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$W R G$ YEENNID FPERRDDDN WL K Y V V N S V Y K $\begin{array}{llllllllll}V & L & V & E & H & L & L & Y & R & K \\ M & T & R & W R G \\ M A & R & A & S & L & R & T & E & S & R\end{array}$ ATVFSAEARKESR
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| UniRef90-UPI00037265B0 | D D GliEl K HKPV |
| UniRef90-F2Z614 | DTGDDVVLKYRKVI |
| UniRef90-K2S5K0 | K PHGKVDLS YRA |
| UniRef90-UPI0003731AAA | D GRMVSEKRPY! $\mathrm{V}^{\text {P }}$ |
| UniRef90_W6MXC0 | EFGAPVEVTYR HVISETL |
| UniRef90-R6DRA4 | D GKLLKI I FR |
| UniRef90-J7QWB2 | RERKTTSIDYRPV |
| UniRef90-M7TH90 | KPHTGVDLGYRRVI |
| UniRef90_B5DFZ8 | PKTGKVTLKYRPVI D |
| UniRef90-K71T19 | $\square \mathrm{NT}$ G DVKI D Y R PVID |
| UniRef90-A0A023D7G5 | GEGGVVKLLYRPV |
| UniRef90-13CHK6 | DKGNSI DYRPVHTYTLT DE |
| UniRef90-D5GKU3 | EQHGKVDLKYRAVV |
| UniRef90-F21311 | S DGKVEID Y R DV |
| UniRef90-B5JWY1 | D Q NVEEFEYRPVHMYTLT D E |
| UniRef90-F2L443 |  |
| UniRef90-C6XGL3 | WNTGKIKLDYRPV |
| UniRef90-W4YPS0 | EHTGEVKLEYRPV |
| UniRef90-A8HP06 | STNDKVNI S YRPV |
| UniRef90-UPI0001CBBB1C | N GKVTLDYRPV $\quad$ DDETL |
| UniRef90-K3WJE4 | GEDGKTHIRYRE |
| UniRef90-N1MPP9 | P TGAVRLDYRPV |
| UniRef90-A4EI48 | A A KVKLSYRPVI |
| UniRef90-Q1IZZ5 | P G NVVI GYKEV |
| UniRef90-O82663 | DE KVRLD C RPV |
| UniRef90-A0A059MNP1 | GTELPI RLD Y K P V V Q |
| UniRef90_UPI0003B58CDD | DKKVEI KYRDV |
| UniRef90-R6LVL7 | DGKIHILFRD |
| UniRef90-B4WFC1 | PGEQVQIDYRPV |
| UniRef90_UPI00036DF436 | D D A GKVTIDYRPVHE |
| UniRef90-B4JW44 | NEQGDIDLKYRPVID |
| UniRef90-W8C8S8 | GES GEVKIKYRPVIDP LD D S |
| UniRef90-D8JWS3 | Y A K K VKL DERPV |
| UniRef90-R1EUN2 | TPADKVKLDYRPV |
| UniRef90-B8HQE9 | A AGVDVQYMPV |
| UniRef90-G1V1B0 | DS LEEDIRVS Y APVIK M |
| UniRef90-P47052 | GTSTPVK\KYRNVIHTLDE |
| UniRef90_G7W5V5 | PS GPEFSYEPVDV |
| UniRef90-F1KV78 |  |
| UniRef90-FOKD56 | EGKVNILYR |
| UniRef90-M5E8M2 | EETGKVTLKYRNV |
| UniRef90-C5LYE7 | KEESDIVLKYRPVVD |
| UniRef90-W1Q6P8 | GHGKDVKLGYRAVI |
| UniRef90-E8U7B2 | RGNGNVN\GYKPVV |
| UniRef90-T1AYK8 | TA GKSRFDYRPV |
| UniRef90_UPI00037718AB | DKGNVK\\|DYRPVHE |
| UniRef90-D3SP37 |  |
| UniRef90-G2KMD8 | GADGSHSIGYRPV |
| UniRef90-UPIO0026CA1B7 | GTGGKVELGYRPVHD |
| UniRef90-X1VBX0 |  |
| UniRef90-U2YKQ5 | G NTARLD ${ }^{\text {a }}$ R PV |
| UniRef90-M1WQZ6 | P SNDDI Q Y R PV |
| UniRef90-K9RPQ8 | P A GVQI E Y A PV |
| UniRef90-K2B8X5 | EDGRIT FRAV |
| UniRef90_H9KFK6 | P D GSVSYRTCPYSU1V |
| UniRef90_UPI00040A740A | T DARTVGLD YRPV |
| UniRef90-UPI000380288B | GEKVKID Y R NV |
| UniRef90-C9RHT7 |  |
| UniRef90-V4Q6K9 | LA S GE T N DD Y R P V |
| UniRef90-UPIOO046F2CB4 | GNEMK |
| UniRef90-E1VTJ1 | ADAVTI RMETKPVV |
| UniRef90_UPI000258EC3D | Q H G T IS $\square$ S Y R V V D T T D S |
| UniRef90_E6WXS1 | G D |
| UniRef90_UPIO00346D3C7 | P A GIIDI Q Y R HV |
| UniRef90-D8FFQ7 | KDDVGLTYKDVDV |
| UniRef90-G6DIU2 | LD T G K V T I T Y R P V $\square$ D |
| UniRef90-E4U049 | ENGNIKLLDYMDV |
| UniRef90_F4H831 |  |
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| UniRef90-M0MMG1 | E GS PDLY Y A PVI |
| UniRef90-M2ZL25 | NVGEEVR\\|GYRGVV |
| UniRef90-D8G894 | PAG $\square \mathrm{DLS}$ S P PV |
| UniRef90-UPI00035DBE7D | A N GAVRLLERPV |
| UniRef90-A0A023B090 |  |
| UniRef90-UPI0003FE7D12 | ND TIIS TCLK |
| UniRef90-UPI0003483E41 | PAGVDIS PRSV |
| UniRef90-M0CNZ8 | EGNPELYYKPV |
| UniRef90-F6SI53 | VQ T G K V EL ${ }^{\text {N Y R P V }}$ - D |
| UniRef90-D5EAP8 | DGNPKLEYKDVTI TQ |
| UniRef90-H6Q5Y0 | KD $\quad$ M R K R D |
| UniRef90-F3KKX5 | P K EP $\square$ M K T HP VTI Y QP VERK Y |
| UniRef90-A0A010NE37 | PETNGIRADTKPVV |
| UniRef90 D3DJ70 | G D K L I I D Y \\| P V Y Q P A ERK Y |





| UniR | $\begin{equation*} \text { A A GTDU\|QYRP) }{ }^{130} \tag{140} \end{equation*}$ |
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| UniRef90-UPI0003B549E1 | GDSDHI KLDWKPVYQPMERKY |
| UniRef90-UP10003B38222D | PEAETIRFDTKPVV |
| UniRef90-UP1000376053E | D GSVELAKRPV |
| UniRef90-B7JXT5 UniRef90 AGYD22 | PAGПDVQYMP |
| UniRet90-A6Y22 | GEDGDL |
| UniRef90-UPIO003618608 | PDG VTVDYMPV |
| UniRef90-F2NGW7 | PGAQMPELNYEPV |
| UniRet90-D4H1K1 | EDGKTPRVEYRKVR |
| UniRef90-UPIO003F71120 | DKGETTMTYR |
| UniRef90-Q8EP19 | ESVSPEFSY EEVDVSL |
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| UniRef90-Q0BX75 | DAGGKVSLDYRPVH |
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| UniRef90_D7E9N2 | PQGPRLEYRD |
| UniRef90-F8AY01 | GPDSEVRLDYKPVYQPMERKY |
| UniRef90-T1KB86 | GDDVNMSPTKVKAFQPAERKY |
| UniRef90-D4GK38 |  |
| UniRef90-F8P6A3 | DNEPDVE\\|TYRGV |
| UniRet90-U1NUP1 | GSPELWYRPVI DEG |
| UniRef90_E6J8Z1 | NGLDDIRL |
| UniRef90-D4MZY6 | DGKMKVILR |
| UniRef90-UP100046F51AE | PAGIVMSYCPV |
| UniRet90-F6CMX7 | GDGYFIETRPV |
| UniRef90_066855 | KNGNLKLEY |
| UniRef90 W6RZN4 | DGKIEIILRD |
| UniRef90 B8GRJ7 |  |
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| UniRef90 W2E7V5 | P EGPQUSYENVDV |
| UniRef90- LoDVV9 | GD V VLDYKPV |
| UniRef90 U5WT96 |  |
| UniRef90-B3M4M0 | PGKGCATПKYRPVID |
| UniRef90-UP1000262CA2F | PETKKLTKRDV |
| UniRef90-B9E757 | GPKEAPEFSYEPV DVSL |
| UniRef90-MOLDT4 | D GEPEDWYRPVT |
| UniRef90_UP10004022 | PAKNGPDFEYEE |
| UniRef90-UP10000D55D | DETGKVCFTFR |
| UniRef90-D2RFJ3 | SDGVKVD |
| UniRef90-Q482S5 | PETEEMTKRDV |
| UniRef90-K2RTB1 UniRef90 V4JB74 | RVGEDVQVGYRDV |
| UniRef90-V4JB74 UniRef90 O28809 | GDEGRLD |
| UniRef90 ${ }^{\circ} \mathrm{C} 5 \mathrm{WDD2}$ | GSDGKMKEK |
| UniRef90-T0MX71 | GGEDK\SYKP |
| UniRef90 E0WUA4 | PQTESMTRRKV |
| UniRet90-E8T3A3 |  |
| UniRef90- M7BWY4 | VKTGKKS |
| UniRef90-C5JF64 | EETEPVKVGYRDVI |
| UniRet90-D5BMM8 | ERNKSDLSYRGVV |
| UniRef90_A0A023W0V7 <br> UniR | EFGSPVKLDYRDVIK |
| UniRef90-Q1N614 |  |
| UniRef90-M2TJX3 | SVGEEVEFGTREV |
| UniRef90-Q67JJ3 | EDGPELFY |
|  | MEEGPKISYEPVDVSLIPPR |
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| UniRef90-X0R7P3 | PD GEPRFSYDPV |
| UniRef90-R8AM10 | EDGGAPRLEYSD |
| UniRef90-K9TN06 | PAGVDIRYRPVTITQ |
| UniRef90-AOLKF4 | MNTGEMEVSAKPV |
| UniRef90-K2GP54 | KENNEPI |
| UniRef90-U5DJ32 UniRef90 A1VYF4 | PAGMEMGYMPV VVTEFSL |
| UniRef90-A1VYF4 | VDERKGVNFEPKTV VVTEFSL |
| UniRet90-R4KUH4 | EGADLPELKYEPV |
| UniRef90-COS870 | EETEPVKVGYRDVT |
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| UniRef90_R4LR26 | DDSGDVHLERKP |
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| UniRef90 Q3SJL7 | GDQVDVRLKPLTVE |
| UniRef90-UPIOOO4637700 | NDDUKIEYAPV |
| UniRef90-UPIOOO3712E9A | VESGE QLLDF KPVVQ |
| UniRet90-A3MY25 | GGEIKLTYTP |
| UniRef90_K9z6L2 | SRGVK ${ }^{\text {d }}$, |
| UniRef90-L8MXY6 UniRet90-0YAC | MGAVKTSNR |
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UniRet90_U6MB27 UniRef90_OOAD89
UniRef90_B3QL72 UniRef90_KONMF4 UniRef90 X0XC99 UniRef90-H6CT08 UniRef90-A1VA29
UniRero D8izx
UniRef90-A6YCM9 UniRef90-Q29272 U1Re9 UniRet90 K9SE35 UniRef90-D5WUK9 UniRef90-Q47F57 UniRef90-E1RAA3 UniRef90_X1FTZ6 UniRef90-Job8YO UniRef90- ROJ370 UniRef90-TOYCU5 UniRef90-CODU25 Unis90-V6KMQ4 UniRef90-T2SF45 UniRef90-E8V8E1 UniRef90-G8QJV2 UniRef90-UPIO00360DB0D UniRef90_L5XSRO
 DKSTS GEYTQDVANDIRATMQKHAG ND GKE SVYEI RERMREIMDE
DESSGGEAVPDLRAELQDIMQND KI RHEMGDSMEEGV

VFRTS K K NGERVSEVRND NGEEVSEVRNDLQRCVQSHAG V FRT DAL



$\square S P$ T K L K E K L Q K TMMWENNVS I IR R V TMSDVNPKYCKPA GMA L RLLMK DTHEY GAGTATYYQTNGRS PTAKDRLAMQKTMQRHAA VFRKQD L
NAYVIHKELGE $\quad \mathrm{MT}$ TNVV TVVRHNDKL


STE EL E EAMQKVMDTYA GGIGSSHYQF NEKQ

 N K Q G LDD DE QTEEAMQK DMDQYA GG $\square$ S T DYQYNEAR NESSGVVTI E E F E F K V VR R I DN N F V L


N P Y K I H E EL G N MMLDQHVT IVRIN K D

 ASGANGSEDVFKVREAMQDALMDGCFVFR NGKD

TAVDVVNPNYCKPAGMAMRMLMKMTNEYGAGTGTMYMTS GKN




A P LKNSNG $\quad$ GWK E L N M Gl A K TMMNYC GGVK R T A E DVVNPNYCKPA G L
 Q GRN G M E N A Y D
Y V V
V NTGTENDFDI KDRMRQDMGDKVGIFR DGEM $D \square N G B E N P A D I V N E D G R T M E A G V G I \quad Y R T E E A M$ ED
 DTPESEVLTPDQLEAAMQDVMDRYAGGDRTDYGFNGDD
 NP Y QL H HE MGE LMTEENV TVVRENKK L


K N GESVAATNAALRKTMQTHCG L R E E L G Q T L A Q NVGGIVFRVE E DE I R R L M WN Y V G $\quad$ V R S

D K R
A GTVSPSY ILPMPGDQRLQK $\square$ M DEYCGGVTVSYMTNDK L NDEGNDPREVVEYKL R RHDK P L LDD S PK QDVANDI RATMQKYCG VFRT

NAHELHHELGDLMNKYVT IVRVN
YELRTRLQDTMTDHCGI VRVRDGBRE
NP Y K L HRELGGQWMTENVGTVRYNDRLKKTD


S GEKA QDVGNK I R VAMQAHCG
TAALRSKMQVAMQTN $\qquad$ T S VFR T H A S L L
$E G E D P Q G L R T E M Q A T M D R Y V G I Y R$

PEKPAHPLLAPETRFA QRIMMTEGAAVLRS E S
 NEGTENPFKLWRELGDTMTRHAT IIRYN VFRFND K N GESVHEVRLDMQRTMQKHAG



|  | 130140 |
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| UniRef90－L7EIT8 | ENTGEMT TS RETVPE |
| UniRef90＿R7B2K8 | P D GPRLS Y E EVD |
| UniRef90－Q2S5A1 | DANGSYEFDDKEVV |
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| UniRef90＿UPI0003679A65 | S T D G G M Q VE K R P LA P $\square$ P E E |
| UniRef90＿Q492X8 |  |
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| UniRef90＿C0JXL6 <br> UniRef90－J9J377 | DVNEKPR\EFRKVV |
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| UniRef90＿UPI00037F55BD | STENDIVVYTRPVEK】S GEEL |
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| UniRef90－A0RYA2 | P R E P L M K H P V T $~$ Y K P VER K Y |
| UniRef90＿A4A3K8 |  |
| UniRef90－F9DVS5 | GS A P IT T Y E DVDVS LIPP P R K |
| UniRef90－B0TF08 | AQGPVLEYEDVDV |
| UniRef90＿Z9JRB3 | REGEEIRLL |
| UniRef90＿UP100036E3F67 | PQTQSMARRKV |
| UniRef90＿F6D7M7 |  |
| UniRef90－S7T478 | EGADMPVLS |
| UniRef90＿B4SGD9 | D GKVVLGEKPV |
| UniRef90＿G9IY80 |  |
| UniRef90＿SOEX01 UniRef90＿NOBOP5 |  |
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| UniRef90－B8DMW0 | P GADLP HLE Y EPYVELPP |
| UniRef90＿E6PDQ1 | D NALLPRLDYSRSVKITDFK |
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| UniRef90＿C5BDL7 | ES GAPR】EYSDV |
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| UniRef90－T2G9Y8 | DGADLPRLTTYEP |
| UniRef90＿UPI00047B2566 | NGK\AVNYERVPIEEK |
| UniRef90＿C3XK01 | P NQTMPTLT Y EDIE |
| UniRef90＿UPI00040E21D3 | QEDAAPTIDYSPV |
| UniRef90－Q088J6 | DANPEMSYEALDV |
| UniRef90－T0LWT1 | EQGNMNFEVKPAAEMPEE |
| UniRef90＿A6Q7B4 | NEED TLDPT】HYEE【 |
| UniRef90－F7V400 | D GEDHIIARP |
| UniRef90－A1V9N5 | EGATLPTLTYEP |
| UniRef90＿D6XY77 | QETREPSFSYA EVDTSL |
| UniRef90－A0LJT0 | E G D NLP T $\mathrm{L}^{\text {N }}$ Y |
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| UniRef90－14C9A1 | GDGFALSKRPVTV |
| UniRef90＿U6MB27 | GETAEYTPSSVPH |
| UniRef90＿Q0AD89 | DK ${ }^{\text {H L D Y K P V }}$ |
| UniRef90－B3QL72 | GGHPK】GFKEV |
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| UniRef90－X0XC99 | PETGEYTMEKAPLYHLVGE |
| UniRet90＿H6CT08 |  |
| UniRef90＿A1VA29 | A D G G M V VT R |
| UniRef90－D8IZX1 | SEGNRLDYKPVNMQPLT VET F |
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| UniRef90－Q29272 | VKTGKVSLEYRPVID |
| UniRef90－UPI000374B56D | LGT S EPK ${ }^{\text {S }}$ Y $\dagger$ EFD H |
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| UniRef90＿D5WUK9 | P D GPVFEYEPVDVIK P R P R K Y |
| UniRef90－Q47F57 | D |
| UniRef90－E1RAA3 | K S GVD M |
| UniRef90＿X1FTZ6 | N G K L N L R R E P V K L T R $\square$ |
| UniRef90－J0B8Y0 | GS RLEYKPV |
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| UniRef90－X4Z5E8 | LGIVEETSDDV |
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| UniRef90－CODU25 | D N SLLAYKPV |
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| UniRef90－U2WCJ5 | ETGYRAEYKDV |
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UniRef90＿F2R1E8
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MQK T I
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 L E Y C Y E E V K K I LIK K W D H I G L T D T S R WM F V R Q L A N M I I Y A L


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 $P$ G G L L D P Q V


 DASTSGEYAQDVAGD VR SAMQQHAG VRTMM


$G M N W K E L N M A D K A M Q N Y C G G V K$



A P D






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TRE $\ R K E V Q S I M W K Y V G I V R S T T R L E A A$ K QNWTE I R RFMWNYV G V R RTKR LLNED LLVTHNDR EMQK LMND YVGGVRS DFR



## CEEEL DKR

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A E L R R E L R QVMWD DVGV MR T
NK $\square$ AP $\square \mathrm{Q}$ L R D K L Q E A M WE DV G V M R T

PHKMDAYRI Q Q TA R E H L M GRLVGVQRDA D G GASWQEANFAAL QQDMTTEYA A CGPHRRLRSDTEL


NP YA LH QE L Q Q SMNDLV GIIRRKAPEMEE
EWVLIAHNRDELRRDMWDYVGVVRSQLR
N Q G $\quad \mathrm{K} \quad \mathrm{L}$ K K L L WD K V G I I R
NPYSVHQELQQTMNDLVGII RR
NETE
HEL R L FMWD YMGIVRTTKR
P D WD E T G $\quad$ TT D S D E E E Q
LQ H E
DELR RVMWNYVGIV RKTDR
NAHGVPASAVRQKVQRMSSRYASVVR DEL R R L M WN Y V GIV R T
VP WEEVT GRVVRSLMWE KV GI I RT
G F D P L E E V K E E L
NETL

D K R
GE G
NEDG
$T L P D W D E S R V T$ D A D E E A E L R R R A M W D Y V
K QNWTEI RRFMWNYVGIVRTTKR
$N \nabla Y G L M S D L G A L M D R D M A V L C$
D GYHWKN AEERMK VVLDHYAGGL PRFYVY
DEQS
GYHWK AE ERMRRRMWDYVGGVRRFYVYAS

K G
 QE L R R FM WD Y V Gl V V R T N K R DELLRRFMWD Y V GIV R T

D K R

A P L A R R G G D L H A LRE QLS NVMWD DAGVVR DAEG

P D WN A G G T T P K E M $\square \mathrm{KE} \mathrm{L} \mid \mathrm{K} E \square \mathrm{M}$ S S Y V $\mathrm{G} \| \mathrm{V}$ R N VR

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L N Q G L WRJL
50 60

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L L HLI REQLGPILAEVESHY QDYLLTPDGVELRNDALVAQ LRLALKKLLDIKNKLNNMRDSSNKDLQEGLEV LGELKRQAA FAMRLSK AEGLKELSEIRERLKNARLDDNTQRIECLELDNLMETAY
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## L

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DEQ
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WRE
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ES S
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L $\mathrm{L} A \mathrm{G}|\mathrm{L}| \mathrm{KE|L|AE}$
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LA GLLKELA EIE ERATHVVVVHGYQDLAHAFDLLKASULAAR L A R A A A V L D D L A E R Y R D V $\operatorname{L}$ R V $L$
$L$
$L$ R A WN R L L D D
 R RIGE F L K DE T EA A Y Y K K T K I T T Q I L E L R N I I K V A S
 L R R A Q K R I S M L F E E N E I L Y K K T K $\square$ F Q T D L E A R N L I A A A H
 $L H Q G L T K \square R A L R T E L Q S T G V S F N M A W H E W L N L E S L I D E T S E$ LT T GLSHLKRL QAKAA TVHCA D SHEFMRCLEAEDLAALL GE L E R GLLT RVAA A G A E LDA E T GVVD G NLLT WH D WL NMR S L V DI S E LRRIIENIQEEINEYYWDFKVT S DLI ELLRNL ATVAE


 EALLDKLRERVRNVSVVEPVAVGDHPA WHLDALDLANMLLVAE




 LK R A Q Q K I N E WK L
 LAEATERLAAALGER TTAEPGVPGWETTDLLTTVAT

 L M R A R R RLLDLL R E E I R D YY WR F K VT Q DVI ELLRNIAADA H


L
LS Y VR D L K


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24 J 152 DF4

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T LRPAGNTSHEVDAGAQRAVQAEVFPYQHNYFRTADT
A A $1 / R L E L D Q A A A N R S L L I L R \quad N E P G$


$D P N G L G L D L T D\|R E S L R A L M G R E V G I A R \quad V G\| V D E G$
$\square R E A L Y G C M W E D V G I L R$ DANG
K EAALYGCMWED AGVVER
RTTK
DANG

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PE $\square \mathrm{K} \square \mathrm{L} S \mathrm{EPSEQ}$ TTERIQADKTQNLTWQAAGDCRE
I HKELGHI MWEYVGMGRT

HKKLGHI MWEYVGMAR NEEG
E L Q N ELS DLMWKYCGVVK N
EVRQSLPQLDWQSAGISRS


I HKELGHIMWEYVGMARS
PTTAARRTD $\quad \mathrm{NA} A R Q N L Q V N M W Q A A G Q V R$
VS R N DKR

N P Y T $\square$ H


GD WARD $\square E K \square A S V R Q S L P S L M W Q S A G \square C R S$

$\qquad$
$A V R C N E Q S$
EEAG
$N V \operatorname{V} R E E G$
PQALVDAVQAEVFPYA RNWFRDG MQNHAAVERV

DAES
NAAG
EAMQEGKMWEYCGMSRT
$R R Q$
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RKVFADLQDTMFHHAM VERDEAG
 TQHTRHTDSPDWRELTRRIQQ MA LL LPLDTAVFRSEEK HLHRKL WE YCG $\qquad$
$P G A L V P A T G T A E L Q R A M T R G A G V L R S$
LK A KVK K VM WTNVGIVFR
NPYLI HQELL
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PAWDESGITPEQERDEVRALMSNYVGIVRS
$P$ GQP LDE C L RAAMTARAAM:
$K$ KKHDLAKTMMNYVGIVVR NEES FHRELGKLMWDKCGMAR NAAG
SPEVFHKR RVGKALMWDK CGMARNAEGLKEA

| $V$ | $R$ | $T$ | $G$ | $G$ |
| :--- | :--- | :--- | :--- | :--- |
|  | $I$ | $R$ | R |  |





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





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| UniRef90_D9TG13 | K D T N Q 】EVVFPQPV |
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| UniRef90-D9VSV3 | G T G T A PVLHKED Y VHP T Q R S Y |
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| UniRef90_K4KFN1 |  |
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NAF
FHKELGNDMWEYCGMER
T D S DEN
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RHGDR VGUVRTTK NPYRLHQELGALMTAKVGVVRDNAELDAAL
AGTTHPELVLVTEMKKELESLIMSNYVGIVRSNRRLKRAM


RNK
DA
N
EGADPA LVAKLRQCMTRNVGVVR
DADG

GALPVPALQELRGAMSEKCGVVR NATG
 EMELIK S I R S Q
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RNDED
$P G G H A P A E A V A R D R R L M T D H V A V L R \quad D R A G$ HFHRELGKVMWQEC AMSRNKKG





60
70
80


EAVAGAL D DAAPRTVPEGQTAL

| $L$ | $R$ | $R$ | $I$ | $E$ | $L$ | $L$ | $Q$ | $Q$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $L$ | $K$ | $E$ | $A$ | $I$ | $D$ | $K$ | $I$ | $K$ |
| $L$ | $Q$ | $A$ | $K$ | $R$ | $W$ | $F$ | $E$ | $Q$ | | 1 | $E$ |
| :--- | :--- |
| 1 | $N$ |
| 1 | $R$ |
|  | 1 | | N |
| :--- |
| R | E

N

E | S |
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| Y V |
| FQ |
| LV | D A


MENCLAALAKLQDEVD LGHVLHA KEIRRELREDFYKNNVAGSQFEFNQELEKALRRLEDFFEIAE LLACQRLLEQDAHEVEE LVECQDWLKQYAREIVESPGE MKA GLA AI MELLERNNQR LSSAL E SIQAALQGDFED
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 L LA R AQRIAQWEADTARRWQAGG\| LEKSSQALEAAWQQL DTVQNTNARAQLRQLHELKALAAASR LRRAADHUTALRRALD ARDHLDDSLEGLELRNLALVAD LT PALDALDRTWRELRGTLREEGAGVVRARSAAAMTAHAR LKKA G LI RERRKEFANVRVPGNQSLEKAGRVADFMELGE RLQRAKRRDDLLKAEDHEYYSNFHITNDLIELRNLVMVAE

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 LRAAL K Q WF LK RAFEDLREDNKHDHDFYRETP
 L AWKGCK E EWIKAELDDDLSI E EVTRA LTKA GGLIRELQNEFTNVKVTGTNELERAGRVADFLELGE ATVTNWRSQLLSQYVLHLSPNQQDKLNSAAETLNLLDUGY LAA EAVRIFGEI EAASQS
 NQALVQLEQWREQLA H A C NAGYFPTAALNLRNQLDCAW KEKIRQLRKDFWSDLRDTGTPDEMNLEYANRVADYDDLAYE
 TAA I GEIRELSQEFWSDLRVTGNQELERAGRVADFLELAE

 L R R INT LKGEVNEYYAHFRISNH LHRAISSIQDLREEYQDVKIEMNDELEKAGELVRNLQTAE LVKAI NTYSS
LRPALELDALWTAAASGLGGHTGEQRVRARQAAADTAVGR


 C C C C C C C C C C C C C C C C C C C C C
C C C C C C C C C C C C C C C C C C C C

## 正

lupas 21
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jnet
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sol5 sol0 jhmm
jpssm

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LTALAA YKRTES R CILRASLERKEN VMARMMLERAESR LMARDALNRQES LVTRAA A ARTES
 LMCRDALERRES LIVESALRRHESR LFAKDALHREES WVTASALLRRESR LVI KAAMSRRDNR LFAKDALNRNES LLCLDA ALSREES LMRAASARHESR WCTASALARKESRR LTVRDARDRRESR LMM T A A
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 | MT |
| :--- |
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| $L I$ |

 LITDAAVRRTESR LMCDDAL
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G 1 HYRTD
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CGAHFRVDHPDRDDDRW CFVSAWET GHFRVESQTEERDDENY CGAHFRDDHAERDDEHW CFV SA S WE
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GGHFVE


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GQDRPPA $\square$ HKEP

PSG QP母PVHP】
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G GLDEVWTR P
GEGQPPVLHKEELV

PS G P R $\square R \square E P$ VD

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GKNDAPELGKEPLV

EKGGKYE

A GENKF पR HAEPLY
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A GKNEGEF

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