

## Product datasheet for **RG212436**

### 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:	TurboGFP
Symbol:	Muscarinic Acetylcholine Receptor M3
Synonyms:	EGBRS; HM3; PBS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG212436 representing NM\_000740  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGACCTTGCACAATAACAGTACAACCTCGCCTTTGTTTCCAACATCAGCTCCTCTGGATACACAGCC  
 CCTCCGATGCAGGCTGCCCCGGGAACCGTCACTCATTTCGGCAGCTACAATGTTTCTCGAGCAGCTGG  
 CAATTTCTCTCTCCAGACGGTACCACCGATGACCCTCTGGGAGGTCATACCGTCTGGCAAGTGGTCTTC  
 ATCGCTTTCTTAACGGGCATCCTGGCCTTGGTGACCATCATCGGCAACATCCTGGTAATTGTGCATTTA  
 AGGTCAACAAGCAGCTGAAGACGGTCAACAACACTTCTCTTAAGCCTGGCCTGTGCCGATCTGATTAT  
 CGGGGTCAATTAATGAATCTGTTTACGACCTACATCATGAATCGATGGCCTTAGGAACTTGGCC  
 TGTGACCTCTGGCTTGCATTGACTACGTAGCCAGCAATGCCTCTGTTATGAATCTTCTGGTCATCAGCT  
 TTGACAGATACTTTCCATCACGAGGCCGCTCACGTACCGAGCCAAACGAACAACAAGAGAGCCGGTGT  
 GATGATCGGTCTGGCTTGGGTCACTCCTTTGTCTTTGGGCTCCTGCCATCTTGTCTGGCAACTACTTT  
 GTTGAAAAGAGAACTGTGCCTCCGGGAGAGTGCTTCAATCAGTTCCTCAGTGAGCCACCATTACTTTTG  
 GCACAGCCATCGCTGCTTTTATATGCCTGTCAACATTATGACTATTTTATACTGGAGGATCTATAAGGA  
 AACTGAAAAGCGTACAAAGAGCTTGTGGCCTGCAAGCCTCTGGGACAGAGGCAGAGACAGAAAACCTTT  
 GTCCACCCACGGGAGTTCGAAAGCTGCAGCAGTTACGAACCTCAACAGCAAAGCATGAAACGCTCCA  
 ACAGGAGGAAGTATGGCCGCTGCCACTTCTGGTTCACAACCAAGAGCTGGAAACCCAGCTCCGAGCAGAT  
 GGACCAAGACCACAGCAGCAGTACAGTTGGAACAACAATGATGCTGCTGCCTCCCTGGAGAACTCCGCC  
 TCCTCCGACGAGGAGACATTGGCTCCGAGACGAGAGCCATCTACTCCATCGTGTCAAGCTTCCGGGTC  
 ACAGACCATCCTCAACTCCACCAAGTTACCCTCATCGGACAACCTGCAGGTGCCTGAGGAGGAGTGGG  
 GATGGTGGACTTGGAGAGGAAAGCCGACAAGCTGCAAGGCCAGAAGAGCGTGGACGATGGAGGCAGTTTT  
 CCAAAAAGCTTCTCAAGCTTCCATCCAGCTAGAGTCAGCCGTGGACACAGCTAAGACTTCTGACGTCA  
 ACTCCTCAGTGGGTAAGAGCACGGCCACTCTACCTCTGTCTTCAAGGAAGCCACTCTGGCCAAGAGGTT  
 TGCTCTGAAGACCAGAAGTCAGATCACTAAGCGGAAAAGGATGTCCCTGGTCAAGGAGAAGAAAGCGGCC  
 CAGACCCTCAGTGCATCTTGTCTGCCTTATCATCACTTGGACCCATAACAACATCATGGTTCTGGTGA  
 ACACCTTTGTGACAGCTGCATACCCAAAACCTTTTGAATCTGGGCTACTGGCTGTGCTACATCAACAG  
 CACCGTGAACCCGTGTGCTATGCTCTGTGCAACAAAACATTAGAACCCTTTCAAGATGCTGCTGCTG  
 TGCCAGTGTGACAAAAAAGAGGCGCAAGCAGCAGTACCAGCAGAGACAGTCCGTCATTTTACAAGC  
 GGCACCCGAGCAGGCCTTG

**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA**

**Protein Sequence:**

>RG212436 representing NM\_000740  
 Red=Cloning site Green=Tags(s)

MTLHNNSTTSPLFPNISSWIHSPSDAGLPPGTVTHFGSYNVSRAAGNFSSPDGTTDDPLGGHTVWQVVF  
 IAFLTGLALVTIIGNILVIVSFKNKQLKTVNNYFLLSLACADLIIGVISMNLFTTYIIMNRWALGNLA  
 CDLWLAIDYVNASVSNLLVISFDRYFSITRPLTYRAKRTTKRAGVMIGLAWVISFVLWAPILFWQYF  
 VGKRTVPPGECFIQFLSEPTITFGTAIAAFYMPVTIMTILYWRIYKETEKRTELQASGTEAETENF  
 VHPTGSSRSCSSYELQQQSMKRSNRRKYGRCHFWFITKSWKPSSEQMDQDHSSSDSWNNDAASLENSA  
 SSDEEDIGSETRAIYSIVLKLPGHSTILNSTKLPSSDNLQVPEEELGMVDLERKADKLQAQKSVDDGGSF  
 PKSFSLPIQLESVDTAKTSDVNSSVGKSTATLPLSFKEATLAKRFALKTRSQITKRKRMSLVKEKKA  
 QTLSAILLAFIITWTPYINIMVLVNTFCDSICPKTFWNLGYWLCYINSTVNPVCYALCNKFRFTTFKMLL  
 CQCDKRRRQYQQRQSVIFHKRAPEQAL

**TRTRPLE - GFP Tag - V**

**Restriction Sites:**

Sgfl-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.

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

RefSeq Size: 2757 bp

RefSeq ORF: 1773 bp

Locus ID: 1131

UniProt ID: [P20309](#)

Cytogenetics: 1q43

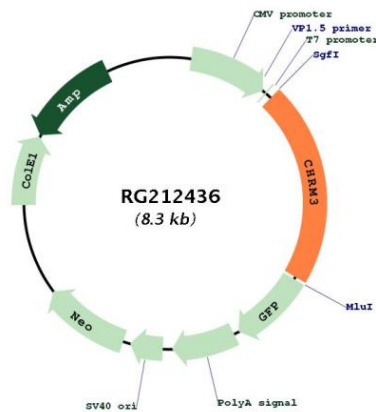
**Domains:** 7tm\_1

**Protein Families:** Druggable Genome, GPCR, Transmembrane

**Protein Pathways:** Calcium signaling pathway, Neuroactive ligand-receptor interaction, Regulation of actin cytoskeleton

**Gene Summary:** 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 RG212436