

## Product datasheet for **RG210381**

### Orexin Receptor 1 (HCRTR1) (NM\_001525) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Orexin Receptor 1 (HCRTR1) (NM_001525) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Orexin Receptor 1
Synonyms:	ORXR1; OX1R; OXR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210381 representing NM_001525 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCCCTCAGCCACCCAGGGGCCAGATGGGGTCCCCCTGGCAGCAGAGAGCCGTCCCCTGTGC  
CTCCAGACTATGAAGATGAGTTTCTCCGCTATCTGTGGCGTGATTATCTGTACCCAAAACAGTATGAGTG  
GGTCTCATCGCAGCCTATGTGGCTGTGTTTCGTCGTGGCCCTGGTGGCAACACGCTGGTCTGCCTGGCC  
GTGTGGCGGAACCACCACATGAGGACAGTCACCAACTACTTCATTGTCAACCTGTCCCTGGCTGACGTTCC  
TGGTGACTGCTATCTGCCTGCCGCCAGCTGCTGGTGGACATCACTGAGTCTGGCTGTTCCGGCCATGC  
CCTCTGCAAGGTCATCCCCTATCTACAGGCTGTGTCTGTGTCACTGGCAGTGCTAACTCTCAGCTTCATC  
GCCCTGGACCGCTGGTATGCCATCTGCCACCCACTATTGTTCAAGAGCACAGCCCGCGGGCCCGTGGCT  
CCATCCTGGGCATCTGGGCTGTGTCTGGCCATCATGGTGGCCAGGCTGCAGTCATGGAATGCAGCAG  
TGTGCTGCCTGAGCTAGCCAACCGCACAGGCTCTTCTCAGTCTGTGATGAACGCTGGGCAGATGACCTC  
TATCCCAAGATCTACCACAGTTGCTTCTTTATTGTCACCTACCTGGCCCCACTGGGCCTCATGGCCATGG  
CCTATTTCCAGATATCCGCAAGCTCTGGGGCCGCGAGATCCCCGGCACCACCTCAGCACTGGTGGCGAA  
CTGGAAGCGCCCCCTCAGACCAGCTGGGGACCTGGAGCAGGGCCCTGAGTGGAGAGCCCCAGCCCCGGGCC  
CGCGCCTTCTGGCTGAAGTGAAGCAGATGCGTGCACGGAGGAAGACAGCCAAGATGCTGATGGTGGTGC  
TGCTGGTCTTCGCCCTCTGCTACCTGCCATCAGCGTCTCAATGTCCTTAAGAGGGTGTTCGGGATGTT  
CCGCCAAGCCAGTGACCGCAAGCTGTCTACGCTGCTTACCTTCTCCCACTGGCTGGTGTACGCCAAC  
AGCGCTGCCAACCCCATCATCTACAACCTCTCAGTGGCAAATCCGGGAGCAGTTTAAGGCTGCCTTCT  
CCTGCTGCCTGCCTGGCTGGTCCCTGCGGCTCTCTGAAGGCCCTAGTCCCCGCTCCTCTGCCAGCCA  
CAAGTCTTGTCTTGCAGAGCCGATGCTCCATCTCCAAATCTCTGAGCATGTGGTGTCTACCAGCGTC  
ACCACAGTGTGCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG210381 representing NM\_001525  
 Red=Cloning site Green=Tags(s)

MEPSATPGAQMGVPPGSREPSVPPDYEDFLRYLWRDYLYPEKQYEWVLAAYVAVFVVALVGNTLVCLA  
 VWRNHMRTVTNYFIVNLSLADVLVTAICLPASLLVDITESWLFHALCKVIPYLQAVSVAVLTL SFI  
 ALDRWYAI CHPLLFKSTARRARGSILGIWAVSLAIMVPOAAVMCCSSVLPANRTRLFVCDERWADDL  
 YPKIYHSCFFIVTYLAPLGLMAMAYFQIFRKLWGRQIPGTT SAL VRNWKRPDQLGDLEQGLSGEPQRA  
 RAFLAEVKQMRARRKTAKMLMVLLVFAICYLPISVLNVLKRVFGMFRQASDREAVYACFTFSHWLVYAN  
 SAANPIIYNFLSGKRFREQFAAFSCCLPGLGPCGSLKAPSPRSSASHKSLSLQSRCSISKISEHVVLTSV  
 TTVLP

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001525

**ORF Size:** 1275 bp

**OTI Disclaimer:** 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.

**RefSeq:** [NM\\_001525.1](#), [NP\\_001516.1](#)

**RefSeq Size:** 1564 bp

**RefSeq ORF:** 1278 bp

**Locus ID:** 3061

**UniProt ID:** [O43613](#)

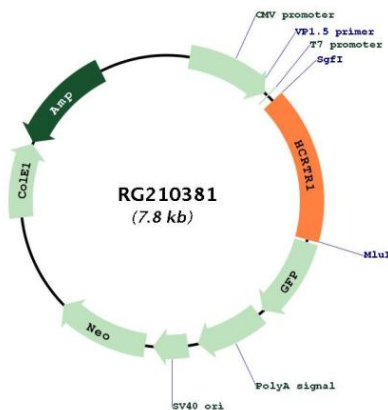
**Cytogenetics:** 1p35.2

**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, GPCR, Transmembrane

**Protein Pathways:** Neuroactive ligand-receptor interaction

**Gene Summary:** The protein encoded by this gene is a G-protein coupled receptor involved in the regulation of feeding behavior. The encoded protein selectively binds the hypothalamic neuropeptide orexin A. A related gene (HCRTR2) encodes a G-protein coupled receptor that binds orexin A and orexin B. [provided by RefSeq, Jan 2009]

## Product images:



Circular map for RG210381