

## Product datasheet for RC222540L3

## OriGene Technologies, Inc.

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## Metabotropic Glutamate Receptor 7 (GRM7) (NM 181874) Human Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: Metabotropic Glutamate Receptor 7 (GRM7) (NM\_181874) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: Metabotropic Glutamate Receptor 7

Synonyms: GLUR7; GPRC1G; MGLU7; MGLUR7; NEDSHBA; PPP1R87

Mammalian Cell Puromycin

Selection:

Vector:

pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

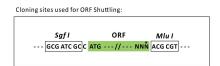
ORF Nucleotide The ORF insert of this clon

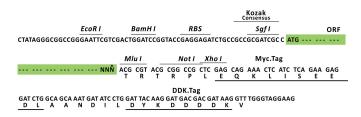
Sequence:

The ORF insert of this clone is exactly the same as(RC222540).

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF.

**ACCN:** NM\_181874

ORF Size: 2766 bp





## Metabotropic Glutamate Receptor 7 (GRM7) (NM\_181874) Human Tagged Lenti ORF Clone – RC222540L3

**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: <u>NM 181874.2</u>, <u>NP 870989.1</u>

 RefSeq Size:
 4239 bp

 RefSeq ORF:
 2769 bp

 Locus ID:
 2917

 UniProt ID:
 014831

Cytogenetics:

**Protein Families:** Druggable Genome, GPCR, Transmembrane

**Protein Pathways:** Neuroactive ligand-receptor interaction

3p26.1

MW: 103.1 kDa

**Gene Summary:** L-glutamate is the major excitatory neurotransmitter in the central nervous system, and it

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 three 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. Multiple transcript variants encoding different isoforms have been

found for this gene. [provided by RefSeq, Jun 2009]