

Product datasheet for SC309317

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

Nociceptin receptor (OPRL1) (NM_182647) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Nociceptin receptor (OPRL1) (NM_182647) Human Untagged Clone

Tag: Tag Free Symbol: OPRL1

Synonyms: KOR-3; KOR3; NOCIR; NOP; NOPr; OOR; OPRL; ORL1; PNOCR

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Fully Sequenced ORF: >SC309317 representing NM_182647.

Blue=Insert sequence Red=Cloning site Green=Tag(s)

GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGAGCCCCTCTTCCCCGCGCCGTTCTGGGAGGTTATCTACGGCAGCCACCTTCAGGGCAACCTGTCC TGCCTTGTCATGTACGTCATCCTCAGGCACACCAAAATGAAGACAGCCACCAATATTTACATCTTTAAC CTGGCCCTGGCCGACACTCTGGTCCTGCTGACGCTGCCCTTCCAGGGCACGGACATCCTCCTGGGCTTC TGGCCGTTTGGGAATGCGCTGTGCAAGACAGTCATTGCCATTGACTACTACAACATGTTCACCAGCACC TTCACCCTAACTGCCATGAGTGTGGATCGCTATGTAGCCATCTGCCACCCCATCCGTGCCCTCGACGTC CGCACGTCCAGCAAAGCCCAGGCTGTCAATGTGGCCATCTGGGCCCTGGCCTCTGTTGTCGGTGTTCCC GTTGCCATCATGGGCTCGGCACAGGTCGAGGATGAAGAGATCGAGTGCCTGGTGGAGATCCCTACCCCT CAGGATTACTGGGGCCCGGTGTTTGCCATCTGCATCTTCCTCTTCTCCTTCATCGTCCCCGTGCTCGTC ATCTCTGTCTGCTACAGCCTCATGATCCGGCGGCTCCGTGGAGTCCGCCTGCTCTCGGGCTCCCGAGAG ACGCCTGTCCAGGTCTTCGTGCTCGCCCAAGGGCTGGGGGTTCAGCCGAGCAGCAGACTGCCGTGGCC ATTCTGCGCTTCTGCACGGCCCTGGGCTACGTCAACAGCTGCCTCAACCCCATCCTCTACGCCTTCCTG GATGAGAACTTCAAGGCCTGCTTCCGCAAGTTCTGCTGTGCATCTGCCCTGCGCCGGGACGTGCAGGTG TCTGACCGCGTGCGCAGCATTGCCAAGGACGTGGCCCTGGCCTGCAAGACCTCTGAGACGGTACCGCGG

CCCGCATGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT

TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites: Sgfl-Mlul





Plasmid Map:

ACCN: NM_182647 **Insert Size:** 1113 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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: <u>NM 182647.3</u>

 RefSeq Size:
 3427 bp

 RefSeq ORF:
 1113 bp

 Locus ID:
 4987

 UniProt ID:
 P41146

 Cytogenetics:
 20q13.33

Protein Families: Druggable Genome, GPCR, Transmembrane

Protein Pathways: Neuroactive ligand-receptor interaction

MW: 40.7 kDa



Gene Summary:

The protein encoded by this gene is a member of the 7 transmembrane-spanning G protein-coupled receptor family, and functions as a receptor for the endogenous, opioid-related neuropeptide, nociceptin/orphanin FQ. This receptor-ligand system modulates a variety of biological functions and neurobehavior, including stress responses and anxiety behavior, learning and memory, locomotor activity, and inflammatory and immune responses. A promoter region between this gene and the 5'-adjacent RGS19 (regulator of G-protein signaling 19) gene on the opposite strand functions bi-directionally as a core-promoter for both genes, suggesting co-operative transcriptional regulation of these two functionally related genes. Alternatively spliced transcript variants have been described for this gene. A recent study provided evidence for translational readthrough in this gene, and expression of an additional C-terminally extended isoform via the use of an alternative in-frame translation termination codon. [provided by RefSeq, Dec 2017]

Transcript Variant: This variant (1) represents the longest transcript and encodes two isoforms, which result from the use of alternative in-frame translation termination codons. The shorter isoform (1) results from translation termination at the upstream UGA stop codon, while the longer isoform (1x) results from UGA stop codon readthrough to the downstream UAG termination codon. This RefSeq represents the shorter isoform (1). Variants 1, 2, and 3 encode the same isoform (1).