



**PhosphoSolutions®**  
Antibodies that work™

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## Anti-Phospho-Ser<sup>892</sup> GABA<sub>B</sub> Receptor, R2-Subunit

**Catalog Number:** p1148-892

**Size:** 100 µl

**\$310.00**

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

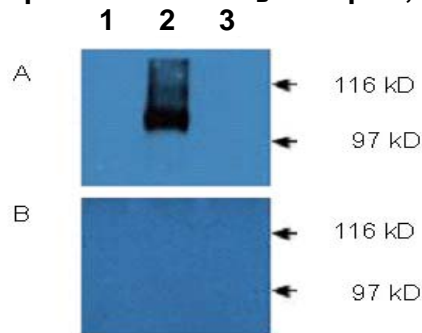
**Applications:** **WB:** 1:1000  
**IF:** 1:100 - 250 (Couve et al., 2002)

**Antigen:** Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser<sup>892</sup> of the GABA<sub>B</sub> receptor, R2-subunit.

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

**Biological Significance:** Gamma-aminobutyric acid (GABA) is the primary inhibitory neurotransmitter in the central nervous system. There are two major classes of GABA receptors the GABA<sub>A</sub> and the GABA<sub>B</sub> subtype of receptors. GABA<sub>B</sub> receptors are heterodimeric G protein-coupled receptors that mediate slow synaptic inhibition in the central nervous system. Moss and colleagues (Couve, *et al.*, 2002) recently demonstrated that the functional coupling of GABA<sub>B</sub> R1/GABA<sub>B</sub> R2 receptors to inwardly rectifying K<sup>+</sup> channels rapidly desensitizes. This effect is alleviated after direct phosphorylation of a single serine residue (Ser<sup>892</sup>) in the cyto-plasmic tail of GABA<sub>B</sub> R2 by cyclic AMP (cAMP)-dependent protein kinase (PKA). In addition to its postsynaptic effects GABA<sub>B</sub> receptors localized to the presynaptic region have been reported to restrict the availability of synaptic vesicles for release (Sakaba and Neher, 2003).

### Anti-Phospho Ser<sup>892</sup> GABA<sub>B</sub> Receptor, R2 Subunit



**Western blots** of (A) Cos-7 cells transiently expressing GABA<sub>B</sub>R2S892A (lane 1), wild type GABA<sub>B</sub>R2 (lane 2) or control untransfected cells (lane 3). Blots were then immunolabeled with Rabbit Anti-Phospho Ser<sup>892</sup> (**Figure A**). In **Figure B** the membrane was pre-treated with λ-Ptase (1200 units for 30 min) before being exposed to the anti-Ser<sup>892</sup> GABA<sub>B</sub> receptor, R2-subunit antibody.

**WB** = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation

**Packaging:** 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg BSA per ml 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 ~110k GABA<sub>B</sub> receptor, R2-subunit protein phosphorylated at Ser<sup>892</sup>.

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

**References:**

Couve A, Thomas P, Calver AR, Hirst WD, Pangalos MN, Walsh FS, Smart TG, Moss SJ (2002) Cyclic AMP-dependent protein kinase phosphorylation facilitates GABA<sub>B</sub> receptor-effector coupling. *Nat Neurosci* 5:415-424.  
Sakaba T, Neher E (2003) Direct modulation of synaptic vesicle priming by GABA<sub>B</sub> receptor activation at a glutamatergic synapse. *Nature (London)* 424:775-778.

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