## QUERY

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UniRef90_O6Z7V9
UniRef90-G7CML4
UniR Ref90-19BVL2
UniRef90-A1 SMA5 UniRef90-F2KQU8 UniRef90-QOW4Y0 UniRet90_O1H1G6 UniRef90-R6FLC8
UniRef90 E8T606 UniRef90-F8GDB5 UniRef90-R7PDU2 UniRef90-KOYN20 UniRef90-M4R478
UniRef90 UniRef90-H2J3N9
UniRef90-H9UB41 UniRef90-D2RRW8 UniRef90_R5QIW0 UniRef90-A6EWA4 UniRet90-LOKVO4 UniRef90-C7M6X8 UniRef90-AOYH99
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UniRef90
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UniRef90-L8Y000 UniRef90-R6EXD6 UniRef90 UPIOOO2624A7D
UniRef90 C5B7F1 UniRef90-C5B7F1 UniRef90_UPI0003728AA3 UniRef90_-F2R546 UniRef90-R6QPC2 UniRef90-17J5M5
UniRef90 R5W7V5 UniRef90-P73580 UniRef90-E3F1A2 UniRef90_UPIO002625FBE UniRet90_-9MN52 UniRef90-W5IIUO UniRef90-15C3B6 UniRef90-D5CRZ3 UniRef90-UPIOOO3829DE4 UniRef 90 - 4 PLD UniRef90-E4TDA3 UniRet90_D4GYB4 UniRef90-UPIIOOO45E97A8 UniRef90-UPIO00406140E UniRef90-D7WDB8 UniRef90-UPIooo3B3ADF4 UniRef90-D9PW34 UniRef90-E4L8G8 UniRef90-R6HNY6 UniRef90-F4DF13
UniRef90
D5EAL3 UniRef90_UPI0002FA74AE UniRef90-C6XCH7

T L P R L L F GL G

| $A$ | $K$ | $S$ | $Q$ | $P$ | $L$ | $W$ | $R$ | $V$ | $L$ | $V$ | $A$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |



 AKDQDLWRVLVALSI RHVGPTAARTLAAHFRTLEAI RAAE AKDKPLWRVLVALSI RHVGPTAAQAIAAQFGSMDAI RKAS S M S L K E Q Q KFil V ES L P DI GP QLA ENLLLKHFK TVEKVVFTA K $M \operatorname{L}$ K E R Q K F L V E G L P D V G P V AKTKDLWRILVVLN AKNRDLWRVLVALS SKT LDP EQQEYVVAA
$A R N Q P D W R V L V A L S$ AK Q Q P L WR V L V A L
 AK S QPLARVLVALS AK Q VPLWRVLVALS $\begin{array}{lllllllll}K & T & L & E & M & Q & E & Y & V \\ \text { S } & V & S & A \\ L & P & E & R & Q & E & Y & L & V \\ S & S & A\end{array}$


 R HVGPTAS R A L A S A Y G S M D Kll RA A D $R F V G E K A A Q V L A R H F G H L D R V V A A T$
 $R$ H V GP K A GRA A A A R F G S M D A

 $R N V G E A T A K D L A R H F G R L D A L Q A A D$ P GVV G P S R R K A L MLLYF F K S I E E A I R E A D T T LAAR F I Y Y A | $A K S A P$ | $L$ |
| :--- | :--- |
| $M$ | $R$ |
| $A$ | $L$ | A K TLT E QQEYVVVSA $R N V G E A T A K D L A A H L G S L N R L D E A D$ RFVGKVAAKLLARSFGSMDALRNAT A K S V S LERLIVGGLGI


 GPARRKALMRHFDSLSEIIKAS $\begin{array}{ll}\text { A R R D K K R R Q S T } \\ \text { S K MLL } \\ \text { S E Q Q E Y I } & \text { I } \\ \text { S A }\end{array}$
 ERVLFAL
T T L A R F L F A L ARRAKARKESTLESV S L R
 K TVVP ERV DFALGI RLSKSRRSRLDE

$A K R A B R G B A L G$


 $\begin{array}{lllllll}R & F & L & Y & A & L & G \\ K & V & L & F & G & L & G\end{array}$ $T \square R$ A R R K K D I T E A GLL Q A l E RVLYAL GI
A K E K E
K RMRSSSVIL D S R D R K S L L E S ELL D G I SRDNDLWRLIFALG
 $\begin{array}{rl}A & R R A \\ L & K \\ L & K\end{array}$ LS K QQEY IVSA

ARRGKARMHSSLE
UniRef90_M7NWK0



|  |  |
| :---: | :---: |
| UniRef90-R5NXY2 | Q1 NGI GVVIAESVITRYFANEAN |
| UniRef90-D4U1B4 |  |
| UniRet90_AOLTX2 | AVPGVGRRTAEVVFAALH |
| UniRef90-V8CZ19 | Q SEVPGUGQTTARAVQEAL VEHNQ |
| UniRef90-A3XM77 | EETLVAVDEIGARIAQSVVSFFSEEANQ |
| UniRef90 G2T1X2 | EEDLAQTDSMSPQAARSVYRFFREKERE |
| Ret90 |  |
| UniRef90-Q15UZ1 | S DVGVIVAQHVF |
| UniRef90-LOKD53 | GI |
| iRe990-E6K1F1 |  |
| iRef90_T2GDZ3 | 㑑 |
| Ref90_UP1000372 | LSVADVGPVGAQHVY |
| АЗ | dLK AVEGl SD |
| UniRef90-G9ED | G NA |
| UniRef90 M7PELO | DVGVVAHH HTF |
| UPI000384490A | N Q |
| eef90-UP10004 | D LA D E |
| UniRef90 R5SYX6 |  |
| UniRef90 AONYH4 UniRef90-UPIO00463477B |  |
| UniRef90-K7RRZ0 | AEETARVPGFGPVLAGAVVDALSARKPE |
| UniRef90-J9GGV5 | LLLQVEGTGAVIAQSVKSYLSNPKNQ |
| UniRef90-F8.9Y |  |
| UniRe990 R6S776 |  |
| Ret90-F4CDZ7 | VEEAAVDEIGERIAQSVKEYFSN |
| niRef90-H1Z330 |  |
| D1A1 | VAQ AEVPGIGPRTAEQ1 A |
| UniRef90-EONNP2 | LEVDGMNKS |
|  | dovk |
| 仡 |  |
| IRe90 BgYE26 |  |
| UniRef90-D4MU97 | V ¢ELLNVPGMNOSTAESIYGFFHD |
| f90-B0JFQ0 | GTGEQLAKEIY |
|  | VDGVEEKVAKKI YNF |
| UniRef90_C2G4066 | $\checkmark$ |
| UniRet90-R6M1N9 | SAVPDVGETAES HGV |
| UniRee90-UP100036 | GL |
| UniRet90_00TU89 |  |
| iRef90 F7SK | DVGPIVAA HVHTFFRQTHNQ |
| UniRef90-R6FV55 | ELEADVGPVAETIREFFENPEN |
|  |  |
| UniRe990-LOLUD8 | AVPGIG |
| UniRef90-Q1K2E5 | VPGVP |
| UniRef90_R4YN94 | EATLLAVPDVGGIVAKHILSFFGEEHNQ |
| iRet90_K9DYD |  |
| UniRet90-H3NUI7 | RFAREQN |
| UniRef90-CoW1G1 | VAG\| GPALVSTI YRHFHPEN |
|  | O ${ }^{\text {a }}$ |
| 90-881872 | Q |
| UniRef90-88®ato | MKS ${ }^{\text {a }}$ |
| UniRef90 W7YAM4 | EKSLLA GMGKERIRKMMFME |
| UniReef90 A5 | VEEAKVPGISHALAEN Y Q ALKQ |
| UniRef90-K4KU72 | T N |
| UniRet90 S2U7N | A ADVPNGPTIAEA VTYFKA |
| UniRet90-V4XW28 | gVGEVTASRV |
| UniRet90-N9Y6 | G |
| UniRef90_UP10003 | YDQLIAVPEI GGRIAESIASYFSVPENQ |
| iRef90_F3LDG3 | NDVGPVVAQF VIA |
| UniRet90_UPIO0047E2F09 | EDVGERIAHSVQAFLADPEQQ |
| UniRef90_K9U761 |  |
| UniRet90- ${ }^{\text {UniRaO}}$ | D |
| UniRef90-D5EIA3 | EEQLEAIDGI GSIIMAQSIHA |
| iRRef9-G9ETJO | LEEAKVQGISEHLAQRIFQHFH |
| iRef90-Q04GN6 | QV |
| UniRet90_UPIO0041292DD | A GV |
| UniRef90 C8NCl | AKVPGVSETLAKE |
| UniRef90-H8KRW9 |  |
| UniRef90-D3FW | EA V GV |
|  |  |
| UniRef90-R7NBO | D ${ }^{\text {d }}$, |
| UniRef90-KOAXCO | ND GODVAESV |
| UniRef90-D7U988 | V D D |
| iRef90-D2TXD9 | KKVQDVGETVAKHIVNFFHEQHN |
| UniRef90-UPI00047A6CD6 | V |
| UniRef90-D3L0D1 | DLSDIPGI GPQI AS |
| UniRet90_U2WVT4 |  |
| UniRef90-UPI0003B6CBF8 | GVSAAVAQQVYDFYHAK |
| UniRef90-17LQJ1 | Q FSMP |
| UniRef90 D5 |  |
| UniRet90-C7P1J1 |  |
| UniRet90-K12x37 |  |
| UniRef90 - 311 M | QLKKVPGISPDMADKIFNHLHDK |
| ef90-UP10003 | LDAL $\square$ AVPDVGTVVASHLRNFMEEESN |
| ef90-U7NLR9 |  |

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UniRet90-G8SCU6 UniRef90-E4NII
UniRef90
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UniRef90-D8K616 UniRef90_A3DJ07 UniRef90_UPIO00425FB31 UniRef90-UPI000379068D UniRef90-K0Z2A9 UniRef90_UPI00047C09B5 UniRef90_UPIOOO468618C UniRef90-UPI0003FBFDC6 UniRef90_UPIO0036DC525 UniRef90-UPIO0046A2FB5 UniRef90 W8T1X4
UniRef90-R91JP3
UniRef90-J9DUE5
UniRef90-UPIO0020D9E69 UniRet90_A0ZE84 UniRef90-A5VEW3 UniRef90_UPI00030644F2 UniRef90-A0A023D0T6
UniRef90-M0QJH4 UniRef90-F3ZLG0 UniRef90-B5BUT2 2 UniRef90_AOPYB2
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UniRef90-O8R8M9
UniRef90-F7NFOO
UniRef90_X8J9L5
UniRet90_E8W1T1
UniRee90-UPI00047AF37B UniRef90-XOPHG2 UniRef90-K6X1V7 UniRef90 F4H7B4 UniRef90 F4XIT4
UniRef90-U1XWH4 UniRef90-UPIOOO2260324 UniRef90_UPIO0034C4B46 UniRef90-LOK5B5
UniRef90 B3DWU2 UniRef90- B3DWU2
UniRef90 B8G4K UniRef90 UPIO0029A3540 UniRef90-X1J534 UniRef90-U5N8E1 UniRef90-UP1000288CBDB UniRef90-D2RB48 UniRef90 UP1000368E519 UniRef90-H8MXJ3 UniRet90_K2EVT5 UniRef90-J7LDR9 UniRef90-V5YPI4
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UniRef90 F7VDG1 UniRef90-UPI000249465E UniRef90_D2U147 UniRef90-A9WT69 UniRef90-E0E385 UniRef90-UPIO0036BC9B9 UniRef90-D6XYW3 UniRef90_U2YJ31 UniRef90_L8EEC5 UniRef90-W4EF50 UniRef90-M1ZHF8 UniRef90_D3LT97

1
20
30
40
ARRAKNLTSSP|LDEVVPG|IGPSRKKALLLHFGTARD|V|RNAA SELLDEI E GI GPKKKKALI KHFGSLKNI KQAQ K R K K A T FKNP L RRAKNQQRSVLDGIAGVGPSRQKALLRHFGSVKKIREST

K R M T E S AL D SVA GL GE T R R K A L L R HF GSVVRLAAAT A K R A K R LT A GEELDSVPGLGETRRRALLKHEGSLKKLKAAT
 KTTLASFIYAL GIRGVGETTARMLANTFQTFEALRLAD
 SKRSKRMTASALDGV

K S M T R S A L D G I

T T L P R F L Y A L G I R R QKAKTTSPL E G
 $\begin{array}{lllllll}R & R T K A & L & T & R & S & V \\ K & D & A \\ K & D & K & R & L & A & S \\ S & L & D & D\end{array}$

QQ Y S S LD DV
$K D \square R E A G L Q E I$ ARRSK QMVKNPLDG

SKENDAYQLLTGF SKRSK

 K R S R D G K S P L D D R S K R K $\square T$ | A | S | $A$ | $L$ | $D$ | $T$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| R | V | $E$ | E | $D$ | $E$ |

SKRSKRMTESVLDGVP
 RS LR NRRVVVLEDI S K TPTLARFLFALGI

SPLDD
S R R S K A M L E S V L D DV
S K R F K T D D L
RRTSKMTKSALEEI AKRAKRDRSSPLDDV SKENS LEK L LF GLG
$\qquad$ AKEKE LWR VVLVAL SKTQWSRVLYGL G LR T K A Q S V S IL D E I WS R V SKK K D L S S R L I V G L

KATLRSPLDG

S K N R P
K S MTASDL
LF A L

$S K Q V P F H R V L D A V G$ I
 S K R GK TMTKSPLENIS GI GEKRRRQALLQY LGGGLQGVMKAS

F L S AL
K S MVVTS K L D S I
$S L R S K K M F K S E L L D D$


GGVGPRRKKALLAHFGSAKGVKGAS ARR GKARRTSSLE EVA GVGPKRRRELLNHFGGLQELSRAS K R SVLD DI A GVGEKRKLLLI SHFRSVENI RNAK
 K GLG Q T R R T E L V K H F G S V K K L K A A S

LLGIPNVGKKTATDLDKQFKSFENIIKAS RRAKVRNTSTLESIEGVGPKRRQMLLKYMGGLQALRNAS
 SKSNDLWWRIN GLGI R FVGVVKGAKLL ADAC GSMDKIMAAS LR DKAMTISVLDDI E GVGPKRKKAIMRHFGSLKRLRAAS





E GVGPKRKKELIRHFGSVKAIKEAE
 E GVG P A R Q S A L L T R F G S V K KLL R E A S
 P G L GA H R Q K LL L LAAE F Q T V S R I Q IAA K PNVGKAAAKSILREFGSI KNLREAD
 P GLGH H R Q K QL L G H F R S V D Y I R Q A T E G L G A A K R T A L L M H F G S V T K I K K K A S
 R HVGESTAKQLAAAF GTLERVAAAP

 $\left.\begin{array}{ll|llllllllllllllll|lllll}K & G & G & G & E & K & R & A & K & V & L & Y & E & A & F & G & S & I & E & E & L & K & K\end{array}\right)$ PGI GPARRKELLRHFKNDESIKRAS


 RHVGAKAARLI AQRFKNIDKVMAAT REVVGEATAANLANHFCNLEALKAAD $R N V G P T A A R A L A Q E F R S M A A L L R E A A$ $P$ GLGPAR $\quad$ GKAI L Q H F G S VAR L R T A S | $R$ | $H$ | $V$ | $G$ | $S$ | $V$ | $N$ | $Q$ | $L$ | $V$ | $Q$ | $T$ | $F$ | $P$ | $T$ | $I$ | $E$ | $Q$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $P$ | $G$ | A Q A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $P G I G P T R K R A L D N H F G S A R G V S Q A G$ RHVGNVTA QVLAEKFPTVEQLADAT

 PGIGPKRKRALLKA FGS IDGIIRRAS
 $P$ GL G P A R R Q AL LDD A F G T V R A L R E A T $P G V G P K R R A R L L Q R F G G V R A V A A A T$


 A GLGPARRSALDKEFGSVKRLASAS
 G L G Q Q R R T DL V K H F G S VK K L K E A S $G V G P K R R Q R L L S R F G G L Q G V K G A S$ $P G G P K R R A R L L Q R F G G V R G V A N A S$
 P GLGESRRQALLVKHFGSVKRLRAAR





## UniRef90 B2V5U1

 UniRef90_E3J1R5UniRef90_E0XYY6 UniRef90_-Q8PKS0 UniRef90_D4YVQ0 UniRef90-B7A7Z6
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UniRef90-E8K0C8 UniRet90-75PVV3 UniRef90-X1FWB9 UniRef90-R5UT14 UniRef90-F3Y9F1
UniRef90-S0JQK2 UniRef90-J1L3L8 UniRef90-A0A016QPI3 UniRef90-E1VTY3 UniRef90-R6EZT1 UniRef90-UPI00046908B3 UniRef90-X1G6P1 UniRef90_UPI000374A4F3 UniRef90_S1RN71 UniRef90_T1C5D1 UniRef90-R1CAQ7
UniRef90-Q03DT9 UniRef90-R7RMR3 UniRef90_UPI00041E7D3E UniRef90-UPIO003630B4F UniRef90-UPIO0047C6C70 UniRef90-E7GCN7
UniRef90-G2FED3 UniRef90-UPI0003FF57F6 UniRef90-S0JNC3 UniRef90-R6BGX1 UniRef90-E2CKD4
UniRef90 EOWRF5 UniRef90_UPI0003B59FC4 UniRef90-I6Z445
UniRef90-R6WCE0
UniRef90_Q3K0N2
UniRef90-B9JY41
UniRef90-S9QT45
UniRef90_R5GK51 UniRef90_H2U935 UniRef90-A0A015SJ15 UniRef90_R9GTC2 UniRef90 W8VPL6 UniRef90_Q4KFH1
UniRef90 Q71I52 UniRef90-R5BCJ7 UniRef90_R7K725 UniRef90_Q3KFB2
UniRef90 R5J463 UniRef90-UPIO0046305D8 UniRef90_R4W5D8
UniRef90-LONGA8 UniRef90-S8FE97 UniRef90 B1VZW1 UniRef90-I6ZFH1
UniRef90-R4KFC5 UniRef90_R7H4T3 UniRef90-B3PTU7
UniRef90 M5T7A9 UniRef90-M5T7A9
UniRef90-R2SXA5 UniRef90-B1C8N2 UniRef90-H1XPH6 UniRef90-D7CY76 UniRef90_UPI0003A90727 UniRef90-U4KKJ2 UniRef90-K2JDS2 UniRef90-E5WJ85 UniRef90-Q9K8A9 UniRef90-E1GU29 UniRef90_Q2N9V6 UniRef90_S1N9D4
UniRef90_B5YKKX6
 KRSASMTSSLLDGVPGLGETRRKALDKTFGSVAKLRAAS SKHCRLAALLHGLGIPNVGEKTARLLARRFGTLQTLQTVQ KSKQNSVELLLTGIDHVGAKVARLI SQKFKNLPKIMAAD
 S S D L SKSNDPVRLLTGLA LD

R DK Q $\square$ TK S VLD E
LED



KEDRNSKLDLI SKNRPLNALLYGLGI SKANSAERLLFGLGI

KSRGKD ПRSQLAADV
 D

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SKSLFA
```



## ARRTKALLANPLDE

 ADTLKEQVEYALLT, KRSKQADETELDEI

TTDPRLIYGL GII
T T L A R F L Y A L L $\quad$ D
KS YDAMLRTALTS $A K D A P A A R V L T G L S$
$S K Q V S P Q L L A G L G$
 SRSRGLARLLSSIS
SKENSGEDLLFALS
$S K T Q P \square E R L L V A L G L P$
RTKQANLSVFDK
TPFNRVLYAL SKRSKQALNTELETI

KNAFOS D GEKTVVELLKKFKSIKRIIASAS
FQSVLDDVPG GEKRKKQLLKAFGSVKKMKEAP
KRSKHQLHSVLDEVPGUGPKTKEALLKELKTLSNWKTTD
RLLLGLGI RHVGAVTARDLMKYFHELPALREAG


| UniRef90 B2V5U1 | D |
| :---: | :---: |
| iRef90-E3J1R5 |  |
| UniRet90-EOXYY6 | EQLLAl DEIGPVIANSV |
| UniRef90 O8PKSO |  |
| UniRef90-D4YVQ0 | EVAA DTUGPTIA |
| UniRef90-B7A7Z6 | ELARLPGMSLKAAQAL |
| UniRef90-X0W6A8 | AK EGLGDARAKK |
| UniRef90_UPI0003B70D70 |  |
| UniRef90-D9QNW9 | vogl NRALAER |
| UniRef90-RGJSQ0 | TERLLS DGIGEAMAKDVIEFFNEEHN |
| UP100041C17D4 |  |
| R6x4 |  |
| UniRef90 A6V7) | QVERLPER |
| UniRef90-UP1000255DA9A UniRef90-B6FXZ9 | VNQLKEVEVVGEARAKK1VRFF |
| UniRef90 K6TH32 | ELLETESTDNKAANSILAYFK KHEQ |
| UniRet90-UPIOOO47733B5 | ALINDIGEVMAKN |
| iRef90_W7SVB5 | VDESGVPGVGRRTAEAVHATLISAGKE |
| UniRef90 UPIO0022 | AVDG\| G |
| UniRef90-B4FBX5 | MDELARCPG\|GERKVRRLYDTFHEPFAK |
| UniRet90-V7PX | KDEINSIENIGPIVSLSS |
| UniRef90-R5BVV3 | EDEVSG\| DGIGA |
| 15 | N |
| UniRet90-R5UT14 | YEQ LEVAD GEQMATSLYKYFSKEN |
| UniRef90-F3Y9F1 |  |
| SOJQK2 | SMG |
| UniRef90 J1L3L8 | KDDLTAVKGVGKKTADSI |
| UniRef90-E1VT | Q A M G G SIIAEALVDWF |
| UniRef90-R6EZT1 | QLVSIDGI GEVMAKSFRDFFDKDENK |
| P100046 |  |
| X1G6P1 |  |
| UniRet90_UP1000374A4F3 | T |
| UniRef90-S1RN71 | A EDLLNLHTMGETA ASLTTYFAND |
|  | DGGGKKKARK ALT |
| UniRef90 Q03DT9 | DEEFDAVDTI GETGANNLATFFQSD |
| UniRet90-R7RMR3 |  |
| UniRef90-UPI00041E7D3E | T |
|  | L K DVGV |
| UniRef90-UPIO0036A0EC5 | AEIEGLGGVIAQSLQDYFATDGAK |
| UniRef90-E7GCI | LQEL LPDKVAEELF |
| UniRet90_G2FED3 | LRRVEGVGPIVADHIVTFFRQPHNQ |
| UniRef90-UP10003FF | ELTEV GNPRAKA |
| SOJNC3 |  |
| R6BGX1 | G |
| UniRet90_E2CKL | D G ${ }^{\text {a }}$ |
| UniRef90 EOWRF5 | A TPGVGEKMAR1 HE |
| UniRei90 -16Z445 |  |
| UniRef90-R6WCE0 | G |
| Q3K0N | IED IMC GIPRTVAESLRDSLNDP |
| B9JY |  |
| UniRef90-S9QT | LADLKAVPGLSDQLAETVYA |
| UniRef90 R5GK5 | PLECCIDGGGQIMADAVY |
| UniRef90- A0AO15SJ15 |  |
| UniRee90'R9GTC | QLMSIAGI GPKTADSI |
| UniRef90-W8VPL6 | ELIPIVGTSKAQRI |
| Q4K |  |
| UniRef90_Q71152 | Ald ${ }^{\text {a }}$ GTIAESLTAYFQQEEAK |
| UniRef90-R5BCJ7 | VGPAKASL |
| UniRef90 Q3KFB2 | MROA |
|  | VEEMTA |
| Uniref90-RJJ463 |  |
| - 4 W5D8 |  |
| UniRef90 - 0 N | NNIEGI GEVVARAMV |
|  | R |
| UniRet90-B1VZW1 | DGVGPTIAAS |
| 6ZFH1 | LG GPKVAS |
| UniRef90-R4KFC5 UniRef90 R7H4T3 |  |
| UniRei90 B3PTU7 | LA |
| M5T7 | S |
| UniRef90-R2SXA5 | IIE ELNA SGLPKNVAKNVYDHLHQE |
| UniRet90 ${ }^{\text {H1XPH6 }}$ | E V |
|  | T A |
| UniRef90-UPIooo3A90727 | QADLTDVEGIGT IVAEAIVDFYQEPHN |
| UniRef90_U4KKJ2 | KLTDI GIPEAVANNLKEV |
| UniRef90_K2JDS | A N |
| UniRef90 $13 \mathrm{YVG2}$ | F |
| UniRet90-E5WJ85 UniRet90 Q9K8A9 | DEGYKAS |
|  |  |
| UniRef90-Q2N9V6 | GI GSAVVEALGDFFHEEHN |
|  |  |
|  |  |


 L $L$ C GVVS
LLKSRLEEA|
SKHNPLSRLVGGG
RLDKRLPVPVIENLVREFGSLQQVLNAS KSTKSQRLLTALGA KREYSKVIYSLTK
 KATFESLLEKIQGIGKKRRDTLLKHFGSTSKIKAAT ELVEEDVGVDETDAARLLQEYRSLDAVATSS KGMTTSTLDDVDGMGPKRKKALLKAFGSFGALRNAT KREDSLQEYILSGFPGTGPERARAIIECFGILPLRWTVD

RVTECLTTVKSVNKTDSQTLLATFGSLEQLAAAS

SKSNNPVQLLTGGL
 HV
E
V
E
G
R
G
G ARHADLWRVLVALS:RRLGPPTARLIASAMGSLAAIVNAT

RF $\square Y A A_{A}^{L} T L V$
SKDNQLHKVIAGLTI KRSKRQ\|ASAFDNI
 KGIGDKTKTALLKEFKSMKRVKEAS RFVNKTDVVTLASTFGSLKNLMEA T
 RLDEGGGPKRKQLLDKHFNSVTAIIQEAS LDGIAGGOAS QLVDVLTTVRSVNKTDVLTLSGSFGSLSRIMNAT KSAFQSVLDDIPGIGQKRKKQLLKEFGSVKKMKEAT TTLPRVIYAL GI ANI GLLANAKVICKEFGDVEAMLEAT


SRVYSALGIVGVGQATARLLARHYGDMGSWRADM
KGMTKSILDDVVGLGPVRKKALDDAMGGFRRLREAS
 TTKGDERYLASGIAGI GPVTAKKIVEKFGEALDILENN ARTRPLSRVLCALGVRGTGRSMSRRIARHFATMDDI RGAD VQQIPGVGRVKAPLLLQRFSSIQRLSNAS
KRSKSQTRSELDS| NG: GEKTKVLLLRHYKSVKRIREAS






UniRef90 UPI000402871A UniRef90-F1SVLL UniRef90-F8F135
UniRef90-R4VXY6 UniRef90 A5ZS54 UniRef90-NoTUW4 UniRef90-R5IUT2 UniRef90 UPIO001 E2FC02 UniRef90-A5D3Z2 UniRef90-Q1GVQ2 UniRef90_C1DXL3 UniRef90 D5EG15 UniRet90-A1VF89 UniRef90-W6N5D7 UniRef90-C70018 UniRef90-R7JC17 UniRef90-K2EML5 UniRef90-UPI000407E576 UniRef90-B5EQJ4 UniReffol-VGAOZ9 UniRef90-W7Cl30 UniRef90_R6DC48 UniRef90-Q49593
UniRef90-L7EJ14 UniRef90-L7EJ144 UniRef90 W7DFP5 UniRef90-UPIO0047AD919 UniRef90 W9BQV4 UniRef90 UPI0003B4A985 UniRef90_R9ST15 UniRef90-G5G190 UniRef90-UPIOOO3782497 UniRef90-R716L0 UniRef90-R5VUE7 UniRef90_K7J2B8 UniRef90-V9R6M7 UniRee90-UPI0002F24AC7 UniRef90_UPI0003B40C05 UniRef90- E4KP43 UniRef90-UPIOO0464495D UniRef90-D3P9B3
UniRef90 E1VII7 UniRef90-B9DNI3 UniRef90-A0A024H205 UniRet90 BoJMT6 UniRef90 E7MPU2 UniRef90-B5Y881 UniRef90_UPI000388C43B UniRef90 FOGUW9 UniRef90 A0A011PBZ5 UniRef90_UPIO00375E5A5 UniRef90 S7VH47 UniRef90-UPI0004028F82 UniRef90-I7B185 UniRet90_U1NT70 UniRet90_A6WDK9 UniRef90-X1N9L0 UniRef90-D7FX85 UniRef90 ${ }^{-} 4 \mathrm{P} 718$ UniRef90-G4TN54 UniRef90-A3YYE8 UniRef90-AORWM UniRef90- ${ }^{-16 Y R I 2}$ UniRef90-A0A022LJW6 UniRef90_A6QBI9 UniRef90_K9ECY4 UniRef90-A2TQP8 UniRef90 G8LV51 UniRe990-F3X2C6 UniRef90_R5V598 UniReffo-U1NXS9 UniRef90 MOLUJ4 UniRet90 R6HH52 UniRef90- B2AOE UniRef90-UPI00016C0EC6 UniRef90-S2YA95 UniRef90-UPI00046840D2 UniRef90 BoG683 UniRef90-13VX56
UniRef90 D6Y8G7 UniRef90-10HH72 UniRef90-UPI0003795914 UniRef90-F8L772 UniRef90-UPIO00225B7CA UniRef90 R4U1K7 UniRef90-V6MAC5 UniRef90_R5ZY39
$R$ Y L S S GI S GI GP VTA K K I V ERF G T LDD V L D N H RMY LD N P GVGEATANKILSYRDENGEFK

EK FLFAL GI R HVGEETAKDI NA Q DQNLKDV I E DT L E TLP GI GPSKASAILQHREEHGPFKK
 T A H RL I QRF GS LQ GVLHAA $R Y L S S S G U T G U G P V T$

 E $\quad$ VE $Y$ LLTAI PRRDTKLAK QLIDDHFGSLAGVLTAD


L Q T I S Gil G E V K A Q A I I D Y R N K V G K I K N A


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| D |
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K E S E LT S I T G L GP TKA K A I I E YR G S F N K $\square$ MT D D RVY WLAWS S I A GVGSIVSLKRLYQHF GSVAVAWNAT





QKVQGVGPVLAR AE
LQT:SGVGAKKAQEVIR FRDEQGPFKAT
LLEALCGGIGESRAQALIDYRESQNGPFSN
LD ALP GVGPVTAAAI IA WFG
AVTAI K SVVNTDAMTLASN■GSFKDワAHAT



R N QL I S K L D S I K G I GVVVTK E K L L R K Y K S T K Qi K E V S L A H I P R L R PV Q I S A L V E R F G S V S A L L A A E
 MTEKE LLI DTLPGVGPATASDIVEWREANGGFRA

DRFDFA




LLQALPGI GETLSQRII DYRNENGPFQQ





| UniRef90_U2BHJ0 | PER\|L|AE\|IKG|! SERKAME! | S T L M E EK |
| :---: | :---: |
| UniRef90-W2EVX4 | VDQLQQVSGl GERKFAELRD |
| UniRef90-E6X2H9 | REDLMKVQGI GPE\AENVYK |
| UniRef90-G5K5Y0 | LEDLKEVSGI GEKTLERLKEADR |
| UniRef90_Q2LSS5 | LEELTAVRGI SAHAAGLVR |
| UniRef90_R6GJ39 | EQELEKVEGVGQGAA |
| UniRef90-J4TR66 | E ELS K I S Gl G D A TVEK |
| UniRef90-A0A014P5Z8 | VTELQD |
| UniRef90-X0U3Z0 | IE DLKKVEGIGGPATFEKLK |
| UniRef90-V5RHF3 | FDELLAI I NKQTTKNLFEY |
| UniRef90-B0Y5H1 | PEQI SAVPGWGEKKVRQWTNAVREDFR |
| UniRef90-F2R287 | VGELIREVNGTGERRFADL |
| UniRef90-B2ZNW2 | PDDL DEVKGI GPKS\EKIVAFCEAE |
| UniRef90_UPI00036180A0 | VGELDAVDGI GPKLLEAL |
| UniRef90-R6NN99 | YERLMEVDGI GDS SA |
| UniRef90-B6WX75 |  |
| UniRef90-U1PTD9 | SGDMANTADI GDSTAADI ${ }^{\text {Co }}$ |
| UniRef90_UPI0003B57781 | REDLATVPGIGPKSAKQILWFLK D K |
| UniRef90-R5ZLT0 | VGEI SQLT D DKTARLI F |
| UniRef90-D5BYP9 |  |
| UniRef90-M5P4L1 | $\square E D I T N V S G I ~ G E K T F E K I K S S \\| S V K$ |
| UniRef90-S0RWN2 | EELQEI T GI GAKTVEQLRNWVT |
| UniRef90-K8DXH4 | V H QLVKVPGVGKKTAQRI |
| UniRef90_LOF9C1 | PEDLKNVSGI GDKTYEKMAD |
| UniRef90-UPI0003758D83 | A A ELASVPNVRPK $\mathrm{L}^{\text {a }}$ |
| UniRef90-U5NCC1 | AASLEQV V SAKQARSLRT |
| UniRef90-B6J505 | IDDQLVRIPGVGRKTAERLV |
| UniRef90-G4F563 | EKALVAVSGI GKKKAVGI A A S WNE |
| UniRef90-R5MTQ9 | Y DKLSMIVGVGDVIAKEWIDT FKNP |
| UniRef90_U2UXR3 | PDRLLEVSGI GRI RVEERIKRSWQE |
| UniRef90-A8LK52 | DADLLNI D GVGEVMARALVTTLTQE |
| UniRef90_Q166E0 | LD DLLSIDGVGTVMAQSVIH |
| UniRef90_W7XYQ1 | IERLLK EVT GI A Q A K LDQ I QS SWT EHRE |
| UniRef90-A0A023DXR8 | FSRFKMIPGI GAKLASRI $\square$ QELLQQ |
| UniRef90-E31114 | EEELQE SI GEKLANLI |
| UniRef90-S0RNJ5 | VEDLTKVS GI GEKTLENLRD |
| UniRef90-TOMVB6 | I E RL N E I K GI G S K K I E L |
| UniRef90-SOKGM6 | V T Y L TKFPGVGKK TAQQM |
| UniRef90-F0S2W6 |  |
| UniRef90-EOUQ92 | F D Dis St L N T K D A K I K N F Y K |
| UniRef90_J3JG51 | PADLATKADVGDSTATDIVR |

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm


