## QUERY

## UniRef90_F3ZNG4

 UniRef90-R6P6P1 UniRef90- UPIO00471726B UniRef90-UPI00046EBCA UniRef90-R5CA38 UniRef90-R5ARK3 UniRef90-UPIOO04728239 UniRef90-D7BGB3 UniRef90_UP1000255DCB3 UniRef90 SOFH90 UniRef90-UPIOOO29A71B2 UniRef90-W7XVPO UniRef90-R4K6V8 UniRef90 E4TQ17 UniRef90-UPIO002627BED UniRef90-F8EKL7 UniRef90-H1HTW7 UniRef90-UPI00029B3C66 UniRef90-R5IFT3 UniRef90 W4ET17 UniRef90-R7L9W4 UniRef90-D5HEVO UniRef90 E3GPM4 UniRef90-F2NPS2 UniRef90-R5LCS5 UniRef90-UPIO0047C0EBB UniRef90_E8N3TO UniRef90-R5GHF8 UniRef90-B2RJG1 UniRef90 H1Y979 UniRef90-AOAO17RV97 UniRef90_E9RZK3 UniRef90_R7R9H8 UniRef90-G8LXL5 UniRef90-V2Z851 UniRet90_UPIO00423750A UniRef90 UPIOOO415820A UniRef90-GOIW51 UniRef90_UPIo001E88FF0 UniRef90_G9XE65 UniRef90_EOQL12 UniRef90-H1XQ85 UniRef90-UPlooo UniRef90-UPIO0034C6686 UniRef90-F4MNA8 UniRet90_-U2CYMO UniRef90_C6LIM1 UniRef90_UPIO0047E38B7 UniRef90-R7DP29 UniRef90-R7HRD5 UniRef90-UPIOOO3D02F8B UniRef90_C7QH65 UniRef90-G2PSR4UniRef90-UP10003677C5C UniRef90_R9GQV5 UniRef90_UPIO00423EA6E UniRef90-R7HR56 UniRef90-R7KWN8 UniRet90 R6EG14 UniRef90-12QESS UniRet90_R6U3N5 UniRef90 A1ZUZ6 UniRef90-R6BML4
UniRef90 H5SJT1 UniRef90-I5AU12 UniRef90-UP10002D2E2CD UniRef90-Q8ESQ5 UniRef90-R5CP45 UniRef90-S2XIF6 UniRef90_UP100046473C7 niref90_R7EZC1 UniRef90-F4KLJ3 UniRef90-UPIO00255AAE6 UniRef90_U5Q412 UniRef90 W8U389 UniRef90_UPIOOO361D363 UniRef90_UPI000381AB68 UniRef90 UPIIOOO3B5D50C UniRef90-R5HD94 UniRef90-UPIO0041027E9 UniRef90-C4GD16 UniRef90_R7IT16
UniRef90_W3AU51
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${ }^{10}$ FKAVQEGFA ${ }^{20}$ AFHCGDKAC
RLTQEETTAT TFEVDTYEEFKEKLDKGFVLAHWDGTPETEAQUKEETKAT TREALNFEELKDIIEKGFVKAMWCGSGECEKRVKEETGAT

TTT R T V E S Y E E F K K V L






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TFAAKTI
TYVATNYEE
TYSCVTMDEFTDEALENGFI KAMWCGDEAC

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$T H K V D S Y A E$
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TATVDAWDAFAAQVSGGWARAFHCGAA


THSCRTLDEIKTSSAGGFIKAMWDGES
TTKVDTYEEFKQVLDEGFVDAHWDGTA ECEDRVKELTGVG TYVAHNMEE LK D IIADNGFIKAMWCGERECEDK LKEDAG KT
 RTANSYDEFKKLI EEGFI WAHWDGTRETEDKI QEETKAT
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 TSVAKNMDELINAGVQNGFVKAMWCGDRACEDKIKEMTGAT TYKCDSYDEFKER1 EGGFFLCHWDGTAETE

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SHRVDTMEEE
TYEADTDD震
TYVAKNYEEFKQI FKTGFVKGAWCGDQA
$T L Q Q D S W D D$
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## UniRef90 UPI000401697E

 UniRef90－B9DZA7 UniRef90＿UPI000415260F UniRef90＿R6G6X3 UniRef90＿UPI0002D60254 UniRef90－I4ANP6 UniRef90－R7BRB9 UniRef90－W0F3Y1 UniRef90＿FORGD6UniRef90＿C4Z1D7 UniRef90＿C4Z1D7
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UniRef90 A8MLB3 UniRef90－D7GPT6 UniRef90＿R7EJF0 UniRef90－F9YSV2 UniRef90－E1RAC6 UniRef90＿R5QH15 UniRef90－R5XVV4 UniRef90＿UPIO003B4741A UniRef90＿Q9L4Q8 UniRef90－D1A6H8 UniRef90－W3A107 UniRef90－R7ZLS5 UniRef90－Q18CD7 UniRef90－R6ZU09 UniRef90－R5Q8E5 UniRef90＿F7V314
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UniRef90 G2FD67 UniRef90－G2ED67 UniRef90＿A2U439 UniRef90＿A9KL35
UniRef90－R7FEG7 UniRef90－K0F2P3 UniRef90＿UPI000479E390 UniRef90－UPIO00379707A UniRef90＿UPI000402275F UniRef90－J1H0Q2 UniRef90－I3C6A4
UniRef90 F4L223 UniRef90＿UPIO001850F85 UniRef90＿A4BYC7 UniRef90－R5QIK2
UniRef90 R9C1P3 UniRef90－R9C1P3
UniRef90－B1CAF2 UniRef90－B3EE36
UniRef90＿W7Z5A2
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TYVAKTMMGELK
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| EVDNFEEFKTVLESGFISAHWDGTNETEDK |  |
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 HTATNMDEMKDIAENGFIRAMWCGDDACEEAIK




| UniRef90_F5LS43 SRN\|I PFSPRESKETC|L VCGDKAKHT IV ${ }^{60}{ }^{70}$ FKKSY |  |
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|  |  |
| EQEDLGKCVYCGKEAKD MVITAK |  |
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| ef90 UP |  |
| K4DONO TRCIPFNAKEEDGKCILTGEPSK RRVVWAKSY |  |
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| UniRef90-LTWAU1 1 R CIP PMDAVEEAGACVLTGKPST K RVLFAKAY |  |
|  |  |
| UniRef90_UPIO00248E840 | UnRef90-R5W7S6 $\quad$ IRCIPFDSMEEGGVDMLTGKPSQ RRVLFARSY |
| UP10002193335 |  |
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| ef90-UPIO0040CC869 |  |
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| IRef90-TONVD5 $\quad$ RCVPLDAKEEAGDCIFTGKPST KRVLFAKAY |  |
| UniRef90-L8B163 $\mid$ RCLPLEDRSETGKCMVTGKPSE QEALFADAY |  |
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| UnRef90 Koinc9 |  |
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| UniRef9-UP10002E8 |  |
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| UP1000373375A TRC\|PLGQPDEPGKDILTGKPSE RRVLFACSY |  |
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| UniRef90-UPIooo371968A SRNIPFHPPVQKSRCLVCGADAKHT |  |
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| R8W1N3 SRCMPFEQEHLDDVCPICGKPAK KMIVWGDAY |  |
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| UniRef90_UPIO002627 |  |
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| I4ECX8 $\mid$ RCIPFQQPGEPGQCILCGNESTV VALFARAY |  |
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| UniRef90-A9W9Q2 IRCIPLEQPGSVGRCVYTGRE TDRQVIFARAY |  |
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| SRCDL |  |
|  | IRCIPLNGDITPGIDMLTGMPSK QRVI |
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| UnRef90-R7HFI1 SRC\| PFEDKLLTGKCDCCGKDAKHN VVWGKSY |  |
|  |  |
| UniRef90-UP10003617B51 PRCIPNDGEPEDGTC\| RCNAPSAYGKRVLFGRSY |  |
|  |  |
|  | GRPTRTQ AIF |
| QEPGKCVVTEPS PGR V |  |
| C CCGKPSKHKRV |  |
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| Ref90 V6ASI5Ret90 |  |
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| D3ROS2 SRCMPFEKPDEGAFCVCCGRPAKHN VYWGKAY |  |
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| Ref90-UP100041E4C79 IRCI PLNRVEEEGTCMFSGKPS VGRVLFAKAY |  |
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| TRCPPSEQPGGNGPCUVCGESAENE AIFARAY |  |
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| DRC PFDSPEEEGRCDCCDNPSK KRVDFAKAY |  |


UniRef90_A9TQ78
UniRef90_UPI000403FB93
UniRef90_B0PCW7 UniRef90_B0PCW7 UniRef90 G2T1TS UniRef90-B3QYP1 UniRef90-R6W4M1 UniRef90_D1CCQ6 UniRef90_E1YDK4 UniRef90_B9KYQ9 UniRef90_F8F6Z6 UniRef90_H7FRU8 UniRef90_R7PEL7
UniRef90-C9LDL0
UniRef90_G7SPU0 UniRef90 R9LDJ8 UniRef90_UPIO003664893 UniRef90_A1BHL6 UniRef90_E3FHH8 UniRef90 ${ }^{-}$D56683 UniRef90_UPI000362A4D6 UniRef90_D7CTZ UniRef90_D4W801 UniRef90_D6TLR4 UniRef90_Q6F0Y9 UniRef90_A0A024FD57 UniRef90_A4S747 UniRef90_H6L9J8 UniRef90_I5AYA3 UniRef90-J2ZPB5 UniRef90-UPIO0028941C0 UniRef90-M8DAT9 UniRef90-R5GU17 UniRef90_UPI0004646A3B UniRef90-M9LBG8 UniRef90_R5D3N6 UniRef90_UPI0003A921A9 UniRef90_A0A011A
UniRef90_R6GLY7 UniRef90_UPI0003722531 UniRef90_V7I4C0 UniRef90-V6M8Y7 UniRef90 X1KJ59 UniRef90_M8AJ38 UniRef90_R5B4G1 UniRef90_F0P0E2 UniRef90_X1TQX8
UniRef90 C0BH42 UniRef90_L8M5E9 UniRef90_UPI00047CAEE0 UniRef90 ${ }^{-}$W4CAB3 UniRef90_UPIO0016C5103 UniRef90 D8RIK0 UniRef90 W5XAN0 UniRef90_UPIO004679E49 UniRef90_D1PNY3 UniRef90 K2A697 UniRef90_C6X0W8 UniRef90_S8CQD9
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UniRef90_R5ZUQ9 UniRef90_V5WCH1 UniRef90_A9A3C5 UniRef90_S5LVL3 UniRef90_A0A024JLJ8 UniRef90_10Z3Y8 UniRef90_G7V7J0 UniRef90_I6ZY32 UniRef90_R7M2Z6 UniRef90_TOBTV5 UniRef90_R6D7G9 UniRef90_E1ZGR2 UniRef90_A0A023X1V7 UniRef90_D0BNR3 UniRef90_11A4Q7 UniRef90_C7DI64
$\qquad$ 8941 CO
VQ NF E EFK DVLENGFVIA HWDGTAETEEKI KELTKAT

 TFECESVAQMLEVLDNGFIYAGWCGSDECEAAVKEETRAT TEDVRDYEVLKERVNAGFNRAFWCGDPACEARVKAETKAT TEADTVDELKTFLDGGFALSGWCGSAACEAQVKEETGAT



 TFEVNSYEELKRRAEDGFMLAHWCEKPTCEAKVKNDVAAT
 REVHTLEEFREGVEEGFVYATHCGDADSERWLQEHTKAT
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UniRef90-
UniRef90_UPI00047011F1




UniRef90 Q388V7 UniRefoo-G4ENA5 Uniref90-LMMCA3 UniRef90-E9CF38 UniRef90-SOPEG5 UniRef90_13QG40 UniRef90_R7NG67 UniRef90-A9NEY8 UniRef90-W5HVR3 UniRef90_UPIO004415F53 UniRef90-W9DUP5 UniRef90_UPIO0036DF8B8 UniRef90-D8JJU6 UniRef90-K2AWI7 UniRef90-E4KQR4 | UniRef90_R5SLP8 |
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| UniRef90 | UniRef90_L1JIE1 UniRef90-N9VCA9 UniRef90-EOVJ15 UniRef90_G7IXY9 UniRet90-F2QMP8

UniRef90-FOXWH9 UniRef90-A0A010SJE2 UniRef90_UPI0002C359FB UniRef90_K1LFX6 UniRef90 U4KRA9 UniRef90-ROGCE9 UniRef90-K3Z5F7
UniRef90 ${ }^{-}$M1VHB1 UniRef90-A8ZTS9 UniRef90-D8QP68 UniRef90-D4M719 UniRef9-W9T0E9 UniRef90-M4CH03
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UniRef90 Q9V022 UniRef90-K9NM60 UniRef90-UPIO00258F6E0 UniRef90-Q6MIW2 UniRef90-G8YJC0 UniRef90_KOKHP6
UniRef90_UP100021A84CB UniRef90_UPIO00174529B UniRef90-ROMI27 UniRef90_S9VJN2 UniRef90_FOLKX4
UniRef90 UniRef90_A4H9N1 UniRef90_UPIO00440907C UniRef90_C1N2A3 UniRef90-E3NCV6 UniRef90_UPIO0044136A2 UniRef90-B7FQL7
UniRef90-D5GKW0 UniRef90_R7QQ13 UniRef90_Q6CXG6 UniRef90-Q8EUW7 UniRef90-G1WZH4 UniRef90_W0T382 UniRef90-D8LNW5 UniRef90-S5ZX79 UniRef90-I2H3N9 UniRef90-B4MOG5
UniRef90_U4KYX2 UniRef90_GOMG90 UniRef90-X8JBM9 UniRef90-R6Y769
UniRef90-R6C4U6 UniRef90-UPI00046739AA UniRef90-KOSCM4 UniRef90-R7IHRO UniRef90-Q8SSD7 UniRef90_A0A024HWG8 UniRef90_H1Q0TO AKTWDEFTAALEKKLI LA P WCDEQAVEEDVKARTKAK $H I D D T L E E L E A H I K P G W V L A G W D G T E E T E A L I X E R T G F T$
 I H T WDEFTTAL NNKLILAP WCDEEEVEKDVKARTKAK TRRVESYDEMKRFLTPGFFLVPWHDDATNEADIKQDCKMT TVTIDD K K A F MPEI H G GFAL SPWCRDPACEAAI K D DLLSVT VKAY T WK EFMKALDKKMVLAPWCDEEKVE EDVKARTKAK
TAQASSYDELKA ILAE GFVEAYFGGTPEDERRIREETGVT
VK T WE E F I A A L K K K L I L A P WC D E E E V E K D V K A R T K A K
VVVK T WDEFVEALQKKLI LAAPWCDEAEVVMDVKRRTKA K
NWNEFKSLL DQKFVLIPFCGNVECEEAIKKDMGAK

KV C Y D F E E F K Q L L D E K F I L S P F C G E I A C E D E I K K Q M G A K

$V Q V T S F S E V M N A L N K K M V L A P W C E D \| A T E E E I K K E T Q M K$
K I A N N Y Q E FK K II E S G WAVVTKFS G DPLDHEEEI KKETGAT
TKLVK SWADFCGQLEKK LLLAAPFCGDTSCEDKIMABMGAK
T F V A D D Y T T F K T M L D E GFi L A H WD GT P ETEEKKIKEETKKAT
RVS S LDEARKAI NE GVI EVVPWCGSEECAVKVMNELQVK

T K L V K T W S E FC D M L E K N MLL S P F C G D DA C E D Q I K A D M G A K
K KVEKWSDFNPELNKKLLLVPFCGDPACEDKI KEDMGAK
T QI E T LIE ELEAHIAP GWVLA GWDGTE ETEALIXKRTGFT




VIVEDWKDFVPALNKNVILSPWCGVMECEEDIKDAMGAK


VQVETFDELI



V E NWK D F V PT L N K K V I LAAPWC G DA DCEDDDIK DSMGAK VRVTEWAEFVPALNRKLI LAPWCGADECEDQVRKDMGAK RVVTKKWD DLV PT L D GKCVVAVPWCEEEACEDDI KERS GAK



 TRVASYAEMKDLVDSGMFLVPKCDSGNERKVREETKAT
 I K N WE E FVP A L N K KV I QMP F CLLEES CED DI K E RMGAK VIVDEWKGFVPALNKKVILLAPWCGVEECEEDIKEEMGAK TRVT E WEDFVVPALNRNIVLTP FCNETEWEEKVKTESAAK ND Y DT F KTYYINNGFVVLS SWCGSEVVCEEVVIKNDTKAT VTIH DWKDFVPTLNKKVIVAPWCGVMECEEDIKDSMGAK
 T DMEEFKKLLLDDKIILAPACGHPNCEDEI KKQMGAK K T $\square$ H Q WSELTP ALE QKCVVVPWCEQESCEDSIKDRSGAK T F E A H N K E E I E K L L N P G F I H A M WC G D DK C E E E I K Q I K G C K TFYAKT LIKDVVD DMNKGFVHAHWCGNTECEDKMKE KKGT K VEGNDYGTFKTYINEGFVLSSWCGGEVCEENDKNDTKAT


VK S F E E FMS ALDNK N I M AP WCG $\square$ S E CE DE I K S R T GA K


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| UniRef90 Q38 |  |
| UniRef90-G4ENA5 | PNDVSDNG |
| UniRef90-E9CF38 | SLCKP |
| UniRef90 ${ }^{\text {W7TTBB }}$ | CYPLDLNADPDKCFYSGEPATH TALFARAY |
| Ref9 | PVEKTVDLVNGSSAKHT VWIARAY |
| UniRef90-13QG | TRCIPTNN MEKGKCIYSGNPS LTRVVFAKSY |
| UniRef90-R7NG | Y |
| UniRet90-A9NE |  |
| UniRef90-W5HVR3 | TLCAPFDQPPEGTVCFAS |
| UniRef90-UPI | SLCDPFDQEPGVTKCVGCGKDAKRWT LFGRSY |
|  | T |
| UniRef90 UPIOOO36DF8B8 | VPMEDEKPEGDCA |
| UniRef90-D8J7U6 | VPMEDEKPEGDCA |
| UniRef90-K2AWI7 | HagokDT |
| UniRef90-R5SLP8 | CMPLRQSGTKGKCVFCGKEAT |
| UniRef90-Q98R27 | Y |
|  | F |
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| UniRef90-G71X | ILCSPFDQPPEGTKCFASGKPAKKWS YWGRSY |
| UniRef90-F2QM | QPELKAKCVKCDRPADHYCM FGRSY |
| UniRef90-FOXWH9 | IRCYPLDQRDLAGKCFYSGKPATH VALFARAF |
| UniRef90 A0A010SJE2 <br> 1P1002c35 | VRCIIPLVQPKATATCLLFTGKPTNTW ALYAKSY |
| UniRef90-K1L | PKTCVVTGKPSKVT VWLARAY |
| UniRef90 U4KRA9 | ARVLPFDQTLITETCPVTNKKAT, QTULFARAY |
|  | EQPELIL |
| UniRet90-M1 VHB1 | SQDEGKKCFYSGRPATH MATFARSY |
| UniRef90-A8ZTS | EAADAGSCVCCGKTAK GRAVFAKAY |
|  | Y |
|  | Y |
| UniRef90-W9TOE9 | Y |
| 俍俍9-M4C |  |
| Ref90_UM301 |  |
| Ref90_G5E | VCEKNAKYYT FGRSY |
| UniRet90-A0A016W1P4 |  |
| 736A | Y |
| RRef90-E9 | SLCI PFKQPAEDAKCVYPGCSNKPKYYCLFGRSY |
| UniRet90_Q815 | KRWC LGRSY |
| IRe90_N9SR61 |  |
| iRet90_B4K |  |
| Q11 |  |
|  | Y |
| UniRet90-LOKY | TDQEEGKGHCPVCGKDASVK VYV |
|  |  |
| UniRef90-G0L6G6 | Y |
| UniRef90-H3NIT9 | DTIVTGKPACHT VWLARAY |
| Ref |  |
|  |  |
| UniReef90-UPIO00258F6E0 | GLCLIPFEQPTEKQKC1HPDCQNKPKFYTLFGRSY |
|  | PRCMPLDQEPVQGNC F Sk |
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| $\begin{aligned} & \text { UniRef90_UPIOO021A84CB } \\ & \text { UniRef90 UPIO00174529B } \end{aligned}$ |  |
|  | SLCIPFEQSVENKMCVYCGKKA TKYTLFGRSY |
| UniRef90-s9VJN2 | SLCIPFEQPEEGRTCLCKGCTAPAKHWVLWGRSY |
| UniRet90 | MLGIPYPEEEEGKKCAHCGKDAKFIAR FARTY |
| UniRef90 H8XA988 | SL Pr EQP LLKSKCVKCDRKAITYCM FGRSY |
| UniRef90_A4H9N1 |  |
| UniRef90 UP | SLA PFDQSQYPTKCPACGKDAKRWTM FGRSY |
| UniRef90_C1N | APATTW VTWGRSY |
|  | CTEKAKAFALFGRSY |
| UniRef90-UPIO0044136A2 UniRef90-B7FOL7 | SLCIIPFDQAPGQTKCPQCGADAKRWT MALFGRSY |
| UniRef90-D5GKW0 |  |
| UniRef90-R7QQ13 | DPATHMAVFARY |
| UniRef90-Q6CXG6 | ( ${ }^{\text {GQKCVKCTRLAKTYCM FGRSY }}$ |
| UniRef90-Q8EUW7 |  |
|  | RPFNQPSGETKCLACGKDAK EYCLFGRSY |
| UniRef90 WOT | SLCPFQQPPLKSKCVKCDREAKQYCM FGRSY |
| UniRet90_D8Li | TLC PHDQPPEGTPCFISGKPATCW VLWGRSY |
| Ref90 | PEEFQNRNLTC Y CNGVVKY Y L M A ARSY |
| UniR | C Pr en mill |
| UniRet90 B4MOG5 |  |
| GoM | TLCIIPLEQPKEPSKCIFPVCTEKAKAFALFGRSY |
| UniRef90-X8J | Y |
| ef90_R6Y769 | CVCCGKDAKYH VIWGIQY |
| ef90-R6C4U6 | CVVCEKDAKHE VVWGDQY |
| niRef90 |  |
| iRe990-K0SCM4 |  |
| niRet90_R71 |  |
|  |  |
| UniRef90-K9HBJ6 | Y |
|  |  |
|  | C\|VPFMFEQTEG\|DMVSGKPSK QR|VLLARA |

UniRef90_LOAZN5
UniRef90_K2RC45
UniRef90_I7AQK5
UniRef90_A0A026WRM1
UniRef90_W7KYZ1
UniRef90_R9M8H3
UniRef90_C7Z6V7

VKAYTFDE ${ }^{10}$ MPALINDKLLL ${ }^{20}$ LP WCEDSST ${ }^{30}$ DEII K LETGMK K QDT NWDDFVPALDNKSVLIPHCLGGECEDEI KELMGAK AKNFEDFISALNKNDI MAPWCGDDECESTIKSRTGAK K QVENWNDFAPELNKKLLLSPFCGEPSCEERIKADMGAK RYAKSVEEANSLLEEGIVEVPWCGEESCGLKIEEMTNAK

 VTK KEDFTAALEKNDLLAPFCGEDSCEDNIKNDMGAK
 TKRVVTDWGDFTATMLNQKCILSSWCGEMSCEDNIKEEMGAK

 VTAFDYEEFKTKI QNKFVIIPFEGDEELEEQIQAETGAT T D WN EFYA LLLEKNVI MSP FCGE GACEEKMI KKEMGAK K S WDVF LQ KL E QKVI MAPF CGDMDCEDEI KKAMGAK
 K D WS Q Y DII T LQQQEDH EAGWAL DGWDGSDETEAAIKEATGFT
 TETCHSWEEFMAALNKHMALT PWADEEEDEEEVKKKMGAK TK KASTEEEMLGYLNDN VLAP WCSAVECEDEIGEKTGAK
 $\begin{array}{lllllll}V & K & S & Q & Y & Q & Q \\ V & K & S & F & S & \end{array}$

KDWDE
TREA
 E DK KEDTGAT E S A E E FTRKI K G GFAVT PHCGEESCEEAIIKTETTA T
 T K V T K Q WGE F L Q F L E K N I I MA P F C GE IIA C E D R I K A EMGA K
 T Y Q V K T Y D E F K E H L Q K G Y I RQAMSRDELLGTIHGGYVQTPWCGEEACETAIMDEDAAE K K WD QF TE LLE EKNII MAPFCGETPCED KI KA DMGAK
 VKVVKEWADFVPALNKKIVMIPWCNTTECEKEIMKKNMGAK
 K RVVDSWDVFIT EI N K NI AL I S WC GK DS CEENI KEEMGAK HDWNDFCDQLDKKLIQAPFCGEPPCEDKIKKDMGAK TYVANTYEEFKTVI EKGYI KMSDS GEEA E LII KQDTAAT WREFKDL L DNKFILVPFCGRDECEDAI KKDMGAK TVKVTKWDDF LAALSDGLVLAPHCNTIEWEKKIAELSGAK REASDRNEILGTIHGGYVKAPWCGDEECEAEI KEQIHAE E D F D R I V K A L N E K KV LAA P WC E E V E C E K D I K E RT GA K VTLT DWA QFAGTLDKKIILAPFCGESDCEDKIKADMGAK K KLL T WD DF TPALLNKLVLAPWCGQMSCEEQVKRDMGAK M WCGCKECEDKI K D DVQAT
 DNWDEFCSSLDKKMI IMPYCGEVSCEDQIKKAMGAK RAS SVEEAKRALDEGVVELPWCGLEDCAVKAAEQLNAK

 RHLLE T F E E M K P E I H G G F V L A K WC G D PVVTE E ML S D LDK VT V T QKVE T WDDFMEALNKKLI LAP WCDEVEVERLVKEAATAK TREVT DYETFKSAVEEGFVIAHWDGTAETEEKIKEETRAT ASTWAEFMTSLNRCIVYTPWCNEDSCEKAVKERSAAK
 $K$ QVIE T WT DFR H QLL N N NLL L LS P F C GE Q S C E DN I K E E T GA K
 KIVLKWEDFVSTLDKNFVMDPWCEEVVCETSIKEKMGAK REAHSPEDIMGTIHGGYVKTPWCGDEACEEAIKEKVAAE WEEFVPALDDKG LVLAP WCEAEKCEDSVVKKS GAK

 REVMDWKEFVPALQDGMVLTPFCDEVEWEEIVKTKSAAK V T Q WK D DV P T L D A K CVV DP WCE DP QCEDDI K ERS GA K
 TVV A Y N Y E D F K K Hi D N K F V V VP FCCCVTKK K E DE I K E ET G A T CDNF E D F CRSSLDKNVI L AP F C G GIDS CEETVVKKLMGAK VRVKTFDELKEAI ENKI AKAPFCMRESCANQIKELLLHAE

 V H T WDE FVVEAL QKRMI LAAPWCDEKEVKARTKGEMGAK
 HDASSYGALTKAVEGGFVRAAWCGGLECEEKVKEETGAD R E A D S R E E I L G T I H G G Y V K T G WC G D E D C E D P I K D A L A A E TVEVD DF VEEKR IMD RKFI RAFWCENPKCEDQI KA DTKAC V N K WED F VA ALDE Q K HI LAAP F C G D DP C E DRI K G DMGA K


UniRef90_T1PD31
UniRef90_Q8TJA2
UniRef90_M0MHC2
UniRef90_Q3IS99
UniRef90_W0JP10
UniRef90_Q979Q5
UniRef90_K0SBF7
UniRef90_A0A059LQX5
UniRef90_E4XSP8
UniRef90_F6UWY6
UniRef90_F2UBC5
UniRef90_D1YZQ3
UniRef90_C3XZ88
UniRef90_UPI00047CD5B7

 WAEFCDALSK GLI QAPYCDNPPCEDK I KE LMMGAK V VA A NTMMEDF Q K N L

 TNTAKTYDEFKAHLZNGYVKMSVAGEEA EDQQ KEDTGAT VIVVEDWKD F VP NL NK K NVIIP WC GVMECEEDI K D S M GA K

CK DWNTFCQQLD KKNILSPFCGNIDCEGKIK DEMGAK




 KQADNWKEFMS QL NQNTVLTRWCERQECEKEVKTKS GAK R RASSSWEDFKCELLSNNMI MIP FC GRDDECE ETIIK KETGA K
 TDITT T P E A FRAYFE Q S FVVRGK WCGDPESEE LLK A MK DT VQLE T WDKFVESSNNKMVIAP WCEEVACEESVKERMGAK KVI GNWDEVTPALDKNVVLIPFCLDGKCEERIGQLTGMK KTVVKTVDECNQSLE ENIVIVVHCGEKACADKLEELLTNSS K QAT T Y E K F K Q H L Q K G GYV A M S $\square$ A G T E A E L Q TVLVDNYEEFKTKI ENKFVLAPFCCAEEAE』KIKEETGAT VDVMEWGHFCDSLNKKIIGQAPGCGDEDCEDKIKKDMGAK

 VEVSS $\quad$ DDEAKKVI ERRI A RLD WCGSVECAEQLKAAA G GE K AT T WD D F V K A L N N A G L V L A P WS A S I E T E E WI K D N M G A K K V CT E WD D F T K I L N D K CVVV DP WC EVEACEDAI KN RMGAK TKVVEKWNDFCDHL EKCLVMAPFC GAEVCEDLI KKDMGAK



 VKAKTEEDFAAAINKKMVLVPWCDEKEVKARTKGETGAK READSRSEILLGTIHGGYVKAPWCGDEACETEIKDQDAAE
 TVFVNSINEFEHAVNNKFVIAPFSESSPEREQEIQEKTGAT THVV E DKA A F E K E I H G GF A L A H WA G DA RV EAE L K D R Y K V T
 READSRAD

K VIT NWDDVLPSLEKNVVLIPP F CL
 TVRAYNMEEVMEALNKKLILAPCCEEPATEEEI KLETQMK K E WS A F L Q F L E K N I LAAPFCGEDPCEDRI KAEMAAK VT KWDDFVTALE QKMLLAPFCGLTPCEDSIKNDMGAK YETDNLNEARQYLKK GUVEIPWCGKESCANKVMESLGAK VKVTKWDEVMPALNRKLI LAAPWCETEESEEQMKK DTAMK K QVE NWS DF GTELNKNLLLSPFCGEPTCEDNDKTDMGAK AQTFEEFEQKIASGFVRVFYCNEDLYEKQIKEKTGAS

$\qquad$ VH 1 E ERRE $V D E W E K V I P S L D$
 SRTID K LIE ELVAY I HGGFAYCHCADDKAVEEALK KL KLT

 $R$
K
K K K



 VVAA TME HFQE E LDDS G IVQDP F C G D DDCE D WI K K T T GA K
 READSRAEILLGTVHGGYVATPWCGSSEAKCEAEI QEETTAT
 UniRef90_U6ING1
UniRef90_G2MJ89

|  |  |
| :---: | :---: |
|  |  |
| UniRef90-Q8TJA2 | VGVPL ${ }^{\text {L P P }}$ |
| UniRef90-031599 | $\checkmark \mathrm{MLPLDEDEPPDT}$ |
| UniRef90-W0JP 10 | $v$ |
| UniRef90-097 | A |
| UniRef90-K0SE | T C C ${ }_{\text {Cl }}$ |
| UniReef90 A0A059LQX5 | S |
| UniRef90-E4XSP8 | GLCPPFE |
| UniRef90-F6UWY6 | SLCDPFKPLSESAK |
| UniRet90-F2UBC5 | SL |
| iRef90-DIYZQ3 | LLGEP KGMTGSGTCPVCGKPS DKVVLVAKSY |
| UniRef90-C3XZ88 | GLCTPFKPLKEGTKCVCEGCDHDAKYYTLFGRSY |
| UniRef90_UP100047CD5B7 | ARVI LLNTELITEVCPVTNKKATEQTIMFARAY |
|  | SLCPFEQPELKA |
| UniRef90-S70288 | StLA Pr PDQ |
| UniRef90-U5H235 | SLCI PYDQDVKGKKCPQCGEEAKRWT |
| UniRet90-Q6 | PR PNFGET |
| UniRef90-L11E | ALCPPSQQDEEGT |
| t90- |  |
| UniRef90_N1NQ46 | W AL |
| UniRet90-M5X8U2 |  |
| 俍et90_M2TE77 |  |
| 57x |  |
| UniRef90_AOCH | S |
| UniRef90_L2GVY7 | S |
| UniRef90 AOAO31L | SGKEATCW V |
| UniRef90- R5RAE0 | IRCIPFDQSDSEGTCLLTGKPAKMD VI |
| UniRef90-F4NS |  |
| Uni | SLCIPFEQPEEGRKCLNPECDRLAQKWTLFGRSY |
| UniRef90-A2ST | A |
|  |  |
|  |  |
| 10 |  |
| UniRef90 U5GE | N |
| $\begin{aligned} & \text { AOA } \\ & \text { AC } \end{aligned}$ | A |
| UniRef90-E6N4 | A A |
| UniRet90_06C6Z6 | CSGKKAD |
| UniRee90-UP10002C340F8 |  |
|  | S C PFDQAQFPDKCPQCGVDAKRWT |
|  | FTGKPA |
|  | G\| PTGQAACQGKC T C D |
| UniRef90_UP10003651E8C |  |
| UniRef90 B9L |  |
| W1PF |  |
| 4 | Prpdoth |
| UniRef90- 4 UECC3 | V |
|  | GLCMPFQQPKETDKC\|GPDCTNKPQFFTVFGRSY |
|  |  |
| UniRef90-A0A017TH00 | V |
| A4 |  |
|  |  |
|  |  |
|  |  |
| UniRef90-A0AO24SGE8 | SLCIPPFEQPPGETECLNPECQRKAQFWTMFGRSY |
| UniRet90-W5J719 | SLCPFQQPPKKDKCVHCGRAAKFYTVLFGRSY |
| UniRef90-S4P7M7 | DR |
| UniRef90-LOADD 4 |  |
| R4 |  |
| c5 |  |
|  |  |
| - $990-$ Q7NB | SRCIKYYLDEQTQERCFISNKKAKVE, |
|  |  |
| UniRef90-W3XDF2 | SLCIIPFKQPKEGQKCLIPECQAEAKKYVMFGRS |
| UniRef90-R5VX96 | Q DV |
|  |  |
|  |  |
|  | VRCIPDEGDVEPGECUFTGKP TQRRAVIAKAY |
| UniRet90-Q0CV | SLCIPFDQPETPGKCTNPQCTRTAEKWCMFGRSY |
| UniRet90_UP10002 | ALCPFKQPAEGTHCLPDCKNDARXYTLFGRSY |
|  | SRCPPFEQAQRRSACLITGKP |
| UniRet90_UPIO002375473 |  |
|  |  |
| UniRet90-U7Q8U4 | SLCIPFEQPEEKTKCLIPECERTANTWVMFGRS |
| et90_U1N |  |
| ef90-LOIDZ8 | VMQP |
| fao | 㑑 |
| ef90 |  |
| UniRef90_UPIO0036DC854 |  |
|  |  |
| UniRet90_V4XYV3 |  |
|  |  |
| Ref90_G2MJ89 | C G D D |

UniRef90_M7SZR1 UniRef90_Q4J8L4
UniRef90_M5RV12 UniRef90-J9G4Y5 UniRef90_A0A024FYV7 UniRef90_G0QLC2
UniRef90-H3DUY5 UniRef90-T1IPR4 UniRef90-B1AJ93 UniRef90-V5FL888 UniRef90-A8PJX1
UniRef90 W4GVM1 UniRef90-E1ZT46 UniRef90_U1QDB9 UniRef90_Q2NJ01 UniRef90_U3AAY4 UniRef90-R6I1H1 UniRef90-H3AUQ1 UniRef90-R8ZYG2 UniRef90-E3QMP6 UniRef90-X1RBH8 UniRef90-Q9HJN0 UniRef90-V5A2D4
UniRef90 T1BUN5 UniRef90_UPIOOO3B747A7 UniRef90-J3EYM6 UniRef90_Q54Q07 UniRef90-G2QLU5 UniRef90_C4V8D9 UniRef90-S4R4M6 UniRef90-T2ZTZ9 UniRef90-F4R908 UniRef90-K8F0B8
UniRef90 K714Q4 UniRef90-H2SX04 UniRef90-M2M530 UniRef90_D7EA72
UniRef90_J9FNU7 UniRef90-D9PWI8 UniRef90-TOL437 UniRef90-U1PSH1
UniRef90-W5K386 UniRef90-W5K386 UniRef90_Q7XZD3
UniRef90_S5DS98 UniRef90-A8A9E3 UniRef90-Q3SB96 UniRef90-A0A014L6J4 UniRef90_F2SGL1 UniRef90-LOALK4 UniRef90-M5TWQ2 UniRef90-L8GBR7
UniRef90-A9NRH6 UniRef90-K3WC49 UniRef90_A5UJW4 UniRef90-B8LCl1
UniRef90-B3R0N8 UniRef90-GOQBRO UniRef90-TORLB4 UniRef90-R8BP52
UniRef9- GOFDR3 UniRef90-D2R7X6 UniRef90-XOUIL6 UniRef90-A0B9N3 UniRef90-N1J7L3 UniRef90-UPIO003818D32 UniRef90_Q02710 UniRef90_J3KGR4 UniRef90_Q971B5 UniRef90-B2B3M4
UniRef90-B0ER93 UniRef90-M7P4U1 UniRef90-F8AE99 UniRef90-M2Q2W8 UniRef90-I3EHD7 UniRef90_U1GKH1 UniRef90_F7XKP5
UniRef90-Q7RWB7 UniRef90-E1RI77 UniRef90-B1VAN9 UniRef90-F6IPK7
UniRef90 UniRef90-U9GAN7 UniRef90_TOY4X1
UniRef90_S5ZWD3 UniRef90-17J5V0 UniRef90-K2DDY9 UniRef90-C5J5L6 UniRef90_J1L472
UniRef90 H2C9F3 UniRef90_G4NG70 UniRef90_C5K6R6

TEWEKVVPALDRNVVLTPFCEEPACEERLKEMTGMK DNLE EAKKMLDSGIVEVPWCESNECGLKI EETTGAR
 TVTEWNDFVSALSQGMILTPFCNEVEWEEVVKTKSAAK ANNWQEFMTSLNRNVVNTPWCNTQQCEKNVKDRSGAK $\begin{array}{llllll}K T V T D F G E F R K H L D E K C I ~ L A P F C G R P D C E D A V K R D M G A K \\ V & \end{array}$
 KHWSKVVPALDRNVVLIP FCEEPSCEERIVKELTGMK KVVTEWKDFVKTI A EGMVLTPFCNEKEWEEQVKARSAAK $V D V T S F M E L R D V V Q D G W A R G P W A G S G E D E A A V Y Q E T G A T$
$R D A D S R E K I L G T L H G G Y V K A P W C G D E A C E E P I V D A D A A E ~$ RDADSREKILLGTLHGGYVKAPWCGDEACEEPIIKDA KAAE
 VVANTMEEFQEELDSGLVQDPFCGGMECEDWI KKTTGAK VQUT D WKDFVPTLNKNLCLIPHCLGGPCEDEIKEMMGAK
 TEAKNMNDFKNLIKKGKVKINWCNTKSCEEDIKFKTGAK
 CNSYGKFKELIEQKFVVVP IIEDKELENKIKEETTAT VT $D$ NQ WNEFVPA LNKNLVLAPWCEKVSCEDS KI T K WEEVVPALDKNVVIDPHCLVPECEEKI KELT GMK

 VDCATMADLEKTI E D GWARCAWE GSDEEEKEIKEKTGAT


 VQ NWS DFMD QU NK NSVVLAPWCNS QDCE QNV KR QSKA K REAGTDE DARNDI E E G II SF M WC G DE E C GMDVEEKVRDD VE NFEEFSKELNDKCLLMPWCENTKCE EEI K TRSGGAK
 EDIK T WDEFIVALLNKKLI LAAPWCDE E EVVERDVKARTKAK T K HVVENYE ELIVSELEPGFVTCYWDENSEDEDKVKQETKAT

 H G GYVKVPWCGDQACEEA I KEKVAAE TVS VKSEAEFRDFDHGGFANCYFADEDALDPLLKE LKVT TIT K WD DVIPALDDKNVVLIPYCDAEKCEDVI KE LTTGMK $M V L A P W C D E V D V E E D V K A K T K A K$
 AS D ID EVRKLI E E GNVVANWCGDTDCGEKIEEDTGYS

 RTAESKEEMLGTISRGYVRAKWCGSESCEAEIKDEVAAE $R I V T$ Q WS DFVVKTIA D GMVLTP F CNEDE WE EVVVKE ESAA K IIT E WD K V V P A L D K N V V L I P H C L S I D C E E K I K E T T G M K HRSES LDEARKLLEEGIVEVPWCGREECGKRMEELTDAK T R N V D S L D D L K A Ellll G G FAMC H L V D E P A V D E L L K K K H R L T T R R I D D L A E F K P E I H G G L A L C C H FVV D C E E M E A I L K K L K V T


 E D L N EAK K ILLE E GVVEVVPWCGDNNC GLQLQQDVTNAR



R GVVVEDP WC GE E E C G L RME EVLD A K
VT S F DE I GK VLD E STMDDL N T A L R S GKMCTMWC GA V E C E E K I K K A T GA K K K $\square$ T S WNDFVPALNDKNVLIAAHCLTEQCEDEI KDMMGAK FKCENDEDICSHITRGIAIVPWCGDNKCGLELEDQTGAG K IVE K W D D V V P A L D K N V V L I P H C L V P E C E D K IV K E L T G M K K IV V EP DE IVKEAVVES GIVA V Q WC GCEEECA K E I


VNATSRQEVKEALRSGMVKMMPFCGRREECAN DLKEA T GLS EFKEVI NNKLVVMVPWSEEVDDSEDI K K K A GDIK VYVTNADEFKKVLNNRFI S CYAKDTKELESLLKS LIKAT



VA E WE KVVPALDKNVVLI PHCDDGKCEDHI KDITGAB $V K V T K W D E V M P A L N R K L V L A P W C E T E E S E E E I X E E G G A K$

|  |  |
| :---: | :---: |
| UniRet |  |
|  | DKSTCV |
|  | IRCPRRDQDASGGVCF |
| UniRef90 J9G4Y5 | TLCPFTPKTAGEKCF |
| UniRef90 A0A024FYV7 | T C ${ }^{\text {L }}$ |
| ef90-G0QLC2 | S |
|  | S |
| UniRet90-T1PR4 | SLCPPKEKPPKTLCLHPDCKNKPKFYTLGGRSY |
| iRef90-B1AJ93 |  |
| V5F | SLCIPFDQPDIETKCLNCGRFAKSWTM FGRSY |
|  | EPVHC1HPKCKEQPKFYALFGRSY |
|  | SLCLPFEHNEEDGKCF |
| UniRef90_E1ZT |  |
| UniRet90-U1QD |  |
| niRe990 Q2 | NLITANCPVTNKKA LOTVLFARAY |
| $\begin{aligned} & \text { URRef90-U3AAY4 } \\ & \text { UniRotanO-RG11 } \end{aligned}$ |  |
| UniRef | ELQSGAMCISGKEAKHYT LFGRSY |
| UniRef90-H8Z | SLCIPFSENKPSGACSVC PSEATCVGLFGRSY |
| UniRef90-R7YG | SLCPFEQPAEGTKCTNPNCKAAAQKWVMFGRSY |
| E3Q |  |
| Ref90-X1R | Y |
|  |  |
|  |  |
| UniRef90-UPIIO003B747A7 | Y |
| UniRef90_J3E |  |
| UniRe90_LS4Q07 |  |
| Ret90_G2Q | C PFEQPEGETKCLNCGRLAEQWCM FGRSY |
|  | SLCPPNDDASKPPCVGCNKPAKAYT LFGRSY |
|  |  |
| UniRef90-F4R908 | SLCDPFDQEDGVTKCLGCKKDAKAWT MFGRSY |
| UniRef90-K8FOB8 |  |
| niRee90-K72s |  |
| Ref90-H2SX04 | C PFSPLKQPGQCVCVKEPAQYYTM FGRSY |
| UniRef90-M2M530 |  |
| UniRef90- D9FNU7 | TMCLPFENNKDDCKCFYCKQPAQV |
| UniRef90- D9PWI8 | CMNCGRDAPY RAYLARTY |
| UniRef90_ToL437 | SLCLPFEAKKENKTCIICN GKCKRYTLFGR |
| UniRet90 O1PSH1 | E |
| UniRef90-W5K386 | F |
| UniRef90-Q7XZD3 |  |
|  | CYVLDHKE |
| UniRef90-A8A9E3 | GVPLDEDAEGERCAVCGREAKWWIRV AK ${ }^{\text {a }}$ |
|  |  |
| UniRef90 F2SGL1 | ShCUPFDQPDGDTKCTNPKCEKTAEKWCMFGR |
| UniRef90-LOALK4 | MQPDEEEDDDAECAVCGDDA DDL |
| M5 |  |
|  | SLCIPFEEQPEGETKCLIPECGAFAEKWCMFGRSY |
| A9N | CMPFDQPPEGTLCFASGKPAK KWALWGRSY |
| UniRef |  |
| UniRet90-A5UJW4 | VL G Y EELIEEAGKKC L S |
| 退90-B8LCl1 |  |
| Ret90_B3RON8 |  |
| iRef90_GOQBRO |  |
| iRef90-TOR | NNEMPTKCFVSGKDAKCW |
|  | SLCIDPFEQPKGETKCLNCGKMAEQWCM FGRSY |
|  |  |
| UniRef90-X0U1L6 |  |
| UniRef90-A0B9N3 | PMRCLVCGRESTGST YMARQY |
| niRet90-N1J7L3 | E |
| 18D32 | LRCYPLENTD SEKAVNS DSENGNFADESKAY |
|  | Y |
| UniRef90-J3KGR4 | SLC PFEQPKGVTKCTNPRCTRLAEQWCLFGRSY |
| UniRef90-Q97185 | VLG PLDEDKDNAKCVMCKKPAKSLLRL AKTY |
| UniRet90 B0ER93 | VLCIPLKQDPEGAVCFQCGKKATTYGC FGRSY |
| UniRef90- M7P4U1 | ARVI LKEKLLNKICPVTNKKA NQTILFARAY |
| UniRet90-F8AE | KRCPVCGGEAKFVAR FARTY |
| UniRef90-M2C | Y |
| UniRet90_3EHD7 | SLCPPTENKPIGACSVCTNEATCIGGLFGRSY |
| UniRef90_U1G | SLC Cip DQPDGVEKCTNPNCMNKAEQWCLFGRSY |
| niRee90-F7 |  |
| UniRet90_- ${ }^{\text {a/RWB7 }}$ | Q |
| UniRef90-E1F | VLGDEIRSEKSEGKCIICGKPSKQ AVVGRSY |
| UniRef90-B1V |  |
| 倍 | CIFTGRPA VERUVARAY |
| UniRet90_M7NVH1 | CVACENFAT TFALFGRSY |
| UniRet90 U9GAI | VRCLPLQQSGDTHHCLETGQATK TMALFAKSY |
|  | Y ${ }^{\text {FAKAY }}$ |
| UniRef90-15J5V0 |  |
|  |  |
| UniRef90 <br> UniRet9 | Y |
| UniRef90 - J1L472 | VLGTEVRNAHDEGACIVCGRPGTST VVIDARTY |
| UniRef90-H2C9F3 | Y |
| UniRef90_G4NG70 | Y |
| iRef90_C5K6R6 | CIPDESSAEGTKCFFTGKPAKRWC LFGRS |

UniRef90 F6D507 UniRef90_U1NHV0
UniRef90_UPIO0036AB39E UniRef90-D5EAV9 UniRef90-G3XWX7 UniRef90-U1N3B6
UniRet90 LOHE26 UniRef90-LOHE26
UniRef90-K2BMW4 UniRef90-H2Z6K2 UniRef90-T0M6P3 UniRef90-K2RDN6 UniRef90-G4VLU3 UniRef90-A6RCC5
UniRef90 L9LCA9 UniRef90-S3CZF2 UniRef90-R7Q8V5 UniRef90_M7U9K1 UniRef90-FOX8DD UniRef90-E1ZAQ22 UniRef90-NODPX5
UniRef90- UPIO001DD106B UniRef90-B6HJAO UniRef90 ${ }^{-}$FOTCI4 UniRef90-H1YWL7 UniRef90-12K1T7 UniRef90-X1U1T9 UniRef90-XOUJB1 UniRef90-U6M6F5
UniRef90 G7WMDO UniRef90-Q0W0C9 UniRef90-UPIo0037D4B6E UniRef90-R5XUI1 UniRef90-X1JGR4 UniRef90-A0A059F678 UniRef90-F9XJK1 UniRef90-UPIO00380E120 UniRef90_B1L662 UniRef90-G7XL14 UniRet90-UELTC3 UniRef90-W5UT77 UniRef90-O26708
UniRef90-W9CT71 UniRef90-I7CED4 UniRef90_J9JM24 UniRef90-Q9Y9G0 UniRef90-W6MHL3 UniRef90-C7Z1R9
UniRef90 U6EDT7 UniRef90-Q8TW09 UniRef90-U1QAC8 UniRef90-R61W73 UniRef90-F8J8Y9 UniRef90-UPI000471C757 UniRef90-G7YKWO UniRef90-W9BUL2 UniRef90-X1AA11 UniRef90-F4BX86 UniRef90-U2YLMO
UniRef90 A0AO23B5T4 UniRef90- U6MHN1 UniRef90-UPIO0046E92EA UniRef90-K1Z1G4 UniRef90-U5NF57 UniRef90_E8ZGI7 UniRef90_NobBH7 UniRef90-10A1R8 UniRef90-UPIoo03794982 UniRet90-X1LHV5 UniRef90_UPIO003EE36A6 UniRef90 A5P7J4 UniRef90-E6PC77 UniRef90-B1Y963 UniRef90-V9RAG1 UniRef90_Q2FLY5 UniRef90-Q2G6Y3 UniRet90-G2IIW4 UniRef90-W8GMD4 UniRef90-TOU649
UniRef90-O2NFL1 UniRef90-Q6KZA3 UniRef90-A3WC82 UniRet90-U6HKN7 UniRef90-X1E752 UniRef90-F2LOIO UniRef90_17KD03 UniRef90-19L6H9
UniRef90
UOLSB3 UniRef90-E3GW71 UniRef90-K1XMI1
niref90_H3EHS1
 RTAETRS TKKVDSMDALNTALNDGVAVVHWCRERECGDAIEEKANSS SRK

ADTWEDFLK FLDD AETLEEAKNAIE QGLVLAGWCGSK KRUNDMNELCTALDQKLALADPCCDRDCEEEV K EMEMGAK KRUTNWDDFTPALNKNLCMIPHCDTEQCEDEIKKETGAK

THDVQTYDEFQK MMDRGF TKVFWCGEP DCERKIKDETMAS KITSFEEVMPVLNRRTVLAPCCEDPDTETQIKKETQMK KDCETAEEARVQTAAGVARVAWCGSEECGHRIEEEVGAA KACETLDEAKQQDENGWATMPWCGEKACGDEMENAVNCK TD荷KAAEFEAYLENGFVCGKWSGDEATDDKLKE MRDT KSASDMGTVKRMMEKGIARVPWCGGEACGKAFEEQTGGN
 HARNMEETESVKGWVRAPWAELEEVETLKA LLKLT FA K KlT KWADFAPAVNKHLCLIPFCLQEDCEDN:KKLLMGAK NNFEEFTQHTKNKFVVVPFEEDSTVEQQI QEVTGAT REAENDWEEASRGVDEGVVSFMWCGEEECGMDVEEKVRMD IND WS EVVPALDKNVVLIPSCDAEKCEDRLK DLLTGMK VICRKWSECAAHLAKHLLLTPFCGRPDCEDNLKQDTGAK A STLEEARDWVEGGLAEIPWCGRESCGLEMEERVNGK VIVNEWKDFVPTLNKKVILAPWCGVEEVDEKAPS MGAK RVVTAWDDVMGALDNKLVLIPFCLDGKCEDRMKELTGMK FRTDSPEEARRLVGEGIVETGWCGSERCGVRMEEEFGGD TDDKTKKEFEEYGEEGFVRAKWSGDPNSEAPLKKAMMAAET
 $R 1$ A S QVNTMEELCAALDKSLGLAPFCGDSTCEESVRNEMGAK VDADSLGTGEDALDKGIARIDFCTTEPCDEEVKDRLGGG TRGUDTLDALLTAGFAEGWVVVQWSRTGEALDDKVVEQLKAT R QTYDQVMPALDKKLVLAPWCQRTECETTVTDQTTAK
 KGGFYQSGWCGNAACEQELK KHKAT





| UniRef90＿Q2NAH8 | $\square R N V P M D T P A P T G S C \square F T G K P A \quad \text { VEW }{ }^{50}{ }^{70} \text { V K K A Y }$ |
| :---: | :---: |
| UniRef90－E1QQ27 | ALGVPMDEDASKD\SACSDKQANYWLR I ARRY |
| UniRef90－K9DDS0 | LRNVPTDAEAADGACDFTGGGTAVERVLVGRSY |
| UniRef90－A8MC04 | ALGIIPLDT DETPSDAACSEKKAEYWLR |
| UniRef90－M9SFB6 | IL GTPYHPENWTGKCVCCG |
| UniRef90－M7TVP1 | TL GEPDEKEQCKLS CPVCGKTAETWVR FAKTY |
| UniRef90－X0U135 | VLGLPLGARAVSDECPSCGMKGEHRIRV ARSY |
| UniRef90－F0QPZ2 | PRCIKEKDKDKDLYCVFSGKKA NCLAYFGRSY |
| UniRef90－M4YLC1 | 1 L GTPYRPEEFTGKCIVCGKEGA KPAYAART |
| UniRef90－G8C2H9 | C $\square$ REKSKDS $\square$ NVCIFSSKQPA NCLAYFGRSY |
| UniRef90－R9T8W0 |  |
| UniRef90＿UPI0002FCB67A | SRC $\square$ AFSQDNS $\square$ GKCFYTGKE TS QRVIFAKAY |
| UniRef90－TOROI2 |  |
| UniRef90－A719R7 |  |
| UniRef90＿Q7X2P1 | FRNVPGTAAPAEGTCLFTGKPA VER\LVARAY |
| UniRef90－A2FGU9 |  |
| UniRef90－D3BRI9 | SLC\PDKVEEDETRCFACERSAK K WTLYGR |
| UniRef90－A0A031IAD1 | RNAPSDAAAADGTCDFTGAPA VERVLLARAY |
| UniRef90－F1Z9W0 |  |
| UniRef90－R1EY50 | TLCDPYEAPPDPDPCFDS GKPAVCWT GLWGRSY |
| UniRef90＿R9SK65 | FLGSSDDLDEDTDKCVHCGKKAKHDASVZAKTY |
| UniRef90－V6DGW9 | IRCVLED KEFKKCFNCDLDSHND I LVAKSY |
| UniRef90－Q1GTS7 | MRNTPLDAAPADSAC■FTGEPA VERVLIGRTY |
| UniRef90－R0GNF1 |  |
| UniRef90－UPI0002FD5C30 |  |
| UniRef90－M1VBH7 | TLCMPFEAPAPGKQCFAC DAAAKRWALWGRSY |
| UniRef90－T0HH86 | L R NVPSDAAPADGGCIFTGGAA VERVLVGRSY |
| UniRef90－UPI0003B68823 | 1 RNSPLGGPAPTGTCPFTGEPA VETUYIARAY |
| UniRef90－A1RSR6 | ALG\｜PMD T D P S $\mathrm{I}_{\text {G }}$ |
| UniRef90＿A3MV50 | ALGVPMDSEASVGRDPACGKRAEVWLR |
| UniRef90＿J3ALG4 | MRNTPLGGDPATGSCDFTGRAA VEK】YVARSY |
| UniRef90－A0A058ZON7 | SLCDPFDQD $\mathrm{S}_{\text {SKHVCFQCGAAAK SFTLFGRSY }}$ |
| UniRef90＿UPI00036F8B3F | L R NAPMGQTHPEGQC【F TGEP CVERVLVGRAY |
| UniRef90－D7FUM1 | LRCYPLKLNEEEGKCFYSGKKATH MAIVARAF |
| UniRef90－D3S0H4 | LG\｜PWISAEEKGRCVNCGRE GFLCAAAKS Y |
| UniRef90＿Q8ZVQ9 | ALGI PLD A D A |
| UniRef90－X1LQY3 | VRGLANKHEKSTGKCVICEKPAK EVVYワGKSY |
| UniRef90－P75382 | $V R C C D E Q L Q K P Q D C P F S G E S A Q D ~ Y V L I A R A Y ~$ |
| UniRef90－V6LND7 | 1 RGYDPEAACEGELCVVTGAPAKFWCFV A R A Y |
| UniRef90＿U6K4L9 |  |
| UniRef90－W4YGJ6 | A L C I P F K |
| UniRef90＿E3L752 | SLCI P F D Q P |
| UniRef90－A0A059LMP8 | LSCISCENE |
| UniRef90－Q5QGR9 | VLCIPPVNQ |
| UniRef90－S0AQ72 | ALGA V R NDGTS GPC V VGG PGKDSA FSRTY |
| UniRef90－D3E2P4 |  |
| UniRef90－UPI00026CCB57 |  |
| UniRef90－W0AAK4 | 1 RNAPTGAAPAEGNCLFTGEPA VERVLI GRAY |
| UniRef90－N0BDA5 | ILGKFEEAKDDTGKCIVCGRE GYLSAISRSY |
| UniRef90－B8NS58 | CLCVVPLEQEECATPCIVPTCKYSALK WAMF GCKY |
| UniRef90－L8H076 |  |
| UniRef90－M2Y375 | LC |
| UniRef90－D5G849 | SLCLPFDQPKGDDKCPQCGENAK |
| UniRef90－TOZM90 | TI GFIADQKVAE PCASCGNTEHSVEM FFGRTY |
| UniRef90－A3DNQ0 |  |
| UniRef90＿Q0CHJ3 |  |
| UniRef90－E2LA09 |  |
| UniRef90－L0PAG2 | S LC\PLEQPTGEHHCTACGEDA $\square$ T FALFG |
| UniRef90－EOSTF1 | ALGEPLDKPSNRDVCAFCGKTAK TMMA】AKRY |
| UniRef90－Q4TGU1 |  |
| UniRef90－G4RMK9 | LGT PMDKEPD |
| UniRef90＿E8RAI6 | VLGSPLNLPPPSQYTA CGK AKADRYALLGVTY |
| UniRef90－L8EFH3 | VRCL VAADGS VPGSDDQPGNVAVVARAY |
| UniRef90＿G7VGF5 | A L GVA M |

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[^0]:    lupas＿21
    lupas－14 14
    lupas 28
    jnet
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    sol25
    sol5
    jhmm
    jpssm

