## QUERY

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UniRef90－P05003
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D NLCT GLHRQLEDLDTCLEQEEEESALGTEGPTLAVKRYF
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CDLSPNHVRKNLRL
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CDPRDHSDRALMLROMKDSSSCDKBRDFG

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C SRALULLKKMMRLS CDLPQULKQETFTPLGQMRR

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 QQRSSNGACQKLLWKLNGA PES
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RTVVTK K NA RLL L S SMSNS F P
NRDTWQNDRTLNKMSDSFP
 QRSSNFQCQKLLWQLNGRLPDYCLKDRMDF

D LQRRSNFQSQKLLWQLNGRL EYCLKDRMNFEVPKEIT
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 K ELC TVLDQQNNLEVCLMQEMEEEGS L

ACLMOQV
EEFCSNLWQLQELESCLMLGEEEGTPLMNQGPTLAVRSYF
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  FCTGLYELLKLQACLTQEAGQEPLLMHEDSRLAVRKYF $H G L L S G L H R Q L E D L G T C P E M K E V E S V L G T E D P T L A M K R Y F$
$E Q L H T G L H Q Q L D D L D A C Q V M G E E D S A L G R D G P T L A V K R Y F$ EP L RTGGLHRQEDLDSCLVQLSAEGSAPGLWGSTVAMKRYF E ELCSSGI Y QQVNNDLQACCLMQEAGVEEMALVNGDSILRRNYF
 DSFCNYLYHLRRDLKKDCQNQQVGEQEVLTQEPSWWAVREYF K ELQA GLYSQWEELRGCLVEEEEDSALVVERPTQAVVRYF \QQLMGLDQQLELKS CVGQEVEWKEHLKSENP IQQALQTYF

 DQFHTGHYQQLNGLEWMXEVGVXXSDRMNEASTLALRKYF DQLHNGLYQQEDLETCSMQAVGEGSVLADEGPVLAVKRYF $E K F C T D L H Q Q L D L Q A C L M Q Q V G E Q P A L S Q E D S L V A V R K Y F$
$M Q L L I G V Q Q L E V$ $M Q L L I G L D Q Q 1$ ELERCLTQDVEQDESLGRENPLMALKK KF DQLLSRLDHGLDRL EQMEGDNLACAY GSVVRKYF
 DQLRDGLDHQLQLESCLRQDEWEVPSLGSENPMMALKSYF EELCSGLSEQVDDLDSCLLQEARLAEAPLLHEDSTLRTYF

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$\stackrel{\mathrm{D}}{\mathrm{D}}$
KQDOTDDKKRF
KQ\Q\GDDQQLQYERCLEEEEKHSEATVPQLSNDELRRYF EKFLIELHQQLEYLEALTGLEAEQRSGGIEKLRLQVKMYF EDLLVEI DRIDHVETILAEGMKEKNFTRGDMTILHLRMYY EMFLIVLHQQLEYLEALTELEAEQKSGSDRNXNLRVKMYF EKFLMELHQQLELLEAFIGLEAEQNSGSSENLRMQVKMYF KDLCI GLD RQQLDQLERLQRQEPELKSDTLDSETFRVKTYF EKFLTELHQQLDHLEALEAEQK SHPLGTDSFMLQVKMYF NTFCTGLHHLLKDLQACLMEQGEVQEPSSEDSLVSVRNYF KQLQDGLDQQLEYDTKQMEEDSYSGAREPLLSNLELRRYF ENLLVELHQQMHLKSAILQEVLEGKTLTAEDTTARLKSYY ENLLANVYHQTNHLKTVLEEEKEDFTRGKLMSSLHLKRYY E IFLSGI YQQMVHLEEAL KVNSAWGTAESILPLNNYY EQUQTGLDQQLQYLEQCLKEEKHPGTRGPQPSNLELRRYF
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 QPRQ CQRENATMMI HEMLLQQTLI L FSSKNACPDVNDTII







 ETITQI RK $K P K F Q$
Q P

E Y N

## R

P P N Q

DGN LSQQK
$K$
SNHQ V V KAA
D A

LH T Q SVKKR I K EAFYEI SIQQAFNI F S RSKAPH NAWMATYEILQQLFSL F K $\quad \mathrm{RLS}$ QQENAKVAlQQILQELFHIVNTENSRAAWNNALL
 GGS QLLP K A Q A I S V L M H E V T Q H T F Q L QPK Q Y QK E N A T M V I H E MLLQ Q $\quad$ F L L L F S S K N A S L G V N N T I I S D A QP L K R R D I K E A F Y EMA DQA F N I F DQ DT F Q S T WE E K H L E DTQQHMAQGPCFQK LMLQQQVFRLVNTEASRAAWN S SL KHPQQLQKEHAAFVIYEMLQDIFVIFTRNFSNTGWNETIV
 HPHQ FQQQEATEADHDLQQQQFNDFSRNHSQTGWDEAVV



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



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UniRef90_L5KKJ7
UniRef90_B6CGU8
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UniRef90_UPI0003AEB774
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K QI Q

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 GK LSTGHHEQDDETCFMQTMAEEKSVLADKPPTLAGVKYX ENLLVEFYQQMDRMEPLLEENTEKESTGLGNNILHLKSYY ENLRAELYQQMDRLDTULEEYMEESTWGNVKTLVHLKKYY YQLLSRLHHSLEELD QTNSGNLVCPDLSGEVRNYF
 ENFQHGGLHRQLEEL EVCLEEDTDPSQASVGSNRLRAKKYF DQLLSRLUHSLLEQL EQLLESKEEENLACCYLGTVARNYF GSFLNGLTLQTERLETCLPTKA DALLANFHQQMDSLETTLDEKDEDKNGGKVTN ILLHLKSYY EGLLS GLYRQTVKAEAWPEQETGQEDHSSEDTRLGIKNYF




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D

## R


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D QLLS SLDLGLLR RL
ENLTDELH QQMDHLKSTILQ
MEIQMGLNQQMEYLEQCLEEERLEDKNMTMMTTLLRLKSYY



AELHTALQQQLLDLNACLVQGRAQQSVLTTESPXLAMLRRYF









 E KF ST E L Y Q Q N DLL EA CVVIDQE GVE E T PLLMNE D S I L A V R K Y F E K L L S S L H H S L E H L






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$1 \quad Q L W H G S L^{10} C A K L L L Q L N G^{20} T \quad T E D C|L| N E R \prod N F K|V| P K E \square T K$ $C Q L Q G Q L V R \square T H N L L D R M G G H F P G E C M Q D N N V F A F P A T A F$ $\begin{array}{lllllllllll}D & T & G & D & V & R & F & P & Q & P & L \\ D & T & G & D & V & R & F & P & Q & P & L\end{array}$

$Q Q R R S S V V C Q N L L W Q L P S T P Q H C L E F R M D F Q V P E E E M$ Q S S T N S E C L E L L E Q L D G $\quad$ Q


 MGQQFPEQCQSEKMHFKFPEQF



 QQS WS SL E S QKL L L Q L N G T T Q L C L D D RMM F K V P E E E M M


RSSNSACLLKLLRQVKGK PEHCQQDRMDFKFPEEDK S QQKS S ILVVCQDLLLNQLNGSAT DCDKQRMNS KDPEEEI K


RE ILLILLRWLKMVPSHSCLKDRFNFHFAWKTG
 $C D L P Q Q L S$ M G GCFSQQC
CNFILHHLR R N LRVLNTMSNSFP LE C $C$ V
 CSLQRRRLVQTCHHLLDSMGGAFPFRCLDDYVLVPFPRAAF

HRLENREDFMLLRQ QKRDPSHSCLKDRTDFKFPGKRG
KL N D V S ID L L S DMG GL F P L M CAE E NVE QM F P E D L Y
CDQDHRRSKETARFLAE LRSVVPGHQCLRDRTDFPCPWKE G
QQRSTNLECQRLMMKLSGT
QLLS S S SVE C QNLL L QLLNGT TKDCDKDRMNFRFPEELLM
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KKHNERYLELLDTMANNSTNSTEDDEVKNTFPDHLY $F Q Q R M N R D G L Q L P N N L Q D S S V Q Q C L P H R K N F E L D Q K S V$

SRETLRKLRQLQNVPSGSCTHDRIDFRFPWKP



WD S L Q L L R NMAPSPT QPCPQQHAPCSFPDTLL



K Q M $\square Q N N L H Q L C R A N E E D P L$ K C L P P V VT DFRFPPLEVL

QSTS $\square R T C Q K L L R Q L N G$
$R L N L S Y$ R T D F K $\quad$ LIM M E V M

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F SCLKDRNDFGFPQEAF
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 KHKFP Q K AQMAAHE LQQQLFGI FSRNLDQTRWEKGDV R DSQEQKEEDATCCHSEMLRQLLQLFATEASRDAWAERPL



 ESNTRKQTVALEKS IYITLEYINSMLNDHELPDQWTQEKL DSSQL QKVQT $\square S V L H E M D Q Q T F N D F H T E G A S A A W N T T L L$
N VTETQTSQGTCYHHLMLQQIINLFNTEDSHAACNNTL KNT EGEDVSVVALEAMRYVDQLYNNSDTPVTWNRTKL QTMMQMNKTQRICLHHVMTAQUFKIFATRRSFAEWDRNRL NGRRRSQSGQALAILLHEMLLQTFSLFRAGDSLDGWEEDRV $H G K Q L S Q K A Q A D S V L H E M T Q Q T F N L I F S T N D S P E A W N K T L L$
$T N D T P M T L G E T T S C Y S Q S L R Q V L H L F D T E A S R A A W H E R A L$ SMDGASHEENAKDTDQEMLQQLDLIFKQVHAELFWDENSLC


## 

 A $\square \mathrm{H}_{\mathrm{C}} \mathrm{D} P$ EKPQQQVQKEALLLVTTLDMFQKTSDTI MDGSQVQKAQAISVLHKMFQETSNIFCTEHSAVWNMTVV RTDTQLQKTQSTCFHHQMDPQVFNLFSADHSQAAWSHAAL
 DGNQL D KMHATTTLLDHEVVQQQIFNLIFSTS GSLLAT WD DT LL
 E S N T R Q E TV


 H Q Y QK G H I L A I L H H M L Q Q I F N L F R A V I S L D G WE E I Q M SQASKASAEDKLAFTVQVLNET $N S Q P Y Q K B C A L T M E E M X$
 EGSQQ QEAQAFSVLHEMMLQQTFNLFHTEDSHAPWGDLLL ENNTQMQRTQAFSGFHHVMLS EKMQKS

DTN S LIQ P V T TQQAA H T A L H L L Q HL F D T L S S P S TPA H WL H T A R
 $K \boxtimes S N R G N A \square I \quad I \quad Y E \square L Q Q I S C L L S K G H S Y N V W N S T C F$
 $P \vee T Q G$
$R Q V S$
MEKSYTAF
$D G N$

UniRef90-G1TTX4

## UniRef90-T2K1N4

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$\qquad$ EK $\square E K K$ QPYSRSEEDK LKKHF
GEGERAPGMHGPALAAKRYF DKLRAADDQQLDLQACLRQEEGRGARLLKEDSSLAVRKYF
 D EFQNLVVRQQDFNTCVDGEKMEKKQPYSRKEEVKLKKYF

 $G Q L V T S L$ LLSGLEALEGGAAEPSPACAPPLAMAIRTYF | E H V |
| :--- | :--- | :--- |


 D LL LDKL HQQMDRLKSTILLQERPEDTNGKMMT TLRLKSYY D D L L D K L H Q Q M D R L K S T I L Q ERRPEDTN


 EQFQNGUHQQ\|EELE\|CLSEEQSKARNTFQSTTFSVKKYF
 QHLRMGLYEQMHQAQDCFMDEEEENKEGDHKPKDELSKYF DYFLHVVFRLIEENKCVM SKTQDSLDDFLKREASLRAYF


 S K M S
D
$D Q L L S S L W R E L Q V L K R P R \quad E Q G Q S C P L P F A L A D R T Y F$ RQFHT GLYQQIELEICQNAE IGDGTDQKLQLTRLRVKRYF RVFHAGLDQQSENLKSCLSESPRSQR I QLTRLKVKKYF
 ENLRSELSDQDDRLKAILDENTEEENPTWENSTWHLRNYY

 QQLLNQLHQUQHLQQCLPRDGTHFKSQGPRNPWLSMERYF GLLSGLHWQLEDLGTCLVPQMKEESALGTEDPKLSMKRY(I) HDLLSSLHR CLGHRKPREEDNPVCLCLGUVVRKDF DTFLTGLHQQLDDL

## QQILMELNDQLESLEQCLDEDKHTEAKFPWKENLKDKRYF

 DRFLIGLHQQLDLETCLGKEKEEDQTH
 KQ QUGLDQQAEYLNQCENEMKPSEARVPQLSSLELRRYF QHFRSETYWQUQQALCHLKNMSKTFTKKNSMLHLDRGKNYY AVFKLGLGQEIVTLVSCLH
 ENFVNVVTQQADELRSCI GSHGHKKKNKKLHMYF EKFLTEVVQQLEYL EA LMGLEAEQSVLSSENLRLQTKVYF E H LL E E L Y GQMNRGEPGQKE DMQKQNSTMGDTTDHGQKYY EQLRT
DQLLS ULD HS LEQLEQTEEENLACPY LGVVVWKDF VRLLDELHQQTVLK TVLEEKQEERLTWEMSSTAL HLKSYY HKLPSSLDLRLHRL EQMEKDNLDCCRLGLAAWEYF HDLLNQLHHIHHLERCFPADAARLHRRGPRNLHLS I NKYF


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R

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 GQULNTLVIGLEALV GMGTGEQS RNFLDNIVNKQAEELHSCl NHFRELLVTQRDVVKDCIQDSASDSDTFC
RNF【N $\lfloor V N K Q A E E \square H S C \square G S H S H K K K N S Q L Y$

UniRef90 G1TTX4
UniRef90-T2K1N4
UniRef90-UPI0003EACE1F UniRef90-UPI0003EACE1F UniRef90 UPI0003EACE1F UniRef90-UPI0003C19F99 UniRef90_UPI00038C60E1 UniRef90-UPI00046BC7D9 UniRef90_UPI00034FA3D6 UniRef90_UPI00027F6E62 UniRef90-UPI0003C46F6E UniRef90-UPI00042BDB3B UniRef90_UPI00042CDF93 UniRef90_G3GXU9 UniRef90-M7BPV6 UniRef90 ${ }^{-}$W5N6G9 UniRef90-B6E116 UniRef90_K7EZP5 UniRef90-UPI00042AF4F5 UniRef90-UPI00038C3C12 UniRef90-D3Z134
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RR I H N Y LENQEYNSCAW RE $\square$ NRCLFFAFQ
RGFFRYLKAKAHSACSWElVRVQLSWA
QR L S DYLK DKKYS LCAWEIVQI QLRECFLLI
 TRIVQYLNAKSYSSCAWTVVWTEI YRNFSFI FNLVCYLQVNEYSSCAWVIVKRDIFRS $\square F F L N K$ R
$R R \square Q D F D R T H H H S P C A W D N V R \square Q A H T C F Q R \square$
 QRIHLYLKEKKHSCCAGKVVRAEMERPFSSFHNP
F R $\square$ QS Y $\square R D K K Y S D C A W K \square V F V E \square G R C F Y H S \square K$


KRLHHILKEMGHSAEAWEVIRKETKAHL RKLKKFLKQQRYSACAWEVI RMETRARLQQ L QRITVCLTEKKYSPCAWXI I RTE $\square R X A F S A S$

UniRef90 P51527
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 F Q Q R VN R E S L K L L N R F Q K S S $\square$ Q Q C L A H R K N F L L P Q Q S V

## K L L E A M G T V I S LE C F H K $\square$ P D F N F P

$K$ K L N E E S $\square$ E L L N S M G D L L P L K C L E K G WR A L P D D A F
CDWS R H H Y R E C C
MG GYFS QPCLNETTD FRFPVL


$\square S$ A D S L S L LKEMGGQYP E N $\square K$ VP FP GP LY
CDLT QTHNKRTLTLLA QMRRLPPDSCLNDRNDCAYPDEEI SRRVLIL LS QLQRTPLHLCLLADRNDFKFP WNL R Q H S E N S NF S WK S L Q L L QKAAPPPPP QNCPQQQDVTYYPFPETVVL R Q Y S H K S L E L L D T MVN N S T N S SVEP E EMV DFP QELVY
TMA K E S U N L L K E M G G Q Y P


CDW $\square$ QHHSAE Y LS Q LE QMGGD $\square T \quad$ K Q NAPVLFPTSSY QQRSSNLACLKLLWQLNGTPPQCHKDRMDFKLPAEIK

QLKSVPFHTCLKDRTYLRDPWE R
H N K Q A LGLLDMMIT NT T
K D E H NVAFPNRLY CDLS QDHSKKNNTLL R QMQRDSSFRCQKDRKNFRFPWEMV TVS A D S L N L L R E M S G Q Y P RQHSEDSLA L L DTMANN
$R T V T R E S L S L L E E M G G Q Y$ SESCMK AVDVSFPNRLY QQKRLNKDSLELLEKMGGSFPFQCSNENQUQDYPG

K QFS D T S L D L LEKMVVN NATNSTE GDDDEVD FP H H L Y


M G S T $\square P \mathrm{~L}$ Q C VD DVIN F S S N E E S L
CNHLLRHQSWKSLQLLQKAAPPPPQNCPQQDVTYPFPETVL GQQSSQECLED PDFGFPRAK
RQYSKNSGDLLDMMAHNS DNTTVVEVEETVALPEHLY S R D S L QL L G D MAPSPP QLCP QHSAPCSFNDTIL WEVV QRRVIWQNLRLLSRMSNSFPTECLSESKAFELPLELL

Q MERLPVVSCLRDRTDFRFPQTVV $R R \square S R D S L T L L K E M G G N Y P$
$C \square W L G Q Y N L E S L K W L R E M D G Q Y P$


D I R V F P GQLY VNGVALSLLRQMGGK DCSE I VMPFERLY
 Y NK QFRVYNKRALGFLDMMIT K D E H TVAF P N R L Y

$P N N L Y$
 $C \square S L L N E M G G E \| V P M T$ CEEHPTDLPNTESTY

L L S D M G G $\square$ F P LMCAE E NVE Q T F P E D L Y WDS LQL L R NMAPSPTQPCPQQHAPCSFPDTLL

## UniRef90_P51527 UniRef90-U3KJB2 UniRef90_UPI0004541E73 UniRef90_UPI0003C18F94 <br> UniRef90_H8XVY4

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 HNNLHPPQAAATALRILQHLFHTLSANGTRQHWPARPR DA QLLKHSKGERRITLVYE LLQQI NRIYRKN PSATWDQNKL NRH ${ }^{\top} H D P Q Q A T A A I L R I L E H L F T T L S S E N D P V H W D E Q A H$
 GKN $\square G S \square K E D A R A T V G L M L E H I Q R I F W H N F T K A E W N M T V T$ MTQGTCYHQLMLQQIFNLFTTESSRAAWNSALL
 STLALDSTWEEKHL
$\mathrm{ML} Q \mathrm{Q} \square \mathrm{F}$ S LIF
DTKVTKKNVTVVIYEFLQQTFQLFS PN N KNA KQAQQFQ EDAA NRARKMSMEHKLAFVNENFRHLLHLYAGNDDSVTWDRSLL

MLQQQill S QVFI S

HAQC $\square H M G Q A L S V L Q E L I L E D S K D T S P A W E T A L L$ ETDTQMQKTQRTCFHHLMLLQVFHLFRAQRSLAAWDHTLL SQASKAAAEDKDGFTVQVLEETAALFEEDHSSASWEENTV HDTHP QQADAAALRILQBLFHTLSSPSTPQHWHNEAR ESKDK KQAAlITLHILQQLFNILSSPHTPAHWDDHAH RQTFNASAEDKLALAAQIMNETVALLMEDHSGASWDEKQV QAQKAQANFLLHERDXQLFTLNSTQEASAAWARAQL


HQMLQQ TF HLESTEHSYAA WDNTSL
MAHGPCSYHQMLQQI FHLFSTEHSYAAWDNT
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WTVTQDQKTQSTCFHHQMLLRQUVFSLLSTDHSQAAWSHDAAL RKTSKATAEDKLAFTVQDLEELFALFEEDHSSASWEENTV DGSQ VQEAQAI SVLHEMLQETSVIFGSEQSCCGF
 EQAEYLPTDDTIWF ILQTLDKIAELEDGELDNS VWDEKKV


RQASKESAENQVAFTVQVLKEVSALFE KENKHLDQEDDVIFIVYTTLRHISKIYSKDSSSASWQQ\|TV SQASKASAEGKLSFAVHILQEVSALFEEDQNSSSWQEVTV PS $\quad$ Y DFEEENATVADDE ESKDK KQAA I TLLHILQQLENILSSPHTPAHWDDHAH SQVISNASAEDRLGFTVQVLKEVAALFEEDSSFASWEEKQM DTSN DWQTDKTTHDILQDLFSILS DGGQLQKAH
SDAQPLK RDDKEAFYEMLQQTFLLHTEHSSAAWDSTFL


 DA QQDQKAQAl S ILHELSQQVLNIYTSXDSSAAWDATLL KNMEMSTAADQLGFMAEVVEQILNLFDHYDDAAGWDTGAL RQTSKATAEDKLAFTVQILKELLALFEEDHSSASWEENTV




MNNDR LLLHKTFQHLNKIFHKNMKSVTWDDTQV HQKSNATDEDKLAL V VQLKELFALFEEHRSSAPWEENTV
 RHVDHFKDDDKIVFI SQTLNA EKKGYSDNYDSFWDQKVV
 H पTE I K T S S SLI ERI A V
 CPWTKR

## TEDEKAKAEDQVRFLAQATKQ\|ISLFNSKVDEVKWDRRAL

 F QAEDKLAFTVQVLEEVAALFEEDHSSASWEDSTV RQVNNFKADEQUAFDSHTLNAI KKLYSSKYESTAWDQKGV SAVTNTHATQATCFCHQDLHHIYNLFDTEDFSAVWDSTVL HNNLQVQQAQA SVGLHKMFQETSNGFCTEHTSAVWNMTLLSAVTKTHETQATCFCHODFHQY SAAVTKTHETQATCFCHQIF HQUYNVFHTEDFSTVWDSTUL SVSQ VEAGALAVREVLNETMRFYMKHHESMGCKQQAW NVSQVEAAALAVREVLNETDRFYRKHHESMGCKQQAW

UniRef90 P51527
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| :--- |
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Q S LL L N Q|I Q R Y Q H L E Q C L AA D S H T R S RT R WP HN P H LTTIN K H F SHLLNKLQHHDHHLEQCLPDSA SLFKGPRNPLLTINKYF
 QQLLNHI EHQDHELQCCLIMGATRDSKTMNSQWDNNAVIKKNF
 EKFQUVLDQQVQWETCSVTVTGEKATFKDDRTKLKKLKKYF GKLLQRVIRQVENLQKCNLGVSAQEDEDGFAQPGIAVRKYF DNFLNILERQFENLKSC VSPAKKPERRLKRYF A QILVGFYHQVVYLGQCEEEMKYSDAMVFQLINPELRXYF

 EHLLEELYGQMNRLEP ILKE KMQTQNSTS
NEFTEVVLHRQAREMRSCA EGMQGTKQAPKKQHKKLLQAYF HH LLNHLQHY $\square Q L E Q C P T A N R T L L K R Q G P R N L L L S I N R Y F$ HKLFSSLNLS QYQL
 DTFGT GLHQQLDLQACLMQQEPPLHVRY LH YDSYQYRNY
 QQLLNSLHRIQHLQQCLLPDNATLFPGQGPRNPLLTINKYF HSLLNQQHYIHHLEQCFVDQGTRSQKQGPRNSHLSINKYF ENLVNVLTQQADNLQACM


 DDFLNILDRQFENLSSC MNLSETLGGQMDRLETAMEEMEKENFTWESMTVLHLENYY
 ENFLSSIVNKQAEELRSLGHQKREEDNPACLCLGIVVQKDF

EYF $\square E D L Q R Q S S E L K E C V A Q \quad Y Q K P \square Q K E S Y E \square R \square K R H F$
ENFLSVVSRQAVGLRSCIGSHRESK RLHMYF E ITFLNVLTSQSDGLQSCVRAQKKNSKN LQMYF

 VTFQNGL HRQDQLLECLVAQMKNDGTTPQLHTRLKLNRYF

 QDLLSSLHR CLGHRKREEDNPVCLCLGDVVQKDF
 DLLSRALDQQMQWRRCATAQMGKEAAFKDLRVMLSLKRYF


EKFQNGLHWQI EQLETCDGAETQKSGNEVLQSTLNVKKYF DRFLVGLDQQLEDLDTC
$\qquad$
EYILQDLRRQSSELKECVAQYHMOKPSHMESYKKEIGRHF

ENFLNDVDKQTEELHSCDGSHSNTTQKGQQDSFRR EKYF
 ENFLNIVNKQAEELRSCVG

## MEEDSLCCSHFGRPAREY L


NHFRELLVTQREVVKDCIQDSASDSMRSALST $\square H T Y F$ ENFLSIVDKMAEELNSCVGSHSNTTQLS
 DEFMIDLHRQTSELDQCVKADRATLDKSDKGVNKNMSLHF ARFQNGLYQQ $\square Q L E V C L G A Q$
SKMQTLLYWYST S GDYSGLKELT LKYETKKDRRYF HR ILLDQLLASLDDRSLQQLEEMEEENLSYSSFRIIVQKYF
 DDFLN LLNQLTELTKCTSTYAKRGHSP


 H GLLS GL HWQLEDL
NQLLNKLQHHUHHLEQCLPDRAM PFKAPRNPLLATNKYF RNLLNIVNKQAEELHSCT GSHSHKKKTTKLRMYF DKLLSNL DCNQEPPAVKMEVENDACPGDETVY
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KEMEKFLKHQNYSSCAWELVRTDTRRVLQQV RH $\square$ QNFLRTHNHSPCAWDSVHLEAHTAFQRI

HRLTLYLQEKRHSPCAWEVVRAEVMRAFSSS LRLDTFLKDEEYSPCAWDVVRQEVL
QGI HLYLKEKEYGPCAWEVVRVETEKCLSLM QKLAALLKEKEFSVCAWERVRHELLRVLQLFI KKLRKVLRKMNYSAQAWELI RKETKHHLQ YRMNNFLQDKKYSHCAREIVLLDSSRCFYYFQK QGITTSYLQEKKHRPCAWEVVRREDEERLFLD QKIFNFLKDK
SAl HAFLQAQNHSVCAWDHVRDEARVCFQHVDK KEHNRCAWTVVQMHLLRNFSFL
KKLEK LLKKTKYSADAWEIVRHHVIRHDQ
THI QDFLHTHNYSACAWDHVRLEARACFQ QAI HLYLKEKEYSPCAWEDIKRPLLR

QS $\operatorname{li} R \mathrm{NYLR}$
KRLSHVLEQMGHSAEAWELIRNE DQTHL
RND QDFLRTHNHSACAWDHVRLEARLCFQ
RSI HNFLQRNNYSACSWDHVRLHARTCFQ



QGI HLY YLKEKEYSPCAWEV
RNLRKVLRKMNYSAEAWELIRKETKRHLQ
FRIMRY
QSI R L Y LKEKKYSPRAWEVVRVEMERRDFLLSQP QNi HLYLKEKKHSRCA
K RLLNKLKKNGYSAEAWEK DRD DTEDHDS Q
RTLKKILKKEKYSAQAWEQDRRAVRSHLQ
KRLSHVLEQMGHSAEAWELIRREMKTHL
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RTLRKILKKERYSAQAWEKI RR
QRIHNFLEEKHYNDCAWE II RDEMPNCFLFVDQ
KRLDHDLKKQGYSAEAWETURKETKAHL
KLLEKMLAEKPSSLC
K RLS S ILA AKMGHSADAWELIRREVKDCDSSLLPP
QSIHLYLKEKKHSCCAGKVVRAEMERPFSSFHNP $N N L L K E K E Y N L C A W E I V Q M E V R Q C L$
SCLHAFLHDNDYSACAWDHVRDRAR

K C L R TF L K S DNDYSDCAWDLVLLQAR
WGIHCYLKEKKQNDCS
QR $\square$ K D F $\square$ KEKHYSHCSWE
RKLKK LLKKKEYSAQAWELIRRAVRHHLQ
RTLKK SLKKEKYSTHAWEKIRRAVITHLQ
RQLKK L LRKNNYNGESWEK\RRAVLLHD K RLNKI L K K N GY S A E A WE K I R A HL R Q C FL I S $\quad$ R R RTLKKULKKKQYSAEAWEQI RRVVKSHLQ KRLSNTLKDNGYSAEAWEKI R KRLNKILKKNGYSAEAWETVREHLRRCGSLV
 KRLHRVLEQMGHSAESWELIRKEMKAHL

RKLKSFSNSRYSACAWEVIRDETRAHLQQUL TSLSNTLKANGYSAEAWETIREHLRRCGSLV GRMEAYLKKKGYSHCALDAAV DNEVENDMKFVAR K LLK KNLKKKEYSAQA WEQI RRAVKHHLQ K FLLN Y L K REEYSASGWEGURNVVLKHMLRLV
RKMLKY LMKKGYSRCAWASVRDEMEKVLLLV QGIIHYLKEKEHSSYAWDVVR
KKLKKFLNEANYSADSLERI RNVVQRHL
PTGPCYLEEKKYSDCAWERVRVEILRALSSVAK
KELKKLLREAKYSADSLEVVQRDLWR
K R L S DVVLKKKGHSVEAWEVI RKETKAHL
KFLKHFLKREDYSTSGWEDIRTVVLAHLQ
EGFILYLRAKDYGCHA
KGLSNTLKDNGYSAEAWEE $\square R$
RDDH DFDHAHNH
KRLHHLLKEMGHSAEAWEVIRKEAKAHL
$K D L R K Y L K N S N Y S A D S L E Q \square R S V V Q R H L$ NLLETMVLEKDNSACVWDFIHLETRRNLQQV $N L L E K \square V L E K D N S A C V L D F U C S E \square R R N L Q L V L Q$


UniRef90 UPI0002A4C2B3 UniRef90_UPI0003956669 UniRef90-T2K1S8 UniRef90-V8NWI7 UniRef90 U4KTI5 UniRef90-A8E6F5 UniRef90_E2FRK1 UniRef90_C1L351

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| niRef90-T2K1S |  |  |  |  |  |  |
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| UniRef90_E2FRK1 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |




KQLDDFLLRERFSACSWEVVRAEM QALLEQ ILQEKN TACTRDIIQSE $\square R G N L Q L V$


