

## Product datasheet for **RG238094**

### Mu Opioid Receptor (OPRM1) (NM\_001285523) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mu Opioid Receptor (OPRM1) (NM_001285523) 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)
ORF Nucleotide Sequence:	>RG238094 representing NM_001285523. Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTGTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGACAGCAGCGCTGCCCCACGAACGCCAGCAATTGCACTGATGCCTTGGCGTACTCAAGTTGCTCC
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GATGCCTTAGCCACCAGTACCCTGCCCTCCAGAGTGTGAATTACCTAATGGGAACATGGCCATTTGGA
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GCTACAACAAAATACAGGCAAGGTTCCATAGATTGTACTAACATTCTCTCATCCAACCTGGTACTGG
GAAAACCTGCTGAAGATCTGTGTTTTCTTCGCTTCATTATGCCAGTGCTCATCATTACCGTGTGC
TATGGACTGATGATCTTGCCTCAAGAGTGTCCGCATGCTCTGGCTCCAAGAAAAGGACAGGAAT
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CGTCAGAACACTAGAGACCACCCCTCCACGGCCAATACAGTGGATAGAACTAATCATCAGAATTATTAT
ATAATTCATAGATGTTGCTGCAATACCCCTCTTATTTCTCAAAGCCAGTCTTGTCTGTTCTGTGAT
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```



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**Protein Sequence:** >Peptide sequence encoded by RG238094  
 Blue=ORF Red=Cloning site Green=Tag(s)

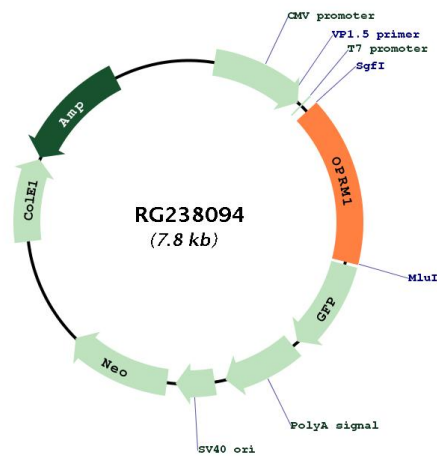
MDSSAAPTNASNCTDALAYSSCPAPSPGSWVNLSHLDGNLSDPCGPNRTLGGDRSLCPPTGSPSMIT  
 AITIMALYSIVCVVGLFGNFLVMYVIVRYTKMKTATNIYIFNLALADALATSTLPFQSVNYLMGTWPFQ  
 TILCKIVISIDYINMFTSIFTLCTMSVDRIYVCHPVKALDFRTPRNAKIINVCNWILSSAIGLPVMFM  
 ATTKYRQGSIDCLTFSSHPTWYENLLKICVFIKALVTIPETTFQTVSWHFCIALGYTNSCLNPVLYAFDENF  
 LRRITRMVLVVAVFIVCWTPIHIVYIYIKALVTIPETTFQTVSWHFCIALGYTNSCLNPVLYAFDENF  
 KRCFREFCIPTSSNIEQQNSTRIRQNTDRHPSTANTVDRTNHQNYIYIHRCCNTPLISQKPVLLWFC  
**TRTRPLEMESDEGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV**  
 MGYGFYHFGTYPYSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED  
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



<b>ACCN:</b>	NM_001285523
<b>ORF Size:</b>	1242 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>RefSeq:</b>	<a href="#">NM_001285523.3</a>
<b>RefSeq Size:</b>	1737 bp
<b>RefSeq ORF:</b>	1245 bp
<b>Locus ID:</b>	4988
<b>UniProt ID:</b>	<a href="#">P35372</a>
<b>Cytogenetics:</b>	6q25.2
<b>Protein Families:</b>	Druggable Genome, GPCR, Transmembrane
<b>Protein Pathways:</b>	Neuroactive ligand-receptor interaction
<b>MW:</b>	47.1 kDa
<b>Gene Summary:</b>	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]