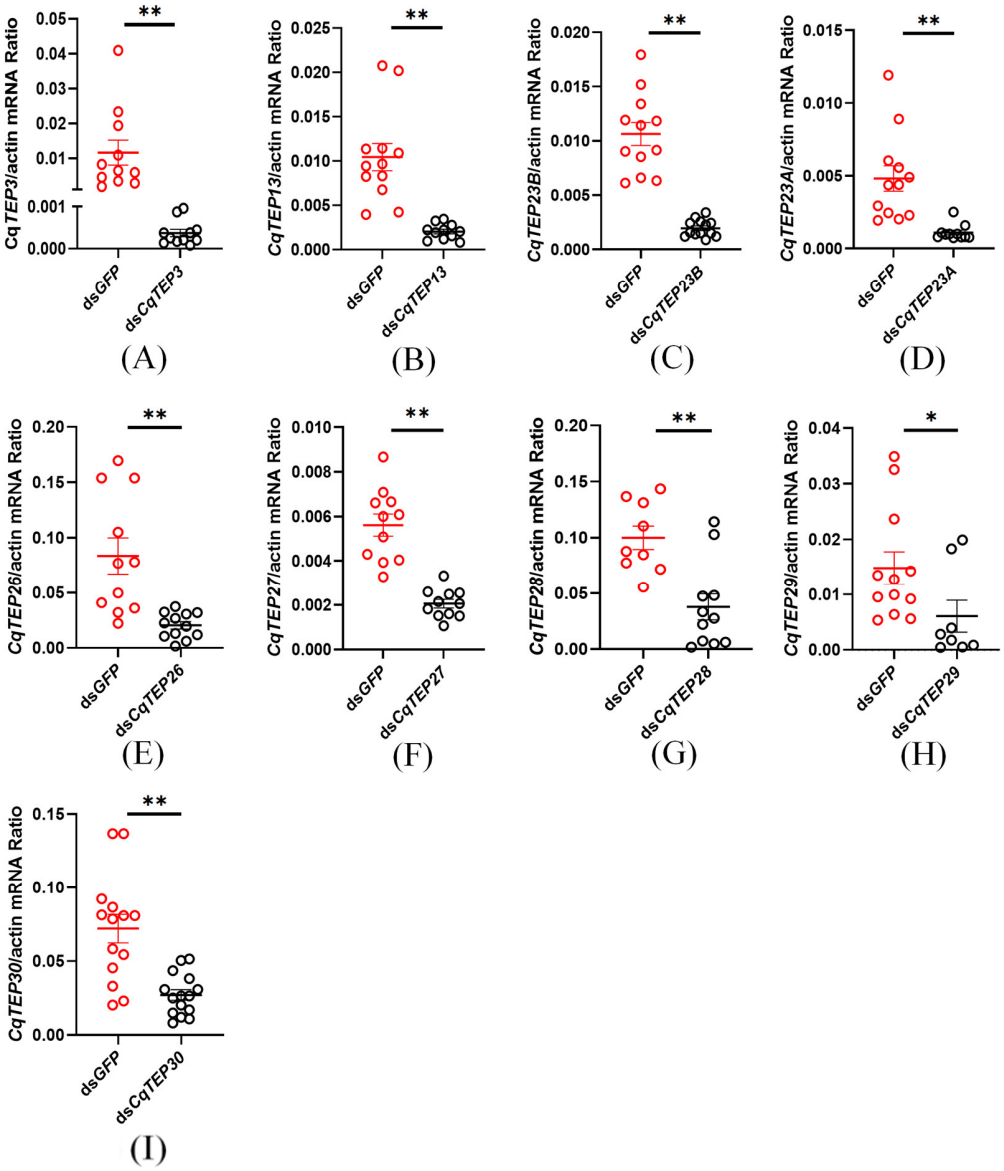


Figure S1. DsRNA-mediated knockdown efficiency of nine *Cq*TEP genes.

(**A**–**I**) Relative mRNA levels of *Cq*TEP genes in *C. quinquefasciatus* at 6 days post-dsRNA injection (targeting individual *Cq*TEPs) and 3 days post-JEV challenge, quantified via RT-qPCR (n = 12). Statistical significance is indicated as follows: ** $p < 0.01$; * $p < 0.05$.

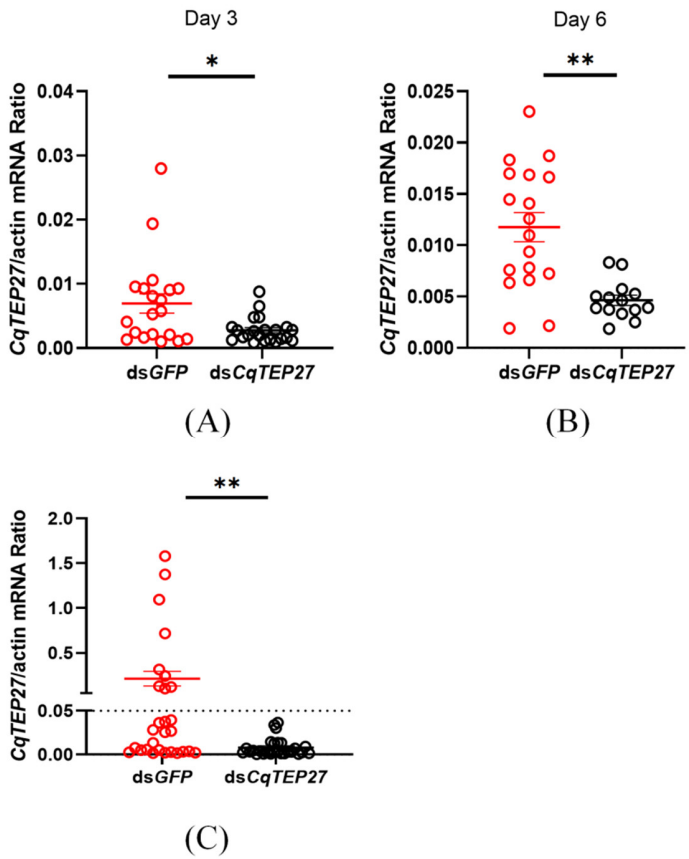


Figure S2. DsRNA-mediated *CqTEP27* silencing efficiency.

(A–**C**) Relative mRNA levels of *Cq*TEP*27* measured by RT-qPCR at3 dpi (**A**), (*dsGFP*, $n = 20$; *dsTEP27*, $n = 22$), 6 dpi (**B**) (*dsGFP*, $n = 18$; *dsTEP27*, $n = 15$) and (**C**) *(*$n = 40$) 8 days post-blood-meal. Statistical significance is indicated as follows: ** $p < 0.01$; * $p < 0.05$.

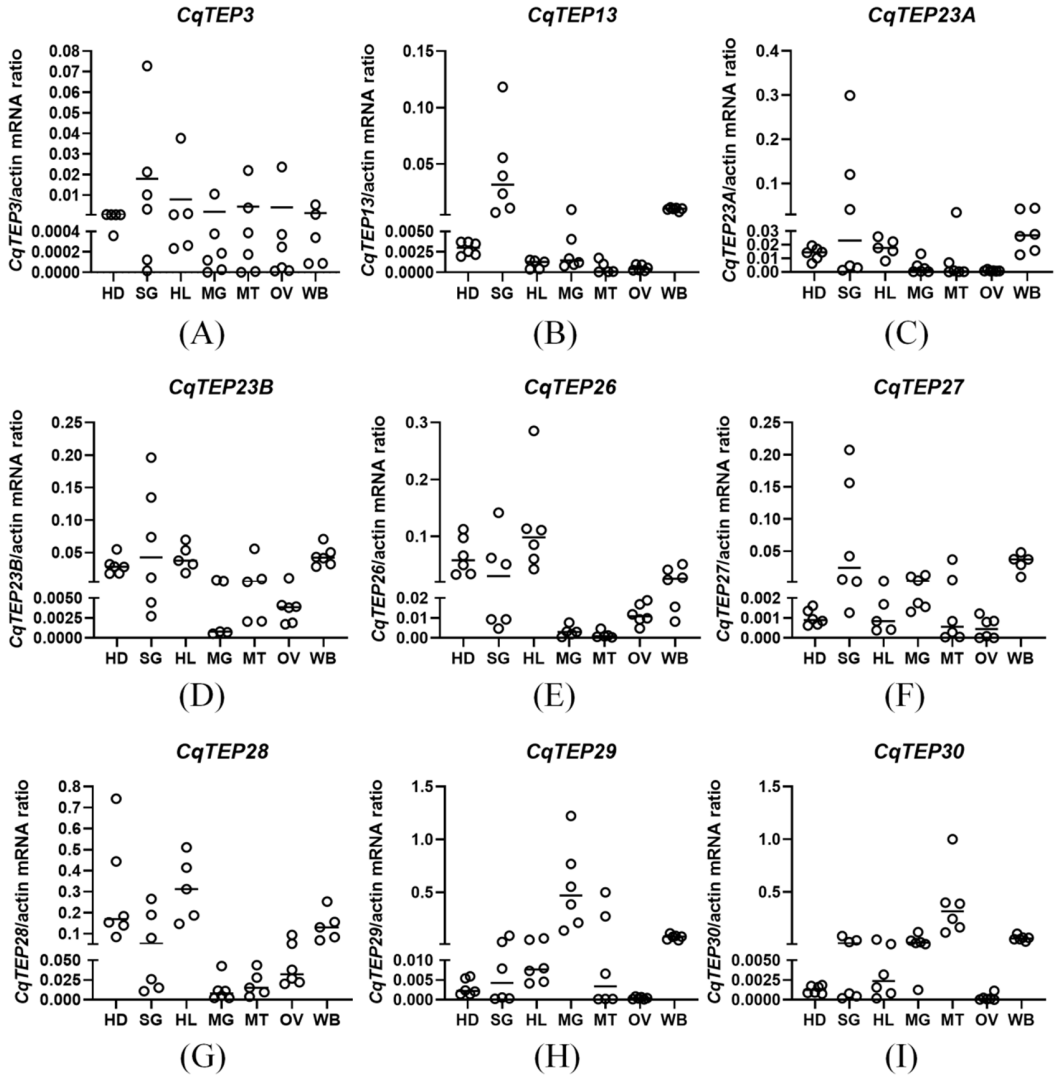


Figure S3. Expression profiles of thioester-containing proteins (TEPs) in different tissues of female *Culex quinquefasciatus.*

(**A**–**I**) Relative mRNA levels of *Cq*TEP genes in *C. quinquefasciatus* in head, salivary glands, hemolymph, midgut, malpighian tubule, ovary, and wohle mosquito quantified via RT-*qPC*R ($n = 6$). The results are expressed as mean. Abbreviations: HD, head; SG, salivary gland; HL, hemolymph; MG, midgut; MT, malpighian tubule; OV, ovary; WB, whole body.

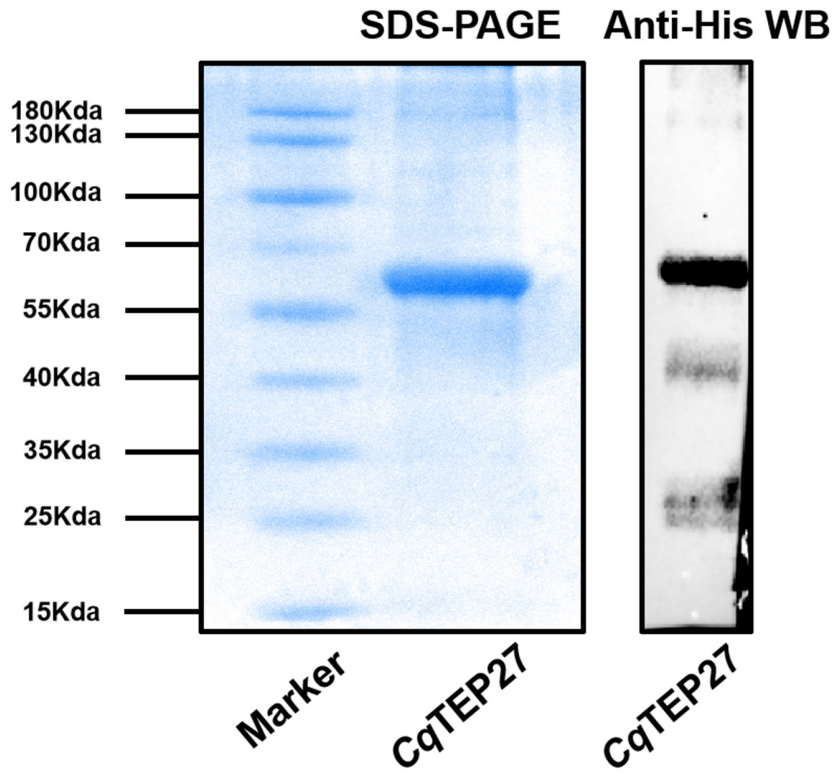
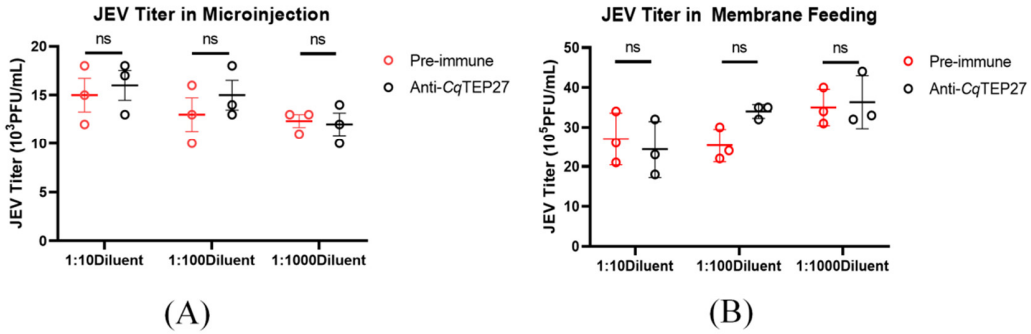


Figure S4. Purification of recombinant *Cq*TEP27 expressed in *E. coli.*

Left panel: SDS-PAGE of purified His-tagged *Cq*TEP27 (pET-28a(+)); right panel: Western blot probed with anti-His antibody.



(A) (B)

Figure S5. Anti-*Cq*TEP27 antisera exerts no direct effect on JEV titer.

Plaque assay assessing the direct neutralizing activity of anti-*Cq*TEP27 antisera against JEV. JEV was incubated with anti-*Cq*TEP27 antisera or pre-immune sera under the same conditions and dilutions used for (**A**) microinjection and (**B**) membrane feeding ($n = 3$). The resulting mixtures were then subjected to plaque assay. Statistical significance is indicated as follows: ns, not significant.

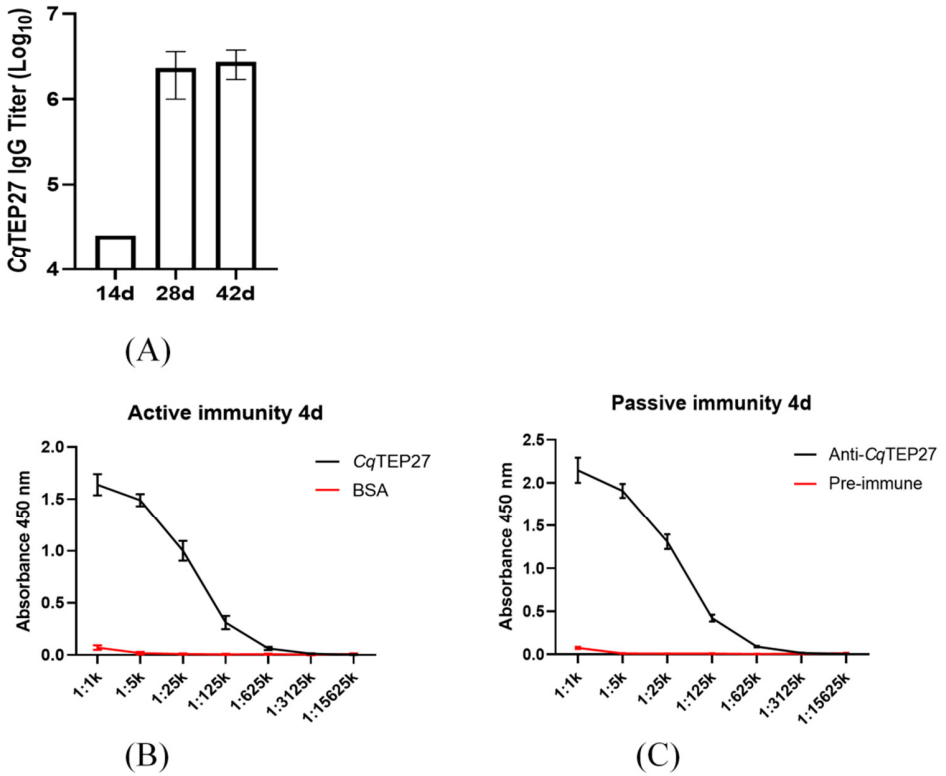


Figure S6. Sera antibody titers in A129 mice.

(**A**) Serum antibody levels following initial immunization and two booster immunization with recombinant *Cq*TEP27 protein ($n = 6$). (**B**,**C**) Serum antibody titers in mice at 4 days post-infection (dpi) under different immunization regimens. (**B**) Passive immunization group, achieving a titer of 1:625,000 ($n = 5$). (**C**) Active immunization group, achieving a titer of 1:3,125,000 ($n = 6$). The data are presented as the mean ± SEM. Abbreviations: **k**, one thousand (1000).

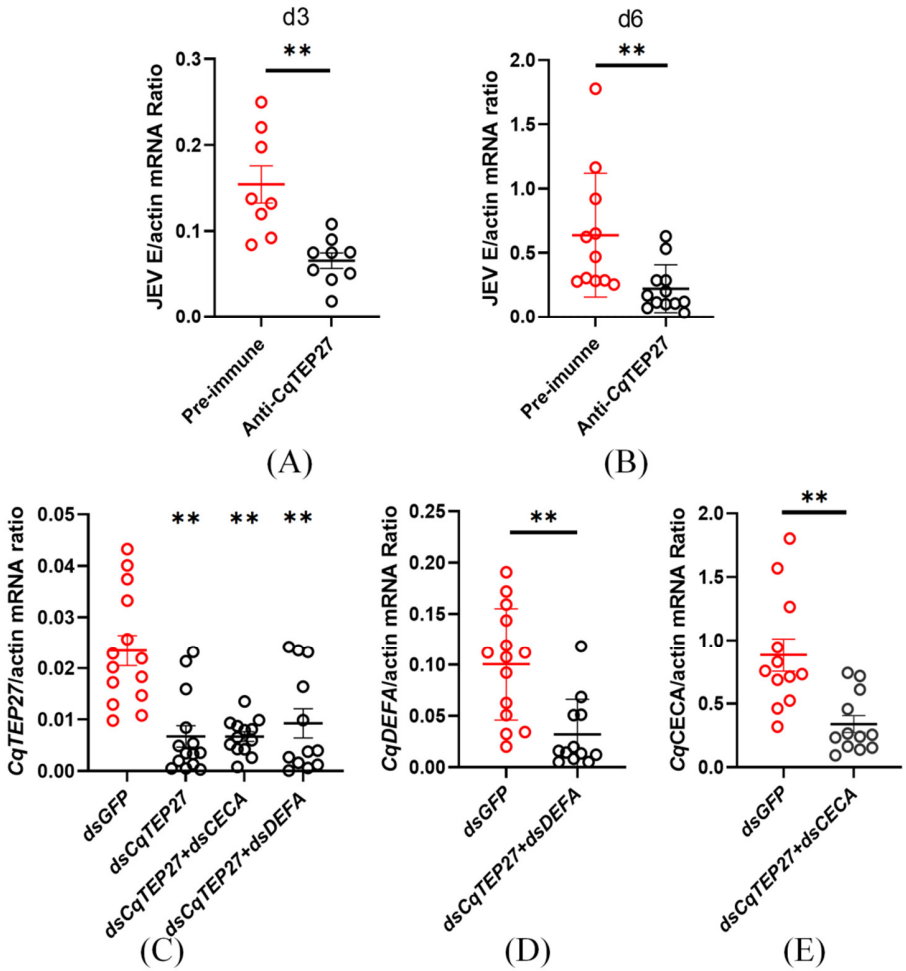


Figure S7. JEV infection load and related genes knockdown efficiency in *Culex quinquefasciatus*, related to Figure 5.

(**A**,**B**) JEV viral load in mosquitoes at (**A**) 3 days ($n = 9$) and (**B**) 6 days ($n = 12$) after injection with anti-*Cq*TEP27 antiserum in RNA-seq samples. (**C**–**E**) Knockdown efficiency of *CqTEP27* (**C**), *CqDEFA* (**D**), and *CqCECA* (**E**) in samples from Figure 5E ($n = 14$). Statistical significance is indicated as follows: ** $p < 0.01$; * $p < 0.05$; ns, not significant.

Table S1. Primers and probe used for qPCR and genes cloning.

Cloning primers	**Upper primer**	**Lower primer**
pet28A-*Cq*TEP27	ACAGCAAATGGGTCGGGATCCCATGTTTCATAGCGATTCG	TCTCAGTGGTGGTGGTGGTGGTGCTCGAGACAAGAGAAAA TATCACAATCT
Primers for SYBER GREEN RT-qPCR	**Upper primer**	**Lower primer**
*Cq*TEP3	CCGTTCCGGATCGCACTCTT	TCGCTGACAAGTTCACCATCG
*Cq*TEP13	TGTACGATTACTACGCTCCT	CACCTCGCAGATGTTCAG
*Cq*TEP23A	CATCCTGACCGAAGATCCCG	TCTCCCCACGGGCTATTACA
*Cq*TEP23B	CATGCGCCAGGAGAAAAGTT	TGGTCAATCGCCACTATCCC
*Cq*TEP26	TGTCACGGATGGCGAATACC	AACACTCTGGGATAT
*Cq*TEP27	ACGTGCTTCGAGTGATTCCA	CAATTCCGACAGATCCGTTG
*Cq*TEP28	TCGAAGGACGAACTTCGGTG	CACGCTAACCCTAGCCCAAA
*Cq*TEP29	TGCTGGACAAACCGGTCTAC	AACGGCCATCGCCTAATTGA
CqTEP30	TCCGTAGACAGTAGAAGGC	CGATGGTCATTGAGGTGC
*Cq*actin	TGCGTGACATCAAGGAGAA	GTGTTGGCGTACAGGTCCTT
*Cq*CECA	AAGGGAAAGTCAACCAGCCT	AGGACGATGACGAACAGCTT
*Cq*CECA2	ACCCTTCAAGAAATCACCATGAAC	GGTTTGTCCGAGAAAGGCCA
*Cq*CECB	TCCTTCAACGATCACCAACG	CCGGAATGTCCTCCGAAAAC
*Cq*DEFA	GCAACTCTAAGAAGGTCTGCG	CACTTGAGGCTGCTCACTTA
*Cq*DEFC-like	ACATCAGTTAGCGGGGATCAA	AGCAAACCAGGACGAAGCAA
Mus musculus GAPDH-1	TGCTGAGTATGTCGTGGAGTC	GGTTCACACCCATCACAAAC
Primers for double-stand RNA synthesis	**Upper primer**	**Lower primer**
dsGFP	TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG	TAATACGACTCACTATAGGGGATATAGACGTTGTGGCTGTT
ds*Cq*TEP3	TAATACGACTCACTATAGGGAATCGCATTGACCGATTAC	TTAATACGACTCACTATAGGGTCCAACGACCGTATCTT
ds*Cq*TEP13	TAATACGACTCACTATAGGGCGTACATCCTGAGCAAGCG	TAATACGACTCACTATAGGGTTGGGATTCACTATTCGGT
ds*Cq*TEP23A	TAATACGACTCACTATAGGGCTCGCCTTCTCGGAACAACT	TAATACGACTCACTATAGGGGACGTATCCACTGGGCAACA
ds*Cq*TEP23B	TAATACGACTCACTATAGGGCTGGCACCAAGGGATTCAA	TAATACGACTCACTATAGGGGCGTTGAGATACGAGCCAC
ds*Cq*TEP26	TAATACGACTCACTATAGGGAAACAGGCTATCATAATCAG	TAATACGACTCACTATAGGGGCTGTCAACGCCAAGTC

ds*Cq*TEP27	TAATACGACTCACTATAGGGGCCAGTTATGCACTGTTAGG	TAATACGACTCACTATAGGGAATACATTTACCGCCAGAT	
ds*Cq*TEP27-2	TAATACGACTCACTATAGGGCGGTAAATGTATTGAAATCCAC	TAATACGACTCACTATAGGGACAAGAGAAAATATCACAATCTTCA	
ds*Cq*TEP28	TAATACGACTCACTATAGGGACTACAGGCAGCAACTCCAC	TAATACGACTCACTATAGGGTCGTCTTCGCACACATCACA	
ds*Cq*TEP29	TAATACGACTCACTATAGGGCTATCGTTCGCTTGGTGTA	TAATACGACTCACTATAGGGTAGTAGGTGCTGTTGGGTA	
ds*Cq*TEP30	TAATACGACTCACTATAGGGCGAGGGTTCGGTGTTTATC	TAATACGACTCACTATAGGGGCCAGTTATGCACTGTTAGG	
Primers for Taqman RT-qPCR	**Upper primer**	**Lower primer**	**Probe**
JEV Envelope gene	CTGGTCCATAGGGAGTGGTTTC	CTCCACGCTGTGCTCGAA	FAM-TGACCTCGCTCTCCCCTGGACG-TAMRA

Table S2. The protein sequences used for phylogenetic tree construction.

Name/ Gene ID	Amino Acid Sequences
AaTEP22/ AAEL000087	MIMNSVIVLVCSFIVVAKCQSSSVLVIGPKYIRPRHPFNVAFANSLNSNVNLKLTLQCDGDNGFVKNASLRLNYQSAKSFSVDVPNITSGTDCTFSAVNDGGSVM VDHMANLLLPAKTLSVFIITDKPVYKPGDILRFRVVVVDIATKPVKHMESIVIEIIDSDGAFKREWLQARLLNGVFEAAYRLPSVPALGIWNITATANDNGFENTK VQDFEVREYVIPKVVLKVVPSRTLLIAEKEISLDVKAHYTFGEPVEGKLRVDLFTNPLFRRATHSVEKSFNTNVQIKFKLDRELALRDANFCMVSANVSLTEKLSN VTTVVTLEFPVFRHPYKIELINPAMNYRPGVGYTCKLSVKDHFGIPVDAQGNSITVQSDTDSVTGQLDRQGMVTLTLPMPDSEETVLISVVYENVEYNKIIEVEAS EDLSTQYLHISTKTRIIVGNSITFTVNSNQHFTHMSYFVTNWGGILLAGHQKFSRKKTNTIRFKLTAAMSPYSRLLVYTISGGQLIMDYFELDFEFFGNEFEMLDD ANYRPDQDIYVDVKAEKNSYLAFQAIDQGALLLGFDEFGLTRKQVQEDLASYVDADEENRLDLIHSFGLFLRSGFNETKTQSSRAKRFAPERRDRPYRNAIRLRT DFSESWFWKNSTMKNQKTQTFHDVVPDSITSWYVTGFALSPTLGLGLMHAPRKFTVTKPFYMVANLPYSIKRGEVVRIQIMLFNFLNSDLTTDVTLFNKNDEIDF VDRLSNNPHFRTKAIIAPHNQVKSVSFLIKAKKLGEIAIKIEAVNQLESDGLEHMLRVTPESRLYEKTEARFIDLPTRNKTNFPITCNIPRDADPGSTKIEVFIDPPLM GFLAQNTTDSLLKIPTGASNLNLLTFVPNIVLLEYLKETGKVTPSIEQARNYVSSGYKNQLKYKHSNGAFGQWNPPRGNPSVFLTALVANALATASKHIDIDKKIV EQAYSWISGKQKPNGCFEDDGEVIYTPLQNNSSSFALTAFIVSAIMENENIARQFAAVVQKATNCLAGNFDSLNNLHDIALTTYALALVRHEKRQIYLDRLIRDSIF EKGSSTERYWNEELNVEIAAYALLSYLQIGNVIDTMPIMTWLNKQRYSTGVFSGVQRTFVALKALGKMATYLNTSKNDYSVYISYDKHKSKFDVLSTKSLETFH HELPDSVRNVNFAVEGIGFGYLQLTYQYHRNIQNAKASFMLDVTVLDSSNYNVQDLRVCLSYKPKEKYTVSGVALVEVYLPSGLIVKESAVRDISRQIQRTERAF DNTAMFVYFNGLDTNSVCFDITAHRKFKIAMHRPSYVVVYDTNDMSGFAIKSYEGKVLQICDICDDEDCRSMSC
AaTEP23/ AAEL001163	MCPLLIATLYFILQYTAPANSSEVGHYIILVPTVIHDHSKVSIGLSTVGYEENKQFQVILKKEQYDDKEGEVVNEKHRQSSDTRLVQFTVSSLDNEPYQFLIHDPDG SVQTTHVEVSKRPVFIFIQTDKPLYKPGDTVKFRVLVLNHLTRPIDSLKVINVQLKDSNSDLIRQWHYARLQKGVFQSQIDLANFVPLGNWTLKVSALNGIEETKT FNVAEYVLPLHEIHITASKQVQMNDEILKLIIDAKYTFGKPIIGYVTLAFNELNYPDMYEINGRAVISIPLSDIVDTDVGDDVYHLNVQVKIEEDESEQIYEASETIPI HKRSYKITLRKSSEYLLEEESIWCWLTITNPDGMPLTNRNVMTVKVTEMLGSRSNKHYSFQKEPDDEGVVSLKIDSSNTTDRLELEVTYEGETTKFEILHGSDNNN TRNDFIKASLLVQKPMLKHPVEVLVQSSFRMNLVIYYVISQGEILASGRISVNFKRTATFSYLATFPMVPEASLVVFTINDAMLWKDIVRFKVHELDNFVDIEISSN SAEPRAQIFLEVKSNPGSTIGLLAVDRSLLQLGTGNDITQQIVLEKLGKPKIDEDVELERLGFTVLTNAKSHFMASPLGSSPHLLTQRFGDDEELHLGQDMQADHG TRILRKNFPETWLWTEMIEVDDKGHVDITDIIPDTMTSWSISAFAINTNHGLGVVKNPVALTVLKPFFVTVNLPYSIVKTEQAVVEVFVHNYLNQAQHVTVRVQN AQKDFIHSDLEVSKTVFAPSNSVKTVTFALKPKRSGNLTVTILADCSLATDAIQRNLRVTPGGLQYFENSARFIEVQNSSMSFDPIKLVIPRTATYGSVSITFSVEGF LLGAALTNLDHIIRLPSGCGEQNMLNLVPSVIALEYMDNTDTLTYGIKAKAIDYLQKGYQNQLKYLRDGSFSVFGQSDGRGSVFLTALVAKVFTFAKRHITIDN YVIEKAFNWLRERQLSDGRFVESGRIYYKELQSGVQDGTTLTAYTLIAFLEHKSLTQKYLSVVNKGTEYIAKTYRFDGNPYSLALIAYVLQLAGHPRKHYFFDKL VELSKINEDRTMRWWGSGSTSIETTAYVLLTYMSRGSYIDAKSIMRWMVSQRYDKGGYSNTQNTFVGLQALGKYSRVMSLSNQNYDVFVNYDSERQRLHMNS TTSLVGHKFNIPSDVRQVKVDVEGTGAGVFQIAHKYNNIAHDSVPRFKIEKTLFKIRSDGVANMTIQAIYRPKKDFEETNMVMIEVMFPNGYVVVTNSQLKQLEKN NQIRRRSETADGDTRLILYLDPMRPNNPVYVDVEAFRKSTVLNQAPGWIKVYDYYDPTREAIEYFDPISN
AaTEP20/ AAEL001794	MGMEKRSRTVPARRRRRWSIQANMWILPLLICCGMLIERVQSQGFSVIGPKTIRPYSTYSVAFSNSVNKNVHLNVILEDQNNPSEFSLKKLAVVNRRTVKKIDFDIGNIT SSEYQLLVQSADRTFSFDQRVELLYEPKTMSVFIQTDKPVYTPGDLLRFRVIVVDADTRPVTSIKTVNIAIDDSAENSIRKWPYAKLLNGVFESQVQLASSPVLGTWSIT VKASDDIIVTKQIEVKEYVLPKFFVKVYPSEVLLVQNEKVSLTLEAYYTFKEPVDGNYKVELFLDHTKRKPDFIKSDRITGKTSLEFQLKNEVDIDGDEQYTDVTVKVE VVETFSNRTVSITEKIPIYRQPYAVTLLPSAPSFRPGVPFDVKIFVKDQLGHPPPEENTASIDLTVEFHLPTDSDTKSLTVDLDEKGTQGFILLPHPNAQELKVTATYDSQE YEVIHDPIHGFSSQSKQYIKVTLNPKYYNNIKVDKDIVLDISCTETMTHFSYIVVTKGNIVEASNVPVAKKKKHSLRLKMTSKMSPESRLLVYYTNREYLIFDDIELKFD SFNNDFKFDLNDDEYFPGQSVYIDVYASKDSYVAFSGIDESVLLVGKERHDFNKGDVLKELALYGATNDAEFDLFHKYGLFLKSTATVDTPVTRSQNARFGTLLGRT KQAIEIRTQFLESWLWKSFSMDGRNNFKAIEDSVPDTITTYHVSGFALSPTLGLGVIQQPVSFTVRKKFYLVANLPYSIKRGEVALIQVTVFNFLGSSVTTDVTLFNKRD EIEFVEKASTNNTHRTKAVIAPNNNGKPVSFMVKAKKLGQIAIKFQAENLLETDALEHMLRVTPESHRYEKNVARFIQLPTHSKVPFDVKLDIPKNIDEGSAQIKFTLDP DILGTTISNLDGLIRKPSGCGEQNMLHFVPNIVVLDYLNETNTAAEDVRTKAINFLSSGYQNQLRYKRSDGAFSVWGQSHAGSTFLTAFVAKSFKIAAKYIQVDKSIVD AAFDWLAKQQQSDGRFPEVGQVIHADMQGGLRNNGFALTAYVLIAFAENEEVYRKYRSQLIKTTSYIANNLDNMENPYDLSLSTYALMLANHGKRTEFLDKLVEISI FDSNQTERYWDSKPVDIEVAGYALLSYVAAGDLLHATPIMRWLNKQRYGLGGFPGTQDTFVGLKALATFAAKVSSGRNDYRVTIIHEPNRRRTFDVDRHNAFNIQEL DIPNNIRKMRVEVVGIGNGYFQVAYQYYQNIQVAKPSFSLTIDQLNTTTEHMQQLDVCVKYIPKEAYQKSNMALVEIFLPSGLVADSDAITDKTGGIRRIERRFSDTSV VIYYDNLGPEDECFRVTAYRRYKIALHLPSYIIVYDYYNSERFAIQQYEGKVLQLCDICEDEDCETLSCENSSK
AaTEP3/ AAEL008607	MGHLTMSPPWALSLMVLISVFVVSCKCEGYYTVVGSKLLRPNSEYHVSVSNLNVREPLRFRITLNNTRTGTPLASEDLSLGQGESRLVPFSIGDITEGDYSLTAEG LSGFIFKNESSLTFQSKSFSVFVQTDKAVYKPGDTVRFRVLVLDPNTKPLQKIDTVKVHITDGKNNRIKQWNDAKLVKGVFESELALSSAPVLGNWKINVEALGT KKTQEFEVDEYVLPKFEVSVESPGITTLKDGKVKAIVRAKYTYGKSVKGEATVSAYPDFNFHYVQPFERDVITRKTVPIDGKGSVEFDLRDEIKLQGDYTRNIVIE AVVEEELTGRKQNSSSKVKIYDRAYNMELVKSSEKFKPGLPFTAWLKATFQDGAPLQDDTNSVKVTQEFGWPNQNTTEHTYKLDKNGMAKLIIDTETSSDSISF RAEYLGATFYLGSISQGWVKYSAYVRAKVLTETPTINKDVTVDVSSTVPMKVFNYQVLGRGDVLIGGTIAVPDRMSHTFRFPASFAMVPRARLLVYFIHSDGQM ISDFAEIEFASELQNFLKVQLSKTESKPGQDVDITISTNPDSYVGLLGVDQSVLLLKSGNDLTTGKVFDDLKTYEEAVYLQYRRKRFAPWRRFNYYDDFNDAGAV IMTNANEQPAIPPWASYASFDGGVIDIRTYENEDPFAVPLAASAGVMPPSGVGGAELSVRKSFPESWIWQTFSNDSFSGEKTITKKVPDTITSWMITGFSVSPVYGL GLTRQPRKLNVFLPFFVSTNLPYSVKRGEVVSIPIVFNYMDSDQTAEVTFHNTEQEFEFADVENEVHENPKLELFRKKTVQVASNTGKTIPFMIKPSKLGHITIKV TATTQLAGDGVERQLLVEPEGLPQYVNKASFVDLRATPEVNNNFTVEIPKNAVPDSTRIEIAVIGDVLGSTIQNLDSLIRMPYGCGEQNMLNFVPNIVVLDYLKNT NQLTASIEDKAKKYMESGYQRELTYMHDDGSFSAFGKSDPKGSTWLTAFVARSFKQAADHISVDEKIIDKSLEWLSDQQSSNGSFPEVGKVSHTDMQGGSGQGI ALTAYTLIAFLENKNLIPKYTNVINKALDYIVRNTEGLDDNYALAIAAYALQLADHSAKDFTLSQLDTKATTDEDQKWWNKPIPEADKKNPWYSKPNSVNVEMS AYGMLAFMEAGLDSDALPIMKWLISQRNDKGGFQSTQDTVVGLQALAKLAAKISSKNNDVTIVVTYNENQQKEMKINSENNMILQKFELPSSAKDIDIKATGRG FAVVSLGYKYNMNVTGEWPRFVLDPQVNKNSNQDYLHLTVCTNFVPTAGQNKSNMAVMEVGFPSGFTADSDTLPSLENTEYIKKVELKDGDTVVVMYFDSLD RNELCPTVSAFRTHKVAKQKPAPVVIYDYYDNSRIARQFYNGPAAGLCDICENEDCGNSCSIKSQKQRSPKEEATVMAKSGAVGITIGLQLIVAALLVRLFN
AaTEP1/AaMCR/ AAEL012267	MTRRWHPTWSGVLLLLFGFPSILTWAQQQQNPNDVPRYNPLDPFNRQRYNPTSSNFQPQSNPTASNDPRNPSFGSRDFYGTDSNSIDNRFDPSRGDRDRDRDVLF QSTTPREFPGTRFGTTPRPRTFNPQSNRNVFLDQSNNPLNKEITYFVVASRMVRPGQIYKVSVNLLEAQHPMAVRASISRDGVELSSELKSVRVGIPETLLMRIPPTS VVGDYKLRVEGSYENTFGGYIFVNETKLTFSQRSMTIFIQTDKPVYMQGEMVFRTIPITTELKGFDNAVDVYMLDPTGHIMRRWLSRQSNLGSVLSEYKLSDQP MFGEWRIRVIAQGQIEEGKFSVEEYYQTRFEVNVTMPAFFFQTDPFIHGKIMANFTNGTPTRGNLTLKATIRPIGWMNPKAINHMNRVWNTGNRRELDPNIPYYL QYTNPDLFNAQSTFTSQLNQPDSQYQDQRYQSNYQDSYVIERHFNFDEEWPFWIKKPIDSAEQWDSWTNTYRESLPYLRYFNGTYHFKFPMSELSQLFQSNLAG MEVLITARVGERFYDEVIEGYAMTRIYNSSIRVAFMGNSPQVFKPSMPFTVYLIAEYHDGSPLPIDPLYPGRMELSGTIDSRSGGGRNTYDVKIESQMSDKPGVWE LKIDLRNDLNLENSKQTNEFLNQIQSMRLSANYIHPSGERASAELLLLSHFSPNNHNIKVLTSTRDAKVGEYMIFHVQSNFYIKDFHYIVMSKGIVLVTGQEIISGG VRTLSITLSAEMAPTATIVVWHIGRYGKVIADSLTFPVNGISRNNFTVFINNRKARTGEKVEVAIYGEAGSYVGLSGIDNAFYTMQAGNELTYANVITKMANFDE QTNGTFKQTWISHEGDPDELVYYPSSTFGIDANRTFEYVGLVVFTDGVIPRRPLSCDPAMNYSECLSGRCYRSDKRCDGYFDCEDGTDEAGCDNRNSTALAEFRK YRFNRILRHYQNVWLWKDINIGPHGRFIFNLEVPKIPALWIVSAFGVSTSQGFGMLRKPLEYVGVQPFFINLEMPTVCRQGEQVGIRVAVFNYQTVDIEVTVVLHS SPDYQFVHVEEDGIVRSYNPRTSFGEHQFYIYIYAQDSSNVYIPIVPTRLGDIEVTIHASTLLGAYQVSRKINVEPDGLVQHRHQSTLLDLSNRAYFFQYMHVNVTE TPIIPYEIDRYYVFGSNKARISVVGDVVGAIFPTMPVNATSLLSLPMDSAEQNMFSFAANFYTIQYMRAIKQRNKKTEKLAFHYMNIGYQKQLSYLNDDGSFSLFR ADWNQSASSVWLTAYCARIFSEASFYEYENFIYIDPLVIQKNIHYILQHQKDDGSFWEVTWLPDRKVNQSSEHPRNEIVRSKNITLTAHVLITLVSVKDLSGRLGSS VALAEQRASRYIERNIGLIKDYGSPYEIAVVSYALAQAKAPQAEHAFKILASKMRSIADLNYWGNDEVPQPPSKLENQKYFNLPRLPYKYDSVNIETTAYALLTY VSRQETFTVEPIVRWLNSQRLMDGGWASSQDTGIAMKALTEYSTRNRVADVTSLTVTVEATSLPGESKVLHIGQHNLATIQDIEIPNAWGTVKVQAKGVGYAIL QMHVEYSVDTYKFQTMPPVKSFDLTTHTVFHGRNQSHISYVICQRWTNTAESIRSGMAVLDVAVPTGYMIQQQKLDSYTISQRVRNLQRARYQERKVLFYFDYL DNDFVCVNFTLERWMPVANMSRYLPIRVYDYYAPERFNETIFDSLQTYLLNICEVCGSSQCPYCRIYNTAIRNPVSVLLLLFTSVLIVARHYRIVNPNSWIFWND
AaTEP24/ AAEL017023	MVKYGECTFLCALLSVVYTQSQTTGNYVILAPKYLRAKHPYQLSIATHDFNGFTKLHLAIDGYTENDEVANVIKEVHLKRSQTQLVEIDTTTLPPGSFSLNILSGS GGEVNLTIPLTVLDKAYTVLIQTNKPIYKPGNVIKFRVLLLDEATKPVHKPKAIHVTLADPDGNEIKVWPYAMLQNGVFQSQLEISNEPNLGNWSITANAYGKDH TFSFLVDDYKLPKYELKVSTPQPATVSDREFSVDVEARYIFGRPVKGNATITVNGPKKQSKTAKINGKIRLSFSMIDLLHQTSIVDEIIPVEVIVVIHDQYTRENIKAT NMFRIFNQSYRLSLKKSSKYFIPGHPYRCIVEIKDQNGRRLTSIENHQALVNVVYSGPNGYHNTSEMRLNPESDGTVPLTLEVPEQVTHIELNISYRDTNEHFELQRI HFSTTGQIQASIITEQLTLNTPIMVQVQSSIALNHLTYQIIAKGKIQTVQQMRFDDTDSVQFNITATPEMIPNAKVFVFSMHNGLILKDTVPLMISSLPNWVNVTLPN EKVQPGSRIQLEVESTPNSLVGLLAVDRGAWLLGDGNQITKQSVLDEIGTFSDEIEGDNDISEMELITNGIIPTALTARFGNFVPDEEDAYIPPRKEFPESWLWLDL QKTGMDGKLHIADIVPDSITNWEITAFSISPEHGLGVQDEPVALAVSKPFFITINVPNSIKKSEVAIVKVAIFSVLNDTSYVGVTLKNSRQEFEFVDNRGRKDVSYQ AKNVIVTANSATTVLFKIKPKKMGNIVIKVIAETTEASDSTEQLLRVTPESLPYSITEKRLIQLQNNRQSFELELKIPRHIDVNSEEIHFSVQGNLLGDSVDGLDEMIR MPTGSGEQNVLKMVPNLVLLDYMVGVGKVNVPLRNRAIKFLGMGYQNQLKFKRNDGSFSMFGQQDNAGSVFLTALVAKTLHQASQFITVDEKVIENAYDWL RQQQKMDGSFTELGNIPEYGLQRKHTEKSVLTAYTLVAFLENDRISEKHKSIIDKGTQYLVSKIQGLESSYALALTAYALQLAQYKQEYAFSKLLENSQSNNGFR WWNDDNTAEATAYALLCYIQRGDFVDPLPILRWLISKRHLFGPDNIETTFIGLQAIAEHSKRISPNRNNYEVSISRESNQLVTLNINPETSLTVQNVSLPSNVRKVR VMVNGTGTGTFSIHYRYKTNILNLRPRFDVKVQTLDTTTSHYLDLKICAKFKPSEAYEISKLALMEITFPSGYIALDESVEELEKMDTIRKITTKYDDASLWLYFES LPEHFLCIPVTSFRQSDVLQQIPGSVRVYDFFDDSRVAITHFDGKQLDKCEICDNDCLPECGN
AgTEP15/ AGAP008364	MRRSTMFASKKDPAIRILSTSSSSLLAVCLVLSVALVPAVQCEGHYSIVGAKLLRPNSEYHVAVTNQDVSEPIRFSLAITDASSVIAKQEITLNTGETRLVPFAIGDIS ESSYKLVAEGLSGLTFKNETDLEYQQKSFSVFVQTDKSIYKPGDTVRFRVLVLDPNTKPLQKADNISVHINDAKANRIKQWKEGKLVKGVFESELTLSTAPVLGA WTINVEVLGSKHNKVFEVDEYVLPKFEVTVESPGITTFKDGKVKAIIRSKYTYGKPVKGEATVSVSPEFQFHYVQPFAKDVITRKVPIPIDGKGSVEFDLREDIHLEG DYSRNIVIEAVVEEELTGRKQNASAKVMIYDRRYKMELVKSDDNFKPGLPYTAWLKVSYQDGAPVQDQTNPVEVKQSSFESTTSVQNYTLDQNGMAKLEINTE VNSSYINVVGVYLGQEFYLHGISKAESDVDSYIRAQVLTEMPLVGKDVLVEVTSTSPMKYFTYQLLGRGDVLLSNTIAVPESKTQSFKFPATFAMVPRAKLVVYY IAPNGDMVSDSKVITFDSELQNFMKVSLSKEQSKPGQDVEISISTNPDSYVGLLGVDQSVLLLKSGNDITKQQVFSELEKYEERSYGFYRRKKRFAWNPHAEHRD FSTVGAFVMSNANDPPPNNTLPEVPIYKFHRAPNGTVLYTTIEKPRAQKQHHVLVTNTRPPLAGPFAFSRIPRPHRDIPRLFLSQEIQNTWLFDNTYSGFSGEKTLQ KKVPDTITSWIITGFSVNPIYGLGLTQQPRKLNVFLPFFVSTNLPYSVKRGEVVAIPIVVFNYMEDDQTAEVVLHNDEQEFEFADVENEVVESNKVELFRQKRLDIA SNTGKSVSFMVKPKKLGHITIKVTAKTKIAGDAVERQLLVEPEGLPQFINKAAFIDLRAAPELTKTFEVEIPKNAVPDSTRIEVAVIGDVMGSTIQNLDSLIRMPYG CGEQNMLNFVPNIVVLDYLKATNKLTANIEAKAKKFMEAGYQRELGYKHRDGSFSAFGENDKSGSTWLTAFVARSFKQAANHITIDEGVIDKSLEWLSDQQP NGSFPEVGVVSHKDMQGGSGSGVALTAYTLIAFLENINLVDKYKNTINKAIDYVYRNTESLDDTYALALAAYALQLADHSSKGLILSKLDTKATTDSDSKWWH KPIPETEQKNPWYSRPNSVNVEMSAYGMLAFLEAGLDTDALPIMKWLIGQRNDKGGFQSTQDTVVGLQALAKLAAKITSPNNDVTLTAKINENQEKRMTVNAE NGMILQKFELPSAARNIEIQATGSGFAVVQLSYKYNMNVTGEWPRFVLDPQVNANTNPDYLHLSVCASFVPSAGQNVSNMAVMEVGFPSGFTADSDTLPSLEN

	MPFIKKVETKDGDTTVVLYFDSLDQRELCPTISAFRTHKVAKQKPAPVVIYDYYDNSRIARQFYDGPKASLCDICENEDCGEACSIRSQKQRSSDSPSRQPTVEGT MQSGSQTVSVSFFTFLLATLLVRMFH
AgTEP2/ AGAP00836 6	MFSKGGGMRFGGEVKRTVPDPKDHKDGHYSIIGARILRPNSVYRCVVSTFDTKSAIVFRISIAAKDKPIATEEITLNSNESRLISFTIDSIPEEEYELVAEGLSGLEFKT KSRLDFDNKFCSVLIQTDKSVYKPGDTVRYRVLVLDRSMKLLPAGDSGMMVYIRDGKGNRIKQWSNASLGECGVFQAELTLSTEPVLGEWTINVEVVGLKESK TFDVDEYVLPTYEVTVESPGYTFLDDELLKVVVNSKYTYGKPVAGELTVSVKLASSMCFRREPTETSICQKVLPIDGKTDVEFNLKEILSSKTYIRELTIEAEVCET LTGRTQKGSTTVQLHDERYQVRMIEESSYFPGLPYNAWIQVTNLDGSPVQDGAKEVEIVLRNYNIDLHKQSSTLDDKGMAQLNVKLDELDFDYVSVEVKYRGK DYYVQGITKPRDYEEALMRVRLSEKEPTAGKDLTFDVACTKPLQCVSYSLLARGELLAGGAVKGSEASTTISITIPSTFAMVPRAKLLVHYISSAGYIVSSYDTVEF KRVFENQIQLTLSKDELKPVETLDIDIRTEKDSFVGLLAVDQSVLLLKSGNDISRDEVVQQLEMYESAQNYHWDAYSTSDCQSVGAVLLSNRFIPRDIFPQARLFA CSTSAGGFGAAPMMAACKMKGVIMESEMATAPVNEPTVRSKFPETWIWESISKCKEMESIRKIVPDTITSWIITGFSLSKSHGLGLVDNPSKVNVFMPFFLSIDLPY SVKLGETIRIPVVVFNYMDEDQLADVIFYNNDDEFEFVSDTKDQKEKHRQEQITVPRGTGKTLTFVLKPTKVGHVTLKITAKCALAGDGIERQLLVEPEGLPQYIN KALLVDLRLVKEIKQPFEVEIPVDAVPDSTNVEVSVIGDVLGSSIENLDSLIRMPFGCGEQNMLNFVPCIVVLDYLKACKRLTVEIESKAKRCMEIGYQRELTYKH QDGSFSAFGESDKSGSTWLTAFVAKSFQQAAKHMTIEEDVIDSALGWLSKVQTADGAFPEVGTICHKDMQGGAGSGMALTAYTVIAFLENPKLGEKYKASVDK ALTYVKEHISELDDVYAHALAAYALQIADHPLKNEVYASLLSKSNKQGDIQWWSKEIPEKNDSNCCWWYRPCSVNVEMSAYGLLATLEASSAGLEGLPIMKWL VSQRNDKGGFESTQDTVVGLQALSKMAAQLSSSEADMSLKVIITGEQEKCLQVNGGNILVLQKHELAANTRKLEMIATGTGCALFQLSYKYNIKDVDNSPRFTL KPEAKQGSIKSCIDLSITTSFIPKEDQAVSNMAVMEVDMPSGFIVESDTLKQLKQHEMVKKVETKRSDTTVVLYFDNIGEEAVHLQMSAFQKHEVENAKPANVII YDYYDNTRCARSFYEIAV
AgTEP14/ AGAP00836 8	MASNAVFAMLLLVVLVVWGIPRDCAGQRYAMLAPRTVRPHTAYELMVSNLGSGTEQFMYEIVTANDTVVGATSVEVKPKELRKVEVSLNSLKEGHYQLKVW EKQKQTLLNTTSLERIDRSYLVLFQTDKPAYKPGDRVQFRVLFLPDTKPVGQSVRPTIFIADPDRVRMKQWNGVSLSSGVFEGSFQLAEDTSFGRWIITASVNEQI YKDTFSVEEYTLPLYRVQVQSIPKAYFQCDEPKMSLKLSASFVHGGSVRGNATVVVRANYNNYPSQTKEVARKELFINGTAIVDFPTDVVAKSCDEERNVWFDV IVTESSTGVSYNTTCSYTVHNAGGVTMEVLDGNEVFYPGLAMRLMVKLATIDEKPLVNQPVTVRYKVLDEDRNDIDEVAPSILSLQTNANGVFRVAINTTTSTAE VTVEGVYRNHIFPLVFAYPMYEERSLEYLAITTRQAYCIVRRNITVDVHSNVKVDRIYYVGYCHGKVCASGVQKSATRVNTHHLTLTSSPQMAPQMKLLAFAVK EDGKILSSSIIIRFLSSSSSALNVTEHLMEPNSDRYSFNILAEKNAFVGLLGVDERIKQRTSSNNDITQQKWEKMLQSLEGTLGTWSSYDSFGSVGVTLLTDGYLPD VGFIPHSFGELARTTSTLDEDDSVREDFPETWLWESIKAKNGQTSIEKSLPDTITTWVVSGFSVGPANGLQILKKPLQIKSQKRIFVQLHMPPSIKRFEEVSVHCLVH NYGKAINVSLEVRPTMKVTPLYLAQGATENVRVSVSSSSVGVLTLEVFLRDSKGKVLDSVRQSIPVRPEGLIRTVEDVRVLDFPQQSKLTFNLALPAIEQNLDVNY REVTLSVVGTFLNLNMFDLEHMVRSSHGNGEETLLFLQTTMAVYDYLKRANLLSPDTKKKLFSYMDVGYQQLSRYRLDDGSFSMFGNLHECGGVWFTASTVQ ALGKLIMYEAIPVEIDFLNDGLNWLILQSGEDGSFNESCPIAHPHIQRTGGKELSLASSVMFAFVGKEFSREYKQFINKTISLLLASPINDVYLLAKTTYLLTLINHPD SARMLAKLNSLAIVDGKYRYWSVSGGDPRSSPEKRDQEATAYALLANIKRNAINHEEMIRIAQWLQKHTFAGDRSVASLERIVALEALAALAHKIPTTMPNMYIE AGGHKFEINATNRELLQTVQLPQGTTGVRVSARGTGLVLMKLSVRYSLASKNATRTEPSNVSNSEKIGVNIKKRQVENHKLALYLCFTLLKPLLFYEPELWKVEV DFPTGYEIEGQEEHYHNGTESAIVLENKSHLELVWNVRQVSQVCYPIVAIARWSFVDIVTGLLYLTSFDTKDTVAVYAF
AgTEP13/ AGAP00840 7	MKASKHPTTRGSDARTTPLLLLLCLFIASQANLLVQAQQSQPQSNDVNRYNPQDPFGGRQQYNPQYPSSQYDPNTRTNQGLPPSQSSGTNYQRDYYGNNAVNG NNQDSNSIDSNRFGQDNRNVVLQSTTPRDYFNRQTTPPFRTRTSNRNPFSNNDYAAGNSFSQGITYFIVASKMVRPGQVYKVAVSVLESHLPLTVRTSISRDGVEL SSETKPITVGVPETMLMRVPPTSVVGEYKLRVEGSYDKNFGGYVFANETKLIFSQRSMTIFVQTDKPVYMQGETVRFRAIPITTELKGFDKEMNVYMLDPAGHIM RRWLSRQSNQGSVSLQYQLSDQPVFGEWKIRIEAQGQIEEARFNVEEYYQTRFEVNVTMPAFFFNTDRYIYGRIMANFTNGTPVKGNLTLKATIRPIGFFNPEAIN QMNRVGNLGRLTNLNQNVPYYLQKTNPDLLNQYNPQNSFSSQIGGRDQGGYDGVGQGYDGRYSSNNFQDSYVIERHLNFDEEWPFWIKKPVESDSQWDSWTN TYRDSLPYLRFFNGTYNFRFPMAELAQLVPNLSGMEILFTARVGERYYNEIVEGYSLTRVYNSSIRIAFLGDSPQVFKPSMPFTVYLIAEYHDGSPLPLDERVAGRM EVSGTIDSRASGGRNSFDSRVLHMSQKAGVWELKLDIRHDLNLENTKQTNEFLNEIQSMRLVANYIDPSGERASTELLLLSHFSPNNHNIKVHTSTADAKVGEYIT LHVQSNFYIKDFNYLVMSKGIILVTGHENMKGGVKTMAITLSAEMAPAATIVVWHIGRYGKLLTDSLTFPVNGISRNNFTVFINNRKARTGEKVEVAIYGEPGSY VGLSAIDNAFYTMQAGNELTYANVIQKMLSFDEHTNGTFKKTWMSHDGDPDELVYYPASTFGIDANRTFDYAGLVVFTDGVVPMRPTICDAALNYSECLNGRC YRTDKRCDGYMDCEDGTDEAGCSTRNETLLVEFRKFRFNRILRHYQNVWLWKDVNIGPHGRYIFNLDVPQVPALWSVSAFGISGTRGYGMIRKPIEYVGIQPFFI NVEMPTACHQGEQVGIRVAVFNYQTVDIEATVVLHSSPDYQFVHVEEDGIVRSYNPRTSFGEHQFYIYLNAQDSTNVYLPIVPTRLGEIEVTIHASTLLGAHQISRK ITVEADGLPQYRHQSILLDLRNRAYLVQFMHVNVTETPIIPYEIDRYYVFGSNRARISVVGDVVGAIFPTMPINTTSLLELPMDAAEQNMFSFAANFYTIKYMRAST LRDKRTEKQAFHFMNILYQRQLSYLMEDGGFSLFRADWNQSAPSVWLTAYCAQVFGEMAGLYEYENFIFIDPYMIQKNMHWLLRHQKEDGSFWEETWLPDRK ANSSAFFSRNDVVREKNVTLTAHVLITLTTVNLPAGRLAARVALSQQRALQYLQRNLATIKESGSTYEIAIVAYALMIAKAPKAEAAFTMLSAKMRSIGEFNYWG EEEVPLPPTKLENQRYFSLPRLPYKYDSLNIQTTAYALLTYVSRQEIHVDPIVAWLNAQRLTDGGWASSQDTGMAMKALTEYSTRNRVSNVTQLAIKVEATSLPG ETKQLYITRKSLAQQQFLDVPNAWGTVRVEATGVGYAILQMHVQYSVDTYKFQTQPPVPAFDLTTRTIFHGRNQSHISYVICQRWINTQESIRSGMAVLDVAVPT GYMIQQQKLDSYILSQRVRNLQRARFQERKVLFYFDYLDNDYVCVNFTLERWMPVANMSRYLPIRVYDYYAPERFNETIFDSLQTYLLNICEVCGSSQCPYCSIY NIAVRFPGSIVLMLLTGIVLVARHYRIVNPNGWIFLND
AgTEP12/ AGAP00865 4	MCFRVAIYCLLLGTATKRVLADEGDYITIFTTRSWVENEDVSIILANMDNAPGTFEIENIGMEQGDVLVSTTVDPKHVQLYVIPSEWSATGEEAIQLDIVTSAGQPE EARLTGQIERTAQPKVLIQLNDVFHTPGDFLKYRILLTDGLNKPLGRTKRPFNLTIVLEHDTQQTVVSRDVQLYPGEIYSGEHLFVDDRDLGNWTVAVTIGEQTTS KQFQVILYSAPVHQITIDTGELITLQDTEIAITIDAMYSFGKPIRGTLQMKVYSDEDHVVERTVSIAGRKMVQIPMQEVVPKGSPPLETKTLHINATVTTTNGLSQRT YNQARAIPMYASPYKLVVERTVGFTPGQNATVFLKILRANGASLNGLEDDAEMVSFTTDDSGEVFTANLEYRNMSASITLEPAYSPQLYVRILQPKQYRKRDAF KLAIVASYAMDGVLTIIRKHNGENVPHYIECSMQNYQELFVPTVRLQDVKRVYVFARFEGTLMQASASYKEPALSEKVHLSVDEGSIKVFSNEDASRVGIAVYEG SLDAAQLKNIYTRAMFNGTTYPKIEEIFPLSINDLIVSPLPEQGEVDKQQNPKSINRLLLWEEGTISNRQAVFQFVPPPHINQMIVTAFVFSPTGGLGIAEPIQWQRQQ DIEIYLHIPYSAKKLEPVTVDVYIVNNRNEKVDFVLVELLNYANEFHFLNNSGRIDATKKTVYGRLRPNEVQRTEFLIRPKKLGSITLRANAYTESNLFARAETILR TISESVRRTDSIVRLFNVDNSSQQLDDIKLPIPRTVDPGTEKITITLDRQQTEMASLTTSMLLDKLIQTDPLTMAMRAALTLEVLALGGLQWNERKALAERQMNESI TKIMAYKNVDGSFTIPDHHTPSSACWDTIIAVQALTFANDRLASASLAETILKTLQWIKSKQAPDGHFCTDDGEQSELERVDKTAHVLLLLLLHMKNYIMRHVSAI DRARNYLLSSTSTLHSSYHLALAGHVLQLSLERPTGTEDRTMINRQASHILIGILQARQQSASGSKVWFNKPSSTPDLEATAYALMLTSKKFLYDAGPIVNWMK EQPYRRVVNASITPNSHIALRALIDYAKHTTFLEKRYIAKVTAKDRTGVIARHELTHRDIGSQVWILPSTTRTVSFTIEGTISGALRIHYSYMESVTLQGKKFNIDVL RYGTSNEDYTDWRVCLRFLPKGFYEKTRMVTCEIAFPTGYIALDDSVDELNQLDGVVATVLRNDETQLSITFEEIGVQQKCFNVSGFRQNIETRQLPGTIKVFDVT DESNVAFKQLDTKT
AgTEP4/ AGAP01081 2	MRHLASASLLVITLLINFVHGILIVGPKHIRAGQNYTVILSSFESNTNERNLLLQLDGLSAGGKKLLHLGQPTRVQPLSNSVISFPLPESLPAGSYKLTIDGQNGFKFH READLLLAASTTTALVQLSKPIYKPGDVLQFRVIVLGGDLKPPAPSVTATVIVHDPQRNVIRRWTAVSLQLGVFEEQLQIGTVPLLGRYTITVTVTGNAEIVSKTFD VREYVLPAFEVAVKARAVPLEKHQRLNLTLSARYYTGQPVRGVATVELYLEDDKLDQRRVVGVYGAIQLDLPFNEHLSVYDDSQDVRVHVAFTQDETNRTIYK EQRITVYKLPYRVELVKEQPEFRAKVPFDCQLRVRYQDGTPAKGAAFEVKVEGAYTTDRRVAYTSDAAGVIKLTLQPEASSESIDITVNAGSEELLYERISKREAS KAFLQVKLDSDVKIGKPFKLKVTCNEELSFMYYVVSRGVIVDSAFLQPKKVTEHFIEIEASDQMVPRSKVIVVTVAKNVVLCDFVDIDFEDLRNNFDLQIDRTEI RPGDQLQLNMRGPPGAFVALAAYDKSLLQYSNNHDIFWEDVWGVFDKFYSVERNEFDLFHSLGLFARTMEHITFDKANDQTARDGSSSSKNGPSNSQASFRTNF LESWLWKTDKIGSSGSATTKESVPDTITAWHLTGFSIDPVYGLGIIKQPLQLTTVQPFYIVPNMPYSIKRGELVELQFIVFNNFPKKYKASVTLFSVDNQTEFVGRP ATETSYTKSIEASPDTGVPVAFLIKARKLGEMTVRVDASIEPAKDSIESVIRVIPESLVKREMISRFFCHNTYQNQSFVLGLDFDRKADAGTRKIDFILTPNILTSVMD NLESLLSVPTGCGEQNMMRLVPIVLVLDYLTSIGSADKQLTAKAIGLLRAGYQNQMRYRQPDGSFGLWEKSGGAVFLTAFVGKTLATAAKYISIEIEPSMVEQAF DWLAARQHSTGRFDEVGPVFHRDMQGGLRQGIALTSFVLIALLEQPKVATKHRAAIEKGIDYVTQTLGSIEDSYDLAIATYALLLQKHSSGERFLEKLIGLSTVQQ NGTERFWARDAHGIETTAYGLLSFVLAEKYVDGTSIMRWLVKQRYTPGSFPRTQDTFVGLKALTKLAEKISPSRNDYSVQLRHAGRKKEFRVTSQDIGTLQNAQ QGVDETAQLELHVAGIGFGLLQVVYEYGVDLRNFTAQFVLELQKSVTNANHQLQLEVCSSFTPQLSDGRSNMVLVEVNFPSGYTVEQRGQPITGATKHNPIQKT EVRFGATSVVVYYNSMGPERNCFTITAYRRQKVTLKRPAYVLVHDYYDPKLNAIKMYQVDD
AgTEP18/ AGAP01081 3	MRQFIRSRILTVIIFIAAAHGLLVMGPKCIRDNQNYTLTISNFYSNPSKLDLMVKLEGKNDNGLSVLNVTKMVDVPCKSIRIIDFSIPDSLSSGNYKITIDGLQGFNFH EEAELVYLSK
AgTEP6/ AGAP01081 4	MSKSIMWKCIRSRILMVIIVIGAAHGLLVVGPKFIRANQEYTLVISNFNSQLSKVDLLLKLEGETDNGLSVLNVTKMVDVRRNMNRMINFNMPEDLTAGNYKITI DGQRGFSFHKEAELVYLSKSISGLIQVDKPVFKPGDTVNFRVIVLDTELKPPARVKSVYVTIRDPQRNVIRKWSTAKLYAGVFESDLQIAPTPMLGVWNISVEVEG EELVSKTFEVKEYVLSTFDVQVMPSVIPLEEHQAVNLTIEANYHFGKPVQGVAKVELYLDDDKLKLKKELTVYGKGQVELRFDNFAMDADQQDVPVKVSFVEQ YTNRTVVKQSQITVYRYAYRVELIKESPQFRPGLPFKCALQFTHHDGTPAKGISGKVEVSDVRFETTTTSDNDGLIKLELQPSEGTEQLSIHFNAVDGFFFYEDVNK VETVTDAYIKLELKSPIKRNKLMRFMVTCTERMTFFVYYVMSKGNIIDAGFMRPNKQTKYLLQLNATEKMIPKAKILVATLVNRTMVNDIVDIDFQGFRSNFDLS IDEQEIKPGRQIELSMSGRPGAYVGLAAYDKALLLFNKNHDLFWEDIGQVFDGFHSYDTNEFDLFDNMGLFARMDNIMFDQSNDKSARSGQQADGTVFRKQFLE SWLWKTAIIGNSGTLKLIEVVPDTTTTWYLTGFSIDPVYGLGIVKKPIEITTVQPFVVMESLPYSIKRGEAIEIQFILISNLQEEYTVDVTLYNENNEMEFLGRSISNVS YTKSVSVPPKVGKPVSFLVKAKKLGEMMVRVKASIANELATDALEKVIRVTPESLVQSGVESFGFFMDTHQNRTFLVNPNIDKKADNGSIAIELRVNPNLLIKVK ENLNDLRTVSPTCKNVIRLALNFAVADYLIACGPKEQNLPENAVDALSKEYMLLMTCLNSDSSFDSVQNIVSNIFYTAFVANTLDTAPKNVCQTSNVKLEKAFD WLASRQQRFGSFREIETDLHYTRSEIALTSYVLASMLENESAKVKHAVVIEKGMWFLSNQFDLITSANDLAIVTYAMMLYGHWRKDAAFEKLIDMSTITNGNAE RYWKTSNSVEATSYALLSHVLSNKLLAALPIMRWLVNQKSEIDSVSGQETTYLRLKALSRMTNKISPSRNDYMVQLKYKQSTRLLRFDSYRNMIQNITTPQDLRK IKITVEGIGVGLLEVMYKYRLNLVNFEHRFQLDLQKQNTSSDNELRLKVCANYIPTLRDSHSNMTLIEVTLPSGYVVDRNPISEQTTVNPIQNMEIRYGGTSVVLY YYNMGTERNCFTVTAYRRFKVALKRPAYVVVYDYYDTNQNAIKVYEMDKQNVCEICDACGCTAECKT
AgTEP1/ AGAP01081 5	MWQFIRSRILTVIIFIGAAHGLLVVGPKFIRANQEYTLVISNFNSQLSKVDLLLKLEGETDNGLSVLNVTKMVDVRRNMNRMINFNMPEDLTAGNYKITIDGQRGF SFHKEAELVYLSKSISGLIQVDKPVFKPGDTVNFRVIVLDTELKPPARVKSVYVTIRDPQRNVIRKWSTAKLYAGVFESDLQIAPTPMLGVWNISVEVEGEELVSK TFEVKEYVLSTFDVQVMPSVIPLEEHQAVNLTIEANYHFGKPVQGVAKVELYLDDDKLKLKKELTVYGKGQVELRFDNFAMDADQQDVPVKVSFVEQYTNRT VVKQSQITVYRYAYRVELIKESPQFRPGLPFKCALQFTHHDGTPAKGISGKVEVSDVRFETTTTSDNDGLIKLELQPSEGTEQLSIHFNAVDGFFFYEDVNKVETVT DAYIKLELKSPIKRNKLMRFMVTCTERMTFFVYYVMSKGNIIDAGFMRPNKQPKYLLQLNATEKMIPKAKILIATVAGRTVVYDFADLDFQELRNNFDLSIDEQEI KPGRQIELSMSGRPGAYVGLAAYDKALLLFNKNHDLFWEDIGQVFDGFHAINENEFDIFHSLGLFARTLDDILFDSANEKTGRNALQSGKPIGKLVSYRTNFQES WLWKNVSIGRSGSRKLIEVVPDTTTSWYLTGFSIDPVYGLGIIKKPIQFTTVQPFYIVENLPYSIKRGEAVVLQFTLFNNLGAEYIADVTLYNVANQTEFVGRPNTD LSYTKSVSVPPKVGVPISFLIKARKLGEMAVRVKASIMLGHETDALEKVIRVMPESLVQPRMDTRFFCFDDHKNQTFPINLDINKKADSGSTKIEFRLNPNLLTTVI KNLDHLLGVPTGCGEQNMVKFVPNILVLDYLHAIGSKEQHLIDKATNLLRQGYQNQMRYRQTDGSFGLWETTNGSVFLTAFVGTSMQTAVKYISDIDAAMVEK ALDWLASKQHFSGRFDKAGAEYHKEMQGGLRNGVALTSYVLMALLENDIAKAKHAEVIQKGMTYLSNQFGSINNAYDLSIATYAMMLNGHTMKEEAIDWLI MSFIDADKNERFWNTTNPIETTAYALLSFVMAEKYTDGIPVMNWLVNQRYVTGSFPSTQDTFVGLKALTKMAEKISPSRNDYTVQLKYKKSAKYFKINSEQIDV

	ENFVDIPEDTKKLEINVGGIGFGLLEVVYQFNLNLVNFENRFQLDLEKQNTGSDYELRLKVCASYIPQLTDRRSNMALIEVTLPSGYVVDRNPISEQTKVNPIQKTEIRYGGTSVVLYYDNMGSERNCFTLTAYRRFKVALKRPAYVVVYDYYNTNLNAIKVYEVDKQNLCEICDEEDCPAECKK
AgTEP3/ AGAP010816	MCHPLVVMPWYVRILVVISLLGSSWGVLVVGPKFVRSNQEYALVISNFNSGSSKVNLMLHMEGFSKNQTSVFAIRKPVDVRRFMSRIVSFDIPNIASPVDIKLTMVGQRGFSFHEEEHLVHRSKSISGLIQIDKPVFRPGDLVKFRAIVLDTELKPPARIKSVNVTIQDPHQNKIRGWPAAKLYAGVFENDLQLAPAPLLGVWNITVQVGEEQLVFKTFEVKEYVLTSYDVQVMPSVMPLVEHQTLNLTIVANYHFGKPVQGVAKVELYLVDDTLDQKKELTMYGMGQVELRFNELLELYEDQQDVRVKLTFTEQHTNRTVVKEQAITVYKHPYRAQLTKESPQFRPGTPFKCTLTLIYHDGRPAGHVPFFVNVEGEDVDHQQTYTTGRDGTIKLLMRPTELTETIDITVSEDNSEFTYTERIEKVHADTNVFLKLELKSPIKLGKLIRLMVTCNERMTFFIYYVISKGNIVDAGFVRPNRQTKFMFQLTASEKMIPKAYIFVATVSQDVVVWDSLEIDLKQFSNHLDIIIDEKELKPGQEIELLLKGRPSAYVGLAAYDKGLLAYSKQHDLFWEDVMQVFDTFHATDQNEFDVFNSMGLFARLSGGNRIGASPTTTERFGSAASRPISRLVAYRTNFLESWLWQNVSIGRTGSRTVHEVLPDTTTSWYLTGFSIDPVYGLGIIKKPIEFITVKPFYIVDSLPYSIKRGEAAVLQFTLFNNLEAEYIADVTLYNVANQTEFIERPDKDLSYTKSVSVPPKVGVPISFGVKARKLGEMVVRIKASIMTGKETDAMEKVIRVIPENIMFEKTETRFFSMDEYGKQEFNMQLDIPKNISTVQIKCRISSNLLSPVIHNLDSLLDVPSASGAPSMINFIPPLVVLDYLKAVSSTTTHLIEKATGLLRNGYQLELKYRQRDGSFGNWRDSKGSVFVTALVGTSLEAASKHITEVDLTLVDRLFEWLAAKQHSSGRFDEEQPITYYSLQGGSRNGIALTSFVLIAFLQNTKASAQHRSIIEKGIQYVANQLESIADVYDLSLATYALMLADHRQKSSALNKLIELGIATNETRYWPRDTASIETTAYALLSLVHAKRYADGLMVMHWLVNQQSATGSFPRTQDTFVGIRALAALSEAIAPQKNDYTAIVLHGKARKVYKVAASEADQEYHDVLPGDSKLVRFSANGRGFGMFTVAFQYGIDVRNIEHGFSLRLVDQFSNEAYTLQLQVCTSFSPQLMHTRSNLALVEVNFPSGYVVSRKSLVDETRRNPFKDVEVRYGQTSLVIYYETLGPEENCFSVTANRLFRVAFHRQAYVMVHDTYDEKFRAIKFYQVPHDGADIQSYLD
AgTEP11/ AGAP010818	MWQFIRSRLFSVIICTGAAHGVLVVGPKYIRTNQEYTLVISNFNSNQTKVDLIVKLEGETDNGLSVLNFTKTVVVRRNMNQMININMPESLAEGNYKITIDAQQGFSFHQEAELVYLSKSISGLIQVDKPVFKPGDTVNFRVIVLDTELKPPAKVKSVHVTIRDPQRNVIHTWSSAKLYTGVFESNLQIAPTPMLVIWNILVQVEGEELVSKTFEVKEYVLSTFDVQVMPSVIPLEEHQAVNLTIEAYYHFGKPVQGVAKVELYLDDELIDQKKELNVYGKGQVELLFFGKFEMYEDQQDVRVKVTFIEHYTNRTVVKLSQITIYKHAYRVVELIKESPHFHPGIPFKCVLQFTHHDGTPATGITGKVEVSGMGIETTATRDNDGLIKLELQPNQDIESMHVSISVSIFVDLMNYNYKSLLILQDVFATNAYIKIELKSPIKLNKLMRFTVTCTERMTFFVYYVVSKGNIIDAGFMRPNKRTKYLLQLNATEKMIPKAKILVATLVNRTMVNDIVDIDFQGFRNNFDLSIDEQEIKPGRQIELSMSGRPGAYVGLAAYDKALLLFNQNHDLFWEDFLKVFDGFHSYRENDYDLFHSMGLFAKTLDDILFENSNHKSERSGQQMEQTVVRKQFVESWLWKNVTIGSSGSLKLTEVVPDTTMTSWYLTGFSIDPVVGLGIINNPIEFTTVQPFFILECLPYSIKRDEASEIQFIVVSNLQEGHTVDVTLYNENNEMEIIGRSIANVNYTKSVHVLPKVGKPISFLVKAKKLGEMMVRVKASISNGIATDALEKVIRVMPESLVQSRVESFGFFMDSHQNRTLYRAIDISGCSESIKDMLHFVVHDYLVAIGSTHPYESNDNKCIKSNGSWRNQVFETAFLVNALQDAAKYIYFTDRLKREKAFDWLASQQHHSGSFKETETDLHYKRSDVALTSYVLAVMLENESAKVQHAVVIEKGMSFLSNQLDLITSANDLAIVTYAMMLYGHRLRDAAFEKLIDMSTITNNGTERYWNTSNSVEATSFALLSYVVPNKLLEALPIMRWLVNQKSELNSVSGQQNTYLRLKALSSIAKKISPSRNDLVAKLKYKQSTRLLRFDKYSNMIQNITTPQGVRKIEITVMGIGAGLLEVIYQYSLNLTNFENRFQLDLQKQKTSSDHELRLKVCVSFIPTVSESRSNMALIEVTLPSGYVVDHNPISEQTTVNPIDHFEIRYGGASVVVYYKNMSNVRNCFTVTAYRRFKVALKRPAYVVVYDYYDTNKNAIKMYEVDKQNVCEICEEDDCPAECQK
AgTEP9/ AGAP010830	MWQLIRSRILTVIICIGAAHGLLFVGPKFIRDNHSYTLTISNFYSNPRKMYLMVKLEGQTDNGLSVLNITKMIDVRSNSIRMISFCMPDNLSTGDYKITIDGQQGFNFHMETDLFYLKKTVAGLIQVDKPVFKPGDTVNFRVIVLDTELKPPARVKSVHVTIRDPQRSVIRKWSTAKLYAGVFEGDLQIAPTPMLGVWNILVQVEGEELVSKTFEVKEYVLSTFAVQVMPSVIPLKKHQALNLTIEAYYHFGKPVQGVAKVELYLDDDKLDQQKEITVYGIGQVELRFADYFDMYEDQQDVRVKVTFIEHYTNRTVVKQSQITVYRYAYRVQLIKESPQFRPGLPFKCALQFTHHDGTPAKGITGKVEVTDVEFETTATSDNDGLIKLELHPSEGTEYLGVNFDSIDGFYYYEGVSQIQTDAFIKLELKSPINLNKLMRFIVTCTERMTFFVYYVVSKSNIVDAGFVRPKNETTFLLQLYATEKLFPKAKMLVATVTGRTVVYDYINLDFQVFHNNFTLSVDEQEIKPGRQIELSMSGRPGAYVGLAAYDKALLLFNQNHDLILDDFLKVFDGFHVHHEGEFDQLHTMGLFARTLDDFLFQNYNHKSERNGQQMEQTVVRKQFVESWLWKNATIGSSGSLKLTEVVPDTTTSWYLTAFSIDPVVGLGIIKKPIEFTTVQPFVIMESLPYSIKRGEAIEIQFILISSLQEEHTADVTLYNENNEMEFIGRSIANASYTKSVSVLPKWGKPISFLVKAKKLGEMMVRVKASIANGLATDALEKVIRVTPESLEQSRVESFGIFFDEYQNQTFSVFPNIPKNADNGSVEIELRVNPNLLITVKENLNDIRTDWSECSKGIRFTLNFAVHNYLVAIGSSDQISSDDNATLSKHYIRLEKCFNSNGSWRNKVFDTAFLVNALHNAMKYVSWKDKRKLEKAFDWLASQQHHSGSFKETESDLHYKRSDVALTSYVLAVMLENESAKVEHAVVIEKGMSFLSDQLESITSANDLAIVTYAMMSYGHRLRDAAFEKLIYMSTITNNGAERYWNPSNSVEATSFALLSHVVANKLQGALPIMRWLVNHRSELNSVSGQQNTYLRFKALSSIAKKIALSRNDYDVRIKYRLSRKLFRFTSYDSDTQHMLITQNVRKLEIHVGGIGAGLLQVFYRYNLNLMNFEHRFKLDLQKQITNFDQELKLNVCANYIPTVSESRSNMALVEVTLPSGYVVDHNPISEQTTVNPIQRIEIRYGGTSVVLYYYSMGSERNCFTVSAYRRFKVALKRPAYVVVYDYYDTNLNAIKVYEVDKQNVCEICEEEDCRAECKI
AgTEP19/ AGAP010832	MMERWLKAFPHLEGSSLLQFDAVDAFLFYEDVNKVETDAFIKLELKSPIKLNKLMRFIVTCTERMTFFVYYVVSKSNIVDAGFVRPKNETTFLLQLYATEKMFPKAKMLVATVTGRTVVYDYMYLDFQVFHNNFTLSVDEQEIKPRRQIELSMSGRPGAYVGLAAYDKALLLFNKNHDLFWEDFLKVFDGFHSYDTNEFDLFHTMGLFARTLDDFFVQNYNHKSERSGQHMEQTVVRKQFVESWLWKNVTIGSSGSLKLTEVVPDTTTSWYLTGFSIDPVVGLGIIKKPIEFTTVQPFFIVERLPYSIKRGEAIEIQFILISNLQEEHTVDVTLYNENNEMEFIGRSIANASYTKSVSVLPKVGKPISFLVKAKKLGEMMVRVKASIANGLATDALEKVIRVTPESLEQSRVESFGIFFDEYQNQTFSVFPNIPKNADNGSVEIELRVNPNLLISVKENLNDIRTDWSECSKGIRFTLNFAVHNYLVAIGSSDQISSDDNATLSKHYMRLEKCFISNGSWRNKVFDTAFLVNALHNVSIYVSWKDKRKLEKAFDWLASQQHHSGSFKETESDLHYKRSDVALTSYVLAVMLENESAKVEHAVVIEKGMSFLSDQLDLITSANDLAIVTYAMMLYGHRLKDAAFEKLIDMSTITNNGTERYWNTSNSVEATSFALLSHVVANKLLEALPIMRWLVNHRSELNSVSGEQNTYLRFKALSSIAKKIALSRNDYDVRINYRLRRELFRFTSYDSDTQHMLITQNVKKLEIHVGGIGAGLLQVFYRYNLNLMNFEHRFKLDLQKQITNFDQELKLNVCANYIPTVSESRSNMALVEVTLPSGYVVDHNPISEQTTVNPIQNIEIRYGGTSVVLYYYNSMGSERNCFTVSAYRRFKVALKRPAYVVVYDYYDTNLNAIKVYEVDKQNVCEICEEEDCRAECKI
CqTEP26/ CPIJ000345	MLNYLARRHLYGTRTGSPFPVWTSLLRADDQFCVERRRRNSRIRLVVLNPRLESGFLKMPRLRLDRLWFLIVLVWGSMIGLCQSQSLSILGQKTIRPFAPYTVSITNTLSKDVQLEILLYGSDLDDKQTIKAKRESEQRITFETKHVTDGEYHLSIRSLDHSVSFREDIELISDPRVFSIFIQIDKPVYKPGDMMHFRVIVIDSDTRPVTNLSYVTVGLKDSTDTSIREWQYAKLHNGVFESAVLLPSSPNLGKWLLTVESEQVQKIKEFEVKPYVLPKFWIKVYPTEVLLAGKNTIKLTVESEFTGRPVAGVVKVDLYFSKIRRNSEHSISKYFERMTMFEFFLNEEVDLDDDKEFADVFVNVTVTEKHTNTTLFIFEPIRVFRDEFDIALIKPWPMFRPGMPFPLQVSFKDRMGRTAGSGQTVTTRVTYRLNNEEDRETDIVGTISSRGLLSLPNIVPPVTATEMNVQFKIFLDEKKYNPGQEAYIDVEATSDSYVAFHAIDQSVLLVNDSWNDLTKANVVKEFDSFGDNEFDPFHSMGLFMQTTSKQDSGTAKLSRYGLGFQNAKEILHIRTIFPETWLWQNVSMEGKTDVSFSAQVPDTMTSWLVTGFALSPTTGLGLIHEPITFKVEKTFYIVAHLPYSIKRGEVTVIQVMIYNFIGNTLTDVRLYNKNDIEIFVEKSSDDPTRRTKAIIVPGNNGKPISFLIKAKKLGEIAIKIQAVNPLKTDSVEHILRVEPESYLSSKNEQRYIEHQEYKSTQENITIDIPRYTLPGSIEIAFDLDPNFLSIPIKNINQLMQTPKEYGEANMLDFVPQVVALDYLTESKMDNENLKNKMINYIKTGYHNQLKYKLNNGSFCNWESEEHKKGSIFITSLVAKSFKIAAKHVDGLISNEIVESALKWLASNQQSDGSFVEVGDKIHNGLQSKYALTAYVLAAFLEVGELANKYSANINSAIEYLVKIHTKLVDPYDLALTAYALSLKQHEAGKRCLDNIIERSNQTGAVRLWNEGPFSTEIGSYVVLTFLQYYPVIEATPIVNWLTNKRSETGGFSSIQSTFIGLRAMAQYALKASVDAYDYTITLRWKKLLAKKFNVNRYNARYTQTTIVPSDVRQVSVEIDGIGIGYYQVAYQYRTELKDAKHGFDLSLKLMEDSNYRVQNLKVCTKFRKPESYTTSNLAYEVVFFPSGLHVNNENAITDLASGHKIMSKLSVAMTSHCIVLPMLLCMMPWITMCLL
CqTEP28/ CPIJ000346	MVTNRLKWLLQLVLCCGLFVELCQSQGSVEFVLIVPLRAAVMLWKEGIPQIARNPRSNSQSAQEEVIVRLSVIGPKLIRPFTPYTVAFANSLSRDARLEVVLEGPTDSVSVLNRAARLAVGEIPNGEYRLSIKSLSADFGFNEEIDLIYDGKTESLFVQLDKPVYKPGDMLRFRVVVVDVNTRPVTNLKSVQVKLADKDGNSIMEWPFGRLYNGVFETSFQLASSPVLGNWTLTALAGSSKVKKQFELREYILPKYYIKVYPTEVLLASKKQIKLAVETAYTFGRPLDGTLTVDLFLEDIYQRNPDHSVTKRIEGRTSVEFDLKKEVEVEEDSIFANVWARVSVMETFTNKTETIMRSIPVYKNPYTITVIKSEPMFRARMSYNMQLEIKDHNEVPAKGGTTASITIMYDGGNFDEISMVGEVDAKGMVPLELTPPTGATTLHMRVIYDSFEYDQFEEIYAAQSRSNQFITVTLNLKKYKVRPNKEVLFEVSCTERISHFSYILVARGSIVDSGNVNVFNKQKTSFRYRLLPQLAPKAKLIVSYTNKEFLIFDELDLDFDVFNNDFEFSLDHEVGNDYHPGQDIYVDLKAANDSYIAFHAIDQSVLHLGRDGHVFSRDDVLEDLSQYGATEANEFDPFHTMGLFLRTTAQVDFPYARQQLSRFGGSVFGKRVEKAIHIRTVFPETWLWRNYTMDGRNSKMTIASVVPDTVTSWTVTGFALSPTYGLGIMQETREFTVNQPFYIIANLPYSIKRDEVAVIHVTVFNFLGNTLTTDVTLFNKNDEIEFVEKSSDDPTRRTKAIIVPGNNGKPISFLIKAKKLGEIAIKIQAVNPLKTDSVEHMLRVIPESLEQSVEHMHHSRSSRSSEKIDKAPTQIRTVFPETWLWTNYSMDGKRSFMTIESVVPDTVTSWMVDGFALSPTLGLGVMKQPRVFTVNQPFYIIADLPYSIKRDEVVVIQVTVFNFLGTTLTSDVTLFNKNDEIEFVDNYVEFESATDVTLSDMNVRAVETQVTRRTKPVIVPANNGKSVSFMIKAKKLGDIAIKFEAVNTLKSDSVEHMLRVVPESHLHELNEARYIDLSETNYQKFDISINVPRNVDE

	GSVSVKFILDPDIFGSVVENLESLISLPCGCGEQNMIQLVPNVVVLDYMYETRTIKEELYSDLISKLTKGYENQLNYKLSDNSFAVFPEMRGCVFLTAFVAKSFAIA SKYIYIDERVIEGALDWLVQTQQPDGRFEEIGDIIHVDMQGGLETSCFSLTAYVLIALLESKSVNGERWEILQKSADYLTTGLDSINNPYDLALATYALSLKDRNES LPFLDKLVEFSQYDEATGTRSWSYHSLGVEIAGYALLSYIEHGLVPDATPIMRWLTTQRYDRGGFMSTQDTFVALKAMAKFSARVSTHRNDYRVAVIPKRDKM YLFDVDSQSLNTLKQNLESTTRKVQVELLGKGAGIFQISYQYYQNIVVEKSSFNLEVNLLPNSTYYRQELNVCVSFNAKEAYEYSNMALVEVFFPSGLVADKNSV RDLSIGRNIKKTELRFGGTSLVVYYIRLNAQPNCFVVSAERHFKVALHRPAHVVVYDYYDNGAQSDRFAIATYEGKVMQMCDVCEDEDCETLSCP
CqTEP30/ CPIJ000348	MAVSWSVRRIGQILLGCAAWIGLGHGQGLSVIGPNVIRPYAPFTVSFANSLSRNAQFDVVLMNSNDDSILNETNVMVPRRSGKSASLQVGNIPEGEYKVLIRGIDA DGDFQEEVDLHYHSKTESVFIQLDKPVYKPGDVLRFRVVVVDENTRPATSIKSVSVTLYDPRGNMINRWPFGMLYKGVFESSVQLASAPELGTWNLVVAIGSNQ ISKEIELKEYTLPKFSVKVHPAELLLVKDKRIKLNVATAFMSGNQVEGNLVVDLFLNDINKRRPDHTYSGRIKAQSTVEFQLKEELEVDGDSDVTHVFARVSVLET LSNKTETIVEAIQVYRNKYTISVVPSEPMFEPGKLFTLQFSIKDHYGTPARGGKLATIEILFDGDYFEDGEDELTFEREPDDMGVITLKIVPPNSAASFQLQVIIFLYN QDPATKTNRFIISRVRPNKEVVFEVSCTERFKHFSYTFVARGRIIDAGHVNVMNKKKYSFRYKLLAEMAPQAKLIISHISRDYLIYDVLALDFDVFNNDFEFFLDSD NYNPGQDVYVDMRAVKDSYVAFHGIDQSVLHLGHGGHLFTRADVFSELDQYSAIHVDELDPFSTLGLFLRTTSEVDSPYAEVLHSRSRRSVDSRRPQHAIQIRTV FPETWFWRNYTLDGRSTSMTIESVVPDTVTSWLVTGFALSPTLGLGIINQPRMFTVDQPFYIVANLPYSIKRDEVAVIRVTVFNFLGSPLTTSVTLFNKNNEFEFVE KSSGDDTRRTKAVFVPANNGHAVSFLIKAKKLGEIAIKIEAVNALKADSVEHILRVIPESHLIRRNEARFVDLTKQRSASYDIAIDIPRNVDEGSVFKIFLTDPDLLG CVVKNLDSLIQLPCGCGEQNMMKFVPNVVILDYLSETKTISKEIESKAIENLKKGYQNQLRYRNSDGSFSVFRGRSGGTFLTAFVAQSFKLASKYISIDTNVIDQAY RWLLSKQQPDGRFVEVGSIWSAAIQGGLRSSCFALTAFVLAAILEAGNVRLQNEAKIQKTINYLTFNLQNIDNSYDLALTAYALSLVPDRRISKPFLDKLIEKSTYD ETTGTRHWNTASYGVETAGYAVLSYIAHDMIVDATPIVRWLTTHRYGEGGYRSTQDTFVGLKALAQFAAKASYHNNDYRVTVRPKAEKVLTFDVDSHKLAVQ ELELDSATRNVNVQVTGVGTGIFQISYQYNQNIIHRQSSFNLEVNVLPNSTYYRQELSVCVSFIARERAYQYSNMALVEVFFPSGIVADESSVRDLSIGRNIQKTELR FGGTSLVVYYLRLNAQPNCFGVTAERHFKVALHRPAHVVVYDYYDEGEHSDRFAIASYEGKVMQVCDVCEDEDCETLSCQ
CqTEP3/ CPIJ001747	MFPKFSHRFYSIVASNLLRPNSEYHVSVNNLNIADTVRFRITLNNTDTGVPVASEDVNLGPGESRLIPFSIGDIPQSEYGLTAEGLSGFTFRNETRITYQAKSFSVLVQ TDKAIYKPGDTVRFRVLVLDPNTKPLQKVDTIKVHITDGKSNRIKQWSDAKLVKGVFESELALSSAPVLGRWMVNVEVLEKTTTKEFEVDEYVLPKFEVTIESPG ITTFKDGKVKAIVRAKYTYGKPVKGEATVSAYPDFRFHYVQPFERDVITRKTVPVDGKGSVEFELRDEIKLEGDYTRDIVIEAVVEEELTGRKQNATTKVKIYDK RYKMELIKSADKFKPGLPYTAWLKASFQDGAPIQDSVNQVEVTQESGWPERNTTKRSYTLDQNGMAKLVVNTDIEADYVEFKAEYLGSVFYLGSISKGWVKTN AYVRAKVLTEVPTINKDVTVDVSATVPMKYFSYQVLGRGDVIVGGTIPVPDRTLHTFRFPASFAMVPRAKLVVSFVQDDGELVSDNVEIEFGNDLQNFVITLSKA ESKPGEDVDIVVNTNPDSYVGLLGVDQSVLLLKSGNDITSGQVFDELKMYEQPSYGYYRRKRFAPWRHYNTYDDFNDVGATIMTNANEPPHKFAYPVAFFGTG LTPIPAPYFPSTNRPIISTPANSQASNVGSDIIVTVRKQFPESWIWENDSKSLSTYTILPANDTSSRLPPITYKVHRAPDGTPLYTVIEKQPRSQPEHVFKTNTRPPLAG PYAFSRIPKPHKNIPRLFLSQEIANTWLFESAYSGFSGQKTITKKVPDTITSWIITGFSVNPVYGLGLTQQPRKLNVFLPFFVSTNLPYSVKRGEIVSIPVVIFNYMESG QTAEVTFDNSEYEFEFADVENEIHENSKAETSRKKTVEVPSNSGRTVSFMIRPTKLGHITIKVTATTALAGDGVERQLLVEPEGLPQFVNKAAFVDLRSAPEVMKN FTVEVPKNAVPDSTRVEVSVIGDVLGSTVQNLDSLIRMPYGCGEQNMLNFVPNIVVLDYLKGTDQLTSKIEQKAKKFMESGYQRELTYRHDDGSFSAFGNSDPK GSTWLTAFVARSFKQAASHISVEEAIIDKALEWLSDQQASNGSFPEVGKVSHKDMQGGSGEGIALTAYTLIAFLENRNLLPKYQNIVNKAVDYVARNIDGLNDV YALAIAAYALQLADHSSKDFTLSQLDGKATTDGDTKWWHKPIPESDSKNPWYGKPNSVNVEMSSYAMLSFLEAGLDTDALPIMKWLISQRNDKGGFQSTQDTV VGLQALAKLAAKISSKNNDVTIVVSYNENQQREIKVNSENNLILQKFELPSTAKNVDIKATGRGFAIVSLGYKYNMNVTGEWPRFVLDPQVNKNSNQDYLHLSV CTSFVPTTGQNSSNMAVMEVGFPSGFTADSDTLPSLENMDYIKAMELKDGDTIVVLYFDSLDRNELCPTISAFRTHKVAKQKPAPVVIYDYYDNSRIARQFYDGP KSTVCDICENEDCGESCSIRSQKQRSPKDDNGTADVKAVSGAVTVGALSTMHVLVAVLLLKMFY
CqTEP23A/ CPIJ004127	MSIVVKYAIFAVLVSSAGFVRSYYVALIPKTIREHSSSLVVIANLGFDHDEQFGISQNGKAKLVDVPVNVTMTVKPKLLNGRNAVQVVDTRSGVTTDLDVTMDR SSLSVYIQTDKPIYKPGDTIRFRVLVLDHELKPSAMLKSINVRLADSQENLIREWSFGELVQGVFQSELELANFVRLGTWTLTATVMNGKAKSKEITVDEYVLPKH EIRMSSSKIAVMTDETLTLVVDAVYTFGKPIRGDLTVIAEDSGQQVQNSINGRAIVNFDVASLVEGKHFGKMFYITFTATIKELGTDQSYKKSVHIPIYRDSYRITFR KSSENLTPGVYFRCWFTVTDPTGNPFQKPENLIVKATQGKTTITAKKPDQNGVVYLKFDDIEDYSQSLKLDVSYAGKTHFFSVEPLHEDDSFIQVSILTEDPEQGQ PVKLVLTSSFDLIPFLYFVIARGEILTRARIHAKAGQKSTFSFPTTLGMVPSASVVVFAVHEGRLMQDVAHFRVTRLKNFVNVTLSEDETEPRRQLQIRVDSLPGS MVGLLAVDKSVLLLETGNDITRQSLQEDGIDMESKDIEDLGFTVLTNAKPSVSLSGEVDIRICDDNYGDHVRKHFPETWMWTEPMAVSSSGSLSLTATVPDTITG WSISAFAVNAQHGLGLIEQPVYLTVVKPFFVTVNVAYSILKTETALIEVFVYNYGIEQEHAEVTLQVDSEEFLLLNEEQQVIGGVRQSERVTIPVDGIERVQFFAKP RRSDELTITVTASTASNKFDDVQRTVKVTSGGIQFYQNEARFIDVEDAAQRFDIGLAIPRTATNGSELIVFSLEGLVMGAALTNLDGLIRLPTGCGEQRLVKLVPTV IALEYMSVTGTLGNSMKYRAVSFLRQGYQNQLEYKRKDGSFHVFMWDDHGSLMVTAIVAKTLRIAGKYITVDERIARNAYDWIQRQQRSDGSFSEAGRVISRR MQGSLGDDVPLTAFVLIAILEHKNLAQKYRTVVEKGTGYLSKKLDGLTKPYHLAMVAYALQLAKHNRKQFALEKLIEVSKYKDNMRWWQDGEASIETTAYAL LTYLNNGMYIDAGPLMKWLVSKRYDLGGFDNTQNTLLGLQALAEYSKLLSPSRNNYEVTISYGDGNRNSLKIQGMTTPISQNLTLPANTRKVSVLIVGTGTGVF QVAYQYNQIATDDEPRFELSKTIRRSSSGSVLDLHVCAKFKPRKFREVTNMVLMEVLLPSGYVVADKTIDKLRNNKKVMKIEKDYDDTRLVIYFDALSDVDATC VEVFSLRKAIVLGQIAGMIKVYDYYDPDREAYEYFDANA
CqTEP27/ CPIJ006840	METFKEFEVKPYILPKFFVKARPAEEYVITARQVKLIVETSFTFGKPVNGNVTYDSYKQDEFGSIEASRSKSNHQLKVTYDKNHYKIIDSGYIGSHTSNFKYRLTKR MAPKAKLVVMYLKDYLIYDALDLVFDEFDNKFDFTLDPSPKNAYMPGQEISVEFEAASDSYVALHAIDQSILQLSQTDHLFTRDDLIRELSRYQATDENAFDPFH TMGLFLKTTLKIDSPYGEDKLLRFGLMSEKRFFEQPIHIRTEFPETWLWSNYSMQGNRKREITAYMPDTLTSWTITGFALSPSTGLSIIKQPLVAKVSHDFLIVANLP YSIKRDEVVVIQATVFNNLGTGLSVDVKLYSKSDEIKFYNDTLTSSHFKKKTVFVENNSGQSVSFFIKANKLGEILVRLEAVAMFHSDSVEHVLRVIPESLVHREN EVRFIDLSHETVNYTIPINIPRKTDNGSVGIEFALDPSFLGTTYENLDKLLLLPTGCCEQSMVKFIPDIVILDYLDAIRATNEGTKTKAINFLNQGYQNQLKCKLNNG SFAIFPRASDNSAEGSIFLTAFIAKSLKIASKHITVDGNIVADAFRWLASQQRSDGKFIDEKNIYMGEMQGGIRKTSFALTAYVLAAFLETEDIGQQYPSVVNKSTE YLKSNFDNMDHPYDLAVTSYAMSMSKDSKGPEFLKKLIDNSTFDRSNTYRYWNHETLGVEIASYALLAKLNDRSQLIDSTPIMRWLNSQRSNKGGFVGTQETFV ALKALAKFAVEANPNRNEYGVQVRGGDPDKILKTFRVQRDKINVIKFDVESSERSVFVEVSGIGTGYFQVFYKYHRSILHEKESFNLAVNVLKSTTYDHLHLKVC VAFKPKDSTSVSNMALVEIALPSGIMATENPVEDLSERKDIKQTELRYEGTSIVVYYMNLSVMEKCFNVNAERRYKVAMHRPSYVVAYDYYYHKKRVAIKTYEG NVKQPCELCEGEDCDIFSC
CqTEP13/ CPIJ016572	WTNTDESIRSGMAVLDVAVPTGYMIQQQKLDSYILSKRVRNLQRARYQERKVLFYFDYLDSDFVCVNFTLERWMPVANMSRYLPIRVYDYYAPERFNETLFDS LQTYLLNICEVCGSSQCPYCSIYNAAIRNPVSVVLLVAASVLIVARHYRIVNPNSWIFWND
CqTEP23B/ CPIJ020143	MVASDHHAPGEKFQLHVETMPNSTVGILAIDQSALLLESGNQITMKAIFDELLGRTGGEEEEEVALRARFGNYDGVEEDEYIKPRKVFAQSWLWNKLVNSGPEG NLTITEPIPDTITNWQISAFSLNPVHGLGVLETPLTLHVTKPFFVMLNLPYSIKKSETATVEVSVFNYLDELMYVGVTLKNHRQEFEFVGNSEGRTDASYQTKNLV LTPQSAKSVKFLVKAKKMGDIMIKVVAESETASDSVERFLRVMPESLPYNKKESRYIQLKDSDEESRMSIDLEMPKYLDAGSENISLTVYSDLLGSAADDLQNLIR MPSGSGEQNVLKMVPNVVLLDYITETKAFDSRVKARTVRFLELGYQNQLKFKREDGSFNVMGKEDPQGSVFITALVVKTLKQASKFITIDDSVLEQAYDWLKN KQNLDGSFNEGGDLTNRELQKNHSDEDTLTAFVMIAFLEDGSITNKYKSVVKKGTDFLAAKDLHLQSTYTLSLIAYTLQLANHPSKKSAFDELLLNSKSSKSPQA RWWDAGSNSLEATSYFLLTTLLLGNYVDSQPIVYWLTKNQYYYSGTLENTQTTFVSLQALAEYAKRVSTLRNNYYVTLTCYDRRKLKLAQNYAIQINPQNSRA PLTLTLPSETRSLDLTLSGTGNGMFTINYHYLSNILRLNPRFTVKVKTLNTTTDEYMDLRVCAKFRPREAYEKAALTLMEITFPSGYIAFDETVQELESSDVVKKV ATKHDETTLVLYFDTIPEHRFQCVDVTGFQQSEVLQQAPGTVRVYDFYDTTLIAIQYFDGKSFIALVPTTIRDQSTVRVGLANVGSGSFERFDVTLERSVKSDNRK DLKSSVSVAPNEVKSAPFKIQTDKPIYKPGDTIKFRILVLNQELKPVTKLKSVNVKLTDSKRNLIREWTYGKLDNGVFQSQLELANFVPLGMWNLKVTAKDGEV KQKSLNVSECNVHLWEAYQGKANVTTKHLVINTNIDGRSKTGVELDKVLRGRPTSDVTWLDVDALLQEAGSDHQFRSSERIPIYKSHHKITLRKSSDYLLSDVPY KCWLILTDPFGKPLENPGVLKIKATRVIRFWVDKKYEMKKTPDRYGVVDLEFETSSSTEGLEVEVSYNGEITKFLVEAHSDDQRSFFQTTSLTERPKLGQPAQILV VSSFKMSFLAYYVIARGEIASSGVVEVKASRSATFTVTPNAVMTSSSVAIFTINNGDLMQSIVHLKVNDLNNFVNATLSKNVTEPREKLTLNVQSKPGSMIGLLAV DESVLLMEKGNDITKRSLSEDLQPSKDSDELEDLGFTVVTDACVKVNLISSRFGVLDVEIGPDFHRKEFPESWLWTDMATVNTSGQLEFSAIVPDTITGWSISAIAV SQEHGLGLLDHPVSLATLKSFFITVNLAYSILKTEIAVVEVFLYNYLKMSVEATVELAVDTIDFTVVDERNQTVEDRTKKVSVGTDSVKKLTFLLKPNRSGNLPLT VSAKSASERDSVQKILRVRSGGIQYYRNEARFIEVDGSTQNFNDIQLVIPRPATPGTENITFSVEGILLGAALTNLNKLIRLPTGCGEQTMLNLVPSVLALEYMTGT GTLPDASKSQALDLLQKGYQNMLKYKLRDGSFSVFGQSDGRGSVFLTAFVAKTFRLAGKHITVDSGVVKTAYDWLAKQQETSGRFAELGKIWHQGIQGGLTGG VPLTAYTLVAFLEQKNLVQQYKPVVDKGVAFLASKINELKKPYELALVSYALQLANHPQKGPALDKLLEGHRSDTNSSTRWWDDGTTSIETTAYALLTFMNR AMYVDAKPIMKWLVSQRYDKGGYGNTQNTFVGLQALADYSGKLSPSQNNYEIVISSSSGHRQTLSVNPQSSLISQRLTLPSSTRKVNVAITGTGTGVFQVAYQFN APPTDAEPRFEIVKTQQETDTAVNLNICARYKPKKQDEVTNMVLMEVLFPSGYVVADETLNRLKSNKLVRKIETKRDETRLVLYFDSLPTEKATCVDVSGLRKAI VLGQIAGLIKVYDYYEPVRGGMVMLSAL
DmTEP4/ FBgn0041180	MEPVKAEGKYTIVGPGTIHSHRDYNVAVAVHQTKEPVTLKVGITGPSYNKTETVELATAGEFKQITFKLPPLEAGEYNLTAEGVKGLEFKNSTKLNWENFKPYIK IQTDKGKYKPGDTINYRVIFLDENLRPDTAKDEVVVWFEDSKRNRIKQEKHIKTTGGVYTGKFELSEFATLGSWSLHVQNGDQHIDGGIYFGGRKQFGGFGHR WHRSDELVNFEVEKYVLPKYSVKMDATQQVSVRDGEFNVVLKANYTYGKPVNGKVLVNVHLDSTSSWENVDGKTVQTDYPGHSVVGTADMVGGKAKLTM DLKDFASYLPHKTSSSYAQITATVEEDFTGVKLNETGGVQLYPYRYEMSCTDYSSCFSFKPDKEHELNFKITYVDGSLITDTKSVVKAKFTEGIRRNYAFYAFGTD HQEPELPTIEKKTFVFESHLNASGVAPFKVVLPDLPDIANFTRYYSIELEFVDEKRDLYTTYPYREPKQIENPSSEEEKEWFRAEVQRPKDVWNLKIGQEYQVILNS SRPLKYFVYNIVGRGNILETKRVDLAEPQTTVNVTIKPTFLTTPYGRVYFYYVDETGEFRYTEETFSVEVELQNQIEIKAPAEVKPGADVALEIKTSPKSFVGLLV DQSVLLLGSNNDLNKESFNWRLNGYDTSTPWQGGYSYYPGERTGVVTMTNAYFFYNRTAPDYNILTEGFGGSSFAMRKTTVAHDSHVFHSGAGGPTQAVGFS AESASASAAPVVRKNFAETWIFADIESTEEEVFKWVKTIPDTITNWVVTGFSLHPQKGLGVTNDQTNIKTFQPFFVSVRLPYSVKRGEVINVPALVFNYLPKTLDV ELTLDNEDQEYDFVDASNEVIGDQKRTQNIRVGANEAAGASFLIRPKVIGNILLKFKAISPLAGDAIHKPLKVVPEGITQYQNRAFFINLKDTGEFKNTFELEVPED VVPDSERVEFGLVGDLLGPVVKNLENLLRLPSGCGEQTMSKLVPNYLVRDYLKSIKKLTPALDTRIKRNLQDGYQHMLHYRHDDGSFSSFGPTKWRQEDPVRN GSTWLTAYVLRSFSKIKDIIDLDEQILAKGYEFLLTRQAENGSFTEHGEYFYSSQRSLLTLTANSLLALLEEEKPNQAAIDKAVAYLSANTAESIELLPKSIAIYALQ KAKAPEAAKQVASLKSLAKHEDDRTWWTEDLDKLRASKNCGRWWCWIWSQDVEITSYALLSLLDSDQETADSVLNTVRWLIAQRNGFGGFASSQDTVVGLT ALIKFAEKSGYEAAKWEVTVSNKGKREKTEKLNTSEENDLLLQTVEFPQGTKSLEFEAKGTGAAMVQISYQYNLVEKEPKPSFKIQTTVLPESSPANLELSVCVD YVEEGESKESNMAILEVSLPSGYTADEDSFADIRNIERVRLVETKNGDSVVVIYFENLAKNEEKCIRIEAYRTHAVANQKPSSVVLYDYYYDTNKKATEYYSIKSKL CDICEGDDCKSKC
DmTEP3/ FBgn0041181	MRLQGADMGAIPVLILVTACLLCQTSAQGLYSIIAPNTLRPNSQFHVAVSLHNAPESATFKVGILGSSYTDFKTVELRPFSTQLLHFEIPALRTDRYRLTAEGLGGV QFTNETQLHFESKQHTVLVQTDKSIYKPGDLVHYRVLILDANLKPARGYGRVHVDIKDSGDNIIRSYKDIRLTNSIYSNELRLSDSPRFGTWSIVVDVSDQEHTQTF EILDHILPKFVVDIDTPKHAIYKDGKIAATVRAHYAFGQPIVGEATLSIYPTFFGSLQPFVNDLITRKVVPIDGNAYFEFDIENELHLKQDYERQYLLDAVEEKSTG SVQNYSTVLTLHLNHYRVEAVKVPSYYIPGVPFEATARIARNDGGQLRDFNPQITAYLTNVYGSSEMYNRTAYSLDASGEIKMKFTVPIGDRDEFHSIIVDYQGVI SEVGKIPSKHLHSKNYITAKVLNDRPTVNQEISVVVRSFAPIKYFMYQVVGRGDIILSRNVDVAPGTFHTIKFLASFAMMPRANLLVYTVIDGEFVYDEQVIQLEE NLLNAVQVDAPIRAPPGQDIDIGISTKPYSYVGLMLVDQNANDLRSGHDLTHKRLMDALRSYELSDVNTPMGSPGKESGVITMSNTDYFIEKEAESNPALDREVS TGPEEDKLTTVRKTDIGPAHKIEVNTLPPGKGRYAFSYTPKPFWHNPRVHVMRDPADTWLFLNISASSDGRNSIHRRIPSEMTSWVVSAFALDPVNGLGLSPPNG KLEAYKEFYISTELPYSIKRDELIAIPFVVHNNRDSDLNVEVTFYNSALDFDFPQLDPKATNQPKVELYRRRSLQVPGRSARSVVSFIVTPKRVGPLLVKAMAASSQA

	GDTVEQNLLVEHPGAMERINRGFLFELNSNAQNRRNVTIAVPRNAIPESTRIEVSAVGDLIGSLVGNLDSLILLPTGCGEQTMVNFVPNLIVLRYLGRLRQLTPEVE LRATNNLAIGYQRILYYRHENGAFSAFGLDIKRSSTWLTAYVARSLRQAAPFTQVDSNVLQKALTYLGSVQSANGGFEERGDVFERFGDDGISLTAFVTLALMEN VDLYPEYRNNINKALDFITRGLDGSSNLHAMAIGTYVLSRANHNAKAAFLQRLDSMATNKDGLKWWNKTAPAGEQQSPWYNATRSVNIEISAYAALALLENNL VGDALPVLNWLMDQRNPKGGFVASQDTVVGLQALLMFAERFSSQGNNLQIGFHYGEGAETIINVNAENSLALQTVELPNNLKNLSVSATGRGMALAQVSYTYN TNVTSAWPRFVLDPTVNRNSHADYLHLSACASFVSVVGENEQRSNMAVMEVHLPSGFVVDRDTLPTLESSERIKKVETQNRNTKVVIYFDYLDRREVCPTLHAY KTVKVTKHRPVAVVMYDYYDSARRARQFYRAPKSNICDICEHANCGDLCEKAEKRESKRPDDYTAIAGHSSGSRHTAIPLASVVMVLSMLLKTLSC
DmTEP2/ FBgn0041182	MFRIFLTGIILQYALLVNATGIYSVVGPGTLRSNSKYNVVVSVHKADGPSQIKVSLNGPSYNETKQIELPPMSTQNVEFEVPKLATGNYNLSAEGVSGVVFKNSTK LNYADKKPSVFVQTDKATYKPADLVQFRILFLDENTRPAKIEKPISVIIIDGAQNRIKQLSDVKLTKGVFSGELQLSEQPVLGTWKISVSVDGDNRETKSFEVDKYV LPKFEVIVDTPKAVVIADKVIKATIRAKYTYGKPVKGKATVSMERSYGYFGDLNANGNKQEKTIDVDGKGHVEFDIIHWAQRGQYLPPIKLFAVVTEELTGNKQ NATATVVLHQQRYSIEPYERPEHFEANKSFIYQVVVKNVDGSPVTNSAKNVKIGFDKSYSYFHEPSPKTRINFEAPVNENGIATFNVRLPDSDSRYYRIFASFDGSE NTIGSISKFEPTPMSREPLKIQVNTKKPRLGEQVSFDVVSIEDLPYFVYTIVARGNVILSDYVDVPDGQKTYTVKFTPTFSMVPKATIYVYYVVNNDLQFEEKTIDF EKEFSNSIDVSAPTNAKPSEEVKLRIKTDADSFVGLLGVDQSVLLLKSGNDLSQDDIFNSLNIYQTSTPWMNGYGRYPGQTSGLVTLTNANYPYNTDSYSIYPLILN GEFPIAFSLAAPQAAIAGMPGTSSIASHPNQAPQIRKEFPENWIFYNAENVGEEEFTLTKKIPDTITSWVVTGFSLNPTSGIALTKNPSKIRVFQPFFVSTNLPYSVKR GEVIAIPVVIFNYLDKTLDADVVMDNSDQEYEFTEATNEVLEKAIDEVRRVKRVTIPANSGKSVSFMIRPKNVGFTTLKITATSALAGDAIHQKLKVEPEGVTLFE NRAVFINLKDQPEMSQSLDADIPNEVVPQSEFIEFSVVGDLLGPTLQNLDNLVRMPYGCGEQNMVNFVPNILVLKYLEVTGRKLPSVESKARKFLEIGYQRELTY KHDDGSYSAFGKSDASGSTWLTAYVMRSFHQAGTYTDIDPKVITAGLDFLVSKQKESGEFPEVGKLFDNANQNPLALTSFVLLAFFENHELIPKYQSAIKKAVRY VAEEADKTDDQYSLAIAAVALQLAKHPQSEKVIAKLESVARKENDRMWWSKATESTGEDGRVFHWKPRSNDVEITSYVLLALLEKDPAEKALPIIKWLISQRNS NGGFSSTQDTVIGLQALTKFAYKTGSGSGTMDIEFSSAGESKNTIKVNPENSLVLQTHDLPKSTRKVDFTAKGTGSAMVQLSYRYNLAEKEKKPSFKVTPTVKDT PNQLLIVDVCAEYVPLEDADKDKDSNMAVMEIALPSGFVGDSTSLGKIQAVDRVKRVETKNSDSTVVVYFDSLTPGDVRCLPLEASKAHAVAKQKPASVSLYD YYDTERKATEYYQVKSSLCDICEGADCGEGCKKD
DmTEP1/ FBgn0041183	MLWLILSSTILHCVLLSNANGLYSVLAPKTLRSNSAYNVVVAIHNTTRTTEVSVSLTGPSLNSRKYVDVQSMSSKSVRFDIPKLTEGDYELKVMGSGGIEFQNSTK LSFAPDLNWLYIQSDKATYKPGDKIQFRVLFLDKNTRPAVIDKPIKIEIRDGDQNLIKSWKDIKPAKGVYSGELQLSDRPVLGNWTVTATVQDEGKVTNVLVVDK YVVPKFEVVVLTAKNVAASAGYIRATIKARYTFKKPVKGHVVATIEGSSTEQSLPIDGEVNVEFPISATAKRLLKITAIVTEELTDIKHNGTAYVTVHQHRHKLED LFWPTHYRPGVSSEFKTVVRNLDGSPVMDSSKMVNFNVLCCQVSKNFSASLQNSIATEHIMLPETCQSCLVTSTFDTAENIERYIYKLNKPLMIAINTKKPQLRKL LKINIISDTYLPYFILTVVARGNIVLSLFQEMKEKKKSQEIEFEPTFALVPQATIFVHYIIDGVLMSDEKTVDIERDFENTIEILTTNEALPRDEVSLKVKTNPHSFVGL LGVDQSVLLLRSGNDLNRDLILNNLATYSTDLVILTNANINIYRSSGGCYTNPGYTNCTGSLIGRTMFKNEPTKNSGPVPIVGSTRAQASLPPVRKLFPETWLFSNIT DVGANGEYIIKETVPDTLTSWVITGFSLSPQSGLAVTRNPSRIRVFQPFFITTNLPYSVKRGEVIAIPVIVFNYLGMDVKAKVLMDNSDGQYEFIETTNKNVSQYLR GVRRKKTLWIPANTGRGISFMIRPKKVGLTTLKITAISKYAGDRLHQILKVEADGVQKYVNKAVLINVQRLNRRSLAPPEKTIIIEKADNVIEGSETVEFEVCGTSQ APQLEHLDDLVHLPCGCGEQNMFNFVPSILALSYLKAKNRQDQEIENKAKRYVETGYQIELNYKRNDGSFSAWGQHDALGSTWLTAYVIRSFHQAAKYIDIDKN VLVAGLDFLVSRQSTDGKFKELGMVIHNSHGSPLALTSFVLLTFFENEEYMPKYKHVIDRAVEFVVTEVHQSNEPYDLAIAALALSLARNRNAYKVLDKLDKLA TRRGDHKWWTGSDKCKSSEVETTSYVLLALLEHNISDEPKPIVDWLISKRNSNGGFVSSQDTVVGIMALTKYELQSHASTEAIDIEFWHLNEDKKHVRVTKENEF KVQTHQLPENTNEVKLLAKGQGRAQVQLTYRYNVATKEARPSFKLTTTVKKSHKGRLILGICGTYTPIAASERNKTTNMALMQVQLPSGYVCDIEPFADIEAISD VKRVETKNEDTEVHIYFEKLSPGDRKCLTLEAIYTHAVANLKPSWVRLYDYYATERSATEFYHVDTSLCDICHGNECGNMC
DmTEP6/DmMCR/ FBgn0267488	MMWHLLRALLVVAAVLDALQPAVGQNDNYYNPNQNQQNPQQPLLPNQQWGNNPQTNQYSNNNQNFGQTNPSDRPPYRTDSGSYNDIAGQDDYNKRVGGGY QDNEEPSLTRGKSSYNIKATFLESLHSREPTYFIVASRMVRPGLIYQVSVSILQAQYPITVHASIACDGVQISGDSKDVKEGIPETLLMRIPPTSVTGSYKLRVEGFYQ NVFGGLAFLNETRLDFSQRSMTIFVQTDKPLYMQGETVRFRTIPITTELKGFDNPVDVYMLDPNRHILKRWLSRQSNLGSVSLEYKLSDQPTFGEWTIRVIAQGQQ EESHFTVEEYYQTRFEVNVTMPAYFFTTDPFIYGRVMANFTSGLPVRGNLTIKATIRPIGYFSNQVLNEKYRLGRSPLEQTNLYNERWRYNNPNQNPQVQYNVPG QLPQDGADLSQDILYRNQYVVERHYQFDEEWPFWVRKPEYQDSSYEAWSGTYRKTLPYLRYFNGTFDFKWPLRELELLVPNLANSEVLITATVGEKFYDEIISG YSVARVYNSSLRVVFLGDSPQVFKPAMPFTTYLAVEYHDGSPIDPNLLRQGLMEVSGFVESRNGGRRDWPAQRLPMSQQSDGIWEVKIDIRNDLNLDDRPQARD FLNGVQNMRLQANFVDPRGERIQTELLLVSHYSPRNQHIKVTTSTEKPVVGEYIIFHIRTNFYLEEFNYLIMSKGVILVNDRETITEGIKTIAVVLSSEMAPVATIVV WKINQQGQVVADSLTFPVNGISRNNFTVYINNRKARTGEKVEVAIFGEPGSYVGLSGIDSAFYTMQAGNELTYAKIITKMSNFDEQTNGTYKHIWYSHEGNPDEL VYFPASSFGVDANRTFEYSGLIVFTDGYVPRRQDTCNRTLGFGECLSGRCYRLEKQCDGLFDCDDGTDEINCHARNDTELLNYRKYRFNRVLRHYENVWLWKD VNIGPHGRYIFNVEVPDRPAYWMVSAFSVSPSKGFGMMNKALEYVGVQPFFINVEMPEACRQGEQVGIRVTVFNYMITPIEAIVVLHDSPDYKFVHVEEDGIVRS YNPRTSFGEHQFFIYLEAQGTTVVYVPVVPQRLGNVDVTLHVATLLGTDTITRTLHVESDGLPQYRHQSVLLDLSNRAYVLEYMHVNVTQTPEIPYQVDRYFVY GSNKARISVVGDVVGPIFPTMPVNASSLLSLPMESGEQNAFSFAANLYTIMYMRLINQRNKTLEKNAFYHMNIGYQRQLSFMRPDGSFSLFRSDWNNSDSSVWLT SYCLRVFQEASFYEWENFIWIDATIIEKNMRWLLQHQTPQGSFFEVTWLPDRKMNRTNFDKNITLTSHVLITLATVKDISGTLGSRVALATQRALAYIERNMDFLR HQAQPFDVAITAYALQLCNSPIAEEVFAILRRQARTIGDFMYWGNQEIPQPPRKLENQKWFSLPRLPYEYDSLNIETTAYALLVYVARREFFVDPIVRWLNSQRLN DGGWASTQDTSAALKALVEYTVRSRLREVSSLTVEIEASSQGGKTQTLYIDDTNLAKLQSIEIPDAWGTIKVQAKGAGYAILQMHVQYNVDIEKFQTKPPVPAFG LHTKAIFHGRNQSHISYVACQNWINQNESERSGMAVLDVAIPTGYWIQQQKLDTYVLSNRVRNLRRARYLERKIVFYFDYLDHEDICVNFTIERWYPVANMSRY LPVRIYDYYAPERFNESIFDALPTYLLNICEVCGSSQCPYCSIYNMGWRASMSMSLLFFSVFIYLLRSRTHLVLNMMQLLT

Table S3. Effect sizes for main figure analyses.

Figure Number	GROUP	cliff DELTA	
figure1b	dsGFP vs dsTEP13	0.675	
figure1b	dsGFP vs dsTEP23b	0.648	
figure1b	dsGFP vs dsTEP27	0.818	
figure2a	dsGFP vs dsTEP27	0.4	
figure2b	dsGFP vs dsTEP27	0.748	
figure2c	1:10(preimmune:anti-CqTEP27)	0.694	
figure2c	1:100(preimmune:anti-CqTEP27)	0.692	
figure2c	1:1000(preimmune:anti-CqTEP27)	0.004	
figure2d	1:10(preimmune:anti-CqTEP27)	0.725	
figure2d	1:100(preimmune:anti-CqTEP27)	0.668	
figure2d	1:1000(preimmune:anti-CqTEP27)	0.122	
figure4b	untreated vs anti-tep27	0.444	
figure5c	CECA(preimmune:anti-CqTEP27)	0.778	
figure5c	CECA2(preimmune:anti-CqTEP27)	0.833	
figure5c	CECB(preimmune:anti-CqTEP27)	0.944	
figure5c	DEFA(preimmune:anti-CqTEP27)	0.611	
figure5c	DEFC-like(preimmune:anti-CqTEP27)	0.778	
figure5d	CECA(preimmune:anti-CqTEP27)	0.778	
figure5d	CECA2(preimmune:anti-CqTEP27)	0.833	
figure5d	CECB(preimmune:anti-CqTEP27)	0.944	
figure5d	DEFA(preimmune:anti-CqTEP27)	0.722	
figure5d	DEFC-like(preimmune:anti-CqTEP27)	0.611	
figure5e	dsGFP vs dstep27	0.799	
figure5e	dsGFP vs dsTEP27+dsceca	0.451	
figure5e	dsGFP vs dstep27+dsdefa	0.538	
figure5e	dsTEP27 vs dsCqTEP27+dsCECA	0.533	
figure5e	dsTEP27 vs dsCqTEP27+dsDEFA	0.359	
figure6d	BSA vs TEP27	0.083	
Figure Number	GROUP	Odds ratio	95% CI
figure3c	1:10(preimmune:anti-CqTEP27)	14.5	4.11 to 41.59
figure3c	1:100(preimmune:anti-CqTEP27)	10.29	3.179 to 32.22
figure3d	dsGFP vs dsTEP27	22.1	4.831 to 103.3
figure4c	untreated vs anti-tep27	4.5	1.666 to 11.02
figure6d	BSA vs CqTEP27	8.538	3.379 to 19.96