## ouery

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UniRef90-li3KBZ5
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T LP YVAK LNSSMGPGRTVVIKGEVNTCAKGFNVNDRSA PQPMPFVTTPGGLYPSKSTTDSGTVLPSAQRFHDNGC G LPH PVSIPGGLYPFRVITVSGIVLQNAKRFYINFCTE MVPFTGMI QGGLQDGLQTVNGTVLMSSSRFTVNGQTG
 PMP PYNQPI PGGLSVGMSVYIQGVVNERVKRFSVNFSTG

PQP TMPFAGTVL PCSRVLPGLTART KGSVPTGKSFTINFKVG VPFSGMIQGGLHEGLQ TVQGTVHSTNRFSVNFQDG VPFTGC:QGGLFEGKS:TLTGRVLPGAERFHVNLQCG DTMPFAGTVLGGLRPGEMVLIQGRVPQEPDRFQVDFSCG


## QUERY

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UniRef90-13KBZ5
UniRef90-L5JSW0
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UniRef90_UPIO0032A29AD UniRef90-B5X9R4
UniRef90-G1TX81
UniRef90-M7BKF5 UniRef90_UPI0003ACC5F4 UniRef90_UPIO004444966 UniRef90 F718E2
UniRef90-G1LTK8 UniRef90_UPI00034F6555 UniRef90-P38552 UniRef90-M3YSF1 UniRef90-UPIO003512B2D UniRef90_L8Y6E0 UniRef90-M7BFW1 UniRef90_UPIO0046B100D UniRef90-M3VZV6 UniRef90-UPIOO03293197 UniRef90-UPI0003F08A01 UniRef90-H3BDX2 UniRef90_UPI00032B05A9 UniRef90_UPI0002C689A3 UniRef90_UPIO003338D66 UniRef90_UPIO003F0B4DF
UniRef90_UPIO0038EB6ED UniRef90_UPI0002C62FC7 UniRef90_L9KQK5 UniRef90-H0X3U8 UniRef90_UPI0003F18C47 UniRef90_UPIO003318D02 UniRef90_UPIO003315E34
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UniRef90-H2SDF0 UniRef90_F7AHY7
UniRef90-G1LF50 UniRef90-UPI0003346E16 UniRef90_G3PKE4 UniRef90-W5KGK6 UniRef90-B5X3K3 UniRef90-F6W025 UniRef90_UPI0003345A37 UniRef90-HOW3A0 UniRef90_UPIO00440D7AF UniRef90_H9CDH0 UniRef90_Q4TC58 UniRef90_UPIO00333D14E UniRef90-UPIO0042AD494 UniRef90_UPIO001D616C1 UniRef90_G3W3D8 UniRef90_UPIO00388F4C0 UniRef90_F7CP16
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80
NDVAFHFNPRFNENNRRVIVCNTKLDNNWGREERQSVFPF DDVAFHFNPRFNENNKRVIVCNTKEHNNWGREERQSAFPF NDVAFHFNPRFNENNRRVIVCNTKQNNVWGREERQQAFPF DDVAFHFNPRFNEDNRQVIVCNTKSQNNWGTEERTSPFPF NDVAFHFNPRFNEAGSKVIVCNTAQGNSWGTEERQSVFPF NDVAFHFNPRFNENNKRVIVCNSNVNNNWGQEERQTIFPF DDIALHFNPRFSEDSRKVIVCNTKIQNVWGKEDRTSRFPF SDI AFHFNPRYE GFQDYVVCNTLQNQSWGAEERKYEMPLL


 PDIAFHFNPRFNE | $G$ | $D$ | $R$ | $A$ | $L$ | $H$ | $I$ | $N$ | $P$ | $R$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $N$ | $L$ | $S$ | $E$ | $G$ |  |  |  |  |  |
| $N$ | $I$ | $A$ | $L$ | $H$ | $I$ | $N$ | $P$ | $R$ | $L$ |
| $K$ | $K$ | $D$ | $G$ |  |  |  |  |  |  |

 NDIAFHFNPRFEEGG

 NDi AF HLLDVRFDQNA

## NDIAFHFNP


D Di A LH L
$\begin{array}{ll}\text { NDIAFHFNPRFE } & \text { GQG } \\ \text { SDMALH } D \text { S SRLD } & \text { TEE }\end{array}$
NDDA FHFNPRFEEGG

| $S$ | $D$ | $I$ | $A$ | $F$ | $H$ | $L$ | $N$ | $P$ | $R$ | $F$ | $D$ | $E$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


NDI AFHLNPRF
Y Y

| $N T$ | $V$ |  |
| :---: | :---: | :---: |
| $E$ | $V$ |  |
| $F \mid$ | $V$ |  |
|  | $V$ | $V$ | RCVVRNTQINNSWGPEERSGSSMPF

 LVV R T KI K G S WGRE ERWGNMP F $V \vee V R N S H L N G S W G S E E R N L A F N F$ $Y V V C N T K Q K G R W G P E E R K M S M P$ L EK T
$\qquad$
 $V \vee V R N T K Q W D Q W G S E E R G G A M P F$ $L V V V R N S K M R D Q W G K E E R S$ G GMP F VV V R N T Q $1 / K$ GS W W S E E R PRRQMP F V V R N S L N Q C WGP
 YVVCNTKLNGSWGPEERKRELPP LVI RNSYLNGSWGSEDRKSYNPF
 $Y \vee V C N T K Q N G T W G P E E R K M H M P F$ K $\square \vee V R N T R \square M G S W G K E E R S T D M P F$
 QDi A FHFNPRFD GEND NDIAA F H L N P R R F K E N A A A A LV R A SFTDRT K D $\square A L$ L $L$ N P R L N S A WI S A PWGRRKLISAPADF A A HVL VTLRASFTDRTLAWVSSWG ARVPVALRVSFADRTLAWIS E S VGE E E R N T C F PF
R K K L I S A P F DF

 SDIAFHFNPRFD GWDKVVFNTLQGGHWGKEEKKRSMPF

 S DVAA A H F N P R F K R S G | 1 | $V$ | $R N S S L$ |
| :--- | :--- | :--- |
| $I$ | $R$ | $R$ |



K S R A $L H \quad L N P R \square N S$
TCESQNWGREERKDEMPF
KAFVRNSFLQESWGEEERNTCFPF $Y \vee V C N T R Q N G S W G P E E R K T H M P F$
S H I A F H L N P R F D E N A
SDIA FHFNPRF DEN
NDIAAFHFNPRFEE G G
 V V R N T Q I N N CWGSEERSRKMPF $T V V R N T E D Q G V W G T E E R S F N M P F$ $Y \vee V C N T K Q N G \| W G P E E R K M Q M P F$ $T V V R N D R Q Q G H W G S E E R G G G M P F$


 $V \vee \vee R N T K Q G E Q W G P E E R G G G M P F$ S GI A L H Y N P R LDE N S GVALHYNPRLDEN | $S$ | $G$ | $A$ | $F$ | $H$ | $F$ | $N$ | $P$ | $R$ | $L$ | $N$ | $D$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $N$ | $Q$ |  |  |  |  |  |  |  |  |  |  |
| $N$ | $D$ | $A$ | $F$ | $H$ | $F$ | $N$ | $P$ | $R$ | $F$ | $K$ | $R$ |
| $S$ | $P$ |  |  |  |  |  |  |  |  |  |  |
| $S$ | $D$ | $A$ | $L$ | $H$ | $\square$ | $N$ | $P$ | $R$ | $M$ | $G$ | $D$ |

S D l A L H I N P RMG D G T
A A HVPVVTLRAS F
VFHFNPRFENGG T D CI

DDIVFHFNPRFENGGGYVVCNTKQRGKWGPEERKAPGLF PDVALHFNPRYS GFFDVVVCNTFQNSTWGSEERSSKMSH
 S DVAF A HFNPRFGRSP CVVVCNTVQKQRWGREEVVSPCPF TDIAFHFSPRFSE MDIA F HLDPRFNE
 SDAALHFNPRLDTSE $V \vee F N S K E Q G S W G R E E R G P G V P F$ NDDA FHFNPRRFEGG Y V V CNTRRQNR S WGPE ERKMLLMP F K D I A L H L N P R L N A NDIAFHFNPRFNEG PDPAFHFNPRFD
 S D A F HFNPRFK RANYIVCNTUTNERWGWEEITYDMPF S DVAFHFNPRFKRSP NDIA F HL L PRF SDI AFHFNPRFEEGG S DVALHFSPRFKGSP
S GI A L H Y N PRFDEN
$\qquad$
CIV CNTLQKERWGREEI LIY QMPF

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UniRef90_UPI00042AB009
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UniRef90_UPI00032A29AD
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UniRef90_UPI0003ACc5F4

E S GKPFK I EF G Q Q F K Q V L V E P D HF K V A V N D A HL L Q Y N H RMK NL R E I N ESGKPFK
  Q
P $G \longrightarrow P$

## H


 R R  IPGQSF
QKGRP FELCFLVHSSHFQVMVDGNFFVQYSHRV
SPGMYFELI FCDVHQYKVAI NGVHDLEYKHRFK QKGMPFEV NFLVASSEFKVVMVNGALFVQYQHRVGBLEKI S QKGMPFEVNFLVASSEFKVMVNGALFVQYQHRVPFRVD
  Q ,


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UniRef90-F6RE82
UniRef90-UPIO0042BBC01
UniRef90 I3JMR5
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UniRef90_UPI00045DAC6A

$H \square E / G G D \square E L S K V A D T$
TISVTGIVQLSYISFQN
MLEVDGDI SLTSV
TLGISGKVKINSI GF
SLEVGGDVQLS HVQ

1 L EVEGNVSLSSV
TLA SGKVKVQAI GF
$T V E V L G D V T L S Y V Q$
ELRVSGSVQLYCVM

| $T$ | $S$ | $V$ | $G$ | $P$ | $Q$ | $L$ | $F$ | $N$ | $S$ | $S$ | $F$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $A$ | $Q$ | $N$ |  |  |  |  |  |  |  |  |  |

A Y V E G GVVEI H S I A F Q N
TVSVEGMVELNSVAFQN
TLGI S G SVVVSAVG
HL E V
SLEVA GDVLLTHVQ
LVEVGGDVQLDSV
TII S I A G A V Q L S Cll RF Q N
TLKI DGDI NL LDI
ILEIKGDVTVNCINFT
HL QMDGDLQLQSINF
QI SMYGDMELNYVG
TLGIYDHVNI HSVGF
$T L C I S G Q V K V Q A V G$

TFSIC GKVRVHAVGY
VVEVNGDVSLTSV


UniRef90 ETFEQ1 UniRef90_Q28HJ1
UniRef90 UP10003: UniRef90-UPIo0032B1D4B UniRef90-UPIo003EC2BC4 UniRef90-UP10001CB99A6 UniRef90-HowMF6 UniRef90 V9L1L8 UniRef90-UPIO003EAB712 UniRef90-UP10003C2B4BB UniRef90-F7FJC3
UniRef90-UPIO0034486AD UniRef90-E9JS89
UniRef90-UPIooo3BB3EFF5 UniRet90-W5NJK4 UniRef90 F6TY00 UniRef90-UP10003C187AA UniRef90-E3TCF6 UniRef90-W5KT28 UniRet90_V8P692 UniRef90-V9KZMO UniRef90_W5NAC1 UniRef90-UP10003D09C2D UniRef90-C3Y0M7 UniRef90-UP10003837BCA UniRef90-E3TC19 UniRet90_K1RZS5 UniRef90-H2QCE7 UniRef90-UPI000388CB8C UniRef90- Q8QGB1 UniRef90-UPIOOO4629612 UniRef90-G3NIS8 UniRef90-W5UK44 UniRef90-V9KY82 UniRef90-UP100022353D9 UniRef90-UP10001CBBC81 UniRef90 H2T9BO UniRef90-UPIO003C12392 UniRef90-W5LG01 UniRef90-UPIOOO38355EF UniRe990_UPIOOO38355EF UniRef90 UPIOOO38355EF UniRef90-UPI00038355EF UniRe99OUPIOOO38355EF
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UniRef90-UPIO003836B70 UniRef90_UPI0003836B70 UniRet90-UPIO003836B70 UniRef90-UPIOOO3836870
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UniRef90-13J7R0
UniRef90-H9GFX4 UniRef90-F6SIG5
UniRef90 A3FKF6 UniRef90-F6VODO UniRef90-F6VODO
UniRef90_F7DCY7 UniRef90_UPIO002A48043 UniRef90 G1TMP9 UniRef90--6TWA7
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UniRef90-H3ALK9
UniRef90-UPI00042BD1C3 UniRet90-L9KYU5 UniRef90-B9EPIO UniRef90-F7D8Q5 UniRef90-G3HJB4 UniRef90-UPI0004441E73 UniRef90_M4PM45 UniRef90-UPIOOO441FE5B UniRef90-S7NSN8 UniRef90_W5K9G5 UniRef90-A0AO23GBL5 UniRef90-TOMIT1 UniRef90-H3EDZ4 UniRef90-UP1000328DB7B
UniRef90_UPI00034FB491

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3

NDIIAFHTNPRFSEGGKPVIVRNSMTGNNWGREEREPSFPF HD DAMHINPRFDE RPHVIVRNSMIHNKWGHEERHQKFPF QDPAFHFNPRFD GWDKVVFNSQQGGKWANEERKMSMPF NNTAFHFNPRFENGG FVVCNTKQFGSWGPEERKMQMPF RDIAFHFNPRFNEGGKKVIIRNSCTGEKWGKEEREQHFPF ADIAFHFAARVKAGH

 NDUAFHFNPRFDESC PVVVCNTEQGGHWGAEERTYVMPF
EDTLHFNPRMDTGE
SVVFNSFEGGSWKKEERGRGLDF

SDAFHNPRFKRSP NDRAFHFNPRFNE
 HVVCNTLHGGQ

| S | $D$ |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $P$ | $D$ |  |  |  |  |  |  |  |  |  |  |  |
| $R$ | $D$ | $A$ | $L$ | $H$ | $L$ | $N$ | $P$ | $R$ | $I$ | $K$ | $D$ | $N$ |
| $A$ | $L$ | $H$ | $F$ | $N$ | $P$ | $R$ | $F$ | $S$ | $D$ | $G$ | $E$ |  | $\begin{array}{lllllll}\text { N } & D & A & F & H & L & N \\ A & D & R & F & D & E & N \\ A & G & M & H & F & N & P \\ R & L & M & A & G\end{array}$






SDITTMFHDNPRFNEN



A

I
K
P

GNTALHANPRFKAK
ENAALHFNPRMDTSE
HEMAFHFNPRFQDGG

PDVVFHFNPRFHE
SELALHTSTRLHD
ADIALHFNPRFDSGD
$G^{\top}$

K I



## S

SDIGFHFSPRFD
 $\rightarrow$ ISN
 VIVRNSFVHQ VVVRNCLONQ
$V V V R N T N Q M E ~$ LVVRNTQTVGQWG

| DAFQMKPQF <br> DIAFQMKPQF <br> Di AFQMKPQF <br> DIA AQMKPQF |
| :---: |

GKDKVVRNSMHGGNWGQEEREMSMNF KTVVLNTQDDGSWGHVEKTGKMP

RDVAFHMNPRVQEG
$\qquad$
TGEMVF PDIGLHFDVRFNYGGYNQTIRTHKVGSTWGTEEKHQNFFF保 NDIALHDNPRDKDN NNVVRNSYDFNSWGEEERSAYFPF ADIAFHFNPRFD GWDKVVFNSKQGGQWGSEEKKRSMPF ND AFYFNPQFKEDGKEVIVRNSMVRNNWGTEEREPFFPF TD A A HisVRFDVGN ADGAFHFNPRFD GWDK NDVPLHDSFRFDEGK VVFNTQRNGGWEDE

UniRef90_E7FEQ1
UniRef90_Q28HJ1
UniRef90_UPI00032B1D4B
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UniRef90_UPI0001CB99A6
UniRef90_H0WMF6
UniRef90_V9L1L8
UniRef90_UPI0003EAB712
UniRef90_UPI0003C2B4BB
UniRef90_F7FJC3
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UniRef90_E9JS89
UniRef90_UPI0003B3EFF5
UniRef90_W5NJK4
UniRef90-F6TY00
 ARGRSFSV
QRGMPF E I TVLCQHHHYKVSVNGRHFCDFRHRDEK H HVN




 S P GMYF
 QEGQYFEI SVRCGNQRYKVVVNGQYLCDFFHRLQPFTGVD

 HKGQP F QVTI SCNPQHYNI FVNGKQEHTYKHRYTKDNDIDD

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 SPGMYFELIILDCAHQYNVABNGVHTVEYKHRFKQLNKI N

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 H K D Q H F E IVVFIVVN N S GY QI LV N R NP F C N Y N H R I P P E R V Q $T R$ GR S F S V WV T C E A R C L R V D


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| UniRef90_E7FEQ1 | G\|L|S|I YNDVI|L|S TV|NVETD |
| :---: | :---: |
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| UniRef90-E3TCF6 | TI TVV GMVVVNSI GF Q |
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| UniRef90-V8P692 |  |
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| UniRef90_W5NAC1 | TL EVVE G DVQL S Y |
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| UniRef90-C3Y0M7 | TLA A D G KVV |
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| UniRef90-UPI000388CB8C | N G DV |
| UniRef90-Q8QGB1 | SVI G GVEEVQSIAFSN |
| UniRef90-UPI0004629612 | TI EII S G D |
| UniRef90-G3NIS8 | Y N DLTTL S DVRMETV |
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| UniRef90-UPI0001CBBC81 | L HVRGDVRI NQIR Y Q |
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 MALKFEALCPQGLCPGWSVMVKGESNSSAKDFE: NFLLRG PVPYESGLAEGLAPGKTLTVFGMPEKKAKRFHINLLKK VQPGEC AVKGMVPPDAKSFALNMGRG VPWESAFPDGLKAGQKIVLYGMPKGERWNLDLDGGR VIPFFGT四PQLDPGTLIVIRGHVPSDADR

QGHSPSCPARFSVNFHAG PFPYFTLTACLVCHGSQDKKTGMLLPASADFAINFYDG PVPYESGLSGGLVPGKSLLIFATPEKKGKRFHINLLKK LPFKCKFPSTVSAGFMVYI QGVVPELAARRFQVDFQCG LAVPFKCKFRSGVSAGFMVYISGRPELRAHRFAVDLLSGA $P$ PYTTAI AGGLRVGMAVVI QAVAPSSSNRFAVNFCTG VVPLTLP:SGALQHGKQVVIQGVPRHGAQRFNVNLVCG LPVPYESGIADGLVPGKTLVVYGTPEKKAKKFNV:NLLKK VPYVISLPNGI ELGGVVKIRGTVPENADRFEVDLVCD
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UniRef90 <br>
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ADIAFHFNPRFDGWDKVVFNXVVVNGNS SDIALHFNPRFD GRDKVVFNTCQNGSWGSEDKIHKMPF SDIALHFNPRFD GRDKVVFNSCQEGCWGSEDK IRNMPF GQVVLHLNPRFDEHA PDVALHLNPRFSGGVTVL
 DDVAALHONPRLDSGS TDi AV HLINPRGKK SDI ALHFNPRFD
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ADAALHFNPRDDT
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SDIAFHLNPRFNQNS
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RDLAFHFNPRFNENGQQV RDhAFHFNPRFNENGQQVIVRNSLEGGAWGREERGPGDPF SDVAFHFNPRLDESSAVVFNTMECSAWGSEERGGSPAF
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 DALRFR KTVVFNTLEQGKWGKEERGKGIPI GDVLFHFNPRFKE NDIALHFNPRFDEKKPGCVIRNSFVNGEWGNEEREGKNPF SDLAFHFNPRFNECGKKVIVRNSFIGQKWGPEERDSPFPF PHVAFHWNPRFNDYEKSVVRNSFLDEGWGVEEREGGFPY DQUAFHFNPRNSESS
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GPG $\square F F D M S V T C D N D K F K V S V D G Q H \square F D Y H H K \square K P V N \square D D$
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RKGEHFEM
$R K G E H F E M$
$T P G V Y F E I I I H C D A S Q Y K V A V N G V H M L D Y K H R F K D L G K \ N ~$

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KKGDEVKVTVTFESSEFKVKDTDGHELSFPNRDGDSHLS



R TA GQYF EMI I RCDSSQHFRVVAMNGQHQLDYKHRMKE LDSA I N




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 E L K E P F E I I EVVFS D H E C F H


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 $\left.T \left\lvert\, \begin{array}{lllll|lllllllllllllllllllll|ll}\mathrm{L} & Y & R & S & K & L & T & E & R & I & A & P & G & Q & T & L & I & V & K & G & K & T & L & D & D & A & K & K\end{array}\right.\right)$
 $P L P E G D R V G N V M R I R G V V P G N A H H F S I N L V C D$




MRAGTS LKLKGKIDDNCDGFVINLGQG
 I QP GT TL KVK GKI SEEAERFALNL GNS VP F LA F $\square$ Q G GL Y P G K K M M L G N V K S N A D R F Q F N L K DS
 VVP FS R A I P E GL Q Y G H QVVTVK GMFLD S CSRFAVNFQ T G $L A \| P L R H P L A G G L Y P G R M I Y I S G \square P H S S S T G F T I N L K K G$ $L K P G V C V R I V G D V L P D A K S F R L N L G K D$ F E ALYYPE GMCPGWSVVVVGETSSSTSMFEVNFLSG







 LP F S GPI F G GL S E GK MVLI Q GIVVQPFVKSSWPDSGAG
 $V$ V P F S R H T Q G G L $\square P F$ V L P L P G G F V S P
 $\square P$ Y VG T $\square$ P E G $\square$ K P D M A V C F Q G TVVPA D S D Q FA I N F K T G
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 V P F E M HL K E RLLSYGTKVLI T GTPLMNAERFTVNFLTP MKVGT TLVIVKGK I A D C A D G F V V I N L L G Q G
$P$ VP Y E S G I A G G L T A G K S LI I Y G VPD K K A K K F N I N L L K N



MK L GT TLLKI K GKI ANDAE GFVINL GQ G

 IP Y VG P DA G G L H D D G L Q Q $V V Q Y F G N I K G G M K P A M K I T I M G U V D D K P N S F A I D T L C N$ $L T V P C S L A F Q D C F H P C T G V R I D Q G S V P G G S Q R F A D N F S C B$






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| $D$ | $D$ | $T$ | $G$ | $H$ | $I$ | $S$ | $V$ | $R$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $P$ | $N$ | $V$ | $A$ | $L$ | $E$ | $L$ | $C$ | $V$ |
| $R$ | $F$ | $K$ | $D$ |  |  |  |  |  |


NGI ALHVSCRQHE
S DVAFHFNPRFKRSG

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 NDI AL H L NVRFDE K K I V R N SRIGGSWQAEEREGKFPG


 VCNTLQNQLWGREEVSYQNPF KAIV R NSLLVNHEWGNEEREGKNP L

T D K G L L H H F N P R R F K E S T A $\stackrel{\mathrm{H}}{\mathrm{V}}$ VCNTLT
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YNI A FHFSPRFEGSG


H NLA L LH F NPRFDFDDTN
D QI A FHFNPRFASSR


SDIAFHFNPRFHRKEM

$\mathcal{V} \vee R N$ K




SDIAFHFNPRFHRKEMKAVIRNALAANEWGNEEREGKMPF P DV L F L H L N P R F D Q A A R F S D R Q F L S CAA R N S K Q N G S WT T E E G DQ D F Q F SDIAFHFNPRYDGHPYVVTNSFGYGNWGSEVSTAYFPF


G D $\$ A L H D N V S MD E

| S N | I | $A$ | $F$ | $H$ | $L$ | $A$ | $P$ | $R$ | $L$ | $S$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $F$ | $E$ | $G$ | $T$ |  |  |  |  |  |  |  |
| $F$ | $I$ | $A$ | $F$ | $H$ | $Y$ | $Q$ | $C$ | $R$ | $F$ | $D$ |


K AVVRNSFLKGAWGPEERSSYNPF

GNKG G L L L L N A R L K E E S R P
$P \vee V V C N T W E N G K W$


E EFFFHFRPNPAMKDKPAVVRNSTKRGTWQTEERTFGFPF

P E K G L H F N P R F S E S T
$G N \square A L H \square N P R \square K E$
SELGGLHFNPRFNQST
PMDAMIFTVNFSE
K D IA L HVN PRFDAGNTVF
NDI A FH INPRFNEGGKQVVVRNHK】GETWGTEERDGPPPV
SNLVLHFNPRFDHGDVNVIVCNSMEDGMWGTEERETDFPF EDVA E L L A T F T D K HVLRNACVS GEWGEEESTP YFPF

A EHFFHFRVDFSVGNEKEVVRNSTKNGKWQREEREMCFFF TDKLLHFNPRFDEST IVCNTWDDNCWGQEQRDSHMSF D DKALLHFNPRFDTGSSWFIVLNSLIGNRWGMEERYANV F


 T D G GLHENNPRLHENT ADKLLHFNPRF CESTIVCNSRDGDSWGKEQRENHICF

 SEKLLHFNPRFREST IVCNSKDSGKWGQEQRDNHLCF
 P DVALL L R VN F Q D K S V ENIAFHFNPRFDQNA $V V F N S F$ QNH GWQSEQVMA GNPF
 SDLGLHFNPRFDES VIVCNSRCSNNWQEEHREGHDPF D DVALDLQARF PDRQFMRNAFV S DVAL E L C I R F R D H QA I R RACMS SELALHENPRFDDSETPVLVCNSRSDNDWDQEQRDTHNPG HNCALHLNPRFTKQSRATVI RNSWDDGNWGQEERSDETKF $N$ D I A F R F N P R $\square$ I

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TFH\S GPVTVS SlRFS
 TLD WI K GS L KI T KL
HLLI TGTCELHSVLWE
TLG Y G KVQI ESI G F YVSLDGDTLI DHVQW TL

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TILIS G
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TLGI Y GKVQI E S I G F
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YLTIYGDAKLVSVKF
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F E ANGDFKLRSVNF
K L Q L L N D Did

GLQ Q Q G D I E LT G $\| Q \square Q$
H
$F$ VVI $E$ G DVVS S
QGDLQITLG
$M \backslash R \| V G S Q Q T K D G$
Ti S IVNGNURVDYVEF

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 YFSVVGDLDIK SIKK
STTVKGDVLVH
GLQAA G DVVIQMINF TLNIDGNVSMNMI GY $\square$ N Y L RVD G GFS 1 T S L K F QLEVA GDVTLSSVQY YLSVK G GFRV $\quad$ S FK ALL QI TGDVKLTKV
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Y L S VEGDFA TKA TKFS
TI KI SGNLSLTKLG
$T \mathrm{~L}$ G
YFVVRGDVKLKGVHW
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TMYIGGNVRVNTDEYKG■
GLQ Q GDVDI S GI Q
$Y$ MGMDG L H L S S FK LDE
YMSVKGGFRVVSFK
Y LSVKGDFKVKSFKYE
$Y$ LSVQGGFSVCSFKLQ
TI EVKGDVEDVSME
YLSVK G GFRITSFK
ALMI S GDVSMN
YMCVVGGFNTTSFKYE HlTVEQGDRVNNTRFE
GLNV S GDIKLTKV
VLEI NPEVEI QKI E


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TMW K G SVVSVTKL
Y I R V K G DI SII T S FK M
 $K L C: D G D: E L O Q G V H$

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 MKVGSTLKIKGKI ADDADSFVINLGQG LQPPGQSLLVRGEVAPSASRFIVNLGQD LELPRVVDLPKGFGDGAKLLMKGRLKLLPHSFYINLQKG FHVNLLCG
LPVPHTQAVS FKAGQTMTVGMVNPNATNFAINIGHE LPDPFVLPLPDGVPTGASIVLEGTLTPSAVFFTLDLVTG VPYTKHVS LPVGSSVTI RGKPPEMQVDFHTEADGD VVPTGRLDKPFTNGKRLHVKGCVKLLPHSFFiNLQNG VMPYTSPLSGGI SPGMALCFQGTVASNAKDFTINLQSG MALQFEAFCAEGLVPGWSLLVQGHTDAGEDKFEI NFLSE LTLPYYGTBPKSLREGRCLRIDGRVRLLPHSFYVNGQQG
 FTMKLDRHLKRGTEVIVRGMVGRDKFGMNFHCG GKLSEGISFTVTGNLSVNCERFSINLVYN
 पD DP DTVDTENEFKTGARLFIAGRLKDLPHSFYINLQKG VPYDLPLPGGVMPRMLI TIMGTVKPNANRIVLDFRRG LKPTSAILTGYIPENASRFSVNLTCS DDVPVTATDPKGFQKNWQLEMCGRVK GLPSAFYVNQQKG MLFPFYHEDKYPDMEKWDLTUTGTILEFADRFVVDFCSH $K \square G T T \square M \square K G K \square A K Y \square D R F A D N \square G E G$ VVYTDENTREVAPGLCFVVTGTVLLTCERFAVNDMKN TPFYAALSGRFAPFCRWTVAGCVPCSADRFHVNLKNT PLPYCNNE GGRLEEGVSFTFTGKMPDNCERFSIVFVLGD VLPGTGAGKGAQRVGKSV TLPFETQFPGGLKADERIYVYG!PKGFMERFEI DFVSR 1 QPGECIKVKGKILSDAKGFAVNVGKD PLKPTSAUVITGYIPPDADRFSVNLLCK GKLSEGVSFTITGKIA $\square$ NCERFSINLVHN


VVPYVT T $\square F G G L H A G K M V M L Q G V V P D K A R R F Q V D F Q C G$ LKQGHCLELKGLI PKDAKSFAI NLGKD
 LPFECD ENGFGYGSSGKI TACIHDDADRLSFNEVCG LETPYYNTLHNGMPCGSELISGCVYDDADQURFDLQCH LVVPFRGHIPGGLQPGKVVVVVGVVEPRPDRFYVALTCG LPVPYKLPVS GSDGSCVIITGRPKLNDPQLEVNFYTG VPHKISLPDTVHAGSVMRIRGSVPENASRFHVNLGQD
 VKSGTTLKIKGKIADGTNGFSINLGQE \P LPFYGK $\square P G G F T D G R V L K I E G R T K L L P H S F Y V N L G S G$

VIDEAFCAGGL LAPGWSLM
VTproar GQ
TMPLTSKLPSGSKIGKTIRIRGMCSG
TMPLTSKLPSGSKlGKTi RIGGMCSG RKGFADNVGKD LQPGGS|KVRGKILPDAKGFALNVGKD

LPDPYTQAVS LRPGDKLKLKGEILHDAEKFRIDLGSS LPVPYTKYVS LSAGTFVKIKGTPFNMNPELQVDFHTN LPGGFRVGGWVVVQAIPKKGSEGFAINFRTG MKLGTTLTIKGKIANDANDFVINLGQG
 LKSGDTLKIKGKDASDADGFVLNLGCP
 LPYRTEIPGSMEVGKAVRVRGAAQDNDGFSVNFGCD TPVPy DSkLGakLQPGQTLVAHGTVESDATHFEVNLLNG
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| UniRef90 UPI0003592ADB | $\text { G\|I }\|N\| V\|Q G E A Y\| \\|^{130} \mathrm{Y} \text { E\|V\|K }$ |
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| UniRef90_R7VX83 | Y L AVE G DFKVKA $\square$ K F |
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LG G G G | $I$ | $V$ | $K$ | $G K$ |
| :--- | :--- | :--- | :--- |
| $V T I$ | $K$ | $L$ |  | QVDFHTETCEK




$\square A V P F R G H D T D G M R P G K K D V V V G V V D S C P D R F Y I A L T R G$ VPHKTSLPEG $\quad$ RVGTVMRI RGVVPEKAGRFYVNLLCG




 PSLLQFEAFSLGGLAPGWSLLVQGQSDSTEDKFEINFLSE VPFAADLPD MPMDHPLLEK
VPHKTSLDE LCAGKAI YVTGVVLPKCSRFAVNLTCG TPYYNTLYNGMPCGSELEISGCVYDDADQDRFDLQCH



$L G R G R$
PLPNDFMKEDPSGLQPKDVIKVKGMMHPHGERVFINLKSG $P L P N D F M K E I P S G L Q P K D V I K V K G M M H P H G E R V F I N L K S G$




YVKPLPFEVGNKEQLIFRGFVKKGGDRFAINFLEG $T$ LP FVGPLQNGLKQGTMLSFHGTSFPSSNRVCUNLQUG
PWQVPYKKTVF
T PYNKP F GLPVGTSVKI QGTPPELQVD
PSPV $V$ VNSATPGGLCPGMSIYI QGVASEHMRRFFVNFQPG

 VIPYGTTDFGGLYAGKMVTQQGVVPDHARRFQVDFQCG YVGEDKGGLRPTMRLKVMGDVHKQPKSMVVVVGCQ LE $\square \mathrm{P}$ ITVDIGS K


 TPYYNTLYNGMPCGTELEISGCVYDDADQDRFDLQCH
 TPF LAAMPAGLGDYRKITRGRMTHD QFN NLDTG
 $V V P Y V A T I F G G L R A G K M V M L Q G G G P L E A R R F Q I D P Q C G$ GKTGEDSVRFTI NLHSG
 $L K T P Y V C P V P G G L D P G K A L F F Q G V L P L A A K T F E I N L K T G$ FEAFCAGGLAPGWSLLVQGQSDSGEDKFEINFLSG FEAFCAGGLAPGWTLLVQGQADSAEDRFEINFLSE

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50
K D 1 A F HFS PRFEEGG
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VV 70
70
80
D DVVLHVNPRFKF LIED T VLDNNKQKGRWEQEQKMNDNP F


## G

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| D |
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## $\stackrel{-}{\text { G }}$

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 D
 E R G D P F H



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| UniRef90 UPI0003BBDD6F | $\mathrm{T} \Pi \mathrm{SF} \mathrm{~T} \text { G G/V\|e\|V\|T} \mathrm{Q} \mid \mathrm{I}$ |
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 IDPY LTVGASVKIK GTPSKSSPELHVDFHTE FIIPYHADIANLVPGKRLD: SGVPTGK RFDVSLYRE TPY号T ALNNGMU DGSRLEปSGFVYDDADH HRFDLQSH
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T I P L
FEVPY

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 F I E CLP E GWGLN WKI II RGKL NDERFDI NLQND

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 VKDEDFSSTVFA
$\lfloor P D Q P M S V E I L C E H P R F R V F V D G H Q L F D F Y H R \square Q T D S A D D$



 N N G R K F T I RIMTYY D Y F R I L V N N W D F V R F D H R
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E


##  <br> k





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 $\square \mathrm{Q}$ K G T N F K


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| UniRef90-G3WBR7 | TVAVYD Dilk M T |
| UniRef90-B0XEF4 | FI HI GE G A QV D A M |
| UniRef90-W5JL47 | FI HL GT GATI DSV |
| UniRef90-E1FRU6 | HVSIN G DVSLRL |
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| UniRef90-U4U8M1 | $\square \mathrm{HLLS} \mathrm{GKMQ}$ |
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LP C GLKLLGSHVTVVATPHWAHTQFMMELQED $L P C G L A A$ G S AVVTVVGTPRPHVSQFMVELQED K I K MLP P H S F Y I N L Q S G

 $\square P C G L T L G S H \square T V V G K P L S S E N H F F L E L Q E D$ $M Q P$ G D A V R IVR GR I L E E N CR F T V MPGGLSFFFHGLIL SACEHFAI DF DT R \P Y IVPDPCGLILDSSVTVVGTPGIKTGT FSLEFGEG



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 M KLG K T L K L K G K I A D D DD GF A I N L G Q G
 M T L G T T L K I K G R $\square$ GNEAD R $\square E I$ N L G Q R
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P



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D DVVFHFNPRFDE G
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 D DI TFHSDPCFHENAGPQRGRNTGPHCCPCWGETVQG

K RQALHFNPRFDPQYQVVRNSHTEMLEFRREEETS GGFPF

 $P P R U L H F N P R L D W S G R P V I E M N T C Y R M Q W G S A Q R C E G W P F$

 $G \quad V L \operatorname{RYDVNF} \quad S K Q S I V Q N T W T E R S G W G E E V R C P C F P F$




 $K D A L L H L S V R Y E G$
$N D V A L H L S A R L P Q N Y M$
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## 

 NEDKLFVLTVSAGLEGYHFNVDGRHVVSFPYRTGTLEDAT

## K



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AE GKQFVLIIITA GSEGYHVNVDGRHVTS FPYRTGNLEDAT S K G S D F KVV SAVWG
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 VMD Q Q F K L A A A F T E S E F K F G V N G S Y F E A Y A Y R $\quad$ N V E G R L F V L T V V A G G L E G Y H V S V
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$\square$

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FK $\square G Q T \square T \square T W P N P R F Q V D \square Q C G$ FK $\square$ GQTLT $\square$ TWDPNSEATHFVINVGSE QFAVELGED
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TLVMRATIPAHSTSWAINDCPK LEFPCGLVVGSCVITTGTP LLKDPQLE VNFYTG SVRGGLAPGWN VOGHADSGEDRFEVLERE FTMDIPCGLVAGSSITVIGTPGSLSGNFWIDDLEPE FELA TPVEDPVTEFTDVRRRIELDGRVPLLPHEFHVNLQNA PFSAQFPKKPQUGDEVIVKARLKPNAKVFSINFSSS FHTRTDKK QFMMELQED
 FRTNNTLVVNGLIPTHSCRFVLNI ATP MEVGDRFVVNGVVNQAAGVVRINLAQT Le TPCGLIDDSSUSVGIP DGQSFQUQLDGS $L P C G L T L G S H M T V V A T P H W A H T Q F M M E L Q E D$
VLELPCGLVEDSSISVVGDPDGPHRSFQDQLLGS TPGDLVLPEAFATNNTLIIVATLPPRSSRCCFNVSTQ

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PDVALEMCVR ${ }^{50}$ KD RQV ${ }^{60}$ LRRACMSGSWGDVDKVPFFPF ${ }^{80}$ ADAALHFNPRLDTSE VVFNTKEQGKWGREERGSGDPF PPUILHYNVSLNTUEEPYVVQNTWNDFGWGKEERCPNFPF
DTKELHFSVRFDQ QTWVFHFA CEPTKGLVARTRHTNGAWEVGETYSENPF PPRVLHLNPRDDWSRRPVFEHNTCYRMQWGTAQRCDGFPF ADLPLHLSRRDEGKMVY NSYVNNVWGSKEQRDKNLF PHIVLHDGLWPCKYMGPHYFCPALLSSRSFISSIREPKLSA PR V LIH Y NVRGFGTE RDVVLHFDVRFHRDNDSLSRKNGIWDGSGNDDNYNMF PQDELPLYLTIHPGRKEIVRNHLCSDCSAGPEERLDNCP PPRDLHNPRDWSGKPVIEHNSCYRMQWGTAYRCDGFPF
 RVVMNSCLAGGWKREVAVSHMDF SD AF HERVYFGH RVVMNSLQAGGWKREVAVSHMLF QDIAFHFNVRFDQ KCVVCNSHENGGWQHEERNYDMVF PPRILHFNPRLDWSGKPVIEELTCYRMQWGSAHRCEGWPF PYDALHFKTDYDERDDTSRVVLNWKNDQWQQEEVDNYWHV FDSVYERSP VSTHVRVQYRRNSUIYNSWNGPEEFGTQPY NNMCLHFNHRFNIHGDINTMAD
PPKTLHFNPRLDWSGKPVIEQNTCYRMQWGTGRRCEGWPF SDIAFHFRVYFG\|S $\quad V \mathrm{~K}$ KNSRQNGSWNCEVSSYEVPF NFSGLHYNVSVNMTEEPFIVQNTWTNEGWGKEERCPNFPF HNDLHVNPRWDT RAFVLNT DHNKRWGREERPSGFDF $K E V P L L S F R M Q E R K F V V M K S N F N G G W D V D Q R G R S P D$
$P P R I L H L N P R I D W S R P V I E Q N T C Y R M Q W G T A L R C E G F P F$ HSWAYHFKVVFNDDGSSIVVQNWK NVVWQNEKRTLSHNF RDLMLHFNPRFKHGGYI AINAFKNNVWQREKRDPS PF GHIVFHFNPRY DHNTARNSFTSNWQTEERALLNEF DDNPLHVRTEFGSSNDDRI ILNHKMGGTWQKEFTEKLSWT
 KTWLFHFASQPDDGH KD【PLH置SARFRAN
 PPR L LHFNPRDFSGRP HMYWEQSGDGDKDPCPQ PPVI HYNVSLNMTEEPYIVQNTWTSDGWGKEERCEGWPF DTKELHFSVRFNEKVVVRNSHDSKNEFGWGEERCGGFPF DDDAFFANVSFDSEGRSADDVKSRFAAKWSPTDRHDGDGD R DBVALHDTRPHEHA


SDVVFHFNPRFKRTN N VQNAFTSNGWGYE CIVCNTLKNEKWGREERTYDMPF DRALHNPREDGDRAVVCNSYGGKWCEEHREGGFPF PRLHLDRLDDSRRPVLEMNTCFRMQWGKAQRCDGNPF EKLDLHFNPNF SKPSGVVCNSLEGNNWGQEQWEDHLCF EHLDDHSLIFYVNVPEKVVDRSSCKRGDTSEVEDPGFFPF PPRILHLNPRLDWSGRSVLEMNTCFRMQWGRAQRCDGTPW
PYIAYHFKVVFNDDGSSUVVQNWK NVVWQNERRTLGHNF GDULEHFNPRFKD KQUVRNSYKGGlUNKEEREGPFPF PPRLLHLNPRGDWSRRPVLEMNTCFRMQWGKAQRCDGYPF
 RKQALHFNPRFDPHYVVVRNSHASEALDFRQEERTGGFPF
 SNNCLHFNLRFDHGDTNTVVCSSKDGGARGTEQWESAFPF

PPRILHFNPRDDWSGRSVIVQNTCYRMQWGSALTCDGYPF MNLHFGHCLIIDSHVCGAWKCEGRCCNVFF DHILFHFNPR PPILLHYNVSLKLTEEPVIVQNTWTNTGWGKEERCHNFP GDI AFHVKPQFSSATM EPIVLRYGVRLWGYEDRCPYNNANNAGRWGPEELSSIIFPL PPRILHFNPRLDFSGKPVIEQNTCYRMQWDHDEWSSSFPF PHPLLHYNRRSRGHVDPVIVQNTWILRGWGDEDRCPNFPF EDV VMQMNPRDHDEFHKATVFNTFYNGHWQEEETVPMICP DNI TYHFKV DVRLQTIIENYKQKGE SDI AFHFGVYFGNWVVMNSMC PPRILHLNPRLDWSGKPVIEQNTCYRMQWGSAQRCEGWPF DGGVVHMNPR KDGCEANVLWDTYFNGKWDRREYSPMPF NDIAI HMRADTHDNR SPVILHYNVSLNMTVEPFVIQNSWNNEGWGKEERCPNFPF PPRILHFNPRIDWSGKPVIEQNTCYRMQWGTSLRCDG QSVVLNYNVSLNMTEEPFVVQNTWDEEGWGKEERCPSFPF | $K D V M Q M S V K I M H$ |
| :--- |
| $S S M L Y H$ | STQNपEपPLQ\|ILTTNGPVTVISRNRKEVAKQERFVKNG\| $P P R \longdiv { L } H F N P R \square D W S G K P M \square E Q N T C Y R M Q W G T A Q R C D G W R S$



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QRGLDPFEVLIDATEEGYKV







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 AEGKLFVLTVSAGLEGYHITVDGRHVTSFPYRTGALEDAT





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NQGEEFKV
IIEGRMFVLTIQAGVEGYHTNVGGRH\ASFPHRMGTDEDAT SPGSEVKFTVTFESDRFKVKLPDRHQLAFPDRLGH
 PS SDLVLLGNFTC S SCASIIVVCGSWLVEFKKYKGFTGUEDAT EKERGFDLTIENEPYSMQVILL


 QPGSVTEDCISFDQ
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AEGNPFTATLWVGSEGFHMTVNGRHETSFTYRLEPW LVS APGEPFEVTGAWDAEHFHDYAPEHKVLHPAH
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EERKLGVVTLURGGLEGYHVSVVDGKHVTSFPYRTGTLEDAT




 RAGQPYEVSMELTQTTFEVNFNGNHLYSYRKRTPSYHQTS

VE G DP FTATLLA GVE GFHMTVNGRHETSFAYRDGPW LVS EMAKTYTDDFVPTRFHSDFYINGRFTYEFRERQPGF KFS TFGEPFTLRLTVVPTGFLVFI EEDFQDEFKHRVP
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UniRef90－J3LRR9 UniRef90 M1D6D7 UniRef90－D3TS54
UniRef90 B4FBB7

T VK VA G S L S L L S V
$Y Q G D D Q F V A D S K V E F S$
GLSVDGDVDVNAV
TLGICGDVSVQG\｜S F
ALGIKGGIEIHKI EF
EVVIS GDMKLISV
Y L VA WA DVE
YLGFVSSGCVIFATINFEN
GFAVNGD【DV ISI
TLGFNG
SLAMDGDワAL
GFA $\square$ K GDVDV V S $V$
S M $\square$ A Y E D WT $\square \mathrm{DS} \mathrm{VTMT}$
G L S V G G DDVQSV
S E L WD DV H V E EI S F
NLLVYGDWSLNAI TM
Y L T A E G DF K 1 K C V A F
GLS $\square$ N G DVDVHSI
G VKVA G G L D L L S
TL R
$\mathrm{L} V \mathrm{~T}$ VT GDVFVDKTE

SVGCYGDLDI H S V H
QI TVNGSLTL
TVQLWDDFKLDSVAF
EVRIEGDワKLDSV
S L A AVA G D H H H B V N
HVVFSGNVIISKIE $\square$ T
EV R I S G DVGGLSVEFENM
HL HVVD G DLLELLQSI N F
G L S S L K K G D
AVLIWGS\｜IVKEПT
GLSSLNGNLDVQSV
S TELLMDDDN
QVRIS GDFKLAS
MLSFWGKMQPFKV
G L A VT G G $\square \mathrm{DV}$ V S V
A VKVS G G LKKILSV
CLLIKGDLIVSHV
GLAVTGGIDVHSV
LVEILWDDVYVEEVTF
G L A VT G G 1 D V V S V
ALRVRGDL
GLTIN G DIDVHSV
GFRVQ
Y VS MMGDC
G LADKK GNDDLHS $\square$
TVQVWEDVFLDSMSVCN
$G \nabla K / V A G G \square E L L S$
QVRVFGDFKL
GLTVVNGDVDVRD
EVRISGDVNLDS F
Y L Y 1 Q G DVVKI F S I Q V S R

LVVELWDDVEVEEVTF
AVQI WGDVQ
$M V Q V W W D V F L T S M V M S T L$
GLLVNGDLHVQSI
QAQLYG
TAQLFG
$K$ V R V A G G L N V V S
$K$ VKVD G S L N V L S
SVEIT GDVEIHSVHVS
F LS MDG DELKS IS
ALSMQGKVDI LS L E
$\square$ LSVNGDVDIQS I
$A L K C C G D F T V K S L E Y$


[^1]

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[^2]

| UniRef90 Q9U2l7 | NLL LG Y G D WTVVIT S IV/S MT |
| :---: | :---: |
| UniRef90-A0A016VBR3 | EVHIDEGPLIVEEVVFT |
| UniRef90_T1PCZ4 | GDLLKLS TVGFNM |
| UniRef90-Q09277 |  |
| UniRef90-UPI0003C367A8 | T L K C $\square$ G D F QVRS $\square \mathrm{E}$ Y |
| UniRef90_B4P2Y6 | YVRTYGDFKLTQFHHRML |
| UniRef90-B3M216 | A V QVWGDVQ |
| UniRef90-A0A059D8P4 | EVKI S G DLLK LI S V |
| UniRef90_UPI0003C46475 | F F SVEE G D K V K S I K F |
| UniRef90_J3MJ83 | GLSLS G DLDVQS V |
| UniRef90-A0A016W8H6 | SVEI G G DVHVHSAH |
| UniRef90-UPI0003C3725E | GAKITG |
| UniRef90-U6NMV7 | EVVI E GP LIVEEVVFT |
| UniRef90-UPI00035A2BD4 | VI QERGDIRVSEI TY |
| UniRef90_G0MY60 | QLMVKGDVSLDLLE |
| UniRef90-F2DFE1 |  |
| UniRef90-T1YM8 | $\mathrm{H} \square \mathrm{H} \square \mathrm{GGGKVNVE} \mathrm{V}$ V N |
| UniRef90-Q85113 |  |
| UniRef90_G1PIM1 |  |
| UniRef90-V4L602 |  |
| UniRef90-H2VZV2 | NLLIY G D WS A E A V S M |
| UniRef90-U614A4 | H\\|S\|D GDAEFTGVEF |
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| UniRef90 G0P493 |  |
| UniRef90_A8X3H7 | Y |
| lupas 21 |  |
| lupas_14 |  |
| lupas_28 |  |
| jnet |  |
| conf | 589973088889898808 |
| sol25 |  |
| sol5 |  |
| sol0 | B B |
| jhmm |  |


[^0]:    ## 

[^1]:    lupas_21
    lupas_14
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    jpssm

[^2]:    lupas_21
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    $\square$

