**Anti-Phospho-Ser$^{845}$ GluR1**

**Catalog Number:** p1160-845  
**Size:** 100 µl

**Product Description:** Affinity purified rabbit polyclonal antibody

**Applications:** WB: 1:1000

**Antigen:** Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser$^{845}$ of GluR1. The sequence of the immunogen is identical in human, mouse and rat.

**Biological Significance:** 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 (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 GluR1 subunit is widely expressed throughout the nervous system. GluR1 is potentiated by phosphorylation at Ser$^{831}$ which has been shown to be mediated by either PKC or CaM kinase II (McGlade-McCulloh et al., 1993; Mammen et al., 1999; Roche et al., 1996). In addition, phosphorylation of this site has been linked to synaptic plasticity as well and learning and memory (Soderling and Derkach, 2000).

**Western Blot** of 10 µg of rat brain lysate showing specific immunolabeling of the ~100k GluR1 protein phosphorylated at Ser$^{845}$. The labeling by the antibody was blocked by the Ser$^{845}$ phosphopeptide used as antigen. The corresponding dephosphopeptide did not block the immunolabeling (not shown).
**Purification Method:** 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 Ser\(^{845}\) in Western blots of rat brain extracts. Immunolabeling is blocked by the phosphopeptide used as the antigen but not by the corresponding dephosphopeptide.

**Quality Control Tests:** Western Blots performed on each lot.

**References:**