

Anti-GRIA2 Antibody
Catalog # ABO10912**Specification**

Anti-GRIA2 Antibody - Product Information

Application	WB, IHC-P
Primary Accession	P42262
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Glutamate receptor 2(GRIA2) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-GRIA2 Antibody - Additional Information

Gene ID 2891

Other Names

Glutamate receptor 2, GluR-2, AMPA-selective glutamate receptor 2, GluR-B, GluR-K2, Glutamate receptor ionotropic, AMPA 2, GluA2, GRIA2, GLUR2

Calculated MW

98821 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Rat, Human, Mouse, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization

Cell membrane ; Multi-pass membrane protein . Endoplasmic reticulum membrane ; Multi-pass membrane protein . Cell junction, synapse, postsynaptic cell membrane ; Multi-pass membrane protein . Interaction with CACNG2, CNIH2 and CNIH3 promotes cell surface expression. .

Protein Name

Glutamate receptor 2(GluR-2)

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence in the middle region of human GRIA2 (260-277aa FQIVDYDDSLVSKFIERW), identical to the related rat and mouse sequences.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Anti-GRIA2 Antibody - Protein Information

Name GRIA2 ([HGNC:4572](#))

Function

Ionotropic glutamate receptor that functions as a ligand- gated cation channel, gated by L-glutamate and glutamatergic agonists such as alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA), quisqualic acid, and kainic acid (PubMed:20614889, PubMed:31300657, PubMed:8003671). L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system and plays an important role in fast excitatory synaptic transmission (PubMed:14687553). 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 upon entry of monovalent and divalent cations such as sodium and calcium (PubMed:20614889, PubMed:8003671). The receptor then desensitizes rapidly and enters in a transient inactive state, characterized by the presence of bound agonist (By similarity). 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 L-glutamate (By similarity). Through complex formation with NSG1, GRIP1 and STX12 controls the intracellular fate of AMPAR and the endosomal sorting of the GRIA2 subunit toward recycling and membrane targeting (By similarity).

Cellular Location

Cell membrane; Multi-pass membrane protein. Postsynaptic cell membrane; Multi-pass membrane protein. Postsynaptic density membrane {ECO:0000250|UniProtKB:P23819}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P23819}. Note=Interaction with CACNG2, CNIH2 and CNIH3 promotes cell surface expression (By similarity). Displays a somatodendritic localization and is excluded from axons in neurons (By similarity). {ECO:0000250|UniProtKB:P19491, ECO:0000250|UniProtKB:P23819}

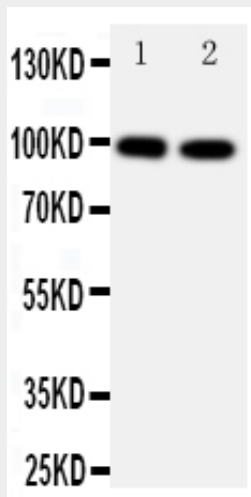
Anti-GRIA2 Antibody - Protocols

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

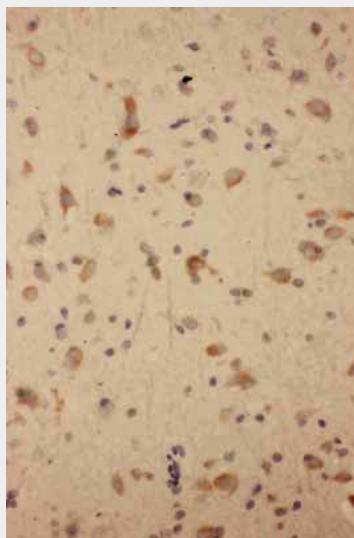
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)

- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-GRIA2 Antibody - Images



Anti-GRIA2 antibody, ABO10912, Western blotting All lanes: Anti GRIA2 (ABO10912) at 0.5ug/ml
Lane 1: HELA Whole Cell Lysate at 40ug
Lane 2: HT1080 Whole Cell Lysate at 40ug
Predicted bind size: 99KD
Observed bind size: 99KD



Anti-GRIA2 antibody, ABO10912, IHC(P) IHC(P): Rat Brain Tissue

Anti-GRIA2 Antibody - Background

GLUR2, also called Glutamate receptors and mediated by a G-protein that inhibits adenylate cyclase activity, sensitive to alpha-amino-3-hydroxy-5-methyl-4-isoxazolpropionate (AMPA), are ligand-activated cation channels that mediate the fast component of excitatory postsynaptic currents in neurons of the central nervous system. GLUR2's cytogenetic location is 4q32.1. The crystal structures of the GLUR2 ligand-binding core in the apo state and in the presence of the antagonist DNQX, the partial agonist kainate, and the full agonists AMPA and glutamate. As previously demonstrated in rats, the GLUR2 in human has RNA editing, posttranscriptional change of the sequence at the mRNA level. And interruption of the interaction between C-terminal Glur2 and PDZ domain-containing proteins, such as GRIP and PICK1, resulted in increased AMPA

receptor-mediated excitatory transmission and blockade of long-term depression. GLUR2 plays a major role in depression at synapses in which glutamate remains in the synaptic cleft for prolonged periods of time during normal operation of the synapse.