## QUERY

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 GVFTYESEASTVIPPARLFKALEVDAAEVMPKALPQAIKS GVTTYTHEASTTVAPTRLFKALVLDADNLIPK LMPQVVKN GVIS YEMVVTSSIPPSKLYKALVLDADULIPNILPQAIQK GVFTFQDETTSTVAPARLYKALTIDGDSIIPKVLPGF KS GVFTFDDEFPSTVAPARFFKAAVLDADNLFPKVAPQAAKS GVVKVSQSFRTKVTPNRMFKALI LDSHNLAPQLLFS S IK S GVTTFTEEDNSPITPDRLFKALIMDSKSLIPKLLPQFVEN GVYTYENEFTSDIPAPKLFKAFVLDADNLIPKIAPQAVKC GILLTTTYEFTSPISAPRMFKSFI LDGENLLPKIAPQVFKS GVVTFEDEDNSPVAPATDYKALVTDADNVIPKALDDSFKS GVNTYTYESTTTISPTRLFKALVLDFDNLVPKLLSQHVKN GALTFTDEFTSTVQPGRLFKALILDAPNLIPKLMPEAIKN
 $G V$ VTFRF D L S Si PRARI FKAAILDADNLLPKVLPQAVK S GVASYEFEVTSPI APARLFKAFVLEAAKIWPTAAPHAVKS GVFTFTEEEYASTIPPARLFKALIVDSHNLDPKDWPQAIK S GVFTFEDETTSTVAPARDYKALVKDADNLVPKAVEADKS GVVTYSQEFTCAVAPSRMFKALILDDSHNDIPKKVVPGGIKS GVFTYESEFTSSIAPARLFKAFVLDGDNLVPKIAPQAVEK GVTTFTHDFSTPVAPSRMFKALITTDSRALLPKLLPQFIKD
$\mathrm{G} V \mathrm{~L}$ $T$ S S T E E V V Q V E A R R L WN A T T K D D S H N F L P GGITYDMEIPSSSIPASKMFKADVLDADTLIPKIMPHA!KN



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UniRef90-A5C109 UniRef90-W0FB09 UniRef90_-11KMV3 UniRef90_A0A059B6C2 UniRef90 A5C0FO UniRef90_A0A022RW81 UniRef90-D1YSM5 UniRef90_K4BLP7 UniRef90 V4S1X7 UniRef90_UPIO002C313DA UniRef90_A0A059DAM0 UniRef90_UPI0002C3094A UniRef90_W9SE75 UniRef90-B9S9Y1
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 EAETTSVIPPPARLFKSFILDADNILSKIAPQAFKS TLS DE Y VS PL P A A RLWK A SI K DV H N I V P K V MP H IIS S
 $G V L R F D K D T S A A V A P S R M F K A F I L D S H N L F P K L E P A A F K S$

SWTHEDESPVAAPRLFRAAVMDWHTLAPKIAASHIVAS


F S L E $\square E S$ P VAASRLFKAALVDWHNLGPKLAPE LLLS GVTTYT DEYTSPIPPCRLFKALVLDADLLVPKLMPDALKS GVKSFFQEMKTKI SSSRLFKALVTESPEVVPK FTTSSKS GVVF T F E D E ITT S T L L P P A K L Y N A M K

SWSVVI ESPVSAPRLFRAA LID WH T LGPPKLAPEDI A S



TIVVDKHKS PI A V E RLLWK A LI CDA H NFMP KALAPQVI S S

 GAITTYEHEVVSTIAPKRLFKS FILDADNLILLKVLPQAFKS S WT LDE I E F S V Q A S R I F K A AV L D WH S L A P K V V P E F V V S GVQUKHEQEITSSVVPAEKMFHGLI LDDDDNI LPKAAP GAYKN GGFAKEAEVSTSSLPPAKAFKAFAEDLDTLLLPKVAPQADKS




SWSHE $\square A T A V P A G Q L F K A A L I D W H N L G P K \prod A P E V I A G$

S WS HEVAVNV A A GRMFKAAMLD WHNLGPKIVVPDFIA G

 V T W S H E DIE S S A D P A P L F K A S M L D WH N L A P K I W P D I V V S


 VTSSYTQEFTA S I A P S K M F K A L K $\square$ D S R N L DP K I T P Q Y I K S GIVVTTECEQVCAVAPARMYKAMAFDFNNVMPKAIPNFVK S $G$| $V$ | $L$ | $T$ | $T$ |
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UniRef90_F6KDF1 UniRef90_P80889
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UniRef90_B9RTB9

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UniRet90 V4S1Y2 UniRef90-V4S1Y2
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UniRef90
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UniRef90 BoZCo UniRef90-BOZCO7
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UniRef90-в9н×01
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$V$ LTFTEEFSSPAAAKRLFTAMVLEADTLDPKLVPQAVKS
 GVITSESEYVSSLSAEKLYRGTVEDGNDVYKALPRFIEK GVQSYSQETSSPVAPGRMFKALCLDSHNLFLPKLVPQGFKS
 M M WHSLAPKLAPH币VAS GAFAFDEENSSTVAPAT YYAGTKDADT DPK』1 GAIQT GDTKHDQELK DRVSAKRMFKALVTESHSIP DLPDAIKS TVVKEEESPIAPHRLFKALVLERHQVLVKAQPHVFKS GVEVFTDVYTSTVPPKRLSKALIVDSQNLIPKLMPQAMNN
 GVHTFEEESTSPVPPAKLFKATVVDGDELTPKLIPAAIGS MEDASSIPPDKLFKALVLDNDNLDQKLMPKAINN SWTLELESKVAAPRKFRACVMDWHNLAPKLAPHDFDS GVYTDTNEYPSPVSPSRLFKALVVDAHDLIPKLDPHAVKS VVRYEESFDTSUPSDKFFRAYVLDGDNLL LKSLPHEปST
 GVIIAYEREVNTTMPPAKMFKALALDGNDIVAKVFPQAIKK

SWTHEIESPVAAPRLFRAGVMDWHTLAPKLAPHTVAS GVFTYESEASTVIPPARLFKALFVDAAEVMPKALPQAIKS GVYTFTVDEASSVAPARLFEALCLDNHNVFPKVVPFIVK S
 VGKLEDDVDRASAGKFHHMFAGRPHH VSKASPGNIQG VGKLEDDVDIRASAGKFHHMFAGRPHH VSKASPGNIQG LLEAEVEVSADKFW VSMRDSTKLFPKVFPDQYKN GVFSCSAEDTSTTPAANAFEATV NANNLTSEVLDPVLKS GLDT FENEFSVAVPPAKLFKVYCLETDTLIPKILPQAIVS GVFSFEQEXTSTVXXXKLYKALVKDADVIIXKAV DVIKS EVE DEVKSPSQKFWEGL RDSTTUFPKAFPHDYKS
GVVT YTDELTSPVPAPRपFKALILEADSLLPKVVPQATKS GVVSYAFEVTSPTAPARLFKAFVLEAAKVWPTAAPHAVKS $S V Q T V V Q V P$ LKRLWA AM KDSSVLLPKVMPEVFAT SLSHEDETGLPAAEVWEVYGLLVGQLVPQLLPHMLSK G $\square F T F E Q E T T S T V A P A K L Y K A L V K D A D D I D P K A V D V I Q S$ SWTYETESSVAAPRLFCAGVKHWHVLAPKLVPQIVVS GATSTTQELTCPTAPAHMFKALIVGLNSLTPKLLPQFIKS QELCKASAQKFHHMFAGKPH
 KASAQKFHHMFAGKPHH VS VGKLEADVEDKASAGKFHDMFAGRQGEWL KATPGKIKT GVIKINQSFKTKVTPDRMFKALI LDSHNLCPNLLFSSIKS TQVTADVGDDSLWKCLSKDLHSILPQVLPNLVQN GVFTFEDEINSPVAPATLYKALVTDADNVIPKALPDSFKS EVEIEVKSNADKFWSIIIKDSASIFPKAFPNDYKS VGKLETEVEVKASAGKFHHMFAERPH VVSKATPDKIHG VGKLEADVEIKASAGKFHHMFVEKPHHVSQASPGHTQN VGKLETEVEIKASAGQFHHMFAGKPHH VSKASPGNIQS EVEVEIKAPAA IFYHDYAGRPHHVAKATPRNVQS GKDNVEVEVKSN ADKVWEAL RDFDF FPKAFPNDYKS VEIEIEVKAPAAKFHQVFSCKPH IMASMSPQSMQG VEKVEINVEIKSPADKFHDVFSCRPHH VNTMSPDTVHA GVIT NDFETTSPIPPAEMFEPLSL

VEGEVE $\square E A P A A K F Y N \square F R K Q H H \quad \square P N \square A T D V V H G$ ETEVETNAPAAKYHE $\square$ FTRRPHH SS $\square$ RPDRTQS VETDVELKSSAVKFHDMFCNKPHH VSNACSDKVQS




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UniRef90 A9PI40 UniRef90-Q9SCH7 UniRef90_P93330 UniRef90_A0A059B4R2 UniRef90-B5M1X5
UniRef90 Q0Z8U9 UniRef90-B9RTC4 UniRef90_Q8W2B4 UniRef90_E4Z8M2 UniRef90_A0A059B4Z9 UniRef90_E3W9N4 UniRef90_V4RFS3 UniRef90-V4S1Y2 UniRef90_13T2N7 UniRef90-11H6C9 UniRef90-C6SWY6 UniRef90_B1Q190 UniRef90-A0A059B504 UniRef90_Q6T6J0 UniRef90_MOUCN1 UniRef90-A0A022QZ46 UniRef90_G1FK78 UniRef90-S8CW75 UniRef90 BOYIU5 UniRef90-B9RZJ9 UniRef90-G3DQE4 UniRef90-Q40154 UniRef90-S8BY34 UniRef90-BOZC07 UniRef90_A0A059DEK7 UniRef90-A9NU54 UniRef90_D8SVZ2 UniRef90_UPIO0042B5F0E UniRef90-B9HX01 UniRef90_W5E8J6 UniRef90_U5G6V9
UniRef90 L7Z652 UniRef90-D8RV32 UniRef90 A0A059B5L8 UniRef90-V4KE82 UniRef90-V4KE82 UniRef90_A0A059D5M5 UniRef90- H9BPH6 UniRef90-A0A059DF17 UniRef90_Q6ZXH8 UniRef90 G9BZW5 UniRef90-M5XT64 UniRef90-W5I7L8 UniRef90-A5C111 UniRef90-B9RTB7 UniRef90_Q5Y360 UniRef90_D8RV33 UniRef90_Q8VX97 UniRef90-I11BG0 UniRef90-11H6C6 UniRef90-M0ZYA5 UniRef90-A0A059DBK6 UniRef90 D7KYF1 UniRef90-D7KYF1 UniRef90_Q93VR4 UniRef90_M4DI51 UniRef90_F4YFB5 UniRef90-D8T4D4 UniRef90_A0A059BUX8 UniRef90_Q8LJU1 UniRef90_UPI00032ABC47 UniRef90-ROICEO UniRef90_A0A022QQ46 UniRef90 R0GGA0 UniRef90_-Q8LBV2 UniRef90_F4K5S5 UniRef90_M5W0Z5 UniRef90_W9RD59 UniRef90_V4W5T3 UniRef90_V9LY34 UniRef90 A0A059DB21 UniRef90_UPI00032A6D4D UniRef90-U5XWB7 UniRef90_UPI0002C33AC1 UniRef90 UPI00042B1BFE UniRef90-R0IFR8 UniRef90-F6H6U8 UniRef90 A0A059B5C9 UniRef90-B0B0L8 UniRef90_V7C8Q5

TCKGDNTVVPEDI NDMKEGFKKSFKGFEAYAU|AHPEAY FPKGAE IKEEEIKEGKEKAAAVYKAVETYVVANPQAY

Y T K G DE LSSK D Y LE A G $\square E R F E G F T K A V E S F L L A N P D Y N$ HTKGDVQLNEEI KQRKEEAMGLYKVVEEFLLANPNAYD HSK E GAVG DE E I K Y G HE K LDK GL F K KV E E Y L V A N P E V Y HCK G GA EI K E EVVK D GKERAA GLLFK
YPKGDAQINEDI KA GEEKMMGMY
Y T S D E S E I P A Q LI LA G K E K R L G M F K A T E A Y L L A N P E A F N
 H T K G DVELKED I K Q GKEKAMGLYKVVEEYV


Y T I G D N E DK E E I K T G K E R A F G M Y K A V E A Y L L A N P A Y N


 EPDGGEPPDEQDKSSLVDLLKAEEAFLQANADAYT LP KP G V V I E E E I K A A N E K V T TVVV F K A V E A Y L L A N P E A Y | E K | D | E | $K$ | $V$ | $A$ | $H$ | $P$ | $E$ | $T$ | $F$ | $L$ | $E$ | $F$ | $C$ | $V$ | $Q$ | $V$ | $S$ | $K$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $E$ | $E$ | $I$ | $D$ | $E$ | $H$ | $L$ | $L$ |  |  |  |  |  |  |  |  |  |  |  |  |
| $I$ | $D$ | $E$ | $K$ | $V$ | $A$ | $H$ | $P$ | $E$ | $T$ | $F$ | $L$ | $E$ | $F$ | $C$ | $V$ | $Q$ | $V$ | $S$ | $K$ | E K A S D E I IAP D P H V $\quad$ I F TKGDDAPSEELKKDKAKGDGLFKALEGYCLAHPD YN



QTKGNAEPNEEVKEGKAKGD

 $N T K G D A G I S E K I K E G K E K A M G I F K A V E A Y L Q A N P A A Y N$ HLK P GVE』K E E
ESMSHRNSEED $\square K N \square K K G F \square A M V K V V D A F L L A N P S S Y$
EPLVES PSLEESKMGGAGTHHADEAYLLSHNEEYN ETLAGAPVDEKA QEMKEQSNVMFKKMEQYLLSNPTLY


|  |
| :---: |
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|  |

$D$ VEEGAELKEDDKQGKDRAMGLFKTVEEYLLANPTVC


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| UniRef9 | M1CPE4 |
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| UniRef90_F6HFH0UniRef90_M0X653 |  |
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$$
\begin{aligned}
& 1 \\
& \text { EA DVEDKASAEKFHDMFCNRPHH VSKASSDK DQG }
\end{aligned}
$$

EAEVVI KVSAETFHDIFSCRPDHHVSNMSPAKIQN
ETDVVEI KASPDVQFHEYFTRRPHH I SNVSSSDKIQQG
E A DVVEI I A A P A S K F H E L L H K R L H H V S K AS G D K V Q S
QV E A E I K A GA E T F Y E V F R S K G Y L L P K DCP D MIIK D

$$
\begin{aligned}
& \text { G V V T T VELK S S V EKFHDLLVGRPHH MSNATPSNIQS }
\end{aligned}
$$

GHFSYKTE TKPS $\quad$ PPPAKVFEVLVR AENLISGVLLDVLES TLSVVELDVKSVADKFWKNMARDTXI FPKAFPHDYK S AFVLDSDELFPKVHPQAFKS
 ETHVEKKSPANE FYEVFSSSKAH LI PKACPD KI K S VGK ITE K QI E DEVPA EK F Y HI WK K Q S Y H VVP TASSANI KA

 HEFETGLPAADVWE IVGGR $\quad$ GGQLVPELLPDMLKK


ETELEAKVSAS $\square$ FHDVLSCRPHH FSNMTPDHVQG
VGKLEAETLILAPADKFHEVWGGRPHH MSSVSPGKDQK ELEAD EI KSPPTKFYHMFAAR PQDVSKATPENVQR
 ETKVHLKKASAQQFYDVFCNRPHH\|A NISPQKIQS
G

GKLEVVDVEI KS A A K K K WDNDRDSTTLFPKAFPDQYKG T V E K E V V P $\square$ R A S A S K F H E $\square$ F HK R P H H $\square$ S N V S T N I I H G


EA DVVI KASPKQFHEMFAHKPHH V HHTCYOKI Q G


HELLEVAASADDDWSVYSPGLAKHLPDLLPGAFEK EFNQQAEDCVVELDETWQALSKDLIVVTIPKIIPNDVKD T F E DEFNSPVA PA TLYKALVT DADNVIPKAL DSFKS SVRDEHAVAVSVERLWKVFM DGSAMPKACPGLVDA



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UniRef90_V4VGP8
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UniRef90_UPI0002C30C0A
UniRef90_W9QSL3
UniRef90_W9QSL3
UniRef90_Q941R7
IniRe_Q7YM

CDLHDGDGTVGSIVYWSYVHDGEAK VDV DEGDGGTGTVLKLTFPPGTPFTYSKERFSVVDDENRV VDLHEGEGKPGTVICWSYVHDGVAKTAKEVIEAI DDEKLS CDLHEGDWGNGSVI YWNYVHDGKPRVCKELI EAADDDETNS
 CELHEGDGKVGSII YWNYFHDGKAKVGKDVI EAAVDEENNS

I QVLEGDGKPGSVRLINYAEGSPDKVSKERVESVDEAEKK

 A ELQ E GE G QVGAV I L WN Y V H D G E A K S A K Q RIIE S L D P E K N R
AELIE

I E L I A G D G GA G S I 1 K K I T F S E A





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

$\left.\begin{aligned} & K \\ & Y \\ & K\end{aligned} \right\rvert\, \begin{aligned} & \text { I }\end{aligned}$
CDLHD GE GKVG S I I VWN Y VH D GEP K VAK D I










 E A K G A K E R V E A V E P E K N L VELHE GE GK P GT V ITTWT YK H D GVTT GP G T T K K L T F VE D G



2A

## V

$V D L H E G E G K V G S I V Y W R$
$V E V V E G G E G K V G S I V Y R Y L L D$


## UniRef90_M5XNT3

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UniRef90_M4E709 UniRef90-B9HVC5
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UniRef90_Q9ZWP8 UniRef90_Q9SMF5 UniRef90_I1J175 UniRef90_M4D7A4 UniRef90_W9QDC3 UniRef90_B9SZH7 UniRef90_D7T8R6
UniRef90 I1R741 UniRef90_Q940E9 UniRef90_C3SBV5 UniRef90_G7J033 UniRef90_Q9FEZ8 UniRef90_J3NE29
UniRef90_A0A022PZR8 UniRef90_K7MBC9 UniRef90_B7FKA0 UniRef90_R0FQQ4 UniRef90-A0A059B5D8 UniRef90_I3SXL3 UniRef90_W9RJ76 UniRef90_F6HFH0 UniRef90_M0X653


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| UniRef90-W9RJ76 |  |
| $\begin{aligned} & \text { UniRef90_F6HFH0 } \\ & \text { UniRef90_M0X653 } \end{aligned}$ |  |
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E LE GA A LS P E QEKK V VD GYY GMLK M $\square E D Y$ L VA H P DE Y EVRE EYAANASLVSLQNFVAVM EAAALHLIQN

EKHNDESPEPSMKLLKS I AVDM E E HVL
HVK E GA E LLK E E DKK K GK D K A M G L F K A V E E Y L L A N S NVC

EKLNDSIPAP TKYLD LLLSATTKNVEAYLTNN
E K L N K D I P T P $\quad$ I K E L E F

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QHEAVIDVPANVTWQLFSLEDGR UVGEQDPNDFEK TVEAEVEIKSNSGKLFK LI SNQHHDVPKASSDNVHD TYVT DVPLKGTAEKHYKRWRSERGNLFPGALP VFES ETTVELKSSTEKFHDMFVGRPHHVVPNASPSYVQG TLETELELKSPADKYFKRISSELHH APNASSDKVHT VGKFVSELEINAPAEKYYKIF KDQVSHVPNISPNIIQN ELTHELEVPTSADS DWAVYGSDDPRGLRDVLPGVFEK EKDVPDRASASKFHEMFHKKPHHICNNCSTDKIHG SDERSIAVSLERLWNVFS DPLAMPKVCAGFFDA
 HEFETDLPAADVWEVYGLRLGQQVPQLLPHVLPK ELSEKTEVSVGLEALWQGLSKDLEETIVKVIPNUVKD

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 E V V V L FSGEHAAAVSAERLWKV ILDVPAMPK FPEKAS E HELEDHVPASEAWDLFTLRLGAMAGAKECAGFVDA T TELEDRSPAAKFFNAYARQLHNLGPNDVDNVME GVFNYEAETPSVIPAARLFKSYVLDFDKLIPKVAPQVISS $\square L K V S D E L A V A V S A E R L W K V F M$ D A SAMPKVCAGFVDD $\begin{array}{rl}\square L K L E \\ E & V \\ V & S \\ V & E \\ V & L\end{array}$

$\mathrm{G} V \mathrm{Q} T \mathrm{~L} \mathrm{E}$
$T E D G \square R S P A S S F F S V F \square K Q \square H N D$ V
QN】AGKVHE TEYVSMAKA $H \square S Q D T P V A V P A A V V W D V Y T L E L G R L V D K L L G D V I G S$
 VSUSDERAVSVSAERVWKVFS DAPA MPKVCAGFIDA DKEFITQAELSVGLE\LWQAMSKDLNVITQKI IPNTVKD TYVTEVPLKGTAEKHYKMWRNDNHJLFPDVVGHHI QG
SVTEECPVAVSAELLWKVFLAGDASIMTKACVGMI DA HEHEADVPASDLWAIY SLLRAAELLPELLPHVLAK HEFETGLPAAEVWEMYRLRDSQVVPQLLPGIFRK
 KKTVTHTETLNASPDAIWKA VKEENSILPAAMPQVFES

 VETEI EI KAPAEKFYN IFNSRAHHVVPNISPGSIQG

 STELLGIKSPAAKFFNLFATELHNV $\quad$ GNHCERVVG
 $T \mathrm{YV}$ A E V P LK GSAEKHYKKWRNENH VVFQDAVGHHIQQG
 D $I F H Q L L K N N P H A F S T S S P Q I I Q G$
 VIJK Y D M E V A T

 VK E
 VQKVEANVHIMMASAE EFHDVLCS KTHHITTNMSPQKIK S

E S E I VI N T P P H R F Y K L F F K E E Il: F D I P K A C P K L V Q K



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C

AEVIE G D G G ${ }^{50}$ G TVFF LF N F G $S^{60}$
70
80 VDVGEGDGGPGSVFTMTLSPASGSDVMKSRVVARDNAARV VTVLEGDWSHGSIKMWNYTCDGKPEVFKERRE DDDENNA VTVHDGEWSHGALKI WNYTCDGKQEVFKERREVIDDEKRT CDLHEGDWGTDSVIVWNYVHDGQEKVAKERMELVEPEKKL ADMLEGDGGLDTVYLFNFGPGGKMTYQKERVTEFDEFVHR
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 CDDHKGEGRKGSSLYWNYVHDGDAKVAKQIVEDIDDVNMS AEYDQGDGGPGSLRLFKLGPAV CNYVKESMEKIEKVERS VEILKGWGTEGSIISWNYLYEGKVCVAKEVIEGIDKKNKK VEVEEGDGGPGTVHTLKLNPAADVSVYKTRLVARDDASRV VELTEGDGGVGTVLKLTFASGVGPSGYKEKFTKVDNEKRH GQLHEGDWHIGSVKSWTFTTEGKDTYYKESTEAYDDEKKS VELLSGDGGVGTVLQUTFPPGDPGQSYKEKFIKVDNENFI IVVGGNGGPGTIYTMKLNPGVGVNTYKTRVAVCDNAAHV VKVVKGDWTVGSVRTWKYVAGL SENASETI EAIDDRNKS I EVVLEGDGKIGSVRLVKFKNGSERSTTKEKIVDFDEETKT ARVHEGDWNIGSIKHWEFTVEGRKQSAK
AKVHQGDDWHG VYVHRDDPTNSSIOLWNFIVDGKMEOLKEK VTVLQGDGGVGTVRQLNFTPAXKFSYXKERLDVIDEDKMV VEVVEGDGGVGTLVKVTFRPGSPDGYMDEKFTKVDDENRV CDLHEGEGTPGVVICWRYVHDGKAKIAKQVVEVMDHEKKS CRVLEGDGKSGSVRLWTYVMGGPVIAKDKIVAVDEVNRS
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$\stackrel{1}{1}$
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 CDLHD GWGTVGGSVI Y F N Y T H D GK E R V A K E I I E A I D E ENK S



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UniRef90-D7T8R2 2
UniRef90-Q9SXL8 UniRef90 UPIOOO3EAB08D UniRef90-D7T8R8
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 ATFSVFDGEV SKNYKTLK HKYAAIEGGSLGKKLSALNFELKFVHREEGGCALTWDC KETEVVEGGYKALGFDPFRVRLEVLEKDSQSSVLRSSVEY

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UniRef90 C5YF15 UniRef90_UPlooo2B412C1 UniRef90_V7AJOS UniRef90_A9SYY9
UniRef90_A9SYY9
$\qquad$ -
$\qquad$ HELEVGLPAGQVWEVYT
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EVEVDINCHGDIFFHEI FSTRPHDVSTMSPENVGG VGEDIETS TYVTEVPLKGSAKNHYRRWRSENH LIFPDAVGHHIQG


EVEVEIKSSAEKFFNFWKVQPHQ VPNHTPSNI QA


 EAEDDINAPADKYYRIFKGQAHH VPNISPGUI $\mathbb{C}$ EVDVEDKTSADKFHDVMGGRPHHTADASPQNIQT STEVGVKASSAKFFKLFSSEDHHV V Q Q
$\qquad$ KF GFFKNNTKFVQIFPQNFKG
 DKFFMFVIRRSQQLSKATP Y I KG DVFHE $\square$ F RQRPH HL SN $\square$ CPDK $\square$ K N KKTLTHVQTLDVSPEDIWKA CERVDDILAKAMPQFFET KKTLTHVQTLDVGSPEDIWKA CERVDDVLAKAMPQFFET IKTTADKVY LFARRSQNVVS ATRYI QG VGK LEADVE KKASAEKFHHMWAGRVHDLDPKATPDKVRN $V T S Y T Q E S A T P \square A P S G M F K A L V L D S H D L M L N D V F K A L K K$ VEAH DEMKAAASKDHEMUVKRPHHVSNASGDKIQG
 TYMTDVPLKGSAEKHYKRWSSENH LVPDAI GHLI HG
HEFHTDLPATDVWEVYSLVLGQLVPQLLPQVLSE TYVTEVVZLKGAAEKHYKKWKSENH IIFPDAIGGHIIKN EVAVETSVPAEKFHDTFSTSTDTQLSSMSPAKVQA

VSADVQ IKCGAEKFYGFFRKNMFQLA QMFPKNDHA VSAETPVGAPARIVWDAYRVELGRLVDELLGDVLGK DELQVKKSADALWDVYGTKLGNLIDPKLIPNII NA TYVTEVVSLKGTAEKHYKRWKSENH LFPDTIGHHI QN S TQ Q $\quad$ LKKSPADKFYK TFKGQAH LIPNVSSGHTKG SEI EI KCDGD IFYEVYRHRPHH STMSPNNIQN $F \square E Q V Q \| N A A A S E V W N L Y T N E F P K F V V E K D P H V V E K$ EHS $\square P P A R M F K A F V L D D D N I P K L L P Q A D E D$
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 GRLVVSTELGUKTPADKFFKLFASELHNLCERVHHTKIHH S SE P DNASAEKCYKI F KDNCKHMPNDTPKFIQQ
 E S ELGIKAPADKFFKVYTSELHEL QNHCENIHA




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| UniRef90-V4U | VDLGEGEGKAGSVIFGRYANEGKSDSCKVIMEEIDYENNK |
| UniRef90-D7T7M4 | VELVEGDGGVGTVVE |
| UniRef90-MOSSJ6 | VDVVEGDGGVGTVLH |
| UniRef90-W9QQSE | GDGSP |
|  | Vrer |
| UniRef90 UP |  |
| UniRe | AEYVEGDGRPGSIILLKLGPGVNTSESKQRIEEVKEGPLQ |
| UniRef90-A0A059D7N1 | VQLHEGEWHEDAVKLWTYTVEGKTLTVKERIEVVDDANKV |
| UniRef90-K4C3G6 |  |
|  |  |
| UniRef90_A9RD61 |  |
| UniRef90-A9RD61 | CTFAKGNGEVGS1 R |
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| UniRef90-M4D7A3 | CDVLEGEGKVGRILSW |
| UniRee90-W9QBM4 | VEVHEGDWSHDCVKF |
| UniRef90-M4EDD3 | VKVHEGDWSH |
|  | G D WHI |
| UniRef90-G7J | GV |
|  | G |
| UniRef90 Q9C717 | CDLLEGEGKVGS |
| UniRef90-B9SFZ7 | VHVHEGDWTPGSIRIW |
| A9 | VEVHQGEWKSGNI KELTFAVGDTVETLKERVE FDDENKK |
| A0A022PW35 | GDGGAGTULELFFPPGGGLTSYKEKFTVVDDEKRVV |
|  |  |
|  | CDLHEGEGHVGTVLS |
| UniR | FEIHEGEDKAGSI |
| UniR | VNVHEGDWTHGS |
| UniRef90_UPIO0042B0C8E |  |
|  | S |
| UniRef90 G77 ${ }^{\text {a }}$ | TKLHQGDDWHGSVKQWTYV DGKVHTCHEIVEDLDKQNKK |
| U10002C2 |  |
|  |  |
| R11HM4 | dagPGS |
| UniRef90 UPIOOO2BC8 | VNIHEGDGTVGSVNFWNFTHD |
|  | VTLLNGHGEPGSVRVV |
|  | VTLLNGHGEPGSVRVVKMGPAVPHAEVTERMDLFDKETRK |
| UniRef90-Q8L942 | v |
|  | GDWGK - What |
| $\begin{aligned} & \text { nirefgo_Ni4l } \\ & \text { niRef90_AOA } \end{aligned}$ |  |
| 2349E | GKVGS |
|  |  |
| Q9ZVF2 | VTVHDGEWSHEAI KIWNYTCDGKPEVFKERKEIDDENMV |
|  |  |
|  |  |
| UniR | $V \mathrm{~V}$ VHEGEDSHGSTRSWNYTWDGKEEVFKEKREVDDENL |
|  | GEWKPGCTISWNFYDDGA |
|  |  |
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| UniRef90-UPIO002B4 |  |
| UniRef90-B9S241 |  |
| 56 |  |
|  |  |
| B93 | İEVHEGDWATGSVKLWTYTIDGKPEVFKEKVEVGVEEVNKS |
|  | VQVHEGDWTHGSVKTWNYHLGDEFVGFKEKVEFYDDENKA |
| UniRef90-K4 | V |
| UniRef90 K4CBO9 |  |
| UniRef90-A0A022QUFO |  |
|  |  |
|  | SV |
| UniRef90-G7 | K |
| UPIOO22B43CDB |  |
| UniRef90 S8C4A3 | C |
| UniRef90-D7KYF8 | VSCTKATG |
| UniRef90-U5DIV5 |  |
|  | 1 DLEEGDGGPGSVFVLTMGPAMPGRVVRERVDMRDDDRHK |
| Uni |  |
| Q3 |  |
|  |  |
| UniRet90_UPIO002B46E49 |  |
| ef90-M4D7A1 |  |
| Q6UEJ1 |  |
|  | $\checkmark$ 㑑 |
|  |  |
| 2B412C1 | VEVHDGDWGHGSVKTWKYTLDGKDEVFKEQVE FDDEKYA |
|  |  |
|  | $\mathrm{Ri}$ |
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| :---: | :---: |
| UniRef90 B6T5Z3 UniRef90-E2GK20 | VSYSVVDGEGLADFYKNFKIITLKVTPAGEGGAVVSWA |
| UniRef90-UP10002C31258 | TFVILEGDVLKVYKSFMAKMQVTKAGNGGSIVKWTLEF |
| UniRef90-C3SBS4 | VRQ1QGGYLDMGVTF |
| UniRef90-RoIND4 | LRVIDGD LMKNKSFLITTQATPKSGSGSVV |
| UniRet90-V4UGP0 | TFKVIEGN LDQYKSFCCFFQVTPKGEG SFVTWT |
| UniRet90-D7T7M4 | KETEVVEGGFLDLGFTLYRVCIDEVVEXKDSCV |
| UniRef90 Mossje | KEADVVEGGYL EMG |
| UniRef90-W9QQS6 |  |
| UniRef90-A9XNU0 | VTYSVIDGD LKYYKNFKGT |
| UniRef90-UPIO002B484A5 | VRVVGLEGDVFKHYKTFT |
| UniReef90-K4CB | KQSQVIEGGYVRLGYDFYGTRFEVNEKDENSCDTK |
| UniRef90 A9NTV | MKYKVLEGE LKKMYDPYTVTFSFRGDGNNKCIAGW |
| UniRef90 A0A059D7N1 | NILGGD LLEEFKTFKAIVKMIAKSDGRSLAK |
| UniRef90_K4C3G6 | KI AQVVEGGLLDVGFTLYKVKFEVVEKGKETCITKST |
| UniRef90_V7AIU5 |  |
| UniRef90_A9RD61 | GY VLK ${ }^{\text {a }}$ |
| UniRef90-A9RD61 UniRef90 B9HJC7 | VGYTVLKGDPRFKYVTAVV |
| UniRef90-Q949M0 | IVRFKII EGDLLKEFKSF |
| UniRef90_M4D7A3 | VARVIGGD LMKEFKNFF |
| UniRef90-W9QBM4 | 1 RLVGLEGD |
| UniRef90-M4EDD3 | VTFRGLEG HVMEQLKVYDVIFQF |
| UniRef90-13T371 | NKYTLFGGDIDPHYKNFTLILQVIDNKDS |
| G7 |  |
| UniR | YSLEDGD GQHYKTFLLTLQVIDENKDGHD |
| UniRef90-UP100032AB3D2 | I GLEV ${ }^{\text {a }}$ ( GGYSQGLSFYQTNFQLSQDEEDKT |
|  | RVLEGPLKKEYKSFLKTMKVMSPKGGPGS |
|  | IGLEGDVFEHYK SYYNPIWHPKPNEGS |
| UniRet90 UPIO003DEA990 |  |
| UniR | SVIEGGLVGTQVSSLK WKLTLKPEGEG SLLLWS |
|  | VGMEGDV FNYYKSYKSTFQVVPKDDNHCQAVM |
| UniRef90 A0f | D |
| UniRef90-UP10203D25CCC | , |
|  | ATLIVEGSTVLNHSKTFKGTYQVIPKGNG SLAKLITVY |
| UniRef90-UP100042B0C8E |  |
| UniRet90_B9SP82 | TTFKVIEGDLLKE YKSFKFVVQATPKGDG STVRWILEY |
| UniRef90_G7L8F9 | D |
| UniRef90_UP10002C2FDB1 | ITFIIELEGDAL KVYKSFK |
| UniRef90-B5TH13 | VTFKVVEG HLFEEFKS |
| UniRet90-111HM4 | 1 RTEVLEGGRVSGLLKSQVA |
| UniRet90-ROIKH1 | K K K M |
| UniRet90-UPloco2BC8852 | KKKM EGDLLIEDYK |
| UniRef90-A9RZA3 | LGGYTVLKKGDPR YWCFKATMQFNEGPTKGTTEGEM |
|  | VKVVGLEG HVMEQFKVYEDDFQFTPKSEEDCVCKITTMDW |
| UniRef90-D7KL61 | QWRVLEG PLKKEYKTFLKTVKVSPKGGSGSVVKWNMKY |
| UniRef90 M M Dis | RVI ESD LLKMYKSFVSTMQVT |
| UniRet90 A0A059A |  |
| UniRe990 UPIoooze | 俍 |
| UniRef90-B97P9 | TTFRGLEG HVMEQLKVYDLIYQFSQKSPDDIVCKITMIW |
|  | VAFNALDGQVMEELKVYTANLQFTPGSQNGCVCKVSVIW |
| UniRef90-K4A | GGVLDLGFQKYVVRFEIEGKEDGT I I IRSTIEY |
| UniRef90-M4CUQ5 | GDV MENYSSFKCNLQUIPKLHGRSIARWSWEY |
| UniReef90 M4EZ | DVIYQFDPKTEDTSSCKUTUI W |
|  | VIEGD L MGAYKSFKALVQATPKG HGSVVRWTMIY |
| UniRef90_A0A059B | HGI EG HIYDVYKVYKPVCKVIPKEEG S |
| UniRef90-D6MWR7 |  |
| UniRef90 UPIooo2b47F99 | EAVEGDILSHYNFARAKFQASPNGESGSTV |
| UniRef90-B9S241 | GGYKDLGFDHVRПRLETIEKDDDDSIIR |
| UniRef90 U5D556 | QEKPGGISVIK |
| UniRef90-M4DRY7 | HVMEHFKVCD |
| 39H | HVLEQYK S |
| UniRet90_G3DQ1 |  |
| UniRet90-M5XTG3 | GLDGE MFKYYKSFKGIYQFAQKGN VS |
| UniRef90-K4COU7 |  |
| UniRef90 K4CB09 | KGVEVVEGGYLDLGFTFYGFKFEVIEKDENSSFI KLCT D |
| UniRef9-A0A059DBJ3 |  |
| UniRef90-G7L8F8 | KLFGGDl ENYKVFNVILEVIIKDNGSSAVR |
|  | KLFGGD |
|  | G D |
| UniRef90-UPI0002B43CDB | ITLTGLEGNV FKYYKTMKGAFQFVPKGPENSLAVLILEF |
| UniRef90-S8C4A3 | GGH |
| UniRef90 DTKYF8 | D |
| UniRet90_U5DIV5 | TVVDGE LKGMYDPYVVTLSFFPDGGS |
| UniRet90_A9SQR7 | T EGG DPRYSSFSSSLKYESGPYR |
| UniRet90_C3SBC | EGGYL |
| UniRef90-K4LB | GDI DNFTVFK |
| UniRef90-S8E | GEVL DQYEEFL |
| UniRef90-UPIO002B46E49 | VTLIGLEGSA FKYYKKFl PITYQFVPKGDNHCLA |
| UniRef90 M4D7A1 |  |
| UniRet90_O6UEJ1 | G |
| UniRef90 B9N2R4 | $E G G$ |
| UniRef90 | EGDL |
|  | MTM GLEGDVFTH YKTFKGTY |
| Uni |  |
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UniRef90_UPIOOO2C31258
UniRef90_C3SBS4
UniRef90_ROIND4
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UniRef90-B9HJC7
UniRef90-Q949M0
UniRef90-M4D7A3
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UniRe990-IIIHM4
UniRef90- ROIKH1
UniRef90-UPI0002BC8852
UniRef90-A9RZA3
UniRef90_A9RZA3
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UniRef90-M4EZ56
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UniRef90_A9SYY9

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| :---: |
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EK $\quad$ HEDDEPPNGYMEYFNKDTRDVDN

GKMNDDG PEPSSYMQLLKSMVYDMEDHVKL
E K V S E E V E HP E S HL Q Q S V EVVS K D I D E Y L L
H S K
EKLHGKVPDSH S M L K L C E EVCK D LDA H LME


KVDAEQTSNAS】
EKLNSDSPAP NKYMDFAVY
EKRKDEYPEPSMKFNKSLIVDM
EK K S ENDPAP TAFVDFAVDLTKDTNAH




E DDE E H A WT PP P I T I M P F K L
EKRNDEVP EPSMKLVKSMVSEMQEHV


EKKNANVPDPH TFMELILNVTKDIMA


EENKASKDKAVGMLKAIEAHLLQK P
E K K N E D DD T P NGWM D Y L S K C T R D I D G H L V
EKK KNEDIDDTP NGWMDYLSKKCTRDINDGHLV
V P K G N
EK KN DDSPYPY

E T NDDSPYPY



TPAPWAPPPEDLKGLSEK ITET LHNYAAENPDAY


ETRGGDVEP P FALLEQTAFGV

EK K L H S S P Y P Y K Y $\square E \square M N G \square T$ K D MES H L
K

EFDDTKTELAS LVTVK PLLQTMAEEIGGYV
EF D D
E Y D D D

ERVSEEVHAPY GYLEFFDHVIRDVDAHLLE

D LALLNVWKVFEGVARASPQA

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UniRef90_V7AJQ1
 EFKAGGDVFHELFRHKPHHL SNVTPEKVQG $D V E \square K A S A K K Y Y Q M L A G R P N D \square A K S T P D N V K G$
SE $\square \mathrm{N} \square \mathrm{KCDGDVFHET} \mathrm{\square MYKPHYMCNDCPDK} \mathrm{\prod QN}$ SHELEVEVPAS QA WELYT $\square$ G $\square$ AR R $L V E$ Q SLLS DVI S K

STELGDKAPASKFYNLFATQLHNHCERVHHTKDQQ HELEVAASADEVWSVLGLHLPDLLPAGIFAKFE ELDETVIELKSSPEKFFGVWKTQAYHGIPNHTPDNDHA

TSFTQELICPDAPARILKALIVESNTLIPKLLPQFIKS GQVSYETEV KAGAAKVWGLYGTTKMALLAKALPDTIDG SELEDNAPAEKFYKGFKHQCFHDVANATPKFI QQ VGKDSTE IVGVHATAAKWFNLFATQLHEVVSKNLTDRVHE
 TLKTELEDKSPADKYFKGISSKLQH APNASSEKVHA VANVKVEILNVNCDRAWEAF KDSSSWLPRMMPNVIQS
TKIEASVEMKSDADKVWES DKESTTLFPKAMPRQYAS

$S$ VAQE I GASV A TVWSVLARRFDN PRQAYKHFVKS
 GQLSHETEV $P Q L L P Q V L S K$

## 

IEMKADKDVFHDVFTNKPHH VSTMSPDHVQG TYVAEVPLKGSAEKHYKKWRNENHVFQDAVAHHIQG

 GK SE $\square$ NIKCDGDVFHEIFRHRPHH DSTMSSDKI QN G K L
 H L S Q D T Q V A V P A A V I W W D V Y T L L E L G R L

 E LLN $\square$ SAENAWEMY RDNDT $\square S R I N P$ QMLLAK
VT LK AE TTHPDPKARLVEAF LGAGGFFPYNLLPAVTN HLTNELEVKVAASEVWELYRLGDSMLAAQELKNVIQS

## PADRFFNSFKNKEGSFTDK

TE VT HELLEVQVSAS QA WE LIDTLELAAK LIDQQTDTDVVE K ETVLEDSCTPQQFFTVWKSEAHQQ IPNHTPNNIHA $E \square S E Q V N$ K K S S A HKFYQFFKNKMM Y VFVQMFPE I YK S


TELGG!K TPGEKFFQQLFATQQLHEVQNVVERCHHTK

VEVVPA AVIWEVYRLLQLGKVVNEDIRDVIGE

STEDGDKASSDKFFKLFASNDHEVVQNDCESVHE V VQEID APVST VWSVVRRFD N

PQAYKHFVKS
 TCTSSLTVQRDAPANAVWPLVRRFDN PQRYKHFDKS EVEVDLK S SAD QFYGFFRNTPHHLP TACT DLHA VKVEA QV EL E SPA E KVF D DF RR K S Y L F P E IA P H VV K D $V$ E L $\square$ GREK Y Y H F L K D N VY HAPN I DS T I Q D
 $Y$ VA EVVPLKGSAEKHYRAWRS Q N N LIFP DA DGHHVVQ G

 EVVLN $\$ PAEKAWEMY RDNE I I SK I NPEMLAA V EVVKC G GHPDH D I F H T N THHI C N I SPGKI QK
S E L E I N A A A E K F Y E I F

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UniRef90 K4CRT4 UniRef90 ${ }^{11 \mathrm{~J} 7 \mathrm{H} 4}$ UniRef90_11J7H4
UniRef90_A0A059B5P1 UniRef90_A0A059DKN6 UniRef90 W5AY05 UniRef90_UPI0002C2F965 UniRef90_H9WFS7 UniRef90-K4CQ32 UniRef90_Q42185 UniRef90_B9RZR8 UniRef90_W1P6J6 UniRef90_UPI0002B45654 UniRef90_UPI0002B4B5DE UniRef90_B9S473 UniRef90-M1ACY0 UniRef90_S8CWB3 UniRef90_UPI0002B42FD1 UniRef90_UPI00042B4BFD UniRef90_UPI00042B4BFD UniRef90_UPI0002C30EEE UniRef90_Q9FYJ0 UniRef90_M1B097 UniRef90_A0A022QWT5 UniRef90_A0A059DAY6 UniRef90_UPI00042B3D85 UniRef90_I3SFB3 UniRef90_C6TIJ3 UniRef90_M4DIN4 UniRef90_UPI0002C35F21 UniRef90_H9WKD1 UniRef90_B9SJ69 UniRef90_UPI0002B41D41 UniRef90_A0A059BI46 UniRef90_M1CUI4 UniRef90_Q6KAV9 UniRef90_I3T217 UniRef90_K4D3W5 UniRef90_M1AH43 UniRef90_S8DPI1 UniRef90_UPI00042B5C82 UniRef90_A9S6H3 UniRef90_W5QXF0 UniRef90_B7FMF6 UniRef90_UPI0002B4AD36 UniRef90-G7JMQ1
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UniRef90_P93095 UniRef90_M5X3G2 UniRef90_-V7AJP1
UniRef90_W5BV75 UniRef90_W5BV75
UniRef90_M1BAU5 UniRef90-M4D7D7 UniRef90_D7KL54
UniRef90_V7AJQ1
 C D L HE GQ G HVGGTII T WRYTHDGKEKKAK QVIQAA NEE QK L


 A MKNRVDELNEETFA
 GEDWH G S D SVKHWKYVID GKVHTCNESVEEVDENNKK
 CDDLHE GE GHVVGS I I NWRYTHD GKEKTAAK QVV QTIDDE E QK L AKLLHEGEDHNDSVVKHWTYVIDDGKVVHTCHESIE V DE QN KK VEPVQGDS GAGSIEQVKFHRRYDHD

 TK L HHH GDDHNESI KHWTCT DDGK DT T CDLESIIESVDEPNKT
 V E LV E G D G GA G T V L L V T F P P A S E P R S Y K E K F N V V D D E K Y $\square$






 CTMHDGDWSHGS $\square$ RSWN $\square$ T CDGKPEVFKEKRED



## C

 VV
V
 VEIQEA
$V E V L K G D G G V G T V L K L T F V P G N D$

 $\square E V V Q G D G Q A G T I L R D D T C A P G V P P G W Q T E K F T V V D N E K R V$ ATILE GD G GVGTI KQ F NFTPEKEFSYVKERVDEINEEKLV


$\stackrel{\rightharpoonup}{1}$








 GEI HE GE WHT GS I R K WT Y SVVE GKK E T F K E K I Q $V K L V S G D W S V G S V W L W T Q C \quad D S G S G K E T F E A P$

## 

 VA HE G D WS HD S I K V WN Y T IDD GK A E VMK E



 TKLUHQ GEDHNDTIVKHTYVIDDGKVT TCHESIVESVDE EN NT F E I H E GE T K $\square$ G S VVS WHY N D D G Q K K $\square$ M K Q $\square E A D D P$ H K K S QVLA G D G S PG S I RLI I Y G E G S P V V K V S A E RI E TVVDLE N K S



| UniRef90 UPI00042B81ED |  |
| :---: | :---: |
| UniRef90 A0A022PQR4 |  |
| UniRef90-R018F7 | E RID E KVA HPEIK A S R D M GEMLLS EVV |
| UniRef90-K7MBC8 | FTKGNAFSEEEVKANQAKVEGLVKLVEGYLLANPD |
| UniRef90-K4C0U8 | EKKNVHVPDPH T F M ELCIINI TK DIIE S Y |
| UniRef90-A0A059D667 | EKLLHEGVANP NAYIDLEVVKLT K D A D A HLIIS N |
| UniRef90_UPI0002C37431 | ELKEEAAAMVS FVVVVDLFANIA Q I A K H HLL |
| UniRef90_A0A059B559 | YVKGNVKLEEEDKA GKERALLGMYK I AEAYLLQNPNAY |
| UniRef90-G3DQE8 | NCVE G K D M MLK A K D S Gld M F K TVEA Y L I A N P D A |
| UniRef90- Q8L6V6 | EKINEDDY P P |
| UniRef90-A2A1A1 |  |
| UniRef90-B9HJC6 | EKLNENIPVVPD K K M D F M I TVVTK DI D A S L |
| UniRef90_A0A022R047 | EMLND DVVEEHP |
| UniRef90_G7L7S7 | QKINEDIVDPP NGWMDLLGKVTREVDAHLV |
| UniRef90-A0A059DAK9 | NSKKALLQVEE |
| UniRef90-A0A059DJC7 | E $\square_{\text {T }}$ N G A S F DVS L V V VKLFA D |
| UniRef90_UPI0002B4B17E |  |
| UniRef90_V4W3H7 | E PLTTSTPAPE K A R A A L F L K C F D K F Q L S |
| UniRef90-C6T1D7 | EKIDENVD P P |
| UniRef90_K4AR40 | K K T E E T PEPLALLLGFLIGVT K D $\quad$ E NHLL |
| UniRef90 ${ }^{-}$M8AAI1 |  |
| UniRef90_A0A059D656 |  |
| UniRef90-D8QP03 | ELRPT DSTDNAASRSQQSALDAFKALEQYL L L L |
| UniRef90-S8CIZ3 | DKMSEEAPDPEL MKGFAVECFQDLDAY |
| UniRef90-M1CUL1 | V D \P H G N T K E E |
| UniRef90-K4CRT4 | E RPNENVPELIN LLD F $\square$ L I M T K A VD D H |
| UniRef90_I1J7H4 |  |
| UniRef90_A0A059B5P1 |  |
| UniRef90-A0A059DKN6 |  |
| UniRef90-W5AY05 | E VDAEHAKNASLVSTEAVAS I A E A I T K Hil |
| UniRef90_UPI0002C2F965 |  |
| UniRef90-H9WFS7 | ETAPGAEFDEAVKEVKENMNAMFEKMEQYLLSNPNVY |
| UniRef90-K4CQ32 | E R P N TVVPELSLLDPFVVGMTKG】D D H |
| UniRef90- Q42185 |  |
| UniRef90-B9RZR8 | Y P KE G HE L N EE $\square$ K A GA EKAFG |
| UniRef90_W1P6J6 | DTIG DATLDDEAKQMKENLLYYLFKAVEAFLTQNPDAY |
| UniRef90_UPI0002B45654 | EKLDHSCPDP NKYLVLMTNVSKDI ES F L |
| UniRef90_UPI0002B4B5DE | EKLDDGSPAPY K Y V EFLENLIM DIE S HL |
| UniRef90_B9S473 |  |
| UniRef90-M1ACY0 | EK R N CNVPD P H T L M $\quad$ LC $\square$ N $\square$ T K D $\square \mathrm{E}$ T H |
| UniRef90_S8CWB3 | ETLD DEVGP P |
| UniRef90_UPI0002B42FD1 | D T P P G T K D ${ }^{\text {T M }}$ |
| UniRef90_UPI00042B4BFD |  |
| UniRef90_UPI00042B4BFD |  |
| UniRef90_UPI0002C30EEE |  |
| UniRef90-Q9FYJ0 | EKRTE DSEPAKFYK L L EKMIA DSDDHIL H N |
| UniRef90_M1B097 |  |
| UniRef90_A0A022QWT5 | EKLSED!PDPH T L M EFF GTMTK S I D S H |
| UniRef90_A0A059DAY6 | F TVGGP G D $\quad$ P E EMRAMRGK A S VMF G A I E A Y LEVP S D A |
| UniRef90_UPI00042B3D85 | AVKKEFEADDP |
| UniRef90_I3SFB3 |  |
| UniRef90_C6TIJ3 | HTK GVAPLS DAVDETKARGAG\\|VKAlV GYVLA NP |
| UniRef90-M4DIN4 | EKLLND DVPPPP TKY |
| UniRef90_UPI0002C35F21 |  |
| UniRef90-H9WKD1 |  |
| UniRef90-B9SJ69 | EKVNENVP A P D K Y M F M |
| UniRef90_UPI0002B41D41 |  |
| UniRef90- A0A059BI46 |  |
| UniRef90-M1CUI4 | EKKNEDTPEPLIF LGG F I LD M T K D $\square$ EA HLL |
| UniRef90-Q6KAV9 | EK $\square$ HEDYDPPNGYMDYFAKCTKDMDAHLV |
| UniRef90-13T217 | EKNNEEV ETPNGWMDY LSSKGTRD\DGHLV |
| UniRef90-K4D3W5 | Y V V D |
| UniRef90-M1AH43 | ERPNENV PELTNLLQQFF\DMTKS\DDHHDNKPN |
| UniRef90-S8DPI1 | ELRKP D NPHPLSSVVDFWI EFAR DVEE H |
| UniRef90_UPI00042B5C82 | E DD D K LEE EA S QVTT Q P L K I M A EVI G K Y L |
| UniRef90-A9S6H3 |  |
| UniRef90_W5QXF0 | ETLP GAQLDERAQEIKKEHSGAMFKKI E Q Y |
| UniRef90_B7FMF6 | EKINED\ EPPNSWMEYLSKCTR DII A HLV |
| UniRef90_UPI0002B4AD36 |  |
| UniRef90_G7JMQ1 |  |
| UniRef90_V7AKT5 |  |
| UniRef90_Q9LEN3 | F T K G Y Q e E E LK A G K K V |
| UniRef90-A0A022PXX4 |  |
| UniRef90-A0A059D6K5 |  |
| UniRef90-A0A059BFB8 | EKQNADV P D A K Y L EFTRSLLI S V D G Y L L |
| UniRef90_UPI0002B42B05 |  |
| UniRef90 ${ }^{-1} 9 \mathrm{HSJ1}$ |  |
| UniRef90-F6HCA4 |  |
| UniRef90_Q42173 |  |
| UniRef90_G7KT83 |  |
| UniRef90-P85524 | EKLKEDV E EPNTLMNFCDETT K D TE T Y |
| UniRef90_A0A022QW60 |  |
| UniRef90_E0CTD9 | EMLTPETPMPE K ARDAALGFLK S FEKF |
| UniRef90-E3W9P6 |  |
| UniRef90-P93095 |  |
| UniRef90-M5X3G2 |  |
| UniRef90_V7AJP1 | EKLDAEV EPPYGY I E Y L H K C T S Did G NL L |
| UniRef90-W5BV75 | KLLS GVEVNDEDTK K K E SVTA IF K A A E A Y L I A N P D A Y N |
| UniRef90-M1BAU5 |  |
| UniRef90-M4D7D7 | EKTGHEDEDPHV I K D F AVVKNFKEIIDEYLLKQSSV |
| UniRef90-D7KL54 | ERIDEKVVHPE R L L K F FVVEVITEV D Q Y L L S |
| UniRef90_V7AJQ1 | E KVVSEEVVHAPY G Y L E L Y D HVV R D\|I D A H|LVVE |



UniRef90-A0A022RQC9 UniRef90-K4CQ40 UniRef90 UPI0002B4948C UniRef90_C6SYE7 UniRef90-V7AMW1 UniRef90_M4DI53
UniReff9-B91JD9
UniRef90-B7FGX0
UniRef90- UPI0002B475C4 UniRef90_O80992 UniRef90-J3MSL0 UniRef90-UPIO0042B48C4 UniRef90 B9SJ67 UniRef90-A0A022QXQ9 UniRef90-A9RIG6 UniRef90-R0GNR6 UniRef90-V7AIV0 UniRef90_Q9C713 UniRef90_A0A059DCT5 UniRef90_Q39467 UniRef90-F2EK44 UniRef90 ${ }^{-}$K4CQ30 UniRef90-E3W9P8 UniRef90_A0A059AMU9 UniRef90_K4BS57 UniRef90-M1BAU7 UniRef90-S8CEK9 UniRef90-W5HXM3 UniRef90_Q8S8E3 UniRef90-M1CXS6 UniRef90-M4CU78 UniRef90-A0A059DB92 UniRef90 G7JKP6 UniRef90_UPI0002BC8CD8 UniRef90_Q40308 UniRef90 UPI00046E171F UniRef90-M1ALE4 UniRef90-Q71HN2 UniRef90_UPI0002B463DA UniRef90_M1AVL1 UniRef90-G9C065 UniRef90-A0A022QWU4 UniRef90 Q5ULZ4 UniRef90-K7VNS9 UniRef90-M4DRY5 UniRef90_G9C068 UniRef90 G71986 UniRef90_UPIO002B49FEE UniRef90_Q9FLB1 UniRef90_A0A022PYG6 UniRef90-M0YP57 UniRef90-M1DNR1 UniRef90-A9THF2 UniRef90-S8DQR8 UniRef90-C0HDT7 UniRef90_S8C938 UniRef90 V7C5E1 UniRef90_UPI0002B4A111 UniRef90-M7Z7W7 UniRef90 M1C4M7 UniRef90-A0A059AIP2 UniRef90_Q941 W8 UniRef90_V7D218 UniRef90_UPI0002B46D5B UniRef90-UPI00042B8991 UniRef90-A0A059A9E4 UniRef90-M1C4P6 UniRef90-K4BNH6 UniRef90 UPIO002C2FB86 UniRef90-R0GFP0 UniRef90-UPI0003D27CDD UniRef90 D8R674 UniRef90-M4DKI2 UniRef90_V7AIV5 UniRef90-D8SHF5 UniRef90-T2DNF0 UniRef90-M1A5V9 UniRef90-M1CSU7 UniRef90_NODK19 UniRef90_B9SZH8


20
30 VPKVSPK II Q ${ }^{40}$ VVWAVVRSFDK
$P Q V Y K R F I Q T$ IEMKANKDVFYDVFTNKPH LLISTMCPDHVQG F H ELMLKTPHELPKANPAKLYN
SVS Q H I S A P VS T VWSVVRRFDN PQAYKHFVKS SEI EDKGCKDLFHEIFCEKPHHL PNIVPQTIQA SELELNVSAQKYYTVF KDKVCHIP
 G

TELGTRRSADKFFNVFAKQLHNL
$\qquad$ QNLTERVHE

LGIRSPAVKFFNVFAKQLHNL QDIVDKVYD
TELGIKSPGEKFFKLFASELHEVHKVCERVHH
TTCTSLITQRAPDASVVWPLDRRFDN PQRYGFKS EVKLNLPANKAWEMFT NNETLGKDSPEMLSG EGDVEISAPAEK FHGVICSAPSQLSSUCPDVIQE ESEVELKATAEQFFSFWKGQ】HQ APNHTPCNIQA

TLEAPADTDWNDLMHE DVILPKVIPHII ES
TLEAPADTIWNILMHE DVILPKVIPHII ES
TYVT DVPD TCTSLIT KSTADKFFMMSRRSQH ASKAT RYVQG QRAPAA V WP V R R D N
 VAAPAADVWAVVRRFDQ PQAYKSFVRS
IE MKANKDVFHDVFTNKPHH VSTMSPLHIQN

$\square E \operatorname{VKCGGH}$ G HE TK S AP DS TVWSV VRRFDN
 TCTSLI TQRIAPANVVWPFVRRFDN PQKYKHFIKS
 $\begin{array}{cc}V V Q E T T A S I T A \\ S E D N D K C N G D V F H E S V V R R F D K & P Q A Y K N F \\ V\end{array}$

TCTS LIA QK $\square$ APASHVWP LVRSFDN PQKYKHF $\quad$ K S MFRDVFTNKPHHVSTMSPGHVQG ETVIEDEASPEQYYNIW KQAHH I PNVAGDHI QG EVLLNLPAQKAWQMY RDNDVVSKINPELLSR



VQS 1 AAPVDAVWSLVRRFDQ PQRYKRFDRS TYVTEVPLKGTAEKHYKRWKSENFLFPDA $\square \mathrm{V}$ GHHIQN PAAKFFNLFAKELHNV QNHCERVHG VEASVQLKSCPQKFFNFLKSQSQHIPNKAQSENVHG VQK DMQPVEMK DSANKYYYAVKNNVYHFPNVTS $\begin{array}{lllllllllllllllll}1 & H & A & P & P & E & S & V & W & A & L & V & R & R & F & D & N \\ I & P & K & V & Y & K & N & F & R & Q \\ \text { E A P A A A }\end{array}$ CSAVVQHVAAPAAAVWSVVRRFDQ PQAYKRFVRS SQTE KGCKDLFHEMFKNKPH H L S E $\square G V H A T A A K L F N D F A T Q D H D V$ I K A PVETVWSV A R S FDK

 PNVAPQTIQA QNLTDRVHG PQVYKRFI QT PQRYKHFI KS PQGYKRFIRS S WTHETESSVAA PRLVWRMVRRFDN ARGAYKGFVKS

L EVTCGGHSVHDFFHTNTHHLT
TCTSLI TRRDAPACAVWPLVRDFAN FSTVVQA IAAPADAVWSVVRRFDR


VPLKSPPEKFYGFFRNHMGDLV HMFPDNFQS VVADVEVRASAEKFYGVFCNTPSQL S S D CPDVIQA


 $A P L S L V W S V I R Q F D N \quad P Q A Y K Q F U S S$

DSFFD 1 FH TSTHH VPN LTSTNVVH EVGLDVSAWEAWQTF RDAKSLAGIIDPGVI QS


CHLVDGDGEVGSVRELLLVSGLPAESSRERDEDRDDERRV VTVRHGYGHYGSTL YCSNGKQEVFKEKRE IDDENKT AKLHEGDHGPGSIKHWTYVIDGKVHECLEKMEDVDEKNKK VEVHKGDWKPGSVKDWKYS EGKEETFNERIE VDEVNKT

## c

|  |  |
| :---: | :---: |
| UniRef90_Q84RN5 UniRef90-A9SNC6 | E |
|  | D 1 |
| UniRet90-S8E032 | G |
|  |  |
| UniRet90- |  |
|  | $\checkmark T F K A F E G H L I E E$ |
| UniRef90-UP10002B4948C | VTLIGGLE GDVFFHYKTFKVTYQVVP |
| UniRef90-C6SYE7 |  |
| UniRee90-V7AMW1 |  |
| UniRef90-M4DI53 UniRef90 B9IJD9 | TTFKVIEGD LMEAYKSFKVIVQATPKG HGSVVHWTLDF |
| UniRef90-K7L142 | K1FDGENSKD YKMYK |
| UniRet90-B7FGX | K |
| UniRef90-O80992 |  |
|  | R V V |
| UniRet9 | VLGGD L A E EFSVFKV |
| UniRef90-UP100042B4 | VKFDGLEGDVFKTYKVYNGIWHTKPKS QGCSAKLILEY |
| iRef90-A0A022 | LYRVRYEVTEKEEKMC |
| UniRef90-A9RIG6 | Y ${ }^{\text {Y AVMOFLPSEEGT }}$ |
| UniRef90- ROGNR6 |  |
| UniRef90 ${ }^{-}$V7AIV0UniRef90Q9C713 | YKVF GEEFDHKFRVLKVIFEAI HKDEGG |
|  | QWRVLEGPLKEEYNIFSK |
| UniRef90-Q9C713 UniRef90-B9HDP0 |  |
| UniRef90-AOAO59DCT5 |  |
| UniRef90-F2EK44 | GEHRLRNYRSV |
| UniRef90-K4CQ30 | 硡 |
| UniRef90-E3W9P8 <br> UniRef90-A0A059AMU9 |  |
|  |  |
| UniRef90-K4BS57 | T WEV EGDVLE |
|  | RWK GGDVL EMYNSFTIAVSCEP QWVTWTIEY |
|  | KEALVIGM |
| UniRef90-W5HXM3 UniRef90- Q8S8E3 |  |
| UniRef9-M1CS66 | FRVVGGEHRLNNYSV |
|  | FRVVGGEHRLNNYKS |
| niRef90-A0A059DB9 |  |
| UniRef90-G7 | KKVIEGD LIMYKSF |
| Uni | YSIVGGFGLDDYVEKTYGESKLSAGP |
|  | TSFRVVGGEHRLNNYRSVTSVTEFVDGRDGGSVYSIVLES |
| UniRef90-MP100046E |  |
| $\begin{aligned} & \text { UniRef90-M1ALE4 } \\ & \text { UniRe90 Q71HN } \end{aligned}$ |  |
| UniRef90-UPIO002 | VSYDVVGGE LRKMYDPYKVTFTFTPKEKEMCTAQWKAEY |
| UniRef90 M1AVL1 | DTHYKVFKXILEVIDNXGGH |
| $\begin{aligned} & \text { UniRef90_G9C065 } \\ & \text { UniRefo_AOAO22Q } \end{aligned}$ | N |
| UniRef90-Q5ULZ4 |  |
|  |  |
| UniRef90-M4DRY5 |  |
| UniReef90-G9C068 UniRef9-G71986 |  |
| UniRef90-UPI0002B49FEE | A |
|  |  |
| UniRe990-A0A022PYG6 |  |
| UniRef9-AOAO22PYG6 | LSFRVVGGEHRLKNYLSVTTVHPSPAAPSSAT |
| UniRef90-M1DNR1 | VTYNIFEGN LMEQYKAFKVTLHIDE NEEENNLVIUWTDQY |
| UniRef90-V7AIQ1 | R V |
| UniRef90 A9THF2 | FRVLGGEHRNNYRS |
| UniRef90-COHDT7 | RILGGDHRLANYRSVTTV |
| UniRef90-S8CO38 | 1 SFRVVGGEHRLNNYRSVTSVNGFKEEEEEEEYTVVIESY |
| UniRef90-UP10002B4A111 |  |
|  |  |
| UniRef90-M1C4M7 <br> UniRef90-A0A059AIP2 |  |
|  | LGFRVIGGDHRLHDYRSVTSVNEVMTNEEEERKV |
| UniRef90-Q941W8 | MSFS |
| UniRef90-UPIOOO2 | TVYEFMDGDVLKHYKVFRAKLEAVNGGLNKNFAKWTDEY |
| UniRef90-UP100042B8991 | GV |
| UniRef90-UP100032825CB8UniRef90 A0A059A9E4 | GENNLVTWDIEY |
|  |  |
| UniRef90 | KVIGGDLLELYNSFTIITSC DKQWT T WTFVY |
| UniRef90-K4BNH6 | , |
| niRef90-UP10002C2FB86 |  |
|  | MTFRVIGGDLLKE YKSFVITTQV |
| UniRef90 ROGFP0 | I KWKVIEGDLLKLYNYFN |
| UniRef90-UPIO003D27CDD | IRYTMLEDCDFSHLYSHYVGTLRFHPSEPSKSVVVWEIEC |
|  | MS |
| UniRef90-V7A1V5 |  |
| Ref90 M1C |  |
| ef90-D8SHF |  |
| niRef90 ${ }^{\text {M1A }}$ A $\mathrm{V}^{\prime}$ | IKWKVIEGDILEMYSFFTIVTSC EHEWTTWSFEY |
| UniRef9-M14SCU7 | GVVNE YENWKVSLHVAEEGEK DLVSWTMEY |
|  |  |
| UniRe990-NoDK19 UniRef90_B9SZH8 | GDULI K Y Y A S F C GE\\|TIIT T M D D G T WVIK WT WN M |



EKKTEDTPEPLNFVGLLDEVTKHDDDHLL
ERPNENV PELTTNLLQFFIDMTKSIDDHHVNKPN

 UniRef90－UPIO002C338CA UniRef90－A0A059BEM3 UniRef90＿M1CVY7 UniRee90 UPI0002B431B0 UniRef90－K3YVT2
UniRef90－11 HTO1
UniRef90 ${ }^{\circ}$ V4L7V3
UniRef90－UP100042B8CCB UniRef90－UPI00032A6100
UniRef90－P19825 UniRef90－A0A059D6M2 UniRef90－E3W9Q0 UniRef90－M1AUH1 UniRet90－F2DFC3 UniRef90－M4E8E2
UniRef90
UPIo002B4B654 UniRef90－UPI0002B46568 UniRef90－UPI00032AA529 UniRef90－K4B8Q4 UniRef90－A0A059D6E4 UniRef90＿M5XJK5 UniRef90＿Q5ZF57
UniRef90 O06394 UniRef90－UPIO0042B1AEB UniRef90－M5Y6L3 UniRef90＿UPIOOO1622013 UniRef90＿MOT346
UniRef90 W4ZNQ0 UniRef90－A0A059DAZ2 UniRef90－UPIOOO32A5545 UniRef90＿M5WZH7 UniRef90＿COPK92 UniRef90－ROF1P8 UniRef90－UPIO0042B3667 UniRef90 UPIO002B429D7 UniRef90－UPIO003D282D1 UniRef90－UPI0002C36277 UniRef90 V5P0A6 UniRef90－A0A022QNP5 UniRef90－G7J2D4 UniRef90－D7MSQ9 UniRet90＿B8BMG3 UniRet90－K4BNUO UniRef90－W9SSK9
UniRef90 w1NK26 UniRef90 ${ }^{-}$K7К9Н9 UniRef90－M7YRV1 UniRef90－D7KPP9 UniRef90＿K4BNK8 UniRef90－K7TFMO
UniRef90 MOU1E0 UniRef90－A0A059CCK9 UniRet90＿K4BNT9 UniRet90－U5CQ23 UniRef90－V7BUZO
UniRef90－11M1T4 UniRef90＿UPIOO02B436A2 UniRef90－A0A059DKS4 UniRef90 V7CS79 UniRet90－D8TAX3 UniRef90－B8BMG0
UniRef90－Q41020
UniRef90－ASBR51
UniRef90＿M1ABV6 UniRef90－A0A059D6L1
UniRef90＿D5A9H9 UniRef90－M1ABV5 UniRef90－M4CV19 UniRef90 D5AAA4 UniRef90－W9QTV9
UniRef90 $\mathrm{S8C2Q1}$ UniRef90－UPI0002B46CDD UniRef90＿Q41182 UniRef90－M1B0C9 UniR Refo－A9SKY6 UniRef90 G7KF38 UniRef90＿UPIO004758418 UniRef90－UPI0002B4A67E UniRef90－D8RCG8 UniRef90 K4BNT4 UniRef90－A9NQM9 UniRef90 V4P714
 SDQVQLKCCGKKFYDFFKNKMDHD PRVMCDKIQN TCTSLVTQRVAPLAAVWPIVRGFAS PQRYKHFTKS APAEAVWAVVRRFDR

PQAYKRFVKS


TLVQTDDAPLP APGPLVWSiLRRFDN PQAYKQFVKT
$\qquad$
VVQETTASDAS $V \mathrm{WSVVR}$
EVEDDIQSSADKFYNLFKSQDY
GKLVVSMEVKCGG HLFHDLYQTKPHHVVS CSAVVEVKCGGHLMHDLLHTNSHHVA NISQHVNH CSAVVQAITAPVEAVWSVVRRFDR PQAYKRFIKS
 VQKSSGEKFFEVFKNKMDYFPRMFAGNVES VKVIDAPLPLVWSLVRKFDK PQCYKNFISS

VGKVEALVQTKCCSTKVYDLMKNNDAKLV DVLPAQFKS VGKLVMESEVNCNADKYYKLYKH HEDLIPSVIPHIYTS TCTSLITQR $\square$ AP LISF $\square W P F V R D F E N \quad P N K Y K H F \square K S$

ASNMDLIF PSLLPQFFVK TCTSLDTQRTAPDCAVWPVVRSFDR PERYKHF｜KS VTHNTEDSHPIPKAKLIEALMLKANGFFPHVLSPGVLR VHSFQVERLTFVPLDKLFRDVKRNAFHVIPK $\begin{array}{rl}T C T S V T Q R V A P L A A V W P I V R G F G S & P Q R Y K H F I K S \\ T G N A P L P L V W S V L V R F D N & P K T Y K Q F V R T\end{array}$


SE $\square \mathrm{N} \square K \mathrm{CDGDVFYEVYRQRPHH} \square \mathrm{STMSPNKVQN}$ TSTVVQPTDAPVSSVVWSMVRDFGQ PQAYKRFVKN VVSELVI RSPAVKFFSVFAKQLHND QDIVDKVHD TCTSLVTVQAPLAAVWDI VRGFAN PQRYKHFIKS $\square E ⿴ K C G G S P \square H D \square L H T T H \quad F \square P N \square T P R V N H$
VEVGVEVKSSPDKFWTA DHASTKLDPR\｜LPPHHKS TQTIDAPLP LVWSLVRQFAN PQAYKQFVKS GKLIVSLEVKCGG HSIHDIFRTNTQHD STDSPSRVKH
 STVVETIEAPLSLVWSILRRFDR PQAYKRFVKS GLVSYEAKVEDKSNDEKFYGFFRNHVEDLMANGFPDLYQG DDAPASTVWPFVRSFEN PQKYKHFJK DAPASTVW PFVRSFEN 1 QAPVAVVWSVVRRFDS SDERSVAVSAERFWKVFSN VGKLVTELEVNCNADEYYK】FKH HEDL QAYKCFIRG PPAMPKLLSK

DEVKCEGHSUHDIVHTNTHHL EEDFE：NSPAEKFYKRWSYEVHHL

TEVKCGGHSIHDIIHINPHHL TCTSLIAHRVTPART】WRFVRDFAN

AP पp \VWs LVRRFDE
APSEAVWSIVRRFDQ Q $\square \mathrm{EMKCAGDLLHEHFKSNPHQ}$

AP
PQSYKPFVSN
PQSYKHFIKS STMSPNKITN PTMYHF PQ YKKF Q A HTYDVTVTTSASPEVVWKLLVHAASPDWSKVSLDTARS


VVQQVEAPVS VVwsLVRRFDQ STVIETIEAPGPLVWSILRRFDK

## UniRef90 D8RV30 UniRef90-M1BAS4 UniRef90-K4BNT6 UniRef90-MOVJI6 UniRef90-R4IKN8 UniRef90-M0SP32 UniRef90-V7BSP1 UniRef90_UPI0002C338CA UniRef90-A0A059BEM3

 UniRef90-M1CVY7 UniRef90-UPI0002B431B0 UniRef90_K3YVT2 UniRef90-I1HT01UniRef90- ${ }^{\text {B9T645 }}$ UniRef90-B9T645
UniRef90-V4L7V3 UniRef90_UPI00042B8CCB UniRef90 UPI00032A6100 UniRef90-P19825 UniRef90-A0A059D6M2 UniRef90-E3W9Q0 UniRef90-M1AUH1 UniRef90-F2DFC3 UniRef90_M4E8E2 UniRef90_UPI0002B4B654 UniRef90_UPI0002B46568 UniRef90_UPI00032AA529 UniRef90-K4B8Q4 UniRef90-A0A059D6E4 UniRef90_M5XJK5 UniRef90_Q5ZF57 UniRef90_Q06394 UniRef90_UPI00042B1AEB UniRef90-M5Y6L3 UniRef90_UPI0001622013 UniRef90-M0T346 UniRef90-W4ZNQ0 UniRef90-A0A059DAZ2 UniRef90_UPIO0032A5545 UniRef90-M5WZH7 UniRef90_C0PK92 UniRef90-R0F1P8 UniRef90_UPI00042B3667 UniRef90_UPIO002B429D7 UniRef90_UPIO003D282D1 UniRef90-V5P0A6 UniRef90-A0A022QNP5 UniRef90-G7J2D4 UniRef90-D7MSQ9 UniRef90-B8BMG3 UniRef90-K4BNU0 UniRef90-W9SSK9
UniRef90- W1NK26 UniRef90-K7K9H9 UniRef90-M7YRV1
UniRef90-D7KPP9 UniRef90_K4BNK8 UniRef90-K7TFM0 UniRef90-MOU1E0 UniRef90-A0A059CCK9 UniRef90_K4BNT9 UniRef90_U5CQ23
UniRef90 V7BUZ0 UniRef90-M4DA24 UniRef90-11M1T4 UniRef90_UPI0002B436A2 UniRef90-A0A059DKS4 UniRef90_V7CS79 UniRef90_D8TAX3
UniRef90_B8BMG0 UniRef90_Q41020 UniRef90-A5BR51 UniRef90_M1ABV6 UniRef90_A0A059D6L1 UniRef90_D5A9H9 UniRef90_M1ABV5
UniRef90_M4CV19 UniRef90-D5AAA4 UniRef90-W9QTV9 UniRef90-S8C2Q1 UniRef90_UPI0002B46CDD UniRef90_Q41182 UniRet90_M1B0C9
UniRef90_A9SKY6 UniRef90-G7KF38 UniRef90-UPIO004758418 UniRef90_UPI0002B4A67E UniRef90_D8RCG8 UniRef90-K4BNT4 UniRef90-A9NQM9

VV DKKDGTVITIJHFAPADAEKDYVVIKEKVE I I DHKNKT FEDHEGETKVGSIVSWKYNQDGKEKFIKQVI EVVDSQNKS



NGGPGT\KK


 YKLVEGNSTHGSVSFWKYDFGFGSSIEVKMKVLVDEPNKT



 V ELHDGDWSSDAIKHWNYTLDGKSLTVKEKVEVVDDANKS
 CRLVDGDGGVGSVREVRVVSGLPGTSSRERLEDLDDERRV IDEVVEGRTSSGSVVHVGYYHLGDQVVSEKWLI KVADDAKKC YKFVVGNSTHGSVSDWKYDIGGGRAVEVKMKLLVDDEANKT CTLISGEGGVGS IDEVNLVSGFPGKRSDERLDILDDDMHV K V S K E K I D G V D E A D K V
 VKAVEGHGTTGCVKEWGYDLEGKPLSCKEKTTYNDETRT CTM KGDGGVGSMRDVTVIS GLPASTSTEVLEVLDDDDHV TERLEGDGGPGTVRLVNTLGPGGEERQNKERVTVVDEGTGT
 ADSQE

 CALRSGDGGEGSVREVTLVSDLPASFS
YK\|LEGNGAHGSV $\|$ HLKYNDGGPAF MK FDFHEGETDVGSIVQWTYNDDGKDKTSKERL CTMRT CHLVDGDGGVGSIREVMVSSGLPGKTSTERLDRLDDEKHV CHLI S GYGGAGSVRELERVVSGLPARNSRER


VDVHE
YAAADAGEFSYERLDELDDESHM CLMRSGDGGVGSVREVRVVSGLPAGVSVERLERLDDDARV CSLRAGDGTVGTLREVRVVSGLPAASSTERLEILDDEHHU GALHEGDWHDGSVMSWGLTTEGKIVH




CTIRDGDGGEGSVRDVALVSGVPGNFS CNLLDGDGGDGSVREVMMVSGGPGNFSTERLDELDDESYV




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 C FTVSEGTMKLGCTREVNVISSGLPADTS

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$T T W K V I G G$
$M T M V A V G$




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II T WKV I E G DVL E E S Y S S FT G $\square L S C E$

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I Q S P P E TVWSV VRRFDR
$\square D A P A P P Q A V W S V V R C R D N$
$R F D T \quad P Q A Y K R F V K A$
A P $\square S V V W S L V R R F D E \quad P Q \square Y K H F V R N$

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WP L LKDFFN FHQLFPTLANC


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LSVRFVGGDHRLKNYSSLLTVHPEVIDGRPGTLV LNYEMVDS NNGFTSYASTVRVIPGGEGGCTDEWSFTV KEADVIEGGLLNLGFLKYFVRFEVVGNADNTSTIRSTVEY

TGFTII GGEHRLRNYRSVT TVHEVAREEGGUWSVVLESY TGFSVGGGEHRLRNYRSVTTVHGFEREGKIRTVV
LSFRVVGGEHRLANYRSVTT
YSYALIEGVPVKGMVNSFK VIDDGYQKSMVVWTSNY TGFSIIGGEHRLKNYRS YTYEVEESNIGLEG VNFSALEGPVL EQYRSY FTYTAQDGSALP LT RGLEGQAVV
LS RIVGGDHR




|  | 130140150 |
| :---: | :---: |
| UniRef90 K3Y279 |  |
| UniRef90－A0A059D6V9 |  |
| UniRef90－A0A059DEV8 |  |
| UniRef90＿V4MRT4 |  |
| UniRef90 R0EYF4 |  |
| UniRef90＿A0A059AJM5 |  |
| UniRef90＿A9PG02 | QKKDPASENPD F Y L Q L P PV |
| UniRef90＿W9S787 | DPVEGWALDDLVRKYEEGIQRMAQKMEA |
| UniRef90－M1BBE4 |  |
| UniRef90－W9S5R1 | E K L N E G VP P P D K Y VK L M V $\$ \S K D L D V H  \hline UniRef90＿M1ANA7 &  \hline UniRef90＿M5Y306 & R R L N E N D P P P H  \hline \multicolumn{2}{\|l|}{UniRef90－E3NYH4}  \hline \multicolumn{2}{\|l|}{UniRef90＿D8QY92}  \hline UniRef90－Q9SSM7 & Y 1 V D  \hline UniRef90－M1C4P1 & EKKNE DTPEPLTLLGAF $\square$ L L LTTKHVEDHLL |
| UniRef90－M4E889 | VVDVPEGNTEE D T RLIFA DTV $\mathrm{V}^{\text {V }}$ |
| UniRef90－V7CE11 | V V DVPE G N T E E |
| UniRef90＿D8SRM9 | $\mathrm{Y} V \mathrm{~V} \mathrm{D}$ |
| UniRef90－H9MAT9 |  |
| UniRef90－K3XRY8 |  |
| UniRef90－B9IKG8 |  |
| UniRef90＿W9RRZ9 | YVIPE GNTGEDTKMFADTVVKL |
| UniRef90＿M4CDM8 | VKLNEKVADPE S L L P A I EVSKE】D A HL |
| UniRef90＿F6HT94 | ES Y V V D M P E |
| UniRef90＿D7KHS1 | F V V D |
| UniRef90＿UPI0002B468A2 | VKANEDVAPP N N H L K C G $\quad$ K V C K D LD A Y LCN S S |
| UniRef90＿O82320 | DPVR GLSLLENLVK K Y EKALEII T K N M E E |
| UniRef90－K3ZMR9 |  |
| UniRef90＿UPI00042B210B |  |
| UniRef90－M1C4P4 |  |
| UniRef90－M1C4P5 | EKK】EETPEPLVLLG F A L D T T K D DE G HLL |
| UniRef90－M4CU83 | D P V G G WS LD DL L K K Y E K A LGII A K N M E A L |
| UniRef90－A0A022RVK7 | VVDVP EGNTEE |
| UniRef90＿UPI0002B4615F |  |
| UniRef90 M0TQl1 |  |
|  |  |
| UniRef90＿UPI0003D252FF | E K Q E D $\square$ P EPLILLLG】 G $\square$ D L I K D $\square \mathrm{DS} \mathrm{H}$ |
| UniRef90＿M0SM66 |  |
| UniRef90－M0SP82 |  |
| UniRef90＿R0HRW8 | D P VR G M S L D G L VK S Y E E A L G V IT K N M E E S L |
| UniRef90＿UPI0002C3591A | D PME GWR GEDFRSYVEATIVQGMAKKIEDALLS |
| UniRef90－A4FLF4 | DS EA A DEAS LDEKF GK DVYGA GFRAL |
| UniRef90＿K4C0V5 | EKKNANVSDPH T F MEFALGKMTKDIE T H |
| UniRef90＿W9RN97 |  |
| UniRef90－B9H2N3 | $\square K K H D S C P N P D H S V N K D V N A S L P K D V N A Y L L$ |
| UniRef90＿K4D062 EKLLNQ】 P E P L F M F L I GL I D L E A |  |
| UniRef90－R0GN44 |  |
| UniRef90＿V4UGN6 | E |
| UniRef90＿M4EWT2 |  |
| UniRef90＿UPIO0046DC645 | EK L N S VP D S H L Q L L A V L L V E T D N F L |
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| UniRef90＿S8DW99 |  |
| UniRef90＿V7BSD5 |  |
| UniRef90－UPI0002B48E9E | EK ID DASPYPY K Y $\square$ H L M N TVT K DI E S HL I |
| UniRef90＿UPI0002B4157E | E AVEGLLKLEDLVKKYEVGLR S M A N R M E A AVVEN |
| UniRef90－M0SQ80 | VVDVPPEGNTED |
| UniRef90＿K4CJT1 | EKLNEN TPEP LDF |
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| UniRef90－F2D8F8 | Y V V DVP D G N S E |
| UniRef90－K7LF21 | VVDVPD GNTEE |
| UniRef90－M0TRZ4 |  |
| UniRef90－M0ZNM2 |  |
| UniRef90＿UPI00046DC9AE | D P VE G WEKKE |
| UniRef90－A9NSZ1 |  |
| UniRef90＿D7KMN3 |  |
| UniRef90＿V4TLR8 |  |
| UniRef90－M1D6Z2 | EK K T E D T P P L VF Li Y VLHVT K E $\square$ E NHLL |
| UniRef90＿D8S7P6 L L |  |
| UniRef90＿I116D9 |  |
| UniRef90－Q7XBY6 |  |
| UniRef90－11NZ39 |  |
| UniRef90－MOZSZ6 |  |
| UniRef90－A0A059CTV3 | D PVE G WVLEDLVRKYEVGLQ G M G R K M E D |
| UniRef90＿W5HSC0 |  |
| UniRef90＿K7WBY4 |  |
| UniRef90＿UPI0002C30041 |  |
| UniRef90－A0A059C0N5 | VVDVP E G N T E E |
| UniRef90＿B9N2N0 |  |
| UniRef90＿V4SLZ8 |  |
| UniRef90－M0TC73 |  |
| UniRef90＿UPI00035C493C | E M K N P Q M T E E Q $\square$ K M S $\quad$ E MVANVAK A A |
| UniRef90＿UPI00046E0C53 | EKRNTDV EAPDRYVGLMVTLVRDLDA H |
| UniRef90＿W5HRS6 | D DPEENTENEDFY LVGNF\KINHNLLA |
| UniRef90－K4C6U8 | VVDVP E G N T E EVKL |
| UniRef90－D8QPG8 | EVRAMEDSSEE GMADYMGMFFKA |
| UniRef90＿UPI00046DB4E7 | GKLDND DPPPH K Y L R F A $\square$ NVVHDMDALL |
| UniRef90－F5R8P2 | $F R$ A D A S HPA A GKEAA TGTMKA V |
| UniRef90－R01902 | E KRNENTPEPVNYMK FVKSLVADMDDHVL |

A PRDVVV|WS|VV|RRFDK


## ET DVE $\square$ K A F P S QFH HMFKHKPHH K AKAE Q $\square W P$ LI T DFF N

VT S A S A D Q $\square$ WP L Y T D F F N L

## VYKHFIKS <br> $\square A E A D P A K F Q S$ IS NVSS GK IQQ G

 HKWYPGLT TC$\qquad$ DKWVP V L T $P Q L Y K \stackrel{L}{P}$ I $S N$ $\square R E W M P M V$ E S PQKYK P F V SR

TELLAASPE EVW T TI GNFHDM SWHPAVF
T A ELLKS T K P D Q V W P F F L
T $\square K$ A P A D R VWQ A L V G D Y G E I A
APVHLVWSLVRRFDQ PQKYKP YAS
VT LE CP R D A A WK L L F S D D G G L C K
 $\square K$ APVH HV W SLVRRFD Q

A PVH LVWS LVRRFDQ P Q K Y K P F V S R P ERYKPFVSR TASAVIETPVSADKVWALLVGGFNDLPKWLPLIAKS
 $V$ D APAAK L WE LAAS DFC GLLC

T T TAT T D $\square$ P VPA DCVWQ L $\quad$ G GFD S L


$\qquad$
$\qquad$
$K W F P T H T T R$ GKNTVTVRGTVPEPVEEVWEAFRPESMQFWPQI

PFVSR

##  ASRVWDVL KQFGQ $\square$ SKWHPA $\square$ PE S

> WE GEVTTAA DPHQQWPLLTDDFCSS HKWLP FVDT VTETIE TVATPDAVW ALVGDWGNL QNWLPVVES $W S$ V $V$ R R D Q
LK WE A EVV T K A T A D Q $\quad$ VWP
FET E LNGPEAEQVWP LLEDFFGL HKWFPTLTTC I AAPATRVWEV VGDFGSL PSWFPFVTA S
 ATADQ $\square$ WA LYY RDFFN FHKWFPGLASC VEK TVVIDASPDKVW ALVKDFGNM QKWHPAVES

$\square \mathrm{DKAPLQTVWSV} \mathrm{V} R \mathrm{RFDK} \quad P Q V F K P F V E K$
 $\square G \square N T$ T P E Q A WE VIVKSGK DV H K WLSEVI K S


P Q I YK H F I K S S WLP G
$P Q R Y K P F V R N$
DKWFPT LTTC

E L A G P K A E QV W P L L $L$ Q D F F G L
$K \quad L K$ V E E K V
SVS REVEVDDAAPATVWK LVGNFNHMLDVWHPAVVAS TTTA TI ELPVPADRVWQ LI G GFGSL P DWLP Y I PT S E VE HE I T I GAPA DA V Y QLL A D VT N WP R DP P P T I H
E WE GKVVVAVPAATADEAWA LLSDF LAFHRWHPRVAA


 $T V A V E T I V D L P A A R V W E A D A D V G A V H E R L L P G R V V A$ II R A P LQ TVWSVL RRFDQ P QLVF P FVVK K

 $\square E \square S A P P A K V W A A D S \quad N$ FQDMS WLP IVTK $\square K$ VNES T I A A D P K A V WAVA GK F D G L A A WHPDIA S I E V A V S A D R A WR L L G G F D S L P P L W D M E T S V E V D A K P A AVVW AA AG D F C GI G A WHPAVA K


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UniRef90- X7EAB0 UniRef90_W1NYB1
UniRef90_A5BHR2
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UniRef90-F6HGL5
UniRef90_UPIO00467A160
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UniRef90_Q605A3
UniRef90_13CBU2


 | $V K F T D G S G G N G T T L E V D Y I L D$ |  |
| :--- | :--- |
| $C D L H E G E G T V G A V I Y W N Y F H G$ | $D E G K K H$ |
| $V$ |  | YGICGTNGERGCVRYCKSHDNHNSSWSKERLVAVDHVERC IQVNMKADRVVNTDKKKEGSFNDKTKS

RFCSGVDKGSENWAKERLIAVDHSGRS HGDHGTNGEPGCDRFCSGVDKGSENWAKERLIAVDHSGRS
CRRDEGDGRPGCVRYCMAAPGEAVGWSRERLLEVDAAGRS CRASD DLKDGSLREVNVKSGLPATTSTERLEVLDDQEHV $C T A V A G D G V P G Y V R V V R F P Q Q A S S S W V R E R L V A M D H A S R S$
$C$
$C$ CVMVEGD CVMRENDIATGCIREVNVQSGLPATRSTERLELLDDNEHIT CRLLSHGGTVGCLREVTVISGLPATASTERLDILDDDRRV $\begin{array}{ll}Y Q V E G V K G Q P G L I & R Y C S S T A A S P D N W V K E K K L C T M\end{array}$ DYENGKGTEGAERKCMFNAKGSRWSHERIVMLDNENMR

 CIVQDGTG VGSLREVNDKSGLPATTSFERLEHLDDDERV
$C \quad I L Q G D F A V G C L R E V N \square K S G L P A T T$

CHYVEGVGQPGLVRHCAVTVTPS $\square$ TSA QGGTEKGATRELKKKSG
 YG $\square$ HGSNGEPGCMRYCSGSGGLKR EKSK
$\square G V E G D S G Q P G C V R Y F K T P V D H K R E W$
$S T A T N G S N A G S V R T L K D K G G G E L V$ STATNGS NAGSVVRTLKLKGGGELVV
 $L N I L E G Q G A V G T I \square K I T L A G D M G L S$
$Y G D H G \square N G E P G C \square R Y C S E E G E N S V S$
 YG\|HG $\square$ NGEPGCIRYCSEEGENSIVSCTADVEAIDEKNKT $T K \square D K V D G T E E T V R L L T L K G G$ QK ${ }^{G} T$ GT ILENVKAR QKKFIVQVI
 DFSTE
 VLI S GSPNEAGAVRELFIGGDDASVEEELVSIDPAAMT C VVKGNME $\square$ GTVREVDVKSGLPATRSTERLELLDDNEHI CEL

## C

- CVVR


## 

 TQ GGRREVGALR $\quad$ NNKGDDGTVVVERLVELSDRDRR TQ KASEG KGGRRTLTVAGGGGTVVEKRTALSDSKMS






 $V K A T G G D \quad A V G A E R E L T F \quad R K G G V$ V LIE E G GRVRHLTAAGGD

QLLE $\square$ S G DANSGG 1 T S R L L T L N VP D


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| :---: | :---: |
| UniRef90 UPI0002B4B231 | IVDVPEGNTE |
| UniRef90－S8CDC7 | ELLVPE NPHPVS ITNFWDEFTKEFEAHHDA |
| UniRef90－W9REG3 | HVFGKLETDVEIKASPSKFHHMFR |
| UniRef90－B9RS02 | DPVKGYVLDDLIKKYERALQVIGKRMED |
| UniRef90－V4MRH2 | EKLNDDVPP |
| UniRef90＿UPIO0042B27D9 |  |
| UniRef90－F2CR19 | DPVKGWT回GFLGGLLEKLAHGVAKRLEE |
| UniRef90－S8DSC4 | E |
| UniRef90－UPIOOO32A52DB |  |
| UniRef90－D90L92 | $\square P \mathrm{DG}$ PKDR $\square \mathrm{EAMMNAGADA} \square \mathrm{RA}$ |
| UniRef90－O5Z7A8 | FPSEGASDEDAVGAGDDALTERFGAAE |
| UniRef90－W1NYB1 | VVDVPEGNTEE |
| UniRef90－A5BHR2 UniRef90－J3L3N0 | DPVQGWRYEDLASYDDSSLQFMAKKMEETL <br> DPVRGWTLEGFVGFLEELARGVAKRLEEEIMTQDDA |
| UniRef90－UPI00036DC8 | RTAPAFMGGLVVGSFKKSLNETLIGLEHYLD |
| UniRef90－A9SAJ8 | QPVATQTYEQFPNFMTGFYL |
| UniRef90－ROF2B0 | DPVDGWK KEDLDSYVDFCLHMAKKME |
| UniRef90－MOS918 | ELDVGQVFAGQ\｜VIAQEKA YKEA】AFLDAH |
| UniRef90－MORKB0 | TPVEGVTD AAVEELFAGVYKDVEA LRaN |
| UniRef90－R4LLBO |  |
| UniRet90－D8RQ53 | ETKNSRE $\square$ IVFMEAVFAKN $\square$ A |
| UniRef90－B5M1Y8 |  |
| UniRef90－F6HGL5 |  |
| UniRef90－UPIIOO0467A160 | TTTGQEA A L F HG\｜YTEGLAA |
| $\begin{aligned} & \text { UniRef90-W9RIG9 } \\ & \text { UniRef90_c3Z2M4 } \end{aligned}$ |  |
| UniRef90－A0A022Q |  |
| UniRef90－B8BMG1 | ELADGSSLSPEQEKTATSA |
| UniRef90－W6VAA | DTRDPDPQGEQTAVIQSLIVGGHESLQRY |
| UniRef90－M1D4W6 | EKKTE DTPEPLA LDYCIGVIKDVEGHL |
| $\begin{aligned} & \text { UniRef90_UPIO002B492F9 } \\ & \text { UniRef90_UP100042A59DC } \end{aligned}$ | YMNNNPPPDQNDEAAVNAVTK】YKEGLANLKA |
| UniRef90－89 | NLRTLADVSEES |
| UniRef90 D2VP67 | FC PLGEHDSAKPIVEGV |
| UniRef90－A9PIRO | QKKDPA TENPDFYLQLL PTVNATVDGY |
| UniRef90 M5WAN7 | EPVEGWKMEDLDMFIIGTGLQVMASRMEASL |
| UniRef90－F5RH69 UniRef90－UP10004649243 | CAKNGPADPGEDDEAALTAVT |
| UniRef90－C4SS20 | T |
| UniRef90－A0A059DKL5 | EVTDEASVDVSLI |
| UniRef90 W9S5Q7 | EKKNEAVPDP |
| UniRef90－M0Z2U7 | ERLDGALSAEDQATFAAGYLDLLKMVEA |
| UniRef90 Q1GZE5 | KLNPP |
| UniRef90＿UP10003D260C0 | KTEDISEPL |
| UniRef90－UP10004788E9D UniRef90－O9SN51 | SANADDEEAM |
| UniRef90－W9R6X1 | EP可EGKPQdF |
| UniRef90－MOWAF1 UniRef90－UP10002D4B |  |
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| UniRef90－V7AYC8 | DPVEGWSFQD可S Y |
| UniRef90－Q6EN43 |  |
| UniRef90－Q8VIS8 | YRGDPNDNPPP |
| UniRef90－B4FX11 |  |
| UniRef90－UP100042B1FF4 UniRef90－W4H 4 － | EPVK GWTLK DLDF F |
| $\begin{aligned} & \text { UniRef90 W4HHQ44 } \\ & \text { UniRefoo-LBHV3 } \end{aligned}$ | YRYMNNDPPEELVAAVAAVTGDYEA |
| UniRef90－YOKJ | QRKD |
| UniRef90－A0QW52 UniRef90－UPI0003DE8EA4 |  |
| UniRef90－W7W476 | NAKGAPD DKAKEVIQGVYDAGLARVAAN |
| UniRef90－NOCG08 UniRef90－UPI0002D62E62 | TPDG $\quad$ GDDEATGLFQG】 |
| UniRef90－KPIO002D62E62 | SAVGRGTPREALVARDQAG的GMAARVRDHVLA |
| UniRefoto－A9SNA7 | SP EQVSVESLISVVKKKFL |
| UniRef90－UPIO003： | DPVEGLVLEDLVEKYRIGALQ |
| UniRef90－UPI00037B66C2 | VLPHSRAAE |
| UniRef90－G8SC41 UniRef90 J3MEM7 |  |
| UniRef90 J3MEM7 |  |
| UniRef90－C6X9W7 | KRKDPAHEPEDDKTARDTVTS⿴YQ |
| UniRef90－A0A059CV79 | EPVNGWKHEDDDQWFESALQVMARSMEKALL |
|  | YPNNDPPPELLS |
| UniRef90－F8ET17 | EPAG |
| UniRef90－Q1YML7 UniRef90 605053 | DAKGATDAEAE |
| UniRef90－Q605A3 UniRef90－13CBU2 |  |

UniRef90 A5V3K9
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lupas_21
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\footnotetext{
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VPVD MEDEAARADAERNHDM
YRGYPNNDPPEHEAAlKAVTGVYEA YRYPNNDPPPEDNAALAAVTKUYK
EPVEGWK■EYLNTFTDKGLNAMAKK】EE
YRVYK $\square$ NPP $\square P E G Q D D E S A \square N A M N A V$
KYIEGMTESAFTDVLQHWATE TGQKIEE LDPDALAPMAEAMS QADKVIGK
DAVDVDED DATEWVGDAFDGGLGKVA
YRGDTGNEPAE
YRGDTGNEPAE
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DAHGVSDEAA T T I I GALQDAGMAK

[^1]


[^0]:    lupas_21
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    jpssm

[^1]:    lupas 21
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    jnet conf sol25
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    jhmm

