Anti-Metabotropic Glutamate Receptor R5/1a

Catalog Number: 2032-mGluR5/1a       Size: 100 µl

Product Description: Affinity purified rabbit polyclonal antibody

Applications: WB: 1:1000
               IHC (frozen sections, unpublished observations): 1:500

Antigen: Peptide from the C-terminus region of rat mGluR5 and rat mGluR1a.

Biological Significance: 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 on excitotoxicity (Blaabjerg et al., 2003). In contrast, the mGluR5 receptor appears to be essential for late phase LTP in area CA1 of the hippocampus (Francesconi et al., 2004).

Anti-mGluR5/1a

Western Blot of 10 µg of HEK 293 cells expression. As shown in the autoradiograph, the mGluR5/1a antibody recognizes both mGluR5 and mGluR1a labeling both the ~125k monomer and the ~250k dimers for both mGluRs.
**Purification Method:** 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 dimmers of mGluR5 and mGluR1 in Western blots of rat brain extracts. Immunolabeling blocked by preadsorption of antibody with the peptide used to generate the antibody.

**Quality Control Tests:** Western Blots performed on each lot.

**References:**