

## Product datasheet for RG216892

## OriGene Technologies, Inc.

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## Metabotropic Glutamate Receptor 5 (GRM5) (NM 000842) Human Tagged ORF Clone

**Product data:** 

**Product Type: Expression Plasmids** 

**Product Name:** Metabotropic Glutamate Receptor 5 (GRM5) (NM\_000842) Human Tagged ORF Clone

Tag: **TurboGFP** 

Symbol: Metabotropic Glutamate Receptor 5 GPRC1E; mGlu5; MGLUR5; PPP1R86 Synonyms:

**Mammalian Cell** 

Selection:

Neomycin

Vector: pCMV6-AC-GFP (PS100010)

E. coli Selection: Ampicillin (100 ug/mL)

**Protein Sequence:** >RG216892 representing NM\_000842

Red=Cloning site Green=Tags(s)

MVLLLILSVLLLKEDVRGSAQSSERRVVAHMPGDIIIGALFSVHHQPTVDKVHERKCGAVREQYGIQRVE AMLHTLERINSDPTLLPNITLGCEIRDSCWHSAVALEQSIEFIRDSLISSEEEEGLVRCVDGSSSSFRSK KPIVGVIGPGSSSVAIQVQNLLQLFNIPQIAYSATSMDLSDKTLFKYFMRVVPSDAQQARAMVDIVKRYN WTYVSAVHTEGNYGESGMEAFKDMSAKEGICIAHSYKIYSNAGEQSFDKLLKKLTSHLPKARVVACFCEG  ${\tt MTVRGLLMAMRRLGLAGEFLLLGSDGWADRYDVTDGYQREAVGGITIKLQSPDVKWFDDYYLKLRPETNH}$ RNPWFQEFWQHRFQCRLEGFPQENSKYNKTCNSSLTLKTHHVQDSKMGFVINAIYSMAYGLHNMQMSLCP GYAGLCDAMKPIDGRKLLESLMKTNFTGVSGDTILFDENGDSPGRYEIMNFKEMGKDYFDYINVGSWDNG ELKMDDDEVWSKKSNIIRSVCSEPCEKGQIKVIRKGEVSCCWTCTPCKENEYVFDEYTCKACQLGSWPTD DLTGCDLIPVQYLRWGDPEPIAAVVFACLGLLATLFVTVVFIIYRDTPVVKSSSRELCYIILAGICLGYL CTFCLIAKPKQIYCYLQRIGIGLSPAMSYSALVTKTNRIARILAGSKKKICTKKPRFMSACAQLVIAFIL ICIQLGIIVALFIMEPPDIMHDYPSIREVYLICNTTNLGVVTPLGYNGLLILSCTFYAFKTRNVPANFNE AKYIAFTMYTTCIIWLAFVPIYFGSNYKIITMCFSVSLSATVALGCMFVPKVYIILAKPERNVRSAFTTS TVVRMHVGDGKSSSAASRSSSLVNLWKRRGSSGETLSSNGKSVTWAQNEKSSRGQHLWQRLSIHINKKEN PNQTAVIKPFPKSTESRGLGAGAGAGGSAGGVGATGGAGCAGAGPGGPESPDAGPKALYDVAEAEEHFPA PARPRSPSPISTLSHRAGSASRTDDDVPSLHSEPVARSSSSQGSLMEQISSVVTRFTANISELNSMMLST AAPSPGVGAPLCSSYLIPKEIQLPTTMTTFAEIQPLPAIEVTGGAQPAAGAQAAGDAARESPAAGPEAAA AKPDLEELVALTPPSPFRDSVDSGSTTPNSPVSESALCIPSSPKYDTLIIRDYTQSSSSL

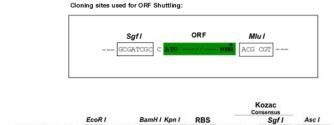
TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-Mlul





**Cloning Scheme:** 





**ACCN:** NM\_000842

ORF Size: 3540 bp

**OTI Disclaimer:** 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:customercare">customercare</a> team at <a href="ma

calling 301.340.3188 option 3 for pricing and delivery.

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:** <u>NM 000842.5</u>

 RefSeq Size:
 7957 bp

 RefSeq ORF:
 3543 bp

 Locus ID:
 2915

UniProt ID: P41594

**Cytogenetics:** 11q14.2-q14.3

**Domains:** 7tm\_3, ANF\_receptor

**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

**Gene Summary:** This gene encodes a member of the G-protein coupled receptor 3 protein family. The

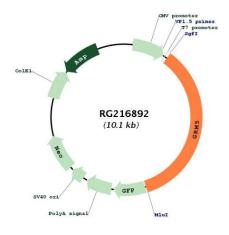
encoded protein is a metabatropic glutamate receptor, whose signaling activates a

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:**



Circular map for RG216892