

## Product datasheet for **SC119736**

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

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Muscarinic Acetylcholine Receptor M3 (CHRM3) (NM_000740) Human Untagged Clone
Tag:	Tag Free
Symbol:	Muscarinic Acetylcholine Receptor M3
Synonyms:	EGBRS; HM3; PBS
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC119736 sequence for NM\_000740 edited (data generated by NextGen Sequencing)

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ATGACCTTGCACAATAACAGTACAACCTCGCCTTTGTTTCCAACATCAGCTCCTCCTGG
ATACACAGCCCCTCCGATGCAGGGCTGCCCCGGGAACCGTCACTATTTCCGGCAGCTAC
AATGTTTCTCGAGCAGCTGGCAATTTCTCTCTCCAGACGGTACCACCGATGACCCTCTG
GGAGTCCATACCGTCTGGCAAGTGGTCTTCATCGCTTTCTTAACGGGCATCCTGGCCTTG
GTGACCATCATCGGCAACATCCTGGTAATTGTGTCAATTAAGGTCAACAAGCAGCTGAAG
ACGGTCAACAACACTTCTCTTAAAGCCTGGCCTGTGCCGATCTGATTATCGGGGTCATT
TCAATGAATCTGTTTACGACCTACATCATGAATCGATGGGCCTTAGGGAACCTGGCC
TGTGACCTCTGGCTTGCCATTGACTACGTAGCCAGCAATGCCTCTGTTATGAATCTTCTG
GTCATCAGCTTTGACAGATACTTTCCATCACGAGGCCGCTCACGTACCGAGCCAAACGA
ACAACAAGAGAGCCGGTGTGATGATCGGTCTGGCTTGGGTCACTCCTTTGTCCTTTGG
GCTCCTGCCATCTTGTCTGGCAATACTTTGTTGAAAGAGAAGTGTGCCTCCGGGAGAG
TGCTTCATTCACTTCTCAGTGAGCCACCATTACTTTTGGCACAGCCATCGCTGCTTTT
TATATGCCTGTCAACATTATGACTATTTTATACTGGAGGATCTATAAGGAAACTGAAAAG
CGTACCAAAGAGCTTGTGGCCTGCAAGCCTCTGGGACAGAGGCAGAGACAGAAAACCTT
GTCCACCCACGGGCAGTTCTCGAAGCTGCAGCAGTTACGAACCTCAACAGCAAAGCATG
AAACGCTCCAACAGGAGGAAGTATGGCCGCTGCCACTTCTGGTTCACAACCAAGAGCTGG
AAACCCAGCTCCGAGCAGATGGACCAAGACCACAGCAGCAGTACAGTGGAAACAACAAT
GATGCTGCTGCCTCCCTGGAGAAGTCCGCTCCTCCGACGAGGAGGACATTGGCTCCGAG
ACGAGAGCCATCTACTCCATCGTGTCTCAAGCTTCCGGGTACAGCACCATCCTCAACTCC
ACCAAGTTACCCTCATCGGACAACCTGCAGGTGCCTGAGGAGGAGCTGGGGATGGTGGAC
TTGGAGAGGAAAGCCGACAAGCTGCAGGCCAGAGAAGCGTGGACGATGGAGGCAGTTTT
CCAAAAAGCTTCTCCAAGCTTCCATCCAGCTAGAGTCAGCCGTGGACACAGCTAAGACT
TCTGACGTCAACTCCTCAGTGGGTAAGAGCACGGCCACTCTACCTCTGTCTTCAAGGAA
GCCACTCTGGCCAAGAGGTTTGCTCTGAAGACCAGAAGTCAGATCACTAAGCGGAAAAGG
ATGTCCCTGGTCAAGGAGAAGAAAGCGGCCAGACCCTCAGTGGATCTTGTCTTGCCTTC
ATCATCACTTGGACCCCATACAACATCATGTTTCTGGTGAACACCTTTTGTGACAGCTGC
ATACCCAAAACCTTTTGGAACTCTGGGCTACTGGCTGTGCTACATCAACAGCACCGTGAAC
CCCGTGTGCTATGCTCTGTGCAAAAAACATTCAAGACCTTTCAAGATGCTGTGCTG
TGCCAGTGTGACAAAAAAGAGGCGCAAGCAGCAGTACCAGCAGAGACAGTCCGGTCATT
TTTACAAGCGGCACCCGAGCAGGCCTTGTAG
```

Clone variation with respect to NM\_000740.2

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_000740 unedited  
 CCCGCCCGTTGCCGCATTGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAG  
 CTCGTTTGTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGAATTC  
 GGCACGAGGCCTCGTGCCGAATTCGGCACGAGGTTGCCCTGGCAGAGGGAACCTACCCAG  
 TCCATTGCTGCCTGCTACAAGATATGAACAGTAATGGCACATATTTTGGTTATGAGTCAC  
 TCAGTGGACTGTGGATTGAATGAACTGTATCCATCCCCATCATGATGTACAGAACCAAGT  
 CTCTTCACTACACTTGTGTTCTGATTAGTGGCCAAATAAATGACAGTCAGAACCTCAGCT  
 AAGGTACAATAAGGTTTTGCTGTGGCGTGGCACCTGGTCTCTTTCTAGAAGGAAAGTTCA  
 ACATACAGCACAATTCTGGACACATTGTATTGTTTTGATGCTCCTACCTGGAACAGGTGG  
 AGCTGGTCTCTTGGGCAGCCTGACATCTGGTCCACTCCTCTGCTCTATGCCGGGATCATC  
 ATGACCGTAGAGATTATGCTACTGTTTTGCATCCTTGTACATAACTCAGTTCCTGGTAG  
 ATTACTATGTCAGAGAGTCACAATGACCTTGCACAATAACAGTACAACCTCGCCTTTGTT  
 TCCAAACATCAGCTCCTCCTGGATACACAGCCCTCCGATGCANGGCTGCCCCGGGAAC  
 CGTCACTATTTTCGGCAGCTACAATGTTTCTCGAGCAGCTGGCAATTTCTCTCTCCAGA  
 CGGTACCACCGATGACCCTCTGGGGAGTCATACCGTCTGGCAAGTGTCTTCATCGCTTTT  
 TTACGGGCATTCTGGCCTTGGTGACCATCATCGGCCACATCCTGGTAATTGNGTTATTTT  
 AAGGCAACAAGCAGTTGAAGACGNCACAACACTTCTCTAAACCTGGCCTGGGCCGAT  
 CTGATTATGGGGCACTTCAATGAATGGN

**3' Read Nucleotide Sequence:** >OriGene 3' read for NM\_000740 unedited  
 TGGACCGCGGCCCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTGTGAATTGGTAT  
 TGACTTTTTCTATTAATGGGTTTATTCAATGGATCAGTAAACAGGCAGCTTCTTTCAC  
 ATCTGGGTGATAAAACCATTTTTATCATACCAGAAGTACCCCGCCCTCGCCTTCTCC  
 TCTAAGGTCTGTGGGTTGATGTGTGCGTTTTTGTCACTGCTATTGATACAACTCATTCT  
 ACAAGGCTGCTCGGGTGCAGCCTTGTGAAAAATGACCGACTGTCTCTGCTGGTACTGCT  
 GCTTGGCCTCTTTTTTTGTCACACTGGCACAGCAGCAGCATCTTGAAGTGGTTCTGA  
 ATGTTTTGTTGCACAGAGCATAGCACACGGGTTACGGTGTGTTGATGTAGCACAGCC  
 AGTAGCCAGATTCCAAAAGGTTTTGGGTATGCAGCTGCACAAAAGGTGTTACCAGAA  
 CCATGATGTTGTATGGGTCCAAGTATGATGAAGCAAGCAAGATCGCACTGAGGGTCT  
 GGGCCGCTTCTCTCTTGGCCAGAGTGGCTTCTTGAANGACAGAGGTANAGTGGCCG  
 TGCTTTACCCACTGANGAGTTGACGTCAGAACTTACCTGTGTCCACGGCTGACTCTA  
 CCTGGATGGGAAACCTTGGAGAAGCTTTTTGGAAAAGTGGCTTTCATCGTCCCGCTTTT  
 TGGCCTGCAGCTTGTGCGCTTCTCTTCAAGTCCACATCCCCAGTCTTCTTAAGACCTT  
 GAGGGTGTCCCATGAAGGAACCTGGGGGAATTAGGAATGGCTTTCACCCGAACTCTGCA  
 CAAAGGATAAATGCTTCTTCTGAACCAGGTCTC

**Restriction Sites:** NotI-NotI  
**ACCN:** NM\_000740  
**Insert Size:** 2630 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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></p>
<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>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_000740.2</a> , <a href="#">NP_000731.1</a>
<b>RefSeq Size:</b>	2757 bp
<b>RefSeq ORF:</b>	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

**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]

Transcript Variant: This variant (2) differs in the 5' UTR and represents use of an alternate promoter, compared to variant 1. Both variants 1 and 2 encode the same protein. The 5' end of this transcript contains L1 element sequence, initiates from an L1 element promoter and expression was predominantly found in placenta. (PMID: 19669628). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.