

Table S1 Sequences of insect *CncC* and *Nrf2* from other species for the phylogenetic analysis.

>*Homo sapiens-Nrf2* (AAB32188.1)

MDLIDILWRQDIDLGVSREVFDFSQRRKEYELEKQKKLEKERQEQLQKEQEK
AFFTQLQLDEETGEFLPIQPAQHTQSETSGSANYSQVAHIPKSDALYFDDCMQ
LLAQTFPFVDDNEVSSATFQSLVPDIPGHIESPVFIATNQAQSPETSVAQVAPV
DLDGMQQDIEQVWEELLSIPELQCLNIENDKLVETTMVPSPEAKLTEVDNYHF
YSSIPSMKEKVGNCSPHFLNAFEDSFSSILSTEDPNQLTVNSLNSDATVNTDFG
DEFYSAFIAEPSISNSMPSPATLSHSLSELLNGPIDVSDLSLCKAFNQNHPESTA
EFNDSDSGISLNTSPSVASPEHSVESSSYGDTLLGLSDSEVEELDSAPGSVKQN
GPKTPVHSSGDMVQPLSPSQGQSTHVHDAQCENTPEKELPVSPGHRKTPFTK
DKHSSRLAHLTRDELRAKALHIPFPVEKIINLPVVDNFEMMSKEQFNEAQLA
LIRDIRRRGKNKVAAQNCRRKRKLENIVELEQDLHLKDEKEKLLKEKGENDK
SLHLLKKQLSTLYLEVFSMLRDEDGKPYSPSEYSLQQTRDGNVFLVPKSKKP
DVKKK

>*Scophthalmus maximus-Nrf2* (QLA46489.1)

METEVMHPSQQDMDLIDILWKQDIDLGAQREVFHDYNHRQKEHELQRQRKLE
EEKRLHLLREQEKALLAQLQLDEETGEYIPRPPSSAPLQSTVTPLEVTQNVSF
TEENGDALESFDECLQLLAETFPVEETENTSVCLDTAAVSVASSGNMMMPER
PPLPPAAISPGPLPPTLPPQRMSPDLEQAXMELLSLPELQQCLSMQMEDTLETT
TYSLPNNPKVQNaNFTVYPMTNLKEGETNSLNVCPAELINTFDGSVSSMASP
DNLSQMEVKAPQLNTNFGVESFCDMFYPTILEESSGQHGLEGNLSTTMSDV
TNKPSFTPMDLYSLSPGEAFFDRGKQNLTAEVPSDSGSISSYTSNACSPAUSA
YGDGSYGYSDSDMDMDQSPGSAESDYSEMFSNLNYQPDDLQTTDSASAIGQP
HQQHVKKPKHYKTDLAEESEGHNNAPFTKDKLKRRSDVRLPRDEQRAKALKI
PLSVDMIINLPVDDFNEVMSKHQLTEAQLALVRDIRRRGKNKVAAQNCRRKR
KMZNIVGLEGELDSLKDEKERLLSEKSNITNLKEMKQQLNSLYLEVFSRLRD
EKGNFSFSPDYSLQQSTEGSIFLVPRIKKTLIKREENHLSPM

>*Ctenopharyngodon idella-Nrf2* (ART92576.1)

MMEIELPKMHPSQQDMELIDILWRQDVLDGAGREVFDFSQRQKEVELRRQR
EQEEERQQLHLREQEKALLAQLQLDEETGEFVPRSLPASGTLTQTNTTNGEIA
QNGAFAAQEGDALSFDECMQLLAETFPPLDEPAESAPPCLDVSVPTTDLMMMP
ADTPAFTQNPLLPGSLDQAWMELLSLPELQQCLNMQMQUETLNMDGFMKPSG
EAQNPSYSQYLPMDHLSSVQTEVCPPEYINTYDGSFNNMVSPNLSQMSLVN
PDVGAEFRPEEFNELFYPEMEAKVNSGPLTSDGGNMVSQLAETASDSPVNPM
DLQSFSPGNLSSGKPEPIVEFPDSDSGLSLDSSPHMSSPGKSLNEDGSFGFSDD
SEMDGSPGGTESDYTEIFPLVYLNDGAQTSLSKSPAQQEMKAKNPKTEP
VEASGYSKPPFTKDKQKKRSEARLSRDEQRAKALQIPFTVDMIINLPVDDFNE
MMSKHQLNEAQLALVRDIRRRGKNKVAAQNCRRKRKLENIVGLEIELDSLRE
EKERLKKKESRSTSLREMKQQLSTLYQEVFGMLRDEHGKPFSPNEYSLQHT
ADGTVFLVPRLLKKTLLVKN

>Mus musculus-Nrf2 (NP_035032.1)

MMDLELPPPGQLSQQDMDLIDILWRQDIDLGVSREVFDQSQRQKDYELEKQK
KLEKERQEQLQKEQEKAFFAQFQLDEETGEFLPIQPAQHQTDTSGSASYSQV
AHIPKQDALYFEDCMQLLAETFPFVDDHESLALDIPSHAESSVFTAPHQAQSL
NSSLEAAMTDLSSIEQDMEQVWQELFSIPELQCLNTENKQLADTTAVPSPEAT
LTEMDSNYHFYSSISSLEKEVGNCGPHFLHGFEDSFSSILSTDDASQLTSLDSN
PTLNTDFGDEFYSAFIAEPSDGGSMPSAAISQSLSELLDGTIEGCDLSLCKAFN
PKHAEGTMEFNDSDSGISLNTSPSRASPEHSVESSIYGDPPPGFSDSEMEELDS
APGSVKQNGPKAQPAHSPGDTVQPLSPAQGHSA PMRESQCEN TT KKEVPVSP
GHQKAPFTKDKHSSRLEAHLTRDELRAKALHIPFPVEKIINLPVDDFNEMMSK
EQFNEAQLALIRDIRRRGKNKVA AQNCRKRKLENIVELEQDLGHLKDEREKL
LREKGENDRNHLHLKRRLSTLYLEVFSMLRDEDGKPYSPSEYSLQQTRDGNV
FLVPKSKKPDTKKN

>Danio rerio-Nrf2 (BAC10573.1)

MMEIEMSKMQPSQQDMDLIDILWRQDVDLGAGREVFDQSYRQKEVELRRRR
EQEEQELQERLQEKEKTLLAQLQLDEETGEFLPRSTPLTHTPEADGGGAGEIT
QNGAFAEQEADPMSFDECMQLLAETFP L TEPAESAPPCLNTSAPPSTDLMMP
ADVPAFTQNPLLPGSLDQAWMELLSLPELQQCLNMPMQETLDMNAFMKPST
EAPTQNYSQYLPMDHLGSAQTEVCPPEFTNTYNRSFNTMVSPNMNQLSLN
VPDVGAIEFGPEEFNELFYPEMEVKVNNPPITSDGGNMVGDPPVNPIDLQSFSP
GDFSSGKPDPIVEFQDSDSGLSLDASPHMSSPGKSITEDGSFGFSDSDSEEMEG
SPGSMESDYNEIFPLVYLNDGSQTPLSEKSSTEKQEMKLKNPKMEPAEASGHS
KPPFTKDKLKKRSEARLSRDEQRAKALQIPFTVDMIINLPVDDFNEMMSKHQ
LNEAQLALVRDIRRRGKNKVA AQNCRKRKLENIVGLEEYELDSLKEEKERLM
KEKSERSSNLKEMKQQLSTLYQE VFGMLRDENGKAFSPNEFSLQHTADGTVF
LVPRLKKTLVKNI

>Mauremys reevesii-Nrf2 (AFX95917.1)

MELEAPPAPQDMNLIDILWRQDIDLGARREVFDQSQRQKEYELEKQKKLEKE
RQEQLQKEQEKAALLAQLQLDEETGEFIPIQPAQHIESDNTGMPTNFSKTTHISK
PEADALSFDCCMQLLAETFSFVDDNEVFSAAFQVLVPAHIDSDPIFITSNQTQP
PESSVLQSPVTDVDNMENIEQVWEELLSIPELQCLNIENDNLAEVTTIANPETK
PSEIHSNFYNSLPITVNCNSDFLNTFEDSF SNILPPEDLSQLRVASLDTTSCSSN
FSEDFSTFVDPKVNGDTAAPNIVNKSFAEVVPYEPIDISDFSRCKAFNGDLQGN
ALECNDSDSGISLNAHSNTASPEHSVESSVFGDAAFGYSDSEMEEMESAPGSL
HQSN AQMYSLQFHDPVPPSLGPSTQKSDLQCVNTPKREL PANPGHPKAPFTR
DKPSHYLEAHFTRDEQRAKALHIPFSVEKIINLPVDDFNEMMSKEQFNEAQLA
LIRDIRRRGKNKVA AQNCRKRKLENIVELEQDLGHLKDEKEKLLKEKGENDK
SIRLMKKQLTNLYLEVFSMLHDENGKPYSPSEYSLQQTKDGSIFLVPKSKKPE
TKF

>Xenopus laevis-Nrf2 (NP_001079522.1)

MMEIEIPLPLQSQQDMDLIDILWKQDIDLGVSREVFDYNQRQKENDLEKQKK
LEKEKQEQLQKEQEKALEYAQLQLDEETGEFIPMQQAAPTETVADTQALAGSI
QDKPSPVHELSEFDECLKILAETFIQGPSNEDSPVAYQTLEPSAPIETNQIFFQSEP
NSVTAGTLNSIPAQGETVHEINQAWHEELLSIPELQCLSNEIENMVEQSMYPNPE
STTMTETQNTFSFFTPLSAMEKPQENNTSVFPTDYVDTIASSVPSVNTNATFN
VESFCDDIFTLVDPKVTNIVPLTNNSGQLLKELLHDNVDTDLDSLCKAFNGSN
QPEFNDSDSGVSNTSPCATSPSQSLGGSAYGEPHYGYSDSDMEDMDSTPEIA
QENPPDNFTAPFTEDTYFSLSPFISHDTDPFEVKAHDSPAKEIPASPGYSKAPFA
KDKSLNLQEARFTRDEQRAKVLNLPFTVEKIVNLPVDSFNEIMSKYQFNEAQL
ALIRDIRRRGKNKVAAQNCRKRMENIVELETDLDLTKYEKEKLLAERGEYN
NSLSQLKKNLGNLYMEVFNKLQDENGKPYSPQEYSLQQTKEGNIFLVPKTKK
VSIKKE

>*Gallus gallus-Nrf2* (XP_046777086.1)

MNLIDILWRQDIDLGARREVFDIFSQRQKEYELEKQKKLEKERQEQLQKEREK
ALLAQLVLDEETGEFVPAQPAQRVQSENAEPPISFSQSTDTSKPEEALSFDDC
MQLLAEAFPFIDDNEASPAAFQSLVPDQIDSDPVFISANQTQPPSSPGIVPLTDA
ENMQNIEQVWEELLSLPELQCLNIENDNLAEVSTITSPETKPAEMHNSYDYNN
SLPIMRKDVNCGPDFLENIEGPFSSILQPDDSSQLNVNSLNNSTLSSDFCEDFY
TNFICAKGDGDTGTTNTISQSLADILSEPIDLSDFPLWRAFNDHSGTVPECND
SDSGISLNANSSIASPEHSVESSTCGDKTFGCSDSEMEDMDSSPGSVPPGNASV
YSSRFPDQVLPSVEPGTQTPSLQRMNAPKKDPPAGPGHPKAPFTKDKPSGRLE
AHLTRDEQRAKALQIPFPVEKIINLPVDDFNEMMSKEQFSEAQLALIRDIRRRG
KNKVAAQNCRKRLKENIVELEQDLSHLKDEREKLLKEKGENDKSLRQMKKQ
LTTYIEVFMSLRDEDGKSYSPSEYSLQQTRDGNIFLVPKSRKAETKL

>*Bactrocera dorsalis-CncC*

MGLPASELDVFLNSENFDQQRSVWEQNLADLRDFGDLAVNNPYAGLPLKDE
PHNNTYIDVNLDMMFFPSFASAVAGGVAVKEETVGAGALNDTFPEPADIASIKT
EQLDKEEEEFVVENEVATASSTSDEAAPKIKKETESGEDNGQAAASEEFDLSP
FISQLDLFKEPSFEGKDGDDAGDIDDEWAGIPFTVDNETGEYIRLPLDEILNDV
LQLAEFGNINNECSNDSVASTSKAAAAKTNNNNNNNDKTKTETGEDELNEN
KNVSAIISNGKDEDLAKKTLGTITDGTTKEEHDKTEEDYIDDFDLSLSEIEVNS
LPSPLFDLDDEAREELADFDIMLQSAGAPPSPFHHHHSHQRGAGMQGYVGGG
ANSAFHRQAGGFHHGHGHQGRMSLSRGVSMEQRLQDIASFFNPISSMGVVGG
VSDMPPYPHYPTHYPYSYQGAAGIPAPPQHAQYPPPPPHHHSHHAMLHANAT
LGDICPTQPHYGHNLGSAVTSSMHLTNSSHEADAGAAASAGAAGGNVGAYK
MEHDMMYTNNSSSDMNHTTEGFINSILNDEDLHLMDMNDSFCRMVDVNS
TSNNSSVLGGSAGLSNGHASAGGSSATGSSTNGLAMNGAGATNSALAGGMT
ADLLGSGAGGTSASGDRLDASSDSA VSSMGSERVPSLSDGEWGEGSDSAQD
YHQGKYGRPYDYSYNNNNNRMNDGTRQPPVAQKKHQMFGRFLNEQPDL
GAVPTTADNGSNIGVVPPTGTNSLLNIGPAQSIKYEYEA YPTVPGLQPGGAGG
ALNAEGAIGPVLNKEQQA YDLKYGPAVAGAMGGYTLDFAQRPPRTPHEIV
QHNHTYTLPQGTGSMRPQARDKKLSTSSSKSSKSVNGEEHHLTRDEKRARA

LNPIAVSDIINLPMDEFNERLSKYDLTENQLSLIRDIRRRGKNKVAAQNCRK
KLDQILSLEDEVKEVRRRKEQLHSDHDSLNLERKRISNKFAALHRHIFQYLRD
PEGNPCSTSEYTLQQAADGSIYLLRKSDATNGSGNISNSSSTSSSSSSSGSGSVSTL
LSHNGMSPQQQQQQQQHAMLGTATHLQQHHHHHNAQAPQQQQQLSHMH
TQQVQQAQQQQQQQQQQRQHSAAHAHHHQTHQKD

>*Micromelalopha troglodyta-CncC* (QCU79915.1)

MTRGPDSPTLSILRQSLMRSMSVEQRWQDLASLLTIPPPPDQYQHYYHHHHHQ
HPHNISAHGAAGGYGPNHHAPLPPPAPEKHPDAYGATAPIDGAYKVESARHS
QQHDGIYYQNPSGEMAPPPNQDGLLQSILNDEDLQLMDMAMNEGMYTMRM
LDSAASHHAPHPNHTHMMMTAERDSASDSA VSSMGSERVPSLSDGEWCDGS
DSAQEFHSSKFRPYDAA YPRERSAPHQPPQKKHHMFGKRCFQEQPAPAIEP
VPPRPGVVKEYEPEQTYHHEPMHNMHNRIPLVQDIINLPMDEFNERLSKHVLS
EAQLSLIRDIRRRGKNKVAAQNCRKRLDQITSLADEVRTVRDRKHRTQREH
SQLLAERQVRKERFASLYRHVFQNLRDPEGRPLSSAAYSLQQAADGNVVLVP
KMPQHHDHPMNRSSDDEMDRKAKHYDQ

>*Plutella xylostella-CncC* (AER37577.1)

MLLDEVMTMRSLSPDPEDMANVSRKCNNTLDMDLIEVLWKQDVDMGFSL
EDPVQPEGPTATKVLGDEIEKELKLAEEKIVKKNEEKAEIEKVKASLLDPEIKE
DDPWAGLSYTVDTETGEYVIQGDLPRELVSSEESRFDLLEEALGLVELGDEA
DTKNEPPEAIEGSSSGTGSEMLHPAMRHVP HHPLAHYHNQSLMRSMSVEQR
WQDLASLLTIPPPPPPEQYQHYYHPHHQHHAHNISSHGAAAGYGPKLHASIPP
VPEKHPEAYGGRSAPLEGAYKVEAAQHPPQHDPLYYNASAEMTGPTNQD
GFLQSILNDEDLQLMDMAMNEGMYTMRMLDGAGPHHAPHHTHSHMMTTE
RDSASDSA VSSMGSERVPSLSDGEWCDGSDSAQEFHSSKFRPYDSSFGRRSN
PHQPQKKHHMFGKRCFQEQPAPTLDPVGRPSVVKEYECPEQTYHHENMHMH
NVEFAPRPQLAPPHVTNLHAPALDLNTAHSSHALLQSNIPSPAPPRFAYATPER
VRHNHTYSAPLANDQRPAAVRDKLVRRLTDGMSDGGSSATSSGQHLSRDE
KRAKALGIPLEVQDIINLPMDEFNERLSKHDLSAQQLSLIRDIRRRGKNKVAA
QNCRKRLDQITSLADEVRTVRDRKQRTQRDHSNLLAERQVRKERFAALYR
HVFQNLRDPEGRPLSSQQYSLQQAADGNVVLVPKMPQHHDHPMNRSTSDDD
MDRKAKSYDQ

>*Drosophila melanogaster-CncC* (NP_732833.1)

MISNKKS YAMKMLQLALALSLLHYNPDYLLHRWDSQLELGTHGDGWELEM
LRTVHRLDMDHNPYGNRKGLSPRIEDLLNFDDPSLGGMANGIGGCKLPFRN
GSTFVMNLHNTTGNSSVQTAALQDVQSTSAAATGGTMVVGTGGAPTSGGQT
SGSALGEIHIDTASLDPGNANHSP LHPTSELDTFLT PHALQDQRSIWEQNLADL
YDYNDSLQTSPLYANLPLKDGQPQPSNSSHLDSL AALLHGFTGGSGAPLSTA
ALNDSTPHPRNLG SVTNNSAGRSDDGEESLYLGRLFGEDEDEDYEGELIGGV
ANACEVEGLTTDEPFGSNCFANEVEIGDDEESEAIEVLYKQDVLDGFSLDQE
AIINASYASGNSAATNVKSKPEDETKSSDPSISESSGFKD TDVNAENEASAASV
DDIEKLKALEELQQDKDKNNENQLEDITNEWNGIPFTIDNETGEYIRLPLDELL

NDVLKLSEFPLQDDLSNDPVASTSQAAAAFNENQAQRIVSETGEDLLSGEGIS
SKQNRNEAKNKDNDPEKADGDSFSVSDFEELQNSVGSPLFDLDEDAKKELDE
MLQSAVPSYHHPPHGHGPHAHPHSHHHASMHHAHAHHAHAHAHAHQRA
VQQANYGGGVGVGVGVGVGVGVSGTGSFAQRQPAAGGFHHGHHQGRMPRL
NRSVSMERLQDFATYFSPISPMVGGVSDMSPYPHHYPGYSYQASPSNGAPGT
PGQHGGQYGGSGANATLQPPPPPPPHHAAMLHHPNAALGDICPTGQPHYGHNL
GSAVTSSMHLTNSSHEADGAAAAAAAYKVEHDLMYYGNTSSDINQTDGFIN
SIFTDEDLHLMMDNESFCRMVDNSTSNSSSVLGLPSSGHVSNGSGSSAQLGA
GNPHGNQANGASGGVGSMSGSAVGAGATGMTADLLASGGAGAQQGADRL
DASSDSAVSSMGSERVPSLSDGEWGEGSDSAQDYHQGKYGGPYDFSNNNS
RLSTATRQPPVAQKKHQLYGKRDPHKQTPSALPPTAPPAAATAVQSQSIKYE
YDAGYASSGMASGGISEPGAMGPALSKDYHHHQPYGMGASGSASFSGDYTVR
PSPRTSQDLVQLNHTYSLPQGGSGSLPRPQARDKKPLVATKTASKGASAGNSSS
VGGNSSNLEEEHLTRDEKRARSLNIPISVPDIINLPMDEFNERLSKYDLSENQL
SLIRDIRRRGKNKVAAQNCRKRKLDQILTLEDEVNAVVKRKTQLNQDRDHLE
SERKRISNKFAMLHRHVFQYLRDPEGNPCSPADYSLQQAADGSVYLLPREKS
EGNNTATAASNAVSSASGGS LN GHVPTQAPMHS HQSHGMQAQHVVGGMSQ
QQQQQSRLPPLHQQQHHLQSQQQQPGGQQQQQHRKE

>*Ceratitis capitata-CncC* (XP_012159076.1)

MISNKKCYAMKMLQIALALSLLHVDPEQRLRNWDSQLELRDGDGWELEML
RAVPMVEYPYANRKTMMPLIEDLIRYDRQHDPTPPQYNVTAYMLNVQNDG
GTNQTATLPEIQATSSGTTNPASNVAVAGATALEQAANAAAAAAASTNAS
NMGLPASELDVFLNSENFDQQRSVWEQNLADLRDFGDLAINNPYAGLPLKD
EPYNNTYIDVNLDMFLPSFASAAAAAAAANDVKQENVAAAGALNDTFPEPA
DVASIKTEQIDKEEAEEQEFVLNNEASSSGVSSAETVFTTTPTSQAIIKKEPIE
SSGDDEAQTEMEEVDLSPFFSQLDIMKEESEIIDVLWKQDVLDGYSLTPAHLI
NTTGNGSAGAVSTDDEIEKLKALEALKLDKPNFDGKDGGDDAGVPDIDDE
WAGIPFTVDNETGEYIRLPLDEILNDVLQLAEFGNLNNEPNNDDSYASTSKAA
AVKNDDDDKRITKSETSEDEGINDDNITSARLVNGKEETEKDSNKKTLATSTTD
KDTKLERESINENDYIDDFDLSLSEIEVNSLPSPLFDLDDEAREELADFDMLLQ
SAAAPPPTFHHPHSHQRGAGMQGYVGGGANS AFHRQASGFHHGHHQGR
MSLSRGVSMEQRLQDIASFFNPISGMGVGGVSDMPPYPHYPTHYPYSYQSAA
GIPAPPQHAQYPPPPPPHHPHSHHAMLHANATLGDICTPTQPHYGHNLGS
AVTSSMHLTNASHDADGGASASAGAAGGNVGAYKMEHDMMYITNASSDM
NHTTEGFINSILNDEDLQLMDMND SFCRMVDVNNSTSNSSSVLGGGLAAGH
ASTGGGSATGSIANGLTMSGAGAANSALTGGMTTDLSSGAGATSAGGDRL
DASSDSAVSSMGSERVPSLSDGEWGEGSDSAQDYHQGKYGRPYDYSNNNS
NNRMNDGTRQPPVAQKKHQMFGKRFLNEQPGLGAVTARPDNNSNAGGGVN
VLPPTGANNLLNIGPAQSIKYEYEPYPTVPGLQQGGSGGV LNADGAMGPALS
SKEQQAYDLKYGP AVAG AIGGYSLDFAQRPPRTPHEVVQHNHTYTL PQGTGS
MPRPQARDKKLSISSSKSSKSMNGEEHLTRDEKRARALNIPISVSDIINLPM
DEFNERLSKYDLTENQLSLIRDIRRRGKNKVAAQNCRKRKLDQILSLEDEVKAV
RSRKEQLYADRDSLTLERKRISNKFALHRHIFQYLRDPEGNPCSTSEYSLQQ

AADGSIYLLRKSDATNTGGNASNSSSTSSSSSSGSSSSAGGGGGGGGAAAAAEG
VNGHTMRHNGVSPQQHAMLGAATHLQQQQQQQTLHHQHHAQTQQQQLS
HMHPQQAQQQQQQQQQQQQQRQHSAAHAHHHQTQQKD

>*Aedes aegypti-CncC* (XP_021693907.1)

MAALEYEDLPRMQSLTPEPDDTGSLKDGMGAPEFEQQQQQATTQVVVIGGD
SSCNLADDCNDKPNSCDHDEVGYHSPLYNYSKYNLKEMDLIEVLWKQDVD
LGFTLTPLTVPSGASGGATSGMATKGATSAEDSSDDLEKLKVLLEIKHDDDK
KKDNADKQAEENPWAGMSYTVDIETGEYVLNATDGSEATLPPPLADLFLEE
GLNLPELINDTVIEETEEPAKKKTAEQEEEEEESEVKRIERELESSADELCQGA
AASVSATSGSTSASPCDLNICSEQQATATSSVVDREQQDSPNHPEAAGAASPD
DLEDILCDMMIQTSSSHFQHPRQPMQNYGHGMHGSLRQGGYHHHHHHHHH
QSRVPLSRAVSMEQRFQDLANLLSFPPGMGVGMGVGEMPPAHPHPHYPPHY
SYQANGAIPQHGGYHSHAVLQNASLADIGPTQPYYAPNLGSAVATSMHLTNS
TSETDAGATGYKMDHEMMYYSNSTSEMNHDTGFLNSILDDDLQLMDIAVNE
GMYTMRMLDHNATSSNSSVLGGSLGGSAAVAAAAAAGLNGPAHLGGLMS
SASAAVSSGAMQTSLNGSTGTHGATGGTTSGBDRLDASSDSAVSSMGSERVPS
LSDGEWGDGGSDSAQEYHNKYGGPFDYSYSGSNRLGDGTRQPPVAQKKHH
MFAKRYFQEQNTSIPSLPSATNPSATGPTVDPQSQLNASIPIKYEFDYMNPA
SHLEGAVGPVTKQEDQTSAHNNPLSSVDMKYYPYSLDFSRQNPASAPAARSHH
HDVIHHNHTYTLPHNSGANPKPQTRDKRIRKAEEEHLTRDEKRARALQIPIV
QDIINLPMDEFNERLSKYDLSETQLSLIRDIRRRGKNKVAQAQNCRKRLDQIV
TLADEVKDMKMRKERLLRDREIIQTERKRIRDKFSALYRHVFQNLRDSEGNP
YSQEHWSLQQSADGTVVLVPRSVDRQQDLTGSNHQQQQQQLGMAGGSGLP
HSHHQQQHLLHLQQHQHPHSQQQHGGSSSGSNSTNSSGASGGSQHRPKE

>*Tribolium castaneum-CncC* (NP_001164113.1)

MDMDLIEVLWKQDVLDGFSLDVANGKADKPDADLQNGSPSSSISMENDEIE
KLKTLKAINDDNIKEPENELADPWAGFNYTIDTETGEYVVKAEELSESITGA
DCGPSCDLPLGDLPLPEFLLEALRLVELDDTPQEAINVKELENLAEGTNET
EPSTSAPKASETPSSSKDSDDDLILTDMIQTSQFHHPHHRAHQGRMPFVRTVS
MEQRWQDLANLLSLPSPGDTSGMPHPFHHHPLHNYSHPHAHGMAYSPEAT
RGVLLHNATLTPPMGDINATVPYNNIGGTNLGNAVATSMNLNNSSEPMGEPN
SAPHYKLEPSHDMMYQNSTTELNQTDGFLSSFLNDEDLQLMDMAMNEGM
YTMRMLDSNNAVSNLSMNGATGTTTSLSRDVERMDTSSDSAVSSMGSERV
PSLSDGEWCDGGSDSGHTAGDHYVTDYHQTKYRKYDYSYTSRQHASALAA
ASDATRMPPVAQKKHQMFGRYQLQEQGATSAVSHQPPVKYERYDPTAAPY
NSSQPEGAVGPKPSEMKYSCSMEFGRHSHLVRNSLDHIQHNHTYHLPTSTG
AMQRPVSRDKTKSKKGDEEHLTRDEKRARALNVPITVDDIINLPMDEFNERL
SKYDLSEPQLSLIRDIRRRGKNKVAQAQNCRKRLDQILSLADEVKDMRDRKM
RLMNEHEYVTGECQRMKDKYQQLYRHVFQNLRDPDGNQYSPYQYSLQTS
DGSILVVPRSNSTMTNPEHKEPPPQGHKD

>*Nasonia vitripennis-CncC* (XP_032455415.1)

MLERITAKNMLNLKKIYSDELLQLALLLSLLRVPDSYLGLDMQTIGVGSLDL
NNGSGWHTDSHTIVHRPAFVHPKNLDSMLLNYERDLIEDLNSLGRYNRINTA
PNDIHAYLLNVDDRAGPSTPVITDTPSTRNASSPDAPESSQTTEDTLGAAELT
QEDMDLIEVLWKQDVDLGFTLVDQTPKTDPATSSKKESEDEIEKLKTLEAINA
SDDKKDPKIKEEPAKEEDPWAGLPYTVDLETGEYILDDSAQQAAPSAEAAAA
PREQPKEDEEEQLLGEAGLGLGSVDELVGLGENSLGLNGTLGLENDFTSDLL
GDDCLLDGCSAVDGLNNDLSGLPDGFNLEEALQLVGLDEVELEKKPEVKK
KREEDSDGARSESRTSTSENEDCCCCNGCCPEGAEADSMIHTPQYHHPHPH
HHRSFQSRVPFVRSVGMQDQRPDIAPFFSVSGAGNGAAAAASTDHFAHPV
GHHHHHHHHHHHPSYTSHGPAATHGHGHEAQRNVLLHNATLAPPVGD LN
STGTYHNAGGPSNLGSAVATSMNLNNSSEPMGADSSGAYKPEPSDMIYYQN
ASADTMNQTDIFNALLDDPLGWNE DLSFNVS DGLYGGASTATGAQATLPGV
QAANASSGAGGGVVP GAVTDERMDASSDSAVSSMGSERVPSISDGEWMETG
SNSHTQADSHYSMDYNGKYRMPYDACGYTLPSGRGGQRSSCQEARGLAP
VAQKKHHMF GKRCFQE QGPMSGAAGGAGSPLAGQTHQAATTPGKYDY EAA
QSV AAGPPGQAYAGPIEGAAGPQPEIKYSCSLDFTRHQTARSSLEHVQHNHT
YHLPPESSGALQRPVSRDKKGRKSDGEEHLTRDEKRARALNVPIAVNDIINLP
MDEFNERLSKYDLSEPQLSLIRDIRRRGKNKVAAQNCRKRLDQINSLSDEVK
EMRNRKMRLLSDRNYMLQEVARVKEKFGQLYRHIFHSLRDPEGRPYNSLEY
SLQQSATDGSILLVPRSGNNSNGHYTRSTMDPSKPNKADSHHQPRQDHE

>*Apis mellifera-CncC* (XP_026301945.1)

MDLIEVLWKQDVDLGFTLVEPTTTATKKLSTVEKGSDDDEIEKLKALEANGSN
EEKDTKEYDEAQDDPWAGLPYTIDLETGEYILNSGNQEGDGNAIEEDDRLL
REASLDLDNHPLAGLTDDSLGLTDTLELENDLPSDLLGGSLLASANVESLLNN
DSL DLPDGFNLEEALQLVGLDEAQSEETKPEVKKKEKDSIEESTSEAKDDESPI
ISSSSSVEVAKSSRCEDPETGDMIHTPQFHHPHPHHRSFQGRMPFMRAMSME
QRWQDLASLLSLPGAPEHFPHTHPGYPGHGISHSHYEAQRNVLLHNATLAPP
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MYHTPTSDSINQTTDGLSSLLNDEDLHLMDMAMNDGMYTMRMLDNGNN
NASGPTGAAALSGVQTAGGTTSSATGVTTLPGVTDERMDASSDSAVSSMGSE
RVPSLS DGEWMETGSNSSHTQADSHYTMDYASKYRMSYDCSYSVSGRNAGS
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TVGAGAPGNAYS GPIEGATGPQPEIKYSCSVDFSRHQSGRSAIEHVHHNHTYH
LPAESSGSLQRPVSRDKKVRKNDGEEHLTRDEKRARALNVPIVNDIINLPM D
EFNERLSKYDLSEAQLSLIRDIRRRGKNKVAAQNCRKRLDQIISLADEVKEM
RDRKMRLVREREFMLIERQRVKDKFSQLYRHVFQSLRDPDGNQYHPYEYSL
QQSADGNVLLVPRNQTNPHHPRSTTMEPKTKPDPEHKE

>*Bactrocera tryoni-CncC* (XP_039957973.1)

MCWFEPILKGFVKRSRNLINSTKSKYYTYTNRGHTYVLKRKPSFEGKDGND A
GDIDDEWAGIPFTVDNETGEYIRLPLDEILNDVLQLAEFGNINSECSNDSVAST
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