

## Specifications:

Gene:	mHCRTR2
Accession:	NP_945200
Insert size:	1396bp
Concentration:	10µg at 0.2µg/µL

## Description

This shuttle vector contains the complete ORF for the gene of interest, along with a Kozak consensus sequence for optimal translation initiation. It is inserted NotI to AscI. The gene insert is flanked with convenient multiple cloning sites which can be used to easily cut and transfer the gene cassette into your desired expression vector.

## Preparation and Storage

Formulation	cDNA is provided in 10 mM Tris-Cl, pH 8.5
Shipping	Ships at ambient temperature
Stability	1 year from date of receipt when stored at -20°C to -80°C
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

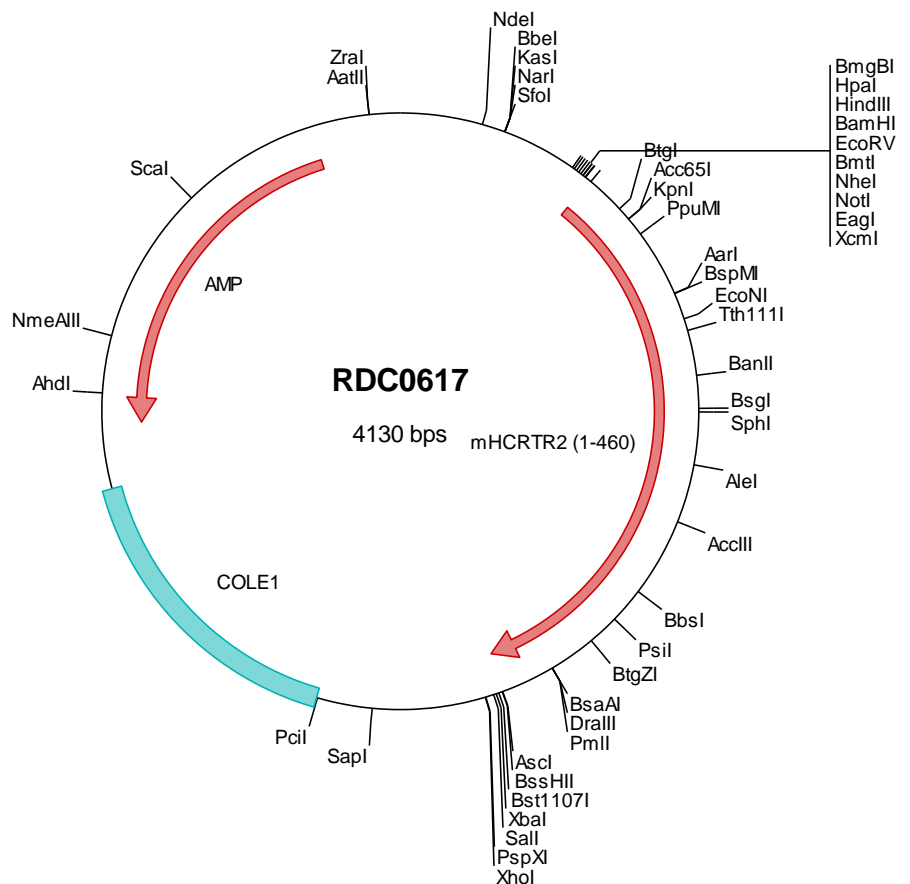
## mOrexin R2/HCRTR2 cDNA Plasmid

**Hcrtr2 hypocretin (orexin) receptor 2 [ *Mus musculus* (house mouse) ]**

**Also known as:** OX2R; mOXR2; mOX2aR; mOX2bR

### Summary:

HCRTR2 is a high-affinity receptor for both orexin-A and orexin-B neuropeptides. It is a G protein-coupled receptor involved in the control of feeding behavior, sleep, arousal and energy homeostasis. Orexin-A and HCRTR2 may be involved in the pathogenesis and/or maintenance of benign prostatic hyperplasia. Expression of HCRTR2 is regulated by a complex involving a proximal PKA/PKC-regulated promoter and a distal promoter regulating tissue-specific expression of alternative transcripts.



FOR RESEARCH USE ONLY

NOT FOR USE IN HUMANS



> RDC0617 Plasmid DNA Sequence

1 tcgcgcggtt cggatgatgac ggtgaaaacc tetgacacat gcaagctccc gagacggtea cagcttgtct gtaagcggat gccgggagca gacaagcccg
101 tcaggggcgc tcagcgggtg ttggcgggtg tetggggctgg cttactatg cggcatcaga gcagattgta ctgagagtgc accatatgcg gttgtaaata
201 ccgcacagat gcgtaaggag aaaataccgc atcaggcgcc attgcgcat caggctgcgc aactgttggg aaggcgatc ggtcggggcc tcttcgctat
301 taaggcagct ggcgaaaggg ggatgtgctg caaggcgatt aagtgggta acgcccgggt tttcccagtc acgacgtgtg aaaacgacgg ccagtgaatt
401 ggagacgtgt taacaagctt ggatccgata tetgtagcgc ggccgcacc atgtccagca caaaactgga ggattccctc tctcgtcgca actggtcact
501 tgcttcaagag ctgaatgaaa ctcaagagcc gtttttaaat cccacggact atgacagca ggaattcctg cggtaacctg ggagggaata cctacaccog
601 aaagaatatg agtgggtcct gatogcaggg tatatcatcg tgttctgtgt ggtctcaatc gggaacctgc tggctgtgtg ggcagtgtgg aagaaccacc
701 acatgaggac agtaccacc tacttcatag tcaaccttcc cctagcagat gtgcttgtga ccatcactcg cctccagct accctcgttg ttgacatcac
801 tgagacttgg ttctttggac agtccctctg taaggtcatt ccttatttac agacgggtgc agtgtctgtg tctgttctta cgttgagctg cattgccttg
901 gaccgatggt acgcaatttg tcaacctttg atgttcaaga gcaagccaa acgggctcga aaacagatcg ttgtcatctg gattgtctcc tgcataata
1001 tgattcctca agccattgtc atggagtgc gacgatgct ccttgccca gcaataaga ccacctctt tacagtatgt gatgaacct gggggcgtga
1101 agtttaccca aagatgtacc atatctgctt ctttctggtg acatcatgg caoctctgtg tcttatgata ttggcttacc tccaaatatt ccgtaaacctc
1201 tgggtccgac agattcccg aacttctctc gtggttcaaga gaaaatggaa gcaagcagcg cgggtttctc agccccggg gtcgggacag cagagcaagg
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1401 tctaccaatc agcatctca atgtgctaaa gagagtattt ggcatgttca cacacagga agacagagag actgtctatg cttgggtcac ttttctcat
1501 tggcttctat atgccaacag tctgcaaac caaattattt ataattttct tagtggaaa tttcagagag aatttaaagc tgcctttctc tgttctctg
1601 gggttcatca tgcgcaagga gaccgctcg ccaggggacg cacgagcaca gagagcagga agtccctgac cacacagatc agcaactttg acaatgtatc
1701 aaaaacttca gagcagctgg tctcaccag cataagcaca ctcccagcag ccaacggggc aggacccgtt caaaaactggt atctacagca gggagtacca
1801 tcttcaactcc tgtccaactg gctggaggta taaaggcgcg ccagatatact ctagagtcca cccccggga attcctcgag cgtcgtctc tagcttggcg
1901 taatcatggt catagctgtt tctgtgtga aattgttacc cgtcacaat tccacacaac atacgagcgc gaagcataaa gtgtaaagcc tggggtgcct
2001 aatgagtgag ctaactcaca ttaattgcgt tgcgctcact gcccgcttcc cagtcgggaa acctgtcgtg ccagctgcat taatgaatcg gccaacgccc
2101 ggggagagcg ggtttcgta ttggcgctcc tccgctctc tgcctcactg actcgcgtcg ctcggtcgtt cggctgcggc gagcgtatc agctcactca
2201 aaggcggtaa tacggttacc cacagatca ggggataacg caggaaaaga catgtgagca aaaggccagc aaaaggccag gaaccgtaaa aaggccgctg
2301 tgctgcaatc ttccatagg atcgcccccc ctgacgagca tcaaaaaaat cgcactcaca cgcagaggtg gcaaaaccog acaggactat aaagatacca
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2601 tatccggtaa ctatcgtctt gagtccaacc cggtaagaca cgacttatcg ccactggcag cagccactgg taacaggtat agcagagcga ggtatgtagg
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3001 gatcctttta aattaaaaat gaagttttaa atcaatctaa agtatatatg agtaaaactg gctctgacagt taccatgct taatcagtga gccacctatc
3101 tcagcgatct gctctatttc ttcattcata gttgctgac tccccctgct gtagataact acgatacggg agggcttacc atctggcccc agtgcgtcaa
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3501 tccgtctccc gatcgttctc agaagtaagt tggcccgagt gttatcact atggttatgg cagcaactgca taattctctt actgtcatgc catccgtaag
3601 atgcttttct gtgactggtg agtactcaac caagtcattc tgagaatagt gtagtcggcg accgagttgc tcttgcggcg cgtcaatcag ggataatacc
3701 gccacacata tgcacaactt aaaaggtctc atcattggaa aacttcttc ggggcaaaaa ctctcaagga tcttaccgct acttgagatc agttcagatg
3801 aaccoactcg tgcacccaac tgatcttctc catcttttac tttcaccagc gtttctgggt gagcaaaaaa aggaaggcaa aatgcccga aaaagggat
3901 aaggcgaca cggaaatgtt gaatactcat actcttctt tttcaatatt attgaagcat ttatcagggt tattgtctca tgagcggata catattgaa
4001 tgtatttga aaaaataaca aatagggtt ccgcgcacat tccccgaaa agtgcacct cagctctaag aaaccattat tatcatgaca ttaacctata
4101 aaaaataggc tatacaggg cctcttctc

> RDC0617 Translated Insert Sequence

1 msstkledsl srrnwssase lnetqepfln ptdydeefl rylwreylhp keyewvliag yivfvvvali gnlvvcvaw knhmrvtvn yfivnlslad
101 vlvttitclpa tlvdvitetw ffgqslckvi pylqtvsvsv svltlscial drwyaichpl mfkstakrar nsivviwivs ciimipqaiv mecsmplgl
201 ankttlftvc dehwwgeyvp kmyhicfflv tymaplclmi laylqifrlk wcrqiptgss vvqrkwwqqq pvsqprgsgq gskarisava aeikqirarr
301 ktarmlmvvl lvfaicylpi silnvlkrvf gmfthtedre tvyawftfsh wlyvansaan piinyflsgk freefkaafs cclgvhhrqg drlargrtst
401 esrkslttqi snfdnsvks ehvvltrsvt lpaangagpl qnwyiqggvp sslstwlev