

Product datasheet for **RG214694**

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:	TurboGFP
Symbol:	OPRM1
Synonyms:	LMOR; M-OR-1; MOP; MOR; MOR1; OPRM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG214694 representing NM_001008505
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGACAGCAGCGCTGCCCCACGAACGCCAGCAATTGCACTGATGCCTTGGCGTACTCAAGTTGCTCCC
 CAGCACCCAGCCCGTTCTGGGTCAACTTGTCCCACTTAGATGGCAACCTGTCCGACCCATGCGGTCC
 GAACCGCACCGACTGGGCGGGAGAGACAGCCTGTGCCCTCCGACCGGCAGTCCCTCCATGATCACGGCC
 ATCACGATCATGGCCCTCTACTCCATCGTGTGCGTGGTGGGGCTCTTCGAAACTTCTGGTCATGTATG
 TGATTGTCAGATACACCAAGATGAAGACTGCCACCAACATCTACATTTTCAACCTTGCTCTGGCAGATGC
 CTTAGCCACCAGTACCCTGCCCTCCAGAGTGTGAATTACCTAATGGGAACATGGCCATTTGGAACCATC
 CTTTGAAGATAGTGATCTCCATAGATTACTATAACATGTTACCAGCATATTACCCTCTGCACCATGA
 GTGTTGATCGATACATTGAGTCTGCCACCCTGTCAAGGCCTTAGATTTCCGTAATGTTTCCGTAATGTT
 AATTATCAATGTCTGCAACTGGATCCTCTTCCAGCCATTGGTCTTCTGTAATGTTTCCGTAATGTTT
 AAATACAGGCAAGGTTCCATAGATTGTACACTAACATTCTCTCATCCAACCTGGTACTGGGAAAACCTGC
 TGAAGATCTGTGTTTTTCTTCCGCTTATTATGCCAGTGTCTATCATTACCGTGTGCTATGGACTGAT
 GATCTTGGCCTCAAGAGTGTCCGATGCTCTCTGGCTCCAAAGAAAAGGACAGGAATCTTCAAGGATC
 ACCAGGATGGTGTGGTGGTGGTGGTGTGTTTCATCGTCTGCTGGACTCCATTACATTTACGTCATCA
 TTAAGCCTTGGTTACAATCCAGAACTACGTTCCAGACTGTTTCTTGGCACTTCTGCATTGCTTAGG
 TTACACAAACAGTGCCTCAACCCAGTCTTTATGCATTTCTGGATGAAAACCTCAAACGATGCTTCAGA
 GAGTCTGTATCCCAACCTCTTCAACATTGAGCAACAAAACCTCCACTCGAATTCGTGAGAACACTAGAG
 ACCACCCTCCAGGCCAATACAGTGGATAGAATAATCATCAGTGCCTACCTATACCTTCCCTGTCTTG
 CTGGGCTCTAGAGCAAGGCTGCTTGGTTGTACCCTGGACACTGCAAGGACCTCTTGTGAGATATGAC
 CTCCAGCTATCCTTCACTCGTCTGCCTTCGTGGAAATACTGCTCCAGCCCGTCTGGTGGAGCATTTT
 TCTGAGT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG214694 representing NM_001008505
 Red=Cloning site Green=Tags(s)

MDSSAAPTNASNCTDALAYSSCPAPSPGSWVNLSHLDGNLSDPCGNRTDLGGRDLSLCPPTGSPSMITA
 ITIMALYSIVCVVGLFGNFLVMYVIVRYTKMKATNIIYIFNLALADALATSTLPFQSVNYLMGTWPFGTI
 LCKIVISIDYYNMFTSIFTLCTMSVDRIYVCHPVKALDFRTPRPAKIINVCNWILSSAIGLPVFMFATT
 KYRQGSIDCTLTFSHPTWYWENLLKICVFIKALVIMPVLIITVYGLMILRLKSVRMLSGSKEKDRNLRI
 TRMVLVVAVFIVCWTPIHIVYIICALVTIPETTFQTVSWHFCIALGYTNSCLNPVLYAFLDENFKRCFR
 EFCIPTSSNIEQQNSTRIRQNRDHPSTANTVDRTNHQCLPIPSLSCWALEEQGCLVYYPGPLQGPLVRYD
 LPAILHSSCLRGNTAPSPSGGAFLLS

TRTRPLE – GFP Tag – V

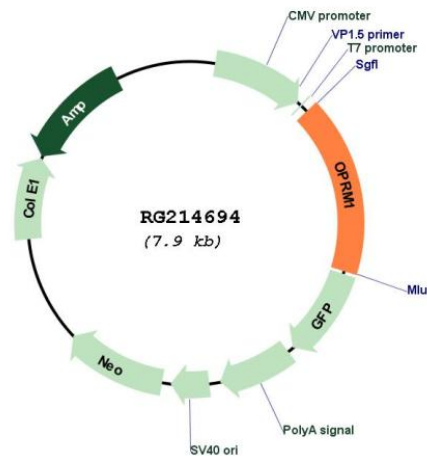
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



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:	<ol style="list-style-type: none">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_001008505.2</u> , <u>NP_001008505.2</u>
RefSeq Size:	1652 bp
RefSeq ORF:	1341 bp
Locus ID:	4988
UniProt ID:	<u>P35372</u>
Cytogenetics:	6q25.2
Protein Families:	Druggable Genome, GPCR, Transmembrane
Protein Pathways:	Neuroactive ligand-receptor interaction
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]