

Metabotropic Glutamate Receptor 2/3 Antibody
Affinity purified rabbit polyclonal antibody
Catalog # AN1048

Specification

Metabotropic Glutamate Receptor 2/3 Antibody - Product Information

Application	IHC, WB
Primary Accession	P31421
Reactivity	Rat
Predicted	Bovine, Human, Mouse, Monkey, Zebrafish
Host	Rabbit
Clonality	polyclonal
Calculated MW	110/220 KDa

Metabotropic Glutamate Receptor 2/3 Antibody - Additional Information

Gene ID	24415
Gene Name	GRM2/3
Other Names	Metabotropic glutamate receptor 2, mGluR2, Grm2, Gprc1b, Mglur2

Target/Specificity

Synthetic peptide corresponding to amino acid residues from the C-terminal region conjugated to KLH.

Dilution

IHC~~1:500
WB~~ 1:1000

Format

Prepared from rabbit serum by affinity purification using a column to which the peptide immunogen was coupled.

Antibody Specificity

Specific for the ~110k monomer and the ~220k dimer of mGluR2 and mGluR3. Immunolabeling is blocked by preadsorption of antibody with the peptide used as antigen to generate the antibody.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Metabotropic Glutamate Receptor 2/3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

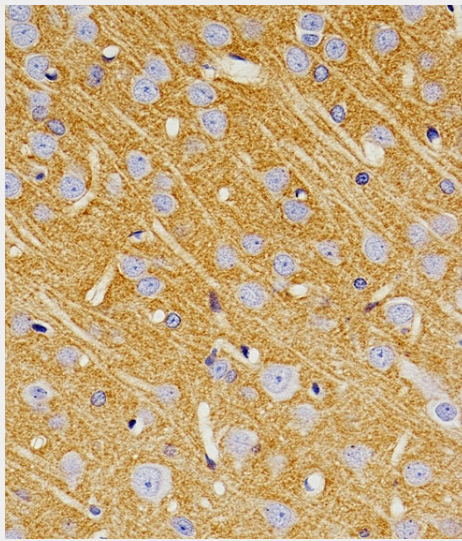
Blue Ice

Metabotropic Glutamate Receptor 2/3 Antibody - Protocols

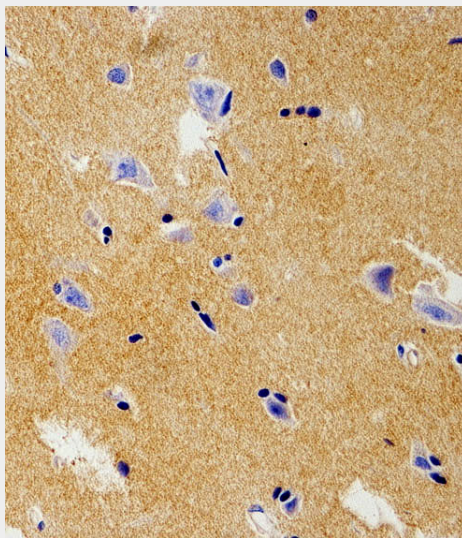
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Metabotropic Glutamate Receptor 2/3 Antibody - Images

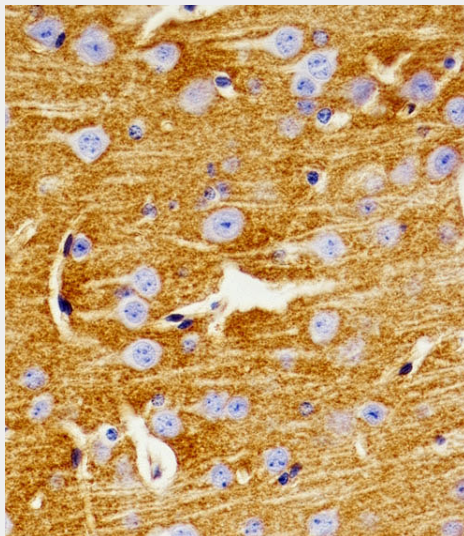


Immunohistochemical analysis of paraffin-embedded R. brain section using Metabotropic Glutamate Receptor 2/3 Antibody (Cat#AN1048). AN1048 was diluted at 1:500 dilution. A peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.



Immunohistochemical analysis of paraffin-embedded H. brain section using Metabotropic

Glutamate Receptor 2/3 Antibody (Cat#AN1048). AN1048 was diluted at 1:500 dilution. A peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.



Immunohistochemical analysis of paraffin-embedded M. brain section using Metabotropic Glutamate Receptor 2/3 Antibody (Cat#AN1048). AN1048 was diluted at 1:500 dilution. A peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.



Western blot of 10 ug of rat hippocampal lysate showing the specific immunolabeling of the ~110k monomer and the ~220k dimer of mGluR2 and mGluR3.

Metabotropic Glutamate Receptor 2/3 Antibody - Background

The metabotropic glutamate receptors (mGluRs) are key receptors in the modulation of excitatory synaptic transmission in the central nervous system. They are implicated in many forms of neural plasticity as well as learning and memory and drug abuse (Bhattacharya et al., 2004; Francesconi et al., 2004; Wilson and Nicoll, 2001). Group I metabotropic glutamate receptors (consisting of mGluR1 and mGluR5) are G-protein-coupled neurotransmitter receptors that are localized in the perisynaptic region of the postsynaptic membrane. When activated, Group I mGluRs lead to stimulation of phospholipase and activation of Protein Kinase C. In contrast, activation of Group II metabotropic receptors (mGluR2 and mGluR3) leads to inhibition of adenylate cyclase. The mGluR2 subunit has been shown to be required for long-term potentiation at the mossy fiber input in the hippocampus (Yokoi et al., 1996).

Metabotropic Glutamate Receptor 2/3 Antibody - References

Bhattacharya M, Babwah AV, Godin C, Anborgh PH, Dale LB, Poulter MO, Ferguson SSG (2004) Ral and phospholipase D2-dependent pathway for constitutive metabotropic glutamate receptor endocytosis. *J Neurosci* 24:8752-8761.

Francesconi W, Cammalleri M, Sanna PP (2004) The metabotropic glutamate receptor 5 is necessary for late-phase long-term potentiation in the hippocampal CA1 region. *Brain Res* 1022:12-18.

Wilson RI, Nicoll RA (2001) Endogenous cannabinoids mediate retrograde signalling at hippocampal synapses. *Nature (London)* 410:588-592.

Yokoi M, Kobayashi K, Manabe T, Takahashi T, Sakaguchi I, Katsuura G, Shigemoto R, Ohishi H, Nomura S, Nakamura K, Nakao K, Katsuki M, Nakanishi S (1996) Impairment of hippocampal mossy fiber LTD in mice lacking mGluR2. *Science* 273:645-647.