

GluR2 Antibody

Rabbit mAb Catalog # AP91492

Product Information

Application WB, IF, ICC, IP

Primary Accession P42262

Reactivity Rat, Human, Mouse

Clonality Monoclonal

Other Names AMPA 2; AMPA selective glutamate receptor 2; AMPA2; GluA2; GLUR B; GluR

K2; GLUR2; GLURB; Gria2; HBGR2;

IsotypeRabbit IgGHostRabbitCalculated MW98821

Additional Information

Dilution WB 1:500~1:2000 ICC/IF 1:50~1:200 IP 1:50

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human GluR2

Description Ionotropic glutamate receptor. 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.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium

azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term.

Avoid freeze / thaw cycle.

Protein Information

Name GRIA2 (<u>HGNC:4572</u>)

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,

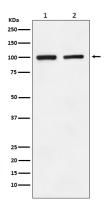
PubMed:8003671). L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system and plays an important role in fast excitatory synaptic transmission (PubMed:14687553). Binding of the excitatory neurotransmitter L- glutamate induces a conformation change, leading to 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}

Images



Western blot analysis of GluR2 expression in (1) Human fetal brain lysate; (2) Mouse brain lysate.

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