

Product datasheet for **RG227144**

Mu Opioid Receptor (OPRM1) (NM_001145282) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Mu Opioid Receptor (OPRM1) (NM_001145282) 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: >RG227144 representing NM_001145282
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGGATCGCC

ATGGACAGCAGCGCTGCCCCACGAACGCCAGCAATTGCACTGATGCCTTGGCGTACTCAAGTTGCTCCC
CAGCACCCAGCCCCGGTTCCTGGGTCACCTTGTCCCCTTAGATGGCAACCTGTCGACCCATGCGGTCC
GAACCGCACCGACTGGGCGGGAGAGACAGCCTGTGCCCTCCGACCGGCAGTCCCTCCATGATCAGGCC
ATCAGCATCATGGCCCTCTACTCCATCGTGTGCCTGGTGGGCTCTTCGAAAACCTCTGGTTCATGTATG
TGATTGTCAGATACACCAAGATGAAGACTGCCACCAACATCTACATTTTCAACCTTGTCTGGCAGATGC
CTTAGCCACCAAGTACCCTGCCCTTCAGAGTGTGAATTACCTAATGGGAACATGGCCATTTGGAACCATC
CTTTGCAAGATAGTGATCTCCATAGATTACTATAACATGTTCCACCAGCATATTCACCCTCTGCACCATGA
GTGTTGATCGATACATTGCACTGCTGCCACCCTGTCAAGGCCTTAGATTTCCGTAATGTTGTTGCTACAACA
AAATACAGGCAAGGTTCCATAGATTGTACACTAACATTCTCTATCCAACTGGTACTGGGAAAACCTGC
TGAAGATCTGTGTTTCATCTTCGCCTCATTATGCCAGTGCTCATCATTACCGTGTGCTATGGACTGAT
GATCTTGGCCTCAAGAGTGTCCGATGCTCTCTGGCTCCAAAGAAAAGGACAGGAATCTCGAAGGATC
ACCAGGATGGTGTGGTGGTGGTGTGTTTCATCGTCTGCTGGACTCCCATTACATTTACGTCATCA
TTAAAGCCTTGGTTACAATCCCAGAAACTACGTTCCAGACTGTTTCTTGGCACTTCTGCATTGCTCTAGG
TTACACAAACAGCTGCCTCAACCAGTCTTTATGCATTTCTGGATGAAAACCTCAAACGATGCTTCAGA
GAGTTCTGTATCCCAACTCTTCCAACATTGAGCAAAAACTCCAAGTTCGATCGAGAACACTAGAG
ACCACCCCTCCACGGCCAATACAGTGGATAGAATAATCATCAGAAAAATAGATTTATTTCAAAAGTCATC
TTTACTCAACTGTGAGCATACCAAGGCC

ACGGTACGGCGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG227144 representing NM_001145282
 Red=Cloning site Green=Tags(s)

MDSSAAPTNASNCTDALAYSSCPAPSPGSWVNLSHLDGNLSDPCGNRTDLGGRDLSLCPPTGSPSMITA
 ITIMALYSIVCVVGLFGNFLVMYVIVRYTKMKTATNIYIFNLALADALATSTLPFQSVNYLMGTWPFGTI
 LCKIVISIDYYNMFTSIFTLCTMSVDRIAVCHPVKALDFRTPRNAKIINVCNWILSSAIGLPVMFMATT
 KYRQGSIDCTLTFSHPTWYWENLLKICVFIFAFIMPVLIITVCYGLMILRLKSVRMLSGSKEKDRNLRI
 TRMVLVVAVFIVCWTPIHIVYIICALVTIPETTFQTVSWHFCIALGYTNSCLNPVLYAFLDENFKRCFR
 EFCIPTSSNIEQQNSTRIRQNTRDHPSTANTVDRTNHQKIDLFQKSSLLNCEHTKG

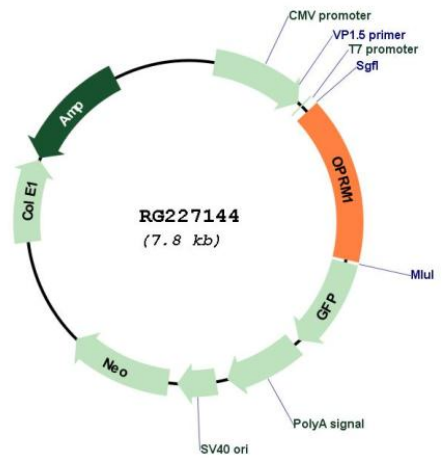
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001145282

ORF Size:	1218 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:	NM_001145282.2 , NP_001138754.1
RefSeq Size:	1500 bp
RefSeq ORF:	1221 bp
Locus ID:	4988
UniProt ID:	P35372
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]