

# Glutamate Receptor 1 Rabbit mAb

Catalog # AP78517

## Product Information

---

|                          |  |
|--------------------------|--|
| <b>Application</b>       | WB, IHC-P, IP                                  |
| <b>Primary Accession</b> | <a href="#">P42261</a>                         |
| <b>Reactivity</b>        | Rat, Human, Mouse                              |
| <b>Host</b>              | Rabbit   |
| <b>Clonality</b>         | Monoclonal Antibody                            |
| <b>Isotype</b>           | IgG  |
| <b>Conjugate</b>         | Unconjugated                                   |
| <b>Immunogen</b>         | A synthesized peptide derived from human GluR1 |
| <b>Purification</b>      | Affinity Chromatography                        |
| <b>Calculated MW</b>     | 101506   |

## Additional Information

---

|                    |  |
|--------------------|--|
| <b>Gene ID</b>     | 2890   |
| <b>Other Names</b> | GRIA1  |
| <b>Dilution</b>    | WB~~1/500-1/1000 IHC-P~~N/A IP~~N/A  |
| <b>Format</b>      | Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol. |
| <b>Storage</b>     | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.           |

## Protein Information

---

|                 |  |
|-----------------|--|
| <b>Name</b>     | GRIA1 ( <a href="#">HGNC:4571</a> )  |
| <b>Function</b> | <p>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:<a href="#">1311100</a>, PubMed:<a href="#">20805473</a>, PubMed:<a href="#">21172611</a>, PubMed:<a href="#">28628100</a>, PubMed:<a href="#">35675825</a>). 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</p> |

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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.