10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Phospho Ser880 GluR2 Antibody

Affinity purified rabbit polyclonal antibody
Catalog # AN1165

Specification

Phospho Ser880 GluR2 Antibody - Product Information

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

Phospho Ser880 GluR2 Antibody - Additional Information

Gene ID	**29627**
Gene Name	**GRIA2**

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 phospho-peptide corresponding to amino acid residues surrounding Ser880 conjugated to KLH.

Dilution
WB~~ 1:1000

Format
Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephospho-peptide affinity columns.

Antibody Specificity
Specific for the ~100k GluR2 protein phosphorylated at Ser880.

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
Phospho Ser880 GluR2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Phospho Ser880 GluR2 Antibody - Protocols

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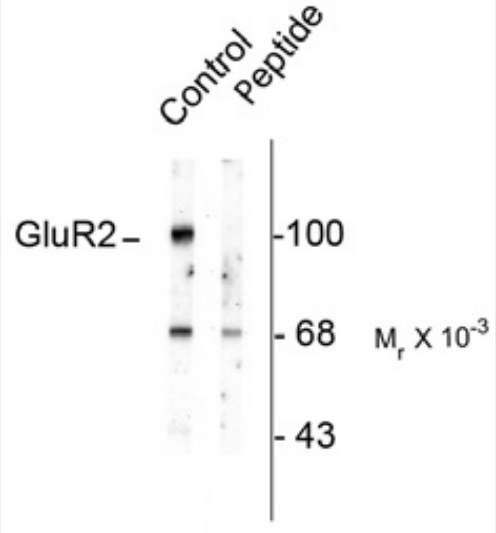
Provided below are standard protocols that you may find useful for product applications.

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

Phospho Ser880 GluR2 Antibody - Images



Western blot of rat brain homogenate showing specific immunolabeling of the ~100k GluR2protein phosphorylated at Ser880 (control). Immunolabeling is blocked by preadsorption with thephospho-peptide used as antigen (Peptide)but not by the corresponding dephospho-peptide(not shown).

Phospho Ser880 GluR2 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 number of GluR2 subunits in the AMPA receptor complex affects the Ca2+ permeability, rectification and single-channel conductance of AMPA receptors. Ser880 has been identified as the PKC phosphorylation site within the C-terminal region of GluR2 and has been shown to differentially regulate the interaction of the PDZ domain-containing proteins GRIP1 and PICK 1 (Matsuda et al., 1999)

Phospho Ser880 GluR2 Antibody - References

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.
Soderling TR, Derkach VA (2000) Postsynaptic protein phosphorylation and LTP. Trends Neurosci 23:75-80.

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Matsuda S., Mikawa S., and Hirai H (199) Phosphorylation of serine 880 in GluR2 by protein kinase C prevents it’s C-terminus from binding with glutamate receptor interacting protein. J. Neurochem 73, 1765-1768.