

## Product datasheet for **RG212904**

### **CHRM2 (NM\_001006631) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CHRM2 (NM_001006631) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CHRM2
Synonyms:	HM2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG212904 representing NM\_001006631  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGAATAACTCAACAACTCCTCTAACAATAGCCTGGCTTTACAAGTCCTTATAAGACATTTGAAGTGG  
 TGTTTATTGTCCTGGTGGCTGGATCCCTCAGTTTGGTGACCATTATCGGGAACATCCTAGTCATGGTTTC  
 CATTAAAGTCAACCGCCACCTCCAGACCGTCAACAATTACTTTTTATTACGCTTGGCCTGTGCTGACCTT  
 ATCATAGGTGTTTTCTCCATGAACCTGTACACCCTCTACACTGTGATTGGTTACTGGCCTTTGGGACCTG  
 TGGTGTGTGACCTTTGGCTAGCCCTGGACTATGTGGTCAGCAATGCCTCAGTTATGAATCTGCTCATCAT  
 CAGCTTTGACAGTACTTCTGTGTACAAAACTCTGACCTACCCAGTCAAGCGGACCACAAAAATGGCA  
 GGTATGATGATTGCAGCTGCCTGGTCTCTCTTTCATCTCTGGGCTCCAGCCATTCTCTTCTGGCAGT  
 TCATTGTAGGGGTGAGAACTGTGGAGGATGGGGAGTGTACATTCAGTTTTTTTCCAATGCTGCTGTCCAC  
 CTTTGGTACGGCTATTGCAGCCTTCTATTTGCCAGTGATCATCATGACTGTGCTATATTGGCACATATCC  
 CGAGCCAGCAAGAGCAGGATAAAGAAGGACAAGAAGGAGCCTGTTGCCAACCAAGACCCCGTTTCTCCAA  
 GTCTGGTACAAGGAAGGATAGTGAAGCCAAACAATAACAACATGCCAGCAGTGACGATGGCCTGGAGCA  
 CAACAAAATCCAGAAATGGCAAAGCCCCAGGGATCCTGTGACTGAAAACCTGTGTTTCAAGGAGAGGAGAAG  
 GAGAGCTCCAATGACTCCACCTCAGTCAGTGTGTTGCCCTCTAATATGAGAGATGATGAAATAACCCAGG  
 ATGAAAACACAGTTTCCACTTCCCTGGGCCATTCCAAAGATGAGAACTCTAAGCAAAACATGCATCAGAAAT  
 TGGCACCAAGACCCCAAAAAGTACTCATGTACCCCACTAATACCACCGTGGAGGTAGTGGGGTCTTCA  
 GGTCAGAAATGGAGATGAAAAGCAGAATATTGTAGCCCGCAAGATTGTGAAGATGACTAAGCAGCCTGCAA  
 AAAAGAAGCCTCCTCCTCCCGGAAAAGAAAGTCAACAGGACAATCTTGGCTATTCTGTTGGCTTTTCA  
 CATCACTTGGGCCCATACAATGTCATGGTGTCTATTAACACCTTTTGTGCACCTTGCATCCCCAACACT  
 GTGTGGACAATTGGTTACTGGCTTTGTTACATCAACAGCACTATCAACCCTGCCTGCTATGCACTTTGCA  
 ATGCCACCTTCAAGAAGACCTTTAAACACCTTCTCATGTGTCATTATAAGAACATAGGCGCTACAAGG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG212904 representing NM\_001006631  
 Red=Cloning site Green=Tags(s)

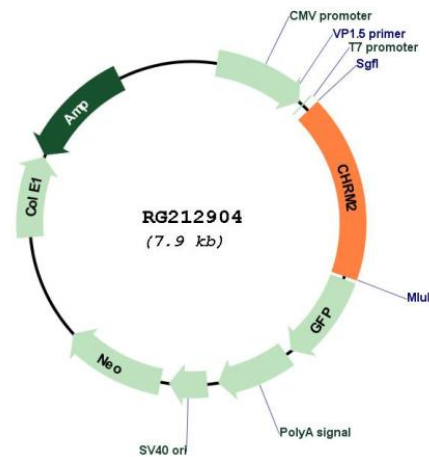
MNNSTNSSNSLALTSPYKTFEVFIVLVAGSLSLVTIIGNILVMVSIKVNRLQTVNNYFLFLSLACADL  
 IIGVFSMNLTYLYTVIGYWPLGPVVCDDLWLALDYVVSNASVMNLLIISFDRYFCVTKPLTYPVKRTTKMA  
 GMMIAAAWVLSFILWAPAILFWQFIVGVRTVEDGECYIQFFSNAAVTFGTAIAAFYLPVIIMTVLYWHIS  
 RASKSRIKKDKKEPVANQDPVSPSLVQGRIVKPNNNMPSDDGLEHNKIQNGKAPRDPVTENCVQGEK  
 ESSNDSTSVSAVASNMRDDEITQDENTVSTSLGHSKDENSQKTCIRIGTKPKSDSCTPTNTTVEVVGSS  
 GQNGDEKQNIIVARKIVKMTKQPAKKKPPPSREKKVTRTILAILLAFIITWAPYVMVLINTFCAPCIPNT  
 VWTIGYWLCYINSTINPACYALCNATFKKTFKHLMLMCHYKNIGATR

TRTRPLE – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_001006631

**ORF Size:** 1398 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.

<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_001006631.3</a>
<b>RefSeq Size:</b>	2474 bp
<b>RefSeq ORF:</b>	1401 bp
<b>Locus ID:</b>	1129
<b>UniProt ID:</b>	<a href="#">P08172</a>
<b>Cytogenetics:</b>	7q33
<b>Protein Families:</b>	Druggable Genome, GPCR, Transmembrane
<b>Protein Pathways:</b>	Calcium signaling pathway, Neuroactive ligand-receptor interaction, Regulation of actin cytoskeleton
<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 to these receptors 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 2 is involved in mediation of bradycardia and a decrease in cardiac contractility. Multiple alternatively spliced transcript variants have been described for this gene. [provided by RefSeq, Jul 2008]