

|  |  |
| :---: | :---: |
| Re | C GVG |
| OTOE3 | CGVDKS |
| UniRet90-K4KME8 | CGVGKE |
| UniRef90 Q9FDN6 6 | CGAGKD |
| UniRef90-F7VG52 | CGVVK ${ }_{\text {CGA }}$ |
| UniRef90-W0.107 | GAAKRD |
| UniRe990-X86 | GASKDQ |
| UniRef90-X1P5 | CGAAKSD |
| UniRef90 C8W1 | CGAGKD |
| UniRef90-DOK | TK A D |
| UniRef90 A0A023S0R <br> UniRef90 ${ }^{-}$F3S335 | CQVGKAD |
| UniRef90-E6MK81 | CGVPKS |
| UniRe | C |
|  | CGASK |
| UniRef90_AOZ4 | C GVGK |
| UniRef90_C6PY51 | c |
| iRef90-R7JIL9 |  |
| UniRet90 UPI000466F | SkS |
| UniRef90-UP10004775BC3 | CGATKKTFEPM |
| UniRef90-UPI00035FD25E | CGVSK |
| A0A0 | C GVT |
| UniRef90 UPIOOO22 |  |
| Ref90_EU |  |
| UniRef90_UP1000357CA1C |  |
| UniRet90_UPIOO | CKVGKGDFEMLE |
| UniRet90-H0E6C5 | K |
| UniRet90-F4B | CGASKSDF |
| Reeo- 2 KLia |  |
| UniRer90-ETYBIS |  |
| UniRet90-Woplus |  |
| UniRet90-F8J6G1 | CNVTKVDFDPY |
| UniRef90_D8FZ06 | CGAEKKLIMPFE |
| UniRet90_R6YC | CGLIMKDAFRPME |
| UniRef90 X5D7L4 | CNASKD |
|  |  |
| UniRe90- J31FM5 | D |
| UniRef90 C3WAK | CGEEKTA |
| UniRef90-U2AZS | S |
| UniRef90-LOHIQ3 | CGAAKSVJFSLV |
| U3 | c |
| UniRef90-UPI00034B7330 | CGATKS ${ }^{\text {de }}$ VPY |
| UniRet90-F8N8 | CGVGKEDFEPED |
| UniRet90-D4JAD9 |  |
|  | CGASKDQFEKIE |
| iRet90_C5CHX4 | CGVGKDKFEEV |
| B8 |  |
| Uni | C |
| UniRe |  |
| UniRef90_UPIO003B62 |  |
| Ref90-G4D3U6 |  |
| iRe990-x1E5z5 |  |
| U2CE19 |  |
| X1F |  |
|  | CAEAK |
| UniRet90-B8LMH7 | CGAAKSY |
| UniRef90-F2NDD2 | C |
| UniRer90_B1C5X4 |  |
| 俍iRef90_B4RLA9 |  |
|  |  |
| UniRef90_G4KZ | AESKD |
| UniRef90-R5TQX6 | CGAPKSAF |
| Ref90-V2YE78 |  |
| A0A028Z4V |  |
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| NiRef90 R7GBSO |  |
| UniRef90-G9YV99 UniRef90 F8C4D |  |
| UniRef90 F8C4L | CGAPKEDFEPV |
| UniRef90-U5MT57 UniRef90 R5CER0 | CGEEKDMFIEV |
| RSCERO |  |
| UniRef90-HX9W5 | C ${ }^{\text {a }}$ |
| UniRei90-E3CG32 |  |
| UniRef90-EOQK91 UniRef90 A8F7N2 |  |
| UniRef90-A8F7N2 |  |
| UniRef90 S3K5E0 |  |
| UniRef90-UPIOO0360BF73 | C |
| UniRef90-8VG35 | CESK |
| UniRef90_01219 |  |
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| iRe990_UPIo0037A9046 | CGVSKD |
| niRet90-J3M | G |
| UniRet90_U5DLQ6 | CGARQTKFSNI |
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| UniRef90-UPIO0045E5DCB | CDGARD |
| - |  |
| UniRet90_-6VR96 |  |
| UniRef90_U7D6F6 |  |
| K9VK41 |  |
| ef90-B8D008 |  |



50
CGAKKAQFEPY
CGASKSEFEPVD
CGAPKDNFSP
CGATKDMFE

C GVGKDQFEE
CQEEKQTFI
$C Q E E K Q T F D$
$C$ GAAKSDFEPL
CGVRKVDFVPV
CGAKENFKK
CGASKENFKK
 CAVEKDMF EPEE
CGATKDQFELVE
CGASKSDFKKQD CGAAKKDFEK $C G V G K D M F E K$
$C G V G K D Q F E F$ $C G V G K D Q F E E$
$C D A P K E Q F M V V$ CSEEKANF IK CGAGKDEFSP
 C GVGKKENFEPL
 CGAAKDEFE
 $C G V G K E D F S P M E$
$C G A S R S A F V N D$ CGGVKSQFSVTE
$C G A S K S S F K P T D$
 CGAAKEDFVPLD CGAGKSMFEPVEK CGASKDQFEK CGAEKADFREVQ CAEEKAGFIEM CGADKSQFSPID CGVTKEDFSVVE C GVGKDGFEPYE
C GAPKEDFSPYE CGAPKEDFSPYE
CLMGKDDFYPAD $C L M G K D D F Y P A D$
$C$
$C V G K D D F S P Q E$


 CGARKSDF DP CGVGKDMFEE $C G V G K E D F E K D E$
$C N V G K D Q F S K T$
$C$ C GAEKSDFEEM CGTVKSDFE LIE

 $C G V G T D Q F S K V$
$C G A P K S E F E P$
$C$ C GAPK SEFEP CGALDKSDFEP CGALKNQFMVL
CGASKEAFEPQD CNVGKDQFKEDQ

 CGASKADFEP
 CGTAKAQFEMV
$C$ GARKRDFVPYE
 C GLLPKSEFEKN
C GE K SNF I P C GEEKSNF 1 P
$\qquad$ CGVGKEEFEK $\begin{array}{ll}C \\ C \\ C & V \\ C & \text { SK K D E F E K } \\ \text { K }\end{array}$ $\begin{array}{ll}C \\ C & V G K D Q F E E V E \\ C \\ C & G K W A F E P L \\ C\end{array}$ C GVGKEDFS P Y
C GVVGVDFEMI $C G V G K V D F E M D$
$C$
$G$ C GVAK S DF E MVE CGATKDDFE CGADKSQFSPAD $\begin{array}{ll}C G D T K T \\ C \\ C & A T K\end{array}$ CGATKSDFQE

UniRef90_K1ZQA0 UniRef90-F2KYI4
UniRef90 R5AX35 UniRef90 ${ }^{-}$X1V6J8 UniRef90 B2KAN6 UniRef90-I4D8G1 UniRef90-R5SO93 UniRef90_D8K3Y1 UniRef90-M1PEC9
UniRef90 U7G3V1 UniRef90-U7G3V
UniRef90-K1Y1J9 UniRef90-UPI0003815E83 UniRef90-D4INB2 UniRef90_UPI00034B23EF UniRef90_A1TY90 UniRef90-W2BXF6 UniRef90-Q3A8Z6 UniRef90_A9DE48 UniRef90-Q5N558 UniRef90-UPIO00374237D UniRef90_K2AP33 UniRef90-Q2JJR2 UniRef90_K9W1Z9 UniRef90-K4TML2 UniRef90-F8BQN8 UniRef90-H6LCE6 UniRef90-A3KAF3
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UniRef90_G2HY34
UniRef90_D7AFB2
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UniRef90-U2QDT0
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UniRef90-C3WC12
UniRef90-B1GZR8
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UniRef90_K9TF51
UniRef90_UPIO003B3F376
UniRef90-J7SK15
UniRef90_D8RLU4


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$\qquad$ 374D784 3B7A4C0 Y3
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 2485B15
 K Y K Cli vic 10

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30 KYECETCGYI Y DPEVGGPDGGIEPGTAFEDIPDDWVCPL





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AK




A

RCPDCGYVYDEVVGDPHEGFPA


KYECRSCGY1YEPNEGDPRRQIAAGTVFEEVPSNWRCPD
A
TA
MYLCDACGYVYDPEAGDPDNGVEAGTSWENVPEDWLCP


## A

T GT
TA
$\begin{array}{llllllll}1 & H & & C & S & V & C \\ K & Y & E & C & D & V & C\end{array}$$\begin{array}{llllllllllllllllll}\text { K } & Y & R & C & D & V & C & G & Y & C & G & H & D & P \\ K & F & I & C & D & V & C & G & Y & Y & D & P \\ I & D & P\end{array}$A
M
A

WMCPGCKYTYDETLGHPHEGFPAGTAWANVPDEWACPD
YMCVICGYVYDEAKGAPPDGGAPGTRWADVPMNWTCP



## K



 K WK CSACGYVY D P AV G L P E A GI A L
Q Y L C T T C G Y V Y N P E E G DP D S GI P P
K WRCLVCD FVVY DEAK GVP DE GI K P G T R R W E D DV


| UniRef90_K1ZQA0 | C GAGKDQFEK\\| |
| :---: | :---: |
| UniRef90-F2KYI4 | C GVGK ${ }^{\text {d }}$ DFKPVD |
| UniRef90-R5AX35 | CGVGKDQFNPED |
| UniRef90- $\times 1$ V6J8 | CGAPKSAFE |
| UniRef90-B2KAN6 | C GVGK D Q F S PM |
| UniRef90-14D8G1 | CGVAKSEF |
| UniRef90-R5S093 | CGASKSDF |
| UniRef90-D8K3Y1 | C GA GKDQFVKVE |
| UniRef90-M1PEC9 | CGATVKAFKPL |
| UniRef90-U7G3V1 | C AVRKADF |
| UniRef90-K1Y1J9 | CGVGKDDFEPID |
| UniRef90-UPI0003815E83 | C GVAKADFEMVE |
| UniRef90-D4INB2 | CGVDKSNFEE |
| UniRef90_UPI00034B23EF | CGATKSQFEPMD |
| UniRef90-A1TY90 | CAVRKVDFVALQ |
| UniRef90-W2BXF6 | CKVPKTKFE |
| UniRef90-Q3A8Z6 | CGADKDAFEKM |
| UniRef90-A9DE48 | C S L G K A VFe |
| UniRef90-Q5N558 | CGSPRSQF |
| UniRef90-UPI000374237D | CGADKDEFS |
| UniRef90-K2AP33 | C GVGK D Q E P V D |
| UniRef90-Q2JJR2 | CRAGKRSFQA |
| UniRef90-K9W1Z9 | CKATKEDFEIEE |
| UniRef90-K4TML2 | C GVGG S E F Q M I E |
| UniRef90-F8BQN8 | CDGARDQFMVID |
| UniRef90-H6LCE6 | C GVGKEDFSPED |
| UniRef90-A3KAF3 | CSAPKEQF |
| UniRef90_U2EFR7 | CGVGKDQFEEVE |
| UniRef90_UPI000478207D | CAVRKVDF Q |
| UniRef90-UPI0001C36E08 | CGVGKDSF |
| UniRef90-UPI0002E773BC | CQEGKEVF E P DD |
| UniRef90-UPI0004210197 | C GVDK S YF DVME |
| UniRef90-UPI0003803355 | CGSSKDKFA |
| UniRef90-UPI0002556908 | C GVGKADFEMDE |
| UniRef90-B3QL56 | C GVDK S $\mathrm{LF}^{\text {E }}$ |
| UniRef90-E0UG45 | CGADKS EFQQQE |
| UniRef90-F9MXF9 | CGASKDEFEPVE |
| UniRef90-UPI00046F8DCD | CHLLGKEVF |
| UniRef90-K2A4M6 | CGAMKSDFEMV |
| UniRef90-U7UG38 | CGADKDSFNKL |
| UniRef90-U2F288 | C GVGGKDMFE |
| UniRef90_UPI0003602021 | CGAAKDS |
| UniRef90-F6D5S0 | C GVGKDKFEELD |
| UniRef90_I0GJS5 | C G A TKD |
| UniRef90-A8ZX77 | CGASKDDFVKQE |
| UniRef90-UPI000375987E | C GVTKDDF ${ }^{\text {a }}$ |
| UniRef90-L8LZR5 | CGVEKE |
| UniRef90-H6LCR8 | CGVDKNSFSEV |
| UniRef90-S9P6P6 | CGATKDDFEPYD |
| UniRef90-P14072 | CGVDKSQFSETE |
| UniRef90-A0A022QPU7 | CGASQSFFQ |
| UniRef90-D3R1F7 | C GAAKDQ |
| UniRef90-E4U339 | C GVGK E D F |
| UniRef90-UPI000374D784 | CGSGKEDFEMVE |
| UniRef90-W5TGI0 | CGAEKSDFEMVE |
| UniRef90-K7WZF6 | CGAEKTEFELYE |
| UniRef90-UPI0003B7A4C0 | C A L G K DVFFVVIE |
| UniRef90-M3TBY3 | C GVRK】DF |
| UniRef90-D1A3N1 | CQMAKSDFEMVE |
| UniRef90 E1GUH5 | C G L G K EVFVVVE |
| UniRef90-R5G7H2 | CGAEKSDFA |
| UniRef90-U1H9U4 | CAVRKVDFEL |
| UniRef90-K9DEF9 | CGARKDDFEM |
| UniRef90-S6BLK0 | CGAGKEDFEMME |
| UniRef90-C2KVS8 | CGVGKDQFEPSE |
| UniRef90-R6FRB8 | C GVGKDQF |
| UniRef90-UPI0002485B15 | C GV S K A D F EMDE |
| UniRef90-V5DIR2 | CGVEKGDFELMD |
| UniRef90-G2HY34 | C GVGKEDF\AYE |
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| UniRef90-F5Y8E6 | CGASKDNFSAVK |
| UniRef90-UPI00035E14F1 | CGVGKDMFEE |
| UniRef90 ${ }^{-}$B4SGC1 | C GVDK S LIF EM |
| UniRef90_S7USV2 | CGADKSEFSP |
| UniRef90-A0A023UWF6 | CAMGKDVFDA |
| UniRef90-Q2W1P3 | CGVSKS DFEVQE |
| UniRef90-UPI0003604BB0 | CGTGKADFEMLE |
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| UniRef90-A81686 | CGAPKTKFE |
| UniRef90-K9TTC4 | C A A AKEMFEP |
| UniRef90-U2QDT0 | CGAGKDEF |
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| UniRef90-C3WC12 | CGVSKDHFSEV |
| UniRef90-B1GZR8 | CGAPKSTF |
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| UniRef90-K9TF51 | C GVSKEDFEP |
| UniRef90-UPI0003B3F376 | CGAGKADFQMVE |
| UniRef90-J7SK15 | C S L G K DVF DVL |
| UniRef90_D8RLU4 | CGAAKSYFNSII |



| UniRef90 C0QCB5 | $\text { CGAGKEDFS }{ }_{5}^{50}$ |
| :---: | :---: |
| UniRef90-D3RVE8 | CGVGKD DFEMV |
| UniRef90_G2IWL4 | CFMGKSSDF |
| UniRef90_R4VMJ4 | C GAGKSDFEM |
| UniRef90-A6CVE0 | C N L G K DVF A P |
| UniRef90-C7HSM3 | S GEAKD Q F $\square$ K M D |
| UniRef90_UPI0003799A9C | CGADKDSFEE |
| UniRef90_Q4KK21 | C G V S K L D F N M V K |
| UniRef90_Q1PXG7 | CGANK DLF D K L D |
| UniRef90_A0A014MGH4 | CAVGGKS DFEMV |
| UniRef90_C3WFQ1 | C GVGK DEFE |
| UniRef90-Q5YQS4 | CGAAKSDFF |
| UniRef90_W4BNH1 | CGEDTSHFAP |
| UniRef90_G0A2K6 | C G A A Q GF L L L E |
| UniRef90-B4RCI5 | CGTPKS DF |
| UniRef90-UPI0002895D87 | C G VGGK E D F D M |
| UniRef90_A4BSF1 | CGATKEDFEM |
| UniRef90_UPI0004684986 | CDVGKED F A L M |
| UniRef90-UPI0003642D53 | CGASKADFEMV |
| UniRef90-H8Z5I7 | CNA GKDDFEMVE |
| UniRef90-UPI00037FF263 | CGAGKSEFEMTE |
| UniRef90_T1BFY4 | CGARKEDFEL |
| UniRef90-Q2LT54 | CGAAKSKFK |
| UniRef90_K9PHZ9 | CSAKKQAFSN |
| UniRef90-A3HUS7 | C DAPKADFVK |
| UniRef90_V2W7R5 | C GVS K A DF EMV |
| UniRef90_D4ZKH5 | C A L G K DVF 1 A Y Y Q |
| UniRef90-D4LGY4 | C G L G K DVFVPV |
| UniRef90_UPI00037A8A81 | C G V R K V D F I P V E |
| UniRef90-B8GME0 | C GVVAK A D F EMV |
| UniRef90_Q2LT56 | CSSAKSNFK |
| UniRef90-A0A011W1A2 | C GVISK D N S |
| UniRef90_Q9XBL8 | CTAKKAAFSN |
| UniRef90-R6NPQ6 | C G L G K D E F VP E E |
| UniRef90-13DDL8 | C GV S K D H REME |
| UniRef90_B1C8F6 | C FVVKKDAF |
| UniRef90_F8GJ30 | C GVVSK T D F E M V |
| UniRef90_V7Z9N5 | C GVTK D D F E M |
| UniRef90-Q0W2H7 | CNVDK T F F E |
| UniRef90-E4WK78 | C GAAKEDFFMV |
| UniRef90-UPI00036E9853 | C GVGKDEFSETE |
| UniRef90_V4J9R2 | C G A SKEDF |
| UniRef90-Q7BSL7 | CGARKKEFRKL |
| UniRef90-LOWH65 | C A VRKVD F |
| UniRef90-UPI000416BD59 | CSADKENFSPE |
| UniRef90_L8M236 | CGAPTS QF $\square$ D |
| UniRef90-E6PMR5 | C G V ${ }^{\text {T K A D F EPL }}$ |
| UniRef90-D7AGY5 | C GVAK K MFV |
| UniRef90-I1AUH5 | CCAPKEQFMVRE |
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| UniRef90-R7PAM9 | C GVGK D Q F A EV |
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| UniRef90_F2KF60 | C S M GKSVF DEL |
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| UniRef90-Q7XZ41 | CRTPKRRF |
| UniRef90_G3IRY7 | CGAPKSFFKLV |
| UniRef90_U6RK49 | C F VGGK G F S PL |
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| UniRef90-M2XPL6 | CRSSK DTF $\quad$ P |
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| UniRef90-P58992 | CNHPKNQF |
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| UniRef90_UPI0004771709 | CGARKSEFDM |
| UniRef90_UPI00030EB8E8 | CGATKA DF Q M DE |
| UniRef90-E0NYB6 | C GVD K S M F ELQ E |
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UniRef90_G8TEW7
UniRef90-F1Z422
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UniRef90_M5DRQ1 UniRef90-M5DRQ1
UniRef90 W0F4D6 UniRef90-P48344 UniRef90_S9ZNU1 UniRef90-E6U4B3 UniRef90-F2LFM1 UniRef90_UPI0001D2E091 UniRef90-TOEBK9 UniRef90-A0A013XQF9 UniRef90_UPI00036F2DFD UniRef90-E3HBE5
UniRef90 S7WNO3 UniRef90 J1LOK2 UniRef90-Q2W1P2 UniRef90-B6WSJ5 UniRef90_U3B7P7 UniRef90-M9SLF2 UniRef90_UPIO00376A30F UniRef90-C8X180 UniRef90_W2BXW1 UniRef90-A0A023CHG7 UniRef90_UPI0002554C3E UniRef90_UPI00029A4876 UniRef90_UPI00040B7D3B UniRef90_A715R9 UniRef90_A0A022LVG7 UniRef90-Q9WWW5 UniRef90-R5ZDB5 UniRef90_UPIO0034C35BA UniRef90-U6EDU5 UniRef90-H0E8B4 UniRef90-UPI000373AE0F UniRef90-I5CYY2 UniRef90_Q2FLY8 UniRef90-D4DXT7 UniRef90-N9BEJO UniRef90-A5VYW7 UniRef90_U6EDR5 UniRef90-FOTBI6 UniRef90-UPI000364D75A UniRef90-B218A7 UniRef90-R7F354 UniRef90-D9R6P6 UniRef90_Q121R1 UniRef90_UPIO0046FCD40 UniRef90-R5QW97 UniRef90-D3HQ41 UniRef90_L7LCJ3 UniRef90-S7UXP3
UniRef90 UPIO0047 UniRef90_UPI00047A288E UniRef90-K9EN78 UniRef90_A3CV41
UniRef90_R7G5N2A $\begin{gathered}\text { A } \mathrm{K} \\ \mathrm{K}\end{gathered}$
K W


| $M V$ |
| :--- |
| $T$ |


K Y
$G Y Y$
$W T V$
WMCLICCGWI Y R E E T GAAP D D G I P P P GT R WE DVV

$W V C K I C C G Y T Y$ D E A K

K Y V V C S V C G Y V

K Y Q C IV C G WI Y D E A Q G WP A E GI D A G T R WE D Q A H WS C P


A K M E C G
$R Y R C$ GICC G Y V Y D P E K G E S R N NTA P GT D F E D L P P M WF C P S



RCPGCGHTYQVVEGNELEGFAAGTAWADIPDDWCCPD

A K WHC V V C C G H I Y D P A L L G D P E N G V A A P G T K W












QWICEPCGFIYDPEDGDPDGGILPGTPFEDDPDW


A A WVCTKCGYVYDERFGDPEHGIVAGTLFEKIPDTWVCPR

$R Y Q C L V C G W V Y D E Q \square G W P Q E G I A A G T P W Q D V S E N W T C P D$
A EYYCETCWFIVYDPARGDPEHGIEPGTPFESIPQEWRCPD
TR Y R CAVCNYVYDEEKG
GKYRCTVCNYI Y DEDV
$S V H Q C P H C F T V Y D E Q Y G D E R A G \square L P$
WR TVC F L Y R F GFPEFG」 APGTPF GQLP

K Y E C P C G Y I Y D P ELLG D P D N G IIE P G T A W WE D


$K W V C T V C G Y V Y D G E$
K F I CVICC G I IV D E A K G WP E E G IDE P G T R WVDV P

RWEC P
YQCSE



| UniRef90 B1KCQ3 |  |
| :---: | :---: |
| UniRet90－H1G114 | CGAD |
| UniRef90－G8TEW7 | CESA |
| UniRef90－F1Z422 | $C$ |
| iRef90 ${ }^{-}$ | CGAGKDDFEMVE |
| iRef90－UPI000349B53D |  |
| UniRef90－R4YVE3 | CGVGKDDFEMVE |
| UniRef90－F2NDD1 | CGVGKAFFKPL |
| UniRef90－R6QWB1 | CGLGKDVFVE |
| UniRef90－LOGQAs |  |
| UniRet90－Fo | C |
| UniRef90－14VP | CGVISKDDF |
| UniRef90－UP1000237579C | CGARKEDFEMDQ |
| UniRef90－B8GFD8 | CGAGKAM |
| UniRef90－B7RSU0 | CGISKSD |
| UP10003B |  |
| niRef90＿UP1000 |  |
| D3 |  |
| UniRef90－Q20 | CDAPAGKF |
| UniRef90＿UPIO003 | CGARKEDFE |
| UniRet90 UPIOO | CESPKSAFKLI |
| U2SWA2 | CGASKEDEM |
| UniRef90 UPIO0047BD4CA | C |
| UniRef90 ${ }^{-14 W 3}$ | CGTTKDD |
|  | CNYSKKEFRAVK |
| UniRef90－pogs | CGVDKD |
| UniRef90－UPIOOO47 | CDARK |
| UniRef90＿O2BN | C D |
| UniRet90＿UPI00047 |  |
| iRef90－F6DS |  |
| 4J150 |  |
|  |  |
| Ret90－V5PQP4 |  |
| Ret90－07S |  |
|  |  |
| UniRef90＿F3YUK7 |  |
| 俍et90＿M5DRQ1 |  |
| NOF |  |
| UniRef90－P48344 | CDAPKSKFMA】E |
| UniRef90－S9ZNU1 | CGATKDNFSPY |
| UniRe990－66U4B3 |  |
| 2LFM |  |
| IRet90＿E2S8 |  |
| UniRef90＿UPI0001］ |  |
|  | CGADKSCFSKYE |
| A0AO1 | CDGDRNDFMVVE |
| Refefo－E3HBE5 |  |
| IRet90－E3HBE5 |  |
| S7N03 |  |
| UniRef90 J1Lok2 | RSNHS HLK PLIE |
| Ref90－Q2W ${ }^{\text {P }}$ |  |
|  | CokAKM |
| UniRef90－M9SLF2 |  |
| UniRef90－UPI000376A30F |  |
| UniRe |  |
| W2BXW1 |  |
| Ref90＿A0A023C |  |
| UniRef90 UPI0002554C3E |  |
|  |  |
| UniRef90－UP100040B7D3B | KADFDM |
| － |  |
| A0A022 | K |
| geww | C A VR |
| Ref90＿R5ZD |  |
| UniRef90＿UPI00034C35BA |  |
| UniRef90－U6 | C |
| UniRef90 HoE8 |  |
| 㖪90－15CYY2 | C |
| UniRef90 LoHFU7 | CGQGKWGFEE |
| UniRef90－Q2FLY8 |  |
| UniRef90－D4D |  |
|  |  |
|  | CGLGKEAFVP |
| UniRef90－U6ED |  |
| UniRet90－FOTBIE |  |
| UniRet90－UP1000364 |  |
| UniRet90＿B218A7 | C |
| UniRef90 R7F354 | C |
| UniRef90 D9 | C |
| UniRee90－Q121R1 | C |
| UniRef90－R50W97 |  |
| UniRef90 D3HQ41 | C |
| UniRet90＿L7LCJ3 |  |
| UniRef90＿S7UXP3 |  |
| UniRef90 UPI00047A288E |  |
| －－K9 | CGARPKMFAN】 |
| Ref90＿A3CV41 |  |
| Ref90 R7G5N2 | K E A F |

UniRef90_UPI0003809511 UniRef90-C6BV21 UniRefefo-O1LNV2 UniRef90-U7V9Z8 UniRef90-WOPES6 UniRef90-J1L3Y4 UniRef90-A2CDD5 UniRef90-A2SPU5 UniRef90-UPIO00407B06E UniRef90-X1BGE7 UniRef90-B1QTR2 UniRef90-H8KW20 UniRef90-B8GKX8 UniRef90-M4YNT2 UniRef90-E6X8S2 UniRef90-Q11VH3 UniRef90-×5PWLO UniRef90-D5VSJ8 UniRef90-SOFRC4
UniRef90 B3R869 UniRef90-B5WUIO UniRef90-E8RB71 UniRef90-G31V11 UniRef90-FOTCG9 UniRef90-R7L9D6 UniRef90-C8PS07 UniRef90-UPIO003B4B65B UniRef90-84X426 UniRef90-Q399F9 UniRef90-F8AKU0 UniRef90_UPIOOO368B8A1 UniRet90_-F8C4D8 UniRef90-R7BRV7 UniRef90-W5WPDO UniRef90-H9UK29 UniRef90 UPIOOO3713D23
UniRef90 B4WH9 UniRef90 B4WIHO
UniRef90 Q12ZL5 UniRef90-R9JgC2 UniRef90 ${ }^{-}$F6BB97 UniRef90-UPIO0036BE630 UniRef90-H5WMQ5 UniRef90_N6YG10 UniRef90_ABDIR6 UniRef90-B7GD60 UniRef90-VGJBB9 UniRef90-Q1NNX8
UniRef90-R9GWQ3 UniRef90-R71606 UniRef90-K2PW69 UniRef90-T1BY25 UniRef90-UPIO0036474AB UniRef90-UPI0003B3C4E7 UniRef90-W6TQY7 UniRef90-V2Y1U2 UniRef90-D6Z5R1 UniRef90-J709C1 UniRef90-A4SOS4 UniRef90 - X1RDD1 1
UniRef90 G2DAP7 UniRef90-U2QXV5 UniRef90-O83956 UniRef90-UPI0003C7ED06 UniRef90_131K63 UniRef90-K1ZCK1 UniRef90-A5WH60 UniRef90-E2SPZ6 UniRee90-D5WZY3
UniRef90-UPIOOO299ED32 UniRef90-T2GHH5 UniRef90-A2SQ18 UniRef90_Q7NMB2 UniRef90-A1KC56 UniRef90-G7W7L6 UniRef90-B8FLK1 UniRef90-D2INS7 UniRef90_UPIOOO3B58427 UniRef90-S5S5B5 UniRef90-HOE6A6 UniRef90-F4BVC1 UniRef90-K0F6H8 UniRef90-15B4F7 UniRef90-T2G9S0
UniRet90 R5Q772 UniRef90-D9PLD1 UniRef90 M1PDL1 UniRef90-UPIO0037EEEDD UniRef90-B8GE37 UniRef90-A1BGR5 UniRef90-W1JXJ6
UniRef90_GOEQCO



A
KWVCEVCGYVYDPAEG ADGVIAPGTPFEKLLPDDWTCP

R $\frac{L}{Y}$


 MIYYECKVCGY I YDPEVGDKKGKVE


| $\mathrm{E}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

QFQCPNCSYTYDERHGDEKEGFP
A K Y K C M C G G W I Y i d E D K G E P S Q Nill A P G T K F E D
K M E C K ITCWRVY D P A E GC DY WQ I A A GTP F S Q L P E H WR CP E
MKYK C S V C G NVVYDP E V G D P K G GIIP P GTPP F E K L L P D S WR C P R

K Y VCVVCGYI Y D P E E G D P D N GVEP GTAFEAIP EDWVC P M

$M K Y \square C D V C D W V Y D E E K G G Y$ E G G DIA P GT K WE DVVP E D F LDC P L


Q Y Q C P D C L S EY HKNA GDP QN GI I P P GT D FM D L P K S WV C N L
GKHKCTNCDWEFDVEKGDSNGMI KPGTPFA ELLPSNWRCPV
A GHYCEKCWYVYDPSQGDPEHGIKPGTVFEDIPQQWRCPD

A QLEECGDCWWVY D P A A G D PLLA YI P S GTPFTMLLPE QWCCP N

$H$ QCNHCLTI YDETWGDEQNGILPGTSFSDLLKENYSCAV

A K ME C GVVCWHVVY D P A A G D DVVWQ I
WQCQSCMYEYKPKVGDDFYPVSAGTQFKDLIPDDWRCPT

K Y V V T DC G Y V Y D F K I G D P D N KI K S G T A F K DI T E K WV C P L
TQ Q $\square C P N C E Y V Y$ D E A K G D P R E G WP P
SKAEC I ICRYTYDP
TRYECQACGWIVY PAQ G S E SANPE
AKYVCDICNWEYDEEVGDPDKGVVP
A R L E C RI
C L
A K WYC $\quad$ I Y C G WI
YDEEK GDPAHNVAPGTKYEDIP

Q Y LCEVVCGYVY DP HKGDRES QTPP
Q Y L $\operatorname{C} C E V C G Y V Y D P H K G D R E S Q T P P G T G F$

A AFRCPECGYVYDERTGNPREGFPAGTAWADVPDHWNCPD

FRCPVVCEYVYDEAKGDPHEGFPA GTRWDVIPDDDWCCPD
CRPCD Y VY D P AK GDPDKG DAPGTAF EDLP
WQCQN C G Y 1
A K WVG K V C G Y EY D
R Y E C GVC WTVV D P A A G DAE WQVEP GTP FEQLPEHWSCP N
YRCSNCGYLYNPDLGDSSQSIAPDTGFEELPKSWKCPR
R M E C G I C W W H V
R Y $\square$ C L E C H Y I Y D P V K G D P K G Gl E P GTP F E K L P K T WR C P E
Y ECALC S Y A Y D E SK
ME C G l C W V VY DP A E G DE MA Q $\square A A$
$A V Y K C K T C G F E Y$

UniRef90 UP10003809511 UniRef90－C6BV21
UniRet90－Q1LNV2 UniRef90－17KDJ8 UniRef90＿U7V9Z8 UniRef90＿WOPES6
UniRef90＿J1L3Y4 UniRef90－A2CDD5 UniRef90－A2SPU5 UniRef90－UP1000407B06E
UniRef90 X1BGE7 UniRet90＿B1QTR2 UniRef90－H8KW20
UniRef90－B8GKX8 UniRef90－M4YNT2 UniRet90－E6X8S2 UniRef90－Q11VH3 UniRef90－D5VSJ8 UniRef90－SOFRC4 UniRefefo－B3R869 UniRef90＿B5WUIO UniRef90－E8RB77
UniRef90－G3IVII
UniRef90－FOTCG9
UniRef90－R7L9D6 UniRef90－C8PS07 UniRef90－UPI0003B4B65B UniRef90－84X426 UniRet90－F8AKU0 UniRef90－UPI000368B8A1
UniRef90－F8C4D8
UniRef90－R7BRV7
UniRef90－W5WPDO
UniRef90－H9UK29
UniRef90＿UPIo003713D23
UniRef90－B4WIH9
UniRef90 $012 Z \mathrm{~L} 5$
UniRef90＿R9J9C2
UniRef90－F6BB97
UniRef90＿UPIooo36BE630
UniRef90－H5WMQ5
UniRet90＿N6YG10
UniRef90－B7GD60
UniRef90－V6JBB9
UniRef90－Q1NNX8
UniRef90 R9GWQ：
UniRef90 R716Q6
UniRef90－K2PW69
UniRef90－T1BY25
UniRef90－UPIO0036474AB
UniRet90＿UPIO003B3C4E7
UniRef90－W6TQY7
UniRef90－V2Y1U2
UniRef90－D6Z5R1
UniRef90－J7Q9C1
UniRef90－A4SOS4 4
Uniinefo－ $\mathrm{X1RDD} 1$
UniRef90－U2QXV5
UniRef90－O83956
UniRef90－UPIO003C7ED06
UniRef90＿131K63
UniRef90－K1ZCK1
UniRef90＿A5WH60
UniRet90＿E2SPZZ
UnReef90－D5WZY
UniRef90－UPIOOO299ED32
UniRef90－T2GHH5
UniRef90－A2SQ18
UniRef90－Q7NMB2
UniRef90－A1KC56
UniRef90－G7W7L6
UniRef90＿B8FLK1
UniRef90－D4INS7
UniRef90－UPIO003B58427
UniRe90＿S5S5B5
UniRe90－HOE6A6
UniRef90 ${ }^{-}$KOF6H8
UniRef90－15B4F7
UniRef90－T2G9500
UniRef90－R50772
UniRef90－D9PLD
UniRef90＿UPIOOO37EEEDD UniRef90－B8GE37 UniRef90－A1BGR5 UniRef90＿W1JXJ6
UniRef90－GOEQCO

CGADKSQFSK
CGASKKSFKPD
CDCDAEQF
CGAGPRSF

| C Y VGKDHFEET |
| :--- |
| $C$ GLSKDDFIVLI |

CGLSKLDFV
CKVGKGKFKP
CGASKSQFKKV CDGAKARFLRID CGVGKDDFEEV CSFSKDNFSP CENGKVNFVPDD CKDRKEGFKPLDD
CGAPK SFESKA
CDASKVNFSK C DASKVNF
CSNSKKGF
CSK
CDGSKQGFMVV

$$
\begin{aligned}
& \text { CKVGKESFEPLD } \\
& \text { CGAEQEYFEKVID }
\end{aligned}
$$

$$
\begin{aligned}
& \text { CGAEQEYFEKVD } \\
& \text { CGMAKDOMV }
\end{aligned}
$$

$$
\begin{aligned}
& \text { CGMAKADADMV } \\
& \text { CGAAKADEMVE }
\end{aligned}
$$

$$
\begin{aligned}
& \text { CYASQDQFDPLD } \\
& \text { CGVEKSEYDLMM }
\end{aligned}
$$

$$
\begin{aligned}
& \text { CGVEKSEYDLM } \\
& \text { CGAGTNRFVAV }
\end{aligned}
$$

$$
\begin{aligned}
& \text { CGAGTNRFVAV } \\
& \text { CGVGKMFKTD }
\end{aligned}
$$

$$
\begin{aligned}
& \text { CGVGKDMF KK } \\
& \text { CGEAKAK }
\end{aligned}
$$

CGAGKKMFK
CAVRKDDFV
CATGKHDFDM
CGLDKSAFKKD
CGNPKNVYYPED
CGLGKDSF
CGVRKVDFEPV
C GA
CSNPKKGFK
CGSSKSQFSNT
CGADKNHQMPAE CFVGKEQFSSM CGLGKNAFRKT
 CDGDRDQFMVV
CGQPRDSFETVVD
CECKM CGCSKDKFQPV CGLSKEAFVPQE CGGTKKCFRPA CGCPHHSFIVLD
 CDAPKYKFM
 CGAGKDMFSE
CQAEKEHFYQ⿴囗十⺝刂
CGAEKVKFK
CGASKDFFEQTE
CAAKKEQFKKLK CGVDKTSFVKV CESKKNLIFDKLE CGAEKEAF CGVAKAQFKPGD CGAPKDMF CDGEAMHFMVL CGAAKDDFVMEE CGAKKKMFKPML
CLIP K TKFKMI
LS CSSATSRFKSI CEAPRHKFMVI CGAGKKMFKPL CSGSRRHFEK CGRGKWAFDAMK
CGANKTTFKEEE CGANKTFKEE CGVRKVDFEPV
$C G A P K S K F V R V$ CGVRKDDFERV CGECKDEFRK CRATKKCFRPR CGMVKDEFEKVED CGASREMFEKM CDASQSKFMRLD
CGITKKVFKKLD CGSGKESFR
CDAPKSKFMSV1
CGEPKNFVKVE

## UniRef90 B5EDC8

UniRef90-A9RGA3
UniRef90-UPIO003B78F16 UniRef90_UPIO0046F4FB6 UniRef90-B8DRA4 UniRef90-K2ANX9
UniRef90 13 C8W0 UniRef90 G4HVF7 UniRef90-A719A9 UniRef90-D7FU16 UniRef90-UPIO00369F744 UniRef90-R7KJ96 UniRef90 C1BC80
UniRef90 Q7U9P7 UniRef90_UPIOOO3B476A9 UniRef90_N8TNB9 UniRef90-UPIOOO402A30E UniRef90-K1UOY6 UniRef90_UPIO00421B0C2 UniRef90_A1BG19 UniRef90-GOH4Q0 UniRef90-G8ANU2 UniRef90-Q56364 UniRef90-N9UHO1 UniRef90-R611M4 UniRef90-Q31CN7 UniRet90-X1R1Z7 UniRef90_UPIO00255B0B2 UniRef90-A9NQ80 UniRef90_D3F1V8 UniRef90-UPIO002D91A32 UniRef90-17LKY9 UniRef90-W1PEJ9 UniRef90-F6EFX2 UniRef90-V7PWG2
UniRet90 F3HE83 UniRef90-C8VX10 UniRef90-R5R413 UniRef90-A716M9 UniRef90-K8YYC2 UniRef90-L7LOZZ
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UniRef90-UPI00046FFEBB UniRef90-K2FW99 UniRef90-R7FII6 | UniRef90-A5CFU6 |
| :--- |
| UniRef90 | UniRef90-R5HT17

UniRef90_K1Z4G3 UniRef90-R5K7G3 UniRef90 R7GP57 MA YVVCQDCGYVYYDEE RMQCDNCGHVYDK EEGDPKNNVAPGTSWADVPADYKCPE YQCNNCQTIYDSLIGDVLNKIPRGVDFVELPDNYGCSL KYKCPCGYVYDPSEGDPEHGVGPDTPFADLPEDWVCPW
 SAYRCPDCDYVYDESK TQDIP
REGFP
TMPP HQCKHCFTIFDEGNGDAENGALPGTQFDDLPSTWIC TKMQCKVCWYVYDPKQGCEEFDIAPDTPFYDLPDFFTCPG ARYRCPVCDYVYDERTGAPREGFPAATRWSAAPESWCCPD RFECRSCGYVYDPEEGVKKVGDEAGTAFDDLPAGFRCPVKWQCRYCSFIYY
AVYEPGCGYRY
 RMECRICWSIYDPAAGDSVGEVPPGTAFDGLPDAWRCP MQCSVCQWVYDPAKGEPNQDVQPGTPWSEVPDNFLC WFVCLVCGYVYD SGGDKKINTPKNTPFEELPEDWVCPL RFECRSCGY YDPSEGNKKLNIPKNTPFLELLGNFVCPV $H Q C Q N C Y T I Y D D V V G D K K N G 1$ Y I CRDCGYI Y
MKWMCGPCGYYYEEEGYAPDGKDRTPFEKLPDNFFCPV RFECRSCGY YDPAEGNKKLSTPAGTPWSEVPDDWACPD RCSICGHIYDPKTG SANTPPG
Y ${ }^{\text {DCLDCGYIYNDR }}$
STYKCEVCDYEYDEAKGDSREGFPPGTPWGDVPDDWPCPD SRYRCMDCGWDYDEEKGDENRGDTPGTKWEDLPEDYKCAE $R W V C E L C G Y V Y D P A V G P A E G V D P G T P F E E L P E D W E C P E$ MKYVCKİCGFIYDEATQDAK KYVCTMCGHIYDPA自GETKEPTKPGTAFADLPADWKCPS YECQVCGWQYKEEKG FGPYPAGTAFAALPADFKCPN

YQCPNCGYGYNPDKGDRKGKI AKGTKFEDLPDSWRCPV
TTYQCSACYFPYNEADGLPDDGLAAGTKWEDVPEDWVCPD
AAYECPVCNYVYDETAGAPREGFPAGTPWDA| PDDWCCPD
GKWVCTNCDYIYDPALGDPHHPLPPGLAFEDLPAGWLCPN
SA

KYVCSVCGYEY TGD
STMRCPVCEYVYDEAKGDVREGVDA
GKWVCSVCGYVYD
YRCGLCGYVYNPRAGEPGQGTEAPTPFEELP
RWVCTNCEYIYDPRLGDPGHP IAPGTPFEAAPD
HQCADCLTLYDASFGDEKANIAPGTLFESLEN

SVFQCPVCDYRFDEAVGDAAEGFDPGTSWSEVPDDTCPD
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AAYHCPVCDYVYDEAVGAPREGYPAGTSWADVDETWNCPD YICCDCGYIYDGSDG
GKWVCMDCGYVY PDD A
GVWCCMSCEYEYDEEVGSTATG\VAG
KYUCPGCGYUYSEDSGDEFEGFPAGTKWIDDDPDWACPS
TQYECQACGYEYNPNFGDLENGDPPGTPFEDLTQDWKCPW
KYQCMACGWIYDEAEGWPEDGDEPGTRWEDVPEDWECPD
KYVCSVCGYVY AEGD
SRYRCPECSYEYDEA
AGDVHMGAPGTRWDS
YRCPDCGYVY
MVYKCSVCGYIYDEEK
KWTCTCGYVYDPEV
KYVCNDCGYEYDPAEHD

A $I$ YRCSGCGHTFDEALGDPREGYPP
MKYKCTACGYVYDEEDGDQHEGYPV
FVCKVCGYI Y
KFTCTACSYIYNPFTW
KYVCTVCGYVYDPAEND
KWRCKICGYEY

| UniRef90_B5EDC8 | CEAGKNLFE ${ }^{50} \mathrm{P}$ |
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| UniRef90-A9RGA3 | CKAPKTRFMM |
| UniRef90-UPI0003B78F16 | CGAGKDK |
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| UniRef90-G4HVF7 | CGVRK\DFEALE |
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| UniRef90_UPI000369F744 | CESDKEDFIAV |
| UniRef90-R7KJ96 | CGNEKAGFI |
| UniRef90-C1BC80 | CGVRKVDFAPVD |
| UniRef90_Q7U9P7 | CRSRKPAFR |
| UniRef90-UPI0003B476A9 |  |
| UniRef90-N8TNB9 | CGATKEDF |
| UniRef90-UPI000402A30E | CAVRK $\mathrm{L}^{\text {d }}$ |
| UniRef90-K1U0Y6 | CGVGKDQF E EV |
| UniRef90-UPI000421B0C2 | CEAAKENFEVL |
| UniRef90-A1BG19 | CNMSKRTF |
| UniRef90-G0H4Q0 | CGSDNTHLLQ |
| UniRef90-G8ANU2 | CHGPQHGFIVM |
| UniRef90_Q56364 | CDSDKSYFLPV |
| UniRef90-N9UH01 |  |
| UniRef90-R611M4 | C G V ${ }^{\text {G K D Q F }}$ |
| UniRef90-Q31CN7 | CRAGKNFYK |
| UniRef90-X1R1Z7 | CGADKGEFELVK |
| UniRef90-UPI000255B0B2 | C GA S L A K F K Pl Q |
| UniRef90-A9NQ80 | CGAPKRRFRPYE |
| UniRef90_UPI000361A3D1 | CGLLGQDEF |
| UniRef90-D3F1V8 | C GVRKVDF |
| UniRef90_UPI0002D91A32 | CRAGKVFFED |
| UniRef90-17LKY9 | C L A EK S K |
| UniRef90-W1PEJ9 | CGAPKRRFRPYE |
| UniRef90-F6EFX2 |  |
| UniRef90_V7PWG2 | CSNRKKSHKWVK |
| UniRef90-F3HE83 | CQMPKTDFE |
| UniRef90_C8VX10 | CLASKDK |
| UniRef90-R5R413 | CKAPKEKFEAV |
| UniRef90-A716M9 | CGHPKSYYRKKE |
| UniRef90-K8YYC2 | CKAGKPAFKSM |
| UniRef90-L7L0Z7 | C GVRK\D ${ }^{\text {V }}$ |
| UniRef90-F4KUK1 | CETGKEEFVAME |
| UniRef90-KONFE9 | C G A S |
| UniRef90-UPI000374ED3C | C GNGKEHF |
| UniRef90-E5G6W0 | C GVRK】D |
| UniRef90-A5G647 | CEAVKSDFVK |
| UniRef90_G2T9X4 | CGSPKSFF |
| UniRef90-J4SG56 | C A VEK A D F T Q |
| UniRef90-J3C9R3 | CEAPKSNFKTLE |
| UniRef90-P00267 | CGAGKEDFEVYE |
| UniRef90-R7LWS5 | C GVGKDQ |
| UniRef90-U5E8S3 | CGVRKDDFAPSE |
| UniRef90-B3EPW5 | CGSGKEVF |
| UniRef90-W4V453 | C GQPKSVF $\square$ K K E |
| UniRef90-E1RJX5 | CGAAKSAFFK $\square$ D |
| UniRef90-UPI00039D41DA | CGVRKPDFEP |
| UniRef90_C0BY77 | CGQGKDKF |
| UniRef90-A3CS38 | C GAEKN L F R K |
| UniRef90-H6SLR0 | CATPKSWFRP |
| UniRef90_UPI00037E24E5 | CEAPKESFIIVE |
| UniRef90-K8ER65 | CGASKSKFKSI |
| UniRef90-E1Z2E1 | CGAAKS LFV |
| UniRef90-V5X9Y5 | CAVRKLDFEAl |
| UniRef90-Q4JSV8 | CGVRKVDFEPV |
| UniRef90-A71518 | CFAGRDEFWPV |
| UniRef90-E8WKK4 | CEASKNFFDPY |
| UniRef90-LOIUV7 | CAVRKVDFRTV |
| UniRef90-A0PRT8 | CGVRKIDFQLQE |
| UniRef90-E1Z3R4 | CSAPKRRFKPY |
| UniRef90-M2XU35 | CGSPKR |
| UniRef90-A0L4B6 | CGLSKEHF |
| UniRef90-D8RG26 | CLAPKRRFKP |
| UniRef90-I2JMD4 | C A V R K P D F K K $\square$ E |
| UniRef90-M1E993 | CDAAKDTFKE |
| UniRef90-UPI00036A16F8 | CGAGKTEFVPVQ |
| UniRef90-E2MQR9 | C GVSKDEFELLE |
| UniRef90-B0VJ21 | CGVGKDMFEPLD |
| UniRef90-U5MS25 | CKQPKKAFKK |
| UniRef90-UPI0003A28003 | C A $\square$ S K E D |
| UniRef90-R5IXR6 | CGAPASVFEK ${ }^{\text {d }}$ |
| UniRef90-B1C6P9 | CKHPASVFVKVE |
| UniRef90-X0ZT13 | C GAAK S |
| UniRef90-P04170 | C GVS K D QF S P |
| UniRef90-UPI00046FFEBB | CGGSKDE |
| UniRef90-K2FW99 | CGVRKEDFVRDE |
| UniRef90-R7FII6 | C GLGKEFFEK\E |
| UniRef90-A5CFU6 | CSVRKEDFEEV |
| UniRef90-R5HT17 | CKHGAADFEPI |
| UniRef90-K1Z4G3 | CGEEKDSFDE |
| UniRef90-R5K7G3 | C NVGKDMF E\EE |
| UniRef90 R7GP57 | C K H P A S D F E EI |



UniRef90 R7L717 UniRef90-DOWH34
UniRef90-R6WV60 UniRef90_R5ATT4 UniRef90_UPIO004632B17 UniRef90-R6HTDO
UniRef90-R5MP34 UniRef90 UPIO0040FEF65 UniRef90-R6HFY3 UniRef90-R6PKK0
UniRet90 F7S739 UniRef90 ${ }^{-}$M8DBN5 UniRef90-R8VU04
UniRet90 F2NY79 UniRef90-R7HXS5 UniRef90-O26576 UniRef90-S6CKQ5 UniRef90 R6HEIG UniRet90_R8VXG9 UniRef90_C1MM22
UniRef90_R5SBX4 UniRef90_UPI00037D9365
UniRef90-E9SHB8 UniRef90-C1N8W9
UniRef90_R9J1P6
UniRef90-E5XLW2
UniRet90-UPIO00466BE6B
UniRet90_K9GNH3
UniRef90-S2XZ66 UniRef90-R7MOR4
UniRef90 J9GN17 UniRef90-C4Z1B3 UniRef90-G5IAM2 UniRef90-R5H8S1 UniRef90-R5L2V2 UniRef90-JgGSJ2
UniRef90-U2SN71 UniRef90-R6URW4 UniRef90 E6Ull1 UniRef90-R1BYJ7 UniRef90_M1V552 UniRef90_A6URT8 UniRef90_N9X7GG
UniRef90 I 3 SJJ2 UniRef90- G5IKF2 UniRef90-R6YDK7 UniRef90-COEC78 UniRet90_UPIO00478A11C UniRef90_COC3H9 UniRef90_R6C940
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UniRef90-A8J276 UniRef90-G4KPJ9 UniRe90_ABJGB1 UniRef90-D8LRN9 UniRef90 R6HGK3
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UniRef90-R5MUN9
UniRet90-T3ZJ63
UniRef90-R6LS30
UniRef90-10X8C1
UniRef90-R9SL60
UniRef90-G21E15
UniRef90-F4XDU8
UniRef90 C1FFK4
UniRef90-U5F5J5
UniRef90_UPI0003B3A436
UniRef90_U7VB13
UniRef90-R5I3G9
UniRef90 R1DMD7 UniRet90_R7BRR5 UniRet90-R7BYW8 UniRef90-R5B312 UniRefo- $2 \times 1 \mathrm{GO}$ UniRef90-D7LWX8 UniRef90-F7VOE3 UniRet90_R616K2
UniRef90 ${ }^{-}$R5T213
UniRef90-R6CF77
UniRe990-R6IE52
UniRef90 C9KLQ6
UniRef90_W2BZCO
UniRef90_U2B215

CGAPKSEFSE
CGVGKENFVRVE CKQGADKFVKIE CKHPASDFVKHE CKHGAADFEKI
 CGVGKEYFELVE
CKHPASDFEEGU
CGMGANMFEKHE CGMGANMFEK CDAERHQFLPLD C G

CGAGKEMFSEIE CNAPRTAFVRV
CGAPREMFERVE CRQPKSRFKKVE CRAPASKFEKL CNVGKNRFKVY
CKHGAADFERI
KKA CQAKKKDFDEV CKHGAADFSPID
CGSGKNAFRPI CGSGKNAFRPME CGVGKEDFER1E RGAAKPDFEMVE CGSGKDWFRPL
 CGKGAEFFEEI
CKAPASKF

CROPATAFEALE
CRSGFEAYKDI
 CHAPAEKFVKIVE CGVGADQFKRL CKSPKAFFTP
CGAPKSDFR
CGAKKDAFV
CRQPASVFAP
CQAPKKRFAEYD
CKQGADKFKLVE
CGVGRELIKK
CGVPRDQFVK
CKHPKDDFEKD CRQPKESFQ CGVDKSHF IKEE CGTGKNSFSEVK CQAPKKRFAGYD
CSSKKSFKVYK CHRPASSFEPL C CSPASLIFEPLE CGAGKNKF
CKHGAQDFKKL
CKHPKADFEKI
CGAGKKEFKK
CSAYKKRFAKYD
C K
CRRPASDFEPL
CNVGKNREK

$$
\begin{aligned}
& \text { CNARAFANYD } \\
& \text { CGAPAAVFKK }
\end{aligned}
$$

$$
\begin{aligned}
& \text { CGAPAAVFEK } \\
& \text { CGHPADE } \\
& \hline
\end{aligned}
$$

$$
\begin{aligned}
& C G H P A D D F E X \\
& C K Q P A S V E K I
\end{aligned}
$$

$$
\begin{aligned}
& \text { CGVDKTMFNP } \\
& \text { CABPRRAR }
\end{aligned}
$$

$$
\begin{aligned}
& \text { CKHPASDFEKME } \\
& \text { CHKDASYFEP }
\end{aligned}
$$

$$
\begin{aligned}
& \text { CHKDASYFEPV } \\
& \text { CKHGVADEA }
\end{aligned}
$$

$$
\mathrm{CGDS}
$$

CKQPKSMFKK C $C$ APKKRFAKYD CGVGKDMFERVE CGVNKEYFEED CGAAKSQF CKHGKEDFEHD CGQPKSAFV
CKHGADDFELL



20

H E G P AKYVCSVCGYVY EGDSA

| WRCTVCGYILE S |
| :---: |
|  |  | AKYVCTVCGYVY


 EGDSA
KFACSNCGAEYDESKMD
K WK C K V $M K Y V C S V C G Y V H E E G D$ YRCKVCGYILE S K FVCSVCGYVYEGAEA AKYKCSVCGHIHDES AKFKCSVVCGYUFDESTE
K FDVQVCGYE
K F KCVVCGYDYTG
QWRCTVC GYi HNGENP
KFICTICGYi HEGNTP
AKWVCKVCGYVH E G D

AKYKCSVVCGYI Y D E E K
AKWVCNVCGYVYEG
AKWVCSVCGYVHE E GD
K FVVCPVCGYVYEG
$M Q W M C T N C G Y$ I Y E GNGAPEA
KFKCKVCGYIHEEGDA
MTWMCSICGYTYD
AKYVCSVVC GYV


$K W V C N V C G Y I Y G D H E G E Q P$
SKFVCTVCGY V CYEGEQAPAE
RYQCTGCGFTIFPAKNREERFFS
C RY $\square$ YS D R

$$
\begin{aligned}
& \text { MKWVCKVCGYVYEG }
\end{aligned}
$$




| UniRef90_G0H2B8 | CGAKKSAFVE ${ }^{50}$ |
| :---: | :---: |
| UniRef90-R7AJW1 | CGAPGSTFER\E |
| UniRef90-A9KKE2 | CGQTKEVF |
| UniRef90-R9K6U6 | CKQP $\square$ EK F EQ $\square$ |
| UniRef90-R9MXS1 | CKQPPEKFE |
| UniRef90-UPI00046A82F7 |  |
| UniRef90-R5FM94 | CGAGKDAFVLKE |
| UniRef90-M2XZD0 | CKSPKSQFVD |
| UniRef90-S8CYJ2 | CRAPKKRFARYD |
| UniRef90-E7GBH2 | CKVDASHFHK■ |
| UniRef90-HOUJH0 | CGCPIS QFE |
| UniRef90-E1QYI5 | CGCAGERFTKQE |
| UniRef90-A9KQG4 | CGKDASYFRK |
| UniRef90-R5CYL0 | CHHGPEDFEPAE |
| UniRef90-D9R5T4 | CKQPATAFEK ${ }^{\text {C }}$ |
| UniRef90-UPI0002D67353 | CFQGREMFEEIK |
| UniRef90-R6DH40 | CHAGADQFKEVE |
| UniRef90-11NC69 | CGAAQS F |
| UniRef90_R6WC47 | CKHDASAFELMK |
| UniRef90-U2D8U5 | CHQGADKFV |
| UniRef90-D4KKC1 | CKAPAEKFKLQE |
| UniRef90-R6BGV8 | CKAPASKFKEMD |
| UniRef90-R713X5 |  |
| UniRef90-UPI0003B77AFD | CKQPVSVF EPVE |
| UniRef90-K4KSD7 | C GVDS S NFVRVE |
| UniRef90-K4LAV4 | CGAPKEKFQL |
| UniRef90-R6U1B6 | CKAPASKFKAMD |
| UniRef90-X1F2W0 | CKNPKEGFK |
| UniRef90-UPI0003684BE2 | CKKPASAFEK\E |
| UniRef90-C0CTF2 | CGKDASYFE |
| UniRef90-UPI0003B2F666 | CKCPGSKF |
| UniRef90-R7J1G1 | CGAPASKFKEME |
| UniRef90-K8YXA3 | CSAPRRRFA |
| UniRef90_B7FUY4 | CGAPKRRFKK $\square$ |
| UniRef90-G7J391 |  |
| UniRef90-R5SL37 | CGAGKDKF |
| UniRef90-U1WAG0 | C GVGADMFELVE |
| UniRef90-R7GJP0 | C GVGPEEFEKVE |
| UniRef90-UPI0003B716F0 | CKAPKEKFVKQD |
| UniRef90-FOZ1S3 | CGRGKEELEKL |
| UniRef90-R7JTQ9 | C |
| UniRef90-KOAUQ8 | CKQPVNVFEKV |
| UniRef90-UPI000477A260 | CKQPASVFVRIE |
| UniRef90-W0FR96 | CGASKADF |
| UniRef90-F2N7E7 | C GVGP D Q F DRVD |
| UniRef90_Q97D82 | CGAGKDKFVEVK |
| UniRef90_G2FZY6 | C GVDA S |
| UniRef90-W6SD28 | C GAGPELDFKEVK |
| UniRef90-E7GDE2 | CKVSADKFEKVE |
| UniRef90_UPI00047E0FD8 | CGAGKEQF $\square$ E $\downarrow$ |
| UniRef90-R61988 | C G |
| UniRef90-R9J6N3 | C GVGA D K F VE |
| UniRef90-R5WP15 | CKASADKF |
| UniRef90_UPI0003B5C277 | CNAPDSKFVKQE |
| UniRef90-J9FYW5 | CKVDGSKFKVME |
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| UniRef90-UPI00030893F0 | CGAPASEFEED |
| UniRef90-R6UQX0 | CDSGKESF |
| UniRef90 R6YSQ2 | CGVGPEKFNKME |
| UniRef90-F2JN16 | CNVGSDKFEEMK |
| UniRef90-F8AEI6 | CGLPKDKFVVFE |
| UniRef90-W5HS38 | C NAP |
| UniRef90-W0FRG6 | CKVPNRKFEEl |
| UniRef90-A1HM53 | CGVGPEEFRLLE |
| UniRef90-R5WCX1 | CHAGADKFKKVE |
| UniRef90-A7AWY9 | CGAAKNKFVE |
| UniRef90_S8D7D7 | CGAPKRRFRAYE |

[^0]```
lllllllllllll
```


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

