

QUERY	1	10	20	30	40
UniRef90_B4F113	A D Y Q G K N	V V I I	G L G L T G L S C V	D F F L A R G V T P R V M D T R M T P	
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UniRef90_UPI00046666D9	A E Y L G K K	V V I I	G L G L T G L S C V	D F F I M A R G V T P R V M D T R L V P	
UniRef90_D4HZZ6	A D Y Q D K K	V V I I	G L G V T G L S C V	D F F I L A R G V V P R M I D T R V V P	
UniRef90_E0WRZ2	A D Y Q G K K	V V I I	G L G L T G L S C V	D F F I F M A K G V I T P K V M D T R L N P	
UniRef90_I3D7N8	A D Y Q G K K	T I I	G L G K T G L S C V	N F L K A K Q A N V R V I D T R Q S P	
UniRef90_J4UP04	A D Y Q E N K T	V T I I	G L G K T G L S C V	D F F A D K N A K V Q V I D T R E K P	
UniRef90_X2H620	N Y Q G K N	V V I I	G L G I T G L S C V	D Y F L A Q N V I P K V I D T R L K P	
UniRef90_UPI00037D47C0	Y Q N K T	V T I I	G L G K T G L S C V	D Y L Q A Q Q A N I R V I D T R A N P	
UniRef90_R9CCL1	D Y H H K K	I L V L	G L L A K S G V S A A Q L L H N L G A F	V T V N D S K E N P	
UniRef90_G4L6A9	Y Q N K K K	I L V L	G L L A K S G V S A A K L L H D L G A L	V T V N D G K E N P	
UniRef90_F3Y9Q9	D Y K N K K K	I L V L	G L L A K S G K S V A K L L H K L G A Q	V I V N D L K Q F D	
UniRef90_U3U9F3	A D Y K G K K	V V I I	G M G L T G L S C V	D F F L A K G V I P R I M D T R M S P	
UniRef90_W6T7Q9	Q Y R N Q K	V L V L	G L L A K S G M N A A R L L H K L G A F	V T V N D K K D F P	
UniRef90_V6Q4I4	Y Q H K K K	V L I L	G L L A K S G M S A A K L L H Q L G A I	V T V N D G R P F E	
UniRef90_N9CKT5	N Y I N K K I	V I I I	G L L G Q T G I S C I N F F L E R D I I P	R I I D T R I S P	
UniRef90_C5WD44	V V A G L G	G S	G V S A V N F L H H Q G Y Q R V A V	T D S R P T P	
UniRef90_K6W0Q5	N Y I N K K I	V I I I	G V S A V N L L H E R G Y Q V A V	T D S R T H P	
UniRef90_F8GE39	L Q G K T	V L V L	G M G E T G L S M A K W L V R Q G A T	V R A A D S R L E P	
UniRef90_XOPD13	A T Y E N Q K	V L V L	G L L A R S G V H A A Q L L H R L G A L	V T V N D I K P F P	
UniRef90_D5V8A5	K K Y A V V	V G L	G L L G S S G L S A V N F L V N H G H K V S I	I D G N P N P	
UniRef90_C6LH06	D L Q N K K K	V L V F	G T G I S G I A A A Q L L E K M G A L P	V L F D G N T E L	
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UniRef90_UPI000289CA76	E F S N K H	I I I L	G L G K S G L A A A K V L H G I G A I	I T V N D Q K E N E	
UniRef90_D9SJM7	L S D K S K	V L I L	G L G E T G L S M V R W L S A Q G A R L	R V A D S R T T P	
UniRef90_UPI00037B7EC7	Q Y N G K K	V L V L	G L L A K S G L A A A T L L K K L G A V	V T V N D G K E N E	
UniRef90_UPI000289CA39	F E H K K K	V L V L	G L L A K S G V A A A E L L H K L G A F	V T V N D S K P F E	
UniRef90_UPI0002D7872D	E I K N K K Q	V T V L	G L G V T G L G I V R F L L S Q G L T P	N V V D S R Q S P	
UniRef90_UPI0002490FE4	Y E G K K K	V L V L	G L L A K S G F N A A K L L K K L G A Y	V T V N D K D D S V	
UniRef90_G8P218	E L A G K R	V L V V	G L L G K S G L A A A R F L K E R G A R	V T V S D A R P I A	
UniRef90_A4X102	D L F G K K K	V L V I	G M G K S G I S S A R F L K K H G A Y	V V A F D E K R E D	
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UniRef90_UPI00029A21CC	S E V E N K K	V L V F	G F G S G I G I G A V K L L E A L E	R V V V L Y D G N E K L	
UniRef90_F9N7K9	D Y S G S H	V L V L	G G A G L S G I G V A H T L A K L G A T	V T T L N D Y K D Q T	
UniRef90_UPI0002492B74	D Y K N K N I	I I I L	G L G L G T S G S N A A M L L H K L E A N	V T V V N D K K V P T	
UniRef90_UPI0003122A99	E Y E G K K I	I I I V	G L L A K S G Y A A A K I L H D L G A N	V T V N D Y D E S E P	
UniRef90_I4X7U9	Q L Y Q K K I	I I I V	G F T A A R I L H K L G A F V T V N D S K E N P		
UniRef90_R5TWV0	F K D K K K	V L V F	G F G S G I S G V S A A A L L Q E G A E	V V V L Y D G N D R L	
UniRef90_UPI000471B675	D L K E K N	V L V F	G F G S G I S G V S A A S R L L K K G A N	V I V L Y D G N A S L	
UniRef90_M7P112	S I I V G	I I I I	G L G K T G L S C A R F L L A Q G M D	V V V M D T R D N P	
UniRef90_F5LD15	E Y R G K K	V V V L	G L L A R S G V A A A A K F F H E M G A D	V T V N D R K T R P	
UniRef90_UPI00047C78EB	E F K G K K K	V L V V	G L L G K S G L A A A A L F L R R G A Q	V T V V S D I R S A E	
UniRef90_R6N816	D L T E K K K	V L V F	G I G A A K L L E K V Q A E I V L Y D G N E K L		
UniRef90_U1KHF6	L K N K N H	I T V L	G L G V T G L G I V R F L V R H G I T P	K V V V D S R P V P	
UniRef90_D8K8Y5	V I I I I	G L G K T G L S C A R F L L A Q G M D	V T V N D R N E F P		
UniRef90_UPI000477C69A	E L K G R K	V L V V	G L L G V S G F A A A L F L R R G A Q	V T V V S D I R S A E	
UniRef90_B7GG14	Y N G K K	V F V G	G L L A K S G G F A A A L F L R R G A Q	V T V V N D R N E F P	
UniRef90_A5VJ32	E Y Q G K K	V L V M G F	G L L A K S G I N A A H L L V K L G A N	V T V V N D R N E F P	
UniRef90_I8UDX3	E Y K G K	H V L V V	G L L A K S G F A A A A K L L T S Y G A H	V V V V N D R E E N P	
UniRef90_UPI00037D7C33	D Y Q N K N	V L V L	G L L G K S G F N A A K L L R K L H A N	V T V V N D K Q D P S	
UniRef90_U1LA87	Q L Q K K H	V T V L	G L G V T G Q G I V R F L L S H G I N P	K V V V D S R P V P	
UniRef90_I7L4Q9	Y E D K N	V L V L	G L L G K S G F A V S E L L L K L G A K	L T L N D K K D N E	
UniRef90_A1AU63	E L L N D K K	V L V V	G L L A K T G V A C A R F L L A S R G A R	V T V T D M R D E A	
UniRef90_UPI0003B6882D	E Y N G K K	V L V V	G L L A K S G L A A A A K L L H R S G A E	V T V V N D G A E A E	
UniRef90_R7TNB4	E L N N N K K	V M V G	G L L T G I S G L A G I D L L N K A G A D	C I Y D G N E K L	
UniRef90_U1MB22	E L L K N K K	I I V L	G L G V S G L S T M R F F A R K N I A F S	V V V D S R D L P	
UniRef90_A0A011P3V4	E L L Q G R S	T V V V	G L L G E S G L L A M V R W L V R H G A R	V R V A D T R Q A P	
UniRef90_UPI00046E56ED	L K T K K K	I I V L	G L G V S G L S T V R F L L E Q Q G I T P	L V M D S R R Q P	
UniRef90_A4C8C5	R T L V V V	G L G K T G L S C A R Y L T A Q G V A	V V V T D S R Q P		
UniRef90_G2FET5	D L K G K N V	L V V V	G L L G R S G L A S A R F L K K H G A F	V I G F E E Q F K E	
UniRef90_B9MQ99	E L L K R K K	I T V L	G L L G V T G I G I V R F L L E H G A F	V V V P T P T P	
UniRef90_L8D7W0	E I L K N K Q I	T V L	G L L G V R F L L S H S L M P K V V D S R T N P		
UniRef90_G7G0M1	Y Q G Q R	V V V L	G L L A K S G G V R V A K V F H D R G A L	V T V N D K K E C P	
UniRef90_UPI0002D615A2	N K K I V I	I I I G	G L L G A G E S G L G A A L L A K Q Q G Y A	V W V S D M A M I S	
UniRef90_I3Z4T9	E V T N K K	V L V F	G F G S G I S G T G A V G L L T E H G A D	V V V T D S R E R P	
UniRef90_C0BY50	F A G K R V A I	F G L G R S	G L L S A A R A L K A G G A E P L L W D D K		
UniRef90_E8RRX9	E N Y K V V V V	G L G A G E S G L G V A A A L L Y K S R G	I E P L L W D D K		
UniRef90_Z4WU29	S N W F D K K	V L V L	G L L S C A R H L S A R G V R V A V T D S R E R P		
UniRef90_D3RVH3	K I V I	I I I G	G L L G A G E S G L G A A I L A Q Q G Y E	V F V S D M G H I Q	
UniRef90_R5H5Y3	Y Q G Q R	V V V L	G L L G A G E S G L G A A L L A K V N G Y E	V F V S D G G S L K	
UniRef90_C9LJW5	K I V I	I I I G	G L L G A G E S G L G A A I L A Q Q G Y E	V F V S D G G S L K	
UniRef90_L0FUB2	K R I A I	I I I G	G L L G A G E S G L G A A L L A K V N G Y E	V F V S D G G S L K	
UniRef90_UPI00035C5F30	L A G C H	V L V L	G L L G E S G L G A M A R R C V R Q G A V	L R V V A D N R P E P	
UniRef90_L1N0I9	K R I V I	I I I G	G L L G A G E S G L G V G A A A L A K K K G F E	V F V S D M S A I K	
UniRef90_R5ABX4	E Y N G K K	A L V C	G L L G M A R S G L G V A A A L L N R L G G	V T L Q D M K K R E	
UniRef90_K6VM92	A D W S G L R	V V V T	G L L G L G S G F A A A A D A L S E Q G A Q	V V V V D D R L M E	
UniRef90_R6CEA8	D L K H K K	V L V V	G L L G G K S G I A A V G L L T K M G A E S	L L F D S K K G E	

50            60            70            80

QUERY	P G L D K L P E A V E R H T G S L N D E W M A A D L I V A S P G I A L A H P S
UniRef90_B4F113	A G L D K L P A D V E Y H T G S F H Q V W L N D A D L I V S S P G I A L S T P E
UniRef90_D3V4L7	P G S D K L P D D V A C H T G S L N T Q W L M D A D L I V A S P G I A L A T P E
UniRef90_UPI00046666D9	P A L E H L D Q R V V F H R G D L R V D W L L E A D L I V V S P G I A L S T P E
UniRef90_D4HZZ6	P G L E K L P K N V E C H W L G S F N D K W L L D A D L I V A S P G V A L A H P S
UniRef90_E0WRZ2	P N T D Q L P A V L E C H F G S L N Q K W L L E A D L I V A S P G V A L A D P L
UniRef90_I3D7N8	V G A E Q L D K S I P L H T G S L N Q K W L L D S D I I V I S P G L A V K T P E
UniRef90_J4UP04	A G I E Q L S K E I P L H T G G L N L E W L L N S D L I V I S P G L A L A T P E
UniRef90_X2H620	Q G I E Q L D E R V D Y H L G E L K N D W L L A A D L I I A S P G I A L S T P E
UniRef90_UPI00037D47C0	V G V E K L P K N I P L H T G S L N Q Q W L N E S D I I V V S P G F P V K T P E
UniRef90_R9CCL1	E A Q G L L E Q G I T V I C G S H P I E L E E G F Q L I V K N P G I P Y F N P M
UniRef90_G4L6A9	E A Q D L L T L G I K V I C G S H P I E L L D D F F M M V K N P G I P Y S H P L
UniRef90_F3Y9Q9	D T Q E L I H L D I H V V T G K H P I E L L D G I T L M V K N P G I P Y T N P M
UniRef90_U3U9F3	P G L K K L P K N I E F Y C G G I N R R W L L T S D L V I V S P G I A L I D P I
UniRef90_W6T7Q9	D A Q E L L N D G I K V I T G H P L S L L D D F K V V V K N P G I P Y T N P I
UniRef90_V6Q4I4	E A Q D L L T M G M R V I T G S H P V D L L D F E L I V K N P G I P Y D N P I
UniRef90_N9CKT5	P G H D Q I P A E V E T R F G Q F D Q D L L L S A E E V I S P G L D P K L P E
UniRef90_C5WD44	P N L D K L P K N L D Y H L G S I N S S W V L S A D L I V V S P G I S I R H P V
UniRef90_K6W0Q5	P G H D Q I P A G I Q T S F G Q L D T E L L L Q A E E I L S P G L A P Q L P E
UniRef90_F8GE39	P H W K E I M E I H P T Y K G K F E G K I F D G I E M I A I S P G V P L A D P F
UniRef90_XOPDI3	D A Q A L L D E G I R V I T G S H P L E L L D D F V L M V K N P G I P Y T N P M
UniRef90_D5V8A5	T L A D K L P T G V H C H F G S L D S E L L S S A D Q I I I S P G I D P R T P S
UniRef90_C6LH06	K K E D I R E K E A E I Y L G E L P Q D T A E Q L S L V V L S P G V P T D L P L
UniRef90_V7I0E0	P E T Q L T Q M G V R V V T G S H P L S L D G C D L I V K N P G I P Y R N E L
UniRef90_UPI000381B35A	P G E D K L N A S V E L I K G Q L D A G L L A E F K L I I A S P G I A L A T P A
UniRef90_R6ZZI8	D R A E L L K K T G N I V L G T V P E E L K K E I V L V V I S P G V P V D A P M
UniRef90_R5HKA4	D V T A L L E K N A E I I L L G E L A P E D M A R L D L V V L S P G V P T D L P M
UniRef90_UPI000289CA76	A A K E L E K M G I K V F C G G H P I E L D D H F D F I V K N P G I P Y S N P L
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UniRef90_UPI000289CA39	E A K R L L E Q G G M H V I C G R H P E D L L D G F E V V V K N P G I P Y S N I I
UniRef90_UPI0002D7872D	P G S D W L Q Q H A P T H F G D L A K A K L D S A D M I I I S P G L S L T L P A
UniRef90_UPI0002490FE4	D A Q K L L S E G I K V I S G S H P L S L L D G F T L I V K N P G I P Y D N P I
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UniRef90_F7V7W2	D T E K V L Q G Q F D E L V T G S L T E E Q T A G I Q L A V L S P G V P T D L P L
UniRef90_A6TS63	D L A E T I D E Q I E Y Y I L G R H P E E L T G E L D L V V L S P G V P L D I P F
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UniRef90_UPI000375B83F	P G A E Q L P A G L E C Y F G G L N P E V L C G A D L I I I V S P G V P L A T P E
UniRef90_B4U1U3	A A Q A L L E E G I R V I C G S H P L E L L D D F Y C M V K N P G I R Y D N P M
UniRef90_R6RG04	Q E E Q I R K Q V C S I V L G E L P K E L I S T L D L L V V M S P G V P L D I P A
UniRef90_F9N7K9	U S Q R L L A E S H I K E V I T G Q Q D F V L L D T A T R V V V S P G I S L E I P I
UniRef90_UPI0002492B74	D L N K L T Q Q G I K V V T G S H P L E L L E N C Q L M V K N P G I P Y S N P L
UniRef90_UPI0003122A99	E A S E L L V R N G I V V I G G G H P D N L M D N F D L I V K N P G I P Y T N V L
UniRef90_J4X7U9	E A Q E L L N L M G V V T V I C G R H P E D L E E G F E L V V K N P G I P Y T N V L
UniRef90_R5TW00	D A E G Q A K G S V V S V L G A F P E A L L S E L L S L V V M S P G V P T D L P S
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UniRef90_M7P112	P C L P E L L Q Q S W P V R T G Q L D Q D W L L R A D K V L L S P G V D P R L P E
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UniRef90_UPI00047C78EB	E L P A L L E E G I P V E A G G H G L T F R R Q D L I V V S P G V P L N T P E
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QUERY

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UniRef90_W6M003	I T E A A A A G V P V W G
UniRef90_R5KB57	M Q K L K D A K V K V I G
UniRef90_T0JBG8	A E A A R R Q G V P V I G
UniRef90_UPI0002DBEC5D	L Q Q A S L A G I K L V G
UniRef90_E7GS91	V T V L D E A G V P I W G
UniRef90_V6KQN0	F A T A A E H G V P V W G
UniRef90_UPI000365E03C	V K R A L D L K I P I I G
UniRef90_A5D147	V R A A V R E G I P V T G
UniRef90_R5YV60	V E R L R A Q N V A I W G
UniRef90_H3NNK9	V V E A N K K G V E V I G
UniRef90_H0URR0	L S L A R D K G I P V V G
UniRef90_UPI000370AE12	V Q K A I E K N I P I I G
UniRef90_UPI00036C9C31	L Q Q A A E L G I E V V G
UniRef90_UPI000363A170	L V K A A E L G I E V I G
UniRef90_NOBOK7	V K K A R A R S G V E I I G
UniRef90_UPI0002FD5B25	V A R A I E L G I P V M G
UniRef90_UPI0004169C50	V A Q A R Q A N I P V V G
UniRef90_W6WP33	I A A A R R E R D I P V W G
UniRef90_H0HTJ2	V E L A R G A G V E V I G
UniRef90_E6YIJ3	V E K A R Q E N I E I I G
UniRef90_R5FIE7	V K K A Q E A K V P V I G
UniRef90_UPI00035EF47	L Q A S A A A G I P V W G
UniRef90_UPI00047E137C	L A A A D A A G V P I W G
UniRef90_R5GY73	V S T L E E A D I P V W G
UniRef90_UPI0003FCE892	L K A A R N L G I E T I G
UniRef90_R7LDZ5	V A R L I E K G T P I I G
UniRef90_B5ELC5	L V S A R R A G I E I L G
UniRef90_R6F2F9	I E E A K S K G A E I V G

1 10 20 30 40

UniRef90_L0NFJ8	F A G K K V A L F G L G G S G L A T A Q A L Q A G G A D V A A W D D N
UniRef90_A0A011UV55	S S F A G R Q V A L F G L G G S G L A T A H A L V A G G G A G V L A W D D N P Q S
UniRef90_J3ABJ9	F A G K R Y A V L G L A R S G L T A V A T L V G S G A Q V M A W D S R D E A
UniRef90_D7CLJ1	G K R I H M V G L A R S G L T A V A T L V G S G A Q V M A W D S R D E A
UniRef90_E6PTH6	N L R D R T V L V L G L G V S G L A M A R W C A R Q G A V V R V A D S R R Q P
UniRef90_UP10003B6FB88	E F A G Q Y V A V F G L G R T G L A T V R A L Q A G G A K V H A W D D N
UniRef90_U2KA48	Y N N Q S A L V I G A G I S G F A A A K Y L A S A G A C V T L S D A K D E A
UniRef90_R5VEV1	L E G K K V L V V G A G K S G I A A S E L L D K K I E T V L Y D G N K D L
UniRef90_C2M4F3	K L V I L G G G E S G T G A A V L G K Q K G W E V F L S D K S P L K
UniRef90_A3QIM3	V L G L G A T G L S V V R Y L I K Q G I T P L V M D S R E N P
UniRef90_R5B897	R I V V L G G A E S G V G A A V L A K V K G F D V F L S D Y G K I A
UniRef90_C1DQ97	V G L G K S G M S L V R F L A R Q G A R F A V V D T R A N P
UniRef90_Q03W34	D F K N K K V M V F G W A R S G K A A A Q L L T K L G S K V T V V N G G E F D
UniRef90_M7N8F2	G K R V V V L G G G E S G T G A A L L A A R M G W A V E L S D K G K L G
UniRef90_UP10002E80E92	K N A H V I G L G K S G I A A A R L L H R E G W Q V V L S D R G S T P
UniRef90_UP100037FBD4E	N Y E G K S A L V L G L G K S G I A A A R L L K R E G W E V T L S D R S S S P
UniRef90_K9VIA2	H I L G L G K S G I A A A R L L K R E G W E V I A W D D N A D S
UniRef90_I9WWJ4	F A G Q K V A L F G L G G S G L T T A N A L K A G G A E V I A W D D N A D S
UniRef90_UP10004765361	D Y A G R R V T V A G F G L S G R A A A R V L A R Q G A D V T I V D A R D T P
UniRef90_A0A015L2R6	Y K G Q R V V V L G L A R S G V S V A K V F H G I G A E V V V N D R K D R P
UniRef90_UP10004207595	Q I A I L G A G E S G L G A A M L A R R E G Y G V W V S D L G L I S
UniRef90_H8GRH5	K V L V V G L G V T G L S V A K Y L S K L G F N F A A V D S R D N P
UniRef90_D4YIS6	R N K K I L L V L G L A K T G V S V V Q H L Q A L G A I V T V N D F K P L E
UniRef90_UP10003610D3F	K A Y V I G L G R S G N A A A R L L K R Q Q G W Q V I S D E S L H S
UniRef90_V8G7D7	S S L N G L S I L V L G L G E T G L A S A K W C M Q Q G A I V T V A D T R E Q P
UniRef90_UP100036D422B	K V I I L G A G E S G V G A A I L A L K K G Y E V F V S D G G K I A
UniRef90_D7GPR7	Q K V L V A G T G I S G L S A A K L L L A Q G G E V V L Y D G N E K L
UniRef90_U1L8B1	A D W K G L R V A V L G L G V T G F A A V D T L V E L G A D V T A I A E R V D D
UniRef90_UP1000255D915	D K R R I I I G L G Q T G L S C A R Y L K R R G Q A F A V C D T R E A P
UniRef90_UP1000255989E	N I I I L G G G E S G V G A A V L A K H K G L N V F L S D G G S L K
UniRef90_UP1000422F4D7	K R L V V L G G G E S G V G T A L L A K Q K G Y A V F V S D F G S I K
UniRef90_UP1000255B54A	Y R G Q D V V V L G L A K S S G Q V A K V L A S W G A N V I V N D K K D R P
UniRef90_UP1000363D0FC	W F D K K V L I I L G L S K S G M A A A K Y L N S K G A D C Y I T E Q K P L K
UniRef90_R6P993	T V H I L G L G R S G I A A A A K C L Q D D G W E V I I S D E N L N P
UniRef90_T2IFP9	L R D K E V L V L G L A K S G Y E S Q A V L H R G L A K V T V N D G K D D P
UniRef90_B0TGB8	L L Q K P H V L V L G L G E S G L A M A R W C G L N G C R V R V A D T R E A P
UniRef90_K9AWE7	D V A G L R I L V T G F G V S G Y A V A D Q T M Q R G A R V L V V D G A D T P
UniRef90_Q1LIM4	G R K T I L V V G A G K S G I A A A R T L A R L G A A V T L C D T K D L P
UniRef90_A0A022KVU1	Q S Q K V L V A G T G I S G I A A A R L L D M G G E V V L Y D G N D T L
UniRef90_M4WTB8	D F A G R E V L V A G A G G V S G L A T V R A L H A I G A R A V V A D T R E H A
UniRef90_Q8DMN8	E I M G K N V L V V G N A R S G I G A A K L A H Q K G A T V C I Y D G K P Y E
UniRef90_G5IE81	D L E S P C V L V L G L G E S G L A M A R W C A R H G A R V R V A D T R E S P
UniRef90_F6EFG4	F S G K S V A L F G L G G S G R A T A R A L Q E G G A E V V A A W D D N
UniRef90_F2JSA2	K R L V I I L G L G A G E S G V G T A I L L G K A G K Y D V F L S D F G K I K
UniRef90_J9H1K0	I V I L G L G A G E S G V G A A I L A Q K Q G Y D V F V S D A G K I A
UniRef90_B5SIS7	D L E S P C V L V L G L G E S G L A M A R W C A R H G A R V R V A D T R E S P
UniRef90_Q1YM62	F S G K S V A L F G L G G S G R A T A R A L Q E G G A E V V A A W D D N
UniRef90_F4AWC2	K R L V I I L G L G A G E S G V G T A I L L G K A G K Y D V F L S D F G K I K
UniRef90_UP10003FDBD3C	I V I L G L G A G E S G V G A A M L A Q K Q G Y D V I L S D R A H S P
UniRef90_B7K318	S D L A G R Q V T V A G L G V S G V P A A R A L R G L G A S V T V N G S D G E
UniRef90_V6L0N9	U N D K K D R P
UniRef90_R5QH14	T V H I L G L G R S G I A A A A R L L K R Q Q G W Q V E V S D R R Q T P
UniRef90_UP100031D3502	F A G R R V A L F G L G G S G L A T A E L V A G G A D V V A Y D D G E M A
UniRef90_B8ETM0	F R D Q S V A V F G L G G S G F I T A Q A L V A G G A S V V Y W D D N E H A
UniRef90_K1M6E3	F D Q K N I L I I G Y A M T Q G S V A E F L V R K G A N V T V N D R N E D E
UniRef90_D1BA00	D L R D K R V S V I V G A G I S G E A L A R L A R E A R G C R V F V S D G G N V P
UniRef90_UP1000346B380	K A H V I G L G K S G V V A A A Q L L K R K G W R V T A S D D S L Q R
UniRef90_UP100037413DB	F K G K S V A V F G L G G S G R A T V R S L V A G G A E V V A F D D S A E G
UniRef90_UP10003B4358B	Y A N Q F I L V V G L G K S G S S T V R Y L A R E G A T L A L T D S R A T P
UniRef90_R7PEM2	Q S Q R V L V A G T G I S G I A A A A K L V L E R G G D V V L Y D G N A A L
UniRef90_G2P6L3	U N D K K D R P
UniRef90_B0VH51	S D L A G R Q V T V A G L G V S G V P A A R A L R G L G A S V T V N G S D G E
UniRef90_B8CWJ4	U N D K K D R P
UniRef90_UP100016A26E1	U N D K K D R P
UniRef90_C0D340	U N D K K D R P
UniRef90_E4TKY8	U N D K K D R P
UniRef90_C6RAX1	U N D K K D R P
UniRef90_T0HAZ0	U N D K K D R P
UniRef90_I4YVG6	U N D K K D R P
UniRef90_UP1000374997A	U N D K K D R P
UniRef90_D0KXY2	U N D K K D R P
UniRef90_UP100036118FE	U N D K K D R P
UniRef90_G8R0Q9	U N D K K D R P
UniRef90_V716M5	U N D K K D R P
UniRef90_UP10002D2EB7C	U N D K K D R P
UniRef90_I3C5Y6	U N D K K D R P
UniRef90_U5T4L9	U N D K K D R P
UniRef90_F4CEF6	U N D K K D R P
UniRef90_UP1000225B911	U N D K K D R P
UniRef90_K1M147	R V L V L G Y G I S S K S V I E L L I K K G I R V N Q S D D S K D E
UniRef90_Q07PT5	F A G K M V A V F G L G G S G L A S C H A L K A G G A E V I A C D D D L
UniRef90_UP10003B589DD	Q W Q D K R V V V A G L G I S G Q S M V D I L R S Y G A Q V W G V D E R K P E
UniRef90_D7VUG9	K I V V L L G G G E S G C G A A Y L A K K K G L E V F L S D K G A I K
UniRef90_I0K472	R L V I L G G G E S G V G A A L L G Q A K G Y D V F L S D R G L L K
UniRef90_UP100040F851F	D F P Y S H V L V L G L A K S G T A A A E V L M K D G K K V R I N D K K A D E
UniRef90_UP10004651682	E L A G R T I V V A G A R V S G V A A A R L L A G L G A T E V V L A D G A E L A
UniRef90_E6X5W5	Q R L V I L G G G E S G V G T A I L A K K K G Y E V F V S D K G I I K
UniRef90_UP10003B47FC5	H I V I L G G A A E S G V G A A L L Q A Q K G H S V F V S D K S P I Q
UniRef90_UP1000380063D	U N D K K D R P
UniRef90_F6CX5T	U N D K K D R P
UniRef90_M2TKC8	U N D K K D R P
UniRef90_K9U7W2	F A G R T Y H V I G L G K S G V A A R L L K R E G W Q V I L S D R S D S A

50            60            70            80

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UniRef90_A0A011UV55	V E K A K A E G I A T G D L R G A D W P R F A A F V L S P G V P L T H P S S	
UniRef90_J3ABJ9	R Q Q C E W I D C G K V E L A D P V A A D L T G Y D G I V V S P P G I P P N H P I	
UniRef90_D7CLJ1	V T K I L E E R G L K V Y T G H A E G F L S P K T E L V V S S A I P P D N P E	
UniRef90_E6PTH6	P Q L E A L C P Q A M V H A G G I D A G L L D G V E L L C V S P P G I A P S D P L	
UniRef90_UP10003B6FB88	P V A R E R A T E Q Q G F D L V D I N K R D W Q Q Y S A L V L S P P G I P Y R Y P E	
UniRef90_U2KA48	D A E D L R T Q G I S C V F G A Q R E E L L E G T D L I V L S P P G I P E R I P L	
UniRef90_R5VEV1	D V E K L Y E K G M P V L V F G E L T D E Q L R A F D V A V L S P P G V P T D L P V	
UniRef90_C2M4F3	E V Y K K E A K G I R W E E G Q H T E S E I L S A D C I I K S P P G I P H K V P I	
UniRef90_A3QIM3	P G R E T L S Q E F P L L T G G F D C R Y L V Q A S Q I V V S P P G I P L D T A E	
UniRef90_R5B897	D H F E L R K W D I S F E E G H T E E L I L N A D E V V K S P P G I P S T A P I	
UniRef90_C1DQ97	P E L A T L K P Q V E V R C G E L D V E F L C R A S E I Y V S P P G I A S T P A	
UniRef90_Q03W34	A Q D A L L A A D V T V L G T D N A E T L D S T Y D Y L I K N P G I N Y D H P L	
UniRef90_M7N8F2	D A Y R Q Q L V E K G I E E G H H S E D L I L Q A A L V I K S P P G I P D T A P L	
UniRef90_UP10002E80E92	S Q Q E T L R Q D G I T V L D Y S F V P D S R T I N L L V V S P P G V P W D S S A	
UniRef90_UP100037FBD4E	Q R L F A L R Q A V E F A G G E F T A D L D G V D F V A V S P P G L A P Q R E L	
UniRef90_K9VIA2	N L L E Q Q Q E F L H V E L G K S F E P V E S L E L I V V S P P G V P W D S P A	
UniRef90_I9WWJ4	V A R A R E A G I G T Q D L R G A E W S G F A A L V L S P P G V P L T H P E	
UniRef90_UP10004765361	E D V A E L T G L G V T V R L G D G A T L P P G T G L V V T S P P G W R P D A P L	
UniRef90_A0A015L2R6	E A S E L E T L G I T V I C G H P E G L I A D T A L L V K N P G I P Y T V E P	
UniRef90_UP1000427595	E E R T H K T L E V I D F E E G G H H D D T I L S C D L I I K S P P G I P D K A P L	
UniRef90_H8GRH5	P S L K E F T P D V P V F T G K F S E E A F Q V A T H L V V S P P G V A L T E P A	
UniRef90_D4YIS6	E N K D A E E N N A R V V A G G H P V S L L D D F A F M V K N P G I P F N N P M	
UniRef90_UP10003610D3F	Q Q Q A L I A E G I E V R L G D N F D P E S A R P D L V V S P P G V P W D I P S	
UniRef90_V8G7D7	P G L A Q L R E D E R F F L G E L S N Q A L E G V H S I V L S P P G L A P F Q E E	
UniRef90_UP100036D422B	S K F E L V D N K I K F E E G K H S E E I I L S A D E V I K S P P G I P E K A E I	
UniRef90_D7GPR7	S E E K L K A K F V T I V L G E L K K T D L M G V E L C V I S P P G I P L E A P F	
UniRef90_U1L8B1	E R R T V L G V P I V E A G R D E S P A A L S E A D E V I A S P G L R P D H P W	
UniRef90_UP1000255D915	S G Y E L L K K A G V E F E S G K H S E K R I L N A L E V V K S P P G I P E H A P L	
UniRef90_UP1000255989E	S S A D A F R A E V E L R L G D L D L A W L S Q A D E L I I S P P G V V D K R H S V	
UniRef90_UP1000422F4D7	E I I Y E L R R A N G I E F E E E G G H H S E E R I L A A D E V V K S P P G I P E K N E L	
UniRef90_UP1000255B54A	P N Y K N V L E Q I E W E E Q K H T E S K I L N A D L V M K S P P G I P D K A P L	
UniRef90_UP1000363D0FC	E A D E L E A L G I S V I C G G H P D E L H P G V A L V V K N P G I P Y S V K P	
UniRef90_R6P993	Q E D E L N E L G I K T E F E H H S D E F M Q D V Y L A V T S P P G I P P R S E L	
UniRef90_T2IFP9	L Q Q Q L Q A E E I T V K L G H T P N L N S N A K L I V V S P P G V P W D I P F	
UniRef90_B0TGB8	F R K E L E A A G V V L H G G G Y P S L E R E G G F R E V V M S P P G V P L T V P P	
UniRef90_K9AWE7	F K I D L E S K G I L T V V D D E H P L T L L D N D P I I V K N P G I P Y H I P I	
UniRef90_Q1LIM4	A N L V F L Q A T A Q F M G G Q F T E N L L D D I G L V A I S P P G L S P L E P L	
UniRef90_A0A022KVU1	E N R E K A Q I G V E V R L G E H T R A L P T D F D L V V T S P P G W R P E Q P L	
UniRef90_M4WBT8	P E L A T L R E Q V E V R C G D L D A D F L C R A Q E L Y V S P P G L S L R V P A	
UniRef90_Q8DMN8	A Q Q L L Q A E G I P V Q L N D F D L Q T L I S V G L V I V S P P G V P W H S P A	
UniRef90_G5IE81	K G N F E E G A S V S V S V L L G D L K R T D L L G V E M C V I S P P G I S L E T P F	
UniRef90_F6EFG4	L E P A I E Q G A R G L L L D S A M P E I F E G I R L V V T S P P G W R P D A D L	
UniRef90_F2JSA2	A W Q E E A K Q T I M Y T L G E M P D V K A F D L V V M S P P G I S P E I E V	
UniRef90_J9H1K0	P R Y K Q M A H G I C W E E G Q H T E D L I L L A D E V V K S P P G I P E T V P M	
UniRef90_B5SIS7	A N L P A L R A H V E F I G G P F A P S L L E G V T L V A I S P P G L S P L D A A	
UniRef90_Q1YM62	P A S V E A A I D E G I P T V D L A S A D W T R F A A L V L S P P G V P L T H P T	
UniRef90_F4AWC2	D H Y K E I L T E D F A W E E E G H T E A L L I L N A D V V M K S P P G I P D K A P I	
UniRef90_UP10003FDDBD3C	UniRef90_UP100031D3502	E K Y K Q E L M R L E I H F E Q H S E E K I L A A S E I V K S P P G I P D K A D I
UniRef90_B7K318	T Q Q E L L G Q E G L T V K L A D H P S L I D S N P N L I V V S P P G V P W D V N F	
UniRef90_V6L0N9	T V I T A L R Q A G A T V H V G H D S A H L A A D A T C V V V V S S A I R P D N P E	
UniRef90_R5QH14	C A D E L E A K I L E I V L G T F P E E I I E E L S F V V M S P P G V P T D L P I	
UniRef90_UP100031D3502	R V T A A A R G I A V E D L R D I A W D G V A A L V L S P P G V P L T H P E	
UniRef90_B8ETM0	R E K A R A A G L R I E N L A S V D W R G F S A L V L S P P G V P L T H P A	
UniRef90_K1M6E3	S V D A L I R Q G A K F V T G G H P L S L L E Q W D Y I I K N P G I P Y S I D I	
UniRef90_D1BA00	R E R A L E K L G V G F E L G G H T D R V F E G D L L V L S S S G I S P S S P V	
UniRef90_UP1000346B380	Q Q Q Q L T E Q D L P V S L T S F D P E A N T D L A L L V V S P P G V P W D L P N	
UniRef90_UP100037413DB	V A R A A A E G L P T G D L R A M D F A R F D S L V L A P G V P L T H P T	
UniRef90_UP10003B4358B	A G V D E L L E L A P K L G A F A P E P L S Q F A F A V V S P P G V P L D D P F	
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 UniRef90\_S7XFP9 E K Y K K L L N N E I F E D E Q H T E S K I L L N A D I I M K S P P G I P D K V A L  
 UniRef90\_UP10003689C41 I I E N L R K L G A R V I T L G G Q R A E N V R G A D A I V V S T A I P Y D N P E  
 UniRef90\_G8LSJ2 K L K D V I D Q F I K Y S L G E D Y L K N L K G F D I I F K T P G M R F D L P E  
 UniRef90\_UP100037C9745 E D A A L V A D L G F G P G D L A G V Y S T V V A P P G V P I D H P D  
 UniRef90\_C4FY2 A A A D L R V E G A E V E L G A A D V P P P G D L V V T S P P G W R P D S P L  
 UniRef90\_A3Tzb4 Y I R Q L T R A G V P I H V G H A A S T I D F Q V V V V S T A I P E T N P E  
 UniRef90\_R6M948 A A R D R A E A E G F A V A D L T R A E T M E S V R S L I V S P P G I P H P N P V  
 UniRef90\_UP10003B3EE16 K D K V E E I E K L G V I C N D P I E Y L D D S F D I M V K N P P G I K Y T H P C  
 UniRef90\_D3NWD9 P G L D D F R P D V E L Q L G A F S D E Q F T G A S E L L V V N P P G I P L S E P A  
 UniRef90\_R5JB49 P A S R A A A E A E G F S V V D L A T A D L S D L T I T V W S P P G I P H T H P V  
 UniRef90\_UP10004229CE7 V K E L E E L G I N V I I T K D Q T S I F D D S Y D Y V V K N P P G V K L D H P I  
 UniRef90\_K0C1M7 N N Y K E I L N Q I P W E E K Q H T E E L I L N A D V V V M K S P P G I P D K S N I  
 UniRef90\_A3X714 P G L D V V E D I A V A F T G G F D H D F F E A A T H I I V V S P P G V T L E E Q E  
 UniRef90\_B0C915 R E T A E A E G F E L R D L H R Q G A F F D D I A L V T S P P G I P H P N P V  
 UniRef90\_UP10003630A1B T Q K T L A A E G I P V H L N A L A E L S L D R P D R I V V S P P G V P W Q L P A  
 UniRef90\_K0I6C7 D L S A E G L D G V D I I L G P H T P E M F E G A D L V V I P S P G  
 UniRef90\_E3D103 P Q L P A L Q P Q V R F V S G A F D A S L V Q G M H A V Y R S P P G I L S P E A P V  
 UniRef90\_UP10003B4D8B3 E G A R E R S R G L I G F E E G G H T P R V F E T D L F L L G S G I A P R V P Q  
 UniRef90\_A3Z6A0 R A R D L I N Q G I E V Q L G P S F A P W L D D L E A V V V S P P G I D W N H P T  
 UniRef90\_UP10003734F0A P G L D E F R P Q V R F V H C G P L S E I D L E S F E E I V L S P P G V D P R S P G  
 UniRef90\_V4FIG5 L A R E L I N D G I P V Y Q G H S D A G S D R P A L V V V S P P G V P W D A P G  
 UniRef90\_K9S4L5 Q Q Q A L A A E G I T V K L G H S D A G S D R P A L V V V S P P G V P W D A P G  
 UniRef90\_F0JF52 A V R R L E K L G A T V Y I G H G A D N V G D A D V L I K S T A I P D R N P E  
 UniRef90\_Q0FT10 P A A R A A A A E G F E T R D L S A Q G F D G V A R L V V S P P G I P H P N P V  
 UniRef90\_S6GG23 P L L E Q F Y P Q V K V V L G P L D A Q L I A T A S E L L I L S P P G I A K D D A A  
 UniRef90\_UP10004780209 S S E L N I E L H L G A L N A D V L K Q F S R L I V S P P G V V N W H H P A  
 UniRef90\_W8YSI4 E A A E L A A L G I E V I C G H H P D D L V D Q T A L L V K N P P G I P Y N  
 UniRef90\_E3GE15 T L A E L E E K G I K T I F G Q I D T R V I N E I D R V V T S P P G V P L T I P I  
 UniRef90\_B7GV74 T T Q Q L E E E N G I K V Y I G H E A N E I K N A N V V V S T A I I D P E N P E  
 UniRef90\_B8CNK9 P G A D K L A P D V E L I A G G F D C R Y L V Q A T Q I V I S P P G I S V E T P E  
 UniRef90\_A1VST8 P Q L A S L Q D S V P F V T S P M D G A L L A G F D L V L K S P P G L S P A S G V  
 UniRef90\_Q6A9Q4 S H R D K E V L G A E V R L G P G S A D L P E E T D L V V V S P P G W R P T Q P L  
 UniRef90\_UP10002488F18 R A K V A G R A T L A D P L A I D L A G F D G V I V V S P P G V P I R H P I  
 UniRef90\_C9R8M9 F L Q T L K L S G I R V Y N R H A P A N L A P E T E L V V V V S S A I K P D N P E  
 UniRef90\_K9EMW4 Q Q E T L A A E G I D V K L G H F P G D D P M D L A V A S P P G V P W D A P G

UniRef90_UPI0003798FD7	V   D   L   A   K   S   A   G   I   E   I   G
UniRef90_B7KH28	L   V   E   A   R   D   Q   G   I   D   T   P   W
UniRef90_KOZDF8	F   E   R   A   Q   A   V   G   I   P   I   G
UniRef90_J2DF84	A   M   R   A   K   I   A   G   V   P   I   G
UniRef90_R6YK83	G   D   F   F   R   S   K   N   I   P   I   G
UniRef90_UPI0004667D0A	L   D   T   F   R   E   K   G   V   P   I   G
UniRef90_V9X9S9	L   S   S   R   A   A   G   A   I   P   I   G
UniRef90_UPI00042B1F6D	L   S   C   L   L   Q   S   G   K   Q   V   M
UniRef90_G2Z738	L   I   K   A   L   K   E   K   N   V   L   I   V
UniRef90_UPI00039B5C7D	A   E   L   A   H   Q   A   Q   V   P   V   I   G
UniRef90_R5E9C8	A   N   T   V   R   D   K   H   I   P   I   W
UniRef90_UPI00036DC5BD	L   A   Q   A   R   D   R   G   I   P   V   I   G
UniRef90_I3ZYJ9	I   I   Q   K   L   R   K   Q   N   V   K   I   I
UniRef90_W8RX61	L   I   Q   V   A   A   S   K   G   V   K   L   A   G
UniRef90_S7DVW5	V   V   Q   V   Q   L   L   A   A   G   I   V   A   V   I
UniRef90_D5EEG8	V   K   K   A   Q   G   R   G   I   P   V   I   G
UniRef90_T2KRL8	V   K   Q   L   V   E   N   D   I   P   V   I   G
UniRef90_Q0EYH2	L   V   Q   V   R   E   A   G   I   P   V   Y   G
UniRef90_J7J3Z5	V   Q   E   G   L   S   R   N   V   T   L   W
UniRef90_I5BQZ5	V   V   E   L   A   R   A   A   D   V   E   I   T   G
UniRef90_UPI0003A5FD96	V   R   E   L   S   A   K   R   I   P   V   I   G
UniRef90_F8JWR6	L   L   A   A   A   R   E   R   G   V   P   V   V
UniRef90_UPI000262A306	T   T   W   A   T   A   R   D   V   T   V   W   G
UniRef90_UPI0002882D07	V   K   K   L   V   S   K   R   I   P   V   I   G
UniRef90_L8M678	L   V   A   A   R   N   Q   G   I   E   T   I   G
UniRef90_KOYJ63	L   A   A   A   R   E   R   G   I   E   V   V   W
UniRef90_C7MBF4	L   R   A   A   Q   E   A   G   V   P   V   W
UniRef90_R5PJ74	V   V   A   E   L   R   N   R   G   T   E   V   I   G
UniRef90_UPI0004027082	V   E   R   A   H   E   A   S   V   P   V   I   G
UniRef90_UPI00039CF6D8	L   L   K   A   A   R   E   R   G   I   P   V   V
UniRef90_Q3B127	I   I   R   E   L   E   R   R   Q   I   P   V
UniRef90_K6IV10	L   L   S   Y   A   A   K   K   K   I   P   V
UniRef90_B4WP99	L   L   V   T   A   R   K   L   G   I   E   T   L   G
UniRef90_A0A022LQE0	L   L   R   S   A   T   E   A   G   L   E   L   W   G
UniRef90_M1E6S1	F   F   F   A   R   K   K   K   N   I   P   V   V   G
UniRef90_L5N0B2	V   V   V   A   A   E   A   K   G   I   P   V   M
UniRef90_UPI00035FB262	L   L   G   Q   A   R   S   H   Q   I   D   T   I   G
UniRef90_J0LQ89	I   I   Q   E   A   I   K   K   E   I   P   V   I   G
UniRef90_A2TZN0	V   V   K   K   L   V   D   N   N   I   P   V   I   G
UniRef90_K9WHJ1	L   L   V   A   A   R   S   K   G   I   D   T   I   G
UniRef90_G3IUA3	I   I   M   K   A   I   A   N   G   S   K   I   V
UniRef90_UPI000406F8CF	V   V   L   L   A   R   A   A   G   V   E   V   I   G
UniRef90_UPI0002624AC5	L   L   L   Q   K   A   R   K   A   G   I   T   V   M   G
UniRef90_UPI000424F2A4	V   V   K   K   L   V   E   K   G   I   P   V   I   G
UniRef90_A7IGE7	V   V   K   K   L   A   R   D   A   G   A   E   V   I   G
UniRef90_F9ZZQ1	I   I   S   K   A   V   R   A   G   V   T   I   I   G
UniRef90_UPI0002E10133	I   I   T   W   A   N   D   C   G   I   A   L   W   G
UniRef90_J9YGY4	V   V   K   Q   A   E   K   L   N   I   P   V
UniRef90_E4L7H1	V   V   R   E   A   L   A   R   N   I   A   V   I   G
UniRef90_R4SMX2	L   L   V   A   A   A   E   A   G   V   E   V   I   G
UniRef90_UPI00047CF250	V   V   K   Q   L   V   A   K   G   I   P   V   I   G
UniRef90_R6ZC16	V   V   V   K   A   K   E   L   G   I   K   V   I
UniRef90_I3CN46	M   M   P   A   I   A   E   R   G   L   P   L   W   G
UniRef90_H1H0W1	I   I   I   Q   K   A   L   A   A   D   I   D   V   I   G
UniRef90_V9HMD6	V   V   L   A   A   L   E   Q   H   I   P   V   I   G
UniRef90_X5KNC6	V   V   G   K   I   H   Q   K   G   I   R   L   I   G
UniRef90_S7XFP9	V   V   Q   K   L   R   E   A   G   I   K   V   V
UniRef90_UPI0003689C41	V   V   L   A   A   R   D   L   G   I   P   V
UniRef90_G8LSJ2	L   L   E   E   A   R   R   N   G   S   Q   V
UniRef90_UPI00037C9745	L   L   L   L   A   L   A   A   R   G   A   E   I   I   G
UniRef90_UPI000349EDB6	L   L   V   V   A   A   A   E   A   G   I   E   V   I   G
UniRef90_C4F7Y2	L   L   V   R   A   R   E   L   G   I   P   V   V
UniRef90_A3Tzb4	I   I   A   A   L   A   L   D   L   G   V   P   V
UniRef90_R6M948	V   V   V   K   A   K   E   L   G   I   P   V   V   I
UniRef90_UPI0003B3EE16	L   L   A   A   A   A   A   K   A   G   V   R   I   S   G
UniRef90_D3NWD9	A   A   E   R   A   R   A   L   G   I   E   L   I   G
UniRef90_R5JB49	V   V   L   M   A   K   K   F   N   I   P   V   I   G
UniRef90_UPI0004229CE7	V   V   K   Q   L   K   K   N   N   V   P   I   I   G
UniRef90_K0C1M7	I   I   I   Q   A   A   S   E   R   G   V   P   V   F   G
UniRef90_A3X7I4	I   I   I   R   A   A   L   E   V   G   V   P   V
UniRef90_B0C915	L   L   E   E   A   R   S   Q   G   I   E   T   F   G
UniRef90_UPI0003630A1B	L   L   L   E   A   A   R   A   N   N   I   P   V   I   G
UniRef90_K0I6C7	I   I   I   Q   Q   A   L   S   Q   G   V   E   V   M   G
UniRef90_E3D103	I   I   I   I   V   E   A   R   K   R   G   I   P   V   I   G
UniRef90_UPI0003B4D8B3	L   L   L   E   A   L   R   Q   Q   G   V   A   V   I   G
UniRef90_A3Z6A0	L   L   L   E   S   F   W   E   R   I   P   V   I   G
UniRef90_UPI0003734F0A	V   V   Q   A   A   Q   A   A   R   I   P   V   I   G
UniRef90_V4FIG5	P   P   P   A   R   A   R   E   L   G   I   E   T   I   G
UniRef90_K9S4L5	L   L   V   V   A   A   R   E   R   G   I   P   I   I   G
UniRef90_F0JF52	I   I   I   A   A   A   W   E   A   G   V   P   V   I   G
UniRef90_Q0FT10	I   I   I   V   Y   A   L   S   R   G   A   L   L   V   G
UniRef90_S6GG23	L   L   L   E   A   V   R   L   A   D   V   P   M   Y   G
UniRef90_UPI0004780209	L   L   L   L   E   A   E   A   Y   R   C   G   V   P   V   I   G
UniRef90_W8YSI4	V   V   V   V   K   K   A   A   I   E   Q   R   I   P   I   V   G
UniRef90_E3GE15	V   V   V   V   R   A   A   F   D   M   G   I   E   V   I   G
UniRef90_B7GV74	L   L   L   L   A   A   A   Q   A   Q   G   I   P   V   I   G
UniRef90_B8CNK9	V   V   V   V   A   R   A   L   T   R   G   I   P   V   W   G
UniRef90_A1VST8	R   R   T   K   A   E   A   A   G   V   P   L   I   G
UniRef90_Q6A9Q4	L   L   L   L   A   A   A   R   E   R   E   I   P   V   I   G
UniRef90_UPI0002488F18	L   L   L   L   M   K   A   R   E   N   G   I   T   I   G
UniRef90_C9R8M9	L   L   L   L   M   K   A   R   E   N   G   I   T   I   G
UniRef90_K9EMW4	L   L   L   L   M   K   A   R   E   N   G   I   T   I   G

1                    10                    20                    30                    40

UniRef90_N9UWV1	F A G R R Y A V L   G   L   A R S G L   A T C E A L I A S G A G   V   T A W D E R E
UniRef90_R6N8T7	A S I Q G K R V A F C   G   G G S T L   P   L I S I F Q K K G A   V   V L A C   C   D K R D R E
UniRef90_I7LMU6	D F K N E K I M V Y G W A R S G K A V T K L L L A L G A D   V   T V A N D G D F Q
UniRef90_G0CT23	E L L Q G R V L V A G A G V S G L   G   L A A L L K S L D V D   V   V T D S R   P
UniRef90_B9Y7B0	K V L I I G A A R S G T Q A A Y L L A S H H H A   V   T   T D M K Q   D
UniRef90_J1HAN7	K R I H F V G   G   G G S G M P   L A E I L H H E G F K L   T G S D   V   N E S D
UniRef90_A1ZYU8	K R I V I L G G A E S G V G S A L L A K A K G F D   V   F   V   S D S S I L Q
UniRef90_UPI00039A4188	N I D K K N I G I L   G   L G   S G Y W A A K L A K S M G A N   V   F   I S D S K N N K
UniRef90_Q1QVG5	H T L V I G L   G   G V S G Q A I A R H L S R R G E   P   F   M   V   A D T R E S P
UniRef90_L1NGI9	N W K N Q K I L V A G M G G S G L   S M L A Y L H A Q G A S   V   V A A Y D E K   L   S A
UniRef90_Q6NGC6	E L A G R V L V A G A G V S G V G I T Q L L R E M G   C   A   V   T   V   A D S N A Q L
UniRef90_R6RAY1	I L R G K R V A I I G L   G   V S I N P   L   D Y F H N   H   L   G   S A F F D K R   P   V E
UniRef90_UPI00036135A6	D R Q S P T V L V L G L   G   G E S G L   A M A R W C A R H G   C   R   L   R   V   A D T R E A P
UniRef90_M1M9B3	N I K K S I V L I I L G L   G   E S G C   Y   S A I W Y Y R Q G A R   L   R   I A D T K T N P
UniRef90_UPI00030A0C85	Q L Q G Q H V L I I L G L   G   G A S G L   A M A R W C A H A G A D   V   V T V A D T R E T P
UniRef90_F2UUH9	Q L D G A H V A V G L   G   G R T G R A V V D A L A T L G   A   R   I H V   F   D S R E S S
UniRef90_E4NIG8	I G I G G A G G M S G L   A K I L A V R G A T   V   S   G   S D A K E S E
UniRef90_O26631	I R N M K V L V I G A G A N G R P   A   A R L L N H   L   N N R   V   L   V N D   V   R E   L   H
UniRef90_R1GWF2	K R I H F V G   G   G G A G M G   T   A E V L I N E G Y E I   T   G   S D L   S E N A
UniRef90_X0YZE8	D L K N K R I T I M M G L   G   N G   V   G   V A R F L   A K A G A K I   L   V   T   D L   K   T   E E
UniRef90_UPI000476D0BD	V L V A G A G G V T G R S   V   L   A A L   A P   L   G   V   R   P   T   L   C   D   D   P   A
UniRef90_10S210	Y E G R K V A V L G   L   G   R   S S G   L   A T A R A L   E   A G E   A E   A L   C   W   D   D   S   V   E   A
UniRef90_K2JS79	I E N K K I L I L G   L   M   A R S G Y   V   E   V   A   K   L   N   D   K   N   R   I   Y   I   T   D   Q   K   D   Q   A
UniRef90_R7NG37	Y G G Q R V A V L G   L   G   R   S G   L   A A A R A L   K   A G G A E   P   V   W   D   D   S   P   E   A
UniRef90_A0A059IKG9	I K G K R V A V L L G   F   G   S N   S S I V   D   F   L   L   G   A G A E   V   T   V   R   D   K   K   E   N   I
UniRef90_R5PXW5	K R V H F I G   G   G S G M P   L   A E I L L H   K   E   G   Y   E   L   S   G   S D   N   N   E   T   D
UniRef90_R6DXQ7	Q W K G K R V L V L G A A R S G   L   A A A Y L   T   G   V   E   A   V   V   T   I   N   T   G   S   E   P   S
UniRef90_UPI000404E908	R R V H F I G   G   G G A G M S   I   A E V   L   L   N   L   G   Y   E   V   S   G   S D   M   R   E   S   K   R
UniRef90_C7R9L9	K V A V I G L   G   T T G R A V V M D T L   D   R   L   G   V   R   A   V   G   F   D   L   K   A   P   A
UniRef90_S2VW08	T V L V I G A A R S G   I   A V   S   K   L   L   L   K   N   G   Y   H   V   I   L   T   D   S   N   K   V   N
UniRef90_B7CB16	V L V A G G G V T G R S   V   L   A A L   A P   L   G   V   R   P   T   L   C   D   D   P   A
UniRef90_C7GZI4	G Q R V L V L L G   F   G   K   S G   I   S   A M   R   L   L   G   K   Q   D   V   T   M   Y   D   T   R   E   V   P   P
UniRef90_I0XP10	N I V V L L G   G   G E S G   F   G   A A Y   L   A   K   K   K   G   L   E   V   F   V   S   D   K   G   N   I   K
UniRef90_K1MC17	R V G V V G   F   G   R   S G   Q   A A Y   R   L   L   K   D   K   G   F   D   V   Y   A   F   D   D   R   A
UniRef90_F2LT1V1	Y D G K N A L V L G   L   G   E S G   G   L   A M   A   W   L   R   S   G   A   R   V   R   V   A   D   T   R   E   S   P
UniRef90_UPI00036CCA91	K S A H F I G   G   G G M S   I   A L   R   L   L   K   E   R   Q   A   N   A   V   L   C   N   S   Q   P   L   P
UniRef90_G1WXG8	K H I H F V G   G   G G V   G   M   G   I   A   E   V   L   H   G   L   G   Y   T   V   S   G   S D   M   A   D   G   A
UniRef90_Q7NQ00	M K G K K I A F V G M G V   A   N   V   P   C   A   K   W   L   A   K   H   G   A   E   V   Y   A   C   D   K   R   N   K   E
UniRef90_R5XV02	L M N E K V M V A G A G G K S G   I   A   A   T   K   L   I   L   T   G   G   E   V   L   L   Y   D   G   N   E   A   L
UniRef90_H1HSU7	Q V Q V F G   G   L   G   L   G   A S G   G   L   A   A   Q   Q   L   S   L   Q   H   S   Q   V   I   V   C   D   E   R   N   N   P
UniRef90_UPI000476C27B	Q L D G A H V A V V G   G   L   G   R   T G R A V V D A L A T L G   A   R   I   H   V   F   D   S   R   E   A   S   P
UniRef90_G9PI62	I G I G G A G G M S   G   I   A L   V   L   H   E   R   G   C   T   V   T   G   S   D   L   K   S   S   R
UniRef90_B9CKU7	L V A G L   G   L   G   L   T   Q   S   V   L   N   Y   F   A   S   Q   G   E   P   C   L   A   Y   D   T   R   S   D   L
UniRef90_UPI00037CB757	Y E N K K I F I L G   F   A   K   S G   Y   E   V   A   K   V   L   A   N   K   N   Y   I   L   I   N   D   G   G   S   L   K
UniRef90_R5Z2S5	L R G R D V L V A G W G V   S   G   R   S   L   I   E   P   L   R   D   I   G   A   H   P   V   V   T   D   G   G   A   K   A
UniRef90_U5E9V9	Q L K G H K A V V V G   A   G   R   S   G   L   S   A   A   A   L   L   E   S   L   G   A   G   V   R   L   L   E   K   R   T   D   F
UniRef90_D6SUH9	E F H G Q R V H F I G   G   G S G M G   L   A   E   M   L   T   Q   M   G   A   V   S   G   S D   R   T   S   S   S
UniRef90_T1AC88	R I L V A G A G V   S   G   R   G   C   A   T   V   L   L   G   L   G   A   D   L   V   V   A   D   G   N   A
UniRef90_C2CNI2	L V W G K G   G   R   S G   L   A   F   N   L   L   K   A   K   G   F   K   A   Y   L   G   D   D   K   E   D   K
UniRef90_B4U609	K S I H F V G   G   G A G M S   I   A   E   V   L   L   N   E   G   Y   H   I   S   G   S   D   L   A   E   N   P
UniRef90_U4JUA7	V V V V G   G   L   G   S   Q   G   A   I   C   H   R   H   L   D   R   H   G   V   P   F   M   V   A   D   T   R   E   M   P
UniRef90_UPI0002FD6934	R H I H F V G   G   G G T   G   M   G   I   A   E   V   L   H   N   E   G   Y   Q   I   S   G   S   D   L   A   D   N   A
UniRef90_X2HD13	Y G G Q D L A I M G L   G   G   K   S   G   M   A   T   A   R   A   L   V   K   S   G   V   R   V   H   A   W   D   D   N   A   R   D
UniRef90_H6SNF7	I H F I G   G   G G A G M S   I   A   R   V   M   L   M   R   G   C   S   V   T   G   S   D   A   K   D   S   S
UniRef90_UPI0002EAB97B	H L L V V G   G   L   G   V   S   G   L   A   I   A   R   H   L   K   R   H   G   I   A   F   V   V   M   A   D   S   R   E   Q   P
UniRef90_UPI000472DD96	E L E G R H V L V A G A G V   T   G   R   V   V   S   T   L   A   A   G   A   K   V   T   V   T   D   G   A   A
UniRef90_W5WHY0	K D M K I V V V L L G   G   G E S G   F   G   A   Y   L   A   K   K   K   G   L   D   V   F   L   S   D   K   G   L   I   R
UniRef90_C6X388	Q W N D K R V L V L V G A A R S G   I   A   A   A   Y   L   R   N   V   G   A   D   V   T   L   N   T   G   S   E   P   E
UniRef90_U1LW14	K H I H M I G   I   G   G G S G   M   P   L   A   Q   I   L   H   S   K   G   Y   Y   I   T   G   S   D   N   N   E   T   D
UniRef90_R7L2L5	V V L V G   G   L   G   R   S G   V   G   A   R   L   H   Q   R   G   A   S   V   L   V   L   E   S   G   D   G   P
UniRef90_UPI00020019B8	N L E N K E V L V V G   G   L   G   A   R   G   R   A   C   E   L   L   N   E   G   Y   H   I   S   G   S   D   L   A   E   N   P
UniRef90_B9XIG9	F E N K K I F I L G   M   A   R   S   G   Y   N   V   A   K   L   L   Y   K   N   N   E   I   V   I   T   D   K   N   D   Q   D   E
UniRef90_R7HI72	R L V V L L G   G   G E S G   V   G   V   T   A   I   L   G   K   L   K   G   F   D   V   F   V   S   D   R   G   P   L   K
UniRef90_I0WKM4	E L K S K R V V V L L G   F   G   K   S   G   K   A   V   T   K   L   L   K   E   G   A   E   V   I   V   S   E   V   R   K   L   E
UniRef90_F8C5Q3	Q K H I A I I G   M   G   K   T   G   S   I   A   R   V   M   L   M   R   G   C   S   V   T   G   S   D   A   K   D   S   S
UniRef90_UPI000360EB49	Q K H I N F V I G   L   G   R   S   G   F   W   A   K   Y   L   R   S   I   G   K   R   V   I   V   W   E   S   K   E   N   K
UniRef90_R5EH40	L K N K K I A V L G   L   G   V   S   N   R   P   L   V   R   L   L   E   Y   G   C   D   V   V   G   C   D   E   K   L   D   A
UniRef90_T0R7J6	F T G K K V L I V G   V   G   R   T   G   F   K   L   I   N   F   F   N   R   L   D   C   E   I   R   V   T   D   I   K   P   I   F
UniRef90_C7LST2	K K I H M V G   G   G G A G M S   I   M   S   I   A   E   V   L   L   T   L   G   Y   E   V   S   G   S   D   L   V   K   G   P
UniRef90_R5L2C4	L K G K V K V A F V G   M   G   V   A   N   V   P   C   A   E   W   L   A   K   H   G   I   E   V   Y   A   C   D   K   R   D   K   D
UniRef90_Q7V0A5	E G K I N F V I G   L   G   R   S   G   F   W   A   K   Y   L   R   S   I   G   K   R   V   I   V   W   E   S   K   E   N   K
UniRef90_U2R1B6	K A V V F G   G   G   L   S   G   L   G   A   K   E   L   L   E   K   K   G   Y   E   E   V   Y   L   V   D   D   K   N   G   M   P
UniRef90_K9D330	D L Q G R K I H F V G   G   G A G M S   L   A   K   L   L   L   L   G   Y   E   V   S   G   S   D   Q   G   S   S   P
UniRef90_UPI0003682D7F	G A R V L V A G A G V   S   G   R   S   A   A   E   A   L   L   A   E   G   A   A   V   T   I   T   D   A   S   E   E   R
UniRef90_UPI000381D5C1	Q R V H F V G   G   G G Y   G   M   S   A   A   R   V   M   D   L   G   Y   Q   V   S   G   S   D   I   A   R   Q   D
UniRef90_D7GET9	S P W P Q A H V V V V A G   L   G   T   S   G   F   A   A   D   A   L   L   E   L   G   A   R   V   T   V   I   D   D   V   D   A   E
UniRef90_R6BSG3	K H I H F I G   G   G G S G   M   P   L   V   Q   I   L   H   G   M   G   Y   Y   I   T   G   S   D   N   N   P   G   D
UniRef90_A0A016QUU7	K H I Y G A G R S G   R   G   V   A   R   F   L   A   R   E   G   V   E   A   E   W   H   D   A   R   P   S   A
UniRef90_L2F8Z8	V L I Y G A G R S G   R   G   V   A   R   F   L   A   R   E   G   V   E   A   E   W   H   D   A   R   P   S   A
UniRef90_B3EQC0	V V V G   G   L   G   K   S   G   L   A   V   V   N   H   H   A   L   G   Y   Q   V   A   V   T   D   S   G   Y   P
UniRef90_K2F0L3	W I N K N V T V L G   L   G   S   I   A   T   A   K   Y   L   S   S   K   G   A   D   C   I   S   E   K   R   A   E   R
UniRef90_D7N5L6	Y E Y K N I L I F   G   G   L   G   V   T   G   E   S   A   L   K   C   M   S   N   F   E   C   N   L   Y   A   Y   D   E   N   E
UniRef90_S9PKK6	V G   V G   G   G   G   M   S   G   L   A   E   V   L   L   N   L   G   Y   R   V   S   G   S   D   L   K   A   S   D
UniRef90_D2Q5C3	D V N G K T V I V A G   L   G   S   G   R   S   M   M   Q   V   L   K   P   R   A   G   K   V   I   G   V   D   E   K   Q   P   D
UniRef90_UPI00037A223C	W Q D K N I T V A G   L   G   V   S   G   L   S   A   A   R   A   L   A   G   L   G   A   S   V   T   V   V   D   G   G   D   S   E
UniRef90_G8M881	K H I H F V G   G   G G A G M   S   I   A   E   V   L   L   N   L   G   Y   H   V   S   G   S   D   L   S   N   G   A
UniRef90_UPI00037AD9C8	L A G R R V L V A G A G V   T   G   R   S   V   A   A   A   V   I   V   A   S   G   A   E   V   T   V   T   D   A   D   A
UniRef90_F1YHM1	R V L V A G G R   A   T   G   V   A   V   V   E   L   L   D   L   G   A   R   P   E   V   M   D   Q   A   D   P   A
UniRef90_A0A024IIQ5	M K D Q P V L I L G   L   G   S   G   L   S   M   A   R   W   C   A   R   E   G   A   R   V   T   V   A   D   T   R   E   A   P
UniRef90_G9P159	L S G R S F H   L   I   G   G   G   G   M   S   V   A   Q   L   L   A   R   G   A   R   V   S   G   S   D   A   H   G   G   P
UniRef90_L0B7A1	D I K G S V L V L V G   L   G   S   G   C   Y   S   A   I   W   Y   H   R   H   G   A   R   L   R   I   V   V   D   T   K   C   N   P
UniRef90_UPI00036B6502	R V H F I G   M   G   G   G   G   M   S   A   A   K   L   M   L   A   R   G   V   P   V   S   G   S   D   R   Q   D   S   P

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50            60            70            80

A	A	R	D	A	A	M	L	G	A	D	I	G	N	P	L	E	I	D	L	V	G	F	A	G	V	V	S	P	G	V	P	L	N	H	P	I			
K	G	E	K	L	E	N	Q	G	V	E	L	H	L	G	E	A	Y	L	K	N	L	N	A	D	I	F	R	T	P	G	M	P	Y	Y	L	P	E		
E	D	D	F	L	S	Q	R	V	T	F	I	S	Q	A	Q	D	V	H	L	D	N	S	F	K	L	V	K	N	P	G	I	Y	D	Q	P	L			
E	A	L	E	N	I	H	M	Q	T	G	A	E	V	C	I	D	A	N	I	Q	V	E	D	F	T	S	V	I	T	S	P	G	W	K	P	D	T	P	L
A	K	R	E	L	E	E	A	G	V	Q	V	L	D	H	G	H	P	E	F	L	M	E	N	W	D	L	I	V	K	N	P	G	I	P	Y	H	A	P	F
T	L	D	R	I	R	S	Y	G	I	P	V	S	M	G	H	K	A	E	N	I	G	D	A	Q	L	L	V	Y	T	A	V	K	H	D	N	P	E		
E	N	Y	R	K	I	D	N	D	I	A	F	E	E	Q	G	H	T	E	E	F	I	L	I	A	D	E	V	I	K	S	P	G	I	P	E	N	A	S	M
Y	T	K	E	L	I	S	G	L	I	D	V	E	L	G	C	H	S	K	K	L	N	S	D	L	V	I	K	S	P	G	I	P	R	D	I	H	I		
A	G	L	E	A	F	R	P	G	V	D	V	V	C	G	P	L	E	A	L	D	M	Q	E	A	R	I	V	L	S	P	G	V	D	P	R	T	P	G	
E	R	A	S	E	L	Q	A	G	I	E	C	Y	G	R	L	K	D	A	L	A	H	G	F	D	I	L	A	L	S	P	G	I	S	E	R	Q	D	D	
D	K	L	A	Q	T	G	C	Q	T	I	S	P	A	D	V	V	S	D	G	F	Q	D	Y	T	V	V	T	S	P	G	V	W	R	P	D	S	P	L	
K	L	D	K	E	A	V	Q	K	I	H	L	Y	G	L	E	N	N	L	E	N	L	K	G	F	S	V	I	F	R	S	P	C	R	P	D	T	P	E	
S	N	L	S	L	D	A	E	A	F	V	G	G	A	F	T	P	A	L	I	E	G	I	E	L	I	A	V	S	P	G	L	L	S	P	L	A	P	D	
P	Q	L	A	L	Q	A	M	Q	E	W	P	F	V	G	P	F	V	G	G	L	V	E	P	V	G	R	A	V	F	R	S	P	G	L	A	P	V	P	V
V	E	M	L	Q	T	P	T	V	A	D	E	A	T	A	A	L	A	Q	S	P	A	R	L	L	I	V	S	P	G	V	P	A	T	G	P	V			
T	V	I	R	A	L	R	E	L	G	A	V	F	G	H	A	A	E	H	P	A	G	T	S	S	V	V	V	S	S	A	I	R	A	D	H	N	P	E	
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R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
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R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
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R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
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R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
R	E	T	A	E	E	G	L	T	H	D	L	T	K	A	D	F	E	G	V	S	A	L	I	V	S	P	G	L	A	P	V	T	K	P	L				
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UniRef90_F4GTU1	K S Y L V V G L G V S G L V V K V L H T L G Q Q V T A C D K A P R T
UniRef90_F0Q7Y9	K K L H I H F I G V G G S G M S L A S I L L D S G H K I S G S D I T S
UniRef90_UPI00036464C2	F T G K K I L I M G L G R G G V D A A E F A V K A G A K V V V T D L A Q P Q
UniRef90_X0YN06	R R P H I L I G I G G A G G M S I A R I I L L A R G A R V S G S D A K D S R
UniRef90_X1S9M9	R K V H M I G I G G A G G M S A A Q V L L A E G V A V T G S D L E P S S
UniRef90_I1D4V1	K S Y L V V G L G V S G L V V K V L H T L G Q Q V T A C D K A P R T
UniRef90_UPI000379CE19	F T G K K I L I M G L G R G G V D A A E F A V K A G A K V V V T D L A Q P Q
UniRef90_UPI0003737145	K S Y L V V G L G V S G L V V K V L H T L G Q Q V T A C D K A P R T
UniRef90_R5HRH1	L Q G K R V A V I G I G V S N T P L I K T L L Q A G I S V S G S D A A E S A P
UniRef90_R7HCS7	H V H F I G I G G A G G M S I A E V L L N E G Y Q V S G S D R R D S P
UniRef90_UPI0004257C42	F A G K H F A V L G I A R S G L A T V E A L L A S G A K V T A W D D K E E P
UniRef90_E3BQ94	K S I H F I G I G G A G G M S I A E V L L N E G Y Q V I T G S D I T A N L
UniRef90_H6RTR7	V H F I G I G G A G G M S I A E V L L N E G Y Q V V S G S D R R D S P
UniRef90_V4YUM3	K H I H F V G I G G A G G M S I A E V L L N E G Y Q V S G S D L S E G P
UniRef90_F5SAH8	H V H F I G I G G Y G M S A A R V L L E M G Y R V T G S D V A E N K

	50	60	70	80
UniRef90_A0A059KP20	P Q A G A L E R D V E L R C G A P D P A L L D G V K A V F K S P G L A P N D P V			
UniRef90_E4UB27	L T Q A K D M G I E I V D F R T L Q W S K I S S L I V S P L T H W C			
UniRef90_F2NML5	L A Y R L E G D G A L L I R G H S P D H L E G V D L V L V A S T A I P D H H P L			
UniRef90_UPI0001B4510E	T L R G Y A D A G V A T A P T S V I A A E Q V S R Y A L V V T S P G F S P T T P L			
UniRef90_UPI000462E6AB	T A Q A Q A D T L R I V G A A D V I P K I D G A K P D L V V T S P G F S P T T P L			
UniRef90_D1NSX0	A D R S S F D G I D W K S M D A L C V S P V F P P R T P F			
UniRef90_R6QW21	T L E R I R S Y G I P V T M G H Y P E N V E G A D L I V Y T A A V K L D N P F			
UniRef90_H8GZ50	Q D E T L L M A E L G H T R G E P R G N Y R T V A A P G V P I D H P D			
UniRef90_UPI0004164D1C	T M A H L R D A G I T F L V G H D A A H H I A Q A Q A V V T S T A V Q A D N P E			
UniRef90_U2HWZ3	P V R A L R S M G A E I A V V G H K A E N L Q L T P T V V V T S S A I P K E N P E			
UniRef90_F0E799	V T E R L L E S F G A E I F V G H R A E N A A T D V L V V V T S S A I P N A P E			
UniRef90_Q92160	D I F E E L Y S K T A I A A L S D S R W Q N L D T I V L V S P P G I P L T H E I			
UniRef90_Q7U8T1	Q L E K K A E G Q A P L A I D S F R P W L D Q L Q R V V V S P P G V P W D H P T			
UniRef90_F4H7R5	A L P G L R A A G V R V H V G H D A E H V A D A D T L V V V S S A V R E S N P E			
UniRef90_Q68WW9	D I F E K L F G N K L I C I S D S R S R W Q D L D K I V L S P P G V P L T H E V			
UniRef90_Q6A9Q1	N L R D L L A S L G V Q T W V G H D P S H L A G A R T V V V V T S S A I P R D N P E			
UniRef90_S5SVI4	P V R L L E Q A G A H I A V V G H D N L S L T G Q P P T V V V T S S A I P Q D N P E			
UniRef90_K2A5E2	A T K R L L I S L G A K V Y Q G H D A T N I I G A D V V V V T S S A I P D S T N P E			
UniRef90_Q67QM7	R A A E L L A R L G V P L V A G E G Y L E P L A D H D L I F T P G M P K H P P			
UniRef90_UPI0003B36BE9	K T Q H L Q D A G V T F V G Q D A H N V E G A D T V V Y S S A I P R D T N P E			
UniRef90_D5U5U9	Q L Q D S I E A N A K L F F G N Q E I S I L D G I T L I I I S P P G I P H T D I			
UniRef90_Q064U9	D A A Q L R A E G I E V E L G N S F E P W R S D L T A V V I G P P G I P P W D H P T			
UniRef90_R5VVC8	Q T E K L Q K M G V E L H Y G H S E N Q V K G A C L V V R T S A S A V T P D N C E			
UniRef90_G0VPL2	V T E Q F A K K G A R I C I Q G R P E N L K D A I S S A I P R D T N P E			
UniRef90_UPI00046E9684	E A D P A Q P R F T A A P I E T F L A G F D A I L S P P G I P H L P V			
UniRef90_I0I9B4	R L I A T E L E A R P V E L A L G G H P L E L L D R C D L L C L S G G V P A Q L P I			
UniRef90_M4R431	A V Q G L K E A G A K V F I G H Q A E N V Q G A S V V V V A S T A I N E D N P E			
UniRef90_R5AB16	Q V K E L E S L N I K V V I T N D P V S L L D N Y D Y V K N P G I K L D H P I			
UniRef90_UPI000255649B	V T A H L R A K G I E I H I G H S A D N V I G A N V V V V S S A I P K P E N P E			
UniRef90_UPI0003B66D6A	T T D R L L K S F G A E I F L G H D A A H H I D K A D V L V V S T A I D A S N P E			
UniRef90_UPI0003641D8B	K L K L P R H I W V N Y K N W P W N N L E V L I V S P P G I P P N H Q A			
UniRef90_D3CTD0	A H V A E T L P G V E Y D W G A G S L E R L L D C D L V V V S P P G I P R T H P F			
UniRef90_UPI00036B59E8	A Q L A T L A D R A V A S T T D L L A T V P A G C C V V V T S P P G F R P D S P L			
UniRef90_UPI0003801590	G Q A V A A A N N A T W L T T E Q A I D F L P Q I N L V V T S P P G W A P H T P L			
UniRef90_I9BRC0	A V T R R R L A S L G A R V T H G H A A E N I D G A N A V V I S T A V R G D N P E			
UniRef90_UPI0004796FAB	E S R A K A D T L K I V H A Q S I P D V S A G A P Q L V V T S P G W K P A Q P E			
UniRef90_C1D5L5	T T E R L L A A A G A Q I V H V G H A E G H V H G A D V V V V T S A V Q A D N P E			
UniRef90_C7LZL7	L V E R L L E A I G V E V H L G H D A R W I D G A D V V A A S T A I P S S N V E			
UniRef90_U2A012	V M H D L L A K A G A G I S V V G Y D A S N L G D A Q T I V A G S A I R E D N P E			
UniRef90_R6GF81	Q L S E T I K E N V R F H L G K N Y L E N L D F D L I F R S P G L K F F F S P E			
UniRef90_B1XYR4	V T R R L L A E L G I R I F V G V H D A A H H I A G A Q A V V T S A V K G D N P E			
UniRef90_L0H2I0	L T Q R L L A E H G V T V S I G H R A D H V A D A D A I V V V S S A I I D E A N P E			
UniRef90_M1FCH4	P G L A E L Q P D V E V H L G A F D S D F F S A F S E L I V S P P G I S			
UniRef90_UPI000380B5DC	V T R R L L E E Q G V K V T I G H A A E N V L D D A D A V V V V S T A V K G D N P E			
UniRef90_E8LKX2	V T K R L L E D L G I D V F L G H R A E N I E G A S V V V V S S A I I H Q N N P E			
UniRef90_R4KK14	V T E R L L K A Q G A T I V Y K G H A G A N V G D A L V V V Y S T A I S D E N Q P E			
UniRef90_W1N6Y8	V V A R L L E S C G V R V S I G H S A E N A E G T D V V V V S T A V S E D N P E			
UniRef90_G9E141	P G F K A A H H P G I E V H C G S I T S L N L R D V E V V I S P G L D P R M P E			
UniRef90_Q5X1S6	T V Q R L L R S L G I Q V Y H G H R L E N I K G A D V V V V R S S A V D F N N P A			
UniRef90_L7EHH7	E I G D A V N E F V K L V L G K N Y L D F L E G Y K V I F K T P S M R I D S P A			
UniRef90_E2S966	G A A A E K A T L L E I L G A D I R P T G P S A P T L V V T S P G W S P S T P P I			
UniRef90_F4CL78	T V M A L R A L G A E V A L G H D A A D L L G G P P T V V V V S T A V R E T N P E			
UniRef90_W5Y2R5	P V M A L R A M G A K V A V G H A A E E I L S G Q L P T V V V V T S A I P Q D N P E			
UniRef90_A3DIP6	I T S K L E K K G I K I Y T G H S E E N I K D A D L V V V Y T A A V K S D N P E			
UniRef90_Q68XC2	N T K R L L E S Y G I K I F L G H A K Q N I K N V S Y V V I S S A I I H Q N N P E			
UniRef90_T2G8P1	V I Q R L L E R L G A T I F K G H S R G Q V G E A D V V V V K S T A I A R D N P E			
UniRef90_A9E2Y5	R A R A E G E G F A C V D L N S P G A L D K I T R L I V S P P G I P H L Y P A Q			
UniRef90_G9YNT5	D A E K L L E S L G A E I R L R G P D Y L D G L D H D V I F R T P G L R P D V P A Q			
UniRef90_UPI000287AF09	E A I E L L E T K G V T L I V G E D Y L D F L K G Y E V I F K T P S M R I D S P A			
UniRef90_A4FLV9	T V L A L K A Q G A H I A L G H R A E N I E Q D P T A V V V S T A I R R D N P E E			
UniRef90_UPI0003724517	L L G Q L A E L G A R E V H V G H D A A H H L G D A D T V V V S T A V R E T N P E			
UniRef90_UPI00034D6880	V A A E L T E A G A E V H V G R T P L P Q G C C D V V V T S P G W R P D S P L			
UniRef90_S7U5T5	D A V R A F I E E T A V A F G A H S A G Q F T G A D M I V L V L S P P G I A			
UniRef90_K2DSU6	R D A A Q K E G I P L K D I E T I K W K T I D H F L L S P P G I P H Q H P A			
UniRef90_L0J014	M L T E F A Q N G V E I D A P N A A E R I A D Y D L V V T S P P G I P P E A P V			
UniRef90_E6JZB4	D Y R F D Q V L T D D F D W S P F G C L I T S P G F S P H S P E			
UniRef90_S2VHR9	T T E R L L A D S G I T L W I G T E P E R L S A D T L V V A V S S A I I R E D N P E			
UniRef90_UPI00047B5456	E I G D T A E E G V K L V V V G E K Y L E S L H G Y Q V I F K T P S M R I D S P V			
UniRef90_R4YXD1	V L E R L T E L G V T A H V G H D P A H V V D A D L V V I C S T A I K A D H P E			
UniRef90_UPI0001D2F205	N L Q R L L S A K G A R V H V G H D A A Q W L V G D A V V V V A S S A I I K R D N P E			
UniRef90_UPI0004255C94	A L D R L L R R I G V G V S V G H D A A H H V P A G A V V V V S T A I K E T N P E			
UniRef90_UPI0003FFEC3C	A T A P L E R V T V G D D A A L A D A L A Q C R P D L L I V S P P G V P A T G P V			
UniRef90_A4CR98	A L R D K A H A G C Y P L E L D S F T P W L D S A G E V V I S P P G I A W D H H T			
UniRef90_F0RLJ5	L T R Q L L E A E G I T V Q L G H D A A H H L Q A H V S V L V A S E A V P K T H P E			
UniRef90_B4SH48	E V T E K L L A E H G A I V Y K G H R A E Q V A G S D V V V Y S S A I I R E D N I P E			
UniRef90_E0DG26	P V L A L Q S M G A H V A V G H K A E N L T L S G Q L V V V T S S A I I P Q D N P E			
UniRef90_UPI000479346B	P V E V L R T I G A S L I A V G H A A E N L T L G P T C V V T S S A A I P Q D N P E			
UniRef90_F4GTU1	G G L R T L L A D K V D Y R L G P V E D A L Q D V H T I V L V L S P P G L A P L N E			
UniRef90_F0Q7Y9	P R L A L V Q P G V R F V A G A F D A S L V Q G Q L H A V Y R S P P G L A P P D T P V			
UniRef90_UPI00036464C2	P Q L A Q L R P Q A Q F I A G P L D A D L V E G E L H A V Y R S P P G L A P P D T P V			
UniRef90_X0YN06	K I T K R L L A D K G A T I F K G H H N E N N V V E E A D L V V V V S S A I I P K S N P E			
UniRef90_X1S9M9	Q L A D S V D A D I E F H L G G H K E S D F E W A D V I V N P A V P D D D N R F			
UniRef90_I1D4V1	A F L T L L T R A Q G A R I F V G Q K P E N L D D T P S A V I V S T A I K T K T N P E			
UniRef90_UPI000379CE19	Y T E R V R Q A G G I V F F G H H P S N L S D A E A V I V V S S A I I P E G N P E			
UniRef90_UPI0003737145	D Y T I A Q I N A E D F D T T A F D A V V T S P P G F K P A S A F			
UniRef90_R5HRH1	A A D E L E S M G A V L H L G D A Y L D G L D Q D V I F R S P G I R P D P P			
UniRef90_R7HCS7	L T K E L L T A A G G C H I V Y S Q T A D N I T S D I L V V Y T A A I R D T N P E			
UniRef90_UPI0004257C42	P P H K A P P R R E E L G I A N F V D S D L S Q F D S I V V V T P G L P L N H P I			
UniRef90_E3BQ94	V T D N L L S Q K G A K V Y I G H S A D N I S D A S V V V V I S T A I D D H N P P E			
UniRef90_H6RT7R	T L L A L R A L G A R V E L G H E A A H H L R D A D T V V V T S T A I R A D N P E			
UniRef90_V4YUM3	A V A R L L K H M G A V V F I G H E A A H S I A G A H A V V T S T A V T A D T A N D P E			
UniRef90_F5SAH8	L T Q S L A T R G A E I H I G H Q A V V L V E G A D R V V V Y S T S I P R D N V E			

90

UniRef90_A0A059KP20	L R E A A R R G L P V Q G
UniRef90_E4UB27	V K L A N Q F N V E I J G
UniRef90_F2NML5	L A A A R A R G I P V
UniRef90_UPI0001B4510E	L V T A A A A G V P V W G
UniRef90_UPI000462E6AB	L A A A A R A H I P V W G
UniRef90_D1NSX0	I L A A A Q E A Q V P V
UniRef90_R6QW21	L V A A A K H L G I P A V
UniRef90_H8GZ50	L L A Q R S A G A E I V G
UniRef90_UPI0004164D1C	V V A A R A R M G I P V V
UniRef90_U2HWZ3	L Q A A A E H G I P V I
UniRef90_FOE799	V A T A L E R R I P V V
UniRef90_Q92I60	V N I A K S F N I P I
UniRef90_Q7U8T1	L D D L R Q R G V A V D G
UniRef90_F4H7R5	L A A A R A R G L R V
UniRef90_Q68WW9	V R I A H H F N I P I
UniRef90_Q6A9Q1	L V E A H R L G L R I W
UniRef90_SSSVI4	L V A A R D H G I P V I
UniRef90_K2A5E2	V Q A A S A A H I P V
UniRef90_Q67QM7	I E A A R R R G A A I S G
UniRef90_UPI0003B36BE9	I V A A A E R G A N I V
UniRef90_D5U5U9	V K E A K R R G I K I J G
UniRef90_Q064U9	L E I L R Q E G V Q V R G
UniRef90_R5VVC8	V A F A K K N N I P V
UniRef90_G0VPL2	L A E A R R R G I P V I
UniRef90_UPI00046E9684	A V R A R E A G V P I
UniRef90_I0I9B4	V Q E A I R R K I P L
UniRef90_M4R431	I V A A R E A R I P V I
UniRef90_R5AB16	C L K A Q K L G I K V V
UniRef90_UPI000255649B	W Q K A L E L R I P V V
UniRef90_UPI0003B66D6A	V K A A Q E R R L P I V
UniRef90_UPI0003641D8B	I L L A I K H N V K I I
UniRef90_D3CTD0	L E T L R A K E I
UniRef90_UPI00036B59E8	A L I A A R D A G V E M I G
UniRef90_UPI0003801590	L A A A T E A G I S V I G
UniRef90_I9BRC0	V L A A R A K R I P V V
UniRef90_UPI0004786FAB	L A A A A S A G I P I W G
UniRef90_C1D5L5	V M A A R A A G I P I V
UniRef90_C7LZL7	L A A A R A R G V P V
UniRef90_U2A012	L A A A A R A Q G L P V
UniRef90_R6GF81	L I Q A R S K G
UniRef90_B1XYR4	V I A A R A A A R I P V V
UniRef90_L0H2I0	V R A A R A A R L P V V
UniRef90_M1FCH4	
UniRef90_UPI000380B5DC	V M A A R A H Q I P V V
UniRef90_E8LKX2	V N A A I E K R I P V V
UniRef90_R4KK14	I Q A A R E K G V P V I
UniRef90_W1N6Y8	L L W A H E H R I P V V
UniRef90_G9E141	L K E L A D Q
UniRef90_Q5X1S6	I V A A R E L M I P V I
UniRef90_L7EHH7	L V K A K K S G A Y I
UniRef90_E2S966	L V I E A A G R G L P V W
UniRef90_F4CL78	L A A A R E R G L L V V
UniRef90_W5Y2R5	L V R A R E E G I P V I
UniRef90_A3DIP6	L A K A K S I G I P
UniRef90_Q68XC2	I K E A L E R K I P I I
UniRef90_T2G8P1	L Q E A M E I G V P I I
UniRef90_A9E2Y5	
UniRef90_G9YNT5	L L A A R E R G
UniRef90_UPI000287AF09	L V K A K Q E G A Y I
UniRef90_A4FLV9	L V I A A Q E R G V P V
UniRef90_UPI0003724517	L A A A R A R G L R V
UniRef90_UPI00034D6880	L L Q A A E A D I E V I G
UniRef90_S7U5T5	
UniRef90_K2DSU6	V T H A Q M A
UniRef90_L0J0I4	L A A A A A A G V P I W G
UniRef90_E6JZB4	L T K A A A Q G L P I
UniRef90_S2VHR9	L A R A R Q L G A R V I
UniRef90_UPI00047B5456	F L K A R Q E G
UniRef90_R4YXD1	R Q A A V D A G L P V
UniRef90_UPI0001D2F205	I A E A R R R R L P V V
UniRef90_UPI0004255C94	L A A A R A R G Q E V V
UniRef90_UPI0003FFEC3C	L T G A R R D G T R V W
UniRef90_A4CR98	L H A L R A H G F R V R G
UniRef90_FORLJ5	V C A A L D A G I S V
UniRef90_B4SH48	L I A A E K A G I P V I
UniRef90_E0DG26	L V I A A R E Q N I P V I
UniRef90_UPI000479346B	L V I A A R E K G I E V I
UniRef90_F4GTU1	L A L A S Q R D I E V I G
UniRef90_F0Q7Y9	F A A A A E E G I
UniRef90_UPI00036464C2	
UniRef90_X0YN06	I K G A R D R K I T I I
UniRef90_X1S9M9	L K I A
UniRef90_I1D4V1	F A A A R E R G I P V
UniRef90_UPI000379CE19	L V I E A R R R G L T V
UniRef90_UPI0003737145	V V H A G Q A G I P V I
UniRef90_R5HRH1	F L S A M E K G
UniRef90_R7HCS7	L S A A R A A G I P T I I
UniRef90_UPI0004257C42	A G R A K E A G V E I I G
UniRef90_E3BQ94	I I A A R Q A R I P I V
UniRef90_H6RTR7	L V E A R T R G L T V
UniRef90_V4YUM3	V V I A A H A L L V P V V
UniRef90_F5SAH8	L K A A R E K G M T V I

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R	V	H	F	V	G	G	A	G	M	S	I	A	E	V	L	N	T	L	G	Y	R	V	S	G	S	D	L	A	D	N	A							
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R	Q	I	H	M	V	G	G	S	G	M	G	I	A	E	V	L	L	N	L	G	Y	A	V	S	G	S	D	C	Q	P	G	S						
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Y	K	N	Q	S	V	A	V	F	G	G	K	T	G	L	S	V	I	N	A	L	T	K	S	S	A	K	I	Y	A	W	D	D	N	K	E	Q		
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UniRef90_R7IEU7	Y E N K K I L I L G A A K S G I   A V A K	L S N K N N D I	I L T D L N E K D	
UniRef90_UP10003783535	K R I H F V G   G G A G G M G I   A E V L L	M G Y S I	S G S D I Q V S	
UniRef90_E3GXV8	K I L V I G A G N A G R P A A L L L H	Y L G N E	V L V S E I K K F E S	
UniRef90_U1RTV3	R F H L I G   G G A G G M S V A E L L L A S	R G A T	V E G S D T R E D S	
UniRef90_K0Y150	R V H M V G   G G A G M S L A H I L L A R G S A	V S G S D T G E T I V		
UniRef90_UP100047EAD9D	A E L L D A R R V A I W G F G R E G R A A I A A L R	Q R Q Q L P	L T L F C R E A E V	
UniRef90_Q9WY73	K I H F V G   G G I   G M S A A L H E F S N G N D	V Y G S N I E E E T		
UniRef90_UP1000469DC52	K Q V Y F I G   G G I   G M S A A R Y F H A K G Y R	V S G Y D L T P S P		
UniRef90_UP100041DED7D	Q S V H M I G   G G A G G M S V A R I L L S R G V R	V S G S D V K E S R		
UniRef90_R9KN07	I G   G   G S M S G L   A E I L L Q E N F R I	V S G S D A K S S		
UniRef90_R6N5H0	V V F V Y G A G I S G Q Q G V S Q V L L D Q G E K	V I L Y N D E Q K D		
UniRef90_I4WS94	A E L L A D R H V A I W G F G R E G H A V I K A L R S Q A Q A L	T L F C R A A E V		
UniRef90_UP1000375AF89	K K H V H F I G   G G S M S G L   A L L H Q Q Y Q Q	V T G S D L V N P S S		
UniRef90_H5U040	R R V H M V G   G G A G G M S L A R I L L S R G Q G G	V S G S D S D A K T		
UniRef90_D3CZX3	K R V H F L G   G G S G L S   A Q I H L A G G G E	V S G S D Q E D S A		
UniRef90_UP1000372C6D1	R I H F V G   G G T G M S   A E V L L F N L G Y Q	V S G S D D I K E S A A		
UniRef90_F3YWW9	A E E V L L N L G Y A	V T G S D L S M N A		
UniRef90_A6TJM2	E H Q L K H   H L I G   G I   S M S A   A E I L L E N G Y H I	V S G S D M K E S		
UniRef90_D9TP14	R V H F I G   G I   G I   S M S G L   A H I M L N A G H I	V T G S D I K D S		
UniRef90_R5J385	H I H F I G   G I   S M S G L   A E I L L E E G F T I	V T G S D S K E S P		
UniRef90_A8UTB7	H F I   G   G G A G G M S V A E M L H E Q G V P	V S G S D I K D N K		
UniRef90_G0H6M6	K R V H F I A I G G S A M N L A I A L H K K G F H	V T G S D D R E P G A E		
UniRef90_UP1000237C488	S Q W S D L   K V A V L G   G A T G F S A A D T L A E L K A D	V V I A D S A S D N		
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UniRef90_10ALQ1	N V L V L G A G V S G L   A M A R W C V R M G A Q	V S G S D L N Q T A		
UniRef90_D1BA03	K K I Y F V G   G G G I   G M S A A R Y F N Y L G A Q	V L G Y D K T E T A		
UniRef90_UP10003448E4D	R H I H M V G   G G A G G M S I A E V L L N Q G Y E I	I S G S D L S D S A		
UniRef90_V5AI93	R N I H F V G   G G A G G M S I A E V L L N Q G Y R	V S G S D L G D N A		
UniRef90_H6L2G3	G A R V L V C G A R V T G V A A L T G L A G L G P R	I T V C D D N E D		
UniRef90_W1WBX8	K S I A V L G   G V T G V S V V R Y F S K R C S D	T L Y I A A D D S		
UniRef90_G1UNL2	H I H F I G   G I   G I   S M S G L A E I L L E G F T I	V S G S D G D A K E S P		
UniRef90_C4KCS2	A G R C V V V A G L A R S G L A T I R A L K A G G A R	V I A W D D N Q P A		
UniRef90_X8DR17	A E L L L S L G Y R V S G S D D L R	V T V G S D L R V I T		
UniRef90_W2V017	N V L V L G A G V S G L   A M A R W C V R M G A Q	V M V A D N R S D V		
UniRef90_V8CEF6	K K I Y F V G   G G G I   G M S A A R Y F N Y L G A Q	V L G Y D K T E T A		
UniRef90_I3TRV5	R H I H M V G   G G A G G M S I A E V L L N Q G Y E I	I S G S D L S D S A		
UniRef90_E8RD71	A N S D R L I G I L G   L A K S G K A A I N S F I	V A W D D N E K I		
UniRef90_S2VS59	K N I H F I G   G G S G M P V M G I L L H N G Y H I	I S G S D D N Y I S D		
UniRef90_K8Z990	K N I H F I G   G G S G M P V M G I L L H N G Y H I	I S G S D D N Y I S D		
UniRef90_S2VLP2	R V H F I G   G G G A G M S I A R V M L E M G Y T	V S G S D A K E S R		
UniRef90_E3E9X1	T V G S D V A S Q E			
UniRef90_S0FK78	A D L K G K K V T V I G A G L T G L E T A E F L A A N D N K	V V I V D T R P A P		
UniRef90_M4Y427	A V L G   F G F V S N R P L A K T I V K W G A D	V T V F D R K N F		
UniRef90_F7XVN9	N Y S D R L I G I L G   L A K S G K A A I N S F I	I V A W D D N E K I		
UniRef90_R6GQV6	K N I H F I G   G G S G M P V M G I L L H N G Y H I	I S G S D D N Y I S D		
UniRef90_R7WS39	K N I H F I G   G G S G M P V M G I L L H N G Y H I	I S G S D D N Y I S D		
UniRef90_X5ECR5	R V H F I G   G G G A G M S I A R V M L E M G Y T	V S G S D A K E S R		
UniRef90_UP10003B71E92	H V Y F M G   G I   S M S G L A H I L I E R G F K	V S G S D D N K K S E		
UniRef90_W5X091	R V H F I G   G G G A G M S I A E V L L N Q G Y E V	V T G S D D L S E N N A		
UniRef90_C0XS08	K D K K I G V F G L   S R T G L S V C K S L E G   A D	L I V Y D D S S N K		
UniRef90_UP100047529DF	K D K K I G V F G L   S R T G L S V C K S L E G   A D	L I V Y D D S S N K		
UniRef90_X1T8R1	I I G V G G A G M S G L A S I L L D S G S H K	I S G S D I V T S N K		
UniRef90_H1G0S3	K Y V H F V G   G G G S S M S   A E I L L A K G Y K	V S G S D I A E N A N		
UniRef90_B8I062	I K G K S V A L I G S G I   S N M S C V K S L E G   A D	I S G S D I K S S P		
UniRef90_R7FRG0	I I H F V G   G G G V G M G I   A E V L L N Q G Y A I	I S G S D I K E S P		
UniRef90_U7G1E1	I D Y Q R I G V M G F S R T G L E V I K Y L S K F D L K I	I V A D Q K D E E		
UniRef90_E3DQH5	V H F I G   G I   S M S G L A E I L H D R G F T	V S G S D D M K A S P		
UniRef90_F5T8Q5	R K F H F V G   G G G I   G M G L A E V L H Q W G Y Q	V S G S D D L N P S S A		
UniRef90_UP10003A06880	R K F H F V G   G G G I   G M G L A E V L H Q W G Y Q	V S G S D D L N P S S A		
UniRef90_Q0BXU4	D L D G K K L H F V G   G G S G M P L V Q I L H E V G Y E	V T G S D V N E G D		
UniRef90_G9RP98	D L E N K K I Y F I G   G G T S M S G L A L M S K N G K D	V S G S D M R P C V		
UniRef90_B1C9U1	D L H G A H I H F T G I K G T G M A A V E I C A Y R G A R I	I S G S D V A E R F		
UniRef90_S3K0W8	A E V M L N L G Y E V H G S D I K E N A N	M A D S R S N N P		
UniRef90_UP100039B9C87	K S V Y F I G A G G I   G M S A A R Y F I H K G V V	V A G Y D K T P S		
UniRef90_U7G805	A E V M L N L G Y E V H G S D I K E N A N	M A D S R S N N P		
UniRef90_K5C778	K S V Y F I G A G G I   G M S A A R Y F I H K G V V	V A G Y D K T P S		
UniRef90_UP100037956F0	A E L E G R R V A I W G H G R E G R A A L S V S L R R K G Q S I T L F C S A A E A			
UniRef90_UP100046898E3	K S V Y F I G A G G I   G M S A A R Y F I H K G V V	V A G Y D K T P S		
UniRef90_D1W5E6	A E V M L N L G Y E V H G S D I K E N A N	M A D S R S N N P		

	50	60	70	80
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UniRef90_R7JXJ2	I T D H L E S L G I H I I Y G Q S K E N I T G D I D F V V Y T A A I H P D N P E			
UniRef90_F4XAW6	T V A H L R S L G I P V V I G H L P E S V Q G A D C V I R T A A V H D D N P E			
UniRef90_B9K6P8	R T T Y L K K L K I P V F I P H S E E N W F D P D V L V K T P A V H E D N P E			
UniRef90_E3PT13	D S D K I V K R N V I F N L G K N P T G D E E A D M V V M S P G I S L D L E F F			
UniRef90_R7GFB4	N I S K D V M D K I E F S L G E N Y E K L K G F D L I F R S P S C L P T T K E			
UniRef90_UPI000382EA75	D L K E L R A A G V R L V F G P Q E E S L L D G V D L V V V A P A V P V R I P L			
UniRef90_R61774	Y T Q Q L R E A G V K I F I G Q S A S N L E L D P D V V V V S T A I L E N N A E			
UniRef90_X0VP29	S L A A L E G L P I S Y R L G E H V E D D L T G A D L V I A N P A V P R A N P Y			
UniRef90_R5CFR9	I T K E L L A S H H G I Q V L I G Q K A E N I T P D L D L I V F T A A I H P D N P E			
UniRef90_C5VPI4	L T E H L R E K G A E I Y I G H N K D N I K N V D L V V Y T A A I P D S N P E			
UniRef90_L0R8F7	P V K R L L K M G A Q V F L G H G G D N V S G A D V V V K S T A I S E N N P E			
UniRef90_C6VTT2	Q K Y A D I K E N I P F E Q G Q H S E E R I L A S D L V V K S P G I P D K V P L			
UniRef90_UPI00047AE83B	I T D K L E K D G I T V I Y P R H D A F H V L K A D L V V H T A A V K S D N T E			
UniRef90_B9L281	P V L D R L V A R D I A V A V G H D E R H A Q D A H L L V V T S A V R A Q H P E			
UniRef90_M3VDP3	G G T D P D L A G R G V A M V G P D A S A P P D D L V V V S P G F R P D D A L			
UniRef90_UPI0003665AD7	G V I A A L R A R G A E I R I G H D A S S L D M G G P T V V V S T A I P K D N P E			
UniRef90_E8N846	A L R D L A A R G A T V V Y V G H D A A H L G D A D T V V H T G A I W P E N P E			
UniRef90_UPI00047BDD70	A D L H S F D D V D W N Q D L V M T S P V F N P R T P F			
UniRef90_C9LSA6	A L I E Q L K G L G A H I H H G H R A E N V H G A E A I V V S T A I P E T N P E			
UniRef90_Q0EYH5	N V V R L R S L G I T V T I G H A A A N V R D A Q V V V L S S A I N P A N P E			
UniRef90_X1VTY9	F T E Q L E R R G I T V Y Q G H S P S H L N Q A D L V I A S S V I S P D N P E			
UniRef90_UPI00046EC09D	L T R E L L E Q T G I A I H Y E E N V E L I P K D V D V V V Y T P A I P K E H A E			
UniRef90_R7IEU7	V E N E L N D L G V K I V V T K N Q I D L I D S S D L V I K N P A I M S T S P L			
UniRef90_UPI0003783535	K N T A R L Q D M C A D I F I G H Q A S N V E G V D V V V C S S A V N E Q N P E			
UniRef90_E3GXV8	E L P K M K K M G I K F E F G H H N P K S L D W A E K V F I S P S I P T N S E I			
UniRef90_U1RTV3	A V L E H L R S V G V R V F V G H E A S H V D P A S V V V V S T A I R E D N P E			
UniRef90_K0YI50	D S L K E A G A L V A A E H D A D N L E L S G A A P T V V V V T S A I P E D N P E			
UniRef90_UPI00047EAD9D	A A A Q A F D A A L A V H G R E P D A I D L J A A F D V V V V K S P G V S A Y K P A			
UniRef90_Q9WY73	R T A Y L R K L G I P I F V P H S A D N W Y D P D L V I K T P A V R D D N P E Q			
UniRef90_UPI000469DC52	L I I E A L I S E G I Q V T F D D A V D A I V P Q I P T V V Y T P A V P S S H P Q			
UniRef90_UPI00041DED7D	A V V G L R A M G A A I E I G H A A E N L T A S P D A V V V V S A A I P D T N P E			
UniRef90_R9KN07	L T E K L L E R L G A E I S F G Q R A G N I T E G I G A V V Y T A A I H P D N P E			
UniRef90_R6N5H0	L E Q T F R E D D M G K I V F S E D P R P Y L K K S K L F I I S P G I P F T T D V			
UniRef90_I4WS94	E D A R A F D P T L E I V A D E P D A A A L L A R F D V V V V K S P G I S A Y K P A			
UniRef90_UPI000375AF89	R T E R L L Q K H G I P I E F T H K P E N V R G A D W V V Y N T D V Q E D N P E			
UniRef90_H5U040	G I I A L L R A R G A E I T I G H D A A A L L D P G G P T V V V T T A I P K T N P E			
UniRef90_D3CZX3	R V A M L R A L G I A V R V G P P A D P A A L G A D V I V A S S A L R D D H P E			
UniRef90_UPI000372C6D1	V T Q R L L A G L G A N I L I G H S R E N I L N T D V V V V V S S A I D R S N P E			
UniRef90_F3YW9W9	A A K R L K D L G A E I V F L G H G A S N V S N A H V S T A V P E T N P E			
UniRef90_A6TJM2	L T H K L R D H G A E I F I G H A S E N I V Q N P D L V V Y T A A V K A D N P E			
UniRef90_D9TP14	Y I I Q K L K D E G A I I N I P H N A S N V D G A N L V V Y T A A V K E D N P E			
UniRef90_R5J385	L T R H L E E K G A R I Y Y G Q S N I E A E P G I Q V V V Y T A A I H P D N P E			
UniRef90_A8UTB7	N T E M L R S R K G A R I H I G H R A E N V S E D T Q V V V Y S S A V R E D N P E			
UniRef90_G0H6M6	K T E R L E S L G I P V Q F T Q R A E N V Q D A Q V V V Y S S A L K P D N P E			
UniRef90_UPI000237C488	P S Y S R L Q K H L P E A N G W H P E K I T G D I D A V I L G M H A R P D N P E			
UniRef90_A4AKL2	R I E M A N V I G V T L A L G G S S E E Q I I A A P D I V I V S P G Y P Q D H P L			
UniRef90_10ALQ1	V T E R L E K L G I K I Y E G H S A D N L K K D V D V L V Y V S S A V T L D N P E			
UniRef90_D1BA03	T Y I K K L S Q R G V E V L M G H D G E H L D R F D D L V Y T S A I D D S H P E			
UniRef90_UPI0003448E4D	V T D R L L A A L G A H I V F G H Q E A H I G D A N A V V V V S S A V R A D N P E			
UniRef90_V5AIG3	Q R L S E L Q T Q W P F V Q Q D F D D D L M Q R W N A V Y R S P G L A P A Q L V			
UniRef90_H6L2G3	L T K K L L V E E G M H I H Y T E Q A D Q I P A D V D L A V Y T P A I P A K N S E			
UniRef90_W1WBX8	E E K R L V S A G V D I T I G R Q D E S L L D G V D R I V I S P G I S L D I P I			
UniRef90_G1UNL2	V V I R H L R E L G A R V A V G H A A E N V G D Q V Q V L V K S T A I G D D D N P E			
UniRef90_C4KCS2	A T R R L L H K M G A H V V R G H D A A N V A D A D V V V V S T A V K A D N P E			
UniRef90_X8DR17	A L Q R R H R D A A G R G A L T T A A A Q R H M A D Q D L V I V S P G F G P S A P V			
UniRef90_W2V017	D K I L E V Q D M Y N H T I S E N P V D W W E K I D F L I L S P G I P C K Y P V			
UniRef90_V8CEF6	L T K K L L E S E G A V I H Y G Q C A E N I T D D I N C L V Y T A A I N K S N P E			
UniRef90_I3TRV5	R T A G A E A G A E V L A P D A I D W K A V D L L V I A A P G L P L H H E T			
UniRef90_E8RD71	D I T R R R L E H L G G V I H Q G H D A A W V A G A D V V V V T S T A I A A D N P E			
UniRef90_S2VS59	N L D H L R S L G I K V F V G H E A A H V P A D A R V V I S T A V R E S N P E			
UniRef90_K8Z990	T Q R D L E S N H I P L Y P F S K D N I Q E D K D M I V I A G N A F S D D H E E			
UniRef90_S2VLP2	L G A V T A L P V D T G G S D P T P A E L A W R P D V I I P A P A I P E I G P L			
UniRef90_E3E9X1	L T E K L L A A K G A K I Y I G H T P E H I A G A D I V V Y S T A L S R R D N V E			
UniRef90_S0FK78	N A N H L G K Y G V T Y L L G Q A L K E I N E E A V L V I L S L G F K P D Q S L			
UniRef90_M4Y427	M I S E Y R E M G I K F S L G E G Y L E N L K G F D I I F R T P G M R F D I P E			
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UniRef90_R6GQV6	T L I Q R I I D R G I K V Y T Q H D A K N I E N A E L V V Y S A A I K E D N V E			
UniRef90_R7WS39	S V L A L L R A R G A Q V R V G H D A S A L D L P T V V T T H A A I P Q D N P E			
UniRef90_X5ECR5	I V V A L L R A A G A D V A V G H R A E N L T V G P D A V V T S A A I P Q D N P E			
UniRef90_UPI0003B71E92	M T E K L L A S Q G A N I V Y Q G K A E A N S S P I D V V V Y T A A V H P D N P E			
UniRef90_W5X091	N T D R L L K E L G V T V H K G H S A A H V G A A D V V V Y S S A I R F E N N P E			
UniRef90_C0XS08	P V Q A L R T Q G A T I A I G H A N E L A G S L P T V V V T S A I P K D N P E			
UniRef90_UPI00047529DF	R N H F I K Q K I K C Q I A N I D N P K W Q E C L I M L S P G I P H H P I			
UniRef90_X1T8R1	I T K R L L A D K G A T I F K G H N E D N V E G A D L I V V V S S A I P E S N S E			
UniRef90_H1G0S3	V T R R R L E G L G V E V R L G H D A A H V R Q A D V L V V V S S A I R S D N P E			
UniRef90_B8I062	S T Q K L L E A K G A E I F I G H R S E N I T D Q D L T V Y T V A V K E D N P E			
UniRef90_R7FRG0	T Y T P L L S A K G I K T R F G D D Y L D L Y E N V V I I K T P A I R C D V P Q			
UniRef90_U7G1E1	V V I A R L L R S L G V R V E I G H R A E N I D G A D D V V V T S A V N T E N V E			
UniRef90_E3DQH5	P L I K K L D N S K L E Y D L G T K G T K I L E S E L L I I L S P G V P Y D L D I			
UniRef90_F5T8Q5	L T D H L K S L G I Q V S V P Q S P D N V K S G L E L C I Y T A A I A E S N P E			
UniRef90_UPI0003A06880	N T R H L E K L G I R V S Y G H H A D N L A D S E I L I Y T S A A I A S D N P E			
UniRef90_Q0BXU4	N V I E R L L R A R G V K V F I G H K P E N V V G A G V V V S T A V K P D N P E			
UniRef90_G9RP98	I I D R E R K L G I P I S M G H K A E N V H G A E L V V V Y T A A I I M K G N P E			
UniRef90_B1C9U1	Y T E K L L K E N E I K V I I G H N K E N I T D D I D L I V Y S A A I R E N N P E			
UniRef90_S3K0W8	Y T D E V L E R L R G I K P T L F D A A H I S A D I V L D V L I Y S S A Y S P D N P E			
UniRef90_UPI00039B9C87	N V E R L L R K L G A T I H I G H K A E N V V G A G V V V S T A V K P D N P E			
UniRef90_U7G805	P G L D E L K P D V P V Y L G D F D E E L F A R F N E L V V S P G I S V A E P A			
UniRef90_K5C778	A N S D L L Y V S V S L S D N H P Q E R L E G L D C I I K S P G I L P E H P L			
UniRef90_UPI00037956F0	A T I G R D G E G V D I V T T A P D A E K L S A F D I V I C S P G I S P Y R E P			
UniRef90_UPI00046898E3	I T N R L L V E L G A T I V F E G G Q K A E N I H A E V V V I S S A I K P G D N P E			
UniRef90_D1W5E6	L T N Q L L E K E G M L I H Y E E N V E I N P Q T C L V V V Y T P A I P E T H Q E			

90

UniRef90_F3L1P3	Y Q A A R D A R I P T V
UniRef90_R7JXJ2	F K A A K E □ G L P M M
UniRef90_F4XAW6	I A A A R A A A G I P V
UniRef90_B9K6P8	I I R A R K E N V P V
UniRef90_E3PT13	V K K F □ S R N I E V T G
UniRef90_R7GFB4	L K K E E E R G A I V
UniRef90_UPI000382EA75	I Q A A Y R R G I R V I
UniRef90_R6I774	F I E A K K R N L P I W
UniRef90_X0VP29	L R A A R R A G V P V
UniRef90_R5CFR9	F Q K A R E □ N I P
UniRef90_C5VPI4	L V R A H E L Q P P
UniRef90_L0R8F7	V V K A R E □ G P I I
UniRef90_C6VTT2	I V A □ K E K G L V I
UniRef90_UPI00047AE83B	I L K A K E □ G P V I
UniRef90_B9L281	V A A F A A Q R I P I V
UniRef90_M3VDP3	L V A A A A A G I P V W G
UniRef90_UPI0003665AD7	L V E A H R R G I P V I
UniRef90_E8N846	F V T A K E R G L H V I
UniRef90_UPI00047BDD70	I L E A Q R R N I P V
UniRef90_C9LSA6	I V E A A R □ G L
UniRef90_Q0EYH5	I A A A E K R G I P V I
UniRef90_X1VTY9	L Q I A K R R
UniRef90_UPI00046EC09D	L V Y Y R E N G Y K V V
UniRef90_R7IEU7	I K R C E E □ N L R V
UniRef90_UPI0003783535	V I A A R A A R A R T P I V
UniRef90_E3GXV8	V K I V K K S G □ E I I
UniRef90_U1RTV3	L A I A R T R G Q L V I
UniRef90_K0YI50	L V E A R K R G I P V I
UniRef90_UPI00047EAD9D	L L A A K E A G L R V
UniRef90_Q9WY73	I V R A R M E R V P I
UniRef90_UPI000469DC52	L R Y F □ E Q G Y R V V
UniRef90_UPI00041DED7D	L A E A K K Q G I E V
UniRef90_R9KN07	L K A A V D R G I P
UniRef90_R6N5H0	V K K A R E E K I E I I G
UniRef90_I4WS94	L L A A Q A Q G
UniRef90_UPI000375AF89	R Q A A V I A Q G □
UniRef90_H5U040	L V A A R E R G P I I
UniRef90_D3CZX3	I V A A R A □ G P V M
UniRef90_UPI000372C6D1	V D E A Y □ N R P V I
UniRef90_F3YWW9	V Q E A R R L G P V I
UniRef90_A6TJM2	R I R A E E L G P L
UniRef90_D9TP14	M I R A R E □ N P T I
UniRef90_R5J385	F K A A K D K N I P
UniRef90_A8UTB7	L R R A K E □ G I P V I
UniRef90_G0H6M6	I V A A V I A N G A Q L V
UniRef90_UPI000237C488	L Q K A R E □ G L K I
UniRef90_A4AKL2	L E W S R K S H V A L W
UniRef90_I0ALQ1	V K A A □ E R K I P V I
UniRef90_D1BA03	I Q R A R E □ G I R I
UniRef90_UPI0003448E4D	V L I E A R Q R G I P V V
UniRef90_V5AIG3	V V I R
UniRef90_H6L2G3	L Q Y F Q A A A T P L
UniRef90_W1WBX8	V K A A Q A R G D V V
UniRef90_G1UNL2	L V E G R R R N I A I I
UniRef90_C4KCS2	V V A A R E R R H I P V V
UniRef90_X8DR17	V Q A A V I Q A G I P I W G
UniRef90_W2V017	V R L A L E E K G C S I
UniRef90_V8CEF6	L M E A V G K I P
UniRef90_I3TRV5	V R R A R A A H V A I T G
UniRef90_E8RD71	V V I A A K E A H V P V V
UniRef90_S2VS59	L A I A R E R G Q E V V
UniRef90_K8Z990	L Q A A R E K G I P V I
UniRef90_S2VLP2	F T T A A D H G I E L W
UniRef90_E3E9X1	R V I A A E E □ N I P
UniRef90_S0FK78	L S E L E A A N I P V
UniRef90_M4Y427	I Q R E L A N G A E L
UniRef90_F7XVN9	Y K V A H G Q G I P L
UniRef90_R6GQV6	R I A A T H K G I P C I
UniRef90_R7WS39	L V E A R R R G I P I
UniRef90_X5ECR5	L V A A R E A G V P P L
UniRef90_UPI0003B71E92	F M A A K E A G P
UniRef90_W5X091	I A E A R A R Q P L I
UniRef90_C0XS08	L V R A A E E S P P V I
UniRef90_UPI00047529DF	V K L A K Y F N P L
UniRef90_X1T8R1	I R G A R D R K I T I I
UniRef90_H1G0S3	L R A A R E R R I P V V
UniRef90_B8I062	I T R S K E □ G I P V I
UniRef90_R7FRG0	I A E A V K N G
UniRef90_U7G1E1	V A E A H A R R V P V V
UniRef90_E3DQH5	L V I Q A R K K G I E T I
UniRef90_F5T8Q5	F Q E V K R Q G I P
UniRef90_UPI0003A06880	L V I S A R K K G L K A I
UniRef90_Q0BXU4	V Q A A R A A G I P V V
UniRef90_G9RP98	I E E A H R □ G I P T V
UniRef90_B1C9U1	R V E G K N K G
UniRef90_S3K0W8	L I A A R K A G P
UniRef90_UPI00039B9C87	V V A A R E H K P V V
UniRef90_U7G805	I A G A A Q K G A V I R G
UniRef90_K5C778	L E E A K K K G I P
UniRef90_UPI00037956F0	Y P S A E K S G V
UniRef90_UPI00046898E3	L D A A R A A G I P I V
UniRef90_D1W5E6	L K Y F R E N G F E I

1                    10                    20                    30                    40

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UniRef90_D1NSX3				
UniRef90_F0S257				
UniRef90_UP100046E9DAC	D I K N K A V Y F I G I G G A G G M S V A E M L Q Q R Q Q G E E V Q G S D R A V S A			
UniRef90_U3AIQ8	E G Q I V A V L G L G R S G R A T A A A L K A G G A Q V V A W D D G			
UniRef90_W5IK91	H F I G I G G A G G M S V A E I L L K R G V P V S G S D R Q A S			
UniRef90_C5BW58	R W H F I A I G G A G G M S V A E L A L A A G H V V T G S D A A E S A			
UniRef90_B0P5L9	L K G K K I S V I G L G V S H S D L I S R L R D Y G A K V T A H D R R A R S			
UniRef90_F9VQ08	L T G E T V V I G G A G T A G G M S A A R Y L I T R D V R I L L A D D R F A A			
UniRef90_D4CT26	I I G I N G I G M S G L A K I M K C K G Y E V K G A D I C T N Y			
UniRef90_M9M2K6	H I H F I G I G G Y G M S A A R V L L Q M G Y T V S G S D V I A A S E			
UniRef90_R5CXV0	L R H K T V A V I G I G V S N T P L L R R L L A E G I A V T A C D E K L G P			
UniRef90_K1ZSG8	I G L H G G G V A V V K F L A A H G A K V I A T D L R S K E			
UniRef90_UP10003B744D1	S D F A G R T V L V C G A R T A G A S A A R A L A T L G A T V L V T D R G P V A			
UniRef90_B8FBR7	K Y K H I H M L G I G M S G I A T I L L K K W G F Y V V T G S D A N E S E			
UniRef90_R6BH21	S S L K N K K I L V F G I G I S G Q A T I R K L Q K K V K D L S V W D D N V V H			
UniRef90_Q0AMW8	A E V M L N L G Y K V V Q G S D I K A N P			
UniRef90_F2I0M7	K R L H F V G I G G A G G M G I A E V L A N Q G Y S V V S G S D M K A S N			
UniRef90_R5LEI4	M I V G L G E S G L S V A L W Y L Y K G I S I V I V D S H Y P Q			
UniRef90_F7SJT8	D K K Y K N I H F I G I G I S M S G I A K L L L K K G Y N I S G S D R N T S K			
UniRef90_M1LN25	N V L I I G A G I S G L A A A R Q L H S L G T K V T I L E A K D R P			
UniRef90_A8SN91	K I H F V G I G G T G M S I A E V L S N L G Y T V S G S D I K G S A			
UniRef90_U6NKN3	A P W S Q L T V C V A G V G I S G R A A A R V L A A L G A Q V V A V D D R D G E			
UniRef90_UP10003694E7A	K R I V V L G A G E S G A G A A V L A K V K G F D T F V S D M S N I S S			
UniRef90_A0LTM1	K I I H F I G I G I S M S A L A E I C L N K G Y E V V S G S D M S K S S			
UniRef90_UP10004257075	R V H M I G I G V S M S G I A E I L N Y F G V T V T G S D I A D S E			
UniRef90_UP100037C83D4	L A S R T V S V G L G V S G R A V A K V A A R R G A K V I A F D A K A G E			
UniRef90_R7F3Q7	I L I Y G K G K T G N S L Y E F C K N R N I N A V L V D D N			
UniRef90_G9PCX7	H V Y F I G I G G I G M S A A R Y L N E Q G K I V V A G Y D K V I T S			
UniRef90_A8V601	K I F F I G I G G S S M S L A G M A L D Q G F K V V E G S D M I E S S			
UniRef90_Q26BB5	W A G R R L H F I G I G G A G G M S V A E M L L E N G V D V S G S D R E A N T			
UniRef90_E3GGE8	R T H F V G I G G A G G M S V A E M L L E N G V D V S G S D R E A N T			
UniRef90_D3F1L3	A L A E I L L S R G Y S V S G S D M K E S			
UniRef90_J0D5L5	A E V L L S H G Y V Q V Q G S D I L K Q T P			
UniRef90_X8K3N0	G T K I H L M G I G G A G G M S L A L L K G M G C Q V S G C D A A K T S			
UniRef90_M9RAU6	H V H F I G I G I S M S G L A E I L L D E G F T V V S G S D S H E T E			
UniRef90_H0URR3	H V H F I G I G I S M S G L A E I I L L Q E G F T V V S G S D S K A S A			
UniRef90_C0CZ14	I I G V G G I G M S A L A L G I L A D R G F Q V V S G S D P R D S P			
UniRef90_R5KD12	D L R G Q S V A I I G L G K S G R A A A R L A L A R G A S T V V L A F D Q N P N F			
UniRef90_A3YW17	N A A V I G L G V E G L N A V K S S L L N H G Y N V V Y A S D V I N L D V			
UniRef90_Q6AJ54	G A P V L I A G G R V T G R A V L A A L T R F R A T P T V C D D D P A			
UniRef90_X7ZH41	K T L V Y G L G E S G L A A V R V L L E R G A D A V L A A D R L D N			
UniRef90_A0A023X452	A E V L I N L G Y T V V Q G S D A S D N Y			
UniRef90_UP10002FAFCB	D L R G Q S V A I I G L G K S G R A A A R L A L A R G A S T V V L A F D Q N P N F			
UniRef90_M5W8J2	H V H F I G I G I S M S G L A E I I I L K N E Y K V V S G S D R S Q S			
UniRef90_C0C588	K N M T I H F I G I G V S M S G L A E I I I I K N E Y K V V S G S D R S Q S			
UniRef90_UP1000289347E	N A A V I G L G V E G L N A V K S S L L N H G Y N V V Y A S D V I N L D V			
UniRef90_U6EBF0	G A P V L I A G G R V T G R A V L A A L T R F R A T P T V C D D D P A			
UniRef90_E1IHH7	T V T D M A T P E			
UniRef90_B8DP78	A E V L L N L G Y E V V C G S D M S D G T			
UniRef90_E4U1V4	S G L A K Y M R F S G H E V V S G S D M K E T H			
UniRef90_A6G960	A E V L V N L G Y Q V V T G T D L A D T E			
UniRef90_A5UZT4	V L A Q G Q A V V T V T D L R G P D			
UniRef90_W0F1A9	A E V L L N L G Y E V V C G S D M S D G T			
UniRef90_U7G761	A E V L K T L G Y T V V Q G S D D M A E N A			
UniRef90_A9KQ18	H V H F I G I G I S M S G L A E I L L H T K G F T V V S G S D A K D S K			
UniRef90_UP1000237CFD3	Q N V Y F V G I G G I G M S A A R F F S S A G Q P V V A G G Y D R V Q S P			
UniRef90_UP100029A252F	K R V A V V G A G I S G L S C A R I L L H E H G F N V V T I F E K S R G S P			
UniRef90_Q0EY60	R G K R V L V L G F G R E G R S T L K A L L R D G Q S G C I A V A D A N P			
UniRef90_R6IRF8	K R I H F I G I G G S G M P L A E I I I I L D R H F T V V T G S D A K T S P			
UniRef90_E6X2W6	V H F I G I G I S M S G L A E I I I I L D R H F T V V T G S D A K T S P			
UniRef90_C2L0P1	F V G I G I S M S G L A E I I I I L D R H F T V V T G S D A K T S P			
UniRef90_D3R206	H F V G I K G T G M S A A Q V L H D L G Y T V V Q G S D D N H N S P			
UniRef90_Q5KW36	H F V G I K G T G M S A A Q V L H D L G Y T V V Q G S D D N H N S P			
UniRef90_C4K735	N K P V H I F F I G I G I S M A K V L A D R G F Q V V S G S D N H E T E			
UniRef90_UP100034BF07E	R I G V A G V G K S G L A A V E V L V S S L G H E V V T V I D G S Q E A			
UniRef90_Q3A2G4	A E Y S G K H V V V V G A G G C T G L G L A R F F L D R G A L V T L S D S R S R E			
UniRef90_R6A610	K S V Y F V G A G G I G M S A I R Y F L S K G K F V V A G Y D R T P S E			
UniRef90_G7GPM1	K A V Y F V G A G G I G M S A I R Y F L S K G K F V V A G Y D R T P S E			
UniRef90_J9FZ05	Y A G K K I L L V L G F G R E G K S T W N V L K K L D C C C S F V D V A D M A			
UniRef90_R5J756	Q G K K I V L I L G F G R E G K S T W N V L K K L D C C C S F V D V A D M A			
UniRef90_F5SD46	Y A G K K I L L V L G F G R E G K S T W N V L K K L D C C C S F V D V A D M A			
UniRef90_E0E3G6	N I H F I G I G I N M S A A E I C L N K G Y R V V S G S D A Q D S Y			
UniRef90_R6WJG3	H I H F I G I G I S M S G L A E I I I I L D R H F T V V T G S D T N V Y P			
UniRef90_W0RM66	R R I H L L G V A G T G M G A A G M L K A A G Y D V V T G S D T N V Y P			
UniRef90_B8G5Y3	H Y H I V G I A G A G G M S A A H L L D Q G H T V V S G S D D L T T N R			
UniRef90_E7MM52	N K P V H I F F I G I G I S M A K V L A D R G F Q V V S G S D N H E T E			
UniRef90_K0YVF6	R I G V A G V G K S G L A A V E V L V S S L G H E V V T V I D G S Q E A			
UniRef90_K5YXR4	A E V L L H E L G Y Q V V Q G S D L S E N A			
UniRef90_U2CZN1	I I G I G G I S M S G L A E I I I I L D R H F T V V S G S D D M K K S S			
UniRef90_W8JRL7	H Y H F I G I G G I G M S A A H L L D R G F Q V V S G S D D L S K N E			
UniRef90_B2HGR8	G A P V L V A G A R V T G R A V L A A L T R F G A I P T M C D D D P A M			
UniRef90_V5SHU5	A I A E I I I I L L A K G Y Q V V Q G S D D Q K E S A			
UniRef90_N2AGA1	H V H F I G I G I S M S G L A E I V L L E E H F T I I S G S D A K E S E			
UniRef90_R2QSR8	U I G I G G I S M S G L A E I I I I L D R H F T V V Q G S D D V I E E Y F			
UniRef90_B2HGR8	H Y H F I G I G I S M S G L A A E R V L R S L G A E V I V A D D A			
UniRef90_V5SHU5	S N L E N K L H H F I V G I K G S G M S L A L V L F E K G Y Q V V Q G S D D L K P S A			
UniRef90_N2AGA1	H Y H I V G I A G A G G M S A A H I I L L D Q G H T V V S G S D D L Q Q N			
UniRef90_R2QSR8	A Q V A G G R V L V L G A S V S G L A A E R V L R S L G A E V I V A D D A			
UniRef90_C8ND45	D F K N P H V Y F M G I G I S M S G L A Q I L I I E E G F K I I S G S D D N K K S A			
UniRef90_A7NI92	Y R N K K V L V V G A G P G S G L A A A R Q L Q N F G M Q V V V L E S R D R I			
UniRef90_C7LZM0	M S G L A K Y Q L L Q N G F E V V S G S D D L N D S K			
UniRef90_UP100046688FD	H V Y F M G I G I S M S G L A E I I I I L D R H F T V V S G S D D M K E S E			
UniRef90_W5LIC7				
UniRef90_R7M011				
UniRef90_R5NU87				

	50	60	70	80
UniRef90_T0ZJY3	A T R R L   A G   G A R V W   L   G H D A G H   E G A D   V V V T S T A V   P D N P E			
UniRef90_D1NSX3	K T E R L   T N Q G V D V R I G Q Q A S N I S H V T T V V Y S S A I K P D N P E			
UniRef90_F0S257	M V K K L   R E E G I R V F I G H K A E N V H G A N L V I H S S A V K F D N V E			
UniRef90_UPI00046E9DAC	L T Q Q L   E K E G M M L L   H Y E E D V K E I P Q A C C L V Y T P A I P S D H Q E			
UniRef90_U3AIQ8	P S G R E A A E A Q G I E L R D L T A S A Y E G V S L L V T S P G I P			
UniRef90_W5IK91	A K T D R L Q A L G A T I Y L D Q K G Q N L Q G A Q T V V W S S A I K S D N P E			
UniRef90_C5BW58	A L R R L A D L G A R V E V G H R A A A V E G A D V V V V W S S A I R G D N P E			
UniRef90_B0P5L9	A V G E A I A Q G I A L R L G E N Y L E N I D A D I V L R T P G M Y F H Q P V			
UniRef90_F9VQ08	D L I A Q G A E A V A I P D L L A D P S W T G D T A V V I V S P G F A P T H D L			
UniRef90_D4CT26	V T E E L L S M G L I T V Y N E H D E E N V K G S D F V I A S T A I K E T N P E			
UniRef90_M9M2K6	A T A K L Q A Q G A T V H I G H A A G Y V E D A D I A V Y S T A C P G D N V E			
UniRef90_R5CXV0	L A D E L E A A G A T L H L G E G Y L D G L T Q D V I F R T P G L R P D V P Q			
UniRef90_K1ZSG8	Q L K A S L E K N V Q Y V L G Q H R M E D F S K V D M V I K N P A A Q W N D K H			
UniRef90_UPI0003B744D1	A G L P A G A R F L G D I S A I P S G T D A L V T S P G W R P D H P L			
UniRef90_B8FBR7	I T Q R L A K L G G T I Y R G H R A E N V K G G C D V V V V W S S A I R Q E N P E			
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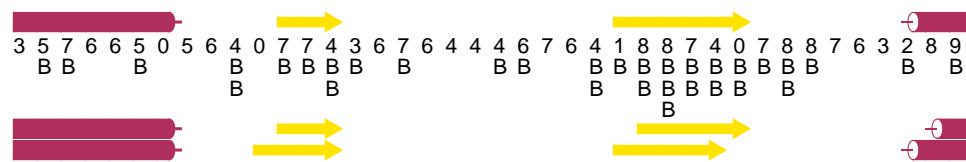
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UniRef90_AOA031FZ11	L V A A G G A G V P V W
UniRef90_X1FXT9	I M A A Q Q A R I P V V
UniRef90_Q1YM65	L E A A K Q Q
UniRef90_D1C0C4	M R A A V I E Q G C L I V
UniRef90_V4HZN0	F R A A K E M G L P M M
UniRef90_M2D7D9	V Q A A Q R A R I P V I
UniRef90_F0SQW5	V A V A K E L G V P L V
UniRef90_R5SIY3	V M E A R A R K V P V I
UniRef90_UPI00041F6F23	I V A A R A A R I P V I
UniRef90_UPI0003FFDA0	L V V A R E K R L P V V
UniRef90_UPI0003B49577	V A E A M K R
UniRef90_E0WRZ5	L E A V L N A G I
UniRef90_I4YVG9	V V A A R S R K I P I V
UniRef90_C6D881	V V A A R A A K T P I V
UniRef90_W0BAW6	UniRef90_R6Q9R3
UniRef90_F3NRF2	UniRef90_L9PMB8
UniRef90_UPI0003B34EE1	UniRef90_UPI0003E3C53

Sequence alignment of UniRef90 proteins showing conservation across 40 positions. The alignment shows various amino acids at each position, with color coding indicating conservation. A red box highlights a specific sequence motif in the lower half of the alignment.

lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
ipssm

UniRef90_I4B977 UniRef90_D3E0W7 UniRef90_F9Z8Z2 UniRef90_Q65G22 UniRef90_X0V3G6 UniRef90_A6DA59 UniRef90_U2JZS5 UniRef90_UP10003735A38 UniRef90_Q9K7W1 UniRef90_Q11RH6 UniRef90_UP1000314E54A UniRef90_G8PP19 UniRef90_A0KPx1 UniRef90_R9GPY3 UniRef90_UP100041F752F UniRef90_Q12SC5 UniRef90_UP10003739CCA UniRef90_UP1000472A1B9 UniRef90_H9KNJ2 UniRef90_UP10003723A30 UniRef90_Q15Q18 UniRef90_A6LEU2 UniRef90_UP100040F96BE UniRef90_G5HSQ2 UniRef90_UP100036EE100	50                    60                    70                    80 P T L H E L A A A I P F R Q P Y A A E N L S D R P D L V V L G N A I S R G N V E F Y S S F D D Y D I E I F F G G H P D E F F K Q I D F I V P P P S M S D D A K V P S K S R L E A A L P E K W G W Y P E R I T S R L D A V I L G M H A R E D N P E F T Q T A L E E R N I P I Y P F D P E N I K P G M T V I A G N A F P D T H P E E L T R R L K A M G A R I Y P K H S S E N L K G A Q V V V L S S A V S R A N P E L T N S L K K E G I E V F I P Q K K E N I K N D D K I V Y T A V V K E D N P E E L E D L D S S R L R F V L G T H N I E D F K N A D A V I K N P G V K Y T N P Y M T E R L R K L G V K V F K G H A A Q Q I E G A D V I V V S T A L N E Q N P E F T Q K P L E E K G I P I F P F Q K E N I K E G Q Q V V V S A A Y S D E H E E L T K A L E A E G M A V H Y T D S M A E V P E A F T L V I Y T P A I P A D H L E F T Q R P L E E Q A G I K I Y G F N P D N L H A G L T V I A G N A F P D T H P E G G V W E L S R S Y P G V Q T Q S P K D L Y C Y T D L A V T E R L E S L G A H I F V G H S A E H V N E A S V V V V S T A I K Q D N P E P S A S R L L K K H Y P A K L G W D P D R I D P G L K A V I L G M H A R P D N P E K V S Q L P A D A K T V L G E T A F S Q L D H Y D L V V R T P S L P P N V T D R L I S L G A K V I I G H H A D S V E H A D V V V V S T A I N H E N P E V V I E R L V T L G A E V K F G H H A S Q I D G A S V V V V S S A I K A A N P E F T Q K P L D D A G I K I L P F N R E N I K P G L T V I A G N A F P D T H E E L L T S E D A N Y L N V E K F S L D E T W P M A D Y I T V H T P L I P Q T K N L P G K R A K A L G I P V H Q G H D P A H L G E E D T L V V P T P I P D H P E G M T D R L S G L G A T I F F G H Q A S N V E K A N V V V V S S A I D P T N P E L T E E L K K E G A D I H Y E D N V A L I G E A F K L V V Y T P A V P E S H T E N V R R L R A A G V S V T I G H D A A N L G Q A Q V V V I S T A V G R D N P E A S R P D E D G L W I T G P D Y Q K C L D N Y D V V F K S P G I V L E K P A I T E R L V R L G A R V L I G H N A S N V T G A K A L V V T S A L D E N N P E
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lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm



UniRef90_I4B977	L E A A [L] N A R [L] E I
UniRef90_D3E0W7	L E [L] R E K G I D I
UniRef90_F9Z8Z2	L Q K A Q E [L] G I P V
UniRef90_Q65G22	I E K A Q A E G L P V V
UniRef90_X0V3G6	I T R A S R R N I P V I
UniRef90_A6DA59	I I E A K K K G I
UniRef90_U2JZS5	L A C A R R
UniRef90_UPI0003735A38	I I A A R E [L] R I P I I
UniRef90_Q9K7W1	V V A A K E Q G L E I
UniRef90_Q11HR6	L N F F R E N G
UniRef90_UPI000314E54A	I V R A K E [L] G L T V V
UniRef90_G8PP19	L L A A R E [L] R I P V V
UniRef90_A0KPX1	L L K A Q E [L] G V K V
UniRef90_R9GPY3	
UniRef90_UPI00041F752F	
UniRef90_Q12SC5	
UniRef90_UPI0003739CCA	
UniRef90_UPI000472A1B9	
UniRef90_H9KNJ2	
UniRef90_UPI0003723A30	
UniRef90_Q15Q18	
UniRef90_A6LEU2	
UniRef90_UPI00040F96BE	
UniRef90_G5HSQ2	
UniRef90_UPI00036FE100	
	V A F A R R I Q I P V I