\_M2X490 G V V R I H A A R R P G E F V R D R G S D V T A G T L L L A A G A A L T A R H L  
UniRef90\_N8UHY0 S T I L T E A L R L D A D I R R A G E E R R M D A L C L A V A G G Q R L S I G T I  
UniRef90\_U7GOV5 G R V R L P D D V T Q G G A N I R P A G Q D A R R M D A L V I E R G Q R L T P Q A V  
UniRef90\_Q2G6Q6 E T L T L T G E P P P G R H I R P A G M D F T A D T T L I E A G T R I G P A Q I  
UniRef90\_A0JUW8 A A T V R L P A T E A G T Y V R S A G S D I P A G S L A L A A G T F L G S Q Q L  
UniRef90\_UPI000345370C G V V T V R H A P A P G E W I R R A G E D I T A G S V L P A G T R L R S G E L  
UniRef90\_L0DL23 P M V R V L E A T A V G R H V G R I G E D I E A E T V V L S A G R V L R P Q D L  
UniRef90\_A4G0V3 S F V E I Y T H P P N E N V S R I G G D D V K P G D L V L K K G S L I S P S H V  
UniRef90\_E2MY05 R R V N V L H V V Y S G D F V R K I G D D V Q P G D V A V S L D S V I S P S Q V  
UniRef90\_G6F230 S L T L T S P V K K G Q N I R Y Q A E E L K K G D V F L S S G Q Y I T P A V I  
UniRef90\_UPI0003A3AD17 G T V L V R E P V A V G A N I R P A G N D F R E G E D L L P A G A L E F T P A G I  
UniRef90\_A6DBV9 D E Y I V I P E I L K K G A N I R I L K G E E V K E G E L L L E K G E V L P E V I  
UniRef90\_UPI00047D0E6A Q T L R L L E I P K I G Q H I R Q R G A N H R K G E K L I S K G V Q L N A N H I  
UniRef90\_Z5XG16 D A V E I R A A S K P G H V R H A G E D V T A G T T V L R S G Q L V T P A A L  
UniRef90\_H8I6N4 G G R L F Y N E V K A G E N V L A R G S L L R K G D V A C A A G V Q L K P T D I  
UniRef90\_UPI000289F543 A S S I T P D C I R P G D N R R F K G E D L M Q G G P A L L Q G K R L G P A E L  
UniRef90\_A0A023XCP5 K R I T I K E A A V T G R H I R P A G E D F S E G E V L L C K G A R L T E R D L  
UniRef90\_B1LYB5 G S V I L P G G L V S G A N R R R A G E D V A R G S T A L R A G T R L G P Q H I  
UniRef90\_A1WLA1 G Q V Q I N A R P Q P G Q W L R H A G E D I R R G A V V L T A G T R L T P A T L  
UniRef90\_A9CYD1 A E V S F Q G E I T L G Q H V R L A G E D I A K G K T A L A A H K R M Q A P D E Q  
UniRef90\_UPI0003B62D5B T R V A F D G P I L K P N A N T R K A G E D V Q A K G G I A L A L T K G H R R P P  
UniRef90\_E7RV99 D C I K L R N I P Q I A E Y V R H K G E F Y Q A G T R L L S A G I K I N P P E I  
UniRef90\_UPI0002D47234 P T V T A A G L P P P G R H I R P R G F D F R T G D L L L P R G T R I T P P A R L  
UniRef90\_UPI0003B62D5B P T A R F A A P V A V G A N I R D A G T D R A G A V I V L A G T R I E P H H L  
UniRef90\_E7RV99 E T I T L P A G Q K P G Q A V R R R A G E D I R T G Q T A L P A G R I L S P M D L  
UniRef90\_UPI0004688E2B R E H T S D R A V A P G A N C H R R A G E D L A R G A T V L E A G R V L R P A D L  
UniRef90\_A7YG6 D L V Y A P E N L R K G D A H R F A G E E V K A G E L L I K K G T V L N T R A V  
UniRef90\_D0KYB9 G R V I L H E S M S V G A G V R P K G A D S R R G Q R V L C A G T R L D A A E L  
UniRef90\_UPI0004119F9B A G V L I T H Q P R A G E N I R R A G E E D M A A D R E V L P A G I L L R S Q E L  
UniRef90\_N8P1H9 S H I E I T E S L K A H V N I R D V G E E I A V G D L L A S S G Q Q L S V G A I  
UniRef90\_UPI0003645801 G Q I T L Q R P A R V G Q H I R Y R A E E Y A A G S Q L L A A G T R L D A A A I  
UniRef90\_B5JMX7 K T A T L K D N L Q L E Y H V H G Q G S D C K T G D E L L T P N R L T A K E I  
UniRef90\_UPI0002F75455 G H V H L E Q N V R N G L N I R R S G E E F C K G D M L L E H G R L K L D W R H L  
UniRef90\_UPI00036F42BE T T I R L T G P A T L G R N T R R R G L D F H A G D R L I A R G E R L T P A R I  
UniRef90\_J0UEK8 D S V R I N A E D I A E P G E N V R R A G E D T R G A V V L S A G T R L A P A E L  
UniRef90\_K9FHE0 C T P I L A A E D I E P G E N V R E P G S D V A L G S Q I V A R G D L I S P G E  
UniRef90\_I5C8J2 G S I E A T S T V A S G R H I R R A G L D F V E G D V V L E Q G R R L  
UniRef90\_E8TZZ0 G R V R V N A V P A A Q Q W I R R A G E E D I A L G A Q V L A A G T R L T P A E L  
UniRef90\_D0SIX3 N K I R L V I E H I Q Q A Q A I R F A G E E I Q L G Q K I A E C K G Q K I N I G A L  
UniRef90\_D0L6D9 Q K V K I G H G V D S G D Y V R R V G D D V Q P G D V A V R A G S I G P A Q V  
UniRef90\_C5ZWB1 N R L I K Q L P K I G E F I R K K G D N Y K K G E K L L S K G T K I N S H H I  
UniRef90\_UPI0001779M6 S N V W A R E A V P P I G K F A A Q V G D L L A G A A V V A A G R K L R P Q D L  
UniRef90\_UPI0003B691AE A D S V V E A P R S R G M H V R A G Q G D E C R A G D V I L A S G A L L G P R Q L  
UniRef90\_E6QVH7 N T V Q L V T A K S G Q D V R A K G E N M H S E V V L T A G T E I T P G V V  
UniRef90\_B7QS13 A K I A F N G P L K Q G A N T R A K A G E D A E S D V I L S A G R V T P P A D L  
UniRef90\_UPI0001779M6 D T V R F A A H V A R G A N C R K A G E D L A R G A C A L A A G R V L R A A D L

UniRef90\_A3SNU8  
UniRef90\_G7VA19  
UniRef90\_K5B7X9  
UniRef90\_UPI0002D87543  
UniRef90\_Q3AVP1  
UniRef90\_UPI00047E74BA  
UniRef90\_UPI0002D30E3F  
UniRef90\_W0AIS3  
UniRef90\_A9W903  
UniRef90\_E4TXT8  
UniRef90\_Q3ISS4  
UniRef90\_D0CQC8  
UniRef90\_K2QLQ5  
UniRef90\_UPI0002DFCAD0  
UniRef90\_U1PMH2  
UniRef90\_Q975A8  
UniRef90\_A0NTY1  
UniRef90\_A1B3Y9  
UniRef90\_H5WIA2  
UniRef90\_M4UBY0  
UniRef90\_UPI00047E5549  
UniRef90\_A3ZLK9  
UniRef90\_L7VCG7  
UniRef90\_A0A011PUE7  
UniRef90\_Q21YF4  
UniRef90\_UPI0003B690B2  
UniRef90\_UPI0003C7FEA8  
UniRef90\_B3DUM5  
UniRef90\_F4C4B1  
UniRef90\_L8DPR2  
UniRef90\_UPI000410C7B7  
UniRef90\_M0LSW1  
UniRef90\_V5SE98  
UniRef90\_S2WSK9  
UniRef90\_UPI0004690ABC  
UniRef90\_G0J845  
UniRef90\_F9N4Z1  
UniRef90\_M7YAU6  
UniRef90\_UPI00047A7E38  
UniRef90\_UPI0003B65AD2  
UniRef90\_A8FPG0  
UniRef90\_C5AFF9  
UniRef90\_UPI00016C59F0  
UniRef90\_UPI00037E707F  
UniRef90\_Q3J4Y6  
UniRef90\_E4TGD4  
UniRef90\_M2X490  
UniRef90\_N8UHY0  
UniRef90\_U7GOV5  
UniRef90\_Q2G6Q6  
UniRef90\_A0JUW8  
UniRef90\_UPI000345370C  
UniRef90\_L0DL23  
UniRef90\_A4G0V3  
UniRef90\_E2MY05  
UniRef90\_G6F230  
UniRef90\_UPI0003A3AD17  
UniRef90\_A6DBV9  
UniRef90\_UPI00047D0E6A  
UniRef90\_Z5XG16  
UniRef90\_H8I6N4  
UniRef90\_UPI000289F543  
UniRef90\_A0A023XCP5  
UniRef90\_B1LYB5  
UniRef90\_A1WLA1  
UniRef90\_A9CYD1  
UniRef90\_A0A058ZJN6  
UniRef90\_K9SWA9  
UniRef90\_UPI0002D47234  
UniRef90\_UPI0003B62D5B  
UniRef90\_E7RV99  
UniRef90\_UPI0004688E2B  
UniRef90\_A7GYG6  
UniRef90\_D0KYB9  
UniRef90\_UPI0004119F9B  
UniRef90\_N8P1H9  
UniRef90\_UPI0003645801  
UniRef90\_B5JMX7  
UniRef90\_UPI0002F75455  
UniRef90\_UPI00036F42BE  
UniRef90\_J0UEK8  
UniRef90\_K9FHE0  
UniRef90\_I5C8J2  
UniRef90\_E8TZZ0  
UniRef90\_D0SIX3  
UniRef90\_D0L6D9  
UniRef90\_C5ZWB1  
UniRef90\_A0A017T9M6  
UniRef90\_UPI0003B691AE  
UniRef90\_E6QVH7  
UniRef90\_B7QS13  
UniRef90\_A0A024RUC9

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

UniRef90\_Q46ZS8  
UniRef90\_UPI000374002D  
UniRef90\_UPI0002E604DA  
UniRef90\_F1YJA1  
UniRef90\_A6UST5  
UniRef90\_K0KGH9  
UniRef90\_C4LHG2  
UniRef90\_UPI00045EAB2F  
UniRef90\_UPI0003492159  
UniRef90\_C6C234  
UniRef90\_F3P711  
UniRef90\_UPI00036EE090  
UniRef90\_B8EJZ8  
UniRef90\_A0LIY5  
UniRef90\_UPI0004726462  
UniRef90\_I0RD26  
UniRef90\_UPI00047C07AC  
UniRef90\_UPI0003F8A545  
UniRef90\_E8TVU7  
UniRef90\_C9CSG1  
UniRef90\_A8EUX4  
UniRef90\_V5X8H8  
UniRef90\_G2NHU2  
UniRef90\_A1VMX2  
UniRef90\_C8PH92  
UniRef90\_D1B4Z2  
UniRef90\_S3XLC7  
UniRef90\_E8R6T7  
UniRef90\_UPI00037B26BC  
UniRef90\_X4RAY1  
UniRef90\_B5YFR5  
UniRef90\_D5UZC9  
UniRef90\_X7FBN2  
UniRef90\_H0HFF1  
UniRef90\_UPI0004676A57  
UniRef90\_Q0AVX9  
UniRef90\_Q39NF4  
UniRef90\_L7L950  
UniRef90\_C9RF07  
UniRef90\_V5FT45  
UniRef90\_A0A009ZX17  
UniRef90\_UPI00041E5F16  
UniRef90\_R4KKH1  
UniRef90\_U1Q0T3  
UniRef90\_E6X2U3  
UniRef90\_G0VN04  
UniRef90\_UPI00046D62F6  
UniRef90\_UPI000478018D  
UniRef90\_L0IRU3  
UniRef90\_W0E513  
UniRef90\_J7QXD4  
UniRef90\_D6ZJA1  
UniRef90\_Q97W71  
UniRef90\_T0HH01  
UniRef90\_N9N351  
UniRef90\_J9HVE4  
UniRef90\_UPI000375C74F  
UniRef90\_UPI000466DC05  
UniRef90\_NOAZM9  
UniRef90\_I3XXE0  
UniRef90\_A6DTB0  
UniRef90\_K9D0U9  
UniRef90\_UPI00046AA7E6  
UniRef90\_C3XM64  
UniRef90\_F5LA13  
UniRef90\_I3TLG3  
UniRef90\_I9M8N5  
UniRef90\_B9KF74  
UniRef90\_D5ANN3  
UniRef90\_UPI0003648277  
UniRef90\_S2XNU0  
UniRef90\_D6ZYL1  
UniRef90\_A3V4Y3  
UniRef90\_E1L881  
UniRef90\_UPI00047D6E7D  
UniRef90\_Q4JTT9  
UniRef90\_UPI0003619F22  
UniRef90\_G6XLT7  
UniRef90\_UPI0003791BD0  
UniRef90\_UPI00041D1897  
UniRef90\_N9WD20  
UniRef90\_Q11HT9  
UniRef90\_C5F1C3  
UniRef90\_U2EPZ3  
UniRef90\_K1Y4E5  
UniRef90\_V4XYU5  
UniRef90\_E8RFT0  
UniRef90\_B2STT1  
UniRef90\_UPI0003792114  
UniRef90\_W6ER05  
UniRef90\_K2LSU5  
UniRef90\_D4YZ94



UniRef90\_Q46ZS8 S L Q V P P A D N T S M D G Y V M R A A D V P A A G T 70 R L P V S Q R I P 80  
UniRef90\_UPI000374002D G L D L P P W P N S A M D G Y A L R L A D A D W Q G E P L R V S Q R I P  
UniRef90\_UPI0002E604DA R L D V P P F F D N S A M D G Y A L H H A D A D A G R W L P I V S Q R I P  
UniRef90\_F1YJA1 R W P V P F F D N S A M D G Y A V R R R A D A V E G A L L R V V I A D V P  
UniRef90\_A6UST5 K S N I P P E F R K S N M D G Y A V T A P F L E H Y T V V I D E V H  
UniRef90\_K0KGH9 D L N V P P N F E A S I V D G Y A V N T D G P G L Y K V V V G D V S H  
UniRef90\_C4LHG2 D R Q V P P F N Q A A I D G Y A V R A V D L V P R D H R K L A E L P V V V G D V G  
UniRef90\_UPI00045EAB2F P L N L P P R D R N A A V D G Y A F S S R D I V R R Q P F H L R L A G V S W  
UniRef90\_UPI0003492159 P L D F P P H W D N S A M D G Y A V R F A D V Q Q C S A D D R P I T L A V V T E I P  
UniRef90\_C6C234 G I S L P P E H D R S A M D G F A V R S A F T A A A S A D I P I E M G F S G E V R  
UniRef90\_F3P711 A V P V P P E W T N S A M D G Y A V R A E D T T A G A S P Q T P V V L P V S G D V P  
UniRef90\_UPI00036EE090 P V D L P P S A P T A A M D G Y A V R A A C L G E Q G R E F S L L A G T A A  
UniRef90\_B8EJZ8 L A L P P G F D N S A V D G Y A V R A F K D L A T A G E S V L P L I G G R M A  
UniRef90\_A0LIY5 P E S V P P H F S R A T M D G Y A V R A R D T F G A S E T L P A F L E T A G E I K  
UniRef90\_UPI0004726462 P I N V P P Q Q N N S A M D G Y G F A F S D P L P T E F T L V I G E I P  
UniRef90\_IORD26 P L S L P P V F D N S A M D G Y A V R A E D V A S A T A E H P K F L P V A E D L P  
UniRef90\_UPI00047C07AC P I N V P P H D N S A M D G F A F D G G Q L T A G Q P V L Q L Q V V I G T A L  
UniRef90\_UPI0003F8A545 P L D L P P P F A N S A M D G F A I R S A D V P D G G T E L R V A A P V  
UniRef90\_E8TVU7 P I S V P P H D N S A M D G Y A F D G A Q L A S G H A L L L R P V G T A F  
UniRef90\_C9CSG1 L R S N P P Q P N T A V D G Y G F A G G R P E G A H V M P L V A G R A A  
UniRef90\_A8EUX4 K K N L P P A F N N S A M D G F A I K F S D A G K T L K I N Q T I F  
UniRef90\_V5X8H8 A I S L P P F D N S A M D G F A V L D T D I A A A G D A T P V T L P V V D D I P  
UniRef90\_G2NHU2 E V A L P P F D N S S M D G Y A V R V S D V E G A G E E F P A V L T V V G D V A  
UniRef90\_A1VMX2 P F D V P P R R D N S A M D G Y A F A G A Q L S P D A A L D L Q V V G T A L  
UniRef90\_C8PH92 P F S T P P R R P T A A M D G Y A L K G A D L S E G A K F K I V G T T P  
UniRef90\_D1B4Z2 V E N N P T H E T A S M D G Y A I A F S D Q D L G K L H V N A F V P  
UniRef90\_S3XLC7 K E N Y P P K F K T S A M D G Y A I K F D E N N K K F K I L G S N P  
UniRef90\_E8R6T7 D R D S P P F D K A L M D G Y A I R S A D A G D R R E F E V L V E I P  
UniRef90\_UPI00037B26BC P R N V P P Q H D T S A V D G Y A F R Y Q D F D P C G G F F R L E T R I P  
UniRef90\_X4RAY1 R L S V P P F D N S A M D G F A V R V E D A A G E G P W T F A V I A E T A A G S  
UniRef90\_B5YFR5 K F S S P P F H S A A M D G Y A V K S Q K T F L A T E R E P V R L Q I G V D  
UniRef90\_D5UZC9 T I S L P P K F N N S A M D G Y A I L F E D K D K E L T L T N K I F  
UniRef90\_X7FBN2 L R S N P P A A N A A V D G Y G F A H A S I G V G P Q R L P L V R G R A A  
UniRef90\_H0HHF1 P C A L P P R F D H S A M D G F A V R L A D F S G S G P W T F L V A D R V A  
UniRef90\_UPI0004676A57 P L N L P P S W P Q S A M D G Y A F S S L A D S C L L P V V D C L Y  
UniRef90\_Q0AVX9 F I N L P P T F D N S A M D G Y T I G K T D L K R L Q T G R S L R L R V A S I G  
UniRef90\_Q39NF4 V L D Q P P A D Q S A M D G Y A V R H A D L A H G E P L H V A Q R C Y  
UniRef90\_L7L950 T E P L P P G F D Q V A V D G Y A V R A V D V P E G S E D L V V H L P V V G D V A  
UniRef90\_C9RF07 P I D L P P Y F N K A S M D G Y A V K A E N T F G A S E T N P I L D I V D R D  
UniRef90\_V5FT45 G E A V P P A Y R A S L V D G Y A L T A J E S P S T G I S S K G V F P V A S V S H  
UniRef90\_A0A009ZX17 P V N L P P S F D Q S A V D G Y A L C S N Q T D A K D Q S F K L I G E I R  
UniRef90\_UPI00041E5F16 P V P L P P G F D N S A M D G F A V R R D D V L G A S A D A P V T L R V V A D I P  
UniRef90\_R4KKH1 T R D L P P S H P Q A S L D G Y A L H I N D L G R L D S F K V Q E R L R  
UniRef90\_U1Q0T3 K R T L P N H D C A A I D G W A V R S A D M S D A T D Q Q Q H Q L S I V I G D A D  
UniRef90\_E6X2U3 E E N S P P E A P T S G M D G Y A V R H E D L A L G R L K I S G I N P  
UniRef90\_G0VN04 A H A Y P P Y R K S P F D G Y A I H S H E G T T Y E V S V I A T I G  
UniRef90\_UPI00046D62F6 Q T D V P P S F S R S A M D G Y A V V F S S K N D K R F R I V D D  
UniRef90\_UPI000478018D T L D V P P C D N S A M D G Y A V R V A A A A A L P V S Q R I P  
UniRef90\_L0IRU3 P L S V P P G F D N S A M D G Y A V V A D D V A A A T P E Q P V L L P V A E D I P  
UniRef90\_W0E513 T A P V P P H Y R K S T V D G L A V R A S D T F G A S E S M P A L I Q C L I G E V Y  
UniRef90\_J7QXD4 R K N L P P S F D N A A L D G Y A F N Y T D I N E A H S P A L P E I K G T I F  
UniRef90\_D6ZJA1 D S S L P A T D L A G G D G Y A V R A Q D V V H S P A L P V T A D I Q  
UniRef90\_Q97W71 P I D Y P P F S R S N V D G Y A L K S S C T P G E L K V I D R I E  
UniRef90\_T0HH01 L R D Q P P W A D L S A M D G Y A V R A G E Y P G P W R V T G E S A  
UniRef90\_N9N351 N V N L P P N F S Q S A V D G Y A L N T T L E H L Q D A R F D L K G E I K  
UniRef90\_J9HVE4 A I D L P P F D R A M M D G F A I A S D L T L E H N A M E P L F I R G A V A  
UniRef90\_UPI000375C74F R V D L P P M Y T Q S A V D G Y A L R A A D L V G A A P G A P R R L P L C G E V R  
UniRef90\_UPI000466DC05 P V D L P P V F R N S G M D G Y A V R A E S V A V T P V T L P L A G V V A  
UniRef90\_NOAZM9 K V S M P Y Y H A S A M D G I A V N A E D T Y E A H E K N P L H L Q  
UniRef90\_I3XXE0 K K N L P P S Y N N A A M D G Y A F T Y K E G L R E L H I K K T I L  
UniRef90\_A6DTB0 E R E N P P F N R V A M D G I A I N Y A Q W Q N S R T S F E I K G T Q A  
UniRef90\_K9D0U9 K T S I P P F R K A P Y D G Y A I V H S E G R S Q F T I V A T I G  
UniRef90\_UPI00046AA7E6 R R S N P P L P N T A V D G Y G F A G G R P A G Q H T L P L A Q G R A  
UniRef90\_C3XM64 P S N M P P F P L S R M D A Y A F N S T F K D A K C F Q L L A E N P  
UniRef90\_F5LA13 C L S M P P H Y H A S A M D G I A V R A E D T Y G A H E Q R P K Q L  
UniRef90\_I3TLG3 R R T P P P Q A M S A M D G W A L R S V D L A E G H R T F R V N G E A R  
UniRef90\_I9M8N5 T M D F P P F N R S P L D G Y A V Q L K D I V H V S P E H P V L L M Q I E S V P  
UniRef90\_B9KF74 L N D H P Q F P T S A M D G Y A I K F D D Q D E N L K I I G E V P  
UniRef90\_D5ANN3 E T A L P P R A R S A M D G F A L R T A D L A A A L T L P V A G T V A  
UniRef90\_UPI0003648277 S I D V P P A F D N S A M D G Y A L H V T D F A A A P L A E F A L T Q R I A  
UniRef90\_S2XNU0 P I D V P P A H D N A A M D G Y A F D G N Q L Q A G A P L V L R V I G Q A L  
UniRef90\_D6ZYL1 R R T P P G A D V S A M D G Y A L R A A D A A T V P A T L R L I G E S A  
UniRef90\_A3V4Y3 L R A H P P S P N A A V D G Y G F A G P A G P G A Q S L T L V Q G R A A  
UniRef90\_E1L881 P T D V P P A F H K S A M D G Y A L A Y D P N C D T Y I V D G I G  
UniRef90\_UPI00047D6E7D E H N S P P E F T S G M D G Y A F K Y E D I N S E Y L E I I D K N P  
UniRef90\_Q4JTT9 N V P V P P F D N S M D G Y A V A Y R D I A V E S T G S V T L P V S G D I P  
UniRef90\_UPI0003619F22 G F D V P P R Q N L S A M D G Y A L A I G S V L D A G T Q G S V T I E I I G E S Q  
UniRef90\_G6XLT7 E R A Q P P Y D R V M M D G I A F R S G S P V L V V H G T Q R  
UniRef90\_UPI0003791BD0 N I D N P P K Y D N S M D G Y A V N Y N N Y T K I N K E T T K K V L K V I G E S S  
UniRef90\_UPI00041D1897 P V D V P P H D N A A M D G Y A L N G A Q L Q P G Q P V L Q V V I G R A L  
UniRef90\_N9WD20 G R D Q P P A A P L S A M D G Y A I R F A D L P G P W T I A G E V A  
UniRef90\_Q11HT9 R R T Q P P F D A S A M D G Y A V R A A D I E S P P A T L A V I G E S A  
UniRef90\_C5F1C3 P S D M P E F P L S N M D G Y A I N S T M L E K S K G I F E I L R E N P  
UniRef90\_U2EPZ3 D R N Y P A K P V S A M D G Y A F A Y D D S L S E L E L I T D L P  
UniRef90\_K1Y4E5 T E A V P P A Y R A S L V D G Y A V T A P T S G R S S K G V F P V A S I S H  
UniRef90\_V4XYU5 A R D V P P G Y D R A A V D G W A V R A A D T F G A S D R A P E A V D V L A D G  
UniRef90\_E8RFT0 R F S S P P F H S A A M D G L A V R A E D T F G A S D D T P R T L R I  
UniRef90\_B2STT1 P A E L P P F D N S A M D G F A L A T A G T G A L A D S E H V V S G T V  
UniRef90\_UPI0003792114 V A N V P P Y D N S A V D G Y V I G N D S V D S K D A L E L S V S Q R I P  
UniRef90\_W6ER05 K K N L P P S Y N N A A L D G F A F K Y Q E G L S E L A I K T I L  
UniRef90\_K2LSU5 R V D V P P S A D N S A M D G Y A F C H A D L Q E F V G A S D A Q I V G G V I L  
UniRef90\_D4YZ94 L R D Q P W A D L S A M D G Y A V R A A E W P G P W Q V A A E S T

UniRef90\_Q46ZS8 A G H V G T E L A P G T A A R I F T G G L I P P G A D A V V M Q E Q C V A D G  
UniRef90\_UPI000374002D A G Q A P E P L L E R G S C A R R I F T G G S E L I P P E G A D D C A V V M Q E E N T E V A D G  
UniRef90\_UPI0002E604DA A A G H T A A P S F E R G P G C A C A R I F T G G S E I V P P E G A D D C A V V M Q E E N T E V A D G  
UniRef90\_F1YJA1 A A G C A D D P S F E R G P G G E A V R I F T G G S E I V P P A D A D A V V M Q E E H K T D L P P  
UniRef90\_A6UST5 A G D L R N V N I E K N Q C V F V V A T G G K V P P K G A N A Y C I I P L I E N T E K L E E D  
UniRef90\_K0KGH9 A S P S L P N F L K P N Q L A R I F T T G A P I V P Q Q S A N A V I I M V E E T E E E D  
UniRef90\_C4LHG2 A G S H R P L R L K P N Q A V R V V E T T G A P I V P T L S D A V I I M V E A W V E R H G  
UniRef90\_UPI00045EAB2F A G K P F L G Q L S A G E C V R I F T G A V V P N E A D S V V M Q E A F V S V D G G  
UniRef90\_UPI0003492159 A G K I P Q V S L K A E Q A A R I F T G A M V P L G A D T V I M Q E E D T V R E G E  
UniRef90\_C6C234 P S C P V P E K C E E Q A V R V L T G G I P P E L G A D T A V I P F E N V Q V G E  
UniRef90\_F3P711 A G A A P Q P L V A G T T Q R I M T G A M L P E E G A D A V V K V E D T H P L P  
UniRef90\_UPI00036EE090 A G S P F F G S L P E G G T C V R I F T G A L L P E E G T D L V I M Q E E A L L R D  
UniRef90\_B8EJZ8 A G R S F D P A G G D E G T A V R I F T G A M M P P P G M N T V F M Q E E D C R L T D  
UniRef90\_A0LIY5 M G E T V T R R L E P E G T A I G V P T G G M L P P E G A D A V V M V E Y T Y P L D  
UniRef90\_UPI0004726462 A G H S Y D K V L A G E A V R I M T G A P V P A G G A T A V V Q P V E N L A H E Q A  
UniRef90\_I0RD26 A G R T D T L T L A P G T A H R I M T G A P V P A G G A T A V V P P R E N T A D A G T  
UniRef90\_UPI00047C07AC A G K A W Q G Q V A A G Q A L K I M T G A L L P P G G L D T V V P Q E F T R T A A  
UniRef90\_UPI0003F8A545 A A G A A P P E L A P G T A A P I M T G A M M P P A G S D A V V P I Q E Q A I P D V  
UniRef90\_E8TVU7 A G A A W T G R V G A G E C V K I M T G A I M P P A G L D T V V P Q E L T S A V G  
UniRef90\_C9CSG1 A G V P F N G V V P P G Q A V R I L T G A A L P P E G V D T V I L E E D V R T D G E  
UniRef90\_A8EUX4 A G D K V E A S L S Q N E C Y K I M T G A K V P N D V D T V I P I E N D F V T T A  
UniRef90\_V5X8H8 A G R T D T R P L Q P G E A Q R I M T G A P L P A G A T T V V P V E N D F T T A  
UniRef90\_G2NHU2 A G D G D G R S L A P G E A A R I M T G A P L P A G A E A V V P V E W T D G G T  
UniRef90\_A1VMX2 A G K A W Q G S V L P G G C V K L T F T G G V M C A G L D T V V P Q E F V Q V L N R G  
UniRef90\_C8PH92 A G K M P S A A K A G E C V K T F T G G L M S E G T D T L L P I E N V V E V E G D  
UniRef90\_D1B4Z2 A G S E T T G V V A Q G Q C V K T F T G T L M S E G T D T L L P I E N V V E V E G D  
UniRef90\_S3XLC7 A G K F E I S S L K G E N E S I K T F T G S L M P E N S D T L V P V E N V K V D P D  
UniRef90\_E8R6T7 A G T V P S R Q L G Q E S A L I M T G A P L P E G A D A V V P R E W A D D P A  
UniRef90\_UPI00037B26BC A G H P A A Q S L T P W A A A R I F T G G V M P P E G A D T V A M Q E D C R L E T  
UniRef90\_X4RAY1 V G Q N S A H D A A P P Q A A R I M T G A P V P A W A D A V V K V E D T D E L R  
UniRef90\_B5YFR5 A G D N N Q D I L E T G T T I K I M T G A R V P P Q N C E A V V P Q E N T Q T I G  
UniRef90\_D5UZC9 A G Q P F A G S V P P G A A V R I F T G A L L P P E G V D T V I J R E E C C A S R D G  
UniRef90\_X7FBN2 A G D Q S S F E N A A V E I F T G A M I P P A G F D A V I I R E K C C S R H D  
UniRef90\_H0HFF1 A G Q E P K M V S P N N A V R I M T G A L L P P E G L D T V I P F E Q T D K G M  
UniRef90\_UPI0004676A57 A G S I E N R P I R P G E T C R I M T G A L L P P G S V A I K Q E D V I N E D  
UniRef90\_Q0AVX9 A G D T P A P I L A P R T A R I F T G S V I P P G A D T V V M Q E H A R E Q D  
UniRef90\_Q39NF4 P G S R N P I R L Q P G Q A V R V Q T G A P M P T L A D A V V P L R W T D G G D  
UniRef90\_L7L950 P G S R N P I R L Q P G Q A V R V Q T G A P M P T L A D A V V P L R W T D G G D  
UniRef90\_C9RF07 P G S R N P I R L Q P G Q A V R V Q T G A P M P T L A D A V V P L R W T D G G D  
UniRef90\_V5FT45 A Q A S S P P P L E Y E N E A K K I F T G E K L P P K N A N A V V M E E F C N V V N  
UniRef90\_A0A009ZX17 A G E E S S L A L S E G Q A T R I F T G G K I P P E G T T T I A R Q E I V K K I D  
UniRef90\_UPI00041E5F16 A G S G L R S P R L Q P G E C A R I F T G S P V P A G D A D A V V P F E H T V Q G V  
UniRef90\_R4KKH1 N G E L P R D P L I P G H A V G V V T G G P L P A G D A D A V V A Q E L V T V K E  
UniRef90\_U1Q0T3 A N P P S K A P V L E E G T A V R V E S Q A T L P P S E A D A V V H S K D V K V N H  
UniRef90\_E6X2U3 A G N S E L E E L A R P G E A I K T F T G S L M P P G S D T V I P I E N V T V E G G  
UniRef90\_G0VN04 A G I V Y E G P V A Q A V R L M T G C A V P P G D D T V I P Q E C V D H R G  
UniRef90\_UPI00046D62F6 A G I V Y E G P V A Q A V R L M T G C A V P P G D D T V I P Q E C V D H R G  
UniRef90\_UPI000478018D A G S V P Q L L P A S A A R I F T G A P V P P Q A D A V V M Q E Q A E V I Q P  
UniRef90\_L0IRU3 A G R T D P L R T L K P G T A H R I M T G A P L P P A G A T A V V P V E A T D G A T  
UniRef90\_W0E513 M G I A P V E S L K P G E G M L I P T G G M L P P E G A D A V V M V E H L E D F G E  
UniRef90\_J7QXD4 A G D K N F Y T V A K N E C Y K I M T G A K M P P K N A D I L M L E D E C I E E  
UniRef90\_D6ZJA1 A G D T V W T R L V P G S A I R I A S G A P L P P G A D A V V P V E S T D M G I  
UniRef90\_Q97W71 I G E F K E V H I N E C V A I E V D T G A I P P M G A D A V V K V E D V K I S  
UniRef90\_T0HH01 A G A A T P S P L A A G E A L R I F T G A P V P P G A D A V I L Q E N A T R D A  
UniRef90\_N9N351 A G S V S D R P L Q Q G A I R I F T G G K I P P E G T T H V A R Q E I V V V E S  
UniRef90\_J9HVE4 A G D P A P I T L A N G D A V R V R T G A M V P P S G A A A V V R Q E W V D V I Q G  
UniRef90\_UPI000375C74F A G V A P Q D A L P P P G S A M R I F T G G R L P A G A D T V A R Q E I V E R D G E  
UniRef90\_UPI000466DC05 A G Q P G L A A L P P G S A M K V M T G A P I P P A G A D C V P V E D T R A G E  
UniRef90\_NOAZM9 K D E Q F V Y V D T G N A I P P Q F N A V I M I E Y V H V V D  
UniRef90\_I3XXE0 A G S V V D A C L M G N E C Y K L M T G A K V P P F D A D T V I P F E M C E L H G  
UniRef90\_A6DTB0 A G H P P L E D P S T C L E A M T G A V L P P S G C D C V I P V E R I S V T N  
UniRef90\_K9D0U9 A G E R Y E G K V L E G E A V R I M T G A P V P D D C D T V I M Q E R C R L C S  
UniRef90\_UPI00046AA7E6 A A G D A P A V L P E G Q A I R V L T G A A L P A G A V D T V I L Q E D V I V E A  
UniRef90\_C3XM64 A G N I P T L P L D A P F A I K T F T G A K I P A K N A D M L A P I E D C V V K Q  
UniRef90\_F5LA13 V E G E T F E Y V D T G D P I P A G Y N A V I M I E H V I Q E G E  
UniRef90\_I3TLG3 A G E G F G G D V P G E A V R I F T G A P V P P G A D A V V I Q E D T R V T G  
UniRef90\_I9M8N5 A G S V P C K I V T G S Q A T R L M T G A K I P P E G A D A V V R L E D T R L V N  
UniRef90\_B9KF74 A G K F P N F K L N N K E C V K T F T G S L M S E G S D T L I P I E K V Q V E N  
UniRef90\_D5ANN3 A G M Q A P P L P D G A A L R I F T G A Q I P P A G A D A V I P V E E V T E T A  
UniRef90\_UPI0003648277 A G D V G A P L A P G E A A R I F T G A P L P P G A N A I A M Q E D C V E A  
UniRef90\_S2XNU0 A G K P W H G T V R A G E C I K I M T G A V L P A G L D T V I A H E R T E P S P  
UniRef90\_D6ZYL1 A G R P F A G T V E G T T V R L F T G A V V P D G A D A V I M Q E D T R R D G  
UniRef90\_A3V4Y3 A G Q P F A G V V P A G H A I R I L T G A N L P Q G V D T V V M Q E D V Q A T D  
UniRef90\_E1L881 A G V V W D K P V T T G H A V R I M T G A P V P S T C D T V I M Q E Q T G E V G  
UniRef90\_UPI00047D6E7D A G F V V E T T V V N K T C I K T F T G S L M P K G S D T L I P I E N V I V L E  
UniRef90\_Q4JTT9 A G A V P R A L R N G T A M R I M T G S V L P P S G A D T V V P V E L T D Q P  
UniRef90\_UPI0003619F22 A G T P F S G E L Q P G Q G V R I F T G A V V P D G C D T V V M Q E N T N F Q S  
UniRef90\_G6XLT7 A G A P G Q P L P E G N A C L E V M T G A V L P P E G T D T V I P V E R L V R D G  
UniRef90\_UPI0003791BD0 A G N T F S K K I E G L E T V R I F T G A K L P P S G S D T V I I Q E D V J R N K  
UniRef90\_UPI00041D1897 A G V P W S G E I G P G Q C L K I M T G A V L P A G L D T V V P H E L T Q A L D  
UniRef90\_N9WD20 A G T A P S R A L G P G E A I R I F T G A M L P D N A D T V V V Q E D V I A D G  
UniRef90\_Q11HT9 A G L R F S G R V P G E A V R L F T G A P V P V G A D T I L L Q E N V A S A E A  
UniRef90\_C5F1C3 A G N Q E I L E L P P N K P I K T F T G A A I P P K N A D M L I P I E N V I K L E  
UniRef90\_U2EPZ3 A G S D K E I K I S G N K C V K T F T G S L M S E G S D T L V P V E N V I V N G  
UniRef90\_K1Y4E5 A T P G E I P L E A G Q L A R I F T T G A P L P P G A T S V V M V E N D T V L K T  
UniRef90\_V4XYU5 T P E G A D R V V P G A A A R V H T G S P L P P D G A D A V V M V E H A D R A G  
UniRef90\_E8RFT0 D T G E A V P V M T G Y P L P P D K N A V I M I E N V L J A D  
UniRef90\_B2STT1 A A G Q D V G A A A T G T A W E I M T G A G V P A S A D A V V P I E Q V Q E R P  
UniRef90\_UPI0003792114 A G I V P S R L K A G S A R I F T G A E I P P E G G L A V V M Q E D C E I A D  
UniRef90\_W6ER05 A G S V V E P C L S N N E C Y K I M T G A K V P P S D A D T I I P F E D C L S Y D  
UniRef90\_K2LSU5 A G H P F A R E I P R N Q A I R I A T G A S I P D G A D C I Q E N I T A N A  
UniRef90\_D4YZ94 A G G P P P L L E P G Q A C R I F T G A P L P P Q G A D S I L I Q E N A A R Q G

UniRef90\_Q46ZS8 N D V I T V N H V P Q S G E W I R R A G E D L E A G S V I L P A G T R L T P Q A L L  
UniRef90\_UPI000374002D G R V R F L J A P L K A G Q N L V R P R R A G G E D V A L A G S Q V L L D A D G T R L L G P V Q L L  
UniRef90\_UPI0002E604DA D S R A R M P E A D V P K P K H A H I R R R R A G G E D D V A A A G S Q V L L D A D G T R L L G D A A A Q L L  
UniRef90\_F1YJA1 N T I T V T F D T P E S T Y I V I E K G S D D I V S A G S Q V L L E K G G T J I N E R N V I  
UniRef90\_A6UST5 E L K L L A K G V E V G D F N V I R R K A G S D D I S K E G D V L V L R S K E G T V I S P A G E I  
UniRef90\_K0KGH9 R R I R P L F P V K S G D D F V H R R A G G E D D V L S K E G D V L V L R S K E G T V I S P A H I  
UniRef90\_C4LHG2 D H I E F P A A V P A R R F V R E I G S E D V K R S G E L L L C R A G K K L G A I E L L  
UniRef90\_UPI00045EAB2F D R V L L R Q A P Q P R Q A F F V R K T G S F Q M K A G G E T I V N S A G T V I S P C D A  
UniRef90\_UPI0003492159 C S I C I S S P A R A V R P G L S I R R A G E D L L A G A G G D P V M A A G T R  
UniRef90\_C6C234 G R V F L P P G A R R A G E N R L L K A E S D L A Q Q G Q L L A S A G T R R L I G P E R T L I  
UniRef90\_B8EJZ8 D K V I E V T R P V A P G G D N L L R E G E D I S V G G R E L F P G G W R R L A R P Q D V  
UniRef90\_F3P711 G K V S L E G K A I K K G S N R R R A G E D I V A K G A A A I N Q A G Q R I G V A A Q M  
UniRef90\_UPI00036EE090 E T V A I E G A A G R G R H L R R A G E D I V T A G T T V L R A G O Q V V P A V M  
UniRef90\_UPI00047C07AC D G R V P A D V V R R G D N R R L A G E D L M A G E P A L A A A G T C L G P P A A C  
UniRef90\_UPI0003F8A545 F T I H L A A G V R R R R L L G E D I L M A Q G E V A L L A S K G E L L T G P A Q L I  
UniRef90\_E8TVU7 A S V A F N G P L K P G A N T R K A G E D V A A G G D V I L T G G R V L T T P A D L I  
UniRef90\_C9CSG1 N S V K I P E R A T K K G S N R R R A G E E Q K V G E L L L R K T G E L L T T A S K A L I  
UniRef90\_A8EUX4 T Q V A I R R A T V J A G Q H I R R A G E D V A A G T A V L R T G Q L T T P A S A L I  
UniRef90\_V5X8H8 G E V R V H R P V K A G A H V R T R G S E D V R P G G D L A L R A T G S V V G P A Q I L  
UniRef90\_G2NHU2 S E I T I P A G L R T G D N R R L R G E D L A Q Q G K A A L R S K G T K L G F S Q I L  
UniRef90\_A1VMX2 E S I R I T T P V F K G F H A V R P V G E S Y K A G E V L L R Q K G T K I G F A E I I  
UniRef90\_C8PH92 G G R L E I L K P V K K G F A I R V M V R G R E M T A G E Q V L T P P V Q L T S A V R I L  
UniRef90\_D1B4Z2 Q F Q T D R P V V P G V N R K A G E D L A A G T Q L L A Q G H R L R A R Q D L L  
UniRef90\_S3XLC7 G V V T V P A G L P K G A N R R L A G E D L A A G T Q L L A Q G H R L R A R Q D L L  
UniRef90\_E8R6T7 D T V T I H A A P P Q P Q N D I R R R A G E D I V A G A L A L P S G A V L R G A R S L V  
UniRef90\_UPI00037B26BC G F I E I Y S S V P P Y N D I R R R A G E D I V A T E L L I P E S H V V R A V D I L  
UniRef90\_X4RAY1 S R I K I T S D I R K M Q H I R F I G E D I Q K D E L L V K K G E E L N F S K I L  
UniRef90\_B5YFR5 A A V V F D G P V K P G E N T R R A G E D V V A G N S P A F G A G H V L R A P D R I L  
UniRef90\_D5UZC9 R Q F T T A Y R P R P G E N T R R A G E D V D A G T L L L K A G T V L T A H R I L  
UniRef90\_X7FBN2 D Q L L R P E H L K V G R H V K P V G S D V Q F G G Q A L L K K G H R I T A R D I L  
UniRef90\_H0HFF1 N Y I V S V R P R R G S H I R R R A G E H E L M A G D R V A A K G Q V L K A E M H V L  
UniRef90\_UPI0004676A57 G W V A F D V P Q R R G S H I R R R A G E E V R A G D L L V P A G V R M G A M H V L  
UniRef90\_Q0AVX9 Q R V M I G H S V D S G D Y V R R I G D D V Q L G D V A V S E G A V I G P A Q V L  
UniRef90\_Q39NF4 G F L E V Y R A S V H P P E N V R S K L G D D V K H G S V L L K K G E I I T A G E I L  
UniRef90\_L7L950 T V E I L T A D I K P N E N V R S P G S D V L G S K I L Q K G N L T A G E I L  
UniRef90\_C9RF07 D Q I Q I V E S L Q T G V D I R R R A G E E V K Q G G Q L A D T G H Y M N I G S L  
UniRef90\_UPI00041E5F16 A T V E V T I E P K P A A N I R R R A G E D A P A G A L L A E A G C E R L L G A R I L L  
UniRef90\_R4KKH1 D R V I F T G K T P Q S N I K T P G E D F R A G D L L A A R G G T R F D A G L L  
UniRef90\_U1Q0T3 G L L E I S R A Y E R G E N V I T V G D D I E S G S V I F E S G D Q L Q S S D L  
UniRef90\_E6X2U3 D E I I D E P I P Y G F S N L R P V G E Y V E G E R L I A A G T P I D Y A Q I L  
UniRef90\_G0VN04 T R I E V T E T I K P Y G S N I P V G E C K P G A I I I P A A G T K L T A G A L I  
UniRef90\_UPI00046D62F6 G F I E L T R D I E R Q R N F T F S G V I E L K R G D V V V A R G E R I S V R K W  
UniRef90\_UPI000478018D G S V C F T A P V L A G Q N I R R R A G E D V I A E G Q T V L A C G Q L R D A D L  
UniRef90\_L0IRU3 D T V S I R A S A R D G Q H V R R A G E D V I A E G T T V L R A G Q L L T P  
UniRef90\_W0E513 Q Q L Y V G K P I A P A E N L D I G E D L S E G E V I I S R F T K I R P Q E M  
UniRef90\_J7QXD4 N K L I K K P K Q Y N A Y R Y K G E L L K K G E L L R Q K G T K L N D A K H I  
UniRef90\_D6ZJA1 S Q V T V N Q P A S P G S D V I P S G G I D V P S G A T V L R A G Q R L N D A Q K I  
UniRef90\_Q97W71 G N I K V D K K M T F G Q N I G W I G S D L P K N S I I L R K G E V I S H E K I V  
UniRef90\_T0HH0 G M L T A S A D P L P G R H I R A R A S D F A R G A L L E R G S R I G A A Q V L  
UniRef90\_N9N351 D K I R L A E H I K P Q A D I R F R T G E E I Q V G Q L A D V G S K I N I G A L  
UniRef90\_J9HVE4 E T I R L L Q R V R P N E S I Q R R R G D D V R R G A P L I G A G L P L D G Q T I  
UniRef90\_UPI000375C74F A A A L L R E A L A P G T V R E R G E L R A G A E L T A A A G Q R L H A G L I  
UniRef90\_UPI000466DC05 T T V T F E R G R A A G D F V R E P G T D V R A G E L L T A A G T L V R P R H I  
UniRef90\_NOAZM9 E N I E I T E P A T P W Q H I R P I G E D I T Q E E M L F P Q G H M L R P A D L  
UniRef90\_I3XXE0 E M V R L P E K I K K G N A L R L K G S E A D S V G G T L L E E G V H L N S R P E I  
UniRef90\_A6DTB0 N V A T L E D E L Q Q W A L R H I L K G S E H S A Q G T F K L A R T G Q V L N A P D I  
UniRef90\_K9D0U9 D D I L V N G V I K Q G E N I I P E G E E C A A G D R L M E A G V L D A G R L  
UniRef90\_UPI00046AA7E6 G T V R F S G P V K A G A N T R K A G E N Y K K G E M L V S Q G T R L N A A D L  
UniRef90\_C3XM64 N F L K I H A L P H I G Q H I R Q V G E D V V S G E M L L P Q G H V I R P V D Q  
UniRef90\_F5LA13 G K V Q I T E P A T P W Q H I R P V G E D V V S G E M L L P Q G H V I R P V D Q  
UniRef90\_I3TLG3 H H V E I R A D A E A G D N I R P A G E D F Q T G A V G L Q A G R G L E E A R A I  
UniRef90\_I9M8N5 D Q I E I L T A D A A T N I C S Q G E E R I N E K V L T T G T L E E G A L  
UniRef90\_B9KF74 N T L I I K E K V S K G F A V R K V G E S Y K K G E I L L K K G T K I N Y S E I  
UniRef90\_D5ANN3 A E V Q L T A A P A P G S H I R A V S G E Q P L G G L L R R G T R I R A H H I  
UniRef90\_UPI0003648277 G A V R V S G P L R E G Q H I R R S G E D V A G T V V L P A G T R I R A T E L  
UniRef90\_S2XNU0 D H V R I P A S V R T G D N R R R R G E D L S Q G C V A L A A G Q R L H P A A L  
UniRef90\_D6ZYL1 D L V T M N E A P T P G R H I R P A G E D F A S G E T I A R Q R G T T P A D L  
UniRef90\_A3V4Y3 T A I T F Q G P L K Q G A N A R A A G E D M T A G Q T I A R Q R G T T P A D L  
UniRef90\_E1L881 A T I T L Q G T Q K G S H I I P R G E E C S A G T V V I P K G T E I T S T V Q  
UniRef90\_UPI00047D6E7D N K I K I T K P V P F G F A V R N I R G E N Y K K G E V L I K K G T K I G F S E I  
UniRef90\_Q4JTT9 G E V T I T G H V E Q G A S I R F R G H D I E R G K M V A S A G E R V T P S L L  
UniRef90\_UPI0003619F22 Y A I T L T Q A A A V D K N I R K Q G S E E I T Q G E V V L Q A S A G K R L N P A D I  
UniRef90\_G6XLT7 R Q I T F E A Q P H A G Q F I H R R G S D C A A G T E L L P G L V L N G S P A L  
UniRef90\_UPI0003791BD0 K Y V E T K I N I K K N Q F I R R K K G L D F K A K N E L F N E G L V I K S R H I  
UniRef90\_UPI00041D1897 E Q R I R I P S L R A G A N R R L C G E D L G R G N L A L P K G Q K L H P A A L  
UniRef90\_N9WD20 A R L T L D G P A S R G R H I R R A R A S D F A A G A P L L K A G C R L A P G A L  
UniRef90\_Q11HT9 D R I S A L E P A R P G R H I R A A G L D F A K E S D V L L K A G R L A P P A A  
UniRef90\_C5F1C3 N K I K I T K I S Q I G E F I R A Q K G D N Y K Q G E K L L A C G I Q I N P N H I  
UniRef90\_U2EPZ3 S K L T I K K G V S K G F A V R A V G S Y K K G E I L L K K G T K I S Y A E I  
UniRef90\_K1Y4E5 M T E D G E E V K H G H I R E V I G S D K K G E V L I K K G E I S A G E L  
UniRef90\_V4XYU5 G V L D V F R A L G P G E N V G P R G E D V E E G Q Q L Y D A G H R L R P S D L  
UniRef90\_E8RFT0 D G A T I R A P V Y P W Q H I R K V G E D V A T E L L F P T G H Q L R G A H I  
UniRef90\_B2STT1 S R I R L R Q P V R A G Q H I R R R R G E D I V C L H D R V I E A G T V L Q A Q D V  
UniRef90\_UPI0003792114 H Q V V V P A G I S A G Q N L R K C Q D L R S G A V V L N V G H L Q A Q D V  
UniRef90\_W6ER05 E H I V L S A N V K K G N A L R L K G E E A R V G A S L L S E G T C L T S R D I  
UniRef90\_K2LSU5 D E T L V I J A K T R L H Q H I R R R R G E D V A T G M V L P A G K R L P Q D I  
UniRef90\_D4YZ94 D V L R L D E A I A T G R H V R P A G S D F R K G L L L K A G G A L G P A Q I

UniRef90\_Q46ZS8 G L A A S V G Q A R L E  
UniRef90\_UPI000374002D G L A S L G  
UniRef90\_UPI0002E604DA G H L A G Q G L T E I S V R R R  
UniRef90\_F1YJA1 S A I A S A G H D R I P V V A R  
UniRef90\_A6UST5 G L L A S L G I S E L K V Y K  
UniRef90\_K0KGH9 G V L A S I G K T S V K V Y Q K  
UniRef90\_C4LHG2 G L L A A V G R S K V L V Y P R  
UniRef90\_UPI00045EAB2F G L F A S A G Y D V A V K R  
UniRef90\_UPI0003492159 A I L A A A Q C T Q V P V Y R  
UniRef90\_C6C234 A L L A Y A G I R S I P T Y P  
UniRef90\_F3P711  
UniRef90\_UPI00036EE090 A L L S A I G R E K V P V R P R  
UniRef90\_B8EJZ8 G L A A A L G L D R L T V R R R  
UniRef90\_A0LIY5 G V L A A L G  
UniRef90\_UPI0004726462 G L L A S L G M A Q F D V Y R R  
UniRef90\_I0RD26 G L A A A L G L A E L P V I P R  
UniRef90\_UPI00047C07AC G L L A S L G L P T V D V V R R  
UniRef90\_UPI0003F8A545 G L L A A L G F T E V P V Y R  
UniRef90\_E8TVU7 G L V A S L G L K T V T V H R R  
UniRef90\_C9CSG1 A L A S A T G L A E L L V R K  
UniRef90\_A8EUX4 A I L A S Q G I V V V E V Y K K  
UniRef90\_V5X8H8 G L V A A L G L D R V S T L P R  
UniRef90\_G2NHU2 G L L A A I G R A A V K V R P R  
UniRef90\_A1VMX2 G L A A S L G L E T V K T W R  
UniRef90\_C8PH92 A L L A E L G L F H I S V F V R  
UniRef90\_D1B4Z2 G V M A E L G M V Q V E V F M R  
UniRef90\_S3XLC7 A L L A E L G E F H I S V F  
UniRef90\_E8R6T7 G L L A S L G V A R P L V T R R  
UniRef90\_UPI00037B26BC A A I A S T G T A E V P V F T R  
UniRef90\_X4RAY1 S A L A S V G F G E V E V V R R  
UniRef90\_B5YFR5 G A I L A S G I I E I K V R K K  
UniRef90\_D5UZC9 T L L A S Q G I S H  
UniRef90\_X7FBN2 A L L S A L G V S R E V P V R A R  
UniRef90\_H0HFF1 A L L A A A G L S R I S I V R K  
UniRef90\_UPI0004676A57 G L M A S I G L T E A K V V R K  
UniRef90\_Q0AVX9 E R V A A C G L E R V P V Y Q  
UniRef90\_Q39NF4 G V A A A Q G F A R V D V R P  
UniRef90\_L7L950 G L L A A V G R S R V L V H P R  
UniRef90\_C9RF07 N M L A S L G I K E V E V Y  
UniRef90\_V5FT45 G L L A S T G T K T V K V Y K K  
UniRef90\_A0A009ZX17 A A L S M A G V Q S V T V F Q Q  
UniRef90\_UPI00041E5F16 S  
UniRef90\_R4KKH1 G V L A A F G N S E V M V Y R R  
UniRef90\_U1Q0T3 G V L K S A A I D E V T L Y Q R  
UniRef90\_E6X2U3 G V L S S L N R C H V T V Y A K  
UniRef90\_G0VN04 S V A V G L G N D R L P V Y A K  
UniRef90\_UPI00046D62F6 G L L A Y S G V Y R L K V R R R  
UniRef90\_UPI000478018D G L A A S V G V A Q L Q V Y  
UniRef90\_L0IRU3  
UniRef90\_W0E513 G L L A S Q G V I F V P V L P R  
UniRef90\_J7QXD4 A L L A S Q G L Y K I E V I R K  
UniRef90\_D6ZJA1 A L L A A L G  
UniRef90\_Q97W71 G L L A S L G I S K V K V Y E K  
UniRef90\_T0HH01 A L A V L G G H  
UniRef90\_N9N351 A A L S M A G V Q S I E V F  
UniRef90\_J9HVE4 A V L R A A G V T K V P I H R  
UniRef90\_UPI000375C74F A A L A M A G V D A V R V V R  
UniRef90\_UPI000466DC05 A A L A A V G L A A L P V F R R  
UniRef90\_NOAZM9 G V L L A G Q I T E V S V T K K  
UniRef90\_I3XXE0 A L L A S Q G L M M V E V Y K K  
UniRef90\_A6DTB0 A V A A A A G Y G Q V K V A K  
UniRef90\_K9D0U9 S V A A G L G H R E L A V Y K Q  
UniRef90\_UPI00046AA7E6 A L M A A T G V S E V T V R  
UniRef90\_C3XM64 G L L A S L N Q V F V E V F T R  
UniRef90\_F5LA13 G A L L A G G I  
UniRef90\_I3TLG3 A L A A A M G H P W L P V H R R  
UniRef90\_I9M8N5 G L L S M L G Q A N P L V F H K  
UniRef90\_B9KF74 A L L A E L G Y F H I S V F  
UniRef90\_D5ANN3 G L L A S N G V A E V A V V R R  
UniRef90\_UPI0003648277 G L A A A I G V A E L A V L R  
UniRef90\_S2XNU0 G L I A S L G  
UniRef90\_D6ZYL1  
UniRef90\_A3V4Y3 G M C A A A G I G D V R V Y R  
UniRef90\_E1L881 T L L I G L G C I D V S V Y  
UniRef90\_UPI00047D6E7D G V L A S L N I V Q V D V Y  
UniRef90\_Q4JTT9 A G V L A A G V A R V L V H R R  
UniRef90\_UPI0003619F22 S L L A N L G I A K V E V Y K  
UniRef90\_G6XLT7 A V L A C N G Y A E V E V S R  
UniRef90\_UPI0003791BD0 G S I A M T G Q T W L S V S R K  
UniRef90\_UPI00041D1897 G L L A S L G L S Q V E V R R R  
UniRef90\_N9WD20 A A A L M G G A G D L I V  
UniRef90\_Q11HT9 A L A A A G G H A Q L P V V R R  
UniRef90\_C5F1C3 G L L A S L N Q I F V E V Y E K  
UniRef90\_U2EPZ3 A L L A E L G I F H V S V F I R  
UniRef90\_K1Y4E5 G L L A S V G R A E V K V Y K R  
UniRef90\_V4XYU5 G L L T A A G H T N A E V T A R  
UniRef90\_E8RFT0 G A L L T G G C A T V R V R K R  
UniRef90\_B2STT1 M L L A G F G C A R V R Q V M R R  
UniRef90\_UPI0003792114 G L L A S I G V A K V R C F R R  
UniRef90\_W6ER05 A L L A S Q G L S M V E V Y K K  
UniRef90\_K2LSU5 A V A A G Q G Y Q S L P V S R  
UniRef90\_D4YZ94 A L A V L G G H A A L P V S R R



UniRef90\_G0HHD8  
UniRef90\_UPI00030B3617  
UniRef90\_A4GIG9  
UniRef90\_T2LE99  
UniRef90\_A0A017S0R8  
UniRef90\_Q2J5Q3  
UniRef90\_D5EMF5  
UniRef90\_S3YYG6  
UniRef90\_UPI0003B77325  
UniRef90\_N9F6S0  
UniRef90\_W6MXP0  
UniRef90\_UPI00046AA44A  
UniRef90\_D7DV53  
UniRef90\_V4GT42  
UniRef90\_UPI00047A7816  
UniRef90\_UPI0003B5108D  
UniRef90\_B9NUT8  
UniRef90\_A0A024J793  
UniRef90\_K6QF89  
UniRef90\_F4C0R5  
UniRef90\_UPI0002F9B331  
UniRef90\_UPI000467CAE7  
UniRef90\_W2TAR7  
UniRef90\_A7NKD2  
UniRef90\_C6WHV4  
UniRef90\_Q8DJ64  
UniRef90\_N0CQ50  
UniRef90\_N8TI55  
UniRef90\_A0A022LKD7  
UniRef90\_W9C1U1  
UniRef90\_M2TKT9  
UniRef90\_D6Z3F9  
UniRef90\_X5LLZ5  
UniRef90\_UPI0003B50FB7  
UniRef90\_F2E5G4  
UniRef90\_H9K3W5  
UniRef90\_E3GLU0  
UniRef90\_X1RSU2  
UniRef90\_C5ZYQ1  
UniRef90\_G4N5H5  
UniRef90\_F8E814  
UniRef90\_R7BX84  
UniRef90\_UPI00046E5FEF  
UniRef90\_I4BW53  
UniRef90\_D3L1R3  
UniRef90\_UPI000469EA47  
UniRef90\_A0A010YHY2  
UniRef90\_UPI000381F643  
UniRef90\_X0R6W9  
UniRef90\_A0A059KN10  
UniRef90\_C7PD79  
UniRef90\_S3C4Z4  
UniRef90\_UPI00047C307F  
UniRef90\_K9AQM5  
UniRef90\_B0U8R0  
UniRef90\_S7VD17  
UniRef90\_UPI00047E2DAB  
UniRef90\_X0NC69  
UniRef90\_D2NRK1  
UniRef90\_F4QA19  
UniRef90\_M4ZY22  
UniRef90\_C0GH93  
UniRef90\_G2J98  
UniRef90\_D9S0C8  
UniRef90\_V5EWR8  
UniRef90\_E0I6Y1  
UniRef90\_I2JX71  
UniRef90\_A4WLS9  
UniRef90\_W1W3Q7  
UniRef90\_L1L837  
UniRef90\_A1RZ23  
UniRef90\_Q4FU38  
UniRef90\_UPI0004237447  
UniRef90\_C1D0P9  
UniRef90\_UPI00046E881F  
UniRef90\_UPI00047E76F9  
UniRef90\_W4HNE4  
UniRef90\_W0E8J6  
UniRef90\_UPI000262CEF4  
UniRef90\_E8X135  
UniRef90\_UPI0003B7911C  
UniRef90\_X0ZBN2  
UniRef90\_UPI0003B64996  
UniRef90\_B1VIJ5  
UniRef90\_A5GWZ3  
UniRef90\_UPI00037B6BF8  
UniRef90\_UPI00037A6C83  
UniRef90\_B8HG73  
UniRef90\_B3PC10  
UniRef90\_UPI00036C4B60  
UniRef90\_E1RED4  
UniRef90\_I1AV19

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

UniRef90\_G0HHD8 E S L F P G F D Q A A V D G F A V R S V D I R Q S D D A S S P M L P V V G E V T  
UniRef90\_UPI00030B3617 K V S M P N Y N A S A M D G I A V R A E K T Y G A D E L R P V R L K L G E D  
UniRef90\_A4GIG9 S V D L P G Q T D N V A V D G Y A V E A A F L A A H P E H L F K V I A G T A R  
UniRef90\_T2LE99 P L D M P G V D N S A M D G Y A L N C A A D Y Q A A P R G A G P H L L P I L Q R V P  
UniRef90\_A0A017S0R8 P F S T P K H D T S A M D G Y A L N A A A T R T A S P S T P I V F H V I A G T M A  
UniRef90\_Q2J5Q3 T V A L P P G F N R S A M D G Y A V R R A A D V A E A S A A T P V S L P V I G D V P  
UniRef90\_D5EMF5 D R P F P P F N R S M M D G Y A L R S A D L Q H G T E F H L Q H L V P A G S P H  
UniRef90\_S3YYG6 N V D L P S F S Q S A V D G Y A L N S S V E N L I Q G T L Y D V I G E I K  
UniRef90\_UPI0003B77325 R W P I P L F F S Q S A M D G Y A V H A A A S P A G T R L R V V A D L A  
UniRef90\_N9F6S0 E V N L P P F D N S A V D G Y A I N C S D L Q N A S F K L N G E I K  
UniRef90\_W6MXP0 P V S V P N F R A S I V D G Y A V V I S S D G P G K Y P V V S I S H A  
UniRef90\_UPI00046A444 R R S N P P L P N T A V D G Y G F A G G R D A G S P H V L P L A T G R A  
UniRef90\_D7DV53 P A D L P P L F N K S A M D G Y S V I A E D V F G A S E S N P L I L E K I E F K E  
UniRef90\_V4GT42 P A P V P P G Y D R A A M D G W A V R A E D T F G A S D R S P A V L A P T D G G A  
UniRef90\_UPI00047A7816 R R V A L P P F A S A M D G Y A A R W A E V A S A A D E P V R L P V A E D I P  
UniRef90\_UPI0003B5108D R R N V P P H Y A A S A V D G F A L K S A E T G R A T P A T V R L P  
UniRef90\_B9NUT8 K R S N P P Q P N T A V D G Y G F A G G V P E G P H V L P L I E G R A A  
UniRef90\_A0A024J793 P D N V P P N Y R A S I V D G Y A V A D A D L Q P G G V Y P V V A V S H A S S  
UniRef90\_K6QF89 P W P V P V A R S V M M D G F A C R A T D L A G A A P G R P T R L R L A G R R W  
UniRef90\_F4C0R5 S A D L P P A F D R S A M D G Y A V R S T D T K G A R P S G P R F I P  
UniRef90\_UPI0002F9B331 L H S M P P H Y H A S A M D G I A V R A E D T F S A H E Q N P V Q L K R N E D  
UniRef90\_UPI000467CAE7 P M D V P P R F D N A A M D G Y A F D G E T L L E A T P T P G T L T L T V I G N V H  
UniRef90\_W2TAR7 K E N V P P E V R T S I K D G Y A V L A I D P P G R R I E G R I L T V I G S S T  
UniRef90\_A7NKD2 A R S V P P H Y H A A A M D G I A V R A A T T A G A T E S S P L T L L A L G E  
UniRef90\_C6WHV4 P V A L P P F F D N S A M D G Y A V R V A D L A E L P V V L P V I P E D I P  
UniRef90\_Q8DJ64 D R P Y P P I D R I M V D G I A L R W A A Y G S G Q R S F P I L G V V P  
UniRef90\_NOCQ50 E V A L P P P F D N S M D G Y A V R I K A D I E G A S E E F P A V L T V I G E D V A  
UniRef90\_N8TI55 E I A L P P L F T Q S A V D G Y A L K S E D I L A G I T V F E L V G E I R  
UniRef90\_A0A022LKD7 S A D L P P L F V N S Q M D G Y A V R S S D V A G A G P D S P V R L R V V G S T H  
UniRef90\_W9C1U1 N E A V P P A Y R A S I V D G Y A V I A T E I P S S G K S N K G V Y P V A S T I S H  
UniRef90\_M2TKT9 T E S V P P A F R A S I V D G Y A I K I P S S G K F E K G V Y P V S I S H  
UniRef90\_D6Z3F9 P E E L P P V H P R S V M D G Y A V R A A D T Y G A S A N L P A Y L T I S G E V K  
UniRef90\_X5LLZ5 E R P M P P G F D Q A A V D G Y A V R S V D V P D E S A G G E I S L P V M G M I E  
UniRef90\_UPI0003B50FB7 Q R A N P P H A N S A V D G Y G F A H A A T G S G I C Q L P L A Q G R A A  
UniRef90\_F2E5G4 P D P L P P F R A S V K D G Y A V V A A D G P G E Y P V T A E A R  
UniRef90\_H9K3W5 K Y D L P P F R A S I K D G Y A V L A N D G K G K K V I L S G I K A  
UniRef90\_E3GLU0 G V N V P P H F D R S V D G Y A V K L R D V Q G A S E S I P A F L K L T G A E  
UniRef90\_X1RSU2 A I D V P P R D N S A M D G Y A V R A E D V V G A T P S S P V F L D V I G E V K  
UniRef90\_C5ZYQ1 Q K A L P P S F D N A A M D G Y A I R A E D M G K T A K I K A S I F  
UniRef90\_G4N5H5 K E N V P P A F R A S I V D G Y A I V V P K D G N M R G V F P V V S I S H  
UniRef90\_F8E814 G R N L P P R D N S A M D G F A V R Y E D I E T I P A A V K I K G L I K  
UniRef90\_R7BX84 T I C V P P A D N S Q M D G Y A V R A A D I A A A S E G A P V R L S V S Q R I A  
UniRef90\_UPI00046E5FEF R L S N P P A D V S S M D G Y A V R A A D L S G G A T T L T C I J A E A P  
UniRef90\_I4BW53 P E P F P P S F S R S L R D G Y A V R S A D V I G A S T S S P V F L R K C G T I P  
UniRef90\_D3L1R3 P G S H P P F P R S L R D G Y A V R S A D V I G A S P S S P V F L R K C G T V P  
UniRef90\_UPI000469EA47 G Q S L P P P F D N S A M D G F A L R A N G A T F S S G T E F A V Q G W Q A  
UniRef90\_A0A010YHY2 P G P V P P A F D V A A V D G Y A V R A H D T L P S Q H H G D V R L A V I G D L T  
UniRef90\_UPI000381F643 K I N L P P S T N S A V D G Y G V L H S T I M S N P K L K L T V V G I A K  
UniRef90\_X0R6W9 P F A I P P R Q N L S A M D G Y A I A K A D S L L S A D S T I D I V G S Q  
UniRef90\_A0A059KN10 L L D V P P A D N T S M D G Y A M R A A D V P R E G T V L P V S Q R I P  
UniRef90\_C7PD79 D R D F P P Y D R S V M M D G I A I D Y E T Y S K G Q T V F G V E D M Q A  
UniRef90\_S3C4Z4 A E D V P P A F R A S I V D G Y A V D S Q D T K E P S G T F S G I F P V V A V S H  
UniRef90\_UPI00047C307F D R D M P P A F P R S T R D G F A C R A A E A S A R T G E A H K W L P V A G S I R  
UniRef90\_K9AQM5 P A P L P P G F A T S A M D G F A L D A P A L D R A R T G E P V P V A G D I P  
UniRef90\_B0U8R0 A R A C P P S D R S A M D G Y A V A A G Q G L A A G T V L R V R G R I A  
UniRef90\_S7VD17 K V S S P N F H A A A M D G I A V A A A D T F G A A E T R P R T L T I  
UniRef90\_UPI00047E2DAB P W S L P P Q F D N T A M D G Y A V R A E D V A G A T E E E P V E L P V V V D I P  
UniRef90\_X0NC69 P L P L P P F D N S S M D G Y A V R A A D V A A T E G S P V T L T V I G D V A  
UniRef90\_D2NRK1 R M D V P P S F D N S Q M D G Y A L T A E A A E R E D R I F T V G R E I P  
UniRef90\_F4QAIR Q I D F P P F R A S I K D G Y A I R S K D G A G E Y I T I A S S L A G G G D A H  
UniRef90\_M4ZY22 A E V V P P P F D N T A V D G Y A V R S Q D T V G A E T A P K R L R V V G E I A  
UniRef90\_C0GH93 K I S S P H Y H A A A M D G V A V R S Q D T V G A E T A P K R L R V V G E I A  
UniRef90\_G2J98 A R D Q P P W T D L S A M D G Y A M R H A D M P G P W R V V I G E M A  
UniRef90\_D9S0C8 R I S S P H Y S A A A M D G I A V S A K D T F G A G E K N P V R L K  
UniRef90\_V5EWR8 T T D L P P G P T T N V D G Y A V N A A A T P A G E Y D V V T L P T V Q R R  
UniRef90\_E0I6Y1 T S D W P P F A R S G V D G F A V R S A D V E L A T A E K P V S L R L I D S V A  
UniRef90\_I2JX71 P M D V P P N F P A S I V D G Y A V V S T D G P G V Y P L D F G V Y P L D F A S C A  
UniRef90\_A4WLS9 P H D Y P P L P R A S Y D G Y A V N S E A T P G R F R V V I G T V L  
UniRef90\_W1W3Q7 P T D V P P A F S K S A M D G Y T I V R V A D V A G A S E A D C N E Y I V D G V I G  
UniRef90\_L1L837 P V S L P P F D N S S M D G Y A V R V A D V A G A S E A D P A V L T V V I G D V A  
UniRef90\_A1RZ23 S F K L P P A P K S V V D G Y A V R A E D V E P A S P E G A P V T L R L L G V L R  
UniRef90\_Q4FU38 P F A V P P R Q N I S A M D G Y A M A H G S T L S K G S I E I V G S S Q  
UniRef90\_UPI0004237447 A E S L P P F D N S A M D G F A L R A G V T P I A A G T E F D V V G G R A  
UniRef90\_C1D0P9 R V S H P S A T E S A L D G I A C R E A D T L A A F S E A L V R L R V V G E S R  
UniRef90\_UPI00046E881F K E N Y P K S Q T A S M D G Y A I K F N S K C K E Y K I L G S N P  
UniRef90\_UPI00047E76F9 P R N V P Y T D N T A V D G Y A F S H A D Y I S Y E G K L A L G A L I A  
UniRef90\_W4HNE4 L R P N P P E A N T A V D G Y G F A A E A G Q G E I V L P L V E G R A A  
UniRef90\_W0E8J6 N R S S P H Y P A S A M D G Y A I R A K D T F G I S E R E P R W L K  
UniRef90\_UPI000262CEF4 V R S N P P G S A S A V D G Y G F A G P I P E G P Q I M Q L C D G R A A  
UniRef90\_E8X135 D R D Q P P F D R A T R D G F A V R A G E F G L G V P V R V V G M V K  
UniRef90\_UPI0003B7911C A V D V P P G F D N S A M D G F A V R V D D V A T V P V T L R V A A D L P  
UniRef90\_X0ZBN2 K D D I P P V Y N S A M D G Y A V R T E D I K G A D R S Y P V R L L A E D I P  
UniRef90\_UPI0003B64996 K I D I P P S F K R S A M D G Y G I V I G D C D K Y K I V I E  
UniRef90\_B1VIJ5 Q Q A V P P F F R A S A M D G F A I R A S D V P W D L S T A P L R F P V S G D V F  
UniRef90\_A5GWZ3 A E S V P P F R A S I L D G Y A I S T P E P A S G T R W Q L V I G R S G  
UniRef90\_UPI00037B6BF8 P A R L P P G F D N S A M D G Y A I R V A D I A D V P T S L P V T E D I P  
UniRef90\_UPI00037A6C83 N R N H P P Y D N S A M D G Y G V R Y A D L A H A T A E E P V N L A V D D I R  
UniRef90\_B8HG73 P V S L P P F A N S Q M D G Y A V N S A D M H D D V T E F A V A P V P  
UniRef90\_D3PCIO I R D Y P P D T K K S A V D G F A I K G L D R N S Y R I V N T F S  
UniRef90\_UPI00036C4B60 P V A L P P P F D N S S M D G Y A V R V A D V A G A S E E F P A V L T V I G D V A  
UniRef90\_E1RED4 E Y S V P P V T N V S A M D G V A L K S S D T F A A S E Q N P V S V R  
UniRef90\_I1AV19 R S M A P A F D N A A M D G Y A I A T S A L T G A G P W V L P V V A R V P

UniRef90\_G0HHD8 A G S H R P V R L Q P R Q A V V R V Q T G A P L P T L A D A V L P L D W A S Q T G  
UniRef90\_UPI00030B3617 A G A G P F S G I V E P E G D A V R V F T G A P L P S G F D A V I M L E H H Q I D  
UniRef90\_A4GIG9 A G H P F S G I V E P E G D A V R V F T G A P L P S G F D A V I M L E H H Q I D  
UniRef90\_T2LE99 A G A G V G M L L P E E G G C A R I F T G A P L P M G A D L V V P H Q E R T L D P R  
UniRef90\_A0A017S0R8 A G D E P D S D A S V Y P C V E I M T G A C F P E P F D A C V K L E D V D V L V  
UniRef90\_Q2J5Q3 A G P G S P A A L L P Q G A A V R I M T G A P L P P E G A D T V V Q L E W T D G G R  
UniRef90\_D5EMF5 Q L L G A Q A K S C V E I M T G A V V P P E G A D T C V I P Y E Q T R E Q S  
UniRef90\_S3YYG6 A G S E S E H Q L K D G Q A I R I F T G G K T P S E G T T H V A R Q E I V A V E A  
UniRef90\_UPI0003B77325 A G S P D D D P L L A P Q G N H A I R I F T G A P M P E S Q A D T A V V P L E D T E A P  
UniRef90\_N9F6S0 A G T V S E L L P L Q Q N H A I R I F T G G K I M P E S G A T T H V A R Q E I V I E S A  
UniRef90\_W6MXP0 S G S N K P K V L A S G Q I A R V T T G A P V P E G A D A V V M V E E T R E E K  
UniRef90\_UPI00046A444 A A G D A P F G Q V L M S G Q A V R V L T G A A L P T G V D T V V L Q E D V R V A E D  
UniRef90\_D7DV53 S D S D E N F E L T N G F A T K V S T G T K I P N G S N A V V M K E I V R K E Y D  
UniRef90\_V4GT42 A E G T E V P T G G A V R V H T G S A L P P G A D A V V M V E R T E A V G  
UniRef90\_UPI00047A7816 A G R T D V V P L A P G T V H R I M T G A P L P P G A D V V I P V E L T D A G T  
UniRef90\_UPI0003B5108D A G V P F A G T V P E G H A L R V L T G A A L P P G V E T V I L E E D V T L Q D  
UniRef90\_B9NUT8 A G V P F A G T V P E G H A L R V L T G A A L P P G V E T V I L E E D V T L Q D  
UniRef90\_A0A024J793 H G G E K S S S L K S G Q Q A V R V T T G A P V P P G T V A V I M V E E T T E E H  
UniRef90\_K6QF89 A G P V A G Q E V G A G Q A W Q V S T G A L L P R G A D V V V P I E Q A R R A G  
UniRef90\_F4C0R5 A G P V A G Q E V G A G Q A W Q V S T G A L L P R G A D V V V P I E Q A R R A G  
UniRef90\_UPI0002F9B331 A G H P L S R T V S P G E C A R V M T G A P M P P G T D T L I P H E Y A T P A P  
UniRef90\_UPI000467CAE7 A G A P F E G A V K S G E C V R I S T G A A V P D G A D A V V M V E N T K L L E  
UniRef90\_W2TAR7 A G A P F E G A V K S G E C V R I S T G A A V P D G A D A V V M V E N T K L L E  
UniRef90\_A7NKD2 A G R T D V V P L E P G T A H R I M T G A P V P P G A D A V V M V E W T D G G T  
UniRef90\_C6WHV4 A G E V P P T L T D P Q A C F E V M T G A A L P P Q G C D L V I P Y E A L E I R D  
UniRef90\_Q8DJ64 A G S A E D G Q V I E S G Q A A R I M T G A P L P A D S A E T V A R Q E I V S K L D  
UniRef90\_NOCQ50 A G I E E Y V V Q I E S G Q A A R I M T G G K L P A D S A E T V A R Q E I V S K L D  
UniRef90\_N8TI55 A G H G P G P E I D D D E A C K V M T G A P L P D G A D C V V P V E D T T V I E D  
UniRef90\_A0A022LKD7 A T A G E H P L L E E G Q I A R I T T G A P L P P G A T S V I M V E D T K E E K  
UniRef90\_W9C1U1 A Q P G E V Q E L L R E E G Q I A R I T T G A P L P P G A D A V V I M V E D T Q E E K  
UniRef90\_M2TKT9 M G E M P T A G P A P T E C Y R I A T G G L L P P G C D A V V M L E H T V P A G  
UniRef90\_D6Z3F9 A G A R T P S R L P P R Q A A R I Q T G A P M P T L A D A V L P L R W T D G G Q  
UniRef90\_X5LLZ5 A G Q P F T G T V P H Q Q A V R I L T G A L L P H G V D T V V L E D C A I S A  
UniRef90\_UPI0003B50FB7 A G D D A G V V V T P G T V A Y V T T G G P I P D G A D A V V Q V E D T E Q V A  
UniRef90\_F2E5G4 G D T V T I K L V P G T C V R V N T G A P I P D D A T A V I Q V E D T K L I K  
UniRef90\_H9K3W5 M G R E T K L S L H A G E T V V Y P T G G M V P E D G T E A M V M I E F T E K F D  
UniRef90\_E3GLU0 A G D I P K E E V G A L S A L R I M T G A P I P R G A D S V V Q F E D V Y S A I  
UniRef90\_X1RSU2 A G D C K E I K L E E G E C A K R I M T G A K L P P K N A N I V V P F E A L E E G N Q  
UniRef90\_C5ZYQ1 A S P G E V P L K E G E I A R I T T G A P L P P K N A N I V V P F E A L E E G N Q  
UniRef90\_G4N5H5 A G N I D S L K I E K G E C Y R I M T G A F V P E G A D T V V E L E A T E E E E  
UniRef90\_F8E814 A G T T G T E L A P G G T C C A R I F T G S P M P A G A D C V P Q E D V T A E S G  
UniRef90\_R7BX84 A G H P A A V T L P G P G Q C A R V F T G S V M P A G A D A V L I Q E N A R A E S G  
UniRef90\_UPI00046E5FEF M G R L T D E S L P K E G A M Q I F T G G I L P Q N S D A V V M L E D T E E S G  
UniRef90\_I4BW53 M G G V G E E P L P H E G A M Q I M T G G L P C N G D A V V M L E D T E E S G  
UniRef90\_D3L1R3 A D A G A E E G G E G A W E I M T G A R M P S G L D T V V P V E N V D I R P  
UniRef90\_UPI000469EA47 A S W E P A T V S A G A S Y T V T V G T P L P V G A D A V V A G E V T D G G L  
UniRef90\_A0A010YHY2 A G H P Y N K T I S A G O G V R I F T G A V V P K D S C D T V I M H E N C Q R I Q  
UniRef90\_UPI000381F643 A G S P Y S G D I S A G O G V R I F T G A V V P K D S C D T V I M H E N C Q R I Q  
UniRef90\_X0R6W9 A G V V G E P L L Q N S A A R I F T G A Q V P A G A D A V V M Q E V C E A P D  
UniRef90\_A0A059KN10 A G M P R K Q L G N T A N C I E V M T G A L L P E L T D T V I Q Y E H L H E G F  
UniRef90\_C7PD79 A E P G D E R K V L S A G E I A R I T T G A P L P I G A N A V V M V E S T T E E K  
UniRef90\_S3C4Z4 A G D P P A G P L P A A S A W E I M T G A A V P E G A D A V A M L E H V I E H D G  
UniRef90\_UPI00047C307F A G H A P V P I P S G C A V R V M T G A E V P D S A A A V V P V E L T D A E R  
UniRef90\_K9AQM5 A G E A G E A L A P S G I A A R I F T G A P L P P G A D A V V M Q E H A T V E S G  
UniRef90\_B0U8R0 A G D T Q V N A I G P G L A A R I M T G A P V P A G A D A V V P V E H T D G G T  
UniRef90\_UPI00047E2DAB A G S G E L P T V E P G H A A R I M T G A P V P A G A D A V V P V E W T D G G T  
UniRef90\_X0NC69 A G R P L Q R S R S S D D T Y P I M T G A P M P K G Y D A V V P V E Q S E R R P  
UniRef90\_D2NRK1 K Q P D N N N N D N Q K K C I R I T T G A M I P D G Y D A V V M V E D T E L I K  
UniRef90\_F4QA19 A G A A P D R P V G P G E T V R I M T G A P M P D G A D A V V M V E D S E H G  
UniRef90\_M4ZY22 A G A V P G R P L G E G E A M R I F T G A P L P P G C D A V V I Q E D V H V D G D  
UniRef90\_C0GH93 A G D R A V K R A V L P G T A I R I M T G Q G L P A G T D A V V M V E D T E L V S  
UniRef90\_G2J98 S A H S E K R S V X S G L I A R I T T G A P V P A G A D A V V T Q E G G K E E V  
UniRef90\_D9S0C8 V G Q Y R D I E V K P G E A V Y V T V G A F L P E G A D A V V P E E A V I E R E G  
UniRef90\_V5EWR8 A G V W E Q P V A L G H A V R I M T G A P L P D T C D T V I M Q E Q V V E P G  
UniRef90\_E0I6Y1 A G Q S E Q P H V G P G E A A R I M T G A P L P P G A E T V V P V E W T D G G T  
UniRef90\_I2JX71 P G S T E G F E L P R G S A V R V E T G A L L P V G A D A V V P V E D A L E E D  
UniRef90\_A4WLS9 A G S P Y T D A V K K G Q G I R I M T G A V V P D S C D T V I M Q E N T N F Q P  
UniRef90\_W1W3Q7 A G D G V A Q A T S G A W E I M T G A R V P D G L D A I V P V E Q V E I Q P  
UniRef90\_L1L837 A G L P Y S G E V Q S G E C V R I Y T G A P L P P G T D A I C P V E Q L D D D G  
UniRef90\_A1RZ23 A G E F K F K S L S D F E C I K T F T G S L M P Q N A D T L V P V E N V K V I T D  
UniRef90\_Q4FU38 A G D S H E V T L K K G E C A R I F T G A I M P Q N A E T V A M Q E D C E I T D  
UniRef90\_UPI0004237447 A G R P L G R A V P A G H A R V L T G A A L P E G V D T V V L D E D T R A D A  
UniRef90\_C1D0P9 A G V P F A G S V K Q G S A V R I L T G A L L P A D G V D T V V L E E D C T I E P  
UniRef90\_UPI00046E881F A G E Q W L G K V E A G E A I E I M T G A P V P E G A D A V V M V E H V V R D G  
UniRef90\_UPI0003B7911C A G T S R N P A L R P G E A A R I M T G A P V P T D A T A V V P F E D T R D G S  
UniRef90\_X0ZBN2 A G K V P T V K V N P G Y C I P I M T G S P I P E N C N A V V M K E D T  
UniRef90\_UPI0003B64996 A G A V P E L P P G H A Q R I M T G A P V P E D A E V V I P V E A T N I P A  
UniRef90\_B1VIJ5 P G A P Y G A E L G A G E I R I L T G A P L P T G A Q R V L P Q E Q V Q C P T  
UniRef90\_A5GWZ3 A G R T D R L T L E P G T A H R I M T G A P L P A G A D A V V P V E Q T D G G T  
UniRef90\_UPI00037B6BF8 A G A M P K C R V L T G K A A R I M T G A A T P E G V D T V I R V E D T N A D D  
UniRef90\_UPI00037A6C83 A G M R P S L A R G T A A P I M T G A M L P D G A D A V V P I E R A V P A D T  
UniRef90\_B8HG73 P G M Q V D I N L G K G E A V F V M T G A V V P E N A D A V V R V E D C V I D G  
UniRef90\_D3PC10 A G S G G L P T V G P G Q A A R I M T G A P L P P G A Q A V V P V E W T D G G A  
UniRef90\_UPI00036C4B60 A G Q A V T I P V A G A V A R I F T G A S I P C G A D A V V M Q E D V L R D G  
UniRef90\_E1RED4 A G Q A V T I P V A G A V A R I F T G A S I P C G A D A V V M Q E D V L R D G  
UniRef90\_I1AV19 A G Q A V T I P V A G A V A R I F T G A S I P C G A D A V V M Q E D V L R D G

UniRef90\_G0HHD8 R R I E P L Y G V S S G Q F V H R A G 140 V V Q P G D V V V E D G A V I G A A Q V 160  
UniRef90\_UPI00030B3617 E Q V E I M E A V A P W Q H I R R P I G E S D V V V G D M I V P A R R H K L R A A V D L  
UniRef90\_A4GIG9 V G I C G K G L V S G T N M R R S A G G E N T A A G E T L A A K G V F L G A A N I  
UniRef90\_T2LE99 G H I H L E G S L V K S G A N I R R Q A G G E T R I G T P L L A A G K L L D A A S I  
UniRef90\_A0A017S0R8 G Y I Q V V K P L D A N Q N R R L A G G E D F S E G D I V V E A G T R I Q P R H I  
UniRef90\_Q2J5Q3 R T V A V Q R A P R R T G L H I R R R T G S D V A P G  
UniRef90\_D5EMF5 M Q V L D A S R H P R T G D C I H R R L G S E D H F S G S T L L Q S G C Q L G S R E I  
UniRef90\_S3YYG6 N Q I R L T E H I S A K A D I R R F V G E E V Q S R G E Q Q L A D I G Q R I N I G A L L  
UniRef90\_UPI0003B77325 D W V T V A R A P V V G A D H I R R R A G E E D A S A G G E P A V V A G R E L G N I G Q L  
UniRef90\_N9F6S0 D Q I R L V A E H I K P Q A D I R R F T G E E V I S A G G Q A L A D V G Q K I N I G T L  
UniRef90\_W6MXP0 E V E I L A T G V T P A D N V R A V G S E D L K E G G S L I L A K G T V I G G G E V  
UniRef90\_UPI00046A444 G A I R F S G G P V K A G A N T R Q A G E D V I E G Q D I L A A G R R I T P A D L  
UniRef90\_D7DV53 D Y I E V Y G G V H P F E N V S K A I G E D L K K G D V I K K G E M I N P Y H I  
UniRef90\_V4GT42 G E L E V F D A V T D G E N V G A T G E D V A E G Q R L Y D P P H R L R P S D L  
UniRef90\_UPI00047A7816 D V V E I R S G V L P P G S H L R R R A G E D I A A D E V A L H A G  
UniRef90\_UPI0003B5108D G D L L I S K A L P P G A N I R R A G E D V I M K G Q V I A H W G E R V D P P M I  
UniRef90\_B9NUT8 G H I A Y R G P L K Q G A N T R K A G E D V I E G A M A L P A G R R L T P A D L  
UniRef90\_A0A024J793 E V R L A K A N I Q S G E N I R E V G E D I K K G S L V I S Q G T V I T T A G E I  
UniRef90\_K6QF89 E F V E V A A P L P A G R H V A P P G E D V L P G Q Q L V A E G E R I N I P P R R A  
UniRef90\_F4C0R5 E V L E V T A E A H A Y K N V A R A G E D V M E G D T I F T E G H R L R P P D L  
UniRef90\_UPI0002F9B331 D I V E I T E P T S P W S H I R R P I G E D I V Q G E E M L F P Q G H R L R P V D I  
UniRef90\_UPI000467CAE7 Q V M L S T A D F R K G A N R R L I G E D V R C G E Q V V F E A G R I R A P D L  
UniRef90\_W2TAR7 H N I A V D S T V N P G Q D I R M P G T D I R E G D L L L D C G V L G S A E V  
UniRef90\_A7NKD2 D T V A I T A A V A P W Q H V R P M G E D V I V A T E L V V P E G V R L R P V D L  
UniRef90\_C6WHV4 R S V R L D R G V R L G Q N V R W A E D D V K V G E V V A L R A G R  
UniRef90\_Q8DJ64 A H I R H P E P W S P Y Q F V H R C G S D A L A G Q Q V L A A G T P L H S P A W  
UniRef90\_N0CQ50 G S E R V R H R S A L V E A G A D H I R R E R G G E D V K P G D L L A R A G S V G S P Q I  
UniRef90\_N8TI55 S R I S L N Q A L N K G T D I R Y Q G E E L S I G T I L A K Q G Q Y L K S G L V  
UniRef90\_A0A022LKD7 T T V E V H A P R V A G E F V R R P G D D V R A G D L V I P A G T R L E A R H L  
UniRef90\_W9C1U1 E V E I L A D V V K P G E N V R E I G S D V I K A G S V I M R K G E E I S A G E I  
UniRef90\_M2TKT9 E I E L T D E I K V G E N V R E V I G S D V K E G E T I M K K G E V T V G E F  
UniRef90\_D6Z3F9 D N L E V V K P V A P G G N I J A R G D D V Q T G E E L L P A G H R F R P C D  
UniRef90\_X5LLZ5 N R V R V L R G V R S R A N Y T R R T G D D V P Q G D V A V R A G T I G P A Q V  
UniRef90\_UPI0003B50FB7 T A I A F D G P I R K P R A N T R R A G E D L P Q G A T A L K S G E N I G A P A E I  
UniRef90\_F2E5G4 A R V R I S A R V P E G H D I R S V I G C D I E K D S I V L K S G E N I G A P A E I  
UniRef90\_H9K3W5 G E I E I M K E V K S G Q D I R S L I G C D I K K G E L I L K S G T K L G A V E L  
UniRef90\_E3GLU0 D E L A I Y K G A G S L E N M M L T G D D R A G E P V F E A G H T I R P Q D V  
UniRef90\_X1RSU2 D V P P R D N S A M D G Y A V R A E D  
UniRef90\_C5ZYQ1 E S I T I P Q G L K V G D N I R Q V G S E E I P L G T K Q I F E V G D E I D E N V E L  
UniRef90\_G4N5H5 E V E L A E G V N D G E N I R E V I G T V V L R K Y E Q V V S A A E L  
UniRef90\_F8E814 N K V K I V K E K R G A N I R K R G E S D I G K G D L I D M S G Y P V N S A Y R Q  
UniRef90\_R7BX84 G V V V F T R P A P A G A W V R K K A G D V D Q G G T V A H A G E K  
UniRef90\_UPI00046E5FEF T A V T T D H V L A P G T Y V R R M A G D D F M A G E T V I P A  
UniRef90\_I4BW53 P W I E I R K S V M P G E N I V I L K G E E V K S G D I V G S P G E L L D F R N V  
UniRef90\_D3L1R3 P W I E V R K S V M P G E N I S R R G E E I A T N D V I A E V G D I L D F K N I  
UniRef90\_UPI000469EA47 T R I A L K A S V K P G Q H V R L R G Q D V S E G E R V L Q A G Q V L D I N A R  
UniRef90\_A0A010YHY2 A R V R I G R V P Q P G D G I R R R G S T V A A G A V L A P A R S R V T A A T I  
UniRef90\_UPI000381F643 N Q V T I K G N V T K N D N I R P V I G E N L K K G D E L V N K G K I N A A D V  
UniRef90\_X0R6W9 Y A V T L S Q D A K H D N N I R K Q G E E I E A G E A V L K G K R L N P A D I  
UniRef90\_A0A059KN10 G T V R I N Q V P A P G Q W V R R R A E D V A R G A V V L A A G T R  
UniRef90\_C7PD79 K R F T I N A A V E K G Q A I H R Q G T D A A A G Q L V I P A G T W I T A A E I  
UniRef90\_S3C4Z4 E I E I R A A N V H D G D N I R E I G S D V R K G Q L V M R K G D K I T A G E V  
UniRef90\_UPI00047C307F G K I R L Q R S L S V D E N I V P A A A E A R T G D Q L V P S G A L L G A S Q I  
UniRef90\_K9AQM5 T G V V L P D P V V P G W N I R D V I G E D T A A G D V V V L G G Q R L G A A G I  
UniRef90\_B0U8R0 D A L R L G G T V A P G D H V R R R R G E D V M P G D G L A A G T R L D P R R I  
UniRef90\_S7VD17 D R L T I E A P A F P W Q Y V R K M G E D I V A T E L L F P R G H R I T P Y C V  
UniRef90\_UPI00047E2DAB V R V R I S T P A Q P S A H I R R R A G G D V Q A G D  
UniRef90\_X0NC69 G Q V R V H R P A A A G A H I R R R A G S D A R T G E P A L S A G T V L G P T Q L  
UniRef90\_D2NRK1 S E K V K L I A P G K P G Q F V R R R G E D V V T G Q V L A R A G E R I T P A M L  
UniRef90\_F4QA19 E R V N I E V S V P V G C D I R P I G S D I K K G A V V I K G E K I G S A E I  
UniRef90\_M4ZY22 E R V R L S A S V S A G A V R G A G D D V Q V G D E I F S A G V V I T P A V E  
UniRef90\_C0GH93 E E V E I T A S V A P W Q H V R P I G E D I V A T E M L L P A G H R L S G V D A  
UniRef90\_G2J98 T L V R L T G E G P R G R H V R P R A S D F A Q G A T L L P A G I R L G P A Q V  
UniRef90\_D9S0C8 G E V E I V A P C S P W D N V R G I G E D I A A A E L V V P E N H R L R P Q D L  
UniRef90\_V5EWR8 E R V A V L A Q V D V G E N V R A K A S D V Q T A G Q V V L R K G T I S A G E I  
UniRef90\_E0I6Y1 I S V Q V K H A I Q Q G G N I A Q P G S E L Q T G A A L T E P G M L L R P G H I  
UniRef90\_I2JX71 R V L I K A Q N V K G D N I R K P G S E D L Q X K G A E I F A A G H Q I T G G E I  
UniRef90\_A4WLS9 D F V V V K S R F E K Y A N V D P P G S Y V R K G T V M A S Q G T V L T P F D V  
UniRef90\_W1W3Q7 I T I T I Q G K Y K C G D H I P Q G E E C S A G T I V I P R G T E V T S T V Q  
UniRef90\_L1L837 G Q V A V H R A A E A R A H V R A M G S D V K A G D  
UniRef90\_A1RZ23 G R V H L F R R V A R Y E N V S L P G E E Y E E G V P I V R V G D R I Q P H H L  
UniRef90\_Q4FU38 Y E I L L S K A A D V D A N I R K Q G E E T Q H N E L V L Q Q G K R I N P A D I  
UniRef90\_UPI0004237447 R R L R V L A T V A P T Q H L R R A G E D V T S G A M F A S A G T V D P A L H  
UniRef90\_C1D0P9 P D H V C L R R P A R P E D V R H E G S D F S A G E A V M P A G L R L T A P R L  
UniRef90\_UPI00046E881F D K I E I L K N V N Q G F A V R K I G E S Y K K G E L L L K K G T K I S Y S E I  
UniRef90\_UPI00047E76F9 G K I F I L S G L K L G A N C R K A G E D L K A E T C V I N Q A E L T P A K I  
UniRef90\_W4HNE4 T R V A F R G P V K P R A N T R R A G E D V Q A G A C V L P G G R V L T P A D L  
UniRef90\_W0E8J6 E Q I L L Q N S V V P W D N V R S V I G E D I V E G E V L L P V N H R I R P Q D Q  
UniRef90\_UPI000262CEF4 D R I A F N G P L K Q W S N T R E A G E D V I V G T P I F K R G R R L T A T D L  
UniRef90\_E8X135 E T V E A G R T W R V G E S I V P R G R E A K A G D V V V A A G T V M G A A E I  
UniRef90\_UPI0003B7911C E T T V L V A P R V R G A H I R R R G S D T A A G A V V V P A G V R L T A A R I  
UniRef90\_X0ZBN2  
UniRef90\_UPI0003B64996 G C L S L K K G V E D K R N F T F A G I E V K K G D R I V K K G D R L S V R L V  
UniRef90\_B1VIJ5 G P I E V Y E L D P E H S H V R R A G S N L R P G D A L A P A G C E L D A G T V  
UniRef90\_A5GWZ3 A T L E L V E A V S D Q P W I R R A D E E A S A G Q Q L A A G T R L G A A E L  
UniRef90\_UPI00037B6BF8 D R V T I H Q I P A P D A N I R R A G S E D I T V I G D T A L P T G Q  
UniRef90\_UPI00037A6C83 D H V W I R A A A P Q G A N I R L L G E N L R K  
UniRef90\_B8HG73 G A R V T L P A T A A G T Y V R P V G S D L A A G E R A L A G G T C L G P A Q L  
UniRef90\_D3PCIO D I V T I N C N L T N G M N I N N I G E E V G I N Q H V V T K G V L I N E R I F  
UniRef90\_UPI00036C4B60 G E V R V H R P A E E R A H V R A R G S D V Q A G D  
UniRef90\_E1RED4 E G I T I R K S A R P W Q N V R A A G E D I K Q G E L I V P K N Y R I R P F D I  
UniRef90\_I1AV19 D V I H L S R P E P G L N I R R A G S D M T K G A T V L D K G R K L G P R E I



UniRef90\_G0HHD8 G L L A A V G R S K V L V Y P R  
UniRef90\_UPI00030B3617 G A L L A G G T L Q V P V L R K  
UniRef90\_A4GIG9 G Q L A A A G L S Q I P V F Q R  
UniRef90\_T2LE99 A L L A S H G I N A V T V K R R  
UniRef90\_A0A017S0R8 M A L A A V G V K E V E V V R R  
UniRef90\_Q2J5Q3  
UniRef90\_D5EMF5 A I A A T C G K Q S L Q V S R  
UniRef90\_S3YYG6 A A L S M A G V Q S I D V F Q  
UniRef90\_UPI0003B77325 A A I A S A G H E H V I A R R  
UniRef90\_N9F6S0 A A L S M A G V Q S L D V F C K  
UniRef90\_W6MXP0 G T L A S V G L S K I K V Y R K  
UniRef90\_UPI00046AA44A A L M A A T G T R D I Q L R K  
UniRef90\_D7DV53 A L L A S V G I Q K I K V Y L K  
UniRef90\_V4GT42 G L L K S V G L T D V E V A E R  
UniRef90\_UPI00047A7816  
UniRef90\_UPI0003B5108D A L L L G A G I G E I P V F R  
UniRef90\_B9NUT8 A L L S A V G V A E L S V R K  
UniRef90\_A0A024J793 G V L A S L G M T S I K V Y R K  
UniRef90\_K6QF89 G L L A A A G V  
UniRef90\_F4C0R5 A L I S A L G L D R V R V Y A K  
UniRef90\_UPI0002F9B331 G V L L A S Q T T K I Q V M R  
UniRef90\_UPI000467CAE7 G I L A S L G I A T V Q V R A K  
UniRef90\_W2TAR7 G V L A G S G R R C V L M Y R K  
UniRef90\_A7NKD2 G A I A A A G H A T V S V R R R  
UniRef90\_C6WHV4  
UniRef90\_Q8DJ64 G I L A S V G Q I K V P V R R  
UniRef90\_N0CQ50 G L L A A L G C A T  
UniRef90\_N8TI55 A S L S M A G V K E V S V F  
UniRef90\_A0A022LKD7 A A A A S L G E S G L D V R P R  
UniRef90\_W9C1U1 G L L T S V G R A K A L V Y K K  
UniRef90\_M2TKT9 G L L A S V G T R E V S V Y R R  
UniRef90\_D6Z3F9  
UniRef90\_X5LLZ5 G L L A A V G R D R V L V H P R R  
UniRef90\_UPI0003B50FB7 A L L A A T G T G Q V Q T F R R  
UniRef90\_F2E5G4 G L L A T V G V T T V K A Y R R  
UniRef90\_H9K3W5 G L A A A C G Y K K L  
UniRef90\_E3GLU0 G V L S S V G V V D A L V Y K K  
UniRef90\_X1RSU2  
UniRef90\_C5ZYQ1 A L L A S Q G I S Y V S A F R  
UniRef90\_G4N5H5 G S L A A V G V D E V Q V F R R  
UniRef90\_F8E814 S R L I S V G T T V L P V Y R K  
UniRef90\_R7BX84  
UniRef90\_UPI00046E5FEF  
UniRef90\_I4BW53 P A I A G L G V D R I D  
UniRef90\_D3L1R3 P A A C G L G I R Q I D V  
UniRef90\_UPI000469EA47 T L L H A I G V G Q V A V V A R  
UniRef90\_A0A010YHY2 A L L A S A G V E S V L V  
UniRef90\_UPI000381F643 G Q L A A S G N N E I E V Y N K  
UniRef90\_X0R6W9 S L L A N L G F G Q V T V Y Q  
UniRef90\_A0A059KN10  
UniRef90\_C7PD79 G V L A S V G K T M V N V S R  
UniRef90\_S3C4Z4 G L L I S A G V Q R V L V C R R  
UniRef90\_UPI00047C307F A A A A T C G Y A S L E V F R R  
UniRef90\_K9AQM5 G T L A M L G I E A V D V A R  
UniRef90\_B0U8R0 A L L A A Q G I G T  
UniRef90\_S7VD17 G A L I G G L F Q V P V R K K  
UniRef90\_UPI00047E2DAB  
UniRef90\_X0NC69 G L L A A L G L D T V T V H R R  
UniRef90\_D2NRK1 G A L A S Q G Y A R L T V  
UniRef90\_F4QA19 G L L A T L G H T H I K V Y  
UniRef90\_M4ZY22 A V L A S V N A Q T V S V H P R  
UniRef90\_C0GH93 G A L L A G G I T Q V E V R K Q  
UniRef90\_G2IJ98  
UniRef90\_D9S0C8 S A I L A A G H T A V R V R K K  
UniRef90\_V5EWR8 G T L A F L G R S S V T V Y R K  
UniRef90\_E0I6Y1 A L L G T F G Y S S V P V F A R  
UniRef90\_I2JX71 G L L A S V G I R E V S V Y Q K  
UniRef90\_A4WLS9 V G L L D V G I T A V Y A Y R R  
UniRef90\_W1W3Q7 T V L T G L G L T E I A V  
UniRef90\_L1L837  
UniRef90\_A1RZ23 S A L V L E G R S H V N V F R  
UniRef90\_Q4FU38 S L L A N L G I D K V K V F K  
UniRef90\_UPI0004237447 M L C A A T G L A T L D V A R R  
UniRef90\_C1D0P9 A L A A A L G H A E V T V H R  
UniRef90\_UPI00046E881F A L L A E I G E F H I S V F V K  
UniRef90\_UPI00047E76F9 A T L A S L G M A Q I K L R K K  
UniRef90\_W4HNE4 A L A A A S G H G A L P V L D R  
UniRef90\_W0E8J6 G A L T A A G V L E V T V R R K  
UniRef90\_UPI000262CEF4 S L L A S A G V A E V E V F S R  
UniRef90\_E8X135 A M G S A C G C  
UniRef90\_UPI0003B7911C A A I A A S G T A S V E V A R  
UniRef90\_X0ZBN2  
UniRef90\_UPI0003B64996 S L C A Y C G I S H I K V F R K  
UniRef90\_B1VIJ5 A A L I A T G V D E V T V Y P  
UniRef90\_A5GWZ3 A R L A S C G I S Q V T V R P R  
UniRef90\_UPI00037B6BF8  
UniRef90\_UPI00037A6C83  
UniRef90\_B8HG73 G L L A A L G I P E V E V Y R  
UniRef90\_D3PCIO P I L C Y L G L K E V K V Y E K  
UniRef90\_UPI00036C4B60  
UniRef90\_E1RED4 G A L G T Y G V T D P V V K K  
UniRef90\_I1AV19

UniRef90\_A9VBD8  
UniRef90\_H5U246  
UniRef90\_U4LVU6  
UniRef90\_B8GJ19  
UniRef90\_UPI000466DC44  
UniRef90\_D5EEH7  
UniRef90\_B2I3G0  
UniRef90\_D5ZE71  
UniRef90\_T4ZWZ0  
UniRef90\_UPI00047CAC18  
UniRef90\_F4D0P2  
UniRef90\_A0A031JC70  
UniRef90\_UPI0003600B0B  
UniRef90\_F5Z0N3  
UniRef90\_C4XLJ4  
UniRef90\_H8HZZ5  
UniRef90\_F8KQ47  
UniRef90\_J1FBT3  
UniRef90\_UPI0003B45D38  
UniRef90\_UPI00036CA7BB  
UniRef90\_X7F3L4  
UniRef90\_UPI000262CA39  
UniRef90\_A8WRR7  
UniRef90\_F7W2D1  
UniRef90\_B115T9  
UniRef90\_G5M0W5  
UniRef90\_V4R458  
UniRef90\_D6XBQ3  
UniRef90\_UPI000368223F  
UniRef90\_J3A264  
UniRef90\_A8ZUT1  
UniRef90\_A8KZR4  
UniRef90\_X0ZX90  
UniRef90\_E1R5Y9  
UniRef90\_S6RZQ8  
UniRef90\_UPI000255562E  
UniRef90\_B4W8S3  
UniRef90\_UPI0003A4E28A  
UniRef90\_B2A5V0  
UniRef90\_UPI0003B430D7  
UniRef90\_A71U1  
UniRef90\_H6BN09  
UniRef90\_N1JAB1  
UniRef90\_U4UY70  
UniRef90\_UPI000262A0DB  
UniRef90\_H2Z0L5  
UniRef90\_UPI00035FB784  
UniRef90\_V4PIU5  
UniRef90\_UPI0004664ED9  
UniRef90\_UPI000417A2A4  
UniRef90\_K0B1P8  
UniRef90\_M0LYE1  
UniRef90\_UPI00046AF2D7  
UniRef90\_E3H9H4  
UniRef90\_E2S4C9  
UniRef90\_U5W0Z7  
UniRef90\_I4BW52  
UniRef90\_M3VIH4  
UniRef90\_Q8FU34  
UniRef90\_UPI0004763ED0  
UniRef90\_S9QCA7  
UniRef90\_UPI0004766604  
UniRef90\_T0CS66  
UniRef90\_UPI0001DD0AB8  
UniRef90\_W4H9H3  
UniRef90\_E4RMK0  
UniRef90\_A0A017RWM1  
UniRef90\_A0A010YX74  
UniRef90\_W8T4I5  
UniRef90\_UPI000373E5A6  
UniRef90\_W4U4Y7  
UniRef90\_A9GHD8  
UniRef90\_X1F4Y9  
UniRef90\_M3A255  
UniRef90\_UPI000381E4A1  
UniRef90\_U7LXF6  
UniRef90\_E3MMN1  
UniRef90\_Q1QVS8  
UniRef90\_T1C324  
UniRef90\_A0A059FS74  
UniRef90\_G9PP00  
UniRef90\_M1E4V7  
UniRef90\_H1KTL9  
UniRef90\_E2A014  
UniRef90\_A0A024MPX4  
UniRef90\_A3XCI7  
UniRef90\_U7JWV3  
UniRef90\_V9VQ79  
UniRef90\_F5YMZ8  
UniRef90\_X0RQW6  
UniRef90\_E1X043  
UniRef90\_UPI000237DCE0

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

UniRef90\_A9VBD8 T[V]N[V]P A Y P A S 50 [K]D G Y A V[R]A A D[V]D[V]E S S A S P[V]Q[L]T V V Q G[V]S T 80  
UniRef90\_H5U246 A F A M P A F D N S A M D G Y A V R A T D D I A G A S A A E P I R L P V V D D I P  
UniRef90\_U4LVU6 A E A V P A Y R A S I V D G F A V Y H T D D G A G V Y P V V S I S H  
UniRef90\_B8GJ19 G Y T V P S A D V A A M D G Y A I L C S R E T T G A R D Q V P I S L S  
UniRef90\_UPI000466DC44 P M P Y P P Y T R S L R D G Y A V L R S A D V T S G A S P T S P V Y S L S F R G E I P  
UniRef90\_D5EEH7 S I E S P S F T R S L R D G Y A V L S E D I S G A T S S Y P V Y L N L N T G E I P  
UniRef90\_B2I3G0 E I N L P S F S Q S A V D G Y A L C S H T E D L N N Q K F Q V T G E I R  
UniRef90\_D5ZE71 E R P M P G F D Q A A I D G Y A V R S V D V A G V G D T G G V T L P V M G T I E  
UniRef90\_T4ZWZ0 R E D V P A F R D N S I V D G Y A V V V P R A D G N M T G A F P V T A T I S H  
UniRef90\_UPI00047CAC18 A A A V P P F D N S A M D G Y A L S G G P A P L A A G S E W L V E G E Q A  
UniRef90\_F4D0P2 T V A L P P F D N S A M D G Y A V R A A E V A A A S E D A P V A L P V A E D I P  
UniRef90\_A0A031JC70 L R S Q P W A D L S A M D G Y A I R A A E W P G P W W I A G E S T  
UniRef90\_UPI0003600B0B P K D Y P A E N K S A V D G Y A L N S K Y I L S A S S S N P I S L K I I G K S E  
UniRef90\_F5Z0N3 P I S L P V I F D N S G M D G Y A V R A D D V A A A T A D N P V R L P V A E D I P  
UniRef90\_C4XLJ4 R Y S S P T Y H S A A M D G I A V R A A E T F A A R E G S P V R L A P G Q G  
UniRef90\_H8HZZ5 P L S L P V I F D N S A M D G Y A V R A E D T S G A T P Q N P V M L P V A E D I P  
UniRef90\_F8KQ47 L E D L P K A T H S A M D G F A F A L E D L G A R V G V A C V V Y  
UniRef90\_J1FBT3 K E N S P A K H Q T S A L D G F A I Q I L D Q Q S E F I E I T E N D N P  
UniRef90\_UPI0003B45D38 P S S L P A F D N S Q M D G F A V L S A D L T A A S A G S P V T L P V V A R V A  
UniRef90\_UPI00036CA7BB A V I S P H Y H A A A M D G I A V R A A D T F G A S D A A P K R L R L G T R  
UniRef90\_X7F3L4 R R D Q P P F P A S A M D G Y A V L S T D D A A P G A P L R V T G E S A  
UniRef90\_UPI000262CA39 K L S L P P F N S A R D G V V L S A S G L S V A K A G S P V K L A G E L R  
UniRef90\_A8WRR7 T E N M P R T R V S T K D G Y A V V A N D G A K I K A V T G V S L  
UniRef90\_F7W2D1 R E N V P A F R A S I V D G Y A V V V P Q D G N M R G V F P V V S V S H A  
UniRef90\_B115T9 A V I S P H Y H A A A M D G L A V R A R D T F G A T E I S P L T L R V  
UniRef90\_G5M0W5 P L D V P G F D N S A M D G Y A V R V A D L S A D K P L P V A G K A F  
UniRef90\_V4R458 P R P V P A A D N A S V D G Y A F A L A D Y E A T G G F F V A G R V  
UniRef90\_D6XBQ3 P V I S L P A F D N S A M D G Y A V R V A D V A G A S E E F P A V L D V G D V A  
UniRef90\_UPI000368223F L R D Q P S F D L S A M D G Y A I R Y A E R P G P W T V V G E S A  
UniRef90\_J3A264 E T D A P K H S H A T M D G F A F D A R G T Y P F D L R A D E V  
UniRef90\_A8ZUT1 L R S S P A H H L S A M D G I A V K A E Q T F G A G E T T P K T L A V  
UniRef90\_A8KZR4 T V A V P G F D N S A M D G Y A A R A A D V A E A S E D N P V T L P V A G E I M  
UniRef90\_X0ZX90 M D G Y A V R A R D I K G A E K S Y P I R L V L M G E D P  
UniRef90\_E1R5Y9 D R E L P P F D R V A M D G Y A C R R G D L P G T L R L I G D S A  
UniRef90\_S6RZQ8 T L D L P P W P N S A M D G Y A L R Q A D  
UniRef90\_UPI000255562E P L D N P P F D R A P L D G F A F R S E D T A G A S E A N P A R L H I A G V V Y  
UniRef90\_B4W8S3 R G A P R T A V S A M D G Y A V R D V D L S I P A R L P I A S V A  
UniRef90\_UPI0003A4E28A P V N V P Q Y T N S A M D G Y A I R S D D V D R D S Y Q V V A E V M  
UniRef90\_B2A5V0 K V I S P H Y H A S A M D G I A V D S K K T Q G A S L R N P K I L T  
UniRef90\_UPI0003B430D7 D R D H P A F N R S T R D G F A V R A G D A M S G G W I E V V G Q V A  
UniRef90\_A71U1 K R N S P V I F S N S A L D G Y A F C D D Y K G Q V L E I L N Y T I F  
UniRef90\_H6BN09 A E A V P A Y R A S I V D G Y A V I A G T Q A N T T T S I K G I F P V A S V I S H  
UniRef90\_N1JAB1 T E S V P A Y R A S I V D G Y A V I A P R D G K S K G V F A V T S V L K  
UniRef90\_U4UY70 P R A S P P K A N S A V D G Y G F A G S L A T A E S G V V R L A L H P E R A  
UniRef90\_UPI000262A0DB E I L P L P P F D N S Q M D G Y A V I T A D F A D R A P R T L V I G L S A A  
UniRef90\_H2Z0L5 N E S V P L P T S I Q M D G Y A V I T A A D T P G N L E V I N S K A S  
UniRef90\_UPI00035FB784 P H P Y P A F D Q A A I D G Y A A R S E D I V G A A P D R P A R L S V V G D L A  
UniRef90\_V4PIU5 R R D Q P P F A S A M D G Y A I T K P D A P S G W E D T F V A V G E S Q  
UniRef90\_UPI0004664ED9 L C S P L F N A A A M D G I A V I A S E R T K G A S D R E P L E L K  
UniRef90\_UPI000417A2A4 K V I S P N Y N A A A M D G I L V D S N T L G A T E V N P K I L E  
UniRef90\_K0B1P8 K N S S P H Y N A A A M D G I A V N S E N T I G A T E V S P K I L  
UniRef90\_M0LYE1 P R D V P N T D Y A T M D G Y A V A T D D D G A R T V V G S V  
UniRef90\_UPI00046AF2D7 A R A N P A L P N T A V D G Y G F A G G R P D G M H R L P L V Q G R A  
UniRef90\_E3H9H4 N F S S P N Y N A A A M D G I A V L S K K T I N A R E N S P L L L K  
UniRef90\_E2S4C9 R F P V P P H A N S A M D G F L V H A A D L S S T A P W T L P V A G D V P  
UniRef90\_U5W0Z7 R G D L P G F D A S A M D G Y A V A G R G P W R V L G Q V Y  
UniRef90\_I4BW52 P I N V P H Y P N S A V D G Y A V L S S S T S M A T A A T  
UniRef90\_M3VIH4 P L S L P G F D N S A M D G F A V L A A D L A S A S P E R P V T L P V T E D I P  
UniRef90\_Q8FU34 V W D S P R F D N S Q M D G F A L T T A Q L A G G T F P V G P T I A A G V D P  
UniRef90\_UPI0004763ED0 L T D L P A F P T S S V D G W A G R G Q P W R I T G R V L  
UniRef90\_S9QCA7 R R S N P A P N S A V D G Y G F A H D A T G E G D Q V L P L A G R A  
UniRef90\_UPI0004766604 R A A V P P F S N S A M D G F V V R A S D L P G T G P W E L P V H V D I P  
UniRef90\_T0CS66 A I D L P P F A R A M M D G F A V H R S D I A G T Q P L Q V V A D I H  
UniRef90\_UPI0001DD0AB8 R R T Q P P T D L S A M D G Y A T A G H G P W L L K G E S R  
UniRef90\_W4H9H3 K E P L P P F R A S V M D G Y A V V A S D G V G E F P I L L S R V A  
UniRef90\_E4RMK0 N R S A P D F Y A S A M D G I A V R A K E T A D A S S R N P V L L K  
UniRef90\_A0A017RWM1 M I S S P H F T A S A M D G I A V N Y L H T L E A D I T K  
UniRef90\_A0A010YX74 R T M V P G F D T A A M D G Y A V A G S G P W R I A G R V L  
UniRef90\_W8T4I5 L E S S P C Y N A S A M D G I A V N S R S T H G A S E T N P I E L Q E N A D F S  
UniRef90\_UPI000373E5A6 T R S V P G F A Q A A V D G Y A V R S V D L G G T P Q A E R S F P V V G E V A  
UniRef90\_W4U4Y7 R L T V P P F T N S A M D G F A V R H A D V S E A T V H T P V T L P V T N D V P  
UniRef90\_A9GHD8 R I S V P H F V R A A M D G Y A L L G E A T A G A A A L A P V E L A L V I G A S F  
UniRef90\_X1F4Y9 M D G Y A V R T E D I K G A D R S Y P V R L I L A E D I P  
UniRef90\_M3A255 P A A L P P F D N S S M D G Y A V R A A D V R D A S E K F P T V L T V V G D V A  
UniRef90\_UPI000381E4A1 A Q S V P P H Y N S A A M D G I A V R A A D T F R A Q E T A P V T L T L L S K  
UniRef90\_U7LXF6 R F P V P P F A N S A M D G F L V R A A D I S G A G P W T L P V A G D V P  
UniRef90\_E3MMN1 T E N M P R T R V S T K D G Y A I J A N D G S S T K T V I G V S L  
UniRef90\_Q1QVS8 P I D V P Q N T N A A M D G I A L A W P E A P P T E V T V V G E V L  
UniRef90\_T1C324 E R D Q P P F D R V A T M D G I A L C S T A V I S T G T R R L R I E A T Q A  
UniRef90\_A0A059FS74 R V I S R P P A S V S A M D G Y A V R L A D V R T V G A R L R V T G D A P  
UniRef90\_G9PP00 V L P V P P W T N S A M D G Y A V R A G D T A G A S P Q T P V V L P V T G D I P  
UniRef90\_M1E4V7 K L I A C P N F Q S A M D G Y A L I A K S T K E A S V H  
UniRef90\_H1KTL9 R H D L P P F A N A A V D G Y A V R F A D L E A E T E T V L P V S G R L A  
UniRef90\_E2A014 Q C D L P A F R V A T K H G Y A V L A S D G E G V R I V L H K T  
UniRef90\_A0A024MPX4 T K A H P E V R T S V K D G Y A V V A S D G K G I R K V V A G T T  
UniRef90\_A3XC17 K R S N P A L P N T A V D G Y G F A G A M A E G T H V L P L V Q G R A A  
UniRef90\_U7JWV3 R V A L P S E H N S A M D G F L V H D K D L S G S G P W T L P V S G E V A  
UniRef90\_V9VQ79 E R A N P L P N T A V D G Y G F A G G R A E G P H V L P L V Q G R A A  
UniRef90\_F5YMZ8 R F T L P V I F R S S A G D G I A V R S A D F A Q G A P D T  
UniRef90\_XORQW6 K I S S P P Y Q A A A M D G V V V R A R D T Y E A S E S P I T L K I N Q D F H  
UniRef90\_E1X043 T R S H P F N R V M M D G I A I S F D G V I S L R E F K K Q G I A R  
UniRef90\_UPI000237DCE0 T T X R P A D I S A M D G Y A F A H D A M A A H A P L P V A G R T V

UniRef90\_A9VBD8 A G A G W T G E L P A G A A A R I | S T G A P V P V G A D A V V Q V E D T R A E E  
UniRef90\_H5U246 A G R T G L V T L A P G T A A R I | M T G A P M P D G A D A V V V V E L T T H V P D  
UniRef90\_U4LVU6 A A P G S L P P L K K G E V T R I | T T T G N P I P P G G A D A V V M V E D T L L K S D  
UniRef90\_B8GJ19 M G T F P E K P L L D G E A I A I | H T G G L L P R G S D G S V M L E E D T M E S G  
UniRef90\_UPI000466DC44 M G T V P D K V L N P G E T M A I | F T G G L L P K G G A D A V V M L E E D T A T S G S  
UniRef90\_D5EEH7 A G S E S H D L L G E G Q A I R I | F T G G K I P E G G T T H V A R Q E I V S V I S  
UniRef90\_B2I3G0 A G A R T L S R L Q E P R Q A V R V | Q T G A P L P T L A D A V L P L R W T D G G M  
UniRef90\_D5ZE71 A T P G E V K P L K E G E V A R L | T T T G A P L P P E G A T S V I M V E D T E E R  
UniRef90\_T4ZWZ0 A G D A M Q G R A Q G A W E L P | M T G A A M P E G L D R V I P V E Q T E R A P  
UniRef90\_UPI00047CAC18 A G R T D V P T L Q P G T A H R I | M T G A P M P A G A D A V V Q V E L T D G G V  
UniRef90\_F4D0P2 A G G A V P A P L A P G E C C R I | F T G A P L P E G A D S I L M Q E D A A V E H  
UniRef90\_A0A031JC70 P D N P F D G V L R D D E T V R I | L T G A K L P Q G A D S I L M Q E D A I V E G  
UniRef90\_UPI0003600B0B A G R T D V P T L E P G T A H R I | M T G A P V P F G A D G V V P V E A T D G A V  
UniRef90\_F5Z0N3 A G R T D V P T L E P G T A H R I | M T G A P V P F G A D G V V P V E A T D G A V  
UniRef90\_C4XLJ4 A G R A D M L T L Q P V T A H R I | M T G A P V P T G F D A V V M I E N A V M D G V  
UniRef90\_H8HZZ5 A G M D S S L E V P K R A C A K I | M T G A L L P Q G L D L V V P F E E M A E F D  
UniRef90\_F8KQ47 A G A S Q L P T L V K G I A I K T | F T G S P M P F G S D T L V P I E N V E V L E  
UniRef90\_UPI0003B45D38 A G D P G A R H A P G T A T P V M T | G A P V P V G A D A I V P V E H A D P P S  
UniRef90\_UPI00036CA7BB A G T A F V G R V G P G E A V R I | F T G A P V P A E G A D A V I M I E D V H V N E  
UniRef90\_X7F3L4 A G D S V E V A N G D G D A A R I | M T G A P V P S W A E A I V M I E D T L D D D  
UniRef90\_UPI000262CA39 A G S V Y N G V L Q E G Q C V R I | S T G G V V P E G A S A V V M V E H T L C T K  
UniRef90\_A8WRR7 A P G E D M P T L K E G E L A R I | T T G A P L L P G A T S V I M V E D T E E K E  
UniRef90\_F7W2D1 A G Q P Y Q G E W P A G T C I R I | M T G A P V P A G C E A V V M Q E Q T E Q T D  
UniRef90\_B1I5T9 A G H P T S E K L P I G A A A R I | F T G A V M P R A D T V V A M Q E D C E P H Q  
UniRef90\_G5MOW5 A G Q A E L L H V G P G Q A A R I | M T G A P L P P G A E T V V P V E W T  
UniRef90\_UPI000368223F A G A G F G R P L G A H E T V R I | F T G A P M P E G A D S V L V Q E E A E R D G  
UniRef90\_J3A264 F P E S D P G T L D A G Q A V R V | A T G A P V P R G A T A V I K R E D A T V I E G  
UniRef90\_A8ZUT1 A G P V S P A P L A P G T V V R I | M T G A P L P K G A D T I V Q L E W T D G G I  
UniRef90\_A8KZR4 A G R L P K S T V N P G F C M P I | M T G A P L P E G A D S V V M K E D T Q R D A  
UniRef90\_X0ZX90 A G S R D R L K V E P K T C K V M | M T G T V L P E G A D M V A M V E Y S S E H T  
UniRef90\_E1R5Y9 A G S V H D A P L L P S G E A L R I | M T G A P M P A G S D A M L V K E E D V S E K E  
UniRef90\_S6RZQ8 A G R G D L P V L P S K T C V R I | F T G G P V P T P A G A D R V V V Q E E V I G R D G  
UniRef90\_UPI000255562E A G H A Y D Q P L E V G Q A V K I | M T G A P T P R N G D T V V M R E Q A S Q E G  
UniRef90\_B4W8S3 T P Q D A E L V D T G S P I P H D D K N A V I M I E D V V A G R D G  
UniRef90\_UPI00034E28A A G G A W R E G L R E D A T V E I | M T G A P V P D D K N A V I M I E H V E R D G  
UniRef90\_B2A5V0 A G D K K I R E I E E A K A I K I | M T G A P M P K G A N A V I R L E D A V I K N  
UniRef90\_UPI0003B430D7 A Q A A S P P P L Q T G E I A R I | T T G A P L P A N A N A V V M V E D T N E E A  
UniRef90\_A71U1 P T S N G S A E V Q T G Q I A R V | T T G A P L P I S I G A T A V V M V E D T N E E K  
UniRef90\_H6BN09 A A G V P Q S A V A E G Q A V R I | L T G A Q L P E G V D T V V L Q E D V A T D G  
UniRef90\_UPI000262A0DB A A G D A P I A C A P G T A Y P V | M T G A P I P S G A D A V I P I E Q A E P P R  
UniRef90\_UPI00035FB784 S G V L L Q Y V T P G R C V R V S | T G S L P S G A D S V V K V E D T T I C  
UniRef90\_UPI000464ED9 A T S W R P A R L T L G T C F S V | A G A P L P V G A D V V I P P E W T D Q G M  
UniRef90\_V4PIU5 A G A R F R G V L A K G E A V R I | F T G A P V P E A A T A V V L Q E N A I V A D  
UniRef90\_UPI000417A2A4 K Q E D F I V D T G D P V K Y P Y | D A V I M A E D V I E M D  
UniRef90\_K0B1P8 E G K E F L Y I N T G N P V V D P Y | D G V I M I E D V I E E K  
UniRef90\_M0LYE1 A P E D S P P R I D E N S D F K Y I | N T G N P V E A P F D S V I M I E D V I E E K  
UniRef90\_UPI00046AF2D7 A A G D A P A D V P P G F A I R V | L T G A V L P P E R A D A V V P R E N A T V I T D  
UniRef90\_E3H9H4 A G A A P I D V P A G Q A V R I M T | G A P L P A K E Y D S V I M I E D V V E D K  
UniRef90\_UPI0004E2S4C9 A G P V W P A P L G A G E A V E I | M T G A V V P A G T V A V L P Y E T A D L N  
UniRef90\_U5W0Z7 A G R T D P A L L A D E G Q Y Q W V | M T G S F V P P D F D S V A M V E D T S L K D  
UniRef90\_I4BW52 A T W Y P T G L V D A T L C P I M T | G A R L P S G T A A V I P V E N T R E F T  
UniRef90\_M3VIH4 A G A Y E P D A V P R G A A L R I | L T G A V L P E G V D T V V L E E D C S V T D  
UniRef90\_Q8FU34 A G A V P E I F P A G S A A R I M T | G A P V P D D G L I V I P V E N T N I A R  
UniRef90\_UPI0004763ED0 A G E Q P K T P V S P G T A V Q I | R T G A P V P E N T A A V V R K E W T W I D A  
UniRef90\_S9QCA7 A G A P F D M V L G K G D A I R I | S T G A Q M P L G A D A V L V Q E D A Q V I E G  
UniRef90\_UPI0004766604 A G D A P G V Q V T P G H V A Y V | T T G C P V P D G A D A V V K I E D T E A I L  
UniRef90\_T0CS66 A G A P F D M V L G K G D A I R I | S T G A Q M P L G A D A V L V Q E D A Q V I E G  
UniRef90\_UPI0001DD0AB8 A G D A P G V Q V T P G H V A Y V | T T G C P V P D G A D A V V K I E D T E A I L  
UniRef90\_W4H9H3 A G A P F D M V L G K G D A I R I | S T G A Q M P L G A D A V L V Q E D A Q V I E G  
UniRef90\_E4RMK0 A G A P F D M V L G K G D A I R I | S T G A Q M P L G A D A V L V Q E D A Q V I E G  
UniRef90\_UPI00017RWM1 A G T A D P G R V E A G A V E I A T | G A P V P D G T S A V I P Y E E T A V A G  
UniRef90\_A0A010YX74 A G T A D P G R V E A G A V E I A T | G A P V P D G T S A V I P Y E E T A V A G  
UniRef90\_W8T4I5 A G S Q K P L R L Q P R Q A V R I | M T G A P L P T L A D A V L P L E W S D R G K  
UniRef90\_UPI000373E5A6 A G S P A H R P L D P G T A Q R I | M T G A R M P E N A D T V I K V E D T D H A P  
UniRef90\_U4U4Y7 P G R P H A G A I R R G E A V R I | T T G A P V P E G A D A V V V A E R A E E K G A  
UniRef90\_A9GHD8 A G K V P T V K V N P G Y C I P I M T | G S P I P E N C N A V V M K E D T E K D G  
UniRef90\_X1F4Y9 A G G D G A V A V G P G Q A A R I | M T G A P L P P G A E A V V P V E W T D G G L  
UniRef90\_M3A255 A G A T A Q A V P V G H A V R I M T | G A P V P D D G L I V I P V E N T N I A R  
UniRef90\_UPI000381E4A1 A G A Y D G V L Q P G Q C V R I S T | G G V V P E S S T A V V M V E H T I C T K  
UniRef90\_U7LXF6 A G T R F E A R L A A G Q A V R I | T T G A P L P D H G A D T V I M N E Q L A T S D  
UniRef90\_E3MMN1 A G D A A G T L S P Q G C V I E V M T | G T P L P H G G D C V I P V E Q I S V Q D  
UniRef90\_Q1QVS8 A G R P F K G A V G K G E A V R I | F T G S V I P D G A D H V V I Q E D A D R D N  
UniRef90\_UPI0004766604 A G A A P Q P L A A G T A Q R I | M T G A M L P E G A D A V V K V E D T D Q A P  
UniRef90\_G9PP00 A G A A P Q P L A A G T A Q R I | M T G A M L P E G A D A V V K V E D T D Q A P  
UniRef90\_M1E4V7 A G S A A G E L A A G T A I R I | F T G A P M P P G A D T V F M Q E D V R R E G  
UniRef90\_H1KTL9 T S D S V S L K P G T C L Y V N T | G S M V P D E A T A V V R I K D V R R  
UniRef90\_E2A014 A G L L A S G D I L R P G T I C R V | N T G S M V P D G A D A V V Q V E N T R I V E  
UniRef90\_UPI00024MPX4 A G L A Y E G I V P A G K A I R I | L T G A L P T G V D T V I L E E D V T L G E  
UniRef90\_A3XC17 A G G L P Q E V V P N Q A L R I M T | G A P I S G D A K S V I P S E F T D A S L  
UniRef90\_U7JWV3 A G V P F D G A V P G S A I R V L T | G A L P D G G D T V I L E E D V S T D G  
UniRef90\_U9VQ79 A G W R L G K D Y V R A D T G D D F | D D R F D T V I M I E A V S F T G  
UniRef90\_F5YMZ8 A G E E C K S L L S S D H C I E V M T | G N P I P F G F N A V I K L E D I N E N  
UniRef90\_XORQW6 A G D R P E P L A P G H A R A I L T | G A R I P A G A D C V I P Y E E I E N E  
UniRef90\_UPI000237DCE0 A G D R P E P L A P G H A R A I L T | G A R I P A G A D C V I P Y E E I E N E



UniRef90\_A9VBD8 A C I E L L H P V S Q G Q D I R P P G C D V Q A G A T I L L D A G V T L G A A E C  
UniRef90\_H5U246 S T A L G F S S S V E V G K H I R R R A G S D D V A H G D V A L P A G T V L G A A Q T  
UniRef90\_U4LVU6 S T A L L A S G M E D G G E N V R R V G S D D V A L G S E L V L R K G T V V S A G E I  
UniRef90\_B8GJ19 G R P H I R K S G I A P G M N I R R K K G G E D L I L P R D H L I R R P T D I  
UniRef90\_UPI000466DC44 P W I E V R K A V A Q K G E N V I F Q G E E E V K E K E K I L P L G S Q I S S C R T I  
UniRef90\_D5EEH7 P W I E V R K E Y A Q R G E N V I F Y K G E E I S L G G E K V L C R G G D R V S F K T  
UniRef90\_B2J3G0 A Q I C L R T K G A P P Q A D I R F T G E E I Q Q Q G Q L L A Q V G Q F L N I G S L  
UniRef90\_D5ZE71 S R V R V L R G A P S G A Y V R R A G D D V Q P G D V A V R A G T I I G A G Q V  
UniRef90\_T4ZWZ0 E I E M Q P D S V K E G E N V R E V G S D D V R K D S V T L D K G E Q I T G G E V  
UniRef90\_UPI00047CAC18 H R V R L L A E V A P G Q N V R L A G S D V A V G E T V L A A G T V L A P Q H L  
UniRef90\_F4D0P2 E Q V A V R R G P A A G T H V R R A G E D V R P G T T V L T A G T  
UniRef90\_A0A031JC70 G A L Q A C A N L A K G R N V R P A A S D F Q A G G Q  
UniRef90\_UPI0003600B0B E Y L K V N K P L R P F Q N V S F I G E D I K K G E R I I S R G E I I S P A K L  
UniRef90\_F5Z0N3 D V V A I S A A I A R G R H I R R A G G D V A Q G A  
UniRef90\_C4XLJ4 E A A C I E A P L A P F A H I R R R G G E D I V A T E M I L P R H R R I T P Y D V  
UniRef90\_H8HZ25 D S V A L R Q Q A T P F G K H I R R S G E D V A A G T T V L H N G Q  
UniRef90\_F8KQ47 D K H A R A P K H K P G D N V R F Q G E D L Q K G A I L V K K G T R L H M G L L  
UniRef90\_J1FBT3 N R T Y I R K Q V S I G N G V R P V G E V W K R D E L I I E K G T K I S P F E L  
UniRef90\_UPI0003B45D38 G T V S F V R P V E A G T V R T A G S D V T R G D E L L R S G T R L G P A Q W  
UniRef90\_UPI00036CA7BB E E F E I T A A A V P W Q H V R A V G E D V A T E M I L P A N H L L R P Y D L  
UniRef90\_X7F3L4 D R V M P A A D A F S G T N I R P A G A D F S A G H G M A P P R L L R P N D V  
UniRef90\_UPI000262CA39 G T V I I N R L P E P G A W I R P K G S D I A E T S E I L K P G R R I I P E H V  
UniRef90\_A8WRR7 S N I Q I K D H V S D G T N I R E P G S E T R K G E T E I V R T G T K I G S A E F  
UniRef90\_F7W2D1 V N I L A A D E V H E G E N V R E V G S D L K Q G Q R I L G K G D Q V S A G E I  
UniRef90\_B115T9 D A F E I T S A A F P W Q H V R V I G E D L V A T E M I V P A N H V V R P V D I  
UniRef90\_G5MOW5 D G V R F T A D V R C G Q N  
UniRef90\_V4R458 D F V I I P P G L K Q G A N R R R A G E D L A Q G T A L F D A G Q I L R S Q D V  
UniRef90\_D6XBQ3  
UniRef90\_UPI000368223F D Q L R M E G P L R Q G G N V R P R A V D F A A S T I L V S A G T A L T A R H V  
UniRef90\_J3A264 D T L E S G P D V T P G T Y V Y E R G D S N F H A G D E L F A D G E R L G P K D A  
UniRef90\_A8ZUT1 D T V E I L J A P S F P W Q Y V R K A G E D I V A T E L L F P T N H V V T P Y C V  
UniRef90\_A8KZR4 E T V R I N Q A P R R G L H I R R A G E D I A P G  
UniRef90\_X0ZX90 Q S V M V F R E I E K G S N F R Y R G E D I K S A G S T V E R K G D S I N S P G T I  
UniRef90\_E1R5Y9 D G S T T Y R I I D G S N F S P Q G E D V K A G S L V L S A G T V L S S K H I  
UniRef90\_S6RZQ8 D Q V R F S E P L S V G Q N I R P Q G Q E T R V G D S V L A G G X I I S S K E L  
UniRef90\_UPI000255562E K A V L V F R P V K K H E N Y I F R G E D I R K G Q L L R E G E G L D F I R L  
UniRef90\_B4W8S3 E L A L F A T A P G P G R H I R A A G S D F E A G D V L L A A G T R L G  
UniRef90\_UPI0003A4E28A D K V T F N G N I K A G Q N V R Q A G E D L A I G S D V F T A G T  
UniRef90\_B2A5V0 N E V E I V E S V A P W Q H V R T I G E D L V A T E L I V P A G Q K L R P V D I  
UniRef90\_UPI0003B430D7 E R L A E G R A I R K G E N I V J A R G S E A R A G D E V L P E G T E M D A A A I  
UniRef90\_A71U1 G K I S V P C N T K K N D G N R E I G E E F F K N E R M L V R G T K I S P K E I  
UniRef90\_H6BN09 T V E I L T D E I V A G E N I R E P G S D I S L G E D I L L K R G T Q I S P G E I  
UniRef90\_N1JAB1 E V E I L V E G V R E G D N I R E I G S D I Q K G E D I L R N G T E I T S G G E I  
UniRef90\_U4UY70 Q E V V F H G P L K A G A N T R K A G E D V R P A D V V L T T G Q R I L R S T D L  
UniRef90\_UPI000262A0DB E T V T F A S A P Q G A F I R E N Q G S D H A V G A P L L L A G A R L R P A S I  
UniRef90\_H2Z0L5 L V V R V N T T V K S G D L I R A N G S D L K R G E V V L K A G T K L K H I A I  
UniRef90\_UPI00035FB784 A S V E V K H M V K R G Y G V R R I G E V L P E G S I L L A K A G  
UniRef90\_V4PIU5 G G I R F E K D A T D K P H I R S Q G H D F H Q G G D L I T A G E R L D A W  
UniRef90\_UPI0004664ED9 D S I K I L E A A V P W Q H I R P V G E D I V A G E M L L A S M H K I R P I D I  
UniRef90\_UPI000417A2A4 G K V Q I L K A A H P W Q H V R P I G E D I V A T E M V V P S K H K V R P I D I  
UniRef90\_K0B1P8 G K I Q I L L S A Y P W Q H V R P I G E D L V A T E M I I P S K H K I R P I D L  
UniRef90\_M0LYE1 D Q L A D P R L A S G T N V I R R G T T S A D E R L F A A G D R L A P R H A  
UniRef90\_UPI00046AF2D7 R H I M F Q G M L K R G S N T R S A G E D V I A A G D V I V S A G R R I T A A D L  
UniRef90\_E3H9H4 G E V E I I S P A R P W Q H V R P V G E D I I K G A P V L F A N H K I R P Q D I  
UniRef90\_E2S4C9 G P V A L P D E V T K S H I R P A G E D I Q P G A P V A T A G T I D A A V I  
UniRef90\_U5W0Z7 A A G P G P K A H I R R A G E D A R A G D E L L P A G R L V T P A V A  
UniRef90\_I4BW52 G K L Y V Y V S L S P G A N L R P V G E D I V K G Q I V A H F G D A V D P N L M  
UniRef90\_M3VIH4 G Q V T F T A P I D A G A H I R R A G S D I S A G S  
UniRef90\_Q8FU34 A P R V T I P A T P A G Q F L R L R A S D I R A G E E I I P A N T E I T P V H I  
UniRef90\_UPI0004763ED0 T H V T G S P R P A R D W R D V G E E A A K G E V L I P A G S V V T P G V I  
UniRef90\_S9QCA7 G H V A F R G P V R P R A N T R K A G E D V V A G G Q V F D S G H V L R A Q D A  
UniRef90\_UPI000476604 G P V T I T H A D Y S R T N I R L A G S N V E V G D I V V K P G T R I D A G A L  
UniRef90\_T0CS66 H T I R L L R P I S A G E S I Q P R G Q D T A Q G A V L L S R G A Q L D G Q T I  
UniRef90\_UPI0001DD0AB8 T R L T A T E P P T A R F I R R A G L D F K A S D T L L A A G T R M G A Q I  
UniRef90\_W4H9H3 G D I K I L H A V Q S G T S I R P I G F D I A Q D Q V V E A G E  
UniRef90\_E4RMK0 D Y Y K I E K S V A V W N H I R S I G E S V V K G N L I L T V G H K I R D F D L  
UniRef90\_A0A017RWM1 G G V V I R K P A V P Y Q N I R P I G E D I A M G T M V L P S K H K I R A I D I  
UniRef90\_A0A010YX74 G V L E A P A P Q R R H I R R A G E D L R R G D V L A D A G R E L T P T L S  
UniRef90\_W8T4I5 G K V N I L J A P S H P W Q H V R P I G E D M V K G E M I I P S G H I V R P V D I  
UniRef90\_UPI000373E5A6 K R V T A T R P V Q S G D F I R K E G A D I Q P G D I A V T S G A V L G P A Q I  
UniRef90\_W4U4Y7 G T V  
UniRef90\_A9GH08 G R V R A R E P V P S G K H V A A L G E D V L E G A E V V P A G R R L R P Q D V  
UniRef90\_X1F4Y9 E S I L V F K E C V I E G E N I R Y R G E D I K N G D K V L R K G K I F P A D I  
UniRef90\_M3A255 G A V R V H R P V T A G A H V R A R G S D V A A G D L A L A A G T V L G P A Q L  
UniRef90\_UPI000381E4A1 G E A E I J A A A S P W Q H I R I G E D I V A N E L V V T E Q Q V I S P V D I  
UniRef90\_U7LXF6 P T E L P R E V P A K S H I R P A G E D I Q P G T V V A T G E T T A N A V I  
UniRef90\_E3MMN1 K T I Q L K E H I S T G T N I R E P G S E T R Q G D V I V R S G T K I G S A E F  
UniRef90\_Q1QVS8 A R I E H P E R R A Q N V R R A G E D L A R G A L A A G T R L R P Q H  
UniRef90\_T1C324 G T A S L S D R V E A Q N V H R R R G T D A S E G A R L V T A G T R L G P V E I  
UniRef90\_A0A059FS74 D A L V C R D A Y S S T E H V R K T G I D F A E G D E L L A E G E F V T A A A L  
UniRef90\_G9PP00 G P R P L P E R V  
UniRef90\_M1E4V7 G S I I I F E A M H P G E N I R L I G E D F N P G E I V V Y E G Q E I S T F E I  
UniRef90\_H1KTL9 D R V V L P A G L K P G A N A R P A G E D L A A G  
UniRef90\_E2A014  
UniRef90\_A0A024MPX4 H N V E I L V E P K T G Q D I R E I G S D I K L G E I L L F K G C E I N A A E I  
UniRef90\_A3XC17 G E I A F R G P L K Q G A N T R K A G E D F S T G E V I L T A G R V I T P Q D I  
UniRef90\_U7JWV3 G P A Q L P T Q V T I H R I R L R G E V V T P G E D I A H P N T L I D A G T L  
UniRef90\_V9VQ79 A R I A F N G P L K R G A N T R K A G E D V S A D E V I L P A G R V S P  
UniRef90\_F5YMZ8 D R L A S G T E V K P G M N V N G R G S A I E E G E L I L E K G L P I R A C D L  
UniRef90\_XORQW6 K E I K I F S T V S P G Q H I R N I G E D V V A N Q L I I P I N H K I R P V D I  
UniRef90\_E1X043 K S F L L S E H P K R N Q F I H P L G E V D Y Q R D K I L S K G T L I N S G A L  
UniRef90\_UPI000237DCE0 H A V A A T P L A A R G A N I R R Q G E E F A T G T R L V A R G Q V L D W R H V

UniRef90\_A9VBD8 A L L R M C R V A M V D V V P R  
UniRef90\_H5U246 G L L S A L G L A N V A V A R R R  
UniRef90\_U4LVU6 G L L A S V G L K E V A V Y K K  
UniRef90\_B8GJ19 G V L A A C G I T E V E V  
UniRef90\_UPI000466DC44 G I L A T M G L T T V P  
UniRef90\_D5EEH7 G L L A T M G  
UniRef90\_B2I3G0 A A L S M A G V Q E L T V Y R R  
UniRef90\_D5ZE71 G L L  
UniRef90\_T4ZWZ0 G L L A A V G V A E V K V F R R  
UniRef90\_UPI00047CAC18 M L L A S L G V A R V S V  
UniRef90\_F4D0P2  
UniRef90\_A0A031JC70  
UniRef90\_UPI0003600B0B V A L L E T G I R N I K I  
UniRef90\_F5Z0N3  
UniRef90\_C4XLJ4 G A L L S C G A Y D V S V Y E R  
UniRef90\_H8HZZ5  
UniRef90\_F8KQ47 A L L A S Q G M A V I P V F K R  
UniRef90\_J1FBT3 G I M A E L N I P K V A V K P K  
UniRef90\_UPI0003B45D38 G V I A G T G A T T V Q V R R R  
UniRef90\_UPI00036CA7BB G G I L A G G V T E V D V H P R  
UniRef90\_X7F3L4 A L L A A M G A G T V A V T R R  
UniRef90\_UPI000262CA39 Q A L A S S G V V E A V I H T K  
UniRef90\_A8WRR7 G T L N A F G I K N I M V Y K R  
UniRef90\_F7W2D1 G L L A A V G V G E V Q V Y R R  
UniRef90\_B1I5T9 G G L L A G G V T R L Q V H P R  
UniRef90\_G5M0W5  
UniRef90\_V4R458  
UniRef90\_D6XBQ3  
UniRef90\_UPI000368223F G L A A I G G H G T F P V R R R  
UniRef90\_J3A264 I L L G D L G R E T V E V Y E R  
UniRef90\_A8ZUT1 G A L L A A G V T S V S V R K K  
UniRef90\_A8KZR4  
UniRef90\_X0ZX90 G V L A S L G K S E V K V Y  
UniRef90\_E1R5Y9 A L L A S V G Y A R P L V R R  
UniRef90\_S6RZQ8 G L A A S L G L A E L E V I R R  
UniRef90\_UPI000255562E G L L A G L G L A E V P V F R  
UniRef90\_B4W8S3  
UniRef90\_UPI0003A4E28A  
UniRef90\_B2A5V0 G A I L A G G V T E V T V E P K  
UniRef90\_UPI0003B430D7 A L A A G C G A A E V E V F R R  
UniRef90\_A71U1 L F L A S Q G T Y E I P V F  
UniRef90\_H6BN09 G L L A A A G L R R V P V H R K  
UniRef90\_N1JAB1 S L L A S V G R A E V F V Y Q R  
UniRef90\_U4UY70 S L A A S V G V S Q I E C F H R  
UniRef90\_UPI000262A0DB G L L A S A G V A T V P V R R R  
UniRef90\_H2Z0L5 G M L A A A G V S K I R V H K  
UniRef90\_UPI00035FB784  
UniRef90\_V4PIU5  
UniRef90\_UPI0004664ED9 G V L F S G G I T N V K V V K Q  
UniRef90\_UPI000417A2A4 G A L I S G G I E K V K V Y K K  
UniRef90\_K0B1P8 G A L I A G G M K S V K V Y K K  
UniRef90\_M0LYE1 A L L A D V G I E S V I R R R R  
UniRef90\_UPI00046AF2D7 A L L A A T G L S Q I A V R K R  
UniRef90\_E3H9H4 G A L L S A G L M E I P I Y K K  
UniRef90\_E2S4C9 A A L T S S G V Y T V T A Y R R  
UniRef90\_U5W0Z7 G L L A Q A G A D S V T V H G R  
UniRef90\_I4BW52 A L F Y A I G M R E L P V L S R  
UniRef90\_M3VIH4  
UniRef90\_Q8FU34 A L L A S Q S I T A V E V M R R  
UniRef90\_UPI0004763ED0 G L A A H C G Y T T L S V R A R  
UniRef90\_S9QCA7 A L L A A L G V D S V P V F E R  
UniRef90\_UPI0004766604 A A L I S L G I E E V D V Y  
UniRef90\_T0CS66 A V L R A A G V T S I P I Y  
UniRef90\_UPI0001DD0AB8 A L T R A G G L A E V  
UniRef90\_W4H9H3  
UniRef90\_E4RMK0 G A L L E A G I T E V E V Y K K  
UniRef90\_A0A017RWM1 S S L L A A G L N K V S V Y E K  
UniRef90\_A0A010YX74 G L L A Q G G A D T  
UniRef90\_W8T4I5 G A L L A G G L E S I D V Y K K  
UniRef90\_UPI000373E5A6 G L L A A A G R D K V L V Y P R  
UniRef90\_W4U4Y7  
UniRef90\_A9GHD8 G V L A S T G V A E  
UniRef90\_X1F4Y9 G V M A S L G K S E V L V Y  
UniRef90\_M3A255 G L L A A I G R A T V T V R P R  
UniRef90\_UPI000381E4A1 A A L W A A G L E T A T V L A K  
UniRef90\_U7LXF6 A A L I S T G I Y S V Q A Y Q R  
UniRef90\_E3MMN1 G I L K A F G L K N I F V F K K  
UniRef90\_Q1QVS8  
UniRef90\_T1C324 A L A A A A G  
UniRef90\_A0A059FS74 S V A A A G N H G K L D I Y R R  
UniRef90\_G9PP00  
UniRef90\_M1E4V7 M S L L A T G N D V V S V N K K  
UniRef90\_H1KTL9  
UniRef90\_E2A014  
UniRef90\_A0A024MPX4 G I L A A S E R N F V Q I F R K  
UniRef90\_A3XC17  
UniRef90\_U7JWV3 A F F L T A G V S H V S V Y R R  
UniRef90\_V9VQ79  
UniRef90\_F5YMZ8 G A L A R G G L W E V P V L R  
UniRef90\_X0RQW6 G A L L A G G V N Q L L V R R K  
UniRef90\_E1X043 S I I Y S Q G L S S V E V Y Q  
UniRef90\_UPI000237DCE0 A L L A A Q G V R D V P V T R R

1 10 20 30 40  
UniRef90\_UPI0003B48083 S V A E H R E V L A A A V D L R G T E S L P V A E L A G R L A A V R I T A  
UniRef90\_K9RSN4 L I S V E A A V E I I K T H L P D W G R E A V D I E Q V A R S G R V L A E T I T A  
UniRef90\_B8GES8 Q F L P L T E A K K I T S F L E S P D H S E C L P V Q S D A S G R V L A E T V T A  
UniRef90\_M5S520 S P D E A I A A I A D R F L S V V G L Q S E P V Q S D A S G R V L A Q S V T A  
UniRef90\_B1XTP2 M L T A Q Q A L D H L F S H A V A V E S E K V V M Q A A L G R V L A E N V I S S A  
UniRef90\_I3XU81 L S Y H E A L C L I H T R V Q P L H V Q T L P L L E K A S H R I S S A R D I C A  
UniRef90\_G4N9U4 T S Y T T A L E L L Q Q A S Q E A K P E V V P L L E S T G R I A A R N I R S  
UniRef90\_X1J8T5  
UniRef90\_G2HZF8 L A V Q N T L E E L L S N I K T V L K Y E L L P I E N S C L S R R I C A S A Q I I A  
UniRef90\_A9BF52 L S L E K A K E E Y L K I F K S V E T E N I K V I E N S N G R V T A S E A I I Y A  
UniRef90\_UPI00035FCA4E M I S Y Q K A I K I T I N K V Y L N L P N E K I S I V S D S L N G R V C A K N I L L S  
UniRef90\_F2QXC3 M I E V D A A L S R I L T E T K R N I D V R L S I V D L V G S T L A E D L L A  
UniRef90\_B8FP62 S R D E A L A I L F D Q A K E L A K E F V L P I L N E A L G R V T S E P T Y A  
UniRef90\_G8SFN4 I G W D R A R E L A H Q L T A A T G V E R I P L A D G D G R T L A E E P L R A  
UniRef90\_E6ZW59 L L E L D A A L S L I A Q H T P S S A T V S L P I G T S L G H V L L A E D I Y A  
UniRef90\_UPI0004645852 V S L L E E A H V L R A T C G S L E T S L L P I E E A V L G Y L L A Q D V I Y S  
UniRef90\_UPI0002F02730 S W A E A R E L A Y H C T R P S S N V T L G E A I G R T L T S P V T A  
UniRef90\_B0XZJ1 Y S E A L R L I Q A E A Q R A D G E H V P I L N Q A R D R I S R E T V I T S  
UniRef90\_R7YKM8 T T Y A E A L E S I R T A Q E R A S A E L V S L G Q A R G R I M A N D I Y S  
UniRef90\_F7VDF0 L V D Y P T A L Q L V L A C A E K R Q A E N V V P L S H S N G R I A A Q D V L A  
UniRef90\_W9H2L8 S L E Q V W A W I D A R V S A L G D E S V G V F E A V G R F A A G D V V A  
UniRef90\_M4NGH5 M I G Y H D A L M L I L E C T R R L P E R P C P V D Q A L G R V L A R P V S S  
UniRef90\_Q3ADY1 V P F E E A W E L N V N F F H P R E E E T E T V L A V G R I T C E P V V L A  
UniRef90\_T4VG11 I D L D D A I N M Y F S K T K S I N F E E V E V D S L D G R I T E P V F A  
UniRef90\_D1AIF0 L I N E A L D N K I K L L A N I K E S T E E T K D S L G R I S A E G V Y A  
UniRef90\_W7SQQ3 W A E A R Q V A R D A A E P L E T I T V T L G E A L G L V L S E H L P A  
UniRef90\_A0AXU3 A M Q S E T V P I E D A L T R V T A A D V F A  
UniRef90\_V6KVM1 Q L P A V P R A L D E A L G K V S M E E I L S  
UniRef90\_UPI000474243C L N D A I K K I L E N N E L L H K E E I N L D E A L G K V S M E E I L S  
UniRef90\_H2J862 V E L F F S K L E E Y F R N D E K E V L D V R E S S G R V T A E P I F A  
UniRef90\_A4XDF9 W E E A R S R A Y A V A A L P V V T R P L V D L D G H T V L A E P L A T  
UniRef90\_A3SSQ5 T P V D E A L A Q L R A L H P V T P V E D V P L A A T L G R I A A A D A L A  
UniRef90\_W7CB59 K T I P F H E A A Q T L D H T E P L K P E Q I H L F L A K G R V L A E E I T R A  
UniRef90\_UPI0002F6DA1A L D W E Q A R R V A Y D A G T P M A N Q T V P L S E A L G Q T L A E P V T A  
UniRef90\_D3NXD5 V P L A V A W E W I D S H V A P P A A R R L P L A D C A G L R L A G D V V A  
UniRef90\_K9AQ83 M T S A I M H R R R V A E T I S P L L G T E T R P L A D A V P R R L A A D V V S  
UniRef90\_A8MF52 I S L E E A Q R L Y F A E V S L L S T E K I A V T D S L N R V S A K P V F A  
UniRef90\_G2FVS1 L T S W E D A S K R L E G L V D V P A T K E V V G P S V I G G R L A A D I R A  
UniRef90\_UPI00036A74CE L A Q A V A L L R S A P R A P L R L P P W Q A V G R V A A A D L R A  
UniRef90\_UPI0003B5C420 L R S L E E H R A A A L Q L A A P L P A V V V A L A D A L G L V L A Q D V T T  
UniRef90\_F4H5C2 M R S V A E H Q R R V V T D L T R P R P P V S V A L T D A Q G L V L A E D V I A  
UniRef90\_X8CBF7 R A R L L G E E L G S P V R E L P L G R A L G G V L S G D L R A  
UniRef90\_UPI00034955BC S P V S Y P D A L R S L L T A V S P V G K E T V C I G D A L H R I T A E R V L A  
UniRef90\_Q1K2G2 I T L T E E S A L E A I F R E V K P L E P E A L V S S E L R G S V L A E D V F A  
UniRef90\_K5W714 L V T V E E A L L S I L K E V S P L A I S G E P V T A Q L G H L L A E D V Y A  
UniRef90\_S8E1X7 V D W E Q A R A L A Y E A S A G P A E L T S L P E A D G R T L A E P L R A  
UniRef90\_UPI00037666E2 P V D E S P L G E A L G G R V A Q D L R A  
UniRef90\_UPI000349A13D M H S L E T M L A L L N Q Q P L P L P R E T V P L H R L A G R V S A Q T V R A  
UniRef90\_UPI00047674A1 I S L T D A L K K L K D R F K R T E S E K I K T V D A E G R V T V N A V M A  
UniRef90\_A7HAA6 L V S V A E A Y L T I L R E V R P L S V E E A V T P R L Z L G H V I A E D V V S  
UniRef90\_M5DZD0 L R R V Q D H V E Y L L E L V E P L K P F G M S V L E A W N Q V I C E D I D S  
UniRef90\_UPI00046221C4 M R P V E E Q L K L V T D A A V T P P V R T A I A N A L G L M C A E E V Q A  
UniRef90\_UPI0003B5360D A V E R L L E L R A R A P T E R V E L A A A G R T L A E P V A A  
UniRef90\_MOD4V3 S M V S P E E A A A V C D R L A A V G S E R V A H A Q L P G R V L A G P A T A  
UniRef90\_I0IEF5 S I A E H V A F V T S L V I S P A R S M P P E T G F A L A V D A V A  
UniRef90\_I0LDJ5 E T I R E T I A D L D L G G G T D H V D L R D A R G R V L A E R T I D A  
UniRef90\_UPI000361C1C4 M R T V V J E H Q R V V A A L F G A P E Q S K V A V P E S L G L A T F T D V D A  
UniRef90\_V4Y6N5 E K A L D F F A A W E P R M Q T E L A A L E E A V G R V A A E D L Y S  
UniRef90\_J9RDXD6 S Y D E A L G R L L G A V S P L E A E A V G L E A G H G R V L A Q P V F A  
UniRef90\_UPI00037893B6 N M I S V E Q A I D V I K A I V F K V N I Q T V N T I D A Y N R I L A T D V F S  
UniRef90\_N9VQA0 M R S V A E H Q Q V V A E L I Q A P V P V R L P I G A A E R L V L A A D V V A  
UniRef90\_X7VL42 T D W E E A R A V A R A V P L P P V T R D L A E A L G H A L A E P L T A  
UniRef90\_H0BHR8 P P D G M G R V L A Q D V Y A  
UniRef90\_UPI000359E724 D D A I A L L A A H R T R E I V P V T G A L G R V A A A D V R A  
UniRef90\_Z9JV27 S R E E A L A D F F A A E P A R S V E Y V A L D D A V G R V L A C D L A S  
UniRef90\_C8WPK0 A H R V L A A S V Q S  
UniRef90\_A0A022LLX2  
UniRef90\_G8PP47  
UniRef90\_E3ZY16 N T I S M E Q A R E I L R N Q I T H L P V E K I N I G K A L N Q V L Q E P I F A  
UniRef90\_UPI00036BF5E5 L P A A E S L A I W L G A C R A T P A E V V P L D R A V G R V T A E P V L A  
UniRef90\_F2RCZ1 P L A R A L G Q V L A A P V L A  
UniRef90\_T2G8W5 G V Q T I P S Q D A G R V L A A P V F A  
UniRef90\_E1VST7 T L E S H R A E L E E L L S P V E V L R I D S P E A I D R I L S E D Q N A  
UniRef90\_UPI0003720F41 K V A T L D E H L S A L M S Y L S P L Q T K T V E L T Q A S S L T L A E D I T T  
UniRef90\_UPI00037A367E T S W R T A R E A E A L Q E P P G T A E L A D A L G R V L A A P L V A  
UniRef90\_M5CUB9 M D E A M K L V L Q V S K P L E T V K L D V N R L A G H V L C E D V T A  
UniRef90\_E1R7J4 M P R L J E A L E E I G K H L K Y R P I E E V P L P D A V K R V A R D I V S  
UniRef90\_I0XTU1 M I S V Q E A L K E V E S S A N I S F E S T N L E N S L G K V L R E K I Y A  
UniRef90\_U1Y7V6 V E L L T R Q A A R K G T E E L P L D A I G R A L A A D L R A  
UniRef90\_B1C8B7 I S F E E L F D E L L N G M P C L E S E E V S V F D V K G R V L S E D L Y I  
UniRef90\_C7R438 V G V V T L P H Q A T G R V L A H D L R A  
UniRef90\_UPI000310FE19 E T V K L D E A L N Q V N A S D V Y A  
UniRef90\_S3XX53 V S L D E W R A R V L A A L A P D H T E D A P L A G A L G R R L A E P L T A  
UniRef90\_UPI000255C939 S V E E H R S L I Q T A T T A R A V E A V A V A E A V G R V A E E V T A  
UniRef90\_W5WSK9 A R D R V A A V A E R L T A R A I P M A P G V G R V V A S D I E S  
UniRef90\_X6EY20 L D V T L A S L L E T L S P V A P S S V P L A E A L G C I A A E I S P L  
UniRef90\_X7Y3M7  
UniRef90\_UPI000475E769 E Q H L A E V K A L V G R R P T V T M G L V E A A R A T I A R D V A A

UniRef90\_UPI0003B48083 P G P L P G F D N S Q M D G F A V R S A D V T P G E T T L P L A G I V A 80  
UniRef90\_K9RSN4 D R A Y P A A H R I M M D G I A L A W K A Y D H G Q R A F R V L G T I A  
UniRef90\_B8GES8 N R T N P A L L S G P D G I A I R K S D E T I G A G E D T G I E L  
UniRef90\_M5S520 D R D S P A A D V S A M D G Y A I R M S D L R P G E T I P V H G E S A  
UniRef90\_B1XTP2 L V D V P P L D N T S M D G Y A V C C A D L L T P G R V L R V A Q R I P  
UniRef90\_I3XU81 K M A L P T F Y D M S L K E G Y A I A F A S N T T P C Y R L L  
UniRef90\_G4N9U4 R L T T P E D T S A M D G Y A I S S A A T R D A T P E S P L I F H V K G A I A  
UniRef90\_X1J8T5 UniRef90\_G2HZF8 T S F L P K Y N N S A M D G Y A I I Y E D S S A D T R G A S R Q S P R F L Q V I D T V A  
UniRef90\_A9BF52 K R F G P H Y Y A S A M D G I A V K A S N T Y G A S K T N P L M L K K E E L I I D T I F  
UniRef90\_UPI00035FCA4E P S T N P L A N N T A F D G F A V L A K E T K G L S K K K I K K F K I L K T I G  
UniRef90\_F2QXC3 P T S F P N F R A S I V D G Y A V H H T D G P G V Y P V V S V S H  
UniRef90\_B8FP62 A F S V P S A D T A Q H D G I M V N W E Q A K K L L E S G S R V  
UniRef90\_G8SFN4 L T A L P A F A T S S I D G W A V R G D G P W R R A G Q V L  
UniRef90\_E6ZW59 P T D L P P G P T T N V D G Y A V H A S T T P A G E Y A V V T L  
UniRef90\_UPI0004645852 N R N V P H F S A S A M D G F A L S S Q R T S G A S L A T P V Y L D V  
UniRef90\_UPI0002F02730 Q R N L P H Y A S S A M D G W A I N G S G P W I L T  
UniRef90\_B0XZJ1 T L S T P K F D T S A M D G Y A L S S S A T Q D A T I D H P V T F E V K G M I A  
UniRef90\_R7YKM8 P M T T P R 7 F D T S A M D G F A V S S A A T T G A S E E N P V I V H I K G T M I  
UniRef90\_F7VDF0 V S D R P V A D I S A M D G Y A F A H S A M A A A P A G L R V V G Q K V  
UniRef90\_W9H2L8 E R D L P P A D R I A L D G F A V R A A D T V G A S D Y N P L P L G L S G A P L  
UniRef90\_M4NGH5 P A A V P P A D F N A A M D G F A L H A G Q A R L P A G S E H A V M G A Q A  
UniRef90\_Q3ADY1 K R S N P H F N A S A M D G F A V K A K D T F Y A R E T S P I L L K I G E  
UniRef90\_T4VG11 R N S S P H Y N S A M D G I A V T S D E T M G A S E I K P K I L E I S K D F E  
UniRef90\_D1AIF0 K I S N P F Y N C S A M D G I A V K A V K T H G A N E K N H I L L E  
UniRef90\_W7SQQ3 L V P L P L C D T S A M D G Y A V R G P A P W T V V G R R L  
UniRef90\_A0AXU3 P E N V P P V P L A V E G Y A L R A S D T V H A T H G A P V E L R R A L A S S  
UniRef90\_V6KMV1 L T D L P P F A T A A M D G W A V T G P G P W R L I T G T G V  
UniRef90\_UPI000474243C E E D M P G Y R S S V M D G Y A L S K H T Y G A T E S S P K L E L I V I G E S F  
UniRef90\_H2J862 N E N V P S Y N S A S M D G V A V R G T G P W R I V G R V L  
UniRef90\_A4XDF9 R T P L P A F P T A S V D G W A V R G  
UniRef90\_A3SSQ5 R R A N P P L P N T A V D G Y G F A G G R E A G A H A M P L A E G R A  
UniRef90\_W7CB59 P F A A P Y F R R S G Y D G F A I C G E D D A N Y P I T L R V V A E V P  
UniRef90\_UPI0002F6DA1A L Q A I P H Y A S S A M D G W A V N G N P P W Q V S H A P K E E H P W S R P A P  
UniRef90\_D3NXD5 M G D W P P A D R A T A D G Y A V A A A D T L G A G S Y N P V P L T  
UniRef90\_K9AQ83 G L D V P P G F D N S S M D G F A I A A A D T L R T A S G R P I P V T G Q V A  
UniRef90\_A8MF52 K K S S P N Y N A A M D G I A V J A N H T Y G A T E S N P I H L K  
UniRef90\_G2FVS1 E R S S P H F A A S A M D G Y A I R A Q E T H G L S E R E P R W L E L  
UniRef90\_UPI00036A74CE K V S N P P F R M S A M D G W A V P V C C L D K G E T G L V L G T T V  
UniRef90\_UPI0003B5C420 E I G V P P E C A V S L R D G Y A L R A E D T G A A S A E T P L R L A T Q G R L T  
UniRef90\_F4H5C2 D A P L P R W D N S A M D G Y A V R A E D V R D A S P S T P V T L R V V A D L T P  
UniRef90\_X8CBF7 Q L A L P V I F D N S A M D G Y A V R A E D T A S A T P E N P V V L P V A E D I P  
UniRef90\_UPI00034955BC L V G S P A F D A S A M D G F A V A G P G P W K L V G T Q L  
UniRef90\_Q1K2G2 P Q P L P N S R R S A V D G F A L A D V T R R Q W R V A G S R A  
UniRef90\_K5W714 S Q N V P V T T T N V D G Y A V R S S D P P G I Y K V L T P  
UniRef90\_S8E1X7 P Q D V P S T Q T T N V D G Y A I R S T D A P G I Y K V V V T A K T H  
UniRef90\_UPI00037666E2 L T D L P A F A T S S I D G W A V R G P K P W R V I G R V L  
UniRef90\_UPI000349A13D L V G S P A F D A S A M D G Y A V A G E G P W R L V G S Q L  
UniRef90\_UPI00047674A1 G H D L P A F D A S A M D G Y A I A A H P E R P L G P F A L V G H V A  
UniRef90\_A7HAA6 A R D V P G F D A A T M D G Y A L R A A D A P R A G A R L P V A F E V Y  
UniRef90\_M5DZD0 K R S A P D F Y A A A M D G I A V E A Q K T A G A S E R A P I Q L E I G S E A Q  
UniRef90\_UPI00046221C4 P I N V P S T Y A S T N V D G Y A L R S T D P P G I Y R V L D H R  
UniRef90\_I6Y570 M I N V P P N S T S K V A G Y A V R A A D L W D N D Q L V E S L Q L V T G T E H  
UniRef90\_UPI0003B5360D N Q P L P G F P Q A A L D G Y A V R A V D V G G E R P V R E R S L P V V G E V P  
UniRef90\_MOD4V3 G R D V P S H D R A T M D G F A A A D D D Y P L T V V V G R V F  
UniRef90\_I0IEF5 D R D S P P A D V S A M D G Y A L R A A D A P P P G G D A W L P V A G E V R  
UniRef90\_I0LDJ5 R T D L P A F P T S S V D G W A V R G T G P W R V V G R V L  
UniRef90\_UPI000361C1C4 R L A V P P F D N S A M D G F L A H R A D L P G E L R V V A D V P  
UniRef90\_V4Y6N5 G I D V P G F D R A A M D G Y A V Q A R D T V G A D E A E P A V L D L A G T V H  
UniRef90\_J9RXD6 P L S L P G F D N S A M D G F A V R A A D L A D A S P D N P V T L P V A A D I P  
UniRef90\_UPI00037893B6 T V A V P G F D N S A M D G Y A A R A E V A A A S E A V P V T M T V S D E I M  
UniRef90\_N9VQA0 V N T L P V Y R S S A C D G I A V N S S M F A E G V P D T S A W R C G S E Y E R  
UniRef90\_J2PSW3 A R A R P A A A L S A M D G Y A I A S S D L L A M R D G L K L V L G A Y  
UniRef90\_W4WF81 T I E L P S Y K T S A K H G Y A M L A S N E T S G K D V R K V L K A Y H  
UniRef90\_E6Q4B0 I P P A A R S A M D G F A L A A A S A P G R L R V V G A V A  
UniRef90\_X7VL42 P L N L P V I F D N S A M D G Y A V R H E D L V G A S P A G P I T L P V T E D I P  
UniRef90\_H0BHR8 L T D L P P F D T S A M D G W A V A G P G P W R L R G G V  
UniRef90\_UPI000359E724 K D N L P P F P A S V K D G Y A V R A A D G P G D R F I I G E S Q  
UniRef90\_Z9JV27 R T D V P A A D N S Q M D G Y A V A A A D L A G D G A A A R L R L A P A I A A G  
UniRef90\_C8WPK0 T N T L P V V R A S S F D S I A V K S A A F A N G M P D T S S W K P G V D  
UniRef90\_A0A022LLX2 P V P L P P F D N S Q M D G F A I A Q A G L G Q T S Q V R I V A P I P  
UniRef90\_G8PP47 M D G Y A I A Q A G L G Q T S F P V V M E I F  
UniRef90\_E3ZY16 P F P A P Y F R R S G Y D G F A I T E T D D E N Y P I T L R V V A E V P  
UniRef90\_UPI00036BF5E5 R R S S P A Y D A A A M D G I A V H A A Q A T A G A V L T G P W T V R E G L D I L  
UniRef90\_F2RCZ1 L T D L P P F D T S A M D G W A V A G P G P V V L V K G Q D W  
UniRef90\_T2G8W5 R Q S S P A S H C A M D G V A V Q A S A T Y A A R E G Q P V V L P K G Q D W  
UniRef90\_E1VST7 L L P I P A F T N S Q M D G Y A A R S A D L A A A S L R S P I S L P V A G D I P  
UniRef90\_UPI0003720F41 R L P V P V I F D N S G V D G F L V R D A D L S G A G P W I F P V A G D I P  
UniRef90\_UPI00037A367E L T D L P V S F D T S A M D G W A V A G P G P W R I D R A P D D A S P D A G I L  
UniRef90\_M5CUB9 S H E F P A N P T T N V D G Y A V Q V P Y K K G I F K V L T P  
UniRef90\_E1R7J4 R L N V P P V K C S R W D G I C F S W Q H Y L D  
UniRef90\_I0XTU1 D R D Y P P F H R A T M D G F A L K S E G F S E D R I Y S Y T R E L H A G E  
UniRef90\_U1Y7V6 P V S L P P F A N S Q M D G F A V F S A D I P D G G A E L R V G A P V P  
UniRef90\_B1C8B7 K E D V P S F N Y A L K D G V S I N I K D L S K K G  
UniRef90\_C7R438 A T A L P R D T S A M D G Y A V G D S S G P W R L V D A P A L  
UniRef90\_UPI000310FE19 S Q D Y P L H N L S E Y S G W A L N S E T T Q S A S K D T H C Y Y W G Q Q L Y R  
UniRef90\_S3XX53 R I P A P Q F R M S A M D G F A V S T R E L G G A A D A C S A Q L E V T C D I S  
UniRef90\_UPI000255C939 P G P L P G H D N S Q M D G Y A V R A A D V A A A L A E H D G R L P C D G V V P  
UniRef90\_W5WSK9 P M N V P H Y T S S A M D G Y A V A G P G P W E L L A E P S E G V Q G R N L H R  
UniRef90\_X6EY20 S Q A L P S F P T A V I D G W A F R A L E L T G A S S Y S P L P L  
UniRef90\_X7Y3M7 M V T L P V M G T I E  
UniRef90\_UPI000475E769 E F D S P R F D N S Q M D G Y A L S E D H V A A T P G Q F R V G A T I P



UniRef90\_UPI0003B48083 A G S A P G Q L L P A G A A I A V M T G A A I P T G A D V V V P V E K T R H G F  
UniRef90\_K9RSN4 A G E P K L T L T D P L A C Y E V M T G A V L P N G C D L V I P Y E E T E V R I  
UniRef90\_B8GES8 A G S P K L T L T D P L A C Y E V M T G A V L P N G C D L V I P Y E E T E V R I  
UniRef90\_M5S520 P G T P P P T M S K G S L V R I L F T G A I V P N G A D A V V I K R E M E D T L V A E  
UniRef90\_B1XTP2 A G P G T P P P T M S K G S L V R I L F T G A I V P N G A D A V V I K R E M E D T L V A E  
UniRef90\_I3XU81 T P P Y P N P L P V G F G V K M C T G E S V P Q G L N T L I P M Q E E D C A A E S  
UniRef90\_G4N9U4 A G D E P K S W T T A G A G V I E I M T G A R F P E P G D A V V I K M E E D T M Y I S S  
UniRef90\_X1J8T5 A G S V S E C Q L K P G T A I R I E I M T G A P L P S E G A D S V V R F E D T D E S S  
UniRef90\_G2HZF8 A G D N N N T L I K E K N T C I K I V M T G A K I P E N T T A V I V K E E D V I E S N G  
UniRef90\_A9BF52 A G D N N N T L I K E K N T C I K I V M T G A K I P E N T T A V I V K E E D V I E S N G  
UniRef90\_UPI00035FCA4E A G D N P K N N Y L K N S S V E I M T G G L V P K P F D S I I P V E E K I K Y Y P  
UniRef90\_F2QXC3 A S A S D L T T L K P G T L S R V T T G A P V P E E A T A V I V M V E E D T V L K S  
UniRef90\_B8FP62 A G D N P K N N Y L K N S S V E I M T G G L V P K P F D S I I P V E E K I K Y Y P  
UniRef90\_G8SFN4 A G G T P P P L T E D G T C V E I A T G A M V P A G A A A L I R V E E S E T I G A  
UniRef90\_E6ZW59 A Q L Q T R P A L Q S G E L F R I N T G M P V P E P F D T V I V P L E Q V K H W D  
UniRef90\_UPI0004645852 A G D N P K N N Y L K N S S V E I M T G G L V P K P F D S I I P V E E K I K Y Y P  
UniRef90\_UPI0002F02730 T A G L P L S P G E A S L I A T G G L V P A G A T A V L R K E S G Q V I G G  
UniRef90\_B0XZJ1 A G D E P D E Q S G T P V C V E I M T G A P F P T G V D C C V R N E E D V A V I V  
UniRef90\_R7YKM8 A G D V P E V R D G L V P C M E I M T G A R F P E T F D A C V P L E E Q T L D V P  
UniRef90\_F7VDF0 A G D M P S V L K M G E A Q G I L T G A R I P P G A D C V M A G E R M Q L D P  
UniRef90\_W9H2L8 A G D A L A Q A D G G A W E I V S V G D A P P A G M D T V V P V E Q V E I R P  
UniRef90\_M4NGH5 A G D A L A Q A D G G A W E I V S V G D A P P A G M D T V V P V E Q V E I R P  
UniRef90\_Q3ADY1 A G D A L A Q A D G G A W E I V S V G D A P P A G M D T V V P V E Q V E I R P  
UniRef90\_T4VG11 A G D A L A Q A D G G A W E I V S V G D A P P A G M D T V V P V E Q V E I R P  
UniRef90\_D1AIF0 A G D A L A Q A D G G A W E I V S V G D A P P A G M D T V V P V E Q V E I R P  
UniRef90\_W7SQQ3 A G P C P D A A L E T G Q A F E I A T G A P V P V G T E A V V P V E E L S T V D E  
UniRef90\_A0AXU3 A G S P A E R A I H A Q C A V D V P P A G P L P E N A D T V V P K E E V T H R D R  
UniRef90\_V6KVM1 L A G Q E P G R L G R D S A V P I A T G A P V P A G A D A V L P R R E H G E A D R  
UniRef90\_UPI000474243C P G K P F N D L L K N G E A V S I S T G S F V P D N C F S V I P Q E Q V I S L E F  
UniRef90\_H2J862 A G G V P A P L T E D G T T V E I A T G A M V P E G A T T V L R V E E S S R T P  
UniRef90\_A4XDF9 A G G V P A P L T E D G T T V E I A T G A M V P E G A T T V L R V E E S S R T P  
UniRef90\_A3SSQ5 A A G D A P G A L A E G Q A I R V I L T G A L P E G V D T V V L Q E D V I T I D G  
UniRef90\_W7CB59 C G E T Y D K R L N S G E T V R I M T G A K V P E G A D T K V I M L E Q  
UniRef90\_UPI0002F6DA1A H Q D S G A G P L V P G E A T F I L T G G V V P E G T T G V L R M E H G A V R G  
UniRef90\_D3NXD5 A G A H G H P V A P G T A V E I M T G A P V P P A G D T I V P Y E A V I Q A A G  
UniRef90\_K9AQ83 A G A H G H P V A P G T A V E I M T G A P V P P A G D T I V P Y E A V I Q A A G  
UniRef90\_A8MF52 A G A H G H P V A P G T A V E I M T G A P V P P A G D T I V P Y E A V I Q A A G  
UniRef90\_G2FVS1 A G A H G H P V A P G T A V E I M T G A P V P P A G D T I V P Y E A V I Q A A G  
UniRef90\_UPI00036A74CE L A G M E A P G L A A G K T C A V I M T G A P V P V E A G A V I P V E D A R V E E  
UniRef90\_UPI0003B5C420 A D A R Q P Q A L A R G K A V R I L T G A P L P P A G A D A V I P F E N L A E P P  
UniRef90\_F4H5C2 A G S S H R P T V G P G T A A R I M T G A P V P A G A D A L V P V E D T D A G T  
UniRef90\_X8CBF7 A G R T D E L T L G S P G T A H R I M T G A P L P A G A D A L V P V E D T D A G T  
UniRef90\_UPI00034955BC A G V P V A G C L L G S G E A V E I A T G A R A P A K G T E A V L P Y E L A D V V D  
UniRef90\_Q1K2G2 A G E L A T D P L A E E D A L A V M T G G G V P D N A K A V V R V E E S H Q L G  
UniRef90\_K5W714 H T H A L A T P V P E G H I F R I N T G A P L P A G T D A V I M V E D T R L H N S  
UniRef90\_S8E1X7 A L A D P L P A G T V F R I N T G A P L P A G A D A V I M V E D T R L H S  
UniRef90\_UPI00037666E2 A G G V A A P L D E D G T C V E I A T G A M V P V G A D A L I R I E E S T R D A  
UniRef90\_UPI000349A13D A G V P V A G P L G P G E A V E I A T G A R A P K G T D A V A P Y E F A R V S E  
UniRef90\_UPI00047674A1 A G D A D P G M L A P G Q A M R V L T G A P L P R G C Q G V A Q E F A R C D A  
UniRef90\_A7HAA6 A G R P A P A P L P G S C C R I F T G A P L P E G A D A V E M Q E E V R R G R  
UniRef90\_M5DZD0 A G R P A P A P L P G S C C R I F T G A P L P E G A D A V E M Q E E V R R G R  
UniRef90\_UPI00046221C4 T H P L A T P L P P G Y V F R I N T G P L P A G T D A V I M V E D T R L H T  
UniRef90\_I6Y570 A G S R Q P L R L Q P K H A V R V Y T G A P L P T L A D A V L P L E W S D R G R  
UniRef90\_UPI0003B5360D P E D R P P T L R R G E A V E I A T G A P L P P E A D A V L M R E D A T V E D  
UniRef90\_MOD4V3 I G E A P P P L P T G A L R V F T G G A V P A G A D A V V P R E G R G G R I  
UniRef90\_I0IEF5 A G N T P T L A E D G T T V E I A T G A M V P E G T T A V L R I E E S T V K G  
UniRef90\_I0LDJ5 A G G H P V R L G P G E A R I M T G A P I G P D G C V I V E D T D H P A  
UniRef90\_UPI000361C1C4 A G E E P D V T V E S G T C A E V S T G A V M P P G A D A V V I V E R T S E I E  
UniRef90\_V4Y6N5 A G R T D D L T L E P G T A H R I M T G A P M P A G A D A V V P V E L T  
UniRef90\_J9RXD6 A G P V R P G P L L A G T V A R I M T G A P L P A G A D T I V Q L E W T D G G T  
UniRef90\_UPI00037893B6 A G P V R P G P L L A G T V A R I M T G A P L P A G A D T I V Q L E W T D G G T  
UniRef90\_N9VQA0 A G P V R P G P L L A G T V A R I M T G A P L P A G A D T I V Q L E W T D G G T  
UniRef90\_J2PSW3 P G A P F V G R L Q P G Q A V R V T T G A T P P D R A D R V I V D E A T S A A G  
UniRef90\_W4WF81 M F A E I S V V P G T C V R V T T G A T P I P K G A N T V V A L E N T K I L D  
UniRef90\_E6Q4B0 M G Q P F P G R V P G E A V R I P T G G V L P A G C D A V L P I E E A V L R G  
UniRef90\_X7VL42 A G R T D E L T L N S P G T A H R I M T G A P V P A G A S A V V P  
UniRef90\_H0BHR8 L A G G P E L L R S G T A V P I A T G A R L P E G A R A V L R R E D G E G D V  
UniRef90\_UPI000359E724 A G E Q G T E E L E P G T A T P I M T G A P V P R G A D L V V P V E E S P A G E  
UniRef90\_Z9JV27 A G V R D H V P G T A T P I M T G A P V P R G A D L V V P V E E S P A G E  
UniRef90\_C8WPK0 A G V M P E A L E P G T A A P I M T G A R I P T G A D A V F P V E P A A L I E L  
UniRef90\_A0A022LLX2 A G S M P E T P L K P G E A A R I F T G A P V P E N A S K I I M L E Q  
UniRef90\_G8PP47 C G E T Y D K P L M P G E T V R I M T G A K A P E N A S K I I M L E Q  
UniRef90\_E3ZY16 A G G V A A P L D E D G T C V E I A T G A M V P V G A D A L I R I E E S T R D A  
UniRef90\_UPI00036BF5E5 A G Q A P G A P T A D G E A V R I A T G A R V P E G T D A V I M R E D V T F V D  
UniRef90\_F2RCZ1 W P V N T G H P P P H L P L G A D T V I P I E E Q V Q L D D  
UniRef90\_T2G8W5 A A G D R Q I P L P A E G T V S P V M T G A M I P L G A D T V I P I E E Q V Q L D D  
UniRef90\_E1VST7 A G A A P L V V P P G H A I R I M T G A P V P E N T S G V I P E E L T D I L P  
UniRef90\_UPI0003720F41 A G H D A P A V L P D G H A L P I A T G A R I P V G A T A V L R S E H G E I G R  
UniRef90\_UPI00037A367E A T L K L G S Q V P A D S V Y R I N T G A P L P S G T N A V I M V E D T Q V D S  
UniRef90\_M5CUB9 S G R D V S S W Q A E V D Y I F S N T G I P F Q G A D T M V I E K T T F H E  
UniRef90\_E1R7J4 A G A R P A A L E R G F A V I M T G A M L P K G A D A V V P I E R A V P S V  
UniRef90\_I0XTU1 A G A R P A A L E R G F A V I M T G A M L P K G A D A V V P I E R A V P S V  
UniRef90\_U1Y7V6 A G H V G A R E L E P G E A V I A T G G V V P H G T N A V I R R E Y A Q V I T F  
UniRef90\_B1C8B7 S I N P Y K L D L K A P S L L E I P A Y T K L P E S L D S V A E Q D E R L D L  
UniRef90\_C7R438 A G R A V V G K R R P G T A A R I M T G G L V P D D L D V I P V E F T D A D P  
UniRef90\_UPI000310FE19 A G S S P G L P P G T C R A I M T G A V V P E G A D L V I P V E K T E D V V  
UniRef90\_S3XX53 T G G T L R E G Q A L P V L T G S L L P E G A D T V V R S E H S E V R D  
UniRef90\_UPI000255C939 A G A R T P T R L Q P R Q A A R V Q T G A P L P T L A D T V L P L R W T D G G M  
UniRef90\_W5WSK9 A G T D P A E A Y P D G A L V P I M T G A K V P H G T A A I V P V E K C T P E T  
UniRef90\_X6EYZ0 A G T D P A E A Y P D G A L V P I M T G A K V P H G T A A I V P V E K C T P E T  
UniRef90\_X7Y3M7 A G T D P A E A Y P D G A L V P I M T G A K V P H G T A A I V P V E K C T P E T  
UniRef90\_UPI000475E769 A G T D P A E A Y P D G A L V P I M T G A K V P H G T A A I V P V E K C T P E T

UniRef90\_UPI0003B48083 T G I H T C A D L T A G Q Y I R R T G S D I A T H D V L L A E A G E L L T P Q R V  
UniRef90\_K9RSN4 A E I T H D Q A W A P M A N I H P Q G S D F S L G E V L L R P G V K L N G P A W  
UniRef90\_B8GES8 K R Y R I H T Q V S P F Q N T P C G D D L V K G S D L V M E K G H I I P F D I  
UniRef90\_M5S520 N A I R F R D V A Q S P G E N I R R A G E D N A K A G S T V L P A G V L V N A A H R  
UniRef90\_B1XTP2 D Q V T I N I A P T S G Q W V R R K G E D L T A G K T C L T A G T F L H P Q E L  
UniRef90\_I3XU81 D T I H I G L H A N P T F T H I R K K E G E D S E K G D L L A K G E R L S A S K I  
UniRef90\_G4N9U4 S F I V V V R P V P R C A N R R F A G E D I C E G G D T V I R A G Q M I C S A H L  
UniRef90\_X1J8T5 P Q I G I F G E A E A G L N I R R A G E S I A R G S I V L T K G V V I R P S E V  
UniRef90\_G2HZF8 N K L K I L Q N I K K F Q H I R Y A I G E S D I K K D E I L I E E G E I N F S K I  
UniRef90\_A9BF52 D F Y I I E K S A T P F W Q N I R A I G E S V M K G Q L M F P V N H M I R P Y D V  
UniRef90\_UPI00035FCA4E S H I F V D S E V K K F S F I R F A G E D Y N L K D V V V K K G E T I Q P K H I  
UniRef90\_F2QXC3 T T M L L A M D V K E N D N I R K V G S D V E Y K G S L L L N K G H V I N P G E V  
UniRef90\_B8FP62 G R V E I K A L P A P Q G I K G A G S S I R G G E R L V P A N Y R L N P A H L  
UniRef90\_G8SFN4 D G T V T G T P R P S P E W R L P G E E A A L G E E L L P A G T P V D P A V I  
UniRef90\_E6ZW59 A R V R V L A Q V D V G E N V R A R R G S D V R A H Q V I V A C R G D T J I S A G E L  
UniRef90\_UPI0004645852 G K L A V Y R L V L S A G D N I R P V G E D V T K G Q I V A R D G D V I S P A G T  
UniRef90\_UPI0002F02730 G H L S L R H D A K P G R H I R P A G E E A A A G D V L I P A G T L L N P A H I  
UniRef90\_B0XZJ1 D Y I R R V V K P A K T Q Q N R R F A G S D F K K G S D L V D A G E V I H P G H I  
UniRef90\_R7YKM8 G Y R R V V K P V I P S Q N R R L A G S D F Q R G E L V V S A R T L I R P Y D I  
UniRef90\_F7VDF0 Q T E C V H A L A E Q G A N I R R K G E E F T R G T C L V R S R G Q A L D W R H I  
UniRef90\_W9H2L8 G M M E L V A A V A E G E G V E R R G D D T E A G T L V V A K G R G V R V A D A  
UniRef90\_M4NGH5 R R I R L S I D V E A G R H V R C G I D A E V I P A G E L L Q A Q H I  
UniRef90\_Q3ADY1 G V I S V T K P V T P G T N I R F L G E D F N E E E V L L P A F A K V K P A Q D I  
UniRef90\_T4VG11 E N V Q I L S P A Y P W Q H I R P I G E D I V A G E M I P S N H K I R P M D I  
UniRef90\_D1AIF0 T S V K L H K S A A R W E N I R S L G E D I V E S T L I I G K N H K I R P V D I  
UniRef90\_W7SQQ3 G T V T G V L P A K D H I R R R G E D I P R G R R V L H R G T V A T P A A L  
UniRef90\_A0AXU3 S F L L L H A P L S A G Q H V I P A S R G E Y R R Q S S L L L P K G S R I T A E L Q  
UniRef90\_V6KVM1 E R G M L Y A P V P E G Q D I R P R G Q E C R S G G E P L L P A G T T V T A E R V L  
UniRef90\_UPI000474243C E Y I V K K E T S S N N S W I R E K N D Q V F K G E I L L I K K G V K I T P G I L  
UniRef90\_H2J862 D K I K I R N S F P Y M K D V R K V G E D L C K G E M L F P R Y H T L T E N D I  
UniRef90\_A4XDF9 E G L V A G T P R P K P E W R L P G E E A A A G E E L L P V G T P V D P A V I  
UniRef90\_A3SSQ5 R T L R F N G P V K Q G A N T R K A G E D V T A G E V T L R A G R R I T A A D I

UniRef90\_UPI0002F6DA1A D S L A R P D E P R P Q E H I R P A G E E A P Q G S E T I P A N V T L N P A Q I  
UniRef90\_D3NXD5 P V I E A I D G V A P G N G V E R R G A W S A A G S L L L P A G R R L R P G D L  
UniRef90\_K9AQ83 F G A L P A E A V P G A F V R R R G S D V D V G E T T V T A G A E L T P A R L  
UniRef90\_A8MF52 D T V E I R Q A A T P W Q H I R P I G E D I V E K E L I I S S N H K I R A M D I  
UniRef90\_G2FVS1 E R I L L Q A P V V P W N N V R P V G E D I V E G E V L L P I H H R I R P Q D Q  
UniRef90\_UPI00036A74CE G R L Y W K D K L T E G Q N I R A A A E D F A F G S L L L K A G T T I A P H L  
UniRef90\_UPI0003B5C420 G P I L L S E P A Q Q H A F I L P Q G G D L P A G S L L L A R S G T R I T S Q A G  
UniRef90\_F4H5C2 V T V R V G A P K V V G Q H V R R A G E D A V P G D L V V A A G T L L G P

UniRef90\_UPI00034955BC G W V H G E A L P G R H V R W S G E E T A P G E T V L A E G T E V T P A V L  
UniRef90\_Q1K2G2 D S L C L A D G V V A N G N I N E L G H E L M P G G Y S L L D A G C R M D A I R H  
UniRef90\_K5W714 S D V E T L A Q V D P D E S V R A P G S D V K K G E L L A L E K G T V L H G A E I  
UniRef90\_S8E1X7 T H V E T L A Q V A P R E N V R A P G S D T R K G D L V L E R G T V L H G A E I  
UniRef90\_UPI00037666E2 A G L V S G A P R S I P E W R L P G E E A H K D E E L L P A G T A V D P A V I  
UniRef90\_UPI000349A13D G H V V G E V V G E P G R H V R W S G E E T A P G E V V L R K G T E V T P A V L  
UniRef90\_UPI00047674A1 D G V H L A A P L C Y G A H M R L R G S E L A R D A G A V L V E R G E R L K T L H I  
UniRef90\_A7HAA6 G P A A F R R A A E A G R F V R R A G S D V A A G A V A L A A G A V I D A G V I  
UniRef90\_M5DZD0 N H Y T I E K A V P P W N I R S I G E S T V K G N L L V T A S H K L S S D Y D L  
UniRef90\_UPI00046221C4 T Q R T L A Q V P R G E N V R E P G S D V R Q G D L V L E R G T V V S S A E I  
UniRef90\_I6Y570 E R I E I I Q E V A E G E Y L R A A G E H L A V I G D R L L S E G E V L T D R S V  
UniRef90\_UPI0003B5360D K R V T A H R P V R S G D F V R P V G D T A L Q P G D V A V T S G S L L G P A Q L  
UniRef90\_MOD4V3 G R L S G A S L A P E T N V Y P A G A T A A G E R L L S A G A T F E P R H A  
UniRef90\_I0IEF5 R W L A G S P A P V V G R H I R R R G E N A R A G D V V L P V G V E A T P A V V  
UniRef90\_I0LDJ5 G L V S G T P R P A P E W R Q P G E E A Y A D E E L L P V G T P I D P A V I  
UniRef90\_UPI000361C1C4 G P G P L P A T V R A R S H I R P R G D N S S P G D V V L A A G S P I D A G A L  
UniRef90\_V4Y6N5 G  
UniRef90\_J9RXD6

UniRef90\_UPI00037893B6 G T V R I H Q A P R R G L H V R R A G E D I A P G  
UniRef90\_N9VQA0 D T S V V I S P V K P G W N V R P R G D S L R E G E L L I R A G M V I R P V D L  
UniRef90\_J2PSW3 G E V R L V A W P G D K A H V R P A G S D F S A G  
UniRef90\_W4WF81 E C I E V L V P K V N E N I R N A G Y L I K R N E Y L M K K F N R I G S S E L  
UniRef90\_E6Q4B0 D E L E C G A L E S G D A V T P G S D L L A G E L L M H P G R R I A A P E L

UniRef90\_X7VL42 G R S T G P G L P A P G R D V R P R G Q E C H A G D P L L P A G R S V T P A V L  
UniRef90\_H0BHR8 V R I L V Q A R P G Q D I R P I G H D I K R G E C V L A K G T H M G P S E I  
UniRef90\_UPI000359E724 E L D L R P A V A A A G R F V R R A A S D T R A G D L L R E G T V L T P A R I  
UniRef90\_Z9JV27 D G S V T F D D V E P G S G V R P A G S T L R A G E P L M S A G S I I R P T D L  
UniRef90\_C8WPK0 P R V T V P D D L T A G T F V R V T G S D L P A G A E L A P A G S P I T P A L L  
UniRef90\_A0A022LLX2 A R V D L S R S Y P A G C N I R R K G E D Q T K G A P I V K A G T L L R P Q E I  
UniRef90\_G8PP47  
UniRef90\_E3ZY16

UniRef90\_UPI00036BF5E5 D K A E I G K A A E P G K H V R P I G E D V R A G E T L L P A G L R L Q A W D V  
UniRef90\_F2RCZ1 A V L R A L R E V V A G Q D I R P R G Q E C R S G D E L L P A G T R V T P A V L  
UniRef90\_T2G8W5 E R I A L E A A Y P W Q H V R R I G E D I V A T E L L F P R G K L L T P Y D V  
UniRef90\_E1VST7 G H A E F S A P S A E G R F I R P A G V D L E T G A L V A K A G T R L T P T M I  
UniRef90\_UPI0003720F41 A Q V T V H S F V P A R R N I R R R G E H L N I G D I A V S A G T R V D A G T I  
UniRef90\_UPI00037A367E A R L Y A P R P V P P G Q D I R P R G Q E C R C G D Q L P A G T P V T P A V L  
UniRef90\_M5CUB9 Q F V E L L A E V E V G E N V R E S G S D V R A G D K V L V A G D V V S G E I  
UniRef90\_E1R7J4 N Q L I S Q K D V V I Q G Q M I P V I G E R M A I G E I I V A K G T L I T P S H L  
UniRef90\_I0XTU1  
UniRef90\_U1Y7V6

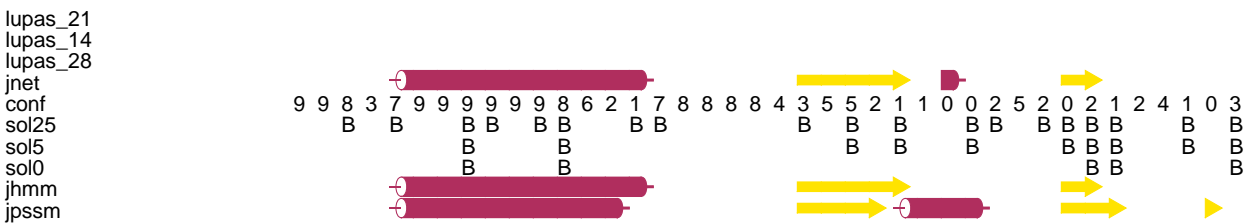
UniRef90\_B1C8B7 D A L V R L P A T A P G T F V R D A G S D I A E G S A L A L A A G T S L G P A Q L  
UniRef90\_C7R438 Y S L V L N Y P S M F E N I K Y K G E D T L K G S F L Y H K D T L I N G E E A  
UniRef90\_UPI000310FE19 I S S V S D N P W D G S H V R P A G A E A S L D E V I V H A G Q V L T P P R V  
UniRef90\_S3XX53 S D T E I T G S I P A M H G V I P K G S I F K Q G D V I L K K D E K L T P E K L  
UniRef90\_UPI000255C939 A E A E R T K A F A P G R H I R E V I G E E I P E G D M L A R S G D I V T P E L I  
UniRef90\_W5WSK9 F T G L T P Q D V A V G R F I R R A G D D V A A G E T V L T L Q G V L T P A R L  
UniRef90\_X6EY20 G E L R L L D T V R T G A D I R H A G E E L H A G E V L V T Q G T L L Q P R H L  
UniRef90\_X7Y3M7 P M G Q V L A E A L P G Q G A R R V I G E D M A K G R T V T A G Q Q L G E L D L  
UniRef90\_UPI000475E769 S R V R V L R E A P S G A Y R H A G D D V Q P G D V A V R A G T I G P A Q V  
G E F I Q V P P T P H G Q F V R E Q G S D I K A G S T I V P A G T T V T P A V V

UniRef90\_UPI0003B48083 G V L A A C G L L D R V E V F  
UniRef90\_K9RSN4 G L L A S V G Q S Q V L I K R  
UniRef90\_B8GES8 G A L L T Y G I P D V R I  
UniRef90\_M5S520 A T M V N F G G Y H A S V Y  
UniRef90\_B1XTP2 G V A A S A G L T H L N V K R R  
UniRef90\_I3XU81 T A L A S Q G I Q T L C V F K K  
UniRef90\_G4N9U4 M P L A S V G V Q S V A V  
UniRef90\_X1J8T5 G V L A S L G R S T A M V I R R  
UniRef90\_G2HZF8 T L L A S Q G T S H I K V Y Q K  
UniRef90\_A9BF52 G S L L E A G V K E I N V K K K  
UniRef90\_UPI00035FCA4E M A L T T L G I K D L Y V K K K  
UniRef90\_F2QXC3 G L L G S V G L N E V L V V K K  
UniRef90\_B8FP62 S I L R F A G V E T I T V W K K  
UniRef90\_G8SFN4 G V A A T C G H E L L A V R R Q  
UniRef90\_E6ZW59 G T L A F L G R S T A T V Y R K  
UniRef90\_UPI0004645852 A L F L A A G H A K V C V K R R  
UniRef90\_UPI0002F02730 A L A A V A G H D H V Q V Q R K  
UniRef90\_B0XZJ1 L S M A S V G M T Q I A V T R K  
UniRef90\_R7YKM8 M A L A S V C I A  
UniRef90\_F7VDF0 A L L A S Q N V Q Q V A V V R Q  
UniRef90\_W9H2L8 A L L A V L C V G S V S V T R R  
UniRef90\_M4NGH5 A L L A A L G I A E V P V V R R  
UniRef90\_Q3ADY1 G A L L A G G  
UniRef90\_T4VG11 G A L I C G G I K K L K V L K K  
UniRef90\_D1AIF0 G A M L A G G L S K V H V Y K K  
UniRef90\_W7SQQ3 G L A A S V G Y D S L  
UniRef90\_A0AXU3 I A L T A A G V R D I E V T K R  
UniRef90\_V6KVM1 G L A A A A G Y D R L T T V H R R  
UniRef90\_UPI000474243C S K L A S C G I K T I K V S K  
UniRef90\_H2J862 S F L L M A G V F K I P V L R  
UniRef90\_A4XDF9 G L A A S C G H D T L R V R Q  
UniRef90\_A3SSQ5 A L L A A T G T A S V S T H R  
UniRef90\_W7CB59  
UniRef90\_UPI0002F6DA1A A L A A V C G Y D N L P V L R  
UniRef90\_D3NXD5 G L L A V S G Y G P V  
UniRef90\_K9AQ83 G V A A A C G V D A L D V V  
UniRef90\_A8MF52 G A L L A G Q T I D I E V Y K  
UniRef90\_G2FVS1 G A L L A A G V L E V E V R C K  
UniRef90\_UPI00036A74CE L M L R A G G V G T V S I  
UniRef90\_UPI0003B5C420 A V L T R A R V E E L P V H P R  
UniRef90\_F4H5C2  
UniRef90\_X8CBF7  
UniRef90\_UPI00034955BC G L A A S L G H D Q L E V R  
UniRef90\_Q1K2G2 S T L C Y A G V S D L C V Y R  
UniRef90\_K5W714 G T I A F V G K Q R V K I H P K  
UniRef90\_S8E1X7 G T L A F V G R K S A Q V H K R  
UniRef90\_UPI00037666E2 G V A A T C G Y E V L S V R P R  
UniRef90\_UPI000349A13D G L A A S L G H D L L R V R R  
UniRef90\_UPI00047674A1 G L L A A Q G L A A L P V F A R  
UniRef90\_A7HAA6 G L A A G L G R T E L A V R R R  
UniRef90\_M5DZD0 A A L L E A G V T E I E V Y Q K  
UniRef90\_UPI00046221C4 G T L A F V G R A N V Q V V R R  
UniRef90\_I6Y570 G M L A A A G I D K  
UniRef90\_UPI0003B5360D G L L A A V G R S K V L V Y P R  
UniRef90\_MOD4V3 A L L R D V G V D A V T A E R  
UniRef90\_I0IEF5 A T L A A F G  
UniRef90\_I0LDJ5 G L A A S C G H D T L R V R R  
UniRef90\_UPI000361C1C4 A A L I S A G V T E V H T H P R  
UniRef90\_V4Y6N5  
UniRef90\_J9RXD6  
UniRef90\_UPI00037893B6  
UniRef90\_N9VQA0 A S L A V G G I S M V P V R K K  
UniRef90\_J2PSW3  
UniRef90\_W4WF81 G I L A L C G I N A I S V I K  
UniRef90\_E6Q4B0 S V L A T L G Y A R V P V F R R  
UniRef90\_X7VL42  
UniRef90\_H0BHR8 G L A A A A G H D R L T V H R R  
UniRef90\_UPI000359E724 G L L A T V G V T E V E V  
UniRef90\_Z9JV27 A H L A A C G L D R L R V  
UniRef90\_C8WPK0 A A L A M G G A T M V P V R V K  
UniRef90\_A0A022LLX2 G A L A S A G V T N V S V R R  
UniRef90\_G8PP47 A A A A S I G L G Q L K T Y R R  
UniRef90\_E3ZY16  
UniRef90\_UPI00036BF5E5 A A A A A A G H E H L T V H Q  
UniRef90\_F2RCZ1 G L A A A A G Y D E L P V P P R  
UniRef90\_T2G8W5 G A L L S A G I W D V D V V G R  
UniRef90\_E1VST7 A A L V S S G L R E V P V R R  
UniRef90\_UPI0003720F41 A T L L S V G A T L V K I H R  
UniRef90\_UPI00037A367E G L A A A A G Y D E L S V H P R  
UniRef90\_M5CUB9 G A L A F V G V K Q V Q V Y R K  
UniRef90\_E1R7J4 N L L A T G G V I Q V P V L K K  
UniRef90\_I0XTU1  
UniRef90\_U1Y7V6 G L L A A L G L T S V E V R  
UniRef90\_B1C8B7 G V L I A S G I K K V K V Y R K  
UniRef90\_C7R438 G L A A M A G V D T V R V R R  
UniRef90\_UPI000310FE19 I V L R R A G I E E S I Y K  
UniRef90\_S3XX53 G I A L S V G V T H  
UniRef90\_UPI000255C939 G L A A A C G A P R V Q V F A R  
UniRef90\_W5WSK9 A L L G A C G V D S V P  
UniRef90\_X6EYZ0 L V A R S I G L S H L A V R R  
UniRef90\_X7Y3M7 G L L A A V G R E R V L V H P R  
UniRef90\_UPI000475E769 A T L A G Q S I A E V E V L R

```

1           10           20           30           40
UniRef90_J2WIV8      S I D D A E G L I L S T I A G T N A E M V M L D A A A G R C T A A A V F A
UniRef90_UPI0003B5DADF MR T Y D D H L A A A V R E A A G H R G T V T L P L L E A V Q R R A A T D T V A
UniRef90_UPI0004673F81      A V A A R A G Q G A P P R T A R V P L D H A L G H V L A E P L A A
UniRef90_H2G677           W H Q A H L L C H E I A T A L P S E Q V T L D K A V G R T L A T D L V A
UniRef90_UPI0003B6BC20      A P C A A T E R V P L D R A C G R V L A E D V R A
UniRef90_B2GI6           M G R V L A R E L T A
UniRef90_G8WUC1           K I E S I E L K L S S G R I C S E D I E S
UniRef90_J5WXX8      M T S P E S H L E R I R Q L I V Q R T T Q Q I P I D Q S L G H V T V S D I V A
UniRef90_D5P1A8           A L D D A L G H V L A E P L T A
UniRef90_D9W6V0           I S R E E T V A L L E A C H F T P R I E M V R L D D Q A F G R V L A K D V T A
UniRef90_K0YW70           T W Q E A R Q R S F D C A T P I P P G P V P L R S A L G R T L A A D V I T A
UniRef90_UPI000421F95C      T P L A D F L S K A L A L V R P L P P T D V D M T R S T G S V L A E D V T S
UniRef90_E9T3H7           M D I T T A R A T I R N T L A P L P I R A S T L G D A L G A T L A A P L V A
UniRef90_UPI0003B3BAD1      M I S V D E A L Q K I L A T L P S I E T T R M L S Y N E A L S S I K R F V P D I G K E K V P V E D S V G R V V Y E D I R A
UniRef90_W5JCU1           A L A E R L G R A A P L T A H R L P L D R A L G H V L A E A V V A
UniRef90_NOBGL9           I T V E E A I R I V E E H A E T D R T R T V F I T D I T G D I L A E N V V A
UniRef90_G4QSV7           M I S V E D A L Q I V K T V S Q Q L S P V I V P I H E A I G K V L A Q D I H A
UniRef90_E8WCY3           M I A L H R R A R R I A E A P A L P A Q T L P L T E A I G A R T A A A V T A
UniRef90_A0A024NJ32      M S E Y Q S I I H K L T K P L D K V T L P V S E A V G L V L A D D V E A
UniRef90_A5C5H4           A T A L A A R L G R L D T P R S H R L P P A D A L G H V L A E P L T A
UniRef90_UPI0003813748      S L T P L D T A L A A L L R G V D P V A P V A L P L S E A I G C V A A A P Q V A
UniRef90_UPI000360BA95      S A G L V L A R E V V A
UniRef90_D0WP37           L R D A R G A A L A E P L T A
UniRef90_Q5YQZ7           P V S V S L A D A L G K V L A A P L D A
UniRef90_UPI0003628FEF      T W E S A R T V A Y R S A V P L P P R R L P L E R A L G H T L A A P L T A
UniRef90_UPI000317AB13      E S E L I S L E K A K D R I L A K D L Y A
UniRef90_N9SYU2           T I D L Q M A L N Q V N A A D I Y A
UniRef90_E5ZDB0           L L D A L G L A L C E E I T A
UniRef90_X1G5C8           V E A G W G R G R C A L P A N
UniRef90_N9GMP8           P R R A P V S V T L D S A L G L V L A A P L V A
UniRef90_UPI00036C0F1B      P A A T I R L P L D R A L G H V L A E A L G A
UniRef90_UPI0003B6FD02      L I S I D E A L D L V I N K P K N L S S I Q K T L K N S L S S Y L A K E I Y S
UniRef90_UPI000375E843      R M L E L E E A K A L M Q R L R K K S D V Q M V I P Q N A L G R F C A E T L Y A
UniRef90_W9FQJ5           K L I T F V E A L Q I G L N L P Q T R P V E R I K L E E G L G R I V S E D I M A
UniRef90_A0A017B397           P L P V E R V E L A A A A G R T L A E P L V A
UniRef90_UPI0002659915      L I D V D E A L Q I L L E S I V S K S Y P K K Q F S
UniRef90_H5V953           V A W E Q A R K N L H A A T A G T D V E T L P P K A A I G R Y T A D D L Y S
UniRef90_E4MZ98           T E K I S L K N C L G R K L A E D I Y A
UniRef90_UPI000378FDE      K T K V E E F K E I L D S L I L R N D E E I L N I E S F N R I I S R D I I S
UniRef90_UPI0003683299      A R R A P V S L P L D A A L G L V L A E P L A A
UniRef90_UPI00037B7134      M L P V Q E V L S D I I F N T V Q K T A N L N K I L L E M N A
UniRef90_UPI00046D30C5      L S L A E A R D R L R T G L T P L V A Y E A E L G E V P G A A L A A P L V A
UniRef90_B1ZFG5           V S L E E A W L V F R Q N F S S L H K K S V P V D E C T D L I L A E D V F S
UniRef90_UPI000378FDE      S E T D G A T L A A P L T A
UniRef90_UPI00036E91B5      L T P L A D A L A G L R R V A E P V P P R A V P L V G A A G R I A A N D V L A
UniRef90_UPI00036C2324      A V R T E W L G L G T V L G R V L G E P L A A
UniRef90_B2G0B8           L A E L Q D L L H K S K P G L A T E S L A I S E A L G R V V A T D I R A
UniRef90_H5YD79           T W E E A R Q A A F D A A T P I P P G P V A L R L A L G R K L D Q D I V A
UniRef90_UPI0003B531BD      R V H R A P L E H S L G L V L A E E L P A
UniRef90_UPI00036D5892      V P W H L A R D I A R A V T E P P A P L T S A L G T A L G R T L A A P L T A
UniRef90_UPI000383013F      V E P V A P T L L P L D Q T P G K I G A A M P P L
UniRef90_UPI00036A814F      P L S E V L G Q V L A A P L A A
UniRef90_UPI0004631C72      L M P L T E A L A R L L V A A P V P S S L V L V G E A V G L V L A D D V A A
UniRef90_UPI000378FDE      L A L D D A R K I L R G T L T R L P I R H A P L H A A A R G A A L A P L V A
UniRef90_UPI00036E91B5      M T A V E D A L L K I Q Q N V K E P L C D F I R T N Y A G R I L A D H V Y S
UniRef90_UPI00036E91B5      V R P V A P C F V P L E Q A L G R V A E M P G
UniRef90_UPI00036E91B5      G R T L A E P L T A
UniRef90_UPI00036E91B5      P L G G A L G A T L G T D L V S
UniRef90_UPI00036E91B5      R L P L D R A L G H V L A E P L G A
UniRef90_UPI00036E91B5      T A R K Q L S
UniRef90_UPI00036E91B5      S L T P L D S A L A A L L T G C D P L A P V E L P L G E A A G C I A A G P L L A
UniRef90_UPI00036E91B5      I V A
UniRef90_UPI00036E91B5      S V Q D L G A I I S A E V A P L P V R R C T P R E A L G A T L A A P V S A
UniRef90_UPI00036E91B5      M G G V L A D E L Q A
UniRef90_UPI00036E91B5      M R S V E E Q Q A R V A A A V A P R P V R V A I A E S Q G L M C A E E V V T
UniRef90_UPI00036E91B5

```







UniRef90\_J2WIV8 A G W G F A D R L A P G Q A V R I S T G A P M P A G T A L V R R E R D G R L A G  
 UniRef90\_UPI0003B5DADF A L Y P G G L D G L A A P I M T G A R I V P A R D G T A V V P V E E D C A E E K  
 UniRef90\_UPI0004673F81 A G H A S P A P L P D G D A V R I A T G A R I P A R D A T A V I R S E H A F E T K  
 UniRef90\_H2G677 A G A A P L E V P P G R A V R I M T G A E V P I G E N V I T V I P V E K T N T C P  
 UniRef90\_UPI0003B6BC20 W R L V D A P T L A N G Q A S P I V T G G L V P R Q G A T S I V R S E Y H T N T D  
 UniRef90\_B2GI6 P S E A S A G S L T P G T A V P V V V I P Q G T T G V V R S E E Y T A R E G  
 UniRef90\_G8WUC1 A G Q R A A V G L G E G E A V R I A T G A A V P E G A T A V V R R E D G R V E P  
 UniRef90\_J5WKX8 F S N W R E G Q D Y V A A D M G D D F D D K F D T V L W I E D F Q F S N P  
 UniRef90\_D5P1A8 A G D S P A L L D G D G A A P I M T G A R I P A D A A A I I P L I E N T F L N P  
 UniRef90\_D9W6W0 V E P L S D G H A V Q I M T G A R I P P G A T A V L R S E Y G A D T G  
 UniRef90\_K0YW70 A N T G T A M P E G F D T A I V I E H V I S V I S A  
 UniRef90\_A0JT29 E P G Q R L A P H Q A S P I V T G G L I P P G A K A V L R S E S G M I T T  
 UniRef90\_UPI000421F95C A S S W R P V R L V P G T C F A V A A G A P L P V G A D I V V P L A W T D E G M  
 UniRef90\_E9T3H7 A G A S D L V L T P G D A V R I A T G A Q V P E R G A T S V I R D E F V D V A P E  
 UniRef90\_W5JCU1 A G D I V R T N F T I D E C Y K I L N T G A P L P E H A D A I I Q I E E D T N D Y E  
 UniRef90\_N0BGL9 S G I K N Y R W V N T G D I V E D E V V V I K V E D A E I T S  
 UniRef90\_G4QSV7 A G A S P M E V P P K S A V R I M T G S E V L G D G L T I I P V E N T N L I P A  
 UniRef90\_E8WCY3 A G R G S T E P L P D G Q A S R I A T G A R L P A D A T A V I R S E H A H C D E  
 UniRef90\_A0A024NJ32 A G L L A S D T L R P G T I C R V N T G S M V P D G A D A V V Q V E N T R I V E  
 UniRef90\_A5C5H4 A G N D G V L V T P G T V A Y X T T G G S P E S I I Y I C L Y G H Y L W F M  
 UniRef90\_UPI0003B3BAD1 E G P A D A P A L Q R G E A A A V V I M T G A K M P E G A V S V L R T E Y S Q L D G  
 UniRef90\_S2Z3L1 A G A T A L P V G P G E A V R I M T G A P T D D E G T A V V P V E D T N L K P  
 UniRef90\_UPI0003813748 A G H A E A G T L E D T A P V R I A T G A R V P R Q G V T A V I R S E H A R L D E  
 UniRef90\_UPI000360BA95 A T A P V V W I D A G D A M P P G C D C V L D A D A V E V S G  
 UniRef90\_D0WP37 A G D T R K R T L K P G T A V R I M T G A A M P D G A D T V V K V E D T D H A P  
 UniRef90\_Q5YQZ7 A G G Q R P A G L R P G E A V R I A T G A H V P E G T D R V V R D E F A E L S P  
 UniRef90\_UPI0003628FEF A G H A P H D V L T D G E A V S I A T G A R I L A G V T A V L R S E H G R T D Q  
 UniRef90\_UPI000317AB13 G A P G R P E R L A D G Q A V R I A T G A R V P D G T T G I V R A E H G T A R A  
 UniRef90\_N9SYU2 S V N P K Y L D L R G K N L L R I P Q Y T K L P D S I D A I I P E D D E R L D Y E  
 UniRef90\_E5ZDB0 A G D K N F Y T V A R K E C Y K I M T G A K M P E G A N A D T I L M L E D E Y I E  
 UniRef90\_X1G5C8 M G V K P E F K I N P G K A V K I S T G G V L P E G A N S V M M V E Y T E Q I D  
 UniRef90\_N9GMP8 S Q N P Y K L P D L S G K N L L R I P Q Y T K L P E S V D A V I A E D D D R L D Y E  
 UniRef90\_UPI00036C0F1B P P V A P G K A A R I M P G A I M P P G C D T V I P Q E F T Q A R D  
 UniRef90\_UPI0003B6FD02 A A G E L S Q G A A V R V D A H T A L P D G A D A V L P L P F T D R G D  
 UniRef90\_J3M2B0 A G D D A G V V V A P G T V A Y R T T G G P I P D G A D A V L Q V E D T E L L A  
 UniRef90\_UPI000375E843 A G H A E S E P L S D G E A V R I A T G A R V P A D A T A V I R S E H G R D D K  
 UniRef90\_W9FQJ5 A G R G P A A A L P D G T A V R I A T G A R V P P D T T A V I R S E H A H V D E  
 UniRef90\_A0A017B397 A G S E S H D L L G E G Q A I R I F T G G K I P E G T T H V A R Q E I V S V I E  
 UniRef90\_UPI0002659915 A S V V K A S T V N T E W C V R I S T G G V L P A G A D A V V Q V E D T E V I E  
 UniRef90\_H5V953 A G M D S S L E V P K G A C A K I M T G A L L P Q G L D L V V P F E E M A E F D  
 UniRef90\_E4MZ98 A G Q E C A P L A D G A A V E I A T G A Q L P E G A T G V L R R E H T E L P G  
 UniRef90\_U16WM6 A G S G L I G N F N I D E C Y K I N T G A P V P E G A D A V I Q I E D T K L I S  
 UniRef90\_U7V8R9 N I H R L T V A I E P G Q A T P I L T G G L L P R G A Q A I V R E E N T T L N T  
 UniRef90\_N8YL84 L M N G E N P F A L K G C T S F L S D I A P Y M D I A N T V I P L E Q Y L P W F  
 UniRef90\_X1H5A3 A G D I P Q N K L E N G Q C N S Y A T G A A I P E G A N G V M V E F  
 UniRef90\_D6K7W8 A G H A R P E P L T D G E A V R I A T G A R I P Q D T T A V L R S E H G R I D Q  
 UniRef90\_P39205 A G D S P N S P L A E D E C Y K I N T G A P L P L D E A D C Q V E D T N G Q E  
 UniRef90\_U5EHQ0 A G G A R P I G L L P G E A V R I A T G A H V P D G T T S V L R D E F A V I T G  
 UniRef90\_D5EEH8 P V F L D R E E Y Q W I N T G M A V S L E Y D G V L M V E D S S V K D  
 UniRef90\_D3Q466 A G Q T A S E I E T G C A I E V A T G A M V P R G L D A I V R L E D A T V T G  
 UniRef90\_UPI00046D30C5 P L S S G H A R R I A T G A Q L P P G T D G I I R L E D S T E S N  
 UniRef90\_B1ZFG5 P Y A P V L L P R E P S W V E A G D R L P V G A D A V L P A E G L E G R A  
 UniRef90\_UPI00037B134 A G H G A P A P L P D G E A V R I A T G A R I P A E G T A V I R S E H A H A D E  
 UniRef90\_X1C6Y3 A G K V P S R S V T L G T A T R I M T G A P V P E G A D A V I M V E R T E T L A  
 UniRef90\_UPI0003738FDE A G T D P K L S C P E G T V V A I M T G A A I P T N C A A I I P V E A V I E S N P  
 UniRef90\_UPI0003683299 P V E P G T R L A P H Q A S P I A T G G L I P A G G K A V L R T E S A V L M T  
 UniRef90\_I2N281 A G R A D P L P D G T A V R I A T G A R I P P E T T A V I R S E H A Q L D L  
 UniRef90\_J1RPH8 A G H A P T D V L L D G H A I A I A T G A R I P S G A T A V L R S E H G E V R G  
 UniRef90\_X6GLL6 A F P V W I E A G A M P E G C D C V L E A D L T D C S G G  
 UniRef90\_UPI000383013F A G H G E T A P L P D G H A V R I A T G A R V P P G A T A V L R S E Y G T D A G  
 UniRef90\_UPI00036A814F E A G D G M P L G T D T V L P P E A L D T S G  
 UniRef90\_UPI0004631C72 A G G Q R P A G L R P G E A V R I A T G A H V P D G T S V I R D E F V H R D E  
 UniRef90\_E2AS99 T S D P V S L I P G T C I V V K S G A R V P D E A T A V P I F K D V M I N  
 UniRef90\_Q11FK7 P I W V E T G E V M P E D C D C V L E A D L V D C S G  
 UniRef90\_L8F0C8 A G Q D A S E A V D D G A A V R I A T G A R I P P G A T A V L R S E H G E V I R Q  
 UniRef90\_S4PQJ8 M P L G P G E C A R V N T G A P L P L G A D C V V Q V E D T H R T E  
 UniRef90\_UPI00036E91B5 A G R R P V A R L D H G E A V E I A T G A V V P E G T T A V L P R E R A T V I S S  
 UniRef90\_UPI00036C2324 R R R G P G T A L P D G T A V R I A T G A R V P Q D T T A V I R S E H A H E A K E  
 UniRef90\_B2G0B8 A G D I V Q T N F T I D E C Y K I N T G A P V P Q H A D A V I Q V E D T N D Y E  
 UniRef90\_H5YD79 D A G D A M P A G C D C V L D A D A V E I L S G  
 UniRef90\_UPI0003B531BD A G T V P E K L V P R T A A P I M T G A R I P D G A D A V E P V E R T E P A L  
 UniRef90\_UPI00036D5892 A G H S Y P K K I N K N E A V R I M T G S R V P D G A N L V L M Q E D V E A D K  
 UniRef90\_W5TQE6 A G R S G G R A L V E D C A V R I A T G A T T P R G T T A V L R D E H V  
 UniRef90\_M4Z177 M S A L E V K E N E C V K I M T G A M V P K G I E T I I P I E C M L E S H  
 UniRef90\_R9F5S9 A G Q E H D L V L S P G Q A V E V A T G A R V P E G T T A V L P Y E H A R R N A  
 UniRef90\_U1Q668 A G D A G H A V A P G T A W R I M T G A P M P S G A T A V L K V E M T D E P P  
 UniRef90\_A0A024QSJ3 A G A R T P S R L Q P R Q A H I N A H P P P F  
 UniRef90\_S4MPB1 M T G A P L P P G A E T V V P V E W T D G G T

