

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

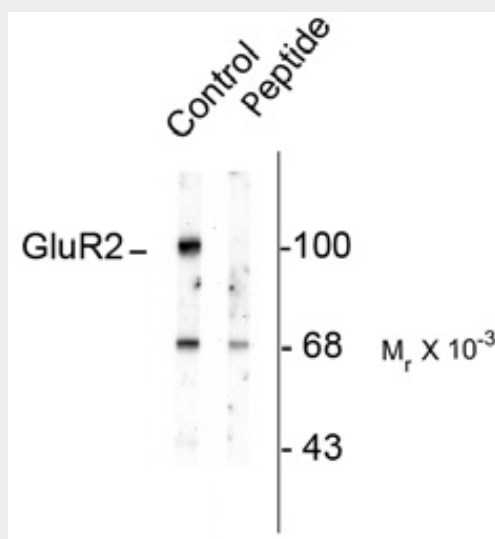
Blue Ice

Phospho Ser880 GluR2 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Phospho Ser880 GluR2 Antibody - Images



Western blot of rat brain homogenate showing specific immunolabeling of the ~100k GluR2 protein phosphorylated at Ser880 (control). Immunolabeling is blocked by preadsorption with the phospho-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 (AMPA). 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 Ca^{2+} 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.

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.