

Glutamate Receptor 1 Polyclonal Antibody
Catalog # AP63626**Specification****Glutamate Receptor 1 Polyclonal Antibody - Product Information**

Application	WB, IHC-P
Primary Accession	P42261
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal

Glutamate Receptor 1 Polyclonal Antibody - Additional Information**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)

Dilution

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000. Not yet tested in other applications.
IHC-P~~N/A

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

Glutamate Receptor 1 Polyclonal Antibody - Protein Information**Name** GRIA1 ([HGNC:4571](#))**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:1311100, PubMed:20805473, PubMed:21172611, PubMed:28628100, PubMed:35675825). 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 upon entry of monovalent and divalent cations such as sodium and calcium. 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 CACNG2 or CACNG4 or CACNG7 or CACNG8, shows resensitization which is characterized by a delayed accumulation of current flux upon continued application of L- glutamate (PubMed:21172611). Resensitization is blocked by CNIH2 through interaction with CACNG8 in the CACNG8-containing AMPA receptors complex (PubMed:21172611). Calcium (Ca(2+)) permeability depends on subunits composition and, heteromeric channels containing edited GRIA2 subunit are calcium-impermeable. Also permeable to other divalents cations such as strontium(2+) and magnesium(2+) and monovalent cations such as potassium(1+) and lithium(1+) (By similarity).

Cellular Location

Cell membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P19490}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P19490}. Postsynaptic cell membrane; Multi-pass membrane protein. Postsynaptic density membrane {ECO:0000250|UniProtKB:P23818}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P23818}. Cell projection, dendrite {ECO:0000250|UniProtKB:P23818}. Cell projection, dendritic spine {ECO:0000250|UniProtKB:P23818}. Early endosome membrane {ECO:0000250|UniProtKB:P19490}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P19490}. Recycling endosome membrane {ECO:0000250|UniProtKB:P19490}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P19490}. Presynapse {ECO:0000250|UniProtKB:P23818}. Synapse {ECO:0000250|UniProtKB:P23818} Note=Interaction with CACNG2, CNIH2 and CNIH3 promotes cell surface expression. Colocalizes with PDLIM4 in early endosomes. Displays a somatodendritic localization and is excluded from axons in neurons (By similarity). Localized to cone photoreceptor pedicles (By similarity) {ECO:0000250|UniProtKB:P19490, ECO:0000250|UniProtKB:P23818}

Tissue Location

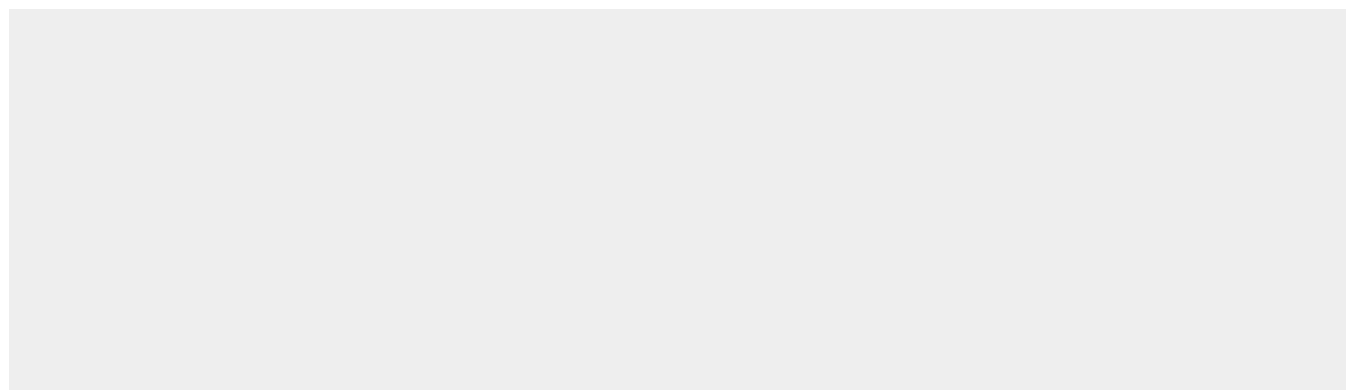
Widely expressed in brain.

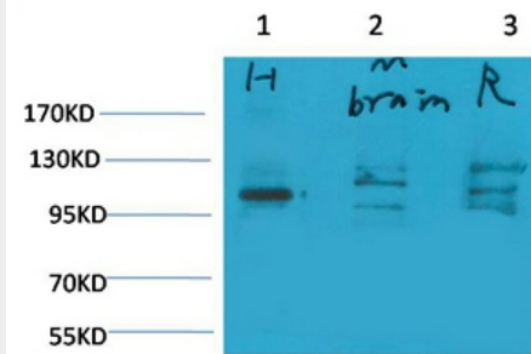
Glutamate Receptor 1 Polyclonal Antibody - Protocols

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

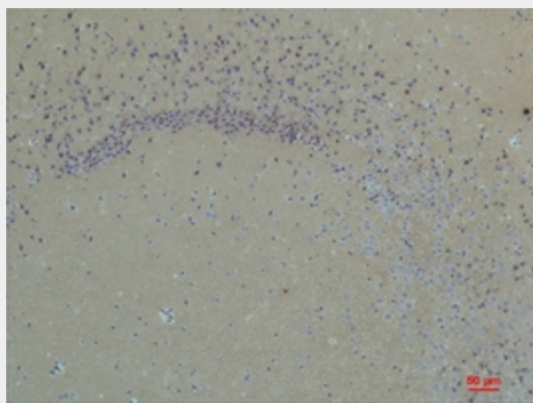
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Glutamate Receptor 1 Polyclonal Antibody - Images

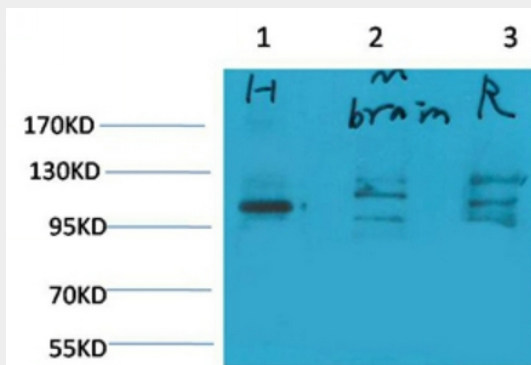




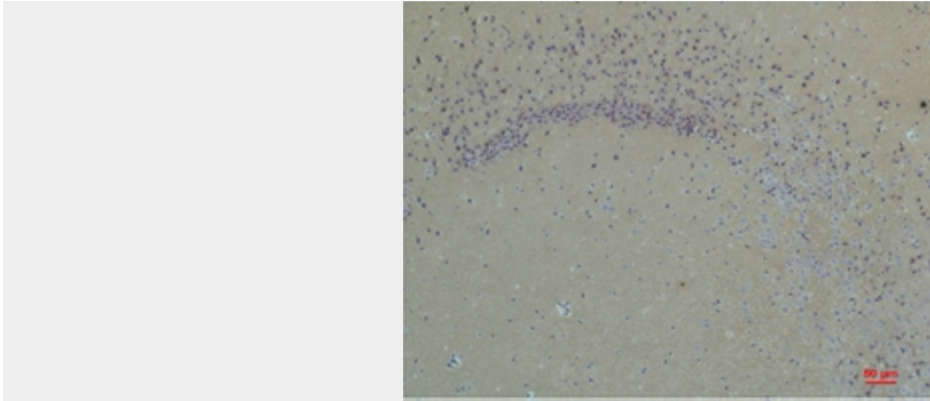
Western blot analysis of 1) Human Brain Tissue, 2) Mouse Brain Tissue, 3) Rat Brain Tissue with Glutamate Receptor 1 Rabbit pAb diluted at 1:2,000.



Immunohistochemical analysis of paraffin-embedded Rat Brain Tissue using Glutamate Receptor 1 Rabbit pAb diluted at 1:200.



Western blot analysis of 1) Human Brain Tissue, 2) Mouse Brain Tissue, 3) Rat Brain Tissue with Glutamate Receptor 1 Rabbit pAb diluted at 1:2,000.



Immunohistochemical analysis of paraffin-embedded Rat Brain Tissue using Glutamate Receptor 1 Rabbit pAb diluted at 1:200.

Glutamate Receptor 1 Polyclonal Antibody - Background

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