

**Phospho-Ser845 GluR1 Antibody**  
**Affinity purified rabbit polyclonal antibody**  
**Catalog # AN1014**

**Specification**

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**Phospho-Ser845 GluR1 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P19490</a>
Reactivity	Rat
Predicted	Human, Mouse, Monkey
Host	Rabbit
Clonality	polyclonal
Calculated MW	100 KDa

**Phospho-Ser845 GluR1 Antibody - Additional Information**

Gene ID	50592
Gene Name	GRIA1

**Other Names**

Glutamate receptor 1, GluR-1, AMPA-selective glutamate receptor 1, GluR-A, GluR-K1, Glutamate receptor ionotropic, AMPA 1, GluA1, Gria1, Glur1

**Target/Specificity**

Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser845 conjugated to KLH.

**Dilution**

WB~~ 1:1000

**Format**

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

**Antibody Specificity**

Specific for the ~100k GluR1 protein phosphorylated at Ser845 in Western blots of rat brain extracts. Immunolabeling is blocked by the phosphopeptide used as antigen but not by the corresponding dephosphopeptide. Immunolabeling is completely eliminated by treatment with  $\lambda$ -Ptase.

**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-Ser845 GluR1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Shipping**

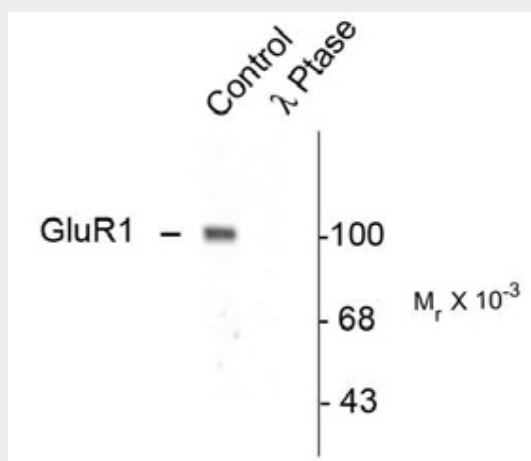
Blue Ice

## Phospho-Ser845 GluR1 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-Ser845 GluR1 Antibody - Images



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~100k GluR1 protein phosphorylated at Ser845 (Control). The phosphospecificity of this labeling is shown in the second lane (lambda-phosphatase:  $\lambda$ -Ptase). The blot is identical to the control except that it was incubated in  $\lambda$ -Ptase (1200 units for 30 min) before being exposed to the GluR1 Ser845 antibody. The immunolabeling is completely eliminated by treatment with  $\lambda$ -Ptase.

## Phospho-Ser845 GluR1 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  $\alpha$ -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 GluR1 subunit is widely expressed throughout the nervous system. Phosphorylation of Ser845 on GluR1 is thought to be mediated by PKA and phosphorylation of this site increases the conductance of the AMPAR (Roche et al., 1996; Banke et al., 2000). In addition, phosphorylation of this site has been linked to synaptic plasticity as well as learning and memory (Lee et al., 2003; Esteban et al., 2003).

## Phospho-Ser845 GluR1 Antibody - References

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#### **Phospho-Ser845 GluR1 Antibody - Citations**

- [ERK regulation of phosphodiesterase 4 enhances dopamine-stimulated AMPA receptor membrane insertion.](#)