

Product datasheet for **RC218103**

Metabotropic Glutamate Receptor 2 (GRM2) (NM_000839) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Metabotropic Glutamate Receptor 2 (GRM2) (NM_000839) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Metabotropic Glutamate Receptor 2
Synonyms:	GLUR2; GPRC1B; mGlu2; MGLUR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide
Sequence:**

>RC218103 representing NM_000839.
 Blue=ORF Red=Cloning site Green=Tag(s)

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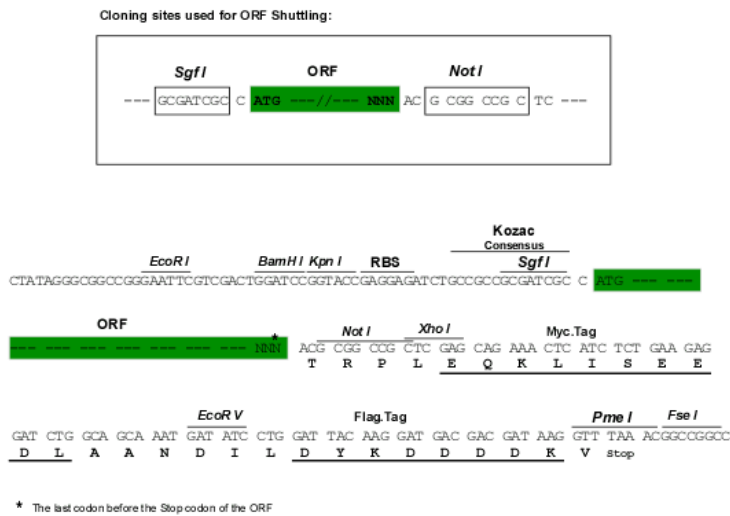
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Protein Sequence: >Peptide sequence encoded by RC218103
Blue=ORF Red=Cloning site Green=Tag(s)

MGSL LALLALLLWGAVAEGPAKKVLTLEGLVLGGLFPVHQKGGPAEDCGPVNEHRGIQRLEAMLFAL
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STVASEGDYGETGIEAFELEARARNICVATSEKVGGRAMSRAAFEGVVRALLQKPSARVAVLFRSEAR
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RAPTSRFGSAAARASSSLGQSGSQFVPTVCNGREVVDSTSSL
TRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6261_c05.zip

Restriction Sites: SgfI-NotI

Cloning Scheme:


ACCN: NM_000839

ORF Size: 2616 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_000839.5](#)

RefSeq Size: 3186 bp

RefSeq ORF: 2619 bp

Locus ID: 2912

UniProt ID: [Q14416](#)

Cytogenetics: 3p21.2

Domains: 7tm_3, ANF_receptor

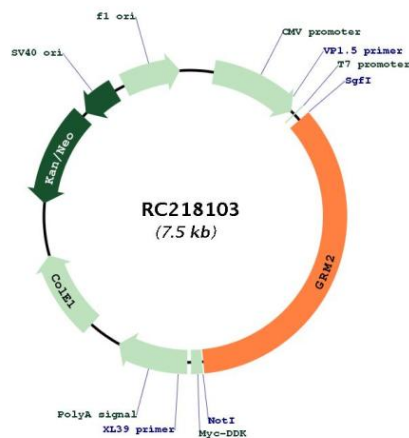
Protein Families: Druggable Genome, GPCR, Transmembrane

Protein Pathways: Neuroactive ligand-receptor interaction

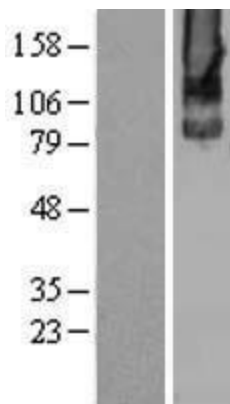
MW: 95.6 kDa

Gene Summary: 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, Mar 2017]

Product images:



Circular map for RC218103



Western blot validation of overexpression lysate (Cat# [LY424482]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218103 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).