

**Goat Anti-GRIA4 Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1510a****Specification**

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**Goat Anti-GRIA4 Antibody - Product Information**

Application	IHC, WB
Primary Accession	<a href="#">P48058</a>
Other Accession	<a href="#">NP_001070712</a> , <a href="#">2893</a> , <a href="#">14802 (mouse)</a> , <a href="#">29629 (rat)</a>
Reactivity	Human
Predicted	Mouse, Rat, Cow
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	100871

**Goat Anti-GRIA4 Antibody - Additional Information****Gene ID** 2893**Other Names**

Glutamate receptor 4, GluR-4, GluR4, AMPA-selective glutamate receptor 4, GluR-D, Glutamate receptor ionotropic, AMPA 4, GluA4, GRIA4, GLUR4

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**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**

Goat Anti-GRIA4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-GRIA4 Antibody - Protein Information****Name** GRIA4 {ECO:0000303|PubMed:29220673, ECO:0000312|HGNC:HGNC:4574}**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

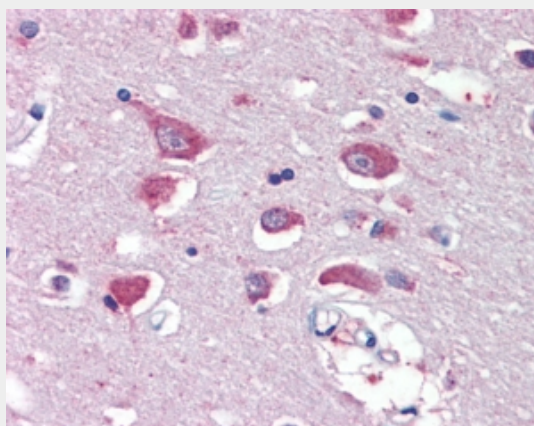
Cell membrane; Multi-pass membrane protein. Postsynaptic cell membrane; Multi-pass membrane protein. Cell projection, dendrite. Note=Interaction with CNIH2, CNIH3 and PRKCG promotes cell surface expression.

#### Goat Anti-GRIA4 Antibody - Protocols

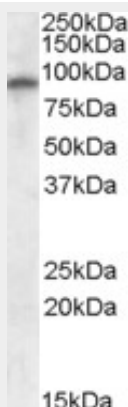
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Goat Anti-GRIA4 Antibody - Images



AF1510a (5 µg/ml) staining of paraffin embedded Human Cortex. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



AF1510a (0.3 µg/ml) staining of Human Cerebellum lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

### **Goat Anti-GRIA4 Antibody - Background**

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 of this gene results in transcript variants encoding different isoforms, which may vary in their signal transduction properties. Some haplotypes of this gene show a positive association with schizophrenia.

### **Goat Anti-GRIA4 Antibody - References**

Applicability of a genetic signature for enhanced iloperidone efficacy in the treatment of schizophrenia. Volpi S, et al. J Clin Psychiatry, 2009 Jun. PMID 19573479.  
Synaptic AMPA receptor plasticity and behavior. Kessels HW, et al. Neuron, 2009 Feb 12. PMID 19217372.  
Pharmacogenetics of antipsychotic response in the CATIE trial: a candidate gene analysis. Need AC, et al. Eur J Hum Genet, 2009 Jul. PMID 19156168.  
Association analysis of the glutamic acid decarboxylase 2 and the glutamine synthetase genes (GAD2, GLUL) with schizophrenia. Arai S, et al. Psychiatr Genet, 2009 Feb. PMID 19125103.  
Identification of new putative susceptibility genes for several psychiatric disorders by association analysis of regulatory and non-synonymous SNPs of 306 genes involved in neurotransmission and neurodevelopment. Gratac[il]s M, et al. Am J Med Genet B Neuropsychiatr Genet, 2009 Sep 5. PMID 19086053.