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E K DI Y L NTKILNTDAAYLA SHLTNEQKAY KLNNEQLA SKANPLDLAYYAGF L STLAAYIAGFLDGDGSIYAKVI ${ }^{K}$ LT AAYIAGFLDGDGSIYAKVISRPDYEITKYQIST LQPTEAAY wV R DEAQWVV
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SWIVGF DDSEGCFCVSFTNKSKDSLGDDVRA
TPESLNWVAGFMDAEGCFFVKSTYNKNNELRFGLGC
TPESLNWVAGFMDAEGCFFVKSIYNKNNELRFGLGC NLEAQWIVGFVDGEGCFHIADNSQEMKLGVQVLA $\square \mathrm{N} P \stackrel{\downarrow}{\mathrm{~N}}$ YVTGF WVAGF GFTDGEGCFWIKTLKVGGKEGZRVA
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 EFTVVQHKRDI KLLYALKDYFGCGSVDNHGDRYHWRV


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K K Q $\square \mathrm{N} \square \mathrm{N}$
N N S LT N K T G S R T F L N
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UniRef90-V5RDZ4 UniRef90-V5KV81 UniRet90_V5KV81 UniRef90-M5BUQ2 UniRef90-M5BUQ2 UniRef90-J7K6S 1 UniRef90_J7K6S1
UniRef90_S4UU33 UniRef90-C7SWD8 UniRef90-C7SWD8 UniRef90_O02683 UniRef90-Q02683 UniRef90-M9NRK8 UniRef90-A7G9ZO UniRef90_V5KV87 UniRef90-Q8M1H6 UniRef90-M1GPD4


NKKLSNNWLTWFIGFTEGDGA

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NKLELHFVTGY
NKLELHFVTGY FKLNPWF
FKLLN P W
TGF
MNP SVSGFVAGDGGFSVGRRPGSNFPE
NEIDTNFIGGLIQGDGCFNISFRKDLK
NE:DNFIGGLIQGDGCFN:SFRKDLK
KLNLDWMAGFCTGESNFFITVQKSKT KSGLAVQA
DLNWMGF
DPNW SGFAS
t GF
पр T पN D R
WIAGFAAE
TGFAD
WLVGFADA
$A W I V G$
A W SGTDAE
F T WFVG
NSTSEAKKYWGGF
SEAKKYWLGGFAE


AYCAGFIDADGCTMLTVYKSKHWR
LAYTAGIMDGEGCIGLYKEKAAHYNDGYNVRV
Q DDEKL
Q1DEKWL
N पK LLEK $\square \mathrm{D}$ PN
F Ti GL
ELDPHWi SGF
NDINAHWFAG
NDI NAHWFAGFTD NSTNPKLTPAYLSGLVQAYGGFHIAVDRSKSNKLG\|RVTP NSTNPKLTPAYLSGLVQAYGGFHIAVDRSKSNKLGLRVTP

PNLNPHWLSGFITA
PNLNPHWLSGF
WVAG

DADGGFPTSIFKDASYKTGWRVTT DADGGFPTSIFKDASYKTGWRVTT KTDPTFLQWFVGFSEG KIDPTFLQWFVGFSEGDGSFIVSKG
NLSSMNISWLCGFMSADGHFGLRDRKHSKDTLGFNFEP TGFADAEGSFLLRIRNNNKSSVGYYTEL
FTGGFADAEGSFLLRIRNNNKSVGY
FLTWFIGFTEGEGSFIVNN
FLTWFIGFTEGEGSFIVNN
TEEQiNWISGLVDAEGSFGVNVVKHSTYSTGFAGDL
TEEQUNWUSGLVDAEGSFGVNVVKHSTYSTGFAVLI
MTNEQKAYIAGIIDGEGSTMLFRFHNNQF
NQVPPDKAWLSGFTEAEGCFN STKRDNTVSGYRVSL
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UniRef90_Q8HHD1 UniRefefo-LTTNMM9
UniRef90 S5TNT1 UniRef90-Q36472 UniRef90-Q36472 UniRef90-Q33761
UniRef90 -
O33761 UniRef90-H6D5C9 UniRef90-H6D5C9 UniReffo-O73943 UniRef90-O8SMM2
UniRef90-K5VG97 UniRef90-Q8W9T6 UniRef90-UPIOO00166155 UniRef90-Q7GEU2 UniRet90-S5U3N7 UniRef90-S5UU3N7 UniRef90-JJJRF1 1 UniRef90-W7DWP2 UniRefefo-V5REB3 UniRef90-V5REB3 UniRef90_S5TNR4
UniRef90-S5TNR4 UniRef90_M1 JF00 UniRef90-M1 JF00 UniRef90-Q11185 UniRef90-A7UG12 2 UniRef90-M1F966 UniRef90-M1F9666
UniRef90 V6V8S2 UniRef90-A5J033 UniRef90-A5J033 UniReffo-NoA3B3 UniRef90-Q3T4D3 UniRef90_O3T4D3
UniRef90 M1F6T2 UniRef90-M1F6T2 UniRef90-O20960
UniRef90 O20960 UniRef90-C7SQG1 UniRef90-C7SQG1 UniRef90-C9D8Q7
UniRet90 K1V936 UniRef90-K1V936
UniRef90-C7SWE1 UniRef90_C7SWE1 UniRef90-AOAO23UPU4
UniRef90-AOAO23UPU4 UniRef90-S5U561 UniRet90_S5TEK4 UniRef90-Q539C3 UniRef90-Q539C3 UniRef90_16XFH3
UniRef90 X1JMB2 UniRef90-V5KWQ3 UniRef90-V5KWQ3 UniRef90-X1PZP4
UniRef90- $\times 1 Q V D 7$ UniRef90-B2VQ24 UniRef90-B2VQ24 UniRef90_S5TP08
UniRef90 O20959 UniRef90-O20959 UniRef90-M1F6Q3 UniRef90 ${ }^{-} 11 F 633$ UniRef90-G8G1F6 UniRef90-D5G3N5 UniRef90-D5G3N5 UniRef90-F7WD32 UniRef90-V5RDZ4
UniRef90-V5RDZ4 UniRef90-V5KV81 UniRef90_V5KV81 UniRef90_M5BUQ2
UniRef90-M5BUQ2 UniRef90-J7K6S1 UniRef90-J7K6S1
UniRef90_S4UU33 UniRef90-C7SWD8 UniRef90_C7SWD8 UniRef90_Q02683
UniRef90 Qo2683 UniRef90-M9NRK8 UniRef90-M9NRK8 UniRef90-A7G9Z0
UniRef90 V5KV87 UniRef90-Q8M1H6 UniRef90-M1GPD4
UniRef90_M1GPD 66155
 ETTVSGGSTRHDLFRELVNELDCSSHFDTNGKDEWTQVNG RFS AQDSRDLLLKSLVEFFNCGYYYKRKVCEFTVTKP RFVLTQKEGGAGLKQUQRFLNCGYVVKNSKCYRYYVDSY $R F V L T Q K E G A A L L Y Q U Q R V L G F G N V V E D S K C Y R Y Y V D S Y ~$ RFR|SQHSRDNRLLEKIAEYFGSGKVYKYSGKSSYSTVDF

E <br> \section*{\section*{K}} <br> \section*{\section*{K}}

| UniRef90 Q8HHD1 |  |
| :---: | :---: |
| UniRef90 LTTNM9 |  |
| UniRef90-S5TNT1 |  |
| UniRef90-Q36472 | NDIIIY\| |
| UniRef90-Q36472 | NDIIIYUIPFFEKYKIEKDYVNFKEAAUP IKNKEHLTEKG |
| UniRef90-Q33761 | SDLLIFFLFHGNLVLSHRLSQ |
| UniRef90-Q33761 | SDILILFFLFHGNLVLSHR |
| UniRef90-H6D5 | TN:TNV |
| UniRet90-H6D |  |
| - 973 |  |
| UniRet90-Q8SMM2 | QDMKLLLSNLLPHLNLKYKDY |
| UniRef90-Q8W9T6 |  |
| UniRef90-UP10000 | ALNDVIAYFKLFLQTKKVLSFEKWFTVQMSNKLHLTDEG |
| UniRef90-Q7 | KSINKVISYFNKYLYTKKALSYKYFNIIKVINKEHLTIEG |
| UniRef90-S5U3 | NDVNK1 PPHFEMYPLQTQKKADLFKEAVLLKLNKHL |
| UniRef90_S5U3N7 | NDVNKI PHFEMYPLQTQKKADLFKEAVLLKLNKHLNVED |
| UniRef90-J3JRF1 | S DLEKIIPRLFDKYPVLKRNYADFVKVWQLMKNNLHLCTMEG |
| UniRef90 J3JRF1 |  |
| UniRef90-V5REB | SDITNII IPFFNKPI GVKLYDYLCKIHSLMVNRHLTVEG |
| UniRef90-V5 | SDITNILIPFFNKPIIGVKLYDYLCKIHSLMVNRHLTVEG |
| UniRef90-S5TN | ND:Y LLSLCANGNLVNHRINQ |
| UniRef90-S5TNR4 | ND: Y LLSLLFNGNLVLNHRINQLSS W |
| UniRef90-M1JFO0 | ED: |
| UniRef90-M1 JFOO | EKI IPFFYKKKHSLLGLKL |
|  | KAISKVLLYFDKYLYTKKALSYKYFK İKIMNKEHLTEEG |
| UniRef90-A7UG12 | KDITNILVPFFPIIGIKLHDYLDWCKIHSLML |
| UniRef90-M1F966 | NALNFVKEHFENYPLTKYVHFKLVLE1 |
| UniRet90-M1F966 |  |
| UniRef90-A5Jo33 | K DLK VVLPHFDKYPLLKLKDYLVFKRILKLLMKGEHQSL |
| UniRef90-A5J033 | KDLKHVLPHFDKYPLLKLKDYLVFKRILLLMKGEHQSLSG |
| UniRef90_NoA3 |  |
|  |  |
| UniRef90-Q3T4D3 | KNINNLYNK!LPFFLDKLKQFTIFKQTVNLLNKQHLTKDN |
| UniRef90_Q3T | KN: NNLYNKILPFFLDKLKQFUIFKQUVNLLNKQHL |
| UniRef90-M1F6T2 | DDITEVIIPFINYLDFKDAST II K NKDHLNQE |
| UniRef90-O20960 | SDI DKIIPFFDKYSIQGKKSLDYFKEVADIIKSKHLTSEG |
|  | SDIDKIIPFFDKYSIQGKK |
| UniRef90-C7SQ | EDLRVVLNHFEKYPLITQKLGDYLLFKQAFSVMENKEHLK |
| UniRef90 C9D8Q7 |  |
| UniRef90-K1V936 | GLVNVRDYFLIHLRTKKADSFIKWNEI YRLNKEHLDSKG |
| UniRet90-C7SWE1 |  |
| UniRef90 C7SWE1 | DLKILDHFDKYPLKTEKLADYL |
| UniReergo-AOAO23UPU4 | VKKLPFFEKYPLITQKQKDFALKKVSML NKEHLTEEG |
| Unirefego-S5U5 | EILLFNFYTFPLLKNKSLNKFNYIYKMLNKEHLSLEG <br> KNV SYFNGPLYKKSLSFKWSLITNUNKLHLTEEG |
| UniRet90_S5TEK4 | 俍 |
| Q539C3 |  |
| UniRef90_O639C3 | ENLVLFNGNL LPRRK |
| UniRef90 I6XFH3 |  |
| 5KW |  |
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| UniRet90- ${ }^{-1 \text { P1PP4 }}$ |  |
| UniRef90 - 1 QVD7 | KAA EFLKLILPYLYLKRSQAELALQ |
| UniRef90 B2VQ24 | QNIILLAHLFNGNIIIRQQQVSQLITLINNLK |
| UniRef90-S5T | MKK1 |
| UniRef90-O20 | DGLSNVIRHFQQYYLLSKNTLQLFSRVVGTMKSGHTNTKG |
| UniRef90 O20959 | DGLSNVIRHFQQYYLLSKNLLQLFSRVVGIMKSGHLNLKG |
| UniRef90 M1F6Q3 | KTIIPFFEKYPVIGVKHKDYLCKIHSLMVNRHLTVEG |
| UniRef90-G8G1F6 | SFILEVLTPFKNNLQSKKLEDYLSFCSVCYLDKAHLTEEG |
| UniRef90-G8G | LQSKKLEDYLSFCSVCYLDKAHLTEEG |
| UniRef90-D5G3I | KEILPLFDLYPVRSGKLISYFKQVVEMMEKKHLTAEG |
| UniRef90-D5G33 | Q:KELLPLFDLYPVRSGKLISYFKQVVEMMEKKHLTAEG |
| UniRef90 - V5RD | DLN KKL!PFL |
| UniRef90-V5RDZ4 | DL N KKLIPFL |
| UniRef90-V5KV81 | SN: QDMGNTVIPFFDLKKNDFK\IYND |
| UniRef90-V5KV81 UniRef90- M5BUQ | SNIQDIGNIVIPFFDLKKNDFKU:YN: |
| UniRef90-M5Bl | KDLINVIPHFKEYPLLTQKAADFILQLVELMNQGAHTKND |
|  | DNIERLIHLENGNL |
| UniRef90-J7K6S1 | N1 ERLI HLFNGN |
| UniRef90_S4UU33 | N NHF NKDEVYO GQK |
| $\begin{aligned} & \text { UniRef90-C7SWD8 } \\ & \text { UniRef90 C7SWD8 } \end{aligned}$ | EDK |
| UniRef90 C7SWD8 | EDLKVL NHFDKYPLITQKLGDYLLFKQAMENKKHLKIEG |
| Unil | L |
| M9 |  |
| UniRef90 M9NRK8 | EEVKK1 PFFEKYTLEKKGDFYLMCKVVDIVKNKHLTLKG |
| UniRef90-A7G9Z0 | K |
| UniRef90 Q8M1H6 | , |
|  |  |
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UniRef90 Q8HHD1 UniRef90_L7TNM9 UniRef90-S5TNT1 UniRef90_Q36472 UniRef90 Q36472 UniRef90_Q33761 UniRef90-Q33761 UniRef90_H6D5C9 UniRef90_H6D5C9 UniRef90_O73943 UniRef90_Q8SMM2 UniRef90 K5VG97 UniRef90_Q8W9T6 UniRef90_UPI0000166155 UniRef90- Q7GEU2 UniRef90-S5U3N7 UniRef90_S5U3N7 UniRef90_J3JRF1 UniRef90 J3JRF1 UniRef90_W7DWP2 UniRef90_V5REB3 UniRef90_V5REB3 UniRef90 S5TNR4 UniRef90_S5TNR4 UniRef90-M1JF00 UniRef90 M1JF00 UniRef90_Q1I185 UniRef90_A7UG12 UniRef90_A7UG12 UniRef90_M1F966 UniRef90-M1F966 UniRef90_V6V8S2 UniRef90_A5J033 UniRef90-A5J033 UniRef90-N0A3B3 UniRef90_N0A3B3 UniRef90 Q3T4D3 UniRef90_Q3T4D3 UniRef90_M1F6T2 UniRef90 M1F6T2 UniRef90_O20960 UniRef90_O20960 UniRef90_C7SQG1 UniRef90_C7SQG1 UniRef90_C9D8Q7 UniRef90_K1V936 UniRef90_C7SWE1 UniRef90 ${ }^{-}$C7SWE1 UniRef90_A0A023UPU4 UniRef90_A0A023UPU4
UniRef90 S5U56 UniRef90_S5TEK4 UniRef90_Q539C UniRef90_Q539C UniRef90_I6XFH3 UniRef90-X1JMB2 UniRef90_V5KWQ3 UniRef90 V5KWQ3 UniRef90-X1PZP4 UniRef90-X1QVD7 UniRef90-B2VQ24 UniRef90_S5TP08 UniRef90_O2095s UniRef90_O20959 UniRef90_M1F6Q3 UniRef90_M1F6Q3 UniRef90 G8G1F6 UniRef90_D5G3N5 UniRef90_D5G3N5 UniRef90_F7WD32 UniRef90-V5RDZ4 UniRef90_V5RDZ4 UniRef90_V5KV81 UniRef90_V5KV81 UniRef90-M5BUQ2 UniRef90_M5BUQ2 UniRef90_J7K6S UniRef90 J7K6S1 UniRef90_S4UU33 UniRef90_C7SWD8 UniRef90 C7SWD8 UniRef90_Q02683 UniRef90_Q02683 UniRef90_M9NRK8 UniRef90-M9NRK8 UniRef90-A7G9Z0 UniRef90_V5KV87 UniRef90_Q8M1H6 UniRef90_M1GPD4
UniRef90 ${ }^{-}$M1GPD4

YRS L V Q CREDVGELGNAGRRHYDTEHLIGQL
L N K Q Q L K T K I N I E N

L N K I I E L K N S M N K

| 1 | $I$ | $S$ | 1 | $R$ | $E$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $I$ | $I$ | $S$ | $I$ | $R$ | $R$ |
|  | $R$ | $E$ | $I$ |  |  |






[^0]| FQE IVNT |  |
| :---: | :---: |
| FQEEI V NI |  |
| 1 SLI E EI |  |
| S L I E E I |  |
| LI KI K K I | K S N M N T |
| $\mathrm{L} \\| \mathrm{K} \mathrm{I}$ K K I | K S N M N T |
| L A Q I I El | S Y D M N L V Q R K ERKL |
| L A Q I I El | S Y DMNLVS QRKERKL |
| 1 N S I R K I | K S GMN $\square$ G R N |


$L N E L K T L S S$ QMNA KRTN
I K E L VEI K A K L 1 K ELVEIIKAKLN

Y
L E R VR A I K K T I N $\square \mathrm{N} \mathrm{N}$





UniRef90 C7SQG2 UniRef90-C7SQG2 UniReforo-R9U4N5 UniRef90-C7U028 UniRef90-R9U1M3
UniRef90- H9CNQ2 UniRef90-H9CNQ2
UniRef90-H9CNQ2 UniRef90-R9U115 UniRef90-ASJO36 UniRef90-A5J036
UniRef90-U5YDN1 UniRef90-Q9X9Q2 UniRef 90 - B2TL46 UniRef90-V5RE01 UniRef90-M2UA52
UniRef9O_K6UAK3 UniRef90-S5U4N1 UniRef90-Q8WKZ8 UniRef90-A0A023UPBO UniRef90-A0Aо23UPB0 UniRef90-Q9XKY9 UniRef90-Q9XKY9 UniRef90-C7AZO3 UniRef90_Q85MA7 UniRef90-Q8SHQ9 UniRef90_Q8SHQ9 UniRef90-C7SWG0 UniRef90_S5TP77 UniRef90-NoA336
UniRef90 NoA336 UniRef90-TOPMG9 UniRet90-Q02692 UniRef90_Q02692

UniRef90_Q950N3 UniRef90-W7SP14 | UniRef90-I11J13 |
| :--- |
| UniRef90 M1F6Q | UniRef90M1F6Q7

UniRef90_X1RVE1 UniRef90-D4HU03 UniRef90-A5J034
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UniRef90 X1TJL3 UniRef90-Q6U7S9 UniRef90-M1GMW1 UniRef90-F7WD34
UniRef90 F7WD34 UniRef90-NOABZ7 UniRet90-NoABZ7 UniR Ref9-W19F0 UniRef90-W119F0 UniRef90-A7UG13
UniRef90-A7UG13 UniRef90-Q3T4А8 UniRef90-Q3T4A8 UniRef90-Q9B7G6 UniRef90-Q35061 UniRef90_UPI000478B9DE UniRef90_B81AJ7 UniRef90_W1A41
UniRef90 W11A41 UniRef90-B2C9G3 UniRef90-H6D5D6 UniRef90-H6D5D6 UniRef90-M5BL45 UniRef90-B8GRNO UniRef90-Q950N2 UniRef90-Q950N2 UniRef90-H6D5E8
UniRef90-M5BL39 UniRef90-M5BL39 UniRef90-A0A017RZB2 UniRef90-S5PLLI8 UniRef90-W5TN42 UniRef90-G5CES 1 UniRef90-G5CES1 UniRef90-A0A023UP96 UniRef90-Q02684 UniRef90 M1F5S3 UniRef90-M1F5S3
UniRef90 V5RED6 UniRef90-K9L3G1 UniRef90-Q8WL13
UniRef90-W6XNW6 UniRef90-T216Q6 UniRef90-T216Q6 UniRef90-B5WYH5 UniRef90_Q35136
 KELEVVINHFDKYXLITQKRADYLLAFYLIIKNXEHLTEEG
 DDUNLKLI KLLDFERFKK ASSLIE MKMKKMHLTPEG DHVEHIIPFFDKHPILGSKHFKSAAYIIKNKEHLNEDGLG

DTVS SK DPFF LenK DQ

 KETKHLLTK DPFFTFKRVEFQKFRKILLKMQNEHMSADG DNADDLLKQUHPYLIIKRNRAKLILDKYKILTPR KNLNEI IPYFMKYPLLTSKQVDLLKKVVDLMNQKHLTDEG AGLEEIMNHFDKYPLITKKQADYKLNLIK MNKSHLTKDG NDALKLLKEIYPFLLIKRKRAELILNKYKSLTPR SGVQKVCPFFEKYVVVKKKRFKNFEKVLSLEEGAHLDRDR K $\mid$ L H: NQ1 NDVLTPF!

SEDQD S DPFPLCTTKVYDFDKFCQAVNKDANGSYTDND KDLEAV:KHFDEYPLITQKLVDYMLTVIC NKEHMTMEG KDLEAVIKHFDEYPLITQKLVDYLLTIIC NKEHLTLEG KSLLIIRNYFNNFPLKTNKLNSFKKEMYSMLNKEHLTKNG ASCKIIKNHFLNYPLLTYKYFQLWCSVLDVMKNEHLTLEG ASCKIIKNHFLNYPLLTYKYFQLLWCSVLDIMKNE
SLITNRIP PRLVGVKSKDFEDWCKDHELMVNRHDTTKG SLITNRIIPIFPLVGVKSKDFEDWCKIHELMVNRHLTVKG DPAAAFLRTDLSFLVLKAEQARIGLEWQETRPKTVRGPRG SVLKRFVIPFFGFLSNKKREFR\FQEALDADDEGURTKSQ NDLNNTVIP
MGTVRFLEPLRPYLIGKKFAELVIQFCEQMPYSRWELED RS REVI YFLRHPLISNKARELTFA凹YLALLSSNEHVGD
RSADEFRKDDEPYLVIKKQRAKL WINEYKSVT
QKLKTFIVPFFKKFGFKKAEFRIFRQALRALEGVIDRSETE SNMLLICLIFNGVFFTKNSQFLIFL
 ESVNEIIKHFDLYP
HDITSVIPHFTAYGLCTEKYGDFML
SNSSQLYNTH1PFFKEDYKDFSGGIETISK KGHQTAEG
SHILLICLIFNGVFLTKNSQFLIGLSAYNNLALRMK AEG

NNLIKI NIFNGNLIKAKIAQFKLFEEAFNNKYNTDIT
KDLVDVLPHFDNYPLTTKKHSDYLLTVLLMGNKEHNTLEG
KDLVDVLPHFDNYPLITKKHSDYLLIVLLMLNKEHNTLEG EHIDILKKLFFNNLVLNK
EHIDILKKLFFNNLVLNK
EHLH TKIDPFLYTSKQFDFYRFRKVALYMSRHTTFEG RKLAEDIFPIFPGLTSKFHYERFRQAHRILEDPKLLTEH
 EGLSTILSLINGKFVSNYKYEQLIKK MPSKGK
 KELELFVHLFNGNLILPRRKEKF
KEIGLFVHLFNGNLILPRRKEKF
NDLLTVLFPL
QN EHLTKMLPFDKTKRGDEFRKFRKD LLKVKKNEPDS QALR LEEVRPYLRYKAARTDLILR
STLDPLYSLRPFFLSKQMDFDRFFVVVQNLLKDENGKDT SULIPLFYSLRPFFLSKQUDFDRFFIVVQNLLKLENGKDU


 REIDLLISILNGNVVLPSRQEKF
EGILKLTNLINGYMRTPK YMKLVELII
KTAAVLTNYFDKYNVFSGKYVDYIKFRIMTTEGKHDDSKG NRMSY:TNHFDPFLQSKKYUDFLDWKNLLKLKEKHLSEEG NRMSYYTNIFDPFLQSKKYLDFLDWKNLKLKEKHLSEEG REVYLLLSLTNGYMRTPKH
DNRLTLTNKVLPY
RNTETII QFVDKYPMLTRKHLDYWKKVVEKNKGLHKENEG



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| :---: | :---: |
| UniRef90 Q35136 UniRet90 M1K4 | NLDPLDTPWFSGFDDADGSFFIRFSKAGKYPA HI EC |
| UniRef90-M1K4U3 | NLDPLDTPWFSGFIDADGSFFiRFSKAGKYPA HiEC |
| UniRef90-S4SQA5 | KAPNLFLTWLIGFTEGNGSFTVAN RGDL |
| UniRef90 S4SQA5 | RKAPNLFLT W |
| UniRef90_7GSR2 | NLPCHWVQTYLTGESMFYTYLGEKKSRGVVYQGD |
| UniRef90-17GGR2 | NLPCHWVQTYLTGESMFYTYLGEKKSRGIVYQGDS |
| UniRef90-O8M0D3 | PL WLLGF IEGDGCFY GGESGRFYSENLYLRV |
| UniRet90-V5RDY9 | FYKWFSGFTDAEGTFML VSQVKGFSFK |
| UniRef90 WGYVG6 |  |
| UniRet90-S8DV | SWITSGFtdaEgCFtastVGrVKys QVFV |
| UniRef90-S8DVV | SWUSGFTDAEGCFTASLVGRVKYS QVFV |
| UniRef90-C5GYN1 | TKLKNWY T GLRDAEGCFMVNIIKDNTRTTGYNIQT |
| UniRef90-X1HUJ6 | REGLAYLAGYDDADGHDSLYFAK YKNCYCLEV |
| UniRef90-C7U0 | PDMFLQWFIGFTEGDGCFVLS KRY DL |
| UniRet90_C7U0 | QPDMFLQWFIGFTEGDGCFVLS KRY |
| UniRef90-U5YE01 | NRLQSDFTTGLFDGDGSFFISFRTNGK |
| UniRef90-U5YE01 UniRef90-W1ICZ3 | NRLQSDFITGLFDGDGSFF: SFRTNGK |
| UniRef90-V5W517 | LT LDNYWLAGFTQADGCFYi SVVKSKTHSTGYSVRL |
| UniRef90-H6D5F3 | DPEWIAGFVSGRGSFSIYASQSVDK RVSL |
| UniRef90-H6D5F3 | DPEWIVAFVSGRGSFSIYASQSVDK RVSL |
| UniRef90-Q1KVQ7 | MTESQKFYYGGFLEGEGSSICIGAKKGKNCKFGVYLDP |
| UniRef90-M1F981 | LTWLIGFTEGEGSFIVNN RGDL |
| UniRet90-F7WD31 | GLIDGEGSFNI |
| UniRet90-Q8WL12 | KRFपGGFLEGEAS $\square$ NVSAKKLTNAKFGLLIDP |
| UniRet90-A0AO17RZ | WFTGFTEGDGSFT TTKRGE L |
| iRef90-Q5EN | NNFLEWFIGFTEGDGSFT ITKRGE |
| UniRef90-S5U5L0 | KLHPWFlTGLTDAEGCFTLKIGK RTQL |
| UniRef90 S5U5L0 | KLHPWF TGGLTAEGCFTLKMGK RHARFGVVV |
| UniRef90 O6UHZ | AKEWFIGGVEGDGSIFTYKDNN |
| UniRef90-Q6U7Z4 | EWFIGFVEGDGSIFTYKDNN |
| UniRef90-P03877 | LGYLAGLIEGDGTITVQNSSSMK |
| UniRef90_Q3T4A7 UniRef90 F2WVIO | WLAGFSDADSSFCVITVASSTHKLKYSVRL |
| UniRef90-A11M10 | GYYLAGLVEGDGSIVVS KDKA |
| UniRef90-A1IM10 | FGYYLAGLVEGDGSUVVS KDKAY |
| UniRef90-C7U030 | NFDE WLVGFTDGDGYFNYMNETN |
| UniRef90 E4ZQ91 | GCFFVKSLIYNKRFVLGC |
|  | WLAGFTQADGCFHTSIT |
| UniRet90-S5TNE4 | KEWLVGFTDGDGTFNIYVNQKNS |
| UniRef90-N4WIF2 UniRef90 - $2 \times Y$ 2 | WVVGFTDAEGNFNISSLGGLQGSKYN |
| UniRef90-B2XYB2 | WVIGFIEAEGSFYV TKRHKDVSLLF P |
| UniRef90-Q0H8Z3 | TNNDYMVGLVDGDGSFNFGFKSTRR RIVP |
| UiRef90- | PINNDYMVGLVDGDGSFNFGFKSTRR |
|  | D NHWI SGFSDADS |
| UniRef90 E4ZQ98 | KTNLLHPWFITGLIDDAEGSFGVVIIKKNTFGVGYAVQL |
| UniRe90-K5X148 | NK\IKKITPDWISGFTQSDGSF |
| UniRef90 M5FWQ6 | WTGGTDAEGHFFIVSL KNKN |
|  |  |
| UniRef90_L7EPE7 | TPEEKAYUAGIVDGEGSUMLIKKFHNNQF |
| UniRef90-M9P815 | NKQLFFEWLVGMVDGDGTFSITPNRHNDS WQF |
| UniRef90-U1NGV1 | LA YTMGLIAGEGSFFVIFNRDDRYRYDVYYGP |
| UniRef90-X1N291 |  |
| UniRef90-R9U332 | NKDFLFWFSGFTDAEGNFLVTTDRK |
| UniRet90-C7U0 | NEPTDDNAWLSGFTDAEGCFTLGFYRN |
| niRef90-C7U024 | NEPTLDNAWLSGFTDAEGCFTLGFYRNK |
| UniRet90-Q0268 | FAYYUAGLIEGDGTDHVKSERSN |
| UniRet90-S4SNH2 | ARSYWLAGFTDGDGSFY\| QIINRKLI |
| UniRef90-D2CJZ9 | DNNINFDQWIVGFTDGNGTFNIMINKKNN |
| UniRef90-K2ESF5 | SALY VGFVEGEGCFLVSLRRD |
| UniRef90-Q8WK | DPWWI TGFSDGEGCFHISFEKNPDRKL |
| UniRef90-G4U4U |  |
| UniRef90-Q950 |  |
| UniRef90-W4QNE7 | AYLAGII DGEGT TTLS |
| UniRef90-Q181G2 | QYF! GFid S SRFT STKKSPEYK |
| UniRef90_UYYE33 | SFLSWLIGFTEGDGCFFV NHRQEL |
| UniRef90_U5YE33 | KSSESFLSWLIGFTEGDGCFFV |
| UniRef90-W4Q838 | AYLAGLIDGEGTI TLTKMHKGEHR RP |
| UniRef90-P32761 | QVTSESKLFLAGFLLEGEASLNI STKKLA TSKFGLVVDP |
| UniRef90-G5CES3 | WLVGGT TAD GCFHASAKSK |
| UniRef90-P22191 | QWLVGFTDGDGCFSUSKQKDKNGKNKW |
| UniRef90-B9LPD7 |  |
| UniRef90_D5G3P0 | WFAGFVDGEGCFQFHINETKN |
| UniRef90 Q0H8) | TKIVPSTFLEWFVGFTEGDGSFIVSTRGNEERRHNVGL |
| UniRef90-Q02696 | TPYWLLGFIEGEGCF SINKGNSY |
| UniRef90_Q02696 | TPYWLLGFIEGEGCF SUNKGNSY |

## UniRef90 Q35136

 UniRef90_M1K4U3UniRef90 M1K4U3 UniRef90_S4SQA5 UniRef90_S4SQA5 UniRef90_I7GSR2
UniRef90-I7GSR2 UniRef90_Q8M0D3 UniRef90-V5RDY9
UniRef90_W6YVG6 UniRef90-W6YVG6 UniRef90_S8DVW5 UniRef90_S8DVW5
UniRef90_C5GYN1 UniRef90-X1HUJ6 UniRef90_C7U029
UniRef90_C7U029 UniRef90_U5YE01 UniRef90-U5YE01 UniRef90_W1ICZ3
UniRef90_V5W5I7 UniRef90_H6D5F3 UniRef90-H6D5F3
UniRef90-Q1KVQ7 UniRef90_M1F981 UniRef90_M1F981 UniRef90-F7WD31
UniRef90-Q8WL12 UniRef90_A0A017RZV7 UniRef90_Q5EM47 UniRef90_Q5EM47 UniRef90-S5U5L0
UniRef90 S5U5L0 UniRef90-Q8WKZ1 UniRef90_Q6U7Z4 UniRef90_Q6U7Z4 UniRef90_P03877
UniRef90_Q3T4A7 UniRef90_F2WVIO UniRef90_A1IM10 UniRef90-A1IM10
UniRef90 C7U030 UniRef90-E4ZQ91 UniRef90_R9U0Z7 UniRef90_O78733
UniRef90_S5TNE4 UniRef90_N4WIF2 UniRef90_B2XYB2
UniRef90_B2XYB2 UniRef90_Q0H8Z3 UniRef90_Q0H8Z3 UniRef90_M1KF50
UniRef90_E4ZQ98 UniRef90_K5XI48 UniRef90_K5XI48
UniRef90-M5FWQ6 UniRef90_Q0H8X8 UniRef90_L7EPE7 UniRef90_Q32X64
UniRef90_M9P815 UniRef90_U1NGV1 UniRef90-X1N291
UniRef90_V5KVM6 UniRef90_R9U332 UniRef90_C7U024 UniRef90_C7U024
UniRef90_Q02687 UniRef90_S4SNH2 UniRef90_M1JZP6 UniRef90_D2CJZ9
UniRef90_K2ESF5 UniRef90_Q8WKX2 UniRef90_G4U4U0 UniRef90_Q950M1 UniRef90_Q950M1
UniRef90-W4QNE7 UniRef90_Q18IG2 UniRef90_U5YE33 UniRef90_U5YE33 UniRef90_S5TE80
UniRef90_W4Q838 UniRef90_P32761 UniRef90_G5CES3
UniRef90_C0N427 UniRef90_P22191 UniRef90_B9LPD7
UniRef90_D5G3P0 UniRef90_D5G3P0
UniRef90_Q0H8Y1 UniRef90_L7TI17 UniRef90_Q02696 UniRef90-Q02696
UniRef90 K9L362

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 SFRVVFQYEKDDELFK FLGYFFNCGNLHEDKKAVIFVI RKF

 QFVIS Q NS DDVLLLLRKI QS FFGVGGII SERENRRVVYSVVQS QFVISQNSLDVQVLYY KEQLGFGTVDKSDKTHRYDVQDD
 $\left.\begin{array}{lllllllllllllllllllllllllllll}E & F & V & G M & H & T & V & D & K & N & L & I & N & S & L & K & E & F & F & G & I & G & N & I & N & K & R & N & N\end{array}\right]$
 EFKI KQKDPTILKKIFKEFGGNNIFNTENIYCYNSTNT E


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| UniRef90 Q35136 |  |
| :---: | :---: |
| UniRef90-M1K4U3 | NS NSILVNY LD RFPLFS SKYLDYL |
| UniRef90-M1K4U3 | NSNSILVNYLDRFPLESSKYLDY |
| UniRef90-S4SQA5 | K GLYLIA TLFNQNLVTKlK GFNKFLNSLNNYNEKGK |
| UniRef90-S4SQA5 | KGLYLIATLFNQNLVTKIKGFNKFLNSLNNYNEKGK |
| UniRef90-17GSR2 | RNTETI IKFVDKYPMLT RKHLDYLKKIVEKSRGAHKTEEG |
| UniRef90-17GSR2 |  |
| UniRef90-Q8M0D3 | K DAJKLI GLLDPMPKAKRHDFDVWKT TVVLLLKDKHLDADT |
| UniRef90-V5RDY9 |  |
| UniRef90-W6YVG6 | KELLILI EHFDKYLITKKSKDFLCFKlGLIKNREHLTKEG |
| UniRef90-W6YVG6 | KELLILI EHFDKYLITKKKSKDFLCFKIFLI KNREHLTKEG |
| UniRef90-S8DVW5 | RKLNKVINYFSTYLKTKKR\\|SYNNWCKVHQLNKEHFTLEG |
| UniRef90-S8DVW5 | RKLNKVINYFSTYLKTKKRISYNNWCKVHQLNKEHFTLEG |
| UniRef90-C5GYN1 |  |
| UniRef90-X1HUJ6 | QKACKVLEMVQPYLRLLKGAQAVLCI QV |
| UniRef90-C7U029 | K DLYLMCLLFNGVLPTKNMRFMQFLNRLNEY |
| UniRef90_C7U029 | KDLYLMCLLFNGVLPTKNMRFMQFLNRLNEY |
| UniRef90-U5YE01 | NDLRSIC TKR\PHFS |
| UniRef90-U5YE01 | NDLRSI CTKRIPHFS |
| UniRef90-W1ICZ3 | K DIA QLIN I F DKFPLQGSKWLNYFVLAFQLY T N S N S S DV |
| UniRef90_V5W517 | KTAFKLI SYFDQY |
| UniRef90-H6D5F3 | EDTNHKI IPFFDKYK\K GVKYKDFKK\IESKN HLTQEG |
| UniRef90_H6D5F3 | EDINHKI I PFFDKYKIKGVKYKDFKKl IESSN HLLTEEG |
| UniRef90_Q1KVQ7 | DTRQSLIEK |
| UniRef90-M1F981 | K Elill I HLF NGNLVIKKERFSKFVEGFNVWVSKGR\\|RLN |
| UniRef90-M1F981 |  |
| UniRef90_F7WD31 | EDLINKLI I HLENYPLLTQK |
| UniRef90_Q8WL12 | D NRQNLQQKVVPFYETKKARVVLFLQLLDLFNQKHENLQV |
| UniRef90-A0A017RZV7 | H D T NV PP HFKKYPLIT QKKADF\\|LEAINLLNKAHSNIE G |
| UniRef90_Q5EM47 | KNI SLLI C S L F |
| UniRef90-Q5EM47 | KNISLI CSLLF |
| UniRef90-S5U5L0 |  |
| UniRef90-S5U5L0 | K DLI TI IP HFENYPLQSKKQSDFYL |
| UniRef90-Q8WKZ1 |  |
| UniRef90-Q6U7Z4 | PSLTILAHLFNGNLFLKHR\\|EQL |
| UniRef90-Q6U7Z4 | P SLTLLAHLENGNLFLKHRLEQ |
| UniRef90-P03877 | K GVY TLLNI DNGYMRTPKYEAF |
| UniRef90-Q3T4A7 |  |
| UniRef90-F2WVI0 | K TAALLINYFDTFNLFANKYVDLK F R K V Y $\square$ M NGKHLEDKG |
| UniRef90-A1IM10 | RGLLKVVDLVNGKFRS |
| UniRef90-A11M10 | R GLL KVVDLVNGKFRSKK |
| UniRef90_C7U030 | NHMQKVLPI F D K Y Y L L S K Y Y N Y |
| UniRef90-E4ZQ91 |  |
| UniRef90-R9U0Z7 | KELTILL NHFDNYGLDT Q K L A D Y L |
| UniRef90_O78733 | KTAAILLNYFDKFLFAGKYVSYLKFRKVYLMKGKHLDEDKG |
| UniRef90-S5TNE4 | EDLIDVILPITFDYPLLSSKHFNYILNLYTNKPTSTDREALL |
| UniRef90_N4WIF2 | K SLI NVIVPI F N Y R ELLK S K F F Q Y L N K K AVHLLHLLTLK G |
| UniRef90-B2XYB2 | R SIVNI ANY |
| UniRef90-B2XYB2 | RSIVNI ANYF |
| UniRef90-Q0H8Z3 | T DVEKVLPEFKKFNTTKK |
| UniRef90-Q0H8Z3 | T DVEKVLPEFKKFNTTKK |
| UniRef90-M1KF50 | GS AK K V I EYF D NFQLLS SKHVNYLYYTIIQ NTEHLNASG |
| UniRef90-E4ZQ98 | KSFEEI I PFFFTKYPLSKLLNFQDFKEVVEDMKEKHLTEKG |
| UniRef90-K5XI48 | D EIVEVLLPLFDKHPLKGSKYNIFKTVVLMIKKKHLKLE G |
| UniRef90-K5XI48 | DEIVEVLLPLFDKHPLKGSKYNIFKTVVLMIKKKHLKLEG |
| UniRef90-M5FWQ6 | D DII KI I PHFKDFPKI T LKESDYIFNII SNMNKGRTFEDK |
| UniRef90-Q0H8X8 |  |
| UniRef90_L7EPE7 | N NAISSLIKElEHYLVIKRKRA |
| UniRef90-Q32X64 | R D I K NVLPLLDNYKLYTSKWFKLVINY LSSSNTTKVSNEK |
| UniRef90-M9P815 | S QLLNI I VPI LK Y PLH TRKTYHF |
| UniRef90-U1NGV1 | AECHELIEEL DQYLSAKQNAYENWRSALELLLPGRQLTADE |
| UniRef90-X1N291 | TKQ |
| UniRef90_V5KVM6 | SHLKLVLPITFDKYPMFSNKQYDYLMFKDLLLNDVHFSKD |
| UniRef90-R9U332 |  |
| UniRef90-C7U024 | KLI Y 1 I K Y F NKYLKTKK |
| UniRef90-C7U024 | KLIY I I K Y F NKYLK TK K |
| UniRef90_Q02687 |  |
| UniRef90-S4SNH2 | Q IVEVLLPIFFDKYPLITHKQLDYRWRDAVLLKNSEKTAET |
| UniRef90-M1JZP6 | T SALKV HNYFHTYSLLKWRKAFILFP Y |
| UniRef90-D2CJZ9 |  |
| UniRef90-K2ESF5 |  |
| UniRef90-Q8WKX2 | D HIVNIIPPFEKYPLQSNKQYDFFKELCFFILKSEKDSKES |
| UniRef90-G4U4U0 | N N NKKTYEYFETYLKTRKMESNLKWK |
| UniRef90-Q950M1 | ENFIK L L S Lin GNLVYKKEQFN |
| UniRef90-Q950M1 | ENFIKKLSLFNGNLVYKKEQFN |
| UniRef90-W4QNE7 |  |
| UniRef90-Q18IG2 | DSLETLIEKVGPDLFI QYPQAELFEQGDPAFRDGHHTKQG |
| UniRef90-U5YE33 | EHIELLIHLENGNLVLRKAQFALEVNAFNAKNKTTNGDSG |
| UniRef90-U5YE33 | EHIELLIHLFNGNLVLRKAQFALFVNAFNAKNKTTNGDSG |
| UniRef90_S5TE80 |  |
| UniRef90-W4Q838 | QDLFNILKEI APYLIIGKKRASLILERYNELTPR |
| UniRef90-P32761 |  |
| UniRef90-G5CES3 | K T ALL L 1 NYFDN |
| UniRef90-C0N427 | THALSAIKKLRPFLRRKQYEA E C V V K M |
| UniRef90-P22191 |  |
| UniRef90-B9LPD7 |  |
| UniRef90-D5G3P0 | S DLINTI IPPFFPLLTTKAKEFDWKTLITTLKRAGAHKTELGG |
| UniRef90-Q0H8Y1 | N NLYILI QLFNGNIVFPSKQNSF |
| UniRef90-L7TI17 | EDLVELSDQIMDFLSSTDK FSTFLEWNELRKQSRKSKDQ |
| UniRef90-Q02696 | T RIPPYI T NTLIPFLHSKKQLDFQDWKl I L M L K EKG H HF |
| UniRef90-Q02696 | T RIP PYITNILIPFLHSKKQLDFQDWKI I LMLKEKGHHF |
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UniRef90 Q35136 UniRef90＿M1K4U3 UniRef90－M1K4U3 UniRef90 S4SQA5 UniRef90 S4SQA5 UniRef90－17GSR2 UniRef90－17GSR2 UniRef90 Q8M0D3 UniRef90 ${ }^{-}$V5RDY9 UniRef90－W6YVG6 UniRef90－W6YVG6 UniRef90 S8DVW5 UniRef90－S8DVW5 UniRef90＿C5GYN1 UniRef90－ $\mathrm{X} 1 \mathrm{HUJ6}$ UniRef90－C7U029 UniRef90＿C7U029 UniRef90－U5YE01 UniRef90 U5YE01 UniRef90－W1ICZ3 UniRef90＿V5W5I7 UniRef90＿H6D5F3 UniRef90 H6D5F3 UniRef90－Q1KVQ7 UniRef90－M1F981 UniRef90 M1F981 UniRef90－F7WD31 UniRef90＿Q8WL12 UniRef90＿A0A017RZV7 UniRef90 Q5EM47 UniRef90－Q5EM47 UniRef90＿S5U5L0 UniRef90 S5U5L0 UniRef90 Q8WKZ1 UniRef90＿Q6U7Z4 UniRef90 Q6U7Z4 UniRef90 P03877 UniRef90－Q3T4A7 UniRef90－F2WVIO UniRef90 A1 IM10 UniRef90－A1IM10 UniRef90－C7U030 UniRef90－E4ZQ9 UniRef90 R9U0Z7 UniRef90－O78733 UniRef90＿S5TNE4 UniRef90 N4WIF2 UniRef90－B2XYB2 UniRef90＿B2XYB2 UniRef90＿Q0H8Z3 UniRef90 Q0H8Z3 UniRef90＿M1KF50 UniRef90－E4ZQ98 UniRef90＿K5XI48 UniRef90－K5XI48 UniRef90－M5FWQ6 UniRef90＿Q0H8X8 UniRef90 L7EPE7 UniRef90－Q32X64 UniRef90－M9P815 UniRef90＿U1NGV1 UniRef90 X1N291 UniRef90－V5KVM6 UniRef90－R9U332 UniRef90 C7U024 UniRef90 C7U024 UniRef90－Q02687 UniRef90 S4SNH2 UniRef90＿M1JZP6 UniRef90－D2CJZ9 UniRef90＿K2ESF5 UniRef90 Q8WKX2 UniRef90－G4U4U0 UniRef90＿Q950M1 UniRef90 Q950M1 UniRef90 W4QNE7 UniRef90＿Q18IGz UniRef90－U5YE33 UniRef90－U5YE3 UniRef90－S5TE80 UniRef90－W4Q838 UniRef90＿P32761 UniRef90 G5CES3 UniRef90－C0N427 UniRef90－P22191 UniRef90＿B9LPD7 UniRef90－D5G3P0 UniRef90－Q0H8Y1 UniRef90－L7TI17 UniRef90 Q02696 UniRef90－Q02696 UniRef90－K9L362

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HNEDRRTRKNMNSY
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$\square \quad$ EWANS $\square$ NNMNSTR】 V $\square E \square A E \square R D D \square N Y \square S A T N S \square A T D E \square E E \square V Q S$ L R E

VD $\square \mathrm{NK} \| \mathrm{V}$ S $\square \mathrm{KNTMNSKR}$

$K L L I L Y \square S F E M N D E N K Q S R R Q Y P K S Y Y \square Q \square L E$

LV Y E LVSVFENDPTTR】SSRRKYTSDYFEE $\stackrel{C}{C}$

LVK $\|$ LP $\square W D Q M R K$

MFE $\square$ A GH L D T $\square$ REVFRGKKGKYT

LK ELIKRAKSLNTKGYNGKST
TEQGVNLIDRINQMNNNRDSTNT
TEQGVNLIDRINQMNNNRLSTNT

UniRef90 K9L362 UniRef90-X1L122
UniRef90 - S5TEYO UniRef90-S5TEYO UniRef90-H9CNT9 UniRef90-M1GPD5
UniRef90 K2BIU3 UniRef90 Q3T4A5 UniRef90-X1G9U7 UniRef90-R9U4L4 UniRef90-R9U4L4 UniRef90_E7EJU5 UniRef90-M1F6R2
UniRef90 M1F6R2 UniRef90-M1X877 UniRef90-X1TU54 UniRef90-M1GPG1 UniRef90-M1JEM7
UniRef90_Q02673 UniRef90-Q02673
UniRef90 M9MU64 UniRef90 Q3ZIZ2 UniRef90-F7WD38 UniRef90-G4U500 UniRef90-G4U500 UniRet90_Q8SM18 UniRef90-C9W160

UniRef90 C9W160 UniRef90-17GYE7 UniRef90-K5VGU8 | UniRef90-S5U5X4 |
| :--- |
| UniRef90 MODS | UniRef90-S5TMH7 UniRef90 G4U4Z9 UniRef90-S5U3T6 UniRef90_M9MU34 UniRet90 M9P831 UniRef90-V5RDS7

UniRef90 V9N2V1 UniRef90-V9N2V1 UniRef90 A7KCU1 UniRef90-A7KCU1 UniRef90-G8XP84 UniRef90-s5TG81 UniRet90-M5BKZZ2 UniRef90-V5RE06 UniRef90-Q7YEU5 UniRef90_S4SN74 UniRef90_S4SN74 UniRef90-M1F974
UniRef90-I1XHT7 UniRef90-M1K3D9 UniRet90 Q3T4A9 UniRef90_Q9B6E3
UniRef90 C7FEX2 UniRef90-C7FEX2 UniRef90-C7SWG1 UniRef90-W6XNJ4 UniRef90 ${ }^{-}$C5GYPO UniRef90-16XFI9 UniRef90-D5G3P3 UniRet90-W6XW59 UniRef90-P03878 UniRef90_O8WKX7 UniRet90_G4U4X6 UniRef90_C5GYN7
UniRef90_BORA75 UniRef90_A5J059 UniRef90-B4Y548
UniRef90-M5BUN3 UniRef90-V5KVNO UniRef90-M5EE23 UniRef90-V5RG34 UniRef90-Q9XKY8 UniRef90_A7KCT9 UniRef90 A7KCT9 UniRef90-FgU556 UniRe990-G3KEL7 UniRef90_F2WVH9 UniRef90 F2WVH9 UniRef90-K5VIT5


NEEFKA WLVGFTEA KMNNSYKEWVVGMTDG LDPYWVLGFVDADGTFNVYTNENKKIGFTYKISG NEDPYWVLGFVDA
TDLA WAA GFIDDGEGWI GUARQTRKGYTDTHRLKV DLKYY Y A GLFEG
NSNLKNNY
WLAGFTDSDCV
NNKLNENQDNYLTGLIEGNGTDSVSKKELGKYKYK VIV NSKLGSN GWLAGFTDAD NSK LNKDFSYYLTGGSDA WLAGFTQA NSTNPKLTPAYISGLVQAYWG

LNPFWISGFAAG
NNSMNKKFNQWL
EKKLFLAGYLEG
QWLVGFTDG
NGEFDPKFSSYLAGILEGDG
FKSWLVGFTDGDGTFK NTNKTK
N S K L NYP DDNEFGDWFLGFSEG

FNFTNNFAYYWTGLIEG
KEFLE W VGFTDA
F T WLIGFTEGDGSFVLA KRGGFSL
LSDTDAAYIAGLIDGEGTVSLLRKHKQD NRQVVV
 T NKF L E WL I GFSEGEGSFILS K TA AQSYLAGGLDADGSUSUS

KNNEDFEQWVGMTDGDGSFTDARQDKW

## UniRef90_K9L362

 UniRefo- $\begin{aligned} & \text { UnLL122 } \\ & \text { UniRef90- } 55 T E Y O\end{aligned}$ UniRef90-S5TEYO UniRef90-H9CNT9 UniRef90-M1GPD5UniRef90 K2BIU3 UniRef90-Q3T4A5 UniRef90-X1G9U7 UniReffo-R9U4L4 UniRef90-R9U4L4
UniRef90_E7EJU5 UniRef90-M1F6R2 UniRef90-M1F6R2 UniRef90- X1TU54 UniRef90-M1GPG1 UniRef90-M1JEM7 UniRef90-Q02673 UniRef90_OO2673
UniRef90_M9MU64 UniRef90-Q3ZIZ2 UniRef90-F7WD38 UniRef90_G4U500
UniRef90 G4U500 UniRef90_O8SMI8 UniRef90-C9W160 UniRef90-c9W160 UniRef90-K5VGU8 UniRef90-S5U5X4
UniRef90 MODS UniRef90-S5TMH7 UniRef90-G4U4Z9 UniRef90-S5U3T6 UniRef90-M9MU34 UniRef90-M9P83
UniRef90_V5RDS UniReffo-V9N2V1 UniRef90-V9N2V1 UniRef90-A7KCU1
UniRef90_A7KCUU UniRef90-S4SNJ3 UniRef90-G8XP84 UniRef90_-S5TG81
UniRef9O_M5BKZ2 UniRef90-M5BKZ2 UniRef90_V5RE06
UniRef90_Q7YEU5 UniRef90-S4SN74 UniRef90-S4SN74 UniRef90-M1F974
UniRef90_11 $\mathrm{XHT7}$ UniRef90-M1к3D9 UniRef90-Q3T4A9
UniRef90-Q9B6E3 UniRef90-C7FEX2 UniRef90-C7FEX2 UniRef90_C7SWG1
UniRef90_W6XNJJ4 UniRef90-D3FY87 UniRef90-C5GYPO UniRef90-16XFI9 UniRef90-D5G3P3
UniRef90-W6XW59 UniRef90-V5W5L8 UniRef90-PO3878 UniRef90-Q8WKX7
UniRef90-G4U466 UniRef90-C5GYN7
UniRef90 BoRA75 UniRef90-A5J059 UniRef90-B4Y548
UniRef90-M5BUN3 UniRef90-V5KVNO UniRef90-M5EF47
UniRef90-M5EE23 UniRef90-V5RG34 UniRef90-Q9XKY8
UniRef90-Q9KKY8 UniRef90-A7KCT9
UniRef90 A7KCT9 UniRef90-A7KCT9
UniRef90-F9U556 UniRef90-G3KEX7 UniRef90-A0A024PLA5 UniRef90-F2WVH9 UniRe90-F2WVH9 UniRef90-UPIo00372DF85 UniRef90-B2XYB3
UniRef9-UniRef90-B2XYB3
UniRef90-R9U4HH





 AFVIT QAT IDDK QVLEF IQEILGGFGKVIDRQSAIISRYVTQNK AFVI TQ A TIDDK QVLEF I QE LLGFGKVIDRQSAGSRYVTQNK
 K F E L S S QR Q N D H E Y L

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 | $V$ | $F$ | $Q$ | $V$ | $S$ | $Q$ | $H$ | $V$ | $R$ | $D$ | $E$ | $V$ | $L$ | $L$ | $R$ |
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| $T$ | $Y$ | $K$ | $I$ | $T$ | $Q$ | $S$ | $V$ | $Y$ | $N$ | $E$ | $Q$ | $L$ | $Y$ | $K$ |
| $K$ | $F$ | $S$ | $I$ | $S$ | $M$ | $G$ | $Q$ | $K$ | $E$ | $E$ | $E$ | $M$ | $L$ | $R$ |


 AFQQ GQ N S Y N L R V L H F I K K Q L K V G S I E K D G N M A V F R I R D R SFEI TTHDTDDRVLTELKNKLVVGSVKKRSNSVRFRVKTK

 E LH I I FAENDDISLAY S | $E$ | $L$ | $H$ | $I$ | $F$ | $A$ | $E$ | $N$ | $D$ | $I$ | $S$ | $L$ | $A$ | $Y$ |
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 GFQQT LHKK DKSILDDNI QHTWKVGVIANS GDAVSLIKVTRF
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UniRef90_K9L362 UniRef90-X1L122
UniRef90-S5TEYO UniRef90-S5TEY0 UniRet90_H9CNT9 UniRef90-M1GPD5
UniRef90 K2BIU3 UniRef90-Q3T4A5 UniRef90-X1G9U7 UniReffo-R9U4L4 UniRef90-R9U4L4 UniRef90-M1F6R2 UniRef90-M1F6R2 UniRef90-M1X877 UniRef90-X1TU54 UniRef90-M1GPG1 UniRef90-M1JEM7 UniRef90-Q02673 UniRef90-Q02673
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UniRef90-A7KCU1 UniRef90-S4SNJ3 UniRet90_G8XP84 UniRef90-S5TG81
UniRef90 M5BKZ2 UniRef90-M5BKZ2 UniRet90-V5RE06 UniRef90-Q7YEU5 UniRet90-S4SN74 UniRet90-S4SN74 UniRef90-M1F974
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UniRef90_M5BUN3 UniRef90-V5KVN0 UniRef90_M5EF47 UniRef90-M5EE23
UniRef90 V5RG34 UniRef90-Q9XKY8 UniRef90-09XKY8 UniRef90-A7KCT9 UniRef90-A7KCT9
UniRef90 F9U556 UniRef90_G3KEX7 UniRef90-A0A024PLA5 UniRef90-F2WVH9 UniRef90-F2WVH9 UniRef90-KKVIT5 UniRef90-UPIo00372DF85 UniRef90-B2XYB3 UniRef90_B2XYB3
UniRef90_R9U4H1

K DIIIFLIMVILIFNGNLLVIFPMRKFNIIFLLR\|LINKEPVIJHIVDH
KA ETFLTVVLPYLLDKKEEAVLALQ EAINHVIPBFDKYPLQTKKRADYLLAFDKYYDKKNYNDEK KNIESVLTPTFKYPLLTTKYFDYM
KTHNEVLPLFPLLTSKYFNYDLFKQAAADMNDTNWSTDD
AKLHLLI QFFSDHLHSPKKR\|KTILTIIDS GEHLTQSG
KHVYQil PLFDKFPLLTEKK
DNASQLRLILPYLQVKKQALLADKFRDEWQSQKDRPEV
KEDD LVSLFNGNLVLPKRQFDLFVKGFNK
KEIDLLVSLFNGNLVLPKRQFDLFVKGFNK
A GCQRLVDLLDKYPLRAKKR川DY

KSIIHVVNVNGYIQ
NALS FLLEAVCGHLRDKKP
QGI DKDGLI NGFMRTPKNDD LLRLTYHDNHKAPTDN NTINTLLPIFPLLTTKFYNYEKFKNILSNSTLSKDEKDK


SGTNTICSTFNDYP
EDYYLMTLMLNGNDMDRKKVEKTSTDKF LHTSKKLDFKD EDYYLMTLMLNGNLMLLKKVFKTSTDKFNKRLSTGNS S SLT GFLEIIKCLLKTSKRKFKQ IRRIQ QKRHLTDNG EGGKVTAFLDSYPLKTLKQLDYLKKLIEMKKEGLHKTED KIVQHI TPLFDKYPLLTSKHYKY
SDNYNII DPFFNQYPIQGAKAKDYDE DIK NGEHDTKEG KHDNNIIMPDFKYPLLTNKYFNYLKFKESLLDQTNNNFSQ EECRELIELIDQYLEKNPSTEFLRSADEMLPGRQLDADE EHIKNLLP IFDKYKLLTSKRFSYL

VAVIDILHRVNGKLYNPARDAQFI
KNCKSLFDYFDNYLVSKKKNSYLKWKSGKLINKDHLDSET
RNTNAVIAYFNNYQLWTKKEKSY
RNINAVI AYFNNYQLWTKKEKSY
NGLSTLSSLNGKLSKPKYEQLIKH
NGLSIL SGLINGKLVSKPKYEQLIKH
KGILNLVNLLNGQMKTPK
GCIDRLISIFNGNLVLNKTNARFVL
NNNLKI NDFNGFLTSKKEQFKLWLDGYNKYYNQ
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K DLMNVMPDFDKYPLLTSKRFNYL
K CKDFISFFDSHTLLTRKYLDFIFKQFYLMKKEKLTEQG KICKDFISFFDSHTLLTRKYLDFIFKQFYLMKKEKLTEQG LNVTKLCDUKNYPLSKKLDFNSFYEVLLKDNNKTLSDKN QHALNAIRKVRPFLKRKSHEADAVF
EGLKKII RWLNGKLYTPKLHVNLFIDLIN
SSAYKVIKYLDNYHLLSSKYLNYL
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QNLLKKEYFNKYPLLSSKY DLMDDTRKYNSSTN
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EDMVYLVKQLNGLIRLKVPAYK SNRRSLEEKV
SEMYMMLSLTNGYYRTPKYEAYL
K I E IL P PADKYPLLTSKYFDYILA DLKDLS LNKQDKNK NNTKTILTPLRDQFIVKRE



KGLYLLALLFNGNDITKRESFKDF L
DGLLLIVKLTNGKMRTPK
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KGLYLLATLFNNNLVTKKTSFHKFLSALNMYNQ
KGLYLLATLFNNNLVTKKISFHKFLSAGNMYNQ
HAL DLLRQVAPHLRTKARRTELLL
KTAFKLISYFEKYLFAGKYTSYLKFRKVYDMEGKHDEDKG HEVFSLLKRDSPYLKDEKKRKRAQW IVKYYDKVTVRNGK KNLFLCLLENGNIVFPTRKARFLI
KNLFLICLLFNGNIVFPTRKARFLI KALLPLLKTVEPYLLIKKERVLLADEFLE
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QDCKQLQQYFSSYPL
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UniRef90 S5TEY0
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UniRef90 Q3T4A5 UniRef90 ${ }^{-}$X1G9U7 UniRef90_R9U4L4 UniRef90 ${ }^{-}$R9U4L4 UniRef90 E7EJU5 UniRef90_M1F6R2 UniRef90_M1F6R2 UniRef90 M1X877 UniRef90 ${ }^{-}$X1TU54 UniRef90_M1GPG1 UniRef90-M1JEM7 UniRef90 Q02673 UniRef90-Q02673 UniRef90_M9MU64 UniRef90_Q3ZIZ2 UniRef90 F7WD38 UniRef90_G4U500 UniRef90_G4U500 UniRef90 Q8SMI8 UniRef90_C9W160 UniRef90_C9W160 UniRef90_17GYE7 UniRef90-K5VGU8 UniRef90_S5U5X4 UniRef90_M0DS78 UniRef90 S5TMH7 UniRef90_G4U4Z9 UniRef90_S5U3T6 UniRef90 M9MU34 UniRef90 M9P831 UniRef90-V5RDS7 UniRef90-V9N2V1 UniRef90_V9N2V1 UniRef90-A7KCU1 UniRef90-A7KCU1 UniRef90_S4SNJ3 UniRef90 G8XP84 UniRef90_S5TG81 UniRef90_M5BKZ2 UniRef90_M5BKZ2 UniRef90 V5RE06 UniRef90_Q7YEU5 UniRef90_S4SN74 UniRef90 S4SN74 UniRef90_M1F974 UniRef90-11XHT7 UniRef90-M1K3D9 UniRef90 Q3T4A9 UniRef90_Q9B6E3 UniRef90-C7FEX2 UniRef90 C7FEX2 UniRef90_C7SWG1 UniRef90_W6XNJ4 UniRef90 D3FY87 UniRef90 C5GYP0 UniRef90_I6XFI9
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LK K DQRFCNRCKK L N N
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GRETMETGK STMNRYRK
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$R \square E L I K \square A K Q \square N K$

F A EMANLSLRMNSDNDAKSRKL FAEMANLSLRMNSDNIAKSRKL
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|  | TNDEOFHYAGLTDGDGESEATKO |

UniRef90 H6D5D4 UniRef90_S5TFN3
UniRef90_J5Q1U1 UniRef90_-Q2LCQ1 UniRef90_A9RAH6 UniRef90_A9RAH6
UniRef90_Q5K464 UniRef90-F5SW01 UniRef90-M1F4R7
UniRef90-M1F4R7 UniRef90-T1G8T2 UniRef90-F2WVI8 UniRef90_Q3T4F6
UniRef90_V5KWS9 UniRef90-A0A017S171 UniRef90-I1XFN9 UniRef90-F2WVH8 UniRef90-Q6UVV2 UniRef90-Q35102 UniRef90_Q5EM51 UniRef90_Q5EM51 UniRef90-W1ID99
UniRef90_W1ID99 UniRef90_O20958 UniRef90-A5J058 UniRef90_Q36465 UniRef90_B0F974 UniRef90-B0F974
UniRef90 K9L3B5 UniRef90_Q35375 UniRef90-Q8HQ85 UniRef90-UPIO0047C74AC UniRef90 W7DQ84
UniRef90 ${ }^{\circ}$ Q3ZEG6 Uniref90_Q3ZEG6
UniRef90_Q3ZEG6 UniRef90_Q8V6S5 UniRef90_Q9B6D1 UniRef90_Q9B6D1
UniRef90_L7TGN5 UniRef90_V5RG45 UniRef90-Q8M352
UniRef90-S5TNZ9 UniRef90-Q7YEV1 UniRef90-COP1G2 UniRef90_COP1G2
UniRef90_C7FEX3 UniRef90_Q9ZZW7 UniRef90-H6D5D5
UniRef90-H6D5D5 UniRef90_QOPIA9 UniRef90-Q3T4B2 UniRef90-S5TFD8
UniRef90_U5YE59 UniRef90_M1GLX8 UniRef90-R9U1N5
UniRef90-M1F6T0 UniRef90_O79545 UniRef90-O79545 UniRef90_UPIO0035CF22C UniRef90-A6XKD3
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UniRef90 O47564 UniRef90-Q5FYT4 UniRef90_Q5FYT4
UniRef90-O47489 UniRef90_O47489 UniRef90 DOVMZ2 UniRef90_G5CES4
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UniRef90_S5U411 UniRef90-S5U4I1 UniRef90-Q8WL00
UniRef90_C5GYN5 UniRef90_V5KWS5 UniRef90-G4U3E1 UniRef90_W19G8
UniRef90_W1I9G8

QFS|LISQSEYN|LIR|LLYY|V|KKN|LIGYGSVISKNSKQSNFRIITDR




 SVQUVFHLKKDLPLALVI QK QLRNGSLSRKKGVNAYTI NNY

 AITGNNLEVLEHFKNIIGSGAI NKKMNRQTYSVFDS




 | $R$ | $Y$ | $I$ | $S$ | $Q$ | $K$ | $D$ | $D$ | $V$ | $E$ | $F$ | $S$ | $T$ | $Y$ | $L$ | $A$ | $S$ | $L$ | $D$ | $D$ | $G$ | $Y$ | $V$ | $T$ | $Y$ | $V$ | $K$ | $S$ | $Y$ | $D$ | $G$ | $Y$ |
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 YVQISRSDPQTAVFGLFEEYCSEQGVRDSGTTMLFKI SDA



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 AIA I S Q A EK $\quad$ QIILDEI A SVVVG GQVVYADKS WN G WVVS D M
 ${ }^{K} \mathrm{~K}$ L KMHDTQKGE LSVLAAI R LTMS G T SI SVLVMARDLEGAGHTKVKYNRVE

T A Y
$T$ KFYFSRPTDVKSVFGMDDEY LGTYQ I KEFEKSNRDEEQNG




LIDLAKKワNKF
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LIK LIKNTMDRLSDATV
FLEACFSVYKLNKDND
$\square N L C K$

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LD Q $\square$ CK I
F Y EMVELTNKL
$\square 1 E \square M G Y \nabla D R \square R E T S R G A E A K Y T Q S Y F E$
ELLI LLNNSKK
FQELVMLKNKMN

ПK A IVETK S QMNN
$\square K A \cup E G K S Q M N N$
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LID K K L S I K S GMNNGR
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NSSYNSFHK WLVGV $\begin{array}{lllllll}N & S & K & E & W T & T & A \\ N & F & D & G & E \\ S & K & E & W T & T & A & F \\ D & D & G & E\end{array}$

SY LAGLI EGDGT
$N N \square D E \square Y K A Y Y V G L I E A C D G W$
NKNF $\square E W$ WS GFVD
DNEFGHMAGF


F HWLA GVID GDGNFDI R

GK $\underset{Y}{Y} \underset{\mathrm{P}}{\underset{\mathrm{D}}{\square}} \underset{\mathrm{R}}{\square} \mathrm{K}$
WIA GFTDAEGCFSASVYSKIDRSWTFNV
L P N F
LPNF

|  |  | $G$ | $F$ | $S$ |
| :--- | :--- | :--- | :--- | :--- |
| $V$ | $T$ | $G$ | $F$ | $C$ |
| $V$ | $T$ | $G$ | $F$ | $C$ |

V T GFCDGFSCFSSTMSKNPKHTL
$W L V G V T D G D G S F$
FK M N N N Q NHWVAGFADADASFQIT



S SFDSNF LQWFVGFTD
K N D DE F GHY LA GLID GD GH
 ENFMK


NRKLTVDFLQWFI GFFFGGME
SENKEIFHQWLVGFTDGEGTFSIVRQNEKW
NSKG LQ WL I GFIEA ESAFYVVS KRKSY GVGFYV
NYNQNEELYKP Y VGGIEEAD GWMSMS K K GKY I T
 $L S E Q W L N W W L T G L I D E A D G S$ $\qquad$ PNEKDN

| $F$ | $H$ | $T$ | $Q Q G T$ | G T |
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| $Y$ | $L$ | $A$ | $G$ | $L$ | $I$ | $D$ | $G$ |
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WL VGLTT
FDSYLAGLFEADGHDWIPAQKQSGKSHN
EAAYIA GIIDGEGSISLTRMHENEYR


 NKEFLEWFMGFFE | $A$ | $Y$ | $L$ | $V$ | $G$ | $L$ | $F$ | $E$ |
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LP S LIK DN WLLA GFT DA


P A WI S GFI E A E G S F NTRSN GN H
A RLLA G L M D GE G VF F VS LKHNPNTQEKKN $\square$ S F
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## UniRef90 E4ZQ69

 UniRef90_V5KV86UniRef90_M1F6U8 UniRef90_S5U522 UniRef90 S5U522 UniRef90-Q2LMM6
UniRef90_P03880 UniRef90 ${ }^{-\mathrm{P} 03880}$ UniRef90_C5K441
UniRef90_O950N5 UniRef90_S5TEM3 UniRef90 S5TEM3 UniRef90-UPIO003COC4BE UniRef90-G8XP82 UniRef90-E3TOX6 UniRef90-M1JEZ4 UniRef90-W6YWS4 UniRef90-W6YWS4 UniRef90 M1F4S2 UniRef90-O47565 UniRef90-O47565 UniRef90 - Q32Y73 UniRef90-COQRI6 UniRef90-QOH8YO UniRef90-M1F5S4 UniRef90_DOFXX4 UniRef90-Q8HMZ4 UniRet90_O8HMZ4 UniRef90-Q22704 UniRef90-K9L3F9 UniRef90-B3V4M7 UniRef90 047502 UniRef90-Q2EJ90 UniRef90_Q2EJ90 UniRef90 A7KCT7 UniRef90-D2DM79
UniRef90 G4U4V2 UniRef90- X1QMT1 UniRef90-16XFF6 UniRef90-16XFF6 UniRef90_V5W5P8 UniRet90 COP1G1 UniRef90_C9YAL4
UniRef90 E2F283 UniRef90-V5REC8 UniRef90-V5REC8
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UniRef90 U5PVP4 UniRef90-V5RE30 UniRef90-S5U4P3 RRe90UniRef90_S5U511 UniRef90-H9CNU0 UniRet90 F2WVM2 UniRet90 O885MA9 UniRef90-T2L1T8 UniRef90 17 LC -9H5 UniRef90-Q8WL11 UniRef90-G4Y9V4 UniRef90_Q7YEU6 UniRef90_Q3T4BO UniRef90 QPIB2



K N CN K I L F Y F D N F P L K T I I K G D S LI A S ITGK K E H L VPEN RII


R S V E N I I K F L Q


| $I$ | $G$ | $M$ | $L$ | $N$ | $V$ | $I$ | $N$ | $L$ | $I$ | $N$ | $G$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $I$ | $G$ | $L$ | $K$ | $T$ |  |  |  |  |  |  |  |
| $I$ | $G$ | $L$ | $N$ | $V$ | $I$ | $N$ | $L$ | $I$ | $N$ | $G$ | $K$ |
| $L$ | $K$ | $T$ |  |  |  |  |  |  |  |  |  |


K NCNKMLF YF DTYLKSNKKSYSMFKEVLLSVKGEHTNPDK
K G 1 A LI C S L LF N G N IVLP S K Y S D F L L


R S A K K V I H L F
$\begin{array}{llllllll}R & S & A & K & K & V & I & H \\ R & L & F \\ R & S & I & S & N & I & I & K \\ R & L & H & K\end{array}$

RKAYN L L K NI Y SF LI I K K E EA D L VFELYYSDRFTKKYEPER




K G LLLIS F DKYNLNTSKYLDYL
K DLDVFCDI FE
ENLI KV IP I F DKYPL LTTSKQFNY EKFKKS L LSND T
K IL I DI LNRMNGK LYNHRR】AQF


N D S R S

K RAEVVFFRVVEPY LII K K D QANLAIDTLSSLRHSK



VHAYRLLQKLRPF LFRKGAEADVIFE
A N L L R V I E L F N GRLLMLS K R Q


KHLD NI I L P L F P L L T Y K Y N R Y K V FREI I R Y M DE T K

D D V L






RQVDEI I NLFDKYPLYSYKKYDYI KLI LLKNKKRYMSPEG


K D L R IL I DL L DK F L S F K KAF F F Y F

S SLL N V L P L F D KYPMMLSNK QY D F L
E EML Y L I N NIDNGLIRRLK
S GUNT I C S IFN NYP L H T S K K L D F




E HL V NI L
QA EVFL RVVLP Y LTTVKMDKAK LSSSFGSFYG DKSSRKRQ


T H L K K D L L P DF D K Y P L I S N K Q Y D Y L
A T L L R R I N H F D K Y P L L G D K A D S FA K WA E L V K L R T K


D L M F I CD FFNKY
K S I L N L IE Y F K K Y P S R K K N R L H L I P K F Y E L

LRELCKTDNK

LRELCKTINK $L$

F Y K VC L Le $\square \mathrm{K} \square \mathrm{K} \square \mathrm{Y}$
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UniRef90 M1F4S2
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UniRef90_Q32Y73
UniRef90-C0QRI6
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UniRef90 Q2EJ90
UniRef90 A7KCT7
UniRef90-D2DM79
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UniRef90-I6XFF6
UniRef90-V5W5P8
UniRef90 C0P1G1
UniRef90-C9YAL4
UniRef90-E2F283
UniRef90 V5REC8
UniRef90 ${ }^{-}$V5REC8
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UniRef90-S5U4P3
UniRef90-X1Q7B4
UniRef90-E9L091
UniRef90-S5U511
UniRef90-H9CNU0
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UniRef90-Q85MA9
UniRef90-T2L1T8
UniRef90- X0W2W5
UniRef90 ${ }^{-17 L 9 H 5}$
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UniRef90_G4Y9V4
UniRef90 Q7YEU6
UniRef90_Q3T4B0
UniRef90-Q0PIB2


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LAELI.
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UniRef90_Q3T4B1 UniRef90_S5TGE4 UniRef90 A6CT87 UniRef90_S5U4J6 UniRef90-A0A023UMY7 UniRef90_G4U4X8 UniRef90-H6D5D2 UniRef90-G2HKD7 UniRef90_G2HKD7 UniRef90_H6D5D3 UniRef90-17LSU7 UniRef90_Q9ZZX0 UniRef90-B5KQ06 UniRef90-S5U4V8 UniRef90_S5U4V8 UniRef90 Q6UVQ9 UniRef90_X1RCH7
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UniRef90 G2HKD UniRef90 H6D5D3 UniRef90-H6D5D3 UniRef90-17LSU7 UniRef90-Q9ZZX0 UniRet90-B5KQ06 UniRef90-S5U4V8 UniRef90-Q6UVQ9 UniRef90-X1RCH7 UniRefoto-S5U6C1 UniRet90-G4U517 UniRef90-H6D5D7 UniRef90-H6D5D7
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UniRef90_E2F289 UniRef90-U5YDY3 UniRef90-U5YDY3 UniRef90-M1GLD5
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UniRef90-V5W5S2 UniRef90_S5TNMO UniRef90-S5TNMO Unireigo-A9RAH7
UniRet90_A9RAH7 UniRef90-W6Xk54 UniRef90- XoWOZ1 UniRef90-U5U5N9 UniRef90-M1GPG8 UniRef90-Q8HQ86 UniRef90-W117S3
UniRef90-E4ZQ77 UniRef90-Q85QA2 UniRef90-17ICQ8 Unirergonlikel
UniRef9O_D4GRV

GII AGTRPEPHRTAASTWGGAllNR YVIPKHRPQFQWCRTG RYILSQKGDNLPILSYLILLFKGGKVHSKKDNYSYIISGL

 EIVVPQKEER MLKVIQDKYG GSI RLRSGTLRYRLQDK KVNMVFNMKDKPLAEYLLQQTKCGTLTKKSNYMMWQMQNF FQVSQHVMNLPMLSHTMVLYNKGFMHSHENNFTYNLIGL


## V

 V EYS


SKDKSAAYWLKSQ■GYGTITTNNNNTHFUISNS
 EFAIKLRDDDTNI NHIHNQLLIGKVRKKSPQVSFVI ANK RMIFTQHERSLNIIKEMKLKFNVGHIKQTNKICKYT: TGNL RMIFTQHERSLENIKEMKLKFNVGHIKQTNKICKYTITNLL QLTVSVTNKYLQDVLPFKEMLGGNIYSQNGYYKWSMQSK KFELSQRQNDHEFLSLI ANFISSTVIRMNKPKPEYRVTSS SAS SQKEK DGQVLDRIA QLAGKGKVYPDVSWNGWVWWD PLS RIVFTSHINNEMMK

HTKDLNLLCLLQQYLGAGSFQGASNIVLRYII GDII


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| :---: | :---: |
| UniRef90_B8IH09 |  |
| UniRef90-Q3T4B1 | D NVQFI YPYFDKYVFIK GLS Y L A F K Q L ERIK GE HLNLEK |
| UniRef90-Q3T4B1 | D NVQFI Y P Y F D K Y VFl K GL S Y L A K Q L N R ILK G E HLL L E K |
| UniRef90_S5TGE4 | K T I I L L TKLI N GKFRTNK |
| UniRef90_A6CT87 |  |
| UniRef90_S5U4J6 | ASVVTLI Q HVN GHLHT |
| UniRef90-A0A023UMY7 | REVYHMLS LI N GYMRTPKHEA |
| UniRef90_G4U4X8 | S CELVFD Y F D N Y L T K F N S Y K WK T L L LK LKK N K E H |
| UniRef90-H6D5D2 | E DVI KI DHII I G Y M R T P K |
| UniRef90-G2HKD7 | EACSKLKLYFDKYPL |
| UniRef90_G2HKD7 | E A CSKLKL Y F D K Y P L |
| UniRef90-H6D5D3 | K S LK TI I N Y LD K Y PLL S K A WKEl VLLITFKHYTEKGワS K T E |
| UniRef90-H6D5D3 |  |
| UniRef90-I7LSU7 | S HLK K I I LP IfFP IL S M K K H |
| UniRef90-Q9ZZX0 |  |
| UniRef90_B5KQ06 |  |
| UniRef90-S5U4V8 |  |
| UniRef90_S5U4V8 |  |
| UniRef90-Q6UVQ9 | T NAVKFIN Y L D K F |
| UniRef90-X1RCH7 |  |
| UniRef90-S5U6C1 |  |
| UniRef90_G4U517 | R N K K H L LP M F D K Y SMLLT NKKY |
| UniRef90_H6D5D7 |  |
| UniRef90-H6D5D7 |  |
| UniRef90_Q6ED51 |  |
| UniRef90_W6YPH9 | NDLNII I D HFNKYPLIT QKHFELIFKKAVEMSNKEHLT LDD G |
| UniRef90_U5YGM0 | K GLLELIN S I N G F I R NP T R L DQLK Q I CDK Y |
| UniRef90-M5BMH2 | K G I L L C L L F N G L VLP Y RVEQLS Q WI IDL |
| UniRef90-17HBM2 | S G M I D L V K R V N G Y I R |
| UniRef90-G4U4T9 |  |
| UniRef90_L8B9F7 |  |
| UniRef90-M9NS68 |  |
| UniRef90-A0A023UMZ6 | EDMR\IMNNLNGLMRLKKKSCDYF |
| UniRef90_A0A017RZV0 | D RFNLFGGKYVSYLKFRKVYY |
| UniRef90_G5CER9 | E DVIKI I NLIN GYMRTPKLEA |
| UniRef90_M1F6V1 | Q GVYQL I S I F D K F |
| UniRef90_S5TFG3 |  |
| UniRef90_U5YGY3 |  |
| UniRef90_S5TFR0 | ERHKTIVNYFDQYLKTTKLNAYLIEFKVI |
| UniRef90-W7DX06 |  |
| UniRef90-M1F9A0 | E D I EKLMSIIFDRFNLNT T K H L D Y F K A F NLYFSRENGLTE |
| UniRef90-V5KVQ1 | E DLIKMKDYFKGKCRSHKSHRFFLIDEEYLNLKGLKAFFED |
| UniRef90_V5KVQ1 | E DLI K M K D Y F K GKCRSHKSHRFFLI DEY L NLK GLLKAFFED |
| UniRef90-D2RI62 | RSLLKTFKEK!GKYLRDKKERFERAXVV Y T NEHKQFES |
| UniRef90-K9L489 | A EMRYLI I K L N G L M R L $\quad$ DK G F K |
| UniRef90_C7U026 | Q D M $\square \mathrm{Y}$ MMK M F N $\square$ Y L L T T NK Q A QLM F |
| UniRef90_Q950P9 | S S A K E I K N K I LP |
| UniRef90-Q85MB0 | SHILNLLTNAI NGH\R |
| UniRef90_Q85MB0 | S HIL NLTNAIINGHIR |
| UniRef90_S5TDU5 | K HL I EI LP I F D K Y P L L T S N Y F N |
| UniRef90-G8XPA4 | KCLQ V V VEYFQHFGLKGKKQ |
| UniRef90-M1KFF4 | EVLK SI I C P IF D Y L L H T S K F Y S Y SLFKQALY A NTPEEKELL |
| UniRef90-M1KFF4 | EVLKKSI I CPIIFDYLLHTS K F Y S Y SLFKQALYANTPEEKEL |
| UniRef90-B4XPH2 | L G M M K L I H CI N G H I R |
| UniRef90-B4XPH2 | LGMMKLI HCIN G H I R |
| UniRef90-Q3ZIZ9 | T NAAKFI H Y L D K F LM G K R E A Y I C Q NKHH口THEG |
| UniRef90-A0A023UPT2 | EDMTKLI E Y F K K Y P S A K K N R L L L V P K TYEL |
| UniRef90_Q7YEU8 |  |
| UniRef90_F7WD44 | E EMLFLI N NIN GLLIRLLKK K S C D Y L |
| UniRef90-E2F289 | NKIVKFIGLLINGRLITRNKNLQLIELI |
| UniRef90_U5YDY3 | SLA GNLC L L Q Y K K |
| UniRef90_U5YDY3 |  |
| UniRef90-M1GLD5 | K T I N EVLP $\square$ F D K Y PLL T S K Y F N Y |
| UniRef90-M1K3G2 | E L A R R L I T |
| UniRef90-M1K3G2 | ELA R R L I T |
| UniRef90-Q8HIS8 |  |
| UniRef90_Q950N4 | HSEILELI I LL F NVLP SRKDQFHKFLTSFNSLRMTKN |
| UniRef90-Q950N4 | H S Elde L I L L F NVLPSRKIQQ H K F L T S F N S L R M T K N |
| UniRef90-S4SN70 |  |
| UniRef90-X1MJM8 | A TLEKVREFCDGKLKGKRLQFKRWKKLFSNYVGEEGQKE |
| UniRef90_S5TPA1 |  |
| UniRef90-M2UAR6 | K DITTNVI P HFPNYPLLT K K Y S DL F K N V I NLMLEK H T NLEEG |
| UniRef90-A7KCU0 |  |
| UniRef90_S5TN61 | K EMEEVLI HI N GLI RLLK |
| UniRef90-X0U2J4 | S D S L K L V R I L E C PL R A K K K R D Y V I WR |
| UniRef90_V5W5S2 |  |
| UniRef90-S5TNM0 | E DIK K V L P VF D K Y |
| UniRef90-S5TNM0 | E DI K K V L P V F D K Y |
| UniRef90_A9RAH7 | K D I L N F V D Y I K |
| UniRef90_A9RAH7 | K DIL NFVD Y I K |
| UniRef90-W6XK54 | D NLLK I I N I F NGKHI VT VR Y V |
| UniRef90-X0W0Z1 | NLL R NI L D Gl IEEFL |
| UniRef90-Q8SHP4 | S S NLIL V D Y L EKYPLIF S SKY L N Y K L K V L Y FEAKKNTKA E |
| UniRef90_U5U5N9 | RTHRELLDYFQMFLQNP LK Q A R LK SLI L HKDPGSQARLDHH |
| UniRef90_M1GPG8 | E EVIY FI F M I M N Y PLL T L H Q A S RFNKI L S GLT E EVKRFET |
| UniRef90-Q8HQ86 | K A L NLI T RIINGEIRTS K K F K Q L S HICCVLINKPILTTPNK |
| UniRef90_W1I7S3 |  |
| UniRef90_E4ZQ77 | K DL NKLI T HLE E Y PLLT Q K A S D L K K A VKLVNDK H LTVEEG |
| UniRef90-Q85QA2 |  |
| UniRef90_17ICQ8 | F SKRDLI TVI DPLI K |
| UniRef90-M1K361 | K GLLDL I H AV NGEI R NPVRLLLQLK K I C D K Y N I T |
| UniRef90_D4GRV9 |  |

UniRef90 B8IH09 UniRef90 Q3T4B UniRef90-Q3T4B1 UniRef90 S5TGE4 UniRef90 A6CT87 UniRef90-S5U4J6 UniRef90_A0A023UMY7
UniRef90_G4U4X8 UniRef90-H6D5D2 UniRef90_G2HKD7 UniRef90 ${ }^{-}$G2HKD7 UniRef90 H6D5D3 UniRef90_H6D5D3 UniRef90-I7LSU7 UniRef90 Q9ZZX0 UniRef90-B5KQ06 UniRef90_S5U4V8 UniRef90-S5U4V8 UniRef90 Q6UVQ9 UniRef90-X1RCH7 UniRef90_S5U6C1 UniRef90_G4U517 UniRef90 - H6D5D7 UniRef90_H6D5D7 UniRef90-Q6ED51 UniRef90 W6YPH9 UniRef90_U5YGM0 UniRef90_M5BMH2 UniRef90 17HBM UniRef90_G4U4T9 UniRef90-L8B9F UniRef90_M9NS68 UniRef90 A0A023UMZ6 UniRef90-A0A017RZV0 UniRef90_G5CER9 UniRef90_M1F6V1 UniRef90 S5TFG3 UniRef90_U5YGY3 UniRef90_S5TFR0 UniRef90 W7DX06 UniRef90 ${ }^{-}$M1F9A0 UniRef90_V5KVQ1 UniRef90 ${ }^{-}$V5KVQ UniRef90 D2RI62 UniRef90_K9L489 UniRef90_C7U026 UniRef90 Q950P9 UniRef90- Q85MB0 UniRef90_Q85MB0 UniRef90_S5TDU5 UniRef90 G8XPA4 UniRef90-M1KFF4 UniRef90-M1KFF4 UniRef90_B4XPH2 UniRef90 B4XPH2 UniRef90_Q3ZIZ9 UniRef90_A0A023UPT2 UniRef90 Q7YEU8 UniRef90_F7WD44 UniRef90_E2F289 UniRef90_U5YDY3 UniRef90 U5YDY3 UniRef90_M1GLD5 UniRef90-M1K3G2 UniRef90 M1K3G2 UniRef90 ${ }^{-}$Q8HIS8 UniRef90_Q950N UniRef90 Q950N UniRef90 S4SN70 UniRef90-X1MJM8 UniRef90_S5TPA1 UniRef90_M2UAR6 UniRef90_A7KCU0 UniRef90_S5TN61 UniRef90_X0U2J4 UniRef90 V5W5S2 UniRef90_S5TNM0 UniRef90_S5TNM0 UniRef90_A9RAH7 UniRef90-A9RAH7 UniRef90_W6XK54 UniRef90 X0W0Z UniRef90 Q8SHP4 UniRef90_U5U5N9 UniRef90_M1GPG8 UniRef90 Q8HQ86 UniRef90 W1I7S3 UniRef90_E4ZQ77 UniRef90_Q85QA2 UniRef90 I7ICQ8 UniRef90-M1K361 UniRef90-D4GRV9

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$D L K Y E N Q L E M \square A L L N N S F \square R$
$\square$ D K I I

NSEK $\square \mathrm{K}$ L I S E $\square \mathrm{KN} \mathrm{K} \mathrm{N}$
Y L Q F C


D L
$F \prod K \square$
F I K I
$\mathrm{E} \square \mathrm{K} \square \mathrm{A} \square \mathrm{L}$ K E K L L Q M R R N E T D T L S K E VK L L V L L K K N $\square \mathrm{NK}$ K N N T

F L S D A N K E R $\|$ I L K N N S K R E $\square \mathrm{F}$ T S
$\square \mathrm{QK} \square \mathrm{I}$

S I KA IVEDK S Q M N N K R T
F V R L L F Q K I E E
LEE F
L
$\square \mathrm{KK} \square \mathrm{V}$ —


[^1]

|  |  |
| :---: | :---: |
| UniRef90_E7E843 |  |
| UniRef90_A0A023UM92 | KLQMSQKYKN MLEDMKK L L G G $\square$ Y I GTRKHMYYFETT S F |
| UniRef90_W0TH91 |  |
| UniRef90_Q8WKZ2 |  |
| UniRef90_M1F5T2 |  |
| UniRef90_M1JZC1 |  |
| UniRef90-E3PQS8 |  |
| UniRef90_L8HB03 | RIIDF T Q A A GEAPELEWUVQRWSVGVIR K S K NLY S L N F T VA |
| UniRef90_K5WT34 | S ISSAS QK T S ELLNPLVELF AGYVY |
| UniRef90_Q6F598 | NFRGILLTSKRGDVLRMLSVYLLQGYLRERTGDVWDLII S N |
| UniRef90-P22190 |  |
| UniRef90_UPI00046E6770 |  |
| UniRef90_Q8HQ87 |  |
| UniRef90_P0CY43 | K L V I SL H L E DL S L L E Y H S V L K I G K I NL R S P T CKL V I N K |
| UniRef90_Q950N7 | RII C F NI K D K P L A ELL DE KI G Y G K L I K E G N Y L L L E F N T F |
| UniRef90_V5REC2 |  |
| UniRef90_Q02682 | SIS AS QK T S ELLTPLVELLFGGYVYIDRGGS F K W Y V T K K |
| UniRef90_Q34833 | I S VVVTS K D M Ki L N Y I K N NFNMG DVI K K D M T Y R WVVV K R |
| UniRef90_Q34833 | SVVVTS K D M I L N Y I K N NFNM G DVI K K D M T Y R WV V H K R |
| UniRef90_S5TN75 |  |
| UniRef90_V5W5X3 |  |
| UniRef90_S5U523 |  |
| UniRef90_P03879 |  |
| UniRef90-D0FXU6 | SFELTLDDSKDEATLYFIVNILGYGNVDKRTGVNAHRLRET |
| UniRef90-Q3T4F4 |  |
| UniRef90_Q3T4F4 |  |
| UniRef90_Q3ZJ06 | KFYI T Q K E E L K F L Q EMAVLF K $\square$ G T L T N G S S DVF Y NRLE T |
| UniRef90-Q8HIS6 |  |
| UniRef90_Q8HIS6 | FIS SIS Q K D K Y L L D Q I A FVVY G G K V Y P H G N T F K WIVNK K |
| UniRef90_A8V073 | VVIII K T S NVVQI L E E L K K L Y G G S I R K S K N T C K I I L S H |
| UniRef90_Q02680 | RFCIIT F GMKNEPLAKKLLELIGGSGFI R M K D NACVLVVSPV |
| UniRef90_Q02680 | RFCIT T G G M N E P L A K K L L ELI G S GFI R K K N A CVLVV SPV |
| UniRef90_K1UZW6 |  |
| UniRef90_A0A023UNM4 | HL RMK QKY Q H NLTMMKDCFG GNLNLMNKIYQYSTTNF |
| UniRef90_C7U031 | KMSIAFK D N DYELAVVYLKEMFNMGKMMKRKNVFDWQMQS I |
| UniRef90-M9MU47 |  |
| UniRef90_Q3T4A6 | LI ALL L N N EL N L Y M F NLL K K KL E M G Sil ERKD K Y V I Y Y I E S K |
| UniRef90_A7UG01 | ELSSIL |
| UniRef90_S5TNA2 | T Y K L T Q S $\quad$ Y N S QLI Y K I K K ELLGldGRI I Y S K D K Y Y L VI T N K |
| UniRef90_S5TG50 |  |
| UniRef90_Q9B6D2 |  |
| UniRef90_Q02686 |  |
| UniRef90_S4SN44 | SLEEITMDIR D ERALLQAVKRVYG G S I KL R S N A NRYRL H H K |
| UniRef90_O79866 | QLLVD TLE Y I Q NYYGFGSII DSEGYAT WTL TAE |
| UniRef90_A7KCU3 | VIAALK NEKNNHNMLNKI Q K I I G G R V V I ER Q D K Y T Wl A S N K |
| UniRef90_F7WD23 |  |
| UniRef90_E7E825 | Y F NLT L N S E H K DLI L Ni K T L F NVGGY I K Y N N K T I K Y EVVNQL |
| UniRef90_S5TMQ5 | A THDEKVLK\I Q NTFGGGNFKPRSGVKRYRTQKL |
| UniRef90_E2DSH2 |  |
| UniRef90_UPI00029A71A4 |  |
| UniRef90-K9L361 |  |
| UniRef90_L8B983 | SFSIAA Q N ND DY M L N FIM T H F GVS NMIR K P Y R D K F EVV R K |
| UniRef90_I3ZT24 |  |
| UniRef90_C7U018 | $F E M S$ Q S Y D MLI L E SI K Q Y L K I T S N M N Y K L K T T S |
| UniRef90_A6YEC8 |  |
| UniRef90-H1ZWQ8 |  |
| UniRef90_S5TNY3 |  |
| UniRef90_R4TMM0 | TF QVTVA D D D E AID ML K Q T L D C G I HQEK GSIVVFQVS K Y |
| UniRef90_F0LH94 |  |
| UniRef90_C7U017 | EITVGTEDEKLLRIMMNKFGGGSIMLRSNSNRYRLQNK |
| UniRef90-W6Y6X8 |  |
| UniRef90_M5EE27 |  |
| UniRef90_S5U5F7 |  |
| UniRef90_I4DF06 |  |
| UniRef90-A9RAG7 | SLIMMNLNKNDLKLLQY F H Q Q L M M G K V Y K N K L A R WEMNKF |
| UniRef90-Q0H8Y3 |  |
| UniRef90_C5GYN6 |  |
| UniRef90_M1KFE7 | P F S I RKQKYPDLL Y FVVSNGLGGGKVFK F N D G M F S Y S S I E F |
| UniRef90-A0A023UNG0 | QLTI S V T NKLMVIVVEYYK Q F F N M Y Y D K A Q N G Y Y K W T I Q G K |
| UniRef90-H1ZWQ7 | GF HI GL S $\quad$ K D L P L L EKIQ N Q F G I G H I Y S Y P SRDE WAV T K K |
| UniRef90_N4WXG0 | S Y KLVQS R Y NLR L L Y Y V K K E L G V G SVTM |
| UniRef90_W6XNS8 |  |
| UniRef90_B4XVV1 |  |
| UniRef90_Q35689 |  |
| UniRef90-O20957 | GFHLS LHSRDAELLHVI H D K L NVGVYYEFKNRNEARI |
| UniRef90-H9CNM4 |  |
| UniRef90_B2XX70 |  |
| UniRef90_F2WVL7 |  |
| UniRef90-F8RHP1 | SLSFDE E E HLLDDI SNYFGGY ITTYFNNTKSYSYI T Y H |
| UniRef90_A0A023UMX4 |  |
| UniRef90-B7R2N7 |  |
| UniRef90_B3V4Q8 |  |
| UniRef90_S5TMN0 |  |

[^2]

UniRef90 E7E843 UniRef90-A0AO23UM92 UniRef90_WOTH91 UniRef90_Q8WKZ2 UniRef90 M1F5T2 UniRef90-M1JZC1 UniRef90-E3PQS8 UniRef90-L8HB03 UniRef90-K5WT34 UniRef90-Q6F598 UniRef90-P22190 UniRef90-UPIO0046E6770 UniRef90-Q8HQ87 UniRef90-POCY43 UniRef90-Q950N7 UniRef90-V5REC2 UniRef90-Q02682 UniRef90_Q34833 UniRef90-Q34833 UniRef90-S5TN75 UniRef90-V5W5X3 UniRef90-S5U523 UniRef90-P03879 UniRef90-DOFXU6 UniRef90-Q3T4F4 UniRef90-Q3T4F4 UniRef90_-Q3ZJ06 UniRef90-Q8HIS6 UniRef90-Q8HIS6 UniRef90-A8V073 UniRef90_-Q02680 UniRef90-O02680 UniRe990-AOAO23UNM4 UniRef90-C7U031 UniRef90_M9MU47 UniRef90 Q3T4A6 UniRef90-A7UG01 UniRef90-S5TNA2 UniRef90-S5TG50 UniRef90-Q9B6D2 UniRef90 Q02686
UniRet90 S4SN44 UniRef90-079866 UniRef90-A7KCU3 UniRef90-F7WD23 UniRef90-E7E825 UniRef90_S5TMQ5 UniRef90-E2DSH2 UniRef90_UPIO0029A71A4 UniRef90-K9L361 UniRef90-L8B983 UniRef90-I3ZT24 UniRef90 ${ }^{-}$C7U018 UniRet90-A6YEC8 UniRef90-H1ZWQ8 UniRef90-S5TNY UniRef90-R4TMM0 UniRef90-FOLH94 UniRef90-C7U017 UniRef90-W6Y6X8 UniRef90-M5EE27 UniRef90-S5U5F7 UniRef90-14DF06 UniRef90-A9RAG7 UniRef90-Q0HBY3 UniRef90_C5GYN6 UniRef90-M1KFE7 UniRef90_A0AO23UNGO UniRef90 H1ZWQ7 UniRef90-N4WXG0 UniRef90_W6XNS8 UniRef90_B4XVV1 UniRef90-Q35689
UniRefon O20957 UniRet90 O209957 UniRef90-B2XX70 UniRef90-F2WVL7 UniRef90-F8RHP1 UniRef90-A0A023UMX4 UniRef90-B7R2N7 UniRef90-B3V4Q8 UniRef90_S5TMNO

 RGLKKI I ELLMSDY LTRPK TNQVNDLIK WDNKNHNTAYE ESILKLI EYFKKYPSLKKNRLHLI
ESVYNI RYFDKYNLSPKREMEIVHNIISNM
EGMIKLI NADNGNDRNTKRFTQLI
EDVINLLNAVKDY
ESLLALLPRLFPYF GKRRQAEV
VDMUYVINHINGN $\quad$ RGK $\square \mathrm{KNFEKACN}$

UniRef90_E7E843 UniRef90-A0A023UM92 UniRef90-W0TH91 UniRef90-Q8WKZ2 UniRef90 M1F5T2 UniRef90-M1JZC1 UniRef90-E3PQS8 UniRef90-L8HB03 UniRef90-K5WT34 UniRef90_Q6F598 UniRef90-P22190 UniRef90-UPI00046E6770 UniRef90-Q8HQ87 UniRef90-POCY43 UniRef90 Q950N7 UniRef90-V5REC2 UniRef90_Q02682
UniRef90-Q34833
UniRef90 Q34833
UniRef90-S5TN75
UniRef90_V5W5X3
UniRef90 S5U523
UniRef90-P03879
UniRef90-DOFXU6
UniRef90_Q3T4F4 UniRef90_Q3T4F4 UniRef90_Q3ZJ06 UniRef90_Q8HIS6
UniRef90-Q8HIS6 UniRef90 A8V073 UniRef90_Q02680
UniRef90-Q02680
UniRef90_K1UZW6
UniRef90-A0A023UNM4
UniRef90_C7U031
UniRef90-M9MU47
UniRef90 Q3T4A6 UniRef90_A7UG01 UniRef90_S5TNA2
UniRef90 S5TG50 UniRef90-Q9B6D2 UniRef90_Q02686
UniRef90-S4SN44
UniRef90 O79866
UniRef90_A7KCU3
UniRef90_F7WD23
UniRef90 E7E825
UniRef90-S5TMQ5
UniRef90-E2DSH2
UniRef90-UPI00029A71A4
UniRef90-K9L361
UniRef90-L8B983
UniRef90-I3ZT24
UniRef90-C7U018
UniRef90-A6YEC8
UniRef90-H1ZWQ8
UniRef90-S5TNY3
UniRef90 R4TMM0
UniRef90_FOLH94
UniRef90-C7U017
UniRef90 ${ }^{-}$W6 Y6X8
UniRef90-M5EE27
UniRef90_S5U5F7
UniRef90-I4DF06
UniRef90 A9RAG7
UniRef90-Q0H8Y3
UniRef90-C5GYN6
UniRef90-M1KFE7
UniRef90 A0A023UNG0
UniRef90-H1ZWQ7
UniRef90-N4WXG0
UniRef90 W6XNS8
UniRef90-B4XVV1
UniRef90-Q35689
UniRef90 O20957
UniRef90- H9CNM4
UniRef90-B2XX70
UniRef90-F2WVL7
UniRef90-F8RHP1
UniRef90-A0A023UMX4
UniRef90-B7R2N7
UniRef90-B3V4Q8
UniRef90_S5TMN0

[^3]



[^0]:    $\stackrel{F}{T} \square P \square W K K \square L E \square K \square L I N S K K G T$

[^1]:    lupas_21
    lupas_14
    lupas_28
    jnet
    conf

[^2]:    lupas_21
    lupas_14 lupas_28
    jnet
    sol25

[^3]:    $\begin{array}{llllll}\text { B B B B } & \begin{array}{l}20 \\ B\end{array} \quad \text { B } & 30\end{array}$
    

    B
    

