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 1 HRGGTTLY 70 HRGGTVLYSSRCEEFKTEA
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YTGGLHGEIKEMHDASVGDI



Y A GLLVA G D 1


YQGLI EGDIKRLKSNDVGNI
Y N GLI E GNMIKMGPRSVKNI
Y E GLI NGDLI PL L SRRSVVNI


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Y A GLL L N E E E:l
YEGLI DGDFEPMDARSVRDI




YTGFIEGEMSLLNLGGSVADII
YDGLMKGDIVEMNVSSVADI




YE GLINGRFIPLGTRDVGGMM




|  | $Q R$ | $G$ | $G$ | $T$ | $L$ | $Q$ | $T$ | $A$ | $R$ | $S$ | $E$ | $A$ | $F$ | $K$ |
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 ESRAVVLGHVQRGGTPTPFDRVLATRFGLAAVRAVHEGAS $D A K V C I L G H Q Q R G G T P S A H D R I L A S R D A N A A V E A L L A G R N$
$D V R S T V L G H D Q R G G T P T A F D R V L A T R Y A V H A T K A A L R G D F$ $D V R S T V L G H D Q R G G T P T A F D R V L A T R Y A V H A T K A A L R G D F$
$E V R V T V P G H F Q R G G S P C P F D R T L A T R L G A A A A Q L V I N K N Y$ ATRVNPLNHIQRGGKPTAQERDLASLLGQKADEYLLEGKS DTRVTVLGHI QRGGNPSVFDRTLGMRLGDKAVQSLINKKF E $\square R C A V L G H I Q R G G N T S T F D R D L S T R Y G V A A V E L I H Q E K F$ ETRATVLGHVQRGGSPTAFDRVLATRTGIAAADAAHEGAW


SSRAIV ESRVTVLGHI QRGGSPVPEDRILASRMAGKAIELLLEKQS EST EPNLTVLGYVQRGGSPTAHDADMASRYAQVAVESLLAGLY
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 K KI AV MT S G GDAPGMNPAVRAVVRAGIFYGCDVFAVYEG $R C I A L L N G G G G D P G L N G V I R G V V R A V L Q R G W R V L G V E D G$ $\square K H I G V F T S G G G D S P G M N S A L Y A I$ AK TAEATGDKVSGFRKG K KLAV M M S G G D S P GMNAAVRAVVRAGDYYGCDVFAVYEG R RII GVMTS G GDAPGMNGAVRAVVRMAIHRGCEAYAIIYEG K K I A V M T S G G D A Q G M N A A V R A V V R T GII F Y G C D V F AVV E G
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| UniRef90_UPI0002E45CBA |  | G G D G T F N G $\square \mathrm{E}$ LF R E Y D V K |
| UniRef90_Q3AS81 | GRAQAHEQLSKAAI DAVVVI G | G G D GSFHGAMMSHEYNIPFV |
| UniRef90_R9MB23 | PDEHMKHTYHKLNLDCLVVL | G GNGTHKSAHMLSEEGLNV |
| UniRef90_UPI000316A89B | GLEK A I S S L K IFFEI D A L I V L G | G G D G S LR G A K ML M DRGINVI |
| UniRef90_W5MK89 | TLEE $\square$ SLLNIA K F NI H AL V I I G | GGFEAFS G GEKYEELCIP P L V |
| UniRef90_G8NCV0 | GRAKAAERLRAAGI E GLVAI G | G G D G T FRGAMRLLAEEHIPVV |
| UniRef90_R7IVM6 | KVEAMKK T Y K K L NL D CLVVL G | GGNGSQKTANLLREEGLNVV |
| UniRef90_D5SMJ5 | DVK K L L A S Y ERL GL D A L I Al G | G G D D T L GVA NKYND H K L NTI |
| UniRef90-R7QW61 | P DEA MKH T Y H K L NL D CLV ILL | GGNGT QKTANLLREEGLNVI |
| UniRef90_R6AXF7 |  | GGDGSFKGAD ALSKRGIPVI |
| UniRef90-E6S6R7 | GLKK V R K A Y D R H GL D A I I GVV | G GEGSMSVLARLHENGFPIV |
| UniRef90-R7L2L6 | Y I LK A A E K CKS L L M E GLVVI G |  |
| UniRef90_C0GKN7 | VS DKA I A N L E K M G V D V L V AV G | G G D G S LF $\square$ G N EL Y K K GVVPVV |
| UniRef90-UPI000237CA5 | KP QLI K Q N Y K E L G L D AL V CII G | GGNGTQETANLLSREGLNVV |
| UniRef90_R6JUIO | P DENMKK TYK GLLGL D C L V I L G | G G N G THK T A N ML S E E GLNVV |
| UniRef90_R5WI42 | GQKQAVK T L T D N GI D GLVVI G | G G D G S F N GAKLS T Q Y GVK T M |
| UniRef90_R7BSJ4 | VMK K A V D N L L D K G I E NLIVVI G | G G D S SFRGVEAMHEQKLNVI |
| UniRef90_UPI0003F07AA9 | GRKKACLINLVRRGI S NLVVI G | G GDGS LT GANLFKKEWLNIV |
| UniRef90_UPI0003B5CAA7 | GPENIQRMLDRNGI DAII AII | G GEGTLTAAR RLLSDDGLRIV |
| UniRef90_UPI000364F5F0 | PEVITTA H M Q R L GI G AII AII | G GEGTLAAAKRLT T D A GLKIV V |
| UniRef90_C5J703 | VQK K A K E L L E ELGI E S L V VI G | G G D G T Y K G G Y K L H K L G V K V I |
| UniRef90_A9AZS7 | NYQEFVA NAKAEGI D A VVVL | G GE GS Q S $\square$ A H DLL G S F GLPVV |
| UniRef90_E5SDG8 | $N$ I E K VVE QLR H F K I D G L FL I G | GGFEAFHSCDKYKEFCIP MM |
| UniRef90_U3KNG6 | YLEEI AT QI R T H NI N AI LI I G | G GFEAYAAREKHEEFCVPMV |
| UniRef90_D4XV16 | VRK $\triangle$ A V K N L K D K DI D A L I V I G | G G D G Y M G A L L HELGV H T |
| UniRef90_F9QEM6 | VRETAISK L K E N DI D A L V V I G | G GD G S Y M G Q L L H E S G $\quad$ K T |
| UniRef90_J9D952 | GRKKAYETLUKEAI DALLIVI G | G GNGS LT GAML AE E Y D FPC |
| UniRef90_Q83EH9 | VR D K A R E FLK K L Q I D A M I VL | GGNGSFA GA SKLLYQE G G P Q M |
| UniRef90_R6VGL5 | IGEECMKK T Y K Y L K L D C L V I L G | G G N G S Q K T A NLLRREEGCNVV |
| UniRef90-P17858 | GRRAAAYNLVQHGITNLCVI G | G G D G S LT GANI FRSEWLNI A |
| UniRef90_B5EFZ1 | GREKAVRHLEEF GVEGLIVI G | G G D G S L GA LALLHRMGVPVI |
| UniRef90-Q3ACF2 | VS D T VI E NL H K N NI EVLEVI G | G G D G S L S $\square$ A HELS Q K GVVKVI |
| UniRef90_R6WH73 | $V \mathrm{~L}$ K K GI K N L T D R GI N NLIVI G | G GDGSFRGMCDIE H H DVVHCI |
| UniRef90_UPI000366994D | EDRTVYA A L E D A GVEALI A I G | G GEGTLSVAA ELQRGGFDVV |
| UniRef90_G9RYB9 | GQQRAA Q A CRDNGI D A L V VI G | G GDGSFRGCKDMAA Q G 1 P C CV |
| UniRef90_R5EA19 | P TK A M K E T Y K K L K L E CLVVL G | G G N G S Q K T A NLLSEE GL NVI |
| UniRef90_L7UJU8 | GLERVKR A $\square E R$ R GI HAV I A I G | GGEGTLSAATRMS QEGLRIV |
| UniRef90_Q90YA3 | EIS A TIIS T F G $\square$ H GLI I I GFM G | G S LE L M GRAKFEELCIIPI C |
| UniRef90_S3Z4F6 |  | G G D G T L F A N R L A EA G I PVV |
| UniRef90_U6ITG2 | GLDLVAA RLA EFKI S GLMVI G | G M $\square$ D L V E GR S QYK E LCI P M I |
| UniRef90_UPI00046491E9 | KVEAMKHTYHKLNLDCLVIL | G G NGTHKTANMLREEGLNVI |
| UniRef90_B6G9V7 | P E A A M K E T YRDLLKL D CLFML G | GGNGSTK T A N R L R A E GL SV |
| UniRef90_H9J210 | $R K S D \square A A R \ K Q F N I Q G L L I I ~ G ~$ | GGFEAYQASAEFPEFCIPLV |
| UniRef90_A7I9P5 | D $\square$ A ALKR A L DEQ G I G A L V V I G | G GNGTLSAAKEVA E K G V H L V |
| UniRef90_H7EL73 | PDGEIKRTYEDQKMDALVCLG | GGNGTNTTASLLQEEGMNVI |
| UniRef90_LODGS1 | S D P ALRANFKELGLDALVAI G | G G D D T L GVA HRHK E F N L P Ti |
| UniRef90_C6XXK5 | GREM GY Q Q L K K H Hi D ALI VI G | GGDGTFT GANLFNEFDFPIV |
| UniRef90_F6B599 | VA P GEFA DRSDECI D A L I VI G | G G D G S L $\square$ ¢ H DLLS Q K G LPV V |
| UniRef90_H2P3C7 | S IVE N I R $\quad$ Y GI H ALL V V G | G GFEVLD G $\ddagger$ A YMHECPCPSA |
| UniRef90-C5CC82 | GPEN ML R NLRELLDI DAVI AII G | G GE GTLA GANRLLAA D G LP IV |
| UniRef90_A0A023X490 | DAEKVVEQLREFGI D A L V AII | G G D T L GVARRHDDF GVQV |
| UniRef90_UPI0003B409C3 | GTD RVKEVMDQHHID A L I AVV | G GE GTLTVARMFHDAGI HVV |
| UniRef90_J9JNX0 | GRLK A A CNLVKRGI T NLVVI G | GGDGSLTGANLFRQEWLNIV |
| UniRef90_V9K913 | GRLA A A L NLVQ H GI N NLCVI G | G G D G S L T GANI FRTEWL NIV |
| UniRef90_D2SGT4 | $G L R D M T A V L A A H G V D V L I P I G$ | G GEGTLT A A HLLLS EA GV PVV |
| UniRef90-W3XDZ1 | GMDLIAA CISK K K F D AL F LVVG | G GFEAFHADS K Y P E L R I P F T |
| UniRef90-M3ZIV0 | $\text { E I S N T K FNDH G VI A } \mathrm{A} \mathrm{~L}$ | G G LE MVE A R E K Y E ELLCI P L V |
| UniRef90_R7MPJ8 | KVKNM K E T Y K K Q K L D CL LT L G | G G N G T HK T S K L L A D E G L K V I |
| UniRef90_G5INH8 | P D D A M K H T Y K L K L ECLVVL | G G N G S Q K T A NLLREE GL L (IV |
| UniRef90_D4YJG9 | GP D Q M R VMKEHNI DAl I Al G | G GE GT LA GAARAD DEGMPVV |
| UniRef90_G8B6I7 | DF GEVVA Y HLLQK Y NI Q GLL I I G | G GFEAFTS LHELLHDFK\PMV |
| UniRef90-E1QVY5 | PEEAMRATYGA HKLDCLFMLG | G G N G S T K A NRLSEE GL L V V I |

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UniRef90-I0JKY6 UniRef90_M2MMN2 UniRef90_F6PZE7

A RLF FVVEVMGRDAGC|LALRAG\||AAGAEA\||M|PEKDTSIEE GRVVFVVEVMGHEAGMIALNSSIACGAEVVVIPELHNQYDE

 E R V F L I E V M GRRDS G F I A L D V G L A G G A E V I A L P E E P V D P K A GR V F V V

 DRCSVVEVMGRNAGWIALNVAIASGADACIDPEMPYDMNA HRVMI L EVVMGRDA GWI AL H S GTA G GADVILIPEDDFSYAA K R V M V I EVVM GH H A G WI A L H S GIIA G G G DVI LI P E L E Y D M N V
 DRNCIVVQVMGRNCGDIALYA GI TSAAAEMILVVPEVPFTMMDE
 $R R C M V V E V M G R Y V G W I A L H A G M A G G A H A I L I P E V P Q S D E R$ H R C M V A EVVMGRHV G WI A L H S GMAS GA HA L I I P E Q S V S M D Q






D
QRTFV LVEV DRAF V I E EV

## D

## R

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R R V $F$ V $V$ V $\operatorname{V}$

## R

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SRIMVL

 HRCMVAETMGGYC G E R
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D TK|V|T|L|GH|LQRGGSPSAF DRVLGSRMGFAA|V|KA|LV|AGES DV R V S L G HI QRGGS PA A K D R I N A T R M GA A A I E A L L D D Q K




 E I K A TVLGY VQR G GNPSAFDRVLAAKMGQRAVELLL RENF E S RMTALGHI QRGGSPVAFDRVLGTRFGVAAVEAALD GA W ETRLTVVGHVQRGGMPTLRDRVAASQMGYRAVELIDSGAT E T R V T V L G H L Q R G G T P T P F D R I L G T R F G VK A A E L AMN GEF ETRETVVLGYI QRGGSPTPADRILAATRYGAYAAQMMYEGNF EVRVTV PGHVQRGGSPCAYDRVLASRLGAKAAELI IN KE Y NI R S MIVGHLQQRGGDASFQDRLLGVRMASHAVECLI E G K T $R V N H M A L$
$D T W M Q R G G N P T V E D R V L A A K M A C R A V E L V E C G Q S$
$D T V$ E S R A TVV G H I QR G GAP S A Y D R V L A T R F G L A A I D A V T E E K W



 TTRANSLAHTQRGGKPTAQERILSSLLLGMKAVSYLI SGKS
 E

## E

## 

ETRVSVLLGH $\mathbb{C}$ QR G GAP TAHDRVLATRYGVHACDMVANGEF DCRKNVLGHMQQGGAPTPFDRNFGTKMGAHGRIFANTADS
ETRATVLGHMQRGGEPNAYDRVLATRFGMAAMDVVHEGGF DCRMSVVLGY LQQGGEPSPFDRI HGTKDGDLAIDWLTNNET

 ETRVTVLGHVQRGGSPTAHDR\|LATRLGDAAVEQIVHTGS F


 D T R HVVLGGHLQRGGTPTANDRILISTRYGYRAAEAVAN GEW


 DCRKNVLGHMQQGGTPSPFDRNFGTKMGVHGR!FANSKDS EARVCVVPGHMLDRGGAPSAYDRDLAATARGVMAAKLIAADEKY

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

 $\begin{array}{lll}D & C R K N V L & G H M Q Q G G A P \\ E T R I I & L & G H V Q R G G N P\end{array}$

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 GTMIA SQGDDLVNVPLGDAVTELLKTVPRHRYDEASTL
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 GYMT
N R C
G
$G F M V A Q V G G R M R R V P D S E V A G R D K Y V D P D L V R E A K M L G \square$ GCLL G I RKRNLLFRPDVTELKKETHRI PKEQWWL
 SNLTG
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GHMVAL RGRDVVSVPIEQAVDGQNLVDPDLVWTAEQLGD


 SPL G L E NKIVROPLVDAVKGTK SVATA A
ATLLGLRGRRVVFTPVEELALETHRLPKEQWWL
D H MVA WVP PTMTSVPDAEADRRRKKVDLEKVRTARDDGD GSCVVLKGEYDETLPLAEVVSRDKTVPMRRYEDAQAL GRMVVTLRGTEICDVTVEEAI ENLKKFVDPDLVRAAEEIGV DCVIGLSGNQAVRLPLMECVEMTKLVQKAMQE
AAVIG $\square K G A S V V F T P M Q E \square E E K E H N F W S E M K D T V D \square L G$
$A V L L G L V K R Q Y R F T P \| Q D$
A RMVALQGDAVVSVPI SEVAGKNRLVDHELVRAARGTGV
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M
    KRVGMLTS G GDCQALNA A MRGVAKSLYEQEVEI YGFED G
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    R R

    KI GI LIS S G GDCP GI NATIRGVGKTADHYGMEVIGIHNG
    \(K\) VI A V F T S G G D S Q G M N A A V R A V V R M G L Y T G A R V F
    \(R R\) GML T G G GDCP GLLNAVI RAAVRKGIMHGDEFVGFMEG
    \(R R A D I D A G G L A P G M N P A V R A A V R F G L D R G Y T L L G V R G S\)


        \(N V L V F H T G A P A A G M N A C A K A I T R D F L N G G H K V Y G A R G G\)


\(\square K R V A, N T G G G D A P G L N A V I Y A A T L A A G N R G W E V V G I D R G\)
    \(K R V A I M H V G G G A P G M N T A A R A A V R L D G D A G L D M V G V H G S\)

    \(K\) R I G I L \(\quad\) T S G G D C A G L
VK K V A L A A N G G DVVS GFN A V I R A I V K A A E K D GVVECY GF V D G



            \(V A V M N V G A P A A G M N A A V R S T V R \| G L I Q G N R V L V V H D G\)


VK RIA L L S G G G D CP G L N A VI R A V T K A A I N Y GYEVI G YV Y G
        \(R\) R A 1


    RRII AVMTSGGDAP GMNAAVRAVVRAADYRGCEAYAMLE G
\(M K K L L I C T G G G D C P G L N A V I R G V F K A A K K K E W E V Y G S I E A\)


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        \(R \| A L S T G G G D A P G L N A V I \quad R T A V L S A L H R G W D V L G I K R A\)


        KI A I I NVGA P A G G V N S A V Y S MA T Y CMS Q GHKP Y G I Y N G
        \(N L A I L H S G G P A P G M N T A V R V A V R V A A D H G H R V I G V R N G\)

    K S I A V FT S G G D S Q GMN A A V R A V V R M GUV Y L G CR V V Y F I R E G
\(M L R V G I L D T S G G D C Q A L N A T M R A D V R N G C K N P V E F Y G F L D G\)
                                    \(V M T S G G D S P G M N A A V R A V V R A G \square Y D G C D M F A V Y E G\)


\(\square \mathrm{K}\)

    \(K\) G \(\mathcal{G} V \operatorname{T} G G G D\)



YEG LVRGY\|KEMSWQDVVRGLLAEGGTN\|ITARCKAFRERP



 \(Y \quad L G L Y K N E L Q L L E P N S L P R \square I N D S G T F L G T S R F D P F Q Q D S\)
F E G L A N G DLK E M S WK D VN GWVMH G G S F L G T
\(K K Q L P E N\)
 WK GAVE G G \(\square R K M T W S D V S G G N G A R C A F R E R D\) \(F D G L L T G R C R Q L S D D D V R G L D R G G T D L G T S N R G N P R Y V D\)


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 Y E G LVVNGGDMPMHWEDVVRGY LSKGGTLI GTARRCKAFMERR







0
WRGIFDDDII PLEWQTVKGWASQGGCNLGAERLLPSDVPD





 Y E G L V Q G G I K K MA WEDVR GWL SEGGTILI GTARSAAFRERP
 \(F P G L C R H V V R E V A W Q E S D A W V N E G G S D I G T N R G B L D G D\)




 Y Q GLI E Q E \(\ddagger\) FTMNPS DVA GCI QRGGTIL RS GRSKE FHKKE T N G L M A R P P E F T E DE K V D R I L T Q G G T M L GT T N K G N P F A F P Y E GLL LQ G G I K EM G WD DV R GWLA T G GTH I GTARCAGFRERS
 WQGAVD GRI KQMGWS DVSS LINEGGTVI GTARCPDPREK D

 WS GLAR HEVR S LD WK SMLLGWQS RGGSEI GTNRDTPEDA DL





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\section*{F
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F}

F N GLIMED RLMQLLNESNTA GI HVQGGTLI GTANKGNPMREP
 WA GLAD GQVRELSWADVEGWAFKGGAELG

 FRGLMENRTVHLLEGEDLSGDLTLGGTDLGTSRDKPHKMQD


 TA GLLLSRPVEEAETLDFDGTLLLRRAGTVLGTTNKGDPFAFP

Un
UniRefgo


SRAF|VV|EVMGRHC GW|L|AMAG|I|ATSADYDM|IPEKPSWKE Q \(R R V F V V E T Q G G A S G Y I A I L A G L A D G A V A V Y T P E E G \square N L N M\)
 RRVFIVVETMGGFCGYZATDSALAS GADNAYIFEEQFKVSD QRSFVVEVMGRHCGYLALMASLATAANWVLIPEQPPWAEQ


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G

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 MCGDVGKHRKRGKRKTVVIVAEGADSNDLKPDTCKDRLGL LQANVEHLTEKMKTSNENCNENFTTDFIYQLYSEEGRGVF ICEDVKVISRKMRILCELANKNYTTQFVNQLFSEEGRGQF ICLA EKRRNNGSRFSI IVAAEGAFPGEFVANELAANLDM LREDVVHDRAKDDDNVKMLINT TTSEFIHQLYAQEGQGDF V DNT: KKRTESGKKFSILAVAEGADSKELAAMPKKKRTGQ
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L
 YKEEFLEEKEQGRTYFLAVVSEALKNTEQUVRWFEEEDDG ISADI ANDHRKFKELSCAVIVRSERSSQNYDTQFKDDTAF VCRLVKQRFVRGDSHFDCVVAEGAKPAEGDADEVEKRDNK IVHHLQTRQQRGKEFSIVVVAEGPTKGYEVAHLIQEATGM VAELIRERAQRGSTYSLVCVAEGAKPGHKVATELEAMTGR LQSDVDRMLDAFRDGRRLFLAVRNEEASEMYFEQEGADLIF VLETLKRRATRRRSFSII AIISEGAYGKVCADLLARHDDA ICNYIKKRQEQGQDYSIVVVSEAVCDGQYIADRISKESGA VVEKINQRRADGKNFSIVVAEGAKPKGGEISVAEMRTGM ITSYIEKSDKKEKEFSSLKNKERRKQVEKLALDDQTATDK MCTVI AKHRGAGKRKTVVIMAEGANDQQGNKITPEQVKDL
 LQANVEHLVQKMKTRNEKCNENYTTDFIFNLYSEEGKGIF LQ
\(A V R K T Q Q R S K V G K Q F S V V V A E G A V P G Q K V A K Q L E E L T G F\) MCASITKNRERGKRRTIVIVAEGAQDRQLIKDILTQRLGL VVKHVAKRDAEGYPYTVIAVAEGAKYADGTKVIGKIVEDH
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MCDR1RDRQKQGKNYSLVVVAEAVRDGQYLADQUAACSGA
 LSQD ETRNRFGKLILKSTNASKALSAESLAMTAEAEGKF CTLLQERKGREKRYALLVVSEGAKPAKFVADEIEGRTSLL VCRKINARETEGKLITLVIVAEGASPGEQVAEEDQSRTGK LARDIEYLRHNGKIILRNEHASATYTTQVIADMIKGEAHF LQSNVEHLTEKMKTRNESCSENYTTDFUYQLYSEEGKGVF VCEHINKTHQLGKEYSIILVAEGAYSSGEVKEYDKQHTYF VIDRUKSRYDDGRGFVNIVIAEGAYAKDGTITSTKGEEGR VCEKIRARDRGGRLFSVVVVAEGAAACEPLAKEDQRRTGK


VAEAVRKRDANSCLST LVVVAEGADEGEDVAHEDSQRTGK LSRKI EALRHQDRNFALVVVAEYGGDGHYVGERLGQMTGA


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\hline UniRef90 M 3 CDY6 & FAGKSKQEI ADDPMSVAV \\
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\hline UniRef90－K6W1Q0 & QQLI GLRGNRVVTSPLMECVEQTRAVAER】 \\
\hline UniRef90－E4KRF6 &  \\
\hline UniRef90－W6MKS6 &  \\
\hline UniRef90－U6E0R6 & NCGVCLK G L K L L DVDFKElF \({ }^{\text {S S K }}\) \\
\hline UniRef90＿Q4SNL3 & D C \\
\hline UniRef90－A0A044T2Q6 &  \\
\hline UniRef90－D7CMF6 & GSMVSLQQ S AVTTVVPLEDA GELLKKVDHEMDQVARAVGD \\
\hline UniRef90－DOWNT4 & P C IV GTR R N RVVRLIPLMEAI R E TRAV \\
\hline UniRef90－B9M2A5 &  \\
\hline UniRef90＿Q27778 & A N I V Q \\
\hline UniRef90－R6NAA3 & GKMVALVNNKVVAVP LEEDAGKLKAVDHE\｜VAAARKMG】 \\
\hline UniRef90＿UPI0002FD7A11 & GLLAVGI K ENKI I SIELENV \\
\hline UniRef90＿UPI0004036055 & SVVI GNRGNTI I E I P LMEAVA A T R \\
\hline UniRef90－B2WEY4 & VSVI GTK G S KLL F SPMETVEKKKHEFWMA Lice TVDTLS \\
\hline UniRef90－13JRB88 & ACVIGLS ANQAVRLDPLVECVEMTKLVQTAM \\
\hline UniRef90＿A7TEW8 & \\
\hline UniRef90－C5FGN6 & TVVIG\RGSEVVFSPL \\
\hline UniRef90－R7H9C6 & GYMTCVKENKIDI DPISEVAGKTKLVDT D \\
\hline UniRef90＿S2WA91 & ACYIGEAGGKMQAFPVSRMTKNRRPFDQWWLS \\
\hline UniRef90－A0A044SSC8 & PCVVSID GNVIVRVPLMQCVQRTQAVKKAM \\
\hline UniRef90－W2RP71 & SPVITIRENKIER S NLMDCVALTK S VAKA \\
\hline UniRef90＿K9FEQ5 &  \\
\hline UniRef90－D9WA32 &  \\
\hline UniRef90－E6UHT2 &  \\
\hline UniRef90－G8UHS7 & GRMVCFKDGKIGSVPLAEIAGKTKRVDNELI K Q GERMGI \\
\hline UniRef90－V5GRA5 & DCVVSLDGNQAVRVPLMQCVAKTQAVAKCM \\
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\hline UniRef90－W6LRH4 & GAFIGLVEGKVTVFPLLSRMAEMTYRRPKEQWWL \\
\hline UniRef90－UPI0003B6B95D & DGLSGIEETGNLAH FHEVMDMKHRRP号EQWWL \\
\hline UniRef90－A6QAB4 & SKVVCYDDGMFICKDDKDVAFKKYMDDEDLLALGGEF \\
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\hline UniRef90－F2U9B3 & \\
\hline UniRef90－17G6C4 & G M \\
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\hline UniRef90－R5ZA64 & NVLTVIKDGKLDSVSLEDVVGQNKEI D H D V K T A R D I G \\
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\hline UniRef90－S8BMT5 & SPMDAI TENKI TRKSLVEAVKMTKGVAEAI K N \\
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\hline UniRef90－H0E6Y9 &  \\
\hline UniRef90－P78985 & A SVI GIKGSQVLFSPM \\
\hline UniRef90－L5MDF4 & GCVLGMRKRALVFQPVAELKDQTHRDPKEQWWL \\
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GNVVTLKGEEMSYTSLEEVIGKQKHVDPELVKAAKA \(\square G \square\) A YYI GQVGNNTEARPVKNMFDDLD【VNRR
TEALCKAHEAGSPVPI E
NRVICARDDQ IIDLDIDEGLAMKKTLNSEEFKVMTVM
KCMTAMQSGKYLLMPFPDPNAPSRCLNEDLIKLNSVLA


 AK LLGVRHNRVTRIPLDEAVAATRNV
DRMVI WQNREVDSVPI AEAI TQYRAI DPNLVKTARSMGD EKMAGLTRSDFNFTPLDDLVNDEKKNNKHHWWL
GYMATFVDNK SSVPLSDVAGKTKMVDNQLVLQAKKLGD ATVLGVKGSHVRFTPI RQLYDFETEVTKRMPKI GRMASLQRGEITSVPLKECIGKLKLVD
NCLLGIVKRQYKCTSLHTLKDQTNRIPKEQWWL

\(S V \vee I G \square K G S E V V F G P\)
ACLLGMRRRALVFQPVSK \(\square R D E T H R D P K E Q W W L\) NCI TGYVDGQ』RA \(\square P Y E M A K T M K F G I D K S Q Y E L \square S \square L S\) GQLVVLRNNDFSSAPDKEADSTYNVVDPSLVHAAKGMGM GHMLALQSPHVVTVPI EDVLRSEKRVDPDVVRTARESGD SPLIAVNENKITRKSLVESVKLLTKSVAEAIVH A S V AR HV

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GCMVAVKGESTELVDLA QVVGKRKTVPLDHPWD
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 RIGVLTSGGDAPGMNAALRAVARTALSRGAQVWAI REG RVAMVMNVGAPAGGMNAATRTAARYCLRQGHTPIAANNG KKVAVFTSGGDSQGMNSAVRSVVRMGIVLGCKVFFINEG KKI ALDTSGGDAPGMNAAI RAVTLQAEKYQYQVLGFIGG IKTIGVMTSGGDCAGLNAVIRAVTTAAVRYGWKVYG\|QDG \(V\) QTVAI LNVGAPAAGMNAAVRSAVRSGI CQGHTVYVVHDG 1 AVLTSGGDAQGMNAVVRAVVRTAGGAGADVYAVFEG
M


M K K R I GI LI S G GDAQ GMNAADRAVARSANSA GLEAYGI NYG K A I AVLTTS GGDAQGMAAALXA GVRVGDYTGAKVYEVHEG
 K RVGILLTSGGDCPGLNATIRGVAKALYQRDVTIVGISNG
\(M R R\|G\| L S V G N D C P G \square N A A I R G V V V N A D E K E \square E V M G Y K D G\) RLAVMHIGAPACGMNAAVRSFVRNAIYRGDVVYGVNDG QRI GI LT S G GDCP GLLNAAI RAVVSHTLTFGWEVLGI P YA K R V A I MHVGGGAP GMNMASRAAVRFGLQRGLEVLGI Q G S
\(\square\)

 K KI AI I N I G APAGGMNSAVYSMATYCMSRGHIPYADYNG MKRVVGILTS G GDSPGMNAAIAAGAVTAAEQKR■EI DGI WNG
 K RVAIMMVGGLAPGMNTAARAAVRIGVDKGFEMLGVQGS







 R RVGVLCVGNDSPGI NAAI RSAVVKGLDLNDEVMGIKD G
 \(R R I G V L T T S G G D C A G L N A V I \quad R A V T D D A A T L D R G W Q V L G V L D D G\)

K R


 VK RVGILTAGGDAPGLNAAIRGFGKAAMKYGMELVGYRNG K R I GI L T S G G D CP G L N A V I R S VVVK S A T R R G WQVV G DP Y G


 \(N V A V I N V G A P A A G M N A A V R S A V R D G D A D G H R M L A B M E D\) MK KI A V L T S G G D SP GMNAAI RAVVRTGGIVNLEVFAVERG


M NA A V R A VV RMG \(\square Y\) VGAK VYF \(\square Y E G\) \(R\) VA MVHMGAPCGGMNAATRAAVRWCYKRGHTPLAI HNG KACIVTCCGGLCPGLNTVIRELVCSHMYNVSSIFGIQNG K R \(\|\) G L T S G G D C P GL N A I R AVVVK C S S Q K GWEVY G \(\quad\) P Y G
 K RVGILTA G G DSP GLLNAA I R GFGKAAI H H GMELI GFRD G

 \(R \| G V L T S G G D C P G L N A V I R S V V R A V V D H G D E V I G F R D G\) \(H G S K C Q N H Q R G\)
\(V Y F I R E G\)
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50
 \(T M M L L S R D V E V L D L D M V G S M M R Q G G T I L G T T N K G N P F A F P\)





 \(Y\) Q GLV \(V G G G I R R L R W N D V G G I M Y R G G T V I G T A R S A A F R T R E\) \(F R G L L D D N L H E L S W L G V D S W M A R G G S E L G T N R T\)


 \(F E\) GL A K G QVQ EVVS WH DVVA GWL G R G G S M L G T K R T LQ GMVEGRI KKFDWGSVGSDLHRGGTVI GTARSADFRRRD WE GLVLDGNI DRVGWDDVATFLGEGGTLI GTQRSKAFREDE WR GPV EGGIVKMMWSDVVSSTIN KGGTAA GTARAAEFRERS
 FEGLAKGQVQEVSWHDVAGWLGRGGSMLGTKRT WA GAVA G GI R P L E WD SVGA I L H RGGT II GTARSADFRRKRS


 YK GLV V GNI ELL D L DRLLDGIIMRGGT ILLYSARFPEFAEKE Y Q GLVDGNI KEATWESVSMMLQL WA GLLVA GN I L K VG WD DV R GWMDI G GT LI G T A RCAEFRERE WK GAI E G G I Q ELS WS SVS GILSSKGGTAI GTARSDEFRERS





 Y D GLL LD E QF LP L L S S S RV R G I N S L G GT IL GTSRSER FMLP E
 \(F E G L A K G Q V Q E V G W H D V A G W L G R G G S M L G T K R T\)
 \(F Q G L V S N D \| V K E S W M E V E D W I T R G G S E I G T N R \quad D L D N T\) \(\square R G L A E N R F L S L D S K A L S G V L T L G G T I L G T S R D K V H K M M N\)





 \(T \mathrm{D} G \mathrm{~F}\) I D E D L I L T G H S Y L DVL Q F L S G S V L G S L S K G H P E E E H
 WD GLKNKDVK L L T WANVQGWAQFGGSML GTKR QLPS \(\square T G L V N N R Y M P L D S D S L A G I L T Q G G T M L G T S R D K V H K F P D\)

 GRTLKGRYIVRAGWDDVRGWFAEGGTLAGTARSQTFRTPE




Y Q GMVD GN V VEAD WES VS S L LQMG GTVIGSARCKDFRSRE \(F R G L L D D N V Y E L Q W L K V D S W M A R G G S E L G T N R \quad A D P S I\) YKGFYSSNYLPLTPKSVNDIHKRGGTVLGTSRGGHDTK


 WK GLL E C D Y L KL D LD A V G G L LARGGTV L G S S RVQPSHLRD \(H V G A A S G E F N G Q Q H K N V N V L W F Q G G T V I\) G SARCCKFRSRE




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UniRef90_U1LXY8 UniRef90_A2FR66 UniRef90-M5BNK9 UniRef90-UPI00036EAA17 UniRef90_UPI000392EEC8 UniRef90-_14Y656 UniRef90_D7BK16 UniRef90-F4XFC7 UniRef90_C0XPJO UniRef90-A7HMQ7 UniRef90-B4J6Y6 UniRef90_UPI00034882E2 UniRef90-DOYRZO UniRef90_D4ZMW2 UniRef90_UPI000225BC59 UniRef90-C3Y8C1 UniRef90-V4HBR6 UniRef90_Q6BSB2 UniRef90_UPI000368814A UniRef90_U9TA57 UniRef90_UPI00041323FF UniRef90_UPI0003C82A73 UniRef90_E4X3T8 UniRef90-G3N6G8
UniRef90 G3H8W5 UniRef90-M7PLJ6 UniRef90-N6X4T9 UniRef90_V3ZLV2 UniRef90_UPIO00346659B UniRef90_S7RID6 UniRef90_A0A016ULN7 UniRef90_D5UCW4 UniRef90-B7IF37 UniRef90_UPI000312299C UniRef90-H5B2D3 UniRef90_UPI000373BB87 UniRef90-T1FXB0 UniRef90_UPI00036C5D06 UniRef90-B7K1Y8 UniRef90-15B6X8 UniRef90_C4JI47 UniRef90-Q27483 UniRef90_S2W5I4 UniRef90_V4IGU5 UniRef90_UPI00037F59C2 UniRef90_D8Q5H8 UniRef90_UPI00044077A1 UniRef90-K7WVV1 UniRef90-G7N1H5 UniRef90-X1AJS6 UniRef90-DOYR38 UniRef90-L8XZK3 UniRef90_X1M1Z8
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\section*{A}
\(A V G A S V V Y T P\)

R
R
の




 \(N R V F \vee V E T Q G G Q C G Y L A T L G A L A V G A A V V Y T P E V G D N L D L D\) QRTFIVEVVMGRGAGDIA LWAGIATGADAIVIPEHKYDIQA QRTFVLEVMGRHCGYLALDTALACGADWVFIPEEDDWEDH


 D R V M V V E T M G G Y C G Y L A T LAA GL A G G A D A A Y



 S RAF V V E VV M G R N S G Y I A M F V G G A A T G A D F F V N I P K R C F V A E TMM GRYCCGY L A L M M A G L A S G A E R V Y



 HRVIIV E IM GHRA G WLALGGSGIA GGADII LLPBEDP YSVV K Q R A FVVLEVMMGRHCCGYL A LVA S L A C E A D WV FI P E WP P WQE T



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 S R V M I L EVV M G R D A G H I A I A A Gl|A G G A D V I I L I

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 D R VMI I E V M GR S S G HL A L H S G I A G GA D V I L I P E V P Y T I Q G NV E H
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210
220
230
240
VAEKI RSVQDEGRSHALVVVAEGCHDGHY|MDRTSDMTGA I ANKIRQVRNQGRNFGLVVVSEAVKTADGIGEQIANATGA
 I SQVVDNAYKRNRRTFI ILVSEGNPSLEAIAEVISTVNQK

 AAAAINKRKENGKRFSVVVVSEGAHPGNRVAKQLKELTGL ADEDIKRARAGGKRAFIVIVVEGPGYAEQLAKTVQDKTGV WESEMCELLIRAGRRASLVIVAEGACDRHGQPQVLEERLGE LRDDDVKGKSEGRVVLRNETSSSDYTTDVITK KFKEEGGF LCKKKQEMRAEGQRLNDIDMVAEGADDRDGTPIVLQSCPDY VAGKIRSVLARGRTHALVVVAEGVKTAEGTNATVSHLTGA \(L K V N V E H M T E K M K T R N E K S H E H Y T T E F L Y N D Y S S E G K G V F\)
\(M C A R L R A G R A A G R R D S I V V V A E G A R D S Q G V R D M L E E R L G E\)
 VAGTVRAVLARGG APLVVVSEGADVHGGPAGEDAPRPGV MCAKLSKGRRAGRRESMVIVAEGATDADDVKRVLSGRLGE
 LINQIQVQQQHNHDSFVIVLAENLWPGQALKAQLAEQAGGI LRTDDVKGKSEGRLVII SEKASSVYT ADKLNKNRENGKDHGLIVIAEGVMS


 LQQDVYHMASKMAERNEKASENYTTDF YRGYSEEGKGLF
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\(L G Q D A A E M R R R L A L V V R N E L A G G R Y D L D F M A D V F K Q E S H Y\) \\
\(L C K R D Q Q L R N W E R K F A I V V V A E G R G D G E Y V A T E I D T T L G V\) \\
\hline
\end{tabular}

 LEMDI SSLKKKAGKLLLKSTNASKVLTTQVLANVIEANGEF




\section*{L} LTEDVKYLRKRGKLILRNEKSSNTYTTDMISS\|IEADHRF VVESI EMRARHGANFSVIAITAEGARDAYALAEKLEAATGL LCKKLNTERGLGQRDNVVLVAEGADDREGNADTASMVKDV.
 MCAKVQRHRHMGKRKTIVVVAEGAVDKELDPIVRAEYRGGL VAATIRRRTAHGSSFSVVAVAEGARDVEDTADYLEAATGLL CQHLAELRDRWRRFA乌VVVAEGMGQY \(\mathbb{C} A D E \square R R C S T Y P \|\) LVNEIKAGITAKGK
VVAHLHAVFARGRRHALLVVPYESDGGWLARQDEAQSGV MCERLDKMRDSGQRMNLIIVSEGATDKNGRPDTPNQПKDA ПCDKI KERQEKGKNYCLIIVSEYGGПSQYDADQ SARIGA CCCQLANLRSSGRQFALVVISEGVKNQQQQKEKFCDPIDVV
CEKKURAREATGKLFTVVIVAEGAKDGYADAEKIQEKTGK पEK【ATETKERपDSGNLEKFDETYSPDVKKDFDKVMKNKY CAASIRRRAENGRPFSVVAVAEGAHSTFLVAQQLEEATGL 1 CQQLVQLRQQVDRQFALVVVAEGVHNHLLGAKDNVCHLQDV VARA RHRKQRGYNFSIVVAAEGALSQAEKEEEQQDRTGL 1

 V V E K I E H R K K L G K H F S V I A VA E GAM D VE D LAR K LETM T G L






 \(T D Q A G R R A V R G G Q\)
 LVIL K L E Q E R S A G Q R L


QARCTVLGHLQRGGQPSVEDRLLASAFGVHAVELLAQRRH QTRCTVLGHI QRGGGPSVYDRLLASAFGVAAVELLARRRH


 EARVTVLGYVQRGGDPDAADRMLGTVLGGSAAADVVAHGKS



DCRKNVLGHMQQGGAPSPFDRNFGTK \(\square\) SARATEWITAKLR
ESRVT ILGYVQRGGTPVGADRLLATRDGAAGAAAVADGDT EARLTTLGYVSRGGTPTAGDRI FATQCGSKAlEYLKAGIT ETRIT ILGYLQRGGSPSAFDRLLASRLAAAAVELLEKGET DSRSAA \(\square\) GHTLQGGDPSP \(\square\) DRARAVRMGVEAVMALLQATP T I K Y I D P T Y MVRA I PSNASDNVYCTLLAHSA IHGAMAGY ETRATVLGHIQRSGTPSSYDRLLAAAFAKKAIDLIAEEKY EARVSILGYVQRGGTPNAADRLLATRDGVAGANADAEGTF \(E A R V T V L G Y V Q R G G T P D A N D R L L G T L L G G A G A D L V A E G H Y\)
\(D A R S A S L G H T L Q Q G D P S P M D R A R G V R L S G K C M A F L E Q G S S\) EARHMVLGHLQRGGAPATGDIILGARLANYALNLLLEDEA


D R V VVQS G GV V G DVP DADATCGPRVVD DP LLDVAA GLG \(\square\) DQVI AVEGNSITRISLLDSDAK \(\square R\) S L KTMM
D YMVTWQNRRVLAVPI AEAI A QYRSVNDELVKTACGLGI


 QQMV 1 WS HGQADSKP
 N Y M G 1 GQEAN K


\(G V M D A T K G G N A V N V P D E K D A G K V K F V D H E W V K T A R E\) GVMVASQGGALVPVPLEKVAGRPRLLPRDMVKTLQSDGV \(G K M V G L I G N K I E A T D L E V V L S Q Q K T I D Q D L Y D L A L V L A\) ACVVSLNGNQAVRDPLVECVQMTQDVQKAM
E EMIT I QSS SVEWVPVREMVEHADMVNRR
SFTVGMVNGRHTYIPFYRVTSTRNKVKVTDRMWARLLLS \(N Q L V V W Q N G E V Q I Q P L D K V V S H D K P V N A D L V Q T A R S L G \square\) GVMVGDRGNGTELVPLKNVAGKIKFVDHEWI RAARAVG GVTVASQGQAAVPVPLSKVAGHLKTVPLDWIEAARHVG AAVITDQGSSVTMVPVREMVEH
GVIVGTNENSLVKMPKERVARLLDLNTNDVYKTA \(\square\) NMD \(\square\)
ACVVSLVGNQAVRLPDMECVQMTQEVQKAM
DVVISLDGNQAVRVPLMACVVERTQAVAKAAM

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\section*{UniRef90 E5SEC2 UniRef90-K4CES3 UniRef90_Q9M076 UniRef90_UPI00042C84CC UniRef90_Q01813-2 UniRef90_V4J7K9 UniRef90-S9XIW4 UniRef90_T1I625 \\ UniRef90_A9SID5
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GMNAA VRAVTRMG】Y VGAK VF L I Y E G
\(K A C \prod V T C G G L C P G \prod N T V I R E\left\|V C W T Q Y G V R E \prod F G\right\| D G G\)

 V V C G G L C P G L N TVI R E IVVCVMMMY GVVKRVLLGIN G G \(M K K \square A V L T S G G D A P G M N A C I R S I V L T A D H Y E L E V I G Y K D G\)







 VA \(I L N V G A P A G G M N A A V R S A A R L A D I G H K V Y G V H D G\) \(R A A I V T C G G L C P G \square N D V I R S I V L Y F S Y G V K H I F G I R Y G\) \(K C \square A V F T S G G D S Q G M N A A V R S V A R D G \square Y V G F K V Y A B I H E G\)




 A G I C T C G G G L Cll K A A I

 V \(V\) T C G GLLCP GVNTVIRE\|VCYHMYGVHKVLG|IEGG



 A AIV T C G GL C P GLLNDVVQGLVNKLITDYGVKILGIMYG K A A I V T C G G L C P G L N T V V R E L V L WWDL Y A V R Q I F Gil K A G
 A A IV T C G G L C P Gll N D V I
 \(A G I V T C G G L C P G L N N V I R G L V Q E V H Y K V K R I L G F R N G\) A AVVTC G G L C P GLL NDVVQNIVYTLTDYGDNILGDRYG
 K A A I V \(\operatorname{V}\) T C G G L C P G L N A GIVVTC G GLLC P GLL N DV I R S V V M WY Q Y G V R K I C G I G Y G




\(M K N I L V G Q S G G P T T V I N A S L A G V A A F N S E K \| D T V Y G M V N G\) A A I C T C G G L C P GLLNDVI RAVVRCLYYY GVK KI K GFR G
 QS G GPT SVI NASAA GVI QEADLQDCDTY GAA H G



 VKNAFYAQSGGVTSVI NASACGVLETARAHSDKI GKVYA G



 LA L L V VA PA A GMNSAVRAAARVGMAA GHTVYAVQD G



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FGGMVQGYFQEANWYSJVMD\| \({ }^{60}\) TQHGGTTLGSGRANEFHTRE


 DEMVRDTPRDVEETYATGGTVLGSTNKGNPFAKP YEGLVEGNIKPANWLSVSNIIQLGGTVIGSARCKAFTTRE
YKGFYSRNTWSNRKVSDHKRGGTFLKSSRGGH YRGFYAKNTIPNSKVVNDIHKRGGT I GTSRGGHDTN YRGFHSMDPIQLDPKLVHNWHKNGGTVLETSRGG

FAGLSRHEKSTEWDDTEGWNSVGGSNGTNRQTPAET YRGFYARNTVPLDPKIVNDTHKRGGTlLGTSRGGHDTK YNGLLIDQEFKLLVPANVTNIDQRGGLLKSGRCDDFHTEE YRGFYSKNTLTLTPKVVNNIHKHGGTFLRTSRGGHDTN WVGFMMERRVQYDDDNI DKGLLRGGT ILGTGRGIHPDKFKA
 FRGLAAEDPTRLTPKSVAETHGRGGSILGTSRGDQSSE WAGLLNEWVEALTKNDVATVDRYGGTHLHTSRTNPQKVRQ



 YKGFYARNTVELTPRSVNDI HKRGGTVLGTSRGGQDTA
 YRGFCDKELMPLSRKVVQNMHLSGGSLGVSRGGH YRGFFEKGLKEMSRDVVENINLSGGSFLGVSRGGAKTS FRGFFGDEPMKMTSEMVED:CUTGGSMLGSSRGGADMP YRGFYSCNTDPLTPKVVNDUHKRGGTVLGTSQGEGERGN YQGMVDGNVKEATWESVSSMLQDGGTVIGSARCKEFRTHE




 WK GI YEED WVQL DPS QI KT ITHHRGGTFIGTSRTGF
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\section*{}


 Y Q GLV V D D ME QV D YE WV R RHR RVP GA CL G S GRYP FTPERM

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\hline UniRef90 E5SEC2 UniRef90 K4CES3 & RMRACKNLIISGVTDLICIGGDGSLTAAHIVY \\
\hline UniRef90-09 & TSKIVDNI QDREINQVYII GGDGTQKGANA\|YKE\VAVA \\
\hline Ref90 & YMEKIVENIRTHNIHAL \\
\hline Ref90-Q0 & GRLKAACNLLQRGLTNLCVI \\
\hline UniRef90-V4J7 & MSET \({ }^{\text {a }}\) M NYRRMGFDCHIAl GGDGSLEEANRFSQLGMNVI \\
\hline UniRef90-S9XII & GRLIAAAYNLVQRGUTNLCVIGGDGSLTGA \\
\hline & \\
\hline UniRef90 A9SID5 UniRef & KIVDSIEDREFNQVYI IGGDGTHKGASAlHEECVAVA \\
\hline UniRef90-UPIo & DLHK\|VDAIQNRGYNQVYII GGDGTMRGAVDIFHE\|IGVT \\
\hline & \\
\hline UniRef90-A5E616 & \(D \square G M V A H Y F E K Y Q F D G L I V G G F E A F Q A R S M Y P A F R I P M V\) \\
\hline UniRef90-A0A0599CMu6 & DRGTNQVYI I GGDGTQRGASLIMEEKVAVA \\
\hline UniRef90-M4S3Y7 & SGRAAAKNLQDLNVDALLVI GGNGSFRGA H \({ }^{\text {a }}\) CKYYKQVI \\
\hline UniRet90-UPIO002B46F1A & KlVDNI QDRGINQVYI GGDGTQRGAALIYQEQVSVA \\
\hline iRef90_C2GJ99 &  \\
\hline UniRef90-W5BE &  \\
\hline UniRef90 UP10003B7457C & \\
\hline UniRef90-E119Y4 & CTSHVLKVIEKLKIDALIPIGGDDTLSFGVRLYKEGVRVA \\
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\hline UniRef90_C9RQT5 & , \\
\hline UniRef90 U5H8 &  \\
\hline UniRef90-W1N & DTTKIVDSi QDRG\| NQVYII GGDG \\
\hline UniRef90-Q4RQ & HMESVVETIRKFNITALLVI GGFEGYEGVTHYEELCIPMC \\
\hline UniRef90-J30E79 & NTEEIVGRLKMFR1 DGLLLIGGFEVLKSLKFLLDELDIPMV \\
\hline UniRef90 M7X6S3 &  \\
\hline UniRef90 W4YFN3 & GRKKAAMNLTKKGINNLVVIGGDGSTTGANVFRQEWLNVV \\
\hline UniF & RGVNQVYII GGDGTQKGAASIHEEKCAVV \\
\hline & ELVDKLEEWGI NMLYVI GGNGSHAGASAIYEICIVVV \\
\hline UniRef90-D6WVW6 & GLVAARLAEFKQGLLI GGFEAFAAAVQFLDLILPIV \\
\hline UniRef90-I1PZN0 & MKIVDSTQDRGINQVYVIGGDGTQRGAGVIFEEIVAVA \\
\hline UniRef90-C5XCT5 & EIVDSIQARRI DMLFVI GGNGSHAGANA! HEECRKRK \\
\hline &  \\
\hline UniRef90-F2l &  \\
\hline UniRe &  \\
\hline UniRef90-UPIOOOM55E167 & DLGGVAARFQKHDIDGL LLI GGFEAFRGRQYYPAFRIPMV \\
\hline UniRef90 UPIOOO17446D7 & NIGDMVDTLEDMKVDILYVIGGDGSLRG \\
\hline UniRef90-11KGH5 & KVVS QDRG| NQVYILGGDGTQRGASVIFEEUVSVV \\
\hline UniRef90- M2BAFO & EIVDGIVQMNINMVFFIGGDGTQKGANERRKLKTSVI \\
\hline UniRef90-A1VCM1 & VDALERMNI SALFMI GGDG \\
\hline UniRet90 A6WF28 & DAVEVVDCLERMGIS \\
\hline UniRef90-F5YKN3 & ME QLINMN \\
\hline UniRet90-F4CWR9 & VEV \\
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UniRef90 पP100046DD9DE
\end{tabular} & E, VKRUDMWGYDMLFVVGGNGGNAGMCRQHDVE \\
\hline UniRef90-G7C & ADALERLNTAMLEVIGGDG \\
\hline UniRef90-W4X722 & GRRKAAKNLVNLGI TNLVVIGGDGSLTGANLFKEEWLHIV \\
\hline UniRef90-D00 \({ }^{\text {URCS }}\) & OVSD V S \\
\hline UniRef90-UP100034FCB6F & GRRAAAFNLVQRGI TNLCVIGGD \\
\hline UniRef90-UPI00036476F2 & MVDSLVMRGVDTLFVIGGDGGMRAADRMRG\DIAVI \\
\hline UniRef90-A8HX70 & VRR\|DLWGLNMFVVGGNGGNAAANADSEECEAQGVCCSVV \\
\hline & VDALERMNVGLIVIGGDGT \\
\hline & VIEFLTNGVNQLYVIGGDGTHRAADKISNECIAVA \\
\hline UniRef90-K1x & ETEKIVDSIEQLINLKILFTIGGGGTQKGALRIAEEALKRV \\
\hline UniRef90_11QPU6 & DLARUVDADERHGFNQVYAVGGDGTMRGAAR HREVVAVA \\
\hline UniRef90_D6SSL1 &  \\
\hline UniRef90-B6SKL0 & NTSDTVDSIQARRLDMLFVLGGNGTHAGANADHDECRKRK \\
\hline UniF & DPVEIVDSLERLNI NILFVIGGDGAMRAARSIVNENTAVI \\
\hline UniRef90-UPIO00471243D & EYKKLLEIFKKYNI RYFFYNGGNDSMDTCNKISKYMCRVM \\
\hline UniRef90-R7HYV5 & DSERVEELIKKYE: RYFLYMGGNDSMDTYAKERKYDIKVI \\
\hline UniRef90-H7ENH19 & \({ }^{\text {R V K K A A A }}\) \\
\hline UniRef90-F2NE77 & NVPEMVDTLERMNLGLLFALGGDGT \\
\hline et90_A3D & \\
\hline W4 & A \\
\hline UniRef90-C8F & VI GGDGTQKGALELAKECISVV \\
\hline  & V GGNKSMY \\
\hline UniRe90-B814R1 &  \\
\hline UniRef90-UPIO0036E7882 & QVLDNLGRLGI DYLVA \({ }^{\text {L }}\) GGDDTLSYAARLDQLGFNVI \\
\hline UniRef90-Q2SA75 & GNDSSDTAYK \\
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\hline UniRef90-UPI0001FFDC48 & DPEEIVDCLEQMHLNVLFVIGGDGTMRGAME円ARLRIAVV \\
\hline UniRef90-18SME6 & NTLIEMGVTHLVTI GGDDTAYSACKVAEYDLLVV \\
\hline UniRef90-UPIOOO35F8785 & NLQKRDI HTLVLIGGNGTMAGLQRMMNYELQVV \\
\hline Uni & VFEAHNLRYFFYAGGNDSQDTADKISKYALRVI \\
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UniRef90_UPIO002 UniRef90_Q6TXT4 UniRef90_A5E616 UniRef90_A0A059CMJ6 UniRef90_M4S3Y7 UniRef90-UPI0002B46F1A UniRef90_C2GJ99 UniRef90-W5B6S8 UniRef90-I1KNN0 UniRef90-UPIO003B7457C UniRef90_E119Y4 UniRef90-G8C3L2 UniRef90-C9RQT5 UniRef90-U5H8Y7 UniRef90-A9SME8 UniRef90-W1NZV4 UniRef90-Q4RQP4 UniRef90-J3QE79 UniRef90-M7X6S3 UniRef90-F8ACX1 UniRef90-W4YFN3 UniRef90_COPCM8 UniRef90-D8TCD9 UniRef90_D6WVW6 UniRef90_V4SKZ1 UniRef90-I1PZNO UniRef90-C5XCT5 UniRef90-A4RVF8
UniRef90 F2NWF2 UniRef90_UPI00036BF8BD UniRef90 H2CCE1 UniRef90_UPIO00455E167 UniRef90_UPI00017446D7 UniRef90-I1KGH5 UniRef90_UPI000440DDD9 UniRef90-M2BAFO UniRef90-A1VCM1 UniRef90-A6WFZ8 UniRef90-F5YKN3 UniRef90-F4CWR9 UniRef90-D8TRU2 UniRef90_UPI00046DD9DE UniRef90-G7Q6M8 UniRef90-W4X722 UniRef90_Q00VZ5 UniRef90-D8RCZ6 UniRef90_UPI00034FCB6F UniRef90_UPIO0036476F2 UniRef90-A8HX70
UniRef90-S7U3J8 UniRef90_K3WPM0 UniRef90_K1XS22 UniRef90-I1QPU6 UniRef90-D6SSL1 UniRef90-Q9BIC6 UniRef90_B6SKLO
UniRef90_FOJIN6 UniRef90_UPIOO0471243D UniRef9O R7HYV5 UniRef90-H7ENH1
UniRef90 G7E7W9 UniRef90-F2NE77 UniRef90-A3DCA6 UniRef90_W4UBC2 UniRef90-C8PNY5 UniRef90-17LV76 UniRef90_GOTSZ6 UniRef90-B814R1 UniRef90_UPIO0036E7882 UniRef90-Q2SA75 UniRef90_C8XIX1 UniRef90-D1RFT2
UniRef90_A0A059LLX7 UniRef90-M9W2T1 UniRef90-W5SNB5 UniRef90-UPI0003C18363 UniRef90_UPI0001FFDC48 UniRef90_I8SME6 UniRef90_UPI00035F8785 UniRef90-D5EMT9 UniRef90-M1VGZ0
UniRef90_R5D7K4
\(\square C N K \square K E S R A A G Q R M N I V I L C S E G A Q D C T G K R D R S E Q R L Q Q\)
 L \begin{tabular}{c}
L \\
M \\
V \\
\hline
\end{tabular} VCVKLSENRARKKRLNIIIVAEGAIDTQNKPITSEKILGY
 LEKDVYHLASKMSERNEKCNENYNADFMHRDYSEEGKGLF GLIEEYVHHRLKENGHMVIVVAEGACQNLKEHFLKEFKEPL KGFEFMEQRLRENGHAVLVVAEGAGQDINWWSRDHPNELV LVEKLKTRTKAKKTSNIVFVAEGGKSGEIADKVKKHLPYY LVMDISSSLRKAGKLIIKSSNASSVLTPQVLADDIESKGEF EVDNII EH
TGFEFDEQR \(\square K E N G H \square V I V L A E G A G Q D \square K D H F T K V Q K M A D\) ØCKAMERRFQMGEKY
KGFEFLYERDKKKGHAVVVVAEGAGQEVIWWKREHPTEDF K GGEFLGQRLKENGHAVLVVAEGAGQDNKWWKREHPNELF NGGASLRNRVDVQGHAVVVVAEGAGQHLLQRDDSRDASGN LAKMLVVDRRNNSNYAVVVIASEGASMGSIVGDABKKDTGD
 WQTSMCRHRAEGKRKTI I IVAEGAHDCEEDKDVLTQRLGLL GMLQHVQYLLETKGRAII CVVAEGAGQDLMKNHFKNDGVAA

 I TKDVQFLKRRGRLLIDRSDKASKTYTNEFVMRNEEGRGL\(|\)\begin{tabular}{l} 
V \\
\(L\) \\
\hline
\end{tabular} PNGLVLEQRLEARKHAVIVVAEGAGQKY \(\square K E Y F K Q K G T E \square\) ENKUCNK凹QQVDNDSYILY
\(R G G E F V E K R L R D N G H M V I V V A E G A G Q D \square K E H F K K K P S F P D\) KNGAFMKKRLDKNGNCVVVIAEGAAQNYLEGHFKEDNDPV \begin{tabular}{l}
\(L Q Q D V Y H M A T K M S E G V Q R G L I N Y N T D F I Y R D Y C E E G K G L F\) \\
\(P N G R H L K Y L I E T K G S A V V C V A E G A G Q S L I K K T N A T D A S G N\) \\
\hline
\end{tabular} EGFRYLEKRLKENGHMVIVVAEGWLSQKI KEHFKKDKTTD EHGRHLEHLLNTKGFCVVCVAEGHMQQKIKKHFKDIGVPA


\section*{}



 DGGLLAHVRRRERGHAVVVVAEGAGQDLIVDDFEAAGIET \(G L L R Y L E G V I K N K G H C V V C V A E G A G Q A F L K E K F K A Y F K D A\)
\(K G F E F L E K R L R E N G H A V L V V A E G A G Q D Y M R R R T G M Y R I N E ~\) \(K G F E F L E K R L R E N G H A V L V V A E G A G Q D Y M R R R T G M Y R D N E ~\)
\(E H G L S L E K R L A A R G H A V I V A A E G A G Q G A D E G H F R E R G T P M\) PEKLCKK
PNDNYVRNLLDTQGHAVVVLAEGAGQGQWFCKQLKSELKC PNGLYLEHLI HTQGSAVVCI AEGYGQQQDKNHFIAAGTPA MCERLGETRSRGSRLNII ILAEGAUDRNGKPDSSSYRLGF GLLA HVEQHVRSKGFVVIVLAEGAGQDLFEKHGLHQYNGR LCEHVESDFEKQGGHCVVCVAEGAGQDLLTAFKKHFKGEA GLLAA ALDRLRKRRHAVIVVAEGAGQHLLDVRKERDASGH QCLDHLEHVVEEKGHGVVVVAEGFMKKQI QEHFAKKGKEC ENGLLVHDKKRRRNHAVILVAEGAGQNLLEHYFKKDNFEA \(G L F D F L Y R R I K D N G H A V V V V A E G W L K A E M R A W W E E E H A G F\)
\(G F L D H L E K R L D K R G H A V I V V A E G A G Q K E I L D H F H K K A Q E D I C\) TVMRLIERRLQQSRNCVIVVAEGAGQKEGLDHFHKKAQEI \begin{tabular}{ll}
\(P N G R H L E H L I\) \\
\(P G Q K G F A L V C V A E G A G Q E Y F Q K S N A T D A S G N\) \\
\hline
\end{tabular} FIDEVMSVYEKKK NIVVAVSEGVRDKDGKYIFKKEKTGA



GFLKHLEERLEQSHYTVIVVAEGAGQDQDDAYFKSKSDHD KSGDYI KQRIDKKGHCIVVVSEGFDQDE』QKFCAQDNTEV

 FLRRVDEVVKRDGFCAI \(V\) VVSEGAQYADGDANMUK SEDGY EFLA ALQRRVAERGSAVVVVAEGAGQDDMADRAGTDASGN FLSKVDECVKTYG YCVVVVSEGDRNTEGLAQLIKTELNY







UniRef90_E5SEC2
UniRef90_K4CES3
UniRef90_Q9M076
UniRef90_UPI00042C84CC
UniRef90_Q01813-2
UniRef90_V4J7K9
UniRef90_S9XIW4
UniRef90-T1I625
UniRef90_A9SID5
UniRef90_Q9C5J7
UniRef90_UPI0002C30C28
UniRef90_Q6TXT4
UniRef90_A5E616
UniRef90_A0A059CMJ6
UniRef90-M4S3Y7



 D TR S L V L GHLLQR GGSP TNFD R L L A L R F GAA A V R M V EK G T Y D Y WS H L T L C WV R DTVQQP Q G DRVVWSSK MGMEAVVMALLDEATP


 \(\begin{array}{lll}D T K T A & P G H V Q Q Q G G L P S P D D R T R R A D R E A & C\end{array}\)

N M K Y \(\square\) D P T Y M \(\square\) R A \(\square\) P S N A S D N VY C T L L A Q S A V H G A M A G Y T

\(T L K Y \prod D P T Y M \square R A V P S N A S D N V Y C T L L A H S A L H G A M A G Y T\) DVKYI DPTYM\|RARACNSSDHIVCSVLGQNAVHGAFAGYT SARMNVLGHMQQGGSPTPFDRNVGTKMASKAVEWMDNQLK DVKY I D P T Y MIIR A CRANASD GILLCTVLLGQNANVGAFA GFS
 DLKYI DPTYMVRACRANASDAI LCTVLGQNAVHGAFAGFS
 \begin{tabular}{l|l|lllll|llllllllllll}
\(N\) & \(L\) & \(K\) & \(Y\) & \(I\) & \(D\) & \(P\) & \(G\) & \(Y\) & \(E\) & \(V\) & \(R\) & \(A\) & \(A\) & \(V\) & \(T\) & \(T\) & \(A\) & \(N\) \\
\(T\) & \(D\) & \(S\) & \(I\) & \(Y\) & \(C\) & \(E\) & \(R\) & \(L\) & \(G\) & \(N\) & \(N\) & \(A\) & \(V\) & \(H\) & \(A\) & \(A\) & \(M\) & \(A\) \\
\(G\) & \(G\) & \(K\) & \(T\) \\
\(K\) & \(Y\) & \(D\) & \(D\) & \(P\) & \(S\) & \(Y\) & \(I\) & \(I\) & \(R\) & \(S\) & \(A\) & \(P\) & \(A\) & \(N\) & \(P\) & \(S\) & \(D\) & \(S\) \\
\(I\) & \(F\) & \(C\) & \(N\) & \(R\) & \(L\) & \(A\) & \(L\) & \(Y\) & \(A\) & \(I\) & \(H\) & \(G\) & \(A\) & \(M\) & \(T\) & \(G\) & \(R\) & \(T\)
\end{tabular}









\section*{46D9DE} \begin{tabular}{ll|lllllllll}
\(D\) & \(V\) & \(K\) & \(Y\) & \(I\) & \(D\) & \(P\) & \(T\) & \(Y\) & \(M\) & \(R\) \\
L & K & F & I & D & P & S & Y & I & I & R
\end{tabular} \(\checkmark P A N A N D R V Y\)
\(D \square K Y \square D P T Y M V R G C Q A N A H D S \square M C T V L G Q N A V H G A F A G F T\)
 DTRVTVLGHVQRGGGTPSAFDRVLVSKMGMEAVMALLEATAP GTAYI DPSYAIIRSVAANAYDSVYCLRDAHAAVHAAMS GRT

 \(N V K Y I \quad D P S Y M I R C A P A N T S D S I F C T R L G A H A V H A A M T G R T\)

 D V
 \(K V R S V E L N V L Q R C H D S S A T D V S E A F H L G E K A V D A V L N G R T\)

 \(K V R G L E F S L L Q R C A A H V A T D V N E A Y L A G G A A V Q Y A V E G K T\)
\(N L K Y \square D P S Y Q \square R S A P A A P V D S \square Y C E R D G N N A V H A A M A G K T\) TVKYFDPLYMLRAVRANAYDTKQCSTLAQNAVHGLMAGFT
 \(K V R G I D E S L L Q R C H C G S A R D V E E S Y M S G Q M A V K Y A D V G M T\) ETVVSSDLT YDLDRS GAPDFAD KLIDAT TFGGTMAYDAMDLBHK K Y HWAVADYLQRSARHSATDLDQAYAVGKAAVDLALAGGKN

 D 1 K Y I DPS Y I I R S IPP TS QDRVYCKMLAHSAVHAAFA GY T R I R K TI I G Y GL R S GD P T C E E I Y Q G T IMAN E VVVRCDQ S GM K
 DCRMNILDGHLQQGGTPTPFDRNYGDKLGVWAVQWDTKQES TVRYVDPS YLIRRSVPANPYDSVYTVRLSQAAVHAAMSGRT



\section*{}

UniRef90_D5EMT9
UniRef90_M1VGZ0
UniRef90_R5D7K4
\begin{tabular}{|c|c|}
\hline & \\
\hline UniRef90-ESSEC2 & ALDGNSIVRRPLLSQCIVERILKFRQA \\
\hline UniRef90-Q9M076 & GFVSGLVNGRHTYIPFNRUTERQNKVTDRMW ARMLS \\
\hline UniRef90-UPI00042C84CO & \\
\hline UniRef90-Q01813-2 & DCVVSLNGNHAVRLPLMECVQMTQD \\
\hline UniRef90-V4J7K9
UniRefon- \(9 \times 1\) S & GHMVALVSSQMKAVP SEATEFRKKVDLDKMMTARD\GD \\
\hline & NG) \\
\hline UniRef90-T11625 &  \\
\hline UniRef90-Q9C5J7 & GYTSGLVNGRQTYIPFYRITETQNNVTDRMW AR \\
\hline UniRef90-UPIO002C30C28 & GFVPGPINGNYAYIPVEEVAKAKNVVNTRDHKWA WVRSV \\
\hline UniRef90-Q6TXT4 & DVMAGM】NNK\VYTP VKAlVDDKTVDEEDLRVANDS \\
\hline UniRef90 A5E616 & GFtSG VVNGRQTYADUMEPVRYTLDEPPKYADTATVLGV \\
\hline UniRef90 \({ }^{\text {M4 } 4357}\) & \\
\hline UniRef90-UPI0002B46F1A &  \\
\hline & \\
\hline UniRef90-W5B6S8 & GFVPGPTNGNYSYTPREDTAVAKNPVDVNDHKWAWVRSV \\
\hline UniRef90-UPI0003B7457C & AMVVGRWHGRFDHLPISLATGSRNEVDPN \\
\hline UniRef90-E119Y4 & G| MVALQNGVYTTVPADMP \\
\hline UniRef90-G8C3L2 &  \\
\hline UniRef90_C9RQT5 &  \\
\hline UniRef90-A9SME8 & GVTVGIANNHYVLLPIPEVIAYARNVDPN \\
\hline UniRet90_W1NZV4 & N N \\
\hline UniRef90-Q4F & ACLLGLCRKVIT FLPVTEATDFKHRMPTEQWWL \\
\hline UniRef90-M7X653 & SKT \({ }^{\text {a }}\) AQQa \\
\hline UniRef90-F8ACX1 & GLMVSYLNDRY \\
\hline UniRet90-W4YFN3 & \\
\hline UniRet90_COPC & \\
\hline UniRef90 D8TCD9 & FSI GLVNTHYVLLP \\
\hline UniRet90-D6WVW6
UniRef90-V4SKZ1 & SNMLGVKRQYKFTPVAELKEQTNRMPKEQWWL \\
\hline UniRef90-IIPZNO & VGQVNGRHCYTPFYR1TEKQNKVSTTDRMWARLLS \\
\hline UniRet90_C5XCT5 & GITSGVCNTHYVYLPITEVIT TPKHVNPN \\
\hline UniRef90 A4RVF8 & AVTVGMCSGHYVYLP PPVISAAR \\
\hline UniRee99--2NWF2 & FVVGRWNNKFVY PRAMALERRK \\
\hline 2 CCE 1 & FMI GKVNSYYVYVPIELATASRKKID \\
\hline UniRef90-UPIIOOO455E167 &  \\
\hline UniRef90-UP100017446D7 & GMVAGCNNGKHAYA \\
\hline UniRef90-UPI000440DDD9 & DCVVSLRGNQA \\
\hline UniRef90_M2BAI & RTLIGLVNNKF \\
\hline UniRet90_A1VCM1 & GMVVAKLM \\
\hline UniRef90 AbWFZ8 & KMVGGWRRRF \\
\hline UniRef90-F4CWR9 & AMVVGRYRRRFVHIPMRLAVSRRNQV \\
\hline UniRef90-D8TRU2 & GITVGLVNTHYVYLP PRVI \\
\hline UniRef90 UPIOOO46 & GFVSGPVNGNYAYIPLEEVAKAKNEVDTRDHKWA WVRSV \\
\hline UniRef90-G7Q6M8 & GMVVSKLYGRYVHLPLDLVTMRRKKL \\
\hline UniRef90-Q00VZ5 &  \\
\hline UniRef90-D8RCZ & GITVGLCNTHYAYFPIPQVIDHPRRV \\
\hline UniRet90-UPI00034FCB6F & DCVVSLSGNQSVRLPL GCVVQVTKDVQK \\
\hline UniRef90_UP10003 & EAAVARWRRRFVHVPLSLMTSRRNQVPD \\
\hline UniRef90_A8HX70 & VGLVNTHY \\
\hline UniRe990-S7U338 & MVVARVQDRY \\
\hline UniRet90-K3WPM0 & GFTVGLSANRVVFP \\
\hline UniRef90-11Q & GFVSGTINGNYAYPMDEVAEAKNPVDTKDHKWAWVRSD \\
\hline UniRef90-D6SSL1 & SMVVSMIQDR \\
\hline Uni & SMRYNNYVLP K \\
\hline RRef90-B6SKL0 & GVCN HNVYLP \\
\hline UniRef90-FOJIN6 & SRLK S SMVHLPLDLVATERRRINDNSDWWA SVM \\
\hline UniRef90 UPIO00471243D
UniRef90 R7HYV5 & DKMLAFERAEDKLVNLTTDVANVE \\
\hline UniRef90 H7ENH1 & KCVVGLVHDEYVYIPPI TEAVRKRNTV \\
\hline UniRef90-G7E7W9 & RRLVAIKGGRLRFVGMEDLAKKRRAKDPRIYD \\
\hline UniRet90-F2NE77 &  \\
\hline UniRef90-A3DCA6 &  \\
\hline UniRef90 \({ }^{\text {C8 }}\) & NKFVHLPTHVVVRSR \\
\hline & \\
\hline UniRef90-GOTSZ6 & DCIIAMRYNNYILVPIKVATSVRRVLDपNपWRQVRE\TV \\
\hline ef90-B814R1 & DKMVGFKRAEUQLLDLSDVANTEKKIPREWUNEA \\
\hline UniRet90-UP100036 & \\
\hline UniRet90-Q2SA75 & AVMPVIVREQDSPYPLAKTANVEKKMPKEF \\
\hline UniRet90_C8XIX1 & N \\
\hline UniRef90-D1RFT2 & A VMPIIVREQIGHAALADVANQEKALPKEY \\
\hline UniRef90-A0A059LLX & GVT GA HNKYCC P PMVLSQTRTVDPNGELWAR \\
\hline UniRef90 \({ }^{-}\)W5SNE & KLLI SLWS TKFVHVPI K MAVVDRNKVN \\
\hline UniRef90-UPI0003C18363 & ACVIGMKKKMTELTPVTQLKAETHKLPKEQWW \\
\hline UniRef90_UPI0001FFDC48 & SMVVGRVRRRFVHIPMALAVSRRNQVDPH \\
\hline UniRef90-_18SME6 & NEIVPUPFEGILDMTKKTQVRMYR\|AREYMU \\
\hline UniRet90_UP100035F8785 & \\
\hline Uni & DKMVTLVRA \\
\hline NiRef90_R5D7K4 & GKMVALERDHTTLLSLSSUVANYEKKVPLEWII \\
\hline
\end{tabular}

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UniRef90_UPI00042C84CC
UniRef90-Q01813-2
UniRef90-V4J7K9
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UniRef90-T1I625
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UniRef90-E119Y4
UniRef90-G8C3L2
UniRef90 C9RQT5
UniRef90_U5H8Y7
UniRef90-A9SME8
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UniRef90 M7X6S3
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UniRef90 I1PZN0
UniRef90 C5XCT5
UniRef90-A4RVF8
UniRef90-F2NWF2
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UniRef90_UPI000440DDD9
UniRef90-M2BAF0
UniRef90 A1VCM1
UniRef90-A6WFZ8
UniRef90-F5YKN3
UniRef90-F4CWR9
UniRef90 D8TRU2 UniRef90-UPI00046DD9DE
UniRef90_G7Q6M8
UniRef90 W4X722
UniRef90 Q00VZ5
UniRef90-D8RCZ6
UniRef90-UPI00034FCB6F
UniRef90 UPI00036476F2
UniRef90-A8HX70
UniRef90-S7U3J8
UniRef90 K3WPM0
UniRef90_K1XS22
UniRef90-I1QPU6
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UniRef90 B6SKL0
UniRef90-F0JIN6
UniRef90-UPI000471243D
UniRef90_R7HYV5
UniRef90-H7ENH1
UniRef90-G7E7W9
UniRef90- F2NE77
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UniRef90-W4UBC2
UniRef90-C8PNY5
UniRef90-17LV76
UniRef90_GOTSZ6
UniRef90-B814R1
UniRef90-UPI00036E7882
UniRef90- Q2SA75
UniRef90-C8XIX1
UniRef90 D1RFT2
UniRef90 A0A059LLX7
UniRef90-M9W2T1
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UniRef90 UPI0001FFDC48
UniRef90-_I8SME6
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UniRef90_R5D7K4

UniRef90 U2Q1C2 UniRef90-UPI000377244E UniRef90-A9TBK7 UniRef90-D1PP55 UniRef90_B8FLJO UniRef90_Q948J0 UniRef90-R5ABS5 UniRef90 UPI00047A4488 UniRef90 X0W448 UniRef90-R6PIE1 UniRef90-E7GI49 UniRef90 UPI000466A1DF UniRef90-UPI00047C3FA1 UniRef90-KONH72 UniRef90-E0S1Y4 UniRef90 FOYTV4 UniRef90-R61300 UniRef90-R6JIE1 UniRef90_R6SH01 UniRef90_D4K3T2
UniRef90_X0UC72 UniRef90-UPI0004652468 UniRef90 K0C983 UniRef90-A4AA10 UniRef90_R5CYW3 UniRef90_K2B78 UniRef90 \({ }^{-13 C I A 7}\) UniRef90-UPI0001D2D4CD UniRef90_UPI000469D779 UniRef90 UPI00047DC93F UniRef90-I9NPP8
UniRef90-F3L322
UniRef90_H6WB78
UniRef90-R0M7C6
UniRef90-U319L2
UniRef90-D4JWU8
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UniRef90-D2V5S2
UniRef90 RGYWA4
UniRef90-H3NRP1
UniRef90-B1QXE5
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UniRef90-R5VBQ4
UniRef90_D5ML99
UniRef90-R6TGC7
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UniRef90-Q0J5F5
UniRef90-K6U7N8
UniRef90-E6UFA0
UniRef90_Q27SM2
UniRef90_U2B5A
UniRef90_I2F2L3
UniRef90-G5IEJ1
UniRef90
R7DCH
UniRef90-R7DCH8
UniRef90_UPI00035C9EE9
UniRef90-R6RLF0
UniRef90-SOFGW6
UniRef90_C9LUB8
UniRef90_R5FIS8
UniRef90-R7HBS8
UniRef90_UPIO00469C1FA
UniRef90-G4KPK8
UniRef90-R6TQT0
UniRef90-R6QRF2
UniRef90-TOZFS0
UniRef90-C4GA72
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UniRef90-X1EXA4
UniRef90_Q7NX83
UniRef90-J9FCB4
UniRef90 R7HOD8
UniRef90-W4TN92
UniRef90_F3B1A5
UniRef90-R5T110
UniRef90-R6P4F8
UniRef90_R7JH63

MANCIIARSGGPTSVI NS SVVG|LV|EHNLLNAFDT|V|YGGLHG \(V N K I A V V Q T G G C S A V I N S T L A G I V E N A K A S G D T I Y G L L N G\) KAAIVTCGGLDPGLNDVIRQVVFTDETYGVHILGUQYG




MKNMIVGQS G GPTAVIN GS LY GVVSE GFK HPEHVYGMTNG \(M K N V I V G Q S G G P T A A D N S S L A G V Y R T A D D R G A K V Y G M L H G\) \(M K N V I V G Q S G G P T A A I N S S L A G V Y R T A K D R G A K K Y G M L H G\) CII GQSSGGPTAVINASAQGVIQTAMLKNPARVLGAAHG
 \(R N V I V G Q S G G P T A A I N S S L A G V Y R T A I D R G Y K V Y G M I H G\) \(K N V V V G Q S G G P T A V I N A S L Y G V V Y E A L N R E D S F Y G M I N G\)




MKKNA IVQS GGPTAVINASLYG\|IKEGMAHDDRVYGMDNG K NAFYAQSGGVTAVI NASACGLI ETARQHGDKI GKVYAG



 \(K N A F Y A Q S G G V T A V I N A S A C G V I E T A R A N K D R D G K V Y A G\)



\begin{abstract}
\(N \square A \square A Q S G G P T A A D N S S L C G V F D E A E K Y N D R \square Y G S L N G\) \(R N A F Y A Q S G G V T S V I N A S A A G V D E A C R A N K D N I Y A G Q N G\) \(M R N C V V A Q S G G P T S V I N A S A D G I F E K N L K Y Y D K V F A G L N G\)

 \(N A F Y A Q S G G D T A V I N A S A A G V I K T A A E K V G K V Y A G Q N G\) MSNCIIA QS GGPTSVINSSVVGLLHANKELMDKVYGGLNG \(N L L I V V H G G G P T A V L N A S L Y G A V T E A R R Y G D H I Y G A E N G\)
 KNALYAQSGGVTPVINASAFGVISAARRHRDRIGSVRNG \(\square K\) K N F YA QS GGGVTSVI NASACGVLQTARQHPDKI GTVYA G
 MK SIA I G Q A G GPTSVLNAS LVGFLNT\| KDSKI YGVISG \(\square R N A F Y A Q S G G D T A V I N A S A C G V I E T A R Q Y S D R I G S V Y A G\)



 \(N \square A V A Q S G G P T C A \| N A S L L G V F K E A L K T P D A V F G S I N G\)
\end{abstract}
\begin{tabular}{|c|c|}
\hline & \\
\hline \(N \mathrm{~A} V \mathrm{Y} A \mathrm{Q}\) S G GVTT SVI &  \\
\hline \(N \vee I V G Q S G G P T A V I N\) & N S S L A G \\
\hline & \\
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\hline & AA \\
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\hline N & N A S L A G AV \\
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\hline A I M NVG S P C A GC & A AVMSCVRTA IL Y G C T PYC \\
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\(N C I V A Q S G G P T V A D N A S L V G V I C A S S I G H Y G T V Y G S S I N G\)
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 D Y E K MA D L V V R E I K Y V L F NG G N G T M D T C G K L H K T C I R V M
 

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RIGVVLSGGQAPGGHNVIAGLVDYLKKHSLLGFRGG \(N L L Y A Q S G G V T A V I N A T A A G V I E A A R G K G V K V Y A A R N G\) IIVGQSGGPTAVINSSLAGVVKTAKDRGAKIYGMLHG
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KS:GIVCGGGPAPGПNAVISTVAKDFLKDGYRVLGLHEG NHGQSGGPTAVINSSAAGVYKAAKAAGVKKYGMIYG
NLLYQSGGVTAVINATAAGVIGEARARKVKVLARNG NVGILLSGGQAPGGHNVISGLFLKSLHPDSRLYGFLMG
\(\square A Q G G G P T A V I N Q T V V G A T \square R K R H P G A K V L G S T H G\) \(K V G V V L S G G Q A A G G H N V I T G L F L K K D H P E S H L F G F L G G\) RLLYAQSGGVTAVINATASAVIQAGRQHGVRVLAGRNG \(A G \| V T C G G L C P G \Pi N D V T R G \prod V M Y Y R Y G V S R V L G F P Y G\) NVLVGQSGGPTSVINSSLAGVVDGALKKIDRVFGMRYG IGVDFSGGQAPGGHNVLCGLYLQQLAPNSKLLGFLGG RRCII GQSGGPTVAINATLAGVIKAARQNGFDIYGMVNG NCIVAQSGGPTSVINSSLAGVI QAGTDNKDKIYGSLNG NAVVGQSGGPTAVI NQSLAGVVETLQQRSDFTGKIRHA \(K N V L Y A Q A G G \square T A V I N A S A A A V F E T A Q Q H P E T F G K V Y N G\) VKRVALLTAGGLAPCLSSAVGGLTERYDAPEVEIIAYKGG

MNRTG\|LTAGGDTPALNATMYGAVIRANQLRVEVFGFTKG RIGLILSGGPAPGGHNVIAGAFDYLKQRNKESIGFIGG \(K V G V M L S G G P A P G G H N V I L G L L H K K L H P N S Q L L G F I R N\) KFGVILSGGQAPGGHNVISGLFDALKNANSKLYGFLRG VLVVQDGGCAPGYNSVTAFLTEFLEKSGRRVFAASEG VRKVAMLTAGGLAPCLSSAVGGLIERYITAPDVEI DGYLDG

VKRAAVVTCGGLCPGLNSVIHHLVLFNDYDAEKVFGIVGG
RNVIYAQAGGVSAVINASAAGVIEMARRHPEKFGTVYNG

VRRVALLTAGGFAPCLSSAVGGLDERYMAPDVEMGNG RVGVVLSGGQASGGHNVIAGVYDYDKHPDSELLGFANG NAIVGQSGGPTSVIDNASVGVVDAAQKYSDTIYGMRFG CAGCNAABRSVRMALLIDDCQVYLIKNG KVAVVLSGGQAPGGHNVI AGLFDGLKIIANSKNTLIGYG AVMHISAMACDMNAAVRSFVRNCUYRGNSVISVQEG
 \(\square K R \boxtimes A \square L T A G G F A P C \square S S A \nabla G G \square I E R Y \square D P S \square E \square 1 A Y Q H G\)


\section*{UniRef90 R9N045} UniRef90_Q3J7A4 UniRef90-R6QOJ4
UniRefo FOYE UniRef90-R6SYY4 UniRef90-14C739 UniRef90-U6D4X4 UniRef90_R5BP73 UniRef90-UPIO0039A3113 UniRef90-R6EEZ9 UniRef90 R7AV66 UniRet90_D4S1Z8 UniRef90-D6TNU1 UniRef90-C4Z1C3 UniRef90_E3PX82 UniRef90_UPIO00471F2D6 UniRef90_UPIOOO38050E4 UniRef90-R5HR40 UniRef90-L7MJH7 UniRet90-F2CS69 UniRef90-W3ALTO UniRet90_Q2YB24 UniRef90-A6C7C7 UniRef90-X1T0Q7 UniRef90-R7EYS2
UniRef90 \(16 U B L 7\) UniRef90-T0LB93 UniRef90-R7A933 UniRef90 - K1XPA6
UniRef90-W0EZZ2 UniRef90-UPI00047B85E0 UniRef90-F4GIOO UniRet90-B8FVFO UniRef90-B6YRK4 UniRet90 D8SNS2 UniRef90-14WHQ0 UniRef90_R71165 UniRef90-R6GOG7
UniRef90 D1CF90 UniRef90-D1CF90
UniRet90_B5JMZ9 UniRef90-AOEH23
UniRef90-W6K2G5 UniRef90-W6K2G5
UniRef90 UPIOOO3679E76 UniRef90-A0A058ZYU3 UniRef90-E6XFH8 UniRef90-R6CAK2 UniRef90-B0RP51 UniRet90-T1CH68 UniRef90-G6EMW9 UniRef90-E8TAG2
UniRef90-UPI0003FD9ECD
UniRef90_UPIOOO3
UniRef90-L2GTB5
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UniRef90-S3WY56
UniRefofo-R6LVF7
UniRef90-MOV614
UniRef90-H5UPDO
UniRef90-W7TMW0
UniRef90-UP100037E9ECB
UniRef90-T1FX23
UniRef90-B1HOM1
UniRefofo-J9HFL3
UniRef90-Q4YCZ1
UniRef90-UP100041CCB7E
UniRet90-R5AF65
UniRef90_COW1U7
UniRef90-X0SYK9
UniRef90_K7RSV1
UniRef90-U3ЈJH4
 RNGIITEDLIDTSQDSDNDIAALRHTPGGAFGSCRYENKA
 YAGFLAKSGVRLDDAFVEGMHARGGTVLRSSRGGHETSAD VEGLVEEQMVNLSEATSHNLEMVGKTPGAGDRSTRKPDEE
YS GLFSKNDEDLTFQTADRYFNLGGSYLQMSRFKPTDKDF PSGGLEHKYIEETMDEDIDEYRNTGGFDMIGSGRTKRETKD

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\end{tabular}

\(P A G V M K G K Y V E L T A D F V Y P Y R N Q G G F D M D C S G R D K D E T P E\)




\(\nabla R G \prod R D G N Y V D \square S A \square P E D R \square R L D A G T P S A A D G S T R D K P D A\) PSGIVDGKYRDLSEDEDANYRNQGGFDLIGSGRTKDESEE \(I L G V L R E E L V D T T P L S A S T V K A L A H T P G G A F G S C R Y K D R A\)
\(P R G V M Q N N Y K D L Q A E E L D G Y R N Q G G F H M \square G S G R D A \square A K P E ~\)
YQGLYSHEPTELTPEKVAHTVDEGGSMLSSSRGNQS
DEGVLNDFLIDLGSESPDVLKGLRSTPLGGSRLKLKDEHF PKGLMDNKHMILTKEYLATFRNMGGFHAIGSGRDKIJATKK MGGFLNNNMKEVKGKKMEGGMARPASYVGGSCRYPSSIDDDE


RSLVSGDLRFHGVVFTPPLREARGADFRSERYPDFKELIE YAGLLTGRSVTVTPEMRSRLHRFGGSPGGNSRVKLTNVAD IVGVLEERLIDTARIPSAARARLRMTPAGAFGSCRFKDP YAGLLTGRSVEVTPEQAHLLHQHGGSPGGNSRGKDTNVAD VVGVLEESLINVSALSEDVLDRLKTQPGAAFQACRFDNPA YEGLLTGDSIAVTGNVRAHADRLYGSPIGNSRVKDTNVAD
YKGFYSSNYVAlTPKTVNDПHKRGGTVLGTSRGGH YQGLLAGDYITVDREKAHLLHKYGGSPIGNSRVKLTNAKD PKGVFTGKYYVI DAAFDNAYRNTGGFDALGSGRNKGESPE DEGFMQDQLVDLGAQPRQTLDGLRRTPSGLGSCRHKVKEK

 YQGLLSGDYLTVTPTVRVNLHSFGGSPGGNSRVKLTNGQN
YHGLLTGNYVVIEEARKKDHKFGGSPDGNSRVK DTNAKD YHGGLYGNLIDLKKEAPQTIEKDKRTPSAALGCRHKLSSE


UniRef90-U6D4X4 UniRef90_R5BP73 UniRef90-UPIOOO39A3113 UniRef90-R6EEZ9 UniRef90-R7AV66 UniRef90-D4S1Z8 UniRef90-D6TNU1 UniRef 90 -C4Z1C3 UniRef90-UPIO00471F2D6 UniRe99_UPIOOO471F2D6
UniRef90_UPIOOO38050E4 UniRef90-R5HR40 UniRef90-L7MJH7 UniRet90--2CS669 UniRef90-W3ALT0 UniRef90-Q2YB24 UniRef90-A6C7C7 UniRef90-X1T0Q7 UniRef90-R7EYS2 UniRef90-16UBL7 UniRef90-TOLB93 UniRef90-R7A9X3 UniRef90-K1XPA6
UniRef90 W0EZZ2 UniRef90-UPIO0047B85E0 UniRef90-F4G100 UniRef90-B8FVFO UniRef90-B6YRK4 UniRef90-D8SNS2 UniRef90-14WHQ0 UniRef90-R71165 UniRef90-R6GOG7
UniRef90 D1CF90 UniRef90-D1CF90
UniRef90-B5JMZ9 UniRef90-AOEH23 UniRef90-W6K2G5 UniRef90_UPI0003679E76 UniRef90-A0A058ZYU3 UniRef90-E6XFH8 UniRef90-R6CAK2 UniRef90-B0RP51 UniRet90-T1CH68 UniRef90-G6EMW9 UniRef90-E8TAG2 UniRef90-F8L7U2 UniRef90-UPIOOO3FD9ECD UniRef90-E1Z874 UniRef90-L2GTB5 UniRef90-N1U4U8 UniRef90-UPIO0029A30A1 UniRef90-Q95V79 UniRef90_N9ZPR8 UniRef90-FOGXU6 UniRef90-101J92 UniRef90-UPI0004633D2A UniRef90 U7D846 UniRef90-UPIO00477A2D4 UniRef90-K2DTN0 UniRef90-E8QZ23 UniRef90-LOAWB4 UniRef90-D7DD27 UniRef90-M2BVH9 UniRef90-B3QRP9 UniRef90-UP100047DABBE UniRef90-X1VA27 UniRef90-T1BDN4 UniRef90_D7G165
UniRef90-NODYR7 UniRef90-UP100037C1A8C UniRef90-H1AOU1 UniRef90-S3WY56 UniRef90-R6LVF7 UniRet90_MOV614 UniRef90-H5UPDO
UniRef90- W7TMW0 UniRef90-UPIO0037E9ECB UniRef90_T1FX23 UniRet90-B1HOM1 UniRef90_J9HFL3 UniRef90- Q4YCZ1 UniRef90-UPI00041CCB7E UniRet90-R5AF65 UniRef90-Cow1U7 UniRef90-X0SYK9 UniRef90_K7RSV1 niRef90_U3JHK4

\section*{UniRef90 R9N045} UniRef90_Q3J7A4 UniRef90-R6QOJ4
UniRefo FOYE UniRef90-R6SYY4 UniRef90-14C739


EENFNLDLFKENNTKLLVTTGGDDTASTANRTSKYHTANT QFDSGLEI LRELGISALVTVGGDDSNTNACVLAEYYVQVI俍 DYKRAFEQFKRYNIGAFFYI GGNDSMDTVLKLSEYDVKVI

 KYEKMAEILKKHHURYVLFNGGNGTMDTCGKLYKTCLEKM

QFKQAEDTVNRLDLDGLVVIGGDDSNTNACLLGEYFRRVI DPSEFDD FRKNEIGYFUYUGGNDSMDTVWKLSEYUVVI EYERLI EVFKAHDI GYFFYNGGGDSADTCLKVSQYPIQAI GELQLVKKRLDQG|EGLICIGGDGTLNGMQPLSQFM-PCV QFDKGLTILQELNUKALVIIGGDDSNTNAAVLAEYYVQVI KDYDYDLKIV
DSFYRVEKDERDDTGYFFYTGGNDSMDTVSKDSRYPMRFI QFKKVKEVCENMNISAlVVIGGDDSNTNAALLAQYFLKNI TS KKEFFEQNNIKLLVTIGGDDTASTANBLAGFAVQN

AYCDVILNLKKAGADAFTYTGGNDTQQ\|LTDAAGGSTAFV QFAKSLEVAKALELNGLVVIGGDDSNTNAALLAEYFIRVI KYERLI DVFRAHDVRWFLYNGGNDSADTALKVSQYPLTCVV QLAAAEKTCLAHDLDGMUVIGGDDSNTNAA】MAEHFLNVI

\begin{abstract}
PDEMVDCLSFYGVKMLFCDGGDGTDRGAREVVGEDTSVI DFDAAANTAAVEKLDGLVI:GGDDSNTNACLLAEDF:KRIM TYEKI FTFLKEKE GVFVYIGGNDSMDTVKKLNEYIVNVV YCERIFESFTKHDVGYFFYAGGNDSSDTCRDVAEYDLKAF

 DLELAVSCANNLELDGLICIGGDGTNSNAAIIANHMCCVI NKARCLQTANELDLDGLVI GGOGSNTATALLAEYFAKHV NQKRAAENIKKRKVKAIIGIGGDGTLAGMQSLGELEIQMF CVKRGAEQLTRDGVDVLHTHGGDDTNTTAADGNGYDLTVV
DPEKIIKICRRYNLRYFFYUGGNDSMDTANKRMNYQLKVI RYRRILEVFEAHGIGYFFYNGGGDSQDTAQKDEGYPLKVI DLDKIIDFINDNQINQLYIIGGDGTHRGACMARDMNVAVA CVRRGAEQLTKDGVDVLHTIGGDDTNTTAAHENAYELTVV GRLRAARNLVKRG| TNLCVIGGDGSLTGADTFRAEWLNIV CVKRGAKQLVADGVDVLHTLGGDDTNTTAADNNGFNLTVV
\end{abstract}


\begin{tabular}{|c|c|}
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\hline UniRef90_R9NO45
UniRef90-Q3J7A4 & W \\
\hline UniRef90-R6Q0J4 & RYWHFVKLMGRSASHIALECALQTQPNI CLVSEEVEAKDM \\
\hline UniRef90-F0YEE3 & NGVGVVKLMGRHSGFIAMHATLASGVDL \\
\hline UniRef90-R6SYY4 & AVTIVEIMGRDAGWLTAASALMQEPDLIYLPERVFSMEQ \\
\hline UniRef90-14C739 & PGVYVGVVMGRHAGFLTAASVFADGPHLIYVPEKPFSSDE \\
\hline UniRef90-U6D4X4 & QRTFVLEVVMGRHCGYLALVSALACGADWVFLPEEEGWQED \\
\hline UniRef90_R5BP73 & GNWFILCAMGRSCGSLALGLGEATHSPMT \\
\hline UniRef90-UPIOOO39A3113 & RYWHFIKVMGRSASHIALECALQTQPNTCL \\
\hline UniRef90-R6EEZ9 & KYWHFIKLMGRSASHIALECALQTQPNICLIS \\
\hline UniRef90-R7AV66 & KYWHFIKVMGRSASHVALECALETQP \\
\hline UniRef90-D4S128 & KSVT VELMGRDAGWLTA ASALATA \\
\hline UniRef90 D6TNU1 & YPVK ETMGRNAGWLAAASTLADAP \\
\hline UniRef90-C424C3 & \\
\hline & WH GVMGRAGF A \\
\hline UniRef9-UPIO0038050E4 & KKTGVVEVPGSQAGWLALLQ \\
\hline UniRef90-R5HR40 & VVI ASGRNAGW \\
\hline UniRef90-L7N & MGRHCGYLA\VAALASEADYVFIPELPPDDDW \\
\hline UniRef90-F2CL & YHFVRLMGRAASHLTLECALQTHP \\
\hline W3ALT0 & VFV EVMGRAAGW A A A A EGP \\
\hline UniRef90- A6C7C7 & RRIAIIEVMGRESGYL \\
\hline UniRef90-×1T0Q7 & QRVFVVEVMGRDAGFLTMYSGTSAGAD \\
\hline UniRet90-R7EYS2 & KYYHFIKLMGRSASHI ALECALQ \\
\hline UniRef90-16UE & TRTFVIEVMGRKCGWI ALMSALA \\
\hline UniRef90-TOL & QRITVVEVMGNTCGWL \\
\hline UniRef90-R7A9X3 & \\
\hline UniRef90- WOEZZZ & GNWFVVSAMGREAGHLALGAGVACHYPMIVISEMEAGKND \\
\hline UniRef90-UPI00047B85E0 & KYyHFI RLMGRSASHIALECALQTQPNTTI \\
\hline UniRef90-F4G100 & KYWHFIKLMGRSASHIALECALQTQPNV \\
\hline UniRef90-880 & RRVRVVEVMGRNVGWLAAA \\
\hline UniRef90-B6YRK4 & WHFLKLMGRSASH| ALECALQU \\
\hline UniRet90-D8s & Vel \\
\hline UniRefefo- \({ }^{\text {U }}\) U1165 &  \\
\hline UniRef90 R6G0G7 & TNNFILETMGRDTGWLAAAGALAQMADFIYLPEKAF \\
\hline UniRef90-D1CF90 &  \\
\hline UniRef90-85 & MIVHEVMGRHCGW \\
\hline UniRet90_A0EH23 & YHFIRLMGRSAS \\
\hline UniRef90-W6K2G5 & PRM1 HEVMGRHCGWLTAETARAWDVHAV \\
\hline UniRet90_UP100036 & YYVVRTVGRDAGWLAASAVED \\
\hline UniRet90-A0A058ZYU3 & \\
\hline 6XFA8 & \\
\hline R6CA & GDYLVAEIIMGRNAGWLTAASALAKGVDAIYLPEVDFDIIDA \\
\hline & MGRHAGWLAAAAGLDDAPQILLPERAFDQAA \\
\hline UniRef90-T1CH68 & KCQPNI|A|। SEDVIKAKDW \\
\hline  & R \\
\hline &  \\
\hline 90- UPIO003FD9ECD &  \\
\hline & \\
\hline UniRef90-L2GTB & QVFL VEVSGTTGYLSLMGGIASNAFECLI PEEAEAHDF \\
\hline UniRef90-N1U4U8 & PNGILVKLMGRHSGFIAVNAALAS \\
\hline UniRef90-UPI00029A30A1 & DQFVVFQSIGRSAGWLPAAAACASAPHVLLLPERPFDRAA \\
\hline UniRef90-095V79 & K Y WHF \\
\hline UniRef90 N9ZPR8 & PGHTIVE \\
\hline 90-FOGXU & I VEIMGRHAGWLAAS \\
\hline & KINVVMGRHAGFL \\
\hline UniRef90-UP10004633D2A & FLAFEAMGRNTGWLTAAGGLPDIPILILPAEKPFNKEK \\
\hline UniRef90-UPIOOO477A2D4 & S GVKINVVMGRDAGFLTAASALADGPHLIYVPEKTFYDDQ \\
\hline UniRet90-K2DTN0 & PGVYVGVVMGRHAGFLTAASALDDGPHL \\
\hline 80Z23 & I AIIEVMGRDSGM ALGGAY GQPDL \\
\hline 90-LOAWB4 & YHFVRVMGRSASHLALECALQTHPNMVLI \\
\hline UniRet90-D7DD27 & YHF KLMGRSSSHTLECALQTHPN \\
\hline UniRee90 M2BVF & ( KLMGRSASHIALECALKTQPNVCLIGEEQQ \\
\hline UniRef90-B3QRP9 & GRCYI EMMMGREGGYHALHSCLGAGAHLAVLPDSRYNMKR \\
\hline UniRef90-UP100047DABBE &  \\
\hline UniRef90-X1VA27
UniRef90-T1BDN4 &  \\
\hline UniRef90-D7G165 & NGVGVVMGRSSGFIAAMATLASGVDLCLVPESDIVLDG \\
\hline UniRef90 \({ }^{\text {NoL }}\) & MIV VEVVMGRNCGWLTAETARCWD \\
\hline UniRef90-UPIo0037C1A8O & FFCLEAMGRNVGWLALSGGLMP \\
\hline & QRTFVLEVMGRHCGYLALIT ALACGADWVFIPESPPEDDW \\
\hline UniRef90-S3WY56 & PRETIHEIMGRNCGYLAAESTRAWLAEQAWLPETGLSRED \\
\hline UniRef90_R6LVF7 & ERCSVAEVMGHNAGHLALYVGLATGA \\
\hline Ref90-MOV614 & G \\
\hline UniRef90_H5UPD0 & R M \\
\hline UniRef90_W7TMW0 & \\
\hline UniRef90 UPI00037E9ECB & D QV \\
\hline UniRef90-T1FX & E CLLLLVIDGKLLCGHLAL \\
\hline UniRef90-B1H0M & RYWFVIETMGGYCS \\
\hline  & \\
\hline RRe990 & \\
\hline UniRef90_UP100041CC & SRMLVHEVMGRNCWLTAATARAWDVHAVFVPE GHUD \\
\hline & \\
\hline & E \\
\hline UniRef90 XoSYK9 & D \\
\hline UniRef90-K7RSV1
iRef90-U3JHK4 & \\
\hline
\end{tabular}
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\hline & \\
\hline & KVDASVKDYG YCVVVASEGVRNQEGपAQMVKERLGY \\
\hline  & iRef90 \({ }^{-}\)FOYEE3 \\
\hline UniRef90-R6SYY4 FLGDVRTALSR HPNVVVAVSEGITRFAD & DVRTALSR HPNVVVAVSEGTRFAD \\
\hline UniRef90-14C & FLASVDEMYEHGKPVIAGLVKEDERDAHG \\
\hline UniRef90 U6D4X4 & MCIKLSENRARKKRLNIIIVAEGAMDTQNKPITSEQUL \\
\hline \multicolumn{2}{|l|}{} \\
\hline & TATAVARRAEDGNNYGVVL!PEG \\
\hline \multicolumn{2}{|l|}{UniRefo- 7 7Al} \\
\hline UniRef90-D4S128 &  \\
\hline \multicolumn{2}{|l|}{UniRef90-DCTNU1
UniRef90 C4Z1C3} \\
\hline UniRef90-E3PX82 UniRef90 UPIO00471F2D6 \(^{\text {a }}\) FLGDVRE【YRKYGR CVVAVSEGUKNEDGVPYVKENLGUS & R CVVAVSEGUKNEDGVPYVKENLGDS \\
\hline UniRef90-UPIOOO38050E4 & LAQNLKSRTIPDKPHALVVVAEGSQAAKTLSYALQQLLAD \\
\hline \multicolumn{2}{|l|}{UniRef90-R5HR40} \\
\hline Ref90-17M \({ }^{\text {H/ }}\) & Q \\
\hline \multicolumn{2}{|l|}{UniRef90-F2C} \\
\hline & KVDSCVKKFGYCSVVVSEGVK \\
\hline  & RVRDLYETQKNVVINMLIES \\
\hline \multicolumn{2}{|l|}{UniRef90-X1T0Q7} \\
\hline \multicolumn{2}{|l|}{UniRef90-16UBL7} \\
\hline UniRef90-TOLB93 & NIRFAQKHGKPGMFIIISEG \\
\hline R7A9 & DDLKKAFEKT ANVIVClV \\
\hline K1XPA6 \(\quad 1\) CKMIVDRSKAGKN & KMIV \\
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{UniRef90-UP100047B85E0 TA S A VA K R A A N G}} \\
\hline & TASAVAKRAANGNNGTVLTPEG \\
\hline \multicolumn{2}{|l|}{UniRef90-B8FVF0 FFTKVDEHLHR HPCLLVIVSEGDRDADGSPVAEFEDGRC} \\
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{UniRef90-D8SNS2 \(\quad 1\) TDTICKRAENGC}} \\
\hline & KVKATVERVGWCTVVA SEGV \\
\hline \multicolumn{2}{|l|}{} \\
\hline & TDK EEEQQV \\
\hline \multicolumn{2}{|l|}{UniRef90_D1CF90} \\
\hline \multicolumn{2}{|l|}{AOE} \\
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{UniRet90- UPIO0036}} \\
\hline & \\
\hline \multicolumn{2}{|l|}{UniRef90_A0A058ZYU3 ITND CKRSDIGGYNYGVILLPEGLID} \\
\hline \multicolumn{2}{|l|}{niRef90-R6CAK2 6 CEKVKELLASKKKSIVI AVSEGI HLADGRFIICEIDSHGN} \\
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{UniRef90-B0RP51
UniRef90-T1CH68}} \\
\hline & \\
\hline \multicolumn{2}{|l|}{iRef90-E8TAG2 FI DDVRATLDRHKR CIVAVSEGVSTADGKALVEEGLPGK} \\
\hline \multicolumn{2}{|l|}{UniRef90-88L7U2 LI DVI ERRGKEGKNYGVILIPEG} \\
\hline \multicolumn{2}{|l|}{UniRef90-UP10003FD9ECD FLS KVR RVVERVG F CVVVAS G GlR TADGTAARVKDTLGY} \\
\hline \multicolumn{2}{|l|}{\multirow[b]{2}{*}{UniRef90-L2GTB5}} \\
\hline & \\
\hline \multicolumn{2}{|l|}{UniRef90-N1U4U8} \\
\hline \multicolumn{2}{|l|}{UniRef90-UPIO0022} \\
\hline UniRet90-N9ZPR8 & FISRVKTLLLEKQHIU VAVSEGDRDNAGQYQRDETAVNC \\
\hline \multicolumn{2}{|l|}{UniRet90-N9ZPR88} \\
\hline \multicolumn{2}{|l|}{O1P} \\
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{UniRef90-U7D846}} \\
\hline & \\
\hline UniRef90 UPI000477A2D4 & M \\
\hline \multicolumn{2}{|l|}{UniRef90E8QZ23 LLEKVIRLIETQK HALMVVSEGVRDASGRFKRRHESAEA} \\
\hline \multicolumn{2}{|l|}{UniRef90-LOAWB4 \(\quad \left\lvert\, \begin{array}{ll}\text { V }\end{array}\right.\)} \\
\hline \multicolumn{2}{|l|}{UniRef90-D7DD27} \\
\hline \multicolumn{2}{|l|}{UniRef90-M2BVH9 I VDIIVKRSQKGENFGVVLVPEG} \\
\hline \multicolumn{2}{|l|}{} \\
\hline \multicolumn{2}{|l|}{xibor \({ }^{\text {a }}\)} \\
\hline \multicolumn{2}{|l|}{} \\
\hline \multicolumn{2}{|l|}{隹e990_D7G165} \\
\hline \multicolumn{2}{|l|}{UniRet90-NODYR
UniRefigo-UPI00037C1A8C} \\
\hline \multicolumn{2}{|l|}{UniRef90-H1A0U1} \\
\hline \multicolumn{2}{|l|}{S3} \\
\hline \multicolumn{2}{|l|}{UniReef90-R6LVF7} \\
\hline \multicolumn{2}{|l|}{UniRef90-H5UPD0} \\
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{UniRef90-W7TMW0}} \\
\hline & \\
\hline \multicolumn{2}{|l|}{UniRef90-T1FX23} \\
\hline \multicolumn{2}{|l|}{\begin{tabular}{l|l} 
UniRef90-B1HOM1 \\
UniRef90- IgHFL3 \\
VDVI VK
\end{tabular}} \\
\hline \multicolumn{2}{|l|}{UniRef90-Q4YCZ1} \\
\hline \multicolumn{2}{|l|}{UniRef90-UP100041} \\
\hline \multicolumn{2}{|l|}{UniRet90 R5AF65} \\
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{}} \\
\hline & \\
\hline UniRefego-K7RSV1 & DFUYNLYSEEGKGV \\
\hline
\end{tabular}

UniRef90 R9N045 UniRef90 Q3J7A4 UniRef90-R6Q0J4 UniRef90-FOYEE3 UniRef90 R6SYY4 UniRef90-14C739 UniRef90-U6D4X4 UniRef90_R5BP73 UniRef90 UPI00039A3113 UniRef90_R6EEZ9 UniRef90 R7AV66 UniRef90 D4S1Z8 UniRef90-D6TNU1 UniRef90_C4Z1C3 UniRef90 E3PX82 UniRef90-UPI000471F2D6 UniRef90_UPI00038050E4 UniRef90-R5HR40 UniRef90 L7MJH UniRef90 F2CS69 UniRef90-W3ALT0 UniRef90 Q2YB24 UniRef90 A6C7C7 UniRef90-X1T0Q7 UniRef90-R7EYS2 UniRef90 I6UBL7 UniRef90 T0LB93 UniRef90-R7A9X3 UniRef90-K1XPA6 UniRef90-WOEZZ2
UniRef90 UPIO0047B85E0 UniRef90-F4G100 UniRef90 B8FVF0 UniRef90-B6YRK4 UniRef90_D8SNS2 UniRef90-14WHQ0 UniRef90 R71165 UniRef90-R6G0G7 UniRef90-D1CF90 UniRef90-B5JMZ9 UniRef90 A0EH23 UniRef90-W6K2G5 UniRef90_UPI0003679E76 UniRef90 A0A058ZYU3 UniRef90-E6XFH8 UniRef90-R6CAK2 UniRef90 B0RP51 UniRef90- T1CH68 UniRef90-G6EMW9 UniRef90_E8TAG2 UiRef90 F8L7U2 UniRef90-UPI0003FD9ECD UniRef90-E1Z874 UniRef90-L2GTB5 UniRef90 N1U4U8 UniRef90-UPI00029A30A1 UniRef90_Q95V79 UniRef90 N9ZPR8 UniRef90 FOGXU6 UniRef90-IOIJ92 UniRef90-UPI0004633D2A UniRef90 U7D846 UniRef90 UPIO00477A2D4 UniRef90-K2DTN0 UniRef90 E8QZ23 UniRef90-LOAWB4 UniRef90-D7DD27 UniRef90_M2BVH9 UniRet90-B3QRP9
UniRef90_UPI00047DABBE UniRef90-X1VA27 UniRef90 T1BDN4 UniRef90-D7G165 UniRef90-NODYR7 UniRef90-UPI00037C1A8C UniRef90 H1AOU1 UniRef90-S3WY56 UniRef90_R6LVF7 UniRef90-M0V614 UniRef90 H5UPDO UniRef90-W7TMW0 UniRef90-UPI00037E9ECB UniRef90 T1FX23 UniRef90-B1H0M1 UniRef90-J9HFL3 UniRef90-R5AF65 UniRef90-C0W1U7 UniRef90 X0SYK9 UniRef90-K7RSV1 UniRef90_U3JHK4

KARSEKPGLC \({ }^{250}\) GRTSMQSEVDREEAVLV|GREAVKAAVAGE \({ }^{260}\) KYHWAVADYLQRAARH \(\square\) AVDVEQAYAVGKAAVEFAIRGKN
\(K\) VFFVDPTYTDRACAANAQDQVYCSSLAHAAVHGAMAGYT KVRSVELNLPQRCASHMASAQDLAESVGKEAVRAAVEGVS \(R V R S D T F G Y L Q R S F C V S E V D A H E A R E V G E R A V Q D A A W H S A\)
\(D T R V T I L G H V Q R G G P S A F D R I L A S R M G V E A V V A L L Q A T P\) \(D T R V T I L G H V Q R G G T P S A F D R I L A S R M G V E A V V A L L Q A T P\)
\(G V H F T Y I G Y D V R C Q D P V A Y D L T Y C T E L A M G V Y Q L F K E G K T\)

K VRSVEVNVLQRCAAHEATDLDEAFNSGHKAVELAEAGVT RARFDKPGDFQRSQYVSPTDRQEAYLVGQKALEAALRGES KCRSDEDNDPQRCSSASAT DDDEAEKAGKAAVVAAGDGET (TVGYRSFMGCVVDQHEAREVGEKAAQFALWHNM

EVYP LVLGPWVRGGNTTAVDRQLGLAYGAASAKADEQSKF DTRDTVLGHVQRGGSPSAFDRVLGCRRXXXX
 KYHWGVADYLQRAARHTATDVEQAYAMGQAAVEFAVQGHN ATFTRK \(\square G H T Q R G G R P \amalg R F D R H Y A T Q L G G K A V D L L V Q R Q N\)

EVRLLKLGHTQRGGPTSAQDRTYGTLLGVRAVEDSDGPMK
 K S R P VE \(\square G Y E \square R C L A P T A F D L E Y C T F \square G F G V K Q L F D Q G \square T\)
\(K\) VRSEVLG ILQRANTWSVCDRQEA DFDGKQADGVLGQGKS

K Y H WALPDYLQRSARHAAVDAEQAYAVGKAAVDYALAGMN KTRAIEFSTLQRSAAHDATDINEAFAAGGAAVKAAFEGDN DKFGHEDGVL QRCAMHCASDLKEAYEAGYEALKKYSDTGKC KYRYDKPGTVQRMSMAMAVDLEEAYMVGRYAVVEVVTKGTT
\(E I V R D A F G H V Q L I N P G A Y F A K Q F K E M I G A E K V L V Q K S G Y Y\)
\(D \bigvee P R D A F G H V Q D D N P G A W F A K Q F A E A \square G A E K T M V Q K S G Y F\) ATGYRGEFQIPESLPMSALDREEAWACGVEAVSRAVRGES
 D RVDVFGHKQLSHMASLT DINEAFMAGEAAFAACEQGLS KVHWTLPDYLQRSARHLATDWEQAQAVGKAAVQYALKGMN YLSRPESDHI KR
DLRATNDGHV \(\square R G G S P T A R D R V L A S W M G A H A V D L L K E G \square G\) RARVDALGYMPRGY IISAVDAQEAFDAGAFAVTVAEQGGG
 A VNF VVLGE \(\square\) QA GSNPSPTDR \(\square\) MSAVLGMRA \(\square K F \square M G D V K\) EF G WRGEFQVTESLPMCGADRDEAFACGQQADK LAASGVG
\(K \prod R S \prod E L N V L Q R N A G H \square A Y D L Q N A V R \prod G E T A V Q Y A M E L E T\) KTRAVELNIVQRTSPISKTDAKEAFNLGYRALDL
EVRADTFGYL QRSF CVSEVDAAEARQAGREAVKAAESGRG KTHSDTPDYLQRSASHSKTDWEMAYEAGKAAVLAADNGEH Q IERDAFGHVKLIDPGKWFGNQFAEMLGAEKVLVQKSGYF RVRADTFGYLQRSFPVSAVDAKEAREVGEFGVNQATSSGE EVRGDTFGYLQRSFCVSDVDQREAREVGEKAVQYAMWGGR A I F V RKVGHDQRGGRPDRFDRLQAALLGAKAVELLLERRY

RVVCEAFSRDDRGALPNNTDDTLAQRMAKKLTFLMQTGQT EIVPDPFGHVKK IV P GA WF A DQFAARVGAEKVMVQKSGYY
\[
\text { D A F G H A Q } \square \mathrm{G} \text { G } V \text { A P A } \square \mathrm{A} \text { G } L \square \mathrm{G} \text { T R } \square \mathrm{G} \text { Y K H H WA A A D }
\]

DVP DDPFGHVQK DNPGAWFAKQFAALVGAEKTMVQKSGYF KTHFAVPDYLQRSHMVSQTDWEMAYRAGKASVQAALDGRH
 D PRVT ILGHIUQRGGTPSARDRVMATRMGYHAVQALAEGKT E VPRDAFGHVRLINPGAWFGKQFAEKLGAEKVLVQKSGYF \(R G E F Q D P E S L Q M S D R V C E L D L E E A Y Q C G R E A V R L A A E G L S\) DTMVINFGHLIDTARPSAYDRIIATRLGAEAVLFIAHETI

EVPRDPFGHVKLDNPGQWFGDQFAKLLGAEKVMVQKSGYY EARDTILGHI QRGGSPSARDRVMATRMGHYAVEALLRGVT EVQRDPFGHVKLINPGNWFAKQFAEKDGAEKVMVQKSGYF KLRFDKPGTI QRMSMVSEVDLNEAYMVGQDAVKYAMEGDK EVPRDPFGHVKLINPGAWFGKQFAERLSAEKVMVQKSGYF

UniRef90 R9N045 UniRef90_Q3J7A4 UniRef90-R6Q0J4 UniRef90 FOYEE3 UniRef90 R6SYY4 UniRef90 \({ }^{-14 C 739}\) UniRef90-U6D4X4 UniRef90 R5BP73 UniRef90 UPI00039A3113 UniRef90_R6EEZ9 UniRef90 R7AV66 UniRef90 D4S1Z8 UniRef90-D6TNU1 UniRef90-C4Z1C3 UniRef90 E3PX82 UniRef90-UPI000471F2D6 UniRef90_UPIO0038050E4 UniRef90_R5HR40 UniRef90 L7MJH7 UniRef90 F2CS69 UniRef90-W3ALT0 UniRef90-Q2YB24 UniRef90 A6C7C7 UniRef90-X1T0Q7 UniRef90_R7EYS2 UniRef90-I6UBL7 UniRef90-T0LB93 UniRef90-R7A9X3 UniRef90 K1XPA6 UniRef90 W0EZZ2 UniRef90-UPI00047B85EO UniRef90-F4GI00 UniRef90 B8FVFO UniRef90-B6YRK4 UniRef90_D8SNS2 UniRef90_I4WHQ0 UniRef90 R71165 UniRef90-R6G0G7 UniRef90_D1CF90 UniRef90 B5JMZ9 UniRef90 A0EH23 UniRef90-W6K2G5 UniRef90_UPI0003679E76 UniRef90 A0A058ZYU3 UniRef90-E6XFH8 UniRef90_R6CAK2 UniRef90 B0RP51 UniRef90-T1CH68 UniRef90-G6EMW9 UniRef90_E8TAG2 UniRef90 F8L7U2 UniRef90-UPI0003FD9ECD UniRef90-E1Z874 UniRef90_L2GTB5 UniRef90 N1U4U8 UniRef90-UPI00029A30A1 UniRef90_Q95V79 UniRef90 N9ZPR8 UniRef90-FOGXU6 UniRef90-101.J92 UniRef90 UPI0004633D2A UniRef90 U7D846 UniRef90-UPI000477A2D4 UniRef90_K2DTN0 UniRef90 E8QZ23 UniRef90 LoAWB4 UniRef90_D7DD27 UniRef90_M2BVH9 UniRef90 B3QRP9 UniRef90-UPIO0047DABBE UniRef90-X1VA27 UniRef90 T1BDN4 UniRef90_D7G165 UniRef90-NODYR7 UniRef90_UPI00037C1A8C UniRef90 H1A0U1 UniRef90-S3WY56 UniRef90_R6LVF7 UniRef90 \({ }^{-}\)MOV6I4 UniRef90 H5UPD0 UniRef90-W7TMWO UniRef90-UPI00037E9ECB UniRef90 T1FX23 UniRef90-B1H0M1 UniRef90-J9HFL3 UniRef90_Q4YCZ1

RF L VGNVNTR LAALLP LDLVVNRRNDVS DRDRMWTRLL
CEMMTIQRTRIGHADVEQI ANRDKYVDDAFINEA
D GS IT E GVRYNLTPLQEVAKETKSMPDEFIQGAN
ACVVSLSGNQAVRLPLVECVQMTQDVQKAM
\(G C M V Y V D S G N V S P L Y L A D L Q D E T G K I P P R M V D V N\)

A S MVTMTRSSNAPYTIEYTANEAKSVPVEWDNE
DKMVTLVRHDTGLVELGEIANVQRLIPDAYFDASTAM

 GK MVAF ERVS TEPYDI ERVMMYEHKMPDSYIN

VRVPLMQCVEKTLADAKCM
GVMSTLTRVSYGAADDSQDADREKKVPVEWDNE
SVMPTI ER \(\operatorname{CNARPLSQVANDEKMMPENFI~}\)
NYVA ILLQWNE

PVMISIFRDEISEVGLKEVIEKNELVRQERKRFAE\|L PRVVLFKDGDLDLYELEHIIEM GQMVAFERE

G A V VT A D A G T VK P LY L K D VA D E K G K VK P R L ID M

K VMLLGLEDSKAQWVDLLK S V]A GLERPVAPCYLTES

A VMPVIVRTK DEPAPLAK\ANREKKMPKNFT
GKMIILKRVSDDPYDVHKI SNVEKLVPKDWI
GYMVT:ERTSYS LVEANKVANNQKYFPTEDWIN
NRMVT IERSKPGLVELDEKIANQQKLLPEEY I
SRAAA
SRSAAANDEDLALI

GC IVANSKGE DSPLY LK DLQDKEGK IAPRRVD DNSEFA GKMI IFTRPKGEEYDIHAIA N IEEKDVPKEWI
AVIPVIERWK IVPAPLHKVANHEKKMPPSFLR
\(G V A V G \square H N E Q L V E S P \square E E D V N N P H K A R \square D F A E L N R S L A\) \(S V A L Q Y D G T R T V L V P L K N V A G K T R H M P D D F M K\)

A VMPVIVRMK VAPAALSD DANHERTMPDDF \(\square R\)
Y G V I G \(\square \mathrm{E}\) GQLI I VT E \(\square \mathrm{E}\) K S \(\square \mathrm{NE}\) Y K D \(\square\)
GVMVTMNRNKFGT \(\square\) S \(\square\) SEVANHERPMPNHF \(\square\)
\(G \square F V G S R Y D A F T K E N \square S E V S N K V R A F P D E W D D\)
SGSDA VVRTDYKTDDDAEVAALTRHMPEAFL
GVLPI I EEWHFKSVDLMTVADLEKTVPDHFL
S R A A
NGSVATKRESSVPY
NGSVAA KRTGFYSVP LDAVAGKTRVMEDEF \(\square\) SEIIATL

KMMPAVLSGQEYA\PFDD \(\square R T H N T V S S D L A V L A N R L G V\)
SRSAAANTDDLRLI

SRSAASNDEDLALI
GVLPVIEHNRYRNVDLLEVGDLEKCVPDEFL

S R
\(G V M / T \square V R P E L G T A A L A E V A V R T K P M P P S F \square N E\) PQILLINGTTVNKMPMTDVI ARYHQ

S RAAAANEDDLALD
S QVVCYRDS QLVLTP \(\square\) AEA \(\square K M K K P L D S Y M Y R V A N E V S \square\) SRAAA
GKMVSLVREKTGLVELDKVADAEKNDPDNY \(\operatorname{LINE}\)
SRSAA SNEADLELI

\section*{UniRef90_U6LTW5 UniRef90 UPI00037D28F9} UniRef90 Q6MCU5 UniRef90-S2WGQ4 UniRef90_W7WMT9 UniRef90_D6S816 UniRef90 WoIXE9 UniRef90-H7BRM0 UniRef90-D8P8W7 UniRef90-M1V4Y2 UniRef90-A0A011NVD7 UniRef90-L8GY22 UniRef90-F5XIC6 UniRef90-A0A023B5V9 UniRef90_S9QF07 UniRef90_R5YR23 UniRef90 C0QJ77 UniRef90 SOBOV2 UniRef90-K6VIY9 UniRef90_L1J3K8 UniRef90 K3ZRJ3 UniRef90_Q45YD4 UniRef90_C6XHF7 UniRef90 XOVRY8 UniRef90-E4UD94 UniRef90_B8BZ41 UniRef90_A9YW94 UniRef90 LOD9D9 UniRef90-Q6PTR6 UniRef90_C9DE18 UniRef90 Q84P69 UniRef90-Q6PTM5 UniRef90-A9UCK6 UniRef90 R5Q4N8 UniRef90 UPI00036B0766 UniRef90- I2CCG0 UniRef90-A0A021 WXD5 UniRef90 Q45YB3 UniRef90-A9UCK7 UniRef90_UPI0003B5AE29 UniRef90_T1BR04 UniRef90 W4U149 UniRef90_Q6PTF5 UniRef90-D6ZHLO UniRef90_K2D260 UniRef90-I2CCG9 UniRef90-X6M0L6 UniRef90_C9DE20 UniRef90 E8R4R9 UniRef90-E4WM35 UniRef90-X1EXA1 UniRef90_A0A059BQ15 UniRef90_D8RGP9 UniRef90_L1JZA4 UniRef90_K2CP67 UniRef90 T2IDA2 UniRef90-M0XT62 UniRef90-XOV4C8 UniRef90_U5QUH1 UniRef90 A0A059ALG8 UniRef90-J3MYI4 UniRef90-M0XHQ4 UniRef90_E2LBK0 UniRef90-X1U7R0 UniRef90-B4S8G9
UniRef90- XOY6D3 UniRef90 UPI00046F9ED6 UniRef90-W7A7A1 UniRef90-K6UDG5 UniRef90-J9GBV8

10 20 30 K RVGVVLS GGQAA GGHNVICGVYDFRDHPDSALYGFLGG KAVLFSGGPAAGGHNVLCGI KRMLGAGNTVFGVRGG


MAGCYKKAIIELGFDNYGALYG \(K K V A L L T A G G \square A P C D S S A V G G L V E R Y I A P D \square E \| I A Y R G G\) RI GVVFSGRQSPGGHNVI WGLYDVVKAHNSKIIGFLGG \(R L L A L V S G G D F G G G G A A L K E L R V T G N R F G L E V F F V R H G\) \(R\) GVLFSGGPAPGGHNVLAGLHDF LASRNISSVGFLGG

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 \(V G L V L S G G P A P G G H N V I A G V Y D Y I K N P A S R M V G F K G G\)
\(G V E V G U Q D G\)
 \(R C G F I L S G G P A A G G H N V V A G L Y D G D M K G N K E N F G F K C G\)
 RVA V T A GGLLAPCLSSAI GFLIEEYTLYDIE II CYYD G R AV RAVVRTGLAVVGAKVYFIYEG

 NVAMMTS G GLAPCLSSSVAYLI EFWAQS GLSSIRMYFDG NI Gl LT A G GVCPGVNTLI RSI TLREKRQGNHVHGFADG
RNVVVAQSGGPTCVINNSLRGIVETCRRDPKTFGTVYFG AV RAVVRMGIYVGFKVYAI HEG ALRAVIR RALHKGMRAFVI EEG \(R V G V V F S G R Q S P G G H N V I W A G L D A L L A M N P H S Y G F V G G\)


NLVVGQS GKPSAVFNTCLYGADQEAKQHPENTYGMVEG ALLRAVVRMADFSEARVFAVREG QKVA MLT A G G La P C L S S A V G GL I E R Y I A P D A A L RGLVRMAMYRHARVFLIYEG

KLLYAQS GGVTAVI NTSAAAVI ATARAHGVRAYAARNG VKKVALLTAGGFAPCLSTADSGLI QRYVAPEVEIDAYKHG


AVRRTVRMAIDFHGLRVYGIYEG
 \(\square R K V A D L F A G G P A P A A N A V I S T A A A S F L R N G \square E V V G U L H G\) NIGILTAGGVCPGVNTLIRS円TLREKSQGNRVHGFADG MANAIVSQSGGPTGVINASLVGVIEEACKHKDRLYGGLHA KRVGIVFCGRQSPGGHNVVWGLYSALKDHNSVLLGFLGG \(R V G V V F C G R Q S P G G H N I V A G L F D A L K A H N P D N I G I V G G\)
 F E VVGMFDG
\(R \square G \square V F C G R Q S P G G H N V I W G \square H E A \square K A H N S K L I G F L G G\)

TYH \(\square\) QHHTVNLNSCMEG
\(N L G V L F T G L P A P G G H N T V C G T L D S L K K Q N K K N F G F T N G\) \(K N V G V V I L S H S V P G V N N I I A G L H E R L S M N N \square K L I G F V K G\)

\footnotetext{
lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
jhmm
jpssm
}



UniRef90_K6UDG5 UniRef90 J9GBV8

 YK GVLT GD DSPD \(V Y\) D DCACLHELGGSPI GNSRVKLTNVKD FRGLNQDDKTYFNQEHV LEEGPGTDLKTS \(\square E G V L K E E L I D L S A T S D E E D A L L R T S P I G T C R Y K K K G Q D E\)



\(\square G G L L K G D L \square N L G R Q Q P A V L E G \square K N A P S A A D P F N D N A V D E\) YKGLVEGHUEEL RWASVSNI LHKGGTVVGTARCKEFRERE YQGLLLADRDE TKDMREKLHRYGGSPI GNSRVKLTNAAD
 ATGLLNDRVRADTRADVSS SELQRVGSWLGGGRFSVGEN \(\square L G V L R E D L I D T G K E S A A A L R A L A H T P G G A F G S C R Y K L K T\) YEGLLKGDFLEVTRKNAEILKRFGGSPIGNSRVKDTNAAD


YQGLVDGY \(\operatorname{VKELSWDDVSGRMYLGGTMLGTARCDAFRKRE~}\) WKGLTSPDYHKPLAAQDVTRVHNRGGSILQTSKQQLDSKM YQGLVEGKDKELSWSSVSGILHLGGTVIGTARCKEFRDRS YSHLVVEFGPDHPMQEGRDVLTITNRTPGKSVNSPADLADP FRGLNQNVKTYFDQEHDD D DGPGSILKTSYDFVNVD
 TD GLLFAQK SVVETADVLAVYRNQGGYDLLGRTKDQUK SVQ WRGFTDGAAKEWTQERVAHDHKEGGSDL GYSADP YYGLQSRWDRELDPRLTDTWAARGCSSLHADRTPNREYTD

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T DGLLAQKTLE \(\square\) TNEVLSSYKNQGGYDMDGRTKDQDRTTE

\section*{F NA LDEGQ \(\square\) FE L D K QLINHEANNGGSVIPTARHDPDKRYT}

FEGVKNYSFMELKNEYDSMFRNSGGFDMLKTSSFDSGSEN \(\square K G L L T N E T Y V V K D S Y L N N W D N L G G A P L L G V Q L K W R K N D K\)

\section*{UniRef90_U6LTW5} UniRef90-UPIO0037D28F9
UniRef90 Q6MCU5 UniRef90-S2WGQ4 UniRef90_W7WMT9
UniRef90_D6S816 UniRef90- W0IXE9 UniRef90-H7BRMO UniRef90-D8P8W7 UniRef90 M1V4Y2 UniRef90-A0AO11 NVD7 UniRef90_L8GY22 UniRef90 \({ }^{-}\)AоA023B5V9 UniRef90-S90F07 UniRef90_R5YR23
UniRef90 C0QJ77 UniRef90-SOBOV2 UniRef90-K6VIY9 UniRefon- K33R UniRef90-Q45YD4 UniRef90-C6XHF7 UniRet90 XoVRY8 UniRef90_E4UD94 UniRef90-B8BZ41
UniRef90 AgYw UniRef90 LoD9D9 UniRef90-Q6PTR6 UniRef90-C9DE18 UniRet90_Q84P69 UniRef90_Q6PTM5 UniRef90-A9UCK6 UniRet90_R5Q4N8 UniRef90 UPIO0036B0766 UniRef90-I2CCGO UniRef90-A0A021WXD5 UniRef90 Q45YB3 UniRef90-A9UCK7 UniRef90-UPIO003B5AE29 UniRef90_T1BRO4 UniRef90 W4U149 UniRef90-Q6PTF5 UniRef90-D6ZHLO UniRef90 K2D260 UniRef90-l2CCG9 UniRef90-х6M0L6 UniRef90-C9DE20 UniRet90_E8R4R9 UniRef90-E4WM35 UniRef90-X1EXA1 UniRet90_A0A059BQ15 UniRef90 D8RGP9 UniRef90-L1JZA4 UniRef90-K2CP67 UniRef90 T2IDA2 UniRef90_MOXT62 UniRef90-X0V4C8 UniRef90_U5QUH1 UniRef90 A0A059ALG8 UniRef90-J3MY14 UniRef90-M0XHQ4 UniRef90 E2LBK0 UniRef90-X1U7R0 UniRef90-B4S8G9 UniRet90-X0Y6D3 UniRef90 UPI00046F9ED6 UniRef90-W7A7A1 UniRef90-K6UDG5 UniRef90-J9GBV8


DYDRADE TCKKYKTRFVTYMGDRGAMSTANQLAEYPLCCT GRLRAAENLVKLGINNLVVIGGDGSLTGANLFKKEWLNVV CVKRGAERLAKDGI TTLHTIGGDDTNTTAADANGYNLTVV GRRAAALNLVKKQITNLIVIGGDGSLTGANLFREEWLNIV GRLKAALHLVEHEITNLVVIGGDGSLTGANLFRQEWLHLV
 LVKRGADRLVADGVD\|LHT\GGDDTNTTAADENNYGLTVV GRKTACFNLVRRGISNLVVIGGDGSLTGANDFKQEWLNIV -
GRDKAAENMVKAGTNNLVVTGGDGSTTGANDFKSEWLNTV DVQNTMRALQHLKKVRYITI GSAHKLAQACSKARTNMFIT GRLSAAENLLQCGINSLAII GGNGSLTGAMASMHGHLNIV VKTAPLKTIHDANVDALVSI GGDDTLKTANKFQKFQIAVV EAVNNI YCARILEVLKKRDIRYFYYI GGNDSANTCYIDNNMQLRAF QVDDARAACEAMKLDGIVLIGGCGTSTDAFAATECRTKVI DVEETLNVLEERG| NQLYVLGNVETCKSASDDQKMKLSVI FINDLAVNVRELELDLYTIGGNGTMTVANKLGE\|LLHVV]

QVNGAMATCQA LK LDALVIIGGVTSNTDAFAEAKCATKVV

GKRKCFK DCRQDDLVGLIVGGVDSQRETTADAEYFTCTV Y \(\square H E \| V S N C K K N K I S N L V F I G D E K V I N G M F M K K K \square D L K 』 T\)





\section*{\(\square D K S F G F D T A V E E A Q R A D N A A H V E A E S A\)} \(H \square P K T \prod D N D L P G D R E T F G Y D T A R F V G S K L T L N L M E D S R T T\) GCPKTIDGDLKSKEVSFGFDTACKIYSEMIGNVMDDARST

HSAY
GVPVT DNGDLQFVETTVGFDTDCKVGTAEFNYCVDT HLPATLSNNVPVTEYSLGSDTSLNALVDACDADKQSASSR \(G \square P K T M D N D\|L W V W Q S \square G F P S A V E K A R Q\| I I Q L A G E A T S N\)

CAPKSVHNDSELVECSLGFDTTVFTYCQYDSHDTSHVRTY TVPVSPYNSFFLIECSUGYHSMVHTDSDMUGNLQSCVNAS

\begin{tabular}{|c|}
\hline  \\
\hline
\end{tabular} AGVK DETMGHNSGWLAAATTLASAPHLIYLPESGLDPAQ QRTFV
 QRCFV
QRASV
GNVEIVETMGRSTGWLALAASYARHADLVLDPETTFEDPH TKVFILEVMGRHAGWIAAAAGLDDAPHLILFPEDAFDETA SRMLVHEVMGRNCGWLTAATAAAWDVHAVYVPEAHDDEA QRTFV
PRMIVHEVMGRNCGWLTAYSAKHWDTNGTYVPEMHMDDES
 KRSFV
GRWY DTVIGARTGH \(\square \mathbf{L G} \square G V A S A A T \square T \square I P E Q F E H\) QRSFV
RCYYLVETMGRSAGWLAYGAATAGEASLVLSVETNEVIKW NSTVFLEVPGRGNNELVVHAGLAR NSKITNVITPSTRG AGVKIDVIMGRHAGFLTGTSVLDDGPHLVYIPERPFAMEK KYYYFIRLMGRKASHVAGECTLQSHPNMVILGEE KYYYF:RLMGRRASHVSLECALQSHPNMVLLGEEFDVTKQ QGGTGI \(K L G\)
\(E R V G I V E L F G A D S G F M C L H A V M A S G D A D V C L L K A V P ~\) ENGVVVVMGRDAGHLALRGGMAGGADVILIPEVTPYGDG NRWFFV VVMRKAGHLALGDGKSAGATLTMPEEF KYYHFVRLMGRAASH1TLECSLQTHPNTV GEEVFEKDY

NRVFVVETQGGKCGYПATMGALATGACLVYTPEQGПSLDT DPVKI IETMGRDSGWITASTALARDPHLVYLPERPFEEDR PRVGUMQLEGSSSGYVVSHAALASMCDVALIPEREFSMHD LFGRYCGETSALDAAYAGVDRALISEVPFDPKK
 NYYYFIKVVTNMSSLSLLSIDQLETCNVCLVGECVKYVEQ

\footnotetext{
lupas_21
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sol25
sol5
jhmm
jpssm
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 niRet90_UP100037D28Fs UniRef90 Q6MCU5 UniRef90-S2WGQ4 UniRef90_W7WMT9
UniRef90-D6S816 UniRef90-W01XE9 UniRef90-H7BRMO UniRef90-D8P8W7 UniRef90-M1V4Y2 UniRef90-A0A011 NVD7
UniRef90-L8GY22 UniRef90 \({ }^{-}\)F5XIC6 UniRef90_A0AO23B5V9 UniRef90-S90FO7 UniRet90-R5YR23 UniRef90_C0QJ77 UniRef90-SOBOV2 UniRef90-K66VIY9 UniRef90-L1J3K8 UniRef90-K3ZRJ3 UniRef90-Q45YD4 UniRef90-C6XHF7 UniRef90-X0VRY8 UniRef90-E4UD94 UniRef90-B8BZ41 UniRef90-A9YW94 UniRef90_LOD9D9 UniRef90-Q6PTR6 UniRef90-C9DE18 UniRef90-Q84P69 UniRef90-Q6PTM5 UniRef90-A9UCK6 UniRef90-R5Q4N8 UniRef90-UPIO0036B0766 UniRef90-I2CCG0 UniRef90-A0A021 WXD5 UniRef90_Q45YB3 UniRef90-A9UCK7 UniRef90-UPIO003B5AE29 UniRet90_T1BR04 UniRef90 W4U149 UniRet90-Q6PTF5 UniRef90-D6ZHLO UniRef90 K2D260 UniRef90_12CCG9 UniRef90-X6MOL6 UniRef90-C9DE20 UniRef90-E8R4R9 UniRef90-E4WM35 UniRet90-X1EXA1 UniRef90-A0A059BQ15 UniRef90_D8RGP9 UniRef90-L1JZA4 UniRef90-K2CP67 UniRef90-T2IDA2 UniRef90-M0XT62 UniRef90-X0V4C8 UniRef90_U5QUH1 UniRef90_A0A059ALG8 UniRef90-J3MY14 UniRef90-MOXHQ4 UniRef90-E2LBK0 UniRef90-X1U7R0 UniRef90-B4S8G9 UniRef90-X0Y6D3 UniRef90 UPI00046F9ED6 UniRef90-W7A7A1 UniRef90-K6UDG5 UniRef90_J9GBV8

TTMICKRAEKNLHYGVILIPEG
\(\square S G E A E R \square K K \square M D E \square G N V N I F L S E G A G V D E \square V A E M E A A G Q\) FLADVKAMYQRHGRCVIAVSEGIHDASGQPIITQLLAKDV LVKEINENFKRTDNILI LVSEGIKDSHIIRDKLKEIYDM I ASEAARDRKVMDETDNVNIFISEGAGVESIIAEMQAKGQ ICDAVQARAEKDKYHGVVLIPEG
FVVAERTPHRHHREGGVHGLVDYVANT四ATWPQRREKSGH IADLVCERAADAKNYGVIILPEG
VARVIVERSHKGMNYGVLLAPEG
LCHVIVERAKAGKNFGDVLLPEG
(LI LAGSVIKRLAYGRPDGI, ALLAEGLADCDEPEDLARYTELP FIDEDVKAAMDK YNNVVVAVSEGUKDADGNYYIIDKNIQV

VEAEAQRDRKVMDEDGCVSLFVSEGAGDPETVAAMEAAGE ESKRLKQVMDRLGNVNIGFSEGAGVDDIGKMEEA GQ

ETERLSKVMEKKGSVA TFVSEGACRD VIMDNRDSSGE LTELLTHDRENPSKYAVVLVSEGATFEGGEMVFTNATKDII ETERLTMDMEK KGSVALFVSEGACRDVIVSDRLS SGD EGERLKKVMDDHGCVNVFLSEGAGVKDIVAEMEAKGE DYRTMIEYSYAKRGYAVVVISEVCEYEDLLVSMS LGENVVNQLKSDGR CIVVVSEGFDVGEYGVARDNFGHPG
\(\square \mathrm{CDGVQARAE} \square G K F H G V L L I P E G\)
VVRK FLADVEAVYQRLGYCLTHDSSPGKGTGEYLCELLANQLNL EAER पRGपMDRAGFVT पF VSEGACLDA \(\square\) VAEREAAGE
 FLARVKTTVERVGWCTVVASEGGTRDAFGLA QLVRSKGGY EAARLNKVMDEVGNVTIFLSEGAGLDA IIEEMEKK
EGKRLKKПMDENDTVNDFDSEGAGVMDUVAEMEAQNQVV F LSRVDQAVKTAG YCVVVASEGDRNADGKF■QVKENLGY

VVAAMRTRDRDGKPFGVIVLAEGPRDDHGNEYRSQTGKDR DYRTSDEYSYGNRGYAVVVISEMC EYDYLIT SLSV F L A D VEGVFKK L G RCVI

TCDADQARAEHEKYHGVILLPEG
\(V\) VFEYVSKVIDSKGYAUIVVEDGAAEELVKKWRAQLDVDT
CCHQLLRLQKLGRHFGLLVIAEGVKTCHEKHEDFCLLKD KGGEFVEKRLKDSGHMVIVVAEGAGQDDKDHFKKKTNFPI
\(\|\) VDVICKRAENGYNYGVILVPEGLID
PHGRHLKYLIETKGSAVVClVEGAGQNFLEKTNAKDASGN GLFEFLYHRLKKNGHAVVVVAEGAGQGELRAWWEEEQGGF
LRRDDEKGKSEGRDVIRNEVASQVYTTDVITKMFKEEGGF FIKDVKRVYNRLGYVVI TVSEGLKDADYLCNLIKDRLEI VCEYMGAKLQERRN
LAHLMKDKRDNPKNYAMTTTSEGAKMGEETGAVLKELTGQ FLADVERDYKEKGNCMVAVSEGDHYADGLAQVVKEKTGA VHVVQKRYDLLRKRYGDIIVPEG
ICFLIDERDNRKKFYG
FLKKKVEEAFTKNCNVIDCVSEG \(\square\) HDDKGTF \(\square C V R N R \square G V\)

\footnotetext{
lupas_21
lupas_14
lupas_28
jnet conf sol25 sol5 jhmm jpssm
}


EVPRDPFGHVQLDNPGRWFAEQFAQK乌GAEKVMVQKSGYF EVRGDTFGYLQRSFCVSDVDQREAREVGEKAVQFAMWGKV PI RSDELNULQRCDMSFATDVEESFEVGEFSVECVENHS EVPRDAFGHVKLIDPGKWFGDQFAKMLGAEKTLVQKSGYF
ATKAT \(\square \square G H T \square R G A P P T E D K M \square A Q H \square A Y E T V R R \square E Q P D\)

EVVRDPFGHVK DDNPGAWFAKKFAERपGAEKVMVQKSGYF RDHMKY KVRSVE \(\|\) NLQRSHMSS \(\square T D \square G E A F R L G R H A V K C A I E G K T\)

EVPRDAFGHVRLTNPGQWFAKQFADKTGAEKVNVQKSGYF EVPRDAFGHPKLDNPGKYFADKFAKELGAEKTMVQKSGYF LY \(\square\) NNVP \(\square P S Q L S P W A A A G K F \square P S F \| R R E L V L H Q E S D N S\)
K \(\square\) KRDSFGH LLLDKMNS WFADKFANMDKAERS VVQKSGYF \(D V I N Q K \square G Y L V R G G D P D A T D S I V P M A Y G N D A L D I I L K G D H\) KI QRDSFGHI LLDKDNSWFSDKFANLIKAERSDVQKSGYF EVPRDAFGHVSLINPGLYFSKNLATAVGAEKTLVQKSGYF K PKVITP GYLIDRDVEPCVYDSILAAERMVKEAFEYAQD KARGQVPGTDQR【AYASVVDLDEAYGVGCHAVE【ARKEGN

STRVTVLGHVQRGGVPAAHDRLAASAFGVHAVDVLAQGKT KAGWDKLEDLSRFAMRSAVDSGEALMAGQAAVHRAVDGMN TVKRDAFGHVK DDT \(\square\) NNWFSKQFAALLGAERAMVQKSGYY

AARGEV \(\square G T \square Q R S T A \square S A V D A E E A K T V G A \square A A T W L T S G H T\) KYHWALPDYLQRSARHIATDAAHAAAVGRAAVEYALAGHN

NRDAFGHVRLDE \(\square\) NPGQYFAKRFAQAVDAEKVLVQKSGYF KYHWGVSDYLQRSARHDAMDVDQAYSLGKAAVEYALDGKN
\(K V N G Q Q G Y E A R C A Q P H A F D V M \square G S Q L G V G A Y R A L V E G \square D\) KAKVITPGYLIGAVDPCTYDSILAERMVREAFNHAQE

GDRTPVGGSM
DMRTTVLGHLQRSHPPVAWDR LLSTAFGDKAVELIQAENY TLKY \(\square D P T Y M D R A V R S N A S D N V Y C T L D A H S A L H G A M A G Y S\)

DVKYDDPTMMRACRANASDGLCTVLGQNAVHGAFAGYS TVKYUDPTYMURAVPANAGDNLYCTLLAHSAUHGAMAGYT DSRSAS \(\square G H T \square Q G G V P S P M D R A R A V R \square S L K C M T F D E K Q H E\) KARFDKPGT DQRMMCVSEVDTEEAYQVGRVAVEQALQGKS
\(D V L N Q R D S Y M R S G T D S \square D L V A V N A N T A D D G F R R D V E\) KVRGDELSLLQRCGAHLATDUEEAVMSGKAAVENAVNGDT


UniRef90_U6LTW5 UniRef90 UPIO0037D28F9 niRef90 Q6MCU5 UniRef90-S2WGQ4 UniRef90_W7WMT9 UniRef90 D6S816 UniRef90-WOIXE9 UniRef90-H7BRM0 UniRef90-D8P8W7 UniRef90-M1V4Y2 UniRef90-A0A011 NVD7
UniRef90-L8GY22 UniRef90 \({ }^{-}\)F5XIC6 UniRef90 A0A023B5V9
UniRef90-S90F07
UniRef90-R5YR23
UniRef90_C0QJ77 UniRef90-SOBOV2 UniRef90-K6VIY9
UniRef90 L1J3K8 UniRef90-K3ZRJ3 UniRef90-Q45YD4 UniRef90-C6XHF7 UniRef90 \({ }^{-}\)XoVRY8 UniRef90-E4UD94 UniRef90-B8BZ41 UniRef90_A9Yw94 UniRef90 LoD9D9 UniRef90-Q6PTR6 UniRef90-C9DE18 UniRef90- Q84P69 UniRef90-Q6PTM5 UniRef90-A9UCK6 UniRef90 R5Q4N8 UniRef90 UPI00036B0766 UniRef90-_I2CCGO UniRef90-A0A021 WXD5 UniRef90_Q45YB3 UniRef90-A9UCK7 UniRef90-UPIO003B5AE29 UniRef90-T1BR04 UniRef90 \({ }^{-}\)W4U149 UniRef90-Q6PTF5 UniRef90-D6ZHLO UniRef90-K2D260 UniRef90 \(12 \mathrm{CCG9}\) UniRef90-Х6MOL6 UniRef90-C9DE20 UniRef90 E8R4R9 UniRef90-E4WM35 UniRef90-X1EXA1 UniRef90-A0A059BQ15 UniRef90 D8RGP9 UniRef90-L1JZA4 UniRef90-K2CP67 UniRef90 T2IDA2 UniRef90-M0XT62 UniRef90-XOV4C8 UniRef90 U5QUH1 UniRef90 A0A059ALG8 UniRef90-J3MY14 UniRef90-M0XHQ4 UniRef90 E2LBK0 UniRef90-X1U7R0 UniRef90-B4S8G9 UniRef90-X0Y6D3 UniRef90 UPI00046F9ED6 UniRet90_W7A7A1 UniRef90-K6UDG5 UniRef90-J9GBV8

> S R
> DGSVATKRTDYELLPLDAVAGKTRTMEDEFT
> GKMVGIKRTEFELVDIEKVANKTKMI
> ARAAA
> GCMVAYHDNR \(\square E T \square P \square H A D A B K P D W E \square F\)

SRAA
EAVVAMDNGRFQP DSFEKATGRPRDVDSDRYRDARSFML \(G \square M V S I R K N D M G E T P V E N V A G L V K H V P R E W D N E\)

ARSAA
ARSAAPNDQDLLALI
A QLS Q \(\square \mathrm{D}\) TEQLLAH LVEAEMNRRT
A R
GRLVVLK
ARSAASSEEDLILI
ARSAA SNAFDRKLIRDCAEK
GWMAT \(\square L R D R F D K A P L E K V A N S E R Y F P K H W \square A S N R \square\)

DRMVA WKDGTDTDVGLDEVVAGSAPVDPNLVKTARGLGM GFMIT \(\square\) ARHLDPNKPYSSLIGMEKVVPEAFINEA
ARSAPANGDDLRLI
\(D V M V G \square E V A D F T P \square S L G T V A G H V R A V P E M W R E S D\)
GVIPVIVRDKDAPAPLARVANHEKKLPR

A R
N \(\mathrm{N} \square \mathrm{M} \square \mathrm{L} \square \mathrm{K}\) R E S H S P Y K \(\square\) S D \(V\) A N VES K M P R D F \(\square\)

G \(V M\) VS \(V\) S G Q D \(\square T\) Y VDF D \(\quad\) K LVDPE

D H LVVWQKGQVSSEPDSTVIAT DKPVEKYMVKTARSLGD GFTVAPVNGRHAY \(\square P F Y R \| T E K Q N K V V I T D R M W A R V L\)
\(G \square T V G \square C N T H Y V Y F P \square P E V I Q Y P R S V D P N\)
\(G F V S G P \square N G N Y A Y \square P M A E V A E A E N P V D T M D H K W A W V R S \square\)
\(\square L M D T D Q R S S V E W V P V Q E M V G Q N R R G K D A W W E G M K E L\)
GYMUTLERDEYKYTTLEHVANLKKEMPDEF \(\square\) N
GR LI A \(\square S R G \square Y T H \square P L S T \square T T G Q K R V D R E \square Y D \square\)
DKMVGGFERSKTKLLPRLTVVANTEKKVPDE WDNAA H


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[^0]:    

[^1]:    

[^2]:    

