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GRM7 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP16975a

Specification

GRM7 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q14831

GRM7 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 2917

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

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.

GRM7 Antibody (N-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: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.

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GRM7 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

GRM7 Antibody (N-term) Blocking Peptide - Images

GRM7 Antibody (N-term) Blocking Peptide - Background

L-glutamate is the major excitatory neurotransmitter inthe central nervous system, and it activates both ionotropic andmetabotropic glutamate receptors. Glutamatergic neurotransmissionis involved in most aspects of normal brain function and can beperturbed in many neuropathologic conditions. The metabotropicglutamate receptors are a family of G protein-coupled receptorsthat have been divided into three groups on the basis of sequencehomology, putative signal transduction mechanisms, andpharmacologic properties. Group I includes GRM1 and GRM5, and thesereceptors have been shown to activate phospholipase C. Group IIincludes GRM2 and GRM3, while Group III includes GRM4, GRM6, GRM7and GRM8. Group II and III receptors are linked to the inhibitionof the cyclic AMP cascade but differ in their agonistselectivities. Multiple transcript variants encoding differentisoforms have been found for this gene.

GRM7 Antibody (N-term) Blocking Peptide - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)Saus, E., et al. J Psychiatr Res 44(14):971-978(2010)Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :Joslyn, G., et al. Alcohol. Clin. Exp. Res. 34(5):800-812(2010)Schulz, H.L., et al. Neurosci. Lett. 326(1):37-40(2002)