

## QUERY UniRef90_D8PED6 UniRef90 C5B6Y7

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 EVI EGPLMDGMNVVGDLEGSGKMFLPQVVKSARVMKKAVA NVI QGP LMMDGMNVVGGKMEGEGKMFLPQQVVKSARRVMKKAVVA HI I E GPLMDGMGKVGELFGSGKMFLPQVIKSARVMKKAVA HVI EGPLMDGMNVVGDLFGEGKMFLPQVVKSARVMKKAVA EII EGPLMAGMNVVGDLFGAGKMFLPQVVKSARVMKKAVA SII EGPLMDGMNVVGDLFGAGKMFLPQVVKSARVMKKAVA QVI EGPLMDGMGVVGDLFGAGKMFLPQVVKSARVMKKAVA
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 AVI EGPLMDGMNQVGELFGDGKMFLPQVVKSARVMKKAVA $H V I E G P L M A G M N T V G D L F G Q G K M F L P Q V V K S A R V M K Q A V A$ DV I E GP LMD GMNVVGDLFGAGKMFLPQVIKSARVMKKAVA

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| Y L I | PYMMEEEK |
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| H L | PFMEKE K |

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YLLPFMEAE

WL NPFIEAEK
Y L MPFMEEEK Y L L PF $\square$ E A DK
Y L L PFMEEEK
Y L L PY Y l E E E K

HLI PFMEAER
VLIPYMEAEK




YLEPYMDEEK
Y L M P F M E K E K
YL NPYDEEGK
Y L L P FI E E S K


| $Y$ | $L$ | $L$ | $P$ | $F$ | $M$ |
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| $Y$ | $L$ | $P$ | $P$ | $F$ | $M$ |

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YLIPFI EAEK
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HL LP FI E A EK
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 EI I NTFLLD GMKVVGDLFGS GQMQLPGVLQSAETMKFAVS E $1 . V$ N D D L L A G M K V V G D L F G G S G Q M Q L EIVVNETLLAGMKVVGDLFGSGQMQLPFVLQSAEAMKTAVAA SI I E GPL ME GMSVVGKL FGLGRMFLPQVVKSARVMKKGVR SVINEVLLEGMKVVGDLFGAGKMQLPFVLQAAECMKAAVR
 QI I N E HLL A GMK T V GELLF GS G QM QL P F V L Q S A E V M K A A V A
 K 1.1 N EI I NN GLLA GMSVVGERFKNNEDFVPEVLVSARAMQAGMD AVI E Q P L ME GMNRVGT LFGD GKMFLPQVVKSARAMMAAVA
 HI I E GPLMNGMKVVGDLFGAGKMFLPQ DII DN ILLGGGMKVVGELFGAGQTQLPFVLQSAETMKAAVA
 DIVVNDTLLEGMKVVGELFGSGQMQLPFVLQSAEVMKNAVA $N \mathrm{I}$ I TH GL QAGMGTVGEKFSSGEYFLPDMLMAARAMNACLE
 $E L V N N E L D P G \square M A V G E K Y E K K E Y F L P Q L L L S A E A M Q A G F E$

 R I L D D GL I A GMDDVVGQRFKA HEIVYLP EVVLLAAARAMYA GMD DI I NGYMI TAMGEVGQRFQDGKAFVPQLLMAGRAMKGALE DIINE ILIPAMMGVGERFGKGEMQLPFVLQSAEVMKRSVS



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 DI I N QLLVPSMREVGELFGAGEMLLPRVLKSAEDMRASVD
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 DILNNGLI EGMS IVGGVKFKNNEIVVPEVLDAARAMQAGMD AVVNEELIAAADTQVGEKYERREYFLPQLI ASAEAMQHGFR TA A M D GL A K GMD K V N E LF EN E E Y F V P E L L L C A D A M Y A G DE
 QI I F NGLSVGMKMVGDLYERNERFVTDMIKSAKTMEKALA
 S I I N D GLI A G MGVVVGQRFKNNE F YV PEVVLIAARAMAAAMD KAI DD GLAK GMVIVSDNYEKGTAFVPHLLIASSAMYAGMD
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 E I T DQ GLTAAMTELGEAFGAGRCFLPQVLLAAETMRAAF EAIVD GLARGMKII SDMYERGEAFVPSLLLAADAMYAGMD
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 $E$ I I N Q G L M A GMNVVVGVRF K A G D M F V P E V V M M S A R A M S T G I E

 $E \quad L V Q D V \operatorname{Mi} P A$
 D A I N D GL A L G M N I V G E K F E K A E $\square$ Y VIN E GLTR G $\square K I V G D N F G A G K F F L P D L L L G A K A M D A G \square K$ KVLTEALVEGMRIVGEDFRDGILFVPEVLLSANAMKGGMF EIVVNK GLTP GMKVVGDKFES GEAFLPQLMMAAKAMQGAMA
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| UniRet90_UPIOOO30A98C0 | E |
| UniRef90_A8FBU3 | YLEQYMEK |
| UniRef90 UPIOOO3F86403 | R |
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| UniRef90-R7HQ14 | WLQPFIIEREQ |
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| UniRef90-xow | YLEPLMERRE |
| Reto-CL |  |
| UniRet90-15kU5 |  |
| UniRer90- ${ }^{\text {U }}$ UM9FO003C152 |  |
| UniRee90 Oplooo3C152 |  |
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| iRef90_D4H5Z8 | V |
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| UniRef90-T2GE | KPLLDKAE |
| UniRet90_1311553 | VLK |
| UniRef90-FOJH92 | RL ${ }^{\text {K }}$ |
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| UniRet90_W1W |  |
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| UniRef90_R6ADJ7 UniRef90-G7WH |  |


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| UniRef90－R6VAU5 | $\checkmark \mathrm{L}$ KP ${ }^{\text {ct }}$ |
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 $V V D N E G L T K G \square Q A V G A L F A N G T Y F L P D L L L G A A K A M D A A G U K$ EI L S E A L I K A MDVVVGKKK S EKK IIFV P QMLI SAKAMAAAMA D I V N K A L I V G M S E I G E L F K N N E I Y V P E V L I A A R A M Y A G L N E ILLRKGLLAGMDEVGALFKDGEMFVPEVLVSAKAMKGGME Q A
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 A A I E K GL S Q G M E EVVGR L Y E E E E Y F I P E L L L C C S D A M Y A G I E Q I L N D GLLA G M NVI GE KFK A N KVVFI P EVVMLAARAMNA GLLG RILNEVLVEGMRIVGVDFRDGULFVPEVLLAAGSMKGGME $H \operatorname{L} L N N V L L P A M K E V G D K F G A G E L I L P F V L Q S A E V M K R A V A$ $M V L N D A L V E G M R F V G E D F R D G D L F V P E V L S A A N A M K G G M G$ AL L F E GMAVGMMQCGEMYEQNDIFVDDLMRSAKAMASAMP $\triangle A$


 ELVVR G R L I PADTEVGSSKYRRREYFLPQLLRSAETMATAFA EI LDDGALI PGMDEVGK LFREGEYFVVEVLVAAKAMNQCMD
 E GI F D G L V A GMN R V A D L Q I I N E HL L A GMKTV GE L F G S G Q M QL P F V L Q S A EVVM K A A V A KI ANE SLSSLGMQLI GEKFSTGKAFLPQVLLSAESMAAAFN EAID K GLSK GMERAGELLFDEEEYFI PELLLLCSDAMYAGVD
 EIL L G GLLA GMGVI GEKFKANKVFIPEVMIAARAMNAGLE AI I N E NL LA GMKVV GE LF GS GQMQL P FVVLQSAEVMKTAVA



 EVVLN QVLLP AMM DV G DRFGA GE LILLP FVVLQSAEVMM KA VA
 A I L K D GL L L G M G II GEEKFKK DEVYV PDVLDAARAMNA GTE
 A I TE G G LTTTAMT EI GEAY GS GRCF L P QVVMLAAAETMARVAF Q
 D I Q N I L M K G M D K I GV L F E K G E L

 AI I NGQLIPA DNEVGVLFDKQIYFLPQLI SSAQTMQHAIIE E L L E N L L M S A M Q E I G R L F E Q G E L Y L P Q L I R S A S V M N N C V D
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 EIVRS LQEGMSEVGSRFEAGDVFLSELLIAAGEAMKAAMD
 KIVVDE Y L V PA DT RVGGELYQERDYF L P QLI QSAETMAAAMN EILEK GMVPAMRQMGEHYKNNEADIPRILASARCMRKGLD D I L E K G MI P A M D R L GVMLLSREERFI P QI L L S A R A M Q K A V A
 DI I NNDLVVEALNVVGREFEKGTMFLPQLMMSAETVKNSFD ELI EKGFTAGMQEVGEQFEQGSLFLPHVLAAAEAMNTGME




 $T \bar{M} L N E G F S V G \square R E V G E R F G T G E V F L P Q L I L A A E T M K A A T G$


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VI D PLLAA A
HL KPYFQS
I L K P LLAE
I L R PFLA
VLKPHI
LVKPLI ASA
ILKPLLAET
AI KEYMKKS
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I L R PLLAET
LVK SRLA A RK
VVKPLIQ
VLKPLLTA
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i L R PLLAET
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| $L I$ | $R$ | $P$ | 1 | $A$ | $A$ | $S$ |
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| 1 | $L$ | $M$ | $P$ | $L$ | $E$ | $E$ | VLKPHVK LD K YVEPMLPKAE VLEPMK

1 LKPHL
ILKPKL DES
RLK K LLERE
LI EPLL
VLKPL
VMRPMLESSQ

VLG P H K K V E
YLEPLLKE
ll K ERMAK
LLKPLLAAA
YLEPYMEKD
ALKDLMPE


L L K P L L GE GE


1 L KPLLASS
LL NDA P P P AE
TLK A ELP S

YL E P K I
HLENYLEKKE
HLKPYFQSGE
YL EPMLSKDK
ILT P Y L D K
YL EPMLDKD
HL EPYFKS

| $\mathrm{F} L$ | $\mathrm{E} P \mathrm{P}$ | Q | K |
| :--- | :--- | :--- | :--- |
| V | K | K |  |

VLKA Q V K N
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VLSPVLTMQS
YL LTPLLE E E E N
I I RPLL
Al KAHDDQS
VI K P EMEKRK
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 S L I D D AL M Q GMG DV S K L Y D D GF L F L P DVI I S A HAMCD G I E EVVIDRLLMPAMERVGRLGFGEGRMFLDPQVVKTARVMKRAVAA


 E I L K G G L L E G M D IV $\operatorname{I}$ A K K WA E G T A F I P E V L I S A R C M N G A M E
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 RI FQ H AL LP GMQVI GS QFRDKA IIYI S DVLIAASRAMAA GLLH

 DV I N E I L $N$ N A M I D S M G V V G D K F S A G E I F E A G S LAAE G L N E L G E A F E K M E V F L P E V M L A S D A F K A A L DVLNTVLLPAMKEVGDLFGA GQLILPBVLQSAEAMKKAVA A I L E K GLI LGMD QVA DKYSHRRVVIV PEVLMSARAMHA GLS A I L D E GLI AP M GVI G D RFS A GEAFVVPEMLVAARAMSAGTE QIVVE E DLVMPALDIVGBRYEKGEVFLPQLI QSAETVQKAFE EI I DRCIVPALDDLVGKDFESGRKFLPQLLLSADTVSAAFA DI L Q A M I D S M S V V G D K F S A G E V F V P EMML MAA K A M S K G V D
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-
V

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 EIVNS LVQGMAEAGVRFETGEYFLGELIMCGEDMQDSMV DGIMEGLVDGMNRASELYEAEEYFVTDVLLCSDAMYVGLD QI EEGLSGGLDVVGQKFEAGEYYLAELIMAGDVVTEATG D LQKGLIVGMERIGVKFKANQVFVPQVLMSAKAMGTAMN SLLEDSLIPADEEVGARFERGDFFVPEMLDAGRAMAGSME RII LDSLSKAMEEIGRDYESGDYFIAELIEAASDFKEAMK NVI NDYLIPAALDRVGDRYESGEVFLPQLYQAAETVKIAFD AI I DEILLPTMADI GVKFGEGSIQLPFVLGSAEVMKKSVD DIVDNVLIPALDQVGADFEQNKVFLPQLIQSAGAAQAAFE DII NAHLIPALDYVGKGFEQGTVFLPQLLMSAEAAKAAFS DILTKGLI LGMERIGLKFKENKVFVPQVLMSAKAMGTAMK QVIEGGLLKGMDVVAELYGRGDYYLPHVMVASDAMDKGDK HVINDVLIPALDEVGERFERGTFFLPQLMASAEAAKAGFA EVVNEVLIPALDKIGEEFEKGT LFLPQLTMSASVAQAAFE DGIMDGLVEGMNEASKLYDEEEYFVTDVLLCSDAMYAGLD DGIMEGLVDGMNKASDLYDEEEYFVTDLLLCSDAMYSG1DD T L EGGLI QGGNRAGELYQQQKVFIPELLLDSQAMYAGLE D V VECRT V

## \section*{A} <br> D

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## V

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LK E Q


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| UniRef90-R5HX77 | YV E P M L E R N |
| UniRef90-T0E7X2 | VLK P HLP K H Q |
| UniRef90-M9SKT9 | M C Q |
| UniRef90-X1H8X6 | 1 L A P K M K G |
| UniRef90_U5F7Q6 | L I GPELLK |
| UniRef90_M4YLZ2 | I L T P HL G G A |
| UniRef90_R9M284 | V I K D HL A |
| UniRef90-G7V6S1 | FARERMEPS |
| UniRef90_F5YJL3 | $V L R P A \square A S S$ |
| UniRef90-G9PTR9 | VL R A EL I K A |
| UniRef90_14CCU8 | I I K P Y M T G |
| UniRef90_UPI0003B396DC | EI R E F M E S |
| UniRef90 C6PZT9 |  |
| UniRef90_M2Y9E1 | $\mathrm{M} V \mathrm{~K} P \mathrm{~L} \mathrm{M}$ |
| UniRef90_B1B9Q9 | LI K E NLLK S R |
| UniRef90-R5XLT0 | TIS P Y I K K D |
| UniRef90_D1B7X8 | LAEEE EL |
| UniRef90-X1JQM6 | I I E E EL K |
| UniRef90-S7VEM6 | EMAPHLEKA |
| UniRef90_A5UKJ3 | ECEKVL |
| UniRef90_C0GFQ0 | LE P K L K A |
| UniRef90_U5Q575 | MCESHLTKER |
| UniRef90-J7J0V9 | VLEPYI P T N |
| UniRef90-G7W626 | 1 L K P V I G G E |
| UniRef90-W0ELK2 | 1 L KP I M D |
| UniRef90-N1ZDB4 | AI K L H M K S |
| UniRef90_UPI00036C1483 | LFEP E L L K S |
| UniRef90-T4V728 | I L K P R L Q K H |
| UniRef90_R7FCG0 | V I K |
| UniRef90_R5XAX2 | V I E P Y LK E K E |
| UniRef90-X1Q405 | I I E E EIKRS |
| UniRef90_14CCV3 | L L R P VMıK E |
| UniRef90-M9LKV8 |  |
| UniRef90_R6CB06 | V I K Q K L S Q |
| UniRef90_UPI000425B3B4 | V L K P V |
| UniRef90_V716N7 | TI R A R L T A |
| UniRef90_UPI0004753A9B | L A Q E K L |
| UniRef90_G7WGN6 | L L |
| UniRef90_A71748 | L L K P VFGEHK |
| UniRef90_B8FUW0 | 1 L K PVL |
| UniRef90_C7H8B4 | EI K T A A A Q |
| UniRef90_UPI0002555148 | $T L R P$ LI A |
| UniRef90-A6LTA0 | 1 L K E El |
| UniRef90_UPI0003FE3CB5 | $V L K P A L G G D$ |
| UniRef90-K1XZ28 | HFKEKLAG |
| UniRef90-X1TRI9 | ELQP HLA S A |
| UniRef90-E3CXR8 | LA E E L L A |
| UniRef90 UPI0003593BB0 |  |
| UniRef90_G9XGR4 | V L K P V |
| UniRef90_X1ARW5 | I A E E ELK K T |
| UniRef90-E3GQ59 | $\checkmark$ L K P V L |
| UniRef90-14D7H0 | 1 L K PVL S E |
| UniRef90-UPI0004072E18 | $V L K P A L G S G E$ |
| UniRef90-F7NLQ9 | L L GEAL T A |
| UniRef90-K4LJH3 | AL K P Y |
| UniRef90_B8FPC7 | 1 L K P V \| G E A |
| UniRef90_F4LTI2 | L |
| UniRef90-H5XX54 | L |
| UniRef90_U2EZS9 | A V K GA】IA A A |
| UniRef90_F4LTG3 | F TVVP LI K E |
| UniRef90_UPI0003679139 | $C L T P Y L D Q$ |
| UniRef90_B8FV89 | VI E P |
| UniRef90-10X8T3 | V I K Q T $\quad$ A A A |
| UniRef90-M9SJI6 | 1 A E K QV P G G R |
| UniRef90-W0EFS7 | KLKPALSA |
| UniRef90_G7WDI3 | II K P V L |
| UniRef90-X1AED8 | V I Q A EI K |
| UniRef90_UPI000479CB5F | L L K P V L G S G E |
| UniRef90-M1YVB7 | F L E A WM |
| UniRef90_B8FKB5 | LTA P H |
| UniRef90_I0I7S2 | ILR P LL A E T |
| UniRef90_UPI0003604158 | FLEWFM |
| UniRef90_U5F606 | EI R Q Q L Q Q |
| UniRef90_C9XR10 | L L |
| UniRef90_Q465J0 | L CQER】GE |
| UniRef90_A6TPY9 |  |
| UniRef90_A6TPY5 | T L K P V |
| UniRef90-E2NUH8 | VI K D S M A G |
| UniRef90_H0ULX9 | El R Q A LPA |
| UniRef90_UPI000462E224 | LLE P HL K |
| UniRef90-X1DYQ1 |  |
| UniRef90 ${ }^{\text {K4LR85 }}$ UniRef90 G7WGP1 | $\frac{A}{L} \underbrace{L} K P Y$ |

UniRef90 X1IX66
LV Y
niRef90 K4L9V1



[^0]

| UniRef90 W0EJY5 | \\| VTPFLK 90 |
| :---: | :---: |
| UniRef90 UPI000333BAAF | HL ${ }^{\text {P P F MEKEK }}$ |
| UniRef90-B8FSA9 | L K P |
| UniRef90-J7IUF2 |  |
| UniRef90-W8T860 | ALS E Y |
| UniRef90-H2J4L7 | Y L N N M L K K E E |
| UniRef90-F7NLR1 |  |
| UniRef90 X1D4L1 | ELLGPRLK E A Q |
| UniRef90-T3DCK9 | VLK P HIKK E |
| UniRef90_E3GND7 |  |
| UniRef90_U5RS88 | $\square \mathrm{L}$ K D L M P S |
| UniRef90-X1PRG8 |  |
| UniRef90-H1Z2H0 | VLKPAFGENK |
| UniRef90_W0EHX6 | L L K PVLGS G R |
| UniRef90-V2XXA6 | V I R S RLL A |
| UniRef90-TOK1B0 | Y |
| UniRef90-X1R9F8 |  |
| UniRef90-J1GZE8 |  |
| UniRef90-X114A0 |  |
| UniRef90_J4Ul13 | LIK E R $\square$ A |
| lupas_21 |  |
| lupas_14 |  |
| lupas_28 |  |
| jnet |  |
| conf | 9999871599 |
| sol25 | $B \mathrm{~B}$ B |
| sol5 | B |
| sol0 | B |
| jhmm |  |
| jpssm |  |


[^0]:    lupas_21
    lupas_14
    lupas_28
    jnet
    conf sol25
    sol5
    sol0
    jhmm
    jpssm

