

**Glycine Receptor Antibody**  
**Affinity purified rabbit polyclonal antibody**  
**Catalog # AN1046**

**Specification**

---

**Glycine Receptor Antibody - Product Information**

Application	WB, FC
Primary Accession	<a href="#">P07727</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	polyclonal
Calculated MW	48 KDa

**Glycine Receptor Antibody - Additional Information**

Gene ID	25674
Gene Name	GLRA1

**Other Names**

Glycine receptor subunit alpha-1, Glycine receptor 48 kDa subunit, Glycine receptor strychnine-binding subunit, Glra1, Gyr

**Target/Specificity**

Synthetic peptide corresponding to amino acid residues from the N-terminal region conjugated to KLH.

**Dilution**

WB~~ 1:1000

FC~~1:1000

**Format**

Prepared from rabbit serum by affinity purification using a column to which the peptide immunogen was coupled.

**Antibody Specificity**

Specific for the ~48k  $\alpha$ 1- and  $\alpha$ 2-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 glycinereceptor subunits.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Glycine Receptor Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Shipping**

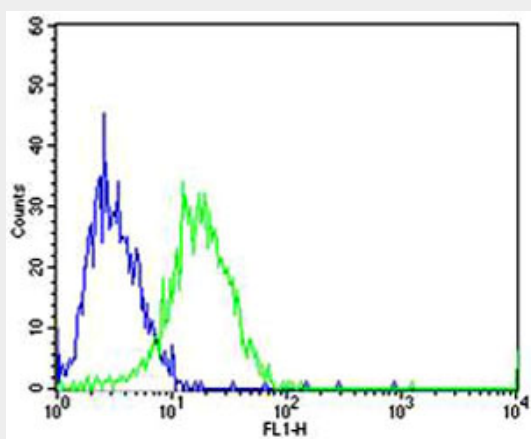
Blue Ice

## Glycine Receptor Antibody - Protocols

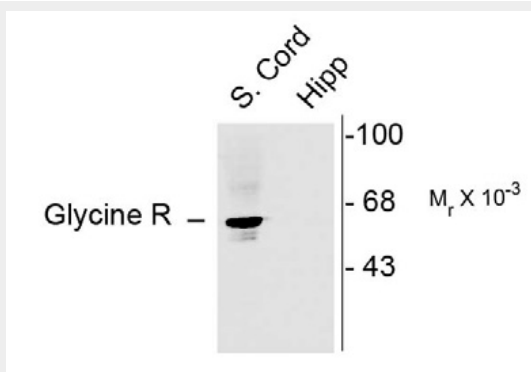
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Glycine Receptor Antibody - Images



Flow cytometric analysis of Y79 cells using Glycine Receptor Antibody (green, Cat#AN1046) compared to an isotype control of rabbit IgG (blue). AN1046 was diluted at 1:1000 dilution. An Alexa Fluor® 488 goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody.



Western blot of rat spinal cord showing specific immunolabeling of the ~48k  $\alpha$ 1- and  $\alpha$ 2-subunits of the glycine receptor. The labeling was absent from a rat hippocampal (hipp) lysate as the glycine receptor is not expressed in the hippocampus.

## Glycine Receptor Antibody - Background

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).

### **Glycine Receptor Antibody - References**

- Beckstead MJ, Phelan R, Mihic SJ (2001) Antagonism of inhalant and volatile anesthetic enhancement of glycine receptor function. *J Biol Chem* 276:24959-24964.
- Chatterton JE, Awobuluyi M, Premkumar LS, Takahashi H, Talantova M, Shin Y, Cui JK, Tu SC, Kevin ASK, Nakanishi N, Tong G, Lipton SA, Zhang DX (2002) Excitatory glycine receptors containing the NR3 family of NMDA receptor subunits. *Nature (London)* 415:793-798.
- Craig AM, Lichtman JW (2001) Getting a bead on receptor movements. *Nat Neurosci* 4:219-220.
- Fischer F, Kneussel M, Tintrup H, Haverkamp S, Rauen T, Betz H, Wässle H (2000) Reduced synaptic clustering of GABA and glycine receptors in the retina of the gephyrin null mutant mouse. *J Comp Neurol* 427:634-648.
- Mihic SJ, Ye Q, Wick MJ, Koltchine VV, Krasowski MD, Finn SE, Mascia MP, Valenzuela CF, Hanson KK, Greenblatt EP, Harris RA, Harrison NL (1997) Sites of alcohol and volatile anaesthetic action on GABAA and glycine receptors. *Nature (London)* 389:385-389.
- Schofield CM, Jenkins A, Harrison NL (2003) A highly conserved aspartic acid residue in the signature disulfide loop of the  $\alpha 1$ -subunit is a determinant of gating in the glycine receptor. *J Biol Chem* 278:34079-34083.