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Metabotropic Glutamate Receptor 1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6341a

Specification

Metabotropic Glutamate Receptor 1 Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q13255
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**132357**
Antigen Region	**1096-1126**

Metabotropic Glutamate Receptor 1 Antibody (C-term) - Additional Information

Gene ID 2911

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

Target/Specificity
This Metabotropic Glutamate Receptor 1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1096-1126 amino acids from the C-terminal region of human Metabotropic Glutamate Receptor 1.

Dilution
WB~~1:1000
IHC-P~~1:10~50
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
Metabotropic Glutamate Receptor 1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Metabotropic Glutamate Receptor 1 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}

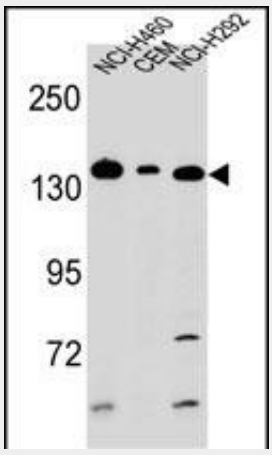
Tissue Location
Detected in brain..

Metabotropic Glutamate Receptor 1 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

Metabotropic Glutamate Receptor 1 Antibody (C-term) - Images



GPRC1A Antibody(Y1111) (Cat. #AP6341a) western blot analysis in CEM,NCI-H292,NCI-H460 cell line lysates (35ug/lane).This demonstrates the GPRC1A antibody detected the GPRC1A protein (arrow).

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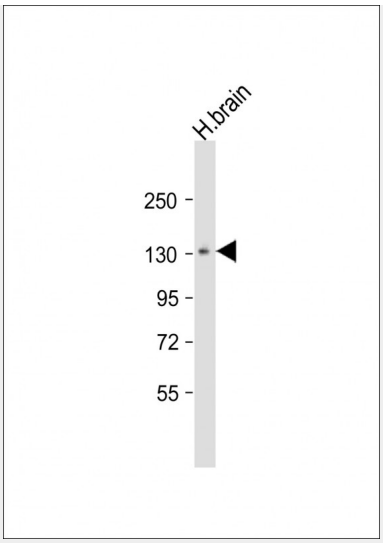
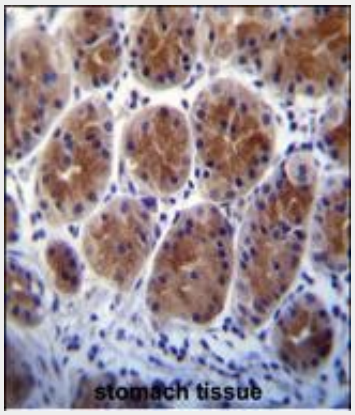


Anti-GPRC1A Antibody (Y1111) at 1:1000 dilution + human brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 132 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Metabotropic Glutamate Receptor 1 (GPRC1A) Antibody (C-term) (Cat. #AP6341a)immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of Metabotropic Glutamate Receptor 1 (GPRC1A) Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Metabotropic Glutamate Receptor 1 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 (also known as GPRC1A) 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 activity of GRM1 is mediated by a G-protein that activates a phosphatidylinositol-calcium second messenger system. This protein 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

Metabotropic Glutamate Receptor 1 Antibody (C-term) - References

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Kammermeier, P.J., et al., J. Pharmacol. Exp. Ther. 312(2):502-508 (2005).
Burgueno, J., et al., Exp. Cell Res. 300(1):23-34 (2004).
Mundell, S.J., et al., Mol. Pharmacol. 65(6):1507-1516 (2004).
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