

**Anti-GluR1-Subunit (Ser845) Antibody**

Our Anti-GluR1-Subunit (Ser845) rabbit polyclonal phosphospecific primary antibody from PhosphoSolut  
Catalog # AN1417

**Specification****Anti-GluR1-Subunit (Ser845) Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P19490</a>
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	101579

**Anti-GluR1-Subunit (Ser845) Antibody - Additional Information**

Gene ID **50592**

**Other Names**

GLUR 1 antibody, GLUR A antibody, AMPA 1 antibody, AMPA selective glutamate receptor 1 antibody, AMPA-selective glutamate receptor 1 antibody, GluA1 antibody, GLUH1 antibody, GluR K1 antibody, GluR-1 antibody, GluR-A antibody, GluR-K1 antibody, GLUR1 antibody, GLURA antibody, GluRK1 antibody, Glutamate receptor 1 antibody, Glutamate receptor ionotropic AMPA 1 antibody, Glutamate receptor ionotropic antibody, Glutamate receptor, ionotropic, AMPA 1 antibody, Gria1 antibody, GRIA1\_HUMAN antibody, HBGR1 antibody, MGC133252 antibody, OTTHUMP00000160643 antibody, OTTHUMP00000165781 antibody, THUMP00000224241 antibody, OTTHUMP00000224242 antibody, OTTHUMP00000224243 antibody

**Target/Specificity**

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 Ser-845 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).

**Format**

Antigen Affinity Purified from Pooled Serum

**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**

Anti-GluR1-Subunit (Ser845) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

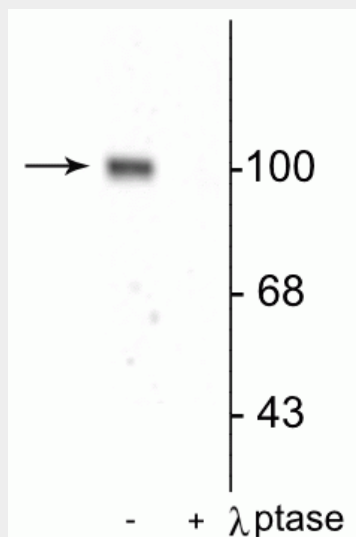
**Shipping**  
Blue Ice

### Anti-GluR1-Subunit (Ser845) Antibody - Protocols

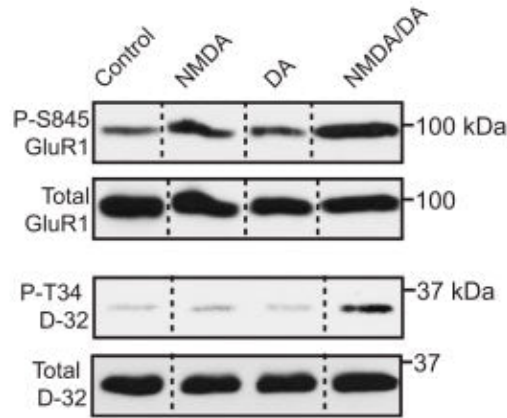
Provided below are standard protocols that you may find useful for product applications.

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

### Anti-GluR1-Subunit (Ser845) Antibody - Images



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~100 kDa GluR1 protein phosphorylated at Ser845 in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is completely eliminated by blot treatment with lambda phosphatase ( $\lambda$ -Ptase, 1200 units for 30 min).



Effects of striatal slice treatment with NMDA (25  $\mu$ M, 5 min), dopamine (DA, 10  $\mu$ M, 15 min), or both on PKA-dependent phosphorylation of Ser845 GluR1 (top) and Thr34 DARPP-32 (bottom). Image from publication CC-BY-4.0. PMID: 35835216

### Anti-GluR1-Subunit (Ser845) 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 Ser-845 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).