

Summary

Production Name	GluR-2 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IHC, WB, ELISA
Reactivity	Human, Mouse, Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	GRIA2
Alternative Names	GRIA2; GLUR2; Glutamate receptor 2; GluR-2; AMPA-selective glutamate receptor 2; GluR-B; GluR-K2; Glutamate receptor ionotropic; AMPA 2; GluA2
Gene ID	2891.0
SwissProt ID	P42262. The antiserum was produced against synthesized peptide derived from human GluR2. AA range: 834-883

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. . ELISA: 1:20000. Not yet tested in other applications.
Molecular Weight	99kD

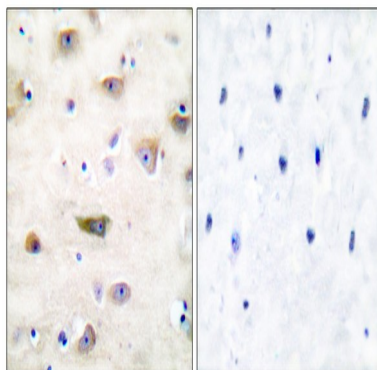
Background

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 encodes function: 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. 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 regulates stimulation-dependent endocytosis. RNA editing: Partially edited. Fully edited in the brain. Heteromerically expressed edited GLUR2 (R) receptor complexes are impermeable to calcium, whereas the unedited (Q) forms are highly permeable to divalent ions. Similarity: Belongs to the glutamate-gated ion channel (TC 1.A.10) family. Subunit: Homotetramer or heterotetramer of pore-forming glutamate receptor subunits. Tetramers may be formed by the dimerization of dimers. May interact with MPP4. Forms a ternary complex with GRIP1 and CSPG4. Interacts with PRKCABP, GRIP1 and GRIP2.

Research Area

Neuroactive ligand-receptor interaction; Long-term potentiation; Long-term depression; Amyotrophic lateral sclerosis (ALS);

Image Data

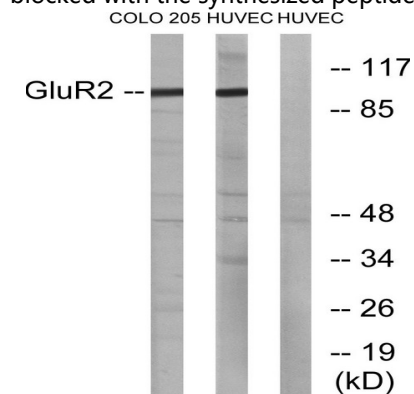


Product Name: GluR-2 Rabbit Polyclonal Antibody
Catalog #: APRab11493



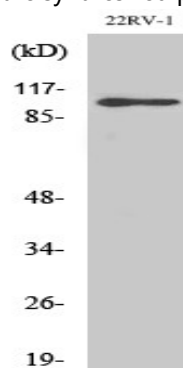
Immunohistochemistry analysis of paraffin-embedded human brain tissue, using GluR2 Antibody. The picture on the right is

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.



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

Note

For research use only.