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UniRef90-E4T553 UniRef90-F8NB03 UniRe990_DPIL50
UniRef90_UP00368D3B5 UniRef90-U2KZ10 UniRef90-R7EX18 UniRef90-UPI00037F589F UniRef90-W7YLDO UniRef90-D1VXX0 UniRef90_G5H851 UniRef90 W2C2F2
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UniRe99_ RIIBK9 UniRef90-D5EUK2
UniRef90 F4KP 13 UniRef90_R5W5W2 UniRet90_R5NBQ9 UniRef90-D1W5X4 UniRef90-13YQ80 UniRet90_D1XXR3 UniRef90 B6YRW1
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UniRef90 - 1 XIFI9 UniRef90-X1CP69 UniRe90 -x1GHGO
UniRet90_UPIOOO46D857F UniRef90-K2D9H7 UniRef90-K5CZP5 UniRef90_X1C6E7 68A15B

QVVAATRHTTTTGTYTARTREEYQQTEVKPEDQPMKEALA ${ }^{30}$ QVVAAIRYITNGTYLSDIKEMLE NEVSDDLKPLKERVAK
 QTVAAIRYVTNGSYI ATIRE FEADPCSPEMEPLMSRLKK QVVAAIVYVTNGTYLADMKEMLEACEVCDCMKPLQARVAK QVVAAI RYITNGTYLA STMKEMME RPICDCATHMRERIGK QVVAA:RY:TNGTYASMIQEMLEQNEVSAEMQPLKXRVVK QVVAA RHVTTGTFLNMMK FYEQETVCPELVPLQNRLKA QVVAAIRHVTTGTYFNMIRE YQAQEVKPELMWLRDNLMA QVVAAIRHVTTGTFGHQU EAYEAATAAPELEPLRDRLKA位 QVVAA RYYTTGTYLNMMRYYENALVAPEMEGLHNRLKS QVVAAIRHVTTGTYLNMMR YYEEQEVSGDLQTLRTRLKE QVVAAIRYITNGTYLGIMKELLD GEVSEDMKPLQERMAK QTVAAI RYVTNGSYAATLHE YEADPCAPEYQGYMDRLKA QVVAAIRHVTTGTYLNQiN AYAAEEYAPETSELKERLVK QTVAAI RYVTNGAYI ATLRD FENFEVSPELKPYRDKVKA QVVAAIRYVTNGTYLEMKEMEQNEVKPEMQNLMVRLRK QVVAALRYITNSTYLNMKEMLEREVSEDMKPLHVRVAK QVVAAI RYVTTGAYLAKIRE YETAQVAPEFEGLKNRLKE QVVAA RYYTNGTYLGDMKEMLEDEVAENGQPLKERVAK QVVAAAMYVTNGSYMQTDRE QVVAA RHVTNGTYYA RMRE

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 QVVAAIRHVTTGTYLAKMKE YETDDYAPELENTYKKLVS QVVAA RHVTTGTYLARLRE YEAETYRPELSDLHAQLRE QVVAAIRHVTTGTYLSTLREYEAMEYKPELLSLKQDLDA
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 TNGAYI ATIRD FEQQPVLPEYESYMNRVKE QVVAADRYMNGTYLNDMKMLDK EVEDAWKPLHDRLEV QVVAA NSVTKGTFMEQI ERYAAAEYSQPMQPVVAKLKE
 QVVAATNAVTKGTFLEQUKTYEAADYAPEMCAVKSKLTD QVVAAVRYITNGTYLNDMKEMLE NEVCDCMKDLKARVER QVVAAI RYVTNGSYLAQCRE FETAQLSADLQPLQTIAKT QVVAAINHVTKGTYLEQTK RYEEAGHIEAVQPLVERLVS QVVAANRYVMNGTYLGDMREMLAEPVSKDMQPLSKRIEK QIVAATGGVMNDVYGKYFEEKEQQSYKGNLSHLAKRLKE QVVAASGGVINDVFADHFTDC EKKEYKGSLINLDSVLKE QIVAADGGVINDIFADYFHTC EQRENQGKLEGLADELKE QIVAATGGVMSGVAMDVINE YDAQDYSYR NDIYQKIHK QVVAAIGPVTSGUAQS LDEYDQADY PNAGELLAKVRA



## QUERY

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UniRef90＿X1C6E7
 LVNLYYEAI NKVKEANDQAV HDFLARRLYNMTGDVVMSLL
 L V E M Y E E A V A MV K E A G N Q E L H D F L G R R L Y E M T A D I I M S L L
 MADKFEACTA HVKDAKD QEMHDDCARHLVEMAAADIMMLHL LI EL Y E D A L N Y V K E Q N N Q EVVD F LA R R L Y E M T G DII M S L L

 A
 MTELLYEQAVNYVKE $⿴ 囗 ⿰ 丿 ㇄$ MASKYAACVAQVTEAKDQELLDFCARRLVEMAAYTIMGHL

 CVEL Y E Q ALLDKVKA D DNQDEHDFLGRRLYNMTGDIVMSLL $M T G K L E A C T T K V K E A C N Q E L L D F T S R R L Y E M A A L C V M S H L$
 MDDRFEACTNLVKDAQDQELHDFMARRLYEMAADCIMAHL LA E R Y A LDA V T Q I Th E K K D Q E LA N K Y E A IV T K I T E E K D Q E L I D F A A R R L V E M S A H L I M S HiL
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 $M L S Q Y E E S I A F F V K D A N C Q E T Q D F L A H R L Y N M T A N L V M S L L$ MREQYEKAVEKVTATGDNEVIDDFHARRMVEMAGHIILLSHL

 MAEKLEDAVNAVKEA GS QELQDFVARRLLYEMTADTMIMS LL

 MNERAHELTQFVVEQKNQELLDFQARRLVEMTSHALFGHL L T E E Y E E A
 $L A A M L R E A I D K V K E A G D Q E L Q D F L A R R L Y N M T A D V I M S L L$
 $M V A L Y E E A L T K V N G S E G Q D E K D F L A R R L Y D M T A E I I M M L L$ MFKAYTETLAKVEEVKDDQYVSFVARRLVEMAADVVMSSL




 MANKFDACTNAVKEANNQELHDFVARRLMEMAADTIMCHL

 LVEDYEAAVNKVKEDENQDVQDFDARRLYDMT TEII MS LL

 LLRAAKF E E A VAA HV

 AR QL F L E S L K Y V L D K Q D K Y F Q DV A A R E L V V I A R K I F F D E T E G A K N S E N H D F V D Y H S R R LV V M A T Y VI Q G Y L GT QLLLK S SV A F V K E K S S $\square R Q L F L E S L K Y V L D K Q E K Y$

MRKK Q Q T AV Q Y V A E K K D S
$\square R T L F E S \square V E T H K S D E N Q E$

## QUERY

 UniRef90_K1U005 UniRef90-A6KX84UniRef90
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UniRef90
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UniRef90 ${ }^{-10} 10215$ UniRef90-R7PA96 UniRef90-D7JC50 UniRef90-E4T553 UniRef90-F8NB03 UniRer90_D1PX55
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UniRef90 13 YQ UniRef90-D1XXR3 UniRef90-B6YRW1 UniRef90- R7JH12 UniRef90-G5GBN4 UniRef90_UPIO0030F7F54 UniRef90-E1GUW2 UniRef90-H1XVF8 UniRef90_D9P142 UniRef90-LOGUO5 UniRef90 $\mathrm{K} 1 \times \mathrm{X} 67$ UniRef90-F5YRG3 UniRef90- XIJFI9 Uniefo-x1cp69 UniRe90 -x1GHGO
UniRet90_UPIOOO46D857F UniRef90-K2D9H7 UniRef90-K5CZP5
UniRef90_X1C6E7

ПMDAANDDDSFRQSAEVY乌RYGQAEQEKDDSYVRAFRPEE I LDDAKAPEMFAKSANVYVRMAEEEVLGHSAYIQNFKAED LI QDAKAPELFAKSAHVYVNYAEAEIEKHFNFIRKFKADD ILDDATRPELFQKSANVYVRHAEAEVNAHYVYVKNDKAED LI QDAKSSELFSKSAHVYLNYAEAEVEKHTNFIENFDKED I EDASRPELFKKSAHVYVRMAEENVLGKAAYI QNFKAED LIYNAQAPELFAKSARVYANFAESEILKHNNFIMKMTPEQ IIEDAKAPELFAKSANVYVRYAEEEVVGHHHFVMNFTAEE ILADAKAPHLFTKSANVYVRYAEEEVNGHYGFIKNFKPED LLDDTTRCDSRNSAEVYIHFGEAEVKKQAEFISKFNVED II RDASRDELFAKSANVYVRMAEEEVRGHAAYVKNFHADE LLSDANRNDEFVHSAEVYNKDAQAEVAKHADFIANFKPEQ LLADTTRNESFRHSAEVYTNFGEAEVAKHAAFIAHFKPE ILDDATRPELFAKSANVYVRYAEEEVVGHYTYIKSFПAED MVQDASKNELFGTSAQVFVRYAESEVEKHDNFIRKFDKDD LI DDTERNDSFRTSAEVYVRYAEAEVRKNAAFI ASFDDND ILEDATRSELFSKSANVYVRMAQAEVTAEHVYIMNFVKED LLDNAKAPELFAKSANVYVRMAEEEVVGHAAYI QAFKAED LLQDAKAPELFAKSLDVYVNYAEAEVEKHYSFIGNFQAEE LLGDTTRNEKFLKSANVYVNFGEAEVEKHHKFIMSFKPDG ILQDATRANLFARSARVYVNYAEAEVAKHADFIQHFDKEK LVRDGSRDSMFDKSANVFIRYAEGEFDKHDGFIEQFNDED II GDATAPELFAKSAQVYVRYAEEEVDGHSCYVKSFDAED MVQDASKNDLFTESAHVYVRFAESEI DKHVTFLSKFDKDD TIADAKAPELFEKSANVYVRDTEEAVDGNHAFIVNFKVED LLHNATANDMFGKSVRVYANFAEAEIAKHHTFVMNDNPAD I IQDATRNELFTKSAVVYVNYAEAEVEKHNKFIENFEVED LMYNAQAPEMFEKSAKVYANFVEAEIAKHHVFVMNLTPEQ LMQDANKDESYRRSAEVYINYGEAEI DK DYTFINKFNRED LIEDAKAPEDFAKSANVFVRHAEEEVDSHAAYIKAFRADD LLQDAKAPDMFEKSDKVYVNYAESEIEKHFNFIRKFDASQ LLRDATDDEQYKTSAEVYVRYGEAEVAKHKAYVDNFKVED LLRDATKDAEFEKSANVFVRMAEEECIGSHAYIMNFKADD LI NDAKAPELYGKSARVYTKLAEEEIAGHAAFI QSFTVND LLDDSQRDDRFAKSAEIFVKYGQAKVAGYAAFINDFELKD LLDDATRPELFAKSANVYVRMAEENVVGKSLFVQNFABED LLQDANKDELFRRSAEVYVHYGRIGEVVKNYNFVTKSRIDD LLLDTQRDEKFKVSTEVYVRMGKSENHARAEFIHSFELDD LLQQASDDEEYRNSAEIYAKYGEAQNAAAATYIGCCCVDD LLQSANTDDSFTPSARVYVRYGAAEDAQDRSFI EGFCPES LLQSTHTDNSFGSSTQVYLRYGKAEMYKIRSFIENFSDED LLRQASEVEEYRVSAQLYVKHGEAQNAAAAEYIAQSSSDD LLQDAQKYDKYVKSAEIFINYGKAKVAAHDEMI NSFNPDK LMLAANDEESFRNSAEVYLRYAKAEIQKDETYIREFNPSD LLLAANEPELFGKSARVYHRFALAEQDK乌ERFVRNFAVEE LVIDTNRDNSGRSAVVFNKDAKAEVRSRAEFIRASSLED MLLDAQRNADFDRTATDYNKMAQAEVARHARFIDNFNADQ II EDAKAPELFAKSAQVFVARAEEEVVAHHHFISSFDPAT LLHNATAPELFDNSVRVYANFVEAEIUKHNTFULNTTVEQ LLGDSQSEESFALSAEVFDGKAKAWNDERYSYVKDFSSFH LLLDANRNEMFDKSLEVYVKMAQADIVKHADFI ANFRVED LI DAQRDKDFEDSAVIYTNKAKAWNDERYSYITDFAACD LLQDANKDDSFRRSAEVYVNYGQAEDDKDESFINNFNRED LLYNAQSPELFAKSARVFARHTEAEAQKHYHFVMSLSLDN LLRDAKAPELFDKSMKVYLNDAEAEVAKHYNFVKSLRVES LVQEATAPELFAKSANVYVRHAEAEVEKHFNFIRKFQPED LVLDAGRCADFAKSARVFVGKAKSWNQERYDYIAGFSEED LLRDAKAPELFAKSANVYVRMAEEDLLGKAAYIKAFQVED LLDAAQRPDLYEHSTHVYIQYASGEMDKCEGQIRRFDPKQ LLRQAAESEEYRVPAEAYIKYAQAQNKAAAEFIANSCCGD LMQDANRPDLFAKSLNVYVNYAEAEVEKHFNFIRKFTAEQ LIDDASRPELFGKSAHVYMRHTEEENTGHYTFIKNFRAED LARQAGESEEYVNSAKVFCKLAEGKDSEAYTYVMNSTLED I AADAKAPELFAKSAHVFVKMTEENVDGKVAYINNFDVSD LLDDANRPAEFAHSAEVYANYGEAEIKKDQNLI NRFNIEN LARQAGESAEYDDSARIYCKLAESKVAEAYNYLMHSDVED
LIEDAKAPELGEKSANVFVRMTEEEVVGSVAYVKAFDCKE LLYNANRPDLFAKSAHVYANHVVAEVAKHHAFIMNMTPEQ LALQAGDREEYLLSAEIYGKLAASKIEEAYAYVMASTAAD I A DAKAPELFAKSAHIFVQMAEENITGKTAYINNFKVTD LLDEAEKNARKПWIAKRYISHALLACQHNVTSIKNEEFND LLDEANEDQRKVFTARRYILDALTKARKNAEAIKNELYSD
 LLRDAKHSERKKNI AETFVDTMFSIVEAH
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FCGQASTKERKAK $\square$ ARRY $\square$ S KNAPK $\square$ A A $\square$ AE $\square \square R$




