

Product datasheet for **RG234890**

Metabotropic Glutamate Receptor 4 (GRM4) (NM_001256809) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Metabotropic Glutamate Receptor 4 (GRM4) (NM_001256809) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Metabotropic Glutamate Receptor 4
Synonyms:	GPRC1D; mGlu4; MGLUR4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG234890 representing NM_001256809
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCGGCTTGGGAGCCTGGAGTTGCAGCTTCTCGCGCTGGCGGCCCTCCTTGTCCCCTCTACGCC
 TCTGCATCGCACCCACCCTGTACCCACCTTCTCCACCAAGGAACTCACCTGCCGCTCCCGCC
 CAGGTCCTTTGGATTTTCCGGTGTGTGGTGCACACAAGAGGCCCTCCCTGCCAGGAGAGCAGGTG
 AGCCTGGCCGCGCACGAATCCGAGGGGGCGGCCAGCTGGGAAGCAGCCCTGAAATAGACCCCGCC
 GCCCCGCTGCCTCCTCCGGAATCTGCTCAGATACCCAGATCAGTACGCCTCCACAGCGCCAGACCT
 GAGTGACAACAGCCGCTACGACTTCTTCTCCGCGTGGTGCCTCGGACACGTACCAGGCCAGGCCATG
 GTGGACATCGTCCGTGCCCTCAAGTGGAACTATGTGTCCACAGTGGCTCGGAGGGCAGCTATGGTGA
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 CCTTGCTGCTGGCACTGCGAGCCTTGCACAGGTTACCAGTACCAGTGGACCCTACACCTGTAAGACGT
 GTCCCTATGACATGCGGCCACAGAGAACCACGACGGGCTGCCGGCCATCCCATCATCAAGCTTGAGTG
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 TGGCAGGCATCTTCTGTGCTATGCCACCCTTCTCATGATCGCTGAGCCCGACCTTGGCACCTGCTC
 GCTGCGCCGAATCTTCTGGGACTAGGGATGAGCATCAGCTATGCAGCCCTGCTACCAAGACCAACCGC
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 ATCCAGACGACGACGCTGACGGTCTCGGTGAGTCTGAGCGCTCGGTGTCCTGGGAATGCTCTACATGC
 CCAAAGTCTACATCATCTTCCACCCGAGCAGAACGTGCCAAGCGCAAGCGCAGCCTCAAAGCCGT
 CGTTACGGCGGCCACCATGTCCAACAAGTTCACGCAGAAGGGCAACTTCCGGCCCAACGGAGAGGCCAAG
 TCTGAGCTCTGCGAAGACCTTGAAGCCCCAGCGCTGGCCACCAACAGACTTACGTCACTTACACCAACC
 ATGCAATC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG234890 representing NM_001256809
 Red=Cloning site Green=Tags(s)

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MPAWEPGVAASCGWRAPPCSPRLRCIAPHPCPPSSHQGNLTCRLPPRSFGFCRCVWVRTRGPSLPGEQV
SLAAHESEGAAAQLGSSPEIDPRRPRCLLPESAQIPQISYASTAPDLSDNSRYDFFSRVVPSDTYQAQAM
VDIVRALKWNYYSTVASEGSYGESGVEAFIQKSREDDGGVCIAQSVKIPREPKAGEFDKIIRRLETSNAR
AVIIFANEDDIRRVLEAARRANQTGHFFWMGSDSWGSKIAPVLHLEEVAEGAVTILPKRMSVRDRERIGQ
DSAYEQEGKVQFVIDAVYAMGHALHAMHRDLCPGRVGLCPRMDPVDTQLLKYIRNVNFSGIAGNPVTFN
ENGDAPGRYDIYQYQLRNDSAEYKVIKSWTDHLHLRIERMHWPGSGQQLPRISICSLPCQPGERKKTVKGM
PCCWHCEPCTGYQYQVDRYCTCKCPYDMRPTENRTGCRPIPIIKLEWGSPWAVLPLFLAVVGGIAATLFVV
ITFVRYNDTPIVKASGRELSYVLLAGIFLCYATTFMLIAEPDLGTCSLRRIFLGLGMSISYAALLTKTNR
IYRIFEQKRSVSAPRFISPAQLAITFSLISLQLLGICVWFVVDPSHSVVDVFDQDQRTLDPRFARGVLKC
DISDLSLICLLGYSMLLMVTCTVYAIKTRGVPETFNEAKPIGFTMYTTCIVWLAFIGPIFFGTSQSADKLY
IQTTTLTVSVLSASVSLGMLYMPKVYIILFHPEQNVPKRKRSLKAVVTAATMSNKFTQKGNFRPNGEAK
SELCENLEAPALATKQTYVYTNHAI
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TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_001256809

ORF Size: 2388 bp

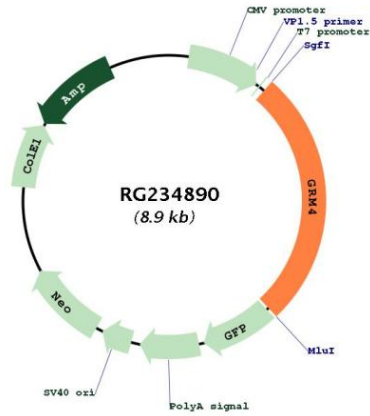
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<ol style="list-style-type: none">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_001256809.2 , NP_001243738.1
RefSeq Size:	6817 bp
RefSeq ORF:	2391 bp
Locus ID:	2914
UniProt ID:	Q14833
Cytogenetics:	6p21.31
Protein Families:	Druggable Genome, GPCR, Transmembrane
Protein Pathways:	Neuroactive ligand-receptor interaction, Taste transduction
Gene Summary:	<p>L-glutamate is the major excitatory neurotransmitter in the central nervous system and activates both ionotropic and metabotropic glutamate receptors. Glutamatergic neurotransmission is involved in most aspects of normal brain function and can be perturbed in many neuropathologic conditions. The metabotropic glutamate receptors are a family of G protein-coupled receptors, that have been divided into 3 groups on the basis of sequence homology, putative signal transduction mechanisms, and pharmacologic properties. Group I includes GRM1 and GRM5 and these receptors have been shown to activate phospholipase C. Group II includes GRM2 and GRM3 while Group III includes GRM4, GRM6, GRM7 and GRM8. Group II and III receptors are linked to the inhibition of the cyclic AMP cascade but differ in their agonist selectivities. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2012]</p>

Product images:



Circular map for RG234890