## QUERY

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UniRef90_E6U7L0

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$\qquad$LK GSRKMLTI GNK SILKI GDREFRSRRLIVGTGKFPDHRTMQQAMAASSGAEMVVT
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UniRef90_E6U7LLO
$F A V R R M N D F$ LDE QLDLS KYTVLPNTAGASTAE EAVRDARLA VAVRRVNILLNYI DTSKIMILPNTAGCYTAEEAI LTAKLA

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


 $V$ A V R R Q P ML V D Y V S P K K Y T Y L P N T A G C F T A D D A V R T L R R A A



 V S L R R Q S P F WQQQL K S L N KT L L P NTAGCHS V K EA V T L A QMS













 $F A V R R M N L F L E A L D L D R Y K L L P N T A G A Y T A E E A V R T A K L A$

 $V$ A M R L I

 MA L K R I D M L A P L DK N G M NL L P N T S G A R N A K E A I F A A Q LA
 V A $V$ A DD K E D D ML K H I DH P N $\square$ QL L P N T S GDVR DA E E A V FA A QMA
 L G L R R Q N A I WH Y I Q E S G C R L L P N T A G C K S V K E A V T L A E M S
 $V$ A V R R V





 $V A V G R Q K T I L D Y$ I D R S K Y TLL L P N TA GA Y N T E DA CR DARMG $V A V R R Q P M L M D Y V K Q D E F T Y L P N T A G C F T G E D A V R T L R L A$ V A I $V$ A L R R V $\operatorname{D}$ V 1 V AVRRVQTLMEAI DWSRIWMLPNTAGCTNAEEAI RVARLG $V$ G L R R Q D A F Y G F I R E T G A R L L P N T A G C T T A R E A V T L A A A A A
 $V$ S LRRRE QAFWNLI RETGVRRVLPNTAGCHSVREAVTTTAQMA
 M A I R R V D L D N P N E N P K N M T I L P N T S G A T N A E E A V R I A R I V A L K R V D L L L E H L K M P G L N L L P N T S G V R T A A E A V F A A Q L A
 V
$\begin{array}{ll}\mathrm{V} & \mathrm{V} \\ \mathrm{L} \\ \mathrm{V} & \mathrm{A} \\ \mathrm{L} & \mathrm{V} \\ \mathrm{V} & \\ \mathrm{V} & \mathrm{A} \\ \mathrm{V} & \mathrm{V} \\ \mathrm{V} & \mathrm{V}\end{array}$



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UniRef90_E6U7L0

170
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 TTRIIVVEAKVPVLVDAGVGTASDAAIAMELGCDGVLMNT



 | $N$ | $K$ | $I$ | $L$ | $E$ | $T$ | $V$ | $N$ | $I$ | $P$ | $V$ | $I$ | $V$ | $D$ | $A$ | $G$ | $V$ | $G$ | $T$ | $A$ | $S$ | $D$ | $V$ |
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| $N$ | $L$ | $I$ | $E$ | $Q$ | $S$ | $S$ | $V$ | $P$ | $V$ | $F$ | $V$ | $D$ | $A$ | $G$ | $I$ | $G$ | $T$ | $P$ | $S$ | $D$ | $A$ | $T$ |
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 TI RLI KEQSSVVVLVDAGLGAASDAAVAMELGCDGVLDMNT




 QLLSYI

 S 1 R ME MVNVVPVIVDAGVGTASDAAVAMEMGVEAVLMNT
 NLMLILEDAKVPIIVVAGVGTASDAAI AMELGCQGILMNT
 NIL Till V E NAKVVIIVDDAGVGTASDAAAI AMELGGCDGVLMNS


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 AI AQAKDPIKMAVAMKHAVIAGRLAYLAGRIPKKMYASAS A A LIAKNPPVMARAMNMAALAGRLAYLAGRMPTKDYASPS GIA GAKDP AMAEAMNDAVRAGRLAYRAGRDPKKDYATAS A A A AKNPVLMAAAMKDAVKAGRKSFLAGRMERKKYADPS ALAEAKDPIKMAVAMKYATDAGRLAYLAGRMPKRTYAVPS AVVRAENPVKMARAMRLADEAGRLAYEAGRDPRRDYASAS AI AEANDPVQMAVAMKLAVRAGRTAYDAGRMPKRAFASAS A A A GAKDPI MMAEA LKKHACIA GRDAYRAGRDPKK DYASAS GI AGAKDPVKMADAMKLACEAGRFAYLAGRDPKKDYANAS AI AGAKDPI AMARAMKLAVEAGRDSYLAGRMPKKMYADPS A A A HAGNPVLMASAMRKAI EAGRESFLAGRMPRKAYASAS AI AVAHDPVTMATAFKLAVEAGQLAKISGLGSKSNHASAS AI AHARQPVLMASAMKKAVEAGREAFLAGRMPRRQSADPS AI A GAKDPI GMATAMRHAI DAGRLSYLAGRDPKKDYASAS AI A A ARDPVRMAHAMKLAVEAGRAAYLAGRMPKRFYAVPS AIA A A GNPVLMARAFRDAVAAGRQATLAGAMPERQTASPS AMAVAKDPVAMAKAFAQAVEAGRSAYLAGLGAELRHAEAS AVA QAGDPVNMASAFASAVDAGRQAYLANPMPEKNTAAPS AVSGAKDPVKMAEAMKLAI RAGRDGFEAGRDPKKRTASAS AI ATAGDPAKMAKAFRLAVDAAVEARDAGLPGTKERAEAS A A A NAKKP LMAKAFKDAVDSGRNSYLAGRMRKNYLANPS A I A VAKQPILMAQAFKMAVEAAQLARQSGLAAPKQRAEAS AI A GAQDPLAMAHAMRMAVEAGRLAANAGRDPRKDYATAS A A A A AEDPVMMASAMRHAIIAGRQAYRAGRMAPRRYASAS AI AKARNPVLMASAMRKGVEAGREAFLAGRMARKRYASAS GI A GAQRPVLMAEAMREAVSGGRKAFLAGRMPRRSYANAS AI A GAKDPVLMAHAMKDAI QAGRAAFKAGRワPRKRFASAS AI A GAADPILMATAMRKAVEAGREAWDAGRIPRKRHASAS AI ANAQNPVMMAQAMKHAVWAGRQAFLAGRMPMRKMATAS AI AVAGDPVSMAQAFRLAVEAGHMAAQAGQSTRFNHAVAS A 1 AVSRDPVAMGRAFALACEAGRSAYLAGLGARGLQASAS AVAEAKNPI LMAEAMKDAVIAGRKSFIAGRDKKKVTANPS AI AEAKDPIRMARAMKHAVIAGREAYLAGRMKKKMYADPS A A AQAANPPLMAQADNYSVKAGRQAFLAGRDKKQDFAVAS A A AVAGQPVQMAQAFRDAVEAGRLDAYEAHLAVPTDHAEAS $P V A K A K N P V Q M A E A M K W A I R A G R Q A Y D A G R I P K R R Y A T A S$ AVAYSEDPI KMSRAMKLAVEAGRGGYEAKRMPAKDTATAS A A AKAQDPVLMANAFKLAVESGRAAFNAGLMLRRQTASPS AI AAANDPVLMASAMKKAI QAGREAYLAGRMAPRRFASAS AI ARAKNPPLMAEAFRWGVDAGRQAFLAGRMPPQREASAS AI A VAADPVAMAGAFRMAVEAGRTAFEAQLAPERAGASAT AI AVSADPERMAVAFKMAVEAGRMAFKARLAPDRSHAAAS AVAKAQQPPLMAKAFANAI RAGRDAWHAGLMQKRQTASAS A MAVANDPVLMSEAFAKAVQAGRQAYLAGLAGQVNHAVAS A 1 ASAGDPVEMAKAFKMATEAGRMAYLAGLGAKASNAQAT AIIAVAGDPVAMAQAFRMAVTAGRMAYESGLGAVNQQASAS AMAVAGDTKAMGKAFGMAVEAGRMAHDAKLAPVSNAAHAS A $\backslash A V A G N P V E M A L A F K A A T E A G R R A Y E A G L G L Q A D D A E A S$ GI A GADDPVLMAEAMKNAVIAGRQAYDAGRMQKKDYATAS AVAKAHNPPLMAEAFADAI DAGRKAFKAGLMQKRQTASPS AI AVAGNPDQMGKAFKDAVQAGRMAFESKLANKVSNADAS AI A $ا$ AS DPCRMARAFKMAVEAGRMAYESGTDEVSKFAVAT A $A_{\text {AKAKKPFDMALAFKNAVDSGRQSYLDAGRDDKYDYGNAS }}$ A A A $\square$ ASDPVRMGLAFKHAVEAGRAAYEMGLPEVCNTASAT AVAKAHRPVLMAEAMRKAVEAGRAAFDAGRIPRKDYATAS AI A L A KEPPMMANAMNKAVQAGREAFMAGKLEERSVANPS AVAKAKKPEKMAKAMKLAI QAGRLSYLAGSMSSNKYAQAS AI AAAADPVKMAEAFKYAVQAACLAVSACPAPVSNYANPS AVA LDANPI RMAEAMKDAI QAGRKGFLAGRDPRKRYACAS AI A QAKDPI LMAQAMRDAVRAGRASYLAGRIPKKPYATAS AI A KASKPI LMAEAMKDAVEAGRLSYLS GIMEKSFLAKNS AI ASSRNPVMMARAFRLAAEAGSLACESGLGERSLRAQAT AVACAKDPVLMASAMKEAVSAGRKAFFAGRDAVKEYAAAS AI AEAKDPIRMARAMKYAVMAGRDAY $\square$ A GRMQRKLYADPS A A A A A HPVAMARAMRHAVTAGRDAHQAGRDPRRLYAQAS A A AVAQDPVRMARAFRMAVQAGREAYECGPAAASTQAHSS AI ALAGDPPSMAEAMGKAVDAGRMAYSSGRDPRRGQASAS AVALAHDPVTMARAFK LGIIESGRLDAWEAG\|MAKQEMAVAT AVTRARDPERMALAMRQAVEGGRQALLAGRDPRRWHAEAS AVA LA G DPVSMARAFRDSVEAGRLAFEADPLQPRDMAEPS AI A HA QDPI LMAEAMKHAVVAGRMAYLA GRMPRKDYASAS AI S S A QDPVVMANAFRLAVEGGRDAFLGKTGPVSTFANAS AI AEAKNPVLMAQAMKSAVEAGRMAYLAGRMGKRMYADPS AI ATANNPVQMAEAFADAVQSGRKAYLAGMAPTREKADAS AI ANANNPI LMASAMKYAVDAGRKSFIAGRMMKKAYASAS ALSTAEDPI LMGEAFRLAVDAGRKAFLAKVGEEKTLARSS AISRAEDPVRMARA $\square R S G V E A G R L A R T A G R I P R R T H A D P S$ AI AHARDPLAMSTAMRDACEAGRTAYLAGRIPKRDYATAS AVADADNPVLMAKAFGQALQAGEQGYVAGIMDQRQTAHPS AVAKSQQPDVMANAFAQSITAGRSAYRAGLMEQRQTASPS AI AKAQNPVQMARAMRLATQAGREAFLAGRMPKKFYASPS AI AGANDPVVMAQAFANATEAGRQSYLAGPMVEKSTAVPS



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 VA AKRVEAGNTEDDHEKLSLLPNTSGVRDAKEAVFAAQMA





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 I A L R REVDA I L S Y I P K D T I
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 VALRRVDMESQTANPEHMQLLPNTSGARTAEEAVRGARDA $V$ SMKRQMLF WKT DQLLPCHLLPNTAGCRDAQTAITTAEMA LAVRRVDFDHEEEDPEGVILLPNTSGARNAEEAVRDARDA

 $V$ SLRREQAFWELI R GLLGLDILPNTAGCHSAREAVTTAQMA


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 AL R TL R E R L D $N$ I R I CLLE YPD YPVIV DA GVG Q S S DVS GAMEVGVD GVLL NT






 | $N$ | $A$ | $M$ | $V$ | $E$ | $Q$ | $A$ | $G$ | $V$ | $P$ | $V$ | $V$ | $L$ | $D$ | $A$ | $G$ | $G$ | $G$ | $A$ | $S$ | $E$ | $A$ | $A$ | $Q$ | $A$ | $M$ | $E$ | $L$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $G$ | $C$ | $D$ | $A$ | $V$ | $L$ | $L$ | $A$ | $T$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |






 AMRVLRDRPDTPLIVDAGLGLPSHAA QVLEWGYD GVLLNT


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A $|V| L A R D P|V| A M A E A F A E A|V| R S G R R A Y L A G A M D P Q E T A Q P S$ AI AKAERPVEMASAFRLAIQAGRAGFEAGLMEARDLASPS AV A K A G D P V L M A E A F S K A V Q A G R M G Y K A GM AVAGAGCPI TMAKAFEASTVAGRDSY LAKAMPQKEVASPS AI AVSPNPVEMGRAFKLAVEAGRMAFEAKLAKQYRHAQAS
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 AVAKATDAVGMARAFKLAIVAGRLAFEAGLMVKRQTASPS ALATAGDPALMAEAFKLAVESGRKGYLAKLGVEKSYAEAS AVALLAQDPVVMARAFANAVLAGRAAFLSGAMQSQDNAQPS GI A GAT DPLRMAVAMKLACQAGRFSHLAGRDPKKLYATAS AV TRAA QPLLMA RSMRLAAEA GRAAY LA GRIPRRWWAEAS AI A QAKTPEKMALAMKLAVEAGRLGYLAGRMEKNRM AVARATDPVQMGRAFGLAVAAGRLAYLAGAMLAQDMAEPS AI A VA GNPVVNMAVAFKEGVDAGRRAFEAGGGAVGNHAEAS AI A GARDPI RMARAMRLGVEAGREAY LAGRIIKRKYY A DPS AI S S A T DPVKMAEAMRYGI A A GRDLSYEAGRIPDRYTA QAS A I AVS K N PVVQMARAFKMAVES GRMAYEAK LAGTGK』AQAS
 AI NRCQDPMAMATAMKYAVEGGRDARQAGRIPKRQHAVAS AI AVVSAKPVAMAKAFAQAVVAGRCAYEAGQAEVGMQAQAS AI ATADNPVLMAEAFS LAVVKAGRMAYVAKIGEEKEYASAS AI AVAEDPVSMATAFRLAVEAGRMAFEAKLGSVRSEAEAS AVARARNPVAMARAVRHAAEAGRAAHLAGRDPKRPBAKAS A I A TA G DPAGMGEAFA LAVQQAGRKAF LAGTGAVTE YA EAS AVAQARDPVRMAAAFGHAVSAGRLGYEAGVMAPQAMAVAS AI NRAEDPVAMAQAMAHAVTAGRLAAGAGRDPKREHAVAS AI A A A Q DPVLMA GAMKKAVEAGREAFRAGRMPRK LYGAPS A I ATAKDPEAMGRAFDLAVVRAGRAAY LAAQLAEESTLARAS AVA QAA YP $\square E M A R A F A R A V E A G R D A Y L A G P M P E R E I A A A S$ AVAKA Q N A PQMAYAMQLGVLAGRAAFQAGK IDAGKLAQPS AVAKARDPRRMASAMRAAVEAGRHACLAGRIPKRTHAEAS AVTRAHNPEQMATAMRRAVEAGYLARHAGR\|PRRRLAQAS AI A HAGNPVLMAQAMKHAVQAGRLAHLAGRMPRRMGADPS A I ATAYQPVDMAKAFR LAVVEAGRTAYLAGLGARRQEAEAS AVA GA GDPVGMAEAFARAIVAGHQAYLSGPLEPRDMAVPS AI A HAREPVRMAHAMRMAVDAGRHAALAGRIPKRLYGTAS AI ATSSDDPVVMMKAFS LAVVKAGRYACTARLGAKSEVVSAS AVA Q A H DPVVRMAEAFKLAI QAGRLAYEAGUMEAQDMAVPS AVAKA GDPVIMAGAFARAVEAGRAAFDADPDEARDMATPS AVATARNLPQMARAFKNAVDAGRDAYLAGFGRVKKTASPS AI A RAGDPVAMARAMR $\square A V E A G Y \square A R R A G R \square$
A A A A G D PVVRMARAMKHAVMAGRDAY LAGRMPKRFAASPS AI AKAHDPVAMAQACRLATEAGLLGAQAGPMLAQDHANPS AI ATASDPVMMARAFGRAVTAGREAYLSGPGARQREADAS AVAD $\triangle$ A $\square$ HPVTMAEAFAHAV $\triangle A G R N A F E A G \square M A E R M T A Q S C$ AI A S S KDPAQMAKAFSMAVEGGRDAYNSKFGTVSRDANAS AI AKAGDPVMMADAFARAVEAGRLAYLAGPMEPRDMAEPS
 AVAKAADPVGMARAF GKAVEAGREAYSSGMLEPRDMADPS AVAKAGDPVAMARGFALAVEAGRLAFEADPMAPRDMAAPS AVARAGDPAAMAEGFAKAVEAGRLGYEADPMEPRDMAAPS AVAKA GNPVSMASAFAKAVGAGYQAHHADVLDPRDLADPS AI A TA GNDTAMAEAFKNAIVAGRLAAYLA GMGRVENSASAS A I A T A E D 1 P L M A A E A F R M G I EA G R K A Y L A G L G RVVN HKA VA S AI ATAKDPVAMAAAFASAVETGRNAFEAGLGATSS DAQAS
 A I AVA EDPCADARAFRMAVEAGRIA YRDGRLLQRQTAAVPT AVAQAGDPVRMARAFADGVAAGRAAYESTPMPERAAAQAS AI A QARHPVQMAKAMALAVEAGRLSWRAGRMPKKPYASAS AV T R C P D PVVKMGRAMAAAVTAGKLAHDAGRIPKREAALAS AV S R S G D P V NM A R A F A L A V E S G RLLA F E A G P V E A N Q S P S AI A A A QQPV LMASAMKQAVQAGRAAY LAGRMPKKLYASPS AI ATAGDVKTMARAFALAI QAGRLAYLSGLGGVSDSARAS PVAKAQDPVGMALAMRLAIEGGRLAHLSGRMPKKRYASAS AI A S ARDPV A MA RAF GLLAVAA GRAAY LA GT GATQQYASAS AVAEAGDPVAMARAFTV SVQAGRLAHCALPMRTREVVQAS $A V A T A K D P V A M A R A F G L D V E A G R T A Y D A G P G A T Q Q V A R A S$ AI ATAKD IPPLMASAFKDAI NAGRKAYLAGLGRVEDGAVSS $P \vee A R A A D P V A M A E A M A L A I R A G R L A R L S G R I P A L P Y$ A S A S AVTRA QRPDLMAAAMRAAVTAGRQARQAGRIPRRRYAEAS AMASAGNDPLMSEAFKLAIEAGRKAYLAKPGRVNDKAEAS AVAKAADPVMMAEAFS KAVVS GRLLGYLAGALPPRDMASPS A L A $\emptyset A A D P G R \square A R A F A L A V V A G R Q A F R F G R T T E S D R A K A S$ AV TRAA DP I A MATAMKHAVIAGHLAANAGRDPRRDYALAS AVAKAGDPVYMARAFRLAVEAGELAR DADPMEERDMAVPS A I A VA D D P V M M A T A F RL A V EA GVLAR QAVP GNRSTYA SAT AVAKAGDPVAMARAFSQAIAAGQGARDAGLMEKRDMAVAS AI ATSNDPFKMAQAFDLAVKAGRLAYE\|GLPQEKEYADAS $P V A K A L D P V A M A R A M A L A A Y A G A L S R A A G R D P K R D Y A T A S$ AVARALDPVAMARAFGQAVAAGQGAYKAGLMPPRDMGVAS AVARA D D P VAMAQAFKAAVEGGR】AWQAGLMVERSAAAPS AVALSEDPVAMAGAFADAVNAGHAAHRAGAMAEQSAAQPS AVVRAA DPVRMARAMRLAVEAGYQAARAGRDPRRERAVAS AVTRAENPERMAQAMAHAVTAGRLAAGAGRIPKRFWAQAS AVAGAGDPAAMAEAFALAIDAGRIAHSAVPLEPRDMAVPS AVAKAA DPVRMAAAFAAAIQA GRLLGYEAGLIDARDMAVPS

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 WQVGG IT L R S RLI L G S GKFRDFGVVMREAI KAA GA EVVT


 FYGT T LTHP LML GTA QYPSPAI LAEAFRAS GAGVAT



 WE V D K $\$ D S F N S R

P LTTA G TT FRSRLWWGTGKYRSFEETRKVILESGADVVT
$P L R 1$ GGGEFTSRLIMGTGGSTSMVTLERALVASGTQLTT
$P \square R \square G G \square R \square T S R L D M G T G G S T S M D T \square E R A L V A S G T Q L T T$









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GHFVEA Q I L E A VD Y DDESEALAA GHFVEAQVLQSVDYIDESEVLT | $I$ | $G$ | $H$ | $F$ | $A$ | $E$ | $A$ | $Q$ | $I$ | $L$ | $Q$ | $E$ | $V$ | $D$ | $F$ | $I$ | $D$ | $E$ | $S$ | $E$ | $V$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $I$ | $L$ | $T$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $I$ | $G$ | $H$ | $F$ | $V$ | $E$ | $A$ | $Q$ | $V$ | $V$ | $Q$ | $S$ | $V$ | $D$ | $Y$ | $I$ | $D$ | $E$ | $S$ | $E$ | $V$ |
| $I$ | $G$ | $T$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | $G$ | $H$ | $F$ | $V$ | $E$ | $A$ | $Q$ | $L$ | $Q$ | $E$ | $V$ | $D$ | $Y$ | $I$ | $D$ | $E$ | $S$ | $E$ | $V$ | $L$ |



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PADP FYH DDKRKFTV PFVCGCRNDGEAVR





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$\mathrm{E} \square \mathrm{R} T$

GMGN $\square$ S NAP $\square$ T S A MSEAGG $\square G T \square G$
$\square W K \square G T E F \square G S S F \square M G G A M V S D H N L V S A \square S N A G G F G V L A$ $P E T M A Q V A Q S V V I G G$

GCGTMT

RSPETMAQ $\square$ ARA AEQGG

Y M S P K A $\square$ REA $\square$ R R $\square$ RPGATK
DEPLHSPF $\square \mathrm{MG}$
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DEP $\square$ HSPF $\square$ MGRMAYAAF
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PADEV
50

VREQ $\square$ R A A R $\square T$
FHLNKRDYTV PFVCGARDLGEAAR
$\square I G T G G \square R T A E E E \square R T A R \square A$
$R \square R E E \square R K C Q L T$

QELVR $\square R Q L T$
PAD YANH DDKWAFGV PFVCGATNLGEALR

ME
VREE $\square$ RKCK $\quad$ T

CGDEVEQ I L Q T K Q $\square$ T K R NFA $\square \mathrm{N} \square \mathrm{A} \square \mathrm{NDS} \mathrm{P} \mathrm{Y} \mathrm{T}$

VP V I G L WK D G H D G VF $\square$ T P T L

CSMDPDTLKKE ILTKKQTNHPFVNLDTMHPDLTNLDDVC A A A $\square R C$ Q GL A D $\|$ SA $\square K G Q V K V P V I G \| W K E G D N G V Y I T P T L$
$\square R E Q \square R A A R \square T$
$\square A E D R Q L I E A T R \quad R \square T S R P F A L N \square A \square R D S P H A$

F V R Q Q I RKAK L T
 $\square R A Q G V E D \square K E V K K V T G \square P V I G L I K R N Y D \quad D S E \square Y \square T A T K$

 AVGDRAQGLADLALICQHVDVPVIGLWKEGHEGVFITPTL

$$
K E \square L R \square A R \boxed{L V}
$$

 Vdmle R $\square$ DALENUPA $\square E L N D S C P N V M A F G T T C A G A A S V V R A V R ~ A$

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UniRef90-G1WS21
UniRef90-UPI00047C4A02
UniRef90 K1T4M1 UniRef90-W7C7B5 UniRef90-H1PV09 UniRef90-D4LVR7 UniRef90_UPI00047BEAB9 UniRef90_D1PMQ9 UniRef90 H2ZLH7 UniRef90-UPIOOO2196933 UniRef90-COGHK6 UniRef90-Q04DM9 UniRef90-W3AMK1 UniRef90-TOEOL7 UniRef90-R6I5Y9 UniRef90_R5UJY3 UniRef90-D4W2R6 UniRef90-H9UBV8 UniRef90_UPI0003683263 UniRef90_D9S340 UniRef90-D5EF57 UniRef90-B7TVR6 UniRef90-W4TPA3 UniRef90-D7CNC7 UniRef90-R7RRX8 UniRef90 UPI000225A976 UniRef90-E3HCV9 UniRef90-W2BZR7 UniRef90-UPIO004798F15 UniRef90_R9N3P8 UniRef90-A1HLZ9 UniRef90_UPI0003B5CC8 UniRef90 B8FRS5 UniRef90-R6PE06 UniRef90-K0B0P1 UniRef90-K7SPC3 UniRef90_S2XNP3 UniRef90-F7YY81 UniRef90_F6DT01 UniRef90 S2WUD8 UniRef90-A0A059FP20 UniRef90_UPI0002E25C14 UniRef90-15ATN2 UniRef90- S9SI75 UniRef90-D3NQS4 UniRef90-D5WW41 UniRef90 Q5FCT1 UniRef90-B7GNV1 UniRef90-G1WL28 UniRef90-UPI000376AD83 UniRef90 R7DAK5 UniRef90_Q2RJX7 UniRef90-B1YIK2 UniRef90-W6SJB4 UniRef90-K9CYJ9 UniRef90-K0YP88 UniRef90-F4A2R4 UniRef90 X5E3U0 UniRef90_UPI00047C4150 UniRef90_Q49W60 UniRef90_R6MAJ1 UniRef90-E4L104 UniRef90-E1QW83 UniRef90-R7PR55 UniRef90 UPI00035F6A80 UniRef90-E3DQV6 UniRef90_-Q02X79 UniRef90 H3NCJ3 UniRef90-UPI000413378D UniRef90_I9MEQ7 UniRef90-J3AFN5 UniRef90 B6G9R2 UniRef90-U7GW81 UniRef90_UPI0004637C99 UniRef90-G9PMW2 UniRef90 UPI0003B67552 UniRef90-U1Y9W5 UniRef90-UPI0003656A4F UniRef90 A0A024TEX3 UniRef90-K2JA44 UniRef90-H3SL68 UniRef90-A1WC66 UniRef90 R5GQK6 UniRef90-D3IF27 UniRef90_A5D1E8
 R】GEGASMMLMSPYAADKVIVEEGVGVKYMEMWKEAGVK R-GEGASMIRTKEPG TGNDVAVRHMRMIQAQIRK

 LI I E E KVQVITTGAGNPA $R \square$ SEGAAM $\square$ RTKGEAG TGNVVEAVRHARADSRQQRQ KYMENWKKAGIT YMKDLKAAGIK K Y V D R F K E K D
D S $\square$ ALITTGGGNPSE K Y MADFKAAGIK PEKEGVNLMLMNPATDDFVKVC DEE
$\qquad$ EII DLVIEEKVEVITTGAGNPA
 D K P GGVNLMLMNPHCDQ LSEVIIDEGGV ELVDLVIEEKVPVVTFGAGNPS

VIIE ERVPVVTTGAGNPG DKPFGLNIMLMSPTADDALELAEKHRVP

TGDVSEAV DEENVKTVIQEKVPVVTTGAGNPG DRPFGVNIMLDSPHADETTGAGNPG DKPFGVNVMLMNPHSDD DMTVLIEEKV
EVAA QVEVCDEEGVPVVTTGAGNPAP EMAELVADEKVSLVTTGAGNPG DKPFGVNIMLMSPHAKDIA AMVNDGEKV

 EVAKIIVEEGVPVVTTGAGNPE

NELIGGVIKHGDPDVSLSAGNP ELVETVI EEKVPVVTEGAGNPS

VP F I Q T L HEHGVK K Y I P KLK K N GIK K FIPALKENGTK RHARACMMAGADIVALDATRRPRPDGLTYAQTVLHEEGAV $R D P N \square 1 D F \| I D Q G V K F V T T S A G D P M$

MAE $\quad V A R E G V Q V V T T G A G N P G$
GTPKY IGMWKEKGVR
CPTQEQRRIKDGGAK
K ELK SRGDR

NYIKNAKIK RHARACIMAGADIVALDATDRPRPDGLTQTARQLKSEGAI E LA RVAVE E GV SVVVTGAGNPG K KYMDAWKEAGIK DKPF GVNLMLMNPHIDELAQVV DEEHVKYMDRWKSAGI K
 ELAKIVVEEGVKVVTTGAGNPG KYMDMWKEAGUV

QVVLE ERVPVVTTGAGNPGEYVPA DLKE GGSK RHARACSMAGAD IVALDATRRPRPDGRTYAQTVLHDEGUL DKPFGVNDMLMSPYADDKVICEENVPVVKY DSDLKS $\operatorname{VGCK}$ VVLE ERVHVFSFTFG $V$ PEATQ KEVEELLESGEKGVPAVSFTFGDPEQTV IVEKLKERHIK DDLVKVILEEDVRVITVGAGTYRRFADDFKRKN: K

$\square A L E K K V P V V T T G A G N P G$
$Q L L Q V I C D E K T G A G S P K$

KY $T$ KKFKE K GTK K Y i D T I VANHIK A A E L QVAGI K
QVVIDEKVAVITTGAGNPAEY 1 PA
EALKE $\mathrm{K}_{\mathrm{K}} \mathrm{G}$ SK
EAIKASGAK RHARACVNAGAD $\square V A \square D A T D R P R P D G S \square E D T V A P L K E E G V$






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| UniRef90－K1T4M1 | R F LA S E E C |
| UniRef90－W7C7B5 | RFLATEECPVH ENFKQAVKA G |
| UniRef90＿H1PV09 | KFLVAEE CTILHENYKQAI I |
| UniRef90＿C9XNQ7 |  |
| UniRef90＿D4LVR7 |  |
| UniRef90＿UPI00047BEAB9 | RF\CAVVECTAHENYKKAVLQAGRDSVVTGRP |
| UniRef90＿D1PMQ9 | $C \mathrm{~L}$ LVS EECPVVPNYKADT\VTGR】GGTPVRVLKNRM |
| UniRef90－H2ZLH7 | GFSKATAP |
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| UniRef90＿C0GHK6 | RFI CA HECEKVLKAKRDAVVTGQ |
| UniRef90＿Q04DM9 | RFLVAEECHIHPR YKESVVTGKFAGHPARVLKNKMAV |
| UniRef90－W3AMK1 | A LL A S P E CPI HENYK S D A V V T GR】GGGTPVRVLK NQM |
| UniRef90＿T0E0L7 | $R \mathrm{~F}$ C CSSECDV HENYKRDAIVTGRTTGHPVRTLKNKLA |
| UniRef90－R6I5Y9 | RFI LT DECPTHPKAKEAII K A |
| UniRef90＿R5UJY3 | RFVVAKESTVHENYK QRVVKA |
| UniRef90－D4W2R6 | RFLTA K E C PVVH ENYKLA |
| UniRef90－H9UBV8 | R F $\mathrm{R}^{\text {a }}$ S TEADTHENFKKLI I |
| UniRef90＿UPI0003683263 |  |
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| UniRef90＿D5EF57 | $R M V C C S E C S V H \quad Q N Y K E A I D K A R D$ |
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| UniRef90＿D7CNC7 | RFVCAEECPAHPRYKEKVLK A |
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| UniRef90＿E3GM27 | CLLLAEECPIHHENYKKAVIK A |
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| UniRef90＿A1HLZ9 | RFLLLTEECMLHPKAKQRII EA |
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| UniRef90＿B8FRS5 | R F M CAEECCTISSKVKRDTVVT G R |
| UniRef90＿R6PE06 | HFVVTKESQVHENYKKCILKA |
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| UniRef90＿S2WUD8 | $A \square T H$ P T SIITKWFATAVQEG |
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| UniRef90－B7GNV1 | AITH P P M I T S WF A D AV |
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| UniRef90＿UPI000376AD83 | RFVVS NECTAHEEYKK A I K K |
| UniRef90＿R7DAK5 | CLL A S E E C P DHE N Y K Q AV $\square$ |
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| UniRef90－W6SJB4 | RFLAAEEC |
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| UniRef90＿UPI00047C4150 | A F LTCSESELDHKLALQATE |
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| UniRef90＿19MEQ7 | $R \mathrm{~F} V \mathrm{~V}$ S LECIA H S NYK N A L L K A |
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| UniRef90－B6G9R2 | A $\square$ T H |
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| UniRef90＿UPI0003B67552 | R F VCA T E C $\square$ A H P K A F R D AVA S VQLDPRLP V I P VR A L K N A |
| UniRef90＿U1Y9W5 | RFLTAAESGAHP A Y R K A L La |
| UniRef90＿UPI0003656A4F | A ILLYSEDPEKA ARQFKEKI |
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                                    jnet```

