

Product datasheet for RC227038

Mu Opioid Receptor (OPRM1) (NM_001145286) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mu Opioid Receptor (OPRM1) (NM_001145286) 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)
ORF Nucleotide Sequence:	>RC227038 representing NM_001145286 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGACAGCAGCGCTGCCCCACGAACGCCAGCAATTGCACTGATGCCTTGGCGTACTCAAGTTGCTCCC
CAGCACCACGCCCCGGTTCCTGGGTCAACTTGCCCACTTAGATGGCAACCTGTCCGACCCATGCGGTCC
GAACCGCACCGACTGGGCGGGAGAGACAGCCTGTGCCCTCCGACCGGCAGTCCCTCCATGATCACGGCC
ATCACGATCATGGCCCTCTACTCCATCGTGTGCGTGGTGGGGCTCTTCGAAACTTCCTGGTCATGTATG
TGATTGTCAGATACACCAAGATGAAGACTGCCACCAACATCTACATTTTCAACCTTGCTCTGGCAGATGC
CTTAGCCACCACTACCTGCCCCTCCAGAGTGTGAATTACCTAATGGGAACATGGCCATTTGGAACCATC
CTTTGCAAGATAGTGATCTCCATAGATTACTATAACATGTTTACCAGCATATTACCCTCTGCACCATGA
GTGTTGATCGATACATTGCACTGCTGCCACCCTGTCAAGGCCTTAGATTTCCGTAATGTTCAATGTTCAACA
AAATACAGGCAAGGTTCCATAGATTGTACATAACATTCTCCTCACAACCTGGTACTGGGAAAACCTGC
TGAAGATCTGTGTTCCTTCGCCTCATTATGCCAGTGTCTCATATTACCCTGTGTGATGGACTGAT
GATCTTGGCCCTCAAGAGTGTCCGATGCTCTCTGGCTCCAAAGAAAAGGACAGGAATCTTCAAGGATC
ACCAGGATGGTGTGGTGGTGGTGGTGTGTTTCATCGTCTGCTGGACTCCATTACATTTACGTCATCA
TTAAAGCCTTGGTTACAATCCCGAAAACACTACGTTCCAGACTGTTTCTTGGCACTTCTGCATTGCTTAGG
TTACACAAAACAGCTGCCTCAACCCAGTCTTTTATGCATTTCTGGATGAAAACCTCAACGATGCTTCAGA
GAGTTCTGTATCCCAACCTCTTCCAACATTGAGCAAAAACTCCACTCGAATTGCTCAGAACACTAGAG
ACCACCCTCCACGGCAATACAGTGGATAGAATAATCATCAGGTGGAATTGAACCTGGACTGTCACTG
TGAAAAATGCAAGCCTTGGCCACTGAGCTACAATGCAGGGCAGTCTCCATTTCCCTTCCCAGGAAGATC

ACGCGTACGCGGCCGCTCGAGCAGAAAACATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >RC227038 representing NM_001145286
Red=Cloning site Green=Tags(s)

MDSSAAPTNASNCTDALAYSSCSPAPSPGSWVNLSHLDGNLSDPCGNRTDLGGRDLSLCPPTGSPSMITA
 ITIMALYSIVCVVGLFGNFLVMYVIVRYTKMKTATNIYIFNLALADALATSTLPFQSVNYLMGTWPFGTI
 LCKIVISIDYYNMFTSIFTLCTMSVDRIYAVCHPVKALDFRTPRNAKIINVCNWILSSAIGLPVMFMATT
 KYRQGSIDCTLTFSHPTWYWENLLKICVFIKAFIMPVLIITVCYGLMILRLKSVRMLSGSKEKDRNLRI
 TRMVLVVAVFIVCWTPIHIVYIICALVTIPETTFQTVSWHFCIALGYTNSCLNPVLYAFLDENFKRCFR
 EFCIPTSSNIEQQNSTRIRQNTRDHPSTANTVDRTNHQVELNLDCHCENAKPWPLSYNAGQSPFPFPRV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8058_f09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_001145286

ORF Size: 1260 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_001145286.3](#)

RefSeq ORF: 1263 bp

Locus ID: 4988

UniProt ID: [P35372](#)

Cytogenetics: 6q25.2

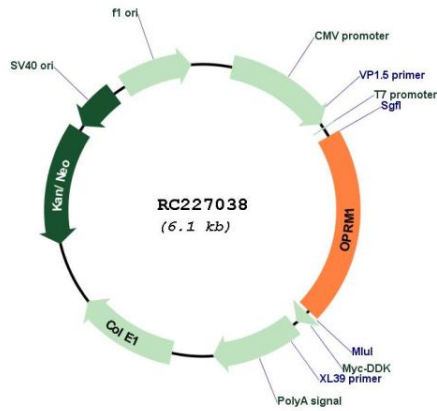
Protein Families: Druggable Genome, GPCR, Transmembrane

Protein Pathways: Neuroactive ligand-receptor interaction

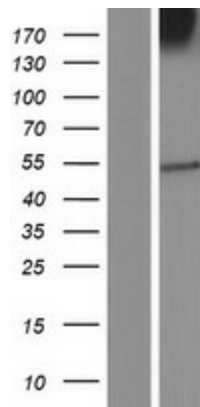
MW: 46.9 kDa

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 RC227038



Western blot validation of overexpression lysate (Cat# [LY428790]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227038 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).