

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.

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HsapCCKRA  -----MDVDSLLVNGSNITPPCELGLNETLFCLDQ-----PRP-----SKEWQPAVQILLY  48
HsapCCKRB  MELLKLNRSVQGTGPGPGASLCRPGAPLLNSSSVGNLSC-----EPPRIRGAGTRELELATRITLY  61
ArubCCKR   ---MATATTAYPYSLIDSSLPPVNSTFLVTSIVDVNSTNSSLITEDFDDDRNRGVRIGFGLNIYLTATLY  67
Ovu1CCKR   -----MNLTGHGILDDNEAEFIDRLGNSNIVYNKTSN-----YTVKRMHHASFQKEILIPP--Y  52

HsapCCKRA  SLIFLLSVLGNTLVITVLIRNKRMRVTNIFLLSLAVSDLLMLCLFCMPFNLPNLLKDFIFGSAVCKTTT  118
HsapCCKRB  AVIFLMSVGGNMLIIVVLGLSRRLRTVTNAFLLSLAVSDLLLAVACMPFTLLPNLMGTFIFGTVICKAVS  131
ArubCCKR   GIVFVLAIVGNILVLVTLAQDKRMRTVTNMFLSLAFSDLLFGIFCMPFTVGNMLGRFVFGAVICKIVP  137
Ovu1CCKR   IATFLLAVVGNLLVILTLVQNKRMRVTNMFLLNLSISDILLAVFCMPFTLPVLLRNFIFGATMCVLIR  122

HsapCCKRA  YFMGTSVSVSTFNLVAISLERYGAICKPLQSRVWQTKSHALKVIAATWCLSFTIMTPYPTIYSNLVPFTKN  188
HsapCCKRB  YLMGVSVSVSTLSLVAIALERYSAICRPLQARVWQTRSHAARVIVATWLLSGLLMVPYPVYTVVQPVG--  199
ArubCCKR   YIQGISVTVSVMVVISLERYHAICNPLSSRWQTKAHAYKATVGVMMVALFLNLPVAVIFSKLFSFNS-  206
Ovu1CCKR   YLQGVSVAVSCFTLVAMSLERYFGICQPLHSRRWQTLGRAYKIITGCWFLAAMVVIPIAIVTRMKSFDK-  191

HsapCCKRA  NNQTANMCRFLLPNQVMQSSWHTFLLLLILFLIPGIVMMVAYGLISLELYQGIKFEASQKKSAKERKPS--  256
HsapCCKRB  --PRVLQCVHRWPSARVRQTWSVLLLLLLLFFIPGVMMVAVAYGLISRELYLGLRFDGSDSDSQSRVRNQ  267
ArubCCKR   --GTVFRCDIWPATLYRTIYRMCLFVILMVAPLFTMLTAYGLIIRELRRGMKLEQCGADNEKREN---  270
Ovu1CCKR   --GKTHVCREFWTSKIAEKCYTVFLDMAFLLIPVLIIMSGSYGSIWMTLWMGIKMDKKMQDGENQRNQ--  257

HsapCCKRA  -----TTSSGKYEDSDGICYLQKTRPPRKLELRQLSTGSSSRANRIRSNSSAANLMAKKRVIR  313
HsapCCKRB  GLPGAVHQNGRCRPETGAVGEDSDGICYQLPRSRPALELTALTAPGPGSGSRP----TQAKLLAKKRVVR  333
ArubCCKR   -----GIAMKNMGDEASCSLNEKK----TKKSDKKPAQATMRSTSTSG---AKKRVVK  316
Ovu1CCKR   -----GNSMRMCVFEGSPSRNSENRPIVTPKRRRYDLQSGVRQSNLDRNVAAKKRVIK  310

HsapCCKRA  MLIVIVVLLFFLCWMPIFSANAWRAYDTASAERRLSGTPIISFILLLSYTSSCVNPIIYCFMNRFRLLGFMA  383
HsapCCKRB  MLLVIVVLLFFLCWLPVYSANTWRAFDGPGAHRLSGAPISFIHLLSYASACVNPLVYCFMHRRFRQACLE  403
ArubCCKR   MLIVIVALFFVCWTPSWVGNIIWIMISEKSASEHFGRAEVTIFKLMTYASACVNPIVYCFMNRFRQGFLLN  386
Ovu1CCKR   MLAVVLEFFVCWTPPLFFAQTWLAFDARTAHSHISPVGLAFIHLISYVSSCNPIITYCFMNRKFRSFLG  380

HsapCCKRA  TFPCCPNPGPPGARGEVGEEEGGTTGASLSRFS-----YSHMSASVPPQ  428
HsapCCKRB  TCARCCPRPPRARPRALPDEDPPTPSIASLSRFS-----YTTISTLGGP-  447
ArubCCKR   AFSCGRR-GRAGDRATASGDVSRFQSTRRTNVPR-----PSPTNYTNVSSDSSV-  434
Ovu1CCKR   AFCCRRRRSQAPDIAQSTSQIRQGESIATVNASLNSIRIQFEPPLKHLQEMKPNFSNITESDDTSDS-  447

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