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 D K L I F F T G K S V I | K S V S F A S L | N D L A K I M K E N A A Y K L D V R E R L
 D N I I Y F D Y D K A N I | R P D A A E Q L | A K I V K V M E E Y P T M K I D V R E R L
 D V L L F D S G E A E L | K P S A N R M I | L K L I V Q F L Q L N P K R V V R I V E G G
 D K I L F D S G K A N L | K P D A F P L L | T K I A A V L K K I D N E V Y V E G G
 S N T I Q F D F N S D K I | R P E S A P A I | E N L L A S E L K S S N G K L L L E G G
 V Y F D T E K W N I | V S Q Y F P V L | D N V V G I I K K N P D M K L E I Q G G
 D I S F D T G R S N I | R P D M A P I L | S K F A Q G L D G S M N V Q I V T G G
 I Y F D N R D T L | K P E S D P V L | K E I I A Q A M T N P D W K L T V E G G
 D V K F D F D K T A V | K P E S Q A D I | K A L A D F M S Q Y P A T T T V V E G G
 D S G I L F D F N K S D L | K A S A R E N I | K N L V A T L N K E Q G T D I L V I G G
 D I T F A S D S A T L | S S G I Q S Q D L | N A V A T N L Q S Y P N S T V Q V I G G
 T I L F D L D K A I | V K T Q A E F I L | D N I I A K I M Q E N E D F N F V I E G G
 S K V L F A P G K A L | I N P V S F P V L | N E L L S E L K K Y A S T K I Y L E G G
 S N I I T F D V D Q D A V | K P G F Y P T L | N S V A I V L R K F N R T L I D V N G G
 I H F D F N K A E V | K P E S E L V L | K E I I A K I L L K Q N P E L K L Y V V G G
 L F A T D S A Q K L | A T S A K A R I | Q E V L S V L L R F P Q A N V I I T O G G
 R K I N F E P G S A K I | D A Q G A A I M | D D I I A D V L K K C G E V R M E I I G G
 L F A T D S A A V | G A Q G Q N D L | Y T I I A R N L N Q Y P N S T I Q V V G G
 S E D V L L F A T D S D R L | R P G A I E K L | R P L A R Y L I R D N P G V R V A I D G G
 D N F F L F D T G K T T L | K P G A E P R L | K G V L D L I R A N P D K R I L I A G G
 D T V L L F A T G S A D L | T P T A R E I | I M D K L G L I L L Q T P N Y I R I E G G
 D A I I L F D S G K A E E V | K Q G G M E V L A K V V D I L L | K G V Q D K M I R I E G G
 R D V L L F A T G S Y E I | L P E A H T Y L | I Q W A K F I Q R N K L K I I E I Q G G
 V N F D T A K S T L | T L N A K A L L | D G V A V A L L A K H P D I K V A V Q G G
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 N A N V L F D F D K D E L | Q P M S E M E L L | N R L V E L L E K N V V K L N I R I N G G
 N V L F V S G S A E E L | L P M S E M E L L | T T L V D D L L N K N N A N I S I L T I N G G
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 N I E V N F A T D Q Q A N I | L P E S Q T Q I | E Q V I Q L L N E Y P K M V V Q G G
 N N L F F G V S S S K I | E S T S F D E L | D R L V R T L N E Y P K M V V Q G G
 D V S F D V G R H D I | K A N M R P V L | D R L A A T L L N Q H P V T T V S I I G G
 S D V L L F D S D S A D L | S A Q A D T T L | K K A A D Q L S T Y P G G Q V T I V G G
 V T F A T Q S D S T I | Q A Q F Q S A L | N D V A K V L R E D G T S S L V I I H G G
 N L E F D L G K A T I | R A H S Y P S L | D R V A Q L L V D K N F S L K L A G G
 D V K F D D N D K S N I | K P Q Y Y R E L | D N A V T V I N Q H P V T T V S I I G G
 T L I I F A Q G K F T L | L P A S Y A E L | N R L A R T L D N P T V N I Q L E G G
 S E I I L F K F D S Y E L | N E E S A Q K M L | S N N L C N I T E I P N T K I K I I G G
 V F F E N N Q D V I | S A R S H K L L | D S V A A I L A S H P E I K L R I V E G G
 D D S V K F P V D R H A L | S P E A E A R L | N E L L A E R L K E N R N V Y L E I Q G G
 N I I F F D T N D F K L | L P E S V S E L | S T L L N L L K S N P N V Q M E I Q G G
 D V K F D F D K A D V | K Q D S Y S D I | E N L L A E F M K Q Y P Q T A T T V E E G G
 S I I Y F D L D K W N I | R P D A A E D L | E K I I I A V M N Q Y P N M T I D I R S G
 N I I T F S N D S A S L | V T G F Y P V L | E D V A K V L N R Y D K T K L L S I V E G G
 D D V I H F E F D K S E | A E G E K S K L | D K A A T T I K T Y P N L K V D V S S G
 D S G I L F S T G S A T I | T S T S R Y N I | E K L L A R I L N R Y N E T S L V I E G G
 I I T F D V D R T E I | K P E F Q S V L | D S V V L V L N R Y E Q T G I E V A G G
 N S E L L F A S G K A E L | S A K A L P V L | A K V V A E V I R D V P N V I N V E E G G
 D V K F D F D R D T I | R P E F R Q D I | Q S L A E F M K T Y P S V T T V E E G G
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UniRef90_A3XIL8	H	T D S T G S A D Y N M T L	S Q N R A Q A	V I Q Y L I N S R G V A M N R M S G T	
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UniRef90_UPI00039CBB3A	Y	T D F I G S E G Y N L E L	S V K R A K A I	K I K S F L V S K G A I E N N I S I E G	
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UniRef90_W6UCF1	H	H T D N V G N V K D N E K L	S K D R A E S	V V Y D Y L L E H K I I A A E R L T Y K G	
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50 60 70 80

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

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UniRef90_G4CMB6	A G A A N P V A P N D N P E G R A Q N R R V E I I I
UniRef90_N9EZT0	H G S D Q P V A D N T T E E G R F K N R R I E F S V
UniRef90_I0RV0	Y G P L F P V A T N K T A D G R Q L N R R V E V V I
UniRef90_C6BXW9	Y G E M N P K Y D N K T K E G R K L N R R V E I
UniRef90_D5AME4	R G E E Q P V A S N L S A A G K A Q N R R V E F I I
UniRef90_UPI0003816342	N G G A D P V A D N D T E V G R E Q N R R V E M V I I
UniRef90_UPI0003698632	Y G D T R P I L T K G T D E D R K I N R R V E F A I L
UniRef90_UPI0003A098B4	A G M S S P I A L N N N D V G R A K N R R V E L V
UniRef90_B5BXW25	Y G A S R P V A S N E T P E G R A K N R R V E I S L V
UniRef90_S6ADI9	A G E L Q P I A D N A T K D G R A M N R R V E I Q I
UniRef90_H1Z6S3	Y G E S Q L V N T C S T D E Q H Q E N R R S E F I I V
UniRef90_E3EX45	R G A S Q P I A S N A T P D G R Q L N R R V E I I I
UniRef90_L8JYD9	K G E Q A P V S P N D T P E G R A K N R R V E I
UniRef90_UPI000303B29B	F G S E K P I K P N D T D N K A N R R V E L V
UniRef90_V6S6G3	M G M E Q P I A S N D T K E G Q S M N R R V E F A I
UniRef90_UPI0004757578	R G E H E P V A S N D T E S G R A R N R R V E I F V
UniRef90_N8UIZ5	H G A D H P V A D N A T E E G R F K N R R I E F S V
UniRef90_B5EGH8	Y G S S R P A V P N D S D A N R A L N R R V Q E L
UniRef90_H6SPU8	F G Q T Q P V A T N T T P A G R E Q N R R V E I I L V
UniRef90_A0A031GF48	R G A R E P I A S N A D A S G R A R N R R V E I Y V
UniRef90_A1BI69	V A Y L A P V A P N T T E A G R A K N R R V E L V
UniRef90_G0GBR0	Y G A T R P I A D N A T E A G R S R N R R V E I T I L
UniRef90_S2KXQ9	L G A E N P L V A N D S D S N K A K N R R V E L I
UniRef90_Q3ADH3	Y G E Y R P K V P N T S E Q N R Q K N R R V D I V I L
UniRef90_A0A011QGA5	Y G E A Y P V A S N A T E A G R E L N R R S E F I
UniRef90_UPI0003FF349F	F G E A K P I D T N K T S K G K A N N R R V E V L L V
UniRef90_UPI0003B711B5	F G E S K P I A A N K T E A G R A K N R R I E E L I V
UniRef90_UPI00035EF490	L G D S R P L A K N D S E Q G R A R N R R V E L V K L
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UniRef90_K0CDU1	Y G E A K P I A D N S T R D G R A Q N R R V E A I F
UniRef90_UPI0003615F05	K G S A V P I R D N N T E E G R K M N R R V E V I F
UniRef90_A8FR54	L G E S R P I A T N A T A E G R A Q N R R V E I V L
UniRef90_G2DZU8	V G S E R P I A T N A T A H G R S L N R R V E I Y L L
UniRef90_UPI00046EBB40	Y G E E Y H P I A T N S T A A G R L A N R R V E V A V I
UniRef90_C5BKR8	Y G E E Q P I A D E S T A A G R L A N R R V V
UniRef90_D7N062	L G A A N P V A P N D N P E G R A K N R R V E I I V I
UniRef90_D0LZ23	F G P D R P L V E N T S N A N R A K N R R V E F N L I
UniRef90_UPI000374BF5C	V G P L N P I A S N D T E E G R R K N R R T E M I V I
UniRef90_J2ZSW9	Y G E D D P V A P N D T P D G R A Q N R R V V I Q V L
UniRef90_Q07GX0	F G S A Q P V A S N D N D E G K A Q N R R I E F T V
UniRef90_XORLG2	M G E S E P I A D N S T E Q G R F R N R R I E F M V
UniRef90_UPI000372B749	Y G D T R P L A D N T K T Q A G R A K N R R V E I T L V
UniRef90_UPI000371961F	F G E T K P M D N N D N A E G K A N N R R V E F L
UniRef90_A4VMP9	Y G E R F P I A E N A S A R G R A Q N R R V E I I L F
UniRef90_S9QVP1	R G K D D P V A S N A T A E G R A N R R V E I I L F
UniRef90_D5C242	Y G Q Y R P V A D N S T P E G R R R R V A L V I L
UniRef90_KONNZ4	Y G E N R P I S S N H A V N R R V E I I I V
UniRef90_X5DF10	Y G E E S Q L V N H C D D K E D H R K N R R T E F T I L
UniRef90_UPI000225F983	Y G E S R P I A D N D T E A G R E A N R R I E F T I L
UniRef90_N9BEW0	R G A S Q P L V E N S S E E N R A L N R R V N I I I I
UniRef90_G5ZZ77	Y G K E R P K A V G S T E A A W R Q N R R A E T V L
UniRef90_B3Q9M7	Y G S A K P I A A N D T A E G R A Q N R R I E F V V
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UniRef90_C2FTB2	Y G E S K L V N K C A D D A E H Q A N R R T E I K V L
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UniRef90_S6JK1	A G A S E P K S S N A T P Q G R S L N R R V E I T L
UniRef90_UPI000472D886	Y G E E K P I D L S R T P E G F A K N R R A V V L V Y
UniRef90_UPI000344AB62	Y G S S R P L V E E K T E A D K T L N R R V E F E L
UniRef90_UPI000367537D	Y G E K Y P V A S N K T A E L R Q L N R R V E V V V
UniRef90_F8EKZ2	W G S T K P V A S N E L E E T R K K N R R V E F T I L
UniRef90_D0LT30	Y G E F D P V A P N D T A E N R A L N R R I E I I L V
UniRef90_UPI000225E6D6	Y G E E R P V A T A S T P S A W A Q N R R A V T V V
UniRef90_M7DBH7	Y G E S D P I A S N N T A D G R A A N R R V E A R I
UniRef90_Q1IDY2	R G E S E P V A D N D T E E G R A H N R R V E L I
UniRef90_UPI0003626E81	F G E S R P R A Q N D D P V G R Q L N R R V E V V V
UniRef90_F5SMY0	Y G E D R P V A A G T D E A S H A Q N R R A E L S Y
UniRef90_B4VM79	Y G E L R P V A V A N D T D A N Q Q R N R R I E I S V
UniRef90_UPI0003821677	E G E R N P I A D N S T R E G R A K N R R V T T T L
UniRef90_UPI0002FD19F1	Y G K Q F P V A D N L S A H S R Q L N R R V E V V I V
UniRef90_F2K8M5	A G E S Q P V A D N K T A D G R A M N R R T E I K I
UniRef90_Q1DFG6	L G E E Y R P V A A N N S T P E G R A N N R R V E I I L
UniRef90_B9KFA9	Y G F E K P I A S N D T K E G R A Q N R R V E A K F
UniRef90_UPI0004179E95	Y G E H Q P I A P N S N E E N R A M N R R V E V L I L
UniRef90_I2GTV9	Y G D S K P L K R N C S P E G C P E N R R V E F V V L
UniRef90_A0A015M9U8	Y G E E F R P I A T N A T A A G R A K N R R V E I S I I
UniRef90_F2PE78	R G E L D P V A S N D T A E G R A Q N R R V D V T
UniRef90_A0LHE2	F G D S K P L T T N A T D E G R T N R R V T I T I
UniRef90_W4VC34	W G E Y R P I V A N E T E E D R A K N R R T E F I L
UniRef90_UPI000478F6DD	F G E S Q P I A T N D T E E G R A Q N R R V V
UniRef90_C7PSD9	Y G E T K L L N R N C S E D E H K L N R R T E F K L V
UniRef90_Q2SN09	F G A S R P V V A N D T K E G R A N R R V E V L I I
UniRef90_B3E185	Y G K S H P V V P R G S L E E Q A R A N R R V E I V I
UniRef90_S3NJH4	F A W D Q P I A D N N T K E G R A M N R R V
UniRef90_V9H311	Y G E Y R P V A D N T A E E G R A K N R R V V D I L I L
UniRef90_Q2W2B1	Y G K E R P V A L G S N E A A W S Q N R R V
UniRef90_A4XNU7	V G M A A P V A S N R D E A G R A L N R R V E L V
UniRef90_S7TK69	Y G K S R P L D P A H N E V A W A K N R R C E F K V

	1	10	20	30	40
UniRef90_G7QLE2	D D K I	S F D S G S A D L	K K Q I L P A L	D K I K E I L G N Y P G N L I I I	E G
UniRef90_A7TCZ9	I I Y F D L N K S N I	R K D A A L E L	A K I V E V M K E N P S I K V D V R S G		
UniRef90_I3CKK2	R D L P F A S G K A T L	P E D V A L L	N K V A D L L K A L P Q R K I I L I E G G		
UniRef90_UPI0004649B13	S D I L F D F D S Y S R L	R P D A E P P L L	A Q V A E I L K R Y G R A D V E I G G		
UniRef90_B5FD06	T V Y F A F D N S T I I	S S E Y E D M L A A H A A F L S A D P S I K V	T V E V E G G		
UniRef90_B5EDW5	F F D S G S A T T L	K Q D S Y A L L K D V V S S L S S Y S N G I R V E G G			
UniRef90_UPI0003140158	L F S N N S S T L	T P A A A D S F K P L L N I L L L T Y P Q A K A E I V G			
UniRef90_L5MUX8	I L F A S G S A D L	Q E Q G K E V V G T V A R V L Q R Y E Y K V R I E G G			
UniRef90_D2UDA0	N S D I L F G S G S A T L	D Q S A H A T L A Q L A Q I L A S V P N G V R V E G G			
UniRef90_N9NA44	I N F E T D K A T L L	A N S S D E Q I T Q I L N I L L K S D D A L K L A I N G G			
UniRef90_B3E401	V N F D T G K S I I	K K Q Y Y D E L K V V G D G L N E Q K N L K G V I E G G			
UniRef90_L0FYC8	I I Y F D F D K A T L H T R P E S I S Q L D R V A L L M R E R P T V E L A L A G				
UniRef90_UPI00034A060E	S K I V F D P G S T E L	N A A A A N E T V D R I A E T L K D C C E N V E M E I G A G			
UniRef90_K2JZL8	N F A F D S A A L T P K A R S I L D K L V A D S K G A N F A S V I V E G G				
UniRef90_K8ROK8	I I Y F D F D K A T L	Q S K Y A E L L Q A H A Q F L T Q N P S V K V L I E G G			
UniRef90_UPI0003620360	S G V N F E V G K S Y I P E E S Y A L L N K A I S A I D E F N N V K I V I E G G				
UniRef90_A2C935	D V L F D F D K A N L	K P S A V A S L E T V A K R I R E T S Q G D V R V E G G			
UniRef90_A4J1E9	L F D S G S A V V K P Q S R K I I K A M G S I L Q Q Y P K F E V L V A G G				
UniRef90_K0VN20	I N F S T D G F V L A P A S Q Q L L S Q V A D K L K S C C V G A R V A V T G G				
UniRef90_S5XW36	S D T I H F M L D Q S T L S P D A R T T L A N Q A S W L N Q O N P N Y S A V I E G G				
UniRef90_G21QJ1	S D T I L F D T D K S T L D D D E D R A V L R S Q A E W L M R Y P N K R I I T V E G G				
UniRef90_H1XQ03	D N I I L F D P G R A D I L K K Q A F P I L K A V A D V V K D D F K Q I I F V E G G				
UniRef90_D3RRY9	I Q F D F D Q A T I I K D E S K S P Q L E Q Q I A L M L V I E N P D L K Y I V I E G G				
UniRef90_B6ITH8	D R V F F G F D R F D L T P E A T A T L D R Q A A W L K Q Y P N V T V T V E G G				
UniRef90_Q1PWX8	D S I I L F D P G Q T K L R E Q S K A T L K K I A G I L K D I S N E M V R I E E G				
UniRef90_S6JLE1	R D V N F E F N S A K L T A S D K D K L N V I A A R L K K D A N A Q L K V T G G				
UniRef90_UPI00037EF5D4	N P I I Y F D F D K Y Y I R P Q A A A A E L L D K V V Y V M Q N F P D I V I K I E S G G				
UniRef90_W1NBW2	S S D T I L F D V Y S V L S P G A M G E L E A L A G R I R S R S D L R V F I A G G				
UniRef90_UPI00036EABA	S D I I Y F D Y D E S E L P K G A Y P E L L K R I I S D V L I K Y P H T T I E V A G G				
UniRef90_X6L313	S D V V F A F G S S E L E T E E A S L D A I A D W L A L N P N R K V L I V I E G G				
UniRef90_H0JGN1	N I I N T F A T D S A D I L A N S F Y K P L N D L A N S F K Q F D Q N S I I E I V G G				
UniRef90_A0A022G8Q9	D S L I S L F K S G S A A L N P G S N R N V L I G A L E M I K A H P Y K R V L V A G G				
UniRef90_A5EXH1	D R V I I Y F S D S A S Q L D S R S L A V I T E H A R Y L R D H P D T R V V L E G G				
UniRef90_Q1EI31	D R I I F F E F D K Y N I L K A G A R G T L E K Q A A W L K K W P A V T I T V E G G				
UniRef90_D5V8R6	V F F D Y D K S I I K P Q Y R E E V A K V A A Q M R E F P N A T A T I E G G				
UniRef90_T0L0Z3	I I N F E F D S A K V V D D S L Q K P V Q D F A D F L N K N S N Y S T K I V G G				
UniRef90_B9M3B0	S G I I L F D L G K D A L K S G A K E S L S K A A A T L K A S E T N I V V Q G G				
UniRef90_F2NU38	N L I N F K P D S S E L L P G E N E R L D Q I I A Q V L K E V P D Q M F L V E G G				
UniRef90_UPI0004639B00	I I Y F R S A S A R L D A K S R P L L T E V V G V V G K C C P S L K V E V S G G				
UniRef90_Q1YSA2	N V I E F E F N K D T V L A V Y G D Q L D A I A A A M K A Q D D I D L V L E G G				
UniRef90_D5V3Q8	D H I F F K R L G T D I T D E S Y V K V V E Q I A K I L K N N P S V K I E I G G				
UniRef90_I0KCN2	N I I Y Y D L G K F F I R P D A A R E L L D R V V I S L K E Y P T M K I I E L R S G				
UniRef90_UPI0003780791	D A G I I L F K A G Q Y R I L D A A S R K P L K N L A R V L Q T Y R G K I I E V A G G				
UniRef90_UPI0003B3F98A	S D R F L I L F D F D S A E L R P T A A S S L D T V L A L L E Q S D A P V E V I G G				
UniRef90_UPI0003945922	T V F F A F F D N S T I I A S D Y K D M L S T H A S Y L S K H P R V H V T I E G G				
UniRef90_UPI00037D2FA2	N I I Y Y D V N K A D I I R P D A A A A E L N K V V I E L M K K Y P T M I I E M R S G				
UniRef90_UPI0003635B91	S S D V L F E T D S A V L S P D A Q E I L E Q V A S E I I N D A S S T T V I V Q V D G G				
UniRef90_U4LZY5	N S D I I L F G T G S A T I I A G R A R G T L S T L A S V L R E A P N G V R V E G G				
UniRef90_F4B2X9	N P I I Y F D Y N K S D I I R P D A A A L E L T K V I S A M K Q V P D M V I S V R S				
UniRef90_UPI000306C061	S D T V L F G Y D S Y E L D G E A R T L T K H A A W L R A N P A V R V T L E G G				
UniRef90_UPI000375EFBD	D V L F D T D Q A T I I R P D A A K A K L H A I A L K I K A A P N A K L R V E G G				
UniRef90_B0S9G1	D D K I S F D S G S S E L K P A I I L P A I E K I R D I L A S Y P E N Y I V V E G G				
UniRef90_E1IRM49	R V V I Y F D F D K D D V K F Q T V L S C H A K Y L R N R P S A H I T L Q G G				
UniRef90_UPI00037750D1	S T I I Y F D F G K D D I R R D A E I E I I Q K V I A A M D K Y P S L K I K V N S S				
UniRef90_G2PMB3	S T I I Y F D L N K Y N I I R P D A E I E I I Q K V V A M E K Y P S L K I K V N S S				
UniRef90_I4W9Z7	R V V I Y F D F D K S E I I K P E F Q Q I M A C H A K Y L Q D R P T A R M R L E G G				
UniRef90_UPI00046AD927	U N I I Q F E F N S F V L K T S S P I L D K A V A E M K K S P D T K F I L N G G				
UniRef90_F3KYJ0	S V V Y I F F D S S T I L T D T G R A V L D K H V A L L K N T G A S V R L E G G				
UniRef90_G4R977	D R V F F E T D S S V L T A D A Q A T L N Q Q S Q W L Q Q Y S Q Y R I V I E G G				
UniRef90_D0IJ84	S N T I I R F E T T G S A K I V S A S S K R W L D S M A R F L A S E S S G I D I V L E G G				
UniRef90_S9T9D4	L F D S G K A D L K P D S K Q L A A T V G D M M K Q Y Q G F S V V I S G G				
UniRef90_UPI000468CC38	D S G I I L F A T N K A E L N K N K S K N E L A K F S S V L K N N T D C H V D I Y G G				
UniRef90_UPI00041068A7	M I I Y F D L D K S N I I R P E A A L D L E K I L A V L N D Y P A M K L D I R S G				
UniRef90_UPI00046FB3B8	S D N A I L F S S G Q A V V K D E S R Q L A K S I S T M L Q Q F P N Y E V L V E G G				
UniRef90_UPI000414DCE0	D N I I N F A T A R W D L N A K A K E E L E K V Y K F L T D Y P K L R I V E A G G				
UniRef90_M4S5B0	S D R V F F V G T D K Y D L D S E A R A I L L D R Q A D W L A K Y P N V R V T V E G G				
UniRef90_I3IJV4	I I F D S G M A I K I K S N G E K A L G K M A E F L D E N P S I S I R I D G				
UniRef90_UPI00047362DB	S D I I S F N T G K S D I I A P N F R P I L D R F A A S L N E N R A T T V T I I G G				
UniRef90_B5JWL0	R M V I F F A F D S Q D V K E E F N D V L I A H A K Y L A S N P D V S V R L E G G				
UniRef90_D7ALW0	I I Y F D F D A F V L S Q T A R D T L S R N A E A L K K M P N A K V S I E G G				
UniRef90_J2S2B9	I I F F T S G K A V L S D E T S T R T L D A I K E I L K N Y P N A K F A I N G G				
UniRef90_V6S1E3	N I I Y F D F N K A S I V K K E E S E L S L N K I V E V L N T K P E M K I T I N A G				
UniRef90_B9M5Y9	N L I Q F D D K A L I R A E D H R E I A R V G E F M Q R Y P D T T A V I E G G				
UniRef90_F0SES4	N I I Y F D F D K S D I I R P D A A R I L D N L V N I L K Q N P S L R I E L S S G				
UniRef90_Q0AC41	T V V Y F D F D R S E I I R N E D M P V I I E A H A R F L S G H P D R R M T I I E G G				
UniRef90_J3HLY7	D R I I F F D V D S S V I I R A D A Q Q T L S K Q A Q W L Q R Y P N Y A I T V E G G				
UniRef90_UPI00037F2B16	N V I T F P T G S Y N I I D R G F Y P V L D S V T K V F M K F D K T A I I N V D G G				
UniRef90_S5Z1I3	D D I L F D S G S A E V V R M K D R H L A I A A L V M N P P R N V I I S G G				
UniRef90_K2CSY5	S N V L F E S G S A E M K R G A E E V L T S L V I P V L G T I D N Y I R I D G				
UniRef90_F0G300	L F D F D K A N L K P A G V R A L D E V I L D N A R G K R F R L V E V A G				
UniRef90_A2TUR1	I I Y F D F D L Y S I I R E D S Q V V L D E L A A K L I K Y K R I I K M K I Q S				
UniRef90_UPI00045EAEE1	N S E L I L F L S G S A E L A L A S R P V L K K V A E V L K P L P N Q I N V E G G				
UniRef90_F5YS13	V T F F V T N G H T L S P G T R R Q L S R V A E T L K G C R S A Q V T V S G G				
UniRef90_I3ZZS8	D F T V E F F A F D K A T I I R P T S F A K I D E I K D L L A A Y P N L K N I D G G				
UniRef90_UPI000476992C	D N I I Y Y D L D Q S S L R S D A S R E L D K V V A T M R K Y P G L V I E V S A G				
UniRef90_UPI000477FC8D	F A R D G V E P V L L D K T A I I N V D G G				
UniRef90_L7WDE1	D K I I F F D F D E S V I K P Q Q A A T L N N L V I S L M K K Y P D M Y I E V S A G				
UniRef90_W0A675	D T I I Y F D T D K Y D V G S E D R V I L D S Q A A W L R Q H G T V R V T I E G G				
UniRef90_D3RR71	R T I I Y F D F D E S T V R G E F A E L L T A H A D Y L A R N P S V T V V I E G G				
UniRef90_F7S006	I I Y F D F D E S V I K P Q Q A A T L N N L V I S L M K K Y P D M Y I E V S A G				
UniRef90_V2JDF8	L F D S G S E A E L T P A P A R Q A L D A I V A K Y R G Q P D V S I R V T G G				
UniRef90_X0ZHM0	F I T G S S Q L S P E A R K A L K E T A E V L R K F P K E K I V I E G G				

	50	60	70	80
UniRef90_G7QLE2	H T D N [V P I] F S D N W Q L S G E R A L S [V L H Y F E S K I] L D P R N F S L A G			
UniRef90_A7TCZ9	H T D S R Q S A E Y N E E L S D K R A K A T V A W M V K K G I S A D R L T A K G			
UniRef90_I3CKK2	H T D A S G N A D T N [L M L S Q Q R A R D S V K Q G L I N R G V D E S L M N S Q G			
UniRef90_UPI0004649B13	H T D S T F G D D Q Y N Q R L S Q Q R A E S V Q R W F E Q R L A G E R T F H A T G			
UniRef90_B5FD06	H A D E R G T P E Y N I A L G E R R R A K A V S K Y L Q A L G V S A D Q I S I V S			
UniRef90_B5EDW5	H T D N M P [I] F P S N W E L S T A R A T N V L Q Y L T K Q D F D P Y R I S A A G			
UniRef90_UPI0003140158	H T D S S G A A S Y N Q K L S E K R A E S V A D Y L I S E G V N P Q Q V T A S G G			
UniRef90_L5MUX8	H T D S R S A Y K S N W E L S S A R A A L V M R E M V D A Y S L P S R F T V A G			
UniRef90_D2UDA0	H T D N T P Q F P S N W E L S A A R A A S V V H L F A D Q G L Q P S R L S M I			
UniRef90_N9NA44	H T D N S G E S A H N L K L S Q A R A Q T V V K A L T D A G I D P S R L K A Q G			
UniRef90_B3E401	H T D N V G S D K S N L A L S Q R R A N A V R D Y I V N F K I D R K R L A A K G			
UniRef90_L0FYC8	H T D L I R G S E Q Y N E G L S E H R A A V V R D Y I L S L G I E E D R I S Y K W			
UniRef90_UPI00034A060E	H A D E R G T P E Y N I A L G E S S R G Q S V E K Y L Q S L G V N P N Q M S V V S			
UniRef90_K2JZL8	H Y S D S Q G R E E E M N L N L S A Q R A N A V L D G L L M R R V A G V S F T A K G			
UniRef90_K8R0K8	H T D S M G P D A Y N L G L S Q R R A Q A V L D Y L K G H G L S A E N F A M K G G			
UniRef90_UPI0003620360	H T D S K G G D A L N Q T L S E K R A I S C M K I M T N K N L D P R R L V A I			
UniRef90_A2C935	H T D S K G S N E Y N Q T L S E K R A I S C M K I M T N K N L D P R R L V A I			
UniRef90_A4J1E9	H T D N Q P I Y N N N W D L S S S K R A L N C M K I M T N K N L D P R R L V A I			
UniRef90_K0VN20	H T D S S S G N D A I N V I P L S G G N R A K A V A D Y L L V S Q G I V A A D H V T S S G			
UniRef90_S5XW36	H A D E Q G T R E Y N I A L G A R R A N A A K N Y L A A L G I D A G R I L T T I S			
UniRef90_G2JQ1	H C D E R G T R E Y N I A L G E R R R A N A A K N Y L A A L G I D A G R I L T T I S			
UniRef90_H1XQ03	H T D N V P I H P S N W E L S A A R A A L S V V R Y H Y V E G I D A A R L L A A V			
UniRef90_D3RRY9	H T D N R R G T L E Y N M D L S R R R A E V V R T L I Q S Y G I L G E R R L K P M G			
UniRef90_B6ITH8	H A D E R G T R E Y N I A L G E R R R A T A V K N Y L T A L G V D T A R V Q T I S			
UniRef90_Q1PWX8	H T D S D P [I] Q K Q N W E L S T A R A R A N S V L H Y L V D E C S P T R V Y V A G			
UniRef90_S6JLE1	H Y T D S V G N E A Y N L K L S K Q R A Q S V V E Y L I E S G V P R S Q F S V A G			
UniRef90_UPI00037EF5D4	H T D S R G N D E Y N M Q L S D D R A K S T Y S Y I M A K G I V A P P E R I E V K G			
UniRef90_W1NBW2	H A D I T G S D A I N D P L S R N R A A A V G E Y L V S Q G I V D A S L I E S R G			
UniRef90_UPI00036EABA	H T D I R G S E E Y N Q R L S E R R A Q A V A D E L V R N G V S E Q R I I T T V			
UniRef90_X6L313	H T D A T G S L D A N R A V S L S R A Q S A V R Y L R E R H T N P A Q I A A E			
UniRef90_H0JGN1	H Y T D S T G S R A H N V E L S S Q R R A Q N V A G Y L T A Q G V P A A R L I S T R G			
UniRef90_A0A022G8Q9	H T D T A G N P R P S N L K L S E R R A Q A V A D A L V D G V P R N Q I S A A G			
UniRef90_A5EXH1	H T D E R G S R E Y N I A L G E R R R A N A A V G E Y L V S Q G I V V A Q T Q M R V			
UniRef90_Q1EI31	H C D E R G T R E Y N I A L G E R R R A N A A V G E Y L V S Q G I V V A Q T Q M R V			
UniRef90_D5V8R6	H A S R D S A R R Y N Q R L S E E R A R A N A A V G E Y L V S Q G I V V A Q T Q M R V			
UniRef90_T0L0Z3	H T D S T G S E K Y N Q K L S E E R A R A N S V K M L S N E F G I A P N R I L N A			
UniRef90_B9M3B0	H T D S T G S D A I N Q P L S E E R A R A N S V K M L S N E F G I A P N R I L N A			
UniRef90_F2NU38	H T A S V G Y E K G E M K L S V E R A N S V A N A L I Q R G I P R E K F I C K			
UniRef90_UPI0004639B00	H Y T D S D G S P E A N K L L S E R R A Q A V A D A L V V D G V P R N Q I S A A G			
UniRef90_Q1YSA2	H T D S R G A D Q Y N M S L S D R R A K A V K A K L V E D Y G I P A R I I S A V			
UniRef90_D5V3Q8	H T D A K G E A D V N Q W I S L Q R A K S V K K E L E K L G I A E D R I I T A V			
UniRef90_I0KCN2	H T D A R S G D A F N M R L S E S R A R A A M D Y M V S R G I Q A G R L S A R G			
UniRef90_UPI0003780791	H H S D S T P K H Q S N W E L S T M R A T A V V V K A L I D F G I E P G R L H A A G			
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 V K F E N N S D V V N T S Y D I I E K Y A D F L N N Y S S Y S A K I I G G
 S T V R F D S A S A S I D K D S A G L L D R L I E T A M R C P G A A I I E V A G
 H F E F D S A A K L T A A D K T K L D T I A T R L K Q A P S A Q L R V T G G
 I L Y E L G K A D I R E Q G K E V L T K I S E I L K E I P N D L M I E G G
 R V V Y F D F D Q D T L R P E F Q S I V G C H A K Y L R D P S A R M T L E G G
 D T A L F P S G S A D L R P E A R R L G A E I A K M L V I A L P Q K V T I L A G G
 R V I Y F E F D R D D V R A D F V D V V A A H G A Y L A R H P Q A R I I R L E G G
 N I Y Y D L N K F F I R A D A A Q E L D H V L E I L K E Y P Q M Q I E L R S G
 D S G I L F A T T S S S D L S T S A K S A L S K F A N V L I Q N P D M D V A I Y G G
 S D K L L F A S G S A N I N S A A K N V L G K V A K V N D K P E I E I M V E G G
 D K I F F T S K M D V I L P K S F S L L K Q V A Q V L K A H P E I K V R V E G G
 D E V I F E E G K S K P S L S G R R R Q L E A I V K I L R S Y P D R R I I V V G G
 D R V F F G F D Q Y N L T A E A R S T I Q R Q S E W L K A N P S V T V T V E G G
 S S D V L F P P G S A T L L S S K G A D A V K E V T S I L A S L P G R R F Q V E G G
 N G A I L F D S G K V D I K E E A L P L M N Q L G I I L Q R F A T G T I E I E G G
 I I Y F N S G K S T F K S A D V P R L D A M A A L L K N Y A N S E F L I E G G
 S D K M L F S S G S Y N V T P R A R E V L G K V A K V V N N K P D F E F M V E G G
 T M I F F A F D S N E L T P T E S R Q V L Q A K A D V L L K Q Y T D L T M V V E G G
 D V K F A L N S D A I P T S E M M S E L K K V A D F M K Q F G G V K A V V E G G
 S S E V L F D P G S A D L L S P E G Q F E I A K V A R I L R A I A N W V I R V D G
 D G Q V L F D F G G K S D I R P E A A Q T I K S L S A T V L S S S N K V P A A H V Y G G
 N D N L L F F N S G E A T I K P D F Q G K L I S I S K I L L N G I D N Y I H V E E G G
 D S D V L F D V G K Y E I K P E A E S A L A E L V A Q L Q T Y G D I R V T L E G G
 D S A L L F D V G K Y E I K P E A E S A L A E L V A Q L Q T Y G D I R V T L E G G
 V T F E T G S A A L T E M S K T E M A N V I E A M K E N T A L V I G L G G
 F N T G S I N L S P A S Q Q Q L S N I A Q I L I N A Y P K V K L L I G G
 N F P S G K S E I Q G E N F A L V N K I I E A V K E F P N A Q V V V V S G
 L L F D Y D S E R R M L P E S K P V L E V L A S Y L K Q H P T L S F Y V V E
 R S I Y F G F D A Y D V A P E Y V P Y I E A H A K Y L L S H P E K S I R I E G
 R S V Y F D F D K Y V V K P E Y R T L L E A H A K Y L L S H P E K S I R I E G
 S V E F S Q G E T V P A P E Y V P Y I E A H A K Y L L S H P E K S I R I E G
 L N F D F D K S N V K A E Y Y D L L T N L K E F I E Q N N Y E V T I V G
 N K L L F D S A K A Y I R S E S L P L V D R V G G S I L K N Y S S S M I E I T G
 N I Y Y D F N K W D I R A D A A A E L E K L V Q I I M K D N S R I W E L G S
 L L F D F D S T E I Q E T H K A S L N R L S S Q L Q K Y D L D K L K I I G
 D N I F Y D F D S T E I R P E S V T A L D E L V K B L L N E N P N V T I E L S A
 N P I H F D F D R Y D I R E D A K I E L M K I I A V M K E I P T M K I S V R A
 D S V I L F D L G K A D I K E T G R E T L K K I G E L I K E L G K G A T V Q G
 D K V L F D S G K A Y I R P E S V E L L S S I A E I L N E F N D R L I K V E G
 D K L L F P S G S I V I D E K G K Q A L T Q L S A T V L K Q Q P E I N I A V E G
 N S D G L F A S G S A R V L P S Q V S V I R R I G D A L R D V P G R V I V V G
 V F F V T G K A V L N G A T D G R L D A I K E I I K N Y P N A K F S I E G G
 D N V L F E L G R A D I K P Q S K Q I M D K I I N G L I A T L P N E V I I E G G
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 N I Y F D V A K W E L R P E A R Q N L E E L L T I L E D N P N I T I E L S A
 D R V F F E S D Q T D L S P Q A I A T L D K Q A Q W L Q S Y N R Y S F T I E G G
 I I Y F D F D K A I R Q D A A I E L M K I I V E V M R A H P T M K I D V V R S G
 D V Q F E T N S A K I K E I S Y P V L D N A I N T L K E W G D S N V E V V G G
 N I I F Y D F D K A T L R P E S K E A L D Q L V K I L N E N P N V T I E L G A
 N S M S L F D V G Q S R L K A G S A K V L M N A L I D I K A K P G W L I V I S G G
 D S M A L F D T G K A K L I E G S T K I K L V D A L L N K I K A R P G W L I V V S G
 I R F G L G E T E L N A D A K V R L S E V S A V M L A S P Q Y R L A V Q
 D N V L F G S G S A E E V R E Q D L N M A S E I A E L L I M D P P R N I I I S G G
 N P I Y F D F D K H N I R P D A A L E L E K V I A V M R E Y P S L K I D V R S G
 D I F F E Y D S A T L D E S A A Q M Q L L Q Q N A A L L Q Q F I V E S I Q I E G G
 D G V H F A N N R W T L D S A A H R E L L Q Q V I A I L R D T G P G A V E I A G G
 N K I A F D P G S A Q I A G S S L R V I D A M A D V L R G C P D L P I R V A G
 L T F D I N R S D I V K S N L Y P V F N D I A K V L R D Y E K T M L V I A G G
 R L V Y F E F D R D E V Q S Q Y M D M L E A H A A Y L S Q N S G A R L R L E G G
 D S I H F A L G S Y E I L L E D S F P I L E N L N S Y L R E N P P G I K I R I I G G
 D R V L F A V D Q S T L S P E A Q A T L N G Q A Q W L Q R N S D Y L A V I E G G
 T L F F D Q S E Q T L S T E A T A Q L D A M V A Y F K E H P K L R I F I K G G
 D L F F A A A S A Q F N R E A M P I M D G I G N I L R K N T N F N L A I G G
 L L F F A P G K A E L K P D S T K V L V N S L I N I K A Q P G W L I V T G G
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 N V F F D L D K A I L R P E S F L E L N K L R D L L K A N P T M K I E I G G
 S D T A L F A S G R A N V K P E S R Q L A I A I G N M L Q R F P D Y D I I V S G G
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 V T F E T G S A Q I T E L S R Y Q L D D A I A F L K K N A E V K S L L K G
 V L F E T D K A I V R P E Y Y S K I I E V A E F M K K Y P N T V V V I E G G
 D R V Y F E T D S S E L T T A Q A Q T L D K Q A D W L Q R Y G R Y S F T V E G G
 V Y F F A F D S D K L T S A S T V L D A M L D H G R A E N N I T L A G G
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	50	60	70	80
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UniRef90_A3JWC6	H T D S Q G R E T M N L N L S Q Q R A D A V L N G L L A R G V L T S N L T A K G G			
UniRef90_L7ER34	H T D N N Y R Y M D N L D L S T A R A N A V K D R L V R N Q V N A K R L L T S M G			
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90 100

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UniRef90_A3JWC6	Y G E T V P I A D N G T E E G R E E N R R I E F V L V
UniRef90_L7ER34	Y G E T V P I A D N G T E E G R E E N R R I E F V L V
UniRef90_U3BA66	Y G E Y V P A C T N K T S A G R S C N R R V E V R F I
UniRef90_A5PCT4	M S E S D P A A D N S T P E G K A Q N R R V S S V N I L
UniRef90_UPI0004074C29	F G K E K L A A E G N S E D A H A Q N R R V E L
UniRef90_H8MN47	Y G E T R P L L S S A A T E E G W A E N R R V E F
UniRef90_UPI00037B3FB4	Y G E T K L L N V N C S A A E H Q V N R R T E F K V I
UniRef90_G4R609	Y G A S L P V A S N Q T A A G K A E N R R I V F S F
UniRef90_Q9I4Z4	Y G K E R P V A T G H D E Q S W A Q N R R V E L
UniRef90_A6GWG1	Y G E E S Q L V N E N C T G E Q H Q L N R R S E F I I I
UniRef90_UPI0003753CF9	□ G E R Y P I C D N A T E D G R A C N R R V E I S I
UniRef90_I3TJ09	Y G K E R P A V L G S D E A A W A Q N R R A V T V L V
UniRef90_N6YAG6	R G E A D P L T G N A T E E G R A R N R R V E L L L
UniRef90_B6BGP5	M G E S N P V A D N S T K E G R A Q N R R I E
UniRef90_Q13CR7	Y G S K □ P L E G N E T D A G K A K N R R D F M I
UniRef90_V8D920	A G E E S Q P V A D N K T A D G R A M N R R T E I K I
UniRef90_E3DPN4	Y S E E Y R P V A T N N S T E G R A E N R R V E V V V L
UniRef90_UPI00041D431C	F G E E R P T C T A S N E E C W A Q N R R V E I I Y
UniRef90_F7NI64	Y G E E Y R P E S N N S T A E G R A R N R R V E I I M
UniRef90_H1G0Y5	Y G E E M P A A M G S N E Q A W Q Q N R R V E L L I Y
UniRef90_D2QM05	Y G E S E L I N V N C T E G E H Q Q N R R T E F K I V
UniRef90_F0R110	□ G E S N P V A D N S T A E G R A K N R R V E V
UniRef90_W8VT26	R S Y Y V P V A S N K T S K G R D A N R R V E F S V V
UniRef90_Q09BM9	Y G G D R P V A R D D T R E G E T K N R R I S L E V I
UniRef90_UPI000466DC67	Y G K E R P V A L G H N E E A W Q Q N R R G V M V V
UniRef90_UPI00047276E0	M G A S R P A V P N T A N E N R T A N R R I E I V I V
UniRef90_S3UZX6	R G E Y V P I A D N S T E E G R S R N R R V E I K I
UniRef90_R7AV60	Y G E T M P I A T N K T A A G K A L N R R T E V K L I
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UniRef90_UPI0003B5A48B	F G E E Y Q P V N P A D T A E A R A Q N R R I E L K L
UniRef90_Q5LN22	F G E E S K P P V A P N D N P S G R A L N R R V E I F I
UniRef90_S2ZFX8	Y G E E S K P P V A P N D N P S G R A L N R R V E I F I
UniRef90_G8TGP7	R S E Y D P P V A S N S T D P E G K A T N R R T R I V I L
UniRef90_M1MER0	Y G E Y R P V K S N S T E E G K A A N R R V D I V I I
UniRef90_UPI00046612CA	F G K E K P A V Q G S S E E A F A K N R R V E L L T Y
UniRef90_Q0C295	Y G A S R P V A D N A T E E G R A E N R R V D I L I L
UniRef90_UPI00037EE62B	Y G Q N D P I A D N G T E K G R E E Q N R R T A F T V L
UniRef90_UPI00046423B9	Y G N A H A I E N N N T E E G R A H N R R I D I L V
UniRef90_Q2SG91	Y G E Q R P V S T N D T M E G R A D N R R V E V L L I V
UniRef90_A3D113	N G E Y S P V A S N T N D A G Q K L N R R V E L V L
UniRef90_D6JZM3	Y A E D Y P I A D N S T E E D G R K K N R R V E V T F
UniRef90_H3KGS9	F G K E K P V A T G H T E E A W A Q N R R A D L V Y
UniRef90_D7DJF6	Y G E E K P K A T G E D E T S W A E N R R R A D I V Y
UniRef90_T2GBB7	Y G A Q M P V A S N E T A E G R Q R N R R V E L R I L
UniRef90_J8S1U7	M G E E Q P I A T N E T K E G R A Q N R R V E F K L V
UniRef90_D5BDC3	R G E E Y A P V A T N D T A E G K A K N R R I E V I L L
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UniRef90_C6XY68	Y G E T □ L L N R C C T E E E H Q L N R R T E F K I
UniRef90_N8NWI3	R G P S Q P L V Q N N S N E N R A I N R R V N V V I I
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UniRef90_H1Z6D9	Y G K S F □ L N E C D N E K E H E M N R R S E F I I I M
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UniRef90_H1ZF83	Y G E T Q L L N A C S T E T E H Q V N R R S E F I I V
UniRef90_D7DPH0	Y G Y S K P I A E N D P K E G N L V N R R V E L V
UniRef90_G8UJT3	Y G E T V P L S P E Q Q E V A D Q L N R R T E F Q V
UniRef90_C7BMP3	E G A T R P V A T N S T A A G R A A A N R R V E I R L V
UniRef90_UPI00037B68EF	Y G A S R P V E S N D T P E G R K L N R R V E I S L V
UniRef90_I2JF92	F G A N M P V A D N S T S A G R A L N R R V S L L R V I
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UniRef90_Q3APB4	F G E E R P F D N G N S E D A W A K N R R V H F V L I
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1 10 20 30 40

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

	50	60	70	80
UniRef90_M1L2K6	Y T D S K G N P N Y N K K L S G L R A E S V K K Y F I S K G I D S K Y I V I E S			
UniRef90_A0A023NSQ3	Y T D R L G T H S Y N Q Q L S E R R R A R A V K D H L V A R G V P A D R I T A R G			
UniRef90_B7RVF7	H T D A L G S E T Y N Q R L S E Q R A E S I K R W L L G P G H I G S T I E T M G			
UniRef90_C0BHJ4	H T D D T G G V N Y N Q E L S E K I V A T V L R F L I E D G V T P E R F S A A G			
UniRef90_A6TRP7	H T D D T D P K Y E T N W E L S V A R A S N V V R F L I E D G V T P E R F S A A G			
UniRef90_V2IL23	N T D D E R G T S E Y N L A L G Q K R A E A V V R R S L A T M G V P E S Q M E A V S			
UniRef90_UPI0003B5F93C	H T D S S P I F P S N W E L G A R R A N S A R S Y L T S L G V A S S R I I V E T I S			
UniRef90_UPI0003734F88	H C D E R G T R E Y N L A L G A Q R R A E S V R D Y F A I N G I N E N R I I M V K S			
UniRef90_UPI000289236F	H A D E R G T R E Y N L A L G Q R R A E S V R D Y F A I N G I N E N R I I Q T V T			
UniRef90_Q2CIC3	H A D E Q G T T R E Y N L A L G S R R A N A V R E Y L V S Q G V P S S R I I Q T V T			
UniRef90_UPI000415EE25	H T D S D G K D T D N I L I S Q K R A E S V K R A L L V N E F I D A N K L S T D G			
UniRef90_M7MX37	H T D F R G P A Q A N K R L S G E R V T V I R N Y L I N K G I Q K D R L K T R A			
UniRef90_UPI00035D2FE4	H A D E R G T R E Y N L A L G E R R A N S V K A F L A A Q G V K A D R L K V V S			
UniRef90_D5ARB4	H A D E Q G T T R E Y N L A L G A R R A S S V Q Q Y L I S Q G G V P A T R L R T V S			
UniRef90_M7MW8	H T D S R G S D S Y N M K L S D R R A K S T R D Y L Y S R R N I A Q E R I E A G			
UniRef90_I7Z8R7	H T D T S G T S D F N Q Q G L S E R R A A A V G T F L L A S Q G V P G T R I R E E G			
UniRef90_F8EDA2	H T D G E G E A K Q N Q V L S E K R A E A L I A D F L Q A H G V P Q L R I V T Q G			
UniRef90_U2LTD8	H T D N Y G E D S Y N D Q L S L R R A N A V A E V L A G V V G L P R A N I E T R G			
UniRef90_J1HMM8	H T D S I G G D A S N Q T L S E Q R A K A V V D E L K K N G A T T T D W K G			
UniRef90_N0AG94	Y T D D T P V H S S N D M S D R R A K S T R D Y L Y S R R N I A Q E R I E A G			
UniRef90_UPI0002EF58E7	H S D N R P R F P S N W A L S R A R A E E V R G L I A A R T L D R P D R I I A A E G G			
UniRef90_T3I7X0	H T D N M S I F K S N W D L S V M R A T N V V Q L L I D N A G I P D K L S A V G			
UniRef90_W0H5J9	Y T D S T G S R Q H N M D L S L Q R A Q S V S T Y L T S Q G V D A A R L S V R G			
UniRef90_F219E6	H T D N V P I F K D M D L S V A R A T S I T R M L N E K Y A V A A R M T A S Q G			
UniRef90_S4NAW9	F T D N L I G G S S A H G D V L S K Q R A N A V Q E V L D Q E L N D S N T Y E V R G			
UniRef90_J1QGP4	H A S N I G K P E Y N M R L S E R R A K A I I A D L L V A Q G I E S S R I I T S K G			
UniRef90_F3LFL2	H T D S T G S A E Y N Q S L S Q R R R V N E V A R L L S A N Y V D A S R I V S A I O			
UniRef90_A0M3Y3	H T D S R A D D K Y N I K L S Q N R V A V T R Q Y L V N M G V D G N R I S G R			
UniRef90_UP100036676BC	H T D N T P R F P S N W E L S A G R A I A V M R H E R Q G V V A I S R M R A V I G			
UniRef90_U2YB37	H S D E R G T R D Y N I L A L G E R R A N A A K N Y L V S L G V D A S R L S T V S			
UniRef90_E3CVT5	H T D N A P I L Y K D N W G S A G R A A V V A S Y L A G T V G S P N R L L E A V G			
UniRef90_UP1000466F8DA	F T D N T P P F R D N W E I S S L R A V A V L R Y L V S L G M A P N R L L T A T G			
UniRef90_UP10003B77072	H T D D S S Q E Y A D D N A E L S E Q R A E A V V E W L R D N S T V S S D V T A E G			
UniRef90_F9YPT9	H T D S R G S D S Y N M A L S D R R V K S T I K W L I S N G I S A D R L T G R G			
UniRef90_M1GCZ9	Y T D N S S R F H N N W E L S A L R A V V N V L R K L L Q G G I E A T R M T A T G			
UniRef90_G2IEE5	H T D N T Y M F A S N W E L S T A R S V V V T R F L V S A N V N P V R I S A Q G			
UniRef90_E2CJE9	H T D E R G T R Q Y N I L A L G A R R A N S A R D Y L V S R G I S T T R I K T I S			
UniRef90_A5V4K4	H A D K S G S D Q Y N V G S Q R R A D A V K A Y L A G K G V P D S A I T T E A G			
UniRef90_UP100047A1B8F	H T D N V P Y Q K D N W D L S V K R A T S V V R V L E D L D V N P Q Q L V V V V S			
UniRef90_UP10002486DE0	H A D E R G T R E Y N I L A L G E N R A L S V K E P G K N Q Q L S E Q R A A A V Q K Y L V N Q F I N P A R I S T V G			
UniRef90_UP100037AC2D8	H T D R I G E P G K N Q Q L S E Q R A A A V Q K Y L V N Q F I N P A R I S T V G			
UniRef90_L2F9B6	H A S K N N K R T Y N Q R L S E Q R A A A V Q K Y L V N Q F I N P A R I S T V G			
UniRef90_Q1ZV53	Y T S N T G S V A Y N Q K L S E K R A K N V A D L L S Q Y V A D A S Q I T A K G			
UniRef90_XONLX9	H T D D K G S E T Y N Q N L S L K R A Q S V A D A L L R Q H A S I I D D R I I V E G			
UniRef90_D6Z2X5	H T D N V P M R P S N W A L S A A R S V A V V E Y V L E H Y E I L P D R L A A E A			
UniRef90_Q6FYQ4	H A D E R G T R E Y N I L A L G Q R R A V A V R N Y L I S L G V S S Q R M Q T I S			
UniRef90_C8PRE5	H T D S S D K W T S N W E L S A A R A I I N V L H N L T D F G A Q E D K F S I A G			
UniRef90_S4Y7C8	F T D S S S R G Y A D N W E L S A Q R A L I T V T R A L A A A G V P D T A L F A A G			
UniRef90_G8U1K2	Y T D S T P I F P S N W Q L S A M R A A N V V Y L S R V P G I Q P A R L S L A G			
UniRef90_G7U4C7	Y T D N S S G S A S H N L D S R R A A S V A K V L L G S Q L S K G I T L V T A G			
UniRef90_L1QRA1	N A D E R G T R E Y N I L A L G A R R A E A V R S Y L I S R G V A A A R I I D T I S			
UniRef90_H8GL30	H A D E R G S R E Y N I L A L G E N R S K S V A I N L M R A Q G V V S D G Q L D D L I S			
UniRef90_A7GTH4	H T D N N S Q F S S N W E L S T Q R A N F M Q V L L Q N K Q L D P A K F S A T G			
UniRef90_W6WXU2	Y T D A V G T N A Y N F R L S E R R A E T V I A E L V D I G L A P P G R V Y A I G			
UniRef90_G2PPK9	H T D A I G P E A Y N K Y L S D K R A K S T R D Y L V S S Q G I D P S R I I S A I G			
UniRef90_G4SX02	H T D N R P Q F P S N W E L G A A R A T S V L H Y L T T Q G L E S T R M R A V T			
UniRef90_A3PM57	H A D E Q G T R E Y N I L A L G A R R A S A V Q D Y L I S K G V I A P S R M K T V S S			
UniRef90_UP1000262D118	H A D E R G T R A Y N I L A L G A R R A N A V Q A R Y L V I Q G V N R S Q I E T V S			
UniRef90_UP100025572C7	H S D N S G S R I T N R D L S S R R R A M A V M S Y L E A H G V P A E Q I T M R F			
UniRef90_F2LND3	Y T D S V G S D E Y N I L D S K R R R A E S V A A Y L S A H G L K T G S M K V S G			
UniRef90_A4EX96	H T D N H P K Y S D N W E L S Q S Q R A L S V V R Y R M I E N G I P P G R L A A N G			
UniRef90_R7LFA4	H C D Y R G N D I Y N L N S Q R R A E S V V K Y L T E H N G I A P D R L T A V G			
UniRef90_UP100037A7E23	H T D A E G S L D A N I L A L S S R R R A A S V L E R L V S H G V D R A R A L L S A E G			
UniRef90_UP100036AF2A8	H T D N V P G D A D Y N E K V G L K R A E A V V K K L L V R Q G A P A D Q I K V D S			
UniRef90_Q8CX95	H A D D V P I Y N S N W E L S V S R A I N F M T L I L E N E E D D P T L F S A K G			
UniRef90_F4LK87	H T A S V G K P E G E K K L S V E R A Q A V V V A A L V S R G F R K E Q F L F T G			
UniRef90_I0KG92	H T N T E S S D A D N M A L S K R R R A E A V V R A V L A S Q F V D A S R L L S T D G			
UniRef90_UP100041E33E1	H T D R R G N N N Y N K E L S Q K R A N S V K T Y L L E N G I I A A E R I I I A K G			
UniRef90_UP100034CD2D6	H T D E R G S R E Y N I L A L G Q K R A E A V V Q K A L V A L G A A D S Q L E S V S			
UniRef90_F9H0R4	Y T D R I G S D A G N L K S Q R R A D A T V A N Y F V A K G V V S A D A I I S A T G			
UniRef90_UP10003652DDF	H T D S R G S D E I N L P S A R R A Q A V V A Y L E T R H G I P S R I R T A G			
UniRef90_C4U055	H T D I T G D A G A N Q T L S L K R A E A L R D W M L S T S D V P T C F A V Q G			
UniRef90_UP1000470C91F	H T D N V P M Y K S N W E L S V M R A V N F L S I A E N D K D P M A F S A K G			
UniRef90_U2V4D0	H T D N V P I H T N T W D L S S A R A L T F M K F L F S I N G D P A R F S A I G			
UniRef90_B9TPU3	H T D N T S K E K Y N L V L S E K R A K A V V A D Y L V K K G M D A Q R L L V V K G			
UniRef90_UP100036EB63B	H T D N S R Q Y P S N W E L S A A R A S S V V R L F I D S G V A E P R L S A I G			
UniRef90_I2IG28	H Y T D A T G S E A H N L N L S Q A R A A V V V Q Y L R D G G L H V D Q F V A R G			
UniRef90_A0A023CWS1	H T D N V P I R K N N W N L S A E R A I S V M N F F V A K K V F A D N V S I Q A			
UniRef90_Q1GYN0	H T D N Q R I I F R D N Q G L S E A R S I L A V A A F L V Q K L G L E D S Q L L S I S G			
UniRef90_A0A023BN36	H T D S R A D D D Y N M Y L S E R R R A K S T I K Y I V E K K I I D R S R V I T G R			
UniRef90_UP1000411A785	H T D S R G K D S Y N L K S D D N R R A K S T R D Y I I I S Q D I D S S R I I E A I G			
UniRef90_H7FSX8	H T D S R G S L K Y N E A L S D R R R A K S T I N L K N G V N K N R L L V G K G			
UniRef90_I4VP96	H T D S D V G T D V Y N Q S L S E R R A S I V Y N Y L T S H G I D A S R L L E P I G			
UniRef90_F9ZMC5	Y C S K V G V G T Y A Y N L K L S K L R A E S V A Q Y L E R H G V P R D R M V L K G			
UniRef90_K9NPJ2	H T D A V G S D E H N L Q S R A R A A V V R E W R M Q R M G I P D C F A V Q G			
UniRef90_M6QM20	H T S L E G T E A A N H R V S L R A E M V R D Y L A G N G I I S K D R F E I I P			
UniRef90_UP10002882FA5	H C D E R G T N E Y N L A L G E R R R A K A V V F D Y L I N L G A S P S Q F S L V S			
UniRef90_K8W2G9	Y T D N T G N P A L N Q T L S L K R A E S V R D W M L S T D I P A C F A V R G			
UniRef90_S3IPF9	H T D N Y G E D G Y N E Q L S L K R A N I V A D A W A E G A K I P S S N L T T Q G			
UniRef90_UP1000255B228	H T D G V G S H E Y N D K L S E A R A K A T Y E Y L V A N G V P A E R I S Y K G			
UniRef90_F4D7M9	H T D N T G E S S Y N Q Q L S L K R A Q S V I A D V L V S V G M K P A N L E I H G			
UniRef90_G2DBH2	H A D D Q G R R K Y N L K L S E R R R A M A V K A Y L V E Q G V E Q A R L A T F H			

90 100

UniRef90_M1L2K6	K G S D N P I A T N N N E E G R A Q N R R V E I K V
UniRef90_A0A023NSQ3	Y G E S D P V K D C P D Q A C L A P N R R R V E E V S F
UniRef90_B7RVF7	K G E S E P V A P N D N V D G R A L N R R R V E E L V I
UniRef90_C0BHJ4	Y G E E T R P L R T N S T S E G R Y R N R R V Q F N
UniRef90_A6TRP7	Y G E E Y R P L A A N D T I E N K A I N R R R V D V V I L
UniRef90_V2IL23	L G K E E K P K A G H D E A S W A E N R R R A D I V Y
UniRef90_UPI0003B5F93C	Y A Q Y H P V A T N D T A M G R A R N R R R V E I V Y
UniRef90_UPI0003734F88	Y G K E E R P V Q D C N S E S C W G Q N R R R A V T V V
UniRef90_UPI000289236F	Y G E E R P I S V G S N E A S Y S K N R R A E I
UniRef90_Q2CIC3	Y G K E E R P L E V C S A E S C Y A Q N R R R A V T V I
UniRef90_UPI000415EE25	K G E S V P L N K N T T P A E K A Q N R R R V E F I K I
UniRef90_M7MX37	F G G S S N P L S T D D T P E A R Q L N R R R V E I R I L
UniRef90_UPI00035D2FE4	Y G K E R P E C G D S T E A C C W A K N R R R V E I R I L
UniRef90_D5ARB4	Y G K E R P I A T C A S E S C F S Q N R R R A V T V I
UniRef90_M7MWT8	Y G E S Q L V V N E C S T E A Q H Q E N R R R S K F I L
UniRef90_I7Z8R7	R G E R E L V R T A D N V K E A R N R R R V D I V I
UniRef90_F8EDA2	F G E Q T P K V S N G T E D G R R Q N Q R I E V A V
UniRef90_U2LTD8	M G K R Q P V A S N A T S S G R A E N R R R V A I V V
UniRef90_J1HMM8	F G E T T P Q A P N D N P A G R Q A N R R R V E I Y I
UniRef90_NOAG94	R G T L D P V A P N D S P A N R A R N R R R V E I T L M
UniRef90_UPI0002EF58E7	L S D T E P V A S N A T S A E G R A K N R R R V E I T V L
UniRef90_T3I7X0	Y G E F R P I A E N S S E E G R S K N R R R V D I V L V
UniRef90_W0H5J9	A G P D Q P I A S N A D V N G R A Q N R R R V E V
UniRef90_F2I9E6	R G E Y F P K A S N D T T E G K A K K N R R R V E I L
UniRef90_S4NAW9	Y G E Q Y P I A D N S T E A G R K K N R R R V E V S F
UniRef90_J1QGP4	F G V T Q P R V P G N S R E A H A A A N Q R I E A K V
UniRef90_F3FLF2	Y G E A Q P I A G N D T A V D R A K N R R R V E A S I
UniRef90_A0M3Y3	Y G E T E L V N N C R N E D A H A I N R R S E F I L
UniRef90_UPI00036676BC	Y A D T Q P M E S N A T P A G R A A A N R R R V E L L
UniRef90_U2YB37	Y G K E R P E A L G S D E S A W S R N R R R V T I T
UniRef90_E3CVT5	Y G S A K P I V P N D T P E H R A L N R R R V D L V L
UniRef90_UPI000466F8DA	L A D L E P V P N D T P E H R A R N Q R R V E F V
UniRef90_UPI0003B77072	M G E D H P R A D N N S S K E G R Q Q N R R R V V I T V
UniRef90_F9YPT9	Y G E S Q L T N H C S S K E E H Q A N R R S E F I V
UniRef90_M1GCZ9	L G D L D P L A P N D T P E N R A Q N R R R V E F T L
UniRef90_G2IEE5	Y G E F R P I A L N D T A E N K A K N R R R V N I L
UniRef90_E2CJE9	Y G K E R P V A V C N N D S C W T Q N R R R A V T V L
UniRef90_A5V4K4	F G E S R P L V D T A D G V R E P Q N R R R V E I T F
UniRef90_UPI00047A1B8F	R S H Y V P L V A N D T A E N R A K N R R R T R I V V M
UniRef90_UPI0002486DE0	Y G E E R P I A I E H N E E A W E K N R R R V E F V Y
UniRef90_UPI00037AC2D8	Y G D T R P L Y P A P D K R N R R R V E V R
UniRef90_L2F9B6	Y G F D R P I A D N D T K E G Q A M N R R R V Y A T I
UniRef90_Q1ZV53	M G E A N P I A T N D T A K G R A E N R R R V E I
UniRef90_X0NLX9	R G E L E P V A S N N T K E G R A Q N R R R V D I I
UniRef90_D6Z2X5	Y A D S R P V A P N D T A E G R A A A N R R R V E F R I
UniRef90_Q6FYQ4	Y G K E R P V A V C D D I S C W N Q N R R R A V T K I
UniRef90_C8PRE5	Y A D T R P V Y S N E T A E G R A Y N R R R V D I I L
UniRef90_S4Y7C8	F G E R H P V A P N D T S E N R A K N R R R V E I
UniRef90_G8U1K2	F G R Y R H P V A T N A T P A G R A Q N R R R V N I V V L
UniRef90_G7U4C7	K G E A D P V A S N D S E A G R C L N R R R V T I T V
UniRef90_L1QRA1	F G K E R P I A E G S N E S A W A Q N R R R T A I V
UniRef90_H8GL30	Y G E E K P A A F G S D E S A W E L N R R R V E L V Y
UniRef90_A7GTH4	Y G E Y R P T S N D T S E G K A K N R R R V E F I L
UniRef90_W6WXU2	K G K R D P V G D N R T D A G R A Q N R R R A A I V V
UniRef90_G2PPK9	Y G E E R L L N N C S N A D Q H R L N R R R S E F I L V
UniRef90_G4SX02	Y A D T Q P I A D N D T P E G R E M N R R R V N I L
UniRef90_A3PM57	Y G K E R P V E V C S T E A C Y S K N R R R A V T V L
UniRef90_UPI000262D118	Y G E E R P L S L S R D D N G W S R N R R R V E L I Y
UniRef90_UPI00025572C7	H G E R Y P I V P N N S P A N R A K N R R R V S I T L
UniRef90_F2LND3	R G K A D P V A S N M T A E G R A S N R R R V E I T L
UniRef90_A4EX96	F G E F Q P V N S A D T P E A R A Q N R R R I E L K F
UniRef90_R7LFA4	Y G E Q M P K V V N K Q E V C N A L N R R R T E F K V L
UniRef90_UPI00037A7E23	M G W L A P L A S N L S A E G R E A N R R R V E A V L L
UniRef90_UPI00036AF2A8	K G E S Q A I A S N K E E E G R K K N R R R V E E L T
UniRef90_Q8CX95	Y G E F Q P I V P N T S A E N R A K N R R R V E V L I L
UniRef90_F4LK87	Y G G T R S V A D N G T A A G R A E N R R R V E I T L
UniRef90_I0KG92	K G E T Q P A V R A D S P E G Q A N N R R R V E F I
UniRef90_UPI00041E33E1	Y G E S Q P I I A C A T E E E H E L N R R R C E F V I V
UniRef90_UPI00034CD2D6	Y G E E R P A V E G H D E A A W S K N R R R A E L
UniRef90_F9H0R4	Y G K A N P V A T C D Q V K G R A P D R R R V E I A V
UniRef90_UPI0003652DDF	H G A G Q P I A G N D S E A G R Q R N R R R V E V R
UniRef90_C4U055	Y G A T R P I A T N E S T E G R A L N R R R V E I S L V
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UniRef90_W2UNK9	R S E Y I P L V S D N S S K D G R A K N R R T R I V V L
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UniRef90_V9VYM7	R A D K E P I V A D N S T R A G R A K N R R I E I I L V
UniRef90_W0V6K1	L G K E K P K A S G S S N E A A W A E N R R A D I V Y
UniRef90_A0A059KRU0	F G K E R P A A Q G S D E A A W A K N R R A E I
UniRef90_K2JA71	R G E T D P L V P T A D G V R E P Q N R R V E I I F
UniRef90_A0A023SCY0	M A D S Q P L V P N T S P E N R R M N R R V E I S I M
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UniRef90_C8WYW0	Y G D Q R P L V R N D S P E N R A K N R R V D F Y L
UniRef90_U5LGY2	Y G D T R P L V P N D S A E N L E K N R R V E V I I
UniRef90_F0LCP4	F G E Y Q P I V A E G D T P E A R Q Q N R R I E L K L
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UniRef90_M1L749	F G S K I P I V A S N N D T P E G R S K N R R V D I E I I
UniRef90_K8BNY7	A G D T Q P V V A S N N D A Q G R S Q N R R V E I F V
UniRef90_J6JCF2	F G E Y Q P L V D P S R T E E A F R R N R R I E L K L
UniRef90_UPI000248EA9A	F G E S V P L V S C D S E E E H Q T N R R S E F E I I
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1 10 20 30 40
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UniRef90_UPI00047DD536 N T D V L F K T D S Y Q L T A Q G Q Q W L R Q F F A S A G A F A Y A V Y G G
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UniRef90_C6DZ15	[L] G D A K P V A P N S T E E G R A L N R R R V E V E V
UniRef90_W7Y6H4	Y G D E F P I R S N L L E T G R E R N R R R V E F K I I
UniRef90_Q64V34	V G Y S Q Y N E S E T P E E P Q N R R V E I I
UniRef90_UPI00040DBE7C	Y G E F Q P V T S N D T E A G R A E N R R V E V L I
UniRef90_UPI0004755A58	M G K T Q P V K E C D S S Q S R E P N R R R V E I S V
UniRef90_U3BFQ3	F G D T H L A E M G L D D V S H A L N R R R V T A T I V
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UniRef90_E4PKV1	[L] A D T K P R V P N T S A E N R A K N R R R V E I I
UniRef90_X6KDA1	K G E D E P I A D N A T P D G R A K N R R R V D V M I
UniRef90_I4WBK3	W G E M H P V A D N A T V E G R N Q N R R R V L V V V M
UniRef90_X7FBP9	K A A T E P I A D N G T G E G R A R N R R R V E I V L
UniRef90_UPI0004776111	H A D T R P V A D N D T A E G R A E N R R R V S I V L
UniRef90_D2QE42	R G P [D] P V A P
UniRef90_UPI000225AF1A	Y G K D R P V A D A S T E E A H A Q N R R V A V T V V
UniRef90_C3NQ58	Y G D S V L E V E G T D D V S H A R N R R R V T A T V V
UniRef90_H8XP11	F G S S R P K Y K I P E K N G Y E M M N R R R V E I V I L
UniRef90_E7BAA8	E G Q A N P V T G N T C D E C L A P D R R R V E I E V
UniRef90_X1IC48	Y G E Y R P I L T D N S T A E G R Q K N R R R V V F L I
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UniRef90_Q6LUE3	Q G D A N P R N P N T S K A N R A S N R R R V E I D L L
UniRef90_UPI00047C4A8B	F G K R [P] I N Q C T N K E E L E L N R R R T E F P I V
UniRef90_FOLDB6	R A D S D P I A D N K T E E G R Q I N R R R T E I M V L
UniRef90_B2V945	Y A D T K P I S P N N S E L G R K L N R R R I E I N L I
UniRef90_F2PFU8	T G E R E L F I H T D S R S D N R A N R R R T Q L I L L
UniRef90_H3NWD9	F A D T R P Q A I N S T A E G R A R N R R R V E I V V
UniRef90_UPI00037D5321	R G E A E P I A P N T D A N G R S L N R R R I E I D L L
UniRef90_K9DXE3	Y G E Q P K T V T K T E E C N A I N R R R T E F K V L
UniRef90_UPI000255AC6F	Y G E K Q P L Y K G F D P L S K Q Q N R R R V E F V I
UniRef90_I2EU76	M G P D Q P I S K I D K S L N R R R V E M Q I I
UniRef90_UPI00047A1EA9	R S S Y L P L V E N D T K E N M A M N R R R T K I I I L
UniRef90_B8ERP6	F G E F Q P L D P G E G D D A N R R R N R R R I E L K I
UniRef90_D7DPW7	K G E S E P V E A C K G V T G K A P N R R R V V I T
UniRef90_UPI000463A44C	R G P S E P I A D N A N E A G R R L N R R R V E V L I
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UniRef90_UPI000363FB51	N G L C C Y L E P N R T D E Q R A K N R R R V E I F I V
UniRef90_R5K1R2	V G Y N E Y D E S L S A S Q N R R R V V I
UniRef90_A0A011PNY0	L G E E K P K N D G Q N E T A W A E N R R A D M L Y
UniRef90_F5REK1	K G E T Q P V T G D S C K D C L Q P D R R R V E I E I I
UniRef90_Q1GRM3	F G E T T R P A V A T A D G V R N D Q N R R R V E I T Y
UniRef90_A1AL10	V G Q G S P L F D N Q T P E G R A F F N R T V T I T L
UniRef90_S6AFB0	K G E S E P V V S C D D V E C L Q P N R R R V D I R
UniRef90_UPI00035EAD0C	K G K S E P V V E C E G K S C L Q P N R R R V D I R
UniRef90_Q1ZWR6	H G S R Y P V A N N N T Q H G K A K N R R R V T I R
UniRef90_UPI0004709780	A G S S R P I A T N Q T S E G R A R N R R R V E I I
UniRef90_E6U6G0	R G D T V P V A P N D T P A N K A K N R R R V V I T I
UniRef90_F2R181	Y S E D Y P I A D N A T E E G R K K N R R R V E I S F
UniRef90_U6BGJ0	Y G E F Q P I A S N Q T E T G R S K N R R R V E V L I
UniRef90_F4B046	F G E S R P I D D S C T E V Q Y L E N R R S D F V V
UniRef90_M2ZM92	K G K S A P M V Q T P D G V R E P Q N R R R V E I V L
UniRef90_UPI00031B64DA	H G E R Y P L A P N T N S A N R A K N R R R V N I
UniRef90_UPI000402C9CB	R S S Y V P L V G N D S A E N R A R N R R R T R I V V L
UniRef90_U2ZKH2	H G E R Y P L V K N S N E A N R A Q N R R R V T L T L
UniRef90_UPI00047D6A3F	V A D T Q P R Y P N D T P A H R Q A N R R R V E I T L
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UniRef90_W9VDP6	V G N L A P V A T N A T P Q G R A L N A R I E M V
UniRef90_UPI00035E9DFA	K G E S E P V T K P E D S A C L Q P D R R R V Q V E I
UniRef90_UPI00037217F7	Y A E T R P R A A G K T E N S R A M N R R R V E I F F L
UniRef90_I4MW8	Y G E F Q P I D T N A T A D G R A H N R R R V V L V I
UniRef90_BOBT0	Y G E A N P V A T C C D K V K G R A P D R R R V E V Q V
UniRef90_S4YBT2	Y G D T D P I A P N R T Q E D R Q K N R R R V Q L F I I
UniRef90_A5P9W5	F G E Q N P L A P N A N E E G R A T N R R R V E V T I
UniRef90_UPI00036097F7	Y G E Y Q P I A D N D S P A G R D K N R R R V V L M I
UniRef90_UPI0003666207	F G E F Q P L D T A Q T E D A Y R R R N R R R I E L K L
UniRef90_E4LB90	N G D T K P V A T N S T A A G K A E N R R R V D V Y I
UniRef90_UPI0004702236	M G A A D P V A D N T S P A G R G Q N R R R I E I V L
UniRef90_K6XH88	Y G E T Q L L D T A N T A E A N Q A N R R R V V K V
UniRef90_K1GL42	K G E E Y P V A T N E T P E G R L Q N R R R V E F R L V
UniRef90_UPI000371ED6F	L A D T K P L M S N D T S E G R S R N R R R L E V V I
UniRef90_F8GGH2	L G E E K P R A L G H G E S A W S Q N R R R T D I L Y
UniRef90_C4SEN8	K G D T Q P V S R N D D A A G R S Q N R R R V E I F V
UniRef90_Q12L30	M A S N D Q L V S N E S S E N R S Q N R R R V E I T I
UniRef90_UPI00046911D2	F G E T Q P L V V T Q G R E R R N R R T V T E V
UniRef90_18U764	F G E R R H V A P N D T P L G R A V N R R R L V L
UniRef90_Q0ALY6	Y G K E R P S C S Q S S E T C W A V N R N A T T T L L
UniRef90_T5KFQ6	F G D T R P V A P G D S P D A L A Q N R R R V D I V V L

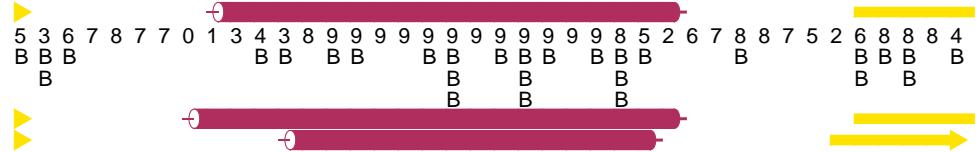
The figure displays a phylogenetic tree with the following characteristics:

- Root:** Located at the top center.
- Major Clades:** Numbered 1, 10, 20, and 30 are positioned on the right side of the tree.
- UniRef90 Identifiers:** Numerous UniRef90 entries are listed along the left and bottom edges of the tree, including UniRef90_2BUPY4, UniRef90_K2DR54, UniRef90_A0A0591UE1, UniRef90_D2AMY3, UniRef90_V6EXV4, UniRef90_D9RA12, UniRef90_C9NXS1, UniRef90_UPI00035CF46B, UniRef90_UPI00036609F3, UniRef90_A7ZCT0, UniRef90_S1NSU9, UniRef90_UPI0004793B75, UniRef90_UPI00029A8B69, UniRef90_R7M431, UniRef90_U1M6P5, UniRef90_F2PDW4, UniRef90_Q6VQT1, UniRef90_K5VQW0, UniRef90_K9H2T4, UniRef90_W0SHP8, UniRef90_U3A2U4, UniRef90_W2UNJ3, UniRef90_D5BPM2, UniRef90_E8RIW5, UniRef90_Q9A2R2, UniRef90_Z9K280, UniRef90_R0F0Q9, UniRef90_G2J937, UniRef90_UPI0004790F74, UniRef90_D4YN39, UniRef90_UPI000465B541, UniRef90_A0A031HYX2, UniRef90_E8V792, UniRef90_E8LU58, UniRef90_L8ML86, UniRef90_Q87HC5, UniRef90_Q080U6, UniRef90_K5TDK6, and UniRef90_R0E5A1.
- Color Coding:** The tree uses a color-coded system to represent different lineages. Blue, red, green, yellow, purple, and black colors are used to distinguish between groups of sequences.
- Node Labels:** Many nodes are explicitly labeled with UniRef90 identifiers, such as S, D, N, P, V, R, I, L, F, K, M, E, T, G, H, Q, Y, Z, B, and W.

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
inssm

	50	60	70	80
UniRef90_B2UPY4	H T D D V G S E R Y N Q G L S E R R A A A A V K A Q L V Q F G V P A E R I V T K G			
UniRef90_K2DR54	H C D E R A S A S Y N M A L G M R R S N A V R S F L V K H G A D L H R I Y T T S S			
UniRef90_A0A059IUE1	Y T D K V G S E R Y N K A L G M R R S N A V R S F L V S Q G I S R R R R L Q A V S			
UniRef90_D2AMY3	Y T D Q K I L T D Y N I R L S K N R A S S V E E Y L V N K G G S S D G I T I K A			
UniRef90_V6EXV4	H A D A V G S D E V N D R I S R R R A E V V R N L V V E R G L P P R A I V A S S			
UniRef90_D9RA12	H T S Q G D P Q R P P N N M L S A Q R S A E V I I Y L Q S Q N V S P E K L V G M S			
UniRef90_C9NXS1	Y A S K T G N S D Y N V E L S K K R A V V A V E E L L L S Y G I N P E R V T I V G			
UniRef90_UP100035CF46B	F T D D R P V R D T N R Q F S A Q R A L T V T R A L I D E G I P S S S V F A A A			
UniRef90_UP100036609F3	H A D E R G T R E Y N L A L G A R R A N S A R E F L I S R G I E S S R I Q T V S			
UniRef90_A7ZCT0	Y T D N T N P Y K N N W Q L S T A R A L S V L E E L V S D G V P Q E R L I T S G			
UniRef90_S1NSU9	Y T D N R P R Y A S N W E L S A A R A I S V M N F F I N N G M I A S K V S I Q A			
UniRef90_UP10004793B75	H T D K R P R F S S N W E L S A A R A I A V V R Y L I D E G V A P E H L V A A G			
UniRef90_UP100029A8B69	H T D M T G D P E Y C I T L S R K R A E A A A Q K L I D A G I Q S D R L F I L G			
UniRef90_R7M431	N T D S D A S N A Y N E D L S K R R V L N V A K Y A N D N G V A A S R M Q L N Y			
UniRef90_U1M6P5	F S D S I G A R D K N T M L S L S R A K S V E Q E L N A R G I N V Y A V E G			
UniRef90_F2PDW4	Y A S P V G S A A Y N V A L S K R R A Q A I I R Q A L I T E G V S P A R I K T V G			
UniRef90_Q6VQT1	H T D S V G P D A Y N Q K L S E R R R A N A V K Q V L T N Q Y V E S S R V Q S V G			
UniRef90_K5VQW0	H T D N V G S Q L A N L T V S R Q R A E Q V A E A L V Q Q G V D R S L L E V R A			
UniRef90_K9H2T4	H A D R A G S V P Y N N R L S E Q R R A R N V A Q A L S A R G V P M D R M N V D W			
UniRef90_W0SHP8	N A D E R G S S E Y N L A L G Q K R A E A V R K S L T L H G V P D R Q I E A V S			
UniRef90_U3A2U4	H S D T G D P I H N U K L A Q D Q R A E Q V R R Y L N I F G I A Q A R I T T E S			
UniRef90_W2UNJ3	H T D N K A G L R D N W D L S V L R A T S V V R K L Q N D Y D V P E K L L A S G			
UniRef90_D5BPM2	H T D D P R Y A D N W D L S T E R A L S V V R F L I S Q G L P P N R L A A T G			
UniRef90_E8RIW5	H T D D R P R F P S N W E L S L A R A G R V A R F L I E D T G L P A Q F S V S G			
UniRef90_Q9A2R2	H T D T S G S P K Y N A K L S E R R R A R V A D A L V S Q G V V S Q N V L G V D W			
UniRef90_Z9K280	Y T D N N E I F R S N W E L S V A R A T S I L V E L E R L G I E S A R M A I E G G			
UniRef90_R0F0Q9	H T D T V G G L E G N I A L S R R R A I S V R R L T T R Y G I D G G R I Q V A G			
UniRef90_G2J937	H T D R I G T D K Y N D G L S A R R A Q A V K A Y L V H R G I D A K R T Y T E A			
UniRef90_UP10004790F74	H T D S N A V L Q D N W D L S V K R A T S I V R E L Q K Y G V A P E K M I A A G			
UniRef90_D4YN39	H T D D D E G D E K Y N V D L S N R R A E S V K K V L E P K V K G S G S F E T K G			
UniRef90_UP1000465B541	H T C D I G N Y D Y N I A L S E R R A E A V K H I L V T Q A G I D E R I E V L G			
UniRef90_A0A031HYX2	H S D S S G S D A A N L L S S R R R A E A A R D Y L L K K G V A A D R I T V I A			
UniRef90_E8V792	Y C D E R G S A E Y N I A L G E N R A N A K T A L V T A G V S P N R L R V I S			
UniRef90_E8LU58	H T D S S G G A R A S N L A L S R V R A E L V S K Q L H L G V V S Q S M I E V R A			
UniRef90_L8ML86	H S D N S G N R L T N R D L S R R R A L A V F E Y L K A N G F P E A Q M V M R F			
UniRef90_Q87HC5	H T D D R P I Y P S N W H L S L A R A T S L S E Q L I S S N S A L K G R V I P E G			
UniRef90_Q080U6	H T D D E P I Y P S N W H L S L A R A T S I A N V L A N S A S L S G R L W P E G			
UniRef90_K5TDK6	N T D A K G S N G Y N L T L G L K R A N S V A K Y L E G Y D E V V S T S R S			
UniRef90_R0E5A1	F S D D D Q Q V F A D N W E L S A K R A L T V T R A L I D E G I P A S S V F A A A			

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

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