## QUERY

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UniRef90_G5H5F8 UniRef90_G5H5F9 UniRef90-UPI000477621F UniRef90-C5C5U5 UniRef90-W2EU33 UniRef90_M3BLY0 UniRef90_R5T8B7 UniRef90-R5T8B7 UniRef90_UPI000306C97A UniRef90_UPI0003635B55 UniRef90-E2Q822 UniRef90_UPI0003F69C4E UniRef90_R8W609 UniRef90-S6F8Y3 UniRef90-E8N9Y3 UniRef90_R7DF45 UniRef90_ADIOM2
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1
${ }^{1} \mathrm{~K} Y \mathrm{~S} \nabla \mathrm{~V}$ R NDA $\mathrm{T}^{10} \mathrm{~A}$ 20 20 T A T WK

30
GMAGD LGASGP I LA N NA QVQAVVRKPSDGITAANFWQA GTVDGGTTARNP
 E



 LSVLAN D GARQAVRVVPSGGLLAANFWQSGTAGPLTVSAP




$L S V L A N D A G R Q A V A V P R L G L M A W N F W R A G T V G D L T V S A C B$

$R$ I I A N D A T V Q A V E S PRRLGLLAA A FWAA GSAD GLLAD GP
$R V L A D S P A V Q A V V S R R D G L L A A H F W Q A G S V A G L B A D D G P$
RIIAANDSTAQAVEDRRTGLTAVHFWGPGTAAGITAS GP
 LRLLANDAHCQAVAVPGLGLTAANFWTAGTVGELTVSAG

ELVVSDSTAVVAVRRRRADGLLAANFWTAGASQELSADGP
TIL N N T R WQQAVQQDPSRGVTTA DNYWSAGPDGGMMVDKP $L E V L D N T A A H Q S V R L R A L G L T F A H F W R P G T T G P L T A T A P$
 $L T V L A N T A T A Q A V A V R S L G L T A A N F W Q P G T A G R L S S T B P$ V A E S E TVVHAVRRAADGLLAANFWAAGRAGELAADGP
 LENTTAAQAVKEKTLNLVAANFWQDGMADFLTVDKK
 $L S V L A N D R A C Q A I H V Q D L G V T A A N F W G A G T A G P L T V S A G$ RVLANTATVQAVRERKHGMTGAFFWSAGQAAGI SSSTV EVVANTPGVQAVHERELGIIGANFWEDGTADLI TVNKK



SVVAANTARVQAVRHKGLGLDAVNAFAPGHAGHVVVDGP $V L A N D D A R Q A V H V L S L G V T A A A F W T A G T A G P L T A S A G$ FEIVANDATVQAVTVPRLGLTAANFWSPGTERTLSVSGP LTVLANDAGRQAIAVDPLGVTAANFWRAGAAGPLAVD GP L SVLLSNTE QLQQAAA HTHLLGI TAAANAFTP GTVGGRLVI D GP L S V L A N T T R L Q A V R H S R L GLLLA V N S F GR G S V A G L R L D G A
 LTV L A NTVN QQ GVVSVPS LGLTTAVNFYGGGTVGKVSATAG LRLLANSGRRQAVEVPALGVTAANFWTAGTAARLTVTAP LTVLANSRARQAIAAPSLGVTAANFWAPGTAGPLTAGAP
$T$ L L E NS A S A QA V K ENTLGNVIGMNFWADGGANFVVSNKK SVLENSNAAQAVKENTLNVVGVNFWNDATVGGITTSNKK $L S V L V N T V R V Q A V K H T G L G L I A V N T F A A G H A E R L S V D G P$ LA N T S I V Q A V R SA R D H L V L A N F WA A G QVVD T I T A S G P $R V L A N T A R R Q G V Q V P S Q G I T T A V N F W N D G A A G G L T A B A P$
 TI L E Q D D Y V H A V R EN R L Q L T A A L F F WE DV T V
 ELRNDEAVQAVRETSEQLIGANFWKKQTAGALTAYQK $\square R V L A N N P R \| Q A I R B T G L G L T A A N V F A G G Q A A E L D D D G P$ LE V L E C C S E D A H A V $\operatorname{L}$ R E N N S
 $V$ EVVPRLG LTAA A H F WTAA T A A G I R S E G P
 QVLRNDGRIQAVRHSGLGLVAANVFAGGTVRNVAIDGP $K$ VTIL E N S S E V Q A V R H E T L K I TAGDN F WQ E G S I D GIV T S D K A
 LTVLANDRHVQADEHKGLGLLAANVFTDGHAGRLLVDGP $R Y H V V A R T P E A Q A V R D E P S G R A G F V F F T P G S V V S V T T T D T G$ $F V L L A N T A H A A Q A L R V P A L G G T A A A N F W V A G T A G G L T A A S A P$ $R L T V L A N T A D L Q A V R L A T P A L T A A A F W R P G T V G T L T V T G P$ L V N T T A V Q A A A D V G E G V L A V T K W W P LVNTTAVVQAAADVGEGVLAVTKWEPGTLRPVTMDSP


## QUERY

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ACVVFSRHGNELLSLAVSEPTRQKAAGLTLTTPEGTWSS VLE A SVVMVKERNGE ITTLSVSDPTQKQASVTVELNRGSVVPVVQ


 $\square S Y$ M K E N G D M L T I A V A E P T Q K Q T R V V V DV D K S G L Q V L A Q A S VMLRKEGSTWSVGIS DPTQTQSKI TLEWNRSDLTVASK A S V LVVRRDGRTATLGVGEPPRTGAPLEITWDRPVRSVVRA

 ASVLI RRRGRTATLCVVEPPRTGEPFEI NWDRPVRGVVSA S S L L V K E Q G D R LTV AV S D P T Q K Q E K V T L D L G K A V L K EI A K A S AL V K E T D SEELVI AVSDPT QNQSQVVMEL NRKGWR LAS A A AVIMKEDSGEMTIAISDPTQKQNTVVIEVHQPNLTLLTA A SVLLRERGRTASLCVAEPPRTGKPFEVVWDRPVRAVLAA A SVLI R R R G GTATTLCVVEPPRTGEP LEEI IWRGPVRGVI RA A SVLVRRRRRSTAVLAVGEPPRTGQPLEVAWDRPVARRLFR ASVLVVRRGRTATLRVSEPPRTGAPLELVWNRPVRAVTRA

 ATVLVRRRGGRASVAVADPGRTESSVVVQLPFAARAMAQA
 ASVLVRRRGAHVSVAVADPGRTQTSLTVELPFRVRSVART A SVLVRRRGRTATLCVSEPPRTGGALEIVWDRPVCSVLRA A SVLVVRPEGRTVTVALSDPTQLRSSVVVDLDARRGLTVAAA

 ASVLVVREGRSTSTIRRISGPDRGGTPFEVVWDHPVREAVPA ASVLVVRPRDGRVDVAVSDPTRLRERVVLDLDLRGFDVHRA


 A SVLLRRGRGTATLCVSEPPRTGGPIVI TYAGAVRSVLRA A AVLVKETPEGLLNVSVADPTRAGTPIELKLDESATGVISA

 A S MTRTS A NELHVAVS DPTQKADYLI ELD QPVTSVIVA A S V L V R E R D R T ATVVACAA A P T R T G D P L E L I WS R P V R A V L R H
 A AVLL R R RAGAATLWVSEPPRTGEPLEVGWDRPVRRVLRA AAVVVRHRNDELVVGVADPSRTQETVTVEYDHYTDGIVGT A SVLVRERGRTATVVAAAPTRTGEALEI TWSRPVRAVLGB A S V L L R R T G G T Y A V A V S D P T T A R R T V V V T L M G R P L R TVV A A S L L L R R D G R EVVTVAVSDPTMRRDSITLLLHGRRLRPVRT ASVVVRTEDGHVGVAVADPTMDRDTVTLVLRGGPLRKAAG

 ASVVLLRRTGRTAHLAI A EPDRTGEPFDVLDWTHPVRAVTA H A S V M T S E T A N D D E I A V S D P T Q A N T S $\square$
 A S V V L R R S D G T C S I A AV S D P T T G R R T V R V V T L H G R A L R A V S A A S V V V G R H G S A L R A AV S E P S R S Q Q TVVRITV DVRVGQLL S A
 A S V T M R E D E E G L T I GVVSDP T Q L N T K I R I T L D D R A V G K P V E E S A V A AV R E T G D E LLE V V A V S D P T Q E N R G I E V E DH R A A A GVVVA S L S V LI RE Q GREAA L WL A D P ER S R S P V EVVWRRPVRAVVESR A S V TMKHSGRTMDVMLADPTMKNSGI ELEIA EKAYGVIAA A S V I A QTRR G GLLTVAVVDPTMDRDTVVVVVRGRALTVVSA A S V TVV QV S D G M V T A GVVA D P T Q N N G T I E L L S I P Y A G G D I V E K GSVLLRERDGALTIAVSDPTTERDTVSVVIRRGRMRAVAA

 ASVLVREDDGGTSVALSDPTMDRRSVTVTIRGRRLEAESA A S V M L Q E T E G T VIK V S V S D P T M K N K N V QL T L E E E I A A D C I Q L


 CAVLV REAGGTAVLAVSDPRCDLDGLTLDWDRPVGEVVRG A AVLLHRQGRRATLHLAEPPRTGAPVDLAWARPVRRVVSH
 TAVMMVLE E S N RII I S L S D P T M K N E S Y T L E I H C D A L E V L K K LALMMKKTDTGVTIALSDPTQTRQQLTYYWDKADLKL ASS

 S SIMMIKEKDNTILTAVVDPTFEQNKINVVIVKKGMEVLSS A S V MVVSKTA G TV DVVSVA D P T Q K N G QL Y L S L D T P A T G V I S H A AVVMQENGASLHISVVADPTWKQTSIMLSLTMGNYRIEEE ACVVVKEVGDRLSI AVSDPTQNASTLTLRLKTKRFFRIIE A GVLVRHDRRTATLCVSEPPRTGEPLEVVWDHPVRRVLRA
 A SVVTADETQNELHI GVVDPTQKNTTINLEI QRAAWQVI SA



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1
10
RLSVLIANDARRQAV|H|V|GSLLALLTAANFWSAGTAGP|L|AASAA
 EI L A N S GTA Q A L K D $\quad$ R G G L L A A

 QVVLSNTAA V Q A V R DTAAAKAV GANFWN DAAAA WI T S D K K E V L A N T Q L L V Q A V R R
 TVLSNTASIQGISTTT VRGTNFFAAGTCGSISADGP $N V L A N N D Q V Q A L E H P E S G L L A A N F W E E G R A G V V T A Y D P$

$R P R V L A N S T G A Q A V R V P A L G L T A A N F W L A G S A G G L T A S A B$

 LEVLANSTRSQAVSHS GLGLTAVNSFGSGEAGGLRVDGP EIV VN T S GVIQ SVVEK TLLGLVGANFWTDQTADLI TSNKK
 R P TVLRNDAAAQGI



 I L S N T S S V Q A V M E K T L GIVVGAN FWN N ST S Q Y V A V D G K
RI L H N T K E L Q A V S K P K L N I EAA A EVLSNTRQVQAAR

 EVVANTPAVQAAR RGGTFGANFWTAPAVNGITCRGS $V L A N S A E V Q M V E V A K E K V V M A N F F A V G T A G G Y T S S S P$ $V L A N N G T A Q A V S$ RGDLI A A V F WRAGSVVGLSADGP $V L R N D A V G Q G V E L \quad G K K A V A A V F W Q A G T V G P I S A D K A$ NVLANSSEVQMVELVKDQLVLANFFAAGTAGGYAVSGS



 $E V V R N D T D V Q A I K D S V N G I F A M N V W T P V T V E G I V T V N D S$ TVVTNSAAVHAVRGAR GRRAANFWNPGTADGITVDCP
 TAGVHGVRVPSLGVTGANFWSPGRFEQVSADAP $V L S N S E N V H A V E H T Q L K L V G L N F W Q P G Q A G A V E A F S P$ LVVLENSNDAQAVQDDSSHVI AANFWNNDTTDLLTTSGKQ TVVLQNSETVHAVYEKSLSIIAANFWQADSVNRIGSLQP

 $T V L A N N A N V Q A I S Q R S T G L V L A N F F A A S H A A L V E A D A P$
 QVVLCNSTFVVQAVA DHKANAA GY I F WGE GTVGGSI T TA K
LRILANTPRLQALTHRGLRLAAANTFTRGEAAGVRDDGP

 EI RANNLNQQAVF DKSQNLWIGNF LQQPSSLNGYSAKTR
 $V V A N N S Q V Q A V A H N R L G L F A A N F W D D S Q A G D I T A D N S$ $L$ SVL R Q D NVA HII KNKEDKVIAA NVWQQQAVKQITAVGK
 $T L L A N D A K V Q A V S D P G Q Q V I Y A N F W R S A T A G G V H A D T P$ TVVL R Q DEQAA A V QENTLDNI A A N N WK N S P V D TII T L N S M
 $L Q N T K E I Q A V E V K T S G Y L G I N F W Q E G E M A G I K T N K P$


 RFEIVVKADNEAHIVK DRQTNTVGGINFWKP QKFGGIIKTYST EILSNNAKVQAVRNTKLNVWMVTFFEAGTFKSVTVDKP WRVVRSTATVVQAVRLWDATLL ANFFAAGSVDEVVVSGP I A Q N D G S V Q A I $\operatorname{R}$ E

 EIIVRNDKDVQAVFHKKLDLITQVVFYTAGTATEIITVDKP

## UniRef90 Q82JQ0

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UniRef90 FoS764

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 ASVMINDTDNGLNVSVTDTTQNNDYGTLENNREVQGLVSA ASVTVVEAGKELSIAVSDPTQANTEIGREIGRSAAGVISA SSVMTREDNGGLSVAVSDPTQLNSSIELLELDYSASSFTAE AAAVWGRDRSGWTLAIADPTQQQDTIRVTVTGVGRHLVKS CSVLARQDGSVLSVAVASPDRSVPTVTVTLPDNGFTTATA MSI MVEPSEDLI HVAVSDPTRSWGRVSFAMDGNGQLTA MALTVKKDPGNITLNIAKPSQNDGYPEVTLETRGTRILTN MALTVKKDPGNIILNIAKPSQNDGYPEVTLETRGTRILTN CAVLAREHGGTATLAVSDPRRDLEEDAVTWDRPVAGLLAG ASVIARTRSRLTTAVSDPTMDRDVVQVTVAGRRLRKVAG CSITWGYSGVELTISVSDPTQKATRIVLFLNDPDIGGVAE ASVMIKEDDNTLTISVSDPTFEGESLSIEIAKSATKLVKS AAVMVREDRGMLYVSLADPTWKQTSVRLSLA GSYRMTGE ASVTTQQNGTELDVAVADPTQANTSIAATINRTASSVMSS ACVLVRRQGTSASVAVSDPTMGRETVGVLLRGRRDRVVSA ASVMTREADERLEASVSDPTQNNGTVAVEGARSAEGYSAA ACVLAWQTPGVLKLAVVSDPTQSAASVVLTITGTKFTRVDA ALVQTRESANQMEVVIVEPTQKRGSLTVTI EGSWKVKTA ASVTLYQEDGKTYVGVSDPSQKGSSIKVTLTGEGLSLGTL SSVMVKESKDFVEIAVSDPTMKNDTVEVTLNKKLKNPLHL ASVLVQDADGRTVLAVSDPTFSRETVTITIGRGRRPVLQT ASVMVREGKNEIEVSVSDPTMLNTEIMIRLSLAAGSIIRK SSITIKEKDNTLSIAVSDPTFLEKNLSIVINKPAMEVIKS ASVVTMLNAKTLEVAVADPTQRQEPFEVE:HRAAVGVTSII ACVLIVKDGDKLTVAVSDPTHRAESATVTVDRETMTRISA ASIILKENKNDTEIAISDPTMKNSGIDLTLNKNDKGATHM ASVLIEHTGNRLTVAIADPTHLRTPVLLRIPRAAKSEI EV CTLAAHQTGDKLTLSVADPSRTQPSVRVTVDGSWATLVDS CTLVLRRERGRVRVAVSDPSRTADEVRIRLPWAVRSVVKG CTLAAHQAGNQLTLSVADPSRTQASVRITLPGSQWRTVVQ AIVQTQVQGSQMDVIMSEPTQRRPSLTVTVEGAWRVETS ASVMLQETKGTLKISVSDPTMKNQ
ASTLLQAKGRQVTVAVSDPTFDRTTTSLTTPGRWDRLAEP ASVTLKEEGGTIELAVSDPTMKNTDIELKLQKKTAAVLEH ASIYTETKDGIMTINVSDPKQKNVTLNVKLEKGYENVIQK SSVVMVEDGGEDAVAVSDPKQSGVVVTVVVARATSAVIEA
 VSVVVRERDGTAVVCVADPTRLHDEVTVTWHRPVRSVLSR ALVVYTETSAELEAAADPTQTNTSIPLQTNRSASAVLAA AVVVVSYAETISALAVSDPTQLQAELMI ELEGRPLTVSVP ISIVKTEKGNEVLAVSDPTQLSKYETI IELDGEYSLLSQ GAIMVKNKDGGLELTFSDPMREQSQLVFTLHGYTGDTVSD ASVVLLKSKDRVAVAVADPTQRNRKI RLLLPFEVRSVKKA DPQTHTMKVGUSDVHQNKDSLTFRLYGNNLSMAEG DPQTHTMKVGSDVHQNKDSLTFRIYGNNLSMAEG ASVLLRRRRDGRVAVSD ASVLWSRGWGGWNFALSDPTQLQTSITVKV
AAVMSQESGQTLSLNVADPTQASTGVTVTVNRAATAVISK GSMMVKKASGSEKIVISDPSMEQSKVTFLVPQTGFKLKRK A ALELKKDSSTLTAAVM PSQQDGILEVILETAGKQLLAN AALELKKDSSTLTAAVM PSQQDGILEVILETAGKQILAN MSLGLKSTENSIAVSVSDPSRSWWDRDFSLEGQYK凹VV ASVLVRRSGRTATLCVAEPPRSGET ASVVLAEENGLITAGVSNPTQNGKDVTDVVNSLYEAVEA MGFMIKESSNTFTVAVSEPDQTDDSVNFTFDKQGI VIKE ASVAI GRCGARTQLAVSDPTQLQDSVTVTVRGRSVEVPLK GMAMLKLNGNRLELTLADPSRKLSRMSVTVPGGVYTAKGE MAILVQKEEGTKRISVSDPDQNQTTVELEFKKP GLLMVKYNGDILTMAVSDPSHFLGKLHLSVNRKMDDPQQK AIVLIEKNDSRYHITVSDPTYTQSDLTLSLN GSVLIQQVGDDCIMAFSDPTRSLSEDQFILNAPVSSVVSK CVLMVKDNAKSANLHIADPAQTQSPDQVELKGGKKKQABT ASVALGRTGKGWQLAVSDPTQRQEVLRVTVRRKTFEVPVK STVFIEKKGNTYTIAVSDPTYTQANVTLTLN KKMUE GAMMVRKTSTTEKVTLSDPTMEQKSIVFLVPKAGHKLKSK GMAMLKLEGGRLLELTVADPSRKDNRIGISVTGGIYTGKGD MSLIMTTTVQGFQVAVSSPRRDSRVSFQLTENAVPLHIA GSILI Q A K N N GYEI VLS D P M R M N E NV E F LVV F F E L E L V S S $M \mathrm{~A}$ M V E K E G R E L L K I AV S D P



|  |  |
| :---: | :---: |
| UniRef90-J8Z3C9 |  |
| UniRef90-B9Y2K8 | R |
| UniRef90-R5JJ11 | CALLFKETDRTUTFHIADPAQTQSVINVDIRDPA KVKK |
| UniRef90-R5VA19 |  |
| UniRef90-V7ZLR9 |  |
| UniRef90-GOI | GLVLLHLDGNGVKMAVSDPSRKLDKMHLQLN |
| UniR |  |
| UniRef90-UPI00037DDE8C |  |
| UniRet90-W4E3V2 | VLQRNPAGWSLAIADPTQQQRRVEDEDRPVTRVIHK |
| UniRet90-S3ZF | GTAVVCVSDPTRAARSLTVTWNRPVAAVTAK |
| UniRe |  |
| UniRef90-T2NS | LSL RTSREGKTIYAFSDPTQTTTTMTLKLPKDYQKDVSQ |
| UniRef90 W4DUM5 | SMVIVDESADPVRISVAPETPGITVNVTLNRNGDQTTTT |
| UniRet90-UP1000477480A | GLVMI RTDGNEVESVSPGRKLSNLYFSITSKLKSGAE |
| UniRef90 T2GCG4 UniRef90 R7ZZ38 | CLVLLLREDAQTLAVSVANPRSAAASLRCSMPLTGEEGATPD |
| UniRef90-E2NVA0 | CSLIIDESENQRKITLAT SENQSNITIQVK口DYGQTTTK |
| UniRef90-Z9. | RTLELSVSEPSRTAAETTVTLTGLSAASVAS |
|  | CALMVKKDSRRPVVHVADPGQTGQPIQIKVR |
| UniRet90-G8 | - |
| UniRef | LTLKIPKDYSTVISQ |
| UniRef90-UPIO002 UniRef90 F3PR04 | CVLLIKDDSEQPTMYADPTQTLTDLKLT |
| UniRef90-R6CUK |  |
|  |  |
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| UniRef90 UPIOOO35EC756 | A 1 |
|  |  |
| P10002 | K |
| Uni | GNKWCLTVSDPSWQTQRVVVHLDILRGLQPREK |
| UniF | CMVQVGLHSGNDKISVADPTQQLKTTTLELPKGAQQLVIP |
|  |  |
|  | EQAKVIFTTPKKGYKVAEK |
| UniRef90-GOIV90 |  |
| UniRef90_UP10003712 | KNNRLLIAVSDPKHVEDEIILTLNRPYQSVTHM |
| UniRef90-H5V8P7 UniRet90 R5SS32 | St |
| UniR | CSIIIDESEDTRKISVANDTAANQTVNVNLN |
| UniRef90-190 | S K T $\square \mathrm{N}$ |
|  |  |
| UniRef90 R8A |  |
| UniRet90-U4KC24 | SVVLVDESASTEQITLSTPGVGTGV |
|  |  |
|  | MLKQTAGRLSLTLADPSRKLSRMLVTVS GQYPGDGD |
| UniRef90-L8GS54 | CVEEDADRHLR |
| UPI00041 | S |
| UniRef9 | VWAADPLYASKEVTLTLNGK VGATEL |
| UniRe990-K0^ | AAVII KALGNNVQLTAAEPSQTGNLINFSFNNPVH $\square$ Q |
| UniRef9 K4C |  |
|  |  |
|  |  |
|  |  |
| UniRef90 UPIO00361483B | SIVMLDESSGTPVVSLSNPSQPGLLVDVALSGGA |
|  | LMLKTHODNAE |
| $\begin{aligned} & \text { Uniine } \\ & \text { UniR } \\ & \text { Uno } \end{aligned}$ |  |
|  | CAVMIQQKDGKQTISVTDAAMNDKEITVTLNGKAHR\\|ADP |
| 研 | CMILLK\KDQKYTISUSDPTYSQQKINISISR |
| UniRef90-19 | S VYIEKVEDGFKIWAADPLUHSQKDVH1 MLNGREVTIAFP |
| UniRet90_UPI0003807BEF | Q |
|  |  |
| UniRef90-E6SWK8 UniRef90 ETAAC5 |  |
|  |  |
| Unil | TVTVALNDKTQRLQ\P |
| UniRef90 R6E |  |
| UniRe990-W7CK91 |  |
| ef90 S2E6B5 |  |
| UniRer90-W2UNC9 ${ }^{\text {UniRet90 G1XN06 }}$ | DPSQiRNKVQVPR R RGLRVGKA |
|  | EDSKVVNVDFFYEGQETTTK |
|  | SVLLVDESGAEPIVTLSTPGLSYAEVKLTLDSKA |
| UniRef90-19FH85 | CVVLI QKEKGKYKLSVTDACMNSALKEITLVFNGRTVIVS |
|  | VMLKDYQSSAELHADPAQSQSCIKVDVY PKVSK |
| niRef9- 45 C 549 | A |
| UniRef90- Sof | Yi LOLRETKGRLVVVAAD |
|  |  |
|  |  |
| iRef90-UPI0003636B8C | S |
| Uni |  |
| ef90 U7VCFO | T |
| 2D99CE4 | KVKVTLSDPAQIQSSTQVILSYAGSE VVD |
|  | E CYVSVT |
| 7D036 |  |
|  |  |

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SEGIITYDEQMGRFTIDF
GEAQIIRAEGNSVSLKVNFNLKDGQPREDEL



NGD AVIENGKTHlTVNTENKNGVSQNDQLE ADEGDHVLDTSPLRLLAEPGARHGASDRAELR
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SDGDSYDASTD LIFTVNFAEQDGGNKVIVVE YRLGKDTFTGRSTTLS
NIQIRWNEKSGKSEI SVLLPEMAGKSMTF
 NAGTSVLQ V VKLPEGDQAGKSVVVK TDFITTPSAPYTGSSMTLN
ADDTVAVLS LDPVTVRVATGGSRGATHR DALTR


SDGDTYDDA TETFTDNFENAAGSSKQIIVE $P \square S V T L P Q G Q K G A T V S I K L$

A MKKAVT QECDFT NTG $\square$ Y A GATKAYK $\square$ Q
$N Y R T L D D E Q N T T L F \| V D L P Q Y T G K S V S \square R \square$
FELGSGVDLGRTVT
YRLGKDTFTGRSMTLNFDDAYSKGAT
DGDDAANFSTNGHRLVFETSDLAGASRTVTF
SQGVEVHQDT
$\square P$ G


GKTEA $\square \mathrm{FSTNGHV} \square$ T F NPAD $\square$ A GASRVVTFK
CDFSDSGVYAGRTQ
 SRGTFVLGTGANLGKTVTTDDSDGSPYTAS NTKVLLKIKGNSTHLTLTDPPL GATLAVDL DTRSILCDFE NTGIYAGASKKYLLYK
GNTVTVEDAG
GNNAEVALNGNSTN $\square K F N \square P N Y$ VGSTVTYT DGATTGSTAT

EDGTTVAVA
LK EMKVEIGNTSATDALPTGKDCGKSVT
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$N Y Q L I R T C N M P G S S L K V D V E G$
DEGVTVDGS KVIIEGDNGATKSVCF

GETVQVTD $\square$ A NGVLVTVNLPD
YSGGVY $\square P E E N R T R F T V S C P Q Y A G S G \square S V T L$
D D P Q Q R VHMQP G G Q LS $\square$ S TEGLRGQPYTFVLTK
A NTSVLQVT TP
GTSQKKTAKDVQVLFELPDGAYAGQS】T
TDKN LK $\square$ RTENKT LIK DDN $\square$ RSGETKY $\square Q \square K K$ M P
$G Q K \ V V P M P Q$
SCGKSVTVCVKK


UniRefi90 LoG076
UniRef90-P59807
UniRef90-S7V719
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UniRef90-R6GC42 UniRef90 ${ }^{-}$C2FVC2 UniRef90_UPI0004708E36 UniRef90_UPI00035ECB30 UniRef90-I6ANP8 UniRef90-R6FHB2 UniRef90_D3BBC7
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 I I LN T D D I Q A V A H F Q L N L V Q A V F WRA N A S L N I T M S S P
 VVRNDASMHAVYDAEQQIDAVNVFEEDQLDGLPDKKP

 QVLKNN QS IQ A V WDK K N DLVGAVFYK S GKLLNQMT D QP FRVLQQNDTLVQAVCSMDGKVVEAVLYYPGNKGSLSASAP I ERNDAEMQAVSKEQPGILQQVFFAPGTFDNVKALKP

 EILLANSDSMQVVRNKKLDVWEMVFYRAAAFS TVVKVDKG
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 F TVI H S Q D G V HVI R D N A S QV T G Y V
 LTII R N D G S IS AVVFDGANKV AMFV FWEPATSNTITSSNGS

Q


G DNVQ GI Y DHENEVIQLAFHAA GTAVSVVTVDPB ( $R L R T V Q N D G K \square S A D Y D E V K D D F M A V F W T G G A V E F I A A$
 Y E V L L S N T D D D L R D A S A H I L F R V D K R L YS I L R R DRQAHIVVFDRASGVTGYAAFEAVSVADDASE


YEVLQRDQTAHVVYDKKTGDTAAVFYQPVT DKDIASDP TLL Q NDETMMAAY DRD QAVVA VNVFKEGRLDGIDDF QP
 QWKVLCNNKEI QAVSFND GTIMAAFYQPGVLKTLSVDQP I I E N Q E DVV Q A V Y S S K S A A N K L M M L V




 Y QVVRRK D K DVVH II Y D K L S NVT G Y A F Y Q P A S I E D K K V D K P LA NEPSRMGLYDAKKDIVYGADWAAGAKPY IATDQP
 I A ND Q NVS AL F DATHNTAMDVFWNP GAFA S LTTSHSN


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


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UniRef90－I8z823
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ANG KSKNDNFSLPKGDLAGSTVN
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Q】VGMRQLELT LPDGQMAGSS】S
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M P
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GKP\SVT RPSAGVH\squareR\P पP DANGAS }
D
    T|VCDFS
MPGNTVTK\YKKT
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GetVtVTSEGKGSkVtVEDPDSRDAAKY KDAATPSQENGTTRL ATLPTGVTAGRYVVKTFDSKGLKGSSRSDTDK GPDA $A$ YTYST ITAAMPTGDYVGSSDT WPGGR SRTLSFSLPTGGLAGNSVSQTLH

ADG TACTARGDETRDRFS $\square \mathrm{D}$ FG $\square \mathrm{PQQ}$ QA $\square \mathrm{KK}$ DSNITSGDGLDYWEIEDDPTGSNGQNSQULFNK GSFASFSSMTNYTTIAFQLPNYAGA W WGTDCSGSAKSHALTFNEPGLAGSSLS
 G
GETVTVSQVSGGVMVNVPLPD
DAFITARISDDRADIMMNCDGAEGKSSRT
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VINDPTGDYAGSTDH पQ $\square \mathrm{EK}$
NEKVKVQSAGDVTETTVTC RHGQPVEFRLKK A TLKTLGEGRAQLAVNTA AGRDYRTGL GEEVTKQKKGVYDKVPLPTGAQCGQPATITLK


ADGSST

KPTGWGSSRSKTLKFQLPTNTTAGKSVALSV DEKLSVKATGGYKS GTYTYRTKGMYP $\square$ TVTVS PDKDGAKVVIE $\square$
WLRADVL GRTTTVKПptGGEAGSSATVKL HDQVELSTQGGLTELKVTC QHGQPVEFRLKK DSPVKVTSENGVTTVTYSESGNGETYRVLL PKGWGNDSSKSLSFTLPTNGLAGSSVYQVL MENVRLEQQGDQTVLTV
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UniRef90 C6Y1P5

## UniRef90- R9CMK?

 UniRef90-UPlooo3620FFB UniRef90_l1CMP3 UniRet90 R7DNA7 UniRef90_U7VBY6UniRef90_R5JMP7 UniRef90-R5SOKO UniRef90-UPIO004038BBC UniRef90-R7TOJ5 UniRef90-x5K3N7 UniRef90-_L8WR15 UniRef90-A9KLI7 UniRef90_UPIO003780C57 UniRef90 F8PA48 UniRef90-UPIO00345AC65 UniRef90_UPI0003778494 UniRef90-H7E7D1 UniRef90-UPIO0035EBF66 UniRef90-UP1000440DB22 UniRef90-B4F1D8 UniRef90_UPI0004623C34 UniRef90-UPIO0033193453 UniRef90-UPIOOO1746433 UniRef90-R6LJ75
UniRef90-K5Y6N9 UniRef90-M2RU97 UniRef90-D1AWE2 UniRef90-R6CKP2
UniRef90 R7DZW UniRef90-I6JBV3 UniRef90-R6SCL9 UniRef90_S7QMJ2 UniRef90-D4F1N2
UniRef90-K5WAP7 UniRef90-X8JOUO UniRef90-Y2KRR4
UniRef90-UPOOO369AD3B UniRef90-R6KNS3 UniRef90-UPI0003093E7D UniRef90-S4ENP6 UniRef90-R6V191 UniRef90-DOZDX2 UniRef90_UPI0004697D76 UniRef90-E6SWLO UniRef90-C4UNB6 UniRef90-V2WPX8 UniRef90-R7EHY7 UniRef90-R6AIJ2 UniRef90 C7S340 UniRef90-H2INA4
UniRef90 G8XA67 UniRef90-R7DNB0 UniRef90_U2DJX3 UniRef90-E9EEZTO UniRef90-K1T7T3 UniRef90-C6Y1P7 UniRef90-D2AZJ3 UniRef90-R7DK51 UniRef90-J9H984 UniRef90_LoG1N9 UniRef90-WOF4G4 UniRef90-L8WLF1 UniRef90-UP10003FB34DA UniRef90-K5ZSW99 UniRef90_Q8D537 UniRef90-UP100037D6AED UniRef90-R5JNE5
UniRef90 V6KQA1 UniRef90-R6C×81 UniRef90-A0A024PM16 UniRef90_UPI0003780A83 UniRef90--18ХНХ9 UniRef90_UPI000374736D UniRef90-A0A016N4D4 UniRef90-Q6LKX7 UniRef90-L8х0Н3 UniRef90-D8Q687 UniRef90-19SFM4 UniRef90-K9EOSO
UniRef90_l3ZXT9 UniRef90_18W4Q0
 YEVMQKNASAHIRRPLSGITAYAVYSAGTL TIHVDRP IIWNQKDVHAVYKKTSGKLMLIFFKASQUQTVQADRP YIVLOQNPQVNAAYSEQDETVAVAFWTSGQYAEIYVDNP KYEVLNQDNNSHIVKDLKSNMTGYALFESGKVQNESVDTP YR1LHKDDTAHVVADNQTGDTAYAAFEAYSKDEDFLSDP FEVLSNTKEAQVGNNNTAWWVAWOPGETR NFKOA FEVLSNTKEAQVIINKNNTLCMVVAYQPIGEINKIVFKQA VLTGTVSAAIDDSSARILGAAFWKAGTVNDIEVDRS YQVIGKDSQAHVVEDQASGMTGYALFSAGVVDGVSVDTP LRNDGVMSAL DDVTHHVVMIVFWEGGKVVVPAVNGT KMQVLANASNAHIVKDKLSGVNGYAFYSSGSIIDDSSVNMP YEVLRKDASAHIIKDNTSQVTGYVAFTGGSFEGVSISRE YEVLRKDHQFHIIQDQSSGVTGYVAFERGETNGVSIPQ Q YTVLQHNNQLHAVKDKDTQEEGYAFFNATEVNSLSSDSP QTYSADGNVHAVTDGVEQLK QVVFFQAGRAVFFIESLDE YRVLRQDAMAHVVRQLRLGVTGYAVAKADALLGLEASAP RLQSVVNDGSVGAI YDEEHQTVMVVFWEEGSVTTISADGN IRNDGSISAL DDVNNEVAMIVFWEPSPVAGVQSNGS YQVIQKDNTAHVVADKQTGITAAAFYQPKN DELEVSTP YEVLQRNDSAHIVHDRLTDITAYAVFERSQRDSLLSLIP YKVLQRDQTAHVVYDKGTGDTGAAFYQSANDKVVAS DP LQTLQNDGDVSAVYDTTHQTALFVFWSPGTPMTVAADGN LQVIQNDVDISAVYDPVHRVAMFVFWAGGSATSVASSAN IIAHTNKVHAISFNNGQTIGSSAFEPGTHQKLKIKSP YSULRRDQQAHDVFDCASGVTGYAAFEAVSDDEVVADAP
 KEVIQNDETAQAIYDKEDNSWGVVLYEDQGFENLTVTKQ YEVLQRDQMAHVVYDKKTGDTGATFYQPVNDQFil VSDP LKKDGEAHGVYAREDKTWQTAFFKDATVGGLTVKAP YKVLQQDHNAHTVRSLTDSLTSYVLFEPGEGLLQKADTS YEVLRKDDVAHVVRDNVTKTTGYTAFSAVTPDSGVVKQP QLQTLQNDASTSAVYDQVNRVVMVVFWADGENTNLCSSAA
 YTVLQHNDQLHAVKDKITQEEGYAFFEATKLKSLSSDAP VLENTPALQAVVYQGH DGCVFRHPGRIETL EVDKP YTVLNKDSKSHUIKHTASGUHAFALFEANTVNLIVNDKP YQLLCRDRSAHAVYDKQTGDTAAAFYRPAAGSFVTFDAE WAESGSVNITSAQP YK ILRQDRNAH VRSPADGLTSYVLFETPQAGGLKADTS DAHGVYSATDKTWQTAFFKA TTVGGLTVKAP YaVLRADTSAHVVSDRATGTTGYAVFAPLELGPVKVDTP YDLLRKDDKAHIVYDRETGVTGYAFFEETTLDNVNATGE YEVLQRDQTAHVVFDKQTGITAAAFYQPTADKWVYSVP WKILSNSADLQAI EF SDGLMAGVIWTPNKMGKLTVTSD YTVLQKDNVAHSILHKASGITGYAVFEPGLLKGLKADAP RPRTIANTETVSAAIDSSAKVLGAAFWKGGSFTRVEVDRN YQVLKQTDSVHAVRYIDPANIISYTCFLPQNVGYLKISGR VI RNDTSUQAVAV GNCFYVTAYESQVVNDLQVDTP YQVRQRDKRAHTVEHLSTNITGYALFEAGNAYEIATDKP YRVLQQDRNAHIVHSLTDNITSYVLFETPRADGLKADTS YKVLQCNTKAHTVKDNKMGTTSYVLFEKNEAGDLKASAG YTVLQKDYDAHIVKDSKSKTTGYAI MEPNASGNI SVDTP YEVLEKNNAAHIIRHRFAGTTAYAIFEPNSLAGISTDAP QILRQDDKAHIVRVKDRDITGAVFNKDQTFDSLRVNDP YTVLQRDNQVHAVRSAD NVEAYAFFEAASVNGIASNTP SKDIHAIYDKDSHVLYVSFFESGKYNEI EVSNP YTVLHQDNKVHAVRSEQGVEAYAFFEPATLSNVASNTA $\square Q T V Q N D A H I S A V Y D S A A K V A Y V V E W K G G A V S N I R T N D A$
 YQVLRQDEVAHVVKDKPSGVEAAVFFRDDKAKLIKIUSEQ

UniRef90 C6Y1P5

## UniRef90-R9CMK2

 UniRef90_UPI0003620FFB UniRef90_R7DNA7 UniRef90_U7VBY6 UniRef90_R5JMP7 UniRef90 R5S0K0 UniRef90_UPI0004038BBC UniRef90-R7T0J5UniRef90 X5K3N7 UniRef90-L8WRI5 UniRef90_A9KLI7
UniRef90_UPI0003780C57
UniRef90 F8PA48 UniRef90-UPI000345AC65 UniRef90_UPI0003778494 UniRef90-H7E7D1
UniRef90 UPI00035EBF66 UniRef90_UPI000440DB22
UniRef90_B4F1D8
UniRef90-UPI0004623C34 UniRef90_UPI0003193453 UniRef90_UPI0001746433
UniRef90_R6LJ75
UniRef90_K5Y6N9 UniRef90_M2RU97
UniRef90-D1AWE2
UniRef90_R6CKP2
UniRef90-R7DZ
UniRef90 16 JBV 3
UniRef90_I6JBV3
UniRef90 R6SCL9
UniRef90_S7QMJ2
UniRef90_D4F1N2
UniRef90_K5WAP7
UniRef90_X8J0U0
UniRef90_T2KRQ4
UniRef90_UPI000369AD3B
UniRef90_-R6KNS3
UniRef90_UPI0003093E7D
UniRef90_S4ENP6
UniRef90_R6V191
UniRef90_D0ZDX2
UniRef90 UPI0004697D76
UniRef90_E6SWLO
UniRef90_C4UNB6
UniRef90-F5LGV8
UniRef90_V2WPX8
UniRef90 R7EHY7
UniRef90-R6AlJ2
UniRef90 C7S340
UniRef90_H2INA4
UniRef90 G8XA67
UniRef90-R7DNB0
UniRef90_U2DJX3
UniRef90_E9EZT0
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UniRef90_C6Y1P7
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UniRef90_R7DK51
UniRef90-J9H984
UniRef90_LOG1N9
UniRef90-W0F4G4
UniRef90_L8WLF1
UniRef90_UPI0003FB34DA
UniRef90_K5ZSW9
UniRef90-UPI00037D6AED UniRef90_R5JNE5
UniRef90_V6KQA1
UniRef90_R6CX81
UniRef90_A0A024PM16 UniRef90_UPI0003780A83 UniRef90-18XHX9
UniRef90_UPI000374736D UniRef90-A0A016N4D4 UniRef90_Q6LKX7 UniRef90_L8X0H3 UniRef90_D8Q687 UniRef90_I9SFM4 UniRef90_13ZXT9 UniRef90_I8W4Q0

50


70
80 CAVLI ENTPQNMALFVSDPSRKEKEVNLKI
 CLI MTK ENKD K MTI SVCCDP
SMI L L Q ER DKE I Q M S FVVDP
A MVMQK A A GSKKLLLSVVCPTTKEPSRPDE LIKGK WRSTAP GLYCVKRQGGSYQILCGDPTQQRDSLVLVVNGVKKTIRLK GLYMLEKK GNNWULNMVDPT QK LDDVFNTI ENEIFSV S AVIYK LDD G NVVTVSDPS QTESTVLDAIQQGLLGRRPK CTVLIIEDEAQSPELFVSDPSRKEKEVNLGI


 A IV MAK QE GNQLTLS $\square$ ANEKRPKPLLVKVS LIKDAWKVK QS




 C L V M T R D L G G R L GI YMLRREEGGNCNDWCTMPTQDRDDI NLKFNSK
IALI YR F S D
$\overline{S N V I D R M M K}$

 A MVMYRRDKANI I MSVCDPTKNPSRDRLEL KGKWK DSTP
 S IVVYDRTGN VMALLAP Q G DTLRLSVQDP DQDGKQREVVSYSRPWRSSEP AAVI YRDDS Q NVTVVSDPS QTLVS LDMTFTVGEFGRK AVVLVNESRTKGTVSVADPTHGTGRVNDTWNQSKRRGHRR CLLSLTK QERGWLI EAVDPTQQQLSKLSFEDS GKYT L QNQ ETMVMRRTNGTVVVSVCDPDLHIKEKTYTTPEPSWSLAAP

 GIVYSIKKEKNQYSLSYYNPSYPEGTIVSDLTQEVSKEATA
 L M A ML A P R E D T L R L S I V N P AL M I L K DN G S SWKLTMSNPSPS $\square D K E Q L V L H K Y A Y K L P R D$

 SAVV FN AK S D S V TVV S D S Q S L S S L DI R V E S G G
C L V MilR E Y K D K L L L T V S Q P D N E S Q E I P V TVV L L K G Q WK VA E CLVMI REDRGKLLLTVS QP
 CLLLCEKTQTGFQFAVSTPGRGDRVNLDLHSKGES
 TLLI L L R T D K K T L V M S I C D P N L N L E E K T Y T L L K G K WK NV S D
 GSY LFR GK GMTVVVTLSDPT QKAASASFSL NFDGARAAAA C L VMIRREYKD KL L L TVVS QP
ALMILK DNGSNWKLTMSNPSPSADKQQLVLPLRAGKYPRK SMVLVRGDGDGLVLAVCDP
VMAM M G DVVD G QV D M S V C D P N L N I E T I D Y T T S D P S WS L V G D
 A MVMVA EANDVL RMSVCDPTTKEPSVVKEIVLDKGCWSLQRP
 VIVMLE IVDDESHTASVA DPTHGTGKVSITYKRRHYPRVIG AL LTLREAGDTLIVK』ANPDLNA VTNATS GWVSS GI YMFRLDHNGNWLI EAA DPTHKQHSLSSKMNRKDVKVV CLLLCERTSVGFRLALSTPGRAD KVQ\|T LHQ G G Q
 C L VMV R E N N GKL L L TVVSQP
$A S V L V V R R G R P A G L R V S E \quad S L E D V R G R P V R A V A R T$
 $L S Y \| D E E D K D K M K V F S E P D M R R V S R T L V L N G G M Y D V Y S P$ S QVMAKS S A S QLQLSSVQDPD Q NGEQVEVSI YSRPWRYLS Q CSSLIYYC DENKGGWVVDPS QNLHYIQQITINN S Q I M L K E S S D Q L S L S V V V N P SRE E D GKGS S SVADPTQTLSKVNVTWTGARRRSHRS
 $C L V M D H E E K G K A L L T V A Q P$
A MVMYRS DKGNNI M SVVCPTTKQPSRILEKRKGKWERRTS


UniRef90 C6Y1P5
UniRef90-R9CMK2 UniRef90-UPI0003620FFB UniRef90_I1CMP3 UniRef90 R7DNA7 UniRef90_U7VBY6 UniRef90-R5JMP7 UniRef90_R5SOKO UniRef90-UPI0004038BBC UniRef90-R7TOJ5 UniRef90- X5K3N7 UniRef90 L8WRI5 UniRef90-A9KLI7 UniRef90_UPIO003780C57 UniRef90 F8PA48 UniRef90-UPI000345AC65 UniRef90-UPI0003778494 UniRef90_H7E7D1 UniRef90 UPI00035EBF66 UniRef90-UPI000440DB22 UniRef90-B4F1D8 UniRef90_UPIO004623C34 UniRef90- UPI0003193453 UniRef90_UPIO001746433 UniRef90-R6LJ75 UniRef90 K5Y6N9 UniRef90-M2RU97 UniRef90-D1AWE2 UniRef90_R6CKP2 UniRef90 R7DZW3 UniRef90_I6JBV3 UniRef90-R6SCL9 UniRef90 S7QMJ2 UniRef90-D4F1N2 UniRef90-K5WAP7 UniRef90-X8JOUO UniRef90 T2KRQ4 UniRef90-UPI000369AD3B UniRef90-R6KNS3 UniRef90_UPI0003093E7D UniRef90- S4ENP6 UniRef90_R6V191 UniRef90-D0ZDX2 UniRef90 UPI0004697D76 UniRef90_E6SWLO UniRef90-C4UNB6 UniRef90 F5LGV8 UniRef90 ${ }^{-}$V2WPX8 UniRef90-R7EHY7 UniRef90_R6AlJ2 UniRef90 C7S340 UniRef90-H2INA4 UniRef90_G8XA67 UniRef90_R7DNB0 UniRef90 U2DJX3 UniRef90-E9EZTO UniRef90-K1T7T3 UniRef90 C6Y1P7 UniRef90-D2AZJ3 UniRef90-R7DK51 UniRef90 R6LAB2 UniRef90 J9H984 UniRef90_LOG1N9 UniRef90-W0F4G4 UniRef90 L8WLF1 UniRef90-UPI0003FB34DA UniRef90-K5ZSW9 UniRef90_Q8D537
UniRef90 UPI00037D6AED UniRef90_R5JNE5 UniRef90-V6KQA1 UniRef90 R6CX81 UniRef90 ${ }^{-}$A0A024PM16 UniRef90_UPI0003780A83 UniRef90-18XHX9 UniRef90 UPIO00374736D UniRef90-A0A016N4D4 UniRef90_Q6LKX7 UniRef90-L8X0H3 UniRef90 D8Q687 UniRef90-19SFM4 UniRef90_K9E0S0 UniRef90-I3ZXT9 UniRef90_I8W4Q0

QEVETVSYMN ${ }^{90}$ GNTTLIK|V|FCKE
GETVTVTPEGKGSKDTVELPDSR NRNLTVNLLT G

NNK $\square$ TVHSNQTETVLIVTC QHGQPVEFTLSR DRGTSVV

GWGSERTRT $\square$ SFTLPGGGMAGSSVT
H Y T T E T S S A G C S LT LD L P A G A LA G S TVT GEF MPD
DDVVIKGYQNGNTLLADTTEQA RNDEFELKK PAGWGSSQAKSWTVELPSGADAGSSVTLSL
NPNVKVTTSATNTEVVF
NDKVKVAASGDSTSLVF
NPQVNVRAAGGTTELTF
QQGIQLNKLSDSTEVTF TSDF GRSKSDELK
WTGPSTT SVSFTLPSGGLAGAS $\square$ S

> SHTKTVDVTDPGGGVAGSSVSVQL

SARVTTNTTESTIVVSLPSTGYAGAPIVITLQK TEGVSASVEGRTTRVTLRCADAQG
EVVI PLTTGRKGQTDNDNL

PPLWGFHRSKDFSI FLPTGGLAGSSVR
 NEKVTLTADGENTILTVHC QHGQPVEFSLQQ $N P Q V S V K \square A G E T T Q L V F \quad T S Y F G M P Q E V T L K$
MENVTLRQQGENTVLTV
GWRW GEGREVTFELPLGGRAGSS
TPQHAQLTLKGRWQLAQPIAGAH
$P P R W G S Q E S K Q L C F H D P T G G M A G D S I S$
GPSVSVANREASVSLELPEGGMAGSTITSAFEQ GNSKI KGD TVVFDIVTPESKGKTQTVYLEQ NEKVK $\|$ QPVGDTTEDTVTC QHGRPVEFRLKK

EDMSTVVTLLISQTGDTGG
QEGVQLEYEGNNTLLNV
GEYVTITAEGKGSKJVAELADKRDESFY TPYCRV $\square$ SADGKTVLRFSCKDA ASFDVELKK NPHVSVKRVGENTELLAFSSYFGMPQEVTVK NSEARILSTGAATT TVEFDAVDGKSIEIELVK TEKGVTFELPQGGQSGGSVT
TPYCKVLSADNQTVLRFTCRDA ASLEVELKR
Q S T N S T $\square$ T VK G $\square \mathrm{WK}$ LT T P Q P G
$K D \square Q L V S S N S T S T T F R F D T \quad Y Q G L P D E T T F K K$ NDEVVIKQENGNTRLTATC口D GRPVEFKL LENVSLSERDGQTVVTVTC DHGQPVEMVLKK DDGRSGNETEVKYTVDLPTGGMAGSSMYVEFR

GE Y VTVSAEGTGSK $\square$ VAELPDKR
$N D K V S V A S T E G N T R D E D T C \quad Q Y G \square P V T F R L E$ AEALSVTHTDGQTRVTV
VEQVQVKQQGDRTVLTV
MPDS $\square$ TNAWAKGRVITTTVKG
HHGETCTPSSDGFVLTLDLPNDAGSTVTKNFSR ASLITVNLT GKWRVVNNTNNAA

GDGVEVLSAGRCLGLRVT L GMACASHECEV



WE G/VRRSAGSGSVSVDLPVEGMSGSTVTD
TLNLPTAGKAGSGVSFDL
HPQVK LDQNGTNTD I VLC NEKVEVKHHAGKTEIKVAC SKQTELSYKANSTSLTVYC



