

Product Specification Sheet

Glycine Transporter-2 (GLYT2) Antibodies

Cat # GLYT22-S	Sheep Anti-Rat GLYT2 antiserum # 2	SIZE: 100 ul
Cat # GLYT22-P	Rat GLYT2 Control peptide # 2	SIZE: 100 ug

Glycine transporter belongs to a family of Na/Cl-dependent neurotransmitter transporters, predicted to contain as many as 12 transmembrane domains. Glycine receptor exists in 2 forms - GLYT1 and GLYT2. Form 1 has three other known isoforms (GLYT1a, GLYT1b, and GLYT1c) which may be produced by alternative splicing or promoter usage. Rodent Glyt1a and Glyt1b differ only by 10 amino acid at the N-terminus and expressed from the same gene. Although, the N-terminal part of mouse and rat GLYT1a is identical in mouse and rat, the N-terminus of GLYT1b are significantly different in these two species. The GLYT1c subtype has only been reported in humans. GLYT1a is expressed in CNS and peripheral organs. GLYT1b is localized in the CNS. Both neuron and Glial cells have GLYT1. More recent studies indicate that GLYT1b may not be brain specific. Immunolocalization studies on GLYT2 suggest that GLYT2 is responsible for terminating the neurotransmission at the strychnine synapses.

Source of Antigen and Antibodies

Antigen	20aa peptide of rat GLYT2 (gene accession # P58295) Designated (GLYT22-P or control peptide) ; epitope location ~ C-terminus, Cytoplasmic domain
Antibody host/type	Sheep Polyclonal unpurified antiserum (Cat # GLYT22-S)
Secondary Ab	Cat # 30520, rabbit anti-sheep IgG-HRP (AP, biotin, FITC conjugates also available).
Negative Control Ab	Non-immune sheep IgG (Cat # 20006-1) to be used as -ve control for ELISA, WB, IHC etc.

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)

100ul solution lyophilized powder
Supplied in Buffer: 0.05% azide
Reconstitute powder in 100 ul PBS

Control/blocking peptide

100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure using Chemiluminescence technique.

ELISA (1:10K-1:100K; using 50-100 ng of control peptide/well).

Histochemistry & Immunofluorescence. We recommend the use of affinity purified antibody at 10-30 ug/ml in formaldehyde fixed, paraffin-embedded tissues (1).

Specificity & Cross-reactivity

The rat GLYT22-P peptide is 100% specific for rat, mouse and human GLYT2. No homology is seen with either GLYT1 or other transporters. Antibody crossreactivity in various species is not known. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at the web site).

General References: 1. Liu QR et al (1993) JBC 268, 22802; Jursky F et al (1996) J Neurochem. 67, 336

2. Citations of for ADI Antibodies (see updates at the web site)
Lim J 2007 Invest. Ophthalmol. Vis. Sci., Nov 2007; 48:
5142 - 5151 WB IF rat lens,

*This product is for In vitro research use only.

Related material available from ADI

GLYT22-S-P 71215J

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