

Metabotropic Glutamate Receptor 1a Antibody
Affinity purified rabbit polyclonal antibody
Catalog # AN1047**Specification**

Metabotropic Glutamate Receptor 1a Antibody - Product Information

Application	WB
Primary Accession	P23385
Reactivity	Mouse, Rat
Host	Rabbit
Clonality	polyclonal
Calculated MW	125/250 KDa

Metabotropic Glutamate Receptor 1a Antibody - Additional Information

Gene ID	24414
Gene Name	GRM1
Other Names	
Metabotropic glutamate receptor 1, mGluR1, Grm1, Gprc1a, Mglur1	

Target/Specificity

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

Dilution

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 ~125k monomer and the ~250k mGluR1a dimer. Immunolabeling blocked by preadsorption of antibody with the peptide used 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 1a Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

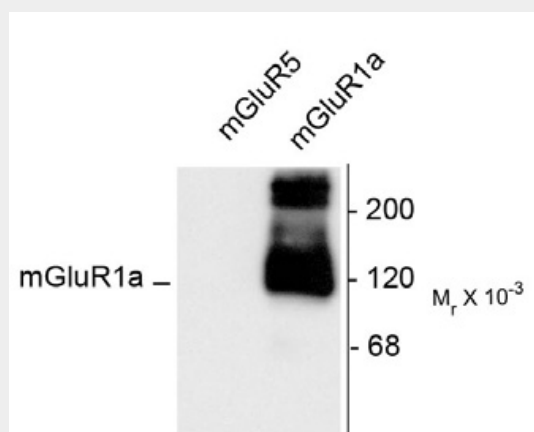
Blue Ice

Metabotropic Glutamate Receptor 1a 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 1a Antibody - Images



Western blot of 10 ug of HEK 293 cells expressing mGluR1a and mGluR5 showing the specific immunolabeling of the ~125k monomer and the ~250k dimer of mGluR1a. The mGluR1a antibody shows no reactivity toward mGluR5.

Metabotropic Glutamate Receptor 1a 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 mGluR1 receptor may also be critically involved in limiting the deleterious effects of excitotoxicity (Blaabjerg et al., 2003).

Metabotropic Glutamate Receptor 1a 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.

Blaabjerg M, Fang LW, Zimmer J, Baskys A (2003) Neuroprotection against NMDA excitotoxicity by group I metabotropic glutamate receptors is associated with reduction of NMDA stimulated currents. *Exp Neurol* 183:573-580.

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.