

Homo sapiens-Nrf2	GHRTFF.....TKDR....HSSRLAHLTRDELAKALHGFVEVDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDLIDHLKDEKELIKERG	528
Scophthalmus maximus-Nrf2	GHNNAFF.....TKDR....LKRRSRVRLPRDEORAKALVGLSDVDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDLIDSLKDEKELIKERS	549
Ctenopharyngodon idella-Nrf2	GYSPFF.....TKDR....CKRRSEARLSRDEORAKALQPTFVDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDLIDSLKDEKELIKERS	532
Mus musculus-Nrf2	GHQKAF.....TKDR....HSSRLAHLTRDELAKALHGFVEVDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDLIDHLKDEKELIKERG	536
Danio rerio-Nrf2	GHSPFF.....TKDR....LKRRSEARLSRDEORAKALQPTFVDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDLIDSLKDEKELIKERS	525
Mauremys reevesii-Nrf2	GHFKAF.....TKDR....FSHYLEAHLTRDEORAKALHGFVEVDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDLIDHLKDEKELIKERG	530
Xenopus laevis-Nrf2	GYSKAF.....AKDR....SLNLQEARTRDEORAKALVGLSDVDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDLIDSLKDEKELIKERG	530
Gallus gallus-Nrf2	GHFKAF.....TKDR....PSGRLEAHLTRDEORAKALHGFVEVDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDLIDHLKDEKELIKERG	522
Bactrocera dorsalis-CncC	ARDKLS.....TSSSKSSKSVNGEELHLTRDEKARALNGLIAVSDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDEKVEKVRERELHSDRD	960
Micromelalopha troglodyta-CncCRDLVQLQDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDEKVEKVRERELHSDRD	363
Plutella xylostella-CncC	RLTDGM.....SDGSSAT...SSRQHSFDEKAKALHGLEVDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDEKVEKVRERELHSDRD	653
Drosophila melanogaster-CncC	VATITASGASAGNSSVGGSSNLEELHLTRDEKARALNGLIAVSDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDEKVEKVRERELHSDRD	1242
Ceratitis capitata-CncC	ARDKLS.....TSSSKSSKSVNGEELHLTRDEKARALNGLIAVSDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDEKVEKVRERELHSDRD	1202
Aedes aegypti-CncC	GANWFQ.....TRDKRIK...AEZEHLTRDEKARALHGLEVDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDEKVEKVRERELHSDRD	901
Tribolium castaneum-CncC	GAMQFV.....SRDRTSK...MGDEHLTRDEKARALNGLIAVSDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDEKVEKVRERELHSDRD	679
Nasonia vitripennis-CncC	GALQFV.....SRDRTSK...MGDEHLTRDEKARALNGLIAVSDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDEKVEKVRERELHSDRD	946
Apis mellifera-CncC	GSQFV.....SRDRTSK...MGDEHLTRDEKARALNGLIAVSDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDEKVEKVRERELHSDRD	743
Bactrocera tryoni-CncC	ARDKLS.....TSSSKSSKSVNGEELHLTRDEKARALNGLIAVSDYDNLVDFENMMSHQQINPQQAARDIRRRGKNKVAAQCCKRRRLINIVGEGDEKVEKVRERELHSDRD	837
Consensus	p v i nlp fne sk e q l l r d i r r r g k n k v a a q c k r r k i l	
Homo sapiens-Nrf2	ENDKSLHLKQLSTIYLEGSMIDGDEKPYFSSEYSLQTR.DGNVFLV...PKSKKEEVKKN.....	589
Scophthalmus maximus-Nrf2	QNITLREKMQQLNSTIYLEGSRPRDEKNSFSFSDYSLQST.EGSIFLV...PRIKTLIKREENHLSPM.....	617
Ctenopharyngodon idella-Nrf2	ERSTSLREKMQQLNSTIYLEGSMIDGDEKPYFSSEYSLQTR.DGTVFLV...ERLKLTLVKN.....	593
Mus musculus-Nrf2	ENDKSLHLKQLSTIYLEGSMIDGDEKPYFSSEYSLQTR.DGNVFLV...PKSKKEEDTKKN.....	597
Danio rerio-Nrf2	ERSSNLREKMQQLNSTIYLEGSMIDGDEKPYFSSEYSLQTR.DGTVFLV...ERLKLTLVKN.....	596
Mauremys reevesii-Nrf2	ENDKSLHLKQLSTIYLEGSMIDGDEKPYFSSEYSLQTR.DGTIPLV...PKSKKEETFF.....	590
Xenopus laevis-Nrf2	EYNNLSLGLKXNLGNLMEVGNPDGDEKPYFSSEYSLQTR.KENIFLV...PKTKVSTIKK.....	591
Gallus gallus-Nrf2	ENDKSLRQMKQLITILEGSMIDGDEKPYFSSEYSLQTR.DGNIFLV...PKSKKEETKL.....	582
Bactrocera dorsalis-CncC	SLNLEKRLISNKFAMHRRHFGQNDGDEKPYFSSEYSLQTR.DGSIYLL...RKSDATNGSGNISNSSTSSSSSGSGSVSTLLSHNGMSFQQQQQQOQHAMLGTATHLQQHHHHHNA	1077
Micromelalopha troglodyta-CncC	QLLAERQVRFKFAHRRHFGQNDGDEKPYFSSEYSLQTR.DGNVFLV...PKMQHHDHFMNRS....SDDMDRKAKSYDQ.....	441
Plutella xylostella-CncC	NLLAEQVRFKFAHRRHFGQNDGDEKPYFSSEYSLQTR.DGNVFLV...PKMQHHDHFMNRT....SDDMDRKAKSYDQ.....	731
Drosophila melanogaster-CncC	HLESEKRLISNKFAMHRRHFGQNDGDEKPYFSSEYSLQTR.DGSIYLL...RKSDATNTGNGASNSSTSSSSSGSGSS.SAGGGGGGGAAGVNGHTMNRHNGVSFQQQHAMLGAAT	1318
Ceratitis capitata-CncC	SLTLERKRLISNKFAMHRRHFGQNDGDEKPYFSSEYSLQTR.DGSIYLL...RKSDATNTGNGASNSSTSSSSSGSGSS.SAGGGGGGGAAGVNGHTMNRHNGVSFQQQHAMLGAAT	1318
Aedes aegypti-CncC	IIQTERKRLISNKFAMHRRHFGQNDGDEKPYFSSEYSLQTR.DGTVFLV...ERSVRQQDLTGSN....HQQQQQQLGAGGGGGGLPHSHHQOQHLLHQQHQPSSQQHHHGGSS	1013
Tribolium castaneum-CncC	YVITGECQRMKQYQQLHRRHFGQNDGDEKPYFSSEYSLQTR.DGSIYLLV...ER...SNSTMTNFE....HKEFFPGQHRD.....	751
Nasonia vitripennis-CncC	YMLIEQVRFKFAHRRHFGQNDGDEKPYFSSEYSLQTR.DGSIYLLV...ER...NQTFPHFER....STIMEFATKEDFEHKE.....	1033
Apis mellifera-CncC	FMLIEQVRFKFAHRRHFGQNDGDEKPYFSSEYSLQTR.DGSIYLLV...ER...NQTFPHFER....STIMEFATKEDFEHKE.....	820
Bactrocera tryoni-CncC	SLALEKRLISNKFAMHRRHFGQNDGDEKPYFSSEYSLQTR.DGSIYLL...RKSDATNGSGNISNSSTSSSSSGSGSVSTLLSHNGMSFQQQQQQOQHAMLGTATHLQQHHHHHNA	952
Consensus	l f l d g lq g	

Figure S1. Multiple sequence alignment of conserved regions of insect CncC and Nrf2 from other species. Identical and highly conserved amino acids are indicated by black (100%), pink (75%), and blue (50%), respectively.