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Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP1640a

Specification

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

Primary Accession	Q14831
Other Accession	NP_870989

Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) Blocking peptide - Additional Information

Gene ID 2917

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

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1640a was selected from the C-term region of human GPRC1G . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) Blocking peptide - 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:<a href="http://www.uniprot.org/citations/9473604"

target="_blank">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) Blocking peptide - Protocols

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

- Blocking Peptides

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

Metabotropic Glutamate Receptor 7 (GPRC1G) Antibody (C-term) Blocking peptide - 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) Blocking peptide - 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).