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UniRef90 G8PQB0

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E Y L

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WQHSA LK WLAVSLCVLFTGYLVVLMYSQGEYGFAMVTLVL

WRSAMFTRSLLGLVAVLNGYLIVQMYAQREYDFAMLTLLL $K G S I L K W A V L S A V G I V N G Y T T I L M Y S R G E L A F A M L T L V L$

KNVLIKWALLGTVG\｜VNGYAT $\square$ VMYSRGELAFALLTLIL
WQSEVVK WLCDGLLSLMTCY LIVLMYAQGEYDFADMTLIL MAK WGLLSAIAAINGYVCVLMYSRGETAFAMLTLVL RSLLLKSVLI GLCCLLVGYLLVLMYAQGEYLFALLTLIL MIK WSLLATVGlVVGYATILMYSRGEIAFALLTLI I
 KNVFIKWALLGSVGUINGYATILMYSRGELAFAMLTVIL
 KS VF $\square$ K WA LLGS $L G \square V N G Y A T \| L M Y S R G E \square A F A L L T V I L$ S V LK WA T $\square G L V G \square 1 / N G Y A T V L M Y S R G E V A F A L L T L I L$

QGEYLFA $\square \mathbf{L T}$ L VI
QGEY【FATLTLVI RGEFAFALLTLVL

E Y L F A 1 MT L I L
RGEYAFALLTLVL
■K ws LLGMDGVVNGYATVLMYAKGE円AFALLTVVL

$$
\text { Y A Q G E Y } \square \mathrm{F} \text { A M } \square \mathrm{T} \mathrm{~L} \mathrm{~L} \mathrm{~L}
$$

K G S A VK WLT LLADVSLN GYASVLMYAQGEFAFA】LTVVL

Y AFALLNLVI
WQS DVLK WSADGLLCLLVGYLVVLMYVQGEYLFAIMTLIL

S GE WVFALLDLVV

QUERY
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S SLGLFTYGNRRAYAWRYVYPGLA GMALEVLEPLVCTIAI
TALALYIFGSKKTYAHRYI YPGIA GMILFI LFPLAYTVGL

TA $\square A \square Y \square F G S K K T Y A H R Y I Y P G I A G M D L F I L F P L A Y T V G L$


RRA Y S WR Y V Y P GLLA G $\square G L \operatorname{F}$ V L F P L
RKAYAWRYVYPGLAGMGLFVLFPLICTIA\|
R RA Y A WRYVYPGI A GMGLEVVLFPLICTIAI
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R R A Y A WR Y V Y P G I A G MAL F V L F PLVCTVAI


DT S GVYVFTNKNAYAWRYVYPGIMMMTI FILEFPVATIAI
 S SAGDYDFANRKTYAWRYVYPGLAGMGLEVLEPLVCTIAII

$\square G S G \square Y \square F V N S R A Y A W R Y T Y P G \square A G M A L F V L F P L I C T \square A \square$
RKTYAHRY $\prod Y P G \prod A G M \prod L F \prod M F P L V Y T \prod G L$ TALAVADFGNRKAYAHRYIYPGIAGMILFI IDPLVYTVGL

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## QUERY

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UniRef90 B9Z7Z8 UniRef90-W8RSB9 UniRef90_C9PPE8 UniRef90-HOJ3K0 UniRef90-W5YTE1 UniRef90-W9B195 UniRef90-T2LD71 UniRef90-E1V8B2 UniRef90-Q2SPS3 UniRef90_UPIO004780EEE UniRet90_B8F3M5 UniRef90_N9VJD8 UniRef90-S6EH14 UniRef90-R9PTQ0 UniRef90-17AC92 UniRef90-V8FB61 UniRef90_UPIO0034BF354 UniRef90_UPIO00476071C
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 RWQLALTSADNSETLVSPPFAFNAPQTLDMLPQTA PSAE $K W R L A$
 KWQLALTDTASGKYYVSESFTPGGEQHLALREAAGLPDGE GYR A A E DGE QTVATDVFSLNGLSVTDMDLQPGIEIDGT G Y

## RWQLVLNDGKDN

GHRIVINDGE
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GHR YVKDGD GALVVPEFDDSAPKEYDLSEAQSQ SGE

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QWRLRLTAPDSE

QWRLQLTDAQNGQRYLLS
$K W Q L T L T S$ C
QWQLQLTHPDSGDLLVSSKPFAFTPTEPQTLAMTPSAPTSEE

Q
RWQLVLSEAENGQTFVSAPFSFGGEQTLKLTQATPPTAGE
GYR I Sil EDG D KKDYATPAFS

QYKIVLTNPATAQTFVSESDALGAADVPVSEQ AEPTGE

QWILALTGADNAQ FVVAPFRFDKEQTLTLSKTDAAPAGE


\section*{| $G H Q L V$ |  |
| :--- | :--- | :--- |
| $G A R A$ | $N$ |
| G |  |}

RWVLSKMATKPFDFAAAQTLALTPVDS ISGE
RWVLALSK $\square$ S S S N L LVSKPFSLSESEKLPLHERTVGFEHS
GY R V VI RNGE
RYRIYVKQGDN
GYR AV

GDRLRVDKGEQG
R I R L Y L EAKEGARRLI S
KYQIALTNPTTEQ
GYVLQLVQDD
EWKLALTDGESGKVLVSS
QYRLVLVNPNTEKTYISDAFKFGGEQKLALKEAPAMPEGE

RAR Y H G N OKNYLSEPLVLDAPAELAVTEVEQLPNDS
$\begin{array}{llll}\text { LI } \\ \text { LI } & \text { Y } \\ \text { K }\end{array}$
NYQLRLSN EAGQVWQSADVKLDGAQTVTLHEASVAPVGD


GYVI YLEGKH QNLVSAPLALDGDTSAPVLPASDKPAGE GVRRLYLESDGDNDRLLSAALNDTNSERVMVTQSVDTAPGEGK GERLRIDKGEDG VFVSPPLTGEPDPQAPLTLQPAEDVGE
 S Y QLINLQKGDNKHSYTTEDFYLMGAEGLDAIQVTSEPVGE QYQLALENKNVQKTYGSAPLALADLKEI K LEEEVTTLPESK

UniRef90_G8PQB0

## QUERY

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## UniRef90-F7YSK

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UniRef90-B9Z7Z8 UniRef90-W8RSB9 UniRef90_C9PPE8 UniRef90-HOJ3K0 UniRef90-W5YTE1 UniRef90-W9B195 UniRef90-T2LD71 UniRef90-E1V8B2 UniRef90_Q2SPS3 UniRef90_UPIO004780EEE UniRef90_B8F3M5 UniRef90_N9VJD8 UniRef90-S6EH14 UniRef90-R9PTQ0 UniRef90-17AC92
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 KEQDKTIVKNRSALGQVDLHMPDGDDVRMSGLRKFAAVVP PASLRI TQSRQALSSLVAILPDGAELRMSSGLRQFSGTKP
 KEKI KAI IQNRSALNTIDLHMPDGADI RMSGLRKFASVQP






 RATLRVITQHRQALSQLSAQLPDGGULRMSSLRQFSGTGP
R A S L R VI TTHRRQALAKLRAVLP
RAS L R VI T S S N R Q A L S QI HA QLIPD GR Q L L V V M S S

$\square A P$ L R II T Q N R S A L Q A M K VI L
 $R A N L R I I T Q N R L A L N Q I T A V L P D E S K V 1 M S S L R Q F S$ GT
K A P L K QVIA NRKALS DI TLI GAEGNNL KMS GLLRTFAE DEP K E KII K A I V K N R S NL S KVVELVTPEGEKI RMS GLLRKFAAEA P K A T L R A V I Q N R D A L S A L E L K R S D D Q I I R M S G L R K F A A I Q P


 K A KII K EIV V TNRTTLTKFDLTLPNGNEI RMSGLRKFAAVKP




 V A P L K V I T Q N R QV L Q S L Q V V L P T E E R L S M S S $V$ APLLKTITQNRTKLQAI KVLLDPSEQDVTMSSLRQFAEQKT PLPMREVIAARGALQGLRLVTPEGLELRMAGLRHFAPMLD $P L G M R A I$ QARDSLQQGLRLLTPDGAELRMAGLRQFAPMVD RASFREVI A QQAALKALTLYLDPGNEYRLVSLSGFAPVSP $A L P \square R D V I R R Q R K Q L E Q W V M R G H E G Q L L R L V G L R E V A A V E P$

 PLAI R DI I QL R S EL SEELDLLTED GRELSMASILRAFAAI NA K L P I K D I V K N R S Q I S S L I L ELLPD GNE I R M S G L R K FAA D Y P


 $K$ K A I K E L I K L R Q GLLK K V Q I T L P D G T G L A M T G L R S F G A DA P
 A A P I R E I V
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 QLAAL R E L I R L Q P P R L R S L T I AMP D G T T V V R M S S L R Q FA P V R K

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UniRef90-B9Z7Z8 UniRef90-W8RSB9 UniRef90_C9PPE8 UniRef90-HOJ3K0 UniRef90-W5YTE1 UniRef90-W9B195 UniRef90-T2LD71 UniRef90-E1V8B2 UniRef90-Q2SPS3 UniRef90_UPIO004780EEE UniRef90_B8F3M5 UniRef90_N9VJD8 UniRef90-S6EH14 UniRef90-R9PTQ0 UniRef90-17AC92 UniRef90-V8FB61 UniRef90-UPIO0034BF354 UniRef90-UPI0004760710 UniRef90-UPI00045EB527 UniRef90-UPI0003808290 UniRef90_UPIO003B4D646 UniRef90_UPIO0028A354D UniRef90_UPIO0047AC811 UniRef90-A4XX18 UniRef90-IOHKS0

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TNNQSGKYRPNNQTGFYQS 1 NWGDEK
LYTLADDGALTNNQTGVVYQPNNHIGFYESVNWAGDKLS

 LYKKSADGKLTNVKTGVTYRPNMKSGFYQAVNANGEKLSP QYSLGEDGSLTDNQTGTLYRPNTDTGFYQSVNAEGETLTP LY SVEKDGTLDNNQDKTVLIPNVETGFYQTIDAEGDPDISP
 LYTLQEDDRLRNNQTGELYQPNDEMGFYQAVDAKGERMSP LYRVQEDGTLFNNRTGEWLRPNMEVGFYQVI DEQGETVSP $\begin{array}{lll}L \\ L & R L D A D N T L T N N Q T H T Q Y R P N S H T G F Y E S V N W A G E Q L S P \\ Y T M Q D D G T L V N N Q T G E Q L R P N M D V G F Y Q P V D E S G Q T V S P ~\end{array}$ LYTLAADDGLLTNNQSGVKYRPNNDSGYYQSI NADGEKLSP
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 LYTMQADGTLKNNQTGELLKPNMDVGFYQAMDFVGNTVSCP
 LFTLQGDGTLLNNETGETFMPNMDVGFYQAVDFVGQTVSP LYTQDKDGTLIDNQTQIQYRPNPETGFYQAI NADGDTLSP L Y T G E DGVLTNNQTHVKYRPNNDVGFYQSI
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 RYTENPDGSLTDDRDGTRLTPDREHGFF VDGEGERLTP


 RYTY RYHYDEAHQLVNNENGKRYAANFDTGFFQQI DAQGETLEP

 L Y TL G D D G T L T N
VYAAAADGNLKKDATGELIKPNFQTGFYQSP EGESLEP LYVRNADGSLTNQRDGSVLRPNFQVGFYQT EAGENVPP LYRQAADGSLTNQQTGAVLRANFKTGFYET AAGEKVAP AYTQQEDGTLYDQRNQVAYYPNDD TGFYQ NAEGETLSP LYELQEDQTLVSLLDGSVLKPNMETGFYQNDDENGTEISP RYEARDDGSLYDRRDDLLLTADSETGFFVTED GERITP



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VIY P $\square$ F Y T $\square$ F V
$K R M L A A K F L V P G L V F L C V Y Q L F T M A Y T G Y V$ RALPAKYLLPGMVFLLIYQLFVMGYTGYV


$$
K Y \square V P G M V F L L I Y Q V F V M G Y T G Y V
$$

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

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 S S S HLL PF QRSTEVLLNRTNSTGEGMAFTLHQDGN SSFNLLTFERAQNVLLSSRIIDEETRPFALVAEGD
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S R NLLSFERSTRYLLEEKMPTGVEYAFTLHALGQ



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$N Y G S G H M$ NYGDGHNLTKEQAVAAVLAQRVEGSAAYPLTVLMRGS NYGDGHNSTKQDAVEFLLERRVEGSDAYQVSVVEQDG NYGDGHNSTQA DAVVAILNETRLDPDSSYPIVTVILDSGD $N Y G T G H N G S K E Q A V S S L M A E R V E D S P T Y P V T V V D Q G G$ NYGQGHNSTKEDAVSALLEQRVPGAANTTAAVVEDGA

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 E QLGFAILDDGAVLVDSPFQPAPEATVADGAIVTAVPGYE E LGGLVIADPTSGELKLTKPLQSDVKGTVTAMGITEVPGYK ELAFAVVQDGQAQLTAEEPLAPAEGATVEGDRVTGVAGWQ ELGFAVFDG TEVKVGSAEQPLKKVGATEVDGWK QYQLLLTQ DGHHFVSPQLALMDNKARNLA
ALFFLVTTPDGTAEDGSAPLEAASDAEFTGGRAAALPGYT
 GLGLLVI SDPATGTL KEGTVDTPLREVSEVEGYK GLGFAVVDESGDVRVGSAEQPLEAAPGATVSVATDVPGWT
 GN AFGUVDDGQSKVGADTALENDAPNDGARITDDDGYT $\begin{array}{ll}E L G L & V \\ Q & D P D G D A D V G T E P D A E A S G A E F D G D V A V S A D G W N \\ C\end{array}$ GELVFLLTDDDGQAYAGDSEGLEELPGADVDKVTEAFGYT GFYL LFTDPSGKAQLGSSEDPLTEVPEAGKDSANSLPGYE
 Y Y L WL ESPETGEKYDARP
GLVMLI EREGQ
QLIGDENDALAPVDPASLGE
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$G$ S LVFLLTDP Q $\operatorname{SFAVVDPADGQVLVGQPGRPADDAAVEGGEVVADGGHD}$ RVGLLVTQPDRSVRWAGHPLEPVEQPVYDAGRAVAAPGWL ELVFLLTGPEGRAYAGTEETELDGATVEPSGKVAEAFGYT

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## STGAVVKV

 GNSETPGLHEVTAVVGGYT GD LALAAVEDDEVLI DQPLAAEESAQTDGDRVTAADGYE GLGLALATVRDGQVLVGEPLAPLEGATAADGRVAEAPGYE G S S ALLA AQQQG VS SPLKFIGTERSGLQVLADIPGYT

 GDLVFLDTAADGTVYAGDADGLTPDLDPDDLTVVDAEAGYT

 | $T V S M L V T D P A T N Q V R I G T N E G L T E V P A G D V Q R V T G V S G Y Q$ |
| :--- |
| $E F F F L T T D A D S S E L V V G G A E Q$ | PFELWLLDPETGDVFAEQPDEQVDASDVTVARVTEVPQGE EYGFAIVDDGE IKAGATDPLEVVGDASGSGAPTDVPGWN DFHLLATDPDGGVSVTDAPLEDADADT DATGRAVELEGYR GDLVFLLT DADGKFYAGDETGLKPLAESDVEATSSAEGYT EIGGA N N N DGVEVLLGSAEAPLEAAPGAVVQRVI EVPDHE

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$L L S P A E V N A R S D L Q E F V P T G D G A G R S S G L S A F E G S A V$ VADFADVVDNQMQITQMRLPAADGAAWRTDGEHAYLGSAS VLDFPDVIARQDSISELRVPMDGDSFLRTNDGRAFVYEQG VLSPADVQARQKDVLELRVNLSDDP TVGWGRTYVAKSA ILTPAQVNERSGELQEFAVPTDDGSGIRSSGLTAFEGTAV VVPRNQIIGDQATQQADDLRVPDGSGRTRDGSSGATYLST YLAFADLLGRQQEVTSLTVPFTDGTLRTSDGRTAYQYTSS



,VL S P T Q V$\checkmark V A Y Q R V N A$VVGRRLLGDPQLALQELELRRVPDRGSRARTVLKVAGVVSASEDLEQLRVPVSDGSLRTEDDGRTAYAWEPTSLGMQDLLQRQQETAALQVPLSDGFLRTTNASQAFAVFESTALSSSEVLAVQEDVAQLRVPVPSGASLRNDGYWAYEYMPGTLNFQEIVANQQQI DGTTVPVSDGTLRTADGSNAYQFKPALVDRQGVLERQDEVTALRVPVSDDAEDRTTDARTYVYESVVLLDSKQVNERSKELNEFAVPVDDGGIKALGLSQAFVGEAQLLDSKQVNERSKELNEFAVPVDDGGLKALGLSQAFVGEAQVLTTAQINERSDEIADFAVPTGDGTGIRSSGLMAYEGQATAEGYREVNERDDEVEADAVPTDDGGGI NVQGFTAFEGTSSSLNLASLSGNPDLKAQWDALSPEGTYLRADSDTRAREARSTLALGDLLANQKADAALAVPLNDGYLRTTDGSTAYAFTSTVLDMREVNAVYNELQQLAVPVDDTSADRPDSVNQFVGTTVVVPRGTFLGDPALQEVELRVPDGSIRTRDGSTGAVYLSTVVPRAELTALQEQVVELRVPVSDGSARTRREGSTGAVYSSS
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110
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