10320 Camino Santa Fe, Suite G
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GRIA3 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1583a

Specification

GRIA3 Antibody - Product Information

Application	**E, WB, IHC**
Primary Accession	P42263
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**101kDa KDa**

Description
Glutamate receptors are the predominant excitatory neurotransmitter receptors in the mammalian brain and are activated in a variety of normal neurophysiologic processes. These receptors are heteromeric protein complexes composed of multiple subunits, arranged to form ligand-gated ion channels. The classification of glutamate receptors is based on their activation by different pharmacologic agonists. The subunit encoded by this gene belongs to a family of AMPA (alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate)-sensitive glutamate receptors, and is subject to RNA editing (AGA->GGA; R->G). Alternative splicing at this locus results in different isoforms, which may vary in their signal transduction properties.

Immunogen
Purified recombinant fragment of human GRIA3 expressed in E. Coli.

Formulation
Ascitic fluid containing 0.03% sodium azide.

GRIA3 Antibody - Additional Information

Gene ID 2892

Other Names
Glutamate receptor 3, GluR-3, AMPA-selective glutamate receptor 3, GluR-C, GluR-K3, Glutamate receptor ionotropic, AMPA 3, GluA3, GRIA3, GLUR3, GLURC

Dilution
E~~1/10000
WB~~1/500 - 1/2000
IHC~~1/500 - 1/2000

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
GRIA3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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GRIA3 Antibody - Protein Information

Name GRIA3

Synonyms GLUR3, GLURC

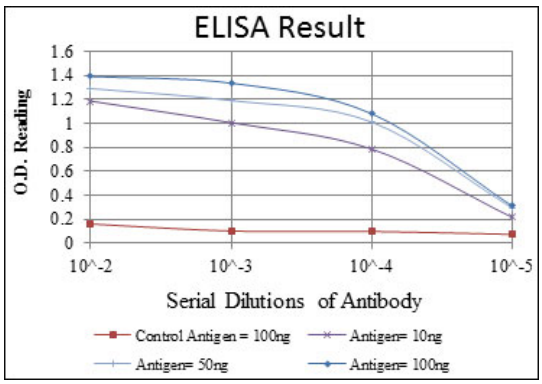
Function
Receptor for glutamate that functions as a ligand-gated ion channel in the central nervous system and plays an important role in excitatory synaptic transmission. L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system. Binding of the excitatory neurotransmitter 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. Postsynaptic cell membrane; Multi-pass membrane protein Note=Interaction with CNIH2 and CNIH3 promotes cell surface expression

GRIA3 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



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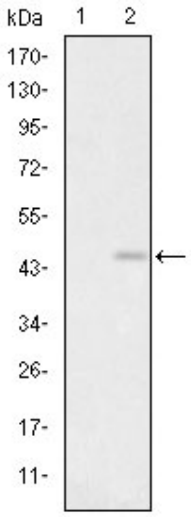

Figure 1: Western blot analysis using GRIA3 mAb against HEK293 (1) and GRIA3(AA: 683-824)-hIgGFc transfected HEK293 (2) cell lysate.

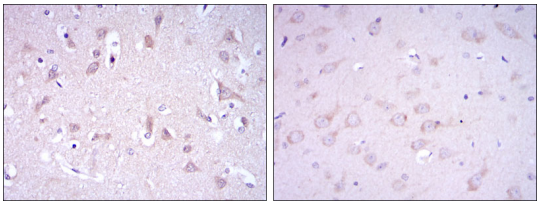

Figure 2: Immunohistochemical analysis of paraffin-embedded human brain tissues (left) and rat brain tissues (right) using GRIA3 mouse mAb with DAB staining.

GRIA3 Antibody - References

1. Am J Med Genet B Neuropsychiatr Genet. 2010 Mar 5;153B(2):468-76. 2. Am J Med Genet A. 2009 Jun;149A(6):1280-9.