QUERY
UniRef90 POC119
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| UniRef90- $=3 \mathrm{~K} 7 \mathrm{Z} 7$ | UniRef90- A0A024JHI7 UniRef90_B9Q019 UniRef90-FGQXH UniRef90_J9IN65 UniRe990 A0A024G381 UniRef90-V4LSQ7 UniRef90-U6PRU2 UniRef90_UPI0001CB9884 UniRef90-V5W5V2 UniRef90-W9X8C4 UniRef90-A0A022S3N1 UniRef90-B9EL76 UniRef90-111EYO UniRef90_W9QW97 UniRet90_G6D5X5 UniRef90_H2VEH4 UniRef90_C1EA22

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UniRef90 B8CEA3 UniRet90_B8ADU8 UniRet90_A0A024TS57 UniRet90-B8CDT8 UniRef90 W5MWA8 UniRef90-A4S5H2 UniRef90-K4FUE5 UniRef90-A0AO24TQG5 UniRet90_C3YR41 UniRef90-A4H4H8 UniRef90-H3EVV9
UniRef90 S9TVVO UniRef90-F1A1K2 UniRef90-B6K2E5 UniRef90-D8LLJ7 UniRef90_UPIO00198458F UniRef90_A4HNE1 UniRef90-11G9B88 UniRef90-A2F1H0 UniRef90-X6MAM2 UniRef90-O4DNC9 UniRef90-UPIo0016C4D90 UniRef90-N1JLRO UniRef90_R4G5G7 UniRef90_Q0D233 UniRef90-E3LT73
UniRef90 M5GFD UniRef90-H3EDZ7 UniRef90-GOUQB9 UniRef90-B8BW79
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RPRCFFDIAINNQPAGRVVFELFSDVCPKTCENFRCLCT NPRVFFDIDVDGNR】GRIVDELFADQVPKTAENFRALCT
 R PRVFF DVVA D GEPA GRI I FELLFNDTAPKTCENFRALCT RVYFDI KI GNENAGRIVMELYTDKVPRTAENFRALCT
 K $\mathrm{K} R$
$\mathrm{E} R$
$R$ $\mathrm{K} R$
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R
N
R
NP $P$ V $\operatorname{LDDVA}$
 R P HVVF F D I T I G G D P S G R I V M E L F S DVVVPK TA E N F R A L C T $R P K V F F D$ S

$R P$
Q
Q R

K NPKVFLDF PKVYFDVKVGDEEAGKVVMQ

R FF DMTI D GAPA GRIVMELIFADTTPNTAENFRALCT $N P Q V Y F D$ KI GNK 1 GRI TFE $R P Y V F F D I T I G G R S A G R I I M Q Q L$
RPRVYFDITI GGRKQGRIVEELYNDVVPKTAENFRAALC
K NPVVYFDI AADNQSLGRVTFEL
K N

KVFFDVS
E N P

 NPKVFFDVSIGGQSAGRVVFELFADAVPKTAENFRALCT



KV Y F D I K H G D E DLGRITTMGL
Q N


 KNPIVFMDVSI GDEPDERMVFELRADVVPLTAENFRCLCT RSKVFF DVAI D GR DA GK VVMGLVADVAPRTAENFRACLCT
 N P K V
 K V Y F D L R I G D E D A G R I V F G L F G K T V P K TVV E N F V A A A A
N P

KVF DI S I G GK S S GRLVIELRADKVP
QVFF DITI G GTPAGRIVFEL R



 NPVVVF DVVTDGGAPAGRI KMELFKDTCPKTAENFRRFCT

KVYF DVEVS GKP $\square$ GRI T M GL NA Y K P R V Y F D
K N P K V F F D i A


R V F F D i
K
 NPIVVAFF DI

 R P RVFFDVE I G GK PA GRV $K \vee Y$ LDDI T I G S E NVGGRIVVGL
 VYFDI TI G GQPAGRIVFKL
 NPKVYFDISIND QYTGRI L MELRSDVVPVTVENFRCLCT
 ENPRVFFDVQ $\quad$ VGGENDGRIVFELFKDKLPKTAENFRALCT K NPVVFMDI AADNVPMGRII DELNADVVPKTAENFRACCT K V Y F D I K Q G D E D L G R I V M G L Y G K T V P K T A E N F K L L A T

| QUERY <br> UniRef90 P0C1I9 <br> UniRef90-V4ABF1 <br> UniRef90-M2R315 <br> UniRef90-F4PSX7 <br> UniRef90_G9PCE8 <br> UniRef90-K1PLV8 <br> UniRef90_W8BPZ2 <br> UniRef90-I2JV21 <br> UniRef90-UPI0002C333AB <br> UniRef90_A7RA44 <br> UniRef90- M0U4B7 |
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GEKGTGKSTQKPLHYKSCLFHRVVKDFMVQGGDFSEGNGR GEKGIGKVSNMPLHYKGSIFHRIIKGFMCQGGDFTHRTGK GEKGVSEKSNKPLHYKGSPIHRIVKDFMIQGGDFTKGDGT GEKGLSPDSQRPLYYKDSIVHRSIKDFMI QGGDFTKRNGM GEKGNTKSGV PLHYKGSIVFRVIPQFMIQGGDFTNFNGT GEKGDGKSGK PLLHYKGSSFHRVIKQFMIQGGDFTAGDGT GEKGVSQKSELPLHYKGAPFHRVVKDFMI QSGDFTKGDGT GEKGF GYKGCTFHRVIKSFMI QGGDFTNHNGT GEKGDGPNTGVPDHYKGNRFHRVIKGFMDQGGDDSAGDGT GTSGKTSSNGKKLHFKNSIVARVI PGFMMQGGDFTKFNGT GEKGVGKKGKPLHYKGSTFHRVIPDFMCQGGDFTDGNGT
 GEKGTTESGIELSYKNSTFHRIIKNFMLQGGDFTNHNGT GEKGVGKSTGKPLHFKGCPFHRIIKSFMIQGGDFSNQNGT KHQTEKSKDGSLVGYKGSKFHRVIADFMIQGGDFTKGDGT GDYAMCKSNPIPLSYKGSLFHRVIKDFMLQFGDFTAGNGT GDKGKTADGKPLHFKGSIFHRVIKQFMIQGGDFTAANGT GEKGVSQSSGKPLSYKGSTFHRVIKSFMCQGGDFTAGNGT GEKGGAR GEKGF GYKGSIFHRI IPDFMCQGGDFTRGDGT
GEYGTGKDSKKKDHYLGCKVHRIVEDFVIQAGDDVSMDGS GEKGNASTGQPLHFKGSGFHRVIKGFMIQGGDFTKGDGT GEKGVGKDGK PLEHKGSTFHRVI PGFMCQGGDFTSGNGT GAAGLGKQSG』PLHYKGSTFHRVIMEFMIQGGDFTTGKGT GEKGVGKAEKPLHFKGCTFHRVIKGCKG GDFTAGNGT GEKGMGKQGKPLHYKGS $\square F H R V I K A F M \square Q G G D F T R F N G T$ GEKGVGTSTGKPLHYKGCTFHRIIKGFMAQGGDFSKGNGT GENGFSAATGARDGYKGVFHRVPQFMCQGGDFTNHNGT $\begin{array}{ll}\text { GEKGVVSAATGARLHYKGSCFHRV:IKGFMVQGGDDTAGDGT} \\ \text { GEKGF } & \text { GYKGSTFHRVI KDFMUQGGDFDKGNGT }\end{array}$

## GEKGF

 GYKGSSFHRIIGEKGF GYKGSTFHRVIPKFMCQGGDFTNHNGT
GEKGVGNRGKPDHYKGS $\quad$ KFHRI I PQFMLQGGDFTDGNGR
GEKGTGKSGK PLHYKGCAFHRI I PQFMDQGGDFTDGNGC
GEH RVNSRPQGYKGATFHRVV
GEKG
RIVNSRPQGYKGATFHRVV
GEKGKGRSGKPDHYKNSVFHRVI GVKKDGSALPEGMGYKGSKFHRVIKDFMIQGGDFTRGNGT GEATDSQGK PRGYKGSKFHRII PNFMCQGGDFVNGNGT
 QEKGF GYKGSSFHRVI PGFMIQGGDFTNGNGT
GEKGMGRSGK L L HFKGSSFHRVI
GEMGDGQTSKKPL GEKSHPNQTL
GEKGF
GEKG
GEKG】GKSGK P HYKGSLFHRVI $P G F M C Q G G D F T R G N G R$

GEKGF
GEKGFGKSGKPL
GEAG $\square$ GKSGKPDLHYKGSKFHRII KGFMAQGGDFSNGDGS GEHGY GEKGKGKSGKPLHYKGSPFHRII GEKGVGRSGKPLSYKGSKFHRVI GEKGKSEDSGTELSYKGSKFHRII
GEQGF GYENT $\begin{aligned} & \text { GF HRVI } \\ & \text { GYGAPFHRV }\end{aligned}$
GEKGRGKSGK P L HYKGSAFHRI $\begin{aligned} & G N D G K R V E G T E P M T Y H G C T F H R V I ~ \\ & G E K G Y \text { GFKGCPFHRI }\end{aligned}$

## GEKGY $\quad$ GEKGKG $\quad$ S GK PGFKGCPFHRI

GFMAQGGDFTMGDGR GEKGlSKKSEKPLCYKGNKFHRV GENGF KKSEKPLCYKGNKFHRVI GDKGDGRKGK PLHFKGSIFHRII G ATSKTGTPLAYKGSSFHRVIPGFMCQGGDFTRSNGT GESKNHV GRPQGYKGSKFHRI KKDFMCQGGDFLNGDGT HERGF GFQGSTFHRIIPDFMCQGGDFTNHNGT GESKNAQGK PQGYKGSKFHRVIKDFMIQGGDFDQGDGT GEVGMAPNNKARDHYKGSEDHRIVKKFMIQGGDDTDGDGR GLDAADGNPLGFGYKGTSFHRVIKDFMIQGGDFERGDGT GEKGVGKSGK PDHYKGSSFHRVIPNFMLQGGDFTRGNGT

| GANGF | GFKDSTFHRVI RKFMIQGGDMTNHDGT |
| :--- | :--- | :--- |
| GENGF | GYEGSTIFHRII PGFMCQGGDFTNFNGT | G

GLDERGNPHNDGK
GEMGF GR RR

GEKGMGKLG KPDHYKGS $\quad$ GHRLVPDQMDCGGDFTAGNGTS HEKGF GFRKSTFHRII

| GEKGF | GYEGSTFHRVI |
| :--- | :--- |
| GAPGF | GYEGSSFHRVI |

GAPGF GYEGSTFHRV
GEYG
GEKGY
STDP
GFKGSVFHRVI



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UniRef90 A5B709 UniRef90 U1NRW8 UniRef90-C1BUS9 UniRef90-B8CEA3 UniRef90_B8ADU8 UniRef90_A0A024TS57 UniRef90-B8CDT8 UniRef90-W5MWA UniRef90_A4S5H2 UniRef90-K4FUE5 UniRef90-A0A024TQG5 UniRef90 C3YR4 UniRef90-A4H4H8 UniRef90-H3EVV9 UniRef90-F1A1K2 UniRef90-B6K2E5 UniRef90-D8LLJ7 UniRef90_UPIO00198458F UniRef90_A4HNE1 UniRef90-P0C1I8 UniRef90-A2F1H0 UniRef90-Х6MAM2 UniRef90-Q4DNC9
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UniRef90_UPI000455F48E
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GE K
KYGYKGSSFHRII KDFMIIQGGDFTEGNGT GEKGLGKSGKPDSYKGTPFHRIIPGFMIQGGDTVSGNGT HEHG
GEYK
K D GVP GEKGVGSKGK PLHYKGSSFHRVIPNFMIQGGDFTHGTGV GEKGF SYKGSCFHSIIAGFMCQGSDFTRLNDI GEYGNMAKKTKKLHYLDNTNVFRI ADNMLIQGGDIINNDGT GEKGESASGV KLHYKGTPFHRIVSGFVIQGGDIVHRDGK GEKGF
G N
GEKGF GYRNSVFHR\IPDFMCQGGD $\square$ TNQDGR GERRRFGYKGSAFHRVMKDFMDQGGDFDNQNGT GEKG FGYKSSCFHRITPGFMCQGGDFTHYNGT $\begin{array}{lll}G E T & L G V N Q K P D G Y K N S T F H R I D Q G F M D Q G G D F V S G D G T \\ G E & F R K D G V P I G Y K G S T F H R V I K D F M I Q G G D F V N G D G T\end{array}$ GE FRKAGVPQGFKNCQFHRVIKDFMVQGGDFLKGDGS
 $G F K N S D F H R V I P D F V V C Q G G D D T K Y D G T$
$H Y K G S A F H R V V P G F M C Q G G D I T A G N G T$ NPPSKLASTGQPLSFDGS DFHRVIPKFMDQGGDFTRGDGT
GERGF
E EK
GKMFGYKGSCFHKI I PGFMCQGGDFTRHNGT GEHKGKGKSGKKLHFKGSKFHRII PEFMDQGGDFTEGNGT GEKGFGDNG KKLGYKGSilll FHRVVLPNFMCQGGDFTRNNGT GEKGIGKHGKPLHFKNTIFHRVVPLFMVQGGDITTKDGT GE FMRGSRPAGY DKTPVHRVIKEFMLQGGDIDKGDGT GEKGEGKSGK PLLHFKDSCFHRIIPGFMCQGGDFTAANGT GEKGDGKTTGKLLHYKGTPFHRVVKDFMDQGGDFTEGNGR GQNGY GYAGSGFHRVIPQFMLQGGDFTNHNGT

GEMGF
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GEKGRGKMGTML HYKGSTFHRIIPGFMI QGGDFTLHNGM
REK PEGYKGCDFHRVMKGFMI QGGDFTHGDGT
GESKNSQ GRPQGYKGCKFHRVIKGFMIQGGDFDNGDGT
HEYKGFC DFGYRDS
GEKGFC YKSSCFHRIIPGFMCQGGDFTCHNGT
GEKG PLSFSGSSFHRVIPGFMCQGGDFTNGNGT
GEKGMGAYGEPLW YKGSTFHRIIPGFMIQGGDFVNHNGT
GQHGF
GEMG $\square$ GQSTKKPDYYKGSTFHRVIKGFMAQGGDFSNGDGN GDKGY GYEGVHFHRVIKDFMIQSGDFQRGDGT GEKGF GYAGSIFHRVIPQFMLQGGDFTNHNGT
GEMGNGRMGKQLHYKGVRFHKVTRLYVAQSGDVVNNDGT
 GEKGIGKYGM
GE
LDPNGYKGSKFHRIIKDFMIQGGDFTRGDGT GETG LGYWLRPRWYQNSRMYRII PGFMCQGGDFNFGNGG
SKDPSF
GKAGFSQSG $\square$ K $\square$ GY
GEY R
GEY RGT TGLPQGYKGSKFHRVIKGFMUQGGDFLNADGT
GEKGVGRSGQQLKF KGSSFHRVI PNFMCQGGDAEAQAKV
GQNG
GEKG NGQGGKPFGYKGSSFHRV
GEKGFD
Y
GEKGFD
GDK TGKSGQKLTYKGCPFHRIIPGFMAQGGDFTQRNGT

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GVNGF GYAGSGFHRVIPQFMLQGGDFTNHNGT
GEKG
FGHKGPCFHRII P
GEKGLGKTTGKKLCYKGSTFHRVVKNFMIQGGDFSEGNGK
GELGIGKLGKKLHYKGTHFHTIKRVFAVQGGDLVNNDGT
RDTGAT Y 1 NTPFHRI $1 P$ GFMIQGGDTDHMKGF

GEKG RGLRYEGSAFHRII PGFVVQGGDFTRGDGR

HEKG
GGTGSTFHRVIPKFMDQGGDFTAHDGT
GEKGY GYKDS ITHRVIPQFMLQGGDFTKFNGT
GERGKSQSG LP DHYKGSLFHRIVPNGWVQGGDDSPHRGN
DHHNNNYNADFKGGFKNSTFHRII PNFMCQGGDFTNNDGT
$N T N V G Q G Y \square G S K F H R V I A G F M A Q G G D F T R G N G T$
NPPGKGFKHSWFHRVI PDFMMQGGDFTNGNGT
GEKGV
GEKGMGRCGK P L HYKGSSFHRVIPGFMCQGGDFTRGNGT NG GYDNLIFHRVIKGFMDQTGDPLGDGTG
 GE FRKDGVP $\quad$ GYKGSTFHRVIKDFMUQGGDF
AEPGS FRKDGVP■GYKGSTFHRI KDFMAQGGDF GECGRSKETGLGLWYGGSA $\square H R I V P G F V A Q G G D \square E N D D G T$ GEKGTGMSRKPLHYKGSAFHRIIPSFMIQGGDFTLGDGR
NG
$N V T G L S Q V S Q T P G Y Y K G C I D H R S I E N F M \| Q G G D F T K R N G T$
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UniRef90＿L8WVT6



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 GCDSIYGGMFPDENFKINHSAPGLLSMANYAKDTNGSQFF GGRSIYEKPFEDESFKLDHSRAGULSMANSGRNTNTSQFF GGESIYGDRFADENFKLKHTTPGLLSMANAGKDTNGSQFF CGKSUYREKFEDENFWLKHTGPGVLSMANVGLNSNGSQFF GGASIYSQTFVDENFSRRHACAGLLSMANRGRNTNNSQFF
ASESIMGGTPDENFRIKHSHAGVVSMANSGPDSNGSQFF GGKSHYGNKFEDENFALKHTGPGTLSMANAGPNTNGSQFF
GGESIYGGFFEDESFAVKHNKEFLLSMANRGKDTNGSQFF
GGKSVYGGKFEDENFDVRHTGPGLLSMANRGRDTNNSQFF G

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GGRS $\quad$ YGSRFPDENFQ

GGESIVGGTGFPDENFQLKHLGEGVLSMANAGPNTNGSQFF



## UniRef90 P34791 UniRef90＿Q5Z9I0 UniRef90－S4RHF3 UniRef90＿B7PQK0 UniRef90＿L8H2P2 UniRef90＿G7MNP9 UniRef90－A0BD35 UniRef90－A0BD35 UniRef90＿I3S543

 UniRef90＿A8IK54 UniRef90＿UPI00045DAF6B UniRef90＿UPI000440A22C UniRef90 A9SIJ8 UniRef90＿UPI00029DA802 UniRef90－O74729 UniRef90＿G1Q881 UniRef90－K4B040UniRef90－T1K5M8 UniRef90－T1K5M8
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UniRef90－L9L7K9 UniRef90＿P52010
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UniRef90＿K3WTS1 UniRef90－C3YPY7 UniRef90－S8AHD9 UniRef90－11G5J3 UniRef90＿UPI00020AAC08 UniRef90＿R1F065 UniRef90＿C5Z9C3 UniRef90＿C3VX48 UniRef90＿M8C588 UniRef90＿I4YE22 UniRef90＿A5E649 UniRef90＿A0A034W0S0 UniRef90＿D3TPY2 UniRef90＿B0EUI7 UniRef90＿M8ACI8 UniRef90＿UPI0001CBA364 UniRef90＿C5K4T8 UniRef90＿A0A034VWL3 UniRef90＿G8BTJ5 UniRef90＿UPI0003C49CED UniRef90＿W2RM67 UniRef90＿D2XRA4 UniRef90＿UPI00035C0D52 UniRef90＿A9RZ90 UniRef90＿UPIO00274095C UniRef90＿V7CWD9 UniRef90－A0A023B4U8 UniRef90－UPI0003955F12 UniRef90＿L1IZG6
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UniRef90＿O00060 UniRef90－B9WAT4 UniRef90＿MOSE30 UniRef90＿A5BZN8
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MQ1

140

160 I T TVVKLT RLD GKHVVFGKVLSGMDVVYKIEAEGSQS GTP
 I T TVVA T P WL D G K HVVVVGKVLVEGYDII K K L E S L G S Q S GKP I C T A Q T E WL D G K H V V F G K V K E G M K I V E A M E R F G S R R G K T I T LKP CP HLLD GKHVVVFGQVID G IEVVI KRVGQVPVDMQDRP T CTVVKTPWLDNKHVVFGSVVEGMDVVRQVEGFGT PNGSC $I$ TTKPTPHLDGHHVVFGQVISGQEVVREIENQKTDAASKP I T L K K A EHLDDFKHVAF GFVRNGMDVVKQMGELGS KS GKP CTAETSWLD GRHVVFGQVDEGMDVVKADEGQDVDPNDRP NCTAK TA WL D GMHVV LG KVVKE GMN：AEAMERFGS RN GK T
 $V$ S CA K C E WL D N K HVVVF GRRVLD GLLVVVRKI ENVAVGANNKP
$\qquad$

 CTGK T E WL D GK HVVVFGQV KE GMNVVEAMERF GA K NDKA


 V T C GK C D WL D GK HVVVFGKVLDSMMVVHK DENVQA GA DSKP I T T K A T P P H L D G K H V V
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$\begin{array}{ll}\mathrm{L} & \mathrm{C} \\ \mathrm{I} & \mathrm{T} \\ \mathrm{I} & \mathrm{T} \\ \mathrm{I} & \mathrm{T}\end{array}$
$\begin{array}{ll}\mathrm{L} & \mathrm{C} \\ \mathrm{I} & \mathrm{T} \\ \mathrm{I} & \mathrm{T} \\ \mathrm{I} & \mathrm{T}\end{array}$

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| UniRef90_S4RHF3 | TKKIVVVTDS GEVV |
| UniRef90-B7PQK0 | K $\square$ PVII S Q C G E M |
| UniRef90-L8H2P2 | S A TLTIIA D S GELL |
| UniRef90-G7MNP9 | SKKI TIIA D C G K L |
| UniRef90-A0BD35 | R \PVVII D N C G EVV |
| UniRef90_I3S543 | RKKVVI A D S G Eli |
| UniRef90_A8IK54 | K R K V M I A N C G Q |
| UniRef90_UPI00045DAF6B | F A EVRILS CGE |
| UniRef90_UPI000440A22C | SKTIKVVDCGQ |
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| UniRef90_UPI00029DA802 | S K K I T A A C G Q |
| UniRef90_O74729 | K S NVAI VEC G E M |
| UniRef90-G1Q881 | K L PVVI S Q C G E M |
| UniRef90-K4B040 | KLA CVI A E C GEM |
| UniRef90-T1K5M8 | DER R L I DD C G Q L |
| UniRef90_UPI00034F297D | SRRIISI I E C GQL |
| UniRef90-Q7G6E4 | V K P V VI T D C GV |
| UniRef90-E6ZWC4 | $V E D V R$ A G C G Q |
| UniRef90_K4G035 | LE DCVI ANS GKI |
| UniRef90_L9L7K9 | SKM\TI A D C G QL |
| UniRef90-P52010 | SAPCVI A DCGEM |
| UniRef90-S4RGP7 | K GRVEI T D C G EVV |
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| UniRef90_C3YN62 | Y A DVRI A N C G E |
| UniRef90-D9VSG2 | K A KI EI A A S G |
| UniRef90_F4WQW8 | Y Q K I M I A D C GQ |
| UniRef90_V3ZXP1 | V K DVKI T D C G V |
| UniRef90-B4J2N2 | SKRVI I EDCG |
| UniRef90-M7NJ81 |  |
| UniRef90-K3WTJ4 | SAKVKI L D S GVL |
| UniRef90-C3YPY7 | LK E V K I S D V G |
| UniRef90-S8AHD9 | TS DLVI T Q C GEM |
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| UniRef90_A5E649 | K A T I Kl E E A GVL |
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| UniRef90-D3TPY2 | TKEIVVI A D C GEII |
| UniRef90_B0EUI7 | TKPVI I ENS GELL |
| UniRef90-M8ACI8 | TVDAV I A E CGEL |
| UniRef90_UPI0001CBA364 | EKECI I A D A G |
| UniRef90_C5K4T8 | K R PVI I H K S GELL |
| UniRef90-A0A034VWL3 | M D PVII T N CGE |
| UniRef90-G8BTJ5 | VQ DVKI A A C G E |
| UniRef90_UPI0003C49CED | 1 Q Q CTI I D S G |
| UniRef90_W2RM67 | $V Q D V R V V E C G E M$ |
| UniRef90-D2XRA4 | 1 E KVG S D C G Q |
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| UniRef90_V7CWD9 | S V T V K I I N C G E |
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| UniRef90_UPI0003955F12 | SKKIVI T DCGQLL |
| UniRef90_L1IZG6 | K E D CRI A L C G Q L |
| UniRef90_UPI000455F48E | SKKVKIVDCGELL |
| UniRef90-R7Q2L3 | V S QVK F T N T G |
| UniRef90-B8N0Z6 | SKPIV I VKA G E L |
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| UniRef90-C4QVQ4 |  |
| UniRef90-M3ZM11 | K Y E CRV S A C GVL |
| UniRef90-K8EVK6 | S K VI R V M E C G Eil |
| UniRef90_U4LJM5 | S GTI I I E K C G S L |
| UniRef90_O00060 | S SVL KI E D C G T L |
| UniRef90-B9WAT4 | R A SVVI E E S G E |
| UniRef90-M0SE30 | K K TVVVVA D C G Q L |
| UniRef90-A5BZN8 |  |
| UniRef90 Q6IQF8 |  |
| UniRef90_B7PD56 | VETVLIKKSSV |
| UniRef90_UPI000387D89A | KLPVVI S Q C GEM |
| UniRef90-E1Z3U3 | A HDVMVSNS GVV |
| UniRef90_F0XZE0 | K K P V V I T N C G |
| UniRef90-M5X1F5 | K S RVVI T D S GEL |
| UniRef90_Q5KMG4 | FEDI S I S S $\square$ T V |
| UniRef90_L8WVT6 | LK PVVI A S C G ELL |



| UniRef90_S9VWB7 | $\text { GERG } \quad \text { S }{ }^{50} G C P L Y F K G!P \stackrel{60}{F} H R!$ | $P \text { G F VV Q G G D L LT K D G }{ }^{80}$ |  |
| :---: | :---: | :---: | :---: |
| UniRef90_UPI0004541043 | GEKGF GYKGASFHRI | PGFMCQGGDFTRHNST |  |
| UniRef90-G6D2B0 | GEK G $\$ G $\square$ H GKA L H F K G VR F H K A | T Q F M \Q G G D I H G N G T |  |
| UniRef90_UPI0003EBED3C | GEQGLS QS GFPLC Y K G S LF HRIV | P N G WVQQ G D I SPRKGN |  |
| UniRef90-W9S525 | GEK G I G P Q S GRPL H Y K G S FFHRI | K GFMAQGGDFVKRDGT |  |
| UniRef90-V5EV16 | K G Y Y K K If H R I | RKFMLQTGDPLGDGT G |  |
| UniRef90-A2FAA8 |  | PGFlVQGGDCDTQDGY |  |
| UniRef90_G4ZHA4 | GEKGPDYSFK GSTCHRIL | KGFIVQCGDYTK GNGT |  |
| UniRef90_G4MY14 | GEPG VGGYKDS GFHRI | $P D F M L Q G G D F T R G N G T$ |  |
| UniRef90_T0QYS4 | GD NARGFSYKGSRCHRI | ANFVVQCGDWERGNGT |  |
| UniRef90_B6HAJ7 | GEKGF GYAGSAFHRVI | S GFMAQGGDFTR GNGT |  |
| UniRef90-UPI0003500A2C | $\mathrm{G} \square \mathrm{N}$ G K S Y K G T R F N R I | K R F MVQQ G G DVVS D D G S |  |
| UniRef90_UPI0003F09300 | E K G F GYKGSCLLHRI | S GFVCQGENSTRRNGT |  |
| UniRef90-M5GEF7 | S G Y F E GVIFFHRV I | P K F M I Q T G P L G D G G |  |
| UniRef90-D0MU73 |  | KNFVVQGGDFTT GDGT |  |
| UniRef90_A7S5B9 | GEESERHDPP L K L R Y K D S L H Gl V | P N G WI Q G G D $\square$ E G G R G $\square$ |  |
| UniRef90_D2SGF8 | GRREWTHPKT T D RLLY D G TVFFHRI | D GFMI Q G G P P $\quad$ L Q |  |
| UniRef90_U6IRE0 | AG YYNGHIFHRVI | K GFMI Q T G C P L G T G T G |  |
| UniRef90_N6USE6 | NG Y Y N G TKFHRS | R NFMI Q G G DPTNTGNG |  |
| UniRef90_GOUTJ2 | GGTTEGEEKPPVLSYKKSTFFRT | Y G A WIM G G D $\square$ S G G D G R |  |
| UniRef90-B9H | GDMGLGKKHTGKPMY L K G S TFYN | R GK WAE $\square$ S NTMM\S GT |  |
| UniRef90_UPI00032905E2 | GEKG FGYKGSCFHRT | PGFMCQGGDFTRTNGT |  |
| UniRef90_G0UU97 | PMTYKGSTFHRI | A GFMlQ G G DFTKHNGT |  |
| UniRef90_UPI0002FB4A5C | GTKEFKDPKTGEMFYNGLTFHRV | S G F M I Q G G D P L ${ }^{\text {L }}$ |  |
| UniRef90-S9TWJ0 | GDMDDVT G G T $\square$ HLLSYK GTT F F R V | K D A WVMA G D S P H T G N |  |
| UniRef90-T0PWL3 | NG | K NFMI Q T G D P NGNGT G |  |
| UniRef90-B3RWE1 | S TH LQREDGSALLTYKNTLFFHRII | K G G WVQA G DVID GS GA |  |
| UniRef90_W5BQZ7 | GEK G L G E S T K K P L Y F K G T Hil H R I | PGFMAQA GDFSRGDGR |  |
| UniRef90-D6WBV8 | GE NKQNLS YKNCPINRIV | P GRFLE T G D $\square$ T K G T G R |  |
| UniRef90_S2JJ02 | NGG Y Y D NLI F H R I | K GFMI Q T G CPFGDGT G |  |
| UniRef90_F9XAG6 |  | K GFMI Q G G D P T GT GR G |  |
| UniRef90-Q6CM61 | GD VNLLNGKVLSYKRNHFHRI | K NFMI QA G D L M EVGK |  |
| UniRef90-E0S811 | MPEGK GYKNSTFHRI | P GFMI Q G G ${ }^{\text {P T A H N G T }}$ |  |
| UniRef90-U6GNH |  | K GF M I Q T G P P G D G G |  |
| UniRef90-C1C2C3 | GEKG FGFKSSSFHRI | PGFMCQGGDFTNHNGT |  |
| UniRef90_A0A024G832 | GEMGSNFS YSNSKCHRI | K GF VQCGDFTEGNGY |  |
| UniRef90-H3B569 |  | GDF TRGDGTGGKCPRR |  |
| UniRef90-L1JZ36 | S G Y Y D T VFHRNI | K GFM $\$ Q G GDP T G T GK G  \hline UniRef90-F6WN10 & GKAGFSQS G $\square$ R L H Y K D S VFHR $\square$ V | P N G WIQ G G D V S G K G D |
| UniRef90_B9G7K1 | R\HVP GRRHQRPGTAPG | G E |  |
| UniRef90-R1FDI9 | GEKG T GES S K P L H Y K G SVFHRVI | P Q F M L Q GV V L L |  |
| UniRef90-M2N8F7 | GK | PGFMIQ G G D P T G S GRG |  |
| UniRef90_C5C835 | GEQEWTHKNNGAPLYS G TVVFHRII | K D F M 1 Q G G D P L G M |  |
| UniRef90-W5DST8 | P L H Y K G S AF HRII | P G SMCQG G D T R G N G T |  |
| UniRef90_COVS46 | GEK TGEPFYDGVIFHRII | A GFMIQ G G D P T G T G M G |  |
| UniRef90-B9RDE9 | S G Y Y G Tilf HRNI | K GFMIQ G G D P T G T G K G |  |
| UniRef90-M3WY96 | GEKG FGDKGSCFRRII | WEFLCQDCACTCHNGT |  |
| UniRef90-K0Z3X7 | GEREW $\mathrm{C}^{\text {L P T NGKPTYKGVIFHRV }}$ | D GFMIQ G G D P L G T G T G |  |
| UniRef90_UPI000412E2F8 | GQREWVDPKTTRPLYDGVIFHRV | P GFM M Q G G P PLG T G T G |  |
| UniRef90-C1EGR8 | GEAGGFGYRGSTFHRVI | P GFMNQA GAK G |  |
| UniRef90-F7HV31 |  | P EFTCHNGT |  |
| UniRef90-UPI0002656F6F | R R Y ¢ D GVK F R R I |  |  |
| UniRef90_B8BX57 | SG Y Y D NV If HR\\|I | P GFMVQTGDPDGDGTG |  |
| UniRef90-H9IZV1 | NG Y Y N G TKFHRSI | R NFMI Q G G P T G T G L G |  |
| UniRef90-F9FGV4 | GEKGF GYKGSSFHRII | P DFMLQGGDF TRGNGT |  |
| UniRef90-D7B5T5 | GE GVPNPATGEAAFYDGTVFHRVI | D DFMI Q G G D P Q G G Q G |  |
| UniRef90_V5FS21 | REK PEGYKGSSFHRII | PQFMLQGGGDFTR GNGT |  |
| UniRef90_C4JJ98 | GEKGF GYKGSSFHRII | PRFMLQ G G DFTRGNGT |  |
| UniRef90-R0LK29 | GEVGY GYK G S K F H R V I | K D M M Q G G F T A G CS |  |
| UniRef90-M0E636 | WEDPKSGEVRGDS LYEGIVFHRVI | D DFMI Q G G D P M NGRG |  |
| UniRef90-G4N7H5 |  | RNFMI Q G G D P G T GRG |  |
| UniRef90_Q7RHT4 | NG Y Y N N C IFHRVI | KHFMI QTGDPGGDGT G |  |
| UniRef90_K1R1H8 | GEYGF GYK G S P D R RVV | KDF II Q G G F E H GD G T |  |
| UniRef90-W0T4N9 | G D $\square$ G D K V L T L K G H F HRVI K N F M | QA G DL $\square$ Y G S T EP $\square$ NRE |  |
| UniRef90-A7AQ12 | G H SVNGR $\quad \mathrm{Y}$ Y S Y K G SVFHR\I | P N F M 1 Q G G D V V G N G T |  |
| UniRef90_UPI000258D6C8 | GK $\quad \square \mathrm{NGLS}$ S K N T P F HRIV | S GY WCQ G G DVTTK F N G S |  |
| UniRef90-Q6CCS1 | GEYR】DNV P Q G K E T F HRVV | K G F M I Q G G D FVR G N G L |  |
| UniRef90-J4I8L5 | RG $\quad$ YYNGVIFHRI I | A DFMVQGGDPTGT GRG |  |
| UniRef90-V9LBG5 | RG $\quad$ YYDGTKFHRI | K Q F M I Q G G P T GT GR G |  |
| UniRef90-P10255 | GQNGF GYKGSSFHRI | PEFMLQGGDFTRGNGT |  |
| UniRef90_G0S1V3 | RG ( YYDGTIFHRVI | K DFMVQGGGDPT GT GRG |  |
| UniRef90_R7TLG5 | TGG YYND TIEHRS | R N F M 1 Q G G D P E GK G T G |  |
| UniRef90-K5X3E7 | K K G Y Y N S V IF HR | DS DFMIQQ G DP T G T GR |  |
| UniRef90-I1G2U4 | K G Y Y D T I FHRS | RHFMIQ G G DPT GT GRG |  |
| UniRef90-R1CVP0 | GEA GSVKVSKKRTHYA GTAVHRVV | P GF IVQ G G DVTHS G G T |  |
| UniRef90_A0A058Z7K4 | GEAGTIFGGPGKPAFKGSSFHRVI | $P G F M L Q G G D F T N H N G T$ |  |
| UniRef90-E3QVR9 | R G Y Y N T V V R RI | P NFMVQA G D P T G T GRG |  |
| UniRef90-I2JRN0 | R G K K VF GYK G S I F H R V I | P NFMCQGGD $\square$ T HFNGY |  |
| UniRef90_UPI000475DBC4 | GEGQYS TKNAK GQFYDGVIFHRVI | A GFMLQTGDPD GT |  |
| UniRef90-M3B8P5 | RG YYNGI NFHRN1 | K NFMI Q G G D P S G G R G |  |
| UniRef90_W9WBP2 | KG $\quad$ Y Y N I $\quad \mathrm{FHRS}$ | RNFMI Q G G D P T G T GK G |  |
| UniRef90_T1FG73 | SG $\quad$ YYDGNVFHRNI | KDFIVQTGDPTGT GKG |  |
| UniRef90-M1WGI9 | N N YYN T I F HRVI |  |  |
| UniRef90_UPI00026570CD | K G Y Y D G Ti F H R Sill | RNFILQGGGDPTGTGTG |  |
| UniRef90-T0Z: | GTK P R T G T Q VKR P F F D G LI F H R V I | K N F M I Q G G D P L G N |  |
| UniRef90_UPI0004064C53 | GEDT WKHPATGEESYNGTIFHRII | K DFMI Q G G D P GR GVGG |  |
| UniRef90_Q4UC89 | S D Y Y N T K F HRLLALL LI T F WFRNI | K GFLL Q G G DPT GT GK G |  |
| UniRef90_G1XR94 | GEKG F GYEKSHFHRI | DNFMI Q G G DF TK GNGT |  |
| UniRef90_E5XL87 | GEKEYTEENAEGPFYDGSVFHRVI | D GFMI Q G G D P T G T GRG |  |
| UniRef90_A0A022LVG4 | GQQEWTHP GTGKVSYD GVI FHRI | K D F M I Q G G P G Q G $\square$ G G |  |
| UniRef90-UPI0002192CF2 | GTADYSQPNQEGPFYDGSIFHRII | D GFMI Q G G D P T G T GT G |  |
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G G GGK S I Y E T K F P D E N F V L L K H S K A G I L S M A N C G P H T N G S Q F F GES IIWGGDFEDELHRSLKHDRPFTLSMANAGPNTNGSQFP
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$E T G K G G S T Y T T E E E L K N S Q Q Q I I Q C F A N G D D S N S Q F F$ GSVSIYGERFADENFNIKHGAPGALSMANAGPNTNGSQFF GGACIYGDSFENENYNLRHAGPGLHSMCSDDENRSNSKFN GTS YGQKFQDEDHPELRFTGAGHAMANSGPNTNGSQFF GSSYGKHFEDELHADLRFTGAGAAMANGPDTNGSQFF GGKSVYGEKFADENFAKKHVRPGLLSMANAGPNTNGSQFF GQS WGKPFPDEFKQNLVHAGRGVLSMANSGPDTNKSQFF GGTSWGQKFEDEMPELRFTGAGMLAMANSGPNTNGSQFF GESAWGKPFDDEFKPQLTHSERGILSMANSGPNTNGSQFF GGKSIYGARFDDENFKLAHDRPGLLSMANAGRNTNGSQFF GTS YGEKFADEDHPALKHTGAGVLSMANAGPDTNGSQFF GGKSIYGDXFNDEGFMHHHTKPGMLSMANAGPNTNGSQFF
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 I T T T G A P W L D Q L H T V I G K V V




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 I CTAK T E WLD GK HV Y

 $V$ T R K K M S WM N G H Y V A F G R V M D G M D V I D A I T T V P T P WLLD N K H T V F G R V E T G K D T V T T I E N V A T D R F D K P I T L S P A K WM D T K F VAF G R L V G G N T T L M T L A A Q K T Y NERP I T F K A VP H LD GY Y
I T F T K M E QL D M Q NVVFGY IVVRGAENLFK\|EGYGR S IGKP I TVVA P A T WLLD N K H S V F G R V T A GM D V V H S I E N A K V D K T N K P

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


RVFFEVEVKGNS LGRIVVELFRDKCPNDCNNDITLCK RTRCFFD $\square$ K $\|$ G D R QAGRRVVF
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 KVVLT $\square K \square G N E T G T 1$ TIGLFGKTVPKTVKNFIQLS

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 T LHTTHGEI KLELFCEAVPKAAENFLVLCA
VATN. KTSQGDIVIK K K K
A VFNTSEGSFEI ELY NPVVFFTLHTSLGDTKILYCKDAPKACKNFLALCA NPVVFFDVCADDEPLGRITMELESNDVPQTAENFRALCT MLDTSLGEI KI EVFCETVPRAAENFLALCA ATLRTSAGDVVVKLFPDHAPKTVQNFVGLAE
 TLETSMGPFTDEMYYHHAPRTCDNFVKLAR METSMGNTKIKLFPEYAPKAVENFVKHSE A VFETSMGDFEVKLATDLAPKTCENFVNLAK ATLHTNHGDVSVELYDEVAPRTVANFKGLAT PGYFFKDNLNSNYFGR1VIETRPDLAPKMSKNFAALCT VMTLHTNHGDi KL NLEGNHAPNTVKNFVGLAT VFADDQLLHTSEGDIRINMFPDQAPKTVSNFVGLAE VFMD ATLHTNQGDVTVTLEADQAPKTVANFVGLAD
 ENPRVFLDVDIDGE

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## GPGYT1K

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 I T DDKTPWLDGKHAVFGKVIKNMDVVKA GKVQTGPNDKP I TFGPTPHLDGKHVVFGEVVEGLDLLXDAEAVPTDSSDKP I CTTKTEWLDGKHVVFGRVVEGLLDVKEVETFGTQSASP LTCDKTDWLDGKHVVFREVTEGLDVLRQI EAQGS K DGKP


IC TAK TEFFGN
VK E GMNVVEAMGRFGSSGK
I TVAP T P H L N FK H T $\quad$ F GEVVA D S R DVVVDEDARTAA GPA DK P I T TVVP T Y WL N GMH TI F GYVVD GTNIVVKDIVNVPTS GGDKP IT Y K T H P TL N GKY TVVGHVIDDGLDVLDRMEKVPTGAADRP

 I TYGKQSHLDNKYTIFGRVIDGGETLESMERVPVNPKNRP I TVGPFPHLNGKHTIFGEVVNSRAVVEADSKVETGPMDRP LVYK S A N H L L N F K H T V $V$ F G M V V





 ITVAN A TWLVGGKH TI

 I TAGAAHHLLDSTCICFGQVVDGWDVVKAIENTPDQPNGFP I T A G A A A H L D S T C 1
 I T V A P T P HL N R R H TII F G E V EAS RK V V DE I A NV RTGRMDRP

 I TV A P T T WL T GRHTI F GEVVVEGYIVEKDSKAPRDGMDRP V VQA K N P WL D H R H TVVF G QVI S G M DV V D KI A A V E T T F G D K P I MHKDAPHLDGAYAAFGKVTKGQDVVDDKIAEVVEDYSEAP I MHADAKHLD GQYAAFGKVTDGMDVVDQIAAGKTA GNDRP I VTS S A A QLPANYTVF GEVVSGMDV ALLKI ENVKTEAS DRP






 I C D G A Q P ML D G Q Y A V F G R V T N G M DVVVRA I A EVVETD S R D R P
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| UniRef90-F7H5N3 | TS K $\square$ T $\$ A D CG  \hline UniRef90-H5WZA5 & LE DI VI E QV  \hline UniRef90-UPI00047E00E7 & 1 D DVVI N K I  \hline UniRef90-I0YMU0 & LQ E I K I D K I  \hline UniRef90_UPI0001D5E347 &  \hline UniRef90-D2HUL8 & K E E \R\D S  \hline UniRef90-R7YQ47 & VEE CVLEDV  \hline UniRef90_A7ELT7 & YK K P Tiv V S GVL  \hline UniRef90-A0A058ZDR5 & LE R VFIA R S G ELL  \hline UniRef90_D2VL58 & S IE I T FMDCGVL  \hline UniRef90-M0AKV6 & Q EDVVLESV  \hline UniRef90 T1K017 &  \hline UniRef90-R7UGC3 & $\square \mathrm{L} A \backslash \mathrm{R}$ L L N V |
| UniRef90-W0K165 | QR DVVLESVEV |
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| UniRef90-W8BZE3 | Y D D I K I DS I |
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| UniRef90_W4G6U3 | L R S V M L V ${ }^{\text {L G E I }}$ |
| UniRef90-M2WKF7 | V D D I K I V NV |
| UniRef90-G3PN30 | K S Ell K I I T A T V |
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| UniRef90-UPI000348FC7E | V E D V V LE S VE |
| UniRef90_G3HKB0 | $\overline{\mathrm{F}}$ T D CTIIVN S G K |




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J8



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$G T G G P G Y K F A D E F H P T L K H S G P G W L S M A N A G P N T N G S Q F F$
$G$ GES IWWGGPFEDE IDDNLRHSGRGILSMANSGAHTNRSQFM GGES $\square W G K P F K D E D S N K L Y H F R G A L A M A N A G P N T N G S Q F Y$ KATTQS LGGATDSHFDYRHVVFGRVASR
GGESAFGGSFEDEFSREDYNFRGALSMANSGPNTNGSQFF GGKS $\square Y G E K F A D E N F R F K H T K P G L L S M A N A G P N T N$ GTGGPGYTFKDEPHPELTFDKPYLLAMANAGPGTNGSQFF
 $G G E S D Y G G S F E D E F S K E L F N L R G A L S M A N A G P N T N G S Q F F$
$G E S I Y G K P F K D E F H Q R L K F N R R G V A M A N A G P H D N G S Q F F$ GESIYGKPFKDEFHQRLKFNRRGLVAMANAGPHDNGSQFF
GGES $\ W G D P F E D E F S P Y A F N D R G A L S M A N A G P N T N G S Q F F$ PGYKFDDEDNPDLDFSEPYKLAMANAMANAGPNTNGSQFF
GAS WWGGKFEDE TRELKHTGGGILCMANSGPNTNGSQFY
GTSIYGKHFADEFHSLLKHNGRGVVSMANSGPDTNGSQFF
GNNS $C$ GEKFKDENDILKHMGPGUSSMANAGPNMNSSHFF
GGTSKWQEAFEDEFDDSVFNLYGALSMANAGPNTNGSQFF DYS ${ }^{2} K G E F S S N G F E N N V K H E R G V I S M A R A Q D P N S A G S Q F F$
$G G T S D W N H P F E D E F S R E L F N L R G A L S M A N S G P N T N G S Q F F$

## GPGYQFD

GESDWGGEFED DGIF GGNFHDDPGGLKLKHTHKGLLSMANGGPNTNGGHFS GTGDPGYRFDDEFGPELKHNKPGVVSMANGGPNTNGGHFS

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 GGESDWGNSSFEDEFSMDYFHFYGAALSMANAGGPNTNGSQQFKETRAPDENEADNGLENLMARTMDPHSASAQFF DNVS DN S

GTLIP

GGQSIVGNQ
TPPIKGEFSSNGFKNELKYNKRGALSMANAGPNTNGSQFF
GGRSDYGNKFPDENFELKHTGAGVLSMANAGANTNGSQFF
GAGNPGYRFLDEFHPDLKHDKPGMLSMANAGPNATNGSQF

PGYD DKGEFSSNGFKNDLKHTEGVLSMARMMPDSAGSQFF KSTRAPDENEANEPGTLAMARTGDPHSATAQFFDNVAPNS GQSHWGTPFRDEFDMPKKHDARGVLSMANKGMNSNGSQFF
GPGYSGEFSQNGFTNQFKHTKGVLSMARSMAPDSAGSQFF GGESDWGQAFEDEFSRELDFNLKGALSMANAGPHTNGSQFF WGTGDPGYKDKAEFNDRPHERGVISMARSADPDSAGSQFF
GGTSDYGERFADESPELRFVGAGULDAMANSGPNTNGSQFF KPTREPVENEANEKYTVAMARTMAPHSATAQFFDNVKDNA K RMLHGYKVPAEDSHPNKKGTDAAARDNNPQKASSGSQFY PGYS KGEFTRNGFKNELKHHRGVLSMARMHPDSAGSQFF GES WKQPFADEFSEKVHNFRGALSMANSGSNTNGSQFF $G P G Y E F D$
$G R G G P G Y R F Q D E D D P S L K F D K P Y L L A M A N A G H G T N G S Q F F$
$G$ GA $\square \mathrm{S} \square \mathrm{Y}$ GQYFEDENLNINHTCSGFIAMANRGPDTNGCQFY HGTGGPGHQLKAEFNSRPHKRGTLSMARSRHPDSAGSQFF VLDHGCGAGVLSFPSRYV RGSKRRFLSFS PGYSDKGEFEENGFRNDLKHEKGVLSMARQQPDSAGSQFF GTGGPGYNFEDE $\square$ HPELTHDAPGKLSMANAGPGTNGSQFF KKTNAPVENEANNGDSNETYS DAMARTSDPHSATAQFFDN





| UniRef90＿Gs | $\text { NDDVIMTSVE } 170$ |
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| UniRef90－UPI0001CBA1E0 | T ${ }^{\text {DHVEIANSGKL }}$ |
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| UniRe | IT D D K |
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 AVIRTSDGEIRVDLFGNHAPKTVDNFVGLAT
 I S TNVGDVNLELHTEYAPKAVWNFIKLAK


QNP』VT F EM
E D G G $\square$ MK A E LIF P Q T A P NTVNNF $\square$ S LI Q
TSMGDITLELNAEKAPKTAANFKSYVE AVLKTTRGDIQLELWCKEVPKACRNFLQLC $\square A T F D T S R G P U V V E L Y P D K A P L T V A N F V N L A K$ ATFDTNRGSFTVELLEADAPNTVSNFVGLAT VTVEMNDGQKDEVEVPKAAPNSVNNFI SLVK MQTSMGRIVIVELDSEKAPRTVQNFVQYVN TNHGDIVI ELNAEKAP ITVANFIEYVN TSKGFITVVELFKDGSFDVVDKF D LCK NP【VTFEM $\square \mathrm{L}^{\mathrm{L}} \mathrm{E}$ H


 TSLGAI TLELDAEKAPKSAANFLAYVE | $T S M G D M V$ | $Q$ |
| :---: | :---: | :---: |
| $T S Q G N$ |  |



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K T T A G D ПD DE LTWS K EAPKACRNF $\square$ QLC ATLHTSKGDIVIDLFEQETPQTVNSFVGLAR VIIEMENGAKI K ELDRTAAPNTVNNFLSLAN
 IATDEM K AKFNTSKGAILVKLTHDLTPGTVGNFVGLAE
 VLHTSEGAI GLELFEEQAPTSVENFLAYAE $\mathrm{V} F \mathrm{~L} D \mathrm{VG}$ P N V L F $M \square I F T$ KTSMGE ELVEL T SKGVIKLEL MKTSKK VLYPEKAPASVANFLLQYVK ATMQTNYGNMETEELYMDQKAPI TVKNFETYVK TLETSKGNTELELDADKAPISVQNFLSYAN
 NPKVLL LHTNGV LHTNHGVI TLELDAEKAPQTVANFLAYV E




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UniRef90-XOVCK5
UniRef90-S0J1W6
UniRef90_A4BHG9
UniRef90-S9W8M9
UniRef90_G2LUD9
UniRef90-A6G1Z4
UniRef90-UPI000373E51B
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UniRef90-C0C4L6
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UniRef90_E5AS48
UniRef90-F2PFF0
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UniRef90 U1ZSC9 UniRef90-F5R800 UniRef90-W8BWF5

## UniRef90_V2ZGP8 UniRef90-BOS192 UniRef90_UPIO002F8A9E2 UniRef90-UPIO004412468 UniRef90_E3DR58

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UniRef90-UP10002B46C5D
UniRef90_U2ELRO
UniRef90 U1MJ14
UniRef90-H9JIJ1
UniRef90-A3CRH1
UniRef90-D7AG30
UniRef90-F3Z1A4
UniRef90-R7C8Q7
UniRef90-UPI0003C199A8
UniRef90-B5JNQ1
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UniRef90 S4XSP6
UniRef90-UPIO003EBCA55
UniRef90-S6A5C3
UniRef90-R9GCQ2
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UniRef90-E9DHN4
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UniRef90 S9W8M9
UniRef90-G2LUD9
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UniRef90-Q1JY87
UniRef90_L2F713
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UniRef90-G8X9T2
UniRef90-B5XCII
UniRet90-U7PBN8
UniRef90-UP10003B3367C
UniRef90-UPIOOO38EFCFA
UniRef90-D3VEA5
UniRef90-E5AS48
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UniRef9-A0A009YYD7
UniRef90-A9AAH8
UniRef90_UPI00017468EE
UniRef90-10HU19
UniRef90-F5WRV6
UniRef90_U1ZSC9
UniRef90-F5R800
UniRef90-W8BWF5
UniRefo-
UniRef90_s9z920

PGYSTKGEFSKNGFQND ${ }^{90}{ }^{100}$ RGVLSMARNNPNSAGSQFF 120 GGESIWKKPFEDEFSENLKNПRGALSMANSGPNTNGSQFF QTSGKPVIDEANNGLSNQRGTLALARTNNPNSATSQFFDN GQS DWGHPFEDEDRTTLKFNARGLLAMANAGPDTNKSQFF PGYSIAGEFSANGFNNDLSHKRGVISMARSAPDSAGSQFF GGESIWKSPFEDEFDINYRNFYGALSMANAGPSTNGSQFF GPGYAIK
 ASLGSFGCPDGPEGPDTVGGWDMLSSRPLGTGTHDFFF KPGDGGGVIENEADNGLKNNRGTIAMARTMDPHSASAQFF GGES TYGGSFEDEFSMEAFNLRGALSMANAGPNTNGSQFF RQKPTQAPSQQEANNGLKNNKYTVAMARTNDPHSATAQFF
NGTGGPGYKIQDEFHKDLKNEKFTLSMANAGPNTGGSQFF
GASUYGKTFADEDTKELKHTGAGMLSMANSGKNTNGSQFF GGQSUYGDSFEDEFSDELYNLRGALSMANAGPDTNGSQFF GAGGPGGKADSELAPELKHNKAGMLSMANAGPGTNGSQFF KQKPTDGEDENEATNGLKNDMYTVAMARTNAPHSASSQFF
 KKTRDPDTNEADNGLKNDRGTLSMARTSDPNSATSQFFVN GMTSTYGSKFRDENFDLEHSGPGILSMERKHC GGESIYGPKFEDENFTLTAKSGVLAMANEGRPDTNSSQFC HSNQRGTDAMANTGRPNSGGSQFFINLVNNDFDDWDNPRT KETRAPIKNEADNGLKNDRGT DAMARTASPDSATAQFFDN KPGHEPUENEADEAYTVAMARTNDPHSATAQFFIDNVKDNS
$P G Y S I T P G F S L N G Y D N S L S H D P G V I S M A R S Q H P S A G S Q F F$
GGESIYGGYFE
GTDGPGYTMPDEMSADLTHSKAGILSMANSGANSGGSQFF SQKKTRASIQNEADNGLKNKKYSIAMARTMEPHSASAQFF GDGPDGCIKDEHPASAKLSNEPGTLSMANTGSPNSGSCQF
GESFWGKFDEFRPNSSTGRGLSMANSPNTNKSQL



DTT TPCPH $\square N G T N V I F G E V V A G F E L V D E M Q R Y G E G D D G R P$ PSAHPV FFGEVGGMDIVDKTAKVKTGSADKP LVNNENLINRYGYAVFGKVIEGMDVVDKIAASPTQRANTP FLNHKSKSAQGWYAVFGKVVEGKEVVDAIKAVPTGNQDVP TT LAPTTWDDGПHTTFGETVAGQNTVNATGSATTDANDKP INASDNDFQGWGYAVFGEVIEGREVVDAIEKVATGSQDVP FUNTVHNAYLDWFTPFGRVVEGMDVVHKIEKSPTDGSDRP
$T$

THVETPWDDGKYTTFGKVVEGQSVVNATA VTNEHTNPSMMHTVFGQVLSGMDVVNEINAVETGMQDKP

 FLDYPGQDGWGYCVFGKVVEGTDVVDKLKSVKTGHADVP MTAAPTYWLQGKHTIFGEVEDSKKVVDQLNTVKTDMRDRP MAYRALPHLDNKHTIFGHVIDDPTELNNLEVHPTNPTNRP TLGENLDYLDGKAAIFGNVVEGFDVLEKIDSAFVDEKGRP VNHTSESVNGWGYCAFGKVTDGMDVVEK K SVKKGSQDVP
J

| UniRef90_V2ZGP8 | $\text { RE KQVV\|MK K\|V }{ }_{-}^{170}{ }^{-1}$ |
| :---: | :---: |
| UniRef90-B0S192 | L E DIMMIK S I E |
| UniRef90_UPI0002F8A9E2 | L T D I V I E S V T |
| UniRef90_UPI0004412468 | LK E I RLE RV |
| UniRef90_E3DR58 | REDQ1 ME |
| UniRef90-H3NLK8 | VE DVKIES $\square$ E |
| UniRef90_UPI000475F8A2 | I E DVII LE A |
| UniRef90_Q49W93 | L H D I T I D S $\square$ E |
| UniRef90_UPI0003FC926E | 1 MKVV T I T R K G A L |
| UniRef90_G1PV35 | K E E I R I D |
| UniRef90 C0BML1 |  |
| UniRef90-UPI000469ED9C | A E DVI IT S A EV |
| UniRef90_UPI0004126264 | HEDVVI E |
| UniRef90-K0EQR9 | K D DVVI E S A |
| UniRef90_G7QNI6 | TK S V I I E T IT V |
| UniRef90-M3E151 | VEEDVTI E S I K |
| UniRef90_E4YT26 | KD KVS 1 |
| UniRef90_U2PVJ7 | L T D Q K M K K V |
| UniRef90_F5ZKI5 | KEDVII E T I EVV |
| UniRef90-A3U8G0 | NHVEI I R E G E |
| UniRef90-M0RH95 | K S P V G I V D |
| UniRef90-A1VRB7 | LE DVVI EKAVVL |
| UniRef90_A0A059DB73 | KS NILI K D V |
| UniRef90_UPI0002B46C5D | V D P P K I K S l E V L |
| UniRef90_U2ELR0 | R E Q V V I E T A EVV |
| UniRef90_U1MJI4 |  |
| UniRef90_H9JIJ1 | GAECVIE D C GE |
| UniRef90-A3CRH1 | K VPr VRI E K A EVL |
| UniRef90-D7AG30 | V T PVVI T S V |
| UniRef90-F3Z1A4 | L M P V V I NKATVV |
| UniRef90-R7C8Q7 | LT PVI MEKVTV |
| UniRef90_UPI0003C199A8 |  |
| UniRef90-B5JNQ1 | LT P V T I VR V G E |
| UniRef90-I7CE33 | K D DVII EKAEI |
| UniRef90_S4XSP6 | V T P I R M N R V |
| UniRef90_UPI0003EBCA55 | KS EIIKII S |
| UniRef90_S6A5C3 | $1 \mathrm{~K} T$ V T I I R V G E |
| UniRef90-R9GCQ2 | V D P V V I |
| UniRef90_X0PIJ0 | V K DVVVT S |
| UniRef90-H9JVJ4 | L E HVYI S D C GLL |
| UniRef90_UPI0004742026 | V E DVII E K A |
| UniRef90-UPI000255D2A3 | $\checkmark$ E D |
| UniRef90-W3ARE8 | V I S V T M T K V T V |
| UniRef90_G7XV27 | TP D I R I T DVTTV |
| UniRef90-E9DHN4 | L K D I R I K |
| UniRef90_F5ZCJ3 | V E P V VI E K A |
| UniRef90-X0VCK5 | V T TVV MEKV |
| UniRef90_S0J1W6 | MEPQVLTK K V T V |
| UniRef90_A4BHG9 | TEDVVI E K A |
| UniRef90_S9W8M9 | V Y P P K I M S T E |
| UniRef90_G2LUD9 |  |
| UniRef90-A6G1Z4 | VD E\R\IE |
| UniRef90_UPI000373E51B | NTPPVMKKVTV |
| UniRef90_A0A011NGS9 | LEPVII Q S V K |
| UniRef90_K3WTN7 | $L$ H P P K L L V E V V L |
| UniRef90_T2H738 | KEDVII EKAEI I |
| UniRef90-B9RNC5 | K S H I Kl $\mathrm{K}^{\text {NV }}$ |
| UniRef90-C0C4L6 | LEEQKMKKVTV |
| UniRef90-U1MF77 | V I VQK I DGATIL |
| UniRef90 ${ }^{-}$C3YUK7 | Y Q D 1 R I |
| UniRef90 ${ }^{-}$W0SH88 | A E DVVI ERAEVV |
| UniRef90-UPI000317FB0E | VQ DVVI E K A TVV |
| UniRef90-Q74ER6 | $V E N V F I T$ R A SVI |
| UniRef90-W8T3A6 | NSPQKI MKASV |
| UniRef90-R7WB43 | LA E I R L N R VTV |
| UniRef90_V8NPM4 | V N P Y K I T S TEVL |
| UniRef90_D1C3D6 | V E P ITYI ES VE |
| UniRef90_A4H8P7 | SK Y AVVVD CGE |
| UniRef90-R5B6F8 | LD P Q R I K S |
| UniRef90_K0BF73 | V N EVTTI T K A |
| UniRef90-Q1JY87 | L E P I TI VK A S V I |
| UniRef90-L2F713 | STPIVI T N A K V I |
| UniRef90-UPI000475C06E | NDPPVMKKV |
| UniRef90-G8X9T2 | DE S I E I DRVG |
| UniRef90_B5XCI6 | F Q D I R I |
| UniRef90_U7PBN8 | E T P V VI E R VEVL |
| UniRef90_UPI0003B3367C | RTPVI I E T A EVI |
| UniRef90_UPI00038EFCFA |  |
| UniRef90-D3VEA5 | V K P $\quad$ V I L S A |
| UniRef90_E5AS48 | QK P I V I Q S A V V |
| UniRef90_F2PFF0 | K EPIVI EKV |
| UniRef90-B2JIS4 | V D DV I I E K A |
| UniRef90 ${ }^{\text {U }}$ UPI000367C267 | AEPIVI QSARELL |
| UniRef90-A0A009YXD7 | K Q P I KI L S V |
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| UniRef90-F5WRV6 | TEPQ1 ${ }_{\text {L }}$ |
| UniRef90_U1ZSC9 | R E P V L I L E A K R L |
| UniRef90_F5R800 | KEDVVI ERAEV |
| UniRef90_W8BWF5 UniRef90-S9Z920 |  |




## UniRef90 G2FWDO UniRef90-B4UDL7 UniRef90-UPI00034ABDDA UniRef90-N6ZD86

 UniRef90_WZWUII UniRef90-U4WJI9 UniRef90-UP10003699CC8 UniRef90_C5T3E1 UniRef90-M7NTR3 UniRef90-A0A016TZ15 UniRef90-UP100035C6B6D UniRef90_A2SIM4 UniRef90-D3BEV0 UniRef90-KOCAS7 UniRef90-A3ZMX6 UniRef90-L9PQN1 UniRee90-UPIO0035C3F25 UniRet90-L1NMM9 UniRef90-TOBV22 UniRef90-V5WCSO UniRef90-F6DC68 UniRef90-UPIO002191C4D UniRef90-F1LTK6 UniRef90-18T2AO UniRef90-F7TI80 UniRef90-UPIOOO350BC2D UniRef90-Х2H0X7 UniRef90-A0A023B992 UniRef90-E5S3A9 UniRef90-I3UE87 UniRef90-F21K75 UniRef90-K2FXC8 UniRef90-B7FHA8 UniRef90-KowZo6 UniRef90-R6U8A0 UniRef90-UP10003671336 UniRef90 UPIOOO349E05E UniRef90-F4HC49 UniRef90-A5DJZ6 UniRef90-E3KNA5 UniRef90-UPIO0034B1FB8 UniRef90-G6DNX4 UniRef90-J9F4F2 UniRef90-UPIO00402B544 UniRef90 UPIOOO36F558B UniRef90-A0A023GFX7 UniRef90-S9WA86 UniRef90-R5B346 UniRef90-W7ABX4 UniRef90 UPIOOOO23EOCF UniRef90-U5Q2V8UniRef90 A0A011P UniRef90-K2A9W1 UniRef90-W6MAX4 UniRef90-H5W165 UniRef90-Q29DYO UniRef90-UPIO0047CC801 UniRef90-G4H156 UniRef90-UPIO0025584C4 UniRef90-N1JCZ8 UniRef90_UPI00041497B9 UniRef90_IOHU18
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UniRef9O_MORK07 UniRef90-1010Z3 UniRef90-A4FX42 UniRef90-G1Q8S1 UniRef90-UPIOOO47C1986 UniRef90-A4CNC6 UniRe90_R4MSG8
UniRet90_BOWFI UniRef90-E3GFB0 UniRef90-S3BQJ8 UniRef90_U5N5UO
UniRet90-UPIO0037508D6 UniRef90-E8RF17 UniRet90_Q2C690

KQTDPGEFS ${ }^{90}$ NGFKNDLLRHDRGVISMARTSAPNSASSQFF ${ }^{100}$ GPGYRFE DETGPDNVFSKPGLLAMANAGPNTNGSQFF GGSGDAGYRFKDEITDLKFDKAGVLAMANNGPATNSSQFF
KSTAAPMENEANERGTLAMARTADPHSASAQFFINLVPNT KATRAPIPDEASNGLKNDRGTDAMARTQNPNSATAQFFDN DGTGGPGYSFEDELKNGHSYDKGVVAMANAGPNTNGSQFF
GTGDPGYFREDINPSLTFDQPGLAMANAGPGNGSQFF KPTKAPYPGEAANGLKNDTYTIAMARTGNPNSATAQFFIN KKTGAP RNEANNGLANNRGS】AMARTGDPHSATAQFF GESGYGKPFKDEFHQRLRFNRRGLVGMANAGRDDNGSQFF KGKPTQAPAFNEANNGLKNDKYGLAMARTNAPHSASSQFF EA KYFEDEПHPKKLTHSNTTVAMANAGKNLNASRFY KKTHAPDRNEADNGDKNERGTDSMARTSNPDSGTSQFFVM GPGYKFE KKTNPPVP而 KETKAAIKNEANGLTNNTYTLAMARTGDPNSATSQFFIN KETKAAUKNEANNEVANSKGTDAMARTNDPHSATCQFFDN NGTGGPGYQFKDELPNKEKYAPGIVAMANSGPNTNGSQFF GTGGPGYRFPDEFHMDLVHDEPGLLSMANAGPNTNGSQFF
 TSRSTYGEKVEDEHFILAHTGPDSLSDANAGSNTNAFQFF $K R T K A P D E N E A K N G L K N K R G S D A M A R T N D P H S A S S Q F F D N$
$G G K S D Y R E K C D D E N F S L K H T O C M L S M A N A G P N T G Q Q C ~$ KETSAPRENEAANGLSNLCYTVAMARTSDPHSATAGFFHF GNS $\square W G K K F E D E F S E Y$ LKHSVRGVVSMANNGPNTNGSQFF KDGNAPDKNEANNGLKNNMARTSDVDSATSQFFDNTVNNE QECFTERGVCRDALQLLSHDRRGLCTATKGTDTNNSQFY KATEAP $\quad$ KNEADNGDKNDKYTDAMARTNDPQSATAQFF $\quad$ N GMGGPGYKFPDETRADLTHSGPGDLMANSGPATNGSQFF ADWNLRGKQPASMKHEAFMLGTSKGKHTNKGFDSADELF
GPGYGITKGEFA VSKKTGACDENEADNGLSNKRGTLAMARTMDPHSASAQFF KKVQSPDKNEANNGLSNKKGTLAMDRTPDPHSATAQFFDN KEKATKAPDRNEANNGLSNKRGTDAMARTSDPHSASAQFF GGRSVFETKFPDENFVVKHNKLGRLSMANAGPNTNGAQFF ESTYDEGTFNDEDNARLKFTRRGLVAMANLGPNTNTSQFF GGESDYGLTFEDENFK LIHEAGVLSMANAGPNTNGSQFC QA KPTHKARKNEADNGLKNKRGTMAMARMVNGANMLGSQFF

 GSKSIFGPTFKKESSQRRHTNAGLLTMVAMDPNSAGSQFF GRSDWGGAFEDEDRPADRHGARGVLSMANKGPGTNGSQFF KP APRKVENEARNGLKNDRWTDAMARTPDPHSASSQFF GTGRGGPGYTFADEPVTDEYLRGTLAMANAGKNTNGSQFF KPTRAPDPNEADNGLKNRGTVAMARTNDPGSATAQFFDN KPTRGPIPLESRNGLTNLRGTLAMARTNVPDSATAQFFIN
$G E S I Y G Q P F K D E F S R L R Y T R G G M G M A N S G K D D N A S Q F F$ KKTAAPQPKKDEFHSRLRYTRRGLLMGMANSGKDDNASQFF PGYSDPGEFTANGFQNDLKHTTGVLSMAGEDPNSAGSQFF ESREEGGILWPDEHSRIKFNRRGLLGMANEGPDSNGSQFF RPTKPP IPDESHNGLSNLRGTVAMARTGDPNSATSQFF
 WESTYWHEFKDEFFSKLKHDK WAISMANAGPNTNWSQFF KQKKTDAPITNEANNGLKNDRGTVAMARTSDPHSATAQFF TPKKARAPIKNEANNGLSNMTGSVAMARTMDPHSASAQFF KPKNAP GRGNPGYKYAGEFDAKLSHDKPGVLSMANAGPNTDGSQFF KPPTGGGGVPDEEAKTLTHCEAGVVSLKRDS EADYPGGLFADEFHPRLKFNRRGLVGMANSGRNDNGSQFF GESDYDGKPFKDEFHSRLRFRGVVGMASGKDPNSNQSQFF GTGDAGYKFDDEFRPELTHDAPGVLSMANAGPGTNGSQFF GPGYSGEFTGNGFKNDLKHTKGVLSMARTAVPNSAGSQFF GTGGPGYNFEDEVVDGLEFTGSGVLAMANAGPGTNGSQFF QA GPGYRFE DEVKDNPLRHETGVISMANAGPNTNGSQFF KETLDP $\square K N E A D N G L S N K R G T D A M A R T S V V D S A T S Q F F \square N$


| UniRef90 G2FWD0 | $\text { LE DQRMKK V }{ }^{170}$ |
| :---: | :---: |
| UniRef90-B4UDL7 | L EKVTlT R |
| UniRef90_UPI00034ABDDA | I V S K K I R N G E |
| UniRef90-N6ZD86 | V EAVVVESASVI |
| UniRef90-W7WUI8 | K T P L T I L K A |
| UniRef90_U4WJI9 | TE TIITI Q K I T V |
| UniRef90_UPI0003699CC8 | LT NVVI N R V |
| UniRef90-C5T3E1 | T T PVTTINSA |
| UniRef90-M7NTR3 | AENVVI QKA |
| UniRef90_A0A016TZI5 | RTIMHKI T G Vell |
| UniRef90_UPI00035C6B6D | I K K V T I T R K G T L |
| UniRef90-A2SIM4 | L E DVVVIT R A N EV |
| UniRef90_D3BEV0 | L K N I R M |
| UniRef90_K0CAS7 | STPVIIERA |
| UniRef90-A3ZMX6 | $\mathrm{M} \mathrm{I} \mathrm{K} V \mathrm{~T} V \mathrm{E}$ E A |
| UniRef90_L9PQN1 | VIPVVI K S A T I L |
| UniRef90_UPI00035C3F25 | VEPVVI EKAELL |
| UniRef90-L1NMM9 | V E PV I I E K A E |
| UniRef90-T0BV22 | TK T A Y I E S V |
| UniRef90-V5WCS0 |  |
| UniRef90-F6DC68 | \TNPVIIE R V S Q |
| UniRef90_UPI0002191C4D | $V \mathrm{D}$ PVVV T S I DVV |
| UniRef90-F1LTK6 | SKEITVVDNSNAL |
| UniRef90-18T2A0 | V T P V VI K S A |
| UniRef90_F7IT80 | SK K I TII A D C G Q L |
| UniRef90-T1BS61 | LE DVLI E R A EVM |
| UniRef90_UPI000350BC2D | L N DVRI K D |
| UniRef90-X2H0X7 | V E P V Y I K K A TVI |
| UniRef90_A0A023B992 | N D Q ITISSNCGNL |
| UniRef90_E5S3A9 |  |
| UniRef90-I3UE87 | VEPVI I EK A S V V |
| UniRef90-F2IK75 | M T K V I I 】R N G |
| UniRef90-K2FXC8 | L Y D V V I |
| UniRef90-B7FHA8 | K I T I G I L D V |
| UniRef90-K0WZ06 | 1 S MKIVE |
| UniRef90-R6U8A0 | L D P Q V I K A $\square$ T V |
| UniRef90-UPI0003671336 | AEDVI I T S A E |
| UniRef90-UPI000349E05E | L E DV I I N K V |
| UniRef90_F4HC49 | TEDVVI T S V T V |
| UniRef90-A5DJZ6 | K E EVM I S |
| UniRef90-E3KNA5 | I H P PII K S VEVV I |
| UniRef90_UPI00034B1FB8 | L ETVII EKAVVI |
| UniRef90-G6DNX4 | SVECVI D D C G Ei |
| UniRef90_J9F4F2 | F R D 1 RI A H TVVL |
| UniRef90-UPI000402B544 | T T P I IL E K A TVI |
| UniRef90_UPI00036F578B | TQTITINS |
| UniRef90-A0A023GFX7 | LHPHRIDS TQVL |
| UniRef90-S9WA86 | S E E $\square$ T I A D CG |
| UniRef90-R5B346 | THEQK MK T VTV |
| UniRef90-W7ABX4 |  |
| UniRef90_UPI000023E0CF | K EPVRI ENV |
| UniRef90-_U5Q2V8 | V S E V K I DS |
| UniRef90_A0A011PQQ9 | R E P V T I Q S V |
| UniRef90_K2A9W1 | A T DITI S S |
| UniRef90_W6MAX4 | AK PVLINSA |
| UniRef90-H5WI65 | V D P I L I K K A |
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| UniRef90-N4V2E7 | L L D I R I K |
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| UniRef90_I010Z3 | M ${ }^{\text {D K V M I A E }}$ |
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| UniRef90-A4CNC6 | MKNIVYIR K A EVL |
| UniRef90_R4MSG8 |  |
| UniRef90-B0W1F1 | Y K DVRVT H TVVL |
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| UniRef90_UPI00037508D6 | V D SVVI RKA Y L L |
| UniRef90_E8RF17 | $\square \mathrm{K} A \operatorname{T}$ T $\square \mathrm{R} \mathrm{V}$ G |
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| UniRef90_UPI00036C5960 | S E D\|V V L|Y S A |

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AVI TTKGDLTVVLFNQQAPLAVKNF:GRAK (LEDQVEGEANGTVQDDEFDVAPKHVEQDTALAE ALDETNKGTVEVELYYKIVPLTVMNFDGLSE
 M TTLHTNLGNUK QQLDHEKAPNTAQNFVNYCK
\(A\) ALK TSVGE LIELWPREAPKACRNFVQLAM M TTLHTNYGDUK】ELDFDKAP TTAKNFEDYCK
T \(\square \mathrm{Y} \square \mathrm{DV}\) PAGRVVIALRPDLAPKHVARПKELCR TDEDEDGDEIVLELLYPDLAPDTVENFVELAE
NPQVELH \(\square^{A}\) SQGEVVCDLFAKEAPNTVNNFVFLAR AVIHTSYGDVHIRLFPDAAPKAVENFVTHSK


ПettVadLVIDLFVKEAPKTCENFLKLCK LK SAGNUN KL PKLAPNAVONF VLAK TNQGSFTIQLDAEKAPDTVKNFLDYVN VQMMLSTDDQ LHPVVIELFNDFAPKACENFTKFCE MPUGLIKTNYGKILIALD

TVEMEDGGETTVELYPEDAPGSVNNFVARAE
ETNGGNFVVELNEKAPKTVANFLSYVK
VSMEMENGGUVKLELYPEDAPKTVNNFVALVE ATVKTSKGTFKIELFAKDAPKTVNNFVFLSK TSLGTRELEYPDKAPVSVANFLRYAK
P \(\square Y F \square D M E D A G E L A G R V L D E V R S D A A P R M A D N F G A G V R\)

\(\qquad\) TTAGDIDI ELSKEAPKACRNFIQLC
A \(\square 1 \mathrm{E}\) KGRMVLDLFPGEAPGTVANFAQLAR TNYGD MLELDHEKAPVTVQNFIDYVN AE VTSKGTVVAELEFQKTPVTVANFVSLAE MVTLHTTFGDIKLRMYADEAPATVENFLQYCR ALIETSKGDILARLEYEKTPFTVANFTLAE
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GMGDPYKFKEFKKDLKHDKPGIVSMANAGPGTNGSQFF KKTNAP \(\square Q N E A N N G \square S N K R G T \square A M A R T S D P H S A T A Q F F \square N\) GGESDYGAKFADENFKPRHTEPSVLSMANAGPDTNGSQFF ESDYDEGEFEDEFSQRLKFNRRGLLGMANQGRNTNLSQFF KEKPTKAPTQNEANNRLSNLRGTLAMARTMEPHSASSQFF
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\(G P\) GYKFEDELKANPHKHQVGSLSMANAGPNTNGSQFF SQKDSDET ПRNEANNGLKNDKYTLAMARTQDPHSASAQFF GGESTWGKEFADEFSSLKHDKPYTVSMANAGPNTNGSQFF WGTGGPGHKVQAEFNERPHVRGVLSMARSSDPNSAGSQFF GSGGPGYT PCETKGNPHKHLRGSLSMAHRGPNTGGSQFF VLNKGTRFFKAEFNPSLVHNKMGLVSMSTATISSRDDKLL TASUFGGKTFDTEUSNQLYNDRGALADANTGQASSSSSQF IDSYGGYFEDESYALKHDCEGDIGGANDGFHTNHSQFY NDPEYLLAPEDHPELTHVYGAVGAGRDGNPEKDSARCQFY MDTALKVNLKAMALKMTLVMSGVLSMARSQGMDTAGSQFF LKT DPVVNEASNGLKNNQATIAMARTSNPNSATRQFFEN PGYEVKGDKFDDEYFILKHUGPG\|LSUANAGSNTNSSQFF RGGPGYKFEDELNNGHKYEPGUVAMANSGPNTNGSQFF QSNFGSUINEADNGLSNNMARTAEPNSARNQFFTNTSNNS GGHSAFESRYFDETGLPAHRGTVGMRRGQRRQDRSGFVGS GGPGYTIHGEFSGNGFQKNDLIHTLMARTMAPNSAGSQFF SALEDGELFQDEFHSRLKFNRRGLLGMANEGPNSNGSQFF GTGGPGYTTKCETEGNPHQHIRGALSMAHRGKDTGGSQFF P TANEAGNGLKNDKYTTAMARTSDPHSATGQFFDNVKDND GSGDAGYKFKDEDTDLKHDVPGDLMANSGPGTNGSQFF KYTRAPEKNEADNGLSNLMARTMEPHSASSQFFIDNVNDNL GQSDWGREFEDEFHKSLRHDRPFTVSMANAGPNTNGSQFF
 PPKPAPHKSTFD TGSGSPGYRFEDEDAKRHTYEKGMDAMNSGPNTNGSQFF
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\(G G S G I D Q K C E L T G E N Q Y H D R G V L S M A H A G R D T G S S Q F F D C\)

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lupas_14
lupas_28
jnet_
conf
sol25
sol5
sol0
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jpssm

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170
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