## QUERY

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## QUERY <br> UniRef90_I1EKZ4

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| QUERY | RLV VF |
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$M V T G P H Y G T E Q A S S A Y L F A N A L I$ EK GHQUAQUIFFY



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 MRYTL LVTGPAYGTQQASSA LLFAHSLLK DGHHLVSVFFY

 L $\operatorname{N} Y \mathrm{C} L \mathrm{~L} V \operatorname{T}$ GSAYGTQQASSA YQFA LALLLEARHRLSNI F F Y
 MKFA I ALFSPPH APSSRRALRFAEAVLAGGHEI NRLFFY


 $M D Y S V V V Y G A P H S S Q A P Y S A Y H F D K S A L A M G H S V Y R V G F Y$

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 $M R Y L L S V T Q P D Y G S Q A S Y L A Y Q F A Q A L L Q A G H T I D D Q V F F S$ $K F T L L V T G N P A S H Q S A S N A Y Q F C S A A L K A G H K M S G V F F Y$ MKFAL QI NSSPYQANAGRTACAFDKAAVAE GHQDLQVFFY
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 $M R Y V L S V R Q P V Y G S Q G A Y \square A Y Q F A Q E L I C Q G H L I S Q I$ F F S $M M V T G P A Y G N Q R A S S A L Q F A W A L L A C G H H L G T V F F Y$ $M \square F S L L I Y A S Q N S G Q A E Q T A L R F S R S A L S Q G H K I M R V G F Y$ $M \underset{S}{N} \quad$ G L L K E G P Y N H Q A S D T A Y K F A E A A A A R G H K V D A V






 $M R Y V L A V K Q P V Y G T Q G A Y L A Y Q F A Q T L L A K G H Q I E Q I F F F$ M M $M Q F Q V N G G A Y G S T G S F R A D G F C Q S A D A Q G H T V V G V F F Y$ $M V Y \| F A \operatorname{I}$

 $M K$ LA $V$ CI YE GPYNHEASDSAYNFIQAALRKGHEIR GI F F Y $M K F A I A L L A G P$ Q DPAARSALEFARAVLSSGHQISHLFFY TF S L LI TH H S P T N S GE P Y A A WR FA S S AL R L G H D I S GI F F Y
 $M R Y V I A V K S P \square Y G K Q G A F L A Y Q F S D A L I K K R T R N L T D F F F$


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Q D GlV T N G NA ${ }^{50} \mathrm{C} V$ P A T DEFN ${ }^{60}$
70
80
P L L L C V S





 QE GVV G N G N S L L A P A S D

 S E GlV L N A N H F N T P A N D E l














 G D G V V H L A S A L L A P P S D E Q H H W P R L L W S E F F



 Q E G $\quad$ V T $N$ N A N R L




## R


Q












 S D A





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T N/L|A D GF 110
110 A A SRRGVGCQQEQIQSYSSSYNLQNGFTLSGLTADVEA
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 A S L R R GIV D D A EAR RYGLE G S S LAE GFELTGGLGQLL HANA

 A AVRRGVV N E T E S K R Y E L N H H S L A H GF QL E GL G T L V E L M S A A QR R G L L C E DE A R R Q GLA D N H L A E G F R I A G L G Q WL E A S L A S QR R GVVVD E VS S S D
 A A LRR R GAL NDEEAARYSRTAASVVAP WQL S GLLGQLEHEAN Q A A V K R G V L D T N E QKR Y E K N A Q N L E N R F E L S GLL G Q L A E A DA A A L K R GL L D E NE A R RYE REGANVVRAPWQL S G L G Q L M E A V Q S A Q R R G L L E K TVVA H K V S G Y E N A L A D G F R I A G L G L L M E A V I S A L R R GIVVDK TE QA R Y E L L A S N L R A P F E I A G L G E WV E G N L S A L R R GII D D T E Q A R Y E L P G N NLLLEP F GI A GLL G E WV E GNV A A L R R GV I D Q S E A D K A G K S N F N L L
 A A LLR R GIVVDADEAARRLELEGDNLAAPEFVLDSGLGQWAAAVAA A A MRRGVLAETDAKELNLSQWNSEAPFSNAGLGELVTGI E A S QRRGVVDKLTA LD PA Q TNLAEGFVLAGLGEFSKAML A A L R R GI T D A V Q A A L L K L N G D NI Q P GF KM S GL G T L A Q A A C
 SALRRRGLLDETEAKRYERDASNVVVPYRIGGLGGEWLESSQQ AAQRRGVVDAQTA RADSSTNLAEGFAIVGLGEFMMASLL A A L R R G V V D M R $\quad$ G N T P C H D ASSQRRGVVNEMTAEDGN SRNLAE QFTVITGLGEFMA ALL





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 A G L R R GVI DVVEAA E D A D L D A A N L S A S F D L G G L G E Y V T A A A A A QR R G V L D A S E A E Y H GI S G D S L A E H F R G G L G E Y V E L
 A AL H H GVLD A DNA QRWERPAAS LA D GFVVISGLGQQLADADQL A A LARGI TDASNAQRHS LQQHNLAQGFELVGL GELADAVQ
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| UniRer90-M4UZW5 | KCDRVVQ |
| UniRef90- ${ }^{\text {B8C }}$ | SADRL |
| UniRef90 ${ }^{\text {W0 }}$ | Codr |
| UniRef90 ${ }^{\text {W }}$ | GCERLVTFGD |
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 GDGVHLANRLIHPGRDGEAVASRWQSLVKDSALPARVCVG

 QDAVQVANSLQWFPDDQRHLTHEWQKLSEDVDRLDVCVS HDGVYNALR SGSSAEVHDSAPRWSDLADQYRTDLVLCVS SEGVHHTNNLMLKTGDELFVVDSWKTLATEHNVKLLVCIVTA

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 GDGAYTANRLMWQTADVPSVAKQWQALSNNHG| TLLPVCVS GDGVSLANALAWRGDDDQAAAQLWQAFVRDHEVDASVCVG SDAVMLANRLDWLPEDTENMAKNWQHFAMSHDTTI QVCGS ADAAHTANRLRWQSADQSNDTQEWQALAAQYNLVLPVCVS
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| UniRef90_AOA038 |  |
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| UniRef90-K2C513 | CMDARGLTDDR IAEGTKRSTLEELANWTD |
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| UniRer90-C0AB08 | C |
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| UniRet90_-UP10004635: |  |
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| UniRef90_UPloo037ED; | TALTRGVVDTDNAGRHKLSADNLIA GFELVGLGELATALA |
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| UniRef90-UPIO00416EB81 | TALSRGVSDSENSARHQLNGDNLADGFTLVGLSELAMMLQ |
| UniRef90-GoGAP5 | CMEYRGLRVED |
| UniRet90_D5VCK1 | T A $\mathrm{l}^{\text {A }}$ RG |
| UniRef90 A4A8D1 | SAQRFGVGDGRNLEERCL |
| UniRef90-LowA17 | AAQRRGVCDDKLASQRQR HGNLAPGFTLAGLGQWADAQR |
| UniRef90 ${ }^{\text {c }}$ - 8 PZW9 | A A DARGVTDADNATRHOTQGDNLADGFEDVGWGELAMHLH |
| UniRef90-S4YU32 | TALSRGISDTDNSSRHQLETENLATGFKLVGLSELAMMMQ |
| UniRef90-UPIO0047A17B0 |  |
| UniRet90_UPI0002 |  |
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| UniRef9 | TALSRGI SDT DNSKRHQLNGDNLATGFSLVGLSELAMMMQ |
| UniRet90-U4TBM6 |  |
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| UniRef90 W1FR74 | A ALRRGVVDETEAKRLGLAGANLQSGFNLSGLGSLAEASSL |
| UniRet90 UPIO002892A13 | CADARGIRDSENGTRHRDDGDNLATGFTLVGLDELAMMMQ |
| UniRee90-S3DHs | AALRRGIVGKNEAKRYQLSTSNLAKHEQVGLGTLAEAIL |
| UniRet90_W0B8P8 | CMARCGL |
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| UniRef90-E6F | CIDARGMSDGE AMRRQGKDANNVEGSQRSSMDE |
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| UniRef90-K8W | CTDARGV SHLPLADGVEDGTLVELA |
| UniRet90-UPIo00410544D | CMDARGLTDAE ILSGMRRSTMAEL |
| UniRef90-Q125G2 | CMDARG! |
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| UniRef90-UPIooo3813E61 | A AEKRG\| |
| UniRet90-WOBDB0 | CMARCGYKNQPYF YKNHPYFEGANKSMGEAM |
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| UniRef90-X1RPK1 |  |
| UniRef90-E6W | CMARCGDYKNEPYF EGAEKSTMQQLSQWVV |
| Un | CMDYRGITTDM IIEGSRPSGLPELAKLFA |
| UniRef90-TTL7717 | CLDARGLVDAE LVVGSRRSTLDELAAATV |
| UniRef90-X7Z9H2 UniRef90-D6V498 | CMDARGLPDREAA FMPGARRSTMDELAAETA |
| UniRef90-A8FY07 | CMARCGIFKNQPYF EGAEQSTMQELSDWVI |
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| UniRef90-K6XU | ESDRS |
| UniRet90-142449 | D |
| -e90-Q89A62 |  |
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| UniRet90-F8 |  |
| UniRef90-A4BDF | DADRL |
| UniRet90_N9AWH4 | NTPRL |
| UniRet90_Q609A4 | KADR |
| UniRef90_UPI000463D76A | VSDRVMTF |
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| UniRef90 R9P | SSDRVV |
| UniReto- 1 |  |
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| UniRet90_W13S8 | C ${ }^{\text {R }}$ |
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| UniRef90-UPIO00469FC0F | GADKVLVF |
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| UniRef90-B8KC | DSQRFLTFAD |
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| UniRef90 A7C7C4 | QSERL |
| UniRee90 UPI0002FB0212 | DSDK |
| UniRet90-ToN | WAVKV |
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30
40 MKVTVVTTSAPYGRERAYSALRFALTSLLEGLEVN FLI
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 QFIVLDHTAPTDHDCTQRLTKFTQACLDAGHTISAVF KIVVIANGAGYGHESLFNALRLALAMKEQAADILKLFFM NIVMTLSGSPYGSEALFNALRLA乌ALKEQDHTVNKLFLM
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 MK LAI I LET KEHEKAWNAFRFGVASLKKQHEVK FFLM KVLI ANSGPEDPCRATVPFLTAKACVEKGMDVVSTWLY
 TFTIVIGSGAYTSERPYTMLRFAYTSLLDEHKIN I F LV
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 $M K L G V I D E T K E F$ EKAWNAMRFAVTAKKKGNEVK VG LM

 $M K L G\|I I \quad S Q T N S E T V W N A L R L A N F T L T Q G \quad D\| V K \prod F L V$



 $K$ F L FVVLS R GPEDPT RAVRCFQLAK DATDK GHD T TVVFLV MHYVI STATWGPTDDVTRAALDPFIVFAASALDQAGDTVMM ML F



 H I GIVLET S D P E R A WN AFRF G I T A L
 $M Q \overline{F I}$ I SGSHGTDDPTMATLPFMAAKAAREQGHDVILLFL W

 $E Q A R T T T A F R M I D A A L D K G Y D V K$ $M K I G I I \quad$ I T K A



E P E T V WN A F R F GTTSSLL L D HE V K

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UniRef90_F8GJV5 UniRef90-W1FJ20 UniRef90-Q60BW1 UniRef90_R5EGG7 UniRef90-K1ZS80 UniRef90-L9XX88 UniRef90-K1ZDI4 UniRef90-B1IOT5 UniRef90_UPI0004692E70 UniRef90_UPI00030B1533 UniRef90-K1Z4Q3 UniRef90-B1WX68 UniRef90_UPIO0024915BF UniRef90_Q8PRZ6
UniRef90_MOCHI1
$\square D A \operatorname{DPK} 50$
50
FFTSAGQLFSGILTEKGVVIRACAR MDGVHIPQKDQ NPRDFQNVSQNFKDLIKK GAE KAC QQAVLFASQHFSLASDEQQPAQLWQSLHDAGGAALKACCVT SDAVTGVLP LDGALVPVEDOQQPGEGYNLQQMLEELLAQGAEVKYCTS QDAVWHASSNFMDPTDEYQFTAQWHTLSDA AAEPLLLCGVT SDGVWNVLKTDTPASDEWNPLVFFKKCSNSAG LYYCEA GDGVFHAHSQRQPVASAQD VSAWQQWSAASQVPLQVCET QDAVYHAQTGLSLPSDQLNLGELWQGLKKDHNSLEVCST GEGVRAASAEVYPANDEFNLVQAWQAFSRQFNVPLHLCVA SDATVAALPHQKDNAGNL IQTLVQELASADNASVHMCRN SDAVVAGLAGQETGGTAQNLGVMLAELVEA GAEVRLCRT MDGTHIPKRNQA PQSFPNSAERLRSLVKK GVKVTSCITR GEAATLANRNVYPFDIGVNMPSMQEEFLVGNKVPLWVCQA GEAVECENLLHEK EDGIFVGKKNQDPSTYDNVGKWMKDILSEGG NVKACGV $E N G V Y L G \square K D Q A P S D Y P S H E N L L V E A Y E N G A N L K A C G P$
$Q A G V L H G Q R T V A D P H G$
$V$ LDAVHIPKRGQAPVQFRNUGGLIFELASQGAIDVRACR GDAVASGCKNTGSSN QDGVLNGSATHVPANDEFNCYKLLLNLD KYNLKLVLQQR GEAVEVE
NNAVYLGVAEHVQAAGLPTLEDLLLFLTMSKPIPGYIGIS RDAVHLANRHAWTGDAEQASAAQQWQQ\|ASQSVEAMVCVG RGGVEVSGSEADAP EWGALHSETGTPLLLCSS SEAVNIANRNVYDKIVGHNMPAMVVDSLVEEGVPFWACEA SDAV AGGLQGQQPAEGYNLRQMLELLTAQ NVPVKLCKT SDAVTAGLRGQKPAEGYNLQQMLEVLTAQNVPVKLCKT ADAVSLASAAAADNPY FNVGSWCGLAEQHHFDLVVCHT GEGVTVIKKGQNPKRFPNAEKDCRNLGMEGLKVAACST ADGVRNA
GEGITAIIDKQAPKRGPNLGTTIKELMDKGMV VIAACST GEGVYEANS QQTPAEKYNLQEQTTEFVKSDNAKVLACGT SDA DAAGLAKQNPAEGYHLQQMLETLSAQ GANVKKCKT HDAVTLAVPGCHEKVVPCGPPAKFAEVEAHENAEIIVCKP
ADGVLCAKRGQETPKGYYNVERMLKPIIRKGGV IMACRT
NSGVEVEFMDH

 GEAVECENDQHPKFKVF EEMKKFEELKGELLACGT GEAVECEGLIHEK YNVDEQLRAFVNIGGEILACGT EGAVNLTMKAQAPHANPRDWVAALEQLAGEQGVKLINCGL GEGVE
GEGVE

CDAVWSMSSNDFTGKDGNUGERFKELAAKGAQVRGCGL
ADAVSCGMEEQKTPNGYYNDGRMTLLFTNRGG
GDAVSGAKAGQKTPDGFYNTERMLKRVITKGGRVLLCGT GEGVEAEES TDDQFDVRDRMDVFADSGGGELACGT EDGVYVAKKGQCNPSEVPNYLELLKKNADEEGAVVVVVCGP

 GEGVEYESG SSEKFNDKEQVSELLKSDKAEIMACGT GRGVCQAAEP EDTDEQFDVRDRWREVKGLCGASLTLCSA GKGVELESDDT ADKFNVTEQLQTFINCEG KVFACGA SDAVSGGLLAHQQLAAEGYHLQQMLELLTAQGGAMVKLCKT


## D

HDAVTIADDGTHQKMDPFGPPSKFAEVFSNPNAKILVCKP SDAVTAGLKGQK PAEGYNTQQMLETLTAQ NEAVTLARKGTADHVVGVNLTKDLLAAVQAAGVP TWVCGA AKGVEAESLNTADCDKEKVTEQMELLKLKSLQCELLVCGR


## A



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NE G
E G GVVSLGFAHQ
GRGVVESEN D $\quad$ I D D Q
G D GlV E A P DLEHEK

## UniRef90 Q46BS5

 UniRef90-K2R4R9 UniRef90 ${ }^{-}$TOL3X4 UniRef90 A3QJQ8 UniRef90-D2SO97UniRef90 A4CC76 UniRef90 UPI0003736E20 UniRef90- K2JZ13 UniRef90-L8D788 UniRef90_U1KIV3
UniRet90-G4BOS9
UniRef90
UOZ2BO UniRef90-UPIO0040E91A5 UniRef90_C1D9A0 UniRef90-O27410 UniRef90-A4BR94 UniRef90-UPI000470451B UniRef90 K1Z689 UniRef90-X0ZXZO UniRef90-E1RJH7 UniRef90 UPI00047CFAB UniRef90 A0B8P1 UniRef90_UPIO003B670D3 UniRef90-A2PDC7 UniRef90 R2QEK7 UniRef90-D8FEB8 UniRef90_-Q0VQ01 UniRefon- X1F95 UniRef90_D3SFB1 UniRefofo-A1JNF4 UniRet90_G7MP70 UniRef90_K8A6J8
UniRef90 X1KHD8 UniRet90_A3WMY4 UniRef90 U1X805 UniRef90-F6BEJ3 UniRef90-UPI000363CBA0 UniRef90-TOL896 UniRef90-A6UVM0 UniRef90-K1YKB9 UniRef90 S6EGIIG
UniRef90 UPIOOO4647C0D UniRef90-X0ZH13 UniRef90-L8XXN3 UniRef90- D3RZX8 UniRef90_O8TJ62 UniRef90_T2GA04 UniRe990 LOBIB8 UniRef90-K1XZP,
UniRef90-J7JFO9 UniRef90-L8M5S7 UniRef90 K2B2K5 UniRef90-K1ZU03 UniRef90-X1DHL2 UniRef90 E8LLD9 UniRef90- X1UBIO UniRef90-W7OD74 UniRefo-UniRef90-N6VS41 UniRef90-A1VBT9 UniRef90 K2CXB9 UniRef90-A8URV6 UniRef90-T1BZH4 UniRef90-K2FYU2 UniRef90 Q21KAO UniRef90-H3NTV2
UniRef90 L9WGD7 UniRef90 ${ }^{-1}$ NZP2 UniRef90- R9XRA0 UniRef90-B7K598 UniRef90-K1XZS9 UniRef90 S7U223 UniRef90-F8GJV5
UniRef90-W1FJ20 UniRef90- Q60BW1 UniRef90 R5EGG7 UniRef90-K1ZS80 UniRef90_D5BXD7 UniRef90 L9XX88 UniRef90-K1ZDI4 UniRef90_B110T5 UniRet90 UPIOOO4692E70 UniRef90- UPIO0030B1533 UniRef90-K1Z4Q3 UniRef90-B1WX68 UniRef90 UPIO0024915BF UniRef90-Q8PRZ6
UniRef90-MOCHI1


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CAVARQIGEAD AFKNAAI SSE
CLK C R
C AVARQTAEED CLEIRGEGSEMCP CLKSRQSKGSETCP CLA
CAVARKTGED
CAKDRNITPENWISTASYKN CLKMRG KEESKVCP
CVDERGVNDAVEGCRRGAPKD
CI KSRHLEDKTSCP
CLKARQMVGSEVCP

| UniRef90_Q46BS5 UniRef90-K2R4R9 |
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| UniRef90-U1K6N1 |
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| UniRef90-D8FEB8 |
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UniRef90- XOZH13

UniRef90-X0ZH13
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UniRef90-J7JF09
UniRef90-L8M5S
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UniRef90_R9XRA0
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R D D
EADKVLVY
ESDKVLTF
WCDKLLTF
K S D R V 1 S
EAKVFTF
WADKVVTF
WADKTVTF
K S D GVIV

TSDRFLNFG
QADKVLVF

ES DK V $\quad$ T F
E A K V FS
R QDK F $\square S$
ERDRNTAF

| $T$ | $A$ | $D$ | $R$ | $V$ | $E$ | $F$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $D$ | $S$ | $D$ | $R V$ | V |  |  |

ERDRSVVF

ESDKVLS
ERDKCI AF

WADKTVTF
ESNRTLTFG


|  |  |
| :---: | :---: |
| UniRef |  |
| Ref90 J9ZB | S |
| Ref90-D1KCR1 | AKGGV |
| UniRef90- U2 | NDAVDLA |
| iRef90-J71 | DDAVVLADNVKAPTGDD AKT |
| UniRef9-M0D | G |
| UniRef90 E6VTM4 | DDAVYLT |
| UniRef90_UPI000474FFD7 | VVKDGQ DPKRFPN GEIL E VMM |
|  | ECEGVIHEKYDVAGQ |
| R4 | EAP DLEAETFNPHGVMVK YDR |
|  | EGAVSLSFAHQKPHAEDHPLLTKDWIA |
| UniRef90 E1 | DDAAFLVKHGMIDNUVAPTGDEAFSQYLVQNKVP YVCIP |
| UniRelg-ABIA5 |  |
| UP10 | PGAADH VGVN VKALKEVLSEMGIPDWACKG |
| UniRef90-F4BT73 | T K LFQE |
| UniRef90-X1F777 | , |
| Uni |  |
|  | GKGVAL DQIDDARFAVREQAQAVLAAGGQFLACGT |
| UniRef90-14D | DDAVSYALLGLADGVMAPDNAKQYLDYLISQDVSFYVCTP |
| UniRe990LOHF74 | DGVYASHTLDPDQF NLQDV |
| UniRef90-D6SNM8 | CDGVYCAVKGEAEKIDDEGTPFAPLKELVGKFGGKIWVCTP |
| UniRef90-D6Z43 | GRGVE YEQTSSEQFDTSGQLAEF DNDGGNFL |
| UniRef90-D3 | GNGVY YTVRPE GARAEEL GARLYCSH |
| UniRef90-F8A | G |
| 咗 |  |
| UniRef90 $15 B 476$ | AVAHGNAVHGLNREEEDWVAALQQKATDKGL |
| iRef90-O27468 | GVSDARKGAVKHPAFPRLDELMAEVIEM GV |
| D9SIL |  |
|  | A |
| UniRef90-UPIOOO4 | NEAVVLAKKGMVDGVQGVGLLKELLAAALLETANVSLIWVCQA |
| 62 |  |
| - | A ${ }^{\text {a }}$, |
| UniRe | GVYY AKSNQKPETIEGGPFAPMPSII |
| UniRef90-A0LIU0 | C |
|  |  |
| 90-M1E6C5 | G |
| 90- UP | GDAV |
| UniRef90 M1 E7Q2 | SNGVYTVTKHTKAPGHDP |
| UniRet90-UP10003809 | GEAVGLMRKNVVVPVGWPPLVQT |
|  |  |
| UniRef90_UPIO002F1DB29 | GNGVYY |
| UniRef90-N9NVC2 | GNG $\backslash \mathrm{YNADQTQSUK}$ |
| UniRet90-B4UA16 | QF |
| + |  |
| UniRet90_A6UUB5 | LDGASMGQKGECDKVKHPAFPK LSEL |
| UniRet90-D7BXX4 <br> UniRef9- UPIOOO36A9F6D | GECS |
| UniRef90-E1RGJ7 | MDGASMA |
| Ref90 E1JW92 | NGVYLAKKHMVSGGGFPP |
| UniRef90-F6BAQO |  |
| iRef90-V4J6N3 | DEAVYLAKKGLI DHAATGDIADDLLMTYLQANEVP |
|  |  |
| UniRef90 F0T854 | HPAF ERLLD KLM |
| UniRef90-D9 | GDatGLTSAADTKPRDLTDLERRVRNLLADHPDR |
| UniRef90-D9F | E |
|  |  |
|  |  |
| M502 | GNSVSLSKKEIPIEGDLHISPRLLELACAKGADISTCHT |
| UniRef90_UP10003861A8B | GE CFDTKIIDAEEVNLKERMESFLEKGGQLYTCGT |
| UniRef90-U56 | NDAVSTANRLLDMGVEPFM |
| UniRef90-A7l6N8 | E |
| UniRef90-UPIOOO3 |  |
| UniRef90-F9zPZ30 | G |
|  | N |
|  | G |
| UniRef90 D3C | GNGVYYLTRPETKKFNTRNS KDAGVRLLYCAH |
|  |  |
| UniRet90-C4XN47 | D |
| UniRef90-J4KDW7 | D |
| UniRef90_F5SW15 |  |
| UniRee990 A0 | GEGVQLARREVARAAEGGEPLQHFIRNAKQAGARLLMC |
| AGU | HEGVYNAKSGQKPEEGMPSIVDVNNLSAFWGCKYCIEEE |
| 退90_4D0J1 |  |
| UniRef90 ${ }^{-}$WodHN5 |  |
| iRef90-F9ZLN4 |  |
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| 66C556 |  |
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| FOJIC |  |


| UniRef90 Q1PX43 |  |
| :---: | :---: |
| UniRef90-J9ZBA2 | CAQERGVEHHQ M M G VMIGTLGGDLWKFVQ |
| UniRef90_D1KCR1 |  |
| UniRef90_UPI000467D29C | CLKLR S SKDGTELCP L L M M T M L D I E |
| UniRef90_U2H2U6 | CQTRCGLHVGEPYFEAEVK G G M D L L S W WVR |
| UniRef90-J7IMZ7 |  |
| UniRef90-M0D3F6 | C LD S R Di E A D D L R P R A T M Q CLG V VE |
| UniRef90_E6VTM4 | C AKARGINES A LP S H WR L A K G $\square \mathrm{E}$ V |
| UniRef90_UPI000474FFD7 |  |
| UniRef90_D9PG87 | CLK S R Q M N G S D |
| UniRef90-R4VVX4 | CMESREDEPDD $\quad$ LRPH S T M G C L R V V |
| UniRef90-B4VYN7 | CVDERGVNEA DD G CRRGKPSD |
| UniRef90-E1YCR6 | C AKSRQVTEED |
| UniRef90-A1BIA5 | CSMTR GKT P V S A S K G G L K D M L D I R |
| UniRef90_UPI0003B73BA2 | CALLARGVEPEK M I P NAEDKEMGDFIQALLA |
| UniRef90-F6BA25 | CARTR L L D P E NLI K GAQFSTADKLIEMAA |
| UniRef90-F4BT73 | CAAARGYRAEEDGT C CPDYLQG |
| UniRef90-X1F7T7 | CMKARGLSEDE LILEGIKKTSMNGLVEMCE |
| UniRef90-B5EN82 | SLKSQG WA GSLPDGVTKS SMKGLSDWDS |
| UniRef90_B1ZQ07 |  |
| UniRef90-I4D6B9 | CARTR LFGEDQ F |
| UniRef90_LOHF74 | SLHQRGLSK NAKMNAVLD\GLQE L L G L I Q AVQ |
| UniRef90_L0HF74 | SLHQRGLSK NAKMNAVLDIGGLQE L G Q I Q AVQ |
| UniRef90-D6SNM8 | CLKKRGLTEDD L L V G A P P G GAALVEWLA |
| UniRef90_D6Z430 | ClK S R GLA G S A S CPLGMMTDLYQMVA |
| UniRef90-D3SNL3 | SAHQRGI E ENPLPFFESSSTYNLSRMMQ |
| UniRef90-F8AKG6 | SAEFRGI NQKNLEDGFEDAG |
| UniRef90_C1DVD6 | NAEERKI NPPSYAESSSMYGLSKLIV |
| UniRef90_I5B4Z6 | CASARQIKEDD LIEEGARMASAAEF $\square$ NMSC |
| UniRef90_Q0VMM2 | CVDERGVN DVID G C G R G G P |
| UniRef90_O27468 | SAQFRGLRED $\quad$ NMVEGCK\AGAATFDT L L S |
| UniRef90_D9SIL5 |  |
| UniRef90_K0CIF3 | CVDER GVNDVID G C G R G G P |
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| UniRef90_F6D217 | SANFRGI K Q T DLVEGAKLAGAATY T L L S |
| UniRef90_L0W7T4 | C V D E R GVNDVIE |
| UniRef90_K1YWW8 | CMKKRGITEAD LITEGATPAGGAALVEWLS |
| UniRef90-F6BEJ2 |  |
| UniRef90-A0LIU0 | CADKRLISPDE LI K GAQI SGAQVLVKMMT |
| UniRef90_K6C048 | CFKKR GL E E E S L I E GATIVGGAKLVEFLLS |
| UniRef90-M1E6C5 | CCEERGITKEM IVDGCELTKAGKAI K El L |
| UniRef90_S5DN63 | S A Q A R GI T K E QLESSL G G T P A P P K LVELT F |
| UniRef90-UPI00036A5193 |  |
| UniRef90-M1E7Q2 | CCQERDISQDQ 1 LEEGCEMAKSGKAMKA\\|L |
| UniRef90_UPI00038095F6 | CSRARGVGDGD L A NFGAKYGN P P |
| UniRef90_E4UA05 | $\square L E T$ T GGPLEE L P G F EVTY G D L VGAVD |
| UniRef90_UPI0002F1DB29 | A A PRGVKE FPEWAESSSTYSLSSMMK |
| UniRef90_C6BTB1 | N E H A R G $\dagger$ E S K E |
| UniRef90-N9NVC2 |  |
| UniRef90_B4UA16 |  |
| UniRef90-K1LGH2 |  |
| UniRef90-A6UUB5 | SAEFRG $\square$ S AKNLEDGFEI A G |
| UniRef90-D7BXX4 | CAEERGTAD Q $\mathrm{C}^{\text {P }}$ P QVRR R P MFKYAEHVAVA G |
| UniRef90-UPI00036A9F6D | SAKFRG\S EK NLEEGFEI A G |
| UniRef90_E1RGJ7 | SAQFRGINE $\quad$ GNLVEGMKIA GAATYDDLIS |
| UniRef90-E1JW92 |  |
| UniRef90-F6BAQ0 | SAKFRGINEK NLEDGFEDAG |
| UniRef90-B8FM78 | CAKARRIA EED L I E GAKMAPATELIRLSSC |
| UniRef90_V4J6N3 | CAKSRGI A E E D L I E GARMATAVELI NLCC |
| UniRef90-F2NIL8 | CLK S H GLVGS G C P |
| UniRef90-F0T854 | SAEFRGI K Q T LVDGTKLAGAATYITLLS |
| UniRef90_UPI000373D24A |  |
| UniRef90_D9WMB9 |  |
| UniRef90-D9PYL8 | S L R E R G L V E E D |
| UniRef90-G4RND8 | A A T F N K E DE VVEGVK $\quad$ VM G $\square$ A S F Y E Y A A |
| UniRef90_UPI0003481931 | CMKQGGISSDND |
| UniRef90-M5Q2D2 | N EHARGI |
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| UniRef90_U5T6J0 |  |
| UniRef90_E6VRJ6 |  |
| UniRef90-A7I6N8 | S L H M R G V L |
| UniRef90_UPI0003812D52 |  |
| UniRef90-F9ZPZ0 |  |
| UniRef90_B2V9E9 | NANQRKI EPQSWA ESSSMYGLSKLI S |
| UniRef90-C0QTB0 | NAEQRKVKPESWA ESSSMYGLAKLI T |
| UniRef90_D3DI47 | SAHQRGI Q T A S D D FEESSSTYNLSKMLP |
| UniRef90_UPI000262520E | S LK A Q A I E T LP A GVNR S S M K GLS S WI S |
| UniRef90_M1RKN3 | A ID S S GLK E D L IPP L L D G VPA G EFA Q K SL |
| UniRef90-C4XN47 | C CHARGVTTED |
| UniRef90-J4KDW7 | S VKERGL E S S T F S L K H A K LQ P R A ELIE K LK |
| UniRef90_F5SW15 | CVIDERGVNDT@PGCNRGGPAD |
| UniRef90_A0A023WYC3 | RQP G VQ F D P A T LIA E LD E $\square$ S S G G E LA Q M L |
| UniRef90_A6UVL9 |  |
| UniRef90-14D0J1 | CLID Y Y G I K D K $\square \mathrm{K} \mathrm{V}$ G K |
| UniRef90-F4B6F6 |  |
| UniRef90_W0DHN5 |  |
| UniRef90_F9ZLN4 | CFKKRGLEAEH |
| UniRef90-M1PD52 | CAQGRNLNEE T F L S M L D T G GNLIDMAA |
| UniRef90_UPI000466C556 |  |
| UniRef90_F2LA41 | CFKKRALDEDQ LIP GAKIVGGAMLVEFMG |
| UniRef90-A0A024HPS0 UniRef90-F0JIC8 |  |


| UniRef90_Q1PX43 | E S D K \\| V ${ }^{\text {T F }}$ |
| :---: | :---: |
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$\square$ 70

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$K \square G$ S LLKERGLEEDDLVEAAE $\square \mathrm{DDTELYE} \mathrm{\square FRL}$ SLFTRGLADAD

$N \square I P G A T V V G G A K L V E F \square A$ SLQKRGLV
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D A

D

ES K $\quad$ F NF
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