

QUERY	1	10	20	30	40
UniRef90_F7YUN4	R G F T F E R E E P	D M R M D L E S E	V T A Q K V L	N E L P E E E	L A R I I
UniRef90_UPI000429B171	R G F S F L M D G P	D M R M N K N Q S	L T A Y D V V	N K W D E D E	L R R I I
UniRef90_UPI0004640C42	R G F S Y M Q D A P	D M R M N R E N E	F S A Y N V V	N E Y S E D E	L V K I I
UniRef90_B7IEL8	D R G F S Y M Q D A P	D M R M D V R S E	F S A Y D V V	N N Y S E D E	L N R I I
UniRef90_UPI000309D5AE	G R G F T F N R D E P	D M R M N L E Q K K	T A Y D V V	N F Y S E K E	L A D I I
UniRef90_C9LSA0	R G F S Y Q H D A P	D M R M N Q T Q E	H S A Y D V V	N N W S Y Q E	L V T I F
UniRef90_A9BHH9	N R G F S F T K D E P	D M R M D T S R L	S A H E V V	N E Y D E A E	L W H I F
UniRef90_I7LGM0	R G F S Y M H N A R	D M R M N K D N S	I T A W D V V	N K Y S K E E	L T R I I
UniRef90_UP100036BBA01	R G F S Y M Q D A P	D M R M N P A E G	L S A Y D V V	N N Y S Q E D	L E K L L
UniRef90_UP1000289086E	R G F S Y M H D A P	D M R M N R D N S	L S A Y E I V	N N Y E E E	L Y R L I
UniRef90_A8F758	R G F A F S S D G P	D M R M D K T Q R L	T S A Y G V I	N F W Q E E N Q	L R R I F
UniRef90_A7FTX8	S R G F S Y M K D A P	D M R M N R E E N L	S A Y G V I	N N Y E E E	L F K I L
UniRef90_R6J518	R G F S Y M H D G P	D M R M D K E S K K	D A Y Y I V	N R Y K E E E	L A D I I
UniRef90_F6B3M6	R G F S Y M H D A E	D M R M D P D Q P	T S A K E L V	N D L P E E E	L T N I I
UniRef90_B7K9F0	R G F S F R L D A P	D M R M D R R Q S	T T A A D I I	I N S Y S E I E	L A N L F
UniRef90_F9MN08	R G F S Y M H D G P	D M R M N Q E N K	K T A A D I V	N T Y R E E E	L Y R I I
UniRef90_R5BML3	R G F S Y M Q D G P	D M R M D R Q G N	L T A A D I V	N G Y S E A D	L V R I I
UniRef90_D9TR19	R G F S Y M H D A P	D M R M D K G S A L	T A E H V V	N N Y S E D D	L A R I L
UniRef90_I8IZT9	D R G F S Y Q H D A P	D M R M N Q D A P	P L T A R D V	N D W P Y E K	L V K I I
UniRef90_I2F382	G R G F S Y E L D E P	D M R M N L S Q K	R T A A D I V	N S Y R E D E	L S R I I
UniRef90_B8I6G6	S R G F S Y Q H D A P	D M R M N T K S E	L S A Y D V V	N K Y S E Q D	L Y R I I
UniRef90_H2J711	N R G F T F R K D E P	D M R M D P D S D F	N A W N V V	N E Y P E E Q	L S K I I
UniRef90_X8IRK7	R G F S Y M H D A P	D M R M N E D D L	F T A Y Q V V	E Y S E K E	L F R I I
UniRef90_UP1000464E216	D R G F S Y Q H D A P	D M R M D Q S A P	P L T A W T V	N E W S F N D L	L V R I F
UniRef90_UP100028A3FAD	R G F S Y R F D A P	D M R M D Q N L D	I S A R D I V	N T Y S E S E	L T K I I
UniRef90_UP1000479AF5A	R G F S Y H H D A P	D M R M D Q Q S D I	I S G Y D V V	N T W S Y E Q	L V K I F
UniRef90_UP1000464E704	D R G F S F R F D A P	D M R M D Q Q Q T L	T A A D I I N H	H D D E T S L	L A N L F
UniRef90_U4WVP5	R G F S Y N G D A P	D M R M D Q Q A D L	S A Y D V V	N E W E E A A L	L S K I I
UniRef90_D4TTG9	R G F S F R H T A N L	D M R M N Q Q Q S I	T A A D I V	N G W D E Q E	L T H I F
UniRef90_A0A037ZCZ6	R G F S Y M Q D A P	D M R M D R R R N S L	S A Y E V V	N G Y S E E E	L T K I I
UniRef90_M5E226	D R G F S Y Q K D G P	D M R M N P E Q N L	T A K D I V	N N Y S Q S E	L E R V I I
UniRef90_D7N5L1	D R G F S Y N Y D A K L	D M R M D T N A A F	F S A W D I V	N G Y S K E E	L A K I I
UniRef90_F4LT09	S R G F S Y N K D A P	D M R M D Q R K T L	L S A K D V V	N K M S R D E	L K Q I I
UniRef90_UP100036CE15B	R G F S Y H Y D A P	D M R M D L D A A L	T A Y D V V	N E W P Y E D	L V R I F
UniRef90_W1TX65	R G F S Y Q H D A P	D M R M D R R R N S L	S A Y E V V	N G Y S E E E	L A Q V I I
UniRef90_Q03EX7	G R G F S Y R F D A P	D M R M D Q R Q E L	L T A A T V	N T Y S A K E	L V R I F
UniRef90_E0QK52	R G F S Y M N D A P	D M R M D Q K N S P L	N A R E V V	N E W S Y N D L	L S D I I
UniRef90_R2P1L2	R G F S Y H Q D A P	D M R M D Q D A P	T A Y D V V	N N Y S K E Q	L V K I F
UniRef90_A8MH28	UniRef90_G2FVK9	D R G F S Y M H D A P	D M R M D T R Q A V	S A M E V V	L E N I I
UniRef90_N1Z948	R G F S Y M Q D A P	D M R M D P L S S E	T A Q E L V	N S Y T E K D	L A E V I I
UniRef90_G8RNZ3	R G F S Y Q N N A A L	D M R M D N T S D F	F S A Y D V I	N S Y D E E Q	L Y Q I I
UniRef90_F2LW64	D R G F S Y A S D A P	D M R M D P D A P	L T A A D V V	N T Y D E R T L	L A R I I
UniRef90_A7X1B8	D R G F S F N I D A P	D M R M D K N K P	P L T A E K I V	N H W D M E E L	L E R I I
UniRef90_UP100047E7F63	R G F S Y R H D A T L	D M R M D Q T Q E L	L T A Y E I V	N N W S Y E A L	L V K I F
UniRef90_I7JYC9	D R G F S Y R Y D A R L	D M R M D Q S Q E V	V D A Y Q L V	N T L D Q K E	L A K I I
UniRef90_R5T141	R G F S Y R F D A P	D M R M D D R D Q A L	S A Y N V V	N E Y S E S D	L F H L I I
UniRef90_C2ERU9	R G F S Y Y K L D A P	D M R M N Q Q Q A L	L S A M N V V	N N W P Y E K	L V K I I
UniRef90_R7IMR3	R G F T Y R E D A P	D M R M D Q S S F S	T A K D V V	N Q Y D E M Q	L Y R V I I
UniRef90_UP10002E0526D	R G F S Y N H D A P	D M R M D Q N A E L	T A H E I V	N E W S E A D	L A R I I
UniRef90_K9XAL1	D R G F S F R H E A P	D M R M N Q Q Q R S L	T A A E I I I N H	W E E A Q	L A D I F
UniRef90_UP100047C3A2C	D R G F S Y N H D A D L	D M R M D R D E P	T A K T I V	N E W D E R E	L A D I I
UniRef90_W4E2V1	R G F S Y N H D A P	D M R M D Q S A Q L	S A A D I I I N T	W N E Q D I	L A R V I I
UniRef90_B2A2G4	D R G F T Y Q E N A P	D M R M D K S Q K L	T A S E V V	N T Y S E Q K	L A E I I
UniRef90_UP100016C01A9	R G F S Y M R D A K L	D M R M D N Q D A K F	S A F D V V	N S Y T E D E	L A V V I I
UniRef90_F215T7	R G F S Y K Q D A P	D M R M D Q S Q T L	T A K E I V	N D W S Y V D	L V R I I
UniRef90_R7BTM9	R G F S Y M K D A P	D M R M D R E Q P	L T A Y D V V	N N K Y D E R E	L A N I I
UniRef90_E4L7G6	N R G F S Y M H E G R L	D M R M N Q N S E L	L T A H D V V	N K Y S E E K	L A F I I
UniRef90_G9WLA4	D R G F S Y R F D A P	D M R M D N R Q D F T	A K D L I	N D Y S E T E	L Y H I I
UniRef90_R6MJZ5	R G F S Y M H D A A L	D M R M N T S S P S K	S A Y D V V	N S Y S C E E	L M R I F
UniRef90_B1BYX6	S R G F S Y N Y D A R L	D M R M D L N P	D A Y Y I V	N N W S Y E Q	L V E I I
UniRef90_UP100047EE670	D R G F S Y S A D A P	D M R M D P Q G P	R T A A D V V	N T Y P P K D	L A R V I I
UniRef90_R7JRA3	R G F T Y R E D V P	D M R M D Q R N A L	S A Y E V V	N D Y S E E N L	L S R I I I
UniRef90_T0IKB8	R G F S Y M Q D A P	D M R M N P E A D F	S A Y E L V	N S Y D E Q Q	L T E V I I
UniRef90_E6W602	R G F S F L S D G P	D M R M D P S A P	L S A A D I V	N T Y S E E E	L A R I I
UniRef90_E0I3E7	R G F S Y N H D A P	D M R M D R D I A L	T A G D I V	N T W D E R D	L A R I I
UniRef90_E3BR41	S R G F S Y M H D A D L	D M R M D Q S N P I L	S A K D I V	N T Y S K E D	L E N V I I
UniRef90_D3EPJ1	R G F S Y R F N A R L	D M R M D Q T K D L	D A Y K I I	N T W S Q K E	L S N I I
UniRef90_R7G975	R G F S Y R E A S L	D M R M N R E Q S L	T A E E I I I N H	W S E I T	L A N I F
UniRef90_D7CL12	S R G F S Y R Y D A P	D M R M D Q S Q K N A Y D	V V N S Y D Y H E	L V R I F	
UniRef90_A0ZL52	R G F S Y Q E E G P	D M R M N T D Q Q L	L S A W H L V	N E W S E E R	L A L I I
UniRef90_R6NHA1	R G F S F R H A A N L	D M R M N Q Q Q S I L	T A A D V I	N E W D E A E	L A D I F
UniRef90_F3Y9Q4	N R G F S Y L G E N E L	D M R M D K T Q K L	T A K E I V	N Y E E E K	L A N I I
UniRef90_Q2RK87	R G F S Y M Q D A P	D M R M D Q T S S L	L T A Y E I V	N H Y S Y E N L	L V K V F
UniRef90_H1CZ47	R G F S Y R E A S L	D M R M N R E Q S L	T A A E V V	N N W P E E K	L T R V I I
UniRef90_R5J5P6	R G F S Y M N N G K L	D M R M D Q R N P I T	T A Y E I V	N T Y D E D D	L T R I I I
UniRef90_S0JUP2	R G F S Y M N D A S L	D M R M D D R N P I S M S A W D V	V N T Y S Q E D D L	H R I I I	
UniRef90_L8LTD1	R G F S Y K K E A R L	D M R M D D Q S Q A L	L S A Y E V V	N D Y P Y E D L	L V R I F
UniRef90_A3IH20	H R G F S F R Q E A P	D M R M D A S Q S I L	T S A E I I I N H	W D E Q S L	L A D I F
UniRef90_UP10003B5D380	R G F S F R H E A V P	D M R M M N R E Q S L	T A A E I I I N H	W D Q T S L	L A D I F
UniRef90_Q2JLV1	R G F S Y A Q D A P	D M R M D P T E S L	L T A Y E I V	N S Y P V S Q L	L A R V I I
UniRef90_R6WJL1	R G F S Y F R G E G P	D M R M D P S A Q E L	T A E A D W V	N H R P V E E L	L L E I F
UniRef90_B1C8H4	R G F S Y M K D A P	D M R M D R S Q S F S A Y D V V	N G Y D E E K L	Q K I I I	
UniRef90_E0NZ58	R G F S F K K D G P	D M R M D K S K F S A K E L V	N T Y S Y E D D L	R R V I I	
UniRef90_C5BP42	R G F S F M H D G P	D M R M D M D N S S G Q T A A E W I	N T A E E S E S E L	A F V I I	
UniRef90_R6R7N0	D R G F S Y R Y D A K L	D M R M N K D N S L	L S A Y D V V	N T Y S L Q D I T	R V L
UniRef90_UP10003B41740	R G F S Y H Q E A P	D M R M D K E Q E L	L S A F Q V V	N E W P E E E L	V R I I
UniRef90_R5TG26	S R G F S Y M S D A P	D M R M N R E D S L	T A Y D V V	N S Y S K E K L	E S I F
UniRef90_G9Y144	R G F S Y Q H D G P	D M R M D T E A K R S A Y D V V	N T Y D E A G L	Y R V I I	
UniRef90_R5Z446	R G F S Y K S D A P	D M R M D T R Q S R T A S S V	N E Y S E M E L	N R I I I	

QUERY

UniRef90_F7YUN4
UniRef90_UPI000429B171
UniRef90_UPI0004640C42
UniRef90_B7IEL8
UniRef90_UPI000309D5AE
UniRef90_C9LSA0
UniRef90_A9BHH9
UniRef90_I7LGM0
UniRef90_UPI00036BBA01
UniRef90_UPI000289086E
UniRef90_A8F758
UniRef90_A7FTX8
UniRef90_R6J518
UniRef90_F6B3M6
UniRef90_B7K9F0
UniRef90_F9MN08
UniRef90_R5BM13
UniRef90_D9TR19
UniRef90_I8IZT9
UniRef90_I2F382
UniRef90_B8I6G6
UniRef90_H2J711
UniRef90_X8IRK7
UniRef90_UPI000464E216
UniRef90_UPI00028A3FAD
UniRef90_UPI000479AF5A
UniRef90_UPI000464E704
UniRef90_U4WVP5
UniRef90_D4TTG9
UniRef90_A0A037ZCZ6
UniRef90_M5E226
UniRef90_D7N5L1
UniRef90_F4LT09
UniRef90_UPI00036CE15B
UniRef90_W1TX65
UniRef90_Q03EX7
UniRef90_E0QK52
UniRef90_R2P1L2
UniRef90_A8MH28
UniRef90_G2FVK9
UniRef90_N1Z948
UniRef90_G8RNZ3
UniRef90_F2LW64
UniRef90_A7X1B8
UniRef90_UPI00047E7F63
UniRef90_I7JYC9
UniRef90_R5T141
UniRef90_C2ERU9
UniRef90_R7IMR3
UniRef90_UPI0002E0526D
UniRef90_K9XAL1
UniRef90_UPI00047C3A2C
UniRef90_W4E2V1
UniRef90_B2A2G4
UniRef90_UPI00016C01A9
UniRef90_F215T7
UniRef90_R7BTM9
UniRef90_E4L7G6
UniRef90_G9WLA4
UniRef90_R6MJZ5
UniRef90_B1BYX6
UniRef90_UPI00047EE670
UniRef90_R7JRA3
UniRef90_T0IKB8
UniRef90_E6W602
UniRef90_E0I3E7
UniRef90_B0S0Y9
UniRef90_E3BR41
UniRef90_D3EPJ1
UniRef90_R7G975
UniRef90_D7CLI2
UniRef90_A0ZL52
UniRef90_R6NHA1
UniRef90_F3Y9Q4
UniRef90_Q2RK87
UniRef90_H1CZ47
UniRef90_R5J5P6
UniRef90_S0JUP2
UniRef90_L8LTD1
UniRef90_A3IH20
UniRef90_UPI0003B5D380
UniRef90_Q2JLV1
UniRef90_R6WJL1
UniRef90_B1C8H4
UniRef90_E0NZ58
UniRef90_C5BP42
UniRef90_R6R7N0
UniRef90_UPI0003B41740
UniRef90_R5TG26
UniRef90_G9Y144
UniRef90_R5Z446

	50	60	70	80
F E Y G E E K R F A R R	A R K V E N R P L N T T L D L V K A V R E A L P S Y			
F E Y G E E K R Y A R R	A S F V K N R P S S T S E L V K V A K A L P P E			
K D Y G E E R F A K R	A N F V E R R P K T T L E L V D I K S A I P P A			
K E Y G E E N W S R R	A R S V E A R P Q N T G E L V D I K K A I P P K			
F K Y G E E R F S R R	A R S V N S R P N S T L E L V E A R K A L P P Q			
F K Y G E E K F S K Q	A R N R K E K P E T T F E L V E D V C G S I P P A			
R D Y G E E R W A K R	A E F V A A R P E T T G E L V D L V C R A V P K G			
F E Y G E E K R F A H S	S K S V K N R P N T T Q E L V D A R K G L P A S			
K E Y G E E N F A S K	A D L V K R R P D T T F E L V D I K D A I P A			
K V Y G E E R W A K R	A Q F V E A R P E T T G E L V D I K K A I P P S A			
R E Y G E E K F A K K	A Y F V K R R P K T T F Q L V D I K A A I P P A			
F E Y G E E K R Y A G R	A R F V K N R P V E T T A K L V E V A R A L P E K			
K N Y G E E K F S R K	A Q F V K E R P K T T F E L V N V K K A I P P K			
R K Y G E E R W A K R	A S F V R R R P T T T G Q L V E I K A A V P P A N			
Y N Y G E E R L S R Q	A K Q V K Q R P F S T T T E L A E V S R S V P P V			
K D Y G E E R W A K R	A M F V A A R K F T R T Q E L V Q V K K A I P P A G			
Q D Y G E E R W A K R	A Q F V A A R P T T T G E L T K I K K A V P P A S			
F D Y G E E K W A K R	A K F V E E R K I K T T F Q L V D I K K A V P P A			
F Q Y G E E K F A K Q	I E A A R Q V Q R P E T T G E L V E L K D A I P P A			
F E F G D E E K R F A R K	A R S V S R R P F S T T K D L H D A K A A I P P A			
R D F G D E E K W A S R	A K F T E A R P V E T T Y D L V D I K K A V P P S S			
F E Y G E E F K F A R R	A R S V N S R P N T T F E L V E A R K A L P A K S			
K E Y G E E R W A S R	A K F V K A R K E T T G Q L V E I K A A I P P A S			
H R Y G E E K F A K P	A R A E R H R P D T T G Q L V E I K E G I P P A A			
K D Y G E E K W A S R	A K F V E D R K D T T F E L V E I K K A I P P A I			
F R Y G E E K F S K Q	A R K E S H R P R T T G E L V E I K D A I P P A			
Y E Y G E E R F S R R	A R K I L H R P E T T K L E E I F Y C Y P P			
F E Y G E E K F A R K	A R Q I E R R P F S T T T Q L V E I K E A I P P A			
F E Y G E E R L S R K	A R R I E N R P F S T T T Q L A E S S S C V P P			
R E Y G E D N F A K R	A K F I E S R A K T T G E L V E I K N A I P P A			
S E Y G E E N W S A R	A E F V K M R K E T T G D L V V E V K A A I P P A			
W D Y S E E S K W A G R	A D F V K S R P D T T F E L V E I K N A I P P A			
S E Y G E E S W A G R	C V E A R E T T T G E L V E I K N A I P P A			
F R Y G E E K F S K Q	A R K E A H R K Q T T G Q L A D I K E A I P P A			
R Q Y G E E E R F A N K	A Q R V A R R E T T T G E L V E I K A A I P P A			
F R Y G E E K R Y S K Q	V A R K R E E K P E T T G E L V E I K A A I P P A			
R R Y G E E K N W A D K	A Q V V D R R S D T T F E L V D V E K A I P P A K			
F R Y G E E K F S K Q	A R L R E E K P E T T G E L V D D I K E A I P P A			
K N Y G E E K W A K R	A N F V K E E P T T T H Q L V D V K R A I P P A			
W K Y G E E K W S K R	A Q F V R E A R A E T T G D L V E A K A A V P A			
W K Y G E E K R W A K R	A K F V E Q R P F S T T T Q L V E E C K K A I P P K			
R E F G E E R F A S R	A A Q R R A D R P F S T T T G E L V E E L Y Q A I P P A			
R L Y G E E K N F A R R	A K A V K N R P T T T K E L A E L E L T V P R S			
Y R Y G E E K F S K Q	A R K I H A R P T T T L E L V D I K E G I P P A			
W N Y G D E E K F A P S	S I A R N C N S R P D T T F K L V V E I K K S M P Q K			
F R F G D E E K F S R Q	A R K V E R R P E T T F E L V E I K E A I P P A Y M			
K N Y G E D K F A K N	A K H V I E R P K T T G R L A E I S Q A I P P A M			
Y R Y G E E R F A K Q	A R K E R R P K T T F E L V D V K E A I P P A			
R D Y G E E K F A K N	A K H V A A R E E T T G E L V E I K A S I P P A			
F E Y G E E K F A R R	A R E M V T A R P E T T G E L A E L V K A G I P P A			
F K Y G E E R L S R R	A R R V E Q R P F Q T T T Q L A E A A S C V P R			
R D Y G E E K F A R K	A R K A A N V K A R P F L K T G E L A E I K S S I P P A			
F Q Y G E E K F S R R	A R K V E R R P V E T T G E L A E L K E G I P P A			
R E Y G E E K W A Q R	A Q F V Q A R E N T T Q E L V K V K A A I P P K			
K N F G E E K W A R R	A K F V E A R A D T T Y E L V E I K K A I P P A			
K R Y G E E K F A K A	A K A V E N R Q T T T S E L V E I K E A I P P A			
F D Y G E E K L A R V	A R N V A K R P E T T L E L A K I V E D S Y P A			
K E Y G E E R R W A K R	A E F V D Y R K E T T G E L V S I K A A I P P L			
R D Y G E D K F A K N	A K H V L E R P E T T G E L A E I S H A I P P M K			
Y D Y G E E K W S K R	A E F C E K R P E T T F E L V G I K A A I P P K			
F K Y G A D E E K F A K R	A R K E Q A R P E T T F E L V E I K E A I P P A			
R V Y G E E R F A S R	A A A E R E R P F T T T A R L A E L V R E S I P P A			
H E Y G E E R F A R K	A H N C V I S R P I R T T G E L I E E I K R S I P P A			
G S Y G E E R R V A R	V I A K F V E S R K I D T T R Q L V D I K K A I P P A G			
H A Y G E E R R V A R	V I A C C R R E K P F T T T K E L A D L H R D I A K			
U n i R e f 9 0 _ E 0 I 3 E 7	M E Y G E E K F A R K	A R E I G A A R P I E T T G E L V E L K A G I P P A		
U n i R e f 9 0 _ E 0 S 0 Y 9	F K Y S D E E K W A K R	A E F C N A R P I N T T F E L V E V E K A I P P K K		
U n i R e f 9 0 _ E 3 B R 4 1	F K Y G D E E K Y A R Q	A K N V A K R P I T T T F E L V D K E A I P P A F		
U n i R e f 9 0 _ D 3 E P J 1	Y Q Y G E E E R S R S	A R Y L V E N R P F F T T T D L A S A S K V F P P		
U n i R e f 9 0 _ R 7 G 9 7 5	Y Q Y G E E E K F A K Q	A R N E K Q R P I A T T F E L V E V K A S L P A K		
U n i R e f 9 0 _ D 7 C L I 2	R E L G E E R Y A R R	A R E V R E R P I N T T F E L V E V K R A V P A Q		
U n i R e f 9 0 _ A 0 Z L 5 2	F K Y G E E R L S R R	A R R V E K R P F E T T T T E L A E A A Y S V P P R		
U n i R e f 9 0 _ R 6 N H A 1	Y E Y G E E R F S R K	A C I E R E K P I T T T K Q L V E I E K S I P P A		
U n i R e f 9 0 _ F 3 Y 9 Q 4	F R Y S E E K F S K Q	A R E I E R V R T I Q T T G E L V E I K K V I P P A		
U n i R e f 9 0 _ Q 2 R K 8 7	W Q Y G E E R R W A P	A A F V R Q R P I T T T G Q L V A I K E A I P P A G		
U n i R e f 9 0 _ H 1 C Z 4 7	R E Y G E E R R W A R	A Q F V N F R P E T T D D L V R V K A A I P P A H		
U n i R e f 9 0 _ R 5 J 5 P 6	K D Y G E E N W A S R	A Q F V E E R K I N T T F E L V D I K K A I P P K		
U n i R e f 9 0 _ S 0 J U P 2	Y R Y G E E K F S K Q	A R K E Q A R P I E M T T E L A D I K S A L P Q K		
U n i R e f 9 0 _ L 8 L T D 1	F E Y G E E R L S R R	A R R V S L R P F K T T T E L A E A A S S V P P		
U n i R e f 9 0 _ A 3 I H 2 0	Y Q Y G E E E R R S R P	A R R V Q Q R P F E T T T E L A E A A K C F P P		
U n i R e f 9 0 _ U P I 0 0 0 3 B 5 D 3 8 0	R E Y G E E R R F A L	A Q S G R Q R P I E S T A V L A E L V R D A I P P A		
U n i R e f 9 0 _ Q 2 J L V 1	T R Y G E E E R F A R R	A H H E Q A R P I A T T T Q L A Q V W Q A V P P P		
U n i R e f 9 0 _ R 6 W J L 1	F S Y G D E E R F A R N	A K N V K E R P V S T T G Q L A K I I E Y S V P P A S		
U n i R e f 9 0 _ B 1 C 8 H 4	S E Y G E E Q F A G N	A K H N R E E K P I T T T Y E L V E I K N A I P P K K		
U n i R e f 9 0 _ E 0 N Z 5 8	Y T Y G E E E R W A R	A S F I E K E R P I T T T G D L V A V D R A V P K K		
U n i R e f 9 0 _ C 5 B P 4 2	K E Y G E E E R F A R R	M A R A I V A E R P I T Q T L R L A N V S E A N P K W		
U n i R e f 9 0 _ R 6 R 7 N 0	K E Y G E E E K F A Y Q	A K N V K A R P E T T F Q L V D I K S S L P M		
U n i R e f 9 0 _ U P I 0 0 0 3 B 4 1 7 4 0	F E Y G E E K F S R R	A K M V K E R P I S T T L Q L V D I K Q A V P A		
U n i R e f 9 0 _ R 5 T G 2 6	R N Y G E E E R Y S S	A S G V E A R K I E T T L Q L V D V K S N M P K K		
U n i R e f 9 0 _ G 9 Y 1 4 4	R D Y G E E E R W A R	A R F V A A R P I E R T G E L V R K Q A V P A		
U n i R e f 9 0 _ R 5 Z 4 4 6	R D Y G E D K F A K N	A K H V K A R K I E T T K E L S D I K G A I P M		

QUERY

UniRef90_F7YUN4
UniRef90_UPI000429B171
UniRef90_UPI0004640C42
UniRef90_B7IEL8
UniRef90_UPI000309D5AE
UniRef90_C9LSA0
UniRef90_A9BHH9
UniRef90_I7LGM0
UniRef90_UPI00036BBA01
UniRef90_UPI000289086E
UniRef90_A8F758
UniRef90_A7FTX8
UniRef90_R6J518
UniRef90_F6B3M6
UniRef90_B7K9F0
UniRef90_F9MN08
UniRef90_R5BM13
UniRef90_D9TR19
UniRef90_I8IZT9
UniRef90_I2F382
UniRef90_B8I6G6
UniRef90_H2J711
UniRef90_X8IRK7
UniRef90_UPI000464E216
UniRef90_UPI00028A3FAD
UniRef90_UPI000479AF5A
UniRef90_UPI000464E704
UniRef90_U4WVP5
UniRef90_D4TTG9
UniRef90_A0A037ZCZ6
UniRef90_M5E226
UniRef90_D7N5L1
UniRef90_F4LT09
UniRef90_UPI00036CE15B
UniRef90_W1TX65
UniRef90_Q03EX7
UniRef90_E0QK52
UniRef90_R2P1L2
UniRef90_A8MH28
UniRef90_G2FVK9
UniRef90_N1Z948
UniRef90_G8RNZ3
UniRef90_F2LW64
UniRef90_A7X1B8
UniRef90_UPI00047E7F63
UniRef90_I7JYC9
UniRef90_R5T141
UniRef90_C2ERU9
UniRef90_R7IMR3
UniRef90_UPI0002E0526D
UniRef90_K9XAL1
UniRef90_UPI00047C3A2C
UniRef90_W4E2V1
UniRef90_B2A2G4
UniRef90_UPI00016C01A9
UniRef90_F215T7
UniRef90_R7BTM9
UniRef90_E4L7G6
UniRef90_G9WLA4
UniRef90_R6MJZ5
UniRef90_B1BYX6
UniRef90_UPI00047EE670
UniRef90_R7JRA3
UniRef90_T0IKB8
UniRef90_E6W602
UniRef90_E0I3E7
UniRef90_B0S0Y9
UniRef90_E3BR41
UniRef90_D3EPJ1
UniRef90_R7G975
UniRef90_D7CLI2
UniRef90_A0ZL52
UniRef90_R6NHA1
UniRef90_F3Y9Q4
UniRef90_Q2RK87
UniRef90_H1CZ47
UniRef90_R5J5P6
UniRef90_S0JUP2
UniRef90_L8LTD1
UniRef90_A3IH20
UniRef90_UPI0003B5D380
UniRef90_Q2JLV1
UniRef90_R6WJL1
UniRef90_B1C8H4
UniRef90_E0NZ58
UniRef90_C5BP42
UniRef90_R6R7N0
UniRef90_UPI0003B41740
UniRef90_R5TG26
UniRef90_G9Y144
UniRef90_R5Z446

90 100

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

	1	10	20	30	40
UniRef90_UPI00035C1BF5	D R G F S Y A Q D A P	L D M R M D S T A P T T A A D I L	N T Y S S A D L	A R L	
UniRef90_UPI00047E95E1	R G F A Y S Y D A P	L D M R M D T S T G Q T A A D V V	N N Y P E P E	R T I	
UniRef90_C5NU72	R G F S Y N Y D T R	L D M R M D T D A K [] S A Y E V V	N E Y S Y H D	V K F	
UniRef90_U2UVW6	G R G F S Y M H D A P	L D M R M D T G K S F S A A Q W L	N T Y R E E E	D R F	
UniRef90_K2B815	H R G [] S F Q G D S P	L D M R M D [] S K G [] T A A D I V N T Y S E D D	L V R I L		
UniRef90_G9YXE6	S R G F S Y R T D A P	L D M R M D Q T D T L T A R A V V N E W P Q E E	L R R I L		
UniRef90_R8AYE9	R G F S F M R D G P	L D M R M N P E Q E P S A A Q W L	A E A D E R E	I A D I	
UniRef90_A4EJM8	R G F S F M R D G P	L D M R M S Q D G P S A A D L C	N D A D E A E	A D I	
UniRef90_UPI00028956AD	R G F S Y N Q E A A L	L D M R M D T S S E L T A Y D V V N T W E E E	E E	A R L	
UniRef90_UPI00035E1CD9	R G F S Y K Q D A P	L D M R M D Q S Q S L T A Y H	V V N E Y S F N D	V K F	
UniRef90_F1T466	R G F S Y H E D A P	L D M R M D P R N N T T A A E V I Q T Y N E A D	L T R I L		
UniRef90_B9T905	R G F S F R F D G P	L D M R M D Q S R G K T A A E W L A T M S E E K Q	L A E V I		
UniRef90_UPI000413D4A6	R G F S Y R F D A P	L D M R M D P R Q Q L T A K T V V N E W S F Q E	L Y S I I		
UniRef90_Q8ER53	D R G F S Y N H D A L L	L D M R M D Q S Q H L S A Y E V V N E W S Y E R L	L V S I F		
UniRef90_Q2SS95	S R G F S Y R [] D G P	L D M R M D T N N N L T A D T I I N Q Y S E T Q	E D I L		
UniRef90_G6C014	R G F S Y R Y D V K	L D M R M N T E Q K L S A Y D V V N T Y S E E E	L S R I I		
UniRef90_C4LA17	R G F S F M N D G P	L D M R M D P [] H G E S A A E W L L H A D V D D	I A W V L		
UniRef90_I3I4M6	R G F S F M Q D G P	L D M R M D Q T R G Q S A A E W V N S A G E D E	T T W V L		
UniRef90_D9QVL9	R G F S Y Q Y E A P	L D M R M D Q R A S R T A A D L V N D L S Q S E	L T D I I		
UniRef90_I8UAH5	R G F S F M R D G P	L D M R M D P T S G V S A A D W L A S A D V E	L S F V L		
UniRef90_R7L3Y0	S R G F S Y [] A D A E L	L D M R M D K E Q K L L T A R E I V N T Y S E E K L	L S A N I I		
UniRef90_UPI000255C2B3	N R G F S Y Q H N G P	L D M R M D R S Q P L T A A V I V N E W P F E R L	L S R I I		
UniRef90_D1VUD5	R G F S Y R F D S E L	L D M R M D D K S S P L T A K T I V N E Y S K D E	L Y R I I		
UniRef90_E6QKP3	R G F S F Q A D G P	L D M R Q D T R Q P V T A E Q V V N E M D E R D	L A N L I		
UniRef90_A8SJF5	R G F S Y M [] D A P	L D M R M D R D L K K S A F D V D V N Y Y N S E D	L E Y I F		
UniRef90_E1L515	R G F S Y M N D G P	L D M R M D K E A P [] T A E I V V N E Y E S D K	L L Q I I		
UniRef90_R6ESH8	R G F S Y M N D A P	L D M R M S Q D D D F T A Y D I V N D Y D R N E	L I R V I		
UniRef90_K9Z0N8	R G F S F R [] E G D	L D M R M N Q S Q S L S A K D I V N H W Q E K Q	L A D L I		
UniRef90_I4BKW3	R G F S Y S T D A P	L D M R M D A E S D L T A A E I L N T Y D E E K A	L A R L L		
UniRef90_E0NM25	S R G F S Y N Y D A P	L D M R M N K S T R I L T A K D I V N T Y S K E A	L M K I F		
UniRef90_G4D471	S R G F S Y N Y D A R L	L D M R M D T T S N L L S A W E I V N E Y S K E E	L T N I I		
UniRef90_M5J8S6	R G F S Y N Y D A P	L D M R M N Q S Q E L N A R T V V N E E W S F H E	L L R I L		
UniRef90_UPI0003AA6CB5	R G F M Y R D D A P	L D M R M D N S R G F T A A D V V N E Y S E S E	L A R L I		
UniRef90_M4U2L1	R G F S F M R D G P	L D M R M D P T T G I S A A Q W L A K A D V E	I S W V L		
UniRef90_D4H2U8	R G F S F R S E G P	L D M R M N Q D D T L S A A D V V N S Y S R E N	L S S I I		
UniRef90_UPI00035CB03F	D R G F S F [] H D G P	L D M R M N N S K G M T A A Q W I A E S D Q D E	L I K I F		
UniRef90_Q5R0L7	R G F S F M R D G P	L D M R M N T T S G E T A A E E W L N R A E K D D	I S W V L		
UniRef90_K1YSQ9	R G F S F [] R D G P	L D M R M D Q S Q P [] N A A M W L K N A K E D E	I A R V L		
UniRef90_UPI000360D15B	D R G F A Y A Q D A P	L D M R M N P T T G P T A A D V L N T Y G A G D	L A R V L		
UniRef90_UPI00036A6FA3	R G F S F Q H D G P	L D M R M D P T C G E S A S D W L A R A D E T	I A D V I		
UniRef90_G2SPV2	R G F S Y Q H D A V L	L D M R M D Q T N D L T A E T I V N E W S Y N D	L V R V F		
UniRef90_W9ALT1	D R G F S Y A Q D A P	L D M R M D P D A A L T A A E I L N T Y D E K A	L A R I L		
UniRef90_D3SNQ0	R G F S F Q R D E F L	L D M R M D P S D P I T A Y H V V N R Y S Q R D	L E R I L		
UniRef90_R6M6X3	D R G F S F H K D A K L	L D M R M D T T K E L S A Y N V V N E Y S Y E E	L V R L I		
UniRef90_M5J7R1	R G F S Y R Y D A P	L D M R M D Q R Q A L T A Q T V V N E W E Y Y G Q	L V K I F		
UniRef90_F2NBQ9	N R G F S Y H E D A P	L D M R M D P S G G P S A A D D V V N G Y S E A E	L I R I L		
UniRef90_D5WQF6	R G F S Y R S D A P	L D M R M D [] S G T L T A R D I V N S W P E G E	L A R V V		
UniRef90_K4KTE6	R G F S Y M R D A V L	L D M R M D R R R K P L T A E E I V N S W S V E D	L T G I I		
UniRef90_R5VF94	D R G F S F M H D G S	L D M R M D R S T K L T A A D I V N T Y S E A K L	T E I F		
UniRef90_UPI00035E07A9	D R G F A Y R H D A P	L D M R M S P P D D G P T A A D V L N T Y S A A D	L E R I L		
UniRef90_UPI000362C645	R G F S Y W H E A P	L D M R M M R N Q T R T A F Q V I V N E W S F A D	L A W L I		
UniRef90_J5AVB8	R G F T Y R E D T R L	L D M R M D R R R Q P F S A F D V V N S Y T K E	L Y Q V I		
UniRef90_R7NQW1	R G F S F H K D A P	L D M R M S Q S G T S A E D L V N D L S Y E E	L R D I I		
UniRef90_W7CFY4	R G F S F H Q D A K L	L D M R M D Q E Q A L T A E V V V N E W P Y E K L	L V R I F		
UniRef90_W4QBT1	R G F S Y H Q D A L L	L D M R M D Q A Q E L S A Y E V V N H W S F A K L	L V S I I		
UniRef90_D5EEG2	R G F S F Q N D G P	L D M R M E G T S G Y S A A Q L V N T F S E K E	L A D I F		
UniRef90_Q2S9Y4	R G F S F M Q D G P	L D M R M D P D S G L S A S E W V N T A K E E E	I S K V L		
UniRef90_UPI0003B5702B	S R G F S Y R F D A R L	L D M R M D Q S Q E M D A W K V I N T Y D Q K D	L F R I F		
UniRef90_B5EBP3	R G F S F M H D A P	L D M R M D R S S G Q S A A D L V N T L P E G E	L Y R I I		
UniRef90_R6SIG6	R G F S Y H E D A R L	L D M R M D D K D N P L D A Y Y V V N N Y D L N D	L T R I F		
UniRef90_UPI000381E961	G R G F S Y W H D A P	L D M R M D R S A P F T A A E I I V N T W P V E E	L A A I I		
UniRef90_KONEN1	R G F S F N K D E P	L D M R M D M R N D L T A F E I I I N S F K E S E	L I D I F		
UniRef90_D1A7V4	R G F A Y S Y D A P	L D M R M D P T Q P L T A A D V V N G Y P P E E	L A R I L		
UniRef90_X0QB04	G R G F S Y R F E A R L	L D M R M D Q D N P I D A W K L I N E W P Y E K L	L V R I F		
UniRef90_UPI00036BA92A	R G F S F M R D G P	L D M R M D T S R G L T A A E E W L N T A S F D	I R G V I		
UniRef90_R5V4G2	R G F S Y R F D A R L	L D M R M D Q S Q K A D A Y E V V N H Y S Y E R	I A K I F		
UniRef90_R6I0M6	R G F S Y M N D A P	L D M R M D N T S A L T A S N V V N D W D E A E	L V R I L		
UniRef90_H3NNL3	R G F S Y H K D S E L	L D M R M D K E Q D L T A R Y I V V N N Y T Q E E	L E S I F		
UniRef90_UPI00037B6704	R G F S Y K K D A P	L D M R M N Q E A K L S A Y H V V N H Y D Y H D	L V R L F		
UniRef90_R5B5Y7	R G F S Y R E D A P	L D M R M D K S A A F P D V D V N G Y G S E Q	F R I I		
UniRef90_S6BQX8	R G F S F Q H D G P	L D M R M D R S T G E S A A D D W L A Y A E E E	I A R V I		
UniRef90_V5BV77	R G F S F M Q D G P	L D M R M D M D N T I A M T A A L W L A Q V D E E	L V R V L		
UniRef90_H1PQN2	R G F S Y R Y D T K L	L D M R M N Q N N P L S A Y E V V N E Y S E E A	M K I L		
UniRef90_UPI000310C2E6	D R G F S Y S R A T A L	L D M R M N A E D T L T A A D D V L N T Y S Q A E	L A R V I L		
UniRef90_G5F5J9	R G F S Y H E D A P	L D M R M D P N N T Q T A A E E V I N N Y T E A D	L A R V I L		
UniRef90_D1BIM6	R G F S Y A Q D A P	L D M R M D S T A S L T A A D D V L N T Y S E R D	L A R I L		
UniRef90_R5INT0	R G F S Y M A D A P	L D M R M D R D Q S L T A Y E I V V N N W P R E E	L K S I L		
UniRef90_R5TBE2	R G F S Y H L D A R L	L D M R M T E Q E L S A Y E V V N S Y D E E A K	L A K I F		
UniRef90_U1L6W5	D R G F S F M H D G P	L D M R M D P S S G R S A A Q W L A E A E L E D	L T F V I L		
UniRef90_K2B2F0	S R G F S F N K D G V L	L D M R M D Q R Q T L K A N T W I N T V S E S I L	L L D V L L		
UniRef90_B4F119	R G F S F M R D G P	L D M R M D P T T G Q S A A Q W L M N A E E D D	I T W V L L		
UniRef90_D2Z3A2	R G F S F R E N G P	L D M R M H E D G G E S A A D M V R E L T A P E	L S E I F		
UniRef90_H0ULE2	R G F S F R E D G P	L D M R M N A S E G L T A S Q L V N Q M T E D E	L A G I F		
UniRef90_UPI00035DAFB4	R G F S F M K E G P	L D M R M D P D S G L S A A E W I N N A P E S E E	I A E V I L		
UniRef90_F0Z3W0	R G F S Y R T D A P	L D M R M D Q R Q M M T A K D I V N D Y S E S D	L Y R V I L		
UniRef90_R6C797	R G F S Y H F D S K L	D M R M S Q H G L S A Y D V V N S Y P K E E D	I I R I I L		
UniRef90_UPI000465138D	R G F T Y R E D A P	D M R M D Q R N D Q T A A D D V I N S Y P E F D	L Y R I I L		
UniRef90_E5BFB4	R G F S Y R Y D A K L	D M R M N K E Q D L S A Y E V V N T Y A E Q D	V R I I L		
UniRef90_B8KJ41	R G F S F Q H D G P	D M R M D R S R G E S A A D W I A S A S E Q E I	I D V L L		
UniRef90_G7VA03	R G F S F D L D G P	D M R M D T T S D L T A E E V I V N T V S Y E E	L S E I F		
UniRef90_R5SMSL8	R G F S Y K Q D A P	D M R M D E S A S Y T A R E I V N T V S Y E E	K R I I L		
UniRef90_V9ZTD7	R G F S Y H D D A P	D M R M D A S Q P L S A R E I V N T W S E D E	I N R V L		

UniRef90_UPI00035C1BF5
 UniRef90_UPI00047E95E1
 UniRef90_C5NU72
 UniRef90_U2UVW6
 UniRef90_K2B815
 UniRef90_G9YXE6
 UniRef90_R8AYE9
 UniRef90_A4EJM8
 UniRef90_UPI00028956AD
 UniRef90_UPI00035E1CD9
 UniRef90_F1T466
 UniRef90_B9T905
 UniRef90_UPI000413D4A6
 UniRef90_Q8ER53
 UniRef90_Q2SS95
 UniRef90_G6C014
 UniRef90_C4LA17
 UniRef90_I3I4M6
 UniRef90_D9QVL9
 UniRef90_18UAH5
 UniRef90_R7L3Y0
 UniRef90_UPI000255C2B3
 UniRef90_D1VUD5
 UniRef90_E6QKP3
 UniRef90_A8SJF5
 UniRef90_E1L515
 UniRef90_R6ESH8
 UniRef90_K9Z0N8
 UniRef90_I4BKW3
 UniRef90_E0NM25
 UniRef90_G4D471
 UniRef90_M5J8S6
 UniRef90_UPI0003AA6CB5
 UniRef90_M4U2L1
 UniRef90_D4H2U8
 UniRef90_UPI00035CB03F
 UniRef90_Q5R0L7
 UniRef90_K1YSQ9
 UniRef90_UPI000360D15B
 UniRef90_UPI00036A6FA3
 UniRef90_G2SPV2
 UniRef90_W9ALT1
 UniRef90_D3SNQ0
 UniRef90_R6M6X3
 UniRef90_M5J7R1
 UniRef90_F2NBQ9
 UniRef90_D5WQF6
 UniRef90_K4KTE6
 UniRef90_R5VF94
 UniRef90_UPI00035E07A9
 UniRef90_UPI000362C645
 UniRef90_J5AVB8
 UniRef90_R7NQW1
 UniRef90_W7CFY4
 UniRef90_W4QBT1
 UniRef90_D5EEG2
 UniRef90_Q2S9Y4
 UniRef90_UPI00035B702B
 UniRef90_B5EBP3
 UniRef90_R6SIG6
 UniRef90_UPI000381E961
 UniRef90_KONEN1
 UniRef90_D1A7V4
 UniRef90_X0QB04
 UniRef90_UPI00036BA92A
 UniRef90_R5V4G2
 UniRef90_R6I0M6
 UniRef90_H3NNL3
 UniRef90_UPI00037B6704
 UniRef90_R5B5Y7
 UniRef90_S6BQX8
 UniRef90_V5BV77
 UniRef90_H1PQN2
 UniRef90_UPI000310C2E6
 UniRef90_G5F5J9
 UniRef90_D1BIM6
 UniRef90_R5INT0
 UniRef90_R5TBE2
 UniRef90_U1L6W5
 UniRef90_K2B2F0
 UniRef90_B4F119
 UniRef90_D2Z3A2
 UniRef90_H0ULE2
 UniRef90_UPI00035DAFB
 UniRef90_F0Z3W0
 UniRef90_R6C797
 UniRef90_UPI000465138D
 UniRef90_E5BFB4
 UniRef90_B8KJ41
 UniRef90_G7VA03
 UniRef90_R5SMSL8
 UniRef90_V9ZTD7

50 60 70 80

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

90 100

UniRef90_UPI00035C1BF5	A A R R T G G H P A K R T F Q A L R E V
UniRef90_UPI00047E95E1	A A R T G G H P A K R T F Q A L R E V
UniRef90_C5NU72	K R R T G G H P A K R V F Q A I R A V
UniRef90_U2UVW6	A A R Q S G G H P A K R I F Q A I R E V
UniRef90_K2B815	Q Y K R K K I H P A T K T F Q A L R E V
UniRef90_G9YXE6	A L R E K Q H P A K R T F Q A I R A V
UniRef90_R8AYE9	A K K E K N K H P A T R T F Q A I R F I
UniRef90_A4EJM8	K P G Q S H P A T R T F Q A L R A V
UniRef90_UPI00028956AD	A A R R T G P H P A K R S F Q A I R A V
UniRef90_UPI00035E1CD9	E L K K K G H P A K Q I F Q A I R A V
UniRef90_F1T466	A R R H G K H P A R K T F Q A L R E V
UniRef90_B9T905	E P G Q N P A T R T F Q A L R F V
UniRef90_UPI000413D4A6	P A R R R S G G H P S K R T F Q A L R A V
UniRef90_Q8ER53	P A R R R K G G H P A K R I F Q A L R A V
UniRef90_Q2SS95	V L K Q K H P A K K T F Q A L R F I
UniRef90_G6C0I4	E R A S K H P A K K T F Q A I R E V
UniRef90_C4LA17	N K E K H K H P A T R S F Q A L R H V
UniRef90_I3I4M6	E E K G K H P A T R A F Q A I R Q V
UniRef90_D9QVL9	A R R R S G P H P A K R T F Q A L R A V
UniRef90_I8UAH5	A K E K K H P A T R S F Q A I R Y I
UniRef90_R7L3Y0	K Q K D G H P A K R T F Q A L R E V
UniRef90_UPI000255C2B3	P A R R K G G H P A K R V F Q A L R A V
UniRef90_D1VU5	G A R R R D G P H P A K R A F Q A L R E V
UniRef90_E6QKP3	I K G E R I H P A T R T F Q A L R H V
UniRef90_A8SJF5	A V R A K G G H P A K R V F Q A I R E V
UniRef90_E1L515	K A R Q D G P H P A K R T F Q A I R E V
UniRef90_R6ESH8	A R R T G P H P A K R T F Q A I R E V
UniRef90_K9Z0N8	K Y R Y G K I H P A T R T F Q A L R K V
UniRef90_I4BKW3	P A R R T G G H P A K R T F Q A L R A V
UniRef90_E0NM25	G A R S G G P H P A K R I F Q A L R E
UniRef90_G4D471	K F R V K G G H P A K K T F Q A L R E
UniRef90_M5J8S6	P A R R T G G H P A K K S F Q A I R A V
UniRef90_UPI0003AA6CB5	A A R T G G H P A K R T F Q A L R E V
UniRef90_M4U2L1	A R E K K K H P A T R S F Q A I R Y V
UniRef90_D4H2U8	A Q K P G I N P A T K T F Q A L R F V
UniRef90_UPI00035CB03F	K R G Q H P A T K I F Q A I R H I
UniRef90_Q5R0L7	V K E K H K H P A T R T F Q A I R H I
UniRef90_K1YSQ9	E A H K H P A T R V F Q A I R F I
UniRef90_UPI000360D15B	P A R R T G G N P A K R T F Q A L R E V
UniRef90_UPI00036A6FA3	R E P G K H P A T R S F Q A L R F V
UniRef90_G2SPV2	K A R R K G G H P A K K V F Q A I R A V
UniRef90_W9ALT1	A T R R T G G H P A K R T F Q A L R V A V
UniRef90_D3SNQ0	Y R R R G R I H P A T R V F Q A I R E V
UniRef90_R6M6X3	A M K D S H P A R R T F Q A I R E V
UniRef90_M5J7R1	R A R R T G G H P A K K V F Q A I R A V
UniRef90_F2NBQ9	A A R R Q G P H P A R R S F Q A I R E V
UniRef90_D5WQF6	A R R H G P H P A R R T F Q A L R A V
UniRef90_K4KTE6	A A R R E G P H P A K R T F Q A L R A V
UniRef90_R5VF94	Y F N L N H P E R R I F Q A L R E V
UniRef90_UPI00035E07A9	S Q R T G G H P A K R T F Q A L R E V
UniRef90_UPI000362C645	A A R R T G G H P A K K T F Q A I R G V
UniRef90_J5AVB8	K L R A N G G H P A K R T F Q A I R E V
UniRef90_R7NQW1	V R R E G H P A R K T F Q A L R E V
UniRef90_W7CFY4	P A R R K G G H P A K R V F Q A I R A V
UniRef90_W4QBT1	P A R R K G G H P A K R T F Q A I R A V
UniRef90_D5EEG2	V Q R K M G G H P A R K V F Q A L R F V
UniRef90_Q2S9Y4	E K G K N P A T R A F Q A I R F I
UniRef90_UPI0003B5702B	V L S K K G H P A K Q I F Q A I R E V
UniRef90_B5EBP3	K W E E R I H P A T R T F Q A L R A V
UniRef90_R6SIG6	E K R K K H P A K Q I F Q A I R E V
UniRef90_UPI000381E961	Q R R Q G G H P A R R T F Q A L R A V
UniRef90_KONEN1	N I Y S Q R I H P A T R V F Q A L R V V
UniRef90_D1A7V4	P A R R S G G N P A K R T F Q A L R E V
UniRef90_X0QB04	A R R H G G H P A K K V F Q A V R A V
UniRef90_UPI00036BA92A	K S R E K G H H P A T R T F Q A I R H I
UniRef90_R5V4G2	A I L S K K G H P A K K V F Q A I R E V
UniRef90_R6I0M6	A L R E K Q H P A K R S F Q A I R A V
UniRef90_H3NNL3	K V R M E G K H P A K K V F Q A L R E V
UniRef90_UPI00037B6704	E L K K K G H P A K Q L F Q A I R E V
UniRef90_R5B5Y7	A A R R E A Q H P A K R T F Q A I R E V
UniRef90_S6BQX8	R D P H K H P A T R T F Q A I R H I
UniRef90_V5BV77	R E K H K H P A T R S F Q A I R R M E V
UniRef90_H1PQN2	A A K H P A K K T F Q A I R E V
UniRef90_UPI000310C2E6	K G Q R K R S H P A K R T F Q A L R E V
UniRef90_G5F5J9	A G R R H G G H P A R K T F Q A L R E V
UniRef90_D1BIM6	A T R K G T G N P A K R T F Q A L R E V
UniRef90_R5INT0	A L R E K Q H P A K R S F Q A I R A V
UniRef90_R5TBE2	A K R D K H P A R K V F Q A I R E V
UniRef90_U1L6W5	V K D K H K H P A T R T F Q A I R Y I
UniRef90_K2B2F0	E E G Q H P A T K T F Q A I R F I
UniRef90_B4F119	V K E R H K H P A T R S F Q A I R Y I
UniRef90_D2Z3A2	V M R K A K G H P A R K V F Q A L R A V
UniRef90_H0ULE2	A Q R K A N G H P A R R V F Q A L R A V
UniRef90_UPI00035DAFB4	K I Q K T S G H P S K R T Y Q A I R E
UniRef90_F0Z3W0	E R E P G K N P A T R T F Q A L R K V
UniRef90_R6C797	A A K R G K G H P A K Q T F Q A I R E V
UniRef90_UPI000465138D	K I R A V G G H P S K R T F Q A I R E E
UniRef90_E5BFB4	S E R A S K H P A K K T F Q A I R E V
UniRef90_B8KJ41	E K H K H P A T R A F Q A I R R V
UniRef90_G7VA03	V Q R K M G K N P A R R V F Q A L R E V
UniRef90_R5SMSL8	A L R E K Q H P A K R S F Q A I R A V
UniRef90_V9ZTD7	F R S K D G S H P A R R T F Q A L R A V

	1	10	20	30	40
UniRef90_UPI000467A094	R G F A Y S	V D A P	D M R M D P T Q G P	T A A D V L N T Y S K S D	L T R I L
UniRef90_UPI0003805581	D R G F A Y A	H D A P	D M R M D R T Q E L	T A A D V V N T Y P V A E	L T R I V L
UniRef90_D4W6Q5	R G F S Y N H	D A K	D M R M D Q E A E L	S A Y E I V N E W E Y K N	L E Y I F
UniRef90_R5SIX0	R G F S F S K E	A P	D M R F D M E S N F	S A Y E I V N T Y S E D E	L V R I F
UniRef90_K6WW63	D R G F A Y A Q D A	P	D M R M D P E L P	L T A A D V L N T Y E A P E	L A R V L
UniRef90_UPI00036DB248	R G F S F	□ R D G P	D M R M A R H V G L	S A E Q W L A Q V T E E K D	L A K V L
UniRef90_R7D5V2	G R G F S Y H E D A	P	D M R M D A S N N P	N P A A E V I N N Y K E E E	I A D I L
UniRef90_H5SR10	R G L S F R L E G	P	D M R L D P T Q E L	T A A D L V N S L D E R E	L F K I F
UniRef90_D1C5B1	S R G F S F Q R P	G P	D M R F D P T T G S	S A R E I V N T W D E A D	L S R I I
UniRef90_K2E3P9	R G F S F S K E A	P	D M R F N P D N P	V S A Y D V V N S Y S E Q E	L I R I F
UniRef90_S6HLW5	R G F S F Q H D G	P	D M R M D T T C G	E S A A Q W V A R A T E K E	I A D V I
UniRef90_K2GPX1	R G I S F Q K D A	P	D M R M N L S E G M	T A A D I V N T Y S D K D	L I R V L
UniRef90_A8ZXX1	G R G F S F R K D E	P	D M R M D P D Q S	L T A A D L V N Q S A E A D	L V R I F
UniRef90_X0RZU0	R G F S F K E D S H	P	D M R M D L T Q K F	N A D I L I N S Y S E K D	L A E I F
UniRef90_D0BLC5	R G F S Y H Q N A I	P	D M R M D M D Q T A	P L T A K E I I I N E W S Y D E	L V R I F
UniRef90_UPI0004789472	G R G F A Y A Q D A	P	D M R M D M D Q S S G L	L T A A D V L N T Y D A A R	L T R I L
UniRef90_A6FEY7	S R G F S F □ R D G	P	D M R M D P T S G I	I S A A K W L A T A D Y D D	L V W V L
UniRef90_R6BFZ9	R G F S F H K D A E L	P	D M R M D M D K R N P	L N A K I V V N E Y S Y D K	L V D I F
UniRef90_R5GMS6	R G F T Y R E D V P	P	D M R M D M D Q R Q T	K T A R N I V N E Y S E M E	L Y H M I
UniRef90_UPI000413D68D	R G F G F S F L R D G	P	D M R M D T S K S G Q	T A A Q W L A T A D E D D	L C W V I
UniRef90_R5XMN0	R G F T Y R V D A	P	D M R M D Q R Q T	R T A A D I I N G Y E E K E	L Y R I I
UniRef90_Q0AJD3	S R G F S F R H D G	P	D M R M D S S R G K T	A A E E W L T M A S E T E	L K E I I
UniRef90_F5VKQ5	R G F S F M R D G P	P	D M R M D P T R G Q	S A A E W L R N A E E A D	L A W V L
UniRef90_UPI000463EEF4	R G F S F M N D G P	P	D M R M D R S S G Q	S A A E W L A E A P E A E	L A R V L
UniRef90_UPI0004672602	R G F A Y A R D A	P	D M R M D P T R G A	T A A D V L N K Y S V D E	L T R I L
UniRef90_B8FT64	R G F S Y M Q D A E L	P	D M R M N P Q N P	L S A K T L V N E G K A E M	L L A E I I
UniRef90_D3PTH0	G R G F S Y Q H E G	P	D M R M G Q G E	T A H E V V N T Y P E E A	L A E I I
UniRef90_UPI00035B1D62	R G G F S Y R Y N A	P	D M R M D R H Q R T	A A H V N D A S F Q E	I W Q I L
UniRef90_UPI000478D967	G R G F S F M Q D G P	P	D M R M D N S K G	L T A S Q W L Q D I E E E D	L A N V L
UniRef90_H5UQH2	D R G F A Y R A D A	P	D M R M D M D Q S E G	P T A A D V L N T Y S H G D	L A R I L
UniRef90_1XH1	R G F S F Q H D G	P	D M R M D P T F G	M G M S A A E W L A S A E M N E	I A T V I
UniRef90_D7BNA1	D R G F S F Y S Q D A	P	D M R M D T S K G M	T A G E L L N S Y S H G E	I A R I I
UniRef90_T0SYL7	N R G F S F R V D A	P	D M R M D N D K I	Q T A K D I V N K Y S E L E	L E K I F
UniRef90_D1Y635	R G F F S F R E D G	P	D M R M D P E G T	R S A S E L V N E L P R E S	L A D I F
UniRef90_Q47QX7	R G F A Y S Y D A	P	D M R M D R T Q E	R T A A D I V N T Y P A S E	L T R I F
UniRef90_W0E5R3	R G F F S F S A D G	P	D M R M D P S R G E	S A A D W L M H A E Q Q E	I A R V L
UniRef90_F8AYC5	R G F F S Y S R D A	P	D M R M D P G R G R	T A A D V V N T Y D A D E	L T R I L
UniRef90_D7CY79	R G F F S F R H P G	P	D M R M G P T T G	L C A A D L V N S A S Q E E	L A S V I L
UniRef90_UPI00037E6192	R G F F S F M R D G D	P	D M R M N P T Q G Q S A K	T W L K E A D E A D I A N V L	
UniRef90_E1HH2	R G F F S F S A D G	P	D M R L D P T Q G Q	H T A A D L V N T L D E Q Y	L A D I I
UniRef90_C1D1L8	G R G F S Y H T E A	P	D M R M S Q S G E	S A A D V V N T Y E E E D	L A A I I
UniRef90_R5MG0	S R G F S F S K D G	F	D M R M D T E S T	L T A Q K V V N E Y S K E E L	V N I F
UniRef90_Q14NL6	N R G F F S Y R Y D S	L	D M R M N Q K Q E	L T A K I I V N T Y S Q E A L	A K L F
UniRef90_D6E9N3	S R G F F S F K E N G	P	D M R M D P G K T	T T A A E L V N T Y N A A D	T R I I
UniRef90_F7RZJ3	D R G F F S F M R D G	P	D M R M D P S V G E	S A A D W L A H A D M D S	L C Y V F
UniRef90_UPI000419AD44	R G F F S Y S R S A	P	D M R M D Q S G G	C T A Q D I L D G A D E D E	L A R I L
UniRef90_G0HEB8	R G F F A Y S Q D A	P	D M R M D P D S P	L T A A E V L N T Y S H G D	L A H V L
UniRef90_UPI00036AB8DA	R G F F A Y S Y D A	P	D M R M D S T A P	V T A Q D D V V N D Y S E E D	L R R I L
UniRef90_M1M4J0	R G F F S F M R D G	P	D M R M D N T K G I	T V S D W I Q K A S L N E	I I K D V L
UniRef90_W4LU37	R G F F S F M H D G	L	D M R M D P T Q P	V T A Y Q V V N E S A A T D	L Q T I L
UniRef90_K6UKL8	G R G F F A Y R M D A	P	D M R M D R G L P	R T A A D V L N S Y A V D E	L T R I L
UniRef90_B7RSN0	G R G F F S F M S D G	P	D M R M D T S S G E	T A A Q W L S Y A D T T A I A E V L	
UniRef90_R5H276	R G G F F S Y R Y D T A L	P	D M R M D Q R Q T	L T A K T I V N E W S Q A E L	F R C I
UniRef90_I0H149	D R G F F A Y A Q D A	P	D M R M D Q S R G	V T A E E V V N G Y E P G E	L V R I L
UniRef90_B8HT19	R G F F S F R A D A	P	D M R M D Q R Q S	L T A A E L V N T A S A E E L	L A D I F
UniRef90_Q5X6J0	R G F F S F M L Q G P	P	D M R M D L T Q S	I N A A N F V N E A E V N E L	L A H V F
UniRef90_Q3IFZ6	R G F F S F M K D G	P	D M R M D P T T G	R S A A Q W L A A E E L D D	L T H V I
UniRef90_K2K762	R G F F S F M R D G	P	D M R M S Q D G	M T A A E F V N T A D E G E	I A A V L
UniRef90_UPI0004243152	R G F F T Y K E D V	P	D M R M D Q R Q Q	L T A R D I V N D Y S E T E	F H I I
UniRef90_U1RAQ4	R G F F S Y S Q D A	P	D M R M D P T R G	V S A A E L L A T A P Q E E	T R I I L
UniRef90_X5MC08	R G F F S F R N D G	P	D M R M D S G D T P	S A A D V V N T Y E P R D	L A Q I F
UniRef90_L0DDM5	R G F F S F A V D G	P	D M R F D P N A S	L T A A E V V N T W K E E E	L A N L F
UniRef90_UPI0004754BDD	R G F F S Y S R D A	P	D M R M D S T A G	T T A A D V L N T Y S K G E	L T R I L
UniRef90_W7UN95	S R G F F S Y H S D A	P	D M R M S M K E	G M S A A D V V N T Y S E S E	L A R I I
UniRef90_R7GGJ6	R G F F S Y R L D G	P	D M R M N Q N Q E	L S A K T I V N E W P V S K L	I I E I F
UniRef90_W2BPS5	G R G F F S Y S H D S A	L	D M R M G G G N E	L T A A Q I V N T Y S Q Q E	L V K I F
UniRef90_S2WGC8	R G F F S Y S H D A P	P	D M R M N A Q V G R	T A A D I L A E E S V G E	L T R I L
UniRef90_F0RYU9	H R G F F S F R K D E	V	D M R L D E S A S	I S A F D V V N G Y Q E E R	L A D V I
UniRef90_V5RWZ8	R G F F S F T N S G	P	D M R M D D R M V K	T A E L L V N T Y S E R N I	I R I I
UniRef90_R5EP33	R G F F S F E K D G	P	D M R M D Q S A K	L D A K T I V N T Y S K Q D	L A Y I F
UniRef90_E0RS52	G R G F F S F R R E	P	D M R L S P Y L P	M K A S D V V N T Y S E T E	L V D I F
UniRef90_D4JS20	R G F F S Y H E D A	P	D M R M S M K S G	L S A Y D V V N E Y S K E Q	L E K I L
UniRef90_UPI00026CDC4D	R G F F S F S Q D G	P	D M R M S Q D E	G M S A A D F L N T A D E A E	L A H V I
UniRef90_B9XI4	R G F F S F Q Q E G	P	D M R M D K R Q Q	L T A A D I L N H A S A E E	L A E I F
UniRef90_D2NU66	R G F F A Y S Y D A	P	D M R M N S E D E	L L T A R I V V N E Y S E D Q	R R I I
UniRef90_G4SWP1	R G F F S F L Y D G	P	D M R M D H R S G L	S A A Q W L A E V D E R D	L V Q V L
UniRef90_U1S802	R G F F S F M K D G	P	D M R M D N S Q G	L Q Q V S E E Q D L A A W V L	
UniRef90_Q2LR39	R G F F S L L K D A	P	D M R M D S E A G R	S A Y D V V N T C S E R E	L K D I I
UniRef90_B4D203	R G G F F S F M H D G	P	D M R M D P T N L	S A A D L V N T M A G D Q L	L E K I F
UniRef90_A8HZ68	D R G F F S F R R D G	P	D M R M A N D G P	S A A D L V A D L D E V E	L A H V I
UniRef90_N9TR06	R G F F S Y S K D G	K	D M R M D Q D A T	L D A W Q I I N H W N E E Q L	R R I I
UniRef90_K1ZRT0	G R G F F S F Q R D E	P	D M R M D N R G S T	S A R D L L A T C S E Q E	L A D I F
UniRef90_Q47VQ1	R G G F F S F M K D G	P	D M R M D T S K G Q	T A A E W L A V A D V E	L T W V L
UniRef90_UPI0003B74C31	R G F F S Y A R D A	D	D M R M D Q S G G K	T A A D I L A E L S D V E	L A K I L
UniRef90_E4N9S3	D R G F F S Y S Q D A	P	D M R M D Q T R G I	S A E V L N T Y G H G D	L A R I I
UniRef90_UPI0003B6CFDE	D R G F F S Y K D G	P	D M R M D R R Q T L	S A K E L I N E W P E S E I Y H I I	
UniRef90_A0A023Y775	R G F F S F G K D G	P	D M R M D P D S G E	S A A Q W L N R V E E R E	L M D V L
UniRef90_F4LJ18	G R G F F S F R Q D E	P	D M R L N P D A G P	S A G D L V N S L S S A Q L A D D I F	
UniRef90_C8PT60	R G F F S F G A D E	P	D M R I N P D E S	L T A A D I I V N T Y S E E K K L A D D V I	
UniRef90_F9VKL0	D R G F F S Y R N G K	L	D M R M D T S Q S F	S A Y D I I N G Y D E E K L S Y I F	
UniRef90_R7KC07	R G F F S Y N N D A	V	D M R M N R D N Q L	T A K I V V N T Y S E Q D L T R I F	

	50	60	70	80
UniRef90_UPI000467A094	R V Y G E E R F A S R I A G E V R R R P F T T T A E L V E V L Y T A I P A			
UniRef90_UPI0003805581	R V H G E E R F A S R V A R A I E R R R P L D S T T E L A E L V R E A I P A			
UniRef90_D4W6Q5	R V Y S D E K F S K Q I A R A I E R Y R P I E T T T F E L V E I I K S A I P A			
UniRef90_R5SIX0	S E Y G E E R F S K R I A K K I V E V R P L R T T K E L A D I I A A T P R I			
UniRef90_K6WW63	H E Y G E E R F A R K I A G A V V R D R P F T T S A R L V E L L R R A I P A A			
UniRef90_UPI00036DB248	F E Y G E E R F A R R I A R A V I E S R P I T T T R Q L A D I V K A I G K S			
UniRef90_D1AY80	Y K Y G E E P K F A R Q I A R E I V R V R P I R T T Y D F V D V I K A I P A A			
UniRef90_R7D5V2	R V Y G E E K F A R Q I A R E I V R V R P I R T T Y D F V D V I K A I P A A			
UniRef90_H5SR10	R E Y G E E R W A A R I A K N I V R A A P I E T T S D L V K I I E R S I P A A			
UniRef90_D1C5B1	F E Y G E E P R R I A R A I V A R R E R P I E T T D H L A A I V E Q A V G G			
UniRef90_K2E3P9	S E Y G E E R Y R S K R I A R K I V E V R P I K T T I E L A N I V K F A V P K S			
UniRef90_S6HLW5	Y T Y G E E D K F G R R M A K A I V A E R P I E T T G H L A Q V V K D A N P A W			
UniRef90_K2GPX1	K E Y G E E Q Y A R S I V S S M K R R P F E T T F E L V E A I E S S V P G			
UniRef90_A8ZXZ1	R E F G E E R Y A R S R I A R R I V E A R P V T T S G Q L A R I V T D A Y P A K			
UniRef90_X0RZU0	K K Y G E E R F S K R I A R L I V T E R K I T T T K Q L A D I I K A I P P R T			
UniRef90_D0BLC5	Y Y Y G E E K F S K Q I A R N I E R L R Q I E T T T G E L V D I R D S I P A A			
UniRef90_UPI0004789472	R R Y G E E R F A R R I A A A V R A R P F D T S G R L V E L R G A I P A A			
UniRef90_A6FEY7	K V F G E E R F A R K I A R A V V F D R P F E T T S Q L A S L C R V V P A A			
UniRef90_R6BFZ9	Y R F G E E K Y S K S I A K S I I E N R P I N T T L E L A E I K N S V P P A A			
UniRef90_R5GMS6	R N Y G E E D K F A K N I A K H I V A A R P V E T T T G Q L I E I K A A I P P K A A			
UniRef90_UPI000413D68D	K T F G E E D K F A K N I A K H H V A A R P I Q T T G E L T E I I R R A I P M A A			
UniRef90_R5XMN0	R D Y G E E D K F A K N I A K H H V A A R P I S T T L R L A E I V A A V V R R K R K R			
UniRef90_Q0AJD3	R T Y G E E R Y A G Q I A S A I V A R Q P I S T T L R L A E I V A A A T P P A A			
UniRef90_F5VKQ5	K T F G E E E R F G K R M A R A L V A A R P I T T T S Q L A E V V A A A T P P A A			
UniRef90_UPI000463EE4	K E Y G E E R F G K R M A R A L V A A R P I T T T S Q L A E V V A A N P A W A A			
UniRef90_UPI0004672602	R E Y G E E R F A R R I A K A V V E R R P F D T S E R L V R L L Y D A V P A A			
UniRef90_B8FT64	W K Y G E E K W S K R I V E F I V E A R K I T T T G E L V D I I K R A I P A A			
UniRef90_D3PTH0	F R Y G E E P R A R R I A R F I V E H R P I H T T T Q L A E V V R R A T G F A A			
UniRef90_UPI0003B51D62	S E Y G E E R F S K Q I A R K I E K R E I E T T T E E L V E I I K S A I P A A			
UniRef90_UPI000478D967	F Q Y G E E R Y S R R I A R A I K Q A G L I E T T T G Q L A Q I V K E A H P K W A A			
UniRef90_H5UQH2	R D Y G E E R F A G R I A S A I V R G R P W A R S E R L V D L L R S V V P A A			
UniRef90_1XH1	K T L G E E E R Y G K R I A S A I V E T R P I T T T K Q L A D L V D K A S P A A			
UniRef90_D7BNA1	R V Y G E E K F A S Q R I A R A I V K R R P L E R T T F R E L A D L V R D T I P A A			
UniRef90_T0SYL7	K E F G E E K R I A Q R I A V D R E K K P I E T T F E L A E L I K Q C Y P A A			
UniRef90_D1Y635	R K Y G E E R F A W S I A G E I V K E R P I T S T A E L V E V I R R G I P A P A			
UniRef90_Q47QX7	R V Y G E E R F A F A R I A Q A I V R Q R P V V R T T G V L A D L V R R S A I P A A			
UniRef90_W0E5R3	R E F G E E R F A F R R I A S A V A E R P F V S S A R L A D L V R R R T I P A A			
UniRef90_F8AYC5	R H Y G E E R F A R R R I A S A V V E A R P F V S S A R L A D L V R R R A Q P G A A			
UniRef90_D7CY79	F R Y G E E R Y S R R I A R R I V E A R P I T T T D E L A E I I A R A Y P P G A A			
UniRef90_UPI00037E6192	W L Y G E E R F S R R I A R K I V Q I R P I E T T L Q L A H V V A Q A V P K A A			
UniRef90_E1HH2	F R Y G E E R G S R R I A R L I V E R R P F E R T T A D L A A L V A R A V G R G A A			
UniRef90_C1D1L8	Y E Y G E E D R R R I A R A I G Q R A R Q K P I E T T T V Q L A E I V K R A Y P G F G A A			
UniRef90_R5MG70	F N Y G E E K Q S R L R A S K I V A K R P I K T T L E L V S V I E S A V G A N P A A			
UniRef90_Q14NL6	Q D Y G E E P F A K V I A K N I V I A R E R I V T T T F H L V E V I K K S L P Q K A A			
UniRef90_D6E9N3	R A Y S D E K K W A S R I A D F I V R S R R I E T S E Q L V D V I K A A I P A S A A			
UniRef90_F7RZJ3	R T Y G E E R F A L Q R I A R A I I E Y R Q F T R T S E L A N L I A K V N P S A A			
UniRef90_UPI000419AD44	R T Y G E E R F A P R I A A A I V R R R P V E S T D A L A D L V R R A C C V P A A			
UniRef90_G0HEB8	S A Y G D E R F A G K I A S A V L R R R P F T T S G R L V E L L Y R T I P A A			
UniRef90_UPI00036AB8DA	R D W G E E R F A G R I A R A I V A Q R P I L R T T G E L V E V V R G A V P Q G A A			
UniRef90_M1M4J0	S N Y G E E R F A L Q R I A R A I I A Y R P F T S T F E L S C I S K A I P P A A			
UniRef90_W4LU37	R Q F G E E R W A R R I A Q A I V A E R P I A R T R T L A D L V A R S I P R A A			
UniRef90_K6UKL8	R D Y G E E R F A S R I A R A V V T E R P F E S S G R L V E L L Y R V I P A G F A A			
UniRef90_B7RSN0	K E Y G E E R F A S R I A R A V V K A R P I K T T L E L V S V I E S A V G A N P A A			
UniRef90_R5H276	R D Y G E E D K F A Q N R I A K H I V Q A R P I E T T T G E L N D I I R A A I P A A			
UniRef90_I0H149	R Q Y G E E K F A P R V V S A I V R R R R I T S T A R L A E L I K E A I P A A			
UniRef90_B8HT19	Y Y Y G E E R F A R R I A R R I V Q H R P I Y T T T Q L A S L V S R A L P S A A			
UniRef90_Q5X6J0	R A Y G E E R F A G R I A R A V D A R P I T T T L E L A E I V K E A N P K W A A			
UniRef90_Q3IFZ6	F H Y G E E K Q S R K R A R A I V K D R P F E T T L Q L A G I E R L P R K A A			
UniRef90_K2K762	F R Y G E E K Q S R K R A R A I V K D R P F E T T T F R L N E I I K A A I P A A			
UniRef90_UPI0004243152	R D F G E E D K F A K N I A K H I C I E R P I E T T T F R L V D I V R E A I P A A			
UniRef90_U1RAQ4	R A Y G E E R F A P R I A R L V A R R P L T T T Q G L V D I V R S R A V P A A			
UniRef90_X5MC08	K V L G E E R Q A K R I A R A I V R R R P F T R T A D L A D L V S R V I G G K A A			
UniRef90_L0DDM5	F E Y G E E R Y S R R V A K R I V E G R P I T T T G R L A E I V R K S I P G A A			
UniRef90_UPI0004754BDD	R E Y G E E K F A S R R I A R A I V R R R P F V T S A R L V Q L V Y D S V P A A			
UniRef90_W7UN95	F E Y G E E K F S R R I A S N I I R R R R P I E T T T L Q L A D I I R E S V P Q K A A			
UniRef90_R7GGJ6	Y R Y G E E K F A K Q I A F Q R H E K E I L S T T F E L V D I V K S A L P Q K A A			
UniRef90_W2BPS5	R A Y G E E P N A K R I A T A I V K R R P F E M S G R L V E V I A D S L P A A			
UniRef90_S2WGC8	R E Y G E E K F A H R I A T T V Q R R P L L R T G E L V D I V R S A I V P P N A A			
UniRef90_F0RYU9	F N F G E E R Y S R R I A R S I V E R R K I S T S E E L A S I I Y K A V P P N A A			
UniRef90_V5RWZ8	V E Y G E E H G F A R R I A K A I V Q A R P F H T T K E L A D L I L K Q H A A			
UniRef90_R5EP33	K V Y G E E N F A A K V A T A I V R R R P F E T T L Q L L S E F I K R V I G G K A A			
UniRef90_E0RS52	S R F G E E P F S R R I A R A I V S E R R P I T T S D H L A E E V V K R N V P L K A A			
UniRef90_D4JS20	F E Y G E E K F A H G I V S G I L K A R P I K T T L E L A E I V R K A L G Y K A A			
UniRef90_UPI00026CDC4D	W K L G E E P R R R F A R R I E H D R Q Q R P F E T T G Q L A G L I E R L A P R A A			
UniRef90_B9XI4	R N W G E E K F A S R R I A R A I C T A R R P L E T T G E L V R I I Q K A V P V A A			
UniRef90_D2NU66	F E F G E E R F A R R I A R A I V E Q R P L S T R Q L A E L I V N S V P P V A A			
UniRef90_G4SWP1	K T F G E E R F A R R I A F A K K I V D Y N K L T R T L Q L A E L I A Q T V P A A			
UniRef90_U1S802	R K Y G E E I R I A R A I A E K R K D T P I K S T T Q L A A L V A G A L P G G A A			
UniRef90_Q2LR39	R N Y G E E P R R R F A R R I E H D R Q Q R P F E T T G Q L A Q A V E R V V P G G A A			
UniRef90_B4D203	R N Y G E E P A A R K I A A H L V R R R P F R T T L Q L A Q A V E R V V P G G A A			
UniRef90_A8HZ68	W T L G E E R F S R R I A R A I V N A R R P I T T R T Q L A D V S K V V W A K A A			
UniRef90_N9TR06	S N Y G D V K F P L E I A K S V I K N R P I N S S F E L N E I I K T S L P A W A A			
UniRef90_K1ZRT0	Y Y Y G E E R Q R A R P I A A A I C E Y R K I E G T K Q L V S V A H A V P P K A A			
UniRef90_Q47VQ1	R T F G E E K H A A W R I A N A I V D T R P L T R T S Q L A K L I K T T A P A A			
UniRef90_UPI0003B74C31	R E A G E E K F A A R K I A R E I V R V R P I L T S S A Q L V E I V R E A I P A A			
UniRef90_E4NS3	K V Y G E E R F A G K I A S A V L R R R P F T N S A R L V E L V R N A I P A A			
UniRef90_UPI0003B6CFDE	R D Y G E E D K F A R N R I A K H I C I E R E I E T T G E L D R I I V H E S I P A A			
UniRef90_A0A023Y775	W T Y G E E R Q G R R I A K A I V A R R R P F T R T A E L A E L I A S V M P R G A A			
UniRef90_F4LJ18	Y I Y G E E R Y S R R I A A A I E R E R K I E T A A A L A D V Y R S V P A A			
UniRef90_C8PT60	Y L Y A E E R F R S R P I A A V V A R R P F T E R A R Q L S E T V F H A V P A A			
UniRef90_F9VKL0	K V Y G E E K Y H R I A N K I V E S R R I S T T H D L V K L I D E V I P K F A A			
UniRef90_R7KC07	K L Y G E E K F A R N R I A N N I V N K R R K I N T T L E L V S I I K E A V P P K A A			

90 100

UniRef90_UPI000467A094	A T R R T G G H P G K R T F Q A L R V E V
UniRef90_UPI0003805581	A T R R T G G H P A K R T F Q G L R I E V
UniRef90_D4W6Q5	P A R R K G G H P A K R T F Q A L R I A V
UniRef90_R5SIX0	K S N H P A T R V F Q A I R I E V
UniRef90_K6WW63	S Q R S G G H P A K R T F Q A L R I E V
UniRef90_UPI00036DB248	F R E K H K H P A T R T F Q A I R I E V
UniRef90_D1AY80	M K K H P A K R T F Q A I R I Y V
UniRef90_R7D5V2	A R R H G K H P A R R S F Q A I R I E V
UniRef90_H5SR10	V R Y K S R I H P A T R V F Q A L R I A V
UniRef90_D1C5B1	R R G R A I H P A T R T F Q A L R I A V
UniRef90_K2E3P9	S F K I H P A T R V F Q A I R M K V
UniRef90_S6HLW5	E K G K H P A T R A F Q A I R Q V
UniRef90_K2GPX1	E Y R R K K I H P A T K T F Q A L R I E V
UniRef90_A8ZXX1	E R H T A K I D P A T R V F M A L R I A V
UniRef90_XORZU0	K K R H T G I H P A T R V F Q A I R I E V
UniRef90_D0BLC5	A A R R K G G H P A K R L F Q A V R I A V
UniRef90_UPI0004789472	A A R R T G G H P A K R T F Q A L R I E V
UniRef90_A6FEY7	K S K K E T K H P A T R S F Q A I R I Y V
UniRef90_R6BFZ9	I S Y R N K S H P A R K V F Q A I R I E V
UniRef90_R5GMS6	K V R A T G G H P A K K T F Q A I R I E V
UniRef90_UPI000413D68D	V K D K F K H P A T R S F Q A I R M Y I
UniRef90_R5XMN0	K I Q A A G G H P A K R T F Q A V R I E
UniRef90_Q0AJD3	G H R D D R Q H P A T R T F Q A I R I H
UniRef90_F5VKQ5	V K D K F K H P A T R T F Q A V R I W V
UniRef90_UPI000463EEF4	E K G K H P A T R A F Q G I R I H V
UniRef90_UPI0004672602	P S R R T G G H P A K R T F Q A L R I E V
UniRef90_B8FT64	A R R E G P H P A K R T F Q A L R I A V
UniRef90_D3PTH0	R S A G H P A R K S F Q A L R I Y V
UniRef90_UPI0003B51D62	P A R R K G G H P A K R T F Q A L R I A V
UniRef90_UPI000478D967	E K H K H P A T R S F Q A I R I A V
UniRef90_H5UQH2	S Q R S G G H P A K R T F Q A L R I E V
UniRef90_11XHI1	T R D K F K H P A T R T F Q A I R I F V
UniRef90_D7BNA1	P A R R K G G N P S K R T F Q A L R V A V
UniRef90_T0SYL7	K L R Y G R I N P A T K C F Q A L R I E V
UniRef90_D1Y635	V M R K M N G H P A R K V F Q A L R V A V
UniRef90_Q47QX7	A A R R S G G H P A K R A F Q A L R I E V
UniRef90_W0E5R3	R R E P G K H P A T R T F Q A L R I Q V
UniRef90_F8AYC5	A T R R N G G N P A K R T F Q A L R I E V
UniRef90_D7CY79	P R R D H P A R R T F Q A L R V A V
UniRef90_UPI00037E6192	R E P G K H P A T R S F Q A I R I K V
UniRef90_E1HH2	G R E R I H P A T R T F Q A L R I A V
UniRef90_C1D1L8	S K G I H P A R R T F Q A L R I H V
UniRef90_R5MG0	Y F Y K N H P E R K I F Q A I R I E V
UniRef90_Q14NL6	I L K K A K H P A K R V F Q A L R I E V
UniRef90_D6E9N3	A R R A G G H P A K R T F Q A L R I E V
UniRef90_F7RZJ3	R E K Q K H P A T R V F Q A I R I H V
UniRef90_UPI000419AD44	A A R R T G G H P A K R T F Q A L R V A V
UniRef90_G0HEB8	A T R R T G G H P A K R T F Q A L R V E V
UniRef90_UPI00036AB8DA	A Q H R K G H P A K Q T F Q A L R I E V
UniRef90_M1M4J0	I R E K C K H P A T R S F Q A L R I H I
UniRef90_W4LU37	A W P T H I H P A T R T F Q A L R I A V
UniRef90_K6UKL8	S R K T G G H P A K R T F Q A L R I E V
UniRef90_B7RSN0	E R H K H P A T R A F Q A I R I K V
UniRef90_R5H276	K M R E K G G H P S K R T Y Q A I R I A V
UniRef90_I0H149	A A R R T G G N P A K R T F Q A L R I E V
UniRef90_B8HT19	R S Q S I H P A T R V F Q A I R I A V
UniRef90_Q5X6J0	E K H K H P A T R V F Q A I R I H V
UniRef90_Q3IFZ6	V K D K F K H P A T R T F Q A I R I Y V
UniRef90_K2K762	K P G Q S H P A T R T F Q A I R I A V
UniRef90_UPI0004243152	K M R E K G G H P S K R T Y Q A I R I A V
UniRef90_U1RAQ4	P A R R T G G N P A K R T F Q A L R V A V
UniRef90_X5MC08	P Q R I H P A T R V F Q A L R I Y V
UniRef90_L0DDM5	K K W G P I D P A T R V F Q A L R I R V
UniRef90_UPI0004754BDD	A S R R S G G H P A K R A F Q A L R I E V
UniRef90_W7UN95	A R R E K N P C K K T F Q A I R I A V
UniRef90_R7GGJ6	V L K Q K G H P A K Q V F Q A L R V A V
UniRef90_W2BPS5	A V R H R G G H P A K R V F Q A L R I E V
UniRef90_S2WGC8	P A R R T G G N P A K R T F Q A L R I A V
UniRef90_F0RYU9	Y R Y G H I H P A T R T F Q A I R I E V
UniRef90_V5RWZ8	R G S W Q K I H P A T R T F Q A L R I E V
UniRef90_R5EP33	P T P K H K A T R C F Q A L R I A V
UniRef90_E0RS52	K A R R G R I H P A T R V F Q A L R I V V
UniRef90_D4JS20	V R K E K N P C K K T F Q A I R I E V
UniRef90_UPI00026CDC4D	P H D K K D P A T R T F Q A I R I H I
UniRef90_B9XIH4	H G K K A H P A T R V F Q A L R M A V
UniRef90_D2NU66	A A Q R T G G H P A K R T F Q A L R I E V
UniRef90_G4SWP1	V R E K H K H P A T R T F Q A I R I A V
UniRef90_U1S802	F K D K H K H P A T R S F Q A I R I F I
UniRef90_Q2LR39	F R H K K I H P A T R T F Q A L R I Y I
UniRef90_B4D203	R H S R T H P A T R V F Q A L R I A V
UniRef90_A8HZ68	P G E M H P A T R T F Q A L R I A V
UniRef90_N9TR06	Y I R Q K N P S K Q V F Q A I R I A V
UniRef90_K1ZRT0	R F H P K R I H V A T K V F Q A L R I A V
UniRef90_Q47VQ1	Q R E I K K H P A T R S F Q A I R M Y I
UniRef90_UPI0003B74C31	P A R R T G G N P A K R T F Q A L R I A V
UniRef90_E4N9S3	A T R R T G G N P A K R T F Q A L R I E V
UniRef90_UPI0003B6CFDE	K M R T K G G N P S K R T F Q A I R I A V
UniRef90_A0A023Y775	K D K I H P A T R S F Q A I R I H I
UniRef90_F4LJ18	A Y R H G A I H P A T K T F Q A L R I A V
UniRef90_C8PT60	R F R H G P I H P A T K T F Q A L R I A V
UniRef90_F9VKL0	E I K K R G H L S K K V F Q A L R I E V
UniRef90_R7KC07	E R L K K H P A K Q I F Q A I R I E V

	1	10	20	30	40
UniRef90_C4K744	R G F S F M R D G P	L D M R M D P S R G L	S A A E W L M K V N V E N L	A W V L	
UniRef90_A2BUE8	R G F S F Q K D G P	L D M R M N P L I K M N A E N L	E T L L S E K D L A D L I		
UniRef90_G6EZU8	R G F S F R F D G P	L D M R M S R T G K T A A D L V N S L	S E T E S E L A D V L		
UniRef90_A0YHM6	R G F S F L R D G P	L D M R M N T D A G M S A A E W V A T A T E S E I	A R V L		
UniRef90_A0P5J9	R G F S F R L D G Q	L D M R M N Q D H L E T A A D L V N S Y	D E A E I I Y I L		
UniRef90_UP1000377E181	R G F S F L R D G P	L D M R M D P T Q G E T A A E W L S R A K E A D I	A W V F		
UniRef90_F2JVX6	R G F S F M N D G P	L D M R M N P D Q G M S A A E W I A V A A E K E I	A D V M		
UniRef90_UP100020D9855	R G F S Y N Y D A E L	L D M R M D Q R Q A L T A K I V N E W P F N D L	L R V L		
UniRef90_K2HFR1	R G F S F L R D G P	L D M R M G A D G P T A A D I V N S A D E G E I	A D L L		
UniRef90_UP100041B3D33	R G F S Y N N D A P L	L D M R M D Q R Q E L T A R E I V N E W P L E E L	Y H I I		
UniRef90_L1PM81	D R G F S Y S H D A P L	L D M R M N P Q T G L S A A Q L L A S A K E E I	T R I L		
UniRef90_A5VDD4	D R G F S F Q A D G P	L D M R M E K S G M S A A D F V N T A D E A E I	A D V L		
UniRef90_R7G1K3	S R G F S Y L S D S E L	L D M R M D R N R P F S A K D V V N G Y P E E K L	R Y I I		
UniRef90_C5BW67	G R G F A Y A Q D A P L	L D M R M D P T T G P T A A D D L L A D A D E A E I	R R I I L		
UniRef90_UP100025598A4	D R G F S F I N D G P L	L D M R M D T S S G E S A A D W I N R A S E T E I	A D V M		
UniRef90_G7UWA9	R G F S F G K D G P L	L D M R M D P D S G Q S A A Q W L A R A D E G E I	A D V L		
UniRef90_A7NIA2	R G F S F Q A S A P L	L D M R L D P D A P M T A A N L V N D L P E R D L	A D L I		
UniRef90_UP1000467B379	R G F S F F M K D G P	L D M R M S Q Q G Q T A A D I V N T A D E A H I	A D I L		
UniRef90_UP1000360A309	R G F S Y S H D A P L	L D M R M D R S R G L T A S E I V N T Y E P G K L	V Q I L		
UniRef90_E2CKF2	R G F S F L R D G P	L D M R M E Q E P S A A D V V N E L S V R D L	I R I I		
UniRef90_E1SMJ7	R G F S F L R D G P	L D M R M D N S R G E T A A E E W L A R A E A N D I	A W V L		
UniRef90_R5QEJ5	S R G F S F R F E G P	L D M R M D T S C G E T A A E E W L A R A S V E E I	A E V L		
UniRef90_V4FCH1	R G F S F L Y D A P L	L D M R F G D Q T S F N A A D D L V N S L A E N D L	A N I I		
UniRef90_M4RQQ9	D R G F S Y S H D A P L	L D M R M D V T Q E L T A A Q V L V A Q Y D E R D L	V H I F		
UniRef90_F4HCG8	R G F S F M Q D G P L	L D M R M D T D T K G L S A A Q W L Q Q V S E S D L	A W V L		
UniRef90_K9D9S2	S R G F S F R N D G P L	L D M R M D T T R G M S A A E W I A S A E Q L Q L	E K V I		
UniRef90_R5YQX2	R G F S F H K D A P L	L D M R M S M E G M S A A D D L V N T A S Q S E L	Q K I I		
UniRef90_UP100047B9706	R G F A F L H D G P L	L D M R M N P D V G M S A A D D W L A Q A P M R E I	A D V I		
UniRef90_R9IQB3	G R G F T Y R N E A P L	L D M R M D N R Q E F T A K D L V N T Y S E M E I	Y R V I		
UniRef90_B0RI49	R G F S Y S Q D A P L	L D M R M D G T A G L T A A Q V V A E Y D E L E I	R R I I F		
UniRef90_UP1000406C0CF	R G F A Y S F D A P L	L D M R M D S S E G Q T A A D D V V N Q Y P L Q Q L	R T I I		
UniRef90_UP10003B72CED	S R G F S F Q N D G P L	L D M R M D P S S G V S A A D D W L A R A D E A E I	A D V L		
UniRef90_F7V7W6	S R G F T Y R E D A P L	L D M R M D Q R Q S L T A R D I V N G Y S E A E E I	C R I I		
UniRef90_G2DCL0	R G F S F L Q D G P L	L D M R M D P N S G M S A A Q W L A A A T D K E I	A D V L		
UniRef90_D5BW18	R G F S F L Q D G P L	L D M R M N P A V G Q S A A E E W L A S A T E K E I	A A V L I		
UniRef90_E8UXP2	H R G F A Y A Q D A P L	L D M R M D T R S G E T A E Q V V N Q A D E E E L	A N L I		
UniRef90_UP100035D6EF8	D R G F A Y A Q D A P L	L D M R M D Q T T G A G A A E V L N T Y P P G E L	V R I I L		
UniRef90_R5E9C3	R G F T Y R E D A P L	L D M R M D Q R Q E M T A K D I V N E Y P E M E I	Y R V I		
UniRef90_C3KCS2	R G F S F M N D G P L	L D M R M D P T R G V S A A Q F I A T A P V V E E I	A R V F		
UniRef90_F8E9K5	R G F S F R K S G F L	L D M R M D S S D E L T A Y E V V V N N Y P K E T L	I N I L		
UniRef90_D3Q769	R G F A Y A Q D A P L	L D M R M D Q S Q G M T A A E E V V N S Y A E R D L	S R I I L		
UniRef90_R5N879	R G F S F H K D A R L	L D M R M N R E K E L D A Y K I V V N E Y S F D D L	N R I I		
UniRef90_Q7WFR5	R G F S F M R D G P L	L D M R M D T T R G P T V A D W L A Q A S V D E M R E V I	V I		
UniRef90_W7IVS5	R G F S F A Y A R D A P L	L D M R M D P T T G P T A A D D V L N T Y S H G D L	L A R V L		
UniRef90_UP1000478351F	R G F S Y S R E A P L	L D M R M D P T T G P S A A D D V L N T Y A P G D L	V R V L		
UniRef90_K2KBX4	R G F S F M R D G P L	L D M R M D T S S G E T A A D D W L N R A E A D T I I	A R V L		
UniRef90_A3SX63	R G F S F M R D G P L	L D M R M S Q D G P S A A D I V N E A E E E V I I	A N I I L		
UniRef90_F2NVR1	G R G F S F R H D E E L	L D M R L N A D T K E S A T D L V N E M P E D E L	L A N M I		
UniRef90_UP1000475A5AF	R G F S F M Q E G P L	L D M R M N H Q E G E S A A E E W L A R A E E Q E I	S R V I		
UniRef90_Q83HJ6	D R G F S Y M K S G P L	L D M R M N E S D K L T A K E I L N G Y S E T A L I	R I F		
UniRef90_U7P0T8	R G F F S F L R D G P L	L D M R M D P T R G E S A A A F I A R A D E G E L I	A R V F		
UniRef90_B6J5L7	R G F S F S K D G P L	L D M R M D P K Q S M D A A S W I N Q Q A A M E D L	R R V L		
UniRef90_W0BG43	R G F S F M Q Q G P L	L D M R M D S N Q E D A A H F V N Q A E E Q E M A L V F F			
UniRef90_UP1000472F795	R G F G F S G D G P L	L D M R M D P D S G M S A A E E W I A T T S E S E M A R V F E			
UniRef90_H3NY76	R G F G F S M K D G P L	L D M R M D T R S G M T A A E E W I A S A P E Q E I	A D V I		
UniRef90_Q0F4W6	R G F G F S F L K N E P L	L D M R M G Q S G M S A A D I V N S V E E K V L L A D L I			
UniRef90_X1LWX8	G R G F S F Q K Q D G P L	L D M R Y S P Q N P T A E K K I V N Y W S K S E I E K I I			
UniRef90_UP1000263011F	R G F S F Q R E D F L	L D M R M A G E G M S A A D D W L N S A D E G E I I	A D I L		
UniRef90_B4U8T1	S R G F S F S H D G P L	L D M R M D K R Q Q K T A Y I V I N T Y K E K E L	A D I F		
UniRef90_M2W5W1	R G F S Y H D G P L	L D M R M D L S Q S T T A W Q V V N Q S S E E A L L G N I I			
UniRef90_R7L0V8	R G F S Y H N D A P L	L D M R M S K E G T S A R D I V N E Y S K E Q E L	T K I I L		
UniRef90_R5A5C3	R G F S Y H D A P L	L D M R M S Q E G P S A K D L V N T L E E R E L A D I I			
UniRef90_S0G2G1	H R G F S F N R D E P L	L D M R M D T R Q N M T A E I I V N T F S Q Q A L V D L F			
UniRef90_E8T5S6	R G F T V W K E Q P L	L D M R M D R S S Q K L T A K E I V V N E L S E R E L A R I I			
UniRef90_F9ZZQ7	R G F S F L R D G P L	L D M R M D T N H G L T A A Q Y L I A Q V T E Q D L V K V L			
UniRef90_D5CP31	S R G F S F R F D A P L	L D M R M D T S R Q T A A E E W L A T A D E G E L I A E V I			
UniRef90_UP10004794511	R G F S F M A E G P L	L D M R M D T R R G E T A A Q V V N E A S E R E I A D L I			
UniRef90_B6IRH0	S R G F S F R F D G P L	L D M R M G S H G T T A A D I V N E R D E A E I I A D I V			
UniRef90_Q4A667	R G F S Y L K N S A L	L D M R M D Q S Q K L S A Y D V V N L S P V E K L E Y I I L			
UniRef90_B2JHG8	R G F S F F R A D G P L	L D M R M D P T R G E S A A D D W L A R A T T V Q E M T E V I			
UniRef90_M1LUR2	R G F S F L H K G P L	L D M R M D T T R G I S V A K W L E K A D L I R K V I			
UniRef90_F6D9R6	R G F S F M R E G P L	L D M R M N P A A G I L S A K D W L I A V E E A K I A Q V L I			
UniRef90_E1YBU6	R G F S F K N T E P L	L D M R M N T D S I D N A G N L I N K L D E V N L W K L I			
UniRef90_E3GE20	R G F S Y H H D G P L	L D M R M D S G A E L S A Y E V V N A Y P P E R L K K V L			
UniRef90_T2G809	R G F S F L H D G P L	L D M R M N Q H D D P S A L E L V N H A S A E V L K E I I I			
UniRef90_G8LZ58	R G F S Y N K D A P L	L D M R M D R R R Q K L T A E T I V N E Y S K E E E K K I I			
UniRef90_FOGWT9	D R G F S Y M K D G P L	L D M R M N Q N G E N E L T A E I I V N E Y S Q D E L E K I F			
UniRef90_I6XSA3	R G F A Y R V D A P L	L D M R M S R G E G E R S A A D D L L N S A P P V E L V R I I L			
UniRef90_UP1000477D61C	R G F S Y R L E G P L	L D M R M G E G E L T A G E V V V N T F E L E E I A D I I L			
UniRef90_UP10001DD1130	D R G F S F A G D G P L	L D M R M D P L P S A A D D F L N S A D E A E I I A D V I			
UniRef90_D8PBB1	R G F S F R E D G P L	L D M R M D M Q R E G R T A A D D L V R D L P E T E L A D L I			
UniRef90_Q5GTH5	D R G F S F L H D G P L	L D M R M D N D S H T N A S T F V N A L R E E E I A N T I			
UniRef90_UP10002F073BA	R G F S F Q K D G P L	L D M R M D P S L A N A G E L I N N L N E K E L A D L I			
UniRef90_U7JT97	R G F A Y S V D A P L	L D M R M D Q S D G P T A A E L L N T A D A D E L T R I I L			
UniRef90_F2NG78	G R G F S F K G K E P L	L D M R M D N P D Q T T A A D D L L N T E P E A Q L S R M F			
UniRef90_R7IUL4	N R G F S Y L G N N E L	L D M R M D K T Q S L T A K K V V N T Y S E E E L A N I I			
UniRef90_Q3A2F8	R G F S F Q S D A P L	L D M R M D T S A G M T A A D D V V N A L S P E E E L A R I F			
UniRef90_J3Z5R6	R G F S F M R N G P L	L D M R M D N T R G Q S A A Q W L E Q A T E E E I M R V L			
UniRef90_UP100029AD7C1	R G F S F L R D G P L	L D M R M D P R S G I S A A E W I Q T V R E E E D M V R I F			
UniRef90_UP1000428A480	R G F S F S K T A R L	L D M R M D Q T Q S L D A Y E I V V N D Y P Y E A L V G I F			
UniRef90_V4PGB9	D R G F S F M R D G P L	L D M R M S V T G K S A A D D V V N F D A K E D I A H I I			
UniRef90_W6F9Y7	D R G F S Y S H D A P L	L D M R M D V S Q N L T A E R I L A D Y D M A S L I R V F			

50 60 70 80

UniRef90_C4K744	K N F G E E R F S T R L A R A I I V E R N P I K S T K E L A D L I S H V I P		
UniRef90_A2BUE8	F K F G D E E R K I S R K I K K D L K E K G K Y S G T K D L A Y S I A G C F P P		
UniRef90_G6EZU8	F H Y G E E E R F S R R I A K A I V N R R P F E T T Q D L A S L I Q R T I P		
UniRef90_A0YHM6	K E F G E E E R F A K R M A R A I I K E R P I E T T L H L A K V V A E A H P A W		
UniRef90_A0P5J9	K V Y G E E E R F A K R I A R S I V A H R R I E K T I Q L A Q I I N K A V P K		
UniRef90_UP1000377E181	K T Y G E E E R F A K R M A R A I V E R R P I T R T G E L A E L L K A A H P A W		
UniRef90_F2JVX6	Y Q Y G E E E R F S R R I A K A I C E K R P I T T T A Q L S K I V A E A N P A W		
UniRef90_UP100020D9855	S R Y G E E D R F A K S R I A R K I E Q Y R E I E T T F E L V D I I K D A I P A		
UniRef90_K2HFR1	Y H Y G E E D R A S R R I I A R A I V A D R P F T R T T Q L A A L I E R V L P R R		
UniRef90_UP100041B3D33	R D Y G E E D G F A R N I A C M E R E K K P I E T T L E L D R I V H E A I P A		
UniRef90_L1PM81	R V Y G E E E K F A S K I V A G R I V A T R P I T R T S Q L A Q I V R D C I P A		
UniRef90_A5VDD4	H D L G E E E P R A R R V A R A I V Q A R P I T T T S E L A E V V R R A L G H K		
UniRef90_R7G1K3	D T Y G E E E K F A R K I I A E N I C K A R P I E T T G E L V V K I V D E S I P Y K		
UniRef90_C5BW67	R T Y G E E E K F A P R I I A A A I V R R R P I R R S S D L V V E V V R G A L P M S		
UniRef90_UP100025598A4	Y Q Y G E E E R F S R R M A R A I V E Q R P I T T T A R L A K I I S E A N P R W		
UniRef90_G7UWA9	F N Y G Q E E R M S R R I A R T I V A R R P I T T T A Q L A E L I I A S V M P R A		
UniRef90_A7NIA2	F R Y S E E E R R R I I A R A I V E A R Q R P I T T T D E L A E I I V S R A L G G		
UniRef90_UP1000467B379	F H Y G E E E R A S R R I I A R A I I L R A R P I T T T L R L A E I I V E G C L P R A		
UniRef90_UP1000360A309	R T Y G E E E K F A T R I V E N I V K A R P I N S T T E L A T L I I K E S I P A		
UniRef90_E2CKF2	G V L G E E E K K R A T T H A I D N A R K I E K G P F T R T G E L A A L I V E K V L G R S		
UniRef90_E1SMJ7	K T F G E E E K F A R P I I A R K I V E H E P M D R T S H L A G L I E K M T P K H		
UniRef90_R5QEJ5	A D F G E E E K R F A H R I I A R A I V E A R P I I T T T G A L A K L V E A A V P K		
UniRef90_V4FCH1	W K Y G E E E K Y S R K I I A R I C Q N R P I I N T T F E L A N L V K K A Y G		
UniRef90_M4RQQ9	K T Y G E E E K R F A R Q I I A H A I V Q E R P I I T T S G Q L N R L V D R V V P		
UniRef90_F4HCG8	K T F G E E E K F A F K I I A R N I V Q T E P I I T R T L Q L A Q I I A Q S I P		
UniRef90_K9D9S2	R D Y G E E E K R Y A F Q I I A K A I V A R R P I I S G T R Q L A A I V A S A V		
UniRef90_R5YQX2	Y T Y G E E E K F A P S I I A R N I V K A R P I I E T T F E L V D I I K A S M P M K		
UniRef90_UP100047B9706	R K F G E E E K R F A H R I I A R A I V E A R P I I L R T R Q L T A L I I E R A V P A		
UniRef90_R9IQB3	R E Y G E E E D K F A K N I I A K H I I V A A R K I I E T A G E L T E I I R A A I P A		
UniRef90_B0RI49	Y D Y G E E E K I A P R Y A S R I V Q A R P I I T T S A R L V E I I Q Q A T P A A		
UniRef90_UP1000406C0CF	R R W G E E E K G R I I A E A I I A A A R A D E P I I T T T G Q L V V E I I R S V V P A A		
UniRef90_UP10003B72CED	Y T L G E E E R N S R R I I A K K I I V E S R P I I K T T A Q L A A L I I A S V P G P R		
UniRef90_F7V7W6	R E Y G E E E R F A R S R I I A K N I I V Q A R P I I V T A G Q G L N A V I I R R S I P A		
UniRef90_G2DCL0	K R Y G E E E R H A R R I I A R A I I V A A R P I I L T T G R L A E I I V S A A N P A W		
UniRef90_D5BW18	K T Y G E E E R F C C R R I I A R A I I V Q A R P I I T R T K Q L A E V V A K A N P S W		
UniRef90_E8UXP2	Y E F G E E E R R S R R I I A R A I I V R A R P I I R T T A E L A K V I I S V A A P S M		
UniRef90_UP100035D6EF8	R A Y G E E E K Q A K R I I V A A I V R E R E P F T H T S A R L V E I I R D A L L P Q		
UniRef90_R5E9C3	R D Y G E E E K F A K N I I A K H I C M A R Q I E T T F E L N D I I K A A I P I		
UniRef90_C3KCS2	K E Y G E E E R F A G R M A R A V V E R R P F E R T A D L A E V L K V A N P A W		
UniRef90_F8E9K5	K K Y G E E E P F A G R I I A D S I V K K R K I I E S T S E L A S V I I S E A I P K		
UniRef90_D3Q769	R I Y G E E E R F A P R I I A K S I I V A Q R P I I E S S R E L A D L I I R D A V P A		
UniRef90_R5N879	R D Y G E E E K Y S F S I I A R D I I V E K R K I I E T T F E L V D I I K D A V V P M K		
UniRef90_Q7WFR5	A D Y G E E E R F A F Q V I A K A C C R A T R P I I H T T L Q L A E C V A G A V		
UniRef90_W7IVS5	R D Y G E E E R F A G K I I A K A V L V I E R P F T T S A R L V E I I L Y S V L P A P		
UniRef90_UP1000478351F	R D Y G E E E R A A A R R I I V E A V V R A R P I I R T S A E L V A L L E E Q A I P A		
UniRef90_K2KBX4	K V Y G E E E R F A G R I I A R A I I V H D R P F T R T K Q L A D L I I A R V S P		
UniRef90_A3SX63	F Q Y G E E E R A S R R I I A K A I I V R A R P I I T T T L Q L A D L I I F N A V P		
UniRef90_F2NVR1	Y L Y S D E K Y S R I I A S A I I V S A R K I I V S T K A L L A D I I I A A A C P R S S		
UniRef90_UP1000475A5AF	W E Y G E E D R F S R R I I M A R A I I V R E R P I I V T T K R L V S Q L I I R D V C P P H		
UniRef90_Q83HJ6	R D Y G E E D R Y A K R I I A R Q I C K A R E I V T T C Q V L A N D I I V V K A H P A W		
UniRef90_U7P0T8	K E Y G E E E R Y A R R I I L A R A I I V A R R P F E R T A D L A E V L K T A H P A W		
UniRef90_B6J5L7	W N Y G E E E R F A K R I I A Q A I I V N A R P I I T R T Q E L S D I I V K A Y P		
UniRef90_W0BG43	K Q Y G E E E R Y R A K R I I A H A I I V H A R P I I L T T Q A L A D I I V K E A N P K W		
UniRef90_UP1000472F795	K V Y G E E E R F A K R I I L A R A V C E R R P F T R T A D L A E V L K T A H P A W		
UniRef90_H3NY76	K T Y G E E E R F A K R M A S A I V K V R P I I T G T R Q L A S I I A E A N P K W		
UniRef90_Q0F4W6	Y L Y G E E E R A S R R I I A R N I I V K S R K F E T T F Q L V K V I I E A S L P R P		
UniRef90_X1LWX8	R E Y G E E E R F A K R I I A E K I I V E V R P I I K T T F Q L V K V I I E A S L P R P		
UniRef90_UP1000263011F	F H Y G E E E P R A R R V A K F I I V E V R P I I T R T T S E L A A V I V R R A L L G Y R		
UniRef90_B4U8T1	Y K Y G E E E R L S K K I I A R S I I V E K R P I I E T T K E L V D I I V S S C Y P		
UniRef90_M2W5W1	R E L G E E E R K W K R I V A A V K E R Q R N P I I N T T C Q V L A N I I V C N A K K E		
UniRef90_R7L0V8	Y E Y G E E E K F A P R I A E T I I K R R P I I V E T T T E L A D I I V R D S I P A K		
UniRef90_R5A5C3	F R Y G E E D R S A R R I I A Q G C Q A R E I I E T T A Q L A E I I K E S I V P A		
UniRef90_S0G2G1	F S F G E E E K F S R R I I A G A I I V R E R A L I K T T R Q L S Q I I V V D T V P K A		
UniRef90_E8T5S6	F R Y G E E E K F A R K I I A S E I I V K R R P I I E T T T E L A S I I V E E V I P K K		
UniRef90_F9ZZQ7	F E Y G E E E R F A K R I I A K A I I V E R Q P I I Q T T L Q L A K L I I E D S V P		
UniRef90_D5CP31	R D Y G E E E R F A R Q I I A R A I I V A A R Q I I L T T T K Q L S D I I V A Q C V		
UniRef90_UP10004794511	Y E Y G E E E R R S R R I I A R A I I V R G R P I I V T T T G Q L A Q I I V R A A A P A M		
UniRef90_B6IRH0	W R Y G E E E R H S R R I V A R A I I V A R R P I I T R T T L D L A E I I V R S V V P K S		
UniRef90_Q4A667	K T Y G E E E V K N Y K Y I I A S K I I I V E A R P I I N T T L E L A N L I I K S V T P Q K		
UniRef90_B2JHG8	R D Y G E E E R F A F Q I I A K A L I V A R R P I I V S T G E L A Q I I V A N V V		
UniRef90_M1LUR2	F E Y G E E E R F A T K I I A K E I I V A R R P I I C T T T D L V D C V S S V V H K N		
UniRef90_F6D9R6	K H F G E E E R F A Y K I I A R H D A K A G L V N T T T K D L L A D L V S R V V P K		
UniRef90_E1YBU6	R D Y G E E E P W A R N I I A R N I I V K A R K I I K T N A E L V K I I S D S I P K K		
UniRef90_E3GE20	Q V Y G E E E R F A G R I I V N A I I I K E R P I I E T T L E L S E L I I K A A Y P A K		
UniRef90_T2G809	R D L G E E E P K I I A R A I I A S R I R V A P F E T T A D L A E A V I S L A Y P P Q		
UniRef90_G8LZ58	K E Y G E E E K W A S R I I A D F I I A E R R K I I E T T G E L V E I I K A A I P S S		
UniRef90_FOGWT9	F E Y G E E E K F S K L I I A K N I I I K A R E I I D T T F K L K D I I V T K S I		
UniRef90_J6XS43	R H Y G E E E R F A E R I I V A A V V E E R P I I F K S S G R L V E I I S N A I P A		
UniRef90_UP1000477D61C	R S Y G E E E N R A Y R I I A R H I I V A S R P I I R T T T Q L L A E I I V R K A T G F R		
UniRef90_UP10001DD1130	Y Q Y G E E E R Q S R R I I A R A I I V A A R P I I L E T T T G Q L L A R L I V R K A T G H K		
UniRef90_D8PBB1	Y Q L G E E E R Y S R R I I A R A I I V Q A R M I I A T T W Q L L A V A V V E R A V P A S		
UniRef90_Q5GTH5	Y N Y G G E E R H S R R I I A R A I I V N A R K I I K T T F E L L A N L V R S V V		
UniRef90_UP10002F073BA	Y K Y G E E E R K I I A R K I I K R D L I E E K G S Y K S T R E L L A Y A I I G G C F P P R		
UniRef90_U7JT97	R G W G Q E E R F T D R I I V R A I I V T A R P I I T T S G Q L L V G I I T E A I P P V		
UniRef90_F2NG78	W E L G E E E R W A R R I I A R N I I V R A R P I I L I T T N Q L L V E V I I L R S L L P P		
UniRef90_R7IUL4	Y E Y G E E E R F S R Q I I A K N I C I A R E I I E T T E E L V V K I I E K S M P A F		
UniRef90_Q3A2F8	R E Y G E E E R Y A R R I I A R R K V I R A D E P I I M T T R Q L L A E I I V R D A V P G G		
UniRef90_J3Z5R6	K I F G E E E R F A K R I I A Q T V Q Q K S I I T H T S E L L A S L I I L G A V P		
UniRef90_UP100029AD7C1	KEY G E E E R Y A K R I I A R H L I R N E T S I I T T T K Q L L A D I I V S E A H P H W		
UniRef90_UP1000428A480	F R Y G E E E K F S K K I I A R N I E R L R Q I I E T T E E L V L A E I I I K S Q I P P Q		
UniRef90_V4PGB9	W L Y G E E E H K S R G I I A A A I V K R R R P F E R T L D L A E E V V E R A L G G		
UniRef90_W6F9Y7	R E Y G E E E R F A R Q I I A R E I I V S R R P F T T T G Q L L N A L V E D V V P		

90 100

UniRef90_C4K744	V R N H H K H P A T R S F Q A I I R Y I
UniRef90_A2BUE8	K Q R Y R K I H P A T R T F Q A L R A V
UniRef90_G6EZU8	T D K S K I N P A T R S F Q G L R A V
UniRef90_A0YHM6	E R G K H P A T K A F Q A I R Y I
UniRef90_A0P5J9	R E P G K D P A T R T F Q A L R K V
UniRef90_UPI000377E181	E K G K H P A T R A F Q A M R H I
UniRef90_F2JVX6	E K G K N P A T R A F Q G I R Y I
UniRef90_UPI00020D9855	P A R R K G G H P A K R T F Q A L R V A V
UniRef90_K2HFR1	K P G Q S H P A T R S F Q A L R A V
UniRef90_UPI00041B3D33	K M R T R G G N P S K R T F Q A I R A
UniRef90_L1PM81	P A R R T G G N P A K R S F Q A L R A V
UniRef90_A5VDD4	P H E K K D P A T R T F Q A I R H
UniRef90_R7G1K3	F K Q N G H P A K K T F Q A I R E V
UniRef90_C5BW67	A Q R T G G H P A K R T F Q A L R A V
UniRef90_UPI00025598A4	E K G K H P A T R A F Q G I R H I
UniRef90_G7UWA9	R P G K S R I H P A T R S F Q A I R H I
UniRef90_A7NIA2	R R G R I H P A T R T F Q A L R A V
UniRef90_UPI000467B379	K P G Q I H P A T R S F Q A L R V A V
UniRef90_UPI000360A309	A T R R T G G N P A K R T F Q A L R E
UniRef90_E2CKF2	P K K A Q I H P A T R T F Q A L R Y I
UniRef90_E1SMJ7	K R D Q G K H P A T R S F Q A I R Y I
UniRef90_R5QEJ5	N R R D A A Q H P A T R T F Q A V R Q V
UniRef90_V4FCH1	N Q Y S Q I H P A T R T F Q A I R A V
UniRef90_M4RQQ9	K A H R P A G N P A K R V F Q A L R E V
UniRef90_F4HCG8	L K E K H K H P A T R S F Q A I R F I
UniRef90_K9D9S2	K G R E K G K D P A T R T F Q A I R F I
UniRef90_R5YQX2	A K R D G H P A R K T F Q A L R E V
UniRef90_UPI00047B9706	R E R H K H P A T R T F Q A L R H I
UniRef90_R9IQB3	K V R M S G G H P A K R T F Q A I R E
UniRef90_B0RI49	V Q R A G H P A K R V F Q A L R E V
UniRef90_UPI000406C0CF	A A R S G G H P A K R T F Q A L R E V
UniRef90_UPI0003B72CED	S F K I H P A T R A F Q A L R Y V
UniRef90_F7V7W6	K A R E H G G H P A K R T Y Q A I R E
UniRef90_G2DCL0	E K G K H P A T R S F Q A I R F I
UniRef90_D5BW18	E P G R H P A T R S F Q A I R F I
UniRef90_E8UXP2	K S D K I H P A T R T F Q A L R R V
UniRef90_UPI00035D6EF8	A A K R T G G N P A K R T F Q A L R E V
UniRef90_R5E9C3	R A R S A G G H P S K R T Y Q A I R E
UniRef90_C3KCS2	E K G K N P A T R A F Q G L R H V
UniRef90_F8E9K5	K F H K H G Q N P A T K S F Q A I R F I
UniRef90_D3Q769	A T R R R G G N P S K R T F Q A L R E V
UniRef90_R5N879	A T Y K R E H H P A R K T F Q A I R E V
UniRef90_Q7WFR5	R T R E K G Q H P A T R T F Q A L R Y I
UniRef90_W7IVS5	S L R T G G H P A K R T F Q A L R E V
UniRef90_UPI000478351F	A S R R T G G H P A K R T F Q A L R E V
UniRef90_K2KBX4	I R D K H K H P A T R S F Q A I R H V
UniRef90_A3SX63	K P G Q S H P A T R S F Q A L R A V
UniRef90_F2NVR1	K Y K Y G N I H P A T R T F Q A L R L V
UniRef90_UPI000475A5AF	T K E K G K H P A T R A F Q A I R H V
UniRef90_Q83HJ6	I R K R G H P A K R V F Q A L R E V
UniRef90_U7P0T8	E K H K H P A T R V F Q A L R Q V
UniRef90_B6J5L7	Q R E I K K H P A T R T F Q A I R F I
UniRef90_W0BG43	E K H K H P A T R V F Q A I R Y I
UniRef90_UPI000472F795	D K F K H P A T K A F Q A I R F
UniRef90_H3NY76	E P N K H P A T R A F Q A I R F I
UniRef90_Q0F4W6	K P G Q T H P A T R T F Q A L R A V
UniRef90_X1LWX8	R Y Q P Q K I H F A T R T F Q A L R T V
UniRef90_UPI000263011F	P H D K D P A T R T F Q A V R H I
UniRef90_B4U8T1	Y K Y S K I N P A T K V F Q A L R E V
UniRef90_M2W5W1	R A R Y R K I H P A T L T F Q S L R F V
UniRef90_R7L0V8	F R R D K N P C K K T F Q A I R A V
UniRef90_R5A5C3	A V R R A E G H P A R K T F Q A L R A V
UniRef90_S0G2G1	Q A A A S K I H P A T R V F Q A L R A V
UniRef90_E8T5S6	L W A G R K K H P A V K T F Q A I R Y V
UniRef90_F9ZZQ7	F K D K Y K H P A T R A F Q A I R E I
UniRef90_D5CP31	R T R E P G K N P A T R T F Q A V R Y I
UniRef90_UPI0004794511	K Q D R I H P A T R T F Q A I R Y V
UniRef90_B6IRH0	K D G I D P A T R T F Q A L R A V
UniRef90_Q4A667	L L K L K N P A K N V F Q A I R E V
UniRef90_B2JHG8	K T R E K G K D P A T R T F Q A I R H I
UniRef90_M1LUR2	E K G K H P A T R T F Q A L R Y I
UniRef90_F6D9R6	K D K H K H P A T R T F Q A I R A V
UniRef90_E1YBU6	I Q Y K Q K I H P A T R V F M A L R A V
UniRef90_E3GE20	E R F K E K H P A R K S F Q A I R L E V
UniRef90_T2G809	R R R M A R N H P A T R T F Q G L R M A V
UniRef90_G8LZ58	A R R E G P H P A K R T F Q A L R A V
UniRef90_FOGWT9	K S N E A R P E K R V F Q A L R E V
UniRef90_J6XS43	A A R H S P G H P A K R T F Q A L R A V
UniRef90_UPI000477D61C	E A G H P A R R T F Q A L R Y V
UniRef90_UPI0001DD1130	P H D K K D P A T R T F Q A I R H V
UniRef90_D8PBB1	Y R H G R I H C A T R T F Q A L R A V
UniRef90_Q5GTH5	F R G K S K I D P A T R T F Q A I R W V
UniRef90_UPI0002F073BA	K R Y Q R I H P A T R T F Q A L R G V
UniRef90_U7JT97	A A R H Q G G H P A K R T F Q A L R A V
UniRef90_F2NG78	K T G M K R I H P A T R V F Q A L R A V
UniRef90_R7IUL4	K K E G H P A K R T F Q A I R E V
UniRef90_Q3A2F8	H V P S R I H P A T R V F Q A L R H V
UniRef90_J3Z5R6	F R R K H R H P A T K S F Q A I R Y I
UniRef90_UPI00029AD7C1	E K H K H P A T R V F Q A I R W I
UniRef90_UPI000428A480	K F R R T G G H P A K R I F Q A L R A V
UniRef90_V4PGB9	R R G A A V H P A T R T F Q A L R A V
UniRef90_W6F9Y7	K A H R P A G N P A K R V F Q A L R E V

	1	10	20	30	40
UniRef90_J1H4S7	R G F S Y H Q D A P L	D M R M S Q Q G T S A A D L	L V N T L T W Q E L A R I		
UniRef90_S9QRD6	R G F S F Q K D G P L	D M R M G Q S G E T A A D L	V N R L D A T A L A D I		
UniRef90_B1XT01	H R G F S F R R E G P L	D M R M N T D S H G L T A A E D L	V N R L E Q A S L E E I T H	V I	
UniRef90_I4VXL1	R G F S F M A D A P L	D M R M D T S C G E S A A E F L	A H A S E R E E I M D V		
UniRef90_UPI00016C54DC	R G G L S F R R D D G P L	D M R L D P T S G S T A A D D M	V N S L S E G A L A D E	V F	
UniRef90_Q3SM1	R G F S F R F D A P L	D M R M D P G S G I S A A D W L	A T A E E F L P F N E E I S E	V I	
UniRef90_R6R1N0	R G F S Y H H D A P L	D M R M S K N G T T A D D V	V N T L P F N E E I C K		
UniRef90_K2EMA4	S R G M S F L A D A P L	D M R L D R Q K E L K A G D I	V N N Y S Q G E E L K R I		
UniRef90_UPI000381690C	R G F A Y S Y E A S L	D M R M D R T Q D L T A A D D	V V N T Y S A A E E I T R I		
UniRef90_B2lGF2	R G F S F R G E G P L	D M R M E S R G P S A A D D L	V N T A D E E Q R L A D I	F	
UniRef90_A5CX97	R G F S F R V D G P L	D M R M N Q T T G M S A T Q W L	K S A N E E E I A N V		
UniRef90_R6CKU8	R G F S Y H A D A P L	D M R M S S E G M S A K D L	V N T W S Y E D D I R R I		
UniRef90_V4ND13	D R G F S F M R D G P L	D M R M A V D G L S A A D D I	V N D W A E V D I A H	V I	
UniRef90_F8F1Y4	G R G F S F R K S E A L	D M R L D P S F G P S A A D D L	V M Q L S E R E D E L A D I		
UniRef90_UPI000479D45A	S R G F T Y L K D T S L	D M R M N Q N S M L T A K D I	V N T Y E K D E D L A Q I	F	
UniRef90_UPI0002E7944A	R G F A Y S F D A P L	D M R M D S E A E F T A E T D	V V M L T P E K E D E L A D I		
UniRef90_H9UKX8	D R G F S F R A D E P L	D M R L R P G Q G E S A R E D	V V M L T P E K E D E L A D I		
UniRef90_B8DSU7	R G F S Y A H D A P L	D M R M D T S Q A L T A R E I I L	A T Y D A D R K I A H	F	
UniRef90_R7K7M9	S R G F S Y M R D S A L	D M R M D R T Q S L T A K E I I L	N E Y D E R K I F E I	V I	
UniRef90_Q7VE18	R G F S F R L N G P L	D M R M N P K K G L K A D E L L	E K T E E K A L A D E L		
UniRef90_R5V731	R G F T Y R S D A P L	D M R M D K R Q R L T A R D D	V N D Y S E A E D I F F R I		
UniRef90_UPI00036996BE	R G F S F Q S D G P L	D M R M D P D S G E S A A A W L	A R A P E D D I A R V		
UniRef90_C1DTV7	R G F S F Q R E E P L	D M R M D T S S E L T A Y Y V	V V N Y P E S E R I F N		
UniRef90_B5Y8C1	R G F S S I K N P G P L	D M R F S I D Q K V T A Y E L	V N S L S E E Q D L A D I		
UniRef90_U2T6Y1	S R G F S Y R E D A P L	D M R M D P D D T L T A E E V	V N T Y N E A D E L A R I		
UniRef90_UPI000366F00F	R G F S F L R E G P L	D M R M D T S W G K T A F D L L	R T L S E D E D I A E L F		
UniRef90_A5UZS9	R G F S F Q A H A P L	D M R L D P D A P V T A A H	V N N L P E Q E K A I A D I		
UniRef90_U7G2A4	R G F S F L R D G P L	D M R M D P T S G E S V A Q W L	A R A E E K A I A D D V		
UniRef90_A3YUH1	R G F S F R L D G P L	D M R M N S A E G E T A A E L	L M D R V E E K D I A D I		
UniRef90_UPI0002DA0D69	R G F S Y A R P A P L	D M R M D Q D S G P T A A E I I L	I L A I A D A A E E L T R I		
UniRef90_FORML7	R G F S Y H S E A A L	D M R M S Q S G P S A A D L V	N D L E E A E E L A A L		
UniRef90_U1YXY9	R G F S Y A H D A P L	D M R M D P T V G L T A A D V	L N T Y D E R A E L T R I		
UniRef90_A6P1P7	S R G F S Y M A D A P L	D M R M D Q S E A L T A R T D	T V V N E W P Q E E E R I		
UniRef90_R6AV40	R G F S F M S D A A L	D M R M D K N G K L T A K D V	V V N N Y S L D E E T R I	F	
UniRef90_UPI00037C7A8F	R G F S F R A D A P L	D M R M D T S S G I S A A Q F L	A S A D E R K I A D V		
UniRef90_S3JY20	G R G F S F R S D E A L	D M R L S P A E G K T A A D L	V N N L R A P E A D A D I		
UniRef90_UPI0003B38649	D R G F S F M R D G P L	D M R M S Q S G P S A A D L V	N S A P E A V L A N I		
UniRef90_X1FA97	R G F S F R G S A P L	D M R V D R S Q K I T A A Y L	V N N L S A A E E L E D I	F	
UniRef90_E1QM96	R G F S F M H D G P L	D M R M G Q S S G P G A A E L	V A D S D Q N R R L T A F		
UniRef90_UPI0003B3ABCD	R G F S Y S K D A P	D M R M D H T S E L T A E R I	L E Y S E H D L R R I		
UniRef90_U5QP14	D R G F S F W R F E A P L	D M R M N Q A V G E T A A D L	I N T S S A D E D I S D L		
UniRef90_F2PAP7	R G F S F M R D G P L	D M R M D P T S G Q S A A E W L	A E A E A D D I A W V L		
UniRef90_E0MJH3	R G F S F L R D G P L	D M R M E Q S G P S A A D V V	N L L P R N D D L T R V I		
UniRef90_UPI0003761510	R G F S Y S K D A P	D M R M D G T S E L T A A T V L	A E Y S E A D D I L R I	F	
UniRef90_A51YG2	R G F S Y S K D A R L	D M R M N T N Q A L D A H	V N T Y S E D E D I L I		
UniRef90_F8GE33	S R G F S F R S A G P L	D M R M D T S S G Q T A A E W L	A T V T E D Q L E W V I		
UniRef90_E6J857	R G F A Y S V D A P L	D M R M D P T T T G P T A A D I I L	A E Y P R D E D I A R V I		
UniRef90_G8QMT5	R G F S F R F D A P L	D M R M D T T R G E T A A E W L	A R A D E D E I I A E V I		
UniRef90_W6AA02	D R G F S F Y R F D S E L	D M R M D Q S N Q L T A K S I V	N N W S L S D E I I R I F		
UniRef90_UPI000364BEB4	D R G F S F N K D G L	D M R M D Q S Q R Q L T A T E W L	K E T S E K E D I I R I F		
UniRef90_A8GVV6	D R G F S F L H D G P L	D M R M S G Q Q G L S A E E F I	I N T A E E K D E I I A D V I		
UniRef90_D1CCK7	R G F S F R R D E P L	D M R F D P T S G K T A A D I I I	R E S S E Q E D L A R I		
UniRef90_W6K800	R G F S F R F D A P L	D M R M G D E G P T A A D L V	N R L P R E A E D I I A D V I		
UniRef90_LOGYF2	R G F S F I G D G P L	D M R M D P G D G E A A C Y	D W L A R A D Q A E E I T R V I		
UniRef90_K0CGS5	S R G F S F L R D G P L	D M R M D P G S G E S V A D W L	A R A D E K D I I A D V I		
UniRef90_UPI0003B4F271	R G F S Y S K D A P	D M R M D D T A E F T A A E I I V	V A T Y S E A D D I R R I	F	
UniRef90_D1NSW3	R G F S Y S H D A P L	D M R M D D T T Q P L T A Q T I	V A T Y S E A D D I R R I		
UniRef90_A0A059G8T3	R G F S F M K D G P L	D M R M G A A G P T A A D V V	N T M S E R D D I I A N I I		
UniRef90_UPI00035DB2C5	R G F S F M R E G P L	D M R M N P E A G L S A E Q W L	A Q V E E K T D I I M K V		
UniRef90_I9W263	R G F S F R F D G P L	D M R M D T T R G E T A A E W L	A T A D E R E I I A R V V		
UniRef90_A0A031JYC6	R G F S F M R F D G P L	D M R M S Q D G M S A A D F I	D E A Q I D E I I A D V I		
UniRef90_K1ZIA1	G R G F S F K K A E Y	D M R M D Q S Q G L T A A D I V	N S S S K V D E E K I		
UniRef90_UPI0003B63AB7	R G F S F A K D G P L	D M R M A Q S G D S A A D L V	A T A S E A T E D I I A D V I		
UniRef90_UPI00039ECDC1	R G F S F R R D G P L	D M R M S Q D G P S A A D L V	A K L S D T D E I I A N L I		
UniRef90_V5FGM7	R G F S F M K D G P L	D M R M D P T S G I P V S K W L	M E A D I D E I I T W V I		
UniRef90_V7PYG7	R G F S F M K D G P L	D M R M D P T S G I P V S K W L	M E A D I D E I I T W V I		
UniRef90_C7MBE8	R G F S F K K D E P L	D M R M D T M K K D P N I T A Y I	V N T W G E K T D I I A D V I		
UniRef90_A3UEB6	D R G F S Y A V D A P L	D M R M D T S S D P T A A D L L	R D L P E A E E I A R I		
UniRef90_L9UCY9	R G F S F Q K D G P L	D M R M S Q S G P T A A D A V N	H L E A H E I I A A I F		
UniRef90_E6YWC1	R G F S F M R D G P L	D M R M D P T Q G Q S V A D F L	A R A S E A D D I A Y Y V		
UniRef90_N2B7K2	R G F S F Q K D G P L	D M R M G Q Q G F T A A D V V	N Y L R A D D I A Q L F		
UniRef90_UPI0003AB271C	R G F T Y R E D A P L	D M R M D D R Q K L T A K D I V	N E Y S E K E R E E L F R I		
UniRef90_J2FXM1	R G F S F S Q E D G P L	D M R M G N L S G I L S A Y Q	V V N E Y E Y E R E E L R D V I		
UniRef90_UPI0003B334EA	D R G F S F M R D G P L	D M R M G D D G P T A A D L V	H L D H T E D I I R D V I		
UniRef90_Q6MEG4	R G F S F S Y H D A P L	D M R M D I S S Q P L T A A E I I I	R T Y S Q Q D E E A E I		
UniRef90_O85295	R G F S F S K D G P L	D M R M N P E G K L T A A D D I I	V N T W S E H D L G K I		
UniRef90_B0TGB2	R G F T Y R M D A P L	D M R M N P H A G I S A S E E W	F K S D I N K I Y F V		
UniRef90_UPI00036FE130	R G F S F L K D G P L	D M R M N P E S A L T A S K L L	N E A P E G E E I I A R I		
UniRef90_D4XUX8	N R G F S F Y N K D A K	D M R M N M G Q S K L L A S D I	V N K F N K E E R E E L R D V I		
UniRef90_UPI0004247273	S R G F S F R A D G P L	D M R M D T S Q E L D A E I I V	V N T Y S V E H R D V I		
UniRef90_UPI0003B349D9	R G F S F Y N N E G P L	D M R M G R E G P T A A D D I I	V N A M P E A E E I A D V I		
UniRef90_A3VY72	R G F S F M R D G P L	D M R M D F Q N K I T A S K V I	N K Y S E H E R R L A K I F		
UniRef90_UPI0003343073	R G F S F L K D G P L	D M R M S Q D G P T A A D D V	N T D E A E L A D V I		
UniRef90_Q057T6	D R G F S F M K N G L	D M R M D T S Q E L D A E I I V	V N T Y S V E H R D V I		
UniRef90_G2E031	G R G F S F G A D G P L	D M R M N T T G I P A W K W L	K K S S S Q K E I I E K V		
UniRef90_E8PK29	R G F S F Q Y R E G P L	D M R M D P E R G G L S A A D D W L	A K A D E S E E I I A S V		
UniRef90_A0A011U0K8	D R G F A Y S R D A P L	D M R M G E E G P T A Y E V V	A T Y G E G D R L R R I		
UniRef90_UPI000465AC09	R G F S F F R F D G P L	D M R M D Q T A G T T A A E I I V	N T F K A G D R L M M N L F		
UniRef90_M6X6A8	G R G F S F F R E S E L L	D M R M A Q S G M S A A D D V V	N T Y P K D R L V Q K L		
UniRef90_A0A014NQ98	R G F S F S K D G N L	D M R L N P N S G K S A E E I I L	N T Y P K D R L V Q K L		
UniRef90_Q012S8	R G F S F M N D G P L	D M R M D T S Q S L D A S E W V	N Q Y S E E E K I G R I		
UniRef90_K1T6L0	R G F S F H M D A P L	D M R M S K E G K S A A D D V V	N T Y S E N E G Y R I		

50 60 70 80

UniRef90_J1H4S7	S Q Y G E E K S A V R I A K G I V A A R E E I T T T L Q L A E I V V R Q S V P A
UniRef90_S9QRD6	F T Y G E E E R A S R R I A R A I V K A R P I L E T T T G R L A E I V V E S S C L P R P
UniRef90_B1XT01	K T Y G E E E R F A F Q I A R A I V A K R P P K T T T Q L A S L V V S S V V G R
UniRef90_I4VXL1	W N F G E E E R H G R R I A R A I V A D R P F T R T Q G Q L A A L C E R V V V G R
UniRef90_UPI00016C54DC	W E Y G E E E R R R V A K K I V A R R A E R P F A T T A D L A S V V R S C V P
UniRef90_Q3SM1	R T Y G E E E R F A K P I A R A L V A A R Q I T S T A Q L A G I I V A A A V P A K
UniRef90_R6R1N0	T L Y G E E E K F A K S I V R A I E Q R R P I E T T L E L A E I V A N A Y P A K
UniRef90_K2EMA4	K D Y G E E E R F A G I I A K K I A D H R K I E T T G E L V E I I R Q A V P Q K
UniRef90_UPI000381690C	R D Y G E E E R F A A A R I A Q T I V R E R R I D S T R L L A D L V R E A I P A
UniRef90_B2IGF2	Y Y F G E E E R R R I A R A I V T D R A H T P F T T T R Q L A E L I A R V N P G K
UniRef90_A5CX97	Y Q F G S N E E K K S R H I A N K I K K Y Q K L E T T L E L A N I V S K V V P
UniRef90_R6CKU8	Y D Y G E E E K F A P A I A K A I V A A R P I E T T G E L A E L V K S S V P Q R
UniRef90_V4ND13	W L Y G E E E H R S R A I A A A I V R R R A F E R T L D L A A V V E K A V V G G
UniRef90_F8F1Y4	Y Q N G E E E R Y S R R I A H A I V E A R R I E T A D M L A S I I E G A V P V S
UniRef90_UPI000479D45A	F K Y G D E E E N G F K I A N E I R R R P L E T T F D L L V N I C D K
UniRef90_UPI0002E7944A	R N W G E E E R F A P R A I V A A R A V K P L K T T G E L L V D V V K S A V P M
UniRef90_H9UKX8	F R Y G E E E R Y S R R I A R S L V E R R K F A T A A E L A E A V F Q A V P V
UniRef90_B8DSU7	K E Y G E E E R F S K P I A K R I V Q Q R P L E T S S Q L T A L V D A V I P A
UniRef90_R7K7M9	R D Y G E E E K F A S K I A K N I V A F R P I E T T G Q L N D L I D A S I P L S
UniRef90_Q7VE18	Y K Y G E E E K R I A R K I K Q D L S A N G P Y E G T S A L A Y A I A G C Y P P
UniRef90_R5V731	R D Y G E D E R F A K N I K A H I V Q A R P I E T T G E L N A I I R G A I P M
UniRef90_UPI00036996BE	K D Y G E E E R F A R R I A R R I V E A R T P I E T T G Q L A D L V A A A V P P
UniRef90_C1DTV7	S K Y G E E E K F A K R I A K N I V E Y R K I E T T K E L L A D I V Y R S Y P P N
UniRef90_B5Y8C1	Y R Y G E E E R R A R K I A K N I V E A R P I E T T D E L D L V A R T V G
UniRef90_U2T6Y1	R I Y S D E E R F A S R I A H A I V H A R P I E R T T L Q L A D I V R R A I P A A
UniRef90_UPI000366F00F	F R F G E E E R Y A R R I A R A I V R Y R P V A T T T E L S E L V A R I I V P P
UniRef90_A5UZS9	F R Y G E E E R G S R R I A R A I V E A R P V T T T D E L L A A I I V T R A I L G G
UniRef90_U7G2A4	Y R Y G E E E R R R I A R R I C E V R G E Q P I T R T L Q L A E L I E S V L G R G
UniRef90_A3YUH1	Y A Y G E E E R L S R R I A R R I V E A R P W R G T A A L A Y L V A G C Y P P
UniRef90_UPI0002DA0D69	R V Y G E E E R F A P R I A Q A I V A R R P L A R T D E L A E L I V R D A I P A
UniRef90_FORML7	Y E Y G E E E K H S R R L A R A I V A A R P I E T T T E L L A D I I K R A Y P G F
UniRef90_U1YXY9	R D Y G E E E R F A Q R A V V R R E Q Q P W E R S A D L V D L V R A S I P A
UniRef90_A6P1P7	F Q F G E E E R P A I A A A I V A R A R E K A P I E T T L E L V D D I I R S A M P A H
UniRef90_R6AV40	R E Y G E E E D F S R P I A K N I V S S S R P I E T T M E L V K I I E E S V P K K
UniRef90_UPI00037C7A8F	W Q Y G E E E R M S R R I A R A I V A R R P I L A R T L E L A E L I E R T L G R
UniRef90_S3JYZ0	Y R F A D E E R F S R R I A H A I E K S R P F T S A K Q L A D E C I Y A A V P A
UniRef90_UPI0003B38649	F Q L G E E E R D S R R I A R R I V E T R K P T T T L Q L A E A I E K A V V G G
UniRef90_X1FA97	L R L G E E E R R A R R V A E F V V R E R Q L K T T W D L L V E V V R K A I P A E
UniRef90_E1QM96	R D L G E E E P R R Y A Q A V I E A R R Q G P I V S T G R L A A V I E A S T P A A
UniRef90_UPI0003B3ABCD	Q E Y G E E E K R Y A K A I A S A R S H T P F T R S A E L V A V I T A V T P V A
UniRef90_U5QP14	W R Y G E E E R F S R R I A R R I V E H R P L T R T R Q L A S L I V A S A V P G
UniRef90_F2PAP7	K E F G E E E R F A K R I A R G I V E H R P L T R T R Q L A S L I V A E V S P
UniRef90_E0MJH3	G I L G E E E R Q A S R V S A Q I D R A K R P F E T T L Q L A S L I V E K V L S R K
UniRef90_UPI0003761510	R E Y G E E E K R Y A S R I V E S R E R E P L V R S R G Q L V D L I I K A T P V A
UniRef90_A51YG2	Y N Y A E V K L A K Q V A N A I I K N R P I N T T L E L A E V I K S A Y P A K
UniRef90_F8GE33	K E Y G E E E R F A R Q I A R A I I M A R P I V T T L Q L A E I I A A V I R P
UniRef90_E6J857	R V Y G E E E R F A K Q I A K K I V A E R P V A T T T R Q L A A L V A E A V
UniRef90_G8QMT5	R D Y G E E E R F A K Q I A K K I V A E R P V A T T T R Q L V E I I K S G L P Q K
UniRef90_W6AA02	R D F G E E E T Y A V K I A N R I I E A R E I Q T T F E L V E I I K S G L P Q K
UniRef90_UPI000364BEB4	Y Q Y G E E E K R S R I A S T I K E Y Q K I K T T L E L A N L I S T V V K P
UniRef90_A8GVV6	Y K Y G D E E T F S R R I A K K I V E V R K I D S T G K L A D I V H S C I G
UniRef90_D1CKK7	W E Y G E E E P K S R Q I A R A I K S S R P I T T V Q L V Q A V E S V Y
UniRef90_W6K800	Y Q Y G E E E R R R I A R A V C T D R V Q T P F E R T G Q L A D L V K R V V G R P
UniRef90_LOGYF2	R D Y G E E E R F A T R I A A A I V R E R P L A T T C Q L A A L V E E A A V P
UniRef90_K0CGS5	Y R F G E E E R K S R R I A R A I V A R R P L R T T R Q L A D L I E S V L G K G
UniRef90_UPI0003B4F271	R D Y G E E E K L A D R Y A R R I V A E R P I L R S R G Q L V D I I Q A A T P A K
UniRef90_D1NSW3	K D Y G E E E R F A R Q I A R R I V Q R R P F E T T T Q L A E V V K A A S P R
UniRef90_A0A059G8T3	F R L G E E E K Q A R R I I A R H I V Q R R P F E T T T Q L A A D A V E V A V G G
UniRef90_UPI00035DB2C5	R E Y G E E E K F A G R I A R A I K E T E A L Q T T T Q L A E V V K A A S P R
UniRef90_I9W263	R D Y G E E E R F F A V Q I A K A I V A R R P V A T T A D L A A L V A Q A V
UniRef90_A0A031JYC6	Y L Y G E E E R Q S R R L A R A I V A A R P L E T T G D L A R V V R K A L P A Y
UniRef90_K1ZIA1	R E Y G E E E S F S K K I A R A I V E R E V E T T T N E L A D L V C E V V P R G
UniRef90_UPI0003B63AB7	Y H Y G E E E R A S R R I A R A I V A A R P I T K T L Q L A A I I S A N L P R P
UniRef90_UPI00039ECDC1	Y R F G E E E R R A V K A I I L A R A E E A P I E R T L Q L A D I I V S K V V W A K
UniRef90_V5FGM7	R E F G E D K H A W R I A K A I V A Y R P L R T R T Q L A K L I S D A A P K S
UniRef90_V7PYG7	Y G F G E E E Q F S R R I A K A I V L R R K I K T T F D L V E I I E N A V P L F
UniRef90_C7MBE8	R D L G D E E R F A K R I A R R V V Q Q R P L T R S G E L V A L L E R A I P A
UniRef90_A3UEB6	K V Y G E E E R H A R R A A N A I V R A R P I T R T L V L A D I I G R A V G G K
UniRef90_L9UCY9	K T Y G E E E R Y R A K L A R A V V T R R P F T H T V D L A E V L K V A H P A W
UniRef90_E6YWCV1	K T F G E E E R Y A V R I A R M I E K R P F L R T D L A A H I E S L I G R K
UniRef90_N2B7K2	R D F G E D K F A K N I A K H I V R E K E I L T T G E L L C A V I R A A I P M
UniRef90_UPI0003AB271C	F H Y G E E E R G S R Q I A K A I I E N R P I E T T G E L L C A A I I K E I V P P K
UniRef90_J2FXM1	Y V Y G E E E H R R I A S F I V K R R E E R H F T R T L D L A S V I E R A L G G
UniRef90_UPI0003B334EA	K L Y G E E E R F S R N I A R A I V Q S R P V T S A Q L A N A L L V D R V I P
UniRef90_Q6MEG4	R D Y G E E E K K W A A R T I V Q A R Q V K Q I L T T T D L A N L L K P A F A
UniRef90_O85295	K N F G E E E R F S K R I A Y A I C K K K K I N N T F E L L V D I I K K A T P
UniRef90_B0TGB2	R D Y G E E E R W A K R I A Q F I V K R R P L E R T G E L L V D I I R A A I P A
UniRef90_UPI00036FE130	F N L G D E E R H A K K I A K N I V K H R K I K N T H E L S E I I N K S I F F H
UniRef90_D4XUX8	L K Y A D V K H A S Q V A K A I E K N R P I V S T M Q L V E I I K S A Y P A A
UniRef90_UPI0004247273	F E Y G E E E R L S R R V A R A I V A A R K I E R T L Q L A E I V R R V V P R S
UniRef90_UPI0003B349D9	R E Y G E E E V K R L A R E I I A S K R K V K I E T T T Q L L F Q I V E K L F R W
UniRef90_A3VY72	Y L Y G E E E R A S R R I A R A I V K A R P I E S T L Q L T G I V E R C L P R S
UniRef90_UPI0003343073	R T Y G E E E K H A K K I A S A I I Q A R P I S R T Q Q L A S I V A G A F P P S
UniRef90_Q057T6	R K Y G E E E R Y S K K I I Y N R N K K K T I T Q T L D L V Q I I K K A I P K I
UniRef90_G2E031	Y E L G E E E R R R I A R A I V A A R E T P I L T T S Q L A D L V A R S V
UniRef90_E8PK29	R D L G D E E K Q A H R I A K A I V E R R P I R T T L E L A E V V R Q A V V G F
UniRef90_A0A011U0K8	E R Y G E E E K R Y A R A I I S A R A D A I E R S G Q L V D L L V A A T P V A
UniRef90_UPI000465AC09	G F L G D E E R H R I A R M I E T R R E K K P F E R T L D L A D A I E T H I G R K
UniRef90_M6X6A8	Y T Y G E E E R W S K K I A E V I V E T R K I I S T T S E L L A N L I S K I I P R
UniRef90_A0A014NQ98	Y K Y G Q V K F A R Q A K A I I E N R P I K T T F D L T K V K K V I P A L
UniRef90_Q012S8	R D Y G E E E R H W R A K R I C E R R A A K A I T T T R E L L V D A L G N V
UniRef90_K1T6L0	R D Y G E E E R Y A K S I A K N I V R E R E I I S T T F E L C N I I K M S M P Q R

90 100

UniRef90_J1H4S7	A V R R E P G H P A R K T F Q A L R Q V
UniRef90_S9QRD6	K P G Q S H P A T R S F Q A L R A V
UniRef90_B1XT01	R T R E A G Q D P A T R T F Q A L R F I
UniRef90_I4VXL1	R E P G K H P A T R T F Q A L R R V
UniRef90_UPI00016C54DC	R S G S D P A T R V F Q A L R A V
UniRef90_Q3SM1	K K R E P G Q H P A T R S F Q A I R Y
UniRef90_R6R1N0	A R R D G H P A R K T F Q A L R A V
UniRef90_K2EMA4	H Q H G K H V A T K T F Q A L R E I V
UniRef90_UPI000381690C	A T R R T G G N P A K R T F Q A L R E I V
UniRef90_B2IGF2	P G D H P A T R V F Q A L R A V
UniRef90_A5CX97	K K Q K N K H P A T R T F Q A I R F I
UniRef90_R6CKU8	V R R E K N P C K K T F Q A L R A V
UniRef90_V4ND13	R R G D K V H P A T K T F Q A L R A V
UniRef90_F8F1Y4	Y R Y G A H P A T R T F Q A L R A V
UniRef90_UPI000479D45A	I N Y K R K G H S A K K V F Q A L R A V
UniRef90_UPI0002E7944A	S A Q H K K G H P A K Q T F Q A L R E V
UniRef90_H9UKX8	A Y R H G R H P A T K T F Q A L R V V
UniRef90_B8DSU7	A R R G S G N P A K R V F Q A L R E V
UniRef90_R7K7M9	V R K K G G H P A K R T Y Q A L R A V
UniRef90_Q7VE18	K M R N G R H P A T R T F Q A L R A I
UniRef90_R5V731	K V Q V T G G H P S K R T Y Q A I R E
UniRef90_UPI00036996BE	T R E R H K H P A T R T F Q A I R H V
UniRef90_C1DTV7	L R H S R H P A T K T F Q A I R E V
UniRef90_B5Y8C1	Y Y R G R H P A T R V F Q A L R A
UniRef90_U2T6Y1	A R R H G G H P A R R T F Q A L R E V
UniRef90_UPI000366F00F	R R R I H P A T R V F A L R A V
UniRef90_A5UZS9	Q R G R H P A T R T F Q A L R A V
UniRef90_U7G2A4	E P G K H P A T R S F Q A L R H I
UniRef90_A3YUH1	K A R H G R H A A T R T F Q A L R A V
UniRef90_UPI0002DA0D69	A A R R T G G H P A K R A F Q A L R A V
UniRef90_FORML7	V R G I H P A R R T F Q A L R A V
UniRef90_U1YXY9	A T R T T G G N P A K R T F Q A L R E V
UniRef90_A6P1P7	A L C E K Q H P A K R S F Q A I R A V
UniRef90_R6AV40	Y F V T K H P E R Q F Q A I R E V
UniRef90_UPI00037C7A8F	R E A N K H H P A T R T F Q A L R H V
UniRef90_S3JYZ0	P Y R F G P H P A T K S F Q A L R A V
UniRef90_UPI0003B38649	R R G K K T H P A T K S F Q A L R M F V
UniRef90_X1FA97	V R K K R K H F A T K F Q A L R I K V
UniRef90_E1QM96	V R R K S K H P A T R V F Q A L R L A V
UniRef90_UPI0003B3ABCD	V Q R T G H P A K R V F Q A L R I E V
UniRef90_U5QP14	R Q S I H P A T R V F Q A L R I A V
UniRef90_F2PAP7	F K D K H K H P A T R S F Q A I R Y I
UniRef90_E0MJH3	A K D K H P A T R T F Q A L R F V
UniRef90_UPI0003761510	L Q R Q G H P A K R V F Q A L R E V
UniRef90_A51YG2	L L S K N P C K A V F Q A I R E E V
UniRef90_F8GE33	R Q R E N M R H P A T R A F Q A I R Y
UniRef90_E6J857	A R R T G G H P G K R V F Q A L R E V
UniRef90_G8QMT5	R T R E P G Q D P A T R S F Q A I R H I
UniRef90_W6AA02	V L K E K K H P A K R V F Q A L R C V
UniRef90_UPI000364BEB4	G K N K H P A T R S F Q A I R A I
UniRef90_A8GVV6	F R K G K D P A T K T F Q A I R Y I
UniRef90_D1CKK7	K G K R S R H P A T R T F Q A L R A V
UniRef90_W6K800	N D K I H P A T R T F Q A L R A V
UniRef90_LOGYF2	T R E P G K H P A T R T F Q A L R L V
UniRef90_K0CGS5	D P G K H P A T R S F Q A L R H I
UniRef90_UPI0003B4F271	F S N Q G H P A K R V F Q A L R E V
UniRef90_D1NSW3	A H R A S G N P A K R V F F Q A L R E V
UniRef90_A0A059G8T3	R R G A R T H P A T L T F Q A I R R M Y V
UniRef90_UPI00035DB2C5	K E R H K H P A T R T F Q A I R I S V
UniRef90_I9W263	K T R E K G Q D P A T R T F Q A I R H I
UniRef90_A0A031JYC6	K G S N A P K D P A R T F Q A I R H V
UniRef90_K1ZIA1	F H A G K H P A T K V F Q A L R A V
UniRef90_UPI0003B63AB7	K P G Q S H P A T R S F Q A I R A V
UniRef90_UPI00039ECDC1	P H E P H P A T R T F Q A L R A V
UniRef90_V5FGM7	F K E K K H P A T R S F Q A F R Y I
UniRef90_V7PYG7	Y K K G K H P A T K T F Q A L R A V
UniRef90_C7MBE8	A S K A S G G H P A K R T F Q A L R A V
UniRef90_A3UEB6	P G R H P A T R S F Q G G L R Y V
UniRef90_L9UCY9	E K G R H P A T K A F Q G G L R F V V
UniRef90_E6YWCV1	L G D H H P A T R V F Q A L R Y V
UniRef90_N2B7K2	K V Q K S G G H P A K R T F Q A I R E
UniRef90_UPI0003AB271C	F A V K S L A R V F Q G G I R E V
UniRef90_J2FXM1	R K G A K V H P A T R S F Q G G L R A V
UniRef90_UPI0003B334EA	K A H R A S G N P A K R V F Q A L R E V
UniRef90_Q6MEG4	W N P K K G N P L T L I F Q A L R C V
UniRef90_O85295	I K N K N F K H P A K R T F Q A I R Y I
UniRef90_B0TGB2	A A R Q E G G H P A K R T F Q A L R A V
UniRef90_UPI00036FE130	K Y K K T K N P S T K T F Q A L R H V
UniRef90_D4XUX8	L L R A K N P A K A V F Q A L R E V
UniRef90_UPI0004247273	K D G D P A T R T F Q A L R W V
UniRef90_UPI0003B349D9	R P Q R G K T H P A A K V F Q A I R E V
UniRef90_A3VY72	K P G Q A H V A T R S F Q A I R A V
UniRef90_UPI0003343073	A V Y Q R S T H A T K T F Q A L R F V
UniRef90_Q057T6	D K Y K H P A T R T F Q A I R H I
UniRef90_G2E031	R T R E P G K H P A T R T F Q A L R R V
UniRef90_E8PK29	R K A G H P A R K T F Q A I R R M Y V
UniRef90_A0A011U0K8	V Q R E G R G H P A K R V F Q A L R I E V
UniRef90_UPI000465AC09	P G D K H P A T R V F Q A L R I F V
UniRef90_M6X6A8	K F W P P G R H P A T R I F F Q A L R E V
UniRef90_A0A014NQ98	A L S K K N F V K N V F Q A V R E E V
UniRef90_Q012S8	P G K W G S H P A T R T F Q G I R A V
UniRef90_K1T6L0	A M R D S H P A R R T F Q A I R E V

	1	10	20	30	40
UniRef90_L7UHY6	R G F S F S K D G P	L D M R M G A D G	L T A A E L I A S T D E Q E	L V R I L	
UniRef90_U1SIP8	D R G F S Y S H N A P	L D M R M D T S Q E L T A A D I L L A T Y D Y A D L	V R I F		
UniRef90_D5V8Z6	R G F S F M R D G V	L D M R M D T T R G E P V S E W L Q R V S A D E L	A D V L		
UniRef90_W5GPY2	D R G F S V L N D G P	L D M R M D P K A T L T A E D I L L N S W P E L E V G R I L	A D V L		
UniRef90_F8G9X7	N R G F S F T H D G P	L D M R M D T S K G L T A S Q A L E E L S V D E L	T Y I F		
UniRef90_I3YBA5	R G F S F G S D G P	L D M R M D P Q S G E S A A Q W L A R A D Q D E I	V A V L		
UniRef90_KOYVF4	D R G F A Y S R D T Y	L D M R M D T S Q G K S A A T L L Q E A S K Q E L	T R I L		
UniRef90_W5X8N9	R G F A F K T E G P	L D M R M D R S A G E P A S A L L N R L S P V E I	E R I L		
UniRef90_UP100047121F6	R G F S F M Q D G P	L D M R M S A E G Q T A A D V V N E M D E E Q L	V K I I		
UniRef90_E3D903	D R G F S Y S H N T A L	L D M R M D T T Q S I T A A T I L A T Y D S H K L	A D I I F		
UniRef90_UP10002E1283B	G R G F S F R F D G P	L D M R M E Q S G E S A A D L V N T A D E Q V L	A D I I F		
UniRef90_Q1Q6B7	R G F S F S K E G P	L D M R M D R T A S F M A Q D L L R K I S E R D L	Q A L L		
UniRef90_N9UB99	S R G F S Y S Q N T K L	L D M R M D L D A K L D A Y Q I I N F W D E A Q I	E Q I L		
UniRef90_B4WB9	R G F S F M R D G P	L D M R M S D E G E T A A D I V N S W D H G P L	A A H I F		
UniRef90_B1V910	R G F S Y L H N A P	L D M R F D N R Q K L T A Q E V I V N F Y S F E K L	K N I F		
UniRef90_UP10002624ACB	R G F S F L R D G P	L D M R M D P G S G L S A A E W L N G A P E T E I	R Q V L		
UniRef90_B6WQN6	R G F S F Y G D G P	L D M R M D D Q S G A P S A W H W V N R E N F D R L	C I		
UniRef90_UP1000374A695	R G F S F R F D A P	L D M R M D T T R G Q T A A Q W L A S A D E A D I	A E V I		
UniRef90_D0LZ26	R G F S F L R P G P	L D M R M D Q S S G E T A L D L M R R L G P G E L	A D I L		
UniRef90_UP100047BCA1C	R G F S Y S H D A P	L D M R M D A Q Q T L T A Q Q L L A Q Y D E R E L	T H I F		
UniRef90_UP1000381CA2D	R G F S F M R D G P	L D M R M N P D A G Q S A A E W I A E A K V P E I	R K V L		
UniRef90_K4D4H1	G R G F S M L K N G P	L D M R M N P K A T L K A E D I L N S W P A D E V	G R V L		
UniRef90_V8NU47	R G F S L K K D G P	L D M R M D G D R Y P T A A D V V N A L D Q Q A L A S I L			
UniRef90_UP10004753D52	R G F S F R A D G P	L D M R M A Q A G L S A A D V V N R F K P G D L A R I I F			
UniRef90_Q3STT6	G R G F S F R L D G P	L D M R M S G H G P T A A E V V A R A S E T D L A D I I			
UniRef90_K2LTH1	D R G F S F R E D G P	L D M R M S M S G P T A A D F I N T A D E E D I A N V I			
UniRef90_UP100047EC0F2	R G F A Y A Q D A P	L D M R M N P D D R L T A E I V V N T Y E V T E L	V R I L		
UniRef90_M5RCY7	R G F S Y T V D G P	L D L R F D P E N G V P A S R W L A Q H D E K Q I A D A I			
UniRef90_E3D109	R G F S F H G E G P	L D M R M D S S S R G V T A A D I V N S W E L G D L I G L F			
UniRef90_C8ND35	R G F S F G K E G P	L D M R M D N E S G L T A A D W L A A T D E A T L A R V I			
UniRef90_A0A010Q2X2	S R G F A Y S Y D A P	L D M R M D A S P D E S V A E L L A R I I E V G E L K R I I			
UniRef90_UP10004766071	D R G F S F I R E G P	L D M R M D T S G M P P A K A L V N T M S H G D L A R I I			
UniRef90_D913A4	R G F S F R F E G P	L D M R M S G E G E S A A D I V V N T Y S E E D D L A N V I			
UniRef90_M5FLP1	R G F S F R A D G P	L D M R M A Q A G L S A A D V V N S F K A G D L A R I I F			
UniRef90_E6U3A3	R G F S Y R A D A P	L D M R M S Q S G L G A R E L L A T A S Y A E L V R I I			
UniRef90_W0SHJ5	R G M S F R F D A P	L D M R M D T T Q G E T A A E F L A R A S Q S E I E R V I			
UniRef90_V4TRY0	R G F S F V L N D G P	L D M R M D P Q A S L K A E D I L N S W P D A E V V G Q V L			
UniRef90_H5WP14	R G F S F R Y D A P	L D M R M D T T R G E T A A D F L A R A D E K R I A E V I			
UniRef90_J3EHG3	R G F A Y S K D A P	L D M R M D S T T G P S A A D L L A T A S E G E L I R I I			
UniRef90_UP10003747243	R G F S F R N D G P	L D M R M G G E G P S A A D L V A D L D D K E L A A V L			
UniRef90_V6DJH9	G F S F N V D T P	L D M R M S P G H F R T A Y D I I N K A S E K E L T D I F			
UniRef90_S7US61	R G F S F L R D G P	L D M R M D P S G A A P A S A L V N K A S F E R L R Q I I			
UniRef90_UP10003B42D87	D R G F S Y S K N G F	L D M R M D Q G Q S L K A W D I V N T W S K E K L V D I F			
UniRef90_R8ZV91	G R F T F K N E E P	L D M R L E P Q V M K T A A D V V N Y S S I L H L K V F			
UniRef90_UP1000421ED6B	R G F S Y A K D A P	L D M R M N P T T G I S A A Q L L N S A D T K E L T R I I			
UniRef90_K2CHB7	R G F S F G M M G P	L D M R M D P T L A V R A L D L N S L S R K E L Y E I F			
UniRef90_T0ZXA0	D R G F S F R A D G P	L D M R M D P M R G E A V V S A W L A R A G V V E E I R Q V I			
UniRef90_UP100047A74A7	R G F S F R F E G P	L D M R M D T T R G Q S V A D W L E Q Q A E V Q Q I A E V I			
UniRef90_E1ZBG6	D R G F S F L R D G P	L D M R M D P A A P L S A E L A V N T W P E G E L G R V I			
UniRef90_UP10003C1249F	R G F F S F M R D G P	L D M R M A A D G V T A A D L V N E A E Q A E L A R I I F			
UniRef90_F7WZ76	R G F F S F M N D G P	L D M R M N P K S G I S V S Q W L K K T N Q K T I E Q V I			
UniRef90_K2B7D4	R G F S F E K N G P	L D M R M D P N L T V R A F D L V N N F D Q R R L I N E I F			
UniRef90_B8IMX2	R G F S F R Q D G P	L D M R M E S G G T S A A D L V N E A S E A E L A D I I			
UniRef90_G2J909	R G F S F S A D G P	L D M R M D P R Q G E S A A Q W L A R A S Q Q E M T E V I			
UniRef90_D4J2D7	D R G F T Y R V D A P	L D M R M D K D N P M T A A D I V N T Y S A E D L T R V I			
UniRef90_B0X4T2	R G F S I S K N G P	L D M R M D M K D R C P S A A D V L L A R I I D E M D L A R I I L			
UniRef90_A0A023X457	R G F S F S Y S D G P	L D M R M D P T R G V S A A E W L N S A E P G E V I T K V L			
UniRef90_I2JGJ5	R G F S F M R D G P	L D M R M A Q A G I S A A D V V N R A K A S D L T R I I F			
UniRef90_A9DDU6	S R G F S F R L D G P	L D M R M N P A G G E T A E E M I A R L D V N A L A D L I			
UniRef90_Q016T7	R G F S F L Q D G P	L D M R M D P S G G E P A S V I V N G A S F E R L R Q I I			
UniRef90_C7LSU1	R G F S F L Q D G P	L D M R M N P E E P L T A A E I V N T W P E A E L G D L F			
UniRef90_D6YUB3	R G F S F R S V G P	L D M R F D Q R R K L T A S E I V N K W S E D K L V Q I F			
UniRef90_K2APA9	D R G F S F H A D G P	L D M R M D R D G D E P A S R L V N R A T V D V L K D I I			
UniRef90_B8DP86	R G F S F K N D G P	L D M R M N P N D G I T A S D W L F K S N V R E I S F V L			
UniRef90_W0P062	R G F S F K N D G P	L D M R M D P S Q G E P L S A W L A G A P V A E I V R V L			
UniRef90_B5JXE6	G R G F S F Q F D G P	L D M R M D Q T R G E T A A Q W L V I S A A E A S E I A R V I			
UniRef90_F5Y8X5	G R G F S F R Y D E P	L D M R I D T S T G L S A G E L V S R L S E K D L A D L I			
UniRef90_UP1000347A574	D R G F A Y A Q D A P	L D M R M D Q T R G E T A A D V I A S A S E G R I R A I I F			
UniRef90_H8Z3J1	R G F S F N Q D G P	L D M R M D P S Q G E P L S A W L A G A P V A E I V R V L			
UniRef90_K5YZC8	R G F S F R Q D G P	L D M R M S R D Q G Q S A A D L V N L C A E S D L A D I I F			
UniRef90_T0LEGO	R G F S Y L K P G P	L D M R M D R K Q S I T A Y D I V N R Y S E E K L V W I F			
UniRef90_UP1000412DB30	R G F S F R A D G P	L D M R M S I A G P T A A D V V N T L P V K D L A R L F			
UniRef90_M5DK14	S R G F S F R L D G P	L D M R M D T S Q G Q T A A E W L A C A S E V H L E E V I			
UniRef90_A1VSU4	R G F S F R N E G P	L D M R M D T T R G Q S V A E W L Q D A S I E A M T E V I			
UniRef90_T1AQK3	R G F S F Q T E S P	L D M R M S Q D A G R S A A D D W L S R V S R P E L E R V I			
UniRef90_K2MF93	R G F S F Q K D G P	L D M R M E G R G I S A A D D V V N T M K A G D L A R I I F			
UniRef90_C3Y5L3	G R G F S L S Q D G P	L D M R M F G N K Q P T A A D V V N S L G E D D L Y G I I			
UniRef90_UP10003B3F4AC	R G F S F Q K S G P	L D M R M S A S G V S A A D D V V N R A K V A E L I R I I F			
UniRef90_B0JZY5	D R G F S L S R D G P	L D M R M D G D R M P T A A D V V N A L D Q Q A L A S I L			
UniRef90_A6WZP8	R G F S F Q K D G P	L D M R M S K K G P S A A D D V V N R L K T G D L A R I I F			
UniRef90_I4B479	R G F S F R F D Q P	L D M R M N A E S G I S A A R L L A T A E E K E L A R I I F			
UniRef90_B0B718	R G F S F Q E D H P	L D M R M D T S R G M T A S E V L N S L R E E E I G E I F			
UniRef90_UP100046371B0	R G F S F R N D G P	L D M R M A Q I G P S A A D D V V N R F K A S D L T R I I F			
UniRef90_E8RD64	R G F S F R T D S V	L D M R M D R R S P I T A A S S L I A Q A S E E Q L A D I F			
UniRef90_F7QR60	R G F S F R L N G P	L D M R M A Q H G P T A A D V V A K A S E T D L A N I I			
UniRef90_E6PTI1	R G F S F R G D A P	L D M R M D T T R G I T A A Q F L A E A S V D D I T R V I			
UniRef90_D8IFX5	N R G F S F K D D V K L	L D M R L G I N N K S A Y D V I N S Y S E K E L E R V F			
UniRef90_UP100045DC47D	R G F S L Q K D G P	L D M R M D G G R M P T A A N V E N A L D H Q A I V S I L			
UniRef90_N9WHJ4	R G F S F Q K D G P	L D M R M A Q E G E T A A E W L N R A D E A E I A D V L			
UniRef90_F5R769	R G M S F R Q D A P	L D M R M D T S R G E T V A Q W L A R A E E A H I R E V I			
UniRef90_R5DCN0	D R G F S F R F D G A L	L D M R M N T R A G Q T A A D V V N T Y T E E Q L A D L F			
UniRef90_P60397	R G F S Y L H N T P	L D M R M N V N Q T I T A Q Y I L N N Y S F A Q L K N I F			

UniRef90_L7UHY6	50	60	70	80
UniRef90_U1SIP8	K E Y G E E P F A R P A R E L K R A L P T R T L E A A E V V K R A V P R K			
UniRef90_D5V8Z6	K E Y G Q E R F S G P V R E I I R L R E I E T S F E L S E L V D R V V P			
UniRef90_W5GPY2	Y E Y G E E R H S R K K A R A K S M Q N Y T S T R Q L L A E V I V K Q A H P A W			
UniRef90_F8G9X7	R D Y G E E N N W Q S L Q R R V K E R K L H S T S E L V K L I Q R T C T I S			
UniRef90_13YBA5	K V Y G E E R F A K K I A D Y A E N G S I L T R T H Q L A D D L I R A T I G			
UniRef90_K0YVF4	R D L G E E R F A R R I G R A L E T R E L L T S Q L A D L V A R A V P P			
UniRef90_W5X8N9	R V Y G E E K F A A K I A G A V V K K R P I E R S R P V I A L V R A S I P A			
UniRef90UPI00047121F6	F E L G D E R W A K A I A K K V E R R P I R T T D L V E A V L A A V P P G			
UniRef90_E3D903	Y R Y G E E R R A R A V A R A I V E R R K A I T R T I L A E L L I A T V V P R S			
UniRef90UPI0002E1283B	R E Y G Q E R F S G P A R K V Q V R P I T T S G Q L V E L V D N V I V P R S			
UniRef90_Q1Q6B7	Y H Y G E E R R S R A V A R A I V A R K P I T T S G Q L V E L V D N V I V P R S			
UniRef90_N9UB99	K K Y G E E R W S K R I A R R I K E R S L K S T T Q L A R I I I E R A V P S M			
UniRef90_B4WB9	Y D Y G D V K F A K A I A K S I K N R P I Q T S F E L N E I I K K S L P A A K			
UniRef90_B1V910	K L Y G E E R Q S G R V A T A L R R S F T R T L D L A E V V E K A L G G			
UniRef90UPI0002624ACB	H I Y G E E K K A A A L I A K Q I K N R P L K T S Y D L V A I T D M			
UniRef90_B6WQN6	K N Y G E E R F A R A I A R K V K Y R P L Q R T S Q L A E L I A E V I P R			
UniRef90UPI000374A695	A T L G E E P Q A G R I A R A V D A R P I D T T A Q L A A L V E K A Y P P A			
UniRef90_D0LZ26	K T Y G E E R F A R K I A A A V A Q R P I E T T R E L A V L V G K N V			
UniRef90UPI00047BCA1C	W S F G E E R F S K R I A R V R D H R L E T T T D A A L V E D A I P A S			
UniRef90UPI000381CA2D	K V Y G E E R Y A R N I A R A V Q R R A F V I S S G Q L T Q I V D D V V P Q			
UniRef90_K4D4H1	K E F G D E R Y A L R A E A V A E R P I T T T L H Q K V V A E A H P A W			
UniRef90_V8NU47	R E Y G E E N N W Y S L Q N R I V K A R G L H S T T N E L V D L I Q N S T S R T			
UniRef90UPI0004753D52	K T Y G E E K H A K K I A S T V Q A R P I T T R T R Q L A S I I A G A F P R K			
UniRef90_Q3STT6	G F L G E E R R S R A V A R A V G A R P I A T T R A L A D I V S K V V			
UniRef90_K2LTH1	Y I F G E E R R K V A H K I E M R A E A P F E T T L Q A R A V R S S V V			
UniRef90UPI00047EC0F2	R D Y G E E K F A P R V I A A A R A K A P I T S S R E L A D L V R D A I P A			
UniRef90_M5RCY7	Y Q Y G E E R R I A R A V A K Q R E P I S T V N E L V E I C C R R C V P R S			
UniRef90_E3D109	R R Y G E D P F A V P I A R A I V M H R P L M T T E S E L V A L I I R R T L P A P			
UniRef90_C8ND35	R D W G G E P H T A R R I A R A V I V I A A R K L R T T L D L A A V V A D A V P R K			
UniRef90_A0A010Q2X2	R E Y G E E R F A P G R I A A A C K R P I E T T T L R L A S V V D K A V P A			
UniRef90UPI0004766071	R Q Y G E D P M A G K I A S A L K E R P I E T T L R L A S V V D K A V P A			
UniRef90_D9I3A4	Y T Y G E E Y R S R R I A R A V E L L R P I Q T T L R L A N L I K S R V G G			
UniRef90_M5FLP1	G F L G E E R H A G R I A R M E S R R P F E R T L D L A D A I E T H I G R A			
UniRef90_E6U3A3	R E Y G E E R F A P R I A A A C K R P I E T T T L R L A D A I E T H I G R A			
UniRef90_W0SHJ5	R D Y G E E R F A H A I A K A V V A A R G I L S R T G Q L A T L V A Q Q V V			
UniRef90_V4TRY0	R E Y G E E S N W R L L Q N K I V R A R G L H S T T G E L V D L I Q S V T P R M			
UniRef90_H5WP14	R D H G E E R F A V P I A K A V V A R R E V R S T A E L S E V V A G A V			
UniRef90_J3EHG3	R T Y G E E K F A P R I A R L I R R R A P I T R T G E L V D I V R E A I P A			
UniRef90UPI0003747243	R T L G E E R R A G A V A R G C A A R P I T T L R L A D V V E G V L G K S			
UniRef90_V6DJH9	Y K Y G Q D S N S K K I A K A I I E R K I R T T K D L A Q L A E S L V P R			
UniRef90_S7US61	G E L G E E P M A G R I A K A I V A A R E I E T T T A R L A V I V E S A Y P A K			
UniRef90UPI0003B42D87	I N N A D V K M P V R V A N A I E N R P I N S T L D L A N V V K A S I P A R			
UniRef90_R8ZV91	W E Y G E E R W A L K I A N N V Q T R K F E T S T D L A K L V E A S I P P R			
UniRef90UPI000421ED6B	R V Y G E E R F A S N I A N L V R E R P L T R T S Q L V D L I R R A I P A			
UniRef90_K2CHB7	N Q L G E E K Y S W R L A N A L V L A R P F T N T L E L S K A V E K V V G G			
UniRef90_T0ZXAO	A T Y G E E R F A R R V A Q A I V A A R P I E R T V E L L A E L V A R A V			
UniRef90UPI00047A74A7	R D Y G E E R F A G P I A K A V A R R P I L R N T A E L A A Q L V A G A V			
UniRef90_E1ZBG6	R E Y G E E R H W R G I A R R V A A R P I T T T Q Q L V R A I G S P P G G G			
UniRef90UPI0003C1249F	W L Y G E E R E S R R I A S F V R R R P F T R T L D L A E T V E R A L G G			
UniRef90_F7WZ76	K N F G E E K Y A K K I I L Q I K K K T I T S T L E L V Q I I K K S I P P K Y			
UniRef90_K2B7D4	K T Y S Q E K L S W S I A G A C S A R P I E T T D E L A E I I V E K V Y R R			
UniRef90_B8IMX2	Y H Y G E E R R A R A V A R A I L E A R P I A T T A T L A E I I V A S V V R P E			
UniRef90_G2J909	R R Y G E E R F A G Q I A K A I I T A R R P L A T R T R E L A E I I V A R A V			
UniRef90_D4J2D7	F T Y G E E K F S K Q I V K N I I K E R P I L T A G Q L N K I I I A E S I P K			
UniRef90_B0X4T2	K V Y G E E K F A K R I A R A I V E A R K I E T T K E L A E E L V Q T C C A S			
UniRef90_A0A023X457	A E Y G D V P R E A R R V A R A V A Q A R P I L T G E L A E E V V E L A N G L			
UniRef90_I2JGJ5	R D Y G E E R K R I A R A I A R E E E P I T R T L Q L A K I V T E A N P A W			
UniRef90_A9DDU6	G L L G E E R H A G R I A R A I I E A E R P F S T T R Q L A G L I E K V S P R			
UniRef90_Q016T7	Y A F G E E R R I A R I K A D L I E A E G A Y A G T A A L A Y A V V A G C Y P P			
UniRef90_C7LSU1	W D Y G E E P M A G R I A R A I V K R E I D S T L L E A R I V V A A A Y P A K			
UniRef90_D6YUB3	K K Y G E E K I R W R A A A R A V V A A A R P L S R T L V E V L T S V L G R			
UniRef90_K2APA9	S K Y G E E R R M S K T V A R E I V S R R P F E T T V D L A D F I V K Y I K K			
UniRef90_B8DP86	L R Y G E D P M A G R I A R A I V D A R P I E T T T A Q L A A I V D R A Y P A K			
UniRef90_W0P062	K N F G E E R F S K K I A Y N N N L K K I T S T L E L A D I I K K A T P			
UniRef90_B5JXE6	K E F G E E R N A K R I A S A I K R E R S I E T T Q G L V A V I V E S A T			
UniRef90_F5Y8X5	Y K N A E E R R R I A K A I A E A K A G G A I A S S A V L S E I V V E R A V P P			
UniRef90UPI000347A574	E R Y G E E P R Y A R A I I A A R N E Q P I T R S G Q L V D V L Q E A T P A A			
UniRef90_H8Z3J1	K D Y G E E R R Y A R A I A R R E Q R A L T T G Q L A G L I E R S V P			
UniRef90_K5YZC8	Y K Y G D E K A A R R I A K Q V D R R K F T T T A D L A G L I V R S V V			
UniRef90_TOLEGO	K N Y G E E R F A K K I A K A L K N T K E I R T T S D L R K M V E K V V			
UniRef90UPI000412DB30	W V Y G E E R Q S G R I A R A I V A R R P F S R T A E L A A T I E S V L G A K			
UniRef90_M5DK14	R N Y G E E R F A K Q I V A R A R Q P V A T T L Q L A A I V V A A A V R S H			
UniRef90_A1VSU4	R D Y G E E R F A G L V A R A I D R P P L Q T T A E L A D D V V V A S V V			
UniRef90_T1AQK3	R E W G E E R Y A R R I A Q A I I S E R R A G N T Q R L A Q L I V R T V P R			
UniRef90_K2MF93	G L L G E E R Q A G R I A R R M R A E K P F E T T L D L A N A V V E K I V G R R			
UniRef90_C3Y5L3	K T Y G E E K H A R K I A R A I S S A I V D A R P I T T T K Q L A G V V V A S A L A A H			
UniRef90UPI0003B3F4AC	H F L G E E D Q A P R I A H I E K S R P F E T T T R D L A G V V V E V T P R K			
UniRef90_B0JZY5	K T Y G E E R H A R K I A S A I V Q A R P I T R T T Q Q L A S I I V T G A S I Q A			
UniRef90_A6WZP8	N F L G E E R H A G R I A R M D K R R P F T R T L D L A N A I E T L V V G R N			
UniRef90_I4B479	F E F G E E K L S R I A R E V E R R P I T T T R E L T E I C E H V Y P P K			
UniRef90_B0B718	R N Y G E E P R S A A A V V H F R K K K I L T V K D K D A T S G V F P S Y			
UniRef90UPI00046371B0	G L Y G E E R P R S A A A V V H F R K K K I L T V K D K D A T S G V F P S Y			
UniRef90_E8RD64	Y H Y G E E R Q A R R I A R F I A E A R P V A T T G R L A A I V V A E A V P R			
UniRef90_F7QR60	Y I F G E E R H A V A R A I V A A R K E A P I A T T R A E L A D I V V S R V V			
UniRef90_E6PT11	R D Y G D E R A A F P I A K A V V A R V A R P I V T T A E L A D G L V A Q A V			
UniRef90_D8IFX5	R E Y G E M H N A S K I A N I V N E R K I E T S S K E L E N I I I F H H T D K A			
UniRef90UPI00045DC47D	R K Y G E E K H A K K I A S A R S I Y P I T R T E Q L A S I I I A G A I P P S			
UniRef90_N9WHJ4	Y H Y G D E R Q S R R V A R A I V A A R P I S R T G E L A T V V I R K A L			
UniRef90_F5R769	R D Y G E E R F A S A I A K A V A E R P I V D S T T Q L A A I V V A S A V			
UniRef90_R5DCN0	Y L Y G E E L K V A R K L A S V L V R S R E I K K I E T I A D F L E V I K P F			
UniRef90_P60397	K V Y G E E V K N A A L V A S E I I K Q R P I C T S Y D L V A I T D R F C			

90 100

UniRef90_L7UHY6	A W P T R [H] V A T R T F Q A L R M A V
UniRef90_U1SIP8	K A K R P A G N P A K R V F Q A L R I E V
UniRef90_D5V8Z6	Q K G K H P A T Q S F Q A M R I F I
UniRef90_W5GPY2	G G R Q G W I K T A T R V F Q A L R I A V
UniRef90_F8G9X7	K R E K K N P A T R C F Q A L R I Y V
UniRef90_I3YBA5	T R E P G K H P A T R T F Q A L R I Q V
UniRef90_K0YVF4	P A R R K G G N P A K R T F Q A L R V A V
UniRef90_W5X8N9	A R D K R I H P A T R T F Q A V R I A V
UniRef90_UP100047121F6	R P S G K G I H P A T R T F Q A L R I H V
UniRef90_E3D903	H R A P G N P A K R V F Q A L R I E V
UniRef90_UP10002E1283B	R A D P H G P H P A T R T F Q A L R I A V
UniRef90_Q1Q6B7	R H R I H P A T R V F Q A L R I A V
UniRef90_N9UB99	V I R E K N P S K A I F Q A I R I A V
UniRef90_B4WB9	R R G A P I H P A T R V F Q A L R I A V
UniRef90_B1V910	F Y K Y H K G H S A K K I F Q A L R I E V
UniRef90_UP10002624ACB	H D S G [N] P A T R S F Q G I R I F I
UniRef90_B6WQN6	W R A K A R R H P A T R T F Q A L R M A V
UniRef90_UP1000374A695	R T R E Q G Q D P A T R T F Q A I R I F I
UniRef90_D0LZ26	V R R Q M K T H P A T K T F Q A L R I A V
UniRef90_UP100047BCA1C	A N R P S G N P A K R V F Q A L R I E V
UniRef90_UP1000381CA2D	E R G K N P A T K A F Q G I R I F I
UniRef90_K4D4H1	K G R Q G W I K T A T R V F Q A L R I A V
UniRef90_V8NU47	D K L S R P A H I A T K T F Q A L R I F V
UniRef90_UP10004753D52	P K D K I H P A T R V F Q A L R I Y V
UniRef90_Q3STT6	R A K P H E I H P A T R T F Q A L R I F V
UniRef90_K2LTH1	R K S K D G I D P A T R T F Q G L R I Y V
UniRef90_UP100047EC0F2	A T R R T T G G N P A K R T F Q A L R I E V
UniRef90_M5RCY7	R N H D I H P A T R T F Q A L R I A V
UniRef90_E3D109	A Q R K A G T H P A R R I F Q A L R I A V
UniRef90_C8ND35	[L] Y K A G F H P A T Q T F Q A I R I A V
UniRef90_A0A010Q2X2	A S K R T G G H P A K R T F Q A L R I A V
UniRef90_UP10004766071	M R A T S R T H P A T R T F Q G L R I A V
UniRef90_D913A4	R P D A Q H P A T L T F Q A L R I K V
UniRef90_M5FLP1	P K D K I H P A T R V F Q A L R I F V
UniRef90_E6U3A3	A R R S G H P A R K T F Q A L R M A V
UniRef90_W0SHJ5	R T R E P G Q H P A T R S F Q A L R I H V
UniRef90_V4TRY0	R G R R Q G I K T A T R V F Q A L R I A V
UniRef90_H5WP14	K T R E P G Q N P A T R T F Q A L R I L V
UniRef90_J3EHG3	P A R R T T G G N P A K R T F Q A L R V A V
UniRef90_UP10003747243	Y D G I H A A T R T F Q A L R I A V
UniRef90_V6DJH9	Q G S K I H P A T R V F Q A L R I V I
UniRef90_S7US61	W R R T A R N H P A T R T F Q A L R L A V
UniRef90_UP10003B42D87	I V R Q K N P G K T V F Q A I R I A V
UniRef90_R8ZV91	K F W P K E S H P A T R I F Q A L R I E V
UniRef90_UP1000421ED6B	A A R R S G G N P A K R T F Q A L R V A V
UniRef90_K2CHB7	K R E K I H P A T R V F Q A L R M T V
UniRef90_T0ZXA0	R T R E P G K H P A T R T F Q A L R M Y I
UniRef90_UP100047A74A7	K T R E A G Q N P A T R T F Q A L R I F I
UniRef90_E1ZBG6	G G G G R F K H P A T R T F Q A L R I A V
UniRef90_UP10003C1249F	R R G A K V H P A T R V F Q A L R I A V
UniRef90_F7WZ76	D K F K H P A T R T F Q A F R I Y I
UniRef90_K2B7D4	F R K K G R L H P A T K T F Q A L R V V V
UniRef90_B8IMX2	P G S G I H P A T R T F Q A L R I A V
UniRef90_G2J909	K T R P L G R H P A T R T F Q A I R I Y
UniRef90_D4J2D7	K A Q V G Q G H P S K R T Y Q A L R I E
UniRef90_B0X4T2	E F R Q R P S H P A T K T F Q A L R I F V
UniRef90_A0A023X457	W K E R G G N P S K R V F Q A V R V F V
UniRef90_I2JGJ5	E K H K H P A T R S F Q A I R I F I
UniRef90_A9DDU6	P Q D K I H P A T R V F Q A L R T Y V
UniRef90_Q0I6T7	K A R R G R I H P A T R T F Q A L R I A V
UniRef90_C7LSU1	R R A L S R N H P A T K T F Q A L R L E V
UniRef90_D6YUB3	P R K G K I H P A T L I F Q A L R L A V
UniRef90_K2APA9	R N L H E K K D P A T Q I F Q A L R I A V
UniRef90_B8DP86	W R A T S R N H P A T R T F Q A L R M A V
UniRef90_W0P062	I K N R F K H P A R R T F Q A I R I Y I
UniRef90_B5JXE6	R V R D R H K H P A T R S F Q A L R I Q V
UniRef90_F5Y8X5	A Y R H G P V H P A T K T F Q A L R I A V
UniRef90_UP1000347A574	V R D Q R H P A K R V F Q A L R I E I
UniRef90_H8Z3J1	T R E P G K H P A T R S F Q A L R I V I
UniRef90_K5YZC8	R P D K S G I D P A T R S F Q A L R I A V
UniRef90_T0LEGO	R T N V I K T L A R V F Q A L R I E V
UniRef90_UP1000412DB30	R F G E M H P A T R A F Q A I R I H V
UniRef90_M5DK14	E H T R E K Q N P A T R T F Q A I R I Y
UniRef90_A1VSU4	K T R E P G K D P A T R T F Q A I R I F I
UniRef90_T1AQK3	R E R D K H P A T R T F Q A I R I A V
UniRef90_K2MF93	P Q E K I H P A T R V F Q G L R I F V
UniRef90_C3Y5L3	D K L N R A V H P A T R V F Q A L R I F V
UniRef90_UP10003B3F4AC	M K D K I H P A T R V F Q A L R I F V
UniRef90_B0JZY5	R T D Q R P A H V A T K T F Q A L R I F V
UniRef90_A6WZP8	P K D R I H P A T R V F Q A L R V Y V
UniRef90_I4B479	Y K A K G H A D P A T R V F Q A L R I A V
UniRef90_B0B718	R L R K K I H P L T L I F Q A L R I Y V
UniRef90_UP100046371B0	P R E K I H P A T R A F Q G L R I F V
UniRef90_E8RD64	K Y H P A K V H V A T K V F Q A L R I A V
UniRef90_F7QR60	R S K P N E I H P A T R T F Q A L R I F V
UniRef90_E6PTI1	R S R E P G Q D P A T R T F Q A L R I H V
UniRef90_D8IFX5	K R F G K I H P A T L V F Q A I R I E V
UniRef90_UP100045DC47D	A I Y Q R S T H I A T K T F Q A L R I F V
UniRef90_N9WHJ4	H P P G A P K D P A T K S F Q A I R I H I
UniRef90_F5R769	R T R E A G Q H P A T R S F Q A L R I F I
UniRef90_R5DCN0	T G K D K E K K F L A Q V F Q A L R I E V
UniRef90_P60397	N R Q K G H S A K K I F Q A L R I E V

	1	10	20	30	40
UniRef90_R4YXG5	R G F S Y R F T G P	L D M R M D P T Q E	L T A E V V V	N T Y P V D R	L T R I L
UniRef90_UP10004757052	D R G F A Y A Q E A P	L D M R M D R T Q G	L T A E E V V	N D Y P V G E	L I R V L
UniRef90_Q01Q40	D R G F S F M A D G P	L D M R M D A S I Q	T Q T T A A D L V	N H T D E K T	L A D L I
UniRef90_A0A017PSP9	S R G F S F Q E D H V	L D M R M D R S Q E	G T A A S E V L N	T L D E E T L	G R V F
UniRef90_J9DIX3	R G F S F N N D G P	L D M R M G R D G P	S A A D I V N T M	D E K L L A R I I	
UniRef90_K9GYX6	R G F S F A K D G P	L D M R M E K S G R	T A A D V V N E E	E E E G P	L A D L I
UniRef90_M1Z8K6	R G F S F R F D G P	L D M R M D R S Q E	P N S T A A Y V V	N N V A E E E I	A R I I
UniRef90_L8GS85	D R G F S F R Y D G P	L D M R M D Q S P	N S T A A D L L E	T L S D F E L	E Q I F
UniRef90_B3QWS9	R G F S F Q Q S G P	L D M R M S D T A Q L	T A A E V V N H	D E R S L	S K I F
UniRef90_UP1000381C00E	R G F S F R Q D G P	L D M R M G M E G P	S A A D L V N G E	E E E S R L	A D I L
UniRef90_N1MQS0	D R G F S F Q S D G P	L D M T M S Q D	G M S A A D F L	N N A S E E E I	I A N V L
UniRef90_B2KE60	S R G F S F R M G G G P	L D M R F D I S G	Q K T A A D V V	N S Y T A E E L	E R I F
UniRef90_D3HX14	R G F S F R F D A P	L D M R M N K R G G	R T A A D I V N E	Y D E N R	L A D V F
UniRef90_N9TVV1	R G F S Y N K D A Y L	L D M R M D Q N Q S	S Q D A H Y I I I	N N Y D V A S	L E Q I L
UniRef90_Q216E6	R G F S F R L A G P	L D M R M G Q S G P	P S A A D V I A V	A S E A E L	A N I I
UniRef90_C4XK86	R G F G F L H D G P	L D M R M G A E G D	E G L V N L A S Y A R	L C E I I	
UniRef90_UP100037155B0	D R G F S F R F D A E L	L D M R M N R K G R	L K A T D V L N T Y	S E E E L	L I R V F
UniRef90_R1D6Z0	S R G F S M R F E G P	L D M R M D Q S G E	L T A A T I L L N	E W S A A E I	I A D V L
UniRef90_Q1AVW6	R G F S Y T R E G P	L D M R M D P G S G P	S A A D F L N A	A G E A E I	I A G V L
UniRef90_B5JR19	D R G F S F R F G E A P	L D M R M D P E S G	V I S A A Q W L A T A D Q A D	L L R A I	
UniRef90_U2SYD8	R G F S Y R T D A A L	L D M R M D Q R G E	R T A A D I L V N S Y	S E E E A I	F R I I
UniRef90_Q2GK29	D R G F S F M K E G P	L D M R M D R S Q S K	S A A T F V N S L	S E K D M A D V	I
UniRef90_R6CKQ5	R G F S F R F D S P	L D M R M N K R A G K	T A A D I L V N E Y	D E G A L	A N I F
UniRef90_A0A014NP22	D R G F S F R F E G P	L D M R M D T T R G Q	S V A E W L A D A E V Q Q	L T D V I	
UniRef90_B1LYT9	R G F S F R S D G P	L D M R M A C D G P	S A A D V I V N E A D E T	T V L A D I	
UniRef90_F8NB88	R G F S F R Y D A P	L D M R M N R E G G K	T A A D I V N E A S Q E R	L A D I F	
UniRef90_UP1000467FE74	R G F S F R F D G K	L D M R M N Q K A S M	T A A D I L L N T Y E E E Q	L A S I L	
UniRef90_UP100036BC075	N R G F S F L H D G P	L D M R F N V T K G	S Q D A H Y I I I	I M D I L	
UniRef90_D5EV56	R G F S F R F D A P	L D M R M N K R A G	T T A A E I L L N T Y D E E Q	L A D I F	
UniRef90_UP1000375DC50	R G F S F N H D G P	L D M R M N P D A D Q	P L S S K L K R V K V P E	L T Q V I	
UniRef90_UP100036BCD49	R G F S F R F D A P	L D M R M N T R A T K	T A A D I I N N Y T Q D D	L A D V F	
UniRef90_B4RFS8	R G F S F M Q D G P	L D M R M G A S G P	T A A D L V N T A E P A E	L A R I F	
UniRef90_F4DIJ1	S R G F S F Q G E E H	L D M R M D P T Q G	I S A S E V L Q C L R E E E	L G K I F	
UniRef90_W0ZC96	D R G F A Y S R D A P	L D M R M D Q T D G P	T A A D V I A T Y P E G A	L R A I F	
UniRef90_A5GWA2	R G F S F S F R A D G P	L D M R M N T E D G E	T A A A L I D R L E E N A L	A D L L	
UniRef90_A0A059KNR4	R G F S F R H D G P	L D M R M D P T R Q Q	S A A E F L A T A P F E R	I A E V I	
UniRef90_Q9Z8C2	S R G F S F Q G E E E	L D M R M D Q T Q E	L S A S D V L N S L K E E E	L G R I F	
UniRef90_U2KH09	R G F S F R F D A P	L D M R M N A N G P	T T A A D I V N R Y D E A A	L A D V F	
UniRef90_E1KN71	R G F S F S F R F D A P	L D M R M N K R A G K	T T A A D I L L Q Y E E E D	L A N M F	
UniRef90_Q6KHR2	N R G F S F N Y K E S R L	D M R M N L D Q K	L D A H F I V N S Y S E E Q	K N L L	
UniRef90_A7HH59	D R G F S F S F R P G P	L D M R M G D E G E R	L E D L L R R I D E R E	L A R I L	
UniRef90_M4VA19	D R G F S F N K D G P	L D M R M N Q Q D T	L N A A E I V N T Y E P E D	L I Q I F	
UniRef90_A5FUK2	S R G F S F R T D G P	L D M R M G A A G P	T A A D I V N G Y A E A E	L A D I L	
UniRef90_Q3ANW1	R G F S F S Y M R S G P	L D M R M D N T A P	L T A A E L I N H A D E A E	L A R I F	
UniRef90_R6VN33	R G F S F S F R G E A P	L D M R M N Q R G R	L T A A D V V N V G P V E E	T R V L	
UniRef90_D4G8R9	N R G F S F S F R R N G S L	L D M R M N P E V G	P A K K W L E K A K R E E	I E L I L	
UniRef90_G9EKY8	M Q Q G P	L D M R M D L S Q P	M S A A E F V N T A E A D A	M A A I F	
UniRef90_E6SIY1	S R G F S Y Q E E G P	L D M R M D P S Q P	V T A A D L V N T A G R D Q	L A R W I	
UniRef90_R5I956	R G F S F R F D G K	L D M R M N N R G G E	S A A D D G I N N Y N E E Q	L S D I F	
UniRef90_T1PF60	R G F S F I S K N G P	L D M R M D R G H	N T A A D D V L A K A E E T	L L V K I L	
UniRef90_UP100047295F6	R G F S F M F M R S G P	L D M R M G N T G P	T A A D A V R V L P H S D	L I R I F	
UniRef90_UP10003FC8AC9	UniRef90_B1GZH8	D R G F S F N S G T	L D M R M D K R N G F E A K	E V V N S Y S Y E D L A D I F	
UniRef90_Q0G679	R G F S F Q K D G P	L D M R M G N H G A T A	A D D V N T L S V G D L A R I F		
UniRef90_R6Z056	R G F S F S Y R F N A P	L D M R M D Q S S I P	T A K Y V V N K Y D A E T	L M K A L	
UniRef90_R6W9S4	R G F S F S F R F D A P	L D M R M N K R G G	E N A A D L V N E R S E E E L A D M F		
UniRef90_UP1000379B445	R G M S F F R F D A P	L D M R M D T T R G E	S A A E F L A R A T V A E I S T V L		
UniRef90_UP1000381531	R G F S F R F D G P	L D M R M S P G I K H	S A A D D V L N Y P A G R L F T V F		
UniRef90_F0F7C2	R G F S F S F R F E A P	L D M R M N K R A G Q	T A A D I L N E Y D E G R L A D I F		
UniRef90_E6MPL2	S R G F S F S F R F D A P	L D M R M N K R A G K	T A A D I V N D Y D E E A L L A N L F		
UniRef90_X1L0X4	G R G F S F Q R D A P	L D M R L D P S Q D	I T A A D I V N N S S E T E L A Y L I		
UniRef90_UP10002B4D41F	R G F R V L G D G P	L D M R M D P Q A S L	K A E D I L N N W P E T E V V G R I L		
UniRef90_V8CMX5	R G F S F R F N A P	L D M R M N I R A Q	K T A A D I L Q E Y D E Q Q L A D M F		
UniRef90_R7LDZ0	R G F S F R F D A P	L D M R M N G R A G M	T A A D I V N R Y D E E R L L A N V L		
UniRef90_H1HKN3	S R G F S F R F D A P	L D M R M N K R A G K	T A A D I V N D Y D A E A L A N V F		
UniRef90_R6SWL8	D R G F S F R F D A P	L D M R M N T E A E T	T A A D I I N S Y G Q K D L E R I I L		
UniRef90_UP10003FFC7AE	G R G F S F R L D G P	L D M R M G S S G A S A	D D V V A R A G E A E L A N I I		
UniRef90_S55LD7	N R G F S F S I L D S N L	D M R M N Q K D E	L T A A D I L Q T F S Y E N L Y S I F		
UniRef90_W4FS77	R G F S I Y H D G P	D M R F D Q S H T P	T A A D L V N T L S E V A M I K I F		
UniRef90_F9YU93	R G F S F T R F D G I L	D M R M D I N N P L	S A Q E V L N E Y S E E D L A N L L		
UniRef90_W5UT37	R G F S F S Y R F D A R V	D M R M D M Q S Q T L	D A H Q I L N S Y S E Q Q L I E L L		
UniRef90_R5IL72	D R G F S F K N E G P	D L R L D P S K G E	T A A E R E L K K L N F E E L L K G M L		
UniRef90_UP10004790738	G R G F S F R L E G P	D M R M A G E G V	T A A D V V N R A P A K E L A R I I		
UniRef90_UP1000255D91A	R G F S F S F R Y N G P	D M R M S V G S D	L T A A K V L N S Y S E E K L F G L F		
UniRef90_D8M1A6	D R G F S F F Q K D G P	D M R Y D P S Q G	T A A D L V N Q L D R D S L T A I F		
UniRef90_F8EVD6	R G F S I Q A D G P	D M R M A Q E G Q S	A A D F L N T A D E K A I A D V L		
UniRef90_Q6XJ01	R G F S I S R D G P	D M R M D H S G G	V T A A D V L A N V E E G D L V K I L		
UniRef90_E6PGS9	R G F S F S F Q S A P	D M R M N P Y S G	R S A Y D V L A H A E E S E L A D I F		
UniRef90_Q7UXF8	N R G F T F T D D A E L	D L R F D P E N G	V P A H R W L Q Q H S E K E I A D A I		
UniRef90_R5TAM4	D R G F S F Y K T E G P	D L R L N P E K G	L T A A E R E L Q T I E E E E L R G M L		
UniRef90_R5GLT8	R G F S F R F D A P	D M R M M N V R S G	T A A D V V N R Y D E A A L A R I I F		
UniRef90_E0TDS3	R G F S F S F R A E G P	D M R M G A G R P	T A A D F V N Q A E E A A L A D V F		
UniRef90_E0UR84	R G F S F S Y E S D N	D M R M D K D A Q L	N A S N V V N E Y S K T E L E R I L		
UniRef90_F0SCX4	R G F S I Q R F D G D	D M R M D Q S G E	L T A K K V I G E Y S E E E L L H K I F		
UniRef90_R5KUT3	R G F S F R F D A P	D M R M N R R D G	T A A E L L N T M P E E E P M A N M F		
UniRef90_R6XWI5	R G F S F S F R Y D A P	D M R M N K R A G K	T A A D V V N D Y E E S Q L A D I F		
UniRef90_UP100047C2DA0	R G F S F T R F D A A L	D M R M N Q K D A L	S A Y E V V N E Y E E K E L H K L F		
UniRef90_F9PZE1	D R G F S I R F D A D L	D M R M D Q S S S	L T A S Q I V N T Y S F E A L T Q L F		
UniRef90_H8XQ16	D R G F S T R F D A A L	D M R M N Q K D A L	S A Y E V V N E Y E E K E L H D L V R I F		
UniRef90_B3ESS3	UniRef90_C2FY2	D R G F S I R F D A D L	D M R M D Q V S I D L D A K K V L N T Y A E E D L H R I F		
UniRef90_D3ILX4	R G F S F R F D A P	D M R M N K N A A L	T A A Q V L N T Y D E E R L A D V F		

50 60 70 80

UniRef90_R4YXG5	A D G G D V P A A R R V A R E I I V A R R P L E T T D D L V E A T N A G T P A A
UniRef90_UP10004757052	R S Y G E E K F A P A R A I E R R R A R G R I T S T S T R E L L A D L V R E A I P A
UniRef90_Q01Q40	Y Q M G E E R R A R R R [] A R A I V R A R P L R S T L H L A D V V E R A V P
UniRef90_A0A017PSP9	R E Y G E E P H W K S K A I V N F R K R K K I L T V S D L K E A V T Q A L P S Y
UniRef90_J9DIX3	A L Y G E E R K A R A I A R A I G R V R E I S R T V E L L A D I V S Q T I G Q P
UniRef90_K9GYX6	Y L Y G E E R R R V A R A I V Q A R Q E K P F T R T G E L L A D V I R R V V
UniRef90_M1Z8K6	R K Y G E E K R P R Q R L I R K A Q G S H P I K T T F E L S Q I L S S A A K
UniRef90_L8GS85	W M Y G E E R R R Q I L A K A L C R Y R R E R I D T T T Q L L A D I V R R C L D A P
UniRef90_B3QWS9	F D Y G E E R E A K W I A R K I V E A R P I E T T A Q L L A L L I R Q N L N R K
UniRef90_UP1000381C00E	Y H F G E E R R S R A V A R A I V E A R P I E T T A Q L L A D L I A G V V R P E
UniRef90_N1MQS0	Y R Y G E E P R S R V A H A I V D A R P I E R T G Q L L A H V I R R A L G H K
UniRef90_B2KE60	A N Y G E E A R N A A A A I V R A R V D K K I K T T S E L A N L A P V L P
UniRef90_D3HX14	Y L Y G E L K N S R R I A A A L V K A R R I E T T Q D F V Q A V E P L F
UniRef90_N9TVV1	I N N A E V K [] A R Q V A N A I V K S R P I D T T L Q F A N V I R N S L P A K
UniRef90_Q216E6	Y I F G E E R H A V A R A I V A R A I E P I T T T R A L A D I V G K V V H A K
UniRef90_C4XK86	R E Y G E D P Q A G R I A R A I V S V R E I T T T A R L A E V V W Q A Y P A K
UniRef90_UP100037155B0	R E Y G E V E N A R V G L L I K A R A E K P I E R S E E F L Q V I A P R V P
UniRef90_R1D6Z0	W R H G E E R L S R P L S R A L V A A R P I L R S T A Q L A S V V K A A Q P G A
UniRef90_Q1AVW6	S E Y G D V P R A A R R V A R E I L R R R P L R T T A D L R E A V R A A V G W A R
UniRef90_B5JR19	R G Y A E E K N W R K I V I L A A R E K N E L S T T Q L A D L I L S C T P A R
UniRef90_U2SYD8	R D Y G E D R F A R N I A K H I V Q Y R E I E T T L E L S G I I S G A I P A
UniRef90_Q2GK29	F Y Y G G E R R V T R A I I S A R E S N N K I R N T S D L A K I I R S V V P R S
UniRef90_R6CKQ5	Y L Y G E L K N S R R I A S A L V K A R A E K P I L T T K D F M A A V E P L F
UniRef90_A0A014NP22	R D Y G E E R M A F P I A K A I V A H R E A H G P L Q T T E L S N L V G K I
UniRef90_B1LYT9	Y H F G E E R R S A R T I L E A R R R G R I E T T A Q L A E L V A G V V R T E
UniRef90_F8NB88	Y L Y G E L R Q S R Q I A A T K A R E H R P I L T T Q D F L Q V V D P L F
UniRef90_UP1000467FE74	Y L Y G E L K N S R K I A S V I V K S R A T T S I K N T S D F I N L V Q P L F
UniRef90_UP100036BC075	Y K Y G D E K H A K I I S S I L D H R E I K S T I Q L A N I E D I Y P E
UniRef90_D5EV56	Y I Y G E L K N A R K I I A K T R N E K K I E I K T Q G D L M S A T E K L F
UniRef90_UP1000375DC50	R D F G D E R F A S R I A R R I V E A D A L H S T A D L E N I C F H A V P P
UniRef90_UP100036BCD49	Y L Y G E E F R N S R Q I A S K I V R A R A E S P I L T I S Q F I E L T T P L F
UniRef90_B4RFS8	F V Y G G E E R E R I A R A I A R R E E Q P F T R T L E L A D F I E K A L G G
UniRef90_F4DIJ1	R E Y G E E P R Q A A K I V H F R K H K R I E T V R D L K E A T S R V F P S Y
UniRef90_W0ZC96	E R Y G E E K [] A A R Y A R F I V A A R P I L R S G E L V E V L V A A T P
UniRef90_A5GWA2	F H Y G E E R L S R R I A R R I L K T E G P W R G T A A L A Y A I A G C Y P P
UniRef90_A0A059KNR4	R V Y G E E R F R A G P L A R A I V A R R P I L R S G E L V E V L V A A T P
UniRef90_Q9Z8C2	R E Y G E E P Q W A A K A V V H F R K H K K I L S I Q D V K E A L L L G V F P H Y
UniRef90_U2KH09	Y L Y G E E M R N S R P I A A A L V K A R T L K P I T T T R D F I A A V E P F F
UniRef90_E1KN71	Y L Y G E L K N S R K I A A A I V N S R P I L T T K D F Q S V V E P L F
UniRef90_Q6KHR2	Y R N A E I K N S R Q I A K I I T S N R P I E T T L Q L S V I L K K Y L P A F
UniRef90_A7HH59	R E Y G E E P F A R P I A R R A V E S D E A L D T A R L L A D I V A K A I P R K
UniRef90_M4VAI9	H K Y G E I Q N P A R V V I V N D R V E K P F T T T L Q L A A L V R R L T H G G
UniRef90_A5FUK2	F H F G E E R R R I I A A A I V R R R A A Q P F E T T A D L L A A V I R T V V
UniRef90_Q3ANW1	Y H Y G E E P R S R A L A R A V V Q R E F T T T E E L A A L V R R L T H G G
UniRef90_R6VN33	G D W G E L E T P W K V A G C L V K A R R I G T T A G L L V E A V R P C T P
UniRef90_D4G8R9	R R Y G E E K K R S I F R Q N H K K N L K K I T S T R Q L V E I V S Q I V S
UniRef90_G9EKY8	R L Y G E E R F A G R I A R A I V T A R P I T T T L Q L A E I V K E A N P K W
UniRef90_E6SIY1	A E Y G E E R R W A G R I A D F I V A A R P I T T T Q L L V E I I K A A I P A
UniRef90_R51956	Y L Y G E L K S S R K I A S A I V K A R K I T E T T H E L L E I I Q P F I
UniRef90_T1PF60	R I Y G E E K G A K K I L A R A I V E A R K I E T T K Q L L A D L V A S C L S D T
UniRef90_UP100047295F6	H F Y G E E R H R V A R A V V A A R A E A P L H T T L Q L A E V I R S V V P
UniRef90_UP10003FC8AC9	Q V Y G E E R R R A A D F I L R A R E E G D I V T T E E L A D I I E R A L G
UniRef90_B1GZ8H	Y K Y G E E R K S R Q I A S A I I L R R K R G I N T A S E L Q T V I C S V
UniRef90_Q0G679	N F L G D E R H R A A R A I V A R R E A K P F V R T L D L A G V V G K A V V G R G
UniRef90_R6Z056	Y E F A D E K F A K S I V R N I I K S R E I E I E T T F E L V D I V K K S L P P K
UniRef90_R6W9S4	Y L Y G E L K N S R R I A K A I A Q A R E E Q K P I L T T Q D L L M D A T L P L F
UniRef90_UP1000379B445	R E Y G E E R R F A H A I A K A I I D A D R V A T T Q D L L A A L V E K V V Y
UniRef90_UP1000381531	Q V Y G E E R R R A A D F I L R A R E E G D I V T T E E L A D I I E R A L G
UniRef90_F0F7C2	Y L Y G E L K Q S R R I A A A I V K A R P F K T T H D L L A A A E P F F P
UniRef90_E6MPL2	Y L Y G E L K Q S R R I A A A V V K A R S S Q Q H I A T T Q D L L G I L E P I F
UniRef90_X1L0X4	R T Y G E E G C S R W I A R R I I I S E R P I K S T L H L V R T I E R A V G R
UniRef90_UP10002B4D41F	R V Y G E E S N W Y S L Q N K I V K A R S L H S T T Q L L D L I R K S T L G F
UniRef90_V8CMX5	Y L Y G E E I K N S Y K V A A A I V R E K A P I L T T R D L L Q S V V E P L F
UniRef90_R7LDZ0	Y L Y G E E L K N S R K L A A A M V K A R A L K A V E T I I D D L L Q I V K P F
UniRef90_H1HKN3	Y L Y G E E L K Q S R R I A A C T M R A R K R I A T T Q E F L Q A V E P I F
UniRef90_R6SWL8	K I Y G E E V D N A R R I A Q L I V A G R E I R T T G E L D T A I K P A L P D F
UniRef90_UP10003FFC7AE	Y L F G E E R H S R G V A R A I V A A R P I T T T R A L L A D I V A R T V
UniRef90_S55LD7	S E F G E E R Y S K S I A K K I I I E N R P I L N K T I E L L S N I I K N S V P K Q
UniRef90_W4F577	T Q Y G E E P L A K E F A K A I I I R R R P F E R T D Q L K R C I E A I A E K W
UniRef90_F9YU93	Y K Y G E E L R N A R A I A K H L V N Q R K I T T S I Q L K S L D P F L P K F
UniRef90_W5UT37	A N Y G E I K P A R Q I A K A I I I S N R P I V N T T F E L V N I V R N C L S
UniRef90_R5IL72	I E N S D E P Y A E Q I A R K V M N E R P I E T T T R L L K E V I E E A L P E A
UniRef90_UP10004790738	G G L G E E R K A G R I A Q A I A Q A R P I S T T V Q L L A R I V E A A S G G
UniRef90_UP1000255D91A	R T Y G E E I N N P G R I L V K S I I R A T K P F Q K T F D L K E V A Q T T A P
UniRef90_D8M1A6	A E Y G E T Y R T C R H V A S V I C R R R E F T N T I D F A T C V N K A L L E
UniRef90_F8EV6	Y L Y G E E R Q S R R V A R A I V A A R P I L T K T S E L L A R V I R Q A L G Y R
UniRef90_Q6XJ01	R M Y G E E K A A K K I A R G L I D A R K I E T T K Q L A D L I E N I M D G G
UniRef90_E6PGS9	Y Q Y G E S R R I A R A I V A R E A R G K P I T T T Q D L L F D A A F I S G L M Q R T
UniRef90_Q7UXF8	Y R F G E E R F S R R I A K Q I R E R N P V T K V G E L L V E I C R R C V P R S
UniRef90_R5TAM4	L E N A D E P Y A E E I A Q E I I R R G N P I D T T T R L L R Q V I E K A V P A A
UniRef90_R5GLT8	T L Y G E E L R R R L A A A I V R T R R E R P V E T V D D L V S I A R P L L G
UniRef90_E0TDS3	Y H Y G E E R S R A L A R R I V A Q R P I F E T T A Q L I A A V A E A V L G T
UniRef90_E0UR84	L E Y G E E L R N Y K K I A D V I V Q N R P F E V S A K E L L S E A V R P H M
UniRef90_F0SCX4	G I Y G E E I Q N A R S L A K T I V T A R E I V T I E D L K S A I A K L I P
UniRef90_R5KUT3	Y M Y G E L R N A R R I A A A I V K A R P I E T T Q D L I N S T A N L F
UniRef90_R6XWI5	Y L Y G E E L K N S R R I A S A L V K A R A T Q K I V T T D F I K A V E P L F
UniRef90_UP100047C2DA0	Y L Y G E E V K N A K T L A R T V V L K R E L E T G Q F K E A I A S C L P
UniRef90_F9PZE1	F K Y G E D K F S K Q I A R K I E Q A R P I E T T T E L L A E I I K S A K P A K
UniRef90_H8XQ16	V D F G E E L K N A M A N V I V N Y R K E K P I K N T E Q L L K Q V L A K F L P A
UniRef90_B3ESS3	R T Y G E E L H S A P A L A K A L I A A R P I E T T Q S L K E I A L P F S
UniRef90_C2FY2	G M Y G E I M N A K S L A K T V V T A R P I E T V A G L K E V I R K L V P
UniRef90_D3ILX4	F L Y G E I R Q S R R I A S A I V K A R A V V Q T T Q Q F A I V E P F

90 100

UniRef90_R4YXG5	V R R R G N P A K R V F Q G V R L E V
UniRef90_UPI0004757052	A T R R T G G H P A K R T F Q G L R I E V
UniRef90_Q01Q40	R T T G R L H P A T K T F M A L R M A V
UniRef90_A0A017PSP9	R F R K K I H P L T L V F Q A L R V Y V
UniRef90_J9DIX3	P G L Q K I H P A T R T F Q A L R I Y V
UniRef90_K9GYX6	R K S K D G I D P A T R T F Q A L R I V V
UniRef90_M1Z8K6	P S R K P R I H P A T K A F Q A L R I A V
UniRef90_L8GS85	P S S D K S I D P A T R T F Q A L R I F V
UniRef90_B3QWS9	S P V E Q T K T L A R I F Q A I R I E V
UniRef90_UPI000381C00E	P G S P I H P A T R S F Q G L R I A V
UniRef90_N1MQS0	P H D K K D P A T R A F Q A I R I E V
UniRef90_B2KE60	R R G K T H G A T R V F Q A L R I E V
UniRef90_D3HX14	R R E R E K K D I L A K L F Q A L R I E V
UniRef90_N9TVV1	I V N A K N P C K A V F Q A I R I A V
UniRef90_Q216E6	P G E I H P A T R T F Q G L R M A V
UniRef90_C4XK86	W R A T A R Q H P A T R T F Q A L R I E V
UniRef90_UPI00037155B0	K Q K E K K Y L A Q V Y Q A L R I E V
UniRef90_R1D6Z0	P K E L T K R A A R V F Q A L R I E V
UniRef90_Q1AVW6	P R G G N P A K R V F Q A V R I R V
UniRef90_B5JR19	V R F N S K L H P A T K V F Q G I R I A I
UniRef90_U2SYD8	R V R A L S G H P A K R S F Q A I R I W V
UniRef90_Q2GK29	K A N P I D P A T R T F Q A I R I E V
UniRef90_R6CKQ5	K R E R E K K D M A K L F Q A L R I E V
UniRef90_A0A014NP22	V K S R D G Q N P A T R T F Q A L R I F I
UniRef90_B1LYT9	P G S H I H P A T R T F Q G L R I A V
UniRef90_F8NB88	R R E K E K K D M A R L F Q A L R I E V
UniRef90_UPI000467FE74	G R D R E K K E M A K V F Q A L R I E V
UniRef90_UPI00036BC075	K R K K I H P A T K S F Q A F R I H I
UniRef90_D5EVS6	Q R E R E K K E M A K M F Q A L R I E V
UniRef90_UPI000375DC50	K A R H G S S H P A T R T F Q A L R I W V
UniRef90_UPI00036BCD49	K P Q R L K K E L A K A F Q A L R I E V
UniRef90_B4RFS8	R R G A K I H P A T R A F Q G L R I A V
UniRef90_F4DIJ1	R L R K K I H P L T L I F Q A L R V F V
UniRef90_W0ZC96	A A A Q R A G H P A K R V F Q A L R I E V
UniRef90_A5GWA2	K Q R H G R I H A A T R S F Q A L R I A V
UniRef90_A0A059KNR4	R T R E R G Q D P A T R T F Q A L R I L V
UniRef90_Q9Z8C2	R F H R K I H P L T L I F Q A L R V Y V
UniRef90_U2KH09	K R E R E K K E M A K L F Q A L R I E V
UniRef90_E1KN71	K R E R E K K E M A K L F Q A L R I E E V
UniRef90_Q6KHR2	I V R K K D P S K A V F Q A L R V E V
UniRef90_A7HH59	A W P R R H P A T R T F Q A L R I A V
UniRef90_M4VAI9	G W K K K G F H P A T Q Y F M A L R L V V
UniRef90_A5FUK2	R P D R S G I D P A T R S F Q A L R I E V
UniRef90_Q3ANW1	E K A V I K T L S R L F Q A L R I A V
UniRef90_R6VN33	R K D E A K F L T K L F Q A L R I E V
UniRef90_D4G8R9	Y K R K H P A T R T F Q A I R I H I
UniRef90_G9EKY8	E K H K H P A T R V F Q A I R I H V
UniRef90_E6SIY1	R A R R R G G H P A R R T F Q A L R I A V
UniRef90_R51956	N R Q K E K K E L A Q L F Q A L R I E V
UniRef90_T1PF60	S Y R Q R P T H V A T K T F Q A L R I F V
UniRef90_UPI00047295F6	Q D R S G I D S A T R S F Q G L R I A V
UniRef90_UPI0003FC8AC9	R S G K N H P A T R V F Q A L R I F I
UniRef90_B1GZH8	K R P E G R I N P A T K V F Q A L R I F V
UniRef90_Q0G679	K H E K I D P A T R C F Q A L R I F V
UniRef90_R6Z056	E L H K D G H P A K K T F L A I R
UniRef90_R6W9S4	P K E R G K K D M A R M F Q A L R I V V
UniRef90_UPI000379B445	T R E P G I H P A T R T F Q A L R I C V
UniRef90_UPI0003081531	R K E R S K Y L A R V F Q A L R I E V
UniRef90_F0F7C2	R A R E K K D L A R M F Q A L R I E E V
UniRef90_E6MPL2	K R E R E K K D L A K V F Q A L R I E V
UniRef90_X1L0X4	R R G R I H P
UniRef90_UPI0002B4D41F	K G R Q G W I K T A T R V F Q A L R I A V
UniRef90_V8CMX5	K R E R E K K E M A K L F Q A L R I E V
UniRef90_R7LDZ0	M P R E R E K K D L A R V F Q A L R I E V
UniRef90_H1HKN3	R R E R E K K D M A K L F Q A L R I E V
UniRef90_R6SWL8	A S H K I L A K I Y Q A L R I E V
UniRef90_UPI0003FFC7AE	R S R P G D I H P A T R T F Q A L
UniRef90_S5LDL7	N P I F I E K S I R R I F Q S L R I Y I
UniRef90_W4FS77	K T G K K P I H P A T R V F F Q A L R I A V
UniRef90_F9YU93	K E N K I L A Q I Y Q A I R I E E V
UniRef90_W5UT37	P A L L I A K K N L V K N V F Q A L R I A V
UniRef90_R5IL72	E K K E A V K K S C Q R T F Q A L R I D I I
UniRef90_UPI0004790738	R A Q G A P I H P A T R T F Q A L R I F I
UniRef90_UPI000255D91A	R R E E N K Y L A K V F Q A L R I E V
UniRef90_D8M1A6	S G K R S R K T P C T G I F Q A L R I S V
UniRef90_F8EVD6	A H D K K D P A V H C F Q A I R I H
UniRef90_Q6XJ01	S R K R R H A H S A T K T F Q A I R I F V
UniRef90_E6PGS9	G R R E R T H P A T R A F Q A L R I A V
UniRef90_Q7UXF8	R N H D I H P A T R T F Q A L R I A V
UniRef90_R5TAM4	D R K E A V K K S C Q R T F Q A L R I D V
UniRef90_R5GLT8	R D R E K K D M A K V F Q A L R I E V
UniRef90_E0TDS3	R D K I H P A T R M F Q A L R I L V
UniRef90_E0UR84	S R G K K I H P A T L L M Q A I R I E V
UniRef90_F0SCX4	R N K E N K Y L A Q V F Q A L R I E V
UniRef90_R5KUT3	R R E R E K K D I T R M F Q A L R I N V
UniRef90_R6XWI5	K K E R E K K E M A K L F Q A L R I E V
UniRef90_UPI00047C2DA0	K G K E N K Y L A Q V F Q A L R I E V
UniRef90_F9PZE1	E L K K K A T Q P
UniRef90_H8XQ16	H K S N K I L A Q I Y Q A I R I E V
UniRef90_B3ESS3	P P R K S A K F L A Q V F F Q A L R I E V
UniRef90_C2FYY2	K G K E H K Y H A Q V F F Q A L R I E V
UniRef90_D3ILX4	F K R E R E K K E M A K L F Q A L R I E V

	1	10	20	30	40
UniRef90_A0A022KZT6	R G F S Y A A D A P	L D M R M D T S S D P T A A D L L	R D L P E A E I S R I L		
UniRef90_E2B990	R G F S L S K D G P	L D M R M D C S G Q P T A A D V L	R E R A T E E E D I A R I I		
UniRef90_H6SNG4	R G F S F R F D G P	L D M R M S A S G P S A A D L V N T	L D E A V L A D I F		
UniRef90_I6Z345	K G F T F R E D S P	L D L R M N K S E G P S A A D L V N T	A S E E E E I A D I I		
UniRef90_H3CVJ6	R G F S L S K D G P	L D M R M D G E R M P S A A D V V N	L D Q Q A L A S I I		
UniRef90_A5Z3F0	R G F T Y K Y E G P	L D L R L N P E E K G I S A A E R L	R D I S V D E L E G M F		
UniRef90_W5YH89	R G F S F R M D G P	L D M R M A D T G P T A A D V V N T	I H I I		
UniRef90_W4VT11	S R G F S L S K D G P	L D M R M D G L R C P T A A D V V L	E R A T E E E D I A D I I		
UniRef90_J9GNV3	R G F S F R F D A R	L D M R M N G R G G M T A A D V V L	N R Y D E D D Q I A K L F		
UniRef90_W3ASA9	S R G F S Y K T E G P	L D L R L N P E S G K S A A E R L	R E L D Y D S M V N I F		
UniRef90_L1MIL5	R G F S F R F D A P	L D M R M N V R G G N T A A Q V L	N T A S E E E Q L T K V F		
UniRef90_W7TVW0	R G F S F R G D G P	L D M R M Q G P M K P S A G D I V	N T W E V G A L S K V L		
UniRef90_R5CLM5	S R G F S F R F D A P	L D M R M N K R D G T T A A D V V N	T Y D E E R L A D I F		
UniRef90_UP100047A3765	R G F S L R F D A D L	L D M R M D Q G T N L T A K E V I	I N S Y S E E D K L H K I F		
UniRef90_I2GQC0	R G F S T R F D A D L	L D M R M N Q Q A E R T A R E V V N	N D Y P E A E L H R I L		
UniRef90_X1K233	R G F S F A K D G P	L D M R M G E E G P T A S D I V	N A L P E K E L A W I I		
UniRef90_S8FAC1	R G F S F H S N A P	L D M R M N A R A G Q T A A D V I	N R Y E E S R L A D I F		
UniRef90_R6WUM0	D R G F S Y K V E G P	L D L R L N P Q N G I S A A E R I	C N I S R E E L M G M L		
UniRef90_P62469	R G F S F Y N D G P	L D M R M N Q Q Q G L T A E V L	N T A S E D E L I R I F		
UniRef90_R7PDF6	R G F S F R F D A P	L D M R M N K Q A Q L T A E V I	N T Y D E A D L G R I F		
UniRef90_UP10002246F6E	R G F M I S K N G P	L D M R M D G F R C P T A A D V L	A R A D E R D L Y H I L		
UniRef90_R7BCK3	R G F S Y K V D G P	L D L R L N P E A G V S A A E R L	A E L D E D E I I G M L		
UniRef90_X1GYG1	R G F S F Q V E G P	L D M R M D R R Q P V S A T Q L V	N E L E A G E L T T I F		
UniRef90_D1J816	N R G F S Y S I L N S D	L D M R M D L D N T L T A K E I	N N A T E K E I D I L		
UniRef90_F7KK57	D R G F S Y K T E G P	L D L R M N P E K G S A A E R L	R N I T Q E E L Q G M L		
UniRef90_U6E274	R G F S Y L Q N V S L	L D M R F D T T T Q T T A Q D I V	N D Y S F E K L K K I F		
UniRef90_D4JBX0	D R G F S Y K Y D G P	L D L R L D Q T K G E P A S E R L	K H V T R D E F E G M L		
UniRef90_R5CSR5	R G F S F R F D A P	L D M R M N K R D G M T A A D V L	N K Y D E A R L A D V F		
UniRef90_X7ZW16		M D P D S P	L T A A D V I N T Y D E A A L	L A D V F L	
UniRef90_J1P3A4		L T A Y E V V N N Y D Y H D	L A D V F L		
UniRef90_F0Z194	R G F S Y K T E G P	L D L R M N P E A G I S A A E R L	G T I T S E E L Q G M L		
UniRef90_O83399	R G F S F A E E H M	L D M R L D P Q A S Q T A A D L L	N R L P Q A R L A Q L F		
UniRef90_S2DLI9	R G F S T R F D G D	L D M R M S D A M N V S A K D I L	N T Y E E S Q H K V L		
UniRef90_A4BQJ4	R G F S F L R D G P	L D M R M D P S K G V S A A A W L	A D T P L S E I E S I F		
UniRef90_I2FDR6	H R G F S F T S N N	L D M R M D S T Q N L N A A K V I	N T Y S A M R L E E I F		
UniRef90_R5WHJ2	R G F S F R Y D A P	L D M R M N R R Q G V S A A D I V	N G Y D P E R L T L L L		
UniRef90_UP10004794DD2	D R G F S F R F E G D	L D M R M S R Q N P L T A A T I L	N T Y S E E Q L T E L F		
UniRef90_T1J7Z4	S R G F G L S K D G P	L D M R M D G K R Y P T A A D V I	R T L D E D D L Y K I M		
UniRef90_A6ERB6	R G F S T R F E A E L	L D M R M D Q G S A F S A Y D V V	N N Y E E S Q L S S V L		
UniRef90_D4MWWT8	R G F S Y K F E G P	L D L R L N P E K G I S A A E R L	E D I T K A E F E G M L		
UniRef90_UP1000255B545	D R G F S F L R F D G D	L D M R M D R R S I S A A E R L	E D I T V K E T R V F		
UniRef90_UP10003FC2951	G R G F S T R F S G S L	L D M R M N Q F G E M S A K D I V	N T Y E E G K L H K I F		
UniRef90_UP10003A93AB7	S R G F S F R S E D P	L D M R M N A R G G N S A R D I L	N D Y E E E A H R I L		
UniRef90_L8JUE8	R G F S T R F D A E L	L D M R M D R S A A K T A R Q V I	N E Y S Q E E L H R I L		
UniRef90_W5SU83	G R G F S F F E D E R L	L D M R L N P S D G S S A Y D I V	N T F D K K R E E N L I		
UniRef90_R9GR10	R G F S T R F D A D L	L D M R M D Q S A P I T A K E V I	D T Y S E E D H R I F		
UniRef90_UP1000371097C	G R G F S F L D D T P	L D M R M D K S A Q I T A Q T L L	Q T L S S E E E R L E R F		
UniRef90_A3J418	R G F S T R F D A E L	L D M R M N Q K G D S A Y H V V	N E Y D E S Q E I S R V L		
UniRef90_UP100041278CD	R G F S T R F E G R L	L D M R M D N D L E K D A L E V I	N K Y S E E T E L H Q L		
UniRef90_UP10004708A5F	D R G F S T R F E A D L	L D M R M D Q S K K I S A Y H V I	N E Y D E S D L R K M F		
UniRef90_G6CV28	R G F S F V S K N G F	L D M R M D A G R Q I T A R E V L	A T A D E H E L Y K I F		
UniRef90_F9Z310	G R G F S F R F E A E L	L D M R M N Q R S K L T A A T V L	N T Y D A E Q L T A F		
UniRef90_U7D3X2	R G F S Y R M D A P	L D M R M D R R S S P L S A E T V L	N T Y S Q K Q L G T I L		
UniRef90_UP100037A797A	R G F S F L R F D A D L	L D M R M D Q N T G M S A S E L	S E Y S Q K Q F A Q I L		
UniRef90_G0IZX5	S R G F S T R F E G K	L D M R M S Q S G D L S A A S I L	N T Y D E E Q S L H K I F		
UniRef90_E1GTQ8	N R G F S F R F D A P	L D M R M N K E S G K Q A F D V L	N D Y K E E D L A R L F		
UniRef90_E9H915	R G F S F L S K N G P	L D M R M D Q N N Q P L A N I D E D S L	S R V L		
UniRef90_J4JX29	R G F S T R F L E G A L	L D M R M N P E A P L S A Y E V V	N T Y E E E A S T L		
UniRef90_D4M037	R G F S F K V N G P	L D L R L N Q E K G I S A A E R L	D N I S E E E L A G M L		
UniRef90_UP1000362BC6F	R G F S F T R F E G D	L D M R M N Q K S K I S A K E V I	N N Y S E E K L A D L		
UniRef90_F4CEG1	R G F S F I R F D A D L	L D M R M D R V G E L D A K G I L	N S Y S E E D L H R I F		
UniRef90_C6X393	R G F S F T R S D A P	L D M R M N V L Q P L D A K K V I	N E Y E E E Q L A D I F		
UniRef90_D7JD47	R G F S Y R F D G T L	L D M R M N R E A S F T A E E L I	N G Y D E Q A L A D I L		
UniRef90_S2Y2F4	R G F T Y K K E G P	L D L R L N P Q K G V S A A E R L	K E V T E E E L A G M L		
UniRef90_W6EF55	R G F A F D S D V L	L D M R M N P K Q E L S A Y D V V	N H Y S Q E E L E F I L		
UniRef90_A9KS30	D R G F S F K T D G P	L D L R L N P E K G I S A A E R L	K T I S Q T E L Q G M L		
UniRef90_UP1000425B2D2	R G F S T R F E A E L	L D M R M N Q K G E L S A Y H V I	N E Y E E A A L K S V L		
UniRef90_M7XS36	S R G F S T R F E G K	L D M R M G G D I K L T A R E I L	N T Y E E S R L H K I F		
UniRef90_I3XXV3	R G F A F D S E V L	L D M R M N P H N T L S A Y E V V	N H Y S Q E E L E F I F		
UniRef90_J0L407	D R G F S F N S P N	L D M R M D Q N S N L T G N E V V	N R Y S E E F R L H E I F		
UniRef90_F5IWR9	D R G F S F R F D S D L	L D M R M N Q K A G K T A A Q I L	N T Y T E E Q L A D I F		
UniRef90_E6WZP9	R G F S F S A E N L	L D M R M N P E A P L R A Y D V V	N G Y P L E R L E E Y F		
UniRef90_J0MYW3	D R G F S Y K K D G P	L D L R L N P E K G I S G A E R L	K E M T Q E E I E G M L		
UniRef90_UP1000479B2CD	R G F S T R F D A D L	L D M R M N P K Q E L S A Y D V V	N H Y S Q E E L R N M F		
UniRef90_R5BWK1	S R G F S T R F E G K	L D M R M G G D I K L T A R E I L	N T Y E E S R L H K I F		
UniRef90_H2BY75	R G F S T R F E A K L	L D M R M N Q K S S L S A F E V I	N E Y D E D D H L K K I F		
UniRef90_UP10003FD39A2	R G F S T R F D A M L	L D M R M S K K N D L D A F K V V	N D Y E E A D L S R M F		
UniRef90_UP1000365DBB4	R G F S T R F D A D L	L D M R M S S R N K K S A Y E V V	N S Y T Y D D D L R N V L		
UniRef90_R5LEL4	R G F S Y K N E G P	L D L R L D P S K G E P A S E R L	K K L T K D E F T G M L		
UniRef90_I0EQM5	N R G F G F H S H T	L D M R M D L E S E L N A K K V I	N S Y S V V A L E K I F		
UniRef90_L0AZS8	R G F S Y L N D G P	L D M R M N A Q G G K T A A D V I	N S A H R R I F		
UniRef90_H3H3D3	R G F S V L N G P	L D M R F N Q R D Q P T A A D V I	I N K A G E A T L R R F		
UniRef90_Q7PR74	R G F S I S H D G P	L D M R M D R D R C P S A A E V L	N L S E V Q L T K V F		
UniRef90_N6TUB4	D R G F S L N K N G P	L D M R M D G N R D P T A A D V L	A N A S E E D L G K I I		
UniRef90_R7JS7P	R G F S Y K Y D G P	L D L R L N P E A G I S A A E R L	R T V A R D E L E G M L		
UniRef90_UP10004682513	R G F S T R F D A E L	L D M R M S Q R N D L S A Y E V V	N E Y D D A N L R R V F		
UniRef90_C6Y484	R G F S T R F D A A L	L D M R M D K Q G K L T A A E V L	N T Y T E D D Q L H K I F		
UniRef90_M4BKD3	R G F S V M K D G P	L D M R F N Q E D R P T A A D V N	T L S E V Q L T K I F		
UniRef90_R5VU7	D R G F T Y K F D G P	L D L R L D P E K G E S A A E R L	R E V S Y E E L V G M F		
UniRef90_S7X6X1	R G F S T R F E A D L	L D M R M N Q D S K L S A Y E V V	N N Y N E E Q L R A V I F		
UniRef90_C5ZY69	R G F C F D S E F L	L D M R M D Q S Q N F T A K D I V	N S Y P L T E L E R I F		
UniRef90_I3YW10	R G F S T R F E A D L	L D M R M N R D S N F S A Y T V V	N K Y D E V Q L R D V L		

	50	60	70	80
UniRef90_A0A022KZT6	H E Y G D E R F A R R I [] A R R E Q R E Q A P L T R S S E	[] V A L L D G A V P A		
UniRef90_E2B990	K F Y G Q E K R A K K I A R A I I E A R K L E T T T R E L L A E L I E S T L S R K			
UniRef90_H6SNG4	Y H [] G E E R H A R R V A R V V V E R R C P F T R T G Q L A E A V R A V V			
UniRef90_I6Z345	F R Y G E E E K K S R Q I A R K I A E Y R K F E T S S Q L K S I I A E L T P P K			
UniRef90_H3CVJ6	T A Y G E E R R W A G K I A S A I V E A R P I T R T Q Q L A S V V A G S I L P A K			
UniRef90_A5Z3F0	[] E N S D E P Y A Y E I A K A I V A R N K I E T T T D L L K N V I E K V V P Q K			
UniRef90_W5YH89	Y H Y G E E R R R V A R A I V A A R A E A P L L R T A Q L A D V V R S V V			
UniRef90_W4VT11	K V Y G Q E K K I A R A I I D A R Y M F R K L E T T K E L L A Q L I E S T L D G E			
UniRef90_J9GNV3	Y L Y G E M K N G K K L A A A V V K A R A Q Q P L E T V Q H L D V V R P L			
UniRef90_W3ASA9	[] E N S D E P Y A E K I A K E I V R A E K I E T T G E L L R E I I K K A L P E K			
UniRef90_L1MIL5	Q I Y G E L K N G R R L A A V K Q R G E R V F S T I N D L L Q V V Q P L M P			
UniRef90_W7TVW0	R A Y G E E P R A Y K I A R A I E S S R P L K S T T L E R E V A K C A P Y A			
UniRef90_R5CLM5	Y L Y G E L K R K I A A A L V K A R A A H K I E T T Q D F I G A V E S L F			
UniRef90UPI00047A3765	G I Y G E I K N A R S L A K E I V T V R P I E T V S E L K L A I L K L T P			
UniRef90_12GQC0	G M Y G E I T N A R T A A S A I V S A R S N R T I N T V N E L K T A L Q R Y			
UniRef90_X1K233	A V L G E E R R A R A I A R A I V A R E Q P I A R T G E L L A D I V A K V I G R			
UniRef90_S8FAC1	Y L Y G E L K N S R K I A S L L V K E R P I E T I P Q L L H L I K P L F G			
UniRef90_R6WUM0	I E N A D E P Y A E E I A D A V V V R G E K I V T T K D L L Q R V I E E A L P K G			
UniRef90_P62469	KEY G E V Y R P S R V V I V N D R K T K A F Q T T G A L A G L I E R V D			
UniRef90_R7PDF6	T L Y G E L K N G R R L A S V L V R R R P L Q K V S D L L D D V V R P L M G P A			
UniRef90UPI0002246F6E	K Y Y G E E K R A K K I A R A I I E A R S L R T T Q E L L A K L I E S L F P S T			
UniRef90_R7BCK3	V E N S D E P Y A E E I A V Q I M R E R P I D T T T A L L R Q V I E K A L P E A			
UniRef90_X1GYG1	W E L L G G E R R S R R R I A R A I L V E Q R Q R I E T T L Q L A D T V E R V C P R			
UniRef90_D1J816	Q S N A D V K [] L S N L I A K A I V K N R P I S D S F T L L N Q I I K D S L P A K			
UniRef90_F7KK57	I E N A D E P Y A G E I S R E A V R G K T I D D T T G D L L R Q V I E D A L P A A			
UniRef90_U6E274	K L Y G E E K K A A L I A Q E I I N R R P L H M S H D L V A I T D I			
UniRef90_D4JBX0	I E N S D E P Y A A E I A Q E L L K K G H P V D T T S K L R E L I E K A V P A A			
UniRef90_R5CSR5	Y L Y G E L K N R L A A A V A K A R A V K P I A T T Q D L M D A T A D L F			
UniRef90_X7ZW16	R R Y G E E R F A R R I A A Y I V R R R P F T R T G E L L V D L L Y Q A I P A			
UniRef90_J1P3A4	F K Y G E D K F S K Q I A R K I E Q A R P I E T T T E L A E I I K L V K P A K			
UniRef90_F0Z194	V E N A D E P Y A E E I A D A V V V K G K K I E T T T R Q L R E V I E S A L P A A			
UniRef90_O83399	F E G G E E R Y A R R I A Q A V C A Q R P F C S A R A F A E V V A R V V P P M			
UniRef90_S2DLI9	G I Y G E V K N N A K S Q A I T S Q R A A K P F S T T T E L K G Y A P			
UniRef90_A4BQJ4	R R Y G E E R Y A R R I A Q A I D A S R Q P Q T T G A L A A L I A A A V P R			
UniRef90_I2FDR6	R I Y G E I R Q S K K E L I V S T R E K K P F E S A L E L L S E L I E R H F P			
UniRef90_R5WHJ2	G K W G E L Q T P Y K I A N C I E R A R P I V T V S D L T G V L G K F L P K A			
UniRef90UPI0004794DD2	R L Y G E V P R R L V N E I V R F R A G K P F E T T T S E L L K E V A S K F A P R K			
UniRef90_T1J7Z4	K V Y G E E K A A R P I A Q A L V E S R S I T T T T N E L A Q V V V A S V L A K L			
UniRef90_A6ERB6	F Q Y G E L R A S K G I A R V I C E K R P I K T S D Q L L K E A V V A R F L P			
UniRef90_D4MW78	[] E N A D E P Y A K Q I A K E T V R G K K I K T T T D L L K D V I E R A L P E K			
UniRef90UPI000255B545	K E Y G E L R N A Y G L I S T A I V N A R E L K T T E Q L L K G V L G K F L P K A			
UniRef90UPI0003FC2951	G I Y G E V K N N A K T Q A I V A E R A A R P F D T T E L L K K F A P			
UniRef90UPI0003A93AB7	Y T Y G E L K N S R K L A A A I V R R R T S Q S I N T L V G D L I A A V K P E I			
UniRef90_L8JUE8	G M Y G E V R N A K T L A A A I V A A R E I I S T I N D L K H I L S R Y			
UniRef90_W5SU83	Y E L S G E R Y S K R I V K S I L D Y R K K I E T S R E I S D I V S K A Y			
UniRef90_R9GR10	G M Y G E I Q N A K S L A R T L V T S R K I E T I A A E F K E V I K H R I P			
UniRef90UPI000371097C	V Q V G E R R S D A R R I A Q A I V R E R N I P T A K A L A E L V A K V K			
UniRef90_A3J4I8	F N Y G E L K R A M A N V I V T A R K D K E I R N S D Q L K Q V L A K F L P G H			
UniRef90UPI00041278CD	G K Y G E V K N A K T L A A A L V S A R I N K P L V E S E D L K K V L Q K Y			
UniRef90_D4MW78	L Q Y G E L R N A P K I L A R A I V G A R P L K T S V E L K D V L S A F I L P			
UniRef90_G6CV28	K I Y G E E K K A A K I A Q T I I Q A R Y I D T T K E L L V D S C C P D E			
UniRef90_F9Z310	R N Y G E V E N A R R L V D L V K A R E I K T S E A F Y Q I L P C I P K L			
UniRef90_U7D3X2	R E Y G E V R G A A K M A D C C R Y R P V H T T G E F V S L L E Q E Y P R I			
UniRef90UPI00037A797A	W Q Y G E I K M S R K L A A A I Q C E R P I Q S T S Q L N A L L T P F F P P T			
UniRef90_G0IZX5	G I Y G E I K N A K T L A R A I V S A R A N T P F D S I P E F K D L L D K Y			
UniRef90_E1GTQ8	Y V Y G E L K Q S K R I A A A A I V K G R A N K A I R T T D F L K I V N P F F			
UniRef90_E9H915	K V Y G E E K Q A K K I A A R A I V E A R S L Q T T H E L A Q L I E S T C G R T			
UniRef90_J4JX29	F R Y G E L S Q S R Q I A R T I V Q Q R P I A T T G E L L K Q V V V Q R F L P			
UniRef90_D4M037	Y E N S D E P E L A K A I T T E I R K G N R I D T T T K L L R N V I E K T L D F L			
UniRef90UPI000362BC6F	F M Y G E I R N S R N V A K T I V Q E R K I E T S F Q L L K E V L K K Y L P N A			
UniRef90_F4CEG1	G M Y G E V Q N A K S L A K V V T S R P I N V S D L L K S I V S K L V P			
UniRef90_C6X393	Y Y Y G E L R E A R K L A R E I V H R P L E T T E D L L K K L F S Y I P Q F			
UniRef90_D7JD47	Y L Y G E L R N A R R I A A N A I V C R Q R Q T K A I K T I F E L T E V L R P F			
UniRef90_S2Y2F4	W E N S D E P Y A E E I A A T V R K G E P V E T T I Q L L Q K A I E E A L P E R			
UniRef90_W6EF55	R E Y G E I H E Y K K N V I C E A R A K A P L N S A K E L L S K L A E K V			
UniRef90_A9KS30	L E N S D E P E S K A I V N E I K R G N E I D T T T K L L R D L I S K V I P E N			
UniRef90UPI000425B2D2	L E F G E L K N A G A M A N V I V N A R P I K N S E Q K K E L L S R F L P G			
UniRef90_M7XS36	G I Y G E V V K N A R T L A Q A V V S Q R P F E T T T E F K A F L Q R Y A P			
UniRef90_I3XXV3	R E Y G E I H A Y Q K M A Q L I C E A R P I P T S A K E L L S R I A Q K V			
UniRef90_J0L407	R D F G E L K N S K K L A R V I V N N R P I E S G L E L L S A S L I E Q			N S
UniRef90_F5IWR9	Y L Y G E L K R R I A S A I V K T R K E K P Y R K V V S D L L L D T L I N S F V G R G			
UniRef90_E6WZP9	R E Y G E I R P A G A L A A A I V K A R P I I S S A Q E L L L A E L A K T V L			
UniRef90_J0MYW3	[] E N S D E P Y A A Q I I I S Q M K K G A E I S T T T Q R Q I I E D A L K F I			
UniRef90UPI000479B2CD	F N Y G D L R N A N A L A K A I T E G R E I T T T E E L L K L T L E K F L P			
UniRef90_R5BWK1	K L F G E N S R R V A Q L I V D A R A K K P I L T T D D L L L A G A I S P A L L P S F			
UniRef90_H2BY75	Y E Y A D L R N A P R L A S E I V K A R P I E S S E R L L L N E I L R P F F L			
UniRef90UPI0003FD39A2	F D Y G D L R N S K A L A S R I V E A R P I T N T G E L L L K Q V L G R F L P			
UniRef90UPI000365DBB4	F R Y G D L R R A D A M A K T I V A Q R P V K T T T D L L L K M V L K D F L P K F			
UniRef90_R5LEL4	[] E N S D E P Y A K E I I A N E F R K K E I N T T T D L L L D Y K A I E K A I P E K			
UniRef90_I0EQM5	R D Y G E V R D Y K K I A H H I V E R R P F E D A K D L L L S S F I S S L			
UniRef90_L0AZS8	Q D F G E E P R G P S I A K K I V E R R H I D T T A K L L L R D L I T S S L P A G			
UniRef90_H3H3D3	R D Y G E E E K I A K E F A K A I V R E R E F E T T R D L L I A E A L P K D			
UniRef90_Q7PR74	K V Y G E E K Q A K K I A R A I V N A R R I E T T A E L L L T D L I H T V L S E E			
UniRef90_N6TUB4	K Y Y G E E K Q A K K I V A R A I V E S R R I L T T T E E L L L T D L I H T V L S E E			
UniRef90_R7JS7P	[] E N A D E P Y A K E I S Q V V R K G K K I D T T F A L L L R D L I A E A L P K D			
UniRef90UPI0004682513	Y D Y G E L K N A P A L S R T I I E A R P I Q T T E E L L L K D V L A R F L P			
UniRef90_C6Y484	G I Y G E V V K N A K S L A R A I V T G R V E R P V L T L L L A D F K A V I A A A H			
UniRef90_M4BKD3	R S Y G E E K I A K E F A K A I V R E R E F A T T K E L L L R E C I E R I A N N M W			
UniRef90_R5VU7	Q E N S D E P Y A E E I A T V I M K R N R V V E T T I Q M K E A I E E A V P E K			
UniRef90_S7X6X1	F Q Y G E L R N A P A M A R V I V D E R K N A E I K T S E Q L K A V V L K Q F			
UniRef90_C5ZY69	R D F G E I R E Y K K Y C I V E L R K K E K I T S A K M L S Q F I A K			
UniRef90_I3YW10	S N Y G E L R N A A A M I V E A R Q D G K I K T S E Q L L L K K V L G R F L P P			

90 100

UniRef90_A0A022KZT6	A S K A S G G H P A K R S F Q A L R I A V
UniRef90_E2B990	D N L G R F S H N A T K T F Q A L R I F V
UniRef90_H6SNG4	R K S G D G L D P A T R T F Q A L R I A V
UniRef90_I6Z345	F L N K S L A R V F Q A L R I Y V
UniRef90_H3CVJ6	D R L R R P A H A A T K T F Q A L R I C F V
UniRef90_A5Z3F0	E R K E A V K K S C A R V F Q A L R I D V
UniRef90_W5YH89	R P D R S G I D P A T R T F Q G L R I H V
UniRef90_W4VT11	I R R G R F S H N A T K T F Q A L R I F V
UniRef90_J9GNV3	L G R D R E K K D M A K V F Q A L R I E V
UniRef90_W3ASA9	E Q Q E A Q K K S C M R V F Q A L R I E E V
UniRef90_L1MIL5	R D R E K K D I L A K V F Q A L R I E E V
UniRef90_W7TVW0	E R P K V L A R V F F Q G L R I A A V
UniRef90_R5CLM5	R R E R E K K D M A K L F Q A L R I E E V
UniRef90_UP100047A3765	A P R G K E N K Y F A Q V F Q A L R I E E V
UniRef90_I2GQC0	T R D E T K H P A T R T F Q A I R I Y V
UniRef90_X1K233	R D R E R K E L A K V F Q A L R I E D V
UniRef90_S8FAC1	E Q K E A V K K S C Q R T F Q A L R I D V
UniRef90_R6WUM0	G W Q V K G H H P A T K Y F M A L L R I A V
UniRef90_P62469	R E K K D L A K V F Q A L R I E E V
UniRef90_R7PDF6	D Q I G R F Q H S A T K T F Q A L R I F V
UniRef90_R7BCK3	E R R E M I K K S C Q R T F Q A L R I D V
UniRef90_X1GYG1	R G A R T H P A T G V F Q A L R I M A V
UniRef90_D1J816	I V R Q K N P S K A V F Q A L R I A V
UniRef90_F7KK57	E R R E A V K K S C Q R T F Q A L R I D V
UniRef90_U6E274	F Y R Y H K G H S A K K I F Q A L R I E E V
UniRef90_D4JBX0	D R K E A V K K S C A R T F Q A L R I D V
UniRef90_R5CSR5	K R E R E K K D M A K M F Q A L R I E E V
UniRef90_X7ZW16	P A R R T G G H P A K R T F Q A L R I A V
UniRef90_J1P3A4	E L K K K G H P A K Q I F Q A I R I E E V
UniRef90_F0Z194	E R K E A V K K S C Q R T F Q A L R I D V
UniRef90_O83399	R T A R F G K H P A T K A F Q A L R I A V
UniRef90_S2DLI9	R G K D F K Y Y A Q V F Q A L R I E E V
UniRef90_A4BQJ4	R E V G K H P A T R S F Q A I R I A I V
UniRef90_I2FDR6	R I G G I H P A T L A F Q A L R I E E V
UniRef90_R5WHJ2	K K D E T K F L S K L F Q A L R I E E V
UniRef90_UP10004794DD2	D A A R F L S Q V F Q G L R I Q V
UniRef90_T1J7Z4	D K L E R P A H S A T K T F Q A F R I F V
UniRef90_A6ERB6	K H R E H K I L A Q I Y Q A I R I E E V
UniRef90_D4MWWT8	E R K E A V K K S C Q R T F Q A L R I D V
UniRef90_UP1000255B545	K E N K I L A Q I Y Q A V R I E E V
UniRef90_UP10003FC2951	R G K E F K Y F A Q V F Q A L R I E E V
UniRef90_UP10003A93AB7	N P R E E K K Q L T C Y Q F Q A L R I E E V
UniRef90_L8JUE8	A K R G K E N K Y Y A Q V F Q A I R I E E V
UniRef90_W5SU83	P R I N L K I N P A T K T F Q A L R I Y V
UniRef90_R9GR10	K G K E N K Y L A Q A F Q A L R I E E V
UniRef90_UP1000371097C	G V R G G R I H P A T K V F L A L R I A V
UniRef90_A3J4I8	K A N K I L A Q I Y Q A I R I E E V
UniRef90_UP100041278CD	A P K G K E F K Y F A Q V Y Q A I R I E E V
UniRef90_UP10004708A5F	K H R E H K I L A Q I Y Q A I R I E E V
UniRef90_G6CV28	V R L D K L Q R P A T K V F Q A L R I F V
UniRef90_F9Z310	K E K K Y L A K V Y Q A L R I E E V
UniRef90_U7D3X2	S P K A L S K I F Q A L R I E E V
UniRef90_UP100037A797A	K V N K F L A Q V Y Q A I R I E E V
UniRef90_G0IZX5	A P R G K Y A K Y S A Q V F Q A L R I E E V
UniRef90_E1GTQ8	M R V R E K K D M A K L F Q A L R I E V
UniRef90_E9H915	D K L Q R P S H V A T K T F Q A L R I L V
UniRef90_J4XJ29	K G K E N K V L A Q L Y Q A I R I E E V
UniRef90_D4M037	P N N K E K K K T C Q R T F Q A L R I D V
UniRef90_UP1000362BC6F	L E H K I L A Q I F Q A I R I E E V
UniRef90_F4CEG1	R G K E N K Y Y A Q L F Q A L R I E E V
UniRef90_C6X393	K Q N K F F A Q V F Q A V R I E E V
UniRef90_D7JD47	C T K G K E Y K E L A P I F Q A I R I E E V
UniRef90_S2Y2F4	E Q K E A V K K S C Q R T F Q A L R I D V
UniRef90_W6EF55	G G K K T I H P S T L L F Q A I R I E E V
UniRef90_A9KS30	E Q K E A I K K T C Q R T F Q A L R I D V
UniRef90_UP1000425B2D2	H K S N K I L A Q I Y Q A I R I E E V
UniRef90_M7XS36	K G K E F K Y F A Q V F Q A L R I E E V
UniRef90_I3XXV3	P G K K S I H P S T L L F Q A I R I E E V
UniRef90_J0L407	G R K S G G I H P A T L V F Q A I R I E E V
UniRef90_F5IWR9	E K E K K V L A Q A F Q A L R I E E V
UniRef90_E6WZP9	R G K G K T H P A T Q M F Q A I R I E E V
UniRef90_J0MYW3	A K D Q R K R K S C Q R T F Q A L R I D V
UniRef90_UP1000479B2CD	D H K R H K I L A Q I Y Q A I R F R I E E V
UniRef90_R5BWK1	A E H K Y L A K I Y Q A F R I E E V
UniRef90_H2BY75	F K E K E H K I L A Q I Y Q A I R I E E V
UniRef90_UP10003FD39A2	H K S N K I L A Q I Y Q A I R I E E V
UniRef90_UP1000365DBB4	R E N K I L A Q I Y Q A I R I E E V
UniRef90_R5LEL4	E R K D A V K K S S Q R T F Q A L R I D V
UniRef90_I0EQM5	S K N K K I H P A T L I F Q A I R I E E V
UniRef90_L0AZS8	H K G K I K I L S R I F Q A L R I Q V
UniRef90_H3H3D3	R S S D K A T H P A T R C F F Q A L R I H V
UniRef90_Q7PR74	D K L R R P A H V A T K T F Q A L R I F V
UniRef90_N6TUB4	L A N K R R S S T A R I F Q A L R I F V
UniRef90_R7SP7	E K K E A I K K S C A R T F Q A L R I D V
UniRef90_UP10004682513	E R V K N K I L A Q I Y Q A I R I E E V
UniRef90_C6Y484	I P K G K E H K Y M A Q V F Q A L R I E E V
UniRef90_M4BKD3	A T K L G S T H P A T R C F F Q A L R I Y V
UniRef90_R5VU7	E R K E A V K K S C Q R C F F Q A L R I D V
UniRef90_S7X6X1	L N H Q K E N K V L A Q I Y Q A I R I E E V
UniRef90_C5ZY69	H F K H P K I H P A T L A F Q A L R I R I
UniRef90_I3YW10	H K E N K I L A Q I Y Q A I R I E E V

	1	10	20	30	40
UniRef90_D3AWM4	R G F S F R K D G P L	D M R M N K S S T	L S A F D I V	N T F S I K R	L R D I M
UniRef90_G2Z644	R G F S T R F D A I L	D M R M N Q K S D L	L T A Y T I V	N E Y T E N A	L K Q L L F
UniRef90_W2CWV1	R G F S F R F D G E A D	D M R M N N R A G R T	A S E V V	N T Y T E E Q	L T R L L
UniRef90_R6RKZ9	R G F T Y K F E G P L	D L R L N P E K G I	S A A Q R L L	N I S Q P E L	E G M L
UniRef90_F2IAN7	R G F S I R S N E V L	D M R M N Q A G D F	T A A K I V	Q T Y D E E Q	L A A I F
UniRef90_UP1000478DBA0	R G F S T R F D A E L	D M R M S Q K N D	D A Y K V V	N E Y D D A S	L R R V F
UniRef90_UP100047C120C	R G F S Y K I D G P L	D L R L D P E H G	Q S A A E R L	H D I T L D E F	K G M L
UniRef90_L7YBH2	R G F S H Q L N C I L	D M R M N Q E S T H	S A A D I I	I N R Y S K E E	L F H I F
UniRef90_J9GEK2	R G F S F R F D G T L	D M R M N K R A G M	T A A D I V	N N Y E E E Q	L A N L F
UniRef90_R5B8A3	R G F S F R Y D A P L	D M R M N R E G G K	T A A D V V	N E Y S Q E D	L E R L L
UniRef90_A3HXP5	R G F S F R T F S G D L	D M R M N Q S A E L	S A K E V L N	T Y E A H Q	L H K V F
UniRef90_UP100035C54D8	R G F S F T R F E A D L	D M R M N Q S A E L	S A F H V V	N E Y D E E Q	L K Q V L
UniRef90_C5ESG4	R G F S F K K D G P L	D L R L D S S R G I	P A S E R L	R H I S R E E	L T G M L
UniRef90_A6TUM7	R G F S F K S E G P L	D L R L N P N R G I	S A A A R L	K T I S Q D E	L Q G M L
UniRef90_B6FK02	D R G F T Y K S E G S L	D L R L N P E K G E	S A A A E R L	K N V T E D E	L E G M L
UniRef90_R5R4Y3	R G F S Y K T E G P L	D L R L D P M H G D	E S A A D R L	L Q V T T Q K E	F E G M L
UniRef90_R5LBIO	R G F S Y K D G P L	D L R L P Q K G K S	G A E R L	Q E L T Y A E	I V G M L
UniRef90_C3J8Z5	R G F S F R F E G A L	D M R M N N R A G R	T A A D L L	N T Y S V E A L	S D L F
UniRef90_B6YS33	N R G F S F R F I G N L	D M R M N Q R K G E	T A A D I L	N T Y S E N K L	I D M F
UniRef90_X1L831	D M R M D T R N S L	T A E Y V V	N N Y S Q E Q	L A E I F	
UniRef90_F2I0M0	D R G F S F N S N I K	D M R M G K N K	S A Y E L L	N E A S L E D	I N S I I
UniRef90_A0A011PL16	R G F S F R Y D A P	D M R M D T T Q G E	T A A Q W L	Q R A S V Q E	I T E V I
UniRef90_UP1000370F26D	D R G F S Y K T D G P	D L R L N P Q K G	V S A A Q R L	K E V S Q E E	L E G M L
UniRef90_Q7NB79	D R G F S Y H S L G R	D M R M D Q N K A V	D A T K L I	Q N S T V S E	L V K I M
UniRef90_M4X7Y7	R G F S Y F Y N G P L	D M R I N N K L G	T A F D F L	N N Y K T K E	I F K I F
UniRef90_UP100035CB4E3	R G F S Y T Q D D V L	D M R M N R N N G K	T A F E I	V N F Y M K D Q	L E Q V L
UniRef90_U2JWL5	R G F S F R D E A P	D M R M M N N R A G	R S A R D I	L N E Y D E A M	L A D I F
UniRef90_UP10001D2F20E	R G F S F R N D G P	D M R M E G S G R	S A A D I V	A E A E E E A	L A D I L
UniRef90_UP100037C8D29	R G F S T R F N A D L	D M R M S K K I D L	D A F K V V	N E Y D E A E I	I K R V L
UniRef90_Q22Z09	G F S Y R R N G K L	D M R Y N Q S Q T N	S A A D I L	N K A S Y L E	F E I
UniRef90_R6ZR79	R G F T Y K Y E G P	D L R L N P E K G A	T A A E R L	R E I D R E E F	C G M M
UniRef90_UP10003B72F9D	R G F S T R F D A E L	D M R M S Q K N D	L S A F K V V	N E Y D E A N	L R R V F
UniRef90_C6VTW3	R G F S T R F D A D L	D M R M N P N I E K	T A K T A R E	V L K T R S A A E	L Q R I L
UniRef90_K2F776	G R G F S F K K N E P L	D M R M S T E T E M	T A K Y L L	N H L S E A E	L F D I L
UniRef90_UP100035C34FD	R G F S Y R F A A D L	D M R M N Q Q D G P	T A A E I I L	A H T P V D E	Q Y V F
UniRef90_UP10003762B21	R G F S F Q K D G P L	D M R M N T N E K E	T L S D F L	D R T D E H A	A N I L
UniRef90_I0GM19	R G F T F K S D G P L	D M R M M T N E K E	T L S D F L	D R T D E H A	A N I L
UniRef90_F0ZDL8	R G F S F K K E G P	D M R M N N T S Q L	S A A D I V	N T F S E Q E	R D I F
UniRef90_H6RFW5	R G F S F R F E S E L	D M R M M N Q R S A L	D A K E I I L	N T Y S N R	T E I I F
UniRef90_G8TC6	D R G F S T R F E G D L	D M R M D Q R Q E R	T A F E I V	N T Y T E Q Q	H K L F
UniRef90_K2CKL5	R G F S F K L K N G P	D M R M D K D S T	T R A E Y L V	N V L G K G E	Y E L F
UniRef90_B4NAY7	N R G F S I S Q N G P L	D M R M D G G R G G	S A A D V L	A R A E E D D	L A R I L
UniRef90_UP100047DC702	R G F S F R F D G D L	D M R M M R Q A G V	S A A Q V L	N E Y E E G D	L A N V F
UniRef90_A6DA51	R G F T F D S N T L	D M R M M N K N Q E	F S A K D V I	N F Y D K N S	L E E I F
UniRef90_UP10004156BDB	D R G F S T R F A G P L	D M R M D R R Q E V	S A A D I L	R T Y N E E Q R	H K L F
UniRef90_S4N6V4	R G F S F R T E E S T	D M R M M N S R S G M	S A S T L L	Q S Y D E E H	A N I F
UniRef90_R5G523	R G F S F R F D G P	D M R M M N S K G G	Q T A A E L I	T A L D R D Q	R A L L
UniRef90_F4KLL6	R G F S F R Y E E A M D	D M R M M M N S R S	G V T A R D I	L L S Y S E E Q	A D I L
UniRef90_UP1000376D37D	R G F S Y R Q D G L	D L K M T M G K N N	I T A H D I L	N K L E Q K D	R N I F
UniRef90_I5AUW6	R G F S Y K T D G P L	D L R F N P S K G	E S A A E R L	R S L D T E E L	I G L L
UniRef90_T2BEK7	R G F N L H S D F L	D M R M M N Q D A K	I S A F E I I	I N N Y T Q E Q	S D I F
UniRef90_UP10003C7E18A	K G L S F D S E G N L	N M Q M G L N D Y	S A E D A L	N K L D E R E L	D K I F
UniRef90_M4ZST1	R G F S N Q S N C I L	D M R M M Q K S L	Y S A Q H V	L N E C S K Q E	F H I F
UniRef90_L0F3W2	D R G F S Y K T E G P	D L R L N P E K G I	S G A E R L	R K M T Q D Q	E G M L
UniRef90_A0A059LKZ3	S R G F S F R H P A P	D M R M G P R T G S	N A A Q F L	A R S S Q A R	E E V F
UniRef90_T1CWY4	R G F S F K S E N L	D M R M D T T N Q N	L D A H Y I L	C H Y S Q F E E	E R V F
UniRef90_UP10003658020	D R G F S F K A E G P L	D L R L N P Q K G	T S A A I R L	K E M T Q D E	Q D M L
UniRef90_E6L8Q0	R G F S L R S N F L	D M R M D M K S Q S	L S A F D V I	N T Y S K E K	A D I F
UniRef90_B9XC91	R G F T F K F E G P	D L R L N P E R G R	P A S A L L	A T L K E P E	I R I L
UniRef90_S3XU19	S R G F S L N S N N L	D M R M M N Q N D K	D A K F V I	N T Y S L G E	E R I L
UniRef90_G3S1G1		M P T A A D V V	N A L D Q Q A	L A S I L	
UniRef90_K4RIU2	N R G F G F N A L S	L D M R M D T G Q S	S D A F K V V	N G Y S L S Y E	E R V L
UniRef90_A7GYX6	R G F S I N S D T L	D M R M D R A C E	F S A A D V I	N S Y S Q Q N	L A E I F
UniRef90_M7P4L8	R G F S Y L R N N I L	D M R M D C E N N P	I T A Q Y I L	N N Y S L E N	Q N I F
UniRef90_A0A024GD27	R G F S W L R D G P	D M R F D E S D I	S T A A D V L	E T F S E V D	T R I F
UniRef90_L7MH13	R G F G L A R Q G P	D L R L N P A R F	T A A D V V	N F L D Y D S	V Q V L
UniRef90_R9MJG0	R G F S Y K T E G P	D L R L N P E Q G	V T A A E R L	L E L S E E E	A G M L
UniRef90_L1NH18	S R G F S F R F D A P	D M R M D T T R G M	S A A Q W L	A V A D E N E	C E V I L
UniRef90_UP100037CAEAA	D R G F S F E S K S P	D M R M G N K F S A	H D V L	N K L N Q N Q	S T I L
UniRef90_B9D3J7	R G F G L K S E N N	D M R M D M A Q A K	F S A Y D V	N S Y S A R E	E R I F
UniRef90_C8PDX1	R G F S T K S D A	D M R M D E S A A L	L D A A Y V V	N R Y S Q A D	A R I F
UniRef90_W5H1F6	D R G F S V L N D G P	D M R M D M P K A T	L T A E D I L	N S W P E L E	V G R I L
UniRef90_B2RIE4	R G F S F R S E S P	D M R M M N A R A G	R N A A I L	N E Y D A S S	L S A L F
UniRef90_UP100047D6625	R G F A Y S Y D A P L	D M R M D T S R G	T A A D V V	N T Y T E E D L	L R I I F
UniRef90_K1XDB2	D R G F L S F H R Q A K L	D M R L D N R L G	V K A S D L L	K V L T V K Q	T Q I F
UniRef90_C9RM22	S R G F T F V G D N P	D L R M D R R E N V	S A Q E W L	R S V S E D D F	A A A L
UniRef90_W8GSA8	G R F S Y K K D I L	D M R M D M Q N Q K	L T A S I L	N T Y P E E K	L L Y I F
UniRef90_R5AL09	S R G F S F R F D A P	D M R M M N R L A P	R S A A D L L	A E A D A R E	A D A F
UniRef90_A4S187	S R G F R P E Q D G P	D L R F D V E R G	V P A S E Y L	R L V S R E E	R R V I L
UniRef90_UP100042B0162	R G F S V L A N G P	D M R M D P Q A S L	K K A E D I L	N S W P D I E	V G R I L
UniRef90_UP10004671F31	R G F N F E S E I L	D M R M M N K N Q D L	S A Y E V I	N Y Y S R E E	E R I L
UniRef90_C1E467	S R G F R P E Q D G P	D L R F D V T Q G	V P A S E F L	E R V D R D E	V R I L
UniRef90_K2F482	R G F S F E N S E A P	D M R M N P T Q G	V K G S D I L L	N V L R E D Q	L R D L
UniRef90_UP1000298E769	R G F S L S K D G P	D M R M D G D R M P	S A A D V V	D T L D R Q A L	A S I L
UniRef90_UP100039C52D8	R G F S H K F Q S S I	D M R F D K S T N N	T A E K I V	H Q N D L K E L	T K I F
UniRef90_I7J952	N R G F S Y K K N G I L	D M R M N T Y S C	N T A Q Y I V	V N N W P E E R	L Y N L F
UniRef90_F4NU46	S R G F S F R K D G P	D M R M N T Y S C	N T A Q Y I V	Y P E M D L	V R I L
UniRef90_UP10003DE943A	R G F S L S K D G P	D M R M D G F R Y P	T A A E V L	K E I T E E D L	A F I L
UniRef90_E9C6L2	R G F S F L C D G P	D M R M G A G T	I P T A A T V L	A T L R C E E E	T H I L
UniRef90_UP100001BA1D8	R G F S F R L D G P	D M R M N A G D G	T A A E L I	D R L E E N E	A D L I
UniRef90_D3UHP1	K G F G F E S E V L	D M R M D N D A H I	S A K T I L L	N H Y S A F A L	E R V F
UniRef90_F0XZX9	R G F T Y K R E G P	D M R M D T S R G E	T A A D W L	A R S S T A D V	A A A F

50 60 70 80

UniRef90_D3AWM4	Y F Y G E E R H T K K I A E E I V L R R P I R T T N E L V A I I E K C I P Y P
UniRef90_G2Z644	A T Y G E L T N A G I L A K T I V E A R P I K N T E Q L K M V L G K F L P S
UniRef90_W2CWV1	Q T Y G E N A R R A E A I V R A R A E R P L C T T A E L T A A L Q P M
UniRef90_R6RKZ9	I E N S D E P E I S T V I L S E I R K G N A I T T T Q L Q K A V E K A V P A E
UniRef90_F2IAN7	R K Y G E L D H P F K T A V E L V K A R K I K T T G E L M E A L M P V A P K F
UniRef90_UP1000478DBA0	Y D Y G E L K N A P S R T I L E A R L H R P I K T T D E L K D A L A K Y L P E K
UniRef90_UP100047C120C	I E N S D E P Y A D E I A N K M K K G D P M D T T T A L R N A V E S A V P K E
UniRef90_L7YBH2	S K Y G E F K N A I I A E K I L E E R P I T T T W D L V K I F F R K K T S F
UniRef90_J9GEK2	Y L Y G E L K N S R K L A A A L V K A R P I H T I G E F L D E A I R P A I R P A
UniRef90_R5B8A3	R I Y G E L V D N A R K V A Q L I V S A R D I S T T G E L D E A I R P A I R P A
UniRef90_A3HXP5	G I Y G E I R N A K T L A Q A V V S E R P F E T T E G F T A F L K K Y A P
UniRef90_UP100035C54D8	L Q Y G E L L R A A P A M A K L I V E S R P I V T S E Q L K A V L K F F L P P
UniRef90_C5ESG4	I E N S D E P Y A E E I S R A V V N R I K I D T T T Q L R E T I E Q F I P E S
UniRef90_A6TUM7	L E N A D E P P N S A R A I I S E I K K G I D I S T T T Q L Q Q L I K D A I P Q N
UniRef90_B6FK02	V E N S D E P Y A A E I A Q Q V M M K K G D P I D T T T K L Y E T I E E A I P E K
UniRef90_R5R4Y3	I E N S D E P Y A A E I A A S V F K N G K G I D I S T T T Q L R E C T E A I L P K N
UniRef90_R5LBIO	T E N S D E P Y A E Q I A R T I M R Y R Y I S T T T Q L R E C T E A I L P K N
UniRef90_C3J8Z5	Y Y Y G E L K D A R R I A A L I E K G R P Y R T I E S L L E V L A P V L P P Q
UniRef90_B6YS33	D L Y G E L K N S A S I A H A I V Q A R M Q R E I Q T V Q D F L D I L K P F
UniRef90_X1L831	F Q Y G E E R Q A N K I A S N I I R L R P I K S T L E S N V F Q D
UniRef90_F210M0	K I F G E D K D H K K I A K E I V R T R D I K P I H S T Q D L C N A I L K A K
UniRef90_A0A011PL16	R N Y G E E R F A V Q I A K K V V A E R P L A T T G E L A A L V R A A S Q P L
UniRef90_UP1000370F26D	A E N S D E P F A K E I S Q E F K K G N E V S T T T Q L R R V I E K A L I R V
UniRef90_Q7NB79	K N Y G E I K D Y R V V V A L K K A F E K K E L N T L E V V E L I K K H V N K A
UniRef90_M4X7Y7	K I Y G E E K K S Y I T K K I C P F K M T L E L S N L I K
UniRef90_UP100035CB4E3	H D Y S E D R F W K R I S N A I L Q A R K I I E T T K E L R E I I E S V I P
UniRef90_U2JWL5	Y R Y G E L K Q S R Q I A R R I V Q A R P L Q R V G D L T A V V R P L V
UniRef90_UP10001D2F20E	Y H Y G E E R R R I A R A I V H A R L E R K I E T T G A L A A I I E R A A P G
UniRef90_UP100037C8D29	F D Y G E L K N A G A G A M A H V L V T A R A L K N S E Q L K Q V L A R F L P G
UniRef90_Q22Z09	R Q Y G E D P N A I S Q M I I K Q R Q I K P F E T T K D V V D L I L E D Q S G Y
UniRef90_R6ZR79	I E N S D E P Y A E E I S Q R F R R G Q A V E T T T Q L K E A I E A A I P E K
UniRef90_UP10003B72F9D	L D Y G E L K N A P A I A R T I L E Y R E I R N T E Q L K H V L G R F L P V
UniRef90_C6VTW3	G M Y G E V T N A R T A A E A I I A A R Y N S Q I E T V N D L K G I L M R Y
UniRef90_K2F776	A K N S E E I N S Q K I A R E I I I K R Q F E T V V E D L L I Y C I D K A I G
UniRef90_UP100035C34FD	G T Y G E V R N A R T L L A H R I A E A R E E Q Q A I I T T V D E F V Q I V E P M
UniRef90_UP10003762B21	KEY G D V V K P Y R I A K I I M R R E G K I R K I S D I V Q T V L E E F
UniRef90_I0GM19	R E N A D E P Y A A E I A R Q I T R R R W P I K T T K E L Y E E V A K A L P P E
UniRef90_F0ZDL8	Y H L G E E K H T R K I A H E I L R K R K I E T T S Q L V K V V E C C M P Y P
UniRef90_H6RFW5	R D F G E L R R K L A Q L I T D Q R E Q K A F E Q T A D L I T L V E R I S N P K
UniRef90_G8TC6	E Q Y G E V T N S K T L A K T I V Q V R K T V S L K T I S N F K Q A L H S
UniRef90_K2CKL5	N R L Q G E S H A S S R T I V S A R R V K A I R T T D E L L E A I A K A Y G Y T
UniRef90_B4NAY7	R V Y G E E K A A K K I I A R A I V E A R R I E T T K Q L A D L V A A V L G D S
UniRef90_UP100047DC702	Y L Y G E L K Q S R Q I A F K I V A R R K E K P F R K I K D L L D I L T P Y T
UniRef90_A6DA51	K K Y A E S R K Y K K I A D L I K N R P I N S N K E L S E I L M Q A
UniRef90_UP10004156BDB	E Q Y G E V S N N A K T L A R Q I V Q Q R Q V A T I E Q F K S L I A P V V
UniRef90_S4N6V4	Y R Y G E L L R N A R Q I A R R I V T A R Q S G E T F G S I A S L K H V I E Q E
UniRef90_R5G523	A T Y G E L K G S Y R I A T L L K E R G Q L S T I G E L L T A V A P V V P
UniRef90_F4KLL6	Y Y Y G E L L H D A R R I A A L L V S H R A V G Y I A A L L M E V L T P V L P K G
UniRef90_UP1000376D37D	S L F G E D K D M S G L I A K L I V Q K R E I S S T Q E L A E I I L R A K R Y K
UniRef90_I5AUW6	I D N S D E P E I A A A V A S A F R K K E P L D T T T A L R E L I T K T I L P L R
UniRef90_T2BEK7	K K Y G E L N D G Y F I A Q K I I C Q E R Q K N K I K S A K E L Y E I I G K T
UniRef90_UP10003C7E18A	K F F G E E K E S K F I A R N I V K E R K K I D T Q T L V E I D N T K
UniRef90_M4ZST1	Y E Y G E F F K N A R K I I A E K I L K T R L K K N I K T A L D L V H I F F I K G
UniRef90_L0F3W2	I E N A D E P Y A A R A I I S E I K N G T D I S T T T K L R Q I I E D A I T V D
UniRef90_A0A059LKZ3	R L Y G Q I P H A A E R V A W T R A T A P I E T V G D F L R V V G G
UniRef90_T1CWY4	RE Y G E L K E Y K K L A R L L K S R E F A S A K D L S A F L S Q
UniRef90_UP10003658020	I E N A D E P P H A Q A V S Q L K K G N A I Q T T Q L R N I K D A I L P Q
UniRef90_E6L8Q0	K I Y G E L K D G A F L A E K I I K A R A K K Q I S A K E L C E I L G N T
UniRef90_B9XC91	Q D N A D E P D A G L L A K G I I L Q A Q P I T T T T G L A E V I R E A F R S
UniRef90_S3XU19	KEY G E L K N A K F I I A G K I V N Y R E K K E I S S I K E L A N L V G L K
UniRef90_G3S1G1	R T Y G E E K H A K K I I A S A I V Q A R P I T R T Q Q L A S V A G A F P P S
UniRef90_K4RIU2	Q T G E V R E Y K K I A S L I V Q Q R P F I N T A Q D L A N F U A K
UniRef90_A7GYX6	S K Y G E L S N A K A L A A K I I V S A R N L K K I T S A K E L A S I I G T G
UniRef90_M7P4L8	Q I Y G E E P K S R L I A K E I I K N R P F Y R T A E L V N I T D K F K N P Y
UniRef90_A0A024GD27	U R K Y G E L K H A K E Y Y A K A I V R K R R A F E T T F D L R G V I E E V A A K W
UniRef90_L7MH13	K L Y G E E K R A K K I V A Q A I V D S R N L R T T T E L A R I V E V A L S G V
UniRef90_R9MJG0	A E N A D E P E I A G E I I A G R I I R R G R K P E T T A Q L R E A V E A A L A F L
UniRef90_L1NH18	R N Y G E E R F A R P I A R A I V A Q R
UniRef90_UP100037CAEAA	K Y F G D E K D H K K I A F R L R K N K K I L N T D D L V G I K N I K K
UniRef90_B9D3J7	E G Y G E L P N P A K F A A K I V E A R Q N G E I K S A E R L A Q I I G L K
UniRef90_C8PDX1	R E Y G E N A N A I A A K I A T A R T N A P L T S A K A L A N L I G T K
UniRef90_W5H1F6	R D Y G E E S N W Q S L Q R R I V K E R K L H S T G E L V K L I Q R T C
UniRef90_B2RIE4	Y H Y G E L K Q A R R I A A S I V H Y R E S L S G G L Q T V G Q L L E A V R G L
UniRef90_UP100047D6625	R T W G E E E K F A G R I I A A F R R N Q P F S T T G Q L V
UniRef90_K1XDB2	E D L G G E E Q A K K I I A K A I V R V R E N N P A L E V V G S L V A L I S A N
UniRef90_C9RM22	R K N A D M D R A F K L A T R I K E K V G E I T T E G D I K A V V E A V F P D K
UniRef90_W8GSA8	K R Y A E E K L A K K L V E E I I N Y R K D T K I L Q L N E I I A K V K I Y N
UniRef90_R5AL09	S L Y G E L R Q A R R I L A D A I V K A R A A A P V D T V G R L T E V V T P L L
UniRef90_A4S187	H E Y G E D P I A A R R I T D A I V L A R E N S T T K E F A L V A K A K
UniRef90_UP100042B0162	R D Y G E E S N W W Q N K I I Q A R L Q G G L H S T G E L V D V I R S V N P R T
UniRef90_UP1000467F31	K E F A E E R R Y K K I A K A I I S N R V I N S N R E F A D I L G
UniRef90_C1E467	H E Y G E D P V A A R R I A C L A V A E E R L P S T T K A F A A L V A A A K
UniRef90_K2F482	F E A T M E P G A A K W I S G R V M H S R P I E T V G D L L E I S E G L
UniRef90_UP1000298E769	T A Y G E E R H A R K I I A S A I V E A R P I T R T Q Q L A S V V A G S S T F A
UniRef90_UP100039C52D8	K E Y G E E R H A Y K I I A K K I K D L N D K V D V L A I T S V V D Q V T P F K
UniRef90_I7J952	R E L G G E E P S S A T I A R S I V Y Y R P I T T T Y D L K S A I
UniRef90_F4NU46	Q Q Y G E E K N A Y K I V R M I A I R S I N T T T Q L A Q I A K A V G K E
UniRef90_UP10003DE943A	K I Y E K R F
UniRef90_E9C6L2	R L Y G E L P K A R A I I A D A I V R T R P Q S T Q L A D I A R R A V
UniRef90_UP10001BA1D8	Y A Y G E E R R I A R R I K A D L A V Q G A Y S G T A A L Y A V A G C Y P P Q
UniRef90_D3UHP1	R E Y G E L E R E S K K L A Q L L S Q E R T R T D F G D P K T F N A F L K A
UniRef90_F0XZX9	R T A A D F K R D A R E L A V A A R R A P T P A T T T A F A E R V R G V A L E E

UniRef90_D3AWM4
 UniRef90_G2Z644
 UniRef90_W2CWV1
 UniRef90_R6RKZ9
 UniRef90_F2IAN7
 UniRef90UPI000478DBA0
 UniRef90UPI00047C120C
 UniRef90_L7YBH2
 UniRef90_J9GEK2
 UniRef90_R5B8A3
 UniRef90_A3HXP5
 UniRef90UPI00035C54D8
 UniRef90_C5ESG4
 UniRef90_A6TUM7
 UniRef90_B6FK02
 UniRef90_R5R4Y3
 UniRef90_R5LB10
 UniRef90_C3J8Z5
 UniRef90_B6YS33
 UniRef90_X1L831
 UniRef90_F2I0M0
 UniRef90_A0A011PLI6
 UniRef90UPI000370F26D
 UniRef90_Q7NB79
 UniRef90_M4X7Y7
 UniRef90UPI00035CB4E3
 UniRef90_U2IWL5
 UniRef90UPI0001D2F20E
 UniRef90UPI00037C8D29
 UniRef90_Q2ZZ09
 UniRef90_R6ZR79
 UniRef90UPI0003B72F9D
 UniRef90_C6VTW3
 UniRef90_K2F776
 UniRef90UPI00035C34FD
 UniRef90UPI0003762B21
 UniRef90_I0GM19
 UniRef90_F0ZDL8
 UniRef90_H6RFW5
 UniRef90_G8TC56
 UniRef90_K2CKL5
 UniRef90_B4NAY7
 UniRef90UPI00047DC702
 UniRef90_A6DA51
 UniRef90UPI0004156BDB
 UniRef90_S4N6V4
 UniRef90_R5G523
 UniRef90_F4KLL6
 UniRef90UPI000376D37D
 UniRef90_I5AUW6
 UniRef90_T2BEK7
 UniRef90UPI0003C7E18A
 UniRef90_M4ZST1
 UniRef90_L0F3W2
 UniRef90_A0A059LKZ3
 UniRef90_T1CWY4
 UniRef90UPI0003658020
 UniRef90_E6L8Q0
 UniRef90_B9XC91
 UniRef90_S3XU19
 UniRef90_G3S1G1
 UniRef90_K4RIU2
 UniRef90_A7GYX6
 UniRef90_M7P4L8
 UniRef90_A0A024GD27
 UniRef90_L7MH13
 UniRef90_R9MJG0
 UniRef90_L1NH18
 UniRef90UPI00037CAEAA
 UniRef90_B9D3J7
 UniRef90_C8PDX1
 UniRef90_W5H1F6
 UniRef90_B2RIE4
 UniRef90UPI00047D6625
 UniRef90_K1XDB2
 UniRef90_C9RM22
 UniRef90_W8GSA8
 UniRef90_R5AL09
 UniRef90_A4S187
 UniRef90UPI00042B0162
 UniRef90UPI0004671F31
 UniRef90_C1E467
 UniRef90_K2F482
 UniRef90UPI000298E769
 UniRef90UPI00039C52D8
 UniRef90_I7J952
 UniRef90_F4NU46
 UniRef90UPI0003DE943A
 UniRef90_E9C6L2
 UniRef90UPI00001BA1D8
 UniRef90_D3UHP1
 UniRef90_F0XZX9

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
incom

Sequence alignment showing conservation across 80 positions:

- UniRef90_H3HAG5 (Blue/Yellow Boxes):**
 - Position 50: R D Y G E E K [L] A K E F A K A I V R E R E F E T T R D [L] R E C I E R
 - Position 60: E A Y G G E P A A A R R I A D A V A L A K K D M T T R P F A D L V E R A K
 - Position 70: N Y Y R N K K Y F F K N L I I Y N R K K K E [L] K K T D F D L N I I K K V T
 - Position 80: R S F G E T S D A A Q R V A D A I I L P R R S R D A P E T L P R R S R C V L A A
- UniRef90_F0YRQ3 (Red/Black Boxes):**
 - Position 50: R D Y G E E K [L] A K E F A K A I V R E R E F E T T R D [L] R E C I E R
 - Position 60: E A Y G G E P A A A R R I A D A V A L A K K D M T T R P F A D L V E R A K
 - Position 70: N Y Y R N K K Y F F K N L I I Y N R K K K E [L] K K T D F D L N I I K K V T
 - Position 80: R S F G E T S D A A Q R V A D A I I L P R R S R D A P E T L P R R S R C V L A A

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
ipssm

	90	100
UniRef90_H3HAG5	G K E Y Q A M H P A K M T F Q A L R I V V	
UniRef90_F0YRQ3	N K N K I N N Y I S K I F Q I I R N Y I	
UniRef90_EOTIR1	P P P P R Q P H F A A A P R Q A L R V H	
UniRef90_R1D0P3	L I N K R K N K N P M K I F Q S I R I E	
UniRef90_F0QR26	D A K G R H A H T A T K T F Q A L R I F V	
UniRef90_W4XVH1	G R Q G K Q R H P A T K A F I A L R M A V	
UniRef90_K2A453	D S K T H P A T R S F Q A L R I Y I	
UniRef90_F0BD18	Q N Y K S N N N K V L S R V F Q A F R I Y I	
UniRef90_Q81556	R K D E A K F L T K L F Q A L R I E V	
UniRef90_K1TBV9		
UniRef90_E5VXM2		
UniRef90_A7TAM4		
UniRef90_D4MSA6		
UniRef90_Q4XMC4		
UniRef90_K2F9Q5		
UniRef90_Q8KTR3		
UniRef90_B3LD22		
UniRef90_Q7RD82		
UniRef90_S9VE11		
	N N Y K S N N K V L S R V F Q A F R I Y V	
	E Q D N N A Y K R I F Q A L R I Q V	
	G I H N Q G K H M A A D A F R A L R	
	K N Y K A N Q K V L S R V F Q S F R I Y I	
	N N Y K S N N K V L S R V F Q S F R I Y I	

