



QUERY GGT A G M E L L 50 60 70 80  
UniRef90\_J7TQF0 GGT A G M E L L G D M A N R D H L I I T D A I V S K K N A P P G T M M I L R D E E  
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UniRef90\_UPI00035C6758 GGT Q G G L Y L L V Q V E A C K D Q L L L V F D A I L S G G K L P P G T L R I V V R K R D D  
UniRef90\_E3G8Z4 GGT S G M E L L D V M A N R D H L I I F D A D A I L T G A T P P G S L V A V L H K D D D  
UniRef90\_R75M6 GGT L G F Y L L S E Y L E N C H L I I F D A D A I L T F R N D L P P G T C K C V L K K R D D  
UniRef90\_R9VNC0 GGT A G M E L L E A M A N R E S K L I I F D A D A V V S S E P P G T V I C L V L K R D D  
UniRef90\_H0TX78 GGT Q G G L Y L L V N Y V E D A D A L I I V F D A V I V S D Y G L A P P G E L K L V R D D D  
UniRef90\_Q39QD2 GGT L G G L Y L L V P Y F L D M E T D Y L L V F D A V I E T D Y G G L P P G T V V R L V A G E N D  
UniRef90\_G6YIX6 GGT Q G G L Y L L V Q F V M E T D Y L L V F D A V I E T D Y G G L P P G T V V K I V A G E N D  
UniRef90\_O66898 GGT L G G I D L L V Y H I E R E T E K L L V I F D A V L G G K K P P G T F Y K I K E N E  
UniRef90\_L0H129 GGT Q G G L Y L L V D R V L R E E A D V L V F D A V L D Y G G L P P G T L K R V E G E  
UniRef90\_B0TCM8 GGT L G G L I L L D E Y L E E A S H F L C I D A V V K A P P G S L V R L R K E G E  
UniRef90\_G7LU57 GGT S G M E L L M E A M A G R D H L I I V A D A V L S G Q A P P G E V A V L R D D D  
UniRef90\_V6F1K8 GGT S G M D C L D R F V N G A D A D L L L I A D A C M R R P G G K Q P P G D L T R L A D D D  
UniRef90\_UPI0003B30A42 GGT Q G G L Y L L V Q F V N G H D R L I I V F D A I I D Y G L P P G T M K I V E Q D D  
UniRef90\_W1JX94 GGT L G G L Y L L I S F L Q K A D R L I I V F D A I I D Y G L P P G R L K L V R Q D S  
UniRef90\_UPI000405F16E GGT Q G G L A L L I P Y V Q S E A D T L L I I A D A V D D F K H D P P G T L V E L R E N E  
UniRef90\_UPI00034AAA9E GGT Q G G L Y L L I Q H V Q S A R K L L I I A D A V D D Y G L A P P G T L H Q V R E N E  
UniRef90\_A5GCD4 GGT L G G L D L L P K L E G V E R L L V V D A V I E T D Y G G A P P G T L L R L V S G D  
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UniRef90\_G9Y620 GGT A G M E L L M E Y M A S R D V L V F D A V I L S D A E P P G S V L T L H D D  
UniRef90\_UPI0004749464 GGT Q G G L Y L L V H F V E E A D F L L V F D A I I D Y G L A P P G T L K V V R D D D  
UniRef90\_UPI000375FAD5 GGT Q G G L Y L L I Q D I R E A E D C L L V F D A V I D Y D L P P A G T L K V I E N N D  
UniRef90\_UPI0003F7AAA6 GGT Q G G L Y L L I P Y V Q S E A D C L L V F D A V I D Y G D P P G T L R E V V I G D  
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UniRef90\_A0P1N7 GGT Q G G V Y L L V Q Y I R E A D I L I I V F D A V I D Y G L P P G T L K R V E G E  
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UniRef90\_S5AEW2 GGT Q G G T Y L L V Q H V Q E A D V L V V F D A I I D Y G L A P P G T L K T I Y N D  
UniRef90\_UPI000376044A GGT Q G G L C L L V Q Y V Q A A D S L L I E D A V I D Y G L A P P G T L K I V E D D  
UniRef90\_T0JY55 GGT L G M E L L V R F I A G V D Y L L I I D A V I N G G G M P P G E F Y Q F A N E  
UniRef90\_A0A011Q524 GGT C G M E L L E D L E G L D A L I M V D A I I R A G K A P P G T P I L L T G D  
UniRef90\_A4SLU8 GGT A G M E L L E A M A S R D H L I I L A D A V I R S G N P P G T V V T L K D D  
UniRef90\_F8J9K3 GGT Q G G V Y L L P H V Q S C A A L L L D A V I D Y G L T P P G T L K V L V T D D  
UniRef90\_H5SEX4 GGT Q G G L Y L L P Y V Q S A D R L L V F D A V I D F G D Q P P G T L R V A V I G N  
UniRef90\_A1HTR1 GGT L G M E L L R F L T G T D R L I I I D A I I A G D G P P P G T L Y E F K D  
UniRef90\_E7AZX7 GGT A G L E L M E A M A N R E H L I I V A D A V I L T A G Q P P G S V I V L R D K  
UniRef90\_F9GL28 GGT C G M E L L D K M A N R E H L I I I D A V I L A N K Q P P G E I V L H D E  
UniRef90\_R8AQ17 GGT C G M E L L I G D M A D R E H L I I A D A V I L T G D N K P P G T V V T L R D E  
UniRef90\_M1E536 GGT S G M P L I F D M A D R E H L I I A D A V I R N A G D N K P P G T I Y K Y N P  
UniRef90\_A0A023CQD7 G S T D G M R L L G T I E E T D Y L I V V D A V I R N A G K D A P P G T L V T L V D D  
UniRef90\_Q478N4 GGT C G M E M L E Q L E N L D G L I V V D C V R R S G K Q P P A T P V L L K G D  
UniRef90\_A8UUE9 GGT L G I D L L Y Y L E G V R K L L I L D A V I S G G G K P P G T L Y K F K G E  
UniRef90\_G3J1B1 GGT Q G G V Y L L V E H V Q A A E V L I V F D A I D Y G L P P P G T L K R I E N D  
UniRef90\_Q13BY6 GGT Q G G L Y L L V N L Q E H D H L L V F D A I D Y G L P P P G M L K R V L D G D  
UniRef90\_D3SLV8 GGT L G I D L L Y Y M E G V D K L L I I D A V I L G G G P P P G T L Y L V K D H  
UniRef90\_Q03004 GGT Q G G L Y L L P F L E E A E A L I V F D A V I D F G F T P P G T L V T M R D D  
UniRef90\_F5RGC5 GGT Q G G L Y L L T H V Q E A D C L L I F D A I D Y G G E P P G T L K C I A N D  
UniRef90\_I4C8C4 GGT Q G G L W L M S T I Q E T D R L I V V D A V I L G D G E P P G T L K R L E R D  
UniRef90\_P40591 GGT Q G G L Y L V Q H V Q E A D C L I V F D A V I D Y G L A P P G T L K I V R D D  
UniRef90\_UPI0003711F51 GGT L G T K L M G P L I M E A D H L I I T D I V L N E G Q P P G D L H R L L G T  
UniRef90\_G8ANU8 GGT C G M D M L D L I A S H K H I A V D A V I K T S G A P P A S L T V L R G D  
UniRef90\_G5H2M0 GGT L G P E L L H F L T G T E K L L I L D A V I S G D G A P P G T V V V L V E N D  
UniRef90\_E8RH94 GGT A G F E L L A M L D S K D H V L I L D A V I R R A G D R E P P G T V V L V E G D  
UniRef90\_W6LQ21 GGT S G M D L L D T I A G C H D H L I C D A V I R R A D A P P G S V I K L C E D A  
UniRef90\_UPI00046D57C8 GGT L G L D L L H I V E A Y P R V L I L D C V R T T G R P P G T V V R V D G D  
UniRef90\_J5PL82 GGT Q G G L Y L V H F V E E M A E N L I V F D A I D Y G L A P P G T L K I V R D G A  
UniRef90\_A1B6N8 GGT Q G G L Y L L P F L E E A D A L I V F D A V I D Y G L A P P G T L K L V E G A  
UniRef90\_M1GH55 A G T R G Q A L L Q Y V E K A D R L L I L D A V I D F N M P P G K I I F K D N N  
UniRef90\_F0JKJ9 GGT L G L K L M G P V I M E S D Y L I I V D I V L N D G G E P G E I F R L L G E  
UniRef90\_E8WPG1 GGT L G L D L L P V L E G R S H L I M V D A V I E T G K E P P G T C V R L A G E  
UniRef90\_V3TKT5 GGT S G M E L L E T M A D R D H L I V A D A V I L T G N A P P G N V V L H D D  
UniRef90\_K9D599 GGT M G M E L L S Y M R G M K K L L V D A V I N G G Q E K P P G T L Y E F H N D  
UniRef90\_C9KM16 GGT L G I E L T Q Y V T G T E K L L V I D S I V N G G Q E P P G T R F H F H N D  
UniRef90\_E3I2G0 GGT Q G G L Y L L D H I T S T D I L V V F D A V I D Y G L P P A T L K L A E N K  
UniRef90\_UPI00037DBED6 GGT Q G G L Y L L P H L E D A A G V I I V D A I D Y G L P P A T L K L L R D D  
UniRef90\_UPI000289C194 G T T E G M Q L L G P V E A T R S L I I D A V I N A Y G K D P P G T Q I R L E K E  
UniRef90\_G1Y4W1 GGT Q G G T Y L V Q E I R E A D I L V V F D A V I D Y A L P P G T L K R V E G S  
UniRef90\_NOB1H5 GGT Q G G L Y L I E H V R A D V L I V F D A V I D Y G L A P P G T L K L V E G D  
UniRef90\_S6B1Q9 GGT S A M E M L D D I A C V D H L I I V D A V I R S D F G H P P A S L H T Y E D R  
UniRef90\_R8APH3 GGT Q G Y N L L Q Y V A R A T H L I I L D A I R A D F G H P P A S L H T Y E D R  
UniRef90\_I2B8S1 GGT A G M E L L M E Y M A S R L L I I D A V I R A D Y P P P G S V E V L E D E  
UniRef90\_G8QH10 GGT A G M E L L E P L E D K L I I A D A V I R A V G Q P P P G S V V L L Q G D  
UniRef90\_B4SBX9 GGT Q G G T Y L L D Y I E S C D A V I V F D A L I P L D Y E R R V V V Y R N D  
UniRef90\_UPI00045EBD5A GGT Q G G L Y L L P Y L E E A E G V V I D A V I D F G S P P P G T V H L R A D A  
UniRef90\_E1QGS7 GGT V L G L S L T G T I M D A D H V V V I D A V I R D F G G K P P G T V F R F D W E  
UniRef90\_H8Z5R5 GGT Q G I Y L V N Q L E D V D H L I I F D A I D Y G L P P G S L K L V R D R



QUERY	130	140	150	160
UniRef90_J7TQF0	P P A S L E E	P T V L E	P A L L E	R E S G V I E
UniRef90_F8C429	Q D S L E L E	Q V L Q A	Q V L Q A	S G V I E
UniRef90_UPI00035C6758	P Y Q L L E L	P V V V A	P L L L E	K E W G V I K
UniRef90_E3G8Z4	P S S L E L E	P V V S A	P A L L A	K E W G V I K
UniRef90_R75M6	P G D S L E D	P V V S A	P A L L A	K E W G V I K
UniRef90_R9VNC0	P S S L E L E	P V V S A	P A L L A	K E W G V I K
UniRef90_H0TX78	P L D L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_Q39QD2	P E S V L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_G6YIX6	P V D L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_O66898	P K S L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_L0H129	P V E S L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_B0TCM8	P V E S L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_G7LU57	P E S L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_V6F1K8	P A S F L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_UPI0003B30A42	P L D L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_W1JX94	P L D L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_UPI000405F16E	P C V L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_UPI00034AAA9E	P E E L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_A5GCD4	P E E L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_I3BNG3	P V E L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_G9Y620	P Q S L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_UPI0004749464	P L D L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_UPI000375FAD5	P E E L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_UPI0003F7AAA6	P E E L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_K8WSM9	P E S L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_I3DBH6	P E S L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_G7ZE59	P E C L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_A0P1N7	P V I L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_B4F2X1	P A S L L A L	P V V V A	P A L L A	K E W G V I K
UniRef90_Q2W6S5	P L S F L D L	P V V V A	P A L L A	K E W G V I K
UniRef90_A0A023CHL0	P E N M D L Y	P V V V A	P A L L A	K E W G V I K
UniRef90_UPI0003FFEE2	P L N L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_Q1LNU8	P Q I L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_UPI00036DD396	P A E L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_V7ELV2	P V I L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_H5V1S0	P A S L L A L	P V V V A	P A L L A	K E W G V I K
UniRef90_B2JX98	P V I L L D L	P V V V A	P A L L A	K E W G V I K
UniRef90_UPI0003FB64EE	P L D L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_UPI00036A9ED2	P E E L L D D	P V V V A	P A L L A	K E W G V I K
UniRef90_UPI00047A65D1	P Y D V L E A	P V V V A	P A L L A	K E W G V I K
UniRef90_A6E4C7	P E E L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_C6AMZ8	P E S L L E S	P V V V A	P A L L A	K E W G V I K
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UniRef90_H5SEX4	P A E L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_A1HTR1	P A S L L D L	P V V V A	P A L L A	K E W G V I K
UniRef90_E7AZX7	P E S L L A L	P V V V A	P A L L A	K E W G V I K
UniRef90_F9GL28	P E T F D P Q	P V V V A	P A L L A	K E W G V I K
UniRef90_R8AQ17	P E S V I P R	P V V V A	P A L L A	K E W G V I K
UniRef90_M1E536	P M N L D Y S	P V V V A	P A L L A	K E W G V I K
UniRef90_A0A023CQD7	P A S L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_Q478N4	P V S M S L G	P V V V A	P A L L A	K E W G V I K
UniRef90_A8UUE9	P N S L E L G	P V V V A	P A L L A	K E W G V I K
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UniRef90_P40591	P E E L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_UPI0003711F51	P K D Y E L G	P V V V A	P A L L A	K E W G V I K
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UniRef90_G5H2M0	P Y A L L T A	P V V V A	P A L L A	K E W G V I K
UniRef90_E8RH94	P K Q L D V G	P V V V A	P A L L A	K E W G V I K
UniRef90_W6LQ21	P S D L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_UPI00046D57C8	P E R I D P G	P V V V A	P A L L A	K E W G V I K
UniRef90_J5PL82	P L D L L E W	P V V V A	P A L L A	K E W G V I K
UniRef90_A1B6N8	P V L D L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_M1GH55	P I S L L E L	P V V V A	P A L L A	K E W G V I K
UniRef90_F0JKJ9	P V S Y Q M S	P V V V A	P A L L A	K E W G V I K
UniRef90_E8WPG1	P G S I Q M G	P V V V A	P A L L A	K E W G V I K
UniRef90_V3TKT5	P D S L L A P	P V V V A	P A L L A	K E W G V I K
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I I L G C G N L N R C D D A V G V I V A K A L Q Q Q F L Q P H P H V Y V D D  
L L I L G V G N V L F G D D E G L G V H L A S L L K S N Y H A G L P P A I V D D  
K I L L A G V G N V L Y A D D E G L G V H F V N Y L K E K Y Q F S H Q Q D L V D D  
L L I A G V G N I F L G S D D G F G V E A V R A L A K R E P L P T H A R A V D D  
K T L I A G V G N I F L G D D G F G V E A V R R L G E H E L P E G V E V V D D



UniRef90\_A0A011NSH3 G G T S G M E L L E Q I E G I D A L I M V D A I R A G A P P A T P I R L A G E D  
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UniRef90\_I0RJ15 Y G I G G M H L L Y D L L E E W D L L V L F D A I P C G G T V M K V L F E A R G D  
UniRef90\_R7C024 G G T L G M Y L L D T F T S T K D L L L F D C A S T G S Q P G T T F K V L P G S D  
UniRef90\_E0U7G4 C G T A G M E V M F Q A R G S K Q L L I V D A C S T G S Q P G T T F K V L P G S D  
UniRef90\_H2HAT2 G G T S G M E L L P I V Q D A D K L L L D A V T G P G S G S D V L V R L H A A D D  
UniRef90\_G4HU79 Y G I G G M H L L A Y D L L D T W S A L L V D A L P D R G S P G S D V L H V F A A D D  
UniRef90\_S2Z4G5 G G T S G M E L L P A I L D S E E L I L L D A V S I A G A K P G G D V V V L E A G D  
UniRef90\_UPI00035FA89B Y G I R G M H L L Y D L L D E W D A L V I L D A V N S T G H P G G A I R V R F E A D  
UniRef90\_Q24X57 G G T A G L E L V H L L K E V D Y L I V D A V N A K D E P G G A I V F R F E P E D  
UniRef90\_N2BLC7 G G T L A N M L I P L I V E Y D H V L L L D C V S V E N A R Q I G D V V Y S F S F D E  
UniRef90\_E7A9P4 G G T M A Q A L I P W I V E Y D K V L L L D C C V S V A N A R K L G G E V F C F D F E  
UniRef90\_Q30QM1 G G T L A Q R L I P W I T Q Y D A V L L I D C C V N V A D A K L G D V V Y S F D F N  
UniRef90\_E4U2U2 G G V E G T N L L N I F L E N D R I L L D T I N L D D E A G S V Y N I P S Y D  
UniRef90\_B6BMW3 G G T L A Q L I P I T T D Y D R V L L L D C V N V L D D G D I G S V Y S F D F E D  
UniRef90\_B8IZL7 G G T Q G L M L M S I L M D C D F L V V L D V V L G R E A P I G S V Y L L E G E N  
UniRef90\_I5AZX0 G G T F T Q D I F Y L F E G Y E N L V L V D I V R A N Q T P G T V I F S L E E N  
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UniRef90\_C0QLX3 G G T F T Q D I F Y L F Q E V E L L V L D I V K P G G K T P G T V I F R L E A E S  
UniRef90\_X1H068 T G M A G L N L L E L L A D Y E D R A J L I D A L K T G E G E V G K I V R L E P E  
UniRef90\_E6QT10 G G T L S F S L A G P V E D A R Q L I V I D A A E L D N S P P G T V R T F V F G A  
UniRef90\_D1B207 G G T L A E R L I P L I A E R Y D Y L I V L D C V D A R D G E I G D V V Y F F D F E  
UniRef90\_D4H4B8 G G T L G L D L L G Y I E W A D R L V L V D A V E L D L K P G T V V K L E G D  
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UniRef90\_H5XLH2 Y G I R G V H L A Y E L L G Y E T I F V D A M R R G G E P G T V I V L D A D  
UniRef90\_T1DWZ9 G G T L A Q A L I P L I V E Y D S V L M L D S V D V A D A K I G D V V Y S F P F N  
UniRef90\_E5Y950 G G T F T Q D I F Y S F K G Y S Q L L V L D V V H C G G K P G T V I Y R L T E D  
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UniRef90\_UPI0003671BB4 C S G E P A E L M D L W Q G H D P V I L V D A I V T G A A P G T L H R L D A R E  
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UniRef90\_W8AGF2 G E P T G L L D L W A G V E L A I V I D A V L C E P Q T P G R I W R T T V D  
UniRef90\_E6WYA2 G G V L G F Q L M T Y T D Y D K V I L D T L T M K E E G S P G R V F N I P G E  
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UniRef90\_F8IAU2 G G T L A Y Q L M D H I A L Y D H V L I V D A A L M S Q S P G S I F A F R Y E  
UniRef90\_K4RIA9 G G T M A Q A L I P W I V E Y E K I L L L D C V S V E G A Q V G E V F C F D F V  
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UniRef90\_Q1Q551 G G T G G F K L L E L M Y E A G R V I F I D A V D N G K K P G G A I I S F K G N  
UniRef90\_B8GQ2 G G T L S F T L A G P L G E A A A L I V V D T A Q L D A A P G T V R V F E G A  
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UniRef90\_E0UTJ1 G G T L G F N L A E Y F L N Y D N V E I V D T I S I D D K A G E I Y K I P S D  
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UniRef90\_E0U7G4 A E N L D D F G L E L S S T V T F A A J E Q V L Q M L Q D L I K  
UniRef90\_H2HAT2 V E H C D L H V G L S E Q A V T D A I E T A T D A A R D V I A E W  
UniRef90\_G4HU79 V A D A T A D G I G L S E P V V R A A V P A A L D A V R A A I  
UniRef90\_S2Z4G5 P E K A E L G V G L T P V V E A A I E P A A E T L K K T I S Q  
UniRef90\_UPI00035FA89B A A D V G E R M G L S T E P E I Q A A V L P R V K E L V L E E I Q  
UniRef90\_Q24X57 P E V I D T A F S L S E S L L R G A L T M E Q N A I S Y L E N L G F H I S K  
UniRef90\_N2BLC7 P S I V G E N H F E L S A E M L Q G A Q V A R D C A L E L L S K W G V R L S A K A  
UniRef90\_E7A9P4 P F V I G E N F S M T D E V L K A A V L M E R V I I K Y I E D F G V S A S I K S  
UniRef90\_Q30QM1 P H S I T F H M G L S P Q V L E K R F D D Y I K T V I N Y L K T I G I E A A S K A  
UniRef90\_E4U2U2 P Y V L D T T F T I T N E V L E A S K T M E H S I I N Y L K D L K V E T T L K  
UniRef90\_B6BMW3 P Y D Y T M Q V G L T S E A E A R L P E F C A K V V A E L  
UniRef90\_B8ZL7 P A T I D W G T E L T P P L A A A L P D Y L K V V R K H I N E  
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UniRef90\_L0Y52 P E T L S W S M E M S P R F K Q L F P D F L K I A R Q E I K R L  
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UniRef90\_D1B207 A E T V Q M D M E L S E A V K A N M P K L T S H V A A E I E A F  
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UniRef90\_B8GPQ8 P L S L A E G M G L S E P V V A A A V D D E A A R R I V L Q L V A D  
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E L E G L P Q V G Y N L H H D F R W D H A L A A G R F A D D F P Q D V T V V L I E  
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P E K I P E D L K L S V H H I H F R D A I A M A K G I Y D L P P D E I V V V G V K  
N F S T M H S C N P H H D V S L T E A I Q M A E K I G E I P K E I I I I G I T  
E L E A L P E P S Y N L H H D F R W D N A L A I G R F Q N D F P E E V T V Y L I E  
E A K I N I K S D L S L H H G F G L A D M L K L A E K L D I K T K I S I I G I Q  
Q H G P I A S S H H G F G I P E A V E L A E V L G R L P S R L V I F A V D  
P I G S G E P M V I E G H N L D P A R V L H M A A S L G A S V G R V L L V G C E  
V L I E R P P N Q S L N L H H D F R W D H A L F A G R K I D E F A D V T V L V E  
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D L I Q N E K Y Q R L S L H D I D L Q D S L K M A R A L T G G K R P V L R I V G I Q  
P D A E S G S Y L D A H A M D P Q A M F A T V R A L G G L P A T T L V I G C R  
N V P N S I S W Q G S A H H E V E M L Q T L M M M D M V G D R P A T T K I I G I I  
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E A R L K I K S A A L S T S T H G F G L A E V L K L S E E F A V K T E I K I V G I Q  
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A H P P S E F F R Y S T H H T F G V A E I E L A R T L N Q L P S H L I V Y G I E  
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D L G A G A A P S S H A Y A G L P E L I A T A H A L K N F P K E I K I F A M E  
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L A Q L P P L Q G L H T H S F R W D H A I A F A R L G D A C P Q A I T V V F L I S E  
P V L R A G A G R H S T H G Y G L A E A L R L G E S I G S L P H R L V L Y A V E  
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UniRef90\_K6SZ66 K I V L L G V G N E M R G D D G I G S I L A Q E K L A N L K N K N I T R I F E  
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UniRef90\_H2JR40 L L V A G V G N M L N S D D A F G P L V I Q D Y Q Q K H S P Q P G L R L M E  
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UniRef90\_K7SPD9 R R L V I G L G S P D R G D D A G I G T V V A R R V A A G L P G V I T V V H  
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					50		60		70		80																																	
UniRef90_UPI00037D9FF4	Y	G	L	R	G	L	H	L	L	L	D	G	V	D	A	L	V	L	V	D	A	P	A	D	G	S	T	S	A	G	T	L	R	L	L	K	L	K	R					
UniRef90_E2MUC2	G	G	T	C	G	M	E	L	L	D	L	V	Q	E	A	K	N	L	L	L	L	D	A	L	A	G	S	P	G	D	P	G	T	V	V	K	L	L	V	G	D			
UniRef90_UPI00047DE061	V	H	Q	L	T	P	E	L	P	E	A	E	L	S	V	D	L	V	I	F	V	D	A	C	L	T	S	E	T	S	D	V	Q	I	V	K	S	L	L	L	V	G		
UniRef90_A6UVV0	A	P	Q	Q	V	L	S	L	M	A	E	N	S	E	T	K	K	I	I	V	V	D	D	I	D	Y	G	L	N	P	G	E	I	V	I	K	I	L	E	K	E	P	E	
UniRef90_W018L0	C	G	E	V	P	E	S	Y	L	G	K	T	J	E	N	P	T	H	V	I	F	I	D	A	V	D	F	G	G	K	P	G	E	I	V	I	A	E	D	E	P	E		
UniRef90_A0QG40	Y	G	L	G	G	M	H	L	Y	D	L	L	E	J	E	D	W	D	N	V	L	V	L	D	A	V	P	N	Q	G	A	P	G	T	V	C	V	F	E	A	D	D		
UniRef90_D5V586	G	G	T	L	G	F	K	L	M	T	Y	F	J	E	Y	D	N	V	L	L	D	T	V	S	L	E	E	D	K	V	G	D	L	Y	R	L	L	L	L	L	L	L		
UniRef90_B5YB70	V	Q	E	L	S	F	D	M	A	E	I	L	K	D	Y	D	M	V	I	F	V	D	A	S	L	E	G	D	E	P	P	G	H	I	K	L	V	T	K	E	E			
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UniRef90_F6DVF1	V	G	T	S	L	F	N	F	T	G	E	V	S	P	V	R	Q	V	I	V	I	D	A	F	R	A	E	S	P	P	G	H	I	K	L	V	T	K	E	E				
UniRef90_C8X544	G	G	T	G	G	D	A	L	L	D	L	L	Q	P	C	R	H	L	V	V	V	D	A	L	D	C	G	L	P	P	G	S	T	L	H	E	L	L	G	V	H			
UniRef90_UPI0001E2F070	G	E	T	D	I	F	Y	C	L	N	E	L	K	E	A	S	Y	S	V	I	V	D	A	A	Y	L	G	E	K	P	P	G	T	L	S	T	L	I	P	L	Q			
UniRef90_A2SPD6	V	G	L	G	G	P	H	L	I	F	S	M	L	D	P	E	K	L	I	V	V	D	A	M	D	F	G	G	K	P	P	G	D	V	V	F	F	F	D	F	K	E		
UniRef90_A8UQ6	G	G	T	L	A	Q	R	L	I	P	E	T	I	K	Y	D	E	V	L	I	I	D	C	I	D	A	I	N	S	K	A	G	D	V	F	F	F	D	F	K	E			
UniRef90_UPI00035E9FF0	F	G	L	R	G	M	D	L	A	Y	T	L	L	D	G	C	A	T	A	V	L	V	D	T	A	Q	R	G	H	R	P	G	T	L	S	L	I	E	A	E	G	D		
UniRef90_W5Y7M1	G	G	T	S	G	M	E	L	L	P	D	T	Q	D	A	T	R	L	V	L	D	D	G	I	K	D	P	D	E	P	P	G	T	V	L	V	L	E	G	D				
UniRef90_D3E0T9	A	G	T	G	A	T	H	F	I	F	S	M	P	D	W	K	K	V	I	V	V	D	V	V	E	W	N	A	E	P	G	T	L	K	I	F	S	P	L	Y				
UniRef90_W0DXK7	R	H	L	T	A	D	L	P	E	L	L	D	C	D	R	V	I	F	L	D	A	A	L	D	T	A	P	P	G	T	L	R	C	Q	M	G	L	L	D					
UniRef90_D7DXT9	A	G	T	G	A	Y	Y	L	M	S	I	M	D	K	D	C	K	I	I	V	D	V	I	D	F	K	L	E	P	P	G	T	L	Q	K	M	G	L	I	P	L	Q		
UniRef90_Q47C11	C	G	T	R	G	L	D	V	L	H	L	F	E	D	C	S	V	I	V	I	D	A	M	A	G	E	R	P	P	G	T	L	H	E	L	L	S	P	H					
UniRef90_G8NRQ7	F	G	L	R	G	F	D	L	A	Y	A	L	L	E	P	W	D	A	V	L	V	D	A	L	P	R	N	D	A	P	P	G	T	L	Y	L	V	E	P	D				
UniRef90_F8ANB3	A	G	T	G	A	S	H	F	I	L	S	L	I	D	E	R	K	L	I	V	I	V	D	A	I	D	Y	G	L	K	A	G	E	L	I	K	L	P	P	K				
UniRef90_A5FCZ1	G	G	T	G	G	F	T	L	I	P	Y	I	E	S	H	Q	K	V	I	V	D	A	T	M	D	G	K	E	E	G	T	I	S	L	L	K	P							
UniRef90_W5W985	G	E	P	A	G	M	L	A	F	W	N	A	D	L	A	I	V	V	D	A	V	V	C	E	P	S	T	P	P	G	R	S	V	H	R	T	K	S	V	D				
UniRef90_L0HKX1	G	G	A	G	A	P	H	F	I	F	N	F	L	D	P	E	K	L	I	V	V	D	I	A	D	F	N	A	P	P	G	S	V	S	K	M	S	G	K					
UniRef90_D6YBK9	G	G	G	D	L	T	E	L	I	D	V	W	A	G	A	D	L	A	V	V	I	D	A	V	R	T	G	A	A	P	P	G	T	V	H	R	W	A	G					
UniRef90_X0S034	A	G	S	A	P	E	N	Y	T	G	K	L	E	R	P	E	T	L	V	V	D	A	L	H	L	G	K	M	E	P	P	G	F	E	L	L	K	K	E	D				
UniRef90_B11574	A	G	A	P	G	L	G	M	L	D	L	M	Y	G	E	D	K	A	V	I	V	D	A	V	L	A	A	D	M	E	P	G	L	V	V	R	W	R	E	D				
UniRef90_B5YFW9	L	L	N	I	G	F	N	L	I	D	S	L	L	G	Y	D	K	A	V	I	V	D	G	V	K	T	G	K	E	P	P	G	S	I	I	E	F	N	A	E				
UniRef90_K9T465	R	H	Q	L	T	P	E	L	A	A	D	L	A	E	T	E	L	V	I	F	V	D	A	Y	L	A	S	Q	M	Q	D	V	Q	D	V	K	V	C	S	V				
UniRef90_UPI00031LKF1	Y	S	T	G	S	M	S	L	F	D	D	A	E	N	Y	D	L	V	I	V	D	A	A	A	I	E	K	D	V															
UniRef90_Q9UY55	L	G	T	D	I	F	S	L	Q	Q	R	Y	N	G	E	D	K	V	I	V	D	A	V	L	S	N	D	A	G	K	L	E	V	I	H	L	K	D	E					
UniRef90_H8G7B7	H	G	L	G	R	S	R	L	H	H	D	M	L	G	Y	D	T	T	V	L	V	D	G	T	P	H	G	G	V	P	P	G	R	E	L	W	F	T	D	L	D			
UniRef90_F0S2F7	F	L	S	P	S	L	Y	M	V	K	T	L	L	G	K	E	K	V	V	I	V	D	A	V	K	L	G	L	K	P	P	G	R	E	L	V	E	L	D	L	T			
UniRef90_L5X9J6	G	G	T	Q	G	L	L	L	G	Y	V	E	Q	A	S	H	L	L	L	L	D	A	I	D	Y	G	L	A	P	P	G	S	L	R	T	Y	A	G	E					
UniRef90_X1HWV7	T	S	E	A	G	I	A	L	L	D	L	I	A	G	Y	D	K	L	V	I	V	D	S	L	K	T	E	K	G	K	P	P	G	L	S	Y	K	L	E	L	E			
UniRef90_UPI00037DFCC	F	G	I	R	G	L	D	L	Y	E	L	L	T	G	D	A	A	V	L	V	D	A	A	P	R	G	H	R	P	G	A	L	S	I	E	P	D							
UniRef90_D7DSY7	A	G	T	G	A	S	H	F	I	L	S	L	I	D	N	E	K	K	I	V	I	D	A	T	I	E	Y	G	L	K	P	P	G	E	L	L	R	L	T	V	K	E		
UniRef90_F0T7Y4	A	G	T	G	G	P	H	F	V	F	S	L	E	T	W	K	M	I	V	V	D	I	V	D	F	G	A	E	K	P	P	G	T	L	R	V	E	D	V	E				
UniRef90_X1G340	A	S	V	A	G	L	N	F	L	D	W	L	A	G	Y	K	R	A	I	I	D	G	V	Q	T	N	G	K	A	Q	V	V	I	R	L	E	P	E						
UniRef90_I6UXR5	C	G	E	V	P	E	N	Y	T	G	K	I	L	N	P	D	L	I	F	I	D	A	V	N	F	G	G	K	P	G	E	I	I	T	D	P	E	P						
UniRef90_UPI0003B4072F	A	G	T	G	I	R	D	F	I	F	D	L	K	G	K	P	E	L	L	I	D	A	V	T	M	E	G	R	T	Q	G	E	I	T	V	I	S	H	L	S	D			
UniRef90_UPI00042654CE	G	E	S	D	I	E	Y	C	L	D	R	V	E	G	A	D	Q	V	I	V	D	A	M	L	G	G	K	P	P	G	E	I	T	V	I	S	H	L	S	D				
UniRef90_B8D1R6	A	G	T	A	P	I	N	Y	L	K	E	L	S	L	S	K	E	V	I	A	I	D	A	I	Y	G	G	K	S	P	P	G	T	I	Y	R	L	C	L	D				
UniRef90_D3ENJ6	C	G	D	S	G	M	E	V	M	F	Q	A	K	G	S	Q	K	L	I	I	D	A	C	S	I	N	S	S	P	P	G	T	I	Y	K	V	S	P	G	E	D			
UniRef90_N0BKP0	G	D	T	G	F	D	V	L	D	K	I	L	G	Y	D	L	A	I	V	V	D	A	I	R	L	G	N	E	P	P	G	T	I	Y	E	F	S	H	D					
UniRef90_I2EW98	M	G	T	S	A	F	E	V	L	F	Q	L	Q	G	H	H	R	I	V	I	V	D	A	V	I	N	T	G	E	P	A	G	T	I	Y	K	L	P	A	S	E			
UniRef90_I7KDV4	G	G	A	Q	G	F	G	L	I	P	L	M	E	E	Y	D	K	V	I	V	D	A	M	V	G	V	G	D	H	I	G	D	V	L	V	F								
UniRef90_UPI00037B5259	D	F	Q	L	T	E	H	A	L	D	L	Q	E	D	R	E	L	V	V	F	I	D	A	A	V	N	C	P	N	S														
UniRef90_K1VUA2	V	H	Q	L	T	P	E	I	A	E	E	L	T	H	F	D	Y	A	I	F	V	D	A	S	I	T	G	E	V	L	E	V	S	S	L									
UniRef90_Q2RG68	G	G	P	A	P	E	N	Y	L	H	Q	V	R	D	P	G	A	V	V	V	V	D	A	C	E	M	N	L	Q	A	G	S	V	E	L	R	L	I	S	E	K			
UniRef90_E7G024	G	G	T	L	A	Q	A	L	I	P	F	I	V	E	R	V	L	L	D	D	V	D	C	V	D	V	K	D	A	Q	V	G	E	V	F	C	F	D	N					
UniRef90_K1Z6N3	A	G	T	G	V	E	Y	L	F	D	Y	L	R	P	E	R	I	V	L	V	D	A	V	D	F	K	E	G	R	P	P	G	E	L	F	E	I	Q	P	S				
UniRef90_W9DV43	A	G	V	C	G	L	E	M	L	N	M	L	E	D	A	S	N	V	I	V	D	A	V	K	G	A	G	N	V	G</														

		90	100	110	120
UniRef90_UPI00037D9FF4	T E D	L E S G P A F D	P H G M D P L A V L	R R L R V L G G S L	P E T Y L V G C
UniRef90_E2MUC2	Q I P	R L L A A K L S A H Q V G L L D L L	L T A A R L L G Q E P E R V G V V G V V		
UniRef90_UPI00047DE061		T A T N F L D A G H T G D P Q A L L A L T	K A I Y G H C P E K A W W L V C P		
UniRef90_A6UVV0	Y L P	D P E H T K L A D H T D W P L S R A L R	E V C D K Y D I E L K V V V G C Q Q		
UniRef90_W018L0		G T L G E S F S T H R L P L S R A L R	K L L V G Y L K Q N I N A K F L L I G C Q		
UniRef90_A0QG40	H A S	L S T T A E L D A H G M D P A A V F A S L Q A L	G G A P A E V T L I G I C P		
UniRef90_D5V586	V L L G L G Q Y R K T A H E V E I V E M L	E L C S V L D K H A E V T L I G I C P			
UniRef90_B5YB70	K I Q	E E S T F S P L T H H T P C E E L L S W T R V L Y	G K T P E F Y L L S I R Q E		
UniRef90_K6SZ66	E I A	N Y S L S T H A M S L S F L I K Y L E S T	T P A E I L L L G I Q E		
UniRef90_F6DVF1	D V M	D Y L E Q S I S T H A M S L S F L I K Y L E S T	T P A E I L L L G I Q E		
UniRef90_C8X544	D L D	R M P T P R L S S H G L D L G L V L E L Y R T L Y R W P	E E V L I V G I Q E		
UniRef90_UPI0001E2F070	Q I S	E T T I K S A S A H D S H F I A N E L R I	G S K N I K G T F I G I E		
UniRef90_A2SPD6	L P P	E G R G E R M D A H H S G N F L L D P	L I G R L K G K M D I V I I G C Q		
UniRef90_A8EUQ6	K V P	S N I N W Q G S A H H E V E M L Q T L N M I D M N K D L P	T T H I L G V I		
UniRef90_UPI00035E9FF0	P P D	A T T V P E A H G M D P Q K Q L L A L A A H L G D E P P	P P R V L V G G C E		
UniRef90_W5Y7M1	Q L P	R L R K S A L S P H H Q V G L D L L S T A R L L G S E P	E E V V V V G V V		
UniRef90_D3E0T9	D M P	K G K Y E N A H T W P V E E P L H D L V D M G	T E V V I V G C K		
UniRef90_W0DXK7	P S R	A G G S S M A H F L D P R E L L A W C E A L Y D H R	P T A W L L S V G		
UniRef90_D7DTX9	K L K	K I D K Y N S F D A H H D M P L S N Y L I K A E E S G	V E V I I G C Q		
UniRef90_Q47C11	Q V P	V E N T A S G H H G A G V G Y L L A A V R E M I A R P	P V I K I I A V E		
UniRef90_G8NRQ7	G D P	S T P G M E M N P S S M D P V R V L N L A L T M G P T A P	V E V V G C C		
UniRef90_F8ANB3	D L P	E I E K M Y Q A D A H S N M P L A G M L N E L T M G P N I	D I V V I G C Q		
UniRef90_A5FCZ1	R F S	E D F P L S L S G H N F G L K D M V E I L S I T D T M P	E I Y L Y T I T		
UniRef90_W5W985	E L P	L A G G A P S S H G L G I P E A V A L G R A L G R M P	A R L V V L A V E		
UniRef90_L0HKX1	E L K P	L G A Y V D P H S W D G V D Q L C R I K K E I	D T T V V L C Q		
UniRef90_D6YBK9	T A A	A P G W R Y S S H A L G L A D A L G L G R A L G R M P	G E L L L I G I E		
UniRef90_X0S034	D I A	R M P G F S T H H D I S P N M F I E Y L E N E T Q A D	I Y I L G L I T		
UniRef90_B11574	E V P	R K E A P P L S V H H D I G V R D A L E F G R K S G E L P	A E V V V I G I T		
UniRef90_B5YFW9	F W G	D V Y A S G T H H N F S I F E T I R I G Y S V F E E M P	K E L K I I G V E		
UniRef90_K9T465	E P L	D S G T P S S H S S D P R G V L L L A R T V F G H C P	P A W L I A V P		
UniRef90_A0A031LKF1	E L G	D S V L S M I T S S H G S G I E D I V T F L S T G R L K T R F	L V G C K		
UniRef90_Q9UY55	E I F	Q K L K A E I L S A H H F M G A I E S L K L L M T L D E R L	K K F H F V G I T		
UniRef90_H8G7B7	L T D	A D T G A E F N P M H R L T P A A E L T L L R L L G G D A S	R L V V V G C E		
UniRef90_F0S2F7	S G Q	N Q K L Y G G F S H S V S L S E I T V G Y S L D K M P R E	I K F L G V E		
UniRef90_L5X9J6	K I P	A Y L S A K M S L H Q N S F P K F W R W P T S A G I C P			
UniRef90_X1HWV7	A L K	P A A N L S S H G I D I A T A Y E I G Q G L G R M P P	E Y I S I Y A V E		
UniRef90_UPI000378DFCC	L P D	G A D C A P P E A H H G M D P A K V L S L A A R L G D G P	P E R V L V L A C C E		
UniRef90_D7DSY7	D L P	N L S K Y R V D A H H D M P L A I M L R E I N D D F G	I E I V V L A C C Q		
UniRef90_F0T7Y4	E L P	K G A Y E N M H S W P V N Q P L H D L S K V C	E V M V I G V I Q		
UniRef90_X1G340	A F N	A T R R A S T P H D V N F A T A L E L G N R L G A W P	Q Q I V I F A I Q		
UniRef90_I6UXR5		N T E G A G V S T H S L P L K F L A T Y L K A N T N A K T I L L I G C Q			
UniRef90_UPI0003B4072F	L V P	R E K M A D F S L H Q S P S S N L S Q L V E Q Q V E I V K V I A M H			
UniRef90_UPI00042654CE	E L D	A M E T L P I S P H H G F S L F D V I K M G Q S M T G Y P H K I T I Y G I E			
UniRef90_B8D1R6	D L K	K S T N P D L S H H G F S L F D V I K M G Q S M T G Y P H K I T I Y G I E			
UniRef90_D3ENJ6	E L E	E L P E I N N S L H H D F R W D N A L A V G K F K K E F P E D V T V Y L A C C			
UniRef90_N0BKP0	E F	S F I P F S G T H G M N L I T T L R V G M E V E E M P G D I R I V I A V E			
UniRef90_I2EW98	E I N	A Q I D P M V F L H S L K W D Q A L S Y A K L R E A Y P E D I E V Y L I A			
UniRef90_I7KDV4	T P P	S R T L P A C A L L D I G I G E A V T I A R E L G Y V G E V T V G I E			
UniRef90_UPI00037B5259	P L S	P A Q D H T Y T S H A L S P A A L A V Y Q S V S K Q P A P C V Y T L S I Q			
UniRef90_K1VUA2	T P D	D S E T V V N L G H S I N P R S L L S L A K T L Y E Y T P Q A W L V A V P			
UniRef90_Q2RGG8	D I A	C E F F L T T H R L P L S F F I S A L K E L V P P E V I Y I G I Q			
UniRef90_UPI00037B5259	D L P	P E N I S W A G S A H H E V E M L Q T L K L T A L V G D L P	P T T I I G L I P		
UniRef90_K1Z6N3	E I P	A K K I H D F S L H Q F P T V N L L Q E L L A D H T G I P	V L I L A A Q		
UniRef90_W9DV43	D V A	A S G N D G L S V H D I S L A D V L N I A E Q V Q E M P D Q Q L T I F A I E			
UniRef90_UPI000237AAB2	L A A	I E P A A G V D S H G M N P D A V L A C C K G F N V P L G R V L V G C C			
UniRef90_C8X415	D L D	A G W G D G V S W S R E D V L H C L Y T A E L M G Q K P Q F C L L G M E			
UniRef90_K1XAV3	F L N	N I A N S R L D S H G V N L S T V I A T A K K C Y E M P G R V I V I A I E			
UniRef90_A2BM16	R L S	S S E I T S T S H E L N P A S L A V L A R A S G L F N G R D V T V L G V P			
UniRef90_H0P4F6	T L E	P N E L S G D L G H R G N P R E L L T L A K I L Y G V I E V K A W W V L I P			
UniRef90_UPI00036C2805	E Y G	L L M D K G L I S M H S L H F L D E L E I V L S D H P R E R L L I G V E			
UniRef90_R5Z058	Q Y S	Q D Y P P L I S A H H E I G L K E M I D A M M I Q E R I P	E I D L I A I S		
UniRef90_F6D451	E I A	N Y S L S T H A M P I S F L I K Y L E S S V I D A Q I L L I G I Q			
UniRef90_E0UJL6	E L E	E T L G H T G D P R A I L S L V K V L Y G C C P A A W W V L I P			
UniRef90_G2E618	P D A	T A V I S T M A H F L D P R E L L A W C Q D S L Y D H T P E S Y L I S A G			
UniRef90_A8L5A9	D V R	A P S E V D A H H G M R P D V V L D L V D T L G G H L D R V L L V G C Q			
UniRef90_Q46FA9	E L P	V I G S Y R D A H S W D L T E P L Q Y I K D D T R V I R V L A C C Q			
UniRef90_A0LNT3	A T D	F G R H A G S S T H A F G V P L E L L D I A G V L G C L P R R V I V I G V V			
UniRef90_F4L3Z2	R F A	A D F P R A M S T H D I G L R D L V E G L T I L G K L P K I Y L F A V S			
UniRef90_H2JR40	A A P	D G T V A P E A H G M D P A K V L A L A A H L G D E P P R I R L V L A C C			
UniRef90_R51184	F S I	D Y P L L I S A H H E I G L K D M I D A M I L Q D N I P D I E I L V V T			
UniRef90_UPI0003720261	V P G	E A G S A L L L D G H R M G P D A V L A L L G T L G T P P R R V L V V G C C			
UniRef90_UPI0002627397	V E K	L E M S P Q A D T H Y A T P T R V L Q F L K N I G K L P K Y L R V L A C C			
UniRef90_L0HAY4	Y P V	P A G I R D A Q P G G I I A A L L S D L A P I K L T I I G C Q			
UniRef90_K7SPD9	E L I	A N Q G I K K T A N E V E I T E M L Q I C S M A H H C A Q T T M I S I V			
UniRef90_W6K9U9	S E I	P R D N F P H T S H V L G V A E A V E M A R I L G K L P P S L I V Y G I E			
UniRef90_UPI00035F132A	D I A	E V F G S T H A L P M T I I K Y I T H Y I N T E I L V I G I E			
UniRef90_A0A022MJ55	P D A	P A R G S G L D G H H G M D P G S V L A L L G E L R R P V G R I L V V G C E			
UniRef90_G3IW25	D L A	D R P E Q L T G H G L G I P Y L L E A L K V I R E P Q P D I L V V G V E			
UniRef90_UPI00045E7F37	D Q A	W A R T G R G T H A F G L A A A V E L G R A L G R L P A R L V V V G V E			
UniRef90_E1RJ8	D M P	R N R I H D A E P G G I S E S L Q S I K D Y I E V I V I G C Q			
UniRef90_K9S8Y3	A T A	A G A E A P C T A H Y A D P R S L L V I S Q I L Y G R S P Q A Y E L L I P			
UniRef90_R9SMB5	Q V	G G L S V I S T H S M S L S F L I K Y L E I E K P Y N I V F L G I Q			
UniRef90_I7HTZ1	E I Y	A F K N M L S T H E M G V A Q A L Q L G H S L N A L P E H I I L Y G I E			
UniRef90_UPI000467D698	D I A	D M F M M T T H N M P L A N Y L V J E Q L Q D A V G A R E V L F I G I Q			
UniRef90_W2EMQ3	V P	G G A S W R G S H S F G L A D A V A L G R A L G R M P A R L L V I G I E			
UniRef90_A0YSQ4	P L E	T T E L N W G H Y L N P Q S L L T L A K T L Y H K T P E A W L I S V P			
UniRef90_UPI00037D2E5A	A P P	A T G L A P P E A H G M D P A R V L A L A A H L G D E P P R V L V L A C C			
UniRef90_UPI00037D2E5A	T A T	R G P A G I D A A H M D P A A V F A S L E A L G D Q A P T V V V G C Q			
UniRef90_Q1IRE3	A D K	E F A G K L A D P T T P G M L L A A A Q T M H G A C P S A V M F A M T			
UniRef90_UPI0004663765	P A T	D D E G P V D A H G M H P A A V L A L L R R L G G T P G R V E V V G C C			
UniRef90_H2C1B9	D E I	A E T V L S M S H G L G V M D L I N L R V R V G D V P K I V V V G C C			
UniRef90_B7R3V7	G T L	G E A I S T H G L P L K F V I T Q F M K T M V N A E F V L I G C Q			

UniRef90\_UPI00037D9FF4 A A R T D E G M G L S E D V S R A V P A A V E A V R T L V 130 140 150 160  
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UniRef90\_D5V586 E D I I S V Q I G L T K T I E D K F M G L I N Q A I T D I E N L G I K V E K N D  
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UniRef90\_F6DVF1 P Q Q L D F G K G L S V G L K A I V S K I I T E I K T E V  
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UniRef90\_UPI0001E2F070 P Y Y I D Y G T N L S P T L A E R F I E I V N H V E R T I Q E S  
UniRef90\_A2SPD6 P G Y I D F A L E L S P E V Q G A V P K T V T V I L Q E L E S  
UniRef90\_A8EUQ6 P K R V D T T F E L S S E I I Q A S K T M Q M V V V D Y L T K H Q I T V  
UniRef90\_UPI00035E9FF0 P A V L D L H A P G L S E P V R E A V G R A V D A L H T L V  
UniRef90\_W5Y7M1 A Q D V E L T V I G M T E K V V A A A V P V A V D K A K K V L A S W  
UniRef90\_D3E0T9 P K E I D V D M G L T E P V E A A I P K A I E M I L N E L E Q  
UniRef90\_W0DXK7 A A S L D Y S Y R L S P E V A R M I P A V R T H I E R L E L E Q  
UniRef90\_D7DTX9 A K R I D I E V G L T E E V K N S L D D A V N M V L E E I K  
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UniRef90\_G8NRQ7 P H D F G D E M G L S A P V Q A V V E E A S N M V E G L V A R I R A  
UniRef90\_F8ANB3 I L K N M D I C L E L S E E V K A S V D E K A V N M V L D E L A  
UniRef90\_A5FCZ1 I L L K M D P M M Q L S P K V E A A I E K V T A  
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UniRef90\_D6YBK9 G E R F A I G A A M S P  
UniRef90\_X0S034 P K S V S F G E E M S N S V K S A L T E I A D L I K E  
UniRef90\_B11574 V A N V E W H M G L M P  
UniRef90\_B5YFW9 V E D V E L S R Q C S P S V E D A I P K A V S K I K E Y L  
UniRef90\_K9T465 G T N F E L G E S F S P T A Q K G M E R A L E Q L D C L L E E I F N V K L  
UniRef90\_A0A031LKF1 P H K I D V L G I G L S T E M K Q N C I K A I E E L G K L L  
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UniRef90\_H8G7B7 P H T T D G V V L S P E V H A A V D D A V T L I T E L V W G  
UniRef90\_F0S2F7 A A D L E F K N E L T E P V K K A F P K V V E K V K N I L  
UniRef90\_L5X9J6 I K D T T F G E K C T E E V E R A I P  
UniRef90\_UPI000378DFCC P E T V D I T M P G L S A P V R A A V E H A V T A L  
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UniRef90_U6ECY2			M R G D D D G F	G S P V M A Q K	L S L F N S F P Y E K E N F T
UniRef90_A4WKE3		R L L V V G L G N	P I Y G D D D G	F G S C L A Q F	L S L F N S F P Y E K E N F T
UniRef90_F0LUR7		L L L T V G N N	M M G D D D G A	G P L L A Q L C	R R D H P V G W S V I E
UniRef90_A7HE48		L L A F A L G N	A R A D D D G	V G L A V A E A	R L D A L V P D L E V V E
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UniRef90_UP100046E9128		I V L T V I G N	S M M A D D G	A G P L L A Q M	I K Q Q P I V D W C V L E
UniRef90_K9EZM3		L I V I G Y G N	L C G D D A	V G P W V A M V	V A E W H L P A V K S L A
UniRef90_U5N9H1		V V I G L G N C	F L G D D S	V G I Q V V R A	L G Q G C W E D D A V R V L V E
UniRef90_G4SY71		I V C F G N	P L H G D D G	F G P A V Y Q R	L A A L P L P D A N V R V F D
UniRef90_B3E9J6		R A L V V C I G	N E L V A D D A	V I H A V E T Q	L T E Q G L P E D V I R L E Y
UniRef90_G4KU71		R I L V I G I G	S R I M R D D G	I G S R V V E A	L E G R L R E R D I T P F I
UniRef90_H7C6U2			L F I G V G S	H P F R M D	D A S I V G P W M A E R V A L
UniRef90_D0DCT4		R I A V I G V G S	P I M R D D	S I G L R I T S	Q A V L A Q D M G I A G C R A L A
UniRef90_R7PY27		V L V F G Y G N	P S R G D D A L	G P L L V S E A	V Q D H C D T D G I D V D L I
UniRef90_H8GHY5		V R I L G A G C	S L M G N D D G	V G L K V I E A	L Q Q E S E L K D K D L D I V D
UniRef90_Q46BF7		V L A V G S S L	M G N D D R I	V G L E I L S R	L Q Q G M L R Q R P S V D T V C
UniRef90_E0QMS8		K A I V I G I G N	P N F K D D G	V G Y K I V E Q	L E G L Q D R G D L G Q E V A C I D
UniRef90_UP10003B5D245		R V V F G C G C	N T L Y G D D G	M G P L A I K A	L Q D R G D L G Q E V A C I D
UniRef90_D6SSB1		R A I V V C I G	N E L V A D D A	A G Y E V Y R R	L L P P A R L E Y
UniRef90_B5EFB8		V L L F G Y G N	L S R G D D A L	G P L L L E Y A	E S H C G L I G E V I E V L T
UniRef90_G3IU88		R R I E L G L G N	P I R G D D G	V G A R V A A L	L R E S A V Q D V V E
UniRef90_UP10003802B81		M K V L V V G I G N	P I Y G D D G	V F G S C M A Q	L L M Q F N D F L P P Q I T V A
UniRef90_U4RQ76		R I I V L G I G N	Q L M M D D G	I G I S L V E E	L A K L D Q T S N I H Y L I
UniRef90_UP10002DF9937		L L V F G W G N	L S R G D D A L	G P L L C I E R	L R A L A A P A T A V D Y L D
UniRef90_Q21RQ0		R L V A G I G N	I F C G D D A	F G V E V A R A	L L R S D A L Q A D V V D
UniRef90_UP10001D2E28E			M V F T V G N	V L M G D D G	A G P L L A E L L E A E G A D G W T V I D
UniRef90_J6JAP0		N T L I T A C	G N P S R G D	D A L G P T L I E	R I A A A R T V P D Q A F D L L T
UniRef90_UP10004764DF1		H Y L I I G Y G	N D L R S D	D A G R V A A D	T I A A A L H L P P D Q V D V L S
UniRef90_A5UZ43	M K V	M V I G Y G N	D L R S D D	G I G Q R I A N E	V A S W R L P P S V E S L A
UniRef90_Q8YYS6		L I Y G I G N	A G R E D D	G L G W A F I D	R L E D H P P R A A L V R R
UniRef90_G4I5J7					D P Q I T V A A
UniRef90_X1PJF4					
UniRef90_F8GB81		K T L I L G I G S	P F A D D Q	F G W F V A D K	L A E R E K N I Q N I T V E S
UniRef90_UP10003685D2E		L L L T V G Y G N	S M M G D D D G	A G P Y L A E L	L A E Q N P A S D W V V V D
UniRef90_Q2SQP9		T L V I G Y G N	P G R Q D D D G	L G P A C A D R I	L A E L N L S G V T V E T
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UniRef90_HOQLR4		V L V A G V G N	L F L H D D G	F G P E V A R H	L A A R Q P L E P G V R V V D
UniRef90_A1TCI9		L I Y G I G N V	G R Q D D D G	L G W A F V D W L	E A A Q G R C P S A Q L Q R
UniRef90_I7LKT0		E I V V A G C	G N L F A D D G	F G P A V A Q E	L L K F A L P D N V K V V D
UniRef90_R9CBN2	M S F	K L T A I G N L	L M K D D A	T G K V A E Q I	E D E L S S I G V G L I Y
UniRef90_UP1000477272D			M A G Y G N E L	M R S D D A I G	P Q V A R A V Q A W G V P S V H S L A
UniRef90_UP100036FADB0		R V L V L G Y G N	P G R Q D D G	L G P A A A A G	I E A L G W P H L K V I Q D
UniRef90_G0EE39		K P L V I G A G N	P M F A D D A	V G Y C V A R I	L A E E C L E P R D S L D V L A
UniRef90_UP1000374E2D0		K V R I L G I G S	P S G D D D A	V A G W L T V D A	L A A Y G V Q G G E H E L A I D
UniRef90_N6YZD3		V L V F G W G N	P S R G D D A L	G P L F V D A V	E A L K L P G V E C L T
UniRef90_K9PQN4		V M V I G Y G N	D L Y S D D G	I G Q R V A N A	L I A T W H L S T V K S L A
UniRef90_D0IAH0		M E T L I L C	F G N T L H S	D D G I G S A I A	N A I Q G E T L P T G V E I Y D
UniRef90_H1L0S6		K L V I G I G N	E M K G D D G	V G I Y L V K E	I A K R F G K Y G N D E V I N
UniRef90_UP10003A04628		E I L V F V G L	G N E L M R S D	D D G I A R L F L E	K L A Q E H P D F R P A H F I F A
UniRef90_D8GNQ0	M K A	K V I A L G N I	L M E D D G	I R I L E N I	K E E L T H N N V E S I F S
UniRef90_F8JRQ0		M R I L V A G V G	E L L V A D D S	F G P E V V E A	M R G R P V P A G V H V V D
UniRef90_UP1000467E7C0	M K V	F I A G F G N	P Y R E D D S	V G L Y V A P L	V A S W L E Q G G V S V S I W S
UniRef90_D5EGI7		M K V F I A G F	G N P F R E D D S	V G L Q L A Q I	A E W L E E E G V S V N L W I
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UniRef90_T1BV67		N M L I F G Y G N	P G R G D D A L	G P E L L I	G R I A K L R L A H V I C Q N
UniRef90_B1Y7Y4		M L V F G W G N	A S R G D D A L	G P L F I E	R L E A D P E V G R I E F L D
UniRef90_UP100037CA12D		V L V F G Y G N	L S R G D D A L	G P L L L E	I E R R E K P V L R V I E T L S
UniRef90_Q51795			M G D D G V	G I K I G R E	L K R Q G Y K V I E
UniRef90_W6M050		R V L I L T C	G N P S R G D	D A L G S L F L	E R L E A A Q E P G D D V E L L T
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UniRef90_A3DPI2		K T V I A C V	G S P L R G D	D R L G L L I Y	D R I K D L A N N I S I I E
UniRef90_D2Z2N6	M K	V L L V I G Y G	N E F R Q D D R	V G H V L A P R I	A E W G D Q G V D T E L W L
UniRef90_K9PBZ8		L L I G I G N T	P L R G D D D G	V G W H L V E G	L L G G
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UniRef90_K0CTT5		R Y A I I G V G	N L L Q R D D G	V G V H A V R A	L Q P L L K S Y S N V S C I D
UniRef90_C7P9J9		K L V V M G I G N	E L R G D D A L	G I Y T V K K L	M K H F N E D G N L Y L I N
UniRef90_B4UJ14	M K	I V A L A G I G	S L R G D D A A	G L A V A R G L	E A L V P G L E V V E
UniRef90_C4ZJZ9		V L V F G W G N	P S R G D D A L	G P L F V E A V	E A M K L P G I E C L T
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UniRef90_K9WUR2		N I M V I G Y G	N A L C S D	D G I G Q R V A	N A E S W H L S T V E T L A
UniRef90_A8A9T5		R A L V L G I G	N R N L G D D A	V G S C L A E A	R A A R A P E G V E V K D
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UniRef90_A0A021VRD8	M R	R L V I G I G	C G S C G D D A	V G P V V A G A	V Q R E L R L P D V H V V A V E
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UniRef90_K0C2U1		K L L I L G Y G N	P A R G D D G	L G P L V A E H	I E K S L R H W Q H I D V I T
UniRef90_D0WGU4		I L F T V G S	V L R G D D A A	G P M L T Q L C	E E D P I E G W S V I D
UniRef90_L8LVA3		K C L I T I G Y	G N L R S D D G	I G R R V A E V	S S W H W P E M K S I S



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50 60 70 80

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

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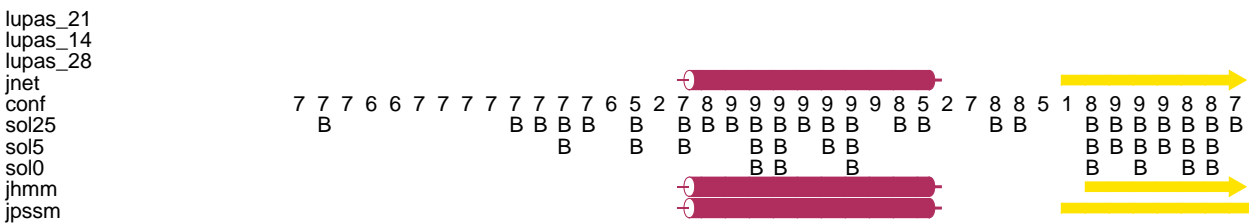




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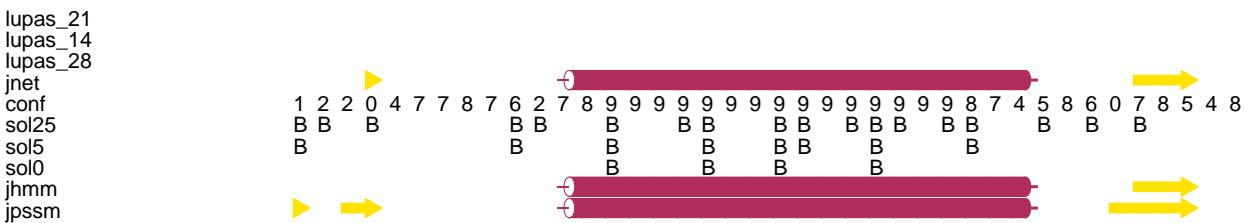
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