| QUERY <br> UniRef90 UPI000258D8DB |  |
| :---: | :---: |
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|  | UniRef90_W5JM80 |
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|  | UniRef90_U4UIQ9 |
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|  | UniRef90 J9VK67 |
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|  | UniRef90_UPI0003C3735F |
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|  | UniRef90_UPI0003C36607 |
|  | UniRef90 A8QWQ4 |
|  | UniRef90_Q6F438 |
|  | UniRef90_A0A023F7T9 |
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|  | UniRef90 M3UZC9 |
|  | UniRef90_A0A023SDZ8 |
|  | UniRef90_D2EBA9 |
|  | UniRef90-B4JJP2 |
|  | UniRef90_E91V35 |
|  | UniRef90 Q3LB63 |
|  | UniRef90 M1JPA1 |
|  | UniRef90 F5ANH3 |
|  | UniRef90-B7TVH4 |
|  | UniRef90_Q3LB73 |
|  | UniRef90_M4VTH9 | UniRef90-M4VTH9 UniRef90_UPIO003C394BD UniRef90_E9JBA7 UniRef90_A2IBC6 UniRef90_Q179A3 UniRef90_Q0MRL3 UniRef90-K7J1E1 UniRef90 R4G4C1 UniRef90_B5U9W6 UniRef90-A2TIK4 UniRef90_D2SNU7 UniRef90_F5AXS7 UniRef90_D2EBB0

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UniRef90 G8HHA1 UniRef90-B0W7K8 UniRef90_UPI0003C37EE2 UniRef90_G6CQT5 UniRef90_B0W7J3 UniRef90_A0A023FAZ1 UniRef90_K9J9X7 UniRef90_Q7Q3V2 UniRef90_UPI00022CA00C UniRef90_Q17JH8 UniRef90_UPI00021A8306 UniRef90_U5EWH7 UniRef90_G8HHA0 UniRef90_J7IAJ1
UniRef90 Q0MRK UniRef90_Q0MRK4 UniRef90_UPI0002246F3D UniRef90_R4UMX3
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UniRef90_Q9U4Z6 UniRef90_Q17JK9 UniRef90_U5KD26 UniRef90-A8QWQ8 UniRef90_A2IBC3 UniRef90_B0W7L3 UniRef90-U5PZD9 UniRef90_Q9U4Z4 UniRef90_Q9U0T4 UniRef90_E0X9F6 UniRef90_UPIO00258EA3C UniRef90_B7TVH1 UniRef90_Q17JK1 UniRef90_R4FME8 UniRef90_J3JYG1
UniRef90 UniRef90_B4KQS9 UniRef90_Q17JK6

1

## K

K

10
20
30
Y T DKYDNTNLDE TLAANKRLLVAYVNCVMERGKCSPEGKE Y T TKFDNVDVDQILHSDRLLNNYFKCLMDEGRCTSDGAE
 Y A S K Y D H I DVVGAI L N N R R MVV Y Y S A CLL L S G A CP P E G V
 Y A S K Y D HI DVVGAI L N NRRMVNYYSACLL SQGACPPE GVVE Y T T K Y D NV DLDEI LANDRLLDPYDKCLLDEGKCAPDAKE S Y D T K F D N I DLD EVLS QERLLRRNY KCLENLGPCTPDSKM K Y T T K Y D S I DL D EIL LK S DRLENNYFNCLMDQGNCTPEARE K Y S T K Y D N I D L D S:CLIK N D R L L Q N Y V N C L L D K G T C T P E G T D YDSRFDNIDVDEILQQERLLMNYVKCLEGTGPCTPDGKA

 KYTTSYDNLDLDDE KYTTKYDNIDVDE KYTTKFDNI DVDEI K K S DRLLFNNYFK K Y T S K Y D DV DI D Q Y T T K Y D GV DI EM QYTTKFDNIDVDE | $Y$ | $D$ | $S$ | $K$ | $F$ | $D$ | $N$ | $V$ | $D$ | $L$ | $D$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $Y$ | $E$ | $T$ |  |  |  |  |  |  |  |  |
| $Y$ | $K$ | $F$ | $D$ | $N$ | $V$ | $D$ | $V$ | $D$ | $A$ |  | KYTTKYDNVDLDE K Y T T K Y D N V N K Y T SKYDN I NL D E KYTTKYDNI DLDEVL

 YTS KYTTKYDNI NVDE | $K$ | $Y$ | $S$ | $T$ | $K$ | $Y$ | $D$ | $N$ | $I$ | $D$ | $L$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $Y$ | $D$ | $T$ |  |  |  |  |  |  |  |  |
| $Y$ | $T$ | $D$ | $K$ | $Y$ | $D$ | $N$ | $I$ | $D$ | $L$ | $D$ | YP TKYDNI DVDE K Y T T T K F Y T D RFDNI DLDE Y T T QY DNI DLDEI L

 Y T D K Y D S V D L D E
 KYTTKY DNVDVVD QYTTRYDNI NLEE K Y T T K Y D N I D L N Q I L Y T D R Y D N V $N$ N L Y T T K Y D N N I D L D E I L K N P R I Y K K Y F D C L A H N I Q C T P D D G K E
 YS S KY D NV DI DEILLKTDRLFKNYYNCLIDDQGCTPDATE QYTNKYDNVNLDEILVNKRLLVPYDKCALDQGKCSPDGKE QYTTKY DNVDYKEILDKSDRLFNNYYKCLI DEGNCTPDGRE
 Y T T K Y D NI DL DEI LINNDRVYKKYY DCLANKAKCTPDGKE

K Y P
YT SKK D N I DVVDEILLK S DRRLFKNYYQCLMDE GRCTPE GNE
 Y T S K Y D NI DLDEI L S N T RLYK KYF DCLANKGKCTPDGKE KYTSSKWDNI NVDEILEESQRLLLKAYTDCCLMDRGRCTPDAKA QYTTKY D NI NVDEILAASERLLKNYFNCIMDRGACTPDADE K Y T T K Y D DV DI ESVI GNERLLNSYVGCLLDRKPCSPDAA E QYTTKY DNI NI DEILASSDRLVNNYI KCLLDDQRCTPEGAE K Y T T K Y D N I D L D Q I L K S S D R L L N N Y V N CLL L D L G S C T P D G K E YEKRYDSVNIDDVLSNKRLLAAYVKCVLDQGRCTPEGKE S Y T T K Y D GI NLDEI LA SHRLLTGYI NCLLDKGPCSPDGKE K Y T N K Y D N V DVV D K L L N N D R V LTN Y Y K CLLMDE GPC T S E GRE K Y T D K Y D N V N NVMDE:LAN N E R L L K G Y V D CVV L E R G K C T P E G K E Y DTKYDNVNLDEI FKSTRLLNNYINCLKNMGPCTPDAKE K Y T D K F D NI DL DEI LTTNRRLLLSYFNCVMGKGKCTAEGKE
 KYTDKY DNI NL QEILDDNKRLLVHAYVDCLLDKGKCSPEGKE K Y T T K Y D G I D L D E I L K S D R L FN N Y Y K CLL L E Q GRCTP D A N E
 Y T S R Y D S M NV D DVI GNHRLL HA Y I KCMLDEGRCTAE GRE Y T T K Y D N I D L D E I L N N E RLLLK K Y HE C L M S D S DCTP D GK E Y S D K Y D TI DVVN EVL Q S E R LL L K G Y V E C L LDD K GRCTP D G K E Q Y T NKYDNTNLDEILGNDRLFNAHMECIMGEGKCTPEGRE


 K Y T T K Y D N I DLLDA I R N D R L L R N Y I D C V L G K K K C T K D G E E Q Y T A K Y D Y V $\quad$ D Y K E E PV A N R R L L KYTNKF DNVNVDEVLSNNRILVNAYIVCLMMESGPCTAEGRE


## QUERY

UniRef90 UPIO00258D8DB UniRef90_W5JM80 UniRef90_Q8MTC3 UniRef90_U4UIQ9 UniRef90-U4UIQ9
UniRef90 U4UIQ9 UniRef90_J9VK67 UniRef90 W8AlH5 UniRef90-UPIOOO3C3735F UniRef90-EOW2K0 UniRef90_UPIO003C36607 UniRef90-A8QWQ4 UniRef90_-Q6F438 UniRef90-A0A023F7T9 UniRef90-A0A034WWI9 UniRef90-D4AHN9 UniRef90-M3UZC9 UniRef90-A0A023SDZ8 UniRet90_D2EBA9 UniRef90-B4UJP2 UniRef90_E9IV35 UniRef90-Q3LB63 UniRef90-M1JPA1

UniRef90 F5ANH3 UniRef90-B7TVH4 UniRef90_Q3LB73 UniRef90-M4VTH9 UniRef90-UPI0003C394BD UniRef90-E9JBA7 UniRef90-A21BC6 UniRef90-Q179A3 UniRef90-QOMRL3 UniRef90-K7J1E1 UniRef90-R4G4C1 UniRef90-B5U9W6 UniRef90-A2TIK4 UniRef90-D2SNU7 UniRef90-F5AXS7 UniRef90-D2EBB0 UniRef90-A21411 UniRef90_OOMRL1 UniRef90-Q9U503 UniRet90-R4G848 | UniRef90-B4GD38 |
| :--- |
| UniRef90 | UniRef90-BOW7K8 UniRef90-D2SNN6 UniRef90 UPIOOO3C37EE2 UniRef90-G6CQT5 UniRef90-A0A023FAZ1 UniRef90-K9._9x7 UniRef90-Q7Q3V2 UniRef90-UP100022CA00C UniRef90_O17JH8 UniRef90-UPIOOO21A8306 UniRef90-U5EWH7 UniRef90_G8HHAO UniRef90_ JTIAJ1

UniRef90-OOMRK UniRef90_QOMRK4 UniRe990 UPIooo2246F3D UniRef90_R4UMX3

UniRef90-UPI000258 UniRef90-G6CK27 UniRef90-G6CQT4 | UniRef90-Q0MRL6 |
| :--- |
| UniRef90 |
| 101476 | UniRef90-Q9U4Z66 UniRef90_U5KD26 UniRef90-ABQWQ8 UniRef90-A2IBC3 UniRef90-BoW7L3 UniRef90-U5PZD9 UniRef90-Q9U4Z4 UniRef90-Q9U0T4 UniRef90-E0X9F6 UniRef90-UPIOOO258EA3C UniR Refo-B7TVH1 UniRef90-Q17JK1 UniRef90-_4FME8

UniRef9o-J3JYG1 UniRef90-D2SNY4 UniRef90-B4KOS9 UniRef90_Q17JK6
UniRef90-O18639

L

पKEHLQDATENGCKKCTENQEKGAYRVTEHLTKNETETWR LKKLPDALETECKKCTEKQREVTKKVI KHLVNNKPEMWQ LKRGLPEALQTNCAKCSEKQRAGADSVINYMIDNRKEQWD LKRDPEALQTNCARCSEKQAT AALMALKRLKKEYPKDWS LKRULPEALQTNCARCSEKQATHALMA\|KRLKKEYPKIWS KEHI REALENGCAKCTDKQKEGTRRVIAHLIKHKNADWQ LKEKLPDAVSTDCAKCSEKQKLGSAKVTHFLI DNRPEDWA LKKVLPDALENACAKCSEAQKRGAEKVIRHLLENKKDVFT KKSHIKEALENNCGKCTETQKSGSRKVIGHLINNEKEYWG LKSHVREALENQCGKCTPAQQAGTRKVIGYLINNEAGYWQ LKKTLPDALKTECSKCSEKQKQNTDKVIRYVIDNKPDEWK LKKNLPDALQTECSKCSAKQKESSEKILNFYVENKPEEWK LKTLLPDAL LSECSKCNPKQKEGSERVITFLVKEKPDDWA LKRSLPDALETACAKCNDKQKATVDKVIJRFLTEKKPDQWK LKDILPDAMMTDCVKCTEKQKYGAEKVTRHLIDNRPNDWE LKKHLPDALHTDCSKCSDTQKNGSKKI DRHLIDNKKDWWK I KRWLPEAI ENKCEDCSEKQKDGSEKIIKFLFEKKNDMWK LKSHEREALEEDCAKCTENQRKGTRKVLAHLDNHEEGYWN LKDNLVDALQTDCSKCSEKQKEGAQKVVDFLIDNRPAQWK LRTH1PEALRTSCAKCTPSQQKFVRKGANFLIKNDPDQWK LKKTLPDALASGCTKCSEKQKAQTEKVLRHLSKNRPRDWA LKKA!PDALKTECSKCSEKQKKVIDKVCHFLIEKKPDHWK LRETLPDALMTECKKCSEKQKEGTEKVDRYLVNKKPETWE LKSHIREALENKCGKCTEAQKNGTRKVMTHLINFEPDYWN LKKYLPDAI QTACAKCTDKQRQITAKVAKFLIEQRPEEWK LKKALPDALHSGCSKCTEKQKEGSRKIIHYLIDNKRDWWN LKRVLPDALVTNCEKCSEKQKAGADKVITFIAKNKPDDWE LKETLPDALQTGCAKCTEKQKAGAEKVLRFVIENKPDHYK LKSHIKEALENNCAKCTPPQRTRSRQVIGHLINHEPTFWN LKSHI KEALENNCAKCTDKQKPAVRKVI AHLI NHKPAEWR LKEHI REALENACGKCTEAQKNGTRRVIGHLINKEPEFWN LRRTLPDALETDCSKCSETQRKAAKKVIQHLVNNKADMWE LKELLPDALDSDCTKCTDVQKKNSQKVINYLRANRPGEWK LRK』LPDALKTKCSKCSDKQKQGALKVIQTVQKDYPEEWK LKNNLADALQTSCSKCSQRQKDGSRTIIRYLIKNKRDWWN LKEHIREALETECSKCTNAQKNGTRRVIQHLINHEPEYWQ LKRLLPDALQSDCSKCTA
LKKNIPEALQTDCAKCSEKQKAGVEKVLRHLINEKPEDYK LKSHI REALENYCAKCTPVQQDGTRRVIAHLI NNEPDYWT LKKILPDALQTACSKCNDKQKAAAEEVARFVIDNKPEEWK LKMHLKDAA ENRCDKCTEVQRNGTRIVIRHLINHEPSSWD LKDILPDALKTQCAKCNEKQKKGAEKVIRFMLENKRADFD LRDKLPEAAQTNCARCSERQASESHRVIRFLIQNRQEDFK

, L K E T L P
L K R V L P
 L K M N L P D A L A T D C S S C S E A QK R IS D R L SH HL ID NRPD D WD KKSLPDALANDCSKCSEKQKTGSEKVIRYLINERPQLWD LK S HI A DALLQS GCDKCTETQKDGVVRKVIKHLI KNERDYWK LKNNLP EAI DNDCHKCTQRQKEGADKVMHFIIDNRPEDWD LK K T L P D A L S S GCTMKCNQK QKETAEKVVRHLTTQKRARDWE
 LK D NL E DA I KT GCA KCTENQE KG S YRVI E HLI KNEDLDLDWR
 L R D H I Q D A L E T G C S K C T E A Q E K G T Y T II E H L I N K E K E DWE L K R IL P E A L Q T N C A K C S K K Q K D G A V K V I N Y L I D N R S A Q WQ L K S H L K E A L E E T H C A A K C T L K K IL P DALVTTNCSKCSEVQQKKQAGKILTGVLDNYRNEWN L K K H I T D A L Q T G C S R C T D A Q K K A DR HVI K H L I E H E H D F WA

 LK E HI G E S L E N ECEKKCTEDQKKGAKKAI DYIIIKHRPEAWK | $L$ | $K$ | $K$ | $T$ | $L$ | $P$ | $D$ | $A$ | $L$ | $S$ | $G$ | $C$ | $S$ | $K$ | $C$ | $N$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $L$ | $K$ | $K$ | $Q$ | $K$ | $L$ | $T$ | $A$ | $E$ | $K$ | $V$ | $V$ | $N$ | $Y$ | $L$ | $K$ |


 L K V H L P D A L Q S DCSSKCSEAQRNGSRKII THLLLKNKRGWFN LK S HI S D A MK T N C S K C T P K Q R E G T R Y V I A H LI K HEPPEYWK


|  |  |
| :---: | :---: |
| UniRef90_UP1000258D8DB |  |
| UniRet90-W5JM80 | ALQKKYDPENDYVEKYREEAK |
| UniRef90-08MTC3 | ELENKFDPEGTYRKKYEKEAK |
| UniRef90-U4UIO9 | ELSEK |
| UniRef90-U4UIQ9 | ELSEK |
| UniRet90_U4UIQ9 | ELS EKWD |
| UniRet90-J9VK | KLKAKYDP |
| UniRet90-W8Al | RLEQ ${ }^{\text {der }}$ |
| UniRef90-UP10003C3735F | AL Q A |
| UniRef90-EOW2K0 | Q |
| UniRef90-UPIO003 |  |
| UniRef90_A8C | D |
| UniRe990-Q6F | LYDPQRK |
| UniRef90-A0AO23F7T9 | E |
| UniRef90-A0A034WW19 | QL Q |
| UniRef90-D4AHN9 | V |
| UniRef90_M3UZC9 |  |
| UniRet90-A0A023S | DPQ |
|  | ALQAKYDPAG |
| Ref | RLEKDYDPEGS |
| UniRef90-E9IV35 | LLEDKYDPTGTYRRRY號 |
| UniRef90 Q3LB63 | EAKYDPEGT |
| UniRet90_M1JPA1 | QLEAKYDPQG |
| UniRet90_-55ANH3 |  |
| UniRef90_B7TVH4 | ELEKKYDPQGIYRQKYKAEA |
| UniRef90 Q3LB73 | ELEAKYEPTGDYRR |
| UniRet90-M4VTH9 | RIAKKFDPEGKFAP |
| UniRef90_E7BLG5 |  |
| UniRef90_PP10003C3 |  |
| UniRe990_E9JBA7 | QLKKKYDPNGQYTAKYLDEA |
| UniRef90_A2IBC6 | QLCAKYDPEGKYKAMYEKEYK |
| UniRet90_C179A3 | K |
| UniRef90_Q0MRL3 | ELEAKYDKDGVYRQ |
| UniRet90-KJ1E1 | AK Y K NVY |
| UniRef90-B5U9W7 | ELAARYDPEHKYSVK |
| UniRet90-R4G4C1 | QVEATYDPKGIVRQKFGNQVK |
| UniRet90_B5U9W6 | Q |
| UniRet90_A2TIK4 | Q |
| UniRef90_D2SNU7 | QLKAKYDPNNKYTQKYEKELK |
| UniRef90-F5AXS7 | MVMYDPD |
| iRe990_D2EBB0 | LLINKYDPSG |
| UniRergo- ${ }^{\text {dinin }}$ |  |
| UniRer90-A21411 | KLVAKWDPigerfk |
| UniRet90_QomRL1 | ELEAKYDPTGDYKNKYADELK |
| UniRet90_Q9U503 | ELGDKYDPERKYTVKYEKELR |
| UniRef90 R4G8 | VLERQFDPTGIYRKKYAQEAK |
| iRef90-B4G | DSK |
| iRef90-G8HHA1 | EQFDPEGV |
| UniRef90_B0W7K8 | VVRAKYDPENKFVEKYRGDA |
| UniRef90_D2SNN | R D |
| UniRef90_UP10003C37EE2 |  |
| niRet90-G6CQ | ELVQKYDPERKYVVKYEAELLK |
| UniRef90 ${ }^{\text {B0 }}$ |  |
| UniRef90-A0A023FAZ1 | ALEKIYDPSGTYRKKYAAEAK |
| UniRet90_K9J9) | LLEAKYDPSGLYFKRFEEETK |
| UniRef90-Q7Q3V2 |  |
|  | K |
| iRet90_Q17JH8 | TLRDRFDPEGKYDEQYREEA |
| UniRet90_UP100021A8306 | FDP |
| UniRet90_U5EW | P EN |
| UniRef90_G8HHA | VLESTYYPT |
| UniRef90-JTAJT | ELSGKYDPDNKY |
| iRee90-Q0 | ELTAKYDPDGIYFEKYKDK |
| UniRe990-UP100022 |  |
| UniRef90_R4UMX3 | K |
| UniRef90_UPIO00258F6A6 |  |
| UniRef90 G6CK2 | KFDPEGVYAEKYEDE\\|R |
| UniRef90-G6CQT4 |  |
| UniRef90-Q0MRL6 | Q |
| UniRet90_Q9U4Z66 | ELVAKFDPEGKWRKKYEDRAR |
| UniRet90_Q17JK9 | ILESMYDPAGEYRRKY |
| UniRet90_U5KD26 | CAKFDPTGEWRQKY |
| UniRet90_A8QWQ8 | QLANKYDPTGKWRKVYEDRAK |
| UniRet90_A2IBC3 |  |
| UniRef90_A8UKE |  |
| UniRet90-B0W7L3 | VLQKKYDPENVYDNQYRTEAR |
| UniRet90_U5PZD9 | QLSDKYDPEGKYAKKYEDELLK |
| UniRet90_OOMRL8 | $\begin{aligned} & K Y \\ & K \end{aligned}$ |
| UniRef90-Q9U4Z4 | K Y |
| UniRef90-Q9U0T4 | E |
| UniRet90_E0X9F6 |  |
| UniRef90-Q5N | RLTDKFDPSGKYKQQYEERAK |
| UniRef90-UP1000258EA3C | GE |
| UniRet90 B7TVH1 |  |
| UniRe990_Q17JK1 | VLRARFDPENKYİRFSAEA |
| UniRef90_R4FME8 | ALEEMYDPDKKYRHKYEKDAK |
| UniRef90 J3J |  |
| UniRet90_D2SNY4 | QLCDKYDPEGKYASKYEKELK |
| UniRet90-B4KOS9 | ML DDKYDSKGЏYRAKYEKHTK |
| UniRef90_Q1 | $\sqrt{V} \mathrm{~L}$ |
|  |  |

## UniRef90_E5DWM4

 UniRef90-QoMRL9 UniRef90-UP1000258D893 UniRef90-G6CVG9 UniRef90-l4DM24 UniRef90-QOMRK3UniRef90-E7BLG4 UniRef90-Q9W0X2 UniRef90-Q50049 UniRef90-W5JKP3 UniRef90-R4G7W1 UniRef90-V5FZA5 UniRef90-I4DJ72 UniRef90-B4MQS8 UniRef90-K7J423
UniRef90-H6UKS9 UniRef90-Q3LBA6 UniRef90-Q3LB77 UniRef90-R4WD24 UniR Refo-Q6H8Y7 UniRef90_Q17JJ1 UniRef90_D6N3A3
UniRef90 Q17JH9 UniRef90-Q6H8Z2 UniRef90-J3JZ35 UniRef90_O6TAA3 UniRef90-G6CQT8 UniRef90-O6H8Y9 UniRef90-U5Q2S7 UniRef90-GGCZJ6
UniRef90 D7R414 UniRef90-Q17JK2 UniRef90-Q3LB82 UniRef90-A3RG67 UniRef90-D4AHPO UniRe90 ${ }^{-\mathrm{C} 4 \mathrm{WVH} 7}$ UniRef90-T1HSW4 UniRef90-LTXCL7
UniRef90 E2AA110 UniRef90_U4UQJ1 UniRef90_Q3LBAO UniRef90_Q3LB65 UniRef90-E2ACN3 UniRef90-G9BWI4 UniRef90-Q3LB75
UniRef90 UniRef90-A8QWQ9 UniRef90-B5U9W9
UniRef90-Q4VR77 UniRef90-017447 UniRef90_V516E0 UniRef90-Q3LB76
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UniRef90 U5ESI4 UniRef90-QOMRK6 UniRef90_LOATD8 UniRef90-EOW2J8 UniRef90_A8QWQ5 UniRef90-K7J3Z4 UniRef90-A21BC2
UniRef90 O31 UniRef90-BOW7K2 UniRef90-B7TVH2 UniRef90-F5AXS5 UniRef90-V9PYM4 UniRef90-D2SNV9
UniRef90 Q4W1G4 UniRef90-Q9XZF2 UniRef90_F5AXS6 UniRef90_Q3LB48
 K Y D S R Y D Y L DVV GLENSKRLVKNYVECLVNGQRCSPEGKA K Y TSRYDNI NLDEI LANRRRLLMGYLKCLLDQGKCSHDARE



Y T T K Y F D
K

Y T T K F D N I D D D A V L R N E R V Y K T Y K Y T T K Y D N V D L D Q I I K S D R L M K N Y I D CVV LE R G N C T P D G L E K F T T K F D D V V N L E I L K S E R L L K N Y F D C L M M T K P C T P D G T E
 K Y T T K Y D S V DI D E I L K S E R L F S N Y FK CLLI E T G K C T P E GRE YTSRYDGVDVDRILQNGRVLGNYIKCMLDEGSCTAEGRE K Y T D K Y D N I NVVD DI L G S K R L L K S Y L T C L L D K S P C T P E G S E K Y T T K Y D NV DI DVVLNTERLLNAYVNCLLDQGPCTPDAAE K Y T T R Y D N I D I E SI L K S E RLL R N YFD CLLMDRGTCTQE GCLL Y T S K Y D S I N L D E I L N N N E R L Y Y K Y V V C L K G L G R C T P D GRE


YTTKYD
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 Y VT K Y D NI DLEEI FS S K RLMDNYMNCLKNVGPCTPDGRE YTTK Y D G L D L K Y N S K Y D N FDVVETLVNSNRLLKSYINCFLEKGKCTAEGTD K Y T T K Y D N I N I DEELLNSERLDKNYHNCLV DKGSCTPDVRE Y T S K F D N I DVVEILLK S DRLLFKNYY QCLLDQGRCTPEGNE

 Y D N K F D N I D I D E I L G Q E R L L K N Y V K C L E GL G P C T P D G K M K Y Q Y T T K Y D N I DL D Di L K N QRLLYK K YFECLLTNK GKCTPD GK E
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 YTNKYDNI NYE EVVSNEKLLLNKYADCILDRGRCTAEAKE
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 Y T A T Y D N I DVVDALL N NERRLFT QYMGCLLEN GPCTADGRT
 Y S D TYDNIDDVDAI I NSDRLL NQYVNCFLDKGSCTAD GRS S R Y D H L DVVESI L N N R RMVVNYYAA C L L S K GP CPP Q GVD Y A E T F D N L D M D A I L H S D R L F N Q Y M D C I L D R G P C T A D GRT K Y T T K Y D DV DVVEVVLKS DRLFKNYYNCLI DQGKCTPDARE

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 FES Y K C L MG D KC SPDGYE YT T Q Y D E V DI K E I M D N E R L LV A Y I GC L L D K NLCCTPE GK E

K Y T T K Y D N I DL DE


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${ }^{50} \mathrm{NECSKCNEK}{ }^{60}$
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|  |  |
| :---: | :---: |
| UniRef90-E5DMM4 | PLLETKYDPSGSYRQKYADELLK |
| UniRef90-UPI000258D893 | EAKYDPSGAY |
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| UniRef90-14DM24 | KLTAKYDPERKYVIRYEKELR |
| iRef9 | QLEAKYDPEHTYVKAHEDELK |
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| UniRef90 Q50049 | KLLAKYDPEKKYRSKFEDRAK |
| UniRef90-W5JKP3 | VLQQKYDPEGKYMNMYRDDAK |
| UniRet90-R4G7W1 | ELERIVYPQGEYRKKYANDAK |
| UniRef90-V5FZA5 |  |
| Rei90-E0 | ALEDKYDPEQVYRTKHADFA |
| UniRef90-14DJ72 | QLTDKYDRQHKYVTKYEAELLR |
| UniRef90 ${ }^{-14 M Q}$ | QLQDKYDPEDLIY |
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| UniRef90 Q6H8 | ALRERWDPSGEYHRRFEEYLIR |
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| UniRefan-03LB82 | QLeAKYD ${ }^{\text {a }}$ |
| UniRef90-O3LBA3 |  |
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| UniRef90-C4WVH7 |  |
| UniRet90-T1HSW4 | G |
|  | ILEKIUPPQG |
| UniRef90-E2A110 | RLJAKYDPRGE |
| UniRef90 U4UQU1 | Q |
| UniRef90 Q3LBAO | QM |
| UniRet90_Q3LB65 | MLVKKFDPNNVYLRKY |
| UniRet90_G6CQT6 | QLVEKYDPEHKYVEK |
| UniRet90-E2ACN3 | SKYDPEEK |
| UniRet | KYDPTGENTKKFDEFKR |
| UniRef90-O3LB75 | AKYDPDGKYSKKY |
| UniRef90-R4WRA4 | G |
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| UniRet90_B5U9W9 | ELCAKFDPDGKWRKHYEEEAK |
| UniRet90_Q4VR77 | ELVKKNDPTGKHIVNFNKF |
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|  | HDPEGAYKE |
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| ef90 AOAO26 | KFLRKFDPNEKYVTAFEQFL |
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| iRe990_u5kD25 |  |
| UniRef90_E2CAG2 | KYDPEGK |
| UniRef90_E2APN4 | EKYDPNKEYV |
| UniRef90 A8QWQ1 | EMKKKYDPKDEYKEKYEAFL |
| UniRef90 Bow | A ${ }^{\text {a }}$ AKFDPESKY ${ }^{\text {a }}$ |
| UniRet90 QOMRJ2 | D |
| UniRet90-E2IGV5 |  |
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| UniRet90_U5ESI4 | K |
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| UniRef90_LOATD8 | QLQEKYDPDNTYTTKYKDKL |
| UniRef90-QOMRK5 | QLEAKYDPSGEYRSKYKDEL |
| UniRe990 E0W2J8 | KYDPEGGYY LK |
| UniRet90-A80WQ |  |
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| UniRef90 Q Q3LB85 | YDPTGEYAKKYADAWK |
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| UniRei90-F5AXS |  |
| UniRet90_G6CZK4 |  |
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|  |  |
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SYST RYDAFDI QTALQNDDIILSLINCFGDTTPCSPEMKA YSTKYDNVNLDEVMASERLLNSYFRCLIEDTHCTADAKY YNSKYNCFNVQPLLENDRLLSYTKCFLDQGPCTPDAKD

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UniRef90 EOW2K3 UniRef90-Q3LB50 UniRef90-O3LB49 UniRef90-D0E9M7 UniRet90-Q3LB43 UniRef90_QOMRK1 UniRef90-A2TIK5
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UZZCI UniRef90-E6ZCI8
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 LKVSLPDALRTRCEKCSEKQKDGSEKILRFLLEKKPADY(L) FKKALPDTIATNCGKCTEKQKANVRKVIKVIQQKHSTEWE LKKSIPDALTNECMKCSEKQKELSEKVVRHLAEKEKESWE FKDYLPEAIDTSCEKCTVAQKRIVKKAAKYLMEKKKPAWE LKKNLPDAAQNDCKKCTHRQKENADLMIQQMEENRPADWN VKDKLPEALETHCAKCTDRQKAMGKQLAQEVQKRYPDDWK LKVHi KDAMQTACAKCTPLQKQKARQVVKH1RTNEEEYWK LKSSLKNVLEENCDKCSEDQRKSTIKVINYLVSSEPESWN FKRVIPEALKTTCGKCTRKQRELVRVVVKGFQEQLPQVWT GKKVLPDALSNECAKCSEKQREGAEKVIRFFVNNKPEEWK LKKALPDAMKTDCSKCSAKQKENVRKVVEFMMKERSADWQ LKRVIPVIANNSCNGCTEKQKTTVKKTLNFGRTKKPDEWA LKKDIPDALKNECAKCNDKHKEGIRKVIHYLVKQKPEWWE FRKLLPKLAKTMCSDCTARQRYIIKKVFKHLMEERPKEWE LKKLLPDALESECNKCSEKQKAASEKVIKFLVNERPELGN LRDVIPDAL自GCRKCNDHQKVSVEKVIKFLQKERNSDWQ LKKAIPDALENECAKCSEKQKAGVETTIVFLIKNKPEDWE FKEWI PEAVQSNCGKCSDNQKHLVGKVIKACMEKLPEEWK FKEWI PEAVQSNCGKCSDNQKHLVGKVIKACMEKLPEEWK FKKWI PESLQTSCGKCSEKQKYLVAKFVHAGKDKMPDEFD LVKELLPEVIATSCAKCTPAQKTGLRKTVKALSVKRPDDFS LKKIVPEVIQTSCTKCSPQQKKVVRNVITTMQSKYKDQWD LKDTLAELIKTDCKKCSEKQKKNVVKFLKQQLNEKSKDYS LKETLPDALEHECVKCTGKRKSGADKVIRHLVNKRPDMWE FKNDTPTALQTACGKCSDRQREVIRHVIRTVMKKYPDAWT LKEVVPDALTNG
LKEVVPDALTNG
FNKVIPEALETTCGKCSPKQKLVIKTVIKAVISRHPDAWD LKSVVSDALTTDCAKCNEKQKNGTKYVVDTLLDKYPDDYA FKDKI PEVIVTKCRKCTARQKEAFAKVVEWFASNDPPAWD FKK KI PE AVSTMCAKCTDAQKHDFYKGLLGLKEKDPNDY Q VKMMI PEVIRSRCATCGENQMRALKAGLRLFIVLRPDDWK FRDMASEAFQTKCKKCTEKQKEMMDTVVDWYAQNKPDEWQ FRELLPEVIKTACEKCSDTQKVKVRKFVKAVFEKKAEMAQ LKKEHVAEAMATRCRRCTERQKDGLEKVVVWYTENRPEEWS
 MKKML PA AVK DSCAS CTKAEQKNIDKKSMEAIQQARRPNEYK


 $F R Q N I A E A F V T K C Q K C T E T Q M K N Y G K$ VIVEWYTENRPDEWQ F K G V M S E II Q T N C K K C T E K Q K E M F T E T K N WF T Q N K P E Q WE

 LKEVLPEDVRT DCAKCTETQHKK GGGFFGE\|SQRHPDLMK L K K V V L P D A L E N A C A K C S E A Q K R GA E K K L T F L K T K R
 FK S V I P E AV LIE A C A K C T P A Q K H L V R V F NE S LiK K K M P E K Y Q
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 F NKILLSEALQTKCK LDCTEKQKYMLDDELSDWYTKNEPAK WD F K R AL S E A L P T A C A R C S N K QK A A FR T L L L A I R A R S E P S F L
 FK SKAP EAVVTSSCKYCT DK Q DEMFE KIVVSWFVDNKP KE WN




|  | 100 |
| :---: | :---: |
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| UniRef90_Q3LB51 | ELRAKYDPNNEFESTMRDFL |
| UniRef90-M4Y081 | VLVDKYDKDKKYRDNFNKF |
| UniRef90-B0W7J8 | VLKARFDPENKYVEKY Li DA |
| UniRef90-W4WNN9 | LLKAKYDPEEKFSKKYEEDA |
| UniRef90-V9PYP8 | KLEDKYNSDGSYKKKY LARKQ |
| UniRef90-D2SNW5 | QLLAKYDPDSQYVQNYESFLL |
| UniRef90-E7EC45 | QLSKKEDPRGEYKEA |
| UniRef90-B7TVH0 | L AKDYDPESNYLNK |
| UniRef90-S4PC20 | ELVLKEDPKGEFREAFTQF |
| UniRef90-U5KD70 | KVCDKYDPD GKLLKSQYEKEL |
| UniRef90_G6D8J7 | L VKQEDPKGEYKQKFEDFLQ |
| UniRef90-A8QWQ6 | ELVKQQDPKGEFKEAFDRFL |
| UniRef90-Q3LB97 | ELAIKEDPKGQYKHEFTAF |
| UniRef90-R4G512 | ELERDYDSDRKYRNLYKE |
| UniRef90_Q3LB94 | KLVKKHDPSGKHRADFDKF |
| UniRef90-G4Y3X1 | EVKK K F D P T G $\square$ Y EKRYEK ${ }^{\text {PAK }}$ |
| UniRef90-E0W2K3 | QI RNKYDPMNEHTKDFNKF |
| UniRef90-Q3LB50 | KLELKYDANET |
| UniRef90-Q3LB49 | ELVALYDPEGKYQDAFKEFL |
| UniRef90-D0E9M7 |  |
| UniRef90_Q3LB43 | KLSCRWDPS GDFTRFFEEFL |
| UniRef90-Q0MRK1 | QLKSKYDPEGKY LILKYEA |
| UniRef90-A2TIK5 | EIVSKEDPKGEYKDSFAKFL |
| UniRef90-Q3LB57 | KLSAVYDPTG |
| UniRef90_Q6J6X9 | KLKAKFDPTGEYAKKHAETWK |
| UniRef90-Q3LB81 | RLSRKYDPDGEHKKR |
| UniRef90-J9JIW6 | R L VKl 1 Y DP T G T K L N K F LD |
| UniRef90-A8QWQ7 | ELKNLYDPQGKYQKEFQQFLL |
| UniRef90-Q0MRL0 | QL QKKFDPQG ${ }^{\text {Q }}$ YKKRYQNYL |
| UniRef90_B7TVH5 | LLMDRFDPQRKYAERLDT |
| UniRef90-E6ZCl8 |  |
| UniRef90-U5PZS7 | DLVKKNDPSGKNRAN |
| UniRef90-Q3LB62 | QLI S VY DPK GEYQTQYAHYL |
| UniRef90_Q9XZF1 |  |
| UniRef90-Q3LB83 | RLS RKY DPEGLHQKRIEAKLR |
| UniRef90_G6CVL9 | KLNALHNPDGKYDEGL |
| UniRef90-G6CVL9 | KLNALHNPDGKYDEGLKNFL |
| UniRef90-Q3LB98 | ILRKLHDPKGEYTENLDKFL |
| UniRef90-H9C8D8 | ELT A ${ }^{\text {S }}$ T PT |
| UniRef90-H9J313 | QFRAKYDPKGEYEKQ |
| UniRef90-G6CZK0 | KLTTYFDPEEKYRESVEEFLK |
| UniRef90-B7TVH3 | LVVNKYDPKKQRSGEL |
| UniRef90-F8STQ4 |  |
| UniRef90-Q8MMK8 | EF $\square$ T FYDPQGKYQTS F K D F L |
| UniRef90-H9C8V7 |  |
| UniRef90-E0W2K2 | GLLDKYDPKREL |
| UniRef90-A8QWR1 | YLID K Y DPENKYRDGF |
| UniRef90_Q3LB74 |  |
| UniRef90_Q3LB74 |  |
| UniRef90-H6TDX8 | QL |
| UniRef90-Q6VYH6 | KLEKVY D A D A Y R K K E |
| UniRef90-K7J3Z3 | A V I R K |
| UniRef90-D2SNX6 | A FKıK Y D P D NKHFSALLED |
| UniRef90-W8E1S6 |  |
| UniRef90-Q3LB78 | KLKAKYDPTGEYTQKYADTWK |
| UniRef90-E2A2J3 | K V - K |
| UniRef90_G6CZJ7 | EFRTKFDPTGEYEPAFLAFLK |
| UniRef90-Q7YWK3 | A L V |
| UniRef90-A9XR53 | AFKAKFDPEGKHFTALL |
| UniRef90-U5PZS0 | AFKNKYDPGSEYFTAL |
| UniRef90-J9JPW5 | QVSKFFDPEGKYQKKFLENL |
| UniRef90-T1H9C9 | Q】MSMYDPKSEHQEK |
| UniRef90_Q3LBA7 | HFVE |
| UniRef90-Q6TAA4 | ELLDKYDPDRSNRDDLYYK L L |
| UniRef90-Q0MRI8 | ELRRKFDPESKYYDAFEK |
| UniRef90-U4UZ78 | ELENKYDKEGAYKKQYREELK |
| UniRef90-E91NB8 | A MVEK |
| UniRef90-F4WMR3 | A LVAK |
| UniRef90-E2BRG2 | E FI A K |
| UniRef90-E2B6F7 | A L M Q K |
| UniRef90_A0A023SEW5 | A V V ${ }^{\text {K }}$ |
| UniRef90-Q3LB79 | KLLDKY P T GEFRKKYAKS W |
| UniRef90_Q3LB39 |  |
| UniRef90_B5U9X2 | K F A D K Y P K R Y ESAFAAF |
| UniRef90-A0A026VZ15 | A L V T K |
| UniRef90-D2SNK1 | KYKNKYDPEGKYFVNFEA |
| UniRef90-J9VCU9 | EFGRKYDPENKHFSALLEN |
| UniRef90-E91N80 | A 1 VVK |
| UniRef90-A0A026W4B3 |  |
| UniRef90-Q3LB95 | AFKTKYDPQGKHFDA |
| UniRef90-C4WUV0 |  |
| UniRef90-E2A1S1 | ALVAK |
| UniRef90-Q05KG7 | ELLDKYDPSRSNRE |
| UniRef90_V9PYP3 | VLKQKYDPEGKH $\square \mathrm{EA}$ A L R A A L |
| UniRef90-K7J3Z2 | ALIEK |
| UniRef90_R4G2Y8 |  |
| UniRef90_W4W841 | A L V A K |
| UniRef90-A0A026WU83 |  |
| UniRef90-K7J3Z1 | MLLAK |
| UniRef90-E2BRG3 | K F V A K |
| UniRef90_Q3LB46 | AF K K Y D P ENKYFA A $\square$ K A |

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UniRef90 Q6TAA5 UniRef90-A0A026WDT8 UniRef90 T1H7Z2 UniRef90-UPIOO0258EA81 UniRef90-E919J1 UniRef90-H9C8S8 UniRef90-G6CPP5 UniRef90-B3MPU9 UniRef90-G6CPP4 UniRef90 ${ }^{-1 \times 454}$ UniRef90-QOMRNO UniRef90-G6CPP8 UniRef90- E91AHO UniRef90-A0A026WAR8 UniRef90-T1H8A3 UniRef90-Q2VW29 UniRef90-F4W907 UniRef90-UPI000329A92D UniRef90_U4UAR7 UniRef90_K7J424 UniRef90-U5PZR4 UniRef90-B7TVH9 UniRef90_U5PZD4 UniRef90-G6CPP7 UniRef90- 1 1H8X1 UniRef90-K7J3Z5 UniRef90-G6DK74 UniRef90-T1DJB7 UniRef90-T111D7 UniRef90-E91AG9 UniRef90-A0AO26X1U0 UniRef90_G6DGK0 UniRef90 G6DGKO UniRef90_C4WVY6
UniRef90 H91 UniRef90-A0A026WB73 UniRef90-Q0MR17 UniRef90-E9IV37 UniRef90-G6DBA5 UniRef90 B7TVH8 UniRef90-W4WV36 UniRef90-Q5MGD3 URet90-Q9U514 UniRef90_O6SKX9
UniRef9_-U5Q2P2 UniRef90-W4W836 UniRef90 Lol777 UniRef90-Q0MRM8 UniRef90-K7J3Z0 UniRef90_QOMRM3 UniRef90_T1H946 UniRef90-E9IQC6
UniRef90 M4Y1W3 UniRef90-M4VUV8 UniRef90_Q3LB84
UniRef90_Q0MRL5

1 YTSKFDNVVDLDQULSSDRILRNYTNCLLDKGKCTPDGTE YTKVFEEVDPDF L LDNERELTSYLKCFYNEIUECNAHAEV YSDKYDNTDLTSILQNDKLRDEYFNCYLQKELCTEDAKF YDNKYDDMDV1AI MVNDKLRNQYYKCFMETGPCTGDAKF YSDRYDKVNAEN LQNNRLRDQYYNCFMEKAPCTADAKF YSDKFDHIDVASIVTNDKLRNEYYSCDMDTSPCTADAKF YSDRYDDI NINEILANEKLRTQYYNCFLGDAPCTADAKF

KYDY D PMEIVNNDRLRDQYYNCFMNTGPCTPDADY Y Y K VF EEI DVVDVI L DNERLLLRSYLSCFFDEAPCSSHAAA YSTEHDDLDIAAIVADKNELQKFIDCFTEKAPCTKLTQD ENVDVDNVLKNEKLVKRYIDCTLERGRCEQNGRD K Y S S K Y DHIDDVNEVLAANSHLVNQYVRCLINDSPCTGSARF PGQLENDDVDSLLKNKKYVQTQTKCILNEGKCDKTGRD RRLLVPY K CLLDQGKCAPDAKE YPDKYDYVDTDKTLANDKLREQYYKCFMEVQPCTADAQF YSDQYDYIDIQSILQNKELREEYYNCFMETAPCSPEQET YTGKWNDLNTHDIVDNARLFKKYKQCDMAETNCPQEVIE YSTENDNLD EAVVRDLPTLISFLDCFNDKKPCDEVQAD YSDKYDD DDVKGILQNDRLRDQYYECFIDKGPCTADMKF YSDKYDDTDVKSILENDRLREQYRDCFMDKGSCTADMKF YETVDIDKLLADDKMVTEYMACLRGEGPCNPAEKD YTDEFDNVDMDAILRNDTERMEYHKCYMNTGPCTPIQKT YNDEFDNDDDDAHLRNDTERTEYHKCYMNTGPCTPVQKT YTTENDNDDTEALIRDVPALEEFVGCFLDTVECNPVAAD KYSDKFDAMDVDRVLGNDEERDKYYKCLMDTGPCDEEEDF YNSENDDLDIEKLVSDPASLGAFLDCFNDKGACDELSGD

 YSDKYDNDNVMS D NNGTLQEQYYNCVIDAGPCTTDQKF YPSEDDDTDVANKLNDRRYVQKQLSCULDQGHCDADGRK YTDKWDNI NVDEL LESNRLLKGYVDCLLGKGRCTPDGKA DKIDLSKIENNDEELKDFMDCVLDKGTCSDDYNS
EKLDMDLVKNDDELKDFTNCLLEKDPCNKVHES VLNNDSLLTSYTNCLLDEENFSEEDQA MDVDNVLKNTKKVKYLDCLLDRGRCEKNGKD YPSEYD $\square Y$ VPK YPDTYDNFDVLA AL NDAKTQEQYYKCFIDAGPCVTDSQF YPSELDDLDVVALLADAAWRQQSDDCFLNKGPCSEEQKY MDAILRNDTERIEYLNCYMNTGPCTPIQKT DEKNTNKLLNNQVIVSRQLMCVLEKSPCDQLGRQ DISLLLQNRELVNREIGCVLQRNPCDIIGKQ NADA L QNDRILLAYYKCVMDKGPCTRDGKN YSGEFDDMDVLSILEAQA EQEVDCYMKRGPCTLEQQR

## पDLSKAEENTGEFKKFTDCLLEKGPCSDVYES NVNALLADSGF $\square R K Q \square N C V L S K G P C D \square T G N Q$

YPKAWLETDFKPIVDNDRLFKKYKECLLADSGCPRDVTO LDMDKMEKDPQEFNSLIDCLLDRGPCTPVFQT LEKALSDKRY母MRQLKCALGEVPCDPVGKR SELDDGD\PK LLANDAERQGVIDCDLENASCTELETK DMQLERTLADRQMMQRHLKCALGEAPCDPDGRK DMQLERTLADRVMMQRHIKCALSEGPCDPTGMR LDKALSDRRFVQRQLKCATGEGPCDP $\mathbb{C}$ GRK
YAATFDDFD IDDVLNDAKKEEEFFNCFTDAGPCTDRQNF LDEALNDKRF $\mathbb{D}$ QRQLKCALGEAPCDP $\square G K R$
 YPREDDDI DVLKI LS DDAWRRRAEDCYFKRVPCAKEKQY RYTDEFDSVDVDAGLRNDTLRDEYHKCYMNTGLCNTGAKK YDMFDAEMILEDDKLRSKAGDCLLDKGVCDGEYQP

EGSA YSDKHDNTDA $\square$ S L LQNDK LLRDEYYNCFLEKAPCTEDAKF QALLQDPEQVDTFIGCFLKDDNCSEMAGR
 $D I S K F L K D R P Y V Q K Q L H C \| L D R G H C D V I G K K$ KH

D VNDEELLSDEARRKQ $\square F D C V M D \square G P C \quad G E Y Q \square$
$Q 1 L N G N V Y V E K Q L L C A L D R A P C D N G G R Q$ LA G N N Y $\square$ E K QL L CA L D K A P C D A L G N Q

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UniRef90-Q7Z1D7 UniRef90-Q7Z1D7
UniRef90 R4G3R4 UniRef90-B5U9X0 UniRef90_Q0MRM9 UniRef90-E2APN3 UniRef90-T1GME7 UniRef90-B0FWQ6
UniRef90-U5PZ56 UniRef90_U5PZ56
UniRef90_UPIO00258EB34 UniRef90-F4W909 UniRef90_Q1PB56
UniRef90_I4DMU8 UniRef90-QOMRK8 UniRef90-E2B310 UniRef90-F8STQ3 UniRef90-E2B3H9 UniRef90-D6WT15 UniRef90-F4W9Y0
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| :---: | :---: |
| UniRef90-K9J9S0 | K I L S $\square$ Y D P S GE A WP K V K A F |
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| UniRef90-F4WMR4 | M I L A |
| UniRef90-A0A026WAW0 | T IVEEK |
| UniRef90-F4WMR5 | A FVT K Y |
| UniRef90-E91N82 | A AV A |
| UniRef90-F4WJ29 | A FIK K |
| UniRef90-Q3LB91 | QLLAKY DPNGEALDAKYGDSWR |
| UniRef90_Q7Z1D7 | ALIKKF |
| UniRef90-R4G3R4 | HMLR $\square$ Y D P K GEYWP N $\square \mathrm{K}$ |
| UniRef90-B5U9X0 | ALKKQFDPTGKLDFEALNAALL |
| UniRef90_Q0MRM9 | AI ETK |
| UniRef90-E2APN3 | HI V R |
| UniRef90-T1GME7 | AL Q AKY DPEH $\square \mathrm{Y}$ FKKYEAEGK |
| UniRef90-B0FWQ6 | RI F N ${ }^{\text {d }}$ |
| UniRef90_U5PZ56 | ELTAKFDPDKKFT |
| UniRef90-UPI000258EB34 | A FVEK |
| UniRef90-F4W909 | LIVAK |
| UniRef90_Q1PB56 | DIL K H $\mathrm{D}^{\text {D P E G T H R P K F E E K }}$ |
| UniRef90_14DMU8 | ALKKKYDPDSKHYA |
| UniRef90_Q0MRK8 | ELETK N P H HE $\square$ KLQ HLLHQSK |
| UniRef90_E2B3IO |  |
| UniRef90-F8STQ3 | ELAKK Y D P E G L Y LK K Y E A E A |
| UniRef90-E2B3H9 | E F V V K |
| UniRef90-D6WT15 | QVQKRFDPDLS H A D F N K F |
| UniRef90-F4W9Y0 | LI VA K |
| UniRef90_F4W908 | LI F A K |
| UniRef90_G6CZJ5 | ELRRKLDPQNKHFNTFLK |
| UniRef90-E3UPD1 | A FKKKYDADGNHFPALEA |
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| UniRef90-G6CZJ4 | $\square \mathrm{F}$ Q Q K Y D P E NKY $\square$ P A $\square \mathrm{E}$ A |
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| UniRef90_G6D2F7 |  |
| UniRef90_Q6TAA5 | VFKK K Y D S E N K Y $\square$ E |
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| UniRef90-T1H7Z2 | EI FEKY D P G S K H LD GF LIWW |
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| UniRef90_H9C8S8 |  |
| UniRef90_G6CPP5 |  |
| UniRef90-B3MPU9 | RLEK EYDPMGTYRLKYQKKKQ |
| UniRef90-G6CPP4 | EFRHKYDPDNKYFD@HEAE |
| UniRef90-X1X454 | RLTTNYDPSGEYKKK |
| UniRef90_Q0MRN0 | A ${ }^{\text {E A K K }}$ |
| UniRef90-G6CPP8 | D FIK K Y D P ENKYFDALLEAEL |
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| UniRef90-E91AH0 | LI I ENVD |
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| UniRef90-U4UAR7 | K MLQ T Y |
| UniRef90-K7J424 | S IQQMY |
| UniRef90-U5PZR4 | EL LDKYNP |
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| UniRef90-U5PZD4 | QLVAKYDPQGKYQQAWKDFLQ |
| UniRef90-G6CPP7 | GFLKKYDPENKYYDVFMAE |
| UniRef90-T1H8X1 | QI Q A R Y |
| UniRef90-14DNS2 | ELATKYDSTGEWRKTYEDEAR |
| UniRef90-K7J3Z5 | EVRK】RDPSGALLRRKFEEK |
| UniRef90-G6DK74 | NFRQKFDADNVYVD\LESVLR |
| UniRef90-T1DJB7 | K L VQT Y |
| UniRef90-T111D7 | KI L K Q Y |
| UniRef90-E91AG9 | LVVAK |
| UniRef90-A0A026X1U0 | R I V Q Q Y |
| UniRef90-G6DGK0 | KI L |
| UniRef90-G6DGK0 | K I L |
| UniRef90-C4WVY6 | K M L K Q Y |
| UniRef90-H91X57 | R L V DMY D P K R V Y T G K Y E K E $\square$ R |
| UniRef90_A0A026WB73 | VLLVK |
| UniRef90-Q0MRI7 | KLVRQY |
| UniRef90-E9IV37 | ELJKAKYDPDGKYAKKYEDEAK |
| UniRef90-G6DBA5 | NFRYKYDPKNKYFDA LDEAEL |
| UniRef90-B7TVH8 | L I L E |
| UniRef90-W4WV36 |  |
| UniRef90-Q5MGD3 | A L L S K Y |
| UniRef90-Q9U514 | EIIAKY |
| UniRef90-Q6SKX9 | EL A T K Y D P D N $\square$ Y Q D R Y K D K ${ }^{\text {L }}$ Q |
| UniRef90-U5Q2P2 | QLVKKEDPTGEYQESFTKFL |
| UniRef90-W4W836 | ALIAK |
| UniRef90-L01777 | QI QKKYDPQNLYAQAHPE |
| UniRef90-Q0MRM8 | R\\|YY T Y N |
| UniRef90-K7J3Z0 | D FVKK Y D P VGQ H T K LQ NF |
| UniRef90-Q0MRM3 | LILR R Y |
| UniRef90-T1H946 |  |
| UniRef90-E9IQC6 | EFLERYDPDEEHVAFYKEFL |
| UniRef90-M4Y1W3 | AVVEKYGPKKE |
| UniRef90-M4VUV8 | D L V R K M P T N |
| UniRef90-Q3LB84 | QVLEKYDPSKEYREKYAQS W |
| UniRef90 Q0MRL5 | A\|L V]K K Y |

UniRef90_M1KDJ4 UniRef90_I2BJ83 UniRef90-H9J3I0 UniRef90-E2IGV6
UniRef90-T1JF81 UniRef90-A0A026WZA1 UniRef90 W4WV49 UniRef90_Q9BIF5 UniRef90_U5PZD6 UniRef90_G6CZJ8 UniRef90_UPI00034FBD13
UniRef90-G6CQT3
UniRef90-H6TDY0 UniRef90-EOVIA5 UniRef90-R9TEV0 UniRef90-G6DSQ2
UniRef90_G6CPP6



UniRef90_M1KDJ4 UniRef90_I2BJ83 UniRef90 H9J3I0 UniRef90-E2IGV6 UniRef90-T1JF81 UniRef90-A0A026WZA1 UniRef90 W4WV49 UniRef90-Q9BIF5 UniRef90-U5PZD6 UniRef90_G6CZJ8 UniRef90-UPI00034FBD13 UniRef90_G6CQT3 UniRef90-H6TDY0 UniRef90 E0VIA5 UniRef90_R9TEV0 UniRef90-G6DSQ2 UniRef90-G6CPP6

## 50

60
K 50 E Y 7
VKKHYPQFWK LKK K I AS R R F ENR LKNVLEENCDKCSEDQRKS\|IKVINNLVSSEPESWN LKAAVPLVVRGGCPKCSQREEDQMKRIVSHVQRSYPDKWQ AKVVLS QIARTGCRSCSKEEQDRAYDII KRFRKQDPAVYK $M K R L L Q Q N D C E R C S S Q Q K A R V K K L V D A D R S Q Y P A Q W K$ MAMIFSEAFQTKCKKCTEKQKVIIEKVV LA DLSMKLIIDNNCAECSPTQKTKYEHVLKQLHDNYEPVYN VAELSREVVKNKCAECSPKQKAKYDTVMKKLHDNFEPFYN LKDDISDLI KTKCSQCSPNDKRKYDNTRQILLEKYPDTLN TKGLLIQALKNNCEKCTQKEKEVAGRTIASMMAHDSVAWK MK S MAEISRKVLESKCADCNPKQKAKYETVLKT DQTKYEPFYN LLAPLVVRGSCPQCTPTEMRQDQKVLLHMQRNFPKEWA




UniRef90_M1KDJ4 UniRef90_I2BJ83 UniRef90 H9J310 UniRef90-E2IGV6 UniRef90-T1JF81 UniRef90-A0A026WZA1 UniRef90 W4WV49 UniRef90_Q9BIF5 UniRef90_U5PZD6 UniRef90- G6CZJ8 UniRef90_UPI00034FBD13
UniRef90-G6CQT3
UniRef90-H6TDY0 UniRef90 EOVIA5 UniRef90-R9TEV0 UniRef90-G6DSQ2 UniRef90-G6CPP6
$R \mid \mathrm{V} \mathrm{E} P \square \mathrm{Y}$
QLK S K Y DPEGKYLIKYEAK
KLIKKY
RLLAKYRPTG
VI R D K Y N LDe Re
D L L K K
D L MKK
A LMLKYSSKN
MFLTRYD
QFLTR
ELLK
K 1 VRTY
RVEQQF
NFRNKYDPDN $\square$ Y $\square$ DR R $\square$ EEEVR


