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Product datasheet for RC227905

Mu Opioid Receptor (OPRM1) (NM_001145279) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mu Opioid Receptor (OPRM1) (NM_001145279) 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:

>RC227905 representing NM_001145279
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTGTTTGCACAGAAGAGTGCCCAGTGAAGAGACCTACTCCTTGGATCGCTTTGCGCAAAATCCACCCC
TTTTCCCTCCTCCCTCCCTTCCAGCCTCCGAATCCCGCATGGCCCACGCTCCCCTCCTGCAGCGGTGCGG
GGCAGCCAGGACTGGTTTCTGTAAGAAACAGCAGGAGCTGTGGCAGCGGCGAAAGGAAGCGGCTGAGGCG
CTTGGAACCCGAAAAGTCTCGGTGCTCCTGGCTACCTCGCACAGCGGTGCCCGCCCGGCCGTCAGTACCA
TGGACAGCAGCGCTGCCCCCACGAACGCCAGCAATTGCACTGATGCCTTGGCGTACTCAAGTTGCTCCCC
AGCACCCAGCCCCGGTTCCTGGGTCAACTTGTCCCACTTAGATGGCAACCTGTCCGACCCATGCGGTCCG
AACCGCACCGACCTGGGCGGGAGAGACAGCCTGTGCCCTCCGACCGGCAGTCCCTCCATGATCACGGCCA
TCACGATCATGGCCCTCTACTCCATCGTGTGCGTGGTGGGGCTCTTCGGAAACTTCCTGGTCATGTATGT
GATTGTCAGATACACCAAGATGAAGACTGCCACCAACATCTACATTTTCAACCTTGCTCTGGCAGATGCC
TTAGCCACCAGTACCCTGCCCTTCCAGAGTGTGAATTACCTAATGGGAACATGGCCATTTGGAACCATCC
TTTGCAAGATAGTGATCTCCATAGATTACTATAACATGTTCACCAGCATATTCACCCTCTGCACCATGAG
TGTTGATCGATACATTGCAGTCTGCCACCCTGTCAAGGCCTTAGATTTCCGTACTCCCCGAAATGCCAAA
ATTATCAATGTCTGCAACTGGATCCTCTCTTCAGCCATTGGTCTTCCTGTAATGTTCATGGCTACAACAA
AATACAGGCAAGGTTCCATAGATTGTACACTAACATTCTCTCATCCAACCTGGTACTGGGAAAACCTGCT
GAAGATCTGTGTTTTCATCTTCGCCTTCATTATGCCAGTGCTCATCATTACCGTGTGCTATGGACTGATG
ATCTTGCGCCTCAAGAGTGTCCGCATGCTCTCTGGCTCCAAAGAAAAGGACAGGAATCTTCGAAGGATCA
CCAGGATGGTGCTGGTGGTGGTGGCTGTGTTCATCGTCTGCTGGACTCCCATTCACATTTACGTCATCAT
TAAAGCCTTGGTTACAATCCCAGAAACTACGTTCCAGACTGTTTCTTGGCACTTCTGCATTGCTCTAGGT
TACACAAACAGCTGCCTCAACCCAGTCCTTTATGCATTTCTGGATGAAAACTTCAAACGATGCTTCAGAG
AGTTCTGTATCCCAACCTCTTCCAACATTGAGCAACAAAACTCCACTCGAATTCGTCAGAACACTAGAGA
CCACCCCTCCACGGCCAATACAGTGGATAGAACTAATCATCAGCTAGAAAATCTGGAAGCAGAAACTGCT
CCGTTGCCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC227905 representing NM_001145279
Red=Cloning site Green=Tags(s)

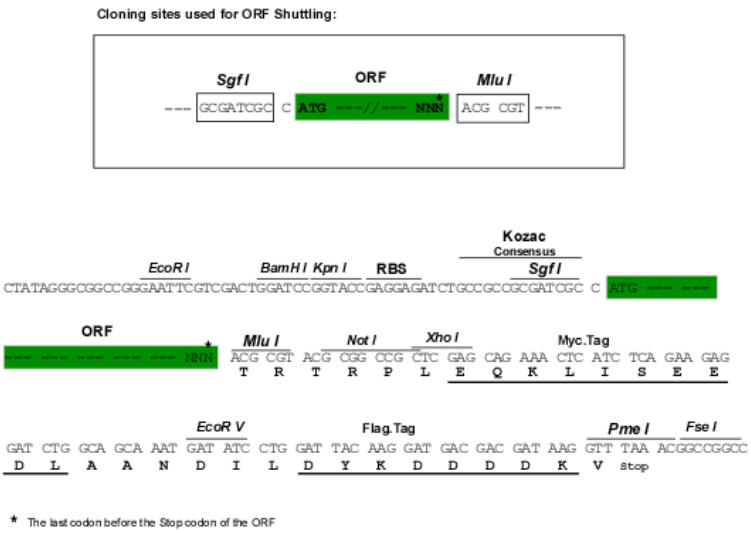
MCLHRRVPSEETYSLDRFAQNPPLFPPPSLPASESRMAHAPLLQRCGAARTGFCKKQQELWQRRKEAAEA
LGTRKVSVLLATSHSGARPAVSTMDSSAAPTNASNCTDALAYSSCSPAPSPGSWVNLSHLDGNLSDPCGP
NRTDLGGRDSLCPPTGSPSMITAITIMALYSIVCVVGLFGNFLVMYVIVRYTKMKTATNIYIFNLALADA
LATSTLPFQSVNYLMGTWPFGTILCKIVISIDYYNMFTSIFTLCTMSVDRYIAVCHPVKALDFRTPRNAK
IINVCNWILSSAIGLPVMFMATTKYRQGSIDCTLTFSHPTWYWENLLKICVFIFAFIMPVLIITVCYGLM
ILRLKSVRMLSGSKEKDRNLRRITRMVLVVVAVFIVCWTPIHIYVIIKALVTIPETTFQTVSWHFCIALG
YTNSCLNPVLYAFLDENFKRCFREFCIPTSSNIEQQNSTRIRQNTRDHPSTANTVDRTNHQLENLEAETA
PLP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8063_c10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001145279

ORF Size: 1479 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

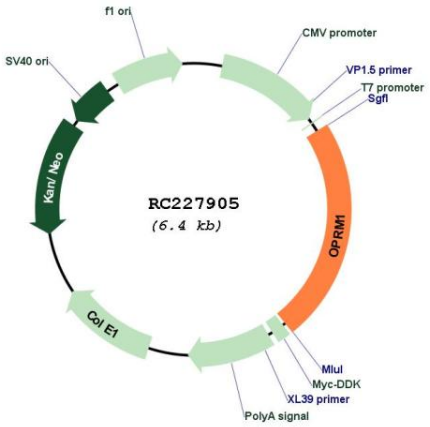
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

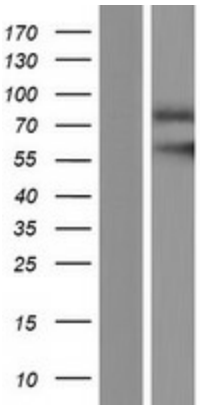
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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_001145279.4
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:	54.9 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 RC227905



Western blot validation of overexpression lysate (Cat# [LY428783]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227905 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).