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QUERY UniRef90\_Q3ABD3 UniRef90\_B0T145 UniRef90\_UPI00047CDBBE UniRef90\_UPI00047CEF87 UniRef90\_B5E9C6 UniRef90\_M5PEP1 UniRef90\_UPI00036CBD25 UniRef90\_UPI00037739DE UniRef90\_UPI0004752C02 UniRef90\_A5US13 UniRef90\_U5L7L3 UniRef90\_UPI000225C03A UniRef90\_H5SF14 UniRef90\_UPI000374C15 UniRef90\_C7LVQ0 UniRef90\_D0MDT7 UniRef90\_G8SEY8 UniRef90\_Q3A353 UniRef90\_UPI0003643E49 UniRef90\_UPI00041D2BE5 UniRef90\_S2YD94 UniRef90\_W9GRM5 UniRef90\_Q12Y42 UniRef90\_D1YZC4 UniRef90\_J7L5X8 UniRef90\_Q8EP96 UniRef90\_C8PX0 UniRef90\_K6C3U5 UniRef90\_UPI0003110EB1 UniRef90\_UPI000349B9EA UniRef90\_UPI0003695C31 UniRef90\_Q3M5Z4 UniRef90\_S3BW19 UniRef90\_S7T8Q0 UniRef90\_X0QF83 UniRef90\_U1K6A1 UniRef90\_U4WTZ8 UniRef90\_W9AF11 UniRef90\_I4D2U1 UniRef90\_UPI000369B8CB UniRef90\_UPI000370B9BA UniRef90\_E9UVZ3 UniRef90\_N0B4M5 UniRef90\_UPI0003C0FD9F UniRef90\_K2R0K3 UniRef90\_F7Z343 UniRef90\_H5UTA9 UniRef90\_F4L2R4 UniRef90\_A4TEU5 UniRef90\_Q471U6 UniRef90\_UPI0004649DF1 UniRef90\_V5XCJ7 UniRef90\_K6ZX5 UniRef90\_S5ZA60 UniRef90\_UPI0003FDF28D UniRef90\_S9PFF8 UniRef90\_B9L4S4 UniRef90\_C7Q4P3 UniRef90\_UPI0003B7B5A UniRef90\_Q30302 UniRef90\_UPI0004649FA4 UniRef90\_K1E4N2 UniRef90\_UPI00036D09A0 UniRef90\_A0A010YNN2 UniRef90\_UPI000373D5DD UniRef90\_F3Y4Z6 UniRef90\_H5X6L7 UniRef90\_UPI000395935A UniRef90\_D6SUA5 UniRef90\_UPI00041F5FFB UniRef90\_V5PXK8 UniRef90\_UPI0004736062 UniRef90\_H0E5U1 UniRef90\_Q1AZ49 UniRef90\_U5W7N2 UniRef90\_UPI000465A98B UniRef90\_F0ED25 UniRef90\_K1YDQ8 UniRef90\_M7MSS9 UniRef90\_Q310X4 UniRef90\_S7TVW6 UniRef90\_UPI0003298DFC UniRef90\_G2LLI9 UniRef90\_A8ZSY3 UniRef90\_I0I2W8 UniRef90\_U3PIV4 UniRef90\_UPI0003B57A01 UniRef90\_W4RL67 UniRef90\_B1SXT2 UniRef90\_G9M6I8 UniRef90\_G7D425

90 100 110 120

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

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

QUERY UniRef90\_Q3ABD3 UniRef90\_B0T145 UniRef90\_UPI00047CDBBE UniRef90\_UPI00047CEF87 UniRef90\_B5E9C6 UniRef90\_M5PEP1 UniRef90\_UPI00036CBD25 UniRef90\_UPI00037739DE UniRef90\_UPI0004752C02 UniRef90\_A5US13 UniRef90\_U5L7L3 UniRef90\_UPI000225C03A UniRef90\_H5SF14 UniRef90\_UPI000374C15 UniRef90\_C7LVQ0 UniRef90\_D0MDT7 UniRef90\_G8SEY8 UniRef90\_Q3A353 UniRef90\_UPI0003643E49 UniRef90\_UPI00041D2BE5 UniRef90\_S2YD94 UniRef90\_W9GRM5 UniRef90\_Q12Y42 UniRef90\_D1YZC4 UniRef90\_J7L5X8 UniRef90\_Q8EP96 UniRef90\_C8PXY0 UniRef90\_K6C3U5 UniRef90\_UPI0003110EB1 UniRef90\_UPI000349B9EA UniRef90\_UPI0003695C31 UniRef90\_Q3M5Z4 UniRef90\_S3BW19 UniRef90\_S7T8Q0 UniRef90\_X0QF83 UniRef90\_U1K6A1 UniRef90\_U4WTZ8 UniRef90\_W9AF11 UniRef90\_I4D2U1 UniRef90\_UPI000369B8CB UniRef90\_UPI000370B9BA UniRef90\_E9UVZ3 UniRef90\_N0B4M5 UniRef90\_UPI0003C0FD9F UniRef90\_K2R0K3 UniRef90\_F7Z343 UniRef90\_H5UTA9 UniRef90\_F4L2R4 UniRef90\_A4TEU5 UniRef90\_Q471U6 UniRef90\_UPI0004649DF1 UniRef90\_V5XCJ7 UniRef90\_K6ZX5 UniRef90\_S5ZA60 UniRef90\_UPI0003FDF28D UniRef90\_S9PFF8 UniRef90\_B9L4S4 UniRef90\_C7Q4P3 UniRef90\_UPI0003B7B5A UniRef90\_O30302 UniRef90\_UPI0004649FA4 UniRef90\_K1E4N2 UniRef90\_UPI00036D09A0 UniRef90\_A0A010YNN2 UniRef90\_UPI000373D5DD UniRef90\_F3Y4Z6 UniRef90\_H5X6L7 UniRef90\_UPI000395935A UniRef90\_D6SUA5 UniRef90\_UPI00041F5FFB UniRef90\_V5PXX8 UniRef90\_UPI0004736062 UniRef90\_H0E5U1 UniRef90\_Q1AZ49 UniRef90\_U5W7N2 UniRef90\_UPI000465A98B UniRef90\_F0ED25 UniRef90\_K1YDQ8 UniRef90\_M7MSS9 UniRef90\_Q310X4 UniRef90\_S7TVW6 UniRef90\_UPI0003298DFC UniRef90\_G2LL19 UniRef90\_A8ZSY3 UniRef90\_I012W8 UniRef90\_U3PIV4 UniRef90\_UPI0003B57A01 UniRef90\_W4RL67 UniRef90\_B1SXT2 UniRef90\_G9M6I8 UniRef90\_G7D425

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

QUERY	210	220	230	240
UniRef90_Q3ABD3	P S K G A M L T	H E N L V A N V Y Q V R E F S N G I F D G G E R R L T A L P L F H		
UniRef90_B0T145	P K G V M L S	H A R N I L I V N A N M V A D C Q K W T H E D R L C F P V P L F F		
UniRef90_UPI00047CDBBE	A K G V M L T	H A R N I L I V N V V Q V N E W L Y K S E Y G E R V L G I V P F F F		
UniRef90_UPI00047CEF87	A K G V M L T	H Q N L V V N T T Q C L H W M Y K S K K G E E V F L L A V L P F F F		
UniRef90_B5E9C6	P K G V M L T	H Y N L V N N G F N I G E C M R F T T A N D R M C L I P V P F F F		
UniRef90_M5PEP1	P K G V M L T	H Y N L V A N N A G F N I A E C M N L T A N D R M C L I P V P F F F		
UniRef90_UPI00036CBD25	P K G A T L T	H R N I L N N G Y L V G E C I G L T D Q D R L C C C P V P L Y		
UniRef90_UPI00037739DE	P K G V M L T	H F N L Y A N A K M C A D A W M Y K F K E G E G A T L G V L P L F F		
UniRef90_UPI0004752C02	P K G A M L T	H H N L V A N T L Q S A A S S F I K T K K G E E R V L L A I S P L F F		
UniRef90_A5US13	P K G A E L T	H A N M F L N A T L C A D K L L D I S S D S V G L A V L P L F F		
UniRef90_U5L7L3	P K G A M L T	H K N L Y S N A K D V S D Y L K M N E S D R V I T S L P M F F		
UniRef90_UPI000225C03A	P K G V M L S	H R N L V A N A K M C A D A W I Y K M K K G E E V I L G V L P F F F		
UniRef90_H5SF14	P K G V L L T	H K N L S S N I Q S V M K L M R E K G S E G E R I L V P V P M F F		
UniRef90_UPI000374C15	P K G A T L S	H H N I L N N G F F V G E M I A Y T T E Q N D R I C L P V P F Y		
UniRef90_C7LVQ0	P K G V M L T	H Y N I G N N G F W I G E N Q K F T T H Q N D R V C L P V P L F F		
UniRef90_D0MDT7	P K G V M L T	H Y N I V A N I A Q T L A V E Q F F E D D E V L T G I L P F Y		
UniRef90_G8SEY8	P K G A T L S	H R N I L N N G F L V G E L L D Y T T A A D R L C I P V P F F Y		
UniRef90_Q3A353	P K G V M L T	H H N V I L N N G F N I G E C M R F T T E K D R L C I P V P F F F		
UniRef90_UPI0003643E49	P K G V M L T	H K N L I V N A V Q S E K V M Y K M H P G Q E K I V G A L P L F F		
UniRef90_UPI00041D2BE5	P K G V M L T	H Y N L I A N T Q M C Q A W L Y R A K P G D D E T I M A L L P F F F		
UniRef90_S2YD94	P K G V M L T	H K N I V N N G Q I I G D H M C D Y T T E Q D R V C C C I P V P F F F		
UniRef90_W9GRM5	P K G A T L S	H R N I L N N G F F V G E L L Q K F T T E D D R L C C C I P V P F F Y		
UniRef90_Q12Y42	P K G V M L T	H E N I L N N G Y F I G E R Q K F T T D D D R L C C C I P V P L F F		
UniRef90_D1YZC4	P K G V V L T	H H N I L N N G Y F I G E C M R F T T D K D R L C C C I P V P F F Y		
UniRef90_J7L5X8	P K G A T L S	H H N I L N N G F S V I G E L L G Y T T E D R I A L P V P F F Y		
UniRef90_Q8EP96	P K G V M L T	H R N I L T N N G F N I A N C M K L T A E D R L C C I P V P F F F		
UniRef90_C8PX0	P K G A T L T	H R N I L N N G Y F I A G C M S F T A D D R L C C I P V P L Y		
UniRef90_K6C3U5	P K G V M L T	H N N I V N N G F N I A G C M K L T V A D R L C I P V P F F F		
UniRef90_UPI0003110EB1	P K G A T L S	H H N I L N N G F F V I A E S M G F T S A D R L V I P V P L Y		
UniRef90_UPI000349B9EA	P K G A T L T	H R N V V N N A R F I A M A M R L T E Q D A L C I P V P L Y		
UniRef90_UPI0003695C31	A K G A M L S	H R N L V A N T Y Q A I A W Y P V K E L E G K G V M L G A I P F F F		
UniRef90_Q3M5Z4	P K G A T L S	H G N V I L N N M H V S M K H C C E M R P N D Q I L L F L P M F F		
UniRef90_S3BW19	P K G A T L S	H H N I L N N G F F V G E L L Q G Y T T E Q N D R I C C C I P V P F F Y		
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UniRef90_U1K6A1	P K G A T L T	H S N I L N N G L L V A N A M K L T E Q D K L C C C I P V P L Y		
UniRef90_U4WTZ8	P K G V M L T	H N N I I N N A I Q V A S C Q N L H Q E E D R V C C C I P V P F F F		
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UniRef90_H5UTA9	P K G A T L S	H R N I L N N G F F V G E L L T Y T T E K D R V C I P M P F F Y		
UniRef90_F4L2R4	P K G A T L S	H H N I L N N G Y F V A E L M N F T E K D R V I C I P V P L Y		
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UniRef90_K6ZX5	P K G A T L T	H C N L N N G F L A G E G M R L T P D D K V C I P V P L Y		
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UniRef90_S9PFF8	P K G A T L S	H H S V L N N G F F V I G E T L R L S P E D E D R V C V P V P F F Y		
UniRef90_B9L4S4	P K G A M L T	H R N L V A V T L Q T H A W A R N I E E P E D G D V V L G V I P I F F		
UniRef90_C7Q4P3	P K G A T L S	H R N V L G N G Y M V A E V Q G W T H E D R V C I P V P L Y		
UniRef90_UPI0003B7B75A	P K G A T L S	H H N I L N N G Y F V G E G I Q L K S P G D R I C I P V P L Y		
UniRef90_O30302	P K G V M L T	H F N I V A N A Y Q A N W D P K A S A D V G I G M L P V F F		
UniRef90_UPI0004649FA4	A K G A M L T	H G N L W W N N T N A M H N F D V L L A S D V T L A A A P L F F		
UniRef90_K1E4N2	P K G A T L S	H H N I L N N G Y F V I G E L L R Y T T E A D R I C I P V P F F Y		
UniRef90_UPI00036D09A0	P K G A T L T	H R N I L N N G F F V I G E C M R L T P E D R L C I P V P L Y		
UniRef90_A0A010YNN2	P K G A T L T	H H N I L N N G F F V G E G C G Y T T E A D R V C I P V P Y Y		
UniRef90_UPI000373D5DD	P K G V M L T	H K N L I A N A T A C D A W L Y K M K K G E E K L G L L P L F H		
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UniRef90_H5X6L7	P K G A V L T	H F N L L L H A F S N M A T L G V T N D D R V W A A A P L F F		
UniRef90_UPI000395935A	P K G A T L T	H R N I V A N N G Y F I G E A M K L S E E D R L C I P V P L Y		
UniRef90_D6SUA5	S K G V M L T	H Y N L A A N V R Q A M S M L H N I Q L G E H T V L G L L P Y F F		
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UniRef90_V5PXK8	P K G A T L T	H H N I V N N G R F I A M A M R F S E R D S L C I P V P F F Y		
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UniRef90_Q310X4	A K G V M L T	H H N I S V N V Q Q C C A M L Q E L V H Q K E H T F M G L L P Y F F		
UniRef90_S7TVW6	S K G V M L T	H A N L S R Q V Q Q I A G W F P G F R K G E E I M L G A L P F F F		
UniRef90_UPI0003298DFC	A K G A M L T	H R N M L A N L A Q V H A T Y G A L F K P G H E L V V T A L P L Y		
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UniRef90_A8ZSY3	P K G A A L T	H A N F V F D V K A M D E W V Y E P G A P P E K I Y I G V L P W Y		
UniRef90_I0I2W8	P K A A E L T	H R N L V A N T V I Q M Q A W F T D V S P G E K V L A L P A F F		
UniRef90_U3PIV4	S K G V V L T	H G N F I A A S V M I S M D D D L A G E V N D V F V L C V L P M F F		
UniRef90_UPI0003B57A01	S K G V M L T	H R N L V S N A Y H A A L A F R D R F T R Y V H A A P M F F		
UniRef90_W4RL67	P K G V M H K	H R N M V E Q S I I V V G S T K L G A N D V G L V T A P M F F		
UniRef90_B1SXT2	P K G V M L T	H T N L V S N V L S L A A T P R P E V K T V L Q I A P L F F		
UniRef90_G9M6I8	P K G V Q M L T	H K N V V V R F S H C K D P V F G N Q I I P D T A I L T V I P F H		
UniRef90_G7D425	P K G A M L S	H A N F L N Q T G N A E D K P E W N R W S T D D V I S L V A M P I F F		

QUERY UniRef90\_Q3ABD3 UniRef90\_B0T145 UniRef90\_UPI00047CDBBE UniRef90\_UPI00047CEF87 UniRef90\_B5E9C6 UniRef90\_M5PEP1 UniRef90\_UPI00036CBD25 UniRef90\_UPI00037739DE UniRef90\_UPI0004752C02 UniRef90\_A5US13 UniRef90\_U5L7L3 UniRef90\_UPI000225C03A UniRef90\_H5SF14 UniRef90\_UPI000374C15 UniRef90\_C7LVQ0 UniRef90\_D0MDT7 UniRef90\_G8SEY8 UniRef90\_Q3A353 UniRef90\_UPI0003643E49 UniRef90\_UPI00041D2BE5 UniRef90\_S2YD94 UniRef90\_W9GRM5 UniRef90\_Q12Y42 UniRef90\_D1YZC4 UniRef90\_J7L5X8 UniRef90\_Q8EP96 UniRef90\_C8PXY0 UniRef90\_K6C3U5 UniRef90\_UPI0003110EB1 UniRef90\_UPI000349B9EA UniRef90\_UPI0003695C31 UniRef90\_Q3M5Z4 UniRef90\_S3BW19 UniRef90\_S7T8Q0 UniRef90\_X0QF83 UniRef90\_U1K6A1 UniRef90\_U4WZT8 UniRef90\_W9AF11 UniRef90\_I4D2U1 UniRef90\_UPI000369B8CB UniRef90\_UPI000370B9BA UniRef90\_E9UVZ3 UniRef90\_N0B4M5 UniRef90\_UPI0003C0FD9F UniRef90\_K2R0K3 UniRef90\_F7Z343 UniRef90\_H5UTA9 UniRef90\_F4L2R4 UniRef90\_A4TEU5 UniRef90\_Q471U6 UniRef90\_UPI0004649DF1 UniRef90\_V5XCJ7 UniRef90\_K6ZXY5 UniRef90\_S5ZA60 UniRef90\_UPI0003FDF28D UniRef90\_S9PFF8 UniRef90\_B9L4S4 UniRef90\_C7Q4P3 UniRef90\_UPI0003B7B75A UniRef90\_O30302 UniRef90\_UPI0004649FA4 UniRef90\_K1E4N2 UniRef90\_UPI00036D09A0 UniRef90\_A0A010YNN2 UniRef90\_UPI000373D5DD UniRef90\_F3Y4Z6 UniRef90\_H5X6L7 UniRef90\_UPI000395935A UniRef90\_D6SUA5 UniRef90\_UPI00041F5FFB UniRef90\_V5PXK8 UniRef90\_UPI0004736062 UniRef90\_H0E5U1 UniRef90\_Q1AZ49 UniRef90\_U5W7N2 UniRef90\_UPI000465A98B UniRef90\_F0ED25 UniRef90\_K1YDQ8 UniRef90\_M7MSS9 UniRef90\_Q310X4 UniRef90\_S7TVW6 UniRef90\_UPI0003298DFC UniRef90\_G2LLI9 UniRef90\_A8ZSY3 UniRef90\_I0I2W8 UniRef90\_U3PIV4 UniRef90\_UPI0003B57A01 UniRef90\_W4RL67 UniRef90\_B1SXT2 UniRef90\_G9M6I8 UniRef90\_G7D425

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

QUERY	V	I	L	V	P	T	M	F	A	I	L	N	K	S	E	L	L	N	K	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	G	Q			
UniRef90_Q3ABD3	F	P	G	A	P	T	M	Y	V	A	L	L	N	H	P	D	L	N	K	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	G	Q			
UniRef90_B0T145	L	Y	G	V	P	T	M	F	I	A	E	L	L	H	P	D	F	D	K	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_UPI00047CDBBE	F	P	G	A	P	T	M	Y	I	G	L	L	N	H	P	D	I	S	K	N	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M		
UniRef90_UPI00047CEF87	F	P	G	A	P	T	M	Y	V	S	L	L	N	H	P	D	I	S	K	N	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M		
UniRef90_B5E9C6	L	H	G	V	P	T	M	F	I	A	E	L	L	H	P	D	R	F	P	E	S	F	N	L	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	M	M		
UniRef90_M5PEP1	L	H	G	V	P	T	M	F	I	A	E	L	L	H	P	D	R	F	A	F	S	Y	N	L	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	M	M		
UniRef90_UPI00036CBD25	L	H	G	V	P	T	M	F	I	A	E	L	L	H	P	D	R	F	Q	E	F	D	L	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	M	M			
UniRef90_UPI00037739DE	F	P	G	A	P	T	M	Y	I	G	L	L	N	H	P	D	L	E	K	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_UPI0004752C02	F	P	G	V	P	T	M	Y	I	A	L	L	N	H	P	D	L	E	K	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_A5US13	F	A	G	V	P	T	M	Y	F	Y	L	L	N	F	Y	N	A	D	Q	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	M	M			
UniRef90_U5L7L3	F	A	G	V	P	T	M	Y	N	F	L	L	N	Q	Y	S	D	G	K	A	E	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M		
UniRef90_UPI000225C03A	F	P	G	A	P	T	M	Y	I	G	L	L	N	H	P	D	L	N	K	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_H5SF14	M	V	C	V	P	T	L	Y	I	D	L	L	N	H	P	K	V	T	H	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_UPI000374C15	L	Y	G	V	P	T	M	F	I	A	E	L	L	H	P	D	F	A	A	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_C7LVQ0	L	Y	G	V	P	T	M	F	I	S	V	L	E	H	R	S	F	S	A	R	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M		
UniRef90_D0MDT7	A	F	L	V	P	T	L	I	L	A	L	A	K	H	P	L	V	D	R	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_G8SEY8	L	Y	G	V	P	T	M	F	I	A	M	L	H	H	P	D	F	A	G	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_Q3A353	L	H	G	V	P	T	M	F	I	A	E	L	L	H	P	D	F	A	D	R	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M		
UniRef90_UPI0003643E49	F	P	G	A	P	T	M	Y	I	A	E	L	L	N	H	P	E	L	H	K	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M		
UniRef90_UPI00041D2BE5	F	P	G	A	P	T	L	Y	I	A	L	L	N	H	P	K	L	T	N	F	D	V	T	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_S2YD94	L	H	G	V	P	T	M	F	I	A	E	L	L	N	H	P	E	Y	K	Q	F	D	V	T	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M		
UniRef90_W9GRM5	L	Y	G	V	P	T	M	F	I	A	E	W	N	L	P	D	F	A	D	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_Q12Y42	L	Y	G	V	P	T	M	F	I	A	E	F	S	H	P	M	F	N	K	M	F	N	M	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_D1YZC4	V	H	G	V	P	T	M	F	I	A	E	L	E	H	P	D	F	N	K	F	N	L	M	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_J7L5X8	L	Y	G	V	P	T	M	F	I	A	E	L	L	H	P	D	F	D	D	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_Q8EP96	L	H	G	V	P	T	M	F	I	A	E	L	L	H	P	D	F	N	F	E	R	Y	N	L	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M		
UniRef90_C8PXY0	L	H	G	V	P	T	M	F	I	A	E	L	L	H	P	D	F	A	N	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_K6C3U5	L	H	G	V	P	T	M	F	I	A	E	L	L	H	P	D	F	D	K	F	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_UPI0003110EB1	L	Y	G	V	P	T	M	F	I	A	E	L	L	H	P	D	F	A	S	T	D	F	F	L	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M		
UniRef90_UPI000349B9EA	L	H	G	V	P	T	M	F	I	A	E	L	L	H	P	D	F	A	S	T	D	F	F	L	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M		
UniRef90_UPI0003695C31	F	P	G	V	P	T	L	Y	V	G	F	N	N	F	P	G	I	E	R	R	K	L	V	G	T	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M		
UniRef90_Q3M5Z4	F	F	G	V	P	T	T	F	I	L	L	C				D	K	A	S	I	R	D	G	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_S3BW19	L	Y	G	V	P	T	M	F	I	A	E	L	L	H	P	D	F	A	A	F	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_S7T8Q0	L	Y	G	V	P	T	M	F	I	A	V	L	E	H	K	L	F	E	R	A	F	D	Y	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_X0QF83	V	Y	G	V	P	T	M	F	I	S	M	L	D	H	S	N	F	A	S	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_U1K6A1	L	H	G	V	P	T	M	F	I	A	Q	L	E	H	P	D	F	T	Q	F	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_U4WTZ8	L	Y	G	V	P	T	M	F	I	A	E	L	L	H	P	D	F	A	Q	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_W9AF11	F	P	G	A	P	T	L	Y	I	G	L	L	N	H	P	D	L	S	N	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_I4D2U1	F	P	G	A	P	T	I	F	M	A	I	N	N	H	P	R	I	A	D	Y	R	L	A	A	I	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M		
UniRef90_UPI000369B8CB	L	H	G	V	P	T	M	F	I	A	V	L	D	H	P	R	F	A	D	F	D	L	A	S	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M
UniRef90_UPI000370B9BA	L	Y	G	V	P	T	M	F	I	A	E	L	L	H	P	D	F	A	D	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_E9UVZ3	L	Y	G	V	P	T	M	F	I	A	M	Q	D	D	P	E	F	A	S	F	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_N0B4M5	F	P	G	A	P	T	L	Y	I	G	L	L	N	H	P	K	I	K	Q	F	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_UPI0003C0FD9F	L	Y	G	V	P	T	M	F	V	A	M	L	D	H	P	D	F	K	S	F	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_K2R0K3	L	Y	G	V	P	T	M	F	I	A	E	Y	S	H	P	M	F	D	M	F	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_F7Z343	F	A	G	V	P	T	M	Y	N	Y	L	F	Q	Y	E	G	G	D	P	K	D	F	A	S	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M
UniRef90_H5UTA9	L	Y	G	V	P	T	M	F	I	A	E	L	L	H	P	D	F	A	D	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M			
UniRef90_F4L2R4	I	F	G	V	P	T	M	F	I	A	E	L	L	H	P	D	F	N	F	D	Q	Y	D	L	R	S	S	I	L	N	V	E	I	A	S	G	G	A	P	L	S	K	E	V	Q	M	
UniRef90_A4TEU5	V	Y	G	V	P	T	M	F	I	A	M	Q	N	H	P	D																															



QUERY UniRef90\_Q3ABD3 UniRef90\_B0T145 UniRef90\_UPI00047CDBBE UniRef90\_UPI00047CEF87 UniRef90\_B5E9C6 UniRef90\_M5PEP1 UniRef90\_UPI00036CBD25 UniRef90\_UPI00037739DE UniRef90\_UPI0004752C02 UniRef90\_A5US13 UniRef90\_U5L7L3 UniRef90\_UPI000225C03A UniRef90\_H5SF14 UniRef90\_UPI000374C15 UniRef90\_C7LVQ0 UniRef90\_D0MDT7 UniRef90\_G8SEY8 UniRef90\_Q3A353 UniRef90\_UPI0003643E49 UniRef90\_UPI00041D2BE5 UniRef90\_S2YD94 UniRef90\_W9GRM5 UniRef90\_Q12Y42 UniRef90\_D1YZC4 UniRef90\_J7L5X8 UniRef90\_Q8EPY6 UniRef90\_C8XPY0 UniRef90\_K6C3U5 UniRef90\_UPI0003110EB1 UniRef90\_UPI000349B9EA UniRef90\_UPI0003695C31 UniRef90\_Q3M5Z4 UniRef90\_S3BW19 UniRef90\_S7T8Q0 UniRef90\_X0QF83 UniRef90\_U1K6A1 UniRef90\_U4WZT8 UniRef90\_W9AF11 UniRef90\_I4D2U1 UniRef90\_UPI000369B8CB UniRef90\_UPI000370B9BA UniRef90\_E9UVZ3 UniRef90\_N0B4M5 UniRef90\_UPI0003C0FD9F UniRef90\_K2R0K3 UniRef90\_F7Z343 UniRef90\_H5UTA9 UniRef90\_F4L2R4 UniRef90\_A4TEU5 UniRef90\_Q471U6 UniRef90\_UPI0004649DF1 UniRef90\_V5XCJ7 UniRef90\_K6ZX5 UniRef90\_S5ZA60 UniRef90\_UPI0003FDF28D UniRef90\_S9PFF8 UniRef90\_B9L4S4 UniRef90\_C7Q4P3 UniRef90\_UPI0003B7B5A UniRef90\_O30302 UniRef90\_UPI0004649FA4 UniRef90\_K1E4N2 UniRef90\_UPI00036D09A0 UniRef90\_A0A010YNN2 UniRef90\_UPI000373D5DD UniRef90\_F3Y4Z6 UniRef90\_H5X6L7 UniRef90\_UPI000395935A UniRef90\_D6SUA5 UniRef90\_UPI00041F5FFB UniRef90\_V5PXX8 UniRef90\_UPI0004736062 UniRef90\_H0E5U1 UniRef90\_Q1AZ49 UniRef90\_U5W7N2 UniRef90\_UPI000465A98B UniRef90\_F0ED25 UniRef90\_K1YDQ8 UniRef90\_M7MSS9 UniRef90\_Q310X4 UniRef90\_S7TVW6 UniRef90\_UPI0003298DFC UniRef90\_G2LL19 UniRef90\_A8ZSY3 UniRef90\_I012W8 UniRef90\_U3PIV4 UniRef90\_UPI0003B57A01 UniRef90\_W4RL67 UniRef90\_B1SXT2 UniRef90\_G9M6I8 UniRef90\_G7D425

E A V A R R F N L P G V V R Q G Y G L S T 330 340 350 360  
T K F E E V T G A V V V E G Y G L S T E E A S P V T H C N P E R G D D R K I G S T G G V  
R Q K V I D R M G I G E I V T E J A Y G G L T E E F S P P V I T Q T R T D D D R R V T C T S T V I G G K  
Q Q F E K I T K G G V L V E G Y G G L T E E T S P P V V A V I S T P W G K D R K V E G S T I G V I  
Q K F E Q L T G G K L V E G Y G G L T E E T S P P V V I T Q T R T D D D P K V V E T V V G R G  
R R V I R K M G H A S E I T T I A Y G G Q T E E A S P P V I T Q T R T V H D D R K V V E T V V G R Q  
K G V I E K M G I S E I T T I A Y G G Q T E E A S P P V I T Q T R T V H D D R K V V E T V V G R Q  
K R V V G E M H M S Q V T T I A Y G G M T E E T S P P V V S C M D T P L E R R R V V S T V V G G Q  
Q Q F E K L S G G K L V E G Y G L S T E E A S P P V T H A N F L W D R V K V G S I I G G V I  
K R F N E L S G T K V L A E G Y G L S T E E A S P P V T H A N P E G L Q K V G S I I G G V I  
H A F N R K Y N V T I L E E G Y G L S T E E A S P P V T A S F N H L D E P K P G S I I G G I  
E N F E K K F N V L I S E G Y G L S T E E A S P P V T H A N L Y G N R R K P G S I I G G I  
E K F E A V T G G K L V E G Y G L S T E E A S P P V T H A N L Y G N R R K P G S I I G G I  
E A M Q K R L G V T V Y E G Y G L T E T S P P V T H T N L A A P P K I G S I I G G W  
K R V V S E M N M A E E V S T I C Y G G M T E T S P P V S T Q T R R D D D Q R T T G T S V V G R  
E K V M D V M M M K E I T T I C Y G G L T E T S P P V M T Q T R V N D D Q R T T S V V G R  
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K Q V I D R M G M T E E V S T I C Y G G L T E T S P P V S C Q T R T P D D D R R V S T V V G R  
K R V I R E M Y M T E I T T I A Y G G Q T E E S P P V I T Q T R T D D D P R V A T V V G R  
Q Q F E L L T G G R L V E G Y G M T E E T S P P V T H S N H W G R R R K S G S I I G G V  
E E F E R V T G G K L V E G Y G L T E E S P P V T H S N F V W E N R I G S I I G G V  
K K V I D D M G A S E L T I C Y G G L T E E S P P V I S Q T K A D D A D R V K T V I G G K  
K K L I A S G I E E M T I C Y G G M T E T S P P V T S T Q N R T D D T K T R T V V G R T  
K K V I D E M N C K D I T I C Y G G L T E E A S P P V T S T N D S P I E R V S T V V G G T  
R K V S T L M N M S E I V I T Y G G Q T E E A S P P G L T M S T H D P R V S T V V G G Q  
R Q V I D R M G M A E V S I C Y G G M T E T S P P V S T Q T R R D D D R R V S T V V G R K  
K N V M N K M N M S E I T T I C Y G G Q T E E T S P P V I T Q T R A N D D P R V V S T V V G G K  
R R V I D K M H M K E V T T I A Y G G M T E T S P P V S C Q T T P L E K Q V V S T V V G G L  
K A V I E K M G A T E V T T I A Y G G Q T E E S P P V I M Q T R T N D P R V V S T V V G K  
K Q V I D K M N M K E V Q I A Y G M T E T S P P V S S T A N D T I D D K R V S T V V G R  
K R V V S K M H L S E I T T I A Y G M T E T S P P V S S T Q D P L S L S S T V V G R  
K R F E E L T G G K L V E G Y G L T E A S P C T H C N P M G K R K M G S I I G G L  
K R W Q D K F G M K V I N Q G Y G L T E T S P P L A S Y N H A E L R Y K L G S I I G G S  
K Q V I D R M G M T E E V S I C Y G G M T E T S P P V S T Q T R A D D D R R V S T V V G R  
K K V M E V M N M R E I T T I C Y G G L T E T S P P V M T Q T R V D D D R R T E S T V V G R  
K Q V T Q W H M T P E A I A Y G G T E T S P P A S T Q T W V D D R R V S T V V G R  
R Q V Q T Q M H M T D V L I G Y G Q T E C S P I T E I D S P V E K R V V Q T V V G R  
K N V V D K M G I R D I T I A Y G Q T E T S P P V T Q T R V D D S R V S T V V G R  
E Q F E K V T G G K L V E G Y G L S T E A S P P V T H A N F V W E N R I G S I I G G V  
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K R V V A H M H M A E V T T A Y G M T E T S P P V S F Q S H T D D E K K V A T V V G R  
K Q V I E R M G M T E V A I C Y G M T E T S P P V S V Q T R A D D D R R V S T V V G R  
K R C V I E R M H M S E V A I A Y G M T E T S P P V S C Q T R T D D D R R T E T I I G G R  
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K N F E K K F N V L I S E G Y G L S T E A S P P V T C F N P L D P R K P G S I I G T  
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K K V Q S L M H V S E M E V T I A Y G M T E T S P P V S T Q T R V D D E K Q V T E T V V G Q  
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K Q V I E R M G M A E V C I C Y G M T E T S P P V S S T Q T R R D D D R T A T V V G R  
R Q V I D R M H M G E I A I C Y G M T E T S P P V S T Q T R A D D D Q R T T T V V G P  
K R V I N E M H M E H V L I G Y G Q T E L S P L N H L T L L P E D P Q V E T V V G R  
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E A F E S L T G A T V L E G Y G V S E A S P P V T H L N P A D D R R R A G S I I G L  
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K R V V G L M H M G E V T T I A Y G M T E T S P P V S C Q S A P Q E K R R V S T V V G R  
K R V V S E M G M T E V T I C Y G M T E T S P P V S T Q T G A D D D R R T S T V V G R  
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R T M I D T F P Q A E V T T A F G Q T E C S P V T T V L R G E D R K I G S V G T  
K R V V S Q M H L S E I T T I A Y G M T E T S P P V S C Q S S T D D R R V S T V V G K  
E K F N K T G A E I L E G Y G L T E A S P P I T H F N P R G K R K I G S I I G R  
K R V V N E M N M G E V A T C Y G M T E T S P P V S T M T R P D D T R T E T V V G R  
K R V I S Q M H M N E V T T I A Y G M T E T S P P V T T T T D P L E K R V T T V V G R  
E K F E E L T G G K L V E G Y G L T E T S P P V T H S N F W E K R R R G S I I G V  
K G V K D A F A T P I L E G Y G L S T E T S P V A S F S R I D P Q K P G S I I G V  
E G M A E A F P S V I E V N A F G Q T E M S N T T F L K G E D D R K M G S V V G  
K R V V A E M N M T E V A I C Y G M T E T S P P V S S T M T R R D D R R T A T V V G R  
R Q V V E R M H M G D V G I C Y G M T E T S P P V S S T Q T R A G D T R V N T V V G P  
R R V I D Q L H M A E V Q I A Y G M T E T S P P V S L Q T T R G P E D D R V T V V G R  
E Q V I D K M N M T D I T C Y G L T E A S P P V M T Y T R I G D D D R V E T V V G R  
Q R C L D E M N M S E V S I A Y G M T E T S P P V S C Q T R V D D D R R T S T I I G R  
K R F K K L T G A A I V E G F G L T E A S P P I T H L N P R G L N K K P G S I I G V  
R A F E E K T G S V I V E G Y G L T E T P P V T H V N P R D K R K I G S I I G I  
E R W V K L T G R Y L L E G Y G L T E C A P L V S V N P L D D R H T G S I I G L  
R A F G E K F K T L V L E G Y G M S E T S P V L S Y N Q L T K P A K P G T V V G G  
K N F E A K T G S L I F E G Y G L S T E T S P V I T G N P S D K D K L G S V V G F  
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K K A R E R V P H L S F T H A Y G M T E A A P V V T A L P P E D H R L A C G Q  
R A C H D K L G I K L V Q A Y G M T E M G P A I T F L S E D D T K A G A A G Q  
Q S A M E R I P S S Q F L Q A Y G M T E T S P V S A M L P A G G K P K L K A A G R  
E A V A K R F K L P G V R Q G Y G L T E T T S A V I L T P E G D D K P K A S T G K  
K E C I E I F K C G F V Q M Y G M T E T T G T L V A L P P E D H R M R S A G K



QUERY UniRef90\_Q3ABD3 UniRef90\_B0T145 UniRef90\_UPI00047CDBBE UniRef90\_UPI00047CEF87 UniRef90\_B5E9C6 UniRef90\_M5PEP1 UniRef90\_UPI00036CBD25 UniRef90\_UPI00037739DE UniRef90\_UPI0004752C02 UniRef90\_A5US13 UniRef90\_U5L7L3 UniRef90\_UPI000225C03A UniRef90\_H5SF14 UniRef90\_UPI000374C15 UniRef90\_C7LVQ0 UniRef90\_D0MDT7 UniRef90\_G8SEY8 UniRef90\_Q3A353 UniRef90\_UPI0003643E49 UniRef90\_UPI00041D2BE5 UniRef90\_S2YD94 UniRef90\_W9GRM5 UniRef90\_Q12Y42 UniRef90\_D1YZC4 UniRef90\_J7L5X8 UniRef90\_Q8EP96 UniRef90\_C8PX0 UniRef90\_K6C3U5 UniRef90\_UPI0003110EB1 UniRef90\_UPI000349B9EA UniRef90\_UPI0003695C31 UniRef90\_Q3M5Z4 UniRef90\_S3BW19 UniRef90\_S7T8Q0 UniRef90\_X0QF83 UniRef90\_U1K6A1 UniRef90\_U4WZT8 UniRef90\_W9AF11 UniRef90\_I4D2U1 UniRef90\_UPI000369B8CB UniRef90\_UPI000370B9BA UniRef90\_E9UVZ3 UniRef90\_N0B4M5 UniRef90\_UPI0003C0FD9F UniRef90\_K2R0K3 UniRef90\_F7Z343 UniRef90\_H5UTA9 UniRef90\_F4L2R4 UniRef90\_A4TEU5 UniRef90\_Q471U6 UniRef90\_UPI0004649DF1 UniRef90\_V5XCJ7 UniRef90\_K6ZX05 UniRef90\_S5ZA60 UniRef90\_UPI0003FDF28D UniRef90\_S9PFF8 UniRef90\_B9L4S4 UniRef90\_C7Q4P3 UniRef90\_UPI0003B7B75A UniRef90\_O30302 UniRef90\_UPI0004649FA4 UniRef90\_K1E4N2 UniRef90\_UPI00036D09A0 UniRef90\_A0A010YNN2 UniRef90\_UPI000373D5DD UniRef90\_F3Y4Z6 UniRef90\_H5X6L7 UniRef90\_UPI000395935A UniRef90\_D6SUA5 UniRef90\_UPI00041F5FFB UniRef90\_V5PXK8 UniRef90\_UPI0004736062 UniRef90\_H0E5U1 UniRef90\_Q1AZ49 UniRef90\_U5W7N2 UniRef90\_UPI000465A98B UniRef90\_F0ED25 UniRef90\_K1YDQ8 UniRef90\_M7MSS9 UniRef90\_Q310X4 UniRef90\_S7TVW6 UniRef90\_UPI0003298DFC UniRef90\_G2LLI9 UniRef90\_A8ZSY3 UniRef90\_I0I2W8 UniRef90\_U3PIV4 UniRef90\_UPI0003B57A01 UniRef90\_W4RL67 UniRef90\_B1SXT2 UniRef90\_G9M6I8 UniRef90\_G7D425

410 420 430 440

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

QUERY UniRef90\_Q3ABD3 UniRef90\_B0T145 UniRef90\_UPI00047CDBBE UniRef90\_UPI00047CEF87 UniRef90\_B5E9C6 UniRef90\_M5PEP1 UniRef90\_UPI00036CBD25 UniRef90\_UPI00037739DE UniRef90\_UPI0004752C02 UniRef90\_A5US13 UniRef90\_U5L7L3 UniRef90\_UPI000225C03A UniRef90\_H5SF14 UniRef90\_UPI000374C15 UniRef90\_C7LVQ0 UniRef90\_D0MDT7 UniRef90\_G8SEY8 UniRef90\_Q3A353 UniRef90\_UPI0003643E49 UniRef90\_UPI00041D2BE5 UniRef90\_S2YD94 UniRef90\_W9GRM5 UniRef90\_Q12Y42 UniRef90\_D1YZC4 UniRef90\_J7L5X8 UniRef90\_Q8EP96 UniRef90\_C8PXU0 UniRef90\_K6C3U5 UniRef90\_UPI0003110EB1 UniRef90\_UPI000349B9EA UniRef90\_UPI0003695C31 UniRef90\_Q3M5Z4 UniRef90\_S3BW19 UniRef90\_S7T8Q0 UniRef90\_X0QF83 UniRef90\_U1K6A1 UniRef90\_U4WTZ8 UniRef90\_W9AF11 UniRef90\_I4D2U1 UniRef90\_UPI000369B8CB UniRef90\_UPI000370B9BA UniRef90\_E9UVZ3 UniRef90\_N0B4M5 UniRef90\_UPI0003C0FD9F UniRef90\_K2R0K3 UniRef90\_F7Z343 UniRef90\_H5UTA9 UniRef90\_F4L2R4 UniRef90\_A4TEU5 UniRef90\_Q471U6 UniRef90\_UPI0004649DF1 UniRef90\_V5XCJ7 UniRef90\_K6ZXU5 UniRef90\_S5ZA60 UniRef90\_UPI0003FDF28D UniRef90\_S9PFF8 UniRef90\_B9L4S4 UniRef90\_C7Q4P3 UniRef90\_UPI0003B7B75A UniRef90\_O30302 UniRef90\_UPI0004649FA4 UniRef90\_K1E4N2 UniRef90\_UPI00036D09A0 UniRef90\_A0A010YNN2 UniRef90\_UPI000373D5DD UniRef90\_F3Y4Z6 UniRef90\_H5X6L7 UniRef90\_UPI000395935A UniRef90\_D6SUA5 UniRef90\_UPI00041F5FFB UniRef90\_V5PXK8 UniRef90\_UPI0004736062 UniRef90\_H0E5U1 UniRef90\_Q1AZ49 UniRef90\_U5W7N2 UniRef90\_UPI000465A98B UniRef90\_F0ED25 UniRef90\_K1YDQ8 UniRef90\_M7MSS9 UniRef90\_Q310X4 UniRef90\_S7TVW6 UniRef90\_UPI0003298DFC UniRef90\_G2LLI9 UniRef90\_A8ZSY3 UniRef90\_I0I2W8 UniRef90\_U3PIV4 UniRef90\_UPI0003B57A01 UniRef90\_W4RL67 UniRef90\_B1SXT2 UniRef90\_G9M6I8 UniRef90\_G7D425

450 460 470 480

K G Y Q V P P A R E L V E S V L L Q H P S 460 F D A G V A G V V P 470 V A G E L P G A V  
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G G G N I Y P P R E E I E E E F L Y T T H P N I S D V Q V V Y P P P D D E R T F G G E E L V S A A  
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G G G N I Y P P R E E I E E E V L Y E S H P A V L E A A V V A G V P P P N E Y R G G E T T I R A V  
G G F N V Y P P R E E I E E E V L Y G H H P A V I A E A A V I G V P P D P A L G G E E V K A V  
G G Y N I Y P P R E E I E E E V L Y S H H P A G V Q E A A V V A G V P P D P N Q R G G E A V R S Y  
G G Y N I Y P P R E E I E E E V L Y E H H P A V A E A A V V A G I P P D P P N Q R G G E T T V K A Y  
G G G N I Y P P R E E I E E E F L Y G M E K K I A D V Q V V G V P P D D E R K G G E T T V K A Y  
G G E N V Y P P R E E I E E E F L Y R M E G I K A D V Q V V V G V P P S R K Y G G E E V L G A F  
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G G G N I Y P P R E E I E E E F L Y T T H P D V D V Q V V I G V P P P D K Y G G E E V M A W  
G G G N I Y P P R E E I E E E F L Y T H H P S K V I A D V Q V Y P P D V K Y G G E Q V M A A  
G G F N I Y P P R E E I E E E V L Y F E H P A V M E A A V I G V P P D P Y R G G E T T V K A Y  
G G Y N I Y P P R E E I E E E V L Y Q H H P D G S V Q D V Q V V A G V P P D P Y R G G E E L M A W  
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G G G N I Y P P R E E I E E E F L Y R H H P K I S Q T V Q V F G V P P D D Q K Y G G E E L C A W  
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G G Y N I Y P P R E E I E E E V L Y E H H P E G I Q E A V V A G V P P D A Y R G G E T T V K A Y  
G G Y N I Y P P R D I E E E F L Y E H H P K V K E V V V A G V P P D D Q Y R G G E T A K A Y  
G G G N I Y P P R E E I E E E F L Y R H H P K V Q D V Q V I G V P P D A K Y G G E E L C A W  
G G G N I Y P P R E E I E E E F L Y T T H P D D I A E A Q V V G V P P D E R Y G G E E L M A W  
G G G N I Y P P R E E I E E E F L Y F T H H P D I A E A Q V V G V P P D E R Y G G E E L C A W  
G G G N I Y P P R E E I E E E V L Y E H H P E I V E V A A G I P P D L Y R G G E T V K V Y  
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G G G Y N I Y P P R E E I E E E V L Y E H H P K V Q Q E V V A G I P P D E Y R G G E T V K A Y  
G G Y N V Y P P R E E I E E E V L Y E H H P A V S E A A V I G L P H E S L G G E E V G A A  
G G G N I Y P A E E R V L S T H H P A V A E V A V I G V P P H E K W G G E T P K A L  
G G G N V Y P P R E E I E E E F L Y T H H P D I A D A Q V I G V P P D H K Y G G E E L M A W  
G G G N I Y P P R E E I E E E F L Y T H H P D I A D A Q V I G V P P C S K Y G G E Q I V A W  
G G G N I Y P P R E E I E E E F L Y R M D G I K D I Q V A V A P P S K Y G G E E V G A F  
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G G Y N V Y P P R E E I D E E V L Y E H H P K V K E A V S V G V P P H A T R G G E I K A Y  
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S G F N V Y P N E I E E D V V M E H H P G V Q E V A A V G V P P S E N S G G E A V K I F  
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K G F Q V Y A P A E L E G L L Y S H H P E I L D A V V V P Y P P D D E A G E V P J A Y  
G G G N V Y S P E E V Q V L Y Q H H P A V L E V A V I G V P P D D E A G E V A V K A L  
G G G N I Y P P R E E I E E E D V L H A H H P A V L E V A V I G V P P D D R W G E S V T A F  
G G G N V Y S T E E N A V L T H H P A V Q L C A V V V T P P D D E T W G E I V H A L  
K G Y Q V P A E L E S V L L Q H H P Y I F D A G V A G V P P D D E D A G E L P G A C  
G G E N I Y P A E E I E S A L C D H P D V F A E A A V I G V P P D D K W G E A V K A V

QUERY	V	V	L	E	S	G	K	N	M	T	E	K	E	V	M	D	Y	V	A	S	N	A	K	R	L	R	G	G	V	R	F	V	D	E	V	P	K	K	500	510	520											
UniRef90_Q3ABD3	I	V	V	K	E	G	E	T	L	T	E	Q	E	E	V	I	F	V	A	S	N	A	K	R	L	R	G	G	V	R	F	V	D	E	V	P	K	K														
UniRef90_B0T145	I	V	L	K	E	G	E	E	A	T	S	Q	E	E	E	F	R	D	T	Y	F	C	R	R	K	L	L	K	V	E	F	F	R	S	E	H	F	F	P	M	K											
UniRef90_UPI00047CDBBE	I	V	L	K	E	G	H	S	V	S	T	E	E	E	L	D	Q	Y	C	R	K	N	L	L	A	A	L	K	V	E	F	F	R	E	E	E	L	L	P	K	K											
UniRef90_UPI00047CEF87	V	V	L	K	K	D	G	H	S	V	S	T	E	E	E	L	D	Q	Y	C	R	K	N	L	L	A	A	L	K	V	E	F	F	R	E	E	E	L	L	P	K	K										
UniRef90_B5E9C6	V	V	L	K	K	N	G	S	E	M	S	T	E	E	E	L	D	Q	Y	C	R	K	N	L	L	A	A	L	K	V	E	F	F	R	E	E	E	L	L	P	K	K										
UniRef90_M5PEP1	I	K	L	K	N	G	H	A	T	E	A	E	E	E	L	D	Q	Y	C	R	K	N	L	L	A	A	L	K	V	E	F	F	R	E	E	E	L	L	P	K	K											
UniRef90_UPI00036CBD25	I	I	S	K	P	G	Q	Q	L	D	E	E	E	E	L	D	R	F	A	R	K	Q	L	A	H	Y	K	V	P	P	K	Y	M	R	F	V	D	E	F	F	P	M	K									
UniRef90_UPI00037739DE	I	V	L	K	E	D	G	Q	R	V	T	E	E	E	L	D	R	F	A	R	K	Q	L	A	A	A	A	Y	K	V	P	R	S	D	L	E	F	R	D	E	L	P	K	K								
UniRef90_UPI0004752C02	V	V	L	K	K	D	G	E	Q	V	T	E	E	E	L	D	R	F	A	R	K	Q	L	A	A	A	A	Y	K	V	P	R	S	D	L	E	F	R	D	E	L	P	K	K								
UniRef90_A5US13	V	A	F	K	P	G	Q	T	A	T	E	A	E	E	L	I	E	Y	C	K	E	R	L	L	A	A	A	Y	K	V	P	R	S	D	L	E	F	R	D	E	L	P	K	K								
UniRef90_U5L7L3	V	V	L	K	S	D	G	P	S	L	T	E	E	E	L	I	G	Y	C	C	K	R	H	L	A	A	A	K	Y	K	V	L	P	S	S	L	E	F	R	D	E	L	P	K	K							
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UniRef90_H5SF14	I	V	L	K	A	G	Y	G	P	S	E	E	E	E	L	R	Q	Y	H	C	L	R	E	L	L	A	A	A	Y	K	H	P	R	R	E	I	E	F	V	T	D	E	L	P	K	K						
UniRef90_UPI000374C15	V	I	P	R	K	E	P	A	D	D	Y	T	E	E	L	A	A	Y	C	C	R	R	L	L	A	A	H	Y	K	I	L	P	R	R	E	R	V	V	F	L	D	A	E	F	F	P	M	K				
UniRef90_C7LVQ0	V	I	L	K	K	E	G	P	D	Y	A	T	E	E	L	M	A	Y	V	A	E	R	V	L	L	A	P	Y	K	K	I	R	R	V	V	E	F	V	D	D	Q	I	P	K	T							
UniRef90_D0MDT7	I	R	M	R	E	K	E	G	A	T	D	A	A	N	V	L	R	A	F	A	C	A	G	R	L	L	A	H	F	K	I	V	P	R	R	Y	I	K	R	L	V	D	D	E	F	F	P	M	K			
UniRef90_G8SEY8	I	K	L	K	E	N	T	S	A	T	A	T	E	E	L	R	O	D	F	A	C	C	R	L	L	A	A	A	N	Y	K	V	P	R	R	Y	I	K	R	L	V	D	D	E	F	F	P	M	K			
UniRef90_Q3A353	I	V	L	K	Q	G	E	Q	L	V	T	E	E	E	L	D	D	G	F	C	C	R	K	R	L	L	A	A	A	F	K	V	P	H	V	Y	E	F	R	R	D	E	L	P	K	K						
UniRef90_UPI0003643E49	I	V	L	K	E	G	E	T	L	N	E	A	E	E	L	D	D	A	Y	C	C	R	K	R	L	L	A	A	A	F	K	V	P	H	V	Y	E	F	R	R	D	E	L	P	K	K						
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UniRef90_S2YD94	I	I	A	K	D	G	E	T	L	N	E	A	E	E	L	D	D	A	Y	C	C	R	K	R	L	L	A	A	A	F	K	V	P	H	V	Y	E	F	R	R	D	E	L	P	K	K						
UniRef90_W9GRM5	I	R	M	R	P	G	T	E	L	T	A	E	E	E	L	R	E	F	Y	S	G	Q	L	L	A	H	Y	K	I	V	P	R	R	Y	I	V	E	I	V	D	E	F	F	P	M	K						
UniRef90_Q12Y42	V	V	L	K	E	G	S	K	L	T	P	E	E	E	L	R	D	F	S	I	T	K	L	L	A	A	A	Y	K	V	P	R	K	H	I	F	L	V	D	E	F	F	P	M	K							
UniRef90_D1YZC4	I	K	L	K	N	G	S	V	M	T	P	E	E	E	L	K	A	F	S	I	G	K	L	L	A	H	Y	K	I	V	P	R	K	Y	I	K	F	A	F	V	D	E	F	F	P	M	K					
UniRef90_J7L5X8	V	R	M	R	E	G	A	E	P	T	P	E	T	L	R	A	F	C	Q	G	G	R	L	L	A	H	F	K	I	V	P	R	Y	V	H	V	D	D	E	F	F	P	M	K								
UniRef90_Q8EP96	I	I	L	K	E	G	E	S	S	S	D	E	E	E	L	K	Q	F	C	C	N	G	L	L	A	S	K	Y	K	V	P	K	H	L	K	F	I	T	D	A	E	F	F	P	M	K						
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UniRef90_K6C3U5	I	L	L	K	E	G	E	T	A	T	A	E	E	E	L	K	E	F	C	L	G	R	I	L	L	A	S	K	H	I	V	P	R	Y	I	K	F	T	D	A	E	F	F	P	M	K						
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UniRef90\_UPI00035CD741 A H P H L E V K I V V D P A T T G E T V E R G E F C T R G Y S V M L G Y W K D  
UniRef90\_UPI000370534F P L P H V E V K I V D P A T T G E T V E R G E P G E F L T R G Y S V M L G Y W D M  
UniRef90\_V4C1A5 P G S H V E A K I V D T D D G N I V P V G Q P G G E L C S R G Y T T M L G Y W N D  
UniRef90\_UPI00036CC2CB P Y P S T A E T R I V L G D D E G K E E L P L G E R G E I A I R G P Q V M A G Y W Q R  
UniRef90\_UPI0001FFDAC6 A S L N A E T R V V D D E D G G E E L P V L G E V G E I V H R S P H A A L G Y Y G D  
UniRef90\_I1DTI6 P A P S T D I R L V D D E A G A N D V P A G E P G E M L V K G P Q V M L G Y L N R  
UniRef90\_B4RDD0 A W P T L E I R I V D D E A G A N V P A G Q I G E I E I R G P I V M A G Y W N R  
UniRef90\_AOA031LRW7 V H P H L E V K I V V D E E T H G K V L V P R G K I G E L C V R G P S V M L G Y W D E  
UniRef90\_H6QYB1 A A P H V E V R I V D D E T T G T E V P R G E I G E V V A R G D N V M L G Y W N K  
UniRef90\_R7KAN3 A F D G V E C K I I D D P E T T G E T L P P D T P G E F C A R G Y N I M K G Y Y K M  
UniRef90\_UPI000468918F P V P S T E I C K I V I D D P E T T G E T L P P D T P G E F C A R G Y N I M K G Y Y K M  
UniRef90\_W6WAT0 P I S S T E I S I R N D D D G S E V E L G D V G G E I C C I R G P Q V M A G Y W N R  
UniRef90\_N6WURU5 P L C D T L I K T V D D E E G N E T P E R G E P G E L C C V K G P Q V M K G Y W Q R  
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UniRef90\_D5WSP2 P V A G T E A R I V D V A T G N Q E L P P G E P G E L V V R G P Q V M K G Y W N R  
UniRef90\_L8JIT7 P V P S T E V R I V D D G E G N V L A N D Q T G E L Q V R G P Q V M K G Y W Q R  
UniRef90\_A9BMB0 P V T I A E V R I V D D G E G R E L P A G E V G E I T A R G P M V M Q G Y W N R  
UniRef90\_UPI0003AD3B43 P V W G V E M K L I D D G W K E I E G E P G E I A I R G H N I M K G Y H N R  
UniRef90\_EOUIMO P Y I G A E G L R V V D D E Q M Q D V P A D T I G E V I M R G N M V M K G Y Y N D  
UniRef90\_F4PCR2 L V P N M Q A R I I D P D T G K D A M T N Q P G E L W L R G P N V M K G Y I N N  
UniRef90\_B6WUW4 A F P H T E I R I V D N D S S R V L G P N E E G E M L V R G P Q V M Q G Y W N R  
UniRef90\_S8CZ23 L A P G V E S R I V S V E N S K A L P Q G E V G E I W V R G Q N M M R G Y L N N  
UniRef90\_K6CIP9 P A V N V E I R I V D D F N D Q D V P Q G E V G E I V V Y K G P T V M K E Y Y K N  
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UniRef90\_AOA010YDK5 A L P H E I C R V V D P E T G E E V P D D E V G E F V A R G Y N I M K G Y Y K M  
UniRef90\_E3BLD5 V L R E T E V K I I D T E T G E E V L E C G V P G E L C T R G Y C V M V G Y W N D  
UniRef90\_C8WUV5 P L F D V D A R I V D P E T L A E L G P G E E G E I L V C G P Q V F L G Y W N R  
UniRef90\_F0KK18 P L P L T E V A I L D D D D G K E V A L G E Q G E I S I R G P N V M K G Y W K R  
UniRef90\_B8DIK0 A M P C I E V R I V D D D T N E E V P R G T Q G E V V C R G Y N V M K G Y Y N M  
UniRef90\_D5WU46 P C I N V E S K I V D D E E Y G R E V P P G T V G E I V H R T P H A M I G Y Y N D  
UniRef90\_C0GJP8 P M P D T E C K I V D D L E Y G T E M P V G V A G E L I I R T P N V M K G Y W N R  
UniRef90\_AOA059MGJ7 P H F F T D V R V V D P D G T E V A P G D R G E I Q I S G P N V M R R Y W N K  
UniRef90\_C3BR75 A A Y N H E I R V V R P E P N D I L R P Y E I G E I I M R G S C L M K G Y Y N N  
UniRef90\_R7ZVB3 P L P N T E V K I V D D D E G N E L P P Y E I G E L C I K G P Q V M R G Y W Q R  
UniRef90\_UPI0001FFEC8A P M V N V E R I V V D D E D M A D V R P G D V G E I V Y R G P T V M R G Y W N R  
UniRef90\_AOA022GL50 P L P D V E V V V D W E G R R L P P G E V G E L M I R S P Q N M A G Y W K Q  
UniRef90\_UPI00047CA224 P M P D T D C M I I D E N N N D L G P K C V G G E L L I K G P Q I M K G Y W N N  
UniRef90\_A9BQI2 P L P S T Y L K L V D D D G N D V T E L G A R G E L L A I K G P Q V M A Y W O R  
UniRef90\_UPI000255A203 A V P S T E V K I V D D N G N D L P N N T P G E L C V R G P Q V M K G Y W E R  
UniRef90\_W8RDE4 P V P G T A L K V I D D E G D E L P L G E R G E L C C V K G P Q V M K G Y W Q R  
UniRef90\_UPI000314AEFB V H P H L E V K A V D A E G R T V P A G E Q G E L L V R G Y S V M E S Y W D D  
UniRef90\_UPI0004227F10 V Q P H L E V K I V D P A T G E T V A P G I S G E L C T R G Y S V M H G Y W G D  
UniRef90\_V4TSL4 V V R N A E L K I V D P E T I G A S L P H N Q P G E V C C L R G P I M K G Y L N D  
UniRef90\_G7FV24 A L A H T E V K I I D D E L G N I Q K I G L P G E V C S K G V G I M R C Y W N D  
UniRef90\_UPI00036578CE A V A H A E V R I V D D A G A N E V P R G T V G E I V V S G D N V M L G Y W N K  
UniRef90\_G8S2L1 P I W G V E V K I I D D A E W N T V T G V D E I G E I A I R G H N I M K G Y Y N R  
UniRef90\_U5BXF4 P L P N T D V K I V D D D G N E L P V F G T R G E L C I K G P Q V M K G Y W N R  
UniRef90\_UPI00042A3249 P F M S T D A R I V D P Q T L K E L P Q G E Q G E I V V H G P E V F D G Y W K H  
UniRef90\_M4EL94 L A P G I E A Q I V S V D S T L K P P T Q S G G E I W V R G G L N M M R G Y F N N  
UniRef90\_D8F8Q5 P L P F L D A C I V V D E N D T P L P P G K V G E I V C R G E N V M K G Y H E D  
UniRef90\_D8IRZ8 P L P S T E F A I L D D D G Q P V P L G Q P G E I A I R G P Q V M P G Y W Q R  
UniRef90\_E9UQT3 P I P G V E M K L I A D D W S E P N D P D A V G E L A L K G H N I M K G Y F R D  
UniRef90\_C0GH76 Y I T A L E M R V D D S M N D V P A D G Q T G E V V M R G N V M K G Y F N D  
UniRef90\_I7C758 P V A G T A F K I V D D D G N E L P L G E R G E L C I K G P Q V M K G Y W Q Q  
UniRef90\_F7QI21 P V P S T W L S I R D D D G N E V P L G E A G E I C C A K G P Q V M A G Y W N R  
UniRef90\_E1VK11 A A L G V E V A I M D K D D V E L P R G E V G E I C C A R G P N V M L G Y W G M  
UniRef90\_UPI0002DB1AD6 P V W G V E A R L V D D A D W N T V T A T D T I G E L A L R G H N V M S G Y L G R



		410	420	430	440																																						
UniRef90_K6DR90	E	Q	A	T	M	E	T	I	Q	D	G	W	L	H	T	G	D	M	G	T	V	D	E	Y	G	T	I	E	I	V	D	R	K	K	D	I	I	S					
UniRef90_L8JCW2	A	E	E	T	A	S	S	L	K	D	G	W	L	H	T	G	D	I	G	R	F	D	E	Q	A	G	N	L	V	V	D	R	L	K	D	M	V	I	R				
UniRef90_UPI00031F2AC7	E	E	E	K	T	A	A	T	L	K	D	G	W	L	H	T	G	D	I	G	V	M	D	E	E	Q	G	F	V	I	V	D	R	L	K	D	M	V	I	R			
UniRef90_Q5X509	P	E	D	E	T	A	L	V	F	T	K	D	G	W	L	K	T	G	D	I	A	R	M	D	E	E	E	G	F	V	I	V	D	R	L	K	D	M	V	I	R		
UniRef90_A0A059DAI7	P	Q	A	T	K	L	T	I	D	N	K	G	W	V	H	T	G	D	L	G	Y	F	D	E	E	E	E	Q	L	T	V	V	D	R	L	K	D	M	V	I	R		
UniRef90_L5MZRO	E	E	E	K	T	R	A	A	F	Q	G	G	W	F	H	S	T	G	D	L	G	I	M	D	E	E	E	G	Y	I	T	V	V	D	R	L	K	D	M	V	I	R	
UniRef90_UPI00037A1672	E	E	E	A	T	K	E	T	L	R	G	G	W	L	Y	T	G	D	L	G	Y	W	D	P	D	G	Y	I	L	F	L	S	G	R	A	K	K	D	F	L	K	R	
UniRef90_F6B6W0	P	L	E	T	A	A	V	L	R	D	G	W	L	Y	T	G	D	I	A	R	M	D	E	N	G	G	F	T	Y	I	V	D	R	L	K	D	M	V	I	T	R		
UniRef90_R5Y209	P	K	A	T	A	S	A	I	D	K	D	G	W	L	H	T	G	D	L	A	C	R	T	P	E	G	N	F	R	I	T	G	R	L	K	D	M	V	I	R			
UniRef90_K6WSA4	P	E	K	T	A	E	A	I	D	T	D	G	W	M	H	T	G	D	L	A	V	M	D	E	N	G	Y	I	T	G	R	L	K	D	M	V	I	R	R				
UniRef90_V6T031	P	E	E	T	A	K	T	I	K	D	G	W	L	Y	T	G	D	L	A	T	V	D	E	N	G	Y	I	T	L	V	D	R	L	K	D	M	V	I	S				
UniRef90_D0J5I2	P	A	E	T	A	E	A	I	R	D	G	W	M	H	T	G	D	L	G	R	M	D	E	E	G	Y	V	F	D	I	S	G	R	I	K	D	M	V	I	T	R		
UniRef90_UPI0002ECA9F1	P	D	K	T	A	E	V	L	D	A	D	G	W	M	H	T	G	D	L	G	I	M	N	E	A	G	Y	V	L	D	I	S	G	R	I	K	D	M	V	I	R		
UniRef90_K0CF95	P	A	Q	T	A	E	A	L	R	N	G	W	M	H	T	G	D	L	G	Y	M	D	E	E	D	G	F	I	Y	V	V	D	R	L	K	D	M	V	I	T	R		
UniRef90_S4W911	P	Q	A	T	K	D	T	L	D	E	K	G	W	V	H	T	G	D	I	G	Y	F	D	E	E	E	Q	L	F	V	V	D	R	L	K	D	M	V	I	K	Y		
UniRef90_UPI00041879EA	P	D	E	T	A	K	V	M	Q	D	D	G	W	L	H	T	G	D	L	G	L	M	D	E	N	G	F	F	K	I	V	D	R	L	K	D	M	V	I	L	V		
UniRef90_K2K8A7	P	D	D	T	A	E	A	T	K	D	G	W	F	A	T	G	D	L	I	G	N	C	D	E	R	G	Y	F	R	I	V	D	R	L	K	D	M	V	I	L	V		
UniRef90_UPI00047B3F86	P	E	E	T	A	A	A	I	D	A	D	G	W	L	H	T	G	D	L	M	A	R	M	D	E	N	G	G	F	F	Y	I	V	D	R	L	K	D	M	V	I	L	V
UniRef90_B6WUH7	P	E	E	T	A	R	T	I	S	P	D	G	W	L	H	T	G	D	L	G	T	M	D	E	N	G	Y	V	R	V	T	G	R	L	K	D	M	V	I	R			
UniRef90_V6T783	E	E	A	T	M	E	T	I	R	N	G	W	L	H	T	G	D	L	M	A	T	V	D	K	Y	G	N	I	D	I	V	D	R	L	K	D	M	V	I	S			
UniRef90_UPI000381D59C	P	E	R	T	A	D	T	I	Q	D	G	W	M	H	T	G	D	L	L	A	T	M	D	A	E	G	Y	C	N	I	V	D	R	L	K	D	M	V	I	T	R		
UniRef90_Q8R8N5	P	E	E	T	A	K	T	L	R	N	G	W	L	H	T	G	D	L	A	K	K	D	E	D	G	Y	F	Y	I	V	D	R	L	K	D	M	V	I	T	R			
UniRef90_B8DPC6	P	D	E	T	A	N	T	L	R	N	G	W	L	Y	T	G	D	L	A	I	M	D	E	D	G	Y	F	T	I	V	D	R	L	K	D	M	F	L	V				
UniRef90_A0A024PD48	D	E	E	T	A	R	H	A	L	R	N	G	W	L	Y	T	G	D	L	A	M	T	D	E	D	G	Y	F	Y	I	V	D	R	L	K	D	M	V	I	N	R		
UniRef90_U2CDB6	P	E	A	T	A	K	V	I	D	E	D	G	W	L	H	T	G	D	I	G	I	K	D	A	D	G	N	Y	R	I	T	G	R	L	K	D	M	V	I	L	R		
UniRef90_ROHKN3	P	V	A	T	A	S	T	I	D	E	D	G	W	L	H	T	G	D	V	G	F	I	D	E	D	D	E	L	F	I	V	D	R	L	K	D	M	V	I	K	Y		
UniRef90_UPI00040D04CA	E	E	A	T	E	K	A	L	Y	K	G	W	F	H	S	T	G	D	L	G	Y	M	D	E	D	G	F	L	Y	V	A	D	R	V	D	D	M	V	I	S			
UniRef90_W3RMB3	P	D	E	T	A	K	V	M	T	S	D	G	F	F	R	T	G	D	L	G	I	M	N	E	P	D	G	F	I	K	I	V	D	R	L	K	D	M	V	I	V		
UniRef90_F6CH19	E	E	E	T	Q	K	V	L	R	N	G	W	L	H	T	G	D	L	G	Y	M	D	E	D	G	Y	V	F	I	V	G	R	K	K	N	V	I	I	R	R			
UniRef90_UPI00034883E7	P	E	E	V	N	A	E	V	L	K	D	G	W	F	R	T	G	D	L	A	R	R	D	D	D	G	F	Y	F	I	D	R	S	K	D	M	V	I	S				
UniRef90_UPI0003673E5A	P	E	A	T	A	G	S	Y	A	D	S	V	W	F	R	T	G	D	M	G	Y	R	D	G	E	G	F	L	F	V	S	D	R	L	K	D	M	V	I	S			
UniRef90_L7LEX0	P	E	K	T	A	E	V	L	D	A	D	G	W	M	A	T	G	D	L	G	V	M	A	D	N	G	Y	V	R	I	V	D	R	L	K	D	M	V	I	R			
UniRef90_R7V7B7	P	K	A	T	H	S	A	L	D	A	N	G	W	L	H	T	G	D	I	G	F	Y	D	D	E	G	Y	F	Y	V	D	R	L	K	D	M	V	I	K	Y			
UniRef90_T0T753	P	E	E	T	A	K	V	M	T	A	D	G	F	F	K	T	G	D	I	G	I	M	D	E	K	G	F	F	K	I	V	D	R	L	K	D	M	V	I	L	V		
UniRef90_UPI0002ECBCCD	P	E	E	T	A	K	V	M	T	P	D	G	F	F	K	S	G	D	V	G	V	M	D	E	R	G	Y	V	K	I	V	D	R	L	K	D	M	V	I	L	V		
UniRef90_UPI00035CD741	G	K	A	T	A	H	A	I	D	S	E	G	W	M	H	T	G	D	L	A	V	M	R	A	D	G	Y	C	A	S	I	V	G	R	L	K	D	M	V	I	R		
UniRef90_UPI000370534F	P	E	R	T	A	E	A	I	D	A	G	R	W	M	H	T	G	D	L	A	V	M	D	A	A	G	Y	V	S	I	V	G	R	I	K	D	V	V	I	R			
UniRef90_V4C1A5	H	D	K	T	D	E	V	I	S	K	S	N	W	F	H	T	G	D	I	A	E	I	D	E	D	G	Y	C	K	I	V	G	R	L	K	D	M	V	I	L	R		
UniRef90_UPI00036CC2CB	D	D	E	T	A	K	S	L	T	A	D	G	F	F	K	T	G	D	V	G	I	M	D	A	E	G	Y	T	K	I	V	D	R	L	K	D	M	V	I	L	V		
UniRef90_UPI0001FFDAC6	E	A	K	T	A	E	A	F	A	S	G	W	F	H	S	T	G	D	L	G	V	M	D	A	E	G	Y	L	S	V	V	D	R	L	K	D	M	V	I	K	T		
UniRef90_I1DTI6	P	E	E	T	A	K	V	L	K	D	G	W	L	Y	T	G	D	L	A	R	M	D	E	E	G	F	F	Y	I	V	D	R	L	K	D	M	V	I	L	V			
UniRef90_B4RDD0	P	E	A	T	A	E	T	I	R	P	D	G	W	L	H	T	G	D	A	G	Y	M	D	E	E	G	F	F	F	V	H	D	R	V	K	D	M	V	I	T	R		
UniRef90_A0A031LRW7	E	E	K	T	R	E	V	V	D	V	A	K	W	M	H	T	G	D	L	A	E	M	D	E	E	G	F	F	K	I	K	G	R	I	K	D	V	V	I	R			
UniRef90_H6QYB1	P	E	A	T	A	E	A	I	R	D	G	W	M	H	T	G	D	G	G	R	M	D	E	Q	G	Y	V	F	I	V	D	R	L	K	D	M	V	I	T	R			
UniRef90_R7KAN3	P	E	A	T	A	Q	A	I	D	K	D	G	W	L	H	T	G	D	L	C	I	Q	K	D	D	G	Y	M	K	V	V	G	R	L	K	D	M	V	I	R			
UniRef90_UPI000468918F	Q	D	A	T	D	E	I	L	D	A	D	G	W	L	K	T	G	D	L	A	L	I	Q	D	D	G	Y	M	R	I	V	D	R	L	K	D	M	V	I	L	V		
UniRef90_W6WAT0	P	D	E	T	A	K	V	M	T	T	D	G	Y	F	R	T	G	D	M	G	Y	M	D	R	Q	G	Y	T	K	I	V	D	R	L	K	D	M	V	I	L	V		
UniRef90_N6WURU5	P	E	E	T	Q	K	A	F	T	E	D	G	F	Y	R	T	G	D	I	A	V	Q	D	E	D	G	Y	T	R	I	V	D	R	L	K	D	M	V	I	R			
UniRef90_UPI000400DC2E	A	E	A	T	A	R	D	L	D	A	E	G	W	M	H	T	G	D	L	V	Q	M	D	A	D	G	Y	V	T	I	V	G	R	S	K	D	M	V	I	R			
UniRef90_D5WSP2	P	E	E	T	A	Q	V	L	R	N	G	W	L	H	T	G	D	L	A	T	R	D	E	D	G	Y	Y	I	V	D	R	L	K	D	M	V	I	I	A	R			
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UniRef90_A9BMB0	P	A	E	T	A	A	A	L	K	D	G	W	M	H	T	G	D	L	M	G	R	L	D	A	D	G	Y	L	F	V	V	D	R	L	K	D	M	V	I	V	S		
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UniRef90_E0UIM0	P	Q	A	T	E	N	A	F	S	G	G	W	F	H	S	T	G	D	I	G	V	M	Y	P	D	G	Y	M	E	L	R	D	R	L	K	D	M	V	I	L	T		
UniRef90_F4PCR2	P	S	A	T	K	D	S	I	D	Q	E																																

	450	460	470	480
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S K M E D L G F S V S H L Y G L T E T Y G P G T Y C A W K P E K S R Q G V Q  
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E L M I R K L P T W F I Q G Y G Q T E V A G I L T C L P W A H K R R A T G R  
K R W E E V T G C A I L E E G Y G M T E T S P I V C V N P P D G I Q L G T I G K  
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D K W L K V I P G C A I A E E G Y G L S E T S P V V T A N P A D T E Y S G T I G L  
D R A S E L F P H V E L V Q A Y G M T E L S P A I T L L G P S D H H R Y S A G R  
E R F Q D V Y D A P I H E E G Y G L T E T S P V A T F N H V I G P P R P G T I G T  
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R P A E R E L G V R V I G F G G Q T E A S P Y I T H T R P D D P H P T T V G R  
K Q V Q T K M F M K E V T I C Y G M T E T S P V S T M T K I G E K Q V T T V G T  
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UniRef90\_K9HK86 P E D T E K T I I D G L F H T G D V G Y V D S E D G Y L V D R L K D V I L A  
UniRef90\_UPI0004763BCE D D E T A K V M T A D G F F K T G D V G I M D E D G Y T R I V D R K K D M I L V  
UniRef90\_Q9M7S2 P V A T K N T I D K D G W L H T G D I G Y V D D D D E I F I V D R L K E I I K Y  
UniRef90\_G2J414 P D A S A E A F G G G W F H T G D L A V L Q D D D G Y V K I K D R S K D L I S  
UniRef90\_F8EBY2 P D E T A K V M D G R Q W F K T G D I G V M D S D G Y F K I V D R K K D M V L V  
UniRef90\_UPI00034872A0 P E A T E F A F R G G W F H S G D L A V V Y P D G Y I E L R D R A K D I I S  
UniRef90\_E4NJL1 P A E T A D S K Y H D G R W F R S G D V A V R D E D G Y V R L V D R L K D M I S  
UniRef90\_W4P1N4 P V I E T A K K F R D G W L Y T G D L F S V D A G G Y V F H F H G R A D M I V S  
UniRef90\_G7UN41 P D E T A K V I D A D G W L H T G D M A R M D R Q G F F Y I V D R K K D M I L V  
UniRef90\_K9NIP5 P E Q T L A A L P G D G W L R T G D G A R M D E N D G Y F I V D R L K D M I V T  
UniRef90\_E7QZ60 P E A N A E A F D G K R W F H T G D I S Y A D E D G F F V V D R R K H M I N T  
UniRef90\_F6EP73 P E E T A A V L R D G W M H T G D G G F M D D A G Y V H V V D R L K D M I I T  
UniRef90\_V6T5B6 E D E N R N S F D G K K F F R T G D I G R F D E E D G Y Y F M V D R V K R M I N A  
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UniRef90\_A1WFL8 E A R T A E A F A G G W F H S G D L G V M D E E G F L T V V D R K K D M I K T  
UniRef90\_E0MTK6 E E A T K E S F T K D G F R S G D V G I M D D E D G Y T R I V D R L K N M I V  
UniRef90\_K6WWC0 P E A T S K T L V G D D W L R T G D A G L L D D D G Y L Y I S D R V K D M I S  
UniRef90\_D3SQH8 P E R Y E K Y W T I P G Y Y L T G D L A S Y D E E G Y I M I L G R A D D V L N V  
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UniRef90\_V9XJC4 P T A T E E A F R D G W F H S G D L V I T R D A E G F L T V V D R L K D V I N T  
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UniRef90\_HOK1L8 P E E T E E A F R D G W F H S G D L V R L D E E G Y L Y V V D R L K D V I N T  
UniRef90\_B8FJX1 P E E T A G Q L K D G W L H T G D V A I Q D E E G Y L S I V D R T K D M I A  
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P E A T R E N A S Y F T G D G F F R T G D L V A T I D E E D G Y V H I V G R N K D L I T S  
P T A T A N A I T P D D G F F R T G D L V A T I D E E D G Y V H I V G R N K D L I T S  
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P E L A K D T F S A D G W F K T G D L V A T I D E E D G Y V H I V G R N K D L I T S  
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P D E T A R T I I R N G G W L H T G D L V A T I D E E D G Y V H I V G R N K D L I T S  
P E E S T H T L R G G W L H T G D L V A T I D E E D G Y V H I V G R N K D L I T S  
P E E T L A F R N G S F R T G D L V A T I D E E D G Y V H I V G R N K D L I T S  
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P E E T K E A L L D G G W F R T S G D L V A T I D E E D G Y V H I V G R N K D L I T S  
H P R F I E T Y F K P G Y Y F T S G D L V A T I D E E D G Y V H I V G R N K D L I T S  
P E E T R Q S M T A E G F F R T G D L V A T I D E E D G Y V H I V G R N K D L I T S  
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P E A T T K T I D A E G W L H T G D L V A T I D E E D G Y V H I V G R N K D L I T S  
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P D K Y Q S Y F I G D W Y V S T S G D L V A T I D E E D G Y V H I V G R N K D L I T S  
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P K A T A E S L D A E G W Y R T S G D L V A T I D E E D G Y V H I V G R N K D L I T S  
E K Q T K S V W H D G Y Y H T S G D L V A T I D E E D G Y V H I V G R N K D L I T S  
P E E T A E A F R D G W F H S T S G D L V A T I D E E D G Y V H I V G R N K D L I T S  
D E A T R A A F Q G G W F H T S G D L V A T I D E E D G Y V H I V G R N K D L I T S  
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UniRef90_W9V9V1	N G F M N V Y P P R V L V E E G A L Y L G H H P A D D V A D D E A A V V V G G D Y S P D D A R H A S E R P V P V A H			
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UniRef90_Q3ABP3	S S G F N V Y P P A E L E E G V L L G H H T D I V T D S C V I P V I Y D D E R A T E I P R A Y			
UniRef90_W3XN30	K G G F Q V V P P A E L E E G V L L G H H T D I V T D S C V I P V I Y D D E R A T E I P R A Y			
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UniRef90_Z5X534	G G G E N V A P S R E V I E E V L Y R H H S A G I E E A A V V F G G I P P D E K W G E S V K A V			
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UniRef90_S7UXN3	S S G Y R I G S P F E I E S A I L I E H H P A V A E E S A V V S S P D D E T R G A R V V K A F			
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UniRef90_I1HA25	G G E N I S S V I E V I E S M I F S H H P A V L E A A V V A R P D D H W G E T P C A F			
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UniRef90_UPI0002E63BAE	G G E W I S S V D I E E N A I M A H H E A V F E A A V V A V P H E F W Q E R P I A C			
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UniRef90\_A9BAU9 E S L V G N A I G G D G S D V I T P E E V T K D T T A L L Y T S G T T G S  
UniRef90\_C3PK11 S L L S R A A G K P D A F E T V A R Q D D D L A A I L Y T S G T T G R  
UniRef90\_Q0K7G7 L D F M E L I N P Q G V D Y S K L K D Y N A D P D N V A F L P F S S G T T G L  
UniRef90\_W8AQQ0 R D L W W H D V M A D P N I A T S C P C E P M D S E D L L F I L Y T S G S T G K  
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UniRef90\_UPI0002C368BA R D V W W E S L T E T A S E H C E L V E E M G A E D P L F L L Y T S G T T G N  
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UniRef90\_X1YA50 G S L D Y E E F V Q S G E R P D F A W S L P D D E W D A I A L N Y T S G T T G N  
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UniRef90\_G0AAG0 D D L L A A S P A D A P I A A M H E D D T A V I L Y T S G T T G K  
UniRef90\_Q13BW2 E P L Y S Y E A L L E K G N F A F L E D L D E N E P A A M C Y T S A T T G K  
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UniRef90\_L0NNP8 E G T L D L E E L I A R Y R G R R P E P V R P S G D D V A V L T Y T S G T T G V  
UniRef90\_D6Y6S5 S S L F E A D G Q A A L P F S T S P D D L C A L P Y S S G T T G V  
UniRef90\_D8SEY8 Q G M I A Q K M Q A D A E A Q G R S L K P L P I Q H D L A L Y Q Y T S G T T G R  
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UniRef90\_W5JAQ2 E T V L A E G D P D Y A W P G P A D E W Q S L C L L Y T S G T T G D  
UniRef90\_F6DFN8 E S V A L E G N S V S M K A I Q R R Q D T L S P F D V C N I Q Y T S G S T G N  
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	210	220	230	240
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UniRef90_L0WJ11	A K G A M L T H R N L A S N V E Q C A S L V F S	K D N L S G Q Y I A V A L P L Y		
UniRef90_I3R5M5	P K G V V M S H R R N A E A I H T Y T S V A H	Q E I R D D D V Y L W T L P M F		
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UniRef90_E1SML2	A K G A M L S H A N L L G N A R Q V L A R L G	D T C R E G E E V F V V P L P L Y		
UniRef90_V6MBI7	P K G V M H V A G W P L A H L S V A A K Q W L	D V Q E K D V V W A T A G P G		
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UniRef90_UPI00036081ED	P K G V Y H T H R G Y L L H T L S L L V G E Y	G A N E R D V C M P L V P M F		
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UniRef90_A0A023DCK2	P K G V V H S H G W G Y A H L R I A A K N W L	C I E E N D L V W A T A P G W		
UniRef90_Q3INY6	P K G V E Y T Q Q M L W S H T M A S L T P Q G I	P M D D D V I M P V V P M F		
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UniRef90_UPI0004015896	P K G A V L T H D N I R T N V T T R E T L F S	I E A G D V I F G G L P L F		
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UniRef90_F6DUH7	P K G I V H T T G G Y L T G V S T A E H R N I F	D L K E E D V Y W C T A D I G		
UniRef90_R0HYJ9	P K G V V V T H R G T Y L S T L S A I I G W E M	G T C P V Y L W T L P M F		
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UniRef90_B0C967	P K G V V H T T G G Y N L Y T H M T C K W A	F D L K D N D V Y W C T A D V G		
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UniRef90_Q2FLK7	P K G L V H T C G G Y A T G V H Y T A R Y I F	D L K E N D V L W C T A D T G		
UniRef90_C5D0B1	P K G A L L H H A G L V T S A R L T C N R A G L	E A S V I S P M P L T F		
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UniRef90_A0YD36	S K G A L H S H S L Y M G M I N Q T V A E R V V	P S E S I Y M L T T G M F		
UniRef90_I0JQE9	P K G V V F T H R N I L L T V S R M M A V E M E	M K P S S R M L H M M P L S		
UniRef90_V5XIU9	P K G V L Y S H R S T V L H A L G A I P R D S F	D L H S G S T I L V V V P M F		
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UniRef90_UPI0003B5C805	P K G V L H T T G G Y L V Y A T M T H H Y V F	D Y H E G E V Y W C T A D V G		
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UniRef90_D2KV85	P K G V M Q T H R N V C V R L I H A L D P R V G	T Q L I P G V S V L V Y L P F F		
UniRef90_H5TI32	P K G V M Y T H R G A Y L N A L G E M H H N	H F T G T T R Y L W T L P M F		
UniRef90_L0NNP8	P K G V V H T T G G Y L V Y A A M T H E Y V F	D Y K D G D F W C T A D V G		
UniRef90_D6Y6S5	P K G A M N T H R T M A F N S Q T Y R D W M	G L T P Q D S V L G V A P L F		
UniRef90_D8SEY8	S K G V M L T H R N I L S I L S Q T L A D Y E R I	P P E I R E T L L G L M P F F		
UniRef90_N8QD64	S K G A I I S H Q N V A S L V K I T G D Y L H A	H G F N H N D C I L T A I P L Y		
UniRef90_F3L241	P K G V A L S H R N L S A L M N N L S N A N P	G V L G V D G M D L V C A P M F		
UniRef90_A1S9P3	S K G A M L S H G N L I A N A L I Q C R D R L A	N V I T P G E D I F V A P L P I Y		
UniRef90_UPI00036A6481	P K G A V L S H A N L H A N A Y Q G V A W V R	E F Q Q G N Q R M L A T L P F F		
UniRef90_F7ZKU0	S K G A M L T Q E N L S N T Q T L T D F W R F	S D Q Q R L H A L P I F		
UniRef90_S7W313	S K G A M L S H G N L V A N T L Q M I S M C G T	Y M R P G H E I V L T A L P L Y		
UniRef90_T1VV06	L K A A Q H T Q R S Y A G L C R N V L L N L L P	A T Q D D T M L H A A S L T		
UniRef90_Q488V3	P K G V M L S H R N L W S S I V V T A E M G L N V	A Q E R Y L H A A P M F		
UniRef90_W5JAQ2	P K G V E L T H Q S I I A S I A H S K E S A K M	L D L P D Q L V A L A V I T P L F		
UniRef90_F6DFN8	P K G A L L P Y R Q L L V N A L E T A F A W G L	S R E D R Y L H A T P M F		
UniRef90_UPI00026265A1	P K G V V Y T H E A W S H Y I V T A G L E I A	D T R P G E V F A H G A P L T		
UniRef90_I9LNN1	P K G A V Y S H R G A Y L Q A L G N A V T F	G L T G E S V Y L W T L P M F		
UniRef90_C0S7C9	P K A S M L T H N L N S R F I G D R M D F T E	Y D L L C C P P P L F		
UniRef90_B4R989	P K G A L A T Q R A V L N S I L T A A A G A R S	F L R R G E S A L I S V P F F		
UniRef90_Q2HDY9	P K G V C L T H R N M V A N V L Q A Q W R A V	G G P D G R G D K Q L G V L P F F		
UniRef90_U2DC60	A K M V L H D Y L Y P L G H I V T A K E W H Q	V V P S D G L H L S V A D T G		
UniRef90_A3Q3X0	P K G V M H T H R G L L Y Q A A D T N L V T	E A N R S D V M L A T T P F F		
UniRef90_D5E6T6	P K G V V H S T G G Y L V G T A I T A K W V F	D L K D D D V Y W C T A D V G		



		290	300	310	320																																					
UniRef90_S9QBS1	M	M	G	L	P	T	F	Y	T	R	L	L	E	A	P	K	F	T	R	D	L	A	H	H	M	R	V	F	L	S	G	S	A	P	L	L	E	D	T	H		
UniRef90_L0F2H6	L	Y	T	A	P	T	A	I	R	T	F	M	K	W	G	P	F	Q	S	R	D	L	S	S	L	R	L	L	G	T	V	G	G	E	P	I	N	P	E	A	W	
UniRef90_L0WJ11	F	P	A	V	N	T	V	F	N	G	L	V	D	H	Y	E	G	F	R	S	R	D	L	S	S	N	L	K	L	S	L	G	G	G	M	A	S	V	L	E	A	T
UniRef90_I3R5M5	L	C	A	A	P	T	L	V	M	N	L	L	V	D	H	Y	R	E	H	E	P	E	T	N	L	R	L	I	A	S	G	G	G	A	P	P	E	A	T	I		
UniRef90_W9AC99	F	F	G	A	P	T	A	Y	L	A	S	T	K	H	S	K	L	K	D	F	D	L	S	S	M	E	Y	W	V	Y	G	G	A	P	L	S	S	Q	Q	E	V	
UniRef90_M0LAZ7	L	F	S	V	P	T	A	Y	R	M	L	R	K	E	E	V	L	E	G	N	D	L	D	S	L	R	H	A	L	S	I	G	E	P	L	S	S	A	G	E	V	
UniRef90_Q5CD66	G	P	F	V	P	T	I	V	L	A	I	V	K	S	P	V	V	G	N	Y	D	L	S	S	I	L	R	T	V	M	S	R	A	A	P	L	S	G	A	L	E	
UniRef90_UPI000262CD5B	M	M	G	V	P	T	Y	Y	T	R	L	L	A	D	P	R	F	D	R	D	V	S	G	H	M	R	L	F	I	S	G	S	A	P	L	L	V	E	T	S		
UniRef90_A9BAU9	F	Y	T	A	P	T	A	I	R	A	F	M	K	N	G	R	E	N	D	K	Y	N	M	N	S	L	R	L	L	G	T	V	G	E	P	I	N	P	E	A	W	
UniRef90_C3PK11	V	P	G	V	P	T	L	Y	E	R	L	V	K	A	E	E	N	D	V	S	L	D	G	V	R	A	A	F	S	G	A	S	T	L	P	V	N	T	V			
UniRef90_Q0K7G7	M	M	G	V	P	T	Y	Y	V	R	M	L	Q	E	P	R	F	D	D	D	T	C	R	R	M	R	L	F	V	S	G	S	A	P	L	L	E	T	F			
UniRef90_W8AQQO	L	N	V	P	P	M	A	L	F	M	L	N	Y	P	K	L	T	Q	D	V	V	P	H	L	K	Y	V	Q	L	G	A	P	I	L	A	E	S	D	M			
UniRef90_C7LTU9	F	Y	T	A	P	T	A	I	R	A	L	M	R	S	E	W	T	Q	K	N	D	L	S	S	L	R	V	L	G	S	V	G	E	P	I	N	P	E	A	W		
UniRef90_W9DBD0	M	C	G	A	P	T	V	C	T	T	I	V	G	S	P	R	A	H	R	L	D	R	P	L	G	K	V	V	V	M	T	G	G	A	P	P	S	P	T	V		
UniRef90_UPI0002C368BA	M	G	G	A	P	T	V	L	N	M	L	V	N	A	E	P	E	N	D	R	R	P	L	P	G	K	V	V	V	M	T	G	G	A	P	P	P	S	Q	E	W	
UniRef90_UPI00046AA86B	L	Y	T	A	P	T	L	N	R	A	L	M	A	E	E	Q	F	D	Q	F	D	G	S	L	R	L	R	I	V	M	S	V	G	E	P	I	N	P	E	A	W	
UniRef90_I4YXR9	L	M	G	V	P	T	F	Y	V	R	L	L	Q	H	P	G	L	T	Q	E	S	T	S	S	G	M	R	L	F	V	S	G	S	A	P	L	L	A	E	T	H	
UniRef90_X1YA50	V	S	L	V	P	P	L	M	V	F	L	A	K	H	P	L	V	E	E	Y	D	L	S	S	L	H	A	V	L	S	G	A	A	P	L	S	K	E	I	E		
UniRef90_U7FJ04	L	C	G	A	P	T	I	M	S	T	L	N	A	A	P	E	H	K	R	D	L	D	R	E	V	E	V	E	F	F	T	A	A	A	P	P	P	E	V	E		
UniRef90_F8DY41	T	F	I	A	P	T	I	A	V	L	S	K	H	P	A	V	D	N	Y	D	L	S	S	L	R	A	F	F	S	G	A	A	T	L	D	E	S	D	L	A		
UniRef90_E1SML2	M	A	G	L	N	T	L	F	V	G	L	C	R	Q	L	Q	S	F	R	E	L	D	F	S	G	L	K	L	T	I	S	G	G	T	A	L	T	S	A	A	A	
UniRef90_V6MBI7	L	C	A	T	P	T	E	Y	R	M	M	A	K	A	P	D	L	E	S	Y	T	L	Q	A	L	R	S	T	C	S	A	G	E	P	L	N	R	E	V	I		
UniRef90_Q84P21	L	P	L	V	P	T	I	L	V	A	M	V	N	G	A	D	K	A	K	Y	D	L	S	S	M	H	T	V	L	C	G	A	S	P	L	S	K	E	V	T		
UniRef90_A0A031GJP6	L	L	L	V	P	A	M	L	Q	S	L	V	D	H	P	H	E	A	A	T	D	V	S	S	V	L	R	N	V	V	Y	G	A	S	A	T	E	A	L	I		
UniRef90_E3GJ35	F	C	A	P	P	T	V	Y	R	F	L	V	K	P	D	E	L	S	K	Y	D	L	S	S	I	L	E	H	A	V	T	A	G	E	P	L	N	P	E	V	F	
UniRef90_UPI0003AD63C5	L	N	G	A	P	T	V	L	V	T	I	A	N	A	E	A	E	A	H	P	L	E	R	P	L	T	V	T	T	A	G	A	P	P	S	P	T	I	I			
UniRef90_UPI00036081ED	S	A	G	V	P	T	I	W	M	G	I	L	N	H	E	N	P	G	K	Y	D	F	S	C	V	R	C	F	I	S	G	G	A	P	L	N	P	A	K	L	T	
UniRef90_I1YE97	F	Y	T	A	P	T	A	I	R	A	L	M	K	A	G	D	A	K	S	Y	D	L	S	R	L	R	L	L	G	T	V	G	E	P	I	N	P	E	A	W		
UniRef90_A0A023DCK2	L	C	C	T	P	T	E	Y	R	L	M	A	K	V	P	N	I	G	D	Y	Q	L	P	H	L	R	S	A	V	S	A	G	E	P	L	N	R	E	S	V	I	
UniRef90_Q3INY3	T	A	G	V	P	T	V	W	L	G	L	M	D	Y	A	E	E	N	D	L	D	L	S	A	L	D	T	V	I	V	G	S	A	A	P	E	S	M	I			
UniRef90_E3IZI3	L	P	G	P	P	A	V	Y	Q	T	I	L	N	S	D	L	T	G	Y	D	L	S	S	W	R	L	A	V	T	G	S	A	A	V	P	V	E	L	V			
UniRef90_UPI0004015896	F	M	G	V	P	S	M	F	V	A	V	L	Q	V	P	E	H	A	Q	T	D	A	S	K	L	R	L	A	V	S	G	G	S	A	S	V	P	V	E	L	V	
UniRef90_W7WV15	L	P	A	V	N	T	L	F	N	A	L	L	Q	N	P	Q	F	R	Q	L	D	F	S	S	L	A	L	S	Q	A	G	G	M	A	S	E	S	T	A			
UniRef90_F6DUH7	F	Y	T	A	P	T	A	I	R	M	F	M	K	E	Q	W	P	A	G	R	D	L	S	S	L	R	L	L	G	S	V	G	E	P	I	N	P	E	A	W		
UniRef90_R0HYJ9	M	C	C	A	P	T	V	F	N	T	L	L	R	G	N	R	L	D	L	S	Q	R	S	G	P	V	H	V	L	T	G	G	S	P	P	P	P	A	L	V		
UniRef90_I3PB36	M	C	C	A	P	T	V	F	N	L	L	E	A	K	P	H	E	R	R	E	I	T	T	P	V	Q	V	M	V	G	G	A	P	P	P	P	T	T	L	I		
UniRef90_M2MS28	T	Y	V	A	P	V	L	V	Q	L	S	R	G	R	E	V	K	K	Y	D	L	S	S	L	R	M	I	T	S	G	A	A	P	L	T	K	E	L	V			
UniRef90_B0C967	F	Y	T	A	P	T	A	I	R	A	F	I	K	L	G	D	P	Q	A	R	N	L	S	S	L	R	I	L	L	G	T	V	G	E	P	I	N	P	E	A	W	
UniRef90_F4CXM4	L	S	G	A	P	L	I	Y	A	A	L	L	R	H	P	D	L	A	T	R	D	L	S	S	V	R	G	L	S	S	G	A	A	P	L	E	V	I				
UniRef90_B7RN30	F	G	G	A	P	T	V	L	N	L	M	V	N	A	S	D	A	E	R	S	F	D	H	Q	V	E	V	F	T	A	G	A	P	P	A	P	A	T	L			
UniRef90_Q2FLK7	F	Y	T	A	P	T	A	I	R	M	F	M	R	E	E	W	P	N	K	Y	N	L	D	S	L	R	I	I	G	S	V	G	E	P	L	N	P	E	A	F		
UniRef90_C5D0B1	F	Y	G	V	P	T	M	Q	I	A	M	L	D	H	E	P	K	R	D	K	Y	D	L	S	L	R	V	A	I	S	G	G	A	P	V	L	N	P	E	L	L	
UniRef90_R5CI46	F	C	A	P	P	T	V	Y	R	F	M	I	H	E	D	F	S	K	Y	D	L	S	S	L	L	R	Y	C	C	T	A	G	E	P	L	N	P	A	V	Y		
UniRef90_W8HT65	F	E	G	V	P	A	M	Y	A	M	L	L	A	S	N	E	L	A	S	S	D	L	S	S	L	R	T	R	S	T	V	G	G	Q	T	I	A	E	S	V	I	
UniRef90_UPI000365A04E	A	G	A	V	P	T	I	W	N	D	L	L	H	T	E	K	E	P	G	L	D	F	S	S	L	R	L	V	V	C	A	A	P	P	A	R	S	L	L	A		
UniRef90_X0MNT3	V	Y	T	A	P	T	I	V	L	A	L	A	K	H	P	M	V	D	D	F	D	L	S	S	L	R	R	V	L	C	A	A	P	L	D	A	E	L	L			
UniRef90_I8ZWY9	L	F	A	V	P	A	V	L	R	T	M	L	G	V	P	G	I	A	D	L	D	L	S	S	L	R	T	I	V	Y	G	A	S	P	I	S	V	D	V	L	R	
UniRef90_UPI00034638C8	V	S	G	V	P	T	T	Y	Q	L	M	A	D	H	P	E	W	S	R	T	D	V	S	S	L	R	T	L	T	C	G	S	A	V	I	N	P	R	I	E	W	
UniRef90_I0AIP7	L	Y	T	A	P	T	A	I	R	G	L	M	R	D	A	W	P	N	R	Y	N	L	A	S	L	R	M	L	L	G	S	V	G	E	P	I	N	P	E	A	W	
UniRef90_H0VDH1	F	C	S	A	P	T	A	Y	R	M	L	V	Q	N	D	M	K	S	W	K	F	K	S	L	K	H	C	V	S	A	G	E	P	I	N	P	E	V	T			
UniRef90_B1JA66	L	F	L	V	P	A	M	L	N	R	L	V	N	Y	P	D	V	E	R	F	D	L	S	S	L	K	L	V	M	Y	G	A	A	P	M	A	P	A	L	V		
UniRef90_B9NLK3	M	M	G	V	P	T	F	Y	T	R	L	L	G	D	D	R	F	T	R	D	L	S	S	R	M	R	L	F	I	S	G	S	A	P	L	L	A	E	T	H		
UniRef90_Q30YY2	F	C	A	P	P	T	V	Y	R	F	L	V	R	E	D	L	S	Q	Y	D	L	S	C	L	R	H	C	T	T	A	G	E	P	L	L	N	E	S	V	Y		
UniRef90_A8IHM7	L	M	G	V	P	T	F	Y	T	R	L	L	D	H	P	G	L	T	R	E	A	T	A	H	M	R	L	F	V	S	G	S	A	P	L	L	A	E	T	H		
UniRef90_D8VMY2	L	M	G	V	P	T	F	Y	T	R	L	L	Q	E	D	H	P	G	L	T	R	E	K	T	A	N	I	R	L	F	I	S	G	S	A	P	L	L	A	E	T	H
UniRef90_M4ER40	V	P	M	A	P	P	V	V	L																																	

UniRef90\_S9QBS1 K Q F E S R T G H 330 R I L E R Y G M T 340 N M N T S N P Y D G E R R A G T V G F  
UniRef90\_L0F2H6 M W Y Y K Y I L G G E R I L V D T W W Q T E T G M I M M T P L P G G I T K P G S C T T  
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UniRef90\_I4YXR9 R A W S A R T G H A I L E R Y G M T E T N M N T S N P Y D G D R V P G A V G L  
UniRef90\_X1YA50 D L V R A R L P N A R V I R T G Y G M S E T S L G V I S R V N D K V G S V G K  
UniRef90\_U7FJ04 A A M K T A G F N V T H L Y G L T E V Y G P A V V N D W A Q K K A R Q G V R  
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UniRef90\_E1SML2 E L W Q Q T T G C T V S E G Y G L T E T S P V V C L N P L G N E Q L G T G P  
UniRef90\_V6MBI7 D T F R R N I G L T V R D G Y G Q T E N T L L V G T F V G V E P K P G S M G R  
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UniRef90\_A0A031GJP6 E R V L K A F P G A A F Y Q V Y G M T E T A G T V T L L P P E Q H R L R S A G R  
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UniRef90\_UPI00036081ED E D Y E K K L G I Q T L E V D T W W Q T E T T P V T L M N L P E P D K R P G S T G L  
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UniRef90\_A0A023DCK2 D T F E K Y F N I Q V R D G Y G Q T E N T L L V G V M K G M K I K P G S M G K  
UniRef90\_Q3INY6 R W F D D R D V J E L L H A W G M T E M S P L G S V N L E D E D H S R S K Q G L  
UniRef90\_E3IZ13 R R L R A D L G L R T V T G Y G L T E T T G T V A M C R H T D D P S R T S G R  
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UniRef90\_W7WV15 K Q W L K V T D C P M I E G W G M S E T C A I G T N N P V N R D F T G T G L  
UniRef90\_F6DUH7 S W Y H R N I G N C P I V D T W W Q T E T G S V M V A P L P G T K A G S A T L  
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UniRef90\_W9AC99 P E E T A N V L K G E W L Y T G D M A M E D K D G Y F W V V D R K K D I I S  
UniRef90\_M0LAZ7 P G K T A E E C F V D G W Y L S G D L A H K D D D D G Y F W F E G R A D D V I I S  
UniRef90\_Q5CD66 P E S T A R T I D K E G W L H T G D L G F I D D D D D G Y F I V D R K L K E I I K Y  
UniRef90\_UPI000262CD5B P E K T A A E F K G D W F I T G D M A T L S D D D G Y V S I V G R G K D L I I S  
UniRef90\_A9BAU9 E K R F R E S Y W G N L I Y F A G D G A R R D S E D D G Y F W V M G R V D D I N V  
UniRef90\_C3PK11 E E A T E K A F H N G W F R T G D D M G V M E D D G Y F I R L V S R R I K E I I T  
UniRef90\_Q0K7G7 P E K T R E E F T E D G W F K T G D V G R F G P D N Y L T I V G R S K E L I I S  
UniRef90\_W8AQQ0 D E A N A E I F L P K G W L R S G D V G H Y D E D D G Y F Y I T D R M K D L I K V  
UniRef90\_C7LTU9 P E R F K Q Q Y F E P G R Y E A G D G A R Q D E D D G Y F W I M G R L D D V I N V  
UniRef90\_W9DBD0 E E E T R K A F A G G W F H T G D L G V M H P D D G Y I Q L R D R A K D I I S  
UniRef90\_UPI0002C368BA N K S T Q D A F K G G W F R S G D D L A V R R H P D D G Y L E L K D R S K D I I S  
UniRef90\_UPI00046AA86B H K R F A L T Y F K R G M Y F T G D G A R R D E D D G Y Y W I T G R V D D V I N V  
UniRef90\_I4YXR9 P E K T A A E F R T D G F F I T G D L G K M D E E R G Y V H I L G R G K D L V I T  
UniRef90\_X1YA50 E Q A T R E M L D A D G W L R T G D L I G Y Y D E Q D F F I V D R R K K D I I K Y  
UniRef90\_U7FJ04 P E A T E K A F K G G W F H S G D L G V L H P D D G Y V Q L K D R S K D I I S  
UniRef90\_F8DY41 P E Q T A A T L T E D A W L R T G D L A R Q D A H G N V F I V D R L K E L I K Y  
UniRef90\_E1SML2 P E E T A L V L D A D G W L K T G D L A R I Q D D D G G F V R L V D R K K D M I L V  
UniRef90\_V6MBI7 P D R T A K A F R G E W Y V T G D Q G R M D D D D G Y I W F E G R S D D I I S  
UniRef90\_Q84P21 E E A T S S T L D S E G W L R T G D L C Y I D D D D G F I F V V D R L K E L I K Y  
UniRef90\_A0A031GJP6 E A A T A A T L R G G W M H T G D L G Y M D D E D G Y V F I V D R L K D M I L S  
UniRef90\_E3GY35 P E K T K K A W H N D L Y H H T G D T A W V D E D D G Y F W F V G R N D D V I N S  
UniRef90\_UPI0003AD63C5 E E A T A R A F R G G W F H S G D L G V R H P D D G Y V E L R D R S K D I I S  
UniRef90\_UPI00036081ED P E K T R E A F V D G W F R T G D L V T V D E D D G Y V Q V M D R T K D I I K S  
UniRef90\_I1YE97 D Q R Y K D T Y W P D G Y Y L A G D S A R R D E D D G Y V F I M G R I D D V I N V  
UniRef90\_A0A023DCK2 P E R T A M Q F R G D Y Y I T G D K A R K D E D D G Y F W F E G R G D D I I S  
UniRef90\_Q3INY6 P E A N E E D F E D G W L K T G D V V T V D E D G Y I K I V D R A K D V I K S  
UniRef90\_E3IZI3 P A A T A E T I D A D G W L K T G D I G V M D D D G G N I A I T D R K K D M F I V  
UniRef90\_UPI0004015896 P D A T A E A M R G G W F H T G D L A V V D S D G F Y F I K D R K K D M I L R  
UniRef90\_W7WV15 P E E T T Q A F T A D G Y M R T G D V G I M D E R G Y T R V D R K K D M I L V  
UniRef90\_F6DUH7 P Q R Y V D T Y W S D G M Y F T G D G A R R D E D D G Y I W V L G R V D D V I N V  
UniRef90\_R0HYJ9 P K A T F E A F K H G W L N T G D V G V I H P D D G H I E I K D R S K Y I I S  
UniRef90\_I3PB36 D K A N S Q V F K N G W F L T G D V A V I H Q D N H N L Y I T D R M K E L I K W  
UniRef90\_M2MS28 A E A T K N A I T E D G Y F K T G D V G H Q D N H N L Y I T D R M K E L I K W  
UniRef90\_B0C967 D D R F R R T Y D G K Y V Y F A G D G V R R D E D D G Y F W I M G R V D D V I N V  
UniRef90\_F4CXM4 P E E T A A T L V D G W L H S G D V G V L D E D D G Y L R I A D R A K D M I I Y  
UniRef90\_B7RN30 P T A T A E A F A G G Y F H S G D L L A I Q H P D D G Y M Q I A D R A K D I I S  
UniRef90\_Q2FLK7 D E R Y R K Y W N Q I R N Y T G D L A V K D N D G Y I M I L G R S D D I I V  
UniRef90\_C5D0B1 P E E T A Q T M R P D G W L R T G D L G T L D R R D G Y L R V T G R L K D M I I R  
UniRef90\_R5CI46 E E K T R Q V W H D G L Y H T G D V A W R D E D D G Y Y W F E G R I D D V I K S  
UniRef90\_W8HT65 D A A T E Q A I D P D G W L H T G D V A T R D G Q G H F F V V D R L K D M I L T  
UniRef90\_UPI000365A04E D D D A R I F H D G W L R T G D V G H L S A E G F L T L T D R M K D V I K S  
UniRef90\_X0MNT3 P A D T D A M I D P D G W L H T G D V G R T D A D G W L H V V D R V K E L I K Y  
UniRef90\_I8ZWY9 P R E T A V L L E D G W L R T G D A G Y L D A D G Y L F I H D R V K D M I I T  
UniRef90\_UPI00034638C8 P E A T T A A F A L D G W F R S G D L G Y L D E D D G Y L Y I A D R L K D M I I S  
UniRef90\_I0AIP7 P D R Y V N Q Y W S K G M Y M T G D S A R K D E D D G Y F W V I G R V D D V I K V  
UniRef90\_H0VDH1 P S K T A S T Q R G N F Y I T G D R G Y M D E D D G Y F W F V A R S D D I I L S  
UniRef90\_B1JA66 P A L T A E V M R D G Y L T G D L A T V D A D G Y V F I V D R K K E M I I S  
UniRef90\_B9NLK3 P E K T A A E L R E D G F F V T G D L G R I D E D D G Y V H I V G R D K D I I S  
UniRef90\_Q30YY2 P E K T A S V M F D G Y Y H T G D K A W M D E D D G Y L W F L G R V D D L I K S  
UniRef90\_A8IHM7 P E K T A S E F H D G F F I T G D L G K I D A R G Y V H I V G R G K D L V I T  
UniRef90\_D8VMY2 A E K T E A E F R A D G Y F I T G D L G K I D P K G Y V H I V G R G K D L V I S  
UniRef90\_M4ER40 P E A T A R T I D K Y G W L H T G D I G F V D D D D E I F I V D R L K E L I K F  
UniRef90\_UPI0002F191E8 P E A T A A N I P G G E L R T G D V G Y M N E A D G W L F I I D R V K D M I N S  
UniRef90\_A0YD36 P D L T R E T I R D G W M W T G D I A V W D E A G Y L F I V D R A K D M I I S  
UniRef90\_I0JQE9 E V K T K E A L K D G W L Y T G D L A Q R D Q D G F Y W V V D R K K D I I S  
UniRef90\_V5XIU9 E G G D K L D A E G F P T G D V A T V D P D D G Y L Q L V D R A K D V I K S  
UniRef90\_F6IPL9 H E R F F Q T Y T F K G Y F T G D G C A R R D E D D G Y Y W I T G R I D D V I N V  
UniRef90\_A4G1R3 P A E T A Q A M T A D G F F K T G D I G V M D A R G Y T R I V D R K K D M I L V  
UniRef90\_UPI0003B5C805 H E R F V E T Y F K P G H Y F T G D G A R R D A D D G Y Y W I T G R V D D V I N V  
UniRef90\_K0CGU6 P E K S A E T L V D G W L H T G D I G R M D A D G Y L L D R D R K N D M I I S  
UniRef90\_Q0C8H9 P K A N A E S F S D D G Y Y K T G D V G Y A D E H G H F Y I T D R V K E L I K Y  
UniRef90\_M0DDN5 P E R Q T A A E C F V P D G W Y L S G D L A Y K D E D D G Y F W F E G R G D D V I L S  
UniRef90\_G0AAG0 P E R F K S A Y F G G K L Y L A G D G A I R N K D D G Y F T I T G R L D D V I N V  
UniRef90\_Q13BW2 P D A N A K D F V D G Y W R S G D I G S I D A E G F V R V F D R K K D M I N R  
UniRef90\_W7ZDR0 E R S Q E A F R N G W L H T G D V V T L D E E G A L K I V D R T K D L I K S  
UniRef90\_D2KV85 V E A T K E A I D A D G W L H S G D F G Y Y D D D E H F Y V V D R K E L I K Y  
UniRef90\_H5TI32 P E S T R K A F E G G W F H T G D L G V M H P D D G Y I Q L R D R A K D I I S  
UniRef90\_L0NNP8 H E R F M E T Y F G G G Y Y F T G D G C R R D E D D G Y Y W I T G R V D D V I N V  
UniRef90\_D6Y6S5 P E A T A E S L P G G E L R T G D V G F M D E D D G Y W F Y L V D R K K D M I N A  
UniRef90\_D8SEY8 P D A T K S T V D D E G W L H T G D V G Y I D D D G D I F I V D R V K E L I K Y  
UniRef90\_N8QD64 P T E T A E T F I D G W L H T G D L A K V D E D D G F C Y I L D R K K D M V I V  
UniRef90\_F3L241 P E A T A K T L V G G W L L T G D A G Y I N E E G F L F L R D R K D M V L S  
UniRef90\_A1S9P3 A G E T E R V F S K D G F F K T G D I A I A E P D G C Y R I V D R K K D M I V  
UniRef90\_UPI00036A6481 E D A T R A A F H D G W F R T G D M G V M E D D G Y F L K L V S R R K E L I T  
UniRef90\_F7ZKU0 P E K T A E E L R K D G F F I T G D L G R F M E D D G Y L Q I V G R N K D L I S  
UniRef90\_S7W313 P D E T A L S L V D G W L H T G D I A E M D A D G Y F T I V D R K K D M I L V  
UniRef90\_T1VV06 P E L N A D T F T E D G W V H T R D L G Q F D A E G F L F L K D R A S D M I S  
UniRef90\_Q488V3 T E Q T A A T L I D G W V L T G D A G Y M D E D G F I F L V D R K K D M I V T  
UniRef90\_W5JAQ2 D R V I D E D G W L H T G D I A Y Y D D D Q E F F I V D R L K E L I K Y  
UniRef90\_F6DFN8 P E E N G K V F V W D G W L R T G D L A Y R D E D G R F Y V V G R K E M F I S  
UniRef90\_UPI00026265A1 P A L D S E A I R D G W V H S G D I G Y L D D D D G Y L Y L V D R K K D M I V T  
UniRef90\_I9LNN1 P D A T A K A L A G G W Y R T G D L A V W H P D G A V E I K D R A K D I I S  
UniRef90\_C0S7C9 T E K T A E A L D E D G W L R T G D E A V F N S E G Y C S I T G R F K D I I R  
UniRef90\_B4R989 P E A T A Q T F V D G W V R T G D L A R M D E E G F C F I I D R A K D M I R  
UniRef90\_Q2H DY9 P E R T K E A F S A D G F F K T G D V F R R D K H G N Y Y C V D R L K E L I K Y  
UniRef90\_U2DC60 E E K T A E I W H D G G Y Y H T R D I A W Q D E D D G Y L W Y V G R T D V I K A  
UniRef90\_A3Q3X0 P E Q T A E T F R P D G L Y S G D L G Y L D E D D G Y L H I T G R K T D L I S  
UniRef90\_D5E6T6 E E R F I E T Y W S M W Y M S G D G A H T S D G Y V W I L G R L D D V I K V

		450	460	470	480																																										
UniRef90_S9QBS1	G	Y	N	I	Y	P	K	E	I	E	S	A	L	V	D	H	P	G	V	V	A	E	A	V	I	G	V	P	H	P	D	F	G	E	T	V	L	G	L								
UniRef90_L0F2H6	S	G	H	R	I	V	G	T	M	E	V	E	S	A	L	V	D	H	P	G	V	V	A	E	A	V	I	G	V	P	H	H	E	D	K	S	Q	A	L	A	A	F					
UniRef90_L0WJ11	S	G	F	N	I	V	S	S	P	N	E	V	E	D	V	L	T	A	H	P	G	V	V	A	E	A	V	I	G	V	P	D	D	H	S	G	Q	A	L	A	A	F					
UniRef90_I3R5M5	S	G	G	E	N	I	V	S	S	P	N	E	V	E	D	V	L	T	A	H	P	G	V	V	A	E	A	V	I	G	V	P	D	D	H	S	G	Q	A	L	A	A	F				
UniRef90_W9AC99	S	G	G	V	N	I	V	S	S	P	N	E	V	E	K	L	I	V	T	H	P	G	V	V	A	E	A	V	I	G	V	P	N	P	N	W	G	E	T	V	K	A	F				
UniRef90_M0LAZ7	S	G	G	Y	R	I	V	G	P	F	E	V	E	S	S	L	G	E	H	P	G	V	V	A	E	A	V	I	G	V	P	K	M	K	D	R	E	K	A	G	T	V	V	K	A	F	
UniRef90_Q5CD66	K	G	F	Q	V	A	P	A	E	I	E	D	V	L	N	D	H	P	G	V	V	A	E	A	V	I	G	V	P	H	P	D	F	G	E	G	I	V	V	A	F						
UniRef90_UPI000262CD5B	G	G	L	N	I	V	A	Y	P	K	E	I	E	D	V	L	N	D	H	P	G	V	V	A	E	A	V	I	G	V	P	H	P	D	F	G	E	G	I	V	V	A	F				
UniRef90_A9BAU9	S	G	G	H	R	I	V	G	T	M	E	V	E	S	A	L	V	D	H	P	G	V	V	A	E	A	V	I	G	V	P	D	D	L	K	S	G	E	S	V	V	A	F				
UniRef90_C3PK11	S	G	G	F	N	I	V	G	T	M	E	V	E	S	A	L	V	D	H	P	G	V	V	A	E	A	V	I	G	V	P	R	S	D	L	K	S	G	E	S	V	V	A	F			
UniRef90_Q0K7G7	S	G	G	Y	N	I	V	Y	P	K	E	I	E	S	F	I	D	E	M	P	G	V	V	A	E	A	V	I	G	V	P	H	A	D	F	G	E	A	V	V	A	F					
UniRef90_W8AQQO	K	G	F	Q	V	A	P	A	E	I	E	G	I	L	R	D	S	H	P	G	V	V	A	E	A	V	I	G	V	P	R	P	D	E	V	A	G	E	L	L	P	R	A	V			
UniRef90_C7LTU9	S	G	G	H	R	I	V	G	T	M	E	V	E	S	A	L	V	D	H	P	G	V	V	A	E	A	V	I	G	V	P	D	E	V	A	K	G	Q	A	L	P	R	A	V			
UniRef90_W9DBD0	S	G	G	E	N	I	V	S	T	I	E	V	E	S	A	L	V	S	H	D	A	V	L	D	V	A	V	I	G	V	A	D	E	K	W	G	E	R	T	P	R	A	Y				
UniRef90_UPI0002C368BA	S	G	G	E	N	I	V	S	T	I	E	V	E	S	V	L	F	K	H	D	E	I	V	E	A	A	V	I	G	V	P	D	E	Y	W	G	E	R	T	P	C	A	F				
UniRef90_UPI00046AA86B	S	G	G	H	R	I	V	G	T	M	E	V	E	S	A	L	V	A	H	D	P	E	I	V	E	A	A	V	I	G	V	P	H	D	I	K	G	Q	G	T	I	Y	A	Y			
UniRef90_I4YXR9	S	G	G	F	N	I	V	Y	P	K	E	I	E	D	E	I	D	A	I	P	G	V	V	F	E	S	A	V	I	G	V	P	H	A	D	F	G	E	G	V	T	A	V				
UniRef90_X1YA50	K	A	F	Q	V	A	P	A	E	I	E	D	V	L	S	H	H	P	G	V	V	R	D	A	A	V	I	G	V	P	D	E	V	A	A	G	E	L	L	P	A	A	F				
UniRef90_U7FJ04	S	G	G	E	N	I	V	S	S	P	N	E	V	E	D	V	L	Y	K	H	H	A	D	V	A	A	V	I	G	V	P	D	E	K	W	G	E	L	P	C	A	F					
UniRef90_F8DY41	K	G	Y	Q	V	A	P	A	E	I	E	A	L	L	L	G	H	P	K	V	V	A	D	V	A	V	I	G	V	P	R	E	D	G	E	E	I	P	K	A	F						
UniRef90_E1SML2	S	G	G	F	N	I	V	Y	P	F	E	V	E	D	V	L	T	Q	F	P	G	I	V	E	A	A	V	I	G	V	P	D	E	R	S	G	E	R	V	V	J	A	Y				
UniRef90_V6MBI7	S	G	G	Y	T	I	V	G	P	F	E	V	E	D	V	L	V	K	H	H	P	G	V	V	A	E	A	V	I	G	V	P	D	P	E	R	G	H	V	V	K	A	F				
UniRef90_Q84P21	K	G	Y	Q	V	A	P	A	E	I	E	A	L	L	L	T	H	H	P	E	I	T	D	A	A	V	I	G	V	P	F	P	D	K	E	V	Q	F	P	M	A	Y					
UniRef90_A0A031GJP6	S	G	G	E	N	I	V	S	T	I	E	V	E	S	A	L	V	S	H	D	A	V	L	D	V	A	V	I	G	V	P	D	E	Q	W	G	E	S	V	H	A	V					
UniRef90_E3GY35	S	G	G	Y	R	I	V	G	P	F	E	V	E	S	A	I	L	S	H	H	P	A	V	L	E	C	A	V	I	G	V	P	D	P	S	E	Q	W	G	E	S	V	K	A	T		
UniRef90_UPI0003AD63C5	S	G	G	E	N	I	V	S	T	V	E	V	E	R	A	I	D	S	H	H	P	A	V	L	E	V	A	V	I	G	V	P	D	D	K	W	G	E	R	P	K	A	F				
UniRef90_UPI00036081ED	S	G	G	E	W	I	V	S	S	T	M	E	V	E	S	A	L	V	M	G	H	H	P	A	V	A	E	A	V	I	G	V	P	H	D	K	W	G	E	R	P	L	J	A	C		
UniRef90_I1YE97	S	G	G	H	R	I	V	G	T	M	E	V	E	S	A	L	V	A	H	H	P	G	V	V	A	E	A	V	I	G	V	P	H	D	I	K	G	Q	G	T	V	K	A	F			
UniRef90_A0A023DCK2	S	G	G	Y	T	I	V	G	P	F	E	V	E	D	A	L	I	K	H	H	P	A	V	K	E	C	A	V	I	G	V	P	D	E	I	R	G	H	V	V	K	A	F				
UniRef90_Q3IN96	S	G	G	E	W	I	V	S	S	T	V	E	E	N	A	I	M	A	H	D	D	V	A	E	S	A	V	I	G	V	P	D	E	R	K	W	G	E	R	P	V	J	A	F			
UniRef90_E3IZ13	S	G	G	F	N	I	V	A	Y	P	A	E	I	E	S	M	L	A	E	H	H	P	A	V	A	Q	V	A	V	I	G	V	P	D	E	R	L	W	G	E	V	G	M	A	Y		
UniRef90_UPI0004015896	N	G	Y	N	I	V	Y	P	R	E	V	E	E	I	L	Y	T	H	H	P	A	V	A	E	A	A	V	I	G	V	P	N	E	S	V	L	G	E	E	V	G	A	L				
UniRef90_W7WV15	S	G	F	N	I	V	F	T	N	E	L	E	S	V	L	A	M	C	H	P	G	V	V	L	E	C	A	V	I	G	V	P	D	E	A	K	Q	G	E	A	I	K	V	F			
UniRef90_F6DUH7	S	G	G	H	R	I	V	G	T	M	E	V	E	S	A	L	V	E	H	H	P	G	V	V	A	E	A	V	I	G	V	P	H	E	L	K	G	Q	A	V	S	A	F				
UniRef90_R0HYJ9	S	G	G	E	N	I	V	S	S	V	E	V	E	N	V	L	Y	K	H	H	P	K	V	L	E	A	A	V	I	G	V	P	H	P	T	W	G	E	T	P	C	A	F				
UniRef90_I3PB36	S	G	G	E	N	I	V	S	S	V	E	V	E	N	V	L	L	K	H	H	P	K	V	L	E	A	A	V	I	G	V	P	H	P	R	W	G	E	T	P	C	A	F				
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UniRef90_F4CXM4	K	G	Y	Q	V	A	P	P	R	E	L	E	E	L	H	A	E	P	G	V	V	G	A	V	V	I	G	V	P	Q	S	D	V	W	G	E	L	P	V	J	A	F					
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UniRef90_R5CI46	S	G	G	E	N	I	V	G	T	M	E	V	E	S	A	L	V	E	H	H	P	A	V	A	E	A	V	I	G	V	P	D	E	I	K	G	Q	A	V	K	A	F					
UniRef90_W8HT65	S	G	G	Y	N	I	V	Y	P	A	E	I	E	R	I	L	M	E	H	H	P	G	V	V	A	L	V	A	V	I	G	V	P	D	D	I	K	G	E	V	A	H	A	Y			
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UniRef90_Q30YY2	S	G	G																																												



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

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

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N C L D R H L T A R E N K A A L I F G E  
S N A P F F R W F E N V T Y N S L D R H L K E R G N K V A L I W E N  
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V S D F L D R A V T A F G D S T A I V D E P  
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D K V M E W T E P H V K W Y V G Q L N A S E N C V D R H R N K A A L I W E G  
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UniRef90_B2GHG5	E E A V A A A G P D E G E D T A A S D P M L I Y F T T S G T T G Y			
UniRef90_K6P435	K S V V R Y G D F I A G Q P T G F D W P E L D E R C A A A M C Y T T S G T T G N			
UniRef90_L0IU32	K S L I W N T L L T G Q E E L S D N A V S K D D V A L I Q F T T S G T T S A			
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UniRef90_F6D4X7	K S D I W W H E A I T E M E T E C K T E E M D S E D P L F I L Y T T S G T T G K			
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UniRef90_F0T9Z5	S F A E D Y D K L T A N C A S L A P G I P I S D E D D A A I Y F S S G T T G F			
UniRef90_R7C4L8	S G R D Y W W H D E M K T V D S T C E P E Q M D A E D P L F I L Y T T S G S T G K			
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UniRef90_G6CYK7	K H H C F E A L D G A T R L D A P L P Q G A E D L S A I V Y T T S G T T G R			
UniRef90_A1WK41	S T W R D R Q S V M A I E S R M T P T D D C L Q M Y T T S G T T G L			
UniRef90_UPI00037VRB2	D R D V W Y D E L T K D V I S N H C E P E E M N A E D P M F I L Y T T S G S T G K			
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UniRef90_MOC1D4	E L I A Y E D W L A E A D S G F A W E S F D E N C A A G M C Y T T S G T T G V			
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UniRef90_B2FN6	E D L A A Q P P G V R V A D A E K D S D D L H R L L Y T T S G T T S R			
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UniRef90_B4JAG8	E E S V A E Y P A T E L D D E V I E G A F M F Y S S G T T G R			
UniRef90_X0Q4U1	R E H L Q E A S A E H T C V R T K S Q D P L A I Y F T T S G T T G A			
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UniRef90_L7LIT7	D E G V I E M F S D V R G E E R F V E R D D D D V A L P Y T T S G T T G K			
UniRef90_L9WJ4C	D Q I W S G E I P P I A M G L P A P T V S I S P D D D L F A I P F S S G T T G L			
UniRef90_UPI00036AA1A2	D D A M L E G D A P G A D V I T D V E R A S G S D T A V I L Y T T S G T T G K			
UniRef90_D3EYX7	D D A M L E G D A P G A D V I T D V E R A S G S D T A V I L Y T T S G T T G K			

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UniRef90\_UPI00037376EB P K G V V Y S H R S I W L H S M Q I C M S D T M R L S D A D K A L L V I V P M F  
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UniRef90\_UPI00047E61F3 P K G A D L S H D N L R R N E I L S R D L M G I E V G E V L F G G L P F F  
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UniRef90\_B8H4Z5 P K G A I A T H R N I N S N I F A A A A G A R A F L R D G E A A L L S V P F F  
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UniRef90\_J9IEF8 H C F G M V I N L C A I N F G A T M V Y P E G F D P K A T M E A I T Q Y Q G T S  
UniRef90\_D0LZP3 W V T G H Y L V Y G P L A N G S T Y C V M Y E G F E P D R F W D T I E R Y E G V T I  
UniRef90\_A7NGF8 F N G A F L T L M G P A F Y L G T T Y I L M K A F S P N A R S R E L T E T A E R Y E K K L T H  
UniRef90\_UPI0004560F82 W I T G H Y L V Y G P L M N G V T T L I L F G F S P S R Y W E M V A D K H K L T Q R  
UniRef90\_UPI000465CEE0 H V T G M Q A C M G P I I A G G A T V L M T R W N R D V A A T L I A R K H R Q L T R F  
UniRef90\_I4C7C6 H S V G L T C S L N G I F E A F T D I L L I P L A Q D P K N I L S T E A V S Q Q R Q A T S  
UniRef90\_G7UPP2 H S A Q H V F T V P Q L I M G G Y V H I L A S A Q A E L C L S T I A S Q H R R L D S  
UniRef90\_U7M030 H A Y G M T T C V L S I Y F G A E L I L V P S P Q M P L I M D T V A K K H T P T W  
UniRef90\_F0JDC0 W V T G H S G L Y G P L M A G A T T S V M Y E G F Q D A D R L W S V V A K Y G V T I  
UniRef90\_UPI000465E4B5 H T H G L F V A S N T L M A G A R M I F R P R F D A G D A L L A L M P  
UniRef90\_G8LXH0 H T G A K M H W F G S L M V G G K A V I L R G V K P E W V L Q A V S E E K K A T I  
UniRef90\_UPI00037C4FA5 W V T G H Y L V Y G P L S N G A T Q V M Y E G P E H R G R F W E L V E E K D V T L  
UniRef90\_W0JU46 H I Y G L N A L L G S V Y A G S K M V L Q P K P E P K N M L R A I E E D H R V T K  
UniRef90\_X2HAK5 H I F S L T V N I M I F A A G S K N I L I T N P D D K A L V K V L K N N R V T V  
UniRef90\_F6DCQ8 W I T G H Y V A Y G P L A M G A T V V M F E G P D D A G R F W Q V C Q D H G V T  
UniRef90\_T1VWD1 H V N A C V S V L T P L L V G G Q V S V T G K F S V S V S R F F D V A R Q D L R P T Y  
UniRef90\_UPI00037376EB H A M S W G M P Y A A F M V G A S M V L P D R F Q P E P I A A V L A A A E K P T F Y  
UniRef90\_L8ER95 H I T G M V C E L A A F T N A G T L A L A Y A R F F E P G V V L D A F L G E H R P A T S  
UniRef90\_Q0FXX1 H T H G L F V A T N T L I A G S V I F L E K F D D P N K I L M E A M P Q Q A T A  
UniRef90\_A0BFK8 H C F G M V M N L A C I N Y G S T M V Y P D G F S A G A T L E A V T N Y K C T S  
UniRef90\_A0A059MS99 H A Y G L T L C V T A M S L G A R L V L F P K F D V D L V L A A A K H P P T F  
UniRef90\_W6WQD9 H T H G L F V A T N V L A S R A S M I F Q P K F D P N K I L M E A M P Q Q A T A  
UniRef90\_A0A034VUP2 H V Y G V V I T M S A M T H G S T L V L P A G F F S P A D S L H A I V N E K C T V  
UniRef90\_W2R6J0 H I A A T M L F H V T I F K R J A M I V L P R F E P G S F L R V I E N R F K L D N T  
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UniRef90\_F4LCE2 H V I G A F D L P I A L V W V G T L C V V H R E F D P A G H I V L A S I E H A V L A H C  
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UniRef90\_E0YH2 H V T A C S G L M G S I V A G N T L I F M H K W D P V E A F G L I E R E K V N L  
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UniRef90\_K6P435 W A A A W S S F C P W V A G A G A Q V L V P G K F Q A Q R T L R L I E S H R P Q S  
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UniRef90\_UPI00047E61F3 H I F G Q T C A L A A V L L T G A T V T L L P R F E P G K A L E I E R D G V T V  
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UniRef90\_G6CYK7 H S Y G M S V M M L H L A N G L K L V T I P K F Q P E T F I R L L E N Y K I N L  
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UniRef90\_A0A037VRB2 H V A G A L L G I Y G L A M G S K L I S R D F V P A D I V A T I E R E Q V T T  
UniRef90\_J9YZ16 W V T G H Y I T Y G P L A N G A T T I M F E G P D S S R W W Q T I D K Y K V N I  
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UniRef90\_K6WVR9 H S G G M C M T L P V L M A G G H I I L H A Q F D A A H L L R D V E K Y S V T S  
UniRef90\_F2R1C9 H I Y G L T A L M A P L R Q G A T V V V L P R F E L D T F L G A I Q Q H R I S N G  
UniRef90\_F9Y999 W V T G H Y L V Y G P L A N G A T T L M F E G P D A G R S W Q I V Q D H K V N I  
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UniRef90\_B3RXG6 V N E D D V M L A L L P R S G A T K L V S M A R F E P K I F L E T J I D N Y K I T V  
UniRef90\_B2FN6 W V T G H Y L V Y G P L A N G A T S L M F E G P D T S R F W N V I Q K H K V T  
UniRef90\_D1A5W6 H V S G L E A P L A T F V A G A T M V L T P S F K A P D I A R I V A E E R I T G  
UniRef90\_UPI0004784E82 W A A A W G L I F G S Q M M M G C T T V L Y D T P D P V E H L K A I S K Y N T T  
UniRef90\_D7CP09 H T G A K M H W F G S L I V G G K A V I L R G V E P R W L L E A V S E E E A T V  
UniRef90\_C7MQM9 W I T G H Y I V Y G P L A N R A T Q V V Y E G P H E G R H W E T V S Q N Y K V T I  
UniRef90\_K0BBP3 W V T G H Y V A Y A P F L H G A T Q V M Y E G P D A S R M W D I L Q K Y K V T I  
UniRef90\_F0STW7 W I T G H Y L V Y G P L L N G A T I V M Y E G P S K D R Y W E L Q K H G V T I  
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UniRef90\_C8X7X5 H S F G Q T C S M N A F Y A G S T Q V L L P R F D G A A L L E I V I G F S V N V  
UniRef90\_D3FXX8 F N G S V A F M Y P A I C A G A T Y I L L E S K F D K D T V M N T I E R E S V T H  
UniRef90\_B8H4Z5 H A T G C F A V L N P L F A G A K L A M M R K W D P E R A M Q V I Q D E K L T Q  
UniRef90\_B4JAG8 H A F G V G L I M A M S K G A T L V L P S K G F S P K D S L Q A I V J E E K C T V  
UniRef90\_X0Q4U1 H A A G V G W V A A A H R L I G A T V L V M E K F D P L R V L Q L I E R Y R V T H  
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UniRef90\_I3TRF0 H A N A W G V P Y A A M A M G S K L V F P S K L D P A S I V E I L N G E G V T V  
UniRef90\_K4A836 H C N G W C M V W G T A A K G G T S I C I I G S V S P K V I F E K I V R H G V T N  
UniRef90\_UPI00037737F8 H I F A E T V A V A I F G H G L C N V L I T N P D L K T I V D A F A K D N K L G G  
UniRef90\_K1JZ69 H I F S L T A T L S A F T Q F A A N M V L I T N P D L D G L A K E C A K W D F S  
UniRef90\_B8FJ42 H V H A W G M P Y S M T V M G A K Q I Y P G R Y E P E L I L K L Y R D Y K V S F  
UniRef90\_A9BZN6 H V N A W G L P Y S A A L T G C K L V F P P A L D G K S L Y E L I E A E G V T Y  
UniRef90\_E9HTG5 H S F G I S G V F D N L M G G L R F V L I P N F T L Q R S L Q O A V Q D Y K I T I  
UniRef90\_B1ZX60 W V T G H Y V V Y G L L S N G A T I F I Y E G P E P D R F W Q M I D R H G L T I  
UniRef90\_W7KKU3 W I T G H Y I V Y G P L Q N G A T T L M Y E G P S P D R W W E V E K Y G V S L  
UniRef90\_UPI0004093808 W I T G H Y I V Y G P L L A G A T T V M F E G P D A G R F W Q V V D K Y K I S L  
UniRef90\_A6CLB2 Q K W I W S P F L S V L G S G A T L V Y Q G K F E P D T Y L Q M L E D Y Q V S V  
UniRef90\_UPI0003F5815B W V T G H Y L V Y G P L A N G A T T V M F E G P D A S R F W Q V C D K H Q V S L  
UniRef90\_J9YEV9 W I T G H Y M V Y G P M V N A S Q V F F E G P D V K R I A Q V V E K Y K V S  
UniRef90\_UPI0001DD06CD W I T G H Y V V Y G P L S N G A R T V M F D G P D P G R L W E T S Q R L G V T I  
UniRef90\_UPI000318385F H S A Q H V F L Y T P A L A Q G A R S I V P G P V P E Q L F D L F E T R G I T S  
UniRef90\_UPI000376858C H C N G W G M P Y A T V G L G A T N V I R K I D G G E L L R R V E K H G V T I  
UniRef90\_Q6G1W0 W I T G H Y L V Y G P L C N A A T T L M F E G P D N G R F W E I V D K H Q V N I  
UniRef90\_R5FF18 W G K A W G K L Y G Q W E A G A T V E V H E K F D A E K I M R A M E K Y H V T S  
UniRef90\_UPI00047490DA H V N A W G L P Y S A A L V G A K L V L P G G L D G V S V F R L F E Q E G V T F  
UniRef90\_M4FAS4 H C N G W T F T W S V A A R G G T N V C I R H V T T S E I F K N I Q M H G V T H  
UniRef90\_A0A059KQY5 H V N A W G L P Y S G P L V G A R L V F P P H L D G K S L H A L F E S E R V T F  
UniRef90\_E8QZS0 W I T G H Y L V Y G P L S N G A T V M Y E G P D K D R F W Q I V Q D Y G V T I  
UniRef90\_L7LIT7 H T F G Y A G I L P S I L F G A T M F P L A V Y S P S A S M E S V A R E R I T V  
UniRef90\_L9WJ4C H I T G F T H T W Q P L L R G G R V I L A A N W D G D A A M E L M E K A E I T H  
UniRef90\_UPI00036AA1A2 H I Y G M T T L L L S L A S G H H V F T L P K F D L N T F I E A H P K H Q L E F  
UniRef90\_D3EYX7 H S I G Q T A A M N A F A A G S E L T L T P R F E P A A A L A L I E A H E A H G

		290	300	310	320																																						
UniRef90_J9IEF8	M	Y	G	V	P	T	M	F	I	A	M	L	E	A	K	N	K	E	K	Y	N	I	S	T	L	R	T	G	F	I	S	G	S	G	V	P	E	V	L	V			
UniRef90_DOLZP3	F	Y	T	A	P	T	A	I	R	A	F	E	R	E	D	E	W	F	Q	R	H	D	L	S	S	L	R	L	L	G	T	A	G	G	E	P	I	N	P	K	A	W	
UniRef90_A7NGF8	I	K	M	V	P	S	Q	I	V	A	L	L	N	E	E	D	F	D	E	K	H	D	L	S	S	L	R	E	M	L	G	S	V	G	E	P	L	H	N	M	E	H	K
UniRef90_UPI0004560F82	F	Y	T	A	P	T	S	I	R	L	L	L	N	E	E	H	V	Q	K	H	D	L	S	S	L	R	V	I	G	S	V	G	E	P	L	I	N	P	E	A	W		
UniRef90_UPI000465CEE0	W	R	S	T	S	T	M	A	I	D	M	V	N	S	P	N	A	D	S	Y	D	L	L	S	S	L	T	A	L	G	G	G	G	A	A	M	P	Q	A	I	A		
UniRef90_I4C7C6	I	P	A	L	P	T	L	Y	T	G	M	I	P	H	L	H	R	Y	N	L	L	T	S	S	L	K	G	C	F	S	G	G	A	P	L	A	L	E	I	M			
UniRef90_G7UPP2	F	F	A	P	P	T	V	W	I	S	L	R	H	P	G	F	D	R	G	F	D	L	L	S	L	K	R	G	Y	Y	G	A	S	I	M	P	V	P	V	L			
UniRef90_U7M030	L	P	G	V	P	T	L	Y	E	K	I	M	D	A	E	D	K	G	V	D	L	L	S	L	G	I	S	N	A	F	S	G	A	A	T	L	P	V	D	V	M		
UniRef90_F0JDC0	F	Y	S	A	P	T	M	I	R	M	L	M	R	T	Q	Y	P	K	A	H	D	L	S	S	L	R	L	L	G	S	V	G	E	P	L	S	P	E	A	W			
UniRef90_UPI000465E4B5	L	M	G	V	P	T	F	Y	V	R	L	L	K	L	P	G	L	R	A	A	S	E	R	I	L	R	L	F	V	S	G	S	G	A	P	L	S	P	E	A	H		
UniRef90_G8LXH0	V	W	L	L	V	P	W	I	Q	D	I	L	D	A	I	D	R	K	D	Y	R	T	E	Q	W	R	L	M	H	A	G	A	Q	P	V	L	P	P	E	S	L		
UniRef90_UPI00037C4FA5	L	Y	T	A	P	T	A	L	R	T	F	M	K	D	D	P	A	G	F	D	L	L	S	S	L	R	L	L	G	S	V	G	E	P	L	I	N	E	A	W			
UniRef90_W0JU46	F	S	G	V	P	A	M	Y	T	M	L	F	R	E	E	D	P	A	D	A	Y	D	L	S	S	L	L	E	H	V	T	C	A	A	A	P	L	N	A	E	D	V	R
UniRef90_X2HAK5	M	S	G	V	N	T	L	F	N	A	L	I	H	N	E	E	F	K	T	I	D	F	S	T	W	K	L	V	L	G	G	G	M	A	T	Q	K	M	V	A			
UniRef90_F6DCQ8	F	Y	T	A	P	T	A	L	R	A	L	M	K	K	D	P	A	Q	Y	D	L	L	S	S	L	R	L	L	G	T	V	G	E	P	L	I	N	S	K	E	L		
UniRef90_T1VWD1	F	S	A	V	P	T	A	I	Y	A	M	L	T	S	P	E	D	A	S	I	N	T	S	S	L	R	R	F	A	V	C	G	A	A	P	L	I	N	S	K	E	L	
UniRef90_UPI00037376EB	A	G	A	V	P	T	I	W	Q	G	L	L	Q	H	L	D	A	N	P	Q	D	I	S	H	L	R	E	V	V	V	G	G	A	A	P	P	A	M	M				
UniRef90_L8ER95	T	V	G	P	S	T	A	Y	M	A	L	M	A	Q	P	H	V	L	T	R	D	H	F	A	S	F	S	S	L	S	S	G	S	G	A	P	L	P	A	L	V		
UniRef90_Q0FXK1	M	M	G	V	P	T	F	Y	T	R	L	M	L	D	E	R	L	S	K	E	T	A	G	H	I	R	L	F	T	S	G	S	G	A	P	L	L	J	A	E	T	H	
UniRef90_A0BFK8	I	Y	G	V	P	T	M	F	I	E	Y	L	N	E	Y	E	R	H	K	Y	D	V	S	S	L	R	T	G	L	T	A	G	S	L	A	S	E	A	E	L	M		
UniRef90_A0A059MS99	M	P	A	V	P	T	I	Y	E	R	L	L	A	R	A	A	R	E	R	S	V	D	L	T	S	A	R	W	S	I	S	G	A	M	P	L	P	T	E	T	L		
UniRef90_W0JU46	L	M	G	V	P	T	F	Y	V	R	L	L	R	H	P	G	L	D	K	A	S	T	A	H	M	R	L	F	V	S	G	S	G	A	P	L	L	J	A	E	T	H	
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UniRef90_W2R6J0	V	Y	V	V	P	T	I	V	Q	F	L	A	K	H	P	L	V	D	K	Y	D	L	L	S	S	L	N	R	L	A	S	G	A	A	S	L	G	G	E	L	F		
UniRef90_UPI000301AE09	T	G	G	V	P	T	I	A	W	Q	L	L	E	H	P	E	R	H	S	Y	D	L	L	S	S	L	L	E	T	I	S	Y	G	G	A	P	S	A	P	E	V	L	
UniRef90_A0A009JYJ2	L	Y	T	A	P	T	A	I	R	A	M	M	R	E	G	D	A	R	E	S	D	R	S	S	L	R	L	L	G	S	V	G	E	P	L	I	N	P	E	A	W		
UniRef90_J7QAP2	L	C	G	A	P	T	V	M	S	T	L	N	A	R	E	S	E	K	K	P	L	K	R	D	A	A	R	F	F	T	A	A	A	P	P	P	Q	A	V	L			
UniRef90_F4LCE2	G	W	M	A	P	T	V	M	L	S	R	V	L	T	V	P	D	P	D	R	F	D	L	L	R	T	F	A	W	C	I	A	G	E	K	T	P	E	S	R	I		
UniRef90_UPI0002557216	I	N	L	V	P	T	M	L	Q	M	L	M	A	S	P	G	F	A	S	T	D	I	K	H	L	R	Q	V	I	Y	G	A	S	P	M	P	R	P	V	I			
UniRef90_A0A058ZJG2	F	Y	T	A	P	T	A	L	R	A	L	M	G	Q	E	W	E	K	Y	D	L	L	S	S	L	R	L	L	G	S	V	G	E	P	L	I	N	P	E	A	W		
UniRef90_E0XYH2	T	G	G	V	P	T	I	A	W	Q	L	L	E	H	P	E	R	H	S	Y	D	L	L	S	S	L	L	E	A	V	A	Y	G	G	A	P	A	A	P	E	L	V	
UniRef90_B2GHG5	L	C	G	A	P	T	A	V	C	S	T	I	V	D	A	Q	E	A	H	P	L	D	R	R	I	R	I	T	T	A	G	A	P	P	A	P	S	I	I				
UniRef90_K6P435	L	C	A	P	T	V	Y	R	L	L	V	L	E	P	L	D	R	D	Y	D	L	L	S	S	L	R	S	C	V	S	A	G	E	S	P	L	N	P	E	V	L		
UniRef90_L0IU32	A	G	A	V	P	T	V	W	N	D	L	L	R	E	P	D	R	D	A	D	L	L	S	S	L	R	L	V	G	C	G	S	A	T	P	T	H	L	M				
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UniRef90_F6D4X7	F	Y	T	A	P	T	T	L	R	M	F	M	K	E	K	W	P	K	Y	N	L	D	S	S	L	R	L	L	G	T	V	G	E	P	L	I	N	P	E	A	W		
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UniRef90\_UPI0003F5815B H Q R F K D T Y F S P G N Y Y T G D G C R R D E D D G Y Y W I T G R V D D V I N V  
UniRef90\_J9YEV9 H Q R F I N T Y F S K G V Y F T G D G A R C D E D G F Y W I T G R V D D V L N V  
UniRef90\_UPI0001DD06CD H D R F F Q T Y T F P G T Y F T G D G A R R D E D G Y Y W I T G R V D D V I N V  
UniRef90\_UPI000318385F P E A T E E A F R G G W F H S T G D L V V Q D E A G Y L T I V G R V K D I I T  
UniRef90\_UPI000376858C P D A T A E A I E D G W F H T G D G G S M D E A G Y L T I G R V K K D I I T  
UniRef90\_Q6G1W0 H E R F I Q T Y T Y K G K Y F T G D G C R R D S D G Y Y W I T G R V D D I L N V  
UniRef90\_R5FFI8 E L T R Q A W H D G V Y H T G D V A W R D Q D G Y Y W F V G R A D D V I K S  
UniRef90\_UPI00047490DA S D E S P L V H G W F P T G D V A S L D Q D G F M Q I T D R A K D V I K S  
UniRef90\_M4FAS4 P K A T L E A F K Y G W L N T G D I G V I H P D G H I E I K D R S K D I I S  
UniRef90\_A0A059KQY5 E E S P L Q Q L D G Q A W F P T G D V A S L D A D G F M Q I T D R S K D V I K S  
UniRef90\_E8QZS0 D E R Y R R Q Y W S E G V Y F T G D G A R R D H D G N F M I M G R V D D V L N V  
UniRef90\_L7LIT7 P E A T A E T I D A D G W L H T G D I G T L D D R G N L T I T D R L K D M Y I C  
UniRef90\_L9WJ4C P E A T A A A F T E N G Y F R T G D I A R R D A D N Y Y E I V D R K E H M I N T  
UniRef90\_UPI00036AA1A2 E K A T A E T L I G D G W L R T G D V A R V A E D G T V Y I V D R A K E I K Y  
UniRef90\_D3EYX7 P Q E T A A A M R D G W F L S G D L A R V D E D G Y Y F I V D R K K D L I R

	450	460	470	480
UniRef90_J9IEF8	G	E	N	I
UniRef90_D0LZP3	S	G	H	R
UniRef90_A7NGF8	S	G	I	N
UniRef90_UPI0004560F82	S	G	H	R
UniRef90_UPI000465CEE0	S	G	F	K
UniRef90_I4C7C6	S	G	E	K
UniRef90_G7UPP2	S	G	I	V
UniRef90_U7M030	G	G	F	N
UniRef90_F0JDC0	A	G	H	R
UniRef90_UPI000465E4B5	A	G	F	N
UniRef90_G8LXH0	G	G	E	N
UniRef90_UPI00037C4FA5	S	G	H	R
UniRef90_W0JU46	S	G	E	N
UniRef90_X2HAK5	S	G	F	N
UniRef90_F6DCQ8	S	G	H	R
UniRef90_T1VWD1	S	G	E	N
UniRef90_UPI00037376EB	G	G	E	W
UniRef90_L8ER95	S	G	F	K
UniRef90_Q0FXK1	S	G	G	Y
UniRef90_A0BFK8	G	G	E	N
UniRef90_A0A059MS99	S	G	G	F
UniRef90_W6WQD9	S	G	G	Y
UniRef90_A0A034VUP2	G	G	E	N
UniRef90_W2R6J0	K	G	H	Q
UniRef90_UPI000301AE09	S	G	H	R
UniRef90_A0A009JYJ2	S	G	H	R
UniRef90_J7QAP2	G	G	E	N
UniRef90_F4LCE2	G	G	A	E
UniRef90_UPI0002557216	G	G	Y	N
UniRef90_A0A058ZJG2	S	G	H	R
UniRef90_E0XYH2	S	G	E	N
UniRef90_B2GHG5	G	G	E	N
UniRef90_K6P435	A	G	Y	R
UniRef90_L0IU32	G	G	E	W
UniRef90_M3C3D3	G	G	E	N
UniRef90_F6D4X7	A	G	H	R
UniRef90_UPI00047E61F3	S	G	Y	N
UniRef90_F0T9Z5	A	G	H	R
UniRef90_R7C4L8	S	G	E	N
UniRef90_UPI00035D2163	S	G	H	R
UniRef90_G6CYK7	N	A	Y	Q
UniRef90_A1WK41	G	G	E	N
UniRef90_A0A037VRB2	G	G	E	N
UniRef90_J9YZ16	S	G	H	R
UniRef90_MOC1D4	A	G	Y	R
UniRef90_UPI00047BD0C9	A	G	E	W
UniRef90_K6WVR9	G	G	E	N
UniRef90_F2RIC9	K	G	F	Q
UniRef90_F9Y999	S	G	H	R
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UniRef90_B3RXG6	K	G	F	Q
UniRef90_B2FNG6	S	G	H	R
UniRef90_D1A5W6	G	G	E	N
UniRef90_UPI0004784E82	A	G	Y	R
UniRef90_D7CP09	A	G	E	N
UniRef90_C7MQM9	S	G	H	R
UniRef90_K0BBP3	A	G	H	R
UniRef90_F0STW7	S	G	H	R
UniRef90_I1JAL3	G	G	E	N
UniRef90_UPI000225B113	G	G	E	W
UniRef90_C8X7X5	S	G	F	N
UniRef90_D3FXX8	G	G	V	N
UniRef90_B8H4Z5	G	G	E	N
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UniRef90_X0Q4U1	G	G	V	N
UniRef90_UPI0002C448F5	S	G	Y	R
UniRef90_I3TRF0	S	G	E	W
UniRef90_K4A836	G	G	E	N
UniRef90_UPI00037737F8	S	G	F	N
UniRef90_K1JZ69	S	G	F	N
UniRef90_B8FJ42	G	G	E	W
UniRef90_A9BZN6	G	G	E	W
UniRef90_E9HTG5	K	G	L	Q
UniRef90_B1ZX60	S	G	H	R
UniRef90_W7KKU3	A	G	H	R
UniRef90_UPI0004093808	S	G	H	R
UniRef90_A6CLB2	S	G	Y	T
UniRef90_UPI0003F5815B	S	G	H	R
UniRef90_J9YEV9	S	G	H	R
UniRef90_UPI0001DD06CD	S	G	H	R
UniRef90_UPI000318385F	G	G	V	L
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UniRef90_UPI00047490DA	G	G	E	W
UniRef90_M4FAS4	G	G	E	N
UniRef90_A0A059KQY5	G	G	E	W
UniRef90_E8QZS0	A	G	H	R
UniRef90_L7LIT7	A	G	F	N
UniRef90_L9WJC4	A	G	Y	N
UniRef90_UPI00036AA1A2	K	G	Y	Q
UniRef90_D3EYX7	G	G	L	N



	490	500	510	520
UniRef90_J9IEF8	I K L K E S G K T T P Q E F L D Y C K G Q I S H Y K I P R Y I R I V D S F P K			
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UniRef90_A7NGF8	V T L K A P E G E L V A A E L K V E W I N A R R V I G A G Y Q K V S K K V I V M D D F P K			
UniRef90_UPI0004560F82	V T L K A P E E E A L V A K E E L K V I Q V R R R H I A G G P F A A P K K V I V V N D D F P K			
UniRef90_UPI000465CEE0	V V P Q P A A R L T E A D V I G W C R A E M A A Y K C P T V V E F T D A L L P K			
UniRef90_I4C7C6	V V V K K G E T T A A D V I R H A C A R L P P P E N V P K L V V E F F L Q E G L P R			
UniRef90_G7UPP2	V A L K D G M H A D E A E L I A H A R A H A F K A P P R R V F F R D G L P R			
UniRef90_U7M030	V T L R D G A V L D P E E G L K E Y C R E R E L T R Y K V P R T F Y H F E E L A S			
UniRef90_F0JDC0	V L L N D G F Q P G D E D A L K K T I R S N E L G P V A V I K S T V F R D S A L P K			
UniRef90_UPI000465E4B5	V V R A P G S L V D E D E D A I L K A V S D R L A K F K Q P K R V V F V E A L L P K			
UniRef90_G8LXH0	I E L K E G A V C T E E D I N E F C K E L P R Y K R P H K V I F A Q L V P R K			
UniRef90_UPI00037C4FA5	V T L R G G V D D G D T E E A L R R G H V A K T L L V P I C K P R R Q I L L V P E L P K			
UniRef90_W0JU46	V V L E E G A D L T E R E E L R R E F S L A K T L L V Y V L A T Y A H P R R Q I R I F T V D E L P K			
UniRef90_X2HAK5	V V K R D P N L T R E E Q I I A Y C R Q N L T G Y K V P K D I I E F C S E L L P K			
UniRef90_F6DCQ8	V V L N T D L P A G V A E E L R N L W V T A Q E L G P I A K P R D D I I R F G T N L P K			
UniRef90_T1VWD1	V V A Y P D A P A G E E L L R L E H V V T A L L T R V K V P V A L Y V F G T D T L P K			
UniRef90_UPI00037376EB	V V V R E G E R V D A G A L R E F L R G R V A K W Q L P E H W T F V D E L V P K			
UniRef90_L8ER95	V S L R P G L H A E E P A E L A G A Y C K E L A A Y K Y P R Q V I E L P E L P K			
UniRef90_Q0FXK1	V V I A E R P I L E E E A V V A P L K E K L A A K Y K Q P K R I V I F D E L P R			
UniRef90_A0BFK8	I K M K K G A E L S G L D V Y Q F H C H K R I A H Y K I P K Y V K F V N D F P Y			
UniRef90_A0A059MS99	V L L V S G D D F D P E A A R E H C S L A A Y K V P R R V V V V D D L P R			
UniRef90_W6WQD9	I V L K T G A D L T E R E E L D V I K A L D G R R L A A G Y K R P K K V V F M A E L P R			
UniRef90_A0A034VUP2	V R L Q D D E T I T H D E V K E F A K G K L A H F K V P R Y I I P I D Q F P R			
UniRef90_W2R6J0	V V R K G D E P L T S N A L M E Y V A S K R L A S F K R V R E V E F L D V T P K			
UniRef90_UPI000301AE09	V H L A P G M T A T E E E L V Q S W V R K Q L G P V A T P V A L R F S K E T L P K			
UniRef90_A0A009JYJ2	V T L Q A G V N E S A E E E L R S W V R K Q L G P V A T P D A L H W A P A L P K			
UniRef90_J7QAP2	V E L K N D G G E Q A S A L I D W T R Q R L A H F K C P R H V L F C E L P K			
UniRef90_UPI000474LCE2	V V L N P G Q T L T L E E I D R H C R L A S F K V P R E L K V V A E L P K			
UniRef90_UPI0002557216	V A L H P G A E V D E Q Q L I S F V A S Q V A S Y K K P H R V L F M E Q I P K			
UniRef90_A0A058ZJG2	V T L M N D V E P T E E E L R T W V R T E I A G P I A A P D L L Q W S P G L P K			
UniRef90_E0XYH2	V H L A P G T S A S E E E L R E W V A R L A R F K V P V R I A F T R D T L P K			
UniRef90_B2GHG5	V V R A G G S T V T E E Q L R E H V R S Q L S G F K V P D S V T F T D E L P R			
UniRef90_K6P435	V V L A P G Y E P S A A E L Q E F V V K N T T A P Y K Y P R E L E F V P P K			
UniRef90_L0IU32	V V L D S G K E P S V A Q L Q E F V V R N D K V A R W W V P E R W T F D R D L P K			
UniRef90_M3C3D3	V V L N D A S G A S K Q E L L Q E W V G G K L G K T W V P R E V F V V E D L P K			
UniRef90_F6D4X7	V L K E G S G S T E E D I L K H V R K R L G P I A S P A H V K I V K D L P K			
UniRef90_UPI00047E61F3	V G L K A E S M P A D D E I L E F A R K R L A A Y K Y P R A R V V F V D Q L P K			
UniRef90_F0T9Z5	V V I K E N Y H F E E T V L R H H V R T E I G P I A T P K Y I K L V G D L P K			
UniRef90_R7C4L8	I E L V P G A V C T E E D E M N E F C K G L P R Y K R P R K I I F F A D V P K			
UniRef90_UPI00035D2163	V T L M E D V E S N E E L V L F V R N E I A G P I A A P D L I H W A P G L P K			
UniRef90_G6CYK7	V V P N K N S P A N E A D I I E F V N K K V A P Y K H I K E V Q F I E S I P K			
UniRef90_A1WK41	V V K S D I L D L T A A E V I A F C A S L T S Y K C P K K Q V D F F L D Q L P R			
UniRef90_A0A037VRB2	A V L K S G A V L T A E D L I A H A R G K I A G F K I P K K V D F V D E L P R			
UniRef90_J9YZ16	V T L N A G E Q E N E R D L K L W V R K Q I G P L A T P D I I H F S P G L P K			
UniRef90_MOC1D4	V V L T A D A D A E P S D E S L R Q H V R D R L A K Y E Y P R D E I E T V D E L P K			
UniRef90_UPI00047BD0C9	V V A K A G A A L T K E E L R L D F M A G K V A K W A V P R D E I A F V D E I P H			
UniRef90_K6WVR9	V V P E P D A R I E L D E M R D F L T A K L A R Y K L P R E L R L D E L P R			
UniRef90_F2RIC9	V V R Q P A A A L T A A D V M A H V A A R V A P Y K K V R A V E F L D A V P K			
UniRef90_F9Y999	V T L M N G E E P S D D D L I K W V R A E I G P I A T P D L I Q W A P G L P K			
UniRef90_D5RKE6	V T L K T G E E P T D A E L V A W V R K E I G P I A S P D A I Q W A P G L P K			
UniRef90_B3RXG6	V V K R A N D V T E E E L I A F V A S E V S P H K K L R G G V E F I E S I P K			
UniRef90_B2FNG6	V T L V A E A P S D E E L I A W V R K E I G P I A T P D H L Q W A P G L P K			
UniRef90_D1A5W6	V T L R E P A P E A E E I R R H C L N N L A K Y K V P K Y I E V V D A L P R			
UniRef90_UPI0004784E82	I V L T E G H K G S N E I Q D F C K N L T A P Y K Y P R K I E F V L S L P K			
UniRef90_D7CP09	I E V K P G R D L T E D S I L A F C N E A L P R Y K R P R Q V F F D K I P K			
UniRef90_C7MQM9	V T L R G G V A E D E A E L R D H V A K E I G P I A K P R Q I M V V P E L P K			
UniRef90_K0BBP3	V V L K Q G V E I L E K E I I D K I V R N N I G S I A T P K Q I Y F V S K L P K			
UniRef90_F0STW7	V T L R E G V C P D A E E L K K H I V L R G A I A R P K Q I Y F V S K L P K			
UniRef90_I1JAL3	V K L K E G C S A T S E E I I Q F C Q N R L P R F M A P R T D V V F T D L P K			
UniRef90_UPI000225B113	V V L H E G T T I T K E T L E F L S P Q F P K W W L P D D I L F F E E D I P K			
UniRef90_C8X7X5	V V R S P G Q D L D A D T L M T W S R E K L G R H K V P R R V E F V E T L P K			
UniRef90_D3FXX8	V V L K D G I D I Q E E E L M L W V N D R V A K F Q R L K A L S I V G D M P K			
UniRef90_B8H4Z5	V T L K P G A E A T E A E L R A F V A G D R L A A F K V P V K V V F W P E T L P R			
UniRef90_B4JAG8	V R L H H D V D P T K E S L R E Y A K G I A H F K V P R Y V V P V D A F P K			
UniRef90_X0Q4U1	V V S P G T T P G P E E L I A H C S R L A H Y K S P T S V D F T D E L P R			
UniRef90_UPI0002C448F5	V V L S P A S S C D P E E L Q E H V K R V T A P Y K Y P R K V A F V S E L P K			
UniRef90_I3TRF0	V T P R A G A E L T R E Q V L I A H H V P R I A R W W M P D D V V V L D E L P H			
UniRef90_K4A836	V T L K D G A R A T A E D I I E F C A R A R L P R F M A P R T V V F S D L P K			
UniRef90_UPI00037737F8	V V K K D K S L T E E V I T Y A R E N L T G Y K V P K A V E F R E D S L P K			
UniRef90_K1JZ69	I V R K D P A L T A D D V K K Y A R T E N Q L T G Y K M P R E I I F V D S L P K			
UniRef90_B8FJ42	I V P R E G Q E L S K E E V Q T F M G E N G A P K Y I P E S I L F V D E I P K			
UniRef90_A9BZN6	V A K K P G A E V T R E E L L K F Y E G K T A K W Q I P D D V V F V D E I P L			
UniRef90_E9HTG5	V V K R P G C T V T G D E L A N F L S D K V S S Y K Q L R G G V V F V D E I P K			
UniRef90_B1ZX60	V C L K A G H T A T D E E L R S H V A K E I G S L A R P D V I R F A A A L P K			
UniRef90_W7KKU3	V V L K Q G H S P N E Q E L E D Y V T K N L G A I A V V F K G I Q I F V T G L P K			
UniRef90_UPI0004093808	V I C D G E A V L R K E I L Q T V T K H I G A I A K P D K I Q I V T G L P K			
UniRef90_A6CLB2	V V L R D G V S P E D P D L Q D H V K E L T A P Y K Y P R K I E F I E E L P K			
UniRef90_UPI0003F5815B	V T V T A G T E V S D E A L V K H V R T E I G S P I A T P D L I Q F A P G L P K			
UniRef90_J9YEV9	V T P N E G V E A D E A E L K A W V R T E L S P I A T P D M I Q W S R G L P K			
UniRef90_UPI0001DD06CD	V T L K A G E E G S D A E L R D L V R S E I G P F A T P D V I Q F A P D L P K			
UniRef90_UPI000318385F	V V T K G A I T D E E A I V A H V R S R L A F K V P K A V H F V D E L P K			
UniRef90_UPI000376858C	V V L A P D A D V T E A E L I A H C K E R L A G Y K A P T S V E F R K E I P K			
UniRef90_Q6G1W0	I T L M E G T A P S E E E L I R H V R K E I G S I A I L D K V Q F A P Q L P K			
UniRef90_R5FFI8	V V L A K E W A K A G D L Q D H V K H E T A P Y K Y P R I I E F V D E L P K			
UniRef90_UPI00047490DA	V V A K P G E A P T R E A I L A L Y A G K V A R F C T P D D V V F V E A L P H			
UniRef90_M4FAS4	V V L E K G E T T S E R D L I E Y C R E N M P R Y M C P R K V V F V D E L P K			
UniRef90_A0A059KQY5	V V R K P G R E L S R E Q L R A F Y A G R T A K W Q L P D D V V F V D E I P H			
UniRef90_E8QZS0	V T L K S G Y Q P S E D Q L R Q H V Y E H E G A L A R P D D L R F T D A L P K			
UniRef90_L7LIT7	L T V R P G A S V E P E A V I A F A R E H L A N F K V P R V I E I V D A F P R			
UniRef90_L9WJC4	V V P A P G V E P T A E A I T E Y V L E R V A A Y K H P R E V E F I D E L P R			
UniRef90_UPI00036AA1A2	V V K R D G A E L T A D Q V I M D W V A E R V T P Y K K V R A E V D F L E A I P K			
UniRef90_D3EYX7	V V L R D G H A A G E Q E L A A Y V K A R L A P Y K Y P R V I W F A D A L P K			

UniRef90\_J9IEF8 T V T G K V K K N E M R E L L K Q P  
UniRef90\_D0LZP3 T R S G K I M R R L L R D I A A  
UniRef90\_A7NGF8 S A A G K T L K R V M R D E Y W K  
UniRef90\_UPI0004560F82 T R S G K I M R R L L R K  
UniRef90\_UPI000465CEE0 S G S G K V L W R E L A E R E A Q R L  
UniRef90\_I4C7C6 S Q V G K V L R K E L K R M  
UniRef90\_G7UPP2 N G S G K L L K R E L R Q E Y  
UniRef90\_U7M030 D Q L G K V R R R D L L D L L K Q K A  
UniRef90\_F0JDC0 T R S G K L M R R V L K A E  
UniRef90\_UPI000465E4B5 N T M G K V Q K N L L R E  
UniRef90\_G8LXH0 N A T G K I E K P K L R E I Y  
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	130	140	150	160	
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H W Y H T H I G K G K L V D T W W Q T E T G G I M V S P L A G P T K P A Y A T L  
R R V Q N L M G A G F S T L Y G Q T E H C P V I T Q H H L S D D I C N T A G Q  
K K V T A K S E K L N F V Q G Y G L T E T S P C I C C V P N D V R P L S T V G F  
R L F S E R Y G D I L L Q L Y G M T E T M G T P L M N P D G D R R N E T I G L  
E E A L R R I G P V L L G Q L F G Q T E A P N M L A T L A P A D H R L A S A G R  
S S A E E L G F H V T H A Y G M T E T Y G P A S I C T W K P E R V R Q G V Q  
E W Y R V I G K T P I L D T W W Q T E T G M H M L T T M I G E T H P G F A G K  
E K F S R Y R I P I L E G Y G L S E G T C A S T V N P L G R R K P G T V G L  
E R L L A A F P H V S F F Q Q C G Q T E A G P T G I Y S T M E Q V R S R S G H L  
E A V E S R L Q G T N V L Q A W G M T E T S P L A S A V P K T R R K R H T V G N  
A T F E D S Y G V E V I H A W G M T E L S P I G T V W P K E Q R R A V Q S G R  
Q L L A K R M P G R F H E L Y G L T E G F M T T L D K F D F P R K P T S V I G T  
R R I R A E L F P Q V V T A Y G L T E S S G T V T A C D D D E T A T C G R  
R W Y R L A F G G T P V V D T W W Q T E T G G I M L S P L P G V T K P G S A M R  
E E A L S R I G P V M A Q L F G Q T E A P M M I S T M A P D D H R L S S A G R  
Q K F L E T L G L K L M E G F G Q T E T V T L A T Y P W V E P K P G S M G K  
R R M R E E L G F A G V V N G Y G L T E C G G M C L A T D P D D V I A N T A G K  
K K A A E V G F I P R V G Y G M T E T A P I L T L M P Q D L D E Y Y S T G L  
Q R F T A H F G C E I V D G L G S T E M L H L Y L S N R P G Q V R Y G T T G W  
E W Y F S I V G E R V I D T W W Q T E T G G H M I T P M P F A T K P G S A T K  
E E W L R L T G I K L M E G F G Q T E T T L T I A T Y P W V E P K P G S M G I  
E A A F K R T G V R V K Q G Y G L S E T S P T I F Q Q R W W E T G V G S T G R  
N K W K L F N L D I L D G L G L T E A L H I F V S N R V G D I R P G S T G K  
D W A K A E L G L P V N E F Y G Q T E C N A V L G S C A G G I S R A G A I G V  
R R W R E Y F P H H Q Y D T N Y G Q T E S T G P G C V H L G I D Q K V G A I G V  
R H V E D T F G V D F T I Y G Q T E C S P V L T H T C P S D D K G L T V G K  
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D L I K E R F G R L V I K Q G Y G A T E L S P A C F V I P S G L V K S G S A G I  
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E S W H K Q T G L W I M E G W G M T E T V G A G T C N P D G D G F N G T V G L  
R R I R D D L R V F V F T A Y G L T E S L G V V S L C P P D A P V A G T V G K  
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R K A N E K L G C D F Y Q L F G M S E M G P V I T L L R A E D H R L K S V G K  
K E Y K D F G I Q M V Q G Y G S T E A W T V S V W R P E G W D K A N S A G Q  
M W Y Y R V I G G E R V V D T W W Q T E T G A I M L T T L P G A H K P G S A G L  
L R S L I E T F G C Q L A Q I Y A S T E A G S V A V C L P P S A H K P G A A G K  
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R G F R D E F G V D V T H A W G M T E T S P L G T Q G T P N A K I A A K Q G R  
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T K F Q S R F N D M F M Q G Y G M T E L S P F V T I S S V N T S T L S C Y  
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H W G Q D K L G L P I H D N W W Q T E T G G V M I A N P T M P I R P G S M G R  
M W Y Y T N V G G E R V L D T W W Q T E T G A H M I T P L P G P L K P G S C T L  
L K F E A A A G S T K V V E G Y G L S E T S P V L T A N P D G E P V I S G S I G M  
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H K I E D K V A S A R P S T G Y G M T E T C G I I T S V S G D V D K P D S A G P  
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E W Y H R V V G D D R F V E D T W W Q T E T G G I L T P L P G A I K P G S A T L  
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UniRef90_UPI0003608D78	P	D	D	T	A	E	T	I	V	D	G	W	L	H	T	G	D	V	G	R	F	D	E	D	G	F	L	V	L	V	D	R	L	K	E	L	I	R				
UniRef90_W0ZEV7	P	K	D	D	T	A	E	A	L	L	P	G	D	G	W	L	R	T	G	D	V	G	R	F	D	E	D	G	F	L	V	L	V	D	R	L	K	E	L	I	R	
UniRef90_B3S1W0	P	K	E	T	S	E	T	M	D	E	D	G	W	L	R	T	G	D	V	G	R	F	D	E	D	G	F	L	V	L	V	D	R	L	K	E	L	I	R			
UniRef90_W5WDT0	P	E	A	S	G	E	A	L	A	E	G	W	F	H	T	G	D	V	G	W	L	D	S	E	G	H	L	V	I	S	D	R	K	K	D	V	I	R				
UniRef90_T0LX80	E	E	R	T	Q	E	E	V	M	D	E	D	G	W	H	T	G	D	V	G	E	G	F	L	D	E	D	G	F	G	H	I	T	G	R	K	D	V	I	R		
UniRef90_A4SG28	N	K	R	Y	E	T	Y	W	S	E	D	G	M	F	T	G	D	V	G	A	R	K	D	E	D	G	F	L	W	I	M	G	R	V	D	D	V	V	N	V		
UniRef90_F5XMZ8	P	D	A	T	T	E	A	M	R	G	G	W	F	H	S	G	D	L	A	T	R	D	A	D	G	Y	F	I	V	D	R	K	K	D	M	I	R					
UniRef90_H8MUU7	P	E	E	T	A	R	A	F	A	D	G	W	L	H	T	G	D	V	L	A	S	R	D	A	D	G	L	F	R	I	E	G	R	A	K	D	L	I	R			
UniRef90_B3Q8X6	P	Q	K	T	A	E	V	F	D	G	N	L	W	V	R	S	G	D	V	L	A	S	R	D	A	D	G	F	L	I	L	M	D	R	K	K	D	M	I	R		
UniRef90_E0VJ03	K	E	K	T	K	E	T	I	T	P	E	R	W	L	K	T	G	D	V	Q	F	V	L	L	E	N	G	Y	G	K	I	V	G	R	K	K	D	L	I	R		
UniRef90_M4DIY7	E	E	A	T	K	E	T	I	L	N	S	E	G	W	L	K	T	G	D	I	L	C	C	L	D	D	E	D	G	F	V	F	I	L	D	R	L	K	E	L	I	R
UniRef90_U4UPK1	P	K	E	T	E	D	A	F	L	D	G	W	L	R	T	G	D	V	I	T	Y	D	D	E	R	A	L	F	Y	I	T	D	R	L	K	E	L	I	R			
UniRef90_G6ECK2	P	E	A	T	A	E	A	L	D	R	E	G	W	L	D	T	G	D	I	G	V	I	D	A	N	G	Y	L	T	I	T	D	R	S	K	D	M	F	I	T		
UniRef90_M7MQK9	P	K	A	T	E	D	A	F	S	D	G	W	F	R	S	T	G	D	L	A	G	Y	R	D	A	D	G	F	L	Y	V	V	D	R	L	K	D	M	I	R		
UniRef90_UPI0003B77754	D	E	G	Y	K	E	L	Y	W	G	S	K	Y	Y	T	G	D	V	L	A	Y	K	D	E	D	G	F	L	Y	W	M	E	G	R	A	D	D	V	V	N	V	
UniRef90_UPI00046B4F14	P	E	K	T	A	E	V	E	C	G	D	F	Y	N	T	G	D	R	A	S	M	D	E	E	G	Y	I	W	F	L	G	R	G	D	D	V	I	N	A	T		
UniRef90_UPI0004090E6E	P	D	K	T	A	E	A	F	A	G	G	W	F	H	S	T	G	D	L	G	V	M	D	A	D	G	Y	L	S	V	V	D	R	K	K	D	M	I	R			
UniRef90_I4C641	H	Q	R	F	I	D	T	Y	F	S	P	G	M	F	H	S	T	G	D	L	G	A	K	Q	D	E	D	G	Y	F	W	I	A	G	R	I	D	D	V	I	N	V
UniRef90_R9LCU0	P	D	A	N	A	A	F	Y	N	N	M	Y	S	T	G	D	T	A	W	R	D	S	E	G	Y	I	W	F	V	G	R	N	D	D	V	I	K	C				
UniRef90_D6YBQ7	P	E	K	T	R	A	A	Q	D	G	R	G	W	T	L	G	D	L	I	G	Y	V	D	E	E	Q	G	F	V	Y	I	T	D	R	R	A	S	M	Y	I	S	
UniRef90_K2MZP6	P	E	A	N	A	K	S	F	R	D	G	W	F	R	T	G	D	V	L	A	S	R	D	A	D	G	F	L	I	L	M	D	R	K	K	D	M	I	R			
UniRef90_I7Z933	E	G				S	P	L	V	D	G	W	F	P	T	G	D	V	A	T	I	D	A	D	G	F	L	G	I	T	D	R	S	K	D	V	I	K	S			
UniRef90_UPI00041F3F28	H	E	R	C	K	S	E	T	Y	T	Y	K	G	M	Y	F	T	G	D	V	K	R	D	H	D	G	Y	Y	R	I	L	G	R	V	D	D	M	I	N	V		
UniRef90_C7DE67	P	K	A	T	S	E	T	V	D	A	M	G	W	L	H	T	G	D	V	L	G	R	M	D	D	E	D	G	F	V	T	V	T	G	R	V	K	E	M	I	R	
UniRef90_T1HK11	P	K	A	T	S	E	E	C	I	D	S	D	G	W	F	H	T	G	D	I	G	Y	D	E	Q	K	F	F	Y	I	T	D	R	L	K	E	L	I	R			
UniRef90_D5WSY3	E	E	A	T	R	E	T	I	L	R	D	G	W	L	H	T	G	D	V	L	A	K	I	D	A	E	G	Y	F	H	F	V	D	R	L	K	E	L	I	R		
UniRef90_UPI00035FCB30	P	D	A	T	A	E	V	E	G	A	F	G	W	H	T	G	D	V	L	G	Y	L	D	D	N	F	L	Y	I	V	D	R	A	K	D	M	I	R				
UniRef90_G7K981	L	K	A	T	Q	D	A	F	E	G	G	W	F	R	T	G	D	V	M	G	V	K	H	T	D	G	Y	I	E	V	T	D	R	A	T	D	V	V	I	S		
UniRef90_L0H8X7	D	E	R	T	A	R	K	Y	W	T	P	G	V	Y	T	V	G	D	V	L	A	V	K	G	K	D	D	G	Y	I	M	L	G	R	S	D	D	L	I	R		
UniRef90_H6R1W8	P	Q	E	T	A	R	T	V	V	D	G	W	L	R	T	G	D	V	L	G	R	F	D	E	D	G	Y	L	V	L	V	D	R	A	K	D	M	I	R			
UniRef90_A0A024K2A3	P	Q	A	T	G	E	V	I	R	D	G	W	L	H	T	G	D	V	L	M	Q	V	Y	D	D	G	A	M	R	L	V	D	R	L	R	D	V	I	T			
UniRef90_W9Z0A9	E	E	A	T	K	S	S	L	V	P	D	E	W	L	R	T	G	D	V	I	G	T	I	D	A	D	G	F	L	T	L	V	D	R	S	K	E	M	I	R		
UniRef90_A0A022H5S8	A	N	D	S	P	L	A	V	D	G	G	W	F	P	T	G	D	V	A	T	I	D	A	D	G	F	M	T	T	D	R	S	K	D	V	I	K	S				
UniRef90_D0LSK1	D	D	L	T	A	Q	A	I	R	D	G	W	L	H	S	G	D	V	G	Y	V	D	E	D	G	F	L	F	L	V	D	R	K	K	D	L	I	R				
UniRef90_UPI0003AD1172	P	E	E	T	A	R	T	L	R	D	G	W	L	D	T	G	D	R	G	R	L	D	E	R	G	N	L	T	I	T	G	R	T	K	E	M	F	V	V			
UniRef90_A1TG95	E	E	R	F	R	E	T	F	A	E	K	G	W	Y	F	A	G	D	G	A	R	Y	G	T	D	G	N	I	W	L	G	R	I	D	D	V	M	N	I			
UniRef90_UPI0001FFEB07	E	K	A	T	A	E	V	S	A	H	G	W	H	H	T	G	D	V	L	G	Y	L	D	D	D	G	F	L	F	L	V	D	R	A	K	D	M	V	I	T		
UniRef90_K4MIR9	P	E	K	T	K	D	V	W	H	D	E	G	Y	H	T	G	D	V	M	A	W	K	D	E	D	G	F	W	F	V	G	R	A	D	D	L	I	K	T			
UniRef90_UPI0003758DF5	P	K	A	T	S	K	T	I	D	P	E	G	W	L	H	T	G	D	V	L	G	Y	F	D	T	D	G	N	L	R	I	E	D	R	L	K	D	M	Y	I	T	
UniRef90_A1RS84	S	E	K	T	K	E	A	W	R	G	G	W	F	H	T	G	D	V	A	V	W	M	P	D	G	R	V	R	L	V	D	R	A	K	D	V	I	K	S			
UniRef90_V2HPZ3	R	D	K	S	R	E	T	Y	Q	S	W	T	K	S	A	G	D	V	K	Y	V	R	N	A	D	D	G	T	Y	C	Y	A	G	R	S	D	D	M	L	K	V	
UniRef90_UPI0003669961	H	E	R	F	M	E	A	Y	T	Y	P	G	K	Y	F	A	G	D	V	G	V	K	R	D	A	D	G	Y	W	I	T	G	R	V	D	M	L	N	I			
UniRef90_W0EUN3	P	E	K	T	R	E	A	Y	H	D	N	I	Y	Y	T	G	D	V	A	W	R	D	E	D	G	Y	F	W	F	V	G	R	A	D	D	V	I	K	S			
UniRef90_W2RQC2	E	A	A	T	R	D	C	L	D	G	D	G	W	F	R	T	G	D	V	G	H	I	D	A	Q	G	D	L	T	T	D	R	V	K	E	L	I	R				
UniRef90_UPI000289542E	L	A	E	N	K	K	F	H	G	E	W	M	Y	T	G	D	V	K	Y	Y	K	D	E	A	Q	G	D	L	T	T	D	R	V	K	E	L	I	R				
UniRef90_UPI000365E0D7	P	E	A	T	A	E	K	F	I	G	D	W	M	T	T	G	D	V	Q	G	E	M	D	A	D	G	Y	V	Y	F	T	G	R	D	D	L	I	T	S			
UniRef90_R5HQ34	P	E	A	T	A	E	V	I	K	D	G	W	L	Y	T	G	D	V	M	A	M	Q	D	A	D	G	F	Y	L	V	D	R	K	K	D	V	I	V	S			
UniRef90_L0J5Y4	P	E	A	T	A	K	A	V	T	P	D	G	W	L	R	T	G	D	V	L	G	V	M	D	H	R	G	Y	C	R	I	V	G	R	C	K	D	M	I	R		
UniRef90_U3GU01	P	E	A	T	E	K	A	Y	T	A	G	W	F	H	S	G	D	V	L	G	H	R	D	E	D	G	Y	Y	I	V	D	R	L	K	D	L	I	T				
UniRef90_Q54P77	E	K	A	T	N	E	V	T	D	K	D	G	F	L	K	T	G	D	V	L	G	Y	V	D	S	D	G	Y	F	I	V	D	R	S	K	E	L	I	R			
UniRef90_I1KC54	E	K	A	T	A	E	T	L	D	S	E	G	W	L	K	T	G	D	V	L	C	Y	F	D	S	D	G	F	L	Y	I	V	D	R	L	K	E	L	I	R		
UniRef90_E0TFR7	P	D	E	T	A	K	V	M	D	G	K	G	F	M	A	T	G	D	V	I	G	I	M	D	E	N	G	F	I	E	I	V	D	R	K	K	D	M	L	V		
UniRef90_W7ZUX9	P	E	A	T	A	A	A	I	D	P	D	G	Y	L	H	T	G	D	V	I	G	T	L	D	D	D	G	Y	L	R	I	T	D	R	L	K	E	M	F	I	V	
UniRef90_K4DF38	P	E	A	T	K	R	T	I	D	K	E	G	W	L	H	S	G	D	V	I	G	Y																				

	450										460										470										480														
UniRef90_I0RSN8	G	G	E	W	I	S	S	V	E	L	E	L	A	I	M	A	H	P	A	V	V	E	A	A	V	V	V	A	V	V	P	D	E	R	W	Q	E	R	P	L	A	A			
UniRef90_UPI0003608D78	G	G	E	N	L	S	S	P	K	E	L	E	N	V	L	H	T	H	P	A	V	V	E	A	A	V	V	V	G	A	P	D	D	V	L	G	E	L	P	V	A	T			
UniRef90_W0ZEV7	G	G	F	N	V	S	S	P	T	A	E	L	V	E	Q	T	L	N	T	Q	H	P	D	V	E	S	A	V	V	G	L	R	N	E	S	A	G	E	D	V	A	A			
UniRef90_B3S1W0	K	G	Y	Q	V	A	S	P	T	A	E	L	V	E	A	I	L	N	T	Q	H	H	P	D	V	E	S	A	V	V	G	L	R	N	E	S	A	G	E	L	P	R	A	A	
UniRef90_W5WDT0	G	G	E	N	V	S	S	T	J	E	L	V	E	D	C	L	F	S	H	H	P	A	V	V	A	E	S	V	V	V	G	V	L	H	K	R	Y	G	E	T	I	K	A	L	
UniRef90_T0LX80	G	G	E	N	V	S	S	T	J	E	L	V	E	A	R	L	L	S	H	H	P	A	V	V	A	E	S	V	V	V	G	V	L	D	H	K	R	Y	G	E	V	V	A	C	F
UniRef90_A4SG28	S	G	H	R	L	S	T	S	E	I	V	E	S	A	R	L	V	S	Y	E	A	A	V	V	A	E	S	V	V	V	S	R	P	D	D	I	K	G	N	A	L	V	A	F	
UniRef90_F5XMZ8	N	G	L	N	V	Y	P	R	E	V	I	E	S	V	L	Y	T	H	H	P	A	V	V	A	E	A	A	V	F	G	V	P	D	A	L	H	G	E	E	I	L	A	A	L	
UniRef90_H8MUU7	G	G	F	N	I	H	P	A	E	D	I	E	S	V	L	A	G	H	H	P	D	V	S	E	V	A	V	V	A	V	P	D	D	R	E	K	W	G	E	V	P	R	A	L	
UniRef90_B3Q8X6	G	G	E	N	I	Y	P	A	D	I	E	E	F	L	S	T	H	H	P	D	I	L	E	A	Q	V	V	G	L	P	D	P	R	L	G	E	Q	V	C	A	C				
UniRef90_E0VJ03	K	A	Y	Q	V	P	P	A	E	L	E	G	L	L	T	H	H	P	D	I	V	E	D	A	A	V	V	V	P	F	P	D	R	E	V	G	Q	L	P	R	A	V			
UniRef90_M4DIY7	K	G	F	N	V	A	P	A	E	L	E	L	L	R	N	H	H	P	D	V	I	V	E	A	G	V	V	V	I	G	V	P	H	P	T	D	G	E	V	P	R	A	V		
UniRef90_U4UPK1	G	G	F	N	C	Y	P	A	E	L	E	A	M	L	L	D	H	H	P	Q	L	G	A	V	A	V	V	K	G	I	P	D	E	R	M	G	E	V	C	A	A	W			
UniRef90_G6ECK2	G	G	E	N	V	Y	P	A	E	I	E	R	A	L	L	M	E	Y	G	A	L	E	D	V	A	V	V	V	G	V	V	A	D	D	Q	W	E	A	V	V	A	V			
UniRef90_M7MQK9	S	A	H	R	I	G	P	A	E	I	E	S	A	L	T	S	C	K	Y	A	V	E	A	A	V	V	V	G	S	P	D	P	I	R	G	E	V	V	F	A	F				
UniRef90_UPI0003B77754	S	G	Y	R	I	G	P	A	E	I	E	S	A	L	A	E	H	P	A	V	V	A	E	S	A	V	V	V	G	S	P	D	P	I	R	G	E	V	V	K	A	F			
UniRef90_UPI00046B4F14	G	G	E	N	V	A	S	T	R	E	V	E	E	A	L	Y	E	L	H	H	P	D	V	A	E	V	V	V	F	A	V	P	H	P	R	W	V	Q	E	A	V	T	A	A	
UniRef90_UPI0004090E6E	G	G	E	N	V	R	L	G	P	F	E	V	E	S	A	L	L	T	H	H	P	D	V	L	E	C	A	V	T	A	A	P	D	P	V	R	G	Q	V	V	K	A	T		
UniRef90_I4C641	G	G	S	N	I	Y	P	R	E	I	E	N	K	L	L	M	H	H	P	D	I	S	E	T	A	V	V	V	I	G	V	P	D	P	E	W	G	E	V	V	K	A	V		
UniRef90_R9LCU0	G	G	E	W	L	S	S	D	L	E	N	I	A	M	S	H	H	P	A	V	V	A	E	A	V	V	V	G	V	A	H	P	K	W	D	E	R	P	I	V	V				
UniRef90_UPI00041F3F28	S	G	H	R	M	G	T	A	E	V	E	N	A	I	N	E	H	H	P	D	V	L	E	S	A	V	V	V	G	Y	P	H	E	V	K	G	Q	G	I	Y	A				
UniRef90_C7DE67	G	G	E	N	H	F	P	A	E	I	E	N	C	L	L	E	H	H	A	G	V	A	E	V	A	V	V	V	G	L	P	D	D	K	W	G	E	V	I	G	A	F			
UniRef90_T1HK11	K	G	F	Q	V	A	P	S	E	V	E	G	V	L	R	E	H	H	P	D	I	Q	D	A	A	V	V	V	G	V	P	D	E	K	L	G	E	T	P	I	A	F			
UniRef90_D5WSY3	A	G	E	N	V	A	A	G	E	V	E	A	Q	A	L	L	Q	H	H	P	D	V	A	D	A	A	V	V	V	G	V	P	D	D	P	R	D	E	K	I	V	A			
UniRef90_UPI00035FCB30	G	G	F	N	V	Y	P	A	E	V	E	A	Q	A	L	L	A	H	H	P	D	V	K	E	S	A	V	V	V	G	L	P	D	D	K	W	G	E	R	V	S	A	A		
UniRef90_G7K981	G	G	E	N	I	S	T	I	Q	L	E	G	V	I	F	S	H	H	P	A	V	F	E	A	A	V	V	V	G	R	P	D	E	Y	W	G	E	T	P	C	A	F			
UniRef90_L0H8X7	A	G	H	I	G	T	A	E	V	E	S	A	L	V	Y	Q	L	H	H	P	D	V	A	E	A	V	V	V	G	K	P	D	V	V	Y	K	G	N	S	I	K	A	F		
UniRef90_H6R1W8	G	G	E	N	I	Y	P	K	E	I	E	A	V	Y	Q	L	P	E	I	A	T	A	A	V	V	V	V	V	I	G	R	G	H	A	V	Y	G	E	P	V	L	Y			
UniRef90_A0A024K2A3	G	G	R	N	V	Y	P	A	E	V	E	L	A	I	A	D	H	H	P	Q	V	S	D	V	A	V	V	V	I	G	R	P	D	E	W	G	E	T	V	V	A	F			
UniRef90_W9Z0A9	K	G	F	Q	V	A	P	S	E	L	E	G	K	L	L	E	H	H	P	E	V	E	D	A	C	A	V	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H		
UniRef90_A0A022H5S8	G	G	E	W	I	G	S	D	L	E	N	I	A	M	H	H	P	A	V	V	T	M	A	A	C	I	J	A	R	H	P	K	W	D	E	R	P	I	V	V					
UniRef90_D0LSK1	G	G	V	N	V	Y	P	R	D	I	E	E	I	L	V	R	H	H	P	A	V	R	E	C	T	V	F	G	V	E	S	A	K	W	G	E	T	P	V	A	A				
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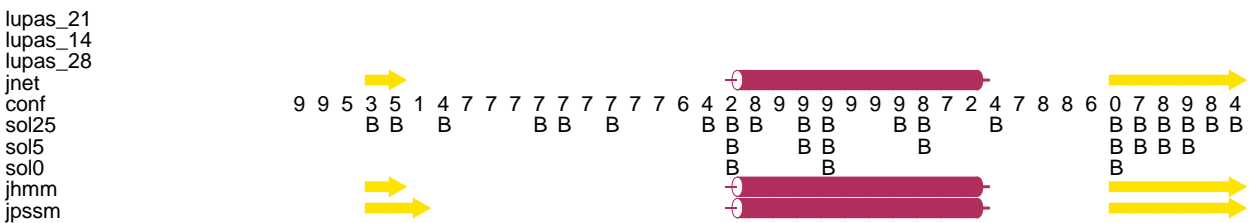
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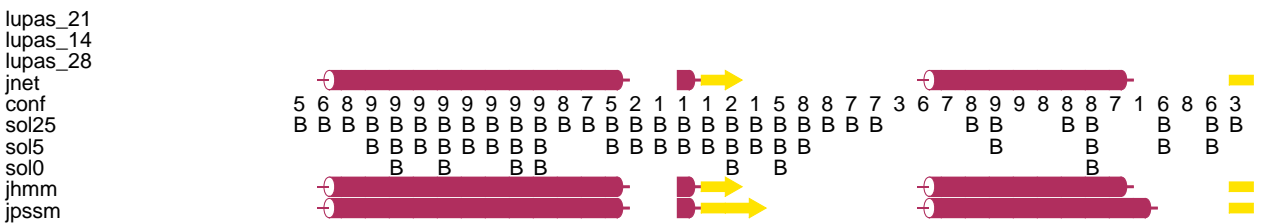
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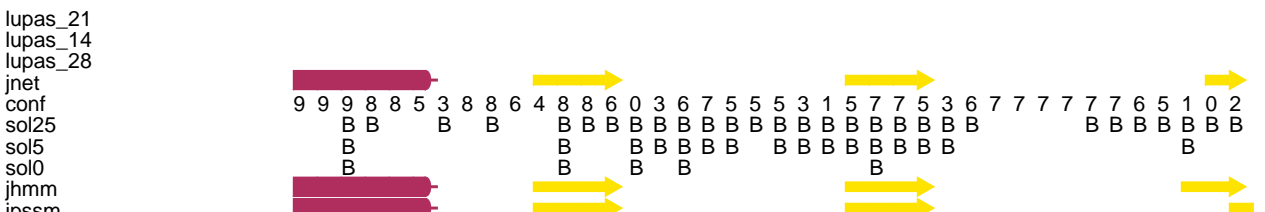




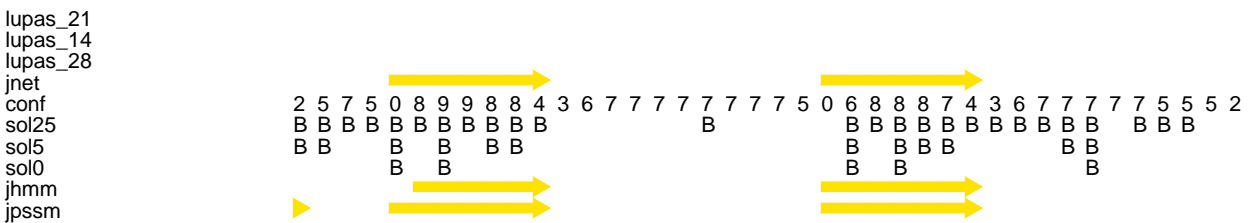




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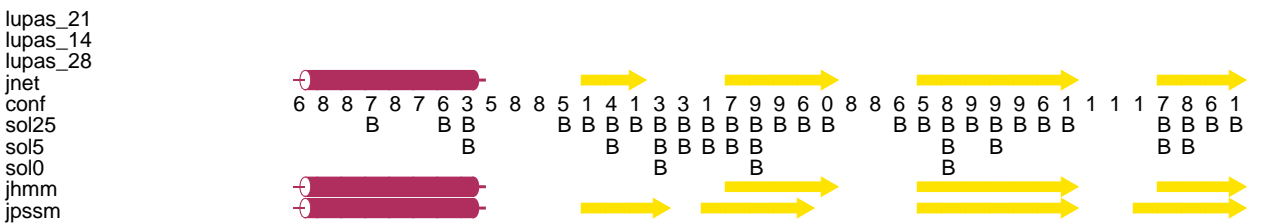




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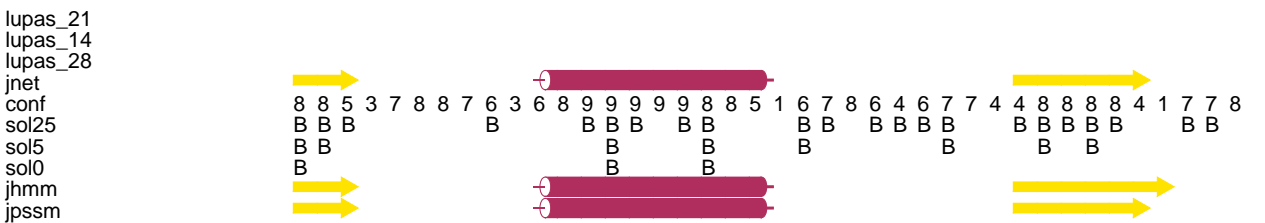




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