## QUERY

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TMHTVEI NGQRILYTWCALDDTLI F P P L L L


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 TPHAFVINDRPLYTWCALDALMFPTVIGERAQVQSRCPQT


 TP P H A F E





 T R H R V R L E S E E V WS M C A I D A L G I P A MLGGQ D A V I S S A D P VT
 TR H R V R I D S V DVVYA M C A I D A L GIDA P M L E R D T L I E S V D V T T


 T R H G V C I A G P P V F A M C A lid A L G I S A ML G R D T V I E T V D V V S TE E R V E L N G H A F H A L C A I D A L G V A D M Y GA D T T I S S P C H H C T R H R V R I G G A E V V W S M C A I D A L G I P A M L D D A E V T I S S S T D P V T TAHAFEVDGQRLYTWCALDALMFPGMIGKTARVFSRCPAT


























## QUERY

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## N

 NSPVAVTVE NSPIELQINGGQLLWTTP REQVTLHVTPESITS EPNNVHALYVDLSQSDTWSTCCCC
 DVVVSFTVDPRGVTDLSPSTAVISSPGTMDSAAVRATVCD
$G K P V H I Q Q G M N V E A P D E I V V G H W Q N C A A A H S M C D$

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 GEPVTLTVAGEATVWRPASAVVFVGQRPGGGPAATACCD

 $D S T V M L T A A T R G C G T A A E A A C R$
$D T V V V G F E P V E E G S N C A N C C P$


| QUERY | $R \mathrm{H} L \mathrm{~L}$ Q TMS |
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| UniRef90-P30342 | EALLTGDT |
| UniRef90-Q8G9P0 | HKLL |
| UniRef90-U2TEH2 | R T M |
| UniRef90-D3LL14 | EKML |
| UniRef90_W3RQF5 | GP S L A G L |
| UniRef90-C7NGB6 | TSLLDLL |
| UniRef90-F2G325 | R HLLQ |
| UniRef90_G2UAR6 | CKLL |
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| UniRef90_E9UVL5 |  |
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| UniRef90-D6K2J1 | GPLLA |
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| UniRef90-B5EAP1 | QQRL |
| UniRef90-UPI0003615CE8 | R D L APGT |
| UniRef90_UPI000372916D | Q PLLA T |
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| UniRef90-D2PZV4 | GHLLSA |
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| UniRef90-W7WHQ5 | DSLTT G |
| UniRef90-UPI000467AF0A | G P V L T |
| UniRef90-E6PXT6 |  |
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| UniRef90-I2FFZ5 | GP V LR |
| UniRef90-UPI0004673DC5 | G P V M R A |
| UniRef90-W4A4B2 | RPLAAD ${ }^{\text {a }}$ |
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| UniRef90-L7L2V1 | G HLL HS |
| UniRef90_UPI00037741FF | GHLLEA |
| UniRef90-UPIO00348B048 |  |
| UniRef90-A1SIR9 | Q PLLGR |
| UniRef90-V6JF33 | GPLLA A |
| UniRef90-UPIO00366047D | GDLLNT |
| UniRef90-A3XLG0 |  |
| UniRef90-UPI0004642FE9 | G P V L A |
| UniRef90-UPI00034CA465 | G PLL |
| UniRef90-13Z809 |  |
| UniRef90-UPI000470743D |  |
| UniRef90-F8L2V6 | T P |
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| UniRef90-IOPX53 | GRLLD |
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| UniRef90-D6U649 |  |
| UniRef90-T0J3Y1 | A P M |
| UniRef90-F1ZDZ0 | E A M |
| UniRef90-UPI000463E7F4 | A P M |
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TPHR|V|HILDGASAWSMCAIIDALLGIAAMDDQD\|A\|IESTDPHN TPHRVTLAGMPAYSMCAIDALGIPSMF TDAVIESECAFC TDFTVRSTGVEMHAVCAIDALGVAAMIQRETEVSCLSPTC TPHALEVNGHSDYAMCAVDALAVSPLFDCPVRIRSHCRVT TRHSVHLTGHPAAAMCAIDALGIPLMTGTEGVIDSTDPTT TPHQVRIDGPTVSANCAADALGA AMLDRDVDVESLDPDT
 TVHHLKVNGRAVNADCALDALVVAPMYDAEVAGESRCOVT TPHTFEVDGRRLYTWCAFDTLFFPALIGRTAQVVSRCAVT HYRVTVDGEQWYAECAVEACADSSQFGSEVVVDSVCRQT SHHLVTLDGRAVYCMCAIDALGCAFTFDQDIVVTSSCSNS TVHQLNFDNKTLYAWCAMDSILLPRYDMHRWE TPHHVRWNGREGWTHCALDALMLPFFNGEPAEVETVCPGS TPHHVRWNGREGYAMCAIDAI GVHYTDHEPDTI KSEDALT SEHQVEAAG $\square$ T TMGAMCALDALGIC
 TRHEARVNGETLHTYCFLDALMLPFALGEPVEVRSRAPEG TRHEARVNGEAVHTHCFMDALMLPAVLGEEVAVRSESPAG tahrfetaekstifawcybdat ilip $M C A 1 D A L G A$ TRHRVSWGGPAAYAMCAIDALGMSAMLGDTHAD
 TDFRVR\RGVT $\square$ HADCAVDA $\square G T A A M A G T A A E V T C V C P \square C$ HYRISVDGQQWFAECAVEACADSGQFGSEVVVESVCRQT TAHEVTIGGARKWTWCAMDTLIFT VLNTPITVCSTAPES
 TNHRVTLDGREFTAMCAI DAMGAAFTFHQDTEVHSVCAMC TSHKVTLDGREFFAMCAIDADGTSCTFHQNVTIDSMCCVT TNHRVTLDGREWGGCAWDSFGISAALHLDVR DTACPQC TNHHVTLDGREFCAMCAIDAUGSAFTFHQDTEVHSKCSSC TQHRVRDDGRSFCAMCAVDALGAAFTFKQDIRVESSCDEC VDAGGKRHYVHCFMDALMAPTVLGESVSVRSDSPSG TNHKVT DDGRSFSAMCADDALGTSCTFNQDVRINSMCSVT TNHQTLDGRSFCAMCAVDGMGCAFTFKQNVKVHSKCSEC TEHQLSIEGKRLWAWCAFDVIGDFGALEASGFATSADPAT TNHRTTLDGRSFCAMCADDSIGTSYTFKQPVT DNSMCAAT TKHELSVDGRRFWAWCAFDVIGDFGALQASGFAISVDPST TMHRVKLDNREFNAMCADDAMGWRCTFNQD DDKSRCYVT TMHKVTLDGRKLNAMCADDALGVGLTFNQNIAIDSVCNTT HRLRLPGVDLWTWCAFDALGLPAADGVDALADTQCPVC TPHKFTIDRCQ
TPHRVTLAGMPAYSMCATDALGDPSMF TSHHIT DGREYYSMCADALGSYTTWAVI ESECAFC TPHLAHLSGVSAYTWCLLDTLGSAGLFACDAEI DSURCSTS TPHRLNLDGRALFTWCALDAVGIAAGLVSNAMI QASCFHC TRHEVHVDGHVHYSPCVVDALTAAELEGHPVTVRSVDPVT TETHVHFAGKSVHAMCADDALAT PRMVRQAABITARCVVC TEHLVDWSTGKVYAWCIWDAFFIVKTIGRSATITSVDPIN TGDHVHFSGHRVAAMCAIDALAIPRLVRHTSRVTARCAVC TPHRAERGGETTYFQCFYDAVALAHLVDGAVDIRTESP T TAHWGELDGERYYFRCFYDAVLLSALAERPVAIIRTESPG



 TSHR DEQDSKE YYVYCALDVLLYAALTCNDIVVETT GS FSVMGERWWGGCAWDAFA!PHLVKAEVLVSTRCRGC WWGGCAWDSFAI PHEVDAEVLVATRCPGC TPDRVSNGKHQ【FAMCADDADAI PFLWNAPIEEESACHDC | $F S V M G S R W W G G C A W D S F A I P H L V G E E V L V A T R C P G C$ |
| :---: |
| $G E L G G E R Y D F Q C V Y D A V I L A A V A D E P V R V T E S P D$ | TAHWGELGGERYDFQCVYDAVILAA WWGGCAWDSFAIPHLVASPALVATTCPGC FSVMGARWWGGCAWDSFAL PHLLKNDVLVATRCPAC

## UniRef90 D3PUY3 UniRef90-C2QLB3 UniRef90-D4YL18

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Y $\square$ QFFKDEEA $\square E A Y Y$ YKH $\square$ GDASYHS $\square S$ SQQARE $\square A Q K \square F$
MDRAFCDRAHAEQWTTDNVPGTGY
$\square A E A W R \square A G P W Y$
M $\square$ RTFCSREHAEQWTAAHDPGAG Y $\square A S A T T V W E \square A G P W Y$ Y NAFPSRQDYERWARETPEAVT A LS EEAFALARGLA HLHLFPSPEHDEAWLESRPDERGVA LP IREAVA WLRALY $\square \square R M F C D Q D H A G R W T T Q H A P G S G$ QVVAATTVWRGAQPWY RVRFFQSESAAEAWARAN GVTGSLIVSAREAWS
KVNFFSSKSSAEAWTKAN R $\square$ TGSLISVENGMAAARQ
M $\square$ RTFCTHEHAASWDTEHGG GGY पAPATSVWQLAQPWY EANDFCGRDHDERWRGE ANDPAGRAYS AG GAAQGQQVW A $\square R S T S S P Q P A R D W Q S R Y P G M$ TVLPVAEAYSLLRPLA

YANLFPT $\square$ EHYHHWAPRQP RPTVP $\square$ SVSHAHS $\square$ AADFA
Y $\square$ NAFESRDTYDQWRA DTTGKTVLVQPQTVR
MQNLFCTEGCVERWCKQEGRAKG YVMDVDTLWHFARDWY NDNFVCRHCTTS RTKAFTSLSSAKRFAKEYQ CEVVNLAQMLE PGIRFVCRQCAE DPGATGLSLPEAAAVGNGFF FVRAFPSREEYEKWAEDVDAETVA GLPLAAGVPVAAALY HQRLFCSADCVSTW SEHTGRTPGYVMDLPTLWRLARGWY

 GITFVCAGCA $\quad$ VAGETAVVAHADYLRLAEADAVARQFF QLI FCSEGCVEDWLARTGNDRG YVMSLETLWRLAAHWY DGITFVCAHCA PAEHADYLRLDEADTVARQFF NINF
DGITFVCAGCAPA GHPD YLGLAEADTVARQFF YSRFFTNLEEFESWRNTLPEETRHLVIPVKEAL NQRLFCDESCVDEWLTETGQDKG YVMDLATGWRDAAGWY NQRLFCCESCVDAWLAETGQPKGSVDDLVTLWRLARGWY GDYFLCTACA RNDTMAIYPLQEAQYISQMFF NQRLFCDEGCVAGWDA RTGQRRGYFLDLTTDWRLAEHWY YVRAFPDREAYDRWASRVSAATVA MPLAGATDLAEAL AVHPDAMREAAQATGVGGAGQAGVVYVSIEQALDAT EMVA






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UniRef90_A7FYK2
UniRef90 UPI00037DFF22 UniRef90-Q2PYE3
UniRef90_V4H1U8
UniRef90-L8D6G7
UniRef90 Q0CCV5
UniRef90_UPI0003B6B6DC
UniRef90_G9MJL1
UniRef90 G2Z0E0
UniRef90 ${ }^{-}$C7ZIH1
UniRef90-F5WU82
UniRef90-TOJUF2
UniRef90 F2SH54
UniRef90-D9UVG5
UniRef90_Q8XQV1
UniRef90-J8QI09


TMLLF GNEAEIDAWAGRHALLPRGDAQ PVQRVYDFARVWY
TMMMFESKSDDEQWCARHGLVQG DVQPDSHDWEFSKVWY VMLMFESEQQI D LWCEQHGFAKG DVQPIEKI WSFAQVWY HQSI F CS PDCVA A WLA D
NMLV RNEAE K NTA VQLLFRDETEVDEWCSTR GIPKGDVRPVEQIWGFATEWY
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 RQRLFCHEKCVDLWCQSVGRTKGGVVEVDTLWHLAKGW

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lupas 21
lupas_14
lupas_28
jnet
conf
sol25
sol
solo
jhmm
jpssm
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GRHILD
GNHLN
GKHLD
GR
G R
G N HL N
GR
D Y A $\square$ D
EN
H
E GCLDE
A R
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[^0]:    lupas_21
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    jnet
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