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Metabotropic Glutamate Receptor 5 (GPRC1E) Antibody (C-term E1127) Blocking peptide

Synthetic peptide
Catalog # BP6345b

Specification

Metabotropic Glutamate Receptor 5 (GPRC1E) Antibody (C-term E1127) Blocking peptide - Product Information

Primary Accession P41594

Metabotropic Glutamate Receptor 5 (GPRC1E) Antibody (C-term E1127) Blocking peptide - Additional Information

Gene ID 2915

Other Names
Metabotropic glutamate receptor 5, mGluR5, GRM5, GPRC1E, MGLUR5

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6345b was selected from the C-term region of human GPRC1E. 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 5 (GPRC1E) Antibody (C-term E1127) Blocking peptide - Protein Information

Name GRM5

Synonyms GPRC1E, MGLUR5

Function
G-protein coupled receptor for glutamate. Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of down-stream effectors. Signaling activates a phosphatidylinositol- calcium second messenger system and generates a calcium-activated chloride current. Plays an important role in the regulation of synaptic plasticity and the modulation of the neural network activity.

Cellular Location

Cell membrane; Multi-pass membrane protein

Metabotropic Glutamate Receptor 5 (GPRC1E) Antibody (C-term E1127) Blocking peptide - Protocols

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

- Blocking Peptides

Metabotropic Glutamate Receptor 5 (GPRC1E) Antibody (C-term E1127) Blocking peptide - Images

Metabotropic Glutamate Receptor 5 (GPRC1E) Antibody (C-term E1127) 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 (also known as GPRC1E) 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. The activity of GRM5 is mediated by a G-protein that activates a phosphatidylinositol-calcium second messenger system and generates a calcium-activated chloride current.

Metabotropic Glutamate Receptor 5 (GPRC1E) Antibody (C-term E1127) Blocking peptide - References

Pacheco, R., et al., J. Biol. Chem. 279(32):33352-33358 (2004).Anneser, J.M., et al., Neuroreport 15(2):271-273 (2004).Uchino, M., et al., J. Biol. Chem. 279(3):2254-2261 (2004).Corti, C., et al., J. Biol. Chem. 278(35):33105-33119 (2003).Aronica, E., et al., Eur. J. Neurosci. 17(10):2106-2118 (2003).