

QUERY	1	10	20	30	40
UniRef90_UPI00036ACE33	T	T	V	Q	I
UniRef90_UPI0002556987	T	T	V	K	I
UniRef90_L1M677	T	V	N	Q	L
UniRef90_UPI00047BF24A	P	I	K	V	Q
UniRef90_Q2YBD8	P	L	D	V	T
UniRef90_UPI00036FE71C	P	L	D	V	S
UniRef90_N2J183	T	V	T	H	L
UniRef90_G4E2N5	P	V	S	V	S
UniRef90_UPI00037E159C	A	I	D	I	V
UniRef90_UPI0003A6EE1D	T	V	L	H	L
UniRef90_UPI00036F8ADD	P	V	R	V	S
UniRef90_D3SBB1	P	V	T	V	Q
UniRef90_W8KLJ7	P	V	T	V	Q
UniRef90_S6BVU4	A	V	A	T	T
UniRef90_D5C2Q8	P	V	V	L	H
UniRef90_L0DWJ1	P	V	R	V	S
UniRef90_D7DKV4	P	D	V	N	T
UniRef90_UPI000369C6FE	P	V	S	L	T
UniRef90_UPI00035FB02A	P	P	V	I	E
UniRef90_UPI00037A154E	P	V	D	I	E
UniRef90_G8QFD0	P	V	D	V	A
UniRef90_Y0KDS1	P	V	D	E	I
UniRef90_UPI0003711012	P	V	A	V	S
UniRef90_LOGXA9	P	P	T	V	R
UniRef90_W9V9Y5	V	S	I	K	L
UniRef90_Q1GX19	V	D	V	S	M
UniRef90_UPI00037F8E47	S	V	H	L	D
UniRef90_F9U913	T	V	N	I	R
UniRef90_W0TI93	T	L	S	V	N
UniRef90_W0WDW6	V	S	I	R	L
UniRef90_13YE40	V	S	I	K	L
UniRef90_UPI0003B4347C	V	S	A	K	L
UniRef90_I3BRW2	P	V	N	I	R
UniRef90_UPI0003726966	P	I	T	L	T
UniRef90_H8GH46	A	V	A	L	T
UniRef90_C7R989	P	V	I	T	T
UniRef90_UPI00035C15BF	S	I	D	L	T
UniRef90_K9D185	L	D	V	T	T
UniRef90_UPI0003618235	P	V	R	I	S
UniRef90_D9SJK6	L	D	V	K	L
UniRef90_F7RY73	L	D	V	I	L
UniRef90_A3D079	A	V	E	I	T
UniRef90_UPI0004796DAF	A	L	D	V	K
UniRef90_G4T4F4	A	V	T	E	L
UniRef90_N6VZY6	T	V	E	N	V
UniRef90_K0C8F7	T	V	L	H	L
UniRef90_I1YH19	A	V	N	T	I
UniRef90_G2D9J0	P	V	K	V	L
UniRef90_I3CIP8	P	V	N	L	H
UniRef90_A0Z2P2	T	L	T	V	E
UniRef90_J3DJN0	L	N	V	T	I
UniRef90_UPI0003B746B1	T	L	D	F	V
UniRef90_UPI0004713951	T	I	V	Q	N
UniRef90_UPI00037BF2DD	V	T	I	K	L
UniRef90_T1B7V1	N	V	R	I	L
UniRef90_11XMS0	P	V	H	T	I
UniRef90_UPI0003B79A39	A	I	T	H	L
UniRef90_V5C063	A	V	L	N	I
UniRef90_UPI0003794C2F	T	V	S	V	N
UniRef90_A4B9S3	T	L	S	V	T
UniRef90_W8XA20	V	D	V	A	I
UniRef90_B7S3D5	T	V	V	K	I
UniRef90_UPI00035D326B	S	I	E	I	H
UniRef90_A3YQCB1	T	V	S	V	D
UniRef90_Q1R1M1	T	I	E	T	L
UniRef90_UPI00037EB636	I	S	V	S	L
UniRef90_UPI0003790057	P	V	S	Q	I
UniRef90_J0UJ76	V	D	I	S	L
UniRef90_UPI00036E2B2B	T	T	E	I	T
UniRef90_X7E3V0	T	V	S	V	I
UniRef90_B8CK11	A	I	E	T	L
UniRef90_B3PH94	T	V	V	K	I
UniRef90_UPI00035C47C2	V	D	V	T	I
UniRef90_Q2BL71	P	V	S	I	K
UniRef90_K4L1B2	A	V	V	V	R
UniRef90_J3HQ50	T	T	M	G	Q
UniRef90_R8B432	T	V	E	V	K
UniRef90_UPI00046A1F72	A	I	D	I	T
UniRef90_Q478H7	L	D	V	K	I
UniRef90_K2A0Z2	T	V	E	I	L
UniRef90_A6SVM0	L	D	V	S	I
UniRef90_UPI00037C419A	T	V	T	S	V
UniRef90_Q603N1	P	I	K	V	Q
UniRef90_UPI0003B60C3D	T	V	T	R	I
UniRef90_UPI0004762F68	P	V	A	V	R
UniRef90_UPI000375403B	P	V	K	R	I
UniRef90_W9V310	S	V	T	V	K
UniRef90_A7BQY3	P	V	N	L	R
UniRef90_G7UTB0	P	V	N	V	H
UniRef90_UPI0003B66A5D	T	V	I	V	I
UniRef90_UPI0004720A13	V	T	R	V	L

50            60            70            80

QUERY	G K V I G A D R V A V M A A L N I T H D L L H R K E R L D Q E S S S T R E R V
UniRef90_UPI00036ACE33	G K V L G V E R I A V M A A L N I S H E L L E T G P Q T G A N G K A N N D Q I V S
UniRef90_UPI0002556987	G K V I G A D R V A V M A A L N I T H E L L H K Q N D L D Q Q T S S T R E Q V R
UniRef90_L1M677	G K V I G A D R V A V M A A L N I T H D L L H R K E R P D A Q S G A T R E Q V R
UniRef90_UPI00047BF24A	G R V I G T E R I A V M A A L N I A H E L L Q A Q Q Q N K L L S Q E L Q D R F S
UniRef90_Q2YBD8	G K V L G S E R T V M A A L N I T H E L L K A R S K E G F D T E E F R R R I D
UniRef90_UPI00036FE71C	G K I V G I D R V A V M A A L N I T H E F L H L K V S P D F D I G D F K R R M G
UniRef90_N2J183	G K V I G A D R I A V M A A L N I T H D L L H R Q D G V N F E V S S T R E R V
UniRef90_G4E2N5	G K V V G G D R I A V M A A L N I T H E M M M R N Q Y D D L N Q A L T G R L R
UniRef90_UPI00037E159C	G K P A S N E Q I A I M L A L N V C H E L E L E K D K N H Q Y A D A M D K R I K
UniRef90_UPI0003A6EE1D	G K V I G I E R I A V M A A L N I S H D M L T G S R Q Q D S T L D S Q K H I N A
UniRef90_UPI00036F8ADD	G R V I G T D R I A V L A A L N I V H E M L E C Q E Q L K R A E Q T G P A R I T
UniRef90_D3SBB1	G R V V G A E R I A V M V A L N L A H E M L E C Q E Q L K R A E Q T G P A R I T
UniRef90_W8KLJ7	G K V V G G D R I A V M A A L N I T H E L L T L K D Q Q A D M D K R I Q
UniRef90_S6BVU4	G K V I G T D R I A V M A A L N I A H E L L A R E H N A D T A A S T A N K R I Q
UniRef90_D5C2Q8	G K I I G V E R V A V M T A L N I T H E L L K E Q S R K E G E R E L S K R I Q
UniRef90_L0DWJ1	G R V V G A D R I A V M V A L N L A H E M L Q C R R D L E R L E T R T P E R L K
UniRef90_D7DKV4	G K I I G V E R A M M A A L N L A H E L L N S K S G T V D V G D F K R R I T
UniRef90_UPI000369C6FE	G R V S S P D R I A V M A A L N L A H E L R L V K N Q N A I L T Q S L N E S L A
UniRef90_UPI00035FB02A	G K M V S V E R I A I M A A L N I T H E L L N T R S G G V D V G D V K K R I T
UniRef90_UPI00037A154E	G R V V G A E R I A V M V A L N L A H E M L E C Q E E L Q Q Q A R Q A A P E R L H
UniRef90_G8QFD0	S K T A A A E R V A V M A A L N I A H E L L S A G K A E S P A E N D F Q R R I G
UniRef90_Y0KDS1	G K I V G V E R I A I M A A L N I S H E L L N T K S G G V D V G D I K R R M F
UniRef90_UPI0003711012	T R T Q G L D R I A V M A A L N I A H E L L M Q S K Q R A D I L D G G S L A Q H L Q
UniRef90_LOGXA9	G R V I G T D R I A V M A A L N I A H E L L L Q R K A E S G A G D G T A K R R L L
UniRef90_W9V9Y5	G R V I G T D R I A V M A A L N I A H D L I Q L Q R S R S G Y G D D T G R R R L R
UniRef90_Q1GX19	G K V V G A E K I A I M A A L N I T H E L L T T D A G G F D I G D F K R R I T
UniRef90_UPI00037F8E47	G K V V G I E R I A V M A A L N I S Y E L M H S R R Q N E D E K M D T Q E H I D
UniRef90_F9U913	G R V I G T D R I A V M A A L N I A H D L I F Q L Q K T R A V D S G E L D P R L A
UniRef90_W0TI93	G K I I G T E R I A V M V A L N M A H E L L N M N R E G S E G D A S L E R R M R
UniRef90_W0WDW6	G R V I G T D R I A V I A A L N I A H E L L I Q L Q R A G G G P R D D V L V I E R L G
UniRef90_I3YE40	G R V I G T D R I A V M A A L N I A H D L I Q L Q R A Q P G L D P D A G R R L L R
UniRef90_UPI0003B4347C	G K V V G S E R I A V M A A L N I V H E M L K S Q S Q S V Q S I D E D V I T R L D Q
UniRef90_I3BRW2	G K V V G T D R I A V M V A L N L A H E L L M H S K H N H A A D T E T L E Q L Q
UniRef90_UPI0003726966	G K V V N G A D R I A V M A A L N L A H E L L Q V T K N Q N E L L T T R L L I N E S L A
UniRef90_H8GH46	G K V V N G A D R I A V M A A L N L V H E L S F L K S Q N D S L R F D F G S S L L A S S E
UniRef90_C7R989	G K V L G L E R I A V M A A L N L S Y E L L I N T P T L D S G E A Q D I E Q R L L S S E
UniRef90_UPI00035C15BF	G K V I G I E R I A M M A A L N L S H E L L I H T K T G D V D I G D Y K R R I L S S E
UniRef90_K9D185	G K V K G T D R I A V M A A L S V A A E F L S V K S P Q G P L S D E V K Q K L L E
UniRef90_UPI0003618235	G R I V G A E R I A V M V A L N L A H E M L E C Q Q K S G A S S A R I L
UniRef90_D9SJX6	G K I V N V E R I A I M A A L N L A H E L L S T K L G R G V D L S D L T R R M T
UniRef90_F7RY73	T K L T N M E Q I A I M A A L N L C H E W I Q E K A V E T K K L A A L E D K I I G S E
UniRef90_A3D079	T N S L S R E E I A I M A A L N I G H E L F Q E K Q K N K H Y M Q Q M D D R I I S E
UniRef90_UPI0004796DAF	T K N T V P E R V A V M A A L N I A H E H L S A T K G A E F D S S G V K R R I L E
UniRef90_G4T4F4	G K V V S G A D R I A V M A A L N M A H E L L H L A E S R N R E L E H L A D S L L I
UniRef90_N6VZY6	G K V V F G T E R I A V M A A L N I T H D L L Q Q S H M S D D A T N I L K
UniRef90_K0C8F7	G R V V G L D R I A V M A G L N I T H D F L V E N Q K K S G A S L N I S D K I I
UniRef90_I1YHI9	G K V V G V D R I A V M A A L N I A H D L I V L Q Q D E S Q D L S S I N E K L L N
UniRef90_G2D9J0	G R V I G T E R I A V M A G L N I A H E L L R A K E T K S D A V Q V I S Q R L L Q
UniRef90_I3CIP8	G K I V S T E R I V V V I S A L N I H E Y F R Y K Q N H E I E S S S L K D K V V
UniRef90_A0Z2P2	G K V I V G L E R I V A I M A A L N L S H E V L S L Q G G E A P K P D G H E D R L K
UniRef90_J3DJN0	G K I K G N D R I A V M A A L N I G I A A E L L S T Q P G D G P F A A E W K Q S I I A R
UniRef90_UPI0003B746B1	G K I I M G L D R I A V I A A L N I S H E L L A L R Q Q S Q G E N V S S A D I I A R
UniRef90_UPI0004713951	S G T I G L E R I A V M A A L N L S H E L L T A Q S H T T E S D H H D R L I
UniRef90_UPI00037BF2DD	G K T V G L E R I V A V M A A L N I A H E L L K S H A D N R Q H I E E Q I R
UniRef90_T1B7V1	G K V V G L D R I V A V M V A L N M A N E L L L Q L R T R G S R V T V E A S D K V R
UniRef90_11XMS0	G K V V G V D R I A V M A A L N I A H E L L L T L Q Q D E S Q D L K K V N E K I S S
UniRef90_UPI0003B79A39	G N T I G T D R I A I M A A L N I A H E L L Q Q H S H H A E Q Q N R L Q Q R I O G
UniRef90_V5C063	G K V G N A E R I A V M A A L N L S H E L L H S L K N Q T T V F S Q G W K D C F M
UniRef90_UPI0003794C2F	G K V V Y G T E R I A V M A A L N L T H D L L Q E G E K T T Q F D S S L E
UniRef90_A4B9S3	G K V F G I E R I A V M A A L N L T H D L L Q T R P E S A T D R T A L D R
UniRef90_W8XA20	G R V V A S S E R I A V M A A L N I Q I A N E L L S L R A P D G P L L G D F K G K I E
UniRef90_B7S3D5	G K V I V G L E R I A V M A A L N I S Y E L L Q A S E H S G T A D P A P N S A M E
UniRef90_UPI00035D326B	S K V I V G A E R I A I M T G L N I A H E L L T Q G G G G L A E E A R D R I L A R
UniRef90_A3YCB1	G K I I I G M E K I A I A A L N I T H D M L S S R K Y T R K N E Q Q L
UniRef90_Q1R1M1	G K V Q G A E R I A I M A A L N I T H E L L A L D N Q R E G E A S L L
UniRef90_UPI00037EB636	G R I I I G T E K V A V M A A L N I A Y E L H N K Q T S E Q Q T I S G R L
UniRef90_UPI0003790057	G R I I I G G D R I A V I A A L N I T H E M L V T R N Q R E S L S Q T L S T R I G
UniRef90_J0UJ76	G R V V S G S E R I A V M A A L N I Q I A S E P S A K A P D G P L A N D F K R K I I
UniRef90_UPI00036E2B2B	G K V V L D S E K V I A I M A A L N I A H D L I R I Q D E H R A G E E N L A R
UniRef90_X7E3V0	G K N I V P L E K L A V I A A L N I T H D M L S S K K Y A R A N E E Q Q L
UniRef90_B8CK11	T N N I S R E E I A I M A A L N T G Y E L L E E Q Q K N Q D Y N K Q M D E K I G
UniRef90_B3PH94	G A V I V G L E R I A V M A A L N S H E L L Q A R Q S G N G Q K G A N Q A D I L
UniRef90_UPI00035C47C2	G K I I S S N E R I A V M A A L N I H I A T E F L G L K A P D G P L V G D F K R K I I E
UniRef90_Q2BL71	G K V L G L E R I A V M A A L N I A H E L L Q S K Q S L N S D V E T R I L
UniRef90_K4L1B2	G H V I V G L E R I A V M A A L N I S H E L L V A G K S G N A A P A Q D L H
UniRef90_J3HQS0	G R I K G T D R I A V M A A L N I G I A A E L L S T Q H G E G P F A A E W K Q Q S
UniRef90_R8B432	G K V V F G T E R I A V M A A L N I T H D L L E R D T M S D T A S S I L
UniRef90_UPI00046A1F72	T N A I S R E E M A L M A A L N I G Y E L Y E E Q R K N Q D Y M S Q M D D R I
UniRef90_Q478H7	T K N T I A E R V A V M A A L N I A H E H L S A Q K E F A E D T S E T K R R I
UniRef90_K2A0Z2	S G I M H L D R I V A V I A A L N V H Q L L T F E S Q K E N Y I Q N I H Q R L
UniRef90_A6SVM0	G K L K G N D R I A V M A A L N I A A E L L I A T K S P D G P L M S E V K Q K I I
UniRef90_UPI00037C419A	G T V I V G L E R I A V M A A L N I A H E L I Q A K A E L S S I P L Q E E M I D
UniRef90_Q603N1	G R V I V G T E R I A I M A A L N I A H E L V Q A Q Q E I R L L N Q S L A S Q I
UniRef90_UPI0003B60C3D	G K V I V G A E R I A V M A A L N I T H E L H N Q R R N D L F S T D D T A Q I Q
UniRef90_UPI0004762F68	G R I V G Q D R I A V M A A L N I A S D F L E Q G R R L N D Q D L A A Q A I I Q
UniRef90_UPI000375403B	G K I M G I D R I A I V V A L N I A H E L R L N L Q Q S L S T D E H A L H E Q L Q S
UniRef90_W9V310	G K I V G L E R I A V M A A L N M S H E L M K N K E E Q R H V V E M N L R R I S
UniRef90_A7BQY3	G K I V V S T E R I V V V I S A L N I I H E Y L Q Y K Q K Q N E N E V Q T V D E Q V A G
UniRef90_G7UTB0	H R M A S A D R I A V L A A L N I A H E L L Q Q L R D Q Q A A Q D S E L A R T L G
UniRef90_UPI0003B66A5D	G K I I I G T E R M A V M A A L N I S Y E L R E A S K S G G V V S S G Q E D A A S K
UniRef90_UPI0004720A13	G K I I I G T E R M A V M A A L N I M A H Q V E K I K S E Q A E

QUERY

UniRef90\_UPI00036ACE33

UniRef90\_UPI0002556987

UniRef90\_L1M677

UniRef90\_UPI00047BF24A

UniRef90\_Q2YBD8

UniRef90\_UPI00036FE71C

UniRef90\_N2J183

UniRef90\_G4E2N5

UniRef90\_UPI00037E159C

UniRef90\_UPI0003A6EE1D

UniRef90\_UPI00036F8ADD

UniRef90\_D3SBB1

UniRef90\_W8KLJ7

UniRef90\_S6BVU4

UniRef90\_D5C2Q8

UniRef90\_L0DWJ1

UniRef90\_D7DKV4

UniRef90\_UPI000369C6FE

UniRef90\_UPI00035FB02A

UniRef90\_UPI00037A154E

UniRef90\_G8QFD0

UniRef90\_Y0KDS1

UniRef90\_UPI0003711012

UniRef90\_LOGXA9

UniRef90\_W9V9Y5

UniRef90\_Q1GX19

UniRef90\_UPI00037F8E47

UniRef90\_F9U913

UniRef90\_W0TI93

UniRef90\_W0WDW6

UniRef90\_I3YE40

UniRef90\_UPI0003B4347C

UniRef90\_I3BRW2

UniRef90\_UPI0003726966

UniRef90\_H8GH46

UniRef90\_C7R989

UniRef90\_UPI00035C15BF

UniRef90\_K9DI85

UniRef90\_UPI0003618235

UniRef90\_D9SJX6

UniRef90\_F7RY73

UniRef90\_A3D079

UniRef90\_UPI0004796DAF

UniRef90\_G4T4F4

UniRef90\_N6VZY6

UniRef90\_K0C8F7

UniRef90\_I1YH19

UniRef90\_G2D9J0

UniRef90\_I3CIP8

UniRef90\_A0Z2P2

UniRef90\_J3DJN0

UniRef90\_UPI0003B746B1

UniRef90\_UPI0004713951

UniRef90\_UPI00037BF2DD

UniRef90\_T1B7V1

UniRef90\_I1XMS0

UniRef90\_UPI0003B79A39

UniRef90\_V5C063

UniRef90\_UPI0003794C2F

UniRef90\_A4B9S3

UniRef90\_W8XA20

UniRef90\_B7S3D5

UniRef90\_UPI00035D326B

UniRef90\_A3YCB1

UniRef90\_Q1R1M1

UniRef90\_UPI00037EB636

UniRef90\_UPI0003790057

UniRef90\_J0UJ76

UniRef90\_UPI00036E2B2B

UniRef90\_X7E3V0

UniRef90\_B8CK11

UniRef90\_B3PH94

UniRef90\_UPI00035C47C2

UniRef90\_Q2BL71

UniRef90\_K4L1B2

UniRef90\_J3HQSO

UniRef90\_R8B432

UniRef90\_UPI00046A1F72

UniRef90\_Q478H7

UniRef90\_K2A0Z2

UniRef90\_A6SVM0

UniRef90\_UPI00037C419A

UniRef90\_Q603N1

UniRef90\_UPI0003B60C3D

UniRef90\_UPI0004762F68

UniRef90\_UPI000375403B

UniRef90\_W9V310

UniRef90\_A7BQY3

UniRef90\_G7UTB0

UniRef90\_UPI0003B66A5D

UniRef90\_UPI0004720A13

90

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



50 60 70 80

GKVVGIDR | AVMAGL | NIHES | GGNQSS | GTR | K  
GKVIGLER | AVMAAL | NISNEL | DSSEIA | PANGS | QV  
NSLLGSER | AVMAAL | NTHEL | QDPS | EANGS | QV  
GKIRGNDR | AVMAAL | AAEL | LATEQ | QRDSER | SL  
GNVIGLER | AIMAAL | NLCL | CTDL | GEQADQ | KQSVA  
GKVVGTD | AVMAAL | NITHEL | EAAQ | RRDAE | GV  
GKVKGND | AVMAAL | SIAAE | LLAT | KAPE | GPM  
GKALGAE | AVMAAL | NIARE | LELK | DGGVA | QADP  
GKVSSTD | AVLAAL | NLAL | HDL | VASNKTE | SG  
THSSG | ERL | AIMT | ALNIA | HEFL | QFQRGNG  
GGMGLER | AVMAAL | NLLS | HEL | QAKST | STANG  
GKVAGADR | AVMAAL | NLAL | HEEL | QLMKSQN | M  
GKVIGI | AVMAAL | NMAL | MAHE | LTTTRS  
TKSNH | AHE | AVMAAL | NI | AHE | H | LKIE | E  
UniRef90\_E1V469  
UniRef90\_Q21EV8  
UniRef90\_F8GJA2  
UniRef90\_UP1000469C3AB  
UniRef90\_UP10003B5E7B0  
UniRef90\_H1G154  
UniRef90\_UP10003F9A079  
UniRef90\_H3NUT1  
UniRef90\_C3XB9  
UniRef90\_UP10002EA575F  
UniRef90\_U2EK27  
UniRef90\_F0LT50  
UniRef90\_Q2SN28  
UniRef90\_Q6LMP2  
UniRef90\_F1W2B7  
UniRef90\_F3L2K2  
UniRef90\_C7RM76  
UniRef90\_A4BS90  
UniRef90\_UP100040319A8  
UniRef90\_S6B8F9  
UniRef90\_Q1YVJ5  
UniRef90\_N9VN75  
UniRef90\_H8YZ01  
UniRef90\_R4VQM4  
UniRef90\_C1D6G2  
UniRef90\_UP10003672536  
UniRef90\_D0I4K5  
UniRef90\_Q8D2C1  
UniRef90\_UP1000262D0F2  
UniRef90\_Q82T7  
UniRef90\_Q0A5K8  
UniRef90\_UP100041AF593  
UniRef90\_H5SAI2  
UniRef90\_A0A021W308  
UniRef90\_UP10003B38229  
UniRef90\_M4U199  
UniRef90\_C4KDD4  
UniRef90\_G0A5T8  
UniRef90\_UP10003789337  
UniRef90\_C0N702  
UniRef90\_UP10002557EEE  
UniRef90\_W4LHM1  
UniRef90\_Q5P6F2  
UniRef90\_F5RCN2  
UniRef90\_U4KC77  
UniRef90\_W6M6K5  
UniRef90\_V7ID97  
UniRef90\_B8KU52  
UniRef90\_UP100040A1523  
UniRef90\_W6LXX0  
UniRef90\_B7VK96  
UniRef90\_B8GNF1  
UniRef90\_I8T5A6  
UniRef90\_C4K7U9  
UniRef90\_I2JG40  
UniRef90\_M1FM91  
UniRef90\_UP10003B48529  
UniRef90\_UP1000467D9EE  
UniRef90\_Z9JLT6  
UniRef90\_X1Q9L5  
UniRef90\_K2D692  
UniRef90\_E8VPK6  
UniRef90\_W7Q1T2  
UniRef90\_UP10002E3EB9F  
UniRef90\_K2GSA9  
UniRef90\_F7SNQ4  
UniRef90\_UP1000363C6BC  
UniRef90\_L8JAU8  
UniRef90\_A0A011PU42  
UniRef90\_B8KLB1  
UniRef90\_K2C6H7  
UniRef90\_UP10002558B64  
UniRef90\_V4JLY1  
UniRef90\_D7N255  
UniRef90\_D5CNY7  
UniRef90\_I4W199  
UniRef90\_U3ATH0  
UniRef90\_A0A011NHF9

90

UniRef90\_X0YD52  
 UniRef90\_A0Y9S3  
 UniRef90\_U7NEZ9  
 UniRef90\_UPI00047355A5  
 UniRef90\_C5BMD4  
 UniRef90\_U5T8M5  
 UniRef90\_UPI0002F1338E  
 UniRef90\_UPI000365304E  
 UniRef90\_UPI0003609635  
 UniRef90\_A1K346  
 UniRef90\_UPI000381CF78  
 UniRef90\_G3IVV9  
 UniRef90\_C6X8D7  
 UniRef90\_A0A011PYJ6  
 UniRef90\_E1V469  
 UniRef90\_Q21EV8  
 UniRef90\_F8GJA2  
 UniRef90\_UPI000469C3AB  
 UniRef90\_UPI0003B5E7B0  
 UniRef90\_H1G154  
 UniRef90\_UPI0003F9A079  
 UniRef90\_H3NUT1  
 UniRef90\_C3XBL9  
 UniRef90\_UPI0002EA575F  
 UniRef90\_U2EK27  
 UniRef90\_F0LT50  
 UniRef90\_Q2SN28  
 UniRef90\_Q6LMP2  
 UniRef90\_F1W2B7  
 UniRef90\_F3L2K2  
 UniRef90\_C7RM76  
 UniRef90\_A4BS90  
 UniRef90\_UPI00040319A8  
 UniRef90\_S6B8F9  
 UniRef90\_Q1YVJ5  
 UniRef90\_N9VN75  
 UniRef90\_H8YZ01  
 UniRef90\_R4VQM4  
 UniRef90\_C1D6G2  
 UniRef90\_UPI0003672536  
 UniRef90\_D0I4K5  
 UniRef90\_Q8D2C1  
 UniRef90\_UPI000262D0F2  
 UniRef90\_Q82TJ7  
 UniRef90\_Q0A5K8  
 UniRef90\_UPI00041AF593  
 UniRef90\_H5SAI2  
 UniRef90\_A0A021W308  
 UniRef90\_UPI0003B38229  
 UniRef90\_M4U199  
 UniRef90\_C4KDD4  
 UniRef90\_G0A5T8  
 UniRef90\_UPI0003789337  
 UniRef90\_C0N702  
 UniRef90\_UPI0002557EEE  
 UniRef90\_W4LHM1  
 UniRef90\_Q5P6F2  
 UniRef90\_F5RCN2  
 UniRef90\_U4KC77  
 UniRef90\_W6M6K5  
 UniRef90\_V7ID97  
 UniRef90\_B8KU52  
 UniRef90\_UPI00040A1523  
 UniRef90\_W6LXX0  
 UniRef90\_B7VK96  
 UniRef90\_B8GNF1  
 UniRef90\_I8T5A6  
 UniRef90\_C4K7U9  
 UniRef90\_I2JG40  
 UniRef90\_M1FM91  
 UniRef90\_UPI0003B48529  
 UniRef90\_UPI000467D9EE  
 UniRef90\_Z9JLT6  
 UniRef90\_X1Q9L5  
 UniRef90\_K2D692  
 UniRef90\_E8VKP6  
 UniRef90\_W7Q1T2  
 UniRef90\_UPI0002E3EB9F  
 UniRef90\_K2GSA9  
 UniRef90\_F7SNQ4  
 UniRef90\_UPI000363C6BC  
 UniRef90\_L8JAU8  
 UniRef90\_A0A011PU42  
 UniRef90\_B8KLB1  
 UniRef90\_K2C6H7  
 UniRef90\_UPI0002558B64  
 UniRef90\_V4JLY1  
 UniRef90\_D7N255  
 UniRef90\_D5CNY7  
 UniRef90\_I4W199  
 UniRef90\_U3ATH0  
 UniRef90\_A0A011NHF9

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

1            10            20            30            40

A|L|D|V|K|M|G|R|E|F|R|I|A|C|K|P|E|E|R|A|A|L|Q|Q|A|V|N|I|V|E|T|K|M|S|S|I|R|N|T  
 S|L|V|I|H|L|L|G|K|E|Y|R|V|A|C|P|V|G|E|Q|D|N|L|L|R|A|A|R|Y|L|D|T|Q|M|R|E|V|K|Q|A  
 UniRef90\_K0C576  
 UniRef90\_E6SIV7  
 UniRef90\_D0KZ67  
 UniRef90\_G2LG38  
 UniRef90\_L0W837  
 UniRef90\_D4DM27  
 UniRef90\_U1AUK1  
 UniRef90\_E8M261  
 UniRef90\_T1BRX5  
 UniRef90\_UP10004798020  
 UniRef90\_B6BVH0  
 UniRef90\_UP1000370EBFA  
 UniRef90\_UP100036C61CF  
 UniRef90\_UP1000169AEB5  
 UniRef90\_UP100041C3E8E  
 UniRef90\_Q143K9  
 UniRef90\_A0A031MI38  
 UniRef90\_UP10002F58A86  
 UniRef90\_C5AQQ1  
 UniRef90\_F3LG43  
 UniRef90\_I4VRL9  
 UniRef90\_UP1000393C770  
 UniRef90\_F5L8B8  
 UniRef90\_UP10003466FD9  
 UniRef90\_A1WW95  
 UniRef90\_UP1000395A4C6  
 UniRef90\_W0SKC4  
 UniRef90\_K125W4  
 UniRef90\_S9ZKV0  
 UniRef90\_E1VFW2  
 UniRef90\_UP100028A3144  
 UniRef90\_A0A24PKW6  
 UniRef90\_UP10003B59B01  
 UniRef90\_G2J1X7  
 UniRef90\_U0ETC1  
 UniRef90\_C9PLY1  
 UniRef90\_Q130G2  
 UniRef90\_L8XZQ5  
 UniRef90\_UP10004282364  
 UniRef90\_X2HDQ7  
 UniRef90\_UP100047914CC  
 UniRef90\_S6HNA2  
 UniRef90\_UP10002D62AD3  
 UniRef90\_G2JA55  
 UniRef90\_U4TFE8  
 UniRef90\_R7KPI9  
 UniRef90\_A4IRL4  
 UniRef90\_B6J621  
 UniRef90\_V9HMG8  
 UniRef90\_Q1TS5  
 UniRef90\_K2IG7  
 UniRef90\_E3BFU3  
 UniRef90\_UP10003466FE8  
 UniRef90\_G4CT94  
 UniRef90\_UP1000370F9B6  
 UniRef90\_E6UV54  
 UniRef90\_UP10003B46511  
 UniRef90\_A0P4Q0  
 UniRef90\_C9QM91  
 UniRef90\_UP10002E01E05  
 UniRef90\_UP100041632A  
 UniRef90\_UP100037057EA  
 UniRef90\_UP100010738BA  
 UniRef90\_E6PT18  
 UniRef90\_Q01U29  
 UniRef90\_W7WPB4  
 UniRef90\_B2UA8  
 UniRef90\_C6M3T4  
 UniRef90\_UP100041AF636  
 UniRef90\_A2SI78  
 UniRef90\_UP100045E7BF0  
 UniRef90\_S6I2C4  
 UniRef90\_I3DFG9  
 UniRef90\_D5X118  
 UniRef90\_A0RJF5  
 UniRef90\_UP10003B5A44C  
 UniRef90\_UP10003746993  
 UniRef90\_A1TMD6  
 UniRef90\_F0EZM3  
 UniRef90\_H5WK19  
 UniRef90\_K2M549  
 UniRef90\_K6BIK4  
 UniRef90\_A0A024IFM9  
 UniRef90\_UP100036710B7  
 UniRef90\_F2BG32  
 UniRef90\_UP100037B67BF  
 UniRef90\_T1C6L7  
 UniRef90\_UP1000464A742  
 UniRef90\_E5AN43  
 UniRef90\_C4GHE0  
 UniRef90\_I4NB04

G K V V G L D K I A V M A A L Q I A H E S L V G S N P S N P D E T I E R K I E  
 UniRef90\_A6GNG0  
 UniRef90\_K0C576  
 UniRef90\_E6SIV7  
 UniRef90\_D0KZ67  
 UniRef90\_G2LG38  
 UniRef90\_L0W837  
 UniRef90\_D4DM27  
 UniRef90\_U1AUK1  
 UniRef90\_E8M261  
 UniRef90\_T1BRX5  
 UniRef90UPI0004798020  
 UniRef90\_B6BVH0  
 UniRef90UPI000370EBFA  
 UniRef90UPI00036C61CF  
 UniRef90UPI00169AEB5  
 UniRef90UPI00041C3E8E  
 UniRef90\_Q143K9  
 UniRef90\_A0A031MI38  
 UniRef90UPI0002F58A86  
 UniRef90\_C5AQQ1  
 UniRef90\_F3LG43  
 UniRef90\_4VRL9  
 UniRef90UPI000393C770  
 UniRef90\_F5L8B8  
 UniRef90UPI0003466FD9  
 UniRef90\_A1WW95  
 UniRef90UPI000395A4C6  
 UniRef90\_W0SKC4  
 UniRef90\_K125W4  
 UniRef90\_S9ZKV0  
 UniRef90\_E1FW2  
 UniRef90UPI00028A3144  
 UniRef90\_A0A024PWK6  
 UniRef90UPI0003B59B01  
 UniRef90\_G2J1X7  
 UniRef90\_U0ETC1  
 UniRef90\_C9PLY1  
 UniRef90\_Q130G2  
 UniRef90\_L8XZQ5  
 UniRef90UPI0004282364  
 UniRef90\_X2HDQ7  
 UniRef90UPI00047914CC  
 UniRef90\_S6HNA2  
 UniRef90UPI0002D62AD3  
 UniRef90\_G2JA55  
 UniRef90\_U4TFE8  
 UniRef90\_R7KPI9  
 UniRef90\_A4IRL4  
 UniRef90\_B6J621  
 UniRef90\_V9HMG8  
 UniRef90\_Q1TS5  
 UniRef90\_K2IG7  
 UniRef90\_E3BFU3  
 UniRef90UPI0003466FE8  
 UniRef90\_G4CT94  
 UniRef90UPI000370F9B6  
 UniRef90\_E6UV54  
 UniRef90UPI0003B46511  
 UniRef90\_A0P4Q0  
 UniRef90\_C9QM91  
 UniRef90UPI0002E01E05  
 UniRef90UPI000401632A  
 UniRef90UPI00037057EA  
 UniRef90UPI00010738BA  
 UniRef90\_E6PT18  
 UniRef90\_Q012U9  
 UniRef90\_W7WPB4  
 UniRef90\_B2UAJ8  
 UniRef90\_C6M3T4  
 UniRef90UPI00041AF636  
 UniRef90\_A2SI78  
 UniRef90UPI00045E7BF0  
 UniRef90\_S6I2C4  
 UniRef90\_I3DFG9  
 UniRef90\_D5X118  
 UniRef90\_A0RJF5  
 UniRef90UPI0003B5A44C  
 UniRef90UPI0003746993  
 UniRef90\_A1TMD6  
 UniRef90\_F0EZM3  
 UniRef90\_H5WKI9  
 UniRef90\_K2M549  
 UniRef90\_K6BIK4  
 UniRef90\_A0A024IFM9  
 UniRef90UPI00036710B7  
 UniRef90\_F2BG32  
 UniRef90UPI00037B67BF  
 UniRef90\_T1C6L7  
 UniRef90UPI000464A742  
 UniRef90\_E5AN43  
 UniRef90\_C4GHE0  
 UniRef90\_I4NB04

50            60            70            80

90

UniRef90_A6GNG0	A I E Q M V D G S L N N
UniRef90_K0C576	E L N
UniRef90_E6SIV7	E L I D R I D A A L
UniRef90_D0KZ67	D Y A N L I D S V L
UniRef90_G2LG38	S L L N R L E A
UniRef90_L0W837	D M V G V C E K A L S
UniRef90_D4DM27	N M G E A A D Q A L
UniRef90_U1AUK1	L L S A S L S D A L S
UniRef90_E8M261	L L R R K L E A A L P D
UniRef90_T1BRX5	S L V Q R L D R A L G
UniRef90UPI0004798020	N F D K I L D Q A L S N
UniRef90_B6BVH0	S M S E A A D Q A L S
UniRef90UPI000370EBFA	A M H K V L D T A L
UniRef90UPI00036C61CF	M L Q Q T M N E
UniRef90UPI000169AEB5	E L Q R K L D T L L
UniRef90UPI00041C3E8E	R T M H Q M N E Q L G T
UniRef90_Q143K9	R T M H Q M N E Q L G T
UniRef90_A0A031MI38	L L D G K L D K A L
UniRef90UPI0002F58A86	N I H Q R I D A V L
UniRef90_C5AQQ1	T L R H K L D A A
UniRef90_F3LG43	L L S T S L D Q V I
UniRef90_I4VRL9	U N I T S L D Q V I
UniRef90UPI000393C770	L L S T S L D Q V I
UniRef90_F5L8B8	K L T S A L E
UniRef90UPI0003466FD9	K L T S A L E
UniRef90_A1WW95	L M T V Q L D K A V A
UniRef90UPI000395A4C6	S I E A K L D E S L A Q
UniRef90_W0SKC4	H L Q K L L D N A
UniRef90_K125W4	L M K A R L D G V L E Q
UniRef90_S9ZKV0	Q L S E R L E R A M A G
UniRef90_E1VFW2	A M S R L I D E V L
UniRef90UPI00028A3144	T M S E A A D A A L Q Q
UniRef90_A0A024PWK6	K L T A S L S D A L S
UniRef90UPI0003B59B01	Q L D H S L D T I L
UniRef90_G2J1X7	D R S Q S I D R T V T T
UniRef90_U0ETC1	S L N E K L D A A L
UniRef90_C9PLY1	D M I Q L C E S T L
UniRef90_Q130G2	K L T G L L D S V L G
UniRef90_L8XZQ5	R L S E K I N K S L T S
UniRef90UPI0004282364	D V I E E R L A E A V S T
UniRef90_X2HDQ7	T I V Q R L N Q Q I G T
UniRef90UPI00047914CC	S L I A L C D N T L A D
UniRef90_S6HNA2	U N I T S L D Q V I
UniRef90UPI0002D62AD3	U N I T S L D Q V I
UniRef90_G2JA55	U N I T S L D Q V I
UniRef90_U4TFE8	U N I T S L D Q V I
UniRef90_R7KPI9	U N I T S L D Q V I
UniRef90_A4IRL4	U N I T S L D Q V I
UniRef90_B6J621	U N I T S L D Q V I
UniRef90_V9HMG8	A L I Q M C D D A L V G
UniRef90_Q1ITS5	H L E G A L D E I L A
UniRef90_K2IG7	V L Q T T I E Q A L V N
UniRef90_E3BFU3	K L V L S L D K C I G T
UniRef90UPI0003466FE8	L G E R L D E A L K D
UniRef90_G4CT94	D M L Q V S E R A L A
UniRef90UPI000370F9B6	R L Q Q R L D A A L
UniRef90_E6UV54	Q L I Q K L D Q A L A G
UniRef90UPI0003B46511	D F N K L L D S I L
UniRef90_A0P4Q0	Q L S A S L D S A M S
UniRef90_C9QM91	Q L L K R L D Q V L E Q
UniRef90UPI0002E01E05	S L E S K I N K T V G G
UniRef90UPI000401632A	S L I E R I E E
UniRef90UPI00037057EA	R I N H Q L D T A L E T
UniRef90UPI00010738BA	Q L E G S L E N I L A Q
UniRef90_E6PT18	E L I R R L D Q T L G S
UniRef90_Q0I2U9	D L N A R T D E A L
UniRef90_W7WPB4	D M N N A C Q K A L A
UniRef90_B2UAJ8	G L A A R L D D A L G S
UniRef90_C6M3T4	A L I G R I D E T L G
UniRef90UPI00041AF636	Q L L L R L D E A L G D
UniRef90_A2SI78	Q L T H S L E R
UniRef90UPI00045E7BF0	Q L T R Q L D D A L G
UniRef90_S6I2C4	Q L L L R L D E A L G D
UniRef90_I3DFG9	S L I E L C D S A L
UniRef90_D5X118	A L I Q R V E S A L G H
UniRef90_A0RJF5	S L S A A E G D A L A
UniRef90UPI0003B5A44C	A T V D V I A K T L S Q
UniRef90UPI0003746993	L L Q S T I E Q A L S
UniRef90_A1TMD6	D M V Q A C D K A L A
UniRef90_F0EZM3	S I G D R I E D V I
UniRef90_H5WK19	A V E D Q L D R
UniRef90_K2M549	A M N T D L D N A V S
UniRef90_K6BIK4	U N I T S L D Q V I
UniRef90_A0A024IFM9	U N I T S L D Q V I
UniRef90UPI00036710B7	U N I T S L D Q V I
UniRef90_F2BG32	U N I T S L D Q V I
UniRef90UPI00037B67BF	U N I T S L D Q V I
UniRef90_T1C6L7	U N I T S L D Q V I
UniRef90UPI000464A742	U N I T S L D Q V I
UniRef90_E5AN43	U N I T S L D Q V I
UniRef90_C4GHE0	U N I T S L D Q V I
UniRef90_I4NB04	U N I T S L D Q V I



50            60            70            80

UniRef90_F9RJ30	T K V T N E V H L L T I A A L N F C Y E L E S S S Q A Q E Q Q Q I Q F A E R M E
UniRef90_A1W504	G K V R A R E R I A V L A A L N L A F E I A D R E A A V A P H V H D S D E R V Q
UniRef90_UP1000345E6D5	F G E I G D M R L H V M A S L T L A D E
UniRef90_B3QFY2	F G E I G D A R L T V M A A L M M A D E L L D A
UniRef90_UP100036DA335	T K V T N T E Q L L T I A A L N V C Y E L L A E R Q Q
UniRef90_UP100047ED6CD	N P S L D I N K L A V L T A V N V V H D Y L K L K E E Y E K L E K Q L F E K
UniRef90_UP1000311C2B6	G K I K A R D R I A V L A A L N L A F E Q S S S A P S S P D L P A D S Q E R L N
UniRef90_D6XSW1	N P Y L D V S K L A V L T A V N M C H E L V H L Q E Q S E D G K K E E D K
UniRef90_A1VPU9	G K V K A R D R I A V L A A L N L A L Y Q L L E A P D A P D A A S E A S Q A Q L K
UniRef90_K2KVH0	V G Q I G E Q R L L V M T S L L I A D E L G D M H E K L R K G Q T S V E
UniRef90_Q21V60	G K V R A R D R I A V L A A L N L A F D L A D K S S D T A Q G V Q T P D D R L A
UniRef90_F2PAY0	T K V S N V E Q L L I F T G L N I C N E L H A E R L E H N
UniRef90_W9A3L0	S N V S V E Q L L I F T G L N I S N E L H L E R Q E H N R R N A E L I S N K I N
UniRef90_F7NNF3	N S R L S T P Q V A V L A A L N I A D E Y L R L E Q D Y Q Q L M K M V R D Q K K
UniRef90_B2IFC7	F G E I G D Q R L T V M A A L T L A D E
UniRef90_D8P7Q7	M R S A T P A K L A V L A A F N L A H E L M E S E R K S R Q G E A D A D R R R V A
UniRef90_F9ZGF6	G K I I D S D H I E I I A V L K I T H E L L I L R N I T S F D M D E F K R R I I
UniRef90_W4QRZ7	N P Y L D T T R L A V L T A V N V D D Y L K L A K E N E M L R E K V E Q E
UniRef90_A0A031GZS9	G K V K G N D R I A V L A A L G V A A E F L S V K S P Q G P L S E E V K Q K I S
UniRef90_TOZ198	G K L I G L D R I A I M A A L N L A H Q L L A E K R Q A N P L S E Q W L E R I H
UniRef90_P94542	N P Y L D I N K L A V L T A V N V H D Y V K L Q E K C E K L E R Q L K E K
UniRef90_Q1QHN9	F G E I G D Q R L E V M A A L T A S D E L M D A H Q R I R A L E D E L N
UniRef90_UP100035E1AC3	G R T I S V D K V A M M A G L N I S H E L L R E
UniRef90_S6H6H0	Y P S L I G D R L L V L A A L N L C S Q Q V E L K K Q H Q V E D R C Q Q Q I D
UniRef90_I3UF34	G G M T S N E R I A V M A C Q M A S D L L S V K S A D E G F G G Q F K S K I E
UniRef90_UP1000382CDF7	G K V K A R E R I A V L A A L N I A F E L A K A S A A T E A S A A A H A Q K I R
UniRef90_U4WTD9	N F R L D T A K I A V L I S S V N I A D E Y F R L R Q E Y E E L L R L L Q E D A S
UniRef90_F5Y5M9	G K V K A R D R I A V L A A L N L A F D V A D R A T A Q P P A A N D P R L A
UniRef90_UP10004198B0B	N R M A A L D R V A V L A A L N F A H E V Q Q A R Q Q E A K Q E R E L A S T L G
UniRef90_J1IAA5	Y P T L I G D K L L V L A A L N L C A E Q I E M Q K H H Q Q E L D R Y Q E Q V S
UniRef90_A0A023XWX8	F G E I G D A R L T V M A A L T V C D E L V D V G N R V R T M E Q E L T E L R D
UniRef90_C9Y6D2	G K V R A R D R I A V L A A L N L A F D L A D
UniRef90_I3ZCN4	G A T V D S L R V A V L A A L N I I A D E L L T E L R A R H R E L L D S L D R R A S
UniRef90_UP100026C826E	A K Q L D N F Q T L L L A A L D I S H E L I L C K N K Q A H Q Q H Q V T Q F I N
UniRef90_UP100036BCF14	F G E I G D L R I T V M A A I M V S D E L S E Q R R R V A E L E A E L A R
UniRef90_E8U037	G K V R A R E R I A V L A A L N L A F E I I A D A D A G N P S P S P A Q E Q R M Q
UniRef90_W4QDL2	N P Y L D T T R L A V L T A V N V V D D Y F K V L E E L E Q L K Q K S E R
UniRef90_UP100036D011C	S R A L R N E Q L I V M A A L N F C H E L N A E K A K N Q E H A E K L N E R I R
UniRef90_K2CHU8	G K A I N L E R I A I I T A L N I A H Q F L Q L D Q Q
UniRef90_UP100036A73FA	G K V R A R D R I A V L A A L N F A F E L A D R E N A A G A L S E H D T Q R I N
UniRef90_S3DI07	T K V T N E V Q L L T F E A L N V C Y E L Q E N N K I K E R I K
UniRef90_UP100036A0DF2	G K V N G A D R I A V I A A L N L A H E
UniRef90_UP100036B05F5	V G N L G E A R L L A M A G I M L A D E L A D A R A G Q A P F E A E A A E R I T
UniRef90_Q2RHN9	F P H Y S P V K V A V L A A L N I I A D E L Y K V Q Q D Y D T L V K L I Q E E
UniRef90_UP1000311050	F G E I G D Q R L T V M A G I M V M D E E L S E L R K R V K G M E G E I T
UniRef90_Q20X50	F G E I G D A R L I V M A A L M V S D E L L D T Q S R V T A L E Q E
UniRef90_A0A016XK51	G K I I K A R E R I A V L A A L N L A F D L G S N S A A A S G L D A R D A A A I N
UniRef90_I2B5I6	T R V T N S E Q L V F I A A L N I C Y E L L A Q E K A K T R D Y A S G M E Q R I K
UniRef90_UP1000306717A	N S R L D T T K I A V L T A V N I A D E Y F R L R R E Y E D L L K I L K E
UniRef90_C9R1Y4	T G I L L Q V D K V L S I V A L N L S F E L M Q E Q K K T H L I E D V L K N K I R
UniRef90_UP100047B31E6	G K T K A R D R I A V L A A L N L A F E L P E R N A P A E S A G G A S H P K L A
UniRef90_UP100031C5BC3	F P T L I G E Q L L V L T A L N L C S Q Q I E A R R Q H R E E L D R Y Q E Q V N
UniRef90_C5T0G1	G K V R S R E R I A V L A A L N L A F D I A D R D A E G T P G E N L D A R R L L Q
UniRef90_UP100023770B0	N P S L D T S K L A V L T A V N A V N D Y I K M K D R V E S L E A E I K R
UniRef90_V6SX6	T R V T N T E Q L V F I A A L N V C H E L L A Q E Q L K I R E Y
UniRef90_E9CNL5	Y P S L I G D K L L V L A A L N L C S Q Q I E L K K Q H K Q E D R Y Q E Q V S
UniRef90_M5QHX9	G K T V D S L R V A V L A A L N I I A D E L A T L E R R Y Q A L T G S V Q Q R A H
UniRef90_C1F7V0	G K I S S N E R I A V M A A L Q I I A G E L L A M K A P T A R L E
UniRef90_X4ZH7	G K V R S R E R I A V L A A L N L A F D I A D R E A A Q P F D A S T D D Q Q L Q
UniRef90_UP10004663456	G N T V D S L R V A V L A A L N I C D E L E T L R Q R Y D A L A G S L R S R A G
UniRef90_UP100047C8CE5	N I N H N D T S A A V L T A L L I A D E L F K L K R E V E E I K K S I E E P A K
UniRef90_I7LI22	N K S L D T T N I A V L T A I N T M N D Y L K L K E E Y E I L Q N L L E E K
UniRef90_N4W9T4	F G E I I G D Q R L T V M A G I M V F V T D E V T S L Q Q R I A G L E S E V A R
UniRef90_E0MT08	F G E I I G D L R I T V M A G I M V M D E L L A E I K R R M S A M E G D L A
UniRef90_H4FEA2	G P H L S V S K V A V M A A L H F A H D L A K I Q E D Y D D L I K L L E D
UniRef90_B0TEW2	G G Q S G E A R L L V L A S I I M A D E I H D L R R E V R Q L R Q D
UniRef90_Q0BT61	F G E I I G D L R L T V M A G I M I M D E L H D L Q A A V D A N A A E L A E
UniRef90_UP100036FE2B5	H P D Q A E L T T A V M T A L T L A E E L Y L Q R E E H E D G T T A L N E E I A
UniRef90_D5HD42	N P R L D I S K V A V L T A V N V M H E Y L K V K D E L E Q L K M V I Q R E
UniRef90_UP100047A81CE	G K I K A R E R I A V L A C L N M A F E V S A A H A T A E P I L V T P N P A L T
UniRef90_V4Y1X5	F G E V G D I R L S V M T A I M M A D E L N E A K R K G A A L A S E I K
UniRef90_UP100037810FC	F G E I I G D L R L T V M A G I M I M D E L H D L Q A A V D A N A A E L A E
UniRef90_M7Y0T3	T R V T N T E Q L V F I A A L N V C H E L L A Q E Q L K I R E Y
UniRef90_K8DXD0	N T R L S A N K L A V L T A V N V L V D E L L K L Q E Q Y N N L L Q M M D
UniRef90_F4LW90	Y P N L S R T R I A V L A A L N I I T D E L F K L K Q E Y E E F L A T F G D E A K
UniRef90_E6UO8H	N P Y L D T A K L A V L T A V N I I G N D Y I
UniRef90_G9EB26	S S V L G S E R V A I M A A L N I A H E L L E A M D E
UniRef90_U1X4X7	N P R L D T N K L A V L A A L N M A D E I H D L R R E V R Q L R Q D
UniRef90_V6JCE1	F P T L I G D K L L V L A A L N L C S R Q I E Q Q R E H Q Q V L E Q T Q A K V D
UniRef90_H0U022	F G E I I G D A R L T V M A A L T V C D E L L D A G Q R
UniRef90_UP10001E8934A	N S H L D I S K L A V L T A V N V V H D Y I K L K D E Y D M L E R E L K K K
UniRef90_UP10003791E93	N P Y L D T T R L A V L T A I N V M D E Y V K L K D D T A Q K N E D
UniRef90_H0C1H4	G K V R A R E R I A V L A A L N L A F E I A D R E A Q Q A A L L P D E E H E D L Q
UniRef90_X0SJN4	N P Y L D T T R L A V L T A V N N L V D E Y K K V M E E R D R L L Q E
UniRef90_UP10003FD72FD	T R L S H P E Q I A V M A A L N L C H E
UniRef90_E1SR73	T G T G N L E Q L A V M A A L N L S H E L L
UniRef90_Q07HD4	F G E I I G D A R L V V M A A L T V S D E L L D A R E Q I E V L Q R E R A A L I E
UniRef90_UP10003804FBAA	F G E I I G D Q R L S I M A A I T I A D E L S E A R R R L K A E Q E A A T E R V A
UniRef90_UP100047012D1	A G S A N E A Q L L M A S L L I A D D L S Q A Y E T I D E L R E N L A K Q L E
UniRef90_B2A5N3	K P R I S L H Q I A V L A A L N L A D E Y L K L E D H T D L L E M L D E K
UniRef90_D3FWH4	N P Y L D T T R L A V L T A V N V V D E C K K L Q R L E Q E L T E
UniRef90_UP100035E787D	G T T V D S L R V A V L A A I N I A D E L M T L Q A R Y N Q A E S T L R T R A S

UniRef90\_F9RJ30  
 UniRef90\_A1W504  
 UniRef90\_UPI000345E6D5  
 UniRef90\_B3QFY2  
 UniRef90\_UPI00036DA335  
 UniRef90\_UPI00047ED6CD  
 UniRef90\_UPI000311C2B6  
 UniRef90\_D6XSW1  
 UniRef90\_A1VPU9  
 UniRef90\_K2KVH0  
 UniRef90\_Q21V60  
 UniRef90\_F2PAY0  
 UniRef90\_W9A3L0  
 UniRef90\_F7NNF3  
 UniRef90\_B2IFC7  
 UniRef90\_D8P7Q7  
 UniRef90\_F9ZGF6  
 UniRef90\_W4QRZ7  
 UniRef90\_A0A031GZS9  
 UniRef90\_TOZ198  
 UniRef90\_P94542  
 UniRef90\_Q1QHN9  
 UniRef90\_UPI00035E1AC3  
 UniRef90\_S6H6H0  
 UniRef90\_I3UF34  
 UniRef90\_UPI000382CDF7  
 UniRef90\_U4WTD9  
 UniRef90\_F5Y5M9  
 UniRef90\_UPI0004198B0B  
 UniRef90\_J1IAA5  
 UniRef90\_A0A023XWX8  
 UniRef90\_C9Y6D2  
 UniRef90\_I3ZCN4  
 UniRef90\_UPI00026C826E  
 UniRef90\_UPI00036BCF14  
 UniRef90\_E8U037  
 UniRef90\_W4QDL2  
 UniRef90\_UPI00036D011C  
 UniRef90\_K2CHU8  
 UniRef90\_UPI00036A73FA  
 UniRef90\_S3DI07  
 UniRef90\_UPI00036A0DF2  
 UniRef90\_UPI00036B05F5  
 UniRef90\_Q2RH9N  
 UniRef90\_UPI0003111050  
 UniRef90\_Q20X50  
 UniRef90\_A0A016XK51  
 UniRef90\_I2B516  
 UniRef90\_UPI000306717A  
 UniRef90\_C9R1Y4  
 UniRef90\_UPI00047B31E6  
 UniRef90\_UPI00031C5BC3  
 UniRef90\_C5T0G1  
 UniRef90\_UPI00023770B0  
 UniRef90\_V6SX5  
 UniRef90\_E9CNL5  
 UniRef90\_M5QHX9  
 UniRef90\_C1F7V0  
 UniRef90\_X4ZH7  
 UniRef90\_UPI0004663456  
 UniRef90\_UPI00047C8CE5  
 UniRef90\_I7L122  
 UniRef90\_N4W9T4  
 UniRef90\_E0MT08  
 UniRef90\_H4FEA2  
 UniRef90\_B0TEW2  
 UniRef90\_Q0BT61  
 UniRef90\_UPI00036FE2B5  
 UniRef90\_D5HD42  
 UniRef90\_UPI00047A81CE  
 UniRef90\_V4Y1X5  
 UniRef90\_UPI00037810FC  
 UniRef90\_M7Y0T3  
 UniRef90\_K8DXD0  
 UniRef90\_F4LW90  
 UniRef90\_E6UOH8  
 UniRef90\_G9EB26  
 UniRef90\_U1X4X7  
 UniRef90\_V6JCE1  
 UniRef90\_H0U022  
 UniRef90\_UPI0001E8934A  
 UniRef90\_UPI0003791E93  
 UniRef90\_H0C1H4  
 UniRef90\_X0SJN4  
 UniRef90\_UPI0003FD72FD  
 UniRef90\_E1SR73  
 UniRef90\_Q07HD4  
 UniRef90\_UPI0003804FBA  
 UniRef90\_UPI00047012D1  
 UniRef90\_B2A5N3  
 UniRef90\_D3FWH4  
 UniRef90\_UPI00035E787D

90

K L T A S L D D A L S  
 Q L L L R L D E A L G  
  
 Q L L K R L D Q V I E  
 A L L E R L D T A L A S  
 S L L E R L D V A L G T  
 S I E E N L D K V L  
 N L  
 S L M E S L D Q  
 T L E K K V D E A I A  
  
 A M H T V L D S A L  
 L L N E Q L  
  
 A T V E V I S R T I A Q  
 E L N T L L D S G L N D  
 A L M A R I D E A L S Q  
 K M  
 Q L L Q R L D H V L G D  
 R M Q Q L L D S A L A  
 A T V E V I S K A I G T  
 F R N A A V E R A  
  
 S L S N M L D E A L S  
 S L E N K I N K M V G G  
  
 Q L L L R L D E A L G D  
  
 T L Q S S I E T V L  
  
 Q L I R Q L D N A L G G  
 L L A K S L E N A L  
  
 R L A R R L D G V  
  
 T L R K T R D E A M  
  
 T L I T R L D Q A L G  
 M L Q Q T I E D A L  
  
 P L D H S L E N  
 A L L Q R M D I A L G T  
 S T V E V I S K T I G Q  
 T L V Q R L D E V L G D  
 G L V Q R L D Q A L G D  
  
 A T V E V I E R T I G Q  
 T L S G L L D A V L E D  
  
 A L V R R L D D A L G  
 S L A G M L D E I L D D  
 K L E  
  
 S L R E G R D S A V S G  
  
 R L S K Q L E E  
 S L I K K L D D A L A Q  
  
 D  
  
 A T V E A I  
  
 UniRef90\_H0U022  
 UniRef90\_UPI0001E8934A  
 UniRef90\_UPI0003791E93  
 UniRef90\_H0C1H4  
 UniRef90\_X0SJN4  
 UniRef90\_UPI0003FD72FD  
 UniRef90\_E1SR73  
 UniRef90\_Q07HD4  
 UniRef90\_UPI0003804FBA  
 UniRef90\_UPI00047012D1  
 UniRef90\_B2A5N3  
 UniRef90\_D3FWH4  
 UniRef90\_UPI00035E787D

N L N G L L D S V L T S

UniRef90\_F9DVT9  
 UniRef90\_Q129T8  
 UniRef90\_UP100035F1A65  
 UniRef90\_F5S9Z0  
 UniRef90\_E6W570  
 UniRef90\_N0B4N0  
 UniRef90\_B5JXX3  
 UniRef90\_F7Z041  
 UniRef90\_K9HCK1  
 UniRef90\_M1M4J4  
 UniRef90\_UP100030DC082  
 UniRef90\_A0L5J1  
 UniRef90\_E7RTW8  
 UniRef90\_J0KFR2  
 UniRef90\_W6K8Y0  
 UniRef90\_W6W1Z0  
 UniRef90\_UP10002E591F5  
 UniRef90\_E8V279  
 UniRef90\_UP100036BCE8C  
 UniRef90\_UP10003B333BC  
 UniRef90\_UP1000367E73F  
 UniRef90\_UP1000470B57A  
 UniRef90\_Q1YKK3  
 UniRef90\_J6UHG3  
 UniRef90\_UP100047CDCFF  
 UniRef90\_E7C3J7  
 UniRef90\_UP10003054994  
 UniRef90\_19LBN7  
 UniRef90\_W7ZQX2  
 UniRef90\_UP10001850844  
 UniRef90\_L1LVA3  
 UniRef90\_D3V8X6  
 UniRef90\_J0R7Q9  
 UniRef90\_D5X7Z8  
 UniRef90\_Q1LJL2  
 UniRef90\_A1HPF7  
 UniRef90\_UP100036474D4  
 UniRef90\_F5SA86  
 UniRef90\_R4YJA8  
 UniRef90\_J2V1N0  
 UniRef90\_K1XR0  
 UniRef90\_A9BVR3  
 UniRef90\_E6WWJ4  
 UniRef90\_Q6SHU9  
 UniRef90\_M4UNL3  
 UniRef90\_B9JRZ5  
 UniRef90\_UP100047CE659  
 UniRef90\_W3RNQ0  
 UniRef90\_K1JGJ1  
 UniRef90\_H2FSY5  
 UniRef90\_J2KKT0  
 UniRef90\_W0B730  
 UniRef90\_C4LC76  
 UniRef90\_UP10003799F26  
 UniRef90\_I0JPK1  
 UniRef90\_C8NC03  
 UniRef90\_UP10002556650  
 UniRef90\_C9LUD9  
 UniRef90\_Q0G5R5  
 UniRef90\_UP10003B3AB6F  
 UniRef90\_UP1000305436C  
 UniRef90\_G4QCM4  
 UniRef90\_UP10003685F41  
 UniRef90\_UP10003FC00D9  
 UniRef90\_D0W485  
 UniRef90\_U7A168  
 UniRef90\_F7NUY2  
 UniRef90\_A8TXD7  
 UniRef90\_UP10003642618  
 UniRef90\_UP100047A7FD1  
 UniRef90\_B7WYW8  
 UniRef90\_Z5XN86  
 UniRef90\_D9RXS6  
 UniRef90\_UP1000372F963  
 UniRef90\_K6J4I6  
 UniRef90\_K2JQ28  
 UniRef90\_W4VHR9  
 UniRef90\_M4UI89  
 UniRef90\_D8GSA3  
 UniRef90\_UP100046D7927  
 UniRef90\_A0A059KJH4  
 UniRef90\_UP100036D7E6D  
 UniRef90\_M1ZIC4  
 UniRef90\_G9EL64  
 UniRef90\_K6CXV2  
 UniRef90\_A6F9G8  
 UniRef90\_UP100047E2469  
 UniRef90\_I4YTT6  
 UniRef90\_C9RBR3  
 UniRef90\_F6CQ1  
 UniRef90\_UP10004793101  
 UniRef90\_R7I3I3

1 10 20 30 40  
 V A V G Y G Q T Y T I | V G T E T S N H V R H V A S L V D E R M R E I S K R  
 L E V Q M G Q S Y L L S C P E N G D A R M L D A V N R V D L A M C K I R D A  
 I S V E M G R E Y Q V S V K A E E V E T L L Q Q A V A M V G E K L Q Q L S G K  
 V T I N R Q F T I G T P N S E R P T L L K A V E L L N Q K I H A I Q N A  
 T V E F G Q Q Y T I V G T E S N S H I R H V A S M V D E K M H E E I S T S S  
 A V N I K V L D K Q F Q I G C N E E E R E K L L E S A Q L L N E N M Q S V R Q S  
 I T V G Y G Q Q Y T I I G T D P A S H I R L V A S M V D E R M R E I S A K  
 V T V T I N E R A Y T V A C D D G Q E E H I L Q L G R M I L D D K A R G I T R D  
 I D V S L G R D Y S L V C S E S E K D N L I S A V S Y V N D L A S Q I Q E K  
 I S V D Y G H Q Y T I V G D E N S S H I R V V S S I V D D K M R E I H E M  
 V E V T L G Q H F K L R T D T G N D Y V H E L A E Y V D S L V E E L R R N  
 I E V K L D R T F K L Q V P P N E K P R L M N A V R I V D Q K M R E I R D A  
 I E V Q L Q Q S Y L L S C P E G H E S R L L D A V E R I V D T A M T R I R D A  
 V T V E N G R R Y Q I A C D D G Q E A H L T R L A A Y I D K Q V G E L V G T  
 V T V M D G K A Y R M A C E E G G E P R L E Q L A R Y V E S K I L S M K D G  
 A V I V S A G R T Y R L S C D D G E E P R L E Q L A R Y V E S K I L S M K D G  
 S V S V D Y D Q V Y R R L R G V D P E H I E Q L A S I I V D A K M R A V V S S H  
 P V K V L L S K E Y T V A C P K G Q E K A L L L A S A Q R I V D E E M R R I R D T  
 I E I E Y G Q K F R I K V G E E D E E K Y I L S H T S F V D Q K M R E I V A V K  
 V T V T S G H T Y R M A C A E G E E E A H V R Q V A T L V D D R M R E L R A H  
 I T I D Y G Q T Y T I I G T D S S S A H V R Q V A T L V D D R M R E L R A H  
 V V V T D D K T Y R M A C G D G E E E A H L T K L A K E V D L Q R I A K L R D S  
 V S V T N G R Q Y R M A C D D G Q E E H H L A R L A H D L D Q Q M R E I Q E T  
 T V E H N R S Y T I V G D E P A H V R M V A S L V D Q Q M R E I Q E T  
 T V S V R V G G R N Y R L R S D A N E R W L Q G V A E Y V D E S M G R I E S R  
 T V D I Y G Q H Y V I I G T E D S S H V K L I A S M V D E K M R E I S S S K  
 I N V T D G K L Y R M A C G E G E E E H L T G L V A E S L G T R I G E M R K S  
 T V R I Q G Q T Y N V V S E E Q A A H V K T V A K Y V D D K M D E L K K R  
 T V D I Y G Q Q Y V I V G T E P T S H I R L V A S M V D E K M R E I N S M  
 V S V T M G N D Y S I K A P A G Q E Q V L A D A V R M L K A S L A E T K R S  
 P V D I Q F G R S L R V N C P E P Q I E A L Q S A A E E L D Q R L H N L K  
 T I S V T D G K T Y R M A C D D E Q E D H L T G L A N Q L D Q Y I L H K  
 V A V E F G E E Y K V I G D M P E E Y I E M I A E Y V D D K K M K Q I A A K  
 V E V N A G Q P Y R F A I A P D N E A A L L E A V A L V D D K M N K L K G T  
 I T V E F G E T Y A L K G D I E P E I L R V A A I L D E R M K K I A K A  
 V K V T I G G R D Y R M A C G E G E E E H L L A L G R E V D G R F S N L R G T  
 P V D I Q F G R S L R V N C P E P Q I E A L Q S A A E E L D Q R L H N L K  
 T I S V T D G K T Y R M A C D D E Q E D H L T G L A E R F D R Y V T H L K  
 V D V T I Y G R Q Y S V R A D K G S D Y I L A K I V D N K M K E I A E V  
 I E V Q I L Q Q S Y V L T C P D G Q E E R L L E A V R R V D T A M T R I R D S  
 P V E V R I L D R E Y T V G V P A G E R D S L Q A A A R M L D S R M R E I R G S  
 V K V T I Y G R Q Y K I S C P P E E S D Q V K N A A K F F D K R L K E I R E N N  
 I E I S L G Q Q Y K I L A C P E G E E E K A L Q K T V E Q F N K L N K M K S N Q  
 V T V T I D G K A Y R M A C E E G Q E N H L T D L A S Q F D R Y V S H L K S Q  
 S V N I S I N G R Q Y R V A C E A G Q E E R L T A L A Q D F D S R I S S M R S R G  
 V T V N I Y S R S Y R L A V S T G E E A L I Q R C A D I V D K Q M K A I R E G  
 M H R A D M I L N E R I R K F K D S  
 L E V Q M G Q S Y L L G C P E N G D A R M L D A V N R V D M A M M C R I R D A  
 S C T I R L L N K P Y E I K C P E D E A D N I K Q A A L K L N A H L L E Q K R K  
 S V E I N V L G R A Y V S C Q P D Q Y Q L R Q A A Q K L D D A L G D L R I R  
 V R V S I F G H E Y T V K A P A N P K Y I K E V A E Y V S N R M K E E V K G L  
 I T V E I N K R S Y T I V G H E E P H H I R M V S S L V D Q K M R E I H E A  
 V S V Q I L E N T Y S L G C P P H E R N M L I E A A D Q L N A A L S D M R R E  
 T V T V S I L D Y T Q K I T C R V G E Q S F I Q A A Q R I E K I K D L H N N  
 V V V E I F G E V Y P L K S D E P A D Y V R Q L A K L V D D N M R D V A K K  
 V V V T D G K T Y R M A C G P G E E E H L Q D L A S G I E E K I Q G L K D G  
 V R V T F G Q E Y T V K S K A D R A Y Y V I S V A N Y V N N K M E E V E S A  
 I T V D I Y G Q Q Y T I V G T E S S S H I R L V A S L V D D K M R E I I N E K  
 V D I N I L D R A I S L T T D P K D K E A L L S A K R V D D L L R S I K Q S  
 V V V T I A G R T Y R M A C E D G E E E A H L D E L A K L V E N K I L S L R E G  
 L D I I T I L G Q Q Y K I G C P D G E Q E N L L S T V A Q V D E H L K E M K S S G  
 V H I E V M H A Q L T V N T P A E E K D T L L Q A V E V M L N R K A E A I R E G  
 V S V T I L G E D Y S L K A P A G Q E E Q V L M D A V Q M L Q A A L A D T K K K  
 L T I S V L G R V L K V A C P P G E E E Q R L Q N A I D E L E Q R V A S T K F K  
 V D I Q I N G K A Y R I A C E D G Q E P R L R E L A H M V D A H V K D L V S Q  
 V N V E I F G D T Y P F R T D G D P Q E L K K L A A F V D K Y M Q R A A K R  
 I T V Q I Y D Q T Y H L S G Q D A G H I R Q L A A Q V D A K M R A V A D H  
 I D V Q I M Q Q S Y V L T C P D G Q E E R V Q E A V R R V D E A M T R I R D S  
 V T V E L L S K E H E F S C P P G Q E E N A L V A A A Q H L N D L V D Q M R S L S K A  
 V K V E I N G N A Y V L A C P P D D S E A Q M N E A V A R V D Q K M R S L S K A  
 S V K V R L G E E Y T I L S E A G E D Y I Y S L A E D V D R K L R E L G A G  
 S V E V S I N G R F Y R I A C E D G Q E Q R L I R L A G S V D E K V S S L V E Q  
 T V D I Y G R A Y T I V G N E Q S D Q I R H V A N L V D G K M R D I H A L  
 I E V N I A G Q A Y K F A V S P D N E A A L R E A A M V D T Q M M R I R N S  
 V T V F I N G I E Y N L K G D E Q E E Y L H K V A S Y V D K K V K S I I K N Q  
 V E V I F G Q T Y G I L R S Q A A E E H V Q R V A R L V D A R M R E V A A Q  
 M E V S I M G Q I Y L L A C P E E G G D A V L A E A V T R I V D R E M C A I R D A  
 I A V D I Y N N Q Y T I L V G E D D D P E H M R Y V A G L V D A K I R E I G V R  
 V V Y G E P Y L L K G E A S N S H L H Q V A E W V D Q K M K E L A K R  
 S C T V K L L N K S Y E L K C P E G E E A N L L L A A Q K L N S Q I M L N K K K  
 T V D I Y G Q Q Y V I M G T E S P S H I R L V G S L V D D K M R E I H S K  
 A V D I S L G R H F T V G S P S E D V D E L H Q T A A V V L N N K L E E I R A K  
 T V T I Y G Q Q Y T V S C A E G E E G H L E G L A A S Y D A R I E E M R A A  
 V E V E I A G E P Y V L V S E E P V E H V Q K V A Q L V H E K I R E M R R R  
 V E V E I F G E Y Y V L K G D E P E E Y L C M L A Q Y V N K K I R Q V V T R  
 T V D I Y G Q Q Y V I V G D E S S S H V R L V A S L V N G K M R E I S S R  
 L S L N I M D R V F H F G V K P E D E D R L R A C G E E L D R Q M R S I R E S

50            60            70            80

UniRef90_F9DVT9	N P Y L D S T K I A V L T A V N S V H D Y L K L E E T V Q Q L E E E V K K
UniRef90_Q129T8	G K L K A R D R I A V L A A L N L A F E L S D R P G Q Q A T S A E H T S Q P Q L T
UniRef90_UP100035F1A65	V T S G N E S L A V M A A L Y I A H D A I V A Q H Q N H L D L P A C K R R I G
UniRef90_F5S9Z0	S R N M E T E K V V I M A A L N L T H D L L K L I E S N K K A D E Y K H K I T
UniRef90_E6W570	A P Q T S M E K V A V L V A L N I A E E L F A S Q R Q A Q E M E A S T K N K T L
UniRef90_N0B4N0	N P S L D I N K L A V L T A V N A V N D F I K I K E T L E S Y E K D T E R
UniRef90_B5JXX3	G V L G T D R I A I M A A L N L T R E I I A L R Q Q V G Q N A Q G E E L D
UniRef90_F7Z041	N P S L D T G K V A V L T A V N A V H D Y I K L K E Q Y E L L E Q H Y I Q L L K
UniRef90_K9HCK1	V G T V S D S L L V M T A L M V A D E L T D A Q G E L E H L R G D G E A R E Q
UniRef90_M1M4J4	S K S Y T N E R V A V M V A L Q I A G E L M G T K I S D K S S G E I R E K I D
UniRef90_UP100030DC082	N P N L D T Q K L A V L T A I N I V N D Y L N I K N E H E A L L R D Y Q R
UniRef90_A0L5J1	S R S A S T D R V A V L M A A L Q I A D R Y F Q L R Q R T E G N K E L A N G R I Q
UniRef90_E7RTW8	S L A H G V E R I A V N A A L Q I T Y E F L G Q P V D S G A A T V E Q V Q
UniRef90_J0KFR2	G K V R A R E R I A V L A A L N L A F E
UniRef90_W6K8Y0	V G Q I G D A R L L V M A S L M I S D E L S D A Y S E L E K A D D K M A E R I E
UniRef90_W6W1Z0	F G E I G D L R I T V M A G I M I M D E L S E M T R K L G L I E T E V A
UniRef90_UP10002E591F5	F K E I G E Q R I V V M A M A L A I A D E A T D A R
UniRef90_E8V279	G S T V D S L R V A V L A A L N I A D E L V E M R R L H A E L L G S L D R R A G
UniRef90_UP100036BCE8C	G K V L G N D R I A V M V A L N L A S S A L P T P S P I N E T D P Q T L I E R L Q
UniRef90_UP10003B333BC	S K S V D I V K I A V L A A L N I A D E F F F L C Q K K I D Q L N E V I G
UniRef90_UP1000367E73F	F G E I G D Q R I T I M A A I T V A D E
UniRef90_UP1000470B57A	N P Y L D T T K V A V L T A V N S V H D Y L K L Q
UniRef90_Q1YKK3	F G Q I G D L R L T V M A A I M A T D E L A E A R R R I A D L E S G M A
UniRef90_J6UHG3	F G E I G D M R L T V M A A L L I A D E
UniRef90_UP100047CDCFF	N R S L L D T T R L A V L T A V N T M N D Y L K L K E E Y T E L L G S K Q K
UniRef90_E7C3J7	T G T V D S L D V A V L T A L N I A R E L I E L R E N G P D R S S Q A K D R I A
UniRef90_UP10003054994	N P S L N T S K L A V L T A V N A V N D Y L K M K E Q L E R L E G E S K R
UniRef90_19LBN7	F G E I G D M R L Q V M A A L T I A D E L A E L R A R H T
UniRef90_W7ZXQ2	N P Y L D T T K L S V T L A T L N I A D D Y L K L K R D I E G E
UniRef90_UP10001850844	N P S L D I T K L A V L T S V N T V H E Y L K L K D Q V E Q L E K E L K R
UniRef90_L1LVA3	Y P S L I G D K L L V L A A L N L C S Q Q I A L Q Q A H Q Q T L D R Y Q E Q V S
UniRef90_D3V8X6	T R V T N T E Q L V F I V A L V N V C H E L A Q E K T K T R D Y A Y N M E Q K I K
UniRef90_J0R7Q9	F G E I G D H R L S V M A G I M V M D E
UniRef90_D5X7Z8	N S R L S V T K V A V L A A L N I A D E L C K L Q E D Y D T L V K L M D
UniRef90_Q1LJL2	V A A K G V E R V A V M A A I S I A S D L L A M R R K Q E E E
UniRef90_A1HPF7	N S R L S P S K V A V L A A L N I A D E E Y L R L E Q D Y Q Q L L K M L K D E
UniRef90_UP100036474D4	F G E V G D V R L S I M T A I M V A D E
UniRef90_F5SA86	N P R L L D T T R L A V L S A V N I I T D T Y M K L K Q E H E E I L H L I E D
UniRef90_R4YJA8	G K A L G T D R I A V I A A L N I A H Q
UniRef90_J2V1N0	F G E I G D L R L T V M A G I M V T D E
UniRef90_K1XR0	L P D I S S T G I A V L A G N L N A D E L A A V K E S S S K K F K R M E E L V V
UniRef90_A9BVR3	G K V R S R E R V A V V L S A L N M A F D V L D R E A Q E S A M A T A Q A E M Q
UniRef90_E6WWJ4	N R M V S L D R L A V L A A L N L A H E L Q Q A R E E R D A R E R E L T R V L D
UniRef90_Q6SHU9	T K L D E S K A A I I T G L N I T N D Y L K L K S G L K T L T L Q V K K Q L E
UniRef90_M4UNL3	T R T L R N E Q L I V M V A L N L C H E L N A E K E K N N Q Q T Q Q L N Q R I Q
UniRef90_B9JRZ5	F G E I G D L R L R V T V M A G I M V M D E L S E L K R R I A A A E A T S A G A G
UniRef90_UP100047CE659	G K M R S R E R V A V L A A L N M A F D L L D R D E Q Q A Q L A M A Q A E
UniRef90_W3RNQ0	F G E V V G D A R L L T V M A A M M I G D E
UniRef90_K1JGJ1	G K V I N Q D Q I A V L A A L E V A Y E E A N K N V Q K N S T D A Q R
UniRef90_H2FSY5	G R S A S N E Q I A I M L A L N V C H E L E L E K D K N H Q Y A D A M D K R I K
UniRef90_J2KKT0	G K I K A R D R I A V L A A L N L A F E L L P V P A A A P A A A G N A E S P Q L A
UniRef90_W0B730	F K Q L D D F Q A L L L L A A L H I S H E L I T S Q A K E E R R R Q Q L T Q F I S
UniRef90_C4LC76	A R G S S N E Q L A I M V A L N L H S R E H E L L E K N R I Q Q Y
UniRef90_UP10003799F26	A S D Q S T S R T I A I L T A M N I L A D E L F S K K K S S S I N I V D I E D R I Q
UniRef90_I0JPK1	N P S L D T D A K L A V L T A V N T M N E Y I K L K E E C T E L M D Y I E K K
UniRef90_C8NC03	N P K V P T D R L I V L C A L K M T Y D L L L E R Q T I A R E V S M V N Q V S E
UniRef90_UP10002556650	A P T F S R E R R L A I I V A L D I C H D L I Q K N L Q E T L L S S I I K D R S A
UniRef90_C9LUD9	T R S F S G T K I G V L A A L Q L A D E Y Y K L K K D Y D E L L A L L E E
UniRef90_Q0G5R5	V G Q I G D Q R L T I I M A A L M T A D E L S D A H T R
UniRef90_UP10003B3AB6F	L P V V Q P L K I A I I A A M N I T D E L F S C Q R E K D E I I R T V E E K A E
UniRef90_UP1000305436C	N P P H L D V S K L A V L T A V N T I S E Y L K L K D Q L N L E M E Q K T E
UniRef90_G4QCM4	S P N L A V E R V A I L G C L K L A L D H L K M Q S N E G P F S G E V D K R I S
UniRef90_UP10003685F41	F G D I G E Q R I T V M A A L T L A D D
UniRef90_UP10003FC00D9	G R T L R N E Q L L V V M A A L N Y R H Q L
UniRef90_D0W485	G R V A D S E K I V I M A A L N V V H D L L K I S L N G D L A G D F E R K I T
UniRef90_U7A168	F P T L I G E R R L L V L A A M N L C S Q Q L E M Q K R H E Q E L E R Y Q E Q V S
UniRef90_F7NUY2	P G V H M N E D V L L M I A L N L C N E L V E V K K K A E
UniRef90_A8TXD7	V G Q V G D T R L L M V M A S L L V V A D E L V D L R D A A N E V D E G E E E
UniRef90_UP10003642618	T R S L D T R K I A V L S A L E L L A D E Y Y F R L K K D Y D E L V E L L E D K
UniRef90_UP100047A7FD1	G R T V D S L R V A V L A A L N L A D E L L S Q A S Q G G T A S R V G H A R A I
UniRef90_B7WYW8	G K V R S R E R V A V L A A L N M A F D V L D
UniRef90_Z5XN86	S S V R N E Q K A L L M A A L H L S H E L L E A Q S Q Q A K Q E Q Q H D S L I D
UniRef90_D9RXS6	N P R L N R I N L A V L T A I N I A D E F F R L R K A E Y D E F L E L L E D E
UniRef90_UP1000372F963	G K I K A R E R I A V L A A L N L A F D M I Q Q E Q Q V D E E Q L Q A Q A R L Q
UniRef90_K6J4I6	M P G A S R Q K L A I L A A L N F A D E L L Q Q T K E I K D K G T G E I E E K T R
UniRef90_K2JQ28	V G Q V G D T R L L V M A S L L I A D E L D D A K Q
UniRef90_W4VHR9	N K S L D T T K L A V L T A V N T M N D Y L K L K E D F E V L Q K L L E E K
UniRef90_M4U189	S T T K G I E R M A V M A A I S I A S D L L A V Q R Q
UniRef90_D8GSA3	N S K L S T S S A A V V L S A L I N V A D D M L K A Q E K E G Q L S G R V E E
UniRef90_UP100046D7927	T R S V A T V Q I A V L A A L E L A S D L L D E Q E N Q R R L L E C V E S R C A
UniRef90_A0A059KJH4	G R V K A R E R I A V L A A L N I A A Y A L S E L R H S G G T A P P P T I D V D
UniRef90_UP100036D7E6D	S S G L D T T K R A V L T A V N V M D D Y V K L K E K H D A L V K E M E Q R
UniRef90_M1ZIC4	N P K L D H T R L A V L A A V N I A D E L L R V R R E L E E L Y Q M I D E E
UniRef90_G9EL64	A K Q L D D F H S L L L A A L D I S H E L V L C K T Q Q A Q Q H H Q V N Q F I T
UniRef90_K6CXV2	N P N L D V N K L A V L T A V N A V V N D Y I K I K D Q L E R L Q T E L Q K E
UniRef90_A6F6G8	U N I K N L E Q L A V M A A L N F C H E L R Q E R H K T T E Y T N T V D R I Q
UniRef90_UP100047E2469	N P Y L D T T R L A V L T A V N V D E Y I K V D K L Q Q L E N R E K E E
UniRef90_I4YTT6	F G E I G D L R L H V M A A I A Q A D E L H E T K R R V A A L E A E V D E R L E
UniRef90_C9RBR3	N P R L P L N R A V V L A A L N I A A N E Y L K L K E S Y D S L V R M I E K E
UniRef90_F6CQI1	N P R L G L S K A A L L T A L N I A D E L L M K L Q K E Y D E L A E L L E
UniRef90_UP10004793101	N P S L D V S K L A V L T A V N V A V V N D Y I K I K D Q L E R L K A E L
UniRef90_R7I3I3	G R V L G Y D Q V A V M V A L D L I W D Y E D A A K R S K A M E N E A T A R L S

UniRef90\_F9DVT9  
 UniRef90\_Q129T8  
 UniRef90\_UPI00035F1A65  
 UniRef90\_F5S9Z0  
 UniRef90\_E6W570  
 UniRef90\_N0B4N0  
 UniRef90\_B5JXX3  
 UniRef90\_F7Z041  
 UniRef90\_K9HCK1  
 UniRef90\_M1M4J4  
 UniRef90\_UPI00030DC082  
 UniRef90\_A0L5J1  
 UniRef90\_E7RTW8  
 UniRef90\_J0KFR2  
 UniRef90\_W6K8Y0  
 UniRef90\_W6W1Z0  
 UniRef90\_UPI0002E591F5  
 UniRef90\_E8V279  
 UniRef90\_UPI00036BCE8C  
 UniRef90\_UPI0003B333BC  
 UniRef90\_UPI000367E73F  
 UniRef90\_UPI000470B57A  
 UniRef90\_Q1YKK3  
 UniRef90\_J6UHG3  
 UniRef90\_UPI00047CDCFF  
 UniRef90\_E7C3J7  
 UniRef90\_UPI0003054994  
 UniRef90\_19LBN7  
 UniRef90\_W7ZQX2  
 UniRef90\_UPI0001850844  
 UniRef90\_L1LVA3  
 UniRef90\_D3V8X6  
 UniRef90\_J0R7Q9  
 UniRef90\_D5X7Z8  
 UniRef90\_Q1LJL2  
 UniRef90\_A1HPF7  
 UniRef90\_UPI00036474D4  
 UniRef90\_F5SA86  
 UniRef90\_R4YJA8  
 UniRef90\_J2V1N0  
 UniRef90\_K1XRN0  
 UniRef90\_A9BVR3  
 UniRef90\_E6WWJ4  
 UniRef90\_Q6SHU9  
 UniRef90\_M4UNL3  
 UniRef90\_B9JRZ5  
 UniRef90\_UPI00047CE659  
 UniRef90\_W3RNQ0  
 UniRef90\_K1JGJ1  
 UniRef90\_H2FSY5  
 UniRef90\_J2KKT0  
 UniRef90\_W0B730  
 UniRef90\_C4LC76  
 UniRef90\_UPI0003799F26  
 UniRef90\_I0JPK1  
 UniRef90\_C8NC03  
 UniRef90\_UPI0002556650  
 UniRef90\_C9LUD9  
 UniRef90\_Q0G5R5  
 UniRef90\_UPI0003B3AB6F  
 UniRef90\_UPI000305436C  
 UniRef90\_G4QCM4  
 UniRef90\_UPI0003685F41  
 UniRef90\_UPI0003FC00D9  
 UniRef90\_D0W485  
 UniRef90\_U7A168  
 UniRef90\_F7NUY2  
 UniRef90\_A8TXD7  
 UniRef90\_UPI0003642618  
 UniRef90\_UPI00047A7FD1  
 UniRef90\_B7WYW8  
 UniRef90\_Z5XN86  
 UniRef90\_D9RXS6  
 UniRef90\_UPI000372F963  
 UniRef90\_K6J4I6  
 UniRef90\_K2JQ28  
 UniRef90\_W4VHR9  
 UniRef90\_M4UI89  
 UniRef90\_D8GSA3  
 UniRef90\_UPI00046D7927  
 UniRef90\_A0A059KJH4  
 UniRef90\_UPI00036D7E6D  
 UniRef90\_M1ZIC4  
 UniRef90\_G9EL64  
 UniRef90\_K6CXV2  
 UniRef90\_A6F9G8  
 UniRef90\_UPI00047E2469  
 UniRef90\_I4YTT6  
 UniRef90\_C9RBR3  
 UniRef90\_F6CQI1  
 UniRef90\_UPI0004793101  
 UniRef90\_R7I3I3

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

1                    10                    20                    30                    40

UniRef90_M1YUK8	I	Q	Y G K K Y T	V K A T S S S V S	L Q E L A D Y V	D S R M R E L L S S T
UniRef90_H2CF97	R	V	Y G E T C T	V R G D G A D P E Y I	I A G L A R L V	D E R M R D L L A T Q
UniRef90_B8EI93	A M Q	A G R V Y R V	V A C D E G E E P H	H L E G L A R L V	D G K I A G M R D K	
UniRef90_S3UTZ6	V N A R	G D D Y T I	V G D T D P E Y I	H R L A E L V	D R K I R E L H L G	
UniRef90_E8X4U7	S I S V D	Y D Q I Y H L	R G T D P A Y I E H	L A G L V	D A K M R A V S A H	
UniRef90_L1Q8Q7	T V T V N	N G V E Y N L	R G K E D E K Y L L	D L D V A A Y V	D S K I R E I S V N	
UniRef90_UPI0003B53A4A	S V R V Q	L G R E Y A L	R V S A E D E E H T H R	V A R V V	H E R M K A F R A A	
UniRef90_A0A017HDP7	V E I T	G G R E F T V A	C Q S G E E P Y L E A A R L L	D E E A A N L A H Q		
UniRef90_UPI00047E04F2	V L I K	N G Q E Y P I	V G A E P K E Y L L K V G N Y V	D E R M E E V A A Q G		
UniRef90_UPI000225C040	V T V E I	R N R S Y N I	V G D E D A S H V K L V A S L V	D Q K M R E E I H E M		
UniRef90_UPI000361222	S I A V D	Y D Q I Y N L	R G T D P A Y I E R L A A I V	D A K M R A V A A L		
UniRef90_A8M176	V L V K	N G E Y P I	V G A E P K E Y L L K V G S F V	D D N M E A V A R A		
UniRef90_V8G8W1	V E V S I	L D R S L T L	S V D S A S E R E K L I A S V K H A	D Q L M Q Q I K A A		
UniRef90_UPI000479EC6F	T V D I	Y G Q Q Y V I	M G S E S P S H I R R H	V A S L V	D N K M R E E I S Y K	
UniRef90_K0IXH4	S L D I E V F G R	I K V N C P	D A D K H H V R L V A S M V	D D K M K E I Y Q A K		
UniRef90_Q057H6	I T V E I	Y G R T Y T I	V G D A D K H H V R L V A S M V	D N K R L E D L Q E K		
UniRef90_Q8EPH8	S I T V E I	Y N R K Y H I	V G E E S E R H M Q L V A D L V	D Q K M N E I H E V		
UniRef90_G2DLK5	M H R T F E L I	G T P S E E E K A T L L Q A V E L L	N Q K I G I I Q D S			
UniRef90_UPI00037B1978	I T V T I	I N G R N Y R M A C	D D G E E E R L S A L A E R F D G A I E E L	R G A K		
UniRef90_M7N913	V S V D I	Y G Q T Y Q M M	C D G K E T I G H M R L V A S L V	D D M M R E E I S S S K		
UniRef90_D8JSE7	V A I N F N G R S Y R F A	C G D N E V Q R	N K R L E A L T R E A			
UniRef90_UPI0003666362	E I T I	C G K V Y S V K	P I S S S V A M E E V A T L V	N M K M K E L S E A Q		
UniRef90_C8PX82	V D I L I	I N G R S Y T I L N C P	E S E E P A L L Q R A A S Y I	N Q F M Q E V R R Q S		
UniRef90_UPI000361FC73	V S V T I	I N G K T Y R M A C	D D G Q E A H L E G L A D R L	N E I I G Q L R Q S		
UniRef90_F8IB24	T V T I	Y G E D Y Q I G D L P E	S V V K A L A N H V	D G T M R G I I E N S		
UniRef90_F2FA03	I S V E I	Y G N T Y K M	V G T E S S V H M R L V A S L V	D D K M R E E I S A H		
UniRef90_UPI00036CFB27	V S V T I	Y G Q H Y	I I T G T E T S A H H M R L V A E L V	D E K M R E E I R S V		
UniRef90_A8IM84	I T V K I	A G R Y Y R M A C	D E G Q K E E H L M R L V G R D I	D A R I N Q L R G T		
UniRef90_C6PW10	I T V K I	N G I E Y N L K	G D E Q E E Y L H K V A G Y V	D K K V K N I I L E N		
UniRef90_K2H907	T V E I	Y N R S Y T I	V G N E D D R H V R E V A G R V	D G T M R G I I E N S		
UniRef90_UPI000412FFE8	T V E I	H N K T Y T I	I G N E P K N H V Q L V A S L V	D D K M K E E I Q E S S		
UniRef90_W8TJ28	V C I K I	N G H E Y Y N M	C G S E T K D H M L R I G S F V	D E K M Q E E V M R S		
UniRef90_X1GBF4	I L E I	Y R Q K Y R I	R V G E E D E K Y I G R L T S Y V	D Q K M R E E V A V K		
UniRef90_M1LQI7	V L G R E Y S F R	C S K N E K D N L	V E A V N Y F N R L S S Q I Q D S			
UniRef90_G4AZC5	S I E I S V L G Q L L R	N C P E E Q H D A L R S A A R E L	D Q R V S E E M K E R			
UniRef90_K4HKB0	T V S V T D	D G K V Y R M A C	D K G Q H E H H L E L A A R L			
UniRef90_TOILG5	V T V Q I	Y G E S Y A L	K G N I E P E R I M R L A A M L			
UniRef90_M1LUR7	L E V K I	I G K E Y S L A	C S S E E K S S L V S A V D Y V			
UniRef90_W7BRY0	T T	Y G R E Y T I	V G S E P T D H R K V A Q I V			
UniRef90_U1ING4	I N V T I	N G R Q Y R M A C	C E G Q K E V R L L K A E N L			
UniRef90_I2NKF0	I E I Q L F G Q V L R	H C P P D Q K E N L L V S A Q H	E E R V G V L K E Q			
UniRef90_N9WFQ8	I T V N I	I N G V D Y N L K	G K E N E E Y L R D I A A Y V			
UniRef90_R6EMX3	V R I Y G Q D Y T I	S G E R D E K T I I K I A A Y V				
UniRef90_D3NT82	V D I E V N G R L Y R M L C	D E G Q E G R L R E L A A Y V				
UniRef90_S5ZRH6	V S V R I Y G Q D Y T I	V G T E S P A H I R L V A A F V				
UniRef90_UPI00037DE2CB	T V T V E I	F G E A Y T L K	G D M E A E A V R K I A A T V			
UniRef90_UPI0004694327	V K I V S I	G G R H F D V A C	Q E E G E E S Y L H S A A K M L			
UniRef90_D9QFP1	I T V N I	N G R P Y A V G	C A D G Q E S D R V R V L A R Q F			
UniRef90_W3AFU3	V T V E I	I N G R Y T I	V G A E T S A H M E S V A S I V			
UniRef90_UPI000380D149	S V K I	Y G Y T Y K I	V G A E T S A H M E S V A S I V			
UniRef90_F2IX49	I N V T I	S G N R F S I	S S P Y G E E E R L I G L A R R F			
UniRef90_L0MVV3	P I N D I Q	N G R S F R M A C	D D G E E E R L I G L A R R F			
UniRef90_18AI54	T V E I	F G R T L R	I N C P P Q Q Q D A L N K A V E D L			
UniRef90_A5DOT9	V E V E I	F G Q K Y T I	I I G T E T S S H V R S V A A M V			
UniRef90_K2GSN9	V T V T I	G G R D Y Q V V	C Q P G E E H Y L H G A A S M L			
UniRef90_C9KPQ4	V V V E I	F G E S Y P L	R T D D P A R L K K L A A G V			
UniRef90_V4JK00	V A V T I	F G Q V L R	P D Q K E N L V D A V E L L			
UniRef90_UPI00035FDFD5	S I K V S I	I L G K Q Y P L	K V E D H I Q K V A T Y V			
UniRef90_UPI00037E9232	V D I F I	I N G R S Y G I N	C P A G E E E P A L Q R A S S Y I			
UniRef90_UPI00047095B3	A I E I S I L	F G R T Y S S I A	C P T Q G E E A A L R A V A K K I L			
UniRef90_UPI00026249A3	A I S V T I	L D Q H Y Q I	P C P D E E R E L L L E A V R V L L			
UniRef90_U2ZME1	A V E I E V L G K I L T R V N C P	P Q G Q E E S S L R A A D L L N E Q L E V A R S R				
UniRef90_UPI0004684430	M T V D I	Y G Q K Y T L M	G E S S T D H I Q K V A T Y V			
UniRef90_E6PYB0	V T V E I	Y G Q A Y H L	S G T D L D Q V K R L A A R V V			
UniRef90_UPI000464F66E	P E V Y Y G S K Y T V L G L S	E S E E Y I H K A L A Y V				
UniRef90_U3U5J5	P V D I Q	F G R S L R V N C P	F E H Q E A L K A A A E D L N K R L Q D L K I R			
UniRef90_W1Z5M5	V T V E I	L G K E Q Q F A C P	V G Q E D A L I A A A Q N L N D L V E Q T K Q R			
UniRef90_H6SRR9	T L P L S I	I N G K I Y R I	A C E E G Q E E H L E R L G Q Y L D H R C R Q L V G S			
UniRef90_UPI000381E445	V N L T V I	S G Q T M R I I	T C R K G E A A A M I R A Q N M V N D K I L E L R K M			
UniRef90_UPI000381DF4F	V T V E I	F G E T Y T I	K G D M D P E R V K R L A R I V D E Q M K I I V A N G			
UniRef90_T0GFB8	I T T R I	L G D D Y T I	V G D A D P E Y I K Q L A E V V D R K I R E L S L Q G			
UniRef90_V9HDS3	T V T I	I K I N G I E Y N L	K G R E N E E Y L L E V V A K Y V D G K V K D I I M A N Q			
UniRef90_UPI00035E5B23	V N L N E I	N G R K Y A L G	C D E G E E D R L R L G N D L D T R V R A L A D Q			
UniRef90_H1XNR0	I R V R V N I	F G S E Y T L	V S D N D N E Y Y V R E I A Q Y I V D Q K M R E I D K N Q			
UniRef90_UPI0004027530	V R V N I	A G T E Y T L	R G R E K E E Q R L F D I A K M V N D T M Q T V V Q A			
UniRef90_Q9K897	T V S I	Y G Q Q Y T V A	G Y D S P E Y M K E V V A A E I V D A K M R E E L R K V			
UniRef90_UPI00040A8969	T V T I	G S H T Y T V	T G R E S P G H V Q Q S A A Y V D E K M K E L R A K Q			
UniRef90_L1IAQ7	T V T V E I	H G R P Y A V G	C A D G Q E A R V R D L A A Q F N E R V Q G V A D Q			
UniRef90_UPI0002375DDA	V E V Q I	L Q Q S Y L L S C T E	G R E T R L R D A A A R V V D A A M T R I R D A			
UniRef90_UPI000289FF86	T V D I	Y G Q Q Y S I I G S	E S T S H I R L V A S I V D D K M R E E I S G K			
UniRef90_J7A2H8	T V D I	Y G Q Q Y S I I G S	E S T S H I R L V A S I V D D K M R E E I S G K			
UniRef90_G9QQC0	I T V D I	I G Q Q Y V I	V G E E S A S H I T D L A A R E D R Y V G H L R G Q			
UniRef90_A9D176	V T V S I	D S K T Y R M A C	C E E G Q E E H I D E K M R E E I Q G S E			
UniRef90_Q3SP06	V N V T I	N S R Q Y R M A C	C E D G Q E E D R L L K A G D L E G R I G Q L R G Q			
UniRef90_UPI00042A18B8	V E I T L	N N R R V Y P I	A C E D G Q E E R H E E L A R G F D A R I G E M R K A			
UniRef90_E0TCN8	V R I T	N G Q P Y G L	T G C G P G E E E Q R L R E L L G S Y V D A R L R E E V A H D			
UniRef90_G1Y147	V D I I L	N G R P Y G L	A C D D G Q E E H I L Y G L A S R L D A I L N E I R G V			
UniRef90_UPI0004062972	V T V T I	A G K T Y R M A C	D D G Q E E H I L Y G L A S R L D A I L N E I R G V			
UniRef90_B0UJ37	V T V S I	A G K T Y R M A C	D D G Q E E H I L Y G L A S R L D A I L N E I R G V			
UniRef90_G7W504	V T V T I	F G K H V V R	G E G T A A Y I Q G L A H E V D T R V R A L A D Q			
UniRef90_UPI0002E17482	V R V T I	N G E E Y Y I L K	D P E D V I K A I A Q H V D S R L R I L K S R			
UniRef90_T0BNL8	V R V T I	H G M E Y T I L	R G S A P T S H Y A V A E T V D K L M T E I S N T			

50            60            70            80

UniRef90_M1YUK8	S R T   V P A D   V A V L A A L   N I   A Q D   L F E L K Q Q N E A E K R E   L E E R T R
UniRef90_H2CF97	A P S   L T R A K L   A T L V A L   N L A D E L   M Q A R A G Q R D D Q A   L I V Q K T R
UniRef90_B8EI93	F G E M G D Q R   L T I M A A V T   L A D E   N F A D E   L E Q A K S Q T S E A S P E A E E K T R
UniRef90_S3UTZ6	M P N A S K   L K A V L A A L   N F A D E   L E Q A K S Q T S E A S P E A E E K T R
UniRef90_E8X4U7	G G T   V D S L R   V A V L A A L   N I T D E L   E T L R E R Y N A L A R S M R S R S A
UniRef90_L1Q8Q7	N K K L S I G S A A V L T A V   N I A D E L   F K C D   L E   N D
UniRef90UPI0003B53A4A	H P E Q D E L T T A V I T A L   G L A D E L   H T C V N E Q R D Q E A E Q A A A A L   H
UniRef90_A0A017HDP7	S G R M P E S K M   L L M A G L   M L A D R L   E D R L   R Q T E N Y A R Q V E K R L S
UniRef90UPI00047E04F2	N K R L S T S M   I A V L T S I   N I T D Q L   L K L Q E A Y R Q L E S Q
UniRef90UPI000225C040	N P S L D T A S L   A V L T A I   N T M N D Y   L L K E D Y A T   L L G S   L K K K
UniRef90UPI000361222	G N T V D S L R   V A V L A A L   N I A D E L   C T A R Q R F D N L   Q H S T R T R A T
UniRef90_A8M176	N K R L S T S M   I A V L T C   N I S D Q Y   L K L Q R L V E E L   Q Q E M E E K V A
UniRef90_V8G8W1	S P S L S P E R I   A I M A S I   K L A S D L   M S M E S G D G   P F K G E F Q S K I N
UniRef90UPI000479EC6F	N P T L L D A S K L   A V L T A V   N A V N D F   L Q M K D E L   S R   Q T E
UniRef90_K0IXH4	N K S L D T T R L   A V L T A V   N T M H D
UniRef90_Q057H6	T G V T N   I E Q L   I F   T A L   N I S Y E   L E L E K Q K Q S   H C   V K H F K S R M L
UniRef90_Q8EPH8	N K Q L D T S S L   A V L T A V   N T M N D Y   L K L Q E D Y A T   L L G S   L K K K
UniRef90_G2DLK5	G K V I E T E K I   I I L A A L   N L V H   D L L K N N   L K D D L A S K E F E R K I I
UniRef90UPI00037B1978	F G E I G D Q R   L T V M A G   R I T D
UniRef90_M7N913	N R S L D T T K I   A V L T A T   N T V N D   S L L K L K E R I E E L E N E L N Q
UniRef90_D8JSE7	H G N   G D E R   L M L M A A L   V V A D E   L F D A R A D V   D E L L   Q
UniRef90UPI0003666362	K S K T S M   V D   V A V L T A L   N L G H E L   E L K Q Q G K E S E S E Q   L N Q   H   D
UniRef90_C8PX82	A P Q   L P Q E E L   L V L C   A L T L   F E K S E N   L Q R Y Q E N E S Q A Q D   L V G
UniRef90UPI000361FC73	F G E I G D Q R   L T V M A G   R I T D
UniRef90_F8IB24	N P R R V S   V N R   L A V L T A L   N L A A E Y F E L   Q E E H Q K   L V Q E M Q Q Q
UniRef90_F2FA03	N P S L D T A K L   A V L T A V   N S V H   D Y   L L L K E Q F E K   L E I Q L K
UniRef90UPI00036CFB27	N P N L D T S K L   A V L T A V   N A V H   E Q   Q R L Q E R   L E H   L E Q E L S R
UniRef90_A8IM84	F G E I G D Q R   L T V M A G   R I T D
UniRef90_C6PW10	N S K L S T S S A A I   L S A I   N I V D D M F K K Q R E Y E K   L C   A D F E Q
UniRef90_K2H907	N P R L D T A K L   A V L T A V   N T M S D Y   I K L K K D Y D E   L M S Y   I Q K
UniRef90UPI000412FFE8	N R Q L D T T R L   A V L T A V   N T M N D Y   L K L K A D Y A S L   I G S I K K K
UniRef90_W8TJ28	N H R L S T A M A A V L T S L   N I A N E   L F K K K D E   L D S I A S R I   K V P   L E
UniRef90_X1GBF4	S K S V D S   L K I   S V L A S L   N I A D E Y F   L S R K K L   D Q   I G H M E S K V E
UniRef90_M1LQI7	A K N Y T N E R   V A V M V A L   Q I A S E   L M S T K S E S G F S M G E   L S K K I D
UniRef90_G4AZC5	T G I L L Q V D K V L S I V A L   N L S F E L   M Q E Q K K
UniRef90_K4HKB0	F G E I G D H R   L S V M A G   M V I D E Y E A L   L R L   H N E R D H A M E R   I M Q
UniRef90_T0ILG5	N I R L S P T K I   A V L T A L   N I A D D F   L R L   E Q D Y   L E L I E   L I K E
UniRef90_M1LUR7	G K T Y T T E M   L A T M V S   L Q L A S D L   L S M R I   S D N F G N S D M K D K   E
UniRef90_W7BRY0	N R A L D S G R   L A V L T A V   N M T H   D Y   L M L L E K Y R E   L E K R   E
UniRef90_U1ING4	F G E I G D A R   L T V M A A L   T A C D E
UniRef90_I2NKF0	S G I I Q L E   K V L A I   V A L   N L N Y   E L E L E K Q H   H N E N N K N   V L K N   C   Q
UniRef90_N9WFQ8	N P V L S T S Q A S V L   A C   V N M A D E   L N K   L D Y K   I E E F T K E N K
UniRef90_R6EMX3	F T A G P Q G S   L A V L A A V   N I A D E Y   Y E A K T K I   S E   L E A K A R Q
UniRef90_D3NT82	G R S G S E A Q M M L   M T C   L V L A D E   L Q D V E A A V A G E   L D R V T K R   E
UniRef90_S5ZRH6	N P M L D V P K   L A V L T A V   N I A D E Y   F G K   L E Q D Y   Q E   L M E L L   D D
UniRef90UPI00037DE2CB	V G R M P E A R   M L L   M A G L   M L A D K T A S V E D K   I T E   I R A E L   A E R E A
UniRef90UPI0004694327	V G H   V G D   L R   L F L   M A A L   V L A D E   L H E A R L   G T A G E V A
UniRef90_D9QFP1	A P S L D S S K   L A V L T A V   N T V H   D H N   L K L K E R V E Q L E N E   L R K
UniRef90_W3AFU3	T E A Y G P S N   I A L L V A L   N L A D R   L L T L   Q K R V S K F D G   I E D D   D D
UniRef90UPI000380D149	F G E I G D Q R   L T V M A G   I M V T D E
UniRef90_F2IX49	T R V T N A E Q   L V F   I A A L   N V C   H E   L A Q E K   L K T R E Y A A N   E K   H   L
UniRef90_L0MVV3	N A V L D T K Q   L A V L T A V   N I M D Y   L K T K E E   L E K   L Q   Q I   R K E
UniRef90_A5AI54	N P R L N K T   Q T A I   J A A L   N I A E E   L R R   L Q E E Y   D N M V K M   L E
UniRef90_A5DOT9	I G R L L P E A R   M L L   M A G L   M L A D R T A G M E E Q   L R Q R D A R   I S E
UniRef90_K2GSN9	V K S F D G T   K I A V L T A L   Q L A D E Y   D K   Q D Y   D E   L V   E   L L   D E K
UniRef90_C9KPQ4	D T V R T D Q N A L   L M A A L   H   C H   D F   Q A L E   Q E   Q Q S A R A K S S
UniRef90_V4JK00	L V K Q P E S T   V M V   L A I   S I A E E   L F E A R N A K S E   L E N S E   E V L M E
UniRef90UPI00035FDFD5	A P Q   L P Q E E   L L V L C   A L T L   F E K A E   N L Q N E   L D G F A D A
UniRef90UPI00037E9232	R P N L T R E E   L A I   M A A L   N I G N E   L Y Q E   Q Q Q N   H N Y   R N E M D   H R   R
UniRef90UPI00047095B3	G K L L S R E   R A T   L M V A V   N L A A D   L Q R T R Q T   L L A R E   H D   L Q   L V E Q
UniRef90UPI00026249A3	T K V T N E V Q   L L T I   A A L   N I C   Y E   L Q S K N E E
UniRef90_U2ZME1	S P I   L D T T K I   S V L T A I   N I A D E
UniRef90UPI0004684430	G R T V D S   L R V   A V L A A L   N L A D E   L A R A E E K   L A Q D S R Q   L Q E R A   H
UniRef90_E6PYB0	N S A L S S G M   I S V L A A L   N I A D D Y   F K T   L D K L E N   I T N N Q Q A K T E
UniRef90UPI000464F66E	T R V T N   I E Q L   A L I A A L   N I C   H E   L A Q E K T K   I R D S A T   N M E K R   R
UniRef90_U3U5J5	S S V R N E Q Q A I   L L A A L   T L S H E   L L E A K T   H A S V E   Q Q Q Q D Q   L I D
UniRef90_W1Z5M5	I G H   I S E S   L M L   V M V   A L L   L I A D E   L S D V S G E L   H E   L R   T A L
UniRef90_H6SRR9	A P G L S M E K   I A L L A S   D F C   H E   L N Q K T   L Q   K D I   N D T   L E S R   V R
UniRef90UPI000381E445	N H R L L P T A R   V A V L A A M   A M N F   C D D   Y   L K   L E T D Y   Q D   L L   G I   L K D E
UniRef90UPI00031DF4F	M P S S S K   L K   L A V L A A L   L N F A D E   L E Q   L R N A Q G S S   S P E A E E K T R
UniRef90_T0GFB8	N R K L S S T   A A A T   L V A L   N I A D E   L F K A D   I E   E   V L M K S   L D E R N   L
UniRef90_V9HDS3	F G Q   G D V   G D V   R L   L V M A G   I T M S D E   I S E M R T   D L   E G Q A A A M T E T   L R
UniRef90UPI00035E5B23	G K V R T R E   R I A V L   A A V   N L A F D   L A D R E A R A A D   L P   E G A D   P R   H
UniRef90_H1XNR0	N P N L D T K R   V A V L A A L   N L A A E E   L L K   L R D Q Y   D A L   M E L L   D E Q T K
UniRef90UPI0004027530	N P Y   L D T T R L   A V L T A V   N V M D D   L K K L E E Y   I R Y   L E Q Q
UniRef90_Q9K897	N P F L T S T   Q L A V L A A L   N I S S E Y   H   L L Q D Q   I N D T K E E E E
UniRef90UPI00040A8969	V G Q V G D   V D   R L   F L   M A S L   M L A D E   L Q E A K R
UniRef90_L1QA57	G K V R T R E   R I A V L   A A V   N L A F D   L A D R E A R A A D   L P   E G A D   P R   H
UniRef90UPI0002375DDA	N P T   L D   N K   L A V L T A V   N I V N E
UniRef90UPI000289FF86	F S Q A S S Q E   V L   V M A A L   N L C   Y P   L   I Q Q E   Q R   L E A A K   V R   L G D T   L T
UniRef90_I7A2H8	N P S L D T S K   L A V L T A V   N I A I   H   D
UniRef90_G9QQC0	F G E I G D   L R   L T V M A G   I M V M D E
UniRef90_A9D176	F G E I G D Q R   L E V M A A L   V T S D E
UniRef90_Q3SP06	V R S A T D M   H   L M V   M V G   L M L G D E   L L D   L R E G K   P   L E D   P   E   L A A R   L Q
UniRef90UPI00042A18B8	I G R T A E K   R   L L I A G   L R C   E E L   F D R   R D E K   T E A A D   R A A D   E   L E
UniRef90_E0TCN8	A S G G S E   T   Q   L   V L T A L   M L A D E   I F D   L R A E   L G
UniRef90_G1Y147	F G E I G D Q R   L T V M S A   T V   L   D Q
UniRef90UPI0004062972	F G E I G D M   R   L H   V M A
UniRef90_B0UJ37	L P R L S V   H   Q T   A V L T A L   N F A D E   L A K   L R E E   Q E T   L M Q   L L   G E K
UniRef90_G7W504	H P H   L G M T   R   L A M   L L N M A E   D   L Y   H   L Q E Q N E E   L V R   S M Q E
UniRef90UPI0002E17482	S T Y M D E R   R   V A V L T A L   N L A D E   L E R   L K K   K E Y Y   D   L L S   L L   D E K T R
UniRef90_T0BNL8	

UniRef90\_M1YUK8  
UniRef90\_H2CF97  
UniRef90\_B8EI93  
UniRef90\_S3UTZ6  
UniRef90\_E8X4U7  
UniRef90\_L1Q8Q7  
UniRef90\_UPI0003B53A4A  
UniRef90\_A0A017HDP7  
UniRef90\_UPI00047E04F2  
UniRef90\_UPI000225C040  
UniRef90\_UPI000361222  
UniRef90\_A8M176  
UniRef90\_V8G8W1  
UniRef90\_UPI000479EC6F  
UniRef90\_K0IXH4  
UniRef90\_Q057H6  
UniRef90\_Q8EPH8  
UniRef90\_G2DLK5  
UniRef90\_UPI00037B1978  
UniRef90\_M7N913  
UniRef90\_D8JSE7  
UniRef90\_UPI0003666362  
UniRef90\_C8PX82  
UniRef90\_UPI000361FC73  
UniRef90\_F8IB24  
UniRef90\_F2FA03  
UniRef90\_UPI00036CFB27  
UniRef90\_A8IM84  
UniRef90\_C6PW10  
UniRef90\_K2H907  
UniRef90\_UPI000412FFE8  
UniRef90\_W8TJ28  
UniRef90\_X1GBF4  
UniRef90\_M1LQI7  
UniRef90\_G4AZC5  
UniRef90\_K4HKB0  
UniRef90\_TOILG5  
UniRef90\_M1LUR7  
UniRef90\_W7BRY0  
UniRef90\_U1ING4  
UniRef90\_I2NKF0  
UniRef90\_N9WFQ8  
UniRef90\_R6EMX3  
UniRef90\_D3NT82  
UniRef90\_S5ZRH6  
UniRef90\_UPI00037DE2CB  
UniRef90\_UPI0004694327  
UniRef90\_D9QFP1  
UniRef90\_W3AFU3  
UniRef90\_UPI000380D149  
UniRef90\_F2IX49  
UniRef90\_L0MVV3  
UniRef90\_I8AI54  
UniRef90\_A5DOT9  
UniRef90\_K2GSN9  
UniRef90\_C9KPQ4  
UniRef90\_V4JK00  
UniRef90\_UPI00035FD9D5  
UniRef90\_UPI00037E9232  
UniRef90\_UPI00047095B3  
UniRef90\_UPI00026249A3  
UniRef90\_U2ZME1  
UniRef90\_UPI0004684430  
UniRef90\_E6PYB0  
UniRef90\_UPI000464F66E  
UniRef90\_U3U5J5  
UniRef90\_W1Z5M5  
UniRef90\_H6SRR9  
UniRef90\_UPI000381E445  
UniRef90\_UPI000381DF4F  
UniRef90\_T0GFB8  
UniRef90\_V9HDS3  
UniRef90\_UPI00035E5B23  
UniRef90\_H1XNR0  
UniRef90\_UPI0004027530  
UniRef90\_Q9K897  
UniRef90\_UPI00040A8969  
UniRef90\_L1QA57  
UniRef90\_UPI0002375DDA  
UniRef90\_UPI000289FF86  
UniRef90\_I7A2H8  
UniRef90\_G9QQC0  
UniRef90\_A9D176  
UniRef90\_Q3SP06  
UniRef90\_UPI00042A18B8  
UniRef90\_E0TCN8  
UniRef90\_G1Y147  
UniRef90\_UPI0004062972  
UniRef90\_B0UJ37  
UniRef90\_G7W504  
UniRef90\_UPI0002E17482  
UniRef90\_T0BNL8

90

S | S E K | E N E | L | V  
Y | I D | L | D E G M V G

K | I T | L | I E E G L  
S | S G M | D E V L

K | L | T | E Q | A E A | V | A D  
Q | T | E A A | L | N K S R S D

T | L | A | H | M | D E | V | L | E D  
E | M | E | A

D | I | N | A | L | L | D | Q | S | I

N | L | N | Q | M | D | L | A | L

D | I | V | N | V | C | E | Q | A | L | S | Q

G | M | I | Q | K | L | K | K | S | L  
K | M | L | E

D | I | E | A  
S | L | E | D | Y | L  
S | I | V | L | K | I | E | S | I | L

D | T | T | Q | R | I | E | K

N | I | S | A | L | I | D | E | V | I

Q | L | D | S | S | L

E | V | A | A | R | L | E | R | A

L | L | Q | Q | T | I | E | K | A | L

T | L | C | Y | K | L | D | K | V | L | A | D

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

R | L | S | E | L | L | D | A | V | L | E  
L | M |  
I | L | Q | Q | S | I | E | Q | I | L | A  
K | L | S | Q

R | L | A | E | L | L

K | L | I | T | L | L | E | E | G | L  
T | L | K | E | R | I |  
K | D | A | D | R

T

T | L | V | R | R | L | D | Q | A | L | G | D

R | I | R | Q | Q | L | D | A | A

K | L | A | D | R | I | E | A  
A | L | A | A | T | L | D

UniRef90\_R6ESI8  
 UniRef90\_L8MIV0  
 UniRef90\_U3AZL2  
 UniRef90\_UP100030FBD47  
 UniRef90\_D5MGM4  
 UniRef90\_A1SSJ3  
 UniRef90\_K1ZN14  
 UniRef90\_AOPZP0  
 UniRef90\_W7DMF3  
 UniRef90\_Q4QM44  
 UniRef90\_K2A3J4  
 UniRef90\_L0EX27  
 UniRef90\_UP100039A8D0E  
 UniRef90\_E8Q642  
 UniRef90\_H7CXS8  
 UniRef90\_W9GTT1  
 UniRef90\_W8RUB5  
 UniRef90\_UP10002628488  
 UniRef90\_A7HUZ1  
 UniRef90\_F3YLF1  
 UniRef90\_C2G532  
 UniRef90\_14B3R1  
 UniRef90\_UP100030D058D  
 UniRef90\_D5U9A2  
 UniRef90\_K0AD94  
 UniRef90\_K4LFC2  
 UniRef90\_A0A03117G3  
 UniRef90\_UP100036210D3  
 UniRef90\_R5Q5J5  
 UniRef90\_L8D4I9  
 UniRef90\_R6J2W4  
 UniRef90\_C3KTJ1  
 UniRef90\_UP1000364565C  
 UniRef90\_S9S805  
 UniRef90\_E0XS13  
 UniRef90\_E3I7Y8  
 UniRef90\_I0GPD5  
 UniRef90\_B0SCHO  
 UniRef90\_UP1000472CF67  
 UniRef90\_Q7VR9  
 UniRef90\_U5MXN3  
 UniRef90\_A3UGX8  
 UniRef90\_UP10004646709  
 UniRef90\_I0AD30  
 UniRef90\_T4W4E5  
 UniRef90\_G8AM13  
 UniRef90\_H3SHG6  
 UniRef90\_E0XQX8  
 UniRef90\_Q1MZK3  
 UniRef90\_E0XWR3  
 UniRef90\_W8F0W4  
 UniRef90\_X0WMW2  
 UniRef90\_R7BZY3  
 UniRef90\_R6G4T5  
 UniRef90\_UP100035FD725  
 UniRef90\_UP1000382D132  
 UniRef90\_S6FA68  
 UniRef90\_R5QNE7  
 UniRef90\_B3EUD3  
 UniRef90\_UP100037B944E  
 UniRef90\_Q0ALV7  
 UniRef90\_R6RST9  
 UniRef90\_W2BVQ6  
 UniRef90\_UP10003B5A213  
 UniRef90\_G4R9U8  
 UniRef90\_UP10003FC573  
 UniRef90\_UP100036A579E  
 UniRef90\_E0WTM7  
 UniRef90\_Q4FQT9  
 UniRef90\_UP100037DD9C5  
 UniRef90\_H9BWQ5  
 UniRef90\_V8A567  
 UniRef90\_A6FRF8  
 UniRef90\_UP100041E0C20  
 UniRef90\_UP10004245F70  
 UniRef90\_H8L3T7  
 UniRef90\_R4K5Q5  
 UniRef90\_F8J4R4  
 UniRef90\_Q2LRA1  
 UniRef90\_M6TLH2  
 UniRef90\_TOLH28  
 UniRef90\_U2EDJ9  
 UniRef90\_UP1000425E114  
 UniRef90\_R8AN58  
 UniRef90\_R7RT64  
 UniRef90\_T0JB19  
 UniRef90\_D0GL1  
 UniRef90\_D7A7B1  
 UniRef90\_UP10004062172  
 UniRef90\_L8JKY5  
 UniRef90\_F7NWP3  
 UniRef90\_Q2W296

1 10 20 30 40

UniRef90\_R6ESI8  
 UniRef90\_L8MIV0  
 UniRef90\_U3AZL2  
 UniRef90\_UP100030FBD47  
 UniRef90\_D5MGM4  
 UniRef90\_A1SSJ3  
 UniRef90\_K1ZN14  
 UniRef90\_AOPZP0  
 UniRef90\_W7DMF3  
 UniRef90\_Q4QM44  
 UniRef90\_K2A3J4  
 UniRef90\_L0EX27  
 UniRef90\_UP100039A8D0E  
 UniRef90\_E8Q642  
 UniRef90\_H7CXS8  
 UniRef90\_W9GTT1  
 UniRef90\_W8RUB5  
 UniRef90\_UP10002628488  
 UniRef90\_A7HUZ1  
 UniRef90\_F3YLF1  
 UniRef90\_C2G532  
 UniRef90\_14B3R1  
 UniRef90\_UP100030D058D  
 UniRef90\_D5U9A2  
 UniRef90\_K0AD94  
 UniRef90\_K4LFC2  
 UniRef90\_A0A03117G3  
 UniRef90\_UP100036210D3  
 UniRef90\_R5Q5J5  
 UniRef90\_L8D4I9  
 UniRef90\_R6J2W4  
 UniRef90\_C3KTJ1  
 UniRef90\_UP1000364565C  
 UniRef90\_S9S805  
 UniRef90\_E0XS13  
 UniRef90\_E3I7Y8  
 UniRef90\_I0GPD5  
 UniRef90\_B0SCHO  
 UniRef90\_UP1000472CF67  
 UniRef90\_Q7VR9  
 UniRef90\_U5MXN3  
 UniRef90\_A3UGX8  
 UniRef90\_UP10004646709  
 UniRef90\_I0AD30  
 UniRef90\_T4W4E5  
 UniRef90\_G8AM13  
 UniRef90\_H3SHG6  
 UniRef90\_E0XQX8  
 UniRef90\_Q1MZK3  
 UniRef90\_E0XWR3  
 UniRef90\_W8F0W4  
 UniRef90\_X0WMW2  
 UniRef90\_R7BZY3  
 UniRef90\_R6G4T5  
 UniRef90\_UP100035FD725  
 UniRef90\_UP1000382D132  
 UniRef90\_S6FA68  
 UniRef90\_R5QNE7  
 UniRef90\_B3EUD3  
 UniRef90\_UP100037B944E  
 UniRef90\_Q0ALV7  
 UniRef90\_R6RST9  
 UniRef90\_W2BVQ6  
 UniRef90\_UP10003B5A213  
 UniRef90\_G4R9U8  
 UniRef90\_UP10003FC573  
 UniRef90\_UP100036A579E  
 UniRef90\_E0WTM7  
 UniRef90\_Q4FQT9  
 UniRef90\_UP100037DD9C5  
 UniRef90\_H9BWQ5  
 UniRef90\_V8A567  
 UniRef90\_A6FRF8  
 UniRef90\_UP100041E0C20  
 UniRef90\_UP10004245F70  
 UniRef90\_H8L3T7  
 UniRef90\_R4K5Q5  
 UniRef90\_F8J4R4  
 UniRef90\_Q2LRA1  
 UniRef90\_M6TLH2  
 UniRef90\_TOLH28  
 UniRef90\_U2EDJ9  
 UniRef90\_UP1000425E114  
 UniRef90\_R8AN58  
 UniRef90\_R7RT64  
 UniRef90\_T0JB19  
 UniRef90\_D0GL1  
 UniRef90\_D7A7B1  
 UniRef90\_UP10004062172  
 UniRef90\_L8JKY5  
 UniRef90\_F7NWP3  
 UniRef90\_Q2W296

UniRef90\_R6ESI8  
 UniRef90\_L8MIV0  
 UniRef90\_U3AZL2  
 UniRef90\_UP100030FBD47  
 UniRef90\_D5MGM4  
 UniRef90\_A1SSJ3  
 UniRef90\_K1ZN14  
 UniRef90\_AOPZP0  
 UniRef90\_W7DMF3  
 UniRef90\_Q4QM44  
 UniRef90\_K2A3J4  
 UniRef90\_L0EX27  
 UniRef90\_UP100039A8D0E  
 UniRef90\_E8Q642  
 UniRef90\_H7CXS8  
 UniRef90\_W9GTT1  
 UniRef90\_W8RUB5  
 UniRef90\_UP10002628488  
 UniRef90\_A7HUZ1  
 UniRef90\_F3YLF1  
 UniRef90\_C2G532  
 UniRef90\_14B3R1  
 UniRef90\_UP100030D058D  
 UniRef90\_D5U9A2  
 UniRef90\_K0AD94  
 UniRef90\_K4LFC2  
 UniRef90\_A0A03117G3  
 UniRef90\_UP100036210D3  
 UniRef90\_R5Q5J5  
 UniRef90\_L8D4I9  
 UniRef90\_R6J2W4  
 UniRef90\_C3KTJ1  
 UniRef90\_UP1000364565C  
 UniRef90\_S9S805  
 UniRef90\_E0XS13  
 UniRef90\_E3I7Y8  
 UniRef90\_I0GPD5  
 UniRef90\_B0SCHO  
 UniRef90\_UP1000472CF67  
 UniRef90\_Q7VR9  
 UniRef90\_U5MXN3  
 UniRef90\_A3UGX8  
 UniRef90\_UP10004646709  
 UniRef90\_I0AD30  
 UniRef90\_T4W4E5  
 UniRef90\_G8AM13  
 UniRef90\_H3SHG6  
 UniRef90\_E0XQX8  
 UniRef90\_Q1MZK3  
 UniRef90\_E0XWR3  
 UniRef90\_W8F0W4  
 UniRef90\_X0WMW2  
 UniRef90\_R7BZY3  
 UniRef90\_R6G4T5  
 UniRef90\_UP100035FD725  
 UniRef90\_UP1000382D132  
 UniRef90\_S6FA68  
 UniRef90\_R5QNE7  
 UniRef90\_B3EUD3  
 UniRef90\_UP100037B944E  
 UniRef90\_Q0ALV7  
 UniRef90\_R6RST9  
 UniRef90\_W2BVQ6  
 UniRef90\_UP10003B5A213  
 UniRef90\_G4R9U8  
 UniRef90\_UP10003FC573  
 UniRef90\_UP100036A579E  
 UniRef90\_E0WTM7  
 UniRef90\_Q4FQT9  
 UniRef90\_UP100037DD9C5  
 UniRef90\_H9BWQ5  
 UniRef90\_V8A567  
 UniRef90\_A6FRF8  
 UniRef90\_UP100041E0C20  
 UniRef90\_UP10004245F70  
 UniRef90\_H8L3T7  
 UniRef90\_R4K5Q5  
 UniRef90\_F8J4R4  
 UniRef90\_Q2LRA1  
 UniRef90\_M6TLH2  
 UniRef90\_TOLH28  
 UniRef90\_U2EDJ9  
 UniRef90\_UP1000425E114  
 UniRef90\_R8AN58  
 UniRef90\_R7RT64  
 UniRef90\_T0JB19  
 UniRef90\_D0GL1  
 UniRef90\_D7A7B1  
 UniRef90\_UP10004062172  
 UniRef90\_L8JKY5  
 UniRef90\_F7NWP3  
 UniRef90\_Q2W296

50                    60                    70                    80

UniRef90_R6ESI8	F S S N G Q G T	L A V L T A I	I N L A D E
UniRef90_L8MIV0	F P Y V T S N E	L V V L S A L	N L C A R Q L N A
UniRef90_U3AZL2	V G Q V G D I R L	F L M A A L	D D T P T D T D A
UniRef90_UP100030FBD47	T K V H N I E Q L	T L I A A L	V A R R L A
UniRef90_D5MGM4	F Q S L P P T K A I	V L A S L	D I A D E L F K A E
UniRef90_A1SSJ3	A R N L R N E Q V I	V L A A L	T E R E R S E R L I A
UniRef90_K1ZN14	D K S I T M D R I A I	A A A L	V K L G N F C H E L S
UniRef90_AOPZP0	N K R L S I S D A S	V L A A L	E Q T Q H K E H F S
UniRef90_W7DMF3	G G Q S G E G R I	L A L A S L	N I A H E L I L E K Q H S Q T N T S H L K E H F S
UniRef90_Q4QM44	T G L I Q L D R V L	S I V A L	N I A C Y E
UniRef90_K2A3J4	S A T I S T Q N V A I	L G A L	N I A D E L F K V D E Y
UniRef90_L0EX27	F G N I G D V R R L	M V M A G V	C A E L M K Q V E E
UniRef90_UP100039A8D0E	V G Q I G D L R L	F L M A A L	V D E K F K V D E Y
UniRef90_E8Q642	T K V T N S D Q L I	F I T A L	C A E L M K Q V E E
UniRef90_H7CXS8	N N K L S A L G V L	S I S A L	H D M E
UniRef90_W9GTT1	A P L A G E A Q S L	A M A A L	N I V D E K F K V D E Y
UniRef90_W8RUB5	I G R M P S D R M	L L M A G L	C A E L M K Q V E E
UniRef90_UP10002628488	N Q Q L T T A E L	A V L T A V	M L A D
UniRef90_A7HUZ1	V G Q V G D A R L	L L M A G L	N T M N D Y M K L K E E Y A A L I G S Q N K K
UniRef90_F3YLF1	N H A L D S G R L	A V L T A V	N I A D E L F K G N D E Y N Q L I D
UniRef90_C2G532	Y A V R D K Q D L	L L S M C V	N I A D E L F K G N D E Y N Q L I D
UniRef90_I4B3R1	T S N D Q T K M L	L L T A L	Y Q A T G M L K A E K N A Q N H E E G V E Q A V H
UniRef90_UP100030D058D	K P S F D T T Q L	A V L T A L	T S N D Q T K M L L T A L
UniRef90_D5U9A2	Y G N Y P R D T I A I	L A C L	N I A D E L F Q A R R G I Q A E A Q Q I E K R T Q
UniRef90_K0AD94	A P Q L D V R Q I	A V L A A L	T N M N D Y L K L K Q D Y D A L V I Q
UniRef90_K4LFC2	N P N L S L S K L	A V L A A L	Y I A D L L K R E K D T L L A L K E S I A S R S S
UniRef90_A0A03117G3	A G N V P G E R A	R M L F V A L	A P Q L D V R Q I A V L A A L
UniRef90_UP100036210D3	I G N I G E S K L	L L T A I	N I A D E L F Q A R R G I Q A E A Q Q I E K R T Q
UniRef90_R5Q5J5	G R V I A I D Q I	A V L T A L	T N M N D Y L K L K Q D Y D A L V I Q
UniRef90_L8D4I9	T T V R N D Y N A	L L M A A L	Y I A D L L K R E K D T L L A L K E S I A S R S S
UniRef90_R6J2W4	S G Q V N E N M	L L A M V G L	N I A D E L F Q A R R G I Q A E A Q Q I E K R T Q
UniRef90_C3KTJ1	N P K L S T S S A	S I L T A I	T T V R N D Y N A L L M A A L
UniRef90_UP1000364565C	N N A L	V I A G L	H L C H D Y N A V K T Q S D A T N S A L K S L C D
UniRef90_S9S805	I G R M P E S R M	L L M A G L	S G Q V N E N M L L A M V G L
UniRef90_E0XS13	T R S F D E Y T I	A M M T A L	N I A D E L F Q A R R G I Q A E A Q Q I E K R T Q
UniRef90_E3I7Y8	A K A T Q D D R L	F L M A A L	T R S F D E Y T I A M M T A L
UniRef90_J0GPD5	V R T F D E R K I	A V L T A L	A K A T Q D D R L F L M A A L
UniRef90_B0SCHO	L P N A S K T K L	A V L T A L	V R T F D E R K I A V L T A L
UniRef90_UP1000472CF67	N P T L D K V K L	A V L T A L	L P N A S K T K L A V L T A L
UniRef90_Q7VRF9	T K V T N S E Q L I	F I T A L	N P T L D K V K L A V L T A L
UniRef90_U5MXN3	K S T L S T S A A	T V A L	T K V T N S E Q L I F I T A L
UniRef90_A3UGX8	V G Q I G D V R	L L M A A L	K S T L S T S A A T V A L
UniRef90_UP10004646709	N P R L S L S Q A G	I L T A L	V G Q I G D V R L L M A A L
UniRef90_I0AD30	T R V T N T E Q L	V F I A A L	N P R L S L S Q A G I L T A L
UniRef90_T4W4E5	N S M L S T S Q V	A I L S A L	T R V T N T E Q L V F I A A L
UniRef90_G8AM13	G K S G S E A Q M	L V L T A I	N S M L S T S Q V A I L S A L
UniRef90_H3SHG6	N S R L D T T R I	A V L A A V	G K S G S E A Q M L V L T A I
UniRef90_E0XQX8	T R N L P I E K V	A V L A G L	N S R L D T T R I A V L A A V
UniRef90_Q1MZK3	Y G K L Y G T E R	V A I M A L	T R N L P I E K V A V L A G L
UniRef90_E0XWR3	S S I I G L E R I	A V M T A L	Y G K L Y G T E R V A I M A L
UniRef90_W8F0W4	Y G L Q D K Q D L	L A M I A L	S S I I G L E R I A V M T A L
UniRef90_X0WMW2	I P E R G D E Q I	S I L A C L	Y G L Q D K Q D L L A M I A L
UniRef90_R7BZY3	D T T L T A E R	L V A T A L	I P E R G D E Q I S I L A C L
UniRef90_R6G4T5	N N K L S I S S V	A V L S I A L	D T T L T A E R L V A T A L
UniRef90_UP100035FD725	N A T L L D T Q K	I A V L T A V	N N K L S I S S V A V L S I A L
UniRef90_UP1000382D132	A G N L L D S T R	T A V V L A C L	N A T L L D T Q K I A V L T A V
UniRef90_S6FA68	N K K L S S T S A	A A T L A S	A G N L L D S T R T A V V L A C L
UniRef90_R5QNE7	U N K F I G D R	L L M A S	N K K L S S T S A A T L A S
UniRef90_B3EUD3	F G I T D I Q D	L L A M V A F	U N K F I G D R L L M A S
UniRef90_UP100037B944E	L G R L L S E S R	M L L M A G	F G I T D I Q D L L A M V A F
UniRef90_Q0ALV7	V G Q I G D L R	L L M A S	L G R L L S E S R M L L M A G
UniRef90_R6RST9	Y R R Q T P D M	Q A V M I E L	V G Q I G D L R L L M A S
UniRef90_W2BVQ6	M G R N G T S A I	A V L T S I	Y R R Q T P D M Q A V M I E L
UniRef90_UP10003B5A213	L G N I I G E N K	L L I T T I	M G R N G T S A I A V L T S I
UniRef90_G4R9U8	F G E I I G D N R	L T V M A G I	L G N I I G E N K L L I T T I
UniRef90_UP10003FCDF573	N P L L S T V D	S G V L A A L	F G E I I G D N R L T V M A G I
UniRef90_UP100036A579E	V G Q I G D L R	L L M A A L	N P L L S T V D S G V L A A L
UniRef90_E0WTM7	T K V N K T E C	L A L T A A L	V G Q I G D L R L L M A A L
UniRef90_Q4FQT9	A P S L S Q E S I	L L V L C L	T K V N K T E C L A L T A A L
UniRef90_UP100037DD9C5	T G A V S E G L I	L V L V A S T	A P S L S Q E S I L L V L C L
UniRef90_H9BWQ5	T R T V D S L G	V A T L T A L	T G A V S E G L I L V L V A S T
UniRef90_V8A567	G T Q G G E S W	T L V M A A L	T R T V D S L G V A T L T A L
UniRef90_A6FRF8	I G R I P E P R	M L L M A G	G T Q G G E S W T L V M A A L
UniRef90_UP100041E0C20	N P N L L D A R	K V A V L A A L	I G R I P E P R M L L M A G
UniRef90_UP10004245F70	F G Q I G D L R	L L V M A G I	N P N L L D A R K V A V L A A L
UniRef90_H8L3T7	A R T P G F D	R I A V L A A I	F G Q I G D L R L L V M A G I
UniRef90_R4K5Q5	N S K L R S T A	E A S I L T A L	A R T P G F D R I A V L A A I
UniRef90_F8J4R4	H G A V G D E	R I L M A A L	N S K L R S T A E A S I L T A L
UniRef90_Q2LRA1	F S N A S T L	N I A I L V A L	H G A V G D E R I L M A A L
UniRef90_M6TLH2	M P G A S R Q	K L A I L A A L	F S N A S T L N I A I L V A L
UniRef90_TOLH28	L P Q Y S P A	R V A V A L I A A L	M P G A S R Q K L A I L A A L
UniRef90_U2EDJ9	N P K L S V S	V S A A V L T A I	L P Q Y S P A R V A V A L I A A L
UniRef90_UP1000425E114	F G I T E K Q D	L L A M V A L	N P K L S V S V S A A V L T A I
UniRef90_R8AN58	S K V T N T E Q	L A L I V A L	F G I T E K Q D L L A M V A L
UniRef90_R7RT64	N P K H N T T S	S A V L T A L	S K V T N T E Q L A L I V A L
UniRef90_T0JB19	T P G L T E V	T R T L L F A A L	N P K H N T T S S A V L T A L
UniRef90_D0GL1	G R T A T T Q	S Y A L L A A L	T P G L T E V T R T L L F A A L
UniRef90_D7A7B1	F G E I I G D Q	R L S I M A	G R T A T T Q S Y A L L A A L
UniRef90_UP10004062172	A P K L N Q E N	L L V L I S C	F G E I I G D Q R L S I M A
UniRef90_L8JKY5	F G I D D K Q	D L L A M V A F	A P K L N Q E N L L V L I S C
UniRef90_F7NPWP3	A G H L S M E Q	S I V L A A L	F G I D D K Q D L L A M V A F
UniRef90_Q2W296	V G A V S D T	R L L V M V G L	A G H L S M E Q S I V L A A L

UniRef90\_R6ESI8  
 UniRef90\_L8MIV0  
 UniRef90\_U3AZL2  
 UniRef90\_UP100030FBD47  
 UniRef90\_D5MGM4  
 UniRef90\_A1SSJ3  
 UniRef90\_K1ZN14  
 UniRef90\_A0PZP0  
 UniRef90\_W7DMF3  
 UniRef90\_Q4QM44  
 UniRef90\_K2A3J4  
 UniRef90\_L0EX27  
 UniRef90\_UP100039A8D0E  
 UniRef90\_E8Q642  
 UniRef90\_H7CXS8  
 UniRef90\_W9GTI1  
 UniRef90\_W8RUB5  
 UniRef90\_UP10002628488  
 UniRef90\_A7Huz1  
 UniRef90\_F3YLF1  
 UniRef90\_C2G532  
 UniRef90\_I4B3R1  
 UniRef90\_UP100030D058D  
 UniRef90\_D5U9A2  
 UniRef90\_K0AD94  
 UniRef90\_K4LFC2  
 UniRef90\_A0A03117G3  
 UniRef90\_UP100036210D3  
 UniRef90\_R5Q5J5  
 UniRef90\_L8D4I9  
 UniRef90\_R6J2W4  
 UniRef90\_C3KTJ1  
 UniRef90\_UP1000364565C  
 UniRef90\_S9S805  
 UniRef90\_E0XS13  
 UniRef90\_E3I7Y8  
 UniRef90\_I0GPD5  
 UniRef90\_B0SCHO  
 UniRef90\_UP1000472CF67  
 UniRef90\_Q7VRF9  
 UniRef90\_U5MNX3  
 UniRef90\_A3UGX8  
 UniRef90\_UP10004646709  
 UniRef90\_I0AD30  
 UniRef90\_T4W4E5  
 UniRef90\_G8AM13  
 UniRef90\_H3SHG6  
 UniRef90\_E0XQX8  
 UniRef90\_Q1MZK3  
 UniRef90\_E0XWR3  
 UniRef90\_W8F0W4  
 UniRef90\_X0WMW2  
 UniRef90\_R7BZY3  
 UniRef90\_R6G4T5  
 UniRef90\_UP100035FD725  
 UniRef90\_UP1000382D132  
 UniRef90\_S6FA68  
 UniRef90\_R5QNE7  
 UniRef90\_B3EUD3  
 UniRef90\_UP100037B944E  
 UniRef90\_Q0ALV7  
 UniRef90\_R6RST9  
 UniRef90\_W2BVQ6  
 UniRef90\_UP10003B5A213  
 UniRef90\_G4R9U8  
 UniRef90\_UP10003FCD573  
 UniRef90\_UP100036A579E  
 UniRef90\_E0WTM7  
 UniRef90\_Q4FQT9  
 UniRef90\_UP100037DD9C5  
 UniRef90\_H9BWQ5  
 UniRef90\_V8A567  
 UniRef90\_A6FRF8  
 UniRef90\_UP100041E0C20  
 UniRef90\_UP10004245F70  
 UniRef90\_H8L3T7  
 UniRef90\_R4K5Q5  
 UniRef90\_F8JFR4  
 UniRef90\_Q2LRA1  
 UniRef90\_M6TLH2  
 UniRef90\_TOLH28  
 UniRef90\_U2EDJ9  
 UniRef90\_UP1000425E114  
 UniRef90\_R8AN58  
 UniRef90\_R7RT64  
 UniRef90\_T0JBI9  
 UniRef90\_D0GL1  
 UniRef90\_D7A7B1  
 UniRef90\_UP10004062172  
 UniRef90\_L8JKY5  
 UniRef90\_F7NWP3  
 UniRef90\_Q2W296

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

UniRef90\_UPI000377C63F  
 UniRef90\_C0GJM2  
 UniRef90\_UPI0002F0AFC2  
 UniRef90\_H7F6K4  
 UniRef90\_J4UYB1  
 UniRef90\_K4KXR5  
 UniRef90\_B8I6N5  
 UniRef90\_X7F9G3  
 UniRef90\_UPI0003721B84  
 UniRef90\_Q1GHL8  
 UniRef90\_B0RP85  
 UniRef90\_UPI00026C9B7E  
 UniRef90\_Q72PL2  
 UniRef90\_UPI000378DC92  
 UniRef90\_10HPD7  
 UniRef90\_U4R685  
 UniRef90\_R6IAL7  
 UniRef90\_D0RPT0  
 UniRef90\_A0A014MQN3  
 UniRef90\_UPI0003B7AECC  
 UniRef90\_G0J3F1  
 UniRef90\_Q3A216  
 UniRef90\_F7ZF14  
 UniRef90\_V1CM44  
 UniRef90\_A6G5H7  
 UniRef90\_E3PXU9  
 UniRef90\_G8P1L5  
 UniRef90\_J7Q983  
 UniRef90\_L0B7H5  
 UniRef90\_D5WS16  
 UniRef90\_F4A074  
 UniRef90\_C2CKN8  
 UniRef90\_R1CQ11  
 UniRef90\_Q4FN29  
 UniRef90\_A5EV36  
 UniRef90\_UPI0003601D1A  
 UniRef90\_U2TF89  
 UniRef90\_A5FNQ6  
 UniRef90\_A0A015N5B7  
 UniRef90\_D4L5T6  
 UniRef90\_U7PB23  
 UniRef90\_J9GEV4  
 UniRef90\_D0HHJ0  
 UniRef90\_H6Q5W7  
 UniRef90\_Q5E2Z8  
 UniRef90\_R6HQ09  
 UniRef90\_D0MF19  
 UniRef90\_UPI00046A3A46  
 UniRef90\_R5AC90  
 UniRef90\_UPI00031258A5  
 UniRef90\_UPI000367125B  
 UniRef90\_V5PUK5  
 UniRef90\_I3VXF3  
 UniRef90\_F0KBA8  
 UniRef90\_T0Z1R5  
 UniRef90\_UPI00036C129F  
 UniRef90\_D8IDV6  
 UniRef90\_B2V585  
 UniRef90\_G6XKN5  
 UniRef90\_UPI000288FEC6  
 UniRef90\_A0A031K6W6  
 UniRef90\_UPI000470CC51  
 UniRef90\_L0F3U8  
 UniRef90\_UPI00037ACE62  
 UniRef90\_UPI00046EE796  
 UniRef90\_UPI000479CAD5  
 UniRef90\_A0A017RXI8  
 UniRef90\_H3KG16  
 UniRef90\_I9MD04  
 UniRef90\_I1AVL3  
 UniRef90\_R9CCQ6  
 UniRef90\_R6X5R7  
 UniRef90\_F6D8S6  
 UniRef90\_A0A015KWG8  
 UniRef90\_G5ZZ89  
 UniRef90\_Q5FUD6  
 UniRef90\_D5VA8  
 UniRef90\_U5N3W0  
 UniRef90\_B4RAJ9  
 UniRef90\_V9G793  
 UniRef90\_Q2G6W3  
 UniRef90\_UPI000362D1D0  
 UniRef90\_C7H155  
 UniRef90\_UPI000369A086  
 UniRef90\_I9W368  
 UniRef90\_A3PK43  
 UniRef90\_C0BGV4  
 UniRef90\_W0RIP6  
 UniRef90\_TOGAC6  
 UniRef90\_UPI00046518E7  
 UniRef90\_B6AUP5  
 UniRef90\_A8LLV0

1 10 20 30 40  
 V E V T L A G R T F S I K T D D S P G K V Q S A A D L V Q H K L D Q | L R T L  
 V N V K I Y G E E Y V M R G P N T P E H M L S I A H Y | V D E K M K E I G Q A  
 I E V E Y G H T Y K L V G N E S I G H L R L V A S I V D D K M R E I K L H  
 T T T I Y G R D Y T I I G S E P A E H L R H | V D T K M H E I S A Q  
 T I S L R I F G R D L T I A C P P K E K N N L I K A A N L L N E E L D G I N D K K  
 V S V L F G E L H V I R G K G S E E E Y I K K L A H D | V D K K M R K F A E A  
 E V Y I Y G S K Y T I S G T E S S E E Y I l R T A A G M L D A E A Q V L V D Q  
 P V T I H G G R T F T V A C H E G E E E Y I l R T A A G M L D D E A Q V L S D Q  
 V K V E I L G E E Y I l K G K E S S E E Y I l M S I A N F V D E H M K E I Q E N  
 P V S V R I L D R E Y T V G V T A E E R E S l T A A A R L L D L R M R E I R G S  
 V T L T I G D R R H V A C P D G Q E E D Q L L R L G A L D A K W A T A A R A  
 K V R I L G E E Y I l S E A E E D Y I l Y S L S E E V I D R K L R E L L G A G  
 I N V N V N G K T Y P L V C A E G D Q D R L S K L A A Y V D A K C T D L T S K  
 V E V T I L G Q G Y I l G C P E G G E T l L A A A V A A V D R E M S A I R D A  
 E V Y I Y G S R Y T V S G A E S E E Y M H K L S l Y D K K M R E F S E V  
 T I T V T I F N E Q Y N I T T E L P K K E T E A I A E M V D K K M Q Q F A E K  
 V N V N F N G R D Y Y L L A C E E G Q E E D L Q K L T E E L G K K F N Q L K K D  
 I E I Q I L H Q D Y Y L L T C P D G Q E N Q L L E A V E R V D Q Q F Q H M R N T  
 S I K I D I N G I K Y P M V S C I P G E E E R L I K S S Q E V N R V I E D L S K V  
 A V Q V T I L G Q Q Y T I K S A M D P A E V C R V A E F V N D K I K K Y R E E  
 V Q V S I G G R E F E V A C Q E G G E E H Y l H T A A K M L D D E A Q V L A Q Q  
 V T V N F G Q E Y T I S G D E S P E K I V Q I I A S W V D Q R M R E I D E M  
 S V S V E I A G Q T L S I R S D E G P E Y Y V Q E L L A D Y V D A H L R E L S G G  
 V T V K I A N H E Y T I V G E E K R E Y l L Q L A A H V D E Q I E A T A K A  
 A V V V A A G R T Y R M S C E G E E Q R I E E L A R Y V D A K M R A V V S A H  
 L D V K I I G R D Y S L A C S I E E K S S l I S A V D Y I N N L A A R I Q D S Q  
 V R V D Y G Q D Y A L K G Q A S V E Y L R R V A R L V D E Q M K E I G E Q  
 T V K I R G R E Y V M K A S E S E E Y I l H K V A I Y V D R K M E D I E K I  
 V D V K I A G K T Y T L V T D E A K D N I K D I A E I F D G K I Q E E V K  
 V T V K I L N N E Y T V V G E E S E E Y I l K S I A E F V D K Q F K E I Y E G  
 V N I K F N G K E F L L S C D D G Q E E H E E L L T H I N N Q K F S N L K N D  
 L T L T I L N K N Y Q M T C D P H E R L L L E E A A E I F N Q H L E D D L R Q K  
 I R V D I Y G Q E Y Y Q L R G K A S T E H I R L V A G L V D D K M R E I A R G  
 V V E I F G D T Y P L K T D D P E H E K I L A D V D A L M K Q T A R R  
 I K I S I A D R V Y P L T V E P A Q E E G L R S A S K K I D A M I K Q F E E S  
 UniRef90\_D4L5T6  
 UniRef90\_U7PB23  
 UniRef90\_J9GEV4  
 UniRef90\_D0HHJ0  
 UniRef90\_H6Q5W7  
 UniRef90\_Q5E2Z8  
 UniRef90\_R6HQ09  
 UniRef90\_D0MF19  
 UniRef90\_UPI00046A3A46  
 UniRef90\_R5AC90  
 UniRef90\_UPI00031258A5  
 UniRef90\_UPI000367125B  
 UniRef90\_V5PUK5  
 UniRef90\_I3VXF3  
 UniRef90\_F0KBA8  
 UniRef90\_T0Z1R5  
 UniRef90\_UPI00036C129F  
 UniRef90\_D8IDV6  
 UniRef90\_B2V585  
 UniRef90\_G6XKN5  
 UniRef90\_UPI000288FEC6  
 UniRef90\_A0A031K6W6  
 UniRef90\_UPI000470CC51  
 UniRef90\_L0F3U8  
 UniRef90\_UPI00037ACE62  
 UniRef90\_UPI00046EE796  
 UniRef90\_UPI000479CAD5  
 UniRef90\_A0A017RXI8  
 UniRef90\_H3KG16  
 UniRef90\_I9MD04  
 UniRef90\_I1AVL3  
 UniRef90\_R9CCQ6  
 UniRef90\_R6X5R7  
 UniRef90\_F6D8S6  
 UniRef90\_A0A015KWG8  
 UniRef90\_G5ZZ89  
 UniRef90\_Q5FUD6  
 UniRef90\_D5VA8  
 UniRef90\_U5N3W0  
 UniRef90\_B4RAJ9  
 UniRef90\_V9G793  
 UniRef90\_Q2G6W3  
 UniRef90\_UPI000362D1D0  
 UniRef90\_C7H155  
 UniRef90\_UPI000369A086  
 UniRef90\_I9W368  
 UniRef90\_A3PK43  
 UniRef90\_C0BGV4  
 UniRef90\_W0RIP6  
 UniRef90\_TOGAC6  
 UniRef90\_UPI00046518E7  
 UniRef90\_B6AUP5  
 UniRef90\_A8LLV0

50                    60                    70                    80

UniRef90_UPI000377C63F	G S T A G S D R L M A [L] V A L N I L A G E L L S E Q P H G Q G E N [L] D Y Q S [L] I S
UniRef90_C0GJM2	N T R L G [I] N K V A V L T S L N L
UniRef90_UPI0002F0AFC2	N Q S L D T T Q L A V L T A V N S V H E F L K
UniRef90_H7F6K4	N R A L D S G R L A V L T A V N A T H D
UniRef90_J4UYB1	N N A L I I I A G L T L A N K L L S D G K K K N V S S D [L] N [L] K
UniRef90_K4KXR5	F P R I P A H Q V A I L A A L N F A D E L A K I K E E Q M T L L N M L G E
UniRef90_B8I6N5	N N A L S S G M I S V L A A I N I A D D Y F K T L D K L Q N
UniRef90_X7F9G3	L G R V P E A R M M L L M A G L M L A D K T A G L E E R
UniRef90_UPI0003721B84	I T S I S R N R V I I L G A M N F A D K L C R V Q E K N E S L K E D N N K
UniRef90_Q1GHL8	I G R M P E A R M M L L M A G L M L A D K T A A V E D R I K E V E A K L A E K D A
UniRef90_B0RP85	N R M A A V D R V A V L A
UniRef90_UPI00026C9B7E	S G G M N G E R T M L F V A L M L A D A L D E A E R R P A K I Q D E I A E R L E
UniRef90_Q72PL2	M P G A S K Q K L A I L A A L N F A D E L H Q A K E I K D E P N S E L E E K T R
UniRef90_UPI000378DC92	L G H V A E N R L L L M A A V L I A D E L Q D A M N G K G G P A L G T G L T E E
UniRef90_10HPD7	G K V K A R E R I A V L I A A L N L A Y Q I A E Q P E A A T A T S A A D T E A I D
UniRef90_U4R685	N N A L S S G M I S V L A A I N I A D D Y F K T L D K L E L M E K E Y K Q K V E
UniRef90_R6IAL7	T H V K T G R V A V W A A L D F A G E L Y K L R K E Y E K L L A A A K E
UniRef90_D0RPT0	L G N L G E G K L L L I T A I Q V I D E L Y T L L K K K L K D H S S D L E S K F K
UniRef90_A0A014MQN3	S K I L R S R E R V G V L L A V N I L A Y E
UniRef90_UPI0003B7AECF	S G V V G E S R L L A M T S L I L A D K L I N H E T N K N T D L N L N Q I E
UniRef90_G0J3F1	F G L E D R Q D L L A M V A F D C M V E F L E I K E D H T E G S E Q V K Q V L Q
UniRef90_Q3A216	S R A V D T L N T A V L I A L L N V G E A Y L R L R D A T Q A R E E S L N V Q L H
UniRef90_F7ZF14	V G R L P E A R M M L L M A G L M L A D
UniRef90_V1CM44	G S K L P T T S L L A V L S A I N V A K E Y F E L
UniRef90_A6G5H7	R R T Y S V Q R M A L L V A M Q I A D E L F R E K D
UniRef90_E3PXU9	N P K L S Q V M T A V L T S I N I A D E Y Y S E V R K N L E F K K T L S E P I K
UniRef90_G8P1L5	G A T V D S L R V A V L I A A L N I A D E L V A L R A R F D T L N S S L N Q R A G
UniRef90_J7Q983	F G E I G E Q R I I V M A A L A A I A D E A T D A R A K
UniRef90_L0B7H5	G K T Y T T E M L A T M V S L Q L A S E L L S I R N S N S V T F K E I K D K M D
UniRef90_D5WS16	N P R L D Y S R I A V L A A V N I
UniRef90_F4A074	N P N L S T T M L A I L T A L L N V A D E
UniRef90_C2CKN8	S N R L T F D R Q L V L A G N I T D D F Y K L S K Q Y D S L K E K S E E
UniRef90_R1CQ11	N G K L T K F F M S A I L T A F N I I A D K Y Y R T H K E L S E L K E E V V E
UniRef90_Q4FN29	[L] G N I G E N K L L L I T S V Q I M D E Y F E T K K K
UniRef90_A5EV36	N P K L L L E Q L F M L G G L Q M A F N L L Q E Q Q T F S R E V S T V N Q I S E
UniRef90_UPI0003601D1A	N P R L D L N R L A V L A A V N I
UniRef90_U2TF89	V N S F D G T K I A V L S A L Q L A E E Y Q Q L K K D Y D D L V E L L I N E K
UniRef90_A5FNQ6	Y A V R D K Q D V L A M C A L Q F A S Q V E Q K Q I D N A I D G E E T I E R I K
UniRef90_A0A015N5B7	G K I S S N E R I A V M A A L Q I A G E L L J A M K A P D G P L V G D F K R R I E
UniRef90_D4L5T6	T K Q L D T R D C A V L A A L N F C D D R N K A L K K N K D Y V E K A D K I I Q
UniRef90_U7PB23	S A G L D T T R C A V L A A L N F C D D R N K A L K K N K D Y V E K A D K I I Q
UniRef90_J9GEV4	S H L V S Q E Q V I A V L V A L E I A Y E A Q K A L Q D A E K A K E A Q E
UniRef90_D0HHJ0	T K V T N E V K L L T I A A L N I C Y E L Q T K Q Q E N A G N Q S Q L S E R M E
UniRef90_H6Q5W7	T K I S N V E Q L L F I S A L N I C Y D L N Q E K A K F Q N Y T V S I D R G I Q
UniRef90_Q5E2Z8	T K V T N T E Q L L T I S N I C Y E L H A A K K E A S K H S S D V Y E R M G
UniRef90_R6HQ09	S [L] Q V N E N M L L A M V G L L A D E L T E L K K G V P Q A V A G G E A V D N
UniRef90_D0MF19	H P E Q S E L T A A V I V A L S L L A E A L H E A Q K A L Q E L D E T L Y E T I Q
UniRef90_UPI00046A3A46	S P T L I G D R L L V L T A L K L C A Q Q I E L Q R L H Q L E I Q G I E E Q L S
UniRef90_R5AC90	A V A V T V L D S S L V L T S V N V A D D Y F K E K A Y T A E L E G R
UniRef90_UPI00031258A5	F P Y V T S N E L I M V L S A L N I C A R Q L G A S D A E C D E A D A V E R I A
UniRef90_UPI000367125B	S K M S N E R V A Y Y M A C I Q L A S Q L L S A E S T E G P F Q G D Y K A K V D
UniRef90_V5PUK5	S S V R G T D R I A V M A A L S L A S E L L A L E K S I A A G Q Q E I Q S R M Q
UniRef90_I3VXF3	Y N R L S N Q M V L V L S A L N I A D E L F I S R E E N N A L K K E I
UniRef90_F0KBA8	N E R L S T S D A S I L T A I N V T D D M F K L G S E N E K L A D S I E
UniRef90_T0Z1R5	G K V V G L E R V A V M V A L N M A N E L L Q L R G S D T R A E I A A G D K I R
UniRef90_UPI00036C129F	Y N P Q K R Y D L A I L C G L N I V E E M F R K Q K E Q E K L E S F V Q R I S
UniRef90_D8DV6	Y G K Q P R D V I A I L A C I N I A D E L K N T K A G E D T L S E S I V S R S N
UniRef90_B2V585	N S R L S T S A A T V L A A V N I A D E L Y E C
UniRef90_G6XKN5	G G T A S E S K T L L M M A A L L M A D E I Y E L R K R L P D D M T Q T V E Q A K
UniRef90_UPI000288FEC6	N S R L D T M K I A V L A A V N M A D E Y F K I K G K H D E
UniRef90_A0A031K6W6	A V G Q T E T R M L L F A A L M M A D E I H E L R S R P E P Q A A Q F A E R I A
UniRef90_UPI000470CC51	G F T G E S R V L V L A A L F M A D E I Q D L L S S Q H P E S T T Q A V E E A E
UniRef90_L0F3U8	L P R L A V H Q I A I L A A L N L A D E L E K L R E E Q E T L L Q L I E
UniRef90_UPI00037ACE62	A G S G G V P R T F L L T A L M L A D A L I E A R E A P P P E T P A D V A R I A
UniRef90_UPI00046E796	G T Q G G E A W T L V M A S L M A D E L H D L A K E I L P S T T S E R V Q
UniRef90_UPI000479CAD5	V G E V G D Q R L T V M A M A L T M D
UniRef90_A0A017RXI8	N P K H S N T S A A V L T S L T I T D E L F R S R R E I E V L K R S
UniRef90_H3KG16	G K V I A A D Q I A V L T A L E V
UniRef90_I9MD04	N L R L S P G K V A V L A A L N I A E A Y L D L E Q N Y K Q L I R M V E E E
UniRef90_I1AVL3	I G R M P E G R M M L L M A G L M L A D K T A G L E D R L R A A D D R I G E L T D
UniRef90_R9CCQ6	N R K L S S T A S A T L V S L N I A D E L F K A
UniRef90_R6X5R7	K K L L Q T D K I A I W T A L D L A A E R L E L Q E K C A A L K Q E L Q E K C T
UniRef90_F6D8S6	P H L K G E N K V L M V A L N I C Y D Y I R L R Q D T L N Y S N H L E E Q L E
UniRef90_A0A015KWG8	Y P R L D M P R I A V L S A V H M A D E V F R L R R E N E R L L E E E A K R K
UniRef90_G5ZZ89	V G Q I G D A R L L A M A A L I I A D R Q P A N E Q G N Q A V A S Q D E Q L D
UniRef90_Q5FUD6	G G A A S E S K T L L M M A A L L M A D E I F E L K R R Q I S P Q A E T Q I Q Q A
UniRef90_D5VA8A	H K T P T N E E F L V L V C I E L Y D E V Q A L K T Q I T K T D D E K A K V A
UniRef90_U5N3W0	G K L Q H Q R E I A V L V A L N A A F D R L
UniRef90_B4RAJ9	M G Q L G D T R L L F L M G A L L A D E
UniRef90_V9G793	H A R L D T P R I A V L A A V H M A E E
UniRef90_Q2G6W3	G G A Q S E T R M L L F A A L M L A D E L H E A H R Q A P A P Q P V I E A R V H
UniRef90_UPI000362D1D0	N P K I S R P D A T I L A A L N L G D E S F K S R E A Y E R L N E N Y K A L L N
UniRef90_C7H155	Y K L S N V T D I T V L A S V N I S D E
UniRef90_UPI000369A086	F G E I G D M R L H V M A
UniRef90_I9W368	S A S R G I E R V A V A M A I S I A S D L L N L Q Q K Q A E D S
UniRef90_A3PK43	M G R M T D S R M L L M A G L M L A D
UniRef90_C0BGV4	Y A V R D K Q D V L A M C A L Q Y A A Q L E Q L K A K D A P K N D D N H E K V S
UniRef90_W0RIP6	G S V V E T H K A A I L A A L Q I T D E L F R A R A D A E R M T Q S M Q E L S A
UniRef90_T0GAC6	T P G L T E V R T L L F A A L F L A D E L N D M K R E V A G R Q E A L
UniRef90_UPI00046518E7	I G R L P E A R M M L L M A G L M L A D
UniRef90_B6AUP5	I G R L P E P R M M L L M A G L M L A D
UniRef90_A8LLV0	A G R M P E A R M M L L M A G L M L A D

UniRef90\_UPI000377C63F S **L** N E **V V** F Q A  
 UniRef90\_C0GJM2  
 UniRef90\_UPI0002F0AFC2  
 UniRef90\_H7F6K4 K M **I** T K **D** K A **L** K N  
 UniRef90\_J4UYB1  
 UniRef90\_K4KXR5  
 UniRef90\_B8I6N5  
 UniRef90\_X7F9G3  
 UniRef90\_UPI0003721B84  
 UniRef90\_Q1GHL8 **L L** E E R  
 UniRef90\_B0RP85  
 UniRef90\_UPI00026C9B7E A **L** A T S **L** E Q  
 UniRef90\_Q72PL2 K **L** I M M L E E  
 UniRef90\_UPI000378DC92 D M A S **V** L N E **V**  
 UniRef90\_I0HPD7 A **L** V R R L D A A **L** G  
 UniRef90\_U4R685 E **L** T L Q I Q K  
 UniRef90\_R6IAL7  
 UniRef90\_D0RPT0 E **I** K N **L**  
 UniRef90\_A0A014MQN3  
 UniRef90\_UPI0003B7AECF D **L** I D W L G K A  
 UniRef90\_G0J3F1 H V N K N L E S **L** L  
 UniRef90\_Q3A216 D L V A R L E K A C P D  
 UniRef90\_F7ZF14  
 UniRef90\_V1CM44  
 UniRef90\_A6G5H7  
 UniRef90\_E3PXU9 E  
 UniRef90\_G8P1L5 S **L** M G M **L** D E **V** L  
 UniRef90\_J7Q983  
 UniRef90\_L0B7H5 N **I** S **I** L I D D  
 UniRef90\_D5WS16  
 UniRef90\_F4A074  
 UniRef90\_C2CKN8  
 UniRef90\_R1CQ11  
 UniRef90\_Q4FN29  
 UniRef90\_A5EV36 R **L** L T T **L** E A A  
 UniRef90\_UPI0003601D1A  
 UniRef90\_U2TF89  
 UniRef90\_A5FNQ6 R **L** N S **L** L D Q Y **L** E N  
 UniRef90\_A0A015N5B7 E M N **L** L D G A L S G  
 UniRef90\_D4L5T6 Q T N D **L**  
 UniRef90\_U7PB23  
 UniRef90\_J9GEV4  
 UniRef90\_D0HHJ0 Q **L** T A S **L** E A A **L** K N  
 UniRef90\_H6Q5W7 S **L** K D T V S R A I S  
 UniRef90\_Q5E2Z8 **L** L A S A L E A A I S T  
 UniRef90\_R6HQ09 S R L P G L D K E L A  
 UniRef90\_D0MF19  
 UniRef90\_UPI00046A3A46  
 UniRef90\_R5AC90  
 UniRef90\_UPI00031258A5 A **L** N R R I  
 UniRef90\_UPI000367125B H I N A **L** L D E  
 UniRef90\_V5PUK5 R M N E R L S A V I D Q  
 UniRef90\_I3VXF3  
 UniRef90\_F0KBA8  
 UniRef90\_T0Z1R5 A **L** R E R I E T A **L** G H  
 UniRef90\_UPI00036C129F K L L N S **L** D E  
 UniRef90\_D8IDV6 E L I K L I D E **V**  
 UniRef90\_B2V585  
 UniRef90\_G6XKN5 A **L** I R  
 UniRef90\_UPI000288FEC6 R **I** A S R **V** E N  
 UniRef90\_A0A031K6W6 R **L** R V E Q M **L** M N  
 UniRef90\_UPI000470CC51  
 UniRef90\_L0F3U8  
 UniRef90\_UPI00037ACE62 E R **L** E T **L** A A A **L** E D  
 UniRef90\_UPI00046EE796 R A D R L I  
 UniRef90\_UPI000479CAD5  
 UniRef90\_A0A017RXI8  
 UniRef90\_H3KG16  
 UniRef90\_I9MD04  
 UniRef90\_I1AVL3  
 UniRef90\_R9CCQ6 E **L**  
 UniRef90\_R6X5R7 A M E Q E M Q Q  
 UniRef90\_F6D8S6 A **L** M T A **V**  
 UniRef90\_A0A015KWG8 L V S A E L D E A  
 UniRef90\_G5ZZ89 Q I A D Q L E A  
 UniRef90\_Q5FUD6 E Q L L R L E G A  
 UniRef90\_D5VAA8 A M I D K I N Q  
 UniRef90\_U5N3W0  
 UniRef90\_B4RAJ9  
 UniRef90\_V9G793  
 UniRef90\_Q2G6W3 L L A E R I E K A L A  
 UniRef90\_UPI000362D1D0 E Q I E R L K A A L E G  
 UniRef90\_C7H155  
 UniRef90\_UPI000369A086  
 UniRef90\_I9W368  
 UniRef90\_A3PK43  
 UniRef90\_C0BGV4 E L I N M I D V H L A  
 UniRef90\_W0RIP6 E V K R W L  
 UniRef90\_T0GAC6  
 UniRef90\_UPI00046518E7  
 UniRef90\_B6AUP5  
 UniRef90\_A8LLV0

1 10 20 30 40

UniRef90_C1A489	V K V R L G D Y S L R T E A S A E H T K A V A E H V D R T I R A I L S G
UniRef90_G8R6U5	I K V S A D R V Y P L T K P E E E H I R S A A K T I E G I L K K Y G D G
UniRef90_UPI00041B969E	I T V N N G V D Y N L K G K E S E Y L R D I A S Y V D E R I K E V L A K
UniRef90_R4KDA5	V D V E I N G V R Y T L K G D A A P E N M F K M S R H D E K I K Q V I R R
UniRef90_F9Q6B1	V E V I V L G Q A L R L N V P E E Q E D L R Q A A R T L D A Q V S E M K E R
UniRef90_A0A024KFST7	V N V E I N G R K Y R M A C E E G Q E P H I G L A D R F N R S I D N L K N A
UniRef90_R6MPL7	V T V E I L G V K Y P L R S K D S D I N D I Q E A A K I V D E N I R L M T K Q
UniRef90_G0JPT6	V N I T L L G Q S Y Q V P C Q P E E Q V L L E A V A L L N Q Q L E A T R A G
UniRef90_UPI000289AFE6	I S V K I Y G Q T Y N M V G T E S P S H M R H V A S T V D E Q M H A I R N A
P_I_R_I_R_I_L_D_N_E_Y L L R_S_D_E_D P_E_Q V N E I A K L V N E K L D E V R K S	P I R I R I L D N E Y L L R S D E D P E Q V N E I A K L V N E K L D E V R K S
UniRef90_D8F238	V T F E L L G Q E Y K F A A S D E E L Q S I L S L V R Q L E T G P S Q K
UniRef90_K1YF93	V T V T I A G Q E Y T L V A T E E E G Y V E K V A Q H V D A Q M K Q V L S G
UniRef90_A6NR55	V K I S I G G G R E F E V A C Q A G E E H F L K S A A Q L L D N E A S V L S S Q
UniRef90_K2IRK7	
UniRef90_A0A023RIE9	
UniRef90_L7VS6	
UniRef90_R9B3V7	
UniRef90_Q8R9C8	
UniRef90_UPI00036C5176	
UniRef90_UPI00037FE8E8	
UniRef90_UPI000465E91A	
UniRef90_H9UHB1	
UniRef90_R5LP57	
UniRef90_N8QFG4	
UniRef90_F3WUQ5	
UniRef90_W1N685	
UniRef90_C2BE81	
UniRef90_D6GRB6	
UniRef90_M8JIM3	
UniRef90_H6LMJ7	
UniRef90_C6Y256	
UniRef90_B814K8	
UniRef90_UPI000368ECAE	
UniRef90_X2H622	
UniRef90_V4NWK2	
UniRef90_T0H2S7	
UniRef90_A3SN16	
UniRef90_A6TNQ0	
UniRef90_C4L4C5	
UniRef90_I3CB52	
UniRef90_R9KH36	
UniRef90_D9SM37	
UniRef90_UPI00037E4756	
UniRef90_M2TC90	
UniRef90_F9ZMP5	
UniRef90_A8F2P3	
UniRef90_F0SWT3	
UniRef90_R6V6U5	
UniRef90_E4T8Y1	
UniRef90_F8E9V0	
UniRef90_UPI00026CD7A4	
UniRef90_UPI00028872C3	
UniRef90_D5BPM9	
UniRef90_B1HW98	
UniRef90_UPI0003484285	
UniRef90_UPI00035EDFB7	
UniRef90_UPI00038F5BA6	
UniRef90_W4ERY4	
UniRef90_T0HGU8	
UniRef90_UPI00047C1DD4	
UniRef90_C8WF0	
UniRef90_A0A023D3D0	
UniRef90_A6ETN7	
UniRef90_UPI0003F702D2	
UniRef90_I9S960	
UniRef90_V2TIJ1	
UniRef90_C9XLS7	
UniRef90_E6UG81	
UniRef90_UPI00036C983D	
UniRef90_Q481H4	
UniRef90_UPI00047E56CE	
UniRef90_S0G118	
UniRef90_UPI0002F5D1BB	
UniRef90_N1MF68	
UniRef90_Q0FHX1	
UniRef90_A1S971	
UniRef90_Q31FC0	
UniRef90_R0DWQ0	
UniRef90_R9M5V9	
UniRef90_R6Q030	
UniRef90_E4TSC7	
UniRef90_I3ECN5	
UniRef90_UPI00047BCB44	
UniRef90_L0FUG9	
UniRef90_UPI00035D80E7	
UniRef90_N9DJA8	
UniRef90_UPI0004109BDA	
UniRef90_V4TB87	
UniRef90_UPI000410FFC6	
UniRef90_A0A059II91	
UniRef90_K0P687	
UniRef90_F7V9T6	
UniRef90_B5YJP9	

50                  60                  70                  80

S S T M E T Q K A A I L A A L Q I | T D E L F K E R N A C E S L T G D L R Q L A A  
 UniRef90\_C1A489  
 Y A V R D K Q D L L A M C A L Q L A S R L E R N K G K E L I D A N D V D G K L H  
 UniRef90\_G8R6U5  
 UniRef90\_UPI00041B969E  
 UniRef90\_R4KDA5  
 UniRef90\_F9Q6B1  
 UniRef90\_A0A024KFST7  
 UniRef90\_R6MPL7  
 UniRef90\_G0JPT6  
 UniRef90\_UPI000289AFE6  
 UniRef90\_D8F238  
 UniRef90\_K1YF93  
 UniRef90\_A6NR55  
 UniRef90\_K2IRK7  
 UniRef90\_A0A023RIE9  
 UniRef90\_L7VSB6  
 UniRef90\_R9B3V7  
 UniRef90\_Q8R9C8  
 UniRef90\_UPI00036C5176  
 UniRef90\_UPI00037FE8E8  
 UniRef90\_UPI000465E91A  
 UniRef90\_H9UHB1  
 UniRef90\_R5LP57  
 UniRef90\_N8QFG4  
 UniRef90\_F3WUQ5  
 UniRef90\_W1N685  
 UniRef90\_C2BE81  
 UniRef90\_D6GRB6  
 UniRef90\_M8JIM3  
 UniRef90\_H6LMJ7  
 UniRef90\_C6Y256  
 UniRef90\_B814K8  
 UniRef90\_UPI000368ECAE  
 UniRef90\_X2H622  
 UniRef90\_V4NWK2  
 UniRef90\_TOH2S7  
 UniRef90\_A3SN16  
 UniRef90\_A6TNQ0  
 UniRef90\_C4L4C5  
 UniRef90\_I3CB52  
 UniRef90\_R9KH36  
 UniRef90\_D9SM37  
 UniRef90\_UPI00037E4756  
 UniRef90\_M2TC90  
 UniRef90\_F9ZMP5  
 UniRef90\_A8F2P3  
 UniRef90\_F0SWT3  
 UniRef90\_R6V6U5  
 UniRef90\_E4T8Y1  
 UniRef90\_F8E9V0  
 UniRef90\_UPI00026CD7A4  
 UniRef90\_UPI00028872C3  
 UniRef90\_D5BPM9  
 UniRef90\_B1HW98  
 UniRef90\_UPI000348285  
 UniRef90\_UPI00035EDFB7  
 UniRef90\_UPI00038F5BA6  
 UniRef90\_W4ERY4  
 UniRef90\_TOHGU8  
 UniRef90\_UPI00047C1DD4  
 UniRef90\_C8W0F0  
 UniRef90\_A0A023D3D0  
 UniRef90\_A6ETN7  
 UniRef90\_UPI0003F702D2  
 UniRef90\_I9S960  
 UniRef90\_V2TIJ1  
 UniRef90\_C9XLS7  
 UniRef90\_E6UG81  
 UniRef90\_UPI00036C983D  
 UniRef90\_Q481H4  
 UniRef90\_UPI00047E56CE  
 UniRef90\_S0G1I8  
 UniRef90\_UPI0002F5D1BB  
 UniRef90\_N1MF68  
 UniRef90\_Q0FHX1  
 UniRef90\_A1S971  
 UniRef90\_Q31FC0  
 UniRef90\_R0DWQ0  
 UniRef90\_R9M5V9  
 UniRef90\_R6Q030  
 UniRef90\_E4TSC7  
 UniRef90\_I3ECN5  
 UniRef90\_UPI00047BCB44  
 UniRef90\_L0FUG9  
 UniRef90\_UPI00035D80E7  
 UniRef90\_N9DJ48  
 UniRef90\_UPI0004109BDA  
 UniRef90\_V4TB87  
 UniRef90\_UPI000410FFC6  
 UniRef90\_A0A059II91  
 UniRef90\_K0P687  
 UniRef90\_F7V9T6  
 UniRef90\_B5YJP9

UniRef90\_C1A489  
 UniRef90\_G8R6U5  
 UniRef90\_UPI00041B969E  
 UniRef90\_R4KDA5  
 UniRef90\_F9Q6B1  
 UniRef90\_A0A024KFS7  
 UniRef90\_R6MPL7  
 UniRef90\_G0JPT6  
 UniRef90\_UPI000289AFE6  
 UniRef90\_D8F238  
 UniRef90\_K1YF93  
 UniRef90\_A6NR55  
 UniRef90\_K2IRK7  
 UniRef90\_A0A023RIE9  
 UniRef90\_L7VSB6  
 UniRef90\_R9B3V7  
 UniRef90\_Q8R9C8  
 UniRef90\_UPI00036C5176  
 UniRef90\_UPI00037FE8E8  
 UniRef90\_UPI000465E91A  
 UniRef90\_H9UHB1  
 UniRef90\_R5LP57  
 UniRef90\_N8QFG4  
 UniRef90\_F3WUQ5  
 UniRef90\_W1N685  
 UniRef90\_C2BE81  
 UniRef90\_D6GRB6  
 UniRef90\_M8JIM3  
 UniRef90\_H6LMJ7  
 UniRef90\_C6Y256  
 UniRef90\_B8I4K8  
 UniRef90\_UPI000368ECAE  
 UniRef90\_X2H622  
 UniRef90\_V4NWK2  
 UniRef90\_T0H2S7  
 UniRef90\_A3SN16  
 UniRef90\_A6TNQ0  
 UniRef90\_C4L4C5  
 UniRef90\_I3CB52  
 UniRef90\_R9KH36  
 UniRef90\_D9SM37  
 UniRef90\_UPI00037E4756  
 UniRef90\_M2TC90  
 UniRef90\_F9ZMP5  
 UniRef90\_A8F2P3  
 UniRef90\_F0SWT3  
 UniRef90\_R6V6U5  
 UniRef90\_E4T8Y1  
 UniRef90\_F8E9V0  
 UniRef90\_UPI00026CD7A4  
 UniRef90\_UPI00028872C3  
 UniRef90\_D5BPM9  
 UniRef90\_B1HW98  
 UniRef90\_UPI0003484285  
 UniRef90\_UPI00035EDFB7  
 UniRef90\_UPI00038F5BA6  
 UniRef90\_W4ERY4  
 UniRef90\_T0HGU8  
 UniRef90\_UPI00047C1DD4  
 UniRef90\_C8W0FO  
 UniRef90\_A0A023D3D0  
 UniRef90\_A6ETN7  
 UniRef90\_UPI0003F702D2  
 UniRef90\_I9S960  
 UniRef90\_V2TIJ1  
 UniRef90\_C9XLS7  
 UniRef90\_E6UG81  
 UniRef90\_UPI00036C983D  
 UniRef90\_Q481H4  
 UniRef90\_UPI00047E56CE  
 UniRef90\_S0G1I8  
 UniRef90\_UPI0002F5D1BB  
 UniRef90\_N1MF68  
 UniRef90\_Q0FHX1  
 UniRef90\_A1S971  
 UniRef90\_Q31FC0  
 UniRef90\_R0DWQ0  
 UniRef90\_R9M5V9  
 UniRef90\_R6QO30  
 UniRef90\_E4TSC7  
 UniRef90\_I3ECN5  
 UniRef90\_UPI00047BCB44  
 UniRef90\_L0FUG9  
 UniRef90\_UPI00035D80E7  
 UniRef90\_N9DJA8  
 UniRef90\_UPI000410BDA  
 UniRef90\_V4TB87  
 UniRef90\_UPI000410FFC6  
 UniRef90\_A0A059II91  
 UniRef90\_K0P687  
 UniRef90\_F7V9T6  
 UniRef90\_B5YJP9

D I R P L L  
H L Q Q L L E A A

R L R R L V D

V M N R Q I E  
R L N E D I R A M L

M L Q R T I E A A L

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

E L D S L L N D

M L Q Q L L D S A L

D L D N Q L T S A L E Q

N L D A M L S K H L G  
E I

L I K K I E K V L

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

E M  
Y L N Q L L D E

S L A D S L E Q

A T A I V L E K A

Q L A G R I E K

A L N Q L L H E K I S  
H V N S L L S K A I

E L T E M L E E  
T V L E S I E K

D

T L K S A L

S L M K K I D K G L  
R I V E R L E H

A L A D R I E K

D A I T Q V  
E V E A K

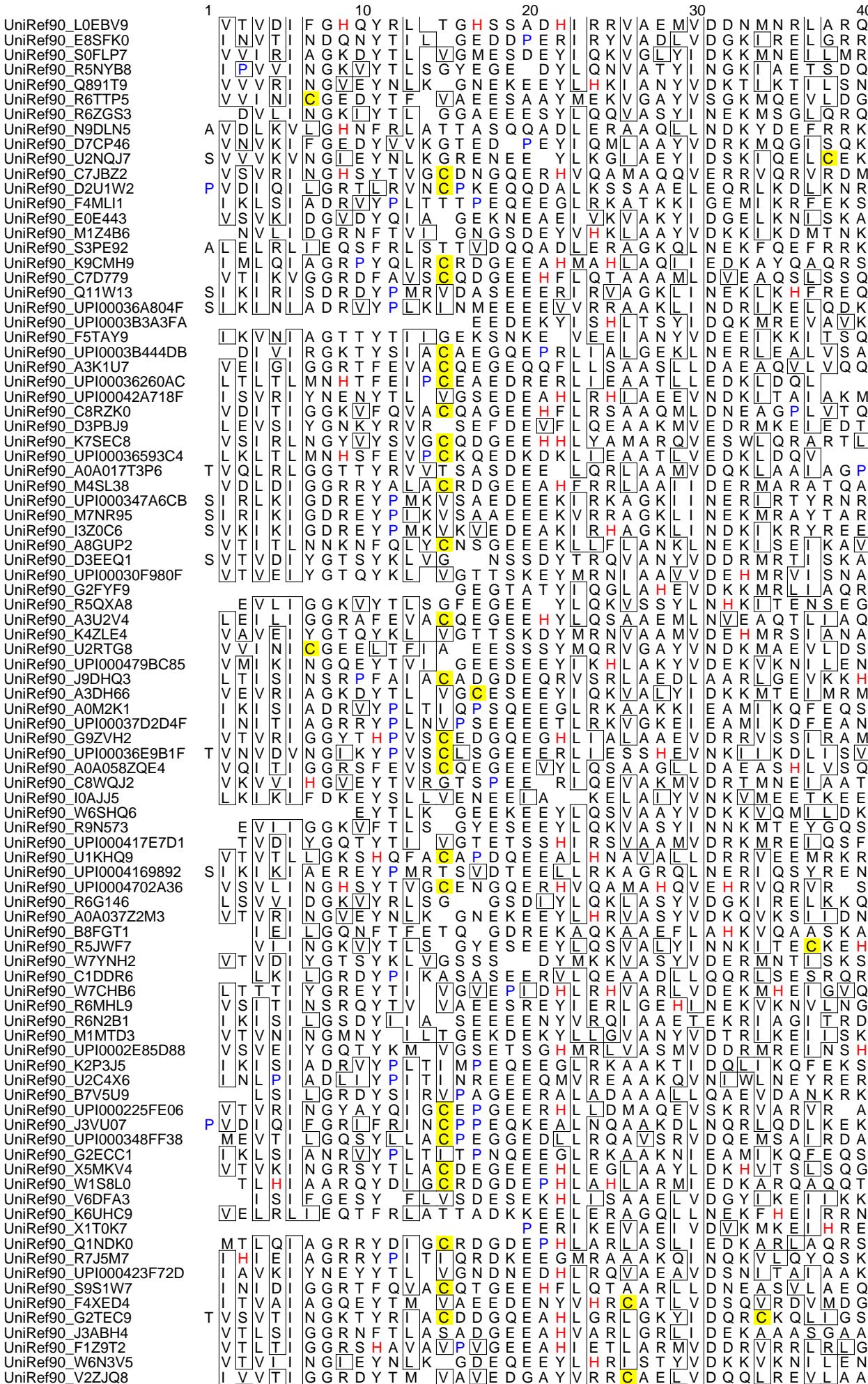
S I E H L I N Q T I

K I N D Q L K S V L

A M L E D V E K A

E M D Q K L S A L L A

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



50                            60                            70                            80

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

UniRef90\_L0EBV9  
 UniRef90\_E85FK0  
 UniRef90\_S0FLP7  
 UniRef90\_R5NYB8  
 UniRef90\_Q891T9  
 UniRef90\_R6TP5  
 UniRef90\_R6ZGS3  
 UniRef90\_N9DLN5  
 UniRef90\_D7CP46  
 UniRef90\_U2NQJ7  
 UniRef90\_C7JBZ2  
 UniRef90\_D2U1W2  
 UniRef90\_F4MLI1  
 UniRef90\_E0E443  
 UniRef90\_M1ZAB6  
 UniRef90\_S3PE92  
 UniRef90\_K9CMH9  
 UniRef90\_C7D779  
 UniRef90\_Q11W13  
 UniRef90\_UP100036A804F  
 UniRef90\_UP10003B3A3FA  
 UniRef90\_F5TAY9  
 UniRef90\_UP10003B444DB  
 UniRef90\_A3K1U7  
 UniRef90\_UP100036260AC  
 UniRef90\_UP100042A718F  
 UniRef90\_C8RZK0  
 UniRef90\_D3PB9  
 UniRef90\_K7SEC8  
 UniRef90\_UP100036593C4  
 UniRef90\_A0A017T3P6  
 UniRef90\_M4SL38  
 UniRef90\_UP1000347A6CB  
 UniRef90\_M7NR95  
 UniRef90\_I3Z0C6  
 UniRef90\_A8GUP2  
 UniRef90\_D3EEQ1  
 UniRef90\_UP100030F980F  
 UniRef90\_G2FYF9  
 UniRef90\_R5QXA8  
 UniRef90\_A3U2V4  
 UniRef90\_K4ZLE4  
 UniRef90\_U2RTG8  
 UniRef90\_UP1000479BC85  
 UniRef90\_J9DHQ3  
 UniRef90\_A3DH66  
 UniRef90\_A0M2K1  
 UniRef90\_UP100037D2D4F  
 UniRef90\_G9ZVH2  
 UniRef90\_UP100036E9B1F  
 UniRef90\_A0A058ZQE4  
 UniRef90\_C8WQJ2  
 UniRef90\_I0AJJ5  
 UniRef90\_W6SHQ6  
 UniRef90\_R9N573  
 UniRef90\_UP1000417E7D1  
 UniRef90\_U1KHQ9  
 UniRef90\_UP10004169892  
 UniRef90\_UP10004702A36  
 UniRef90\_R6G146  
 UniRef90\_A0A037Z2M3  
 UniRef90\_B8FGT1  
 UniRef90\_R5JWF7  
 UniRef90\_W7YNH2  
 UniRef90\_C1DDR6  
 UniRef90\_W7CHB6  
 UniRef90\_R6MHL9  
 UniRef90\_R6N2B1  
 UniRef90\_M1MTD3  
 UniRef90\_UP10002E85D88  
 UniRef90\_K2P3J5  
 UniRef90\_U2C4X6  
 UniRef90\_B7V5U9  
 UniRef90\_UP1000225FE06  
 UniRef90\_J3VU07  
 UniRef90\_UP1000348FF38  
 UniRef90\_G2ECC1  
 UniRef90\_X5MKV4  
 UniRef90\_W1S8L0  
 UniRef90\_V6DFA3  
 UniRef90\_K6UHC9  
 UniRef90\_X1T0K7  
 UniRef90\_Q1NDK0  
 UniRef90\_R7J5M7  
 UniRef90\_UP1000423F72D  
 UniRef90\_S9S1W7  
 UniRef90\_F4XED4  
 UniRef90\_G2TEC9  
 UniRef90\_J3ABH4  
 UniRef90\_F1Z9T2  
 UniRef90\_W6N3V5  
 UniRef90\_V2ZJQ8

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

UniRef90\_UPI00040F07AA  
 UniRef90\_W1SF77  
 UniRef90\_J9YVQ6  
 UniRef90\_M1L7J6  
 UniRef90\_A4SWI7  
 UniRef90\_W4T372  
 UniRef90\_B1Y863  
 UniRef90\_UPI000248C54E  
 UniRef90\_R5B383  
 UniRef90\_J2D858  
 UniRef90\_R6I924  
 UniRef90\_UPI0002897A4C  
 UniRef90\_R6C229  
 UniRef90\_K4IAD1  
 UniRef90\_R5XTP3  
 UniRef90\_R9C8X3  
 UniRef90\_UPI00036046BA  
 UniRef90\_J5VGJ0  
 UniRef90\_R6C6L6  
 UniRef90\_UPI0003684E3A  
 UniRef90\_UPI0003B4188B  
 UniRef90\_G2Z3N0  
 UniRef90\_KOAZZ8  
 UniRef90\_UPI0004677DE9  
 UniRef90\_UPI000471F635  
 UniRef90\_I3TIZ4  
 UniRef90\_UPI0003607208  
 UniRef90\_R6CEX8  
 UniRef90\_UPI000375B385  
 UniRef90\_UPI000361EE30  
 UniRef90\_Q0AXZ0  
 UniRef90\_R6KKB0  
 UniRef90\_UPI0002F7947E  
 UniRef90\_UPI00047E5248  
 UniRef90\_UPI0004648107  
 UniRef90\_A9DUT3  
 UniRef90\_R5X115  
 UniRef90\_A9KP50  
 UniRef90\_F2I363  
 UniRef90\_A0A059F6Z2  
 UniRef90\_R5HLY9  
 UniRef90\_R6GGN5  
 UniRef90\_R7JNC9  
 UniRef90\_UPI000470D9AF  
 UniRef90\_B1C849  
 UniRef90\_K2MN91  
 UniRef90\_E0RRU1  
 UniRef90\_F7KAC5  
 UniRef90\_R6PXH0  
 UniRef90\_G2IGQ3  
 UniRef90\_A1AU87  
 UniRef90\_D6Z243  
 UniRef90\_C0AW98  
 UniRef90\_Q1NS66  
 UniRef90\_J5C0U7  
 UniRef90\_R7KQZ4  
 UniRef90\_R71188  
 UniRef90\_Q39WF8  
 UniRef90\_A4CMW4  
 UniRef90\_A5GAV2  
 UniRef90\_I5AQI9  
 UniRef90\_KONG55  
 UniRef90\_UPI000470CB43  
 UniRef90\_H8KP15  
 UniRef90\_D0D2Q1  
 UniRef90\_R5VV26  
 UniRef90\_D4J377  
 UniRef90\_I5B1W9  
 UniRef90\_R6WKH7  
 UniRef90\_K1ZH12  
 UniRef90\_V7I1W2  
 UniRef90\_W9BYH9  
 UniRef90\_F0GTS5  
 UniRef90\_K1KZJ0  
 UniRef90\_A3WJG3  
 UniRef90\_N9UNQ7  
 UniRef90\_UPI0004231B7D  
 UniRef90\_UPI0002D74484  
 UniRef90\_H6CGY8  
 UniRef90\_C7HV35  
 UniRef90\_D5QBG7  
 UniRef90\_K2KYM1  
 UniRef90\_X5KM99  
 UniRef90\_W2URZ6  
 UniRef90\_R5LM06  
 UniRef90\_UPI00028A3E9E  
 UniRef90\_U2LCT6  
 UniRef90\_R6D4T7  
 UniRef90\_UPI0003F5D993  
 UniRef90\_W8GCN6  
 UniRef90\_I4CSA4  
 UniRef90\_W4C7U3

1 10 20 30 40

This sequence alignment block shows a comparison of protein sequences from various UniProt entries. The sequences are aligned horizontally, with gaps indicated by dashes. A color-coded scheme highlights specific residues: blue for hydrophobic, red for polar, yellow for aromatic, green for acidic, and purple for basic. Key residues are highlighted in yellow boxes, often corresponding to active sites or structural elements. The alignment is organized into several groups, each starting with a letter (A, T, P, S, I, V, T, M, D, F, R, L, K, N, Q, H, W, Y) followed by a vertical line and a sequence identifier.

Y A V R D K Q D V L A M C A L Q F A S K I E Q R G I D Q D E G V T E A A E R L K  
UniRef90\_UPI00040F07AA 50 60 70 80  
N P A L D V S K L A V L T  
UniRef90\_W1SF77  
UniRef90\_J9YVQ6  
UniRef90\_M1L7J6  
UniRef90\_A4SWI7  
UniRef90\_W4T372  
UniRef90\_B1Y863  
UniRef90\_UPI000248C54E  
UniRef90\_R5B383  
UniRef90\_J2D858  
UniRef90\_R6I924  
UniRef90\_UPI0002897A4C  
UniRef90\_R6C229  
UniRef90\_K4IAD1  
UniRef90\_R5XTP3  
UniRef90\_R9C8X3  
UniRef90\_UPI00036046BA  
UniRef90\_J5VGJ0  
UniRef90\_R6C6L6  
UniRef90\_UPI0003684E3A  
UniRef90\_UPI0003B4188B  
UniRef90\_G2Z3N0  
UniRef90\_KOAZZ8  
UniRef90\_UPI0004677DE9  
UniRef90\_UPI000471F635  
UniRef90\_I3TIZ4  
UniRef90\_UPI0003607208  
UniRef90\_R6CEX8  
UniRef90\_UPI000375B385  
UniRef90\_UPI000361EE30  
UniRef90\_Q0AXZ0  
UniRef90\_R6KBK0  
UniRef90\_UPI0002F7947E  
UniRef90\_UPI00047E5248  
UniRef90\_UPI0004648107  
UniRef90\_A9DUT3  
UniRef90\_R5X15  
UniRef90\_A9KP50  
UniRef90\_F2I363  
UniRef90\_A0A059F6Z2  
UniRef90\_R5HLY9  
UniRef90\_R6GGN5  
UniRef90\_R7JNC9  
UniRef90\_UPI000470D9AF  
UniRef90\_B1C849  
UniRef90\_K2MN91  
UniRef90\_E0RRU1  
UniRef90\_F7KAC5  
UniRef90\_R6PXH0  
UniRef90\_G2IGQ3  
UniRef90\_A1AU87  
UniRef90\_D6Z243  
UniRef90\_C0AW98  
UniRef90\_Q1NS66  
UniRef90\_J5C0U7  
UniRef90\_R7K0Z4  
UniRef90\_R71188  
UniRef90\_Q39WF8  
UniRef90\_A4CMW4  
UniRef90\_A5GAV2  
UniRef90\_5AQI9  
UniRef90\_KONG55  
UniRef90\_UPI000470CB43  
UniRef90\_H8KP15  
UniRef90\_D0D2Q1  
UniRef90\_R5VW26  
UniRef90\_D4J377  
UniRef90\_I5B1W9  
UniRef90\_R6WKH7  
UniRef90\_K1ZH12  
UniRef90\_V7I1W2  
UniRef90\_W9BYH9  
UniRef90\_F0GTS5  
UniRef90\_K1KZJ0  
UniRef90\_A3WJG3  
UniRef90\_N9UNQ7  
UniRef90\_UPI0004231B7D  
UniRef90\_UPI0002D74484  
UniRef90\_H6CGY8  
UniRef90\_C7HV35  
UniRef90\_D5QBG7  
UniRef90\_K2KYM1  
UniRef90\_X5KM99  
UniRef90\_W2URZ6  
UniRef90\_R5LM06  
UniRef90\_UPI00028A3E9E  
UniRef90\_U2LCT6  
UniRef90\_R6D4T7  
UniRef90\_UPI0003F5D993  
UniRef90\_W8GCN6  
UniRef90\_I4CSA4  
UniRef90\_W4C7U3

UniRef90\_UPI00040F07AA A L D N I G S K L G  
UniRef90\_W1SF77  
UniRef90\_J9YVQ6  
UniRef90\_M1L7J6 N I S A I D E V I  
UniRef90\_A4SWI7  
UniRef90\_W4T372 Q I N Q S L N E  
UniRef90\_B1Y863  
UniRef90\_UPI000248C54E  
UniRef90\_R5B383  
UniRef90\_J2D858 A L A T R I E K  
UniRef90\_R6I924  
UniRef90\_UPI0002897A4C M L A H R I E Q  
UniRef90\_R6C229 E M  
UniRef90\_K4IAD1 E L S E M I K E Q L  
UniRef90\_R5XTP3  
UniRef90\_R9C8X3  
UniRef90\_UPI00036046BA K I H Q T L  
UniRef90\_J5VGJ0  
UniRef90\_R6C6L6  
UniRef90\_UPI0003684E3A S L I Y K I E K G L  
UniRef90\_UPI0003B4188B K I D E L L S K C L Q N  
UniRef90\_G2Z3N0  
UniRef90\_K0AZZ8  
UniRef90\_UPI0004677DE9 E L K N V I D S A I N  
UniRef90\_UPI000471F635 D V D A T I A R A I D D  
R A E A T I L D E  
E D M K R I E K  
UniRef90\_I3TI24  
UniRef90\_UPI0003607208  
UniRef90\_R6CEX8  
UniRef90\_UPI000375B385  
UniRef90\_UPI000361EE30 A L N T I V D G M L  
UniRef90\_Q0AXZ0  
UniRef90\_R6KBK0  
UniRef90\_UPI0002F7947E  
UniRef90\_UPI00047E5248  
UniRef90\_UPI0004648107 E M  
UniRef90\_A9DUT3 A L D D I L K A Q I S  
UniRef90\_R5X115 K L  
UniRef90\_A9KP50 E I  
UniRef90\_F2I363  
UniRef90\_A0A059F6Z2 A L A A R I E S  
UniRef90\_R5HLY9 E I  
UniRef90\_R6GGN5  
UniRef90\_R7JNC9  
UniRef90\_UPI000470D9AF E L N D I L H N H I S  
UniRef90\_B1C849  
UniRef90\_K2MN91 R L L L Q I N E A I E  
UniRef90\_E0RRU1  
UniRef90\_F7KAC5  
UniRef90\_R6PXH0  
UniRef90\_G2IGQ3  
UniRef90\_A1AU87 E M L Y K I E S A  
UniRef90\_D6Z243 R L S T R I D K T  
UniRef90\_C0AW98 Q L A Q R I V E Q V  
UniRef90\_Q1NS66 A I N E Q I L E G L  
UniRef90\_I5C0U7 R M K H  
UniRef90\_R7K0Z4 E L  
UniRef90\_R71188 R L V K R I D S A I L  
UniRef90\_Q39WF8 S L D S I A S T I S  
UniRef90\_A4CMW4 R L I K R I D  
UniRef90\_A5GAV2  
UniRef90\_I5AQI9  
UniRef90\_KONG55 S L I E K I D R E I E  
UniRef90\_UPI000470CB43 E L D Q Q I T Q Y I S G  
UniRef90\_H8KP15 M I L E M  
UniRef90\_D0D2Q1 E I  
UniRef90\_R5VV26 S L L D K I I D K T M  
UniRef90\_D4J377 E L T D E L E S Y I K D  
UniRef90\_I5B1W9  
UniRef90\_R6WKH7  
UniRef90\_K1ZH12  
UniRef90\_V7I1W2  
UniRef90\_W9BYH9  
UniRef90\_F0GTS5 K  
UniRef90\_K1KZJ0 Q I S D K L  
UniRef90\_A3WJG3  
UniRef90\_N9UNQ7  
UniRef90\_UPI0004231B7D E M V Q S I D N A I L  
UniRef90\_UPI0002D74484 R V A E R I E  
UniRef90\_H6CGY8  
UniRef90\_C7HV35  
UniRef90\_D5QBG7  
UniRef90\_K2KYM1  
UniRef90\_X5KM99 H L N N I L Q N E I E  
UniRef90\_W2URZ6 S L N Q I L  
UniRef90\_R5LM06 E I  
UniRef90\_UPI00028A3E9E N L I D Q V D V V L S  
UniRef90\_U2LCT6 N Y K P A L E K  
UniRef90\_R6D4T7 Q L E Q D I D E C I G  
UniRef90\_UPI0003F5D993 E L T E L V A S H I L  
UniRef90\_W8GCN6 K L H A S I D A A L D Q  
UniRef90\_I4CSA4 A S V A R I N Q Q I A  
UniRef90\_W4C7U3 90  
UniRef90\_W4C7U3

UniRef90\_E3F2N4  
 UniRef90\_R6N3W5  
 UniRef90\_A4XGQ0  
 UniRef90\_R9LAY1  
 UniRef90\_R9GN72  
 UniRef90\_K5XAT0  
 UniRef90\_R5CEU4  
 UniRef90\_UPI00036081DC  
 UniRef90\_A6GYQ9  
 UniRef90\_A5PDL2  
 UniRef90\_UPI0002E1409B  
 UniRef90\_K1LXK9  
 UniRef90\_R7NJR2  
 UniRef90\_F4HEL8  
 UniRef90\_R5GK2  
 UniRef90\_Q1GT17  
 UniRef90\_UPI000382B760  
 UniRef90\_C6CWJ6  
 UniRef90\_R7NTA8  
 UniRef90\_UPI00037CC5D6  
 UniRef90\_UPI0003B55E26  
 UniRef90\_D9QUN7  
 UniRef90\_D1PNP6  
 UniRef90\_A3U862  
 UniRef90\_D7V1B1  
 UniRef90\_F4AZP5  
 UniRef90\_R5J6S3  
 UniRef90\_R6ZK77  
 UniRef90\_UPI0003B4A551  
 UniRef90\_J5I9H3  
 UniRef90\_E1QGF8  
 UniRef90\_UPI0003740F6E  
 UniRef90\_R5CGQ9  
 UniRef90\_UPI000237BD23  
 UniRef90\_UPI00046F27FC  
 UniRef90\_UPI00035B5B64  
 UniRef90\_R7AER3  
 UniRef90\_W4CM65  
 UniRef90\_UPI0004768CD9  
 UniRef90\_A3J581  
 UniRef90\_R5JKM8  
 UniRef90\_X8IS21  
 UniRef90\_M4R3Z1  
 UniRef90\_UPI0002D51208  
 UniRef90\_X4ZIJ3  
 UniRef90\_E4KXB6  
 UniRef90\_R7PJ98  
 UniRef90\_A9H7W9  
 UniRef90\_R7C9U8  
 UniRef90\_E1R4G3  
 UniRef90\_S2Y6T3  
 UniRef90\_C0D7P4  
 UniRef90\_B8G0M0  
 UniRef90\_G5IEF2  
 UniRef90\_UPI000412D0AD  
 UniRef90\_R5H8P7  
 UniRef90\_W8VQD5  
 UniRef90\_F5Y8W1  
 UniRef90\_UPI000364B877  
 UniRef90\_UPI00047B3FC5  
 UniRef90\_R5RNT0  
 UniRef90\_W7XXW9  
 UniRef90\_R5E519  
 UniRef90\_U5S831  
 UniRef90\_F3B9T8  
 UniRef90\_X1QGT0  
 UniRef90\_C2KW72  
 UniRef90\_UPI00041868F8  
 UniRef90\_B3EK4C  
 UniRef90\_R5XDA0  
 UniRef90\_F1ZRN8  
 UniRef90\_C4Z9W1  
 UniRef90\_K6GIF5  
 UniRef90\_UPI000472D0B1  
 UniRef90\_M5EED0  
 UniRef90\_F4C4D4  
 UniRef90\_F4L346  
 UniRef90\_UPI00036A1923  
 UniRef90\_UPI0002887242  
 UniRef90\_R6CFE1  
 UniRef90\_R6YLR8  
 UniRef90\_R7IVQ9  
 UniRef90\_R5P6B0  
 UniRef90\_E3GNK9  
 UniRef90\_D4J8B9  
 UniRef90\_B6INM3  
 UniRef90\_UPI00035F70E3  
 UniRef90\_UPI0004682A56  
 UniRef90\_UPI00029173CB  
 UniRef90\_UPI000469C0BC  
 UniRef90\_UPI000378D9C1  
 UniRef90\_G6EYK9

1 10 20 30 40

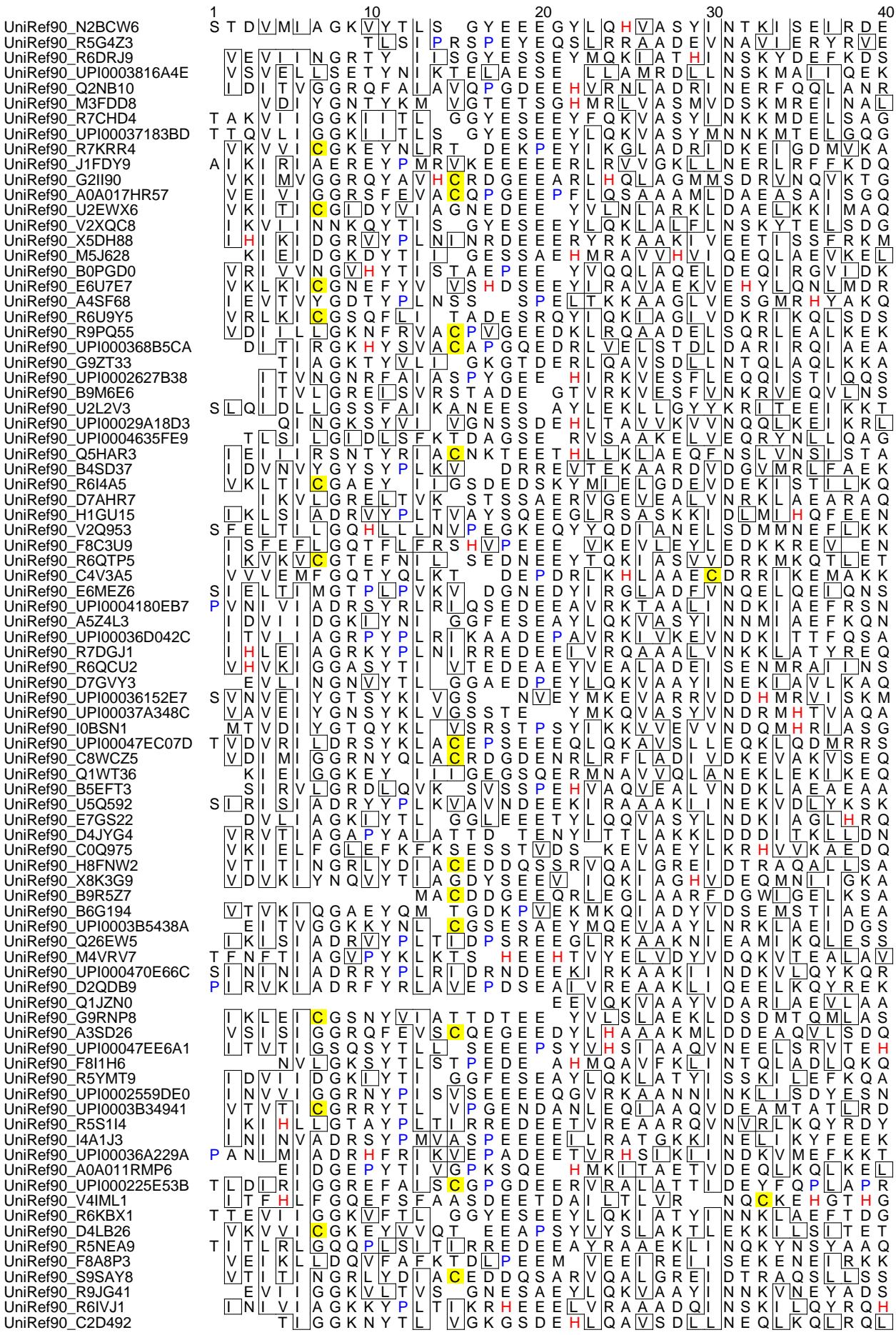
Detailed description: This figure displays a sequence alignment of multiple proteins. The alignment is organized into columns labeled 1, 10, 20, 30, and 40, representing positions in the sequence. A vertical scale on the left lists protein identifiers. Specific residues are highlighted with colored boxes: yellow for conserved positions, red for positions with high variability or specific substitutions, and blue for other notable features. The alignment shows how different proteins align at specific positions, with varying degrees of conservation across the sequence.

50      60      70      80

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

90

UniRef90\_E3F2N4 T L E A R L A Q T  
 UniRef90\_R6N3W5 Q T N D L  
 UniRef90\_A4XGQ0  
 UniRef90\_R9LAY1 K L D Q L L  
 UniRef90\_K5XAT0 R I T S Q L  
 UniRef90\_R5CEU4 E L T E A I E A  
 UniRef90\_UP100036081DC K L N E L L G K Y L  
 UniRef90\_A6GYQ9  
 UniRef90\_A5PDL2  
 UniRef90\_UP10002E1409B K I S Q K I E E T  
 UniRef90\_K1LXK9 Q I E H S L S T I L S N  
 UniRef90\_R7NJR2 E L Q E V V D K K L  
 UniRef90\_F4HEL8 K L L E L I D Q S I A  
 UniRef90\_R5GKC2 L V D L L E Q A  
 UniRef90\_Q1GTI7 E L T K E I E Q Y L S  
 UniRef90\_UP1000382B760 D L I L R I D H A L S  
 UniRef90\_UP100037CC5D6 S I A A A L E Q T L  
 UniRef90\_D9QUN7  
 UniRef90\_D1PNP6 D  
 UniRef90\_A3U862 N L N L F L E Q Q L  
 UniRef90\_D7V1B1  
 UniRef90\_F4AZP5 K L A A L L D E S L  
 UniRef90\_R5J6S3 E L T K T L E E  
 UniRef90\_R6ZK77 E L N E D I E R Y I Q D  
 UniRef90\_UP10003B4A551 E L  
 UniRef90\_J5I9H3  
 UniRef90\_E1QGF8  
 UniRef90\_UP10003740F6E D L  
 UniRef90\_R5CGQ9 D L N D K L D A I L A  
 UniRef90\_UP1000237BD23  
 UniRef90\_UP100046F27FC  
 UniRef90\_UP10003B5BB64  
 UniRef90\_R7AER3 Q I S D  
 UniRef90\_W4CM65  
 UniRef90\_UP10004768CD9 S L I G E L D N Y L S  
 UniRef90\_A3J581 N L D K K L S E L L S  
 UniRef90\_R5JKM8  
 UniRef90\_X8IS21  
 UniRef90\_M4R3Z1  
 UniRef90\_UP10002D51208  
 UniRef90\_X4ZIJ3  
 UniRef90\_E4KXB6  
 UniRef90\_R7PJ98 S L K H E L  
 UniRef90\_A9H7W9  
 UniRef90\_R7C9U8  
 UniRef90\_E1R4G3 F L D E E L  
 UniRef90\_S2Y6T3 E M  
 UniRef90\_C0D7P4  
 UniRef90\_B8G0M0  
 UniRef90\_G5IEF2  
 UniRef90\_UP1000412D0AD E L T D L L E E  
 UniRef90\_R5H8P7  
 UniRef90\_W8VQD5 V L D Q L L K Q H L S  
 UniRef90\_F5Y8W1 N L I S R L D H A L G  
 UniRef90\_UP1000364B877  
 UniRef90\_UP100047B3FC5 L L D Q K L D Q V L S  
 UniRef90\_R5RNT0  
 UniRef90\_W7XXW9 E L D Q Y L S D V L E  
 UniRef90\_R5E519 Q I Y D L R H E V I E T  
 UniRef90\_U5S831  
 UniRef90\_F3B9T8  
 UniRef90\_X1QGT0 E M  
 UniRef90\_C2KW72  
 UniRef90\_UP100041868F8 Q M D E R L G D L L K Q  
 UniRef90\_B3EKC4 R L T L F L E Q  
 UniRef90\_R5XDA0 D  
 UniRef90\_F1ZRN8 K I Y R I L S E  
 UniRef90\_C4Z9W1 E I  
 UniRef90\_K6GIF5 S L V S E I E K S L  
 UniRef90\_UP1000472D0B1 S T Q M K L E A V L K D  
 UniRef90\_M5EED0  
 UniRef90\_F4C4D4 Q L D Q L L S E  
 UniRef90\_F4L346 H L E A L L D Q  
 UniRef90\_UP100036A1923 Q A Q Q L I D K M I A D  
 UniRef90\_UP10002887242 E L  
 UniRef90\_R6CFE1 M V L E M  
 UniRef90\_R6YLR8 Q L  
 UniRef90\_R7IVQ9  
 UniRef90\_R5P6B0  
 UniRef90\_E3GNK9  
 UniRef90\_D4J8B9  
 UniRef90\_B6INM3  
 UniRef90\_UP100035F70E3 R L L Q S I D H V L P D  
 UniRef90\_UP10004682A56  
 UniRef90\_UP100029173CB R I S Q Q L  
 UniRef90\_UP1000469C0BC E L T E E L E S I L  
 UniRef90\_UP1000378D9C1  
 UniRef90\_G6EYK9

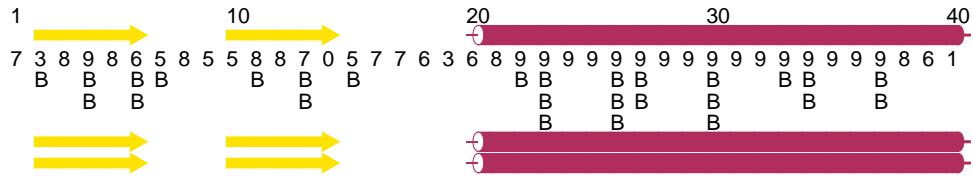


Y R R I P N D M K S I L I Q L N I A D D F F K A K R Q  
M P H V A R E Q L L S Y V A L D I A N E L Q R L R K E Q S E L K  
F P K L D Q E M K N I L L A I N L S D D Y Y K A Q D N L Q K D N E D L E K E I F  
Q P G L N Y K T I A V L S A L E I A N D Y L A L K K E Y D N L T Q L L K E E  
Y S Q N L L F A S L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

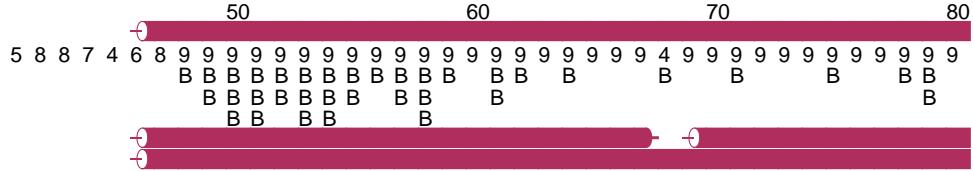
c c  
C C C C C C C C C C C C C C C C

UniRef90\_N2BCW6  
 UniRef90\_R5G4Z3 R **L** N S S **L** E E S **I**  
 UniRef90\_R6DRJ9 H M K **H**  
 UniRef90\_UPI0003816A4E  
 UniRef90\_Q2NB10  
 UniRef90\_M3FDD8  
 UniRef90\_R7CHD4 E M  
 UniRef90\_UPI00037183BD E M  
 UniRef90\_R7KRR4 E  
 UniRef90\_J1FDY9 V L D D **L** L  
 UniRef90\_G2II90  
 UniRef90\_A0A017HR57  
 UniRef90\_U2EWX6  
 UniRef90\_V2XQC8 E **L**  
 UniRef90\_X5DH88  
 UniRef90\_M5J628  
 UniRef90\_B0PGD0  
 UniRef90\_E6U7E7  
 UniRef90\_A4SF68 G **L** N S **L** M D E S **L**  
 UniRef90\_R6U9Y5  
 UniRef90\_R9PQ55  
 UniRef90\_UPI000368B5CA  
 UniRef90\_G9ZT33  
 UniRef90\_UPI0002627B38 D **L** C E R **L** D Q **V** L V  
 UniRef90\_B9M6E6 G **L** I Q R M D S **V**  
 UniRef90\_U2L2V3 R M I D R **I** D K A **L**  
 UniRef90\_UPI00029A18D3  
 UniRef90\_UPI0004635FE9 E **L** L H K I D  
 UniRef90\_Q5HAR3  
 UniRef90\_B4SD37 R **L** N  
 UniRef90\_R6I4A5 D  
 UniRef90\_D7AHR7 R **L** T R R I E D **V** L  
 UniRef90\_H1GU15 R **L** D E A L D R **V** L S  
 UniRef90\_V2Q953 D **L** I T K V N N  
 UniRef90\_F8C3U9 K M G E F **L** E K  
 UniRef90\_R6QTP5  
 UniRef90\_C4V3A5  
 UniRef90\_E6MEZ6  
 UniRef90\_UPI0004180EB7 S **L** E K M **L** D K A **L** S  
 UniRef90\_A5Z4L3  
 UniRef90\_UPI00036D042C T **I** D E I L E Q **L** L  
 UniRef90\_R7DGJ1 E **I** D E E L D S Y **L** N Q  
 UniRef90\_R6QCU2 D  
 UniRef90\_D7GVY3 S **L** K H E **L**  
 UniRef90\_UPI00036152E7  
 UniRef90\_UPI00037A348C  
 UniRef90\_I0BSN1  
 UniRef90\_UPI00047EC07D Q M **I** N D A E K S **L** A Q  
 UniRef90\_C8WCZ5  
 UniRef90\_Q1WT36  
 UniRef90\_B5EFT3 G **L** I G R **L** N R  
 UniRef90\_U5Q592 N **L** D T **L** L D E  
 UniRef90\_E7GS22 K E T Y R **L** K H E **L** V S  
 UniRef90\_D4JYG4 D  
 UniRef90\_C0Q975 S **L** I E K I D E  
 UniRef90\_H8FNW2 S **I** A T R **L** E R A  
 UniRef90\_X8K3G9  
 UniRef90\_B9R5Z7  
 UniRef90\_B6G194  
 UniRef90\_UPI0003B5438A  
 UniRef90\_Q26EW5  
 UniRef90\_M4VRV7  
 UniRef90\_UPI000470E66C E **L** N D F **L** A E Y **L** E  
 UniRef90\_D2QDB9 D K I T Q L D Q **V** I  
 UniRef90\_Q1JZN0 T **L** D E K **L** S S A **L** S  
 UniRef90\_G9RNP8  
 UniRef90\_A3SD26  
 UniRef90\_UPI00047EE6A1  
 UniRef90\_F8I1H6  
 UniRef90\_R5YMT9  
 UniRef90\_UPI0002559DE0 K I N S K **L** Q S Y **L**  
 UniRef90\_UPI0003B34941 E **L** T G **L** L E A  
 UniRef90\_R5S1I4 Q L T Q K I N Q  
 UniRef90\_I4A1J3 Q **L** E A I I D S E **L** G  
 UniRef90\_UPI00036A229A  
 UniRef90\_A0A011RMP6  
 UniRef90\_UPI000225E53B  
 UniRef90\_V4IML1 R M N K **L** L S A  
 UniRef90\_R6KBX1 E **I**  
 UniRef90\_D4LB26 E  
 UniRef90\_R5NEA9 R M **L** D T **L** D E T **L** G T  
 UniRef90\_F8A8P3 E **L** D E Y L K E **V**  
 UniRef90\_S9SAY8 A **L** A T R **L** E R A  
 UniRef90\_R9JG41  
 UniRef90\_R6IVJ1 E **L** T T E **L** E G Y **L**  
 UniRef90\_C2D492

jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm



jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm



jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm

