


HPHPGE LDTYYG LWS GGHTGDMR $\square$ GGFPSRE $\square H R \square P$

DASVPPGEHDDYYAF LS GGHSGETRVYGVPSMRQLMR\P DHMVPPGEHDEYYGFWSGGHSGE $I R V M G L P S M R E L T R I P$

TEVKPGQLDTHYGLWSSGHSGDAR\LG\PSGRELARMP DHKVPPGEHDEYYGFWSGGQSGE $\square R V V G \| P S M R E L M R \square P$

GEHSVAPGEHDEYYGF LSGGHTGE $\square R \mathrm{~V}$ VGGPSMRE LIMR $\square \mathrm{P}$


AKTYVPTGKRDEF LAAFSSGGQSGQVIVYGDPSMRDLKYVA K TYVPPGKLDEYYLFASGGHSGNVFVYGVPSMRRLRTIP

KTYVAPGD\DEYYMFSSGGHSGQVFПYGLPSMRHDAT円P AKTYTPTGKRDEFVVFSSGGQSGQVIVYGUPSMRILKYIG

KAFVPPGQHDEYYMFSSGGHSGQMFVDGVPS $\square R R \square R T \square P$
SKVYVAPGEHDEYYAFMSGGFSGQVSVYGLPSGRDFRVIP SKVYVAPGEYDEFYAFVSGGFSGQMSVYGUPSGRLGKVIPB AKTYNPTGKLDEFMVFSSGGQSGQVIVYGVPSMRILKYIG $S K \nabla Y$ VAPGKY DEFYAFMS GGFNGQLTVYGLPS GR $\square$ F K $\square 1$ S

AKTYTPTGGRDEFLAFASGGQSGQMVVYGVPSMRDLKYDG AKTYTPTGMKDEYYVFSSGGQSGQVIVYGVPSMRILKYi G $K T Y V P S G R H D E Y L M F T S G G H S G Q L L V D G I P S M R L L R V I G G$
AKTYVPTGGRDEFVVFASGGQSGQVIVYGDPSMRLLKY $\square G$

QUERY

UniRef90_K2LWP6 | UniRef90-BOUIC2 |
| :--- |
| UniRef90 G1 GY 6 | UniRef90- G8PG62 UniRef90-A3VCT9 UniRef90-B6IY80 UniRef90 K21K02 UniRef90-K9GNS5 UniRef90_G9ZBA4 UniRef90_JoUJX9 UniRef90 UPIO0036B5A3 UniRef90-UPIO0036F7F90

UniRef90-D1FDA0 UniRef90_A8LM18 UniRef90 ${ }^{-}$A4BIK2 UniRef90-Z5XMT1 UniRef90-B8R8M7 UniRet90 B4RNE2 UniRef90-Q2SGT6 UniRef90-S6GGO5 UniRef90_14VI23 UniRef90 ${ }^{-}$QOA9R1 UniRef90_UPIOOO37E917F UniRef90_I4JFM9 UniRef90 H6VUF9 UniRef90-068180 UniRef90-B8GM53 UniRef90_b9YZ03 UniRef90-UPIOOO47E5704 UniRef90-UPI00028A0311 UniRef90-A0A031GVW4
UniRef90- N6XQ28 UniRef90-A0A023NZQ3 UniRef90_F6L159 UniRef90 A7UD21 UniRef90-Q9X4Y9 UniRet90-Q3MT78 UniRef90- Q845E5 UniRef90-E1VFI9 UniRef90-Q845F2 UniRef90-Q845E7
UniRef90 F8D541 UniRef90-G2MJ29
UniRef90 O9X512 UniRef90-A7UD32 UniRef90 Q2PPC0 UniRef90-80B1H2 UniRef90_O845E6 UniRef90 E7SOT3 UniRet90_WOJVM8 UniRef90 Q9X500 UniRef90 B9LN21 UniRef90-B6VAQ8 UniRef90_BOB1SO UniRef90 Bob1N9 UniRef90-M0A1L5 UniRef90-O3MTB8 UniRef90 A7UMG5 UniRef90-W6K8L8 UniRef90-F6DRN2 UniRef90 C1JKX8 UniRef90 Q845EO UniRef90-C1JKX7 UniRef90_C1JK99 UniRet90 A7H6W6 UniRef90-A4TW96
UniRef90 BoB1J8 UniRef90 ${ }^{-}$CgUAK0 UniRet90 B1ZWX6 UniRef90-B0B1N6 UniRef90_K6DF61 UniRef90 A7UD22 UniRef90-UPIO00347454D UniRef90-W2UJU8 Unisolo Uniret90_O845E UniRef90 CIJKL UniRef90 C1JK91 UniRef90- N6ZXN7 UniRef90-UPIO00478D6B4 UniRet90_D1C1Q5 UniRef90 Q845E3 UniRef90-F9U858 UniRef90-A4GZM7 UniRef90 H6VUG6 UniRee90-UPI00037A3EA9 UniRef90_OPIO003
UniRef90_O2PPC

 VFTPEPWQGYGYDDESKKVLSEGGSVDGRADLAKGGUKTF

VFTPSPGTGYGFDEETKKMLGGGLTPATKEY四ASVGKKTY VFSPDSATGYGYDERTKELMGG

GWGLTNESKEVLGED NEETKDMLKTSYGVRY VFSQDPEKGYGY NEETKDMLKTSYGYMP VFSQDAEKGYGY $\begin{aligned} & \text { V } \\ & V \\ & V\end{aligned}$

GWGLTTESKRVLGDSAH
SEETKPMLMTSYGF ${ }^{\text {F }}$ P GWGLTNESLKTLTEGLLPETKTFLLAANGKQTY GWGLTNESRRILGD
VFSQNPET

VFTPEPWQGYGFDEESKKVLAGG
VFTPEPWQGYGFDNESKKILDSG VFAPEPWQGWGYSDASRKVLEEGGFQ
 GWGLLTNESHILTEGDT
VFTPEPWQGYGFDDESKAVLEQGRTR

VFSVDAEKAYGF salla

[^0]
## QUERY

UniRef90_K2LWP6 UniRef90-B0UIC2 UniRef90_G8PG62 UniRef90-A3VCT9 UniRef90-B6IY80 UniRef90-K2IK02 UniRef90-K9GNS5 UniRef90-G9ZBA44 UniRef90_JOUJX9 UniRef90_UPI00036B5A35 UniRef90_UPI00036F7F9C UniRef90-D1FDA0 UniRef90-A8LM18 UniRef90-A4BIK2 UniRef90-Z5XMT1 UniRef90-B8R8M7 UniRef90_B4RNE2 UniRef90-Q2SGT6 UniRef90-S6GG05 UniRef90-14VI23 UniRef90-Q0A9R1 UniRef90_UPIO0037E917F UniRef90_I4JFM9 UniRef90-H6VUF9 UniRef90-O68180 UniRef90-B8GM53 UniRef90_B9YZ03 UniRef90-A3N9S4 UniRef90_UPI00047E5704 UniRef90_UPI00028A031E UniRef90-A0A031GVW4 UniRef90-N6XQ28 UniRef90-A0A023NZQ3 UniRef90-F6LI59 UniRef90_A7UD21 UniRef90-Q9X4Y9 UniRef90-Q3MT78 UniRef90_Q845E5 UniRef90-E1VFI9
UniRef90 Q845F2 UniRef90-Q845E7 UniRef90_F8D541 UniRef90-G2MJ29 UniRef90_Q9X512 UniRef90-A7UD32 UniRef90_Q2PPC0
UniRef90_B0B1H2 UniRef90-Q845E6 UniRef90_E7SOT3 UniRef90-W0JVM8 UniRef90-Q9X500 UniRef90_H6VUG3 UniRef90-B9LN21
UniRef90-B6VAQ8 UniRef90-B6VAQ8
UniRef90 B0B1S0 UniRef90-B0B1N9 UniRef90_MOA1L5
UniRef90-Q3MTB8 UniRef90-A7UMG3 UniRef90_A7UMG5 UniRef90-W6K8L8 UniRef90-F6DRN2 UniRef90_C1JKX8 UniRef90-Q845E0
UniRef90 C1JKX7 UniRef90_C1JK99 UniRef90_A7H6W6 UniRef90-A4TW96
UniRef90 B0B1J8 UniRef90_C9UAK0 UniRef90-B1ZWX6 UniRef90-B0B1N6 UniRef90_K6DF61 UniRef90_A7UD22 UniRef90_UPIO00347454D UniRef90-W2UJU8 UniRef90-Q2W2N5 UniRef90_Q845E1 UniRef90_I6ZZA8 UniRef90_C1JKL3 UniRef90_C1JK91 UniRef90-N6ZXN7 UniRef90-UPIO00478D6B4 UniRef90-D1C1Q5 UniRef90_Q845E3 UniRef90-F9U858
UniRef90-A4GZM7 UniRef90-H6VUGG6 UniRef90_UPI00037A3EA9 UniRef90_Q2PPC2

90
100

120 LNGDLHHPHMSFTDGTYDGRYLFVNDKANTRVARIRCDVM HNGDLHHPHLSFTDGTYDGRYCFVNDKANTRVARI RLDVM QNGDAHHPHMSFTNGTYDGRYIFINDKANTRVARIRCDIMM DNGDLHHPHMSFTEGTYDGRYLFMNDKANTRVARVRCDVM



 $\square N G D T H H P R P S Y T D G A Y D G R Y L I V N D K A N S R V A R I R L D D V M$


 PN G A H H P HM S M T D G R Y D G K Y VV


 L N GDAHHPHDSYTDGKHDGRYGFDNDKANTRVARVR LDIMM

 MNGDLHHPHISFTDGTYDGRYAFMNDKANSRVARVRLDVM QNGDLLHHPHMSFTDGTYDGRYLFMNDKANTRVARVRCDVM
 FTGDTHHVHMSYTDGTYDGKYIFVNDKINARIARVRLDTM FTGGDTH HVVHPS Y T D G T Y N G K H I F V N N D K I H G R I A R I R M D T M LN GD T H H P K VS Y T D A RYDGRYCFI N DKL N T R V A R I R LD DM I T G D TH HV V G S Y K N G T Y D GRWLFI N D K L H S R V A R I RMD T M TVVGDTH HTHAASYK D G N Y D G R Y A W WI N D K I N S R R I A R I R L D D Y F
 DNGDLHHPHMSFTEGTYDGRYIVVNDKANTRVARIMRCDVAM


 QSGDLHHPHPSFTDGTYDGRYLYANDKSNTRVARIMRDVM HNGDLHHPHPSFTDGTYDGRYLFANDKANTRVARVRLDVM SWGDTHHPRVSQTDNDYDGRWAFVNDKANGRMARIINLKYF TWGDSHHPNLSETGGEYDGRYVFVNDKANGRVARVVNLVYF


 MNGD LH H P H M S F T N GTY D G R Y I F V N D K A N C R V G R I R C DV L TVGDTHH DQASYK DGDY DGKY CWVND K DNARLARRFRLD YM
 $L$ N G D L H H P H M S F T D G T Y D G R Y V V F A N D K A N T R V V A R I R C C D TWGDTHHPRRVS Q T D G K Y D G K Y L F F IV N D K A N T R V

M S F T D G T Y D G R Y I F V N D K A N T R V A R I R C D MNGDCH H P H M S F T N G T F D G R Y V F F I N D K A N T R V V A R I R C C D
 D N G D L H HVVHMS F T E GK Y D G R F L F M N D K A N T R V A R V R C D V M D NGDLHHVHMSFTEGKYDGRYLFMNDKANTRVARVRCDVM QS GDLHHPHVSFTDGAYDGRYVYANDKANTRVCRIRRLDVM

 MNGDAHHPHMSFTDGTYDGRYLEI NDKANTRVARIARCDVM L N G D C H H P H DS MT DGKY D G K Y L F I D E L A N S R V A R I R L D D I M
 TWGDVHHPALSETKGDYDGRWLFVNE MNGRIARIDDRDF
 MNGDCRHPRPSVTNGSYDGRYVFINDKANTRLARIRIDVM

T WGDVVH H P G L S Q T D GK Y D G R W L F V N D N A N N R I A R VD L R D F
 TWGDAHHPSLSETNGDYDGRFVFINDNANNRAAMI NLKTA RTGDTHHPHMSMTDGRYDGKYVFVNDKANSRVARIXRDDM







 V Y G D T H H P A I S E T D G D Y D A K Y V V F I I N D K A N P R I A V I D D


[^1]
## QUERY

UniRef90_K2LWP6 UniRef90-BOUIC2 UniRef90_G8PG62 UniRef90_A3VCT9 UniRef90_B6IY80 UniRef90_K2IK02 UniRef90_K9GNS5
UniRef90_G9ZBA4 UniRef90-J0UJX9 UniRef90_UPI00036B5A35 UniRef90_UPI00036F7F9C

## UniRef90_D1FDA0

UniRef90_A8LM18 UniRef90-A4BIK2 UniRef90_Z5XMT1 UniRef90_B8R8M7 UniRef90_B4RNE2 UniRef90_Q2SGT6 UniRef90_S6GG05 UniRef90_14VI23 UniRef90_Q0A9R1 UniRef90_UPI00037E917F UniRef90_I4JFM9 UniRef90_H6VUF9 UniRef90_O68180 UniRef90_B8GM53 UniRef90_B9YZ03 UniRef90_A3N9S4
UniRef90_UPIO0047E5704 UniRef90_UPI00028A031E UniRef90_A0A031GVW4 UniRef90-N6XQ28 UniRef90_A0A023NZQ3 UniRef90_F6LI59 UniRef90_A7UD21 UniRef90_Q9X4Y9 UniRef90_Q3MT78 UniRef90_Q845E5 UniRef90_E1VFI9
UniRef90_Q845F2 UniRef90_Q845E7 UniRef90_F8D541 UniRef90_G2MJ29
UniRef90_Q9X512 UniRef90_Q9X512
UniRef90-A7UD32 UniRef90_Q2PPC0 UniRef90_B0B1H2 UniRef90_Q845E6 UniRef90_E7S0T3
UniRef90_W0JVM8 UniRef90_Q9X500 UniRef90_H6VUG3 UniRef90_B9LN21
UniRef90_B6VAQ8 UniRef90_B0B1S0 UniRef90_B0B1N9 UniRef90_M0A1L5 UniRef90_A7UMG3 UniRef90_A7UMG5 UniRef90_W6K8L8
UniRef90 F6DRN2 UniRef90_C1JKX8 UniRef90_Q845E0 UniRef90_C1JKX7
UniRef90 C1JK99 UniRef90_A7H6W6 UniRef90_A4TW96 UniRef90_B0B1J8 UniRef90_B1ZWX6 UniRef90_B0B1N6 UniRef90_K6DF61 UniRef90_UPI000347454D UniRef90_W2UJU8 UniRef90_Q2W2N5 UniRef90_Q845E1 UniRef90_I6ZZA8
UniRef90 C1JKL3 UniRef90_C1JK91 UniRef90_N6ZXN7 UniRef90_UPIO00478D6B4 UniRef90_D1C1Q5 UniRef90_Q845E3 UniRef90_F9U858
UniRef90_A4GZM7 UniRef90_H6VUG6 UniRef90_UPIO0037A3EA9
UniRef90_Q2PPC2

K T D A I L E TP N A K G TH GMRP Q K WP R S N Y VF CN GEDEAP 130

160 K C D K I I E I P N A S D I H G L R P Q K F P R T G Y V F A N GE H R V P V P N




 K P D K I I E I
$\begin{array}{llll}\text { K C } & D & A & M \\ K & E \\ K & D & K & I \\ K & & E\end{array}$


 K T D K
 K T D K I I EII P N A H S I H G M R V Q R Y P K T G Y V F C N G E N R I P L V N $\left.\begin{array}{llllll|lllll|lllllllllll|l|llllllllll}K & A & D & K & I & I & D & I & P & N & D & S & G & I & H & G & L & R & P & Q & R & Y & P & K & T & G & Y & V & F & A & N & G & E\end{array}\right]$









## QUERY

## UniRef90_K2LWP6

 UniRef90_B0UIC2 UniRef90_G1XYN6 UniRef90_G8PG62 UniRef90_A3VCT9 UniRef90-B6IY80 UniRef90_K2IK02 UniRef90_K9GNS5 UniRef90_G9ZBA4 UniRef90_J0UJX9 UniRef90 UPI00036B5A35 UniRef90_UPI00036F7F90 UniRef90_D1FDA0 UniRef90_A8LM18 UniRef90-A4BIK2 UniRef90_Z5XMT1 UniRef90_B8R8M7 UniRef90 B4RNE2 UniRef90_Q2SGT6 UniRef90_S6GG05 UniRef90_I4VI23 UniRef90 Q0A9R1 UniRef90_UPI00037E917F UniRef90_I4JFM9 UniRef90 H6VUF9 UniRef90_O68180 UniRef90_B8GM53 UniRef90_B9YZ03 UniRef90_A3N9S UniRef90_UPI00047E5704 UniRef90_UPI00028A031E UniRef90_A0A031GVW4 UniRef90-N6XQ28 UniRef90_A0A023NZQ3 UniRef90_F6LI59 UniRef90 A7UD21 UniRef90_Q9X4Y9 UniRef90_Q3MT78 UniRef90_Q845E5 UniRef90_E1VFI9 UniRef90-Q845F2 UniRef90-Q845E7 UniRef90_F8D541UniRef90_G2MJ29 UniRef90-Q9X512 UniRef90_A7UD32 UniRef90_Q2PPC0 UniRef90_B0B1H2 UniRef90_Q845E6 UniRef90-W0JVM8 UniRef90_Q9X500 UniRef90-H6VUG3 UniRef90_B9LN21
UniRef90 B6VAQ8 UniRef90_B6VAQ8
UniRef90 B0B1S0 UniRef90_B0B1N9 UniRef90_M0A1L5 UniRef90_Q3MTB8 UniRef90_A7UMG5 UniRef90_W6K8L8 UniRef90_F6DRN2 UniRef90_C1JKX8 UniRef90_Q845E0 UniRef90-C1JKX7 UniRef90-A7H6W6 UniRef90_A4TW96 UniRef90_B0B1J8 UniRef90_C9UAK0 UniRef90_B1ZWX6 UniRef90-B0B1N6
UniRef90-K6DF61 UniRef90_A7UD22 UniRef90-UPI000347454D UniRef90-W2UJU8 UniRef90_Q2W2N5 UniRef90_Q845E1 UniRef90_I6ZZA8 UniRef90_C1JKL3 UniRef90_C1JK91 UniRef90_UPI000478D6B4 UniRef90_D1C1Q5 UniRef90_Q845E3 UniRef90_F9U858
UniRef90 A4GZM7 UniRef90-H6VUG6 UniRef90_UPI00037A3EA9
UniRef90_Q2PPC2

DGSTMTDVATYVNDFTAVDADKWEVAWQVKVSGNLDNCDA D G S I L D D P S Q Y H A I F T A I D G D T M EVVA WQVVMVD GNLDNCD A D GKVVLDD N K QY H A I F T A V D G D T M QV A WQV LVVD G NL D NVD A D G S V L D E P K K Y G CVVF T A I D G D A M K V S WQVLVVDGNLDDNCDA
 D GIILLDEPDKYVSIFTAADDGDTMDIMAWQVIVVNGNLDDNCDA D G K G L T D T K R Y R S H F T A V D G D T M K V A W W V WV D G N D GRRDMKNTDAYRCDFSAVDGETMEVAWQVIVSGNLDNVDC DGKTDDAKKDYWTAFTAI DGDTMDIVKWVRVDGNLDDNLDA NGS $\quad 1 \quad$ F G N P K N Y F S V F T A I D G D T M E I A W W V I DGR DLD L D G S H L D G Q I L D K P E E Y T N F Y T A L N A D E M TVVA WQVVMV T G N L D N T D A
 DGRELDDFKKWRSVFTAVDGDTMTVSWQVIVSGNLDNCAA VGK LDDAKTWNAVYTAIDGETMEIAWQVLVDGNLDNGDA DGTDMENLENHYTMFNAVDADTMEVAWQVIVVDNLDDNTDA NGFNMDA A A DYYTMFNGI DAEKMEVSWQIIV DGNLDDNTDA DGRDLDDPKKYQTMFSALNGETMEMAWQVIVDGNLDNTDS DGTELEDPKKHFSVWSALDSETMEVAWQVLVDGNLDNMDS D GTGMMDDTENYRTLYYSAI DA DTMEVVKWQVLVVDGNLDNTDA
 D G S I L D D E P E KYY H All F S A I D A D S M K V A WQ V IV S G N I D N V D
 DGRDLESPEKYGALFTCVDAETMEVRWQCKIDGNMDLVAT DGRDLNDPKKYYCLFTCVDAKTMQPRWQVKIDGNMDLVAT


 D G S V L D D P T K Y V S L F S G I D G D S M E I K W W V I

D GK ILL DNSKE YHSMFSAVDGETMKVANWQVMVSGNLDNVDA D G H GL D DVA A Y R VLE S C L D DE S M E V R WQALI D G NCDDV A T
 D GRDLT DPDSYTSTIAAI DPETMNVEWEVLVDGNMDNGDG DGRDVVNNPEEYVSLFSAIDPETMDVRWQVKVDGNDDIVDS
 DGMILDEPEKYHADFSAIDGETMKVAWQVIVDGNLDNCDA D G KVVLD DPKKYWAVFTABDDGTTMKVAWQVLVDGNLDNYDA
DGSNLDDPKNYWSVYTAIDGDAMQVAWQVLVDGNLDNTDA H GK DI E D A T K Y G A L F T C V N A L T M EVVK WQARI D G NCDL V A T
 DGHTFDQDKNSFTLENAI DAEKMEMAFQVIVDGNLDNTDA DGRDVQSPDEYGSVLSAINPETMDVEWQVEVDGNMDNGDG DGKNV DPKNYRTHFSAI DGDSMKVNWQVRVDGNDDNTEA D G K V L D D P S K Y T S $\quad$ IF S A V D G D T M K V S W W Q I L V D G N L D N T D A D GRDLE DPSEYGSTLSAMSADPFDHEWDVRVVDCNLDDNGDS D GTTMT DVTTYVNIFTADNADEMTVAWQVQVSGNLDNTDA DGSTMTEVSTYVNI FTAVDADKWEVAWQVQVSGNLDNCDA DGSVLDDKSHYRAI F TAVDGEEMKVAWQVMVDGNLDNNDA $D Y$ V P L S D F E KY R GAV T Y WK FD NKKGR DQPP YS Q D L S D F GK KYAPLD K FKEYMGGLAAVA DDHMSVGWEPPWSYDL S DAGK DGSVLD DPKNYHAI FTAI DGDTMEIAWQVMVDGYLDNCDA DGSSFDTGDNAFTLYNAIDAETMEVAWQVIVDGNLDNTDA D G R D LD D P P S K Y V A I F S A V D G E K M E V GTAVID KYSEYKGIVAGIK DDKMSLGWQVPF DWDLGBAGK
 D G R D L D DYKK WR S VFTAVVDGDTMMTV S WQVIVVSGNLDNCDA D GSHLNDVK QYHAlFTAVDGETMKVAWQVMVDGNLDNVDC RYAELND YEKFNGMVSGIKVDPMSVGWQPPFDWDLGSTGK VGK LLLDESKK WR S IFFTAVDGDTMTVA WQVIVVGNLIDNNDA S YKEL E QYKEYNGALQA I SVDDHMTPA WQL KLPF D L S D A G K DGRDLNDPTKYHTLFSAVDAETMEVAWQVLVDGNLDNTDA



 D G K IL L D Q P E E Y V N I F T A I D G D E M E V A WQ V IV DGRGMENPEGYYTMFNG\|DAESMDVAWQVIVDGNLDNTDA QKYPLE QFEKYRGAVTYWKFDREHGQLKPPYSQDLS DAGK E WVP DGKDLEDENSFVNVFTAVDADKWEVAWQVIVDGNLDNTAA D G V P L DGKVLDNPKQYRS I FSAMDGDTMKVA WQVIVVGNLDNVDA
 $T$ G DIL L D E P E K Y H A I I F T A

## QUERY

## UniRef90_K2LWP6

 UniRef90_B0UIC2 UniRef90_G1XYN6 UniRef90_G8PG62 UniRef90_A3VCT9 UniRef90_B6IY80 UniRef90 K2IK02 UniRef90_K9GNS5 UniRef90_G9ZBA4 UniRef90-UPI00036B5A35 UniRef90_UPI00036F7F9C
## UniRef90_D1FDA0

UniRef90_A8LM18 UniRef90-A4BIK2 UniRef90_Z5XMT1 UniRef90_B8R8M7 UniRef90_B4RNE2 UniRef90_Q2SGT6 UniRef90_S6GG05 UniRef90_I4VI23 UniRef90- Q0A9R1 UniRef90_UPI00037E917F UniRef90_-14JFM9 UniRef90-H6VUF9 UniRef90_O68180 UniRef90_B8GM53 UniRef90_B9YZ03 UniRef90-A3N9S4 UniRef90_UPI00047E5704 UniRef90_UPI00028A031E UniRef90_A0A031GVW4 UniRef90-N6XQ28 UniRef90_A0A023NZQ3 UniRef90_F6LI59 UniRef90_A7UD21 UniRef90_Q9X4Y9 UniRef90_Q3MT78 UniRef90_Q845E5 UniRef90_E1VFI9 UniRef90-Q845F2 UniRef90-Q845E7 UniRef90_F8D541
UniRef90_G2MJ29 UniRef90_Q9X512 UniRef90_A7UD32 UniRef90_Q2PPC0 UniRef90_B0B1H2 UniRef90_Q845E6 UniRef90_W0JVM8 UniRef90_Q9X500 UniRef90-H6VUG3 UniRef90_B9LN21
UniRef90 B6VAQ8 UniRef90 B0B1S0 UniRef90_B0B1N9 UniRef90_M0A1L5 UniRef90_Q3MTB8 UniRef90-A7UMG5 UniRef90_W6K8L8 UniRef90_F6DRN2 UniRef90_C1JKX8 UniRef90_Q845E0 UniRef90_C1JKX7 UniRef90-A7H6W6 UniRef90_A4TW96 UniRef90_B0B1J8 UniRef90_C9UAK0 UniRef90_B1ZWX6 UniRef90-B0B1N6
UniRef90-K6DF61 UniRef90_A7UD22 UniRef90-UPI000347454D UniRef90-W2UJU8 UniRef90_Q2W2N5 UniRef90_Q845E1 UniRef90_I6ZZA8
UniRef90_C1JKL3
UniRef90_C1JK91
UniRef90_N6ZXN7 UniRef90_UPIO00478D6B4 UniRef90_D1C1Q5 UniRef90_Q845E3 UniRef90_F9U858
UniRef90 A4GZM7 UniRef90_H6VUG6 UniRef90_UPIO0037A3EA9
UniRef90_Q2PPC2


## QUERY

UniRef90_K2LWP6 UniRef90-B0UIC2 UniRef90_G8PG62 UniRef90-A3VCT9 UniRef90-B6IY80 UniRef90_K2IK02 UniRef90_K9GNS5 UniRef90-G9ZBA4 UniRef90-UPIO0036B5A35 UniRef90-UPI00036F7F9C UniRef90_D1FDA0 UniRef90-A8LM18 UniRef90 ${ }^{-}$A4BIK2 UniRef90-Z5XMT1 UniRef90-B8R8M7 UniRef90-B4RNE2 UniRef90-Q2SGT6 UniRef90-S6GG05 UniRef90-14VI23 UniRef90-Q0A9R1 UniRef90_UPI00037E917F UniRef90_I4JFM9 UniRef90-H6VUF9 UniRef90-O68180 UniRef90-B8GM53 UniRef90-B9YZ03 UniRef90-A3N9S UniRef90_UPI00047E5704 UniRef90_UPI00028A031E UniRef90-A0A031GVW4 UniRef90-N6XQ28 UniRef90-A0A023NZQ3 UniRef90_F6LI59 UniRef90-A7UD21 UniRef90-Q9X4Y9
UniRef90-Q3MT78 UniRef90_Q3MT78 UniRef90_E1VFI9 UniRef90_Q845F2 UniRef90_Q845E7 UniRef90-F8D541 UniRef90_G2MJ29
UniRef90 Q9X512 UniRef90_Q9X512
UniRef90_A7UD32 UniRef90_Q2PPC0 UniRef90-B0B1H2 UniRef90_Q845E6 UniRef90_E7SOT3 UniRef90-W0JVM8
UniRef90 Q9X500 UniRef90-H6VUG3 UniRef90-B9LN21
UniRef90-B6VAQ8 UniRef90-B0B1S0 UniRef90-B0B1N9 UniRef90_MOA1L5
UniRef90-Q3MTB8 UniRef90-A7UMG3 UniRef90-A7UMG5 UniRef90 W6K8L8
UniRef90
F6DRN2 UniRef90_C1JKX8 UniRef90_Q845E0 UniRef90_C1JKX7 UniRef90_C1JK99 UniRef90_A7H6W6 UniRef90-A4TW96
UniRef90 B0B1J8 UniRef90_C9UAK0 UniRef90-B1ZWX6 UniRef90-B0B1N6 UniRef90_K6DF61 UniRef90-A7UD22 UniRef90_UPIO00347454D UniRef9-W2UJU8 UniRef90-Q845E1 UniRef90_I6ZZA8 UniRef90_C1JKL3 UniRef90_C1JK91 UniRef90-N6ZXN7 UniRef90_UPI000478D6B4 UniRef90-D1C1Q5 UniRef90-Q845E3 UniRef90_F9U858
UniRef90 A4GZM7 UniRef90-H6VUGG6 UniRef90_UPI00037A3EA9
UniRef90_Q2PPC2

250
260
270 270

P 1 AN NPHGC
KATKAGQYEETNGVKVVDGRKEAKSDFTRYDPTANNPHGC
 EAVRKGEAKVVGGVPMVDGRH EAVKKGDCKVINGVPVVDGRH E GVKNGDYQMLNGVPVLDGRKGSK A GVAAGDYTEYNGVKVLDGRKAGK YTQYI PVVNSPHGC EAVRSGKAQVINGVPVVDGRH GSPYTRYVPIPNSPHGV A GI A A GDYIELNGVKVI DGRKGQNKKYTRYIPVPNSPHGI QAVKDGKATMMNGVPVLDGTK GSPYTAYI PI STSPHGL EGVKNGDFKE $\square$ NGVPVLDGTHGSK YTRYIPVPNSPHGC D GVKKGDFKEMQGVKVLDGRK GSRYTRYIPVPNSPHGC
 EAVANGDFKEMNGVPVI DGRHGSK K GI A E GDYIELNGVKVI DGRKGSNKKYTRY PI PNNPHGC KAI A A GQYKTYNGVKVVDGRKAAGTNLTRYIPVPKSPHGL A A K K GKFKTYNGVPVLDGRK GSTLTAYIPVPKSPHGL
EAVKAGKAEMDNGVPVVDGTKAAKSPFTDYI PIANSPHGC EGIKAGDFKEVNGVKMLDGRAEAKSKYTRYI PVPNSPHGC
 AAIKAGKFKTISKVPVLDGRH GSDLTMYI PVPKSPHGL EAVENGEYMTFNGVPVVDGRK GSQLTRYIPVPRNPHGL
 EAVKKGDFKEMNGVPVLDGRK GSAYTRYVPVSNNPHGM A GVKAGEFETIGGVLVLDGRKGSK YTRYIPVSNSPHGC A AVAAGDYTTIGDI PVVDGRDKGGSKYTLYVPIPRSPHGI QAVKDGKFKTVSKVPVVDGTKAPKTALTAYVPVPKNPHGV EAVKNGKFFKVGNVPVVDGTRAPKTALTCYVSVPKNPHGV A AVKAGKFKTFSKVPVVDGTKAPKTALTCYVPVSKNPHGV RAVAAGEYTTIGDVPVVDAREQARNAF ALVKAGKFTTISKVPVVDGRKAPKSADSLYVPVSKNPHGV QAVKDGKYTTYGTVPVVDATKAPKTALVCSVSVPKNPHGV A AVAAGKATTDSKVPVVDGRKEPKTALTCYVPIPKNPHGV EAVAA GDYQELNGVKVVDGRKGAPGKLTRYIPIPNSPHGL EAVASGDFKEYNGVPVIDGRH GSRYTTYIPVSNSPHGC E GVKAGDYTEHSGVPVLDGRKGSK YTAYVPVANSPHGC E AVAAK G E F K E D G G V P V L H G T K G G S P Y T R Y V P P I P N S P H G EAVKAGKFTTISKVPVVDGTRAPKTALTAYVSVAKNPHGV A AVKKGEFKEMGGVPVLDGRK GSALTRYIPVANSPHGI EAVKAGKAEMDNGVPVVDGTKAAKSPFTVYVPIANSPHGC EAVENGQYEEI GGVPVVDGTRDSDRPIVRYI DVAKSPHGV ELVDDAEGTEVDGIPVI DGTESSKDPIVRYIPTPKSPHCV A AVKAGKAQKI SGVPVLDGRK AGIAAGDFQELNGVKVIDGRKGR EAVAAGEYEEMNGVPVLNGQK GSD EAVKKGDFKQMGGVPVVDGRQGSK Y T R Y I PVPNSPHGC QAVKEGKFTTISKVPVVEGRKDPKTAVVRYVSVPKNPHGV KAVEAGEYEEVNGVPVVDGTKDSGSPIVRYI PTPKSPHCV A GVKAGDFKTYEDVPVLDGRKGSK
 EAVKAGKVEVMHGVPVVDGRH
EAVKKGDFKTVAGVPLI DGRQ
EAVRKGDHQTFGGVPVINGRQ A AVDAGEYETINGVPVVDGTEDSSSPYRYY KAIAAGAFEEVNGVKVLDGRKEANSQFTRYI PIANNPHGC EAVARGDFTEMGGVPVLDGRK GSPYTHYVPVANGPHGM EAVARGDFTEMNGVPVLDGRK G GSPYTRYI PVANGPHGM QAAKEGKYKEI GGAKVI DPREVPGSIYL A AVKRGDFKEIHGVPVVDGRK GSDYTRYVPISNSPHGC KAIKAGQYEEI NGVKVVDGRKEASSDFTRYIPIPKNPHGL AAVKGGKAQMINGVPVLDGRKKANNPFTRYVPVPNSPHGV EGVKSGDFKEYNGVPVLDGRK GSPYTRYVPVPNSPHGV KAAAEGKGDLIGGVKVLDPRKVPG LVYLMPCGKSPHGV ELFKAGKFKKVNGHAVI EMATAVKEGMLYLIP EPK SPHGV EAVKAGKAEMINGVPVVDGTKAEKSNFTAYVPDANSPHGC EAVANGDFKEMNGVPVI DGRHGSK YTRYIPVPNSPHGI A AVVEGKGTDMDGVPVI DPAKVPG
 QAVKDGKFEEVNGQKVIDPEKAPG $\operatorname{D}$ V V

 EYVEEGGKFKTVIKEVRVLDPAECPG A GVAA GDFQELNGVPVVDGRKGKDSE KYLAEGKAKKINSVYVLNPKDCPG GAIEAGDYQELKGAKVIDGRKGSK AAVEAGEFKTLSEVPVLDGRK E I AK DKNVK II N NHRV I PME VA I G S A
 KLAKDKNTKVI NGHRVVTIDAAVKAGALELLPEAKSPHGV EVARAGKVELI NGFPVITIKTAVEEGILFQVPEPKSPHGV A AVKAGDFITLGDVKVVDGRKEASSLFTRYIPDANNPHGC E LVKAGKVKKEKGMYFI PGEQA DAEGLLY LVVPEPKSPHGV E A V $V$ K K G D F K E M N G V E Y LA A Q GK FKE MK TVVKVL HPDDECPG

## QUERY

UniRef90_K2LWP6 UniRef90-BOUIC2 UniRef90_G8PG62 UniRef90-A3VCT9 UniRef90-B6IY80 UniRef90_K2IK02 UniRef90-K9GNS5 UniRef90_G9ZBA4
UniRef90 JOUJX9 UniRef90_UPI00036B5A35 UniRef90-UPI00036F7F9C

## UniRef90-D1FDA0

UniRef90-A8LM18 UniRef90-A4BIK2 UniRef90-Z5XMT1 UniRef90-B8R8M7 UniRef90_B4RNE2 UniRef90_Q2SGT6
UniRef90_S6GG05 UniRef90 ${ }^{-14 V I 23}$ UniRef90-Q0A9R1 UniRef90_UPI00037E917F UniRef90-I4JFM9 UniRef90-H6VUF9 UniRef90-O68180 UniRef90-B8GM53 UniRef90_B9YZ03 UniRef90_A3N9S UniRef90_UPI00047E5704 UniRef90_UPI00028A031E UniRef90-A0A031GVW4 UniRef90-N6XQ28 UniRef90-A0A023NZQ3 UniRef90-F6LI59 UniRef90-A7UD21 UniRef90_Q9X4Y9 UniRef90-Q3MT78 UniRef90_Q845E5 UniRef90-E1VFI9
UniRef90 Q845F2 UniRef90-Q845E7 UniRef90-F8D541 UniRef90-G2MJ29 UniRef90_Q9X512 UniRef90-A7UD32 UniRef90_Q2PPC0
UniRef90_B0B1H2 UniRef90-Q845E6 UniRef90_E7SOT3 UniRef90-W0JVM8 UniRef90-Q9X500 UniRef90_H6VUG3 UniRef90_B9LN21
UniRef90_B6VAQ8 UniRef90-B0B1S0 UniRef90-B0B1N9 UniRef90-M0A1L5 UniRef90-Q3MTB8 UniRef90-A7UMG5 UniRef90-W6K8L8 UniRef90-F6DRN2 UniRef90_C1JKX8 UniRef90_Q845E0 UniRef90_C1JKX7 UniRef90-A7H6W6 UniRef90-A4TW96 UniRef90-B0B1J8 UniRef90-B1ZWX6 UniRef90-B0B1N6 UniRef90_K6DF61 UniRef90_A7UD22 UniRef90_UPIO00347454D UniRef90-W2UJU8 UniRef90-Q845E1 UniRef90-I6ZZA8 UniRef90_C1JKL3 UniRef90_C1JK91 UniRef90-N6ZXN7 UniRef90_UPI000478D6B4 UniRef90_D1C1Q5 UniRef90_Q845E3 UniRef90-F9U858
UniRef90 A4GZM7 UniRef90-H6VUG6 UniRef90_UPIO0037A3EA9
UniRef90_Q2PPC2

NMAPDRKH $\operatorname{LIC}^{290}$ V GKL
300
310
320 NTAPDGKHVVINGKL
NTAPD GIVHVVANGKL NVAPDGVHVVFNGKL NTCPDKKHLMINGKL NMAPDKVHLCINGKL NMAPDGI HLLTANGKL NTAPDGKHVVI NGKL NAAPDGワHIVLNGKL NASPDGIHVVENGKL NAAPDGKHLVINGKL

 NTAPDGEYFVANGKL NTSPNGDYFVANGKL NATPDGKYVVDNGKL NASPDGKYIMMNGKL NTSPDGKYFMANGKL NTAPGGKYA DANGKL NGSTDGKYFlANGKL NTSTDGKYFIAAGKL NMTPDGKYFVAAGK NTAPDGIHVVIAGKL NATPDKKYVVVSGKL NASPDAKYFICAGKL NASPDGKYYACSGKL NTAPEGKYCVVSGKL NASPDGKYFICAGKL NASPDGKYFVCSGKL NTAPDKRYVCVNGKL NMAPDKKHLCINGKL NTAPDGKHIVI NGKL
NSAPD Gl NMAPDRKHLCVAGKL NASPDGKYFI CAGKL NTAPDGDHVVVNGKL SVTPDNKYAIIASGKL EVTPDGKYGMVAGKL NTAPDGKHFMVAGKL NTAPDGKHIVINGKL N A APDGTHMVFNGKL NTAPDGIHVVFAGKL EVGPNGKYAFIAGKL NTAPDGHHIVINGKL NTSPDGKYFI ANGKL SVTPDGNYAI ASGKL
 NTAPDGl HFVAAGKL SVTPDGQYAI ASGKL NMAPDKVHLCIGGKL FTAPDGIHVMASGKL DVSPDGKFIVAGKL NTAPDGRHVVINGKL NTSPDGKYFI ANGKL NSAPDGNYIMVNGKL NTAPDGKHIVINGKL DVSPDGKYII GS GKL DVTPDGKLLTVSGKL NADPSGKYVVINGKL DVDPSGRWI AAGGKL NAAPDGKHLVVAGKL DVTPDGKYFVGNGKL NTSPDGKYFVANGKL DVDPTGEYIVGNGKL
 NTAPDGKHVMVAGKL DVDPTGEYIVAGGKL NAAPDKQHIMINGKL NTSPDGKYFIANGKL
 $D V S P D G A Y V V G G K L$ NTSPDGKYFI ANGKL
 NASPDGKYFI CAGKL
DVDPTGEYIVGNGKL
PTVTVLDVTKFDALTY Y D NAEPRSA

 VSVI DVTKLDAVFDGADPRSA PTVTVVDVTKLPDVFAG ADPRSA
 PTVSVMDVTKLDALFENGADPRSA




 VVVESKLDDVFAGKAAPESA
 F Q L D K F D A L D S RLADDLEADKLEPRDA


 ATVI E LDEKVLA WF DGK D D DKK K TATLI EHDLVLKWFDGQKEPRDT |  | $T$ | $C T$ |
| :---: | :---: | :---: |



 PTVTVMDVTKKDALLY Y N A A EPRSA PTATVIQLDKVLAWFDGSPNDDDA PTATVLQLVKVLAWFDGSPNDDDA VTVIDVRKDDLL PTCSVI DI EQL a AEVDDPNDA PTVSIIDIEKL TVTVVVDV: ESASDPADT TVSVIDVSKLDALEDDSLDPRSV TVTVIDVRKLDDLFDDK円KPRDV
 VTMLDEALD
 D D F KDDPKA SSSDPDDV SCTVIDI DATADKYDPREV




 $T \vee V I D$




 A F N F E K V LT A I K N K D K Y E S I

 I I E WD K L D D L F G G K I K E N D A A Y D F E K F K Q A V E N K D F Y N S V


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


 TAPDGRHVVINGK

## QUERY

UniRef90_K2LWP6 UniReforo-BOUIC2 UniRef90-G8PG62 UniRef90-A3VCT9 UniRef90-B6IY80 UniRef90-K21K02 UniRef90-K9GNS5 UniRef90-G9ZBA4 UniRef90-JOUJX9 UniRef90_UPIO0036B5A35 UniRef90-UPIO0036F7F90 UniRef90-D1FDA0 UniRef90-A8LM18 UniRef90 ${ }^{-}$A4BIK2 UniRef90-Z5XMT1 UniRef90-B8R8M7 UniRet90 B4RNE2 UniRef90-Q2SGT6
UniRef90-S6GG05 UniRef90 ${ }^{-14 V I 23}$ UniRef90-Q0A9R1 UniRef90_UPIo0037E917F UniR Ref90-l4JFM9 UniRef90-H6VUF9 UniRef90-O68180 UniRef90-B8GM53 UniRef90-b9YZO3 UniRet90_A3N9S UniRef90-UPIOOO47E5704 UniRef90_UPIOOO28A031E UniRef90-AOA031GVW4 UniRef90-N6XQ28 UniRef90-A0AO23NZQ3 UniRef90-F6L159 UniRef90_A7UD21 UniRef90-O9X4Y9
UniRet90 O3MT78 UniRef90-Q3MT78
UniRef90_O845E5 UniRef90-E1VF19
UniRef90 O845F2 UniRef90-Q845F2
UniRef90- 8845 E 7 UniRef90-F8D541 UniRef90-G2MJ29 UniRef90-99X512 UniRef90-Q2PPC0 UniRef90-BOB1H2 UniRef90_Q845E6 UniRet90-E7SOT3 UniRef90-Q9×500 UniRef90-H6VUG3 UniRef90-B9LN21
UniRef90-B6VAQ8 UniRef90-BOB1SO UniRef90-B0B1N9 UniRef90 MOA1L5
UniRef90 Q3MTB UniRef90-A7UMG3 UniRef90_A7UMG5 UniRef90_W6K8L8
UniRef90 F6DRN2 UniRef90-C1JKX8 UniRef90_Q845E0
UniRef90 C1JKX7 UniRet90_C1JK99 UniRef90 A7H6W6 UniRef90-A4TW96
UniRef90 BoB1J8 UniRef90-C9UAK0 UniRef90-B1ZWX6 UniRef90-BOB1N6 UniRef90-A7UD22 UniRef90 UPIOOO347454D UniRef90 ${ }^{-}$W2UJU8
UniRef90 O2W2N5 UniRef90_Q845E1 UniRef90_16ZZA8 UniRef90-C1JKL3 UniRef90_N6ZXN7 UniRef90-UP1000478D6B4 UniRef90-D1C1Q5 UniRef90 Q845E3 UniRef90-F9U858
UniRef90 A4GZM7 UniRef90-H6VUG6 UniRef90_UPIOOO37AЗEA9
UniRef90_Q2PPC2
.

330
340
350
360
VVAEPELGLGA
LH T A F D GRGNAY T S $\quad$ GF VVAEPEVGLGPLHTAFDGQGNAYTTLFDSQMCKWNDAA VVAEPELGLGPLHTAYDGKGNAFTTLFDSQVVKWNIEKA VVAEPQVGLGPLHTAFDGRGNAYTTVFLDSQLVKWDLEKA VVAEPELGLPLHTAFDNRGFAYTTLFLDSQVKWDIDKA VVAEPQLGLGPLHTAYDGKGNAFTTLFDSQMVKWNIEDA
 1

V

- V


## I

V
V
V
V $\ll-\ll$IV
I
VI
V
IVP

AFDGKGNAYTTLF
K A
$\qquad$V
V
I
I
V

$V$
$\checkmark \vee A N V E L G L G P$ VVGEPELGLGPL
$V V A E P Q L G L G P$
$V A G E E L G$
$G$VAAEPEGGGPL

$V V A E P E V G L G P$
HT
$\checkmark$ VAEPE $V$ GL GPHTG

HTAYDGKGNAYTSLF
 D S Q VVKK WNMAK A
 TAF C D GKGRA Y T
 TFDGRGFAYTTLF:DSQVAKWN: AEA AFDNRGNGYTTLF



\section*{| $D$ | $S$ | $Q$ | $C$ | $K$ | $W$ | $I$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $D$ | $S$ | $Q$ | $A$ | $K$ | $A$ |  |
| $A$ | $W$ |  |  |  |  |  |}



 GFDGRGNAYTTLF保
 AFDGRGNAYTTLFLDSQAVKWNVDAA HTGFDGRGNAYTTLFECDKKVKWSVDAA
 HTAFDGKGNCYTTLFLDSQMVKWNMDLLA HOAFDGRGNAYTSLF HTAYDGKGNSFTSLF HTAFDGRGNAYTTVFIDSQLVKWNIDKA HTAYDGRGNAYTSLEFIDSQVVKWDIEAA HTAFDKKGNAYTTLFLDSQVVKWS:CKA HTAFDGQGNAFTTLFEDSQVVKWN EAA HTAFDNKGNAYTTVFIDSQMVKWNI DKA HTAFDGRGNAYTTVFIDSQLVKNIDKA HTTFDGRGNAYTTLFLDSQVCKWNVEKA HTTFDGNGHAYTSLFADSQAVKWDIEAA HTAFDNKGNWYTTLFLDSQVAKWSMDLA HTAYDGRGHAYTTEFIDSQVAKWDYEAA HTAYDGRGNGYTTLFLDSQLVKWNDDKA HTAFDNRGNAYTTLFLDSQVVKWNIEKA HTAYDGRGHAYTTLFVDSEVVKWDIDAA HTAFDGRGNAYTTLFDSQI CKWNI EDA HCAADDRGNIYTTMFYDSQVVKWNLADA HTQFDNEGNAYTTLF A HTTFDGRGNAYTTLFESGOVAWNMAKA
 HTQF GP D G WA Y T S L F V D S A L A K WK L G




 HTEFDGKGNAYSSFFI SSEEVKWNVE


 H T T F D G R G N A Y T T L F I D S Q I A K WN I E D A
 H TQFDDKGYAY T S L F I D S A V ARWT L G $\begin{array}{llll} & T & \text { T }\end{array}$

 HTEFD GK GNAYTTFFI S S EVVVKWK L G



## VVLS K F S K D R F L N VGP LK P E N D QL ID

VGLNKLSHGRH【SVGPSQPESSQLVD DSEDKMKLVYDAFT
$V A L N K L A D D R F N P V G P L H P Q N H Q L I D A S N D K M Q L L Y D M P L$ |VALCKFSKDRFDNVGPLKPE
I SLINKFSKDRYLNVGPLKPENDQLIDDSGDKMVIVHDGPS VAGNKLSKGRHLSTGPSQPESSQLIDIJGEKMAMLYETFT VAGNKLSKGRHLSTGPSQPE
$V$ AGLCKFSKDRFLNVGPLKPE
 VSLCKFSKDRFLPNRYGAPENDQLID
IVALNKDTKDRYLPTGPELTQSAQLYDDS GDKDELLLDFPT




## VVLSKFSKDRFLPVGPLRPENDQLIDD

$V$ ALNKLSDDRFNPVGPLHPQNHQLI DI SNDKMQLLYDMPL

 VVLSKFSKDRF LPTGPL HPENDQLI D


| QUERY |  |
| :---: | :---: |
| UniRef90 K2LWP6 | F AEPHDCl 1 |
| UniRef90-B0UIC2 | FAEPHDATIVHRSKINP |
| UniRef90-G1XYN6 | FAEPHDAMIVHRSKVNP |
| UniRef90-G8PG62 | FAEPHDVIIVHNSVVNP |
| UniRef90_A3VCT9 | FAEPHDCILVRADKVNPV |
| UniRef90-B6IY80 | FAEPHDTLIVHHSKVNP |
| UniRef90-K2IK02 | FAEPHDVILVRRDIVNPV |
| UniRef90-K9GNS5 | FAEPHDGI I VRADIVNP |
| UniRef90_G9ZBA4 | F AEPHDMI I VARNKVNP |
| UniRef90-JOUJX9 | FAEPHDMLLVAAGKVRPKR |
| UniRef90-UPI00036B5A35 | FAEPHDATIVHASKLNPVE |
| UniRef90_UPI00036F7F9C |  |
| UniRef90_D1FDA0 | FAEPHDATIVHRSKINPV |
| UniRef90_A8LM18 | FAEPHDS I V HPSKVNPV |
| UniRef90-A4BIK2 | FAEPHDCMIVHRSKMKPSK |
| UniRef90-Z5XMT1 | F AEPHDCUIVHRSKVKP |
| UniRef90-B8R8M7 | FAEPHDATI MKANMI NPVE |
| UniRef90_B4RNE2 | F AEPHDLCLVAASKLNP |
| UniRef90-Q2SGT6 | Y A P P D CiLVRRDQI R P L K |
| UniRef90-S6GG05 | YAEPHDCI MV HRSLVKTRK |
| UniRef90_14VI23 | FSEPHDAIIVPAKMLR |
| UniRef90_Q0A9R1 | FAEPHDCVVVRRDQI Q T K Q |
| UniRef90-UPI00037E917F | FAEPHDAVIVRRDQI Q T RQ |
| UniRef90_14JFM9 | FAEPHDCTMARRDQI RTKK |
| UniRef90-H6VUF9 | FAEPHDATIV HRSKINP |
| UniRef90-O68180 | FAEPHDCIIVRADVVNP |
| UniRef90_B8GM53 | Y P EPHDSLMVRRDLI N |
| UniRef90_B9YZ03 | YSEPHDFI IVKRDKIKTRQ |
| UniRef90_A3N9S4 | YPEPHDSIVVRRDIIKTRQ |
| UniRef90_UPI00047E5704 | YSEPHDSI I I PRELIKTRQ |
| UniRef90_UPI00028A031E | YAEPHDALMI RADQLNPSQ |
| UniRef90_A0A031GVW4 | YPEPHDGI V VRRDVVKTRQ |
| UniRet90_N6XQ28 | RPEPHDFII FKRE |
| UniRef90_A0A023NZQ3 | YPEPHDA! I VRAD! I K T R Q |
| UniRef90_F6L159 |  |
| UniRef90_A7UD21 |  |
| UniRef90_Q9X4Y9 |  |
| UniRef90-Q3MT78 |  |
| UniRef90-Q845E5 |  |
| UniRef90_E1VFI9 | R P E P H D F V I M R R I I S T R Q |
| UniRef90_Q845F2 |  |
| UniRef90-Q845E7 |  |
| UniRef90-F8D541 |  |
| UniRef90_G2MJ29 | Y P E P D A VFAQKDKLDP |
| UniRef90-Q9X512 |  |
| UniRef90_A7UD32 |  |
| UniRef90-Q2PPC0 |  |
| UniRef90-B0B1H2 |  |
| UniRef90_Q845E6 |  |
| UniRef90-E7S0T3 | R P EPHDFVIF PRDWLHPKQ |
| UniRef90-W0JVM8 | Y PEPHDCVFAHRDKLDP |
| UniRef90_Q9X500 |  |
| UniRef90-H6VUG3 | FAEPHDC L ARRDQIK T K K |
| UniRef90-B9LN21 | YPEPHDASIVHKDKI EPAK |
| UniRef90_B6VAQ8 | Y A E P H TLIVHRSKLNP |
| UniRef90-B0B1S0 |  |
| UniRef90-B0B1N9 |  |
| UniRef90-M0A1L5 | Y P E P H A S $\square$ VRA D R LD P |
| UniRef90_Q3MTB8 |  |
| UniRef90-A7UMG3 |  |
| UniRef90_A7UMG5 |  |
| UniRef90_W6K8L8 | LG EP H Y AVA ${ }^{\text {L K A D K L }}$ |
| UniRef90-F6DRN2 |  |
| UniRef90_C1JKX8 |  |
| UniRef90-Q845E0 |  |
| UniRef90_C1JKX7 |  |
| UniRef90_C1JK99 |  |
| UniRef90_A7H6W6 | EPEPHYAQI I K A D KVVK P $\square$ E |
| UniRef90-A4TW96 |  |
| UniRef90_B0B1J8 |  |
| UniRef90_C9UAK0 | F AEPHDATIVHRSKINPV |
| UniRef90-B1ZWX6 | DPEPHFMQILKADVIKPIE |
| UniRef90_B0B1N6 |  |
| UniRef90_K6DF61 |  |
| UniRef90_A7UD22 |  |
| UniRef90_UPI000347454D | T G E P H Y A Q M P A E I L K P |
| UniRef90_W2UJU8 | I GEPHYAQGI SASKV |
| UniRef90-Q2W2N5 | LGEPHYAVSIAVEKLKT |
| UniRef90_Q845E1 |  |
| UniRef90-I6ZZA8 | $\square \mathrm{GEPH}$ Y A Q G $\square$ P A E $\square \mathrm{L}$ |
| UniRef90_C1JKL3 |  |
| UniRef90_C1JK91 |  |
| UniRef90_N6ZXN7 | L GEP H Y V V Gl Q A D K L K P |
| UniRef90_UPI000478D6B4 | L GEPHDVVSI HASKIKPKK |
| UniRef90-D1C1Q5 | IGEPHYAQII P V S L L Q P |
| UniRef90-Q845E3 |  |
| UniRef90-F9U858 | $\square G E P H Y A A A \square R A E K \square Q P$ |
| UniRef90_A4GZM7 |  |
| UniRef90-H6VUG6 | WPEPHDF I V K RELIK |
| UniRef90_UPI00037A3EA9 | $\square \mathrm{GEPH}$ Y Q Gl H A DLVK |
| UniRef90_Q2PPC2 |  |

UniRef90 UPI0003753FD1 UniRef90-D3DFM8 UniRef90-L8JTE8 UniRef90-A0A023BPB0 UniRef90_A4IP44 UniRef90-B9L330 UniRef90_L0F3H3 UniRef90 G8TDS3 UniRef90-UPI0003B4B6D6 UniRef90-D4H673 UniRef90_C1JKB9 UniRet90_WORSK3 UniRef90_DOMKI1
UniRef90 W0F1F7 UniRef90 C1JL33 UniRef90-C6GIQ8 UniRef90_A7UD18 UniRef90_J5Y4E1 UniRef90 R7BYP3 UniRef90-R9GNT4 UniRef90_UPI0003F4D22F UniRef90_C1JKG4 UniRef90 G8X685 UniRef90-EOURE5 UniRef90-C6W198 UniRef90 IOI0G7 UniRef90-WOTIW4 UniRef90-H8KU01 UniRef90-UPI0003B31B63 UniRef90 ${ }^{-14 C 1 E 2}$ UniRef90-Q845E2 UniRef90-H6VUG5 UniRef90 K6DQZ3 UniRef90-C0QQT4 UniRef90_G2PJ24 UniRef90_E4TR05 UniRef90 H2BY00 UniRef90_C1JKX9 UniRef90_K6D6L8 UniRef90 B9MSW6 UniRef90_C6GIN9 UniRef90-C1JL08 UniRef90-F0S502 UniRef90 D3S180 UniRef90-Q09VZ1 UniRef90_UPI00030ABC8C UniRef90 JORJQ0 UniRef90-UPIO00371225C UniRef90-D3K3M1 UniRef90-W4RMD9 UniRef90 UPI0003FA2349 UniRef90-D3K3L8 UniRef90-N1LCS8 UniRef90 F2KVB9 UniRef90_S8GZD2 UniRef90-C1A867 UniRef90-B6BML7 UniRef90 UPI00040F6477 UniRef90_Q0VJC9 UniRef90-C1JKR6 UniRef90-TOJPE3 UniRef90 UPI0003B32EAF UniRef90-JOV3X0 UniRef90_K1YFF4 UniRef90 Q0VJG UniRef90-UPI000382DC57 UniRef90-D3K3L2 UniRef90-BOSAZ0 UniRef90 UPI00035F2554 UniRef90_-Q3MT94 UniRef90_Q09VZ8 UniRef90 C6GIM2 UniRef90-B0B1H5 UniRef90_N1WM75 UniRef90_C6X281 UniRef90 D3K3K8 UniRef90-Q3MSY4 UniRef90-U5BQA5 UniRef90-A4K4V9 UniRef90 H2CHZ9 UniRef90-V6DRU8 UniRef90_C1JKG8 UniRef90 Q09W03 UniRef90_G7VIA2 UniRef90-Q3MTL0 UniRef90_C6GIR2 UniRef90-A3MXH7 UniRef90-A4K4U6 UniRef90-Q09W00 UniRef90_A4K4V4 UniRef90_A7UMG2 UniRef90-B9MSW7

SKVYVAPGQHDEYYAFMSGGFSGQVSVYGLPS GRLLKVIP $K T Y Q P T$ GTYDEY $D M F A S G G H S G Q V L V D G I P S M R L L K V I G$ $S K V Y V A P G K Y D E F Y N F V S G G F S G Q L S V Y G L P S G R L L R V I P$

SRVYVAPGEYDEYYAF LS GGFSGQLATYGLPSGRLLKVIP


K TYVAPGKYDEFYNFVSGGFSGQLSVYGLPSGRLFRVIP

 AK TYTP T G GRDE Y L AF S S G G Q S G Q V I V Y G V P S M R L L K Y i
 $K \boxtimes Y V P P$ G D L D E Y Y A F L S G G H S G QL Y V F GLLP S M R H I R T I P
$K$ VYVP F GEKDEYY LIFASGGHSGQLFVYGVPSMRHDRTVP KVYVPPGKHDEFYAFLSGGFSGQLSVYGLPSGRLIVVIP
 VYVAPGEHDEFYGFFS GGFSGQMSVYGLPSGRLLKVMP



SKVYVAPGQYDEFYGFVSGGFSGQLSVYGFPSGRLLKVLP K TYTPGGKYDEF $\square$ MF AS GGHSGQVLVDGVPSMRLYKVIA
$K V Y$ VAPGKHDE $\square Y M F A S G G F S G Q L A A Y G \square P S G R L L K V D P$ $K V Y V A P G K Y D E F Y N F V S G G F S G Q V S V Y G L P S G R L L K V M P$ $K V Y V T P G Q H D E F Y N \square V S G G F N G Q M S V Y G L P S G R M F K I I P$
$K \nabla Y \prod P Y G E L D E Y Y M L S S G G H S G Q L F V Y G L P S M R K \square R T V P$ AKAYVAPGKYDEYYNFVSGGFSGQMSVYGLPSGRLLRVIP

QVYVAPGHYDEYYDFVSGGFSGQVAVYGПPSGRLLKVIP
KVYVAPGSYDEFYDFVSGGFSGQVAVYGIPSGRLLKVIP


VYVAPGKYDEFYNFVSGGFS GQMSIYGLPSGRMLKVIP

KVYNPS GKLDEYYAFVSGGQSGQVLVYGПPSMR\|LKY円G KVYVPHGKKDEYYLFSSGGHSGQLFVYGVPSMRQIRIVP


SAVYVAPGKHDELYSF LS G GFNGQVSVYGLPS GRLLK $\square 1 P$
$S R V Y V A P G E K D E V Y A F D S G G F S G Q M S V Y G \prod P S A R \square F K \| P$ $K V Y V A P G E H D E Y Y A F F S G G Y S G N \square T V A G L P S G R M L K E \| P$
$K$ VYVAPGEHDEFYAFLSGGYSGNLTVYGLPSGRMFKEDP $K \vee Y V A P G K Y D E F Y N F V S G G F N G Q V N V Y G L P S G R L L K V L P$

SKVYVAPGQYDEFYN $\|$ VSGGFNGQ $\quad$ SVVGLPS GRVLK $\| \mathrm{V} P$
 K T F VP P GE $\square \mathrm{DEF} \square \mathrm{M} \square \mathrm{S}$ S G G H S GQVLVIA $\square \mathrm{PSMR} \mathrm{\square LK} \mathrm{\square IG}$ TY $\quad \square P G G K Y D E F Y M F S S G G H S G Q V A V Y G \square P S L K \square Y R \square 1 A$


UniRef90_UPI0003753FD1 UniRef90-D3DFM8 UniRef90-L8JTE8 UniRef90 ${ }^{-}$A4IP44 UniRef90-B9L330 UniRef90-LOF3H3 UniRef90 G8TDS3 UniRef90-UPIO003B4B6D6 UniRef90-D4H673 UniRef90-C1JKB9 UniRet90 Worsk3 UniRef90-D0MK11
UniRef90 WOF1F7
UniRef90 ${ }^{-}$C1JL33
UniRef90-C6GIO8
UniRef90-A7UD18
UniRef90_JJY4E1
UniRef90_R7BYP3
UniRet90_R9GNT4
UniRee90-UPI0003F4D22F
UniRef90-C1JKG4
UniRef90-G8X685
UniRef90-EOURE5
UniRef90_C6W19
UniRef90-WOTIW4
UniRef90-H8KU01 UniRef90-UPI0003B31B63
UniRef90_I4C1E2
UniRef90-Q845E2
UniRef90 H6VUG5
UniRef90-K6DQZ3
UniRef90-COQQT4
UniRef90-G2PJ24
UniRef90- H2BY00
UniRef90-C1JKX9
UniRef90-K6D6L8
UniRef90 C6GIN9
UniRef90-C1JL08
UniRef90-FOS502
UniRef90_D3S180
UniRef90_Q09VZ1
UniRef90 UPIooo3
UniRef90-JoRJQ0
UniRef90-UPI000371225C
UniRef90-D3K3M1
UniRef90-W4RMD9
UniRet90 UPI0003FA2349 UniRef90-D3K3L8
UniRef90-N1LCS8
UniRet90-F2KVB9
UniRef90-C1A867
UniRef90-B6BML7
UniRef90 UPIO0040F6477 UniRef90-Q0VJC9
UniRef90-C1JKR6
UniRef90 UPIOO03BB32EAF
UniRef90-JoV3X0
UniRef90-K1YFF4
UniRe90-QOVJG7
UniRef90-D3K3L2 UniRef90_BoSAZO UniRef90_UPIO0035F2554 UniRef90_-Q3MT94 UniRef90-Q09VZ8 UniRef90-C6GIM2 UniRef90_BoB1H5 UniRef90-N1WM75
UniRef90 UniRef90-C6X281 Uniref90_D3K3K8
UniRef9O-Q3MSY4 UniRef90-U5BQA5 UniRef90-A4K4V9 UniRef90-H2CHZ9 UniRef90-V6DRU8
UniRef90 C1JKG8 UniRef90-Q09W03 UniRef90_G7VIA2 UniR Refo-Q3MTLO UniRef90-A3MXH7 UniRet90-A4K4U6 UniRef90_Qo9W00 UniRet90 A4K4V4 UniRef90_B9MSW7 BPBO
$\qquad$
曻
2
$\qquad$ 40 F647
$\qquad$

w DSHHPELSQTDGVPDGRWL WD DAHHPELSQTDGVPDGRWIF

TWGDLHHPAFSETNGEYDGKYMFATDVANSRAAVMDLKTF DWGDTHHPALSETNGEYDGKFLFANDKANGRAAVMDLKTF SWGDVHHPALSETGGDYDGRWLFVNDNANSRAARINLDSF

TWADTHHPAISETNGDYDGQFLF
TWGDSHPAT GDKANARIAVI
 TWGDVHHPALSETNGDYDGQFLFVNEKANSRVAVIDDTF WD DLHHVEMSMTDGTADGKWVFVNGNNTPRLARVDLKRF SNGDLHHPHMSFTDGTYDGRYLFMNDKANTRVARVRCDVM FNGDAHHPHVSYTDGTYDGRYLWHODKANTRLARA|RCDVM WD DTHHPDLSQTNGEVDGRWIFINANNTPRVARISLKTF TWGDSHHPAFTERNGEYTGDYLFIINDKANPRLAVIDLKSF WD DQHHDDLSQTNGERDGRWLFANANNTPRVARIVDKMF DNGDLHHPHMSFTDGTYGGRYLFMNDKANTRVARVRCDVM WD DLHHTELSQTNGEVDGRWVFGNANNTPRIARIDLKTF NWGDTHHPAISETNGVYDGKWLADNDKANPRIALLDNDF WD DLHHVQLSKTNGENDGRWVFVNGNNTPRLARIDGKTF VYGDTHHPAFSETKGDYNGKYLFINDKANPRIANVIDLKDF WD DAHHPQLSKTDGADDGRWLFIVGNNTPRIARIVNATF TWGDTHHPGLSETKGEYDGRWLFINDNAHGRVARIDCLRDF LNGDCHHPHISYTDGKYDGKYLFANDKANTRVARIRRDDM TWGDFHHPAFSETKGEYDGKYMFANDKINNRLARIRGDYM WGDTHHPELSQTNGVPDGRWMFINENNTPRVARIDLLTF DNGDLHHPHMLFTEGKYDGRYLFMNDKANTRVARVRCDVM TWGDLHHPALSETDGDYDGKYLFATDVANNRAAVLDLKTF
 GNGDLHHVHMSFTEGKYDGRFLFMNDKANTRVARVRCDVM YD DLHHVQTSQTNGEMDGRWVFVNGNNTPRVARLDLKTF SWGDTHHPELSRTNAEFDGEWLFI NDKANGRAAVISLKDF


```
wD
``` WD WD
 DLHHUSLSQTKGEHDGR

RYLFMNDKANTRARV WD DLHHTEMSQTNGETDGKKVFANDVANNRIAAVDLSTF TVADTHHVHASYKDGTYDGKYAWVNDKANTRVARIRCDVM WD DSHHTQLSETDAMYDGRWLFINANNTPRTARMDLKSF WD DSHHMQLSLDAMYDGKWAFINANNTPRVARIDLKTF WD DLHHTALSQTNGEDDGRWLFVNANNTPRVARVDLSTF

\section*{} WD DQHHLLELSQTNGEVDGRWLFANANNTPRIARVVDLKRF LNGDTHHPHMSFTDGAYDGRYLEVNDKANTRVARVRCDIM TWGDFHHPAVSETAGDYDGQFLFANDVANNRIAAVDGSGF WD DLHHPKLSRSDGMADGKYLYVNGNNTPRVAKVVDLTV LNGDSHHPHISMTDGKYDGKYLFINDKANSRVARIRLDUM WD DSHHVEASMTDGKQDGRWMFMNDKANTRVARVRCDVM WGDAHHPDISQTNGELDGRWIFINENNTPRIARISLETF
 YHFANDKANTRVCRIRCDIMM QNGDCHHPHLSMTDGKYDGKYLFTNDKANSRIARIRLDUM WGDSHHPDUSTNGKDDGWVFINENNTPRIARISEETF WD DQHHLSLSQTKAEVDGRWLFANANNTPRVARI पNGDLHHPHLSFTDGTYDGRYLFANDKANTRVCRI WD DLHH■A乌STTNAEHDGRWAFANANNTPRIAK
WD DSHHLQASQTKGEQDGRWLFTNGNNTPRLAR SWGDTHHPRDSQTDGDYDGRFAYVNDKANGRMARI LVGDAHHPHMSMTDGHYDGKYVFINDKGNSRVARI FGGDTHHPDFDRRDAKYVGEWAFIGDKLGGQAAAT SCDVM LNGDLHHPHPSFTEGTYDGRYLFANDKANTR RCRIRLDVM SWGDTHHPEFDRQNAEYVGRWLFDGDKVNGRAAAISLLDF antrivarv SNTRVCRi



 K \(D{ }^{\circ} \mathrm{M}\)
D \begin{tabular}{lll}
\hline\(V\) & \(M\) \\
\hline\(T\) & \(F\) \\
\(T\) & \(F\)
\end{tabular} \(\begin{array}{ll}\text { T } & F \\ T & F \\ T & F\end{array}\)

\footnotetext{
\({ }^{\text {푼 }}\)
}
PE TF S

M

\(R Y L \frac{1}{1} \mathrm{~V}\)
D


UniRef90_UPI0003753FD1 UniRef90-D3DFM8 UniRef90-L8JTE8
UniRef90- A0A023BPB UniRef90-A4IP44 UniRef90-B9L330 UniRef90-L0F3H3 UniRef90 G8TDS3 UniRef90_UPI0003B4B6D6 UniRef90-D4H673 UniRef90_C1JKB9 UniRef90_W0RSK3 UniRef90_DOMKI1
UniRef90_W0F1F7 UniRef90_C1JL33 UniRef90_C6GIQ8 UniRef90-A7UD18 UniRef90-R7BYP3 UniRef90-R9GNT4 UniRef90_UPIO003F4D22F UniRef90_C1JKG4 UniRef90_G8X685 UniRef90-EOURE5
UniRef90 C6W198 UniRef90_I010G7 UniRef90-WOTIW4 UniRef90-H8KU01 UniRef90_UPI0003B31B63 UniRef90-I4C1E2 UniRef90-Q845E2
UniRef90-H6VUG5 UniRef90-K6DQZ3 UniRef90-COQQT4 UniRef90_G2PJ24
UniRef90 E4TR05 UniRef90-H2BY00 UniRef90_C1JKX9
UniRef90 K6D6L8 UniRef90-K6D6L8
UniRef90 B9MSW6 UniRef90_C6GIN9
UniRef90_C1JL08 UniRef90-FOS502 UniRef90-D3S180 UniRef90_Q09VZ1 UniRef90_UPI00030ABC8C UniRef90_JORJQ0 UniRef90_UPIO00371225C UniRef90-D3K3M1 UniRef90-W4RMD9 UniRef90_UPIO003FA2349 UniRef90_D3K3L8
UniRef90_N1LCS8 UniRef90-F2KVB9 UniRef90_S8GZD2 UniRef90_C1A867
UniRef90 B6BML7 UniRef90_UPIO0040F6477 UniRef90_Q0VJC9 UniRef90-C1JKR6 UniRef90_UPI0003B32EAF UniRef90-JOV3X0 UniRef90-K1YFF4 UniRef90_QPIOOO382DC57 UniRef90-D3K3L2 UniRef90-BOSAZO UniRef90_UPIO0035F2554 UniRef90_Q3MT94
UniRef90-Q09VZ8 UniRef90_C6GIM2 UniRef90-B0B1H5 UniRef90 N1WM75 UniRef90-C6X281
UniRef90-D3K3K8 UniRef90-Q3MSY4 UniRef90_U5BQA5 UniRef90-A4K4V9 UniRef90-H2CHZ9
UniRef90-V6DRU8 UniRef90-C1JKG8 UniRef90_Q09W03 UniRef90_G7VIA2
UniRef90_Q3MTL0 UniRef90-C6GIR2 UniRef90-A3MXH7 UniRef90_A4K4U6
UniRef90 Q09W00 UniRef90-A4K4V4 UniRef90_A7UMG2

K

\section*{}

路

130


140
150
160
G|V|P/V|P


 FSVPLGH
YSVPLGG
FAGADG
FSVPTDN F SVPTDN
YAVPQGG \begin{tabular}{l}
\(Y A V P Q G G\) \\
\(Y A A P A D Q\) \\
\(H R V P I P N\) \\
\hline
\end{tabular}

 KCDKITEXPNASDMHGLRPQKYPRTGYVFSNGEHRVPIPN KTDAMVTVPNVQAIHGLRLQKAPAPGYVFANGEYMVPQPN ETVQUVTNPITKSEHGGAFVTTPNSEYVIEASQYAAPLDD
 KCDKMLEXPNAHDIUGGRPQKYPRTGYVFANGEHEAPLVN ETKQVVVNPVFKSDHGGAFFTPNSEYVLEASQYAAPFDN ETKQI VKDPLLISAHGSTFVT PNTEYVVQASQYNTPLGW ETKQLVVNPLFRSEHGGAFVTPNTEYVMEATQYAHPYKG KTKQLLPP PSMGNHGSSFVT PNTTYVLVATRFSVPLPK KTKQIFPIPNLAGNHASVYLTW NTEYLFGATRFSIPIPK
 ETDRDTQPNVQGFHGIFPDKRDHTTRVFCGAEFHMPDPN
 ETVEVLEIPDVAGLH CAPFITENSEYLVSGTRFSVVPDPQ KCDKMIE EPNAKADHGDRPQKWPRTGYVFANGEDEVPMVN
 KCDKVVVPNAADHHGMRPQKFPRTGYVFANGEHRVPMPN



RT

\section*{}

\section*{■ ロ}

H

\section*{+}


\section*{K}

KVDKVITVPNAADDHGLR
KTET:II E I P N S G GNH S S S
ETEEEI I E I

\section*{}
UniRef90_UPIO003753FD1 UniRef90_D3DFM8
UniRef90 L8JTE8 UniRef90_L8JTE8
UniRef90_A0A023BPB0 UniRef90_A4IP44 UniRef90_B9L330 UniRef90_LOF3H3 UniRef90 G8TDS3 UniRef90_UPI0003B4B6D6 UniRef90_D4H673 UniRef90_C1JKB9 UniRef90-W0RSK3 UniRef90-DOMKI1
UniRef90 W0F1F7 UniRef90_C1JL33 UniRef90_C6GIQ8 UniRef90_A7UD18 UniRef90 \({ }^{-}\)R7BYP3 UniRef90_R9GNT4 UniRef90_UPIO003F4D22F UniRef90_C1JKG4 UniRef90_G8X685 UniRef90_E0URE5
UniRef90 C6W198 UniRef90-I0I0G7 UniRef90_WOTIW4 UniRef90_H8KU01 UniRef90_UPI0003B31B63 UniRef90_I4C1E2 UniRef90_Q845E2 UniRef90-H6VUG5 UniRef90-K6DQZ3 UniRef90_C0QQT4
UniRef90_G2PJ24 UniRef90_E4TR05 UniRef90_H2BY00 UniRef90_C1JKX9
UniRef90-K6D6L8 UniRef90-B9MSW6 UniRef90_C6GIN9 UniRef90_C1JL08
UniRef90-F0S502 UniRef90-D3S180 UniRef90_Q09VZ1 UniRef90_UPI00030ABC8C UniRef90_J0RJQ0 UniRef90_UPI000371225C UniRef90_D3K3M1 UniRef90_W4RMD9 UniRef90_UPI0003FA2349 UniRef90-D3K3L8 UniRef90_N1LCS8
UniRef90_F2KVB9
UniRef90_S8GZD2
UniRef90_C1A867
UniRef90 B6BML7 UniRef90-UPI00040F6477 UniRef90_Q0VJC9 UniRef90-C1JKR6 UniRef90_UPI0003B32EAF UniRef90-J0V3X0
UniRef90_K1YFF4
UniRef90_Q0VJG7 UniRef90_UPI000382DC57 UniRef90_D3K3L2 UniRef90_B0SAZ0 UniRef90_UPI00035F2554 UniRef90_Q3MT94
UniRef90_Q09VZ8 UniRef90_C6GIM2 UniRef90_B0B1H5 UniRef90-N1WM75
UniRef90-C6X281 UniRef90_D3K3K8 UniRef90_Q3MSY4 UniRef90_U5BQA5 UniRef90_A4K4V9 UniRef90_H2CHZ9
UniRef90_V6DRU8 UniRef90-C1JKG8 UniRef90_Q09W03 UniRef90_G7VIA2 UniRef90_Q3MTLO UniRef90-A3MXH7 UniRef90_A4K4U6 UniRef90_Q09W00 UniRef90_A4K4V4 UniRef90_B9MSW7
 K DVVPI S S Y E NFKGTMSTIKAGKMDVAFQILVPGDLAHCGK
 QYASLDEYEKYRGVMSAVKAQKDH DAYQVALPYDLSDAGK
 QDVPI A SYKNFK GSLLSFISVEKMDI AF QLDQVNFDLSHAGK A Y AP L SEYKKYRGTFWYFDRKAGRIDPEPPYWQDLCDAGK QWHP I E DYENFRGTMWKFDYDKGRI NTDPPYMQDLSSDAGK
 YAPL D QYKKYR GTFWKFDRDKMR AF Q LMPGDLGAAGK
 D GSVLD EPEKYHA I FTALD GDSMEVAWQVMVDGNLDNCDA D G KVLDDDPSKYVAIFTAVDGDTMKVAWQVIVDGNLDNCDA DGRDL NDPSKYFTMYSAIDDADTMEVKWQVLVDGNLDNTDA E DVAI K D Y K K F K GVIIS FVDDS GAMNL E FQULVMP G DLAA H S G K NYAP I EA YESYR GAVVTMWKF DMKK GR DNPPYMQDLLSDAGK
 D GKVLD K P E E Y VN IFT AI D GD TMEI A WQVIVS GNLIDNTDC S NGDVEFKKNFK GHISFVVKVGKMDLAFQUVVNFDLSHAGK NY H P I E E Y K T Y R G GIT F WK FN D K


 GA A DVK DYKKYK GVIVSAI AVVDTMSLGWQVVMPYDVA DA GK
 A Y A S L D E Y S K Y Y G V M S A V Q F D K L G V \(\operatorname{S}\) W Q V A \(L\) P Y D L K D V P
 R D MSI E D M K NFK G PL T F V K I D Q M E L A F Q V 1 M M G D L A HP GR D G SVL D DPSKYVNFYTAI DGDTMEVAWQV MVSGNLDNTAC E Y A P L D E Y E K Y R G V M S A V D K K K L E L A Y Q V A L P F D L S D A G K K GKDLEDPTKYHCLFTCVDAETMDVRWQARIDGNCDLVAT DGS ILDEPDKYHSI FSAIDGDSMTVSWQVIVDGNLDNCDA DGSTMK DVSTYVVI FTAVVADA WEVA WQVQVSGNLDDNCDA VGE YP DH T Y K N F K GT T S F I S VVD K M N I A F QL E V P F D L S H S G K EK GGYENYKKYRGTYTGLAFDRKRGRFDPPYTQDLVAVGW

\footnotetext{
D
}








 E Y A P LDDKYKKYK GVVTMMDQFDK LDNLAY QPP WS Y D L S D A G K

 K G G T L D K Y E E F R G S DS F I KV D Q M D L D F Q I L V P G D L A N G G K
 RDMP I S EMKQFK GPLSFVDNGRMNLEFQLNMPGDLABPGR

 D G S DL Q DKNSY TMFNVI DAEKMEMAFQVIVVDGNLIDNTDA K DMP II DEMKEFK GP LT FI KVVDHMEDD FQL NMPGDLSSHPGR
 DGRDI D DPTKYHAVFSAI DGDSMKVAWQVMVDGNLDNVDA \(D G K N L T D T K D Y V S I F T A V D G E T M K V A W Q I K V A G N L D D N V D A\)
 R D \(\square P V V E S Y G K F N G T I T M V A \square D D K K T G A D Q V L V P G D L D S H C G K\) DGGNL EDPDSYGSVLAAINPESMNVEWEVLI DGNMDNGDG DGSSMNDTEAYYTMFSAVDAETMEVAWQVIVDGNDDNTDA DGSVLDDPENYHA \(\quad\) TF TAID GDTMEVAWQV MVDGNLDNCDA QK GGYKPGKTYRGAMTF LYFDRENMRWDFPYVQDLA SVGW D G S V L D D H K Q Y H A DIF T A V D G E T M K V A WQ V M I D G N L D N V A A


 D GTNADSMDAYR SLLFSCVDAETMEVRWQVLI DGNCDDLVAT


UniRef90 UPI0003753FD1 UniRef90-D3DFM8 UniRef90-L8JTE8 UniRef90-A0Ао23вРB0 UniRef90_A4IP44 UniRef90-B9L330 UniRefofo-LOF3H3 UniRef90-G8TDS3 UniRef90-UPIO003B4B6D6 UniRef90-D4H673 UniRef90 C1JKB9 UniRef90 DoMK11 UniRef90_W0F1F7
UniRef90_C1JL33 UniRef90_C6GIO8 UniRef90-A7UD18 UniRef90_J5Y4E1 UniRef90-R7BYP3 UniRef90-R9GNT4 UniRef90-UPIO003F4D22F UniRef90_C1JKG4 UniRef90-G8X685 UniRef90 \({ }^{-}\)EOURE5
UniRef90 C6W198 UniRef90-C6W198 UniRef90_WOTIW4 UniRef90-H8KU01 UniRef90-UPI0003B31B63 UniRef90-I4C1E2
UniRef90-Q845E2
UniRef90-H6VUG5
UniRef90-K6DQZ3
UniRef90-COQQT4
UniRef90-G2PJ24
UniRef90-
U4TR05
UniRef90-H2BY00
UniRef90-C1JKX9
UniRet90-K6D6L8
UniRef90-C6GIN9
UniRef90-C1JL08
UniRef90-FOS502
UniRef90-D3S180
UniRef90_Q09VZ1
UniRef90-UP100030ABC8C UniRef90-JORJQ0 UniRef90-UPIo00371225C UniRef90-D3K3M1 UniRef90-W4RMD9 UniRef90-UPI0003FA2349 UniRef90-D3K3L8
UniRef90-N1LCS8
UniRef90-F2KVB9
UniRef90 S8GZZD2
\begin{tabular}{l} 
UniRef90-C1A867 \\
UniRet90 \\
- 68 BML \\
\hline
\end{tabular}

250
260
EY|IAQGKFQEVIDKVRIVLTPSECPG ECIAQGKYQEIPAVKVIIPKDCPG EYLAQGKAKEMPAVKVLIPSECPG NMVKEGKYDNVGGQKMIFPEKHKGGTYL EVIAAGKYEEINGFKVI RMDVAAKEGVLFIVVAKSPHGV QAANEGKFEMVEGVKMI DPLDVPGEGYLFLIPEPKSPHGV EYLKAGKGEIMNEVTVLDP ElVAKGGAKEVVGIKVI PDDVAAKERILVFTPEPKSPHGV KLAEDKNYK\YNGHRVISMEAADKAGALFLIPEPKSPHGV AAVKAGKAKMMAGVPVLDGRK GSPYTRYIPDSNSPHGV SCVAQGKARTVNSVPMLDPRTCPG ELVEAGRTRTDKGFKVLPDDVAAAEGVLYFVP EYVKAGKGKKENEVTVLDITEFPD LVYFIPCPKSPHGVC AAVKNGDFKElGGVPVIDGRKGSK EGVKKGDYQEYNGVPVLDGR SGSR EAVKKGDFTTISKVPVVNGRRGSK DYIKQGKFTEMKAVKILDASQLPG ELAKDKNVRIINGHRVVPMEVAVKNNVYLLPTPKSPHGV ELIKAGKGRKYNEVTVLDVKDFPG LVYFIPCPKSPHGC EYVNNGGGKKVDEVLTVNPMDVPGA VVYFLPTPKSPHGC AGUAAGGYQELKGVKVIDGRKGKNKNYTRYIIPDPNSPHGV ELTK NKKYKVINGVKVIPMSVAVANNALFLI PEPKSPHGV EYLKAGKGRKVNEVVVLSSKELKD EVVKAGKHETLNGMKLI RIPTAVEEGVLYGAPEPKSPHGV ELVKAGKGKKVNGMTLISMKEAVANNLLYLDPEPKSPHGV EYIKQGKGKKMKEVLTLDTRELKD GEIVKGNAGTRNGVPFIDPAEHEG KEVKAGDFVTLSKTPVVDGRDGKDSKFTRYVF A AVKAGKVVTVKKPVVDGRKAPKTALTCYVP KMVAEGNYEEVNGEKIVFPDKNKGG\|YL VPVKNPHGV QCIAEGKYHVMKEVKVIDPKECKG VLYFLPTPKSPHGV
 EYVKNGGGTMMDGVKTVDPKDTPGA VFFMP KGITEGDYQELGGVKVI DGRKGSNKNYTRYVPIPNSHGC KMVADGQYDMVGDVKMIFPEKHKGGDFLRYPTAKSPHGV QAIKDGKATTISKVPVVDCTKDPKTALSVRVSVPKNPHGV QAVAAGEAEEMQGVPVLDGRN GSPFTRYIPISNSPHGC KAIAAGQFEEDNGVKVVDGRKEANSQFTRYIPIANNPHGC EMIKAGKGKKKNEVLVLTPDQLKD VICYFIPCPKSPHGT QYVKEGGGEVINGIRVI RDKEAVKEGLIYFVPEPKSPHGC AAVKAGDFKEISGVPVVDGRKGSK FTRYIPGSNSPHGC
 EYYKKGKGKKDNEVMTLDPKECPGSRVYFMPCPKSPHGC KKVAAGEYEEDNGAKMI DPRKHKGSIYA LPVAKSPHGV EYIAHNKWNEATHVLVLDVKELKD IVYFIPCPKSPHGC EGVAAGDGQMLNGVRVLDGRKGSK YTRYVPDPNSPHGV A AVKAGKFKTYSKVPVVDGTKDPKTALTAYVPVPKNPHGV EHVAKGDCKILDKVKVIETREV SDFLYFIPCPKSPHGC TCAKDGKAEMHNSVKVLTPTTCPNSD YFLP LAKDKKNVK IDNGHKVIPDEVAVKN EYTKAGKGKIEKEVLVLDATALKD EEIKKGNFITGSKVPVVDGRKGKNSRVTYYMPVPKNPHGC AGVKAGDFKTYDGTPVLDGRKGSK YTRYIPIPNSPHGV LAKDKKNVKVINGHKIIPDEVAVKNNADFLI PENKSPHGL QEVAAGKANTVNGVKMLDPRDVQGADYA 1 PVAKSPHGV
 EDVKAGKFKT LPGVPVVDGRKGKNSPYTRYVPVPKNPHGM
 ECKDQGKFKEENGVKMLNPKDCPG EYVKNGGGKKVAGHNVYDEKTHTATGAVFY円P ПPKSPHGC QAIKDGKFKTYSKVPVADGTKEPKTALICYVPIPKNPHGV AAVAAGEAEEDGGVPVLDGRK GSPFTAYVPVSNSPHGC AGVKAGDFKTYEGVPVLDGRKGSK AAIKAGKFTTVGKSPVVDGRKGKDSEFTRY EYVENGGGTEVEGVTSVDPREVPGA VYYMPVPKNPHG/G TEYAHNKWDEETHSATSTMKKEVVKDAMYMIPCPKSPHGV AGVKAGDFKTFEGVPVLDGRKGSK YTRYVPISNSPHGD
 EYVKHNVWDEDTHTAVSTVREDILSDVVYF\|PCPKSPHGT ACVDQGKARTVPGVKMLNPTDCPG TMFYMPTPKSPHGV AAVEAGNYETINEVPVVDGRKDSDEPIVTYMPTPKSPHGV AAVKAGDFDKLPGVPVLNGRK GTKLTRYVPVPKSPHGM DGIAKGDFQEINGAKVLDGRK GSPYTRYIPISNSPHGC DGI RQGKYQEINGVKVIRGETAVKEGILYFIPEPKSPHGN EAVKKGDFQTMGGVPVVDGRK DCLRQGRCKEINGIKVLSLEDADKEGVLFFVR
 AAVKNGEAKEIGGVPVLDGRKGSK DTAYVPISNSPHGC AAVANGEAEDMNGVPVLDGTH GSPFTRYVPVANGPHGI


UniRef90_UPI0003753FD1 UniRef90_D3DFM8 UniRef90-L8JTE8 UniRef90_A0A023BPB0 UniRef90_A4IP44 UniRef90-B9L330 UniRef90-LOF3H3 UniRef90-G8TDS3 UniRef90_UPI0003B4B6D6 UniRef90_D4H673 UniRef90-C1JKB9 UniRef90-W0RSK3 UniRef90-DOMKI1
UniRef90 W0F1F7 UniRef90-C1JL33 UniRef90_C6GIQ8 UniRef90_A7UD18 UniRef90_J5Y4E1 UniRef90-R7BYP3 UniRef90-R9GNT4 UniRef90_UPIO003F4D22F UniRef90_C1JKG4 UniRef90_G8X685 UniRef90-EOURE5
UniRef90 C6W198 UniRef90-I010G7 UniRef90-WOTIW4 UniRef90-H8KU01 UniRef90_UPI0003B31B63 UniRef90-I4C1E2 UniRef90-Q845E2
UniRef90 H6VUG5 UniRef90-K6DQZ3 UniRef90-C0QQT4 UniRef90-G2PJ24 UniRef90_E4TR05 UniRef90_H2BY00
UniRef90_C1JKX9 UniRef90-K6D6L8 UniRef90_C6GIN9 UniRef90-C1JL08 UniRef90-FOS502 UniRef90_D3S180 UniRef90_Q09VZ1
UniRef90_UPIO003 UniRef90-UPI00030ABC8C UniRef90-JORJQ0 UniRef90_UPIO00371225C UniRef90-D3K3M1 UniRef90-W4RMD9 UniRef90_UPI0003FA2349 UniRef90_D3K3L8 UniRef90-N1LCS8 UniRef90-F2KVB9 UniRef90_S8GZD2
UniRef90_C1A867 UniRef90-B6BML7 UniRef90_UPI00040F6477 UniRef90_Q0VJC9 UniRef90-C1JKR6 UniRef90_UPI0003B32EAF UniRef90-JOV3X0 UniRef90-K1YFF4 UniRef90-Q0VJG7 UniRef90_UPIO00382DC57 UniRef90_D3K3L2 UniRef90-BOSAZ0 UniRef90_UPIO0035F2554 UniRef90_Q3MT94
UniRef90-Q09VZ8 UniRef90_C6GIM2 UniRef90-B0B1H5 UniRef90 N1WM75 UniRef90-C6X281
UniRef90-D3K3K8 UniRef90-Q3MSY4 UniRef90-U5BQA5 UniRef90-A4K4V9 UniRef90-H2CHZ9
UniRef90-V6DRU8 UniRef90 C1JKG8 UniRef90_Q09W03 UniRef90-G7VIA2
UniRef90-Q3MTL0 UniRef90-C6GIR2 UniRef90-A3MXH7 UniRef90-A4K4U6
UniRef90 Q09W00 UniRef90-A4K4V4 UniRef90_A7UMG2

290 300 \begin{tabular}{l|lll} 
& \(H\) & \(S\) & \(F\) \\
& \(H\) & \(S\) \\
\(V\) & \(S\) & \(F\) \\
\(V\) & H S
\end{tabular} \begin{tabular}{c} 
R \\
\hline \\
N \\
\hline
\end{tabular}


310
310
\(A!\) I
N E S K Y E E
I
VSPDGEY I GGGKVATVIPIHSFSKMQKAFEKEVDGDPV DVVDP TGGEYIVGGNGKMASADLTVMHSFDKMDKAMDENEAKGEDV


 DVPDGKWIVVGGKLDTHATVYSПOKIKDADEKGKFFKDS
 NTAPDGKHIVINGKLSPTVSVIDVRKLPALFDNDADPRSA DVDPTGEYIVAGGKLATVIPVHSATKLLKAIADKQKYQAV DVSPDGNYLVVSGKLDPHATI YNFQKI QDAI AN LLDFDAV
 NTAPDMRHVVINGKLSPTVSVIDVTKVPDVFAGSIKPRDC NTSTDGKYFI AAGKL DVDPTGEYII GNGKL
 DVDPSGEYIVGSGKLAALVPVFSFSKI QKAFAGTYDGIPV
 DVDPSGEY VGSGKL
 DVSPDGKY IVVAGKL
 DASPSGRWIVASGKL D SPDGKWFI GNGKL \(N T S T D G K Y F I V A N G K\)
\(N\)
\(N\) DVTPDGTRFI ASGKL

DVDPTGEYVVGNGKL NTAPDKKHVCVAGKL
 NTAPDGRHVVINGKL NMAPDQKHLCI GGKL DVDPSGEFIVGSGKL NTPNGDYVCVGKL DVTPDGEFMVASGKLA
 DVTPDGTRFIASGKL DVDPT GEYIVGSGKL NTAPDKKHVVINGKL NASPDGKYFISAGKL
DVDPSGEYIVGNGKL DVDPTGEYVVGNGK
 DVDPTGEYIVGSGKL NTSPDGKYFIANGKL
NATPDGKYMMINGKK DVSPDGQLILVSGKL DVTPDGTRFVASGKL DPDGTRFVASKLAPDMTVFSFQKAFDALAKKYESVME DVDPT GEYMVVNGKLAA TMLPVFSFSKMQQAIVENKFKYEMEV

 DVDPSGEY I I G S GK L
 NTAPD GQH\|VVNGKL \(\begin{array}{lll}\text { N MS P D G K Y F } & \text { A A G K } \\ D V & L\end{array}\) D I D P T G E Y I V G S GK L N S A P D K R H I V \(\quad\) N G K L

N TAP D GR H \(V \quad V \quad V C G K\) DVID P T G E Y I V G G G K L \(\begin{array}{llllllll}S & V & P & D & N & Y & Y & V \\ N & T & A & P & D & G & R & Y \\ A & V & A & G & G & L\end{array}\) NTAPD GRHVVINRKL
 N TAPDGRHIVVNGKL D T S P G G H F I S V G GK L NTAPD D K R H V V I N G K L NTAPD G I \(\quad\) HVV A N G K L



UniRefigo UPIOOO3753FD1
UniRef90_D3DFM8 UniRef90-L8JTE8 UniRef90_A0A023BPB0 UniRef90_A4IP44 UniRef90_B9L330 UniRef90-G8TDS3 UniRef90_UPI0003B4B6D6 UniRef90_D4H673 UniRef90-C1JKB9 UniRef90_DOMKI1 UniRef90_W0F1F7 UniRef90_C1JL33 UniRef90_C6GIQ8 UniRef90_A7UD18 UniRef90-J5Y4E1
UniRef90-R9GNT4
UniRef90_UPI0003F4D22F
UniRef90_C1JKG4
UniRef90_G8X685
UniRef90-EOURE5
UniRef90 C6W198
UniRef90-C6W198
UniRef90-WOTIW4
UniRef90-H8KU01
UniRef90_UPI0003B31B63
UniRef90-I4C1E2
UniRef90_Q845E2
UniRef90-H6VUG5
UniRef90-K6DQZ3
UniRef90-C0QQT4
UniRef90_G2PJ24
UniRef90-E4TR05
UniRef90-H2BY00
UniRef90_C1JKX9
UniRef90_K6D6L8
UniRef90-B9MSW6
UniRef90-C6GIN9
UniRef90-C1JL08
UniRef90-FOS502
UniRef90-FOS502
UniRef90_D3S180
UniRef90_UPI00030ABC8C
UniRef90_JORJQ0
UniRef90_UPI000371225C
UniRef90-D3K3M1
UniRef90_W4RMD9
UniRef90_UPI0003FA2349
UniRef90_D3K3L8
UniRef90-N1LCS8
UniRef90-F2KVB9
UniRef90-S8GZD2
UniRef90-C1A867
UniRef90_UPIO0040F6477
UniRef90_Q0VJC9
UniRef90-C1JKR6
UniRef90-T0JPE3
UniRef90-UPI0003B32EAF
UniRef90-JOV3X0
UniRef90-K1YFF4
UniRef90_UPI000382DC57
UniRef90_D3K3L2
UniRef90_B0SAZO
UniRef90_UPIO0035F2554
UniRef90_-Q3MT94
UniRef90 \({ }^{\text {Q09VZ8 }}\)
UniRef90_C6GIM2
UniRef90-B0B1H5
UniRef90-N1WM75
UniRef90-C6X281
UniRef90-D3K3K8
UniRef90-Q3MSY4
UniRef90-U5BQA5
UniRef90-A4K4V9
UniRef9O-H2CHZ9
UniRef90_V6DRU8
UniRef90-C1JKG8
UniRef90_Q09W03
UniRef90_G7VIA2
UniRef90_Q3MTL0
UniRef90-C6GIR2
UniRef90-A3MXH7
UniRef90-A4K4U6
UniRef90 Q09W00
UniRef90_Q09W00
UniRef90-A7UMG2
UniRef90_B9MSW7
\(30 A B C 8 C\)
\(371225 C\)
1
\(3 F A 2349\)

370
380
VGHILMTP 390
390
RKPDGKY
400
T WEVVLDRAPCYY T WEVIDRAPCYYSVGHLMIPGGDSRKPWGKY L WEVVDRKPTYYSVGHLMIPGGNSRKPFGKYV
TGEVLDRVPVQYSPGHAVAAEGDTVSPDGKYL
Y
RDDGWKLVEKMPVVQYNDGHEAAVEGDTTKPAGRFL
TFE


TWEVLDRAPTYYSVGHLMDPGGDTKKPWGKYL WAEKHGRDPWTVVDKVSVHYNIGHLAVAEGDNVNPDGRYL KVLDRQPTYYSVGHLMIPGGDSKKPFGKYL VDASAGKKVDPI I E
I KQYNGDEVDPVLAKVDVQYQPGHNHTSMGETKEAGGRWL \(V R N Y N G E N V E Y V V Q K L D V H Y Q P G H N H A T D S E S K D A G G K W L I\)

TWEVLDRKPTYYAPGHDMDPGGDSRKPFGKY L KVLDRTNVHYNDGHLDSMEGKSSKPKGQWL

```

\squareAAFGG

```
\(K T L K \square L D R V P T Y Y S V G H L C \square P G G D T K K P F G K Y L\) KVLDKVNVHYNVGHLCGMEGKSADPQGKY I KVIDRQPTFYSPGHLMDPGGDSKKPDGKYV DPSAYALVEKTPVQYNVGHIAAAEGDTVNPDGKYL GKVLDQLPIHYNVGHLVAMEGDSVSPDGKYL KTGEVVDRR PTYYSIVGHLCVVGGDNKKPYGKYV DEATAQDMSKAVVDK SVHYNVGHVVIVGSDTKDPYGEWL




KVVDRAPTYYAVGHLMIPGGDSAKPWGKY
TWEVI DRKPTYYSVGHLMIPGGNSRKPFGKYV YQVI DRKPTYYSVGHLMIPGGNSRKPFGKYL \(\square R A W N G E D V E Y \operatorname{L}\) K KVDVAYQPG

GEVLDRI PVQYSPGHLAAAEGDTVSPDGKYL
TKKHAGDKANPVVDRLDVMYQPGHINATQAETIEADGVWM I RKYAGEDVDPI LDKVDVQYQPGHNHTTMGETKEADGRWL VRAYAGEAVDPVDKI

K SLQ L LDRVPTYYSTGHLTVPGGDTKKPYGKYV Y \(\square\) QAF NGEDGWKVVERIPDNYNVGHLATPESNSPTPKGKYL
 KVLDRKATYYSPGHLMVPGGNTEKPFGKYM
\(\square D\) A Y A GKE \(\underset{T}{\mathrm{~V}} \mathrm{D}\) KVLDRVPTYYSVGHLSIPGGPTSKPHGKYV

IQAYAGKETVVDRVPTYYSVGHLS DPGGNTKKPSPKYL IKFYKGDNAKYVVDRRLDVHYQPGGHDNASMSETAREADGKWLE



VR H Y N GEKVNYI KQKLDDVHY QP GHNHASGTESRADA GK WLL \(V\) K A Y A GEKV D P I LQKM

T GEVVI DRQPVFYSPGHATAAEGDTAAPDGTYLL


 —RWEVV QHLDPAYYSVVGHLSIVGGGSSTEPYGGKYL

TWEI L D RQPTFYSVGHLMIJPGGNSRKPFGKYM IK A FK K D NVK VVLDRDDCHYQPGHLNASMA ETREAD GK WW I Q K F N G E DV D P L N K V DVVQY QP G P N H S S M G E TK E A D G K W L


 WEVVQNMPAWYS \(\square G H L S I V G G D S A K P Y\) GK Y \(V\) L VN A EPRSES P V I EKDDVVHYNGHLIAAAESYTEDPA GD WL I E A Y Q GQEVNYI QQKLDVHYQPGHNH
IQ AF K GEDVDSILDKVDVQYQPGHNHTSMGETKEADGKWLL \(D Y T G D K P W T V V D K V D \| Q Y N V G H \square A \square P E S D S P D P V G K W L\)
\(\square R\) QF NGENVDP IISKVDVQYQPGHNHTSMGETKDAD G E Y R GDKPFTVVDKVQIMYNVGHDCVPESNSPNPAGKY L VR QYA GESVDPI I P KVVDVQYQPGHNSTSMGETGQAD GK WL




UniRef90-C1JKB9
UniRef90_W0RSK3
UniRef90-D0MKI1
UniRef90 W0F1F7
UniRef90 C1JL33
UniRef90 C6GIQ8
UniRef90_A7UD18
UniRef90-J5Y4E1
UniRef90_R7BYP3
UniRef90-R9GNT4
UniRef90-UPI0003F4D22F
UniRef90_C1JKG
UniRef90-EOURE5
UniRef90_C6W198
UniRef90 IOI0G7
UniRef90-WOTIW4
UniRef90-H8KU01 UniRef90_UPI0003B31B63
UniRef90-14C1E2
UniRef90_Q845E2
UniRef90-H6VUG5
UniRef90_K6DQZ3
UniRef90_C0QQT4
UniRef90-G2PJ24
UniRef90-H2BY00
UniRef90-C1JKX9
UniRef90-K6D6L8
UniRef90 B9MSW
UniRef90_C6GIN9
UniRef90_C1JL08
UniRef90-F0S502
UniRef90 D3S180
UniRef90_Q09VZ1
UniRef90_UPI00030ABC8C UniRef90_JORJQ0
UniRef90-UPIO00371225C
UniRef90-D3K3M1
UniRef90-W4RMD9
UniRef90 UPI0003FA2349
UniRef90-D3K3L8
UniRef90-N1LCS8
UniRef90_F2KVB9
UniRef90_C1A867
UniRef90-B6BML7
UniRef90 UPI00040F6477
UniRef90_Q0VJC9
UniRef90-C1JKR6
UniRef90 UPI0003B32EAF
UniRef90-JOV3X0
UniRef90-K1YFF4
UniRef90_Q0VJG7
UniRef90_UPI000382DC57
UniRef90-D3K3L2
\begin{tabular}{|c|c|}
\hline & 450 \\
\hline UniRef90_UPI0003753FD1 & 1 G E P H Y A Q G I LA S K V V \\
\hline UniRef90-D3DFM8 & I GEP H Y A Q GI PVD II K NVK \\
\hline UniRef90_L8JTE8 & I GEPHYAQAI A A D KI Y P IE \\
\hline UniRef90_A0A023BPB0 & IGEEPHYAA GI A A DLI K P \\
\hline UniRef90_A4IP44 & DP EPHYGQQMIK A D KI K T VE \\
\hline UniRef90-B9L330 & DGEP H Y A Q I I K R ERI K \\
\hline UniRef90_L0F3H3 & DP EP HF A Q MI K A D KI K T F E \\
\hline UniRef90_G8TDS3 & \(\square \mathrm{GEP}\) P Y A Q AV S A D L I \\
\hline UniRef90_UPI0003B4B6D6 & L GEP HYAQDI K A D KL K \\
\hline UniRef90_D4H673 & LGEPHDVVTIAASKLKPKK \\
\hline UniRef90_C1JKB9 & \\
\hline UniRef90_W0RSK3 & \(\square G E P H Y A N A V P A S L I\) \\
\hline UniRef90_D0MKI1 & L GEPHYA Q II K A DKLQP \\
\hline UniRef90_W0F1F7 & IGEP H Y A Q AVP A A LIRR \\
\hline UniRef90 C1JL33 & \\
\hline UniRef90_C6GIQ8 & \\
\hline UniRef90 A7UD18 & \\
\hline UniRef90_J5Y4E1 & ITGE P H Y A Q A I P A S KVK \\
\hline UniRef90_R7BYP3 & L GEPHDVVSI EAKKL N P \\
\hline UniRef90-R9GNT4 & I GEPHYGGAVKASVIR \\
\hline UniRef90_UPI0003F4D22F & IGEP H Y A A A DP A E MVAP \\
\hline UniRef90_C1JKG4 & \\
\hline UniRef90_G8X685 & \GEEPHYA Q A A P A D L R N \\
\hline UniRef90_E0URE5 & L GEPHQAVA I R M S KL H P \\
\hline UniRef90_C6W198 & I GEP H Y A Q A I R A EKVK \\
\hline UniRef90_I0I0G7 & I GEPHYAQII K A D K I K \\
\hline UniRef90_W0TIW4 & L GEPHYVVAIK A D K L K P \\
\hline UniRef90_H8KU01 & IG E P H Y AQACA A D I \\
\hline UniRef90_UPI0003B31B63 & PPEPHFAQVVHKDVINPVE \\
\hline UniRef90-14C1E2 & EPEPHYA Q I I K T D K I K NV \\
\hline UniRef90_Q845E2 & \\
\hline UniRef90_H6VUG5 &  \\
\hline UniRef90-K6DQZ3 & NPEP HYAQMI K A D K I K T \(\square\) \\
\hline UniRef90-C0QQT4 & \(\square\) GEPHYA Q A I P A S LVA P \\
\hline UniRef90_G2PJ24 & H GEPHYAAGI PAEILAAP \\
\hline UniRef90_E4TR05 & K GEPHYAQAI A A DKI Q P \\
\hline UniRef90_H2BY00 & \(\square \mathrm{GEP}\) H Y A A GIP A DLI K \\
\hline UniRef90_C1JKX9 & \\
\hline UniRef90_K6D6L8 & D P EP HY A Q M VKA DK LS T \\
\hline UniRef90_B9MSW6 & \\
\hline UniRef90-C6GIN9 & \\
\hline UniRef90-C1JL08 & \\
\hline UniRef90-F0S502 & \GGEPHYS Q I IP A S I I K \\
\hline UniRef90_D3S180 & \(\underline{L}\) E P H Y A K I I S \(\square \mathrm{E}\) KL K P L \\
\hline UniRef90 Q09VZ1 & \\
\hline UniRef90_UPI00030ABC8C & G E P HY A Q M I P A EK \\
\hline UniRef90-J0RJQ0 & I GEPHYAQGI P A D K V R N \\
\hline UniRef90_UPI000371225C & VGEPHYAES I P A S L \\
\hline UniRef90 D3K3M1 & \\
\hline UniRef90_W4RMD9 & DP EP H Y A Q T \(\square\) HRDK \\
\hline UniRef90_UPI0003FA2349 & \(\square\) G P H Y A Q S APA D I I R N \\
\hline UniRef90_D3K3L8 & \\
\hline UniRef90_N1LCS8 & \\
\hline UniRef90_F2KVB9 & ITGEPHYASA \(\square\) A A D M L K P \\
\hline UniRef90_S8GZD2 & IGGEPHYAVA CEAKLLT P \\
\hline UniRef90_C1A867 & TGEPHYGNAIEAAKI EKLQ \\
\hline UniRef90_B6BML7 & LGEPHQAVAIDRAEKLHP \\
\hline UniRef90_UPI00040F6477 & \(\square G E P H\) Y A Q A P A DLIR \\
\hline UniRef90_Q0VJC9 & \\
\hline UniRef90_C1JKR6 & \\
\hline UniRef90_T0JPE3 & LGEEPHQAAS IR A S K I H T \\
\hline UniRef90_UPI0003B32EAF & PP E P H Y S Q MVK A D KIIK P \\
\hline UniRef90_J0V3X0 & LA EP H Y A Q AI Q A D KVA P \\
\hline UniRef90_K1YFF4 & V GEPHYAQGVPASLLMP \\
\hline UniRef90_Q0VJG7 & \\
\hline UniRef90_UPI000382DC57 & VA E P H Y A Q A V V S K VA P \\
\hline UniRef90_D3K3L2 & \\
\hline UniRef90_B0SAZ0 & VG E P H Y S Q M IP A K L I \\
\hline UniRef90_UPI00035F2554 & H GEP HYAA GIR A DLI K \\
\hline UniRef90- Q3MT94 & \\
\hline UniRef90_Q09VZ8 & \\
\hline UniRef90_C6GIM2 & \\
\hline UniRef90_B0B1H5 & \\
\hline UniRef90_N1WM75 & H GEP HYAAA IP A D L I K \\
\hline UniRef90_C6X281 & F GEPHYA Q ALP GEML \\
\hline UniRef90_D3K3K8 & \\
\hline UniRef90_Q3MSY4 & \\
\hline UniRef90_U5BQA5 & \(\square \mathrm{GEP}\) H Y A E A F P A A L I K \\
\hline UniRef90 A4K4V9 & \\
\hline UniRef90-H2CHZ9 & \(\square \mathrm{L}\) E P H Y A Q M \({ }^{\text {L P A A LI }} \mathrm{K}\) \\
\hline UniRef90_V6DRU8 & QAEPHDAS \(\square\) CHKSKLDP \\
\hline UniRef90_C1JKG8 & \\
\hline UniRef90 Q09W03 & \\
\hline UniRef90_G7VIA2 & LGEPHYAK \(\square\) I R A E K \(\square\) K A \(\square\) \\
\hline UniRef90 Q3MTL0 & \\
\hline UniRef90_C6GIR2 & \\
\hline UniRef90-A3MXH7 & WGEP HY A K A \(\square\) R A E K \(\square \mathrm{K}\) P L \\
\hline
\end{tabular}

AKTYQPS GRKDEFVVFSSGGQSGQ LVVYGPSMR \(\square Y K Y \square G\)

lupas 21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm

jpssm

G WGLT N E S LK VLT E GLTP P T K E Y LA S VG K K T Y GWGLTNESRK LLTEGLQPETRKFLASRGGVY

ESKKLLGG F

SKAVLA QG DTKKMLLG \({ }^{K} \square_{A} D G K D \square_{F}\)


> TNESKAVLGE

SAK Y

GWGLTNESKALLKG】QL
ESKAML GGL
E T K A M \(\square \mathrm{G} N\)
VFTPEPWQGYGFDDDSKKVLRQG
D \(\square\) RGRE \(\square\)
\(\qquad\) F

VFSVNPENGYGY
SEETRAMLMTSHGF \(\square{ }^{Y} \mathrm{P}\)

VF T PEPWQGYGFDDESKAVLAQGR \(\square E\)
GK D \(\square\)
\begin{tabular}{|c|}
\hline G2 \\
\hline UniRef90_C6GIL9 \\
\hline UniRef90-Q3MTS2 \\
\hline UniRef90 Q3MTK1 \\
\hline UniRef90-D3K3M0 \\
\hline UniRef90-H6VUE0 \\
\hline UniRef90-C0KTJ1 \\
\hline UniRef90 Q09W01 \\
\hline UniRef90-H6VUD4 \\
\hline UniRef90-H6VUE3 \\
\hline UniRef90-Q3MTR7 \\
\hline UniRef90-C6GIL5 \\
\hline UniRef90-D2CY46 \\
\hline UniRef90 C6GIM8 \\
\hline UniRef90-H6VUE9 \\
\hline UniRef90-C1JKN9 \\
\hline UniRef90-H6VUE2 \\
\hline UniRef90 D3K3K5 \\
\hline UniRef90_Q7M9H5 \\
\hline UniRef90 C6GIQ6 \\
\hline UniRef90 Q3MTH4 \\
\hline UniRef90-A4GZN2 \\
\hline UniRef90-W0UU40 \\
\hline UniRef90-H6VUD7 \\
\hline UniRef90-A8UY14 \\
\hline UniRef90-I0JUT3 \\
\hline UniRef90-U7XC14 \\
\hline UniRef90 Q3MTM0 \\
\hline UniRef90-F6JVH4 \\
\hline UniRef90-K7WF47 \\
\hline UniRef90-C1JK87 \\
\hline UniRef90-W119Z7 \\
\hline UniRef90-K7XD12 \\
\hline UniRef90-K7WM01 \\
\hline UniRef90-Q3MTA7 \\
\hline UniRef90-Q3MTA6 \\
\hline UniRef90-K7WZ69 \\
\hline UniRef90-K7WF52 \\
\hline UniRef90-K7WJG8 \\
\hline UniRef90-K7WM10 \\
\hline UniRef90_I0JUN9 \\
\hline UniRef90-K7WLZ2 \\
\hline UniRef90-K7WF54 \\
\hline UniRef90-G9QV67 \\
\hline
\end{tabular} UniRef90-G9QV67




\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \multicolumn{8}{|l|}{\multirow[t]{11}{*}{}} \\
\hline & & & & & & & \\
\hline & & & & & & & \\
\hline & & & & & & & \\
\hline & & & & & & & \\
\hline & & & & & & & \\
\hline & & & & & & & \\
\hline & & & & & & & \\
\hline & & & & & & & \\
\hline & & & & & & & \\
\hline & & & & & & & \\
\hline
\end{tabular}

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm


DGTTFDQSKNSYTLFNVIDAEKMEMAFQVIVDGNDDNTDA KFASLDDFKKYKGVMSAVTFDKLSVAYQVALPFDLSDAGK KKYPLEEFEKYRGGDTYWKFDRKEGRDDPPYSQDLSDAGK DGRDLENPDDYYTMFNA DDAESMEVAWQVIVDGNLDNTDA NTVSLTNFEDFRGGLTYWKFDTEEGRLKPPYSQDLDDAGK GYVPLDQFDKYRGGLVYWKFDRTKGRIVPPYSQDLSDSGK VGYVPVEQDKYRGTYWAFDKEKGRIVPEPPYSQDLSDAGK
\(\square D A E K M G D G D P V I V E G N L D N T D A\) GYAPLSDYAKYRGAWMAll DAEKMGDGLPVIVVEGNLDNTDA KYEPI ERYKKYRGDFWKFDRAAGRIVPDPPYVQDLADAGK KKFPLEEFEKYRGGVTYWKFDRKEGRDDPPYSQDLADDGK


GYAPLEEFDKYRGGVTYWKFDRTRGRDDPPYSQDLSDFGK FKDLMRGYSTFLDANQKTGRMELDRSFQVPYTQDLADSGK

```

    B B B B B B B B
    ```


lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm


lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm



lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm

\(A A G Q V E V G A G P L H T Q F D S Q G H G Y T S M F L A N A D A K F T L G E N\)

\(C V A R P R L A S A P L H T Q Y D\)
\(M H G Q V E L G L G P L H T S F D Q D G \square L Y T S L Y V D S Q \| V K W D Y K N L\)

\(\square\)
\(\longrightarrow\)
 IDEQYEGKDVDPILAKTDVHYPPGHNHTSMGETNEADGKWL

■QAYSDETVDP ITQK DDVHYQTGHTNASMSETKDADGKWL \(\square K\) WEVADKI PVTYSI GHLATAEGDTVSPDGKYM
 VEKFQGKDVDPVLGKVVDVQYPGHNHTSMGETKEADGQWL

T WEVVDKVPMSYSIGHLAAAEGDTMHPKGKYL VAG GNPVKQK LDVHYQ \(\quad\) GH \(\quad\) VNASMSETKEADGNWV

TWEVVDKVPMSYSTGHDCTAEGDTVSPDGKWL ID GYKKDAPSAVVDRLDDHYQVGHTMASMAENKEVDG

TWEVLDKVPMSYSTGHLAAAEGDTVSPDGKWL \(\square E Q Y K D K K \square N P G L H K L P V H Y\) QVGGHTNASMGETVDADGKWLL \(\square D \square H\) K NEGETPVVDR \(\square D\) VHYQVGHTMASMAETNEADGQYL

TGEVLDRVPVQYSPGHAVAAEGDTVSPDGKYL FDGHDSALVVAKIPVHYAVGHLVVAGGDTRHPYGKYL KRAFKGEKVDP I DKKDVHYQPGHNHSSMGQTKEADGKWL KRAFKGEKVDPIRQKLDVHYQPGHNHSSMGQTKEVDGKWL VRAYNGEKVDY KQKGDVQYQPGHDHASLTETSEADGKWL \(K\) SGETVDRVPVQYSPGHASAAEGDTVSPDGKY GKVLDKLSVHYNPGH

GKVLDKLSVHYNPGH
LRAYQGEKVNPD KQK DVMHYQ VRAYGGEKVNCLKRKLDVQYQPGHNHASLTETSEADGQWL KA GVATDKMWKKVDHLPVNYNPGH

KLIEKIPMHYNAGH
VV KTDEEPFTLIQT\PTNYNPGP \(\square K F H K G D K A K Y V L D R L D L Q Y Q P G H L N A S Q S E T K A A D G K Y L\)

K VLDKVNVHYN】GHLDTMEGKSAKPKGKYA


UniRef90 G2J090 UniRef90 C6GIL9 UniRef90-Q3MTS2 UniRef90_Q3MTK1 UniRef90-D3K3M0 UniRef90 H6VUE0 UniRef90_COKTJ1 UniRef90-Q09W01 UniRef90-H6VUD4 UniRef90-H6VUE3 UniRef90-Q3MTR7 UniRef90-C6GIL5 UniRef90-D2CY46 UniRef90_C6GIM8 UniRef90-H6VUE9 UniRef90 C1JKN9 UniRef90-H6VUE2 UniRef90-D3K3K5 UniRef90-Q7M9H5 UniRef90 C6GIQ6 UniRef90-Q3MTH4 UniRef90-A4GZN2 UniRef90 WOUU40 UniRef90-H6VUD7 UniRef90-A8UY14 UniRef90-10JUT3 UniRef90 U7XC14 UniRef90-Q3MTM0 UniRef90-F6JVH4 UniRef90-K7WF47 UniRef90-C1JK87
UniRef90-W119Z7
UniRef90 \({ }^{-}\)K7XD12 UniRef90 K7WM01 UniRef90-Q3MTA7 UniRef90-Q3MTA6 UniRef90 \({ }^{-}\)K7WZ69 UniRef90-K7WF52 UniRef90-K7WJG8 UniRef90-K7WM10 UniRef90 IOJUN9 UniRef90-K7WLZ2 UniRef90-K7WF54 UniRef90_G9QV67
 IS L N K F S K DRFL

VALCKFSKDRF LNVGPDHPE
IVALNK LSHGRHLNVGPSQPESSQLVNDSGEKMKMDYEAFT VALCKFSKDRFLPVGLLRHENDQLID
\(\checkmark\) SLN
VALNKLA \(\quad\) D RFVPVGPLHPQNHQLIDDSNDKMQLLYDMPL \(V G L N K L S H G R H L S V G P S Q P E S S Q L V D I T E E K M K L L Y D A F T\) \(\square A L N K F S K D R F L P V G P N R N E N D Q L I D\)
\(\square G L N K \square S H G R H \square S V G P S Q P E S S Q L V D \square S E E K M K L V Y D A F T\) VGLNK \(L\) SHGRHLSVGPSQPESSQLVDVSGDKMKLVYDAFT \(\underline{V A L C K F S K D R F L N V G L L Q S E ~}\)
VS \(\square\) NK \(\square\) SKDRF \(\square\) NVGP \(\square\) EPENEQLI
VS \(\square\) N K LAA K D S Y LDSVGPSHPESMQLIDDS GEKMKVIQSSPV VSMNKMSKGQHLNIGPSEPESSELIDITGGTMSMLYESFT
ISLNKFSKDRFLNVGPLKPENDQLIDD
 VALCKFSKDRFLPTGPLHPENEQLI D \(1 A L N K \square A K D T Y L S V G P S H P E S M L L I D D S G K K M E \square I Q S A P V\)
\(V A L C K F S K D R F L N V G P L K P E N D Q L I D\) \(V V L S K F S K D R F L S T G P L H P E N D Q L I D D\)

A VGCKFSKDRFLPVGPLHPENDQLID \(\square\)

\begin{tabular}{|c|c|}
\hline UniRef90_G2J090 & \[
\text { Y P E P H D S } \square \text { M } \begin{aligned}
& 450 \\
& \square R R D ~ \\
& \square
\end{aligned} \text { K T R Q }
\] \\
\hline UniRef90_C6GIL9 & \\
\hline UniRef90-Q3MTS2 & \\
\hline UniRef90-Q3MTK1 & \\
\hline UniRef90-D3K3M0 & \\
\hline UniRef90-H6VUE0 & EPEPHYA Q \(\square\) I K A DK \(\square\) K P \(\square \mathrm{E}\) \\
\hline UniRef90_C0KTJ1 & \\
\hline UniRef90-Q09W01 & \\
\hline UniRef90-H6VUD4 & LG E P H Y A Valle A S K \K P \\
\hline UniRef90-H6VUE3 & EPEPHYAQ\IKKADK\KT \(\square \mathrm{E}\) \\
\hline UniRef90-Q3MTR7 & \\
\hline UniRef90-C6GIL5 & \\
\hline UniRef90-D2CY46 & \\
\hline UniRef90-C6GIM8 & \\
\hline UniRef90-H6VUE9 & E PEPHYA Q M \(\square\) K A DK \(\square\) H P \(\square \mathrm{E}\) \\
\hline UniRef90-C1JKN9 & \\
\hline UniRef90-H6VUE2 &  \\
\hline UniRef90_D3K3K5 & \\
\hline UniRef90-Q7M9H5 & \\
\hline UniRef90-C6GIQ6 & \\
\hline UniRef90-Q3MTH4 & \\
\hline UniRef90-A4GZN2 & \\
\hline UniRef90-W0UU40 & D P EPHYGQMIK A DK\K TVE \\
\hline UniRef90-H6VUD7 & EPEPHFAQ】APATLLHPIE \\
\hline UniRef90_A8UY14 & \\
\hline UniRef90-IOJUT3 & \\
\hline UniRef90-U7XC14 & F A EPHDAT \(\mathrm{V}^{\text {V }} \mathrm{H}\) R S K \(\square\) NPV \\
\hline UniRef90_Q3MTM0 & \\
\hline UniRef90-F6JVH4
UniRef90-K7WF47 & D P E P H Y A M M K A D K \(\square \mathrm{K}\) P \(\square\) \\
\hline UniRef90_K7WF47 & \\
\hline UniRef90-C1JK87 & \\
\hline UniRef90_W119Z7 & \\
\hline UniRef90-K7XD12 & \\
\hline UniRef90-K7WM01 & \\
\hline UniRef90-Q3MTA7 & \\
\hline UniRef90-Q3MTA6 & \\
\hline UniRef90-K7WZ69 & \\
\hline UniRef90-K7WF52 & \\
\hline UniRef90-K7WJG8 & \\
\hline UniRef90-K7WM10 & \\
\hline UniRef90-I0JUN9 & \\
\hline UniRef90-K7WLZ2 & \\
\hline UniRef90-K7WF54 & \\
\hline UniRef90_G9QV67 & \(\underline{\square} \mathrm{E}\) P H D V V S \(\square\) A A S K L T P \\
\hline lupas_21 & \\
\hline lupas_14 & \\
\hline lupas_28 & \\
\hline jnet & \\
\hline conf & 5777732322027777889 \\
\hline sol25 & В В B B B B B B \\
\hline sol5 & B B B B \\
\hline sol0 & \\
\hline jhmm & t \\
\hline jpssm & \\
\hline
\end{tabular}```


[^0]:    

[^1]:    $T N G D L H H P H M S$ ND

