## query <br> UniRef90 H9GHB8 UniRef90 H3A7D5 UniRef90_UPI00032AD547 UniRef90_UPI0003D0F907

 UniRef90_H2MGA7
## UniRef90-H2ZS22

 UniRef90_UPI0001CBB19C UniRef90-G3Q237 UniRef90_B5FXN1 UniRef90-UPIO00203A4A0 UniRef90_K7GIL4 UniRef90-T1DLX8UniRef90 UniRef90_UPI00020634E8 UniRef90-M4AFN2 UniRef90-V9LD52 UniRef90-A0A023F860 UniRef90-F6ZQF8 UniRef90_V9LBV9 UniRef90-F1NLM2 UniRef90-UPI000388CCA0 UniRef90_E9FR77 UniRef90_C3YTP4
UniRef90 F1L613 UniRef90-E9QGP3 UniRef90-Q3B8E1 UniRef90_UP100022C9DA1 UniRef90-UPI00034F7F08 UniRef90-P54364 UniRef90_Q7PUI9 UniRef90_Q2F5N5 UniRef90_A7SNS5 UniRet90-R7U055 UniRef90-G6D1Z6 UniRef90-K1RG69 UniRef90_UPI00046D1EFE UniRef90-UPIO00359EE91 UniRef90-P20348 UniRef90_B4JER5 UniRef90-W5KSN7 UniRef90_U3IF16
UniRef90-I1FBA4
UniRef90_UPI0003C360E5
UniRef90_U6NTP8
UniRef90-D6WCC7
UniRef90-V3ZZD3
UniRef90-S4PGJ4
UniRef90-W8BRY2
UniRef90-B5X6L4
UniRef90-B4KZZ8
UniRef90-F7AD14
UniRef90_C9W1L0
UniRef90-T2M5C9
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UniRef90-T1EEI7
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UniRef90-R7V141
UniRef90- M3X816
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UniRef90-B4MUK7
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UniRef90-D8RVF9
UniRef90_C4WU53
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UniRef90-E4XFS8
UniRef90-Q29JS2
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UniRef90_UPIO00265768A
UniRef90_UPIO003834D7B
UniRef90-B3MUQ9
UniRef90-B4KFB3
UniRef90_D8TR36


D
D

E

D

# RVH SAESKE IVR GYKWAEY 



D

## E

 LS S V P D V LAAVPEVDI

L E SVVPAVE
D LAAGVMAD A L
L G K
LAKI P DVE

L E SVAEVQ

| $L$ | $A$ | $A$ | $V$ | $A$ | $D$ | $D$ | $D$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $L$ | $Q$ | $R$ | $V$ | $V$ | $D$ | $V$ | $E$ |

L

DLA QI PD DV

D



SAANVPVVD
LM K M P DVV

| L | A | S | V | D |
| :--- | :--- | :--- | :--- | :--- |
| E | D | V | D |  |
| V | 1 |  |  |  |

LAGVPDVBI

MAAVQDVEI

DKS GKF

L S

## LT


$D D N G R F K Y$
$D P S G V F K Y V L I$



QUERY
UniRef90_H9GHB8
UniRef90_H3A7D5 UniRef90_H3A7D5
UniRef90_UPI00032AD547 UniRef90-UPI0003D0F907 UniRef90_H2MGA7 UniRef90-H2ZS22 UniRef90-UPI0001CBB19C UniRef90_G3Q237 UniRef90_B5FXN1 UniRef90_UPI000203A4A0
UniRef90-K7GIL4 UniRef90-T1DLX8 UniRef90_W5KN30 UniRef90_UPI00020634E8 UniRef90_M4AFN2 UniRef90_V9LD52 UniRef90_A0A023F860
UniRef90 F6ZQF8 UniRef90_V9LBV9 UniRef90_F1NLM2 UniRef90_UPI000388CCA0 UniRef90_E9FR77 UniRef90-C3YTP4 UniRef90_F1L613 UniRef90_E9QGP3 UniRef90 Q3B8E1 UniRef90_UPI00022C9DA1 UniRef90_UPI00034F7F08 UniRef90 P54364 UniRef90_Q7PUI9 UniRef90_Q2F5N5 UniRef90 A7SNS5 UniRef90_R7U055 UniRef90_U5EVH9 UniRef90 K1RG69 UniRef90_UPI00046D1EFE UniRef90_UPI000359EE91 UniRef90 P20348 UniRef90_B4JER5 UniRef90_W5KSN7 UniRef90 U3IF16 UniRef90 W4Y113 UniRef90_I1FBA4 UniRef90_UPI0003C360E5 UniRef90_U6NTP8 UniRef90 D6WCC7 UniRef90_V3ZZD3 UniRef90_S4PGJ4 UniRef90_W8BRY2 UniRef90_B5X6L4
UniRef90_B4K7Z8 UniRef90_F7AD14 UniRef90_C9W1L0 UniRef90-T2M5C9 UniRef90-T1J788 UniRef90_B7P4U3 UniRef90-A0A044U7S2 UniRef90_A0A044U7S2 UniRef90 K7BWZ6 UniRef90_F2UR78 UniRef90_P90861 UniRef90_U6NX12 UniRef90_C1BVE0 UniRef90_J9HRU7 UniRef90- UPI00039917EF UniRef90_R7VI41 UniRef90-M3X816 UniRef90 UPI00021A6C03 UniRef90_UPI00046BF3A6 UniRef90_A0A023FG92
UniRef90 A9UQP9 UniRef90_UPI00035928D8
UniRef90_B4MUK7
UniRet90 H3EIS8
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UniRef90 UPI0000D9DCCF UniRef90_E4XFS8 UniRef90-IOYK30 UniRef90 Q4V6F5 UniRef90_UPI000265768A UniRef90_UPI0003834D7B UniRef90-B3MUQ9 UniRef90_B4KFB3 UniRef90_D8TR36

Y SMA Y GPA QHA DS TEK DK AKYPDYEVT WA N Y SVGFGRAKHSVVTEKLKAAFPGYEVTWSD YSMGFGRANHQVSTEKLKAKYPDYEVTWSD YSMGF GRAQHSVTTEKIKAQYPDYEVTWAD Y S VGFGRAKHSMSTEKLKAKYPDYEVTWAD YS QGFGRANHAVATEKLKARFPGYEVTWAN LS TG Y GK A DHSMTAE KLK K NVF K D Y DV T WS D Y S $\square$ G Y GKA D H S ITTVDLLKRKYP DYEITTFTN Y SI GF GRANHAVATEKLKAQYPDYEVTWDN Y SVVGFGRA DHADVT T E K L K A E Y P D Y E LS T GYGKA D H SVVTVEVLKRTYK DYQI S WS D LS T GYGKA DHAVTVEILKKVY QDYEI TWS D YSVGFGRAKHAI ATEKLKTRYPDYEVTWAD Y S MGFGRANHAV STEKL QVRYP DYEI TWAN Y S Q GF GKA DHEVV VN LLKKYYPDY S I TWSD
 Y S Q GF GKADHELTASLLK $\square$ A YPEYNVTWSD ESTGYGKADHSVTAEKLKKAYSDYEVTWSD
 Y S V G F GRAK H SVVSTK I LK K K Y P D Y A V T WA D
 YS Q GYGPADHQKSVNULKTKYPDYKITGSN Y SMGF GRAKHSVSTEKIKTHYPDYE Y S LGF GRARHAVTMEKVKDKYPDYKVTWAD YSQGFGKADHEVTVGGLKKKKYPDYTITWSD YSQALGPGSGCRAAPESPAAWPAH HS TGYGKADHAESKRVLLTKYKNYEDETSD Y S Q GY GKA DH DE T R MLL L LT K Y P D H NI T CS D YS QAYGK A D HEEAAKLI KNAYPD Y T I T DS D Y S Q GYGRA DHAKAKA LLLTTAFPHYTITWSN

 Y S Q GF G K A D H E V $V$ S $V$ S $\quad$ L
 Y S Q GF GKA D HMESKKRIL QTKYS DYEI E TT D
ESTGYGKADHAVTVVELKTVVKDYEI T
LS T G Y G K A D H S V T V E I L K K V Y T D Y E I T WS D
Y S M GF G Q A D H S $\ddagger$ A V K I L Q K K F P D Y T YSVDF GQADHKMTIDILKRNFTDYE円TFSN Y S Q GYGKKADHSES RKVLLKKTYS DYTVI E DS D Y SHGF GRADHS DT V D L K R RYPDYN T F S N

Y S Q GYGK A D HEVVAAK I K K DAFP GYTV SVV D
Y S Q GF GKADHAETRR\|LLEKFPNYE\|QISD

Y S VGF GRAEHSDTVDKLKQHYPGYNI TWSN Y S QGYGQAD H SKAVEILKRNFPEYTITWSN
 Y S T G F G K A D H S S D R


Y S M
Y S VA F GRANHQTTVD L LK QRFPEYTDTESN Y S Y G Y GRAD H Q $\square A V D I L K$ Q K Y P D Y NII H F S N YSQGYGKADHSKTVDILKKQYPDYDI TFSD Y S V A Y G K A D H S K A V EL L QVK Y P D Y K I E Q S D YSQSYGQPEHAKAQAILQRAYPDYEVTWSN Y SVGF GKADHKVTCNLLKEQYKDYKI DFSN LS T G Y G K A D H SVVTVEIL K K V Y T D Y E I T WS D K S Q GYGEANHHVTVDDLKKKYS DYNDIDWL
Y S M GYGRA QHSVVSTEKIKAVYP DYEVTWAD

L S T G Y G K A D H A A V S T V S NS QTYGQA DHAKT TEELKK QYPN Y T I T WS N Y S MAY GQGDHA LAADDMLRKAYPSYK』HFSN Y S V V S G
R S QAMGKADHEKTREILSEKYPGYKI
YSQAYGPAKHEDSKELI EKAYPGYSVV $\square$ S
 ASVQY GPADHSITANILKKAFPDFEISCNN YSMAYGPAQHAI STEKIKAKYPDYEVTWAN Y S $\square$ GF GRPDHS IAA QAI QEAFPELQVDWND K S GVVLGKAD HKKS QA I L H K A Y P DVVK I F S S A YD Q A P H D $\square$ T A ALVRRSYP F H TVVVS RS QALGKADHEAAREILQP\|YTDHKI $\square S Q F F$ GMADHSKAVALLEKKYPGHSVSASN Y SVGFGRADHSVT TEKLKAEYPDYEITTWAD RSQTLGKADHENAREVLQPRYADHKI R S Q T L GRADHHEAREVLHEKYSSYKI

## $L K G L P K V R V E \quad D G V Q K Y V L I R V E Q N E T K Y L V R G N P Q A E Y$  $L I N V P R V Q L \quad S K G K N K Y L L M M D H M R F G R T V V R G S A S \quad K D$ $L R R V P A V D V A P \quad G R H K Y V L T Q L D G D E A A L V V R A Y A A C A Y$ <br> $N L V T F P E D T \square G Q G K D K Y \| I A K V E S E Q S K I V I R G V P R V K Y$ $N L V G \vee P R V K I$ 

 $L L N V P R V Q \square S S G K N N Y L L M M \square H T R Y G R T V V R G T D S K S$ E T K EKKFVVRGYYRCTF NDKEVPRVRDSEGRDRYMLMHGHMGFGMSVI RGGDVVED FKYVLIDCKNQDSFT $\quad V R G Y A W A E Y$
$D L L K L P R V D \quad K E G K \square R Y$ L L L S V V T K H A R TVVVRGWNT D S SLLEAV V DVVA E GTWK FV L L E CE GS R R K QIV R A L E G L K F $S L E A V \quad I V G D G R Q K Y T L I R I P K Q D D M H L V R G D P K A E Y$ GKHKYVLMKVYNEEKKFLVRSYARCSY




E QVPTVVSDDP GKHKYVLVTAPSNERQVGVYSRRGAQY PRVSLSP GKNKYVLI RATHPNDKVVVVSAAPSEC
$S L D V V P R V V V H P G K N K F V L C V L R A G D T R E V L R A L S G C E Y$
 $L E L T P Y V T T D S E G K L K Y L \quad E K R Y V L A S T D T E A Y$

$\square R S V P \square V K L E R \quad G T H K Y V Q V Q L T H P D E P L V V R S V D R C P Y$ $Y \vee L M E V D D P D E R M L V R G L D T$ WA E Y


[^0]

## UniRef90_G3MIY6

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UniRef90-W5LYU1 UniRef90-B4JZD7 UniRef90_Q9BM95 UniRef90_H9KE84
UniRef90 K7G2E1 UniRef90-D7FIT0 UniRef90-A0A026W5E6 UniRef90-B3MSV6 UniRef90-E3LVM5 UniRef90-K7H8T1
UniRef90_B3MSV5 UniRef90-B3MSV
UniRef90-L1JLL9 UniRef90 UPI0002036624 UniRef90-P54365 UniRef90-FOXZS5 UniRef90_U6LGD4 UniRet90_K8ENR7
UniRef90_Q22AM4 UniRef90-W5JK57 UniRef90-K7J8Y3 UniRef90_E0VU90 UniRef90_E1FID4 UniRef90 FOXZR4 UniRef90-A9RZ04 UniRef90_B4JER4 UniRef90_D8S261 UniRef90_C1FG10 UniRef90-B7FPK2 UniRef90-A0DXU6 UniRef90-J9FSW0 UniRef90-W4WN66 UniRef90_J9IKD6 UniRef90_S5ZHW2 UniRef90_KOTN39 UniRef90 K7HRE3 UniRef90_Q01DA6 UniRef90_FOZHK4 UniRef90_K0TC93 UniRef90_Q76P10 UniRef90-UPI00026596F8 UniRef90_B4M6H5 UniRef90 C1MJN6 UniRef90_C5KNF6 UniRef90-F4PTR0


| UniRef90_G31 | $\text { SQGYGQADHSKAVE\\|LKRNFPEYK\\|TWS }{ }^{90}{ }^{100}$ |
| :---: | :---: |
| UniRef90_UPI0003C28B2E | Y SVGF GRAKHSVSTEKLKAKYPDYEVTWAD |
| UniRef90-F0V8T1 | HSYQYGRADHSITAQLIKQFFSDYQVSWGD |
| UniRef90-17JB67 | Y SVQY G Q A D S I T A RILENMLPDYKI T C S N |
| UniRef90-UPI00045757AB | YSVGGFGRAKHEITTEKLKAKYPDYSIS WS N |
| UniRef90_Q9Y170 | CCKTFGEAPHGRTKD L L TKFQHYNI |
| UniRef90_A4RTS4 | YSKTFGPGCNERACAMI QEAFTGYQATWSD |
| UniRef90-W5LYU1 | YSMGFGRANHSVATEKLKARYPDYEVT WAN |
| UniRef90-B4JZD7 | R LQR LGKADHLETREILRAQYAAYNI |
| UniRef90-Q9BM95 | TSRTFGGADHTRTRNILQAWYKDFKI |
| UniRef90-H9KE84 | Y SQGF GKADHEVSVNILKKYYPDYSITWSD |
| UniRef90-K7G2E1 | YSVGF GRAEHSVTTKI LKEEYPDYEVTWAD |
| UniRef90-D7FIT0 | Y S M Q F G A NLPRVADLCRKQFPDYEVTWT |
| UniRef90-A0A026W5E6 | YSQGF GKADHQVSVELLKKKYPGYNI T W D |
| UniRef90-B3MSV6 | CCKTYGEAPHGRTKDIL LTKYKDFDITVA |
| UniRef90_E3LVM5 | Y S Q Y G R A D HVVAVDILKHKYPDYHIHFSN |
| UniRef90-K7H8T1 |  |
| UniRef90-B3MSV5 | KSRTFGEADHSRTRSIL Q T NYKDFKI |
| UniRef90-L1JLL9 | Y SQAYGRADHAKSVELLRAR |
| UniRef90-UPIOOO2036624 | Y SVGGF GRANHSVT TEKLKAKYPDYEIT WA D |
| UniRef90-P54365 | SCKTFGAANHHKTKE\\|LSSKYKNFNI |
| UniRef90-F0XZS5 | YSKTFGPGCNERTAG\\|I REVLPGYEVTWSD |
| UniRef90-U6LGD4 | YSYQYGAADHS $\square$ T AKMMKEHLGDF IVSFGN |
| UniRef90-K8ENR7 | YSMTFGPGCNKKTMEIDRKRFPDAECEWSD |
| UniRef90-Q22AM4 | Y SQSFGRADHTDALEIISKKHFPQENFTWSN |
| UniRef90-W5JK57 | Y S Q G G K A D L ETRRLLLTKYKDFSINCSD |
| UniRef90-K7J8Y3 | YSQGFGKADHEVSVSILKKKYSDYDITWSD |
| UniRef90-E0VU90 | LS QGFGKADHSIT A DLLKKVYRDYTI T WS D |
| UniRef90-E1FID4 | YSQRYGPAKHEQTVSLLQKKYPEYKITYS |
| UniRef90-A0CIG1 | Y S QS Y Q C D HKLSLNVI R |
| UniRef90-F0XZR4 |  |
| UniRef90-A9RZ04 | S SQAF G La NHSVTCAIL R Q WYPFHSl T |
| UniRef90-B4JER4 | KCKTFGRADHYRTKD |
| UniRef90_D8S261 | VS QAFGPANHK LTTS SIL CQSFPLYK |
| UniRef90-C1FG10 | YSKTFGPGCNEKTADII RKACPEFKVSWSD |
| UniRef90-B7FPK2 | FSYGFGPADHA $\mathrm{D}_{\text {S }}$ SRRIVLERYRHFDVQTSN |
| UniRef90-B4NJJ2 | ACSTHGRADHARTREILESAFRGFTIGDTD |
| UniRef90-A0DXU6 |  |
| UniRef90-J9FSW0 | FSYAFGKADHLMAAEMLK |
| UniRef90-W4WN68 |  |
| UniRef90-J9IKD6 | YSQSYGQPEHAKAQAGLQRAYPDYEVT WS N |
| UniRef90-S5ZHW2 | SPMGFGRAKHSVSTEKIKTHYPDYEITWAN |
| UniRef90-K0TN39 | Y S Y GF GQADHALAKQAVDESFKGYTVTC |
| UniRef90-B7G1Q0 | FSYGFGKGDHIVAARLI QEV |
| UniRef90-K7HRE3 |  |
| UniRef90-Q01DA6 | Y SKTFGPGCNERAARMI TSEFASYAVSWSD |
| UniRef90-FOZHK4 | TS YGYGDPPLD L L D L N T CFPDYD |
| UniRef90-K0TC93 | FSYGYGKADHEKVADI I EKYSDYVATYDN |
| UniRef90-Q76P10 |  |
| UniRef90-UPI00026596F8 | Y SVDLGQAKHIDTCG |
| UniRef90-B4M6H5 | KCKTFGRANHYKTMEI MKESYKNFNI |
| UniRef90-C1MJN6 | Y SKTFGRGCNERTAELDRANVDGLSVEWS D |
| UniRef90_C5KNF6 |  |
| UniRef90_F4PTR0 | QSMGFGPPKMDLLEN $\square \square \mathrm{NS} \square \mathrm{Y}$ T NTS $\square$ T $\square$ T D |

[^1]


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

[^1]:    lupas_21
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    lupas_28
    jnet
    conf
    sol25
    sol5
    jhmm
    jpssm

