

Product datasheet for **RG238549**

Mu Opioid Receptor (OPRM1) (NM_001285524) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mu Opioid Receptor (OPRM1) (NM_001285524) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mu Opioid Receptor
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:

>RG238549 representing NM_001285524.
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGTGTTTGCACAGAAGAGTGCCAGTGAAGAGACCTACTCCTTGGATCGCTTTGCGCAAAATCCACCC
TTTTTCCCTCCTCCCTCCCTCCAGCCTCCGAATCCCGCATGGCCACGCTCCCTCCTGCAGCGGTGC
GGGGCAGCCAGGACTGGTTTCTGTAAGAAACAGCAGGAGCTGTGGCAGCGCGAAAGGAAGCGGCTGAG
GCGCTTGAACCCGAAAAGTCTCGGTGCTCCTGGCTACCTCGCACAGCGGTGCCCGCCGCGCGTCACT
ACCATGGACAGCAGCGCTGCCCCACGAACGCCAGCAATTGCACTGATGCCTTGGCGTACTCAAGTTGC
TCCCCAGCACCCAGCCCGGTTCTGGGTCAACTGTCCACTTAGATGGCAACCTGTCCGACCCATGC
GGTCCGAACCGCACCGACTGGGCGGGAGAGACAGCCTGTGCCCTCCGACCGGCAGTCCCTCCATGATC
ACGGCCATCACGATCATGGCCCTCTACTCCATCGTGTGCGTGGTGGGCTCTTCGAAACTTCTGGTC
ATGTATGTGATTGTCAGATACACCAAGATGAAGACTGCCACCAACATCTACATTTTCAACCTTGCTCTG
GCAGATGCCTTAGCCACAGTACCTGCCCTTCCAGAGTGTGAATTACCTAATGGGAACATGGCCATTT
GGAACCATCCTTTGCAAGATAGTGATCTCCATAGATTACTATAACATGTTACCAGCATATTCACCCCTC
TGACCATGAGTGTGATCGATACATTGCACTGCTGCCACCCTGTCAAGGCCTTAGATTTCCGTACTCCC
CGAAATGCCAAAATTATCAATGTCTGCAACTGGATCCTCTCTTCAGCCATTGGTCTTCTGTAATGTTT
ATGGCTACAACAAAATACAGGCAAGGTTCCATAGATTGTACACTAACATTCTCTCATCAACCTGGTAC
TGGGAAAACCTGCTGAAGATCTGTGTTTTCATCTTCGCTTCAATATGCCAGTGCATCATTACCGTG
TGCTATGGACTGATGATCTTGGCCTCAAGAGTGTCCGCATGCTCTGGCTCCAAGAAAAGGACAGG
AATCTTGAAGGATCACCAGGATGGTGTGGTGGTGGTGTGTTTCATCGTCTGCTGGACTCCCATT
CACATTTACGTCATCATTAAAGCCTTGGTTACAATCCAGAAACTACGTTCCAGACTGTTTCTGGCAC
TTCTGCATTGCTCTAGGTTACACAAACAGCTGCCTCAACCCAGTCTTTATGCATTTCTGGATGAAAAC
TTCAAACGATGCTTCAAGAGTCTGTATCCCAACCTTTCAAACATTGAGCAACAAAATCCACTCGA
ATTCGTGAGAACACTAGAGACCACCCCTCCAGGCCAATACAGTGGATAGAACTAATCATCAGCTAGAA
AATCTGGAAGCAGAAAATGCTCCGTTGCC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAAAC
```

Protein Sequence:

>Peptide sequence encoded by RG238549
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MCLHRRVPSEETYSLDRFAQNPLFPPPSLPASESRMAHAPLLQRCGAARTGFCKKQQLWQRKEAAE
ALGTRKVSVLLATSHSGARPAVSTMDSSAAPTNASNCTDALAYSSCPAPSPGSWVNLSHLDGNLSDPC
GNRDLGGRDLSLCPPTGSPSMITAITIMALYSIVCVVGLFGNFLVMYIVRYTKMKATNIYIFNLAL
ADALATSTLPFQSVNYLMGTWPFGLILCKIVISIDYNNMFTSIFTLCTMSVDRIYAVCHPVKALDFRTP
RNAKIINVCNWILSSAIGLPVMFMATTKYRQGSIDCTLTFSHPTWYWENLLKICVIFAFIMPVLIITV
CYGLMILRLKSVRMLSGSKEKDRNLRITRMVLVVAVFIVCWTPIHIIYVIKALVTIPETTFQTVSWH
FCIALGYTNSCLNPVLYAFLDENFKRCRFRECIPTSSNIEQQNSTRIRQNRDHPSTANTVDRTNHQL
NLEAETAPLP
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYENPFLHAINNGGYTNRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

Restriction Sites:

Sgfl-Mlul

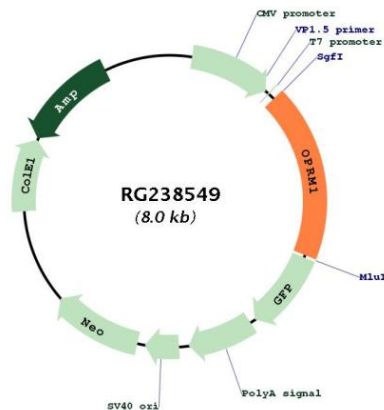
Cloning Scheme:


- ACCN:** NM_001285524
- ORF Size:** 1479 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).
- RefSeq:** [NM_001285524.1](#), [NP_001272453.1](#)
- RefSeq Size:** 15174 bp
- RefSeq ORF:** 1482 bp
- Locus ID:** 4988
- UniProt ID:** [P35372](#)
- Cytogenetics:** 6q25.2
- Protein Families:** Druggable Genome, GPCR, Transmembrane
- Protein Pathways:** Neuroactive ligand-receptor interaction
- MW:** 55 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 RG238549