Anti-Glycine Receptor

Catalog Number: 700-GLY  
Size: 200 µg

Product Description: Affinity purified rabbit polyclonal antibody

Applications:  
WB: 1:1000
IHC (frozen sections; unpublished observations): 1:1000

Antigen: Peptide from the N-terminus region of the α₁-subunit of rat Glycine Receptor.

Biological Significance: Glycine is an important inhibitory transmitter in the brainstem and spinal cord. Glycine receptors are members of the ligand-gated ion channel family (LGICs) that mediate rapid chemical neurotransmission (Schofield et al., 2003). The binding of glycine to its receptor produces a large increase in chloride conductance, which causes membrane hyperpolarization. Glycine receptors are anchored at inhibitory chemical synapses by a cytoplasmic protein, gephyrin (Fischer et al., 2000). The glycine receptor has been used to great advantage in the identification of the binding sites for alcohol on the LGIC family of proteins (Beckstead et al., 2001; Mihic et al., 1997). These receptors have also been extremely useful in studies of synaptic clustering of receptors (Craig and Lichtman, 2001). The Glycine receptor may also act in concert with an NMDAR subunit to form an excitatory receptor (Chatterton et al., 2002).

Western Blot of 10 µg of rat spinal cord. As shown in the autoradiograph, the Anti-Glycine Receptor (Catalog No. 700-GLY) is specific for the ~48k subunits recognizing both the α₁- and α₂-subunits of the Glycine Receptor.

Purification Method: Prepared from rabbit serum by affinity purification using a column to which the peptide immunogen was coupled.
**Antibody Specificity:** Specific for the ~48k α₁- and α₂-subunits of the Glycine Receptor in Western blots of rat spinal cord and brain stem and in cell extracts. Immunolabeling blocked by preadsorption of antibody with the peptide immunogen. Does not recognize other Glycine Receptor subunits.

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

**References:**