

Product datasheet for RC227736

Metabotropic Glutamate Receptor 5 (GRM5) (NM_001143831) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Metabotropic Glutamate Receptor 5 (GRM5) (NM_001143831) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GRM5
Synonyms:	GPRC1E; mGlu5; MGLUR5; PPP1R86
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC227736 representing NM_001143831 Red=Cloning site Blue=ORF Green=Tags(s)

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CATGTGAGAAAGGCCAGATCAAGGTGATCCGAAAGGGAGAAGTCAGCTGTTGTTGGACCTGTACACCTTG
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Protein Sequence: >RC227736 representing NM_001143831
 Red=Cloning site Green=Tags(s)

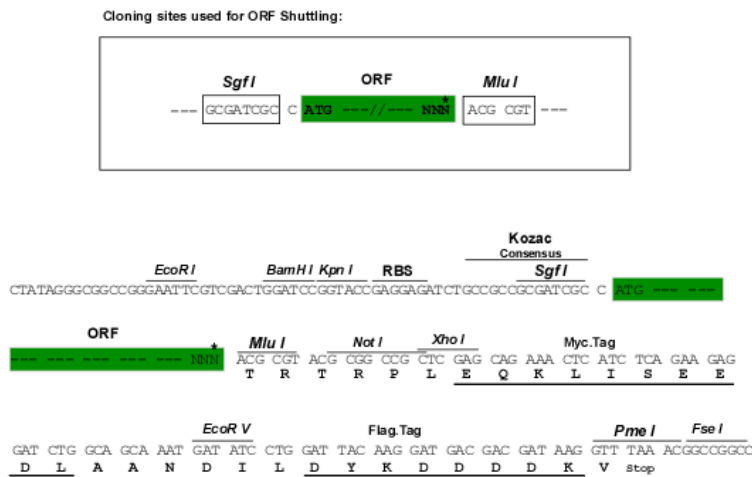
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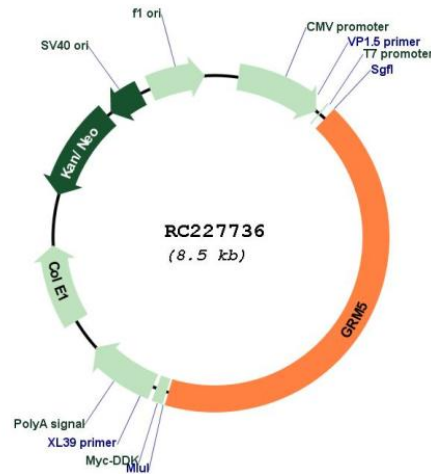
Chromatograms: https://cdn.origene.com/chromatograms/mg3576_e05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001143831

ORF Size: 3636 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_001143831.3](#)

RefSeq ORF: 3639 bp

Locus ID: 2915

UniProt ID: [P41594](#)

Cytogenetics: 11q14.2-q14.3

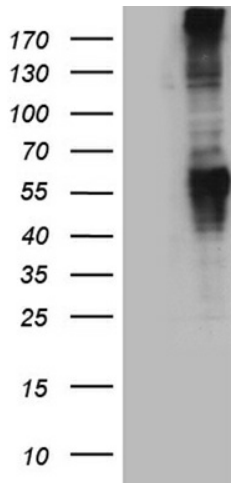
Protein Families: Druggable Genome, GPCR, Transmembrane

Protein Pathways: Calcium signaling pathway, Gap junction, Huntington's disease, Long-term depression, Long-term potentiation, Neuroactive ligand-receptor interaction

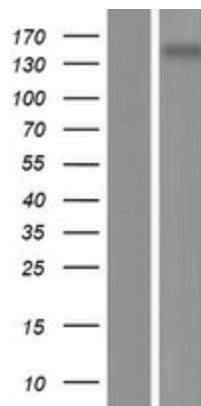
MW: 132.47 kDa

Gene Summary: This gene encodes a member of the G-protein coupled receptor 3 protein family. The encoded protein is a metabotropic glutamate receptor, whose signaling activates a phosphatidylinositol-calcium second messenger system. This protein may be involved in the regulation of neural network activity and synaptic plasticity. Glutamatergic neurotransmission is involved in most aspects of normal brain function and can be perturbed in many neuropathologic conditions. A pseudogene of this gene has been defined on chromosome 11. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2014]

Product images:



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GRM5 (Cat# RC227736, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GRM5 antibody (Cat# [TA890123]). Positive lysates [LY428374] (100ug) and [LC428374] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY428374]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227736 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).