

GRM7 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP16975a**Specification**

GRM7 Antibody (N-term) Blocking Peptide - Product InformationPrimary 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 adenylyl 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.

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 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.

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)