



QUERY UniRef90\_UPI000462FE8D UniRef90\_UPI00036A8298 UniRef90\_A0A024KAD1 UniRef90\_M4R3U5 UniRef90\_A5GF08 UniRef90\_V8QN25 UniRef90\_W0TIU6 UniRef90\_UPI0003B53C48 UniRef90\_UPI000379350B UniRef90\_G8PHX7 UniRef90\_X5DS42 UniRef90\_UPI0003740CA3 UniRef90\_D3NTI2 UniRef90\_H5SVD6 UniRef90\_I3TX53 UniRef90\_UPI000475A0E7 UniRef90\_UPI0004152291 UniRef90\_F5S8P5 UniRef90\_A8U7E7 UniRef90\_I0GR52 UniRef90\_M3AJ11 UniRef90\_UPI00046CAD4F UniRef90\_G4RB71 UniRef90\_K4KJ70 UniRef90\_W0JJK0 UniRef90\_A1V0L8 UniRef90\_UPI0003C10113 UniRef90\_A4YN03 UniRef90\_K9YGM8 UniRef90\_W6RRP6 UniRef90\_Q67N92 UniRef90\_UPI00035E5201 UniRef90\_M2RTV2 UniRef90\_F7RXF7 UniRef90\_M7SLY3 UniRef90\_A3SW64 UniRef90\_C6J3S3 UniRef90\_UPI00037D5A7A UniRef90\_A8IBI0 UniRef90\_A0A015KRJ7 UniRef90\_H5UQ99 UniRef90\_L8LNS5 UniRef90\_UPI00037F76AB UniRef90\_J2IY25 UniRef90\_X2GPHY7 UniRef90\_U3APV2 UniRef90\_C6W901 UniRef90\_Q1K2X9 UniRef90\_UPI00046F1916 UniRef90\_UPI0004785CFA UniRef90\_K2QTX5 UniRef90\_B7VM49 UniRef90\_B9XBX5 UniRef90\_UPI0002559AD7 UniRef90\_A0A017TEN0 UniRef90\_A8TTF6 UniRef90\_UPI000475B9AF UniRef90\_Q39X01 UniRef90\_UPI0002DC441C UniRef90\_H0A4M5 UniRef90\_C4ZLK1 UniRef90\_Q31PS4 UniRef90\_F6BA01 UniRef90\_K9XH99 UniRef90\_UPI0003C114EE UniRef90\_I9BRP5 UniRef90\_B8HFU2 UniRef90\_UPI0001E8964F UniRef90\_M9R6H2 UniRef90\_UPI000287C979 UniRef90\_UPI00047518CA UniRef90\_H5TAU7 UniRef90\_L7VHM9 UniRef90\_UPI0003677084 UniRef90\_CON370 UniRef90\_F7ZK79 UniRef90\_UPI00028A2170 UniRef90\_M2MMT1 UniRef90\_V4QYX4 UniRef90\_UPI0002FCCC4F UniRef90\_U1X679 UniRef90\_C7ZKL6 UniRef90\_UPI000381B06B UniRef90\_Q5YN90 UniRef90\_UPI0002F53514 UniRef90\_UPI00046ED593 UniRef90\_Q60A28 UniRef90\_W8YZ60 UniRef90\_U7KPN4 UniRef90\_UPI00039EF90D UniRef90\_A3VWS9

50 60 70 80

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



QUERY V G L G L Q G Y L L A L R Y L A E H  
 UniRef90\_UPI000462FE8D C G F G A E S Y R L G L R A L V I Q Y  
 UniRef90\_UPI00036A8298 C G M G L L G Y E L A I G A L A K  
 UniRef90\_A0A024KAD1 C G L G A S G Y R Y A L A A L A E K  
 UniRef90\_M4R3U5 C G L G A Q G Y E Y A L D F A L K Q  
 UniRef90\_A5GF08 S G F G A D S Y L L G L R A L F N H  
 UniRef90\_V8QN25 C G L G L D G Y L A A L Q A A I K H  
 UniRef90\_W0TIU6 S G L G A Q G Y E L A L Q A A L R K  
 UniRef90\_UPI0003B53C48 C G L G V E G Y R L A L Q A L A Q K  
 UniRef90\_UPI000379350B A G F G S H G Y R L A I E H F A  
 UniRef90\_G8PHX7 C G L G A H G Y T L A M D A A L R  
 UniRef90\_X5DS42 A G L G A Q G Y S M A M D Y L A R Q  
 UniRef90\_UPI0003740CA3 C G L G S F V Y E A A L R Y F A Q  
 UniRef90\_D3NTI2 C G F G P H G Y L L A L D A I A N  
 UniRef90\_H5SVD6 C G L G W R S Y L E G L K A L C  
 UniRef90\_I3TX53 C G L G A T G Y A L A I E A M A  
 UniRef90\_UPI000475A0E7 C G F G V D S Y L L G L R A A V N  
 UniRef90\_UPI0004152291 C G L G Q Q G Y L L A L E Q Y L N K  
 UniRef90\_F5S8P5 V G L G T F G Y E A A L L Q F V A R K  
 UniRef90\_A8U7E7 S G F G A T G Y L L A I Q A L K E  
 UniRef90\_I0GR52 C G L G V E S Y L A A L E A I T  
 UniRef90\_M3AJ11 C G L G V Y G Y R A A I E F A S Q Q  
 UniRef90\_UPI00046CAD4F M G F G A E S Y L L G L R G L V A H  
 UniRef90\_G4RB71 C G L G P R G Y T L A L E A I A E  
 UniRef90\_K4KJ70 C G L G A Q G Y E L A L E A A L Q K  
 UniRef90\_W0JJK0 S G L G Q Y S Y I C A L N F L I N  
 UniRef90\_A1V0L8 C G L G W K G Y L Y A L E Y A L D K  
 UniRef90\_UPI0003C10113 C G F G P L G Y T L A L Q A L A  
 UniRef90\_A4YN03 A G F G T Q G Y Q L A L R R V A R  
 UniRef90\_K9YGM8 S G F G V D S Y L L G L Q A L V N H  
 UniRef90\_W6RRP6 C G L G F K G Y G Y A L E Y L V D  
 UniRef90\_Q67N92 A G F G A E S Y R L G L R A L A  
 UniRef90\_UPI00035E5201 A G F G A V S Y E L G L A L Y R H  
 UniRef90\_M2RTV2 C G L G V F G Y E A A I E Y A A R  
 UniRef90\_F7RXF7 C G L G A Q G Y Q F A L T A A V K  
 UniRef90\_M7SLY3 C G L G V F G Y A A S L E F V A K H  
 UniRef90\_A3SW64 C G F G A Q G Y L M A L D A L K A H  
 UniRef90\_C6J3S3 S G F G S Y G Y E M G L L A L K R H  
 UniRef90\_UPI00037D5A7A V G C G A Q G Y D L A L R R L A R  
 UniRef90\_A8IBI0 C G F G P Q S Y V L G I T A L A  
 UniRef90\_A0A015KRJ7 A G F G A Q S Y E L G L Q A L L K  
 UniRef90\_H5UQ99 A G C G A D G Y E F A L R H L A  
 UniRef90\_L8LNS5 S G F G A N S Y S L G L R A I V I E Y  
 UniRef90\_UPI00037F76AB A G A G A L G Y E L A L E Y L A D K  
 UniRef90\_J2IY25 C G L G A D G Y T Y A L R T A V K  
 UniRef90\_X2GPHY7 S G L G T K G Y E L A L R T F I E  
 UniRef90\_U3APV2 S G L G P H G Y E L A V R A A L R  
 UniRef90\_C6W901 A G L G V Q G Y A L A L R Y L V D K  
 UniRef90\_Q1K2X9 C G L G S R G Y R L A L A L I E H  
 UniRef90\_UPI00046F1916 S G L G V E G Y L L A L D Y F G K Y  
 UniRef90\_UPI0004785CFA S G L G W R G Y L L A L E W L A  
 UniRef90\_K2QTX5 C G F G P H S Y L L A L Q A L  
 UniRef90\_B7VM49 C G L G A Q G Y Q F A L T A A L N K  
 UniRef90\_B9XBX5 A G F G A N S Y V L G L E A A I  
 UniRef90\_UPI0002559AD7 L G F G L Q S Y E L A L Q S F I  
 UniRef90\_A0A017TEN0 S G C G S Q G Y A L A L A R I A Q  
 UniRef90\_A8TTF6 C G F G A H G Y L L A L Q A M R R  
 UniRef90\_UPI000475B9AF C G L G A D G Y A L A L A H A I K  
 UniRef90\_Q39X01 A G F G A D S Y L L G L R A L  
 UniRef90\_UPI0002DC441C S G F G A Q S Y L L G L K A L V Y H  
 UniRef90\_H0A4M5 A G F G T Q G Y T L A L Q R V A R  
 UniRef90\_C4ZLK1 A G F G V H G Y G L A L Q Y I A  
 UniRef90\_Q31PS4 C G F G P D S Y R L G L R A L V N H  
 UniRef90\_F6BA01 V G L G A D S Y L L G L Q A F A L  
 UniRef90\_K9XH99 S G F G A E S Y R L G L Q A L V H Y  
 UniRef90\_UPI0003C114EE A G F G A A G Y E L A I E A A A  
 UniRef90\_I9BRP5 C G L G A R G Y Q L A L E Y  
 UniRef90\_B8HFU2 V G A G V T G Y R L A I D Y L A E  
 UniRef90\_UPI0001E8964F V G L G Y Y G Y E L A L L A L L N Q  
 UniRef90\_M9R6H2 A G F G T D G Y G F A L R R I  
 UniRef90\_UPI000287C979 T G L G T F G Y Q A A L R M F L Q  
 UniRef90\_UPI00047518CA C G L G A D G Y E F A L K A A A R  
 UniRef90\_H5TAU7 V G L G A N G Y E Y A L D A L I K Q  
 UniRef90\_L7VHM9 T G F G F D S Y I A A L  
 UniRef90\_UPI0003677084 C G F G A K G Y D L A I E A L A H K  
 UniRef90\_C0N370 S G L G A Q G Y E L A L Q A A I K Q  
 UniRef90\_F7ZK79 C G F G A Q G Y V L A M D A L K A H  
 UniRef90\_UPI00028A2170 C G L G A Y G Y E L G L L A L H Q H  
 UniRef90\_M2MMT1 C G L G V F G Y T A A F D F V A Q K  
 UniRef90\_V4QYX4 A G F G S I G Y E L A I T R A V L  
 UniRef90\_UPI0002FCCC4F C G F G S N G Y R L A L Q H L S Q Q  
 UniRef90\_U1X679 C G F G A E G Y L L G L R A L A  
 UniRef90\_C7ZKL6 M G F G V D G Y K Y A V D Y A V R N  
 UniRef90\_UPI000381B06B C G L G S Q S Y D L A L Q A A I  
 UniRef90\_Q5YN90 A G M G L Q G Y A A A I E F A L  
 UniRef90\_UPI0002F53514 C G L G S Q G Y R A A I A A L I A H  
 UniRef90\_UPI00046ED593 C G F G V T S Y L L A L Q A M T E H  
 UniRef90\_Q60A28 C G L G P M G Y E L A L Q A A L Q  
 UniRef90\_W8YZ60 A G F G A Y S Y V L G L H A L L N H  
 UniRef90\_U7KPN4 A G L G V F G Y V A A V D Y L C Q  
 UniRef90\_UPI00039EF90D C G F G A E G Y L M G L R A L A G Y  
 UniRef90\_A3VWS9 C G F G A R G Y V L A L D A L L G H





UniRef90\_UPI000469F606 S V T C H Q S N H E G G V M I D H L H A A K G V H D G I V L N A G A Y T H T S V I A  
UniRef90\_R5CD93 D I D Y F Q Q S N I E E G V M I D K M Q E V G G F T Y D G I A L N A G A Y T H T S V I A  
UniRef90\_G2I081 A I D F R Q Q S N G A E E Y E E L V S E R W V Q Q E C R E G R A R N F I L I N P A A F T H T S V I A  
UniRef90\_B7RVT5 H L L C V Q Q S N A E E Y E E L V S E R W V Q Q E C R E G R A R N F I L I N P A A F T H T S V I A  
UniRef90\_UPI00030FDD21 A I D F R Q Q S N G A E E Y E E L V S E R W V Q Q E C R E G R A R N F I L I N P A A F T H T S V I A  
UniRef90\_F6DAS8 R L W H F Q Q S N A E E Y E E L V S E R I H H E A A M D D N N E F I I I N P A A F T H T S V I A  
UniRef90\_UPI000476F22E A I V Q C R Q Q S N H E E G A L I I D W V H H E A A M D D N N E F I I I N P A A F T H T S V I A  
UniRef90\_UPI000225F684 D I A F H Q Q S N H E E G V L I I D L I H E A A R Q Q K A Q A G I V I N P A A F T H T S V I A  
UniRef90\_I4C390 Q L H S F Q Q S N H E E G A L I I D D L I H E E K M G Q W A D G V I N P A G G L T H T S V I A  
UniRef90\_UPI0003453C22 I V Q C Q Q S N H E E G A L I I D W L H E A K G E Q M A D G V V L N P G G A F T H Y S Y A  
UniRef90\_M7P282 Q L E A F Q Q S N A E E H E L V I D D R I H N A A R G E G N T D F I I I N P A A F T H S V A  
UniRef90\_A1SZA3 A L S H L Q Q S N R H E E Y E E L I E K I H D D A F E K T D D F I I I N P A A F T H S V A  
UniRef90\_B9MKD4 E V E F F Q Q S N R H E E Y E E L I I V D R I H R A Y E K V D A I I I N P G A Y T H Y S Y A  
UniRef90\_A0A017HQN4 D T S L R Q Q S N H E E G Q I I V D W I H E A R E D R A Q A I V I N P G A L T H T S V A  
UniRef90\_G77K95 A G I D C L Q Q S N A E E H V E L V E R I H H E A R E D Q A Y G I L I N P A A F T H T S V A  
UniRef90\_UPI00036D8D03 S I E F F R Q Q S N H E E G D L I I D W A H E A A R D E G W P V V I N P G G F T H T S V A  
UniRef90\_W5Y8V7 L V Q C Q Q S N H E E G A L L L D D R I Q E A A R G K C A G G V L I N P G G A Y T H T S V A  
UniRef90\_E3CV77 H L R Q F F Q Q S N H E E G A L L D D E I H A A Y G K H D G L I N P G G A L T H T S Y A  
UniRef90\_UPI00035CB7ED E L T C F Q Q S N S E E G D L I Q A I H Q A A R D K V D Y I L F N P A A Y T H T S I A  
UniRef90\_UPI00036DB542 A L K L F Q Q S N H E E G A L I D E I H A A W G Q Q D G I A I N P G G L T H T S V A  
UniRef90\_UPI000349B6F5 R L V F R Q Q S N H E E G A L I I D W L H E A N G D A L G I I L N P G G A F T H Y S Y A  
UniRef90\_UPI00036B0701 S I D F C Q Q S N A E E H Q L I I D W L H A A R T K V D G I V I N P A A Y T H T S V A  
UniRef90\_Q13LG8 D V L E C F Q Q S N T E E G S L I D A I H K A A G S R E Y C A G V V I N P A A Y T H T S I A  
UniRef90\_F9S9L8 Q L D S A Q Q S N H E E G Q L I V D H I Q Q A A S R Y D A D A I V I N P A A Y T H T S I A  
UniRef90\_D0LHN4 A V T L R Q Q S N Y E E G Q L I V E W I Q Q A A G E G F S G I V L N P A A L T H Y S Y A  
UniRef90\_E4U922 D S L E F Q Q S N H E E G A L I V D D R I H A A R G G H A G I V I N N A G A Y T H T S V A  
UniRef90\_A4EMU5 S T L S F L Q Q S N S E E S E L I V D A V H Q Q A W G K I D Y I L I N P A A F T H T S V A  
UniRef90\_M4G4H2 U E V E D F Q Q S N H E E G E L I D R I H N A E E K A A G I I I F N P A A Y T H T S I A  
UniRef90\_E6QSA9 H V Q C K Q Q S N H E E G E L I D W L Q L N A E D D G N A G I I I F N P G A Y T H T S Y A  
UniRef90\_L5N622 E M D F R Q Q S N S E E G E L V T W I Q D D A K G R Y A G I I I N A A A Y T H T S V A  
UniRef90\_S2XNM6 U P I 0 0 0 4 7 5 D A D F E V E T A T A Q Q S N H E E G A L V D L I H E A A M D Q R H A G I V I N P A A Y T H T S V A  
UniRef90\_UPI00035D077A E V E V R Q Q T H H E E G E M V Q W L H E A A D Q R W P V I V L N P A G A W T H Y S I A  
UniRef90\_UPI000237A200 R V V F H Q Q S N H E E G Q L V D W I Q E A A R T E A N A V I N P A A F T H T S V A  
UniRef90\_L1QFY3 K L E H R Q Q S N H E E G I I D A I H A A K G V H A D G I V L N P A A F T H T S Y A  
UniRef90\_UPI0002E732FC A V D M R Q Q S N H E E G H L I D W L H E A K A R A D A A G I V I N P A G A F T H T S I A  
UniRef90\_M2TP30 V L E F R Q Q S N A E E H V L I I D W I H E A R E T A A A G L I I N P A G L S H T S V S  
UniRef90\_D3P473 T V L C F Q Q S N H E E G S L I I D T R I H A A R D E F A G I I I M N P A A F T H T S Y A  
UniRef90\_UPI000301760B Q L S H L Q Q S N A E E F Q L I I D A I H A A Q R D E V A F I I I N P A A F T H T S V A  
UniRef90\_UPI000374433C S V S C F Q Q S N H E E G A L I I D A I H A A K G Q H Q G I I I L N A G A Y T H T S I A  
UniRef90\_V9VS01 E L K H L Q Q T N A E E H E L I D A I Q Q A R Y Q Q V T F I I I I N P A A A F T H T S V A  
UniRef90\_UPI00035E3133 R A V Q Q S N H E E G V L V D A I Q A A R G D C G I I I I N P A A Y S H T S V A  
UniRef90\_UPI0004658C8D Q A D C C A Q Q S N H E E G V L V D W L H E A S E K A A G V A I I N P P G A Y T H T S I A  
UniRef90\_UPI000475FC7A E I Y F R Q Q S N H E E G V L I D A I H N A A D N D W P V I V I N P G G Y T H T S V A  
UniRef90\_UPI000475FC7A E I T S F Q Q S N H E E G E L V D R I Q Q A A S E H D G I V I N P A A Y T H T S I A  
UniRef90\_R5DXZ5 D L S E T Y Q Q S N I E E G K I E K I Q S A K K D G V D F I I I N A G A Y T H T S I A  
UniRef90\_M1SED8 D L S T F Q Q S N H E E G E L I D R V H S A K D G V D F I I I N P A G A F T H T S V A  
UniRef90\_H5U5M7 G L R A A Q T N H E E G E M I D W L H E A R G N I S G I V I N P A A W T H T S V A  
UniRef90\_G9N808 S I E A F Q Q S N H E E G A L I D K I Q S A A R E G L D G I V I N P G A F T H T S V A  
UniRef90\_UPI000471C139 Q L T F F Q Q S N H E E G D L I D A L H E A E E Q Y D G V V F N P G A F T H Y S Y A  
UniRef90\_A8FF31 G L T C V Q Q S N H E E G R L I D A I H E A A D Q Y S G I I I I N P G A F T H Y S Y A  
UniRef90\_D3FUW4 Q L C H F F Q Q S N H E E G G L V D R I H Q A A R D G Y S D F I I I N A G A Y T H T S V A  
UniRef90\_JOB1E7 A T E F Q Q T N H E E G Q M I D W I H Q A R G R V S G I V I N P G A W T H T S V A  
UniRef90\_J2XDJ7 E L A W Y Q Q S N A E E H E L I G R I H Q A R D E V A T I L I N P G A F T H T S I A  
UniRef90\_UPI000478E1E2 E I R L F Q Q S N H E E G A I I D T I H E A R H S A C G I V I N P G A Y T H T S V A  
UniRef90\_A4WXB5 K L S A L Q Q S N H E E G V L V D A I H A A R D Q H S G L I I N A G A Y T H T S V A  
UniRef90\_K9TP29 E V N C F Q Q S N R E E G E L I N F I H E N A Y E K Y S D G I V I N P G A Y T H T S I A  
UniRef90\_Q8XMI6 E L F F A Q Q S N I E E Y E L I D W I H E A R G K S A G I V I N P G A F T H T S V A  
UniRef90\_Q8U7B8 E L V Y Y Q Q S N I E E G E M I N K L Q E V G F S F D G I V L N A G A Y T H T S V A  
UniRef90\_D3IBE4 A V D F R Q Q S N H E E G E L V D R I H E A R T S H A G I L I N P A A Y S H T S V A  
UniRef90\_UPI0002E340BC H V L T F Q Q S N A E E Y E L I E R I H E A G E D S H D F I I I N P A A F T H T S V A  
UniRef90\_Q1N3J8 K A D C R Q Q S N H E E G D I I D W I H E A E G R S S G V I L N P G A F T H Y S Y A  
UniRef90\_Q9K949 D L S V F H Q Q S N S E E R L I D W I H E A G G E S I G A V I N P G A Y T H T S I A  
UniRef90\_D2BDQ7 E L S V C F Q Q S N S E E R K L I N K I H E S L G K V D F I I I N P A A F T H T S V A  
UniRef90\_F4HBB8 E V D C L Q Q S N H E E G E L I D A I H N A R G K H Q G I I L N A G A Y T H T S I A  
UniRef90\_A4ERC8 H C D V V F Q Q S N S E E G A I I D K L H L A R K N Y D D G V I L N A G A Y T H Y S Y A  
UniRef90\_R6TBA9 E C V V F Q Q S N S E E G A I I D R I H A A R E D C G I I I L N A G A Y T H Y S I A  
UniRef90\_R8W294 T L E H F Q Q S N S E A S L I D K I H Q A M E S V D F I I I N P A A L T H T S V A  
UniRef90\_UPI000395D5FE A L D H I Q Q S N A E E Y V L I D A I H Q A Y G K V D F I I I N P A A F T H T S V A  
UniRef90\_Q2C0B0 A C D T F Q Q S N A E E Y R L I E R I H D A R T D V G T G I V I N P A A F T H T S V A  
UniRef90\_C1DCV6 Q V D C F Q Q S N H E E G A L V E R I H A A R D G T R F I V I N P A A Y T H T S V A  
UniRef90\_UPI0003788BCF E V T C L Q Q S N F H E E G A I V T W I H E A R G V H D G I I L N A G A Y T H T S V A  
UniRef90\_A3K9Q6 A L T C F Q Q S N H E E G A I I D R I H E A E G K Y D D G I I L N A G A F T H Y S Y A  
UniRef90\_E3IHQ4 G L E N F Q Q S N A E E H L L I E R I H Q A G D K V R F I I I N P A A F T H T S V A  
UniRef90\_UPI0003737024 G I T F F Q Q S N H E E G A I V D R I H E A I G Q Q A D S A I L I N P G A L T H T S Y A  
UniRef90\_D3E6K3 E L E T F Q Q S N H E E G A I V D R I Q E A A E R G V S A I I I N P G A L T H T S V A  
UniRef90\_G2R792 S L A H F Q Q S N H E E G A L V D R I Q A A K E G L A F I I I N P A A Y T H T S V A  
UniRef90\_Q8XVP5 E C E V F Q Q S N H E E G A L I D R I H E A R H A F D G V V L N A G A Y T H Y S Y A  
UniRef90\_D4LCT8 L V R E T F Q H N H E E G A L I D R I H Q A R D H V D F I I I N P A A Y T H T S V A  
UniRef90\_Q3SMB1 T V T C R Q Q S N F E E G Q L L E W V H E A A E G F R G I V L N P G A L T H Y S Y A  
UniRef90\_E8U7Z6 Q L T F H Q Q S N H E E G Q L I D W L H E A H G S Y S G V I L I N P G A F T H Y S Y A  
UniRef90\_F5LLN4 N V L C Q Q Q S N H E E G I L V D W L H Q A G A S Y S G V I L I N A G A Y T H T S V A  
UniRef90\_K9RZ65 E V F T M Q Q S N H E E G V L V D A I H D A L G K H Q S G I L I N A G A Y T H T S I A  
UniRef90\_G6FYJ0 E I D F F Q Q S N H E E G A L I D T L H N A R G Q Y G Y I I L N A G A F T H Y S I A  
UniRef90\_D4KI98 E I L E S F Q Q S N W E E G A L I D R V H Q A R G Q Y F D G I V I N P G A L T H Y S I A  
UniRef90\_D5WV66 S F G Y F Q Q S N S E E G D L I D C I Q Q R E S N Q A A S G L I I N A G A Y T H T S V A  
UniRef90\_UPI00047B71C4 M L I H F Q Q S N A E E H E L I A R I Q E E S N Q A A S G L I I N P A A F T H T S V A  
UniRef90\_G4QNC1 S I D F R Q T N H E E G V L V D Q I Q E A R H A A S G L I I N A G A Y T H T S V A  
UniRef90\_E3I3F5 E I E T R Q S N H E E G D L V D W I Q E A R T A A Q G V V L N A G A Y S H T S I A  
UniRef90\_UPI0004784B52

	90	100	110	120	
UniRef90_UPI000469F606	LMDALIASVLE	90VVVEV	100HILSN	110IYIA	120PVALVGV
UniRef90_R5CD93	LHDALIASVLE	90VVVEV	100HILSN	110IYIA	120PVALVGV
UniRef90_G2I081	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_B7RVT5	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI00030FDD21	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_F6DAS8	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI000476F22E	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI000225F684	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_I4C390	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI0003453C22	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_M7P282	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_A1SZA3	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_B9MKD4	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_A0A017HQN4	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_G77K95	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI00036D8D03	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_W5Y8V7	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_E3CV77	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI00035CB7ED	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI00036DB542	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI000349B6F5	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI00036B0701	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_Q13LG8	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_F9S9L8	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_D0LHN4	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_E4U922	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_A4EMU5	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_M4G4H2	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_E6QSA9	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_L5N622	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_S2XNM6	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI000475DADF	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI00035D077A	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI000237A200	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_L1QFY3	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI0002E732FC	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_M2TP30	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_D3P473	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI000301760B	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI000374433C	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_V9VS01	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI00035E3133	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_A0A024LY25	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_K2ADY9	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI0004658C8D	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_D7WCH9	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI000475FC7A	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_R5DXZ5	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_M1SED8	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_H5U5M7	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_G9N808	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI000471C139	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_A8FF31	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_D3FUW4	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_JOB1E7	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_J2XDJ7	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI000478E1E2	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_A4WXB5	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_K9TP29	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_Q8XMI6	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_Q8U7B8	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_D3IBE4	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI0002E340BC	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_Q1N3J8	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_Q9K949	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_D2BDQ7	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_F4HBB8	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_A4ERC8	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_R6TBA9	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_R8W294	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI000395D5FE	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_Q2C0B0	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_C1DCV6	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI0003788BCF	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_A3K9Q6	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_E3IHQ4	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI0003737024	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_D3E6K3	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_G2R792	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_Q8XVP5	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_D4LCT8	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_Q3SMB1	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_E8U7Z6	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_F5LLN4	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_K9RZ65	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_G6FYJ0	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_D4KI98	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_D5WV66	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI00047B71C4	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_G4QNC1	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_E3I3F5	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV
UniRef90_UPI0004784B52	LIDALIAVDE	90LPLPVI	100HILSN	110IYIA	120PVALVGV

UniRef90\_UPI000469F606 C G F G A Q G Y L M A L D A L A Q  
UniRef90\_R5CD93 C G F G L D S Y R L A V E A L V  
UniRef90\_G2I081 C G L G V R G Y A L L A L Q A M T D  
UniRef90\_B7RVT5 C G L G P Q G Y E L G L L Q A A L R H  
UniRef90\_UPI00030FDD21 C G L G P Q G Y A L L A L R A M T D  
UniRef90\_F6DAS8 A G L G A D G Y R F A L E A A K H  
UniRef90\_UPI000476F22E A G L G T L G Y E L A L L Y F A E  
UniRef90\_UPI000225F684 A G C G F H G Y L L A L R H V A R  
UniRef90\_I4C390 A G F G E Y S Y Y L A L E A M  
UniRef90\_UPI0003453C22 I G F G T L G Y Q L A I A A L V E  
UniRef90\_M7P282 C G L G P M S Y Q L A L Q A A I Q  
UniRef90\_A1SZA3 C G L G A K G Y S F A L Q S A L G K  
UniRef90\_B9MKD4 S G F G L K S Y L I A L Y A L K E  
UniRef90\_A0A017HQN4 V G C G T Q G Y Q L A L R R I A  
UniRef90\_G7TK95 C G F G A D S Y R L A L E A V T  
UniRef90\_UPI00036D8D03 A G L G T L G Y V L A L E Y F A N  
UniRef90\_W5Y8V7 A G L G I A G Y E Y A L R Y F A Q  
UniRef90\_E3CV77 E G F G A A G Y L L A L E G L L  
UniRef90\_UPI00035CB7ED A G F G A Y G Y E L G L L A L C R H  
UniRef90\_UPI00036DB542 S G F G A Q G Y L L A L T S I T K  
UniRef90\_UPI000349B6F5 S G F G V E S Y R L G L R A I V G Y  
UniRef90\_UPI00036B0701 C G A F Y G Y E L A L Q F F I D  
UniRef90\_Q13LG8 V G C G T Q G Y V L A L E R M A  
UniRef90\_F9S9L8 I G M G T K G Y K L A L D F L L D K  
UniRef90\_D0LHN4 C G F G A Q S Y E L G L D D A L L A H  
UniRef90\_E4U922 A G L G P L G Y R F A L A Y L A E K  
UniRef90\_A4EMU5 C G F G A A G Y P L A I D A I L S Y  
UniRef90\_M4G4H2 C G L G V Y G Y E A A V E F V V K H  
UniRef90\_E6QSA9 S G L G A Q G Y E L A L D Y A L  
UniRef90\_L5N622 V G F G I D G Y R L A V M G I D K  
UniRef90\_S2XNM6 C G L G T F G Y T L A L E T F L  
UniRef90\_UPI000475DADF C G F G S H G Y I L A I D A L S R  
UniRef90\_UPI00035D077A C G F G A E S Y R L G L Q A L V H Y  
UniRef90\_UPI000237A200 A G L G V E G Y P L A I R W L A D K  
UniRef90\_L1QFY3 A G F G P R S Y E L A V R A A L D  
UniRef90\_UPI0002E732FC V G L G T D G Y E W A V R A L I R  
UniRef90\_M2TP30 A G L G V E G Y S L A L R A A A  
UniRef90\_D3P473 C G F G T Q G Y A L A V Q R M A R  
UniRef90\_UPI000301760B V G L G V T G Y K L A V I A F K E  
UniRef90\_UPI000374433C C G F G S Q G Y N F A L Q A V I D  
UniRef90\_V9VS01 C G F G A Q G Y L L A L D A L K A H  
UniRef90\_UPI00035E3133 C G F G A Q G Y S F A L D D A H T Y  
UniRef90\_A0A024LY25 A G A G P A G Y E Y A V R L A E  
UniRef90\_K2ADY9 A G F G T E G Y A L A L R R M V  
UniRef90\_UPI0004658C8D C G F G Q D S Y L L A L R A L  
UniRef90\_D7WCH9 A G L G A D G Y E L A L E Y F L R  
UniRef90\_UPI000475FC7A A G F G A T S Y L L A L R G L A E  
UniRef90\_R5DXZ5 S G F G A N S Y K L G L K A V I D Y  
UniRef90\_M1SED8 C G L G A I G Y E L A L Q A A I  
UniRef90\_H5U5M7 I G Y G I R G Y E F A I R R L V E  
UniRef90\_G9N808 C G L G V F G Y T A A I E F A A K H  
UniRef90\_UPI000471C139 V G F G L F G Y E L A L K A L V E H  
UniRef90\_A8FF31 V G L G L E G Y K L A I R Y L V  
UniRef90\_D3FUW4 V G L G L Y G Y V M A L T A L V K  
UniRef90\_JOB1E7 V G L G A Y G Y E A A L R F A L N  
UniRef90\_J2XDJ7 A G F G T Q G Y R L A V E H F  
UniRef90\_UPI000478E1E2 C G F G P D S Y R L A L E A A L  
UniRef90\_A4WXB5 A G L G V E G Y A L A L V R R I C  
UniRef90\_K9TP29 S G F G P N S Y R L G L Q A L V H H  
UniRef90\_Q8XMI6 S G F G E Y G Y I M A M N A L K N H  
UniRef90\_Q8U7B8 A G L G I E G Y G V A L R H L I N  
UniRef90\_D3IBE4 A G F G L H S Y Q L A I D A L I  
UniRef90\_UPI0002E340BC A G A G V L G Y E L G V D W L A  
UniRef90\_Q1N3J8 C G L G V Q G Y D L A L Q A A I Q Q  
UniRef90\_Q9K949 V G L G V I G Y E L A M L A L L E  
UniRef90\_D2BDQ7 V G L G V D G Y R L A I D A L H R  
UniRef90\_F4HBB8 C G L G A A G Y Q Y A L Q F A V A H  
UniRef90\_A4ERC8 C G F G S Q G Y L L A L D A L A V H  
UniRef90\_R6TBA9 S G F G K Y S Y Y M A V D A L  
UniRef90\_R8W294 A G F G K N S Y L L A V D A V  
UniRef90\_UPI000395D5FE S G L G A D G Y E F A L  
UniRef90\_Q2C0B0 C G L G P D G Y E F A L N A A V R  
UniRef90\_C1DCV6 C G L G A R G Y D H A L E H A L D  
UniRef90\_UPI0003788BCF S G C G A L G Y S L A L R F A V E  
UniRef90\_A3K9Q6 A G F G A K G Y T L A I D A L L G H  
UniRef90\_E3IHQ4 V G F G L A G Y R L A I L A L L E  
UniRef90\_UPI0003737024 A G L G P K G Y E L A L T A A I E  
UniRef90\_D3E6K3 A G F G A A S Y T L G L S A L L Q  
UniRef90\_G2R792 C G M G V Y G Y T A A I E F A A R H  
UniRef90\_Q8XVP5 C G L G W R G Y L A A L D Y I V  
UniRef90\_D4LCT8 C G F G G D S Y L L A L E G L V R H  
UniRef90\_Q3SMB1 S G L G A Q G Y E L A L E H A L R H  
UniRef90\_E8U7Z6 S G L G A R G Y R Y A L E E L T E  
UniRef90\_F5LLN4 A G F G A F G Y E L G L R A L H Q H  
UniRef90\_K9RZ65 C G F G P D S Y L L G L R G I I Q H  
UniRef90\_G6FYJ0 S G F G A Q S Y I L L G L Q A L  
UniRef90\_D4KI98 C G F G L E S Y K S A L  
UniRef90\_D5WV66 A G L G D L G Y R L A L E A L L E  
UniRef90\_UPI00047B71C4 G G F G L D S Y R L A V E A L  
UniRef90\_G4QNC1 V G L G E Q G Y K F A L D A L I T K  
UniRef90\_E3I3F5 C G L G A Q G Y G L A L D A V A E  
UniRef90\_UPI0004784B52 V G C G I D G Y E F A L Q A L A R



UniRef90\_R5PX62  
UniRef90\_S8BBN1  
UniRef90\_F4GRX0  
UniRef90\_I0UU94  
UniRef90\_V2UBC2  
UniRef90\_X0Y7W3  
UniRef90\_A0YX33  
UniRef90\_I3D6L0  
UniRef90\_A6NXG9  
UniRef90\_U3GZE7  
UniRef90\_V9XI86  
UniRef90\_B2GH50  
UniRef90\_U0R829  
UniRef90\_F0I00036A6B5B  
UniRef90\_E2CAQ5  
UniRef90\_U0M2J2  
UniRef90\_A4G8P1  
UniRef90\_R5CW79  
UniRef90\_A5GJ60  
UniRef90\_G8X8G0  
UniRef90\_U2WDD1  
UniRef90\_Q2CCW3  
UniRef90\_B7KFE6  
UniRef90\_UPI00036E6158  
UniRef90\_D9SE49  
UniRef90\_UPI0003648528  
UniRef90\_L0MFY4  
UniRef90\_A9I1W8  
UniRef90\_A3DDQ5  
UniRef90\_D6AVS9  
UniRef90\_UPI00036BDEEA  
UniRef90\_J8TV58  
UniRef90\_UPI0002559E46  
UniRef90\_R6ITC6  
UniRef90\_UPI00036098CD  
UniRef90\_W4RLF3  
UniRef90\_R6DH36  
UniRef90\_UPI000367159D  
UniRef90\_U7P8U3  
UniRef90\_X0R4D6  
UniRef90\_K9SV00  
UniRef90\_UPI000478C2F6  
UniRef90\_W8H9Y7  
UniRef90\_R7FBF8  
UniRef90\_UPI000360698B  
UniRef90\_UPI000288617A  
UniRef90\_A0A058ZRA5  
UniRef90\_UPI000364051E  
UniRef90\_UPI000469CC9E  
UniRef90\_UPI0003623E37  
UniRef90\_C3P7X7  
UniRef90\_R6VIV5  
UniRef90\_UPI0000E0EEF5  
UniRef90\_D6TL21  
UniRef90\_S8GMM8  
UniRef90\_D2PVB0  
UniRef90\_D2U2L0  
UniRef90\_A4AR48  
UniRef90\_UPI000363563D  
UniRef90\_V8G6X2  
UniRef90\_UPI0004225EA0  
UniRef90\_S9SBN4  
UniRef90\_F2LIQ7  
UniRef90\_U2U7G7  
UniRef90\_J9ZB19  
UniRef90\_A2C0J2  
UniRef90\_A0A023BZS3  
UniRef90\_Q2IVP0  
UniRef90\_D7NDK9  
UniRef90\_UPI0002D39695  
UniRef90\_A2SKR9  
UniRef90\_K1ZE77  
UniRef90\_R5H172  
UniRef90\_A3JMN1  
UniRef90\_U5DEZ6  
UniRef90\_R5PC21  
UniRef90\_UPI00046550D4  
UniRef90\_G8UL23  
UniRef90\_C6X7N2  
UniRef90\_H5SM66  
UniRef90\_J7QAC7  
UniRef90\_UPI0003B50484  
UniRef90\_I5C1C8  
UniRef90\_UPI000463313F  
UniRef90\_R5L387  
UniRef90\_D3RUH3  
UniRef90\_G2PEP0  
UniRef90\_R0FFA1  
UniRef90\_UPI000468246C  
UniRef90\_UPI00036E9252  
UniRef90\_Z5XM36  
UniRef90\_B7GHE3

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

UniRef90_R5PX62	A	V	E	F	Y	Q	S	N	H	E	G	A	E	I	V	D	K	R	I	V	Q	S	A	Y	G	N	T	D	G	V	I	N	P	A	A	Y	T	H	T	S	I	V	A				
UniRef90_S8BBN1	S	F	D	A	F	Q	Q	N	H	E	G	A	E	I	V	D	D	R	E	I	V	Q	S	A	A	R	T	R	D	G	V	I	I	N	P	A	A	Y	T	H	T	S	I	V	A		
UniRef90_F4GRX0	V	L	T	A	F	Q	Q	N	N	Y	E	G	E	K	L	V	V	D	D	E	I	V	Q	R	A	A	R	T	R	D	G	V	I	I	N	P	A	A	Y	T	H	T	S	I	V	A	
UniRef90_I0UU94	D	V	E	F	M	Q	T	N	H	E	G	E	K	L	V	V	D	D	E	I	V	H	L	A	Q	A	E	A	I	F	V	I	I	N	P	A	A	Y	T	H	T	S	I	V	A		
UniRef90_V2UBC2	D	L	D	T	F	Q	Q	N	H	E	G	E	K	L	V	V	D	D	E	I	V	H	L	A	Q	A	E	A	I	F	V	I	I	N	P	A	A	Y	T	H	T	S	I	V	A		
UniRef90_X0Y7W3	E	V	R	A	V	Q	Q	N	S	N	S	E	E	G	K	L	V	D	D	A	I	H	S	D	A	A	Q	N	W	S	V	L	L	N	P	A	A	Y	T	H	T	S	I	V	A		
UniRef90_A0YX33	A	V	S	F	L	Q	Q	N	S	N	S	E	E	G	K	L	V	D	D	A	I	H	S	D	A	A	Q	N	W	S	V	L	L	N	P	A	A	Y	T	H	T	S	I	V	A		
UniRef90_I3D6L0	S	V	E	C	F	Q	Q	N	S	N	S	E	E	G	K	L	V	D	D	A	I	H	S	D	A	A	Q	N	W	S	V	L	L	N	P	A	A	Y	T	H	T	S	I	V	A		
UniRef90_A6NXG9	T	A	E	C	C	Q	Q	N	H	E	G	A	J	I	N	K	I	D	D	A	I	H	E	A	A	D	K	Q	A	V	I	M	N	P	P	G	G	F	T	H	Y	S	Y	A			
UniRef90_U3GZE7	E	L	F	C	V	Q	Q	N	H	E	G	A	L	I	V	D	D	A	V	H	E	L	R	E	S	A	A	G	F	V	V	N	A	A	A	Y	T	H	T	S	I	V	A				
UniRef90_V9XI86	D	I	D	F	R	Q	Q	N	H	E	G	A	L	I	V	D	D	A	V	H	E	L	R	E	S	A	A	G	F	V	V	N	A	A	A	Y	T	H	T	S	I	V	A				
UniRef90_B2GH50	E	V	V	F	F	Q	Q	N	N	W	E	G	Q	L	V	D	D	W	I	Q	R	R	A	R	T	E	A	C	Y	G	I	V	I	N	P	A	A	L	T	H	Y	S	I	V	A		
UniRef90_F0R829	E	I	A	Y	F	Q	Q	N	N	W	E	G	Q	L	V	D	D	K	I	Q	R	R	E	T	G	F	T	C	Y	G	I	V	I	N	P	A	A	Y	T	H	T	S	I	V	A		
UniRef90_UPI00036A6B5B	Q	L	V	F	R	Q	Q	N	H	E	G	E	L	V	T	F	F	L	Q	E	A	R	G	S	E	R	G	V	I	V	L	N	A	A	A	Y	T	H	T	S	I	V	A				
UniRef90_E2CAQ5	V	V	H	F	F	Q	Q	N	A	E	H	E	L	V	D	T	K	I	Q	R	R	A	R	E	Q	E	A	A	G	I	I	L	N	A	A	A	Y	T	H	T	S	I	V	A			
UniRef90_A0M2J2	E	L	S	Y	D	Q	T	N	I	A	E	H	E	L	V	D	T	K	I	Q	R	R	A	R	E	Q	E	A	A	G	I	I	L	N	A	A	A	Y	T	H	T	S	I	V	A		
UniRef90_A4G8P1	K	L	T	A	F	Q	Q	N	H	E	G	V	L	I	V	D	D	R	I	Q	Q	A	A	K	E	G	V	I	D	D	A	I	I	L	N	P	A	G	G	L	T	H	S	S	V	A	
UniRef90_R5CW79	U	C	E	I	F	Q	Q	N	F	H	E	G	S	L	I	V	D	D	R	I	Q	Q	A	A	F	G	N	S	I	D	D	G	I	V	I	N	P	A	A	Y	T	H	T	S	I	V	A
UniRef90_A5GJ60	Q	L	E	T	T	F	Q	Q	N	H	E	G	A	L	V	D	D	R	I	H	Q	A	A	M	G	S	V	I	D	D	G	I	I	L	N	A	A	A	Y	T	H	T	S	I	V	A	
UniRef90_G8X8G0	E	L	S	Y	F	Q	Q	N	I	F	E	G	A	L	V	D	D	K	L	Q	E	I	G	F	S	S	Y	D	D	G	I	I	L	N	A	G	A	Y	T	H	T	S	I	A			
UniRef90_U2WDD1	S	V	T	S	F	H	Q	Q	N	D	H	E	G	A	L	V	E	L	I	Q	K	A	A	R	E	S	A	G	M	G	V	I	N	A	A	A	Y	T	H	T	S	V	A				
UniRef90_Q2CCW3	T	T	A	F	H	Q	Q	N	D	H	E	G	A	L	V	E	L	I	Q	H	K	A	A	R	E	S	A	G	M	G	V	I	N	A	A	A	Y	T	H	T	S	V	A				
UniRef90_B7KFE6	T	V	T	C	V	Q	Q	N	H	E	G	L	I	V	D	T	I	H	Q	A	W	G	L	H	Q	Q	G	I	I	I	N	A	G	A	Y	T	H	T	S	V	A						
UniRef90_UPI00036E6158	V	D	F	R	Q	Q	N	F	S	E	A	T	L	I	V	D	E	S	I	H	E	A	R	E	K	A	C	Y	G	I	I	N	P	A	A	F	T	F	T	H	T	S	I	V	A		
UniRef90_D9SE49	K	L	S	E	C	M	Q	Q	N	F	E	A	T	L	I	V	D	R	I	H	E	Q	A	R	D	G	T	E	F	I	V	I	N	P	A	A	F	T	H	T	S	V	A				
UniRef90_UPI0003648528	N	L	E	C	F	Q	Q	N	S	H	E	G	E	L	V	D	D	K	I	Q	Q	S	S	I	K	K	T	K	A	G	L	I	N	A	G	A	F	T	H	T	S	I	S	A			
UniRef90_L0MFY4	G	L	I	V	F	L	Q	T	N	H	E	G	Q	L	M	I	D	E	R	I	Q	E	T	R	A	K	A	Q	A	L	V	I	N	A	A	A	W	T	H	T	S	V	A				
UniRef90_A91W8	G	L	T	A	W	Q	Q	N	H	E	G	A	L	V	D	D	E	R	I	Q	Q	A	E	T	R	A	R	D	G	T	D	F	I	I	N	A	A	A	Y	T	H	T	S	V	A		
UniRef90_A3DDQ5	D	L	S	F	V	Q	Q	N	H	E	G	E	L	V	D	D	K	I	H	E	S	R	G	K	I	D	V	I	I	I	N	P	A	G	A	Y	T	H	Y	S	I	A					
UniRef90_D6AVS9	T	T	M	D	L	R	Q	Q	N	H	E	G	V	L	V	D	D	W	I	H	E	A	R	T	G	A	S	G	L	V	V	N	A	G	A	Y	T	H	T	S	V	A					
UniRef90_UPI00036BDEEA	T	M	D	F	V	Q	Q	N	H	E	G	V	L	I	V	D	D	K	L	H	A	A	R	G	V	H	D	G	I	I	L	N	A	G	A	Y	T	H	T	S	V	A					
UniRef90_J8TV58	Q	L	I	F	K	Q	Q	N	H	E	G	Q	L	I	V	D	D	W	I	H	E	Y	A	E	D	V	N	G	L	I	I	N	P	A	G	A	F	T	H	Y	S	Y	A				
UniRef90_UPI0002559E46	S	V	E	C	F	Q	Q	N	A	H	E	F	T	L	V	D	E	R	I	H	Q	A	P	S	E	D	T	A	F	I	I	I	N	P	A	A	F	T	H	T	S	V	A				
UniRef90_R6ITC6	P	E	F	F	Q	Q	N	H	E	E	G	T	L	V	D	D	E	R	I	Q	Q	A	Y	E	K	V	D	F	I	I	I	N	P	A	A	Y	T	H	T	S	I	A					
UniRef90_UPI00036098CD	G	V	E	V	R	Q	T	D	H	E	G	E	M	I	G	W	L	H	E	A	A	D	E	Q	R	P	V	I	V	L	N	A	A	A	W	T	H	Y	S	V	A						
UniRef90_W4RLF3	E	V	I	C	F	Q	Q	N	H	E	G	D	L	I	V	D	D	K	L	H	E	A	E	D	G	D	G	I	I	E	N	P	A	G	A	F	T	H	Y	S	Y	A					
UniRef90_R6DH36	E	E	L	C	D	I	F	Q	Q	N	H	E	G	A	L	I	V	D	D	K	I	H	E	A	L	E	G	Y	D	G	I	V	I	N	A	G	A	Y	T	H	Y	S	Y	A			
UniRef90_UPI000367159D	E	L	G	I	F	Q	Q	N	S	E	G	Q	L	I	V	D	D	K	I	H	D	A	F	Q	K	E	E	A	I	V	I	N	P	A	A	Y	T	H	Y	S	I	A					
UniRef90_U7P8U3	E	I	T	M	C	R	Q	Q	N	H	E	G	Q	L	I	V	D	D	W	I	Q	A	A	R	D	G	T	A	A	I	I	I	N	P	A	A	Y	T	H	T	S	V	A				
UniRef90_X0R4D6	K	V	M	F	R	Q	Q	N	H	E	G	E	L	I	V	D	D	W	I	H	E	F	A	D	Q	I	D	G	L	I	I	N	P	A	G	A	F	T	H	Y	S	Y	A				
UniRef90_K9SV00	N	L	E	I	Q	Q	N	H	E	G	V	L	I	D	D	A	I	V	H	R	A	W	Q	C	K	D	G	I	V	F	N	P	A	G	A	F	T	H	T	S	V	A					
UniRef90_UPI000478C2F6	T	V	E	D	F	F	Q	Q	N	H	E	G	G	L	I	D	D	R	I	H	R	A	A	E	N	I	D	A	F	I	V	I	N	P	A	G	L	T	H	T	S	V	A				
UniRef90_W8H9Y7	E	L	D	F	F	Q	Q	N	H	E	G	A	V	L	E	R	I	H	R	A	R	A	E	N	S	A	D	A	F	I	V	I	N	A	G	A	G	W	T	H	T	S	V	A			
UniRef90_R7FBF8	E	E	C	I	F	Q	Q	N	H	E	G	A	I	I	D	D	K	L	H	A	A	R	H	T	F	D	D	G	V	I	N	A	G	A	Y	T	H	Y	S	Y	A						
UniRef90_UPI000360698B	A	L	D	M	F	Q	Q	N	A	H	E	F	E	L	I	N	R	I	H	S	A	A	M	G	K	Y	D	F	I	L	I	N	P	A	A	A	F	T	H	T	S	V	A				
UniRef90_UPI000288617A	A	L	S	Y	K	Q	Q	N	H	E	E	L	V	T	I	H	Q	A	A	D	G	M	Y	D	G	I	V	L	N	A	A	A	Y	T	H	T	S	V	A								
UniRef90_A0A058ZRA5	S	I	E	F	S	Q	Q	N	H	E	G	V	L	I	D	D	A	I	H	A	A	P	A	V	H	A	G	I	I	L	N	A	G	A	L	T	H	T	S	V	A						
UniRef90_UPI000364051E	Q	L	S	F	L	Q	Q	N	F	E	E	G	V	L	E	R	L	H	A	A	A	A	D	A	N	E	A	I	I	L	N	A	G	A	W	T	H	T	S	V	A						
UniRef90_UPI000469CC9E	Q	L	D	F	Y	Q	Q	N	V	E	G	E	L	I	V	D	D	K	M	H	E	V	G	F	E	Y	D	G	I	V	L	N	A	G	A	Y	T	H	T	S	I	V	A				
UniRef90_UPI0003623E37	R	L	F	N	F	Q	Q	N	A	E	H	E	I	V	E	R	L	H	Q	A	M	D	D	T	D	Y	I	L	I	N	P	A	A	F	T	H	T	S	V	A							
UniRef90_C3P7X7	E	L	E	C	F	Q	Q	N	H	E	G	A	I	I	D	D	R	I	H	E	A	E	D	I	Y	E	G	I	V	L	N	A	G	A	F	T	H	Y	S	Y	A						

UniRef90\_R5PX62  
UniRef90\_S8BBN1  
UniRef90\_F4GRX0  
UniRef90\_I0UU94  
UniRef90\_V2UBC2  
UniRef90\_X0Y7W3  
UniRef90\_A0YX33  
UniRef90\_I3D6L0  
UniRef90\_A6NXG9  
UniRef90\_U3GZE7  
UniRef90\_V9XI86  
UniRef90\_B2GH50  
UniRef90\_U3GZE7  
UniRef90\_UPI00036A6B5B  
UniRef90\_E2CAQ5  
UniRef90\_A0M2J2  
UniRef90\_A4G8P1  
UniRef90\_R5CW79  
UniRef90\_A5GJ60  
UniRef90\_G8X8G0  
UniRef90\_U2WDD1  
UniRef90\_Q2CCW3  
UniRef90\_B7KFE6  
UniRef90\_UPI00036E6158  
UniRef90\_D9SE49  
UniRef90\_UPI0003648528  
UniRef90\_L0MFY4  
UniRef90\_A9I1W8  
UniRef90\_A3DDQ5  
UniRef90\_D6AVS9  
UniRef90\_UPI00036BDEEA  
UniRef90\_J8TV58  
UniRef90\_UPI0002559E46  
UniRef90\_R6ITC6  
UniRef90\_UPI00036098CD  
UniRef90\_W4RLF3  
UniRef90\_R6DH36  
UniRef90\_UPI000367159D  
UniRef90\_U7P8U3  
UniRef90\_X0R4D6  
UniRef90\_K9SV00  
UniRef90\_UPI000478C2F6  
UniRef90\_W8H9Y7  
UniRef90\_R7FBF8  
UniRef90\_UPI000360698B  
UniRef90\_UPI000288617A  
UniRef90\_A0A058ZRA5  
UniRef90\_UPI000364051E  
UniRef90\_UPI000469CC9E  
UniRef90\_UPI0003623E37  
UniRef90\_C3P7X7  
UniRef90\_R6VIV5  
UniRef90\_UPI0000E0EEF5  
UniRef90\_D6TL21  
UniRef90\_S8GMM8  
UniRef90\_D2PVB0  
UniRef90\_D2U2L0  
UniRef90\_A4AR48  
UniRef90\_UPI000363563D  
UniRef90\_V8G6X2  
UniRef90\_UPI0004225EA0  
UniRef90\_S9SBN4  
UniRef90\_F2LIQ7  
UniRef90\_U2U7G7  
UniRef90\_J9ZB19  
UniRef90\_A2C0J2  
UniRef90\_A0A023BZS3  
UniRef90\_Q2IVP0  
UniRef90\_D7NDK9  
UniRef90\_UPI0002D39695  
UniRef90\_A2SKR9  
UniRef90\_K1ZE77  
UniRef90\_R5H172  
UniRef90\_A3JMN1  
UniRef90\_U5DEZ6  
UniRef90\_R5PC21  
UniRef90\_UPI00046550D4  
UniRef90\_G8UL23  
UniRef90\_C6X7N2  
UniRef90\_H5SM66  
UniRef90\_J7QAC7  
UniRef90\_UPI0003B50484  
UniRef90\_I5C1C8  
UniRef90\_UPI000463313F  
UniRef90\_R5L387  
UniRef90\_D3RUH3  
UniRef90\_G2PEP0  
UniRef90\_ROFFA1  
UniRef90\_UPI000468246C  
UniRef90\_UPI00036E9252  
UniRef90\_Z5XM36  
UniRef90\_B7GHE3

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

UniRef90\_R5PX62  
 UniRef90\_S8BBN1  
 UniRef90\_F4GRX0  
 UniRef90\_I0UU94  
 UniRef90\_V2UBC2  
 UniRef90\_X0Y7W3  
 UniRef90\_A0YX33  
 UniRef90\_I3D6L0  
 UniRef90\_A6NXG9  
 UniRef90\_U3GZE7  
 UniRef90\_V9X186  
 UniRef90\_B2GH50  
 UniRef90\_F0R829  
 UniRef90\_UPI00036A6B5B  
 UniRef90\_E2CAQ5  
 UniRef90\_A0M2J2  
 UniRef90\_A4G8P1  
 UniRef90\_R5CW79  
 UniRef90\_A5GJ60  
 UniRef90\_G8X8G0  
 UniRef90\_U2WDD1  
 UniRef90\_Q2CCW3  
 UniRef90\_B7KFE6  
 UniRef90\_UPI00036E6158  
 UniRef90\_D9SE49  
 UniRef90\_UPI0003648528  
 UniRef90\_L0MFY4  
 UniRef90\_A91W8  
 UniRef90\_A3DDQ5  
 UniRef90\_D6AVS9  
 UniRef90\_UPI00036BDEEA  
 UniRef90\_J8TV58  
 UniRef90\_UPI0002559E46  
 UniRef90\_R6ITC6  
 UniRef90\_UPI00036098CD  
 UniRef90\_W4RLF3  
 UniRef90\_R6DH36  
 UniRef90\_UPI000367159D  
 UniRef90\_U7P8U3  
 UniRef90\_X0R4D6  
 UniRef90\_K9SV00  
 UniRef90\_UPI000478C2F6  
 UniRef90\_W8H9Y7  
 UniRef90\_R7FBF8  
 UniRef90\_UPI000360698B  
 UniRef90\_UPI000288617A  
 UniRef90\_A0A058ZRA5  
 UniRef90\_UPI000364051E  
 UniRef90\_UPI000469CC9E  
 UniRef90\_UPI0003623E37  
 UniRef90\_C3P7X7  
 UniRef90\_R6VIV5  
 UniRef90\_UPI0000E0EEF5  
 UniRef90\_D6TL21  
 UniRef90\_S8GMM8  
 UniRef90\_D2PVB0  
 UniRef90\_D2U2L0  
 UniRef90\_A4AR48  
 UniRef90\_UPI000363563D  
 UniRef90\_V8G6X2  
 UniRef90\_UPI0004225EA0  
 UniRef90\_S9SBN4  
 UniRef90\_F2LIQ7  
 UniRef90\_U2U7G7  
 UniRef90\_J9ZB19  
 UniRef90\_A2C0J2  
 UniRef90\_A0A023BZS3  
 UniRef90\_Q2IVP0  
 UniRef90\_D7NDK9  
 UniRef90\_UPI0002D39695  
 UniRef90\_A2SKR9  
 UniRef90\_K1ZE77  
 UniRef90\_R5H172  
 UniRef90\_A3JMN1  
 UniRef90\_U5DEZ6  
 UniRef90\_R5PC21  
 UniRef90\_UPI00046550D4  
 UniRef90\_G8UL23  
 UniRef90\_C6X7N2  
 UniRef90\_H5SM66  
 UniRef90\_J7QAC7  
 UniRef90\_UPI0003B50484  
 UniRef90\_I5C1C8  
 UniRef90\_UPI000463313F  
 UniRef90\_R5L387  
 UniRef90\_D3RUH3  
 UniRef90\_G2PEP0  
 UniRef90\_R0FFA1  
 UniRef90\_UPI000468246C  
 UniRef90\_UPI00036E9252  
 UniRef90\_Z5XM36  
 UniRef90\_B7GHE3

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



	1	10	20	30	40
UniRef90_D5X7L2	R	V	I	L	L
UniRef90_Q6NH05	M	N	V	I	L
UniRef90_B4LUJ6	S	M	I	L	V
UniRef90_B0JKU0	L	S	I	L	V
UniRef90_UPI000470ECF6	M	T	I	Q	I
UniRef90_W9H1S3			V	L	L
UniRef90_O52377			K	I	L
UniRef90_D6E910	M	K	I	L	V
UniRef90_Q6IVR0	M	K	I	L	V
UniRef90_M2YFF0			R	I	L
UniRef90_UPI000372A45C			I	L	V
UniRef90_K6FDZ4	M	K	I	L	V
UniRef90_A6CTL7			K	I	L
UniRef90_F7UYU1			K	I	L
UniRef90_UPI00047D163F			L	L	V
UniRef90_UPI000315D5F6	M	K	I	L	V
UniRef90_UPI0004637CD8			N	I	L
UniRef90_W4L9V1			N	I	L
UniRef90_F3L055	T	I	W	I	L
UniRef90_C6WYU2			I	L	V
UniRef90_A3IR49	L	S	L	V	I
UniRef90_UPI000473F68A			K	F	L
UniRef90_E7RYE0			L	L	I
UniRef90_F4XIK6	L	S	R	I	L
UniRef90_F5SNE0			R	I	L
UniRef90_K4LIS8			R	V	L
UniRef90_V6ML45			K	V	A
UniRef90_E4RLB7			K	I	L
UniRef90_D3PBH4	L	K	I	L	V
UniRef90_R5E8K4			K	I	L
UniRef90_R7I5C0			K	I	L
UniRef90_R7CYT7	M	K	I	Q	I
UniRef90_U1KTP4	L	Q	I	L	V
UniRef90_Q0FES9			M	K	I
UniRef90_H1PSX0			K	I	L
UniRef90_Q0AEU9			K	V	L
UniRef90_S9ZTK2			M	K	I
UniRef90_S2DKV3			I	L	V
UniRef90_W7DXE8			I	L	V
UniRef90_E1YFE2			K	I	L
UniRef90_J9FHJ2	M	K	I	L	M
UniRef90_D2S9F6	M	T	I	Q	V
UniRef90_E0WT98			I	L	L
UniRef90_A1UU72			I	T	I
UniRef90_UPI0003770355			T	I	F
UniRef90_R6J4Q5			K	I	L
UniRef90_UPI0003C7E338			R	I	L
UniRef90_UPI00047574A8	L	K	I	L	V
UniRef90_W0B924			K	I	L
UniRef90_D5VCG2			K	V	A
UniRef90_U7V7Z5	M	K	R	I	L
UniRef90_J1QLC3	L	R	I	L	V
UniRef90_UPI0003B40F7D			R	I	L
UniRef90_S2Z1C7			V	L	V
UniRef90_B0TEH0			N	D	R
UniRef90_UPI0003828AE3	M	N	I	S	L
UniRef90_A1WZi8			K	L	L
UniRef90_UPI00046903B9			K	I	L
UniRef90_U2SWK7			K	V	L
UniRef90_UPI0000E198FB			I	L	V
UniRef90_UPI000248A456	T	V	I	F	V
UniRef90_UPI0003633122			T	I	M
UniRef90_A2TTC9			M	K	I
UniRef90_UPI00036D5ED4	M	K	I	L	I
UniRef90_UPI00040BFADA	M	K	I	L	L
UniRef90_UPI0003F53956			K	L	V
UniRef90_E4T6N8	M	K	I	Q	I
UniRef90_S6BEG2			I	L	V
UniRef90_M9ME92			I	L	L
UniRef90_UPI0003694500			M	I	F
UniRef90_Q97KL8	M	K	I	L	V
UniRef90_B8HPi3			I	L	V
UniRef90_D1CBi5	M	R	I	L	V
UniRef90_B8KW04			V	L	L
UniRef90_W8S8C9	M	H	Y	L	V
UniRef90_E1IG47			T	I	A
UniRef90_A7C6i5			K	I	L
UniRef90_UPI0003F88361	M	K	T	Y	L
UniRef90_F5SAZ0			K	V	M
UniRef90_S6CE42			K	I	L
UniRef90_U4T1B7			K	L	L
UniRef90_X1SK15	M	R	I	L	T
UniRef90_D9RXK7	M	K	V	K	I
UniRef90_UPI000368C33B	M	N	I	L	V
UniRef90_UPI00046FE66C	M	K	L	L	L
UniRef90_Q7VNC2			N	I	L
UniRef90_T0CS75	M	K	I	L	I
UniRef90_G0HE00	M	S	V	L	V
UniRef90_A8ES39	M	K	I	A	V
UniRef90_C1D2D9			T	V	L
UniRef90_UPI0003655E6D			T	L	L
UniRef90_UPI00036FF44E			K	I	L

	50	60	70	80															
UniRef90_D5X7L2	KLVLEIV	QFNAYEEGGQ	IIIDAWI	QEAASVSQGL	LTINP	AAAYTHYSS	VA												
UniRef90_Q6NH05	DLVECK	QQSNYEEGGQ	EELIIV	DAWIK	QEAADAGNPI	VLINP	GAAGLTHHTSYA												
UniRef90_B4ULJ6	ENLKTAF	QQSNYEEGGQ	ALIV	DDWIK	QQEAHRKQQR	GGILIN	NAGGAYLTHHTSYA												
UniRef90_B0JKU0	ENLKTAF	QQSNYEEGGQ	ALIV	DDWIK	QQEAHRKQQR	GGILIN	NAGGAYLTHHTSYA												
UniRef90_UPI000470ECF6	QIIDDYF	QQSNHEEGGQ	LV	DKL	QQEVGFTCD	DGLV	LINNAAYYTHHTSYA												
UniRef90_W9H1S3	AIIDFR	QQSNHEEGGQ	LV	AWL	QQNARGGT	HDDGL	VILINP	GAAGLTHHTSYA											
UniRef90_O52377	AEIEAL	QQSNHEEGGQ	LV	DAL	HNARARGT	HIGV	ILINP	GGAYLTHHTSYA											
UniRef90_D6E910	TEVD	CFQSNH	EEGGVLI	DR	HAAR	GVYD	GILIN	VP	GAAGLTHHTSYA										
UniRef90_Q6IVR0	TEVD	CFQSNH	EEGGVLI	DR	HAAR	GVYD	GILIN	VP	GAAGLTHHTSYA										
UniRef90_M2YFF0	TEVD	CFQSNH	EEGGVLI	DR	HAAR	GVYD	GILIN	VP	GAAGLTHHTSYA										
UniRef90_UPI000372A45C	EEVY	DFRQSN	LAEEGELI	DDAL	HTQAR	FENT	DS	ILIN	VP	GAAGLTHHTSYA									
UniRef90_K6FDZ4	EEVY	DFRQSN	LAEEGELI	DDAL	HTQAR	FENT	DS	ILIN	VP	GAAGLTHHTSYA									
UniRef90_A6CTL7	YELV	EAFQSN	NAEEGHEI	DTKL	QNS	SMNEY	DF	VIF	IN	VP	GAAGLTHHTSYA								
UniRef90_F7UYU1	QVLT	SFQSN	HHEGGVLI	DDQL	HAAR	DDAY	DGI	VILIN	VP	GAAGLTHHTSYA									
UniRef90_UPI00047D163F	SGLE	CFQSN	HHEGGVLI	DDAI	HAAR	DDAY	DGI	VILIN	VP	GAAGLTHHTSYA									
UniRef90_UPI000315D5F6	SGLE	CFQSN	HHEGGVLI	DDAI	HAAR	DDAY	DGI	VILIN	VP	GAAGLTHHTSYA									
UniRef90_UPI0004637CD8	RLYL	HFQSN	NAEEGHEI	ERIV	QEAQ	QDD	LDF	ILIN	VP	GAAGLTHHTSYA									
UniRef90_W4L9V1	TLLS	CFQSN	NAEEGHEI	ERIV	QEAQ	QDD	LDF	ILIN	VP	GAAGLTHHTSYA									
UniRef90_F3L055	TLLE	SFQSN	NAEEGHEI	ERIV	QEAQ	QDD	LDF	ILIN	VP	GAAGLTHHTSYA									
UniRef90_C6WYU2	TLLE	SFQSN	NAEEGHEI	ERIV	QEAQ	QDD	LDF	ILIN	VP	GAAGLTHHTSYA									
UniRef90_A3IR49	TLLE	SFQSN	NAEEGHEI	ERIV	QEAQ	QDD	LDF	ILIN	VP	GAAGLTHHTSYA									
UniRef90_UPI000473F68A	HLLE	CVQSN	HHEGGVLI	DDWI	HGAG	ADEN	F	DGI	VILIN	VP	GAAGLTHHTSYA								
UniRef90_E7RYE0	ASFD	HQSN	NAEEGALV	DR	QAAR	DG	TAF	ILIN	VP	GAAGLTHHTSYA									
UniRef90_F4XIK6	ASFD	HQSN	NAEEGALV	DR	QAAR	DG	TAF	ILIN	VP	GAAGLTHHTSYA									
UniRef90_F5SNE0	SEVLT	ALQSN	HHEGGELI	DDAV	HEAL	GGH	H	DGI	VILIN	VP	GAAGLTHHTSYA								
UniRef90_K4LIS8	SEVLT	ALQSN	HHEGGELI	DDAV	HEAL	GGH	H	DGI	VILIN	VP	GAAGLTHHTSYA								
UniRef90_V6ML45	RLVIT	RQSN	HHEGGELI	DDAI	HAAR	GR	F	DGI	VILIN	VP	GAAGLTHHTSYA								
UniRef90_E4RLB7	RLVIT	RQSN	HHEGGELI	DDAI	HAAR	GR	F	DGI	VILIN	VP	GAAGLTHHTSYA								
UniRef90_D3PBH4	EELH	VMQSN	HHEGGELI	DDYL	HQAK	F	EL	DGI	VILIN	VP	GAAGLTHHTSYA								
UniRef90_R5E8K4	SACK	VQSN	HHEGGDLI	DDKI	HEL	AN	I	V	D	G	F	ILIN	VP	GAAGLTHHTSYA					
UniRef90_R7I5C0	SVR	CVQSN	HHEGGDLI	DDAL	HS	AK	GN	F	D	G	V	ILIN	VP	GAAGLTHHTSYA					
UniRef90_R7CYT7	EELD	YQSN	VEEGELI	NKL	HET	G	F	D	G	V	ILIN	VP	GAAGLTHHTSYA						
UniRef90_U1KTP4	TEEL	HLQSN	SEEGELI	NAI	QGA	W	K	I	D	AI	ILIN	VP	GAAGLTHHTSYA						
UniRef90_Q0FES9	TEEL	HLQSN	SEEGELI	NAI	QGA	W	K	I	D	AI	ILIN	VP	GAAGLTHHTSYA						
UniRef90_H1PSX0	EIN	LQSN	HEEGELI	N	QMA	Y	E	K	Y	D	G	V	M	IN	VP	GAAGLTHHTSYA			
UniRef90_Q0AEU9	VL	DTF	QSNNAEEGHEI	DR	QEA	M	N	D	G	T	G	V	ILIN	VP	GAAGLTHHTSYA				
UniRef90_S9ZTK2	DLLE	YQSN	NAEEGALV	DR	HE	Q	A	R	S	D	G	V	ILIN	VP	GAAGLTHHTSYA				
UniRef90_S2DKV3	DLLE	YQSN	NAEEGALV	DR	HE	Q	A	R	S	D	G	V	ILIN	VP	GAAGLTHHTSYA				
UniRef90_W7DXE8	ELV	DTF	QSNNAEEGALV	DR	HA	A	R	N	E	V	D	A	V	ILIN	VP	GAAGLTHHTSYA			
UniRef90_E1YFE2	ELV	DTF	QSNNAEEGALV	DR	HA	A	R	N	E	V	D	A	V	ILIN	VP	GAAGLTHHTSYA			
UniRef90_J9FHJ2	EID	YQSN	VEEGFLI	DR	QA	A	E	D	G	T	R	G	I	V	F	IN	VP	GAAGLTHHTSYA	
UniRef90_D2S9F6	EELQ	VRQSN	NDEEGELL	DR	HA	A	A	D	A	G	D	P	V	V	ILIN	VP	GAAGLTHHTSYA		
UniRef90_E0WT98	EELQ	VRQSN	NDEEGELL	DR	HA	A	A	D	A	G	D	P	V	V	ILIN	VP	GAAGLTHHTSYA		
UniRef90_A1UU72	MVQ	CHQSN	VEEGQLV	E	QEA	I	G	M	S	A	G	L	V	ILIN	VP	GAAGLTHHTSYA			
UniRef90_UPI0003770355	QIIE	DFRQSN	HHEGGVLI	DDWI	QEA	A	K	G	A	K	G	L	V	ILIN	VP	GAAGLTHHTSYA			
UniRef90_R6J4Q5	EVE	VRQSN	NHEEGELI	DDWI	QEA	A	K	G	A	K	G	L	V	ILIN	VP	GAAGLTHHTSYA			
UniRef90_UPI0003C7E338	EVE	VRQSN	NHEEGELI	DDWI	QEA	A	K	G	A	K	G	L	V	ILIN	VP	GAAGLTHHTSYA			
UniRef90_UPI00047574A8	EVE	VRQSN	NHEEGELI	DDWI	QEA	A	K	G	A	K	G	L	V	ILIN	VP	GAAGLTHHTSYA			
UniRef90_W0B924	ELN	AKQSN	SEEGELI	DDTI	HG	A	R	H	T	H	V	G	L	V	ILIN	VP	GAAGLTHHTSYA		
UniRef90_D5VCG2	ELN	AKQSN	SEEGELI	DDTI	HG	A	R	H	T	H	V	G	L	V	ILIN	VP	GAAGLTHHTSYA		
UniRef90_U7V7Z5	ELN	AKQSN	SEEGELI	DDTI	HG	A	R	H	T	H	V	G	L	V	ILIN	VP	GAAGLTHHTSYA		
UniRef90_J1QLC3	TLT	ALQSN	NAEEHQYLI	DDKI	QES	Y	E	N	V	D	F	ILIN	VP	GAAGLTHHTSYA					
UniRef90_UPI0003B40F7D	KL	TCT	QTNHEEGGLV	DDAL	HE	A	A	G	D	V	V	G	V	V	ILIN	VP	GAAGLTHHTSYA		
UniRef90_S2Z1C7	TV	CHQSN	HHEGGELI	DDWI	HA	A	A	A	D	A	G	L	P	V	ILIN	VP	GAAGLTHHTSYA		
UniRef90_B0TEH0	EV	VCFQSN	HHEGGALV	DDWI	HNA	A	F	GR	V	D	L	V	ILIN	VP	GAAGLTHHTSYA				
UniRef90_UPI0003828AE3	NL	KVQSN	SEEGALV	SFI	GD	N	I	D	W	A	D	G	V	ILIN	VP	GAAGLTHHTSYA			
UniRef90_A1WZ18	QQL	CSA	QSNHHEGGELI	DR	HA	A	A	D	E	V	E	F	ILIN	VP	GAAGLTHHTSYA				
UniRef90_UPI00046903B9	QQL	CSA	QSNHHEGGELI	DR	HA	A	A	D	E	V	E	F	ILIN	VP	GAAGLTHHTSYA				
UniRef90_U2SWK7	RRI	DFFQSN	HHEGGELI	DDAI	QK	A	N	H	V	Y	D	F	I	I	IN	VP	GAAGLTHHTSYA		
UniRef90_UPI0000E198FB	RRI	DFFQSN	HHEGGELI	DDAI	QK	A	N	H	V	Y	D	F	I	I	IN	VP	GAAGLTHHTSYA		
UniRef90_UPI000248A456	QRL	ET	FQSNNAEEGELI	DDAI	HA	S	V	N	R	V	D	Y	I	I	IN	VP	GAAGLTHHTSYA		
UniRef90_UPI0003633122	QRL	ET	FQSNNAEEGELI	DDAI	HA	S	V	N	R	V	D	Y	I	I	IN	VP	GAAGLTHHTSYA		
UniRef90_A2TTC9	EL	LD	RYFQSNHHEGGELI	DDKI	HE	E	A	N	E	S	F	D	G	V	V	ILIN	VP	GAAGLTHHTSYA	
UniRef90_UPI00036D5ED4	EL	LD	RYFQSNHHEGGELI	DDKI	HE	E	A	N	E	S	F	D	G	V	V	ILIN	VP	GAAGLTHHTSYA	
UniRef90_UPI00040BFADA	EL	LD	RYFQSNHHEGGELI	DDKI	HE	E	A	N	E	S	F	D	G	V	V	ILIN	VP	GAAGLTHHTSYA	
UniRef90_UPI0003F53956	EL	LD	RYFQSNHHEGGELI	DDKI	HE	E	A	N	E	S	F	D	G	V	V	ILIN	VP	GAAGLTHHTSYA	
UniRef90_E4T6N8	TLQ	L	DYFQSNNAEEGALV	DR	HA	A	R	D	T	Y	D	G	V	ILIN	VP	GAAGLTHHTSYA			
UniRef90_S6BEG2	EGL	A	FFQSNHHEGGALV	DR	HQ	A	R	E	D	V	D	F	ILIN	VP	GAAGLTHHTSYA				
UniRef90_M9ME92	EGL	A	FFQSNHHEGGALV	DR	HQ	A	R	E	D	V	D	F	ILIN	VP	GAAGLTHHTSYA				
UniRef90_UPI0003694500	GGF	D	A	F	QSNHHEGGALV	DR	HA	A	R	D	T	Y	D	G	V	ILIN	VP	GAAGLTHHTSYA	
UniRef90_Q97KL8	EEV	Q	VRQSN	NDEEGELI	DR	HA	A	R	D	T	Y	D	G	V	ILIN	VP	GAAGLTHHTSYA		
UniRef90_B8HP13	EEV	Q	VRQSN	NDEEGELI	DR	HA	A	R	D	T	Y	D	G	V	ILIN	VP	GAAGLTHHTSYA		
UniRef90_D1CB15	EEL	V	IMQSN	HHEGGELI	DDAI	QEA	R	F	G	Q	H	H	G	V	ILIN	VP	GAAGLTHHTSYA		
UniRef90_B8KW04	EEL	V	IMQSN	HHEGGELI	DDAI	QEA	R	F	G	Q	H	H	G	V	ILIN	VP	GAAGLTHHTSYA		
UniRef90_W8S8C9	SEL	E	LVQSNNAEEGELI	DDAI	HT	A	R	S	T	Q	D	G	V	ILIN	VP	GAAGLTHHTSYA			
UniRef90_E1IG47	SEL	E	LVQSNNAEEGELI	DDAI	HT	A	R	S	T	Q	D	G	V	ILIN	VP	GAAGLTHHTSYA			
UniRef90_A7C615	TLT	T	FQSNNAEEYQLI	EKI	HT	A	G	E	K	V	N	F	I	I	IN	VP	GAAGLTHHTSYA		
UniRef90_UPI0003F88361	EV	V	ET	FQSNNAEEGELI	AWL	HE	A	A	D	E	Q	I	P	V	ILIN	VP	GAAGLTHHTSYA		
UniRef90_F5SAZ0	EV	V	ET	FQSNNAEEGELI	AWL	HE	A	A	D	E	Q	I	P	V	ILIN	VP	GAAGLTHHTSYA		
UniRef90_S6CE42	EV	V	ET	FQSNNAEEGELI	AWL	HE	A	A	D	E	Q	I	P	V	ILIN	VP	GAAGLTHHTSYA		
UniRef90_U4T1B7	EEL	I	CLQSN	HHEGGKLV	DE	HE	A	A	H	G	N	Y	D	G	V	ILIN	VP	GAAGLTHHTSYA	
UniRef90_X1SK15	EEL	I	CLQSN	HHEGGKLV	DE	HE	A	A	H	G	N	Y	D	G	V	ILIN	VP	GAAGLTHHTSYA	
UniRef90_D9RXK7	LV	D	FFQSN	SEEGELI	DE	Q	Q	G	C	I	G	Q	Y	D	G	V	ILIN	VP	GAAGLTHHTSYA
UniRef90_UPI000368C33B	LV	D	FFQSN	SEEGELI	DE	Q	Q	G	C	I	G	Q	Y	D	G	V	ILIN	VP	GAAGLTHHTSYA
UniRef90_UPI00046FE66C	VLE	CFQSN	NAEEHRLI	E	HA	A	S	E	G	V	D	R	I	I	IN	VP	GAAGLTHHTSYA		
UniRef90_Q7VNC2	NL	L	CFQSNNAEEHRLI	INRI	HA	A	S	E	G	V	D	R	I	I	IN	VP	GAAGLTHHTSYA		
UniRef90_T0CS75	EEL	E	FFQSNNAEEGELI	DR	HE	A	A	N	E	F	D	G	V	ILIN	VP	GAAGLTHHTSYA			
UniRef90_G0HE00	EEL	E	FFQSNNAEEGELI	DR	HE	A	A	N	E	F	D	G	V	ILIN	VP	GAAGLTHHTSYA			
UniRef90_A8ES39	EEL	E	FFQSNNAEEGELI	DR	HE	A	A	N	E	F	D	G	V	ILIN	VP	GAAGLTHHTSYA			
UniRef90_C1D2D9	HVD	L	RFQSNNAEEYQLI	E	HE	H	R	T	T	A	G	F	I	I	IN	VP	GAAGLTHHTSYA		
UniRef90_UPI0003655E6D	EEL	A	CLQSN	NAEEHRLI	EV	HR	A	R	D	V	D	F	I	I	IN	VP	GAAGLTHHTSYA		
UniRef90_UPI00036FF44E	AV	E	S	YQSNHHEGGDLV	TR	QEA	G	L	A	G	T	P	I	V	F	IN	VP	GAAGLTHHTSYA	

	90	100	110	120
UniRef90_D5X7L2	I	L	S	V
UniRef90_Q6NH05	R	N	H	A
UniRef90_B4ULJ6	D	N	H	P
UniRef90_B0JKU0	H	N	H	L
UniRef90_UPI000470ECF6	L	S	F	A
UniRef90_W9H1S3	L	T	F	A
UniRef90_O52377	L	T	F	A
UniRef90_D6E910	L	D	F	V
UniRef90_Q6IVR0	L	D	F	V
UniRef90_M2YFF0	L	D	F	V
UniRef90_UPI000372A45C	L	D	F	V
UniRef90_K6FDZ4	L	D	F	V
UniRef90_A6CTL7	L	D	F	V
UniRef90_F7UYU1	L	D	F	V
UniRef90_UPI00047D163F	L	D	F	V
UniRef90_UPI000315D5F6	L	D	F	V
UniRef90_UPI0004637CD8	L	D	F	V
UniRef90_W4L9V1	L	D	F	V
UniRef90_F3L055	L	D	F	V
UniRef90_C6WYU2	M	R	H	A
UniRef90_A3IR49	I	L	S	V
UniRef90_UPI000473F68A	I	L	S	V
UniRef90_E7RYE0	M	R	H	A
UniRef90_F4XIK6	I	L	S	V
UniRef90_F5SNE0	L	D	F	V
UniRef90_K4LIS8	L	D	F	V
UniRef90_V6ML45	L	D	F	V
UniRef90_E4RLB7	L	D	F	V
UniRef90_D3PBH4	L	D	F	V
UniRef90_R5E8K4	L	D	F	V
UniRef90_R7I5C0	L	D	F	V
UniRef90_R7CYT7	L	D	F	V
UniRef90_U1KTP4	L	D	F	V
UniRef90_Q0FES9	L	D	F	V
UniRef90_H1PSX0	L	D	F	V
UniRef90_Q0AEU9	L	D	F	V
UniRef90_S9ZTK2	I	L	S	V
UniRef90_S2DKV3	I	L	S	V
UniRef90_W7DXE8	I	L	S	V
UniRef90_E1YFE2	V	R	D	A
UniRef90_J9FHJ2	L	D	F	V
UniRef90_D2S9F6	L	D	F	V
UniRef90_E0WT98	L	D	F	V
UniRef90_A1UU72	I	L	S	V
UniRef90_UPI0003770355	L	D	F	V
UniRef90_R6J4Q5	L	D	F	V
UniRef90_UPI0003C7E338	L	D	F	V
UniRef90_UPI00047574A8	L	D	F	V
UniRef90_W0B924	M	R	H	A
UniRef90_D5VCG2	I	L	S	V
UniRef90_U7V7Z5	I	L	S	V
UniRef90_J1QLC3	L	D	F	V
UniRef90_UPI0003B40F7D	L	D	F	V
UniRef90_S2Z1C7	L	D	F	V
UniRef90_B0TEH0	L	D	F	V
UniRef90_UPI0003828AE3	L	D	F	V
UniRef90_A1WZ18	L	D	F	V
UniRef90_UPI00046903B9	L	D	F	V
UniRef90_U2SWK7	I	L	S	V
UniRef90_UPI0000E198FB	I	L	S	V
UniRef90_UPI000248A456	L	D	F	V
UniRef90_UPI0003633122	L	D	F	V
UniRef90_A2TTC9	L	D	F	V
UniRef90_UPI00036D5ED4	L	D	F	V
UniRef90_UPI00040BFADA	L	D	F	V
UniRef90_UPI0003F53956	L	D	F	V
UniRef90_E4T6N8	L	D	F	V
UniRef90_S6BEG2	L	D	F	V
UniRef90_M9ME92	L	D	F	V
UniRef90_UPI0003694500	V	R	D	A
UniRef90_Q97KL8	I	L	S	V
UniRef90_B8HP13	L	D	F	V
UniRef90_D1CB15	L	D	F	V
UniRef90_B8KW04	L	D	F	V
UniRef90_W8S8C9	L	D	F	V
UniRef90_E1IG47	L	D	F	V
UniRef90_A7C615	L	D	F	V
UniRef90_UPI0003F88361	V	R	D	A
UniRef90_F5SAZ0	I	L	S	V
UniRef90_S6CE42	L	D	F	V
UniRef90_U4T1B7	L	D	F	V
UniRef90_X1SK15	L	D	F	V
UniRef90_D9RXK7	I	L	S	V
UniRef90_UPI000368C33B	L	D	F	V
UniRef90_UPI00046FE66C	L	D	F	V
UniRef90_Q7VNC2	I	L	S	V
UniRef90_T0CS75	I	L	S	V
UniRef90_G0HE00	L	D	F	V
UniRef90_A8ES39	I	L	S	V
UniRef90_C1D2D9	L	D	F	V
UniRef90_UPI0003655E6D	I	L	S	V
UniRef90_UPI00036FF44E	L	D	F	V

UniRef90\_D5X7L2 S G F G P R S Y E L G L R A L A D  
UniRef90\_Q6NH05 A G L G T I G Y E L L A L R Y V V  
UniRef90\_B4ULJ6 V G L G I R G Y L L A A E W L C  
UniRef90\_B0JKU0 S G F G A E S Y R L G L W A L V D Y  
UniRef90\_UPI000470ECF6 C G F G L D S Y R L A V A S F  
UniRef90\_W9H1S3 C G F G S H G Y  
UniRef90\_O52377 A G A G I Q G Y R F A V D I L A N  
UniRef90\_D6E910 K G K G K E G Y K E A V D V L L  
UniRef90\_Q6IVR0 S G H G T K G Y V L A L E E A L K N  
UniRef90\_M2YFF0 A G A G A Q G Y L Y A V D L L  
UniRef90\_UPI000372A45C V G F G V D G Y V L A I E G L V R K  
UniRef90\_K6FDZ4 C G L G T H G Y E L A L I N I I E N  
UniRef90\_A6CTL7 V G L G L F G Y E L A L Q A L I K K  
UniRef90\_F7UYU1 K G F G F D G Y C K A V D L L L E  
UniRef90\_UPI00047D163F T G L G A H G Y E L A L S H A L R  
UniRef90\_UPI000315D5F6 A G F G V N G Y A L A I I Q A L A E  
UniRef90\_UPI0004637CD8 A G L G P I G Y Q L A L A S A V E K  
UniRef90\_W4L9V1 V G L G P Q G Y S L A L Q A A C  
UniRef90\_F3L055 C G F G V K S Y E L A L T A A I E H  
UniRef90\_C6WYU2 S G L G A K G Y E L A L D F A I E K  
UniRef90\_A3IR49 S G F G A N S Y I L G L E A L Y H Y  
UniRef90\_UPI000473F68A V G L D I Y G Y E L A I L A L L Q K  
UniRef90\_E7RYE0 V G M G A H G Y E A A L R F A L  
UniRef90\_F4XIK6 S G F G A N S Y R L G L G Y A L V  
UniRef90\_F5SNE0 C G L G H L G Y D M A L Q G F I E H  
UniRef90\_K4LIS8 A G F G P L S Y S L A L Q A A C E  
UniRef90\_V6ML45 V G L G S D G Y D W A L E G L V R K  
UniRef90\_E4RLB7 T G L G V K G Y T L A L E G L  
UniRef90\_D3PBH4 S G F G V N S Y I Y A I D Y L I  
UniRef90\_R5E8K4 A G F G K N S Y F L A L N A L K D  
UniRef90\_R7I5C0 V G F G F Y G Y V M G M R A L L E  
UniRef90\_R7CYT7 C G F G L N S Y R L A I T E A L L D  
UniRef90\_U1KTP4 C G L G A M G Y Q A A L M A A I  
UniRef90\_Q0FES9 A G L G I E G Y A A A V R H I C  
UniRef90\_H1PSX0 C G F G K E G Y I L A I E G L I  
UniRef90\_Q0AEU9 S G L G A A G Y E L A L Q A L A R Q  
UniRef90\_S9ZTK2 A G F G T L G Y S L A L Q F V A  
UniRef90\_S2DKV3 S G L G L K G Y E L A V S Y F L N  
UniRef90\_W7DXE8 M G L C T F G Y T A A I E N A V R N  
UniRef90\_E1YFE2 C G F G H L G Y Y M A L E A I  
UniRef90\_J9FHJ2 C G F G M N S Y R L A L L A L I E  
UniRef90\_D2S9F6 A G L G V Q G Y V L A L R W L A  
UniRef90\_E0WT98 C G L G A D G Y S F A L Q A A V N  
UniRef90\_A1UU72 V G C G H E G Y L F A L E Y I A K Q  
UniRef90\_UPI0003770355 S G F G A E G Y V L G L D A I  
UniRef90\_R6J4Q5 C G L G F Q G Y A L A L R A L A E K  
UniRef90\_UPI0003C7E338 A G A G P S G Y A W A V D L L A  
UniRef90\_UPI00047574A8 S G F G A D S Y V L G L H A L V R Y  
UniRef90\_W0B924 S G F G P Y G Y L L A L Q A I I  
UniRef90\_D5VCG2 C G L G D M G Y T M A M D W F I K H  
UniRef90\_U7V7Z5 T G F G S E G Y K M A L Q Y L S N  
UniRef90\_J1QLC3 C G L G A R G Y H Y A L D A A V  
UniRef90\_UPI0003B40F7D A G A G A D G Y R Y A V D L L A  
UniRef90\_S2Z1C7 A G L G V F G Y V A A L Q Y I A R  
UniRef90\_B0TEH0 A G F G A D G Y R L A M E G A R H Y  
UniRef90\_UPI0003828AE3 C G F G A H G Y D L A L D A M I Q  
UniRef90\_A1WZi8 T G L G A D G Y D F A A R A A I R  
UniRef90\_UPI00046903B9 M G F G A H S Y D M A L E A A L N  
UniRef90\_U2SWK7 C G L G E E S Y M A L E A V I  
UniRef90\_UPI0000E198FB C G L G A E G Y F A A Y R Y I Q Q  
UniRef90\_UPI000248A456 A G F G A L S Y T L A L D A A A K  
UniRef90\_UPI0003633122 C G F G A S G Y V L A I D A I A  
UniRef90\_A2TTC9 V G F G L K S Y N L A I E  
UniRef90\_UPI00036D5ED4 V G M G L M G Y E L A V R Y I  
UniRef90\_UPI00040BFADA S G F G L E S Y R L A L Q Y F  
UniRef90\_UPI0003F53956 C G F G A D S Y R F A M D A A V  
UniRef90\_E4T6N8 V G F G M D S Y R L A V D S I L  
UniRef90\_S6BEG2 S G L G A Q G Y E  
UniRef90\_M9ME92 V G L G S F G Y T A A I S F I A N K  
UniRef90\_UPI0003694500 A G L G V D G Y R L A L E H L A Q K  
UniRef90\_Q97KL8 C G F G F Y G Y V M G I T A L K N  
UniRef90\_B8HPi3 S G F G A N S Y Y L G L K A L V D Y  
UniRef90\_D1CBi5 T G F G Y R G Y T A A L Q L L Y D H  
UniRef90\_B8KW04 C G L G T F G Y D C A L E A V L N H  
UniRef90\_W8S8C9 Q G F G A A G Y P I A L E A L H R H  
UniRef90\_E1IG47 A G L G W R G Y L L A L E W L I  
UniRef90\_A7C6i5 S G L G A Q G Y S L A L Q A  
UniRef90\_UPI0003F88361 A G L G A H G Y T A A L R H I A E  
UniRef90\_F5SAZ0 I G F G F H S Y E L A L T A A V  
UniRef90\_S6CE42 K G L G K E G Y L R A L D I L L E  
UniRef90\_U4T1B7 C G L G H M G Y D M A L G Y W L E  
UniRef90\_X1SK15 S G L G W R G Y I A A L R A M V  
UniRef90\_D9RXK7 A G L G E T G Y W L A L L A L K D  
UniRef90\_UPI000368C33B A G F G A S S Y Y M A I N A I  
UniRef90\_UPI00046FE66C I G L G V E G Y H L A Y R A A L  
UniRef90\_Q7VNC2 C G L G P K G Y D Y A L D F A I  
UniRef90\_T0CS75 S G F G F Y S Y I L G V S A V L N  
UniRef90\_G0HE00 V G L G T Y G Y T A A L E F L A Q  
UniRef90\_A8ES39 S G F G A F G Y H M G L I A L M Q  
UniRef90\_C1D2D9 A G C G T Q G Y A L A L Q R L C  
UniRef90\_UPI0003655E6D A G L G A D G Y E Y A L D A A L R  
UniRef90\_UPI00036FF44E A G C G T D G Y L M A I R V I A N Q



UniRef90\_UPI000378C3B0  
UniRef90\_K9U278  
UniRef90\_UPI0003B4542B  
UniRef90\_R6IZ00  
UniRef90\_UPI0003B46447  
UniRef90\_V5PN14  
UniRef90\_E0NVB3  
UniRef90\_UPI0003818C66  
UniRef90\_UPI000407D9C6  
UniRef90\_E3HA16  
UniRef90\_E1GUL8  
UniRef90\_K9Y735  
UniRef90\_10QYH8  
UniRef90\_L7LAU8  
UniRef90\_UPI0003B3B93C  
UniRef90\_D1VZ42  
UniRef90\_W2UT75  
UniRef90\_R5D1G9  
UniRef90\_R7G1X7  
UniRef90\_F8WXB3  
UniRef90\_A3XMQ5  
UniRef90\_A0A023NZ93  
UniRef90\_UPI0003B6E25F  
UniRef90\_UPI00035C3DA7  
UniRef90\_X1JHP1  
UniRef90\_Q2K924  
UniRef90\_A5EVX2  
UniRef90\_D1P1X9  
UniRef90\_R6J179  
UniRef90\_UPI00035F4D24  
UniRef90\_T2KL27  
UniRef90\_UPI0003809A69  
UniRef90\_UPI0003F7CCCC  
UniRef90\_UPI0003769B9  
UniRef90\_R7N9R3  
UniRef90\_K4IM93  
UniRef90\_R5URG3  
UniRef90\_X2H9C3  
UniRef90\_A1UFJ2  
UniRef90\_C2G4A5  
UniRef90\_C8XHT4  
UniRef90\_C0GE47  
UniRef90\_V7IAW9  
UniRef90\_D9R3F6  
UniRef90\_K9PBF0  
UniRef90\_I5B771  
UniRef90\_W4QIX4  
UniRef90\_D4CW73  
UniRef90\_G2ISE4  
UniRef90\_W3ABB3  
UniRef90\_A0Y8R0  
UniRef90\_S0FNK4  
UniRef90\_UPI00034B54A3  
UniRef90\_UPI00047C49CE  
UniRef90\_F9ZKC0  
UniRef90\_UPI00040E4E0E  
UniRef90\_UPI00036A53C6  
UniRef90\_T0JMJ7  
UniRef90\_R7N411  
UniRef90\_D9UZ96  
UniRef90\_R6UFR7  
UniRef90\_B5JY97  
UniRef90\_UPI00036A0A59  
UniRef90\_A8ZUK0  
UniRef90\_UPI00036D32E6  
UniRef90\_I0JNW7  
UniRef90\_D1ZR99  
UniRef90\_UPI00036172EE  
UniRef90\_W8TC99  
UniRef90\_A9W1P2  
UniRef90\_UPI00036B39BE  
UniRef90\_R5L0N0  
UniRef90\_UPI0003B68052  
UniRef90\_U6B8V3  
UniRef90\_C7PVR7  
UniRef90\_J1K2A5  
UniRef90\_UPI0003816CE8  
UniRef90\_E8LL04  
UniRef90\_C2M4H7  
UniRef90\_UPI000470FD2F  
UniRef90\_R6TEX4  
UniRef90\_I4EYA8  
UniRef90\_G5F4I9  
UniRef90\_H1H4L5  
UniRef90\_UPI00037E7F41  
UniRef90\_D4W6G9  
UniRef90\_A0LUG8  
UniRef90\_UPI000255C927  
UniRef90\_A9WTJ3  
UniRef90\_C0QI59  
UniRef90\_J2LA08  
UniRef90\_UPI00038083FE

1 10 20 30 40

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

UniRef90\_UPI000378C3B0 N L T F H Q T N S E E G S K I I V D F A I H E A Q A K E S E N F Y D Q G L I V I T N P A A F T H T S I V A  
UniRef90\_K9U278 N E T V K A M Q Q T N N H H E G G A L M V D D R I H H A A Q A R G R E D D Y D D G A V A I N A G A Y T H T S S V A  
UniRef90\_UPI0003B4542B N T Q V D F Y Q Q T N N H H E G G A L M V D D R I H H A A Q A R G R E D D Y D D G A V A I N A G A Y T H T S S V A  
UniRef90\_R6IZ00 N T Q V D F Y Q Q T N N H H E G G A L M V D D R I H H A A Q A R G R E D D Y D D G A V A I N A G A Y T H T S S V A  
UniRef90\_UPI0003B46447 T V R F F G Q Q S N N H H E G G A L I V D D R L H H E A A R E R E S K S A F I V I L N A G A Y T H T S S V A  
UniRef90\_V5PN14 N A T E Y F Q Q S N N H H E G G A L I V D D R L H H E A A R E R E S K S A F I V I L N A G A Y T H T S S V A  
UniRef90\_E0NVB3 N A L T Y F Q Q S N N H H E G G E L L V G K I F H H E V G F F D N D G G I L L N A G A Y T H T S S V A  
UniRef90\_UPI0003818C66 A E L T D F R Q Q S N S E E A T L I V D K W L H H E A R F G T N S F D G I V A I N A P A G L S F H S I I P  
UniRef90\_UPI000407D9C6 E E I D F R Q Q S N S H H E G G A L I V D D K I H H E A R F G T N S F D G I V A I N A P A G L S F H S I I P  
UniRef90\_E3HA16 N D L Y Y Q Q S N N H H E G G K L I V D D K I Q Q E V G F S F D G I V I L N A G A Y T H T S S V A  
UniRef90\_E1GUL8 N L E Y Y Q Q S N N H H E G G A M V I E A I K S A C R G K A S A L V L N A A A W T H T S S V A  
UniRef90\_K9Y735 H L E Y Y Q Q T N N H H E G G E M L D A L A A A R G G G S G I V I L N P A A W T H T S S V A  
UniRef90\_I0QYH8 N V E A L Q Q S N N M E E G G E L I D D Q L H H E A E G N S F D Y I V I L N P A A W T H T S S V A  
UniRef90\_L7LAU8 R V I A C F Q Q S N N H H E G G E L I D D Q L H H E A E G N S F D Y I V I L N P A A W T H T S S V A  
UniRef90\_UPI0003B3B93C N I D Y Y Q Q S N N H H E G G E L I D D Q L H H E A E G N S F D Y I V I L N P A A W T H T S S V A  
UniRef90\_D1VZ42 Q L D Y Y Q Q S N N H H E G G A L I V D D K I H H E V G F F D Y D G I V I L N A G A Y T H T S S V A  
UniRef90\_W2UT75 E A D C F Q Q S N N H H E G G A L I V D D K I Q Q R A A R V K F D D G I V I L N P A G A Y T H T S S V A  
UniRef90\_R5D1G9 N G A K L F Q Q S N N H H E G G A L I V D D K I H H E T G F F T Y D G I V I L N A G A Y T H T S S V A  
UniRef90\_R7G1X7 E L S Y F Q Q S N S H H E G G A L I V D K I H H E T G F F T Y D G I V I L N A G A Y T H T S S V A  
UniRef90\_F8WXB3 E E L S Y F Q Q S N S H H E G G A L I V D K I Q Q D A R D G V F D G I V I L N A A G A Y T H T S S V A  
UniRef90\_A3XMQ5 N L E T F Q Q S N A E H A L I T K R I H H Q Q A R D G T A L I L I N P A A F T H T S S V A  
UniRef90\_UPI0003B6E25F K L S T F Q Q S N V E G E L V N Q I Q K S R N N Q D G L I I N A G G Y T H T S S V A  
UniRef90\_UPI00035C3DA7 Q E I A F F Q T N A H E H E L I V D L I H H Q Q S R N N Q D G L I I N A G G Y T H T S S V A  
UniRef90\_X1JHP1 N I K F F Q Q S N H H E G E L I V D V L H H Q K V K R D S F A L L I N P A A Y T H T S S V A  
UniRef90\_Q2K924 D I D F F R Q Q S N H H E G G T L V D W L H H E A D E K A A G V A I N A A A Y T H T S S V A  
UniRef90\_A5EVX2 Q L E S F F Q Q S H H A E H E L I D D L I V Q Q A A G H Q V D F I L E N P A A F T H T S S V A  
UniRef90\_D1P1X9 K L S H F F Q Q S N H A E H E L I D D R V H H A A K D N T D I L I N P A A F T H T S S V A  
UniRef90\_R6J179 T T V E F Y Q Q S N H H E G G D L V D D A I Q K A A Y D G D G I V I L N P A A Y T H T S S V A  
UniRef90\_UPI00035F4D24 N T V D F F Q Q S N H H E G G A L I V D D K I H H A A E E N S F D G I V I L N P A G A L T H T S S V A  
UniRef90\_T2KL27 T E L S Y F Q Q S N H H E G G E L I V D D K M H H E V G F S F D G I V I L N A A A Y T H T S S V A  
UniRef90\_UPI0003809A69 E V T T F Q Q S N H H E G G E L V E R K V H H Q S R T D S H D G V I V L N P A A A Y T H T S S V A  
UniRef90\_UPI0003F7CCCC Q T L H Y F Q Q S N H H E G G E L I D S K V H H E V G F S F D G I V I L N A G A Y T H T S S V A  
UniRef90\_UPI0003769B9 N I D Y F R Q Q S N H H E G G E L I D S K V H H E V G A D H G W P V I V I N P G G F T H T S S V A  
UniRef90\_R7N9R3 K V E V F Q Q S N H H E G G A L I D S K L H H E A Y N D V D G I V I L N P G A F T H T S S V A  
UniRef90\_K4IM93 T L S Y F Q Q S N S E E G Q L I S D K I H H E A D D N V D G I I I F N A A A Y T H T S S V A  
UniRef90\_R5URG3 E I V Y Y Q Q S N S E E G Q L I S D K I H H E V G F E Y D G I I I F N A A G G Y T H T S S V A  
UniRef90\_X2H9C3 T L E T L Q Q S N A E H H V L T E R I Q A A T D D T R F I I I N P G A F T H T S S V A  
UniRef90\_A1UFJ2 K V S V R Q Q S N D S E E G A E L T G W K I H H A A A D A G E P V V L N A G A L T H T S S V A  
UniRef90\_C2G4A5 N L N Y F Q Q S N S E E G A L I D D K I H H E V G F D I D G L V L N A G A Y T H T S S V A  
UniRef90\_C8XHT4 E L R F L Q Q S N H H E G G Q L I D D W L H H E T G G E S I G M V Y N P G A H T H Y S S V A  
UniRef90\_C0GE47 A L E T F Q Q S N H A E A V L I E R A Q A A T T E A D G F I I I N P P A A F T H T S S V A  
UniRef90\_V7IAW9 A F E A V Q Q S N A E A V L I E R A Q A A A D H T A F I I I N P P A A Y T H T S S V A  
UniRef90\_D9R3F6 E L E Y Q Q S N Y E E G G I I V D K I Q Q E A Y H N T A F I I I N P G A F T H T S S V A  
UniRef90\_K9PBF0 E L T C F Q Q S N H H E G A L V D D R I H H A A G G Q Q A D G G I V I L N A A A Y T H T S S V A  
UniRef90\_I5B771 C L D F F Q Q S N H H E G A L V D D R I H H A A G G Q Q A D G G I V I L N A A A Y T H T S S V A  
UniRef90\_W4QIX4 E V H C F Q Q S N S E E G Q I V D W I H H E A G E K N A S M I I N P G A Y T H T S S V A  
UniRef90\_D4CW73 D F T F L Q Q S N H H E G E L V D D Y I H H K A E E K Y D G I V I L N A G G Y T H T S S V A  
UniRef90\_G2ISE4 E I D F R Q Q S N H H E G H L V D W L H H E A A E S A T A V I L N A G A L T H T S S V A  
UniRef90\_W3ABB3 N L M C M Q Q S N H H E G E L I D D W I H H A A D D G T E G I V I L N A G A Y T H T S S V A  
UniRef90\_A0Y8R0 H L L S M Q Q S N A E E Y E I E R I H H A A R E G I N F I E N P A A F T H T S S V A  
UniRef90\_S0FNK4 E T D F I Q Q S N H H E G E I I D R L H H A A R G V Y Q V I I N A G A Y T H T S S V A  
UniRef90\_UPI00034B54A3 T L E I V Q Q S N H H E G V L I D D A I H H A S R D K Q V G L L I N P G A Y T H T S S V A  
UniRef90\_UPI00047C49CE A V D L A Q Q S N S E E S A L I E R I Q S C Y N R M D G F I I I N A G A Y T H T S S V A  
UniRef90\_F9ZKCO K L D F F Q Q S N A E S A L I E R I Q R T N D G T N F I I I N P A A A Y T H T S S V A  
UniRef90\_UPI00040E4E0E E L I C I Q Q S N H H E G T L V D E I Q H Y G T Q V D A V I L N P G A F T H T S S V A  
UniRef90\_UPI00036A53C6 K L T F R Q Q S N H H E G L I D D A I Q Q E A R P G N S A S A L I L N A A A Y T H T S S V A  
UniRef90\_T0JMJ7 E L V F M Q Q S N Y E E G K L I D D A I Q Q A P G N S A S A L I I N P A A A Y T H T S S V A  
UniRef90\_R7N411 T A E V F Q Q S N H H E G A L I D D R I Q D A Y D G T E G I V I L N P G A F T H T S S V A  
UniRef90\_D9UZ96 D V E L Y R Q T D H H E G S M V G W L H H E A A D A G A P V I V I N A G A W T H T S S V A  
UniRef90\_R6UFR7 S V D L Y Q Q S N H H E G S L V D C I Q Q A Y D K V D G I V I L N P G A Y T H T S S V A  
UniRef90\_B5JY97 S L D S F Q Q S N H H E G E L V D R I H H A A R E Q T D Y I L I N P G A F T H T S S V A  
UniRef90\_UPI00036A0A59 T L D F R Q Q S N H H E G D L V D D A I H H E A G G L L A G V I L N A G A Y T H T S S V A  
UniRef90\_A8ZUK0 V L E S F Q Q S N S E S A I V E K I Q T L V D D V H G V I V I N P A A A Y T H T S S V A  
UniRef90\_UPI00036D32E6 E V I T K Q Q S N S E G D I I D A I Q S L S Y Q A D G L I I N P G A Y T H T S S V A  
UniRef90\_I0JNV7 E V E F Q Q S N H H E G D L I D D Q L H H K A D V Q A A S A V I M N P G A Y T H T S S V A  
UniRef90\_D1ZR99 R L S T F Q Q S N H H E G A I I D D R I H H Q A A D K L S A I I I N P A G A Y T H T S S V A  
UniRef90\_UPI00036172EE A A Q C L Q Q F S H H E G D L V D D A I H H N A Q E T A D F I I I N A A A Y T H T S S V A  
UniRef90\_W8TC99 E V E L C Q Q S N H H E G E L I V G F V Q E A Y G K Y D G I V I L N A A A Y T H T S S V A  
UniRef90\_A9W1P2 A L T F R Q T N H H E G E L V T F V Q E A G A V G A G V I L N A A A Y T H T S S V A  
UniRef90\_UPI00036B39BE E L D F H Q Q S N A E H H V L I D H I Q A A R G A A F A V I N P A A Y S H T S S V A  
UniRef90\_R5L0N0 K I S F F Q Q S N H H E G D L I D D M I Q Q E A R G E E Y D G V V L N A G A Y T H T S S V A  
UniRef90\_UPI0003B68052 E V G C R Q Q S N H H E G E L V D D A L Q Q E A G R D P D G V V L N A G A C T H T S S V A  
UniRef90\_U6B8V3 Q F R F E Q Q S N H H E G R L I D D V L H H E E R G A D G I V I F N A A A Y T H T S S V A  
UniRef90\_C7PVR7 D V E V R E T N D H E G Q L V R W L H H E A A D G R I P V V I N P P A A F T H T S S V A  
UniRef90\_J1K2A5 R G I F H Q Q S N H H E G E L V E Y I H H E A I K T A H Q G I I I N P P A A Y S H T S S V A  
UniRef90\_UPI0003816CE8 E V D F K Q Q S N Y E E G E L V E F I Q T A Y G N Y A G G I I I N P A A Y T H T S S V A  
UniRef90\_E8LL04 S I E H F Q Q S N H H E G A L V D K I Q S V M G K A S C I L I N A G A Y T H T S S V A  
UniRef90\_C2M4H7 S E L S Y F Q Q S N H H E G A L L D K I H H E V G F S Y D G I I L N A G A Y T H T S S V A  
UniRef90\_UPI000470FD2F A I E T F Q Q S N H H E A A L I D K I H T A Q A P V V G M I I I N P A A F T H T S S V A  
UniRef90\_R6TEX4 E V T F F Q Q S N H H E G A L I D D A I Q Q A Y A H V D G I I N P A A Y T H T S S V A  
UniRef90\_I4EYA8 D V D C S Q Q S N H H E G A L I D D T L H H A A R S T H A G G L V L N A A G L T H T S S V A  
UniRef90\_G5F4I9 H C D C Y Q Q S N H H E G D L V D D A I Q D A Y G S A D G I V I L N P A A Y T H T S S V A  
UniRef90\_H1H4L5 E L D Y Y Q Q S N H H E G E L I N K I H E V G F S Y D A I V I L N A G A Y T H T S S V A  
UniRef90\_UPI00037E7F41 A V D T R Q Q S N H H E G H L V D W L Q E A G A R G A A V I L N A G A L T H T S S V A  
UniRef90\_D4W6G9 E I E V L Q Q S N Y E E G Q I I E W L Q K A Y F E Y D G V I L N P G A F T H T S S V A  
UniRef90\_A0LUG8 D V D V R Q Q S N D E E A E L I S W L H G G A A D T R T P V V L N P A A F T H T S S V A  
UniRef90\_UPI000255C927 A V E L I Q Q S N H H E G E L V D D A V Q G A A V G G A D G V I V I N P A A Y T H T S S V A  
UniRef90\_A9WTJ3 S V E C I Q Q S N H H E G D L I D D A I H A A R G T A D G I V I N A G A Y S H T S S V A  
UniRef90\_C0QI59 E V T D F Q Q S N S E E G A L I T A I H Q A F R E K I D G V I N P A A Y T H T S S V A  
UniRef90\_J2LA08 A C E F R Q T N H H E G V M V D W V Q E A F E K A A A L V I N P A G L S F R S I P  
UniRef90\_UPI00038083FE T V I E V R Q S D D E A E V I H W M H Q A V D E K T P I V L N P A A F T H Y S Y G

	90	100	110	120
UniRef90_UPI000378C3B0	L L D A L	K S V S K P K I V E I H L	S N N I Y A R E E D S F R Y R K N S	L T S E G V E G L
UniRef90_K9U278	L R D A L	A A V K M P T V V E V H L	N N I Y A R E E S A D F F R H H S	V L T P V C A G Q I
UniRef90_UPI0003B4542B	L A D A L	E A L Q V T P V V E V H M	S N D L H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_R6IZ00	M R D A L	E A V L Q V T P V V E V H M	S N D L H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI0003B46447	I H D A L	K T F D Q G Y P I V E E V H L	S N S N P H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_V5PN14	I L R D A L	S G V I T G T P F V V E V H L	S N S N V H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_E0NVB3	L Q D C	R A I T A P T V V E V H L	S N S N V H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI0003818C66	L S D A L	A G V T S P V M E I H I	S N S N I Y H K R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI000407D9C6	L L D A L	K M F D G G K T I E V H L	S N S N V H H K R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_E3HA16	L R D A L	L A T D G I K T I E V H L	S N S N V H H K R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_E1GUL8	L S D C	K A I T T P V V E V H L	S N S N I N S R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_K9Y735	I R D A L	S G V I S N L P V V E V H L	S N S N I Y Q R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_I0QYH8	I R D A L	V T A G I S N L P L F E V H L	S N S N V Y K R D A S F F R R R H H S	V L T P V C A G Q I
UniRef90_L7LAU8	L L D A L	V L P E V V I V E V H L	S N S N V H H A R E E E S F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI0003B3B93C	L R D A L	A A I D A T P V V E V H M	S N S N V H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_D1VZ42	L L D C	R S I A D T P V V E V H L	S N S N V H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_W2UT75	I G D A L	K G I Q T P V V E V H L	S N S N T F A R E E E D F F R R R H H S	V L T P V C A G Q I
UniRef90_R5D1G9	I Y D A L	R A V A D V P A V E V H L	S D D T R N A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_R7G1X7	I L D A L	K A V A V P T V E V H L	S D D T R N A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_F8WXB3	H D A L	K A V T T P V V E V H I	S N S D T H A R E E E N F F R R R H H S	V L T P V C A G Q I
UniRef90_A3XMQ5	I G D A L	A A V S V P F I E L H L	S N S N T F A R E E E A F F R R R H H S	V L T P V C A G Q I
UniRef90_A0A023NZ93	I R D A L	A G V A I P F I E L H L	S N S N V H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI0003B6E25F	H D A L	K I L K I P F I E L H L	S N S N I Y A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI00035C3DA7	I R D A L	L A T Q I P F I E V H L	S N S N V Y A R E E E P F F R R R H H S	V L T P V C A G Q I
UniRef90_X1JHP1	I R D A L	G A T Q I P F I E V H L	S N S N V Y A R E E E P F F R R R H H S	V L T P V C A G Q I
UniRef90_Q2K924	L H D A L	R A I S I P V V E V H L	S N S N V H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_A5EVX2	L R D S L	L A V E I P P C I E V H L	S N S N I Y A R E E E L F F R R R H H S	V L T P V C A G Q I
UniRef90_D1P1X9	L R D A L	L A V E I P F I E I H L	S N S N I Y A R E E E L F F R R R H H S	V L T P V C A G Q I
UniRef90_R6J179	I A D A L	V K G V G I P T V E V H I	S E V S A R E E E A F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI00035F4D24	I R D A L	S S I T V P V V E V H I	S N S N T F A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_T2KL27	I G D A L	V K A I E T P V V E V H I	S N S N T F A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI0003809A69	L R D A L	F L A C Q M P F V E V H L	S N S N T Y A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI0003F7CCCC	I G D A L	V K S L T T P V V E V H L	S N S N T F A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI0003769B99	I R D A L	A A D G D G F V V E V H L	S N S N V H H A R E E E P F F R R R H H S	V L T P V C A G Q I
UniRef90_R7N9R3	V R D A L	A S T A T P K I E V H I	S N S N V H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_K4IM93	I G D T	V S K A I T P V V E V H I	S N S N T A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_R5URG3	I A D A L	V S A V K A V V I E V H I	S N S N T A R E E E G F F R R R H H S	V L T P V C A G Q I
UniRef90_X2H9C3	I R D A L	F A A A G K P F I E I H I	S N S N V H H A R E E E A F F R R R H H S	V L T P V C A G Q I
UniRef90_A1UFJ2	L R D A L	C A E L S A P L I E V H I	S N S N V H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_C2G4A5	I G D A L	A A V K T A V I E V H I	S N S N V Y A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_C8XHT4	I R D A L	E G A Q V P V V E V H I	S N S N V H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_C0GE47	L R D A L	A D Y S G G P V V E V H L	S N S N V H H A R E E E P F F R R R H H S	V L T P V C A G Q I
UniRef90_V7IAW9	L R D A L	A A A G K P F I E V H L	S N S N V H H A R E E E P F F R R R H H S	V L T P V C A G Q I
UniRef90_D9R3F6	V R D A L	L G S V E I P K V E V H I	S N S N V H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_K9PBF0	I R D A L	L A V A L P F V E V H L	S N S N T H A R E E E P F F R R R H H S	V L T P V C A G Q I
UniRef90_I5B771	L R D A L	S M L S C P I V E V H L	S N S N T H H A R E E E T F F R R R H H S	V L T P V C A G Q I
UniRef90_W4QIX4	I R D A L	A S V S V P V M E V H I	S N S N V H H A R E E E S F F R R R H H S	V L T P V C A G Q I
UniRef90_D4CW73	H D A L	K A V S I P T V E V H I	S N S N H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_G2ISE4	I L D A L	K A S I S V P V I E V H I	S N S N P A R E E E S F F R R R H H S	V L T P V C A G Q I
UniRef90_W3ABB3	I R D A L	A A V H V P V V E V H I	S N S N V Y K R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_A0Y8R0	I R D A L	L G V G I P F I E I H I	S N S N I H H K R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_S0FNK4	I R D A L	K S I H I P T I E I H L	S N S N I H H K R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI00034B54A3	I R D A L	A G V E I P T V E V H L	S N S N I H H R E E E P F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI00047C49CE	I R D A L	K S V D I P C I E V H M	S N S N V Y S R E E S F F R R R H H S	V L T P V C A G Q I
UniRef90_F9ZKC0	M R D A L	A A V R L P F I E V H L	S N S N I Y S R E E S F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI00040E4E0E	L R D A L	L A T Q K P F I E V H L	S N S N L H S R E E S P F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI00036A53C6	I H D A L	K T L E V T P I E V H L	S N S N P H S R E E F F R R R H H S	V L T P V C A G Q I
UniRef90_T0JMJ7	V R D A L	A A V N V P A I E V H I	S N S N T Y H C R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_R7N411	I R D A L	A S V T M P K M E I H I	S D I T Q R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_D9UZ96	V R D A L	A S Q L T A P I E V H L	S N S N V H H K R E E F F R R R H H S	V L T P V C A G Q I
UniRef90_R6UFR7	I L D A L	K A V A P Q T I V E V H L	S A V D D R E E F F R R R H H S	V L T P V C A G Q I
UniRef90_B5JY97	L R D A L	L G V D I P F I E V H L	S N S N T H K R E E H F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI00036A0A59	I L D A L	K G T A V P L V E V H L	S N S N V Y A R E E A F F R R R H H S	V L T P V C A G Q I
UniRef90_A8ZUK0	I R D A L	L L T S I P L V E V H I	S N S N I Y A R R E E P F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI00036D32E6	I A D A L	R D C P I P K I E V H L	S N S N I Y S R E E S G F F R R R H H S	V L T P V C A G Q I
UniRef90_I0JNW7	L R D A V	S A L S L P V V E V H I	S N S N I H H A R E E A F F R R R H H S	V L T P V C A G Q I
UniRef90_D1ZR99	I R D A L	L G T G I P F V V E V H I	S N S N V H H A R E E A F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI00036172EE	L R D A L	A S V N V P A I E V H L	S N S N I H H A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_W8TC99	I H D A L	K G V G L P A I E V H I	S N S N I H H A R E E F F R R R H H S	V L T P V C A G Q I
UniRef90_A9W1P2	L R D A L	K G A G V T A V E I H L	S N S N V H H A R E E D F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI00036B39BE	L L D A L	N A F E G V I E V H L	S N S N I H H R E E E A F F R R R H H S	V L T P V C A G Q I
UniRef90_R5L0N0	I R D A L	I E S V N L P F V E V H M	S D L H H A R E E F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI0003B68052	L H D A L	K G A V R V V V E V H V	S N S N P H A R E E P F F R R R H H S	V L T P V C A G Q I
UniRef90_U6B8V3	L R D A L	A A I E A P V I E V H L	S N S N V H H A R E E S F F R R R H H S	V L T P V C A G Q I
UniRef90_C7PVR7	M S D A L	K L R T A P L I E V H I	S N S N P H A R E E P F F R R R H H S	V L T P V C A G Q I
UniRef90_J1K2A5	L L D A L	K M F G G P V V E V H L	S N S N H H A R E E Q F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI0003816CE8	L L D A L	K A V G L P A I E V H I	S N S N I H H K R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_E8LL04	I R D A L	L G T A T P F F E I H I	S N S N I H H A R E E F F R R R H H S	V L T P V C A G Q I
UniRef90_C2M4H7	L H D A L	R A I T T P V V E V H I	S N S N T F A R E E A F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI000470FD2F	L R D A L	S A V K I P F I E V H L	S N S N H A R E E S F F R R R H H S	V L T P V C A G Q I
UniRef90_R6TEX4	L L D A V	K A V G I P T V E V H I	S D P D G R E E F F R R R H H S	V L T P V C A G Q I
UniRef90_I4EYA8	L R D A V	A A S E L P F V E V H I	S T N V H A R E E P F F R R R H H S	V L T P V C A G Q I
UniRef90_G5F4I9	L L D A L	K A V G I P A V E V H I	S R L E E R E E D F F R R R H H S	V L T P V C A G Q I
UniRef90_H1H4L5	I A D A L	S G I T A P V I E V H I	S N S N T H A R E E D F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI00037E7F41	H D A L	K A I S V P V I E V H L	S N S N P H A R E E S F F R R R H H S	V L T P V C A G Q I
UniRef90_D4W6G9	L H D A L	K A I D V P T V E V H L	S N S N V H H A R E E A F F R R R H H S	V L T P V C A G Q I
UniRef90_A0LUG8	L R D A V	A M R T A P L V E V H L	S N S N P A R E E E F F R R R H H S	V L T P V C A G Q I
UniRef90_UPI000255C927	L H D A L	T A V A R A P T V E V H L	S N S N V H H A R E E F F R R R H H S	V L T P V C A G Q I
UniRef90_A9WTJ3	L R D A L	S S V Q L P A V E V H I	S N S N V H H A R E E D F F R R R H H S	V L T P V C A G Q I
UniRef90_C0QI59	I K D A L	L L L D H C P V I E V H V	S N S N I Y K R D A F F R R R H H S	V L T P V C A G Q I
UniRef90_J2LA08	V L D A L	K T L D Q P I A E V H V	T N Y K R D A F R R R H H S	V L T P V C A G Q I
UniRef90_UPI00038083FE	L A D A A	A Q V N I P L I E V H I	S N P A S R E T F R R R H H S	V L T P V C A G Q I

UniRef90\_UPI000378C3B0 C G F G S L S Y L L A I K A L N  
UniRef90\_K9U278 S G F G V Q S Y R L G L H A L I H H  
UniRef90\_UPI0003B4542B C G F G V E S Y L L G L R  
UniRef90\_R6IZ00 C G F G K D S Y K M G I D L L L E  
UniRef90\_UPI0003B46447 A G A G A Y G Y E L A T R L A A E K  
UniRef90\_V5PN14 C G L G W R G Y T Y A L D F A L R  
UniRef90\_E0NVB3 C G F G L L S Y R L A L E A L I N  
UniRef90\_UPI0003818C66 S G L G L K G Y E L G L Q Y F L S N  
UniRef90\_UPI000407D9C6 A G L G A T G Y V L A I D A L A D  
UniRef90\_E3HA16 A G F S Y Y G Y I M A L I D Y I K E  
UniRef90\_E1GUL8 Q G F G L D S Y R L A I E A L L K  
UniRef90\_K9Y735 S G F G A D S Y R L G L E A L V R Y  
UniRef90\_I0QYH8 C G F G I Q G Y E Y A I R K A A K  
UniRef90\_L7LAU8 A G F G I R G Y E F A V R H L V  
UniRef90\_UPI0003B3B93C V G F G A L S Y E L A L A A I K E  
UniRef90\_D1VZ42 A G F G L N S Y K L A I E A V V  
UniRef90\_W2UT75 L G F G M Q G Y D L A L K S F  
UniRef90\_R5D1G9 V G H G F D G Y L E A L V L L A E  
UniRef90\_R7G1X7 S G H G T D G Y T E A V D A L I S K  
UniRef90\_F8WXB3 V G L G L L S Y E F A I D Y F L K  
UniRef90\_A3XMQ5 V G F G L Q S Y E L A L K S F L  
UniRef90\_A0A023NZ93 C G F G A D S Y  
UniRef90\_UPI0003B6E25F C G F G V D G Y L M S L Q A I K K  
UniRef90\_UPI00035C3DA7 C G L G A T G Y E L A L Q A A H Q  
UniRef90\_X1JHP1 C G F G I D S Y L L G L Q A A I K  
UniRef90\_Q2K924 C G F G A H S Y I L A L H A L K N  
UniRef90\_A5EVX2 S G L G A I G Y E L A V L A A H Q H  
UniRef90\_D1P1X9 C G L G A E G Y S F A L Q A A V N  
UniRef90\_R6J179 C G H G L D G Y N E A L D F L I D Y  
UniRef90\_UPI00035F4D24 A G L G L Y G Y E L A L K F F T E  
UniRef90\_T2KL27 L G F G L Q S Y E L A I T S F L  
UniRef90\_UPI0003809A69 A G F G A K S Y L L A L R G L A D Y  
UniRef90\_UPI0003F7CCCC V G F G L K S Y D L G L Q S F L  
UniRef90\_UPI00037699B9 A G L G S Y G Y L A A L G Y F  
UniRef90\_R7N9R3 V G L G L R G Y L Y A M E A L T D  
UniRef90\_K4IM93 L G F G L R S Y E L A I M S E T N  
UniRef90\_R5URG3 A G F G L D S Y E L A L Q A L  
UniRef90\_X2H9C3 C G L G V Y G Y E A A L H R A I E Y  
UniRef90\_A1UFJ2 V G L G V Q G Y V L A L R Y L A  
UniRef90\_C2G4A5 C G F G L D G Y R L A I E G L I  
UniRef90\_C8XHT4 V G F G V V G Y S L A V R G L Y E  
UniRef90\_C0GE47 S G F G F D S Y L L G L R A A V N  
UniRef90\_V7IAW9 C G L G A H G Y A A A L D F A I E Y  
UniRef90\_D9R3F6 V G L G L K G Y A L A M D F L  
UniRef90\_K9PBF0 C G F G P T S Y R L A L E G L V A H  
UniRef90\_I5B771 T G F G H Y G Y S M A L D F L  
UniRef90\_W4QIX4 V G L G F K G Y  
UniRef90\_D4CW73 T G L G K L G Y V L A V V Y L T E  
UniRef90\_G2ISE4 A G F G P L S Y M L A L E A A L E  
UniRef90\_W3ABB3 T G F G Q D V Y  
UniRef90\_A0Y8R0 S G L G S E G Y L L A L Q A A I  
UniRef90\_S0FNK4 C G F G K M S Y I L A L H A A A N  
UniRef90\_UPI00034B54A3 S G F G P A S Y E L G L R A L A N Y  
UniRef90\_UPI00047C49CE A G F G A Y S Y I L A L Q Y F  
UniRef90\_F9ZKC0 S G L G A K G Y E L A L K Y A  
UniRef90\_UPI00040E4E0E C G L G H L G Y Q M A L E Y W L A H  
UniRef90\_UPI00036A53C6 A G L G S A G Y S L S V E A A V  
UniRef90\_T0JMJ7 A G F G A N S Y  
UniRef90\_R7N411 Y G R G L A G Y L E A M E K V A N  
UniRef90\_D9UZ96 L G L G V E G Y G L A L R W I A A N  
UniRef90\_R6UFR7 K G H G L K G Y L E A I D W F I  
UniRef90\_B5JY97 M G L G T Q G Y S L A L Q A V A Q H  
UniRef90\_UPI00036A0A59 C G W G V Q G Y A M A I D G L  
UniRef90\_A8ZUK0 A G F G K A G Y L L A V Q A M A  
UniRef90\_UPI00036D32E6 A G F G Y E S Y I L A L Y A L K D  
UniRef90\_I0JNV7 V G F G I D G Y R L A A L A I T K Q  
UniRef90\_D1ZR99 C G L G P F G Y S A A L E F A G R H  
UniRef90\_UPI00036172EE S G F G V H S Y L A A V E A A  
UniRef90\_W8TC99 C G L G I H G Y V L A L M A L  
UniRef90\_A9W1P2 S G F G A H S Y V L G L D A L A  
UniRef90\_UPI00036B39BE C G C G V Q G Y G L A I Q  
UniRef90\_R5L0N0 C G Y G K D S Y K M G I D L L L E  
UniRef90\_UPI0003B68052 A G A G V R G Y G W A V D H L A  
UniRef90\_U6B8V3 A G L G M T G Y R L A T E A L  
UniRef90\_C7PVR7 A G F G I N S Y L L A L R A L S E  
UniRef90\_J1K2A5 A G C G S K G Y E F A I H F I M N  
UniRef90\_UPI0003816CE8 S G L G V Y G Y K L A M L A L K E H  
UniRef90\_E8LL04 V G F G L D G Y E F A L R K A A R  
UniRef90\_C2M4H7 V G F G M E S Y R L A L E S F L  
UniRef90\_UPI000470FD2F S G L G A K G Y Q L A L D Y A I N  
UniRef90\_R6TEX4 K G H G L P G Y L E A L R L L C S N  
UniRef90\_I4EYA8 V G A G V R G Y V F G L E V L H D  
UniRef90\_G5F4I9 S G M G I G G Y R E A I R L A D H  
UniRef90\_H1H4L5 L G F G L K S Y D L A I A S L  
UniRef90\_UPI00037E7F41 S G F G A A S Y R L A L D A A  
UniRef90\_D4W6G9 C G F G E F G Y I L G L M A L E N N  
UniRef90\_A0LUG8 A G F G L D S Y  
UniRef90\_UPI000255C927 A G A G I T G Y R L A I E L L A E  
UniRef90\_A9WTJ3 V G A G I S G Y K F A I E R L A  
UniRef90\_C0QI59 T G L G S L G Y R L A L R A L K E  
UniRef90\_J2LA08 C G F G P F G Y E L A L G A L A Q  
UniRef90\_UPI00038083FE A G F G F Y G Y R L A L E A V L N



	1	10	20	30	40
UniRef90_F7NKU3					
UniRef90_UPI00016BFB57	MK	I	C	I	I
UniRef90_UPI0003681C76	MK	V	Q	L	I
UniRef90_K2GP90		L	L	V	L
UniRef90_J1J680		I	T	V	L
UniRef90_L0B748	K	L	L	L	H
UniRef90_Q7VDJ2	MK	F	L	L	L
UniRef90_N0DZG5	T	V	L	V	I
UniRef90_I0RBR7	MK	I	L	V	L
UniRef90_R4LR50	MT	V	Y	V	L
UniRef90_L0K8Q6	M	I	L	V	I
UniRef90_E6S8X1	T	V	F	V	L
UniRef90_F9YQ56					
UniRef90_A0A017RY38	MK	I	I	I	I
UniRef90_A8FJM2	MK	L	M	I	I
UniRef90_X0VP83	MR	F	L	L	I
UniRef90_E9F6P2					
UniRef90_W7DUT0		V	Y	V	L
UniRef90_I0TFY7	MK	V	I	I	I
UniRef90_R7R873	MK	L	L	V	I
UniRef90_R5BC10	MK	L	L	I	I
UniRef90_9V2K5		V	F	V	L
UniRef90_UPI0003B4344D	K	L	Y	I	I
UniRef90_G5ZY00		I	L	V	I
UniRef90_F8GR31	MK	K	V	L	V
UniRef90_R6BDV0	MK	V	L	V	L
UniRef90_V8BUL8	MK	I	Q	I	I
UniRef90_UPI0003828B1D					
UniRef90_UPI0003810902	I	N	I	L	V
UniRef90_J3A8F5		V	Y	V	L
UniRef90_R5HJ23	MN	L	L	V	I
UniRef90_U9VZP2					
UniRef90_B0S2R5	MK	L	F	I	I
UniRef90_E4TZX5	MK	I	V	V	I
UniRef90_W9X0B1	K	I	L	L	I
UniRef90_G5GCM8	MK	I	L	I	M
UniRef90_UPI00047C4153	MN	I	V	I	I
UniRef90_Q0AZH6	L	K	I	C	F
UniRef90_E3JA28		I	L	V	L
UniRef90_F4LTY1	MN	I	L	I	I
UniRef90_A6DBP4	MK	I	K	V	I
UniRef90_D5BSN4		I	L	V	L
UniRef90_R4Z2N5	T	V	L	L	L
UniRef90_X5DL91	MK	L	L	I	I
UniRef90_E1KR81	MK	L	L	I	I
UniRef90_UPI000479AD82	MK	L	L	V	I
UniRef90_UPI0003659EEA		L	L	V	L
UniRef90_C2C176	K	L	L	V	I
UniRef90_UPI000372D4B3	R	L	L	L	H
UniRef90_S0FZR0	I	F	V	L	I
UniRef90_A7I2M4	MK	I	M	V	I
UniRef90_UPI000360E6A0					
UniRef90_C7HV13	MR	I	L	I	I
UniRef90_K0YLM0	MR	F	L	V	I
UniRef90_T1CMQ0	MK	I	L	V	I
UniRef90_UPI000413A2E7	MK	I	C	I	I
UniRef90_R9PTE8					
UniRef90_UPI000376780F	ME	I	M	I	I
UniRef90_W3RE35	T	I	Y	V	L
UniRef90_A3UD44					
UniRef90_UPI00036DF519	R	I	L	V	L
UniRef90_F2I2G6	L	K	I	Q	I
UniRef90_R4WZC0	MK	I	Y	V	L
UniRef90_C0EHE6	MK	V	I	V	I
UniRef90_B6BVN1	MK	I	A	L	I
UniRef90_Q11HL6	T	V	Y	V	L
UniRef90_R7GYP9	K	V	L	V	I
UniRef90_UPI0003B48DC4	K	V	I	V	V
UniRef90_F8AZY3	MK	N	V	L	V
UniRef90_UPI0004741F8F	N	I	L	L	I
UniRef90_K2NXR9	T	V	F	I	L
UniRef90_C7DA39	T	I	L	V	L
UniRef90_E6U6S3	R	V	L	V	L
UniRef90_B3ECB3	L	S	I	L	V
UniRef90_A0A010PAR6	R	L	L	I	I
UniRef90_D9QJF0		L	Y	V	L
UniRef90_UPI0002192930	T	V	T	V	V
UniRef90_U7JV43	T	I	L	V	L
UniRef90_UPI00037DE8FA					
UniRef90_UPI0003727A37		V	L	V	L
UniRef90_J0KIC2	MK	I	L	V	L
UniRef90_A3W9G6	T	V	F	V	L
UniRef90_UPI0002F47972	MK	I	Q	I	I
UniRef90_UPI000379CE43	MK	I	I	I	I
UniRef90_X0YWL6	L	K	I	G	I
UniRef90_C1A4E4	M	I	L	G	V
UniRef90_B4V5N3		L	V	L	V
UniRef90_C4F8C1	MK	A	L	V	I
UniRef90_UPI00047928D6	MK	I	I	V	I
UniRef90_I4YPR4		I	Y	I	L
UniRef90_Q2NC77	T	V	F	I	L
UniRef90_E1QZZ3	R	L	L	V	I

UniRef90\_F7NKU3  
UniRef90\_UPI00016BFB57  
UniRef90\_UPI0003681C76  
UniRef90\_K2GP90  
UniRef90\_J1J680  
UniRef90\_L0B748  
UniRef90\_Q7VDJ2  
UniRef90\_N0DZG5  
UniRef90\_I0RBR7  
UniRef90\_R4LR50  
UniRef90\_L0K8Q6  
UniRef90\_E6S8X1  
UniRef90\_F9YQ56  
UniRef90\_A0A017RY38  
UniRef90\_A8FJM2  
UniRef90\_X0VP83  
UniRef90\_E9F6P2  
UniRef90\_W7DUT0  
UniRef90\_I0TFY7  
UniRef90\_R7R873  
UniRef90\_R5BC10  
UniRef90\_R9V2K5  
UniRef90\_UPI0003B4344D  
UniRef90\_G5ZY00  
UniRef90\_F8GR31  
UniRef90\_R6BDV0  
UniRef90\_V8BUL8  
UniRef90\_UPI0003828B1D  
UniRef90\_UPI0003810902  
UniRef90\_J3A8F5  
UniRef90\_R5HJ23  
UniRef90\_U9VZP2  
UniRef90\_B0S2R5  
UniRef90\_E4TZX5  
UniRef90\_W9X0B1  
UniRef90\_G5GCM8  
UniRef90\_UPI00047C4153  
UniRef90\_Q0AZH6  
UniRef90\_E3JA28  
UniRef90\_F4LTY1  
UniRef90\_A6DBP4  
UniRef90\_D5BSN4  
UniRef90\_R4Z2N5  
UniRef90\_X5DL91  
UniRef90\_E1KR81  
UniRef90\_UPI000479AD82  
UniRef90\_UPI0003659EEA  
UniRef90\_C2C176  
UniRef90\_UPI000372D4B3  
UniRef90\_S0FZR0  
UniRef90\_A7I2M4  
UniRef90\_UPI000360E6A0  
UniRef90\_C7HV13  
UniRef90\_K0YLM0  
UniRef90\_T1CMQ0  
UniRef90\_UPI000413A2E7  
UniRef90\_R9PTE8  
UniRef90\_UPI000376780F  
UniRef90\_W3RE35  
UniRef90\_A3UD44  
UniRef90\_UPI00036DF519  
UniRef90\_F2I2G6  
UniRef90\_R4WZC0  
UniRef90\_C0EHE6  
UniRef90\_B6BVN1  
UniRef90\_Q11HL6  
UniRef90\_R7GYP9  
UniRef90\_UPI0003B48DC4  
UniRef90\_F8AZY3  
UniRef90\_UPI0004741F8F  
UniRef90\_K2NXR9  
UniRef90\_C7DA39  
UniRef90\_E6U6S3  
UniRef90\_B3ECB3  
UniRef90\_A0A010PAR6  
UniRef90\_D9QJF0  
UniRef90\_UPI0002192930  
UniRef90\_U7JV43  
UniRef90\_UPI00037DE8FA  
UniRef90\_UPI0003727A37  
UniRef90\_J0KIC2  
UniRef90\_A3W9G6  
UniRef90\_UPI0002F47972  
UniRef90\_UPI000379CE43  
UniRef90\_X0YWL6  
UniRef90\_C1A4E4  
UniRef90\_B4V5N3  
UniRef90\_C4F8C1  
UniRef90\_UPI00047928D6  
UniRef90\_I4YPR4  
UniRef90\_Q2NC77  
UniRef90\_E1QZZ3

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

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

	90	100	110	120
UniRef90_F7NKU3	IYDAIKAVP90	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI00016BFB57	ADAILKRAITSTVDVI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI0003681C76	LDALRALGIVTGLCPFI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_K2GP90	LDALKMFSSGLKVV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_J1J680	LDALSAITGIPPI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_L0B748	LDALSTVIGIPPI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_Q7VDJ2	LDALSAITGIPPI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_N0DZG5	LDALVSAQRVLLVV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_I0RBR7	LDALLESLLDRAPLKI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_R4LR50	LDALCAALITVITPLV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_L0K8Q6	LDALAAIEVPIV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_E6S8X1	LDALCAALITVITPLV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_F9YQ56	LDALKSIITVITPLV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_A0A017RY38	IYDAIKSVVDVPAIV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_A8FJM2	LDALAAAVPTFTI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_X0VP83	LDALLEDAGLPLFI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_E9F6P2	LDALSGVDELPFV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_W7DUT0	LDALLSVLELPVI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_I0TFY7	LDALRSIQTLPLVI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_R7R873	LDALASITVPLKVV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_R5BC10	LDALKAVNPLAV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_R9V2K5	LDALKALIKAPLV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI0003B4344D	LDALSMFHGPKI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_G5ZY00	LDALSLKFSGVPKI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_F8GR31	LDALIKSGAAVPIEY	EVVHII	SNNTYH	AAAVGQVI
UniRef90_R6BDV0	LDALSSVQKPKV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_V8BUL8	LDALCISLAVCPV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI0003828B1D	LDALIAVGLPVT	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI0003810902	LDALJAVDLPFV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_J3A8F5	LDALRSIKVLPVI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_R5HJ23	LDALKAVNPLAV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_U9VZP2	LDALAAVVALPTV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_B0S2R5	LDALKAVNSLPT	EVVHII	SNNTYH	AAAVGQVI
UniRef90_E4TZX5	LDALKAIVSLPTI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_W9X0B1	LDALJATGFPFV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_G5GCM8	LDALRSITLCPV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI00047C4153	LDALIKSITDVPV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_Q0AZH6	IYDAIKAVTEVPI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_E3JA28	LDALAAALTGPLV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_F4LTY1	IYDAIKALDLPV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_A6DBP4	LDALKAVNLPV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_D5BSN4	LDALALAFTEGVP	EVVHII	SNNTYH	AAAVGQVI
UniRef90_R4Z2N5	LDALAAAGIKTPV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_X5DL91	LDALCIRAIKTPV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_E1KR81	LDALCIRAIKTPV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI000479AD82	IYDVALKAVITVPI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI0003659EEA	LDALJAVSIPFI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_C2C176	LDALKAVGIRTV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI000372D4B3	LDALAAAVAIPLV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_S0FZR0	LDALAMLTPV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_A7I2M4	LDALJAVSLPVL	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI000360E6A0	LDALSAVVALPVA	EVVHII	SNNTYH	AAAVGQVI
UniRef90_C7HV13	LDALKAVNLPV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_K0YLM0	LDALKAVGAIPLV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_T1CMQ0	IADAVKMSAVVPI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI000413A2E7	IYDVALKAVITVPI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_R9PTE8	LDALLAGIETPFI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI000376780F	IADALAGIETPFI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_W3RE35	LDALKAVQVPAV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_A3UD44	LDALKAVQVPAV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI00036DF519	LDALAAVAIPFV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_F2I2G6	LDALNTLNLPKI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_R4WZC0	LDALKLIKLPV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_COEHE6	LDALASVVKIPCI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_B6BVN1	LDALIGVGIPLFY	EVVHII	SNNTYH	AAAVGQVI
UniRef90_Q11HL6	LDALRAVRLPVI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_R7GYP9	LDALHADRILPVI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI0003B48DC4	LADMVLDADMPLI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_F8AZY3	LDALAAQVSTGPLV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI0004741F8F	LDALAGVSTPLV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_K2NXR9	LDALVRAADPLPVI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_C7DA39	LDALANNFEGPVA	EVVHII	SNNTYH	AAAVGQVI
UniRef90_E6U6S3	LDALIAAIRIPLTI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_B3ECB3	LDALIASAIKLPVV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_A0A010PAR6	IADALRAVNLPLV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_D9QJF0	LDALRALTLPI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI0002192930	LDALAAAGAGFI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_U7JV43	LDALAAERKGFVI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI00037DE8FA	LDALKGVVAPVI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI0003727A37	LDALSAIKTPI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_J0KIC2	LDALKAMFPPI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_A3W9G6	LDALAKAITTPI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI0002F47972	IADALAGIKTPV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI000379CE43	IADALVKGLETPV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_X0YWL6	IADALVKGLETPV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_C1A4E4	LDALFATAIPLFI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_B4V5N3	LDALVAQRTAQLI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_C4F8C1	LDALKAVGIPAV	EVVHII	SNNTYH	AAAVGQVI
UniRef90_UPI00047928D6	IADALKGVNIPSI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_I4YPR4	IADALKMFPGPLI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_Q2NC77	LDALIKAITMPLI	EVVHII	SNNTYH	AAAVGQVI
UniRef90_E1QZZ3	LDALKAVQVPAI	EVVHII	SNNTYH	AAAVGQVI

UniRef90\_F7NKU3 M G L G F D G Y V L A L Q A L V E  
UniRef90\_UPI00016BFB57 S G L G T A G Y K L A L L N Y F V N  
UniRef90\_UPI0003681C76 C G F G L D S Y R L A L L E A L L  
UniRef90\_K2GP90 V G L G A D G Y R L A L L E A A M T K  
UniRef90\_J1J680 S G C G S E G Y L L A L L E Y I A K Q  
UniRef90\_L0B748 S G L G L N G Y E A A L R Y A I D Y  
UniRef90\_Q7VDJ2 S G F G A M S Y S L A L L D G A L D  
UniRef90\_N0DZG5 I G R G I D G Y A E A L T W L A E Q  
UniRef90\_I0RBR7 A G L G L D G Y T L A M E Y I V K N  
UniRef90\_R4LR50 A G L G F D G Y R L A L M H I A  
UniRef90\_L0K8Q6 S G F G V D S Y T L A L L E Q A I R  
UniRef90\_E6S8X1 A G F G L Q S Y L L G L R A L V  
UniRef90\_F9YQ56 L G F G L Q G Y R L A L T S F L E K  
UniRef90\_A0A017RY38 S G F G T Y G Y I M A L H A I I  
UniRef90\_A8FJM2 V G F G P F G Y H L A L M G I I Q  
UniRef90\_X0VP83 S G Q G W E G Y  
UniRef90\_E9F6P2 C G L G V Y G Y E A A L E F V V R H  
UniRef90\_W7DUT0 C G L G L Q G Y  
UniRef90\_I0TFY7 Q G F G M N S Y R L A I E A F L  
UniRef90\_R7R873 Y G Q G L N G Y L M A I D W V I N K  
UniRef90\_R5BC10 A G Y G F E G Y K M A I E R L A  
UniRef90\_R9V2K5 A G L G V E G Y L L A L R A V C  
UniRef90\_UPI0003B4344D A G L G V N S Y L L A I D A V N K  
UniRef90\_G5ZY00 I G L G V N S Y L M A V R A V T D Q  
UniRef90\_F8GR31 A G L G V K G Y A L A V E  
UniRef90\_R6BDV0 C G F G A Q S Y  
UniRef90\_V8BUL8 A G F G L H S Y S L A I A G L L  
UniRef90\_UPI0003828B1D C G F G A D S Y R L G L H A L L V Q H  
UniRef90\_UPI0003810902 A G F G A M S Y Q L A L Q G L V  
UniRef90\_J3A8F5 A G F G A Q S Y M L A L E A A A  
UniRef90\_R5HJ23 M G L G L E G Y R K A I L F L K D Y  
UniRef90\_U9VZP2 C G F G V N S Y D L G L R A L V S Y  
UniRef90\_B0S2R5 K G K G A E G Y I E A L D F F L N  
UniRef90\_E4TZX5 I G F G P F G Y H L A M M G M L Q  
UniRef90\_W9X0B1 A G L G V Y G Y R A A L E F  
UniRef90\_G5GCM8 A G F G L H S Y R L G I E A L L R  
UniRef90\_UPI00047C4153 S G L G F D S Y I F G I R A L M N  
UniRef90\_Q0AZH6 F G F G A L S Y K M A F L A A C E  
UniRef90\_E3JA28 T G L G V D G Y L L A V R A L A  
UniRef90\_F4LTY1 C G F G I Y G Y I M A M L A L K N  
UniRef90\_A6DBP4 T G F G P F S Y H L G L L A M M Q  
UniRef90\_D5BSN4 A G F G A Q S Y Y M A I N F I A D  
UniRef90\_R4Z2N5 A G F G G D G Y R L A I A A V A R  
UniRef90\_X5DL91 M G F G L E S Y R L A I Q S F V N  
UniRef90\_E1KR81 Q G F G M E S Y R L A V E A L K T K  
UniRef90\_UPI000479AD82 C G F G F Y G Y I M A M M A L I E  
UniRef90\_UPI0003659EEA C G L G A S G Y R  
UniRef90\_C2C176 Y G K G F E G Y L Q A I E S L I K K  
UniRef90\_UPI000372D4B3 C G F G P H S Y T L A I Q A A I H Q  
UniRef90\_S0FZR0 T G F G H F G Y H M A L M A L H H H  
UniRef90\_A7I2M4 I G F G P I G Y H L A M M G M L Q  
UniRef90\_UPI000360E6A0 V G C G V Q G Y E F A V R R L A  
UniRef90\_C7HV13 K G K G F D G Y I E A I D F L K E N  
UniRef90\_K0YLM0 T G H G I E G Y R E A L L F L Q N  
UniRef90\_T1CMQ0 T G F G A Y G Y H L A L I A I  
UniRef90\_UPI000413A2E7 L G F G L N S Y E L A V Q S F L  
UniRef90\_R9PTE8 C G L G S Q G Y Q F A L T A A L N K  
UniRef90\_UPI000376780F V G F G L R G Y E L A V H Y L L  
UniRef90\_W3RE35 T G F G I E G Y R L A I M G L A A K  
UniRef90\_A3UD44 S G L G A R G Y E L G V R A A V Q  
UniRef90\_UPI00036DF519 C G L G P E G Y Q Y A L E F A L  
UniRef90\_F2I2G6 C G F G L N S Y I L A V D A I  
UniRef90\_R4WZC0 C G L G V Q G Y T L A V R A V A E  
UniRef90\_C0EHE6 A G F G K Y S Y L L G L Y A I K E  
UniRef90\_B6BVN1 C G L G K D G Y S A A I Q H I V K N  
UniRef90\_Q11HL6 C G L G P I G Y  
UniRef90\_R7GYP9 A G F G I Q S Y  
UniRef90\_UPI0003B48DC4 T G L G F F G Y K L A L L E A V A E  
UniRef90\_F8AZY3 T G L G F D S Y L L A L L R T I A  
UniRef90\_UPI0004741F8F C G L G V A G Y Q A A I E F A L R K  
UniRef90\_K2NXR9 C G L G T I G Y  
UniRef90\_C7DA39 I G K G V E G Y S I G L R A L  
UniRef90\_E6U6S3 I G F G K Y S Y V L A L Q G L V D  
UniRef90\_B3ECB3 S G F G V T S Y H L G V R A I L E  
UniRef90\_A0A010PAR6 A G A G L N G Y R Y A I D H L A  
UniRef90\_D9QJF0 S G F G A H S Y E L A I K A A L R  
UniRef90\_UPI0002192930 V G L G T D G Y A L A L R Y W A A H  
UniRef90\_U7JV43 C G L G V S G Y Y A A V D Y W A K N  
UniRef90\_UPI00037DE8FA C G L G L E G Y L L A L D A L A N  
UniRef90\_UPI0003727A37 S G L G A D G Y I A A L N Y A I N Q  
UniRef90\_J0KIC2 Q G F G P H S Y R L A A L R S L V E  
UniRef90\_A3W9G6 E G H G P D S Y R I A L E A V A  
UniRef90\_UPI0002F47972 T G F G L K S Y E L A I R S F L  
UniRef90\_UPI000379CE43 V G F G L K S Y E L A V Q S F L E  
UniRef90\_X0YWL6 A G F G C Q S Y I L A F H A L Q D  
UniRef90\_C1A4E4 C G L G A D G Y E F G L R G L V R  
UniRef90\_B4V5N3 A G L G I G S Y R L A L H A I A  
UniRef90\_C4F8C1 S G E G L A G Y A H A L E I L A E Q  
UniRef90\_UPI00047928D6 S G M G V Y G Y I L A I Y G I K N  
UniRef90\_I4YPR4 A G L G T N G Y P V A V R A L L D  
UniRef90\_Q2NC77 Q G L G A Q S Y V V A L E K A A  
UniRef90\_E1QZZ3 M G E G I D G Y A H A I R D M A A H





UniRef90\_C7R7C8  
UniRef90\_I0R0G8  
UniRef90\_R5BGE4  
UniRef90\_R6VX51  
UniRef90\_F2F867  
UniRef90\_A9C0J1  
UniRef90\_C4YCH0  
UniRef90\_E4TT04  
UniRef90\_F7QNL5  
UniRef90\_I4D8Y0  
UniRef90\_X8K552  
UniRef90\_UPI0002624ABA  
UniRef90\_U7D7J0  
UniRef90\_E8WQF9  
UniRef90\_D6XYL6  
UniRef90\_G2FPL5  
UniRef90\_UPI00037FB5D1  
UniRef90\_UPI000329D0A2  
UniRef90\_UPI00037170A6  
UniRef90\_UPI000465F5F8  
UniRef90\_G1WDZ4  
UniRef90\_E3DRJ4  
UniRef90\_UPI00038199AD  
UniRef90\_K2JM22  
UniRef90\_Q5LRZ7  
UniRef90\_S3BSS2  
UniRef90\_G8T195  
UniRef90\_E0XPM0  
UniRef90\_R7BF33  
UniRef90\_R7EJ60  
UniRef90\_J3D2I8  
UniRef90\_D3V5I8  
UniRef90\_F8EVT0  
UniRef90\_UPI0003B5C3DD  
UniRef90\_Q7M8I1  
UniRef90\_UPI0003B3B849  
UniRef90\_K6Q114  
UniRef90\_H0A7W0  
UniRef90\_UPI00036D2DBB  
UniRef90\_G4RCG6  
UniRef90\_R1F5R9  
UniRef90\_R5R328  
UniRef90\_UPI0003B4A288  
UniRef90\_S6EIP7  
UniRef90\_T0MR77  
UniRef90\_U1LXP8  
UniRef90\_A7GEL0  
UniRef90\_R9N597  
UniRef90\_R5AZM6  
UniRef90\_X7E1Y9  
UniRef90\_R6AHL9  
UniRef90\_UPI00041E5FCD  
UniRef90\_A0A059FAS0  
UniRef90\_F2LUM3  
UniRef90\_UPI00047DFCA1  
UniRef90\_Q6AF93  
UniRef90\_D5EMW8  
UniRef90\_C7M4K2  
UniRef90\_A0A016XGU2  
UniRef90\_K8WGN2  
UniRef90\_F4MLH5  
UniRef90\_Q3JC85  
UniRef90\_Q14IY5  
UniRef90\_R5FGL0  
UniRef90\_UPI00037AB95A  
UniRef90\_F8A6U8  
UniRef90\_Q7VRC5  
UniRef90\_W9H240  
UniRef90\_V8DIV5  
UniRef90\_D3PM83  
UniRef90\_UPI000471497A  
UniRef90\_T1BE21  
UniRef90\_UPI0002002466  
UniRef90\_K6UMF5  
UniRef90\_QOICM6  
UniRef90\_L8XXL4  
UniRef90\_D1C1W3  
UniRef90\_J3CAH7  
UniRef90\_R5LKV2  
UniRef90\_H1G3B0  
UniRef90\_N4WSV7  
UniRef90\_UPI00026CA056  
UniRef90\_UPI00030CC8EF  
UniRef90\_R6YTG4  
UniRef90\_QOACQ4  
UniRef90\_D4H1C0  
UniRef90\_I7L8Z4  
UniRef90\_UPI000467660A  
UniRef90\_E4L057  
UniRef90\_D3EPT4  
UniRef90\_A5W3W4  
UniRef90\_C7NBK5

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

UniRef90\_C7R7C8  
UniRef90\_I0R0G8  
UniRef90\_R5BGE4  
UniRef90\_N6VX51  
UniRef90\_F2F867  
UniRef90\_A9C0J1  
UniRef90\_C4YCH0  
UniRef90\_E4TT04  
UniRef90\_F7QNL5  
UniRef90\_I4D8Y0  
UniRef90\_X8K552  
UniRef90\_UPI0002624ABA  
UniRef90\_U7D7J0  
UniRef90\_E8WQF9  
UniRef90\_D6XYL6  
UniRef90\_G2FPL5  
UniRef90\_UPI00037FB5D1  
UniRef90\_UPI000329D0A2  
UniRef90\_UPI00037170A6  
UniRef90\_UPI000465F5F8  
UniRef90\_G1WDZ4  
UniRef90\_E3DRJ4  
UniRef90\_UPI00038199AD  
UniRef90\_K2JM22  
UniRef90\_Q5LRZ7  
UniRef90\_S3BSS2  
UniRef90\_G8T195  
UniRef90\_E0XPM0  
UniRef90\_R7BF33  
UniRef90\_R7EJ60  
UniRef90\_J3D218  
UniRef90\_D3V5I8  
UniRef90\_F8EVT0  
UniRef90\_UPI0003B5C3DD  
UniRef90\_Q7M8I1  
UniRef90\_UPI0003B3B849  
UniRef90\_K6Q114  
UniRef90\_H0A7W0  
UniRef90\_UPI00036D2DBB  
UniRef90\_G4RCG6  
UniRef90\_R1F5R9  
UniRef90\_R5R328  
UniRef90\_UPI0003B4A288  
UniRef90\_S6EIP7  
UniRef90\_T0MR77  
UniRef90\_U1LXP8  
UniRef90\_A7GEL0  
UniRef90\_R9N597  
UniRef90\_R5AZM6  
UniRef90\_X7EIY9  
UniRef90\_R6AHL9  
UniRef90\_UPI00041E5FCD  
UniRef90\_A0A059FAS0  
UniRef90\_F2LUM3  
UniRef90\_UPI00047DFCA1  
UniRef90\_Q6AF93  
UniRef90\_D5EMW8  
UniRef90\_C7M4K2  
UniRef90\_A0A016XGU2  
UniRef90\_K8WGN2  
UniRef90\_F4MLH5  
UniRef90\_Q3JC85  
UniRef90\_Q14IY5  
UniRef90\_R5FGL0  
UniRef90\_UPI00037AB95A  
UniRef90\_F8A6U8  
UniRef90\_Q7VRC5  
UniRef90\_W9H240  
UniRef90\_V8DIV5  
UniRef90\_D3PM83  
UniRef90\_UPI000471497A  
UniRef90\_T1BE21  
UniRef90\_UPI0002002466  
UniRef90\_K6UMF5  
UniRef90\_QOICM6  
UniRef90\_L8XXL4  
UniRef90\_D1C1W3  
UniRef90\_J3CAH7  
UniRef90\_R5LKV2  
UniRef90\_H1G3B0  
UniRef90\_N4WSV7  
UniRef90\_UPI00026CA056  
UniRef90\_UPI00030CC8EF  
UniRef90\_R6YTG4  
UniRef90\_QOACQ4  
UniRef90\_D4H1C0  
UniRef90\_I7L8Z4  
UniRef90\_UPI000467660A  
UniRef90\_E4L057  
UniRef90\_D3EPT4  
UniRef90\_A5W3W4  
UniRef90\_C7NBK5

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

UniRef90\_C7R7C8  
UniRef90\_I0R0G8  
UniRef90\_R5BGE4  
UniRef90\_R6VX51  
UniRef90\_F2F867  
UniRef90\_A9C0J1  
UniRef90\_C4YCH0  
UniRef90\_E4TT04  
UniRef90\_F7QNL5  
UniRef90\_I4D8Y0  
UniRef90\_X8K552  
UniRef90\_UPI0002624ABA  
UniRef90\_U7D7J0  
UniRef90\_E8WQF9  
UniRef90\_D6XYL6  
UniRef90\_G2FPL5  
UniRef90\_UPI00037FB5D1  
UniRef90\_UPI000329D0A2  
UniRef90\_UPI00037170A6  
UniRef90\_UPI000465F5F8  
UniRef90\_G1WDZ4  
UniRef90\_E3DRJ4  
UniRef90\_UPI00038199AD  
UniRef90\_K2JM22  
UniRef90\_Q5LRZ7  
UniRef90\_S3BSS2  
UniRef90\_G8T195  
UniRef90\_E0XPM0  
UniRef90\_R7BF33  
UniRef90\_R7EJ60  
UniRef90\_J3D2I8  
UniRef90\_D3V5I8  
UniRef90\_F8EVT0  
UniRef90\_UPI0003B5C3DD  
UniRef90\_Q7M8I1  
UniRef90\_UPI0003B3B849  
UniRef90\_K6Q114  
UniRef90\_H0A7W0  
UniRef90\_UPI00036D2DBB  
UniRef90\_G4RCG6  
UniRef90\_R1F5R9  
UniRef90\_R5R328  
UniRef90\_UPI0003B4A288  
UniRef90\_S6EIP7  
UniRef90\_T0MR77  
UniRef90\_U1LXP8  
UniRef90\_A7GEL0  
UniRef90\_R9N597  
UniRef90\_R5AZM6  
UniRef90\_X7E1Y9  
UniRef90\_R6AHL9  
UniRef90\_UPI00041E5FCD  
UniRef90\_A0A059FAS0  
UniRef90\_F2LUM3  
UniRef90\_UPI00047DFCA1  
UniRef90\_Q6AF93  
UniRef90\_D5EMW8  
UniRef90\_C7M4K2  
UniRef90\_A0A016XGU2  
UniRef90\_K8WGN2  
UniRef90\_F4MLH5  
UniRef90\_Q3JC85  
UniRef90\_Q14IY5  
UniRef90\_R5FGL0  
UniRef90\_UPI00037AB95A  
UniRef90\_F8A6U8  
UniRef90\_Q7VRC5  
UniRef90\_W9H240  
UniRef90\_V8DIV5  
UniRef90\_D3PM83  
UniRef90\_UPI000471497A  
UniRef90\_T1BE21  
UniRef90\_UPI0002002466  
UniRef90\_K6UMF5  
UniRef90\_Q0ICM6  
UniRef90\_L8XXL4  
UniRef90\_D1C1W3  
UniRef90\_J3CAH7  
UniRef90\_R5LKV2  
UniRef90\_H1G3B0  
UniRef90\_N4WSV7  
UniRef90\_UPI00026CA056  
UniRef90\_UPI00030CC8EF  
UniRef90\_R6YTG4  
UniRef90\_Q0ACQ4  
UniRef90\_D4H1C0  
UniRef90\_I7L8Z4  
UniRef90\_UPI000467660A  
UniRef90\_E4L057  
UniRef90\_D3EPT4  
UniRef90\_A5W3W4  
UniRef90\_C7NBK5

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



UniRef90\_X6GK09  
UniRef90\_Q05711  
UniRef90\_H2G0M1  
UniRef90\_JONC14  
UniRef90\_V8CSI7  
UniRef90\_AA0A24IC68  
UniRef90\_E5Y4C7  
UniRef90\_Q3ASH5  
UniRef90\_UPI00047B751D  
UniRef90\_UPI0003A7D98F  
UniRef90\_D1B756  
UniRef90\_B4S814  
UniRef90\_D9QRW9  
UniRef90\_UPI00047A7279  
UniRef90\_Q1GJU6  
UniRef90\_U2QYX4  
UniRef90\_H1SBM4  
UniRef90\_G2LPP8  
UniRef90\_UPI0003FDD5B7  
UniRef90\_W9DZ05  
UniRef90\_I3EAD4  
UniRef90\_UPI00047CCF1C  
UniRef90\_U7JT11  
UniRef90\_M1X1J6  
UniRef90\_Q9ZM37  
UniRef90\_UPI0003A54848  
UniRef90\_B5WR58  
UniRef90\_I0I6V1  
UniRef90\_UPI0004788A2A  
UniRef90\_A1AXV5  
UniRef90\_B8GUV7  
UniRef90\_Q26EX0  
UniRef90\_D2MM24  
UniRef90\_R9GPR0  
UniRef90\_E7C2A1  
UniRef90\_C3XBG9  
UniRef90\_UPI0003706D0A  
UniRef90\_B9Y772  
UniRef90\_D4GCC6  
UniRef90\_Q6Q932  
UniRef90\_UPI0004210FF3  
UniRef90\_U1LSS3  
UniRef90\_I7ZDW3  
UniRef90\_UPI0003B72F2A  
UniRef90\_G2IFX0  
UniRef90\_K1DX41  
UniRef90\_D1AL77  
UniRef90\_UPI000465FA7A  
UniRef90\_H5YKC3  
UniRef90\_UPI0004785143  
UniRef90\_Q2BIU5  
UniRef90\_F4H073  
UniRef90\_S6IG30  
UniRef90\_UPI00037A8F17  
UniRef90\_UPI0003F8F81E  
UniRef90\_U1HJ64  
UniRef90\_V4Y306  
UniRef90\_A1ARJ7  
UniRef90\_UPI00046612BA  
UniRef90\_K0KED5  
UniRef90\_H1Z949  
UniRef90\_AA0A17SEE7  
UniRef90\_H8L211  
UniRef90\_UPI000305D73B  
UniRef90\_A3VKK7  
UniRef90\_UPI000411A784  
UniRef90\_M1N5V9  
UniRef90\_UPI0003B4C263  
UniRef90\_R7D059  
UniRef90\_R2VK20  
UniRef90\_UPI0003B3141F  
UniRef90\_H9TE93  
UniRef90\_I2EWC8  
UniRef90\_UPI0003647B70  
UniRef90\_UPI000237855F  
UniRef90\_G4R7U7  
UniRef90\_UPI000476D60A  
UniRef90\_R5FST3  
UniRef90\_Q8KD64  
UniRef90\_F8E3W0  
UniRef90\_U2EGN6  
UniRef90\_Q28PZ5  
UniRef90\_R5Y0V8  
UniRef90\_A1BGN9  
UniRef90\_Q1YHB0  
UniRef90\_W5IJ75  
UniRef90\_M4X6F5  
UniRef90\_K1MYA6  
UniRef90\_F9S8B9  
UniRef90\_R7DEV2  
UniRef90\_UPI00041D025E  
UniRef90\_W2BYV7

1 10 20 30 40  
I N I F V L N G P N L N R L G P E I Y Y G K N T L E Q I V N K I I K K E A G D H P I  
L L L I N G P N L N R R E G P E I Y Y G K N T L E Q I V N K I I K K E A G D H P I  
R V L V L L G P N L N M L G G K G V I Y G K N T S Q S I E V N K I I K K E A G D H P I  
M K I I V V N G P N L N L L G G P S I Y G K M P M E N Y L T K L R A M Y A D V  
V H I L N G P N L N L L G G P H L Y G T T T L E A D V I E E G K L L A L A G E L G L V I  
R I L V M H G V N L N L F G G P K H Y G T E T L L E Q I V N K I I K K E A G D H P I  
L S L L V M N G P N L S R L G G P S T Y G T R T L L D D I N H D L A T A F P S  
T L L I V I N G P N L N L L G G P S T Y G T A T L L A N Q V I N E A V A A D A G S G R H G W  
M K L L V I N G P N L N L L G G P S E I Y G S E S L L A D I V E A M C Q N R R W G E E M G V  
M R Y H V I N G P N M N M L G G E A I Y G S V T L L A E V I N E A M C Q N R R W G E E M G V  
L L V L N G P N L S R L G G P E V Y G T M T L D D I N E G L M G R Y V E D V N F  
U P I 0 0 0 4 7 A 7 2 7 9  
M K L L I L N G P N L N L L G G P E I Y Y G K A D Y P A L I C R Y L E E S A M T A G V  
T V Y I L N G P N L N L L G G T G I Y G R E T L A D S I E A S Y C R T L C E G K N F  
K I F I I N G P N L N F L G G T G I Y G R E T L A D S I E A S Y C R T L C E G K N F  
V Y V L N G S N L N M L G G P H L Y G T T T L A S E V Q Q R V A V L A D E L R I  
V L I V I N G P N L N L L G G T A V Y G N Q D Y L S D L T E N M K K Q S N K K D N L  
M K I L V I N G P N L N L L G G K R Q Y G S T Y D Q L K E N C S K K A K E L G L  
K I I I N G P N L N L L G G E R Q Y G S T Y D Q L K E N C S K K A K E L G L  
R E P G I Y G E Q T L R A D L E T R M K K G E Q L N G V A  
N L L I N G A N L N L L G P E I Y Y G S T T L R A M L E E M M N K A H Q L K V A  
M V W V L N G P N L G R L G G P E I Y Y G S M S H D E L V D H V Q H T A D R L G L  
V L V I H G P N L N L L G G T G V Y G F E T L D S I I N D S L N K S A A R Q M G V  
M K I L V I Q G P N L N M L G G P R L Y G S M V T L D S I I N D S L N K S A A R Q M G V  
K I M I I N G P N L N F L G G K D L Y G S L N Y E T L C E Q I K N Y A E F K N I V  
N I L M L H G P N H N M F G G K Q Y G T L T L E Q I D A Q L Q A A V E F K N I V  
I A L V H G P N L N L L G G T H K Y G V Q T L A E I D A A R V I A A A P E H V  
I H V L N G P N L N L L G G P E I Y Y G D A T L A A I E A A R V I A A A P E H V  
M D V L L L N G P S L N L L G P Q I Y G S Q T L A Q I L C D T L R E Q A K A H G H  
R E P N Q Y G S Q T L A Q I L C D T L R E Q A K A H G H  
M K I H I I N G P N L N L L G P E I Y Y G S K S F E D Y F R E L R Q F S F K N V  
M K I W V I N G P N L N M L G G K T I Y G E N S L K E D L E N G L K T N P S I V  
M K L Y I I N G P N L N L L G G K T I Y G E N S L K E D L E N G L K T N P S I V  
K I G L L N G P N L D R L G P S I Y G S L T L E Q I E A K V K E K A S S D C  
R E P N V Y G K T T L D D I V A S A R T Q V E M A G G  
U P I 0 0 0 3 7 0 6 D 0 A  
M K F L V V N G P N I N M T G Q G V Y G A R N Y T E I T A M I S A E A K Q R G I  
R E P N V Y G K T T L D D I V A S A R T Q V E M A G G  
M K I L V L N G P N L N L L G G E N I Y G S E S L Q D V E H K L K E I A D E V N A  
I L L L H G P N L N R L L G P H I Y G K E T L A D V I A R V R K V C E E P H G V  
I L V L N G P N L G R L G P E V Y G T A T L A D I A P L V E A R A G S E Q R V  
M R I L V L N G P N L G R L G P E V Y G T A T L A D I A P L V E A R A G S E Q R V  
R E P E V Y G T A T L A D I A P L V E A R A G S E Q R V  
K V L I I N G P N L N F L L G R R I Y G N E T L Y E I N E Y I K S E G E K I S L  
M V L N G P N L N L L G G P R E V Y G H E T L A D V E A L C R A R T D A L I G W  
M K F L V V N G P N L N F L L G G K G V Y G S E T Y K E L V E Y I K D V S G K L I E  
M Q V R V E N G P N L G R L G G P A K Y G H T T H A R L A R S C C R A S L G T E L G L  
R I M I L N G P N L N F L L G P H I Y G S T T L D E I E A S C C R A L A D Q L G V  
M N I F V I N G P N L N L L G P E I Y Y G H D T L D S I S K D C I E Q G L K D G N  
R E P D V Y G H D T L D S I S K D C I E Q G L K D G N  
L V L N G P N L G R L G P D V Y G A S F D E D I C N S L I E K A K Q E G H  
T V F I L N G P N L N L L G G P H L Y G H A T T L E Q I R Q S S V M L A E E L G L  
M K I L I L N G P N L S R L G G K K H Y G Q M D Y P Q L K A A I E Q K A S E L K I  
M N L I I N G P N L N L L G G P E T Y G N E S F E A Y D D K L K S K Y T Q I  
K L L V N G P N L N L L G G T H I Y E S T T L P Q I T S A L S D Q A Q V D S I  
K I L V L N G P N L N L L G G P A V Y G S A T L A D V Q V L Q T A C D L A G V  
K I L V L N G P N L N M F G P A H Y G T A T L E Q I D A R V A A W G A L G L  
M K I L V I N G P N L N F L L G K N I Y G N E D Y E Y L C N T I K E K A A A D G D  
K I L L I H G P N L N L L G G P T K Y G T T T L K Q L F E S N A L D Q V F K S H D A  
M K I L I L N G P N L N L L G P T I Y G N T S F E T Y F E S Q L Q R E V P A V  
R E P H I Y G H T T L S D V E S S C A S H A A S M G A  
R L L A L H G P N L N L L G P E A T Y G S T T L R A D V E A M C Q N R R W G E E M G V  
L L L L H G P N L N L L G P E A T Y G S T T L R A D V E A M C Q N R R W G E E M G V  
M K I Y V L N G P N L N R L L G P D I Y G H T T L A Q I E A M C R E A V G D A P L  
K V M L H G V N H N M F G P K Q Y G T T L D E I N Q G V D T K K A K E I G T  
T V L V L N G P N L G R L G G P D V Y G S A D L D A L R A L L T E S A P N D V  
M N A L V I N G P N L N M L G G P D V Y G H Q T Y D D I E L C R A G E K E G F  
K I L M L H G V N H N M F G P K H Y G T V T L D E I N A N M A T L A K E L N V  
V L V L N G P N L G R L G G P D V Y G H L D H A G L T E Q V R R W A G E L G L  
R L L I N G P N L G I L L G P D I Y G T D T L A D I E G W V A E E V A G R G W  
N I I I N G P N L N L L G P H I Y G S L T F E A Y F E E L Q A M F L E H  
M K I L I I N G P N L N L L G G P G M Y G T G S L Q D L E N F L R D E F P E H  
T V F V L N G P N L N L L G G P A V Y G M H T L A D V E K L C S A S A C A R H G F  
I F V L N G P N L N R L L G P E L Y G A T T L A Q V E K L C S A S A C A R H G F  
M R I I I N G P N L N L L G G P G V Y G S V G F Q A F F E Q L E N R A F P E H Q L  
M R I L V I N G P N L N L L G G K E I Y G K E T Y S D E I N K R G I K N V S N K L D V  
L L V M N G P N L S R L L G P E V Y G S L T L D E I N K R G I K N V S N K L D V  
M N I T I I N G P N L N M L G G K E H Y G D F S Y K K L V D T V K E H A A Y K S V  
M N I H V L N G P N L N M L G P E I Y G K E T Y R D L E V A K I S E H A K T H N L  
M K I S V F N G P N L N A L G G P G Y G A D T L A D I E A A C R T T A A D L G V  
M D I W I T N G P N L N L L G G K R V Y G D A S F E S Y L I E E L R S R Y P L H  
L V L N G P N L S R L L G P E I Y G C L L G L D D I N R G L A D A F P D I  
I Y V L N G P N L N R L L G P D I Y G S L T M K D L K S L C Q R W R G R D N G F  
I M V V N G P N L G R L L G P D I Y G S L T M K D L K S L C Q R W R G R D N G F  
M K I F L I N G P N L N F L L G P K N I Y G F N T L N D I E T L L K K A R K L Q V  
M K I A I V N G P N L N L L G P Q I Y G R E T M E G V I E T I K S T F P V  
R E P G H Y G S Q T L E Q I V T T L A E Q A K Q A D I  
M N I L I I N G P N L N L L G K R V Y G E N S F E S Y L E F L R N K Y S E H  
M K I L V I N G P N L N F L L G K N I Y G E N S Y D Y L K I D E K A K E S G S  
M K I V I N G P N I N L L G P E I Y G D R S Y E D L I N Y I E G G A K A L D V

UniRef90\_X6GK09  
UniRef90\_Q05711  
UniRef90\_H2G0M1  
UniRef90\_J0NC14  
UniRef90\_V8CSI7  
UniRef90\_A0A024IC68  
UniRef90\_E5Y4C7  
UniRef90\_Q3ASH5  
UniRef90\_UPI00047B751D  
UniRef90\_UPI0003A7D98F  
UniRef90\_D1B756  
UniRef90\_B4S814  
UniRef90\_D9QRW9  
UniRef90\_UPI00047A7279  
UniRef90\_Q1GJU6  
UniRef90\_U2QYX4  
UniRef90\_H1SBM4  
UniRef90\_G2LPP8  
UniRef90\_UPI0003FDD5B7  
UniRef90\_W9DZ05  
UniRef90\_I3EAD4  
UniRef90\_UPI00047CCF1C  
UniRef90\_U7JT11  
UniRef90\_M1X1J6  
UniRef90\_Q9ZM37  
UniRef90\_UPI0003A54848  
UniRef90\_B5WR58  
UniRef90\_I0I6V1  
UniRef90\_UPI0004788A2A  
UniRef90\_A1AXV5  
UniRef90\_B8GUV7  
UniRef90\_Q26EX0  
UniRef90\_D2MM24  
UniRef90\_R9GPR0  
UniRef90\_E7C2A1  
UniRef90\_C3XBG9  
UniRef90\_UPI0003706D0A  
UniRef90\_B9Y772  
UniRef90\_D4GCC6  
UniRef90\_Q6Q932  
UniRef90\_UPI0004210FF3  
UniRef90\_U1LSS3  
UniRef90\_I7ZDW3  
UniRef90\_UPI0003B72F2A  
UniRef90\_Q2IFX0  
UniRef90\_K1DX41  
UniRef90\_D1AL77  
UniRef90\_UPI000465FA7A  
UniRef90\_H5YKC3  
UniRef90\_UPI0004785143  
UniRef90\_Q2BIU5  
UniRef90\_F4H073  
UniRef90\_S6IG30  
UniRef90\_UPI00037A8F17  
UniRef90\_UPI0003F8F81E  
UniRef90\_U1HJ64  
UniRef90\_V4Y306  
UniRef90\_A1ARJ7  
UniRef90\_UPI00046612BA  
UniRef90\_K0KED5  
UniRef90\_H1Z949  
UniRef90\_A0A017SEE7  
UniRef90\_H8L211  
UniRef90\_UPI000305D73B  
UniRef90\_A3VKK7  
UniRef90\_UPI000411A784  
UniRef90\_M1N5V9  
UniRef90\_UPI0003B4C263  
UniRef90\_R7D059  
UniRef90\_R2VK20  
UniRef90\_UPI0003B3141F  
UniRef90\_H9TE93  
UniRef90\_I2EWC8  
UniRef90\_UPI0003647B70  
UniRef90\_UPI000237855F  
UniRef90\_G4R7U7  
UniRef90\_UPI000476D60A  
UniRef90\_R5FST3  
UniRef90\_Q8KD64  
UniRef90\_F8E3W0  
UniRef90\_U2EGN6  
UniRef90\_Q28PZ5  
UniRef90\_R5Y0V8  
UniRef90\_A1BGN9  
UniRef90\_Q1YHB0  
UniRef90\_W5IJ75  
UniRef90\_M4X6F5  
UniRef90\_K1MYA6  
UniRef90\_F9S8B9  
UniRef90\_R7DEV2  
UniRef90\_UPI00041D025E  
UniRef90\_W2BYV7

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

UniRef90\_X6GK09  
UniRef90\_Q05711  
UniRef90\_H2G0M1  
UniRef90\_J0NC14  
UniRef90\_V8CSI7  
UniRef90\_A0A0241C68  
UniRef90\_E5Y4C7  
UniRef90\_Q3ASH5  
UniRef90\_UPI00047B751D  
UniRef90\_UPI0003A7D98F  
UniRef90\_D1B756  
UniRef90\_B4S814  
UniRef90\_D9QRW9  
UniRef90\_UPI00047A7279  
UniRef90\_Q1GJU6  
UniRef90\_U2QYX4  
UniRef90\_H1SBM4  
UniRef90\_G2LPP8  
UniRef90\_UPI0003FDD5B7  
UniRef90\_W9DZ05  
UniRef90\_I3EAD4  
UniRef90\_UPI00047CCF1C  
UniRef90\_U7JT11  
UniRef90\_M1X1J6  
UniRef90\_Q9ZM37  
UniRef90\_UPI0003A54848  
UniRef90\_B5WR58  
UniRef90\_I0I6V1  
UniRef90\_UPI0004788A2A  
UniRef90\_A1AXV5  
UniRef90\_B8GUV7  
UniRef90\_Q26EX0  
UniRef90\_D2MM24  
UniRef90\_R9GPR0  
UniRef90\_E7C2A1  
UniRef90\_C3XBG9  
UniRef90\_UPI0003706D0A  
UniRef90\_B9Y772  
UniRef90\_D4GCC6  
UniRef90\_Q6Q932  
UniRef90\_UPI0004210FF3  
UniRef90\_U1LSS3  
UniRef90\_I7ZDW3  
UniRef90\_UPI0003B72F2A  
UniRef90\_G2IFX0  
UniRef90\_K1DX41  
UniRef90\_D1AL77  
UniRef90\_UPI000465FA7A  
UniRef90\_H5YKC3  
UniRef90\_UPI0004785143  
UniRef90\_Q2BIU5  
UniRef90\_F4HT073  
UniRef90\_S6IG30  
UniRef90\_UPI00037A8F17  
UniRef90\_UPI0003F8F81E  
UniRef90\_U1HJ64  
UniRef90\_V4Y306  
UniRef90\_A1ARJ7  
UniRef90\_UPI00046612BA  
UniRef90\_K0KED5  
UniRef90\_H1Z949  
UniRef90\_A0A017SEE7  
UniRef90\_H8L211  
UniRef90\_UPI000305D73B  
UniRef90\_A3VKK7  
UniRef90\_UPI000411A784  
UniRef90\_M1N5V9  
UniRef90\_UPI0003B4C263  
UniRef90\_R7D059  
UniRef90\_R2VK20  
UniRef90\_UPI0003B3141F  
UniRef90\_H9TE93  
UniRef90\_I2EWC8  
UniRef90\_UPI0003647B70  
UniRef90\_UPI000237855F  
UniRef90\_G4R7U7  
UniRef90\_UPI000476D60A  
UniRef90\_R5FST3  
UniRef90\_Q8KD64  
UniRef90\_F8E3W0  
UniRef90\_U2EGN6  
UniRef90\_Q28PZ5  
UniRef90\_R5Y0V8  
UniRef90\_A1BGN9  
UniRef90\_Q1YHB0  
UniRef90\_W5IJ75  
UniRef90\_M4X6F5  
UniRef90\_K1MYA6  
UniRef90\_F9S8B9  
UniRef90\_R7DEV2  
UniRef90\_UPI00041D025E  
UniRef90\_W2BYV7

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

UniRef90\_X6GK09 A G L G A A G Y P L A I R W L M D Q  
UniRef90\_Q05711 S G F G N Y G Y Q I A L K T A V K  
UniRef90\_H2G0M1 C G L G A D G Y E F A L E A A A R Y  
UniRef90\_J0NC14 C G F G K H S Y F L A L Q A L  
UniRef90\_V8CSI7 Q G F G M D S Y R L A V E A L  
UniRef90\_A0A024IC68 C G L G P I G Y E L A L H A I A Q  
UniRef90\_E5Y4C7 A G F G S G S Y L L G L R A V V D  
UniRef90\_Q3ASH5 S G F G E Q S Y H L G V H A L  
UniRef90\_UPI00047B751D V G A G I S G Y R F A V D H L T E K  
UniRef90\_UPI0003A7D98F F G E G K Q S Y I N G I K H I L E  
UniRef90\_D1B756 M G F G A R V Y L L A L E A L  
UniRef90\_B4S814 S G F G A D S Y R L G V E A L L Q  
UniRef90\_D9QRW9 S G L G I D S Y L L G L R A L V N  
UniRef90\_UPI00047A7279 V G Q G F S G Y A Q A L T Y L K D Y  
UniRef90\_Q1GJU6  
UniRef90\_U2QYX4 Y G K G K E G Y V E A V E Y I K  
UniRef90\_H1SBM4 C G L G V A G Y T L A L R A M A D  
UniRef90\_G2LPP8 S G L G L D G Y Y W A L K T I S N  
UniRef90\_UPI0003FDD5B7 Y G H G L D G Y L M A M D Y I A D  
UniRef90\_W9DZ05 F G L G A E G Y I L A T I S L Q K  
UniRef90\_I3EAD4 V G L G L K G Y E L A F E A L L E  
UniRef90\_UPI00047CCF1C V G C G L Y G Y E L A L L Q I L N  
UniRef90\_U7JT11 T G L G I S G Y D L A L R Y L A  
UniRef90\_M1X1J6 S G F G K Q S Y L L G L Q A L V H Y  
UniRef90\_Q9ZM37 M G F G P L G Y N M A L M A M V N  
UniRef90\_UPI0003A54848 T G F G K Y S Y I L A I K Y L L E N  
UniRef90\_B5WR58 C G F G S Q S Y L L A L R A V V  
UniRef90\_I0I6V1 C G F G W R S Y L L G L R A L L D Y  
UniRef90\_UPI0004788A2A L G F G A L S Y  
UniRef90\_A1AXV5 S G F G A Q G Y E F A L Q A A I Q H  
UniRef90\_B8GUV7 M G L G P K G Y A L A L D A A I  
UniRef90\_Q26EX0 S G F G L K G Y E L A I K S F  
UniRef90\_D2MM24 Q G K G F H G Y Q L A I E K L V S K  
UniRef90\_R9GPR0 S G F G L N S Y R L A V E S F I  
UniRef90\_E7C2A1 A G M S H H G Y L S A L R Y L S E  
UniRef90\_C3XBG9 C G F G V D G Y R M A I E H A L K Y  
UniRef90\_UPI0003706D0A S G F G A D S Y E L G L R A L V L H  
UniRef90\_B9Y772 C G F G D Y G Y V M A M D A L I Q H  
UniRef90\_D4GCC6 C G L G A D G Y S W A L Q T A V K  
UniRef90\_Q6Q932 S G H G T N G Y S L A L K E A L K  
UniRef90\_UPI0004210FF3 V G L G P I G Y E Y A A H Y L L Q  
UniRef90\_U1LSS3 A G F G L E G Y R L A A A A I V  
UniRef90\_I7ZDW3 L G L G A Q G Y S L A L Q A A  
UniRef90\_UPI0003B72F2A A G L G T E G Y Q A A V R R L A  
UniRef90\_G2IFX0 C G F G K N S Y V L A L Y A L I E  
UniRef90\_K1DX41 V G R G V R G Y V D A I D  
UniRef90\_D1AL77 C G K G K E G Y I  
UniRef90\_UPI000465FA7A V G C G L A G Y E L A L R W L A  
UniRef90\_H5YKC3 C G L G P Y G Y L A A M L A A V I Q  
UniRef90\_UPI0004785143 A G L G A D G Y S H V T E L L A D  
UniRef90\_Q2BIU5 C G F G A Q G Y E F A L Q S A I S K  
UniRef90\_F4H073 A G F G F D S Y R L A L L A V A  
UniRef90\_S6IG30 C G M G A D G Y P L A L R A I  
UniRef90\_UPI00037A8F17 A G F G V D S Y R L A L I A M Q K  
UniRef90\_UPI0003F8F81E I G F G L K S Y D L A I E S F L  
UniRef90\_U1HJ64 C G L G T N S Y V A A L D  
UniRef90\_V4Y306 A G F G V Q G Y P L A I G G L L Q  
UniRef90\_A1ARJ7 C G F G V G S Y H  
UniRef90\_UPI00046612BA Y G H G L K G Y L E A M D M I H D  
UniRef90\_K0KED5 S G L G I Y G Y K A A I E F A L N Y  
UniRef90\_H1Z949 L G F G L K S Y A L A L H A F Q D  
UniRef90\_A0A017SEE7 V G L G V F G Y K V A V E H V V  
UniRef90\_H8L211 C G F G A D S Y R L G L E A A I R  
UniRef90\_UPI000305D73B S G H G V F G Y E L A L R S V L  
UniRef90\_A3VKK7 C G L G A R G Y D H A V R A A L D  
UniRef90\_UPI000411A784 V G H G L E G Y L E A I D M I L H K  
UniRef90\_M1N5V9 V G L G S Q V Y T L G L Q A F A N  
UniRef90\_UPI0003B4C263 A G F G F D S Y R L A L D F V V N  
UniRef90\_R7D059 V G E G L T G Y A H A L H L L K E H  
UniRef90\_R2VK20 A G F G F E T Y Q L A L R A A A  
UniRef90\_UPI0003B3141F A G F G A A S Y R L A L S A L V  
UniRef90\_H9TE93 F G L G A T G Y R L A A R A L L E  
UniRef90\_I2EWC8 T G L G M K G Y E F G V R Y F L  
UniRef90\_UPI0003647B70 T G F G K Y S Y A L G I R A L  
UniRef90\_UPI000237855F C G F G V P G Y G L A L D G L A Q  
UniRef90\_G4R7U7 A G M G A E G Y G M A M Q A M C  
UniRef90\_UPI000476D60A S G F G L E G Y T L A L H Y L T D Y  
UniRef90\_R5FST3 M G K H F E G Y Q E A I E Y I K N  
UniRef90\_Q8KD64 A G F G V E S Y H L G V R A L L  
UniRef90\_F8E3W0 C G L G I Y S Y I A A I D Y F V H K  
UniRef90\_U2EGN6 S G K G T E G Y I E A M D Y L I  
UniRef90\_Q28PZ5  
UniRef90\_R5Y0V8 I G F G L D S Y R L A V E A L I E  
UniRef90\_A1BGN9 S G F G S L S Y H L G V Q A L M A K  
UniRef90\_Q1YHB0 A G L G P A G Y P A A I Q A M L E  
UniRef90\_W5IJ75 T G Q G L Y G Y I L A L E A I  
UniRef90\_M4X6F5 S G M G V Y G Y I E A L N Y L T Q  
UniRef90\_K1MYA6 T G L G T K G Y L L A V S A L V N  
UniRef90\_F9S8B9 C G L G A Q G Y E F A L S A A I K  
UniRef90\_R7DEV2 A G F G M D S Y K L A I E A L I N N  
UniRef90\_UPI00041D025E Y G H G L Q G Y I E A I D Y C I A K  
UniRef90\_W2BYV7 V G K G F D G Y V M A L K L I K N H



UniRef90\_S6EG65  
UniRef90\_M8DBT6  
UniRef90\_T0DC76  
UniRef90\_UPI00030DC7DB  
UniRef90\_R9YKC5  
UniRef90\_UPI0003693906  
UniRef90\_B9CK59  
UniRef90\_Q3AMA6  
UniRef90\_C5CU07  
UniRef90\_C5BZU6  
UniRef90\_G7SQK4  
UniRef90\_M1FAP7  
UniRef90\_W0J5X2  
UniRef90\_Q1AVM8  
UniRef90\_C1AVQ2  
UniRef90\_UPI0003709219  
UniRef90\_X7E3I5  
UniRef90\_B3QT14  
UniRef90\_W1N1B4  
UniRef90\_R6RQ46  
UniRef90\_K1WUF6  
UniRef90\_UPI0003660487  
UniRef90\_UPI000402ED8A  
UniRef90\_I4BB63  
UniRef90\_D1BSN3  
UniRef90\_UPI0003633E24  
UniRef90\_UPI000225C162  
UniRef90\_R6UDA8  
UniRef90\_UPI00025585E5  
UniRef90\_UPI00035D3348  
UniRef90\_H6Q4D3  
UniRef90\_A4BFT3  
UniRef90\_H2IKD9  
UniRef90\_C7R4D2  
UniRef90\_UPI00029B4E11  
UniRef90\_E8Q6U7  
UniRef90\_A4QYU7  
UniRef90\_I8QPA1  
UniRef90\_G9ZW16  
UniRef90\_C7M0X4  
UniRef90\_E1VYL6  
UniRef90\_B8NXI4  
UniRef90\_H6R8G5  
UniRef90\_X0UC65  
UniRef90\_UPI0003706C90  
UniRef90\_G2QHW5  
UniRef90\_E5WIG8  
UniRef90\_E0XQR3  
UniRef90\_W6LPF8  
UniRef90\_UPI0003B44CE7  
UniRef90\_UPI0001DD05DE  
UniRef90\_UPI00036716D  
UniRef90\_E9UR59  
UniRef90\_R5W3E9  
UniRef90\_W2RTB2  
UniRef90\_UPI0004631CD6  
UniRef90\_F9Z6U0  
UniRef90\_A2BV47  
UniRef90\_N9UQN8  
UniRef90\_A9BE04  
UniRef90\_S7XAE1  
UniRef90\_H4F4P0  
UniRef90\_Q7U4X5  
UniRef90\_UPI0003F8C86E  
UniRef90\_G8TYD4  
UniRef90\_R4LL48  
UniRef90\_J9GMH4  
UniRef90\_I3YHS1  
UniRef90\_UPI0004788DF5  
UniRef90\_D3FCW6  
UniRef90\_K2P4U5  
UniRef90\_W2SC96  
UniRef90\_Q8XQ89  
UniRef90\_UPI000381A202  
UniRef90\_B8ECJ0  
UniRef90\_R5YYK1  
UniRef90\_R5PJ20  
UniRef90\_U2K8U5  
UniRef90\_UPI0003672B39  
UniRef90\_C3PGM4  
UniRef90\_H0EC60  
UniRef90\_Q4JVG3  
UniRef90\_M7WRA0  
UniRef90\_Q7V8X7  
UniRef90\_Q7B6G8  
UniRef90\_UPI0003B565D3  
UniRef90\_K2C1M2  
UniRef90\_R5TTH9  
UniRef90\_UPI00039C3697  
UniRef90\_UPI00047776F0  
UniRef90\_UPI0003B58469  
UniRef90\_H6RVH9

1 10 20 30 40  
MLGKREPKHYGTETLSLSTIVELQRMQQLANEHQ 40  
LDVYVGTETLQDDVIVASRLVRSKVMNEEYWNGL  
KIAVNGPNLNLNRLLGLGPEQTYGTNRSDWDFQRLVRSKVMNEEYWNGL  
KVLVNLNGPNLNLNRLLGLGPKELYGSDNTLSANILARLLVTKESFKRGL  
MNLILLNNGPNLNLNRLLGLGKGLYGGDATLSELLEENLVIJAEKQGL  
RLILLINNGPNLNLNRMLREPGELYGHSSLADIVEAALTRERAEQESV  
KILVNLNGPNLNLNRLLGLGPEQTYGRTDTLADIVELARLCCQREAGAKHGL  
KVMVNLNGPNLNLNRLLGLGPELVYGTATLADIVELARFCCREWAGDALGL  
KLSILLNNGPNLNLNRLLGLGPEELYGTINFLIDYLNKRLKRKKKIFSNM  
TIVLNLNGPNLNLNRLLGLGPEEIVYGSSTLADIVELNQRLQNSAAAAGH  
RVFVNLNGPNLNLNRLLGLGPEEIVYGTETLADIVELERQLRERFPEAV  
IEFVNLNGPNLNLNRLLGLGPEDDVYGTETLADIVELERLCCREAAAKSAGRY  
NLVNLNGPNLNLNRLLGLGPEEIVYGTATLADIVELCCREETVIAKSSGY  
IMVNLNGPNLNLNRLLGLGPEEIVYGHETLADIVELAMCRDAAASALGYF  
ILVNLNGPNLNLNRLLGLGPEEIVYGSRTLMEIVNSSLAAAVFPKILGF  
KHVILNNGPNLNLNRLLGLGPEEIVYGYTTLADIVEESLCCREDSCKE  
KVMMLHCVNHNNMYGPKQYGTITLADIVELINELEKTAKEGTGIT  
REPTVYGSDDTLADIVELCENRASAQAASAAAGVA  
REPEVYGTETLADIVELENAAATAQAASAAAGVA  
KLLVNLHGPNLNLNRLLGLGPEEIVYGTETLADIVELDADLQARALEKGH  
MRLTVVNLNGPNLNLNRLLGLGPEEIVYGTFTLADIVELKALDHLVKGRA  
LILVNLNGPNLNLNRLLGLGPEEIVYGTADTADLIVELAVGEGWSSGLGL  
MKLILLNNGPNLNLNRMLGLKELYGQASLLEELQNSILQVKAESGLSVL  
NVWVILNNGPNLNLNRMLGLGPEEIVYGEQTLKCLMAALVHDKAQDLKGL  
GHVNLNGPNLNLNRLLGLGPEEIVYGETATAADAIEQSVVJAVGKELGL  
LHVLNNGPNLNLNRLLGLGPEEIVYGKTTLADIVELERLCCREAAAGPRGL  
REDDVYGRKTSLSQDILVDDVVDALIAQSSYNA  
NLLILNNGPNLNLNRLLGLGPEEIVYGNKSLSDILNLSNKIYNA  
REPEEIVYGHETLADIVELERNAQEKAAATLGH  
REPEKYGHETLADIVELERCCSKLASEFFGY  
MIFVNLNGPNLNLNRLLGLGPEEIVYGAALSLSLNDLAEVCSA WVG  
MKIQIINNGPNLNLNRLLGLGPEEIVYGNSTSLIEDYVKEKLAHYSS  
KLLILNNGPNLNLNRLLGLGPEEIVYGHNRLLSSTVLSQDILNKTADSGL  
REPEEIVYGSSTLADIVELERLCCREAAAGPRGL  
TLLLVNLNGPNLNLNRLLGLGPEEIVYGTATLADIVELAVTARILADR  
HIVLNLNGPNLNLNRLLGLGPEEIVYGHETLADIVELERAMCREAAGPE  
RLLVILNNGPNLNLNRLLGLGPEEIVYGTETLADIVELERVRRVGERAASVGA  
REPEEIVYGHNTLADIVELERLCCRETAASVGLGF  
REPEEIVYGHNTLADIVELERLCCRETAASVGLGF  
LPIVLVNLNGPNLNLNRMLGLGPEEIVYGSSTLADIVELERLCCRETAASVGLGF  
MKIQIINNGPNLNLNRLLGLGPEEIVYGEMSMDEYLLDCLSESTFTNI  
MKIMVINNGPNLNLNRLLGLGPEEIVYGDLYGELKSLARDTATSSAGM  
RILLILNNGPNLNLNRLLGLGPEEIVYGSATLADIVELERKSLARDTATSSAGM  
REPEEIVYGKETLADIVELERQNMKALGASFFET  
MKLILLNNGPNLNLNRMLGLGPEEIVYGTESLADIVELERKSLARDTATSSAGM  
REPAVYGTETLADIVELERLCCRETAASVGLGF  
MKIQIINNGPNLNLNRLLGLGPEEIVYGDASFETYLATLRAARFA  
NIFILNNGPNLNLNRLLGLGPEEIVYGTETLADIVELERLCCRETAASVGLGF  
REPEEIVYGYQTLADIVELERLCCRETAASVGLGF  
VVLVNLNGPNLNLNRMLGLGPEEIVYGHHTHDELAAAMVVDWGHALGF  
KILVNLNGPNLNLNRMLGLGPEEIVYGTDTLADIVELERKSLARDTATSSAGM  
VLLINGNLNGPNLNLNRLLGLGPEEIVYGSSTLADIVELERKSLARDTATSSAGM  
ILLNLNNGPNLNLNRLLGLGPEEIVYGTDTLADIVELERLCCRETAASVGLGF  
REPEEIVYGKETLADIVELERLCCRETAASVGLGF  
MNLILLINNGPNLNLNRLLGLGPEEIVYGSSTLADIVELERLCCRETAASVGLGF  
VFLVLSGPNLNLNRLLGLGPEEIVYGHDTLEDEILHQRLSSJANDKILGL  
REPEEIVYGSQSLVLEILSLSQRAKELGEGV  
TVFVNLNGPNLNLNRLLGLGPEEIVYGGGTLVELRALHAAGLDF  
MKLYVNLNNGPNLNLNRLLGLGPEEIVYGHDTLADIVELERLCCRETAASVGLGF  
REPEEIVYGSSTLADIVELERLCCRETAASVGLGF  
IGVMNLNGPNLNLNRLLGLGPEEIVYGHLLGLADIVELERDLGEGFPEV  
LLLILNNGPNLNLNRLLGLGPEEIVYGTDTLADIVELERLCCRETAASVGLGF  
MGLKREPSIYGSSTLADIVELERLCCRETAASVGLGF  
MKLILLNNGPNLNLNRLLGLGPEEIVYGTQTFEFTFFERLRSLYPAVGF  
MKIAVILHGNLNLNRLLGLGPEEIVYGSSTLADIVELERLCCRETAASVGLGF  
RVLVNLHGNLNLNRLLGLGPEEIVYGTDTLADIVELERLCCRETAASVGLGF  
MGLKREPSIYGSSTLADIVELERLCCRETAASVGLGF  
ILEILNNGPNLNLNRLLGLGPEEIVYGSSTLADIVELERLCCRETAASVGLGF  
ILVNLNNGPNLNLNRLLGLGPEEIVYGHETLADIVELERLCCRETAASVGLGF  
MNLAILVNLNGPNLNLNRLLGLGPEEIVYGHQTMDSILNLRRTMPRH  
KILLVNLNGPNLNLNRLLGLGPEEIVYGHQTMDSILNLRRTMPRH  
MRLILLNNGPNLNLNRLLGLGPEEIVYGTCTYKADILCRYELNQQAKLAEV  
MNLILLNNGPNLNLNRLLGLGPEEIVYGTCTYKADILCRYELNQQAKLAEV  
MWEITNNGPNLNLNRLLGLGPEEIVYGTCTYKADILCRYELNQQAKLAEV  
MHIINNGPNLNLNRLLGLGPEEIVYGTCTYKADILCRYELNQQAKLAEV  
MTILVNLNGPNLNLNRLLGLGPEEIVYGSSTLADIVELERLCCRETAASVGLGF  
RVAVNLHGNLNLNRLLGLGPEEIVYGHQTMDSILNLRRTMPRH  
KVAVNLHGNLNLNRLLGLGPEEIVYGHQTMDSILNLRRTMPRH  
TFLLLSGPNLNLNRLLGLGPEEIVYGHQTMDSILNLRRTMPRH  
REPEEIVYGSSTLADIVELERLCCRETAASVGLGF  
LLLNLNNGPNLNLNRLLGLGPEEIVYGTDTLADIVELERLCCRETAASVGLGF  
RLLVNLNNGPNLNLNRLLGLGPEEIVYGTETLADIVELERLCCRETAASVGLGF  
KILAILVHGNLNLNRLLGLGPEEIVYGHQTMDSILNLRRTMPRH  
MNLIIIVNLNGPNLNLNRLLGLGPEEIVYGSSTLADIVELERLCCRETAASVGLGF  
MNLIIIVNLNGPNLNLNRLLGLGPEEIVYGHQTMDSILNLRRTMPRH  
RVAVNLHGNLNLNRLLGLGPEEIVYGHQTMDSILNLRRTMPRH  
MTIQVFNHGNLNLNRLLGLGPEEIVYGTCTYKADILCRYELNQQAKLAEV

UniRef90\_S6EG65  
UniRef90\_M8DBT6  
UniRef90\_T0DC76  
UniRef90\_UPI00030DC7DB  
UniRef90\_R9YKC5  
UniRef90\_UPI0003693906  
UniRef90\_B9CK59  
UniRef90\_Q3AMA6  
UniRef90\_C5CU07  
UniRef90\_C5BZU6  
UniRef90\_G7SQK4  
UniRef90\_M1FAP7  
UniRef90\_W0J5X2  
UniRef90\_Q1AVM8  
UniRef90\_C1AVQ2  
UniRef90\_UPI0003709219  
UniRef90\_X7E3I5  
UniRef90\_B3QT14  
UniRef90\_W1N1B4  
UniRef90\_R6RQ46  
UniRef90\_K1WUF6  
UniRef90\_UPI0003660487  
UniRef90\_UPI000402ED8A  
UniRef90\_I4BB63  
UniRef90\_D1BSN3  
UniRef90\_UPI0003633E24  
UniRef90\_UPI000225C162  
UniRef90\_R6UDA8  
UniRef90\_UPI00025585E5  
UniRef90\_UPI00035D3348  
UniRef90\_H6Q4D3  
UniRef90\_A4BFT3  
UniRef90\_H2IKD9  
UniRef90\_C7R4D2  
UniRef90\_UPI00029B4E11  
UniRef90\_E8Q6U7  
UniRef90\_A4QYU7  
UniRef90\_I8QPA1  
UniRef90\_G9ZW16  
UniRef90\_C7M0X4  
UniRef90\_E1VYL6  
UniRef90\_B8NXI4  
UniRef90\_H6R8G5  
UniRef90\_X0UC65  
UniRef90\_UPI0003706C90  
UniRef90\_G2QHW5  
UniRef90\_E5WIG8  
UniRef90\_E0XQR3  
UniRef90\_W6LPF8  
UniRef90\_UPI0003B44CE7  
UniRef90\_UPI0001DD05DE  
UniRef90\_UPI000367F16D  
UniRef90\_E9UR59  
UniRef90\_R5W3E9  
UniRef90\_W2RTB2  
UniRef90\_UPI0004631CD6  
UniRef90\_F9Z6U0  
UniRef90\_A2BV47  
UniRef90\_N9UQN8  
UniRef90\_A9BE04  
UniRef90\_S7XAE1  
UniRef90\_H4F4P0  
UniRef90\_Q7U4X5  
UniRef90\_UPI0003F8C86E  
UniRef90\_G8TYD4  
UniRef90\_R4LL48  
UniRef90\_J9GMH4  
UniRef90\_I3YHS1  
UniRef90\_UPI0004788DF5  
UniRef90\_D3FCW6  
UniRef90\_K2P4U5  
UniRef90\_W2SC96  
UniRef90\_Q8XQ89  
UniRef90\_UPI000381A202  
UniRef90\_B8ECJ0  
UniRef90\_R5YYK1  
UniRef90\_R5PJ20  
UniRef90\_U2K8U5  
UniRef90\_UPI0003672B39  
UniRef90\_C3PGM4  
UniRef90\_H0EC60  
UniRef90\_Q4JVG3  
UniRef90\_M7WRA0  
UniRef90\_Q7V8X7  
UniRef90\_Q7B6G8  
UniRef90\_UPI0003B565D3  
UniRef90\_K2C1M2  
UniRef90\_R5TTH9  
UniRef90\_UPI00039C3697  
UniRef90\_UPI00047776F0  
UniRef90\_UPI0003B58469  
UniRef90\_H6RVH9

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

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

70  
80



UniRef90\_S6EG65 Y G L G A Q G Y E F A F H Y A R Q Y  
UniRef90\_M8DBT6 V G L G I D G Y E W A L R S L A N K  
UniRef90\_T0DC76 V G L G T E G Y R Y A A E A L C R  
UniRef90\_UPI00030DC7DB S G F G A E G Y R L A V A Y L C E N  
UniRef90\_R9YKC5 I G L G W K S Y L G A I F Y V V E  
UniRef90\_UPI0003693906 K G Q G L K G Y E L A L N E A L N N  
UniRef90\_B9CK59 C G K G F E S Y R E G I A L L A K Y  
UniRef90\_Q3AMA6 C G F G P A S Y S F A L N G L L S H  
UniRef90\_C5CU07  
UniRef90\_C5BZU6 A G R G F D G Y R L A L E H L A  
UniRef90\_G7SQK4 F G F G L K S Y E L G I I S F  
UniRef90\_M1FAP7 C G L G S Q G Y D L A L Q A A L K Q  
UniRef90\_W0J5X2 T G L G L E G Y F A A V R Y L L  
UniRef90\_Q1AVM8 A G M G P Y G Y E A A V G Y L L R  
UniRef90\_C1AVQ2  
UniRef90\_UPI0003709219 V G A G A D G  
UniRef90\_X7E3I5  
UniRef90\_B3QT14 S G F G E E G Y H F A V E A L L S N  
UniRef90\_W1N1B4 A G T G A P G Y G Y A V R L L R D  
UniRef90\_R6RQ46 A G M G E S A Y T L A V K A F A E  
UniRef90\_K1WUF6 C G L G T Y G Y Q V A M G Y C L E H  
UniRef90\_UPI0003660487 C G L G T D G Y R F A I D F A L K K  
UniRef90\_UPI000402ED8A  
UniRef90\_I4BB63 A G L G A D G Y L A A A D Y F L R N  
UniRef90\_D1BSN3 A G F G F V S Y R L A L A A I A D  
UniRef90\_UPI0003633E24 S G L G T K G Y L L G L D C L V  
UniRef90\_UPI000225C162 A G C G Q K G Y L L A L E Y I  
UniRef90\_R6JDA8 A G F G A K G Y N M A L D Y I  
UniRef90\_UPI00025585E5 A G T G A R G Y A H A I R I L R E  
UniRef90\_UPI00035D3348 C G L G A A G Y R F A L L S A L E Q  
UniRef90\_H6Q4D3 C G L G V N G Y Y F A I K A A M K Y  
UniRef90\_A4BFT3 A G F G S N S Y A L A I E A A D H Y  
UniRef90\_H2IKD9 I G M G T K G Y Q L A I N Y L L E K  
UniRef90\_C7R4D2 A G F G F D S Y R L A L S A L L D  
UniRef90\_UPI00029B4E11 T G F G M K G Y R L A I E S L I  
UniRef90\_E8Q6U7 C G F G E L G Y H V S L R F M A H Q Y  
UniRef90\_A4QYU7 C G M G V D G Y A V A V E F M A K  
UniRef90\_I8QPA1 V G L G P L G Y E L A A Q A L L D  
UniRef90\_G9ZW16 A G L G A R G Y A T A I R A V R D  
UniRef90\_C7M0X4 A G F G P R S Y E L A V L A L V E  
UniRef90\_E1VYL6 V G A G V N G Y K L A V Q Q L A  
UniRef90\_B8NXI4 I G L G T F G Y Q V A V K H A L E N  
UniRef90\_H6R8G5  
UniRef90\_X0UC65 M G F G L D S Y R L G I E A L  
UniRef90\_UPI0003706C90 A G F G P N S Y V L A I N A L  
UniRef90\_G2QHW5  
UniRef90\_E5WIG8 V G L G F K G Y E L A F H A L L D  
UniRef90\_E0XQR3 V G F G F D G Y E F A L  
UniRef90\_W6LPF8 S G L G A Q G Y E L A L C A A D R Y  
UniRef90\_UPI0003B44CE7 A G F G M D S Y R L A V E H F  
UniRef90\_UPI0001DD05DE K G K G L Q S Y L D A I D A V A  
UniRef90\_UPI000367F16D C G F G P K G Y A L A L D A L I  
UniRef90\_E9UR59 A G K G I D G Y R E A L E  
UniRef90\_R5W3E9 C G K G L Q S Y L D A V D F L V  
UniRef90\_W2RTB2  
UniRef90\_UPI0004631CD6 A G L G T A G Y R L A A R A L V E  
UniRef90\_F9Z6U0 M G F G L K S Y E L A L L A L I N  
UniRef90\_A2BV47  
UniRef90\_N9UQN8 A G H G A D S Y M L A L D A A A R  
UniRef90\_A9BE04 S G F G V M S Y Q L A F Q G I L D Y  
UniRef90\_S7XAE1 A G F G F D S Y L L G L D A V A R  
UniRef90\_H4F4P0 A G L G A K G Y P I A V K A L  
UniRef90\_Q7U4X5 S G F G A M S Y S L A L Q G L T D H  
UniRef90\_UPI0003F8C86E V G L G T L G Y A L A A E A L L R K  
UniRef90\_G8TYD4 S G L G A L G Y R L A V R Y L L D  
UniRef90\_R4LL48 F G L G T L G Y R L A A Q A L L  
UniRef90\_J9GMH4 C G F G L H S Y R L A L E A L L  
UniRef90\_I3YHS1 M G F G L D S Y R L G V E A L L  
UniRef90\_UPI0004788DF5 Y G K K Y E S Y Y E A C Q Y I V D K  
UniRef90\_D3FCW6 A G K G P D G Y R D A L E R V R E  
UniRef90\_K2P4U5 L G F G M Q S Y E L A L I S F L Q  
UniRef90\_W2SC96  
UniRef90\_Q8XQ89  
UniRef90\_UPI000381A202 A G F G P E V Y A M G V R A L  
UniRef90\_B8ECJ0 C G F G S Q G Y E F A L A A A L K  
UniRef90\_R5VYK1 V G K G F L S Y G E A L D Y I Q K K  
UniRef90\_R5PJ20 T G F G L D S Y E  
UniRef90\_U2K8U5 V G F G M D G Y R L A I E A I L  
UniRef90\_UPI0003672B39 M G F G L D G Y R L A V A H L I  
UniRef90\_C3PGM4  
UniRef90\_H0EC60 T G R G A A G Y R D A L E I L R D  
UniRef90\_Q4JVG3  
UniRef90\_M7WRA0 A G C G V L G Y E L G L R T A I E  
UniRef90\_Q7V8X7 S G F G A L S Y R L A L E G L L A H  
UniRef90\_Q7B6G8 V G L G A Y G Y R L A A R A L L  
UniRef90\_UPI0003B565D3 V G E G V A G Y A T A V I T K L L D  
UniRef90\_K2C1M2 S G L G  
UniRef90\_R5TTH9 V G L G L K G Y A L A M D Y L  
UniRef90\_UPI00039C3697 Y G E G K H G Y I T A I K H I L L E Q  
UniRef90\_UPI00047776F0 F G F G L K G Y E L A I Q S F L  
UniRef90\_UPI0003B58469 A G K G P D G Y H D A L S T L H A H  
UniRef90\_H6RVH9



UniRef90\_Z4WZD9  
 UniRef90\_A4SER3  
 UniRef90\_I0RIX3  
 UniRef90\_G8SPR9  
 UniRef90\_UPI000363D320  
 UniRef90\_UPI00040CE640  
 UniRef90\_C6W8U3  
 UniRef90\_A7F996  
 UniRef90\_UPI0004706D6A  
 UniRef90\_R7GED4  
 UniRef90\_I0AJY3  
 UniRef90\_J9DD06  
 UniRef90\_R9LYS8  
 UniRef90\_UPI00034B6060  
 UniRef90\_D7JG31  
 UniRef90\_UPI0002D71CA0  
 UniRef90\_A1HQ82  
 UniRef90\_UPI0003B68FCE  
 UniRef90\_E2ZK00  
 UniRef90\_A8HX03  
 UniRef90\_B1M7Q1  
 UniRef90\_UPI00034D43BF  
 UniRef90\_X6KS30  
 UniRef90\_R1FYH4  
 UniRef90\_Q1LU36  
 UniRef90\_UPI00035E1A54  
 UniRef90\_C3K028  
 UniRef90\_D6K431  
 UniRef90\_T0CCR4  
 UniRef90\_UPI000379A64A  
 UniRef90\_UPI00046EDF55  
 UniRef90\_D0L010  
 UniRef90\_A5CVG7  
 UniRef90\_T1CR50  
 UniRef90\_C3JCK4  
 UniRef90\_W5RYM0  
 UniRef90\_D0HBD2  
 UniRef90\_UPI000361AF9F  
 UniRef90\_W4HNL2  
 UniRef90\_UPI0003665D40  
 UniRef90\_L5MPW3  
 UniRef90\_UPI00036D963F  
 UniRef90\_UPI00035CE847  
 UniRef90\_L7VK56  
 UniRef90\_A8LCS8  
 UniRef90\_S7TYR0  
 UniRef90\_F8QPH5  
 UniRef90\_I7ZRH2  
 UniRef90\_E1X2B5  
 UniRef90\_UPI0003B70DB0  
 UniRef90\_C0ZZB7  
 UniRef90\_UPI00035FF8AF  
 UniRef90\_UPI0004679EFE  
 UniRef90\_W11117  
 UniRef90\_H8MS51  
 UniRef90\_F4KKW3  
 UniRef90\_UPI0003728527  
 UniRef90\_F2BAU3  
 UniRef90\_R7J1C5  
 UniRef90\_J9C9N0  
 UniRef90\_T0QYD0  
 UniRef90\_J3TE61  
 UniRef90\_E3EYX9  
 UniRef90\_T0RSB5  
 UniRef90\_H0TPX2  
 UniRef90\_X1B3R1  
 UniRef90\_F3Z212  
 UniRef90\_A1VDC4  
 UniRef90\_UPI000377984F  
 UniRef90\_G4KXH8  
 UniRef90\_H7DB19  
 UniRef90\_E0NK96  
 UniRef90\_U3G998  
 UniRef90\_U3Q214  
 UniRef90\_X1BU91  
 UniRef90\_W4L7C2  
 UniRef90\_UPI000374AC31  
 UniRef90\_C8X2E1  
 UniRef90\_L7U5A9  
 UniRef90\_UPI0003B56AE4  
 UniRef90\_U2U9L6  
 UniRef90\_E0XVY1  
 UniRef90\_S9PK75  
 UniRef90\_X0U3U4  
 UniRef90\_K1SUF5  
 UniRef90\_X6L662

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

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

UniRef90\_Z4WZD9  
UniRef90\_A4SER3  
UniRef90\_I0RIX3  
UniRef90\_G8SPR9  
UniRef90\_UPI000363D320  
UniRef90\_UPI00040CE640  
UniRef90\_C6W8U3  
UniRef90\_A7F996  
UniRef90\_UPI0004706D6A  
UniRef90\_R7GED4  
UniRef90\_I0AJY3  
UniRef90\_J9DD06  
UniRef90\_R9LYS8  
UniRef90\_UPI00034B6060  
UniRef90\_D7JG31  
UniRef90\_UPI0002D71CA0  
UniRef90\_A1HQ82  
UniRef90\_UPI0003B68FCE  
UniRef90\_E2ZK00  
UniRef90\_A8HX03  
UniRef90\_B1M7Q1  
UniRef90\_UPI00034D43BF  
UniRef90\_X6KS30  
UniRef90\_R1FYH4  
UniRef90\_Q1LU36  
UniRef90\_UPI00035E1A54  
UniRef90\_C3K028  
UniRef90\_D6K431  
UniRef90\_T0CCR4  
UniRef90\_UPI000379A64A  
UniRef90\_UPI00046EDF55  
UniRef90\_D0L010  
UniRef90\_A5CVG7  
UniRef90\_T1CR50  
UniRef90\_C3JCK4  
UniRef90\_W5RYM0  
UniRef90\_D0HBD2  
UniRef90\_UPI000361AF9F  
UniRef90\_W4HNL2  
UniRef90\_UPI0003665D40  
UniRef90\_L5MPW3  
UniRef90\_UPI00036D963F  
UniRef90\_UPI00035CE847  
UniRef90\_L7VK56  
UniRef90\_A8LCS8  
UniRef90\_S7TYR0  
UniRef90\_F8QPH5  
UniRef90\_I7ZRH2  
UniRef90\_E1X2B5  
UniRef90\_UPI0003B70DB0  
UniRef90\_C0ZZB7  
UniRef90\_UPI00035DWW5  
UniRef90\_U3U795  
UniRef90\_R7F1N9  
UniRef90\_C7H178  
UniRef90\_H0S5P3  
UniRef90\_R6VSC6  
UniRef90\_UPI00035FF8AF  
UniRef90\_UPI0004679EFE  
UniRef90\_W11117  
UniRef90\_H8MS51  
UniRef90\_F4KKW3  
UniRef90\_UPI0003728527  
UniRef90\_F2BAU3  
UniRef90\_R7J1C5  
UniRef90\_J9C9N0  
UniRef90\_T0QYD0  
UniRef90\_J3TE61  
UniRef90\_E3EYX9  
UniRef90\_T0RSB5  
UniRef90\_H0TPX2  
UniRef90\_X1B3R1  
UniRef90\_F3Z212  
UniRef90\_A1VDC4  
UniRef90\_UPI000377984F  
UniRef90\_G4KXH8  
UniRef90\_H7DB19  
UniRef90\_E0NK96  
UniRef90\_U3G998  
UniRef90\_U3Q214  
UniRef90\_X1BU91  
UniRef90\_W4L7C2  
UniRef90\_UPI000374AC31  
UniRef90\_C8X2E1  
UniRef90\_L7U5A9  
UniRef90\_UPI0003B56AE4  
UniRef90\_U2U9L6  
UniRef90\_E0XVY1  
UniRef90\_S9PK75  
UniRef90\_X0U3U4  
UniRef90\_K1SUF5  
UniRef90\_X6L662

50 60 70 80  
E L T Y F Q S N H E E G A L L I D R L Y T L E D E V D A I L N A G A Y S H T S L A  
A F D F F Q T N D S E E G A L L L E K L F Q L E D D A G D Y C M G V L L N A G A F T H T S I A  
N A V F R Q S N D S E E G A D L L V G S W I H E A A G E A G D P V V L I N P P A A F T H T S I A  
Q I D F R Q S N H H E E G D L L V W I Q E A A G E K A N A Y V V L I N P P A A Y S H T S V A  
E V V C A Q R T N G E E G D L V D L V H G A A R D W A G V V V M P P A G A Y A H Y S I A  
D V D V R Q T N E G E E G Q L T W E I H E A A D D G R F P V V L N A G A W T H Y S I A  
S V R S V Q R N H E E G G A L L I V D R I H E A R D G T D A I V I V N P A A F T H Y S V A  
E L T F Q S N W E E G A L I D R I Q E T T L A D A L I I N P A A Y T H T S L A  
N F D F F Q S N H E E G A I I D R I Q E L N Y D A L I I N P A A Y T H T S I A  
E Y S F F Q S N H E E G A I I D R I H E A S K I Y D G L I I N P A G G Y A H T S V A  
I F S Y F Q S N S E E G A L I I D K I H E A A G A S G A G V V L N A G A Y T H T S I A  
G L D F R Q S N S H E E G A L L V D R L H E A A R G V Y D G V V L N A G A Y T H Y S I A  
E C D V F Q S N H E E G A L L V D R L H G A A E E L D G I V I N P G A F A H Y S I A  
Q V R C A Q S N H E E G E L L V D L V H G A A G E E A D G G V L N A G G Y S H T S V A  
U P I 0 0 0 3 4 B 6 0 6 0  
U n i R e f 9 0 \_ D 7 J G 3 1  
U n i R e f 9 0 \_ U P I 0 0 0 2 D 7 1 C A 0  
U n i R e f 9 0 \_ A 1 H Q 8 2  
U n i R e f 9 0 \_ U P I 0 0 0 3 B 6 8 F C E  
U n i R e f 9 0 \_ E 2 Z K 0 0  
U n i R e f 9 0 \_ A 8 H X 0 3  
U n i R e f 9 0 \_ B 1 M 7 Q 1  
U n i R e f 9 0 \_ U P I 0 0 0 3 4 D 4 3 B F  
U n i R e f 9 0 \_ X 6 K S 3 0  
U n i R e f 9 0 \_ R 1 F Y H 4  
U n i R e f 9 0 \_ Q 1 L U 3 6  
U n i R e f 9 0 \_ U P I 0 0 0 3 5 E 1 A 5 4  
U n i R e f 9 0 \_ C 3 K 0 2 8  
U n i R e f 9 0 \_ D 6 K 4 3 1  
U n i R e f 9 0 \_ T 0 C C R 4  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 9 A 6 4 A  
U n i R e f 9 0 \_ U P I 0 0 0 4 6 E D F 5 5  
U n i R e f 9 0 \_ D 0 L 0 1 0  
U n i R e f 9 0 \_ A 5 C V G 7  
U n i R e f 9 0 \_ T 1 C R 5 0  
U n i R e f 9 0 \_ C 3 J C K 4  
U n i R e f 9 0 \_ W 5 R Y M 0  
U n i R e f 9 0 \_ D 0 H B D 2  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 1 A F 9 F  
U n i R e f 9 0 \_ W 4 H N L 2  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 6 5 D 4 0  
U n i R e f 9 0 \_ L 5 M P W 3  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 D 9 6 3 F  
U n i R e f 9 0 \_ U P I 0 0 0 3 5 C E 8 4 7  
U n i R e f 9 0 \_ L 7 V K 5 6  
U n i R e f 9 0 \_ A 8 L C S 8  
U n i R e f 9 0 \_ S 7 T Y R 0  
U n i R e f 9 0 \_ F 8 Q P H 5  
U n i R e f 9 0 \_ I 7 Z R H 2  
U n i R e f 9 0 \_ E 1 X 2 B 5  
U n i R e f 9 0 \_ U P I 0 0 0 3 B 7 0 D B 0  
U n i R e f 9 0 \_ C 0 Z Z B 7  
U n i R e f 9 0 \_ U P I 0 0 0 3 5 D W W 5  
U n i R e f 9 0 \_ U 3 U 7 9 5  
U n i R e f 9 0 \_ R 7 F 1 N 9  
U n i R e f 9 0 \_ C 7 H 1 7 8  
U n i R e f 9 0 \_ H 0 S 5 P 3  
U n i R e f 9 0 \_ R 6 V S C 6  
U n i R e f 9 0 \_ U P I 0 0 0 3 5 F F 8 A F  
U n i R e f 9 0 \_ U P I 0 0 0 4 6 7 9 E F E  
U n i R e f 9 0 \_ W 1 1 1 1 7  
U n i R e f 9 0 \_ H 8 M S 5 1  
U n i R e f 9 0 \_ F 4 K K W 3  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 2 8 5 2 7  
U n i R e f 9 0 \_ F 2 B A U 3  
U n i R e f 9 0 \_ R 7 J 1 C 5  
U n i R e f 9 0 \_ J 9 C 9 N 0  
U n i R e f 9 0 \_ T 0 Q Y D 0  
U n i R e f 9 0 \_ J 3 T E 6 1  
U n i R e f 9 0 \_ E 3 E Y X 9  
U n i R e f 9 0 \_ T 0 R S B 5  
U n i R e f 9 0 \_ H 0 T P X 2  
U n i R e f 9 0 \_ X 1 B 3 R 1  
U n i R e f 9 0 \_ F 3 Z 2 1 2  
U n i R e f 9 0 \_ A 1 V D C 4  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 7 9 8 4 F  
U n i R e f 9 0 \_ G 4 K X H 8  
U n i R e f 9 0 \_ H 7 D B 1 9  
U n i R e f 9 0 \_ E 0 N K 9 6  
U n i R e f 9 0 \_ U 3 G 9 9 8  
U n i R e f 9 0 \_ U 3 Q 2 1 4  
U n i R e f 9 0 \_ X 1 B U 9 1  
U n i R e f 9 0 \_ W 4 L 7 C 2  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 4 A C 3 1  
U n i R e f 9 0 \_ C 8 X 2 E 1  
U n i R e f 9 0 \_ L 7 U 5 A 9  
U n i R e f 9 0 \_ U P I 0 0 0 3 B 5 6 A E 4  
U n i R e f 9 0 \_ U 2 U 9 L 6  
U n i R e f 9 0 \_ E 0 X V Y 1  
U n i R e f 9 0 \_ S 9 P K 7 5  
U n i R e f 9 0 \_ X 0 U 3 U 4  
U n i R e f 9 0 \_ K 1 S U F 5  
U n i R e f 9 0 \_ X 6 L 6 6 2

D L E Y Y T N E G E A I N R I Y Q A A E D G D G L L M N P A G F Q Y A G H A

UniRef90\_Z4WZD9  
UniRef90\_A4SER3  
UniRef90\_I0RIX3  
UniRef90\_G8SPR9  
UniRef90\_UPI000363D320  
UniRef90\_UPI00040CE640  
UniRef90\_C6W8U3  
UniRef90\_A7F996  
UniRef90\_UPI0004706D6A  
UniRef90\_R7GED4  
UniRef90\_I0AJY3  
UniRef90\_J9DD06  
UniRef90\_R9L5S8  
UniRef90\_UPI00034B6060  
UniRef90\_D7JG31  
UniRef90\_UPI0002D71CA0  
UniRef90\_A1HQ82  
UniRef90\_UPI0003B68FCE  
UniRef90\_E2ZK00  
UniRef90\_A8HX03  
UniRef90\_B1M7Q1  
UniRef90\_UPI00034D43BF  
UniRef90\_X6KS30  
UniRef90\_R1FYH4  
UniRef90\_Q1LU36  
UniRef90\_UPI00035E1A54  
UniRef90\_C3K028  
UniRef90\_D6K431  
UniRef90\_T0CCR4  
UniRef90\_UPI000379A64A  
UniRef90\_UPI00046EDF55  
UniRef90\_D0L010  
UniRef90\_A5CVG7  
UniRef90\_T1CR50  
UniRef90\_C3JCK4  
UniRef90\_W5RYM0  
UniRef90\_D0HBD2  
UniRef90\_UPI000361AF9F  
UniRef90\_W4HNL2  
UniRef90\_UPI0003665D40  
UniRef90\_L5MPW3  
UniRef90\_UPI00036D963F  
UniRef90\_UPI00035CE847  
UniRef90\_L7VK56  
UniRef90\_A8LCS8  
UniRef90\_S7TYR0  
UniRef90\_F8QPH5  
UniRef90\_I7ZRH2  
UniRef90\_E1X2B5  
UniRef90\_UPI0003B70DB0  
UniRef90\_C0ZZB7  
UniRef90\_S5DWW5  
UniRef90\_U3U795  
UniRef90\_R7F1N9  
UniRef90\_C7H178  
UniRef90\_H0S5P3  
UniRef90\_R6VSC6  
UniRef90\_UPI00035FF8AF  
UniRef90\_UPI0004679EFE  
UniRef90\_W11117  
UniRef90\_H8MS51  
UniRef90\_F4KKW3  
UniRef90\_UPI0003728527  
UniRef90\_F2BAU3  
UniRef90\_R7J1C5  
UniRef90\_J9C9N0  
UniRef90\_T0QYD0  
UniRef90\_J3TE61  
UniRef90\_E3EYX9  
UniRef90\_T0RSB5  
UniRef90\_H0TPX2  
UniRef90\_X1B3R1  
UniRef90\_F3Z212  
UniRef90\_A1VDC4  
UniRef90\_UPI000377984F  
UniRef90\_G4KXH8  
UniRef90\_H7DB19  
UniRef90\_E0NK96  
UniRef90\_U3G998  
UniRef90\_U3Q214  
UniRef90\_X1BU91  
UniRef90\_W4L7C2  
UniRef90\_UPI000374AC31  
UniRef90\_C8X2E1  
UniRef90\_L7U5A9  
UniRef90\_UPI0003B56AE4  
UniRef90\_U2U9L6  
UniRef90\_E0XVY1  
UniRef90\_S9PK75  
UniRef90\_X0U3U4  
UniRef90\_K1SUF5  
UniRef90\_X6L662

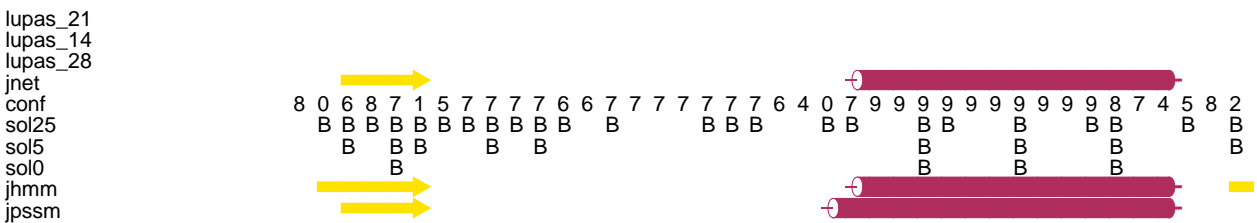
90 100 110 120  
L A D A L R A V I T P P T L E V V H I L S N N I Y A R E E E F R R S R S L I S E A C V G V V  
L R D A L R A S A V G A P V V E V H I L S N N I Y A R E E E F R R S R S L I S A V C A G V V  
L R D A L R A E S A R A V T L I E V V H I L S N N I Y A R E E E F R R S R S L I S A V C A G V V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

UniRef90\_Z4WZD9 A G F G L D S Y R L A L A S L  
UniRef90\_A4SER3 S G F G E E S Y H L G V R A L L  
UniRef90\_I0RIX3  
UniRef90\_G8SPR9 C G F G A E G Y L L G L R A L A  
UniRef90\_UPI000363D320 A G C G V L G Y E L G L R A A L Q  
UniRef90\_UPI00040CE640  
UniRef90\_C6W8U3 A G L G A R G Y R L A A R A L L D  
UniRef90\_A7F996 C G L G V F G Y R A A V E W C V G Y  
UniRef90\_UPI0004706D6A L G K K E Q S Y I E A I E Y I L D N  
UniRef90\_R7GED4 T N M K E Q G Y I E A I K Y L Q N Y  
UniRef90\_I0AJY3 S G L K D L G Y Y L A V I A V K R  
UniRef90\_J9DD06  
UniRef90\_R9LYS8 F G F G K G S Y L L A V D A L S R  
UniRef90\_UPI00034B6060 A G C G V V G Y E L G L R A V L  
UniRef90\_D7JG31 I G L G L D G Y R L A V E W F V  
UniRef90\_UPI0002D71CA0 V G F G T N S Y I I G A F A L I E  
UniRef90\_A1HQ82  
UniRef90\_UPI0003B68FCE A G F G F D S Y R L A L A Q L T R  
UniRef90\_E2ZK00 I G E G P Q G Y L H A C I Y L A Q  
UniRef90\_A8HX03 I G F G A A G Y E L A I E A M A R  
UniRef90\_B1M7Q1 A G L G G L G Y E L A I T A L A  
UniRef90\_UPI00034D43BF S G F G M E S Y L L G L K L M N Q  
UniRef90\_X6KS30  
UniRef90\_R1FYH4 A G L G A L G Y R L A A R A L L E  
UniRef90\_Q1LU36 C G L G I D G Y H F A L H K A V K  
UniRef90\_UPI00035E1A54 I G L G P L G Y R L A A Q A L L A K  
UniRef90\_C3K028  
UniRef90\_D6K431 V G L G S L G Y R L G A R A L L  
UniRef90\_T0CCR4 E G L K E K G Y F L A I  
UniRef90\_UPI000379A64A  
UniRef90\_UPI00046EDF55 V G L K G Y S Y D L G L Q G M K Q Y  
UniRef90\_D0L010  
UniRef90\_A5CVG7 S G F G P Q G Y E F A L Q A A I Q H  
UniRef90\_T1CR50 T G L G L E S Y T L A V H Y F L  
UniRef90\_C3JCK4 T G F G I H S Y R L A L L A F L E  
UniRef90\_W5RYM0 F G L G T D G Y R L A A R A L L  
UniRef90\_D0HBD2 C G L G A Q G Y E F A L S A A I R  
UniRef90\_UPI000361AF9F S G F G L E S Y R L A L H Y L  
UniRef90\_W4HNL2 A G L G I E G Y  
UniRef90\_UPI0003665D40 A G F G T H G Y E L A A E A L V R  
UniRef90\_L5MPW3 I G L K A N V Y E L G L R G I A Q Y  
UniRef90\_UPI00036D963F S G F G V I G Y R  
UniRef90\_UPI00035CE847  
UniRef90\_L7VK56 C G F G M F S Y E L A I I S F I  
UniRef90\_A8LCS8 A G L G P L G Y E L A A D A L M K  
UniRef90\_S7TYR0 A G F G M T S Y A L G V Q A L L Q H  
UniRef90\_F8QPH5 V G L G S M G Y R L A A K A L L E  
UniRef90\_I7ZRH2  
UniRef90\_E1X2B5 E G L G K R A Y L L G I  
UniRef90\_UPI0003B70DB0  
UniRef90\_C0ZZB7  
UniRef90\_S5DWW5 S G K G I D G Y I E A I D Y L Y E K  
UniRef90\_U3U795 C G L G S D G Y I W A L E T A I K  
UniRef90\_R7F1N9 A G L G L E G Y R L A V Q Y L  
UniRef90\_C7H178 A G E G V S G Y L H A C A Y L V Q  
UniRef90\_H0S5P3 S G F G V D G Y R L A I  
UniRef90\_R6VSC6 A G M G K H S Y K I A M E A F K Q  
UniRef90\_UPI00035FF8AF C G F G V D S Y L L G L R A V V N  
UniRef90\_UPI0004679EFE  
UniRef90\_W11117 C G L G A D G Y S Y A L Q T A V K  
UniRef90\_H8MS51 L G L G F D P Y I Q A L E T F A  
UniRef90\_F4KKW3 A G F G V A S Y D L A V R A A I Q  
UniRef90\_UPI0003728527 I G H G V N G Y K M G I D Y L N E K  
UniRef90\_F2BAU3 A G L G V Y G Y E A A L R F L V E  
UniRef90\_R7J1C5 A G F G I H S Y V L A A D Y L  
UniRef90\_J9C9N0 I G R G T Q G Y L E G L R F L K E Y  
UniRef90\_T0QYD0 E G L G K K V Y Y L A V M S L I D  
UniRef90\_J3TE61 S G M G V E C Y Y N A L D Y I I K K  
UniRef90\_E3EYX9 A G L G P R G Y A T A V G A M Q D  
UniRef90\_T0RSB5 E G I G Y K V Y S L A I  
UniRef90\_H0TPX2 T G F G I R S Y L H G L N V L  
UniRef90\_X1B3R1  
UniRef90\_F3Z2I2  
UniRef90\_A1VDC4  
UniRef90\_UPI000377984F  
UniRef90\_G4KXH8 K G H G L S G Y V E T P R F L C  
UniRef90\_H7DB19 C G F G K H S Y V L A L Y A L R E  
UniRef90\_E0NK96 C G K G F E G Y L Q A I E S L T K K  
UniRef90\_U3G998 C G F G V Q S Y L L A L R A A V  
UniRef90\_U3Q214 T G L G Y L G Y K L A L E A V A E  
UniRef90\_X1BU91  
UniRef90\_W4L7C2 I G F G I F G Y Y L A F R G V L D  
UniRef90\_UPI000374AC31  
UniRef90\_C8X2E1  
UniRef90\_L7U5A9 H G A G F A P Y L E A L E T F A  
UniRef90\_UPI0003B56AE4  
UniRef90\_U2U9L6 H G P G F E P Y L Q A L E T F  
UniRef90\_E0XVY1 S G L G I H S Y D L A I R A V N K K  
UniRef90\_S9PK75 E G E G F D S Y L Q A L E R F A  
UniRef90\_X0U3U4 C G F G L N S Y L L G L E A A V  
UniRef90\_K1SUF5 I G F G F D G Y K K A M E Y L C E K  
UniRef90\_X6L662 L G F G T D S Y I L G L D G M I R



UniRef90\_V6U8Q2  
 UniRef90\_T2G6T1  
 UniRef90\_X1RUL2  
 UniRef90\_Q08Y15  
 UniRef90\_R4LIL2  
 UniRef90\_G1V8I0  
 UniRef90\_V4JA82  
 UniRef90\_K1JS54  
 UniRef90\_UPI0003B76A4E  
 UniRef90\_A0QVD1  
 UniRef90\_N0GNB8  
 UniRef90\_UPI000372FCD0  
 UniRef90\_UPI000380D6DE  
 UniRef90\_S5QZV6  
 UniRef90\_T0YAP5  
 UniRef90\_W9Y8Z2  
 UniRef90\_Q6SFT4  
 UniRef90\_Q1NYN3  
 UniRef90\_Q9X658  
 UniRef90\_A8TT67  
 UniRef90\_X1MTU6

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

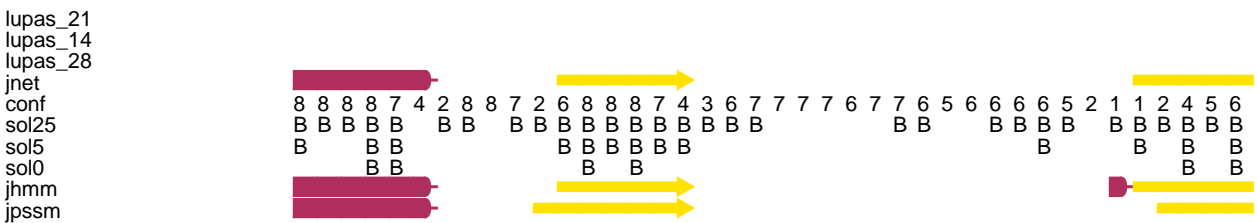




```

UniRef90_V6U8Q2      L R D A L A N Y P S P W I E V H L S N I W A R E G F R H Q S I L G S L A S G V I
UniRef90_T2G6T1      L A D C L A W L K I P T V E V H L S N I W A R E P L R H Q S F I G A
UniRef90_X1RUL2      I H D A I S A S K I P T I E V H I S N I F N R E Y W R A E S V I S P A A S G I I
UniRef90_Q08Y15      L R D A L E A M V V P I F E V H L D P T R A K L S V L R A V C T E Q F
UniRef90_R4LIL2      L R D A L A A Y P R P W I E V H L S N I W A R E R F R H E
UniRef90_G1V8I0      I M D A L A S L E
UniRef90_V4JA82      L R D C L S Y V A P P Y I E I H L T N I D R R G I R S A L S S A A V G V V
UniRef90_K1JS54      I L D A L K A T A I P T V E V H I S D V S T R E A F R H H S Y V S L A A K H T I
UniRef90_UPI0003B76A4E T K H A L S E T G K P V V E V H F A N V M A Q P S A P R E S V F S P Q V T S V M
UniRef90_A0QVD1      T R H A L E E T G R P W V E V H F A N I S A P P W S E R E S N F T R S A T G M S
UniRef90_N0GNB8
UniRef90_UPI000372FCD0 S H D I I S S K N K P V I E V R I E N I F K Q E G I K P M Q V S D S G A G F I
UniRef90_UPI000380D6DE L L D A V K A S E L P T V E V H I S N P H A R E A F R H H S Y L S H A A I A V I
UniRef90_S5QZV6      L L D C L K T F K G I I E I H I T N I Y K R E F F R F K S L I S L R S N I I I
UniRef90_T0YAP5      I R D A F L S S G L P V L E V H V S N V A K R E H F R Q T N Y L S D
UniRef90_W9Y8Z2      I R D A L L G T N F P F V E V H I S N V H A R E P W R H H S Y F S D K A V G V V
UniRef90_Q6SFT4      D L D M I T N Q G K Q V V E V R I E N I F K Q G K N K P L Q G P E S G V G F V
UniRef90_Q1NYN3
UniRef90_Q9X658
UniRef90_A8TT67
UniRef90_X1MTU6      L R D C I K A V S M P Y V E V H M T N I D K R

```



130

UniRef90\_V6U8Q2 F G L G A D G Y R L J A A R A L V

UniRef90\_T2G6T1 I G F G L D V Y K M A L N Y I I

UniRef90\_X1RUL2 S G K G A D P Y L Q A L D H F L Q

UniRef90\_Q08Y15

UniRef90\_R4LIL2

UniRef90\_G1V8I0

UniRef90\_V4JA82 H G F G V D S Y L I G L E A M L R H

UniRef90\_K1JS54 I G H G I D G Y R E G I E W L A R

UniRef90\_UPI0003B76A4E M G M R Q Y S Y A A A I V G L V

UniRef90\_A0QVD1 M G L R H H S Y L G A L V A L V

UniRef90\_NOGNB8

UniRef90\_UPI000372FCD0 G G L G I Q S Y I L J A I K S I N Q K

UniRef90\_UPI000380D6DE A G A G T A G Y R Y A V D I L A H H

UniRef90\_S5QZV6 S G M S L D G Y F L S I D Y I I K K

UniRef90\_T0YAP5

UniRef90\_W9Y8Z2 V G L G V F G Y Q A A L Q F C V Q K

UniRef90\_Q6SFT4 G G L G M H S Y V L J A I K A I N K K

UniRef90\_Q1NYN3

UniRef90\_Q9X658

UniRef90\_A8TT67

UniRef90\_X1MTU6

lupas\_21

lupas\_14

lupas\_28

jnet

conf

sol25

sol5

sol0

jhmm

jpssm

7 3 6 8 4 2 7 8 9 9 9 9 9 8 5 1 8

B B B B B B B B B B B B B

B B B B B B B B B

B B B B B

B B B B B