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E LKLS DWFHPTQQVELLT $\square$ TTEWSAP IMWHDTYDESVVKKY
 QPEVMMTTEWSAPVVWHGTYNESVLKK Y

## $E L Q L S D W F R P R R$

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A R A DVI T $\frac{L}{T}$ RA DVLVMTPWFAPVIWDGVF DSAIL DA Q


 SRKDVLVMTPWLAP I WEGTFNMD L N E Q

S R E DVVLLMT P WLA P I I WD K T F N DD I L N E Q E P Q L S D WF NPKK R P D DV I T T T D D W L A A P V I W W E G T Y N R Q V L E K Y

E L R L S D WF NPKKRPDV KTTT DWFAP I I WE GTYNRQVLEKY RINLDHTLNFGARPLVQTMSPWKAPI LWEGMFDPDLYDQK TTNWSAPIVWHGTYNEVVLE DY
 NF S DVLKP S RQDVLLVT P WLAP I V WE GTFNTDDL NE Q
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L $\mathrm{N}_{\mathrm{P}} \mathrm{P}_{\mathrm{P}}$ RTDVLTTT $\begin{array}{lllllll}R & T & D & V & V & S \\ R & K & D & V & L & V & V\end{array}$
E L QL S DWFNPR K
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E P QLLS K WF NPKK R


| $E L Q$ |
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R P
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F V T R K R

E L RLLS D WF NPRMRVDV
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E LQLLS DWF NPK K R Q P E VV Q T C
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UniRef90 F7FSQ3
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Y A K QK TTVG LTVFAVGRYDEHY LEEFLTSANKHFMVGHPV YKQQKITIGLTVFATGRYLDKYLEDFLISADAFFMTGHKV YARQK TVGLTVFAVGKYVEHYLEDFLDSANRYFMVGHRV FRLQNATIGLTVFAIKKYVVFLKLIETAEKHFMVGHRV FRLWNAT GLTVFAI RKYMV FLELFLQTAEKYFMVGHRV FRQRNITVGLTVFAIKKYVV FLKLFLETAEKHFMMGHKV YANRKITVGLTVFAVGRYLQFYLKRFLSSANKFFMVGQKV FQRRNVTVGLTMFAIKKYVV FLKKFLETAEMYFMVGHRV YKNHKITVGLTVFAVGRYLDFYLPRFVLSADKFFMVGQKV FQGRNITGVTIFAIKKYVI FLKLFEEAEKHFMVGYRV YKKHHVTIGLTVFATGKYLDKFLKDFLSSANLYFMLGQNV FR NTT GLTVFADKKYVV FLKLFLETAEQFFMVGHQV YAKHKITVGLTVFAIGRYIDHYLRKFILSADMFFMVGHKV ARRQNLTIGLTVFAVGRYLEKYLARFLESAEEHFMVGQRV F


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TFYTMVDDVSRMPTTELGPTRRSKVFKTKPEKRWQDTSMM I FY YMVDDLSKVP IFYYMVDDSSKMPWI QLGSLRTLKVEEVNREKRWQDISMM TYYVFTDRPADVPRVALGAGRRLVVLTVGTYARWQDVSMR TYYVFTDRPADVPHVPLREGRRVEVLKVPGALSSWEVSMH NYYVYTDRPADVPAVPLREGRKMVVLEVQNYARWQDVSMH IFYVMVDNFSMMPWIPLLNGRTFKVFEIKRERRWQDISMM TIY MMVDDVERMPWI ELSPDLDTLKVFEVKPENRWQDISMM HYYVFTHDPTA OPWVPLGPDRLLSVMPIHGHSHWKEISTR NYYVETNRPAKVPDVELEGKRSLKIVPVQQQRRWQDVSMID IIYVLIDDFSRMPWIQLSPLRTI KVFEGKREKRWQDVSMM
 VYYVVTDRRAKFPWVQLLSPGRTLKVFERVKREKRWQDVSMM RYYVFTDDPTALPRVPLGPGRLLSIVPIKRHSHWEEISTR



 H Y Y V F T D H P E Q V P D V K L G G E R K L T V M T V N S S S R WQ E M S L G


 D Y Y I F T D R P G DVVPN V T LAA E G R R V R V L K V P S S S N R W Q E I S A R


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RMQA

## RMEMI

RMKII
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RMET
RMEM
RMKVI
RMEVI GDLIESHIRHEV
RMKTISEHVVDHIQREV
RMGTLHEALGGRLGREA


## R

RMK
RMHW
RMHWLS
RMEATIEEQIHKEA

RMRNL GEHIVQHIQGEVDFLFSMATNQIFQSDVGVETVG
RMEMISNFSRRRFLHEV

RMKTIADTIES D I R H QS

$R M E M L S T F S Q Q R F Q R E V$
RMEMISSFSEQRFHQEVDYL

RMETI SNFSRQRFLSEVDYLVCADVDMIFSDHVGVEILSS
RMEMVERLIEKELTDKADYI FSLDVVSKFYAHWGAESLGB
Y M

## R

RMH
RMKTI A A A L I A D H I I R Y E E V
$R M K I$
$R M E M$
RME
$\square$

RMEMI SNFCQERFHQEV
R M K NL GDHIVGH IQKEVDF L
Y M K NLHDYI I THILQHEVNFL

RMKKLI F N Y



$R M K T I G E H I V A H I Q H E V D F L F C M D V D Q V F Q D S F G V E T L G Q$



R M E El I N K H I M N K K S I R R E V

R MEMI QT TI E S TIR GHADYI F CLDDVDSKFHAHFGVEALGR


SMK N I R D K I I Q D I Q Y E V N F L F TMMA V N Q I F K K D F G V E T L G K
R M K T L A E H I V D H I Q N E V D F L F F S M T A N L V F Q N E F G V E T L G A
$R M K T I S E V I D T V L Q H K F T Y V F C F D V D Q I F K G R F G S E A L G E$ $R M K N L A V H I V G H I Q D E V D F L F S M M A N R V F Q N D F G V E T L G T$


RMK II S ETI ES DI RHHSRYVVCFFDV DQEFKGRFGSEALGG



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180
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SVAQLQA WWYKADPNDFTYERRKESAAYDPFGEGDFYYHA SVA QL HA WF Y NMEKTSTTYERRPTSAAYI SYEEGDYYYHG

 RFGTLHPGFYGAAREAFTYERRPQSQAYI PRDEGDFYYAG

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## L VAA A

L $V$ G T M P G Y Y Y T T P R R R H
SVA QL QA WFFNKDKASFTYERNPASAAY PYGEGDFYYMG
LF G T L HP GFYTA GRQAFTYERRRSAS QA Y I P P DE GDFYY T G SVA QL HA YWYKADLIDKVPYERSELDSEAYIPTGMGDFYYHA SVA QL HAWHYRWPRWLLPFERNSRSAAAVAQGEGDFYYHA
 LVA QLHAWHYRWPRWLLPYERDRRSAAA R P GEGDFYY HA $L V A A D H P G Y F T V P R Q Q F P Y E R R H V S T A F V A D G E G D F Y Y G G$ S V G QL H A H WY K M S P T E L P Y E R S QL S E A Y I P DG K G D F Y Y H A S V A QL H T Y WY QVNP NLVP Y S V A Q L H T Y WY DVA P VA V P Y ER RLS S S V A QLL SVA QL HA WWYFENAKNVPYE SVA QI HA WWYFKNAHNFPY SVA Qi HA WWYFKNA HNFPYERRRPTS SVAQLHNFWFWAVPHMFPYERNNLS SVA QL H T Y WY Q T NPDKLPYERNQL
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L F G T
L SVA LL L H A Y Y Y R L L P K R L Y T Y D R N P K S V

## SV A QL H T Y WYK E S P S KVVP Y ERRNKS S

AVA QL HAWFYKQNPNHYNYE
L F G T L HVGYYGLNRADFPYE
SV A QL S A WWYFK D G DTFP YE R R R CKS
S I A QL H T Y WY K E S P H K VP Y E R N E L S E A Y i P L GE GD F Y Y H A
 $V$ FGV P P GFF GESRTAFTHERRNYSAGY PEDEGDFYYTG LI GVI HA WH YN S P CVVLF P Y E R R P E S Q A F I P Y S E G DYY Y G G
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SVA DDHA WWYF QKPS HDPYDQRRTKSEAFME KGDVYYYAA SVA QLHA WWYF QKPSHLP YERRTESAAFDPFGQGDFYYHS SVA Q L H G WWY F R NT QNFPYERRRPRSAACCI P LGGEGD YY Y S G


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 A V F G G T P
A

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| :--- | :--- | :--- | :--- |
| $A$ | $A$ |

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 AVQRNLTVGLTVFAVGRYLEKYLERFLQTAEQHFMVGQRVV $F R L Q N T T L G L T V F A \| K K Y V A F L K D F L E T A E K H F M V G H R V$

M Q R N $\square$ T G G L MVVFA $\square \mathrm{KK}$ KVV F L K L F L E T A E K Q FMM G H R V


FEHTTVSVGLAVFAVGTY VKYLRKFDDSAEKYFMTGQFV

 $Y$ K P LDLLI A T T


$F T V G Q D$
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 I F YV MVD S F F KL P QI E P S HLRTFKVFKVSTGSGRPD GSLE




$\frac{\mathrm{N}}{\mathrm{V}} \mathrm{F}$
V Y Y V F S Y Y ${ }^{L}$

 NYYI F TD QP HLVPPVQLEKGRQVVVLRVVSYDRWEDISMN










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 NYYSYTDQPADVPTVPLLEGRKMVVLEVHNDTRWQDVSMR



 VFAVGKYRH



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RMELLEKLIANELINESDFIGCLDVDTKFYGHWGATLGR RMQLIRDYISQRLINEVDYLACLDADMKFTDDVGVEILSD RMKVLGEHIVAHILEEADFLFSMTADLVFQDDFGVETLGT CLSSLYAHLQDDVHHEVNFLFAMAVYQIFKYDFGVETLGR RMRQLGELVADHVQGEVDFLFSAAADQVFQGDFGVETLGS RME 1 SNASRERFFREVD
 CMRSLGDHAVSHUQDEVD RLLSSLGEHEADIRHDVQFL YMKHLETNI DDFUQYEVEFLFKMDINQUFKDDFGVETLGR CMEMLSNFDEQRFQQEVDHLVCADVDMRFSDHMGMEDLSS RMKWATDTVDKQURNEADYLYMMDDDSVFHNDFGAESLSP XMKULSEH|TEHYQNEVDYVFCMDVNQTFQDSYGLETGGD R पRSLGEQUVQGURGEVDFLFSDTVTQLFQSAVRVEALGA RMEFISTYSKQRFHKEVAYLVCSDVDVTFQHKVGVEILSP RMKT SELIEKELRHNFNYVFCDDVDQEFKGRFGSEALGE RMEVISRFSEQRFRREVDYLVCADVDMKFRDRVGVEVLSP RMEMISNFSRQRFLREVDYGVCVDVDQKFSDAVGAEEVGAP

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> ,


RMEMI SDFCERRFLSEVDYLVCVDVDMEFRDHVGVEILTP
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RMILADAI RNPI GHEVE
V S R HVA QLI H GEMHHL

$H M R N L A V Y I \quad T K Q \mid Q H E V N F$



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180
190
200 LVATIUPGYFLAEPRQFTYERNPASAAY\|| Y Y GEGDFYYMA MVA QL HA WWYFRNTKNLPYERRPASAACIPFGQGDFYYDS SVAQLHPWWYFRKRTNLPYERKPTSVAHIPFGLGDFYYAG VF G T L H P GF F GA S R A QF TY DRN P K S V A C I P V D D G D F Y Y A G SVAQLHAWWYFKN KDIPYERRPKSAAC1PFGQGDFYYDG SVVQL H S WHY HWPS WLLPFERDAHSAAAMAWGQGDFYYHA
 LFGTLHPGFY $\square A D H Q T F T Y E H C S \square S Q A H F P R D E G Y F Y Y A G$
 SVA QL HA WWYFKNP GSFP Y ERRP KSAACI PFGQGDFYYDG $R V A Q L H A W W Y F K D A K D F P Y E R R P T S T A C I P F G Q G D F Y Y D G$ SVAQLLHAWWYFKKPRDFPYERRTKSAAFI PFEKGDFYYHR LVGDI HPWFYDFPRNKFTYERRRESAA F I LF GVI H H GYF GKPREEFTYERRNNSEAYI PVVDEGDFYYTG SVA QL HA WWY FRNTRNNYPYERRRPQSSAY I P F G Q G DF FY G G
SV A QL H A WWY F K K P H D F P Y E K R A T S A A F I
 SVA QL HP WWYF QKPQHLD YVVRNPSSEAY I SEEEGDFYYT G LFGTLHPGFYGSSREAFTYERRPQSQAYIPKDEGDFYYGG SVA QL HA WWYFKNTQDFPYERRASSAAFMPFEKGDFYYHH


S


SVAPL HAWWY KNTEGLPY LFATLHLHFFMAGRETFHYERRPKSQAY! SAVLHIYYYKLLPKTQFTYDRNPKSKAYM DEGDYYY G SVATLHPGFYRADRRAFAYERRPRSQAYDPPDEGDFYYMG SFGTLHPSFFRAPRESFTYERRPASAAYI PFGQGDFYYDG
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TVAVIHAGFFSKRPLTFPYERRPKSAAYIARGEGDFYYHA SVAQLHSVWYQETPDVFPYERNESSEAYI SMGQGDFYYHA TVAAI HPAYFNVPQSQAPXETRSSSAAYI PDEEGDXCRGG LVATISSWQDTSQLENNAHETHPESQAA PEGQGDFHYTA SVA ALHAWWYFKNTREYPYERRNKSTAFIVFGQGDFYYHR SVA LL HA WHYHWPRRL LPYERDAX G G SGAGTLHQQFFGLPRELLAYERQPRSQAYDSKDEGDFYYSG
 VFGVIHPGFFSKSRDSFTNERRNYSAGYIPKDEGDFYYTG LVAQLHDWWYFQNQD LPYERRSSSEAY IP DGQGDFYYGD SVA QI HAYWYNRNPALWPYDRSGRSAASMTSGEGDFYYHA SVA QLHTYWYQANDTTVPYERNPSSAAYIPGGKGDFYYHA LVAAI HPGYYAVSRQQFPYERRHVSTAFVADSKGDFYYGA SVA QL HA WHYRWPRRLLP
LFGTLHPSFYGSSREAFTYERRPQSQAYDPKDEGDFYYMG SVAQLHAWHYRWPRWLLPFERDTRSAAVLGPGEGDLYYHA SVA LLHAHFYKLPKAQFTYDRNPKSKAFMET G G LFGTLHRGFYTAKRQSFTYKRRPQSQAF $L F G D L H P G F G K A K G R S F T C E Q W P G S R A Y I P P D E G D F Y C L G$
$S V A V L H V Y Y Y K L P K T Q F T Y D K N P K S K A Y M S ~ E E G D Y Y Y H A$ TLAATAYPGGYGMPRNAFPYEVEEVSSACVQEDEGDYYYTS SVALLHAWWYFENVKKFPYERRPKSAAFIPFGKGDFYYHS LFGTLHPGYYRSPREAFPYERRPQSQAYI PRDEGDFYYDG LVATLHPEFYNKPPETYPYERTSVSKAFVDSSKGDYYYTS LVA TLLHPEFFEMDVNNFPYERDQEESSACVVEDEGDYYYTS LVAALHAWFYQEDRNRFPYERRPASAANVPDDQGDFYYQA LVDQL QA WWY GTHPEEYSYESWKESAAYLSFSQRDFYYHK LFGTLHPGFYGAERQSFTYERRPASQAYVPHDEGDFYYAG

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 IF GGSVAEI YRLTAACHQMIITTDKDNNI EALQLG

 AIVGGDPREVLNVIKECQKGMLQDNTNDLKSLY


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 AVFGGTPASVRHLVLSCSRTVSEDRDRGVEALWHDESHLN
 AVFGGTPIQV $\operatorname{V} N \mathrm{~N}$ ARECFKGDMNDKKNNIEATKRWNNQNN



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KYFFLHKPAKLLSPEYGWDLTLNDPPQVRYVKVAQQ KYFFVNKPTQLLSPEYNWDPNFK KYLLYHKPTKGLSPEYLWDENLGGRAFLKKKKFLAUPKNH
KYLLYHKPTKVLSPEYMWDEK LNFPTLLKNMR KYFLLHKPAKLLSPEYSWDPAFSDPSHVHYVKDARQAK KYFYLNKPTKLLSPAYSWDLAFSPPPQIQYVKVA KYFFLNKPTKLLSPEYNWDLMLRPPPQI RHVKV KYFFVHKPAKLLSPEYNWESNLKTPPQUKHVKIEWQ KY LLYRKPTKILSPGY
KYLLYHKPTKVLSPEY LWDQQ $\square$ GWPS $\quad$ MMKK $\quad$ R Y VADVPKDH KYLLYNKPTKVLSPEYLWSDYDKDPADIKVVRISQLVKNY
 KY DFVNKPTKLLSPEYNWDP DFKAPPQIKQVKIAWQ KYFFLHKPTRLLSPEYNWDADHHPPPQVQRVKVAQQAKR KY LLYHKPTKI LSSEYMFNKKI KYFWLNKPSRILSSEYCFDPLI HYKTEVVVPRLVWAPKQY

 RYF
$K Y$ Y
K
 RHFDWHKPSKVLSPEYLWDERKPRPRSLKMLRFSSVKKNA K YLLYHKPTKILSSEYMFNKKM
K F L FL K K P S KLLSPEYNWNPDYNTPPQDKHVK冋TRQSE
RYLLTNKPAKVLSPEY LWSD YDKVTPDVKVVRISQQVKNY RYLLSNKPAKLLSPEYNWDATLLPPPQVRSVKVSQR KYLLNHKPTKVLSPEYMWDKKL KYFLRHKPSKLLSPEYNWDASLWPPPQVRAVKVAQRSRR KY LI RKPSKLLSPEYSWDTALWPPGQVWLVK
KYLLYHKPTKVLSPEYVWDERLRKPPYLRRLRYVAVPKNH KYFFLHKPTKILSPEYCWDHFGPNRDEHTTFK』YWADKNY RYF F F K K SKVLS
RYL
DHKP
O
埗 C KYFWIHKPSKLES RYFFDNKPSKVLSP QHFLFHRPSKVLSPEYCWDY LLRRRPPYIKSVRLSWNFKNY KYLLHHRPTRLLSPEYYWDTELSSPSSIQVKRM TVDKNY KYFFVNKPTKLLSPEYNWDPKFKTPSQUKHVK』VWQSE RY $\quad$ AA ARPTKVLSPEY KFFWLHKPAKVLSPEFCWSPE $\quad$ G PE $\square R$ RPR LLWAPKEY KYLLYNKPTKVLSP
K Y L L H LK P TKVLSPAYMWDKQL
KYFLYHKPTKLLSPEYAWNDYYGSPVVVKRKRLVHVPKDY KYFFLHKPTKLLSPEYGWDLRFNLPPQVRYDKVA
KYFFLHKPSKLLSPEYCWDFRLNKEDDVNVI KLTFV
 KFFWLHKPAKLLSPEFCWSPD $\square G R R A E G R R P R L L W A P K E Y$

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 RYLINHRPTCVLSPEYSW
RHFLTHKPSKLLSPEC IWDDRKPKPPEDRLVRFSTVGKNY KYFFVNKPTKLLSPEYNWDP IFRTPPQUKHVK
WY LLHHKPTRVLSPEY LWWDEQLGWPPVLKKLKRVAVPKNH KYLVYKKPTKVLSPEYSWPA IKKTSDEIQFKR\｜LSLSE

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$K E \square R N$
$K E \nabla R$

QA $\square W N R$
$A L L R G$

| $S E$ | $R$ | $R$ |
| :--- | :--- | :--- |
| $N$ | $V$ | $R$ |

QA VR NR
A A $\square R \mathrm{~N} R$
$W \square 1 \mathrm{R}$

$T K \square R T$
EEMRS W

QEVR
S WARAR V
$N W L R T$
$E E \square R P N$

A Q R R R
D F L RQSV
KAVRDN
QQI R N
S WL R G
DTLRT
$K K$ V
$\stackrel{E}{N} \mathrm{~L} \underset{\mathrm{~L}}{\mathrm{~L}} \mathrm{R} \mathrm{R}_{\mathrm{R}}^{\mathrm{R}} \mathrm{G}$
$A \square R D$
$K K$ VR D

Q V VRQT
A HTRT
$A L\llcorner R G$
A LLQ S
DTLRNG
TAIRT
AEI
AKLRT
K E $\square R \mathrm{~N}$
QE $\square R K$

AEVRDN
$A A \square R N$

30 30

Th LLDDTLNFGARPLVQTFTSWKAPTIWEEMFDS ILYDQG INLDDTLNFGARPLVQTFTSWKAPI I WEEMFDSILYDQG A QPQTPLVTPWGAPLVWGD $\square H K S S W R R D K$
PVEGEEFPMKTPWGAPLVWGDSESSAWRRDE VLNLT T WGAPVVWGGSLESQRRRRE NFTGVLHPWARPEVLTCTSWGAPIIWDGTFDPDVAQQA

QLPGPLSPTKRPDVITTTEWDAPIIWEGTYKRQULEKY RTDVLVLTPWDAP I WE GTFN $\square H L L N E E$

RENVLLIL WLAPFVWEGTSNTH $\quad$ LLNEQ PS L N REQ
E LQ Q S E WF TPRRC LD $\quad$ LEVTS WLAPVLWE
WLA HNVWERSFSSELLDSA
SRKDVLVLTPWLAP $\square V W E G T F N \square D \| N E Q$

SRTDVVTVTPWLAPVVWE GTFNPFLLDS NFSGPLDPGARPEVLTCTSWGAPI IWDGTFDPDVAQQE

SRAN $\square$ A $\square$ QT P W $\square$ A P $\square \mathrm{V}$ WDRT F Q $\square \mathrm{G} \square \mathrm{L}$ N Q Q

E P Q LS D WF NPKKRPDVKTTTDWFAP\|LWEGTYNRQVLEKY $N \square D Q K \square N F G \square R \square E V Q T C T S W K A P \square I W E G M F N P T \square F D D T$
$\qquad$

LE S Y

TYNAAC P

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FAHHSTRTGLATLAVGKYN
 AGERNLTDGLVVVFAVGKYGSHYLQRFVTSAERYFLEGHVV AGERNLTTGLTVFAVGRYDEKYLARFLETAEQHFMVGQRV
 YKRLNDT $\quad$ GLVVYAPEKFANRYLKQFLQSAEKHFMVGYHV FRLRNASVGLTVFABKKYTCHFLQRFLEXAERFFMRGYRVI LSANKHFMPGYRV FWLQNATTGLTMCARCRFDDKYLKRFLESADKHFMVGHKV - SVGLVAFAVGGYVEHLSH F LESAERFFMRGHAI ■KTTAFSUGLTVFA!GTYK QYLYNFVQSAEKYFMTGYFV YKPLNDPTRMTASATEKY EGKFVDHFLESAVEHFMEGYQV FRLQNVTVGLTVFA\|KKYVVFLKLFLETAEQHFMVGHRV
$Y$ VAF LK Li L E TAEKHFMVGHRV YKRKNGYVDFLELFLQTVKKHFMVGQRV YKRKNITVAATVFAVGKYDMFLKDFLQTSEEHFFVGFRV AVQRNLTVGLTVFAVGRYLEKYLERFLETAEQHFMVGQRV MR $\square G \square L Y \square C T G R Y S \square \quad F W K K F Y Q S T E K S F M Q G D P C$ ETYF LPDQMD

$M R \prod G \| L Y D C T G K Y$
$F W L Q N V S G G L V V F T T G A C$ HALYA ANVGLLVMATGKY

 YVVF LIE L F LQTAKKHFMVGHRV
$M N \prod G V L Y \prod A T G R Y \square T$ FWEDFFKSAEKYFITEAT K MK A I LYY CTGRYA QFFHDFYQSAKQYFLTDEDK
 $T \nabla A V L Y \square A T G R Y T V G W K Y F Y E S A E K Y L L N N C L K$
HKKDRSSVALTVFAVGRYLEAY LNTFDTSAETFFMLGLPV NSKPSVATLY TA CTGRKY
 KTKVA $\mathcal{L}$ LY I ATGRYIT FWDFFYKSAEQNLLDNSSK





> VT GRYVCFWDEFYPSCEKYFDPDAQK
> KVATLY $\operatorname{li}$ TGGRYTVFWDYFYQSAESNLLRECKK
$M K V G I L Y$ G 1 GNYT, LLWEDFFKSAEKYLFPNVDK
STGMLYTCTGPYKVDFLELDFLUTVKKHFMVGQRV $M K \square G \square L F \square A T G R Y \square C$ FWKDFYKACEKY LLKNHEK
$R \square R \nabla A V L Y L C T G A Y Q V$ FWHDFYPNFRQHFLPDCDR VSVASGRYNEFVLPLIGSAKEFFVSACCV


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 TYYY LT D NPRSLPADELGGERQDKVDPDAEVPGWDRLYHR
 I Y Y V F TYFVFTDYDEPMPNVVVPIFHAKMGWPYDTMM


KYFVFTDA EHLNFEENDNVLKDHQEKGWPYDTML HYFVFTDNEELLKKKTDQNVSYDS QDKGGWPYDTLM
 HYFVFTDTQNS IDEGED TKRVKRDQQKLGWPYDTLM



 Y Y F LVTEDNTG HYYVYAEAFDQG LEKYKDVENVTLI HIDDAMP WPDIT LL EYFVVWTDDDD


 KYYVFTDSHSD KFSKYSNVTVVPVEENNCWPLNTLL

TFFVFTDA AS $\square D Y E D Q P D V R R F Q Q E A D P \quad W P Y S T M Q$ DFTDQLDE HVERCQRETSAMCDGVVFVRREELGWPLSAMM


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 RMALLASLI GDRI HLEVDYVFCDDVDQEFTNAVGAEILGK RMSLLGSAI KELIRHDVDYVECADVDQEFDNPVGAEILGD RMSTLRAALAGRLGREAHFVLCMDVDQHFSGAFGPEALAE RMRALALHLGGRLGRXARFLRCVDVDQHFSGTFGSEALAE HПAMLSRFCEQRFLCDVDDLVCVDVGMKFWDHMGMEDLSP DMKNMKSKIIHHTQYEVNFLFTMAVNQVFKKEFGVETLGQ FMSNLNAYVIDAIQFEVNYVF TMAVNQIFKSDFGVETLGR RMETISRRIATRARRGADRLFCLHVDQVFRSPGGPETLGD RMKNLGESILSHDRGEVDFLFSMSVDRVFQSDVGAEALGA $R M Q T L W S R I Q S H V Q K E V D F L F S M A V N Q V F Q G D F G A E A L G R$ HLDEI NNFSEQHFLQEEDYLLCADGNLKFNDHVGVEIL RMSLLAGVVQELVAGEERFVFCADVDLVFVDEVGPEVLGS RTSLLSSVI KELI QNEVQYVFCMDVDQI FMNNVGSEILGD $\times \square Q V L Q E H L L S H L K D Q V E L F S M A S S L V Q D D F G L E T L G A$ RMEAN RHAAETVHWEVDLLFCDDDATVFHNPWGAETLGE RMQMISDFCERRFLREVDFLMCVDVDMRFRDHVGVEDLSP
RMEMLSDFCERRFDSEDDYVCVDVDMEFRDHVGVEDLTP HMAMI SCFCEQCFLHEVDDLVCVGVDMMFRDHMGVEILSP RMRALQAALGGRLGREARFVLCMDVDQHFSGAFGPEALAE HMEMISNFI EQRFQQEVDYLVCADVDMVFSDHW RFSMFLK I KERLEKETDYLYFFNANMVTREKIGKEFLPE RMALVADTVKNTARSEVEYGFCADVDQAFVGPVGEETLGD RFHIFLR DKEQLERETDYLFFFNANLLFTSPIGKEILPP RVEMISHLSQHHFVKEVDYLVCVCVNIIFCHTVGVKVLSS RYHVYDMHRDAFAGQ DYLYACDADMLFVGEVGDELLGN
RFKMF पQ TTPE LKKFDYTFFMNANVICKERVTEEMMLP RFHMF ERIADTLRQNSDFIVFFNANMVFLRRVGKEFLPT RMKLLAEHI HEHIRYEVDYLFSMSANLVFQNEFGVETLST PVNGQGDDEVVDLYRFHYVFCFDVDQEFKGRFGSEALGD MEMISNFSQQLFLREVDYLVCADVDMKFSDHVGVEDLSS HMAMISLFCEQCFLREVDDLVCADVDMKFHDHVGVEILSP
 RFDYF GLSQDELKDFDYTFFFNANMLEVSPVDKEFLPQ YMRNLNNYILEHIQHEADFLFSLTVNQUFKNDLGVEALGK
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 MFATLHPGYFRKSYRFFPYEKNVKSTAYLKRTANSVYVCG FV TLYPSFYWVANENFSYACRPQSQAHVARDQGNFYYMG MSYCQHPGYWKTPKYNKPYDRNKKSNAYIPYNCGKDYVIG ESGRAMGRWMTQHPMFYPYERNKNSDAY APGKNYDYFMG LSAVIHPGYFNKPAFLYPYERNKRSSAYIPHEKNYHYFMG LSALSMGDWLHQHPMFYPYERNRKSWAYVPYGKDYTYFMG LVGAEWPGKRKKHPAFYPYERNKHSSAYDPPREDYYYYMG LLALSWHDYQ LVGVVHPGYKNKMSDFYPWERKKSAVCYLSYFKKGIVYFQG LFGTLHPSFYQVASRDFRYQHWP
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230
240
A LS RGLVXEVYRDTKACHMGIVVADKANGUMAAWQEESHLDN

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


AVFGGSVAALRQLTAYCARGLRWDRARGLEACWHDESHLN $A F F G E L V V E V P R L T L A C H Q A M V V N W A N G I V A V W P D K S H L N$ G IGGGTSSNALTF TKQYDKGDANDSTNKLDSSY ERHLN A IWGGTPHEVLHFTKEYQRGFYLDNSAKLN $G \quad A R V Y E F T A P P H G G H P G R Q G Q R A R H R Q E Q P L$ AVLGGTPARVLDLVRAYLGGALQDARRGLNSTF ESHLN




A $\square F G G T P \square Q V L N \square T$ QECFKG $\square L Q D K K N D \square E A E W H D E S R \square N$ $G V L R G V G A R G A A A H Q G L$ $A F L G$
$R \square T L A C H Q A M G V D \square A N G M E A M W P D E S H L N$
ALF G GSVPEVYKLTK ACHEAMMVDQANDDQATWHEESHLN GLNGGRTPAFLKMSET LRDNTEEDKRNGVMALDHDESSHIN
 $G F F G G S V Q E V Q R L$
$G L S G G C T K A Y L K L C T T \square C S W V D R D A T N H D I P D W H D E S ~ L I N$ AFFGGKVLE I YRLTKFHYQAVMMDQAHYIEVMK
GFYGGTK K E FLDN V H T NAVN I D Q DMAN GI IA V WH D E S H WN A LF G G SVA A L R GLTA HCARGI GRDRARGLEALWHDESHLN GI NGGRTEAYIDELIKTLNKNINSDDENGIIARWHDESHINN



 VKNLTTESCF Q



 A L N G GK S A A F L DLCHTLYNNTQSDLKQDI I A LLWHDESHLLN STNGGKA GAFL ALLARTLQERDQEDLSRGI I AIIWHDESHLLN ALNGGKSVNFLEMCEHLNRNTKEDLDQNI I ALWHDESHLN

 GV N G G E S Q A Y I E LI E E L N R R I N I D L D N A I V A R V H D E S H L N GFN G GS T K R F L E M A E VI A A D R V N K D L G L N G G K T GA Y L D M I H TL L R D R V D A D K K D G I I A L WH D E S QL N


 A L N G GR A Q A Y L E MCR QL S S N T HV D L S N E QI A L WH DE S H L N
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## HKPSRLLSPE

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KYFF $\square$ NKPSK $\square$ SPEYCWDYH $\square G \square P S D \square K \square V R \square S W T K E Y$


RYQLYHKPTKVLSPEYTWDEQ
RYFLDHPPY SLLTPAYYPEGWPFPQ\｜ILLLDKSF■CGGH RYLIDHRPTRVLSPEYSW
KYF $\square \mathrm{DNPPADT} \mathrm{\square SPAY} \mathrm{\square YPEGWLLPFEP} \mathrm{\square ILIRDKNNGGH}$
RFC $\square N N P P T V I L S P S Y C Y P Q G L R \square P F \square P K \square \square A A D D K N H$ KFFWLHKPTKVLSPEFCWSQDIGPRAEDRRPRLDWAPKAY RYILDNTCYKLLSPAYCYPENWDTPFTPILVVLDKKDR RFVIGRHYKIGHPGYVYPDRLPFPRIIRVIVKASVGGH KYFYLNKPTKKLSPEYCWDSTFKTPRQVWYMK AAQYPMD
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RYFLKNPP LTLSPGYLYPEGWSIPFEEIIT $\square$ RDKNKEEY HKPT
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 RYIIGRDDVKILPPCYGYPEGWDLPYEP
TSF F PINSLNSDYC
KYADTHKLIHVLSPQYGYPEGLSNPFEDKLV DKNKENY RYLLDHKPIKVLSPEELWDPRLGCPPFMKKLRFMAMPKNH KYMLNKNPVNYLYPEERWMPRKWYRPFKKDIKILSTDKTH KYALNRKDIKVLPPFFTRGENEDWKKKAKVMKSHFRFGGH KYLLD KQi KI LSTEYGRPQEWTVPPTPKI
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R LVAECPFRILPPEYCTPEETPTGKEI RVLQKSH
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RMXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXWRSCPR RFSYF LKVIDKLQTNSYTFFFNANAVIVKEDPFSTFMESD RF WLF SA DENQLAEFTYVYAFSSHIRFVSPVVSEDDTP



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conf
sol25
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CSAPCTPXSTE A AGRPSPY 180 LIGVIHPGYKNR\S ILYPWERRKNATCYLGYDKKGDYYQG TVVYRYPNLDHVLANEFPYERAVNANSYVPYGAGEQYLTC $A V R D P A S R L L R K Q Q G G L H V R A P A P V P G L H P Q G R G R F L L P G$ VVGRFQAWSVNAEPGTMWYEKREESTAGMRAGEGRHYFAG $A V R D P A S R L L R K Q Q G G L H V R A P A P V P G L H P Q G R G R F L L P G$

MMTMAD $\square K K N L I A K V H D E S Y L T N$

 $G V L R G \square S A R G A A A H Q G L$
$G F Y G G R S Q K V L D E M K K E L K R T N$ $G F Y G G R S Q K V L E M L K E L L$
$G V L G G D S A R G A A A H Q G L$
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jpssm


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[^2]:[^3]:    $$
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[^4]:    

