

## Product datasheet for **RC212436**

### Muscarinic Acetylcholine Receptor M3 (CHRM3) (NM\_000740) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Muscarinic Acetylcholine Receptor M3 (CHRM3) (NM_000740) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Muscarinic Acetylcholine Receptor M3
Synonyms:	EGBRS; HM3; PBS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC212436 representing NM\_000740  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGACCTTGCACAATAACAGTACAACCTCGCCTTTGTTTCCAACATCAGCTCCTCTGGATACACAGCC  
 CCTCCGATGCAGGCTGCCCCGGGAACCGTCACTCATTTCCGACAGCTACAATGTTTCTCGAGCAGCTGG  
 CAATTTCTCCTCTCCAGACGGTACCACCGATGACCCTCTGGGAGGTCATACCGTCTGGCAAGTGGTCTTC  
 ATCGCTTTCTTAACGGGCATCCTGGCCTTGGTGACCATCATCGGCAACATCCTGGTAATTGTGTCATTTA  
 AGGTCAACAAGCAGCTGAAGACGGTCAACAACACTTCTCTTAAAGCCTGGCCTGTGCCGATCTGATTAT  
 CGGGGTCAATTAATGAATCTGTTTACGACCTACATCATGAATCGATGGCCTTAGGAACTTGGCC  
 TGTGACCTCTGGCTTGCATTGACTACGTAGCCAGCAATGCCTCTGTTATGAATCTTCTGGTCATCAGCT  
 TTGACAGATACTTTCCATCACGAGGCCGCTCACGTACCGAGCCAAACGAACAACAAGAGAGCCGGTGT  
 GATGATCGGTCTGGCTTGGGTCACTCCTTTGTCTTTGGGCTCCTGCCATCTTGTCTGGCAACTACTTT  
 GTTGAAAAGAGAACTGTGCCTCCGGGAGAGTGCTTCATTAGTTCCTCAGTGAGCCACCATTACTTTTG  
 GCACAGCCATCGCTGCTTTTATATGCCTGTCAACCATTATGACTATTTTATACTGGAGGATCTATAAGGA  
 AACTGAAAAGCGTACAAAGAGCTTGTGGCCTGCAAGCCTCTGGGACAGAGGCAGAGACAGAAAACCTTT  
 GTCCACCCACGGGAGTTCGAAAGCTGCAGCAGTTACGAACCTCAACAGCAAAGCATGAAACGCTCCA  
 ACAGGAGGAAGTATGGCCGCTGCCACTTCTGGTTCACAACCAAGAGCTGGAAACCCAGCTCCGAGCAGAT  
 GGACCAAGACCACAGCAGCAGTACAGTTGGAACAACAATGATGCTGTGCCTCCCTGGAGAACTCCGCC  
 TCCTCCGACGAGGAGGACATTGGCTCCGAGACGAGAGCCATCTACTCCATCGTGTCTAAGCTTCCGGGTC  
 ACAGCACCATCCTCAACTCCACCAAGTTACCCTCATCGGACAACCTGCAGGTGCCTGAGGAGGAGCTGGG  
 GATGGTGGACTTGGAGAGGAAAGCCGACAAGCTGCAGGCCAGAAGAGCGTGGACGATGGAGGAGTTTT  
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 TGCTCTGAAGACCAGAAGTCAGATCACTAAGCGGAAAAGGATGTCCCTGGTCAAGGAGAAGAAAGCGGCC  
 CAGACCCTCAGTGCATCTTGTGCTTATCATCACTTGGACCCATAACAACATCATGGTTCTGGTGA  
 ACACCTTTGTGACAGCTGCATACCCAAAACCTTTTGAATCTGGGCTACTGGCTGTGCTACATCAACAG  
 CACCGTGAACCCGTGTGCTATGCTCTGTGCAACAAAACATTAGAACCCTTTCAAGATGCTGCTGCTG  
 TGCCAGTGTGACAAAAAAGAGGCGCAAGCAGCAGTACCAGCAGAGACAGTCCGTCATTTTACAAGC  
 GGCACCCGAGCAGGCCTTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC212436 representing NM\_000740  
 Red=Cloning site Green=Tags(s)

MTLHNNSTTSPLFPNIISSWIHSPSDAGLPPGTVTHFGSYNVSRAAGNFSSPDGTTDDPLGGHTVWQVVF  
 IAFLTGILALVTIIGNILVIVSFKNKQLKTVNNYFLLSLACADLIIGVISMNLFTTYIIMNRWALGNLA  
 CDLWLAIDYVASNASVMNLLVISFDYFISITRPLTYRAKRTTKRAGVMIGLAWVISFVLWAPAILFWQYF  
 VGKRTVPPGECFIQFLSEPTITFGTAIAAFYMPVTIMTILYWRIYKETEKRTELQASGTEAETENF  
 VHPTGSSRSCSSYELQQQSMKRSNRRKYGRCHFVFTTKSWKPSSEQMDQDHSSSDSWNNNDAAASLENSA  
 SSDEEDIGSETRAIYSIVLKLPGHSTILNSTKLPSSDNLQVPEEELGMVDLERKADKLQAQKSVDDGGSF  
 PKSF SKLPIQLES AVDTAKTSDVNSSVGKSTATLPLSFKEATLAKRFALKTRSQITKRKMSLVKEKAA  
 QTL SAILLAFIITWTPYNIMVLVNTFCDSICPKTFWNLYWLCYINSTVNPVCYALCNKTFRTTFKMLLL  
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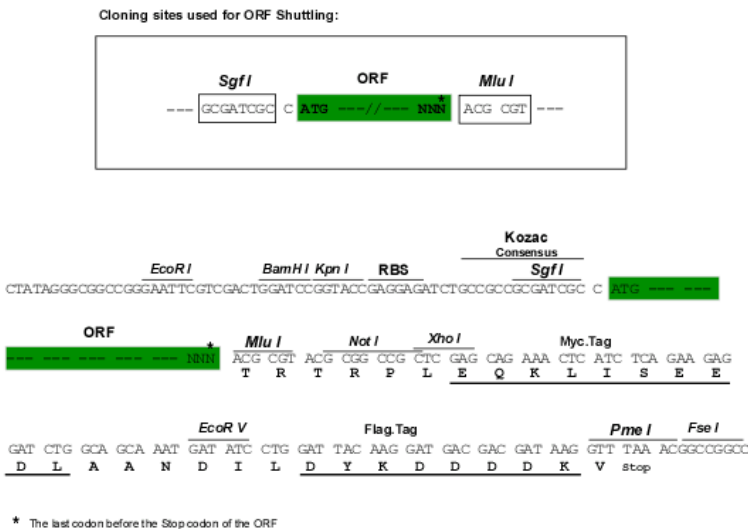
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6105\\_e08.zip](https://cdn.origene.com/chromatograms/mk6105_e08.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000740

**ORF Size:** 1770 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:**
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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

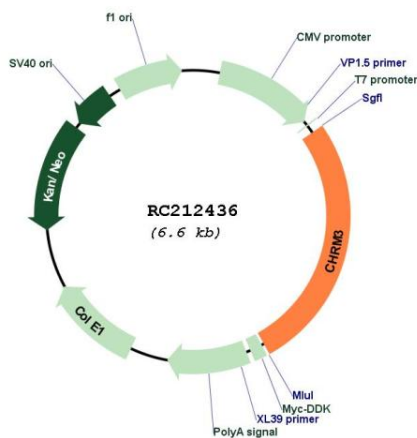
**RefSeq:** [NM\\_000740.3](#)

**RefSeq Size:** 2757 bp

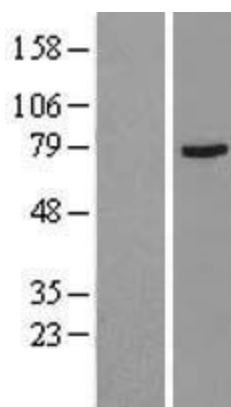
**RefSeq ORF:** 1773 bp

<b>Locus ID:</b>	1131
<b>UniProt ID:</b>	<a href="#">P20309</a>
<b>Cytogenetics:</b>	1q43
<b>Domains:</b>	7tm_1
<b>Protein Families:</b>	Druggable Genome, GPCR, Transmembrane
<b>Protein Pathways:</b>	Calcium signaling pathway, Neuroactive ligand-receptor interaction, Regulation of actin cytoskeleton
<b>MW:</b>	65.9 kDa
<b>Gene Summary:</b>	The muscarinic cholinergic receptors belong to a larger family of G protein-coupled receptors. The functional diversity of these receptors is defined by the binding of acetylcholine and includes cellular responses such as adenylate cyclase inhibition, phosphoinositide degeneration, and potassium channel mediation. Muscarinic receptors influence many effects of acetylcholine in the central and peripheral nervous system. The muscarinic cholinergic receptor 3 controls smooth muscle contraction and its stimulation causes secretion of glandular tissue. Alternative promoter use and alternative splicing results in multiple transcript variants that have different tissue specificities. [provided by RefSeq, Dec 2016]

**Product images:**



Circular map for RC212436



Western blot validation of overexpression lysate (Cat# [LY400244]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212436 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).