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UniRef90_P01965  V L S A A D K A N V K A A W G K V G G Q A G A H G A E A L E R M F L G F P T T K
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UniRef90_UPI000350E148 M L T A E D K K L I T Q L W E K V A G H Q E E F G S E A L Q R M F L A Y P Q T K
UniRef90_Q90ZA5  L T A E D K A L V V L W G K I A G H T D A L G G E A L D R L F A C F G Q S R
UniRef90_P10059  M L S A S D K A N V K A I W S K V C V H A E E Y G A E T L E R M F T V Y P S T K
UniRef90_B0M2T2  V L S S D D K C N V K A V W C K V A G H L E E Y G A E A L E R M F C A Y P Q T K
UniRef90_H3ABR1  M L S A N D K T L I S S T W N K V A A N A E D I G A E A L E R L F L A H P Q T K
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UniRef90_G3WEX2  W T A E E K Q A I S T I W A K I     D V E E V G A G A L S R L L V V Y P W T Q
UniRef90_P01983  V L S A N D K S N V R G V F G K I S A H A D D Y G A E T L E R M F T V H P T Q K
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UniRef90_Q8UV18  L S A D D K K T V K A F W A K A S S K A D D I G A D A L G R L L M V Y P Q T K
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UniRef90_UPI0004746CD9 L S A K D K A V K D L W A K I S P K A D E I G S E A L G R L F E V F P Q T K
UniRef90_Q38IV9  F S S A E K A A I A S L W G K V S G H A D E I G G E A L E R L F L S F P Q T K
UniRef90_L8J2H0  M L S A Q E R A H I T Q V W D L I A G H E A P F G A E L L R R M F L S F P T T K
UniRef90_Q98SE6  L T A K D K Q T V K A F W A K V S G K S E D I G A A A V A R M L V V Y P Q T K
UniRef90_P82316  F S D A E R D A I A A I W G K I     H I D E I G P Q S L A R V L I V Y P W T Q
UniRef90_Q63067  F T A E E K A T S L S I W E K V     D L E K L G G E T L G R L L I V Y P W T Q
UniRef90_B5X930  I L T A K D K K I V K A F F G K V A G K A E D I G N E A L S R T L V V Y P Q T K
UniRef90_B8K133  L S A A E R A L L R A L W K K L G S N V G V Y A T E A L E R T L E A F P R T K
UniRef90_C5HYH8  V L T A D E K A L V S S L W C K M     N V D E A G A E A L G R M L V V Y P W T Q
UniRef90_H2QA68  L T K T E G T I I V S M W A K I S T Q A D T I G T E T L E R L F L S H P Q T R
UniRef90_G3IF93  M T D A E K G L V N G L W G K V K P     V E I G A E S L A R L L I V Y P W T Q
UniRef90_A3KP86  M L S S A E K E L I A E I W D K M T P V A E E I G S E A L L R M F T T F P K T K
UniRef90_W5MMA8  W T A E E R Q A I A S V W E K I S     L E S V G S Q A L A R L L I V Y P W T Q
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UniRef90_P56250  L S A T D K A R V K A L W D K I E G K S A E L G A E A L G R M L V S F P Q T K
UniRef90_P02062  L S G E K A A V L A L W D K V     N E E E V G G E A L G R L L V V Y P W T Q
UniRef90_M4ASG7  M L S K K E K K L I K E M W E R L T P V A E D I G S E A L L R M F A S Y P G T K
UniRef90_Q98905  W S C E E K Q F I T S L W A K V     N V E E V G G E A L A R L L I V Y P W T Q
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UniRef90_G3ICM5  L T D A E K L V T G L W A K V     N A D A V G A E A L G R M M V V Y P W T Q
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UniRef90_Q9PVM3  L S A K D K T T V K K F W D K V E G K S A E I G G E A L G R M L V V Y P Q T K
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UniRef90_G5BXY5  L T N S E R A L I T T I W D K M S M Q A D V I G T E T L E R L F S S Y P Q T K
UniRef90_P02075  M L T A E E K A A V T G F W G K V     K V D E V G A E A L G R L L V V Y P W T Q
UniRef90_P80727  W S A S E R S T I T S L W G K V     N V A E I G P Q A L A R V L I V Y P W T Q
UniRef90_Q5BJC7  L T A K D K A V I K G F W A K I A S Q A D S I G Q A M G R M L T V Y P Q T K
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UniRef90_Q7ZT83  V L T A E D R R L L Q A S V G C R L E D I G A D R L N R L F I V F P Q S K
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Multiple sequence alignment (columns 50, 60, 70, 80 indicated above):

Identifier	Sequence
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UniRef90_P30892	TYFPHFDLSPGSDQIRGHGSKVLAALGNAVKNIDDLSQAM
UniRef90_P01965	TYFPHFNLSHGSDQVKAHGQKVADALTKAVGHLDDLPGAL
UniRef90_F6YMJ4	TYFPHFDLSPGSDQLKAHGSKVMGAIGDAVKNIDNVGSAL
UniRef90_UPI00042BD2B2	TYFPHFDLSQGSAQLHDHGSKVLGAIGEAVKNIDNITGAL
UniRef90_P13273	TYFPHFDLHHGSAQIRTHGKKVLTALGEAVNHIDDLASAL
UniRef90_UPI000350E148	TYFPHFDLHPGSEQVRGHGKVPAAALGNAVKSLDNLSQAL
UniRef90_Q90ZA5	TYFSHFDLSPGSADVKRHGGKVLNAVGEAAKHIDDLDMGL
UniRef90_P10059	TYFPHFDLTHGSAQVKAHGKKVVNAMGEAVNHLDDMAGAL
UniRef90_B0M2T2	IYFPHFDLSHGSAQIRAHGKKVFAALHEAVNHIDDLPGAL
UniRef90_H3ABR1	IYFSHMDLSPGSSMLRAHGKKVMGTIEGSIKSIDKLATVL
UniRef90_P02104	RFFDSFGNIMGNPRVKAHGKKVLTAFGESIKNLDNLKSAL
UniRef90_Q9PVL9	TYFPHFDLHHGSADVKSHGAKVLNAIGLAAQHVDDLDHAL
UniRef90_UPI0004442C09	TYFPHFDLHAGSAQLRAHGAKVVAALGDAAKNIDNVSGAL
UniRef90_F7GY95	TYFPHFDLSHGSAQVKGHGKKVADALTNAVAHVDDMPNAL
UniRef90_Q6H1L9	TYFAHLELSRGSAQVRAHGKKVADALTLAVNHMDDLPAAF
UniRef90_G3WE91	TYFPHFDLSPGSGQVKGHGQKVADALSQAVANLDDLPGTL
UniRef90_G3WEX2	RYFSNFGNIEGNPRVRNHGKKVLTSFGEAVKNLDNVKATF
UniRef90_P01983	TYFPHFDLHRGSAQIKAHGKKVAGALLEAVNHIDDIAGAL
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UniRef90_P02111	RFFEAFGDLMGNPKVKAHGAKVLTSFGDALKNLDDLKGTF
UniRef90_P18989	RFFESFDAIMGNPKVKAHGKKVLNSFGEGLKNLDNLKGTF
UniRef90_Q28932	RFFDHFGDLMGNAKVQGHGAKVLTSFGEAVKNMDNLKGTF
UniRef90_P14523	TYFPHFDVTQGSEQIRGHGKKFMAALGNAVKNVDNLSQAL
UniRef90_Q9GLX4	RFFDSFGSIMGNPKVKAHGKKVLTSLGEAIKNLDDLKGTF
UniRef90_Q8UV18	TYFSHWNSSPNSEDVKAHGGAIMNGVTEAIGKIDNLTTGL
UniRef90_V5N513	TYFSHWNFSLGSEQIKKHGKKMVLSGVTEAVDKIDDLTNGL
UniRef90_C3KGZ6	TYFTHWSDSPNSAPVKNHGKNVMSGVALAVSKIDDLTAGL
UniRef90_Q8AYQ7	TYFAHWKDSPGSAPVKKHGKTVMGGIADAVSKIDDISSGL
UniRef90_W5MM10	IYFTHFADSPSSAQVKAHGAKVMGAIAQAVSHLDNLSEAL
UniRef90_UPI0003F134CF	TYFANFNLKPGSTQIKDHGKKVAVALTQAVNHLDDLPGAL
UniRef90_C1FXX6	TYFPHFELRAGSAQLRAHGSKVAAAVGEAAGSVDDVAGAL
UniRef90_K7N5M5	TYFAHWPDSPGSPHVKAHGKTVMGGIALAVSKLDDLRAGL
UniRef90_G1M487	RFFDSFGNIMGNPKVKAHGKKVLTSFGNAVKHMDDLKDTF
UniRef90_UPI000333C137	RFFDSFGDIMGNPKVKAHGAKVLHSFSEGLNHLDNLKGTF
UniRef90_UPI0003333728	TYFPHFDLSPGSSQVKAHGQKVANALTLAANHLDDLSGAL
UniRef90_UPI000395677D	RFFSNFGNILGNPKVQAHGKKVLTSFGEAIKNLDSIKKCF
UniRef90_UPI00038EA702	TYFPHFDMTPGSPQIQAHGKKVANALNKAVENIDDMPTAL
UniRef90_Q9CY10	TYFPHFDVSHGSAQVKAHGKKVADALANAAGHLDDLPGAL
UniRef90_W5LAT4	TYFAHWDVSPGSAPVKKHGKTIMGAVGEAVSKIEDLPGAL
UniRef90_S9XAF5	TYFPHFDLSHGSAQVKAHGKKVGDALTKAADHLDDLPSAL
UniRef90_Q4S4F1	IYFSKWDISFGSSQVKNHGKIVMGGIATAVANIDDLTSGL
UniRef90_UPI0003AF73FB	TYFSHWPDLPGSEPVMVHGKLILGGVTEAVSKIDNLSGGL
UniRef90_UPI000329B181	IYFSHWSDSPSSAQVKHGATIMAAIGDAVSKIDDLTGGL
UniRef90_P41331	TYFPHFDLSPGSNDLKVHGKKVIDALTEAVNNLDDVAGAL
UniRef90_Q6GPP8	TY FNLSSSGSQDLQVHGGKVLGAIGEATKHLDNLDTAL
UniRef90_UPI0004746CD9	TYFAHWSDLNGSAHVKKHGSVIVRRIGEAVGHIDDLTGGL
UniRef90_Q38IV9	TYFSHFDLSHGSKDLSAHGKKVLRAIGNAASHLDDISGAL
UniRef90_L8J2H0	TYFPHFDLSQGSAQVKGHGAKVAAALTKAVEHLDDLPGAL
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UniRef90_Q63067	RFFDKFGNIMGNPQIRAHGKKVLVSLGLAVENMDNLKETF
UniRef90_B5X930	TYFSHWTDLPGSAPVKKHGLTVMGGVLDAVTKIDDLTGGL
UniRef90_B8K133	IYFSHMDLSPGSAQVRAHGRKVADALTLAADHLDDLPGAL
UniRef90_C5HYH8	RFFDHFGDLMGNAKVKAHGKKVLNSFSDGLKNLDDLKGTF
UniRef90_H2QA68	TYFPRFDLHNGSARLRTHGYKVMASELNTVKSIDNINGAQ
UniRef90_G3IF93	RFFEKFGDLMSNPQVKAHGNKVITSFADGLKHLDNLKGTF
UniRef90_A3KP86	TYFSHLNISANSEHLRSHGKKIVEALAEGAKNISTLTTTL
UniRef90_W5MMA8	RYFSSFGNILGNPKVKKHGKTVLTALGQAVKNMDNIKATF
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UniRef90_P83479	TYFAHWSDQSPGSEPVKHGKKIMGAVGDAVGKIDNLLGGL
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UniRef90_P02062	RFFDSFGDLMGNPKVKAHGKKVLHSFGEGVHHLDNLKGTF
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UniRef90_P07428	TYFPDFDFSEHSKHILAHGKKVSDALNEACNHLDNIAGCL
UniRef90_UPI00046B3AEC	RFFDSFGNIMGNPRVKAHGKKVLTFFGKVVMHMDELKDTF
UniRef90_UPI0003447372	TYFPHFDLSPGSAQLKAHGKKVADALTLAVAHLDDLPGAL
UniRef90_A4IGT0	RYFSSFGNLTGNAKVRAHGKKVLSAVGDAITHLDNVKGTL
UniRef90_UPI00038EE4CD	TYFPHWDLSTGSAQVKAHGQKVADALTLAVNQMYDLPNAL
UniRef90_A7M7S6	TYFPHFDLHHGSQQLRAHGFKIMTAVGDAVKSIDNLSSAL
UniRef90_UPI000383332B	TYFPHFDLQHGSEQIRGHGRKVATALANAAKNLDNLSQAL
UniRef90_Q9PVM3	AYFSHWDLNPQHPMVKKHGAIIMGGIGKAVKNLDDLVRGL
UniRef90_I1Y928	TYFPHIDLHPGSAQIKAHGKKVAAALVEACNHIDDIAGAL
UniRef90_G5BXY5	TYFPHFDLHPGSPQLRAHGSKVMAALGDAVKNIDNVEVAL
UniRef90_P02075	RFFEHFGDLMNNPKVKAHGKKVLDSFSNGMKHLDDLKGTF
UniRef90_P80727	RYFPKFGDIQGNAKVAAHGKKVVLGALEKAVKNMDDVKGTY
UniRef90_Q5BJC7	IYFAHWPDLSGSAQVKKHGKKIVMGAILTDAVGKILGAL
UniRef90_UPI0003AF4141	TYFPHFDLSHGSAQVKGHGEKVAAALTKAVGHLDDLPGTL
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UniRef90_P14526	RFFESFGDLMNAKVKAHGKKVLTSFGEGLKHLDDLKGTY
UniRef90_Q7ZT83	TYFHYNLSPGSKDIIHQGEKVGKALDSALKHLDDIRGTL
UniRef90_Q7LZM6	VYFSHLDLSPGSSDVRHQGQKIIRALDNALKHLDNIHGVL
UniRef90_UPI0003D0BCC8	KFFLHFGNIINNPKVRAHGKKVLTSGEAVKNLDNVHAQF
UniRef90_Q5EEZ5	TYFTHWEVVPNSPKVRKHGATIMSAVGKAIKSIDDLPGAL
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UniRef90_P23740	VYFDHFTDSPSSQKLHAHGKVVLGALTKAVNHLTDTL

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QUERY                      S A L S D L H A H K L R V D P V N F K L L S H C L L V T L A A H L P A E F T P A
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UniRef90_B7UCU6          A Q L S E L H C D K L H V D P E N F
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UniRef90_UPI00042C01C9   W Q A A W Q K L V S A V A H A L T L E Y
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UniRef90_P06639          V H R S V D K F L S T V A Y V L A S K Y R
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UniRef90_W5MLZ3          A H V A C D K F L V R V A E V L S Q K Y R
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UniRef90_P23741          V Q A T W E K L L S V V V A A L S R E Y
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UniRef90_P02200          S Q A A M R K A L E L F R N D M A S K Y K
UniRef90_UPI00042BDA80   V H L A Y E Q F L A A V S A A L T E K Y
UniRef90_R4GDF7          V Q R A W A K M K S L I C T H V T A A Y K
UniRef90_K7FYS7
UniRef90_UPI00042BFA97
UniRef90_P07409          V Q A A W S K F S N V V V D A L S K G Y
UniRef90_L8HMV9          L Q A S F Q K V V T G V A N A L A H R Y
UniRef90_H3D213          V A S A W T K L L A N M C C G I A A V Y K
UniRef90_M7BE56          V S L S W E K L F S L L S E Q I N A S Y
UniRef90_E9PFT6
UniRef90_B7UCU6
UniRef90_B3F9U2          V H V A V D K F L A Q L A L A L A E K Y R
UniRef90_K4G4N4          A Q E A F S K A F K A I C S E L E D L Y K
UniRef90_M3ZCQ3
UniRef90_H2ZWU1          A R A G F E K V T D V L C T H L N H A Y K
UniRef90_M4QW49          V Q S A W S K L L G V L Y W Q M N K V Y
UniRef90_UPI0003C28C4F   V S T S W K K L F T L L F E Q I E E T Y
UniRef90_F6R663          L H A S L V K F L S H V I S A L A S D C R
UniRef90_UPI0003EC261F
UniRef90_C8XFI9          V A A A W D E V Y W L M A Y A L I N Q E R
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Multiple sequence alignment (residues 1–40)

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                            1         10        20        30        40
UniRef90_UPI0003834AAC      W T G E E K Q L I T G L W G K V   N V A E C G A E A L A R L L I V Y P W T Q
UniRef90_UPI00026555D1                            A P A I G E V G V S I C V R F F V N F P S A K
UniRef90_H3ARB7             I L S E P Q K E L I Q E S W R I L H Q D I T R L G I I M F I R L F E T H P E C K
UniRef90_W5LJG5             M L T G E Q A I I Q N T W T K V Y Q N K D A A G V A V L M R L F T S F P S S K
UniRef90_W5NBV0             L T E S Q K D L I R E S W K V V H Q D I A R L G I I M F I R L F E T H P E C K
UniRef90_Q9YGW1            W T Q E E R D E I S K T F Q   G T D M K T V V T Q A L D R M F K V Y P W T N
UniRef90_Q5QRU6            F S E A E V Q S A R G A W E K M Y V D A E D N G T A V L V R M F T E H P D T K
UniRef90_UPI00038C3EF8      L S D G E K N A I S T A W G K V   N A A E V G A E S L G R L L V V Y P W T Q
UniRef90_UPI00047AC008     M L S D T S L P V I Q A T L P V V G E H I E E I A K R F Y K H M F E A Q P D L L
UniRef90_S4XEM3             L T P A H E E T V K A T L P V V G A H I G E I A H T F Y K G M F S A H P E L L
UniRef90_I3N507             L S D G E K N A I S T V W G K V   D V D A V G A E A L G R L L I V Y P W T Q
UniRef90_UPI000478B2A8     M L S P R S T E V V R A T L P V I G G A I N D I T A V F Y P R M F A A H P E L L
UniRef90_C6L8I9               A D H D L V L K C W G A V E S D Y K K H G G E V L T R L F T E N P G T Q
UniRef90_UPI0003D0DAE4     W S A E E K Q L I T S I W G R I   N V E E V G G D A L A R L L I V Y P W T Q
UniRef90_D1AB44            M L S A K S A D I V R A T L P A V A G A I E D I T P V F Y G K M F S A H P E L L
UniRef90_B6VRV0              A D F D M V L K H W G P V E A D Y S A H G N L V L T R L F T E H P D T Q
UniRef90_D5UDE2            M L S T R S R A V V E A T L P T V G A H I E Q I A T R F Y D H M F T E R P E L L
UniRef90_UPI0003AF8497      L S E K D K N I V Q T F W A K V A G R E E D I G C D A V S R L L T V Y P Q T K
UniRef90_E6J667             L S D E H A A V R E T L P V I G A H I D E I T P V F Y R T M F A D N P E L L
UniRef90_F6XB67            I L S E A E K A A I L S L W A K A S G N V N A L G A E A L E R L Y I W Q N L F
UniRef90_B5H323           M L S E K S A G T I R A T L P A V G A A I G T I T T N F Y D R L F T A H P E L L
UniRef90_UPI00022B6461        D E D K A A I A R I W K K   A D V E A I G G E T L G R L L V V Y P W T Q
UniRef90_UPI00031FBDF7    M L S E K S R P V I A Q T L G V V A E R I P H I T P E F Y R S M F E A R P D L L
UniRef90_UPI0004573CF2     L S D R Q T Q L V K E T W R L V Q E D I A K V G I I M F V R L F E T H P E C K
UniRef90_X0MWP3           M L S E Q S T P V V R A T L P A V G A A I D E I A T V F Y R K L F A A H P D L L
UniRef90_D5UN67           M L T A A H R A V I R D T L S A V G G A I D T I T P N F Y R R L F T A H P E L E
UniRef90_I3KUU5           M L S K R E K D L I K E I W E R L T P V A A E I G A D A L L R M F A S Y P G T K
UniRef90_UPI00036CEE11    M L S A E S A A L V K A T L P A V G A L E D I T A R F Y A A M F R D R P E L L
UniRef90_V8PAM9            L T E V D Q Q L I R D I W A K V F D N A E E N G R I V I I R F F T E Y P E S K
UniRef90_W5PMJ4            L T R A E R T I V V S M W S K I S T Q A D V I G T E T L E R R V T
UniRef90_UPI0003F0C79F    L L D D R Q K R I V R K T W R P L A N D M T E N G Q K I F I N I F E S H P E I K
UniRef90_UPI00037CD26A       A D H D L V L K C W G G V E A D F T G H G G E V L N R L F K E H P E T L
UniRef90_A6DJX1            L S Q E T I D I V R A P V V G E N A E K I T S R F Y P I M F E R Y P M V K
UniRef90_UPI0003F4CB53    M L S S D H A E T V R A T L P A V A A H G V E I T G T F Y D A M F A A H P E   L
UniRef90_C3Y502            L T E G E K A T I R R T W A V A S R D M M G N G A N I L L K M F E I N P D T K
UniRef90_K7EFP3                                    P A L S R R L F L S F P P T K
UniRef90_UPI000289948C         K T K E L V Q G T F G Q V A P I A D K A A E I F Y T K L F E K D P S L K
UniRef90_Q9DGI9              A D F D A V L K F W G P V E A D Y D K I G N M V L T R L F T E H P D T Q
UniRef90_V5IFC5            L T P R E K G L V R D T W A L V R K D V K A N A I A I F L T L F Q R H P E Y Q
UniRef90_UPI0003819E82    M L S Q E S A A T V R A T L P A V A E H L D T I T A R F Y D G M L V E H P E L L
UniRef90_M3AA47           M L S P K S T E I V R A T L P A V G G A I G E I T P L F Y D K M F A E R P D L L
UniRef90_E1VSY0           M L S T K S F P V I E A T L P I I A E R I S S I T P N F Y N R L F T A H P E L L
UniRef90_P18979           V L T D D D K N H V R A I W G H V S N N P E A F G A E A L Y R L F T A H P A S K
UniRef90_UPI0003959284
UniRef90_K7F9V7           L S S T E K A L I R E S W Q K V S S N L L Q H G I V L F T R L F D L D P D L L
UniRef90_W4YI83           M T K K Q R E L V E S T W E M M A S A P D K H G A V M F A K L V S D N P K V G
UniRef90_W4YI83           M T K K Q R E L V E S T W E M M A S A P D K H G A V M F A K L V S D N P K V G
UniRef90_W4YI83           M T K K Q R E L V E S T W E M M A S A P D K H G A V M F A K L V S D N P K V G
UniRef90_Q93101           L S G A D I A V I R S T W A K V S G S A T D I G R S I F I K F F E L D P A A Q
UniRef90_W4XLX6           L R A R E Q E L V Q K T W G V L S L D T E Q H G A A M F A K L I S A H P A V A
UniRef90_W4XLX6           L R A R E Q E L V Q K T W G V L S L D T E Q H G A A M F A K L I S A H P A V A
UniRef90_W4XLX6           L R A R E Q E L V Q K T W G V L S L D T E Q H G A A M F A K L I S A H P A V A
UniRef90_W4XLX6           L R A R E Q E L V Q K T W G V L S L D T E Q H G A A M F A K L I S A H P A V A
UniRef90_W4XLX6           L R A R E Q E L V Q K T W G V L S L D T E Q H G A A M F A K L I S A H P A V A
UniRef90_W4XLX6           L R A R E Q E L V Q K T W G V L S L D T E Q H G A A M F A K L I S A H P A V A
UniRef90_Q5QSA9           L T T N H I R L I K E S W R L L Q E D I A K V G I I M F V R L F E T H P E C K
UniRef90_R4TE60                     L I R D T W A K S E P F I P E I S Q F F Y G M L F T L A P A T R
UniRef90_W2F1U7           M L S P E S A A T V R A T L P A I G G A I D D I S A R F Y E G M F A D H P E L L
UniRef90_UPI00021A6F7E    L T E K Q K K L V Q N T W A V I R K D E V A S G I A V M T T F F K T Y P E Y Q
UniRef90_UPI0003EDF27D
UniRef90_Q7T1A4
UniRef90_A1YQ89             A D Y D L V L R C W G P V E A D Y N T H G G L V L T R L F T E H P D T Q
UniRef90_UPI000255F3AE    M L S D T A R P V I E A T L P V V A A H L D E I T P K F Y A R M F A A R P E L L
UniRef90_Q800M1                       A S V A K L G C R L E D I G A D A L N R L F I V F P Q S K
UniRef90_N1USI6           M L S E K S R P I I E A T L P L V G E R L G S I T P N F Y N R M F T A H P E L L
UniRef90_F2Z287           W T Q E E R D E I V K T F   F S A N S S A I G T K A L E R M F V V F P W T N
UniRef90_UPI000476306B    M L S P A S L D V V R A T A S V V A A N A D I T A R F Y P R M F E A H P E L L
UniRef90_UPI0004245EE8     L S D E H A E V V R A T L P A I G A H I N E I T P L F Y Q K M F A A H P E L I
UniRef90_S9QGF4           M L T Q G E I K A I R A S W L L V A A N R A E L G E R F Y K N L F R A A P E V R
UniRef90_UPI0003FF27C9    M L S E K S R P I I E A T L P L V G S R L G A I T P N F Y S R L F A A H P E L L
UniRef90_S4XMC7               T P R T I E L V Q R S W A K V M P I S D A A S A L F Y R L F E L D P S V R
UniRef90_S5T506           L S E E H A A L V K A T L P A V G E N I E T I A R N F Y E R M F T A H P E L L
UniRef90_V4ARY3           L T Q R E V D I V Q K T W A I L S T D M M G T G V Y M F Q R L F E I Q K D L Q
UniRef90_UPI0001CF1E2C                           V F Y R F F V N F P S A K
UniRef90_D6ZBY8           L S D Q A K S V L R A T A P A V G A A L D E I A P L F Y R L F S E N P T L Q
UniRef90_G4HUD8               E I I R A T L P L V G A H V D E I T Q E F Y R R M F G R H P E L L
UniRef90_UPI000365F6B4    M L S Q Q S K D L V N A S L P A V G P K V D E I T A V F Y P L M F S R Y P E V K
UniRef90_UPI0002652140    L D E R Q A V L V E N T W K T L E K N T E L Y G S I M F A K L T T D H P D I G
UniRef90_D7BWN6           M L S A Q A V P V V R A T L P A V G A S L N T I T E R F Y Q R M F E E R P E L L
UniRef90_V9G8F0           M L T E K T I A T I K S T V P V L E Q H G V T I T S T F Y R N M F K A H P E L L
UniRef90_P80017           L T P A E K D L I R S T W D Q L M T H R T G F V A D V F I R I F H N D P T A Q
UniRef90_V9XKM6           L S P E S K D V I A A T L P V A G A I G D I T P L F Y S K M F A A H P E L E
UniRef90_W4XUE2           L T K Q Q K A L I K K S W T Y V L E D K L R I G V I F L K F K A F P A S Q
UniRef90_A7S5B8           L T E T Q K Y Y I K Q S W M G L E S N K G E L G I E I F L R L F S E N P T L Q
UniRef90_Q9NG75                  D K A T I K R T W S I V   T D L P S F G R N V F L T V F A Y K P E Y K
UniRef90_Q9NG75                  D K A T I K R T W S I V   T D L P S F G R N V F L T V F A Y K P E Y K
UniRef90_Q9NG75                  D K A T I K R T W S I V   T D L P S F G R N V F L T V F A Y K P E Y K
UniRef90_R7WQA6           L S T S E T A L L T A T L P V V G G A I D E I T P A F Y R R M F G E H P E L L
UniRef90_W7QB62           M L T H E Q E Q L I E A T A P V V A E H L D A I T Q R F Y P L M F T R Y P E V K
UniRef90_D9XN42             S A E D I A L V R A S L E V V G P Y V A E L A G H F Y S I L F A R Y P Q V R
UniRef90_V4A8E7           L T I R E K R L I V N S W E Q I K V N L K Q N G V A L F I G Y F I A Y P Y T Q
UniRef90_A7RZB2           L D A K E T Q L V R K T W A I L G D R Q V E V G K S L F L R F F E H P T S K
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                                       50            60            70            80
UniRef90_UPI0003834AAC  R F F S S F G N L S G N P K V R A H G Q K V L T S F G E A V K N L D N I K A T F
UniRef90_UPI00026555D1  Q Y F S Q F K H M E D S P Q L R K H A C R V M G A L N T V V E N L H D P D K V L
UniRef90_H3ARB7         D V F F D F H Q L K M S K E L Q A H G L R V M S F I E K S V E Q K D K L E Q I A
UniRef90_W5LJG5         Q F F S Q F R D L K S S V Q L K K H A L R V M S A L N T L V E N V N D E E K T A
UniRef90_W5NBV0         D V F F I F R E I D D S K E L Q A H G L R V M S F I E K S V A R L D K L E Q I A
UniRef90_Q9YGW1         R Y F Q K R T D F R S S I         H A G I V V G A L Q D A V K H M D D V K T L F
UniRef90_Q5QRU6         S Y F T H F K E M K Q S D Q V R G H G K R V F T A I N D M V Q H L D N F L G I L
UniRef90_UPI00038C3EF8  R F F D A F G D L S S A S A V M G N A K V K A X X X X I I T T T N T A G D E V G
UniRef90_UPI00047AC008  D G L F N R G N Q A D G R Q Q Q A L A G S I A A F A G M L V E K P D Q V P D H L
UniRef90_S4XEM3         R D T F N R G N Q R S G E Q Q K A L A A S V A T F A T M L V T P D G D P V A M L
UniRef90_I3N507         R F F D S F G D L M G N A K V K A H G K K V I D S F S N G L K H L D N L K G T F
UniRef90_UPI000478B2A8  R D L F N R G N Q A A G T Q K Q A L A G S I A A F A T A L V E H P D V R P D A M
UniRef90_C6L8I9         D L F P K F A G I A G N A D V A A H G A T V L N K L G D L L K A K G G H A A L L
UniRef90_UPI0003D0DAE4  R F F S N F G N L S S P T                     A I S G E P L L E K G Y
UniRef90_D1AB44         R D L F N R G N Q A S G E Q A R A L A G S I A A F A R M L L E H P D R R P D M L
UniRef90_B6VRV0         K L F P K F V E M A G N K D I A A H G A T V L K K L G E L L K A K G N H A T I L
UniRef90_D5UDE2         D G L F N R G N Q A S G T Q R L A L A G S I A H F A Q A L V A T P E Q L P E R L
UniRef90_UPI0003AF8497  T Y F S H W K D S P G S D P V R K H G A T V M A A V T D A V S K I D D L I G A L
UniRef90_E6J667         R D T F N R G N Q K L G A Q Q R A L A A S I A T F A T L L V D G R S P V D M L
UniRef90_F6XB67         S Y L E S P V I L         K I L Q T G K G A S V Y K I R G L D H L S T K H S I L
UniRef90_B5H323         R D L F N R G N Q A T G E Q Q R A L A G S I A A F A G A L V D H P G T R P D T L
UniRef90_UPI00022B6461  R F F D N F G K I M G N P K V K V H G R K V L T S L G E A M K N V D D L K S T F
UniRef90_UPI00031FBDF7  D G M F S R A N Q K N G T Q P Q A L A G S I A M F A S H L L N H P D S P D E V L
UniRef90_UPI0004573CF2  D A F F L F R D I D D L Q L R A H G L R V M S F I E K T V A R L D Q L Q Q L A
UniRef90_X0MWP3         R D L F N R G N Q G Q Q R Q A L A A S I A A F A G M L L D H P D T R P D A L
UniRef90_D5UN67         R D L F N R G N Q A V G A Q Q R S L A A S I A M Y A T A V I D D S V D A S S L L
UniRef90_I3KUU5         T Y F S H L D I S P N S S H L L A H G K K I V L A I A E G A Q D I S Q L T V T L
UniRef90_UPI00036CEE11  D G M F N R G N Q A S G D Q R R A L A G S I A G F A T A L L A D P G A R P D A L
UniRef90_V8PAM9         Q Y F P T E G D L M M I P E V G F H G R R I M V T L N Q L I E S M S H W K Q A C
UniRef90_W5PMJ4         C V S R G P A P G S P Q S R G R A G R K G R N D L E T G G Q E G A G R T G
UniRef90_UPI0003F0C79F  Y M F P T R D N L S A N P H F R M H S S R F M Q S V G A A I D N L N D L D N A L
UniRef90_UPI00037CD26A  K L F P K F V S L P G N A A V A A H G A T V L K K L G E L L K A R G D H A A L L
UniRef90_A6DJX1         E F F N Q S H Q R D G L Q Q K A L A G A V V A Y A L N     I D N L G A L G G A V
UniRef90_UPI0003F4CB53  R N L F N Q G N Q A N G E Q R Q A L A G S V A A F A E H L V T P D S P F Q Q I M
UniRef90_C3Y502         K V F A K F R N I P D D P R F R A H V T R V M A S I S T V V N S L D D L L D L F
UniRef90_K7EFP3         T Y F P H F E L S Q G S A Q V K A H G K K V A D A L T T A V A H L D D L D S T L
UniRef90_UPI000289948C  P M F K             G D M K D Q G A K L M A M I G T A V N G L D N L D P A V
UniRef90_Q9DGI9         K L F P K F G D M A G N A A I S A H G A T V L K K L A E V L K A K G N H A G I I
UniRef90_V5IFC5         K L F S G F A D V P P N P R L G A H A M S V A Y A I T S L V D S L D D L V E L V
UniRef90_UPI0003819E82  D G L F N R G N Q A N G D Q R K A L A A S I A G F A T A L L E N P D E R P D T M
UniRef90_M3AA47         R D L F N R G N Q A N G S Q R Q A L A G A I A A F A T A L V E H P D R P D A M L
UniRef90_E1VSY0         D G I F S R S N Q K N G T Q Q Q A L A G S I A V F A T Y L V K Y P E T T P E T M
UniRef90_P18979         T Y F S H F D L H E N S A Q I R X X X X K V V D A L T Q A V N N L D D L S G A I
UniRef90_UPI0003959284              F G E A I K N L D N L K G T Y
UniRef90_K7F9V7         P L F Q Y N C R Q F S S P E F L D H I R K V M L V I D A A V T H L E N L E E Y L
UniRef90_W4YI83         R L F P F Y K K L L N E N E V I S H G E R F M T T L G Q V V G G L D D L V P M L
UniRef90_W4YI83         R L F P F Y K K L L N E N E V I S H G E R F M T T L G Q V V G G L D D L V P M L
UniRef90_W4YI83         R L F P F Y K K L L N E N E V I S H G E R F M T T L G Q V V G G L D D L V P M L
UniRef90_Q93101         N E F P C K G E S K T N V L L G Q H G A K F M E Y I T T A V N G L D D Y H G P L
UniRef90_W4XLX6         Q M F P S Y S Q L V Q N P T L R A H G K R V M E T I G Q T V G S L D D L D I L V
UniRef90_W4XLX6         Q M F P S Y S Q L V Q N P T L R A H G K R V M E T I G Q T V G S L D D L D I L V
UniRef90_W4XLX6         Q M F P S Y S Q L V Q N P T L R A H G K R V M E T I G Q T V G S L D D L D I L V
UniRef90_W4XLX6         Q M F P S Y S Q L V Q N P T L R A H G K R V M E T I G Q T V G S L D D L D I L V
UniRef90_W4XLX6         Q M F P S Y S Q L V Q N P T L R A H G K R V M E T I G Q T V G S L D D L D I L V
UniRef90_W4XLX6         Q M F P S Y S Q L V Q N P T L R A H G K R V M E T I G Q T V G S L D D L D I L V
UniRef90_Q5QSA9         D V F F L F R D V E D S R E L R A H G L R V M S F I E K S V A R L D Q L E R L E
UniRef90_R4TE60         D F F P I N M E V Q R G R L V R A         L V H I V Q M V D R P D D L P F L
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UniRef90_N1USI6         D G L F S R A N Q R N G E Q Q K A L A G S I A A F A S H L V A N P D T V P Q V L
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UniRef90_UPI0003FF27C9  D G L F S R A N Q N N G E Q Q K A L A A F A G A L V A N P D L L P E A M
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UniRef90_Q5QSA9          L E E A W K T L F Q Y V T S I M R E G F
UniRef90_R4TE60          V E R A W A E A F T I V
UniRef90_W2F1U7          V G Q A W D E V Y W L M A D T L I
UniRef90_UPI00021A6F7E   V A E A W S K T L D G V
UniRef90_UPI0003EDF27D   V Q G A F Q K V V A G V A N A L A H K Y
UniRef90_Q7T1A4          V H V S V D K F L Q C L A L A L S X K Y R
UniRef90_A1YQ89          G Q E A L R K V M S V V I A D M D A T Y K
UniRef90_UPI000255F3AE   V A A A W T E V Y W L M A D A L I K
UniRef90_Q800M1
UniRef90_N1USI6          I A E A W T E V Y W L M A D A L I K
UniRef90_F2Z287          V F A V W I K F F Q V V I D A I S S Q Y
UniRef90_UPI000476306B   I A A A W S E V Y W L F A L Q L A R L Y R
UniRef90_UPI0004245EE8   V A A A W D A V Y W I M A D V L I
UniRef90_S9QGF4          A T D A W T K A Y Q A V A S A M I
UniRef90_UPI0003FF27C9   I A A A W T E V Y W L M A N A L I
UniRef90_S4XMC7          V E T A W K D V Y G V I A D V M K K A
UniRef90_S5T506          V A D A W S T V Y W L M A D V L
UniRef90_V4ARY3          T E L A W R H V F D Y I S S N M A E G I R
UniRef90_UPI0001CF1E2C   V Q T S W S K L M A A L Y W H I T G A Y
UniRef90_D6ZBY8          V A S A W T E L Y W L M A G E L I A R E R
UniRef90_G4HUD8          V A A A W D R V Y W L M A D T L I E L Y R
UniRef90_UPI000365F6B4   I L A A W G E A Y Q Q L A E L L I
UniRef90_UPI0002652140   V K A A W A A V Y N I V S D T M S T K
UniRef90_D7BWN6          V A A A W D E V Y W L M A N S L I A
UniRef90_V9G8F0          I L D A W K E A Y G V I S D A
UniRef90_P80017          V H D A W A K T F A I V Q G V L I T K
UniRef90_V9XKM6          V A K A W D E L Y W L M A N T F I S
UniRef90_W4XUE2          T K E A W L I Y Y G Y M C
UniRef90_A7S5B8          I A E S W K L L L D Y V M A M I I R G L R
UniRef90_Q9NG75          D L A A W R R G W D S I V D I L E A G
UniRef90_Q9NG75          D L A A W R R G W D S I V D I L E A G
UniRef90_Q9NG75          D L A A W R R G W D S I V D I L E A G
UniRef90_R7WQA6          I A A V W D H V Y W L M A A D L I R A E K
UniRef90_W7QB62          I A D A W S T L Y E E L A G L L I E
UniRef90_D9XN42          L E A A W Q R A Y S
UniRef90_V4A8E7          T V V A W N K A T N V M
UniRef90_A7RZB2          T S K A W E K I F S F M A D A M M R G C K
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                          1         10        20        30        40
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UniRef90_B8CU80         M L S E K H I S I V K S T I P L L E S A G T A I T E H F Y K R M F S Q N P E L K
UniRef90_Q2LC33                     K C W G A I E A D Y A G H G G E V L T R L F K E H P D T L
UniRef90_V4A611           F T E T Q I D T I R S T W P L L S R N M V R V G T D V F V R I F T E V P T V K
UniRef90_K4GKC8                                                           M F V V Y P W T K
UniRef90_S3B1Y0         M L S Q K S A E T V R A T L P A V A E A I D T V T D L F Y R R L F A A H P E L E
UniRef90_Q3KN63           L S G P E Q E L I R E S W R S V N S N P L Q H G M I L F T R L F D L E P D L L
UniRef90_Q90YJ2           L S E K D K G L I R D S W E S L G K N K V P H G I V L F T R L F E L D P A L L
UniRef90_UPI00021A6F7D    L T N K E K R I I R E T W G V L R A N S V K V G V D I M I S Y F K R F P Q H H
UniRef90_C1BLX7         M L S K Y E K E L I S E I W E K L T P V A S E I G A D A L F R M F T T F P G S K
UniRef90_Q9NPG2                 E P E L I R Q S W R A V S R S P L E H G T V L F A R L F A L E P D L L
UniRef90_A4AK68         M L S N Q S L P L I E A T L P L V S E R M P K I A M N F Y S R M F T A H P E L F
UniRef90_L1M9D6           L S D A H A E V I R A T L P L V G S R I N D I T P V F Y K K M F T A H P E L I
UniRef90_V4HJT2             S Q R Q K Q L V Q A S F V K V E P I S E Q A A D I F Y T T L F E Y D P S L K
UniRef90_A6CH06         M L S A K T I Q I V K E I T P T V A A N A E T V T R V F Y K R M F Q E N P E V Q
UniRef90_M2APL6           M T P E Q V T L V E S W E K V K P I S E Q A A E L F Y G R L F T L D P S L R
UniRef90_C5D1W6           M T P Q N I A I V K A T V P A L Q A H G E A I T S H F Y R I M F E S H P E V K
UniRef90_H5UE51         M L S D T Q L A T I A A T L P A V E G S L A E I T P R F Y R G L F A A H P E L L
UniRef90_P0C227           L S A D Q K A A I K S S W A A F A A D I T G N G S N V L V Q F F K D Y P G D Q
UniRef90_I3ZP09
UniRef90_A0A026WVZ6       M T E K Q K R L V Q N T W A I V R K D E V S S G V A I M L A L F T E Y P E Y Q
UniRef90_U2GJB1           L T P E N E E I V K A T L P I V G G A I E D I A P V F Y R T M F G K H P E L I
UniRef90_B9RZD8           F T E E Q E A L V V K S W N S M K K N A G E L G V K F F L K I F E I A P S A K
UniRef90_B2L5U3                         I A A H G D K F G G E A L Y R M F L V N P K T K
UniRef90_V4A5G6           L T E K D K E L V K S S W A K F E G D V I A D G A H I Y Y K L F E K A P E A K
UniRef90_K7A9V9         M L S A Q T I A T V K S T I P L L E S A G V A I T D H F Y Q R M F R L N P E L K
UniRef90_P21197           L S D A E K N K I R A A W D L V Y K D Y E K T G V D I L V K F F T G T P A A Q
UniRef90_UPI00020E3B04
UniRef90_F2L978           L T A E Q M A R V K A T A P V L A A H G S T I T R H F Y A R M F R H H P E L K
UniRef90_UPI00042C6E8D
UniRef90_F1YMN1         M I S S D T K L V L E A T L P V V E S A L P E I T P R F Y D R M F T A R P E L L
UniRef90_UPI00046EB1D4  M L S Q E K I D L I K S T V P V L E Q H G K T I T T V F Y K N M F E A H P E L L
UniRef90_W5XXL5           L S P E H E A T I K A T L P L V G G K I N E I T P V F Y K K M F T A H P E L I
UniRef90_S3D2U5           L T K S Q I Q T I K A T V P V L A Q H G E T I T T K F Y A D L L V A H P E L K
UniRef90_A9GV91           L L S Q R T L E L V Q W S W A K V M P I S D A A A L F Y E R L F T L E P S V R
UniRef90_P39662         M L T Q K T K D L V K A T A P V L A E H G Y D I I K C F Y Q R M F E A H P E L K
UniRef90_P56692           L S E D Q E H Y I K G V W K D V     D H K Q L F K A L E R V F V V Y P W T T
UniRef90_UPI00034F873C    L S D G E W Q L V L N V W G K V E G D L S G H G Q E V L I R L F K G H P E T L
UniRef90_UPI000380C57E  M L S Q K T I D I V K S T A P I L E T H G V D I T T Y F Y K T M F E A H P E L L
UniRef90_UPI00039A1310  M L S P A S T A V V R A T L P A V R A H S T E I T G E F Y S S M F S A H P E L L
UniRef90_A3WZM3           M S P E Q K A L V R E T W Q K V E P I A D E A A R L F Y D R L F E I D V T A R
UniRef90_W7CNW5         M I T E E Q K Q I V K S T A P I L K E H G K E I T S I F Y K K M F E A H P E L L
UniRef90_Z5XS53         M L S A Y Q K Q L V Q N S F K K V A P I A D D A A A I F Y A K L F E Y D P K L K
UniRef90_K9Q0C7               L L E S S F E K V K P K A E E F A S S F Y E N L F T D Y P A A K
UniRef90_H0SA38         M L T A D E I G H V R S S F D M V F A R A T E M T T T F Y N R L F E L A P E C R
UniRef90_M2QSV2         M L S P A S A A V R A T L P A V R A H A V E I T G E F Y S S M F T A H P E L L
UniRef90_O24520         V F T E E Q E A L V V K S W S V M K K N S A E L G L K L F I K I F E I A P T T K
UniRef90_W1SD74         M L N Q K T I E I I K S T V P V L E Q H G E T I T T R F Y Q L M F A N H P E L L
UniRef90_G0NQC9           L S D R Q R D I L Q K T F T S I E Q D C V R N G L K I F V R L F A E Y P R Y K
UniRef90_Q65M00         M L S E K T M Q I V K S T A P V L E K G T E I T T C F Y K R M F D A H P E L K
UniRef90_F5LNG4         M L K P E T I E I I K S T V P V L E V H G K A I T T R F Y E K L F E S H P E L L
UniRef90_W7YHY6         M L T S K T I D I I K S T V P V L E V H G Q A I T T T F Y Q M L F D N H P E L L
UniRef90_D3G0B8         M L S K E T I S I I K S T V P V L E V H G T K I T T R F Y Q L L F E A H P E L L
UniRef90_V5YM44           L S D R Q V D I I K S T W A I L N E N P E E S G E A I F Y T F L E R H P E H Q
UniRef90_UPI00044398FC    W T E E E R R I I R G V W E K V     D I D E I G E E L W A R A L I V Y P W I D
UniRef90_Q2IZ96           M T P A Q I A L V Q Q S F A K V A P I S E Q A A S L F Y G R L F E I A P E V Q
UniRef90_UPI00042C948C    L T R A E R T I I V S M W S K I S T Q A D L I G T E T L E S     T Q V P T I
UniRef90_E5XR09           L S G A E L D V I R Q T A P A V G G A L D E I T P L F Y R K L F A A H P E L G
UniRef90_UPI00037A7EB7  M I T A E S L A I V Q A T V G V V R E Y G A D I T R K F Y S T L F A A H P E L
UniRef90_V6Z8I1         M L S A E S L G V I R E T L P A V A G A I D E I T P L F Y S K M F A A Y P E L L
UniRef90_D3P7W4         M L T P A Q I A V I K A T A P V V A A N A T R I T G T F Y P L M F E R F P E V
UniRef90_B8PS14                 A I T T T W G K V     N V E E T G E A L G R L L V V Y P W T Q
UniRef90_UPI00036F013B        D P R L I K E S F E A V E P V A D K V A G Y F Y A R L F I E N P G V R
UniRef90_R7UZI3               L V Q M S W D I V Q E D L A A L G H G A F D R L F M D H P E I K
UniRef90_O97381           L T A L E K Q S I Q D I W T S L R P T G E E L A V K M F T R L F A D H P E Y K
UniRef90_O97381           L T A L E K Q S I Q D I W T S L R P T G E E L A V K M F T R L F A D H P E Y K
UniRef90_O97381           L T A L E K Q S I Q D I W T S L R P T G E E L A V K M F T R L F A D H P E Y K
UniRef90_F5SW36         M L D T R T I Q I V K S T I P L L E G A G T A V T D H F Y Q R M F T A N P E L K
UniRef90_K0T1L2           L F E K R K T A I Q S T W K T V G D S L G E A T K L F Y K R L F E Q Y P D V
UniRef90_UPI0002FF84B6  M L S D K T I A I V K S T V P L L A A E G T V V T E H F Y N R M F S H N P E L L
UniRef90_U5D5B6           F S E E Q E A L V V E S W K V M K K D A A E L G L K F F E K I F E I A P S T K
UniRef90_G0RRL0           L T A D Q I A I I K S T V P I I R E H G T T V T T T F Y A N M L A A H P E L K
UniRef90_W4C6P0         M L S E H T I R V I K S T V P V L E V H G E A I T R H F Y E T M F T A H P E L L
UniRef90_U5LAU4         M L S R N T I D T I V S T V P V L E V K G T E I T T V F Y R N L F S S H P E L L
UniRef90_J3NLL3           L T P E Q M A I V K G T I P T L Q E H G V T I T T L F Y K N M I N A H P E L
UniRef90_W3WSE3           L S Y E Q T R M V K G T I P T L Q E H G E H I A T V F Y K T M L K E H P D L N
UniRef90_I0JTK3         L L N D H T I K V I K S T V P V L E E H G E A I T T H F Y Q Q L F L N H P E L K
UniRef90_W4CHU2         I L T Q E T R D I V K S T A P V L A E H G T T I T T V F Y R N L F E A H P E L L
UniRef90_UPI0003F05CC0  M I T K E Q T K I L T S T W H S I H G D L E K I G L L M F M G M F D N Y P E T R
UniRef90_R7Y0P2         M L S T Q S A T V V K A T L P V I G A A I G D I T P V F Y Q R M F A A H P E L E
UniRef90_M4ASL4                                                       R M L A V Y P Q T K
UniRef90_P23244           F T E E Q E A L V V K S W S A M K P N A G E L G L K F F L K I F E I A P S A Q
UniRef90_I3IZ26
UniRef90_UPI0004025BFE  M L S A E Q K A V I Q Q T V P L L E S G G E A L T R H F Y E I M L R D Y P E V Q
UniRef90_M2XD60         M L S E S A R P L I E A T A P V I A E R L P D I A P K F Y Q S M F E A E P Q L E
UniRef90_UPI000478A6DA        L V R Q S F A V V E P Q H D Q V A Q F F Y G M L F S I A P S A R
UniRef90_C5ZVT2         M L D S H T K E I V K S T I P A L K Q Y G E D I T K V F Y R E L F G R Y P Q V Q
UniRef90_R5X6P8         M L N Q K T I D I I K S T I P A L K Q Y G E D I T K T F Y K T M F A N P E V K
UniRef90_T5AGV5           L T V E Q I A L V K S T A P V I K E H G K A I T T T F Y R R L L G A H P E L K
UniRef90_F8FL46         M L S Q P T I D I I K S T V P V L E V H G T A I T R R F Y E R M F S R H P E L L
UniRef90_E7BQB4         M V S A A Q K A A I R D S W A G I D L Q A A     G N A F Y Q L K A N A P
UniRef90_UPI0001CBA21C    L S A G E I K L V T D S W T A V Y A N K K A N G V A L F V R L F S E N P G F Q
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                              50            60            70            80
UniRef90_F6RIV9          R Q F S S P R D C L A S P E F L D H I R K V M L V I D A A V I H L D D L E E Y L
UniRef90_B8CU80          H I   F N L S H Q H S G G Q P A A L F N A V A A Y A K N   I D N L G A L T G A V
UniRef90_Q2LC33          K L F P K F K G I P Q S T L V A S H G A T V L K K L G E L L R A K G D H A A I L
UniRef90_V4A611          E L F S S F N I V D V N P T F R A H A E M F Q V L H L V V D N L E T L N H E L
UniRef90_K4GKC8          R Y F G K F R F R A S D P V D M E H G A K V M G K M Q V A A K D P E K I K E I F
UniRef90_S3B1Y0          R H L F N R G N Q A S G T Q R R A L A G S I A A F A T A L V T P G A Q P D G M L
UniRef90_Q3KN63          P L F Q Y N C R Q F S S P Q F L D H I R K V M L V I D A A V T H V E N L E E Y L
UniRef90_Q90YJ2          T L F S Y S T N C G D S P E F L E H V T K V M L V I D A A V S H L D D L H D F L
UniRef90_UPI00021A6F7D   R A F P P F K D I P D N K K F H A H C Q G I M S T L N D A I D A L D D M N A I L
UniRef90_C1BLX7          T Y F A H L N I N H R S P H L L S H G K D I V L A I A E G A R D I S S L T V T L
UniRef90_Q9NPG2          R Q F S S P E D C L S S P E F L D H I R K V M L V I D A A V T N V E D L E E Y L
UniRef90_A4AK68          D G L F S R S N Q K N G S Q Q Q A L A G S I A V F A T H L V R N P D T P E S M L
UniRef90_L1M9D6          A D L F N R G N Q Q H G D Q A K A L A A S I A V F A S V L V D P D K P H P D M L
UniRef90_V4HJT2          S L F K N             S M K S Q G Q K L M A T L K V A V N S L D D L D P V L
UniRef90_A6CH06          A Y F N Q A H Q H S G G Q K A L A G A I C A Y F L H I D D L A A L T P A V
UniRef90_M2APL6          A L F K             G D M S E Q G K K L M S T I T L A V T S L D R L E T I L
UniRef90_C5D1W6          A F F N E A H Q A A G S Q A R A L A G A V L A Y A T H I D R L E E I A G A L
UniRef90_H5UE51          D N L F N R T H Q K S G E Q P Q A L A G S I A A F A R L Q L E P D I R R Q R F I
UniRef90_P0C227          S Y F K K F D E L K G D A Q L A T H A S Q V F G S L N N M I D S M D D P D K M V
UniRef90_I3ZP09                                       L T S F G E A V K N L D N V K A T F
UniRef90_A0A026WVZ6      K Q F K P F D E L P K N K R F Q A H S A N V V S A L S S V I H Q I H D M E A T L
UniRef90_U2GJB1          S D L F N R G N Q R S G E Q Q K A L A A S I A T F A S M L V T P D P D P R D M L
UniRef90_B9RZD8          K L F T F L R D S D Q N P K L K P H A M T V F V M T C E A V Q L R K A G K V T L
UniRef90_B2L5U3          T Y F P S F D F H H N S K Q I S A H G K K V V D A L N E A A N H L D N I A G S L
UniRef90_V4A5G6          E K F A K D S L E N K Q F K A H V R K V L D V F E S V V R E I D Q L E G L L
UniRef90_K7A9V9          N I F N M A N Q T N G R Q Q F A     L F S A I A A Y A K N I D N L G A L N E V V
UniRef90_P21197          A F F P K F D D L K Q S S D V R W H A E R I I N A V N D A V K S M D D M S M K L
UniRef90_UPI00020E3B04                   M G N P K V K A H G K K V L I S F G K A V M L T D D L K G T F
UniRef90_F2L978          N L F N Q T H Q R A G G S Q P E A L A R A V   Y A Y A A N I D N L S V L G S A V
UniRef90_UPI00042C6E8D             M E R S P Q L R K H A C R V M G A L N T V V E N L H D P E K V L
UniRef90_F1YMN1          R D L F N R T N Q A T G G Q P Q V L A G A V A A F A R L Q L E P D A E R M R F V
UniRef90_UPI00046EB1D4   N V F N H V N Q A Q G R Q Q T     A L A N T V L A A A K H   I D N L G A I I P A V
UniRef90_W5XXL5          A D T F N R G N Q K Q G Q Q K A L A A S I A S F A S M L V D E A P D P V A M L
UniRef90_S3D2U5          N   V F N S T H Q A T G R Q A R A L G A S   L H A Y A S N I D D L G R L S P A L
UniRef90_A9GV91          P L F K N             D I A E Q K K K L M Q T L S V A V D G L N N L P K L V
UniRef90_P39662          N   V F N M A H Q E Q G Q Q Q A L A R A V   Y A Y A E N I E D P N S L M A V L
UniRef90_P56692          R L F S K L Q G L F S A N D V Q Q H A D K V Q R A L G E A I D D L K K V E I N F
UniRef90_UPI00034F873C   E K F D K F D E M R G S E D L K K H G S T V L T A L G G I L K K K G Q H A A E L
UniRef90_UPI000380C57E   N I F N H A N Q S Q G R Q Q T     A L A N T V   Y A A A Q Y I D Q L E V L L P T V
UniRef90_UPI00039A1310   D L F N Q G N Q A D G R Q K L A L A A A V G F A E S L T A G D E A A P F E L V
UniRef90_A3WZM3          Q L F K T T D L T E Q R R K L         F Q T L T M V V G G L D Y L E V L V P T I
UniRef90_W7CNW5          N Y   F N L T N Q E I G T Q P L A L A N T V   Y L A A E N I E Q L E V L L P Q V
UniRef90_Z5XS53          T L F K S             D L R S Q G K K L M M T L G I A V K G L D N L D P V L
UniRef90_K9Q0C7          P L F A N T D V K E Q S K K L L A S     L V F V V E N L K K P G A L T D A L
UniRef90_H0SA38          S M F P             A D M D V L K R D F I A T L A V L V G S L D Q M T G L L
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UniRef90_W7YHY6          N I F N H V N Q R Q G   K Q P Q A L A N T V Y A A A V H   I D N L E A I L P V V
UniRef90_D3G0B8          N L F N H A N Q H G R Q Q T     A L A N S V Y A A A A L H   I D N L I P I V
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UniRef90_UPI00044398FC   R Y F G S F G D I F K N P K L A A L G K V V L S A L D T A V K N M D N F K A M Y
UniRef90_Q2IZ96          P L F A K             A D I R D Q G K K L M G T L A V V G G L T D L P A I L
UniRef90_UPI00042C948C   T W T E G G R E G R N D L E T G G Q G
UniRef90_E5XR09          R D L F N R G N Q A Q G D Q P R A L A G S I V A F A G L V L E G Q E G Y G S V L
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UniRef90_O97381          L L F T N V D N I N E N A P F R A H L H R V L S A F D I V I T S L D N L I R Q L
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UniRef90_UPI00039A1310   V F A A W H E V Y W L L A C R L I A A
UniRef90_A3WZM3          V K G A W S S A Y T L L A D I M
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UniRef90_H0SA38          V E Q A W R K V Y D I I A Q R M I A
UniRef90_M2QSV2          V F A A W H E V Y W L L A C R L I A A
UniRef90_O24520          M K V A W G Q A Y D H L V A A I K A
UniRef90_W1SD74          I I D A W A E A Y N V I A D A F I S
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UniRef90_O97381          G R E S L G K G F K L M V A V I E E G
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UniRef90_U5LAU4          I I G A W A D A Y G V I A D A
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UniRef90_I0JTK3          I I Q A W G E A Y G V I A D V
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UniRef90_H7F3M2           M L D E K T K Q T V K E T I P F L E A K G T E I T S L F Y K N M L A A H P E L L
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UniRef90_B3F9V4           L S S K Q K A T V K D F F S K M S T R S D D I G A E A L S W L V A V Y P Q T K
UniRef90_L2FZX3           L T Q Q Q I D I V K S T A P V L K V H G E T I T T L F Y K D M I D T H P E L K
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UniRef90_B9CTU8           M L T E K E K S I I K E T V P V L Q D K G E I I T S H F Y K R M F K Q H P E L L
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UniRef90_C1DMB8           M L T E Q Q R A I V K L L E T G G E A L T A H F Y R I M L A E H P E V R
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UniRef90_UPI00045E9D13  P L F K        G D M S L Q G A K L M A T L G L V V A G L N D L S K I V
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UniRef90_O97382         Q L F R Q F R D V D E S N S F V A H V F R V V A A F D G I I H E L D N I V S T L
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UniRef90_Q17155         G Y F A R F K D V K Q N W Q L R G H A I T L M Y N F V D A L D E P D R L K C V V
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UniRef90_B8NAG7           I L D A W A T A Y W Q L A D L M A E L Y K
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UniRef90_W2T026           T K E A W T T L Y N V I A D L I E I Y R
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UniRef90_E0VN13           L D D A W T H L F K I I E F V M V S
UniRef90_H7F3M2           I M E A W E K T Y S E I A Q V
UniRef90_G8SE21           Y D Q A W A D A Y A V I A A K M
UniRef90_A0A022RFR4       M K K A W C V A Y D H L V A A I
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UniRef90_L2FZX3           I A D A W T A A Y A Q L A Q V
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UniRef90_O97382           Q K A S W N K A F D A F           E K Y
UniRef90_G2X8P2           V Q Q A W H K A Y S L L A K M L I
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UniRef90_H8H3G1           V K T A W T K L Y G L I A Q T M
UniRef90_I1XK72           V A E A W V E A Y G L L A K V L I
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UniRef90_B2T8C8           V I E A W A A A Y Q Q L A D L L S
UniRef90_H6R2Z7           V A A A W D R V Y W L M A D A L I
UniRef90_B8C6B7           H K E A W T L V Y G V L S K T M I
UniRef90_E1X5F5           I I S A W K K A Y F F L A D I L I E A E K
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UniRef90_A4INU4           V I A A W A E A Y E V I A D V
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UniRef90_UPI0003835450                                                     W L F D L D P D L L
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UniRef90_UPI000465C560    L S E Q T V A I V K A T V P A L N A H G L D I V N E M Y S R L F   Q N P E I R
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UniRef90_B0CEY8              Q V E L L E T S F A Q V K P V A N E F A D R F Y E N L F T D Y P A A Q
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UniRef90_H2FTH5           M L D A R T I E I V K S T V P L L E S A N T A L T E H F Y Q R M F R D N P E L K
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UniRef90_T0T531        P L F E N V N M E S Q K K Q L M G G L S K I V     D L L D Q P E A L T K Y L
UniRef90_E3IE82        N I F N H       A N Q K Q G R Q Q K A L A A A V Y A A A K H I D H L E T I L
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UniRef90_D8PFN9        P L F K N A S I S E Q K K K L L A S L V L V I Q N     L R H P E K L T P V L
UniRef90_D7HWU5        P L   F N Q A N Q A S G A Q P R A L A N A V L M Y A R N   I D R L E N L G P L A
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UniRef90_B6H973        G P A V E L I C N K H Y I S P G D Y E I V G E Y L L R A M K D V L G S A F T K D
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UniRef90_G1U1L8        K P L A Q S H A T K H K I P V K Y
UniRef90_K9VX73        K V L G E R H I G Y G A I   A N S Y P A V G E A L I T T F E Q Y L Q Q D W T T E
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UniRef90_E9FXJ7        N A L G G A H   Q A R G A T P I M F E Q F G E I L T G V L A E E L G S A F N A E
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UniRef90_P68168          M K N A W G V A Y D Q L   V A A I
UniRef90_UPI000349F54F   V R Q A W V D A Y A A I   G E L M L E G
UniRef90_UPI000377B994   I L E A W T V A Y Y Q L   A D I M I
UniRef90_D7I3E2          V I A A W A A A Y Q Q L   A D I L I   A G E R
UniRef90_I0GDU5          L E Q A W R K V Y G V V   A Q R M
UniRef90_L8MJ23          V I A A W A E A Y N L L   A G L L I
UniRef90_V5QR23          M K N A W A E A F N H L   V A A I   K A
UniRef90_W1RRL3          V E E A W V A A Y G Q L   A D
UniRef90_M9LPM0          I L E A W V K A Y F V I   A D
UniRef90_I7DWX5          V L E A W G E A Y W F L   A N L L I   E A E R
UniRef90_V5PPD6          L I A A W D E A Y W L L   A G E L I   A A
UniRef90_UPI0003B74153   L A S D W A A A Y G V I   A T V M
UniRef90_I1H7V3          M K N A W G E A Y D Q L   V A A I
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UniRef90_Q4WC12          V L N A W A A A Y Q E L   A D
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UniRef90_L9PA49          V L D A W G A A Y G Q L   A D I L A
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UniRef90_H0G2Y0          L L N A W G E A Y W F L   A D I L K E R
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UniRef90_K9WGN6          V K R A W T H G Y K A I   A N L M Q E
UniRef90_T0T531          L Q Q Q W L M A Y E F I   A N T M
UniRef90_E3IE82          I I N A W A E A Y E V I   A D V
UniRef90_U6PAP5          T K E A W T T L Y Y I I   A E   L I E I Y R
UniRef90_UPI00034D7B38   V K Q A W I E T Y N T V   T N M M L E G
UniRef90_UPI0003835450   V Q E A W S K L Y G A V   V K A M R R G
UniRef90_V8PEV3          V Q R A W T K M R S L I   Y T H V T A A Y K
UniRef90_UPI000465C560   V L E A W G E A Y W F L   A N I L
UniRef90_J3LIR2          M K N A W G E A Y D H L   V A A I
UniRef90_B0CEY8          V K Q A W V D A Y G A I   S T I M
UniRef90_D8PFN9          V K Q A W T D A Y A A I   K T I M L E G
UniRef90_D7HWU5          V I D A W A A A Y Q Q L   A D M L I   N A E R
UniRef90_Q6C8Y1          V E T A W I K I Y S Y L   A H K L
UniRef90_UPI00024838DF   V Q T A W V D A Y G A I   T T I M
UniRef90_D8MIW2          A E E A W T Q A M K V I   N A V I   F T S Y
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UniRef90_I1XFU2          V I E A W T E A Y G V L   A
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UniRef90_F4NCQ6          I M T A W A E A Y K A I   A D
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UniRef90_UPI00034C0189   I I A T W A K A Y G E I   A S V
UniRef90_F2J1V1          V R K A W Q S A Y A V L   S D I M I   A G Y R
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UniRef90_B1LUC7          L R E A W V E T Y R V I   T G L M T
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UniRef90_UPI0002B43077   M G N A W T K A Y H H L   A S A I   K A E M K
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UniRef90_B6H973          I H D A W E T A Y G A L   A N V L I   S R
UniRef90_A5IPA8          V I Q A W A K A Y G V I   A D V
UniRef90_G1U1L8
UniRef90_K9VX73          V K Q A W I D A Y G A I   T A L M
UniRef90_Q9UAG7          I L G A W G E A Y G V I   A Q A
UniRef90_E9FXJ7          A Q S A W K S G L A A L   V A G I   S K
UniRef90_A5WD83          I I E A W A A Y A E I   A E V
UniRef90_N9VQK2          I L A A W E K A Y G L L   A S V
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UniRef90_K9FBG0          T V F N T A N Q V N G H Q P R A L A G A L Y A Y A S H     I D D L G A L S S A V
UniRef90_UPI0003789CAC   N L F N M G N Q A N G S Q Q         Q S L A A A V F A Y A A N I D N A Q A L
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UniRef90_UPI0002898BF1   H   V F N M G N Q Q N D R Q Q T A L A M A V L A Y A E H   I D D P S V L F P V V
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UniRef90_W9YS10          R N I F N S A H Q S T G T Q P A A L A H A V L A Y A A H   I D D L G V L T S A V
UniRef90_UPI0003B31C0B   R N M F N Q T N Q E T G V Q P E A L A Y S V   Y Q A G A N I D R L E E L R P M I
UniRef90_D5D9L5          N V F N Q T N Q K T G R Q Q M   A L A N T V   Y A A A Q Y I D R L E T L L P V V
UniRef90_A0A044U5A6      K M F P F Y N I A T S S E E L K A H G E S V M K F L G Q A I S N I D K F F E L I
UniRef90_U1L5L6          H I   F N M S N Q E S G R Q K A A L F E A I A A Y A Q H   I E N V G A L K S A V
UniRef90_R4LQ95          E L F P         V H M D A Q R A R L L T A V V T V M Q S I D D I D Q Y L
UniRef90_UPI000349F7EE   A Q F D M S A Q A N G S   Q P A K L A T A V Y S Y A I H   I D D L E A L K A M V
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UniRef90_F1A2R8          N I   F N H         S N Q R E G K Q Q T A L A N T V Y A A A L H I D K L P E I L
UniRef90_D9Y601          Q   V F N M G H Q R A G F Q Q Q A L A G S V L A Y   A E N I E N L K P L L G A V
UniRef90_F2Q9W6          K L F K G V E Q L D S S I   T L R A H V T R F M H S F D T Y M E S L D D P E D L K
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UniRef90_B6BLR1          E L F         K D A K P D Q H   K K L A A A V G A Y A A N I D N L I V L E
UniRef90_S8CU33          K L F S F L R E S T E N P K L K L H A K S V F L M T C E A A V Q L R K T D S T L
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UniRef90_UPI000350F47E   Q M F S F L R D S D K N P K L K T H A M S T C E A A A Q L R K K V T V R E T T L
UniRef90_F4F348          K L F P         V Q M A G Q Q R D R L L E A I A A I H T V D D F D E F L
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UniRef90_A0A044U5A6
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UniRef90_F1A2R8
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UniRef90_U4T9S0
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Multiple sequence alignment (residue columns ~85–120) of UniRef90 protein sequences.

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UniRef90_K9T9X7          V K Q A W T D A Y E E I S Y L M L E G
UniRef90_UPI0002898BF1   L L E A W T V A Y R E L A S L M S
UniRef90_UPI00040E3AFA   V I Q A W A E A Y G I I A D
UniRef90_S7X5W1          I L E A W E I A Y N Q L A D L M
UniRef90_W9YS10          V L D A W A A Y Q Q L A D
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UniRef90_D5D9L5          I M E A W K E A Y G A I A D V F I S
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UniRef90_U1L5L6          I E E A W T A A Y D F L A S V
UniRef90_R4LQ95          Y D R A W A E A Y A M I T E K M
UniRef90_UPI000349F7EE   V M T A W A E A Y K V L A D V
UniRef90_M3D9H8          I Q D A W N S A Y W Q L A N L M I N R
UniRef90_F1A2R8          I I G A W A E A Y G V I A K V
UniRef90_D9Y601          L I D A W T A A Y T R L A D I L I
UniRef90_F2Q9W6          L E E A W Q T A Y S H I
UniRef90_U4T9S0          I I N A W T E A Y D E I A N V
UniRef90_A0A059BHV9      M E G A W G A G Y D Q L A A A I
UniRef90_R9TZZ3          V L G A W K K A Y D E I A K A
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UniRef90_UPI0003B65E92   I L A A W G Q A F W F L A D I L K D R
UniRef90_UPI0004226736   V A A A W D E V Y W L L A C R L I A A
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UniRef90_UPI00037E95AB   I A A A W D E V Y W L F A
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UniRef90_O81941          M K S A W S E A Y D E L A D A I
UniRef90_S1STT9          L A T A W Q R A Y T A A A D V M V R A
UniRef90_J3DHZ5          V L T A W G K A Y G V L A D V
UniRef90_K6WGP8          M T A A W E E A L G A V A T I M L D G Y
UniRef90_A9L475          V L E A W A Q A Y G F L A N
UniRef90_Q49UL6          I I Q T W I K A Y G A I A D
UniRef90_R7QRC5          I H N A W A E A Y G F L A S V
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UniRef90_E9GAC8          T K E A W K K G L R A M N E A V T K R
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UniRef90_F7EB40          T R E A W S L L Y A N V V Q S M S R G
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UniRef90_D0MGT2          L L Q A W K E A Y D F L A H L L S T K
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UniRef90_UPI00034D9014   L L A A W A E A Y G S L A
UniRef90_Q2MCN9          L E E A F G A F L G T V A A A
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UniRef90_K5W0S2          L Y D A W Y A A Y W Q L A H I L G E L Y R
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UniRef90_I2GZK4          I I D A W T K A Y G E I A N V
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UniRef90_J9HFZ7         M L T Q E E I Q T I K E T V P L L K D K G Q T I T S I F Y K R L F E Q H P E L K
UniRef90_F6Q119         L T S E Q V V L L R S S W Q T I G K G M S N V G L A V L H R L F N D V P E T L
UniRef90_UPI0003AFC9AC
UniRef90_UPI0004748B06      A D H D L V L K C W G G V E A D F T G H G G E V L N R L F H H P E T L
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UniRef90_UPI0003F0E673  F S S E Q I S E L R R T W P K L A C D L T G N G A Q V F L Q I F A I N E N I K
UniRef90_A9FR29              L L R E S F E L V I E R A P N L T H R F Y G I L F S R Y P Q V K
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UniRef90_P25165             K D L L R L S W G V L S D D M E G T G L M L M A N L F N M S P E S R
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UniRef90_B1YFT0         M L T P S A I T I I K S T V P V L A E H G H S I T R V F Y Q R L F E N H P E M K
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UniRef90_G8YKA8         L T P S Q V D F I K A S V P V L E K D G V K I T S L M Y N Y M L S T Y D E V K
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UniRef90_A3QDN6         L T D E Q K Q L I Q K S F A E I N R Q N S N F A S H F Y D C L F A M A P L I R
UniRef90_V5YLS3           S A D E A A L V Q S T W N Q V K S N E V D I   L Y A L F S A Y P D I Q
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UniRef90_G3AFJ0                                               Q V Y Q N L S A R Y P G L E
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UniRef90_U6HNE3         F T E F E K D V L I S T W K A M L L Y T N E P G A F V F R L A A E M C E L K
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UniRef90_P14394         L T A D V K K D L R D S W K V L G S D K K G D G M A L M T T L F N D H Q E T I
UniRef90_B8IQK2         L T D E T I E I V K A T V P A L E A H G R A I T D R M Y E R L F   R T P E I R
UniRef90_B7G0J4         M S A E E K K M I Q Q T W R A V E F G L D D C T R I F Y T E L F R K Y P S V Q
UniRef90_R7VAV5         V L S S A Q A K A I Q A N W K T V R A R I Q D Y G D I F V R Y F I Q N P G D V
UniRef90_J6EMT4         L S E A H Q A A V L A T V P A L A E H G L T I T K Q M Y K N
UniRef90_V4BX16                                      T I T R T C F Y R F F E T E P D M K
UniRef90_L8DDI2         L S P A A E S V V R A T A G V V A E H S E Q I S A R F Y E S M L G E R P E L W
UniRef90_UPI00032ABF5B  V F T E K Q E A L V N S S W E A F K K N I P H L S I L F Y T L E K V P E S K
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Multiple sequence alignment

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                               50          60          70          80
UniRef90_A9AW41         P L F P E       D M S E Q K K K L L Q S   L V L V V N N L K K P E A V L P A V
UniRef90_UPI000468745C  E   T F N M G H Q R S G A Q A R A L A G A V L A Y   A E N I D N P G V L A P V I
UniRef90_J9HFZ7         N V F N Q T N Q K R G L Q S S A L   A M A V L   A A A E N I K D L S P I V P A I
UniRef90_F6Q119         P F F H S I E V L K S N A K V V R H A S R V G L S I D K I I N L L D N L V K Y L
UniRef90_UPI0003AFC9AC  R Q F S S P E D C L S S P E F L D H I R K V M L V I D A A V T N V E D L E E Y L
UniRef90_UPI0004748B06  K L F P K F V S I P G N A A V A A H G A T V L K R L G E L L K A R G D H A A L L
UniRef90_G7Y3I3         D A F A R F R Q L T R D P A F Q A H L G R V L N V V D K L I R R I D T I Q D F L
UniRef90_UPI0003F0E673  I L F P F R D I L S Q N E V F R G H S R R F M Q A V G A C V E N L E N L D T L F
UniRef90_A9FR29         P L F G R N S Q E Q Q E K M L T E A L A A V I D R L E D A S W L E E K L M A M G
UniRef90_UPI0003611FF6  E L F P A A M D H Q R D R L F R A         L L I A A K H V D D Q E F L T Q Y L
UniRef90_R7S788         N V F S H S N K E R G   L Q A E A L A R A V   Y A Y A A N I E D L T P I L P V V
UniRef90_UPI00032A7A04  E L F S F L K D T S G S P K L Q S H A E K V F G L V H D S A I Q L R T K G E V A
UniRef90_M2LXP8         N N V F N Q A N Q R N N H Q A A A L A S A L Y A Y A S H   I D D L G V L S P A V
UniRef90_P25165         L K F G H L S T G R D N S K L R G H S I T L M Y A L K N F V D A L D D L K C V V
UniRef90_P41261         T P F K S L A Q L Q D N P K M K A Q S L V F C N G M S S F V D H L D D L V V L I
UniRef90_C4LFT3         N I F N Q G H Q N S G R Q Q E A L A M A V   A A Y A E N I D D P S V L P V V
UniRef90_UPI0003653501  T N L F N M G N Q A N G V Q Q Q S L A S A V F A Y A A N I D N A G A L G P V V
UniRef90_Q2PP42         N L F S F L K D S D G N P N L K A H A A K V F E L V V D S A V Q L G A V I A D
UniRef90_G6FNK7         R G F E T M Q H L D G G E Q A H K L A A A V Y A Y A T H I D R L D E L A M A V
UniRef90_V8D265         A L F         S S D I R P Q A R M L Q D A I V A V L D H L E D L R A S L
UniRef90_B6BCU8         Q L F         R E D L E G Q G M K F M T T L G V I L A K L G D V D P H F
UniRef90_W4HNQ7         P L F P Q       D L A T Q Q E L L N Q T L A T V V K E V H R L E V L S P A L
UniRef90_J2W0D0         A L F N Q A N Q K S G S   Q V Q A L A G A I L G Y A Q N I D N L E A L V P V V
UniRef90_B1YFT0         H I     F N Q S N Q K N D R Q S Q L A T A V Y A A A A Y I D Q L E T L K P T L
UniRef90_I3CEH7         P L F A K A P P N     Q P H L L A R S I M A F C E N V D N L V F I A S D L
UniRef90_A0A024YR31     G M F P A A M D T Q R D R L L K A       L L T A A E H I D H P E V L A P Y L
UniRef90_L7FBF0         S L F P       A A M D T Q R D R L L K A L L T A A E H I D N L V A Y L
UniRef90_G8YKA8         P Y F     N E T D Q K L L L Q P K I L A F A L L N Y A K N I E D L A P L Q
UniRef90_V4PJ00         P M F R S       D L A A Q G K K L L Q A L N F V A T Q L H Q P E R I L
UniRef90_C3Y097         A V F N Q K D V L Y Q D A I L D A H A A T V M E A L H E A I T H L D D V M K V L
UniRef90_E7FIH1         K M F K S F A N V P Q N G N F L A Q A Y T I L A G L N V V I Q S L S S Q E L I A
UniRef90_I2GB73         P M F R E P M T T Q Y H K F V D     M L S L I V S R I D R P E E V M S E I
UniRef90_G7H6Y4         P M F         S R D T R Q Q A S M L R T A I V S V L D H L D D L A S T L
UniRef90_T0QBI8         A L F N P T H Q V V R A R Q P A A L A D A V V A Y A N N I D N L G A L T A A V
UniRef90_A0A017T2A5     N V F N H A H Q R E G R Q Q A A L A       G A V Y A A A K H I D D L G A V L
UniRef90_A4CEG0         H I     F T N S N Q K S G R Q Q V A L F E A I A A Y A K N I E N V A V L V N A V
UniRef90_S4XN51         R L F T R N S P G A Q G T M F E R A L M A V L D H L E D D V W         L C E K L
UniRef90_W2F108         G M F P P A M E V Q R D R L F G A L T R I V W       M L D S P G G L A H Y L
UniRef90_S4N1V3         S L F P A A M D T Q R D R L L R A       L L T A A E H I D N T D V L V D Y L
UniRef90_UPI0003FE0E77    A I F N M S H Q R N G A Q R E A L F N A L C A Y A A H I D H P A T L S T A V
UniRef90_S6EPY1         Q   V F N L G H Q R S G A Q A R S L A N A V L A Y   A E N I E N P A V L L P A V
UniRef90_H2IDN8         D I     F N M S N Q R N G D Q R E A L F N A I C A Y A A N I E N L P A L L G A V
UniRef90_Q0VMN1           A F F N P A H Q Q A G T Q Q R A L A G A I C A Y A Q H V D N P A A L A D A V
UniRef90_UPI0004660275  A L F P       E D M V P Q R D R L F A A L T H V V T H L E D L A A Y L
UniRef90_S5UTU6         P L F P A A M D V Q R D R L L K A L L T A A E H L D D T P V         L V G Y L
UniRef90_J9MVP5         N I     F N T A H Q D T G E Q P A A L A H A V W A Y A A N I E N P E A M K A A I
UniRef90_C1BB95         E F F P A A M D T Q R D R L V R A I G         H V I D R L E A P E S V L P Y L
UniRef90_C6CNP4         D I     F N M S N Q R N G D Q R E A L F N A I C A Y A T H I E N L P A L L P A V
UniRef90_A0A014N8A1     N   V F N T T H Q V T G E Q P A A L A H A V W A Y A S N I D N P A A L Q T T L
UniRef90_V9B7I3         Q L F N Q G H Q Q S G Q Q Q Q A L A A A V A A Y A E H I D D P S V L L G V V
UniRef90_A0A013VH75     A L   F D M A A H E S G A Q P K R L A A A I L A F A Q N V D K L D A L K P A I
UniRef90_W9BRU3         Q M F D Q   A A Q E S G E Q P R R L A A A I L G Y   A E N V D K L Q N L T P V V
UniRef90_E2AF92         K F F T Q E S K L H L S F D T R I T V K T M G Y L L L D F N K R P K Q L D R L V
UniRef90_E9FXJ8         K K K S K F A D V P Q S E N F L A Q A Y T I L A G L N V V I Q S L S S A N Q L
UniRef90_H6L2T7         N I     F N L A N Q A L G Q Q Q K S L A L S V L A Y A K H I E Q P E V L L P A L
UniRef90_H3RGL6         H   V F N R A N Q R N G A Q R E A L F N A I C A Y G A N L D N L T A L R P A V
UniRef90_D2UE18         P Y     F N A T H Q A S G D Q P R A L A N G V L M Y A K N L N R L E A L G P L V
UniRef90_H1W3W9                 I A K F A K Q P R Q L S T A I L A Y C Q L L D D L M K G V
UniRef90_T1P825         Q K F S A F K D L P T N A R F R A H A S R I I K V F D E S I Q M L G H L E E T W
UniRef90_N9BPJ6         H I F N Q D H Q Q T G R Q P R A L A A A V L A Y A E H I E H P E K L A K A V
UniRef90_V9LL02                     H G K I V M S A L N K L I A N L D N L S S L L
UniRef90_V8QYU3         R S L F N H A N Q A N G K Q I N A L A L L A Y A S N I D N L G A L L P A V
UniRef90_L8EER3         S L F P E S M E F Q       R A H L A R A F W Y L I E N L H R P D D I A E V F
UniRef90_P21660         G Y S G R T S A L K H N S K L Q N H G K I I V H Q I G Q A V S E L D D F E A T L
UniRef90_F2Q9Y0         A L F P K F R D I P G H P D V R D H G G K V M Q V L D D F I K G L D N G G D G A
UniRef90_E5S1Z7         Q E I Q S N P E S F D T E I L E Y H A Q R V M S V L D Q A I H L I D S F F N L L
UniRef90_C4ZL31         N I     F N Q S H N E T G K Q P V A L A M A V L A Y   A E N I D D P S V L P V I
UniRef90_T0QD73         A L F N P S H Q K V L P G E T R A R L A A A V G A Y A A N I D N L G V L T S A V
UniRef90_UPI000470E91E  D   V F N M S N Q R N G N Q R E A L F A A I C A Y A N N I D N L E A L L P A V
UniRef90_UPI00035CAD24  Q L F N Q G H Q Q A G S Q Q Q A L A M A V A A Y A E H I D N P S V L A P V L
UniRef90_D0I8Q6         D I     F N M S N Q F T G A Q R E A L F N A V   Y G Y A A N I D N L P A L L P V V
UniRef90_K1QVD6         Q L F P F R N K L R N D H D F T G H A S R F M Q A V G A A I D N I N N L G P L L
UniRef90_A3QDN6         P M F Q S E R P V F E Y       H F N E L I T T A V A K V H Q F N E V K P K L
UniRef90_V5YLS3         A R F P A F S A L K G S A P F A L H A T R I V S V I S Q Y V G L L G N I Q T I F
UniRef90_H0Q3F9         N I     F N L G N Q A G G Q Q Q Q A L A Q A V   L A Y A Y A N I E N P A A L A P V A
UniRef90_C5DD57         A M F P S I R H Q A V S F       A G V L T M T V N N L D N L S A L E A Y L
UniRef90_C5M8D8         V Y F N T       T N Q K L L R Q P R I L I H T L I K V A E N I D N L Q E E F
UniRef90_G3AFJ0         K M F P S L K H Q A T       H F A T V L R I T V T Q L D S L D S Q L D D Y L
UniRef90_C7FFV7         Y A V F N L G A N P H G T K A Q A Q L K V M Q F V D D C V K S L D D M A A V R
UniRef90_UPI00037F7647  D L F P A A L G L Q R D R L I K A I G Y T V       E R L E E P D R L L P F L
UniRef90_P02233         G L F S F L K D T A G S P K L Q A H A E Q V F G L V R D S A A Q L R T K G E V V
UniRef90_A7HVZ4         A M F       V L D T D G N V R G H M L S E A L D C V F D F L G P R A Y A P V L
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UniRef90_J7L7S1         D M F P         S D I R P Q Q Q R M A D A I L A V R H L D S P D E I A E Y L
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UniRef90_B8IQK2         N L F N Q S H H G E T G S Q S K A L A A A I I A Y A R N I E N L G V L A S R V
UniRef90_B7G0J4         P M F Q H F G K H Q D L A Q K L Y E       V I R V A V R F L D N V Q E L I P V L
UniRef90_R7VAV5         E Y F G K F C D I P S N P E F Q K Q T K T V L E A V G K I V D N L D E L Q T A A
UniRef90_J6EMT4               T G V Q P A A L A G S V L A Y A Q N I K D L S P L T P V V
UniRef90_V4BX16         A L F P K I V Q M N E S N Q L Q K H A V T V M E G L G A A V E S L E D L N S V M
UniRef90_L8DDI2         R L     F N R A N Q E A L A A A V   A A Y A V Q L I D P D A P S F D P V
UniRef90_UPI00032ABF5B  E M F S F L K D F H N N T I L E A H A E M I F D M T R D A A V Q L R S K D V T L
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UniRef90_UPI000468745C   E L I C H K H V   S L N I Q T P D Y D I V G E N L L H S I S E V L N I P M E D D
UniRef90_J9HFZ7          M P V V Y K H C   A L Q V K P E H Y P I V G E N L I W A I E E V T G L E D E D P
UniRef90_F6Q119          L F L G K V H V   K R S I P R K Y F S A M G P V L L S V I S A V L E K D L D A P
UniRef90_UPI0003AFC9AC   A G L G R K H   R A V G V K L S S F S T V G E S L L Y M L E K C L G P A F T P A
UniRef90_UPI0004748B06   K P L A
UniRef90_G7Y3I3          F S L G S K C R   Y V P N I E L V P A V G E Q L L E A I R P V L E E Q W D E D
UniRef90_UPI0003F0E673   V G L G K K H H F E G F K V D Y F S T Y V T S M Q T V W D A L T G H H Y D K Q
UniRef90_A9FR29          A K H V D       Y G V T D A M Y P W V A D A L I S A M A E V A A A E W S P A
UniRef90_UPI0003611FF6   S N L G R G H   R K Y G T R S E H Y P A V G E A L I A A L S R Y G D G V W D D E
UniRef90_R7S788          E R I A H K H A   S I H V A P S H Y A V V G K H L L D A I T Q V V G A D F K G D
UniRef90_UPI00032A7A04   A T L G A I H V Q K G V V D P   H F V V V K E A L L K T I K E V A G D K W S E E
UniRef90_M2LXP8          E K I C Q K H A   S L Y I K P E Q Y D V V G T Y L L R A M G D V L G S A L T P E
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UniRef90_P41261          Q K M A K L H N N R   G I R A S D L R T A Y D I L I H Y M E D H N H     M V G G
UniRef90_C4LFT3          E R I A H K H V   S L G I R A E H Y A I V G H L L A S I K E V L G D A A T D E
UniRef90_UPI0003653501   S R I V H K H A   S V G L R A D H Y P I V G F H L L G A I K E V L G D A A T E P
UniRef90_Q2PP42          A N L G P V H V Q K   G V T D A H F V V V K E A L L K T V K E A T G A K W S D E
UniRef90_G6FNK7          K T I A R H H V   Q T R T L P E Q Y P L I G E K L L Q A M K D V L G D A A T D E
UniRef90_V8D265          G A L G Q R H A   S W G V T P E M Y N W V A S T M I A T M A D R G G A E W T G A
UniRef90_B6BCU8          Q E L G R K H A   S L G V Q I S H F A P M E E A L V D S L R N A L E D D F T P E
UniRef90_W4HNQ7          T A L A R R H A G   Y G A E P A H F A L V G E A L I G A L A E E T P G G L S Y E
UniRef90_J2W0D0          E R I A Q K H I G   Y N I L P E H Y P Y V A T A L I G A I A E V L G D A A T E E
UniRef90_B1YFT0          L P V L H K H   R S L Q I K P Y M Y D I V G T E L I G A I Q D V L K D A A T P D
UniRef90_I3CEH7          E T I S Q R H V   I A D V H P G H Y T M F G Q S L L Q A V G E I L G K K A S E E
UniRef90_A0A024YR31      C R L G T G H   R K Y G T M P G H Y P A V G E A L V G A L A R F A T L S W G P E
UniRef90_L7FBF0          K N L G R G H   R K Y G T R P E H Y P A V G E C L I G S L S R Y A A A I W D Q E
UniRef90_G8YKA8          A F V K Q I V V K H L R V R P E H Y P I V G K C V L H A L K E T L G S A A T D D
UniRef90_V4PJ00          P A V R E L G L R H Y G V Q P E H Y V T V G A A L I A T L A Q A L G E R F D L A
UniRef90_C3Y097          H D V G K M H   Q R Y N V D P S V F L K V E K P F L T A V S E V L G D R Y T K N
UniRef90_E7FIH1          N Q I A L G G A H K P R A T P I M F E Q F G A V T E E V L A E E L G S S F N A E
UniRef90_I2GB73          A Q L A Q R H   E R Y G V K P E H Y P V V G E T L L W T L E Q G L G N Q W N N D
UniRef90_G7H6Y4          G S L G A R H A T   M G V T E P M Y A A V T E C M V A A M S E I G G D D W T P E
UniRef90_T0QBI8          E R I A H K H V   S L E I L P E H Y D V V G T H L L A A I Q T V L G A A A T P E
UniRef90_A0A017T2A5      P V V K Q H K H R S L G I L P E H Y P V V G K N L L R A I K E I L G D A A T D E
UniRef90_A4CEG0          E R I A Q K H   T S M N I Q A A H Y A V V G M H L L A T L E E L A P E V F N T E
UniRef90_S4XN51          A R L G A Q H A   A Y G V T P E M Y E G F G E A L V A A L S E V S A A D W T E A
UniRef90_W2F108          A Q L G R D H   R K Y G V V A E H Y K A V G N A L V A T V R H F A A E I W N E E
UniRef90_S4N1V3          Q N L G R G H   R K Y G T R A E H Y P A V G E C L I G A L S K Y A A G V W D A E
UniRef90_UPI0003FE0E77   E R I A H K H A   S F A I Q P E Q Y A I V G H H L L K T L E E V F N P G     E D
UniRef90_S6EPY1          E L M A H K H V   S L D I Q A P D Y A I V G N N L L H S I S E V L Q I S M D D P
UniRef90_H2IDN8          E K I A H K H   T S F L I T A D Q Y Q I V G S H L L A T I D E L     F N P E
UniRef90_Q0VMN1          E L I A Q K H V   S L G I Q P Q H Y P I V G A N L L A S I Q E V L G I D E S S E
UniRef90_UPI0004660275   G H L G R D H   R K F L A S P A L Y A A V G E S L I G A F A H A A G S A W T I E
UniRef90_S5UTU6          R N L G R G H   R K Y G T L A E H Y P A V G E C L I G A L S Q Y A A R I W N A H
UniRef90_J9MVP5          S R I G H K H A   S L G V T A D Q Y P I V G Q G L L S A I K Q I L G D E V N S R
UniRef90_C1BB95          A Q L G R D H   R K Y G I D D S H Y S A V G I A L V A A L E K V C P R M W T T E
UniRef90_C6CNP4          E R I A Q K H   T S F N I R P E Q Y Q I V G T H L L A T L E E M F Q P G     Q A
UniRef90_A0A014N8A1      S R I G H K H A   S L G I T P E Q Y P I L G E G L L A A I K T V L G A A A D D Q
UniRef90_V9B7I3          E R I A H K H V   S L G V R A E H Y A L V G K H L L A S I R E V L G E A A T D E
UniRef90_A0A013VH75      E R I A A R H V Q T H   I K P D H Y P A V A N A L L P A I R D V L G E A A T D D
UniRef90_W9BRU3          Q R M V A R H V E   C G V K A E H Y P Y V A E A L L P A I R D V I G E G A T D E
UniRef90_E2AF92          G Y I A M V H K D   M Q L D E Q D M R N F A T S L F Q Y L S R T Y P T Q M T A Q
UniRef90_E9FXJ8          N A L G G A H   Q P R G V T P A M F E E F G V I V E Q V L E E E L G S T F N A E
UniRef90_H6L2T7          E L I G H K H   R S L Q V Q A D Q Y P I V G K Y L L G A L Q E L L D L P D D A P
UniRef90_H3RGL6          E K I A Q K H A   S L T I Q P E Q Y K I V G E Y L L S S I A M L N P G E     A
UniRef90_D2UE18          S Q I V N K H V   A L Q V Q P E H Y G I V G K C L I A A I A E V L G P A I T Q A
UniRef90_H1W3W9          E R I A K I H V D   A D I T P D L Y A L V G K G F I Q A V G E V L G D Q A T P E
UniRef90_T1P825          S K I A T S H F N R   Q I E K K S F N E L K E V I L E V L T A A C N     L N E K
UniRef90_N9BPJ6          E R I T S T H V R   L D I Q P E H Y A V V G E H L L H S I S E V L N V P F E S E
UniRef90_V9LL02          A K M A E R H I N V H K V D L H N F Q I I F N I I I A I L E E T F G N A F T P E
UniRef90_V8QYU3          E R I A Q K H V G   F H I L P E H Y P Y V A T A L L G A I E D V L G E A A T E D
UniRef90_L8EER3          G R L G R D H   R K L G V R P V H F Q A F E A A L C E A L R R T A G P R W A D A
UniRef90_P21660          H K L G Q E H K G F G D I K G E Y F P A L G D A L L E A M N S K H G L D R T L
UniRef90_F2Q9Y0          V Q K V G L L H K G V G V T H D N I N L M K P V L M T L L G E L G C S S A A G A
UniRef90_E5S1Z7          H L Y A D Y H A K K Q L F S P D F F W E I E P A L V D S I K E T L G D R Y T E N
UniRef90_C4ZL31          T L I A N K H A   S V G I R A E H Y P V G K H L L A S I R E V L G D A A A S D E
UniRef90_T0QD73          E R M A Q K H V   S L Y I L P E H Y G V V G T H L L A A I K T V L G D A A T P E
UniRef90_UPI000470E91E   E K I A Q K H   T S F L I T A E Q Y Q I V G E H L L A T I D E M L A P G     E A
UniRef90_UPI00035CAD24   T L V A N K H A   S L G I R A E H Y P I V G H L L A S I A E V L G E A A D E A
UniRef90_D0I8Q6          E K I A Q K H A   S F N L T A D M Y S I V G G H L L A T I D E L     F S P E
UniRef90_K1QVD6          I G L G K Q H V E F G G F K P E Y W D V F T E A M L Y V W E K E L     E F S D N
UniRef90_A3QDN6          E E L G R K H L D   Y G V N I S Q F E V V R A A L L L S I Q D C L R D A S S P A
UniRef90_V5YLS3          N Q L G Q T H Y N R   G V T A Q Q F T E F R T A F L N Y L S S Q V N Y D     A A
UniRef90_H0Q3F9          S R I A H K H A   S I G I R A E H Y P I V G R H L L A S I R E V L G A A A T D E
UniRef90_C5DD57          C A L G K R H A R I L S I E P P H F E L M G L A F L K T I K E R F G V H C T L E
UniRef90_C5M8D8          E R I A S K H V G   L Q V R P D H Y P K F G D V L I D T I C D L F P R E M D D E
UniRef90_G3AFJ0          C R L G K R H S R I L K V E P L P Y E L M G A I E T F Q Q R F G T K F N Q D
UniRef90_C7FFV7          D K L D V L A H R H Y P A K K E Y F G P G K A C F L A G L A D A L G A K F T A E
UniRef90_UPI00037F7647   A Q L G R D H   R K Y G V T A D H Y A A V G R S L R L A L S G Y A G T E W T D E
UniRef90_P02233          A T L G A I H V Q K G V T N P   H F V V V K E A L L Q T I K K A S G N N W S E E
UniRef90_A7HVZ4          I Q S E L T N H S N L G V V P P A V F A T F F R V V M E T F R E L L G A E W T A E
UniRef90_U6HNE3          Y D A G A S H A A I P H M K P E H Y I K V L H K R A T L T T W E G L L G E E F T E D
UniRef90_J7L7S1          R R L G R Q H H R E L G V R P E H Y P H V G R A L V R A V S E V S P T     W T S S
UniRef90_P14394          E K F A V N H I T R   K I S G A E F G K I N G P M K K V L A S K N     F G D K
UniRef90_B8IQK2          E R I T Q K H V G   L Q I L P R H Y P F V A D A L L G A I K D V L G D A A T D Q
UniRef90_B7G0J4          K D L G R M H V G   R G V L R E H Y D A V T E V F I S V L N N Y I L T E W A M E
UniRef90_R7VAV5          N Y L R E R V R T H H P
UniRef90_J6EMT4          V R I A E K H A   A L G V K P E H Y P V V A E N L M G A I G H V L G D A F T P D
UniRef90_V4BX16          V S I G Q T H V R R   N V K P Q Y V K K L W P S L H Y G L G V C L G D H Y N K E
UniRef90_L8DDI2          L R R I A G K H I T L G I T P E Q Y T L V G R H L L G A V A D I L G A A T T P A
UniRef90_UPI00032ABF5B   E Y L G S V H V Q K G V I D H   H F L V F K E A M L K T I K K A M D D K W S E E
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UniRef90_A9AW41            V Q A A W V A A Y T L V A N V M V E A
UniRef90_UPI000468745C     L I A A W G A A Y K Q L A D
UniRef90_J9HFZ7            I I Q T W I K A Y G E I A D A
UniRef90_F6Q119           V M Q A W A T A Y G V I
UniRef90_UPI0003AFC9AC    T R A A W S Q L Y G A V V Q A M S R
UniRef90_UPI0004748B06
UniRef90_G7Y3I3           T A V G W E A V L A Y L N C A M
UniRef90_UPI0003F0E673    T K Q S W T Q I F E F V I T R M A E G Y
UniRef90_A9FR29           H Q E A W T E A L G A I A S L M Q R G A R
UniRef90_UPI0003611FF6    T E A A W V R A Y T T I S Q T M I
UniRef90_R7S788           L Y E A W G A A Y W N L A H V
UniRef90_UPI00032A7A04    L S T A W G V A Y D G L A T T I K K A
UniRef90_M2LXP8           V R D A W G Q A Y W Q L A N I M I D R
UniRef90_P25165           I V A A W A A L I A V V Q A A L
UniRef90_P41261           A K D A W E V F V G F I C K T L G
UniRef90_C4LFT3           L V S A W A A Y T E L A D
UniRef90_UPI0003653501    L L K A W E E A Y T S L A N L L I D A E K
UniRef90_Q2PP42           L S N A W E V A Y D E L A A A I K K A
UniRef90_G6FNK7           V I S A W A E A Y T A L A D I F I Q K E K
UniRef90_V8D265           M T D A W S E A L G A V A G M M L E A Y
UniRef90_B6BCU8           L E A L W R R A F E E I S A R M I Q R
UniRef90_W4HNQ7           E E A A W G A A Y G A I S G L M I
UniRef90_J2W0D0           I L S A W G E A Y W F L A D I L K G R E K
UniRef90_B1YFT0           I I D A W T A G Y G E I A
UniRef90_I3CEH7           I I S A W K E A Y F F A D L L I E R E R
UniRef90_A0A024YR31       T E A A W V R A Y T A I S Q I M I
UniRef90_L7FBF0           T E A A W V R A Y T T M S Q V M I
UniRef90_G8YKA8           L L D A W A T A Y G N L A Q I L I
UniRef90_V4PJ00           T R Q A W T E A Y G L L S S T M I
UniRef90_C3Y097           M E E I Y T I T I K F I L A T L S E G
UniRef90_E7FIH1           A R Q A W K N G M R A L V T G I T K
UniRef90_I2GB73           V K Q A W E A C Y Q T L V Q A M L E K
UniRef90_G7H6Y4           M S R E W T G A L N A V A G L M L A G Y
UniRef90_T0QBI8           I V A A W A E A Y G F L A D V C I A R E K
UniRef90_A0A017T2A5       I L Q A W T E A Y A V I A D A F I A V E R
UniRef90_A4CEG0           V L A A W A A Y Q I L A D
UniRef90_S4XN51           H R D A W T R A Y R A I V S R M R A G E R
UniRef90_W2F108           I E A A W V A A Y G M A S E I M I E A
UniRef90_S4N1V3           M E A A W V R T Y T T I S Q I M I
UniRef90_UPI0003FE0E77    V L T A W S K A Y A V L A
UniRef90_S6EPY1           L I E A W T A A Y N Q L A D I L I S
UniRef90_H2IDN8           V L D A W A E A Y G V L A N V
UniRef90_Q0VMN1           I
UniRef90_UPI0004660275    A E K A W T E A Y G F V V E L M
UniRef90_S5UTU6           T E A A W V R A Y T T M S Q V M I
UniRef90_J9MVP5           V L D A W D A A Y
UniRef90_C1BB95           V G A A W R R A I T L V T D V M
UniRef90_C6CNP4           V L D A W G K A Y N V L A D V F I K R
UniRef90_A0A014N8A1       V L D A W A A Y E K L A
UniRef90_V9B7I3           L I D A W A A Y G Q L A D L L I G R E R
UniRef90_A0A013VH75       I L N A W G E A Y W F L A D I L I N R
UniRef90_W9BRU3           V L A A W G E A Y W F L A D I L I G K
UniRef90_E2AF92           C Q E A M S K F M D S V I K E L
UniRef90_E9FXJ8           A R D A W K N L V G G V S K T L
UniRef90_H6L2T7           I L G A W G R A Y Q Q L A D I L I E
UniRef90_H3RGL6           V L A A W R R A Y T V L A D
UniRef90_D2UE18           V L D A W T A A Y G Q L A D I L I G A E R
UniRef90_H1W3W9           V L E A W D D A F R V L S N V L I A
UniRef90_T1P825           Q I Q A W T K L M D T V Y S I I
UniRef90_N9BPJ6           L I L A W Q Q A Y Q Q L A D L L I R
UniRef90_V9LL02           I R G T W T K L F G V I Y A C L E S H Y K
UniRef90_V8QYU3           I L N A W G E A Y W F L A G I L
UniRef90_L8EER3           V E Q A W V R M L R F A V A A M V S G
UniRef90_P21660           W A A G Y R V I S D A L I A G
UniRef90_F2Q9Y0           W E N L W A R F M D V
UniRef90_E5S1Z7           M A N I Y P K V F K L I L S T L
UniRef90_C4ZL31           L I A A W G V A Y G A L A D V
UniRef90_T0QD73           I L K A W G E G Y W F L A D I L I E R E R
UniRef90_UPI000470E91E    V L N A W A A A Y G V L A D
UniRef90_UPI00035CAD24    L L A A W A A Y G D L L I A
UniRef90_D0I8Q6           V L D A W A E A Y G V L A Q V
UniRef90_K1QVD6           L Q H S
UniRef90_A3QDN6           I E Q A W S C Y Y D E I A K V M I A A
UniRef90_V5YLS3           T A Q A W N D A F D Q V Y A I V L S K Y
UniRef90_H0Q3F9           I V D A W A E A Y G D L A D V L I A A Y R
UniRef90_C5DD57           L E E T W S R L Y S Y L A N S I
UniRef90_C5M8D8           F R E A W Q M A Y D K M A S I L I
UniRef90_G3AFJ0           F E T A W T K L Y L F L A N S I
UniRef90_C7FFV7           A K A A W A A F Y D I I A I S L
UniRef90_UPI00037F7647    V E R A W E E G L D L I T A T M
UniRef90_P02233           L N T A W E V A Y D G L A T A I K K A M K
UniRef90_A7HVZ4           T D A A W A K L L G E F D T T I A E
UniRef90_U6HNE3           V K Q A W Q T L L D Y V A V M L E G G R
UniRef90_J7L7S1           M S S A W V L V Y Q W I T A H M
UniRef90_P14394           Y A N A W A K L V G V V Q A A L
UniRef90_B8IQK2           I L A A W G E A Y W F L A D L L I A R
UniRef90_B7G0J4           V A D A W H W V L T F I G N T M A
UniRef90_R7VAV5
UniRef90_J6EMT4           L Q E A W Y H A Y W Q L A
UniRef90_V4BX16           V S E A W R K V Y I Y I S A Q M T R G M K
UniRef90_L8DDI2           I A A A W D E V Y W L F A T Q L I A
UniRef90_UPI00032ABF5B    L S C A W S I P Y D E L A A S I K K A
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Multiple sequence alignment (positions 1–40):

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                          1         10        20        30        40
UniRef90_A0A059KFW5    M L D A P T R A Q V R A T A P V L Q Q H G V A L T R H F Y A R M F Q H N P E L R
UniRef90_F2Q9X5        L S A A D K K A V A D S W A K M S P S F Q D A G E R V F L K L L K K D   S T K
UniRef90_A0A024QHK7    L D K R T I D V I K A T V P V L Q E H G E K I T K Q F Y R L M L A N H P E L R
UniRef90_U1NCF7        F S R Q E K Y L L R K S W N L I K S D M Q E I A V K I F E M I F E K S P Q A K
UniRef90_UPI0002E0202D M L S Q S T I D I V K S T A P L I A E A G P S L T A H F Y D R M F K H H P E L K
UniRef90_C5DYT1                                      Q F Y A N L L S M E P S L E
UniRef90_I7EH20        M V S A D D R T L I H R S V E S E R M E L D H F V P L F Y T K F F E T C P D V R
UniRef90_W1RUG2        L S A Q T I A I V K S T G P A L R K H G V A I T T A M Y A R L F Q D   E S V
UniRef90_UPI0004638549           L K D N F A L V G A N G V D V A D Y F Y A D L F A R E P Q L R
UniRef90_C3Y5G3        L T S E D K K A V L D S W A K M S G P T F Q D A G E K V F L L L L K T D S T K
UniRef90_L1JET9            L V R D S W D T I S E K A S D L G G M L Y D G L F K L A P S A A
UniRef90_I2K374        M L S Q K T I K L V K S T A P V L E Q R G V D V T K N M Y S H M L G E N P D L L
UniRef90_G6CW33        L T A K Q Q Y C M L A S W K G V F R Q V E K T G I L L F V K L F E E N E E L L
UniRef90_D6KG01              P A D Q Q T I L R H L D K V T P   F D E L I T H L Y R A L F A R H P S L R
UniRef90_UPI00035A19D6     T T R E A Y K I K Q S W K A I R R N M E S T G V E M F L R L F K T S S H L Q
UniRef90_F5SZW9           I E L V E E S F T F I A A K G E L L V A D F Y S E L F A S Q P Q L Q
UniRef90_K1Q9R1        L T T R D K Y Q I I K S W K G I A R D L H T T G V T M F L R M F Q E H D D   L
UniRef90_UPI0002198090 M T F E Q I E L V Q K A W G R V S A L N N S Y V Q E V Y E E L F R L S P E L R
UniRef90_UPI00035D54CA                    L R Q H G L A I T A A F Y R N M F A D R P E L
UniRef90_Q14SM8          S D N E R A A L R S S W D S L K S A A G E A G V R L V L W M L Q N V P N M R
UniRef90_G2Z488        M T L D Q K N L I K S T I P I L R T N G I A L T K Y F Y K R M F E H N P E L Q
UniRef90_UPI0003772E08 M T P E Q V D L I R T S F D A M W P I R R D L A D L C Y N R F V E L A P D A R
UniRef90_R1EGH0        M S A E T I A T V D A T A G A V A P F A L D I T K D F Y G D M I A S L P S V
UniRef90_A3LXI9        L T T S E I S L I R Y T W N K M L L D P G A Y P V E I A S S L F C R Q F Y D N
UniRef90_P09965        L S A A E A E V V A K S W G P V F A N K D A N G D N F L I A L F E A Y P D S P
UniRef90_A3X749                         D L E A F I P A F Y Q T F F T A C P E A K
UniRef90_R0I5I4        V F T E K Q E A L V K E S W E I L K Q D I P K Y S L H F F S Q I L E I A P A A K
UniRef90_G2NFW0          A D Q R L V E E Y L P L V G P   L E E L I A D L Y Q V L F D R H P Y L R
UniRef90_G3AFJ3          S F D S Q D T I T G M A R V I K S N S T G I A T S L F C R Q F Y A N I I A R
UniRef90_X4ZCT4                                         M F A A H P E L L
UniRef90_UPI00044170C3 L T E E Q R K I I R S T A A V L A Q H G S T I T R H F Y I T M L D E N P D L K
UniRef90_E7BQB9                  G V D L Q A A G N A F Y A Q L K A N A P
UniRef90_K1QT48        L T P R Q L E L I R F S W D L I Q K D M L V T G L E I Y A N F L K N L E S E I
UniRef90_L1IAP2              S V V R D C W E S I L E Q Y A D L G E L I Y D Q L F K L A P N V A
UniRef90_Q0IEH8          T P D Q R H V L V D A W K L V K P D V V T H G T N I F L K F F E K N P E Y L
UniRef90_B5X603              D M V L Q C W G P V E A D Y N N H G G L V L S R L F A E H P E T L
UniRef90_A0A013WRX3    L S D S T I A I V K S T G P A L R Q H G V A I T T A M Y A R L F   Q D A E V K
UniRef90_N9Q7N5        M T P Q H I E L V Q A T V P V L R E N G V A L T T Y F Y N R M L K N H P E L K
UniRef90_W8S4A2              R A T W A L A A G D A D R T A R V F Y S N L F R L D P T T K
UniRef90_P02210        L S A A E A D L A G K S W A P V F A N K D A N G D A F L V A L F E K F P D S A
UniRef90_S6CDG3        L T A D Q A A L V Q G A W S K V K T S E V E I   L A A V F S A Y P D I Q
UniRef90_N1MFW6        L S A S T I A I V K S T G P A L R Q H G V A I T T A M Y T R L F                 Q
UniRef90_W8H2X1            I S L V R S S F K A I A A V P D T L S R S F Y A L L F A R Y P D A R
UniRef90_K7LKG1        F T E K Q E A L V N S S F E A F K A N L P H H V V F F N S I L E K A P A A K
UniRef90_L5JQP5                                      Y R L F D L E P D L L
UniRef90_A0A022T3A5    L S N D D I G R V H R T W S M I R R N P H N F G S L F Y S R L F Q L H P E H R
UniRef90_J6EHJ0                                    Q F Y D N L I V M D P L L E
UniRef90_A0A016U6Z2    F T N D E K E V I L H S W K V L E P H K Q A L G C D I Y E M I F N Q C P E A R
UniRef90_O77003        L S D A D K K A L D A S W K K L T A G A D G A G I N L V L W M F A N V P N M R
UniRef90_R8AMA7        M L D P N I I A T I K A T A P A V A A T G P A L T A H F Y D R M F A H N P E L Q
UniRef90_D5MNY3        M N S D E V Q V I K K T W E I P V A T P T D S G A A I L Q E F F T R F P S N L
UniRef90_W0VTU4                                  Q I Y W N L L L M A P Q M E
UniRef90_F2RLZ0                   A E I E P I A D Q V T S Y F Y A L L F L R H P A L R
UniRef90_UPI0004760F70  S Q E V V E L V R Q S C A D I P E G S T L L A G S F Y R N L F K M V P E L R
UniRef90_A0A037ZKD6       Q T V R D S F Q V V R T D A D A F A R G F Y D R L F A K R P E M R
UniRef90_Q59MV6        L T P E H I Q I I I D S V P I L E H L D V Q L T E K F Y K R L L K Q N P E F K
UniRef90_A0A022T2V8    L T A D E I K R V Q N T W D L L F S N P L E T A I G I I S R A S D I Y P E F R
UniRef90_A9P2Q8
UniRef90_F7TG54        M L D Q Q T R D I I K A T I P V L E Q H G T T T I T N T F Y H N M F N A H P E L L
UniRef90_M3HRE2        L T P A Q I K I I L D S V P L L E A L G E K L I K K F Y A K F L K E           T
UniRef90_I2K8V1        V L S E K T V E I C K K T A P L L V E Y G E A I T T R M Y E I L F M N Y P E T R
UniRef90_C7PWU1             A L V R Q G F A A V S A R P E V F T N S L Y E D F F T S N P R Y R
UniRef90_F2Q9X8        L D A W Q R F Y L Q K S W K T V A R K S D Q A A R T V F L R M L Q D N P G L R
UniRef90_S4XM15                                        L F E R H P Q A R
UniRef90_UPI000329137D       E P E L I R Q S W R V V S R S P L E H G T I L F A R L D E P D L L
UniRef90_W6MMR9          S K E E G A L L Q K T W K N V I S N S D T S N V Q F T S S V F C V Q F Y N N
UniRef90_A7BLB8              K D T A P I L K E K G E A I T T R M Y E V M F S N Y P D A K
UniRef90_W8GV22                              T T T F Y A T L F A E H P E F R
UniRef90_Q23761        L T S D E A A L V K S S W A Q V K H N E V D I       L Y T V F K A Y P D I Q
UniRef90_E5SY64        F T D E E V E L L A R T W K K D D F D L Y R I G T D I Y T C V F Q L A P E L L
UniRef90_V8P4E8                              M A R L F D L D P D L L
UniRef90_F2Q9W8                                   M I E E Y P E L           L
UniRef90_V5YMG1          A G E A A L I K S T W N Q V K T N E V D I       L Y A I F S A Y P D I Q
UniRef90_X6N6I0              K I V K T T W A E L M R K K E V G L R I Y Q E V L L K E V E M S
UniRef90_B9WN53        L T R S E R K I K D S I P I L E Y L D I Q F G E K F F K R L V K R F P E Y K
UniRef90_E0VN28        L T A D E L E R V Q N S W K V V M E N A E E N G M F I F K T F L L K H P Y F K
UniRef90_G2H2H7                              T T H F Y E R M F T H N P E F K
UniRef90_R1FVY8        M S A E T V A T V D E T A G V V A P H A L E I T K G F Y G E M I E S L P Q V V
UniRef90_R7TQB2        V L S G A Q A K A V Q K N W A N V K A H A Q K Y G D L F V Q Y L T Q N P G D I
UniRef90_B4JT49        M N N D E V Q M I K K T W E I P V A T P T D S G A A I L T A F F N R H P S S L
UniRef90_J9JX99        L N E S Q T A L V K Q S W P M I V S N G   F W T S F Y T N L F K R S P S Y Q
UniRef90_R7WQJ9                        A G R L S A S F Y S I L F A E N P T V R
UniRef90_UPI00035A0930 L T D D D L V N V R E L W D L F C K R Y D D I A L Q L F I S L F H H H P E A V
UniRef90_UPI00047165D7 L D E K T R S I I L A T V P A L K A H G L A I T E E M Y K R L L A R P E I R
UniRef90_R1GVN7        L T P E Q A K I I K A T V P I L A E H G N T I T T R F Y G N M L R E N P E L N
UniRef90_B0W547        L T G K Q K I T L L S A W G L I K Q D L D L H G R N I M L L I F R E H P H F I
UniRef90_UPI0002657734 L S T D E D V D A V Q A V K K I Q D S I G Q Q V M M T L F S E N P E Y L
UniRef90_P29243        L T S D E A N L V K S S W N Q V K H N E V D I       L A A V F K A Y P D I Q
UniRef90_A0A059FKB2          A L T D S L G L L S E R A G D V T G L V Y A R L F A A Y P E L E
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                            50            60            70           80
UniRef90_A0A059KFW5  E I F N Q G H Q R S G T Q Q Q A L A M A V A A Y A E H   I D D P S V L R P V L
UniRef90_F2Q9X5      A M F K K F K D I P G N A A L R D H G G K V V Q A L D D F I K G L D S G H E T V
UniRef90_A0A024QHK7        N N I F N Q T N Q Q K G A Q S K A L A N T I Y A A A A N I E H L E E I V
UniRef90_U1NCF7      K M F P F M K F D R H S N E F T F H A L R F M Q V L E S A I E A L D D L T P L L
UniRef90_UPI0002E0202D  D   V F N I T H Q E T G S Q R E A L F N A V   Y G Y A S N I D N I E V L L P V V
UniRef90_C5DYT1      Q M F P S T K H Q A V A F         A G V L T A A I S N L E N L Q V L E T F L
UniRef90_I7EH20      T F F P N D M A G Q H E K L L T S         L T Y I I E A L D H P E K L S A I L
UniRef90_W1RUG2      K A M F D Q A A Q D S G E Q P R R L A A A I L G F   A E N I D K L E A L G G A V
UniRef90_UPI0004638549  S M F P A A M A K Q H E V L L A A         L S Q I V S S V D D T D A L V P F L
UniRef90_C3Y5G3      A L F P K F R D I P G H P D V R D H G G K V M Q V L D D F I K G L D N
UniRef90_L1JET9      S L F N K P R D Y M A V K M G D T L G M L V         S F A D E P D D M K Q Q V
UniRef90_I2K374      N I F         N R T N Q A T G L Q P K A L A A T V L A A A K N I D N L G V L L
UniRef90_G6CW33      H L F E K F R E I V S S A E L A E H A T Q V M H T L D E G I K D M D S F F T Y V
UniRef90_D6KG01      S L F P A S M E F Q         Q A H L A R A L W Y L I E H L H R P D D V A R T F
UniRef90_UPI00035A19D6  T M F Q G F K D I R S D D E L R S H A T L V M T T L D D A I T H I D N V K Q L L
UniRef90_F5SZW9      R L F S         G V S Q Q G Q Q K K L L A A I V L L V Q N L R H L D S Y L
UniRef90_K1Q9R1      R K F F K F G D Y K E S S D L Q N H V M L V M H T L D E A I C S M G D V M E M L
UniRef90_UPI0002198090  A L F P P Y Q E L P V   A K V S D T L N T V I T S     L S Q L D A L G F I I
UniRef90_UPI00035D54CA  T N L F N M G N Q A N G A Q Q Q S L A A A V F A Y A A N Y   G D N S A L A P V V
UniRef90_Q14SM8      E R F N K F N A L Q G D D A L R A D A E F V L E S L I N N V D N Q G K L Q A A I
UniRef90_G2Z488      S V F N M G N Q A N G K Q Q T A L A Y A V L A Y A E H   I D N P S V L I S A L
UniRef90_UPI0003772E08  S L F         G G D A E K Q R M K M L D M I I A L V A S L D E R P M F L
UniRef90_R1EGH0        V L T V F N P A H N V P I S T H Q P E A L A A S V C A Y A T N I K D L S P L L
UniRef90_A3LXI9      L L M S K P D L E E M F P S I R H Q A V Q F A G V M A M T I S Q L E D L T L M L
UniRef90_P09965      N F F A D F K D I R A S P K L R N V S S R I V S R L N E F V S S A A D M A A M L
UniRef90_A3X749      V F F P T         D T E R L E A K M L A S L T H M A E A L E S T E R L D G I L
UniRef90_R0I5I4      G L F S F L R D S Q N N P K L K A H A V K V F K M T C E T A I Q L R E K D T T L
UniRef90_G2NFW0      S L F P E S M     A F Q Q A H L A V A F R Y L I G N L H R T D V V A E R F
UniRef90_G3AFJ3      D R E M K N I F P S I E H Q S L D L A   S V L T I V V L Q L D D L S S L E D Y L
UniRef90_X4ZCT4      N I F N H T N Q A Q G R Q Q   A A L A N T V Y A A A V H   I D N L E N I L P A V
UniRef90_UPI00044170C3  N V F N S S K Q M K G H Q A D A L A A A L Y A Y S V N   I D D L T P L L P A V
UniRef90_E7BQB9      D A Y A V F N L G G D A G K I A A Q L K V M T F V D G V V K G L D D M G G V K
UniRef90_K1QT48      L L L F N E R L I V H E E N L Q H H V M I   V M K G I G K V V D N L D N I H S F L
UniRef90_L1IAP2      S L F T K P R E V M A I K M G N T L G T L V         S F A D D P E S M K Q Q V
UniRef90_Q0IEH8      G Y F D F S M D L K D N R S L H A H A L N V M N F F G A I I D Y G L D H P I M L
UniRef90_B5X603      T L F P K F A G I S G N A A V A A H G A T V L R K L G E L L N A R G H R D R T
UniRef90_A0A013WRX3  R M F D Q A A Q V S G   E Q P K R L A A A I L G Y   A E N I D K L G A L D G A V
UniRef90_N9Q7N5      N   T F N M D H Q S T G R Q P R A L A A A   V L A Y A E N I T N P G V L A K A I
UniRef90_W8S4A2      P L F V         G D L D L Q G R K L T Q T L S Y I V D H L E D L M P S A
UniRef90_P02210      N F F A D F K D I K A S P K L R D V S S R I F T R L N E F V N N A A D A G K M S
UniRef90_S6CDG3      A K F P K F S A I K G S A D F A L H A T R I V S F I S E V I S L A G N I E T L V
UniRef90_N1MFW6      D A E V K G M F D Q A A Q E S G E Q P K R L A A A I L G Y A E N I D K L G A L N
UniRef90_W8H2X1      D F F P A A M         D E Q R D R L I S A V Q Y V I E R L E E E S G Q I L A Y L
UniRef90_K7LKG1      N M F S F L G D A P K N P K L A G H A E K L F G L V R D S A V Q L Q T L V V A D
UniRef90_L5JQP5      P L F Q Y N C R Q F S S H E F L D H I R K V I L V I D A T V T N V E D L S S L E
UniRef90_A0A022T3A5  A W F R H F N N V P V N Q L L R N Q G S R V T N V L D N I I Y G L H D V S A N R
UniRef90_J6EHJ0      E Y F P S L R H Q A V S F         C K V L N S A I E N L E D V H I L D D Y I
UniRef90_A0A016U6Z2  K L F P K M K F V N S K P D R K S Q A L R F V Q V I E G A V M S L D N L P P I L
UniRef90_O77003      A Q F S K F N A N Q S D D A L K G D A E F I L D G L L Q S V N N P G Q L Q A N L
UniRef90_R8AMA7      N I   F N M A H Q S S G R Q R E A L F N A I V A Y A N N   I D N L A A L L P A V
UniRef90_D5MNY3      E K F S F R D D L S G N S R F R A H A G R I I R V F D D S I R V L E K L E E I W
UniRef90_W0VTU4      Q L L P T T K H         Q P M A L A G   L L T V A I N N L D N L E V L E N Y L
UniRef90_F2RLZ0      D L F P A A M     D T Q R D R L F K A L L T A A T H A   D D P A T L T R Y L
UniRef90_UPI0004760F70  E M F A     D D L G P Q Q Q R M A D A     L L A V V R Y L D T P D E I A E Y L
UniRef90_A0A037ZKD6  G L F A D         D M S A Q Q A K L V T T L V T A V N M F D Q L I K P L
UniRef90_Q59MV6      P F F         N E T H Q K L L R Q P R I M I H F L I Q Y A K N I Q D L T P M I
UniRef90_A0A022T2V8  Q F V V D F Y N L P S A E D I Q R Q A L R V V S T V N I F V K Y I N T V E D F L
UniRef90_A9P2Q8              G D A G V S A H G A T V L K K L G D L L K A R G A H A A L L
UniRef90_F7TG54      N   V F N K T N Q K Q G R Q P M A L A S T V L A   A A K H I D N L T V I L
UniRef90_M3HRE2      R V Y F N S T H M E L K R Q P K A L M F A V L   Q Y A K N I Q D L T P L L G F V
UniRef90_I2K8V1      A L F P         E A L E A Q Y K K L A G A I V A Y A A N I D K L H H T V
UniRef90_C7PWU1      K Y F A A G D E A R R D E R T M E A A T R V L A G     L D R P G T L L P L
UniRef90_F2Q9X8      Q K W P R I E E I P T S P Y I K F L G E R I L D Y I I D N L G D L D H V I S E L
UniRef90_S4XM15      P L F T R N S P         G A Q G T M F E R A L M A A L D H I E D L S E K L
UniRef90_UPI000329137D  R Q F S S V E A C L S S P E F L D H I R K V M V V I D T A V T N V E D L S S L E
UniRef90_W6MMR9      L I R M M P G V E K L I P S L K H Q A S A F A G V I N V A M S T L D D L S R M L
UniRef90_A7BLB8      E L F K N A P K N         Q N Q I L A R S I I A Y   A E N I D N L A V L E G A I
UniRef90_W8GV22      S L F P         A A L D Q Q G H R L F Q A L Q F V I D N L D D D E G R V L
UniRef90_Q23761      A R F P Q F D I T I K T S G Q F A T H A T R I V S F L S E L I A L S G N L S A I Y
UniRef90_E5SY64      V F F P Y V T E C E K K N Q V Q I L G M A V E T E S R M K D D D S H L H H N L
UniRef90_V8P4E8      P L F K Y N C K C L S S P E F L E H I R K V M L V I D A A V T H L E N L H C L E
UniRef90_F2Q9W8      R G M D D Q E E L R N S Q F L Q E H S Q R V L D A F D H T I D S L D D V D Y V L
UniRef90_V5YMG1      A K F P A F D S L K G S A P F A L H A S R I V S L I S Q Y V G L L G N I Q T I F
UniRef90_X6N6I0      R L F L Q         T K I D K Q S N T F M M M L N T V G Y L D D L S T L L
UniRef90_B9WN53      P Y F N E T H L T L L R Q P R S F H     H C L L E F A R N I D D L R P M K D F I
UniRef90_E0VN28      A F A N T L E E L E E N Q A F R N H A N N I   Q A L D N V I L N L E D I Q R E L
UniRef90_G2H2H7      N I   F N M S N Q F N G N Q S E A L F N A I C A Y A N N   I E N I K A L L P A V
UniRef90_R1FVY8      L T M F N P A H N I S T H Q P E A L A A S V V A Y A S N I I S P L L V P G G A V
UniRef90_R7TQB2      Q I F A K F R D L R S N A P F E N K Q T K T V I D A L S K I V D N L G D L N A G C
UniRef90_B4JT49      E K F P F R D E L P T N S R F R A H A S R I I R V F D D S I R V L G Q L E E I W
UniRef90_J9JX99      L Q F D R F A H L E S N V H F L A H S V R V F N T A I E L L E T P D E L H K I L
UniRef90_R7WQJ9      E L F P A A M D V Q R D R L V A I G V V V         D H L D T V D D V L P F V L
UniRef90_UPI00035A0930  D Y F Q S K K K S T D A D W I I W H A R L S M M V V N S A V M Q L D D V R H M L
UniRef90_UPI00047165D7  D L F     N Q S H Q R D L E Q P K A L A L A V L A Y A Q H I N D L G R L G G M V
UniRef90_R1GVN7      N V F S N T H Q V T G H   Q P R A L A M S   L Y A Y A S N I D D L G V L S P T V
UniRef90_B0W547      P Y F P N N T L S E N R A L Q A H S L N L I M A L G A L I K T P K M F E C T L
UniRef90_UPI0002657734  H F K H K L Q M I A A H T A L R A H S L Y V I H S L I D S M D D   E E T M
UniRef90_P29243      A K F P Q F D S I K T S G Q F A T H A T R I V S F L S E L I A L S G N E A N L V
UniRef90_A0A059FKB2  D L F L M D T D G G V R G S M L S Q A F E C L     M D L A E G P G T M A E T V
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                         90            100           110           120
UniRef90_A0A059KFW5   E R I A A K H V   S L G I   R R E H Y A V V G R H L L A S I   V E V L G E E A T P A
UniRef90_F2Q9X5       R N V G R I H   K A A G M T N D N I N L M K P I L L E L L D E V G C G D
UniRef90_A0A024QHK7   P H I   K Q I A H K H N I K A E Q Y P I V G K Y L L A I K E V L G D T A N E E
UniRef90_U1NCF7       T N L G R I H T R Q H G F D P C Y W I I F Q D C T L Y       H F R R A F T
UniRef90_UPI0002E0202D E K I A Q K H   T S F S I T A E Q Y Q I V G T H L L A T I D E L M S P G     Q A
UniRef90_C5DYT1       N G L G K R H S R I L G I E P P H F E L M G V A F L R T L Q D R F G V H C T V E
UniRef90_I7EH20       K H Q G E R H   R A I R I T D A H F D G F I Y S F T S A L A E T L G P E W S E D
UniRef90_W1RUG2       A R M V A R H V D T   G V K P E H Y P K V A A A L L P A I R D V L G E E I T D E
UniRef90_UPI0004638549 R D L G R R H   H G F G V V A D H Y A P V G A S L L A T L A Y F S G P A W S E D
UniRef90_C3Y5G3
UniRef90_L1JET9       A W L G L R H V N   Y H V R P H H I P L I G P V I M N A L A D A A E D A W T E E
UniRef90_I2K374       P A V R Q F K H R A L Q V K P E Q Y G T V G K Y L L A S I K E T L N P P     E E
UniRef90_G6CW33       R H V G G T H R Q V P G F K A E N F M K I E Q P F L E A A K T T L G E R Y T P N
UniRef90_D6KG01       M R L G R D H   R K L G L L P A Q Y T A F E T A L R E A L R V R A G A G W T V E
UniRef90_UPI00035A19D6 S K T G A S H V K F A G F K S T N F L A I K E P F L E A V R V T L G D R Y T E N
UniRef90_F5SZW9       T E L G K R H V   S Y G V K E A D Y Q A V K N C L L T V L E K Y A V S A W S Q A
UniRef90_K1Q9R1       R G V G K S H R R L P E F N F M I F S R I E E P F L I A V K E T L G D R Y S A N
UniRef90_UPI0002198090 R D L G R R H   Q R F N V Q P H Q F A L L K Q A L T Q V L A R R L G S G F T P A
UniRef90_UPI00035D54CA S R I V H K H A   S V G I K P G H Y T V V A R H L L G A I G E V L G E A A T P E
UniRef90_Q14SM8       D R L V N A H N F R P S V G L E Y F Q P L Q E N I Y K Y L E S A L I V A A D S N
UniRef90_G2Z488       Q N I G Q K H V   S L N I K P E Q Y Q I V G R H L I A S I S E V L G T G A S K E
UniRef90_UPI0003772E08 I T L S G H K H A R L G V Q P S H F V A M G E A L M W S F E R K F G A F F T P E
UniRef90_R1EGH0       V P I N H R H C   A L N I Q P A H Y L P V H D H L M H V L G P K L G D A L T P E
UniRef90_A3LXI9       M K L G K R H S R V L G I G S D H F E L M G E V L I L T F Q E R F G T R F T Q E
UniRef90_P09965       D Q F S K E H A G   F G V G S Q Q F Q N V S A M F P G F V A S I A A P P     A G
UniRef90_A3X749       S E L G G K H   R K M E I S D A H F D Q F I H S F T N S L S K T L G P E W N D E
UniRef90_R0I5I4       Q Y L G S I H R K S G V I D P H F E
UniRef90_G2NFW0       T Q L G R D H   R K L G V R P A H F A A F E G A L V E A L R A R A G V R W T G P
UniRef90_G3AFJ3       M K L G K R H T R L N I E P V H Y E I L G E V L I Q T F H E R F G N K F N Q E
UniRef90_X4ZCT4       V Q I A H K H V   S L G V K A E H Y P I V G E H L L K A I K E V L G E A A T D D
UniRef90_UPI00044170C3 E R I C H K H A   S L R I T P Q Q Y A I V G K Y L M R A I T D I L G T D F A G E
UniRef90_E7BQB9       A S I D A L G Q R H Y G A K K A H F G P A G P C L L A A L A E V C G G K F T P A
UniRef90_K1QT48       S Y V G Q R H V Q S   N V K P H M L E R L W P S I D D S F R T V L Q D V Y T P D
UniRef90_L1IAP2       T W L G V R H V L   Y N V R P H H I P L I G P V F M N V L S E A A G A M W T P E
UniRef90_Q0IEH8       S K M V I N H K R H G V S K P D V A I V C A I I K D Y C L Q T L G H S D     E
UniRef90_B5X603
UniRef90_A0A013WRX3   S R M V A R H V   Q T G V K P E H Y P K V A A A L L P A I R E V L G A E V T D A
UniRef90_N9Q7N5       E R I T T K H V   S L D I Q P D Q Y A I V G E N L L H S I S E V L D V P M D S D
UniRef90_W8S4A2       V E L A R R H V G   Y G V V A D Q Y A S V G A A L I Q T F K Q L L G P A F T D A
UniRef90_P02210       A M L S Q F A K E H F G V G S A Q F E N V R S M F P G F V A S V A A P P     A G
UniRef90_S6CDG3       T E L A N N H K N R   G V T K D Q F N E F R T A L T N Y V S S N A P   W G D N
UniRef90_N1MFW6       G A I A R M V A R H T G V K P E H Y P K V A A A L L P A I R E V L G E E V T D A
UniRef90_W8H2X1       A Q L G R D H   R K Y G I E D A H Y V A V G N S L I A A V E Q F P S T E W T D E
UniRef90_K7LKG1       A T L G P I H T Q K   G V T D L Q F A V V K E A L L K T I K E A V G D K W S E E
UniRef90_L5JQP5       E Y L A G Q R H R A V G V K S F S A V G E S L L Y M L E K C L G P A F T P A
UniRef90_A0A022T3A5   I N L N R V W A R Q G G W R H N D M A L T Q S V F L D V M   R N N V N N W T P E
UniRef90_J6EHJ0       V K L G K R H S R I L G I K T I G F E V M G K A F M T T L Q D R F G S F F T L E
UniRef90_A0A016U6Z2   D N L G R R H G   K L E V N G K F R T Y Y W S T F L E C
UniRef90_O77003       D K L A K S H V N   L K I G L E F F G P L Q Q N I H S F I E S A L G V G A G S D
UniRef90_R8AMA7       E K I A Q K H A   S F N I Q P A Q Y Q I V G E H L L A T I R E L L N P G     Q E
UniRef90_D5MNY3       T K I A V S H I P R   T I S K E S Y N Q L K G V I L E V L T A A C S L D     E
UniRef90_W0VTU4       N G L G K T H S R I L G I G V V H F E L M G I A F L K T L Q D T F G V H C T D E
UniRef90_F2RLZ0       T H L G R G H   R K Y G T L P E H Y P A V G E A L I G A L T R Y A P E T W G P R
UniRef90_UPI0004760F70 Q E L G A Q H H R Q L G V R P E H Y P H V G R A L I R A V S E V S P G   W T S S
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