

Product datasheet for RC217956

Orexin (HCRT) (NM_001524) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Orexin (HCRT) (NM_001524) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: Orexin
Synonyms: NRCLP1; OX; PPOX
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC217956 representing NM_001524
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAACCTTCCTCCACAAAGGTCTCCTGGGCCCGGTGACGCTACTGCTGCTGCTGCTGCTGCCGC
CCGCGTGTTCGTCCGGGGCGGCTGCACAGCCCTGCCGACTGCTGTCGTCAAAAGACTTGTCTTG
CCGCTTACGAGCTGCTGCACGGCGGGCAATCACGGCCGGCATCCTCACGCTGGCAAGCGGAGG
TCCGGCCCCCGGCTCCAGGGTCGGCTGCAGCGCTCCTGCAGGCCAGCGCAACCACGCCGGGCA
TCCTGACCATGGGCCCGCGCAGGCGCAGAGCCAGCGCCGCCCTGCCTCGGGCGCCGCTGTTCCGC
CCCGGCCCGCCTCCGTCCGCGCCGGAGGACAGTCCGGGATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC217956 representing NM_001524
 Red=Cloning site Green=Tags(s)
 MNLPSTKVSAAVTL LLLLLLLLPPALLSSGAAAQPLPDCCRQKTCSCRLYELLHGAGNHAAGILTLGKRR
 SGPPGLQGRLLQASGNHAAGILTMGRRAGAEPAPRPLGRRC SAPAAASVAPGGQSGI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8007_f07.zip

Restriction Sites: SgfI-MluI



[View online »](#)

Cloning Scheme:


ACCN: NM_001524

ORF Size: 393 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_001524.1](#), [NP_001515.1](#)

RefSeq Size: 577 bp

RefSeq ORF: 396 bp

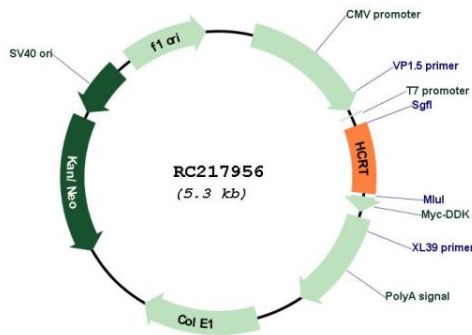
Locus ID: 3060

UniProt ID: [O43612](#)

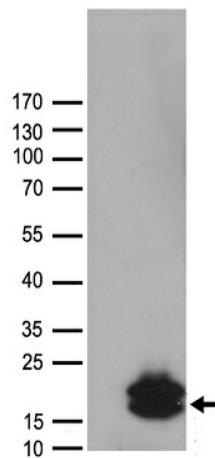
Cytogenetics: 17q21.2
Protein Families: Druggable Genome, Transmembrane
MW: 13.2 kDa

Gene Summary: This gene encodes a hypothalamic neuropeptide precursor protein that gives rise to two mature neuropeptides, orexin A and orexin B, by proteolytic processing. Orexin A and orexin B, which bind to orphan G-protein coupled receptors HCRT1 and HCRT2, function in the regulation of sleep and arousal. This neuropeptide arrangement may also play a role in feeding behavior, metabolism, and homeostasis. [provided by RefSeq, Jan 2010]

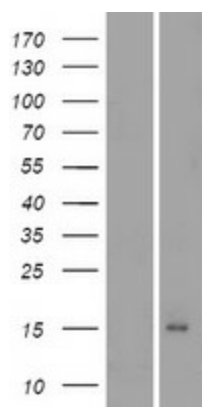
Product images:



Circular map for RC217956



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY HCRT (Cat# RC217956, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-HCRT antibody (Cat# [TA890065]). Positive lysates [LY419884] (100ug) and [LC419884] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419884]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217956 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).