## QUERY

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UniRef90-Q8R910
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 MTKHPVVVRLKTGLHARPAALFVQEANKYSSEI FVEKDDK MDKQEIEI EKLGLHARASTKLTQTASQYACELWI ERNGR MIKKKVTIKNSAGLHARPSAQLVKDAGKFKSDFFI HSYGY MYQKSVTVKNASGLHARPASRFVTEASAFASRTTLVKDGG MPQREVPIVNRLGMHARAAAKFVSLASQYASDVTVSRNAQ
 MYEKQVEITAENGLHTRPAAQFVKEAKAFDADITVATNGK MVSKELKIKNSQGLHARPATLLVRVASSFKSSISIEYNDK MQETYLITENKTGLHARPASMFVQEANKFSSKIKLTAKGK MDRRPDTINKLGLHARATAKLVNTASEYDSSVRISGKGR MAEKQFKVTADTGIHARPATLLVQTASKFDSDIQLQYKDK MVEKQVEVRLLTGLQARPAALFVQEANRFSADI YIEKDGK MVSRTATIKNESGVHARPAAVFVKMANRFPCEIFVEKDNQ MREQTFTITDDTGUHARPATLLVNKAGQYESDVQMHYNGK MVSKEDEIKNSQGLHARPATLLVQKATRFKCEIKDEYKGK MDQEVVT ENKGI HARPASIFFVQATKFKSKI QLKAKGK
 MVQFEVTVNVEGGLHARPAALLVNCSSQSQSKITLSKGTK MVQKQFTVIDETGI HARPATKLVQTASKFSSDVQLEYNGK MVEKKVVVQLETGLHARPAALLVQEANKFASDVFVVKGTK MPTKEFTITNKLGUHARPAAQFVKTANTFDAEITVEKDGE MYSKDVMVQNQVGLHARPATFFIQKANEFRSSIWI EKEER
 KELTI DNRLGLHARPSAMFVKTASRFKCEVWVEKDGE MTEKVIVVKNRAGI HARPATQLVNKAGQFESEVTLEYNGK MEKRQFKITVETGIHARPATLLVQTASKFDSNISLEYGDK MFEQEVTIEAPNGLHTRPAAQFVKEAKQFKCDIKVISDGK MIEKNIVIKNETGI HARPAMETVKEASKFKSEVFIIKNNN MI HQTVEVKLKTGLQARPAALFVQEANRYAADIYVEKDNK MVTKEVTILNETGLHARPAQLFVQKAGEFQSEIKIKKDGS
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 MVKRKVTVTNASGLHARPASMFVKEAKKYKSSLTIKTKGK MLKKEVTIKRKTGLQARPAALFVQEASRFLADVYIEKDEK MI KTTVT SNKLGLHARASAKLTKDAGSHSCDVWMSRGER MI VEQVEVKLKHGLQARPAALFVQQANRFASEIFLEKDEK MI EKELEI INKLGLHARASSKFTRLAGQFKSDI WI SRNNR MVEREATVVPEEGLHARPAARFVGTAKQFVSDVVVIKDGK MKSKNVKVQNAG| HARPASLIAQKSNAFASDI FILCRDTS MKEFKYVVTDPEGI HARPAGMLVKAVKEFSCDIKI AKDGK LLTKVFK KNAHGLHARPGAMLVNTAKKFDAQVWVSNGGK M DSKKVTIKNPTGLHDRPAGLFCKMADEYESKITFRYRES MDEKRVEIVKKSGLHARPAAVFVETTKKFKSKITVDKEGK



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MYEAKVTI KNETGLLHARPASTFI QEADKYSSNI AIVDKDEK MLEQAIT DNKLGLHARAAGKLVETTSRFSCDI TI DKDGR MFQKELTITALNGLHTRPATQFVKEAKNFISELVI TSNGK MKEFKYVIKDEQGI HARPAGMFVKEAAAFSSKVT SKDGK MQKREATITNSRGLHARAAAKFVKLLAANYTADTTVVNRGQ MEQKSYLITDETGIHARPATILVQTASKFDSDI QLEYNAK MVSKKVVVTNKTGLHARPASNLVAFCKNYNSKIFLSNGEK MITFTYTITDASGI HARPAGLLVKQAAGFPCAITLQKGEK MEKRDYHVTAETGI HARPATLLVQAASKYNSDITLEYKGK MIQQETEITNKLGLHARASAKLTQLAAKFKSEVWLARNNR MVSQKITVTNEQGMHMRPASLFCQTVTPFASDVKVVFNGT MVEKQ $V$ QVKLKDGLHARPAAQFVKLLSRYHSDVFLVKNDR MLQRGYKV DDETGUHARPATLLVQAASKFQSTIELEYNGR ISRELVVANKMGIHARPAAMFVKVASKFDADVFVEKDGE MVERRFEIVNTLGLHARAAAALVQTAQKFRSHIEVEKDGT MIKTRTTINKLGLHARAASKFVTTAASFGCSIKAGKDGN M $\perp$ QQEIEII NKLGLHARASAKFTQLASKFKSEVWMTRNKR MPTETLTVLKLGLHARASAKLTQLAERFESEVWLTRSGR
 MLEKEIVVSNRLGHARASAKLVQLVQGFKSTVWLDSKGR MI SKEVIVKSSTGLHARPATLLVKKASSFKSDLSIEFDGK MIKTTLVISNKLGLHARASAKFTKDASGFRSDVFMTRNGR MKS DEVQKNKAGLHARPSSLFVQTASEFDSDVTVKCDDE MVEKSVTVQLRSGLDARPAALFVQEANRFSSEIFVEKEGK MLLRETTI VNKLGLHARASAKLTQLAAKFQSEVWLTRNGR MPTREVEIVNKLGMHARAAAKFVNLASSYAADLEVEKGSR M $\square E R T V M L K N A N G L H A R P A A L L V Q K A S A F P C E I T L R K G D K$ SQDVRI TNKRGLHARASAKFVTLASGLPADVTVSKDGH MVEKKVCITNEDGLHARAASKFLNEAVKYNSNI EFIKDDK MVEKKVVVKNETGLHARPAAALVQFVKGDPGDVELVKEGK MVEK VV VNKLGL HARASAKLTKLASQFKCEVWATKNNR MIHKKLKIVNNGGLHARAAAKLVNLASRYSCKVEIVYNNK LSRQVVVANEHGLHARPAGKLAQRAQGFSANIRIVLDGQ MI CRPI TI INKLGLHARATNKLVTTASRFDSKITLKAKGR MLSRKITIKNPSGLHLDPAGVLSQTAMKFKSDIIIEYGEK MVEKQFKVTAETGI HARPATLLVQTASKFDSDVHLEYKEK MKEFKYVITDPEGI HARPAGELVKAAKEFAANITLTKDGK MEQASFVVIDETGIHARPATLLVQAASKYSSDINLENSGK MKEQTFNITADTGVHARPATLLVNKAGQYQSEIELTYNEK MПKETVIVKNKTGI HARPAGVIVKTAGKYQSNIELVYEGK MVTKSVVVKSSTGLHARPATLLVKKASGFKSDVTMEFNGK MKEFNYTITDPEGIHMRPAGELVKAAKQFESRIT円SKDGK MLTKQVVVLNHTGLHTRPAKEIVKTAGSFQSDILLQKDTK MVSRKITIINPSGLHLRPAGNLCKESDKYKSKI萑INFGDK MASKTIEIVNETGLHTRPGSEFVNLAKSFTSQITVENEGT MDRKEDEILNKLGLHARAAAKLVQCAGRFASHVEIERRGQ MVNKEVVVVSETGLHARPATLLVKKASGFKCDVTLEYNGK MPERTVVVGARTGLHARPAALFVQAATRLPVKVTVACDGR RRVLLITNKRGLHARAAAKFVQCAGSFDAEITVTKDGQ MAEKTFKVTSDSGIHARPATSLVNQAGQFSSDITLEYNGK MKEFTYTIKEPVGIHARPAGLLVKEVKGYQSTVTIIKGDK VEKTVTVTDETGVHARPATVLVNKAGSFTAEMTLEYNSK MYEKTVTITAPHGI HTRPAALLVKEAKSFECDVIVECNGK ERTFVIVNSLGLHARAAAQLVQTANRYRAEIHVEKDGM MIDQEQVTIINKLGLHARAAAKFVSTSGRFASKI RVAKEGQ MKTFTYTIQDEVGUHARPAGLLAKKAKEFQSADTLEKDGK MEKKNFHIDAETGGHARPATLLVQAASKYNSDITLTFNDK MKQFQYT, KDELGVHARPAGLLVKLAKQYASAITIEKNGK MLTTETEI DNKLGLHARASAKLTQLAGKYKCEVWMSKGTR MVKAPAT SNKLGLHARASAKLTKLAGGFPCDVWDTRGER MTEARLT:TNPVGLHARPAALFVRTAAGFQAAVRVRNPER MKEFKYVVTDNEGI HARPAGELVKLVKGFESKITIEKDGK MVEKVLTVNLPQGLAARPAAEFVKRASSFSSQIRIGKNGH MPRGDAPI NKLGLHARASAKLTQLASSFPCEVWLERNGR MDKTKTINKLGLHARASAKFVSTTSRFQSHIDVTKNTQ $M P S V D V V I S N K L G L H A R A A A K L T Q L A S K F K S E I F I T R A S Q$ MLERNVMVTNPQGFHHRPASMFVKLACTFQSKVELLKGND MESKDFHI DADTGLHARPATLLVQTASKFSSEINLAYDGK MVEKKVI TNKTGLHARPAAQFVQKAGKYDSKIEILFEEK MVSKQVETVNRLGGLHARAAAQLVKLTTQFQSKVFLKKNGQ MVSKELVLTNAQGFHMRPASVFATAMGKYSCDVTVAKGTA MFEQEVEITNKLGLHARASSKLTQLATSFKCEVWLSRNSK MKEFTCTIVDPAGLHARPASTIVGTAGKFKSDSKVDSAGR MUERTVTVVPEDGLHARPATTFVEAASNFNAEITVEAVDG MLLEHELTVTNKLGLHARATAKLVQTMSKFQSNTTLSTKGR
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 K V N L K K S I M G V M S L G V G K D S E V T V Y A E G K D E A E A L E A I T E T

 $R V N A K S I M G V M M L A A B K G A T V T L E A D D G V D E Q E C F N A L V A L$ TYDAK SVMMLMSACDKCGAEI EIVCD GPDEADALKKAV ELL K I E A K S I F N L M S A A V R E G D L I TVVV A D G D D E K E A L D F V V K F





 EIN A Q S I M GVMMLAA A $\square$ G TAL TVVRTEGPDEQQALDAV DDLI


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 MVSEELKVDNPSGLHLRPAGNLCKEALKYDSKINDIFKDA MKTEKITKNETGLHARPASEIVKDASKYQSTISLIANGK MKSGDITVQDKEGLHARPAGELSKAAKGFESKVTMTKNGK MTKRSTKVRLEDGLDARPVALLVQEASKYESNIYIEVDDK MYVKEVLVQNKAGLRGRPATFFVQKANEYKSTVWVEKDER MYQKTVTIVAPHGIHARPAAEFCKIAGTYQSKISLKKRNEK EDTLTVVEVGLHARPAALEVQTAGGFQSAITVTRDTP SRPLTLPNANGLHARPAAVLAQAAKGFSASVQLHKRQS MVSKKFVVRHDGGMDANHAAQLVRLANQYDCNVHVEFGQK MVEGVFEVKNEHGLHARPAAGLVSEVKKYNANVAVQNLDR $M V Q K S M E V Q L D N G L E A R P V A V F V Q V A S Q Y E S T I Y V E V D D K$
$M I V E R E T V$
$M$
 MTEKQLTHNKLGLHARAATQLVEDATQFNARITLVKGDK MKQFNYTITDEQGIHARPAGILVKEVKKYASKITIEANGK
 MVSKTTVIKNPSGLHLRPAGVLCKEALRYKSKISFKVRTT MVTRELKVFNRAGI HARPAASIVKLANKYASELYGEKENM MELNLQQKNKAGLHARPAALFAQKCSTFKSNVTVIKENK MDETQVTIDNKLGLHARAAAKFVSCTSAYSSSDEAGKEGN MPEDEVTVRNPHGLHARPAALFVQKAASFPCSVQVLKGER
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 TVVGNS M GLLMML A A S P GS S VLVVSAS GNQAEQALDA L D QLL









 KI N GK S IM N N M S A C I R T G D T I E I Q C D GPD E Q A ML D A E I K L VADGKNIMMSLLLLAADKGGSSIM RTKGSDAAAAVQTVVRL


 SVNMKS I M G VM S L G I P S | $R$ | $V$ | $N$ | $A$ | $K$ | $S$ | $M$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $K$ | $A$ | $V$ | $A$ | $K$ | $S$ | $V$ | S GNAK S I MN M A L G I K

 E G NLLK S I MNVMA LA $V$ K
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 KA D M K KGDAKK MSLMMMAVKQ
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 $M V D A K S I M S V M M L A A G K G T V L D I D V E G A D E E A A L E A L V T L$ S A D A K S I L Gll M S L A DEE P GETI R I R A E G E Q
$E V N G K S$ I ME I MMLLAA GK G S TVVLLKVE GPDDAEAFAA DGE L

 AVNAKSLMKVDALGVKCGHRLEFTANGSDASQALEALGAA
 TVN GK S I M G L MLLLAA A E E GREELELDDA D GP DE DEML E E L F D L

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

 T A S A K K L F A L MK L Gl K K G D T I Hi S VT G S DE EVVAS Q T I F S F




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| UniRef90-UPI0003657F98 | 1 Q |
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 V V D C K S I M S V M M L A A S K G T E L I L H D D G D D A Q D A H L A L E L L

 TA GTD S MVIAMLKL QVK Q GDMI SII SAE GDDEEAALDES L S E L
 $F V D A K S L M K V D G L G V K H G D S L Q F S A D G P D A K E A L V G I G E A$

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 T A N A K S V L S I L GACllK S GDEVIVIVCD GEDEEKALDEMIA I PVGGTSIMGLMMLAASPGCS LVRAEGPQAEAVLDALGAL
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 TVDARSIMGLLMLGAGNGCSIIEITAEGQDAEAAIEALSDL T I D G K S I M M S V M M M L A A G K G T M L H L A T E G E Q S E E A L Q A L D
 SANAKSLVAI MALQTGPGDVLQQVSAAGEDAQAALDTMTTML

 SANAKSVINLDMALSAKQGNSIVDAVDGADEDAAA EAA K K V AVQAS SIL ML MTV GA GHGDEVVVLRAEGEGAEESVVNA L G DLL


 EVDAKSILDILTLAVGSGATLTLRARGEDAREAVDHLERL KVNAKSI M GMMTLNLNS GEEVTVIADGSDEADAVAGME SF EAADAT N I M S L L L M L A AP C G T E L D I PIN GTALMKLMSLGVKRGDTVRFTVEGDDEDAAVKGIEEF PVDARSULSVMGLGAKHGETVVETAEGDNADEVLDALVAB PANAKSTMKVVALGASKGARLRFVVEGEDAQQAIEALAKA EF DAKSVMMLMSACIKCGAEI E IIKADGPDEKEALAKAVDL STNAKSLMKLMSLGVRCDEALTFTANGGDAELALKA IGDG T A D A K R L I A V M S L G A K Q G H A V V N V S V KVNAKS IMGMMTLKLHS GESI EVVADGTDEENAVSEI ENY

 TANAKS INQLTVLGAGRGDQI EVRAS GPQARQA I E F L K VL TAPADSIMMLLMMLQAGPGAEI E I SAADGPDAP DAVVVVLAAL
 VA NVVK S I M G V M S L A P A Y G E S F L L R A E GE D E M D A L A A L A S F S
1
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NTVAK S I L GLMTLGLA K
EADGHSVLALMSLGAR

| $Q$ | $V$ | $N$ | $A$ | $K$ | $S$ | $I$ | $M G M M$ | $M$ | $L$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $K$ | $V$ | $T$ | $M$ | $K$ | $S$ | $L$ | $L$ | $G$ | $V$ |
| $L$ | $S$ | $F$ | $G$ | $L$ | $E$ | $P$ |  |  |  |







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RASARSLNELAMLGARCGDEITFKAEGVDASDALKATETL RVDAKNLMRVVSLGAKQGHRLHFMASGEDAHQALEAL GTA KINAKSIMGMMSLELCTGESLTVEAEGEDEEQAVNGVEAF QVDGKDVIQLLSLGCVQGDQUTFTAEGPDEEKAMEAVVRV SASASSVLGLMMLESGQGKEVQVISEGKDAQQAMDAVEEL SVSATSLTRMDGLGARRGQTLDI SATGDDAEQAVEAVCQA PVPATSMLSVLGLGAHCGDTVVLSAEGEGAEAAGDALVAVV SADVSRLMAVMSLAVKCGQTVEVAVEGGDEDASLQGMKAF TVNAKGVMAVMSLGAKKGQKILIKVEGENEAEDAANLKAF
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 TANAKSI DEVLSCAIVKGTEVEVSADGADEEAAVNGLIDAL QVNGK Si MGI MAL GVPKGAQUKVIDAKGEDEEQVLQSVVKV EVNGKSIMGVMMLAAECGATITLRAQGP
GKDAKSLLGLMSLGLTAGSTARLSSDDPDGRTAVDALADL RDNAKS\|MGVLSLAIASGDT川TLFSDGSDGEEAIDALVAC YADAKRPLALLG:GIPTGSEIEIVCDGEREDEALATALDL QMDGKS MQVMMLAASKGSEICISCEGEHAEQAMAELIGL YVNAKSLMALMSLGDKNGHEVSVIDFDGKDAQSALQKLSAE QAQAASVLGLLMLESCMGKSLDITATGTDAKAALAAICNL TADAKNLI ALLRLGVREGTSLTVSAEGADADKALSVMQIL EADAHSVLABMSLGARQGDRVVVRARGAQASEAVAKVAGL ПANAKSVLSVLGACVKCGDEIELSCEGEDEKEALDHLVKV PVDAGSVLMVMSLGIAKGDKVTVTVDGDDAESVADSLVTK NASAASVLGLLMLESGIGKMIVVTAQGPDAEVALNAVCDLV TVVAASMLSVVSGLNVAHGETVRVVAEGPDAADALAAVCSLL QASAASVLGLLMLESAMGKEIT VAQGKDAQAALDA:CSL AVRADSINQVATLVARQGHQLAI AATGTDADEALSALQEL AANAKSVMGVLLLCGSMGTQIEVSATGDQAADAVSALGEL


| UniRef90 U9VKC7 | V |
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| UniRef90-16XPN5 | I S N |
| UniRef90-H2CCF2 | L S |
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 TEFTLENEAGLHARPAALLVRADAGVDADVRIRFGAG S $\square$ SVVVKNPNGLMVRPASRLVSTLSGFRADMLLEKNGK M TK TNTLI INKLGLHARAASKLVTTASSFSSQIKIGHETQ M TKKLKVLNRAGIHARPAALIAQTANKFSSNLMFKKDNA $M V \begin{array}{lllll}\text { S E K K }\end{array}$

$M Q Q T V L I Q N R L G B$
 $M V S K T V T V E A P N G M H A R P V S A L V A L V V K A S G Q Q V T L V R P A K$ $M 1$ QFTYTVQDPQGIHARPAGMLVAVEAAKFQSKCSVAGNGK VHRELKVNEKGLHARASAKLVEVVEGFDARAEVSKDGM MHQRTVAI ASRSGLHARPASLEVKAAARQPVKVTI AREGR
 M R ${ }^{R}$ E WTI SYPSGLHARPATRWAETARGFSARAQVRAGDQ
 MYMQQSIVKCESGLYNRQATYFI QKANEFKSSI WVEVEDR MASKDFHVVAETGIUARPATLLVQTASKFASDITLDYKGK
 $M Q E Q T V R I G S T H G L H A R P A K L F T Q A V A A S ~ G A T V M L S K G G T$
 $M V K Q K V R V K V L S G D H F R P A G K Z T E K A L Q Y E S A B K A V R E E T$
 $M Y Q R T V S V G S R S G L H A R P A S L F V Q A A M R Q P V A V T V G R E G A$ MKEFCYTI K NAVGV HARPA GALARMAEKYDSTI LI E K D G T
 $M \square K K T V E I K N K D G M H A R P A T R R L F E L V Q K F N A E V I L R N E G T$

 $M \square E K T V V V S M M G E A E E R P V A V L V Q V A S G Y E S R V H L V T G D K$
 MAKFTYVITDEVGLHARPAGLLVKKAKELGAKITLACNGK

 E R R V T L A L E A GLLH A R P A A R V R A V V K R H D A E V R L G H G D A
 VENQVAV DNKLGLHARAADKLVQLVANFQAKITLCNGEK $M$ GERKVTVVAAEVVGLHARPAAATFVQRAMKAPMDITVVTKMNS $M E M S R F K V$ LA E T G I M S R P A T R L V M A A Q N Y A S DVVTV T Y N G K
 $L S R T M P V P L R H G D H A R P A A R L R E C A M Q F D A D V R M E A A G R$
 MKKLEAVVIDK $\square G F H A R P A S K V V N V A S K F H S K I E I T K D G T$
 $M V K E N D I V T S Q L G G U L D R A G A M C D A A D K F D S N G S F E Y E G K$ M IKK TI TPGHNFGSEAKPVAMLVQLASRFKSSIMDESEDA $T V T V P N P M G M M A R P A S V L A K K L A Q A S G T H V Q Q R V G B R$
 FKIKNAHGLHARPGAMLVAEAKKYESKI TVLNDGK







 M N S V K V TVVTAENGIHARPATELIKLIMKESPTKVTLIKANGK SRRLQI I NVKGLHARASAKLAECVESFDADATVSRDGL
 VRRHARVAHR GGL HARPAALLRQTAQGFDCSARLDELGDR $M K Q H S V R I N L E E G L Q A R N T T A L V R H A L G Y D C D I M I G G E G R$

 LERLVTVTN PLGLHARPSARLVTVVNQFKSRVLLRRDPN




T A S A K K|L|F A V $|M G L G| I K R G D T \||L| L V E G E N E S P D C E K|L| K A F$
 QANAKSVTSIMGLEIALGDKVVLIAEGPDS QVAMDALAA


 K H S P K S I M D I M DL G IM P G T Q I Y I Q A D GA D E A Q A I Q Y I K D Y TAP A R S S L K L L L L $E V T A D S V M G L L L L E S S Q G Q N I D I S A K G A Q A Q Q A L S A V C A L$


S A G G D S I MM G L L MMLAA A S K G S S
 TAAATDVLQI MGLGITTCGTEVTVEAS GEEETAAVYTMLAGM LA DAK S LVGGLLQL GLLRAGDSITVVAE GADATALLQRLRAV RVNAKS IVMGVMMLAAGNGSTVEI DAS GEREQE
 AVNAKSAMKLVG $\quad$ GGATKNHRLRFVAQGDDAEQAMEALAKA $K I N A K S L L G V L S M G I T K G T R V S I I A E G P D E E E A V K A L T D M$

 P V N A A S L L G G V I S Q G i
 ESNVK S F L N L LAA A CDK C G DE I E I RAC E GPDEK EA L E E I V K M $R V N G K S I M G L M T L A A A Q G T D L T L E T D G E G E Q$
 $P V D A R S M L S V L A L A A Q H G D L L V L D S A V G D S A P D A V E E L A G L$


 | $E$ | $V$ | $E$ | $A$ |
| :--- | :--- | :--- | :--- |
| $H$ | $V$ | $S$ | $C$ | S D GK SIMMAVMMLAAGKG KNAKSIMGMMSMNFANGSEI TIVADGSDEKEAVDAI AAY

 TADATKIMAIMAMGVMKDMEVEVVTVEGDNADAAATELEAF

 EARGDSVVSALMNLGLAE GSEVVLHARGEDTQAVLAADAEL QAN AK S L V SIM GLGIE Q G D KVVLVA E GPD
ALDAAS I L S L MS L GAKHGDRVVL RSEGPGADAVLEKLAA I QASADSVVGLMMLEAAQGETI RVIDDGPEADEVMDAVLHLD

 $T V G G C S L M A L L M L G A A R G A E I T I E A K G Q D A A A A L D D L E D L$ EAEANSVI ALL M L D S A Q G G QI EI QA T G P D E R Q A L D A V V S L
 SVVGGTS I M G L L M L GA GK G T Q V V V A A R G P E A D A A I A A V T A L QANAKSMLSVMMGLGAKNGDVIVVMADGADEAAAAAADLETF
 GKDAKS L L G I MS L G L S K GK S A EL V S T DPA GERAVNALA DL AVNAKSLMKVIALGVKHGHELQFTADGADAKE
A ANGRSLASLLKLGVTTGRQIRLHAKGPQSQAALAALKNA


 QATADSVMGLLMLESSAQGQRI SI CADGDDASTALDAVCQL $V$ V S G Q S I M G L MMMLAA A S Q G C T V T L R A Q G K Q A E P V I A A L V D





 SASLDSLI GIMGLGVEELAQVEI SCRGKDREAAI QALLQV WVDGKSLMGMMHLHGRKHEWLTLVTNGKEEAAAI DALIAF RVNAKS I M GVMMLAACNGSNIXI ETVGDDSEAAMEAIVVD SVISARDLMALMAL GAHQGDTLDVVIVEGEDERAAAE GI RAA DPDARSILSVLGLGARGGDEVVLSADGPQAEQALDELAA I
 VL NAKSMNNVALLGIKCGDVI TLHALGPEAQQ PI NAK S $\quad$ M M L LMASCl K Q G S EI E I Q C T G



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 RESVLIVNKRGLHARASAKFVNHVADLPGSVTVVKD GS $M \square E R Q L V V S N R D L G L H A R A T A R L V Q L L D S G K C S A T L D A K G R$ SAEVVLTNEVGGLHARPAALVVRSLAAGLDAQVVVRFGDE MEKEI I I GSTAGLHATEAAKVVQTASKYAVDI KLYYKDK
 $\mathrm{M} \square$

SRHLLI K R SFRMTDPQGMHARPASAVVKVAKGFSSDLTLVAEDA

 RFD WVV DYPTGLHARPATAWVETARASAARIQVRHGDL LRFS WTVLN P H GLLHARPAAA VVGALAGFDAVLQUEKAEE $M$ L K K P V T I Q T D M S T E D R S V A L L V Q E A S Q Y Q S QV F F E V E E K MAERRVVNGWAEGLHARPAS IVVRAATAS G $\square P V T \square A K D T A$ VK Q TVEI TVNKLGMHARPAMKLFELMQGFDAEVLLRND GT




 $M A H R R L R I Q N M K G Q H A R A S A R L V V E V E A H D A Q A T V S R D G M$ $M \mathrm{~V}$ S K T I I F N Y R Y GI D DY F A T E V M R K A REFESKIIE I E Y D G K RPAMQFVDVASDFKCDI TVSNSEN

S QP I NLPNPNGLHAARPAAVVFAQAAKAFSATIHHLHKLQA $M L Q E T M K V K \square K N G A D V R I L A E L V Q V A D Y Y S C S I Y L E K D G K$ $M P Q R T V A V A A L L G L H A R P A T L F V Q A A K E T G L P V T I A R E G Q$
 I TSQNGFHLLRPAARFAAEAKKFNASI EAETRGK $M Y T Q T V R V G S E V G L H A R P A A L I A R K A Q E F E A A V F V T L G D E$
 $M L Q Q T L E I$ I NKRGLHARAAAKLASLASKFKAQVQVRVGGN




 Q A EVVEVTHGVGLHARPSVAFTRLAAKSFPCTVEVAVDGS
 PTRQIQQANAHGLHARPAKILAQLAKEFDGEI RLETGEA MKEFQYVLTDREGI HARPAGLLVKKANEFQSDI KIIERGGK
 $V R D E W R L D Y P N G L H A R P A A L W V E A A R R S P A Q L Q V R H G G R$ $N V R L V H A V G M H A R P A V K L T K L A K K F Q A Q I S V R V A G E$
 LQTEWRVANPHGLHARPAAAIVGSLAGLEADVWLERHGQ



SARVKVAHHGGLHARPAALVQRAAANFNSRSQLTFKGQQ
 MEKKEFHI I AE T GI HARPATMLVQAASKFSSDI NI EFS GK $M L M K K L I V K L P R G L Q A R H T A D F A R K V T A F E S K I I L L S K D G K$ $M L D K R I M V Q L P G G L Q A R H T A L F V H K A F S F K S N I L L A K D G K$ $T V C V K N Y T G I C E R S A A I L A G M A N R F D S N I E I H K G N H$
 KE $\square \mathrm{K}$ L TVVNKLGLHARPAAKFVACATEFQSQIKVRKGSN

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

 MT E I T MEERRLV R R L R
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 VEDRFVVTVAQGLHARPAARFVRTAAALDARVEVENGTT MS K K S IVVTKKVCEGHDNPDAE LVQVACKFDSEI T L E S D N R $R F V V L N P Q G L H A R P A A R L M Q V L S R F S A A L R L R N Q S Q$ $M L N \square R F T C P L P N G L H A R P A S A L E Q R V S A F Q A R V Q I G N L R N$ MPSTDVAIGSPVGLHARPASLFVQAAAATGLPVTIAADGA




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E VN G K S I IM G|I|MM|L|A A S K G VTT|V|C|L|TVD G
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 VADAKAVVALLQLGLRAGDSVVVSAEGDDAVAALARMKAT RANAK S L NA I A G L S V R R D D E I TFIIA R G VQ A E Q A IA A F K A L


 S A N A K S MA A L L A M M A K L TA DAK DVMSIMAMNTVAGDEVVVFCDDGPDEEAAMKAVESV


## S





 TVVATS GLMMIMTLGAQYGDEVVIVSE E EDAVRQVSKL



 PSDASSSSLMIMALGAEHGDQVIVMSSDNADAVEAIAAALVE




 SADAKRIFAVMGLGAKCGEQIAVT
A V N A A S L L GV DA L A V E H G D Y V T L T A D G D G A E
TANGKSIL QVLSL GAQYHDDVTIDYETDDGTQVMDCEQSL AADAKNLISLLQLGLRQGDLVAVSARGPQAEEGVRQLLKA WINAKSVVKIVAMRAAHGSTIVI RASGSDAEAAVAALVDLL CVVRPDSIVNQIALLQQRCNDTLRLLARGPDA
TVNAASTMSIMTLGAKSGQTFKLEVEGQNEEEDFNT@KDY $R V N A R S L N S I A K L S V K L G D V I T F I D S A G P Q A A E A V S A F N A B$ $P V P A K S I L M L L T L G A D H D D E V I L I R A E G E G A E A A V D E L A A L$ A A D A K R I FGVVMGLAAKQ GEEVVI R V
DTPAASMIAVTSL GVEHGEEI RIVADGPNAEATDDELERVV

 SVNLK S I M GVMSLGVGQGADVTIT
TAD GK DI MR I M DLVVVKE GDEIITLLVDGCDE QMAMKT LEVVY SANAKYIMKVMELAVKEGDEITTLLTGGDDEHAAVRTLEEF KVNAK HVLMI EALGLIDKGTTI EI WADGEDAEEAVRS LAKV WFDAKSIVKVMMAAKAPKGTVLIHIRARGDGANAAVDALVEL $M V D A K S I M S V M M L A A G K G T R L Q L H V D G$
F V R A D S I Y QV TMLG $\square R Q G H E I A I T$ AT G
TVV G T SI M GLMMLAAAPGCCIRVETSGP



 S P S A A S LTGVVIGLGARRGQWLVLSAE GADAQQALTNVAEA RSSAESLLNLLQQLGAAQGHQILI RAEGEDERE


 TVSGDSIMGLLMLAASRGTSIDIATSGP
$P V P A R S M L S V L A L G A R R G T E V T L E A D G D G A E Q$
DAA GGS IL GL MMLGAAK GDTI EI A VT GSEAHAVLGDVVDL PVSAGSLNSIATLGVREGHELVVRASGPDARRALEQLRAV KI N A K S I M GI M A F N P S D G M S V DIV T K G D D E Q E A L VA I E N F
 PVDARSLLAVMALGARHGDTVTL
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 A A N A K S: V G L L L S L Q Q G D HV I V E A N G

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UniRef90_V4QH69 MLERQVEVVKLIKTGLLQARPAALFVQEANRFSADVFLEKDGK PQRSVVLANAHGLHARPATHLVNLTKTFQGDIQVAVDGS TAKVRVRNAHGLHARPAKQLVQVARNQPLAVRVRLGAE VERTLILPLRHGLHARPAARIADCARGFDAVVEIVADGR PSARAVLANPHGLHARPAQALAQLAKGFAGEIRVRSEAA MHARPASTLAQVAAAYVSSVTISYGSR MVEKS VVTSSTGLQGRGSARLAHAANQFESDLLLVNDVC METFQYTLTDEUGIHARPAGELAKDAKEFQSKITIKTETK FSWTMEYPNGLHARPATLWVETARRFDADVLVRNHQE
 RFDWTMDYPTGLHARPATEWAEAARRFPCRVRVRHGSE YSLTVTVADEAGLHARPASRDAELAAEAAGDVTLSCHGE MESFKYIINNTNNIHARPLSELAKIAKDSECDVTIIKDNT MFQKNAVFPSTKLDPQAAARFVKAAHQFKAHISLEKAGY MTTRLTLNLRGGHARPAARLAQEAQRYAADIQLDGETG LTASAASSVGLHARPAALFTAAVEETGFDITISLDGE KKVRVLNAHGLHARPAKQLVQVARNQGMPIKVEGGAE KKKFKILDYPGLHARPGSEFVKLCQGFDSSVTIVVGDK ELELENEHGLHARPAALLVRAASGFEAEVTV N REVVVPLAHG| HARPAARLREVLVPFAARVTITKGDQ $Y K Q T V T V A D A A G L H A R P A S K V A E M A A T A D G D V V I T Y D G E$

$M P S R D V V G S R I G L H G R A A V V A R A A A Q P V P V R I V G Q R ~$ | $R Q V V T V K M K Q G L H E R P D S E I V R D A R D Y T C D F K I S N G D Q$ |
| :---: |
| $M P A R T V T V A S S S G L H A R P A D F S Q A A S E Q S V A V T I E T G S S$ | VQGHIHVAHRGGLHARPAALTRQTAQQFKSKSWLHFAGK QVRIAHRGGLHARPAALIRQTAQGFKSRSHLHFGGK

FDUTVPGAHGLHARPATALVGVAKRFQAQVRVRHGDK
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 DVVLKGKAGMHARPATAFVDIARQFECDIRVRCGSK MEAFNALLVNEVGLHARPSVKLTQLAKRFAVEIA:AADGP MPSTTVTVGSAVGLHVRPALVISEKAVALQSNVALHKGNR DVEIVNQRGLHARAAAKFVTVAEKFTAEIDVTHAGM MTQTVEVADDEKTHKNABAELVQTACKFESHIEVESEGK
 MANGVRPASTFVKKAKEYSSETTIESDGK MLSAVFTDRNSSGIUVRPAGTVVKLFEGEECEATLTYMGK MDSIEFSCPLPNGLHARPAWALKEQCSVWRSDI RFIJNNT

Sid MQTVTIEVTVKEGLHSRPSSMIAEDASKYPCNIKVVEDGR PSASVVLANAHGLHARPAKELARVAKASTGEVRVRVDGG MEKTVKVGLSQGLHASNAAALVERASQFKADVHLKKGNS VRGSAVLRNRLGLHARPAAVVARLMAGFDARVLV MDERTA CELPNGVHARPASLEALCNTFTSSVEWVRTTR
 MLVQTASKFDSDINLEYKGK
 MYTRKATVGAAVGLHARPAAVFVRAVNQTGLPVTLAKGGC MASKTVSVGSAVGLHARPATIIAEAAGEFDEDIFVGEEDD
 MPSTTATVGSAVGLHARPATIIAEAVADSGSTVTLEEGGD FDAVITSPHGLHARPATALVDIAKGFGATIRVRHGDR RTATVNDPVGUHARAAEFAQAATASGCAVTVAKGGN RLVVTDAHGLHARPASRLVGAVRGLDADVRARNGSE EVDVDIINRILGLHARAAAKLVETVSGYRSSIRIGRGER PSRRIVLANAHGLHARPATYLVNMTKKFAGDILIAVDGA MASTTVTVGSTVGLHARPATVIADAAAEYDDEILLEDDIE MPSKTVTVGSAVGLHARPAAIIAEAVVNAGVPVSLSMDGE VTGKVRLDHAAGMHARPAVKLTKLKRFQAQIS RASET KVAHHGGLHARPAALLRQTAQGFASHAELHFNGQ
 VSREVPVINKRGLHARASAKFVQMVERFNAEVWVTRNGE MYEKSVTITAKHGI HTRPAALLVKEAKTFDCDVMVECNGK
 MTKEELVVNNVSGLQGKPAALFIQKASNFKANTWVEKGER MAER\|ITVGSTHGLHARPAKLFVEAVKSSGAAVKLSKGGK MKSFDYVIKDPVGMHARPAAVLAKLVKESMTDVIITANGK VVADPVGLHARPAAAFRRAGFDAEVTVGN MYKVEAIIKNKRAFDATTVDYFVKTASRFRSEIKI DKNGN MHARPADMLCELIQQFESTVRLRNCHN

 Q V D A S S I I A D L MA D A R NMIS L L G L G L K Q G D LL TVV A E G SAEADSAMML MS L G VV S Q GASVVTI S GDVSD KDVIDRIATA
 $R$ VNGKSI MGLLLELTHRAGSEI TLLTAEGPDAEQALQVLGEM
 EVDA A K S ML D $V$ V

 TAN GK S L L S L FK V E PK QYSE I E DN DD G T DEE L L MR E L T GVDASSLL RVLAL GLDRGATARFEATGPQADEADAA IGELL

DAEAD SAMML MS L GAPHGASVVTVSGEAGDSAALVDQDADG $P$ V N A A S V I S V L A L G A T G G D TVV TI EAE GE GAE QALAD MA A L


 VA D AR SL G G L L R L G A GP GAVVLRVVA E GPDA QQA LTA VQ D A KADAKS SLLALI GTGTLFNDSCSLNDSGSDEEQARRVLEEY AVSATS LTKVI GLGARRGQTVVFSAEGDGAAQAVSALAEA P ALAN RLNRLLALGDEKGHLI RIEASGEDAE TAVDLLAR Q TVS GQS I M GL MMLAA A L G T S V HLAA R GP Q
TANAKNVMEVMRLSARAGTEVHI QATGPDEVAAVKVIAAL E T DMARPVKVMAMS $\quad$ MKQGDTVTI HDEGEDEDLAAMELEAF GADGAS MMELMTLAAGQGATLHVEARGEDAQKAVDYVRGL $G V D A K S V M L L M T L G L K Q G Q T L H V A A T G P D A R K A V D$
VANGKSMLALLKL GAETQSTLRIMAQGKDE
WT DAKSPVKI MRVKAAKGETLFMRANGADAEAAVSALVDL VANAKK LMDI MIL RVRCGDEVLFDMEGPDEKEMLNEVREF PVDAGSALMIMTLGAEKGTAVTVE SDDDQSAVDQIAAL TVSGHSIMGLMMLGAGRGETIGMTARGPQ

 SVS GKS L F RLQTLELSSGKKLLI CAEGEDEEDAASEAA

 V V R G D S I NQV T T L GVRQ GHE LLI T A T G
KANAK S TVVEI I I L G G DY K E K I TTIIA N GK E E TE I IDDK LS E L VA SVD S LV G M GL G V A E Q DEV EV I CR GE D TVSAKSLSRLLLALGARRGQVLEFLAEGTDAEALLGDLVAA II NVVK S L L L M S I VL K P G D DV Q L T A D G
GVNAASVLELMKLGAVQGQEVVVEAHGPQAVEARDALLAAB

 EP DAGSALMI MTVLGAAKGTEVVTV|RSE DQAALDKVAAL

 EVDARSLLAV MTADFPFGCEVELAVDAEEVRAALDALA QL ETDAASSLMMMALGAEKGDQVVVT
QA DCKN IMELLLSL EAAFGEEL RFEFD GA S A D A T K L M E ML S L G T Q G T L V T V S PVDA GSALMMMTLGAEKGAKVVVTAE A GDA K S LI A L LDNL Gl IE S GA T I R V
 WADVTSLSRLAGLGVLAGQEI EVVASGPDATTALDRVGA $T V N A K S I M S I L I L G A P Q N G E I F V R I K G K D A S R V L Q K V Q N A$


 WI NAK S VAK V MAMRAPRDS TI EI KA H GEDAEAAVAA L I S L L VA A L N S LVA I MG L GVGEQ DEIVIVCS GA D
CANPRSLNQLALLQVRQGDSVRLIASGTQ

 QASAKSLFKLQT
WA D AK SVLLSLDGGD LLFNDVVD IE $\square D G E G A A R V A D E L G R F$ QA DAKSAVAIMALATRCGDEVRLSGCGS
KANAKS LL GLLS L GVGS GNKI TI DAEGEDETQADKELES Y TVVDA G S: L GV I S L G I D H G D K I V L T T
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GAD G GS V L E L M A L G I T Q G Q S V HI E A N G



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1
METYKHLI I SRDGLHARTAVYLAKDCRDAESTVEVVRKER MKTVDYKI QDPNGLHARPTTKLIDSIISKYKKVIMKYEGK MLGRSVT GDPLGGVARAAALARTAGRFKSSVWLSCHDG MITRTCVKNASGVHVRPASAIVKLLEAEDCEVSFTYAEK MAQVTATV ASKVGLHARPAATFVKAVADSGVKVTI AKGGA VSRELTVVRRGLHARASAKFVCTVKLNASVSVAKDGM PSQEWTLDANSGLLHARPASLWADFAKKAQSSIRVRHGGY
MQTTFRI TDEDG1 HARPATALVNTANKFGAESEAEANGKKKEVTC
M

E

 QFQFQCVLPNGUHARPANHLEQQCRQFACQIILLTNHNN $M A E R T V V V A S R V G L H A R P A M L F T Q V V A A G G G A V T I A R G Q E$
 RIG WTVVDYPA G LIHA RPA S A WA EAA K S LAA T P I R I R H D E D
 M K E E L T V

 $M$ IV R T VIV K S R V G L H A R P A K V FA KAAA A A T G F P V T L S K G E A

 MA E R R V M A S K D A V V G S A V G L H A R P A A L I A E K A G E F D D E I L L
 MK E I I V EI K N E Q G V H A R PA G Q I V N I A K R Y K A T L E I E K V G E

 PSARDA ANAHGLHARPAKERAQLAKSFEGEVRLRLVDS MQTMTIK TVKEGH SKPSSMl ADFASQYPCDI KLVTEDK MPERRVTVASKVGLHARPAALLAKAAAERKPRIT:AKGGQ
 MKIVTGIVKANNGLTARLSTQIVAEANRFKSKCTIKVMDE MRKESLTVVRRQGFHVILAKQFTELAASFSEEIRVVWPAR LSAEFVVRNEHGLHARPGTMLVNTIKQFNSDITVTNTGK MPSTTVTVGSAVGLHARPATIIAEAAAESGQSVTIGLEGE MAERRVTVWNG MAERTVTVASKVGLHARPAALVARDAAAQPVVT AKGGA MPSHKAVVTASAGLHARPAADFVRAVMDTGLDVVI AKDGI VSAELQLINPMGLHARPAATLAGALGAMDVDIEI AK N

TYQCELKDGI HARPAGHIERLCNTFQSEVCWIRSGD MKQFEFVVQDAMGI HARPAADMAAAAKKFTSLILLKKEEM MSRRRVGIUSGVGLHARPAALLAKSAAAQPVSVT AKAGE TRTVEMASRVGLQGSGSARVALACSQFHSEELLVCHDC MPSTNVPVGSSVGLHARPAAVIAEAVAEAGVPVTLSAGGE
 $V R R Q T V L T Q P G G L H A R P A A R A R E S V R G F D A T V D V Q F D G R$ LEMDVELRGKHGLHVRPCASLVKCASDPNVSVKIKNNGL SYQCDLSEGI HARPAGHI ERLCNSFQSNVCWKNSGL MIERTAVITAKAGGLHVRPASALVEAARKFKSDVWIERDGK MIERTAVIAAAAGLHARPAAAFAYAAAEQTVPVEIAKAAA SAHVRITHRGGVHARPAALI RKTAQGFSSQAQLHFAGK MHHYTFTVMKENGLHVRMVATLDAKLKKLFSDVYLDYNGQ
 EIVMPGNVGLHARPAAALAAIARRFQAD\|RVRHGDK AMKLVNVLGNFESSIKMKYRNK

 VTRRLT ILNKRGLHARASAKFVQTVEKFDASVAVAKDGM FVNTI SQFDYDFDLVSGRY


LS DEVT LPNPAGLHARPAAVVAAEAKKYRSDTRLLRGNA
 MTEREI QFSNMEED LQFCSICKKMDADI DVKNGKK MPSTTVAVGSAVGLHARPATIIADAAAGAAVPVTLSEGGE MFKNSI IVNCENGI HTRDAAMIVQLKNKYNINLYIKKDAG





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RANGKEVV|FSVVNLVANQGDELEFLVDGSDEEE\|LGQDAVF
 $T V N A K S I M S I L I L G A P Q N G K I V V R D R G K N A Y R V L Q K L Q N A$ $T P V A A S L L Q Q M T L G V E C G D T V T L H A E \quad D G A D E V L E R L A G V$ P V D A A S $L$
TVGGGTS I M G L M MLAAA G DN S TI I V S A A GPEAEAADLDADEAL
 AV A R S L SK L L GL G $\square R R$ G QV L ELL A E P G $\square$ A D Q A L P V L R Q A K V T L K S I L G V L S L G L E Q G D TII N I I C
 $S G S A K S V L S V V G T D T L L D N P C S L I I D G D D A E A A F D V L A T Y$

 DADADSAMS L M GLGGECGEEVVTVSGDRS EKA LIDS I A DA AVSANSMLAVTGLNVDHGEQVRIT
SGDAKSVLAALVGTDTLLDNDNCTMNFEGDDSEQACQTQQSY GVD GASMTGLMTEAAGKGSVLHVEASGPDAERAVAYVAGL
 MA D P R S I V S L L Q L G L K A GERAT I SA S $K G D A R S A L A L I G G D T L A G D A C R L I D H G E D E Q S A H Q R L A Q W$


## TADAKSIL

E V S G D S I M G L L M LAA A S K G T F IDDVETS GAAADELAEALKTL K K D V K K I I G I M Q L N L K
T A N A A S I L A V LAA L A V G H G D T V TVV
 $P \vee S \square R S L S K L D S L G A R R G Q V L E F F A E P A D A E R A L A A B V R L A$ $T R D A A S L L S V M G L G V Q S G E E V V L T$
GVDAAS PL MI MTLGAGK GATVRVVE
E PLADDSMLAL DSL K DKQ HE II E I S CDSSKAESAVLELCNF NEDGKNVFGVMTL GAAKGEKL KL R A
 $P \vee A T S S L I A L A S L G A R R G D V L R V R A T G R Q$
QVVDC R S I L S L LTTL GATEGTVELILTAAQGHDAEAA $\square$

 C EM M E DS ML A A L I S L K
 N $\square D A K S G L V M A L D V S A G D V L E L V A E G P E E D R A V E A L D A L L$ PANGRSLMKVVALALRK
EPD A GSAALLI MTLLGAEKGTPVVVTA D D D S T LDDATA AL NANARSTVAMLGLGLRHGDRLLISARGDDARAAVTTTIATG $P$ V N A G S ML G L L A L G A A G G D A V V L S S D A D GA E A A L D R V A K L $P V A A S S V L N L M T L G A A H G D S V V I A A E G D G A E A A V N A V A D L$ $P \vee N A R S M L A V T G L G V E S G E D V R L F V E G$ $P V D A R S D L Q V M G A D F Q H G C E V V L S V D G P N A A G A L V S L A D L$



 STD A K DVMA V MR L S A R A G T K V TV Q A A G P D E VA
$P V D A G S A L L I M T L G A T A G T E V T V E S E \quad D Q A A L D T \square A K L$
 YVDGKS MMQV SS L R AAS GQKLHVVFEGENPK VAEKVVEF
 EANGKSVI S
PE QADS L L GVMS LDVAA Q GDRVVLRATGAGAEQALET LVQL D P ME DNV L R L VAALKVA C G D S V FVVSAE G D N GRQAVGEMVRF SAACDSLI GLLGLGI GEGDEVRVSCRGKDCE

 V A S G K A L A A S L L T L G G V E A G A R F HV L A S G P D A D A A L R A L R V A A

 GAEADSALMMMGLGDAHGD TATVVGSHADSK VI DRIA DA $E V D G K S \| L G M M L A A G H G S V I S I T T E G G Q E A E A L T A L G D L$ $R \vee G G T S$

## VIDAK S $\square$ M G $\square F S G D L S K P \square D L T V H A D G \quad D A E D V M S T L K D Y$

 SDNAKSIVSIMALATRFGDTLRVQATGPDASE
RADAKSVFNIMGLGAFCDAKLIL
WID GK SLLGLMSLDM GDRLKLVVHGEDEE






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| UniRef90-SOISD0 | L E |
| UniRef90-R6RRJ2 | V |
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| UniRef90-W9A2C5 | 1 E Q |
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| UniRef90_U2QFN9 |  |
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| UniRef90-M4S159 |  |
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| UniRef90-F0YVJ6 |  |
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| UniRef90 ${ }^{\text {I4X5}}$ | L S Q |

$\square R R S F A \square A C P G G \square H A R P A A R A M A V A K A F D A D V L L H Y Q G R$ MQEDE DE $\square$ INKDG LHARPATEFVNGVMRFDFDVDLVSGRY
 $M Q K A K I K I I N K N G I H S R S A N I I A E L A N K S S C D I K I T K D G R$


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E|V|D|V|KSLLGM
50
QARMSSLVELDNLGA A NTEAICLTTRGKDELEALEYVVSL GESATLELVAGGVD KADAKSTIEI IILGGI I YKKEKI KI TVVGKKEK\ATKN DKF







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| sol0 |  |
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| jpssm |  |

