## QUERY

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STKTNSELLEQLKQASDGLLFMSESEYPFEVFLWEGSAPP

 $M D N$ Q V T E N L L K Q T S H D L L MM S E S E Y P F E VVVCWK D Q A E

T N T N S S ET T QIVD QLKAAANGLLMMSESEYPFEVFLWSGAAR
$\square 1 D^{D}$ Q L K K S S S E G L L W W I S
D S E E L I

T K D K L A A Q L
ASPEEVVEKMTAAAANGLLMMSETDAPFTPFAWDAAATP SASPEELLASSLGEAAQHLLFPSESDHPREPFRSRGDAS

T D F A T QV T P L L T DLL YP SESDEPI EVVTY LIKMA EP
K E L K I AVVQDL L WMS E S E Y PLLQV V Y L H N WD D $M T$ QS IT E E L A NLTTQ DLL WM S EA D Y P W W V V S Y DC S N

 A T D E Q E N L L
 STPELN QFAAEKAA P L L P D L L L Y P S

NTRF DES V S T L L P DLLYYPSE
T T Q DLIP ELLEAACEGLLWRSETDYPFEVAI D ATDPALATLRDMTTGLVYMSEGDAPLEPVSFAAPAGS T S E K K K L LF T E K A N L L L L P D L L L Y P S E S D E P L $S P E E L L A A S L A E A A Q G L L A P S E S D H E L R P F R S R G D A S S$ S $\square K M$ S K S S V
 N S E K T F

## \section*{$$
A
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} S K P

S E S $\qquad$ G K
A A

T TEE ETAK AGLGKASA GLLLYPS ET DAP F E PFA WPTMAADA T T DS GA QVPAVVLK SAVVKDAFYT S DA DEPFEPVVCLGKWNK GL



T K $\qquad$


TMDDDVDVPSVLVRATKDAWYTSDADE KSSNAKLLAKLTELARDLEFPSCSSHPDHVVALKKEEGGM AT QE GVEVVPCLVVACQGLCYVSETDEPFELVGLALEAGE A T D D G A E I $\quad$ P K S AKDQDAEVVKAIVDVCKKAVYTSDADEPFEEVSWQGKNGL


NAEDPASDQSM DAFY TSETDEPFEPVVLEFEG DVPAVLVRATKDAWY』SDADEPFVVV ALKNEKGL S S LT L A E F T K R L I A A T K D L L Y P S E S D F P D EVV L S K G L S


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UniRef90_K9X8C8
UniRet90-K9ZCA8
UniRef90-K9PMF2
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UniRef90-K9RE55
UniRef90-EOULD9
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UniRef90-Q7N184
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UniRef90-UPI00037C21F8

## UniRef90-A9B47C

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UniRef90 A0A017S UniRef90-W9CEX5 UniRef90-K9SSD2

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ENAVVAKFOKLTETMKNTKN
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 EKASVNKFQALVQTLKENLSNLQVYRLGHKEVDVYIVGQT QKQDVQKFQTMLKTLKHNLTDI QVYRLGTDNIDVYII GKT QKSDVKKFKTLVESLKDNLKSIGVYRIGTRNIDVYMIGET

 EKETVQKFRNLVQVIKANLQNPQVYRLSETEDDVYILGQT EKQMVAKFKALVQTIKLNLANPQVYRLGRTEIDVYIIGET QKQDVQKFQTLVKTLKENLTDKVNRLGSTNIDVYI GKT EKQEAAKYQALVETML




 EAAEVKRYQFLVNLLTNNLHNRQVYRLGAVEVDVYGLGKT

 EKARTEHFRRQL RQLLDEQHLTDDRQAFRVVGTDEDVDLLLI GKQ ETKVARQFQRLVETLLKRNLQELRDFRVGGAEADVVIVGKA

A QANRFKAL QMFMK QDLQD TKVVYRIGTPQVKVYALGKT
 EKDRAAKF Q QL K Y V V E Q AL TVRQVFRVGETEMDVYLL GRQ GMQQAKRFQHLEKKLHELLQGVKVYRVGETQKLVLILGRT



 A L A E A G RY R R L V V L L L E R H L T GE Q Q A Q R F R Q L Q E K L Q E L L Q D V $K$ K V Y K V G E D R I
 $M Q E E A A R F Q A L E R L F V E R L A H V Q V I R L G E V Q V E A F L L G S T$
 EKERAAAFQRVKDLIVANLIDNLEFFKVGSVEFELYLI GQD ANRFRELVNFLEQHLQDINVYKVGETEDQAFVLGKD
 EPDQAARYQEAAALLRDHLEAARVYRVGKVEVDVLVLGKH




QAQQAHRGQLLV EPN
EPN
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 $D T Q G Q Y S D L L D A V R Q A G N D V R V Y R I D G T R V E Y W V V G K G$
 D S Q GQYGDLI DAI REAGNDVRVYRVKATRVEYWVVTAT DRSGQYKALLDAVREEGNDVRVYKVDSTRVEYWLVTTTT
 D Q S Y $V$ V $E$ R $M$ S $A$ D Q S Y V E R M S A L F K L L S Q N L M S I R V Y R I G V I Q N D I Y I L G I D

 T K A GQYANLI DAVREATNDVRVYRVARTRAEYFVI SRD D SH GK Y T D V I E A V R E H G N D V R R V Y Q V ERALLANRWQALYSFIKNNASVTWHYPVKTHELIVLIL
 RAAVA Q T F G G GEPGI DESDVEVKVYRVGKSRVEYYILGLD


 YRDIVVKAVREACKDVRVYRVEGSRVEYWVVGV | $\square G G$ | $Q$ |
| ---: | :--- |
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| Q | NDAGTSTKVVET |
| :---: | :---: |
| UniRef90＿K9R1 | PSGDLAGIS ${ }^{\text {S }}$ KV |
| UniRef90－K9X4 | EADDLAGISTKV |
| UniRef90－UPI00030EB078 | PTGNLAGIISTQV |
| UniRet90－K9QL | ASGDLAG |
| Unif | EDLAG |
| UniRef90－UPIOOO3063539 | QSGNLAG |
| UniRef90－K9X8C8 | ASNDLAG |
| UniRef90－KgZC | S SGDSAGLLA |
| UniRef90－UP1000348 | PSSDLAGLSTKVVET |
| UniRef90－UPIOOO4 | PSGALAGLSTKV |
| UniRef90－UP100038195 | SSGDLA |
| UniRef90－B2J211 | QDGDLAGV |
| UniRef90 UPIOOO348D03F | S NDHLAGLSTKV |
| UniRef90 B4VM | A |
| Ref90－K9XVS |  |
| 俍俍90＿K9RE55 |  |
| niRef90＿EOU |  |
| UniRef90－UPI | RDDNLAG |
| UniRef90－Q71 | QEGTLSGL |
| UniRe90－UP10004784 | PQGQTITGLKTQAVET |
| 析 |  |
| UniRef90－AgB470 | SAGNLVGGKTRVET |
| UniRef90－S4KPJ2 | A GPRVGLKTKVVET |
| UniRef90 UPIOOO4775480 | V A Q A TAGLL |
| UniRef90－K9 | EDKTVGL |
| UniRef90＿UPIO0037F0C93 | AEGSRAGLKTKVVET |
| UniRet90－U5C |  |
| UniRef90＿12GH |  |
| UniRet90＿A1ZZA8 |  |
| UP10003B |  |
| UniRef90－K9L | PDGEPIGGLK |
| Unif | D ${ }^{\text {a }}$ |
| UniRef90－JoLA2 | PNGETAGLK |
| UniRef90－D2QE | ADGERAGIIKTKıI Q ${ }^{\text {d }}$ |
| UniRef90－E7DQB4 | SSGDLAGIISTKVVET |
| UniRef90＿U9VV1 | E |
| UniRef90 W8 |  |
| Un | ADEGRAGLKTKIVQT |
| UniRef90－F8ENC | NEKEWGG |
| UniR |  |
| UniRet90＿UPI000368F70D |  |
| UniRet90＿D4TQ | K |
| UniRef90＿K9TQY9 | R |
| UniRef90＿UP10004200FD4 |  |
| UniRef90－UP1000361CEC9 | EGGRL |
| R |  |
| REZ3 |  |
| UniRet90－UP1000478948E |  |
| niRef90＿UP |  |
| UP100016C41 |  |
| UniRef90 A0A017TDG | ADGAWLGLRTR |
|  | DDGTVAGV |
| UniRet90＿UPI00042085F4 | QAGNWQG |
| UP10003 |  |
|  |  |
| UniRet90－UP10003451F4D |  |
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| Uni | G WI |
| UniRef90－UPI0004693E2E | PDGTCIVIETFATET |
| UniRet90 WoF | PDQTVAGVK |
| Pr |  |
| UniRee90 UPlooo2E |  |
| iRef90＿C7YP | A DGR |
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| UniRef90 W3WU15 | KDAKLVG |
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| UniRef90 M4FLO3 | G |
| UniRef90 S3CLL6 | K |
| UniRef90 K9P S40 | S |
| UniRef90 ${ }^{\text {K }}$ KPS 40 | P |
| UniRef90－UP10003 |  |
| UniRef9－UP1000349 | NNNNF |
|  |  |
| UniRef90－UPI000348FE2A | E W |
| UniRee90－G0RXW0 | KGKRLVGVKALSVES |
| UniRef90－G0R7B6 | EGGRIVGVKALGVES |
| UniRef90＿K9U8U0 |  |
| UniRef90 A0A016Q665 | DGKLIGAKALSVES |
|  |  |
| Un | R |
| UniRef90－A1DH96 | GTIVGL |
| UniRef90＿K9V5Q0 |  |
| iRet90＿K9V5Q0 |  |
| A0A017SKZ |  |
|  | EGERLVGAKALGVES |
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| WRef90 S3DFB4 |  |



UniRef90 W6Y275


QQ $\square P P S L T K A T \quad Y A S E T D M P F E P V V L H A D H \quad F$ DLLIT ASRGDHLVSESDEPFEFI NTVTERDT TAPTGEADSQK GVLAKGLYYGTEGGVRDQPFHAAAK LTQ

ETEQLLATLEVL
TEQIVTTLQELTKDEYFSLVGDAPY IVIPWEVDKGS SKNNNTELVKELRELGRGLWHNTEGGEP DVVFMWDASRGD

NSAPLDA LLSEQVKGQYY S SESDEDFHPIVLEK
TCKLKQYC YSSEADEPFNVVFYNSKEEK
S S NLETQLK K CVEDLGY DS M S S Y T H Q $\square V Y$ S $\square$ A T S K E $T V D E G A K V P G V I R K A D E G V V Y$

SKELHTKLSKAVEGIVYTSESDEDFHP $\square$ F LTT


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| :---: | :---: |
| UniRef90 R8BML7 | G |
|  |  |
| UniRet90-J4h | Q |
| UniRef90_D8G658 | ERAEK |
| UniRef90- G2R149 | G |
|  | SQYKGVIDTVKLIATNGVVFRVEGTRAEYYVVGVD |
|  | GQYGEVVDAYREQGNDVRVYRVGRVKAEYWVVGKG |
| 51 | GQYLDLIDAVTEEGRDVKVYRV |
|  | VYRV |
| Uni | GQYSKLIEAVREATNDVRVYRVDETRCEYWL |
|  | , |
| UniRet90_K2SA4 | Y WV |
| iRef90-AOAO |  |
|  |  |
| , | NGQYGEIVDAVREEGNDVRVYRVARVRAEYWVVGKG |
| UniRef90-S2J | GAAFNE |
| UniRet90-E4ZP | S QYTTVMDAVKKAGNEVALFRRAGTTRAEYY |
| UniRef90-A2QCL2 | GVVRAVRAAVDEEGAAVKVYRVARSRVEYF |
|  | SSGGD ESAVDVKVFRVGPSRI |
| UniRef90-UP100037E | SNSNQRLLL |
| $\begin{aligned} & \text { UniR } \\ & \text { Uni } \end{aligned}$ |  |
| UniRe |  |
| niRef90-Q0C | ASGG EEAGVEVKVYRVGSSRVEYY |
| Reef90-W9V | KKA GVKIYRVEKTRV |
| UniRef90 F9G3T9 | GKYTDVIEAVREQGNDVRVYQVDATRT |
|  | GDYKDIIEAVRKAGNDVRVYVVGGVRTEYWLVGKG |
| ROJ156 | V |
|  | RVGTS R |
| - | AR NRGEVKCFRVDSTK |
|  | Qasgagdka detavovkVYrvgrsm |
|  | LDAVRAAAAEKDSGVDQSAVELKVYRVEQTSIEYWVLALD |
| 88A | SNVEVYRV |
| UniRef90- T5 | GAVREASKGN DVRVYRVG |
| UniRef90-G3JSB4 |  |
|  |  |
| - 15 C |  |
|  | GQYSNVIDAVKASGDNIGVYRV |
| UniRef90-UPIOOO3496D69 | - |
| UniRef90_C1GNJ5 | RTAVAGG NPRDAEAAEVKVYQVDETRAEYWVLALE |
| J3KG08 | VFVERTR |
|  | RVETRCE |
|  | SVLEAVKa CaEVRVYRVD |
|  | A N L |
| - 1 C |  |
| UniRef90-1CBQ2 | YQNVVKALEKKLGELTQQ |
| UniRef90-00 | EQAE ELVQFMKTHLRELHAALLGRSEHPLYIVGDD |
| D8 | KYQSLWQLLKSNLRDI QAIVNI STHHQFCVVI GQT |
| F4x | HYQNLIALLQAN |
| inei90-UPIOOO2FB8540 | YPYQYADFEEFIATHLKDTRVYVLGNDALYL |
| UniRef90-UP10002FB8540 | MPYQYADFEEFIATHLKDTRVYVLGNDALYLY |
| UniRef90-S | KYGSTMKAVQSCCSSVQIFSYEETDVKYY |
| UniRef90 M | W |
|  | YNQVN |
| L8FXE0 | YKPIVDATRDAASDVRVYRVGATRIVEYVVGVE |
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G D GR|LV|G|V|K A|L|A|V|ES KDGRLVGAKALSVES A EGTLVGGRAKAIES A GERIVGAKALAVES EDGDWI CLTPTM K GAKLVGVKALAVES K E GR V V G GLK A L A Al E E S K EAKLLVGAKALAVES HD GNWVGISPQI

 A EGKKVVGLMAKAVES

 K GGKiVGLLKAVAVES E EAKLVGAKALAVES SKKAVVGLK SLLVQS K G GK TEGGVVGLRAKAIEET A EKSLVGGRTKAVET E EKDVLGVSTMATWT ARGALVGVKALSIES SERRLVGMKARAVES K QAKLVGGVKA L S S E S


EGGRLVGVKADADES K GAKLVGVKALSVES KAGKLVGLKALGI E S GEGGLVGLRAKA E S K E GVLEGVVKVLAVES REGRLVGVRAVSVES EGGKLVGGLKANAVES PENRLVGLRAKAVE GEGRVVGLRAKSFES GEKMLVGGVYVKAVE

 GERNLI GVVTRAVES EESKLVGLKVESVES MNDCWI GIS
RGGRTVGLKAKAVES KSENLVGMKARAVES ES MLVGVVVKAVES NTS LVGLKARAVES VD GRLLGLKARAVET SSGRLVGAKA LA AVES EGRLLGLKARAI ET
 SAGANLVGLK SGVVWT


VT G DWLGALTLDAVWT $V T$ GDWL GALTLAVWT DNGGWCGLTTMAVYT NGEGLI GVVTVGI KEGDKLGI YIK S NDGDYVGLYI KS EGERLVGAKALSVES


[^1]
[^0]:    lupas_21
    lupas_14
    lupas_28
    jnet
    cont
    sol22
    sol5
    SOl0
    jhmm
    jpssm

[^1]:    lupas_21
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    lupas_28
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    sol5
    solo
    jhmm
    jpssm

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        B B
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