Anti-Glycine Receptor Antibody

Catalog #: 700-GLY  Size: 200 µg

Cite this Antibody: PhosphoSolutions Cat# 700-GLY, RRID:AB_2492133

<table>
<thead>
<tr>
<th>Host</th>
<th>Applications</th>
<th>Species Tested</th>
<th>Species Reactivity*</th>
<th>Molecular Reference</th>
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<tr>
<td>Rabbit</td>
<td>WB 1:1000</td>
<td>M, H, R</td>
<td>~48 kDa</td>
<td></td>
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<tr>
<td></td>
<td>IHC 1:1000 (frozen sections)</td>
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Product Description: Affinity purified rabbit polyclonal antibody.

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).

Antigen: Peptide from the N-terminus region of the α1-subunit of rat glycine receptor.

Antibody Specificity: Specific for endogenous levels of the ~48 kDa α1- and α2-subunits of the glycine receptor. Immunolabeling blocked by preadsorption of antibody with the peptide immunogen. Does not recognize other glycine receptor subunits.

Purification Method: Prepared from pooled rabbit serum by affinity purification using a column to which the fusion protein immunogen was coupled.

Quality Control Tests: Western blots performed on each lot.

Packaging: 200 µg antibody vial; lyophilized from 5 mM ammonium bicarbonate. The antibody should be reconstituted in 50 µl phosphate buffered saline (PBS: 137 mM NaCl, 7.5 mM Na2HPO4, 2.7 mM KCl, 1.5 mM KH2PO4, pH 7.4) before use.

Storage and Stability: Shipped on blue ice. Storage at -20°C after reconstitution is recommended, stable for at least 1 year. Avoid freeze/thaw cycles after reconstitution.

Western blot of rat spinal cord lysate (SC) showing specific immunolabeling of the ~48 kDa α1- and α2-subunits of the glycine receptor. Immunolabeling was absent from a rat hippocampal lysate (H), as the glycine receptor is not expressed in the hippocampus.

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Product Specific References:


General References:


