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GRM1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13701b

Specification

GRM1 Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	Q13255
Other Accession	NP_001107801.1, NP_000829.2
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**132357**
Antigen Region	**1095-1123**

GRM1 Antibody (C-term) - Additional Information

Gene ID 2911

Other Names
Metabotropic glutamate receptor 1, mGluR1, GRM1, GPRC1A, MGLUR1

Target/Specificity
This GRM1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1095-1123 amino acids from the C-terminal region of human GRM1.

Dilution
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 purified through a protein A column, followed by peptide affinity purification.

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
GRM1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GRM1 Antibody (C-term) - Protein Information

Name GRM1

Synonyms GPRC1A, MGLUR1

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. May participate in the central action of glutamate in the CNS, such as long-term potentiation in the hippocampus and long-term depression in the cerebellum (PubMed:24603153, PubMed:28886343, PubMed:7476890). May function in the light response in the retina (By similarity). Induces GRID1 and GRID2 cation-channel activation via GNAQ-PLC-PKC pathway in dopaminergic neurons and cerebellar Purkinje cell, respectively (PubMed:24357660, PubMed:27276689).

Cellular Location
Cell membrane; Multi-pass membrane protein. Postsynaptic cell membrane; Multi-pass membrane protein. Cell projection, dendrite {ECO:0000250|UniProtKB:P97772}. Note=Located in dendrioles, small dendrites that makes up a brush structure found as the terminal specialization of a dendrite of a unipolar brush cell {ECO:0000250|UniProtKB:P97772}

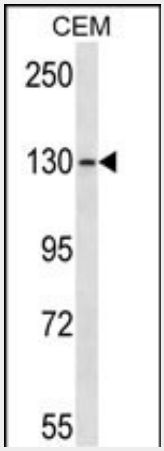
Tissue Location
Detected in brain..

GRM1 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

GRM1 Antibody (C-term) - Images



GRM1 Antibody (C-term) (Cat. #AP13701b) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the GRM1 antibody detected the GRM1 protein (arrow).

GRM1 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. The canonical alpha isoform of the metabotropic glutamate receptor 1 gene is a disulfide-linked homodimer whose activity is mediated by a G-protein-coupled phosphatidylinositol-calcium second messenger system. Alternative splicing results in multiple transcript variants encoding distinct isoforms; some of which may have distinct functions. [provided by RefSeq].

GRM1 Antibody (C-term) - References

Jiang, Y., et al. J. Biol. Chem. 285(43):33463-33474(2010)
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Gong, P., et al. J. Mol. Neurosci. 42(1):120-126(2010)
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
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