

QUERY	1	10	20	30	40																						
UniRef90_A7FPH4	MN	KI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_W6RY7Y7	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_A0Q380	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_C6PQB4	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_N9WBM9	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_Q0TM95	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_B7JUJ9	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_T0PPC9	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_U2EIU1	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_K9T2K3	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_R7RUD7	MN	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_E0UDD5	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_I9AC43	MFL	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_T0MPX4	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_UPI000288CBB5	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_UPI000288E238	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_L8LXW8	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_A0A037Z3Y6	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_U5RU00	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_V9H4H9	MN	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_B0JV88	MQ	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_UPI00037DA6EF	KL	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_D4ZY97	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_H1YDD2	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_UPI00037598DD	RI	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_H8KWQ2	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_B1XQ41	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_A6LPP0	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_UPI00046ECE1	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_F4CDK3	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_D9THY7	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_UPI00035E0B07	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_Q116L2	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_F2IFA6	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_UPI00047A1268	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_UPI0003F7AA2D	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_UPI000415333C	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_DOMJN1	MN	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_H1PSL4	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_R9H1A3	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_I0AHA3	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_UPI00017RV02	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_M1MBR7	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_K9U1W2	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_K9PZ92	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_K9W1T2	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_U7VE39	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_S6ENK5	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_A4XFZ6	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_K9V6X0	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_X5JRD4	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_M1X062	MN	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_UPI000347BC14	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_I2GC74	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_F0SDD7	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_K9RLI0	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_UPI00036CF681	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_W6N619	MK	LI	DL	LI	SS	AD	DD	HI	KE	ED	KL	GL	LN	KK	TT	VI	VI	DI	DL	RR	AT	SS	VI	TT	TA	LN	NN
UniRef90_F4XQ51																											

QUERY UniRef90\_A7FPH4 UniRef90\_W6RY7Y7 UniRef90\_A0Q380 UniRef90\_C6PQB4 UniRef90\_N9WBM9 UniRef90\_Q0TM95 UniRef90\_B7JUJ9 UniRef90\_T0PPC9 UniRef90\_U2EIU1 UniRef90\_K9T2K3 UniRef90\_R7RUD7 UniRef90\_E0UDD5 UniRef90\_I9AC43 UniRef90\_T0MPX4 UniRef90\_UPI000288CBB5 UniRef90\_UPI000288E238 UniRef90\_L8LXW8 UniRef90\_A0A037Z3Y6 UniRef90\_U5RU00 UniRef90\_V9H4H9 UniRef90\_B0JV88 UniRef90\_UPI00037DA6EF UniRef90\_D4ZY97 UniRef90\_H1YDD2 UniRef90\_UPI00037598DD UniRef90\_H8KWQ2 UniRef90\_B1XQ41 UniRef90\_A6LPF0 UniRef90\_UPI00046ECEF1 UniRef90\_F4CDK3 UniRef90\_D9THY7 UniRef90\_UPI00035E0B07 UniRef90\_Q116L2 UniRef90\_F2IFA6 UniRef90\_UPI00047A1268 UniRef90\_UPI00037AA2D UniRef90\_UPI000415333C UniRef90\_DOMJN1 UniRef90\_H1PSL4 UniRef90\_R9H1A3 UniRef90\_I0AHA3 UniRef90\_A0A017RV02 UniRef90\_M1MBR7 UniRef90\_K9U1W2 UniRef90\_K9PZ92 UniRef90\_K9W1T2 UniRef90\_U7VE39 UniRef90\_S6ENK5 UniRef90\_A4XFZ6 UniRef90\_K9V6X0 UniRef90\_X5JRD4 UniRef90\_M1X062 UniRef90\_UPI000347BC14 UniRef90\_I2GC74 UniRef90\_F0SDD7 UniRef90\_K9RLI0 UniRef90\_UPI00036CF681 UniRef90\_W6N619 UniRef90\_F4XQ51 UniRef90\_A1ZHL1 UniRef90\_I7LK25 UniRef90\_UPI000420ADEB UniRef90\_D8FXC1 UniRef90\_UPI00047E0245 UniRef90\_W9E7H7 UniRef90\_E4TST2 UniRef90\_UPI00047DB5F7 UniRef90\_UPI00046F3273 UniRef90\_UPI0003463953 UniRef90\_A1HTB8 UniRef90\_UPI0004027F6D UniRef90\_A3I0R1 UniRef90\_A0YIX9 UniRef90\_P73849 UniRef90\_K9XJN8 UniRef90\_I2ESV2 UniRef90\_UPI00034BC5FE UniRef90\_K9YFF7 UniRef90\_UPI000255CB8A UniRef90\_R7ZS36 UniRef90\_W7Y0S0 UniRef90\_D9S0R8 UniRef90\_UPI0003B2F93A UniRef90\_UPI000365AC55 UniRef90\_W6MDN1 UniRef90\_M7N073 UniRef90\_S7WP34 UniRef90\_L8LSP6 UniRef90\_F6DQV4 UniRef90\_W2E3N0 UniRef90\_C7PHB6

50 60 70 80

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

QUERY	F	S	N	S	P	M	E	Y	T	E	D	V	V	K	G	K	T	L	I	M	T	T	N	G	T	R	A	I	I	110	K	G	S	E	T	A	R	D	I	L	I	120				
UniRef90_A7FPH4	F	S	N	S	P	L	E	Y	T	K	K	V	V	K	G	K	T	L	V	L	S	T	T	N	G	T	R	A	I	I	K	N	G	S	F	N	K	T	I	L	I	I				
UniRef90_W6RY7	F	S	N	S	P	L	E	Y	T	K	E	D	K	V	A	G	K	T	L	V	L	S	T	T	N	G	T	R	A	I	I	K	N	G	S	F	N	K	T	I	L	I	M			
UniRef90_A0Q380	F	S	N	S	P	L	E	Y	T	K	E	D	V	V	K	G	K	T	L	V	L	S	T	T	N	G	T	R	A	I	I	H	K	G	A	E	M	S	K	A	K	N	I	L	I	L
UniRef90_C6PQB4	C	A	N	S	P	L	E	Y	K	E	D	V	V	K	G	K	T	L	V	L	S	T	T	N	G	T	R	A	I	I	K	G	S	I	V	G	A	K	K	N	I	L	I	L		
UniRef90_N9WBM9	L	S	N	S	P	L	E	Y	K	E	V	V	K	G	K	T	L	V	L	S	T	T	N	G	T	R	A	I	I	L	T	K	S	I	V	G	A	K	K	N	I	L	I	V		
UniRef90_Q0TM95	F	S	N	S	P	L	E	Y	K	R	E	L	V	E	G	K	N	V	L	I	M	S	T	T	N	G	T	R	A	I	L	Q	R	V	E	K	S	P	T	V	I	L	I	T		
UniRef90_B7JUJ9	L	G	N	S	P	L	D	C	T	P	E	Q	M	G	G	K	R	L	F	L	S	T	T	N	G	T	R	A	I	L	Q	R	V	E	K	S	P	T	V	I	L	I	T			
UniRef90_T0PPC9	F	S	N	S	P	L	E	Y	T	S	R	E	N	V	E	R	D	K	T	L	V	L	S	T	T	N	G	T	R	A	I	K	N	S	E	V	A	D	S	N	I	L	I	L		
UniRef90_U2EIU1	C	G	N	S	P	L	E	Y	T	S	E	R	V	V	R	G	K	R	L	F	L	S	T	T	N	G	T	R	A	I	Q	R	V	E	Q	S	P	L	V	I	L	I	A			
UniRef90_K9T2K3	L	G	N	S	P	L	E	Y	T	S	E	R	V	V	R	G	K	R	L	F	L	S	T	T	N	G	T	R	A	I	Q	R	V	E	Q	S	P	L	V	I	L	I	A			
UniRef90_R7RUD7	F	S	N	S	P	L	E	Y	T	K	E	D	K	V	A	G	K	R	L	F	L	S	T	T	N	G	T	R	A	I	V	R	S	R	Y	S	D	E	I	L	I	A				
UniRef90_E0UDD5	L	G	N	S	P	L	E	Y	T	S	P	E	L	V	Q	G	K	R	L	F	L	S	T	T	N	G	T	R	A	I	Q	R	V	E	Q	S	H	T	V	I	L	I	A			
UniRef90_I9AC43	L	S	N	S	P	L	E	Y	T	R	E	K	V	E	N	K	T	L	I	F	T	T	T	N	G	T	R	A	I	K	K	V	S	L	J	A	D	N	V	L	L	L				
UniRef90_T0MPX4	L	G	N	S	P	F	E	Y	T	K	D	V	V	K	G	K	T	L	I	F	A	T	T	T	N	G	T	R	A	I	V	K	N	A	A	S	G	A	D	K	R	I	L	L		
UniRef90_UPI000288CBB5	Y	S	N	S	P	L	E	Y	T	K	D	V	V	K	G	K	T	L	I	F	A	T	T	T	N	G	T	R	A	I	V	K	N	A	A	S	G	A	D	K	R	I	L	L		
UniRef90_UPI000288E238	F	S	N	S	P	L	E	Y	N	S	D	K	V	K	D	K	T	L	I	M	T	T	T	N	G	T	R	A	I	K	A	S	I	N	A	K	T	H	I	L	I	L	L			
UniRef90_L8LXW8	L	G	N	S	P	L	E	Y	T	T	D	V	V	N	Q	K	R	L	F	L	S	T	T	N	G	T	R	A	I	Q	R	V	E	Q	G	A	R	N	I	L	I	L	T			
UniRef90_A0A037Z3Y6	C	S	N	S	P	L	E	Y	T	R	E	V	V	K	D	K	T	L	I	M	T	T	T	N	G	T	R	A	I	K	R	S	A	A	A	K	N	M	L	I	L	L				
UniRef90_U5RU00	F	T	N	S	P	L	D	C	T	R	D	Q	L	E	G	K	R	L	F	L	S	T	T	N	G	T	R	A	I	N	L	S	L	E	K	A	S	K	L	I	L	L				
UniRef90_V9H4H9	L	G	N	S	P	L	E	Y	T	R	D	L	M	K	G	R	R	L	F	L	S	T	T	N	G	T	R	A	I	Q	R	V	E	Q	S	P	L	V	I	L	I	T				
UniRef90_B0JV88	L	G	N	S	P	R	E	Y	K	K	E	A	V	K	D	K	T	L	I	V	F	S	T	T	N	G	T	R	A	I	E	M	A	K	N	A	H	R	I	L	I	T				
UniRef90_UPI00037DA6EF	L	G	N	S	P	L	N	C	T	A	E	V	V	E	G	K	R	L	F	V	L	T	T	T	N	G	T	R	A	I	L	Q	M	S	L	K	A	P	V	I	L	I	T			
UniRef90_D4ZY97	F	G	N	S	P	F	S	Y	Q	D	P	T	L	K	G	K	T	L	V	V	T	T	T	N	G	T	R	A	I	V	K	S	N	G	A	K	E	I	V	I	L	L				
UniRef90_H1YDD2	L	G	N	S	P	F	S	Y	Q	D	P	T	L	K	G	K	T	L	V	V	T	T	T	N	G	T	R	A	I	V	K	S	N	G	A	K	E	I	V	I	L	L				
UniRef90_UPI00037598DD	L	G	N	S	P	F	S	Y	Q	D	P	T	L	K	G	K	T	L	V	V	T	T	T	N	G	T	R	A	I	V	K	S	N	G	A	K	E	I	V	I	L	L				
UniRef90_H8KWQ2	F	G	N	S	P	R	S	C	T	P	E	K	M	V	A	G	K	R	L	V	L	T	T	T	N	G	T	R	A	I	K	R	V	E	Q	N	A	D	E	I	L	L	T			
UniRef90_B1XQ41	L	G	N	S	P	L	E	Y	T	K	E	K	V	E	D	K	T	L	V	L	M	T	T	T	N	G	T	R	A	I	L	T	K	S	M	E	A	K	R	V	I	L	L	T		
UniRef90_A6LPF0	L	S	N	S	P	F	Y	S	T	R	D	V	V	E	G	R	T	L	V	L	M	T	T	T	N	G	T	R	A	I	R	K	A	S	E	A	K	R	V	I	L	L	T			
UniRef90_UPI00046ECEP1	L	S	N	S	P	F	Y	S	T	R	D	V	V	E	G	R	T	L	V	L	M	T	T	T	N	G	T	R	A	I	H	L	S	R	E	A	K	N	V	I	L	L				
UniRef90_F4CDK3	F	G	N	S	P	F	S	Y	V	S	E	K	V	N	G	R	T	L	I	V	L	T	T	T	N	G	T	R	A	I	H	L	S	R	E	A	K	N	V	I	L	L				
UniRef90_D9THY7	L	D	N	S	P	L	S	Y	K	K	E	V	V	C	G	R	K	L	I	M	T	T	T	N	G	T	R	A	I	K	R	A	V	M	A	K	R	V	I	L	L	T				
UniRef90_UPI00035E0B07	L	D	N	S	P	L	N	A	C	T	S	E	V	V	K	G	K	R	L	F	L	S	T	T	N	G	T	R	A	I	Q	R	V	E	Q	N	A	P	Q	V	I	L	L			
UniRef90_Q116L2	E	G	N	S	P	L	A	F	T	S	E	V	V	K	G	K	R	L	F	F	M	T	T	T	N	G	T	R	A	I	C	L	K	R	I	Q	N	A	K	V	V	L	A			
UniRef90_F2IFA6	F	G	N	S	P	F	S	Y	M	K	E	E	F	R	G	K	E	V	V	L	T	T	T	N	G	T	R	A	I	D	V	A	K	D	A	E	T	V	V	V	L	L				
UniRef90_UPI00047A1268	F	S	N	S	P	L	S	Y	K	A	S	E	F	V	N	G	K	R	L	V	F	M	T	T	T	N	G	T	R	A	I	K	G	S	T	A	A	K	N	I	L	L				
UniRef90_UPI0003F7AA2D	L	G	N	S	P	L	S	Y	K	A	S	E	F	V	N	G	K	R	L	V	F	M	T	T	T	N	G	T	R	A	I	E	R	I	Q	A	T	P	V	I	L	L				
UniRef90_UPI000415333C	F	G	N	S	P	F	S	Y	T	T	E	K	V	K	G	K	T	L	I	V	L	T	T	T	N	G	T	R	A	I	H	A	I	D	E	S	K	K	A	Y	E	V	I	L		
UniRef90_DOMJN1	L	G	N	S	P	L	E	Y	T	T	D	V	V	E	G	K	R	L	I	V	L	T	T	T	N	G	T	R	A	I	W	N	A	R	N	G	A	H	L	I	V	L	L			
UniRef90_H1PSL4	F	G	N	S	P	L	E	Y	T	K	E	A	V	S	G	K	D	M	F	M	T	T	T	N	G	T	R	A	I	E	N	A	N	A	S	K	K	L	F	I	L	L	T			
UniRef90_R9H1A3	F	G	N	S	P	F	S	Y	V	P	E	K	V	A	G	R	T	V	V	L	T	T	T	N	G	T	R	A	I	H	L	S	K	M	A	K	Q	I	V	I	L	L				
UniRef90_I0AHA3	L	G	N	S	P	L	E	Y	E	E	K	N	V	N	G	K	S	I	V	F	E	Y	T	T	T	N	G	T	R	A	I	T	K	A	K	F	S	E	N	V	L	L				
UniRef90_A0A017RV02	L	S	N	S	P	L	E	Y	Q	E	N	V	N	G	K	R	V	I	L	N	T	T	T	N	G	T	R	A	I	N	K	C	S	D	G	A	Y	E	N	V	L	L				
UniRef90_M1MBR7	L	S	N	S	P	L	E	Y	T	E	D	L	V	K	N	K	K	V	L	F	T	T	T	N	G	T	R	A	I	L	A	R	S	K	Y	A	G	R	I	L	L	L				
UniRef90_K9U1W2	M	G	N	S	P	L	N	C	C	T	P	D	R	V	E	G	R	R	L	F	L	S	T	T	N	G	T	R	A	I	Q	K	T	V	E	K	A	P	T	V	M	A				
UniRef90_K9PZ92	L	G	N	S	P	L	D	C	T	P	D	V	V	A	D	K	R	L	F	L	S	T	T	T	N	G	T	R	A	I	K	R	V	E	K	A	E	T	V	L	L	T				
UniRef90_K9W1T2	L	G	N	S	P	L	D	C	T	P	E	V	V	K	G	K	R	L	F	L	S	T	T	N	G	T	R	A	I	K	R	V	Q	D	A	S	I	V	L	L	A					
UniRef90_U7VE39	F	G	N	S	P	L	E	F	T	K	E	A	V	K	G	K	E	I	F	E	M	T	T	T	N	G	T	R	A	I	E	N	A	L	S	A	D	E	I	L	L	T				
UniRef90_S6ENK5	C	T	N	S	P	L	E	Y	T	S	D	V	V	K	N	N	V	I	L	T	T	T	T	N	G	T	R	A	I	I	T	L	S	L	K	A	D	E	I	L	L	V				
UniRef90_A4XFZ6	L	D	N	S	P	L	S	Y	K	K	E	A	I	F	G	K	T	V	V	M	T	T	T	N	G	T	R	A	I	K	K	A	S	C	A	K	R	I	L	L	T					
UniRef90_K9V6X0	L	G	N	S	P	L	D	C	S	S	E	L	V	G	G	K	R	L	F	L	S	T	T	N	G	T	R	A	I	Q	C	Q	I	Q	A	A	N	S	V	L	L	T				
UniRef90_X5JRD4	L	G	N	S	P	L	D	C	V	P	E	K	V	G	G	R	R	L	F	L	S	T	T	N	G	T</																				



QUERY UniRef90\_A7FPH4 UniRef90\_W6RY7Y7 UniRef90\_A0Q380 UniRef90\_C6PQB4 UniRef90\_N9WBM9 UniRef90\_Q0TM95 UniRef90\_B7JUJ9 UniRef90\_T0PPC9 UniRef90\_U2EIU1 UniRef90\_K9T2K3 UniRef90\_R7RUD7 UniRef90\_E0UDD5 UniRef90\_I9AC43 UniRef90\_T0MPX4 UniRef90\_UPI000288CBB5 UniRef90\_UPI000288E238 UniRef90\_L8LXW8 UniRef90\_A0A037Z3Y6 UniRef90\_U5RU00 UniRef90\_V9H4H9 UniRef90\_B0JV88 UniRef90\_UPI00037DA6EF UniRef90\_D4ZY97 UniRef90\_H1YDD2 UniRef90\_UPI00037598DD UniRef90\_H8KWQ2 UniRef90\_B1XQ41 UniRef90\_A6LPP0 UniRef90\_UPI00046ECE1 UniRef90\_F4CDK3 UniRef90\_D9THY7 UniRef90\_UPI00035E0B07 UniRef90\_Q116L2 UniRef90\_F2IFA6 UniRef90\_UPI00047A1268 UniRef90\_UPI0003F7AA2D UniRef90\_UPI000415333C UniRef90\_DOMJN1 UniRef90\_H1PSL4 UniRef90\_R9H1A3 UniRef90\_I0AHA3 UniRef90\_A0A017RV02 UniRef90\_M1MBR7 UniRef90\_K9U1W2 UniRef90\_K9PZ92 UniRef90\_K9W1T2 UniRef90\_U7VE39 UniRef90\_S6ENK5 UniRef90\_A4XFZ6 UniRef90\_K9V6X0 UniRef90\_X5JRD4 UniRef90\_M1X062 UniRef90\_UPI000347BC14 UniRef90\_I2GC74 UniRef90\_F0SDD7 UniRef90\_K9RLI0 UniRef90\_UPI00036CF681 UniRef90\_W6N619 UniRef90\_F4XQ51 UniRef90\_A1ZHL1 UniRef90\_I7LK25 UniRef90\_UPI000420ADEB UniRef90\_D8FXC1 UniRef90\_UPI00047E0245 UniRef90\_W9E7H7 UniRef90\_E4TST2 UniRef90\_UPI00047DB5F7 UniRef90\_UPI00046F3273 UniRef90\_UPI0003463953 UniRef90\_A1HTB8 UniRef90\_UPI0004027F6D UniRef90\_A3I0R1 UniRef90\_A0YIX9 UniRef90\_P73849 UniRef90\_K9XJN8 UniRef90\_I2ESV2 UniRef90\_UPI00034BC5FE UniRef90\_K9YFF7 UniRef90\_UPI000255CB8A UniRef90\_R7ZS36 UniRef90\_W7Y0S0 UniRef90\_D9S0R8 UniRef90\_UPI0003B2F93A UniRef90\_UPI000365AC55 UniRef90\_W6MDN1 UniRef90\_M7N073 UniRef90\_S7WFP34 UniRef90\_L8LSP6 UniRef90\_F6DQV4 UniRef90\_W2E3N0 UniRef90\_C7PHB6

130 140 150 160

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

QUERY UniRef90\_A7FPH4 UniRef90\_W6RY7Y7 UniRef90\_A0Q380 UniRef90\_C6PQB4 UniRef90\_N9WBM9 UniRef90\_Q0TM95 UniRef90\_B7JUJ9 UniRef90\_T0PPC9 UniRef90\_U2EIU1 UniRef90\_K9T2K3 UniRef90\_R7RUD7 UniRef90\_E0UDD5 UniRef90\_I9AC43 UniRef90\_T0MPX4 UniRef90\_UPI000288CBB5 UniRef90\_UPI000288E238 UniRef90\_L8LXW8 UniRef90\_A0A037Z3Y6 UniRef90\_U5RU00 UniRef90\_V9H4H9 UniRef90\_B0JV88 UniRef90\_UPI00037DA6EF UniRef90\_D4ZY97 UniRef90\_H1YDD2 UniRef90\_UPI00037598DD UniRef90\_H8KWQ2 UniRef90\_B1XQ41 UniRef90\_A6LPF0 UniRef90\_UPI00046ECE1 UniRef90\_F4CDK3 UniRef90\_D9THY7 UniRef90\_UPI00035E0B07 UniRef90\_Q116L2 UniRef90\_F2IFA6 UniRef90\_UPI00047A1268 UniRef90\_UPI0003F7AA2D UniRef90\_UPI000415333C UniRef90\_DOMJN1 UniRef90\_H1PSL4 UniRef90\_R9H1A3 UniRef90\_I0AHA3 UniRef90\_A0A017RV02 UniRef90\_M1MBR7 UniRef90\_K9U1W2 UniRef90\_K9PZ92 UniRef90\_K9W1T2 UniRef90\_U7VE39 UniRef90\_S6ENK5 UniRef90\_A4XFZ6 UniRef90\_K9V6X0 UniRef90\_X5JRD4 UniRef90\_M1X062 UniRef90\_UPI000347BC14 UniRef90\_I2GC74 UniRef90\_F0SDD7 UniRef90\_K9RLI0 UniRef90\_UPI00036CF681 UniRef90\_W6N619 UniRef90\_F4XQ51 UniRef90\_A1ZHL1 UniRef90\_I7LK25 UniRef90\_UPI000420ADEB UniRef90\_D8FXC1 UniRef90\_UPI00047E0245 UniRef90\_W9E7H7 UniRef90\_E4TST2 UniRef90\_UPI00047DB5F7 UniRef90\_UPI00046F3273 UniRef90\_UPI0003463953 UniRef90\_A1HTB8 UniRef90\_UPI0004027F6D UniRef90\_A3I0R1 UniRef90\_A0YIX9 UniRef90\_P73849 UniRef90\_K9XJN8 UniRef90\_I2ESV2 UniRef90\_UPI00034BC5FE UniRef90\_K9YFF7 UniRef90\_UPI000255CB8A UniRef90\_R7ZS36 UniRef90\_W7Y0S0 UniRef90\_D9S0R8 UniRef90\_UPI0003B2F93A UniRef90\_UPI000365AC55 UniRef90\_W6MDN1 UniRef90\_M7N073 UniRef90\_S7WP34 UniRef90\_L8LSP6 UniRef90\_F6DQV4 UniRef90\_W2E3N0 UniRef90\_C7PHB6

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

QUERY	H	Y	K	R	L	M	E	L	G	N	L	K	K	D	F	E	Y	C	C	K	220	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L					
UniRef90_A7FPH4	H	Y	S	R	R	L	K	S	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_W6RY7	H	Y	S	R	R	L	K	S	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_A0Q380	H	Y	N	R	L	S	M	N	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_C6PQB4	H	Y	K	R	L	K	E	L	L	N	L	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_N9WBM9	H	Y	G	R	M	K	E	L	L	N	L	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_Q0TM95	H	Y	N	R	L	K	N	L	L	G	L	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_B7JUJ9	H	Y	G	R	L	L	R	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_T0PPC9	H	Y	K	R	I	K	E	L	L	G	L	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_U2EIU1	H	Y	K	R	I	K	E	L	L	G	L	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_K9T2K3	H	Y	G	R	L	L	R	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_R7RUD7	H	Y	R	Y	M	L	S	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_E0UDD5	H	Y	G	R	L	L	G	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_I9AC43	H	Y	F	K	R	L	K	D	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_T0MPX4	H	Y	G	K	F	L	S	S	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_UPI000288CBB5	H	Y	K	R	I	L	E	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_UPI000288E238	H	Y	K	K	I	S	K	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_L8LXW8	H	F	G	R	L	L	N	L	L	L	C	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_A0A037Z3Y6	H	F	K	R	I	F	E	L	L	L	N	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_U5RU00	H	Y	K	R	I	Q	Q	L	L	L	N	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_V9H4H9	H	Y	N	R	L	K	D	L	L	L	Q	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_B0JV88	H	Y	G	R	L	L	R	L	L	H	C	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_UPI00037DA6EF	H	Y	G	R	L	E	S	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
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UniRef90_H1YDD2	H	Y	G	R	M	K	Q	L	L	L	E	S	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L	
UniRef90_UPI00037598DD	H	V	R	L	L	Q	L	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_H8KWQ2	H	S	E	R	L	K	K	L	L	L	E	K	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L	
UniRef90_B1XQ41	H	Y	G	R	L	L	R	L	L	L	D	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_A6LPF0	H	Y	S	V	M	K	S	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_UPI00046ECE1	H	S	K	R	L	V	R	A	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_F4CDK3	H	S	K	R	L	Q	H	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_D9THY7	H	Y	N	R	L	K	Q	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
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UniRef90_Q116L2	H	Y	G	R	L	Q	R	L	L	L	C	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_F2IFA6	H	R	R	R	L	K	N	L	L	L	N	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_UPI00047A1268	H	Y	N	V	I	K	D	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_UPI000377AA2D	H	Y	G	R	L	L	R	L	L	L	C	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_UPI000415333C	H	S	E	R	L	K	L	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_DOMJN1	H	F	A	R	E	W	L	T	L	L	K	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L	
UniRef90_H1PSL4	H	F	E	Y	L	K	T	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_R9H1A3	H	G	E	R	L	K	L	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
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UniRef90_M1MBR7	H	Y	S	V	M	K	A	L	L	L	N	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_K9U1W2	H	G	K	R	L	L	R	L	L	L	C	H	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L	
UniRef90_K9PZ92	H	Y	G	R	L	L	G	L	L	L	N	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_K9W1T2	H	Y	G	R	L	L	R	L	L	L	N	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_U7VE39	H	Y	S	Y	L	K	S	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_S6ENK5	H	Y	N	L	K	T	L	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_A4XFZ6	H	Y	N	H	L	K	K	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_K9V6X0	H	Y	G	R	L	L	R	L	L	L	D	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_X5JRD4	H	Y	G	R	L	L	R	L	L	L	A	G	N	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L
UniRef90_M1X062	H	Y	G	K	R	L	L	G	L	L	A	G	N	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L
UniRef90_UPI000347BC14	H	Y	G	R	L	L	R	L	L	L	C	H	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L	
UniRef90_I2GC74	H	I	R	L	L	Q	R	L	L	L	G	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_F0SDD7	H	Y	G	K	R	M	Q	R	L	L	N	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_K9RLI0	H	Y	G	K	R	L	L	D	L	L	C	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K	L	V	P	Q	Y	T	N	G	E	I	L		
UniRef90_UPI00036CF681	H	A	K	R	L	L	Q	N	L	L	H	L	L	K	D	F	E	Y	C	C	K	K	D	I	I	V	K													



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K I E V C F S P E L L T H L H E L E N K I V V V D D L F R A T S T M I T T A L G N N  
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M R I D I A I S A G D H V I N A D L V K G K T V I V V D D T L R A T T T V I T T S L V N  
M N I D V T I S A D N I E E S K V K D K V V I V I D M L R A T T T V I T T A F M N  
K L F Y F H T P E L L V P H T E T P D C A I A I D V L F R A T S T I A T A L L N D A N  
M K V D I I I S A D H I D E N E I K D K L V V V I D M F R A T S S V I T T A L L V N  
M K V D V T L S V N D V K Q E E L C N K T V I V I D S L R A T S S S I L T A L L Y Q  
I D V F F S L Q S F Q E E E L R G S K S A V I D V L R A T S S S I T A A I H N N  
M K I E V C L T P A L L N L E E N I E D S I V V V I D V L R A T S S S M V T A A G I D N  
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M R L D I I D V A G N I T Q E E K V K G K T V I I D V L R A T S S V M T T A L A N  
D V L Y P F H V G A F I D S E D L R G K S A V I D V L R A A S T S M V T A L N N  
M R V D L T J H H G L Q D S E D L K G K T A V V I D V L R A T S S I V T A L S A L E N  
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L H T I L S P K L L D I Y D V S N S I V V V I D V F R A T S T I A T A L F N N  
V D V L F T A T D L V Q A N G A V V V I D V L R A S S T I V T A L Q N  
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L Y T S L S P A L L D L Y D I N N T I V V V I D V L R A T T T T I A T A L Y N A  
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R T A V V I D V L R A T S T I V T A L A N  
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L Y T S L S P A L I H L Y D L H N A V V V I D V F R A T T T I A A A L H N  
N L T Y Y H V A K D V P E T S P D I A V V I D V L R A T T T T I S W A L K N S  
M N I S V I P T L Q E A R V E E L R R K T V I V I D V L R A T S T M L A A L A S  
M K I D V C F S P A L Y P V Y H N P E A I V V V D V F R A T T T T M A A A F K H  
M D A E V F L T H S N V S E G D V Q D R T V V I D V L R A T C S T V T A L E R  
M R I D V C L T P D L L P L Y P L G G K I A V V I D V L R A T S S C M V T A F A H  
M R I E V V P T V E E I R F D Q I S N H V V I V I D V L R A T S S T I V T A L G N  
M K V F V Y H T P E L V A D Q S T P D C A I A V D I F R A T T T T I A T A I A S  
K I E V C L S P E L I H L Y D S R G K I V I V D I F R A T S T I V A A L A N  
M K I F V Y H T P E L V P T E G I P D C A I A V D I L R A T T T T I A T A L A A  
M R I T L V P T V R E L I E K D V L N K S A V M F D I L R A T S S T I S T V F A N  
K L D I C F S P E L L P L Y N L K G K V A V V V D V L R A T S S I V T A L A A  
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I D V L N S V T E L S D A R V A G K T A V V I D V L R A T S S C M V T A L S E  
M Q V T V Y A Q H T D F V D P Q Q L A G S T A V V I D T F R A T S T V T A L F E N  
M K L D V C F R P A E V Q G M D L K E T L C I V L D I F R A T T T C M T T G M K N  
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M K L F V Y H T P E L L T P D E A V G L P D C A I A V D I L R A T T T T I S T A L A G S  
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M L L R V N L L P R T I D E S T D L A V V I D V L R A T S S T I T T A L Q L  
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G C Q S V L P V L S A E E A Q D L A R Q T K S C L L A G E R K S V R I I E G F D  
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Y G N S P S T V D P E R I R G S L T I H T S S A G T Q Q S L L V V C R N S N G P R R V F M  
F G N S P V J R L H D L D L R G K F L I Q K T T N G V T A T L N A L K T E H L F V  
L G P L P E E Y A D E V V S G K D V L F H A T T T N G T R A L A A A H E A D R V L V  
Y G N S P P R E T T N A R G K E V V F T T T A G T A R L L I A G E D I P F L I M  
F G N S P S E I S R G L N L Q G K T S V V H T T H A G T Q Q S L L V V C R N S N G P R R V F M  
L S P A S L R G L P M G S S L V L P S P N G A T L A L A T G S T P T F A  
Y G N T P A M I W T K D L A H K V I L F T S T N G T M V L K K I T G A K A V Y T  
Y P P F P L F L Q T F C L E G K T L I L S T T N G T V A I R K A M N A G H L Y A  
Y G N S P T D V L R E E I L E G E T L I Y M V T T N G T D T I L R A A E H E V L I  
Y S A S P D D L R R A R F E R D V V L T T E N G P R A L A Q V V G A R E H V L L  
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H S L S P L S F T P A D H G R R Y V L C S L N G A S C V R M A E R V P A L L V  
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L G N S P T S G V L E A R I E G S R V V M S T T N G T R I V E A A S G A A L I Y A  
H E P S P L L S R L D L T G R S A M L A T T N G T P A I L A A E G A A L I L L  
L G N S P T E V L G Y D M S T K T V V H T T H A G T Q Q S L L V V C R N S N G P R R V F M  
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L D N S P K R A A G H D M A G K T L I Q K T T N G V N A A L H A L Q A E H I L V  
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P T L S P V I S F N Q A H H E N K K Y V L T S L N G A F C T W I A S K V P A L L I  
F G N S P A E L Q H V H A G R P L I Q T T A A G V R G L T R F R H A R A L F A  
F S L S P H S L L K L E A G K R L V L P S P N G S A T T F K A K A G N A I F C  
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Y T L S P Q S L L K L S A G N R L V L P S P N G S A T T F K A K A S T A I F C  
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S G R E L T V K G F T A D V L I A S E C N V S T V I P V L K D G A Y V  
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S G R E L R E K G F A E D V R H C S Q L N I F Q T V P L L K  
F G R R F N P H L P V R D L D C A Q A D R F D F A A V H V D G R L  
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170 180 190 200

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A I L S Y L Q G K P S S P E A K A A M V T F Q M F R D I A S A L S Q C S  
A I I Q R L S G S K S P E A L A A E T A F E A R H D L E A R Q L S Q F T A  
L I D R H L R D Q P L S H A E R A H F D V L L Q A A K G P  
M I V S R L R E T G R T V E L D D S A S L T H G F T I S Q N S A D E E V L W S S M  
G I I A A L E R N S L S P E A Q T A V A A W H A H Q S Q D E F T A L H C S  
L I T D L I E R E A R V R A V P L S A H L A R T L L R A Y P D P Q E A L A Q S R  
Y I E S L L T G R F Y D H L Q A M H E I L S H E T A Q K F L R G  
L V A G A L M D S L E H Q A G P E A E A M A A F A S V R D R V G E A L A G C S  
A L V A G F R V L E P G V R L D D G A R L A A Q A L F L A H P E P R P L L A A S A  
A V I A A L R L D S G V A D A S A E A A T A A A W R A V E R D A G S E L L R R S A  
Y I A E R V R T D D V D A G P Y L A R A R R S T A A A R L A D G V R R G W A G V  
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AV L S A L S A T G W T D S S P E A L A A M T A W Q V A E T L P Q S L A A C A  
A I L D A L D L P M S P E A V I A R E A F R S A G V N L E S L I R Q S V  
AV V A A L R R A P A A T P S P E A H T A A A A F T G T A D P A A A V A C A  
Y I A H R A A G D S P D P A P Y L R R A A G S A A A A D L L Q Y V R K G V  
AV L S A L V G R G P L S P E A A A A T L W S A T E D P V A A L H G C D  
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F F Q K K L A Q E G P P T L A T A L L K A F P D P Q E A L L F Q S P  
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F L Q K K L C P K A P T S L A T A L L R A F P D P Q E A L L F Q S L  
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AV V E R L E H Q A G P L L L S P E A E L A L H A W L V A H R V E D A L A A S A  
G F I A A L A D R G V G P L S P E A R A A V A A Y R E V A D L S R L L H D C V  
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UniRef90\_E8NFQ4 S G R E L Q A G V S A T D T A D A A V L D A V D A V P V L R G R F













