

**Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP1640A****Specification**

---

**Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) - Product Information**

Application	WB, IHC-P,E
Primary Accession	<a href="#">Q14831</a>
Other Accession	<a href="#">P35400</a> , <a href="#">Q68ED2</a> , <a href="#">NP_870989</a>
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	102251
Antigen Region	857-887

**Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) - Additional Information****Gene ID** 2917**Other Names**

Metabotropic glutamate receptor 7, mGluR7, GRM7, GPRC1G, MGLUR7

**Target/Specificity**

This Metabotropic Glutamate Receptor 7 (GPRC1G) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 857-887 amino acids from the C-terminal region of human Metabotropic Glutamate Receptor 7 (GPRC1G).

**Dilution**

WB~~1:1000

IHC-P~~1:10~50

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) - Protein Information**

**Name** GRM7

**Synonyms** GPRC1G, MGLUR7

**Function** G-protein coupled receptor activated by glutamate that regulates axon outgrowth through the MAPK-cAMP-PKA signaling pathway during neuronal development (PubMed:[33500274](#)). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors, such as adenylate cyclase that it inhibits (PubMed:[9473604](#)).

**Cellular Location**

Cell membrane; Multi-pass membrane protein

**Tissue Location**

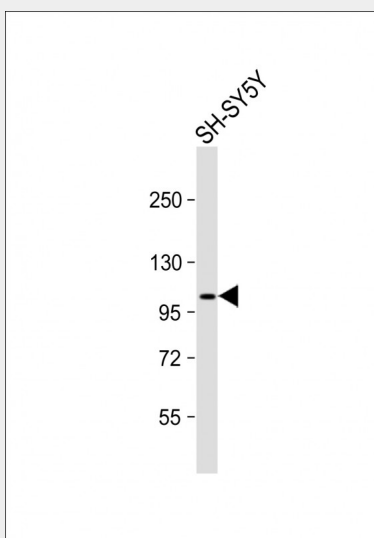
Expressed in many areas of the brain, especially in the cerebral cortex, hippocampus, and cerebellum. Expression of GRM7 isoforms in non-neuronal tissues appears to be restricted to isoform 3 and isoform 4.

**Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) - Protocols**

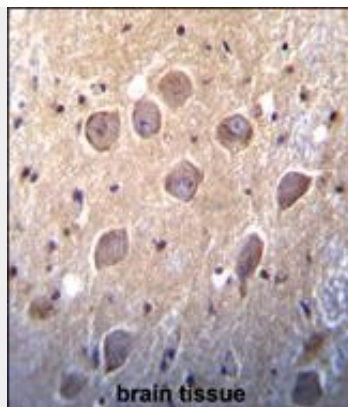
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) - Images**



Anti-GPRC1G Antibody (C-term) at 1:1000 dilution + SH-SY5Y whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 102 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) (Cat. #AP1640a) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

#### **Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) - Background**

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. Alternative splice variants of GRM8 have been described but their full-length nature has not been determined.

#### **Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) - References**

- Schulz, H.L., et al., *Neurosci. Lett.* 326(1):37-40 (2002).
- Flor, P.J., et al., *Neuropharmacology* 36(2):153-159 (1997).
- Makoff, A., et al., *Brain Res. Mol. Brain Res.* 40(1):165-170 (1996).
- Scherer, S.W., et al., *Genomics* 31(2):230-233 (1996).
- Okamoto, N., et al., *J. Biol. Chem.* 269(2):1231-1236 (1994).