

Rabbit Anti-phospho-Gria2 (Ser880) antibody

SL5359R

Product Name:	phospho-Gria2 (Ser880)
Chinese Name:	磷酸化谷氨酸受体2抗体
Alias:	Glutamate receptor 2 (Precursor)(phospho-Ser880); Ionotropic Glutamate receptor 2 (phospho S880); p-Ionotropic Glutamate receptor 2 (phospho S880); Gria2; Glur-2; GluR-B; Glur2; GluR-2; GluR-K2; Glutamate receptor 2; Glutamate receptor ionotropic, AMPA 2; glutamate receptor, ionotropic, N-methyl D-aspartate 1; NMDA receptor subunit ; AMPA-selective glutamate receptor 2.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Chicken, Cow, Horse,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100- 500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	96kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human Gria2 around the phosphorylation site of Ser880:IE(p-S)VK
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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 alphaamino-3-hydroxy-5-methyl-4-isoxazole propionate(AMPA), and function as ligandactivated 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+). Alternative splicing, resulting in transcript variants encoding different isoforms, (including the flip and flop isoforms that vary in their signal transduction properties), has been noted for this gene.

Function:

Receptor for glutamate that functions as ligand-gated ion channel in the central nervous system and plays an important role in excitatory synaptic transmission. 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. 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 glutamate.

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 ATAD1 in an ATPdependent manner. ATAD1-catalyzed ATP hydrolysis disrupts binding to ATAD1 and to GRIP1 and leads to AMPAR complex disassembly (By similarity). Interacts with PICK1 (via PDZ domain). Interacts with PRKCABP and GRIP2 (By similarity). Interacts with GRIA1 and SYNDIG1 (By similarity). Interacts with LRFN1. Interacts with SNX27 (via PDZ domain); the interaction is required for recycling to the plasma membrane when endocytosed and prevent degradation in lysosomes (By similarity). Found in a complex with GRIA1, GRIA3, GRIA4, CNIH2, CNIH3, CACNG2, CACNG3, CACNG4, CACNG5, CACNG7 and CACNG8. Interacts with CACNG5 (By similarity).

Subcellular Location:

Cell membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein (By similarity). Cell junction, synapse, postsynaptic cell membrane; Multi-pass membrane protein. Note=Interaction with CACNG2, CNIH2 and CNIH3 promotes cell surface expression (By similarity).

Post-translational modifications:

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 (By similarity).

Similarity:

Belongs to the glutamate-gated ion channel (TC 1.A.10.1) family. GRIA2 subfamily.

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SWISS: P42262

Gene ID: 2891

Database links:

Entrez Gene: 2891 Human

Entrez Gene: 2892 Human

Entrez Gene: 14800 Mouse

Entrez Gene: 29627 Rat

<u>Omim: 138247</u> Human

<u>Omim: 305915</u> Human

SwissProt: P42262 Human

SwissProt: P42263 Human

SwissProt: P23819 Mouse

SwissProt: Q4LG64 Mouse

SwissProt: Q80VM6 Mouse

SwissProt: P19491 Rat

Unigene: 32763 Human

Unigene: 377070 Human

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.