Glycine receptor

**Cat.No. 146 011; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)**

**Data Sheet**

<table>
<thead>
<tr>
<th>Reconstitution/Storage</th>
<th>100 µg purified IgG, lyophilized. Azide was added before lyophilization. For reconstitution add 100 µl H2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications</td>
<td>WB: 1 : 500 up to 1 : 1000 (AP staining) IP: yes IHC: 1 : 500 (see remarks) IHC-P/FPPE: 1 : 500 ELISA: yes FLOWCYTOMETRY: yes</td>
</tr>
<tr>
<td>Clone</td>
<td>mAb4a</td>
</tr>
<tr>
<td>Subtype</td>
<td>IgG1 (κ light chain)</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Recombinant protein corresponding to AA 1 to 457 from rat Glycine receptor α1 (UniProt Id: P07727)</td>
</tr>
<tr>
<td>Epitop</td>
<td>Epitop: AA 96 to 105 from rat Glycine receptor α1 (UniProt Id: P07727)</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reacts with: human (P23415, P23416, P48167), rat (P07727, P22771, P20781), mouse (Q64018, Q7TNC8, P48168), pig, zebrafish. Other species not tested yet.</td>
</tr>
<tr>
<td>Specificity</td>
<td>Specific for all glycine receptor subunits.</td>
</tr>
<tr>
<td>Remarks</td>
<td>IHC: Tissue sections require additional methanol/acetic acid treatment prior to antibody incubation. For details see Dumoulin A, Triller A &amp; Dieudonné S (2001), recommended protocol</td>
</tr>
</tbody>
</table>

**Selected References SYSY Antibodies**

Distribution of the glycine receptor β-subunit in the mouse CNS as revealed by a novel monoclonal antibody.

Weltzien F, Puller C, O’Sullivan GA, Paarmann I, Betz H


Neuronal cotransport of glycine receptor and the scaffold protein gephyrin.

Maas C, Tagnouti N, Loebrich S, Behrend B, Lappe-Siefke C, Kreussel M


Disturbed neuronal ER-Golgi sorting of unassembled glycine receptors suggests altered subcellular processing is a cause of human hyperekplexia.


To be used in vitro / for research only

**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

The inhibitory glycine receptor (GlyR) is a member of the ligand-gated ion channel superfamily of neurotransmitter receptors. It is an oligomeric protein composed of homologous subunits (α-1-4 and β) with four transmembrane segments (M1-M4) each. It shows a widespread expression profile in brain. Several isoforms and splice variants with distinct pharmacology have been discovered so far.

Yrima L, Galyna M, Galyna S

Cell biology international (2018) : . IHC; tested species: mouse

Autism-associated neuroligin-4 mutation selectively impairs glycinergic synaptic transmission in mouse brainstem synapses.

Zhang B, Coike D, Hale WD, Brose N, Südhof TC


Loss of Neuroligin3 specifically downregulates retinal GABAa2 receptors without abolishing direction selectivity.

Hoon M, Krishnamoorthy V, Gollisch T, Falkenburger B, Varoqueaux F


Alpha subunit-dependent glycine receptor clustering and regulation of synaptic receptor numbers.

Patrizio A, Renner M, Pizzarello R, Triller A, Sperlich C.

Scientific reports (2017) 7(1): 10899. ICC; tested species: rat

Disruption of a Structurally Important Extracellular Element in the Glycine Receptor Leads to Decreased Synaptic Integration and Signaling Resulting in Severe Startle Disease.


Defining an extracellular GlyR site that regulates glycine receptor surface expression.

Maas C, Tagnaouti N, Loebrich S, Behrend B, Lappe-Siefke C, Kneussel M


Neuronal cotransport of glycine receptor and the scaffold protein gephyrin.

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