Technical Data Sheet Purified Mouse Anti-mGluR1

Product Information

Material Number:	610965	
Alternate Name:	Metabotropic Glutamate Receptor-1	
Size:	150 µg	
Concentration:	250 μg/ml	
Clone:	20/mGluR1	
Immunogen:	Rat mGluR1 aa. 1042-1160	
Isotype:	Mouse IgG1	
Reactivity:	QC Testing: Rat Tested in Development: Mouse	
Target MW:	133 kDa	
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and $\leq 0.09\%$ sodium azide.	

Description

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.





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 staining of cortical neurons.

Preparation and Storage

Store undiluted at -20° C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

BD Biosciences

United States 877.232.8995	Canada 888.259.0187	Europe 32.53.720.550	Japan 0120.8555.90	Asia Pacific 65.6861.0633	Latin America/Caribbean 55.11.5185.9995		
For country-specific contact information, visit www.bdbiosciences.com/how_to_order/ Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited. For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale. BD, BD, Long and all other trademarks are the property of Becton. Dickinson and Company. @2007 BD							



Application Notes

Application					
	Western blot	Routinely Tested			
	Immunofluorescence	Tested During Development			

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611463	Rat Cerebrum Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Please refer to www.bdbiosciences.com/pharmingen/protocols 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.

References

Gomeza J, Joly C, Kuhn R, Knopfel T, Bockaert J, Pin JP. The second intracellular loop of metabotropic glutamate receptor 1 cooperates with the other intracellular domains to control coupling to G-proteins. J Biol Chem. 1996; 271(4):2199-2205.(Biology)

Kryl D, Yacoubian T, Haapasalo A, Castren E, Lo D, Barker PA. Subcellular localization of full-length and truncated Trk receptor isoforms in polarized neurons and epithelial cells. *J Neurosci.* 1999; 19(14):5823-5833. (Biology: Western blot)

Mary S, Gomeza J, Prezeau L, Bockaert J, Pin JP. A cluster of basic residues in the carboxyl-terminal tail of the short metabotropic glutamate receptor 1 variants impairs their coupling to phospholipase C. J Biol Chem. 1998; 273(1):425-432. (Biology)

Masu M, Tanabe Y, Tsuchida K, Shigemoto R, Nakanishi S. Sequence and expression of a metabotropic glutamate receptor. *Nature*. 1991; 349(6312):760-765. (Biology)

Tanabe Y, Masu M, Ishii T, Shigemoto R, Nakanishi S. A family of metabotropic glutamate receptors. Neuron. 1992; 8(1):169-179.(Biology)