

QUERY
UniRef90 W5KEP7 UniRef90_W5KEP7
UniRef90_D8SGD8 UniRef90_UPI000258EB32 UniRef90_W5KNC0 UniRef90-W1PYA2 UniRef90-W1NZH0 UniRef90_UPI0003F0EF8F UniRef90_H9H6W7 UniRef90_UPIO004575744 UniRef90_E5SRK3 UniRef90_D7UBI7 UniRef90_T1FTN7
UniRef90-F6V4L6
UniRef90-I1LVM2
UniRef90_W5JZ97
UniRef90_A0A022PRS
UniRef90-G5B8B7 UniRef90- S4RN06 UniRef90_UPI000351126A UniRef90_K4B5X2 UniRef90_C3YXU9 UniRef90_Q4T7K4 UniRef90-S8D1U5
UniRef90-M4ECY7 UniRef90-M4ECY7 UniRef90_V4KZ44 UniRef90_A5C2E3 UniRef90_U5FJ77 UniRef90 V4BEI7 UniRef90_W1PB16 UniRef90_MOSC27 UniRef90-C0P8L2 UniRef90_UPI00046E1CF7 UniRef90_MOT132 UniRef90_M1BAP5 UniRef90_T2MD37 UniRef90_W9RPY5
UniRef90_F1PDF9 UniRef90-Q4SSY1 UniRef90-W1PSA9 UniRef90-W5H546 UniRef90_V7CA39
UniRef90 I1Q4Y4 UniRef90_S8EH99 UniRef90_UPI0002C31CC0 UniRef90_UPI0002658197 UniRef90_G1NLV0 UniRef90_B9T5B4 UniRef90_UPI0002B4D5EB UniRef90_UPI0003BB841B UniRef90_D8QP51 UniRef90_MOSLF9 UniRef90_UPI0002743E34 UniRef90-T1M297 UniRef90_K4CBS5 UniRef90_UPI00042B6FA4 UniRef90_D5GIM1 UniRef90-F6QWN6 UniRef90_M5WDY6 UniRef90_R0GYM2
UniRef90_A7SS13 UniRef90_A0A059AT58 UniRef90_W2TS26 UniRef90_MOTXA4 UniRef90-A9SIW0 UniRef90-A0A017SDF6 UniRef90_K4DBD8 UniRef90_MOY0Q1 UniRef90_-I1IDL0 UniRef90_F6H1T5 UniRef90-T1G0S4 UniRef90_W9SB19 UniRef90_G7E3D7 UniRef90_E4YQ46 UniRef90_UPI00042B91E5 UniRef90_W1QK75 UniRef90_K2RYY0
UniRef90-M7NI21 UniRef90-M7NI21 UniRef90_R7YL29 UniRef90_W6MVG4 UniRef90_F6HH98 UniRef90_A0A059CAN2 UniRef90_UPIO0042B59FC UniRef90_UPI000455F80E UniRef90_K4DCE0 UniRef90_C4R1Y0
UniRef90_S7Q9M9

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60 70
T N GVIDNAAFMLLFKDADRDFAAYNEGDINLLEKYFDMKKN T NGVVI NGAFMLLEKDSIRIFAAYNEGVINLLEKYFDMKK H



 T N G V I T N G V I


 N NGGI NGAFMLLEKDDLDKLFASYNDGGI NLLEKKYKMMKK S


 T N GVV I N S C F ML L F K D C I R L F A C Y N D GI I NL L E K Y F D M N K K T N GVI N S A F M L L F K D S I R L F A A Y N E GV I N L L E K Y F D M K K N

 HN HI I Q Y A L A LVVLKE SFKVVYCAI NE GII NLVEKFBEMPR Q
 TNGVMNAAFLLLFKDLI RLFACYNDGDINLLEKYFDMNKK


 TNGVSTAA FMLLEKDLIDRSFACYNDGII NL L E E K Y F DMK K A

 S N Y Li I Q Y A
 R N F L V Q Y A FA L V V K E S F K I Y S A I N D GI I N L V
 TNGI I HAAFMLLEKDFLRLFAAYNEGILNLLGKYFDMRKN T N G V I N A A F M L L F K D L I K L F A C Y N D G V I N L L E K F F E M K K G H N GLVVHY A L S IV A G E S VVK L Y V A I T D G I L L N M V D K Y F E M E R H






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ENEV SITAFR L V K D S F QI


 SNRLVIVVALYRI I KESTGTYVEVCEA L KVLLDDRFTEMEYG




 NSSSLI V A L Y T V K K E S F GL





| UniRef90_S8E1B4 |  |
| :---: | :---: |
| UniReforo-B9HA977 | YCLKGFDUYAGAAKIUEELVMFYGWCKDMGUGRS |
| Unizetot-A0AOS59BB08 | DCVKAYEDFSRMGKQFDALEAFYTWCKNVGDAR |
| UniRefi90 F4RAT0 |  |
|  |  |
| UniRei90-UP10004408549 |  |
| UniRefolo - 4 U4M5 5 |  |
| Unirefio-Aоао59A |  |
| UniRefere-G38,70 |  |
| Reei90-1122s4 | DCVKVYDITFCRVGKQYDELDLFYSWSKSVGIARS |
| UniRei90-V7bנBo |  |
| UniRei90-UP |  |
| UniRei90-C5 |  |
| Uniret90-UP100045600 |  |
| Unifereio-U0AO2 | datkra |
| Re | D |
|  |  |
| Unireteioo-M | DCTAVHDIFSALSKQFDELEVFYGWSKSAGDCRS |
| Uniete90 | DCRVSLEI YKNFLGRMESMNTFVKVAESAE |
| Refio-UPIooot |  |
| UniRei90--s8E5X | NGVAAFQUCLKAVKQFDELSGFYTMCRGLGVGRS |
| Unifereto- | DATEALSTYRTFCRQTESVVQYMSTARALGUR |
| UniReto | DART S |
| Reito-A96GI1 | D |
| Ret90-W | SCVNAFOACVRA |
| UniRet90-B4 |  |
| UniRefor - - 100033 | ${ }_{\text {D }}$ |
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| Unireeito-GyJ7A |  |
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| Uniref |  |
| Rei90-M5 |  |
| Unireteo- Unirete - |  |
| UniRet90-UP100033: |  |
| UniRefi90-K374M9 | E |
| Uniret90-L8FWI7 | DSVKVLEIFFRTNKQYEI EQFYDW |
|  |  |
| Unireto-KiptMo | ACAEA |
| UniRet90 | DANRAFD Y |
|  | D |
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| Unireefo-UPIoootu00938 | D |
|  | $\mathrm{D}$ |
| Unizetot-K5x⒈15 | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ |
| Uniret90-A8PYS4 | D |
| UniRef90_J3M7C UniRef90 U6IR3 |  |
| UniReforo-Up100032A6D38 |  |
| UniRetio EiliPR33 | DATRGLEYYKEGMAASDALSGYYATIEQLEEHARLIL |
| UniRefo -127603 | S |
| UniRetio-W5ANN2 | D |
| ${ }^{-1}$-B6yTo |  |
| UniRefeto-B3RYD3 |  |
| UniRef90-A0A059CPG4 | ECLKAFNTYVGAAKLIDELVGHYWCRDAGIA |
| Uniretocioculuco |  |
| Unireei90-S9RE64 |  |
| Uniret90-06CFF76 |  |
| Reforo-A0Ао 598 EE 3 |  |
|  |  |
| UniRef90-11HJ78 | DCERVHGVFCGLLAKQIDEELDAFYAWCKDAYVCR |
| UniRei90-CiE |  |
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|  |  |
| UniRef90 |  |
| Uniref90- MOTE? | SAMLIVVVCETFSLYHDTSNGLVMLMDNLFGLPQPE |
|  | Eitlotarllt |
| UniRef90-V4U600 | NFIVKIAMKHI 1 RDSFICYTTYRREIVLVLENLFQMPYR |
| UniRef90_B9HJJ1 | RSLIVQLAMKLII RDSFICYTTFRREIVLVL |
| UniRef90-V7CQR7 | RSFIVQCAMKLIVRDSFVCYRKFRKEIVGVLD |
| UniRef90-M1 VWZ2 | ENEITIA TFRLLVLDLLSLF QVLNQGLIN |
|  |  |
| UniRef90-S2JD | DPQITWFAYRMVIEDLLALFQAVNEGVVNLEHYFEMNKP |
| UniRet90-G8J | MI |
| UniRet90 | NDLIMFAFKML |
| UniRef90 - UPIo003EBF23A | TNGVINAAFMLLFKDLIKLFACYNDGVINL |
| UniRef90-S8CC | HNMIIQMALSLVASESIKIYNADSDGTANL |
| UniRef90-C9: | SFEVTTTAFRLLVLDLLALFQSLNQAMDN |
|  | RIQTAld dollint |
| UniRef90 W6 | NNLI NAAFLLLYKDLIRLFASYNEGMMN |
| UniRef90 C1MZ | NNDVVAGTSLILRDSFKIYRM1 NDGM |
| UniRef90-H2AVH1 | NELILYGFKLLVFDLLQLYSALNEG1 |
| UniRef90 R7UY05 |  |
| Uni | ANDLLVYAFRLLTKDLLAGYNALNEGI |
| UniRef90-F4NW | DQVVTLQAFRLLTWDMMSLFHLLNEAVL |
| AOA059C | NSRLISSUALYPVVKESFQVYAD |
|  | Stivir |
| UniRefin- GOW877 | NNELLQFSFKLLVQDSLALYNALNEGII TLLETFFEMSHR |
| UniRef90-Q6FQZ9 | DLYLYaFkLLVQDLLMLYNALNEG |
| 4, |  |
|  | NTRMVLVALQVLVKESFAVYSDVTTVLEHFQDCFHELKYV |
| UniRef90_12G252 | DLLMYAFKLL QDLLCQLYNSL |
| UniRef90-TMEAO |  |
| UniRef90- F4PVD5 | NAFELLAKDSFKIYCNLNDAVLSVLELYFNMTKR |
| UniRef90-G3J358 | S 1 FKLLVLDLLALFQCLNQGL |
|  | FKLLVQDLLALYNA |
| UniRef90 UPIOOO3C35 | MNKNMSFMLLERDLIRLFACYNDGIINLLEKYFDMNKK |
| UniReego-Q8L | M |
| UniRef90 G4T84 | LFQAGNEGV |
| UniRef90-H9JKL5 | TNGVINM |
| IRef90-HOGVEO |  |
|  |  |
|  |  |
| A5AGG | TNGVDNAFMLI K OLIKLFAC |
|  | TNRVVAA |
| UniRef90- M $3 X F 36$ | TNGVINAAFMLLFKDLIKLFACYNDGVI |
| UniR | SNELI DFGFKLLIQDLLALYNALNEGI |
|  |  |
| UniRef90 UP100042B2E7A | A D |
| UniRef90 M4E7L6 |  |
| UniRef90-K8FDK0 |  |
| UniRef90-Q6FTX5 | QNDLILYTFKM |
| K7VFE1 |  |
|  | NYVI |
| -5L | SNEVCLDACALVDKEVRSIYKVVCEGVLNLVKFFEMDRG |
|  |  |
| UniRef90-C1HF56 |  |
| UniRef90-S9V | A |
| UniRef90 D7T8F4 |  |
| W1PLY3 | NQKLVLEAMDCVVI |
| $90 \text { B9S7D9 }$ |  |
| UniRef90-J3L | TNQVVTAALHRLVKESAAMYSELTGVMSVLIDRFAMLETP |
| UniRef90-S88685 | H |
| UniRef90_U5 |  |
| DU7 | E |
| UniRef90-T1M | GNYLIQYALALVLKESSKMYCAVNDG1 |
|  | NNH V MAALALVLK |
| UniRef90-C4JFB7 | ¢ Y VMneg tunviv |
| UniRef90-T1G1J1 | SNC RAAYNYYRDVRLMSGYNG |
| UniRef90_B2 | TNGVIKTGFMLLEKDSIRLFAAYNEGVINLLAKI |
| UniRet90_H2AC | D |
| 123 | $V Y M T F S E G I A A L V N M F F D L T A S$ |
| UniRef90_V4TYU6 | CDN VQAAMINTLKESFQVYMTFCEGLAALVDLEFFESAR |
| UniRef90-E9F747 |  |
| UniRet90-C6HGY6 | ENETSLTAMRLLTLDLLSLYSVMNEG |
| UniRef90-G0VG33 | NNPVLMYAFKLLTQDLLALYNVLNEGV |
| 34 BFOC | KVDLV DEAMNNLI VEVFDVYSRICSG |
| - | KEVLITEAMDCVIIEIFDVYGRICKGIARVLMGIYSAGKD |
|  | GSFLVRAAMKLIVRDTFQWYSUVRRDLAAILDELCSMRYT |
| -M4E | NLVQAATGSILKESFHVYMTYSDGI AALSNMLFDLSRP |
| BAOAO22Q | FAPLVAHVMDG |
|  |  |

UniRef90- C5XV33 UniRef90_UPIO0023B245A UniRef90_MOTE20 UniRef90_U1G4Y UniRef90-V4U600
UniRef90-B9HJJ1 UniRef90 ${ }^{-}$V7CQR7 UniRef90_M1VWZ2 UniRef90-B9SNG6 UniRef90_S2JDC8 UniRef90_A0A059CAP3 UniRef90_Q6CXU5 UniRet90 UPI0003EBF23A UniRef90 ${ }^{-}$S8CQW8 UniRef90-C9SQG8 UniRef90-W5G8H1 UniRef90 W6U3T9 UniRef90_C1MZU2 UniRef90-R7UY05 UniRef90 A0A022QS87 UniRef90-G8BNW8 UniRef90_F4NWF7 UniRet90 A0A059CXU9 UniRef90 C5YYJ9 UniRef90-W5HK95 UniRef90_GOW877 UniRef90-A4S6D0 UniRef90-A0A022R4T2 UniRef90 I2GZ52 UniRef90-T1MEA0 UniRef90-Q00X80 UniRet90_F4PVD UniRef90-GOVDT8 UniRef90_UPI0003C35E17 UniRef90 Q8LJJ6 UniRef90 J3LI33 UniRef90_G4T845 UniRet90-H9JKL5 UniRef90_11HM89 UniRef90-J7S354 UniRef90-V8PBX9 UniRef90-K3ХРТ2 UniRef90_M3XF36 UniRef90-UPI0003EBC06E UniRef90_UPI00042B2E7A UniRef90_M4E7L6 UniRef90 D8R9W6 UniRef90-K8FDK0 UniRef90_Q6FTX5 UniRef90_K7VFE1 UniRef90_E9C7Z2
UniRef90 L5L3S4 UniRef90 A8J082 UniRef90 A0A059BV28 UniRef90_C1HE56 UniRef90-S9WBH1 UniRet90_D7T8F4 UniRef90_WPIOOO42B911E UniRef90_B9S7D9 UniRef90 J3L6F9 UniRef90_S8D685 UniRef90-U5D738 UniRef90-T1MYS8


NAERTLDLYKAFVDLTEHVVKYLKSGKTAGL
QCKESLDMY TF FLA GTTKFEQFLKVAEQVGIDQNND ARSLACD L LKRASRQSKELHDLYESCKR
EAVMALKVVKKATSQGEDLALYFEFCKEFGV
 EAKRTLELYKSFVDLTD HVVNY LK GGK SVGGL
ACMRVHSI FTSLAKLVDELDDFYLWCKATDVCHSDD GAKEALEI YKKYLHETG IMMKFMELAR
QCRESLDIY YKFLRRTNRLARFDKVAEEVGDQQNGD DALKGVELVKENLVINERLNAFVGT
ARVIACDILKKASQQSLKLQELYGKCKR N

EANMALKVLRKATAQGDRLSLYFELCKNLGV EAFFALKILKKASDQSTHLTSYFNLSREMGV EAVMALKILLQKAMMQGEELS LVYEFCQEYGV ACVRVHSIFTSVATLLDELDDFYSWCR
DMARVYE F CSVVVLYDELDAFYEWCKNAADG
HTLRALE YRKARQQA SNLSEFYEVCKGLD

## VKENLAVNDRNAFVS

SCLDS ILIWQK
ESATRLEILKHASTDLTKLLE
NCQEALIIVKKYPAHVKMLLEFLKEA
DAERTLNDYEQFVELTEYVVKY LIKVAKSVGLD A RGLLACEILKKASLQSQKLHDLYESCKQV ARALACDILKRASQQTQELHDLYENCKR DAQRALEIYRTFTRVT DHVVQYLSAAR EVVMALKALQKATEQGEELSSYFEFCREFGV DTERALKVYKRFSVQTEEVVKF LR DARQFENA DAEWTLTVYKDFVDTTEDVVAYLKI GK SVGM EASMALRVVQKAATQVEDLSQYLEVCREMGV
 ARDLACGMLRKASQQDEDLRVMYEKCRG
 KAVIALDVYKRFVAMVSNAQPFFENARSL UniRef90-MOVFG5 UniRef90_B5XAAO UniRef90-T1G1J1 UniRef90-B2GU37 UniRef90_H2AQT1 UniRef90- I1L3M6 UniRef90-V4TYU6 UniRef90_E9F747 UniRef90 V4TLF9 UniRef90_C6HGY6
UniRef90_GOVG33 UniRef90_UPI0002B4BF0C UniRef90 B9HJL1 UniRef90-W1NEM4 UniRef90_M4EGT5 UniRef90_A0A022QSE6 UniRef90-R7Q9X8

UniRef90_Gow3Q2 UniRef90-A9RXM7 UniRef90-MORV21 UniRef90 V7CPF9 UniRef90 S8F899 UniRef90-K3zIN9 UniRef90-M1C2Z1 UniRef90 F8N143 UniRef90 ${ }^{-}$K9FK28 UniRef90-॥1 K3B5 UniRef90-K4BNZ1 UniRef90 M4CJ98 UniRef90-ROIC47 UniRef90-LilAY4 UniRef90 UPI00032AD12 UniRef90 - A9SJO5 UniRef90-M1V3S2 UniRef90-G1WY08 UniRef90 G7YPD4 UniRef90 ${ }^{-}$ROIJVg UniRef90-M2V U89 UniRef90 M4EBN6 UniRef90- M2VSS6 UniRef90-A9VBV6
UniRef90-E5F6Z8
UniRef90 M0SG89 UniRee90-UPI0002C328AE
UniRef90_C5GRS6 UniRef90-I1KRP6 UniRef90 A4HD60 UniRef90-C5X270 UniRef90-W9RZQ7 UniRef90 S8C8E9 UniRef90- U5DCA8 UniRef90-O6YS99 UniRef90_K7MB94 UniRef90 A0A059CXE9 UniRef90-W5DQC UniRef90-T1ME41 UniRef90 ${ }^{-12 \times 6 A 2}$ UniRef90- M5XKJ2 UniRef90-A0A058ZOR3 UniRet90_M2XUZ4 UniRef90 F2PYA0 UniRef90_B6SKK6 UniRet90-W5A3F6 UniRef90-M0TE29 UniRef90 ${ }^{-}$A0A024J6G6 UniRef90-D3BNV6 UniRef90_UPIO0042AEE9D UniRef90 F9WGW0 UniRef90-J3MXZ9 UniRef90-J3N757 UniRef90 K4E9Y5 UniRef90 - 111 M82 UniRef90-ROFSW1 UniRef90_11709 UniRe90 MOTIPs UniRef90- J3MTP2 UniRef90-K7TF87 UniRef90 K7L2G1 UniRef90-D0A6X3 UniRef90-L1J6H9 UniRet90 UPI00032AC79E UniRef90-W6KN37 UniRef90-I1QPE6 UniRef90_A0A059D674 UniRef90 GOUB16 UniRef90-MOTSU2 UniRef90-11C2Z9 UniRef90 B6TYB1 UniRef90-F2CY85 UniRef90-G7KMG6 UniRef90-I1QYX2 UniRef90 D2VAB5 UniRef90 ${ }^{-}$A0A024JEQ7 UniRef90-V7C7E1 UniRef90 W6U5D3 UniRef90 11 HM88 UniRef90_D3BT39

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R N T D S LIR
SRELLHOLDVLQSLLHELCOCKSAEAE MKPE S V L GRMM ELL L N L L D S F L G CRRPR GNA Q EME

RGRENRLEKLSVEKLLRETESVQK QLTAALKCDVMDNEP $K N V S N K M K E V D E T L L E K L Q K L Q G M D D M L L Q D R P K N E N L$
 $P \vee N R R S S V N Q E T E R I Q K L Q S L L E L I L D Q I R P I A D N M$

Y E R L S T E QLI I DDVV E A MMMLL L D A GYSCS F R E N S V
 SRFEDCDF L QL I S EVVP YLLQDNLDLL LA V R L E F G N A

T S N E LL LA I I HKMQA IVDSLIR $\operatorname{DKPDGENM}$
$R$ LIEMTE LLLQVLPVVETQTESLI A V R L S S D A A $\square \mathrm{L}$ I I R K M Q V I I D S L I R I K P I G E S V $T G Q \square T T D E \square K Q D L V V M P T M E N Q L E V L T D V R D R A E E L$
 D Q D D D L E Q L A E R LQQ V L L D L L M M i R G GE G R L K K R LT V $\square K T L N V E L L E P V F E G L L D R L L E A V B V V E F R E A V V$


 T P VREMGAERVLVRLNHLLWMLD RVLGCRPNGAAK

## $C Q R L L D V A V Q L L P N N T S$

L V S C E I Q G N M K
K E A G R L L A K L R L S S L V G
 K FAA T S $\square$ S D
LD R $\square$ A K K Q F M L E L L L Q $\square R P$ Y G D G M

## $P D A D L S E L E R L Q A L L D H Q L Q D R P Y A D G M$






A E ALL F K L A M C Q R LL D VAV QL LPD N NTS
 MQI RPYADGM MQI RPYGDGM
SASA A K L G S F LAA A LNK F I VDR C S W
 KRG SKEKEEAVMEELQDLEKFLGLI DLLLQQKPSNPNM E S M I $\square$ N A E S $\quad$ IF P $\square$ F E S L L R $\quad \mathrm{L}$ L I P Y C D GM
$R P$ A E GM LS S MNAEA LVPVFDALLIQFSA VVD】DYRES IV

$R L L D R L S R R Q H L L D L L M Q I R P Y G D G M$ RRYDEKSFDMAFR ILLPKCQQLLI D KV LECSP Y D
$L \vee F$ K L A M S Q RL L D LA A QL L P D N N T S
LD QLQ CA LQQ MK LI LE CNLSNCT R ES VME ELQS LEK L L GL I D Q $\square K P R S P N M$ QS FMDRVTQAKYS
$R \square D D \square D V N K G L Q T V S H L M D L L D A V M Q N A V V D S A P$


| UniRef90 Gow3Q2 |  |
| :---: | :---: |
| Unirefao-GOW3Q2 |  |
| UniRet90-M0RV21 | EHR |
| UniRef90-V7CPF9 | NVGLVLEAMDCVIVEVFGVYSLFCNKI AKVLDR |
| UniRef90-S8F899 | LEELNITALRMLVKDLLTLFQACNEGI DNVLEHYFEMFRT |
| UniRef90-K3ZIN9 | AAVRSAFGDVLRESFKVYDAFT |
| UniRef90-M1C2Z1 | VVPLVLEAMDCVIMUEVFDVYSRपCNG\\|AR\|LLR】YSAGKV |
|  |  |
| UniRef90-11K3B5 | NVGLILEAMDCVIVEVFGV |
| UniRef90-K4BNZ1 | IVPLILEAMDCVVTEIFDVYSRTRLGI ARVL |
| UniRef90-M4CJ98 | KRTLILEAMDCIVIESINIYGRICSGVIRML |
| UniRe | KKTLILEAMDCLVIESISIYGRICSGIIRTLPL A AGKT |
| UniRef90 L1 | VHPTS AAFSDVFKDVRVLYQSLNKALLRLLDNYFELPKA |
| UniRet90-UPI | NNL LEAMDCVVVEVFDVYSKFCNR ARVLLRUYDVGKI |
| UniRef90-M1 V3S2 | LPARGAVRL |
| UniRef90-G1WY08 | MLVSDLLAFFHVVNEGVINVLEHYFEMSRY |
| UniRef90-G7YPD4 | VNSVLRVA HDHLYRDLIRLYAVYNEAMINLIGRYFTMTKR |
| UniRef90-RO1 | PLIVEAMENVITELLEIYGWICRR |
| UniRef90-M2VU | YNDLTVGVLERLVKDMLPLMKQL NDGMGKVLEDFFTLSK |
| UniRef90-M2VSS6 | NDLTIGTMERLMKDMLPLVNQLTQGVEVIQENFFTGSKN |
| UniRef90-A9VBV6 | QDV1 |
|  |  |
| ef90_MO |  |
| UniRet90-UP100022 | Y |
| UniRef90-C5C | DNE SLTAFRLLTLDLLTLYSVMNEGTIN LAKL |
|  | N GL |
| UniRef90 C5X270 | EVPLVLEAMDCALTEITGVYGEICTGIARFLPAK |
| UniRet90-W9RZQ7 | NGLIEEAMDCDVTEVDEVYSRICRGIARALDRV |
|  |  |
| U5 |  |
| Ref90-K7MB94 |  |
| Ref90-A0A059CXE9 | GV ${ }^{\text {a }}$ |
| UniRef90-W5DQC7 | AAARSAFGIVLRESFKV |
| M2X | RCPTALAGFSLILSDSYRLWNVICDAMENLVESYFFLPYE |
|  | A |
| AOA | PVSIEFMHTLLRDIIRLYGSANDG1 |
| UniRef90 F2 | DNEITLTGFRLVTLDLLTLYSVMNEGVANVLENFFDLDU |
| UniRef90-B6SKK6 | PLVLEAMDC |
|  |  |
|  | RVRLVLEAMDWVAIELFEVYSSICDRISHFLAGISEDRKR |
| UniRef90_A0 | DNIITINAFELLLKDSFKMYCNLNDAVLNVL VFMRETN |
| UniRef90-UPIO0042AEE9D | KDIPYLSQESELVLQQLRLFHHI |
| UniRef90 F9WGW0 | DNFCSMEAFQMLVNDGKLLYQU SDRSI |
|  |  |
| UniRef90 J3N | SAAARSFGVVLRESFKVYDAFKDGLDAL |
|  | SAAARSFGIVVLRESFKVYDAFKEGLDVMLLRSRSSSSV |
| Unr | A |
| UniRe990_1170 | EQSLVLEAMDCVVIEIFEVYSQVCTGIARFLVAVLGSAPT |
| UniRef90 Mo | EVELVLEAMDCAVIEIFDVYSG\| CSGIAHFLVGVPDPAKP |
|  |  |
| UniRef90_K7 | NHSVSVYEFFK |
| niRef90-K7L | D ${ }^{\text {c }}$ |
|  |  |
| UniRef90-L1J6H9 | R |
| UniRef90-UPI00032AC79E | N |
|  | NNFCTMKAFEELLKDGKRLFKLESTPVVFLLGGFEEFPVP |
| UniRef90-110PE6 |  |
| UniRee990 A0A059D674 |  |
|  | CVMMUEILEVYSSIUCNGVAHFL |
| 析 |  |
| - |  |
| UniRef90 G7KMG6 | AVVETVDYGQVRAGUAEYLVAVLGARRR |
| UniRet90 | VLRESFKVYDAFKDGLD |
|  |  |
| er90-A0A024JEQ7 | M |
|  | NVVLVLEAMDCVMDEVLEMYGKFSSRVHRAVSRVLD MGI |
| niRef90--11HM88 | LQPVGNDSAGLYVDMAAVLTVLLDRFFDMEVY |
| UniRef90_D3BT39 | SSF FPLVLESYA YLLVVQFLTTLVDKTDSMELN |


| lupas_14 <br> lupas_28 <br> jnet <br> conf sol25 <br> sol5 |
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| UniRef90 G0W3Q2 |  |
| :---: | :---: |
| UniRef90＿A9RXM7 | ECFS LL H N CKRALSS QMQ L Q Q F L E S CKELLS L |
| UniRef90＿M0RV21 | DCVE |
| UniRef90＿V7CPF9 |  |
| UniRef90＿S8F899 | DVEEALNTYWQFCKETERVVENLGVAKKL |
| UniRef90－K3ZIN9 | $M \mathrm{RV}$ S A HEDLKK A CAQ T P DL K E F Y H K C K G |
| UniRef90＿M1C2Z1 | E A S M A LR I V Q A T $\square$ Q GEELSVVYFELCCQS $\square$ GV |
| UniRef90＿F8N143 | DAERAMDI YRNFARQT DFVVQYLSVARQYE |
| UniRef90＿K9FK28 | D S $\square R A L$ AI Y K T F T K Q TEEVVVQFLGVAR H |
| UniRef90＿I1K3B5 | EA SIGGLKVLQK A S TQVEEMSLLFFD F C K D $\quad$ GV |
| UniRef90－K4BNZ1 | E A TLA L KI M K K A N I Q GVELSSQY F E F NRDIGVVRNAEI |
| UniRef90＿M4CJ98 | D A A ATLKI I NKATSQGEDLAVYFEFCKGFGV |
| UniRef90－R0IC47 | EAA TVLKIVQKATSSQGEDLTIVFDFCRGFGV |
| UniRef90＿L1IAY4 | $\square$ ¢ EKI L TLYK M F LD H N K K I S NVFD DAREL |
| UniRef90＿UPI00032AD12E | EAS IGGLKILLQRASIQGEELS S Y I E F C R D I GV |
| UniRef90＿A9SJ05 | E L L HVLLHI F K R A I S QLLQCLIE T F L A S CKE M |
| UniRef90＿M1V3S2 | $E \\| E S$ A FEI Y R R Y L D Q D $~ G V$ V A Q Y L K Q C S SVGVG Q |
| UniRef90＿G1WY08 | D A ERALLEI YKVFTRQTEDTVEFLQNARRLETA |
| UniRef90＿G7YPD4 | DCRTALVVI YKAFLKRMEAMNAFVK】AE |
| UniRef90＿ROIJV9 | E A D $\square$ AL KIVVAK SVVQSKELVKY FEFCR DLGV |
| UniRef90－M2VU89 |  |
| UniRef90＿M4EBN6 | QADVALKKI VA K S M T Q GEELVK Y F V F C R DL GVA |
| UniRef90－M2VSS6 | RCEDSLKVYQTY IELLVEKANAFLAIGNRLGATESNI |
| UniRef90＿A9VBV6 |  |
| UniRef90－E5F6Z8 | EA ELLAKKIVAKS S S Q GEEVVFKYFEFCRVLLGIA |
| UniRef90＿M0SG89 | GAA TGMRILKRAA A Q S S QLS S Y F DL C R AL RV |
| UniRef90＿UPI0002C328AE | E A Q M A LAVVQ K A A M Q G Q ELE M Y LE F CR DL G |
| UniRef90＿C5GRS6 | EYRA QKF GTSSEE K K K GVAR S |
| UniRef90＿I1KRP6 | E A N $\square \mathrm{G}$ LQVLQK A S $\backslash \mathrm{Q}$ VEE |
| UniRef90＿A4HD60 | E K R RWL DLYRR Y A S A FASIIK Q Y F D |
| UniRef90＿C5X270 | A T A EGVKVLWRAVEQ GA QLS SYF DLCRGLGVA |
| UniRef90＿W9RZQ7 | E A RLLAL GIL L K A TVVQ G ELSLLFFELCCSAMGV |
| UniRef90＿S8C8E9 |  |
| UniRef90＿U5DCA8 | H T L R A L EI YRKARQQ |
| UniRef90＿Q6YS99 | $R R R R G L Q V L R K A S E Q S A Q L T S Y F E L C R S L G V$ |
| UniRef90＿K7MB94 | R CVKA F |
| UniRef90＿A0A059CXE9 | DCVK A F NA Y A S A A E Q $\square$ D E L $\square$ A F Y NRCKD T GVAR S |
| UniRef90＿W5DQC7 | $\square R V S A Q G V L R K A C A Q T P E L K E F Y H K C K K S N V G K$ |
| UniRef90＿T1ME41 | DCVK A FEA HVS TAR LVD DL LA F Y S WCD D A GVAR S |
| UniRef90＿M2X6A2 | QAREA LTVYGHFLKLLRKL R K F FES A R |
| UniRef90＿M5XKJ2 | Q A QLA L GVVQK A AVVQGEDLS LTY LEFC T ELGG】 |
| UniRef90＿A0A058Z0R3 | EAQSSLLDTYQAFTALLSAKMFAYLIDQYRAILE |
| UniRef90－M2XUZ4 | N A S R A RDIY A L Y T L QVPRVQD YLEIA K E |
| UniRef90＿F2PYA0 |  |
| UniRef90＿B6SKK6 | EVMA AVKVLWRAA E Q S A Q L S S Y F DLC R E LGVA |
| UniRef90＿W5A3F6 | DCERVTGVVFCGLLA K Q $\square$ CEELD S F Y A WC K |
| UniRef90－M0TE29 | $R G T L G L R V L R R A A A Q N S Q I A A Y F D L C R S L G V$ |
| UniRef90＿A0A024J6G6 | NAERTLF A Y K E Y T Q LQE VVLS Y VR Q A |
| UniRef90＿D3BNV6 | D I DHFFDS S R R |
| UniRef90＿UPI00042AEE9D |  |
| UniRef90＿F9WGW0 | Q K K E WVEHFRRY |
| UniRef90－J3MXZ9 | P A A A Gl K I L WR A A E Q A QLS S Y LEL C R S L GV |
| UniRef90＿J3N757 | SRA SAA HEILKKACAQTP ELKEFYHKCKR SNVSK S |
| UniRef90＿K4E9Y5 | LK K V W L L Y R Q Y S V V V E K L R L LF D |
| UniRef90－11IM82 | GRVSGHEVLRKACAQTPELKEFYHKCKK |
| UniRef90－R0FSW1 | EA ELLA MKIV A K S LS QREELFK Y F E L CRDFGV |
| UniRef90＿1117Q9 | A GA Q GMRVLRKA A E Q S K QLS A Y FELCRGLGGV |
| UniRef90＿M0TIP9 | E A A A GMQVLRRARAQSAQLSAYFELCRALGV |
| UniRef90＿J3MTP2 | $R \mathrm{GVVQ} \mathrm{GMRV} \mathrm{L}$ R K A SE Q S T QL T S Y F ELLCR S L GV |
| UniRef90＿K7TF87 | D I I R A L N M Y K R E $\square E$ Q A E QLS E F Y |
| UniRef90＿K7WHB6 |  |
| UniRef90＿K7L2G1 |  |
| UniRef90＿D0A6X3 | Q K K D WVRRYREYTVVGERLRLLLFE |
| UniRef90＿L1J6H9 | NAKKMAK L Y S K F VT TM |
| UniRef90＿UPI00032AC79E |  |
| UniRef90＿W6KN37 |  |
| UniRef90＿I1QPE6 | TAA AGI KVLRKA A EKSAQLS SYFELCRSLGV |
| UniRef90＿A0A059D674 | EASMVLLVLR Q A N A Q G D L A DYFEFCKVYGVV |
| UniRef90＿G0UB16 |  |
| UniRef90－M0TSU2 | E A R R GMRVLRRASAQSSQLSAYLDLCRTLGV |
| UniRef90－11C2Z9 | N A K E A LEI YKVF A K Q T Q SVIE F LEAA R |
| UniRef90＿B6TYB1 | $P R$ VQ GMRVLK N A E E S A QLS S Y FELC Q S L GV |
| UniRef90＿F2CY85 | R A MQGVVRVLRRKESEQSALVVSSYFELCRTTLGV |
| UniRef90＿G7KMG6 | A K S L A CEILLKK G S $\square$ Q S Q KL H DLY Q T C K K L |
| UniRef90－11QYX2 | A S S S A HEI LKK K R A Q T P ELK E F Y |
| UniRef90－D2VAB5 | D A K R A L KV Y EKY CESAK RLLES MFEFS K S V |
| UniRef90＿A0A024JEQ7 | Y A EKVL FI YKEY TQ $\quad$ LS LCHDV |
| UniRef90＿V7C7E1 | E A K C GL DVVR K A ELQ GAKMT T Y F NFCKDI GV |
| UniRef90－W6U5D3 |  |
| UniRef90＿11HM88 | D Y A E F EAHVS A A RLA DCLQ DLY A WCDHAD】A S S |
| UniRef90＿D3BT39 | E FA $\square$ QRFYMQYQTLRNFY |

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sol25



