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#### Abstract

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| $N$ | $\square$ | $F$ | $V$ | $E$ | $T$ | $E$ |
| $D$ | $R$ | $Y$ | $S$ | $R$ | $V$ | $L$ |
| $E$ | $R$ | $Y$ | $S$ | $P$ | $V$ | $L$ |
| $E$ | $R$ | $F$ | $S$ | $K$ | $E$ | $L$ |
| $E$ | $R$ | $R$ | $S$ | $E$ | $V$ | $L$ |
| $E$ | $R$ | $F$ | $S$ | $R$ | $V$ | $L$ |

G GRTITKFVSDAY R A V $V$ I K K K K N E K F L E GGRAI AK FVVDAY G GRAI AKFVSDAY G GRAA A A K F V S D A Y GGRA 1 GK LVV S DAY A DEEGQPPLIFKKRNTEFLE PARFKNGNRVAIKCKNEKWSE LR Y K VKKENVLRVITK


ERYSPVTT
$\begin{array}{lllllll}E & R & R & S & P & V & T \\ E & R & Y & S & P & V & T\end{array}$
ER TSPK


LK Y K L K K E
ERHSSVL GGRA!AKVVSGAY
E T R $\quad \mathrm{L}$ P N

| NGKRAA | F K NKN E Q F WE I |
| :---: | :--- | :--- |
| GGRA | $A K A V S P A$ | $\begin{array}{llllllll}G G R A & A & K & A & S & P & A & Y \\ G G R A & A & K & A & V & S & A & Y\end{array}$

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UniRef90-G0QDY9
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UniRef90-UPIO00346BB40
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30
40 $D L L P W T D \prod E N$ D FTRYPS LTNHYA TGKTR DGI GK LDDDEYYATEKKNHGT YPSI QQLSRAKSGALWGQLVTVQEKLDGC YPST DLLP WVDIE N

DLLP WVD $\square E N$ $S H \underset{L}{D} \operatorname{RRQKKSV}$ LA GNPWVFT | E K K | V | G |
| :--- | :--- | :--- | :--- |
| Q |  |  |




Y P S TK QLT K T K
$\qquad$ EP LKD L K WEA T
N V L GKY


 $P S \square Q Q$
TKLLY TKLLYMSMQ
 EMENHSPENIKRYKDVFVDREEVVVTEKVHGT

| S Y TKVK N | HIES LYKCPEFFQEIYCMEKIHGT KGLS LD KFKDRGFVVQEKLDGS |
| :---: | :---: |
| LP WDDVEN | KRYPAAFADGEPVAVAEKV H G T |
|  | K S YPDILQDGEEVVFTEKLHGT |
| N | K R Y K DVLIE GEEVVVTEKLH GT |
| RFPSPEN | KRYRDVLI T GEEVVVSEKLHGT |

【PKTDETRVQULVDQKYEGEHCFVTEKLDGS
 A GREVIVTQKLHGT RSKDLLKAGREVIVTQKLHGT QRAFKRVDSKVFPEHLDTDNFFRSAHAGREVVVTQKGHGT 1 QNFYGRFVHKYDDH
 EWEVSLKLDGS SEDPHTDETRVQA LQGVLQLDKKWYDTVKVDGQ VIVTQKLHGT
 KKYMETQNLN PETGDMFEPGDQII I QEKI DGS K LT F Q K WTSIELLHNVKRNLDILGEAVTDTYRAKVKLHGT $H R N Q H L L R$
$\qquad$ PGREIVITQKLHGT
 KKYPK $\square$ KYPNDDKA TGVFASGEVVVQEKLDGA



|  | $\begin{aligned} & \text { UniRef90_Q08539 } \\ & \text { UniRef90 C7QAP9 } \end{aligned}$ |
| :---: | :---: |
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GEF GVCSRNMELEKSEDNSFW
S VT Y Y T N E
SFTAFVRAGEFG VGCSRNLLLDTTDDNTATLVR
NMGI VRVTDGUVTHVQKREHICDRNDDNFYFE
S $\quad$ SRVWVKTPDYEFDVVYGSRKVI KDPNQNHYYQSDDWT EY
 $S I R V W V K T P D Y E F D V V Y G S R K V I K D P S Q N H Y Y Q S$
$S M T V Y D H P L E F T E G V C S R N L D L T E T E D N T F W Q$
NAGVQDFSDG
$R$ VA AQSRSQII TPDDDNMGFAQWVSQQ
NASVIFSGEQCEYH YCQSRNRVLTPASDNAGFAAFVE
SGTYYYKKRFFGKDFFGDYSRELRKKEGDNSNWAQDATKY SVRFWLERDAQK $\square$ G $\$ RAGSRKVIKDPKSHFYS
NLGFSL SNERTILVQNRSHYINAATH
SWR GGNVPVRRDKRDGIKTPDEHVFGSRRVVKHY NASFQYDRETD SVIDCFSRNQILSPELNLRGFYEWVQKL NAGDQVTTEG KVAAQKRSQIITSKSDNAGFAAWVENN

 NFRFTHERNDDEEYHTPDSKRGIVSRNVQYKNVKDESKQF $R M Q L H K R G N E Y F \quad Y C S R K G Y K D Y T Y L Y G K H V G V G S L$
R
$\qquad$

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 A NKDKER

KRQKP $\square N D \square H Y R D Q E P$ IK F Y A Y E 1 QKGGG NYRQDQDFVLFDV
RDEARTKPINKDAYTQQKESLKYYAYEI $G V Q D L A Y G V Q A A T A D A P P G$ VQDLAYGADARSET

KEYD
NDEDNYRTQKGGNYTKNDVGFTLFDV
VQDEGYGKDARAEGGPGYA
VQDLGYGADAGRGTPG
VKGKAVVLYD
A LLVEDKF LQ
DYEIVKE
DG $\square D Y Y$ NPSKGSPHPPDDSDTPNVV
GVQDLHYGLTTKA
YET TGQE $\square \mathrm{DYK}$ KP Y

K LIK $\quad$ YGLSNGK
VQD■GDGTDSRRDVG
PDL
 GKKAFRVFDL LFD FAAFDA QGDQAYTYGTKRDSFRAFDL QQGMSKTYGDMLKFYVFD KRTKPLNDTSYVGQKEKLKYYAYEL
 YGKD YAVFDL
D $\quad$ YG $\square S Q G K \square G \square \square A D Q X Y G \square P N G K I G L A V F A V$ YGLSQGKDGLA LFAVRHQGVF LNYNSFIDF CQKMSKTYGPNLKFDAFEV
QNK YGLKELALKK
TPDGQPDQKGYTYDVPRGEAQKGG NYFQGRRFIVD TKNAEGQ IPPQRNTYNDPKGECELYVY TPDGQPDQKGYTYDGPRGEA EHDYYVYRV
HNRENLK
$P G$
KNKDHFT
GYTYEETPMDGNPEL


DGMQFDTSP $\square Q K N Y T Y N \square P E G Q A E L Y V Y$
VSKDEP DQRGYTYNपPPGEC
DWESTPA



[^1]
$\square A K H E D G S M S V C G T N T W K Y \quad F F E Q D S \| V P Y \quad N T L$

 R KYDGYNNDFLDF EMSQKWLQEAGFDDIPKIFYDYF VCCSEPELDKECTTENVEFTQAQQLLAQAQF

## K K V N  $K$ NCDNKNK IHF I DFD IVC Q IVLNAAGFNVIN

 A IVLFAVRRGSEFLNYDKFVE FCNSYSLPTVPLLYQGAY A VEVGTRD
A
A
GAQRYHDFD A LQAMAEQLGVQTVPILYRGPF

WLCVPNADD VTKQLGLEFVV
SNYEYLNYSDFRALVENL ELLPMVPVLEE

AHDNSQGHLSS DLSWD GVKQFCQVRGLKWTPEMDRVSF

F N N I NEQKYFTAHER KTFCHTYGLKVAP MYGUQKF

RVADGNEEHN
YV PEEKKYVGPDGMVS FCEYHKMEMVPLTSRKTD RVAHVNEDGULHDLSWDQ VKAFATSQGLKHTPELWRGPK YDRSSRSWADRDSLALLLEGTGIHMVPVLYRGQR
 Q 1 GDDLITPKKLEVRPEK SQMLPKHEDIFVLPTLNFGN RVATVNTQGTLADLPWDAVKEFCLARGLKWTPEMGRVSF





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| UniRef90-F6M883 |
| UniRef90 G0QDY9 |
| UniRef90 ${ }^{-} \mathrm{V} 2 \mathrm{X} 6 \times 4$ |
|  | UniRef90-H3NPE5 UniRef90_B6S6T2 UniRef90_Q1HH44 UniRef90_D9VMX1 UniRef90-F2R9Y2 UniRef90-R4ZGL5 UniRef90 ${ }^{-}$B5H9L UniRef90 C5R809 UniRef90_S6CR18 UniRef90 K4K692 UniRef90 K9UDL4 UniRef90-A0A023MHG9 UniRef90_Q71A10 UniRef90-M1PXX0 UniRef90-X0RV34

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DDLVEM SKGPSEWSKDDLREGDVIREDE AALVKFAEKNFYSWADGQVAYPDRPGGTGKDEGIVLRVDK PS ESRLREMVHSPSSFYDGPVEGGIVVKEEE ECDY LDDVRFTESPGAEHFNEAPVPLSNTVDEGUCVR

E E Q LKA AVHTDNEMVEAVEKSDPWVKAEGTGEGLVMYPDT





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FE81F4

LIY K L K S D Y K ${ }^{250} \quad \mathrm{~L} \mid \mathrm{NK}$ K K $\mathrm{D}^{260}$ EHGNAVV GSRTIGKGVSAEY DNYVLNSNNNGYPVVKHKTEDFSEV LR Y K
 $E R Y S P V T$
$T P M M G L L D R T G H R A!A K A V S P A Y$
$T$ ERYSPVTTGGRAl AKAVSPAY GLQ FRNGER I I TK KKTVDF IR Y
 ASLYDSNEDEHYRVVKHKTDKYLEV $G Y P \square K S T Q D F L G V K Y K T D K Y L E V$ DQRKRTDDGTVRA KKVVTDDFK ERE DPKTGRVILKYIGDRY ERTSVMPSGKRAปMKHKNADFWEI




DMS L NR $\square$ SFK $\|$ VNPEF GGEVPY L NGRVLSRGKIVRA $\square E G Q \| P R V F K A K S P K F L E$

N
 NYDTQTFAKYVREDFKEKN SKYVLNGRN
lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
j̣hmm
jpssm


[^0]:    lupas 21
    lupas_14
    lupas_28
    jnet
    conf
    sol25
    sol5
    jhmm
    jpssm

[^1]:    lupas_21
    lupas_14
    lupas_28
    jnet conf sol25 sol5 jhmm jpssm

