

## Product datasheet for **RC213760**

### Orexin Receptor 2 (HCRTR2) (NM\_001526) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Orexin Receptor 2 (HCRTR2) (NM_001526) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Orexin Receptor 2
Synonyms:	ORXR2; OX2R; OXR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC213760 representing NM\_001526  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCCGGCACCAAATTGGAGGACTCCCCCCTTGTCCGCAACTGGTCATCTGCTTCGGAGCTGAATGAAA  
 CTAAGAGCCCTTTTAAACCCACCGACTATGACGACGAGGAATTCCTGCGGTACCTGTGGAGGGAATA  
 CCTGCACCCGAAAGAATATGAGTGGTCTGATCGCCGGGTACATCATCGTGTTCGTCGTGGCTCTCATT  
 GGGAAACGTCTGGTTTGTGTGGCAGTGTGGAAGAACCACCACATGAGGACGGTAACCAACTACTTCATAG  
 TCAATCTTTCTGGCTGATGTGCTCGTGACCATCACCTGCCTCCAGCCAAACTGGTCGTGGATATCAC  
 TGAGACCTGGTTTTTGGACAGTCCCTTGCAAAGTGATTCCTTATCTACAGACCGTGTCCGGTGTCTGTG  
 TCTGTCTCACACTGAGCTGTATCGCTTGGATCGGTGGTATGCAATCTGTCACCCTTTGATGTTTAAGA  
 GCACAGCAAAGCGGGCCCGTAACAGCATTGTATCATCTGGATTGTCTCCTGCATTATAATGATTCCTCA  
 GGCCATCGTCATGGAGTGCAGCACCCTGTTCCAGGCTTAGCCAATAAAACCACCCTCTTACGGTGTGT  
 GATGAGCGCTGGGTGGTGAATTTATCCAAGATGTACCACATCTGTTTCTTCTGGTGACATACATGG  
 CACCACCTGTCTCATGGTGTGGCTTATCTGCAAATATTTGCAAACCTCTGGTGTGCACAGATCCCTGG  
 AACATCATCTGTAGTTACAGAAAAATGGAAGCCCTGCAGCCTGTTTACAGCCTCGAGGGCCAGGACAG  
 CCAACGAAGTCCCGGATGAGCGCTGTGGCGGTGAAATAAAGCAGATCCGAGCCAGAAGGAAAACAGCCC  
 GGATGTTGATGATTGTGCTTTTGGTATTTGCAATTTGCTATCTACCAATTAGCATCTCAATGTGCTAAA  
 GAGAGTATTTGGGATGTTGCCATACTGAAGACAGAGAGACTGTGTATGCCTGGTTTACCTTTTACAC  
 TGGCTTGATATGCCAATAGTGTGCGAATCCAATTTATAATTTTCTCAGTGGAAAATTCGAGAGG  
 AATTTAAAGCTGGTTTTCTTGTGCTTGGCTTGGAGTTCACCATCGCCAGGAGGATCGGCTCACCAGGGG  
 ACGAACTAGCACAGAGAGCCGGAAGTCTTGACCACTCAAATCAGCAACTTTGATAACATATCAAACCTT  
 TCTGAGCAAGTTGTGCTCACTAGCATAAGCACACTCCAGCAGCCAATGGAGCAGGACCACTTCAAACCT  
 GG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC213760 representing NM\_001526  
 Red=Cloning site Green=Tags(s)

MSGTKLEDSPPCRNWSSASELNETQEPFLNPTDYDDEEFLRYLWREYLHPKEYEYEWLIAGYIIVFVVALI  
 GNVLVCVAVWKNHHMRTVTNYFIVNLSLADVLVTITCLPAKLVDITETWFFGQSLCKVIPYLQTVSVSV  
 SVLTLSCIALDRWYAICHPLMFKSTAKRARNISIVIIWIVSCIIMIPQAIVMECSTVFPGLANKTTLFTVC  
 DERWGGEIYPKMYHICFFLVTYMAPLCLMVLAYLQIFRKLWCRQIPGTSSVVQRKWKPLQPVSQPRGPGQ  
 PTKSRMSAVAAEIKQIRARRKTARMLMIVLLVFAICYLPISILNVLKRVMFAHTEDRETYYAWFTFSH  
 WL VYANSAANPIIYNFLSGKFREEFKAAFSCCCLGVHHRQEDRLTRGRTSTESRKSLTTQISNFDNISKL  
 SEQVVLTISISTLPAANGAGPLQNW

**TR**TRPLEQ**KL**ISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg2588\\_f06.zip](https://cdn.origene.com/chromatograms/mg2588_f06.zip)

**Restriction Sites:**

Sgfl-Mlul

## Cloning Scheme:



**ACCN:** NM\_001526

**ORF Size:** 1332 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

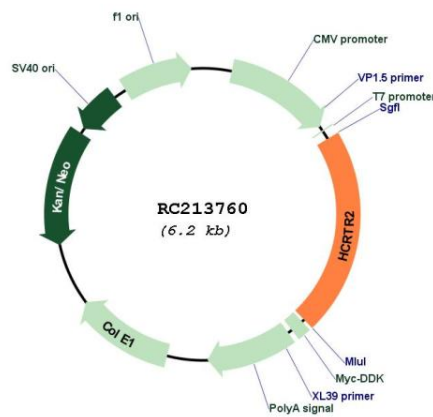
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

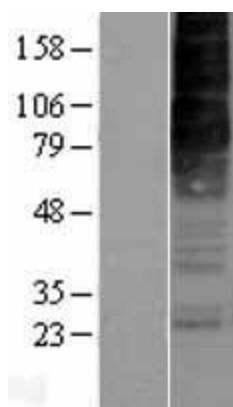
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_001526.5</u>
<b>RefSeq Size:</b>	1843 bp
<b>RefSeq ORF:</b>	1335 bp
<b>Locus ID:</b>	3062
<b>UniProt ID:</b>	<u>O43614</u>
<b>Cytogenetics:</b>	6p12.1
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Neuroactive ligand-receptor interaction
<b>MW:</b>	50.5 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is a G-protein coupled receptor involved in the regulation of feeding behavior. The encoded protein binds the hypothalamic neuropeptides orexin A and orexin B. A related gene (HCRTR1) encodes a G-protein coupled receptor that selectively binds orexin A. [provided by RefSeq, Jan 2009]

**Product images:**



Circular map for RC213760



Western blot validation of overexpression lysate (Cat# [LY400585]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213760 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).