10320 Camino Santa Fe, Suite G
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Metabotropic Glutamate Receptor 2/3 Antibody
Affinity purified rabbit polyclonal antibody
Catalog # AN1048

Specification

Metabotropic Glutamate Receptor 2/3 Antibody - Product Information

Application	**WB, IHC**
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
WB~~ 1:1000
IHC~~1:500

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

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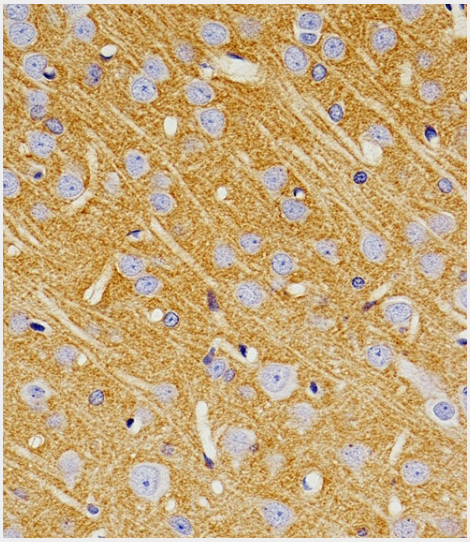
Metabotropic Glutamate Receptor 2/3 Antibody - Protocols

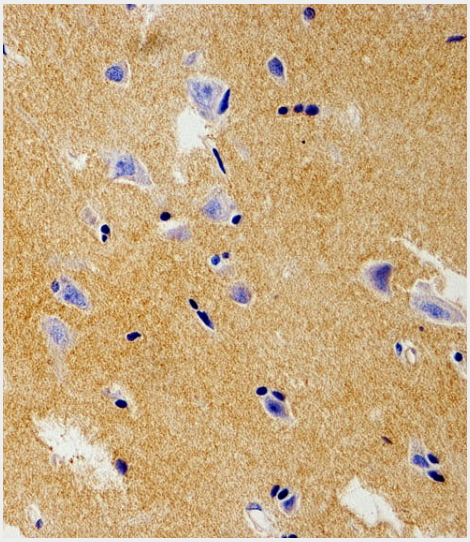
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- 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

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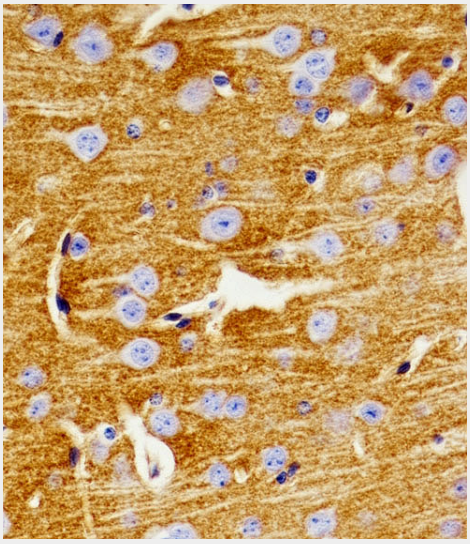
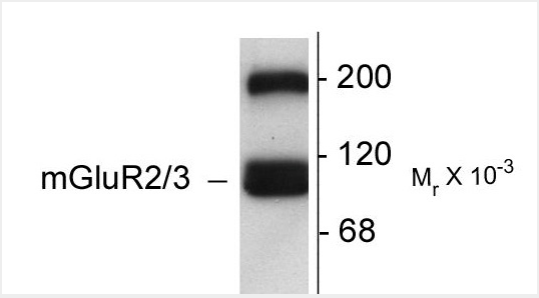
Glutamate Receptor 2/3 Antibody (Cat#AN1048). AN1048 was diluted at 1:500 dilution. A peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.



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.