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YYDVDLDRTLTQEDVEALekrmhenaeknydVIKKKVSWh Y YDFA YKRPFTPDDLTAIEKRMQELVKQNDPVVRQEMSRD YYDDDMEHSLTAEDLEKLEKRMLELAKTNYDVVKKVVTWQ YYDFDYERPFTADDLEAI EAEMDKI IKAAHPFERSVMSKD YYDFDTEHKFTPDDLEKI EKEMKKVVKEDLDDERFELDRD

 YYDFARA EPFSSLD DLLAQ I EERRMREAVVARNLDPIVREVVWNR D YY DVDLD H R DT DE DMETLEKRMKELVKTRYDVIVKKVSWH

 YYDFAFERPFTPEDLEAI EAEMQKSI A ANAPFSCTFVPKA


## Y

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\section*{\section*{ <br> <br>  <br> <br>  <br> \section*{}} Y Y DF DK D GN F S Q D E L $\begin{aligned} & \text { D K }\end{aligned}$ Y Y D I S C K H H I T L E D L L V V F Y E M S T E R P V S N T Y Y D L E S E K N I S M E D LP K Y Y DFDRPTPFTPEDLKK $\begin{array}{llllllllllllllllll}\text { Y } & Y & D & F & A & R & D & E & P & F & S & L & D & D & L & P & K \\ Y & Y & D & M & D & V & P & T & T & I & T & E & D & D & L & P & K\end{array}$

 | Y | $Y$ | $D$ | $D$ | $D$ | $L$ | $E$ | $E$ | $K$ | $L$ | $T$ | $V$ | $E$ | $D$ | $L$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $Y$ | $E$ | $K$ |  |  |  |  |  |  |  |  |  |  |  |  |
| $Y$ | $Y$ | $D$ | $L$ | $D$ | $R$ | $E$ | $T$ | $P$ | $F$ | $V$ | $A$ | $E$ | $D$ | $L$ |
| $E$ | $K$ |  |  |  |  |  |  |  |  |  |  |  |  |  | Y Y D I Y Y E K P F N E E D Y Y DFFRETP F STGDDFAA


 $\begin{array}{llllllll}Y & Y & F & A & H & D & F & P \\ Y & E & D\end{array}$ $\begin{array}{lll}Y & Y & D \\ Y & F & R P \\ Y & P & F T \\ Y & T\end{array}$




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 RGPHAPSTGFI KAFKLMKISGSYWRGDSKNAALQRI YGTA $R$ GPHVPSTGKLKVFKLMKVAGAYWRGDAKNEMLQRVVGTA R G P H L P S T G K L T A F K L M K L A G A Y WR G D S R N P M L Q R I Y G A A AGPHVPSTGSLTKAKLTSLAGAYWRGSEDNKMLQREYGBA RGP H FP S T G K I K H F A L L S S V A GA Y WR G D S S R P M L T R R Y G T A $R G P H V P S T G V L K V H K L M K V A G A Y W R G D S K N E M L Q R I I Y G T A$ RGPHVP TTGAVVKAFKLLSVAGAYWRGDEKRPMLQRII GTA

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A GP H L M S T G KI K A $\square \mathrm{K}$ K L S T S G A Y
A GPHVPSTGKVKVVKLLSIAAGYWRGNEKNKMLQRI YGTAA



RGP HAP S T G WL K H F K L L K V S T A Y W L G D A K S D S L Q R I Y GTA
A GP HVV GTVKVLK A F K L Q S L A G A Y WR G S E K N K M L Q R Y G LA
A GP H L A S T G K V K A $\quad$ K
$R G P H L P S T G R I K A F K L L N V A G A Y W R G D S N N K M L Q R I Y G G T A$




$R$ R P HA AP T T GK V G N F K L M K VA GA Y WR G D S R N P M L Q R R Y G A A
R GPHLP S T G WL K A F K L T R L A GAYWRGDENNRMLQRI Y GTA

A GP H L M S T K Q $\quad$ I K A F K
A GP HL M S VA P V K A F K L TN CT GA Y WR G D SK GK QL CRRI Y G TA
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A GPHLASTKPVKAFKLTSI A GAYWRGSEKNKMLITRI YGTA
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$R G P H V P S T G R V K A F K V M S I A G A Y W L G D E K N P Q L Q R I Y G T A$
A GP HV A S T G K V K A F K L Q S L A GA Y WR G DEKNKMLLQRI Y G TA


V GP H I P H T G K I K A F M V T K N S A S Y F L
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A GPHVESTAEIHAFKLRSVAGAYWRGDEKRAQLQRIIYGA
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S GP HLPS TGGLIQA $\square \mathrm{L}$ LLTNV S GAYWRGNENNPMMTRIIYGTS

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




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A GPHLLPDTGR|V|KAFK|LTSSTGAYWRGDAKNKMLIRR|VVGTA RGPHVPNTRVLRSFKLMNLAGAYWRGDSDNKMLQRI YGTA KGPHLENVKA KAFKLLSIAGAYWKGDENNKMLQRIYGDS RGPHVPNMAFCKAFSLTKLAGAYWRGDANNEMLQRIYGTA RGPHLPSTGMVKAFKLTHVSGAYWRGDSNNKVLQRVYGVA RGPHLQTTGQLPAFKLTHVAGAYWLGDATRPMLQRIYGVA

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 RGGHIPNTGLIKAFKVLNVAGAYWRGDENRPQLTRVYGDS RGVHVPRTAKIKVFKLLSTAGAYWRGNSDNKMLQRIYGTA
 RGPHVPNMSFCHHFTLQKTSGAYWRGNHKNKMLQRIYGTA AGPHLDSTGRVNA $\begin{aligned} & \text { GKLTSCTGAYWRGDSNRKMLQRVYGTC }\end{aligned}$ A GPHLMTTKPLKAMKLTSSSGAYWRGSEKNKMLTRIYGTA RGPHVSSAGEIKAFKLINDAGAYWRGHERNPMLQRIYGDA
 $R G P H V P S T G R I Q V F Q L L N V A G A Y W R G K S E N P M M Q R I Y G T A$ A GTHVRYTKQVKAFKLLSIAGAYHRGDEKNKQLQRIYGTA
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 R GPHLLPSTRRHI PA F KLLMRSAAA YWMGSEKNPQQLQRVVYGTA A GPHIDPSAGK GAFKMMKLAAGAYWRGDASREQLQRRLYGTA


 A GPHIPNTSFIK AVKLIDAISGAYWRSNEKNKMLTRVYGIS RGPHAPNTKFLRFFKLTRIAAGYLGGDEKREMLTRIIYGTA R GP HVP S T GY I GVCK L L SVVS GSYWRADE KRENLL


 R GP H V
 K GP HL P S L N FI GAYKLLT T $\square$ S GAYWK GDSSNTMLTRIIYGTA R G P H L P N T R Y I K A F K I E R S A A A Y WR G S EAANPMLQRI Y GA A


 LGPHVVDTGRIK A F AV LKHS A S Y F L LG D A K N D S L Q RVV GI S
 $R$ GP H L P N T K Y L H NVVKL Q KVVA GA Y L G G D S N K E MLLTRVV GTA



A GPHVVETGMLDSIALESVAGAYWRGDENKAMLQRIYGTC
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A GPHLMMSTGVI KAVKLTTQATSAYWRGDAARDSMCRMYGVA

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A GPHVESTGKI QAVELESVAAGAYWRGDENNQMLQRIM GTA
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 K GP HV A N S K E I N A F K L E K IA G A Y WR G D E K R P M L T R I Y G T A
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H A T H L

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G M R T Y VR S L C F L A K A V S NV F P Q A Q M S $\square E H P \square A K G Y$


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 RFDFSHMEAVTEEQLREVEHEVNRQVLANTPVTTRHMSDD






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## UniRef90 V5F5A4

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| UniRef90 V5F5A4 |  |  |  |
| :---: | :---: | :---: | :---: |
| Uniref90－Woscx |  | GLF K V M A GV |  |
| UniRet90－A6GT92 | GGTHVQRTGDi | GLFKITSES ${ }^{\text {G }}$ |  |
| UniRef90－K5ZLK5 | GGTHVSRTGDI | GLFRIVS |  |
| UniRef90－E8N5J6 | GGTHVHETGD | GLFLIVS | SAAAGVRrTEA |
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| UniRef90 F2NQ39 | GGCHVRRT | IGYFVI RSEEAL | VRR ${ }_{\text {A }}$ |
| UniRef90－UPIOOO4694FF5 | GGTHVAR | ПGLF KI I S EGGII | A A GVRR |
| UniRef90 UPIOOO479118C | GGIDVGNT | GVF K V S S Sl | GAGLRRLEAV |
| UniRef90－S7T5W8 | GGTHL | G |  |
| UniRef9－UPIV00375FC42 | GGTHVPRTGD | GVVQLTGE |  |
| UniRef90－l3BXP | GGCHVGRSG | GLFkiVSEGGV | A A G $\square \mathrm{R}$ R $\square \mathrm{EA} \mathrm{V}$ |
| UniRef90－AOAO24K | GGTHVRRT |  |  |
| UniRef90－G5zVM0 | GGTHVDQTGDI | ALLK I S E S AV | GGVRRLEAVTHAAGLA |
| UniRef90－XOY2J6 UniRef90 C8VZV4 | GSHVENT | GL F K S S |  |
| UniRef90－C8V254 | GGTHVKNSAE | GSFFTTKESGV | SSGVRRIUEAVC |
| D5 | T N |  |  |
|  | A |  |  |
| UniRef90－R5AYL2 | ALAP S | RVFDLQPYKE | LLGPNR |
| UniRef90－G5H1E2 | GGSHVTN | GLF K V SES GV | A A GVRR\｜EA】 |
| UniRef90－R6WQK66 UniRef90 A60747 | GGSHVDNTAQI |  |  |
| UniRef90－D4ZAU0 | GGTHVGRTGDI | GLF KIT S S A G | RIEAV |
| UniRef90－R5PE | SLLTNK | YLYGLDKY |  |
| UniRef90－UPIO000E0E5F4 | GGTHVSRTGD | GLCKI TS | R |
| UniRef90－O7VHV4 | GGIHVNNTAE | GS ${ }_{\text {G }}$ | S SGG R |
| UniRef90－E6XET4 | GGTHVKNTGDI | WHFK K |  |
| UniRef90－M1Z3W1 | GGTHVNNTNSI | GLF K1 1 | S S $\square$ A S GVRR】EA |
| UniRef90＿U5LDS9 | GGCHVRNTSA | GL |  |
| UniRef90 UPIOOO35F6 | GGTHVART | GAFK L L |  |
| UniRef90－R6D | GGTHVRN | GAF KiVS |  |
| UniRet90－E1KR |  |  |  |
| UniRef90－S7U183 | THLTNTGQ | G |  |
| UniRet90－V8BYW1 | GGCMVERTGYI |  |  |
| UPIO003B4 | GGTHVQRTGDI | GL FK | AAGVRRIEAV |
| UniRef90－E6Y1A1 UniRef90－F3B9X7 | GGTHVQRTGD | GLLIH VIAA |  |
| UniRef90－X5K182 | GGTHVKNTGEI | GLF K1 ES | SAAAG $\square$ R R $\square \mathrm{EA} \square$ |
| UniRef90－F3YA87 | GGTHVSNTED | GIF KIVSESGI |  |
| UniRef90－F7MMN4 UniRef90 F7JCJ9 | GGTH1SNIIGK | GLFKIVSE |  |
|  | YGGCLAPSTGM |  | LRDPSNPTQT |
| UniR | GGCHVRRTGE | GMFVR |  |
| UniRef90－V5T8X2 | EKALLP EITKN | Q L SVA | S P MLQRLUYGTA |
| UniRee90－12F5E2 | YGYMPYSTGA | NFS |  |
| UniRet90－UPIO00395655F | E | Elita | NLQTDQSE |
| UniRef90－R5JCY4 |  |  |  |
| UniRet90－S2KLL9 | GGTHVKRSG | GCF HIV |  |
| UniRef90 Q6MB06 | GGTH | GQFRivs | LLQR |
| UniRef90－F5TBB7 | GGTHVKNV | QMFK1 | S SVAAGVRRपEA】 |
| UniRef90 UTVAP1 | GGTHISN |  |  |
| UniRef90－B10YT8 | AGPTHIKNT | GKLFK LSE |  |
| UniRef90－UPIOOO3 UniRef90 UPIO003 | GGTHARATGD | GLVHVLSE GA | A |
| UniRef90－F9ZKN | GGTHVPQVGQi | GLLFK ${ }_{\text {a }}$ |  |
| UniRef90－D674V77 | G | GL F K T | R |
| UniRef90＿D185H4 UniRef90 Joxoz6 | GGTHVSSSGQ | GLEF K |  |
| UniRef90－D5ROH1 | GGTHVRRTGDI | GLF K ${ }^{\text {a }}$ V |  |
| UniRef90－08GD | GGTHLQNT | GLF KLVSEGGD |  |
| UniRef90 XOPEA4 | N | GL F K |  |
| UniRet90＿10WIF3 | GG䀎VENTKDI | WHFMUTSESAVK |  |
| UniRef90－UPIO0031242DF | G |  |  |
| UniRet90＿UP10003671B79 | GGTHTEATGD | GLIF KIVSE | S GVR R\｜EAVA |
| UniRef90－FOS285 | GGTHVERSGD | 相 |  |
| $\begin{aligned} & \text { UniRef90_UP10002E3C69A } \\ & \text { UniRef90_N1K28 } \end{aligned}$ | GGCMVPNTAY | G SFQL |  |
| UniRef90－C5WDJ1 | GGTHVNYTGNI | GLF Q |  |
| UniRef90－UPIOOO467587B | GGLHVDATGDI | GLFKIVREEG口 |  |
| UniRef90－${ }^{\text {URGU68 }}$ |  |  |  |
| UniRef90－UPIO003B6BE1F | GGTHVSHTG | AAFKLLSESGV | A AGVRRUE |
| UniRet99 | G |  |  |
| UniRef90－D3A511 | GGTHVVQNTSE | GLF K\｜I S E GGI |  |
| UniRef90－R5MR55 | YGPLADN |  |  |
| UniRef90－ 7 HYS 1 | GGTHVRNSGE |  |  |
| UniRet90－H5TB97 | A ${ }^{\text {R }}$ |  | S S GVRR】EA】 |
| UniRef90－UPI00037F93ED | GGNHVENTSEl | GLFKITSESGT |  |
| 90－A5N | G |  | A A G $\\|R \mathrm{R}\\| \mathrm{EA} \mathrm{V}$ |

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 D Q ERRD $\square \mathrm{M}$ R

 $\square K N H T A T H L L H Q A L K D L G E H V N Q A G S V T D N R L$ SPEGKAVFWHSAAHVLGAAAEQLL GAVLCRGPSTECGF N H T A T H HL L Q D K R R Q A EAN H T A T H L L L H E A L R E L L G T H V V E Q K G S F V D P $\square$ G HEA Y KR S M S F L L V K A V Y DVVA GH DK VRMM FA I G P G Y S P H GWT $\square$ Y R R S V L F L L D A A V N Q L
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 Q E P D G L E $\quad$ L R R S C V L M L A M A V K Q L H P Q V Q L H A G T A L G D G F E D K R LDTAANHSSVVHLQQKTLQQELSSNNIHQAGSYVLDNERL RDPEVNKAYWRSCAMMMGCVI ERAFKDEYMVEVPVDSGAF N H S A T H L L H A A L R D L G T H V A Q K G S Y V G P D A L NHSATHLLHRALKELGEHVNQAGSVVEPERL NHSVTHIMHKALRELGAHVAQKGGLVNSKVT NHSCVHLLHSALKSVGDHVSQAGSYVDDNYF
D N R R R D $\square \mathrm{A}$
N
R
N
NH
 DE $\square$ GFQSYKRSAT LL MLKAI D DVMEHSK VR $\square M Y S M G D G Y$

N H NH
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K R A LT A R NHTATHML
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EPS GMRTY
DK TGKRAY
YR S V
NHTATH
K DEDPE EVVYWRSCAMLL GCVL E QAFK E ERAP EVVPV DA GAF
DEKARQARHHSATHLLQSALRTLGEHVQQAGSFVTPERL N H T C T HI L H A A L R E L G A HVVK Q A G S Y V G P D R L
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A NKVF
E E V N Q A Y WR S C S LI M GYAL E TAFK E EYAVVEVPVI G G G S N H S VT H L M H K A L R E L G D H V Q Q K G S L V N A E R T

D A ERRTQI

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NHSAT
NHSATHLL

DENRRRA $\square$ A LLHAALRQLGQHVSQKGSMVSAERL


 $D$ S $\square$ GHK TY K R S M N L L L L K A V Y HVVA GHRKK V L H F T V G E G F K S E E T DR L HTATMLLQQKALRVLGNH DRQEGSHITAERLL H H T A T HLL H WAL RKL GPETFQRGSYVGPDRL E G N S C L L R T A $\square$ M L L V R A V
 NHSAT H L L HAAL R QL GE HVVQQK GSLVASDVL
 K T T A N H S C T H L L Q S A L K Q L G E H H Q Q Q A G S F V G P D Y L



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 RFDFA HPEAITKA QLNE IETLVNQKVRENFVVQTDVMDDE



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DA AAVGAMALFGEKYGDEVRVVSMGKGDRDDRPAYS DELC
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DARS 1 GAQA LIGEKYGDEVRVVSMGSGKGADGKTYSLELC
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- N

H T A T H L L Q S A L K K SV G S

## E G N Q C I

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E GKEVY
K KA L K GEHVNQS GSLVAPDRL


S S D A $V R \square Y \mathrm{E}$
NHSAT
TLR Y V I A K A V H N
$\mathrm{G} N \mathrm{~V} \mathrm{Y} \mathrm{S}$




N H T A T H L L H F A L K K V F G E H I Q Q K G S S I I R E D Y
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D T E RRRRRLHHTATHHVVVYAARQQLGHVRQAGAQKGVDS S
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R
RYDFNHYKLLSKDDLMQLEKQVNDWIFQKGPVKTIVVMP PK RFDFSHFQPLTAQELERTERLVNEAI RANAETEARVMPFQ

R

## \section*{\section*{R}}



## $\frac{\mathrm{L}}{\mathrm{R}}$

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 DAVDDFTREGMDDKVRLLRYRRS SEVNVYKDDGFSDYY EAKEFYSNTKSQ RGMAQFDNYQKEMVSLYYCENYYNYF EAKKSNVEGNFWDKYPDIVKVYT DQDNE GNVWSREVC SARVLRAVFGETYPDPVRVVTLEYDDLENPKWRGTSVEFC

 DAKA IP GVRAMFGEVYPDPVRV
DAAEKGATALFGEKYG
EAKKMGAA
DAKNAGA $\square A M F G E K Y G$
A LIFSEQYD


TARTMCLNRQMKREAELLEHVEM DYVMAYQCGQAFDYC EAKDMGATADLFGEKYGQEVRVVKMGDF

EA $D$ ASGAMALFGEKYGD\VRVVSDEDYGS EAKAKGADAMFGEKYG
ELAKSVYSGETYPDPVRVVSVGKPVDDLLANPSNEEWIEFC
SADTEGSTVLFGKKYGEKVRVVSMGGKVSDNRFAWSVECC
 EAKK $\quad$ AEKRGVMTFGEK YGIVVVRGEKYE
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EADDVGRKLGHFDKVKLL
EALERGAVAMFGEKYD
DFKKVAHDNP LLEE L MMKVN

## DARRLFQSSRLRLQLVERM

EA 1 RFFRRVGMHSKEHLFRYRMT
EA I KKGCLGDFHEKYK
EAERSGA CNFGDKYGDVVRVVRVGAAVAPLS
DAV NKYGA DAFFTEKYDEEVRVVKFGDFSSEEC

VALEVGSHSRSKKEEVERKASQSSGGTVTGYRCGGHVELS EAEAE
EADDMACADCSD
EAKKSGAAALLFDEKYEDKVRVVSMGDF

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## UniRef90 D7CK26 UniRet90－A8RCB2 UniRef90－COR1G2 UniRef90 R6B152

 UniRef90－UPIO0047DAC51 UniRef90－F4XDN9 UniRef90＿UPI0003747FCC UniRef90 W2UKEO UniRef90－UPIO0047BAC1B UniRef90 EE1YM14 UniRef90 R5UP11 UniRef90－UPIO0047D6E9A UniRe990－X1R6H5 UniRef90＿J9GLK0 UniRef90 UPIO004172B70 UniRef90－K2EXZ5 UniRef90－UPI000409EFCC UniRef90 UPI00047CD265 UniRef90－R5T8D5 UniRef90－UPI00046A3CC8 UniRef90 EOMJM2 UniRef90 E7G7NO UniRef90＿UPI000309E14F UniRef90－M2B6A3 UniRef90 R5ZB17 UniRef90－UPIO002195DAD UniRef90－UPI0001DD0471 UniRef90 R7F391 UniRef90 UPI0003B72EOD UniRef90－K9SN09 UniRef90－UP10001E2D08C UniRef90 V5SG70 UniRef90－UPI000411B560 UniRef90－D9SRU3 UniRet90＿F1NDS2 UniRet90＿A5Z3U2 UniRef90－A8F078 UniRef90－UPI0003B42CB1 UniRef90－UPIO004785DB4 UniRef90－A0A010ZKH0 UniRef90－E3HDU1 UniRef90－M1LS68 UniRef90 Q5XNP3 UniRef90－H6RHK4 UniRet90－Q88V10 UniRef90－G5GE05 UniRef90－R5ABE1UniRef90 UPI0003C39D37 UniRef90 D7GVQ9 UniRef90 UPIO003317086 UniRef90－UPIO0037BOFAE UniRef90 UPIOOO288AC21 UniRet90＿UPI000412837D UniRef90 R5Q596 UniRef90－W4ANL9
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150 GAGपRRVEA $\square^{160}$ ASSAGVRRワKA $\square$

GGAHVRRTGDIGAFVIMSDENV AAGVRRDEALA
GGTHVKNTADI WHFVITSESAV AAGVRRIEAIS
GGTHVANTGEI GVVK VSESAV AAGVRRIEAVA
SSVSAGVRRMEAG
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YGYMPASTGVLQYFSLEPYENGFMLNDPNSKTPDR
GGTHARNTSELGLFK乌TSE
GGCHVSNSAQI A LIKKESEESV GSGTRRTEAV GGTHVARTGDVGLFKVVSEGGV AAGVRRIEAV FQPLMDRDGEVKVFDVMPYEDGFLL GGTHVSNTEDINVFAIVSEQ
GGTHAQSTAELNLFK SSESG
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GGTHISNTAEAEAFVLTEETAV AKGURR』TAL
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 UniRef90_E8WYK5 UniRef90_UPI00029ADE23 UniRef90_A3MXP1 UniRef90_X0V6K0 UniRef90_F6HF38 UniRef90-UPI0003631771 UniRef90_D1J7R8 UniRef90_U3A6R0 UniRef90_UPI00046EBBB4 UniRef90_W9SAF6 UniRef90_F0Z158 UniRef90_UPI0003C11675 UniRef90_E3KJL0 UniRef90_N9TQS6 UniRef90_A0A024YR48 UniRef90_UPI00037FB310 UniRef90_I2GVV0 UniRef90-I3QFW4 UniRef90_D7E9B0 UniRef90_UPI000429B475 UniRef90_L1MG90 UniRef90_V9R826 UniRef90-A8BWP7 UniRef90_E6ZYX8 UniRef90_UPI000369178D UniRef90_UPI00047A42D8 UniRef90_B3QZP8 UniRef90_F2T595 UniRef90_T0ZND4 UniRef90_W6MWC4 UniRef90_S3CU48 UniRef90_S4SVA0 UniRef90_C7PVQ4UniRef90_W9X0W8 UniRef90_A0A024JHR4 UniRef90 I7IQJ7 UniRef90-F4BWV3 UniRef90-X1IJC8 UniRef90 W1Q940 UniRef90_J9MDD0 UniRef90_Q9VLM8 UniRef90_M3CA58 UniRef90_UPI000369F49C UniRef90-N9V2I8
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EAEA EHGFD $\quad$ YYQGGVPPGS DURLIDHDDDEDVVAC
$\square A K T \square R A D F G E T Y P D P V R V V S I G K E N P T S E E W Q K Y S I E F C$




A A G G G M K R
DAEAE





KALDSGALAFFKEKYP
DAKS ITNAVFGEVYPDPVRVVSDGQKVEDLLADPGNEKELC K A K DL R A V F GETYPDPVRVVSVGEKETEVDFGHEFS I E F C EAEQKYGFRDYQGGV V Y I IT S L K K A E E M G A Y M T DD E S EY H D A NY I RVVVE GT K D LC

 D AKRI NEVYPD PVRVVAIGGKVEDADPENEKWSSDSAELC

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D AVRDGAVAFFGDKYGDDVRVVSFGDVS S
 K A RTIRAVVFGETYVSVGVPVEDLMEDPTNEKWTNYSVVEFC QEARKNYSFSE YGDNVY DFE EKYKK EVVRVVIFGKS SE LCC NAEKR YG L NVYQG GVVP GK KL RIL KVGD D DEAC QAKSMGAMAMFGEKYPAlVRMVEMGGP
EAKAMGAMALFGENYGDNVRVVEDGGPFSM

D A MQ Q
EAEKKYGFSLYQGGV$\quad V P G S T V R C V D \| T D H D T E A C$


T A R E I R A V F G G E T Y P D P V R V V V
EAME IFRRYKMHDKEKLGRYRRS SFVNDYCDDGYYDYY
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TAKK LRRAVFGEVVYDPVRVVSIGVANPESEEWNKYSI E FCC



KA S E L R A V F GE K Y P DP V RVVV S I G V K DP T S P K WH E Y S I E F C








 EA A A V G A A A Y F E DVVYK K L K G K L
 E A MULA WIV WS F WE K Y P D D V V V K I Y S I V WN D WE IV S Q E L C QAKDMGALAFFTEKY D D FALDLDDSWKQELVHKMKHETENGE DAVAGGAVALFTEKYE E H G V V R V V S I K D S K E L KAKAMGAMAMF GEKYPEKVRVVEDGGPFSL
KAREMGA $\square A Q A E K E F A D N P Y Q L H L A Q Q A N E S F G Y V P T Y T M G E D T M V V$


EAKAWGA
A AKQ

DARKMGAMALFGEKYGERVRVVS $\square$ GEWSR
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EAKA A GAMALFGEKY G
TAKGIRAVFGETYPNPVRVVSVGVEEPRNPEWRKVSVEFC VA K T I R GLLRSVF DEVYPDPVE ELLEQNPERDAGAEKTS V E F C

TARE DRAVVFGETYVSVGVPVEDVIDKDVKNPAWAEVSVVEFC

E A D E K Y G FR LV Q G G V
EAKAMGA LALFGENYGDQVRVVEDGGPFSM
$E A L K M G A L A M F G E K Y G D R V$
$T A K A K V$
$T$

$\mathrm{S} |$| V | E | L |
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| V | E | C |
| L |  |  |



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SATHN $20 \square R$ RVG 30 HTGAHVISAACROLGPHDWQRGSS IDEDSLL
 SSEGVSVFQSSMSFVLNTAARRVLMGRGQRVTHSDSEGT HTGTH H V HAALRRQLGPEATQRGSFNKAGYL HTATHILHFALEKVFGVSVRQMGSFDGPDK NHTATHLLNTALTSVSPSSQQQGSNVSPYKF DSERRRTVNHTATHILNFALREQLGEADQRGSLVAPDRL

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 DRRRKVAPNHTMTHALNYALRKVDEGVDQKGSVVTDEKLL HTASHVLYGAGRHIFDDLDYGGFDI SAEKV ESEEGRRCFWYSSSIVLAMAMRKHNNNQQQQQHQVIDDGF HS GTHVLHAALRELGPDALQSGSYNRPGYL I CEHIVNQTMIRLFGCGRSVSAHIERKKS $H T A T H L L N W A L R Q L G P G T E Q Q G S H L L N P E Q L L$
$H S A T H L L N W A L Q R S G L G N G Q K G S S V D C N R L C$ KAACNHTATHILNFVLRELDQSTYQRGSQLDDEKL

lupas_21
lupas_14
lupas_28
jnet conf sol25 sol5 sol0 jhmm
jpssm


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[^0]:    

[^1]:    

[^2]:    lupas_21
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    lupas_28
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