

## Product datasheet for SC301311

### OriGene Technologies, Inc.

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# Mu Opioid Receptor (OPRM1) (NM 001008504) Human Untagged Clone

**Product data:** 

**Product Type: Expression Plasmids** 

**Product Name:** Mu Opioid Receptor (OPRM1) (NM\_001008504) Human Untagged Clone

Tag: Tag Free OPRM1 Symbol:

Synonyms: LMOR; M-OR-1; MOP; MOR; MOR1; OPRM

**Mammalian Cell** 

Selection:

Neomycin

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

**Fully Sequenced ORF:** >SC301311 representing NM\_001008504.

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

GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGACAGCAGCGCTGCCCCCACGAACGCCAGCAATTGCACTGATGCCTTGGCGTACTCAAGTTGCTCC CCAGCACCCAGCCCCGGTTCCTGGGTCAACTTGTCCCACTTAGATGGCAACCTGTCCGACCCATGCGGT CCGAACCGCACCGGCCTGGGCGGAGAGACAGCCTGTGCCCTCCGACCGGCAGTCCCTCCATGATCACG GCCATCACGATCATGGCCCTCTACTCCATCGTGTGCGTGGTGGGGCTCTTCGGAAACTTCCTGGTCATG TATGTGATTGTCAGATACACCAAGATGAAGACTGCCACCAACATCTACATTTTCAACCTTGCTCTGGCA GATGCCTTAGCCACCAGTACCCTGCCCTTCCAGAGTGTGAATTACCTAATGGGAACATGGCCATTTGGA ACCATCCTTTGCAAGATAGTGATCTCCATAGATTACTATAACATGTTCACCAGCATATTCACCCTCTGC ACCATGAGTGTTGATCGATACATTGCAGTCTGCCACCCTGTCAAGGCCTTAGATTTCCGTACTCCCCGA AATGCCAAAATTATCAATGTCTGCAACTGGATCCTCTCTCAGCCATTGGTCTTCCTGTAATGTTCATG GCTACAACAAATACAGGCAAGGTTCCATAGATTGTACACTAACATTCTCTCATCCAACCTGGTACTGG GAAAACCTGCTGAAGATCTGTGTTTTCATCTTCGCCTTCATTATGCCAGTGCTCATCATTACCGTGTGC TATGGACTGATGATCTTGCGCCTCAAGAGTGTCCGCATGCTCTCTGGCTCCAAAGAAAAGGACAGGAAT CTTCGAAGGATCACCAGGATGGTGGTGGTGGTGGTGTTTCATCGTCTGCTGGACTCCCATTCAC ATTTACGTCATCATTAAAGCCTTGGTTACAATCCCAGAAACTACGTTCCAGACTGTTTCTTGGCACTTC TGCATTGCTCTAGGTTACACAAACAGCTGCCTCAACCCAGTCCTTTATGCATTTCTGGATGAAAACTTC AAACGATGCTTCAGAGAGTTCTGTATCCCAACCTCTTCCAACATTGAGCAACAAAACTCCACTCGAATT CGTCAGAACACTAGAGACCACCCCTCCACGGCCAATACAGTGGATAGAACTAATCATCAGGTACGCAGT **CTCTAG** 

**ACGCGTACGCGCCCCTC**GAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT

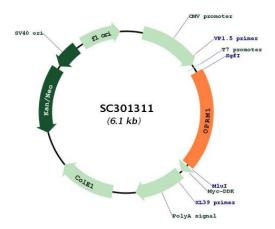
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

**Restriction Sites:** Sgfl-Mlul





#### Plasmid Map:



**ACCN:** NM\_001008504

**Insert Size:** 1179 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 001008504.3</u>

 RefSeq Size:
 2073 bp

 RefSeq ORF:
 1179 bp

 Locus ID:
 4988

 UniProt ID:
 P35372

**Cytogenetics:** 6q25.2



## Mu Opioid Receptor (OPRM1) (NM\_001008504) Human Untagged Clone - SC301311

**Protein Families:** Druggable Genome, GPCR, Transmembrane

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

**MW:** 44 kDa

Gene Summary: This gene encodes one of at least three opioid receptors in humans; the mu opioid receptor

(MOR). The MOR is the principal target of endogenous opioid peptides and opioid analgesic agents such as beta-endorphin and enkephalins. The MOR also has an important role in dependence to other drugs of abuse, such as nicotine, cocaine, and alcohol via its modulation of the dopamine system. The NM\_001008503.2:c.118A>G allele has been associated with opioid and alcohol addiction and variations in pain sensitivity but evidence for it having a causal role is conflicting. Multiple transcript variants encoding different isoforms have been

found for this gene. Though the canonical MOR belongs to the superfamily of 7-

transmembrane-spanning G-protein-coupled receptors some isoforms of this gene have only

6 transmembrane domains. [provided by RefSeq, Oct 2013]

Transcript Variant: This variant (MOR-1A) represents use of an alternate promoter and 5' UTR, uses a downstream start codon, and uses an alternate 3' exon, compared to variant MOR-1i. The resulting isoform (MOR-1A) has a shorter N-terminus and a shorter and distinct C-terminus, compared to isoform MOR-1i. An in-frame, upstream AUG is present that would extend the N-terminus by 62-aa, but the longer N-terminus is not annotated to conform to

the annotation commonly used in the literature.