

QUERY UniRef90\_A7MIV2 UniRef90\_J7U4N1 UniRef90\_UPI00036ACDF7 UniRef90\_S6EVV1 UniRef90\_D2TZX0 UniRef90\_Q8D1C1 UniRef90\_C9R3R3 UniRef90\_B0USN3 UniRef90\_B6EMT1 UniRef90\_UPI00046EE4B2 UniRef90\_R8ATE3 UniRef90\_UPI0003B2F00D UniRef90\_Q2NR40 UniRef90\_UPI00047080A5 UniRef90\_A6VN77 UniRef90\_D3VE29 UniRef90\_K2AZ34 UniRef90\_AOKU98 UniRef90\_G9YE38 UniRef90\_M4R7G6 UniRef90\_X2H425 UniRef90\_I1XKW4 UniRef90\_UPI00035FCA50 UniRef90\_D5BYS8 UniRef90\_UPI000472B8DD UniRef90\_E1SWJ4 UniRef90\_J3Z492 UniRef90\_UPI000468B5FA UniRef90\_I2NQB2 UniRef90\_UPI0003B5BFA5 UniRef90\_Q7VN95 UniRef90\_F9UB05 UniRef90\_K2BGP5 UniRef90\_W9A1S5 UniRef90\_G2DBH6 UniRef90\_B8GTX7 UniRef90\_F4HEE2 UniRef90\_M5DJV1 UniRef90\_C4K345 UniRef90\_R41175 UniRef90\_I3Y7S1 UniRef90\_U1S5J1 UniRef90\_O68823 UniRef90\_F3KE10 UniRef90\_S6JQM4 UniRef90\_P43749 UniRef90\_UPI000313ACAA UniRef90\_J5H8I9 UniRef90\_E0WSA5 UniRef90\_UPI0003091228 UniRef90\_I2JKP0 UniRef90\_J2IEL9 UniRef90\_A3QBE7 UniRef90\_A0A031M7B5 UniRef90\_K0C420 UniRef90\_A8FRZ7 UniRef90\_L0HOE8 UniRef90\_U7PBH4 UniRef90\_UPI00035C1BEB UniRef90\_K7AMW0 UniRef90\_Q12K81 UniRef90\_F4ATE4 UniRef90\_W7QDE1 UniRef90\_A0Z252 UniRef90\_UPI0004761C41 UniRef90\_C9PRS5 UniRef90\_M4X287 UniRef90\_Q2YB19 UniRef90\_A1RHG9 UniRef90\_Q1QTE2 UniRef90\_C0N7W1 UniRef90\_I4N1K7 UniRef90\_UPI000470A343 UniRef90\_W1NB32 UniRef90\_A1S3P2 UniRef90\_D3RSJ5 UniRef90\_V6UZR2 UniRef90\_F9S1M7 UniRef90\_F7NSM6 UniRef90\_Q1Z4X3 UniRef90\_Q1LTH9 UniRef90\_I8T145 UniRef90\_B8CK09 UniRef90\_UPI0003B6C36F UniRef90\_UPI00035E1D39 UniRef90\_UPI000468E2D9 UniRef90\_J3Z5M2 UniRef90\_A3D779 UniRef90\_Q1N2A3 UniRef90\_C9P2C0 UniRef90\_UPI0002E476C0

	1	10	20	30	40
KNATFY	L	DNDTT	V DGL	S AVE	VL
KNATFY	L	DNDDT	A DGL	S AVE	C D
KNATFY	L	ME Q P S P	F D D	E A H E	V C
KNATFY	L	DNDT A	ANGL	W L	E I
KQAFY	I	L Q K T Q	P K A P	D AMET	A A A E
KNATFY	L	LE E H	D T P A G E	L R A H E	R WR
KNATFY	L	SD AS	P A Q T L	S A V E S L	S G K R
KQAFY	I	L S Q Q G	K N G L	F A E E S L	R V
QALFY	V	L E S T S	P A A T Q	P G L L	T C D
KNATFY	L	P G P D T	P H E P L	S A V E A M A C	E L A A A R
KQATFY	L	P PASE	L P A G L	S A Q A Y H	C R L A A D A W
ITFY	V	L P P D A P	L T A R L	G T A C R L	R Q G Q R
KNATFY	L	D Q H A I	S D G L	T A V E R	C D L A A A D K
RVDFY	I	L S S E P D D	K L H F A C	R L A E K A Y R S G	H K V
KQAFY	I	L E T A Q P K	G E L S A V E	A Q A C D L A A A Q A W	R L G K R
KNATFY	L	L E Q S S F S	D D L Q P H E	W M A C Q L A A D Q W R	R A G K R
KVDFY	I	L S D T	V C F P F A C	R L I E K I Y K Q N H	R I Y
QALFY	L	L P P M G V	N T A L N D M Y	Q L A C R L A A Q Q G F	I N Q Q Q V
KQATFY	L	L E H H Q P D G E	L D A V E A L	C R L A C D L A A Q Q W R S G	K R I
KVTFY	L	L S Q D C	I T E S	A C N L A V K Q W R T	G K K V
KKVIFY	L	L E N Q K P E	S G V L Y H E K	C E K I V E I W Q A N K R	I L V
KVSFY	I	L G S T D P L D	R Q Q F A C	R L A E K A Y L Q G H Q	V F I
KNATFY	V	L A D D V P A G E	L S A V E A L	C D L A A A Q H W R G G	Q R I
KVDFY	L	L T S R Q P Q	R E R F A C	K L T E K A Y R L G H	R I Y
QAVFY	L	L M P P A K S Q A P	L D E V Y H	L G C Q L A Q Q H Y V Q G Q	W I
UNATFY	L	L P G G S D S A R	V T R P A D I A	C Q A A A R A Y R K G Q R	V F V
KNATFY	L	L A Q Y T S I T	G L T A V E R L	A C Y L A A K N W Q E G K	W S L
KATFY	L	L P N A A Q Q P S A E R	L Q L A C Q L	L A G Q H Y A N G E W L	Y I
KQAFY	V	V N K D N I H E Q	A C D L A A K A W	R L G K R V	L I
RIDFY	I	I L S D D	F A A A T S H	V L T A C K L C D K A T A G G K	R V Y A
KQVKFY	L	L S Q L G S	D D L S A A E A M A C E	L A A Q A W R S G K R	V R L I
RIDFY	S	L D E N S G G D	R F I L L A C R L V E R I R A T G A R	V L I	
KIDFY	I	I L S A A K S	L Q F A C R L I E K I Y K Q K H C	I Y	
HATFY	I	I L D D N Q D G A D S D F	Q W H F A C R C	R C A A M S Y R Q G	L R V Y L
QVDFY	I	I L D D K A R I N	R Y S L A C R L T E K I Y H Q G R	R V F I	
RIDFY	V	V L D D T D P G Q	R L R T A C R L I G K A Y G L H	R I H V	
KQALFY	V	V F S N T T T Q E	N P L E N K A C D L A A D A W	R L G K K V	L I
MTE	I	I D F Y S G G G D K L	Q I A C R L I A K A V R Q G	R K L M V	
KRATFY	L	L M E H G D P I H G L	S P E E T L T C E L S A Q H W R A G K K I	Q I	
KQATFY	L	L E H N R A S G V L S A	H E A V A C I I S A E H W R S G K R	L L I	
RIDFY	S	S L E P E S R G D	R F I L L T C R L V E R I R A K E	L R V L I	
QSAQFY	L	L H D M A S P N G L	S A Q E Q L A C N L A A A A W R L G K R	V L I	
RVDFY	V	V I P S A D P	S A R L I Q V A C R L A E K A W R Q G M Q	V Y I	
RVDFY	I	I L A D S E S Q	A R L I Q F V C R L V E K A Y K Q Q H	R I Y I	
KVDFY	I	I L P S A E P	S A R L D F A C K L T E K A W R L G H	R V Y V	
KTAQFY	I	I L T E N C T L T	V E E I A C N L A A S I W R S G K K	V L I	
RVDFY	V	V L N S H E A	S A R W L A C R L L E K A Y L R G H Q	V F V	
KQVQFY	L	L N Q P N S E	L N L A C E L A A A A W R L G K R	V L I	
ATFY	I	I E Q N S T Q D H M Q G H	I D Y V I Y L A D Y F A S Q G A K	V Y I	
KVDFY	I	I L N Q G T A T A A M L Y A C R L A E K A Y R S G H E	V R Y I		
QVTIFY	V	V L A E Q S A A A S A P A H F A L A C Q L C A Q L Y R A K Q R	V F V		
NALFY	L	L M P Q A S S A A T Q E S V Y L F A C R L A E Q A Y R G Q Q	V Y I		
RIDFY	I	I L N S P S P	D A R L Q Y A C R L A H K A W Q Q S R H	V Y I	
RIDFY	V	V L P D D T P	D A Q H L F A C R L A Q K A S K Q G H R	V Y I	
QTLFY	I	I L M P T E R P R S S G L E Q M Y H	L A Q Q A F M Q Q Q	V Y I	
RVSFY	S	S L A E D A P G D	R F Q L A C R L V E R I Y A A G L R	V Y I	
QIDFY	V	V L P D S T	L E A R L D F A C R L A E T I Q R K G Y R L H	V Y I	
RIDFY	I	I L R E G A A E T T G G P V M	T A C K L C E K A S A G G H R I Y A	V Y I	
NVTIFY	L	L D E T D D T H Q Q P A H F A L A C Q L L A T R S Y R Q K Q K	C L V		
QAIIFY	I	I L M P D T P S P E A L E A V Y L A C Q L A A R A Y R Q Q Q E I	Y I		
KVTFY	I	I L E Q E A E A T Q Q P A H L A L A C Q L A A Q C F S N K Q R C	V V		
QVTIFY	V	V I V E Q Q P D V N	V S A V V H Y A C E L A S Q H Y R Q N N R V F I	V F I	
RVDFY	V	V V A D A S P G	A R L I H V A A R L V D K A H R Q G H T L F I	V F I	
KNAQFY	I	I L T E Q S P F T	V E Q L A C N L A A S A W R L G K R I	L I	
KNAQFY	L	L S E Q	S Q V E K I A C D L A A S A W R L G K R V	L I	
RVDFY	V	V I P S A D P D A R L S	I L A C R L A E K A W R Q G M R I	F V	
MTE	I	I D F Y S G G G D R L	H T A C R L V A T A V R K G F K V M	F V	
QALFY	L	L M P P A N T N A A L G A M H L F A C Q L A A Q Q A Y I K Q Q	V Y I		
QVDFY	I	I L P D T T	L D A R L A F A C R L A E T I H R K G Y R L H	V Y I	
RVSFY	I	I L K S T Q F E K	R Q A F A C R L A E K A Y H Q G H Q	V Y I	
KVDFY	I	I L P S P L P	A A R L D F A C K L V E K A W R L G H	R V Y I	
QIDFY	V	V L P D T T	L E A R I L T F A C R L A E T I N H K G Y R L H	V Y I	
KVDFY	I	I L P D T T	L E A R I L A F A C R L T E T I A R K G Y R L Y I	V Y I	
QALFY	V	V L P P S Q M R D	A A E L L A C R L A A F H Y R R G A W V Y I	V Y I	
RVDFY	S	S L E P D S R G D	R F I L L A C R L V E R I R A Q D L R V L I	V Y I	
KVDFY	I	I L P S D S	L S V R L D F A C K L C E K A W R L G H	V Y I	
NATFY	I	I L K A D S P Q A N E S G F L G Y V V F L A Q H	C A D F Y Q A G Q R V F V	V F V	
QVSFY	V	V I P E M A A E A S E P A F F H V A A K L C	A D F Y Q A G Q R V F V	V F V	
HATFY	I	I E D K H L E A D S D Y L L H F S C H Q A A L S Y Y Q Q G N K	V Y I		
KVTFY	V	V R L N K K T I P N W L I A M E Q L A Y H	L V V I N W R A G K R I L I	V Y I	
RIDFY	I	I L P D G E	E G G T S A P A F V I S K L C E K A T R S G A R V	V Y I	
QTLFY	V	V L M P R H E P L L A L Q Q V Y D F A C E L A R Q A F I N Q Q	V Y I		
QVTIFY	I	I L A E D T L A T D I P A H F A Q A C S L A A F Y Y Q Q N R K	V F I		
RVTFY	L	L L Q D P Q P	D A R L R L A C K L A E K A S R Q G H R	V H V	
MTE	I	I D F Y S G G S E D K L H T A C R L V A K A L Q K G F K V M	F V		
KSVTFY	V	V L N Q H V T I D D L A A I E Q F V C Q L D F V A K Q W R Q V K R I	L I		
QVLFY	I	I L M P P D S P V A T A N A M Y L L A C Q L A Q Q A F V K Q Q	W V Y I		
IDFY	V	V L G H S Q Q Q A R L S F A C R L A E K A F K E G R Q I	Y V		
ATFY	I	I L I A N D S P Q A T I T G F E H Y I V Y L A H H F A R Q G A K	V Y V		
ATFY	L	L L D E S D T Q P Q Q S M L D K V C Q L S A L Y S Q Q G M K	V Y I		

QUERY	50	60	70	80
UniRef90_A7MIV2	A C E D E K Q A Y R L	D E A L W A R P A E S F V	P H N L A G E G P R G G A P	P V E
UniRef90_J7U4N1	A C V D E A Q A T R I	D E A L W K R D P G S F V	P H N L A G E G P R G G A P	P V E
UniRef90_UPI00036ACDF7	A C E S Q Q Q A E K L	D E A L W A R E P D A F V	P H N L A G E G P R Y G A P	P V E
UniRef90_S6EVV1	A C E D Q A I R L	D E A L W A R D P E E F V	P H N L S G E E T Q Y A T P	P I E
UniRef90_D2TZX0	S C E S E E Q A F R L	D E A L W Q R E P Y Q F V	P H N L A G E G P R Y G A P	P V E
UniRef90_Q8D1C1	A C E D Q I Q A E K L	D E I L W Q R A P E Q F V	P H N L A G E G P R Y G A P	P V E
UniRef90_C9R3R3	A C E S Q E Q A Q R L	D E A L W Q R D P D E F V	P H N L S G E A T T Y A T P	P I E
UniRef90_B0USN3	A C E N E A Q A L N I	D E A L W Q R D P D E F V	P H N L S G E M T S Y V T P	I E
UniRef90_B6EMT1	T C E T E E Q A L K L	D E A L W Q R D P D E F V	P H N L S G E M T S Y V T P	I E
UniRef90_UPI00046EE4B2	L S D D K E Q A L L I	D E L L W Q N D V S E F I	P H N L I G E G P K S G S P	P I E
UniRef90_R8ATE3	A C E N E A Q A V R L	D E A L W Q R P A D S F V	P H N L A G E G P R Y G A P	P V E
UniRef90_UPI0003B2F00D	A C A S Q T E A F A V	D E A L W Q F P Q Q F V	P H N L A G E G P H Y G S P	P V E
UniRef90_Q2NR40	Q T A S R A E A E T L	D E A L W S F R P E S F V	P H N L V G E G P T P P P P	V E
UniRef90_UPI00047080A5	T C E D D A Q A I R L	D E A L W E R D P H A F V	P H N L A G E G P R Y G A P	P V E
UniRef90_A6VN77	H T S N E E D A R H I	D D Q L W A F K P E S F V	P H N L I S E P H N T P P P	V Q
UniRef90_D3VE29	A C E T E E Q A F R L	D E A L W Q R D A D E F V	P H N L S G E E T N F A T P	P I E
UniRef90_K2AZ34	A C E S Q Q Q A E K L	D E A L W Q R E P S Q F V	P H N L A G E G P R Y G A P	P V E
UniRef90_AOKU98	H A E N Q S D A H T L	D E L L W T Y R D D S F L	P H N L Y G E G P E P V P	P I Q
UniRef90_G9YE38	H C Q D K N I A F E I	D E L L W Q F E P S A F V	P H N L K G E G P T T G S P	V E
UniRef90_M4R7G6	A C E T S Q E Q A V K L	D E A L W A R D P H Q F V	P H N L A G E G P H Y G A P	V E
UniRef90_X2H425	A C Q D D Q Q Q A E R L	D E Y L W Q L D T D H F V	P H N L A G E G G M K G G S P	P V E
UniRef90_I1XKW4	H T E D D Q D Q S E A M	D M D K A L W A F R P D S F V	P H Q V L A T D N K I E A P	P V L
UniRef90_UPI00035FCA50	A C V D E Q Q A I R L	D E A L W Q R P A E A F V	P H N L A G E G P R Y G A P	P V E
UniRef90_D5BYS8	Q V E D Q E Q A Q K M D	D D L L W T F R Q G S F V	P H A L M N T E E A S E T P	V L
UniRef90_UPI000472B8DD	H C Q D K S Q A L N I	D E L L W Q F E P Q S F V	P H N L K G E G P Q G G A P	P V E
UniRef90_E1SWJ4	H C A S Q A D A E A L	D E Q L W Q F E P D S F V	P H N L V G E G P Q G G A P	P V E
UniRef90_J3Z492	A C E N D V Q A T K I	D E A L W A T T P N A F V	P H N L S G E G P S Y G A P	V E
UniRef90_UPI000468B5FA	H C E D Q A Q A H G I	D E L L W Q F E P S A F V	P H N L K G E G P A A G A P	P V E
UniRef90_I2NQB2	A C E T D Q Q A F E I	D E L L W A R E P D S F V	P H N L S G E E T T Q Y P T P	I E
UniRef90_UPI0003B5BFA5	Y V P D A A T A E A L	D T A L W S F R Q G G F I	A H E R L I G S S L E E P L P A V	
UniRef90_Q7VN95	A C E T E Q A Q A L N I	D E A L W A R E P D S F V	P H N L L A G E F T Q Y A T P	P I E
UniRef90_F9UB05	H C P D P Q G A H H L	D E R L L W T F R E E D S F L	P H G R I D R T D P E L T P	P I L
UniRef90_K2BGP5	H T A N Q T E A H Q L	D E L L W T Y R E E D S F L	P H N L Y G E G P E P T P P	I Q
UniRef90_W9A1S5	L A A N K Q Q A E Q I	D E Y L W Q Q D P D S F V	P H N L I G E G P R G G S P	P V E
UniRef90_G2DBH6	H T V S A D E A R H M	E R L L W T F R Q G S F I	P H G L L G S A D A T T T P	V I
UniRef90_B8GTX7	H T G S R A L S M Q L	D D L L W T F R D V S F I	P H Q V E G E D A E C P	V Q
UniRef90_F4HEE2	S C Q N E E Q A F L I	D E L L W Q R D P Q Q F V	P H N L S G E V S G F M T P	P V E
UniRef90_M5DJV1	Y S P D A A M V E R L	D D K L L W T F S P T D F I	P H C R T G D K L A G V T P	V V
UniRef90_C4K345	L C E E K A Q A V R L	D D A L W L Y P P D A F I	P H H L S G E G P K Q G A P	V E
UniRef90_R41175	A C D S Q E Q A Q R L	D E A L W Y R E P H A F I	P H N L V G E G P N L G A P	V E
UniRef90_I3Y7S1	H C P D S E Q A R H L	D R L L W T F R Q D S F L	P H G L V G Q T D P E L T P	P V L
UniRef90_U1S5J1	S C E T Q E Q A L L L	D E A L W Q R D P D E F V	P H N L F G E I T T Y V T P	P I E
UniRef90_O68823	H C A D E A Q R S E L	D G R L W S F R G E A F I	P H S L A E E D A E A P	V A
UniRef90_F3KE10	H T D S E A T S K E L	D L L L W S F K V E S F V	P H H L L G D D S A S A P	V A
UniRef90_S6JQM4	H C T D N A Q R Q D L	D E R L W R F K G E S F V	P H S N T E D E P D G	V V
UniRef90_P43749	S C E S E A Q A L E I	D E R L W Q R D P N E F V	P H N L S G E A T Q Y P T P	P I E
UniRef90_UPI000313ACAA	Y C D T K H D A E Q I	D E L L W T F K D N S F I	P H N L Q G E G P E P P P A I	Q
UniRef90_J5H8I9	V C E T E Q A F E V	D E L L W Q R S P E Q F V	P H N L S G E V T Q Y P T P	I E
UniRef90_E0WSA5	A C E S L Q Q Q A E R L	D E A L W Q R D P E Q F Q A	P H N L H P Q Y G T P	P I E
UniRef90_UPI0003091228	N A Q D R S Q A E A I	D E S L W Q R D P E Q F Q A	P H S C H P G D N N P	V
UniRef90_I2JKP0	H C E D S A A A D T L	N Q Q L W G F R D E S F I	P H S C H P G D N N P	V
UniRef90_J2IEL9	Y T A D Q Q S A E V L	D E L L W Q F E P D S F V	P H N L A G E G P Q R G A P	P V E
UniRef90_A3QBE7	H C N D Q Q Q A Y E V	D E L L W Q F E P S A F V	P H N L L K G E G P T G A P	V E
UniRef90_A0A031M7B5	H C A D E A E A S Q L	D D L L W S F R A D S F L	P H A L H A D Q P N E A V	V V
UniRef90_K0C420	H T D S E Q Q S K T V	D D D L L W S F S P T S F V	P H T M D P T K C A N H P	P V Y
UniRef90_A8FRZ7	H C Q D R E Q Q A Y A I	D E L L W Q F E P R S F V	P H N L L K G E G P T T G A P	V E
UniRef90_L0H0E8	H C Q D S Q E A R H L	D R L L W T F R E Q S F I	P H G L K G E T D A D L T P	P I L
UniRef90_U7PBH4	H A E D A A M A R E L	D E A L W T F R D D A Y V	P H A L A D D P L A G E V P	V T
UniRef90_UPI00035C1BEB	R V P D P A L A E D L	D I A L W T Y R Q G G F I	A H E R H G G T P P A P L P A V	
UniRef90_K7AMW0	Y C Q D K Q Q Q A E Q F	D E L L W Q L P N D A F V	P H N L T G E G P V G G A P	V E
UniRef90_Q12K81	H C Q D K Q Q Q A E Q F	D E L L W Q F E P T A F V	P H N L T G E G P M T G A P	V E
UniRef90_F4ATE4	M C Q S Q A Q A E Q F	D E L L W Q L P N D R F V	P H N L F G E G P K Y G S P	V E
UniRef90_W7QDE1	H C Q D K Q Q Q A E Q F	D E L L W Q F D P N K F V	P H N L F G E G P K Y G S P	V E
UniRef90_A0Z252	H T T D E A E A E A L	D D L L W T F R P G S F V	P H N L F Q L A S D S S E G P	V V
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UniRef90_C9PRS5	A C E T E Q Q A L D I	D D E A L W V R D V E E F V	P H N L S G E V T T Y A T P	P I E
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UniRef90_Q2YB19	Y A P D M A T V E Q I	D K L L W T F S A T D F I	P H C Q T D D K L A E F T P	V T
UniRef90_A1RH9	H C Q D K N L A L E I	D E L L W Q F E P T A F V	P H N L L K G E G P I T G A P	V E
UniRef90_Q1QTE2	H T E D E T M A R E L	D E R L W T F K P E S Y L	P H A V L G D D V S P E P P	V T
UniRef90_C0N7W1	H T D N A E Q S A A L	D D E A L W A R P E S F V	P H E V I N T D A D N Q S P	V L
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UniRef90_C0N7W1	A C E T E Q Q A L D I	D D E A L W V R D V E E F V	P H N L S G E V T T Y A T P	P I E
UniRef90_L0H0E8	L C E D E A Q R D A L	D A R L W N F R G E T F I	P H N A V I E E D A D S P	V V
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UniRef90_C0N7W1	H T D N A E Q S A A L	D D E A L W A R P E S F V	P H E V I N T D A D N Q S P	V L
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UniRef90_D3RSJ5	H C P D R E E A R H	D R L L W T M R Q E S F L	P H G L V G T V D T D L T P	I L
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QUERY	90	100	110	120
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UniRef90_K2BGP5	I G F D V I P E K Q R D I	I N L L S S N Q V P P F Y A Q F I	I A E L I A N D P	
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130                    140

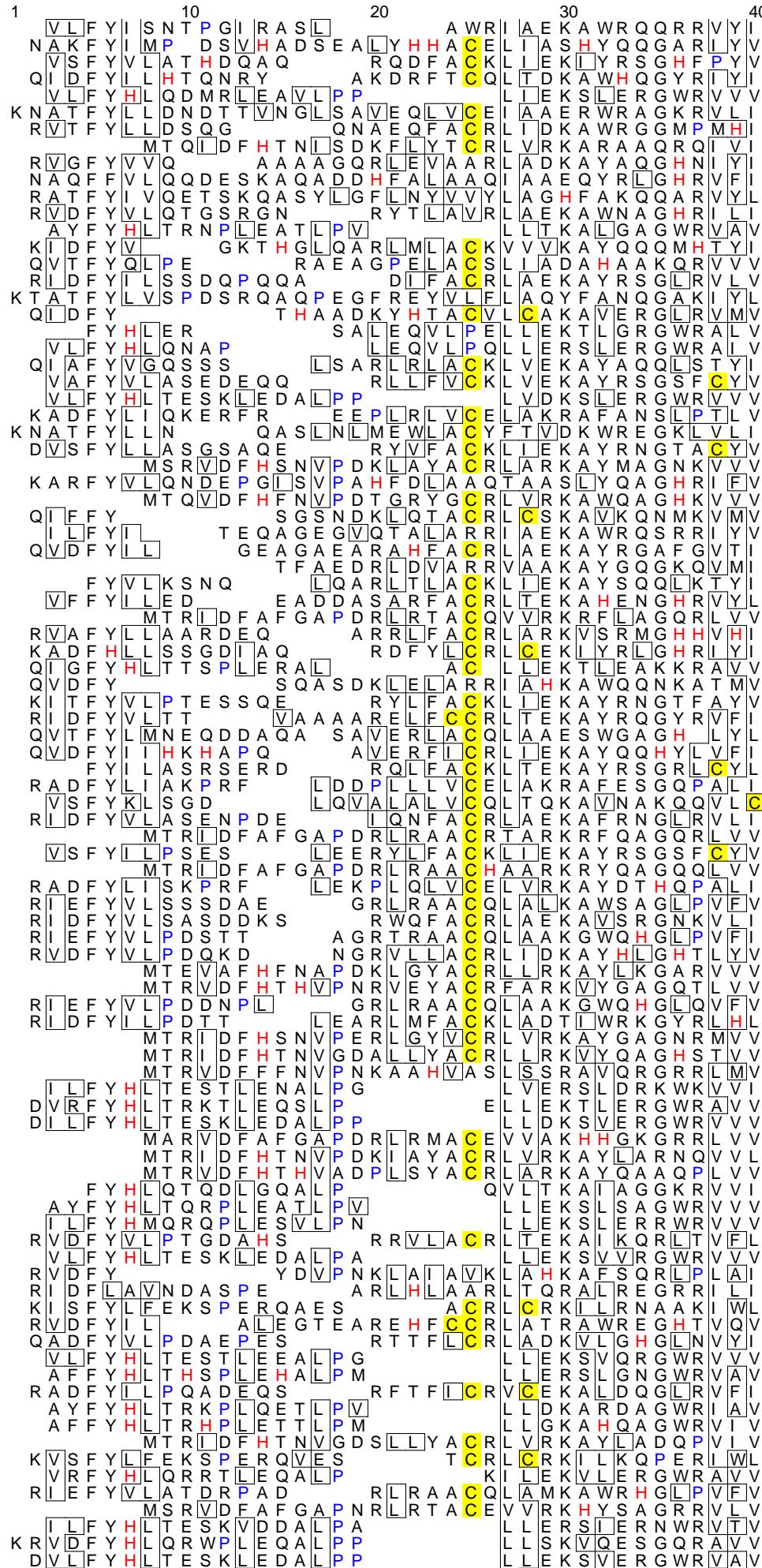
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UniRef90_S6EVV1	S Q K A I [L] A R E R Y K Q Y R Q [L] G W Q L S T E Q
UniRef90_D2TZX0	H [L] K Q [L] A R E R Y K T Y R N M G F N L
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UniRef90_K2AZ34	T A E E K G R E R Y R F Y R A E E G F A I T T H K L E
UniRef90_A0KU98	Q H K A I [L] A R E R Y R Q Y R G L [G] E L T T Q N L
UniRef90_G9YE38	A L K Q [L] A R E R Y K I [Y] R S V G F Q L T T A T
UniRef90_M4R7G6	A E K A I [L] A R E R Y K Q Y R Q M G W Q L S T E N
UniRef90_X2H425	R L K E L [L] A R T R Y K I [Y] K E A G F N L K T
UniRef90_I1XKW4	A I K K Q G G R V R Y Q F Y K D R G Y H [L] D T H Q I
UniRef90_UPI00035FCA50	S Q K Q [L] A R E R Y K A Y R S V G F Q L N
UniRef90_D5BYS8	N N R H A G R Q R Y R D Y R D Q G C S L E T H E L
UniRef90_UPI000472B8DD	S H K A I [L] A R Y R Y R Q Y R E L N I E L T T H D L
UniRef90_E1SWJ4	Q A K A Q A R K R F A H Y R Q [L] G V N L T T Q D L
UniRef90_J3Z492	A L K E L [L] A R D R Y K A Y R R S G F L T T A E
UniRef90_UPI000468B5FA	Q H K A L [L] A R D R Y R Q Y R N L G V T L S T Q D L
UniRef90_I2NQB2	T E K A Q A R E R Y K Q Y R Q Q G W Q L S T E Q
UniRef90_UPI0003B5BFA5	S A R T T K S R E R Y K F Y R D R G Y E L A T H N L
UniRef90_Q7VN95	K E K V H [L] A R E R Y K Q Y R Q [L] G W Q L V T E Q
UniRef90_F9UB05	A A R L L A G R E R F R Y Y R D R G Y L L E H H Q I R
UniRef90_K2BGP5	T A E E A A G R E R Y R F Y R A E N C E I T T H K L
UniRef90_W9A1S5	T L K Q Q A R E R Y K A Y R L A G I Q L T T
UniRef90_G2DBH6	E V K R S G R E R F R F Y R D R G Y P M N T H N I
UniRef90_B8GTX7	A I R D A G R E R Y R F Y K D R G Y D L S H H R L
UniRef90_F4HEE2	Q L K A L [L] A R E R Y K Y Y R Q [L] G W Q L S T E Q I
UniRef90_M5DJV1	E D T Q A A R K R Y R F Y K D R G Y E I R H H K L
UniRef90_C4K345	T L K Q [L] A R E R Y A Y Y R Q [L] G F H L I T
UniRef90_R4I175	N L K Q L [L] A R I R Y K A Y R S V G F H L T T A T
UniRef90_I3Y7S1	N A R A T G R E R F R A Y R E R G Y P L E H H R L
UniRef90_U1S5J1	Q A K K L [L] A R E R Y K F L R T Q G W Q L S T E N
UniRef90_O68823	A I R Q A A R D K F R F Y R E Q G Y P L Q D H R L
UniRef90_F3KE10	E I L Q S T R Q H F A F Y K E R G Y P L N T H D L R
UniRef90_S6JQM4	A V R L A A R E S F R F Y R E Q G Y P L Q D H K L
UniRef90_P43749	A L K T Q A R E R Y K Q L R Q G W N L S T E N
UniRef90_UPI000313ACAA	T A K E L I S R A H Y R E Y R A K Q C E L H T H E I E
UniRef90_J5H8I9	E E Q K A L [L] A R E R Y K Q Y R A A G G W Q L S T Q
UniRef90_E0WSA5	H [L] K Q L [L] A R E R Y K S Y R R V G F H L S T A T L
UniRef90_UPI0003091228	K A K Q L [L] A R E R Y K I Y R Q K G F E M Q T I D I E
UniRef90_I2JKP0	A S L Q A S R Q R Y S F Y K N R G Y P L N S H T
UniRef90_J2IEL9	T L K A Q A R E R Y K H Y R A A G N Q L D T
UniRef90_A3QBE7	A M K A T A R D R Y R Q Y R E L G P L T T Q Q
UniRef90_A0A031M7B5	P I L V P G R E R F R F Y R K R G Y P L S T H Q I R
UniRef90_K0C420	S I L K Q A G R E R F K F Y K S R G Y P L Q T H K I
UniRef90_A8FRZ7	S H K A L [L] A R D R Y R Q Y R S L G V T L N T Q D L
UniRef90_L0H0E8	A I R D A A R E R F R H Y R R A G G L S L E H H Q I R
UniRef90_U7PBH4	E V L V A K R R C W Q T Y K Q R G Y P I K A H H Q L R
UniRef90_UPI00035C1BEB	Q G R A K S R E R Y K F Y R D R G Y E L A T H N L
UniRef90_K7AMW0	Q L K P Q A R E R Y K H Y R A A G N Q L D T
UniRef90_Q12K81	E L L K R I J A R S R Y R Q Y Q S T G N P S T Q A L
UniRef90_F4ATE4	T L K Q Q A R E R Y K H Y R A A G H Q L D T
UniRef90_W7QDE1	A E K V Q A R E R Y K H Y R A A G F A L A T
UniRef90_A0Z252	T S L E A M R S A W R F Y K D R G Y P L Q K H D L
UniRef90_UPI0004761C41	T Q K A R A R D R Y R Q K L R M Q G W Q L S T E N
UniRef90_C9PRS5	N L K V L [L] A R E R Y K Q L R Q [L] G W Q L S T E Q T K
UniRef90_M4X287	A I R Q A A R E N F R R Y R E Q G Y P L Q D H R L
UniRef90_Q2YB19	E D T Q A A R K R Y R F Y Q D R G Y E I R H H R L
UniRef90_A1RHG9	Q H K A V J A R E R Y R Q Y R D L G I E L T T H N L
UniRef90_Q1QTE2	D V L T A K R A C W Q T Y K K R G Y P V K A N D L
UniRef90_C0N7W1	D V K Q A A R E S F R F Y R E Q G Y P L Q D H R L
UniRef90_I4N1K7	A I R Q A A R E N F R R Y R E Q G Y P L Q D H R L
UniRef90_UPI000470A343	Q V L V A K R K S W K M Y K E R G Y P V K A H H L K
UniRef90_W1NB32	D V L T T K R E C W R T Y K Q R G Y P V T P H H L
UniRef90_A1S3P2	A T K A L [L] A R L R F R E L R G L G I E P S T Q D L
UniRef90_D3RSJ5	A V R Q A G R E R F R A Y R E R G Y E P D H H K I R
UniRef90_V6UZR2	A L R L A A R E R F R F Y R E Q G Y A L Q D H R L
UniRef90_F9S1M7	K A K Q L [L] A R E R Y K I Y R Q A G Y Q L Q T I E I E
UniRef90_F7NSM6	Q L K V Q A R E R F K F Y R Q S G L T P Q T V Q L
UniRef90_Q1Z4X3	N L K Q L [L] A R N R Y K A Y R L A G I Q T A T
UniRef90_Q1LTH9	F F K Q L [L] A R N R Y K A Y R N V G F Q L T
UniRef90_I8T145	A D R S S S R T R F K F Y R D R G Y E L S T H N L
UniRef90_B8CK09	S H K A I [L] A R D R Y R Q Y R T L G I A L T T Q D L
UniRef90_UPI0003B6C36F	Q L K I A A R H R Y S A Y K K L G H S L S T E K L
UniRef90_UPI00035E1D39	A G R A A G R A R W R Y F R D R G Y P L E H H S M
UniRef90_UPI000468E2D9	E D T Q A A R K R Y R F Y Q D R G Y E I R H H K L
UniRef90_J3Z5M2	T L K E L [L] A R C R Y K Q Y R N L G F H V I T
UniRef90_A3D779	Q H K A V J A R E R Y R Q Y R G L G V N L Q T Q D L
UniRef90_Q1N2A3	T S L A Q S R A H Y K F Y R D R G Y E V T H R D L R
UniRef90_C9P2C0	K T K Q L [L] A R E R Y K I Y R Q A G Y Q L Q T I E L
UniRef90_UPI0002E476C0	A L K Q Q A R E R Y K I Y R M A G R Q M R T

Sequence logo showing the conservation of amino acids at each position of the protein sequence. The x-axis represents positions 1 to 40. The y-axis lists UniProt entries. Positions 1-10, 20-30, and 39-40 are highlighted in yellow. The legend indicates: A (green), C (red), D (blue), E (orange), F (purple), G (yellow), H (pink), I (light blue), K (dark blue), L (light green), M (brown), N (light orange), P (grey), Q (light pink), R (dark red), S (light green), T (light orange), V (light blue), W (dark red), and Y (dark blue).

	50	60	70	80
UniRef90_F5SVF9	H T A S E D H S Q S V	D T A L W A I R P D S F V	P H E I T D S S D N Q S P	V L
UniRef90_A1SRZ0	Y T D S K E D A F A V	D E Y L W Q F D G D S F V	P H N L L G E G P K F G T P	V E
UniRef90_B3PDI9	A V D N P E Q A R E F D E	L L W T F K P E S F I P	P H Q L L D I Q Q P A P	V Q
UniRef90_UPI000371A006	H C P E T E R A R H L	D R L L W T Y R Q D S F V	P H G L V G Q V D P A L T P	I L
UniRef90_M7PSP8	H T E N A Q Q S A A M D T I L	W E F R P D S F V P H Q Q L E	P H D I Q Q P A P	V Q
UniRef90_W5IW43	L C A D E T Q R E A L D A R L	W S F R K E A F V P H N A A E E D	A Q A P V	T
UniRef90_UPI0003764C6C	S V P D E A M L D A L D K L L	W R Y P P V S F T P H C R S D A	V L A G Q T P	V L
UniRef90_J2UQF1	L G K D R N E L A Q L D Q L L	W S F S E Q D F I P H V R A G D P L A A Q T P	V P	V I
UniRef90_AOYCI5	H G S D G D Q A K A L D E L L	W S W R N T S F I P H K I D D N S T D E Q	P Q P L	H
UniRef90_B0TV91	H C Q D D Q Q Q A Y A V D E L L	W Q F E P Q S F V P H N L K G E G P L G G A P	V P	V E
UniRef90_A6D489	N C S D K A E A E L L A E Y F W Q V T P E Q F I A H N L I G E G P K N G T P	P V	S E	
UniRef90_H1G2H5	H T G S P G L S R Q L D E L L	W T F R D D A F I P H G I N P Q D P D M	P	V
UniRef90_F7YL63	H C C D K T H A E Q F A E H L	W Q V P A E Q F V A H N L V I G E G P K Y S T H	I E	
UniRef90_A6GTA1	Y S T R P E V L E N L D K L L	W T F S E E D F L P H V V S G H P G V A D T P	P I	V
UniRef90_C1DPG1	H C Q D A P Q R E T L D A R L	W S F K S E A F L P H G L F E E D A D A P	P I A	
UniRef90_UPI00037E77D6	H G S S Q P Q D L K L D Q M L	W S F R A N S F I P H R L A E G Q P P L A E G	E I	
UniRef90_UPI00035E8AA8	W T S S Q E D A C L V D E L L	W T F E S D S F I P H N L L E N E G P R Y G A P	V E	
UniRef90_R0FKM1	R S P D R A E L Q Q L D Q A L	W S F S E Q D F I P H V M A G D P L A A Q T P	P I	
UniRef90_UPI000464DDD6	L A Q T Q E Q A E F L D E M L	W Q Q D P H S F V P H G L S D E A T V T Q A P	P V	E
UniRef90_H8Z3K1	H C P D A G Q A Q A L D R L L	W S F D E G S F L P H G L I G R V D A E L T P	V L	
UniRef90_UPI00046A0375	R G S D T E T Q C R A L D E L L	W R F K T E S F I P H N L H Q D D P Q A P	V V	
UniRef90_Q0VSA6	H C Q N E A H A R Q L D A Q F W Q S P P T	G F L P H A L S S E G Q A P	V L	
UniRef90_A6F6X4	H A N D E S A A N Q V D E Y L	W Q L D A S S F V P H N L Q G E E G P R N G A P	V E	
UniRef90_S6BTJ1	H T P S P E E A R H M D R L L	W T F Q D Q S F V P H G L L G E A D P A C N P	P I L	
UniRef90_UPI00026C7FF5	L C N N K Q D A E L D E L L	W T F K E D S F I P H N L Q G E G P E P P P P	P I Q	
UniRef90_H3NSW1	N C E S A E Q L A A L D N Y L	W E F K P T S F V P H E T V S N N P D E Q	V V	
UniRef90_Q5X1Q8	F C D N Q Q Q A E Y L D E L L	W T F K D D S F I P H N L Q G E E G P E P P P P	V Q	
UniRef90_UPI00037430CE	Y C A G Q T Q A E Q I D E L L	W Q F D P A R F V P H Q L Q G E E K S R K R P P	V E	
UniRef90_F2IN60	Q C Q D K P H A E Q L A E R F W Q L E P E Q F L	A H N L V I G E G P K S G T A I	E	
UniRef90_I3IBS4	V M D D E V E A Q Q F D E L L	W T F K P E S F I P H Q L I N T G K P A P	V E	
UniRef90_UPI00035FCEA3	H T G S P E L T R T L D E W L	W T F E D T A F V P H S T D V R D T D V A V S L H		
UniRef90_W6LPP7	F A S S G A R V E L L D D L L	W T F R Q D S F V P H E R Y P L T G S E G S P	V L	
UniRef90_I1DY79	Y T A S Q Q Q A E A F D E L L	W Q F D A E R F V P H N L L A G E G P K Y G A P	V E	
UniRef90_D0I889	T A A D K P Q A E A I D E A L	W Q Q P A E G F V P H N L V G E G P R G G A Q	V E	
UniRef90_UPI000463909B	A C Q S Q I Q Q A E K I D E F L	W Q L D T A H F L P H N L L A G E G P R G G A P	V E	
UniRef90_U3U910	S C E N K K Q A Y Q C L D E A L	W L Y P A N T F I P H N L V G E K I I N Y S A P	P I E	
UniRef90_V4JEJ3	H C P N P R E A R D L D R L L	W T Y R D E S F L P H G L V G E T D P E L T P	I L	
UniRef90_UPI0003068A36	H C N D K E H A E Q I A E H F W Q V L P E N F M A	H N L V G E G P K Y A T N I	E	
UniRef90_U1MAS7	L V D N Q E D A H V I D E H L	W Q F E V D S F V P H N L Q G E E G P Q A G S P	V E	
UniRef90_R4YLF4	H F D S E I Q A K T F D E L L	W S Y R D N S F I P H G L A S D A L E D N C P	V H	
UniRef90_D5CMG5	H A P D E A T A D K L D Q L L	W H Y P P T A F M P H C O S H H E A D A A T L P	V V	
UniRef90_V6JAE3	H C Q D E D Q R A V L D K R L	W A F R G E A F V P H D L A E D H A D A S V A S		
UniRef90_S6GH72	Y C T D Q Y S A E K L S D L L	W Q F S A T S F L A N K L V I T D S H I A P I S		
UniRef90_J2WA29	R A T D A Q E L Q Q L D Q A L	W T F S E Q D F L P H V G A G D A L A A Q T P	I	
UniRef90_V4JD01	Y V D T V E D A H A I D E H L	W Q F D A D S F V P H N L Q G E E G P K G G A P	V E	
UniRef90_Q2BIS6	Q T P D E Q E A K R I D Q L L	W E Y R P E A F I P H H L L G D D K I S S P	V Q	
UniRef90_UPI000382E97D	L T D T D E Q A Q A L D D D L L	W T F R A G S F V P H Q R Y D G S L P G I E R	V I	
UniRef90_UPI000370A5A9	Y A P D P A T A D A I D R R L L	W T T P A L S F V P H C R D G D P L A S E T P	V L	
UniRef90_UPI00036B7B86	Y T A S Q Q D A E L I D Q L L	W Q F D A D S F V P H N L S G E E G P A R G A P	V E	
UniRef90_K6X664	V C D D K K S A E A F D E L L	W Q Q P L E A F V P H N L T G E G P N G G A P	V E	
UniRef90_UPI000400312A	Y T E N Q Q D A F T V D E Y L	W Q F D G D S F V P H N L L I G E G P R Y G S P	V E	
UniRef90_Q7R6X2	V T D T D E A A Q L D D D M L	W T F R Q G S F V P H P R A V T G H T A A G P C P		
UniRef90_UPI000377977D	H C E D E A M A A G L D R L L	W T F R H D A F V P H V R L D D Q R L P P A P	V T	
UniRef90_G0A3X7	L T E H A E Q Q A E E I D E Q L L	W T F R P G S F V P H Q V Y G N Q L P A Y Q N	T I	
UniRef90_UPI000382F127	Q V P D E I R A N R L D E Q L L	W S W R P D S F V P H A L Q G A T P E A P	I T	
UniRef90_L8D724	Y I D D L A A A H Q Q F D E Y L	W T F Q D A D S F V P H N L Q G E E G P K G G A P	V E	
UniRef90_U1JR90	Y V D S I D D A H V I D E H L	W C F E P D S F V P H N L Q G E G P K G G A P	V E	
UniRef90_K2DVT2	H T A T M D E A Q N F D T Q L L	W T F R D I S F V P H P E I L Y S Q N S T S G A P	I L	
UniRef90_G4M435	L A E P Q R L A S F D E Q L L	W T F Q P L E F V P H C M A K S P L A Q D T P	V V	
UniRef90_A6SVR2	L A Q D R A Q L A Q L D E K L L	W T F S E Q D F L P H V M L D D A L A A Q T P	P I L	
UniRef90_S9SCG1	L A G S P E R V Q S L S D R L T	W T Y Q P D S S W L P H G S A R D G E A A L Q P	V W	
UniRef90_H2G1P4	Y T P D Q A Q A Q E A I D E R L L	W Q Q E A D S F V P H A N L Q G E E G P R Q G A P	V V	
UniRef90_W0E5D0	Y C P E S E W A R H L D R L L	W T F R E D G F L P H G L V G Q V D A E F T P	P V L	
UniRef90_UPI0002ED2277	H C H N K E H A E H I A E L F W Q S E P E D F M A	H N L V I G E G P K Y A T N I	E	
UniRef90_H0JJU1	H C A D A E Q R Q R L N E Q L	W A F R P D S F V P H P D L A E N A S D S P	V V	
UniRef90_Q0AIF4	Y I P D A E L A N R F D K L L	W T F S P T S F V P H C Q A D D K L A G V T P	V I	
UniRef90_A4C965	Y T E N K T D A H L I D E Y L	W Q F E A N S F V P H N L Q G E E G P H N G A P	V E	
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UniRef90_C5BMG7	H C P N R D E A R H L D R L L	W T Y R E D S F L P H G L V G K V D Q E L T P	I L	
UniRef90_F9TK60	A T N D A S E T K V L D E L L	W Q F R A E S F V P H H T Y G D T L E S P	V L	
UniRef90_Z5XVH1	N A D D K P S A E A I A E E L L	W Q Q A K P E D F I A H N L V I G E G P K S G T A I	E	
UniRef90_A4A3Y4	Y A D N I D T A H T I D D I I	W S F E P D S F I P H N L Q G E E G P K G G A P	V E	
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UniRef90_S6AFZ9	L A E S P E Q A E A L N A A L	W N V G D T D F I P H V L A G D P L A P Q T P	I L	
UniRef90_W8KG59	R C T D A A Q R E A L D D Q L L	W T F R A E S F I P H S L I E D D A N A A P	V V	
UniRef90_U3B0L9	H T R S Q N E A R A L D D D L L	W T F K D D A F I P H G I N P D D A R V P	V S	
UniRef90_Q2W0Z8	R G A D Q A Q C E E L D R L L	W S F R P E S F I P H G L H E D D A A Q A P	V V	
UniRef90_UPI00045EA3CB	L A G S P E R V Q E A L N D R L	W T Y E P E S F W L P H G S A R D G E P E M Q P	P I W	
UniRef90_UPI0003B52791	L T A N D A Q A E R E R L D D L L	W T F R A G S F I P H Q R Y E G E L P A V D N V	I	
UniRef90_M4U2L3	H S D N S A T E Q L D K L L	W D S R P S A F V P H S T D T G D A I T L C H P G	V	
UniRef90_D9SCE3	Y T E N K T E D A F I V D E Y L	W Q Q P D G D S F V A H N L M G E E G P R F G S P	V E	
UniRef90_U3H5T9	S L P D A V S C E M L D K L L	W Q Y P D T A F I P H C D A S S P D S A P V	P V Y	
UniRef90_L9PHW7	R C A D K A Q G N E L L D E L L	W M R F K A E T F I P H S Q H E D D P Q A P	V V	
UniRef90_F0LSR9	M A D D E Q A L A E L N T A M W T F S P V D F L	P H V L A G D A L A A H T P I I		
UniRef90_Q488M5	Q C A T Q Q H A E Q I A E R F W Q V E A K P	H N L V G E E G P K Y G T N I	E	
UniRef90_I1YL32	Y A K D Q D Q H A E Q I A E M L W A F D S D S F V	P H H N L V G E E G P K Q G A M V E		
UniRef90_F3LIT5	H T E N A A Q S T V I D Q L L	W D F R A D S F V P H Q L E A S E I P P V Q Q	V F	
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UniRef90_B3PD19	I T Y N Q E S G N H Q G L L L N L S S G S I P P Y F D R F A R L S E I V I Q E E			
UniRef90_UPI000371A006	I G A D L G R E T A A A V L I N L A A E V P A E F S R F E R V C E P V D Q D P			
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UniRef90_UPI0003764C6C	I L H C G D D P L P C H D L L I M S L H P E A V P F F S R F E R V I E L V S T D D			
UniRef90_J2UQF1	I L T D S E A V E L H H H D V L I N L S G N T P E H F A R F E R R M F E I I S S D E			
UniRef90_AOYCI5	I I G F G K D M S G D H N G L L I N L S D H V P E F F S R F E R V S E I V V Q D S			
UniRef90_B0TV91	I I G F D R L G A N K K R H D L L I N L A D Q V P Q F A V N F G Q I I D F V A N D D			
UniRef90_A6D489	I I G H E G L K P S W N R Q L A I N L A N S H A T F A Q S F G Q V V D F V P C E E			
UniRef90_H1G2H5	I I G H D R V P P T A R D L L I N L A D T V P E G Y E G F A R V A E I V N E D P			
UniRef90_F7YL63	I I G Y P N V K P N W N R Q L V I N L V A D N H T T F A N F A E V V D F V P C E E			
UniRef90_A6GTA1	I L T D K A D D I A H Y D L L I N L D E Q W P P F F A R F E R L V E I V G T D E P			
UniRef90_C1DPG1	I L G L G D D P G S H R D L L I N L A L S V P S F C A R F E R R A E L V V S E P			
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UniRef90_UPI000464DDD6	I I G T G A P K R R H R Q I L I N L A D T I P A F A N R F T Q I I D F V P A D E			
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UniRef90_L8D724	I I I I I I UniRef90_L8D724			
UniRef90_U1JR90	I I I I I I UniRef90_U1JR90			
UniRef90_K2DVT2	I I I I I I UniRef90_K2DVT2			
UniRef90_G4M435	I I I I I I UniRef90_G4M435			
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UniRef90_F0LSR9	I I I I I I UniRef90_F0LSR9			
UniRef90_Q488M5	I I I I I I UniRef90_Q488M5			
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UniRef90_UPI000371A006	A V R A A A R L R F R Y Y R D R G F P P Q H Y P M R			
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UniRef90_W5W43	A I R Q A A R E N F R F Y R E Q G Y P L	D Q D H R I L L		
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UniRef90_J2UQF1	A D K A A G R D R Y R F Y K E R G Y P L S H F			
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UniRef90_A6D489	K A K Q T A R E R Y K I Y R Q A G Y Q L	T Q E I		
UniRef90_H1G2H5	V V K Q A G R D R F R F Y R E H G C D	D H H P L L		
UniRef90_F7YL63	K A K Q R A R E R Y K I Y R Q A G Y Q L	Q T E I		
UniRef90_A6GTA1	D N K A L A R Q R Y K F Y K E R G Y P L N T F D			
UniRef90_C1DPG1	V I R Q A T R A S Y R I Y R E R G Y A L Q D H R L			
UniRef90_UPI00037E77D6	K I K Q A T R D N F Y R Y R E R G Y E V K T Q H Q L			
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UniRef90_UPI00046A0375	E L L T A C R E N F R S Y R Q R G Y D P Q R V I E L L			
UniRef90_Q0VSA6	A E R Q Q G R E R F F Y R D R G F P V T T H E L L			
UniRef90_A6F6X4	G L K Q Q A R E R Y K H Y R Q T G L Q L T V N A E			
UniRef90_S6BTJ1	A V R E A S R Q Y R F Y R D R G Y P L E M H E I L E			
UniRef90_UPI00026C7FF5	A D K E L S R A H Y R D Y R A K G C E L H T H H L E			
UniRef90_H3NSW1	A S L E A L R S A W R H Y R D R G Y P L Q K H E L L			
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UniRef90_UPI00037430CE	S G K E K A R S R Y K N Y R A G A Y E L T T Q			
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UniRef90_UPI0003068A36	K A K Q L A R E R Y K V Y R Q A G Y Q L Q T D I E			
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UniRef90_D5CMG5	A D A K L G R E R Y V F Y K D R G Y E L R F D L R			
UniRef90_V6JAE3	A I R Q S A R E R F R F Y R E Q G Y A L Q D H R L			
UniRef90_S6GH72	A S L K G S R E R Y K K Y R D A G F V I K H N D M R			
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UniRef90_L8D724	S L K Q A A R E R F K F L R S L G A T L T T E D I E			
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UniRef90_S9SCG1	Q A V A A A R L R W K Q W K E A G H V L T T Y Y Q			
UniRef90_H2G1P4	A G K Q Q A R E R F K A Y Q R Q A G F E L T T			
UniRef90_W0E5D0	S V L E A G R A R Y R H Y R Q L G H P L E H Q V R			
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UniRef90_C5BMG7	A D K Q L S R K H F T Y F K E R G Y E I E T H N I I			
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UniRef90_W8KG59	A I R D S G R A R F R H Y R E Q G C D L H H H P L L			
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UniRef90_Q2W0Z8	D A V E K A R E R W K R W K S E G H Q L V Y Y Q			
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UniRef90_UPI0003B52791	K A L T A S R E R Y R F Y K Q R G Y P L H N H Q I			
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UniRef90_D9SCE3	D D S R R G R E R F K F Y R D R G Y E M R H F D L			
UniRef90_U3H5T9	T L L A A C R E N F R T Y R Q R G Y D P K R V E L			
UniRef90_L9PHW7	D D A A A G R G R Y V A Y K Q Q D Y P L T T H F			
UniRef90_F0LSR9	NA K Q R S R E R Y K I Y R Q A G Y Q L Q T D E I			
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UniRef90_F3LIT5	K L L T I T R E S F Q H Y R D R G Y P L K C S H K M			
UniRef90_UPI0003613596	D V L T A K R E C C W Q T Y K R R R G Y P V K A R H H I			
UniRef90_UPI00046893DF	U I D F 62 UPI0003613596			



	50	60	70	80
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UniRef90_UPI00047B0E11	M T D S A E Q A E Q I	I D K V L W T F R A G S F I	P H Q I Y R G E I P A F T S	T I
UniRef90_A7C6F2	Q T T S L A Q A Q Q L	D S H L W T Y R D D S F L	P H D I Y P E M S E S L A P I	R
UniRef90_B6JGL7	Q A G S E E R A E A L	D S H L W T Y R D D S F L	P H G T W R E S D A A E Q P	V V
UniRef90_X2LE30	A C E D E K Q A I R L	D E A L W A R P A E S F V	P H N L A G E G P R G G A P	P V E
UniRef90_UPI00037506FF	H T F D E S S C K S M	D Q L L W S W R E D S F L	P H G I V S D A L A K Q S P	I T
UniRef90_G0AIF4	L S S A E D L A T L D	R A L W T F S E H D F L	P H V R A G D P L A A Q T P	V I
UniRef90_B7RWZ7	N A T D K P Q A Q A L	N E L L W S F R P A S F M	P H A L A G E E Q S E Q	I A
UniRef90_W1Z8A1	F V D N E H T A Y A I	I D E T I W A F D P D S F V	P H N L Q G E G P K A G A P	P V E
UniRef90_E3BNW3	N C H D I K E A E Q L	A E L F W Q A D E K F I	A H N L V G E G P K Y G T K	I E
UniRef90_W0TN93	A T D N R E Q L H H M	N R L L W T Y R D Q N F I	P H G L L G E A D P V L N P	V L
UniRef90_Q5LQN6	R G S D P G R L V W L	D E K L W L G P D D G F L	P H G L A G G A H D A D Q P	V L
UniRef90_I3BPX9	H T D S A T T S Q R L	L D D L L W T F N D L L F I	P H A L A P V R E Q N E L	L I
UniRef90_UPI000382DF2E	L C Q T K S Q A E S L	D D L L W Q L P A K R F V	P H N M S G E G P P S G T P	V E
UniRef90_UPI0003715E8E	A V D N R D H A S Q I	D Q L L W T F R E D S F L	P H A A Q S E E Q H S A I E	I E
UniRef90_UPI000393CE74	N C R H R D E A E L F	A E L F W Q V P A E T F L	A H N L V G E G P R N G T P	V E
UniRef90_S6AF15	Y T P D A A T T E R M	D K L L W S T P A V G F I	P H C R A S D S L A S V T P	V I
UniRef90_B0SWN1	R G G D P A R L R A L	D A H L W T W R D D S F L	P H G L D D E P M A D R Q P	V L
UniRef90_A7HYF7	R A G G P E R L D A L	N V L W T Y S D D S F L	P H G T L D D G P A A L E P V F	
UniRef90_UPI00035D69AC	Y T D S L E T T E L L	D D L L W T Y Q D T S F I	P H S T L P R K D S A T F	E I
UniRef90_H8GI87	L A D T D E Q A R K L	D D L L W T F R R G S F I	P H Q L Y T E S L P P L E H	V I
UniRef90_A0A021X0J2	Q T G D A E R R D A L	D T H L W T F R E D S F L	P H G T D E Q A F P A E Q P	V L
UniRef90_UPI00041D0364	L V R D R A Q A E E L	D D L L W S F E P D A F I	P H Q I A G E D M D E E E A D	D V
UniRef90_M9U5G6	A C E D E A Q A L R I	D E A L W A C D P D T F V	P H N L T G E C S P Y G T P	V E
UniRef90_UPI0003738D2A	L T D H A E Q S Q L L	D N L L W T F R A G S F V	P H Q I Y D G Q A P E F G N	V I
UniRef90_A0A031GYA5	L V I A D S A Q L D A L	N S A M W T S A T D F L	P H V L A G D P L A A Q T P	P I I
UniRef90_U1LB83	N V D T T D D A H L F D	E H L W C F D A D R F V	P H N L Q G E G P K G G A P	V E
UniRef90_E7TRXH6	Y C E D T R R L A S F D	R L L W E F A P L S F I	P H V S V R H P L A E R T P	V L
UniRef90_F8GL53	Y T P D A A V L A K F N D L	W T F S P T S F I	P H C A I Q D D P Q S V T P	V I
UniRef90_E7C501	H C R D D A H A R D	V D A A F W A Q P A T G F L	P H D L A G D T P A A G T P	V V
UniRef90_UPI00036EABE5	L A G D S A A A Q L	D D M L W S F R Q G S F V	P H A L A R E A D D D T D A	V V
UniRef90_Q3SL84	Y A P D A A V A G A V D	R D M L W T T P A L G F V	P H A R D S D A L A A E T P	V L
UniRef90_UPI0003660330	H T D N A A M S L Q L	D D L L W T Y N D F S F M	P H E L A P S A N K D T L	I I
UniRef90_U2E5D1	H V A D D A S A E A L	D S L L W V F R Q G S F V	P H A Q K G E S D D D L T P	V V
UniRef90_D4X967	Y C K D G S R L A A F D R M L	W A F D D T A F V	P H V L A N D P L A P E T P	V V
UniRef90_L0E0U3	H T P D A G S T D E M	D R M L L W T F E D I A F L	P H G T D V N D P D S P V T P	V H
UniRef90_Q2SKR1	L C K D S K E L E H L	D D L L L Y S F R P E S F I	P H S I E P E P P S S D I P	P V F
UniRef90_K2EHV4	I C S S E E R L D F L	N N V L W T G G K A S F I	P H G T A K E G F A E D Q P	I W
UniRef90_E6QPY2	Y S Q D E S E L D R I	D A Q W W L T P A T S F L	P H A R S H A A H A P T T P	V V
UniRef90_V5BHR2	L T D S I E Q S K H I	D D L L W T F R A G S F V	P H Q V C T A E Q P D V E N A	V
UniRef90_A4BLM8	L T G D K A L T Q A L	D L Q L W T F R A G S F V	P H A T L G Q A D D E P	V V
UniRef90_A4SSA6	F C D D E A Q A L R L	D E L L W Q L P P E R F V	P H Q L Q G E S G Q A P	V E
UniRef90_13CIV7	Q A N S A E Q A K H L	D Q L L W V V N P D S F I	P H C L N G Q G D S M A F P	V L
UniRef90_G4T0U1	L T E D P Q Q S A M L	D D L L W T F R P G S F V	P H Q L Y D G M A P D K A N A	I V
UniRef90_UPI000377E406	L A R S A D Q A D A L	D E K L W E F D E Q A F I	P H Q I A G D D D D A I T P	V L
UniRef90_Q1YRR0	L V P D N D T A E Q L	D K L L W G F Q Q A S A F V	P H G V G I E H L P I A	
UniRef90_UPI000255B81E	A V D N G E Q A K Q L	D E L L W T F R E D S F L	P H A P Q N L D Q Q A A I E	V
UniRef90_F4FLU8	Y C A D G G R L A A F D R M L	W A L E D V S F V	P H D L H H D A P Q S P	V T
UniRef90_G3IRP3	L T D S A E Q S R T I	D D L L W T F R A G S F I	P H V L A N D P L A A Q T P	V V
UniRef90_UPI00047CA84F	Y C S D S V R L A A F D R M L	W A F D D I S F V	P H V L A T D P L A A D T P	V T
UniRef90_B0U1L3	L A R D Q A Q A E A L	D D D L L W A F D P D A Y I	P H Q I A G S D E D D D I T P	V V
UniRef90_U1ZKZ9	R G G D A A Q C E A L	D Q L L W A F K A E R F V	P H D L H H D A P Q S P	V T
UniRef90_Q21KZ6	A T Q D E A A S R A V D	E D E L L W T Q R P E S F V	P H H I V I G Q N T D G Q S P	P V
UniRef90_I7A7C9	R C Q D E S S Q C A E M	M D D L L W G F R A E R F I	P H E L F D E D P Q A P	V V
UniRef90_W6M561	L A A S E A Q A A A A L	D D D L L W T F R Q D S F I	P H E R Y P L T G E N D S P	I L
UniRef90_W7WZL7	L G S S R D C A S L	D Q A L W T M T A G E F V	P H C R E S D A A S K A S P	I L
UniRef90_V5PUP2	V G E P D V L K A F D Q T L	W T F S P L E F V	P H C F T Q D P L A A Q T P	V V
UniRef90_A4VNZ8	R C S D E D Q S T R L	D E L L W S F R A E R F I	P H E Q Y A E E V Q A P	V V
UniRef90_UPI00034CE66A	H C E D R T L A E Q A D A A L	W D F R P E A Y I	P H A L D D S D M A A E V P	V T
UniRef90_I9W382	H G A R E D L A R L D G M L	W N F S Q L D F P	P H C R L G S A K P A A T P	I I
UniRef90_UPI00034866D8	L A D P A R L R A L D G Q L	W T F A P E V F	P H C M A Q S A L A A E T P	V V
UniRef90_Q1H4U3	L A S T Q Q A A E Q L	G S F L W S S P P T G F L	P H C H A T H P R A A E T P	V I
UniRef90_J3HGX8	Q T G S E E R R D S L	D D N H L W T W S D S S F L	P H G T D Q E A N P E E Q P	V I
UniRef90_B6IN73	L A A S E E R A E A L A Q H L	W T W K P D S F I	P H G T A R D G H P A R Q P	V F
UniRef90_UPI000375500C	Q T A A D A E R R D M L	D T H L W T Y R D D S F I	P H G T D A A D F A G D Q P	I L
UniRef90_UPI000311CF10	Y C S D A V L L E R F D	D L M L W G F E A T A F I	P H V D A G D P L A A Q T P	I L
UniRef90_W0V1J5	L A E D A Q Q L A A L	N G A L W T L S D T D Y I	P H V L A G D A L A P H T P	I V
UniRef90_E5AN36	L G E P A V L R A F D E R L	W T F S P L D F I	P H C M A D S A L A G E T P	V V
UniRef90_G2KP24	R L P N D D I A E K M A A H L	W T Y N P D S F I	P H G T K K D G F A E D Q P	I Y
UniRef90_D0D2F3	R G T S P G R M D W L	D Q R L W L G P E E G F L	P H G L S G G P H D A L Q P	V L
UniRef90_B0U806	Q A A S E E R L A A L	D D D H L W T F S S E E S F L	P H G T D R E P D A G T Q P	V V
UniRef90_UPI00040ED481	Y A A S E E E E Q V L	D D L L W T F R Q G S F V	P A H E R L D A Q G T E A P	V V
UniRef90_L0NEX3	Q T R E E Q R R D S L	D E H L W T Y R E E S F L	P H G T D D G E H A A R Q P	V L
UniRef90_G8QM18	Y T S Q P P V A E Q I	D R L L W T Q P A L G F L	P H C R A D A P L A A E T P	V L
UniRef90_K4KJY7	A C T D A G Q Q A T L	D S L L W T F E P E S F I	P H A T D I A D P Q S P	V T
UniRef90_UPI0002486E43	H C P D P E L Q Q Q Q L	D D R L W S F D P T S F I	P H A G I D Q T H A P I C	
UniRef90_R4VJ67	R V A D E A A A E R L	D D N A L W T F D E V S F I	P H G R E S L D G D N P	I V
UniRef90_UPI00036E7D04	H V T G E T E A E R L	D Q L L W D Y R A D A F I	P H G L L N S K P D A P	V Q
UniRef90_UPI0002D78A2C	Q T G T Q E R R D A L	D A H L W T Y R D E S F L	A H A T D S E A Y P H E Q P	V L
UniRef90_UPI0004660378	R G T D P A R M D W L	D Q K L W Q G A E D G F L	P H G L A G G P H D A L Q P	V L
UniRef90_W9V5B3	Y T R D P A Q A E Y L	D R F M W G Y R E D S F L	P H H R I G Q T P S A P I S	
UniRef90_R0DWT4	R G R D P E R L A W L	D D T L W L G G D A T F L	P H G L A G G P H D K L Q P	V L
UniRef90_A6FR70	R G H D P V R I E W L	D E R L W L G P E E G F L	P H G L A G R P H E A D D Q P	V L
UniRef90_UPI0003828130	L A D R A R L A A F D E R L	W T F S P L D F V	P H C M A D S G L A A R T P	V V
UniRef90_N8NV44	Y C T D A D L Q Q Q L	D E R L W S F D P S S F M	P H G I D Q Q S A T	
UniRef90_G8ARD4	L A G S P E R V D A L N Q H	W T Y D P S S F L	P H G A S R D G F A A E Q P	V W
UniRef90_UPI00025568DD	R A A D T D Q C A E L	D E Q M W L F K K D C F I	P H H N Q H S D D P L A P	V V
UniRef90_F4GXG9	Y T Q D R Q R L E R F D	D H L W G F D P T A F V	P H H V M T D D P L A A Q T P	V Q
UniRef90_UPI00046E5C8B	Q T T E E R C E A L	D T H L W T F R P D S F L	P H G M D K H P H A D R Q P	I L
UniRef90_K9GRG4	L T A S R E R A E A L S A V L	W T W K P D S S W L	P H G T P G D G F D A E Q P	V W
UniRef90_K2Q023	Q T R D P E R R D A L	D A H L W T Y R D E S F L	P H G T E D G A S P D R Q P	V L

90            100            110            120

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UniRef90_UPI00047C5621	I G W Q A P T Q R R Q I L V N L C E N A P E F E R Q Y Q L T I D F V P A D D		
UniRef90_UPI00047B0E11	L I G G E N I P D G W Q K I V V N L L S S L Y P P T T A P T E R I L E I L D N S E P		
UniRef90_A7C6F2	I G Y S A Q V C E G M D V L I N L T E T V P P F F E S F Q R I A E I V N D T P		
UniRef90_B6JGL7	L T V R D D N P N D A T V R F L V D G A T V P E D C T A Y Q R I V L I F D G D D		
UniRef90_X2LE30	I A W P Q K R X S S P X D I X S L R T S F A D F A T A F T E V V D X X X		
UniRef90_UPI00037506FF	I G F D K P H L E Q R R L I N L S P E P T F F K D F S R V C E V V V Q N P		
UniRef90_G0AIF4	L A A D E E T G W P H H Q I L I N L S G K A P Q H F A R F E R M F E I I S L A D		
UniRef90_B7RWZ7	I G W G Q D P G K H S D L I N L Q L E I P S F F S R F A R V A E V V T Q D E		
UniRef90_W1Z8A1	I G T T P P V G K R N V L I N L A N N L P D F I R R F S Q V F D F V P V E S		
UniRef90_E3BNW3	I G H Q G V K P S W N R Q I V I N M A K V N T T F A N R F T E V V D F V P L D K		
UniRef90_W0TNS9	L T D G T D P A D E H D V L I N L R T E I P E C S R F E R V A E C V D Q		
UniRef90_Q5LQN6	L T T G A D A P N G A R C V M V D G A A V T P E E V A A L E R V C I L F D G D P		
UniRef90_I3BPX9	I L I G H D H E P M E N C G G L L I N L S N E V P G F F S R F E R L A E I L L D Q E E		
UniRef90_UPI000382DF2E	[C] W S P E Q [G] R R S L L V N L S N S N T M P D A I Q Q Y Q R I D F V P S A E		
UniRef90_UPI0003715E8E	N S G E D P G T H H G L L I N L C S K V P K W F S R F E R L A E I V V Q H P		
UniRef90_UPI000393CE74	I G Y P L V S P S W N R Q I V I N M A E N N T T F A D R F T E V I D F V P C E K		
UniRef90_S6AF15	V D H N T D T L A H D D I L L N L H T E Q P L F F S R F H R L I E I V S T E E		
UniRef90_B0SWN1	L T D K L D N P N G G Q A L F L L D G A E P G D L S G F E R C I L L F D G D E		
UniRef90_A7HYF7	L T V D D E N P N N A N V L F L V D G A A P G N I G P Y E R V L E V V P A D P		
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UniRef90_H8GI87	L I G A S E P P E S W R K V I V N L S C Q C P S N I E Q A E R I L E V L H D D E		
UniRef90_A0A021X0J2	L T A F D N A N G A T V R F L V A G A A P P P L D A Y E E R V I F M F D G D Q		
UniRef90_UPI00041D0364	I L I A P P D A D A P M R P L V I N L R D A A V E G G F E R V L E V V P A D P		
UniRef90_M9U5G6	[C] W Q Q R R G S N N R E V L I S L L S V A D F A S S F N E V I D F V P A E A		
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UniRef90_A0A031GYA5	L T D D E A A E L P H H D I L V N L S Q L P P A N Y A Q F Q R V F E I V S M D E		
UniRef90_U1LB83	I G T M P P A A R R P V L I N L A R V V P D F I R R F E Q V I D F V P V E A		
UniRef90_E7TRXH6	L T A S D D V P A S H R Q V L V N L G E R M P P A F A D Y A R V V E L V G T D A		
UniRef90_F8GL53	L S N Q I P P D S Q Y D V V L N L H Q Q H P P S F N Q F K R I I E I A G I S H		
UniRef90_E7C501	V G H G D D P G D H H D V L I N L A P E V P P D F A T R F Q R V A E M I T T G D G		
UniRef90_UPI00036EABE5	I A W G S D V P R R D V L V N L T D A L P P D W Q G F E R V A E I V T A D D		
UniRef90_Q3SL84	I G A D A G A L R H A M V M I L D S Q A P P A F G R F E R L V E I V G T D D		
UniRef90_UPI0003660330	L I G H D Y E P L E H C D Y L I N L S A T M P A F F A R F E R R F A E I L D Q N E		
UniRef90_U2E5D1	I G S G E P P S G F D D V V L I N L G G E V S R F F S R F A R H N E I V A P P		
UniRef90_D4X967	L T Q P D A G P D A P P L W L L N L D N D C P P G F E T F E R L L E I V S D D P		
UniRef90_L0E0U3	D Q Q A A P A D R C D V L V I N L A P E V P E Y F G R F E R V A D L V G G D A		
UniRef90_Q2SKR1	L C T R L P E T I S T E V V I N L T E A P P D K A D R V I E L V T G D P		
UniRef90_K2EHV4	L T T V N E N L N G A Q F L F L I E G A A S P S S S S Y E R C D I F D N D P		
UniRef90_E6QPY2	L G A D I G D L P H C D V L I N L S E Q P P G F F S R F E R L I E I V S T D E E		
UniRef90_V5BHR2	L I S F N N L P E Y R D V L I N L S A Q C P N H W Q R L S R I A E I V T Q Q P		
UniRef90_A4BLM8	L G E Q P P R I L A V I D L I N L A A H C P N H W Q R L S R I A E I V T Q Q P		
UniRef90_A4SSA6	I G H Q P P K R R Y A R L I N L A R E T P L F A G H F A Q V V D F V P T D E		
UniRef90_13CIV7	I S Y G N Q P Q T P R S L L V N L T A T V P V Y F D Q F Q R I A E V V T P D E		
UniRef90_G4TOU1	L I G H L G V P D D W R D V L V I N L S T R I P D N W M N S E R I L E I L D D S E		
UniRef90_UPI000377E406	I V A P G T E T P D R A L V I N L R D E C A P G L F E R V L E V I P A D E		
UniRef90_Q1YRR0	I S A D S S D P G E H H G I L I N L Q G A I P T W F S R F E R R V M E V I Y P E P		
UniRef90_UPI000255B81E	N S G E D P G Q H H G L L I N L C A D I P R W F S R F D R L A E I I V C Q H P		
UniRef90_F4LFU8	L T A G D P T T G D S R P W L L N L D D G C P P N F D G Y E R R L L E I I V S D D P		
UniRef90_G3IRP3	L I G S L D A P E H W Q K V L F N L S S R Y P D V G P Q T E R I L E I I L D N S E		
UniRef90_UPI00047CA84F	L T A A T P S P A G R D C W L L N L D D A C C P P G Y D A F M R V L E I I V S D D P		
UniRef90_B0U1L3	L I A T P D S D T P S R P L V I N L R D A P W D G P C E R V L E V V P A D P		
UniRef90_U1ZK9	L G L D E A P G F E Q G V L I N L G S S L S P H V E R F A R I I E I I V N Q Q P		
UniRef90_Q21KZ6	V I T H D L D D I D H D V L V I N L R T T R P E Q F S R F D R L A E I I V I Q Q P		
UniRef90_I7A7C9	I G L E Q A P A I G Q G Q L L I N L A P T L S P H T D G F S R V I E I I V N Q Q P		
UniRef90_W6M561	I G T R L A P D R H A Q V L V I N L F S N E L P E D F A R F E R R V V E L V D Q S P		
UniRef90_W7WZL7	I A S G H V P P V D P A V D V L L N L S D E C P V G F E R F E R R V V E I I V T F D E		
UniRef90_V5PUP2	L A A P D E P A Q P H Q V L V I N L A G V V P T H F A R F E R R V V E I I V G D A P		
UniRef90_A4VNZ8	I G L E Q E P P T A Q Q G L L I N L A P T L S A H I D R F S R V I E I I V N Q E P		
UniRef90_UPI00034CE66A	I L G C G A L P A L R G Q T A L L I N L H P D I P D G V E R F A R V A E I I I N Q H Q		
UniRef90_19W382	L A A T L D D V P H H D L L I N L D E P P A L F A R F T R M I E V V V G A D P		
UniRef90_UPI00034866D8	L A A S D L E G A P H Q V L V I N L G A D V P Q F Q A R F E R R L L E V V V G N A P		
UniRef90_Q1H4U3	I D W R H E P L P H D D I L I N L D S S Q Y P P F F S R F R R L I I E I V G L E E		
UniRef90_J3HKX8	L T T S D T N P N A A T V R F L V D G A I P S D A E N Y E R R L I I L M F D H D Q		
UniRef90_B6IN73	I L S A T D E R P N D A N V L F L V D G A E T A R A P E Y E R V V F M F D G D Q		
UniRef90_UPI000375500C	I L S A T D E R P N D A N G A T V R F L V D G A E P P V E S Y E R V V F M F D G D Q		
UniRef90_UPI000311CF10	L S G K A V T P P E G P P W L V N L D A R C C P P G A E Q Y E R V L E I V S Q D E		
UniRef90_W0V1J5	L T D S D D T P L P H D I L I N L L S S H T P A H F G Q F Q R V F E I I V S Q E E		
UniRef90_E5AN36	L T D L D Q A P H Y A I L I N L G S A V P P Q F A R F E R R L L E V V I G N D E		
UniRef90_G2KP24	I T A G N D N P N K A D L L I T G M G V A P D D V D H F A L V C E F I L D H D D		
UniRef90_D0D2F3	L T T G A A M P N D A C L M A V D G A E V S P E E V V G K L E R V V C I L F D G H		
UniRef90_B0U806	L T L R D A N P N G A T I R F L V E G A A L P A D A G R Y E R I C V L F D G D Q		
UniRef90_UPI00040ED481	I G H R A A P Q L P K D I L I N L S P A T P P D L D R F E R R L I E I I V D Q D E		
UniRef90_L0NEX3	I T T G P G N I N D A T V R F V V D S A E P P P L D A Y E R R L V F M F D G D S		
UniRef90_G8QM18	I A E T P A A L E P Q D E L L I N L D D E V P P P G F A R F K R I I E I I V G R E E		
UniRef90_K4KJY7	I C T G E E C G D H H D V L I N L Q S P A P A F F S R F E R L F E V I C Q D P		
UniRef90_UPI0002486E43	I S T S S T E S S P V E W I V F N F N Q P L E Q V T Q F S H I I E I I V E N D E		
UniRef90_R4VJ67	I S P A P A P G D L M I N L T D A L P D D W T T C T I A E I I I S A E E		
UniRef90_UPI00036E7D04	I G W G D Q L P Q H R D V Y I N L A L E A S A E T L K F D R I L E I I V I Q Q P		
UniRef90_UPI0002D78A2C	L T T G Q G N P N E A R I R F M V D G A M P P D L E G Y E R R V C V L F D N D D		
UniRef90_UPI000460378	L T T C A A E A P N P A C L M A V D G A D V A P D E V Q R L I E R V C V L F D N D D		
UniRef90_W9V5B3	I G W G E Q A P D H R S L F I N A A D Q L I E L A F E F D R I A E I I V V Q D Q		
UniRef90_R0DWT4	L T T S A D A P N D A T C V M V D G A E V T P E E V S S L E R V V C I L F D G D P		
UniRef90_A6FR70	L T V S E E I P N G A C L M A V D G A E V A P D E V S R L E R V V C I L F D H D D		
UniRef90_UPI0003828130	L T M A D L D E A P P H Q V L L N L G A A V V P P Q F A R F E R R L L E V V V G D G E		
UniRef90_N8NV44	I C I S S R L P E Q S D W I V F N F N Q A L E Q I D K F S H I I E I I E N N E		
UniRef90_G8ARD4	I T A E E E N P N G A T V L V L V D G V T S D A M G S F D L V C D L F D N D G		
UniRef90_UPI00025568DD	I G V D E E P S A Q Q G V L I N L N T T S P H V E R F S R I I E I V N Q Q P		
UniRef90_F4GXG9	I T A A P P V A S P T A D W L L N L D L S C C P P G Y E H F D R I L E I I V S D H E		
UniRef90_UPI00046E5C8B	L T S G A A N Q N N A G V R F V I D G A E P P E L E S G Y D R V V F M F D H D D		
UniRef90_K9GRG4	L T A E K D T R P N G A I L L L T D G M T S S R M D E Y D R C L D L F D G D P		
UniRef90_K2Q023	L T T G T E N I N Q A S V R F L V D G A E P P D E L P Y D R V V F V F D G Y D T		

130                    140

UniRef90_K2GUY2	N Q R A S G R A R W K F Y R D R G Y P V Q D H R L
UniRef90_UPI00047C5621	D G K A A A R E R E Y R V I Y R Q H G L N L E T
UniRef90_UPI00047B0E11	E C K Q A G R Q R Y R H Y Q Q A D L A I T T H K M
UniRef90_A7C6F2	Y A K Q A G R T R Y R F D K A Y V L K T H D I
UniRef90_B6JGL7	D A L Q A A R A A W T D C K A R G Y E Q T Y
UniRef90_X2LE30	S I S Q I A K K R
UniRef90_UPI00037506FF	D Q K A I S R D K F R A Y R Q A G I E P E V H N M
UniRef90_G0AIF4	D D K A G G R D R Y R F Y Q Q R G Y P L T H F
UniRef90_B7RWZ7	D S L A A L R K S W L F Y K E R G Y H L E K H D L
UniRef90_W1Z8A1	V A K Q A A R E R F K K L R Q L G A N I S T Q E I I
UniRef90_E3BNW3	K A K Q I A R E R Y K L Y R Q M G Y Q L Q T I E I
UniRef90_W0TNS9	E Q V E L C R D H Y R F Y Q N C G Y Q L A T H K I
UniRef90_Q5LQN6	A A V E A A R G Q W R A L T A A G C A A Q Y
UniRef90_I3BPX9	P V I H A G R K R Y Q F Y R D R G Y N L D Y H Q L K
UniRef90_UPI000382DF2E	D A K K A A R I T R Y K Q F Q Q A G C Q M Q
UniRef90_UPI0003715E8E	D T L Q R S R L R F G H F D R G Y P L Q S H K I
UniRef90_UPI000393CE74	N A R H L A R E R Y K I Y R Q N G Y K L Q T I E I
UniRef90_S6AF15	N D R T A A R E R F R F Y R D R G Y E I H S H D I
UniRef90_B0SWN1	E A L R L A R G R W K A F K G A G H P V S Y
UniRef90_A7HYF7	A A L A A A R E H W K T L K A E G H D A T Y
UniRef90_UPI00035D69AC	M I L R A G R D R Y Q T Y N K K G Y N L T Y H Q L R
UniRef90_H8GI87	A T L T A G R L R Y R R Y Q Q L G I A I K K H K L
UniRef90_A0A021X0J2	A E V E T A R E H W K R L K G E G H Q L T Y
UniRef90_UPI00041D0364	A A R D P L R E R W R Q Y K A R G F E L K K H D M
UniRef90_M9U5G6	T L K Q L A R N R Y K T Y R S V G F Q L T T
UniRef90_UPI0003738D2A	T T K A A G R Q R Y R Q Y Q Q A G I D I A T H K L
UniRef90_A0A031GYA5	Q D A Q A G R Q R F L H Y R Q Q N V Q P T H F
UniRef90_U1LB83	S A K Q A A R E R F K Q L R A L G A T I S T E D I E
UniRef90_E7RXH6	Q S R Q A A R E R F R S Y R E R Q G Y T P L T H D V E
UniRef90_F8GL53	E D K L A A R E R F R L Y K D S G Y E I Q H F N L
UniRef90_E7C501	P L R E A G R A R F R F Y R D R G F Q I Q S H R L
UniRef90_UPI00036EABE5	E T R R P A R A R F R S Y R D A G V T P T N H T L
UniRef90_Q3SL84	A E R E Q G Q R A R Y R F Y Q S R G Y A L K T H D L R
UniRef90_UPI0003660330	A I L H A G R K R Y Q F Y R D R G Y T L D Y H I L
UniRef90_U2E5D1	A D V D A A R T R Y R F F K D R G Y A L T T H K I
UniRef90_D4X967	D D K Q A A R Q R W R V Y L N A Q H T P Q S H D L
UniRef90_L0E0U3	T A R A R G R E R Y R F F K D R G Y P L E H H E I
UniRef90_Q2SKR1	G A R A K S R K V Y K L Y K Q L G F E L Q T Y N I E
UniRef90_K2EHV4	E A L E S A R A R W K A Y K E A G H Q V T Y
UniRef90_E6QPY2	S D R Q A A R L R W R F Y Q R G Y A L H N H N M
UniRef90_V5BHR2	D T K V W G R N R Y R Q Y Q Q A N M E L V T H K M
UniRef90_A4BLM8	E S L E L A R E R F R C Y R N D G A Q P T Y H R L
UniRef90_A4SSA6	T Q K Q Q A R E R Y K H Y R Q A G H A L E M R D
UniRef90_I3CIV7	P A R V A G R Q R F R F Y R E Q K F T L S A H D I
UniRef90_G4TOU1	E S K G P G R I R Y Q Y Q R Q A G G L S V V T H K M
UniRef90_UPI000377E406	A Q R L G S R E R W K T Y K A A G F E V N K H D M
UniRef90_Q1YRR0	D Y E Q A K R D N F K F Y K E R G Y P L S F H D L
UniRef90_UPI000255B81E	D S L A R S R T R Y S H F R D R G Y P L Q S H K I
UniRef90_F4LFU8	A D R Q A A R Q R W R D Y Q N A G H A L H S H D L
UniRef90_G3IRP3	T T K E A G R N R Y R R Y Q Q S G M P V T T H K
UniRef90_UPI00047CA84F	A D R Q A A R Q R W R A Y V A A G H T P H S H D L
UniRef90_B0U1L3	A A R E P L R E R W K H Y K T R G L H M N K H D M
UniRef90_U1ZKZ9	D L L D A C R E N F R T Y R Q R G Y D P K R V E L
UniRef90_Q21KZ6	E V L E N T R Q S Y A F Y K Q R G Y P V Q T H K L
UniRef90_I7A7C9	E L L T V C R E N F R I Y R Q R G Y D P K R V E L
UniRef90_W6M561	E V L A K S R E R F R R Y R D H G L T P E T H K L
UniRef90_W7WZL7	A D R Q R A R E R W K H Y K T A G C E P L R H D L K
UniRef90_V5PUP2	D E L L A G A R E R Y R F Y R D R G Y T L N N Y D Q R
UniRef90_A4VNZ8	Q L L T A C R E N F R I Y R R Q G Y D P Q R V E L
UniRef90_UPI00034CE66A	D V L L M A K R A C W Q R Y K A L G H D V V P H K L
UniRef90_I9W382	G A V Q A G R Q R Y K H Y R D H G Y P L E H H D I
UniRef90_UPI00034866D8	E E L L T A G A R E R Y R F Y R D R G Y A L L N
UniRef90_Q1H4U3	E D R A A A R E R Y R F Y R D R G Y E L R T F D
UniRef90_J3HKX8	Q Q L E Q A R A Q W K L L K D Q G H A L T Y
UniRef90_B6IN73	D A L A A A R Q R W R T A K A A G H A L Q Y
UniRef90_UPI000375500C	A A Q L E G A R A H W K T L K G E G H A L T Y
UniRef90_UPI000311CF10	E S V L A A R R R W R E Y K D A G H E L H A H D
UniRef90_W0V1J5	Q D A E A G R K R Y A F Y K R E S W Q P T H F
UniRef90_E5AN36	H G L A A G R E R Y R F Y R D R G Y T L N M Y K
UniRef90_G2KP24	A Q I A A A R Q R W K T Y K D A G H A L T Y
UniRef90_D0D2F3	E A L L Q A A R G Q W R A L T G A G C A A Q Y
UniRef90_B0U806	E A L L L A R E Q W R A A K E A G H S V A Y
UniRef90_UPI00040ED481	A I R Q A G R R Y R F Y M D Q G L T V H T H R L
UniRef90_L0NEX3	E Q V E N A R S Q W K R L K G E G H L L T Y
UniRef90_G8QM18	E D K T P G R A R F K F Y K D R G Y E I N R H D L
UniRef90_K4KJY7	S I L S S T R A N W A Y Y K S R G Y P L D Y
UniRef90_UPI0002486E43	S A K H I G R E K Y K A Y R R M G I T P Q T F K L
UniRef90_R4VJ67	P I R Q T G R T R Y R D Y Q Q A G A T P Q T H R I E
UniRef90_UPI00036E7D04	D I L L A A T R K N F A L Y K S N G R T P K M H D M R
UniRef90_UPI0002D78A2C	A Q V E A A R E H W K S A R A G G H T V T Y
UniRef90_UPI0004660378	S A V Q A A R G Q W K S L T D A G C A A Q Y
UniRef90_W9V5B3	A L L D A S R Q N Y V R C R D L G Y E L N R V D M R
UniRef90_R0DWT4	D A V Q A Q R G Q W K A L T A A G G C A A Q Y
UniRef90_A6FR70	A A L Q K A R G Q W K A L T S A G G C A A Q Y
UniRef90_UPI0003828130	D E L L A A G R A R Y R F Y R D R G Y A L N N Y K
UniRef90_N8NV44	S A K Q L G R E K F K Q Y R R L G I E P R T F K L
UniRef90_G8ARD4	D A V L A A R D R W K I C K A A G H A L T Y
UniRef90_UPI00025568DD	D L L T V C R E N F R S Y R Q R G Y D P K R V E L
UniRef90_F4GXG9	D D K L A A R E R W Q Q Y K V A G H A L H A H K L
UniRef90_UPI00046E5C8B	S Q V Q S A R S Q W K R L K G E G H A L S Y
UniRef90_K9GRG4	D A V Q S A R E R W K A C R D K G W E M H Y
UniRef90_K2Q023	E Q L E G A R S Q W K R L K S Q G H T L T Y

This figure displays a multiple sequence alignment of UniRef90 proteins, showing the conservation of amino acids across 40 positions. The sequences are color-coded based on conservation, with black representing highly conserved positions and other colors indicating semi-conservative or non-conservative substitutions. The alignment highlights significant variations between different species, particularly in the first few positions.

50            60            70            80

UniRef90_Q82X53	Y V P D E R L A G Q F D K L L W T F T P T G F V P H C R V D N K L A D V T P V I
UniRef90_UP10003B48563	F A A S P Q Q A E V L D E L L W E F D P D A Y V P P H Q I A G T D E D D D L T P V
UniRef90_W4HNY5	R G R D R G Q L V A L D T A L W T G D E E S F L P P H G L S G G P H D A D Q P I L
UniRef90_UP10003B4BDD5	F V D N R D D A H L V D Q H L W T A F D A D S F V P P H N L Q G E G P R A G A V E
UniRef90_C6X8L9	F G P D E A V L S E L E R V L W S G S A L S F V P P H C R A Q H P L A P E T P I V
UniRef90_A6DXS6	R G R E A A R L V W L D E R L W L G P E D G F L P P H G V A G G A H D A D Q P V L
UniRef90_W0B990	F C E H Q Q D A E R L D E L L W T Y K D D S F V P P H N L Q G E G P E P P P P I Q
UniRef90_V5SA98	Q S G S A E R L E A L D L T L W T Y S D E S F L P P H G T A R D G D P A R Q P I Y
UniRef90_N9KVK1	Y S A D P A L Q R A L L D E R L W S F D A G S F V P P H G I D E P T A Q V C I S
UniRef90_UP10002557C39	S T E H E S D A R R L L D Q Q L W S A R P E S F V P P H V L L G N T P E S P I E
UniRef90_A0A011VJW1	Q T G S E D R R D A L L D Q H L W T F R D D S F L P A H G T D R E A F P A E Q P V L
UniRef90_F7QM31	Q T G S E E R A E A L L D A H L W T Y R D D S F L P P H G T W R E S D V A N Q P I V
UniRef90_Q2IX73	Q A G S E E R A D T L L D A H L W T Y R D D S F L P P H A T W R V A D A M H Q P I V
UniRef90_UP1000225B200	V I C E T Q E R I E A L N N I L W T F S Q T A F L P P H G Y T G D P L R H P I W
UniRef90_C3XBL1	Y A T D R N L L N R L L D D T L W T F S D S D F L P P H A V L G D R H A A R C P V I
UniRef90_C7R5R1	H A H D E K Q A H A V D E Y L W A L D L N E F I P P H N M V G E G P A K A P P V Q
UniRef90_R0ENZ9	R G G D P P R R L E A L D Q H L W T Y R E D D S F L P P H G L A N E P M A E R R Q P V L
UniRef90_U1GUQ4	Q S T S Q E R A E T L L D A H L W T Y S D D S F L P P H A S A R V A D A Q D Q P I V
UniRef90_UP10002E11405	E V P D E E R L G A L L D D H L W T F S E E S F L P P H G T E K E G D A A S Q P V L
UniRef90_A0A031LV84	H C P E L S I Q N E L L D D L L W S F D P Q S F T P H G I D D Q S A A P V V
UniRef90_UP100035E23A8	R C Q D E A Q A R E L L D D L L W R F K A D A F I P P H D L A A S S D P R A P V V
UniRef90_K2IWL7	T C Q D D R A Q A E A L L D E A L W I R E P A S F I P P H N L A D E G P K S G S P V A
UniRef90_U5T5E2	R T D D E R T S E Q L L D E A L W T F D E A S F I P P H G T T S L D G D N P I V
UniRef90_Q11HH6	Q T A S E E R R D A L L D A C L W T F R D D S F V P P H A T D R E P H A A E Q P V I
UniRef90_V9VTQ1	R G R D P E R M A W L L D D R L W L G P E D S F L P P H G L A G P H D A L Q P V L
UniRef90_K6VJ10	Y C P D P S M Q Q Q L D E A L W N F D T A S F I G H G I D Q V N A P V C
UniRef90_A1K9L6	R A A D P A M A R K L L D L M L W T V E P L A F V P P H V M N G G P L A D E T P V Q
UniRef90_Q3SS05	H T T S E E R A D A L L D A H L W S Y R D D S F L P P H A T W R I E D A G E Q P I V
UniRef90_JOUV59	Y L S D P R Q L A R F D R L L W G F E S T A A F V P P H V G V E D P L A A Q T P V L
UniRef90_Q7NTZ0	W L D S E R S V E V F S N R L W S F G D T R F V P P H C R L G A P E A A E T P P V W
UniRef90_N6XUQ6	R F P D G T M L K R F D Q L L W T R E P Q S F T P P H V A V I D S P L A G E T P P V
UniRef90_J6J730	Q T A S E E R V E A L L D A H L W T F R E D G F L P P H G T A R D G L A D K H P I V
UniRef90_UP10003B67985	H T D S L A T S R Q L L D D L L W T W H P S S F F I P P H A L I E N V K Q E K V T I A
UniRef90_UP100037F6DA4	Q C G S D E R C A A L L D A H L W S F S D H E F L P P H G T I A D G F P E H Q P V F
UniRef90_UP1000395D215	A A Q D Q A Q A H Q L L D D A L W Q R D P D T F V P P H N L V I G E G P R G G A P V E
UniRef90_W9H5A3	M A G S E E R V E A L L T Q H L W T Y K D F G F L P P H G S A R D G D A E H Q P I W
UniRef90_X7EEY7	R G T D R A R L L D W L D Q R L W L G Q E D D G F L P P H G L S G G P H D A L Q P V L
UniRef90_I5C3C7	Q T G T R E R C D A L L D N N W L W T W R E E A F L A H G T D R D A H P G H Q P V L
UniRef90_W0N5M3	Q T R E A A R R D A L L D A H L W T F R E E S F L P P H G T D E G D F A E S Q P V L
UniRef90_Q21WL2	I G S P D V L Q Q L D R A L W T F S A V D F V P P H C L E S E S H V V A A S P V
UniRef90_G7UVR4	L A R D L E Q A A E L L D E L L W A F D D D A Y L P H Q I A G D E D E D E V T P V
UniRef90_Q07LG1	Q S T S E E R T D A L L D T H L W T Y R E D D S F L P P H A T W R V A D A A Q Q P I V
UniRef90_Q7VQT1	T C D T H D Q A K K I V N E A L W N F E K N S F L P P H G L F S K N T Y N I P I T
UniRef90_UP10004155660	W C A D Q A S A E H V D E W L W Q L P A D R F I P P H N L T G E G P Q G G A P V E
UniRef90_E6WVR1	L A R D A A Q A E E I I D D L L W S F E P D A F I P P H Q L A G D E E D E L T P V
UniRef90_F8JBX3	Q V G N E E R L E A I D H M L W T Y T D D S F L P P H G T A R I G H S G D Q P V Y
UniRef90_UP100036A273A	Q V G S E E R R D A L L D V H L W T F R E E S F L A H G S D R E P H A P D Q P V I
UniRef90_Q493Z8	T C E N E H Q A T K I D K I L W T F D Q N S F V P P H N L F G K T I Q H A P I V
UniRef90_C7RP73	Y A P D A E V A A A L D R H L W M H P P T G F L P P H V R S D S P L A G E T P V L
UniRef90_K2NYA1	Q T G S R E R C D A L L D Q L L W T W R D E S F L A H G T D R E E H A D L Q P V L
UniRef90_F1W0U4	M G E P Q Q L A A L D A A L W T F S E H D F V P P H V M A G D A L A I H T P V I
UniRef90_UP100042991D6	L A R D A A Q A E A L D E M L W D M G D D A Y I A H Q V A G D E E D D V T P V L
UniRef90_S6HMS5	H C N D Q F S T E Q V S Q A L W Q Y R D S S F L A N A L S S E K I I A P I T
UniRef90_K2J2K9	M A G S P E R V E A L T Q H L W S Y R D D S F L P P H G N A K D G N P A E Q P I W
UniRef90_R5QNU2	R V G N E E R V E F L L N A L L W T Y N D Q S F L P P H G S K K D G N A E L Q P I W
UniRef90_UP10003B62233	R C S D A A Q Q T E L L D A L L W T F R K P S F I P P H E L H S E N A S A P V V
UniRef90_N6Y9T3	R L P D T T S A Q Q L L D R L L W T S E P L S F V P P H V M L D S P L A A E T P V V
UniRef90_UP10003A9EB91	H C A D E Q Q A Q T L N E L L W S F R A D A F I P P H A S T T E Q P N A K V
UniRef90_R6JUD7	K V G N E E R V E F I I N T F L W T F N D Q S F I P P H G S R K D G F G E M Q P I W
UniRef90_UP100036CD3AD	R F E S E Q D A L R Y D L M L W N A Q P Q S F I P P H G V T K Q P A P I Q
UniRef90_W3RFB5	Q A A S E E R A D A L L D S H L W T Y R D D S F L P P H G T W R D R D A A E Q P I I
UniRef90_V6F6S3	M A G S S E R V E H L N A L L W T F S E E S W L P P H G S A R D G E A A L Q P I W
UniRef90_B9JCD9	Q T R E Q A R R D A L L D T H L W T Y R E D D S F L P P H G T D E S E M A D R Q P V L
UniRef90_B8ET16	Q A T S E E R L A A L D Q H L W T Y R D D S F L A H G R S V D G D G D L Q P V Y
UniRef90_G4QUJ2	L C D T D K Q Q A E D V D E F V W Q H P V D S F I P P H N L V G E G P K Q G T P A E
UniRef90_UP10003663BC4	Q T G D E E R R E A L S S H L W A Y R D D A F I P P H G T A R D G E A E L Q P I W
UniRef90_K2CLP1	Y V S S E E K A K T L D A L L W T F D D T S F I P P H A H K N D A T P S I P V T
UniRef90_Q0AQB6	R S P D A K R R E A I D Q L L W T W R E D D S F L P P H G Q V I E A G S P E R Q P V L
UniRef90_A0A059ITP9	R G T E A A R M R W L D E K L W L G P E E G F L P P H G L A G G P H D A D Q P V L
UniRef90_R61342	K V G N E E R M R V E F I I N S H L W T F D D T S F I P P H G S K K D G F A E L Q P I W
UniRef90_I4VWZ7	L T R D F A Q A E A V D E L L W S F D E D S F I P P H Q L A G D E D D A T T A V L
UniRef90_G7TGG2	U A R D A E Q A E A L D D D L L W A F D D E A Y V P P H Q I A G T D E E D E L A P V
UniRef90_N9DLG5	L S Q D A E L R Q Q L L D E R L W S F D A A G F I P P H G I N Q Q D A P V C
UniRef90_G2TDA2	M A G S P E R V D G L L N S L L W T F D A G S W L P P H G T A R D G D G A D Q P V W
UniRef90_UP10004677C05	Q L G T P E R R D S L L D Q H L W A Y R D D S F L A H G S E H D N F P E R Q P V L
UniRef90_UP1000463B7B5	L A R D R A Q A E A L L D D L L W D M G D E V Y I P P H Q I A G T D D E D D A C P V
UniRef90_I4YWI5	Q A V T E E R R M S A L L D D H L W T F A D E S F I P P H G T D R E A H A A D Q P I L
UniRef90_F7RVK3	F G Q D Q A Q A E A V D E L L W Q I P A E R F I P P H N L V G E G P I A G T P V L
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UniRef90_Q2KWX2	Y C S D A N R L S A F D R L L W A F D D I S F V P P H V L A R D A L A A H T P I V
UniRef90_S9ZTQ6	R M P D E A S A Q V L L D R M L W T H E R L T F I P P H V L Q D S P L A G E T P I V
UniRef90_H6SKM9	R A G S P E R V E A L D G L L W T F D P A S W L P P H G A A R D G Q A A R Q P I W
UniRef90_F2J1L5	Q T G S P E R C A A L L D A H L W T F A D D A F I P P H G T A A D G H A E D Q P I F
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UniRef90_X5MAJ0	R A S S A E R V V S S L L D A H L W T Y R D D A F I P P H G S Q G E G H E E T Q Q V L
UniRef90_B9JUW2	E M R D P E R C D R L L D Q H L W T F R D D S F L P A H G I S I G E Q A E A Q P I L
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UniRef90_C3XBL1	L T S S D T D E L P H S Q I L L N L S P D I P A F Y Q A Q F E R L L E L V I S T D P			
UniRef90_C7R5R1	I I G F N Q P P E E Q H D C L I N L S R D V Q P F F S Y F L K C Y E I V P N E D			
UniRef90_R0ENZ9	L S A E D G N P N A A G D A L F L L D G A E P G D L S G V S R C I L L F D G D E P			
UniRef90_U1GUQ4	L S I E E S N P N R A N V R F L V D N A A L P P A D C D S Y E R L V L V F G D D P			
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UniRef90_K6VJ10	I I S A E L P A E L E W L V F N F S D K A L G S V E K F G H I I E I I E N N E			
UniRef90_A1K9L6	I I G A P G D A R W P H A D I L F N L A A D L A P G F E G F R T V V E I V G R S E D			
UniRef90_Q3SS05	L T V D G R N P N R A T V R F L I D N A P P E N L D T Y E R L V L I F D G D D			
UniRef90_JOUV59	L L T S T A P I A R D E Q S C W L L N L D V Q C P P G F E Q F S R V L E I V S E R E			
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UniRef90_J6J730	L T V D E G N P N G A S V R F L I D R A P A P P D A A S Y A R I V V M F D G D E			
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UniRef90_Q493Z8	I I Y W S Q C C D N Q P K D L L I N L M L K N M N F F L N F N E I I D F V P I S D			
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UniRef90_K2J2K9	L L T E T D E N P N E A P A L F L T D G V A V S E K L E E Y E R C H D M F D G D Q			
UniRef90_R5QNU2	L L T S G T D N P N I A S L L F F N V D G A A A D E L E K F S R V F N I F D N S P			
UniRef90_UP10003B62233	I I G L N E Q P H F R E A V L I N L H Q D I I S T H L D C F I R V I E I V I N Q E P			
UniRef90_N6Y9T3	L L G T A D D A D W P H G D T L F N L A P D P P A F D R F R L V I E I V G Q S E			
UniRef90_UP10003A9EB91	V V C G Y G E D A G E H H D L L I N L A D Q S P A F F S Q F N R L A E I V I E L D			
UniRef90_R6JUD7	I I L S A G D D N P N G S T M L L V D G A K I D L D G L K Q Y E R V F N I F D N S E			
UniRef90_UP100036CD3AD	I I L Y G E R I L K P S R D V L I N L H P E F F P S V F E Q Y Q R T I E I L D Q S D			
UniRef90_W3RFB5	L L A V Q Q D D N P N Q A S V R F L I D C A D L P A D A A G Y Q R L V L M F N G D D			
UniRef90_V6F6S3	L L T D R E E N P N A A T V L V L C D G A R P T S L D G W D R C L D L F D N D E			
UniRef90_B9JCD9	L L T V V S P D N L N N A S V R F I D G A E A S D I D T Y Q R V V F I F D G D Q			
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UniRef90_F7RVK3	I I G W D Q P A G S K Q R N V F N L R H E V P E L T R H Q E I I D F V P A D E			
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UniRef90_H8L6A1	I I V L P G T T T P D R P L I I N L R D E I A G G D Y Q R V L E V I A A D P			
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UniRef90_B9JUW2	I I L C L S S D N P N G A T V R F Y I D G A V P D L P L V Y D R I V F V F D G H D			
UniRef90_G9ZF04	I I L T V P P E R A A A C D V L I N L S N E T T P D L P R C R R V F E I V S P Q A			
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130                    140

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UniRef90_W4HNY5	D A M Q T A R R Q W K A L S D A G C A A Q Y
UniRef90_UPI0003B4BDD5	T R K H Q A R A R Y K Q L R D L G A Q L A T Q K
UniRef90_C6X8L9	A D K A Q A R V R Y R F Y R D R G Y E I R T F D
UniRef90_A6DXS6	A A V Q V A R G Q W K A L T G A G G C A A Q Y
UniRef90_W0B990	A A K E I S R D H Y R T Y R N Q C D I H T H
UniRef90_V5SA98	D A T A K A R S Q W K A A R D A G G C A V T Y
UniRef90_N9KVK1	T A K Q L G R E K Y K Q Y R R L G I E P Q T H K L
UniRef90_UPI0002557C39	E V L A A T R D N Y A R C R D R G I E L H R T D M R
UniRef90_A0A011VJW1	A A I L E S A R S H W K T M K A A G H E V T Y
UniRef90_F7QM31	E A L S V A R A A W T D G K S R G L D L T Y
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UniRef90_R0ENZ9	Q A I L S L A R G R W S V F K K A G H P V S Y
UniRef90_U1GUQ4	D A V V A A A R E N W T A C K A R G F E V T Y
UniRef90_UPI0002E11405	E A L L A A A R Q E W K R A R E M G L A A T Y
UniRef90_A0A031LV84	A A K E I G R E K Y K T Y R K L G I S P Q T H K L
UniRef90_UPI0003E23A8	P L L A A C R N N F L L Y R K R G Y D P P R R V E L
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UniRef90_U5T5E2	A T R Q A G R G R Y R D Y Q Q A G A M P Q T H R I E
UniRef90_Q11HH6	S Q L D A A R A H W K A M K A A G H D V T Y
UniRef90_V9VTQ1	E A V Q H A R R Q W K T L T D A G G C S A Q Y
UniRef90_K6VJ10	T A K Q T G R E K Y K T Y R Q L G I Q P R T F K L
UniRef90_A1K9L6	A E K A P A R A R W T Q Y K T R G L P L K A F D A E
UniRef90_Q3SS05	A A L D A A R A I W T E C K S R G C E A T Y
UniRef90_JOUV59	T D R T Q A R E R W R V Y Q T Q G G C Q V H A H K L
UniRef90_Q7NTZ0	E S L A T A R E R F R A Y R E H G C E I E H H D M
UniRef90_N6XUQ6	A D K A P A R A R W G H Y R Q R G L E L K A F D
UniRef90_J6J730	E A V A D A R V L W R E K K A E G F A V T Y
UniRef90_UPI0003B67985	E I L T D G R K R Y A Y Y R D R G Y T L K Y Y Q L
UniRef90_UPI00037F6DA4	E A L A E A R Q H W K L F K G Q G A E V T Y
UniRef90_UPI000395D215	T L K Q H A R H R Y K A Y R L A G L Q L H T
UniRef90_W9H5A3	D A V Q S A R R R W K Q Y K A D N H A L T Y
UniRef90_X7EEY7	D A V Q V A R G Q W R T L T G G G C T A T Y
UniRef90_I5C3C7	A A L D A A R G H W K S L K S A G H A V T Y
UniRef90_W0N5M3	Q Q L E A A R A Q W K K L K G E G H H N L T Y
UniRef90_Q21WL2	E D R Q S A R S R W K S Y A D R G Y V I T R H D L
UniRef90_G7UVR4	A A R A P L R E R W R Q Y Q A R G F A L N K H D M
UniRef90_Q07LG1	E A I A L A R A A W T A S K A K G F E V T Y R Q M
UniRef90_Q7VQT1	N L K K L A R I R Y K S Y R S G F N L T T H
UniRef90_UPI0004155660	P G K Q A A R Q R Y K E Y Q R A G C D M
UniRef90_E6WVR1	A A R A P L R E R W R Q Y Q A L G Y D L N K H D M
UniRef90_F8JBX3	D A V A L A R S Q W K A A K A G G C A V T Y
UniRef90_UPI00036A273A	A Q L E D A R Q H W K T M K V A G H A V T Y
UniRef90_Q493Z8	I L K K W A R Y R Y R S Y K R N G F Q V S
UniRef90_C7RP73	E E R A A G R Q R A R F Y K T K D R G Y D I T Y V D L
UniRef90_K2NYA1	E Q L D S A R A H W K T M K G A G H A V T Y
UniRef90_F1W0U4	A D I A S G R D R Y R F Y Q Q R G Y A L T H F
UniRef90_UPI000424991D6	S A R E P L R E R W K Q Y K A R G L D V S K H D M
UniRef90_S6HMS5	D V L A L S R K R Y Q K Y Q Q Q G F K I K H N D M R
UniRef90_K2JKZ9	E A L T A A R A R W K A L K A A G H E L A Y
UniRef90_R5QNU2	D A L Q Q A R A F W K N L K S G G
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UniRef90_UPI0003A9EB91	P V R V P A R E R F R F Y R E R G Y P L Q T H Q L R
UniRef90_R6JUD7	T A V N A A R T F W K E L K G A G E E I Y Y
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UniRef90_W3RFB5	E D A T A A R A A W T A S K A K G F D V T Y
UniRef90_V6F6S3	N A V L A A R E R W K T W K A E G H Q L V Y Y Q
UniRef90_B9JCD9	E Q L E G A R A Q W K K L K G E G H H N L T Y
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UniRef90_UPI0003663BC4	T S V Q D A R T R W K E A K D G G H G V T Y
UniRef90_K2CLP1	E Q R E L A R K K Y Q F Y Q K S N F E L Q T Y S L
UniRef90_Q0AQB6	M A V T D A R A L W K K A S A E G C T V S Y
UniRef90_A0A059ITP9	D A L G R A R A Q W K A L T E A G A S A Q Y
UniRef90_R61342	T A V E Q S R G L W K E F K A A G G M E T Y Y
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UniRef90_G7TGG2	A A R E P L R E R W K Q Y K A L G L E L T K Y D M
UniRef90_N9DLG5	S A K I V G R E K F K K Y R H L G I E P Q T F K L
UniRef90_G2TDA2	S A V A R A R G H W K A M R E N G H E L H Y
UniRef90_UPI0004677C05	A Q L Q Q A R E H W K L M K A A G H Q V T Y
UniRef90_UPI000463B7B5	S A R G P L R E R W K H Y K A R G I E P T K Y D M
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UniRef90_B7QPB2	A A V A R A R T Q W K T L T D A G G C A A Q Y
UniRef90_Q2KWX2	T D R A A A R V R W R D Y V A A G H T P H S H D L
UniRef90_S9ZTQ6	A D K L P A R A R W T Q Y R E R G L T L K A F D A E
UniRef90_H6SKM9	D A V A R A R S Q W R E A R D L G L A L H Y
UniRef90_F2J1L5	E A V A E A R L R W K E A K E Q G F T V T Y
UniRef90_Q47BG8	S D R L A A R D R V K F Y K D R G Y E V R Y F D L
UniRef90_X5MAJ0	D A V A A A R V H W K A V K D A G H D A T Y
UniRef90_B9JUW2	Q E I L E T A R G E W K R L K G E G H A L T Y
UniRef90_G9ZF04	D V L T S T R H R Y A A Y R E R G L E P Q T H R L
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UniRef90_W6W2G4	V L F Y H	L T E S K L E D A L P A	L L E K S V E R G W K V A V		
UniRef90_A2SH60	M T E I N F H H G A A D P L A H A C R	L L T K A Y Q R G A R V A V			
UniRef90_J1SS05	I L F Y H	L T E S K L E D A L P P	L L D K S V E R G W R V A V		
UniRef90_A8IMF0	V L F Y H	L T E R R P L E D A L P V	L L E K S L E R G W R C V V		
UniRef90_J3D8E2	M T E I A F H F N V P D K L A Y S C R	L L R K A Y L S G A S V V V			
UniRef90_B8KR03	A E K A Y H R G H R V L I				
UniRef90_H5T8L1	Q N E T V S A E L A T E L A M A A D	L L S E Y V V S R K K V T V			
UniRef90_W8WV41	M T R V D F A Y G A A H R L R M A C R	T A A R H V G A G R R L L V			
UniRef90_UPI0003727F6A	I L F Y H L Q Q Q P L E K V L P N	L V E R S L E R Q W R A A I			
UniRef90_UPI00036995BE	N K A D F Y L L N T A A S E A V D H F V C R	L A E K A V R L G N Q I Y I			
UniRef90_UPI00039E3804	F Y H L T E T T T L D E A L P V	L I E R S L G R G W K A T I			
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UniRef90_UPI00040E0B55	R A D F Y L I T T P R P R S E P L R L V C E	L A R K A F D A G L P T L V			
UniRef90_F2G2P0	Q V I F Y Q L T S S D N G V A G R A S E	V I A S A F A N K Q K I S V			
UniRef90_G2J8Z7	R I D F H T H V G I D A Q R L N Y A C R	L A R K V Y A A G E T L C V			
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UniRef90_A1V9P8	M T E I A F H F N V P D K L A Y G C R	L L R K A Y L S G A T V A V			
UniRef90_UPI000360653C	V L F Y H L Q Q Q P L E V L L P G	L L E K S L E R G W K V V V			
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UniRef90_M5DP96	Q S D F Y L L K E Q T I E D Q W L F A C R	L V D Q L V K E G R Q V L V			
UniRef90_C4KAG2	R V Q F Y H N T P D R L A L A H E	L A A G A H A R G R K V A L			
UniRef90_A4EMJ2	V F F Y H L T D S P L E A T L P M	L I G K A R G A G W R V L V			
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UniRef90_A0A009Z137	N I S F Y L F E T S Q E R Q V D S A C R	L C R K L L K K H P K I W W			
UniRef90_C9YBH7	M T D I A F H F G A P N K L E Y V G R	L L R K A V A R G A R L T V			
UniRef90_C7D706	A Y F Y H L T A A P L E Q T L P M	L I I G K A Q G A G W R V V V			
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UniRef90_U4TMW9	R V D F Y I L N T P S K Q A Q Y H F A C R	L A E K A V S Q N T T V Y I			
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UniRef90_U7FLB7	V V F Y H L L H K P L E M A L L P	Q L L Q K C L E R D W K V V V			
UniRef90_UPI00046AE709	V M F Y H L T Q R P L T D T L R M	L L I E K S L T A G W R V S V			
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UniRef90_A1WUV2	D F Y I L D G P G A P R E R F A C R	L A E K A Y E N G Y G V L L			
UniRef90_U2XR15	D V L F Y H L E R Q S L E Q A L P I L L D L	S M Q R N W R V V V			
UniRef90_U2YR38	F Y H L E R S T L D Q V L P	E L L D R T L Q R G W R A L V			
UniRef90_I1B2K3	A Y F Y H L T H R P L E A A L P A	L L E K S L A A G W R V V T V			
UniRef90_A3WQ68	A T F F L I V Q T T D E D E K N N L I C	C D K I A D L F R Q Y R K L L V			
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UniRef90_W8SS18	A F F Y H L T R H P V E V T L R T	L L E K S R Q Q G W R V A V			
UniRef90_UPI000289AD5E	I L F Y H L T E S T L D E A L P G	L V E R S L G R G W R V T I			
UniRef90_A3XBE0	A Y F Y H L T Q R P L Q E T L P V	L L Q K A R G A G W R I A V			
UniRef90_A3SW29	A Y F Y H L T Q R P L V E T L T M	L L G K A Q G A G W R V A V			
UniRef90_A0A024KF64	D V L F Y H E N Q P L E K V L P L	L L E K T V E R G W R A V V			
UniRef90_UPI000370236A	F Y H N A P D R L R A A C A V T A K A V R Q G R I I W	L L E K S R Q Q G W R V A V			
UniRef90_UPI00034BCA65	M T Q D F H T H V G D P L D Y A C R	L L R K A V Y A A G Q P L L V			
UniRef90_UPI00039EC83	V W F Y H L E R A S L N E T L P S	L L E K T L Q K G W R A L V			
UniRef90_A3JPE3	Y F Y H L T H E P L E S A L P	K I I V K A R A A G W R V V V			
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UniRef90_C3X5D7	M T K I E F R T H I A D K I N Y T C R	L R W K A F L L N D S R I V I			
UniRef90_R5YLE4	R V D F Y H L Q R A P L E Q V L P K	L L C E K A Y A T G K R I K I			
UniRef90_A0A023S1B8	K V S F Y L F E T S E E R Q V D S A C R	L L C R K I L L K H S Q I W W			
UniRef90_Q0AB76	V R F Y V L I N R A T D P V Q R R E F A C E	L L V A K G L E H G V R I H I			
UniRef90_UPI0003804489	I L F Y H L T E S L R D A A L P P	L L V E K S L E R G W R V A V I			
UniRef90_D4DQP1	R A T F Y H L T D P A A F A C K	L L T R A C G Q N E R L I L I			
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UniRef90_A3JZ63	V F F Y H L T R Q P V E V T L L G M	L L T K S L L E R G W R V A V V			
UniRef90_UPI0003805B0C	F Y H L T R Q P L D K A L P A	L L E K C L E R K W K V V V			
UniRef90_B2UAK7	M T R V D F H S N V P G K L A Y A C R	L L V R E S L L Q R G W K A S I			
UniRef90_J0QXA1	I L F Y H L T R S T L D E A L P G	L L V A R C Y G E K K R L T V			
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UniRef90_W96K516	V A F Y H L T R S P P I A W P L E R A L P K	L L V A R C Y G E K K R L T V			
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UniRef90_K0CJM1	V L F Y H L T R S P A L A V L P A	L L G K S L E R G W R V A V V			
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UniRef90_E1VLP8	Q L I G F Y H L T R S P A L A V L P A	L L G K S L E R G W R V A V V			
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UniRef90_UPI000376F33E	M T E I F E F H V N T P D K L M Y G C R	L L P R A L G Q G W R V E V			
UniRef90_UPI0004262501	A Y F Y H L T E S P L E A A L L T	L L E R T L Q R G W R A V V			
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UniRef90_G2J398	R I D F Y H T N V A D P Q A F A C R	L A Q T V F R K G E R L L V			
UniRef90_Q6FFD9	K I S F Y L F E T S Q E R Q V E S A C R	C R K L V K Q Q Q K L W W			
UniRef90_V9WGB2	A Y F Y H L T R R S L E E T L P V	L L E K S L E R G W R I V V			
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50            60            70            80

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UniRef90_V4RMF8	Q C G S E E R L E Q L L D G H L W A Y D D S S F L P H G S D R E A D A A L [L] Q P A L	
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UniRef90_A2SH60	T A S S S E R [L] A Q L L D V M L W T Y D P [L] A F V P H A R A G A A P A A P T P I W	
UniRef90_J1SS05	Q M K E A A R R D A L L D Q H L W T Y R E D S F L P H G T D E A D F A G D Q P V L	
UniRef90_A8IMF0	Q A G S P E R R D A L L D A H L W T Y N D A S F L P H G T D A Q P R P E R Q P V L	
UniRef90_J3D8E2	T G E P [V] V L A E L L D Q [L] M W S F S P A E F V P H C R A G S A Q S A A S P V V	
UniRef90_B8KR03	N A D T E S N A K T I L D D L L W S Q K A V S F V P H A L M S S T T P E D V T	
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UniRef90_F2G2P0	L C D T Q A Q A E E V D E L L W Q L P A D R F V P H N L Y G E G P Q S G T P V E	
UniRef90_G2J8Z7	I A D D D D L L R A F D A Q L W T F S A L D F I P H C R A E D A H A T A T P I I	
UniRef90_Q164G8	R G T R P D R M A W L D E K L W Q Q G A D D S F L P H G L A G G A H D A R Q P I L	
UniRef90_A1VP98	I A E P E V L A E L L D A L L W S F S A T E F V P H C T A S P G T [L] A T P V V	
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UniRef90_W5YB23	L T E G G D D V P N G A T F A F L L D G V E A P D L S P F E R   R V F D L F D H D E			
UniRef90_UPI00000E0E595	V T W G N Q S P I R S I V V N V A A L Q I P N P R Y H   T I Y D F V P V A E			
UniRef90_W6K516	L T M Q D E N P N G A Q F L F L T E G M T S D R L A E Y E R   C F D L F D N D P			
UniRef90_C8S3V3	L G T G A I G N A A H A L M L V D G A E P L T G E A E A L E R   V W V L F D N D P			
UniRef90_K0CJM1	L G F G D D P G G H H D V L V I N L A A A V P D F V T R F E R   R A A E M I T G D P			
UniRef90_A0A058ZQ13	L T T Q S D M P N P D C L M L V D G A D F A P Q D A Q G L E R   V C I L F D N D P			
UniRef90_E1VLP8	W K A A L A P S D T V Q Y D V L V I N L A G P V P E F H T R   R V T E I V P G D T			
UniRef90_UPI00036CD245	L S E T A G E N L N G A Q A L F I V D D A E L L G V T E F G E R   C F I I F D G D E			
UniRef90_B4RBR7	L T M D F E N P N G A D A L F L V D G A E P G D L A G Y Q R   C V V L F D G D P			
UniRef90_D7A7H0	L T T S E S N P N G A T V R F F I D S A S A P D L S P Y A R   R V I H L F D N D S			
UniRef90_UPI00037F715D	L T T G P E N P N Q A P V F F I D G A S A P P E A N G Y A R   V I L L F D N Q E			
UniRef90_UPI000363DBBB	L I I G S R Q A P E S W Q R T L I N L S S Q C P R E L D R   E R V T E I V P G D T			
UniRef90_Q1YID5	L T V E A E Q K A N D P Q V R F L V D G A V P A S L E G Y V R   A V Y L F D H D A			
UniRef90_UPI00040DB589	L S T G L E N P N G A E V R F F I E S A D V A P A L A P Y A R   V I L L F D N D E			
UniRef90_A3SQ66	L T T A M E A A N P Q C L M A V D G A E V S A E E V Q R   E R V C V L F D G N D			
UniRef90_UPI0004795419	V L L A E L T A C P H Y G V L V N L G Q S I P A G F E L F E R   F I E V V A Q A G			
UniRef90_UPI000376F33E	L T S G G A A A N P A C V M A V D G A D V T A E E G G A A L E R   V C V L F D G E P			
UniRef90_UPI0004262501	L T D Q V I E N P N G A Q V L F L G D G A D S D G G G A F A T   V C D L F D N D P			
UniRef90_L8YJ8	V I L A S F E P A Y V R D L L I Q V A D Q V P D N F A Q Y Q R   I I E V M Y Q T P			
UniRef90_F9ZFV2	L S G Q I Q V N S P F D V L V I N L H D Q S P H L F D Q F D R   L I E I I A G T S H			
UniRef90_G2J398	L T T R L P A E L E H P V L L N L G P E L P A H F A R   L E I I V G C D E			
UniRef90_Q6FFD9	S H L P T S K E W I V F N F N Q A L E Q M S E F S H   I E I I E N T E			
UniRef90_V9WGB2	L S H E T T P P G A S C L M A V D G A E V T A E E V T A L E R   V C I L F D G N P			
UniRef90_Q5NXM0	I G A A R T T R W P H A E L L F N L A D D I P P D F R F R M L V E I V G Q S E			
UniRef90_A1US71	L T T G N E N P N N S T I R F L I E G A V C S D I H S Y Q R   V V V M F D S D E			

130                    140

P	Q	L	E	A	A	R	G	Q	W	K	R	□	L	K	G	E	G	H	A	□	T	Y				
D	D	L	R	N	G	R	□	L	R	W	K	H	Y	A	S	R	G	Y	A	M	T	R	H	D		
A	A	V	E	Q	A	R	A	E	W	R	R	A	K	D	G	G	□	E	V	T	Y					
I	Q	L	D	N	A	N	A	Q	W	K	K	□	K	G	E	G	H	A	L	T	Y					
E	E	R	R	A	G	R	Q	R	W	R	Y	F	E	S	R	G	Y	E	I	R	P	H	E	V	R	
E	Q	L	E	G	A	R	A	Q	W	K	K	□	K	G	E	G	H	S	L	T	Y					
T	A	V	V	A	A	R	E	R	W	R	E	A	K	A	G	H	T	L	T	Y						
E	D	R	L	A	A	R	S	R	W	K	H	Y	T	D	R	G	Y	A	M	K	R	H	D	L		
S	A	L	A	A	L	R	D	A	W	R	F	Y	R	D	R	G	Y	P	□	L	K	K	H	D	L	
N	E	K	A	K	A	R	E	R	Y	K	K	Y	K	Q	A	G	C	Q	L	E	Y					
A	D	I	Q	A	A	R	R	R	W	S	□	L	Y	Q	A	G	H	E	V	R	G	H	R	L		
D	A	L	L	G	A	R	A	Q	W	K	Q	A	K	E	A	G	H	T	L	A	Y					
A	E	K	H	I	A	R	N	K	F	K	E	Y	K	E	V	G	F	D	M	N	T	H	S	L	E	
S	A	V	S	Q	A	R	N	N	W	K	S	□	K	A	D	G	H	T	L	T	Y					
D	Q	M	A	H	A	R	E	Q	W	Q	□	V	E	K	S	A	G	H	E	V	T	Y				
S	S	R	G	P	□	R	E	R	W	K	Q	Y	Y	Q	S	R	G	□	L	E	L	K	K	H	D	M
NA	K	Q	A	A	R	V	R	Y	K	N	Y	Q	Y	Q	A	G	C	N	M	Q						
A	Q	L	H	A	A	R	A	R	Y	R	F	Y	R	D	R	G	Y	P	□	H	M	Y				
Q	A	L	D	V	A	R	G	Q	W	S	□	L	K	K	A	G	A	A	E	Y						
E	D	V	P	A	G	R	D	R	W	K	H	Y	Y	A	R	G	Y	T	□	L	K	R	H	D	L	
D	A	L	D	G	A	R	A	S	W	K	□	V	K	A	E	G	H	D	A	T	Y					
E	I	R	A	S	G	R	E	Y	Y	R	F	Y	R	D	Q	G	C	E	□	L	N	H	Y	P	□	
Q	V	L	E	Y	T	R	N	H	F	R	F	□	L	K	D	R	G	Y	P	□	L	Q	H	R	D	M
A	E	V	H	A	A	R	□	R	W	A	Y	R	Q	R	G	Y	E	L	K	A	F	D	A	E		
A	A	L	E	H	A	R	G	Q	W	K	T	□	L	T	D	A	G	C	A	A	Q	Y				
A	V	L	A	V	T	R	R	F	K	H	Y	R	A	R	G	Y	T	P	E	T	P	E	T			
A	A	K	Q	L	G	R	E	K	F	K	Y	R	R	□	G	V	E	P	R	T	F	K	L			
D	D	R	A	L	A	R	N	R	W	H	Y	V	L	Q	G	Y	E	□	Q	R	H	D	L	K		
N	A	L	A	R	A	R	E	Q	W	K	□	L	T	D	A	G	A	P	A	Q	Y					
E	A	L	S	H	A	R	G	Q	W	K	AL	T	G	A	G	C	A	A	I	Y						
K	S	L	Q	A	S	R	Q	A	Y	R	H	Y	Q	D	G	F	A	V	H	H	N					
E	Q	L	R	K	R	A	E	S	W	Q	□	L	R	Q	E	S	H	T	V	Y	Q					
E	A	V	Q	E	A	R	N	R	W	K	E	A	K	A	E	G	F	E	I	AY						
E	Q	L	N	H	A	R	G	Q	W	K	T	□	L	T	G	A	G	V	S	A	Q	Y				
N	G	K	K	T	A	R	E	Y	K	H	Y	R	A	R	G	Y	C	Q	M	Q	T	E	P	□		
U	H	E	V	R	A	S	R	Y	R	I	Y	K	E	A	G	C	E	P	H	T	R	I	E			
U	N	R	U	2	X	R	1	5	15	E	A	V	R	Q	A	R	W	S	□	L	A	K	Y			
U	N	R	U	2	Y	R	3	8	38	E	A	V	R	Q	A	R	W	S	□	L	A	K	Y			
U	N	R	U	1	B	2	K	3	23	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	3	Q	6	28	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	Q	5	Y	16	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y			
U	N	R	U	1	A	1	W	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A	R	Y	K	AL	A	G	A	Q	Y		
U	N	R	U	1	W	U	2	U	2	E	A	V	R	Q	A</td											

Multiple sequence alignment of UniRef90 entries showing conservation across 40 positions. The alignment is color-coded by residue type: black for hydrophobic, red for polar, blue for aromatic, green for polar with side-chain, and yellow for polar with backbone participation. Positions 10, 20, 30, and 40 are labeled at the top. A vertical scale bar on the left lists UniRef90 identifiers.

50            60            70            80

UniRef90_E2CQ93	Q T G S Q E R C D A L D A H L W T F S D D S F L P H G T K A D G H A E F Q P I Y
UniRef90_N6Y3X6	R M P D G A S A R E L E R V L W T R E P L A F V P H V L R D S E L A A E T P P V V
UniRef90_UPI0004688662	R G T D A S A L A A L D Q A L W R G P E D G F L P H G M A G G A Q D A D Q P V L
UniRef90_D9QLJ1	R V A D P D R R A E I D D D T L W S W R A D S F L A H G Q A D Q P H A A R Q P I L
UniRef90_UPI000468591A	R G T N A G G L Q Q L D Q A L W L G P E A E F L P H G I A D G E H D A D Q P V L
UniRef90_Q28RC9	R G R T D A V L D R L L D E Q L W L V P E D G F L P H G R A G G D H D A A Q P V L
UniRef90_UPI000467FF22	R G T E G A A L E A L D R A L W L G P E D G F L P H G I A G G P A D A E Q P V L
UniRef90_M1NSN5	Q C T S K E R R D A I D M H L W V Y A D E A F I G H G T E S D N Y P H F Q P V F
UniRef90_A0A023NMF6	L A R D F A Q A E A I D E L L W E F D P D G F I T H Q L A G D D D D Q F T A V
UniRef90_A0A011NRF2	Y A P D T D I A A A L D R Q L W G Q P P T S F V P H V A A D S P L A A E T P P V L
UniRef90_UPI000360C9D5	V V I D T P D Q R Q A L E D V L L T F K P E S Y L P F R R V E E A D L Q Q P A
UniRef90_E3I2N8	R F S S A E R L D L A I D D T A L W T Y R E D S F L P H G T A R D G H A D R Q P V F
UniRef90_UPI0003B778C2	L V P D S A Q C Q A L D Q L L W T F Q P Q A F I P H C A P T A A Y A D Q T P I W
UniRef90_A4BBY3	A V N S S E E L E P V S Q A L W S V S P D S F L A H T N C A T A P F P L Q
UniRef90_F7VC60	W C A S K A T L D D V D K A L W K V S S P T W L P H G S A G V L P E R Q P I W
UniRef90_K2LNK7	M T G T E E R I L E A L N T L L W T Y D A A S W M P H G S K S D G D P E M Q P V W
UniRef90_UPI0003FD763F	W C R D Q Q H A E A L D E L L W Q Q P A E R F V P H N L V I G E G P A Q G A P V E
UniRef90_X6KZA7	R G T E R G R M E W L D E K L W Q Q P E D G F L P H G L A G G P H D A D Q P V L
UniRef90_I4VN4V	L C R D F A Q A E A L D D D L L W A F D D D A F I P H Q L A G G D D D D A D T A V
UniRef90_UPI000379C475	H C D S D P L A A R L D Q M L W L F E P L A F I P H V R E G H P L S A Q T P V R
UniRef90_N8ZFA0	Y C T D T D L Q Q E L D D L L W S F D Q T S F I P H G I D Q A D A A
UniRef90_D5QH37	R C G D D A R V K W L D D A L W R A T D P L W L P H G T R A L G H E S W Q P I W
UniRef90_A9E5F5	R G T D P E G L Q A L L D R A L L W T F S E D S F L P H A L A G G D R D A D Q P V L
UniRef90_UPI0002E5B6E3	L C G G P E R L A A L D A S L W L S T D P D W L P H G T P A V G R A E L Q P I W
UniRef90_N6WTS3	V C N P G E Q V E A L T D M L W Q F S P E S F L P H R L A S S N E P C P E R I G
UniRef90_UPI00036D8FBA	V L P D D Q A L Q A F S R A L W S F G D T S F I A H C E W N A A E A P S S R I W
UniRef90_UPI000464BE24	V A E P G T L A A F D T A L W T F S P L D F I P H C G V D S P L A A Q T P V V
UniRef90_UPI000467A157	Q T A S E A E R D R L D G I L W T F R A D S F I P H G T D A E D N S E A Q P V L
UniRef90_E8RT41	L G E A G D M L V G L D Q H L W A Y R D E A F I P H G L E S E P E A A R Q P V L
UniRef90_Q31ET2	R F A S E D E M T R F D L S L W Q Y Q P E A F I P H S V Q Q T V Q A P I Q
UniRef90_UPI000377B75C	F T E D A T S A A D V S D C L W Q H Q P A S F L P N V M A D N A H V A K T P I I
UniRef90_UPI000262CB8D	H V S S E P E A Q A L L D Q L L W D D D E S F I P H E I D Q G N S P T A P V G
UniRef90_I0HTB5	T A P A S T L V A L D R A L L W T F D E R D F V P H L R V S A A N A G R T P I W
UniRef90_K2KMM8	W T A S Q Q A A E A L D E A L W K L P V D A F I P H N L Q G E G P A N G A P V E
UniRef90_E6YV19	Q C M N K E C C N F L D T C L W V Y A D E S F I G H G T E Y D R Y P E L Q P V F
UniRef90_A8PP43	Q V N T A E E G Q R F D E L L W T F R D I S F V P H R Y V D S S I D P L L T V H
UniRef90_UPI000423D3F8	R G S D P G R I I E W L D Q K L W L V P E E G F L P H G V V G A H D A D Q P V L
UniRef90_L1QLS1	R G A T S H R L D D I D E L L W T Y R D D S F L P H G R A D G D H A A R Q P V L
UniRef90_E6V4T6	V I G D A E A L L D A V D A A L W Q L S P V D F V A H C R S D A Q P H A R S P V V
UniRef90_F3KV10	T A P A E L L A R L D V L L W T F S Q T D F V A H V R L P M R H A P Q T P V V
UniRef90_UPI0003192305	V G A P V T L R Q L D A E L W R F Q D V A F I P H C T S S S P E V Q S A S P
UniRef90_UPI0001D2F0DE	Q A A S P R R L A T I D E L L W S Y D P E S F L P H G T Q R D G D P Q S Q P V F
UniRef90_K2DK78	T G S S Q T L A E L L D D M L W N M T P Q D Y V A H C R A G D E L L R F S P V V
UniRef90_C7JEP0	W C A S K P M L D D L D K A L W K V T T P T W L P H G R E G I A C P D L Q P I W
UniRef90_A1T2Z7	L C D T E E Q A Q L E L L D D L W N F T P E A F I P H S I A K A A T T P C S D P V
UniRef90_N9VF98	L C R D Q A Q A L R L D E R L W Q L P A D R F V P H Q L Q E E S G Q A Q V E I
UniRef90_UPI0003819BE8	Q T A T P E R R D A L D Q H L W V Y K D D G F L P H G T D A D G S G A I Q P I L
UniRef90_UPI00035E66F2	Y C S D G A R L S A F D R M L W D L D D I S F V P H V L A T D P L A S E T P V L
UniRef90_UPI0002260959	R C G D P E A V A A L D E A L W K V P E P V W L P H A A T G G K Y P E R Q P V W
UniRef90_UPI000471F720	R L K S I E L S E R R L N T E L W T Y S A P S F L P H G S D Q D E N P E Q Q P I L
UniRef90_UPI00036C5F6C	V S P D E G R M D A L D S H L W T F R E N S F L A H G R E D R P M A S E Q P I L
UniRef90_Q2CC18	R A T S R A L L A R L D E Q L W L H P E D G F L P H G L A G G P H D A D Q P V L
UniRef90_UPI0003A8BC14	Q A T S R A R L L A R L D E Q L W L H P E D G F L P H G L A G G P H D A D Q P V L
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UniRef90_V7EHT3	R G T D R A A L E R L D A R L W L D E G Q P F L P H G M E G G R H D A L L Q P V L
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UniRef90_C1D7G5	L F A D E A A L L G A F D T R L W S V P A Q G F V P H V R L D D P L A A E T P V L
UniRef90_B6AXS5	V G R N P Q R L D A L D T Q L W Q G A G T D F L A H G R A G G V Q D A A Q P I L
UniRef90_F5XX91	T G A P E L L R E L D T A L W T F S A L D F V P H C V A F E A V R R R T P V V
UniRef90_X2HGX2	W C D D V S R V N Q L D H A L W S F Q P A S F I P H E I W S P Q H V Q P Q A V L
UniRef90_A8L80	R G T S G A E L R E L D E L L W L R P E E G F L P H G I A G G D R D A D Q P V L
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UniRef90_W9TW44	N C Q D K P H A E Q L A E A F W Q I D A D Q F M A H N L V G E G P K Y A T N I E
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UniRef90_UPI0003B5EDC2	R G T D A A G L D E L L D T A L W H G P D E A F L P H G M E G G P D D A R Q P I L
UniRef90_A0A037ZJ83	R G T D E G R L R Q L D Q Q L W L A G E E S F L P H G L A G S G F D A D Q P V L
UniRef90_C5AC03	C A E P A R R L R A L L D E R L W T F S P L D F I P H C S I D S P L A G Q T P I V
UniRef90_B4RJ23	W S D S F G R L Q E L L D K M L W Q Y E A E S F I P H E I W E E A M P S D T S V L
UniRef90_A0A011PPJ2	Y A P D T A V A A A L D R H L W L H P P T G F V P H V A S D S P L A G E T P V V
UniRef90_B6R7N0	Q F G T E E R C D A I D S Y L W T Y S D D G F L P H G T K K E G H P E F Q P I Y
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UniRef90_Q2CC18	L L T D T R G T N N A A C L L A V E G A E V S A E E V Q A L E R T C I L F D G D P			
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UniRef90_V7EHT3	I I L G Q G Q I A N A A Q G L F L I D G A E T T P E E A R P L E R V W L L F D G D G			
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UniRef90_X2MWU4	I I A A W P X X T L T P			
UniRef90_C1D7G5	L L A T S L P E V P P T G V L L N L S L G E P A G F P A W P R I L L E I V G E D A			
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130                    140

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UniRef90_UPI0003B778C2	A E L   T   Q   A   R   Q   V   A   R   H   Y   K   Q   L   G   A   E   I   V   Y   H   D   M
UniRef90_A4BBY3	I   R   L   Q   A   S   R   S   R   Y   R   D   Y   S   D   N   G   Y   P   I   E   R   F   D   L   R
UniRef90_F7VC60	D A V   V   A   A   R   T   R   W   S   S   L   K   A   A   G   H   E   L   A   Y
UniRef90_K2LNK7	E A V   A   E   A   R   T   R   W   K   D   W   K   D   A   G   H   K   L   S   Y
UniRef90_UPI0003FD763F	E Q R   Q   L   A   R   E   R   F   K   W   Y   R   Q   Q   G   V   Q   L   T   T   Q   N
UniRef90_X6KZA7	S A V   Q   V   A   R   G   Q   W   S   A   L   K   K   A   G   C   S   A   Q   Y
UniRef90_I4VNIV4	S A R   E   G   S   R   T   R   W   R   E   Y   L   R   R   G   F   Q   V   N   K   F   D   M
UniRef90_UPI000379C475	A D R   D   A   A   R   A   R   F   V   Y   R   Q   S   G   F   D   M   Q   T   F   K   A   E
UniRef90_N8ZFA0	T   A   K   V   I   G   R   E   K   F   K   S   Y   R   R   Q   G     E   A   R   T   F   K   L
UniRef90_D5QH37	N A V   V   A   A   R   Q   R   W   K   V   C   R   E   A   G   H   T   L   T   Y
UniRef90_A9E5F5	M A L   D   Q   A   R   G   L   W   K   R   L   K   S   E   G   A   S   A   Q   Y
UniRef90_UPI0002E5B6E3	E   A   T   E   A   A   R   D   R   W   R   R   A   K   A   A   G   H   A   L   T   Y
UniRef90_N6WTS3	Q   T   L   N   Q   A   R   A   H   F   R   Q   L   R   E   L   G     E   A   R   V   H   D   A   R
UniRef90_UPI00036D8FBA	A   S   R   A   V   A   R   K   R   Y   R   A   Y   L   D   L   G   F   D   I   H   H   H   D   M
UniRef90_UPI000464BE24	E   A   V   T   A   G   R   D   R   Y   R   F   Y   R   D   R   G   Y   P   I   T   T   N   H
UniRef90_UPI000467A157	D   E   L   T   R   A   R   A   Q   W   K   A   L   R   Q   G   D   H   S   L   T   Y
UniRef90_E8RT41	T   H   L   N   W   N   W   A   R   A   Q   W   K   A   L   K   A   R   N   L   D   L   A   Y
UniRef90_Q31ET2	H   L   I   Q   M   G   R   E   R   W   K   A   Y   K   K   E   G   L   E   P   T   V   H   K     K
UniRef90_UPI000377B75C	S   D   K   L   L   S   A   R   Q   R   Y   K   F   Y   R   D   R   G   Y   E   I   Q   H     D
UniRef90_UPI000262CB8D	A   V   L   E   S   T   R   A   N   W   K   Q   L   K   F   D   G   Y   P   I   T   Q   H   D   L   R
UniRef90_I0HTB5	D   E   A   G   A   A   R   E   R   W   R   T   W   K   A   H   G   M   V   P   T   H   H
UniRef90_K2KMM8	S   G   K   Q   Q   A   R   E   R   Y   K   Q   Y   R   A   W   G   M   Q   M   Q
UniRef90_E6V4V19	D   Q   L   N   L   I   R   E   Q   W   K   D   Y   K   T   K   N   Y   N   L   T   Y
UniRef90_A8PP43	E   N   K   N   Q   S   R   Q   K   Y   K   F   Y   K   T   Q   Q   C   H   L   M   T   H   H   I
UniRef90_UPI000423D3F8	Q   A   L   D   R   A   R   A   Q   W   K   E   L   T   S   A   G   C   A   A   Q   Y
UniRef90_L1QLS1	Q   A   L   N   H   A   R   G   R   W   R   T   L   K   A   D   G   A   D   L   A   Y
UniRef90_E6V4T6	N   D   R   Q   V   G   R   S   R   W   R   H   Y   A   D   R   G   Y   T   I   Q   P   H   D   F
UniRef90_F3KV10	E   D   R   Q   L   A   R   D   R   W   K   S   Y   T   A   Q   G   Y   A   I   V   R   H   D   L
UniRef90_UPI0003192305	H   G   K   A   Q   A   R   L   R   W   K   H   Y   K   S     G   F   D   L   V   Q   H   D   L
UniRef90_UPI0001D2F0DE	T   A   L   Q   N   Q   A   R   A   Q   W   R   T   L   K   E   A   G   H   Q   L   S   Y
UniRef90_K2DK78	V   D   R   G   E   A   R   A   R   W   R   H   Y   A   S   Q   G   Y   A   I   T   R   H   D   L
UniRef90_C7JEP0	E   A   V   A   A   A   T   R   W   S   A   A   K   A   G   H   E   L   A   Y
UniRef90_A1T2Z7	A   V   L   N   Q   A   R   G   H   Y   K   Q   L   R   S   L   G     E   A   R   V   H   D   M   R
UniRef90_N9VF98	S   D   K   Q   Q   A   R   A   R   Y   K   A   Y   R   Q   A   G   H   V   L   E   T   L   E   L
UniRef90_UPI0003819BE8	D   Q   L   A   S   A   R   A   R   W   T   A   E   K   A   A   G   H   A   V   T   Y
UniRef90_UPI00035E66F2	G   D   R   H   A   A   R   Q   R   W   R   V   Y   Q   T   A   G   H   D   L   R   S   H   D   L
UniRef90_UPI0002260959	A   A   V   A   A   A   R   L   R   W   V   A   L   R   D   A   G   H   T   L   A   Y
UniRef90_UPI000471F720	E   S   L   Q   L   A   R   A   R   W   K   S   F   K   A   E   G   L   E   V   T   Y
UniRef90_UPI00036C5F6C	A   A   R   D   L   A   R   A   V   W   R   R   N   K   A   A   G   W   S   V   S   Y
UniRef90_Q2CC18	G   A   V   Q   L   A   R   G   Q   W   R   A   R   L   T   D   A   G   C   A   A   Q   Y
UniRef90_UPI0003A8BC14	A   A   V   Q   A   A   R   A   Q   W   R   Q   L   K   T   E   G   H   T   L   S   Y
UniRef90_W61943	D   A   V   A   A   A   R   L   R   W   K   Q   A   Q   S   A   G   H   T   L   T   Y
UniRef90_V7EHT3	A   Q   L   S   A   A   R   A   K   W   K   A   L   T   E   A   G   L   A   A   Q   Y
UniRef90_E4ZC72	E   E   L   A   E   A   R   G   R   F   A   A   Y   R   K   S   G   F   D     G   H   H   D   M
UniRef90_X2MWU4	
UniRef90_C1D7G5	G   Q   L   D   R   A   R   E   V   A   R   A   Y   K   R   A   G   L   D   T   V   Y   H   D   M
UniRef90_B6AXS5	Q   E   V   Q   T   A   R     Q   W   K   T   L   T   D   A   G   C   A   A   Q   Y
UniRef90_F5XX91	E   D   R   L   Q   A   R   R   R   R   W   K   H   Y   A   D   R   G   Y   G     I   R   H   D   L
UniRef90_X2HGX2	D   E   I   A   A   A   R   Q   R   F   T   Y   R   S   A   G   F   K   V   E   H   F   D   M   R
UniRef90_A8LI80	A   A   V   E   A   A   R   G   Q   W   R   A   V   T   G   A   G   L   S   A   Q   Y
UniRef90_K5YNF7	A   Q   V   L   A   A   R   A   R   W   K   A   E   K   A   A   G   H   V   L   A   Y
UniRef90_UPI000477C405	E   A   V   V   Q   A   R   Q   R   W   K   A   A   K   A   A   G   C   E   L   T   Y
UniRef90_V2T7X1	A   S   K   I   I   G   R   D   K   F   K   Q   Y   R   Q   L   G     E   P   R   T   F   K   L
UniRef90_F9QAS9	
UniRef90_UPI0004797C9A	A   A   M   D   W   A   R   A   E   W   K   R     L   R   G   E   G   A   D     T   Y
UniRef90_UPI00035CD1CD	A   D   R   Q   A   G   R   A   R   W   R   H   Y   A   D   R   G   Y   A   I   Q   R   H   D   I
UniRef90_W9TW44	K   A   K   Q   L   A   R   E   R   Y   K     Y   R   Q   A   G   Y   Q   L   Q   T   I   E   I
UniRef90_J7QWF9	A   E   L   T   D   A   R   A   Q   W   K   E   L   R   D   L   G   Y   S     L   V   Y   H   Q
UniRef90_R5Q291	D   A   V   I   Q   A   R   K   L   W   K
UniRef90_UPI0003B5EDC2	D   A   V   A   A   A   R   V   Q   W   K   A   L   T   A   A   G   L   A   A   Q   Y
UniRef90_A0A037ZJ83	E   A   L   N   H   A   R   G   Q   W   K   R   L   T   G   A   G     G   A   Q   Y
UniRef90_C5AC03	E   E   L   A   A   G   R   D   R   Y   R   F   Y   R   D   R   G   Y   A   L   L   N   N   Y   K
UniRef90_B4RJ23	E   D   L   A   D   A   R   E   R   F   T   A   Y   R   R   S   G   F   A   I   E   H   H   G   M   E
UniRef90_A0A011PPJ2	E   E   R   L   A   G   R   Q   R   A   R   F   Y   R   D   R   G   Y   D   I   Q   Y   F   D
UniRef90_B6R7N0	E   A   L   Q   P   C   E   A   R   Q   R   W   L   E   V   K   N   S   D   H   E   L   T   Y
UniRef90_W0PHK7	Q   D   K   A   A   A   R   L   R   Y   Q   Y   T   A   A   G   H   D   V   R   A   H   N   I
UniRef90_V2HW79	D   D   R   A   A   G   R   E   R   Y   R   Q   Y   R   E   R   G   Y   P   L   A   H   H   D   I
UniRef90_UPI0003FA9208	A   A   L   A   E   A   R   A   A   W   K   T   L   K   G   R   E   L   E   V   T   Y
UniRef90_UPI0003A05947	A   A   L   T   K   A   R   E   Q   W   K   S   L   K   A   A   G   H   Q   L   T   Y
UniRef90_B9KSS8	A   E   L   G   R   A   R   G   Q   W   K   A   L   T   G   A   G   V   K   A   Q   Y
UniRef90_C6M468	E   E   L   A   D   A   R   E   R   F   S   A   Y   R   K   N   G   F   T     I   E   H   H   D   M
UniRef90_R7KMB5	S   E   R   Q   P   A   R   E   R   F   K     Y   R   S   A   G   L   A   P   V   A   H   D
UniRef90_G2DRK1	E   D   L   D   E   A   R   K   R   F   S   A   Y   K   R   Q   G   F   D   I   T   H   H   N
UniRef90_E6PQ52	E   A   K   Q   A   G   R   Q   R   F   R   Y   R   Q   A   G   C   E   P   T   T
UniRef90_UPI00037EA66A	E   E   D   K   A   S   A   R   A   R   Y   K   F   Y   R   D   R   G   Y   Q   I   K   S   T   D
UniRef90_G4CSH2	E   E   D   L   A   A   R   E   R   F   R   A   Y   R   Q   Q   G   F   T     I   E   H   Y   N   M
UniRef90_V2UP83	S   T   K     I   G   R   N   K   F   R   Q   Y   R   D   W   G     S   P   R   T   F   K   L
UniRef90_L0WE85	N   E   R   Q   K   G   R   E   R   F   R   Y   R   E   R   G   F   P   V   T   T   H   E   L
UniRef90_UPI0004137C11	E   D   R   Q   K   Q   A   R   Q   R   F   R   Q   Y   K   E   M   G   C   E   I   Q   S   T   D   M
UniRef90_UPI00030A2472	H   G   R   M   T   A   R   Q   R   W   R   H   Y   T   A   Q   G   Y   D   I   L   Q   H   D   L

1 10 20 30 40

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

F Y H L T R T T A D E A L P Q L L G R T L D A G K R A V V  
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 D V Y F Y H L E H Q T F N V P D K F A K T V E L C E K A L L A K G R Q L T I  
 M T S I D F H T N I A D K L I Y T C R L V R K A V A A H N R V A I  
 V R F Y H L T A T S L E S A L P K L L E K T L E R G K R A V V  
 L F Y H L E T R P L E S V L P M K L L E K T L E R G K R A V V  
 M T E V A F H F N A P D K L A Y V C R L A R K A L R H R T Q L V V  
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UniRef90_D7DLI0	Y T Q N D A M S S E M Q N L L W S H S A S S F L A N S H V N E A H S Q F S P I V			
UniRef90_D8JU87	Q A G S E E R L D A L D L A L W T Y D D E S F L A H G T A R I G H A N L Q P V Y			
UniRef90_D5X602	A A P E P L L T E L D P L W T F Q P G S F V P H V W Q D D P L A D K T P V I			
UniRef90_UPI000473A085	L I S S D E A E L A A L D A A L W T F S E T D F L P H V R A D H P R A E Q T P I I			
UniRef90_UPI0003B43B8E	L A R S E E R V E A L C S H L W S Y S D R S F L P H G T R R D G F A E Q Q P I W			
UniRef90_G4RGK8	E V G S A E R L E T I D S A L W T Y S D D S F L P H A V A G E E G D A A Q Q P V L			
UniRef90_A9BWF6	L L G S P P L L K A L S P R L W S V S P T D F L A H A G E G D G A D A F S P I V			
UniRef90_DOSPA6	Y C D N A E M Q N E L L D E K L W T F D P T S F L P H G I H L E N S A			
UniRef90_UPI0002489320	V C G D E A L A A R L D T C L W T Y T P D S F L P H G R A G E D G A A D Q P A L			
UniRef90_M9R7T6	R G R D K G A M E R L D Q A L W G G P A E A F L P H G L A G G D H D A E Q P I L			
UniRef90_D7N0D7	W S D S A E T V A R I L R D L W Q F D P E S F L P H E I W G S P V P S E T P V L			
UniRef90_V4PK52	H G H E D D K I L D A L N G Q L W T Y N P A S F L A H G L E S E G S A S R Q P V L			
UniRef90_K4HI58	Q C V N K E R R D A I D M H L W V Y A D E A F I G H G T E C D Q Y P N F Q P V F			
UniRef90_V4MW03	H G H E D D K I T V L N D G L W T Y R A D S F L A H G R E G D E L E T R Q P V L			
UniRef90_K2JAT6	R G R S E Q T L L A A L D T A L W A R D G F L P H G L A N G P H D A D Q P I L			
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UniRef90_V9TSP9	L L A S P P Q K V Q A L D Y H L W V Y D E K S W L P H G A Q Q Y D K A N L Q P I W			
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UniRef90_UPI0004710DAA	W C A D K P L L E E L D K T L W Q V A T P R W L P H G S A G I A C P D L Q P V W			
UniRef90_UPI0002375131	A A P P D T L A V L D R M L W A L A P Q D F V A H C L A D E E L V H A S P V L			
UniRef90_M1T212	M V G E R A D L K K L D E L L W A F S A T D F L P H C F I E D E T A I D T P I L			
UniRef90_T1CL12	L V R D F N E A E A D L W S F D E D A F I P H Q I A G D D D D A D T A V L			
UniRef90_F3KZP0	L A R D E S H A Q E L Y D I F W S F R H D A F L P V S L W H E R A T S A I V			
UniRef90_UPI00046A1428	R G T D K Q A L A D L I D R V L W L G P E E D F L P H A M A G G D D D A L Q P V L			
UniRef90_C5T690	V A S A D A L A Q I D G M L W R M Q P Q D F V A H C R A D E E L L Q H S P V V			
UniRef90_W0ACB0	V S A D E A Q R E R I L D G A L W T Q D K E S F L P H G L A G G A H D A D Q P V L			
UniRef90_S3NNE2	Y C P D Q H L Q Q Q L D D E L W S F D A S S F L A H G I N Q T Q A P I C			
UniRef90_UPI00029A825B	H V S S N E E A Q R L L D D L L W T F R D I S F I P H Q W M Q T T D R L E H W V P			
UniRef90_C5CLU6	V V G E P Q M L E A V D A A L W Q L S P C D F I A H C R G D A Q P H A R S P V I			
UniRef90_K2DZ78	T G P A D T L A E L D G M L W N M M P Q D F V A H C R S D A E D E L L Q F S S			
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UniRef90_R9PKM5	Y T S S K Q H A E R I D E V L W Q F E A E Q F V P H N L S G E G P Q G G A P V E			
UniRef90_A1W777	T G D A D T L L R L L D R Q L W A L A P S D F V G H C L A D E E I L R A S P T V			
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UniRef90_V4PK52	I I L G T S G A M A N S P Q V Y V S V A P V D L P D V S G M E R C L V V F G A D D			
UniRef90_K4H158	I I L T T G Q E N P N D S K I R F L I E G A I C S D I D A Y Q R L V V I F D H S D D			
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UniRef90_K2JAT6	I I L T L A P G T N R A S C I I M S V G G A E I S A D E V A R A D R V C I L F D H D P			
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UniRef90_UPI0003642602	I I L A W Q P E E Q I R Q D D L L F N C Q A D L P K F F S R F R H V F E L I S S E E			
UniRef90_V9TSP9	I I L T H R N E N P N G A R F L F L V E R Q K A F E F T S F K R V F D L F D G D N			
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UniRef90_E3F3S6	I I L T T G D G L P D G D C L I C V D M A T A T P A E C A S L E R V V L I F D H D P			
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UniRef90_W0ACB0	I I I I G A D V V A A A N G A R H V A L V D G E W R D A A L D F D D R A F H F F D E			
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UniRef90_C5CLU6	I I I L C A E G A D A A G H R E M L V N L G P T V P V G F E R F E R L V D I V V S N E T			
UniRef90_K2DZ78	I I I V V L A D V R H A P H Q E M L L N I G G A V P E G F G S F D R L V E V V S A D E			
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UniRef90_U2Z1D4	I I I I I L T A G E A A P G L P C V I C L D G A E A Q A E E V Q Q A E R V C I L F D F D E E			
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UniRef90_E8U0H6	I I I I I L A R D A C V C S H R D M L V N V G D T V P E G F A Q F A R L V E V V V S Q D Q			
UniRef90_J9CJG1	I I I I I L S L P A L K G D V L L L L D D Q L P P N W E E H F N H F T R I I D V V S T D P			
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UniRef90_K2HH9	I I I I I L T N D P G P P D R Q C L I C I E G A P F T P E E V V A G A E R V V C I F D G D A			
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UniRef90_A4SWH8	I I I I I L A D D F A S T A P H A D V L I H I G V K M P P D V E R F P R I V E V V V T V N E			
UniRef90_L1NUM5	I I I I I L A C G Q L P P L P A G T V V L N L S Q D F W T Q A A A P P R V L E I V V G G S L			
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UniRef90_Y0KE25	I I I I I V E W Q A Q R V Q Q D D L L I N L Q P M Q L T M F S R F K H L F E L V G L D E			
UniRef90_W0DY36	I I I I I L L H G P E L I K P Q Q D V L I N L H P E L Y P E F E R F Q R T I E V L D Q S P			
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UniRef90_A1TRY6	I I I I I I L A T D P R A A T H A Q V L L N L G P T V P A G F E R F G R L V E V V V S S D E			
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UniRef90_UPI00031AACCC	I I I I I I L T C G V I E N P N G A D V R F F V E G A Q I A P A A P R A R A V L L F N G E D P			
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UniRef90_H0BXN7	I I I I I I I L L A T D I I R S V P H D V L L N L H A D V L E G F G Q F G R L V E V V V S H D E			
UniRef90_R7IND3	I I I I I I I L S P D P T A L P D S D V L L L D E G T P P D F Q R F D R V V D I V S S I P			
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UniRef90_G6EXS3	I I I I I I I I I L T V F E E N L N E A A F L F V V V K G Q S S I S L S P F K R V F D L F D N D E			
UniRef90_F9ZMI3	I I I I I I I I A G T D A S V L R P A P A L A L V F G L R E L P G N L P D A A R L L D F I P P D E			
UniRef90_UPI0002630D46	I I I I I I I I I A D G T H P A N D A R N V A L V D G V W R E E A L A F E R A F H L F D E			
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130                    140

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UniRef90_D5X602	P D K P A A R E R L R A Y R A A G F D P
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UniRef90_M9R7T6	D A L A H A R V Q W K T L K D A G C S A Q Y
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UniRef90_C5T690	S D R S E A R S R W R H Y A S R G Y Q I T R H D L
UniRef90_W0ACB0	A S I A A A R T A W R A L S S R G G V E P R Y
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UniRef90_K2DZ78	V D R R E A R A R W R H Y A S R G Y A I T R H D L
UniRef90_UPI00040C1FA4	D D V L Q E R K R W R A L K E A G A T L S Y Y Q
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UniRef90_A3VDU5	G A V E R A R E Q W R T M T G A
UniRef90_L0EU95	N Q L E T A R S E W K N L K A Q G Y K L S H F Q
UniRef90_UPI00037023D6	D A I A P V R Q A W R D A R A A G H E V T Y
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UniRef90_D5BRH5	A Q V Q H A R I Q W K S W A D L G
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UniRef90_E8U0H6	A D R S R A R E R W R H Y V A R G Y G I V R H D L
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UniRef90_Y0KE25	L D K A E A R K R F A F Y R D R G Y D I K S V D M
UniRef90_W0DY36	E R I E P G R E R W R Q Y K Q Q G F T P V V H K I
UniRef90_UPI00046E6661	S E R R A G R R Y R E Y R R L G F T L E T H
UniRef90_UPI00037CF87C	A D R S R A R E R W R H Y A S R G H Q I V R H D L
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UniRef90_UPI00031AACCC	G E L S D A R A Q W K E L R D A G Q T L V Y Q Q
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UniRef90_UPI0003676F5D	S L K Q A A R E R Y R T Y C Q M G M K P S Y L E K K
UniRef90_A0A059DZJ6	D T R N L A R Q Q F K A A K D A G L V T R Y F Q
UniRef90_S5YRF2	E A L E R A R A Q W R L T K A G G V S A E Y
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F Y H | L T R T P V E Q A L P A | L G R T L | D A G R R | A V L  
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R V D F Y H | L Q | L F R L E Q A L P | R I A E K V L | A G G A R | L L V  
R V D F Y Q | L S R D P | A E A A L P | I A R K V V | S D G S R | L L V  
F Y H | L L K R T T | L E Q A A G P | I A A R V L | S L G E R | L L V  
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K K I D F H | D R L D Y A R R | L H K A V | R Q E K T | V W V  
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Q I N F Y I | L D P | Q L S Q A D S E A V L L F V C | K L | Q T A V K K S E | H S L V  
Q I D F V F D I K N K L L | S T C H | I K I E | Y M T S | S V I V  
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K I S F Y V | L S E S K A Q D F L | G F I | C Q | L T Q T A L | N K S Q S | L L I  
R V D F Y Q | L S R D P | A E S A L A | V Q Q A P E R | L L V | I A G K | V A G N G G R | L L V  
V W F Y H | L V Q Q A P E R | L L V | D L L E K I | L A R G W R A V V  
V Y F Y H | V T K Q T | V V S A L P | Q L | L S K A K D I G W T | V F I  
R V D F Y Q | L S R D P | V E L V V P | L I A R A T R | A A G E R | L L V  
M T Q I | T F L H G A L D R L | Q A V A A W L A Q A G R E G K Q | V L V  
K I S F Y V | L S E S K A Q D F L | G F I | C Q | L T Q T A L | L N K S A Q | L L I  
K V S F Y V | L S D S K A Q D F L | G F I | C Q | L T Q T A L | K S N Q S | L L I  
K V S F Y V | L T E N K A Q D F L | G F I | C Q | L T Q T A L | K S S Q S | L L I  
M T D I | A F H F N L | S D K L A Y A C | R C R L | L R K A | R S G V | R V A V  
F Y H | L T A T P | L E R A L P | K L L E R T L | D T G Q R A V V  
R V D F Y Q | L S R D P | A E V A L P | P | I A G K | V G S G E R | L L V

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

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

50            60            70            80

UniRef90_F8ET45	V V   K D D Q Q A K A L   D R H   L   W C Y T P E S F   L   P H G C V   G A G D E E A Q P   I   L								
UniRef90_C8WFB0	I V   P D D Q Q A R Y W D D Y   L   W R Y E D T S F   L   P H G R V   G G D E A E H P   V   L								
UniRef90_A9H1J0	R C   G D A A R V K A M D E A L   W Q S A D P   V W L   P H G S A A M G H G A   L Q P   I   W								
UniRef90_UPI0002DCF0B7	V   E G D P T R R A A L   D K Q R L   W S Y A P D S F   L   P H G V V   G E Q D A H Q P   C   V   L								
UniRef90_R7BVA4	W S R D P   V L L   K R V   Y D D L   W R F E D   L   T F   P H S W A K   D A Y A S E C S   V   H								
UniRef90_UPI00037D6BFF	L   A G S E D R V E D L   A L M   W E   D K G S W   L   P H G T K R   D G R P   T E Q P   V   W								
UniRef90_J2GPS0	V   S G D P   Q Q R E R I   S R A L   W S   L   G P E T F   L   A H G Q A G E G H E E R Q P   I   L								
UniRef90_UPI00037AB078	V   S P D   I R R R G A L   D A A L   W T Y D D Q S F   L   P H G Q A E A A D A A R Q P   P   V   L								
UniRef90_A0A031JF66	V   A A D D A Q   L G R I   S T G L   W E   G P P E S F   L   A H G R A G E G A E S I   Q P   V   L								
UniRef90_UPI0003B79DC8	S S P D   V S A L S Q L   D K D L   W R W K D D S F   L   P H G P E G E   H S S R Q P   P   V   L								
UniRef90_UPI0003B5581D	V   T G D E G Q A K A I   D E G L   W T A Q V E S   L   P H G L I G   A D Q P   I   L								
UniRef90_U5N9L3	R   G D A Q T   L D E L L   D A S L   W S Q   G A F   L   P H H C   R G G A P   Y G V L   A R T   T   P								
UniRef90_H3KG58	W   C R D E R R L   R D L   D S   L   L   W R F D D   L   A F   L   P H V   R A E S P   L   A A E T   P   C   C								
UniRef90_Q5FU71	R   C P D A A A V M A L   D A A L   W A   C R D P   V W L   P H G T A K   S G H A V   R Q P   I   W								
UniRef90_UPI0003606A8C	L   V   A D Q A T   A L K   L   T D   I   W G M   R P E   G F   V   P   C S V N A E M P A   P F Q   I   H								
UniRef90_UPI00036E79E2	L   V   V A P E   V   L   Q Q V   D   H   L   L   W Q   L   A P T E F   I   G   H C   L L A   Q   P E Q A Q S   P   E   A								
UniRef90_UPI00037A838E	W   T   H   N E   L   H A Q S   V   S   D Q   L   W S   N   P P T   S F   L   P H   V   M   V   D   H   P   Q   A   A   D   T   G   V   L								
UniRef90_UPI0002F0D28F	V   A   Q   E   P   D   W   L   E   R   I   S   A   G   L   W N   G   P   D   S   F   L   A   H   G   H   A   G   E   G   E   G   H   Q   P   I   L								
UniRef90_I3TLP6	R   A   G   S   A   E   R   V   K   A   L   D   S   L   L   W T   Y   P   D   S   F   L   P   H   G   S   Q   G   D   P   L   P   E   R   Q   P   V   W								
UniRef90_UPI000381457F	L   C   P   D   A   L   F   L   R   H   L   S   F   Q   L   W   T     S   P   E   S   F   L   A   H   G   L   V   G   V   G   E   G   K   P   A   A   Q   P   I   L								
UniRef90_H5WNF2	L   C   A   D   L   A   T   A   Q   S   V   D   D   M   L   W   T   F   Q   A   D   A   F   I   P   H   G   L   G   A   K   Y   S   V   R								
UniRef90_UPI000366CE8D	T   G   A   P   E   Q   L   A   R   L   D   V   Q   L   W   T   F   D   P   G   E   F   I   P   H   A   R   V   G   Q   Q   P   A   P   E   T   P   I   W								
UniRef90_L0B501	F   C   E   D   K   E   T   A   H   K   I   D   T   L   L   W   S   F   D   D   L   S   F   I   P   H   S   I   S   N   D   C   N   K   N   T   R   V   T								
UniRef90_UPI00038191D1	F   S   G   D   E   K   R   L   A   E   I   D   Q   A   L   W   S   Y   R   P   D   S   F   L   P   H   G   T   K   R   D   G   V   Q   D   E   H   P   V   W								
UniRef90_S4YU28	L   I   D   D   D   E   L   L   S   T   L   L   D   K   A   L   W   A   Q   E   A   T   S   F   I   P   H   Q   R   T   D   I   N   H   K   A   L   A   P   V   L								
UniRef90_Q0BZX6	V   S   P   R   A   E   R   L   A   K   L   D   A   V   L   W   T   F   D   D   A   S   F   L   P   H   G   Q   A   D   A   P   D   V   A   R   Q   P   V   L								
UniRef90_F5SQJ3	I   V   D   D   Q   Q   R   L   S   D   L   L   D   A   H   L   W   S   F   D   A   T   S   F   V   P   H   T   L   D   N   E   P   K   N   E   A   L   S   A   P								
UniRef90_J8SA52	V   S   A   D   E   Q   Q   R   G   R   I   L   S   A   A   L   W   S   H   R   P   D   G   F   L   A   N   G   Q   M   G   E   G   G   E   E   R   Q   P   I   L								
UniRef90_W5YSY4	V   C   D   T   M   Q   Q   A   Q   E   L   D   D   L   L   W   N   F   S   P   E   A   F   I   P   H   S   I   V   P   D   S   A   T   T   C   T   D   P   V								
UniRef90_A0A014MUQ1	V   A   P   M   A   H   L   R   Q   L   S   T   K   L   W   K   Y   A   G   H   E   F   L   A   H   A   L   Q   G   D   D   A   E   A   L   A   P   V   T								
UniRef90_U4T6R5	L   I   D   D   E   K   L   L   S   T   L   L   D   E   A   L   W   A   V   D   A   V   S   F   I   P   H   Q   R   L   S   D   V   D   A   A   N   H   P   I   P								
UniRef90_UPI00037937EE	V   T   A   R   D   E   Q   R   A   D   L   D   R   L   L   W   T   Y   R   P   D   S   F   L   P   H   A   Q   A   G   T   G   D   D   S   V   Q   P   V   L								
UniRef90_J2DJL5	V   A   D   E   P   E   R   L   A   R   I   S   A   G   L   W   A   G   P   P   E   S   F   L   A   N   G   V   A   G   D   G   V   D   A   A   Q   P   V   L								
UniRef90_W9BVA0	U   S   A   D   A   G   H   R   Q   A   L   S   D   A   L   W   S   L   K   P   D   S   F   L   A   H   G   D   I   D   A   P   N   P   Q   I   Q   P   I   L								
UniRef90_UPI00028A3D54	L   V   G   D   D   D   A   E   L   L   S   S   L   L   D   E   A   L   W   A   Q   E   A   T   S   F   I   P   H   U   T   K   G   N   D   P   E   I   D   A   P   V   L								
UniRef90_F1Z6Z4	V   S   D   D   E   Q   Q   L   A   R   I   S   A   G   L   W   Q   K   I   P   D   S   F   L   A   H   G   L   A   G   G   P   H   D   A   R   Q   P   I   L								
UniRef90_UPI0003FE8CCC	L   S   D   D   N   E   Q   L   L   S   E   L   L   D   E   A   L   W   A   N   D   A   A   S   F   I   P   H   Q   R   A   T   A   S   T   D   N   N   S   A   A   P								
UniRef90_F3SCP9	R   C   A   T   A   A   R   A   Q   E   I   D   E   G   L   W   R   A   T   S   P   L   W   L   P   H   G   T   Q   A   M   G   H   G   P   W   Q   P   I   W								
UniRef90_M1LS85	I   C   D   D   D   N   N   L   S   K   L   D   K   L   L   W   T   F   N   D   V   S   F   I   P   H   N   I   L   E   Y   E   K   P   N   K   T   P   V   I								
UniRef90_E1QD65	L   A   A   D   P   R   Q   A   A   G   L   D   D   A   L   L   W   T   F   D   P   A   S   F   V   P   H   A   L   Q   A   G   D   G   N   E   D   R   Q   P   I   L								
UniRef90_Q4FVP2	L   I   E   D   A   A   L   L   S   A   L   N   E   A   L   W   T   Q   E   A   T   S   F   I   P   H   Q   Y   A   D   T   D   I   N   H   K   T   L   A   P								
UniRef90_TOHG99	U   S   A   D   L   L   G   Q   R   Q   R   I   C   Q   A   L   W   S   V   G   P   E   S   F   I   P   H   N   I   L   E   Y   E   K   P   N   K   T   P   V   I								
UniRef90_UPI00037B5FB9	R   L   G   D   E   A   Q   V   A   A   S   E   R   L   W   T   V   Q   P   E   S   F   I   P   H   G   S   A   A   D   G   E   A   A   L   Q   P   I   L								
UniRef90_UPI00036C738D	R   C   K   D   E   A   S   L   L   K   F   I   D   D   A   I   W   T   V   Q   P   E   S   F   I   P   H   A   V   L   G   S   Q   N   S   E   K   S   D   I   L								
UniRef90_U2YHK0	V   S   D   D   D   A   A   L   L   E   R   I   D   T   A   L   W   E   R   L   P   E   A   F   I   P   H   Q   R   L   S   D   V   D   A   A   N   H   P   I   P								
UniRef90_W0SIR0	Y   V   P   A   T   E   R   S   E   H   L   D   R   L   L   W   T   H   S   A   T   G   F   T   P   H   P   C   R   A   G   D   K   L   A   A   E   T   P   I   I								
UniRef90_X0QLC9	L   I   E   D   E   T   L   L   S   S   N   L   L   T   A   L   W   S   Q   D   S   T   S   F   I   P   H   Q   C   L   S   D   T   H   K   S   L   A   P   V   L								
UniRef90_UPI0003F8C5E7	L   I   E   D   D   E   L   L   S   S   S   L   L   T   A   L   W   A   Q   E   A   T   S   F   I   P   H   Q   R   L   I   T   E   V   A   T   N   E   Q   L   A   P								
UniRef90_X0S100	L   I   E   D   D   A   L   L   L   S   T   L   L   D   Q   A   L   W   A   Q   D   D   T   S   F   I   P   H   Q   R   L   L   D   S   N   P   E   G   A   D   I   D								
UniRef90_UPI00036D600F	A   G   R   E   A   E   V   V   A   E   L   L   D   R   A   L   W   V   F   D   S   V   E   F   I   P   H   V   R   W   G   R   R   L   A   A   H   T   P   V   W   W								
UniRef90_A8TL92	L   A   G   S   D   E   R   V   Q   A   L   N   G   L   L   W   T   Y   E   D   R   S   W   L   P   H   G   S   S   K   D   G   F   D   E   D   Q   P   I   W								
UniRef90_F6INC1	U   S   A   D   G   E   Q   R   K   R   I   R   Q   A   L   W   S   A   G   P   D   T   F   I   P   H   A   N   G   E   V   G   I   D   G   Q   E   E   R   R   Q   P   I   L								
UniRef90_W1E9H6	M   P   H   N   L   A   G   E   G   P   R   G   G   A   P   V   E								
UniRef90_G4QAL3	F   C   R   D   V   N   I   A   T   K   F   S   E   G   L   W   G   I   D   K   T   T   F   I   P   H   Y   F   A   G   D   E   M   I   P   A   R   I   V								
UniRef90_M1M1L4	Y   S   N   E   H   E   A   L   C   K   L   D   S   M   L   W   T   F   K   D   V   S   F   I   P   H   S   F   Y   K   I   D   N   N   C   E   E   E   F   I								
UniRef90_UPI000345EEB8	L   G   V   T   P   D   R   R   L   L   S   H   A   L   W   S   E   P   Q   L   E   F   F   I   P   H   V   H   T   R   V   S   P   E   E   L   T   P   V   W								
UniRef90_A3UJ95	C   S   Q   E   E   T   R   L   L   D   H   L   D   S   H   L   W   T   F   R   E   E   S   F   I   P   H   G   R   A   D   A   E   H   V   E   H   Q   P   I   V								
UniRef90_S5RPQ7	N   K   N   S   K   Q   Q   K   E   F   D   I   A   L   W   S   F   S   I   T   D   F   I   P   H   V   S   I   K   N   Y   A   N   I   T   P   I   I								
UniRef90_UPI0003B488C0	V   A   A   D   E   D   Q   R   T   A   L   D   R   L   W   N   Y   A   P   D   S   F   I   P   H   A   Q   L   G   S   A   A   D   R   Q   P   I   L								
UniRef90_F3WSV8	V   S   G   D   A   D   Q   R   A   A   L   D   R   Q   L   W   M   V   P   A   D   S   F   I   P   H   A   Q   A   G   E   G   N   D   S   A   Q   P   V   L								
UniRef90_Q1K0F3	L   V   E   D   D   N   N   Q   A   L   T   L   D   R   F   M   W   T   W   N   K   G   S   F   I   P   H   V   W   D   N   G   A   V   E   C   H   E   E   A   I   I								
UniRef90_A0A017HL13	R   G   L   A   R   D   R   M   E   R   L   D   L   A   L   W   G   E   G   G   E   F   F   I   P   H   G   I   A   G   G   P   H   A   A   R   Q   P   I   L								
UniRef90_N9WBG2	V   A   A   A   A   M   Q   R   Q   A   I   D   E   A   L   W   T   L   Q   P   A   S   F   I   P   H   G   A   A   G   S   P   D   E   A   I   E   P   I   L								
UniRef90_A0A0241DV2	L   A   P   H   E   Q   L   D   T   L   L   D   R   G   L   W   L   L   A   Q   G   E   F   V   P   H   V   C   Y   D   A   E   T   R   R   H   S   P   I   H								
UniRef90_I6XD62	Y   C   H   D   P   K   L   A   N   K   F   S   E   R   L   W   S   K   D   D   C   N   F   I   P   H   Y   F   A   G   D   D   I   V   I   P   P   R   I   I								
UniRef90_A5PC15	V   A   A   D   E   R   L   L   R   E   H   I   S   K   T   L   W   E   Q   G   G   G   S   F   I   P   H   A   G   P   D   G   P   H   A   A   R   Q   P   I   L								
UniRef90_C0DYS3	W   C   G   G   T   Q   L   A   T   L   D   R   Q   L   W   A   F   E   A   E   S   F   I   P   H   E   I   W   E   N   P   C   P   I   E   P   P   I   L								
UniRef90_A5WBH1	I   I   D   D   D   Q   E   R   L   K   Q   L   T   D   Q   L   W   S   F   D   P   V   S   F   V   A   H   D   F   I   L   E   E   A   V   S   Q   S   A   P								
UniRef90_UPI0003B3409B	A   H   R   D   K   G   A   R   A   A   L   S   E   A   L   W   H   A   A   P   E   S   F   I   P   H   G   E   A   G   Q   C   D   E   A   C   Q   P   I   L								
UniRef90_Q3A4B4	M   V   C   D   D   D   N   Q   G   V   T   L   D   R   F   M   W   T   W   K   K   G   A   F   I   P   H   V   Y   D   N   G   A   V   D   C   L   D   E   P   V								
UniRef90_D5RP19	K   L   G   D   A   A   R   L   A   S   L   D   A   S   L   W   L   C   Q   D   P   D   W   L   P   H   G   S   A   A   S   G   Q   A   E   L   L   Q   P   I   W								
UniRef90_D4Z453	V   A   R   E   P   E   R   L   L   E   R   I   S   A   G   L   W   A   G   P   P   E   S   F   I   P   H   A   H   G   R   A   D   D   E   S   V   Q   P   V   L								
UniRef90_UPI00037A9492	C   A   P   P   A   W   I   D   L   D   Q   R   L   W   S   F   S   Q   P   D   F   I   P   H   C   R   V   G   E   A   L   E   R   R   S   P   I   V								
UniRef90_T0ZU73	R   T   R   D   K   T   H   S   E   A   L   D   R   L   L   W   T   F   R   D   R   S   F   I   P   H   G   Q   A   S   E   P   D   N   P   I   L   I   A   H								
UniRef90_Q2G9Y6	V   S   D   D   E   Q   A   L   Q   R   R   V   G   E   A   L   W   T   R   L   P   E   T   F   I   P   H   A   N   G   R   A   G   T   A   H   D   E   R   R   Q   P   I   L								
UniRef90_Q1GS99	V   A   A   A   A   M   Q   R   Q   D   I   D   A   A   L   W   T   A   N   P   A   S   F   I   P   H   G   H   A   G   T   P   D   E   A   I   E   P   I   L								
UniRef90_UPI00036F927F	R   I   G   A   E   A   N   V   E   S   I   D   S   D   A   I   W   K   G   P   D   D   S   F   I   P   H   C   L   E   D   N   D   K   L   Y   D   Y   P   I   V								
UniRef90_UPI00036C2AC7	V   A   G   E   E   E   Q   A   D   T   L   D   R   A   L   W   E   G   S   A   D   S   F   I   P   H   G   R   E   G   G   A   D   Q   P   L   L								
UniRef90_UPI00047AB67D	K   F   D   D   L   D   A   M   Q   F   D   A   L   W   Q   F   D   P   A   S   F   V   A   H   D   I   D   S   L   H   S   P   I   C   C								
UniRef90_L0B913	Y   S   N   E   Y   D   I   L   C   K   L   N   M   L   W   T   F   K   D   V   S   F   I   P   H   S   F   Y   Q   K   K   N   N   C   E   E   E   Y   I								
UniRef90_UPI00036134D2	UniRef90_UPI00037B7DB1	UniRef90_M4S1E2	UniRef90_UPI00037F360	UniRef90_UPI0002F3040D	UniRef90_E4UCV8	UniRef90_R5E682	UniRef90_UPI0002891CF9	UniRef90_A0A059KGM7	UniRef90_I1ECS0
V   A   G   E   E   Q   A   D   T   L   D   R   A   L   W   E   G   S   A   D   S   F   I   P   H   G   R   E   G   D   G   G   E   A   L   L   Q   P   V   L   V	V   A   G   E   E   Q   A   D   T   L   D   R   A   L   W   E   G   S   A   D   S   F   I   P   H   G   R   E   G   D   G   G   E   A   L   L   Q   P   V   L   V	V   C   A   D   D   G   Q   A   A   R   L   D   Q   Q   L   W   T   Y   A   A   D   S   F   I   P   H   G   R   A   G   D   G   G   E   A   L   L   Q   P   V   L   V	V   L   V   P   D   C   E   L   E   E   S   I   S   N   K   L   W   S   F   N   S   T   S   F   I   P   H   G   C   S   D   P   S   P   D   D   Q   P   I   Y	V   S   A   D   P   A   H   R   A   A   L   S   H   A   L   W   T   H   T   P   E   S   F   I   P   H   G   R   E   D   G   P   N   P   Q   V   Q   P   L   L	Q   C   G   S   E   R   I   R   D   A   L   W   T   W   K   K   D   S   F   I   P   H   G   I   D   E   E   A   L   A   S   F   Q   P   I   L	L   L   E   T   D   D   E   L   R   R   F   D   N   M   L   W   A   F   E   P   T   S   F   I   P   H   G   R   P   N   T   L   D   M   Q   R   G   G   V   A	V   A   E   S   G   E   Q   R   A   A   L   D   R   L   W   T   Y   A   P   E   S   F   I   P   H   A   Q   A   G   D   E   T   D   A   V   Q   P   I   L	T   G   E   A   A   M   L   T   E   I   D   R   L   W   T   F   E   P   L   E   F   V   P   H   W   R   G   A   D   D   V   V   P   Q   R   L   V	L   A   S   D   R   R   A   A   S   R   I   D   D   R   L   W   D   F   R   D   D   S   F   I   P   H   E   T   T   G   S   E   I   P   P   L   V   P   V   V

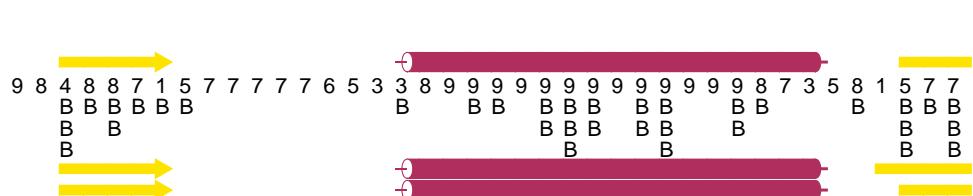
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UniRef90_F8ET45	I S S [L] P D A [L] N H A P Y I   A   L   A   D G   L   W R Q E S [L] N F E R   V   F Y F F   D E E			
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UniRef90_A9H1J0	L T D G P D [V] P N G A   T Y L F A   I   D G   V   C P D A G T F E R   V   F D [L] F D G S A			
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UniRef90_R7BVA4	F S S V F S D [P] H D K V L   I   L   D E A   V   P E N W Q P F E R   V   V D I V T S N A			
UniRef90_UPI00037D6BFF	L T D D P Q D N A N G A G V   V   L   C   D G   M   D S P   L   A D S   L   P   R   T   L   D   F G R D E			
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UniRef90_A0A031JF66	L S Q D [C] D A A N G A R   H   V   A   I   A   D G   L   W R D E A L   N   F   E   R   A   F   Y   F F   D D A			
UniRef90_UPI0003B79DC8	L S A S L D N A N D A K   I   L   V   L   M   N   G   Q   D   V   E   T   P   D   Q   P   Y   Q   R   I   M   V   V   F   Q   S   D D			
UniRef90_UPI0003B5581D	I S A L P E P A N A A R N   V   A   V   D   G   V   W   R   E   E   A   L   G   F   D   R   A   F   H   F F   D D			
UniRef90_U5N9L3	I V   L   D   P   A   A   P   P   W   S   E   D   V   L   N   L   G   A   D   V   A   Q   E   F   P   R   Y   A   R   V   I   E   I   V   G   Q   D E			
UniRef90_H3KG58	W   S   T   D   T   L   S   G   D   V   L   L   L   D   D   E   L   P   A   D   W   Q   T   E   F   G   R   F   E   R   I   I   D   V   V   S   T   E   P			
UniRef90_Q5FU71	L   T   E   G   E   D   V   P   N   E   A   R   F   L   F   R   V   D   G   A   G   S   D   F   A   P   F   T   R   I   F   D   L   F   D   G   N   P			
UniRef90_UPI0003606A8C	T   A   F   P   Q   T   P   G   N   D   V   L   I   N   L   N   P   E   L   P   E   Q   A   R   Y   H   R   L   I   E   V   L   D   Q   T   P			
UniRef90_UPI00036E79E2	R   H   M   S   D   V   S   Q   C   E   R   H   D   V   L   V   S   L   L   P   E   V   P   A   G   F   E   Q   Y   F   A   R   L   I   E   V   V   T   L   D   E			
UniRef90_UPI00037A838E	I   A   C   S   D   Q   H   A   S   P   H   D   M   L   I   N   F   T   D   T   P   P   A   P   F   A   R   F   E   R   L   V   E   L   V   G   P   S   D D			
UniRef90_UPI0002F0D28F	L   G   A   S   C   D   A   A   N   G   A   R   H   V   A   L   A   D   G   L   W   R   E   Q   A   L   D   F   D   D   R   V   F   H   F   F   D D			
UniRef90_I3TLP6	L   T   A   G   G   D   D   L   P   N   D   P   Q   V   V   L   V   L   D   G   M   D   H   P   D   P   S   G   F   V   V   L   D   L   F   D   G   R   D			
UniRef90_UPI000381457F	L   S   E   H   L   D   L   P   H   A   A   T   V   L   M   N   G   G   L   E   I   P   P   R   L   D   G   F   E   H   I   V   D   F   V   D   D   D   E S			
UniRef90_UPI0002624F95	I   H   Y   Q   Q   P   W   P   D   A   C   V   V   A   V   L   C   A   L   Q   N   L   P   E   P   L   P   A   C   E   R   L   V   D   F   I   P   A   E   S			
UniRef90_H5WNF2	L   A   D   A   G   A   A   A   P   A   P   V   L   V   N   L   G   P   D   G   P   D   D   I   Q   R   Y   E   R   V   I   E   I   V   G   P   D   D   S			
UniRef90_UPI000366CE8D	V   T   L   L   S   Q   M   P   H   G   F   D   G   V   I   N   L   G   S   S   P   L   P   I   F   T   Q   P   E   R   V   L   E   I   I   S   P   D   S			
UniRef90_L0B501	I   T   Y   I   D   K   T   N   K   N   L   S   Y   I   V   N   L   S   S   N   Y   P   Q   H   Y   N   Q   F   D   H   L   I   E   I   V   S   E   D   E			
UniRef90_UPI00038191D1	L   T   V   Q   P   A   E   I   K   S   A   D   V   I   F   I   Q   G   A   S   A   E   Q   L   S   D   V   K   C   A   I   L   F   D   G   N   N   S			
UniRef90_S4YU28	L   S   S   N   Y   I   P   A   N   F   K   G   M   V   L   N   T   T   I   H   P   V   S   T   F   A   K   P   T   R   V   L   E   L   I   K   P   D   A			
UniRef90_Q0BZX6	L   S   A   K   L   T   N   A   S   A   D   A   M   L   M   D   G   V   E   A   P   V   D   V   A   F   K   R   C   M   V   M   F   D   A   D   T			
UniRef90_F5SQJ3	V   T   L   L   S   T   L   P   P   N   F   D   G   V   V   L   N   L   A   P   T   A   L   P   L   S   T   G   P   D   R   V   L   E   I   I   T   P   D   E			
UniRef90_J8SA52	L   S   D   I   P   D   P   V   N   G   A   R   F   L   V   I   A   D   G   V   W   C   E   G   E   E   P   F   E   R   T   F   Y   L   F   D D			
UniRef90_W5YSY4	G   I   L   L   C   Q   P   V   A   E   D   W   D   T   V   I   I   L   S   S   T   I   P   A   D   A   D   R   F   K   R   L   A   L   V   A   H   H   N   D   E			
UniRef90_A0A014MUQ1	L   L   V   E   Q   A   Q   A   S   A   H   R   E   V   V   L   N   L   G   L   D   I   P   L   G   F   E   A   K   V   V   E   V   V   S   F   D   D			
UniRef90_U4T6R5	V   L   L   G   R   Y   M   Q   A   D   F   K   G   I   V   V   N   N   T   T   R   H   P   V   N   T   F   A   H   P   T   R   V   L   E   L   I   K   P   D   P			
UniRef90_UPI00037937EE	L   A   P   A   V   T   P   T   N   Q   A   R   H   V   A   L   V   D   G   Q   W   R   D   E   A   L   A   F   D   R   A   F   H   F   F   E   D			
UniRef90_J2DJL5	L   A   Q   D   C   V   A   A   N   G   A   K   H   I   A   L   A   D   G   I   W   R   E   E   A   L   G   F   E   R   A   F   Y   F   F   D   A   D			
UniRef90_W9BVA0	L   A   D   R   V   E   P   A   N   G   A   R   F   I   A   A   D   G   V   W   R   D   E   A   L   G   F   D   R   V   F   L   L   F   G   E			
UniRef90_UPI00028A3D54	L   G   G   M   P   A   D   F   N   G   I   V   I   N   T   T   T   Q   P   V   N   A   F   Q   P   T   R   I   L   E   L   I   K   P   D   A			
UniRef90_F1Z6Z4	L   G   K   A   P   Q   G   D   N   G   A   R   F   I   A   L   A   D   G   V   W   R   E   S   E   G   M   Q   R   V   F   L   L   F   P   P			
UniRef90_UPI0003FE8CCC	V   L   L   A   S   Q   L   P   S   D   F   S   G   I   V   I   N   T   T   P   P   R   P   I   N   D   Y   A   L   P   S   R   L   L   E   I   I   L   P   D   D			
UniRef90_F3SCP9	L   T   A   G   D   D   V   P   N   G   A   T   F   L   F   D   G   V   E   V   S   D   L   S   P   F   E   R   V   F   E   V   F   D   G   H   D			
UniRef90_M1L8S5	L   A   Y   I   D   K   E   F   S   D   K   I   S   L   V   I   N   L   S   S   N   N   Y   T   P   N   C   D   K   I   N   H   V   I   E   I   V   S   E   D   E			
UniRef90_E1QD65	I   L   L   S   S   Y   M   P   A   N   F   K   G   M   V   L   N   T   T   F   M   A   A   T   T   N   N   A   Q   P   T   R   V   L   E   L   I   K   P   D   A			
UniRef90_Q4FVP2	I   L   L   S   S   Y   M   P   A   N   F   K   G   M   V   L   N   T   T   F   M   A   A   T   T   N   N   A   Q   P   T   R   V   L   E   L   I   K   P   D   A			
UniRef90_TOHG99	L   S   E   T   P   E   P   A   N   G   A   K   F   L   A   I   A   D   G   Q   W   R   E   G   E   T   P   F   E   R   T   F   F   F   D   E			
UniRef90_UPI00037B5FB9	I   S   A   G   P   E   I   P   P   M   Q   A   I   C   L   T   A   G   G   D   D   L   S   A   P   P   E   G   J   A   R   I   C   L   L   F   E   A   D   E   S			
UniRef90_UPI00036C738D	L   G   T   E   E   D   D   S   S   N   S   D   F   L   L   L   N   G   A   L   I   S   T   E   E   V   S   K   Y   R   C   A   L   F   D   D   N   S   D			
UniRef90_U2YHK0	L   S   E   T   P   E   A   G   N   G   A   G   F   I   A   L   A   D   G   K   W   R   D   E   A   A   A   F   A   R   V   F   L   L   F   G   D   D			
UniRef90_W0SIR0	L   A   S   D   L   D   H   P   L   H   D   E   C   L   L   N   L   S   D   E   V   P   P   G   F   S   R   F   Q   Q   L   I   E   I   V   S   A   E   N			
UniRef90_X0QLC9	L   G   N   H   M   P   A   D   F   N   G   I   V   I   N   T   T   T   Q   P   V   N   A   F   S   K   P   S   R   V   L   E   L   I   R   P   D   A			
UniRef90_UPI0003F8C5E7	V   L   L   G   S   Y   M   P   A   D   F   N   G   I   V   I   N   T   T   A   Q   P   V   N   T   F   A   Q   P   T   R   I   L   E   L   I   K   P   D   A			
UniRef90_X0S100	G   V   H   I   D   I   N   N   Q   L   L   A   P   V   L   L   A   S   Y   M   P   A   D   F   K   G   P   T   R   I   L   E   L   I   K   P   D   T			
UniRef90_UPI00036D600F	L   A   P   N   P   S   D   V   P   H   R   E   V   L   V   N   L   G   G   G   V   P   A   A   Y   D   T   F   A   R   L   I   E   L   V   G   L   E   E			
UniRef90_A8TL92	L   S   A   V   E   G   N   P   N   G   A   I   A   F   L   F   L   T   D   G   V   T   I   D   D   L   T   A   W   S   R   V   F   D   L   F   G   R   D   D			
UniRef90_F6INC1	L   S   D   A   P   Q   P   A   N   G   A   K   F   M   A   I   A   D   G   Q   W   R   E   S   E   P   F   A   R   T   F   Y   L   F   D   E			
UniRef90_W1E9H6	I   A   W   P   Q   K   R   N   S   S   P   R   D   I   L   I   S   L   R   L   N   F   A   D   F   A   T   A   F   T   E   V   I   D   F   V   P   Y   E   D			
UniRef90_G4QAL3	C   D   E   D   I   A   L   N   P   K   P   N   L   L   I   N   L   S   E   D   F   I   E   D   S   L   F   P   M   V   L   E   F   V   L   N   D   S   E			
UniRef90_M1M1L4	I   V   T   S   K   T   T   N   S   K   E   M   L   L   I   I   M   S   N   I   I   P   L   C   Y   N   D   F   E   G   V   V   E   I   V   S   E   S   E			
UniRef90_UPI000345EEB8	L   V   E   Q   A   V   E   G   L   D   C   S   D   V   I   N   L   G   V   E   L   P   D   W   I   A   R   F   D   R   V   A   E   I   V   G   V   D   D			
UniRef90_A3UJ95	L   S   D   R   T   D   N   P   N   S   A   S   M   L   F   C   L   D   G   A   D   P   G   D   V   S   A   W   D   R   V   V   V   M   F   E   A   S   D			
UniRef90_S5RPQ7	L   I   T   E   T   D   I   K   N   N   N   Y   D   T   L   I   N   V   S   N   V   I   P   K   N   F   T   N   F   K   N   I   F   E   I   S   T   N   E   E			
UniRef90_UPI0003B488C0	I   A   P   D   V   N   A   A   N   R   A   R   N   I   A   V   D   G   E   W   R   D   A   A   L   D   F   D   R   A   F   H   F   F   D   G   D			
UniRef90_F3WSV8	I   A   A   E   V   H   P   A   N   G   A   R   H   V   A   L   A   D   G   L   W   R   D   D   A   L   T   F   D   R   A   F   H   F   F   D   G   D			
UniRef90_Q1K0F3	A   I   G   T   R   E   L   N   S   N   G   A   S   V   L   I   A   A   R   P   C   S   V   E   F   M   R   Q   F   K   H   V   I   E   F   A   E   Y   E   D   Q			
UniRef90_A0A017HL13	L   T   V   A   Q   G   Q   G   D   R   D   C   L   M   A   L   D   G   A   P   V   S   E   G   E   A   L   V   A   Q   R   V   C   I   V   F   D   G   D   P			
UniRef90_N9WBG2	L   T   L   G   T   P   A   I   N   G   A   T   H   V   A   L   A   D   G   E   W   R   E   E   A   L   A   F   E   R   A   F   L   L   F   D   N			
UniRef90_A0A241DV2	L   L   D   R   L   D   R   E   A   P   T   Q   V   L   V   N   L   T   D   S   V   P   A   D   Y   G   R   F   E   R   V   I   E   V   V   G   L   D   D			
UniRef90_I6XD62	I   C   N   E   D   I   N   D   N   P   Q   P   Y   F   L   N   L   S   T   D   Y   L   K   E   A   T   L   F   E   N   I   L   E   F   V   V   M   S   E   S			
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UniRef90_C0DYS3	I   A   E   G   E   A   L   P   T   A   S   S   L   V   V   L   N   L   S   A   D   L   W   S   H   A   P   N   P   E   R   V   L   E   I   V   G   R   S   E			
UniRef90_A5WBH1	V   S   L   V   S   T   L   P   K   G   F   D   G   V   I   N   L   A   T   P   L   P   L   A   V   L   P   E   R   V   L   E   I   I   T   P   D   E			
UniRef90_UPI0003B3409B	L   G   A   D   A   N   G   G   N   G   A   Q   Y   C   A   I   A   D   G   D   W   R   D   D   V   D   G   Y   D   R   I   F   F   L   F   E   P			
UniRef90_Q3A4B4	I   I   E   V   E   E   R   N   P   N   N   A   G   V   L   I   M   G   K   P   C   S   L   D   F   I   R   Q   F   D   L   V   I   D   F   A   E   Y   E   P			
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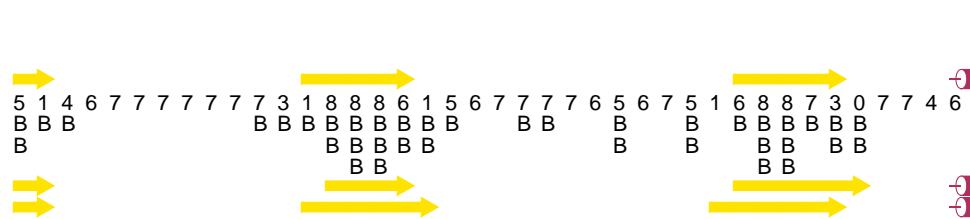
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