GluR1 Antibody
Rabbit Monoclonal Antibody
Catalog # AJ1322a

Specification

GluR1 Antibody - Product Information

**Application**
WB, IHC

**Primary Accession**
P42261

**Reactivity**
Human

**Host**
Rabbit

**Clonality**
Monoclonal

**Clone Names**
E308

**Calculated MW**
101506 Da

**Gene ID**
2890

**Other Names**
Glutamate receptor 1, GluR-1, AMPA-selective glutamate receptor 1, GluR-A, GluR-K1, Glutamate receptor ionotropic, AMPA 1, GluA1, GRIA1, GLUH1, GLUR1

**Target/ Specificity**
A synthetic peptide corresponding to residues near N-terminus of human Glutamate receptor 1 was used as immunogen. Predicted to cross-react with rat, based on sequence homology.

**Dilution**
WB~~1:1000
IHC~~1:50

**Format**
50 mM Tris-Glycine (pH 7.4), 0.15 M NaCl, 40% Glycerol, 0.01% sodium azide and 0.05% BSA.

**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**
GluR1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

A. Western blot analysis on SH-SY5Y cell lysate using anti-GluR1 RabMAb (Cat. #AJ1322a), dilution 1:1,000.

B. Immunohistochemical analysis of paraffin-embedded human brain tissue using anti-GluR1 RabMAb(Cat. #AJ1322a).

GluR1 Antibody - Background

Glutamic acid is the major excitatory neurotransmitter in the mammalian central nervous system. Glutamate receptors are classified on the basis of their activation by different agonists (1-3). GluR1, human glutamate receptor type 1, is an integral membrane protein that is widely expressed in the human brain. The postsynaptic actions of glutamic acid are mediated by a variety of receptors that are named according to their selective agonists. GluR1 is known to bind a kainate subtype of agonist. It has been found that malfunctioning of the glutamatergic system may result in certain brain disorders and neurodegeneration (3).
many synapses in the central nervous system. Binding of the excitatory neurotransmitter L-glutamate induces a conformation change, leading to the opening of the cation channel, and thereby converts the chemical signal to an electrical impulse. The receptor then desensitizes rapidly and enters a transient inactive state, characterized by the presence of bound agonist. In the presence of CACNG4 or CACNG7 or CACNG8, shows resensitization which is characterized by a delayed accumulation of current flux upon continued application of glutamate.

**Cellular Location**
Cell membrane; Multi-pass membrane protein

**Tissue Location**
Widely expressed in brain.

**GluR1 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

**GluR1 Antibody - References**

1. Potier, M.C., et al. The human glutamate receptor cDNA GluR1: cloning, sequencing, expression and localization to chromosome 5. DNA Seq. 2: 211