

Product datasheet for SC324916

OriGene Technologies, Inc.

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Mu Opioid Receptor (OPRM1) (NM_001145287) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Mu Opioid Receptor (OPRM1) (NM_001145287) Human Untagged Clone

Tag: Tag Free
Symbol: OPRM1

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

Vector: pCMV6 series

Fully Sequenced ORF: >NCBI ORF sequence for NM_001145287, the custom clone sequence may differ by one or

more nucleotides

NM 001145287

ATGAAGACTGCCACCAACATCTACATTTTCAACCTTGCTCTGGCAGATGCCTTAGCCACC
AGTACCCTGCCCTTCCAGAGTGTGAATTACCTAATGGGAACATGGCCATTTGGAACCATC
CTTTGCAAGATAGTGATCTCCATAGATTACCTATAACATGTTCACCAGCATATTCACCCTC
TGCACCATGAGTGTTGATCGATACATTGCAGTCTGCCACCCTGTCAAGGCCTTAGATTTC
CGTACTCCCCGAAATGCCAAAATTATCAATGTCTGCAACTGGATCCTCTCTTCAGCCATT
GGTCTTCCTGTAATGTTCATGGCTACAACAAAATACAGGCAAGGTTCCATAGATTGTACA
CTAACATTCTCCATCCAACCTGGTACTGGGAAAACCTGCTGAAGATCTGTGTTTTCATC
TTCGCCTTCATTATGCCAGTGCTCATCATTACCGTGTGCTATGGACTGATGATCTTGCGC
CTCAAGAGTGTCCGCATGCTCTCTGGCTCCAAAGAAAAGGACAGGAATCTTCGAAGGATC
ACCAGGATGGTGCTGGTGGTGGTGTTCATCGTCTGCTGGACTCCCATTCACATT
TACGTCATCATTAAAGCCTTGGTTACAATCCCAGAAACTACGTTCCAGACTGTTTCTTGG
CACTTCTGCATTGCTCTAGGTTACAAACAACACGCTGCCTCAACCCAGTCCTTTATGCATTT
CTGGATGAAAACTTCCAAACGATGCTTCAGAAACACTCAGAGACCACCCCTCCCACGGCCAAT
ACAGTGGATAGAACTAATCATCAGCTAGAAAAATCTGGAAGCAAAACTGCTCCGTTGCCC

Restriction Sites: Please inquire

ACCN:

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: NM 001145287.1, NP 001138759.1

 RefSeq Size:
 2949 bp

 RefSeq ORF:
 903 bp

 Locus ID:
 4988

 UniProt ID:
 P35372

 Cytogenetics:
 6q25.2

Gene Summary:

Protein Families: Druggable Genome, GPCR, Transmembrane

Protein Pathways: Neuroactive ligand-receptor interaction

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-1K1) represents use of an alternate promoter and 5' UTR and uses a downstream start codon, compared to variant MOR-1i. The resulting isoform (MOR-1G1) has a shorter N-terminus, compared to isoform MOR-1i. Variants MOR-1G1, MOR-1K1, and MOR-1K2 encode the same isoform (MOR-1G1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.