

GluR-2 Polyclonal Antibody

Catalog No: YT1923

Reactivity: Human; Mouse; Rat

Applications: WB;IHC;IF;ELISA

Target: GluR-2

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;>>Cocaine addiction;>>Amphetamine addiction;>>Nicotine addiction

Gene Name: GRIA2

Protein Name: Glutamate receptor 2

P42262

P23819

Human Gene Id: 2891

Human Swiss Prot

No:

Mouse Gene Id: 14800

Mouse Swiss Prot

No:

Rat Gene ld: 29627

Rat Swiss Prot No: P19491

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

GluR2. AA range:834-883

Specificity: GluR-2 Polyclonal Antibody detects endogenous levels of GluR-2 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: 1:20000. 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: 99kD

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. This gene product belongs to a family of glutamate receptors that are sensitive to alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate (AMPA), and function as ligand-activated cation channels. These channels are assembled from 4 related subunits, GRIA1-4. The subunit encoded by this gene (GRIA2) is subject to RNA editing (CAG->CGG; Q->R) within the second transmembrane domain, which is thought to render the channel impermeable to Ca(2+). Human and animal studies suggest that pre-mRNA editing is essential for brain function,

and defective GRIA2 RNA editing at the Q/R site may be relevant to amyotrophic

lateral sclerosis (ALS) etiology. Alternative splicing, resulting in transcript variants enco

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-610 palmitoylation leads to Golgi retention and decreased cell surface expression. In contrast, Cys-836

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,

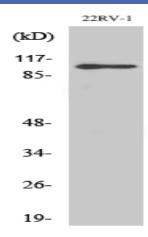
postsynaptic density membrane; Multi-pass membrane protein. Interaction with



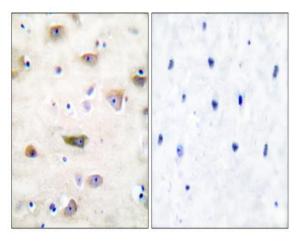
CACNG2, CNIH2 and CNIH3 promotes cell surface expression (By similarity). Displays a somatodendritic localization and is excluded from axons in neurons (By similarity).

Expression: Brain,

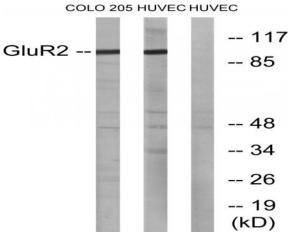
Products Images



Western Blot analysis of various cells using GluR-2 Polyclonal Antibody



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using GluR2 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from COLO205 and HUVEC cells, using GluR2 Antibody. The lane on the right is blocked with the synthesized peptide.