## QUERY

UniRef90-E3FTA6
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YY

 PEILSAMRRDLRLSEAQLSRRLAFEAKAPALEQGRRAELGG

 EVAMMRDLGLTEKQVHQRLAFEARAPQLEKAAREQLG

P GMIIEALQRDLGLSRQEAEERLANEARLLAPI EAQI R GQL G
PGMAAAMRRDLKLTDDQDASRLATEAAAPVVEKRLRAQLG
$P G M V E A D Q R D L G L T R E Q A Q T R L L N E A R M R P V E A K L D R R L L G$
GII TA MQRDLGGLTKS QAEARRTTAEKKATALEGTARSAAG ALLSAMQRDLGLTEKQALTRRLADEKAATALEKKAQRAAG
 PEMLAS MQRDLGGLTADEARTRI SNEYRAGATEPGLRRKSLG PELI SAMQRDFGLTAQQVQARVVQESAAVRTAPQAEKAAG MI QAMQRDLGMNAAQAEQRLVAEAEARGVADTVRAELG

 $P G M L A A M R R D L G L T A E E A S S R L T Q E D A A Q A V A R Q V R Q E L G$ GLTAMQRDFGLTPEQAVARLAAERKATALQPKVRRAAG $P$ $M L Q A M M Q R D G L T$
 PAMLEAMQRDLGI SAA A A A DRLRAETAARGVEGPARAAAG EMLA A MARDLKI SPDQAKARIANNESRASAAGAVVQA SGGG PEILLKAMQRDLGLTA GQAKERLVNEAEAGATAGSLQAALGG
 PDLVAAMERDLGI SAQQAHARLAQEATAMRADAELSRSLG GLLDAMSRDLGLTAAEAEQRLSAERAAVAVEKAARQSAG $P D M L V A M A R D L K L S P E Q A R Q R L A R E H K A V A A E G A L R G S L G$ PEMLSAMQRDLGLTE QEALTTRVAVVATAVETEDELRAS L G ELLQAMERDLGLTEAEAGELVAAEAEARSTDSELRSSLG

PALKT A MQRDLGLSST QLS QY LKVERLAEQQEKIVQAQLG $M L Q A M Q R D L G L T E Q Q A E Q R L Q R E E T A R T V D D A L R A E L G$ GLLTTALQKDFHLTAQQAEQRLAAEKQAAKTDRAAREAAG GLLDAMERDFGLTRAEAEGRLAAERRATALEPTARRAAG QL L S A M Q H D L G L T K S Q A A A RL A A E K T A T A V ENKA KRAA G GLLTAMQRDFGLTRQEAVTRLAAEKKATALVPDARKAAG

P ELLSAMQRDLGLTPTQAKARLAHEAEAGATAARLRDRLG
PALLEALQRDLGLTEEQAVDRLATEAEAMATDEAAQEAAG GVLNAMQRDFGLSEQQAEKRLAAEKQARTTEKQARRAAG $P A V L D A M Q R D L G L T A A Q A R A R L V N E S R A G G V A G Q L R V S L G$ ALLTAMQQDLGLTRSQAVDRLAAETKARETERGAERAAG $A L L S A M Q R D D G L T E E G Q A R T A R L A E E K A A T A D L E P K A Q R A A G G$

P

RLLA

P
D A MQRDFGL V A A M A R DLKL
 $P G L T A M Q K D F G L T E T Q A K A R L S A E K T A T A I Q G K A K R A A G$ PELS AMQRDLGLSPEAAMARIASERTAATLESDLRGSLR
$P$ TLHQAAQHDLGLSSA QVDQLLQVQRDAPAQEALARRRLG
 ATABARARA $P E Q L D A M Q R D L G L T K A G A V D L I E S E T E A Q A V E K K L R K A L G$
 $P V V L A A M Q H D L G L T A Q Q A Q A R L T E E S A A M R L A P Q A E Q R A G$

 LVTALQHDLHLTKSQATARLAAETTARTVEQAARKAAG $P G L A A A L Q R D L G L T A D Q A R E R L A D E R R A A E T E K K A E R A A G$ $P G M V Q A M E R D L G L S G A Q A E Q R L R S E A A A R A V D E T V R A E L G$ $P D M V P A M Q R D L G L T H S Q A L A R L A N E E A A N K V G A A L E N S L G G$ MMQAMQRDLGLTHAQAEQRIADEAAARDIADRVVEKLGG
 VVQAMQRDLGLTKQEAEQRLRSEAEAREVHETVVERLG


 PELLTAMGRDLGLTRAQARDRLVNEAAAGATAGRLRLALG $P E L L R A M Q R D L G G T R A E A E R R L V N E A E A G A T A A V L R Q R L G G$ EVV H A L G R DL GLTPAEARQRLSNEAEACTRAGRLHNAL G ELLRAVERDLGLNAEEARVRLANDARSGEREAQVRSVLG | $P E$ | $M$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $G$ | $A$ | $A$ | $M$ | $Q$ | $R$ | $D$ | $L$ | $G$ | $L$ | $A$ | $P$ | $A$ | $A$ | $A$ | $R$ | $A$ | $R$ | $I$ | $A$ | $S$ | $D$ | $D$ | $A$ | $A$ | $S$ | $R$ |

## QUERY

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## UniRef90 K4R423 UniRef90-D2PRB9 UniRef90-H5XEH4

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PALLI|HAMARDLG|I DARQARDR|L|ANEAEAGADAGR|L|RAALLG


PE L S A MQRDLA L MLQAMQRDLGLTAAQAEQRLHAETEAREVERSLRGQLR $A L V P A B Q R D L G L T A D Q V R Q R L A A E T S A N A L L L G A R T A A G$ - LA A MQR DLGGLSA GQA QT RLRRQE LAAAAR QMPAA QEAA G $P G I L A A D R E A Q G R T E E Q L L G R L T F E A Q A D R L E Q E L S K A D G$ V V E A MQRD LGGTAEQAAARLANESRAAELEARRARAR G

 $G L V R A M Q R D F G L S R A E A E S R L A A E R A A T E L A P E A R R T A G$ L L E A M Q R D L G I T L A A Q S R Q R L R R Q E S $P G L L K A M Q R D L G L T A T E A R V R \| A G E S R A A A L T A G L R Y S L G$
 $G L V R A L G R D L G L T A D Q A R E R L G Q E A A A M K L E S K A E R A A G$ GLLRAMQRDFGLSKQQAQSRLAAERTATTVAPKAREAAG E MLD A MRRDLGGTTADEARARISNEYRAGTATPALRRSLG E MV A A M Q R D L G L T H G QVLVVRFA S E DA A T K V S AVL E K A L G $M L Q A M Q R D L G L T R Q Q A K A R L T N E T E A G T R A G R L R N A L G$ P AVLRALERDLRLTPGQAAERLVNEAEAGVRAGRLRTALG


 GQL E A L R R DL D L T A D QLLA A RLIVDDATAPSI ERRMRAELA $P G L I A A M Q R D L G L T A A Q A S A R L T Q E M T A T R V L P G A Q R A A G$ PEILAAMKRDLLGLDAAQAHARVARELKATDVIEQLRTAAG $L L D G M R E E F G L T Q Q E Q A D A R L A A E R D A T A L E P R A R R T A G G$ PAVLRAMERDLNLTEAQARTRLVNEAEAGSRAGRLQNALG PALLRALQRDLGLNRQQAERRLGNEAEAGAASGRLRAALG P GMLLAALERDLGLDEDAARSRIANEYRAAAVAAGLEKS L G
 DMFAAMRRDLNLTQAQVRVLLAHEAAAAVNSQRVQSSLG D MVP LQR DL HLT T K A QAT DR L A A ETTSARTVVEKAARKAAG

 $P Q L L A A M K R D L G V S A D Q A T T R V K R A T W A A G V A T Q L R S T S G$ $L V S T L G R D L G L T E G Q A K T R L R Q E A A A M K L A P K A E R A A G$ GVGAAALRDGEVSPDRARQQWRAQRDAVAGEAAARRALG




 PQLTA LQRDLDLSATAATRLLDTEAKARKGDSELRRNGG $P$ H L L E A

 PDII DAMKRDFGI S A DA A Y D R L A A S KVA S DIE S I A SVD F F PGLI SAMQSDLGLSRSEALARLDAEATARTLDATARRAAG
 P AVI D A MERRDLGG S E A QVVVTRLANE ERAAA TAESALLS S QL G $P G L L A A M E R D L G L D E N E A R T R I A G E Y R A A A D A T G L E K S G L G$ $V L R A L Q R D L G L T P A Q A S R R L V N E A E A G T R A G R L R N A L G$
 GMLD A MRRDLGLSPVQARTRLAQEAEAQHTALAVRRALAA PEVLLAAMKRDLLGLDADAARVRVAREDQATEVIEQLAAKA G


 GMAAAMRRDLHLTDDQLTARLAAEAAAADVDRRLRGRLG $P$ D MVVP A M Q R D L G L T $\quad$ H D Q A L $P Q I L A A M Q R D L G L D G D Q A T A R L Q R A R W A S R V S S T L A A K T G$
 $G L L A A M T R D L G L S V A Q A R E R L T F Q E D A T D T Q R R L E R R L G$ AVL R A MQRDLGGIDRRQAERRLANEAAAGATAGRLRAALG



 $P D V V$ T S LQQR D L G L D P A Q A Q QL F A Q Q D H A A R L A D S DVLAAA V VR DLKI T K T Q A K K R I K L E E K A R Q L EP R L Q K K L G PNILAAMKRDLGLNTRESMARVERDQKAADVIENVRRSTG


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| :---: | :---: |
| UniRef90＿K4R423 | A ${ }^{\text {a }}$ |
| UniRef90－H5XEH4 | AGAHYDAA LGKLVVGVTDAAEDEV |
| Unip | － |
| UniRef90－UP100046634 | DTFGGSYFDTAQN TLVVGVTDAAADEV |
| UniRet90－UP100040F9 | SWLDRGA |
| UniRef90－O09518 | GGAWL SEEGTHLLVGVTTEAGAAVRRAGAEPRRV |
| UniRef90－D6 | GAFAGAWVTG DTAEHLMVATTDAGQAIRAEGAHPVIVR |
| UniRef90－UF | TP |
|  | GKYAGAW |
| UniRef90－S3A | DSYAGAHLSGKTSARLLVATTDERERAR1 TEAGATARVV |
|  |  |
| UniRef90－UPIOOO3AB2A | DRFAGARVSGDD ADLTVATTDASDAARIAGARAQVV |
| UniRet90－UP | APPAGMWFDTSLGRLVVAVNGPDDARR VRDAGAVPKTVR |
| UniRef90 UPIIO000477F18E |  |
| UniRef90－G2N | ASYGGSWFDTSSG KLVVGVTGAERAAV |
| UniRef90－D7C0 | SAYGGAWFDTKSQ ALCTVAVTSGASAA |
| UniRef90＿UPI000479E | ERDSGTSFDAATGKSR VAVTDPAVDRIRAAGAEAQVVR |
| UniRef90－S2ZE41 | GHFAGAWVRGATSAELTVATTHAADVAAIEAQGAKAAVV |
| iRef90－G2GHB4 |  |
|  | ARFAGAWVRGAESGTLTV |
| UniRet90－${ }^{\text {UniRef90 }}$ | FGGSHYDAA SAGKVVGVTDAGLDEVRAAGADGELV |
| UniRet90－G2NE | AGARVSGPE AVLTVATTDRADVAITAAGARAEVV |
| UniRef90－A8M8D2 | WI TADGRTTVVGLTDPAADQURAVGAEPRTV |
| UniRe |  |
|  |  |
| P00 | SAYAGSWFD AADGRLLTVVTSKSTRAALRAQGAGVRVV |
| UniRer90－${ }^{\text {UPloous }}$ | ARYAGAWVRGAESDTADVATTDPADVPATRAQGAAARAV |
| UniRe900－－ 52 | ARYAGA RVVSAKATLTVATTDASEAARTTEAGAR |
| UniRef90－UPIO0047723D5 |  |
| UniRef90 G3JB56 <br> UniRef90 UPI00037194B9 | ESFAGAWIDGEAGGRLLQUGITTDEALAGVTAAGATP |
| UniRef90－F3NC | GGSWFD AAHGTLVVGLADDSHRAAVEATGARVTRV |
|  | A |
| UniRef90 B5I2N5 | AGA WVSGATSADLTVASTDVADTPA】EAGGARAVVV |
|  | A |
| UniRe90－ 4 LTKK | DAYAGSWLDAADGTTLNIGITDGLADRVRAAGATPKLV |
| UniRet90－D7CFN5 | S WFD ADTGKLVVGVTGQQAEAVRATGATARTVR |
|  |  |
|  | DRFGGA UIDAS GILTVVTQADLAQVGRG |
| $\begin{aligned} & \text { Unir } \\ & \text { UniR } \end{aligned}$ | DTFGGAYYDGAPSATLVVGVTDQAK |
| UniRef90－D2PZH7 | FGGTWYDAA RQKLVVGVTPAAADAVRATGAEASVV |
| UniRef90－UPIOOO3791 | GGS WFD ADSGKLTVAVTDSTAAAV |
| UniRef90 D9SYL8 | AGYGGSWLDSADGATLTVAVADPAGEAVRAAGAVPKRV |
| UniRef90 UPIOOO2FECE567 | DRFAGAWVRGDTSQELVVATTDTGDVPAIEAQGAKAAVV |
|  | avydos akt |
| UniRef90－UP100037D87C5 | A WV G GTELYVAVTDKAGAAV |
|  |  |
| Uni | SWFD AESGRLLVAVTDDAARRAVRATGARV |
| UniRef90－D9X4P7 | FAGAWLRGT S S |
| UniRef90－UPIO0047744 | （ NADATKLNVTTDAAAAPAISARGAQPVVV |
| UniRet90－UP10002F8A005 | 俍 |
| UniRef90－L88 | AGAWVSGTESGTLTVATDT |
| UniF | GAFAGAWVDGADSATLTVA |
|  | MWFD TSLGRLVVAVTDAADARVRSAGAVPKTVR |
| Unit | GAGAWLVADDATRLVVAVTDDAVSEV |
| UPI0002F1D78E | DSFVGAHVSGRT AERLTVATTDAAERSR】AGATARVV |
| $\begin{aligned} & \text { UniRe } \\ & \text { UniRe } \end{aligned}$ | A QFAGAWV |
|  |  |
| UniRef90－E9P | A |
| iRef90－E8SCA7 | （ WLE TDGPLVAVTDASAADAVRAEGARPRLV |
|  | K |
|  | PV |
| UniRef90－UP100039A8ACE |  |
| UniRei90－UPIO002E3D253 | A WLEPDAN |
| UniRef90－D6KBG1 | ADFAGAWVHGADSGTLTVATTDPADAAA |
| UniRef90－ToKFT1 | AKFAGAWI SEDGTTVNVAVTDEALTSЏTNAGAVPTVV |
|  | GGSWL SADGSQLNVAVADP |
| Uni | EAFGGSWFD AERGKLVVGDDEAAAEAVRATGADVVRV |
| 矿90 | EHYGGSLFD TDTHALTVLVTDDAASGVEAAGAEASVV |
| UniRet90－UPIOOd | DDFAGTWVDESAN VLYAGVTD |
| Ref9 |  |
| Ref90＿UPI0004780DAB | IQPGQT WIDAATG KLQVAVTDSTHGAIQSAGAQAKTVK |
| Uni | AGAKARVVR |
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| f90－K4R5 | WFE ASTGRLVVALTDRAKDDVRELGADTRLVK |
| f90－АОАО |  |

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UniRef90-H5XEH4
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UniRef90 D7CFN5
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UniRef90-KOJWC2
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