Datasheet for ABIN968281

anti-Metabotropic Glutamate Receptor 1 antibody (AA 1042-1160)

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Overview

Quantity:	150 µg
Target:	Metabotropic Glutamate Receptor 1 (GRM1)
Binding Specificity:	AA 1042-1160
Reactivity:	Rat, Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Metabotropic Glutamate Receptor 1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Rat mGluR1 aa. 1042-1160
Clone:	20-mGluR1
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

	chromatography.

Target Details

Target:	Metabotropic Glutamate Receptor 1 (GRM1)
Alternative Name:	mGluR1 (GRM1 Products)
Background:	Glutamate is a major excitatory neurotransmitter and functions in multiple roles in the CNS. The functional diversity of glutamate is exemplified by two distinct groups of glutamate receptors: ionotropic and metabotropic. Coupling with G proteins provides the metabotropic glutamate receptors (mGluRs) with the capacity for intracellular signal transduction. Eight metabotropic glutamate receptors (mGluR1-8) and several Ca[2+] sensing receptors belong to a novel G-protein coupled receptor (GPCR) family. The mGluRs possess the seven putative transmembrane domains which are characteristic of GPCR proteins. However, they exhibit no additional sequence homology to any member of other GPCR families. mGluR1 has large hydrophilic sequences in both the N- and C-terminal sides of the seven transmembrane domains. The sizable extracellular N-terminal domain is homologous to bacterial periplasmic binding proteins and serves as the glutamate binding site. mGluR1 activates phospholipase C (PLC), resulting in phosphoinositide turnover and, in turn, Ca2+ mobilization necessary for many signal transduction events. Synonyms: Metabotropic Glutamate Receptor-1
Molecular Weight:	133 kDa

Application Details

Comment:	Related Products: ABIN968545, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:

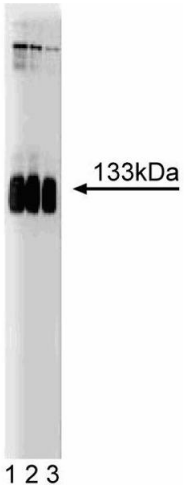
Kryl, Yacoubian, Haapasalo, Castren, Lo, Barker: "Subcellular localization of full-length and truncated Trk receptor isoforms in polarized neurons and epithelial cells." in: **The Journal of neuroscience : the official journal of the Society for Neuroscience**, Vol. 19, Issue 14, pp. 5823-33, (1999) (PubMed).

Mary, Gomeza, Prézeau, Bockaert, Pin: "A cluster of basic residues in the carboxyl-terminal tail of the short metabotropic glutamate receptor 1 variants impairs their coupling to phospholipase C." in: **The Journal of biological chemistry**, Vol. 273, Issue 1, pp. 425-32, (1998) (PubMed).

Gomeza, Joly, Kuhn, Knöpfel, Bockaert, Pin: "The second intracellular loop of metabotropic glutamate receptor 1 cooperates with the other intracellular domains to control coupling to G-proteins." in: **The Journal of biological chemistry**, Vol. 271, Issue 4, pp. 2199-205, (1996) (PubMed).

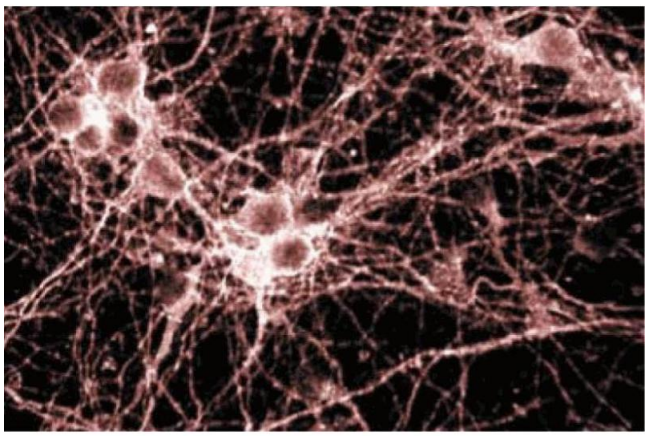
Tanabe, Masu, Ishii, Shigemoto, Nakanishi: "A family of metabotropic glutamate receptors." in: **Neuron**, Vol. 8, Issue 1, pp. 169-79, (1992) (PubMed).

Masu, Tanabe, Tsuchida, Shigemoto, Nakanishi: "Sequence and expression of a metabotropic glutamate receptor." in: **Nature**, Vol. 349, Issue 6312, pp. 760-5, (1991) (PubMed).



Western Blotting

Image 1. Western blot analysis of mGluR1 on a rat cerebrum lysate. Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1: 10,000 dilution of the mouse anti-mGluR1 antibody.



Immunofluorescence

Image 2. Immunofluorescence staining of cortical neurons.

Image 3.