

# Anti-Phospho-Ser<sup>831</sup> GluR1 Antibody



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**Catalog#:** p1160-831

**Size:** 150 µl

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Host	Applications	Species Tested	Species Reactivity*	Molecular Reference
Rabbit	WB 1:1000	M, R	C, Ch, H	~100 kDa

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

**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 (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. GluR1 is potentiated by phosphorylation at Ser<sup>831</sup> 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 as learning and memory (Soderling and Derkach, 2000).

**Antigen:** Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser<sup>831</sup> of rat GluR1.

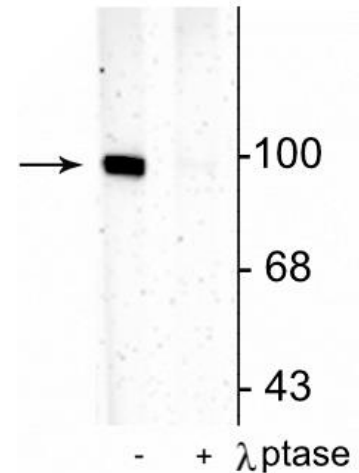
**Antibody Specificity:** Specific for endogenous levels of the ~100 kDa GluR1 protein phosphorylated at Ser<sup>831</sup>. Immunolabeling is completely eliminated by treatment with  $\lambda$ -Ptase.

**Purification Method:** Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.

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

**Packaging:** 150 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg BSA per ml and 50% glycerol.

**Storage and Stability:** Shipped on blue ice. Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~100 kDa GluR1 protein phosphorylated at Ser<sup>831</sup> 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).

## Product Specific References:

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