Anti-Phospho Ser\textsuperscript{1244} NMDA Receptor, NR2C Subunit

**Catalog Number:** p1518-1244  
**Size:** 100 µl

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

**Applications:**  
**WB:** 1:1000

**Antigen:** Synthetic phospho-peptide surrounding the phospho Ser\textsuperscript{1244} of the NR2C-subunit of rat NMDA receptor.

**Species reactivity:** The antibody has been directly tested for reactivity in Western blots with mouse and rat tissue. It is also expected that the antibody will react with bovine, canine, human and non-human primates as these species have 100% homology with the amino acid sequence used as antigen.

**Biological Significance:** The ion channels activated by glutamate that are sensitive to N-methyl-D-aspartate (NMDA) are designated NMDA receptors (NMDAR). The NMDAR plays an essential role in memory, neuronal development and it has also been implicated in several disorders of the central nervous system including Alzheimer’s, epilepsy and ischemic neuronal cell death (Grosshans et al., 2002; Wenthold et al., 2003; Carroll and Zukin, 2002). The NMDA receptor is also one of the principal molecular targets for alcohol in the CNS (Lovinger et al., 1989; Alvestad et al., 2003; Snell et al., 1996). The NMDAR is also potentiated by protein phosphorylation (Lu et al., 1999). The NR2C subunit of the receptor is thought to influence the NMDAR conductance level (Ebralidze et al., 1996). Phosphorylation of Ser\textsuperscript{1244} has been shown to regulate NMDA receptor channel function (Chen et al., 2006).

**Western blot** of rat cerebellum lysate showing specific immunolabeling of the ~140k NR2C subunit of the NMDA receptor phosphorylated at Ser\textsuperscript{1244}. The phosphospecificity is shown in the second lane where immunoreactivity is blocked by preadsorption with the phospho-peptide (Peptide) used as antigen but not by the dephosphopeptide (not shown).

**Packaging:** 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol. Adequate amount of material to conduct 10-mini Western Blots.

**Storage and Stability:** For long term storage –20°C is recommended. Stable at –20°C for at least 1 year.

**Shipment:** Domestic - Blue Ice; International - Blue Ice or Dry Ice.
Purification Method: Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.

Antibody Specificity: Specific for the ~140k NR2C subunit of the NMDA receptor phosphorylated at Ser^{1244}. Immunolabeling is blocked by preadsorption of antibody with the phospho-peptide that was used to generate the antibody but not by the corresponding dephospho-peptide.

Quality Control Tests: Western blots performed on each lot.

References:

Note: Dr. Michael Browning, a co-author of four of the cited papers, is President and founder of PhosphoSolutions.