## QUERY

UniRef90_H2LNR8
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UniRef90 UPIOOO333479A UniRef90-V3ZUY7 UniRef90-K2RFN7 UniRef90-J3PLR3 UniRef90-F7IAE5 UniRef90-UPI0003F0A44B UniRef90 A0A034VWZ4 UniRef90_UPI00034FCEA0 UniRef90-M5E7R6 UniRef90-F6UP49 UniRef90-Q4S237 UniRef90_U4LPP3 UniRef90-I1G9K8 UniRef90_B4KY13 UniRef90_UPIO00359CED9 UniRef90-B4MXM8 UniRef90-A5E5X1 UniRef90_G1XD83 UniRef90-Q9P6L5 UniRef90-E9CEW1 UniRef90_F2QXQ5 UniRef90-G3AVU8 UniRef90_UPI0003C3632A UniRef90-E0W1B5 UniRef90-EOW1B5 UniRef90-T1JON6 UniRef90-T1JON6 UniRef90-G4TAQ3 UniRef90-GOSWE9 UniRef90-A8PVH0 UniRef90_UPIO0038335BB UniRef90-A3LYU6 UniRef90-T1KEZ6 UniRef90-G8YL72 UniRef90-A7SM91 UniRef90-A5DLY8 UniRef90-C5MGH5 UniRef90-U9UIZ6 UniRef90-B7QKD3 UniRef90-H8XB65 UniRef90-T2MJV4 UniRef90-L5LJC4 UniRef90_C4YA28 UniRef90_V5IGE5 UniRef90_V5IGE5 UniRef90_V5IGE5
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RQEELGAVVDKEMAA SAATEDAVRR EMMNQARHAS DI RQEELGDLVDKEMAATSAAI EEAVRRI DEMMKQAQKDT



ELADMVD


DVKEKE
D I K S E

D VEQ

$D V R Q E E$
DKMAATSAALEDAVRRIEDMNQARHAS
DVKPGELGDLVEQEMAATAAABEDAAARUEDMLSKARAEE E QLLA DLLE

$D$ DRTEDVGDMVD
VFYEGMGS $\begin{array}{lllll}\text { K E M A Q T S K S S } & \text { E } \\ \text { K K LIEAS K M G } & \text { E }\end{array}$
DVNSEETGDLVEREMADTSAA
NQGDLGDLVDREMANAANAIEQAA GE GEV D DVGKEELGDMVDLEMQTTAEQVDEAVKRUEEMLNKSREES
 DVRGGDGDLI EREMMSAASTI EQATLRLQALLDKSSSRY HVEEMASTTQAVEQAAERGEALLNEARQRD DVR $\square E E L G F V V D K E M D A T S T A I E E A V L R M Q E I M T K A K K D T$

$\qquad$ NKVDFDKLVEKELQEMDLADEDAVGQWEEMLHKSREDS DFKGGNLEDLLDRELSQTVKTVDHASQFLTNLMKDVTIYY
 FSDNVGELVDREMAHAAETIAKASDHLTDDLTNAKQDD FSGNLEELVNDEMEQTAATVSKASNFLNDLMANPSDH
 E D E D D K E V EDEIDKEVQDILLGLAKAVANTTAAL VLKAKNVAA EDEID KEVQD LLLGLAKAVANTTAAL VLKAKNVAA


RSGNDEDLLNNEMEHTAQTVDSASKFLDKLLQNPND VDPNDPTVI AETELLGAASSIDAAAKKLASLQPRRTSKL QGNLEDMLRNEMQETAKAVDKASDFLQKLLLNPNDKN
 FKGNLDEMVNDEMERAANTVNSASQFLTNLLLQNPNIKK GEI GNLVVEEMLNAAQVI KAAAEKI QALMSQPRDAG
 FKGDLES LVNKEMQQTVDAVNSASKYLTDLLKNP N N I DVRQEELGALVDKEMAATSSADEEAVRRDEDMMNQARHAS

 EDEADAELQDQLLGAAKQVANATAAL VLQAKKVAS

ED $\square \mathrm{GCLL} \mathrm{QEE} \square \mathrm{S}$ QMDRA $\square \mathrm{ADATKR} \mathrm{\square SE} \mathrm{\square LDKSRSTD}$

E EMLSKSRAGD GDIVGEEMAYTTEADDVATAKDEALLRRARENE VDPEDPTVIAENELLGAAAAGEAAAKKLEQLRPRTKPKE KS GD $\square$ GE LVDEEMQSAAKA $\square$ A DASAH $\square S S \square I S R P V D P S$

SGD $\square G D V V D A E M N K A A A A \square E A A T A R \square A Q L M K K P K N G Y$ PKY
 1 GEEDEADMLQDQLLAAAKQVANATAAL VLQAKNVAS I GEEDEADMLQDQLLAAAKQVANATAAL IGEEDEADMLQDDLLAAAKQVANATAAL VLQAKNVAS

## QUERY

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UniRef90_F6Y171 UniRef90-K7GCX2 UniRef90_K1QW15 UniRef90_C3XVA5 UniRef90_T1HTJ0 UniRef90_UPI000441A660 UniRef90_T1IJU8 UniRef90_M3CUW9 UniRef90_UPI00026538C1 UniRef90_L9KRW2 UniRef90-EOVES6 UniRef90_U5EQY1 UniRef90-J9K3E9
UniRef90-T1KKY7 UniRef90 R7TKR8 UniRef90-H2M7H7 UniRef90_UPI000333479A UniRef90_V3ZUY7 UniRef90_K2RFN7 UniRef90_J3PLR3 UniRef90_F7IAE5 UniRef90_UPI0003F0A44B UniRef90 A0A034VWZ4
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UniRef90_I1G9K8
UniRef90_B4KY13 UniRef90_UPIO00359CED9 UniRef90_B4MXM8 UniRef90_A5E5X1 UniRef90_G1XD83
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UniRef90-UPI0003 UniRef90_E0W1B5 UniRef90_E0W1B5
UniRef90_T1J0N6 UniRef90-T1J0N6 UniRef90-T1J0N6 UniRef90_G0SWE9 UniRef90_A8PVH0 UniRef90_UPI00038335BB UniRef90-A3LYU6 UniRef90-T1KEZ6 UniRef90_G8YL72 UniRef90_A7SM91 UniRef90-A5DLY8 UniRef90_C5MGH5
UniRef90 U9UIZ6 UniRef90_B7QKD3 UniRef90-H8XB65 UniRef90_T2MJV4 UniRef90_L5LJC4
UniRef90_C4YA28 UniRef90_V5IGE5 UniRef90_V5IGE5 UniRef90_V5IGE5
UniRef90_UPI000258E86B UniRef90_UPI000258E86B UniRef90_UPI0002659252 UniRef90_E9FVY2 UniRef90-E9FVY2 UniRef90_S9WZY4 UniRef90_B3S4A0
UniRef90-Q4T143 UniRef90_-UPI0003C13DA4 UniRef90_UPI0003C13DA4 UniRef90-W6MIN2 UniRef90_H3ANX1 UniRef90_H3ANX1 UniRef90_D5G8P9
UniRef90_UPI0003F49B3F UniRef90_-T1G1V3 UniRef90_L7MJ63 UniRef90-L7MJ63 UniRef90_L7MJ63 UniRef90_A0A016V945 UniRef90_A0A016V945 UniRef90_W1QBG6


$3632 A$

## 9

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60 S GVK L E VNE R
 S GVVK L E V $N$ N E R R L L N N C T G L M K A I
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T S GVVEL | $S$ | $G$ | $V$ | $R$ | $L$ | $E$ | $V$ | $N$ | $E$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $S$ | $S$ |  |  |  |  |  |  |  |
| $S$ | $G$ | $I$ | $K$ | $L$ | $E$ | $V$ | $N$ | $E$ |

## R

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## T S E Q S

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$\left.\begin{array}{lllllll}\text { S A } & T & D & L & Q & V & H \\ S & D & T & E & L & K & V\end{array}\right)$ $H G G N$
$P$ D E D L
E
$N$ DEDLLFDEMILEAAKSITTTATSALVIRA
 $G V D V E V H E A I L$ SAAMAVTKAVSILI TAATESQREVVVGVG Y G GNLEVVEMLLASAKLVTEAVEGLI KASVESQKEVVAKG



 TAPDQGHQNRVI GAATQGALATSQLVACAKSCQEQLTEAS TAPDQGHQNRVI GAATQGALATSQLVACAKSCQEQLTEAS
 Q GVVKLEVNGRI LDACRSLMTSVMVLVKAARYLQEED EHDD R L M D A T R R L C K A F S DL L D A A K PEN N N M R Q NL EHDDRRLMDATRRLLCKAFSDLLDAAKPENNNMRQNLL $T G D K L E V N E R U L G S C T S L M Q A D Q V L I V A S K E V Q R E V V E S G$ T G T K L E V V N E RI L D D S S T K L M N A I R L L I I R A S I L Q K E IV V R DK
 L L R A A RT L A G A V S DLL K A V E P A S GEELTAA G
 QL L Q A A KN LA CA V S DLL LKTAEPRRQSLL QA A G




$T C D D Q G Q Q N R V I G A A T Q G A L A T S Q L V A C A K S C Q E Q L T E A S$
$E D G S \backslash E\|N E A \Pi I D S C A S A\| N A\|K L L L E A C \square D A Q E E\| V S R G$

| QUERY |
| :---: |
| UniRef90_H2LNR8 |
| UniRef90_V9KCH3 |
| UniRef90_UPI0003C0374D |
| UniRef90_E7FD55 |
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| UniRef90-T1KKY7 |
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| UniRef90 ${ }^{-}$V3ZUY7 |
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| UniRef90_U4LPP3 |
| UniRef90_I1G9K8 |

RGAATQQEFYAKNSRWTEGLISASKAVGWGATQLVEAADK K GAATDKE FYARNSRWTEGLI SAAKAVGWGATEMVVSADK R GAAAS HK E F Y A K N S R WT E G L I S A S K A $V$ V G WG A T E V L V $R C L G T T A Q G C A P V A G W T E$ RGSGSAKDFYAKNSRWT $K G T A S A T E F Y K R N H Q W S$
$R G A A S Q K E F Y A R N S R W T$ RGAATTQEFYAKNSRWT
 K G T A S $\square$ K E FYARNHQWT R GAASPKEFYARNSRWT K GSTSAKEFYKRNHRWT RGSSTTKSQYYKKNNRWT
$R G S A T A K E F Y K R H H R W T$ R V S A CSGS IY GAEP
RGATSQKEFYAKNSRWT K GTNSSKEFYKRNHQWS $\begin{array}{ll}K \\ G & S \\ G & S \\ \text { G } & \text { VK E F Y Y K R N H Q W W }\end{array}$ KGSASPSEFYYQRNHRWT $R G \square$ RGAASAKEFYKKHRRWT RGTSSSAKEFYYKKNHRRWT K GTSSRT KGTSSSSKERYYARNSNRWT RGTTSVKEFYKRNSQWT RGSSSTVQQQFYKKNNRWWT
RGASSTTET
K G T
PGSNAKEFYKKNHNWS RGTTSATDFYKRNHRWTE K GNASVSEFYRRNTQWSEGLL $M G K Q S R T E F Y K K N N R W T E$
$K G G G S R T A F Y K R N N R W T E ~$
RGSSSRRGAFYKKHNRWTE
RGSASATEFYKKNHRWT E
RGSSSRTSFYKKHNKWT E
$\qquad$
UniRef90_UPI0003C3632A
UniRef90_E0W1B5 UniRef90_E0W1B5 UniRef90-T1J0N6 UniRef90-T1J0N6 UniRef90_G4TAQ3 UniRef90_GOSWE9 UniRef90_A8PVH0 UniRef90_UPI00038335BB UniRef90_A3LYU6 UniRef90_T1KEZ6



UniRef90 U6PIL9 UniRef90-UPIO0045729DB UniRef90_UPIo0045729DB UniRef90_C4YT13 UniRef90 V4BLR4 UniRef90- V4BLR4 UniRef90-B3RHY4 UniRef90- ${ }^{-83 R H Y 4}$ UniRef90 Q176Z3 UniRef90_-Q176Z3 UniRef90 Q176Z3 UniRef90 F1KS91 UniRef90 ${ }^{-}$E5SZl4 UniRef90-Q7QJE3 UniRef90 Q7QJE3 UniRef90 Q7QJE3 UniRef90-R8BUP5 UniRef90-W4VRP8 UniRef90 W4VRP8 UniRef90 LOPEB1 UniRef90-UPIOOO3C369ED UniRef90 UPI0003C369ED UniRef90 UPI0003C369ED UniRef90-D6WRC3 UniRef90-D6WRC3 UniRef90 D6WRC3 UniRef90_JoXKIO UniRef90-J0Xk10 UniRef90-14Y9U8 UniRef90 T1HTR5 UniRef90-T1HTR5 UniRef90-Q6CCQ4 UniRef90 F6WWV8 UniRef90-F6WWV8 UniRef90-E4XNU9 UniRef90 S2JQZ5 UniRef90 A0A044UXQ7 UniRef90-B6JXLO UniRef90-C3ZG98 UniRef90 H2YNT1 UniRef90 U4U6N8 UniRef90-U4U6N8 UniRef90-H2WVPO UniRef90 UPI0003AFB983 UniRef90-H9IVU1
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KNGNDEELVDDEMQQTVDT पS पASKF पNDDMANPQYNG



GE $\square \mathrm{GD} \square \mathrm{V}$ EKEMLAAANA DQAATER】QAMMQADSSRY

S GD $\square G D \square V E R E M A K A A D A \square A A A S A K L G D L L N Q S D P L K$

VNEEQLGTALVAEDDVAAKLVEESAARDAALLQDARERM DVNKGEVGDLVEQEMTRAARAI EEASAKI QDLMRRPNPAF DVTAEVI GAELEQEMKRMDAAI QKAVELI EEMQKKNRASD
 ARQRD QEQLT GAVREVAKAVENLVGTCNEATPND QEQLTGAVREVAKAVENLVGUCNEATPND ARENS
DVLKEELGSMVDKEMLATSSATEEAVLRMDE\|LSQAKKDN
 VDPEDPTVIAETELLGAAASTEAAAKKLEQLKPRAKPKQ GDLGDAVEREMGQAAQAI EAAARRLQELLALQ
KGGDPGEVVEKELAKAADAVKAAAARLAALRNKPRDPF GDLGEVVDNELHSAAQAIANASSHLNSLLSKPQDPS
$\square \mathrm{AK} \square \mathrm{WDSSKQSH}$

QQELGEVVDKEMENASAT $\square$ DAASRRLKELLNASGPSV

LRPDGAARTVDDELDDMDAATEHAASQTEEMLAASRAGD ELQQGELGDLVEQEMAATSAAVESAAARIEDMLNKSRAVD

GDLGDLVDQEDTRAADADDAAAQRDAK LKKNKPRDF DVNEEDLSLVLEQEMQSTTELIARAEARFKELLEQSKTSM K ELETMAPAI GAAVSTDTSNLPESKDVR KELETMAPAI GAAVSTITSNLPESKDVR DVRQEELGAMVDKEMAATSAAI EDAVRRI EDMMNQARHAS ENLEEDADGAMAGAAAEI DQAVARLSALLAEEAMKEP QDMLTKSRTAD GD $\square G D \square V N Q E M E N A A R A \square S A A T E R L A A L R A R P K S K F$

ARENN
DVRQEELGAVVDKEMAATSAADEDAVRRDEDVMNQARHAS $V$ DPNDPNVI AERKLLSAA DA I E QAAKRLA EFKPA E GPRK $V$ NPEDPNVIAENELLGAAASIEAAARKLAELKPRARPRE

F D P Q DPSTIAENELLSAANAIEAAAKKLAS LQPRLKPK Q $D \square D K E V V G S E L E Q E M R R M D E V I R R A V Q E I E A \| Q R K A R E N T$

UniRef90 U6PIL9 UniRef90_UPIoo045729DB UniRef90_UPIO0045729DB UniRef90_C4YT13 UniRef90 V4BLR4 UniRef90-V4BLR4 UniRef90-B3RHY4 UniRef90-B3RHY4 UniRef90-Q176Z3 UniRef90-Q176Z3 UniRef90-Q176Z3 UniRef90-F1KSS1
UniRef90-Q7QJE3
UniRef90-Q7QJE3
UniRef90-Q7QJE3
UniRef90 R8BUP5 UniRef90-W4VRP8 UniRef90 W4VRP8 UniRef90-LOPEB1 UniRef90-UPIO003C369ED UniRef90-UPI0003C369ED UniRef90-UPIo003C369ED UniRef90-D6WRC3
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UniRef90_JoXKIO
UniRef9-JOXKIO
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U1
UniRef90-T1HTR5
UniRef90-Q6CCQ4
UniRef90-F6WWV8 UniRef90-F6WWV8 UniReffo-E4XNU9 UniRef90_S2JOZ5 UniRef90-A0A044UXQ7 UniRef90 B6JXLO UniRet90-C3ZG981 UniRef90-H2YNT1 UniRef90-U4U6N8
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UniRef90-D9J2B7

UniRef90-H2ST16 UniRef90-F4P9Y2 UniRef90-S3CUZ4 UniRef90_KOKM26 UniRef90_A7RL15 | UniRef90_A7RL15 |
| :--- |
| UniRef90_O9VSL8 | UniRef90-Q9VSL8 UniRet90_O9VSL8 UniRef90-E9HPF1 1

UniRef90
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UniRef90-H9J7M9
UniRef90-Q4RZG3
UniRef90-B4LEJ9 UniRef90-B4LEJ9 UniRef90- B4LEJ9 UniRef90-U6HWY9 UniRef90-T1K2Z5 UniRef90-T1K2Z5 UniRef90_UPIO003C0FE59 UniRef90-A0A058ZG90 UniRef90-D3BJM9 UniRet90_D6X0H5 UniRef90-J6EZ13 UniRef90_UPIOOO3991961 UniRef90-UPIOOO3991961 UniRef90-H3FC49 UniRef90-UPIOOO2C32071 UniRef90 F4NRQ5
UniRef90

T2M2W2 UniRef90-H2ZQQ3 UniRet90-H2ZQQ3 UniRef90-UPIOOO2657602 UniRef90-UPI0002657602 UniRef90_W8AIK1 UniRef90-W8AIK1
UniRef90 W8AIK1 UniRef90-T1EGA6 UniRef90-C6KIH6 UniRef90 F2PVE5
$E G \square R L L Q V I N E A\left\|L G C C Q Q L I M S^{60} A\right\| M A L V D S S R E T Q M E \| V A A G$ QQLLKAAKNLACAVSELLKTAQPAQHLLTAAG QQLLKAAKNLACAVSELLKTAQPAQHLLTAAG NGGNDEVD EMLLACAKAITDAVAELIKASDKSQQEITSKG QEQLIEAAKLVAKSVEGIVEAAQGACRDDYVLQ QEQLIEAAKLVAKSVEGUVEAAQGACRDDYVLQ
 SGITRLEVNEKILDSCNALMSAIIVLVSKSRAMQEE\|VAAG ANESLNFDEQILEAAKSIATAVTALVKAASAAQRELVAQG TEDEATRNKVI GAASQCALATSQLVACARAAAREVAKAV TEDEATRNKV GAASQCALATSQLVACARAAAREVAKAV STYELKVSDTLLDAATADTDADARLIKAATVTQQEIVAAG DNLLQATRKLCSAFSDLLKAAEPENKESRASG SSPDLLIHDTILEAA VITNAVSQLIKAATDSQNEVSQG LLAAARDVSKSLSDML
LLAAARDVSKSLSDML
QEQLTAAVREVAKAVENLVSVCNEASEELMNQL QEQLTAAVREVAKAVENLVSVCNEASEELMNQLL SQ SGLDKNVHDSTLEASLATTNADARLIQAATESQKE\|VAQG DKLLDATRKLCTAFTDLLKAAEPATKEPRQNL
 s T T d पQ $\square \mathrm{H}$ DGLMKAARDLTAAI QDLLKAAEPRQNLLGAAG TGTELAVHEALLDSCTNLMDFIKQLIDTSNKLQKELVESG SATDI QVHQLILNSVLALTNAI ANLIKCATASQQEIVSQG SGDRLKVNEGLDSCNQLMAAIVTLVSKSRALQEEEVAAG


EVNERLLDSCTDLMNFIRVLLTSSKDLQREVVDQG

DLNKQKEAAAEVSRSLTDLLGHIKLASRERAKAT DGMRLEVNESILANCQALMSVIMQLVAASRELQVEIVASG
 ADETLNFDEMLLEAAKSIUAATSALVRAASAAQRELVDQG ADETLNFEEQILEAAKSIIAAATSALVKSASAAQRELVAQG SGPDLQVHSAILQSAMAITTAMANLIRCATASQQEIVAQG AAYKVEVHEAILDAAAAVTSAVAELVRAATAAQKDVVQAG SQMDFEINKAILSAA VDQEQETLLKLAQAVANATATLVLKAKNVASQCPDTA VDQETQETLLKLAQAVANATATLVLKAKNVASQCPDTA ENRDLHDLLLALAKAVANTTAALVLRAKNI ENRDLHDMLLALAKAVANTTAALVLRAKNI ENRDLHDMLLALAKAVANTTAALVLRAKN TGVKLEVSEKVLDSCTALMKA IVDLIRKAKVLQEE\|VARG SEKLLGAARDLMDAFSDLLKFAQPDSQEPRQNL
SEKLLGAARDLMDAFSDLLKFAQPDSQEPRQNL ETDDVQVNNSILGSALAIIDAVKLLINASDSSQEEVVNKG A DLLAAARDVSKSLTDML SGVKDEVNGK LDACTTMMAVKVLVQDARQLQNELGDQ TGIKKMEVNERILAASCTELMQTIKELILDSSKDLQRDIVESG ADLLDARDVSKSLTEML A D
STYELRTNDVILAAADAVTNATAEL TGMQLEVNNKLDSCTRLMSAISDLVARACDLQQEIVNEG VIATLMEDEALLDAARRLCKAFSDLLKAAEPTSKASRASQ
 SGAKLEVHARLLDSCRALMKAGRLLVTVSTSLQKEAVESG GLEDAGVDEAALEAARAATSATGVLVKCATEVQHELVQQGO DMLDVSVHDSILDATQQIANAIGRLIQAATESQEE\|VREG QLLQAAKNLASAVSDLLKTAQPASAEPRAAG dGLRLEVNERILGTCQALMAAIALLVQRSRELQAEIVAAG SGVKLEVNERILNSCTDLMKA】RLLVTTSTSLQKEIVESG ANDELKFDEQIFEAAKAIAAATSALIRSATGAQREIIAKG ADESLNFEEQULEAAKSITAAAGALVKAATAAQRELVATG AARDLTAATQDLLRAAKPRQNLLGAAG AARDLTAALDLLRAAKPRQNLLGAAG QTTDQELQNRIIQAATQGASATSQLVSSTKACQTELENAS QTTDQELQNRIIQAATQGASATSQLVSSTKACQTELENAS LLAAARDVSKSLSDML LLAAARDVSKSLSDML VDDSTNFEEQLLEAAKSTAAATAALVKAASVAQRELVMQD DGDRLEVNESILANCQALMSVIMQLVIJASRELQLDEVVAAG

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UniRef90 O9VSL8 UniRef90-Q9VSL8 UniRet90_Q9VSL8 $\begin{array}{ll}\text { UniRef90 } & \text { E9HPF } 1 \\ \text { UniRet90 } & \text { W4XA4 }\end{array}$ UniRef90_W4XA47 UniRef90-12JQH2 UniRef90-Q29FI8 UniRef90 ${ }^{\text {Q29FI }}$ UniRef90-H9J7M9 UniRef90-Q4RZG3
UniRef90_B4LEJ9 UniRef9-B4LEJ9 UniRef90-A5ABT0 UniRef90-U6HWY9 UniRef90-T1K2Z5
UniRef90
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UniRef90 W8AlK1 UniRef90-T1EGA6 UniRef90_C6KIH6

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EHVKLSSREYA
EHVKLSSREYA NRSSQEM SPVENVIISTDILVSS KQAASEVTRTLNDLLNHIKMASRERAQETMQEHSVEATDR KQAASEVTRTLNDLLNHIKLASRERAQETVQEHSVEATDR AVINTLDEPTSEVRTFHDRLVQRAKNVATSTAQLVLRAKT AVINTLDEPTSEVRTFHDRLVQRAKNVATSTAQLVLRAKT LNAASRVGEASRDKEAQDTLLGLGKAVAAAALVLRGKSVA LNAASRVGEASRDKEAQDTLLGLGKAVAAAALVLRGKSVA RGTSSRAQFYKKNNKWTEGLISAAKSVAASTNLLIEKADG K GDASHDLLKGDDEFQDLLMNLAKKVANATAALVLKGKT
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 KAGGSPAEFYKRNHQWTEGLLSAAKAVGVAAKVLVESADG RGAATVTEFYAKNSCWTEGLISASKAVGWGATQLLTT AV ARRPAMSSDDGSWSGGLVSAARLVAAATHSLVEAANA KGTSSKSNFYKKNNRWTEGLISAAKAVASSTNTLIETADG KVGLISAN AEDDGQWSQGLISAARMVAAATSNLCEAANA KGTSSLVAFYKKNNKWTEGLISAAQAVAQATTYLVEMADG RGGQSKTAFYKKNNRWTEGLISAAKAVAASTNTLI ETADG KGSGTRAQYYKKHNRWTEGLI SAAKAVAGSTKILISTADG QQNKV
QQNKV

## AASCDDEQARNRVI

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NRTSQEL
SPVENVII GTDVLVS EHVKLSTREHA

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DHVKLSSREYA
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UniRef90-Q7QJE3
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UniRef90-Q7QJE3
UniRef90-R8BUP5 UniRef90-W4VRP8 UniRet90 W4VRP8 UniRef90 LOPEB1 UniRef90-UPIO003C369ED UniRef90 UPI0003C369ED UniRef90 UPI0003C369ED UniRef90-D6WRC3 UniRef90-D6WRC3 UniRet90_D6WRC3 UniRef90-JOXKIO UniRef90-J0Xk10 UniRef90_14Y9U8 UniRef90-T1HTR5 UniRef90-T1HTR5 UniRef90-F6WWV8 UniRef90-F6WWV8 UniReffo-E4XNU9 UniRef90 ${ }^{-}$AOA044UXQ7 UniRef90-B6JXLO UniRef90-C3ZG981 UniRef90_H2YNT1 UniRef90 U4U6N8
UniRef90 U4U6N8 UniRef90-H2WVPO UniRef90 UPI0003AFB983 UniRef90-H9IVU1

UniRef90 D9J287 UniRef90-H2ST16 UniRef90 F4P9Y2 UniRef90-S3CUZ4 UniRef90-KOKM26 UniRef90_A7RL15 | UniRef90_A7RL15 |
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| UniRef90_O9VSL8 | UniRef90-Q9VSL8 UniRef90_Q9VSL8 UniRef90-E9HPF 1 UniRef90-W4XA47 UniRef90-12JQH2 UniRef90-Q29FI8 UniRef90 ${ }^{\text {Q29FI8 }}$

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UniRef90-Q4RZG3
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UniRef90_F2PVE5

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 PQEMI RQAQQLGKATAQLI QSIKGEAERDSNLQ ATTGKGKDEHLIVASQEIGASTAQLFVSSRVKADRGSQKL LVQGHATEEKLI SAAKQVAASTAHLLVACKVKADMNSKVM LLVSSSDPQEM| RQAQQLGKATAQLI QSMKGEAESDSNMQ LVSSSDPQEMI RQAQQLGKATAQLIQSIKGEAESDSNMQ TISGRNSPEQLIVASNDVAASTAQLVAASRVKAGFMSKSQ IAEDETTRNKVIGAASQCALSTSQLVACARVVAPQSPACR MINGGNSPEQLIVASNEMAAATAQLVSASRVKAKFMSKTQ


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 $V V$ S C Q GK L E Y LIV $V$ A S Q E I A A S TA Q L F FV S S R V K A D R E S P R L






 $V L G N K N S H E E L I V A S N E V A A S T A Q L V A A S R V G A T G A M S K S Q$ $V V T S Q M C Q E Q V V E S A K Q V A K A V E D T E G A C K G A C D P D S E N M$






 TLLQGNNSNE ELIVVASREVAASTA QLVAAARVVKSDLMSKTE

$T H D P Q E M V R H A R T L G K T T A Q L I Q S I K G E A E Q Q Q Q D M Q$
 T A Q I CTAC
TNDPQEMVRHARTLGQTTAQLIQSIKGEADQDADMQ TNDPQEMVRHARTLGQTTAQLIQSIKGEADQDADMQ $T N D P Q E M V R H A R T M G Q T T A Q L I Q Q S U K G E A D Q D A D M Q$ $V I S G R N S P E Q L I V A S N D V A A S T A Q L V A A S R V K A T F M S K S$ Q


 | $V$ | $A$ | $S$ | $D$ |
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 STQQGKAEEETLV A A A R GVAAATTARLVSASRAKADLNS QSN


 $\begin{array}{llllllllllllllllllllll}K & T & D & A & A & L & Q & T & Q V & A & A & A & T & Q & C & A & L & S & T & S & Q & L \\ V & A & C & T & K & V & V & A & P & T & I & S & C & C \\ V & T & G & G & G & K & F & E & L & I & V & A & A & Q & E & I & A & A & S & T & A & Q \\ L & F & V & S & S & R & V & K & A & D & R & D & S & E & K & M\end{array}$ $V M L P$ T A VRE LIV C S HE I A D S TXQL V
 AVQGNATEERI I AVAK GVASSTAAQLLLACRVKADPNSKA Q VA Q D Q IT Q N DVI T S A T K C A L S T S QL V A CTKVVVGP Y NP S CK $V A$ Q D Q I T Q N DV I T S A T K C A L S T S Q L V A C T K V V G P Y N P S C K
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UniRef90 U6PIL9 UniRef90-UPIO0045729DB UniRef90-UPIo0045729DB UniRef90_C4YT13 UniRef90 V4BLR4 UniRef90- V4BLR4 UniRef90-B3RHY4 UniRef90- ${ }^{-83 R H Y 4}$ UniRef90-Q176Z3 UniRef90_-Q176Z3 UniRef90_Q17623 UniRef90-F1KS9 UniRef90-E5SZ14
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EALS

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UniRef90 F1A4F9
UniRef90-H2ZQQ6
UniRef90-A9UUA5 UniRef90_F4QFU9 UniRef90 K2HZW6 UniRef90-L8H5G7 UniRef90-F6XVA8 UniRef90 K2G9Y4 UniRef90-UPI0001D546A3 UniRef90-BOETT5 UniRef90-F2UQQ4 UniRef90 UPI0002C3FC07 UniRef90-A9V9C6 UniRef90-BOWLZ6 UniRe990-K1P102
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$\square D P E D P T V I A E N E L L G A A A S D D A A A L K L K S D R P R R Q D D A$ SGDLGDLVDSEMTKAADALNAAAERLAKLRKKPREGY D $\square$ KQEELGDLVDKEMA

DQNLAG $\$ SVDSALQGAANADMAASRKLQEDMSRSRDGT DLDDLAERELMAAAKAI EDAAKSLMVSKNKRPPKK AENELLGAASSIEAASLKLAELRPRQTNTH AESELLGAASSDEAASLRLAELRPRQQNEE DVRQEELGAMVDKEMAATSQPTQSSCCRLXDMMNQARHAS

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AENELLGAASS $\square E A A S A K \square A E \square R P R Q E N T Q$

VNLSG $\square$ DDDAERELLKAADS $\square$ NS $\square$ AK D $\square E K W L K Q S K K G V$

LPEPTRAL
 E D LEA A $\square$ A E DELSACARS DEEATAKLIAARPQSKSKN RAKKKREENREAS
DPSDPTAVAENELIGAANSTEAAAVKLSQLRPRQTQKV D ELVATAEKI VRSSQKLR
VDPEDPTVIAESELLTAAKSI EAAAQKLSQDKPRKKAKE QLVATEKKIVKSSAKL RVKVNI VDPTDPNVVAEQELLTAAAAIDDAADKLSVMQPRAEVQV QQEDLELTAENELNSDAKTIEAATQSLLAARPKTTKKS SELDDSATSIDTAVKKLDTDQPRP SELVATADKVVKSEHL
REDNLDD $\square$ A QKELLEATRVIVQLAAQLASPRKAPPRTA
VDPNDPNDIAERELLAAASADEAAARKLAADQPAEGPRA D $\square K$ QEELGDLVDKEMSSTSAA $\square$ EDAVRR】EEMMNQARNKS

$$
\text { E L I S T A E T } \square \text { T K S S Q Q } \square \mathrm{R}
$$

NVAE $V G$ LLEAA ASVEASVKKDTEDNPKTFKKK $L Q K E F N E M A G D L A K K V Q Q I G Q L R S K A K P T S$ NDSLTTMNNAN VDPDDPTVIAENELLGAAASDDAAAKKLASLRPRQNDKT
 DVSSQYLE NLLE QMSDAAESVAGANRSAAD


QEPSVAAERELLSAAST $\square$ DAVTARLEES $\square$ PVAAAA $\square$
VNPEDPTVIAETELLGAAASTEAAAKKLEQLKPRAKPKQ VDPSDPAVIAENELLGAASSIEAAARRLAQLKPRPQARE LA EG $\square E G K V T A A Q Q S V L D T R G H I Q K M D A E T K G K D$ DLGDNAERELLAAAKTIEDTANSLLAAKSK DEPKK
$\square A S D V E S K \square S A A E Q S V L D T \square G H T E K \square R E E S R R N D$ LVASRPSTTKKA KEEEDQDAATKELVGAANVINNALGKIVAALPRKRTALL DDFARNELMEATKVVEELALDDAVARNAAEEHI
$\square \mathrm{NDQDNK} \mathrm{\ EDVRDALKNCN}$ VDPEDPTVIAENELLGAAAAI EAAAKKLEQLKPRAKPKE
 DQRKEVPAHDTE EVGRAHAAVKDAZASMEDLKADAQRSN QD LS S RAKDVT

D DMDRMYQETLLALAKAVANATAQLVKAKSVAS
RNKP
SGNNN

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UniRef90 G7YEG2
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UniRef90_UPI0001A638E9
UniRef90_UPI0001A638E9
 K DENMNFDTLILTAAHSIMTASAALVRAANAAQRELIDQG
 ATSAA TI ATARDE
$D C Q Q E \| V A Q G$
QEQLIESAKQVTNSVDSVGSADSACKDEAAKA QEQLI ESAKQVTNSVDSLVGSADSACKDEAAKA DRLLDAARKLCDAFSDLLKATEPGTKEPRQHL DRLLDAARKLCLAFSDLLKATEPGTKEPRQHL






E UVETEFDDN I I ISAKG LLHAVHTLMRSASNAQRELAMQG A ALSLPDNEKI LGAANDLLDAVSKLLKSSQETDEDLSAKK AALSLPDNEKI LGGANDLLDAVSKLLKSSQETDEDLSAKK SA EMDVNQAI MESAQAIAKATAALVNAAADAQKERVALGG
 A A LALDPDNEKLLGAANDLLDAVSKLLKSSQETDEDLSAKK A ALALCPDNEKILGAANDLLDAVSKLLKSSQQETDEDDSAKK AALALPDNEKILGAANDLLDAVSKLLKSSQETDEDLSAKK GKLDAEVAATIVDASSAI AKAVAKLVNSAAVAQSKRREDQ



CQNEDESTT<br>ANEDLPFEEQ VVEAAKA $\square$ AMATSALVRSATHTQREIVAND S GVKKLEVNER ESADRVVLHMG CQNEI ATTT 

$T$ GFELNFFEDRTLEAAKEVISASANLLKAASDQQKELLETG ISTELDVPNAIISSCQHLVHTTLSLMYWAAAAQRELVQQG EDDDLESSDALI DACRNLVHATLSLMYWAAAAQRELVQQG QDLDMNFDEMILEAAKSITTAATSALDKAASAAQRELI DSG SGATLEGMDAVLATCKRLAHATASLDMHWATAAQRELVKQG

 ADESLDFEEQULEAAKSLAAATSALVKAASAAQRELVAQG KQSK IIQQQF
DESAPVEEQVLHGTQATTAATAT LVKAATAAQQELGNGG ADANLSFDAQILEAAKSIAAATKSLVQSARATQRELTEQG ADETLDFEEQILEAAKSIAAATSALVKSASAAQRELVAQG ANESLNFDEQILE KGRRLEVNTNULGLATKLMDVMEGLISAADAM RDALENT EGDAPDVVEAILEAAMVITSASSTLVGAATLAQRERVEKG DESLNFEEQILEAAKSIATATTALVKAASAAQKELVLQG SGRRLEVNTNLLDFAEKMANKDRELMVTAKTV RKVLEAT AGVPLDVAGIIVDASSSDAVAVAKLVQMAAVSQGKRRQEQ

TNGN_ET T K RFGDSTQGLDEF DQ $\square$ AGECEKERワREG ADESLNFEEQULEAAKSIAAATSALVKAASAAQRELVAQG ANENGTVKRFGDSTQGLMEATVQULVMAGGECEKERIREG
 ALVESNVDEAALQGAAEVTKAAQSMLVTAAKCQSF ISDME T DEN L NFDEMVLEAAKGIMAASSALVVRAANAAQRELVDQG

SMESRELHDMLLGLAKAVANTTAALVLKAKS DAAVT SMESRELH DMLLGLAKAVANTTAALVLKKAKS


पGEHG
KA I IDAASRVGEASNDLL RHVMHEGDGEE
KA I DAASRVGEASNDLKRRAVLRRESGALK


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UniRef90-T1GWL7
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UniRef90 B0WLZ6
UniRef90_K1PI02
UniRef90_E9CJ64
UniRef90_Q5C822

UniRef90_UPI0001A638E9
 $K V E R K P L S S S H D G Q W S E G L I S A A R F V A S A A H S L V E A A Q K$
 GTASPKEFYAKNSRWTE GLLI SASKAVVWGATVVMVDAA DL KGASSRTAFYKKHNRWTEGLI SAAKSVAASTNVLI E TAD G




 RTETMPS G S S GTYQWS EGGLTSAARVVVASVHKLCDAANT
VNSQN
RADHNRGG
RGPASAP
RLEA RPAFATD DYQWSEGLIDSAARLVAAAVHQLCEAAANA
S P T S VE F Y K P Y N R WT K GLL S A A K F VGA S A NVMVE DA D S
PKTRQNMYRRNPQWSEGLI SASKAVVFAAKLLVSSADE
TASPKEFYAKNSRWTE GLLISASKAVGWGATVVMVDAA DL
RAAA GGT GTY QWSE G
$R S \| Q S A A A G S D D N G Q R$





 $\square$ AS GS $\quad$ V Y K A D P T WS N GLI S A A K GVVGAATHRLVEAAMK KVGNKTGNVYRRDPTWARGLI SAARSVAGSVQGLVVSANN KVGSSLA N A EDD GQWS Q GLL S A ( R $N \nabla S L T$ QFYKKNSRWTEGLISAAKMVAAATHSLCESANA $P$ FSL GYYK


 $H R S A S D G S P Y H A D P V W A N G L I D A A R N V V A T T Q Y L V S T S N A$
 RQTSVVRGTPYHSDGTWSDGLVVSAAKAVASATGELCEAAND K Y E ELLIVCSREI A
NT P L L Q F Y K K N S R WT E GLLI SAA K A V G G A T D I LI S T A G E SNSTTQNQFYKKNSRWTEGLI SAAKAVGATTNMLITTTAGK K K N N R WT E GLL I S A A KAVA S S T NTILIETAD G R RMKPVPSGSTES DS QWA QGLIDAARFVAMAANCVVESAAA $R L K P I D K P Q N P D E S Q W A Q G L I S A A R Y V A V G A N H L V E S A Q A$ KMSRTP ISSSSDDGQWSEGLI SAARLVAAATHSLVESANA


 $K V S T H P Q Q D E D K$ V $\operatorname{CHPDCILSRAALQ}$ $K V G A \square P A N A D V D G Q W S Q G L I S A A R M V A A A T N N L C E A A N$ KDSSTS DEFYKPYNRWTDGLLSAAKFVGAGANVMVEDANS
 $K V G A \square P A N \quad A A D D G Q W S Q G L V S A E K K D L A P A T$

A A K S DAATADTALVK A A S A
RGMQSEDEFNMKHSSWFQGLTTAVDAMVEHNPVLTESGRS R T S NGGPMYRKYPTWAEGVI SAA
K V G S $\square$ A A M R H D D G Q WS Q GL I S A A Q M
$R$ GLS S TD EF NAKHQSWF EALTTNAVVAMFD GLP LLSEAALRS QRLGSH YKQDPTWSNGLISAAKSVGGAVQMMINAADK E TAKEKKDVYNRDANWEEGLI SAAKTVVGCIQQYVVKAADQ A R LH GS DTAYHADPKWAEGLVSAARFVVAS IGHLVSTSKQ PANADDDGQGSQGLI SAARMVAAATSNLDEAANS
 $K \mathrm{~V}$ S A A GNAVK R RASDNLVKAAQKAAAFEEQENET

 GPA E AKRAFYRK T Y RRD K G I VLDQA Q QV A EA DA WL C D A C S T


 MVAAATNNLCEAANA
EDEATRNRV $\quad \square$ A A A SQCALATSSQLVACARV
EDEATRNRV



 DF EASSLMLLTEE ERLYK DQLLSSLAKAVANTTASSVVKAKN E QLI D A A K G V V A D A V V T I L L TVVT
A D Q T G Q P I A E K T E E S T Q N L L S A A R HVA D A F T D L L Q S A R P

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UniRef90-G6DRH8 UniRef90_UPIOOO44418B3 UniRef90-G5EGK1 UniRef90-E4YM19 UniRef90-E4YM19 UniRef90-K2H888
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UniRef90_A0A044SUT2
UniRef90-H2APE3
UniRef90-K1QL59
UniRef90-J7S875
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UniRef90-G0MNX4
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AlV|QGHASQEKN.
140
150
160
AVQGHASQEKLIISSAKQVVASTAQLLVACKVVKADQDSEAM LVVGQGTEELLISSAKQVAYSTAQLLIAFKVKGNPNSEAG VI SGRNSPEQLIVASNEVAA
$V V Q G K G K F E E L M V C S H E I A A S T A Q L V A A S K V K A D K D S V N L$ VLSGNHTPEQLIVASNEVASSTAQLVAASRVKASYMSKTQ $L$ FASMGNAPEMVRQAKALAQATSQLVNCDKADAAKDPEKQ


 AANGQGVVEEALIAATSKAVVTAAATSQLVVSACCKSKSDDVNS P SQ LMKGQTTEERLISAAKQVSSSTAQLLVACNVKADPDSQAN LMQGQASEEKLISAAKQVASSTAHLLVACNVKADMDSQAK




 IIKGKSDADKLIVAATETAHAASQLVTVAKVTAPTDTACQ NVTPGCEEDALIAASSREVAKATVQLVTAAARSKADFDSPTL

 SATGKAEEEELI ATARSVAAATALLVSASRAKSGDDYQSQ GHASEEKLISSAKQVAASTAQLLVACKVKASHDSEAM LV LLNSDSSPEEFVVASKEVASSTAHLLVACKVKSDLDSRAM
 LTAHTGSPEEIIVASKEVASST $\square$ QLVVASSRVKTDPHSVKAQ TVQGGSADEKLVASAKSVANSTAQLMLACRAKMDAQSPTA AAQGKAEEEELIAATAREVAASTARLVSASRAKSGDDQQSQ LIEGLSSEDKLVAANQVASCTTQLLVACKVKADPNSDAT AANGQAGEETLVASARAVGAATAHLVAAQKAKGDVNSQAS LTTGDTSPEEFIVASKEVAASTAQLVAASRVKVNAHSKSQ UQGKADRARUATSRAVSGSTQQLLSAATVKSSDTSESQ LVTDDGSPERFAVAAKEVAASTVQLVAASRVKSGVHSKAQ LTSGEGSPEEFIVASKEVAASTVQLVAASRVKTHAHSKAQ VISGRNSPEQLI VASNDVTASTAQLVAASRVKANFGSRTQ
 FVTMHVKPESLI SAAQTTAGYTAQLVIACDAKADPNSQSC LVQGLGSEDKLI AAAKQ
LVLVRNSEEDLVSAARTVVSNTGQLIFACLAKADANSKSM VMNGSGS IDTLI RAASGVSSDSARLVAASQVQEHVNSNSQ TVSGSGKLEEIMVCGQEITASTAQLVSASRVKARPRSEKK LVRPRFAPEDLVSAARTVVSNTGQLIFACLAKADANSASM EGQHRSKWVPFFL

ASTAQLLVACKVKADHDSEAM IVCGKGK DERDIVISQEDAASTTQLVYATRVKTNSQPEMF


AVRQQGKHERELVAQGRVAASTAHLLVACKVKADMNSKVM VVRQQGKHEELQVSARNLSASVAQLAALSRTKSMPNDHSQ T S QLFSAS K S Y DN S QS Q
ASEEK VVTSAKQVASSTAQLLVACKVKADPNSENM VVRKQGKHEELQVGARNISAMVAQLAALTRTKSMPDNDTQ STQGKAEEEELIATAREVAASTARLVSASRAKSGDDQQAH VIHNKPSEAMLVACAKSVAANAMQLQAASMVNLADDDPMR YVEGGDGNEPLAASAGSVNVSTAQLLAAFRARYQKGNDL $A V Q G H A S E E K L I S S A K Q V A A S T A Q L L V A C K V K A D H D S E A M$
$L M N G E S D E R L L A G L K Q F K S H C S Q L L T A A R V S M E D Q S P L L$ LMNGE SDERLAGLKQFKSHCSQLLTAARVSMEDQSPLL
 ATIDDWLVAALKQFSALSSQLVAAARATLDPNSPLL $A V Q G D E D V E K V Q S H T N N L N A L I A Q L T S A A L A G L P G D D V H L$ LVQGTGTRNGCISTAKQGAS
LFS SVGDAHEMVRQARQLAQATSSLVGA $\square R G E A H S D S D M Q$ LSNGTRPDMDLPASARAVAAATMQLVLAGSTRNPNQAVQ FVTMHAK PESLISAAQTTAGYTAQLI AVQGHASQEKLISSAKQVAASTAQLLVACKVKADQDSEAM VI QSPACREQLEAAAREVAKAVAHLVEEVCN EATDNQQLR $V I Q S P A C R E Q L E A A A R E V A K A V A H L V E V C N E E A T D N Q Q L R$
 TISAECDEERVI QSATKCAFATSQLVACARRVVAPDNSACB

 $\begin{array}{llll}L & F & S & S \\ A & M & G & Q\end{array}$
L
L
$\mathrm{A} M \mathrm{M}$ M G Q

| $D$ | $Q$ | $L$ | $G$ | $L$ | $A$ | $K$ | $A$ | $V$ | $A$ | $N$ | $A$ | $T$ | $A$ | $G$ | $L$ | $V$ | $V$ | $K$ | $A$ | $K$ | $V$ | $L$ | $A$ | $S$ | $S$ | $D$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |$P$

UniRef90 L9L5G2 UniRef90-T1GWL7 UniRef90-U1HZL9 UniRef90_UPI0003343CE6 UniRef90 A0A024J7Z6 UniRef90_UPI0001FE2584 UniRef90_UPI0001FE2584 UniRef90 UPIO001FE2584 UniRef90_UPI0002247337 UniRef90-UPI0002247337 UniRef90_G7E5X4 UniRef90 D3BT39 UniRef90-B6IM09 UniRef90-H2KRL8 UniRef90 ${ }^{-}$K7H707 UniRef90-UPI0003AF2BFE UniRef90_U1NL46 UniRef90_G4VEQ7 UniRef90 G6DRH8 UniRef90-UPI00044418B3 UniRef90-G5EGK1 UniRef90-E4YM19 UniRef90 E4YM19 UniRef90-K2H888 UniRef90-R7UFW6 UniRef90 R7UFW6 UniRef90-E4XC80 UniRef90-E4XC80 UniRef90-P0CE95 UniRef90-FOZCG3 UniRef90-Q4SM32 UniRef90 A0A044SUT2 UniRef90- H2APE3 UniRef90_K1QL59 UniRef90-J7S875 UniRef90_F2U141 UniRef90-D3BME3
UniRef90 J9.JL63 UniRef90-P33338 UniRef90 L8HEA2 UniRef90-UPI000441B805 UniRef90_G0V5A8 UniRef90 A0A058Z6M8 UniRef90-M7BMZ0 UniRef90_Q6FP04 UniRef90-G0WD51 UniRef90- Q4GZM1 UniRef90_UPI0002B455F9 UniRef90_G7YH51 UniRef90 G4VC82 UniRef90-V518M8 UniRef90-U6IG82 UniRef90-E9C3R4 UniRef90 F2U371 UniRef90-U6FWM0 UniRef90-G3HN02 UniRef90- U3IP20 UniRef90_Q5BZQ0 UniRef90-A9UTH2 UniRef90-I1ET07 UniRef90-V8PGI4 UniRef90-E5SV11
UniRef90-F2U5D5
UniRef90 F1A4F9
UniRef90-H2ZQQ6
UniRef90-A9UUA5
UniRef90-F4QFU9
UniRef90 K2HZW6
UniRef90-L8H5G7
UniRef90-F6XVA8
UniRef90 K2G9Y4
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UniRef90-BOWLZ6
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UniRef90_E9CJ64
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$\square A L E Q A A R A V T D A C K A L V R Q V R A$
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QEK $\square$ A Q A A QS S VT T $\square$ TR R $\square$ A EVVK $\square$ GA A S $\square$

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sol5
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solo
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jpssm

D E GVY QA D Q ${ }^{90}$ A
100
110 $N V G Q A S G E D D E P Q V Q E R V I Q S A T K C A F A T S Q L V C A R V$
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