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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	**IHC-P, WB,E**
Primary Accession	Q14831
Other Accession	P35400, Q68ED2, NP_870989
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
IHC-P~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

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

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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

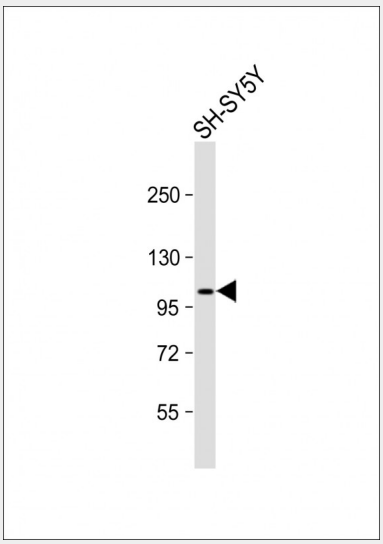
Tissue Location
Expressed in many areas of the brain, especially in the cerebral cortex, hippocampus, and cerebellum. Expression of GRM7 isoforms in non-neuronal tissues appears to be restricted to isoform 3 and isoform 4.

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 Cytomety
- 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.

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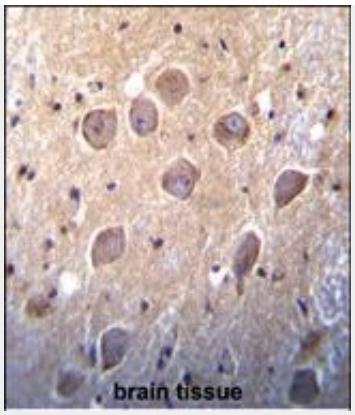

Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) (Cat. #AP1640a)immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of Metabotropic Glutamate Receptor 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).