

## Product datasheet for **RC214694**

### Mu Opioid Receptor (OPRM1) (NM\_001008505) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mu Opioid Receptor (OPRM1) (NM_001008505) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mu Opioid Receptor
Synonyms:	LMOR; M-OR-1; MOP; MOR; MOR1; OPRM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC214694 representing NM\_001008505  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGACAGCAGCGCTGCCCCACGAACGCCAGCAATTGCACTGATGCCTTGGCGTACTCAAGTTGCTCCC  
 CAGCACCCAGCCCGTTCTGGGTCAACTTGTCCCACTTAGATGGCAACCTGTCCGACCCATGCGGTCC  
 GAACCGCACCGACTGGGCGGGAGAGACAGCCTGTGCCCTCCGACCGGCAGTCCCTCCATGATCACGGCC  
 ATCAGGATCATGGCCCTCTACTCCATCGTGTGCGTGGTGGGGCTCTTCGGAAACTTCTGGTCATGTATG  
 TGATTGTCAGATACACCAAGATGAAGACTGCCACCAACATCTACATTTTCAACCTTGCTCTGGCAGATGC  
 CTTAGCCACCACTACCCTGCCCTCCAGAGTGTGAATTACCTAATGGGAACATGGCCATTTGGAACCATC  
 CTTTGAAGATAGTGATCTCCATAGATTACTATAACATGTTACCAGCATATTACCCTCTGCACCATGA  
 GTGTTGATCGATACATTGAGTCTGCCACCCTGTCAAGGCCTTAGATTTCCGTAATGTTCCCGAAATGCCAA  
 AATTATCAATGTCTGCAACTGGATCCTCTCTCCAGCCATTGGTCTTCTGTAATGTTTCATGGCTACAACA  
 AAATACAGGCAAGGTTCCATAGATTGTACACTAACATTCTCTCATCCAACCTGGTACTGGGAAAACCTGC  
 TGAAGATCTGTGTTTTCATCTTCGCTTATTATGCCAGTGTCTATCATTACCGTGTGCTATGGACTGAT  
 GATCTTGGCCTCAAGAGTGTCCGATGCTCTCTGGCTCCAAAGAAAAGGACAGGAATCTTCAAGGATC  
 ACCAGGATGGTGTGGTGGTGGTGGTGTGTTTCATCGTCTGCTGGACTCCATTACATTTACGTCATCA  
 TTAAGCCTTGGTTACAATCCAGAACTACGTTCCAGACTGTTTCTTGGCACTTCTGCATTGCTTAGG  
 TTACACAAACAGTGCCTCAACCCAGTCTTTATGCATTTCTGGATGAAAACCTCAAACGATGCTTCAGA  
 GAGTTCTGTATCCCAACCTCTTCAACATTGAGCAACAAAACCTCCACTCGAATTCGTGAGAACACTAGAG  
 ACCACCCCTCCAGGCCAATACAGTGGATAGAATAATCATCAGTGCCTACCTACCTTCCCTGCTTTG  
 CTGGGCTCTAGAGCAAGGCTGCTTGGTTGTGTACCCTGGACCACTGCAAGGACCTCTTGTGAGATATGAC  
 CTCCAGCTATCCTTCACTCGTCTGCCTTCGTGGAAATACTGCTCCAGCCCGTCTGGTGGAGCATTTCT  
 CCTGAGT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC214694 representing NM\_001008505  
 Red=Cloning site Green=Tags(s)

MDSSAAPTNASNCTDALAYSSCPAPSPGWSVNLSHLDGNLSDPCGNRTDLGGRDSLCPPTGSPSMITA  
 ITIMALYSIVCVVGLFGNFLVMYVIVRYTKMKATNIIYIFNLALADALATSTLPFQSVNYLMGTWPFGTI  
 LCKIVISIDYYNMFTSIFTLCTMSVDRIYAVCHPVKALDFRTPRNAKIINVCNWILSSAIGLPVFMFMATT  
 KYRQGSIDCTLTFSHPTWYWENLLKICVFIKALVIMPVLIITVGYGLMILRLKSVRMLSGSKEKDRNLRI  
 TRMVLVVAVFIVCWTPIHIIYVIKALVITPETTFQTVSWHFCIALGYTNSCLNPVLYAFLDENFKRCFR  
 EFCIPTSSNIEQQNSTRIRQNRDHPSTANTVDRTNHQCLPIPSLSCWALEQQGCLVVYPGPLQGPLVRYD  
 LPAILHSSCLRGNTAPSPSGAFLLS

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg8004\\_b01.zip](https://cdn.origene.com/chromatograms/mg8004_b01.zip)

**Restriction Sites:**

Sgfl-Mlul

## Cloning Scheme:



ACCN: NM\_001008505

ORF Size: 1338 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\\_001008505.2](#), [NP\\_001008505.2](#)

RefSeq Size: 1652 bp

RefSeq ORF: 1341 bp

Locus ID: 4988

UniProt ID: [P35372](#)

Cytogenetics: 6q25.2

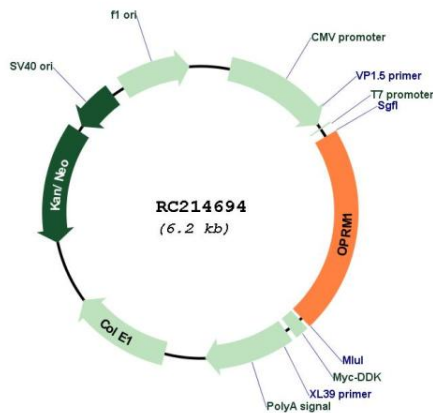
**Protein Families:** Druggable Genome, GPCR, Transmembrane

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

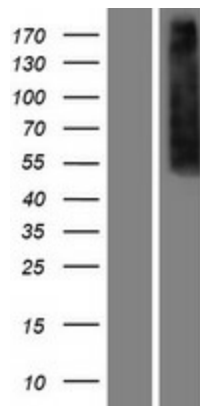
**MW:** 49.3 kDa

**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]

**Product images:**



Circular map for RC214694



Western blot validation of overexpression lysate (Cat# [LY423445]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214694 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).