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UniRef90_F1L1T6
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## 




VNSTKKKKVNDKNPHVALYALEVMESVVKNCGQTVHDEVAN


 M K A M K K K R I G S K K W W K E G M M L T L





 $V$ K G V K K R I G S R N P K T QL L A L T L L E T I V K N C G D M V H M HV A E
 $M R A L K R R L N H K N P N V Q L L A L G L A D V C V K N G G D L B L N E V A B$
 L R S I T $\quad$ K R
 MR A V K K R L N N R N F R E V V ML A L T V L E T C V K N C G H R F HVV HVA N


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





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## QUERY <br> UniRef90_T1KDB6 UniRef90-L7LSD3 UniRef90- X1Z7B1

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UniRef90_F1L1T6
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UniRef90-ROFUU3
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UniRef9__A4RF61



120 KSFMEELRELVKVTSDEKVREKLLELIQAWAHAFRKEPSF KPFMEELRRDLVKANTNEAVRDKVLELVQAWAHAFRNDPNY REFASEVSNVLNKGHPKVCEKLKALMVEWAEDFRNDPQL KEFMEFLRGCGQHGNSNPVKEKVLELIQVWAHAFRSESQY

 REFMDNMVSILIDPADNNDVKNRMLRFIQNWAMAFEGKPEF K QYMEQLKELVKTSPHENVRDKTLELIQAWAHAFRHSPKY
 K GVI HE MVVIAKKKPDFHVKEKILVLI DTWQEAFGGRARY


 $R P$ LSLEE I RNI I QKHSSNAAVGNKMKELLQKWAHMLKKDDPKV REFVVDNLLSSLLRAPDNHDVRQRLLEELIQGWADAFESBPEL




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KDFMDEMRNLIKKNGAD PVVKDKALGGLIQTWSHAFRNEPKY

REFMDNLTTSLLKAPANNDVKNKMLELI QSWATAAEGRMNL







| $R N D L Q E M V K$ | $V K K K T D M E V R D K L L V L L D S W Q E A F G G G G K Y$ |
| :--- | :--- |
| $P Q F M D D M K E L V L S ~ S N E A V K G K T M E L I$ |  |
| $Q A W A Q A F R N E P S$ |  |

REFESECKKLLSKGHPRVVGEKMKGLGKKWAQEFSKDPQL
RDFANDVRGLLSSKA HPKVCEKKKALLVVEWADEFQK DPQQL


## R




KAFCEMLRDLVKTTQHENLRSKULELI

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KPFMEQIVRETIKTTPHENVKNKLLELL RDFVETRSIIPRNSPPLVVHDRVLSII QAWADAFRSSPEM KDVLHEMVKIVKKRGDLSVREKILGLLDSWQEAFGGRGRY
KVYMEQLRETIKTTQHENVKNKLLELI QAWAYAFRNDPKY


K Q Y ME QLK DI AKNS Q QESVVRNKILELIQAWAYAFRESQKY


KEYMEF LK DQAKTRND PVVKGKI LELVQAWAHAFRNEPNY


R D F M E E E T $\quad$ H L L K T G S N Q D V K K N K V L Y $L$ V

R E F M D N L V S L L K A Y Y G P E D V V K Q K I L

K D V L H E M V K ll V K K K K H D S H V

| QUERY | K V VQ D T Y Q ${ }^{\text {DM }}$ K VEGHVFPEFKE |
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| UniRef90-H3DMT0 | SLISAMIK NLREQGV |
| UniRef90-X1Z7B1 | KACQDAYNDLKMEGHTFPQLRE |
| UniRef90-UPI0003F098A2 | QGVVQMYNELKQKG1 |
| UniRef90-D3TND3 | $\square \mathrm{GV}$ TQMYNELKNKGl |
| UniRef90-K1Q642 | KVVQDTFNLMKMEGYTFPTLKE |
| UniRef90-A2WMD4 | PQYY A A Y H DLVRAGAAFPKRSD |
| UniRef90-G6DEL6 | QGVGQVYNELRNKGV |
| UniRef90_G4T8R2 | A YVNTVYKTLVSEGFKF |
| UniRef90-F4W9K2 | R TVQDTLNIMKAEGYQFPALLKE |
| UniRef90-T1J9T9 | SLI P SLYNKLK S E GVD |
| UniRef90-UPI000441D868 | T GVVHI Y E ELKRKGVEF |
| UniRef90-M4F0D9 | PQYYA GYQEL LRAGAVFPQRSE |
| UniRef90-V9KQL1 | S LIT A T $\square$ K A L K E G GV |
| UniRef90-U6NMD1 | K 1 VVDTHNLMK $\square$ A GFDFPS $\square \mathrm{K}$ E |
| UniRef90-F8QG94 | GYVGQVYKSLK TEGYD |
| UniRef90-E9FUW0 | QGVT QVY Q $\mathrm{L}_{\text {L K SKGI }}$ |
| UniRef90-T1K607 | S L I P S Y Y K M K N E GVEFPPRR |
| UniRef90-B3SA14 | TLIPPTLYNSLKNEGVEFPAFT |
| UniRef90-R4XHH8 | GYMMTVYHNLRSEGLQF |
| UniRef90-UPI00038378F0 | T GVVHI Y E ELKRKGVE |
| UniRef90-UPI000258EE7E |  |
| UniRef90-W4KRT3 | SYAGQVYKTLQGE |
| UniRef90-F1L1T6 | KlVVDTHNLMKLDAGFEFPEVAE |
| UniRef90_C3Z6W8 | RVVQDTYQIMKMEGCSFPELRE |
| UniRef90_UPI0004414CDF | S YVPQLYKALKSEGFTFPPYD |
| UniRef90-UPI000265330D | QGVVKVYEELKSKS DEFPPMD |
| UniRef90-T2MAV9 | QQVRVCYETLKTQG |
| UniRef90-Q7ZY17 | SLIS AT ${ }^{\text {L K S L K E E G }}$ |
| UniRef90-G7ZWF8 | PQYYAA YQELLHAGAPFPSRSE |
| UniRef90-H2VM86 | KMVVDTHNLMKLA GFDFPSMKE |
| UniRef90-W5F1Q6 | PQYYASYQDLLRAGA |
| UniRef90-A7RUJ2 | K $\\|$ VQDTFNLMKMEGCKFPAFNE |
| UniRef90-11PUK4 | P QYY WA Y A EMKK L G L EFPRRS |
| UniRef90-A4QNZ5 | T GVVTVYEDLRRRGVE |
| UniRef90-Q0U4Z8 | GYIVEVYRSLQREGY |
| UniRef90-M7YST0 | PQYYAAYQEL $\mathrm{L}^{\text {R A GADVFPQRS }}$ |
| UniRef90-V4BAR1 | S LIPAFYESLRKDGADFSDPD |
| UniRef90-UPI000328B073 | T G V VAVY E DLR R K GL |
| UniRef90-T1FS25 | KVVQDAYNEMKREGFAFPTLKE |
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| UniRef90-W5M3N3 | SLLGAT $\downarrow$ K SLK E E GV |
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| UniRef90-I1CR95 | SYMYDTYVLLKAEGMTFPP $\square$ R E |
| UniRef90-H2UJI8 | S LL S S T IK T L K D E GVS F |
| UniRef90_Q9LPL6 | PQYYNAYNELRSAGIEFPPRTE |
| UniRef90-Q2GS33 | GY IGEVYKTLQREGY |
| UniRef90-I3KRT0 | S GVV VVYDDL R R R GL |
| UniRef90-E2AFD6 | QGVVQVYQELK |
| UniRef90-J9K5H2 | NLIPSLY T K K K L E GV |
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| UniRef90-K1QFK8 | K ElD K V Y Q L K A G |
| UniRef90-H9JBZ0 | RAVQDTVNDLKAEG |
| UniRef90-UPI0003C35AE8 | NLI PSLYTKL RQENY |
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| UniRef90-A0A059BT41 | PQYYAAYNELRAAGVEFPPREE |
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| UniRef90-C4JGG6 | A YVGETYRKLQWEGFQFPPKTE |
| UniRef90-U5EWZ4 | SLIPSLLNRLK S E GY DF |
| UniRef90-V4BZI1 | KVVQDTFHLMKMEGFKFPVLKE |
| UniRef90-N1QCW3 | TYIS DTYRSLQYEGFHFPPKQD |
| UniRef90-R7Z5J2 | GlMEQAYMKLK T Q NPNLRPPSK |
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| UniRef90-J4GA81 |  |
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| UniRef90-B4GSP1 | QSIK T TMTILKAKGHTFPEMKE |
| UniRef90-M0U0S8 | QYYAA Y Q $\quad$ L $\square$ R A GVVFPQKSE |
| UniRef90_A4RF61 |  |

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|  | $F$ | $A$ | $R$ | $R$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $P$ | $L$ | $Q$ | $R$ | $Y$ | $I$ |
| $T$ | $L$ | $E$ | $S$ | $W$ | $L$ |
| $T$ | $L$ | $Q$ | $R$ | $Y$ | $I$ |
| $P$ | $Y$ | $D$ | $D$ | $I$ | $V$ |

GPFDEAVGK
P F E E L V
V
$P$ V G R L
$\begin{array}{lll} \\ A & K & A \\ A & K & A \\ E & K & A\end{array}$
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## S

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| S LE S S L W L | NLATNEALKE NKATHPTNRQ |
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| T I Q A I I | ERACNP Q L G E |
| S L E A L L | EK A T N P K NRY |
| S L E V R I | NRATNPLNKE |
| L | E R A TVGTLPA |

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 $\left.\begin{array}{llllllllllllllllllll}P & N L D A & L & N & L & E & I & A & D & E & 1 & N & K & R & K & G & N & P & R & E\end{array}\right]$

 NLLS L L \begin{tabular}{llllll}
$E$ \& $N$ \& $W$ \& $L$ \& $L$ \& $N$ <br>
$P$ \& $L$ \& $E$ \& <br>
$P$ \& $D$ \& $W$ \& $M$ \& $N$ \& $L$ <br>
$D$ \& $D$ \& $L$ \& $L$ \& $L$ \& <br>
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\end{tabular}


$\qquad$ $P F B E M I A$


| $V$ | $E$ | $K$ | $A$ |
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\mathrm{~L} & \mathrm{P} \\
\mathrm{~N} & \mathrm{P} \\
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| $D$ | $D$ | $A$ | $L$ | $N$ | $L$ | $E$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $l$ | $T$ | $L$ | $Y$ | $L$ | $E$ |  |



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SPFDADVEKATNENNTAEEWGLTMETCDKVGTSETNAKDC SRFDKLLAKSTSELLMEADWETNLTI CDLVRGQEVTPRDA A F DE PVVAKATEDENLTSENWEDNLLLCDDKLASNNEDARQC PADKVVEDATTSESLEGPDWAMNLEICDLINAGKVNSVDL ASTV EWLV GKATNDENLASEDDWALNLEVCDKVSEGQNGSRQA G QLEAYIERACDPYRPQPDMALNLEEVADLINSSKKANPREA SNFEKVFEKATSNLLLEPDLDSMLQLCDMVRGGDVKVREAA PYDEVVLKATDEAQTS
$\square D K A T N P \square M L E E N W E H V V G F C$
SQADKFVEEATSEKNFSPDWGKNLQICDMVNAEGLTGQDV SNFEKVFDKATSNLLLEPDLDSMLQLCDMIRGGDVKAKEA RLERATDSGNLADDWTVVLEETCDALGGETDEGARDA
T पe
$\stackrel{R}{\mathrm{~T}}$
TLENKATNPSNRDDDWEYMNNC
KMVEATSDHLEEPNWSTNLRTC
DRATSPMNQQEDVETVLSFC

UniRef90_A0A016SR31 UniRef90-M4CN79
UniRef90-B4NLN4 UniRef90_B4NLN4
UniRef90_W9WA41 UniRef90_U4UF40 UniRef90_C1GRW5
UniRef90_E9C678 UniRef90_M4C0L4 UniRef90_Q6CFT4 UniRef90_F1KY90 UniRef90_UPI000440F5F5 UniRef90_S9WHW8 UniRef90_M8A1U6
UniRef90_W5N2H1 UniRef90-W7LIQ5 UniRef90-A0A059BY75 UniRef90-B2W9G1 UniRef90_G4VTD8 UniRef90_N1Q396 UniRef90_H2ZH91
UniRef90_R1EKP7 UniRef90_A9NUS0 UniRef90_F7CCL7
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UniRef90_C5FCN3 UniRef90_A8NAI4 UniRef90_S3BZV8 UniRef90_H3F9H9 UniRef90_A8Q9H7
UniRef90_G1WYL3 UniRef90_UPI0004420832 UniRef90_B6K3Q9 UniRef90-W2TQK8 UniRef90_D5GGU3 UniRef90_UPI0002C46C6B
UniRef90 UPI0003F49D9D UniRef90_UPI0003F49D9D UniRef90_K5VG80 UniRef90-F4P0B5 UniRef90_E6ZP88
UniRef90_B7FJV4 UniRef90_Q4PFW1 UniRef90_D7G5B8 UniRef90_V5ESH1
UniRef90_U9UEW3 UniRef90_E4WQ55 UniRef90_U5HC79 UniRef90_S4RCZ2
UniRef90-M7NM73 UniRef90-MORT73 UniRef90_K9IY04
UniRef90_W1QJ17 UniRef90-T5A7X5 UniRef90_K3WUT1
UniRef90_U5DET0 UniRef90_UPI0002A4C8AD UniRef90_A0A015J
UniRef90_l1GHN4 UniRef90_Q28E38 UniRef90_K7GA05 UniRef90_T1H275 UniRef90_F6W510
UniRef90_UPI0002C46251 UniRef90-T1IGH7 UniRef90_U6IPN7 UniRef90_M5EBM5 UniRef90-M7ZN56 UniRef90_Q4SZA7 UniRef90_R7SC52
UniRef90_G7EAI3 UniRef90_G_EA13 UniRef90_F6PQW9 UniRef90-K7FHN2 UniRef90-J3Q6D6 UniRef90-T1G628 UniRef90-X1Y504 UniRef90_H2ZE19 UniRef90_U6I7E7 UniRef90-S9PY42 UniRef90_W4Y899 UniRef90_U5D948
UniRef90_R7V0J4

## 

, V R A |I R K R|L|MCKNNA|I VMYT|L|T|VLETCDVNCGHNFHVLV|C S I K A V K R RLLQ H K S S K V QL L S L K L L E A ML K N C G E F V H S H I A E
 $L \mathrm{~L}$ V GVVK K K L














 A K A L K R R L K S D N P K I L G L T L T L C E T TMK N C S R P L HR A L GA






 A M H V R L I N N R N P N V A S L A L T L L D D C V K N C C G H A F F H L H I A T
 MKAI RKRLTQKNNQVIITYTLIVLIETVKNCGKAFMLLVAG

 LI L $\operatorname{N}$ A $\operatorname{I}$ Q K K R V V

 $V A A L Q K R L A B R N P N V Q L Y A L E L A N T G A Q N C G K S L L E E L S S$










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UniRef90- W9WA41 UniRef90_W9WA41
UniRef90_U4UF40 UniRef90_C1GRW5 UniRef90_E9C678 UniRef90_M4C0L4 UniRef90_Q6CFT4 UniRef90_F1KY90 UniRef90_UPI000440F5F5 UniRef90_S9WHW8 UniRef90-M8A1U6 UniRef90-W5N2H1 UniRef90 ${ }^{-}$W7LIQ5 UniRef90_A0A059BY75 UniRef90-B2W9G1 UniRef90_G4VTD8 UniRef90_N1Q396 UniRef90_H2ZH91
UniRef90_R1EKP7 UniRef90_A9NUS0 UniRef90_F7CCL7 UniRef90-K1XVI7 UniRef90_S8CGX5
UniRef90_I1GHK1 UniRef90_UPI0004411766 UniRef90_A0A023F1V7 UniRef90-E5SX43 UniRef90_W1NNW1 UniRef90_UPIO003D0B483 UniRef90_R7YZB1 UniRef90_F7DDF2 UniRef90_C5FCN3 UniRef90_A8NAI4 UniRef90_S3BZV8 UniRef90_H3F9H9
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UniRef90-Q4PFW1 UniRef90_D7G5B8 UniRef90_V5ESH1
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UniRef90 S9PY42 UniRef90_W4Y899 UniRef90_U5D948

K DFVVQDLVIK| TGSKFDQTI HERVLIS LIQAWADAFRNQPD|L

 K A NCEFLHDLVKNTPHENVKQKLLELIQAWNFAFRNNPKH


 RAFTQAL EKL I T DRTHEKVGKRCLLA L I A Q D FVVE GVL
R G I L P G M MV K L A K K K A NVQVRR D K I L T L L D S W W E A F G G G G K H
S WA D A F R S S P










FRFLNELI KVLSP WS S E KVVKSRVI EI MF SWTVWFP QEVG





R D F C D R L V $\operatorname{K}$ K L N P K L L N L P P V Q E K I L


F R F L N E L I K V L S P WT T E K V K G R V I E I L F S WTVVWFP E D ICK


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REFMDNLVSVLRNPVNNDVMVKALGGLI QNWSQIA EARPQM



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## 





 F R F L N E L ILKV L S P W S A E K V K S R I I E I M F S WT V WF P Q E V K


 R D F L H D L I K V L L P P K H N P P l



| UniRef90 A0A016SR31 | QGVVQVYEELVSKGVT FPATD |
| :---: | :---: |
| iRef90 M ${ }^{\text {- }}$ | PHYNWAYRELI RSGVKFPQRSK |
| UniRef90-B4NLN4 |  |
| UniRef90-W9WA41 | G I MEQAYMRLKAQNP |
| UniRef90-U4UF40 | G NLK D L M A M K S EGYKFPVLQE |
| UniRef90-C1GRW5 | SYIGETYRGLQREGYQFPPKTD |
| UniRef90_E9C678 | ALIKETVRKLRDEGI |
| UniRef90-M4C0L4 | TEFQDVYQQLQKQNIT T P EVK |
| UniRef90-Q6CFT4 | QQVENAVTQLKSEG |
| UniRef90-F1KY90 | QGVCQVYDELKAKGV |
| UniRef90-UPI000440F5F5 | Gl MEDSYNGLKAKGYKFETPSE |
| UniRef90-S9WHW8 | T GVVAVYEDL R R K GL |
| UniRef90-M8A1U6 | P QF YWAYSELKQS GLEFPRRS |
| UniRef90-W5N2H1 | T GVVSVYEDLRRKGL |
| UniRef90-W7LIQ5 | GIM S A M N |
| UniRef90-A0A059BY75 |  |
| UniRef90-B2W9G1 | G\MS GA Y M K L K S |
| UniRef90-G4VTD8 |  |
| UniRef90_N1 Q396 | GIMDQA Y N |
| UniRef90-H2ZH91 | SHFVSFYYRHRGEGDQFPDTED |
| UniRef90-R1EKP7 | KEIRDMHRLLS YKGYTFPE $\square$ R |
| UniRef90_A9NUS0 | PVFEETYKSLKSRGIRFPGRD |
| UniRef90-F7CCL7 | R D A Y Q L K K Q |
| UniRef90-K1XVI7 | SYIVETYKHLQREGFRFP |
| UniRef90-S8CGX5 | P QYYAAYRELLSAGVNFPPRAE |
| UniRef90-I1GHK1 | A AVNEVYQQLIKND G |
| UniRef90-UPI0004411766 | SIMMEECYTSLKQKNFKFDAPTE |
| UniRef90-A0A023F1V7 | SLMTS F Y SLLKQE G |
| UniRef90-E5SX43 |  |
| UniRef90-W1NNW1 | PQFFWACSELRQSGMEFPKQSD |
| UniRef90_UPI0003D0B483 | DA Y Q MLK K Q G |
| UniRef90-R7YZB1 | KEIRDMHRLLHFKG |
| UniRef90-F7DDF2 | M L |
| UniRef90-C5FCN3 | KFIR DMHRLLLYK |
| UniRef90-A8NAI4 | GIMEELY 1 SLLKAKGYKFEQPSE |
| UniRef90-S3BZV8 | GIMQDAYNR |
| UniRef90-H3F9H9 | QGVVQVYEDLRTKGVEFPATD |
| UniRef90-A8Q9H7 | GLVAETVGE |
| UniRef90-G1WYL3 | F V M E Q A Y K L K S Q P S $\square$ PAPSK |
| UniRef90-UPI0004420832 | S EVKK ${ }^{\text {d }}$ |
| UniRef90-B6K3Q9 | SYINQVFERLKNEGREFPALD |
| UniRef90-W2TQK8 | SLVVTLYKNLVADGHSF |
| UniRef90-D5GGU3 | K FI R D M H RLL S K K GYVFPEVR |
| UniRef90-UPI0002C46C6B | RDA Y Q MLK K Q |
| UniRef90-UPI0003F49D9D |  |
| UniRef90-K5VG80 | GVMEECYANLRAKGYKFDTPNE |
| UniRef90-F4P0B5 | KEINDMYRLLMYKGYRFPELLRE |
| UniRef90-E6ZP88 | GLMKETYESL |
| UniRef90-B7FJV4 | PVFEETYKSLRSRG $\mathrm{V}^{\text {V }}$ R P P GRD |
| UniRef90-Q4PFW1 | V H $\square$ R D M H RLLTYKGYRFPNVD |
| UniRef90-D7G5B8 | AY SETYGRLKAQGARFPE |
| UniRef90-V5ESH1 | S Y IT D ${ }^{\text {P K K Q }}$ K S S KFDFPPVD |
| UniRef90-U9UEW3 | VLVTETYRLLKSEGCGFPKID |
| UniRef90-E4WQ55 | SMI VSFYHFLRANGTHFPEPK |
| UniRef90-U5HC79 | KEI R DMHRLLSYKGYRFPDFDK |
| UniRef90-S4RCZ2 | CLLEFII K N K K |
| UniRef90-M7NM73 | GYVCTVYEDLQSQGYEFPPKE |
| UniRef90-M0RT73 | P VYE ETYKSLKSRG\RFPGRD |
| UniRef90-K9IY04 | S EVKEVY LDDL $\mathrm{S}^{\text {K K GVVHFPPSD }}$ |
| UniRef90-W1QJ17 | K Y I R D M H RLLRSK GYEFPAVKK |
| UniRef90-T5A7X5 | GFIRDMHRLLSYKGYMFPEVR |
| UniRef90-K3WUT1 | T A F Q M M R QLKLQ GV |
| UniRef90_U5DET0 | P QYYAA Y Y L V S A V QFQQRPK |
| UniRef90-UPI0002A4C8AD | NDAYTALKKQGLVTHEPE |
| UniRef90-A0A015JGW1 | V HIN N M Y RLL S Y K G Y I F P E $\square$ D |
| UniRef90_I1GHN4 | A EAYEMLKKQGLV |
| UniRef90-Q28E38 | Q |
| UniRef90-K7GA05 | S EVKEVY LiELLKK GV |
| UniRef90-T1H275 | S GVVQMYAELKTKGI |
| UniRef90-F6W510 | R D A Y QMLKKQGUVTPEYDQ |
| UniRef90-UPIO002C46251 | KVVQDTYQ\\|MKDEGHVFPEFKE |
| UniRef90_T1IGH7 | SLMTS F Y S RLK Q G I DFPEPS |
| UniRef90-U6IPN7 | EYLHEAYEEIKRSGHPLPPFHE |
| UniRef90-M5EBM5 | GLVADTVHDLREEYYD |
| UniRef90-M7ZN56 | PVYEET Y K S L K SR GVRFP G R D |
| UniRef90-Q4SZA7 | Y HMLK |
| UniRef90-R7SC52 | GLMGELYDQLRAKNM |
| UniRef90_G7EAI3 | V HVRDMWRLLSYKGYRFPDFDK |
| UniRef90-UPI00034FB60C | DLIPALHAR |
| UniRef90-F6PQW9 | KISADLYN】MKAEGYKFPPMTD |
| UniRef90_K7FHN2 | RDAYQMLKKQG |
| UniRef90-J3Q6D6 | GLVEETVEELKEKGH |
| UniRef90-E9DYF3 | SYI NEVYKTLQREGYQF |
| UniRef90-T1G628 | Y T MLKRQGVVKEDPD |
| UniRef90-X1Y504 | DLIP SLLYKKLREEGHDFSDPS |
| UniRef90-D8RCW0 | PVFEETYKSLRSRGDRFPGRDE |
| UniRef90-H2ZE19 | KVASDLYNIMKTEGYKFPPKTD |
| UniRef90-U617E7 | R DLEKVYTALRRKGV |
| UniRef90-S9PY42 | GFI RDMHRLLSYKGYTFPEDAK |
| UniRef90-W4Y899 | VEAYD MLKKQGLV |
| UniRef90_U5D948 | VFHQTYMILK G |
| UniRef90-R7V0J4 | A E A F S MlL K K Q Gll V |





|  | NTIPSTYSK130 SGMDF 140 |
| :---: | :---: |
| UniRef90-V5GG93 |  |
| UniRei90-V9GYF4 | SGVVTIYEDLRRKG |
| UniRef90-LOPE36 | RVIRQTYDQ |
| UniRef90-Q10410 | SRIHDTRELMAFRGYKFPADDE |
| UniRef90-G81 | NYVSKVHDKLKA |
| UniRef90-M3HNC0 | KPMTDAYNKAKS |
| UniRef90-W5M8Y4 | K Y TN EAYHMLK K |
| UniRef90-UPIO003D0EB1D | S SVKEVYLLELKKKGV |
| UniRef90-J802Ps | NYVARVYDKLISRGIKFPEK |
| UniRet90-C5DBV6 | NYVSKV |
| UniRef90-D8QZY4 | PVYEETYKSMRARGVR |
| UniRef90_W71056 | KEIRDMHRLLTYKG |
| UniRet90-J7R438 | NY RDMRRLLKYKG |
| UniRet90-G3YCT0 | GIMEQAYMKLKTQNPNLQPPSK |
| UniRef90-A7TDL9 | NSVTKVYEKLVNRG |
| UniRef90-S8D098 | PQYFSAYYELVTAG |
| UniRef90-S4RYS0 | VAEAYQMLKKQGIVLEDP |
| UniRef90-A9UTZ8 | RCVVEVYNNLKAQGWPFPELD |
|  | KY TEAYQMLKKQGDVFEDK |
| $\begin{aligned} & \text { UniRef90_OBBHU5 } \\ & \text { UniRefgoM } \end{aligned}$ | I SDAYQMLKKQ |
| UniRef90-E2LGT7 | E |
| UniRef90_UP |  |
| UniRef90-UP | ANTRDMHRLLTFKGYRF |
|  |  |
| UniRef90-H2XV | SGLK QVYMELQEKG |
| UniRef90-UPI00032AA01D | PVFAQTYTSLKGRG |
| UniRef90-V4AIL4 | SMLKAQG |
| UniRef90 Q755.J9 | SYVSQVHQRLQARG |
| UniRef90-G5AYX4 | VTTEAYQMLKKQG\|VFPQPD |
| UniRef90-A0AO59AKU1 | PQYYSAFYDLVSSGVQFPQRS |
| UniRef90-H2UC | EAYGMLKRQG |
| UniRef90- $8676 Z 4$ | PQYYEAYYELVSAG |
| UniRef90-6HZK7 | FRQTYMSV |
| UniRef90-G4TK16 |  |
| UniRet90-UPIo003831E7E | GYv/K |
| UniRef90-R8BWH6 | ERIAKLYKELRRKQVVTQDRS |
| UniRet90-088811-2 | SLISAT ${ }^{\text {L }}$ K SMKEEG |
| UniRet90-M2W040 | EAY |
| UniRef90_O65525 | G |
| UniRet90-H3GJ | FQDV |
|  |  |
| UniRef90-L8WQZ8 | GYVPEVYRSLKNQGMV |
| UniRef90_UP10003EBEE8C |  |
| UniRef90-G3GVG7 | TGVVHDYEELKRKGVEFP |
|  | K ETRDMH |
| UniRef90-S9X | LDVYEQLKGEDYSFPEPPQ |
| UniRef90-M5FR92 | G |
| UniRef90-G38079 |  |
| UniRet90-C4YAVO | KP\RNAYET $\square$ K VKYPQ |
| IRe990-G7E2U7 |  |
| UniRef90_BoCR96 | VAGL |
|  | RRDAYQMLKKQG【VKEDPK |
| UniRef90-M5G2C4 | KTVADLY |
| UniRef90_G2QHC9 | EQVARLYKELPRR |
| UniRef90-D2JWW3 | THURDMHRLLSYKGYRFKPFD |
| UniRef90-C9 |  |
| iRet90_UPI |  |
| iRef90_G5Al | PLFVDTYHNMRKKGIKFPQYDE |
| UniRef90 B2A | EQIATLHNEL |
| UniRef90-EOVTB6 | RAVQEMVNNN |
| UniRef90-UP100021A6CC0 | V K EAY EMLKK |
| UniRet90-A7F748 UniRef90 - 3 BliR9 | YRGLYKQLRT |
| $\begin{aligned} & \text { UniRef90_D3BIR9 } \\ & \text { UniRef90_J3N586 } \end{aligned}$ | PGYYESYS ${ }^{\text {P }}$ |
| UniRef90-E4ZY41 | ERI |
| UniRef90-K7LY30 | PQYLAAYNELKSAGVEF |
| UniRef90-UPIO00455FCC5 | TTVSNLYRQCKRKSHQS |
| UniRe90 - - 100035739 B |  |
| UniRef90-V1G2x3 |  |
| UniRef90-V5FN12 UniRef90 $\times 8 \mathrm{Jl44}$ |  |
| niRee90- ${ }^{\text {- }}$ |  |
| UniRef90_V2XYY2 | RTVSSLY |
| UniRef90-S8F- | HFLANLY |
| UniRef90 K1VVA4 |  |
| UniRef90-S8EOF9 | GNi RDMHRLLTFKGYRFRDR |
| UniRef90-W4KMk0 | TLVANMF |
| UniRef90 J9EDM1 |  |
| UniRef90_UP1000333A2CC | K EV |
| UniRef90_O5DALO |  |
| UniRef90_UPI00042CF351 | T GFHHVNQRLIH GA G/V] |

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UniRef90-I2GV88 UniRef90-UPI000161F410 UniRef90-U5HH25 UniRef90_UPI000440E07A UniRef90-F0YK31
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UniRef90-N1JNU4 UniRef90-D6X0M6 UniRef90_G6DL18 UniRef90-F2QUA8 UniRef90-D8R520 UniRef90_UCIO003EDE9EF UniRef90-M1ANH9 UniRef90_Q6CL17 UniRef90-S8A594
UniRef90_GOWCC1 UniRef90_C0SIG6 UniRef90_G4U2R1 UniRef90_J3QRS8
UniRef90_VGKU78 UniRef90-K1WD19 UniRef90-J9JA34 UniRef90-E9E0V6 UniRef90-CONIB3 UniRef90_U6HW19 UniRef90-T0Q8C1 UniRef90-UPI0003F17D8B UniRef90-K3VHX1 UniRef90-U1G318
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UniRef90- Q8GWW0 UniRef90-B2W9H5 UniRef90_UPI00045E01F3 UniRef90-G3US84 UniRef90-R4XEQ2 UniRef90-Q53LP6 UniRef90-G7XSWW3 UniRef90-F6TWZ9 UniRef90_W4G681 UniRef90-C4JGH4
UniRef90-U1MNY5 UniRef90-E9CIL9 UniRef90-V9DLC5 UniRef90-N6TMG5 UniRef90 R7S4C6 UniRef90_C1MTW3 UniRef90_UPIO00386EE4D UniRef90-Q6CVA8 UniRef90-S4RJW0 UniRef90_J9VZ38 UniRef90_M7BFQ8


SAVTVTVENLTSEAYEEEDFSGMPELVEVITLQATGPSEA
 SAVTDWI DRLCTARYAEEEYDGIPELVEAI NQQSTGPTEA


## LD T

 SQL QRFIQAACSPENYEPNLALNLEIADLINSKKGSPREA A ALELWLNKATDPSMPEENWSCIQCFCDLVNSDPDGTSHA GNVQKAIVLKATDPKGKNDNWQYILDCCDLVSEDPEDGKEAC S Le ALLUQATDFRNKATDTAA DEAFCGDIKKEPEGPWDA MNQNEDWEAI KMYAAKVNAGGD $\square$ QHTA IIKATDARDRTDNWQYI DEVCDDVKEDPEDNQQA SSTT DWVEVLSSDRYDELSLDGIPELVESINQAYQGTTEA LDNKISEATSESIPEIVELSVAFEITDIIRAKKVIPKQA
 S $\square$ VA EKCCDPKTLDDNWAQILHISDTMYAVGQPKQC VDKATN EKNTKEKWDNI KDACDQLSSTSDVGRNS
 LDKATDPSVSEQDWSAlQQNCEQVNTDPNGPTEA EKATDGSLQSEDWTLNMETCDIINETEEGPKDA
 ERATSDMLIGPDWAVNIELCDII NMDPGQAKDT
 T S SLIDDT DCSGEVVNPDWDN LILLCDLVTSSSTHAEQT
 S S REVLVYKIIAHDNAQSEDWESMVGLWEGI K DSAAAKET
 SQLESLIVTAACDPSQFRPDPAKQLEVAEYINQKKANPREA QLVDKATYDHLPEPDWGVCVDLCDLVNEFPTYGKDA
$K A \square E R A T D P G L R V D N W G Y L I E V C D L V K V D A E D R G Q Y$
EKATDGSLP SEDWNLNI I CDIINETDEGPKDA
S S $\square$ T D W $\square E V L$ S S D RYE E L S LDDG G ELVD SVV $\square G P Q G T T E A$

## UniRef90_H6QRU3 UniRef90-12GV88

 UniRef90-UPIOOO161F410 UniRef90-U5HH25 UniRef90-UPI000440E07A UniRef90-FOYK31UniRef90 MOY7L8 UniRef90-MOY7L8
UniRef90
G8B653 UniRef90-B8LYP7 UniRef90-U9U1E4 UniRef90-L8W133 UniRef90-M7PFK1 UniRef90-UPIOOO4548241 UniRef90-Q4SML1 UniRef90-UPIO0042B04ED UniRef90-FOZU05 UniRef90-UPI0001583D2B UniRef90-Q4TGH3 UniRef90-UPIO004408BCB UniRef90-H3DKY1 UniRef90-K9GH12 UniRef90-UPI000455D082 UniRef90_G3AY44 UniRef90-14YDQ8 UniRef90-N1JNU4
UniRef90-D6XOM6 UniRef90-G6DL18 UniRefol F 2 QUAB UniRef90-D8R520
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## 

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 VKQUTKKLKDRS RVIIMLALELADSLLQNCECT HVVFAE TRLLAHKDQSPQEWEAMQALLVLETCMKNCGKRFHSEVGK AMS ARTVNNRNPHDSLLALALLETLVQQCGYAFHLQIAT FNALSLSFHATLSHTGFSSTEHRSSCVHNVQSRFQRIVSF SRALRKKLKYGNVHRQLRALTHLDYLVQNAGERFLLDFAD MRCLKKRLTYQNPNLLTSSLKLVDVCVKNGGYHFLVELSS AFEELRHVNQGSPRSALLGLHLLDVLVKNCGYPFMLQUAT VKVI ANRLPSGNEKELLQTLNLLDTCMSKCGTAFQSEVGK AQALAAR HSPNAREAI LAA SMLDRCMRRGDANFHSEI GK
 VNHL DKRFQVPNANVQLYSLSLVDALVKNCQLQLHQEVCS


 SRAI RKKLKYGNVHRQIRAATVLKALVENGGSRFQKTFAD VRLLAHKGQSPQEWEALQALTVLEACMKNCGRRFHNEVGK VEALKERUGNRNYREVRLAASLLALLMVRRCRPELRQAVFR AA AFKKRLQTKEPRVIALTLELLEKAMIQCGNPGHDQGGT ARARKKLKYGTVHRQIRALVLLDGLIQNAGSQFQRALAD VAALIKRIAHRNANVQLYTLENT RKLLQKKMISNDPKTQVLALETLNSLSENCPAKFQPQLAA DRLLAHKDQSPQEKEALSALTILDLCVQNCGPTLHKELGK ARMVRMRLANPSTTVVLAALHLVEAIVKNCGKGMRQRIAK ARALRKKMKYGNVHRQIRALVLLEGLIVNAGERFQRTFVD ARALRKKLKYGSUHRQLRALAGADLDNAGSRFQRTVFS ITALDSRLKSRSPKTVSHAATLLDTLEKNCFGPFHRLVCQ SRALRKKLKYGNVHRQLRALTHLDFLVQNAGERFHRNFAD



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 K EAGLERRLRIAATDVSDPLVKQKCKQUBGQWATTYKDTPGM



 K DVLHEMVKIV
RVFTTA I YQL ADPNVHAHVKSR\ASLVNEWATQLSYNANL



 FRFLNELIKVVSP
REFVRDVLAKVKYNPP DDVQSH LLSLDQLWATSFQGGVDV EMLLERLRVCGSSDSDPQVKNKCMELFRQWAVEYKNDRGL

KSFGEELHTLASKNTDDRVHGKLAQCLQTWVSQTGGDPQF FRFLNELMKVLLPKHPPVVRDKCIMLMFAWQRDLGDT PKFMHTLEMLYKEHATKVGRDRTLELVGQAWGEAFPFRRDF
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 KEFLNELVNL

WT TEKVKSR DIE DMFSWTVWFPKD $\square K$ K DFTSKLYHLVDSKKHVTVKMEVARVVKQLSASFKKDPSL EKVLDEMVWLIKNGEDSENRKRAFQLIRAWGQS QDDTYL FRFLNEMIKLVSPKFPVSVRNEVLKMMHDWTLHYPKEHK KEFLNELVRKFPEPFPSPVIDQRILYMIKEWKVALTBMSKH FRFDNEMDKLVSPKYPLKVKRKVLEI MYKWTHQLRYETK
 S QLMDRLKDMAQDNLDPKVKKRLDMVFHAWS LQYKDEPRM

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 K SFTDALLRRLADRNTHPQVKSK GLENME QWTEMFSSNADE ADVLDKI AGLLQTQTNAKVCDR DKELIQDWDTDQS D GPLLERLRABDPTSDQDVRKKCKDLFGQWVASAKDNPGL FRFLNEMIKLVSPKYPQDVKHRVLQLLY LWTLDYPTEVK KDVLGEMMRLVGGKLQPEVRTKILELVEEWATQLP


E QLMERDRLMATD QDDPKVKKMLLLVFHAWSDQYKDQPRM


| UniRef90_H6QRU3 | SELVSNYRRLKKMG\||EFPPKD |
| :---: | :---: |
| UniRef90-I2GV88 | S Y LNKVHKKLKSKNUEMPQ |
| UPIO |  |
| UniRef90-UPIO00440E07A | T ${ }^{\text {V }}$ AAGLGYRQC |
| UniRet90-Fo | PAFADTYTALKVKGFEFPTGNE |
| UniReforo-MOY7L UniRef90 G8B653 | PQYYAAYQELLRAGAVFPQRSE |
| $\begin{aligned} & \text { UniRef90_G8B653 } \\ & \text { UniRef90_B8LYP7 } \end{aligned}$ |  |
| UniRef90-U9U1E4 | ETLANL |
| UniRef90-L8W133 | GNIKDMHRLLGY |
| UniRef90-M7PFK1 | EYVRKVYQQLKF |
| UniRef90-UPIO004548241 |  |
| UniRef90-Q4SML1 |  |
| UniRef90 UPIO0042B04ED | PVVFHQTYMSLKGRSSHLPVVDDE |
| UniRef90-UPIO001583D2 | SY $\square \mathrm{GETYRALQREGFRFPPKTD}$ |
| iRef90_Q |  |
| UniRet90_UP100 |  |
| UniRef90 H3 | T GVVHMYEE |
| UniRef90-K9GH12 UniRet90 UPIOOO455D082 | AKV G ALCYKQLK |
| UniRef90-G3AY44 | NYVETCYNDLVRRGYEFPET |
| UniRef90-14YPD8 | VHI RDMWRLLGYKGYRFPELLS |
| UniRet90-N1JNU4 | ELI VGLIMKQLP |
| UniRef90-D6X0M6 | KEAYDMLR |
| UniRef90-G6DL188 | KV A Y DMLKNQG |
| UniRef90-F2QUA8 |  |
| UniRet90-B6JWP3 |  |
| UniRef90-UPIO003EDE9EF | SEVK EVY |
| UniRef90-M1 | P |
| UniRet90_Q6CL1 | Q |
| UniRef90_S8A594 | S GVVALCYKQLKNRNDDLP |
| UniRef90- Cos | ERIANLHRQL |
| UniRet90-G4U2R1 | RVVAGLYSTVK |
| UniRei90-V9KU78 |  |
| UniRef90-K1WD19 | EQILAGLYKQLPRR |
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| UniRef90-E9EOV6 | ERVARLYKELPK |
| UniRef90_CONIB3 | GLMEQAYMK |
| UniRef90 U6HW19 | GA |
| UniRef90-TOQ8C1 | A GFVDTYHKMRDQGV |
| UniRef90-UP10003F17D8B | TGVVAVYED |
|  | DSLLSRLHRELKRKQAVTQERSK |
| UniRef90-U1G318 | EGAATLYKQLPKRGVEF |
| UniRet90-R9P354 | RMVAGLY |
| UniRef90-D4ALZ5 | ERVTALYKQLKRK |
| UniRef90_ASAKE4 UniRef90 C4XYE3 |  |
| UniRef90_C4XYE3 UniRef90 N4UA81 | NYVESHYKTLVNQGYDFPEVD |
| UniRef90-UPIo004432BE2 | TR DA Y Q M |
| UniRet90_W0W7S3 | RYVNDL |
| UniRer90-Q9LNC | -K |
| 俍e90_EOVCT8 | K EA |
| UniRet90-11CLC4 | MK DMYRLL RFKGYRFPELK |
| UniRef90 T1JGU4 | OAYQMLKQQGV |
| UniRef90-G0V6H3 | KSMHDLYKK |
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| UniRef90-Q4SVR8 | ADAYCMLKKQGIVLQDP |
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| UniRef90-R4XEQ2 | NGVAHLKDSLPRK |
| UniRee90-Q5 | TRDM |
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| UniRef90-W4G681 | SIFRDTYQQLRVQG |
| UniRef90_C4JGH4 | G |
| UniRet90_U1MNY5 | QVYDML |
| UniRef90-E9CIL2 | TAFHRVYENLKREGYDFPPKKK |
| UniRef90-V9DLC5 |  |
| UniRef90-N6TMG5 UniRef90 R7S4C6 | GNIKDMHRLLSFKGYRFRD |
| UniRef90-C1MTW3 |  |
| UniRef90-UP1000? | S EVK EV |
| UniRef90_O6CVA8 | E |
| S4RJW0 | TGVVHVYE |
| UniRef90 J9VZ38 UniRef90 ${ }^{-}$M7BFQ | HE |

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MSRLIGYTTSTSV EDWSVVMETCDKVNDNDSEAKEA S $\square R D A L L R A T D G K L R V D N W Q F I E V C D L V R E D P E D R G R F$ ELVQKATSETLISPDWNANLSCVDFI NSDVRLSSGR KAVNPKNADLDDSADDQFCLTLKKDPSLDTVA S LQSLINKATNPLNKETDWDNTKAFCDKLDNEPDGPQLA GKFDRETMEATSERKVTEDWQAFMNLADKMRATFEECRDA S LE A L I E RAT K N S N EK DD S A A M IAAFSGFVQRDPECAPDA
 EKATDGS LQSEDWTLNMEDCD IINETEEGPKDA SAVTGFDETYTSDRYAEDDVSGLVQLCEVINLLQSTGPSEA KVVDEATDDSTDEDNWGLSTRTCAMTGRQEYDGAEI SSANTEQDWMHILPLTDTIAQSDAASKEA PFDQDVVKTTREVCNLYFWYLLHETCDNI NKLYTFYKRT
 P DEYWI SRSTDPFDDEETRKQNVQLCDRVNYEADGAMVA FDNKIVEATSESIPNGDIIELSVEVTDIIRSKKIAPKQA TLEARTNKATNPLNKELDWDGINAFCEQLNKELEGPPLA AFDDAVAKATDENLTSENWEFIL

LVDT $\mathbb{C D S G E V S N P D W \square N L E L C D L V S C S S S H A E E T}$
t $\square E A R \square N R A T N P \square N K E \square D A S \square N G F C E Q \square N E D E G P P \square A$ MLLK $\square E R A T D G S \square Q S E D W A D M E \prod C D T$ NETEDGYKPG MEICDIINETEEGPKDA SLVDNATSESLNQPDQNSMKEVAELVRSRADMPKEVV LIEHATS NLSAPNFALQTDVDSVINRSSDPSKKA


S $\square M E E M D D R A T N P \square R E S D E \square S S Q M F C M V V S N P O L V D V$ LIEKATFAGVQTEDWGQFMHTCDII NTTQQGPKDA SAVTSWVDRICQSSKPESDLLQFIVELVDVINLQPTGPEEA SLLEEMLKRSTNPSDVEVDNMAVQIFCLLVNSNKDGLVEA GELEKMIGYLTATGGQEDWALVLDVCDRASSNEAQAKEA PLRRLVEQVTMGHGSQLNWHNALYITDEDRSPYRDAPAV PDERAVNEATADTGQMPDQKLMKQVADLVNDRADQSKFA A $\square D Y W V C K A T D R F V T E E D W A Y V L D A C E K A S A N E V N A K E A$ ODVGOLCDINETEEGPKDA P $\square$ DYWVCRATDRF $\square G S A E R S K A \square D I D E S I H T D S V T A V A$ NSDDDYGRALRLCDQVSVSALYSKEA Y $\square \mathrm{DKMTVGTRDENDGSGVELTVVGLTSGPREA}$ $P \square Q G \square V Y R A T D S K N P T D D W D S M Q \square S D L L C Q N P E N T K L I$ EEDTEDDVTITNLAERTDKSFNERKEA SПT QLIDLVTDVDQPDDNMLLHMEICDRUKASSNVCKEA SENWSTVLEVCERASATEANAKG QLIEYATAADGK IIDEPTNLRGCNLLKANKNKAKDL SDDWT IVLEVCERAAANDANAKEA PYLELVEEATEPCLSTPKLSAVTLLCDNANTRAESVADV

## TRTC

ELVDKADKEADPTSSTS VSQTSDTVDMSNDSGRAV ELLNMSLAMLCVDACASSRDNSRYLV SYロD\|VEECTAPQLLIPTYEHVKFLCETVNKKPEATVDVV

ATS SEDWSLVLEVCERASSSESSAKEA



VINATNEENKDEPYDLYFDLLDKLQSDDVNSKLV I DRLTSEQYDVDDSSGIVDLIEVIRLLOSSGPQEA ALLSMVCAGDATNPDWGVILELCDVVGANATDAEAT DDWSLVLEVCDRASASESAAKEA $P \square S Q \| V D H A T N E \square H P S P S W K A Y A T L A K D A A T \Pi P S A Q V A \square$ ATS SETNQEDDMLVLDVCDKASANEENAKEA S $\square T \square K \square N Q \square A D P N N D E \square D D S T E T L S D L I K Q A N A G A K S A$ SEDWNVVLEVCDRASMSEANAKEA DDDSGIVNI DETMKLLGGSDEEA PYMDUVVEATKPEDPTPQYESVAFMDSANSSGDAAEDV

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UniRef90-K4DRH1
UniRef90_W9C4P3


 PS LLLA G R I Q S GNS K EA L LA A L DAL E E CMETACGKEFR SE I N K VK AL K K R I K N Y N H K E $\square$ QL L S L S LI D M CM Q N C GP S F Q S L I V K

## V

 S S E V R K K L L E S K E S VVVLN A M FVVVE AVVVK NTPP S S DHREFMLS M R S L K K R R L T Y L K N P N L L L S S L L K L I D L C I K N C G F G F L I E I S S







 | $L$ | $R$ | $L$ | $L$ | $A$ | $H$ | $K$ | $L$ | $Q$ | $S$ | $P$ | $Q$ | $E$ | $R$ | $E$ | $A$ | $L$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $T$ | $N$ | $A$ | $L$ | $A$ | $C$ |  |  |  |  |  |  |  |  |  |  |  |

LANALSQNCGVKMHRELAS
 MSP QEREALHALLTVLETCINHCGERFHDEVAAK $T R L L G P Q D P S P Q E W R R S Q A L K V L G T C M K S C G K R F H D E V G K$



 LKM MTKGRSKDゅTESTRA NLLEECMSKCGPEFQTEVAK $V L E A C V K N C G H K F H V Y V T$
 VK A VK K G L Q H K NAK QEMI MLLKVRSNNVTESTRA $\square T L L E E C M N K C G T E F Q D E A S K$ V K A L K K R I S K N Y N H
 QQLIVVDKLKSSNTTEADKA LGLLEECMMSK GGEDFQRRKTA K $V R A L R R E F K Y G E P P A Q L S A A R L$ WA DMLRNSNEDF IA QSTQQ



 V D L F S H KL S S P S HE E AMLTVV FALD Y L V R NGGEKV HERCGR
 A R T $\square R K K L K Y G E R N V Q \square R A L L V L Q A L I E N A G S R F V E N F S D$



 L N V L R K R M L N K R D N VVY L S L V L L Q Q T I I E C P E LI D L Y S T S AKALRREFKYAEPSAQMAAARLWA DMLRYSSSDIFIACQTT T
 P S C A V V V L S A L
 L A ELL R K R I T H E S S R I D W W A A L L L L

 MK NCGPDFHEMMLS

 RRK L VQHLQSESHQTRLLCDALMDMDAKNCDVTDRTGGLDS MKNCGRRFHNEVGK $M R \square L G H K L L S P E Q A E A M N T$ L K A I D MCVVRRCGARVVNNE A A K $\square Q Q \quad$ H K R L SRALRKKL R R R R L K TAA D
 SKALRREEKYAEPSAQLSAARLWADMLQNSSDVF DHN $R$ VQLDT K M K A Y C N K E MYY CLLCL VD Y L V L N C P Q F RP QVL N AKALRKE FKS GEPSTQQLAAARLWADMLVNCSDLFVKHCAS ARLI RKF LSSRSRPACQYNADMLDRILSDNPGPGFTRNF A K AL R K ELLK Y A R P S E Q L G AVVTV WAV ML L N A S DVFIT QTS S A R A I R K K I K Y G D T K V Q L R A L K I L E L L V L N G GP S I GP I IA R A K A
S R A R E F K Y G D A P Q Q L


|  |  |
| :---: | :---: |
|  | UniRef90-K0KQW2 KEFL |  |
|  |  |  |
| UniRet90-X8Jol1 ${ }^{\text {R }}$ RKFLLGKV |  |
| UniRef90-C5DGK8 UniRet90-A8J2K4 | KGFTKVLYGLINPKVHLVVKREVAKVVERLSDS |
| UniRef90-Q17L00 | FRFLNELIKLVSKKFD |
| UniRet90-UPI000 | KEFLDTLVKL |
| UniRef90_UPIO003B5BD43UniRef90_G3GTE9 | SRAPELVKAKVLEMMY |
|  | RDNFA |
| UniRef90-_2UD24 | RDNFA |
| UniRet90-J9JTL6 | QELLTSMKALVENQD |
| UniRef90-C5ABDS | KEFMDYLIDFIFKDHDVGNKDKIGEMI QNWK\IFENQQQL |
| UniRef90-S4R8K8 | RDFVEGRLILPRSCPTPALRARVLRLLQQWADAFRS |
| UniRef90-G3UQB8 |  |
| UniRe990-UP100026551D0 | FRFLNELTKVVSPKYSEKVKN |
| UniRef90-A0A022PNP2 | EKVVEDMVKLIDDSRTFEVRVRAMQLI |
| UniRef90-12FLX0UniRef90 H2M171 |  |
|  | RDFASEVRSVLSRAHPK V |
| UniRef90-W2SJQ2 | FRFLNOLVKLIEPKYSPEVKEKATKLGYSWQKSMRHVEKF |
|  |  |
| UniRef90-H2KRC4UniRef90-UP10003 | FKFLNEIIKVLSPKYTPSVKQKCAQLLYEWHREYGHSE |
|  |  |
| UniRef90 |  |
| UniRef90 A0 UniRef90-UP | RVFLQEVVALVNH |
|  | FRFLNELIKVLSPWSTEKVKKRVTEVMFSWT |
| UniRef90-UP10002 | LN |
| UniRef90-V9EH74 UniRef90-H3D5T4 | A |
| Uniree90_H3D514 UniRet90_UPIOOO33 | QDFVEGRTILPKNNPPTVVHDKVLSLTQTVFNSETPS |
| UniRef90-GoQLM0 | K S Y N |
| UniRef90-A0AO59LKM7UniRef90-J3PYA6 |  |
|  | DPRTDS ${ }^{\text {d }}$ RRRLLMMMEDWE |
| UniRef90-J3PAA UniRef90-A0AO34W |  |
|  |  |
|  |  |
| $\begin{aligned} & \text { UniRef90 W5JVWO } \\ & \text { UniRe90 SBDEM2 } \end{aligned}$ |  |
| UniRef90-A0A022Q |  |
| UniRef90-W8C6R0 | FRFLNQLIRLVSKKYPAPIKKRIMECLLLWTTEHPQKVK |
|  | M |
|  | FAFLNKLDGLVDPPVPVQTKKRTMECLMLWTVEHADKPK |
| $\begin{aligned} & \text { UniRef90_UPIOO03C3774B } \\ & \text { UniRef90_V2XD75 } \end{aligned}$ | RKFLDTLEDLLSSRTSPVVKERVLDVLAAAAFA SGSKKD |
| UniRef90-A0A023B6M | K |
| UniRef90 V5ELP2 UniRef90 A0DR90 |  |
|  |  |
| Uniree90-A0DRM0 | R |
| UniRef90-A8XRC2 | YKFLNELVRLTAPKYNDALKTEIIKKL |
| UniRef90-K7ENB0 | RDF DSVLVKIUNP |
| UniRef90-G7E7V2 |  |
|  |  |
| UniRef90-G0V1Y4 |  |
| UniRef90-M3YL08 |  |
| UniRef90_S9PPJ7 <br> UniRef90-L1JQK4 | EKLEERIFLCATPAYPKEVRIDRAYSLIKLWQSEYSN |
|  |  |
| UniRef90- D2VIW6 |  |
| UniRet90-D2VIW6 |  |
|  | DAILKLLNNKNWEVI ENKVLYLI QLWYDTFMHEGDY |
|  | KEFSEQYLLILKKRRREKVEDQMLYLIQUWADTFMKEDQF |
| UniRef90_J9FM16 UniRef90_F4PZJ5 | R |
| UniRef90-R7RYV5 | RKFLDTMEDVLQSKTS |
| UniRef90-UPIO0044156C4 | AWQDCFIT |
|  | KKFLDVVEDCTSNKT |
| UniRef90-DOABTG | KELLM ${ }^{\text {P }}$ SARSAS |
| nireet90-A0AO24TGW4 niRet90 Q5BT3 | K DFSQSTKRNFSNLQ RIIPSLKLIEEFEKWADEFKNDSEL |
| UniRef90-C5KGZ0 |  |
| UniRef90 U6M2X2 |  |
|  | QKGL LRDVACVOPT |
| UniRef90-K8EEU1 | KGVLETCMELGSNT |
| UniRef90-S8FB33 | RKFILDTLEDVISSRTS |
| niRef90-K2G553 UniRef90-Q5FVF3 | SDFMVLFERRKTSKKPSLVV' |
| UniRef90-A0A058z517 | NSVLDALVSLAEKKTDEQVANKAVALLFESW |
| UniRefoluploooz3336F5 | 俍 |
| UniRef90 14YJB5 | FRFLNQUVRLLSPKYNGEVKAQALEMLFVWQKSMRH |
|  | LIS |
| JniRef90 C4JGZ9 | RLFLQEIVALVDDGRYPDASARALRMLQEWSTEYPSQP |
| UniRef90-L8WMS1 | DQLVDRIKLMSQPMTDEHVKRKLMSVLASWHRQFKDDPKM |
| niRef90-G4T6U4 |  |
| UniRef90-K2GY32 |  |
| UiRef90-R7SVM2 | RKFIDTDEVLKAKTTPPVVRERLLQVLAAASYASDND |
| niRef90-B2ABE9 |  |
| niRef90-UPIO004409BBA |  |
|  |  |
| niRef90-W4K248 |  |
|  |  |
| niRef90-S3CJL2 niRef90-K4DRH1 | Q |
| UniRef90_K4DRH1 UniRef90_WC4P3 |  |


|  |  |
| :---: | :---: |
| UniRer90-S9x103 | DMHRELK SKGVYVF |
|  | K AVRDM |
| UniRef90-C5DGK8 | KSMQDLYHLLVRERV PQKKE |
| UniRef90-A8J2K4 | AQFQTAYEALLDQGVNFPARS |
| UniRef90_Q17L00 | \QEAYNLLKTQGUE |
| UniRef90 UPIOOO3BE5BD43 | ML |
| UniRef90_G3GTE9 | KDAYQMLKRQGI |
| UniRef90-F2UD24 | R【VNDWVQDLRREGL |
| UniRef90-J9JTL6 | QDA |
| niRef90-11G750 | R |
| UniRef90_O5ABD9 | VEKKY |
| UniRef90-S4R8 | TGVAQVYEALKRKGVEFPPP |
| UniRefo - 6 Ull |  |
| B6J |  |
| Ref90 UP | FAEAYQML |
| UniRef90-A0AO22 |  |
| UniRef90_12FLX0 UniRef90 H2M171 | ANV'TKCWNKV |
| UniRef90-A4RYC1 | AFAGAFHQLRARGFQFPEVE |
| UniRet90_W2SJQ2 | K EVYDSLR |
| UniRef90_M31223 | + |
| UniRef90-H2KRC4 | FTEAYNMLCKQGL |
| UniRef90 ${ }^{\text {C }}$ 1HDR4 4 | GIMEQAYMKLKSQNPNLQPPSK |
| UniRef90-A0A024 | FRDTYQQLRGQGVAF |
| UniRet90-UPIOOC | RDAYQMLKKQG. |
| UniRef90- V9EH74 | PLFVDTYHNMRKKGI KFPQYDE |
| UniRef90-H3D5T4 | TGVVQVYEELKRKGLEFP |
| UniRef90_UP100033316 | SLSSDTSQDL |
| UniRef90_GOQLMO | PFFFTLHDNLINRGYDVP |
| UniRef90 A0AO59L | FSNAYDNLRARGVVFPAR |
| UniRef90 A0A034W1G4 | FVYKT |
| UniRef90- 1 WWEM0 | TGVVTVYEDLRRRGV |
| UniRef90_W5JVW0 | DKI QEAYTLLASQGI |
| UniRef90_S8DEY2 | PQYDA A ODL |
| UniRef90 A0A022Q717 | YYMAYEDLRRSC |
| UniRef90_W8C UniRef90 U3L1d | SEVKEVY皿DLKKG |
| UniRef90-F4RE24 | St ${ }^{\text {O }}$ AGLY |
| UniRef90-UPIO003C3774B | A |
| UniRef90-V2XD75 | GLW WK |
| UniRet90 A0A023B6M4 Uni ef9 V5ELP | LDAYQSLKRKGl |
| UniR |  |
| UniRef90_S7RMU1 | DGFRALWRKVKDE |
| UniRef90 A8XRC2 | KQV YESLKASKLEDPQVKE |
| RRe90-N/ | V |
| UniRef90-H2W6D7 | KQ |
| UniRef90_G7E7V2 |  |
| UniRef90_GOV1Y4 | KFLMTVANAVRRE |
| UniRef90_M3YL08 | R DAYQMLKKQGIVKQDPK |
| UniRe990-L1JMK4 | ESLFTATFNFLKAQGVEFPQFD |
| UniRet90-D2VIW6 |  |
| UniRef90-13N144 |  |
| UniRef90_17M3L2 | IMNNYKLLRKEG1KFP |
|  | GFQQTYRLLRKEGVNFPMRD |
| UniRet90-F4PZJ5 | PGFYESYSFIVKRSGYKFPPVK |
| UniRef90-C4LXU1 | DTYEQIIQHGI |
| UniRef90-UPIO0044156C4 | EGFAGAWRRVKSQG QPDE |
| Ref90-D0A876 |  |
| UniRef90-AOA024] |  |
| UniRef90_Q5BTJ3 |  |
| UniRef90 C5KGZC | PNFQSFYRRLQDEGYTMP |
|  |  |
| UniRet90-K8EEU1 | REFKGVYREDTRYGVRFPERDE |
| UniRef90-S8FB33 | A AFRSLWKK |
| UniRef90_K2G553 UniRef90 Q5FVF3 | YEYSQMYDKY |
| UniRet90 Q5FV | $\square A E A Y Q M L K K Q G$ |
| UniRet90-UPIOOO33336F5 | DAYHML |
| UniRef90-F1L119 | TKFKQVYDMLKEQKVILPEVSD |
| UniRef90-I4YJB5 | GLMREVADNLANQNI YPQ |
| UniRef90_C4JGZ9 | E |
| UniRef90-TOQLZ6 | MFRDTFVQLQLQ |
| UniRet90_L8WMS1 | HTVSNLY |
| UniRef90_G4T6U4 | E G |
| UniRef90-K2GY | K |
| UniRef90 B2ABE9 |  |
| UniRef90-UPI0004409BBA | ENFKTFWKKV |
| UniRef90-C5M526 | KYMQGLYRNIKS |
| UniRef90-W4K248 | ElRNLWRKVKDE |
| f90_S3CJL2 | RLYKKAK |
| iRef90 K4DR |  |
| iRef90_W9C4P3 | APLIF EMWK K E Q E K M |

UniRef90_R9AHW0
UniRef90_S9V5L9
UniRef90 E3QF35
UniRef90 C8VQV4
UniRef90-M1 W4D6
UniRef90 MORIB8
UniRef90 U6JW10 UniRef90_UPIO0006CB3CE UniRef90-F9FAQ3
UniRef90 G4U6A8
UniRef90- A4H9Y3
UniRef90_UPI0003F49D73
UniRef90 S8EWR5
UniRef90 W6KIFC UniRef90-TOKC52
UniRef90-A0A058Z98C UniRef90 W7HUF7 UniRef90- M1VAS0 UniRef90_K9FI95 UniRef90-K2RCM4 UniRef90 N1PX41 UniRef90-A2QWX8 UniRef90_K1WNIO UniRef90 G9MR86 UniRef90- W3XFK8 UniRef90-UPI00006CE806 UniRef90_GOTOK9 UniRef90 C4JXZ5 UniRef90-N1J7N5 UniRef90_U7PRLO UniRef90-U6KTT7 UniRef90 C5FV41 UniRef90_R0IK81 UniRef90-I8U791 UniRef90 S8BYV8 UniRef90-J9J7F5 UniRef90_S9V3S0 UniRef90 X6NTH7 UniRef90 G4TUC2 UniRef90-B8M1U6 UniRef90-M1AG04 UniRef90 G0S0Y1 UniRef90 S9U1W1 UniRef90-M3C443 UniRef90-D5G599 UniRef90 G2Q1K2 UniRef90-W1Q0S4 UniRef90-M4DG61 UniRef90_B2WJP0


 ElVEECTAPN PNAQGDEVLYLP P VIDAA ESSPVAAAEC | VESAESSPNAAREA |
| :--- |
| IVAASSSAAAEC | K DV

EVNMSLAMDCVDACASSRDNSRYL
DSGNSGDEVAF DPS VVAAESSPAAAAEC
VTELIARQMSSRSPDGDPDATARLVEHDRHGNGGF V

SKNPDGDQQSALKLI EH $\square$ RKGNAEV $\quad \underset{C}{V}$
S IVEAAESSPNAAKEA PNSATEE $\square$ QY $\square P E I V$ TAAESSPAAAEAC
 1 VDAAESSPTAAAEC TGDEVTYLPSIVDAAESSPQAAAEC LS NLIENATSERDERPDVNAMREVSEVVRSRPDMQKEA MPSFDWSY ILSLAEYLSSSSSASKDA pal VEAAESTPAAARAA
 ENDY $\square$ S $\square P T \square V E A A E S S P A A A K V A$

PAVVESAESSPNAAREA
FTECMRDAD L HPD DVV
EACSEFDSGPDWDKNDEVTDEMNGERGMMKYV SYTTLITRATDSDN DDQSQLYDIVDKVKSGGDGADQA
 QGEDEVDATMRLVEBAVASPAAAAEC

QNPGEEVLY LD T $\square V D L A E S S P T A A R A A$
GK LS S LIE KATHSTSREDDSSLLNSTKADVK S S DANVHVT KMVDEATLETFEEPNWGMSMRICAQINNHEFNASKL F E EPNWGMSMRICAQU NNHEFNASKL


|  | $\text { SRAMRKQLKKHGTNHQH }{ }^{50} \text { RA\|LTI FHGCVSNG }{ }^{60} \quad \text { VS }{ }^{80}$ |
| :---: | :---: |
| UniRet90-R9V5L9 |  |
| UniRef90-E3QF35 | ARVI RKYL NHAKPSWQYNAI MLIRILTDNPGPTFTRNM D |
| UniRef90-C8VQV4 |  |
| UniRef90-M1W4D6 | ARVLRKFLSSSKPSWQYNAIMLI K L L V D NPGETFTRN |
| UniRef90-M0RIB8 | VRALKKCI GHKSPKVQLLALSLLETMIKNYEEIVHMHVAE |
| UniRef90-U6JW10 | LLEAASKLRQGDPEGMYRALDLVEDCVKNNGDDFARHIDD |
| UniRef90-UPI0000 | VKNCNQKF |
| UniRef90-F9FAQ3 | A RLIRKYLSKSKPSWQYNA\\|MLLR\|LTINPGATFTRN |
| UniRef90-G4U6A8 | ARLIRKYL HRDYWTQHNAIMLIRILADNPGATFTRNM D |
| UniRef90-A4H | LEGIR R NFKYNPPATQ\CMITVMDQCVIQSGPQFAVMLS A |
| UniRef90_UPI0003F49D73 | SRAI RKQFKHGNESERRAAAKI WLIMMRNVSIKFKTHATS |
| UniRef90-S8EWR5 | AALVEEK L R S A GPVMLA A IELVAMAVGNLGVDFAR CLDD |
| UniRef90-W6KIF0 | LDIIKDNFKHAHSS |
| UniRef90-TOKC5 |  |
| UniRef90-A0A058Z9 | A PHLLELCFDKAGPAFQVHACS |
| UniRef90 ${ }^{-}$W7HUF7 | MLFRILVDNPGAMFTRN |
| UniRef90-M1VAS0 | A RAVKDRLKVKNERTLLLTLALLDQRLMEEC P NFYMHDA |
| UniRef90-K9FI95 | A $\square$ RIIRKYFSDSSNQTQYNAIMLMRILADNPGHTFTRNFD |
| UniRef90-K2RCM4 |  |
| UniRef90-N1PX41 | A HQUEKFLGGSPKPYVQYNAIMLVRILCDNPGPTFTRNF |
| UniRef90-A2QWX8 |  |
| UniRef90-K1WNI0 | SLVIRKFLSKDNPYVQYNAI LLIR\\|LADNPGRTFTRNT |
| UniRef90_G9MR86 | ARII RKYMYS SRPSWQYNAI MLMRILADNPGETFTRN |
| UniRef90-W3XFK8 | AKLI RKYLKRSKPSYQYNAIMLMRILADNPGPTFTRNM D |
| UniRef90-UPI00006CE806 | IK Q I H NRLMKRDK TVVMDCLELLEYLSYSCDDTLYNQ\AT |
| UniRef90_G0T0K9 | AKALVKEFKHATPNAQERAVRLTGILFRNTNERFQEQVAS |
| UniRef90_C4JXZ5 | AHQIYKY L S K P E HQQYNAIMLIRILSSNPGPTFTRHI D |
| UniRef90-N1J7N5 | A HLI RKFLTSNKPHFQFSSIMLIRILVDNPGHTFTRNI D |
| UniRef90_U7PRL0 | 1 R K FLHRSRPNFVYNAIMLMRILVENPGMT F T R N M |
| UniRef90-U6KTT7 |  |
| UniRef90_C5FV41 | Q $\square$ QK Y $\square$ SKPHPQRQYNAI MLI RILLADNPGPSFTRNL |
| UniRef90-R0IK81 | N R P HVQYNAI MLI RILADNPGPSFTKN |
| UniRef90-18U791 | A HR\RKLLS STPANVQYNAIMLI RIL V D NPGHTFTR |
| UniRef90_S8BYV8 | RKLLHSKSGYRQYNALMLLRILVDNPGATFTKNI D |
| UniRef90-J9J7F5 |  |
| UniRef90-S9V3S0 | SHPEMAYGALKLLEYLVSCCSYGFHVVLAR |
| UniRef90-X6NTH7 | IEELRRKMLKTKNPEDE\LAALTLVEGVIKNCPSSHGAIAQ |
| UniRef90-G4TUC2 | ANAIKERLGFPETNTR R RVLNILDTLIDECGSDLHKALDQ |
| UniRef90-B8M1U6 | A ARIRKYLSSPQGGПQYNSIMLIRDLSENPGHTFTR |
| UniRef90-M1AG04 | SEFIL LKRLQ HKSPII K QKALRVIKYAVGKS GAEFRREM |
| UniRef90_G0SOY1 | ARRIRKYMSKTKPACQYNA |
| UniRef90-S9U1W1 |  |
| UniRef90-M3C443 | KRFLGSSQPHVQYNATMLIRILSDNPGPQFTRNFD |
| UniRef90-D5G599 | I RKYLNS LRPHTQCNAIMLTRILSDNPSCAFTRNLAE |
| UniRef90-G2Q1K2 | SKPSFQYNAIMLLRLLADNPGPGFTR F $\mathrm{L}^{\text {L }}$ L D |
| UniRef90-W1Q0S4 | VETTLMENMKKNHSQVRYLALLII D ELLFMRSKLFRSLLVVN |
| UniRef90-M4DG61 | PL R K |
| UniRef90_B2WJP0 | ARQ\\|RTY |

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm


100
110
120 GDFLLARFRLLDPNYDPKVKKKLRAVLRSLCDENSHNSRF KKFADTVKELYRSTRDPSVRQULSETLDTFEATKVDDQGL
 K
K Y FLLRSMAKI LKPFVHPGVKRKVLFMFQLWHDSFGQQERC KDFQDAMLKLLKRKGFKGIKRKNKNWEQLWWYDTFMHEGDY
 KKFADTTKELLRSGKDGNVRQMLMETLDAFENTKGYDENLL

 EKWTERFFRVAKTTQVPQVRDKI ITMTIMWY
 AKFVSTMKELYRGCRDPSVRQLLVENMEHCDTMKDDPGL

 K G G G

 KEFMQRMGTLLKSH
KKFTSGSALLSSPSTPAYTKRMDY LTLSPDAYDAQSSPSLL ARFVSSLKILLRDGQEVSVQQILRETLEFLATTKARDTNL



 PAFMRYLVKVA
AKF VST $\square R$ D LL
KKF IDEATKELLRSCRDASVLQMLMETLDAFEHEKYGDENL EK WADRFFKVAKTTTDAAVRDCIMYIAIGWAKRYHTSGYN MSFVSTVKEMLRNCKDQSTQQDLRETLDHDENDKANDEGL AKFVAAVKELLKHGREPSVRGKLVETLEHF
KKFVDVTKELLRSGRDPSVRQILMETLDAFETTKS DDEGL



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| :---: | :---: |
| UniRef90_R9AHW0 | K QLLY Q |
| UniRef90_S9V5L9 |  |
| UniRef90-E3QF35 | GELLS MWK K K ERS YK |
| UniRef90-C8VQV4 | KPLVEMWKKEKAK |
| UniRef90-M1W4D6 | A PLVLMWKMLRKRGVQVP P P |
| UniRef90-M0RIB8 |  |
| UniRef90_U6JW10 | P A TF N M Y R K L R S K G VEFP QVD |
| UniRef90-UPI00006CB3CE | PNIMNNYKLLRKEGIKKPERD |
| UniRef90-F9FAQ3 | TLLTS MWQKEKEQAYK |
| UniRef90_G4U6A8 | QFLIEMWKREKEKAYR |
| UniRef90_A4H9Y3 | RLIQ |
| UniRef90-UPI0003F49D73 | E GL GELDWGKVK |
| UniRef90-S8EWR5 | P A I F E A Y R KLRAK G VEFPTVD |
| UniRef90-W6KIF0 |  |
| UniRef90-T0KC52 | GELIA M WKREKEKS F |
| UniRef90-A0A058Z980 | R LFNHLYT L F R T K GFKFPE $\square$ P Q |
| UniRef90-W7HUF7 | QPLKK WYTKEKESAI |
| UniRef90-M1VAS0 | QFFVKRWRN K S R K Y F P P |
| UniRef90-K9FI95 | KLLLQMWAKEKTK |
| UniRef90-K2RCM4 | NALLFHMWRK |
| UniRef90-N1PX41 | A LLF QMWRKEK GA GASF |
| UniRef90-A2QWX8 | ERVTGLLYRQLKRK |
| UniRef90-K1WNI0 | ALLGEMWKRERE |
| UniRef90-G9MR86 |  |
| UniRef90-W3XFK8 | ALLLEMWRKEKER |
| UniRef90_UPI00006CE806 |  |
| UniRef90-GOT0K9 | S T 1 T K T F N $\mathrm{L}^{\text {a }}$ |
| UniRef90-C4JXZ5 | SEVNNMWQKEKDK |
| UniRef90-N1J7N5 | ELLIEMWK K E Q G K |
| UniRef90-U7PRL0 | GRIVEMWQKEKAK |
| UniRef90-U6KTT7 | P AI FAMYRKDRSKGVEFPQVD |
| UniRef90_C5FV41 | S GL DQ MWNREKEK |
| UniRef90-R0IK81 | NLVEAMYRKEK |
| UniRef90-18U791 | A PLLQMWTREKTK |
| UniRef90_S8BYV8 |  |
| UniRef90-J9J7F5 | P IFAEVFRVLQR |
| UniRef90_S9V3S0 | A P L A Q L |
| UniRef90-X6NTH7 |  |
| UniRef90-G4TUC2 |  |
| UniRef90-B8M1U6 | A G L V A M W K E K Q K |
| UniRef90_M1AG04 |  |
| UniRef90-G0SOY1 | R P L D M W K K K E K |
| UniRef90-S9U1W1 | R L L Q |
| UniRef90-M3C443 | QGLF Y M WRKEKGHAASFSE |
| UniRef90-D5G599 |  |
| UniRef90-G2Q1K2 | ALI IGMWQKEKEK |
| UniRef90_W1Q0S4 | KQIRLGGYD Y L K N L R F Q F P NLDP E |
| UniRef90-M4DG61 | P V F Q T Y M |
| UniRef90_B2WJP0 | NIL LI A M Y R K K K |

lupas_21
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sol25
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    lupas_28
    jnet
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    sol25
    sol5
    sol0
    jhmm
    jpssm

