

GluR-1 Polyclonal Antibody

Catalog No: YT1921

Reactivity: Human; Mouse; Rat

Applications: WB;IHC;IF;ELISA

Target: GluR-1

Fields: >>cAMP signaling pathway;>>Neuroactive ligand-receptor

interaction;>>Circadian entrainment;>>Long-term potentiation;>>Retrograde

endocannabinoid signaling;>>Glutamatergic synapse;>>Dopaminergic

synapse;>>Long-term depression;>>Amyotrophic lateral sclerosis;>>Huntington disease;>>Spinocerebellar ataxia;>>Pathways of neurodegeneration - multiple

diseases;>>Amphetamine addiction;>>Nicotine addiction

Gene Name: GRIA1

Protein Name: Glutamate receptor 1

P42261

P23818

Human Gene Id: 2890

Human Swiss Prot

No:

Mouse Gene Id: 14799

Mouse Swiss Prot

No:

Rat Gene ld: 50592

Rat Swiss Prot No: P19490

Immunogen: The antiserum was produced against synthesized peptide derived from human

GluR1. AA range:816-865

Specificity: GluR-1 Polyclonal Antibody detects endogenous levels of GluR-1 protein.

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.



Source: Polyclonal, Rabbit, IgG

Dilution: WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:40000. Not

yet tested in other applications.

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 95kD

Cell Pathway: Neuroactive ligand-receptor interaction;Long-term potentiation;Long-term

depression; Amyotrophic lateral sclerosis (ALS);

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 with multiple subunits, each possessing transmembrane regions, and all arranged to form a ligand-gated ion channel. The classification of glutamate receptors is based on their activation by different pharmacologic agonists. This gene belongs to a family of alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate (AMPA) receptors. Alternatively spliced transcript variants encoding different isoforms have been

found for this gene. [provided by RefSeg, Jul 2008],

Function: function:lonotropic 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., miscellaneous: The postsynaptic actions of Glu are mediated by a variety of receptors that are named according to their selective agonists. This receptor

binds AMPA (quisqualate) > glutamate > kainate.,PTM:Palmitoylated.

Depalmitoylated upon glutamate stimulation. Cys-603 palmitoylation leads to Golgi retention and decreased cell surface expression. In contrast, Cys-829

palmitoylation does not affect cell surface expression but regul

Subcellular Location : Cell membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein. Cell junction, synapse, postsynaptic cell membrane; Multi-pass membrane protein. Cell junction, synapse,

postsynaptic density membrane; Multi-pass membrane protein. Cell projection, dendrite. Cell projection, dendritic spine. Early endosome membrane; Multi-pass membrane protein. Recycling endosome membrane; Multi-pass membrane

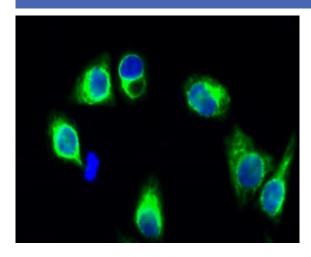
protein . Cell junction, synapse, presynapse . Cell junction, synapse . Interaction



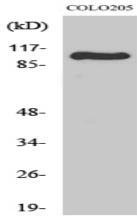
with CACNG2, CNIH2 and CNIH3 promotes cell surface expression. Colocalizes with PDLIM4 in early endosomes. Displays a somatodendritic localization and is excluded from axons in neurons (By similarity). Localized to cone photoreceptor pedicles (By similarity). .

Expression: Widely expressed in brain.

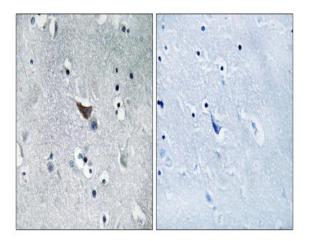
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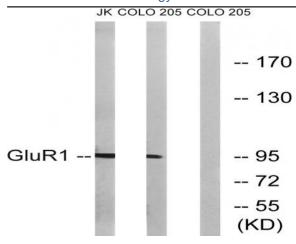
Immunofluorescence analysis of Hela cell. 1,GluR-1 Polyclonal Antibody(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 488 Catalog:RS3211 was diluted at 1:1000(room temperature, 50min). 3 DAPI(blue) 10min.



Western Blot analysis of various cells using GluR-1 Polyclonal Antibody diluted at 1:500



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using GluR1 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from COLO and Jurkat cells, using GluR1 Antibody. The lane on the right is blocked with the synthesized peptide.