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Metabotropic Glutamate Receptor 5 (GPRC1E) Antibody (C-term T1003)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6345a

Product Information

Application	WB, E
Primary Accession	P41594
Reactivity	Human, Rat, Mouse
Predicted	Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB4627
Calculated MW	132469
Antigen Region	1020-1050

Additional Information

Gene ID	2915
Other Names	Metabotropic glutamate receptor 5, mGluR5, GRM5, GPRC1E, MGLUR5
Target/Specificity	This Metabotropic Glutamate Receptor 5 (GPRC1E) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1020-1050 amino acids from the C-terminal region of human Metabotropic Glutamate Receptor 5 (GPRC1E).
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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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 5 (GPRC1E) Antibody (C-term T1003) is for research use only and not for use in diagnostic or therapeutic procedures.

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

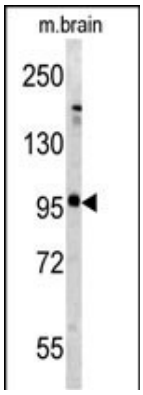
Background

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.

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).

Images



Western blot analysis of Metabotropic Glutamate Receptor 5 (GPRC1E) antibody (C-term T1003) (Cat.# AP6345a) in mouse brain tissue lysates (35ug/lane). Metabotropic Glutamate Receptor 5 (arrow) was detected using the purified Pab.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.