

1 10 20 30 40

QUERY	UniRef90_UPI00047046EE	UniRef90_C7RA59	UniRef90_UPI00030454BA	UniRef90_B4F044	UniRef90_G9Y6J3	UniRef90_A6FDM8	UniRef90_Q492D2	UniRef90_H2G0B3	UniRef90_K9YCR9	UniRef90_R7LWE8	UniRef90_I1YF97	UniRef90_F6DCR8	UniRef90_M1WY51	UniRef90_UPI0003955107	UniRef90_UPI0003B5B4F3	UniRef90_K0C601	UniRef90_G4SXZ6	UniRef90_K6YBM8	UniRef90_Q7NWC0	UniRef90_UPI0003745B03	UniRef90_Q7VRR1	UniRef90_UPI0002556440	UniRef90_F7XXS7	UniRef90_E0WRL8	UniRef90_A4SVW5	UniRef90_I3CD87	UniRef90_UPI00035FA299	UniRef90_F5SPF5	UniRef90_W0TL06	UniRef90_K0CBJ3	UniRef90_D0L0J6	UniRef90_UPI0004151253	UniRef90_UPI00035D53B1	UniRef90_A3PDL2	UniRef90_UPI00037B0EF2	UniRef90_UPI000375B26B	UniRef90_C3XAS7	UniRef90_K9SJ1	UniRef90_F8GK16	UniRef90_Q47WP8	UniRef90_UPI000255A0BF	UniRef90_K9RX53	UniRef90_H0JH15	UniRef90_F0F2X6	UniRef90_G4QFT0	UniRef90_R6P224	UniRef90_B1WY64	UniRef90_M1P177	UniRef90_Q1LT15	UniRef90_UPI000375DE16	UniRef90_V2TRA2	UniRef90_K2DF59	UniRef90_I1E1C6	UniRef90_A0A031MFG0	UniRef90_R5SL26	UniRef90_V4KZL3	UniRef90_UPI0000E0E6C9	UniRef90_UPI0003701063	UniRef90_UPI0003B62B87	UniRef90_UPI0003B6A1CC	UniRef90_A4CV20	UniRef90_Q0AF72	UniRef90_E1VI181	UniRef90_A6KXM3	UniRef90_N2J404	UniRef90_Q1MXP5	UniRef90_V5C1L3	UniRef90_E4T8E9	UniRef90_R5N9F0	UniRef90_S6AKY3	UniRef90_D3PD31	UniRef90_F2LUUV0	UniRef90_D5CRD6	UniRef90_R9PP01	UniRef90_A6GP54	UniRef90_C0DWX0	UniRef90_J3TSF4	UniRef90_Q3V8A2	UniRef90_K2CFG5	UniRef90_D5BVU8	UniRef90_H8Z270	UniRef90_S6CFZ2	UniRef90_E4TK72	UniRef90_C5WD96	UniRef90_D4H7S4	UniRef90_M4UJE3	UniRef90_R7JEW0	UniRef90_A7BRG4	UniRef90_K9H1K4	UniRef90_R7D211	UniRef90_L8LYB1
N A M L L G V N I D H I A V L R Q A R M V N D P D L L E A A F I V A R H G D Q	T E L L G V N I D H I A T L R N A R G T R Y P D P V Q A A F V A E Q A G D G	N P I L L G V N I D H I A T V R N A R G T D Y P D P V Q A A F V A E Q N G D G	S D I L L G V N I D H I A T L R N A R G T T Y P D P V Q A A F I A E Q A G D G	N K I F L G V N I D H I A T L R Q A R G T Q Y P D P V H A A E I A E R A G D G	S N L L L G V N I D H I A T L R N A R G T T Y P D P V H A A E I A E R A G D G	S E L Y L G V N I D H I A T L R N A R G T S Y P D P V Y A A T M A E Q A G D G	S S V T L G V N I D H I A T I R Q A R R T I E P D P V A A A V L A E L G G D G	M L L G V N I D H I V A T L R Q A R G G V D P D P I Q A A E C E K S G A S	N P I F L G L V N I D H I V A T L R Q A R G T R Y P D P V K A A L D A E M A G D S	K Y L G V N I D H I V A T I R N A R G T A Y P D P V H A A E L G G D G	P I L L G V N I D H I V A T I R Q A R G T P F P E P V Q A A L A E Q A G D G	N S L F L G V N I D H I V A T L R Q A R G T D Y P S P L D A A F I A E R A G D G	N D I L L G V N I D H I V A T L R Q A R G T Q Y P D P I Q A A L I A E Q A G D G	S D F L G V N I D H I V A T L R N A R G T Q Y P D P V H A A D A E R A G D G	N R V L L G V N V D H V A T L R E A R G T R Y P S P V E A A L V A E S S G D	S N L L L A L N I D H I V A T V R N A R G T Q Y P D P V Y A A Y I A E Q S G D G	S E I F L G V N I D H I V A T I R N A R G T N Y P D P V Y A A S I A E E A G D G	T D L R L G V N I D H I V A T L R N A R G T A W P D P V H A A F I A E Q A G A S	H A L E L G I N I D H I V A T L R N A R G T I Y P D P L R A A Q L A E S A G D	P I Y L G V N I D H I V A T L R Q A R G T I Y P D P I Q A A L I A E Q A G D F	I L L G V N I D H I V A T L R Q A R G T H Y P D P V H A A S I A E R A G D G	M L L G V N I D H I V A T L R Q A R G T R Y P D P I Q A A L V A E Q A G D A	S S V L L G V N I D H I V A T L R Q A R G T R Y P E P V Q A A L V A E Q A G D G	P I L L G V N I D H I V A T I R Q A R G T T Y P E P V H A A L L A E Q S S G D S	I F L G V N I D H I V A T L R Q A R G T R Y P S L I D A A K I C E S S G D S	P I L L G V N I D H I V A T I R Q A R G T R Y P S L I D A A K I C E S S G D S	S I H L G V N I D H I V A T L R Q A R K T V I E P D P V Q F A F L A E L G G D S	I E L G V N I D H I V A T L R N A R G T T Y P D P V K A A V M A E Q A G D A	A T T L G V N I D H I V A T I R Q A R R G V E P D P V V A A A V I A E L A G D G	S E L L L G V N V D H I V A T L R Q A R G T S Y P D P V E Y A A S V A E H A G D G	R I L L G I N I D H I V A T L R Q A R G T R Y P D P V Q A A S L A E E A G D G	S R V L L G V N D H V A T I R Q A R A T I E P D P V V A A A V I A E L A G D G	N L M L G V N I D H I V A T L R Q A R G T R Y P D P V K A A L D A E E A G D G	I L L G V N I D H I V A T L R N A R G T N Y P N P V H A A D V A E R A G D G	M L L G V N I D H I V A T L R N A R G G L E P N L I Q A A I L C E K A G D G	L T L G V N I D H I V A T I R Q A R R T I V E P D P V V A A A V L A E L G G A G	T N T L G V N I D H I V A T V R N A R G L I T E P D P V V A A A A I C E E L A G G	S R L L L A N V I D H I V A T L R N A R G T T W P D P V V Q A A F I A E D A G D G	T A P L L G V N I D H I V A T L R Q A R G V T Y P D P V V A A A L V C E Q A G D G	S I L L G V N I D H I V A T L R Q A R G T T Y P D P V E A A A L L C I E E A G E G	S M I R L G V N I D H I V A T L R Q A R G V H Y P S P L E E A A I C A I K G G D G	N P I F L G V N I D H I V A T L R Q A R G T Y Y P E P V H A A A L V I A E Q A G D G	R V L L G V N I D H I V A T L R Q A R G T R Y P D P I Q A A I E E Q A G D G	M L L G V N I D H I V A T L R N A R G G I E P D V L T A A R I C K E C G A S	H M I K L G I N V D H I V A T I R Q A R G L G R E P D P V V I A A A Q C E E L A G A G	V L K L G V N I D H I V A T L R N A R G T S Y P D P V H A A D I A E R A G D G	P A K L G A V N V D H I V A T V R E A R K V N Y P D P I H A A A V L A E L G G A G	P A K L G A V N V D H I V A T V R E A R K P Y P D P V H A A V L A E L G G D G	P I L L G V N I D H I V A T N R Q A R R T V E P D P P V P M A L L A E L G G D G	H M I K L G V N V D H I V A T L R Q A R G T D Y P S P I K A A L V A E E S G D A	H R I L L G V N V D H I V A T L R Q A R G T R F P D P V Q A A L D A E E A G D G	T K L S V N I D H I V A T L R N K V A T L R N A R G G N P D V V K V A L D C E A F G E G	S R L L L G V N I D H I V A T L R N K V A T L R Q A R G T R Y P D P V K A A L D A E E A G D G	R V L L G V N I D H I V A T L R Q A R G T R Y P D P V Y A A L V A E E A G D G	P I L L G V N I D H I V A T I R Q A R G T R F P E P I Q A A L V A E E Q N G D S	T K L S V N I D H I V A T L R N K V A T L R N A R G G N V P N V C Q V A L D C E K F G E G	T K L S V N I D H I V A T L R N K V A T L R N A R G G N P D V V Q V A L D C E K F G A G	I H L G V N I D H I V A T L R Q A R G T R Y P S P T Q A A L M A E S A G D S	I K L G V N I D H I V A T V R Q A R L S I E P D P V R A A V L A E L G G D G	M R L G V N I D H I V A T I R E A R K T N E P E P I Y A A L L V E A A L A D G	I K L G L V N I D H I V A T L R Q A R G S R Y P N L M R A A L I C E E A G D A	S E I L L G V N V D H I V A T L R Q A R G T T Y P D P V V L A A G I A E M A G D G	I E L G V N I D H I V A T I R Q A R R G H E P D P L R A A L I A E E Y G D A	K M L L G V N I D H I V A T L R N A R G T R Y P S P L E A A L V A E T H G D	S K V L L G V N I D H I V A T L R N A R G T A C Y P D P I Q A A L I A E Q A G D S	P I R L G V N I D H I V A T I R Q A R H T P Y P S V L H A A F V I A E Q A G A G	P I L L G V N I D H I V A T L R Q A R L T R Y P D P V V E A V Y A A E K G G D G	N A I L L G V N I D H I V A T L R Q A R G T R Y P D P I Q A A I E A E Q A G E G	S S I L L G V N I D H I V A T L R Q A R G T R Y P E P L Q A A L I A E Q A G D A	T N I L L G V N I D H I V A T I R Q A R R G K E P D P V H A A A V L A E L G G D G	T N I L L G V N I D H I V A T I R N T R Q G N Y P D P V H A A F I A E Q S G G A S	S K L L L G V N I D H I V A T L R Q A R L G V E P D P V H A A A V L A E L G G D Q	T T N L S V N I N K V A T I R N A R G G N M P D V L K F A Q D A E A F G A G	T S I R L G V N I D H I V A T I R Q A R D T R Y P D P I Q A A I I A E Q A G D	N G I R L G V N I D H I V A T I R N A R G G R H P D P V R A A Q V A E A G A D G	T T K L S V N I N K V A T L R N A R G G N P D V V K V A L D C E S F G D G															

QUERY		50	60	70	80
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QUERY

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130 140 150 160

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UniRef90_D0L0J6	A A G I R V S S L F D A D P R Q I D A A V A C E A P V I E L H T G H Y A D T M D			
UniRef90UPI0004151253	E A E V E V S S L F D A D F R Q I E A A A K T G A P V I E L H T G H Y A D A V S			
UniRef90UPI00035D53B1	T N N I K A S L F D P D N Y Q I E A A V E C G A P I E I H T G H Y A D A S S			
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UniRef90UPI000375B26B	H A G I R V S S L F D A D F A Q I D A A H A A G A P V V E I H T G H Y A D A E D			
UniRef90_C3XAS7	D A G I R V S S L F D P E E E Q I I A A H E T G A P V I E L H T G R Y A N A F D			
UniRef90_K9SJ1	T A Q I P V S S L F D P D I D Q I E A S A Q T G A K L V E L H T G T Y A N A			
UniRef90_F8GK16	E A G I R V S S L F N A D P L Q I N A A R A G A P V I E I H T G S Y A D A V			
UniRef90_Q47WP8	A A G I A V S S L F D A D K A Q I D A A V A S K A P Y I E I H T G H Y A D L			
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UniRef90_K9RX53	N H G I P V S S L F D A N P E Q I Q A S A D T G A L L I E L H T G A Y A E A K D			
UniRef90_H0JH15	A S E V V S S L F D P D L Q Q I Q A A K D S G A P V I E L H T G R Y A E A			
UniRef90_F0F2X6	A A S I R V S S L F D P D K P Q I Q K A F D M G A R V V E L H T G A Y A D A			
UniRef90_G4QFT0	A Q N T L A S L F D A D E K Q I E A A L A A G A P Y I E I H T G Q Y A E A K N			
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UniRef90UPI0003B6A1CC	K A G I K V S S L F D N D E E A I K L A K K T G A Q L E I H T G M Y A E E D			
UniRef90_A4CV20	D A G I P V S S L F D P E K G Q I Q A C R D C K A R W V E L H T G T Y A E S K W			
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UniRef90_V5C1L3	A A G I E V S S L F A P D H A Q I D A A K T A G A P V V E L H T G C Y A D A			
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UniRef90_R7JEW0	S H G I R T S I F F I G T E L E N I E W A A K T G T D R I E L H T E P Y A S L Y			
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QUERY

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 UniRef90_R5N9F0 E N R L K E E L K R L K L A A K V
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 UniRef90_K2CGF5 I L A E Q K N E L E R I V Q V A Q F
 UniRef90_D5BVU8 E R S R Q K E F Q R I V E A V R Q
 UniRef90_H8Z270 Q P T R A A Q R Q R L A E G V R Q
 UniRef90_S6CFZ2 E R D P E R K Q A E L A R I A H A A L Y
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 UniRef90_C5WD96 D I V Q D N E F L R I R Q A V N Y
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UniRef90_B4F044	A A S G L G I T V N A G H G L H Y H N V Q R I A A L P E L Y E E L N G H A I G R			
UniRef90_G9Y6J3	A S E R G L K V N A G H G L T Y H N V L P I A A L P P E M H E E L N G H S I G R			
UniRef90_A6FDM8	A H N A G L K V N A G H G L H Y H N V Q P I A A I P E I Y E E L N G H A I A R			
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UniRef90_R7LWE8	A H A L G L K V N A G H G L N Y E N V Y R M K Q E D L Y E E L N G H A I A R			
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UniRef90_K6YBM8	A H S L G L K V N A G H G L H Y H N V K P I A A I E P E I I E E L N G H A I A R			
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UniRef90_F5SPF5	A L S Q Q L I V N A G H G L T R D N V S A I A R I P G I Y E E L N G H A I I A D			
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QUERY

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A V F V G L D Q A V R E M K Q I V
A I I S G L N Q A I T N M [] I L L
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A L F S G L A G A V G E M R A L [] I
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A L Y V G I D Q A V R E M R E Q I
A M F D G L G K A V S D M R A L [] M Q
A L F V G W D N A V R E M K A L M K
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A I M V G M K E A V R E M K E L I W K
S L A V G L Q Q A V R E M R S L V Q
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UniRef90_E6QV65	I Q L G V N I D H V A T L R Q A R G T V Y P S P L Q V A A V V L A E L A G D Q				
UniRef90_A7HCT9	P A R L G V N I D H V A T L R Q S R R T T Y P D P V A A V V L A E L A G D Q				
UniRef90_C4LC01	S K I L L G V N I D H V A T L R N A R G T A Y P D P V A A A L A E Q A G A E G				
UniRef90_UPI00037F1F3C	R I L L G V N I D H V A T L R Q A R G T R Y P D P V Q A A L M A E E A G D G				
UniRef90_U7D7A4	T K L S V V N I D H V A T L R Q A R G G V E P E P V H H G A S V A E I A G H G				
UniRef90_UPI0002624B62	P I A L L G V N I D H V A T L R N A R G G R L P D P V D A A R V V E K S G D G				
UniRef90_F7QP06	P L R L G V N I D H V A T L R N A R G G L H P D P V D A A R V V E K S G D G				
UniRef90_UPI0003B6B2AC	R L L G V N I D H V A T L R Q A R T N P D P V V K A L V C E Q A G E G				
UniRef90_N9CJ48	L L G V N I D H V A T L R Q A R T N P D P V W A A V L A E L G G D G				
UniRef90_A6CAR2	M R L G V N I D H V A T L R Q A R G G A Y P D P L R A A E L A Q K A G D G				
UniRef90_X7EKL1	M R L G V N I D H V A T L R Q A R G E R Y P D P V D A A F A A E R A G D S				
UniRef90_A0L8S5	I L L G V N I D H V A T L R Q A R G T Q Y P S V Q A A L R A E E A G D S				
UniRef90_C6X6M9	I K L G V N I D H V A T L R Q A R G T Q Y P S V Q A A L R A E E A G D S				
UniRef90_C3XKU5	M L L G V N I D H V A T L R E A R K I N D P D P L E A V F I A K R A G D Q				
UniRef90_D2TX92	UniRef90_D2TX92	R N A R G T Q Y P D P V H H A A F L A E Q A G D G			
UniRef90_G6XIU5	I R L G V N I D H V A T L R N A R G G T F P D P V V A A E L A L R S G D G				
UniRef90_K1Z6J9	S I L L L G V N I D H V A T L R Q A R G V S Y P D P V Q A A F K A I I Q G G D G				
UniRef90_R5IS14	T K L S V V N I D H V A T L R N A R G G N V P N V T K V I A M D C E L F G D G				
UniRef90_O67417	M R L G V N I D H V A T V R Q A R R T F E P S P V F A A L I A Q Q A G D Q				
UniRef90_C7PCF0	T K L S V V N I D H V A T L R N A R G G N M P D I L K V I A Q D C E R F G D G				
UniRef90_A5CWJ9	I Y L G I N I D H V A T I R Q V R G T D Y P S L V E A A L L C E K S G D S				
UniRef90_F9UH84	V L L G V N I D H V A T I R Q A R G T R Y P E P I Q A A L V A E Q A G D S				
UniRef90_J9H4M3	T N L S V V N I D H V A T L R N A R G G N P D V L K V I A L D C E L F G A G				
UniRef90_K1LXA2	T K L S V V N I D H V A T L R N A R G G N N P N V V K V I A L D C E R F G A G				
UniRef90_R5EFX3	P I F L G V N I D H V A T V R N A R G T N Y P D P V T A A I A E L A G D S				
UniRef90_C1D7L7	I L L G V N I D H V A T L R N A R G T R Y P S P V E A A L V A E T A G D L				
UniRef90_A8UYZ3	M K L G V N I D H V A T L R E A R K T F E P D P V K G A L I A Q E S G D Q				
UniRef90_UPI000374CFEC	N P L R L G V N I D H V A T I R N A R G G D H P D P V R A A R V V A K E A G D G				
UniRef90_J3Z5B6	S E L L L G V N I D H V A T L R V G T L R N M R N T T W P D I Q A A F I A E E A G D G				
UniRef90_UPI000470BBA2	S Y L R L G V N I D H V A T I R N A R G G G H P D P V R A A E I A E Q A G D G				
UniRef90_UPI000374553D	P I F L G V N I D H V A T L R Q A R G T R Y P D P V V K A A L D A E M A G D S				
UniRef90_Q0APC2	S I L R L G V N I D H V A T I R N A R G G E H P D P V R A A R Q A E A G A D G				
UniRef90_UPI0003615FB1	K L G V N I D H V A T L R E A R G I D E P D P V A A A M L A E L A G A G				
UniRef90_UPI00031418F8	I E L G V N I D H V A T V R E A R K G H E P D P V V R A A V L A E E A G D G				
UniRef90_UPI0003B5917F	I K L G V N I D H V A T L R Q Q R L T A Y P S P V Q A A L L A E L G G D G				
UniRef90_M5DII0	I E L G V N I D H V A T L R Q A R G T T Y P S P V V E A A M V A E S A G D A				
UniRef90_Q2BIZ6	S R L L L G V N I D H V A T I R Q A R G T R Y P D T V Q A A A L A E E A G D G				
UniRef90_M7PPU7	S I F L G V N I D H V A T L R Q A R G T R Y P D P V Q A A I E A E Q A G D S				
UniRef90_B9XP98	L K L G V N I D H V A T L R E A R Q G Q G E P D P V I S A A L L I S E S A G A G				
UniRef90_V9HB07	M L L G V N I D H V A T L R N A R G A G Y P S P V V E A A L V A E T H G D L				
UniRef90_UPI000345BAB3	I L L G I N V D H V A T L R Q A R G T R Y P D P A H G A I A E H A G D G				
UniRef90_B6JGF8	P L R L G V N I D H V A T L R N A R G G G L P D P V V R A A L L A I E A G D G				
UniRef90_L2F8G7	N K P L L G V N I D H V A T I R Q A R G I S Y P D P V V L G A L L C E Q A G D G				
UniRef90_C4K8H5	P L R L G V N I D H V A T L R N A R R S V Y P D P V V Q A A F I A E Q A G D G				
UniRef90_B6AZ75	P L R L G V N I D H V A T L R N A R G G A L P D P V V R A A L L V A Q K A G D G				
UniRef90_R5HJD8	M L L G V N I D H V A T L R N A R G G V E P D P V I K A A V C E H N G A S				
UniRef90_UPI0003462491	P L R L G V N I D H V A T I R Q A R G G R H P D P L R A A R T A I E A G D G				
UniRef90_C1DXD9	M R L G V N I D H V A T L R E A R K T V E P D P V V K G A L I A I Q A G D Q				

		50	60	70	80
UniRef90_E8UDQ6	T	L H L R E D R R H	Q D K D V F E M K D R L	L T H M N L E C A I T E E M L S I	
UniRef90_UPI000375BE34	T	L H L R E D R R H	Q D D H D V R R F K E A L	L E M G V T E E M L A I	
UniRef90_UPI00036B9132	T	A H L R E D R R H	R D E D I D G L I A A L N I P L N F E M A T E E M Q K		
UniRef90_UPI0002486DE8	T	L H L R E D R R H	Q D K D V E E I K T R L K I K M N L E M A A T D E M I T		
UniRef90_F3ZPL2	T	L H L R E D R R H	Q D N D V V R M R P L L K T R M N L E I A V T D F M L D F		
UniRef90_W2C700	T	V H P R P D E R R H	T R K D V F D L R P I I T T E F N I E G Y P S R D F I D L		
UniRef90_V8QQY4	T	L H L R E D R R H	Q D K D V F A L K P I I K T E L N I E G Y P I Q S F V D L		
UniRef90_K2EEF6	T	V H L R E D R R H	N D R D V R I L K Q T I K T R L N L E C A V T E E M L D I		
UniRef90_S9RSJ9	T	A H L R E D R R H	R D A D M A A I K E A I S I P L N F E M A A T D E E M Q A I		
UniRef90_U4TGY3	T	V H L R E D R R H	K D R D V T L K E V L Q T K M N L E M A V T D E E M I A I		
UniRef90_L8LGG3	T	V H L R E D R R H	Q D D D V R R I L R E T V R T H L N L E M A P T E E M V N I		
UniRef90_K7T0R5	T	I H L R E D R R H	H D E D V R R I L E T S S L P V N L E C S I N P E I I D I		
UniRef90_R7DIR6	T	V H P R P D E R R H	R Y S D V Y E L R P Q L R T E F N I E G Y P S D P F I N L		
UniRef90_UPI000349404F	T	T H L R E D R R H	Q D R D V Y L L R Q T V S T H L N L E M A A T D E E M L K I		
UniRef90_Q0A8Y8	T	V H L R E D R R H	Q D R D V A L L Q T V Q T R M N L E M A V T D E E M L R I		
UniRef90_A9KFA7	T	L H L R E D R R H	Q D D D V R R N L K R K L T V P M N L E M A T A E D I I Q F		
UniRef90_B1GZL2	T	V H L R E D R R H	Q D E D V Y D L R K S L K I K L N L E M A A S E E I V K I		
UniRef90_A8URY8	T	L H L R E D R R H	Q D R D L E L I K E L V I L P V N L E M A P V E E M R S I		
UniRef90_F3KCC5	T	V H L R E D R R H	Q Y E R D V R M L K E V L Q T R M N L E M A A T D E E M V A F		
UniRef90_G5G9L8	T	V H P R P D G R H	R Y N D V Y E L S P L L T T E F N I E G Y P S E D F V K L		
UniRef90_UPI00036B9DD7	T	A H L R E D R R H	Q D R D L Y L L K D M I H T K L N M E M A V T E E M V G I		
UniRef90_F6IH10	T	V H L R E D R R H	R D E D L V R V Q A A T G L P L N L E M A A T D E E M L E I		
UniRef90_W9BZZ5	T	V H L R E D R R H	R R D S D L D A I M A G A T P I N L E M A A T E E M L A I		
UniRef90_UPI000465DA16	T	L H L R E D R R H	R D A D V R A I R P A L R T R M N L E C A V T S E M I D I		
UniRef90_V4JKP9	T	L H L R E D R R H	Q D R D V D M L R G I L Q T R M N L E M A A T P E E M G R I		
UniRef90_UPI0003F857AC	T	V H P R P D E R R H	R Y Q D V L D L K K V V T T E F N I E G N P T P E F L E L		
UniRef90_UPI0003FDF103	T	L H L R E D R R H	R D A D V F A L K N A I K T R M N L E M A M T P E E M L D N		
UniRef90_Q1QDV0	T	I H L R E D R R H	Q D A D V Y E M A G Q L T T R M N L E M A A T T E E M L D I		
UniRef90_Q7VBK3	T	I H L R E D R R H	Q D R D L K L L R E T I K S R L N L E M A A T T E E M I E I		
UniRef90_V8G9C2	T	L H L R E D R R H	Q D K D V Y A M R P Q L M T R M N L E C A I T E E M L R I		
UniRef90_V2QDZ0	T	I H L R E D R R H	Q D K D V Y D I K K A V S P L N L E M A C S D I I N I		
UniRef90_J0W193	T	V H L R E D R R H	T T D R D V R V L R E T L D T T R M N L E M A V T E E M I A I		
UniRef90_F4CE44	T	V H P R P D E R R H	R Y Q D V Y D L K A A I T T E F N I E G N C R E K F V D L		
UniRef90_E1SXR5	T	I H L R E D R R H	I D R D V E V L A K T L K T R M N L E M A V T E E M L A I		
UniRef90_UPI000475C4C3	T	A H L R E D R R H	S D E D V A A L S D V L T V P L N F E M A A T E E M L E I		
UniRef90_UPI000477E9D0	T	V H P R P D Q R H	T Y S D V F D L Q A K V Y T E F N I E G N P T P E F I S L		
UniRef90_UPI000476BDDD	T	L H L R E D R R H	Q D A D L Y K M R P L L T T R M N L E C A V T D E E M L N I		
UniRef90_Q7U7S1	T	V H L R E D R R H	Q D R D V Q L L R Q T V R S R L N L E M A A T Q E E M V E I		
UniRef90_B3T0S2	T	V H L R E D R R H	Q D T D V E R I R L V K T R V N L L E M A V N D E I I D F		
UniRef90_R4I189	T	V H L R E D R R H	T T D R D V R I R L Q T T I K T R M N L L E I A A N N E M L D A		
UniRef90_Q1NUF0	V V H L R E D R R H	Q D R D L Q L L K Q T V K S K L N L L E M G A N P E I I A I			
UniRef90_W0BA46	T	L H L R E D K R H	Q P R D V R R L I K E I L Q T R M N L L E M A V T E P M L D F		
UniRef90_W0EXM2	T	V H P R P D E R R H	R Y Q D V R D V R D L Q P L L T T E F N I E G N C K F I D L		
UniRef90_E6QV65	T	L H L R E D R R H	Q D R D V L D I Q A Q I T S R M N L L E M A V T D D M L A F		
UniRef90_A7HCT9	T	I H L R E D R R H	Q E R D L Q I L R R T V A T K L N L L E M A A T Q E E M V K I		
UniRef90_C4LC01	T	V H L R E D R R H	T T D R D V E I L R Q T I K T R M N L L E M A V T E E M L S I		
UniRef90_UPI000371F3C	T	V H L R E D R R H	Q D R D V Q I L Y V A D V L T T R M N L L E M A V T D E M I E S I		
UniRef90_U7D7A4	T	A H L R E D R R H	M I D R D V E L S Q L Q T R M N L L E T C P L N L L E M A L T E E M V S I		
UniRef90_UPI0002624B62	T	A H L R E D R R H	Q E R D L E L S Q L Q T R M N L L E M A V E E G V L R I		
UniRef90_F7QP06	T	A H L R E D R R H	R D E D M K R L K A E I S R P L N F E M A A T A E E M L Q I		
UniRef90_UPI0003B6B2AC	T	A H L R E D R R H	R D R D I T R L S E E I Q L P L N F E M A A T R E E M L E I		
UniRef90_N9CJ48	T	L H L R E D R R H	Q D D D V R R M R P L K T R M N L L E M A V T E E M I E F		
UniRef90_A6CAR2	T	L H L R E D R R H	Q D H D V Y T M K K T V Q V K M N L L E M A A E E E M T Q I		
UniRef90_X7EKL1	T	A H L R E D R R H	R D E D I A A L A S M L D V P L N F E M A A T D E E M Q A I		
UniRef90_A0L8S5	T	V H L R E D R R H	Q D R D V V L L Q Q T C Q T K N L L E M A A S E P M L T L		
UniRef90_C6X6M9	T	I H L R E D R R H	Q D A D V F A L R P L L Q T K M N L L E C S I N P E I L E F		
UniRef90_C3XKU5	T	L H L R E D R R H	H D D D V L R I R N S S V L P L N F E M A V T E E M L G I		
UniRef90_D2TX92	T	V H L R E D R R H	T D R D V Q L L R Q T L Q T R M N L L E M A I T D E E M V N F		
UniRef90_G6XIU5	T	A H L R E D R R H	R D T D M P R L K A L S G P L N F E M A A T E E M V R I		
UniRef90_K1Z6J9	T	L H L R E D R R H	Q D A D V V I A L K E T L N V P M N L L E M A A T E A M V L F		
UniRef90_R5IS14	T	V H P R P D E R R H	R Y D D V F A L R S V K T E F N I E G Y P S K K F I D L		
UniRef90_O67417	T	L H L R E D R R H	Q D R D L E L I K E L I T P V N L L E M A P T E E M R E I		
UniRef90_C7PCF0	T	V H P R P D E R R H	R Y Q D V I D L K P L V T T E F N I E G Y P S K E F M D L		
UniRef90_A5CWJ9	T	L H L R E D R R H	Q D A D V E I R L R G K L T T K M N L L E M A A T D E M I A I		
UniRef90_F9UH84	T	L H L R E D R R H	Q E R D V E L L C G L Q T R M N L L E M A A T R E F M G D I		
UniRef90_J9H4M3	T	V H P R P D E R R H	R R S D V R A L R P L L T T E F N I E G Y P S P D F C D L		
UniRef90_K1LXA2	T	V H P R P D E R R H	R Y Q D V L D A P V L H T E F N I E G Y P D K R Y M E L		
UniRef90_R5EFX3	T	T T H L R E D R R H	T T D R D V R I I R E T V K T S L N L L E M A V T D E I L S I		
UniRef90_C1D7L7	T	L H L R E D R R H	K K D D L A V M R A I K T R M N L L E M A L T D E M L D N		
UniRef90_A8UYZ3	T	L H L R E D R R H	Q D E D L F R I K N I T K I P I N L L E M A P T E E M K R I		
UniRef90_UPI000374CFEC	T	A H L R E D R R H	R D D D M R R L K D E I A L P L N F E M A A T P E E M V G I		
UniRef90_J3ZB56	T	V H L R E D R R H	T D R D Q L L K T L H T R M N L L E M A V T K E E M I S I		
UniRef90_UPI000470BBA2	T	A H L R E D R R H	A D K D L K L A E N L T P L N F E M A A T D E E M L G I		
UniRef90_UPI000374553D	T	L H L R E D R R H	Q D A D L H V E M R Q T K V N L L E M A A T D E E M L K I		
UniRef90_Q0APC2	T	A H L R E D R R H	T D T D I D R L M A E I D L P L N L L E M A A T P E E M L D I		
UniRef90_UPI0003615FB1	T	V H L R E D R R H	Q D R D V K I L R K T V K T R L N L L E M A L T E E M V A I		
UniRef90_UPI00031418F8	T	L H L R E D R R H	Q D A D V V A A R A K L R T R M N L L E C A V T A E E M L E		
UniRef90_UPI0003B5917F	T	V H L R E D R R H	N E R D V R L L R D T I N T R L N L L E M A C S D E I I D I		
UniRef90_M5DII0	T	L H L R E D R R H	Q D A D V E I L R N V L K T R M N L L E S A V T G E M I D F		
UniRef90_Q2BIZ6	T	I H L R E D R R H	Q D R D V Y Y L K E T L Q T R M N F E M A V T D E M I A I		
UniRef90_M7PPU7	T	L H L R E D R R H	Q D R D V Y Y L K E T L Q T R M N F E M A V T D E M I A M		
UniRef90_B9XP98	T	A H L R E D R R H	Q D R D V W N L R K A I K T R M N L L E M A N A P E E L V E I		
UniRef90_V9HB07	T	L H L R E D R R H	K D A D V F A I K Q A I K T R M N L L E M A M T E E M L A N		
UniRef90_UPI000345BAB3	T	I H L R E D R R H	Q D R D V Y V M K D T I Q T R M N L L E M A V T E Q M L A I		
UniRef90_B6JGF8	T	A H L R E D R R H	R D D D M A R L K R E I S K P L N F E M G A T G E M I G I		
UniRef90_L2F8G7	T	L H L R E D R R H	Q D A D V Y Y R L K S V M K T R M N L L E M A V T D E M L A		
UniRef90_C4K8H5	T	V H L R E D R R H	T E R D L H L S Q T I Q T R L N L L E M A V T N E M R E M		
UniRef90_B6AZ75	T	A H L R E D R R H	R D A D V D A L M D A L S P L N F E M A A T D E E M Q T I		
UniRef90_R5HJD8	T	T T H L R E D R R H	K D R D V Y T Y L T K T L T T K M N L L E M A M A D D I Q K I		
UniRef90_UPI0003462491	T	A H L R E D R R H	T R D A D M E R L K A E I T K P N F E M A A T P E M I R I		
UniRef90_C1DXD9	T	L H L R E D R R H	Q D E D L L R L K C E L K I P I N L L E M A P T Q E E M K Q I		

	90	100	110	120
UniRef90_E8UDQ6	A K A K P K D V C L V P E K R E E L T T E G G L D V V T H F I K S A V S K L S			
UniRef90_UPI000375BE34	A E S R P E H V C L V P E K R E E L T T E G G L D V F G Q R I R A A V E R L S			
UniRef90_UPI00036B9132	A L K H P H A V C L V P E K R E E L T T E G G L D V E E N K R E F I K P L S			
UniRef90_UPI0002486DE8	A C Q R P P Q H V C L V P E K R E E L T T E G G L D V V S Q R M K E V C S Q L			
UniRef90_UPI000479A638	A S Q I S P D D C C L V P E K R E E L T T E G G L D V V A G Q K I K A A T R K L			
UniRef90_F3ZPL2	V L S V K P H Q V T L V P D S P D Q L T S N A G W N T H Q A F L R E V L D E F N			
UniRef90_W2C700	V L T V K P T Q V T L V P D A P D V L T S N A G W N V K E H F L S E L V D T F T			
UniRef90_V8QQY4	A C R V R P Q D V C L V P E K R Q E L T T E G G L D V V H F V S Q A V S K L H			
UniRef90_K2EEF6	A L E I R P Y S V T L V P E K R Q E L T T E G G L D V V G Q H L Q E F I K P L			
UniRef90_S9RSJ9	A L A T K P N A V C L V P E R R E E R T T E G G L D E V A G N R L S A Y I A P F K			
UniRef90_U4TGY3	A E S V Q P E C V C L V P E R R E E V T T E G G L D V R G N S V Q F A C E R L T			
UniRef90_L8LGG3	A L D I K P D Y V T L V P E L R A E V T T E G G L D V G I N L S N L V T E I V K R L Q			
UniRef90_K7T0R5	V C R L R P H R A T L V P E K R E E V T T E G G L D V K G Q Y I L N A I N K L L			
UniRef90_R7DIR6	V L Q V K P N Q V T L V P D A P D A I T S N A G W D T H F D F L L S E I I D R F N			
UniRef90_UPI000349404F	A L D L K P D Y V T L V P E R R E E V T T E G G L D V A G Q R L I T E I V G Q L Q			
UniRef90_Q0A8Y8	A T E L R P S D C C L V P E R R E E V T T E G G L D V Q A Q R I A E A C A R L Q			
UniRef90_A9KFA7	A E E I K P E H C C L V P E K R E E E T T E G G L D V A G Q Q L K K V C A R L A			
UniRef90_B1GZL2	A L D V K P D F V C M V P E K R Q E E T T E G G L D V H K S K L A S I V A R L Q			
UniRef90_A8URY8	A L R V K P D R V T L V P E K R E E I T T E G G L D V A G M K L R E Y I E P F K			
UniRef90_F3KCC5	A L E I Q P E Y C C L V P E K R E E E T T E G G L D V Q E T R I K D V T E K L T			
UniRef90_G5G9L8	V C D V K P S Q V T L V P D K P D Q L T S N A G W D T E K Y F L T D L A A C F H			
UniRef90_UPI00036B9DD7	A E K L K P Q A C C L V P E K R E E E T T E G G L D V A G N R L Q W A C E R L G			
UniRef90_F6IH10	A L R H K P H A A C I V P E E K R E E E T T E G G L D D A A G L H L A P I V S R L S			
UniRef90_W9BZZ5	A L R H K P H A A C I V P E E K R E E E T T E G G L D D A A G L H L M P I V G R L S			
UniRef90_UPI000465DA16	A C E I A P Q D V C L V P E K R E E E V T T E G G L D V V A H F V Q K A C A T L A			
UniRef90_V4JKP9	A A D L R P A D C C L V P E R R E E E L T T E G G L D V H Q D Q L Q D F C A M L A			
UniRef90_UPI0003F857AC	V K K V K P E Q V T L V P P D A P D A I T S N A G W D T N Q D Y L K E I I A D L K			
UniRef90_UPI0003FD103	A L N V A P E D V C L V P E K R E E E L T T E G G L D V L Q E K T A Y Y V A K L H			
UniRef90_Q1QDV0	A C Q V Q V P Y W V C L V P E K R E E E L T T E G G L D V A G Q S L T D Y V S Q L Q			
UniRef90_Q7VBK3	A L D L K P D M I T L V P E R R E E E I T T E G G L D V N A K S L K E I V T K M E			
UniRef90_V8G9C2	A C D V K P Q D A C L V P E R R E E E L T T E G G L D V F F N Q T K D A V S L L H			
UniRef90_V2QDZ0	A I D V H P N T C T I V P E K R Q E E I T T E G G L D D A A G Q Y V A D T V A K L Q			
UniRef90_J0W193	A C Q T K P H F C C L V P E K R E E E V T T E G G L D V A G Q K M R D A C Q R L A			
UniRef90_F4CE44	V L A N K P T Q V T L V P D E Q Q Q V T S N H G W D A N Q S Y L K E M S A L F K			
UniRef90_E1SRX5	A E R I R P E Y V C L V P E K R E E E L T T E G G L D V V V G Q K I S E A V T R L R			
UniRef90_UPI000475C4C3	A L R H K P H A A C L V P E K R Q E E L T T E G G L D V A G Q R L K P F V D T L G F K			
UniRef90_UPI000477E9D0	I R K I R P T Q V T L V P P D S H D A I T S D A G W D T H K D F L T D V V N E F Q			
UniRef90_UPI000476BDDD	A I D V K P H D V C L V P E R A E E E L T T E G G L D V V G R F V Q T A V K R L Q Q			
UniRef90_Q7U7S1	A L A V E P D M V T L V P E K R E E E V T T E G G L D V V A Q L L T P M V E R L L Q			
UniRef90_B3T0S2	A C S V K P S D C C L V P E K R Q E E I T T E G G L D V F M D R L A E A S E R L L K			
UniRef90_R4I189	A I N K K P H F C C I V P E K R K I E E L T T E G G L D V V A S Q R K M T S V V K Y L S			
UniRef90_Q1NUF0	A L E L Q P D M V T L V P E K R R E E L T T E G G L D V N K G G R L T G V I E Q F R Q			
UniRef90_W0BA46	A E E I A P A H V C F V P E K R E E E L T T E G G L D D V V S H Y V E H A V K R M Q			
UniRef90_W0EXM2	V L E V K P D Q V T L V P D A T G Q V T S D H G W D T N K D Y L T G I L G T F K			
UniRef90_E6QV65	A C R V R P H D V C L V P E K R E E E L T T E G G L D D V A G Q R I R H A C Q T L A			
UniRef90_A7HCT9	A Y E V K P D V V T L V P E R R E E E L T T E G G L D D V F G G R V R K V V K T L R			
UniRef90_C4LC01	A C R I K P Q F V C L V P E K R Q E E V T T E G G L D D V A S Q R R V R D A V T R L A			
UniRef90_UPI000371F3C	A E R I R P A H V C L V P E K R E E E L T T E G G L D V Q G R E I S P L I Q K L A			
UniRef90_U7D7A4	A C D D V P R Y M T T V P E K R E E E L T T E G G L D V T T E G G L I V Q G R E I S P L I Q K L A			
UniRef90_UPI0002624B62	A E R L S P S D C C L V P E R R A E E L S T T E G G L D D V A G Q R I K E A C Q R L A			
UniRef90_F7QP06	A L G T A P H A V C L V P E R R T T E G G L I V T T E G G L D D V A G Q R L G P F I A R L N S T L A			
UniRef90_UPI0003B6B2AC	A L E V S P H A C C L V P E R R E E E V T T E G G L D D V A S Q R Q L K D Y I S T L S			
UniRef90_N9CJ48	A K E I R P Q H V C F V P E K R E E E L T T E G G L D D V G N F V K K A A T Q E L T T F R			
UniRef90_A6CAR2	A L D D V R P D Q V S L V P E K R E E E L T T E G G L D D V N A N R V L V S Q C V H R L Q K			
UniRef90_X7EKL1	A L K H R P H A V C I V P E K R E E E L T T E G G L D D V D Q N R L R H F L A P L K			
UniRef90_A0L8S5	A E R W R K P Q D C C L V P E K R H E L T T E G G L D D V V G H R L A D A V V A R L H			
UniRef90_C6X6M9	A L Q V K P Q D V C L V P E R R E E E L T T E G G L D D V A G N A V S H A C Q V L R			
UniRef90_C3XKU5	I L K K I S P H R I T L V P E R R E E E V T T E G G L D D V N F E R I A E I T R T F R			
UniRef90_D2TX92	A C L I K P Q F C C L V P E R R E E E V T T E G G L D D V F G Q Q V A T A V K Q L A			
UniRef90_G6XIU5	A C D D L G P H A C C L V P E K R E E E V T T E G G L D D V A G Q Q L A S R I E R L K			
UniRef90_K1Z6J9	A E S V R P A N V C L V P E K R E E E V T T E G G L D D V Q Q D A L K K I C A R L A			
UniRef90_R5IS14	V L K V K P E Q V T L V P D A P D A I T S N S G W D T H Q E F L R E V I G T L K			
UniRef90_O67417	A L R V K P D R I T L V P E R R E E E I T T E G G L D D V V K E K L K E Y L K P I K			
UniRef90_C7PCF0	V L S V K P H Q A T L V P D P P D A I T S N T G W D T I Q H F L R E V I G T L K			
UniRef90_A5CWJ9	A S K I K P Q N C C L V P E K R E E E I T T E G G L D D V N M D K I E K A I N K L D Q			
UniRef90_F9UH84	A C R L K P A D C C L V P E K R E E E I T T E G G L D D V H G N R I R D F C A R L A			
UniRef90_J9H4M3	V L E V R P A Q V T L V P D A P D Q L T S N H G W D T H A D F L R P I I Q K F Q			
UniRef90_K1LXA2	I K K V K P I Q A T L V P D P P D A I T S N S G W D T H Q E F L R E V I G T L K			
UniRef90_R5EFX3	A V A V A P Q K V C M V P E R R E E E V T T E G G L D D V N M D K I E K A I N K L D Q			
UniRef90_C1D7L7	A L R V L P Q D V C L V P E K R E E E I T T E G G L D D V F F D R I A D F T T R Q L K			
UniRef90_A8UYZ3	A I D V K P N R I T L V P E K R E E E I T T E G G L D D V A G N Y I K N F V K E V K F Q			
UniRef90_UPI000374CFEC	A R A L R P H A A C L V P E K R E E E I T T E G G L D D V V G N K V G D A I V A A L K A			
UniRef90_J3Z5B6	A C D V P D C C C L V P E K R E E E I T T E G G L D D V S H N K L M Y F V D S L L K			
UniRef90_UPI000470BBA2	A L T T H E P H A S C L V P E K R E E E I T T E G G L D D V A G Q S L T P L C Q K L A			
UniRef90_UPI000374553D	A L K T K P E D V C L V P E R R Q E E I T T E G G L D D V G H N T I A P Y V R Q L K			
UniRef90_Q0APC2	A L R H K P H A V C L V P E K R E E E I T T E G G L D D V G H N T I L K Q K I V S L M Q			
UniRef90_UPI0003615FB1	A M K L L P D S V T L V P E G R H E L T T E G G L D D V S M L R L K Q K I V S L M Q			
UniRef90_UPI00031418F8	A C K A R P Q D V C L V P E K R E E E I T T E G G L D D V V G N K V R D A V N R L H			
UniRef90_UPI0003B5917F	A F D V L P D A C T L V P E K R Q E E I T T E G G L D D V V S N F V T Y T V R R L M			
UniRef90_M5DII0	A L R I R P Q D V C L V P E R R E E E I T T E G G L D D V V R H F V R Q A C G R L T			
UniRef90_Q2BIZ6	A E D V K P A H C C L V P E K R E E E I T T E G G L D D V A G Q R L Q E A C C N R L S			
UniRef90_M7PPU7	A E K Y R P A D C C L V P E K R Q E E I T T E G G L D D V L G Q R M Q A A C C A R L A			
UniRef90_B9XP98	A L K L K P E V C L V P E K R Q E E I T T E G G L D D V V G Q S L T E T R K R M T			
UniRef90_V9HB07	A I N V Q P E D V C L V P E K R Q E E I T T E G G L D D V Q Q D K V A D Y V A K L Q			
UniRef90_UPI000345BAB3	UniRef90_UPI000345BAB3			
UniRef90_B6JGF8	A L E L A T K P H A V C L V P E R R R L E I T T E G G L D D V V G Q R L A P I A Q F N			
UniRef90_L2F8G7	A C D V K P E W V C F V P E K R Q E E I T T E G G L D D V V G Q R L A S F I Q E M H			
UniRef90_C4K8H5	A Y A I K P Y S C C L V P E K R E E E I T T E G G L D D V V K K I V E T I E V L S			
UniRef90_B6A6Z75	A L R H K P H A V C L V P E K R E E E I T T E G G L D D V V A Q N K L A H F I A P L R			
UniRef90_R5HJD8	A L E I K P Y S C C L V P E K R Q E E I T T E G G L D D V V A G Q S L T E F I K P L L			
UniRef90_UPI0003462491	A L G V R P A H V C L V P E R R E E E I T T E G G L D D V V G Q R L A H F I A P L R			
UniRef90_C1DXD9	A L E T L P N T C T L V P E K R Q E E I T T E G G L D D V V K D Y I K E L K			

	130	140	150	160
UniRef90_E8UDQ6	D S G I R V S L F I D P D V N Q I	K A A Y D A G T K I I	E L H T G A Y A E	
UniRef90_UPI000375BE34	R A G C E V S L F I D P E E R Q I	E A A R R V G A P V I	E L H T G R Y A D A H D	
UniRef90_UPI00036B9132	D S G C R V S L F I A A V P A Q V	E A A E R V G A A V V	E L H T G A Y C D Y Y Y	
UniRef90_UPI0002486DE8	D S N I R V S L F I D A D K K Q I	D A A M T C G V P	E L H T G H Y A D	
UniRef90_UPI000479A638	Q A G C E V S L F I D P E P R Q I	D A A I E C G A P T I	E L H T G A Y A E A A G	
UniRef90_F3ZPL2	T A G I R T S V F F I E T D K E M I	E Y A A K A G A D R V	E L Y T E P Y A L N Y P	
UniRef90_W2C700	G H G I R T S V L F F I E T D L E N I	E W A A K T G T D R I	E L Y T E P Y A N R Y N	
UniRef90_V8QQY4	D A D A R V S L F I D P D A A Q I	D A A V N A G A R V I	E L H T G S Y A E	
UniRef90_K2EEF6	D K G I I V S L F I D P D F K Q V	E A S A Q T G A Q F I	E L H T G Q Y A E A F N	
UniRef90_S9RSJ9	D A G I L R V S L F I G A D E R Q V	R A A A H V G A D I I	E L H A G S Y C D A H A	
UniRef90_U4TGY3	A V H S E V S L F I D P D L N Q I	D A A I D C G A P V	E L H T G A Y A E A H G	
UniRef90_L8LGG3	G A G I P V S S W F I D A D L A Q I	E A A T K T Q A Q F I	E L H T G K Y A E A E G	
UniRef90_K7T0R5	E N E I E V S L F I D P T H E A V	E Y S S K L G A Q W I	E L H T G T Y A N V Y A	
UniRef90_R7DIR6	Q V G I R T S I F V D T N P E L I	E F A A K T G T D R I	E L Y T E P Y A S A Y	
UniRef90_UPI000349404F	A A G I P V S L F V D A D A A Q L	D A C A A R A K F V	E L H T G Q Y A E A K	
UniRef90_Q0A8Y8	E A G I R V S S L F I D P D P E Q I	V E A A A R V G A P V	E L H T G A W A E A	
UniRef90_A9KFA7	K V G I E V S S L F I D P P E E K Q I	D A A K A A G A G P V	E L H T G H Y A N A K T	
UniRef90_B1GZL2	K A G I I V S V F F I D A N T E Q V	L A C S E I K A D S I	E L H T G K Y A K F F K	
UniRef90_A8URY8	S V G I E V S S L F I D P E E S Q V	R A S A E V G A D A	E L H T G T Y A N L W N	
UniRef90_F3KCC5	A A G I K V S S L F I D H D S A Q I	D A A V R C G A P Y I	E I H T G H Y A D A	
UniRef90_G5G9L8	E S G I R V S S L F V S A D K R M V	E Y S K Q A G A D R V	E L Y T E P Y A A A Y M	
UniRef90_UPI00036B9DD7	A A G V E V S S L F I D P D E E Q I	E A S V K A G A P V	E L H T G R Y A D A	
UniRef90_F6IH10	D A G G V R V S S L F I D P D P R Q I	E A A M K L G A P I V	E F H T G E Y A H A E G	
UniRef90_W9BZZ5	D A G I R V S S L F I D P E A R Q I	E A A M R L G A P V	E L H T G R Y A H L W L	
UniRef90_UPI000465DA16	R A G I R V S S L F I D A D P A Q I	R A A R Q V G A P L I	E L H T G R Y A E	
UniRef90_V4JKP9	E A G V R V S S L F I D A D P R Q L	D A A M E V G A P V	E I H T G Q Y A D A	
UniRef90_UPI0003F857AC	A I G T R V S S I F V D P I V A M V	E G A A K T G T D R I	E L L Y T E A Y A T N Y L	
UniRef90_UPI0003FDF103	E A G I R V S S L F I V A A D H A Q I	Q A A H D V G A R V I	E I I H T G T Y A D A P D	
UniRef90_Q1QDV0	A A G I K V S S L F I D P E D K Q I	E A A V N C S A D A I	E L L H T G S Y A E A G L	
UniRef90_Q7VBK3	S C C I P T S S L F V D A N S K Q I	E A S S K I G A T W V	E L H T G P Y A R A	
UniRef90_V8G9C2	D N G I R V S S L F I D P E E A Q I	E A A V K C G A G V I	E L H T G A Y A E A K Q	
UniRef90_V2QDZ0	E K G I K V S S L F I E P D K M Q I	E A A K K I G A E Y I	E I I H T G L Y A N	
UniRef90_J0W193	D A G I L V S S L F I D A D H A Q I	D A A V A V G A P Y I	E I I H T G C Y A D A E N	
UniRef90_F4CE44	D A G I R V S S I F V D P D P K M V	E A A A S T G T D R I	E L L Y T E A Y A T N Y Y	
UniRef90_E1SXR5	Q A G I L K V S S L F I D A D P R Q I	D A T V A T G A P Y I	E I I H T G H Y A D A E D	
UniRef90_UPI000475C4C3	K A G M R V S S L F I D P S K E Q L	D A A K A L G A P V	E I I H T G A Y Y C E L V G	
UniRef90_UPI000477E9D0	A M G V R T S S L F I I N A N P E M V	R M A S Q I G T D R V	E L L Y T G P Y A E A Y R	
UniRef90_UPI000476BDDD	D V G I R V S S L F I D P V E Q Q I	E A A A A R T G A T V I	E I I H T G N Y S Q A	
UniRef90_Q7U7S1	Q R G I P V S S L F V D A E T T Q I	E A C C R N S G A H H W V	E L L H T G T Y A D A	
UniRef90_B3T0S2	N S G I R V A Y F V D P E P K Q I	E S S R M A G A E V V	E L L H T G T Y A D A	
UniRef90_R4I189	S V G I L V S S L F I D P L P Y Q I	E A A L E V G A P Y I	E I I H T G A Y A N A V S	
UniRef90_Q1NUF0	Q K G I P V S S L F I D P D A R Q I	E A A A A I G A T F V	E I I H T G R Y C D A	
UniRef90_W0BA46	A M G S E V S S L F I D P D I K Q I	D A S L A V G A Q A V	E L L H T G C Y A E A	
UniRef90_W0EXM2	K A G I R V S S I F V D P D E K M V	A G A A A T G T D R I	E L L Y T E G Y A R N F P	
UniRef90_E6QV65	Q A G I R V S S L F I D P D L H Q I	D A A H A C G A P V	E L L H T G H Y A D A	
UniRef90_A7HCT9	D A D I K V S S L F I D P D L D Q V	K A A H R A E A A T V	E E F H T G R Y C D A	
UniRef90_C4LC01	A V G T Q V S S L F I D A D H A Q I	D A A V A S G A P Y I	E I I H T G R Y A D A E T	
UniRef90_UPI00037F1F3C	A A G C D V S S L F I D P D P D Q I	R A A L D A G A P T I	E L L H T G A Y A E A S G	
UniRef90_U7D7A4	E N N T I V S S L F I D P D F Q Q I	K A A K K T G A T H I	E L L H T G Y Y A N A Q G	
UniRef90_UPI0002624B62	K A G V R V S S L F V D P D P F Q I	E A A A E T G A P V	E L L H T G R Y A N A P D	
UniRef90_F7QP06	D A G I R V S S L F I A A D P A Q I	E M A A K L K S P V	E I I H T G A W C D A V T	
UniRef90_UPI0003B6B2AC	Q A G I R V S S L F I D P E A L Q V	K A A A E V V K A P V	E L L H T G A Y C E A V	
UniRef90_N9CJ48	A I G C D V S S L F I D A D L A Q I	D A A V C G A P T I	E I I H T G T	
UniRef90_A6CAR2	Q A G G E V S S L F I D P D P A Q I	E A S K K A G V H A V	E L L H T G R Y A D A S S	
UniRef90_X7EKL1	D A G A R V S S L F I A A D E A Q V	E A A A A R V G A D V	E L L H T G A Y C D F H A	
UniRef90_A0L8S5	D A G I R V S S L F V D P D L E Q I	S A A G A I G A T V	E M H T G R Y A N A	
UniRef90_C6X6M9	D A D I K V S S L F I D P D I A Q I	D A A K A A G A P V	E I I H T G T F A D A	
UniRef90_C3XKU5	E H C I E V S S L F I D T Q I D Q I	C A S K E V G A Q M V	E I I H T G T Y A N L H L	
UniRef90_D2TX92	K A G I T V S S L F I D P N D K Q I	D A A V E I G A P F I	E I I H T G A Y A N A K S	
UniRef90_G6XIU5	D A G I R V S S L F I D P D R R R Q I	E A T A A L G A P V	E L L H T G A Y A H H G G	
UniRef90_K1Z6J9	K A G I T V S S L F I D P D K S Q I	D A A K W V G A P V	E I I H T G T Y A N A	
UniRef90_R51S14	Q A G I R T S S L F V G T D T E L I	E K A A K T G T D R I	E L Y T E P Y A S I Y	
UniRef90_O67417	E A G I E V S S L F I E A Q K E Q I	D A S V E V G A D A I	E I I H T G R Y A N L W N	
UniRef90_C7PCF0	A A G I R V S S I F I N A E T D K V	E A A K T A G A D R I	E L L Y T G P Y A E E F	
UniRef90_A5CWJ9	M S N I I V S S L F I D A Q K D Q I	D A A K Q C G A A V V	E L L H T G H Y A N A	
UniRef90_F9UH84	A S G I R V S S L F I D A D P E Q I	E A A H A V V G A P V	E I I H T G H Y	
UniRef90_J9H4M3	E A G I R V S S L F I S P D V A M A E G A L A L G A D R V	E E L Y T E P Y A A Q Y		
UniRef90_K1LXA2	E T G T R V S S I F I N P D P K F F E P A K T I I G T D R V	E E L Y T E P Y A T L Y P		
UniRef90_R5EFX3	N V G I T V C S S L F I D P V K E Q I	I D A A V K V G A P F V	E F H T G R Y A N A	
UniRef90_C1D7L7	A K G I R V S S L F I D P D D E Q I	K A S H E T G A T V	E L L H T G R Y A D A E S	
UniRef90_A8UYZ3	E T G I N V A L F I D P D T N Q I	D A S L E T G A D A V	E L L H T G E Y A N A F G	
UniRef90_UPI000374CFEC	E A G I R V S S L F I E A D P R Q I	D A A R E L G A P V	E L L H T G T Y C E H V G	
UniRef90_J3Z5B6	N N G I K V S S L F I D P D Q Q Q I	I A A E K V G A S C I	E I I H T G T F A N A K	
UniRef90_UPI000470BBA2	E E K N I R V S S L F V E P D T K Q I	E A A R K L G A D I I	E I I H V G R Y C D L E S	
UniRef90_UPI000374553D	E Q G T R V S S L F I D A E E A Q I	R A A A E I L G V P	E I I H T G V Y A E L	
UniRef90_Q0APC2	E A G G S R V S S L F I E P D P V Q I	A V A E A M G A A V V	E L L H T G A Y C E A F	
UniRef90_UPI0003615FB1	Q A G I V V S S L F I E P D I E Q I	K A S H R V G A D Y I	E I I H T G T Y C E M K	
UniRef90_UPI00031418F8	D A G I R V S S L F I D P D A R Q I	E A A S R S G A T V	E E L H T G A Y A D A A G	
UniRef90_UPI0003B5917F	E R G I D V S S L F I D P D E E Q I	A A A F K T G A K Y I	E E L H T G R Y A D T K G	
UniRef90_M5DII0	N A G I R V S S L F I N A D A A Q I	D A A A R T G A P A I	E I I H T G Q Y A D A	
UniRef90_Q2BIZ6	N A G I E V S S L F I D P D F Q Q I	D A T I R C G A P V	E I I H T G	
UniRef90_M7PPU7	A A N V T V S S L F I D P D K D Q I	D A A V S C K V P	E I I H T G R Y A D A	
UniRef90_B9XP98	D A G I E V S S L F I A A E P A Q V	Q A A S R V G A Q F I	E I I H T G A F A E H F N	
UniRef90_V9HB07	Q N Q I R V S S L F I D A D L A Q I	Q A A Y D V G A R V I	E I I H T G A Y A E E	
UniRef90_UPI000345BAB3	A A G I K V S S L F I D A D K A Q I	D A S V K A A A P Y I	E I I H T G A Y A D A E N	
UniRef90_B6JGF8	A A G I L R T S S L F I S P D R E Q I	E M A A Q L K A P V	E I I H T G T W C D A L I	
UniRef90_L2F8G7	K I G T Q V S S L F I D T D F A Q I	D Q S A I L G A D A I	E I I H T G V Y A Q L W L	
UniRef90_C4K8H5	K A G I V I S V F I D P D K H Q I	D L A A Q A K A Q Y I	E I I H T G T Y A N A S G	
UniRef90_B6A7Z5	E A G S R V S S I F I A A D K K Q I	D S A H R I G A E V I	E L L H T G A Y C D A F A	
UniRef90_R5HJD8	D A G I R T S S L F I D P T E E Q V	E A S K K T G A Q F I	E M H T G A Y A E A F G	
UniRef90_UPI0003462491	D A G I R T S S L F I A P D P A Q I	D M A A K L K S P A I	E I I H T G A W C D A L T	
UniRef90_C1DXD9	Q A G I H V S S L F I D P D L D Q I	D A A L E V G C D A I	E I I H T G E Y A N A C G	

170 180 190 200

UniRef90_E8UDQ6	E Q N Q S K Y	L S D K S S G A E V N T E L E R I L K T C I R E	
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UniRef90_UPI00036B9132	S	V V S S V V E R E L K Y N E I K K A C N Y	
UniRef90_UPI0002486DE8		E L A Y E L Q R I T D A V N Y	
UniRef90_UPI000479A638		A P F I E A A K L	
UniRef90_F3ZPL2		N R D H A I A P F V E A A K R	
UniRef90_W2C700		T T G E A Q Q A E L E R I R I A I A H	
UniRef90_V8QQY4		K F E E E P A F R N L C N A A N L	
UniRef90_K2EEF6	E G R L	G D R D A E F E K L R D M A T L	
UniRef90_S9RSJ9	Q	K Q Q H E L M R L H E A A Q Y	
UniRef90_U4TGY3		E K N R Q L E L D C L H R G C E Q	
UniRef90_L8LGG3		M R H S A L P H S H H A I K S L R L S R K E L D S R L N R S Y E E I V D A A N K	
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UniRef90_Q0A8Y8	D H E H N	Q Q L K R I A D A A A Y	
UniRef90_A9KFA7	E N	G T D S S E F K E E M E R L S E A S R K	
UniRef90_B1GZL2	E H R F	E E A E V I E I E R L K R A G E L	
UniRef90_A8URY8		E T E A E Q L K E L Q L I S Q G V A Y	
UniRef90_F3KCC5	Q S S	E F A I K E F L E A A S Y	
UniRef90_G5G9L8		G S A L E Q A E E L G R I R H A A Q I	
UniRef90_UPI00036B9DD7		E Q V A V I E L K R I V D M A A L	
UniRef90_F6IH10	D D D R	E G V Q A E L K R I A D A A A L	
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UniRef90_V4JKP9	N D P A S	A V A P Y A Q A A Q K	
UniRef90_UPI0003F857AC		R K Q Q Q A E L A R I R E A A A F	
UniRef90_UPI0003FDF103	A G K T D	R V N V E L E R I K N A V I T	
UniRef90_Q1QDV0		S W K N Q P L E F A K I S E G V A R	
UniRef90_Q7VBK3	P N	Q I E A E V Q R L K K A I S V	
UniRef90_V8G9C2		T E S E A Q K R E L N R I K E A A V Y	
UniRef90_V2QDZ0			Y
UniRef90_J0W193	E A T Q A K E L A R I A E A A S		
UniRef90_F4CE44		K N P A E A V Q P Y A E A A K L	
UniRef90_E1SRX5	E P	E I S R D K E L V R I R E A A S Y	
UniRef90_UPI000475C4C3		Q R E E L E R I R K A V V Q Y	
UniRef90_UPI000477E9D0		A D R E K A I A P F I E A A T L	
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UniRef90_R4I189	D L	A M Q N E L H R I S S A V I Y	
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UniRef90_W0BA46	V N K	A A K E E Q H E E L K R I R Q T A E Y	
UniRef90_W0EXM2		R Q G Q Q H E A L T R I H Q A V A H	
UniRef90_E6QV65		R L A S D R R K E L S R L V D A C K A	
UniRef90_A7HCT9		L V R I A E A A A Y	
UniRef90_C4LC01	E E E Q Q Q E	E Y E R I A A A A E L	
UniRef90_UPI000371F3C	D A M R V	A A Q K E E L E K L S E A S E Y	
UniRef90_U7D7A4		A K R L E E L G L I G S A V N F	
UniRef90_UPI0002624B62	T	Q I E A E W Q K I V A G A K L	
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UniRef90_N9CJ48	A G	E E Q E E L S I L E K A S A F	
UniRef90_A6CAR2	E G R L	E D R D A D L E R L R R M A A L	
UniRef90_X7EKL1		Q I E A E W Q K I V A G A K L	
UniRef90_A0L8S5		A T Q A Q R N L E L E Q L Y R A A H Q	
UniRef90_C6X6M9		E T P E E Q A H E L A R V Q Q A A V A H	
UniRef90_C3XKU5	M L N S N L S Y T H N T I E S L K I P R S E L K T H F L D S	R Q G Q Q H E A L T R I H Q A V A H	
UniRef90_D2TX92	Q L K	Q E E E F K R I K Q A V S H	
UniRef90_G6XIU5		R E L L K R I Q E A A A I	
UniRef90_K1Z6J9		A T A A E I K S E L K R I A D V A N Y	
UniRef90_R5IS14		E T N P K T A I E P F I E A A R T	
UniRef90_O67417	E H R F	E E A K E E L N R I K E A A I	
UniRef90_C7PCF0		E R A R T Q P Q N L Q L F N A Y K D T A R A	
UniRef90_A5CWJ9		T N E A Q L T E L E R I K I M A T Y	
UniRef90_F9UH84		A D A E T A A A R A D E L L A R I R R A V V N L	
UniRef90_J9H4M3		A Q N R E A A I A P F V T T A L R	
UniRef90_K1LXA2	T D K	E K A V K P Y V E V A H L	
UniRef90_R5EFX3		T N E K T I K E E L N V L T E M A S Y	
UniRef90_C1D7L7	H D	I R Q R E L T R I R H A A I V	
UniRef90_A8UYZ3	N	R I I K E L E R L Q F A A K Y	
UniRef90_UPI000374CFEC		A A R E R E L A R I G A A A A R H	
UniRef90_J3Z5B6		T E I C R A S A L N I R Q N I D F	
UniRef90_UPI000470BBA2	G D L	R A K E F A R I Q S A A K L	
UniRef90_UPI000374553D		N D P K A I E Q E L V R L Q A A T D L	
UniRef90_Q0APC2		L A G D K A K L D H H L K R L Q A A S T V	
UniRef90_UPI0003615FB1		L E K D R L E Q L R R L E L A I S A	
UniRef90_UPI00031418F8	F	P D A Q A E L E R V R T G V V E	
UniRef90_UPI0003B5917F		R T A S E Q Q S E L E R I R V A V R E	
UniRef90_M5DII0		E E R R D E L T K L T T A T E F	
UniRef90_Q2BIZ6	D Q	R T A S E Q Q S E L E R I R V A V R E	
UniRef90_M7PPU7	A G S S K A	E T A A E E Q K A E L T R I R E A A A Y	
UniRef90_B9XP98	K N K Q Q A I T G	E T A A E E Q K H E L A I I C K A A Q Y	
UniRef90_V9HB07	N Q K S S	K V E R N L E L A R I R Q A A E F	
UniRef90_UPI000345BAB3	Q	K A A H D R A A E L E I I R E G V R Y	
UniRef90_B6JGF8	E G D M	Q Q A K E L D A E W K R I V E G A K L	
UniRef90_L2F8G7	T D N E E L	E E V R I Q K A V A Y	
UniRef90_C4K8H5	D G D T	E L K R I V D A A A Y	
UniRef90_B6AZ75		K T R D A E L A A M T E M A A Y	
UniRef90_R5HJD8		E F Q K L K Q A A E L	
UniRef90_UPI0003462491		A K A S A E W K R I V A G A A L	
UniRef90_C1DXD9		K S V E K E L E R I K K A A K Y	

	210	220	230	240
UniRef90_E8UDQ6	A K T L G L K V N A G H G L N F K N V V P I □ K L E G I S E L N G H S L I A Q			
UniRef90_UPI000375BE34	G □ A H G L V V N A G H G L H Y H N V E A V A A L P G E V N E E L N G H A I V A H			
UniRef90_UPI00036B9132	A S S I G L E V H A G H G L T Y E T V S Q I A A F P E L K E E L N G H F L I S D R			
UniRef90_UPI0002486DE8	A H N L G L Q V N A G H G L T L E N T F A I A K I V E E L N G H S I I S R			
UniRef90_UPI000479A638	A A S R L I V N A G H G L N L H N V A A I A R L P H I H E L N G H A I I S D D			
UniRef90_F3ZPL2	V K S L G M G L N A G H D L L N L E N L Y L Y N N I P P W L D E E V S S G H A L I C D D			
UniRef90_W2C700	A K S L G L G V N A G H G L S L Q N L A F F A H L P W I E E E V S S G H A L I C D D			
UniRef90_V8QQY4	G □ R Q G L L K V N A G H G L H Y Q N V Q A V A L G G I T E E L N G H A I V A Q			
UniRef90_K2EEF6	A A E L G L G L R I N A G H G L N Y Q N T K R I L T L K N G L E E E L N G H S I I S K K			
UniRef90_S9RSJ9	A H S L G L E V H A G H G F T Y D S V K P V A A V P E V V E L N G H F I I G E R			
UniRef90_U4TGY3	A H K K G L L I V N A G H G L H Y H N T L A I A A I A E V N E E L N G H S I I A R R			
UniRef90_L8LGG3	A I A L G L R V N L G L H G L T Y T N V Y P V V S L P G V I D T I E E E L N G H T I I S R S			
UniRef90_K7T0R5	A R M L R V N L G L V A A G H G L N Y Q N V K P I V E D T I E E E L N G Q S I I A R R			
UniRef90_R7DIR6	A H K L G L G I N A G H D L L N L E N L R Y F H Q I P V L D E E V S G H A L I T D R			
UniRef90_UPI000349404F	A I A L G L R V N A G H G L T Y R N V Y P V A C I D G M E E E L N G H T I I S R R			
UniRef90_Q0A8Y8	G □ Q C G L Q V N G G H G L H Y H N V Q P V A A I T G V R E E L N G H A I I A R R			
UniRef90_A9KFA7	A D S L G L T V N A G H G L T □ H N V Q S I A A I P V I N E E L N G H S I I S R S			
UniRef90_B1GZL2	A V K K G L L I L N A G H G L D Y D N V E R I I C N I P G M N E E F N G F S I I A E			
UniRef90_A8URY8	A K E L G M K V Y A G H G L T Y Q N V K G V L E L S G I E E E L N G H S I I A N R			
UniRef90_F3KCC5	A L E Q G L V V N A G H G L H Y H N V E E L A A I P G I Y E E E L N G H G I I M A R			
UniRef90_G5G9L8	A K E G G I G L N A G H D L S L H N L Q Y F H Q I P W L D E E V S G H A L I V A R			
UniRef90_UPI00036B9DD7	A R A A G L Q V N A G H G L N Y H N V E A I S A I P E L V E E L N G H A I I V A R			
UniRef90_F6IH10	A A K N G I E P H A G H G L T Y E N V V Q P I A A I P Q L A E E L N G H Y L I G E E			
UniRef90_W9BZZ5	A S K N G I E P H A G H G L T F D N V V Q P I A A I P Q L A E E L N G H Y L I G E E			
UniRef90_UPI000465DA16	G V S L G L V V N A G H G L H Y Q N V P V A A L Q G I V E E E L N G H A I I V A H			
UniRef90_V4JKP9	G D K L G L Q V N A G H G L D Y H N V A A V S A L Q A V R E E L N G H S I I A R R			
UniRef90_UPI0003F857AC	A N E L G L G I N A G H D L D □ D N L K Y F K Q I T G I L V E E L N G H A L I C D D			
UniRef90_UPI0003FD103	A H S L G M T V N A G H G L T I H N V A P V A R I A D I V E E L N G H W L V A Q			
UniRef90_Q1QDV0	A K R L L K L L V N A G H G L T R D N V H A I I A Q I D I G L Y E E E L N G H A L I A D R			
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UniRef90_V8G9C2	G □ A N G L K V N A G H G L H Y Q N V Q A I V A R G G I S E E L N G H A I I V A Q			
UniRef90_V2QDZ0	A H S L G L I V N A G H G L N Y T N T Q S I I A A V P Y M H E E L N G H S I I S R R			
UniRef90_J0W193	A A A K G L K V N A G H G L T Y H N V Q A I A R I P E M H E E L N G H A I I G R E			
UniRef90_F4CE44	A H E L G L G L V N A G H G L D □ H N L Q Y F R Q I P H L L E V S G H A L I A D R			
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UniRef90_UPI000477E9D0	A K N L G L G V N A G H G L N L E N L A Y H G P I A A M P E L M E E L N G H S L I S D Q			
UniRef90_UPI000476BDDD	G □ G L L G L K V N A G H G L H Y T N V Q D □ V A L G G F S E E L N G H A I I V A Q			
UniRef90_Q7U7S1	A R H L G L R V N A G H G L T Y Q N V V E P I A A I P G M E E E L N G H T I I V A R K			
UniRef90_B3T0S2	G T K I G L K V H A G H G L H Y E N T A Q A A I S E I L E E L N G H A I I V A K			
UniRef90_R4I189	A Q Q K Q K L K V N A G H G L T Y H N V Q K I A A L P E I I Y E E L S G H A I I M A R			
UniRef90_Q1NUF0	A W Q A G L R V N A G H G L N Y R T N G R I A A L P E I I Y E E L S G H A I I I A R D			
UniRef90_W0BA46	A A K L G L I V N A G H G L H Y H N V K P I A A I N E L N E E L S G H A I I I A R D			
UniRef90_W0EXM2	A R S L G L G L V N A G H G L D □ K N L Y F R Q I P W L N E E L S G H A L I C D D			
UniRef90_E6QV65	G □ T A G L R V N A G H G L H Y H N V V Q T □ A A I P G I Y E E L S G H A I I V A Q			
UniRef90_A7HCT9	A A K L G L E V A A G H G L N Y Q N V V P V A A I P E I I Y E E L S G H S I I V G R			
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UniRef90_UPI000477E9D0	A H K L G F T V N A G H G L N Y H N T A P I A Q L H M N E E L N G H S I I S R R			
UniRef90_UPI0002624B62	A E S L G L Q V N A G H G L D Y H N V Q A I A A I P G I R E E L N G H A I I V S H			
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UniRef90_D5EKA3	N K I L L G V N V D H C A T I R Q A R D E V E P D C V E F A L L C E E Q A G D G
UniRef90_R7P8P0	T K L S V N I N K V V A T L R N A R G E N P N V E Q V A L D C E A F G G A G
UniRef90_W6EE03	M L L G V N I D H I A V L R E A R K I N D P D P L D A I S L V K R A G D Q
UniRef90_Q11PM4	T R L S V N I N K I A T I R N A R G G N N P D L L K V I A L D C E R F G E G
UniRef90_R5AN34	T N F S V N I N K V V A T L R N A R G E N R P D V E Q F A C D V E R L G D G V
UniRef90_UP10003795ED2	S R P L L G V N V D H I A T L R Q A R G T R F P D P V Q A A L L A E Q A G D G
UniRef90_EOURZ4	P M K L G V N I D H V A V L R E A R Q V N D P D I L Q A L V A C E S G A E Q
UniRef90_UP100037352A8	I R L G L N V D H V A T L R N A R G E A Y P D P V D A A R I A L D H G D G
UniRef90_D5X4R1	L L G V N I D H V A T I R N A R G G S F P D P V L A A Q Q A E A G A D L
UniRef90_B5YGR4	M K L G V N I D H V A T I R E A R K T F E P D P V V M A A T L A I L G G D G
UniRef90_UP0003728ECF	S D V L L G A L N V D H I A T I R N L R G T K Y P D P V H A A F I A E K S G D G
UniRef90_E8Q6F4	L R L G V N I D H V A T I R N A R G G D H P D P V R A A E V A A A A G D G
UniRef90_A7HX45	U L L G V N I D H V A T I R Q A R G T R Y P E P V Q A A L V A E Q A G D G
UniRef90_UP100036B1506	U H G V N I D H V A T I R N A R G G R D P H L Q M A L L A V E E A G D G
UniRef90_UP1000262CFA8	U V R L L G V N I D H V A T I R N A R G G T H P D P V K A A L M A V K A G D G
UniRef90_T0HV42	U H L R L G V N I D H V A T I R N A R G G T H P D P V K A A L M A V K A G D G
UniRef90_V5UDJ4	N P I D L G V N I D H V A T I R N A R G T S Y P D P I K A A L L A E E A G D V
UniRef90_I3ILL3	M K L G V N I D H I A T I R Q A R K T F E P D P V T A A S L A T L G G D I
UniRef90_L1N9K8	T R L S V N I N K I A T L R N A R G G N I P D D L L Q V A R D C E R F G E G
UniRef90_K2LF30	K L R L G V N I D H V A T I R N A R G G D L P D P V V R A A E L A K A A G D G
UniRef90_UP100029B52BF	T H L R L G V N I D H V A T I R N A R G G N V P D L V Q F T K D I E S F G E G
UniRef90_UP100016C3AF3	I R L G V N I D H V A T I R Q A R R A H E P D T V A A A V L A T L G G D G
UniRef90_K2C119	P I L L G V N I D H V A T I R Q A R K T R Y P E P L A A M E A E M A G A D S
UniRef90_H1YHB2	T R L S V N I N K I A T L R N S R G G N N P D L I K V I A L D C E R F G E G
UniRef90_Q0YUP2	M R L S V N I D H I A T L R N A R N E F P D D L V V E A A L L A E K C G A G
UniRef90_E0TBD4	A C R L G V N I D H V A T I R N A R G G T D P D V V R A A Q L A I A G A D G
UniRef90_UP10003B7399B	T K L S V N I N K I A T L R N A R G H N R P D L L Q V A R D C E R F G A G
UniRef90_B5JJV4	S I L L G V N I D H V A T V R E A R Y K E E P D P V T I A L L C E K A G A G I
UniRef90_X2HF82	M L L G V N I D H V A T V R N A R G S S Y P S P L E A A L L A E T H G D L
UniRef90_R6W6S9	T K L S V N I N K I A T L R N A R G G N P D V V Q A A V V D C Q L F G A G G
UniRef90_E5ANZ1	I E L G V N I D H V A T L R N V R G T A Y P D P L R A A L Q A E A A G D A
UniRef90_G8R066	T K L S V N I N K I A T L R N A R G G D V P N L V Q V A T D C E S F G A G I
UniRef90_UP1000369B7F8	M L L G V N I D H V A T L R N A R G T T Y P S P L E A A L L A E T H G D L
UniRef90_UP1000414B32B	T K L S V N I N K I V A T L R N A R G G N V P Q V A V D C Q L F G A G G
UniRef90_AOP649	M K L G V N I D H I A T I R Q A R G T S Y P S I V K A A L A A E T S G D S
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	50	60	70	80
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UniRef90_UPI000418BE60	T V H P R P D E R R H	R Y Q D V Y D K E V V T T E F N I E G N P T P D F L K		
UniRef90_M9RE91	T A H L R E D R R H	V D A D I D G M A A L R I P L N F E M A A T A E M Q K I		
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UniRef90UPI00047DBE79	T V H P R P D E R R H	M N D D D I S R I V E S S F L P I N I E S S I N P Q I I D F		
UniRef90_C5EZJ7	T L H L R E D R R H	T R D T D I A A L K R G L S V P L N F E M A A T D E M V A I		
UniRef90_B1LTR6	T A H L R E D R R H	Q Q D R D V E L L R Q T V R T R L N L E M A A T A E E M V A I		
UniRef90_A5GU97	T V H L R E D R R H	T D R D V A M L K Q T L N V P M N L L E M A V T E E M L D I		
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UniRef90_W0EUJ9	T V H P R P D E R H	K D N D V C A I N D I Q I P L N L L E I A L T N E M I N F		
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UniRef90_C6W4V5	T V H P R P D E R H	M Q E R D I R R Q C L R T R L N L L E M A V S E D I L G L		
UniRef90_P72776	T A H L R E D R R H	Q D A D V E I L R K T V R T H L N L L E M A A T K E M V E I		
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UniRef90UPI0004734A48	T L H L R E D R R H	R D A D V R A I R P L L T T R M N L L E M A A T A E E M V Q I		
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UniRef90_J9DFU9	T A H L R E D R R H	S D T D I E R L S A E I N P L N F E M A A T E E M L N I		
UniRef90_H8KNA0	T V H P R P D E R H	R Y Q D V I D K P L L T T E F N I E G R P D E R F M D L		
UniRef90_Q3A5V4	T I H L R E D R R H	Q D R D V E L I R Q T V K T R L N L L E M A A T D E M V G I		
UniRef90_A8ESJ1	T I H L R E D R R H	H D N D A K A I I E Q S S L P V N L L E C S I N S D I I D I		
UniRef90_Q7MAP8	T I H L R E D R R H	H D Y D V E R I V E S F S L P V N V E C S T D K Q I V D L		
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UniRef90_B9KCG6	T I H V R E D R R H	A N E K D I E N L K Y C K C V V N L L E C S I D M I E Y		
UniRef90_K2FTK9	T V H L R E D R R H	N E N D R D V A L L L Q T A Q T R L N L L E M A A T D E M V A I		
UniRef90_F8E5D7	T V H L R E D T R H	Q H R D V S L L K D I L K T R L N L L E M S V N H E I V E F		
UniRef90_B1X5M1	T V H L R E D R R H	Q D R D V A L L R A V I R S R R L N L L E M A A T N E M I D I		
UniRef90_D5EKA3	T M H L R E D R R H	V Q D S D V Q R A R E H I S T R E F N I E M A C T P E M I E Y		
UniRef90_R7P8P0	T V H P R P D E R H	N D D D A K K I I E T S Q L P I N L L E C S I T P E I I E K		
UniRef90_W6EE03	T I H L R E D R R H	R D E D V Y K A I I E T S Q L P I N L L E G Y P D E R F V E L		
UniRef90_Q11PM4	T I H P R P D E R H	R Y Q D A Y D L K K I I V T T E F N I E G N P E G E F I A L		
UniRef90_R5AN34	T V H P R P D E R H	R Y D D V Y R P L V K T E F N I E G Y P C E R F L D L		
UniRef90UPI0003795ED2	T M H L R E D R R H	Q D R D V E R A A D M L N T R L N L L E C S I N K N I L D I		
UniRef90_EOURZ4	T I H L R E D R R H	Q D I D V K N I L Q F S K L P V N L L E C S I N K N I L D I		
UniRef90UPI00037352A8	T A H L R E D R R H	R D A D V E R L R K L P A P L N F E M A A T D E M V D I		
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UniRef90_E8Q6F4	T V H L R E D R R H	T D R D I K L L R E T T I Q T T M N L L E I A V V D E M I N I		
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UniRef90UPI000262CFA8	T I H L R E D R R H	V W L L R S H L R T P M N L L E M A A T D E M V R I		
UniRef90_T0HV42	T A H L R E D R R H	R D E D V A T I A A L A V P L N L L E M A A T A T R E M L D I		
UniRef90_V5UDJ4	T L H L R E D R R H	R D D D V T N L R D K L M T R M N L L E C A V T E E M L A I		
UniRef90_I3ILL3	T V H L R E D R R H	Q D R D V R R L L K E M V F T K L N L L E M A A A R D I V D I		
UniRef90_L1N9K8	T V H P R P D E R H	R Y R D V Y D L K G V I T T E F N I E G N P T P T L M K I		
UniRef90_K2LF30	T A H L R E D R R H	R D A D M Q R L R E E V D L P L N F E M A A T D E M L A I		
UniRef90UPI00029B52BF	T V H P R P D E R H	R Y Q D V F D L K P V K T E F N I E G N P I P K F I D L		
UniRef90UPI00016C3AF3	T V H P R P D E R H	Q D R D V F R L R E T V V T T R L N L L E M A A Y D E I V E I		
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UniRef90_H1YHB2	T V H P R P D E R H	R Y Q D V D D L K K T I K T E F N I E G N P V E D F M K I		
UniRef90_Q0YUP2	V C H L R E D R R H	R D L D L Q R L R E A V T T K L D L E M A M T P E M Q Q I I		
UniRef90_E0TBD4	T A H L R E D R R H	Q K A D V R R L R E C I Q T R L N M E M A A T E E M A E I		
UniRef90UPI0003B7399B	T V H P R P D E R H	R Y Q D V R D L K P I V T T E F N I E G N P T P D F L N I		
UniRef90_B5JJV4	T V H P R P D E R H	Q K A D V R R L R E C I Q T R L N M E M A A T D E M L A F I		
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UniRef90_E5ANZ1	T L H L R E D R R H	V D A D V R A L R P L L K T R M N L L E C A L T Q E M L D I		
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		90	100	110	120
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130 140 150 160

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UniRef90UPI00016C3AF3	R N N I R T S I F V D P N V K M V E H A A K T G T D R I E L H T G Y Y A E E F G
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UniRef90_E0TBD4	E A G I E S S I F I E P S Q S A I T L A A Q G A E M V E L H T G T Y A
UniRef90UPI0003B7399B	E A G I R V S L F I D P E D A Q V R A A A A L G V P V V E L H T G A Y H H A
UniRef90_B5JJV4	S L G C R V S L F I D P D L E M V K A A V G T G T D R I E F Y T E A Y A R Q Y P
UniRef90_X2HF82	D A G I E T S L F I D P D Q N Q I E A S A K T G A K Y V E L H T G A Y A N A Y
UniRef90_R6W6S9	A A G I R V S L F I D A D S R Q I Q A C Q E V G A P V I E L H T G A Y A D A P E
UniRef90_E5ANZ1	E A G I R V S L F I D P S A E M V R G A K E C G T D R V E L Y T E S Y A S G Y
UniRef90_G8R066	D A G T R V S L F I D A E P E Q I R A A H E S G A P V I E L H T G R Y A D A D D
UniRef90_E0TBD4	E N D I R V S L F I E C N E D Y Q G A A D L G A D R I E L Y T E D Y A N G Y S
UniRef90UPI000369B7F8	E A G I R V S L F I D A D A D Q I T A A H E V G A P V I E L H T G A Y A D A D N
UniRef90UPI000414B32B	A M G V R V S L F I F T G D P E I E Y A H E V G A P V I E L Y T E P Y A T L Y
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170 180 190 200

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UniRef90_UPI00047DBE79	E R A L E L E R I A R G A E L		
UniRef90_UPI00047D5726	A L E D D D A R T A R E L A R I R R A A E H		
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UniRef90_R6A944			
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UniRef90_UPI00040CB9E9	T Q G R D V E A P A V L T A	V A Q V R Q A G A A	
UniRef90_G5HAG8	A G	R E K A I A P F V A T A E E	
UniRef90_K1XKS0	S D K	N A A I E P Y V K A A E K	
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UniRef90_D5BFN6	D G D K	K E A V K P Y A K C A E L	
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UniRef90_H8KNA0	N N K	E S V I A P Y L E A A K L	
UniRef90_Q3A5V4	A	A T R S K E L D K L T N A V K A	
UniRef90_A8ESJ1	M L Y S N L A S T H H S I K E L E L S K S E L K T K L S K S I K Q I E T S S K L	Q D R E T A V Q P F A E A A R V	
UniRef90_Q7MAP8	M L R S N L P K T P H A I P A L E M D R R S L S L A Y R E S L T L Q K A A Q K	R R E E E R K K R L M E I A E S A R F	
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UniRef90_A1AZ42		A	
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UniRef90_D6PCN9		A T A D A E W Q R I V K A A A L	
UniRef90_W3RF73		E T Q K A G E L E R L I A S A A M	
UniRef90_J9DFU9		E S V I A P Y L E A A K L	
UniRef90_H8KNA0		A T R S K E L D K L T N A V K A	
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UniRef90_A8ESJ1		R R E E E R K K R L M E I A E S A R F	
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UniRef90_W3RF73		E S V I A P Y L E A A K L	
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UniRef90_Q3A5V4		R R E E E R K K R L M E I A E S A R F	
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UniRef90_B9KCG6		E S V I A P Y L E A A K L	
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UniRef90_W3RF73		Q D R E T A V Q P F A E A A R V	
UniRef90_J9DFU9		R R E E E R K K R L M E I A E S A R F	
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UniRef90_A8ESJ1		S E R K K E L E R I L S I A S N L	
UniRef90_Q7MAP8		A T A D A E W Q R I V K A A A L	
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UniRef90_A1AZ42		A T R S K E L D K L T N A V K A	
UniRef90_B9KCG6		Q D R E T A V Q P F A E A A R V	
UniRef90_D6PCN9		R R E E E R K K R L M E I A E S A R F	
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UniRef90_Q3A5V4		S E R K K E L E R I L S I A S N L	
UniRef90_A8ESJ1		A T A D A E W Q R I V K A A A L	
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UniRef90_Q3A5V4		E T Q K A G E L E R L I A S A A M	
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UniRef90_J9DFU9		A T A D A E W Q R I V K A A A L	
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UniRef90_W3RF73		A T A D A E W Q R I V K A A A L	
UniRef90_J9DFU9		E T Q K A G E L E R L I A S A A M	
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UniRef90_Q3A5V4		A T R S K E L D K L T N A V K A	
UniRef90_A8ESJ1		Q D R E T A V Q P F A E A A R V	
UniRef90_Q7MAP8		R R E E E R K K R L M E I A E S A R F	
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UniRef90_D6PCN9		A T A D A E W Q R I V K A A A L	
UniRef90_W3RF73		E T Q K A G E L E R L I A S A A M	
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UniRef90_H8KNA0		A T R S K E L D K L T N A V K A	
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UniRef90_A1AZ42		A T A D A E W Q R I V K A A A L	
UniRef90_B9KCG6		E T Q K A G E L E R L I A S A A M	
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UniRef90_J9DFU9		Q D R E T A V Q P F A E A A R V	
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UniRef90_W3RF73		Q D R E T A V Q P F A E A A R V	
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UniRef90_UPI00037F1370		A T A D A E W Q R I V K A A A L	
UniRef90_H5SPX3		E T Q K A G E L E R L I A S A A M	
UniRef90_A1AZ42		E S V I A P Y L E A A K L	
UniRef90_B9KCG6		A T R S K E L D K L T N A V K A	
UniRef90_D6PCN9		Q D R E T A V Q P F A E A A R V	
UniRef90_W3RF73		R R E E E R K K R L M E I A E S A R F	
UniRef90_J9DFU9		F D T E G R L A E R D L E L E A L L R R G A A Q	
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UniRef90_A8ESJ1		S E R K K E L E R I L S I A S N L	
UniRef90_Q7MAP8		A T A D A E W Q R I V K A A A L	
UniRef90_UPI00037F1370		E T Q K A G E L E R L I A S A A M	
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UniRef90_A1AZ42		A T R S K E L D K L T N A V K A	
UniRef90_B9KCG6		Q D R E T A V Q P F A E A A R V	
UniRef90_D6PCN9		R R E E E R K K R L M E I A E S A R F	
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UniRef90_A8ESJ1		A T A D A E W Q R I V K A A A L	
UniRef90_Q7MAP8		E T Q K A G E L E R L I A S A A M	
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UniRef90_H8KNA0		S E R K K E L E R I L S I A S N L	
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UniRef90_W3RF73		A	

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UniRef90_UP100047D5726	G V A L G L K V N A G H G G L H Y S N V Q P I A T L A N I A E E L N G H A I I V A K			
UniRef90_C5EZJ7	A K W L G L E V A A G H G G L N Y A N L K P I L E I P E I I I E L N G Q S I V A R			
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UniRef90_F0SDZ7	A N K K L G L G I N A G H D D L D L D N L K Y F S Q I E G L L E V S S G H A L I C D			
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UniRef90_W0EUJ9	A R S L G L G V N A G H D D L N L E N L R F H E I P F L S E E V S S G H C I C D			
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UniRef90_C6W4V5	A R E V G L G L N A G H D D L S L D N L H F L K Q P P W M D E V S S G H A L I C D			
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S | I | Y | I | G | L | E | A | A | I | K | K | M | R | N | L | M
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 A | M | F | V | G | L | P | A | A | L | A | E | M | R | R | Q | M | D
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 A | L | F | I | G | W | E | N | A | V | I | E | M | K | K | I | I | K
 A | L | Y | I | G | L | E | K | T | I | S | M | Y | K | N | Q | L
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 A | L | T | V | G | F | E | R | A | V | R | E | M | L | E | L | M
 A | V | F | V | G | L | A | Q | S | V | R | D | M | R | A | A | M | E
 A | I | F | E | G | L | E | H | V | I | R | K | M | R | N | L | I | D
 A | L | Y | L | G | L | E | N | T | I | Q | Q | Y | L | R | Q | L | R
 A | V | L | V | G | M | D | R | A | V | R | E | M | K | D | L | V
 S | V | F | T | G | L | K | Q | A | I | T | D | M | K | E | L | I | K
 S | I | F | T | G | F | E | A | A | V | R | E | M | V | E | L | L | G | R
 A | L | Y | L | G | L | E | E | T | V | R | R | Y | L | E | C | L | R
 S | V | F | L | G | L | G | P | A | I | R | E | M | R | R | N | M | D
 S | V | F | V | G | L | E | K | A | I | L | E | M | R | A | L | I | K | R
 A | V | L | T | G | L | D | E | A | V | R | S | S | M | R | A | L | I | D | Q
 S | V | F | T | G | I | C | E | A | V | K | E | M | K | R | L | I
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UniRef90_UP100045E6CBE	K T	K L G V N I D H A T I R Q A R G G A E P D P V E A A F I A E K H G A Q			
UniRef90_I3ZZJ4	M K	K L G V N I D H A T L R E A R K I N E P D P L M A L E I L K E A G D Q			
UniRef90_UP1000466E188	P L	L G V N I D H V A T V R N A R G G G H P D P V R A A N L A V L A G D G			
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UniRef90_UP1000366847B	T K	L G V N I N K I A T L R N S R G G N T P N V V Q F A K D V Q R F G Q G			
UniRef90_UP1000478BE54	S F	I S L G V N V D H V A T V R Q A R G G S E P D P V I A A A L A E Q G G D G			
UniRef90_M5T6W9	M L	G V N V D H A V L R E A R K V A D P D P L D A L G I C K R A A D Q			
UniRef90_A6QAX8	K L	G L V N V D H A T V R Q A R G G S E P D P V T A A A G E L A G E G			
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UniRef90_R5BH14	T R	L S V N I N K I A L I R N S R G E N M P D V L K A A L D C C E R F G E G			
UniRef90_D3DFY8	M R	L G V N I D H V A T L R Q A R G T F E P S P V F V A A L A Q Q A G D Q			
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UniRef90_Q3V7H8	T Q	L A I N D H V A T I R Q Q R A G I T E P D P V V A A A A C E M A G A G			
UniRef90_L0B5X6	I E	L G V N I D H V A T L R Q Q R H T C Y P D P L A A A L T A E K A G D L			
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UniRef90_UP10003477432	L T	L G V N I D H V A T I R Q A R R T V E P D P V V A A A A V L A E L A G D G			
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UniRef90_D9Q118	R V	R L G V N I D H V A T V R N A R G G L Y P D P V R A A R E A L E A G D G			
UniRef90_G4E1N6	A L K	G I N I D H I A T I R Q V R N T P Y P D L V A A V R I I E A H H G D T			
UniRef90_N6W2A9	R V	L L G V N I V D H V A T I R Q S R G T R Y P D P V Q A A L L A E E A G D G			
UniRef90_L8JQZ0	T R	S V N I N K F E A T L R N A R G G N N P D V I K A A L D C C E R F G A G			
UniRef90_A3ZZV6	L G	G V N I D H V A T V R Q A R Q T N E P D P V W A A A L A E M G G D C			
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UniRef90_E4RZ39	T K	L S V N I N K I A T L R N S R G G D V I P N V L Q V I A R D C C E R F G A G			
UniRef90_D5BR80	S R	L R L G V N I D H V A T I R N A R G G G V H P N P V D A A L L A E Q A G D G			
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UniRef90_W0DNQ0	H L	R G V N I D H A T I L R Q A R R T P Y P D L M H A V R L A E A S G D S			
UniRef90_L1MCM3	T K	L S V N I N K F E A T L R N A R G G N N P D L Q V I A R D C C E R F G Q G			
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UniRef90_R6EG14	T R	L S V N I N K I A T L R N A R G G N L P D V E K A A C D C C E R F G E G			
UniRef90_UP100035DF7E3	M H	L G V N I D H I A T L R Q A R L T T Y P D P V I E A A L V C L Q G G D G			
UniRef90_B3QTV1	M R	L A V N I D H I A T L R N A R Q E T Q P D P V T A A R L A E L S G A G			
UniRef90_UP1000225FDAD	R L	G V N I D H V A T I R N A R G G T H P D P V E A A A L L A V K A G D G			
UniRef90_B4CZH4	M K	L G V N I D H V A T I R Q A R H K V E P D D L A A A A S C C E R F V G A G			
UniRef90_W4T9V1	T K	L S V N I N K I A T L R N A R G G E T P S V T E A A V K I Q F G Q G			
UniRef90_UP10004117CA4	T K	L S V N I N K F E A T L R N S R G G N N P D V L T R A A I N A Q Q F G D G V			
UniRef90_I7ZFD6	P L	R G V N I D H V A T V R Q A R G V S Y P D P V E A A L I C A Q A G D S			
UniRef90_W0JEN1	M R	L G V N I D H I A T L R Q A R L G I E P E P I Y A A L I A E A L A D N			
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UniRef90_UP10003B2EFDB	R I	L L G V N I D H A T V R Q A R G T R Y P D P V P K V A A L D A E Q A G D G			
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UniRef90_D3EQX5	R I	L L G V N I D H V A T I R Q A R C S T E P N V I A A V L A E L G G A G			
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UniRef90_UP10004693EE5	T K	S V N I N K I A T L R N A R G G N M P D V V Q A A L H C C E R F G A G			
UniRef90_UP100047979BB	T K	S V N I N K I A T L R N A R G G N V P D L L K V A T D L E G F G A G			
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UniRef90_UP1000478C150	T K	L S V N I N K I A T L R N S R G G N V P N V V K V A E D I E R F G E G			
UniRef90_Q3B5P7	M R	L A V N I D H I A T L R N A R N E G E P D P V A A A L L A E E S G G A G			
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UniRef90_I0ALM4	M R	L A I N V D H I A T L R N A R G E N Q P D P V T A A L I A E Q A G D G			
UniRef90_UP10003FD41A6	T K	L S V N I N K I A T L R N A R G G G V P N V V D A A R N I E S F G E G			
UniRef90_UP1000362E22D	I R	L S V N I N K I A T L R N A R G G N I P N V V D A A K R L E S F G G A G			
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UniRef90_B9M5K2	T I H L R E D R R H	Q D R D L R L R Q T I K T R L N L E M A A T D E M V S I		
UniRef90_U5QDE1	T A H L R E D R R H	Q D R D V E I L R R T V R T H L N L E M A A T A E M V K I		
UniRef90_A2C3H1	T V H L R E D R R H	Q D R D L R L K E T V R T H L N L E M A A T E E M T S I		
UniRef90_UP100045E6CBE	T I H L R E D R R H	M Q D R D L R L R E T V Q T K L N L E M A P T E E M V A I		
UniRef90_I3ZZJ4	T V H P R P D Q R H	T Y Q D V F D K K V V K T E F N I E G N P I P E F K E L		
UniRef90_UP1000466E188	T T H L R E D R R H	N D F D A K R I E S S F L P V N M E C S I N E E I I D I		
UniRef90_I4Z070	T A H L R E D R R H	R D A D M W R L K Q E L F V P L N M E M A A T S E E M V A L		
UniRef90_UP1000366847B	T V H P R P D E R H	R Y N D V L Q L K D K I S T E F N I E G N P Q D R Y L E L		
UniRef90_UP1000478BE54	T V H P R P D E R H	K Y Q D T R D L K P E V Y T E F N I E G N P V T S F M D L		
UniRef90_A3U6U0	T V H P R P D E R H	R Y Q D V R D L A P I V T T E F N I E G N P N P K F I D L		
UniRef90_M5T6W9	T F H L R E D R R H	Q D R D V E L F M Q T R V S T N F E L A C A D E V L G I		
UniRef90_A6QAX8	T I H L R E D R R H	H D M D A K N I E L S A L P V N L E C A T P S M I D I		
UniRef90_B3E693	T I H L R E D R R H	Q D R D L E I L R R T V Q T K L N L E M A A T D E E M V G I		
UniRef90_A4BRZ7	T L H L R E D R R H	Q E R D L R L R D V Q A R L N L E M A M T A E M L E I		
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UniRef90_Q28V29	T A H L R E D R R H	R D A D V A A I M E A I T P L N F E M A A T D E E M Q E I		
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UniRef90_D3DFY8	T L H L R E D R R H	E L K E V N L P V N L E M A P T Q E E M R E I		
UniRef90_X5MPM4	T A H L R E D R R H	S D T D I D R L M D T L E L P L N L E M A A T E E M L E I		
UniRef90_Q1PYF5	T V H L R E D R R H	Q D R D I L L R E T V F T K L N L E M S I A D E I V D I		
UniRef90_Q3V7H8	V V H L R E D R R H	M Q D R D I L L R Q T I K T K M N F E M G A N K E L I K I		
UniRef90_L0B5X6	T L H L R E D R R H	Q D R D V F N I S Q N I I G K M N L E C A I T K E M L G I		
UniRef90_I4AP25	T I H P R P D E R H	R Y E D A Y E L A K I V T T E F N I E G N P Q K R F L E I		
UniRef90_R7HRH5	T V H P R P D E R H	R R A D V L Q R P I L H K E F N I E G Y P T E Q F M D L		
UniRef90_UP10004750FAF	T V H P R P D E R H	K H E D V Y E L A K I L T V E F N I E G N P S P Q F L E L		
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UniRef90_UP1000365F60A	T I H L R E D R R H	Q D K D L V Y D I C T K R N L E A A T E E M V R I		
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UniRef90_UP10004725B7A	T I H V R E D R R H	Q E R D L Q L L Q Q M T Q R V N L E L A V T E E M I L M		
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UniRef90_A6DC64	T I H L R E D R R H	M D F D A K R I C E N S F L P V N M E C S I N D E I I D I		
UniRef90_W0DD51	T L H L R E D R R H	Q E E D L R L K L V R V P V N L E M A P T E E M K R I		
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UniRef90_D2R2Q7	T V H L R E D M R H	Q T R D V R V L R E T V H L K L N L E L S V A P E I V E L		
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UniRef90_M7N990	T V H P R P D E R H	I R Y S D V L A L K E V V Q T E F N I E G Y P D Q R Y M D L		
UniRef90_B2URE7	T L H V R G D R R H	M Q D A D A L S V R E S V A L P L N L E M G N T P E M V D F		
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UniRef90_U5T3V7	T V H L R E D R R H	V T D R D V E I L A Q T L Q T R M N L E M A V T D E M L A I		
UniRef90_K5ZLL1	T I H L R E D R R H	R R A D A E A I C A W A G K P V N F E M E M A A T N E M V A I		
UniRef90_D9Q118	T A H L R E D R R H	S D A D I D H L S A V L R R P L N L E M A V T Q E M L R I		
UniRef90_G4E1N6	T L H L R E D R R H	Q D A D V E T R P L I Q T A M N L E M A A T A E M Q A I		
UniRef90_N6W2A9	T I H P R P D E R H	Q D R D V M L M R E L N T K M N L E M A V T D A M L A F		
UniRef90_L8JQZ0	T V H P R P D E R H	R Y N D V L E L S R V V T T E F N I E G Y P D S R Y L E L		
UniRef90_A3ZZV6	T L H L R E D R R H	Q D R D L R I I R E T A K V K V N L E L A T A E E V L K I		
UniRef90_UP1000471150A	T V H P R P D E R H	R Y N D V R E I P L I T T E F N I E G Y P S K K F M D L		
UniRef90_E4RZ39	T V H P R P D E R H	R Y Q D V F D K E K I C T E F N I E G N P T R F E E V		
UniRef90_D5BR80	T A H L R E D R R H	H D D D I H A I K A A I T V P L N F E M A A N S E M I D M		
UniRef90_F2IB45	T V H P R P D E R H	T G K D V M D S K V V T T E F N I E G Y P D E R F M Q M		
UniRef90_W0DNQ0	T L H L R E D R R H	Q D D D V F G I K P R V R P L N L E M A A T E G M Q A I		
UniRef90_L1MCM3	T I H P R P D E R H	Q D D D V F G I K D H I N T E L N L E G Y P T E D F I N L		
UniRef90_M5RRY9	T F H L R E D R R H	Q E R D V E V L M Q T V T V K T N L E I A C T D E V V A I		
UniRef90_R6EG14	T V H P R P D E R H	R Y S D V R E I K P L I N V E F N I E G N P I P K F I D L		
UniRef90_UP100035DF7E3	T A H L R E D R R H	Q D K D M E R A A L S H L H L N M E M A V T D E M V A I		
UniRef90_B3QTV1	V C H L R E D R R H	K K D R D E L L R A T V Q T K L D L E M A M T K E M K A I		
UniRef90_UP1000225FDAD	T A H L R E D R R H	R D E D L I R L S N T L R A P L N M E M A A T E E M V A L		
UniRef90_B4CZH4	T I H L R E D R R H	Q D R D V V R L R A S I N T K L N L E M G N T P E I L D V		
UniRef90_W4T9V1	T I H P R P D E R H	T R K D V Y D L K P L V T T E F N I E G N P H K S F I D M		
UniRef90_UP10004117CA4	T V H P R P D E R H	Q D R D V R R D R E I I T T E F N I E G N P T E K F I D L		
UniRef90_I7ZFD6	T V H L R E D R R H	Q D H D V S R L L A V S K I P T N L E M A V T D E M V G I		
UniRef90_W0JEN1	T M H L R E D R R H	Q E N D C I L V K N T K I P L N L E M S I E E K I V N F		
UniRef90_UP100040A90CD	T I H P R P D E R H	K Y Q D A Y D L K V V Y T E Y N I E G N P V K K F M N M		
UniRef90_UP10003B2EFDB	T V H L R E D R R H	Q D R D V R R L R E V M H T P M N F E M G V T E M L L L		
UniRef90_E7RVC4	T V H L R E D R R H	Q D R D V R R L R D Q T Q I K L N L E M A A T P E M V D I		
UniRef90_W5YDD2	T A H L R E D R R H	R R D A D L E R L R A E L S L P L N M E M A A T G E M T A I		
UniRef90_W9UWW8	T V H L R E D R R H	Q E R D R I R L S V Q T R M N L E M A I P E M R E F		
UniRef90_D3EQX5	T M H L R E D R R H	Q D R D V F L I K E T Q R L N L E I A A T E E M L Q I		
UniRef90_E6WY22	T I H L R E D R R H	H D E D A A I I R H S P L P V N L E C A Q A P D I I D F		
UniRef90_UP10004693EE5	T V H P R P D E R H	R Y R D V Y E L K K V L T T E F N I E G N P N D R F I K L		
UniRef90_UP100047979BB	T I H P R P D E R H	R Y R D A R D K K L V K T E F N I E G N P V Q K F I D L		
UniRef90_E0XUE5	T V H L R E D R R H	L D R D L L L Q T V Q T K L N L E M A A T E E M I G I		
UniRef90_F0NXL1	T V H P R P D E R H	R Y R D V L D Q P I T T E F N I E G K P I D R F M D L		
UniRef90_B5JWX6	T L H L R E D R R H	Q D A D V A A F K T E L G T R M N L E L A V T E E M I A I		
UniRef90_X1HHD9	T L H L R E D R R H	Q D N D V R R L R G L K T H H M N L E M A V T D E M I R I		
UniRef90_G2PKE1	T I H P R P D E R H	R Y R D A R D K K V V T T E F N I E G N P I P K F I D L		
UniRef90_UP100046F0312	T A H L R E D R R H	R R D A D L Q R L R A D V K P L N M E M A A T D E M V S L		
UniRef90_UP1000478C150	T V H P R P D E R H	R R Y Q D T R D L A K I V T T E F N I E G E G N P N P K F I T L		
UniRef90_Q3B5P7	V C H L R E D R R H	R R D N D L K G R R S V K T L D L E M A M T E E M Q R I		
UniRef90_L0B9F7	T L H L R E D R R H	Q D N D V F A M R K I L K T R M N L E C S L S V D I I N I		
UniRef90_A0RNS2	T I H L R E D R R H	N E D D D V K N I N L S P P V N L E C S I N S E L I D I		
UniRef90_U2I076	T V H P R P D E R H	R R Y Q D V Y D L K G E I Q T E F N I E G N C Q E K F I D L		
UniRef90_I0ALM4	V V H L R E D R R H	N E R D V R R L R E L I T S K L D L E M A A T E E I K I		
UniRef90_UP10003FD41A6	T V H P R P D E R H	R R Y A D V K E L K P V L T T E F N I E G K P I Q Q F I D L		
UniRef90_UP1000362E22D	T V H L R E D R R H	R R Y A D V R T K V V T T E F N I E G N P N P K F I E L		
UniRef90_K1Y763	V V H L R E D R R H	M Q D R D V L L R Q T I K T K L N L E M G A N K E I A I		

	90	100	110	120
UniRef90_F4KNG1	V C S V R P E Q V T L V P D K P D A L T S D S G W D D R R D F L K P I I E R L K			
UniRef90_B9M5K2	A L S V K P D M C T L V P E K R Q E E L T T E G G G L D V R L H A I R G A V Q K L Q			
UniRef90_U5QDE1	A L A V R P D Y V T L V P E R R E E E V T T E G G G L D V E G Q L V A I V V E Q L Q			
UniRef90_A2C3H1	A L N L K P D M V T L V P E K R E E E V T T E G G G L D V N K N K L K E I I Q R L S			
UniRef90_UPI00045E6CBE	A K A V H P D T V T L V P E K R E E E V T T E G G G L N L E L K G L E E K I I Q E L K			
UniRef90_I3ZZJ4	V L K V K P D Q V T L V P D A E D A I V T S N A G W D T H F D F L Q K T I A E F K			
UniRef90_UPI000466E188	I C S L K P H R A A C L V P E K R E E E R T T E G G G L D L F K N R I I N A E K L H			
UniRef90_I4Z070	A T R I H P H A A C L V P E K R E E E R T T E G G G L D I I H A H L R P V I Q E L K			
UniRef90_UPI000366847B	V L K T I P A Q A T L V P D A E D A I T S N A G W D T V K H K L T E V I S E F K			
UniRef90_UPI000478BE54	V L E V K P T Q V T L V P D A V D A I T S N A G W D T H K D F L T E I I S E F K			
UniRef90_A3U6U0	V L Q N K P T Q V T L V P D A V D A I T S N A G W D T V K H K L T E V I S E F K			
UniRef90_M5T6W9	C C R L K P D W A L L V P E S R E E E V T T E G G G L D V D Q G R V R D A V K R I I A			
UniRef90_A6QAX8	A C R L R P H R V T L V P E K R E E E V T T E G G G L D V A V T G T R L Q E A I K R L L Q			
UniRef90_B3E693	A C R L R P E Q C T L V P E K R Q E E L T T E G G G L D V L G N L L T R A T S S L R			
UniRef90_A4BRZ7	A E R Y R P H D S C I V P E R R E E E L T T E G G G L D V R A Q R T R E A C T R L L R			
UniRef90_UPI00036AE4CD	A L D V Q P H D V C T L V P E K R E E E L T T E G G G L D V I G Q R I Q K V T Q E L L S			
UniRef90_Q28V29	A L G H P L P H A A C I V P E K R E E E R T T E G G G L E V A G N R L I A Q Y I A P L			
UniRef90_M1M3B6	A V N I M P D I V C L V P E K R E E E L T T E G G G L N I S F D R I S S S V N F L			
UniRef90_R5BH14	V C E V V P D Q V T L V P D A P D A L T S N A G W D T I K N R L T R I C A S F K			
UniRef90_D3DFY8	A L R V K P S R I T L V P E R R E E E L T T E G G G L N V M M D F L R S Y L K P F K			
UniRef90_X5MPE4	A L K H P K H A C C L V P E R R E E E L T T E G G G L D A Q H N Q L A P Y V S E L L V			
UniRef90_Q1PYF5	A I K T K P E Q V A L V P E K R Q E E V T T E G G G L D V A S Q K I G R V V K R L A			
UniRef90_Q3V7H8	A L N T R P D M I T L V P E K R Q E E L T T E G G G L D V A G Q K L L A R T I I E R M T			
UniRef90_L0B5X6	A V K A R P D I V C L V P E K R Q E E L T T E G G G L D I I N S Y V S N A V K Y L Q			
UniRef90_I4AP25	V K E I K P T Q V T L V P D S D G V L T S N A G W D T H Q D Y L K E I I T D L L K			
UniRef90_R7RHR5	V L S V R P A Q V T L V P D A P D A L T S S T G W D V H F D F L S Q I V E R L K			
UniRef90_UPI0004750FAF	I R E I K P T Q C T L V P P D A P D A F T S D H G W D L N D S W L R Q I I P E L R			
UniRef90_U2YHX8	A L R H R P H A V C I V P E K R E E E R T T E G G G L E V D E V I H H R I I Q D C T Q R L L			
UniRef90_UPI000365F60A	A C D V V P Q D I C L V P E K R E E E V T T E G G G L E V N K E K L R E I I N N H			
UniRef90_A9BAZ9	A L Q V K P D M V T I V P E S R E E E I T T E G G G L E V N K E K L R E I I N N H			
UniRef90_B2RIJ5	I E E I I R P E Q V T M V P D A P D V L T S N A G W D V N Y D H L C R L V E Q F H			
UniRef90_G2IN61	A L R H R P H A V C L V P E R R E E E R T T E G G G L D A A H N H L A P M I D R L R			
UniRef90_D8P8F4	A L S V K P D L V T L V P E R R E E E I T T E G G G L D V H R D R I I Q K I V D L L			
UniRef90_UPI0004725B7A	A E K Y Q P A H C C L V P E K R E E E L T T E G G G L N V N Q Q Q V T D A C T R L R			
UniRef90_UPI0003477432	A L E I I R P D Y I T L V P E R R E E E V T T E G G G L D V A G Q R L G T I V A T L L Q			
UniRef90_A6DC64	I C K L K P H R A T L V P E R R E E E I T T E G G G L D I I K Y K E K I K K V I L H			
UniRef90_W0DD51	A L E V K P N R V T L V P E R R E E E I T T E G G G L D V A K D Y L K E F I R E I K			
UniRef90_UPI000369F081	A L K L K P K Y V C I V P E K R K E E V T T E G G G L N L N Y N Y L K K V I H L L K			
UniRef90_D2R2Q7	A C Q V K P D Q A T L V P E R R E E E V T T E G G G L D V V S H E V A R A M E K L Q			
UniRef90_A3JRK3	A L R H C P H A V C I V P E K R E E E R T T E G G G L E V V A G N R L A S F I A P L			
UniRef90_UPI0003B340D6	A L R V K P E T A M F E V P E K R E E E R T T E G G G L D A Q H N H L A P F I R Q L K			
UniRef90_M7N990	I E K V R P A Q A T L V P D P P H V L T S N A G W D T H A N R L Q E I L Q T L K			
UniRef90_B2URE7	A L R L K P D Y I C M V P E K R E E E I T T E G G G L D F H E K D L A P T M A R M A			
UniRef90_V5SF39	A L R H V P N A A C C L V P E R R E E E R T T E G G G L D V V G Q R L Q P V V G E L K			
UniRef90_M7N3J5	A L E V L K P T Q V T L V P D A V D A I T S N A G W D T N K D F L I D V I K E F K			
UniRef90_U5T3V7	G A R I Q A T D C C C L V P E R R E E E I T T E G G G L D V V A G D R C A N A C R V L T			
UniRef90_K5ZLL1	A T R L K P H G C C I V P E R R A E I T T E G G G L D V F N Q R L R P A I A R L K			
UniRef90_D9Q118	A L H H R P R A V C C L V P E K R E E E R T T E G G G L D V V V G G H I T P V V G R L N S			
UniRef90_G4E1N6	A L R L R P Q A C C L V P E R R E E E I T T E G G G L D V H E A A L R D Y C Q V L S			
UniRef90_N6W2A9	A E Q V V P R Q P C V C L V P E K R E E E I T T E G G G L D V V A G Q K V A K A C E R L A			
UniRef90_L8JQZ0	V K R V K P A Q A T L V P D A P D V I T S N A G W D T N E T L L T E I I A D L K			
UniRef90_A3ZZV6	A C E V K P D Q V T L V P E K R E E E V T T E G G G L D L L R Q K V K A A I E R L Q			
UniRef90_UPI000471150A	V L E V K P H Q V T L V P D G P D A L T S N A G W D V N T K E R L T E I I G E F K			
UniRef90_E4RZ39	V L K T V P A Q V T L V P D P D A L N A I T S N A G W D T H Q A Q L K E L L V K K Y K			
UniRef90_D5BR80	A L A V R P N A A C I V P E R R E E E I T T E G G G L D A V V G N R L G T L L Q P L K			
UniRef90_F2IB45	I E A I I R P A Q A T L V P D P P H V L T S N A G W D T K E N S L L Q D I I R R R L K			
UniRef90_W0DNQ0	A L K L R P E A C C I V P E R R E E E I T T E G G G L D A Y Q Q R L R E F V Q P L T			
UniRef90_L1MCM3	V C A V K P Q A V Q T L V P D T P E Q L T S N S G W N T K E K F L L P I I S H F H			
UniRef90_M5RRY9	A C R V K P T W A L L V P E S R E E E V T T E G G G L N V D K G R I R D A I E K L K			
UniRef90_R6EG14	V K E V G P A Q V T L V P P D A E N A I T S N A G W N T H K D F L T D I C R E F K			
UniRef90_UPI00035DF7E3	A C R L K P Q A V C I V P E K R E E E I T T E G G G L D V V A G H R M A D A V A K L N			
UniRef90_B3QTV1	A I C L K T K P D I V T L V P E K R Q E E I T T E G G G L D V D V I T R K L I P Y I D E L Q			
UniRef90_UPI000225FDAD	A C K L K P N A C C I V P E R R E E E V T T E G G G L D V V A G Q M L S P M I R K L R			
UniRef90_B4CZH4	A L R V L P E E V C L V P E N R A E I V T T E G G G L D A A G Q F L T P T V D R L Q			
UniRef90_W4T9V1	V L E V K P E Q V T L V P D A D D A I T S N A G W D T K K H Y L T E I I T E F F K			
UniRef90_UPI0004117CA4	V L E V T K P H Q V T L V P D A L G Q L T S D H G W D T I K H K L I D I I G V F K			
UniRef90_I7ZFD6	A C A L K P R Y V C L V P E K R E E E R T T E G G G L D V V A G Q R V R E V C A R L T			
UniRef90_W0JEN1	A L N L V P Y Q S T L V P E K R K E L T T E G G G L D V V N F E K L K E I I Q E F K			
UniRef90_UPI000404090CD	V L E I I K P T Q V T L V P D A D D A I T S N A G W N T K H K L E I I Q E F K			
UniRef90_UPI0003B2EFDB	A E E L R P E H A C F V P E T R A E I V T T E G G G L D V V Q E A R I I A V A V K R L L Q			
UniRef90_E7RVC4	A I A L K P E M A M L V P E G R H E I V T T E G G G L D I K E A A I T D A I R R R L A			
UniRef90_W5YDD2	A T R L R P H A C C L V P E R R Q E I V T T E G G G L D V V R G Q E L A P R I A R R L A			
UniRef90_W9UWW8	A K V I K P A H I C L V P E K R E E E I T T E G G G L D V V K Y F M S E Y C D D L G			
UniRef90_D3EQX5	A F D I K P H C I T L V P E K R E E E I T T E G G G L D V V K T N H L K K I I V G R I I Q			
UniRef90_E6WY22	V C R H P L R A T L V P E K R E E E I V T T E G G G L D V V T G D T L L K G V I E H F K			
UniRef90_UPI0004693EE5	I E D I K P T Q V T L V P D A P D V L T S N A G W D A Y F E H L S E L I K H F K			
UniRef90_UPI00047979BB	V L E V K P E Q V T L V P D S V D A I T S N A G W D T I K H K L T D V I N T F K			
UniRef90_E0XUE5	A L E I I G P D I V T L V P E K R E E E I T T E G G G L D V V G A S M R D G I K Q I			
UniRef90_F0NXL1	V L Q V K P E Q V T L V P D A E D A I T S N A G W D T H F D Y L S E V I D V L K			
UniRef90_B5JWX6	A E N T A P F A V C L V P E K R E E E I T T E G G G L D V V K Y R V E K A V V S R L L A			
UniRef90_X1HH9D	A A E V R P S D C C L V P E K R E E E I V T T E G G G L D V V A G Q R L T E A V Q V L G			
UniRef90_G2PKP1	V L E V K P T Q V T L V P D A E D A I T S N A G W D T I K H K L V D V I K A F K			
UniRef90_UPI00046F0312	A S T L L P H A C C I V P E R R E E E I T T E G G G L D V V A G Q S L K P R V Q A L V			
UniRef90_UPI000478C150	V L Q T K P T Q V T L V P D T I D A I T S N A G W D T V K H F L T D V V T T F K			
UniRef90_Q3B5P7	A I E T V P E L I T L V P E K R E E E I T T E G G F D I H F K R L A L F I E P I R			
UniRef90_L0B9F7	A C K A K P D D V C L V P E N R S E E I T T E G G G L D V V K H M I R N V V D L L S			
UniRef90_A0RNS2	V C E L K P H R A T I V P E K R E E E I T T E G G G L S L D S L N L K N V I S K L N			
UniRef90_U2I076	V L A N K P T Q V T L V P D A T G Q L T S N H G W N T I K H R L K E M V T L F Q			
UniRef90_I0ALM4	A C D V G P E L A T I V P E K R M E I T T E G G G L N V I D N L K K D T I K E L H			
UniRef90_UPI0003FD41A6	V F D A N P A Q V T L V P D A E D A I T S N A G W D T I K H K L N E V I A A F F K			
UniRef90_UPI000362E22D	V L E S K P A Q V T L V P D A D V L T S N A G W D T H K D F L K E V I A K F K			
UniRef90_K1Y763	A L D L K P D I T L V P E K R E E E I T T E G G G L D V V Q K K I A K V V E K M A			

		130	140	150	160
UniRef90_F4KNG1	Q A G I R V S L F V G T D P R H I E A A A E I G A D R V E L Y T E P Y A				
UniRef90_B9M5K2	D G G L I V S S L F F I D P D T D Q I K A A D K S G A D Y I E I H T G A F A E A S D				
UniRef90_U5QDE1	G A G I P V S S L F F V D P Q P A Q L Q A S A R S G A K F V E L H T G R Y A E S Q G				
UniRef90_A2C3H1	G E D I P V S S L F F V D P V Q A Q L E N C A E V K A A W I E L H T G K Y A				
UniRef90_UPI00045E6CBE	K A E I F V S V F F I D P D N E V V K M A H K L G A D A V E L H T G Y F A N A K				
UniRef90_I3ZZJ4	A A G I R T S I F F L D P R P E L I A S A A E T G T D R I E L Y T E A Y A T D Y A				
UniRef90_UPI000466E188	K N D I E V S L F F V E P E I A V M D A A C D L R A P V V E L H T G T Y C E A V A				
UniRef90_I4Z070	G E G I R V S L F F V E P E I A V M D A A C D L R A P V V E L H T G T Y C E A V A				
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UniRef90_A3U6U0	N N G I R T S V F F V D P V A A M I E G A S K I G A D R I E L Y T E A F A D K F T				
UniRef90_M5T6W9	D A G I Q T S L F F L D P D P R Q I D A A A K L G V D A V E L H T G P Y A A I A				
UniRef90_A6QAX8	E K E I E V S L F F I D P A S D A V K A S S D L G V E W I E F H T G K Y A N I Y A				
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UniRef90_R5BH14	S R G I R T S I F F I D P D P K M A E G A F N C E L H T A A Y A A R Y R				
UniRef90_D3DFY8	E K K I E V S L F F I E P N V D H V R A S K D V G A D A V E L H T G R Y A N L W K				
UniRef90_X5MPM4	D A K I R V S L F F V N P D R V Q L A V A K A M G A Q V V E L H T G S Y C D A L N				
UniRef90_Q1PYF5	D A G I L I S L F F I D P E E E Q I I A A K E V G S Q F I E L H T G N Y A N A K D				
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UniRef90_U2YHX8	D A G C R V S L F F I A A D R P Q D A A A R I G A Q V V E L H T G A Y Y C D A H A				
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UniRef90_UPI000225FDAD	E S G I R V S L F F V D P D P E Q I A A S A A V G A A V V E L H T G A Y A H G K D				
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UniRef90_W9UWW8	G M G S E V S L F F I D P D K A Q I D A A L A C K P A I E L H T G A Y A D A H				
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UniRef90_E0XUE5	D A G I Q V S L F F I D P E E D Q I K A S R E L G A E D P Q E L H T G C Y A N V K				
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UniRef90_Q3B5P7	A A G I E V S L F F I E P D S R S I D L I A A E A G S D L V E L H T G S Y A				
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UniRef90_U2I076	H E G I R V S I F F V D P V V E M I E G A A E T G T D R I E L Y T E S Y A S E F G				
UniRef90_I0ALM4	D Y E I E V S L F F I E P D V N Q I D A S A E I G S D Y I E I H T G I F S N A				
UniRef90_UPI0003FD41A6	A K G I R T S I F F V D P D I K M V E G A A E T G T D R I E L Y T E S Y A M G Y A				
UniRef90_UPI000362E22D	A N G I R T S I F F V D P Q I E M V R G A A E V G T D R I E L Y T E A F A H E G Y P				
UniRef90_K1Y763	R E S I P V S I F F V D P D P K Q L A A A N D I G A T L V E L H T G R Y C D A K S				

170 180 190 200

UniRef90_F4KNG1 UniRef90_B9M5K2 UniRef90_U5QDE1 UniRef90_A2C3H1 UniRef90_UPI00045E6CBE UniRef90_I3ZZJ4 UniRef90_UPI000466E188 UniRef90_I4Z070 UniRef90_UPI000366847B UniRef90_UPI000478BE54 UniRef90_A3U6U0 UniRef90_M5T6W9 UniRef90_A6QAX8 UniRef90_B3E693 UniRef90_A4BRZ7 UniRef90_UPI00036AE4CD UniRef90_Q28V29 UniRef90_M1M3B6 UniRef90_R5BH14 UniRef90_D3DFY8 UniRef90_X5MPE4 UniRef90_Q1PYF5 UniRef90_Q3V7H8 UniRef90_L0B5X6 UniRef90_I4AP25 UniRef90_R7HRH5 UniRef90_UPI0004750FAF UniRef90_U2YHX8 UniRef90_UPI000365F60A UniRef90_A9BAZ9 UniRef90_B2RJ5 UniRef90_G2IN61 UniRef90_D8P8F4 UniRef90_UPI0004725B7A UniRef90_UPI0003477432 UniRef90_A6DC64 UniRef90_W0DD51 UniRef90_UPI000369F081 UniRef90_D2R2Q7 UniRef90_A3JRK3 UniRef90_UPI0003B340D6 UniRef90_M7N990 UniRef90_B2URE7 UniRef90_V5SF39 UniRef90_M7N3J5 UniRef90_U5T3V7 UniRef90_K5ZLL1 UniRef90_D9Q118 UniRef90_G4E1N6 UniRef90_N6W2A9 UniRef90_L8JQZ0 UniRef90_A3ZZV6 UniRef90_UPI000471150A UniRef90_E4RZ39 UniRef90_D5BR80 UniRef90_F2IB45 UniRef90_W0DNQ0 UniRef90_L1MCM3 UniRef90_M5RRY9 UniRef90_R6EGI4 UniRef90_UPI00035DF7E3 UniRef90_B3QTV1 UniRef90_UPI000225FDAD UniRef90_B4CZH4 UniRef90_W4T9V1 UniRef90_UPI0004117CA4 UniRef90_I7ZFD6 UniRef90_W0JEN1 UniRef90_UPI00040A90CD UniRef90_UPI0003B2EFDB UniRef90_E7RVC4 UniRef90_W5YDD2 UniRef90_W9UWW8 UniRef90_D3EQX5 UniRef90_E6WY22 UniRef90_UPI0004693EE5 UniRef90_UPI00047979BB UniRef90_E0XUE5 UniRef90_FONXL1 UniRef90_B5JWX6 UniRef90_X1HHD9 UniRef90_G2PKE1 UniRef90_UPI00046F0312 UniRef90_UPI000478C150 UniRef90_Q3BP7 UniRef90_L0B9F7 UniRef90_A0RNS2 UniRef90_U2I076 UniRef90_10ALM4 UniRef90_UPI0003FD41A6 UniRef90_UPI000362E22D UniRef90_K1Y763	E A G R A A Q L R Q L A A A N K D E G A A A L F S N L N H T P N K V F E Q D G D L G N I S P M L Y S N L S K T H H S I P E L K L P R S V L K K M I L E E E E T R D Q A A S E L E R L R S V G K Q E K S R H H E E L A A I R E A I R L A S R A H E L E R I R R A A V R H E A K W Y D A E G D V A A R D A E L A R L I A G A K L D A M N G E G N K L L D G D A V N L S N D D P H G A G D T D M P P A Q A Q E L A A L A A A L N S N I N H T P F K I Y E A H N W K G E R N N L E G R A G E G A L A G Q L G N K L D G R P D K N K I N K A G H G T G E A R H R E V E R L I T A A E Q N N K S G N S L D S Q K L Q F A N T L G N K K G R E G R D V A S P T T P A E Q T E Q L E L I R K A A A F A Y A D A M D A A A R A V E L L G R L A T G A E H T I E Q Q R L E E L D R I V Q A A Q Y S T S D K Q C Q E E L K L L K L G C K Q I D A E T A V S P F I R A S Q K K I A E L D S E Y Q R L V S G A E I V A A R E S E L A R I R E G A A L A Q Q A T E L E R L R T G A R L E E S I A P F V K A A E M D R A G E L D R L R A A A T H E K A I A P F I L A L R L K S G E E Q T A E F E R I R H A A K Y A P S Q I N N E L F R V K E A V G F M L N S N L N H T K Y K I D N L N L K R G E L L N S E L T R I K E A A N I F D K L S E E E Q F D E L D R I R R A A R H E G N L N V D K I E G	S Q M A Q S G D P K M I V A P F V E A A Q V W K A E Q E E L K K I E N A I K L C E E I T K N K A R D L E L S I L K E N T A K T D E D I D K E V E R I K E A V H V E M Y K A T A I F N D L I K D A S K L E R L K R A A E H P K Y K E A A V L Q K A I E P F I K A A E I E E A V R P Y T E S A M L T R D Q A A S E L E R L R S V G K Q E K S R H H E E L A A I R E A I R L A S R A H E L E R I R R A A V R H R E L E R I Q Q A A E F Y D A E G D V A A R D A E L A R L I A G A K L E R A L I E S R I K E S S L L R E E A I E P Y L R T A E A I K E E I E R I K R A G M E E K A A G E L A R L Q Q A A R E R A K W T E K L R Q G I K I E A A Q E K E Y Q L L V V I A A Q E E K D K E I D R L K N S V D A K E N P K K A I Q K Y V Q C A E F E A A I A P F V Q S A V T D V E S V F Q Q Y Q Q A A K K A T R D A E L A K I A E M A T H A Q L R E L E R I Q K A A E L S W E K Q E I E L A K I K A S C A Q K D M A A A V Q P Y V K A S A H E R A A E L R R I A D M A A L R S K E E D E E F A I T Q A A K L E A T Q Q L E L E K I R Q G V R L G T N F A L N L I K D A V K V V V E E E L Q R L K T A A I K N I K K E F I K I K N S A K L L T K G A A Q H E E L V K L T N A G A L I A A R D E E L A R L A E M S A L E E E L E R I R A C A E R N R H E A V K P Y T N A A Y A R E R T E E L A R L K R A A E L Y A A D D D A K G A A A E V E R L R T A A M E S D I H A Q F Q R I R E A A G L E L D R L R E A A T L D A E R E L V I A L K A G A T Q L T P A E H A K E L Q R I R Q A A A Y P A E V D L A F L K V A D G V E Y E K A I A P Y V E A A D L L T R G D A Q L A E I E K L T Q A G Q Q P A A P E K A I A P F I Q Q A A E V P S D R E K A I A P F V V I A A E K D D T N R N F E Y T R I R S A A T Y E Q A I E P F I I A S K R G T V E E R E R L H G L F E A A R A V D R K K A V T P Y V E C A L H A Q Q T Q E L D R L K A A G G K R E R A V E P Y L R T A E R A A Q Q E L K S I A D A A A Y P K E I E A E L L R L Q D A A S L T G E A R H R E V E R L I T A A E Q E L A I K P Y Y D T A V E E A V T P Y V H A A N R A R A E E V E V I A S F A K A I K D A A I F E L I R K A A A F L E R V A T A G A L G R L A T G A E H D R I V Q A A Q Y K L L K L G C K Q L N V L K D L A Q H S P F I R A S Q K I K P F I E A A K R E N A I K P F I E A A K R K I A E L D S E Y Q R L V S G A E I P Y R E T A L L V A A R E S E L A R I R E G A A L A Q Q A T E L E R L R T G A R L E E S I A P F V K A A E M D R A G E L D R L R A A A T H E K A I A P F I L A L R L K S G E E Q T A E F E R I R H A A K Y A P S Q I N N E L F R V K E A V G F M L N S N L N H T K Y K I D N L N L K R G E L L N S E L T R I K E A A N I F D K L S E E E Q F D E L D R I R R A A R H E G N L N V D K I E G
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	210	220	230	240
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UniRef90_UPI000478BE54	A N E I I G L G I N A G H D L S L D N I Q F F A N I V P G L L E V S	G H A L I V A E		
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 A | I | F | D | G | L | P | A | V | I | R | H | M | K | D | V | I
 A | M | F | V | G | L | K | A | A | V | I | E | M | K | A | L | M
 A | V | L | V | G | M | E | R | A | V | K | E | M | K | L | A | I | K
 S | V | F | T | G | L | E | N | A | V | R | E | M | K | E | L | I |
 A | I | Y | D | G | L | E | L | T | I | A | R | Y | R | R | A | L | E
 A | L | Y | L | G | L | D | N | V | V | N | M | Y | L | H | R | L | K
 A | I | F | V | G | I | F | Q | A | V | R | E | M | K | E | I | I
 A | L | Y | M | G | L | E | N | T | V | Q | C | Y | L | R | K | I | E
 A | V | F | V | G | M | E | A | A | V | T | A | M | R | Q | R | I | D | R
 A | V | F | D | G | L | L | A | P | A | I | R | D | M | K | Q | L | M
 S | L | Y | L | G | L | E | N | V | V | A | M | Y | L | N | K | L | K
 A | A | F | V | G | I | P | E | A | V | R | E | M | L | D | L | I
 S | I | F | D | G | I | H | N | A | V | V | E | M | K | R | I | I
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 A | L | Y | L | G | L | E | E | T | I | K | R | Y | L | A | A | L | K
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 A | L | Y | Y | D | G | L | E | S | V | V | K | S | Y | L | K | K | L
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UniRef90_I2GQ18	T R L S V N I N K I A T I R N A R G G N N P N L I K V A Q D C E R F G A G
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UniRef90_D3SLW9	M R L G V N I D H V A T L R Q A R R T F E P S P V L A A L I A Q Q A G A Q
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UniRef90_D7JD16	I K L S V N V N K I A T L R N S R G G D V P N V L K V A L D C Y E K F G D G
UniRef90_B1ZNA6	I L L G V N I D H V A T I R Q A R G P E P D P V T L A A E R A G D G
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UniRef90_D4DPX6	T K L S V N I N K I A T L R N S R G G N V P N L L K F A E D I E R F G Q G				
UniRef90_C0B16	N H L R L G V N I D H V A T L R N A R G G L H P C P L R A A D V A A A A G A D				
UniRef90_D3UFK8	R L L Y V V N I D H V A T V R Q A R R S E T P D P V V A A A V L C E K A G D G				
UniRef90_A4BW42	T L L F S V N I N K V A T L R N A R G E N R P D I I Q V I A K D L Q R M G A G				
UniRef90_UPI0003B719BB	M K L G V N I D H V A T L R Q A R G G S E P D P V Q A A V A A R K A G D G				
UniRef90_UPI00037E955A	P L R L G V N I D H V A T L R N A R G G V P D P V V A A A K L A E A A G D G				
UniRef90_R7L8H5	T K L L G V N I D H S A T I R Q A R Y R D E P S I L D V A A A A E R G G D S				
UniRef90_UPI0003454796	I D L G V N I D H V A T L R N A R G T V Y P D P L R A A L L A E Q A G D A				
UniRef90_UPI000366D8D6	M L L G V N I D H I A T L R Q A R L T E Y P D P I I A A E H C L R A G A S I				
UniRef90_U1HDT4	P L R L G V N I D H V A T L R N A R G G A P D P V V R L A A A I A A G A D G				
UniRef90_E8RSY0	N R I R L G V N I D H I A T V R N A R G G H A P D P A R G A R Q V L E A G D G				
UniRef90_UPI000371DAE6	M K L L V N I D H V A T L R N A R G E G Y P D P I E A A R V C E E A G A G				
UniRef90_UPI00047284A6	R L L G V N I D H V A T V R Q A R T V E P D P V Q L A V L A E L G G D G				
UniRef90_A1WT14	R I Q L G V N I D H V A T L R Q A R G T R Y P D I L Y A A A E A E R G G D A				
UniRef90_C6BV77	L L G V N I D H V A T I R Q A R L G E P D P V T A A A M C E L A G A G				
UniRef90_R5AZG4	T N L S V N I N K V A T I R N A R G E N V P D L L R F A A E C E R L G A G				
UniRef90_UPI00036E8DB8	R L L G V N I D H V A T I R N A R L E N Y P N P V R A A L I A E N S G D S				
UniRef90_C6XJG3	R L L G V N I D H V A T I R N A R G G A W P D P V P A R A A K A A R D A G A G				
UniRef90_Q2RT91	L R L G V N I D H V A T I R N A R G G D H P D P L R A A K I A A E A G D G				
UniRef90_UPI00041DD1AB	T K L S V N I N K L A T L R N S R G G N N P N L I Q S A M D I E Q F G D G				
UniRef90_E1QF12	R R L S V N I N K V A T L R Q A R G H D E P D P V W A A V L A E K A G D G				
UniRef90_U3Q6V5	V R L L G V N I D H V A T I R N A R G G N I P D P L Q V I A R D V Q K F G Q G				
UniRef90_W6K9S3	T K L S V N I N K L R I A L L R N S R N D I P N V L N A A K I A V E A G A G				
UniRef90_K9RLM6	L L L G V N I D H V A T L R N A R G G A H P D P V E A A L H A L R G G D I				
UniRef90_UPI0003682D07	S U R L G V N I D H V A T L R Q R Q R L G E P E P V T A A L M A E L A G A G				
UniRef90_S7U928	T K L S V N I N K I A T L R N S R G G N V P N L V K T I V I D I E G F G E G				
UniRef90_W2UNL2	T K L S V N I N R I A L L R N S R N I G I P S V T E A A K T V I A A A G A G				
UniRef90_K9VPJ5	R L L R L G V N I D H V A T L R N S R G G D V P N L V Q V A K D I E E F G A G				
UniRef90_UPI00025591C2	T K L S V N I N K I A T L R N A R G T A H P D P V Q V A A A L A A A A G D G				
UniRef90_S9SFQ7	R L L G L N I D H V A T I R N A R G G V H P D P A R A A A M A H A A G D G				
UniRef90_UPI00047EE024	T K L S V N I N K I A T L R N S R G G V H P D P A R A A A M A H A A G D G				
UniRef90_UPI0003B6C4F3	M K L G V N I D H F A T I R E A R H S H E P E P I L A A L L A E Q A G D G				
UniRef90_XOS4X5	T D L S I N I N K I A L I R N S R E G N Y P D V V E F A K V C I D Q G A G				
UniRef90_Q1YRT7	I R L S I N I N K I A T I R N A R G G V H P D P V D G A R L A I K S G D G				
UniRef90_UPI00036DCFED	V K L L G V N I D H V A T V R Q A R R G H D P E P V V A A A L L A Q S A G A G				
UniRef90_E6W481	L L R L G V N I D H V A T L R Q A R G G H E P E P V V A A A L L A Q S A G A G				
UniRef90_UPI0004274D02	S U R L G V N I D H V A T L R Q R Q G H E P E P V T A A A L A E L G G D G				
UniRef90_UPI0003B51A6A	U R R L G V N I D H V A T L R Q R Q G H E P E P V T A A A L A E L G G D G				
UniRef90_W0RM41	T R L S V N I V N K V A T L R N A R G E G I P D V Q K F A T D C E A A L G A G				
UniRef90_R7F4B8	T R L S V N I V N K V A T L R N A R G G D F P D V I K A A K V V E E S G D I				
UniRef90_UPI0003B6814B	I R L S V N I D H V A T L R N A R G G N V P D L L V S A S D I E R F G E G				
UniRef90_C0BM21	T K L S V N I N K L A T L R N A R G G N V P D L L V S A S D I E R F G E G				
UniRef90_UPI00035D35E1	S L R L G V N I D H V A T V R N A R G S A Y P S P L R A A L M A E A A G D G				
UniRef90_D5AS17	S I R L G V N I D H V A T V R Q A R R I R E P D P V W A V V L A E L G G D Q				
UniRef90_UPI00046D7017	T R L S V N I N K F A T L R N A R G G N N P D V L K A A L D C E R F G A G				
UniRef90_UPI0004193EDA	M H L G V N I D H V A T I R Q A R G T A Y P D P L A A V S I C L A A A G A S				
UniRef90_Q0F317	S T C R L S V N I N K V A L I R N A R G A N F P N L L Q V A L D C E K F G E G				
UniRef90_H6LAH4	I K L F V N V D H V A T V R E A R K T Y E P D P L E A A I I A E K A G A G				
UniRef90_UPI0003750035	T K L S V N I N K I A V I R N S R G G N L P D V I E A A R R I E G F G A G				
UniRef90_R5W6C4	R L L G V N I D H V A T L R Q A R R G A P V S Y P D P V T A A A L A E L A G A Q				
UniRef90_S9P562	T N L S V N I N K V A L I R N T R N I G I P S I T R M A Q C I D A G A G				
UniRef90_UPI00034A1D0F	T K L S V N I N K I A L I R N S R G G D V P N L L Q V I A K D V Q K F G A G				
UniRef90_H1GT56	T K L S V N I N K I A L I R N S R D T E H P N V C E H A L R C I A Y G D G				
UniRef90_UPI00036B113B	S T D L S I N I N K I A L I R N A R G G D V P N V L Q V A L D C E R F G E G				
UniRef90_T1DR31	T R L S V N I V N K I A T L R N A R G G D V P N V L Q V A L D C E R F G E G				
UniRef90_UPI000377AF83	R L L G V N I D H V A T V R N A R G G H V P D P I R A A Q L A E A A G D G				
UniRef90_I5B4G4	M R L L G V N I D H V A T L R N A R G A K Y P E P V Q A A A L A A E T A G D A				
UniRef90_UPI00037CE4D3	T K L S V N I N K I A T L R N A R G G E Y P N P V D A A K I C E Q H G A G				
UniRef90_L1P7I9	T K L S V N I V N K I A T L R N A R G G N M P N L L Q V A D I Q R F G E G				
UniRef90_UPI00036BE898	T K L S V N I V N K I A T L R N S R G G N V P D L L K V V A D I E D F G A G				
UniRef90_H2CCN5	P L R L G V N I D H V A T L R Q A R G T A Y P S L T T A A G I C E I A G D G				
UniRef90_U2FVE3	R I R L G L N V D H V A T L R Q A R G P V E P V V T A A Y M A E L A G A G				
UniRef90_UPI00035C5055	N A T K L S V N I N K V A L I R N S R A R E T F P D P V Q A A V L C E L A G D G				
UniRef90_D0MDG5	T R L L G V N I D H V A T L R Q A R G G I P V E P V V T A A Y M A E L A G A G				
UniRef90_UPI0004658512	U R R L G V N I D H V A T L R Q A R G G I P V E P V V T A A Y M A E L A G A G				
UniRef90_A713Y5	N N T A L S V N I N K I A L I R N S R P G N Y P D N V A A H G K T C I D A G D G				
UniRef90_I3IA63	I L L G V N I D H A A T L R Q A R G P V E P V V T A A Y M A E L A G A G				
UniRef90_W0J7R2	R I R L G L N V D H V A T L R Q A R G G H A P D P V V R A A H L A A G D G				
UniRef90_V4P6X2	T K L S V N I N K I A V V R Q A R N V S Y P D P V V Y A A V L A E L A G D G				
UniRef90_E1Y9H3	R I R L G L N V D H V A T L R Q A R G G H A P D P V V Y A A V L A E L A G D G				
UniRef90_V4Q010	R I R L G L N V D H V A T L R Q A R G G H A P D P V V Y A A Q M A L K A G D G				
UniRef90_Q3V7R4	H K I R L G V N I D H V A T L R Q V R G G T Y P N L L D M V K K S V K G G E Q				
UniRef90_UPI0004748517	T K L S V N I N K I A V V R Q A R G G H A P D P V V Y A A C A F A V R C L S L G G D I				
UniRef90_UPI0003A3EEF4	R L L G V N I D H V A T L R N A R G G D H P D P V V Y A A C A F A V R C L S L G G D I				
UniRef90_B3QQ93	M R L L G V N I D H V A T L R N A R G G E H P D P V V Y A A C A F A V R C L S L G G D I				
UniRef90_G2J9M9	T K L S V N I N K I A V V R Q A R G G F P D V C A F A V R C L S L G G D I				
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	50	60	70	80
UniRef90_I2FDG5	T L H L R E D R R H	H D S D V K R I V E S S P L P V N I E S A L D E K V I D Y		
UniRef90_A6EM95	T I H P R P D E R R H	R Y Q D A R D L K N V V N T E Y N I E G N P I T S F I D L		
UniRef90_A5G1T8	T L H L R E D R R H	R D A D I H A A R A L S V P L N M E M A A T D E M V G I		
UniRef90_E4TS32	T I H P R P D E R R H	T T K D V Y D L A P I V T T E F N I E G Y P D E R F L E L		
UniRef90_UPI0003B75CE3	T A H L R E D R R H	R D G D I E A L M A G I S I P L N F E C A A T P E M Q A I		
UniRef90_Q30S57	T I H L R E D R R H	Q D A D A Y A I M K Y S N V G V N L E C S I N R A I L D I		
UniRef90_UPI00036C9270	T V H L R Q D R R H	Q D K D V F D L K A V I A T E F N I E E M A G V P E I I K I		
UniRef90_A6EFW7	T V H P R P D E R R H	Q D R D V R V L R E T V Q T V L N L E M A T T A E M L K F		
UniRef90_UPI0002627EC7	T V H L R E D R R H	T T K D V Y D L K A V I A T E F N I E E G N C R E K F V D L		
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UniRef90_UPI000361451E	T A H L R E D R R H	T R D E D M R R L K R D I T K P L N F E E M A A T D E M V A I		
UniRef90_A6DNU5	T L H P R P D G R H	H D L D V K R I L Q S S F L P I N V E C A L D E N I I E F		
UniRef90_D4DPX6	T L H L R E D R R H	I K D D D V A Q I A R A V R T H I N L E E M A L T E E M L E H		
UniRef90_C0B16	T I H P R P D Q R H	R F E D A F A L P N V V T T E F N I E E G N P I P E F I E M		
UniRef90_D3UFK8	T I H L R E D R R H	H D L D V K R I L Q S S F L P I N V E C A L D E N I I E F		
UniRef90_A4BW42	T I H P R P D E R H	K Y Q D A R D L V S V V K T E F N I E E G N P I Q S F I D		
UniRef90_UPI0003B3C92D	T L H L R E D R R H	T T D A D L I R L S G A I S L P I N L E E M A A T D E M L A I		
UniRef90_UPI000479CBD5	T A H L R E D R R H	Q D D D I H R L A A A V T T L L N L E E C A I T D D M L R L		
UniRef90_UPI00036DE93D	T V H P R P D E R R H	K Y A D V P A L R Q V I D T E Y N I E E G Y P S E D F L S		
UniRef90_UPI0003B719BB	T V H L R E D R R H	Q D A D V L A I K K K I K P L N L E E M S L N P G I V A F		
UniRef90_UPI00037E955A	T A H L R E D R R H	T T D A D M A R L A V E L T K P L N F E E M A A T A E M Q A L		
UniRef90_R7L8H5	T V H L R E D R R H	Q D S D V R R L R K E I S T K L N L E E M A C T P E I T E I		
UniRef90_UPI0003454796	T L H L R E D R R H	T R D A D V I A P R I T R M N L E E A A V T A E M I D F		
UniRef90_UPI000366D8D6	T A H L R E D R R H	M Q D R D M E R L A A M D L H L N M E M A A R P E M V N I		
UniRef90_U1HDT4	T A H L R E D R R H	T R D E D M A R L K A E I S R P L N F E M A A T D D M L R I		
UniRef90_E8RSY0	T A H L R E D R R H	V I D K D I W A L K A V C D K P L N F E M A V T D E M I G I		
UniRef90_UPI000371DAE6	T V H L R G D R R H	I R D E D V F R L K E N V R G K L D F E E M A A S D E M L D I		
UniRef90_UPI00047284A6	T V H L R E D R R H	K Y Q D A R D L V R H T L R S R L N L E E M A A T D E M V T T		
UniRef90_A1WT14	T V H L R E D R R H	Q D S D V R R L V Q R H V Q T R V N L E E M A V T E E M I G I		
UniRef90_C6BV77	T M H L R E D R R H	V Q D R D I E L I S K T I Q T E F H F E M A A T E E M Q Q I		
UniRef90_R5AZG4	T V H P R P D E R H	T K R E D D V F K L R P L I K T E F N I E E G Y P S P E F M E L		
UniRef90_UPI00036E8DB8	T I H L R E D R R H	R D S D L K N I I R K I R I P L N L E E I A P T K E M L K I		
UniRef90_C6XJG3	T I H L R E D R R H	R D G D I E A V S G A M S L P I N L E E M A T T E E M L K I		
UniRef90_Q2RT91	T A H L R E D R R H	G D R D I A R L R D E I D P L N L E E M A A T A E M L A I		
UniRef90_UPI00041DD1AB	T V H P R P D E R H	R Y A D V Y E L K K V L K T E F N I E E G N P T E K F V D L		
UniRef90_E1QF12	T V H L R E D R R H	Q D R D L R V R L R Q V V K G A L N M E E M A A T E E M I G I		
UniRef90_U3Q6V5	T I H P R P D G R H	T Y T K D V Y D I N S V I T T E F N I E E G N P S E K F M K L		
UniRef90_W6K9S3	T A H L R E D R R H	S D V D I T R L V C D V D L P L N L E E M A A T D E M V G I		
UniRef90_K9RLM6	T V H P R P D E R H	K P K D V Y E L A Q M L T V E F N I E E G N P F Q N F M D M		
UniRef90_UPI0003682D07	T F H L R E D R R H	R D E D V S R L R E Q V R A P L N F E S A L T G E M L E L		
UniRef90_S7U928	T V H L R E D R R H	Q D R D L R V R L R E A I Q T R L H L E M A A T E E M R S I		
UniRef90_W2UNL2	T I H P R P D E R H	T Q D R D L K Q V V S T E Y N I E E G N P I K K F I D		
UniRef90_K9VPJ5	T V H P R P D E R H	K A T D V Y E L A K M L T V E F N I E E G N P F P P F M D I		
UniRef90_UPI00025591C2	T I H P R P D E R H	R Y Q D A Y D L K E I V T T E L N I E E G N P I P K F K Q L		
UniRef90_S9SFQ7	T A H L R E D R R H	R D R D I E R L R A E I A L P L N M E E M A A T A E M V A I		
UniRef90_UPI00047EE024	T V H P R P D E R H	R G Q D V L A A P V V Y T E F N I E E G N P D E R Y F E I		
UniRef90_UPI0003B6C4F3	T I H L R E D R R H	Q D A D L Q K V R E A S D L P I N L E E M A A T E E M T E I		
UniRef90_XOS4X5	T V H C L R G D R R H	K E R D L K V L R E V V V K T K L N L E E M A A T E E M M K K I		
UniRef90_Q1YR77	T V H P R P D Q R H	R P D D V R R L A A L V K V E F N V E E G N P F P G F I E L		
UniRef90_UPI00036DCFCED	T A H L R E D R R H	R D A D V E R E M L C Q V P L N F E E M A A T D E M R D I		
UniRef90_E6W481	T I H L R E D R R H	Q D R D V H I L M Q T V S T S I N L E E M A C T E E M I A I		
UniRef90_UPI0004274D02	T V H L R G D R R H	T Q D R D L R V L K E V L A P L N V I E E C A A T P E S L E A		
UniRef90_UPI0003B51A6A	T V H L R E D R R H	T Q D R D V R V L R E T L N T R L H L E E M A A T A E M V A I		
UniRef90_W0RM41	T A H L R E D R R H	Q D R D V D A L A A G A R T V L N E E M A A T E E M R A I		
UniRef90_R7F4B8	T V H P R P D E R H	T R R D V A L L K P I T T E F N I E E G Y P S E E Y L Q L		
UniRef90_UPI0003B6814B	T V H V R E D R R H	N E N D L K N I L N T L N P V N L E E I A A N L E M I E I I		
UniRef90_C0BM21	T I H P R P D E R H	T Q E R D K A R E L K N V V T T E Y N I E E G N P N E K F I A I		
UniRef90_UPI00035D35E1	T A H L R E D R R H	Q E R D V R L R Q T V R T H F N L E E M A A T D E M V A I		
UniRef90_D5AS17	T A H L R E D R R H	R D S D M A E L K A N L K I P L N F E E M A T T M E M Q R I		
UniRef90_UPI00046D7017	T L H L R E D R R H	Q D H D L D R V L A T A S V P V N L E E M A V T D E M V A I		
UniRef90_UPI0004193EDA	T V H P R P D E R H	R Y A D V Y A I A P K I G V E L N I E E G N P Q E K F L N L		
UniRef90_Q0F317	T A H L R E D R R H	Q D R D I E G L H A A I D G L H L N M E E M G V T D E M V A I		
UniRef90_H6LAH4	T V H P R P D Q R H	H R Y D D I P E L R G K I A T E F N I E E G N P T P E F M D L		
UniRef90_UPI0003750035	T A H L R E D R R H	M Q D N D I R R L K D Q I T T P L N L E E M A A V D E M V K I		
UniRef90_R5W6C4	T V H P R P D E R H	T R V R L K V D V V Y T E Y N I E E G N P M D N F L N L		
UniRef90_S9P562	T I H L R E D R R H	H Q E R D R L R E T V Q T L L N L E E M A A T Q D M V K I		
UniRef90_UPI00034A1D0F	T V H P R P D Q R H	T R P G D V Y D L E E V V T V E F N I E E G N P L E A F M K I		
UniRef90_H1GT56	T I H P R P D E R H	R Y Q D A R D L V D V V Y T E Y N I E E G N P Y P G F M E L		
UniRef90_UPI00036B113B	T V H P R P D Q R H	R A D D C F D L A K I L Q V E F N I E E G N P D D R F I K L		
UniRef90_T1DR31	T V H P R P D E R H	T R Y S D V L E L N E H L T T E F N I E E G N P D D R F I K L		
UniRef90_UPI000377AF83	T A H L R E D R R H	T R D L D I D R L M A T L N V P L N F E E M A A T P E M L A I		
UniRef90_I5B4G4	T V H L R E D R R H	Q E R D V R L I S Q T I K T R L L I L Q V V T T E Y N I E E G N P I P K F I D L		
UniRef90_UPI00037CE4D3	T V F H L R E D R R H	K D E D V F A L K D A V T G T L D F E E M A A T S E E M M D I		
UniRef90_L1P7I9	T I H P R P D E R H	T R Y N D V R E L K R D V V T T E L N I E E G N P I P K F I D L		
UniRef90_UPI00036BE898	T I H P R P D E R H	T R P H D V Y E L R D V V T T E L N I E E G N P I D K F I D L		
UniRef90_H2CCN5	T L H L R E D R R H	Q D R D L E L I S E V S L L P V T L L E E M A P T E E M L R I		
UniRef90_U2FEV3	T V H L R E D R R H	T Q D A D V E A I V T A G D V P V N L E E M A L T E E M L D I		
UniRef90_UPI00035C5055	T I M L R E D R R H	V Q D R D I E L V R K T C N T R L H L E M G V T D E M V Q S I		
UniRef90_D0MDG5	V F H L R E D R R H	T T D R D F V F R L K E V V Q G K L D F E E L S T N E E I V S I		
UniRef90_UPI0004658512	T V H P R P D Q R H	T R P G D V F A L S D L V Q I E F N I E E G N P N P G F M T L		
UniRef90_A713Y5	T T H L R E D R R H	N E N D V K D I I H S R V P V N L E E C S I N E E I I D F		
UniRef90_I3IA63	T V H P R P D Q R H	T R P H D V Y E L R D V V T T E L N I E E G N P Y A E F I K L		
UniRef90_W0J7R2	T L H V R E D R R H	T Q E R D A W R L R E V A Q T R I N E E G N P C T P A M I D F		
UniRef90_V4P6X2	T A H L R E D R R H	V D K D I L A L K A T C D R P L N F E M A I T E E M V E M		
UniRef90_E1Y9H3	T V V H L R E D R R H	T Q D N D V K I L R N I I Q T K L L I L E M A A T S E E M V E I		
UniRef90_V4Q0I0	T A H L R E D R R H	T L D K D V F A I K V C D T P L N F E M A A T E E M V A I		
UniRef90_Q3V7R4	T I H L R E D R R H	T Q L E D V K V L S K H C S V P L N L E E M A A T S Q M V T Y		
UniRef90_UPI0004748517	T V H P R P D A R H	T R Y D D V R A L K R V L A T E F N I E E G N P I D S F V A L		
UniRef90_UPI0003A3EEF4	T A H L R E D R R H	T G D N D I Q R L V D E I D L P L N L E E M A A T D E M V E I		
UniRef90_B3QQ93	V C H L R E D R R H	T K D D D L E R L R E A I D T K D L D L E M A M T S E M Q S I		
UniRef90_G2J9M9	T L H P R Q D Q R H	H A R Y R D V E A L Q A V C G G E L N V E E G Y P S P E F L A V		
UniRef90_E6PL52	T F H L R E D R R H	T R D A D V Q R I K A E I G V A L N F E A A V T D E M L G I		

	90	100	110	120
UniRef90_I2FDG5	L C A I V P Q R I T L V P E K R E E E I	T T E G G L D I E S H Y I R E V L K A F E		
UniRef90_A6EM95	V L E V K P T Q V T L V P D S V D V L T S N A G W D T V K H K L I E V I D E F K			
UniRef90_A5G1T8	A C G L K P H A S C L V P E R R Q E V T T E G G L D A A G T S L A P R I A A L R			
UniRef90_E4TS32	V K N N N P A Q A T L V P D P P G V L T S N A G W D T V K H Q D F L K D V I S Q L K			
UniRef90_UPI0003B75CE3	A L R L K P H A V C L V P E K R E E E I T T E G G L D V A G Q R L A A F I I A P L R			
UniRef90_Q30S57	V T D L K P H R T T L V P E K R E E E I T T E G G L D V V G H E I A Y A I E L L H			
UniRef90_UPI00036C9270	A H R I I P Y T V C L V P E N R Q E I V T T E G G L D V A G Q K L K K V V E G M H			
UniRef90_A6EFW7	V L A N K P A Q V T L V P D V E G Q I T S N H G W D T H Q E Y L K E M T G I F Q			
UniRef90_UPI0002627EC7	A I E I Q P D V V T I V P E K R E E E I T T E G G L D V V G D D L K K A I G E L R			
UniRef90_UPI0003B68748	A S E I I P D L V T F V P E K R Q E I T T E G G L D D V I G N K M A K A V N L M K			
UniRef90_UPI000361451E	A L D T R P H A S C L V P E K R S E R T T E G G L D V G H D H L K L V T A E L S			
UniRef90_A6DNU5	V C E V K P Q D C T L V P D P P G A L T S D S G W D K N M D F L Q K V V A R L L Q			
UniRef90_D4DPX6	A L R V R P K E V C I V P E K R Q E I T T E G G L D V Q Q Q K T A D F T R I L S			
UniRef90_C0B16	V L E L R P T Q V T L V P D G N D V L T S N A G W D T N K D F L T P I I K R F K			
UniRef90_D3UFK8	L C A Q K P Y K I T L V P E K R E E E I V T T E G G L S L K N P L K D V I K T F H			
UniRef90_A4BW42	V L E T K P T Q V T L V P D A D A L T S N A G W D T H Q S F L Q E V V Q E F Q			
UniRef90_UPI0003B3C92D	A L A H K P H A A C I V P E R R A E R T T E G G L D A A G Q H L Q P L V A R L L Q			
UniRef90_UPI000479CBD5	A E T L R P A Q V T L V P E R R E E E I V T T E G G L D V V R H E V R E A V T R L K			
UniRef90_UPI00036DE93D	V T Q V G P D Q V T L V P D A P D A L T S S A G W D V H F D Q L E K I I D R L H			
UniRef90_UPI0003B719BB	A L N V S P D K I C L V P E K R E E E I T T E G G L D V I R D R L R Q M I V P F K			
UniRef90_UPI00037E955A	A L R R K P H A V C L V P E K R E E E I T T E G G L D V A G E R L L A D F I A P L R			
UniRef90_R7L8H5	A R Q I M P D Y A C L V P E N R M E V T T E G G L D I A G N K V E E T V S A L L S			
UniRef90_UPI0003454796	A C R I K P S D V C C L V P E K R H E V V T T E G G L D D V V R Y F V Q A A V A Q L L Q			
UniRef90_UPI000366D8D6	A C R L K P Q A V C L V P E K R E E E I T T E G G L D V A G Q A L R E A V A R L L Q			
UniRef90_U1HDT4	S L A T K P H A V C L V P E K R E E E I T T E G G L D V G Q H L A P F I A R L N			
UniRef90_E8RSY0	A L D L K P H A C C L V P E R R Q E R T T E G G L D V A G N V V G P A V A R L N			
UniRef90_UPI000371DAE6	C T K V D P H L C T L V P E G R E E E I T T E G G L D V F D D Y K N R V F P K L R			
UniRef90_UPI00047284A6	A L R I R P H Q V T L V P E Q R E E E I V T T E G G L D V A R Q L L R Q A V E R L L			
UniRef90_A1WT14	A T R L A P A D D C C L V P E K R E E E I T T E G G L D V A G Q R L L E Q A C R R L H			
UniRef90_C6BV77	A L R I I D P A T V C C L V P E K R E E E I T T E G G L N C I G Q R L L T E Y L A P L H			
UniRef90_R5AZG4	V L Q V K P A Q V T L V P D A P G D L T S H E G W D V N M E F L T S I V D R L R			
UniRef90_UPI00036E8DB8	A L K H K P K Y V V C I V P E K R A E I T T E G G L N L N R Q K L K R M I S K I I K			
UniRef90_C6XJG3	A L D P F K P H A V C L V P E K R E E E I T T E G G L D V A H N T V A P F V R R L L			
UniRef90_Q2RT91	A L R H R P H A A C I V P E K R E E E I T T E G G L D V V G V H L A P I I T A L G			
UniRef90_UPI00041DD1AB	V L A T K P A Q V T L V P D A L G Q I T S N H G W N T H Q S Y L Q S I I G V F K			
UniRef90_E1QF12	A A E V G P Q I C T L V P E R R Q E L I T T E G G L E V K G N Y M R D V I A Q L N			
UniRef90_U3Q6V5	V L D I K P S Q V T L V P D S D N A I T S N S G W N L Y Q D F L T D K I I K L L			
UniRef90_W6K9S3	A L R H K P H A A C I V P E K R E E E I R T T E G G L D A V H N H L A P I I T Q L S			
UniRef90_K9RLM6	V C E V K P T Q C T L V P D A P D A F T S N S G W N L N F H Q L A P V I E K L A			
UniRef90_UPI0003682D07	I E R A R P R M A C L V P E R R Q E L I T T E G G L D V L Q G F L R R E A C A R L A			
UniRef90_S7U928	A L S V P R D T V C L V P E K R E E E I T T E G G L S V A G R F L R R Y I E P I W			
UniRef90_W2UNL2	V L E V K P T Q V T L V P D A I D A I T S N A G W D T I K H K L I E V I S E F K			
UniRef90_K9VPJ5	V C D V K P A Q C T L V P D A P D V L T S D S G W N I P E N R L L P I I E K L K			
UniRef90_UPI00025591C2	V L D D V P H Q V T L V P D A I D N I T S N A G W D T H Q S F L K D V I A E F K			
UniRef90_S9SFQ7	A L R L R P H A V C V L V P E K R E E E I R T T E G G L D V A G H F L R P L L T P L I			
UniRef90_UPI00047EE024	V K A V K P A Q A T L V P D A A D V L T S N S G W D T H A A Y I R Q L I Q D L K			
UniRef90_UPI0003B6C4F3	A V A F K P H A A C I V P E K R E E E I R T T E G G L D V A G L H I A P M V R R L A K			
UniRef90_XOS4X5	A F S I K P D I V S L V P E R R E E E I L T T E G G L D V N E K H L T P P F I W D I L K			
UniRef90_Q1YRT7	V A E T M P D Q C T L V P D G D D Q L T S D H G F D L T G E Q L Q P I I E R L H			
UniRef90_UPI00036DCFED	A L R L K P H A V C I V P E R R E E E I R T T E G G L N V G H N H A P L V R D L T			
UniRef90_E6W481	A C A A R P Q V T L V P E K R E E E I T T E G G L D V L G N E L E K A A T R L R			
UniRef90_UPI0004274D02	V V P F R P S W I T L V P E S R E E E I T T Q G G G L D F L Q G M L R P V L R E L R			
UniRef90_UPI0003B51A6A	A L E T E P D M V C L V P E K R Q E L I T T E G G L N C I G E L R A D Y L A P L H			
UniRef90_W0RM41	A E R I R P H Q V T L V P E R R E E E I T T E G G L D V S R D Q L A R L I A D L K K			
UniRef90_R7F4B8	V L A N K P T Q A T L V P D A A D V L T T N E G W D V E C H F L R G V V K R L L			
UniRef90_UPI0003B6814B	A T Q Y N P K F V C F I V P E N R K E I T T E G G L D V V K N F L S N V L K S I L			
UniRef90_C0BM21	V L D D V K P T Q V T L V P D A V D A I T S N A G W D A H A D F L K N T A R F K			
UniRef90_UPI00035D35E1	A L D I K P D Y V T L V P E R R E E E I V T T E G G L D I A G Q R I L G E V V D K L Q			
UniRef90_D5AS17	A L A T R P H A V C L V P E K R Q E R T T E G G L D V A G D R L T A Y I I A P L R			
UniRef90_UPI00046D7017	A T D R R P H S A T L V P E R R E E E I V T T E G G L D V V A G Q T Y L V G R A V E A L A			
UniRef90_UPI0004193EDA	I Q D I R P A Q A T L V P D A T D V L T S N Q G W D T H A D Y L K A T I E K I I K			
UniRef90_Q0F317	C E R R L K P K A C C L V P E K R E E E I T T E G G L D V Q H S R M A A A V E R L L S			
UniRef90_H6LAH4	L R K Y P S D Q V T L V P D A A Q A L T S D S G W D A F A S H L Q E V T E E L K			
UniRef90_UPI0003750035	A I A T K P F Q V S I V P E N R Q E I T T E G G L N I Q E D H L I E V C H K L K			
UniRef90_R5W6C4	V M E V V P T Q V T L V P D A H D A I T S N A G W N T V K Y R S R A D L F H			
UniRef90_S9P562	A Y E H K P D V V T L V P E R R E E E I T T E G G L E V N G Q K L L A K T I K N L L K			
UniRef90_UPI00034A1D0F	V R Q V K P T Q C T L V P D T P D T F T S D S G W D L D Q E R L K P I I Q E L Q			
UniRef90_H1GT56	V Y E C K P T Q V T L V P D A V D A I T S N A G W D T I K H K L Q E V I Q E C K			
UniRef90_UPI00036B113B	V R E I K P A Q C T L V P D S D Q Q I T S D H G F D L T G D Q I A P I I A E L K			
UniRef90_T1DR31	I E R A H P T Q V T L V P D A P G V L T S N A G W D V H F D H L K S L I D H F H			
UniRef90_UPI000377AF83	A L K H R P H A C C L V P E K R E E E I R T T E G G L D V Q R D H L R P M I E A L N			
UniRef90_I5B4G4	A L D I K P D T V T L V P E K R E E E I T T E G G L D V H M Q H L R Q A V I T L K			
UniRef90_UPI00037CE4D3	L A K V Q P H L C T L V P E G R L E I T T E G G L N V F E D F K S R V F P A L			
UniRef90_L1P7I9	V L Q V R P T Q V T L V P D A E D A I T S N A G W D T V K H R L T E V I K E F K			
UniRef90_UPI00036BE898	V L E V Q P A Q V T L V P D S P D A I T S N A G W N T H K D F L K E V I G V F K			
UniRef90_H2CCN5	A L K Q R P P R T V T L V P E H R L E I T T E G G I D A I R S A L K P V V D A L K			
UniRef90_U2FVE3	A D R L K P R D A C L V P E K R E E E I T T E G G L D V A G Q A V R D A L D R L H			
UniRef90_UPI00035C5055	A M D T D P E T V C L V P E K R E E E I T T E G G L D V N R A R L L Q Q V I P R L F			
UniRef90_D0MDG5	C C Q V R P H L A T L V P E R R E E E I T T E G G L D V N R A R L L Q Q V I P R L F			
UniRef90_UPI0004658512	V R Q T R P H Q C T L V P D S N E E Q I T S D H G F D L T G D A L R P I I E E L R			
UniRef90_A713Y5	V C K F R P H R A T L V P E K R E E E I T T E G G L N L S T A G L E N I I N R L L K K			
UniRef90_I3IA63	V C D V V P D Q C T L V P D T N H Q L I T S D H G F D V A G K L K P L I K E L K			
UniRef90_W0J7R2	A L E L K P D S V C V L V P E N R E E E I S T E G G L D V A G N R V R A C V E A M N			
UniRef90_V4P6X2	A V A M K P H A A C L V P E R R Q E R T T E G G L D V A G L H V G K A V S R L T			
UniRef90_E1Y9H3	A L G I K P D V V T L V P E K R S E L T T E G G L N V N A N A V S E S V A T L Q			
UniRef90_V4Q010	A V E M K P H A A C L V P E K R A E L T T E G G L D V V G Q T T V G A A V A K F N			
UniRef90_Q3V7R4	A K K Y R P D W V C F V L V P E K R A E L T T E G G L D V K F K K M F P M V E K L Q			
UniRef90_UPI0004748517	V E E V R P T Q V T L V P D A A D A V T S N A G W N T V A H R L Q T V C E R F K			
UniRef90_UPI0003A3EEF4	A L R R H R P P H C C I V P E K R E E E I R T T E G G L D A H H N Q L A P V V R R L R			
UniRef90_B3QQ93	A L R V R P K E L V T L V P D R P D Q I T S D H G F N L R K E R L R K V I G E L K A			
UniRef90_G2J9M9	V K R V R P S Q C T L V P D R P D Q I T S D H G F N L R K E R L R K V I G E L K A			
UniRef90_E6PL52	I E Q V Q P E N V C L V P E R R Q E I T T E G G L D V Q F H V Q G A C A R L A			

	130	140	150	160	
UniRef90_I2FDG5	A Q G I A T A L F I D P K K E S I	F [] A R E L G A Q A V E L H T G R Y A N L [] H []			
UniRef90_A6EM95	R N G I R T S V F F V D P E L S L	E G A A L V G T D R I E L Y T E D F A V G Y S			
UniRef90_A5G1T8	A A G I R V S L F F V D P D P V Q L	E A A A R L G A P V E L H T G A Y A E G			
UniRef90_E4TS32	N M G V R T S I F T G T D L K H	E A A A A K L G T D R I E L Y T E P Y A A N Y			
UniRef90_UPI0003B75CE3	D A G C R V S L F I G H E A A Q I	H A S A R I G A A V E L H T G R Y C D			
UniRef90_Q30S57	D Y L I P V S L F I D P T I E A V	E K S K E L G A E M V E L H T G A F A N L [] Y A			
UniRef90_UPI00036C9270	E K G I K V S M F V D P D I E Q V	H A S A E I G A D S V E L H T G A Y A N A E G			
UniRef90_A6EFW7	S A G I R V S I F V D P D V K V	E A A A A L S G T D R I E L Y T E A Y A H Q Y Q			
UniRef90_UPI0002627EC7	D N G M R V V S L F I D P D M E Q I	Q S S A K L G A T D I E L H T G P Y A H A K E			
UniRef90_UPI0003B68748	E K G I V T S L F I D P D R E Q I	E K S K E I G A Q C I E L H T G E Y A N A A K T			
UniRef90_UPI000361451E	R A G V V V A L F I E P S L E A R S R I	G V P A I E L H T G T W C D A L D			
UniRef90_A6DNU5	A E G G I R V S L F I D P D P V Q V	N F A M K T G T D R I E L Y T Q S Y A E S Y G			
UniRef90_D4DPX6	E A G G I R V S L F I D A D E A Q I	Q A A S D I G A P A V E L H T G			
UniRef90_C0B16	E A G G I R T S V F V N P I V E M V	E G A F E I G T D R I E L Y T E A F A S R Y D			
UniRef90_D3UFK8	Q H G I R V A T F V D P D E E A I	L L S K E Y G A D G V E L H T G A Y A N A T L			
UniRef90_A4BW42	Q N G I R T S I F I G T D L K V	E A A A A K T G S D R I E L Y T E D F A A Q F N			
UniRef90_UPI0003B3C92D	D A G I R V S L F I A P D A R Q L	E A A A R L G V P V E L H T G P Y A H A			
UniRef90_UPI000479CBD5	R L G I R T S L F I D P D P A A V R	L S K A V D A D A I E L H T G S Y A H A P R			
UniRef90_UPI00036DE93D	R A G I R A S I F V D T D L D N L	A A A R S V G A D R V E M Y T K P Y A D L Y P			
UniRef90_UPI0003B719BB	G K G V S V S L F I E P E A A C I	E A A Q E V G A D F V E F F H T G			
UniRef90_UPI00037E955A	E A G S R V S L F I G A D P R Q	P E E A S A E I G A A V E L H T G A W C D A H H			
UniRef90_R7L8H5	E K N I V C S I F I D P D P A Q I	K L A K Q L G A P P M V E L H T G A Y A N A W K			
UniRef90_UPI0003454796	G E G G I R V S L F I D A D E A Q I	A A A A E A G A P V I E L H T G R Y A E A D G			
UniRef90_UPI000366D8D6	D A G C R V S M F I D P T K A Q I	D A S V A I A P V V E L H T G H Y A N L			
UniRef90_U1HDT4	D A G I R V S L F I A A D P R Q	E M A A K L K A P V I E L H T G G W C D A V V			
UniRef90_E8RSY0	A A G I R S S L F I A T D P L Q V	S A A S N I G A P P V V E F H T G A L C D A W R			
UniRef90_UPI000371DAE6	E T D I E I S L F F L D P N L R D I	E L A H E L G T D A I E L H T G T F A N A			
UniRef90_UPI00047284A6	G E D I P V S L F F V D P E A D Q L	Q A C R V T G A R W V E L H T G			
UniRef90_A1WT14	E A G I R V S L F I D P D P E P Q	D A A A T A T A G A P V I E L H T G A Y A D A			
UniRef90_C6BV77	E K G I G S S L F I D A D A D Q I	K A A K A I G A E Y V E E H T G H F A D A			
UniRef90_R5AZG4	E A G I R S S I F V G T D V E N I	R A A A R A G A D R V E L L Y T K P Y A D N Y N			
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UniRef90_U3Q6V5	N H G I R T S I F I D P N P E L	V S Y A A Q T G A D S I E L L Y T G Y F S I G Y S			
UniRef90_W6K9S3	E A H I R V S L F I E P D R A Q L	E A A H R L G A P P V V E L L H V G A Y C D A E D			
UniRef90_K9RLM6	S F D I R I S L F M D A D S N Q I	P L V K K I G A H R V E L L Y T E P Y A T A F R			
UniRef90_UPI0003682D07	A I D C R V S L F I E A D P A Q I	D A A V Q S G A P C I E L L H T G A Y A D A V E			
UniRef90_S7U928	E A G I A S S L F I D A D P A Q M E	A A A A R R I K T F I E I H T G H Y A D A K D			
UniRef90_W2UNL2	R N N I R T S I F I D P V S K I V	E A A A N T G T D R I V E L L Y T E D Y A K K Y E R			
UniRef90_K9VPJ5	D N G I R V S L F M D A D A A L M P	L A K E V G A D R V E L L Y T E P Y A T A F R			
UniRef90_UPI00025591C2	E A G I R T S I F I I D T N P D I	E E A A A T T G A D R V E L L Y T E K Y A V E Y Q			
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UniRef90_R7F4B8	R A G G V R T S L F F V D P D D R M V	R L S Y E L G A D A I V E L L H T G R Y A H H P D			
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UniRef90_UPI00046D7017	Q A G A R V S M F V G P D P R Q I	E A S A I G A A V V E L L H T G H Y C D L H			
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170 180 190 200

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

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UniRef90_E3F1F0	K L R L G I N I D H V A T V R N A R G G A T P D P V R A A L L A E A A G D G I				
UniRef90_B8DPF1	L V V N V V D H V A T L R Q Q R K G K E P D P L T A A H L V I E L A G A G I				
UniRef90_R9A0T6	T Q L S V N V N K I V A T L R N S R G G S I P S V I Q I S E I I L N A G A G I				
UniRef90_Q3YS15	S S I A L G V N I D H I A T L R N A R N V Y D Y P C I I E V A N I A V N N G D F I				
UniRef90_F4KT12	S V R L G V N I D H I A L I R N S R G A N L P D L T Q I A R D C E A F G A G I				
UniRef90_Q3V891	L V V N V V D H V A T L R Q Q R L G I E P D P V T A A H M A E L A G A G I				
UniRef90_B8EK16	R L G V N V D H V A T L R Q A R G A V F P D P V R A A L V A I A A G D G I				
UniRef90_A8ZVC5	T H L A V N V D H I A T L R Q A R G V D Y P D P V V A G A V L A Q L A G A G I				
UniRef90_B0T3H6	L R L G V N I D H V A T L R N A R G S S Y P E P V R A A E L L A L A G D G I				
UniRef90_UP10003737AB00	S T A L S V N L N K V A L L R N S R E Q G Q F P D L I E F G T L C L D A G A G I				
UniRef90_S2KTR2	R I L L G V N I D H V A T L R Q S R G T R Y P D P V Q A A L L A E E A G D G I				
UniRef90_D6SQU3	V V N V D H V A T L R Q Q A R M G S E P E P V T A A H L A E I G G A G I				
UniRef90_Q5FHH4	S S I A L G V N I D H I A T L R N A R N T E Y P D L V E I A N I A V N N G D F I				
UniRef90_F2NFK3	P T L S V N L N K V A L L R N S R G R D Y P S V T H F A E L A L A G A G I				
UniRef90_UP100036A705A	M R L A V N V D H I A T L R E A R R S D E P D P V F A A L L A E Q A G A G I				
UniRef90_UP10003B6538D	M R L A V N V D H V A T L R Q A R K G K I E P E P V T A A A L A E L L A G Q G I				
UniRef90_F3Z0W1	M L L G V N I D H I A V L R E A R K I N D P D P L D A V S L V K R A G D Q I				
UniRef90_UP1000468DF64	A T Q L S V N L N K V A L L R N S R N L G I P S V L K A A R M A L E A G A G I				
UniRef90_UP10003476FBF	N V Q L G V N V D H V A T V R N L R G T T Y P D V V K I A S E A V E C G D F I				
UniRef90_A0LK96	P V R L G V N V D H V A T V R N L R G G N I P N L Q V I A K D V Q K Y G A G I				
UniRef90_D0JA45	V K L S V N L N K V A T L R N A R G N I P N L Q V I A K D V Q K Y G A G I				
UniRef90_D7AAD5	S P I R L G V N V D H V A T L R Q A R R A S E P D P V R A A R L A A T A G D G I				
UniRef90_K0NHD4	L A V N V D H V A T L R N A R G V T F P E P I A A A V A A E T A G D G I				
UniRef90_C3XF17	M R L G V N I D H I A Y L R E T R K I N D P D P L E A I F I A K R A G D Q I				
UniRef90_B0UE21	S P L R L G V N I D H I A T L R N A R G G V I P D P L R A A H L A V A A G D G I				
UniRef90_D1ASE0	D V Q L G V N V D H V A T V R N L R G T T Y P D V V K I A S E A V E C G D F I				
UniRef90_UP100045E93A7	P V R L G V N V D H V A T V R N L R G G L L P D P V R A A R L A A T A G D G I				
UniRef90_B3T7B0	I L L G V N V D H V A T V R Q A R G F V E P D P A E I A W R A E D A G D G I				
UniRef90_UP10003660A2C	L V V N I D H V A T L R Q Q R L G I E P E P V T A A H F A E L L A G A G I				
UniRef90_E7FZ40	M R L G L N I D H I A T L R E A R K I H E P D V L E A I F I A K N A G D I				
UniRef90_C8X3I7	K L V V N I D H V A T L R Q A R L G I E P D P V T A A H M A E L A G E G I				
UniRef90_Q2SQM4	K T V L S V N L N K V A L L R N S R G R D Y P S V K A F G R R A L Q A G A G I				
UniRef90_X1KT78	T N L S S V N L N K V A L L R N T R N G I P S V I D A A N T C I R A G A G I				
UniRef90_S3UJR7	V R L S S V N V N K V A T L R N S R G G N H P D L L A I S E L I L E A G A G I				
UniRef90_B2KEC4	V K L S S V N I D H V A T L R S A R G A D F P D P L T A A K V C L G M G A E I				
UniRef90_V6I9N2	K I K L S S V N I D H V A T L R N S R G G N I P D D L Y F A D L V L K A G A G I				
UniRef90_A0A023D874	I R L S S V N I D H V A T V R N A R G G T H P D P V T A A L L A A S H G D G I				
UniRef90_R8ZVQ9	T Q L S S V N I D H V A T L R N S R G G S L P H P V L Q S E L I L D S G A G I				
UniRef90_UP100038046EA	I A L S S V N I D H V A T L R N S R E G N F P D P L F A A H H L A R L A G D Q I				
UniRef90_C6HXK9	P I R L G V N I D H V A T L R Q A R G E F D P D P L F A A H H L A R L A G D Q I				
UniRef90_UP100036D26B9	T A L S S V N I D H V A T L R N S R K G E N P N L I E Y A S A C I N A G D G I				
UniRef90_UP10004663164	A T K L S S V N I D H V A T L R N R R D L P W P S V T G L R I A L Q N G A G G I				
UniRef90_W9H1Y2	L R L S S V N I D H V A T V R N A R G G R H P D P V V R A A L A A E R A G D G I				
UniRef90_UP100037637E6	A I R L G V N V D H V A T I R Q A R G T A Y P D P V V E A A K L A L A A G A S I				
UniRef90_UP100036BD511	T V L S S V N I D H V A T L R N Q R R D V D Y P N V T G M A R I A L N A G A G I				
UniRef90_A9D3P7	P A Q L S S V N I D H V A T L R N R R D L P W P S V T A L G R I A L Q N G A G G I				
UniRef90_C5BL43	S Q L S S V N I D H V A T V R N A R G G G D P D P V R A A L L A Q A A G D G I				
UniRef90_D5QAY8	S P Q R L S S V N I D H V A T V R N A R G G G D P D P V R A A L L A Q A A G D G I				
UniRef90_B7RYG6	I A L S S V N I D H V A T L R N S R D T T N P S V P G H A Q M C I D A G D G I				
UniRef90_I0ELE3	M R F G L S S V N I D H V A T L R E V R K T Y E P E I L E A L L I A K N T V D L I				
UniRef90_S3W389	T K L S S V N V N K V A T L R N S R G G N H P D I L H I S R L I L D A G A G I				
UniRef90_B4WK81	T N L S S V N L N K V A M L R N A R P L T I P S V V K M G E I S I A A G A G I				
UniRef90_UP10003768940	T E L S S V N L N A V A F L R N R R G L P W P S V V V D L G R I A L N A G A G I				
UniRef90_K2L6C5	K L R L G V N I D H V A T I R N A R G G A H P D P V V R A A K L A A K A G D G I				
UniRef90_M2U4R8	P P L R L G V N I D H V A T I R N A R G G V H P D P V V R A A R D A A K A G A G I				
UniRef90_Q0G619	P T Q L S S V N L N A V A M L R N R R D L P W P S V T G L G R I A L N A G A G I				
UniRef90_D0RNU0	K L G V N I D H V A T L R N A R G E G H P N I V S A A K K V I K N G D S I				
UniRef90_J9ZA11	G G V N I D H V A T L R N S R A G F A P D P L S A A V L V K S A G A Q L				
UniRef90_UP10003FFDE25	S R T Q L S S V N V N K V A L V R N T R H L G I P S V V R A A E L C L A A G A G I				
UniRef90_D5SNNO	K T K L S S V N V N K V A L L R N S R H L G I P S V V R A A S L C I A A G E G I				
UniRef90_UP1000464D134	A I D L S S V N L N K V I A L I R N S R E G N Y P D V T A F G R L S L D A G A G I				
UniRef90_Q21K06	I I A L S S V N L N K V I A L I R N S R T R T Y N Y P S V V R A A R T V L D A G A G I				
UniRef90_K7YL88	R R L S S V N L N D H V A T L R Q A R R E G F P N P L D C L C V L E E C G D Q V				
UniRef90_K1YXD2	P V K L S S V N L N A V A M L R N R R D L P W P S V T G L G R V A L A A G A G I				
UniRef90_A0A011UVU2	P I A L S S V N V N K V A L L R N S R D T V I P S V V D Y A L R C I H Y G A G I				
UniRef90_F3L004	M R L S S V N V N K V A L L R N A R G G R F P D P V V E A A R A C C I L Q A G D G I				
UniRef90_D5RGY7	T L L S S V N L N K V I A L L R N S R G R N F P D V V A A F A R C C I L D L G A G I				
UniRef90_UP100034A125A	T L L S S V N V N K V A L L R Q A R L A K S P D P V V A A A L A E L G G A A I				
UniRef90_C4XGU0	T K L S S V N V N K V I A L L R N S R G H D A P N V V E F A R R F I E L G T G I				
UniRef90_A4BJ83	Unaligned sequence: S H T A L S S V N V N K V A L L R N T R H L G I P S V V R A A T L C L Q A G A G I				
UniRef90_J9YW2	Unaligned sequence: T R L S S V N V N K V I G L S S V N L N A I A M L R N R R D L P W P D V I H F G R I A L A L A G A G I				
UniRef90_V4YK33	Unaligned sequence: T Q L S S V N V N K V A L L R N T R H L G I P S V V T R A A L C L Q A G A G I				
UniRef90_UP10003758231	Unaligned sequence: S H T A L S S V N V N K V A L L R N T R H L G I P S V V T R A A L C L Q A G A G I				
UniRef90_UP10003815C1D	Unaligned sequence: T Q L S S V N V N K V A L L R E A R K V K E P D P A A V A R A C C I L D L G A G I				
UniRef90_X1ES99	Unaligned sequence: R L S S V N V N K V I G L S S V N L N A I A M L R N R R D L P W P D V R H F G R I A L A L A G A G I				
UniRef90_A3Y7K9	Unaligned sequence: T H S S V N V N K V I G L S S V N L N A I A M L R N R R D L P W P D V R H F G R I A L A L A G A G I				
UniRef90_B9JXN7	Unaligned sequence: P A K L S S V N L N A I A M L R N R R D L P W P D V R H F G R I A L A L A G A G I				

50 60 70 80

UniRef90_H6Q5B7	T M H L R E D R R H H E K D L F L K K I H S K I N L E M A P T E N M F N I
UniRef90_UP10004760F4A	T V H P R P D E R R H V T Y A D L A L L K Q H A T E L N I E G N P T Q R F I D E
UniRef90_A9HET5	T A H L R E D R R H R D A D L A R R A E L A V P L N M E M A A T D E M V G I
UniRef90_B3PFS6	T V H P R P D Q R H P Q D V Y E I S A L V G I E F N I E G N P F A E F L Q L
UniRef90_V8CIM8	T I H L R E D R R H H E D D V A R I I K S S P L P V N V E C A S D G G V V E I
UniRef90_UP10003679B37	T V H V R E D R R H H M Q D D D A R L V R R E D L P L N L V E L A N T A E M V A F
UniRef90_A8TM09	T V H P R P D A R H T R E R D V F D A E L L K A P F N V E G Y P D D R F L D L
UniRef90_UP10003454505	T V H L R E D R R H Q P R D I H L A A V L N T R M N L E M A T T A E M L A L
UniRef90_UP10003641525	I T H L R E D R R H T D D D I A R L R E R I A L P L N L E M A A T E E M L A I
UniRef90_UP10003B5CE2B	T I H L R E D R R H N E S D L K K I K N K I K I P L N L E I A A T K E M L R I
UniRef90_K9U5H1	T V H P R P D E R H K P S D V Y E L A E M L S V E F N I E G N P F P P F M E I
UniRef90_T2GCD4	I A H L R E D R R H Q D D A D V R A I A R Q A R C F N F E M A A T E E M R A I
UniRef90_D8FEZ3	I C H L R E D R R H N D R D L K L R E T V K T K L N M E M A A V D E M V V E I
UniRef90_UP100036B9E3A	T V H V R E D R R H N E H D L E N L K V I N I P L N L E I A A N K E M V K I
UniRef90_M4VAT9	T I H L R E D R R H Q D A D V V R L C K K S K L P I N L E L A V S P E M L K I
UniRef90_E3F1F0	T A H L R E D R R H R D A D M A D I A A A I K P L N F E M A A T A E M Q R I
UniRef90_B8DPF1	I V H L R E D R R H Q D H D V E L M M A R T L K T R L H L E M A A T E E M Q A I
UniRef90_R9A0T6	T I H P R E D E R H T K Q D V F E I R E F L K K E F N I E G E P S E R F L D L
UniRef90_Q3YS15	T V H L R E D R R H M D D D V F F R L K S S L K V P L N L E I A A T D E M L S I
UniRef90_F4KT12	T V H P R P D E R H V F R F D D L P L Q A T V R T E F N I E G N P D P R F L R E
UniRef90_Q3V891	I V H L R E D R R H Q D R D L V S L L R Q T L K T R L H L E M A A T E E M Q G I
UniRef90_B8EK16	T A H L R E D R R H R D E D M A R L K R E I S V P L N F E M A A T N E M V A I
UniRef90_A8ZVC5	V A H L R E D R R H Q D T D V V R L R A A A R R F I L E M A V T P E M E K I
UniRef90_B0T3H6	T A H L R E D R R H S D A D I A L T D L C G K P L N F E M A V T D E M V G I
UniRef90_UP10003737AB00	T V H P R P D Q R H R P G D V F A L S G L A K T E F N I E G N P F P G L A L
UniRef90_S2KTR2	T V H L R E D R R H Q E R D V R L L Q E V L N T R M N L E M A V T E E M I A L
UniRef90_D6SQU3	I V H L R E D R R H Q D R D L R R L L K S T L T A N L H L E M A A T E E M Q G I
UniRef90_Q5FHH4	T V H L R E D R R H R D S D V V F R L K D N L N V P L N L E I A A I D E M L A I
UniRef90_F2NFK3	I V H L R E D R R H Q D R D L V R R Q T V K T R L E M A A T A E I I G I
UniRef90_UP100036A705A	T I H P R P D Q R H A R Y D D V A A K A V V Q A E L N I E G Y P D E R F L D V
UniRef90_UP10003B6538D	V C H I R G D G R H K Q R D L Q L R K T I K T K L L E M A A A E D R K K L
UniRef90_F3Z0W1	I V H L R E D R R H Q D R D L V Q L R Q T V Q T K F N L E M A A T R E E M Q G I
UniRef90_UP1000468DF64	T I H L R E D R R H N D M D A V R I I E N S Q L P I N M E C A A A D I D T
UniRef90_UP10003476FBF	T V H P R P D E R H R Y A D V D E L A E Y P T V E F N I E G N P F G R F M E V
UniRef90_A0LK96	V V H L R E D R R H Q D R D V V Q V L R Q T V K S K L N L E M A A T R E M Q I
UniRef90_D0JA45	T I H P R P D E R H T Y K D V Y D L K S L V K T E L N I E G R P I N K F M N L
UniRef90_D7AAD5	T A H L R E D R R H R D A D M R R R Q R L S A P L N F E M A A T D E M V A L
UniRef90_K0NH4	V V H L R E D R R H N E R D V V R L R K V Q S K L L E M G A T S E M L G I
UniRef90_C3XF17	T I H L R E D R R H H D S D L Y R I A E S S F L P L N V E E C C S E I D M L H
UniRef90_B0UE21	T A H L R E D R R H R D E D V V E R L K R E I D R P L N L E M A I T E E M V G I
UniRef90_D1ASE0	T V H L R E D R R H K D G D V V F A L K R H L A V P L N L E M A A T R E E M L E I
UniRef90_UP100045E93A7	T A H L R E D R R H I R D A D M T R L K A E I D P L N F E M A A T E E M V G I
UniRef90_B3T7B0	T M H V R E D R R H H M Q T D D V E R Y L E S K R T R L N L E M S W A E E M V E Y
UniRef90_UP10003660A2C	I M H L R E D R R H H V Q D R D I E L V S R C L N T R F H F E M A A T E E M H E I
UniRef90_E7FZ40	T L H L R E D R R H I H E D D L L S S I L K H A P M P V N V E C A D S K I T K I
UniRef90_C8X317	I V H L R E D R R H Q D R D V V A L L S Q T V K T N L H L E M A A T P E M Q K I
UniRef90_Q2SQM4	T I H P R P D Q R H A R Y S D I A D L S E L V K A E L N I E G Y P E E E L I E Q
UniRef90_X1KT78	T V H P R P D Q R H I R P S D V V Y E L A K I L V V E F N I E G N P F P Q F M E M
UniRef90_S3UJR7	T V H P R E D Q R H I R T E D V V F D L K S F L K E Y N I E G E P S P R F L D
UniRef90_B2KEC4	V V H L R E D R R H K D K D I V E N L C K T Y P G K I H L E C A A T K E M Q D I
UniRef90_V6I9N2	T V H P R E D E R H R K D D D V V F A L K E F I D I E Y N I E G E P S P R F L D
UniRef90_A0A023D874	T A H L R E D R R H R D D D M R R K A E L P V P L N F E M A A T E E M V S L
UniRef90_R8ZVQ9	T V H P R T D E R H I T K Q D V V F E L Q E F L K K E Y N I E G E P S E R F L E L
UniRef90_UP100038046EA	T V H P R P D Q R H I R P G D V V R E L A T L C R I E L N I E G V N P F P G L V E L
UniRef90_C6HXK9	V L H V R E D R R H A N E S D L R R R R E T S S L P L N L E M A L S P E M E L M
UniRef90_UP100036D26B9	T V H P R P D Q R H H V K P S D L P G L K E L I N L E F N I E G N P F E E L L E L
UniRef90_UP10004663164	T V H P R P D Q R H I R F S D L P E R I R A L I D A E F N I E G Y P T D D F L D
UniRef90_W9H1Y2	T A H L R E D R R H I Q D R D V V A A L D M G D I R L P L N L E M A A T D E M V R I
UniRef90_UP100037637E6	T L H L R E D R R H I Q D R D V V A A L V A H D A R I V N L E M A V T E D M L R
UniRef90_UP100036BD511	T V H P R P D E R H T T R R S D V V Y E L A E M L K V F E F N I E G Y P T D D F L D
UniRef90_A9D3P7	T V H P R P D Q R H I R F S D L P E R I R A L I Q A E F N I E G Y P T D D F L D
UniRef90_C5BL43	T V H P R P D Q R H I R P H D V V R E L A D L V R F E N I E G N P F P G L V E L
UniRef90_D5QAY8	T A H L R E D R R H R D R D L A R R R A E L A I P L N M E M A A T A E M V A I
UniRef90_B7RYG6	T V H P R P D Q R H I R T Q D C F D L A G M L T V E F N I E G N P Y P G F M A L
UniRef90_10ELE3	T I H L R E D R R H Q N E D V V L K L E N S L P I N E C S I N A N I T D F
UniRef90_S3W389	T V H P R E D E R H I R K S D D V V F S L K F L K I E Y N M E G E P S S R F L D
UniRef90_B4WK81	T V H P R P D E R H I R R T D V V Y D L A S L L T I E Y N I E G N P L E P F M D
UniRef90_UP10003768940	T V H P R P D E R H T R A D V P D L M N L I T R E F N I E G Y P N E A F M A L
UniRef90_K2L6C5	T A H L R E D R R H S D N D I K R R E I D L P L N F E M A A T D E M L A I
UniRef90_M2U4R8	T A H L R E D R R H T T D D D I E R R M A L D P L N L E M A A T P E E M L A I
UniRef90_Q0G619	T V H P R P D Q R H I R F S D L P E I R K L I D A E F N I E G F P S D E F L N L
UniRef90_D0RNU0	T I H V R E D Q R H K R T D A L L K K L I N K P I N L E M A P T E D M L R F
UniRef90_J9ZA11	V C H L R E D R R H R D A D L R L R S W N G L P V N L E M A M T D E M V S I
UniRef90_UP10003FFDE25	T V H P R P D Q R H I R P Q D V V L D A G L L Q A E Y N I E G N P T Q N L M A F
UniRef90_D5SNNO	T V H P R P D E R H I R R S D V V R E L S A L I R I E L N I E G N P A D G F L D
UniRef90_UP1000464D134	T A H L R E D K R H Q P E D I L R I R S V V R R L N L E M A M F L P E M I A F
UniRef90_Q21K06	T V H P R P D Q R H I T P D D V V R N L A A L P R T E F N I E G N P F P G L I E L
UniRef90_K7YL88	T I H P R P D Q R H I R D A R L E E D V L D A E L M K E P V N L E M A G T S E M L A L
UniRef90_K1YXD2	T L H V R E D R R H H M C E D D L A A F I R Q E K L P V N L E M A G T S E M L A L
UniRef90_A0A011UVU2	T V H P R P D Q R H I T R Y S D L P A R A L I Q A E F N I E G Y P T E E F L A L
UniRef90_F3L004	T V H P R P D Q R H I R V D D C Y A L K Q A S V E L N I E G N P F P G F M P L
UniRef90_D5RGY7	T V H L R E D R R H I R D A D V A R G A E P G L R L N F E M A A T E E M V G I
UniRef90_UP100034A125A	T L H P R E D Q R H H A R Y S D V R E A A L C A A R R L V E G Y P S E Q F L D V
UniRef90_C4XGU0	I V H L R E D R R H I G D R D V H V L R E T I K T R L H L E M A A T E E M L G I
UniRef90_A4JB83	T I H P R Q D E R H I T R Q D A R D G D L I R I E L N I E G Y P S E T F L Q L
UniRef90_J9YWN2	T I H L R E D R R H I N D K D A L D C N Q K N I V N L E I S M N P E I V K K
UniRef90_V4YK33	T V H P R P D E R H I R A N D V V H E A Q L Q T E Y N I E G N P F P H N L M G F
UniRef90_UP10003758231	T V H P R P D Q R H I R F S D L P A R Q L I D A E F N I E G Y P T E H F L G L
UniRef90_UP10003815C1D	T I H P R P D Q R H I R G S D V Q E L A G L M Q N E F N I E G N P T Q N L L M D F
UniRef90_X1ES99	T I H L R E D R R H I Q P R D L D L R M M I H T K L N L E M G T S E E I V K I
UniRef90_A3Y7K9	T I H P R P D Q R H H A T Y Q D A R D K A L L G K E F N I E G F P D Q T F I D V
UniRef90_B9JXN7	T V H P R P D Q R H I V R F S D L P L R A L I K A E F N I E G Y P S E D F L Q L

	90	100	110	120
UniRef90_H6Q5B7	A Q K L P N S C C L V P E N R A E I T T E S G L D I K Q K L H N L I L K L K			
UniRef90_UP10004760F4A	V L A V K P A Q V T L V P D A P D A L T S N A G W D A H K D F L T E V I A E F K			
UniRef90_A9HET5	A L A A L K P H A C C I V P E R R A E V T T E G G L D V A G Q A L A P R V R A L R			
UniRef90_B3PFS6	V E N T R P H Q C T L V P E K R E E I T T E G G L N M R S S A L A E T I A R F K			
UniRef90_V8CIM8	L C A L R P H K I T L V P E K R E E V T T E G G L D V N Q E S L L R Q T V A K L Q			
UniRef90_UP10003679B37	A C D L K P D F A C L V P E K R E E V T T E G G L D H G W D L P A D A A P V R H L Q			
UniRef90_A8TM09	I E R V R P D Q V T L V P D A P D A E L T T E G G L D V A G G F C R A A C C A R L A			
UniRef90_UP10003454505	A E E V Q P A N V C L V P E K R E E E T T E G G L D V A G G F C R A A C C A R L A			
UniRef90_UP10003641525	A L K H R P H A A A C I V P E R R E E E T T E G G L D A A G Q T L T P V V G K L R			
UniRef90_UP10003B5CE2B	A S K S K P P F I C I V P E K R K E I T T E G G L N L S H N K L K K L I H N L K			
UniRef90_K9U5H1	V R Q V N P T Q C T L V P D A P N T F T S D C Y G W D L V R D R L I P I N E L K			
UniRef90_T2GCD4	A L E V Q P H L V C L V P E K R E E L T T E G G L A V A G P L Q D Y C A P F F			
UniRef90_D8FEZ3	A L S V K P D M V T L V P E K R E E L T T E G G L A R H Y G E V V G R L H			
UniRef90_UP100036B9E3A	A N K Y K P S S V C F V P E K R Q E I T T E G G L D I I K N Y L K D I N N L Y			
UniRef90_M4VAT9	A L S N N K P A W V C F V P E K R E E E T T E G G L D V V F E K K S M T K Q L			
UniRef90_E3F1F0	A L A T R P H A V C L V P E K R E E E T T E G G L D V L G Q Y L R D Y I T P L			
UniRef90_B8DPF1	A L A R Q P Y M V C L V P E K R E E E L T T E G G L A V A G R F L K D Y L A P H			
UniRef90_R9A0T6	V L A A R P D Q A T L V P V K P G E I T S D H G F D L K F Q T L K S L V Q R F H			
UniRef90_Q3YS15	A I E V K P K P C V C L V P E K R Q E I T T E G G L D V F S Y L V S F I E K L H			
UniRef90_F4KT12	V M Q V P H Q A T L V P D G P Q A L T S D Q G W D T H H D F L V D V V A Q L Q			
UniRef90_Q3V891	A L A E K P H M V C L V P E K R E E E L T T E G G L L V V A G R F L Q A Y V K P F H			
UniRef90_B8EK16	A I A T R P H A C C L V P E K R R S E R T T E G G L L N V G H D H K L V T A E L G			
UniRef90_A8ZVC5	A L S V K P D L V T L V P E K R K E L T T E G G L J A V G R F L K D Y L A P H			
UniRef90_B0T3H6	A L Q A R P H A A C L V P E R R E E E V T T E G G L D V F D K I A A A T A R L R			
UniRef90_UP1000373AAB00	V E Q A R P D Q C T L V P D S D D Q L T S D H G F D L R R D K L K P I A T L K			
UniRef90_S2KTR2	A E E V C C P P H V C L V P E K R E E E L T T E G G L D V V G N R I T M A C E R L A			
UniRef90_D6SQU3	A L D V L P H M V C L V P E K R E E E L T T E G G L E C R G R F I R D Y L E P F K			
UniRef90_Q5FHH4	A I A V Q P E C V C L V P E K R E E E L T T E G G L D V M F T L M P F V T Q L H			
UniRef90_F2NFK3	A K E I L R P D V A T L V P E K R E E E L T T E G G L D V Y Q D H I H Q A V Q Q L Q			
UniRef90_UP100036A705A	V L A A C P T Q C T L V P D E P G Q L T S D H G W D I H G E R L Q A I V A R L K			
UniRef90_UP10003B6538D	A I E I K P D I V S L V P E Q P G E L T T E G G L D V Q E E H L K S F I Q D L K			
UniRef90_F3Z0W1	A L A T R P D T V C L V P E K R E E E V T T E G G L N L L G E R L A K Y I A P L R L			
UniRef90_UP1000468DF64	V I E M N P H R V T L V P E K R E E E V T T E G G L D V I K N F I K D I S T R L Q			
UniRef90_UP10003476FBF	V T R V R P T Q A T L V P D D P N A F T S D R G W D I D G D R L R P I L K Q			
UniRef90_A0LK96	A L N I K P E M V T L V P E K R Q E L T T E G G L D V F E G A L E E A I K T L H			
UniRef90_D0JA45	V L D I L P N Q V T L V P D P N V I T S D S G W N T I C Y Q L T E T V K K L G K			
UniRef90_D7AAD5	A I E E L K P H A C C L V P E K R E E E R T T E G G L D V I G D L A H K V E K L G K			
UniRef90_K0NH4	A L D V K P D C V T L V P E K R E E E L T T E G G L D L H E N N I R Q A I A T L K			
UniRef90_C3XF17	V S K V K P H R V T L V P E K R R D E V T T E G G L R L S Q T L L E S L K I L R			
UniRef90_B0UE21	A V G L R P H A A C L V P E R R E E E R T T E G G L D I V V A R V R A A V V R L R			
UniRef90_D1ASE0	A K E V A P Q Y V C L V P E K R E E I T T E S G I D A K G A F L A P V V S D L R			
UniRef90_UP100045E93A7	A V S V R P N A C C L V P E R R E E R T T E G G L D A A G T E L G P R I A R L K			
UniRef90_B3T7B0	A L R I K P D S V C C L V P E H R E E V T T E G G L D V A G N K A K E V T T V L V			
UniRef90_UP10003660A2C	A L R I N P Y M C C L V P E K R R E E L T T E G G L D V L I K N F I K D I S T R L Q			
UniRef90_E7FZ40	L C K L R P F K V T L V P E K R Q E L T T E G G L D L R G E L V R D Y L A P I H			
UniRef90_C8X3I7	A L N T A P H M V C L V P E K R Q E L T T E G G L D L R G E L V R D Y L A P I H			
UniRef90_Q2SQM4	V L R Y K P H Q F T L V P D K P D Q I T S D H G W D L N G E F V T D I V R K V Q			
UniRef90_X1KT78	V R K V K P T Q C T L V P D T P A A F T S D H G W N L H G K R L A P I Q E L K K			
UniRef90_S3UJR7	V L R A N P D Q A T L V P V T P G E I T T R G G L N L N F E N I S K Y I Q K I L			
UniRef90_B2KEC4	A L K Y K P A S V C L V P E F K G E I T T R G G L N L N F E N I S K L T T N L Q			
UniRef90_V6I9N2	V L K T K P D Q A T L V P V T P G E I T S D H G F D F E K D M L Q E Y S K I L			
UniRef90_A0A023D874	A C A L P H P A C C L V P E R R E E V T T E G G L D A L G A D L R P K I A R L K			
UniRef90_R8ZVQ9	V L K A K P D Q A T L V P V K P G E I T S D H G F D F T F K S L Q P I V K T L K			
UniRef90_UP100038046EA	A L E T K P D Q C T L V P D S N D Q L T S D H G F N L D G P R L V P Q I A K L K			
UniRef90_C6HXK9	A I S H R P E R V T L V P E K R Q E R T T E G G L V L D E S R L R P F V A R L C R			
UniRef90_UP100036D26B9	V K R S R P H Q C T L V P D S T D Q L T S D H G F D L N Q E K V Y K V V R E L L R			
UniRef90_UP10004663164	V E E H R Q P E Q V T L V P D D P A Q A T T S D H G W P F H G N F L K P V V A R L L			
UniRef90_W9H1Y2	A L G H R P H A A C I V P E K R R E E V T T E G G L D V V G N K L E P M I G E L L			
UniRef90_UP100037637E6	A C R W K P A C V C L V P E K R V E L T T E G G L D V V A G Q A V R D A C A R L A			
UniRef90_UP100036BD511	V A E T K P D Q V T L V P D H P D Q K T S D H G W D I P G N H L K E I I S R L H			
UniRef90_A9D3P7	V E A N Q P E Q V T L V P D D P S Q A T S D H G F D F K G N V L R S V V Q R L K			
UniRef90_C5BL43	A L E T Q P H Q C T L V P D D P S D A Q K T S D H G F D L N G D M L Q P L I T R L K			
UniRef90_D5QAY8	A T T L R P H A C C L V P E R R E E V T T E G G L D L G A D L R P K I A R L K			
UniRef90_B7RYG6	V K E I L R P A Q C T L V P D T D G Q L T S D H G F D L D G D T V A P L I E Q L Q			
UniRef90_10ELE3	L C K N K P S K V T I V P E N R A E I T T E G G L D C S L K D L P K T I K A Y Q L			
UniRef90_S3W389	V L E A K P D Q V T L V P V T P G E I T S D H G F D L N Q E K V Y K V V R E L L R			
UniRef90_B4WK81	I R E V K P D Q C T L V P D D P T Q N T S D H G W N V D G E T L K P I I G E L N			
UniRef90_UP10003768940	V E K I L R P H Q I T L V P D D P S Q A T S D H G W D F R T H A L K A I V A R M K			
UniRef90_K2L6C5	A I A A K P H A A C I V P E K R E E R T T E G G L D L H D A G H N H L K R Y V A E L G			
UniRef90_M2U4R8	A V R H P H A A C I V P E K R E E R T T E G G L D D A G Q S L M R Y V Q D L T			
UniRef90_Q0G619	V E T I S P E Q V T L V P D D P S Q P T S D H G F D F K A E R L K P I V R R L			
UniRef90_D0RNU0	A L K L K P K Y V C I V P E K R Q E I T T E G G L D L N L K Q K N I I Q K L K			
UniRef90_J9ZA11	A L D V R P A L V T L V P E R R E E R T T E G G L V L M C E R S V F L K K C R R			
UniRef90_UP10003FFDE25	I R R V R P S Q A T F V P D S E D Q F T S D H G W N F P Q D R L K P L I A E C			
UniRef90_D5SNNO	V F E V V P D Q C T M V P D S P E Q S T S D H G W N V L A D R L V P V L E K L R			
UniRef90_UP1000464D134	A C E C L R P D E V C L V P E R R E E V T T E G G L N L S E E R F V P G I A R L R			
UniRef90_Q21K06	V A E T I S P E Q V T L V P D D P S Q P T S D H G F D F K A E R L K P I V R R L			
UniRef90_K7YL88	V K R I K P N Q V T L V P D T P S Q L T S D H G W N L Q N S F L F P I V A E L K			
UniRef90_K1YXD2	A L K Y K P K T C T L V P E K R E E I T T E G G L D L H Q A S L L K I I Q S L K			
UniRef90_A0A011UVU2	V E Q N Q P E Q V T L V P D D P A Q A T S D H G W N F G E Q F L T P V V R R L			
UniRef90_F3L004	V D A I R P A Q C T L V P D A N D Q L T S D H G F D L E R D K L R P I L Q Q L			
UniRef90_D5RGY7	A L G L R P A A C C I V P E K R Q E I T T E G G L D L H A G P E L L A G A I A R L K			
UniRef90_UP100034A125A	V K A V R P A Q C T L V P D A P G Q L T S D H G W D I V K N A L S R V I G E L K			
UniRef90_C4XGU0	A L K R K P D M V C L V P E K R Q E I T T E G G L G V A G R E L A A Y V A K L K			
UniRef90_A4BJ83	I E E V R P D Q T T L V P D A P D Q L T S D H G F D F H A E F L D P I L T R L K			
UniRef90_J9YWN2	A I K I S P N Y I C I V P E N R K E V T T E G G L G N L K R F E L S S I I K R F K			
UniRef90_V4YK33	V E A L R P A Q C T L V P D D P S Q A T S D H D Q W Q F P Q D R K L K P I V A Q L N K			
UniRef90_UP10003758231	C E D A R A D Q V T L V P D D P A Q A T S D H G W D F E A E R L R P I I A R L K C H			
UniRef90_UP10003815C1D	I R Q T R P H Q A T F V P D S E D Q F T S D H G W D L V C E R L R P I I G E C H			
UniRef90_X1ES99	U L K T K P D L A T L V P E K E T E I T T E G G L D L S Q P R L K E V I S L L H			
UniRef90_A3Y7K9	V L E V V P E Q C T L V P D D P N Q L T S D H G W N L G R D S L V P I I Q K M Q			
UniRef90_B9JXN7	C E E A Q P E Q V T L V P D D P S Q A T S D H G W D F H Q V F L T D V V A R L K			

	130	140	150	160
UniRef90_H6Q5B7	N G K V S V F L D P I K E Q I L A S K I S A D C I E I N T G K Y A N Q N S			
UniRef90_UPI0004760F4A	R H G I R T S L F V D P P V E A M V E G A K A T G T D R V E E L Y T E A Y A R D Y H			
UniRef90_A9HET5	E A G I R V S S M F I D P D P A Q I A S S A A I G A A V V E E L H T G A Y A E			
UniRef90_B3PFS6	S L G I R V S S L F M D P D P E Q I S L A K D L G V E R I E E L Y T G P Y A E A F K			
UniRef90_V8CIM8	H H N I P V A V F I E P D R E A I H L A K E L E V D G I E E L H T G A Y A H C Y D			
UniRef90_UPI0003679B37	S L G I R V S S L F I D S E R A Q I Q A A A D I G A E M I V E E L H T G T F A			
UniRef90_A8TM09	K I G C R V S S L F I D P D V S V E G A K A V G A D R R V E E L Y T G P Y Y D A F G			
UniRef90_UPI0003454505	Q A G C E V S S L F I D P E P A Q I A A A A R A G A P T V E E L H T G A F			
UniRef90_UPI0003641525	D A G I I R V S S L F I E P T A A Q I E A A V K L G A P V V E E F H T G A Y A H			
UniRef90_UPI0003B5CE2B	K R K I R I S S L F I E P N L K D I N E A K N L N A D C I E E I H T G K I C N L I N			
UniRef90_K9U5H1	S L G I R V S S L F M D T D P N Q I Q A K K I G S D R I E E L Y T E P Y A T A F R			
UniRef90_T2GCD4	A A G I R V S S L F I E A S A G Q V Q A A R D V G A Q Y I E E L H T G H Y A D A D			
UniRef90_D8FEZ3	E A G I K V S S L F I D P D P E Q V G A A R D C R G D I I E E I H T G H Y			
UniRef90_UPI00036B9E3A	D D I D D V A F F I D P D N E Q L K A S Y E L G V K T V E E L H T G M Y A N A Y F			
UniRef90_M4VAT9	A A G I K V S S F F I D P E P N Q Q V E A S A R A G A N A E F H T G H W V T E K G			
UniRef90_E3F1F0	E A G A R V S S L F I D P E P N Q Q V E A S A R A G A N A E E I H T G A Y C E A H D			
UniRef90_B8DPF1	A R G I L S S L F I D A D S A Q I E A A A R I G A P V I E E I H T G H F A D A			
UniRef90_R9A0T6	A E G I R V S S L F M E T N F E Q Y P L V K E L G A D R I E E L Y T G P F A Y A Y			
UniRef90_Q3YS15	S Y D I D V T L F I E P D I S Q I D L A K K L H A N N V E E F Y T G K Y C N N A T			
UniRef90_F4KTI2	S V G T R V S S I F V D A D E E R F V E G A K R V G A D R I E E F Y T G H Y A K V F P			
UniRef90_Q3V891	E I G I A T S S L F I D A D P D Q I R A A A R V G V T H V E E L H T G H F A D A P D			
UniRef90_B8EK16	K A G V R V S S L F I D P G K S A V E A A E S I G A P V V E E L H T G S W C D A			
UniRef90_A8ZVC5	R N E I P V S S L F I D P D P G Q V R R S H D A G A M A V E E I I H T G A F C E A			
UniRef90_B0T3H6	T A G A R V S S L F I E A D P A Q I Q A S A D G A Q V V E E L H T G A Y C D A A R			
UniRef90_UPI000373A000	S W G V R V S S L F I D P D P D L E Q I T R A H D L G V E R I E E L Y T G P Y A E H Y G			
UniRef90_S2KTR2	A A G C E V S S L F I D P E P E Q I R A A Y A V G A P V I E E L H T G A Y A E A R G			
UniRef90_D6SQU3	E R N I H T S S L F I D A E P D Q I E A A A S S G T E Y I E E I H T G H Y A D A P D			
UniRef90_Q5FHH4	N H N I K V T L F V E P D I N Q I N Y A K K L S V D N I V E E E I H T G V Y C N N A T			
UniRef90_F2NFK3	Q A G I R V S S L F I D P P Q P E Q I K A S S V V G A N Y V E E L H T G T Y A E A R S			
UniRef90_UPI00036A705A	T A D I R V S S L F I D P D P A Q I A A A P T G A D R V E E E L Y T E S Y A H A Y A			
UniRef90_UPI0003B6538D	N A G M K V S S I F V D P D P N L M Q I D A C M R A G V N M I V E E I I N T G I Y S D L K P			
UniRef90_F3Z0W1	D A G I L I S S L F I D A D Q A Q I D A A G A I A P E F I E E I H T G H Y A D A K G			
UniRef90_UPI000468DF64	K A N I E L S S V F I D P D I L Q I K M A K S I N A Q W I V E E L H T G H Y A N V Y A			
UniRef90_UPI0003476FBF	D L G I R V S S L F I D P D V E Q I R L A G E L G P E R I E E L Y T E P Y A T A F R			
UniRef90_A0LK96	E G G I A V S S L F I N P D P D P R H I K V A H R L E A E Y V E E I H T G M F A E A D S			
UniRef90_D0JA45	N H G I R T S S L F I D P D P K L V P Y A A S T G A D R I V E E L Y T E N F A V G Y A			
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UniRef90_E7FZ40	D Q E E I E V A L F I D P G L T N L K R A D L G L V R V V E E L H T G Q F S N L Y N			
UniRef90_C8X317	E R E I L S S L F I D A E P E Q I K A A A A I Q A P Y V E E I H T G H F A D A			
UniRef90_Q2SQM4	A A G V R V S S L F I D P D E A Q I K L A Q E T G A K R I V E E L Y T E E Y A H A Y G			
UniRef90_X1KT78	D T G I R V S S L F I D P D M T Q I Q R A K E I E A D R V E E L Y T E P Y A T A F R			
UniRef90_S3UJR7	N A G I R V S S L F I D P M E T D L K N L G L V K E T G A D R V E E F Y T G P Y A Q A Y D			
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UniRef90_B7RYG6	S L G I R T S S L F I D P D D P E Q I R L A A Q T G T D R I V E E L Y T E T Y A D A F K			
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170 180 190 200

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UniRef90_UP10003641525	M N K	N F T N E L K R I K K A V K E	
UniRef90_UP10003B5CE2B	H G N V E S S V F Q Q Y A A A A R Q A Q A		
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UniRef90_R9A0T6		Q N E L S K I I K A A E H	
UniRef90_Q3YSI5	S N P I	E A V K K H V H C A K L	
UniRef90_F4KTI2	A	A E R K R Q R D A I V A G I G L	
UniRef90_Q3V891	E G H A D	L A H G E K E R A A Q E F R I Q A A A T L	
UniRef90_B8EK16	S D Q S	A T E K I R Q K E F D R I R K A V E V	
UniRef90_A8ZVC5	A A A R I E H A R I A A A A E L A G E L G I T	R A A A I L E R L K T G A E L	
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UniRef90_F2NFK3		A E W E R F A V A A R A	
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UniRef90_D0JA45	Y T R	T N D A Q K Q S E F S R I V D A A K I	
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UniRef90_K0NH4		I D P Y I I T A K E	
UniRef90_C3XF17	M L N S N L S R T R N S I Q D L N L D R K A L Q T M L T Q E L Q N L K E I T Q H	Q S E L E K I I A C A A A Y	
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UniRef90_UP100045E93A7	E G R T	T P E K M Q L E R D K I I K G V A Y	
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UniRef90_UP10003660A2C		A K Y L A C A R Y	
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UniRef90_X1KT78	S G N	N R F V P A A Q E	
UniRef90_S3UJR7	S		
UniRef90_B2KEC4		K I F D S Y Q K A A M E	
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UniRef90_UP100038046EA	K Q S P D L	S E K A A K E L E K L G K A A D A	
UniRef90_C6HXK9	D	T R G R A Q T A E L Q R I A T F A R T	
UniRef90_UP100036D26B9	D G A R S L	F R D D R E Q V L S L Y K N T A E A	
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UniRef90_S3W389		K L M D A A A A H	
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UniRef90_F3L004			
UniRef90_D5RGY7			
UniRef90_UP100034A125A			
UniRef90_C4XGU0			
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UniRef90_UP10003815C1D	D	A T Q S A V T A Q F T Q T A K A	
UniRef90_X1ES99	T G	E A A A E R E L A K L R S A G K A	
UniRef90_A3Y7K9	F L D S	Q Q Q E Q L Q R F A T A A Q A	
UniRef90_B9JXN7	T	A T E L E R I A G A A A L	
	A P	E E V E N V L A D Y N S A A Q A	
		E K A A R E L L L G A T A D A	

		210	220	230	240
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UniRef90_UP10003454505	A A D L L G L T V N A G H G L T T A N V G P V A A I P P Q V I A E E F N G H A I I A R				
UniRef90_UP10003641525	A A K N G I L E P H A G H G L T F K S A Q I L T K V K G I E E E F N G H Y L I G E				
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UniRef90_T2GCD4	G R S L G L T V N L G H G L N Y Q N I K R F K N L P L V Q E E Y S G F S I I G R				
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UniRef90_E3F1F0	A D A L G L E V H A G H G L N F D S V G P I A A I P P F L K E E V N G H F L M G E				
UniRef90_B8DPF1	A R S L L G L G V N L G H G L N Y D N I Y E F A D V P P G I S E E F S G H S I I V A R				
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UniRef90_UP10003476FBF	A R A V G L G V N A G H G L N L N L A K F C E I P P G I L E V S G H A L T A D				
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UniRef90_D0JA45	A I N H H L I N A G H G L N L E N I S F I E N P P S I V V E V S G Q A L I S D E R				
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UniRef90_B0UE21	G S D L G L E V H A G H G L T L D S V G P V A A I P P Q V R E L L N G H A I I V A E				
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250

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UniRef90_B3PFS6	A L A M G M H N A V A A Y K K L C
UniRef90_V8CIM8	A V M V G L Y Q A I K D M Q Q A I A R
UniRef90_UP10003679B37	A L F V G L R S A V R E M K T T M Q
UniRef90_A8TM09	A L W M G L A A S V K A Y Q K C L E
UniRef90_UP10003454505	A L F T G L K D A V S D M K R L I
UniRef90_UP10003641525	A I F I G L D A A I R E M R A A M D
UniRef90_UP10003B5CE2B	S I F E G M S S V I K T F K K I L K
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UniRef90_T2GCD4	A V F I G L D A A V R E M L E L L K
UniRef90_D8FEZ3	A V L V G F E K A V R E M M A L V K
UniRef90_UP100036B9E3A	A I F N G L E N S I K K M I N I L K
UniRef90_M4VAT9	S L E Y G L K K S V K K M L A E L K
UniRef90_E3F1F0	A I F I G L D A A I A E M R R Q M D
UniRef90_B8DPF1	A V F T G F E R A V A D M A A I I A R
UniRef90_R9A0T6	S L I V G M E T T I K D Y L K V L
UniRef90_Q3YS15	A V L L H G I G K S I Y K M K Q V I
UniRef90_F4KT12	A L Y Y G L Q N T I Q M Y L R Q L
UniRef90_Q3V891	A V L T G F G P A V R D M V D I I N R
UniRef90_B8EK16	A I F I G L P E A I R T M R E A I
UniRef90_A8ZVC5	A A L V G M D R A V R D M L A L I
UniRef90_B0T3H6	A I F V G L P Q A M Q R M R V L M D
UniRef90_UP1000373AAB00	A L R T G M S A A V K D Y L G I C Q
UniRef90_S2KTR2	A L F V G L K E A V A E M K R L
UniRef90_D6SQU3	A V M V G M V R A V E Q M N E I I R
UniRef90_Q5FH4	A V L L H G I G T S I Y K M K K V I
UniRef90_F2NFK3	A V L V G L E R A V R E M I A L I K
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UniRef90_UP10003476FBF	A L E M G M P E A V R H Y L A I L A K
UniRef90_A0LK96	A V L V G M E R A V R E M L A L V
UniRef90_D0JA45	S L Y M G L E N T I Q T Y L K R I Y K
UniRef90_D7AAD5	A I F V G L E E A I R Q
UniRef90_K0NHD4	A I L T G M D Q A V R D M K Q L I
UniRef90_C3XF17	S I F V G L E Q A I K D M K E L V
UniRef90_B0UE21	S V F V G F A E A V
UniRef90_D1ASE0	S L L H G V G S A V R N M K K I I S R
UniRef90_UP100045E93A7	A I F V G L E A A I H T M
UniRef90_B3T7B0	A L F S G I E E A V S T M R S L L
UniRef90_UP10003660A2C	A V L V G M D R A V R E M N E I I
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UniRef90_C8X3I7	A A L S G L D R A V R D M V S I I K
UniRef90_Q2SQM4	A L E M G F D Q V I Q K Y V E I L
UniRef90_X1KT78	A
UniRef90_S3UJR7	A L E V G I T S S V K E Y L K A L
UniRef90_B2KEC4	S V F T G L A A A V M E M Q E A V K
UniRef90_V6I9N2	A L E T G I D R S V K E Y L Q A L
UniRef90_A0A023D874	A I M V G L P A A I A R M K Q A I
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UniRef90_UP100036D26B9	S L Y K G L D N T I R K Y K S L I
UniRef90_UP10004663164	A L E Y G M A E T V R R F L R S C E
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UniRef90_UP100037637E6	A L T L G L P A A V A E M R R A M
UniRef90_UP100036BD511	A L I Y G M D G A I K A Y L K E I S R
UniRef90_A9D3P7	A L E Y G M A E T V R R F V R A C
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UniRef90_D5QAY8	A I F D G L P V V I R H M K G L M
UniRef90_B7RYG6	A I R M G L A P T V A A Y Q Q A L G K
UniRef90_I0ELE3	A V F V G L E K A I L E M A Q L I K R
UniRef90_S3W389	A L E V G I L T E S V R A Y L K A L L
UniRef90_B4WK81	A L E M G Y A N A V K A Y L E A L K
UniRef90_UP10003768940	A L E Y G M A E T V R R F R R A Y G Q
UniRef90_K2L6C5	A V
UniRef90_M2U4R8	A V F V G L P A A M A E M R A R M E
UniRef90_Q0G619	A L E F G M A E T V H R F R A A C D Q
UniRef90_D0RNU0	S L F D G F
UniRef90_J9ZA11	S L F V G L E K A V R E I L E T I R R
UniRef90_UP10003FFDE25	A L E R G Y G A A V N A Y L Q C I D Q
UniRef90_D5SNNO	A L E L G Y G A T T V A A Y R K V I R
UniRef90_UP1000464D134	A L W I G W E R A I R E M V A L
UniRef90_Q21K06	A L L M G Y S E A V A A Y R A I C D
UniRef90_K7YL88	A L W M G L E E A V W A Y N A K L
UniRef90_K1YXD2	S I M V G L K Q A I L E I Q Q V L
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UniRef90_F3L004	A L Y L G L E Q T I S Q Y L A A L K
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UniRef90_UP100034A125A	C I E S G M E K V V G R Y S E I V
UniRef90_C4XGU0	A V L T G M V E A V S T M C A I I D
UniRef90_A4BJ83	C L E Y G M P F V A R R Y L D I C R R
UniRef90_J9YW2	S V F D G L P
UniRef90_V4YK33	A L E M G Y H A T V K A Y L A S I E Q
UniRef90_UP10003758231	A L E Y G F A E T T K R F I R A L L Q
UniRef90_UP10003815C1D	A C L E L G Y A A T V E A Y L Q C L L R
UniRef90_X1ES99	A C L V G M K E A V R E M V R L V G R
UniRef90_A3Y7K9	S L D L L G W N N V V K A Y L D R L
UniRef90_B9JXN7	A L E F G M A E T V R R F R R A C

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UniRef90_Q2GJT4	M Q L S V N V D H V A T L R Q I R G T S Y P D L V R A A Q L A Q Q G G D N I				
UniRef90_T1C471	I Q L G V N I D H V A T L R Q I R G T S Y P D L V R A A Q L A Q Q G G D N I				
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UniRef90_UP10003B4BD25	T A L S I V N L N K I A L I R N S R D T E Y P S V I E H A Q R C I D A G D G I				
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UniRef90_F3LEB5	I A L S V N L N K I A L I R N S R D T V I P S V T E H A Q M C I A D A G D G I				
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UniRef90_V9VW24	R G L L S V N I D H V A T L R N Q A R Y A T E P V L L E A A R E S E A A G A S I				
UniRef90_UP10001745DD1	T H T K L S V N V N A I A Q L R N R R E V P W P S V T G L A A L A M E A G A S I				
UniRef90_E2CN80	R L L G V N I D H V A T L R N Q A R Y R A E P D P L E A A R L A E D A G A S I				
UniRef90_UP10003745025	T L L G V N I D H V A T L R N Q R R E L P W P S V V S F G R I A L E A G A G I				
UniRef90_UP1000472FC39	T H T S V N L N A I A M L R N R R E L P W P S V V D F G R I A L L R A G A G I				
UniRef90_W1RZ65	P A K L S V N L N K I G L L R N S R G R N Y P N M V E M A E R T L Q L G A G I				
UniRef90_UP10004651C25	R T A L S V N L N K V A V L R N T R H L G I P S V T R A A T L C L Q A G A G I				
UniRef90_A0A024I945	S T A L S V N L N A V A M L R N R R D L P W P S V V D F G R I A L L R A G A G I				
UniRef90_Q1YJ72	R R L S V N L N K V A V L R N T R H L G I P S V T K A A R L V L E A G A G I				
UniRef90_UP1000465F8E6	T H T S V N L N K I A Q L R N R R D L P W P S V R H L G R I A L D A G A G I				
UniRef90_A0A059KL0	P A K L S V N L N K V A V L R N T R H L G I P S V T K A A R L V L E A G A G I				
UniRef90_C0Q9S7	S R T A L S V N L N K V A V L R N T R H L G I P S V T K A A R L V L E A G A G I				
UniRef90_L1QH03	K L L S V N V D H V A T L R Q A R G A A Y P E P A A A L A A E A A G A D I				
UniRef90_K4KTR9	R V R L L G V N I D H V A T V R N A R G G A H P D P P A R A A E A A A L A A G D G I				
UniRef90_UP10003B40652	T A L S I V N I N K I A L I R N S R E G N Y P D P V L I E Y A R Q C I D L G A G I				
UniRef90_UP10003B714F5	I A L S V N V N K I A T L R N S R G G D V P D M L T A V D T C V A A G A G I				
UniRef90_A0A017TIV1	T M L L S V N V N K I A L L R N S R G R D F P S V V E F A K K F I A L G A G I				
UniRef90_S6GU36	M K L L S V N V N K L A V V R N S R G G N A P D V V L D F F A R I V V G W G A H				
UniRef90_T0Z605	T K L L S V N L N K I A L L R N S R G R D F P N V V N F A N K F M A L G Q G I				
UniRef90_Q4V0R7	G K L L S V N I D Q V A T L R Q A R G E F P D P D L P A R A A Q T C I E A G G P Q				
UniRef90_B2I669	S T H T S V N V N K I A V L R N S R G G Q D P D V V Q A A R S C I A A G A G I				
UniRef90_J6UEI5	R T R R L S V N V N K I A V L R N S R G H H G A P D V I R A A S A C I D A G A G I				
UniRef90_UP100047DF13	P I R L L S V N I D H V A T L R N A R G G R H P D P L A A A E L A V A A G D G I				
UniRef90_M3JPH7	T L L L S V N L N K I A V L R N S R G G D P D L P L R A A Q T C I E A G G G I				
UniRef90_H3NY58	P A K L L S V N L N A I A M L R N R R D L P W P S V T G L G R A A L A A G A A G I				
UniRef90_A0A024KCW5	T I L L S V N L N K V A V L R N S R R D T T S P S P S V T G I A R V L V L D A G A G I				
UniRef90_E6YIF6	T K L L S V N L N A V A Q L R N R R N L P W P S V T G I A R V L V L D A G A G I				
UniRef90_UP10002375A85	A I K L L S V N V N K V A V L R N R R N L P W P S V T G I A R V L V L D A G A G I				
UniRef90_UP10003732F6E	M S V N V N K I A L L R N T R H G I P D V R H A A R L C L Q A G A G I				
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UniRef90_W1FL58	T K L L S V N V N K I A V L R N T R H L G I P S V V R A A T L C L E A G D G I				
UniRef90_A2SDH6	L L L G V N I D H V A T L R N A R G T A Y P D P V Q A A F I A E Q A G D G I				
UniRef90_A1WKD4	A T A L S V N V N K V A V L R N T R H L A I P C V T K A A R L C L Q A G A G I				
UniRef90_A0A021WDT8	T V L L S V N V N K I A V L R N S R G G G E P D V S R A A Q A C L D A G A G I				
UniRef90_Q4FLS6	R R L L G V N I D H V A T V R N A R G F S H P D P F T I A K H V I K C G A S I				
UniRef90_UP1000362DBA3	P A K L L S V N V N A I A M L R N R R D L P W P S V T G L G R A A L A A G A A G I				
UniRef90_W8I385	T R L L S V N V N K I A A L R N S R G G H V P D V V V H A A R T C I A A G A G I				
UniRef90_ROE8Y1	R T K L L S V N L N K V A V L R N S R E G N W P D P V F F G R I A L E A G A G I				
UniRef90_K1JPF3	T H T S V N V N V A V L R N S R R D H A W P D T V G L G R T A L Q A G A G I				
UniRef90_F7ZKH3	T H T S V N V N K I D Y L A M L G E A R G N N P D L V E G A V I C E N A G D G I				
UniRef90_Q2LT60	R T A L L S V N L N K V A V L R N T R H L G I P S V A K A A S C L Q A G A G I				
UniRef90_UP100047D261B	T I L L S I V N L N K I A L I R N S R D T T I P D V L D H A R Q C I A A G A G I				
UniRef90_B8KQK5					
UniRef90_X1VBV8					
UniRef90_UP1000463EE9D	T R L L S V N L N K I A V L R N S R G R D P D V L H A A G V C L D A G A G I				
UniRef90_UP100035CECD0	T R L L S V N V N K I A V L R N S R G G N E P D V C A A A N A C L L E A G A G I				
UniRef90_T0SV25	I R L L G V N I D H V A T L R Q A R G E D Y P S V V E A A R V V L E N G D Q I				
UniRef90_H3KIB2	R T L L S V N L N K I A V L R N T R H E Y E P V N P L E R L A R L A D A G A G I				
UniRef90_E8R0K1	T K L L S V N V N K I A V L R N S R G G E L P S V L D A A R A C L D A G A G I				
UniRef90_D2UF73	T Q L L S V N V N K I A V L R N S R G R N Y P D V C A F A E R F L Q L G D G I				
UniRef90_F1VZM4	A I K L L S V N V N K I A V L R N R R N L P W P D I K H I G H I A L A A G A A G I				
UniRef90_M1NWT5	R T L L S V N V N K I D Y L A M L G E A R G N N P D L V E G A V I C E N A G D G I				
UniRef90_E1X3K1	T Q L L S V N V N K I A V L R N T R H L G I P S V A K A A S C L Q A G A G I				
UniRef90_E4UCM4	S T N V S I V N L N A V A M L R N R R N L P W P D L V H I G R I A L Q S G A G I				
UniRef90_Q2S0U5	T N V L L I V N V D H V G T L R N A R E E T F P D P V H A A A R C E Q A G D G I				
UniRef90_A1UT98	A V K L L S V N V N K I A V L R N T R H L P W P N V I D M G H I A L A A G A A G I				
UniRef90_Q12K6	H K T A L L S V N V N K I A V L R N T R H L D I P S V L R A A E L C L E A G A G I				
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50 60 70 80

UniRef90_UPI000288EFF6	T L H P R P D Q R H A R Y D D V A R L C A Q R G R E L N V E G Y P T A Q F L D V
UniRef90_E0MLS0	T V H P R P D E R R H I R F S D L P D L R A L I K A E F N I E G Y P T D D F L D L
UniRef90_UPI0003B365DA	T I H L R E D R R H I Q D H D L A R T P V C P V P I N L E M A V T S A M V D I
UniRef90_A6VZ63	T V H P R P D Q R H A T Y Q D A Y D L K E L L K A E F N I E G F P D A Q F L D V
UniRef90_UPI0003B4A244	T V H L R K D R R H I K E R D V K M I K E V V D L P L T V E M G L F E D I L D F
UniRef90_UPI000478CB94	T V H P R P D E R R H I R P G D V E R L A D V I A T E Y N I E G N P F Q N L M T Y
UniRef90_Q2GJT4	T V H L R E D R R H V R D D L Y A L K K H V N P I N L E M A A T E E M L A I
UniRef90_T1C471	T V H L R E D R R H I Q E K D V R I L D A I R L P L N L E M S L A D E I V W Q
UniRef90_UPI00047DDD9C	T V H P R P D Q R H I R F S D L A P L R A L I D A E F N I E G Y P S D D F L L L
UniRef90_U4PY8	T V H P R P D Q R H I R F S D L P A L R A L I D A E F N I E G Y P S E D F L L L
UniRef90_UPI0002E5F6F1	T A H L R E D R R H I R D E D I A R L K A E L P V P L N F E M A A E E E M V A I
UniRef90_UPI0003B4BD25	T V H P R P D Q R H I R A D D C Y A L A E M L S V E F N I E G N P Y P G F L E I
UniRef90_U9VPL3	T V H P R P D E R R H I R F D V Y D L A E M L R I E F N I E G N P L E G F M E I
UniRef90_JOQT42	T V H P R P D E R R H I R F R D L A D I R K L I D A E F N I E G Y P T S H F L E N
UniRef90_W9DS28	T I H L R E D R R H I N Y D A K K I C G L K N V L V N L E I S M N K E T V N K
UniRef90_G7UT01	T V H P R P D R R H I T A E D V L A L A G L T Q V E L N I E G N P F P G L L A L
UniRef90_UPI000255AA4B	T V H P R P D Q R H I R P D V R N L A A L C S V E F N I E G N P F P G L L P I
UniRef90_F3LEB5	T V H P R P D Q R H I R P S D V E Q L K H L T D C E F N V E G N P F P G F M A I
UniRef90_B8KIU4	T V H P R P D Q R H I R A D D C R D L A A M L N V E F N I E G N P F P G F M E L
UniRef90_UPI0002EA407D	T I H P R P D E R R H I R A R S D V P E L T A L M K A E F N I E G N P F H N L M D H
UniRef90_UPI000347B077	T V H P R P D Q R H I R P D D V R L L A Q L R V E Y N I E G N P F A E L L A L
UniRef90_10IPP9	V C H L R E D R R H I L D Q D L V D L L S W G K L P I N L E M A L T S E M Q K K
UniRef90_C9RMQ5	T A H L R E D R R H I T Q D R D I R L L R G T V T T K L N L E M A P T Q A M V Q F
UniRef90_B6BUJ2	T L H L R E D R R H I M Q D Q D L F N L K P V I K T K M N L E M A A T D E M L E I
UniRef90_UPI0003A56032	T V H P R P D Q R H I R T D D V R D L A L L M Q A E F N I E G N P L H N L M D V
UniRef90_Q21XM2	T I H L R E D R R H I N D A D A K K I C K L K N L F V N L E I S M D D K I V K N
UniRef90_B6BPF2	T V H P R P D E R R H I R R G D V E R T A L L A A E L N V E G N P L P H F L P I
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UniRef90_A0A034U0U4	T A H L R E D R R H I T D D R D I E R L K A E I A L P L N M E M A A T P E M Q A I
UniRef90_H6SQN8	T V H P R P D R R H I T A E D V L A L S T L T R A R F N I E G N P F P G L L P I
UniRef90_B4SR18	T V H P R P D E R R H I T R H S D L P E I R A L I R A E F N I E G Y P S E D F L A L
UniRef90_X6F772	T V H P R P D E R R H I T R T D V A P L K A L V D A E F N I E G N P F E N L M P I
UniRef90_R5PYM3	T V H P R P D E R R H I T R T D V F A L Q E M L R T E Y N I E G Y P T E E F L K I
UniRef90_UPI0004077C2B	T V H P R P D E R R H I T R T D V F A L Q E M L R T E Y N I E G Y P T E E F L K I
UniRef90_V9VW24	T V H P R P D E R R H I T R F S D L P A L S R L I Q A E F N I E G Y P T R H F I D L
UniRef90_UPI0001745DD1	T V H L R A D R R H I Q D A D V W L K V K L N L E M G N T P E I L D I
UniRef90_E2CN80	T V H P R P D E R R H I T R K S D V F E L S E L I E D R F C L E G Y P S P D F M K L
UniRef90_UPI0003745025	T A H L R E D K R H I Q P E D I H R I R S V R R F N L E M A A L P E M I A F
UniRef90_UPI000472FC39	T V H P R P D E R R H I V R F T D V P Q L R A L L I G R E F N I E G Y P S E D F L V L
UniRef90_W1RZ65	T I H P R P D Q R H I R A T Y Q D A H D K D L L K A E L N I E G F P D A Q F L D V
UniRef90_UPI0004651C25	T V H P R P D Q R H I T R T R S D D A P L R A L L Q A E F N I E G Y P D E A F L N L
UniRef90_A0A0241945	T V H P R P D E R R H I T R A H D V H D L A A V L K A E Y N I E G N P F H N L M D F
UniRef90_Q1YJ72	T V H P R P D Q R H I R F S D L P E L R A L I D N E F N I E G Y P T E D F L A L
UniRef90_UPI000465F8E6	T V H P R P D Q R H I R F S D L P V I R A L I D N E F N I E G F P P S D H F I G L
UniRef90_A0A059KL10	T V H P R P D E R R H I R A Q D V R D L A E L L Q V E Y N I E G N P F H N L M D V
UniRef90_C0Q9S7	T V H L R E D R R H I N E R D V R V I K E V R T R L I L E M A A T P K M L G I
UniRef90_L1QH03	T A H L R E D R R H I T D A D I D V L T A L C R R P L N F E M A V T E E M L S I
UniRef90_K4KTR9	T V H P R P D Q R H I R A S D I A P L A A L C N V E F N I E G N P F P G F M A
UniRef90_UPI0003B40652	T V H P R P D E R R H I T P K D V T D A E R L K I E Y N I E G D P P P D L I D R
UniRef90_UPI0003B714F5	T V H P R P D Q R H I T R Q D A Y D A E L L G V E F N I E G Y P S E E F L Q L
UniRef90_A0A017TIV1	T V H P R A D R R H I T P A D A R A V A E Q I T T E T N F E G D L R E E F L D L
UniRef90_S6GU36	T V H P R Q D R R H I T M Q D A H D L G E L L K V E Y N I E G Y P S E D F L Q L
UniRef90_T0Z605	V L H V R E D R R H I A N E H D L R R I R E T A S L P V N L E M A L T E E M A D L
UniRef90_Q4V0R7	T V H P R P D Q R H I T R A D R R H I T R D D V Y A L S T L T R V E F N I E G N P F G L L E L
UniRef90_B2I669	T V H P R P D A R H I R H D D V I R S A L T R A R F N I E G N P F A E L L A L
UniRef90_J6UE15	T A H L R E D R R H I R D D D I A Q L R E R L T V P L N M E M A A V P E M V E I
UniRef90_UPI00047DFF13	T V H P R P D Q R H I V K P E D V R A A A M L R N R Y N I E G N P F P G L L A M
UniRef90_M3JPH7	T V H P R P D Q R H I F R T D L G D I R A L I Q A E F N I E G F P T E A F L E L
UniRef90_H3NY58	T V H P R P D Q R H I R A S D C H E L A D A V T V E F N I E G N P F P G F M S L
UniRef90_A0A024KCW5	T V H P R P D E R R H I R R T D V F D L K E L L Q A E F N I E G Y P S E D F L K L
UniRef90_E6YIF6	T V H P R P D E R R H I R F V D L P N I R F L M N N E F N I E G Y P S D T F L N L
UniRef90_UPI0002375A85	T V H P R P D E R R H I R S Q D V S E L A A L M Q A E Y N I E G N P A Q N L M G F
UniRef90_UPI0003732F6E	T V H P R P D E R R H I R Y R D V L D H E V V T T E F N I E G N P D D R F I E L
UniRef90_I0HW5P	T V H P R P D E R R H I R G H D V H E A A L L Q A E Y N I E G N P F H N L M A Y
UniRef90_W1FL58	T V H L R E D R R H I T D R D V R I L R Q T L D T R M N L E M A L T E E M L T I
UniRef90_A2SDH6	T V H P R P D Q R H I T R T H D V H D A E M L K I E Y N I E G N P F H N L M D L
UniRef90_A1WKD4	T V H P R P D E R R H I R R Q D V F E L A D L M Q A E Y N I E G N P A Q N L M D F
UniRef90_A0A021WDT8	T V H P R P D A R R H I R D Y D V Y A L A E L T Q A R F N I E G N P F P G L I E L
UniRef90_Q4FLS6	T I H L R E D R R H I K D S D V V K C S R K I T N L E I S L N K E I I D I
UniRef90_UPI000362DBA3	T V H P R P D Q R H I V R F S D L P E I R A L I K A E F N I E G Y P T E D F L Q L
UniRef90_W8I385	T V H P R P D Q R H I V R F S D L Q P I R D L I D T E F N M E G Y P N E E F L R L
UniRef90_R0E8Y1	T V H P R P D Q R H I R A D D V L A S V L T R V E F N I E G N P F P G L L E L
UniRef90_K1JPF3	T V H P R P D E R R H I R A T D V P A A A V D R E Y N I E G N P F H N L M G H
UniRef90_F7ZKH3	T V H P R P D Q R H I R P S D V W D L R T M D A E F N V E G F P T S D F L A L
UniRef90_Q2LT60	T V H L R E D R R H I Q D K D V L A L K G V V R G K F N I E I P L S D E I I G I
UniRef90_UPI00047D261B	T V H P R P D A R R H I R G D D V P A L H E I V G A E Y N I E G N P F P H N L M E F
UniRef90_B8KQK5	T V H P R P D Q R H I R A D D C R E L K A G I D V E L N I E G N P F P G F M A L
UniRef90_X1VBV8	V C H L R E D R R H I Q D R D L R L K E V V R S H L N I E M A A T E A M V K I
UniRef90_UPI000463EE9D	T V H P R P D A R R H I H A R T D D V L A A A L C R V E F N I E G N P F P G F L A L
UniRef90_UPI00035CECD0	T V H P R P D Q R H I H R P D D V R A L K A G I G A E Y N I E G N S Y P G L L G L
UniRef90_T0SV25	T I H L R E D R R H I Q D I D V E A V Q L V T K R P L N L E M G C N K E I I D I
UniRef90_H3KIB2	T V H P R P D E R R H I V R A S D V P A L A E L V R E Y N I E G N P F H N L M D H
UniRef90_E8R0K1	T I H P R P D Q R H I R Y T D L P K I R Q L I K A E L N I E G N P F G E Y L Q H
UniRef90_D2UF73	T V H P R P D R R H I H A E D A L A L A E L T Q V E F N I E G N P F P G L I A L
UniRef90_F1VZM4	T L H R E D R R H I H A E D A L A L A E L T Q V E F N I E G Y P T A E F I E V
UniRef90_M1NWT5	T V H P R P D E R R H I H A E D A L A L A E L T Q V E F N I E G Y P S D T F L D I
UniRef90_E1X3K1	T I H L R E D R R H I H Q D T D V E A V H L V T K K P L N L E M G C N D E I V E I L
UniRef90_E4UCM4	T V H P R P D Q R H I R Y T D L P K I R Q L I K A E L N I E G N P F N E K F F L
UniRef90_Q2S0U5	V F H L R E D R R H I T E R D V R L A A E T V N G K L D F E L S T E E V V S I
UniRef90_A1UT98	T V H P R P D E R R H I R F S D L P D M R F L I N A E F N I E G Y P S D T F L D L
UniRef90_Q126K6	T V H P R P D E R R H I R P D D V Y E L A A L M K R F E N I E G N P F Q N L M G F
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	90	100	110	120
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UniRef90_UPI0003B4A244	V R Q Y R P H Q A T F V P D G E D Q F T S D H G W N F P Q D R L K P L V D E C K			
UniRef90_UPI000478CB94	A K E L S P E F V C L V P E K R E E V T T E S G L D T K L L Y D T R I I S E L Q			
UniRef90_Q2GJT4	T R L L Q P P M V C I V P E N R A E R T T E N G L A V R A E R L R P V L E S F S			
UniRef90_T1C471	V I K N E P E Q V T L V P D D P S Q A T S D H G W D F K G N Y L K D R V S R L K			
UniRef90_UPI00047DDD9C	C E K T Q P E Q V T L V P D D P S Q A T S D H G W D F R E H F L K Q V V G R L K			
UniRef90_U4PY8	A L A T L P H A A C L V P E K R E E R T T E G G G □ D I V Y A H L R P M V A E L T			
UniRef90_UPI0002E5F6F1	V R R T R P A Q C T L V P D D P S Q A T S D H G F D L D G D M L A P I I G E L L K			
UniRef90_UPI0003B4BD25	V R D I K P N Q V T L V P D D P N Q F T S D H G W N V D G E S L V P I I Q E I Q			
UniRef90_U9VPL3	A C T F A N Q I T L V P D S P T Q S T S D H G W D F I K N F L S P I I H N I K			
UniRef90_JQQT42	A L K I K P N F I C L V P E N R K E I T T E G G G □ N I N H N K L E K I I K K F K			
UniRef90_W9DS28	C E R A R P A Q V T L V P D S D G Q L T S D H G F D F T G D T I Q R L V A H F K			
UniRef90_G7UT01	V L E T K P Q Q C T L V P D S N D Q L T S D H G F D L D G E R L L V P I I Q Q L			
UniRef90_UPI000255AA4B	I D R I I R P D Q A T L V P D S N D Q L T S D H G F D L K E D E L A I I I I Q Q L			
UniRef90_F3LEB5	V R E L R P A Q C T L V P D G D A Q L T S D H G F D L H R D A L Q P I V A E L R			
UniRef90_B8KIU4	V R A V R P H Q V T F V P D S E G Q F T S D H G W A F P Q D R L K P L I D E C K			
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UniRef90_C9RMQ5	A L Q V M P E D I C L V P E R R E E R T T E G G G □ L N F N F K L T F I G E L A K			
UniRef90_B6BUJ2	V E Q H E P E Q V T L V P D D P A Q N T S D H G W D F A K H K L S E V T K R L K			
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UniRef90_B4SR18	V E K H Q P E Q V T L V P D D P S Q A T S D H G W N F I A D F L T P I V R R L K			
UniRef90_X6F772	U N E K R P H A T F V P D A A D Q D K T S D H G F E N R E K L A A V V A E A Q			
UniRef90_R5PYM3	U N I K P H Q V T L V P D T P E Q S T S D H G W D F D G E M L L P I A Q E F K			
UniRef90_UPI0004077C2B	C E A A R P D Q V T L V P D M P G Q N T S D H G W D T H Q A F L S D V V K R I Q			
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UniRef90_Q1YJ72	V E T V S P E Q V T L V P D D P S Q P T S D H G W D F A G E F L T P I V A R L			
UniRef90_UPI000465F8E6	C L E S E P E Q V T L V P D S V G Q F T S D H G W T F I A G R L K R T V A R L			
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UniRef90_UPI0003B40652	V L R T R K P T Q C T L V P V V A G E I T S H T V W D I R G D L L K P I I R D L			
UniRef90_UPI0003B714F5	V E D D C K P D Q C T L V P D A V D Q L T S D H G W D V H S E L L E M V T T R L			
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UniRef90_Q4V0R7	C R A T R P Q V T L V P D G D G Q L T S D H G V D F D G A R L A P L I A A F K			
UniRef90_B2I669	C R E T R P H Q V T L V P D G D Q Q I T S D H G F D F E G P G L R P L I I D E I K			
UniRef90_J6UEI5	A E R R L R P H A A C L V P E R R E E E R T T E G G G □ D A A G Q Q L A P V V V R D L C			
UniRef90_UPI00047DFF13	V R E V R P T Q V T L V P D D S D S Q L T S D H G F D A D V D K L R P L I V R E L			
UniRef90_M3JPH7	V E K K H Q P E Q V T L V P D D P M Q A T S D H G W D F K S D F L E P I V V Q R L			
UniRef90_H3NY58	V E A T R P A Q V T L V P D G D A Q L T S D H G F D L R Q D R L K P I I I E Q L			
UniRef90_A0A024KCW5	V E T V D P E Q V T L V P D D D P A Q A T S D H G W D F K G N F L T S I V V Q R I			
UniRef90_E6YIF6	A E K Y A D Q I T L V P D A P D Q P T S D H G W D F N A E F L A P I I Q R L			
UniRef90_UPI0002375A85	I R E L R P H Q A T F V P D S D Q F T S D H G W R F P Q D R L A P W I A E C R			
UniRef90_UPI0003732F6E	V K R V K P V Q V T L V P D A P D A I T S N A G W D T I R H H L R G L I E T F R			
UniRef90_I0HW5P	V R E L R P R Q Q V T F V P D S E V Q F T S D H G W N L P E D R L R P V I A E A H			
UniRef90_W1FL58	A C D T L R P H F C C L V P E K R Q E V T T E G G G □ D V A G Q K M R D A C K R L A			
UniRef90_A2SDH6	V R V V R P H Q A T F V P D S V E Q S T S D H G W S L P E D A L R P L I D E C H			
UniRef90_A1WKD4	I R T L R P R Q A T F V P D G A D Q F T S D H G W S L P Q D R L A P W I A E C K			
UniRef90_A0A021WDT8	C R R T R P A Q V T L V P D G D D Q L T S D H G F D F E R D A L R P L I I A Q L H			
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UniRef90_UPI000362DBA3	V E K H Q P E Q V T L V P D D P T Q A T S D H G W D F Q Q G A F L K P V V V A R L			
UniRef90_W8I385	V E T H E P E Q V T L V P D D P A Q A T S D H G W D F R K N H L G S V V V G R L			
UniRef90_R0E8Y1	C R A T R P E Q V T L V P D E D D G Q L T S D H G F D F A Q N T L L G E L I G A F K			
UniRef90_K1JPF3	L E A V R P D Q A T F V P D S L Q G Q K T S D H G F D L S D P A V C D A V R P L			
UniRef90_F7ZKH3	A H D V R A R D Q I T L V P D D P A Q A T S D H G W D F T A E K L M P I I A D L			
UniRef90_Q2LT60	A K E I K P T Q V T L V P E K K H E S K E G G G F D V R R Y R V K D T V K F F H			
UniRef90_UPI00047D261B	V Q R L R P H Q C T L V P D T E G Q F T S D H G W D L P A Q R L R P V V A E A R			
UniRef90_B8KQK5	V E E V R P A Q A T L V P D G D A Q L T S D H G F D V D G E R L Q P V I E Q L			
UniRef90_X1VBV8	A L D T K P D M V T L V P E K R E E V T T E G G G □ D V Q N R L A E A I V A A L			
UniRef90_UPI000463EE9D	C A Q A R P H Q A T L V P D A D G Q L T S D H G F D F A R D R L R E P V A A L			
UniRef90_UPI00035CECD0	V E E T R P T Q C T L V P D G D A Q L T S D H G F D L R A D R L K P L V A E L K			
UniRef90_T0SV25	A V I A T G P E W I C L V P E K R E E K T T E G G G □ D L I G E K V R E T C A Y L			
UniRef90_H3KIB2	L R A V R P H Q A T F V P D A T D Q I T S D H G F D L E C A R L K P L I D E A K			
UniRef90_E8R0K1	L A N V R P T Q A T F V P D A D D Q F T S D H G F D L V C Q S L K P K I A E V Q			
UniRef90_D2UF73	C A Q A R P T Q A T L V P D G D S Q L T S D H G F D F G R D R L R P L I A E L K			
UniRef90_F1VZM4	V R R A T R P A Q C T L V P D S P D Q D L T S D H G W D L V R D M L R P V I A A L			
UniRef90_M1NWT5	A E N Y A D Q I T L V P D D P A Q L T S D H G W N F A C H F L V P I I Q R L			
UniRef90_E1X3K1	A V I A T A P S W I C L V P E K R E E K T T E G G G □ D L N Y D K V L S T C K Y L			
UniRef90_E4UCM4	C E N Y K P E Q A T L V P D D P N Q L T S D H G W D F N Q K L T R T V S K L H			
UniRef90_Q2S0U5	C C D V V P D L A T L V P E R R E E V T T E G G G □ D V T R P R L N A V T D R L Y			
UniRef90_A1UT98	A E K Y A D Q I T L V P D S P D Q S T S D H G W D F A K D F L T P I I Q R L			
UniRef90_Q12K6	V R D L T A H Q C T F V P D S E D Q F T S D H G W S F P A D R L Q P L I I Q R A H			
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	130	140	150	160
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UniRef90_E0MLS0	S S G F R V A L F A D A D P E G V K W A A D T G A D R I E L Y T G P Y A A T Y D			
UniRef90_UPI0003B365DA	A A G C I V A L F I A A D P I Q L A A A K A S G A P Q L E I H T G H Y A D			
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UniRef90_UPI00047DDD9C	D R G F R V V S L F C D P D E D M I A R A K E T G A D R V E E L Y T G P Y G G C Y D			
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UniRef90_UPI0002E5F6F1	G A G I R V V S L F I E P D E A V L E T A A A L L A P V V E L L H T G S Y A E A V L			
UniRef90_UPI0003B4BD25	S L G C R V V S L F M D P I P E E Q I R L A S D I G A D R V E E L Y T G P Y A A A Y G			
UniRef90_U9VPL3	G L G A R V V S L F M D P D P E Q I R L I P K L G V M A I E L Y T E P Y A T A A R			
UniRef90_JQQT42	K N N I R V S L F A D P T V Q G L E K A K D L D C D R I E F Y T G P Y G D A Y D			
UniRef90_W9DS28	K A K I R T S L F I N P S T I D I R L A K K L N A D C I E I H T G K L A N L I K			
UniRef90_G7UT01	A L G C R V S L F V D A G C V G L E R A A A M G A D R I E L Y T G P Y A Q G W A			
UniRef90_UPI000255AA4B	E A G I R V S L F M D P D I R Q I S L A K E V G A D R I E L Y T G P F A E A V T			
UniRef90_F3LEB5	Q W N V R V S L F M D P D I E Q I D L L A K A I G A D R I E F Y T G P Y A A N F N			
UniRef90_B8KIW4	E L G V R V S S L F M D P D P S Q M S L A A K I G A D R I E L Y T E S F A V A V A			
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UniRef90_C9RMQ5	N N D I Q V S S V F I D A E T E Q V K A A K K V G A N Y V E F N T G K Y A T A F E			
UniRef90_B6BUJ2	K K R I R V S S L F I A P D K D S I D Q A L E L Q A P V I E L H T G H Y A D S N			
UniRef90_UPI0003A56032	V R G M R V S S M F A D P T P D G L E I A K E T G A D R V E F T G P Y G G A Y A			
UniRef90_Q21XM2	A W G L R V S S L F M D A D P A A M A G A Q A V G A D R V E E L Y T E P Y A A A W G			
UniRef90_B6BPF2	K V K I R T S S L F I N P T I K D I K L S K E L N V D C Y D E I I H T G R I S N L V K			
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UniRef90_A0A034U0U4	D A G I R V S S L F I D A D R Q Q I E A A K K C G A P F I E L H T G H Y A D A			
UniRef90_H6SQN8	D A G I R V S S L F V E P E A A V L E M A K T L L G A P V V E L H T G A Y C D A P A			
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UniRef90_X6F772	K G F R V S S L F S D A D P A G M A A A R D T G A D R V E E L Y T G P Y G S Y H S			
UniRef90_R5PYM3	S Y G C R V S S L F M D P E P E F T R W A K E T G S D R I E E L Y T E G Y A A A Y G			
UniRef90_UPI0004077C2B	G E G M R A S S F I D A D P T Q A A A A A L T G A R R I E I I Y T G P Y G H T F D			
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UniRef90_E2CN80	D C A V T I V S S L F C D P D P S A P A H A A K M G A E R I E I I Y T G P Y A C Y D			
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UniRef90_W1RZ65	A K G I R V V L F M D P D V E N M V L A K D I G A D R V E E F Y T E A Y A N T Y G			
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UniRef90_A0A059KLIO	A L G V R V S S L F M D P I P E E M M R A A R E V G A D R V E E L Y T E A Y A S A W G			
UniRef90_C0Q9S7	N A G I M V S S I F I D P D L D Q I K M A H R I D A D M I E I I H T G A F C D A V N			
UniRef90_L1QH03	D A G I R V S S L F I E P S E D Q V E A A A A A V G A Q V V E F H T G R Y C			
UniRef90_K4KTR9	D L G V R V S S L F M D P D A E Q I R R A A D I G A D R I E E L Y T G P Y A W A H K			
UniRef90_UPI0003B40652	D A G I R V S S L F S G T D M E Q I A E T L D L G A D R I E E L Y T			
UniRef90_UPI0003B714F5	K S G I R V A A F L D P D V E Q V R R V A S T G V D R I E E L Y T E E Y A S A Y G			
UniRef90_A0A017TIV1	E I G V R S S S L F V E A D P A V I P L A A A I G A D R V E E I I Y T G P Y A H A F D			
UniRef90_S6GU36	K S G I R R A A I F L D P S V E D V T L A A Q S G C D R V E F F Y T E S F A A S Y H			
UniRef90_T0Z605	K R G V R V S S L F M D P D P E M L G K I P P S G V D Q V E E L H T G P F A R S F G			
UniRef90_Q4V0R7	T L G C R V S S L F V D A G N P E I A Q A A A A L G A D R I E E L Y T G P Y A E A H H			
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250

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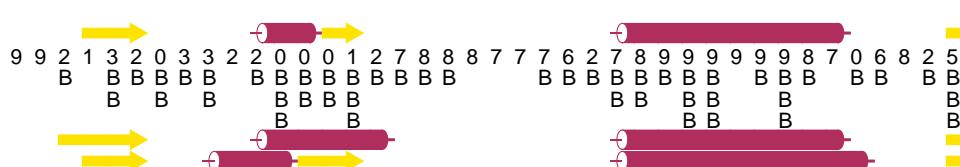
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 P L R L G L R L N H A A L L R Q A G D G Q R P D M A R L A E A T V K A G D S V
 P R K L N L S I A S A A M L P M V R K E P S M S L A A I A E A G L R G G D G I

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

L R L A V S L E S A A L L P G L G V G E T V D L S R L A D S V I E G G E G V



		50	60	70	80
UniRef90_U0LJM5	T	V H P R P D Q R H V	R F S D L P E I R A L I D A E F N I E G Y P S D E F F D L		
UniRef90_G8PTV7	T	V H P R P D E R H I	R T D V E D I S K M L R E E L H E G Y P D E R F M E L		
UniRef90_M1NTP6	T	V H P R P D E R H I	R F S D L Q D I F P L I T A E L N I E G Y P S E T F L S F		
UniRef90_UPI00036B77CA	T	V H P R P D E R H I	K F S D L P L I S E S I K I E F N I E G Y P P S K E F C K I		
UniRef90_UPI00040C221D	T	V H P R P D Q R H I	R P D D V F A L A D V V R V E Y N L E G N P P F G F I A L		
UniRef90_A0Z767	T	V H P R P D Q R H I	R A Q D C F D L Q S A L D V E L N I E G N P T E F F I A L		
UniRef90_UPI00047B08EF	T	V H P R P D S R H I	R H D D V V I A L A G V C G V E F N I E G N P P F G L V A L		
UniRef90_TOPBB1	T	I H L R E D R D H I	T D R D V E L L N E T I Q T R M N L E M A V T D E M V D I		
UniRef90_UPI0002E6B18B	T	V H P R P D E R H I	R F A D L P D I H C L M K A E F N I E G Y P P S D T F L D L		
UniRef90_L0ETH9	T	V H P R P D Q R H I	R F S D L P D I R Q L L D T E F F N I V E G Y P C E E F F M A L		
UniRef90_X0RBC3	T	V H P R P D E R H I	R Y Q D V Y D I S A F L K I E F N I E G N P P F G L L E L		
UniRef90_UPI0004659421	T	V H P R P D E R H I	V A E D L A P L A A L T G V E L N I E G N P P F G L L E L		
UniRef90_Q11186	T	V H P R P D Q R H I	R F S D L P H I R A L I D R E F N I E G Y P S E D F L R L		
UniRef90_X6KWP9	T	I H L R E D R R H I	S D A D I E G L M E A L S V P L N F E M A A T D E M Q K I		
UniRef90_U5NAJ0	T	V H P R P D E R H I	R P S D V V I E L A T L L Q C E F N I E G N P P L H N L M D		
UniRef90_J3HRZ3	T	V H P R P D Q R H I	R F S D L P L I R A L I D A E F N I E G Y P T S G F L E L		
UniRef90_I2JJ22	T	V H P R P D Q R H I	R V S D C F E L A E M L N V E F N I E G N P P F G F M E		
UniRef90_M1WWR4	T		R Q I V R T H L N L E M A A T D E M V A I		
UniRef90_I5C328	T	V H P R P D Q R H I	I R F S D V P E I R A L L D R E F N I E G F P T E D F L M		
UniRef90_J9ZK6	T	V H L R E D R R H I	I N D S D L K L K L K H S K L P I E M A L T N E M I		
UniRef90_T1X8Z3	T	V H P R P D E R H I	R A H D V S D L A A L L A I E F N I E G N P F H N L M D F		
UniRef90_G4REX3	T	V H P R P D E R H I	R R S D V F D L V N L L Q A E L N I E G Y P T Q A F L E L		
UniRef90_UPI0003F585AF	T	V H P R P D G R H I	R A D D V L A L A R L T R V F E F N I E G N P P F G F V E L L		
UniRef90_J4V0A6	T	L H P R P D H R H I	H A T S N D V I N L A Q I A K N R F N I E G N P F Q G F Y E L L		
UniRef90_T0RIM2	T	I H L R E D R R H I	I Q D T D V Q A V L L V T R V P L N L E M G C S R E I A E L L		
UniRef90_U6B3F3	T	I H P R P D Q R H I	I R F T D I S K L R R L I K A E L N I E G Y P P S E K F L L S L		
UniRef90_UPI0004715D5A	T	V H P R P D E R H I	V R F S D L E P L R D L V R A E F N I E G Y P P R S L F L D A		
UniRef90_W7Y5X6	T	V H P R P D E R H I	R Y Q D V I D I K P I I K T E F N I E G Y P P S T E F I I D L L		
UniRef90_UPI0003FEE35C	T	V H P R P D S R H I	T E R D V H A L S A L T R V E F N I E G N P P F P G F L A L L		
UniRef90_T0T3I7	T	I H L R E D R R H I	Q D A D V P A V F E M T Q K P L N L E M G S S D E I A D I		
UniRef90_A0A106XHV2	T	V H P R P D E R H I	R G R D V F E L A E L L K A E Y Y N I E G N P F H N L M D F		
UniRef90_R7C1B8	T	V H P R P D E R H I	R P D D V R L L K A W P G R E F N I E G N P F M N L M E H		
UniRef90_C9Y9L2	T	V H P R P D A R H I	R A Q D V L L D L A A L L K A E F N I V E G N P F H N L M D C		
UniRef90_UPI000473A896	T	L H P R P D H R H I	H A T S D D V I N I V S K L S K A R F N I E G N P N K E F I G F		
UniRef90_A6G193	T	I H P R E D E R H I	I T A A D I G D V V A S F L R V F E F N I E G D P R P A L M K R		
UniRef90_D0LTR7	T	L H W R E D E R H I	T R E G D V R A L R K L A D V E F N I E G D A R P A I V A I		
UniRef90_H5WS96	T	V H P R P D E R H I	I I R R A D V F A I A D D L L R A E Y N I E G N P F H N L M P L		
UniRef90_X2NG63	T	V H L R E D R R H I	I T D R D V R I L R Q T L H T R M N L E M A V T E E M L A I		
UniRef90_I1EZR9	T	V H P R P D Q R H I	R P E D V H E I A S S L L R I E F F N I E G N P A P G F D A L L		
UniRef90_K6G7K8	T	L H P R P D H R H I	H A T S E D A I S I S K I C K I E F N I E G N P F S G F K E L L		
UniRef90_UPI0003470B2A	T	V H P R P D E R H I	I R R S D V M D L A E V I G A E F N I E G Y P S E D F A E L		
UniRef90_I3TWV3	T	V H L R E D R R H I	R D R D V E L L R Q T V K V P L N L E M A M A L D E I V T I		
UniRef90_T1C6M6	T	V H L R E D R R H I	I T D R D V R I L R Q T I Q T R M N L E M A V T D E M L D		
UniRef90_E9CL37	T	V H L R E D R R H I	T P D L R H A T P K D I I S A S K F C N I E F N I E G N P F D G F D N L		
UniRef90_J4V283	T	I H L R E D R R H I	I Q D T D L T S V M A V T K R P L N L E G C A K E I V E I		
UniRef90_T0DHA6	T		M E T L S L P L N L E M A A T A E M Q A I		
UniRef90_UPI000225F2F6	T	V H P R P D A R H I	I R A D D V P L L H R L V G A E F N I E G N P F H N L M D F		
UniRef90_F5Y5Q7	T	T L H P R P D H R H I	H A T S D D V I S L A S L A K S R F N I L E G N P F S E F N N L		
UniRef90_UPI00037A1979	T	V H P R P D Q R H I	I R P A D V L A L A E V V R V V E Y N L E G N P P F G F L A L		
UniRef90_UPI0003B34DFC	T	V H P R E D E R H I	R K D D V F S L K E F I K I E Y N M E G E P S P P R F L D L		
UniRef90_N1U325	T	I H L R Q D R R H I	C O L Y C D R V R L L K E T V A C K N L E M C M A E P I V K I I		
UniRef90_X1MV14	T	T L H P R P D H R H I	H A T S D D V I S L K C K V E F N I E G N P F S S E Y V N L L		
UniRef90_UPI0003662C4F	T	V H P R P D A R H I	S T V E D V Q N L I K E V S E V E F N I L E G N P F P P G F L A L		
UniRef90_UPI000402A2EB	T	T L H P R P D H R H I	A R A D D V Y A L A E L T R V E F N I E G N P F S E Y V N L L		
UniRef90_UPI00036BACF4	T	V H P R P D A R H I	I Q D H D I E R R L A A M D G L H L N M E M G A S D E M V G I		
UniRef90_X5HLI9	T	T L H P R A D A R H I	H S T V E D V Q N L I K E V S E V E F N I L E G D L R E E L L D L		
UniRef90_X0R3C8	T	V H P R P D E R H I	I R Y Q D V Y D I S A F L K I E F N I E G N P N E Q F L A L		
UniRef90_Q2GE86	T	T L H P R A D R R H I	H A L I E D V Q I I L G L S E V E C N V E G D L R P E I I E L L		
UniRef90_A0A011PDD5	T		M A A T D E M V A I		
UniRef90_J9F9M8	T	V H P R P D E R H I	I R R Q D V Y D L K P L V R T E F N I E G Y P S E D F I Q		
UniRef90_H1XPH3	T	V A Y L H D N Q K T V	K E T D V I V L L K H I V K T Y L N I R C N L T E E N V R K		
UniRef90_I3TKZ4	T	V L R V D D G S G L I	T A D D V R R I A E R A R V P L T L E M R P D P A R V A W		
UniRef90_F4QR84	T	L L H L T D E R W L V	R E D D V R R V C S E M D R S F Q L R L W S A G P L I T T		
UniRef90_W4ULY2	T				
UniRef90_K2FL88	T				
UniRef90_X1BV22	T				
UniRef90_M3FY78	T	V H P R E D E R H I	I R K E D V F V L K E F I D I E Y N L E G E P S P R F L D L		
UniRef90_W2V0D5	T	T M H P R R D F R H I	I L L S D I D L L R N R V K Q I N V E T D D Q N V D A		
UniRef90_V4Q7S6	T	M L H I T E D R G L V	T E T D L R D C C H L V E A A F N I R M T P A T D S V A L		
UniRef90_V5PFA9	T	V H P R P D Q R H I	I R F S D L G D I R A L I Q A E F F N I E G F P S E A F L D L		
UniRef90_X1EHV6	T	T I H L R Q D R R H I	Q P R D L D L L R M M I H T K L N L E M G T S E E I V K I I		
UniRef90_X1H743	T	T V H L R K D R R H I	Q E R D L E I L R A T I K T K L N L E M G T N E E I V V K I I		
UniRef90_E7G4D7	T				
UniRef90_X0Y3N6	T				
UniRef90_T0Y330	T				
UniRef90_E8RVJ1	T				
UniRef90_UPI00039EF2F4	T				
UniRef90_F1W2X9	T				

The diagram illustrates the sequence of the 16S rRNA gene across six bacterial species. Each species is represented by a purple bar with black numbers indicating sequence positions. The species are arranged horizontally from left to right: *S. enteritidis*, *S. Infantis*, *S. Typhimurium*, *S. Infantis*, *S. Infantis*, and *S. Infantis*. Yellow arrows above the bars indicate the direction of reading.

Species	Position	Sequence
<i>S. enteritidis</i>	1	8
	2	8
	3	8
	4	4
	5	7
	6	7
<i>S. Infantis</i>	7	8
	8	8
	9	7
	10	6
	11	3
	12	6
<i>S. Typhimurium</i>	13	8
	14	9
	15	9
	16	9
	17	9
	18	8
<i>S. Infantis</i>	19	8
	20	8
	21	5
	22	3
	23	7
	24	5
<i>S. Infantis</i>	25	7
	26	5
	27	3
	28	1
	29	4
	30	4
<i>S. Infantis</i>	31	3
	32	1
	33	8
	34	7
	35	6
	36	3
<i>S. Infantis</i>	37	7
	38	8
	39	9
	40	9
	41	9
	42	9

		90	100	110
UniRef90_0LJLM5	C A S A E P E Q V T L V P D D P T Q A T S D H G W N F R E N R L V D V V A K Y K			
UniRef90_G8PTV7	V K D V R P T Q V L F P D D P S Q T S D H G W D F S E N M L K D V I A Q A K			
UniRef90_M1NTP6	A E K Y A D Q I T L V P D D P T Q S T S D H G W D F N A E F L A P I V R R L K			
UniRef90_UPI00036B77CA	V N Q I K P N Q V T L V P D P P E A L T S S F G W D C E K N K L I D V I G N F Q			
UniRef90_UPI00040C221D	V E A V R P P Q Q A T L V P D G D G Q L T S D H G F D L R R D R L R P L V T R L K			
UniRef90_A0Z767	V Q A I S P A Q V T L V P D S D Q Q L T S D H G F D V D G K R L E P L I K I F K			
UniRef90_UPI00047B08EF	C E R V R P P A Q V T L V P D G D A Q I T S D H G F D F A R E A L A P L V S R L			
UniRef90_TOPBB1	A C H F K P K F C C L V P E K R R E V T T E G G L D V I G Q K D K E A I K R L S S			
UniRef90_UPI0002E6B18B	A E K Y A D Q I T L V P D D P D Q S T S D H G W N F F E E F L A P I I Q R L K K			
UniRef90_L0ETH9	C R D I K P E Q V T L V P D K P D Q L T S D H G W D F H Q E E F L S T V S Q L K			
UniRef90_X0RBC3	I R E V K P H Q C T L V P D S D D Q L T S D H G F D I H E P L S T L V S K E L L Q			
UniRef90_UPI0004659421	C R Q V R P A Q V T L V P D S D G Q L T S D H G F R F D G D A L L A T Q V A G F A K			
UniRef90_Q11186	V E E T Q P E Q V T L V P D D P S Q A T S D H G W Q F Q E H F L A A A V G R L K K			
UniRef90_X6KWP9	A L R H R P H A V C I V P E K R E E T T E G G L E V D E N R L A H F I I A P L			
UniRef90_U5NAJ0	A A E P L P I H Q L T F E P V V D Q R T S D H G W N L V R N F L A P C I K R A K			
UniRef90_J3HRZ3	I I A R N E P E Q V T L V P D D P A Q S T S D H G W D L K R N F L E P I I R R L K			
UniRef90_I2JJ2	I I R Q I R P P A Q C T L V P D S D A Q L T S D H G F D L H G E R R L K P I I S E L L K			
UniRef90_M1WWR4	A L E I K I P D Y V T L V P E K R E E V T T E G G L N I T Q G R I G R F I D Q L K Q			
UniRef90_I5C328	V E E N Q P E Q V T L V P D D P A Q A T S D H G W D F Q G D F L K P I I A R L K L			
UniRef90_J9Z3K6	S K K I K P K F I C L V P E K R N E I T T E G G L N L E K N K L K S L L I S I C H			
UniRef90_T1X8Z3	V R A L K P H Q A T F V P D S E T Q A T S D H G W S F P E D R L R P L I A E A Q			
UniRef90_G4REX3	V A A A N P H Q V T L V P D A P E Q A T S D H G W D F V A H K L S D V V A Q L L A K			
UniRef90_UPI0003F585AF	C R Q A R P P A Q V T L V P D G D G Q I T S D H G F D F A R D R P L V R E L L			
UniRef90_J4V0A6	V K I I T P D Q I T L V P D N V D Q I T S D H G W S D H D I D L K N I I M K L R K			
UniRef90_TORIM2	A V A S S P E W I C L V P E K R E E K T T E G G L D L N L S K V K E T M E Y L L K			
UniRef90_U6B3F3	C E L Y K P E Q V T L V P D E P D Q L T S D H G W N F I E N K L T E S V S R L L Q			
UniRef90_UPI0004715D5A	C L H N L N P T Q V T L V P D D P S Q E T S D H G W D L R A K A L K P A I H H L L S S			
UniRef90_W7Y5X6	V I K V K P K N P Q V T L V P D P P E A L T S N S G W D T I K H R L Q D V I A E F S K			
UniRef90_UPI0003FEE35C	C E A V V R P A Q A T L V P D S D A Q I T S D H G F D F S S D E R L R E L L I A A L K L			
UniRef90_T0T3I7	A I S I K P E W I C L V P E K R E E K T T E G G L D L G Y S R I E K M M A K L			
UniRef90_A0A016XHV2	I R E L R P H Q A T F V P D S E Q G Q F T S D H G W R L S D H R L L I A E C H			
UniRef90_R7C1B8	V R N V R P D Q A T F V P D S L A Q K T S D H G C D I C L D G A F E K V V A E A K H			
UniRef90_C9Y9L2	V R D L R V H Q V T F V P D S E G Q F T S D H G W S F P A D R L K P L I A E A H			
UniRef90_UPI000473A896	C E I I K P E Q I T L V P D A I D Q I T S D H G W S S G S H E L L K N L I H S L K K			
UniRef90_A6G193	V L E V E P D Q C T L V P V R P G E I T S E A G W I P Q R D C A R L I A			
UniRef90_D0LTR7	A L E L R V T Q F T L V P T P G E I T S D H G W D L P R E H L E P V V Q Q A H			
UniRef90_H5WS96	V E E L A P Q Q L T F V P D T V G Q F T S D H G W N F P A Q R L A P V V Q Q A H			
UniRef90_X2NG63	A V I E T R P H F C C L V P E K R Q E V T T E G G L D V A G Q R M R D A C H A R L I A			
UniRef90_I1EZR9	I I E A V R P Q P Q A T L V P D S D D Q L T S D H G F E L A G R I G D T L A R Y R			
UniRef90_K6G7K8	C I Q A S P N P Q V T L V P D D L K Q I T S D H G W Q F H H N D Q L Q L F D S L K K			
UniRef90_UPI0003470B2A	I R A V R P H Q A T F V P D T V G Q F T S D H G W N L P A D Q L K P L D E C H			
UniRef90_I3TWV3	V N Q V R P H Q V T L V P D A P G A R T S E E G W D F F R A E E L A R G I D L V R A			
UniRef90_T1C6M6	A L R F K P R M V T L V P E K R T E V T T E G G L N V A G Q A I T A V V G K L K A			
UniRef90_E9CL37	A I E L K P H F C C L V P E K R T E V T T E G G L D V A G Q K M G V A V E R L L A			
UniRef90_J4V283	V N K S K A H Q V T L V P D S A D Q I T S D S G W T D K F D E L K H K I R K Y K			
UniRef90_TODHA6	A A D F K P P D W I C C L V P E K R E E K T T E G G L D L N Y D K V S Q T M A Y L L R R			
UniRef90_UPI000225F2F6	A L R H R P H A V C I V P E K R E E E R T T E G G L D V A G N E L A D F I A P L			
UniRef90_F5Y5Q7	V R V L R P H Q A T F V P D S E G Q F T S D H G W D F P A Q R L T V I A E A K H			
UniRef90_UPI00037A9179	V K A C Q P E Q I T L V P D M P D Q I T S D H G W E D H D Q K L R E S V K L L K			
UniRef90_UPI0003B34DFC	V A A V R P T Q A T L V P D G D G Q I T S D H G F D D L R G E R R L R P L I A E L R K			
UniRef90_N1U325	L L H T R P D Q A T L V P V T P G E I T S D H G F D F K K D L L Q E Y S K V L			
UniRef90_X1MV14	A E E I K P E Q V T L V P E K R A E I T T E G G L D K Y K R R I A E V V K R M H			
UniRef90_UPI0003662C4F	V N T C Q P D Q A T L V P D L P N Q I T S D H G W E D H D D H L I N A I K N L L N			
UniRef90_UPI000402A2EB	C E Q A R P P A Q A T L V P D G D A Q L T S D H G F D F D A E S L A P L V A R L L Q			
UniRef90_UPI00036BACF4	C E H L K P A P A C C L V P E K R E E L T T E G G L D V H Q A R R L T E V V A R L L Q			
UniRef90_X5HLI9	V K S H G H Q F T I V P V R E G E K T T E R G F S L V Q G Q R L R Q V V A R L L Q			
UniRef90_X0R3C8	I I R E V K P H Q C T L V P D S D D Q L T S D H G F D I H H E F L S T L S K E L L Q			
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UniRef90_A0A011PPD5	A C R I R P Q M A M L V P E G R H E V T T E G G L D V Q G Q R L R Q V V A R L L Q			
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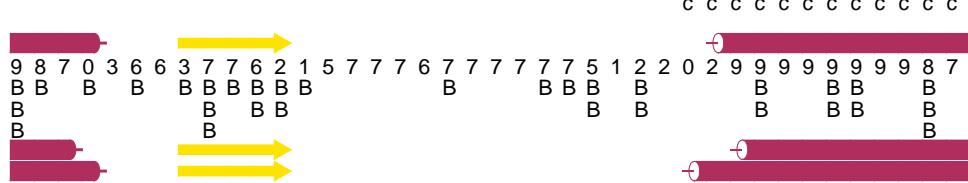
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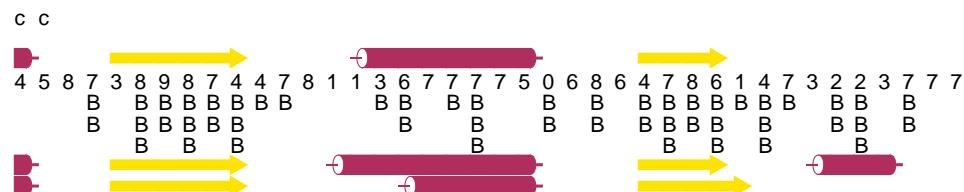
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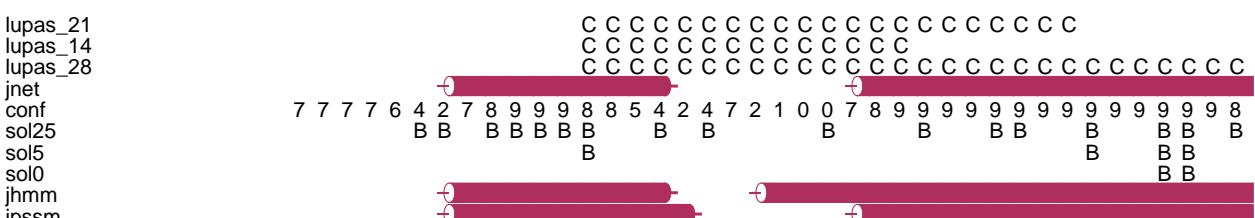
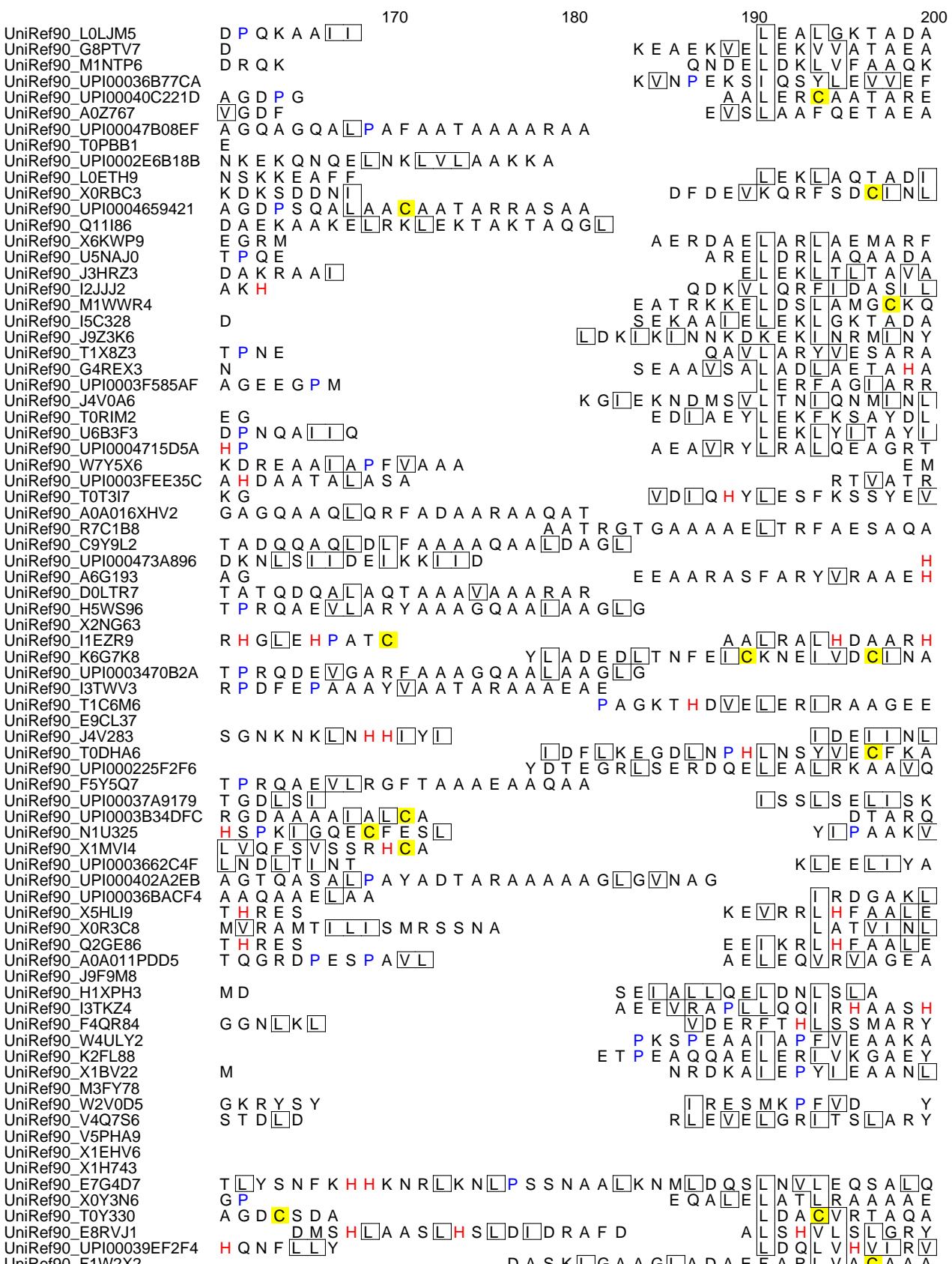


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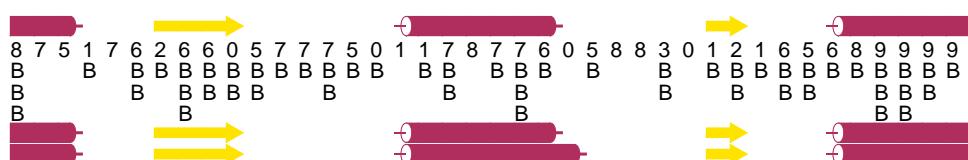
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