**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>
</table>
| Applications           | WB: 1 : 500 up to 1 : 1000 (AP staining)  
IHC: 1 : 250 (see remarks)  
IHC-P/FPPE: 1 : 500  
ELISA: yes  
FLOWCytometry: yes |
| Clone                  | mAb4a |
| Subtype                | IgG1 (κ light chain) |
| Immunogen              | Recombinant protein corresponding to AA 1 to 457 from rat Glycine receptor α1 (UniProt Id: P07727) |
| Epitope                | Epitop: AA 96 to 105 from rat Glycine receptor α1 (UniProt Id: P07727) |
| Reactivity             | Reacts with: human (P23415, P23416, P48167), rat (P07727, P22771, P20781), mouse (Q64018, Q7TNC8, P48168), pig, zebrafish. Other species not tested yet. |
| Specificity            | Specific for all glycine receptor subunits. |
| Remarks                | IHC: Tissue sections require additional methanol/acetic acid treatment prior to antibody incubation. For details see Dumoulin A, Triller A & Dieudonné S (2001). recommended protocol |

**Selected References SYSY Antibodies**

Distribution of the glycine receptor β-subunit in the mouse CNS as revealed by a novel monoclonal antibody.  
Weltzien F, Fuller C, O’Sullivan GA, Paarmann I, Betz H  

Neuronal cotransport of glycine receptor and the scaffold protein gephyrin.  
Maas C, Tagmouti 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.  

Slowly emerging glycineric transmission enhances inhibition in the sound localization pathway of the avian auditory system.  
Fischl MJ, Weimann SR, Kearse MG, Burger RM  

Age-related changes of glycine receptor at the rat hippocampus: from the embryo to the adult.  
Aroëta RJ, Ribeiro JA, Sebastião AM, Valente CA  

Glycine receptors are involved in hippocampal neuronal damage caused by oxygen-glucose deficiency.  
Iryna L, Galyna M, Galyna S  
Cell biology international (2018) : ICC; tested species: mouse

Autism-associated neuroligin-4 mutation selectively impairs glycineric synaptic transmission in mouse brainstem synapses.  
Zhang B, Gokce O, Hale WD, Brosen N, Südhof TC  

Loss of Neuroligin3 specifically downregulates retinal GABAa2 receptors without abolishing direction selectivity.  
Hoon M, Krishnaamoorthy V, Gollisch T, Falkenberger B, Varoqueaux F  
PloS one (2017) 12(7): e0181011. IHC; tested species: mouse

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

Alpha subunit-dependent glycine receptor clustering and regulation of synaptic receptor numbers.  
Patrizio A, Renner M, Pizzarelli R, Triller A, Specht CG  
Scientific Reports (2017) 7(1): 10899. ICC; tested species: rat

Janzen D, Schaefer N, Dello C, Schindelin H, Vilmann C  

Differential GABAergic and glycinergic inputs of inhibitory interneurons and Purkinje cells to principal cells of the cerebellar nuclei.  
Mesyszko Z, Rousseau CV, Broil J, Zeilhofer HU, Dieudonné S  

Hypothesis and evidence that aberrant ER-Golgi transport is a cause of human hyperekplexia.  
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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.

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