

Product Name: GluR-2 (phospho Ser880) Rabbit Polyclonal Antibody
Catalog #: APRab04736

Summary

Production Name	GluR-2 (phospho Ser880) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC-P,IF-P,IF-F,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
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 around the phosphorylation site of Ser880. AA range:834-883

Application

Dilution Ratio	WB 1:500-1:2000, IHC-P 1:100-1:300, ELISA 1:20000, IF-P/IF-F/ICC/IF 1:50-200
Molecular Weight	99kDa

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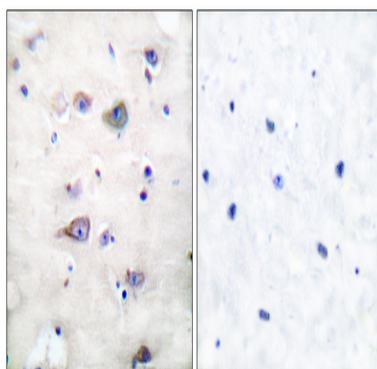
Background

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: 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);

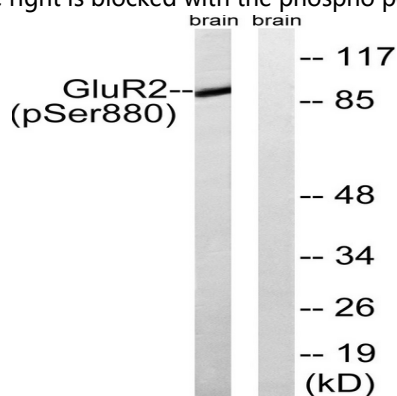
Image Data



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Immunohistochemistry analysis of paraffin-embedded human brain, using GluR2 (Phospho-Ser880) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from mouse brain, using GluR2 (Phospho-Ser880) Antibody. The lane on the right is blocked with the phospho peptide.

Note

For research use only.