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GluR2/3 Antibody

Affinity purified rabbit polyclonal antibody
Catalog # AN1089

Specification

GluR2/3 Antibody - Product Information

Application	**WB**
Primary Accession	P19491
Reactivity	**Rat**
Predicted	**Chicken, Human, Mouse, Zebrafish**
Host	**Rabbit**
Clonality	**polyclonal**
Calculated MW	**100 KDa**

GluR2/3 Antibody - Additional Information

Gene ID	**29627**
Gene Name	**GRIA2/3**

Other Names
Glutamate receptor 2, GluR-2, AMPA-selective glutamate receptor 2, GluR-B, GluR-K2, Glutamate receptor ionotropic, AMPA 2, GluA2, Gria2, Glur2

Target/Specificity
Synthetic peptide corresponding to amino acid residues from the C-terminal region conjugated to KLH.

Dilution
WB~~ 1:1000

Format
Prepared from rabbit serum by affinity purification via chromatography on an affinity column made with the C-terminal peptide used as antigen.

Antibody Specificity
Specific for the ~100k GluR2/3 protein.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
GluR2/3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

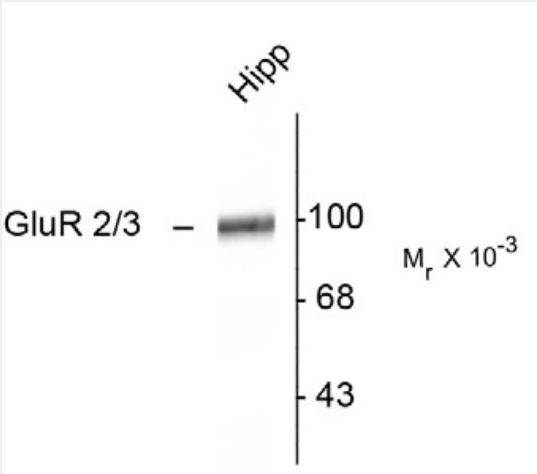
Shipping
Blue Ice

GluR2/3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GluR2/3 Antibody - Images



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~100k GluR2/3 protein.

GluR2/3 Antibody - Background

The ion channels activated by glutamate are typically divided into two classes. Those that are sensitive to N-methyl-D-aspartate (NMDA) are designated NMDA receptors (NMDAR) while those activated by α-amino-3-hydroxy-5-methyl-4-isoxalone propionic acid (AMPA) are known as AMPA receptors (AMPAR). The AMPAR are comprised of four distinct glutamate receptor subunits designated (GluR1-4) and they play key roles in virtually all excitatory neurotransmission in the brain (Keinänen et al., 1990;Hollmann and Heinemann, 1994). The GluR2 subunit is widely expressed throughout the nervous system where it is thought to play key roles in synaptic plasticity and learning and memory (Duprat et al., 2003;Seidenman et al., 2003;Chung et al., 2003;Yan et al., 2002).

GluR2/3 Antibody - References

Chung HJ, Steinberg JP, Huganir RL, Linden DJ (2003) Requirement of AMPA receptor GluR2 phosphorylation for cerebellar long-term depression. Science 300:1751-1755.
Duprat F, Daw M, Lim W, Collingridge G, Isaac J (2003) GluR2 protein-protein interactions and the regulation of AMPA receptors during synaptic plasticity. Philos Trans R Soc Lond B Biol Sci 358:715-720.
Hollmann M, Heinemann S (1994) Cloned glutamate receptors. Annu Rev Neurosci 17:31-108.
Keinänen K, Wisden W, Sommer B, Werner P, Herb A, Verdoorn TA, Sakmann B, Seeburg PH (1990) A family of AMPA-selective glutamate receptors. Science 249:556-560.
Seidenman KJ, Steinberg JP, Huganir R, Malinow R (2003) Glutamate receptor subunit 2 serine 880 phosphorylation modulates synaptic transmission and mediates plasticity in CA1 pyramidal cells. J

Neurosci 23:9220-9228.
Yan J, Zhang YF, Jia ZP, Taverna FA, McDonald RJ, Muller RU, Roder JC (2002) Place-cell impairment in glutamate receptor 2 mutant mice. J Neurosci 22:NIL7-NIL11.