Supplementary figure 7. Alignment of the CCK receptors from human, *Asterias rubens,* and *Octopus vulgaris* that were cloned and tested in receptor assays in this study. Conserved residues are highlighted, with similar amino acids in gray and 100% conserved residues in black.

HsapCCKRA -------MDVVDSLLVNGSNITPPCELGLENETLFCLDQ---------PRP------SKEWQPAVQILLY 48

HsapCCKRB MELLKLNRSVQGTGPGPGASLCRPGAPLLNSSSVGNLSC---------EPPRIRGAGTRELELAIRITLY 61

ArubCCKR ---MATATTAYPYSLIDSSLPPVNSTFLVTSIVDVNSTNSSLITEDFDDDRNRGVRIGFGLNIYLTATLY 67

OvulCCKR -------MNLTGHGILDDNEAEFIDRDLGSNIVYNKTSN---------YTVKRMHHASFQKEILIPP--Y 52

HsapCCKRA SLIFLLSVLGNTLVITVLIRNKRMRTVTNIFLLSLAVSDLMLCLFCMPFNLIPNLLKDFIFGSAVCKTTT 118

HsapCCKRB AVIFLMSVGGNMLIIVVLGLSRRLRTVTNAFLLSLAVSDLLLAVACMPFTLLPNLMGTFIFGTVICKAVS 131

ArubCCKR GIVFVLAIVGNILVLVTLAQDKRMRTVTNMFLLSLAFSDLLFGIFCMPFTVVGNMLGRFVFGAVICKIVP 137

OvulCCKR IAIFLLAVVGNLLVILTLVQNKRMRTVTNVFLLNLSISDLLLAVFCMPFTLIPVLLRNFIFGATMCVLIR 122

HsapCCKRA YFMGTSVSVSTFNLVAISLERYGAICKPLQSRVWQTKSHALKVIAATWCLSFTIMTPYPIYSNLVPFTKN 188

HsapCCKRB YLMGVSVSVSTLSLVAIALERYSAICRPLQARVWQTRSHAARVIVATWLLSGLLMVPYPVYTVVQPVG-- 199

ArubCCKR YIQGISVTVSVWTMVVISLERYHAICNPLSSRVWQTKAHAYKAIVGVWMVALFLNLPAVIFSKLFSFNS- 206

OvulCCKR YLQGVSVAVSCFTLVAMSLERYFGICQPLHSRRWQTLSRAYKIITGCWFLAAMVVIPIAIVTRMKSFDK- 191

HsapCCKRA NNQTANMCRFLLPNDVMQQSWHTFLLLILFLIPGIVMMVAYGLISLELYQGIKFEASQKKSAKERKPS-- 256

HsapCCKRB --PRVLQCVHRWPSARVRQTWSVLLLLLLFFIPGVVMAVAYGLISRELYLGLRFDGDSDSDSQSRVRNQG 267

ArubCCKR --GTVFRCDEIWPATLYRTIYRMCLFVILMVAPLFTMLTAYGLIIRELRRGMKLEQCGADNEKREN---- 270

OvulCCKR --GKTHVCREFWTSKIAEKCYTVFLDMAFLLIPVIIMSGSYGSIMWTLWMGIKMDKKMQDGENQRNQP-- 257

HsapCCKRA -------------TTSSGKYEDSDGCYLQKTRPPRKLELRQLSTGSSSRANRIRSNSSAANLMAKKRVIR 313

HsapCCKRB GLPGAVHQNGRCRPETGAVGEDSDGCYVQLPRSRPALELTALTAPGPGSGSRP----TQAKLLAKKRVVR 333

ArubCCKR -----------------GIAMKNMGDEASCSLNEKK----TKKSDKKPAQATMRSTSTSG---AKKRVVK 316

OvulCCKR -----------------GNSMRMCVFEGSPSRNSENRPIVTPKRRRYDLQSGVRQSNLDRNVAAKKRVIK 310

HsapCCKRA MLIVIVVLFFLCWMPIFSANAWRAYDTASAERRLSGTPISFILLLSYTSSCVNPIIYCFMNKRFRLGFMA 383

HsapCCKRB MLLVIVVLFFLCWLPVYSANTWRAFDGPGAHRALSGAPISFIHLLSYASACVNPLVYCFMHRRFRQACLE 403

ArubCCKR MLIVIVALFFVCWTPSWVGNIWIMISEKSASEHFGRAEVTIFKLMTYASACVNPIVYCFMNKRFRQGFLN 386

OvulCCKR MLAVVVLEFFVCWTPLFFAQTWLAFDARTAHSHISPVGLAFIHLLSYVSSCCNPITYCFMNRKFRESFLG 380

HsapCCKRA TFPCCPNPGPPGARGEVGEEEEGGTTGASLSRFS-----------------------YSHMSASVPPQ 428

HsapCCKRB TCARCCPRPPRARPRALPDEDPPTPSIASLSRLS-----------------------YTTISTLGPG- 447

ArubCCKR AFSCGRR-GRAGDRATASGDVSRFQSTRRTNVPR------------------PSPTNYTNVSSDSSV- 434

OvulCCKR AFCCRRRRSQAPDIAQSTSQIRQGESIATVNASLNSIRIQFEPPLKHLQEMKPNFSNITESDDTSDS- 447