

1            10            20            30            40

QUERY	D G Y E A M F	V Q D V L A T R R M V E	V P I P E G S K L E G V S	V L D A D I H
UniRef90_V3T1N5	R D L I R D Y K L T R L A	I R P G S S F I G Q R L	D D R L R Q	D
UniRef90_UPI00039F2727	D E I G M A E V V I L	L A N S H L H N R A	V K D S G F R R	G H E A E R A D K G L
UniRef90_E6SVP1	D D I G I A E I V L	M P S S K I I N Q T	V K E A G F R D	Q T E T I E T L L G D N T
UniRef90_K2E0I7	E L K L E Q F R I	E E G S P L E E Q T	L S S E L R Q	L I E V E V G A N S D I
UniRef90_D4GYP7	I E V E V G A N S D I	A G K T L G E S D L	L R Q S	K L E Q F R I
UniRef90_UPI00047C2912	M A E V S L I P D S S G L	V G K T L Q D A M F R S	R I H E F R I V E P G S R I	
UniRef90_K6B4D1	L Y R I Q I R P G S R I	G G K K L Q E N I T Q	R D Y G L N D Y	
UniRef90_K4LEZ3	I A E V L L M P D S K L	I G K N L G E T Q F R S	R I H E F R I V E P G S R I	
UniRef90_U5DF11	S D S D K L I I G K T	V I E D V R R	R D Y G L N D Y	
UniRef90_K5YUK0	S D S D K L I I G K T	R E A Q F R A	R I H E F R I V E P G S R I	
UniRef90_UPI0004785D33	S D S D K L I I G K T	V Q E A Q L R T	R I H E F R I V E P G S R I	
UniRef90_E8UYA6	R L V E V V V M P R S P L I I G R T	L R E A Q F R A	R I H E F R I V E P G S R I	
UniRef90_Q2RHU8	E E I M V S P G S P L V G K S	V Q E A Q L R T	R I H E F R I V E P G S R I	
UniRef90_M0CBE8	V A D D D D A L S G A R V K W V A I P	P D D S P V V I G Q T I	R I H E F R I V E P G S R I	
UniRef90_W8QVH3	E L S D E Y S L E I V	A A N S R L A G H S	R I H E F R I V E P G S R I	
UniRef90_R6PLE8	L D D L V Q E Y R L H R Y I V	L D D L D I R A K	R I H E F R I V E P G S R I	
UniRef90_UPI0004727D0F	V F L E T L N P S H S I S E I V I	P P A S E M A G R T	R I H E F R I V E P G S R I	
UniRef90_UPI00029B2772	D L I I D Y K L A R L R V	T V R E L L Q M R K	R I H E F R I V E P G S R I	
UniRef90_R9GX53	D A H L T E L I V S P E S E L V G K S	I E L A I R E E	R I H E F R I V E P G S R I	
UniRef90_K2EVH0	D I F K N N E V D W L I K V A K N S P F I	D K T I A Q S N I R Q	R I H E F R I V E P G S R I	
UniRef90_H5S8Z1	E L V P G Y S V V E I P A P S R L V G K T	L L E S Q L R T	R I H E F R I V E P G S R I	
UniRef90_R5C4Y3	L Q E L V N E Y N L F R L Q V K E N S N N L L	G K T I I E D I R R	R I H E F R I V E P G S R I	
UniRef90_C0QQD3	L I E N L A I E W K I V P P S N S P I	G E S Q L R Q	R I H E F R I V E P G S R I	
UniRef90_A0L7H7	I A E V L L M P P G S R I	A E V Q F R K	R I H E F R I V E P G S R I	
UniRef90_L9XW78	L E W Y G V A R N A E I A G Q T	I G D S R I R E	R I H E F R I V E P G S R I	
UniRef90_G5HAZ6	G Y K N K S L N D L A A E Y Q L F R M H V A P H S P L I	G K T A A E A D I R N A	R I H E F R I V E P G S R I	
UniRef90_UPI0004720093	E L A S D Y S L V E L T A I P	E W V G K S L K Q I D M R A	R I H E F R I V E P G S R I	
UniRef90_J7J0L6	I H D H N I E M E M V E L K I D E G S C L V G R T	L L T S G I K Q	R I H E F R I V E P G S R I	
UniRef90_F9YRR4	L Q E L V S E Y Q L M F R F Q I T K N T P	L N Q S L A E L K I A T	R I H E F R I V E P G S R I	
UniRef90_R5DKB0	L L Y R I L R V T S G S L V C N K T	L L Q E L N I T Q	R I H E F R I V E P G S R I	
UniRef90_R5EQN8	T V A V E Q R L K F I R V A A G A L A G A H P W R T Q V R E E	T V G D S G F R E E	R I H E F R I V E P G S R I	
UniRef90_W6M3W1	R D L I K D Y H L T R L A I R P G S P L A G R R	L D D L K L R E E	R I H E F R I V E P G S R I	
UniRef90_UPI0003F6D409	E L S K D Y S I S I E V T D R L I G K S I V M E I I D V R A	E L S K D Y S I S I E V T D R L I G K S I V M E I I D V R A	R I H E F R I V E P G S R I	
UniRef90_UPI000255C299	E Y F S D Q A L D V G M A E V S L I P D S E L L G K T	V R E I I G F R T	R I H E F R I V E P G S R I	
UniRef90_V5ATU1	E L S P N Y G I V E I V A T K K L D G R S L L G E I D V R A	E L S P N Y G I V E I V A T K K L D G R S L L G E I D V R A	R I H E F R I V E P G S R I	
UniRef90_M5NY32	R I E D N L A N L Q L V E A V I H K T S R W T G K E I R E I D L R R	R I E D N L A N L Q L V E A V I H K T S R W T G K E I R E I D L R R	R I H E F R I V E P G S R I	
UniRef90_B5JEY5	E F V E T I I S G G E M E K V V V D E K L A G K T	K E L D L R R	R I H E F R I V E P G S R I	
UniRef90_UPI0004047F0D	E F V E T I I S G G E M E K V V V D E K L A G K T	K E L D L R R	R I H E F R I V E P G S R I	
UniRef90_D2RDH9	R D L I H D Y K L S R I L A R Q G S P L I G L S	D E L N L R A T	R I H E F R I V E P G S R I	
UniRef90_D4GZR2	R D L I H D Y K L S R I L A R Q G S P L I G L S	D E L N L R A T	R I H E F R I V E P G S R I	
UniRef90_UPI0003681B1D	D G D S I E D D Y G L E D Y I S E M V I P P G S I A I G K T	R E S E I I Q R Q	R I H E F R I V E P G S R I	
UniRef90_D3EP02	E D K I A E V L I L S N S R L I G S T	K D L R F R Q	R I H E F R I V E P G S R I	
UniRef90_UPI0003455068	E L S D E Y S I I E L I V G Q K M D G K T	I E L D I R A G	R I H E F R I V E P G S R I	
UniRef90_Q58752	D E Y E E D E L R K F V I E K D S E L A Y K S	K D A N I R D	R I H E F R I V E P G S R I	
UniRef90_G8UHY9	E R R E E E A D E M N I E Q F T I S E G S R L I G L S	R E S G I R D	R I H E F R I V E P G S R I	
UniRef90_M0MAG6	I L E T V L S D D A L I E V N V G P E S P L F V G G T	A E T R L L R E	R I H E F R I V E P G S R I	
UniRef90_UPI00037CC3C7F7	H E V G I A E V L I M P A S K L V N L P I	K D S K L R E E	R I H E F R I V E P G S R I	
UniRef90_UPI000417B165	Y E A N F P A E K E T V E L I V D E H N R L K G K T	R E S G I L R E	R I H E F R I V E P G S R I	
UniRef90_Q9RUH5	A T V R L V E A V V L P G S P L L G R T	R E A Q F R E D	R I H E F R I V E P G S R I	
UniRef90_F0R5D6	I A E I V L M P T S N I I L N Q R V	K E A G F R D	R I H E F R I V E P G S R I	
UniRef90_B6VK5	R D L I H D Y K L S R I L A R Q G S P L I G L S	D E L N L R A T	R I H E F R I V E P G S R I	
UniRef90_E4NLY3	D Y L T E V T V R S D S R L I G Q R	V Q R A L V E T	R I H E F R I V E P G S R I	
UniRef90_UPI000346A3EE	E Q S Y L N D L L M N V Q I E E L V V G N T S R L V G R T	V R E L E I R G	R I H E F R I V E P G S R I	
UniRef90_W9T8P9	D A F E T I S S E D V S L L A E A I V G R G S R Y S H R P	M R D L D L T A	R I H E F R I V E P G S R I	
UniRef90_UPI000469DBEE	L V K E Y G L S T E V Q L D T P S Q A I G K T	V D L D D V Y R	R I H E F R I V E P G S R I	
UniRef90_U4WNE8	F I E L A E D Y S V A E V V V S H S M V G Q S L R D I D V R A	K E L D L R R	R I H E F R I V E P G S R I	
UniRef90_B7IE43	Y R I E E V K P P K S S I I N K K L S E L Q L S K	S E S S G I R D	R I H E F R I V E P G S R I	
UniRef90_R6XFX5	E M K L R Q L V I C R D G Q F F G K T	S E S S G I R D	R I H E F R I V E P G S R I	
UniRef90_V4HD21	E Y L T E V V V R E D S P L V I G Q R V	E T A L V E T	R I H E F R I V E P G S R I	
UniRef90_A0YU95	N D Y L S E S V I I T P Q S S L V G Q T	Q Q S E I Q R	R I H E F R I V E P G S R I	
UniRef90_D5VQQ6	E F I H S L V A T K E D M E I R R F E N K E L D G V S	K D S K I R E S	R I H E F R I V E P G S R I	
UniRef90_V4L7E3	R T L A N E L G M V E V M L P P D S E L I G Q T	L S Q A A F R S T	R I H E F R I V E P G S R I	
UniRef90_X6PLN7	M A E V S L N P E S E L L I G K S	R D I D G F R T	R I H E F R I V E P G S R I	
UniRef90_R5I7K3	L V H N M H L A H M E V Y G S C E F I G K R	L A D A N I H R	R I H E F R I V E P G S R I	
UniRef90_A7HX58	G E L V L V A E T V V A P G S R M I G Q T	E Q I A F R H	R I H E F R I V E P G S R I	
UniRef90_C7D9J7	A N L L S D R S K M R F F S E A V I P P E S N L I G R E	V T G V Q L F K	R I H E F R I V E P G S R I	
UniRef90_UPI000407B416	D N Q E H V N I L Q I V V S Q Y E L D E N S P L I G I L I K N S G I K D S	R E V A L R S T	R I H E F R I V E P G S R I	
UniRef90_I3CFY2	D K Q E P V P P K T L L Q T A Q L A C V T L P A S S P V K R L	T G V Q L F K	R I H E F R I V E P G S R I	
UniRef90_Q5UYA4	E S S H V E T M L S E G T L L Y E V A E D S P L V G E T	L A G A N V G Q Q	R I H E F R I V E P G S R I	
UniRef90_V6DXN2	R D V L S L D T H V E V V R R S E T P T L V G R T	V G E A A V R E S	R I H E F R I V E P G S R I	
UniRef90_K9T5J2	Y M E E F L I P K T C P C V G Q T	L S E A R L R S N	R I H E F R I V E P G S R I	
UniRef90_Q72X55	I E E I A V G E G S I L A N K S L L E S D V R N	L E S D V R N	R I H E F R I V E P G S R I	
UniRef90_R7JE13	H M L E R D L H A D F E V R Q N S P T V G K T	K E L N F R K	R I H E F R I V E P G S R I	
UniRef90_C9LH23	E L G M A E M L L L P E S H F I G Q T	R G M N F R K	R I H E F R I V E P G S R I	
UniRef90_A0A023XN57	L A D R A L R V R V L T G S P L I G K R	E E L A L R D	R I H E F R I V E P G S R I	
UniRef90_Q2C9Z2	A T L L S D R S K M R F F T E A V I P P E S N L I G R E	V T G V Q L F K	R I H E F R I V E P G S R I	
UniRef90_D1Z218	N G Y V L S D L D T P A W N V E V S T I Q V K E G A A A S G K T	K D V E L L R K S	R I H E F R I V E P G S R I	
UniRef90_UPI0004741C77	E L S K D Y S I V E I V I M A S K K I H N K T	F D L L N I R S	R I H E F R I V E P G S R I	
UniRef90_V9GFS6	D L S E E Y S I V E I V I A T D K V S N S K T	I E L N V R A	R I H E F R I V E P G S R I	
UniRef90_UPI00047DD2C0	D L S E E Y S I V E I V I A T D K V S N S K T	E S A D I G N D	R I H E F R I V E P G S R I	
UniRef90_M0D5R9	D R A E H E A L S Q L I D E Y Q I R L R V L E D S P L T E H P	H D L Q I P P D	R I H E F R I V E P G S R I	
UniRef90_B2UQ66	D Y V S E L V I T P R S S L V G Q T	K E S E I I Q R	R I H E F R I V E P G S R I	
UniRef90_UPI00047BD7F0	E Y L A D L T V A P G S A L S G Q T	R E S G G L G R	R I H E F R I V E P G S R I	
UniRef90_C1CX66	K D L D L T S I L V S P D Y I G K S	G E L S F R Q	R I H E F R I V E P G S R I	
UniRef90_R6JLM0	E H Q A L R D L I R D Y R L T R L G L P D S P L I G H T	D E L Q L R A	R I H E F R I V E P G S R I	
UniRef90_UPI00047DBF08	E L Y M E E V L I D K S C P F V G Q S L G E A R L L R A	M Q L E F R Q	R I H E F R I V E P G S R I	
UniRef90_A9WKK2	E L S P E Y S I V E L Q V P T A M L G Q S L A E A N I R A	D F A L S E V V V T N N S S L I G H K L D D V E T	R I H E F R I V E P G S R I	
UniRef90_K9RIT5	E L Y M E E V L I D K S C P F V G Q S L G E A R L L R A	D F A L S E V V V T N N S S L I G H K L D D V E T	R I H E F R I V E P G S R I	
UniRef90_UPI00047C7098	E L S P E Y S I V E L Q V P T A M L G Q S L A E A N I R A	D F A L S E V V V T N N S S L I G H K L D D V E T	R I H E F R I V E P G S R I	
UniRef90_M9R5U0	E L S P E Y S I V E L Q V P T A M L G Q S L A E A N I R A	D F A L S E V V V T N N S S L I G H K L D D V E T	R I H E F R I V E P G S R I	
UniRef90_G2FB99	E L S P E Y S I V E L Q V P T A M L G Q S L A E A N I R A	D F A L S E V V V T N N S S L I G H K L D D V E T	R I H E F R I V E P G S R I	

50            60            70            80

QUERY	V T G V I I I G V G R G D E L I I D P P R D Y S F R A G D I I L G I G K P E E I	R Y G A N V V G I E R W R R R V M V S V I A G N T E L N L N D V L L I D M S A S D M	N Y N V N I L A I Q R K D Q Y I I H D V M D V K M Q A G D M L L V Q G T W E D I I	K F N V N V L G I R R D G E F I T N P T P D T M I K A G D Y L I T L G T S S Q L
UniRef90_V3T1N5				
UniRef90_UP100039F2727				
UniRef90_E6SVP1				
UniRef90_K2E0I7				
UniRef90_D4GYP7				
UniRef90_UP100047C2912				
UniRef90_K6B4D1				
UniRef90_K4LEZ3				
UniRef90_U5DF11				
UniRef90_K5YUK0				
UniRef90_UP10004785D33				
UniRef90_E8UAY6				
UniRef90_Q2RHU8				
UniRef90_M0CBE8				
UniRef90_W8QVH3				
UniRef90_R6PLE8				
UniRef90_UP10004727D0F				
UniRef90_UP100029B2772				
UniRef90_R9GX53				
UniRef90_K2EVH0				
UniRef90_H5S8Z1				
UniRef90_R5C4Y3				
UniRef90_C0QQD3				
UniRef90_A0L7H7				
UniRef90_L9XW78				
UniRef90_G5HAZ6				
UniRef90_UP10004720093				
UniRef90_J7J0L6				
UniRef90_F9YRR4				
UniRef90_R5DKB0				
UniRef90_R5EQN8				
UniRef90_W6M3W1				
UniRef90_UP10003F6D409				
UniRef90_UP1000255C299				
UniRef90_V5ATU1				
UniRef90_M5NY32				
UniRef90_B5JEY5				
UniRef90_UP10004047F0D				
UniRef90_D2RDH9				
UniRef90_D4GZR2				
UniRef90_UP10003681B1D				
UniRef90_D3EP02				
UniRef90_UP10003455068				
UniRef90_Q58752				
UniRef90_G8UHY9				
UniRef90_M0MAG6				
UniRef90_UP100037CC3C3F7				
UniRef90_UP1000417B165				
UniRef90_Q9RUH5				
UniRef90_F0R5D6				
UniRef90_B6VKK5				
UniRef90_E4NLY3				
UniRef90_UP1000346A3EE				
UniRef90_W9T8P9				
UniRef90_UP1000469DBEE				
UniRef90_U4WNE8				
UniRef90_B7IE43				
UniRef90_R6XF5X				
UniRef90_V4HD21				
UniRef90_A0YU95				
UniRef90_D5VQQ6				
UniRef90_V4L7E3				
UniRef90_X6PLN7				
UniRef90_R5I7K3				
UniRef90_A7HX58				
UniRef90_C7D9J7				
UniRef90_UP1000407B416				
UniRef90_13CFY2				
UniRef90_Q5UYA4				
UniRef90_V6DXN2				
UniRef90_K9T5J2				
UniRef90_Q72X55				
UniRef90_R7JE13				
UniRef90_C9LH23				
UniRef90_A0A023XN57				
UniRef90_Q2C9Z2				
UniRef90_D1Z218				
UniRef90_UP10004741C77				
UniRef90_V9GFS6				
UniRef90_UP100047DD2C0				
UniRef90_M0D5R9				
UniRef90_B2UQ66				
UniRef90_UP100047BD7F0				
UniRef90_C1CX66				
UniRef90_R6JLM0				
UniRef90_UP100047DBF08				
UniRef90_A9WKK2				
UniRef90_K9RIT5				
UniRef90_UP100047C7098				
UniRef90_M9R5U0				
UniRef90_G2FB99				

QUERY

UniRef90\_V3T1N5

UniRef90\_UPI00039F2727

UniRef90\_E6SVP1

UniRef90\_K2E0I7

UniRef90\_D4GYP7

UniRef90\_UPI00047C2912

UniRef90\_K6B4D1

UniRef90\_K4LEZ3

UniRef90\_U5DF11

UniRef90\_K5YUK0

UniRef90\_UPI0004785D33

UniRef90\_E8UAY6

UniRef90\_Q2RHU8

UniRef90\_M0CBE8

UniRef90\_W8QVH3

UniRef90\_R6PLE8

UniRef90\_UPI0004727D0F

UniRef90\_UPI00029B2772

UniRef90\_R9GX53

UniRef90\_K2EVH0

UniRef90\_H5S8Z1

UniRef90\_R5C4Y3

UniRef90\_C0QQD3

UniRef90\_A0L7H7

UniRef90\_L9XW78

UniRef90\_G5HAZ6

UniRef90\_UPI0004720093

UniRef90\_J7J0L6

UniRef90\_F9YRR4

UniRef90\_R5DKB0

UniRef90\_R5EQN8

UniRef90\_W6M3W1

UniRef90\_UPI0003F6D409

UniRef90\_UPI000255C299

UniRef90\_V5ATU1

UniRef90\_M5NY32

UniRef90\_B5JEY5

UniRef90\_UPI0004047F0D

UniRef90\_D2RDH9

UniRef90\_D4GZR2

UniRef90\_UPI0003681B1D

UniRef90\_D3EP02

UniRef90\_UPI0003455068

UniRef90\_Q58752

UniRef90\_G8UHY9

UniRef90\_M0MAG6

UniRef90\_UPI00037CC3F7

UniRef90\_UPI000417B165

UniRef90\_Q9RUH5

UniRef90\_F0R5D6

UniRef90\_B6VK5

UniRef90\_E4NLY3

UniRef90\_UPI000346A3EE

UniRef90\_W9T8P9

UniRef90\_UPI000469DBEE

UniRef90\_U4WNE8

UniRef90\_B7IE43

UniRef90\_R6XF5

UniRef90\_V4HD21

UniRef90\_A0YU95

UniRef90\_D5VQQ6

UniRef90\_V4L7E3

UniRef90\_X6PLN7

UniRef90\_R5I7K3

UniRef90\_A7HX58

UniRef90\_C7D9J7

UniRef90\_UPI000407B416

UniRef90\_I3CFY2

UniRef90\_Q5UYA4

UniRef90\_V6DXN2

UniRef90\_K9T5J2

UniRef90\_Q72X55

UniRef90\_R7JE13

UniRef90\_C9LH23

UniRef90\_A0A023XN57

UniRef90\_Q2C9Z2

UniRef90\_D1Z218

UniRef90\_UPI0004741C77

UniRef90\_V9GFS6

UniRef90\_UPI00047DD2C0

UniRef90\_M0D5R9

UniRef90\_B2UQ66

UniRef90\_UPI00047BD7F0

UniRef90\_C1CX66

UniRef90\_R6JLM0

UniRef90\_UPI00047DBF08

UniRef90\_A9WKK2

UniRef90\_K9RIT5

UniRef90\_UPI00047C7098

UniRef90\_M9R5U0

UniRef90\_G2FB99

90

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

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

1 10 20 30 40

UniRef90_UPI00035FC590	V I D F I E L S K E H S I V E L V I A Q I E V T H D H F L I G Q A P V A G M F P D
UniRef90_A6CTR9	L L I H T K E K K Q S L E E V A L E E A C Y I G K S L K D S A I R N
UniRef90_S2YHQ8	D L Q M E E L P V S A E S E L V G K D L I E S K I R A
UniRef90_FQJED5	R V P E G C N L L I N T L E E T N L W S
UniRef90_E4RMG8	D G G K L F S V G D
UniRef90_E4PQD2	Y V T E L R V P E D S S H I G A T L H G L L T R A
UniRef90_W4F0U7	E L S D E H S I M E I K A N H L L E G H T I I N L D I R V
UniRef90_Q1AX68	D E V V F K L A V A P G S R A D G E T L R A L L H L E T
UniRef90_R6MHJ9	H E M K L K Q F V V G K N S P F I G Y S I A E C G I R D
UniRef90_E6MRY9	E M K L R K L I L S S D T P F I G K T L A E S S G I R D
UniRef90_A0A024F2W7	D A H I T E F L I P P E A P Y V G V P L H Q L S I R E R
UniRef90_UPI000468959D	Q V S A V E T T V E V L I T P G C K M I G R S L G A L L R R
UniRef90_UPI00035E501D	F I E L S N E Y S I E E I K I P S S M V S K S L R D L L G I R A
UniRef90_L0F6D3	E L S K D Y S I E E I M I P P K M A N K N L R D L D L R A
UniRef90_X2GUX5	D L D P D H S I V E L I V P D E F H G K T I S E L Q L R N
UniRef90_G6FRC9	H L L D R D V H I S D L E V P D D S T W A G K T L R E L N L R R
UniRef90_E0NS10	E M H L K Q F I I D A N S P F L G K S I R E S G I L R D
UniRef90_J9GGA8	D Q S L A D R R M A E V M V P Q T S T L I G K T V V E A R F R T
UniRef90_S9SE74	M V E I S M L P E S E I I I G K T I S E L K F R S S
UniRef90_W0R863	I S T D L P D I E V A S L R T K E D S L V G K T L I D A D V R N R
UniRef90_J0LIR8	W L L V P E N S P V V G K T L A E L H I R R
UniRef90_K8GEC8	L V R S F S N S G Y L T E V E I P P R S E L V G Q S L H R S R L Q R
UniRef90_L8XZN4	S V A E V R V P A P L V G Q T L M Q S G L R R
UniRef90_B5IHV2	D K L E V L E V V I N P G S R M A D H T L S D L Q F R E R
UniRef90_A9WC67	L K P N S P F I N Q T I A Q T Q I R S D
UniRef90_B0C6V2	E A D A V T E I I G A P R I A E V E V T A S S R F A G R T L G E T R A R T
UniRef90_Q9HMC9	D E Q A L V E V V I H S G S S L A G Q T L S S S S F R D
UniRef90_A4FK62	E L S E D Y S I V E I L A S G Q L V G K T L R Q L D I R A K
UniRef90_F8FDD8	A D V E I R S I R V G E L S R A A G M T I G D L N V R K
UniRef90_Q8PYD0	E M R L K Q F I I D A D S P F L D K S I R H S G I R N
UniRef90_R7D1B6	V T E E D G I A E V L I L G N A R V V G S T L K E L R F R Q
UniRef90_UPI0004759977	L R Q F L I G K K S R L A N K T I R E L L G I R E
UniRef90_C7PS06	E L S A D Y S I V E L I A T D K V A N K S I I D L D V R A
UniRef90_W4Q2W2	A Q R S L I E A V V S N T C P L V G Q T I R E G H F R N E
UniRef90_L8LSF3	A G L Q M E E L Q V T D H D S D V V G K N L I D S S Q I R Q
UniRef90_C6W1R3	D G L S L F A D E D G L L G E N L T E A I V K Q E S A I I G Q T L K E A G F R A
UniRef90_C4XT52	D L D P N N S I V E V L V P E E F H G K T V T E L E L R N
UniRef90_UPI00036A95DF	D D D R V V E A L V L P G S T L L H Q T L K R A R F R E
UniRef90_K9WK67	D L I T E R I A I G A D S P Y R G R P L G D T R A R T
UniRef90_UPI0001744DBB	S G E E G I A E V L I L A N S N L I G S T L K D M R F R Q
UniRef90_UPI0002EC28E8	R M V E V L L P S G S T L A G D C R D R F R Q
UniRef90_F4XK58	W F S L P E D S P L V G M T L E E T N L R Q
UniRef90_UPI00020011BD	E L R R V D Q L S A E T T V E V L I T P G C R M V G R S L G S M R L R R
UniRef90_D8GQ6	H I L S R D L H L S D F E I P A D S L W A G Y T L R E L N L G H
UniRef90_A9E1U1	M A E V T L V P E A E V I G K T L R E V T F R T
UniRef90_D4V716	D Y V T E L R V P E G S A S A G A T L H S L E S G E
UniRef90_D0ZAZ4	D Y D V D L Q L A E V V S I H H G S G L A G D T L A E S Q I R E
UniRef90_M1FJ85	T E V A V P E G S P L I G K T L E Q V E I F R K
UniRef90_W8RNM9	E L S D E Y S I V E F F A T D K I A D R S I I D L D R A
UniRef90_V4YLL2	L K D K Q G S R R L V E A V I S P H C E V I G E T I R D A H F R N
UniRef90_A0A037ZLT1	H Q H L E I D L V T E H I E V T K R S P Y A G R P L G A T Q A R T
UniRef90_W4QE57	Q D V I V A Q S Q I E V V R T D A P G L A G Q S L V E A D I R A
UniRef90_L8D6Z2	T E V A V P E G S P L I G K T L E Q V E I F R K
UniRef90_UPI00036B7231	V E W E I L Q E N S I F A G K T I G N S E V R K
UniRef90_G0LKZ5	E A D K A A L E S E D R I M E V I V S P G S A M I G H T A M S M R L R R
UniRef90_A3PS18	R L R D L A S D Y G L L R F R V P A A S P V V G R T L L G E L E L R A
UniRef90_UPI00047CD0DE	L D R D L H L S D F V V S P D S E W V G H T L K E L D L G K
UniRef90_A8ZX45	V A E R T L V E V V P R G S F L V G E S L E S S T F R Q
UniRef90_I0HV12	M T D L M V P H P S P M I L G K T I A E A D L N G
UniRef90_R5UHK6	G H K A D D L L A T N L V E V V V S H E S E L A G Q T L Q E V D F R S
UniRef90_M0CBK8	Q Y R I E E V K V N K N S G I V D K K I S D L D V G K
UniRef90_K4KJ52	U N D D N E D V I V G A K V T P W S D A V G R T I E A S G M R Q
UniRef90_UPI00035CDADD	D D L L A T N L V E V V V S H E S E L A G Q T L Q E V D F R S
UniRef90_K9WJR1	E L D T E H S I V E V I V P D E F D G K T T L E E L E I R N
UniRef90_A6LNH7	H I A E L D V P D D S A W A G K R L R E L E F S H
UniRef90_L8LI20	V A E V V A I S P G S N L A G K T V T E V A M R Q
UniRef90_R7LGG3	L E V I K N S P Y L S T K T I G E I N F W H
UniRef90_UPI00035C6DBB	E N Y L T E V L I P E G A R M A G K T L Q E V V R E A S S
UniRef90_UPI00030959F5	E L S P D Y S I A E I V S P K E W H G K N L Q E L S V R A
UniRef90_G7WPN4	E S I Q V S L D E L V I E W A K V E P H Y K S V G K S I A E L Q V R Q
UniRef90_UPI00047CE6D	I S P E M S V V E M L V P E H L Y G R T L I E A D L R R
UniRef90_A0A037Z7J6	R S F L S E G S K H W V T L V E N S S L V G M T K P I D L Q H
UniRef90_H7FTB0	U N D D N E D V I V G A K V T P W S D A V G R T I E A S G M R Q
UniRef90_V4Y6P6	E L S D E H S I V E V I V A S R R L D G N T L I D L D I R A
UniRef90_L0ED28	V I A F L D T I T H D L N L N E V K I E Q G S F V V G K S I K E A N L A E
UniRef90_UPI000364B8BC	F E V V I S N S S P L I G Q N V R E S N F R Q
UniRef90_A8ZXR9	G R T L A E W Q F A R
UniRef90_K8F3L1	H V V E F L D D V G S T V T T E Q V S I D S N S A F V G K T L A Q L P D L R
UniRef90_UPI0001E89515	M P D L R I T T F R V E S H N H F A N K T L T E I I D L R K
UniRef90_UPI00030EEC83	M L L A D R S K M K F F T E V A V P E E S G L I G T K V M D V D L F K
UniRef90_H1XXJ0	
UniRef90_W0IYY8	
UniRef90_UPI000471DE7D	
UniRef90_F4Y3B2	
UniRef90_UPI00047D863E	
UniRef90_U1L7C9	
UniRef90_K4M9K3	
UniRef90_UPI00047A6F27	
UniRef90_UPI00038040C1	
UniRef90_UPI0004756231	
UniRef90_K2C3U5	
UniRef90_UPI0003B3F8F8	

50            60            70            80

UniRef90_UPI00035FC590	L K D M T V R L I Q R G E R A L L P P F E D I E L R A G D L V I V A A T R K A I I	
UniRef90_A6CTR9	R Y G C N I I A I Q R G G D D I I V S P P A D E V I Q K Q D D L L I V I G D N R D L	
UniRef90_S2YHQ8	E M G V T V L A I R R C E E L I S N P S A D E V L E K Q K D V L I I Y G E K D A S	
UniRef90_FQJED5	N F N L I I A I K K E G E M V F N P G P K E V I Q A N D T L L A V G K K T N L	
UniRef90_E4RMG8	D Y N L Y L L A L R E D G D I S Y A P W R F T R F S A G Q E L I I M G D K D N L	
UniRef90_E4PQD2	E K D V V V L A L I R D D K R S L A P S T F S V L R G D D L L L V E A D T D A L	
UniRef90_W4F0U7	R Y G I N I V A I K R G H E I I V S P Q A D E V I H E G D I L L I V I G A D V D I	
UniRef90_Q1AX68	E T G G M F V L V A V S R G G R W A Y R P R D T F R L R G G D A V L F T G A P E G L	
UniRef90_R6MHJ9	K Y H C L V V G V E E G Q E N L T L I D P L R K F R K G D I I W L V G E E E A D I	
UniRef90_E6MRY9	Q Y G C M V V G V E E G Q E N L T L I D P L R K F R K G D I I W L V G E E E A D I	
UniRef90_A0A024F2W7	K Y G V T V A L I E R G R R R I T A P G R V E C L M P H D H V F V I G T D E Q I	
UniRef90_UPI000468959D	R Y G V Y P L A V H R R N Q N I G R Q L D D M V V R G G D T L L L E G A A E D I	
UniRef90_UPI00035E501D	T Y H L N V I A V M S H D E M T I S P S P D H V M N D G D V L L I V I G K K A D L	
UniRef90_L0F6D3	R T G L T V V V A V V R S G I E Q F S P G A E F V L A E G D I I L L V V G S E Q G K	
UniRef90_X2GUX5	K Y N V S V I A I V R G V D I I S P S P E Q L I E Q E D I L V M I G H R K D I	
UniRef90_G6FRC9	R Y G L N L L A V S H D G K F Q I I P Y P N Q R L E R G S A I V V I G C N K D I	
UniRef90_E0NS10	L F G V H V S S I L R G S R R L N I P N G T T V I Y P T D K L Q V I G S D E Q L	
UniRef90_J9GGA8	Q Y H C L V V G V E K E G D S L M R P D I I N V P F V E G D M V W V V G E R D D V	
UniRef90_S9SE74	T Y G L H V I G L K R G G T P H K G S V L D R H L R L G D T L L L I G P W K A I	
UniRef90_W0R863	N F G V S V V V G L K R N N T I L H D D I I N T P L E F G D V L L L V M G V W T Q L	
UniRef90_J0LIR8	R F G I T V V V G I K R D G D T L E I N A H T K L R G D V V Y V V G K P S D V	
UniRef90_K8GEC8	Q F G V L V Q A I R R E G K F I A F P D G E S D L Q S G D R L L L C G N L Y S L	
UniRef90_L8XZN4	K Y G L N V I V G V A R Q G E N I R K R F S R I T L K V G D V L L V Q G H A D E L	
UniRef90_B5IHV2	R F D V D V L E L H R G R E F L P P L A D R R L E L G D R L V L R C T R E D L	
UniRef90_A9WC67	R Y G L N V L A V K H N G K M I V T P P P D Y V F S R D D R L L I I G A D S S I	
UniRef90_B0C6V2	R T G A T I M A V R R G Q R I F R Y P H A Q T L E V V G D R L L L V G S P H E R	
UniRef90_Q9HMC9	R Y D A N V L A F R S R G E T V H E R M D D R R R L R V G D T L L V Q A P R S G I	
UniRef90_A4FK62	R T G A G S I V V A I V R G D E V I A S P G P E Q Q L R A G D I I L V V I G T Q Q G I	
UniRef90_F8FDD8	K F G C N V M G I K T G D R M N I A P Y A D D M I K E N D I I L V V V G K N T D L	
UniRef90_Q8PYD0	K Y G V S I L A I S R N H K L I S E L Q A E T K I H S S D I I L L V I S P P E K L	
UniRef90_R7D1B6	Q Y N C L I V G I E K A D G T I L M S P D A D E V L H Q G E V I I W V V G E E K D V	
UniRef90_UPI0004759977	R Y N V T V L A I R R G Q E L V R E R L G K V P L R F G D I I L L V Q G P K Q S F	
UniRef90_C7PS06	R T R G I V L V G V E R Q G G R I L N P E S G M H L E G D I I V W I A G S G K K I	
UniRef90_W4Q2W2	K Y G G C T I L G I K R G E D I N I A P M P T D H E K K D I I L I V F G H K N D L	
UniRef90_L8LSF3	R Y N A V V V L A V V C R N G E R I K G K I G D I K L A A G D T I L L E A R S S F I	
UniRef90_C6W1R3	M T H G M I V V G L E R R G E R I L N P D S S M V I E N Q D V L W A G D R E L I	
UniRef90_C4XT52	R F D A A V I A I R R E G Q S L S G K L G N I R I Q G G D F L V M A A G R D F I	
UniRef90_UPI00036A95DF	R Y G V N L L A I Q G N D Q F E I I N P D P H K R L H K G L A M V I I G S N E D I	
UniRef90_K9WK67	R Y G V I A L G I R R H G E N I L S K I S Q V P L K V G D L L L Q G S T S D L	
UniRef90_UPI0001744DBB	R T G A S I V A V L T R G A H P S P G P D Y R L E A G D T I L L V V G T R E G V	
UniRef90_UPI0002EC28E8	R Y N G T V L A I R R G Q E L V R E R L G R V C L H F G D V L L V Q G P R Q S I L	
UniRef90_F4XK58	R Y N A T V L A L R R G N A V L R E R L G R A Q L R E G D V L L L Q G P P K D A I L	
UniRef90_UPI00020011BD	L T G V V S L M A I V R N G E E I D Y P H Q T V L Q G S D R V L V V G E P E E I L	
UniRef90_D8G0Q6	R Y G V Y A L A V H R R N Q N I G Q Q L D Q L I I K V G D T L L L E G A A E D I L	
UniRef90_A9E1U1	K Y G V H V A S I I R G M H R I N I P G A N V R L F P G D T I Q V I G T D E Q L	
UniRef90_D4V716	R Y G L N V V G I R R S G S A L D G K L V D E P L Q M G D I I L L V I G S W	
UniRef90_D0ZAZ4	S D D L A V L A L I R E G A R K I T P S T F T V M L E G D I I L L I E A N T E S L	
UniRef90_M1FJ85	R E G G V R L I D V L R G D A S L R R D M T G V V L E P G D R V V L R T D M S E V	
UniRef90_W8RNM9	R T G V S V L V G A W F R G S F E A S P P S A T L S P G T V V L V S G Q E S Q L	
UniRef90_V4YLL2	R G G V V R L I D V L R G D A S L R R E M S D V V L E R G D R V V L R T G A D E V	
UniRef90_A0A037ZLT1	K Y G C T I L A I K R G E D I N V S P Y P H D V L K N D V L L I G H K N D L	
UniRef90_W4QE57	R Y G A V V L V A A A R N G E R L T G G L G S I T L Q A G D T I L L L E A R P A F V	
UniRef90_L8D6Z2	UniRef90_UPI00036B7231	R T G A S I V A V L R R T A A V P S P T P D F R L A I G D T I L V V V G T R E G V
UniRef90_G0LKZ5	R T G S T V V A A E R D D D L H T N I G P D F V I Q Q R D T L V V V G T D A G I	
UniRef90_A3PS18	R S D V Q V I D V L R G D S S I R R A L A T V E L A A G D R V V L R S P M G E I	
UniRef90_UPI00047CD0DE	K T G V V S I V G I F R N E D V I A S P G V E E I L Q V G D T V M V I G K N S Q I	
UniRef90_A8ZX45	N H G V N L L A V A R Q G Q R L K T R L G Q T R F A A G D I I L L Q G G Q E A I	
UniRef90_I0HV12	R H G A N V I A I E R E G P T V V D T S A H Q Q I L P G D V L L A	
UniRef90_R5UHK6	K Y G V H V A S I I R G N R R L N I P D G A S R I F P E D T I Q I I G T D E Q L	
UniRef90_M0CBK8	UniRef90_A6LNH7	R Y D A T V L A F R S R G E T V R T N M D E R R I R V G D T L L V Q A P P D S I
UniRef90_K4KJ52	N S G N Q V V L R I F R G D E E L T E P S R S T I L Q A G D R L I I L H T N M Q D V	
UniRef90_UPI00035CDADD	M F N A G V V G I R R G N K R L E G Q L G Q I P L R V G D L L L A V G S D R N I I	
UniRef90_K9WJR1	L T G V S L V A I R R E G E E I D Y P G A Q A Q L Q E G D R I I L A V G E P D E I L	
UniRef90_A6LNH7	K F N V L L I A I N R F G D I I F G P S G N V E I N N N D V L M I M G K K D N I I	
UniRef90_L8LJ20	R Y G L N V V L A V G N E Q K F I V N P T P T Q R L H K G L A M V V I G S N K D I I	
UniRef90_R7LGG3	R D G V M I A A I V R G A H R Q N V P D G D A M F P G D R I E A I G S D D S I	
UniRef90_UPI00035C6DBB	T Y G L S V M R L Q R G G E V Y R E G L R D I P L E P G D I I L V A H T T W T S L	
UniRef90_UPI00030959F5	H T M A T I V G I R R G E E I I I S P P G P Y T T I E L N D V I Y F I G N D E C L	
UniRef90_G7WPN4	K A D F Q V G L G L S G E T R L A S P S I F H P L M P G E I I L L V E S D A D E L	
UniRef90_UPI00047CE6ED	Q Y G I S L L A I I N R D K T V I R D N V R N T P L R A G D M L V L H S I W Q D L	
UniRef90_A0A037Z7J6	N Y G I N V V A I I K K D D N D I I N V S P T A E D I I E S G D I I V V A I G G T E E L	
UniRef90_H7FTB0	R T N G L L V G I E R N Q G R F L N P E S S I V L Q K D D I I L W I V G N N K L M	
UniRef90_V4Y6P6	R Y G V N V V G A W V G G E F E T P P P L S T P L E R R T T L L V T G E S A T L	
UniRef90_L0ED28	R T G A T I L A F V E K G R Q K I I N P G P E D R L T A D M T V V V A G E R Q Q I	
UniRef90_UPI000364B8BC	R F G V T L V A I I K R D G A T L L E I N G R T T L E R G D V V Y V V G R P K D V	
UniRef90_A8ZXR9	E F D L I V I A I K K S D S M I F N P S F D A K I H A N D T V I V V G S T E N L	
UniRef90_K8F3L1	L P G L Y V V S V R R S G S L I R A V G P E F I I N Q G D I I L Y F T G I E S L	
UniRef90_UPI0001E89515	K Y G I N I V A I I K R G R D I I V S P Q A T D A R Q G D I I L I V I G A D T D I I	
UniRef90_UPI00030EEC83	E T D L L I I A I K K E N D M I F N P K S D Y I I L K T G D I I L M I V L G E Q D Q L	
UniRef90_H1XXJ0	K Y D A V I I A I H R R G E R I K K K I G D I V L K S G D T L L L A H K S F L	
UniRef90_W0IYY8	D T G V R I A G R R G G E Q I L T P G G S Q T L E P G D D L L L V V G S L G E L	
UniRef90_UPI000471DE7D	Q Y G L T V L A I I K R G N Q L Q F N P D P E I R L E A G D E I I L L V V G D L A E A	
UniRef90_F4Y3B2	Q Y N V M V Q A L R R Q G K L Y N P V D E A V L Q V G D C L V L L S G E W D E	
UniRef90_UPI00047D863E	L F D A A V V A I I G R G G E R I S G K L G Q V K I R A G D R L V L A T S E D	
UniRef90_U1L7C9	L K D I F L A E I I R G R E R I A V T P K Q V I K A G D I I L L F S G D L K S V	
UniRef90_K4M9K3	E T G M W I I A I I R Q D D K W I Y D P N H A T R V R E D D V L F A R G H D E G V	
UniRef90_UPI00047A6F27	E F H V N V L Q I I R P Q E E I A Q R L K D T P L K Q G D I I L M V Q G E W D D L	
UniRef90_UPI00038040C1	A T G M N I V G L W E Q G R L V P A L P D T V I G A K T I M I L A G T E E Q L	
UniRef90_UPI0004756231	S S G V I V L A I I R H G G Q T I F N P P P D S A I A P G D Y I V M G E R P G L	
UniRef90_K2C3U5	K Y G L T L V G I I S R A G G N I I N P S G E E R I L E N D V L V F I G D S K M L	
UniRef90_UPI0003B3F8F8	R D S M R V I D V L R G D A S L R R A L A G V E L E A G D R V V L R T P M S E V	

UniRef90\_UPI00035FC590 S D [L]  
 UniRef90\_A6CTR9 N R F E K E  
 UniRef90\_S2YHQ8 E A F K K K C K G  
 UniRef90\_FQJED5 A E L R E I L  
 UniRef90\_E4RMG8 N A F G K  
 UniRef90\_E4PQD2 Q D F  
 UniRef90\_W4F0U7 S R F E K  
 UniRef90\_Q1AX68 E P L A E L F G  
 UniRef90\_R6MHJ9 N K L  
 UniRef90\_E6MRY9 E R V R Q  
 UniRef90\_A0A024F2W7 I L F K G F I Q S E V P  
 UniRef90\_UPI000468959D N R L A  
 UniRef90\_UPI00035E501D S A F S N  
 UniRef90\_L0F6D3 E K L Q K I L S E  
 UniRef90\_X2GUX5 A Q F S N I  
 UniRef90\_G6FRC9 D R L  
 UniRef90\_E0NS10 T A L S N A M A E A V  
 UniRef90\_J9GGA8 Y H L  
 UniRef90\_S9SE74 R R L Q  
 UniRef90\_W0R863 L K F  
 UniRef90\_J0LIR8 M R F N N F V  
 UniRef90\_K8GEC8 N Q  
 UniRef90\_L8XZN4 P D T L R Y L G C F  
 UniRef90\_B5IHV2 L R L Q Q E  
 UniRef90\_A9WC67 S T F C D L  
 UniRef90\_B0C6V2 H S F E N L L A Q T T P  
 UniRef90\_Q9HMC9 D R L  
 UniRef90\_A4FK62 T G V E H I L A S  
 UniRef90\_F8FDD8 Q H F E M T F G E  
 UniRef90\_Q8PYD0 D E V K K L F E D Q V  
 UniRef90\_R7D1B6 A H L  
 UniRef90\_UPI0004759977 N T F I K E Q Q G A  
 UniRef90\_C7PS06 K R F E D E  
 UniRef90\_W4Q2W2 E Q Q R N  
 UniRef90\_C6W1R3 K E F  
 UniRef90\_C4XT52 D G L R A I L  
 UniRef90\_UPI00036A95DF S R  
 UniRef90\_K9WK67 D R L  
 UniRef90\_UPI0001744DDB R A L E D  
 UniRef90\_UPI0002EC28E8 S D L A D I I A G  
 UniRef90\_F4XK58 R G L A  
 UniRef90\_UPI00020011BD A S F Y L L A R G E V  
 UniRef90\_D8G0Q6 Q R L A S  
 UniRef90\_A9E1U1 G E F A R  
 UniRef90\_D4V716  
 UniRef90\_D0ZAZ4 Q A F  
 UniRef90\_M1FJ85 L G L Q Q  
 UniRef90\_W8RNM9 S Q F V E M T Q S S V  
 UniRef90\_V4YLL2 L G I R K  
 UniRef90\_A0A037ZLT1 K R F E D  
 UniRef90\_W4QE57 S R  
 UniRef90\_L8D6Z2 D A V A E L I T G  
 UniRef90\_UPI00036B7231 N R F N K L A S  
 UniRef90\_G0LKZ5 L T L Q D  
 UniRef90\_A3PS18 T L F E E L A E G E E  
 UniRef90\_UPI00047CD0DE S T F L S A M S C L  
 UniRef90\_A8ZX45  
 UniRef90\_I0HV12 S F F S S M A  
 UniRef90\_R5UHK6 D R L S R  
 UniRef90\_M0CBK8 V E L R E  
 UniRef90\_UPI00035CDADD E R N F H L L S G  
 UniRef90\_K9WJR1 A A F N E L A K G E V  
 UniRef90\_A6LNH7 D K F K E F V K A  
 UniRef90\_L8LI20 K R L  
 UniRef90\_R7LGG3 Q A F A Q R L T  
 UniRef90\_UPI00035C6DBB A R L E K  
 UniRef90\_UPI00030959F5 E R V Q K F L  
 UniRef90\_G7WPN4 K I F  
 UniRef90\_UPI00047CE6ED A Q  
 UniRef90\_A0A037Z7J6 S K L E N L I S  
 UniRef90\_H7FTB0 N E L F K E  
 UniRef90\_V4Y6P6 R R L R R A T G S R I  
 UniRef90\_L0ED28 K Q F K E L L Q N  
 UniRef90\_UPI000364B8BC T L F N S F L  
 UniRef90\_A8ZXR9 E K F G K  
 UniRef90\_K8F3L1  
 UniRef90\_UPI0001E89515 T R F E K  
 UniRef90\_UPI00030EEC83 E A L M K L A R N I  
 UniRef90\_H1XXJ0 K K  
 UniRef90\_W0IYY8 R A F R Q W L K S A  
 UniRef90\_UPI000471DE7D R R L S D  
 UniRef90\_F4Y3B2  
 UniRef90\_UPI00047D863E P L L K Q F  
 UniRef90\_U1L7C9 P L F M E L A A N  
 UniRef90\_K4M9K3 E R I E Q  
 UniRef90\_UPI00047A6F27 D A Y D D F V G  
 UniRef90\_UPI00038040C1 Q Q L E Q L F T S  
 UniRef90\_K2C3U5 D K  
 UniRef90\_UPI0003B3F8F8 L A L Q S

1 10 20 30 40

H M T L D D L K G T S H L A E A V I S H Q S S L A Y K R L K D S G F R S S  
 D L A G S I K I V N V T P P R L V G K N L V E A D L R R  
 V A A A T Q D S E L A L L E M V V L P A S P L V G R S V A D V Q L R T  
 G L Q L F A E E N G L A T Q Q L T E V I I K E D S A L I G Q S L K D T G F R A  
 E S V D V A F D N M V F E W Y K V E A G A N A I G K T I G E L H I R K  
 A E N Q Q L S E I V V T P G S P L A G R T L K D V E F I D  
 A D A R S L Q E L L V R P D S H M I G R S V S E T R L R S  
 V F A D D L S A N A G I M E G I V S P R S Q L V I G K T I A E F H L R E  
 L D E L V T E Y Y L Q A Y R I G N H S P L H G K T V A E L D L H N  
 G A E G D T V E I G D D L E I A E L P V R R G S R L L A G S T L A E S G I G D  
 V T E F L E L A L G N I E V E E L A I C Q N S K L K G K T I L E S N L L R  
 UniRef90\_K9S6Z2  
 UniRef90\_D5M121  
 UniRef90\_E7QPN0  
 UniRef90\_Q05W24  
 UniRef90\_UP100047A6743  
 UniRef90\_UP100016C061A  
 UniRef90\_G2LRH1  
 UniRef90\_G4T131  
 UniRef90\_B4U2N9  
 UniRef90\_B7S1S5  
 UniRef90\_Q482Z8  
 UniRef90\_TOILF9  
 UniRef90\_D8J8A9  
 UniRef90\_B7K8N7  
 UniRef90\_A7I6G3  
 UniRef90\_A8LLH2  
 UniRef90\_UP1000312BA67  
 UniRef90\_B3ET39  
 UniRef90\_W4QYS6  
 UniRef90\_B0JWK7  
 UniRef90\_K0D8U5  
 UniRef90\_E8RCS1  
 UniRef90\_D3SAT5  
 UniRef90\_B8J0H4  
 UniRef90\_UP100046D49F5  
 UniRef90\_G2MHU1  
 UniRef90\_UP100034A8AEE  
 UniRef90\_H6R2W1  
 UniRef90\_A9KR38  
 UniRef90\_B0C419  
 UniRef90\_D2RDG2  
 UniRef90\_J7IU49  
 UniRef90\_R5JU97  
 UniRef90\_UP10004119CA3  
 UniRef90\_UP10003764173  
 UniRef90\_M0LBK0  
 UniRef90\_E6WR28  
 UniRef90\_A4BVP3  
 UniRef90\_K9UVE2  
 UniRef90\_C4Z7N6  
 UniRef90\_W7CUQ2  
 UniRef90\_A6F1N4  
 UniRef90\_K9Z152  
 UniRef90\_UP10003B3FDAD  
 UniRef90\_KONFG4  
 UniRef90\_W9ARZ9  
 UniRef90\_38JYT8  
 UniRef90\_L9ZU59  
 UniRef90\_I4X8L3  
 UniRef90\_S6BS53  
 UniRef90\_F2U717  
 UniRef90\_UP10003F5CDE4  
 UniRef90\_Q0APD7  
 UniRef90\_UP1000464093E  
 UniRef90\_U57TH5  
 UniRef90\_U1Y191  
 UniRef90\_UP1000473AF5B  
 UniRef90\_UP10003F7E323  
 UniRef90\_UP10003B42E2F  
 UniRef90\_Q0A650  
 UniRef90\_K8F2U6  
 UniRef90\_M0LK8  
 UniRef90\_X0UFG1  
 UniRef90\_L9VHU8  
 UniRef90\_U1CYG1  
 UniRef90\_M0FH10  
 UniRef90\_UP100037D0B70  
 UniRef90\_UP100035D836D  
 UniRef90\_UP100037E5189  
 UniRef90\_UP10003630361  
 UniRef90\_A0A023VI21  
 UniRef90\_R7KW73  
 UniRef90\_A1ST28  
 UniRef90\_V9H5D1  
 UniRef90\_A5N114  
 UniRef90\_W4Q0D1  
 UniRef90\_D7UUUY4  
 UniRef90\_A1WZK2  
 UniRef90\_A0A011Q943

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

UniRef90\_UPI00039BD53F  
 UniRef90\_UPI0003F59AF4  
 UniRef90\_I0GST1  
 UniRef90\_J5PSX7  
 UniRef90\_I9DTD6  
 UniRef90\_V6SVT5  
 UniRef90\_C7R6W4  
 UniRef90\_UPI00046B07AB  
 UniRef90\_L0RBC7  
 UniRef90\_D1W279  
 UniRef90\_V4ZV98  
 UniRef90\_D3PCZ6  
 UniRef90\_K9S6Z2  
 UniRef90\_D5M121  
 UniRef90\_E7QPN0  
 UniRef90\_Q05W24  
 UniRef90\_UPI00047A6743  
 UniRef90\_UPI00016C061A  
 UniRef90\_G2LRH1  
 UniRef90\_G4T131  
 UniRef90\_B4U2N9  
 UniRef90\_B7S1S5  
 UniRef90\_Q48Z8  
 UniRef90\_TOILF9  
 UniRef90\_D8J8A9  
 UniRef90\_B7K8N7  
 UniRef90\_A7I6G3  
 UniRef90\_A8LLH2  
 UniRef90\_UPI000312BA67  
 UniRef90\_B3ET39  
 UniRef90\_W4QYS6  
 UniRef90\_B0JWK7  
 UniRef90\_K0D8U5  
 UniRef90\_E8RCS1  
 UniRef90\_D3SAT5  
 UniRef90\_B8J0H4  
 UniRef90\_UPI00046D49F5  
 UniRef90\_G2MHU1  
 UniRef90\_UPI00034A8AEE  
 UniRef90\_H6R2W1  
 UniRef90\_A9KR38  
 UniRef90\_B0C419  
 UniRef90\_D2RDG2  
 UniRef90\_J7IU49  
 UniRef90\_R5JU97  
 UniRef90\_UPI0004119CA3  
 UniRef90\_UPI0003764173  
 UniRef90\_M0LBK0  
 UniRef90\_E6WR28  
 UniRef90\_A4BVP3  
 UniRef90\_K9UVE2  
 UniRef90\_C4Z7N6  
 UniRef90\_W7CUQ2  
 UniRef90\_A6F1N4  
 UniRef90\_K9Z152  
 UniRef90\_UPI0003B3FDAD  
 UniRef90\_KONFG4  
 UniRef90\_W9ARZ9  
 UniRef90\_J8JYT8  
 UniRef90\_L9ZU59  
 UniRef90\_I4X8L3  
 UniRef90\_S6BS53  
 UniRef90\_F2U717  
 UniRef90\_UPI0003F5CDE4  
 UniRef90\_Q0APD7  
 UniRef90\_UPI000464093E  
 UniRef90\_U57TH5  
 UniRef90\_U1Y191  
 UniRef90\_UPI000473AF5B  
 UniRef90\_UPI0003F7E323  
 UniRef90\_UPI0003B42E2F  
 UniRef90\_Q0A650  
 UniRef90\_K8F2U6  
 UniRef90\_M0LKY8  
 UniRef90\_X0UFG1  
 UniRef90\_L9VHU8  
 UniRef90\_U1CYG1  
 UniRef90\_M0FH10  
 UniRef90\_UPI00037D0B70  
 UniRef90\_UPI00035D836D  
 UniRef90\_UPI00037E5189  
 UniRef90\_UPI0003630361  
 UniRef90\_A0A023VI21  
 UniRef90\_R7KW73  
 UniRef90\_A1ST28  
 UniRef90\_V9H5D1  
 UniRef90\_A5N114  
 UniRef90\_W4Q0D1  
 UniRef90\_D7UUY4  
 UniRef90\_A1WZK2  
 UniRef90\_A0A011Q943

50            60            70            80

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

UniRef90\_UPI00039BD53F M E **L** R Q  
 UniRef90\_UPI0003F59AF4 V E F E R  
 UniRef90\_I0GST1 N S F A T Q **L** G C V P  
 UniRef90\_J5PSX7  
 UniRef90\_I9DTD6 K K L K K Y L  
 UniRef90\_V6SVT5 K A C K Q **L** I  
 UniRef90\_F6DS81 A E F K K  
 UniRef90\_C7R6W4 S E F A  
 UniRef90\_UPI00046B07AB H R L K D  
 UniRef90\_L0RBC7 D V F A  
 UniRef90\_D1W279 Q Q L Q R L  
 UniRef90\_V4ZV98 D E L K K Y L R S  
 UniRef90\_D3PCZ6 D A F S E L A Q G  
 UniRef90\_K9S6Z2 R G L E R R V E P S A P  
 UniRef90\_E7QPN0  
 UniRef90\_Q05W24 L R L Q Q E  
 UniRef90\_UPI00047A6743 D A A A D I L  
 UniRef90\_UPI00016C061A K A L N K  
 UniRef90\_G2LRH1 A D F A Q  
 UniRef90\_G4T131 F D I L R T N G L V P  
 UniRef90\_B4U2N9 S R M K T F F N V  
 UniRef90\_B7S1S5 N E R K N L D K N F V  
 UniRef90\_Q482Z8 L T L Q Q F  
 UniRef90\_TOILF9 Q K L E E L  
 UniRef90\_D8J8A9 E T F R A L A S A  
 UniRef90\_B7K8N7 Q R L  
 UniRef90\_A7I6G3 S R F R P L V A G  
 UniRef90\_A8LLH2 T R L S R  
 UniRef90\_UPI000312BA67 A E L Q Q  
 UniRef90\_B3ET39 S L L E D D L  
 UniRef90\_W4QYS6 K R W K S  
 UniRef90\_B0JWK7 Q R L  
 UniRef90\_K0D8U5 D D F D Q M T N N  
 UniRef90\_E8RCS1 D A F Q  
 UniRef90\_D3SAT5 K T L  
 UniRef90\_B8J0H4 L R L E R  
 UniRef90\_UPI00046D49F5 E R F E K A I S  
 UniRef90\_G2MHU1 E R L S E L A G D  
 UniRef90\_UPI00034A8AEE  
 UniRef90\_H6R2W1 D A A A R I L T D  
 UniRef90\_A9KR38 Y R V K I F L  
 UniRef90\_B0C419 Q A L N Q A L S  
 UniRef90\_D2RDG2 P K F F E M V T G  
 UniRef90\_J7IU49 L K L R A I L  
 UniRef90\_R5JU97 K R C F R I  
 UniRef90\_UPI0004119CA3 A R L K S  
 UniRef90\_UPI0003764173 E A A A A I L A  
 UniRef90\_M0LBK0 E E V  
 UniRef90\_E6WR28 A S I K D E  
 UniRef90\_A4BVP3 V D L H R M  
 UniRef90\_K9UVE2 E E L R D F L A  
 UniRef90\_C4Z7N6 K K C F K  
 UniRef90\_W7CUQ2 E R L K E K L E  
 UniRef90\_A6F1N4 Q A F  
 UniRef90\_K9Z152 P Q F A R Y  
 UniRef90\_UPI0003B3FDAD V D L K N I  
 UniRef90\_KONFG4 K Q L E  
 UniRef90\_W9ARZ9 S G V G N I V  
 UniRef90\_8JY78  
 UniRef90\_L9ZU59 E S V Y E T L T G  
 UniRef90\_I4X8L3 A D L Q K  
 UniRef90\_S6BS53 E R I I E K  
 UniRef90\_F2U717 V K L Y Q  
 UniRef90\_UPI0003F5CDE4 M Q L T Q F  
 UniRef90\_Q0APD7 T N L  
 UniRef90\_UPI000464093E M S M R  
 UniRef90\_U5T7H5 D R Q R D  
 UniRef90\_U1YI91 D E L R K E A G L E V  
 UniRef90\_UPI000473AF5B F R L Q Q E  
 UniRef90\_UPI0003F7E323 A E A A K I L  
 UniRef90\_UPI0003B42E2F R A L L E A F G  
 UniRef90\_Q0A650 V D L Q K M R G L T P  
 UniRef90\_K8F2U6 Q T L R R I P G M V P  
 UniRef90\_M0LKY8 E Q L K Q M  
 UniRef90\_X0UFG1 K V L Q  
 UniRef90\_L9VHU8 T E L  
 UniRef90\_U1CYG1  
 UniRef90\_M0FH10 N Q F R E  
 UniRef90\_UPI00037D0B70 K Q L N Q F  
 UniRef90\_UPI00035D836D E A F  
 UniRef90\_UPI00037E5189 Q R F E K Y L  
 UniRef90\_UPI0003630361 D R N F H L V G G T V  
 UniRef90\_A0A023VI21 S R M K N Y F N  
 UniRef90\_R7KW73 E K I L K N I G  
 UniRef90\_A1ST28 Q Q L N Q F  
 UniRef90\_V9H5D1 R K L E E H L N N  
 UniRef90\_A5N114 Y R I K K F I  
 UniRef90\_W4Q0D1 A L L S A E K N D T V  
 UniRef90\_D7UUY4 Q R V T N F L  
 UniRef90\_A1WZK2 E R Q R N  
 UniRef90\_A0A011Q943 A R V E R L A T P L

1 10 20 30 40

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

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

E G K V Q A G S K L I G R S V V E E N G L R D

N E Y L V E T Y V P S G S K M V G K T I K E A G L R N

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

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

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

E Y L V E T I V P E G S N I L A G K T V E E A R L R N

Q R T L V E A V V S S R C A L L G K T I R E G K F R S

M V E A I V G Q T S R Y V A R P I R D L D L L A

D G V P A A F E H A F P A D E R L V R A T V G E D S D F A G S R L R E L E L D L

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

A R V P P P E S P V A N T V R E A G L K G

Y Y L E E V R L D R E C E Y I G K T L S Q A R L R V

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

L N D N F S I V E L E L S H E F D G K S L K E L N F R N

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

S L N G G E I S E I K I L D K W V N K S I G Q L D I R K

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

V T V E K G S S L A G K T L M E L D F R N

□ E G F E T G A Y I T E V R V P E D S K A A G L R L R E I E E A A

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

M A V F R R P L P P A M A G K T I A E T R L R P

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

L R A E Y Q L N E L T □ P P V S P V G N K A L K E S R L L S E S

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

W L Q V P S E S P L I G K T L L R E S D F R S

E □ E H V L D L K S E A K Y F E V V V G S Q S P L V G R T L R E S D F R S

V K T H L A R Q T I E W I E I P A G A P C V G R P L S A C □ Q P Q

E E V L T L E T Q F E I V R T T A P E L A G Q T L R G A A I R D

□ G D V E L D L E E V L V K R G S Y L E N K N L I E A Q I P K

H □ F G Q H H L N G Q S M M E V V V S H S A A I C G S T K S T K F R E

S M V E Q V L V E A M V P P T S R F T G F S V V E Q L G L N R

L A D I T N E R R L V E V S V P D T S R L V N Q S I K S A R F R N

S L F E L H V P E T W T T E G S I M A L E L R P

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

V D L F E □ S D S F S I V E T K V P E E W I G K T L I E L N L R E Y

D S I □ A G V D V R K I T V P V A S K C S G K N L R T L D L R Y

A T □ L L T D K S K M R F F A E V T I P T G S S L I G S K V T E I I P L F K K

I S E A V I P T T S S F I G K S A A A L S L R K

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

N E Y L V E T K V N P S S T L I G K T I I E A G L R H

E T T A K E E Y L T E L V V R R D S P V V G L S I I Q D A L E E V

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

L D D R S S I E E I K V P A A F I I G H S L R D L N L R K

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

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

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

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

S D E M G L E Q V I L R P E S G L V G Q S A Q S □ N L R R

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

Y I V E M M V D D S S P M I G Q S I I E E A G L R Q

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

E L T Q E Y S I Y E I P P L P E W I H T I R E A D I R N D

E Y M A E M S V T S E F P F L G K S V Q E A G L R D

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

Y F L E A I V E P G S P L V G H S I A E N N L R A S

V E A I L V A D S V A V G K T I K Q V K F R S

V E V E V V S P G P L V G K S I A E A G L R A S

A □ V D F M D L L S E F E I E E F R L S R D P L L V G K S L S E □ Q L G R S

E R C L I E A V V S N T C P L I R Q T I R E G K F R S

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

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

R F E E I H V R E G S S L I G K T I G E S G I I K E E

K Y V T H E L E V T E Q S S L V G G S I A D A K L G E E

Y T D L E □ Q D Y A A D Y K I S E K R I G E N D W L A N K T L K D L E L R K

G D A S L Q E I T L P E D S E L A G K S L M E L S L P Q

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

L D P N N S I V E I L V P E E F C D K T I A E □ Q L R R K

Q G F E P V A A D Q S I T L E A S V G P N S R L I G R L L N S L D L R R

H □ L D R D □ H I G E F E I T E N S L W A G K S L N K L Q L R N

Y F I D A R L G D K S P L I G R S I I E E N G L R H

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

Q I E L T E T M N H I G K N L S E I N F W H

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

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

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

D S L V E I L V L T R T E L N G K R L G E L H L R K

L E M E V D P R G P L V D R S V E E A G L R H

Y F S E A T V V E G S G F E G M E L N G I L Q L G

Q S K L G Q K V I E W I K V L P G S K L V I G K R V G E L A L P P

D D L V K V E S D A E V E S R S K L V G R S I L E N G L R S

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

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

E A V D A V E I D E D F D I A E F P L Q S G S E L I G R T I A E N N L R A

L Q E V I V T H T S T L V G R T L K A T G F R A

UniRef90\_C7LXA7  
UniRef90\_W4LNN5  
UniRef90\_M7MWC8  
UniRef90\_UP10004707484  
UniRef90\_L8DB63  
UniRef90\_R7ZYJ8  
UniRef90\_L0IFT1  
UniRef90\_C7NPB0  
UniRef90\_H9UFU6  
UniRef90\_UP10003B42CCB  
UniRef90\_M5S2I6  
UniRef90\_UP10004118BE5  
UniRef90\_M0QT45  
UniRef90\_A0YFD2  
UniRef90\_A9SKP8  
UniRef90\_K9PZY9  
UniRef90\_UP100037DC499  
UniRef90\_F4GL47  
UniRef90\_T1AL89  
UniRef90\_F2JIW1  
UniRef90\_UP1000348AFC2  
UniRef90\_D2Z7E7  
UniRef90\_N6X898  
UniRef90\_C7P0I7  
UniRef90\_D7AF81  
UniRef90\_UP10003601F89  
UniRef90\_D8EWB6  
UniRef90\_D5RHR0  
UniRef90\_UP100036580CC  
UniRef90\_UP10003B487D5  
UniRef90\_F2NLU1  
UniRef90\_U1MNL0  
UniRef90\_U7UEE1  
UniRef90\_K1KTB2  
UniRef90\_W9A3M2  
UniRef90\_A4TVU0  
UniRef90\_19AML9  
UniRef90\_L0RIW9  
UniRef90\_B4S3M7  
UniRef90\_R5BT79  
UniRef90\_D4H494  
UniRef90\_Q0FCS2  
UniRef90\_G7UNE9  
UniRef90\_J5AYQ4  
UniRef90\_A3HRQ4  
UniRef90\_M0CA03  
UniRef90\_Q3JBW8  
UniRef90\_UP100020011C1  
UniRef90\_UP10002630302  
UniRef90\_L9ZXD2  
UniRef90\_J1L0U1  
UniRef90\_M0QTC6  
UniRef90\_T1BRD9  
UniRef90\_A3V4L5  
UniRef90\_I2JN89  
UniRef90\_I7KCS0  
UniRef90\_R6H810  
UniRef90\_R5T3K6  
UniRef90\_UP10003609338  
UniRef90\_F5LP37  
UniRef90\_S7I549  
UniRef90\_UP10003809CA3  
UniRef90\_M1FK58  
UniRef90\_Q0I882  
UniRef90\_UP1000467B6A6  
UniRef90\_R5UZ38  
UniRef90\_K2QD00  
UniRef90\_UP10003B43A15  
UniRef90\_I4VUH6  
UniRef90\_I3YRK9  
UniRef90\_R5LJG5  
UniRef90\_F2G5R5  
UniRef90\_A0SZ78  
UniRef90\_UP100036B9613  
UniRef90\_X2GJ72  
UniRef90\_E1KMF3  
UniRef90\_B9YDC1  
UniRef90\_UP10002E80B10  
UniRef90\_M0DJL4  
UniRef90\_M1Y4S4  
UniRef90\_W0JIE5  
UniRef90\_D7NEQ2  
UniRef90\_UP10002F6EE48  
UniRef90\_J2R7K3  
UniRef90\_E8PNB1  
UniRef90\_UP10002D98E31  
UniRef90\_E1V8W6  
UniRef90\_M7CS24  
UniRef90\_UP100026CAB95  
UniRef90\_A6FG89  
UniRef90\_M0PL64  
UniRef90\_UP1000346ACE3

	50	60	70	80
UniRef90_C7LXA7	E <b>L</b> D A Q M <b>L</b> D	L V R N D I <b>H</b> V R S P R P G K I L H A G D I L V L E A D V G A L		
UniRef90_W4LNN5	L N G M Y L M E I	I N R D K Q V L A A V S P H E R L W G N D Q L V F V G V V E S I		
UniRef90_M7MWC8	E Y G I N I L A I	E R K E D V I D H I P N E K L Y Y N D K L Y V S G R Q E A I		
UniRef90_UP10004707484	R H G V T L L G V S	R E G E R F R E R V R R L K I E A G D I L L L G P T E R V		
UniRef90_L8DB63	L K S L F L L A E I	I R G D R R I S A V T P Q E E I L K G D I L L F V G D I Q S V		
UniRef90_R7ZYJ8	L K E I F L L A E I	S R D G Q E I S P V S P K E V L R V G D K L F F T G N T K A I		
UniRef90_L0IFT1	R Y G A T V L A L	R R G P D V F N T R M D L R P L R G G D T L L V Q A D H D A L		
UniRef90_C7NPB0	R T G M R V I A V	R R S T D W E L S P G P A T T I D A G D V V I A K G T R S G A		
UniRef90_H9UFU6	E L N I I V V A I	Q Q N G R L L Y N P P S S Q I L Q A N D R L V A I G E L S R L		
UniRef90_UP10003B42CCB	L K G L F L V E I	I R E K E R I T P V S P K D V I K E N D V L L F A G E T E R I		
UniRef90_M5S216	H Y N A A V V A V	A V A R G G R R L T G K I G D V R L E V G D V L L L E A S P S F L		
UniRef90_UP10004118BE5	R Y G I R L I A I	H R K N A S F S Q I G D F Q L Q F G D V L L V E G T P A Q I		
UniRef90_M0QT45	K E G V R L I A I	R R A G E W S F A P D G D D R L Q V G D V V V V G R G P R D G I		
UniRef90_A0YFD2	L P G M Y L I E I	D R A D Q L I T A V S P N E I L V G G D H L L F A G D V R S V		
UniRef90_A9SKP8	M E R L F L V A V	E R Q G R V T H A V G P Q Y L L E P E D L Y F C G E L E Q		
UniRef90_K9PZY9	Q S G A L V L A I	R R K G K L I P G P T G D T I L M V D D S L C M G T P D Q L		
UniRef90_UP100037DC499	Q Y N L S V I G V L	R D G K P L T T R Y N G E P L A F G D T L L L A G G W R Y I L		
UniRef90_F4GL47	R F G L N V I T V I	R D G K A D A D I R P D T V L C G G A I V V A G N N E K L		
UniRef90_T1AL89	R Y G I S V I L A V	N R G D K V F R D D V R N V S L R G G D T L V L H S A W T D L		
UniRef90_F2JIW1	Q Y N L N I I V A I	E Q G N N I L V T E I S P Q Y K F S K D D I I I V I G K K E S I		
UniRef90_UP1000348AFC2	R Y G I T V V S I	K R H G E E F T Y A T E D T V P Q K G D V I V V A G R T S H V		
UniRef90_D2Z7E7	A Y D V T V L V A I	L A D D A P V Y N P T G Q T I R G G D K I M V F G E R H R I		
UniRef90_N6X898	D V D A Q L V G V V	H K E V R L I I A A N P G R M V H A G D I L M I E A E A D S L		
UniRef90_C7P017	E T G V R A I A V	R A R A G D W L L N P D A E T T V A A G D V V V L F R G P D D G I		
UniRef90_D7AF81	L T G C S I V A I	E A P D R I L I S P P P E T I L A E G A R L I L I G T S E Q E		
UniRef90_UP10003601F89	R Y K V E V A A I	W R E G R S Y R T A L G S M L L Q P G D A L L I V G P R S R L		
UniRef90_D8EWB6	V L G M R V L C I	R K D G A V R R M P D A D E I L L P G D E L V M E G R M E T L		
UniRef90_D5RHR0	Q H G L N L A V S	R Q G R R V A D R M A E I V R G G D V V V L V Q A Q R D K R		
UniRef90_UP1000365800CC	R Y K I T I Q T I	R R D G K L I R F P E P D A E I Q N G D R L L L C G G F H A L		
UniRef90_UP10003B487D5	T Y Q A A V V G I	H R S G H L V D G K L Q G A Q T I R L Q G D T L L I V V S D P F D R		
UniRef90_F2NLU1	V S G A H V L A V	L R E G E A I L P N P P P D T R L E P G D T L V V A G P R E A V		
UniRef90_U1MNL0	R T G A T V V A I	E R D G E L L T N P E P D L R M Q D G D R F I I T G S D S V I		
UniRef90_U7UEE1	K T G L I V L A I	K K D G K M I F N P P D I D Y T F K I G D V L I A L G R D D Q V		
UniRef90_K1KTB2	E G N I Q V L N I	I R G S Q M T F A P S K Q F I F K E K D I I T I Q G D P S D I		
UniRef90_W9A3M2	N F D A V V V A I	R R G H E R L A G G L G N I E L R A G D T L V I V		
UniRef90_A4TVU0	Y H N L V V L A V	G L E R R A R M M R G P T A G L R L Q A G D V V L L L M G R D K D V		
UniRef90_I9AML9	V F G S V V V A I	R R N G V N L E G R L G G I R L K G G D N L V M I T T S D Q L		
UniRef90_L0RIW9	I Y F S T V V A I	S R N N G K I Y A P D A H E E I K A G D H L A I V G P M E F V		
UniRef90_B4S3M7	Q Y D A A V V V A V	L R G G E R I S G K I G S I S L K A G D V V L L L A G R D		
UniRef90_R5BT79	R L N L N V I G I	K K E E K V T V N I D P S E M L Q R N E I I I V I G E N E D L		
UniRef90_D4H494	K Y G V T V L S V	T R G G R I M S N P S C D F T I I E R D E L L V V M G G T K E I		
UniRef90_Q0FCS2	R D G V R L I D V	I R K N M S L R D S I D T L T L R K G D R I V L		
UniRef90_G7UNE9	K S G I S L L A I	N R D K K V M R E D V R K V P L R A G D M L V L H S T W Q D L		
UniRef90_I5AYQ4	K T G I S V V G V M	H D G V L Q P N P V A D Y Q F K P G E L I A V M G N A Q Q L		
UniRef90_A3HRQ4	L K D L F L V E I	K R G E R S I T A V S S D R I H S E D V L V F F A G N T Q S I L		
UniRef90_M0CA03	D F E A E V T Q I	R D E Q Y V T N P L P S T T V Q S G D V Y T V R L T D D A L		
UniRef90_Q3JBW8	L P G M Y L V E I	N R Q N Q I I P A V R P N E K L Q P H D R L V F V G I I D T V		
UniRef90_UP100020011C1	H Y N V N V L A A G	G P A G E I H V N P P A S H V L A E G E L L V V M G S E D S L		
UniRef90_UP10002630302	R F G V N L I A V	S R Q G G R L S A R L S A T K L L A G D V L L L H G D K Q V L		
UniRef90_L9ZXD2	V T G V R V I A L	R R G D E W L L N P G P E T Q I E R D D V A V V L L R G P E P A V		
UniRef90_J1L0U1	D Y S L L H L A I	T E K N D V S Y A P W R H A T L H A G Q Y L T L L G R E E E D A		
UniRef90_M0QTC6	E T G V R L I A I	R R E E E W A F S P E G D D R L E A G D V I V G R G P Q A G I		
UniRef90_T1BRD9	R Y G I N L L A I	S R Q G G R L S A R L S A T K L L A G D V L L L H G D K Q V L		
UniRef90_A3V4L5	D S D A Q V I G M V	R N D V R I T A P H G R R R I H A G D L V M E A D V		
UniRef90_I2JN89	L P A M F L I E I	V R D E R L M T V V S P K E I L M A G D R L I F A G D V R S V		
UniRef90_I7KCS0	V T G M V V L A I	K H G D R W V Y R P G K G A R L Q S G S D I I I A K G R R D G E		
UniRef90_R6H810	K Y K I N I M G I	K K G N N L E S I P D T P D M V L E S K S T M L V L G R N R E I		
UniRef90_R5T3K6	R Y H I S V L G I	K R E G K A Q L M P P A D Y V I S A G D R L I F L I T G L I S T I		
UniRef90_UP10003609338	L K G L Y L I E I	I R E N E R I S P V K S T T M V S A G D R L I F L I T G L I S T I		
UniRef90_F5LP37	N S G A T I I A V	D K N H G K Q I N P G P D Y V L S A D S T L I V V G E R Q Q Q		
UniRef90_S7I549	L R K L F L A E V	R D G E S V P S V G P D F V L Q A R D R L L F C G D V E S V		
UniRef90_UP10003809CA3	L F D A S V G I R	R G N Q K L S G G L G N T V L Q A G D M L L L I G N D		
UniRef90_M1FK58	L N Y G Y L A E I	D R D G R L I T A V E P D R V L Q A G D R L Y F I G A P E C A		
UniRef90_Q0I882	R S G A M V L A I	R D G S S L K G N P S G E E L L G P G Q L L V V M G S Q K Q L		
UniRef90_UP1000467B6A6	R Y N A A V V V A V	V A R N G E R L K G K I G D V R L L A G D T V L L V R G D D W E K I		
UniRef90_R5UZ38	M F G I N L I A V	K H G D T V L I K P D T I L H R G D T V C V I G T R E N I		
UniRef90_K2QD00	T Y G V N L L A V	S R Q G K R I R E R L G Q L T L R S G D V V V L Q G L R Q Q M		
UniRef90_UP10003B43A15	K T G A L I V A L	K Q S S T Y D F N P S K E T V I K E N D I L V F I A D P E T V		
UniRef90_I4VUH6	R Y G V Y P L E I	E L R G E K R M W S P R S Q E I A V G D V L L V R G D D W E K I		
UniRef90_I3YRK9	E G I T I L G I D	R D D N E Y F G S P M G D F K L L P N D V V T V Y G K A E G I		
UniRef90_R5LJG5	T C N V V C I S	R G G H T L I P R G Q T R L H G G D V L L V V T L R H G V		
UniRef90_F2G5R5	L P E L F L V E V	V V R D G N L I S P V G P D L V I L E G D K L I F S G N V Q K L		
UniRef90_A0SZ78	N H G V S V L A V	G H E K F K I N P P P Q E R L H R G M I L V L L G S N E D I		
UniRef90_UP100036B9613	T Y G V Y V M A V	H Q D R N I S K E I N T L R L H F A D T L L L E G P A E G L		
UniRef90_X2GJ72	K Y G L C M M K I	H R K S Q D G I N L L P M T V I H A L D E L Y V Q G E E G A I L		
UniRef90_E1KMF3	R F G T H V S S I	L R G T Q R L N I P K G N T I I F P N D K I Q V I G N D Q Q L		
UniRef90_B9YDC1	N T L A T V I A I	R H Q E E L A L S P G P Y A R L H V G D I I Y F I G Q E D C I		
UniRef90_UP10002E80B10	L E S L F L V E I	R V Q G R L I S P V A P N E V L E A N D K L I F S G D I T K V		
UniRef90_M0DJL4	D I S T S V L A V	R R P D E W L V G P D I D T T L R A G D V I I A K G T R T S A		
UniRef90_M1Y4S4	E Y G V N V L G A W I	R G R F E T P A P I D E P L R D G T V L L L A G G R D G I		
UniRef90_W0JIE5	E T G V R V I A L	L R G D E W L L N P G P D T R I E V D D V A F L R G P E S S I V		
UniRef90_D7NEQ2	S Y G V N V S R V	L V R G D T K L L A T G D L R L Q Y G D R I T V V G Q H E A V		
UniRef90_UP10002F6EE48	L Q E L F L V E I	E R D G N V V S V V G P G E R L K G G D R L I F A G T S A G A		
UniRef90_J2R7K3	D G E V V A T A I	L R G H S R L S P F P D I L L K A G D T I I L L E G R P E A L		
UniRef90_E8PNB1	G A H L L A V	D R P G A P I P N P S P D T L L E T G D T L V V A G S R E A V		
UniRef90_UP10002D98E31	L D G L F L T E I	I R D Q K L I P V S P S E L V F A G D K L V F S G D V S E V		
UniRef90_E1V8W6	D E T I P I L A V	V R G E R R H A G H T F H G A L H E G D I L L V E A G P D E M		
UniRef90_M7CS24	R F N A V I L S V	S R E G K R V P G K L G D I T F R M G D T L L L E A S H H Q F V		
UniRef90_UP100026CAB95	R Y G V Q L L G I	A R N R E Q I T E R M R D V R L R A G D M L V L R A G E A A L		
UniRef90_A6FG89	L K Q L Y L A E I	Q R E G D V I C P V C P D E V L Q A N D Q L L F C G D V D S V		
UniRef90_M0PL64	R A G A D I I G V	W R G D F Q S P P P P N A R F D A R S V L V A T G S E S D L		
UniRef90_UP1000346ACE3	K F D A A V V A I	H R N G E R L S G K L G E V T I R P G D R M L A V G H D		

UniRef90\_C7LXA7  
 UniRef90\_W4LNN5  
 UniRef90\_M7MWC8  
 UniRef90\_UP10004707484  
 UniRef90\_L8DB63  
 UniRef90\_R7ZYJ8  
 UniRef90\_L0IFT1  
 UniRef90\_C7NPB0  
 UniRef90\_H9UFU6  
 UniRef90\_UP10003B42CCB  
 UniRef90\_M5S2I6  
 UniRef90\_UP10004118BE5  
 UniRef90\_M0QT45  
 UniRef90\_A0YFD2  
 UniRef90\_A9SKP8  
 UniRef90\_K9PZY9  
 UniRef90\_UP100037DC499  
 UniRef90\_F4GL47  
 UniRef90\_T1AL89  
 UniRef90\_F2JIW1  
 UniRef90\_UP1000348AFC2  
 UniRef90\_D2Z7E7  
 UniRef90\_N6X898  
 UniRef90\_C7P0I7  
 UniRef90\_D7AF81  
 UniRef90\_UP10003601F89  
 UniRef90\_D8EWB6  
 UniRef90\_D5RHR0  
 UniRef90\_UP100036580CC  
 UniRef90\_UP10003B487D5  
 UniRef90\_F2NLU1  
 UniRef90\_U1MNL0  
 UniRef90\_U7UEE1  
 UniRef90\_K1KTB2  
 UniRef90\_W9A3M2  
 UniRef90\_A4TVU0  
 UniRef90\_I9AML9  
 UniRef90\_L0RIW9  
 UniRef90\_B4S3M7  
 UniRef90\_R5BT79  
 UniRef90\_D4H494  
 UniRef90\_Q0FCS2  
 UniRef90\_G7UNE9  
 UniRef90\_I5AYQ4  
 UniRef90\_A3HRQ4  
 UniRef90\_M0CA03  
 UniRef90\_Q3JBW8  
 UniRef90\_UP100020011C1  
 UniRef90\_UP10002630302  
 UniRef90\_L9ZXD2  
 UniRef90\_J1L0U1  
 UniRef90\_M0QTC6  
 UniRef90\_T1BRD9  
 UniRef90\_A3V4L5  
 UniRef90\_I2JN89  
 UniRef90\_I7KCS0  
 UniRef90\_R6H810  
 UniRef90\_R5T3K6  
 UniRef90\_UP10003609338  
 UniRef90\_F5LP37  
 UniRef90\_S7I549  
 UniRef90\_UP10003809CA3  
 UniRef90\_M1FK58  
 UniRef90\_Q0I882  
 UniRef90\_UP1000467B6A6  
 UniRef90\_R5UZ38  
 UniRef90\_K2QD00  
 UniRef90\_UP10003B43A15  
 UniRef90\_I4VUH6  
 UniRef90\_I3YRK9  
 UniRef90\_R5LJG5  
 UniRef90\_F2G5R5  
 UniRef90\_A0SZ78  
 UniRef90\_UP100036B9613  
 UniRef90\_X2GJ72  
 UniRef90\_E1KMF3  
 UniRef90\_B9YDC1  
 UniRef90\_UP10002E80B10  
 UniRef90\_M0DJL4  
 UniRef90\_M1Y4S4  
 UniRef90\_W0JIE5  
 UniRef90\_D7NEQ2  
 UniRef90\_UP10002F6EE48  
 UniRef90\_J2R7K3  
 UniRef90\_E8PNB1  
 UniRef90\_UP10002D98E31  
 UniRef90\_E1V8W6  
 UniRef90\_M7CS24  
 UniRef90\_UP100026CAB95  
 UniRef90\_A6FG89  
 UniRef90\_M0PL64  
 UniRef90\_UP1000346ACE3

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

1                    10                    20                    30                    40

E A M R A A L P E A V E T L V R G V V A D D S A Y A D R T L L D I N L E S  
UniRef90\_U1PA92  
UniRef90\_R5MSR4  
UniRef90\_X1J5S2  
UniRef90\_I3TMH3  
UniRef90\_M1WU48  
UniRef90\_A0A023ECQ6  
UniRef90\_UPI0003067674  
UniRef90\_M5AQX6  
UniRef90\_E1RJI9  
UniRef90\_A3CSE0  
UniRef90\_E3BNZ8  
UniRef90\_W0JZY4  
UniRef90\_L9W6C9  
UniRef90\_B1C8C6  
UniRef90\_UPI00030C4B82  
UniRef90\_R5TPG0  
UniRef90\_S4W7U2  
UniRef90\_UPI0004699B0C  
UniRef90\_A3CVT1  
UniRef90\_A6E425  
UniRef90\_W1N7R2  
UniRef90\_R6S451  
UniRef90\_C5EYW1  
UniRef90\_UPI0002882871  
UniRef90\_L8JPY6  
UniRef90\_A4XEE4  
UniRef90\_UPI00041666DB  
UniRef90\_J3EWX0  
UniRef90\_G7ZEV6  
UniRef90\_UPI00020D9CE0  
UniRef90\_UPI00045E6A56  
UniRef90\_W7QFH6  
UniRef90\_A6CAJ2  
UniRef90\_UPI00029A0B90  
UniRef90\_M0LUT9  
UniRef90\_X1Q682  
UniRef90\_C4ZNJ1  
UniRef90\_J9G0W4  
UniRef90\_UPI0003718DE3  
UniRef90\_L9X0W3  
UniRef90\_UPI000468F090  
UniRef90\_G2HYF7  
UniRef90\_W4CIV5  
UniRef90\_R6AB17  
UniRef90\_B9JST6  
UniRef90\_B0UM40  
UniRef90\_R5JMT4  
UniRef90\_K2NSY5  
UniRef90\_A0A059FQK4  
UniRef90\_U2P4I6  
UniRef90\_D4M4N8  
UniRef90\_UPI00036507BD  
UniRef90\_R5PWX0  
UniRef90\_G4QI01  
UniRef90\_R5V9P7  
UniRef90\_U5QRE8  
UniRef90\_M5AFP1  
UniRef90\_UPI0004051DBD  
UniRef90\_B9R2R2  
UniRef90\_UPI00037E3516  
UniRef90\_M0DL48  
UniRef90\_R6YPW3  
UniRef90\_R4W6K9  
UniRef90\_UPI000371C54B  
UniRef90\_F9U8S6  
UniRef90\_M0MDB3  
UniRef90\_S7X7F3  
UniRef90\_UPI0002E85AB7  
UniRef90\_D1PDP8  
UniRef90\_R5X2B5  
UniRef90\_D9QLV5  
UniRef90\_UPI0004788838  
UniRef90\_J9GHT6  
UniRef90\_UPI0003794CAE  
UniRef90\_B0R725  
UniRef90\_R9MZX4  
UniRef90\_U5CGU2  
UniRef90\_Q5UX87  
UniRef90\_S5FEP9  
UniRef90\_UPI0003F539CB  
UniRef90\_D1W0M7  
UniRef90\_U7P832  
UniRef90\_A6WFX1  
UniRef90\_R9SLL7  
UniRef90\_B1QW0I0  
UniRef90\_U4TCK4  
UniRef90\_H2I18  
UniRef90\_R5W393  
UniRef90\_A6CL00  
UniRef90\_R5EL05  
UniRef90\_Q2S4D5  
UniRef90\_E1VVF5

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

UniRef90\_U1PA92  
 UniRef90\_U5MSR4  
 UniRef90\_X1J5S2  
 UniRef90\_I3TMH3  
 UniRef90\_M1WU48  
 UniRef90\_A0A023ECQ6  
 UniRef90\_UPI0003067674  
 UniRef90\_M5AQX6  
 UniRef90\_E1RJI9  
 UniRef90\_A3CSE0  
 UniRef90\_E3BNZ8  
 UniRef90\_W0JZY4  
 UniRef90\_L9W6C9  
 UniRef90\_B1C8C6  
 UniRef90UPI00030C4B82  
 UniRef90\_R5TPG0  
 UniRef90\_S4W7U2  
 UniRef90UPI0004699B0C  
 UniRef90\_A3CVT1  
 UniRef90\_A6E425  
 UniRef90\_C5EYW1  
 UniRef90UPI0002882871  
 UniRef90\_L8JPY6  
 UniRef90\_A4XEE4  
 UniRef90UPI00041666DB  
 UniRef90\_J3EWX0  
 UniRef90\_G7ZEV6  
 UniRef90UPI00020D9CE0  
 UniRef90UPI00045E6A56  
 UniRef90\_W7QFH6  
 UniRef90\_A6CAJ2  
 UniRef90UPI00029A0B90  
 UniRef90\_M0LUT9  
 UniRef90\_X1Q682  
 UniRef90\_C4ZNU1  
 UniRef90\_J9G0W4  
 UniRef90UPI0003718DE3  
 UniRef90\_L9X0W3  
 UniRef90UPI000468F090  
 UniRef90\_G2HYF7  
 UniRef90\_W4CIV5  
 UniRef90\_R6AB17  
 UniRef90\_B9JST6  
 UniRef90\_B0UM40  
 UniRef90\_R5JMT4  
 UniRef90\_K2NSY5  
 UniRef90\_A0A059FQK4  
 UniRef90\_U2P4I6  
 UniRef90\_D4M4N8  
 UniRef90UPI00036507BD  
 UniRef90\_R5PWX0  
 UniRef90\_G4QI01  
 UniRef90\_R5V9P7  
 UniRef90\_U5QRE8  
 UniRef90\_M5AFP1  
 UniRef90UPI0004051DBD  
 UniRef90\_B9R2R2  
 UniRef90UPI00037E3516  
 UniRef90\_M0DL48  
 UniRef90\_R6YPW3  
 UniRef90\_R4W6K9  
 UniRef90UPI000371C54B  
 UniRef90\_F9U8S6  
 UniRef90\_M0MDB3  
 UniRef90\_S7X7F3  
 UniRef90UPI0002E85AB7  
 UniRef90\_D1PDP8  
 UniRef90\_R5X2B5  
 UniRef90\_D9QLV5  
 UniRef90UPI0004788838  
 UniRef90\_J9GHT6  
 UniRef90UPI0003794CAE  
 UniRef90\_B0R725  
 UniRef90\_R9MXZ4  
 UniRef90\_U5CGU2  
 UniRef90\_Q5UX87  
 UniRef90\_S5FEP9  
 UniRef90UPI0003F539CB  
 UniRef90\_D1W0M7  
 UniRef90\_U7P832  
 UniRef90\_A6WFX1  
 UniRef90\_R9SLL7  
 UniRef90\_B1QW10  
 UniRef90\_U4TCK4  
 UniRef90\_H2I18  
 UniRef90\_R5W393  
 UniRef90\_A6CL00  
 UniRef90\_R5EL05  
 UniRef90\_Q2S4D5  
 UniRef90\_E1VVF5

50            60            70            80

UniRef90\_U1PA92 E T V Y N K L T G  
 UniRef90\_U5MSR4 E R V N K F L  
 UniRef90\_X1J5S2 A A L E E I C E  
 UniRef90\_I3TMH3 T R R A R A A G  
 UniRef90\_M1WU48 H M L K  
 UniRef90\_A0A023ECQ6 G M L G R F  
 UniRef90\_UPI0003067674 D S V M N  
 UniRef90\_M5AQX6 R R W R N H A  
 UniRef90\_E1RJI9 E A I G K  
 UniRef90\_A3CSE0 R R F V D D F G  
 UniRef90\_E3BNZ8 A T L Q E I  
 UniRef90\_W0JZY4 E Y F N D  
 UniRef90\_L9W6C9 E H  
 UniRef90\_B1C8C6 F K L T S L  
 UniRef90UPI00030C4B82 E K F  
 UniRef90\_R5TPG0 A S L I K  
 UniRef90\_S4W7U2  
 UniRef90UPI0004699B0C  
 UniRef90\_A3CVT1  
 UniRef90\_A6E425 S E F I H D T G C V P  
 UniRef90\_W1N7R2 E R H R Q  
 UniRef90\_R6S451 A S L A L M L G E  
 UniRef90\_C5EYW1 D K I K K F  
 UniRef90UPI0002882871 K L L E D K A G  
 UniRef90\_L8JPY6 Q R L G Q L  
 UniRef90UPI00041666DB E L F K K K V G  
 UniRef90\_J3EWX0 Q Q F  
 UniRef90\_G7ZEV6 Q R L V Q A A S L E P  
 UniRef90UPI00020D9CE0 E T V Y N F F  
 UniRef90UPI00045E6A56 D Q Y R  
 UniRef90\_W7QFH6 D A F A D Y A G  
 UniRef90\_A6CAJ2 V R L  
 UniRef90UPI00029A0B90  
 UniRef90\_M0LUT9 T K L A  
 UniRef90\_X1Q682 Q H  
 UniRef90\_C4ZNJ1 N K L A E M I G A  
 UniRef90\_J9G0W4 E Q A E R M L  
 UniRef90UPI0003718DE3 E R I E  
 UniRef90\_L9X0W3 E R A K K I I N  
 UniRef90UPI000468F090 P R V E Q L L Q V S I  
 UniRef90\_G2HYF7 A R A K K I I N  
 UniRef90\_W4CIV5 D R F E E E V  
 UniRef90\_R6AB17 K R V A T E L G N V V  
 UniRef90\_B9JST6 D R L  
 UniRef90\_B0UM40 D R F  
 UniRef90\_R5JMT4 Q K V A K  
 UniRef90\_K2NSY5 A D A A E W L G V L  
 UniRef90\_A0A059FQK4 L T L K E L  
 UniRef90\_U2P4I6 P A M E I L F G  
 UniRef90\_D4M4N8 Q K C F H I  
 UniRef90UPI00036507BD P A F L Q E F A C L  
 UniRef90\_R5PWX0 C H A E Q F L G N A V  
 UniRef90\_G4QI01 E R I E H F L  
 UniRef90\_R5V9P7 N S L A L M L G E  
 UniRef90\_U5QRE8 R I L A D V L  
 UniRef90\_M5AFP1 E A L D E S L K  
 UniRef90UPI0004051DBD N R I Q K F  
 UniRef90\_B9R2R2 E M A V Q W L G V F  
 UniRef90UPI00037E3516 R Y F T D T G D L V  
 UniRef90\_M0DL48 F Q L  
 UniRef90\_R6YPW3  
 UniRef90\_R4W6K9 E Q F R  
 UniRef90UPI000371C54B R H L R  
 UniRef90\_F9U8S6 R R L Q E D T R D L I  
 UniRef90\_M0MDB3 Q R L L A  
 UniRef90\_S7X7F3 T K L N S E  
 UniRef90UPI0002E85AB7 L K I K D L  
 UniRef90\_D1PDP8 D H V E Q F L G N A V  
 UniRef90\_R5X2B5 Q K C F H I  
 UniRef90\_D9QLV5 E A F  
 UniRef90UPI0004788838 Q  
 UniRef90\_J9GHT6 E R V A N V L G N  
 UniRef90UPI0003794CAE E R F S R L A  
 UniRef90\_B0R725 Q K L R E L A G A  
 UniRef90\_R9MZX4 A R L E D I F A  
 UniRef90\_U5CGU2 E H L I A L L E  
 UniRef90\_Q5UX87 D A F A E A V A  
 UniRef90\_S5FEP9 E T L R Q  
 UniRef90UPI0003F539CB D K L  
 UniRef90\_D1W0M7 E N A E R F L G N S V  
 UniRef90\_U7P832 K L L E D K A G  
 UniRef90\_A6WFX1 E A F S A L A  
 UniRef90\_R9SLL7 D I L V Q I A D G  
 UniRef90\_B1QWI0 V K L I K K I  
 UniRef90\_U4TCK4 S D F A K E F N L A I  
 UniRef90\_H2IH18 A R  
 UniRef90\_R5W393 E R V A N L L G N  
 UniRef90\_A6CL00 R E L K E M L  
 UniRef90\_R5EL05 A N L Q Q  
 UniRef90\_Q2S4D5 M E L L M Q  
 UniRef90\_E1VVF5 G E L R

1                    10                    20                    30                    40

UniRef90\_C3X0Y0  
UniRef90\_H6SSG4  
UniRef90\_UPI00040A44E9  
UniRef90\_U1NLC9  
UniRef90\_F8I6Z6  
UniRef90\_G4Q581  
UniRef90\_UPI0001E89A9D  
UniRef90\_U4WP75  
UniRef90\_S5JJZ8  
UniRef90\_G4REF5  
UniRef90\_L0HFC2  
UniRef90\_G4ELZ7  
UniRef90\_E5YB11  
UniRef90\_M1XZU7  
UniRef90\_W7QJ69  
UniRef90\_UPI000403C390  
UniRef90\_Q64SU9  
UniRef90\_U2L6N2  
UniRef90\_A2UOJ2  
UniRef90\_M0CS18  
UniRef90\_H1YXU4  
UniRef90\_L1KWP6  
UniRef90\_K9SFB9  
UniRef90\_B5IHV3  
UniRef90\_W4QW83  
UniRef90\_D9RSY3  
UniRef90\_M0P5G1  
UniRef90\_E6KS28  
UniRef90\_W4QMG2  
UniRef90\_UPI00037F9E6F  
UniRef90\_G5JUB7  
UniRef90\_H1CF50  
UniRef90\_U3A406  
UniRef90\_M0CZW5  
UniRef90\_Q9UXR7  
UniRef90\_D2NRA9  
UniRef90\_U1M870  
UniRef90\_C3PF60  
UniRef90\_R5PSK9  
UniRef90\_C7M6Y7  
UniRef90\_I0I4C8  
UniRef90\_G5GGA8  
UniRef90\_J6H3K0  
UniRef90\_E4TEV0  
UniRef90\_R6XLN1  
UniRef90\_X1CHB7  
UniRef90\_W4Q0R4  
UniRef90\_F6DP55  
UniRef90\_L0NHG2  
UniRef90\_A0A016QNC9  
UniRef90\_S7WNT1  
UniRef90\_UPI000299E710  
UniRef90\_C2D2K7  
UniRef90\_S0S6Q2  
UniRef90\_R7CUB8  
UniRef90\_I5AYQ9  
UniRef90\_Q2S352  
UniRef90\_M5AHU5  
UniRef90\_H5XSW3  
UniRef90\_B7C7P5  
UniRef90\_C6M7R9  
UniRef90\_H8LB2  
UniRef90\_G8PAE3  
UniRef90\_D4YMT8  
UniRef90\_W0JV87  
UniRef90\_UPI000255CEF1  
UniRef90\_R5NJ82  
UniRef90\_H6LAM7  
UniRef90\_U5C6N6  
UniRef90\_F9Z6B1  
UniRef90\_UPI000369D27A  
UniRef90\_D0GLR6  
UniRef90\_M0BCA4  
UniRef90\_E8TPB9  
UniRef90\_L7VR85  
UniRef90\_E3ER11  
UniRef90\_Q165Q4  
UniRef90\_UPI000478B318  
UniRef90\_UPI00037309E6  
UniRef90\_D3IDV6  
UniRef90\_T2KRJ2  
UniRef90\_A0A24K6T1  
UniRef90\_UPI00037F8401  
UniRef90\_V9VUE9  
UniRef90\_UPI000405E440  
UniRef90\_U1NHH99  
UniRef90\_A3VHV3  
UniRef90\_R9M2S9  
UniRef90\_A716G2  
UniRef90\_M1PAB2  
UniRef90\_R7CU32  
UniRef90\_B3QRH5

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

UniRef90\_C3X0Y0  
 UniRef90\_H6SSG4  
 UniRef90\_UPI00040A44E9  
 UniRef90\_U1NLC9  
 UniRef90\_F8I6Z6  
 UniRef90\_G4Q581  
 UniRef90\_UPI0001E89A9D  
 UniRef90\_U4WP75  
 UniRef90\_S5JJZ8  
 UniRef90\_G4REF5  
 UniRef90\_L0HFC2  
 UniRef90\_G4ELZ7  
 UniRef90\_E5YB11  
 UniRef90\_M1XZU7  
 UniRef90\_W7QJ69  
 UniRef90\_UP1000403C390  
 UniRef90\_Q64SU9  
 UniRef90\_U2L6N2  
 UniRef90\_A2U0J2  
 UniRef90\_M0CS18  
 UniRef90\_H1YXU4  
 UniRef90\_L1KWP6  
 UniRef90\_K9SFB9  
 UniRef90\_B5IHV3  
 UniRef90\_W4QW83  
 UniRef90\_D9RSY3  
 UniRef90\_M0P5G1  
 UniRef90\_E6KS28  
 UniRef90\_W4QMG2  
 UniRef90\_UPI00037F9E6F  
 UniRef90\_G5JUB7  
 UniRef90\_H1CF50  
 UniRef90\_U3A406  
 UniRef90\_M0CZW5  
 UniRef90\_Q9UXR7  
 UniRef90\_D2NRA9  
 UniRef90\_U1M870  
 UniRef90\_C3PF60  
 UniRef90\_R5PSK9  
 UniRef90\_C7M6Y7  
 UniRef90\_I0I4C8  
 UniRef90\_G5GGA8  
 UniRef90\_J6H3K0  
 UniRef90\_E4TEV0  
 UniRef90\_R6XLN1  
 UniRef90\_X1CHB7  
 UniRef90\_W4Q0R4  
 UniRef90\_F6DP5P  
 UniRef90\_L0NHG2  
 UniRef90\_A0A016QNC9  
 UniRef90\_S7WNT1  
 UniRef90\_UP1000299E710  
 UniRef90\_C2D2K7  
 UniRef90\_S0S6Q2  
 UniRef90\_R7CUB8  
 UniRef90\_I5AYQ9  
 UniRef90\_Q2S352  
 UniRef90\_M5AHU5  
 UniRef90\_H5XSW3  
 UniRef90\_B7C7P5  
 UniRef90\_C6M7R9  
 UniRef90\_H8LB2D  
 UniRef90\_G8PAE3  
 UniRef90\_D4YMT8  
 UniRef90\_W0JV87  
 UniRef90\_UP1000255CEF1  
 UniRef90\_R5NJ82  
 UniRef90\_H6LAM7  
 UniRef90\_U5C6N6  
 UniRef90\_F9Z6B1  
 UniRef90\_UP1000369D27A  
 UniRef90\_D0GLR6  
 UniRef90\_M0BCA4  
 UniRef90\_E8TPB9  
 UniRef90\_L7VR85  
 UniRef90\_E3ER11  
 UniRef90\_Q165Q4  
 UniRef90\_UP1000478B318  
 UniRef90\_UP100037309E6  
 UniRef90\_D3IDV6  
 UniRef90\_T2KRJ2  
 UniRef90\_A0A24K6T1  
 UniRef90\_UP100037F8401  
 UniRef90\_V9VUE9  
 UniRef90\_UP1000405E440  
 UniRef90\_U1NHH9  
 UniRef90\_A3VHV3  
 UniRef90\_R9M2S9  
 UniRef90\_A716G2  
 UniRef90\_M1PAB2  
 UniRef90\_R7CU32  
 UniRef90\_B3QRH5

50            60            70            80

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

UniRef90\_C3X0Y0 E S F N K [L] I  
 UniRef90\_H6SSG4 K K V E K [L] F S V  
 UniRef90\_UPI00040A44E9 G E A A K  
 UniRef90\_U1NLC9  
 UniRef90\_F8I6Z6 M A L A K [V] S H G L  
 UniRef90\_G4Q581 E K L R E E L  
 UniRef90\_UPI0001E89A9D [L] A L E E F L K  
 UniRef90\_U4WP75 K A I R E L L S N  
 UniRef90\_S5JJZ8 E T L N K F  
 UniRef90\_G4REF5 S A L A G A L  
 UniRef90\_L0HFC2 Q A V R R I I T G  
 UniRef90\_G4ELZ7 K A L L E K F T N  
 UniRef90\_E5YBI1 R R F M E H F  
 UniRef90\_M1XZU7 Q E L E E  
 UniRef90\_W7QJ69 E R A E R F L  
 UniRef90\_UPI000403C390 E E F R R E T G [L] A F P  
 UniRef90\_Q64SU9 K G V A R L L G N  
 UniRef90\_U2L6N2 N R V A D M M G N S V  
 UniRef90\_A2UOJ2 M K L R E L F  
 UniRef90\_M0CS18 S E V R Q L L V G E T P  
 UniRef90\_H1YXU4 C R L L A L A K N  
 UniRef90\_L1KWP6 E T F A E L  
 UniRef90\_K9SFB9 R K L  
 UniRef90\_B5IHV3 A K L  
 UniRef90\_W4QW83 E E L L C H D I G K E V  
 UniRef90\_D9RSY3 D H A E T F L G N S V  
 UniRef90\_M0P5G1 D R F E E V A A  
 UniRef90\_E6KS28 E Y F A N  
 UniRef90\_W4QMG2 Q Q L K N L L  
 UniRef90\_UPI00037F9E6F R R L E A L V  
 UniRef90\_G5JUB7 V R M Q H L F  
 UniRef90\_H1CF50 N H L Q D L  
 UniRef90\_U3A406 A R L L K Q L  
 UniRef90\_M0CZW5 D A F R E V V A  
 UniRef90\_Q9UXR7 E S L S S L F G N E V  
 UniRef90\_D2NRA9 E R F A  
 UniRef90\_U1M870 E R A E R F I  
 UniRef90\_C3PF60 G D I R D Y F G D S V  
 UniRef90\_R5PSK9 N R V A E L M G N S V  
 UniRef90\_C7M6Y7 Q L V S K E F G N  
 UniRef90\_I0I4C8 G R L A D L L D A S Q P  
 UniRef90\_G5GGA8 K D V  
 UniRef90\_J6H3K0 E R A S K F L G D S I  
 UniRef90\_E4TEV0 V K L E K M L S N K I  
 UniRef90\_R6XLN1 K N F F K S L  
 UniRef90\_X1CHB7 K E L K K L  
 UniRef90\_W4Q0R4 V E L Q N I  
 UniRef90\_F6DPP5 R S L  
 UniRef90\_L0NHG2 D R V  
 UniRef90\_A0A016QNC9 V R A A K L L G G  
 UniRef90\_S7WNT1 N I F F K K F G  
 UniRef90\_UPI000299E710 D T F A  
 UniRef90\_C2D2K7 Q K F E D I A T  
 UniRef90\_S0S6Q2 Q R M Q H L F  
 UniRef90\_R7CUB8 K R I K A L  
 UniRef90\_Q2S352 R Q F R A R L E D  
 UniRef90\_M5AHU5 R D M  
 UniRef90\_H5XSW3 L R L  
 UniRef90\_B7C7P5 E K F  
 UniRef90\_C6M7R9 I S F E N W  
 UniRef90\_H8LBD2 Q R M T N F F  
 UniRef90\_G8PAE3 A F V K Q H L T N L  
 UniRef90\_D4YMT8 A R F A D  
 UniRef90\_W0JV87 D A V I E A V  
 UniRef90\_UPI000255CEF1 E R F I E I  
 UniRef90\_R5NJ82 N G L A C M L G N  
 UniRef90\_H6LAM7 E T F E R V V  
 UniRef90\_U5C6N6 N R F F K T Y G G  
 UniRef90\_F9Z6B1 E S L R I L F G E E E  
 UniRef90\_UPI000369D27A D K L  
 UniRef90\_D0GLR6 S F L S N I I  
 UniRef90\_M0BCA4 T Q F A N E V A G T I  
 UniRef90\_E8TPB9 D R L  
 UniRef90\_L7VR85 D E G Q Q L L  
 UniRef90\_E3ER11 D K F  
 UniRef90\_Q165Q4 P E V E R L M Q V S I  
 UniRef90\_UPI000478B318 E S F A E R V  
 UniRef90\_UPI00037309E6 P H V M R N L G A  
 UniRef90\_D3IDV6 N R V S T L V G N  
 UniRef90\_T2KRJ2 S K I  
 UniRef90\_A0A024K6T1 D K  
 UniRef90\_UPI00037F8401 E N V I P L F G N S V  
 UniRef90\_V9VUE9 P E V E R L L Q V S I  
 UniRef90\_UPI000405E440 K E F D D M L A  
 UniRef90\_U1NH99 A D V R Q L L V G E E P  
 UniRef90\_A3VHV3 D E F R A S L S  
 UniRef90\_R9M2S9 I R L M N E  
 UniRef90\_A716G2 E N A G K Y L  
 UniRef90\_M1PAB2 E R L Q K L G E E Q L P  
 UniRef90\_R7CU32 E M L N H L T Q G  
 UniRef90\_B3QRH5

1                    10                    20                    30                    40

UniRef90\_V4XXA1  
UniRef90\_UPI0003FEA787  
UniRef90\_G7D5U2  
UniRef90\_M0D2L6  
UniRef90\_UPI000368009A  
UniRef90\_U3PG02  
UniRef90\_A7A345  
UniRef90\_R7CWR3  
UniRef90\_Q315M9  
UniRef90\_UPI00046744B9  
UniRef90\_L0IAR6  
UniRef90\_UPI000219726E  
UniRef90\_UPI0003B3D0F0  
UniRef90\_UPI00046AC352  
UniRef90\_UPI00041630F8  
UniRef90\_A0A10XFY5  
UniRef90\_C9YCQ3  
UniRef90\_UPI0003FFDAA0  
UniRef90\_F8ACQ6  
UniRef90\_A0A024PJ95  
UniRef90\_W4LZR2  
UniRef90\_C2BEG7  
UniRef90\_UPI00041AAE06  
UniRef90\_A8L0L7  
UniRef90\_E6SK80  
UniRef90\_F8F2F4  
UniRef90\_W9H376  
UniRef90\_A7ZTN8  
UniRef90\_R5Y271  
UniRef90\_R5W7R4  
UniRef90\_UPI000477496C  
UniRef90\_U1NSV1  
UniRef90\_S3Y1C9  
UniRef90\_UPI00047518ED  
UniRef90\_B6IQ45  
UniRef90\_B6B2B3  
UniRef90\_G7WKP4  
UniRef90\_A0LDP5  
UniRef90\_X5MHB6  
UniRef90\_L0JZ41  
UniRef90\_L1NA01  
UniRef90\_M5UHE5  
UniRef90\_L0X055  
UniRef90\_S0L344  
UniRef90\_UPI00037AB3D3  
UniRef90\_C6LBS8  
UniRef90\_C6SPD3  
UniRef90\_F4FUJ9  
UniRef90\_R6BF49  
UniRef90\_E7QPF7  
UniRef90\_F5LJY2  
UniRef90\_UPI00037FCA35  
UniRef90\_D1PLK0  
UniRef90\_M5RDP4  
UniRef90\_M0AND8  
UniRef90\_D3EJN5  
UniRef90\_M7DBR9  
UniRef90\_Q67KH2  
UniRef90\_UPI00039CD8A9  
UniRef90\_A3VXB8  
UniRef90\_D0YRM3  
UniRef90\_UPI00039F6AC6  
UniRef90\_U4KNZ2  
UniRef90\_R5IQY3  
UniRef90\_M2B6I4  
UniRef90\_UPI000312ACEB  
UniRef90\_M1Y500  
UniRef90\_G1UW83  
UniRef90\_R5U438  
UniRef90\_S9QDT4  
UniRef90\_K6UYX9  
UniRef90\_UPI0003778657  
UniRef90\_W0JUJ4  
UniRef90\_Q12WE8  
UniRef90\_V5A6Q3  
UniRef90\_R6GDC2  
UniRef90\_T3G349  
UniRef90\_E4KZG8  
UniRef90\_UPI0003B4FDB6  
UniRef90\_A0M406  
UniRef90\_R5EMZ0  
UniRef90\_U1QY37  
UniRef90\_UPI000377CF3C  
UniRef90\_Q5FMJ7  
UniRef90\_Q0G421  
UniRef90\_UPI00047BC30B  
UniRef90\_A0M1N0  
UniRef90\_UPI0000E0E5FA  
UniRef90\_I7KCX3  
UniRef90\_N9VL51  
UniRef90\_F8E7R4  
UniRef90\_F7KJY4

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

	50	60	70	80
UniRef90_V4XXA1	S L T F V A I F R D G E L I F P R G D T P I A A G D R T V V I G S P E S V			
UniRef90_UPI0003FEA787	T F G C Y C T V T R V R R S G I D L S P E P N L V L K F G D K L M V A G E R E S S V			
UniRef90_G7D5U2	Y V G V R A V A F L D H E D D R P L E R D R L E A G D L I L V R G D G H E V			
UniRef90_M0D2L6	D L G L D V L D V V R G E E H F V A A D S D R E L E S R D I L T V R G D D P A T L			
UniRef90_UPI000368009A	D V S L G A I V K E D N T L S P R G V T V I E A G D V V V M F V P V K S M			
UniRef90_U3PG02	R D I L T V L T L H R G S S V I P N P R S G V M L E P S D R L L C F G K L E E M			
UniRef90_A7A345	Y G C L V V A V A R E G E R Q I V P H G D T R L R A G D Y L V V L G E D E S			
UniRef90_R7CWR3	K N D V V L V A V A R E G E R Q I Q S P R E E V V L E K G D T L L L E C S P F L			
UniRef90_Q315M9	E S G V M V V A I R Y I G E Y T F V P S A D R P L V I K G D I I M V V I G K V D D V			
UniRef90_UPI00046744B9	D T V L A A I V R G A R P A P S P D D T L E V G D E L L L V G S E A D E			
UniRef90_L0IAR6	P E G V V I G A I S R R G G D L I T P R G T T V V R P G D H V V V F V D A A V L			
UniRef90_UPI000219726E	D I L V I A V Y R G E R Q I T P R G D T M I K A G D R I V F M V N A G Q R			
UniRef90_UPI0003B3D0F0	L Y G V I I T R V R R G G G V E I V P S M N F A F E A G D E V R A S G E P E H L			
UniRef90_UPI00046AC352	R Y G L N V V A I T D K N N W V T Q P T A D S I I E P N E K I M V V G D G R D I V			
UniRef90_UPI00041630F8	K T V I S A I I R Q G N L V M P T G G T K L Q K K D I L Y I L T A K E Q V			
UniRef90_A0A10XFY5	K H G I Y V V L A I K R N D E S Q P L S N D T V L R Q G D V V T V Y G T K S D L			
UniRef90_C9YCQ3	R L G V R L V S L R R A D G K T V S P D A Q T R L M A G D T L V L S G K A V E L			
UniRef90_UPI0003FFDAAO	K Y K L N V V A V R N G G S N W A F I D P N R K L T T E E T T L L V V I I E T S E L			
UniRef90_F8ACQ6	L Y D F V I V A I I R N N E T I I P R G S D V K V G D K I F V I A K K K D I			
UniRef90_A0A024PJ95	R A L I N A I I R E G D V I T P Y G Q T E I K A G D T L Y I L V A R K N K			
UniRef90_W4LZR2	E T G C T V I A L A K H D H M E I N P D P T L K L S A D M E M I L I G S V E A			
UniRef90_C2BEG7	D S L V L A I D H G Q V E I E I P N G S S K I N L G D S V L V V A T T N H S F			
UniRef90_UPI00041AAE06	K D A I E V I R L K R K G V I N D H P G K Y T T L K T G D Q L L R C S I E Q L			
UniRef90_A8L0L7	D S A V V V I L R D G N A V V P S P D S T L E P G D E V L A V A T T S E A			
UniRef90_E6SK80	G A T V I T M I L R D G Q V I P P R G R T V L H P G D S L Y V L V Q Q R D V			
UniRef90_F8F2F4	K F G L N L I S V R S S E T E Y T L F T P E Y R F Q E K D I A L V S G T E F D V			
UniRef90_W9H376	E H G A K V I G T I R D G R R V F A R P G T V S F Q S G D I V L L E T D T A T L			
UniRef90_A7ZTN8	R Y D V V I S R L N R A G V E L V A S G D I S L Q F G D I L N L V G R P S A I			
UniRef90_R5Y271	K Y N L N I I G I K K N N N I D M A I S S E T T L L N N D V T L L L V L G D Y K S L			
UniRef90_R5W7R4	N F G V N V V R V N R A G I D L A A T A N L Q L Q M G D R L T V V G E E A A L			
UniRef90_UPI000477496C	T A I I A M I R R D G K Y I T P N G S T V L Q P L D M L I V L A E N E E L V			
UniRef90_U1NSV1	R Y D L T F A A V I R G D E V V I P D G E T I I T A G D R V V V I I G S P E S V			
UniRef90_S3Y1C9	R Y G A I V T R L R R G D D E D M V A S P W T R L E L G D R V R V V A P R E Q I			
UniRef90_UPI00047518ED	N Y N A S I I R I R R R H T F I E F P D P N T E F M Y H D I I T V K G D T E A I V			
UniRef90_B6IQ45	G V I V G A I V R G G G D V I I P R P S T V I K P N D R V I I L A E V G Q V			
UniRef90_B6B2B3	R Q R T B V L M G I S R Q G K A I R D H V R K T E V R A G D I L L L L V P K D H G			
UniRef90_G7WKP4	D T W I A I L I R R D G R P L R P G G S T V L Q P L D M L I V L A E N E E L V			
UniRef90_A0LDP5	K W G I S V L A V V Q R S G A T I V N P P A D T V L H L G D N L V L M G A H E H L			
UniRef90_X5MHB6	G I R L R G A V L R G T E V I V P R G D T E I I Q A G D R V I I F A M A D E V			
UniRef90_L0JZ41	S A R I Y A H G R A R E S L T I P L P G T E L D V G D E V A V V A E T D R V			
UniRef90_L1NA01	V Y G V N I T R I T R Q G M D L F A S R N H R F Q I G D R V M V V G P E D H V			
UniRef90_M5UHE5	Q D I N V L T L Y R G T T V I P N P R L K R T L E P N D R L L C F G K L E S M			
UniRef90_L0X055	D S I I V T I E R G G D T I I P H G N T I I E K G D I V I L			
UniRef90_S0L344	H V L V I S I Q R G D Q V L L I N G D T L I K A G D I L T I F T T K E H L			
UniRef90_UPI00037AB3D3	D A L I S A I I R N N E L V T P T G D T I I K K G D I L F I L V S K K N K			
UniRef90_C6LBS8	K H H I N I M A L R R D G Q L D M T I S P D T L L L K D D T L L V L G S N R D I			
UniRef90_C6SPD3	D V V L I S V H R Q G Q N I I P K G E T V L L E G D H I I L A Y T N S Q N Q			
UniRef90_F4FUJ9	R Y K I S V I A L S H A D E N A I I P N Q S T I T K P G D I V T I I G T E K D V			
UniRef90_R6BF49	N A V I A A I R F R S D K L I I P R G N T Q V L S G D K L L V I A K D R V I			
UniRef90_E7QPF7	N S R I I A F G K H D E R I G I P L P D D S L E V G D R V A V L A D F G V L			
UniRef90_F5LJY2	E V L I T A I V R K G K I I T P H G N T E L I E G D L L Y T L V S K P M R			
UniRef90_UPI00037FCA35	K F G M V V R D E D A I V P H S D T V L Q G G D R V V I L A L S E A V			
UniRef90_D1PLK0	R V K I L I C A V A R G Q E T I I P S G S F E L Q A G D K I Y L T A S P R D L			
UniRef90_M5RDP4	R Y G V T V A R I R R Y E I E F V P S S Q T H I L F G D R L T L V G E S A N L			
UniRef90_M0AND8	S V T V A A I F R N D E L I L P T G E T I I E S T D R I V V I G S A S G V			
UniRef90_D3EJN5	D I L E T A I I R K K R I I T P R G N T V I E A G D T L Y V M N P K Q K R			
UniRef90_M7DBR9	R F N I V I C A I E R G N E L I I P D G D A V I Q S G D K L F V T G K R M E M			
UniRef90_Q67KH2	G V L V V S V K R G A E K I V P H G H T V L Q S G D K L T V V G P P E A W			
UniRef90_UPI00039CD8A9	D T L L L A V V S R G E D H W I P G G D Y T P Q E N D T V V I I G K R E H A			
UniRef90_A3VXB8	R F G A V V T R I K R G D I E T L A A D D K T V E L G D R L F V A Y P R E E E			
UniRef90_D0YRM3	D T T L V T I I R G S T V L T P K P D D T L E L G D R L F V A A Q A R E			
UniRef90_UPI00039F6AC6	R Y D V T V L L I K R G K E T I L P K A E N Y V K A G D I V I V V G K H N K I			
UniRef90_U4KNZ2	R Y D V T V L L I K R G K E T I L P K A E N Y V K A G D I V I V V G K H N K I			
UniRef90_R5IQY3	H Y G A T V K E K R S S G Q S S K N L D N E I I F R E G D T L V L M A N E N F I			
UniRef90_M2B6I4	D C L I V S I A R G E E E I P D G S T S I S A G D R L V V L			
UniRef90_UPI000312ACEB	A G A D V M L I R R G K A R I E A K P E T V L Q A G D I V V L L R G T A D G V			
UniRef90_M1Y500	E A D V V F G A I T R G G T L T P R G D T E L C A G D H I V V V F V E T A F V			
UniRef90_G1UW83	R F N V M V M G I R P V G E F I F V P P A R T V L H R G D T L V V V A G R A D S M			
UniRef90_R5U438	R Y G A D I K E I R Q G G Q V I T K N L G E V R L Q E G D T L V V L L A D D E			
UniRef90_S9QDT4	R Y G V R V L V G A H R P G Q D P G P T L E E V Q V L P R A D K L L E G P A D V Y			
UniRef90_K6UYX9	K H G I Y V L G I K R N N E T Q V L N D D L V L K P G D V V T V Y G T K T D L			
UniRef90_UPI0003778657	L F G I N I T R V N R A G V D L I A D S R L Q L Q L P N T V L V I A G P E S E L			
UniRef90_W0UJU4	H P N L T L V A G W G F G E L R L P P S P D D K L T P N T V L V I A G P E S E L			
UniRef90_Q12WE8	C C V S A L Y R D S N I I P H G D D V I H K G D H V V V I G K S D A M			
UniRef90_V5A6Q3	R A R M L A F G K K D N P L D I P L S G E S L E A G D R I A V L A D F D V L			
UniRef90_R6GDC2	K H N I L V A G V E R G E Q V F I P N G D F V L Q N G D L L V S I L A S P K N A			
UniRef90_T3G349	D I L I V M I K R K E Q V L I P K G S T I I K T G D I L V L S G D R I			
UniRef90_E4KZG8	E I I I G G I I R Y D N S A V I P R G N T K I E K G D R L V I F S T N E S R			
UniRef90_UPI000312ACEB	D V M I V A I Q R G K E T I I P R G D T V L N P G D L I V M C A E K			
UniRef90_A0M406	N T G C S I I G Y K S P G T Y V V N P E P S L K L E K N S K I L M I G R P E Q I			
UniRef90_R5EMZ0	R A N V L I C A V E R G E R D V I I P S G E F Q L K I H K G D H V V V I G K S D A M			
UniRef90_U1QY37	L P A S V V V G S I T R G E E I I P R G D S Q I E I G D R L V V F V E A D D A			
UniRef90_UPI000377CF3C	L H F M P I A M Q R I I G T Q Y T L M P R G D T V F K E N D Q V Y F V T D R K G V			
UniRef90_Q5FMJ7	K I T V S R I I R R G D E W L I P H G W T V I E P G D I L V F S G E F K V A			
UniRef90_Q0G421	R A G M R V L I G A F R P R H I A G A D L S S V M L R P A D K L L L E G S A A G F			
UniRef90_UPI00047BC30B	D I M I V A I Q R E K E T I I P R G Q T V L E A G D L I V M C E S E K			
UniRef90_A0M1N0	L H G A V P L A I R K R R S F I I P G R D I E L R V G D R L L V E V T E N D L			
UniRef90_UPI0000E0E5FA	K Y G V H I K K I K R A N N V I L E P T M Q E I I L D D D I L V I S G K P G R V			
UniRef90_I7KCY3	G V I V V A I I S R R G G K N T A S P P P E M V L Q E G D I L T V A V G E S G V L			
UniRef90_N9VL51	R Y D V V I S R L N R A G V E L V P T S Q T S L Q F G D I L N L V G R L D A I			
UniRef90_F8E7R4	S E D Y L I T G I L R K N D I I P K G D T K V Y E G D H F V T G E R D G V			
UniRef90_F7KJY4	R L N S S I I G T K L N G I T S F L P G A D H V F R A D E H L M V I G			

UniRef90\_V4XXA1 Q S F A N  
 UniRef90\_UP10003FEA787 K Q L G H F I G N  
 UniRef90\_G7D5U2 D R L A A D L R V E V  
 UniRef90\_M0D2L6 Q R F V E F A S  
 UniRef90\_UP1000368009A K K V E E L L S V  
 UniRef90\_U3PG02 R S M  
 UniRef90\_A7A345  
 UniRef90\_R7CWR3 K H P A N Y Q A D L  
 UniRef90\_Q315M9 A R L K  
 UniRef90\_UP100046744B9 D A L R R L L A D A  
 UniRef90\_L0IAR6 D E V I E L L  
 UniRef90\_UP1000219726E A K I S Q K L Q D L I  
 UniRef90\_UP10003B3D0F0 Q R F A E L T G  
 UniRef90\_UP100046AC352 E K F E N  
 UniRef90\_UP100041630F8 A N V K  
 UniRef90\_A0A010XFY5 D R L V K E A G K A L P  
 UniRef90\_C9YCQ3 A S A E K L L K G A  
 UniRef90\_UP10003FFDAA0 H R I S K  
 UniRef90\_F8ACQ6 P A I E T L L G  
 UniRef90\_A0A024PJ95 K E V K R L L E A I  
 UniRef90\_W4LZR2  
 UniRef90\_C2BEG7 K V L D D I L E  
 UniRef90\_UP100041AAE06 I Q L K E E  
 UniRef90\_A8L0L7 E E S L A A L L G A V P  
 UniRef90\_E6SK80 E P V V A L L T G  
 UniRef90\_F8F2F4 D Q F  
 UniRef90\_W9H376 R H L V E L  
 UniRef90\_A7ZTN8 D A V A N V L G N A  
 UniRef90\_R5Y271 Q K C F Q I  
 UniRef90\_R5W7R4 Q D V A N M L G N  
 UniRef90\_UP1000477496C D E V H E N L E  
 UniRef90\_U1NSV1 H S F A D G L E P A H P  
 UniRef90\_S3Y1C9 V R I T E Y L G D S E  
 UniRef90\_UP100047518ED N K M  
 UniRef90\_B6IQ45 K K V E K M F A V  
 UniRef90\_B6B2B3 Q D V T E W L D C L  
 UniRef90\_G7WKP4 E L L R S  
 UniRef90\_A0LDP5 V R V S R L  
 UniRef90\_X5MHB6 R R V E R M F R V S I  
 UniRef90\_L0JZ41 D E L R A M L  
 UniRef90\_L1NA01 N R V A D V L G N S V  
 UniRef90\_M5UHE5 R S M  
 UniRef90\_L0X055  
 UniRef90\_S0L344 R T I R S Q L  
 UniRef90\_UP100037AB3D3 T Q L K K L L  
 UniRef90\_C6LBS8 Q K C F H F  
 UniRef90\_C6SPD3 E K L A Q L F  
 UniRef90\_F4FUJ9 E A F E  
 UniRef90\_R6BF49 H E L S T A L K  
 UniRef90\_E7QPF7 D D V R K I L  
 UniRef90\_F5LJY2 E K V K K I F Y E E S P  
 UniRef90\_UP100037FCA35 K K I E Q L F S A  
 UniRef90\_D1PLK0 E T F F R K L  
 UniRef90\_M5RDP4 A K I E P I V G  
 UniRef90\_M0AND8 T N V A N R I S  
 UniRef90\_D3EJN5 K E M K S I L G  
 UniRef90\_M7DBR9 I H F H N F V K N K V  
 UniRef90\_Q67KH2 E E M R R L T G  
 UniRef90\_UP100039CD8A9 D T L Q A L F  
 UniRef90\_A3VXB8 A A V E Q L L Q V S I  
 UniRef90\_D0YRM3 R N L A A F F G D  
 UniRef90\_UP100039F6AC6 E Q L E E L L S V  
 UniRef90\_U4KNZ2 S K F Q  
 UniRef90\_R5IQY3  
 UniRef90\_M2B6I4  
 UniRef90\_UP1000312ACEB A R A E H R L  
 UniRef90\_M1Y500 E K L  
 UniRef90\_G1UW83 G D L Q  
 UniRef90\_R5U438  
 UniRef90\_S9QDT4 Q M L E D E A E  
 UniRef90\_K6UYX9 E R L V K E A G K A L P  
 UniRef90\_UP10003778657 A N V E K F L G N  
 UniRef90\_W0JUJ4 D E I M N E V A G  
 UniRef90\_Q12WE8 M D I G N L F A G  
 UniRef90\_V5A6Q3 D E V R Q L L G  
 UniRef90\_R6GDC2 S A F F K S I G  
 UniRef90\_T3G349 E E L I Q L  
 UniRef90\_E4KZG8 K E L E E L I  
 UniRef90\_UP10003B4FDB6 D S L K R F  
 UniRef90\_A0M406 Q R F F R Q V G V A  
 UniRef90\_R5EMZ0 E S V A A K L  
 UniRef90\_U1QY37 D E L Y K L T G  
 UniRef90\_UP1000377CF3C D H V R D L L S  
 UniRef90\_Q5FMJ7 E E L A R  
 UniRef90\_Q0G421  
 UniRef90\_UP100047BC30B E Q L H K M  
 UniRef90\_A0M1N0 E R A E R F I  
 UniRef90\_UP10000E0E5FA A A F E E A V R G  
 UniRef90\_I7KCX3 E S V T N I V G N  
 UniRef90\_N9VL51 N R F  
 UniRef90\_F8E7R4  
 UniRef90\_F7KJY4

1 10 20 30 40

UniRef90_D4GVN7	S D K A E V L E I E V D A E S V L A G K P   R E S V A T L
UniRef90_M0A573	D R A E V I E I V V T E E S I L A D R E I R D S T A I L
UniRef90_G0AGH5	R L H S V A L P E G A R A I G R S L A W L G L P E
UniRef90_UPI000249340C	Y E A L K E K L T D D K Y L I E I P V F E G S S I D G K Y I R D I A F P Q
UniRef90_K1LUQ3	M V E I I H V P E E N P I V G E K I L D L G F P Q
UniRef90_UPI000364A219	I G Q G E V L E I K V R E N S L V T K R P V V E L E I P S K
UniRef90_R6ZN41	N L S M S E C L D K N S K W A G K S L S E I R L P K
UniRef90_UPI0003715B37	Q F E I R Q T N K M A D K S L S S L K L K D
UniRef90_G2EF80	E I D D L L S N L P K A S M Q E F E I T S D Y W A V N K R I V D L D F P A
UniRef90_B8HRC5	H D R A Y L N E L L S D V Q L N E L P I P D N S S L V G R S L Q S L E V R G
UniRef90_L7VH04	E A V N I E T F A G Q V E M V E I K T D N M P I S G M K I R D I S D F V
UniRef90_G2EGT1	F I I P I P K S L E G K T L A E S G I G A
UniRef90_UPI000317AA02	H D I G S G L A I S E I V I A L K N M G K Q L G D L S L C Q
UniRef90_C5F4T2	E I P V F F G S P L N G K M V R D M P W P K
UniRef90_UPI0003B640EC	L D D N Y T I S E V K S K P E F H G K T L A E L N S I D
UniRef90_UPI0004626ACA	E D D F V M I R T S P P S G I R D R P L G V L G L R D
UniRef90_T2GEG3	D Q A E A L E I A V V Q E S S S Q L V G I P L K D L D F P S K
UniRef90_C3JBM8	I A N A D V A E I V A R R G S P I T G K P V K D L A L P K
UniRef90_W0NBK9	H G L Q P D F S R V E C V V M P E S T L V I G S R I R S L E I F H
UniRef90_E5ALU5	E D G I E Q V R L Q S V P L D E S A D A V G Q S L D E L G L F E
UniRef90_UPI000379FF08	E V I E V E A L D T S P L V I G R P L H E L N L P D D
UniRef90_R6RFP8	L D G R A E A L E F S I R E A S A V T D V P L M D L D L K D
UniRef90_V7HGX5	V V V R N K D F F Y K T L E Q L D L T N E
UniRef90_A0A037ZM90	A E A E V I E A Q V L S T S P I A G Q R I R D I D F P E
UniRef90_L0ALA1	G G T I R A I A D V E Q H I Q V V E L T I T G D A P V N G Y T I P E E L P A
UniRef90_E7QZS0	D R A E V L E I E I D A N S V L V D R P I S E A N L P D
UniRef90_A4CPH4	N A E I I E F V V N E T S E V N G E L K E I D F P R
UniRef90_UPI000377D93C	I A H D R S L V E F T T V S N P D L A S R S A E L N L S V
UniRef90_C7MFMC0	E A V T V G D L V G Q A N L V E I T L P E D S P Q I G N R V G D V P W P T
UniRef90_A5G7M2	Y M V E I L L V P E K S P A V G A R A R D V V P E D
UniRef90_UPI0003663140	I E S I I Y L E H G I S M I N F A I P E S W V G K T L T E L D V R Q
UniRef90_UPI00041B7937	G E R T T F E I P I M V D S S L V G K A I R E V E W P K
UniRef90_E4L5S5	V E I I D I K N T K L A G K K I E E L R L K E
UniRef90_C8NG64	G K G I E A I T T I E G Q K E I I Y T A S S K S K I V G K P L R D V K F P A
UniRef90_H9U9L9	M V E I K I P E L G Y A V G K K I I D L Q F P K
UniRef90_L0KVM5	D Y E M F V Y K V E N Q S L D G Q P I R L L K F P S R
UniRef90_U5BYH6	E A V S V G D L V G Q A N L V E I T L P T N T P L A G K A V R T L A L P R G
UniRef90_C0N6S8	V A T V E I I A P D S K L I G K R I E D T I F Y G
UniRef90_W8A1E1	A K A Q A M E L G I S P T S K V A G K K I K E V R F P
UniRef90_A3UAU2	G A E H E F T S I L S A D E T M E T V P V E T G S E L V G E T I R S S L D
UniRef90_K4L5P4	Q G G R V V S I S L L L G G K E V I E I I A E G D S K I V G K R L A E Q D L P R
UniRef90_U1RK43	E A V S I G D I V G Q A N L V E M T L P E G T P L A G H R V R D L T L P R
UniRef90_E4NPS0	G H V V R L M E L R Q G Q V S L A K L T L P E G D P L V G Q R M R D L P L P E
UniRef90_N6UT18	S N P D L A G R K L A D L D L P H
UniRef90_A6TWCO0	D Y I A E L T V P E E S A L I G A P L S D V Y P A E
UniRef90_H2A898	V L E Q R N V I E L V I C S G S S V S G K L I K D I P W P P
UniRef90_W6TCX3	E I D M E E L V V G P G S M L D G H G V E A L S F A
UniRef90_Q0ZAH7	Q L H L T R P F I G A G H P W V G R T I G E C E L P A
UniRef90_Q26FV7	D R A E V L E I E V G E D S I L L G A S L R E A M A E L
UniRef90_UPI00036E11C9	N A E I I E F V V K A N S K V T N S K I V D I N F P R
UniRef90_UPI0003B3A12A	M L R F R V P Q R S M L I G I S L K Q L A Q L T
UniRef90_I0I2D9	N K K L F N R T L G E I I N I R E
UniRef90_G8RNG5	G E Y S L V E H I V T S G S A A S G K A I K D L H L P Q
UniRef90_A0A031R6S3	L L K L P I P E G S V L N G I T V M E F A S K I
UniRef90_A8LIZ9	Q L F E L K I E K S F P F I N Q R L K A I N F
UniRef90_E8LDS5	D I E E E A D F E A A F D I V E Y H V D P G S D L F G E T V A S T R R L E
UniRef90_D0LZP9	L L S E V V I R D G Y R H I G E T L G S V S D F Q
UniRef90_G9YKS5	S L A G G A E V F E I T V T E T S P I A E K T L Q E A D S A G E
UniRef90_D3SY68	D R A E V L E I E V G E D S I L L G A S L R E A M A E L
UniRef90_K4I956	N A E I I E F V V K A N S K V T N S K I V D I N F P R
UniRef90_G4Q359	M L R F R V P Q R S M L I G I S L K Q L A Q L T
UniRef90_P75322	N K K L F N R T L G E I I N I R E
UniRef90_R7HPN3	G E Y S L V E H I V T S G S A A S G K A I K D L H L P Q
UniRef90_Q2FLJ6	L L K L P I P E G S V L N G I T V M E F A S K I
UniRef90_UPI0003B6DAAE	Q L F E L K I E K S F P F I N Q R L K A I N F
UniRef90_X1L4I6	D I E E E A D F E A A F D I V E Y H V D P G S D L F G E T V A S T R R L E
UniRef90_M0BEX5	L L S E V V I R D G Y R H I G E T L G S V S D F Q
UniRef90_X7EGL5	S L A G G A E V F E I T V T E T S P I A E K T L Q E A D S A G E
UniRef90_M0GCQ4	D R A E V L E I E V G E D S I L L G A S L R E A M A E L
UniRef90_H2CL42	N A E I I E F V V K A N S K V T N S K I V D I N F P R
UniRef90_T0Y136	M L R F R V P Q R S M L I G I S L K Q L A Q L T
UniRef90_UPI0003716D2C	N K K L F N R T L G E I I N I R E
UniRef90_D0DC2	E A S D P E Q M I G E T T F L S E A V L I V T S G S A A S G K A I K D L H L P Q
UniRef90_C9QIE4	L L F L S G P S D A R P I A E L I V P P A S R V R G R R L W N T A P G R
UniRef90_Q315A2	D R A E V I E F E V A P D S V L A G E T I V D A T T H L
UniRef90_F8D6T1	E I L Y I D E E D F I T E V C L H A Q S A F I R G K P K D I A G R E
UniRef90_F8FPN9	E A V T V G E L V G Q A N L V E I T L P D D A P Y I G R P V R D I T L P
UniRef90_D4GTE5	Q A E V L E L R I P E A F A W A R R P L R E I P F P D
UniRef90_UPI00037A1425	S L V S N A E V I E L V A R R D S K I I G K K I S E L D L P K
UniRef90_UPI00046D96AC	D E L L I A A E S A A G T P L V G R T L K E I R L R D
UniRef90_Z4WVC8	D A E I L M E A V A L E T T D I V I G K P L M D I T F P K
UniRef90_M5RSG0	E T A P L D V L D A D L L T V S V P P G S R L H G V T V A E I R L P R
UniRef90_S7UPL8	L S L D F A L A A E V E I L N E L E N K K L K D S G F R H
UniRef90_UPI0003119A3E	G K A E L V R M T V S E D S K L C N R S L K D I N K E M
UniRef90_S5ZX24	G E A E L L E F E V T E D S L V S G K K I S E I P
UniRef90_UPI00041A4865	G P A H P R T D T R L A G Q V A E V L V P E G S A A V G R P L G S L D W P E
UniRef90_Q8TWM2	E A V S I G N L V S G S T L V E L T L P E D S P W A G R L V G D V L W P A
UniRef90_M0H4N8	G R A E V M E G A V L E T S P L A G K T L Q E A G I I D
UniRef90_K6VLJ9	M H A V S L P R G A D A V G K M V A D I D W A
UniRef90_U1PWR0	E A V S I G N L V S G S T L V E L T L P E D S P W A G R L V G D V L W P A
UniRef90_UPI000416D7DB	G P A H P R T D T R L A G Q V A E V L V P E G S A A V G R P L G S L D W P E
UniRef90_F7RLY8	G R A E V M E G A V L E T S P L A G K T L Q E A G I I D

50            60            70            80

UniRef90_D4GVN7	P E G V V I G A I T R R R E F I T P R G D T V I E P G D H V V V F		
UniRef90_M0A573	P D Q V V I G A I S R S G E L V T P R G T T V I R P G D H V I L F V D T D V L		
UniRef90_G0AGH5	M G A E I T A L R R G R S G I P L T P E A V L Q A G D I V V L R G A A D A I		
UniRef90_UPI000249340C	E V L V I A I Y R G E R Q L I P R G D T L V K S G D R I V M V V N A G L R		
UniRef90_K1LUQ3	N A I I I A M I K R D K N Y L T P N S T T K I L A N D T L I V L A E T E H L		
UniRef90_UPI000364A219	G I T F G G I L R N N E V L L V E G K T Q I N A G D M V M V F S H N A S V		
UniRef90_R6ZN41	G S L I V L I Q R E G K T I F P T G D D I L V K V G D K L V V I T L L Q N I		
UniRef90_UPI0003715B37	K V L I A A I I R N G K T I F P T G D D I L V K V G D K L V V I T L L Q N I		
UniRef90_G2EF80	S A F I I M I K R N G T Y L R P G G S T V I L E V N D I L M V I A D S Q E		
UniRef90_B8HRC5	R G A F V I V G L R K Q D G T L I T E P Q G Q S L A A G D A V I V L G H R G D T		
UniRef90_L7VH04	S S I L I G A V L R E D E A I I P K G D F Q I K T G D I A Y I V G K P A S I		
UniRef90_G2EGT1	K T G L S V I A I K E N S E V V T L L A A N S I L P H G A E I V M L G N I D M K		
UniRef90_UPI000317AA02	D P E M K V L I A I K R G S E I I D S P E Y D T K L E M G D I L F I I G P Q K S M		
UniRef90_C5F4T2	E A L L I G I R R G E Q E V I P H G D S L I R E G D T L V L L T D A T Q R		
UniRef90_UPI0003B640EC	K Y H N L N L I T I I R K K E T I G L P K P D T V L L E D D I L V V V F G E N K N I		
UniRef90_UPI0004626ACA	K Y G I T I V A V K R P G G K W G H T T A Q T V L Y D D D Q I I I V Q G S K A K A		
UniRef90_T2GEG3	G A L I L C L R G D E V L L P G G E T R L Q P Q D R V I L I A L R T A M		
UniRef90_C3JBM8	G I T L G G M V R N G V P H M D G N T I I I E P Y D L V V V F C Y E L A I		
UniRef90_W0NBK9	S R G V A V T A L I S M R A P R I E G R F I D L Q L S I G D I L T L E G P R T A I		
UniRef90_E5ALU5	M G I E V T A I R R H G I R G V E P D R A T K L R A R D I L V V L R G L P D A L		
UniRef90_UPI000379FF08	G L R I G A I S R N G F I I R P N A Q T R I Q A K D H V V I F V R S S A V		
UniRef90_R6RFP8	N L L I C C I N R N G T I L T P R G Q N K I Q V G D T V I V V T T N R G L		
UniRef90_V7HXV5	R F G V N V I L I I S R D E K R V N P H A Q D V I H P Y D R I T V V G R I E N I V		
UniRef90_A0A037ZM90	G V L V G A L S K G D T Y V R P T G G T R I E E G D E I A L F A M A D D V		
UniRef90_L0ALA1	N S T V L A A F G K R D S E L E P P G G D E S L E V G D R I V V L A D F E V L		
UniRef90_E7QZS0	G V V I G A I T R N G E F I V P R G D T V V K Q G D H I V V V F A H R N V V		
UniRef90_A4CPH4	E A I I G G V I R S G E G I I A L G D F R I R Q Q G D R V V V C C L P S A I		
UniRef90_UPI000377D93C	K T G C H I E R I R R N G I L A N P D G N Y I L Q Q G D R I A L V G Y P D S H		
UniRef90_C7MF0	R F G A V V T R V R R G D L E M V A R D D L V L E P G D R I A V V V E R S R L		
UniRef90_A5G7M2	K W D V M F G R I K R G E R V F L S T P Q T I L E A G D M V I V V G T V E D L		
UniRef90_UPI0003663140	D T A A L V A I I R Q S R V L V P S R D D P L E A L D E L L F V A S A D Q E		
UniRef90_UPI00041B7937	I G P V T V L Q V I R D N A I L P S R H V E L P Q G D R I V R A E W S R I		
UniRef90_E4L5S5	K Y E L N I I G T R H E K E C S S L D P N P T A P L E P N T I L V A I A N N H T F		
UniRef90_C8NG64	E I I I A T I R R G A K E I I V A K G D T I L L S G D I L I V V C D E		
UniRef90_H9U9L9	K Y N V Y I I G L L K D K N L V L G P S K N E V L R D D S K A V L F G E I N G L		
UniRef90_L0KVM5	G A I V S M I V H K G R T I V P R G S H V I E E N D R V V V F A L P T A L		
UniRef90_U5BYH6	T A I I A M I K R G E K F L T P P N G A T V I L E D H D T L I L V S D T Q A I L		
UniRef90_C0N6S8	G A L I S G L F R G K A M I H P K G N T T L K M G D V L C V I S R E E D L		
UniRef90_W8A1E1	D A A L V T I L R G G R V I V P Q A D D P L E G E D E L L F V A S V E A E		
UniRef90_A3UAU2	D K D L S V L K L I R E D N V I N E P G R Y I S L R E E D K L I V M C D F E N L		
UniRef90_K4L5P4	Y N C L V G A V L H Q G R V Y V P N G E S H V I M P G D Q A I I F A L P D T I L		
UniRef90_U1RK43	R F N G V I T R V R R G D L D L L A N P E M V L E L G D R V L A V V P S E K L		
UniRef90_E4NPS0	A T V I I A V R P S G A V E T I P S R S R E L A A G D I L L F L V A R P P E T I		
UniRef90_N6UT18	D Y L I I I A V Y E G N N I K I P S G E T V L K P G D R V L V L V K K D K S E		
UniRef90_A6TWCO	G I I I G S I V H K G K L I I P N G D S I L M R A G D T L I V V L T D R S N		
UniRef90_H2A898	K F G I V I C A I E R Q G K L I I P D G D A V L K T G D K I F V T G N R V E M		
UniRef90_W6TCX3	E S L L I I A I R R G E R Q V I P H G D T L L M R A G D T L I V V L T D R S N		
UniRef90_Q0ZAH7	Q Y G I Q L T E V R A H N R I E Q P S L D M V L Q E N D V L V L F G S A E A L		
UniRef90_Q26FV7	K T G C T I I G Y K S D G N Y T V N P D P K M M L T A G S K I I V V G N T Q Q I		
UniRef90_UPI00036E11C9	D T A A L V A I L R K G R V I V P Q S D D P L E I G D E M I F I T S E E E E		
UniRef90_UPI0003B3A12A	K Y N V S M V I V K R G T E S F L P S G N F A I Q K G D L I T L V G T T T D D V		
UniRef90_I012D9	R F G A I V T R V R R G D I E L L A H G D L V L E L G D R V R F V A P R D Q M		
UniRef90_G8RNG5	N T A L A I V I R E S G I V F P K P D D V L E A G D E M L F F G T K N Q V		
UniRef90_A0A031R6S3	Q T G C Y I E R I R R N G I L L A N P D G D A V L Q V G D E I S L V G Y P D A H		
UniRef90_A8LIZ9	R A D V A L L G V I R N G K R R F A A R H L K L A A G D A L V L E A Q P E A L		
UniRef90_E8LDS5	N T L L V D V K R G E S Q L I P A G D T R L L S G D F I Y I L T A T E H V		
UniRef90_D0LZP9	N I E A V V V A V Q R P G E P M V P S T N Q R Y R A G D R V V V V G E R A E L		
UniRef90_G9YKS5	D A L V V M R R G S E N V I P N G D T A I Q A G D L M V L		
UniRef90_D3SY68	P D G V V V G A I T R D G E F I T P R G E T V L E T G D H V V V F V D T M V L		
UniRef90_K4I956	T A V V G G V I R D G K G I I A L G D F K I R E G D R I V V C T L P K S I		
UniRef90_G4Q359	T N N L L I C I E R N S E L I V P N G D T V I M S G D I L T I M A M P S D V		
UniRef90_P75322	H T N A N L I S M R N G K D V F P L P N T Q I P G D G V I T A V C Q L S G V		
UniRef90_R7HPN3	G Y N L N A T R V I N R A G L D L L A N P N L K L Q V G D R I T V V G D P S H I		
UniRef90_Q2FLJ6	E C V L S A I I R D H K L V I P R G N I V L H P G D E V L T V A H E S V T		
UniRef90_UPI0003B6DAAE	H R G T L I C A I R G G E V I I P D G H T K L I M A G D D M Y V I T P P V Q I		
UniRef90_X1L4I6	K Y P I L V A A I Y R N D K I I I P D G E E K I I A G D N I L Y V L I E K D N F		
UniRef90_M0BEX5	Q T G A T V L G A W I R G D F V T L L P E R V R V D E N T S L L V A G T E S E L		
UniRef90_X7EGL5	G S R V R V I T G L R R S G K I E R T D L E D Q V L I R K G D A L I L I A G T S E L		
UniRef90_M0GCQ4	L L G L V L V V A I E R G E E V L T P R G E T V I L H A G D L L T V F S K E		
UniRef90_H2CL42	D S L I T L I Y Y R G E S H L V P T G R T I L E P G D V I L V L V N N D N A		
UniRef90_T0Y136	Q W G V E I T A L R R R G L R G F Q P E G E T R L E S G D I L L I L L G R P E A L		
UniRef90_UPI0003716D2C	D F N I S V K S I R R S G I R G D S P S P S T L L Q V G D V I L V L E G K A A N F		
UniRef90_D0DCE2	R G G V R V T A V R R R G E P L P A P L E E Q V L Q K G D T V I F R A P T S E L		
UniRef90_C9QIE4	E Y G C F L N R V V R A Q I L E M P M D I V L A K G D V L Q V S G E K S R V		
UniRef90_Q315A2	D E N I T V I G V R H E G H Y A W Q K T S Q L R L A A G D T L L V V Q G T R A A M		
UniRef90_F8D6T1	P D R V V I G A I S R A G E L V T P R G R G T V I E P G D H V V V V F V D A A V L		
UniRef90_F8FPN9	D D L L I L Y I R R G M A K I R K G C P D L P L N E G D T L L V V Y G S R K S I		
UniRef90_D4GTE5	P D G C L V T L I V S R N G D T T V P N A E Y T L Q E G D R I T I G E R E A V		
UniRef90_UPI00037A1425	H D S A I V A I V R G N R V I A P S P D D P L E A G D E A V F V C T A E V E		
UniRef90_UPI00046D96AC	G A I V G A A L R G D Q A F I P T G D T T L D P G D R I V V F A L P E A V		
UniRef90_Z4WX8	G I T F G G M I R N G S P S M I D G D T I L E P Y D H V V I F Y H D I S I		
UniRef90_M5RSG0	H V S L T V S G V W E R G R Y Q N A G P D T L I T D N T V L V L V A G T R E Q F		
UniRef90_S7UPL8	G V L I T T I L R G E E V I I P T G Q S V V A P N D R I I I L L F A R R E A L		
UniRef90_UPI0003119A3E	P T V L T T I V R A G V T L V P D R D T V L R A G D E L L L I T T P		
UniRef90_S5ZX24	N Y N L N V V A Y R Q N D E F E F I N G P D F T F N K N Y T I L V A G K N K D I		
UniRef90_UPI00041A4865	N I P V L I G M V K R G E D V F I P D G S F I L H D K D E I S V I G T P R K M		
UniRef90_Q8TWM2	A D C V I V A I Y R D D E L E L P P R G D M E I N P G D R V L V L V A L R D K L		
UniRef90_M0H4N8	D G R I Y A H G R K R E P M T I P L P G T V V E P G D H L A L T E R D E L		
UniRef90_K6VLJ9	N T V L T C I V R E Q R A I A P S P D D P L E A G D E A V F V C T A E V E		
UniRef90_U1PWR0	G C P V A L Q R D G S V H E A E P A D E L H A G D T V N V L		
UniRef90_UPI000416D7DB	G V V S I G A I L R E A S V L F P T P D T I V K A G D H V V L F A E K S A M		
UniRef90_F7RLY8	L L R V E L R A I R R D G A E V E H P G Q D W I F S A G D I L L V V G K P R R L		

UniRef90\_D4GVN7  
 UniRef90\_M0A573  
 UniRef90\_G0AGH5  
 UniRef90\_UPI000249340C  
 UniRef90\_K1LUQ3  
 UniRef90\_UPI000364A219  
 UniRef90\_R6ZN41  
 UniRef90\_UPI0003715B37  
 UniRef90\_G2EF80  
 UniRef90\_B8HRC5  
 UniRef90\_L7VH04  
 UniRef90\_G2EGT1  
 UniRef90\_UPI000317AA02  
 UniRef90\_C5F4T2  
 UniRef90\_UPI0003B640EC  
 UniRef90\_UPI0004626ACA  
 UniRef90\_T2GEG3  
 UniRef90\_C3JBM8  
 UniRef90\_W0NBK9  
 UniRef90\_E5ALU5  
 UniRef90\_UPI000379FF08  
 UniRef90\_R6RFP8  
 UniRef90\_V7HXV5  
 UniRef90\_A0A037ZM90  
 UniRef90\_L0ALA1  
 UniRef90\_E7QZS0  
 UniRef90\_A4CPH4  
 UniRef90\_UPI000377D93C  
 UniRef90\_C7MF0  
 UniRef90\_A5G7M2  
 UniRef90\_UPI0003663140  
 UniRef90\_UPI00041B7937  
 UniRef90\_E4L5S5  
 UniRef90\_C8NG64  
 UniRef90\_H9U9L9  
 UniRef90\_L0KVM5  
 UniRef90\_U5BYH6  
 UniRef90\_C0N6S8  
 UniRef90\_W8A1E1  
 UniRef90\_A3UAU2  
 UniRef90\_K4L5P4  
 UniRef90\_U1RK43  
 UniRef90\_E4NPS0  
 UniRef90\_N6UT18  
 UniRef90\_A6TWC0  
 UniRef90\_H2A898  
 UniRef90\_W6TCX3  
 UniRef90\_Q0ZAH7  
 UniRef90\_Q26FV7  
 UniRef90\_UPI00036E11C9  
 UniRef90\_UPI0003B3A12A  
 UniRef90\_I012D9  
 UniRef90\_G8RNG5  
 UniRef90\_A0A031R6S3  
 UniRef90\_A8LIZ9  
 UniRef90\_E8LDS5  
 UniRef90\_D0LZP9  
 UniRef90\_G9YKS5  
 UniRef90\_D3SY68  
 UniRef90\_K41956  
 UniRef90\_G4Q359  
 UniRef90\_P75322  
 UniRef90\_R7HPN3  
 UniRef90\_Q2FLJ6  
 UniRef90\_UPI0003B6DAAE  
 UniRef90\_X1L4I6  
 UniRef90\_M0BEX5  
 UniRef90\_X7EGL5  
 UniRef90\_M0GCQ4  
 UniRef90\_H2CL42  
 UniRef90\_T0Y136  
 UniRef90\_UPI0003716D2C  
 UniRef90\_D0DCE2  
 UniRef90\_C9QIE4  
 UniRef90\_Q315A2  
 UniRef90\_F8D6T1  
 UniRef90\_F8FPN9  
 UniRef90\_D4GTE5  
 UniRef90\_UPI00037A1425  
 UniRef90\_UPI00046D96AC  
 UniRef90\_Z4WVC8  
 UniRef90\_M5RSG0  
 UniRef90\_S7UPL8  
 UniRef90\_UPI0003119A3E  
 UniRef90\_S5ZX24  
 UniRef90\_UPI00041A4865  
 UniRef90\_Q8TWM2  
 UniRef90\_M0H4N8  
 UniRef90\_K6VLJ9  
 UniRef90\_U1PWR0  
 UniRef90\_UPI000416D7DB  
 UniRef90\_F7RLY8

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

UniRef90\_E0NJE8  
 UniRef90\_UPI0003B62926  
 UniRef90\_I3DCT1  
 UniRef90\_W7YV13  
 UniRef90\_V4J1X3  
 UniRef90\_R5P7G4  
 UniRef90\_R5BM59  
 UniRef90\_A4CKH0  
 UniRef90\_UPI00047BCB75  
 UniRef90\_P9WFZ2  
 UniRef90\_UPI000477D25B  
 UniRef90\_Q03DS9  
 UniRef90\_R4W531  
 UniRef90\_R5VZG8  
 UniRef90\_X1RQG0  
 UniRef90\_UPI000375AE4B  
 UniRef90\_UPI0003680A3D  
 UniRef90\_V5SE99  
 UniRef90\_UPI00037374A0  
 UniRef90\_X1SQM3  
 UniRef90\_I0QUX7  
 UniRef90\_R4LP00  
 UniRef90\_U5L7K1  
 UniRef90\_R6TGR1  
 UniRef90\_R6TBZ9  
 UniRef90\_B4UKS5  
 UniRef90\_A1WDA9  
 UniRef90\_A8LKV7  
 UniRef90\_UPI000467C9ED  
 UniRef90\_E6TUB5  
 UniRef90\_R2PSE4  
 UniRef90\_H1XS25  
 UniRef90\_Q8DJ50  
 UniRef90\_D9XFQ2  
 UniRef90\_R7GXZ0  
 UniRef90\_D1J7H4  
 UniRef90\_UPI00035F621F  
 UniRef90\_UPI0004001FA5  
 UniRef90\_M1N396  
 UniRef90\_G7WAC6  
 UniRef90\_UPI00047E7B74  
 UniRef90\_Q1K1Y2  
 UniRef90\_UPI000370AC48  
 UniRef90\_K8WF04  
 UniRef90\_UPI0003B60CE2  
 UniRef90\_UPI00047C5A9D  
 UniRef90\_R5DVJ5  
 UniRef90\_R5TV21  
 UniRef90\_R6SED8  
 UniRef90\_E0MK11  
 UniRef90\_B5ZNH1  
 UniRef90\_C4ZCY1  
 UniRef90\_D7N531  
 UniRef90\_A3DLY8  
 UniRef90\_UPI0004097FD5  
 UniRef90\_M4R5V5  
 UniRef90\_X1JC11  
 UniRef90\_UPI000364365C  
 UniRef90\_UPI000468C12E  
 UniRef90\_V2YJ04  
 UniRef90\_B9M3S5  
 UniRef90\_D6K3P0  
 UniRef90\_R5BY81  
 UniRef90\_E4SR16  
 UniRef90\_UPI0003FCCD01  
 UniRef90\_H8L7Y6  
 UniRef90\_G5ZVZ7  
 UniRef90\_L8JR09  
 UniRef90\_L0RCN0  
 UniRef90\_X5E0L7  
 UniRef90\_UPI00037A0E06  
 UniRef90\_D4CSG9  
 UniRef90\_W4LWH8  
 UniRef90\_N0C7K2  
 UniRef90\_F8N8H8  
 UniRef90\_M0NRD8  
 UniRef90\_UPI0003705616  
 UniRef90\_B2IM86  
 UniRef90\_L0JMS5  
 UniRef90\_U2LX16  
 UniRef90\_C3XJ12  
 UniRef90\_R6QGA2  
 UniRef90\_C0D9K5  
 UniRef90\_B1MCV2  
 UniRef90\_K7T1N3  
 UniRef90\_UPI000423D91B  
 UniRef90\_UPI0004773FEE  
 UniRef90\_C9KMS0  
 UniRef90\_A6B9X2  
 UniRef90\_UPI0003B6D20A  
 UniRef90\_V8CXJ0  
 UniRef90\_E8WPZ3

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

50            60            70            80

UniRef90_E0NJE8	V N L M I V E I D R G T E K I V P K G D T K L M S G D K L L I I A P K G D F	
UniRef90_UPI0003B62926	K Y H V T V V G V K S P G K P F T Y A T E S T V V S N H D L I I V S G K S S D I	
UniRef90_I3DCT1	F T S I L V C I V K R N Q E V Y I P T G N F I L Q E G D R I Y V T G I Q T E L	
UniRef90_W7YV13	UniRef90_V4J1X3	D I L F T A I R N E Q I P T R G N T K I E E G D T L Y M L S P K S R R
UniRef90_R5P7G4	G L V I G A I T R G D S L V V P R G E T V V E P G D R V V V F A D A D V A	
UniRef90_R5BM59	H L H F I I S R I W R G K Q V I V P M A Q T R L H A N D K L L V V T T R E D E	
UniRef90_A4CKH0	E M V I S R I M R N G E E F V P H E D T V L N E N D R V L I V T T Q K S I	
UniRef90_UPI00047BCB75	N A I I A M I H R D G T Y L V P N G S T E I R A G D T L I V L S D T Q D	
UniRef90_P9WFZ2	K Y Y I N I L V I R N G E K L V P N K E S V L K P K D H L I I F G R K K D I	
UniRef90_UPI00047D25B	D A A L V T I L R G P R V I V P E A D E P L E G G D E L L F V A V T E A E	
UniRef90_Q03DS9	E Y G V T V V G V K K Q R E D F T Y A R P E T M V E K D H E L V V C G P T E L V	
UniRef90_R4W531	E S L L I S R I R G S N S I I P S G D S V I K P G D T L I V T T H R G N R	
UniRef90_R5VZG8	D R G W T V V G V V R S D G V R T D A G I E V V V E S D E V L V A G S D E A I	
UniRef90_X1RQG0	E Y G V N I Y M V L R D N M S I L P T G D L K I Q T G D L L I V	
UniRef90_UPI000375AE4B	G S T I L S L I I R K K H K P I P K A N T I L Q A E D Q I I V V T T P E	
UniRef90_UPI0003680A3D	T Y Q A V V L S V S R G S S N L P D K G L N A H L Q V G D T L L M E A G K E F V	
UniRef90_V5SE99	E A L V T A I V R D E K I I T P K G R T R V K A G D T L Y V L L P K T M R	
UniRef90_UPI00037374A0	R F G V R V L G V H R H Q H I P G R N L E S T L L R P A D R L L L E G P A S G L	
UniRef90_X1SQM3	R G G G L V V D V I R A D F S L R D S L E T T R L A P G D Q V V I K T A D A E I	
UniRef90_J0QUX7	R Y G V T I I S I K N S K N E I M S P D V N Y K F Q K D D V L Q I S G D A R R V	
UniRef90_R4LP00	D Y G C F L N R V I R S Q E M P I D D I V L N K G D V L Q I S G D A R R V	
UniRef90_U5L7K1	H D S A L V A V L R G K R V L V P T P D D P L E A G D E L I F I C T A E V E	
UniRef90_R6TGR1	K D D V V L V L Y V S R G E I T I R K E C L S T E I I Q E G D D I V V Y G D E K T I	
UniRef90_R6TBZ9	K T K V L I C A I Q R A S H V I I P N G N F K I E Q G D R L S I T A N A S S L	
UniRef90_B4UKS5	G L L V V M I L R D K E K I I P T G K T Q I A G D V V V L	
UniRef90_A1WDA9	R M G A V I T R V R R G D V D L L P A P A L R L E V G D R V R V L G P V K Q L	
UniRef90_A8LUK7	I G V R L V N V R A S G A M S P P D D R T P L A E G D T L V L S G H P T A L	
UniRef90_UPI000467C9ED	G V L L A G M L K D G K V I R P T G S T R I E E G A V I V M F A L A E D V	
UniRef90_E6TUB5	G V I V L T V L R N N E V L Q G S A L L R F E Q G D V V T L L G Q P D E L	
UniRef90_R2PSE4	D V L V N A I I R E D E L I P P H G Q T I I Y E D D I L F V L V K S K D L	
UniRef90_H1XS25	H M L L V S I I R G N K E I I L T H G D T I M N I G D I L V I L T D E Q H L	
UniRef90_Q8DJ50	N A L L G G V I R G D Q I I I P T G N T Q I V A G D K V V V F A L P G A V	
UniRef90_D9XFQ2	E G A F I I V G L I R K S D G Q L F P A R A N P L V E V G D T L I L L G H A Q D A	
UniRef90_R7GXZ0	H G A A V T L I V R G G E S F V P L P T T I L Q R G D E L L V V V A T D	
UniRef90_D1J7H4	N I L I I A A I F R G G K M I L P R G Q D T I Q I G D S V I V V S R N L G L	
UniRef90_UPI00035F621F	K Y N V L V T M I K R D K H S Y I P E G D F E I K L D D I T L I G Q I E D I	
UniRef90_UPI0004001FA5	G I L T M A I V R A G E Y E P T P A D D R V V A A G E H I I V S G T T E V L	
UniRef90_M1N396	E T R I A A L F R D N Q L M H P T G S T R I L R E D D D V L C V I G R E R D L	
UniRef90_G7WAC6	G L R I G A I Y R N K M I I Q S A D T R I L P G D R I V I F A L A G S V	
UniRef90_UPI00047E7B74	R V L V V G I L R Q N R M I I P K G T D C L L P Q D S V F F V G A Q A A I	
UniRef90_Q1K1Y2	K T S F L E C A A Q R G D E V I I P N G S F V P Q V G D K L Y V I G T P M G L	
UniRef90_UPI000370AC48	G A I I G A I V Q D D R Y E I A T G D S T L A I G D R V V V F A L P E A L	
UniRef90_K8WF04	T F R V V L I S R D G K F V T P N G Q T E L Q G R D T L M I M T S P D Q D	
UniRef90_UPI0003B60CE2	Q T V I A A M I T R E K S V L P P R G S T I I L H A D D H L F V V L K P E N R	
UniRef90_UPI00047C5A9D	L A H G Y L V E L E R D G D I M Q S P A A D F V L R T G D S L S F I G A P R C A	
UniRef90_R5DVJ5	G I I I A C I N H Y G E I I T P S G D T V I R E R D S S V I V V T T L A G L	
UniRef90_R5TV21	N T L M V G L I T R D S K L F I P N G D T E I C E G D K L I F M G T S H S L	
UniRef90_R6SED8	N L L V A C I I N R N G K I R S P R G K D V I E A G D R V I I V T T T G L	
UniRef90_E0MK11	G A T I G G I I L R N G E G I M V T G N T Q L Q E G D H V V V F C L G M M I	
UniRef90_B5ZNH1	G I R V G A V I Y R D K Q V I M P N G D L Q I R A K D R I V M F A V S E R V	
UniRef90_C4ZCY1	D F G I K P H A L I R G D N F V F G P L D Q S V I S A G D V L L A E G A D A G L	
UniRef90_D7N531	E T L I V L I R R G E Q N I P D G E T I L Q N D V L V L S A E V H G I	
UniRef90_A3DL8Y	G V L I T I V R K N D V I I P N G N S I L L P E D R I I I V F F M H D Q I	
UniRef90_UPI0004097FD5	T G F N I L A I R R E N Y W I I P N S E N E E R L R G D I L I I V R G T L D S	
UniRef90_M4R5V5	Q S Y I F M I R R K G K A L V P K G N I V I K A G D I V V L L Y G K H	
UniRef90_X1JC11	K Y D V V I S R I N R A G V E L V A N G E M H L Q F G D V L T L V G R K E D I	
UniRef90_UPI000364365C	L S S W I L V A H S R A G K I T I P R G D T L I R S G D Y V I G L G I K E A L	
UniRef90_UPI000468C12E	R K L T L L G V I S D N H F Y F N P E V D F I L R H G D M L V L L G R K Y G I	
UniRef90_V2YJ04	R A G V R V L G A F R P H I A G A D L S S V R L R A A D K L L L E G T P E G F	
UniRef90_B9M3S5	G I I I V A A I Q R K S R I I V V P R G N V E L L P G D T L L V L V G D D R H I	
UniRef90_D6K3P0	K W D V L F G R I K R R N H V F L S T P Q T V L E P G D M V I A V G T E E E L	
UniRef90_R5BY81	G S A V T L V V R E G K S F V P L P T V L R R G D E L L V V V A T D P V R	
UniRef90_E4SR16	N L L L C C I N H K G K I I I P R G Q D S I Q V G D T V M V V T T N T G L	
UniRef90_UPI0003FCCD01	T Y N V N V I G F R E N G K L N T H F D P M N R L P N E G T I L V V S D N R T L	
UniRef90_H8L7Y6	Q Q D V L P I A I K K R K R M V R S S V N K L V K A G D R L L V D V S R E N V	
UniRef90_G5ZVZ7	N M L L I S I R R G N Q E I L T H G D T I M N V G D I L V I L T D E A N L	
UniRef90_L8JR09	G V A I G A I L R L D E V I P A R G D T V I E A G D H L V L V A A P G K A	
UniRef90_L0RCN0	G A I I G G V V R N G V G Y T T M G D F Q F R P K D R A V V L C R P E C I	
UniRef90_X5E0L7	H F N V V I A A L V R N D R L I I P G G L D T I E K G D I I V Y F T C I R D Q Q	
UniRef90_UPI00037A0E06	E A K I G G V I R G N M G Y I I A H G Y T Q I Q E G D K V V V F T L P S G I	
UniRef90_D4CSG9	T Y D I N I I I G L I R E Q K N A P I N T T L N Q P L A K G T L L V A I A N S R A F	
UniRef90_W4LWH8	E V L I I A I I R N G V E K I P K G R T V V M M A G D I L V L L P E K I V	
UniRef90_N0C7K2	G I I I G A V A H G D E I V I P R G D T V I E A H D R V I V F T L P E V V	
UniRef90_F8N8H8	G V L I I A A I I R Q G V T I F P S G D D Y L E V G D K I I V T T L I Q N I	
UniRef90_M0NRD8	N F Q A T V T R V I N R N G V D L V A H P H L R L Q L G D R L T V V G S E L A L	
UniRef90_UPI0003705616	T V V A A V R G G S V Q P I P R R A Y V F G A G D L V Y L V G R P D A I	
UniRef90_B2IM86	E E D I K L L F I K R G E I N I R N T M Y N E S I Q A G D D L F L Y G N K E E I	
UniRef90_L0JMS5	K F G V I V C A I E R D H Q I I I P S G D M T V Q D K D R I F V T G N R V D M	
UniRef90_U2LX16	S L T F V A V L R L E D V V V P R G E T V I R T G D A A V V I G S G E S V	
UniRef90_C3XJ12	Q S A F L I G F I E E N G E P F I L P T G S T V L N A G N R I G L V T R K K N L	
UniRef90_R6QGA2	E D N V K I V A V R R G E T W N I D V D S D F I L Q R G D V V L V L F L G F T E H I	
UniRef90_C0D9K5	R G E V L V C A V E R Q N D V F I P S G D F V L Q E N D R I S I V A S P G S A	
UniRef90_B1MCV2	H L L V A C I N R K G R I L M P R G K D T I E P G D T V I L V T T H T G L	
UniRef90_K7T1N3	D A V L V A I L R G S R V I I A A Q P D E P L E G G D E L L I L V A T A D I E	
UniRef90_UPI000423D91B	Q K N W K I A A I Y R N R Q L I I P S D N K M L Q P N D T L V L V G D P A V L	
UniRef90_UPI000477FEE	D S A L V A L V A I I R D G R A F R P D P E G S F E A G D E V I F V T A P A D E	
UniRef90_C9KMS0	K Y D I N V V G L I R R P P N N L E T H I D P M Q A F E P E T D V V A I A S N T F	
UniRef90_A6B9X2	G C V L V N V R R G P H E L A P R D D L V L Q A G D A L F V L T D A D D T	
UniRef90_UPI0003B6D20A	K L P V L I G I V R R G D E V F I P N G S F I I R A K D E I S V I G T P R K M	
UniRef90_V8CXJ0	D A A L V T I L R G G R V I V P L A D D A V E E G G D E L I F I V P A E A	
UniRef90_E8WPZ3	R F G E V I T L V R R G D S E F R P D A G M V L E L G D V V R V L A H K T N M	

UniRef90\_E0NJE8 Y K | V | D E Y F K D  
 UniRef90\_UPI0003B62926 E T F A A L  
 UniRef90\_I3DCT1 S E F Y K S L G  
 UniRef90\_W7YV13 K Q L K A I L T S  
 UniRef90\_V4J1X3 D E V  
 UniRef90\_R5P7G4 R A L  
 UniRef90\_R5BM59 D T I R I I F G A E V P  
 UniRef90\_A4CKH0 N K I I N F F D T F I  
 UniRef90\_UPI00047BCB75 E E L S R L L  
 UniRef90\_P9WFZ2 E N F  
 UniRef90\_UPI000477D25B K K I A A H F A  
 UniRef90\_Q03DS9 Q E F E R A V G  
 UniRef90\_R4W531  
 UniRef90\_R5VZG8  
 UniRef90\_X1RQG0  
 UniRef90\_UPI000375AE4B K R F R K  
 UniRef90\_UPI0003680A3D K Q V K A M F S  
 UniRef90\_V5SE99 D A M S Q  
 UniRef90\_UPI00037374A0 M G F R E  
 UniRef90\_X1SQM3 K S L A E R I G  
 UniRef90\_I0QUX7 D E V R  
 UniRef90\_R4LP00 K K  
 UniRef90\_U5L7K1 V T F L K E L N  
 UniRef90\_R6TGR1 P G V T A Y F G D  
 UniRef90\_R6TBZ9 G L A E E K L  
 UniRef90\_A1WDA9 P E V E R L L Q V S I  
 UniRef90\_A8LKU7 D K V G R Q L A G  
 UniRef90\_UPI000467C9ED N I A K Q V L  
 UniRef90\_E6TUB5 S D V R K T I R E  
 UniRef90\_R2PSE4 K K V E K L F S  
 UniRef90\_H1XS25 P K V  
 UniRef90\_Q8DJ50  
 UniRef90\_D9XFQ2 H D I C D I L  
 UniRef90\_R7GXZ0 I Q V I E I C A  
 UniRef90\_D1J7H4 D R L T H A V  
 UniRef90\_UPI00035F621F P A L G K L F S Q S P P  
 UniRef90\_M1N396 H D A E Q L F  
 UniRef90\_G7WAC6 E K F S E E F S E  
 UniRef90\_UPI00047E7B74 H Q Y F R L L G R Y V P  
 UniRef90\_Q1K1Y2 P K V E K F F E  
 UniRef90\_UPI000370AC48 R E I K E L L  
 UniRef90\_K8WF04 I F L E R L F S E  
 UniRef90\_UPI0003B60CE2 H E L R S I N G L K P  
 UniRef90\_UPI00047C5A9D K D I K D I L E N  
 UniRef90\_R5DVJ5 D I L A  
 UniRef90\_R5TV21 N D I L K D I L K  
 UniRef90\_R6SED8 K K L E K Y F N  
 UniRef90\_E0MK11 K Q V E Q M F  
 UniRef90\_B5ZNH1 A A T Q A L I A D F N P  
 UniRef90\_C4ZCY1 K L V E K I I E  
 UniRef90\_D7N531 D K V K G F F  
 UniRef90\_A3DLY8 N T I A N I L G D  
 UniRef90\_UPI0004097FD5 D T V M A I I G N A  
 UniRef90\_M4R5V5 K E L E E L V G P S E P  
 UniRef90\_X1JC11  
 UniRef90\_UPI000364365C D H F R D  
 UniRef90\_UPI000468C12E D A L T D V V S V S V P  
 UniRef90\_V2YJ04 D  
 UniRef90\_B9M3S5 H R V A V F L G E  
 UniRef90\_D6K3P0 E A A E R R L  
 UniRef90\_R5BY81 R D I R D I L K  
 UniRef90\_E4SR16 E K F  
 UniRef90\_UPI0003FCCD01 Q S L E A I  
 UniRef90\_H8L7Y6 P R I K Q E I E A  
 UniRef90\_G5ZVZ7 A R A E A I L S D  
 UniRef90\_L8JR09 R A V E R F F K  
 UniRef90\_L0RCN0 E R L  
 UniRef90\_X5E0L7 K K L E K F F K  
 UniRef90\_UPI00037A0E06 E Q F  
 UniRef90\_D4CSG9 G E V K E N L  
 UniRef90\_W4LWH8 T Q A E K W F S G  
 UniRef90\_N0C7K2 D K I Y D L L E  
 UniRef90\_F8N8H8 S K V D K V L G N  
 UniRef90\_M0NRD8 R R F E  
 UniRef90\_UPI0003705616 E K  
 UniRef90\_B2IM86 I L F H N Y F K S  
 UniRef90\_L0JMS5 R S F A S A L T  
 UniRef90\_U2LX16 D E F L T L C G S  
 UniRef90\_C3XJ12 E A I M Q T L E E  
 UniRef90\_R6QGA2 S S F F Q K I G V  
 UniRef90\_C0D9K5 N D L G D I  
 UniRef90\_B1MCV2 D E L H R A V  
 UniRef90\_K7T1N3 R S I Y R A I K  
 UniRef90\_UPI000423D91B Q D L A Q L L S  
 UniRef90\_UPI000477FEE E K F  
 UniRef90\_C9KMS0 A A L Q A L A A E  
 UniRef90\_A6B9X2 A A L S L L F S E A  
 UniRef90\_UPI0003B6D20A L A F F K  
 UniRef90\_V8CXJ0  
 UniRef90\_E8WPZ3 D E V T A F F G N

1 10 20 30 40

UniRef90_G4D2P7	G R V L S A I S L K G E Q A E V I E A M A L S T S E L V I G A P L R K I S M P K
UniRef90_A9A0A2	D V L P A R E Y L A E V V V P G S R F A G K R L E D V T H
UniRef90_A7HCP8	G Q A E I V K F K I P E G N L L D G M T I A T L G K S I
UniRef90_R7CBV5	I V E I V L G E R S R A C G Y T L Q A L P L P E
UniRef90_UPI0003713847	T D S E F N H I A I D K H M P I A G M Q I A Q I G L P E
UniRef90_UPI00046FA18F	E I V E E L R I Q K G S K L C D V A L M N E N V V
UniRef90_R5V883	L T G D I E I V R V K V G E D A P L V G E T L A D A P L P E
UniRef90_L9XDB7	M E E V F V P K Y S W M V L Q R L K E A D L K E
UniRef90_J1F7M9	R L Q P I S G E E D E L D I P V Y E N S K L V D Q E I K D I N W P D
UniRef90_Q74H98	E G L V V E D I A R G R E L H Q Y K V S A D S L A V G V P I A E L R M P E
UniRef90_U1PPX7	V A L L T E D L I A D L D I C E T K L L S S N S P L V G K T S A F V A Q K E
UniRef90_UPI000365E89F	E A A P L D V L D A E L L T L T V L P Q S R L H N V T V L E L R L P D
UniRef90_UPI00028A1750	I T D L S T R F E L V E I E A K P G A P A V G R S L E E L D L L P T
UniRef90_UPI000382E055	Q F I Q L P I G K E H P W V N R E I R E I R R L
UniRef90_Q2S491	V H Q L Q V P A G S P V I G K T R E T I G L L A K
UniRef90_E7GRU9	E I T A L E D V D A D I V E Y R L G D T A R A A N R R L S Q I A L P D
UniRef90_W9GT33	V E V A A S E A L D G K A V A D L K L E E
UniRef90_UPI00035F535A	D S V D Q S L V S R R L V L T R K E Y Y N G V R L S A L H R N
UniRef90_K2K4G1	Q D A S G T L A M Q E V P L P E G W T G R S V T E L L E L L P K
UniRef90_F4KNK4	E L L Q V R I Q E S S K L Q G V Y L S E L R L E L K
UniRef90_UPI00035D0393	P D S T N L T F V V V V R V N T D S Q L I G K R I S E V S S
UniRef90_UPI00037E5CDD	H L C E L E I I Q P T H A W C G R E I R E I T L P S
UniRef90_UPI0003B63A57	E K A A I Q G H I R T E R V A V T N D N N V L G K R L M S L S L D Q
UniRef90_E1QQ81	T D L E F I K T H V T K N S P W V N N K K I S D I E I A
UniRef90_R7HOT9	R Y L A E L M V P A E S D L I G R T I V E Y A D E
UniRef90_I3DJK7	H L L S V A I P E K S R M H G V E V S E L R L P
UniRef90_UPI000303CF7B	N A E M V D L I I P E D A Y V V G K K I M D L H I S P
UniRef90_C0QEN8	V D G D Y E V M I Y Q L D N A N W C V G V Q L R Q L S M P A
UniRef90_D6B1S0	G T A E A I E A V V H G D S S L V G R R V D E V K W P A
UniRef90_I4BWK3	L M A F K I K N N S V L S N M T L S Q F R K
UniRef90_UPI0003998A49	L E S G A E V T E L L L S D S A S V T G K T I G Q A K L P E
UniRef90_F0EYV9	E M A E F E V P L D S P L A G Q T I A A E A D F D E
UniRef90_S2VLH4	S L G G A D L L E S V L T E E S P F T G R S A A E L S A A L
UniRef90_UPI0003806CC1	I V P V N I V D R S P L I G K E I M K S D L G K
UniRef90_C0GHH3	Q A E V V E I E V D E D S V L T G R S I R E S V T E L
UniRef90_W0K4P3	V A N A D V A E F I V K E G S K I T K H P V K D C G L P K
UniRef90_R9F6I1	S M M E L E V T S P Y I N V A L K D L K L P E
UniRef90_UPI0002C3F530	A K A E A M E I I L I S D N R Q I D G Q K L K D L N I P P
UniRef90_M0CCP8	E R L H P V L L H D Q A W A V G R R V R E L P L G E S
UniRef90_R7D0X7	D A D V A E F I P V Q G S K I T Q K P I K D M N L P S
UniRef90_UPI0002EEC349	Y A G Q A E A M E I V V H D N S P I V G K S I R G L N L P P
UniRef90_H5XW23	G Q L E T L Q F Q I K E E N K M T G R P L S S L K L K K
UniRef90_K7RSS2	K M V E I T L P R R S P V L G R T V G S M R W P G
UniRef90_Q1WSY2	A E A I E V V L H G D R H T S K L I G R T M T Q L R L P A
UniRef90_W0A4H6	D V V M N T Q D V E M R N S R Y V G Q S L S Q V V M Q L
UniRef90_I1YSJ3	D Y E L F V Y R V E N E D L D N Q P I R L L R F P S
UniRef90_UPI00037E5E56	E L P D A Y S I M E I I C P P A I S G C K L S D I D L R R K
UniRef90_F5U0Z5	E I S D D Y N I V E V K V P K R Y V G M T V G S A N I R K
UniRef90_Z9JWW9	H V V S F L D E M L K S E R V E E V P V P A G F I P K P L G T L K L R S
UniRef90_X2H8I6	H V L D N Q A E A L E F I R A Y S L A P D S P Y I G R T V G E A G T S E
UniRef90_X2GY91	E L G D S H D V Q E V E V T S R E L A G K T I R D L N A Q I
UniRef90_M7P1C6	A E G L E L V V T T R D I V V K K D R D F A G Q T V A R I I L D R S
UniRef90_UPI00047C409F	D Y V G E A D Q L T V S I Y E G S Q L A D H Q V K D I A W P D
UniRef90_UPI00047B647A	E A D E T M A V T T V A P G A D L D G L A V S D V I D M P A
UniRef90_Q47AQ5	I G D T I A E A A A R G T E L V I G K F L G E A V E M Q
UniRef90_A0A22H4W6	E E V L D A D L L N Y Q V I E I V V L N Q N A L V G K Q I K D I H L T S
UniRef90_D4LX28	D Y V G E A D Q L T V S I Y E G S Q L A D H Q V K D I A W P D
UniRef90_M0D7L3	A D E T M A V T T V A P G A D L D G L A V S D V I D M P A
UniRef90_UPI000380F1D0	I G D T I A E A A A R G T E L V I G K F L G E A V E M Q
UniRef90_U4QDU1	E A E V F E L Q A E A G S K I T R H Q L K D M N F P E
UniRef90_W9V987	M K M E K D H K Y V G K K I S E R I K
UniRef90_V9HH26	A N A D V A E F I P Q E G S R I T L K A V K D M R L P
UniRef90_UPI0003638734	G A E I D H S Q A L S F A T R Q A D I V L T A P A L A G K T I D Q V K A Q Q
UniRef90_R6PYJ6	H K I A D I I K L E S D I S V I E F K V P T S W V G K T V V E L D V R K K
UniRef90_C8RT01	H L L S V A V P G D S R M H G V E V S E L R L P K
UniRef90_K5YR53	G D L E I E C A L P G D S K A I N K T L R D I A N P G
UniRef90_UPI0003B3F4B6	E A V S V G D L V G D A N L V E L T L P G D A A L V G T R V G D V A W P E
UniRef90_Q047H2	L I E Q G E I M E I G V P S G S I Y A H R Q I N T I E L G D D
UniRef90_M0H9T0	L D E L T E G L S T S L S V P V D A P I I D Q T V N E I L G D D
UniRef90_UPI00026C6BF2	V L E T V I T P R S R A V G R A L G D I R L P E
UniRef90_E2MX43	A E F I I I K E D S P V I D V P L M E L D L
UniRef90_R5POA0	I N E L M G K N S P V A G K K L Y E I I E L G D
UniRef90_R5YAG3	D Y V E L L I V T P R S R L V G R S L Y S E P V H E
UniRef90_H1HMR1	Q A R L Q P L T L P A G A L A V G G S S L A T L N L
UniRef90_A0A059G3D5	E I V E L R I N G K S R L N G V A L S N L D S I I
UniRef90_I4MYJ7	E T T P L E E V G A D L L E V S I G E E S R L H G I E L F E L R L P
UniRef90_UPI000375F2AC	G A E I D H S Q A L S F A T R Q A D I V L T A P A L A G K T I D Q V K A Q Q
UniRef90_UPI0001FFF53B	H K I A D I I K L E S D I S V I E F K V P T S W V G K T V V E L D V R K K
UniRef90_U1GU20	H L L S V A V P G D S R M H G V E V S E L R L P K
UniRef90_UPI0003817D9F	G D L E I E C A L P G D S K A I N K T L R D I A N P G
UniRef90_N2BGW3	E A V S V G D L V G D A N L V E L T L P G D A A L V G T R V G D V A W P E
UniRef90_Q18KH6	L I E Q G E I M E I G V P S G S I Y A H R Q I N T I E L G D D
UniRef90_M3C0A5	L D E L T E G L S T S L S V P V D A P I I D Q T V N E I L G D D
UniRef90_R5L3S6	V L E T V I T P R S R A V G R A L G D I R L P E
UniRef90_E7GNZ3	A E F I I I K E D S P V I D V P L M E L D L
UniRef90_I0JQ03	I N E L M G K N S P V A G K K L Y E I I E L G D
UniRef90_C5CDT0	D Y V E L L I V T P R S R L V G R S L Y S E P V H E
UniRef90_D8KPL1	Q A R L Q P L T L P A G A L A V G G S S L A T L N L
UniRef90_F2L0I9	E I V E L R I N G K S R L N G V A L S N L D S I I
UniRef90_E6PUJ1	E T T P L E E V G A D L L E V S I G E E S R L H G I E L F E L R L P
UniRef90_R5NQB8	G A E I D H S Q A L S F A T R Q A D I V L T A P A L A G K T I D Q V K A Q Q
UniRef90_K6W812	H K I A D I I K L E S D I S V I E F K V P T S W V G K T V V E L D V R K K

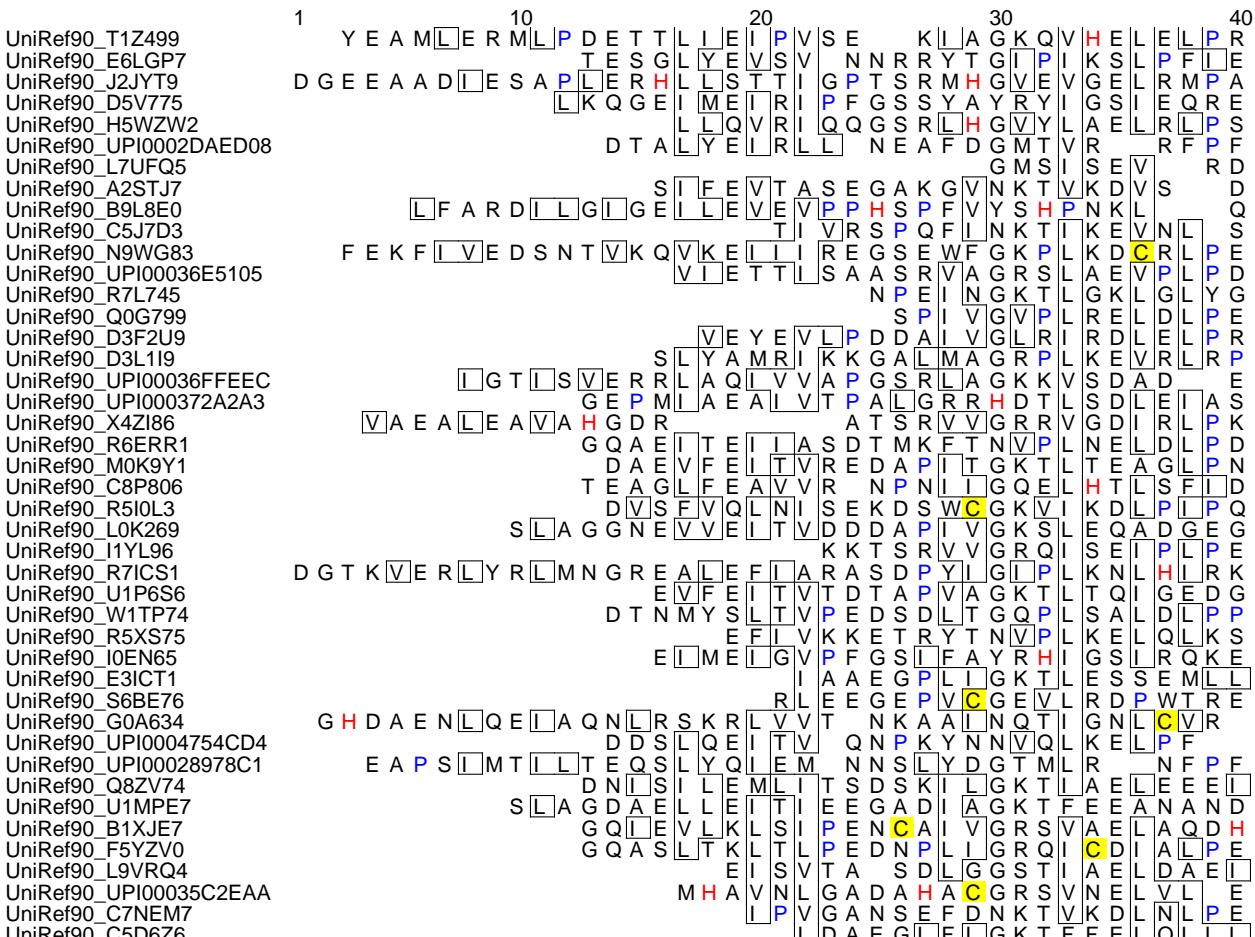
UniRef90\_G4D2P7  
 UniRef90\_A9A0A2  
 UniRef90\_A7HCP8  
 UniRef90\_R7CBV5  
 UniRef90\_UPI0003713847  
 UniRef90\_UPI00046FA18F  
 UniRef90\_R5V883  
 UniRef90\_L9XDB7  
 UniRef90\_J1F7M9  
 UniRef90\_Q74H98  
 UniRef90\_U1PPX7  
 UniRef90\_UPI000365E89F  
 UniRef90\_UPI00028A1750  
 UniRef90\_UPI000382E055  
 UniRef90\_Q2S491  
 UniRef90\_E7GRU9  
 UniRef90\_W9GT33  
 UniRef90\_UPI00035F535A  
 UniRef90\_K2K4G1  
 UniRef90\_F4KNK4  
 UniRef90\_UPI00035D0393  
 UniRef90\_UPI00037E5CDD  
 UniRef90\_UPI0003B63A57  
 UniRef90\_E1QQ81  
 UniRef90\_R7H0T9  
 UniRef90\_I3DJK7  
 UniRef90\_UPI000303CF7B  
 UniRef90\_C0QEN8  
 UniRef90\_D6B1S0  
 UniRef90\_I4BWK3  
 UniRef90\_UPI0003998A49  
 UniRef90\_F0EYV9  
 UniRef90\_S2VLH4  
 UniRef90\_UPI0003806CC1  
 UniRef90\_C0GHH3  
 UniRef90\_W0K4P3  
 UniRef90\_R9F6I1  
 UniRef90\_UPI0002C3F530  
 UniRef90\_M0CCP8  
 UniRef90\_R7D0X7  
 UniRef90\_UPI0002EEC349  
 UniRef90\_H5XW23  
 UniRef90\_K7RSS2  
 UniRef90\_Q1WSY2  
 UniRef90\_W0A4H6  
 UniRef90\_I1YSJ3  
 UniRef90\_UPI00037E5E56  
 UniRef90\_F5U0Z5  
 UniRef90\_Z9JWW9  
 UniRef90\_X2H8I6  
 UniRef90\_X2GY91  
 UniRef90\_M7P1C6  
 UniRef90\_UPI00047C409F  
 UniRef90\_UPI00047B647A  
 UniRef90\_Q47AQ5  
 UniRef90\_A0A022H4W6  
 UniRef90\_D4LX28  
 UniRef90\_M0D7L3  
 UniRef90\_UPI000380F1D0  
 UniRef90\_U4QDU1  
 UniRef90\_W9V987  
 UniRef90\_V9HH26  
 UniRef90\_UPI0003638734  
 UniRef90\_R6PYJ6  
 UniRef90\_C8RT01  
 UniRef90\_K5YR53  
 UniRef90\_UPI0003B3F4B6  
 UniRef90\_Q047H2  
 UniRef90\_M0H9T0  
 UniRef90\_UPI00026C6BF2  
 UniRef90\_E2MX43  
 UniRef90\_R5POA0  
 UniRef90\_R5YAG3  
 UniRef90\_H1HMR1  
 UniRef90\_A0A059G3D5  
 UniRef90\_I4MYJ7  
 UniRef90\_UPI000375F2AC  
 UniRef90\_UPI0001FFF53B  
 UniRef90\_U1GU20  
 UniRef90\_UPI0003817D9F  
 UniRef90\_N2BGW3  
 UniRef90\_Q5GWC  
 UniRef90\_Q18KH6  
 UniRef90\_M3C0A5  
 UniRef90\_R5L3S6  
 UniRef90\_E7GNZ3  
 UniRef90\_I0JQ03  
 UniRef90\_C5CDT0  
 UniRef90\_D8KPL1  
 UniRef90\_F2L09  
 UniRef90\_E6PUJ1  
 UniRef90\_R5NQB8  
 UniRef90\_K6W812

50            60            70            80

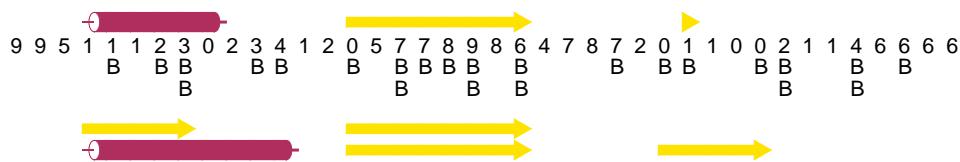
This figure displays a sequence alignment of UniRef90 proteins, focusing on positions 50, 60, 70, and 80. The alignment shows the distribution of amino acids across multiple sequences. A color scale indicates conservation: blue for highly conserved, green for moderately conserved, yellow for moderately divergent, and red for highly divergent. Yellow boxes highlight specific residues at positions 50, 60, 70, and 80, which appear to be conserved across most or all sequences.

90

UniRef90\_G4D2P7 E K F D E E H S G I  
 UniRef90\_A9A0A2 P K I E K L L S V  
 UniRef90\_A7HCP8 R S F L K K I G  
 UniRef90\_R7CBV5 D E M R A I F R S  
 UniRef90\_UPI0003713847 T Q L L R N L G  
 UniRef90\_R5V883 D E V A M L L S G T V  
 UniRef90\_L9XDB7 K Y A K R I V  
 UniRef90\_J1F7M9  
 UniRef90\_Q74H98  
 UniRef90\_U1PPX7 R E A M E E L  
 UniRef90\_UPI000365E89F D P V I S L L  
 UniRef90\_UPI00028A1750 E A T E R R L  
 UniRef90\_UPI000382E055 D D L K E L F  
 UniRef90\_Q2S491  
 UniRef90\_E7GRU9  
 UniRef90\_W9GT33 A D V A Q E F S  
 UniRef90\_UPI00035F535A R P F V N Y V  
 UniRef90\_K2K4G1 Q A L S K D L  
 UniRef90\_F4KNK4 D A V A A K I G N E I  
 UniRef90\_UPI00035D0393 E G L P E R R L A D  
 UniRef90\_UPI00037E5CDD E K T E R R I  
 UniRef90\_UPI0003B63A57 R K F S D  
 UniRef90\_E1QQ81 N K L I N E L S G  
 UniRef90\_R7H0T9  
 UniRef90\_I3DJK7  
 UniRef90\_UPI000303CF7B E R A I E V L G N A  
 UniRef90\_C0QEN8  
 UniRef90\_D6B1S0 D S A E E R L  
 UniRef90\_I4BWK3  
 UniRef90\_UPI0003998A49 P A L S R L F S  
 UniRef90\_F0EYV9 R E L E K L I  
 UniRef90\_S2VLH4 E E L E E Y F G D S V  
 UniRef90\_UPI0003806CC1 I A F H D F L K  
 UniRef90\_C0GHH3 T K Q D K F F A  
 UniRef90\_W0K4P3 R E F S G A I N P V E  
 UniRef90\_R9F6I1 D A L L A V L S G  
 UniRef90\_UPI0002C3F530 V E L M N I  
 UniRef90\_M0CCP8 Q K I E K F F  
 UniRef90\_R7D0X7 R E I R Q I F E V P P P  
 UniRef90\_H5XW23 K K V E K Y F E S  
 UniRef90\_K7RSS2 S D L V N L L A  
 UniRef90\_Q1WSY2 A E V A R K I G  
 UniRef90\_W0A4H6 E Q A E Q R L  
 UniRef90\_I1YSJ3 K K V E Q L F N  
 UniRef90\_UPI00037E5E56 P M V E K M F Q V L  
 UniRef90\_F5U0Z5 T Q I Y D L L E  
 UniRef90\_Z9JWW9 V A L Q S L L A  
 UniRef90\_X2H8I6 Q D L E K M I  
 UniRef90\_X2GY91 R R V I D K I G A  
 UniRef90\_M7P1C6 A A L N R L F N G  
 UniRef90\_UPI00047C409F E R F I K  
 UniRef90\_UPI00047B647A Q D F L N L  
 UniRef90\_Q47AQ5 T E I E T L L  
 UniRef90\_A0A022H4W6 E R L  
 UniRef90\_D4LX28 R D I R D I L A  
 UniRef90\_M0D7L3 R R A M D R F  
 UniRef90\_UPI000380F1D0 E A F S D L  
 UniRef90\_U4QDU1 Q R L S N K V G N V I  
 UniRef90\_W9V987 L G L A E R F G  
 UniRef90\_V9HH26 A S V I E E I N G L  
 UniRef90\_R6PYJ6  
 UniRef90\_C8RT01 D E V S Q F L G D S E  
 UniRef90\_K5YR53 H K I K E L  
 UniRef90\_UPI0003B3F4B6 R E L A T L L G H I E  
 UniRef90\_Q047H2 R K V E R R A T  
 UniRef90\_M0H9T0 A Q Y D R R F  
 UniRef90\_UPI00026C6BF2 K D A T K F F G D  
 UniRef90\_R5P0A0 K K V I K Y F  
 UniRef90\_R5YAG3 K A I E K I F N  
 UniRef90\_H1HMR1  
 UniRef90\_A0A059G3D5  
 UniRef90\_I4MYJ7  
 UniRef90\_UPI000375F2AC  
 UniRef90\_UPI0001FFF53B  
 UniRef90\_U1GU20  
 UniRef90\_UPI0003817D9F  
 UniRef90\_N2BGW3  
 UniRef90\_Q18KH6  
 UniRef90\_M3C0A5  
 UniRef90\_R5L3S6  
 UniRef90\_E7GNZ3  
 UniRef90\_I0JQ03  
 UniRef90\_C5CDT0  
 UniRef90\_D8KPL1  
 UniRef90\_F2L09  
 UniRef90\_E6PUJ1  
 UniRef90\_R5NQB8  
 UniRef90\_K6W812



lupas\_21  
 lupas\_14  
 lupas\_28  
 jnet  
 conf  
 sol25  
 sol5  
 solo  
 jhmm  
 jpssm



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

90

UniRef90_T1Z499	G R M K D [L] L
UniRef90_E6LGP7	K E [L] R H V L S
UniRef90_J2JYT9	
UniRef90_D5V775	M Q [V] Y N A [I] G
UniRef90_H5WZW2	E A T E R R L
UniRef90_UP10002DAED08	D E [L] K R E [L] E
UniRef90_L7UFQ5	C R [L] R A H A G E A E P
UniRef90_A2STJ7	
UniRef90_B9L8E0	K D [L] F N K I K
UniRef90_C5J7D3	S A I L E K [L]
UniRef90_N9WG83	E E T I N M [L] S
UniRef90_UP100036E5105	
UniRef90_R7L745	K N [V] E K I [L] G N
UniRef90_Q0G799	R R V E Q M F
UniRef90_D3F2U9	P [V] M Q E L
UniRef90_D3L119	H [L] L E R [L] F G
UniRef90_UP100036FFEEC	S R L I R R A A A P Q P
UniRef90_UP1000372A2A3	E R L S Q
UniRef90_X4ZI86	A R V E K [L] F
UniRef90_R6ERR1	A E L E A [L] F K
UniRef90_M0K9Y1	
UniRef90_C8P806	E E A R R Q [L]
UniRef90_R5I0L3	M Q [L] S E
UniRef90_L0K269	
UniRef90_I1YL96	Q A [V] E K [L] F
UniRef90_R7ICS1	G D L N E V I S
UniRef90_U1P6S6	
UniRef90_W1TP74	E D [L] E Q I T A [L] F A P
UniRef90_R5XS75	R D I E D I [L]
UniRef90_I0EN65	N S V
UniRef90_E3ICT1	
UniRef90_S6BE76	T R [L] A
UniRef90_G0A634	D N I E K A [L] G N
UniRef90_UP10004754CD4	Q A L K A E [L] E
UniRef90_UP100028978C1	D E L K
UniRef90_Q8ZV74	Q K I T E
UniRef90_U1MPE7	
UniRef90_B1XJE7	H Q [L] V D F M G
UniRef90_F5YZV0	R A V
UniRef90_L9VRQ4	K A
UniRef90_UP100035C2EAA	E A C E A R [L]
UniRef90_C7NEM7	Q K Y A G E [L] K E
UniRef90_C5D6Z6	

lupas\_21  
 lupas\_14  
 lupas\_28  
 jnet  
 conf  
 sol25  
 sol5  
 solo  
 jhmm  
 jpssm

