



Datasheet for ABIN1841935  
**anti-GLYT1 antibody (AA 500-600)**



[Go to Product page](#)

1 Validation

1 Publication

### Overview

Quantity:	100 µL
Target:	GLYT1
Binding Specificity:	AA 500-600
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GLYT1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

### Product Details

Immunogen:	A synthetic peptide from AA 500-600 of human SLC6A9 conjugated to blue carrier protein was used as the antigen.
Specificity:	Specific for SLC6A9.
Cross-Reactivity:	Human, Mouse, Rat
Cross-Reactivity (Details):	Other species not yet tested.
Purification:	Whole serum

### Target Details

Target:	GLYT1
Alternative Name:	SLC6A9 ( <a href="#">GLYT1 Products</a> )

## Target Details

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Background: FUNCTION: Terminates the action of glycine by its high affinity sodium-dependent reuptake into presynaptic terminals. May play a role in regulation of glycine levels in NMDA receptor-mediated neurotransmission. LOCATION: Membrane, Multi-pass membrane protein. Tissue specificity: At E11, expressed in the ventral part of the ventricular zone. At E15, also expressed in adjacent mantle tissue and the meninges. Strongly expressed in E12 and E15 liver.,SLC6 Family,Sodium- and chloride-dependent glycine transporter 1, GlyT-1, GlyT1, Solute carrier family 6 member 9

UniProt: [P48067](#)

## Application Details

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Application Notes: IHC, WB (confirmed by recombinant protein). A dilution of 1: 300 to 1: 2000 is recommended. The optimal dilution should be determined by the end user. Not yet tested in other applications.

Restrictions: For Research Use only

## Handling

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Format: Lyophilized

Reconstitution: Reconstitute in 100 µL of sterile water. Centrifuge to remove any insoluble material.

Handling Advice: Avoid freeze and thaw cycles.

Storage: 4 °C/-20 °C

Storage Comment: Maintain the lyophilised/reconstituted antibodies frozen at -20°C for long term storage and refrigerated at 2-8°C for a shorter term. When reconstituting, glycerol (1:1) may be added for an additional stability. Avoid freeze and thaw cycles.

Expiry Date: 12 months

## Publications

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Product cited in: van Wyk, Hulliger, Girod, Ebnetter, Kleinlogel: "Present Molecular Limitations of ON-Bipolar Cell Targeted Gene Therapy." in: **Frontiers in neuroscience**, Vol. 11, pp. 161, (2017) ([PubMed](#)).



### Successfully validated (Immunohistochemistry (IHC))

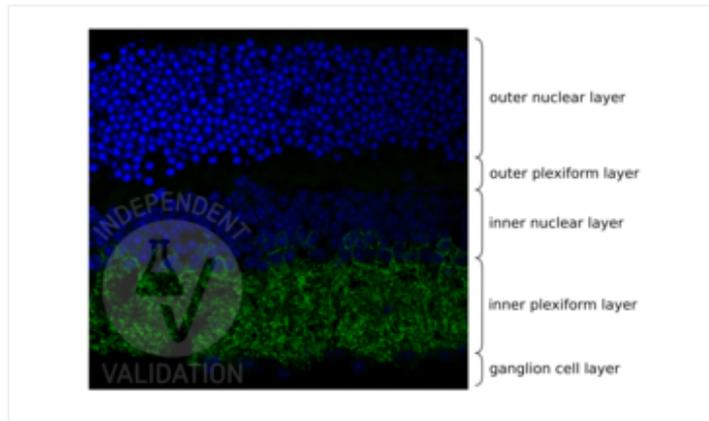
by [Kleinlogel lab, Institute of Physiology, University of Bern, Switzerland](#)

Report Number: 100063

Date: Nov 20 2016

Target:	Glycine Transporter 1 (GLYT1) (AA 500-600)
Lot Number:	Rb1929-281012-WS
Method validated:	Immunohistochemistry (IHC)
Positive Control:	Glycinergic amacrine cells in the inner nuclear layer and the inner plexiform layer of the mouse retina.
Negative Control:	Other ocular tissue in the same sections.
Notes:	This antibody worked very well in the mouse retina. ABIN1841935 specifically labels glycinergic amacrine cells – which have a characteristic morphology - in the mouse retina with no unspecific labelling in other retinal layers.
Primary Antibody:	ABIN1841935
Secondary Antibody:	Life Technologies, A11008, lot 1761258
Protocol:	<ul style="list-style-type: none"><li>• Fixation:<ul style="list-style-type: none"><li>◦ Immediately nucleate eyes from euthanized mice.</li><li>◦ Hemi-sect the eyes around the border of the cornea and remove the lens.</li><li>◦ Wash the eye cups in 1x PBS.</li><li>◦ Fix tissue in 4% PFA for 30-40min at RT.</li><li>◦ Thoroughly wash PFA from tissue twice in 1x PBS for 5 min at RT.</li></ul></li><li>• Cryoprotection with Sucrose:<ul style="list-style-type: none"><li>◦ Immerse tissue in 10% Sucrose (in 1x PBS) for 2h at RT.</li><li>◦ Immerse tissue in 20% Sucrose (in 1x PBS) for 2h at RT.</li><li>◦ Immerse tissue in 30% Sucrose (in 1x PBS) overnight at 4°C.</li></ul></li><li>• Freezing:<ul style="list-style-type: none"><li>◦ Fill cryomold with OCT compound (Sakura Tissue Tek, 4583 lot 2317).</li><li>◦ Put 2-Methylbutan into a big glass beaker, and beaker into liquid nitrogen.</li><li>◦ Wash tissue briefly in 1x PBS after cryoprotection.</li><li>◦ Place tissue into OCT compound in cryomold “horizontally” and at middle depth.</li><li>◦ Place cryomold into cold 2-methylbutane; take care that it is not submerged, otherwise the OCT block may crack.</li><li>◦ After approximately 30sec-1 min, take cryomold out and store it at -20°C for sectioning.</li></ul></li></ul>

- Slide Preparation:
  - Let the frozen slides thaw and dry at RT 10-30min.
  - Remove OCT by washing slides twice in a 1x PBS baths for some minutes.
  - Dry around sections with paper tissue then draw a big enough circle with a wax pen on the slide around the sections.
  - Cover the sections with 0.1 M Gly/PBS for 30min to block unspecific aldehyde groups.
  - Remove Gly/PBS and wash three times for at least 5min with 1x PBS.
  - Block sections with 2x normal goat serum (6% NGS, 2% BSA, 1% TritonX-100) for 30min.
- Primary AB:
  - Dilute primary rabbit anti glycine transporter 1 (GLYT1) antibody (ABIN1841935, lot Rb1929-281012-WS) in 1x NGS (see above) to 1:400. Centrifuge the solution at 16.000rcf for 6min to pellet aggregates.
  - Add 30µL of the primary antibody solution from the top of the supernatant on each section, wet paper towels in the incubation chamber.
  - Insert the slides into the incubation chamber. Prevent the sections from drying out!
  - Incubate overnight at 4°C.
- Secondary AB:
  - Wash slides four times for at least 5min in 1x PBS.
  - Dilute secondary goat anti rabbit AF488 conjugated antibody (Life Technologies, A11008, lot 1761258) in 1x NGS to 1:400. Centrifuge the solution at 16.000rcf for 6min to pellet aggregates.
  - Add 1:2000 DAPI (from a 1mg/ml stock dilution) to the solution.
  - Add 30µL of the secondary antibody solution from the top of the supernatant on each section.
  - Uncubate for 2h at RT in the dark.
- Wash and mount:
  - Wash slides four times for at least 5min in 1x PBS.
  - Add a small bubble-free drop of fluorescence mounting medium (DAKO, S3023, lot 10115314) on top of the wet sections.
  - Place a coverslip on it avoiding bubbles. Seal the edges of the coverslip with a clear nail polish.
  - Incubate over night at 4°C and in the dark.
- Microscopy:
  - Image acquisition on a Zeiss 880 laser scanning microscope using automated filter settings for AF488, a 40x oil immersion objective, a laser intensity of 10% and a gain of approximately 400.



**Validation image no. 1 for anti-Glycine Transporter 1 (GLYT1) (AA 500-600) antibody (ABIN1841935)**

A cross section of a mouse retina labelled with ABIN1841935 (rabbit polyclonal anti-glycine transporter 1, GLYT-1 1:400) and a Alexa488 conjugated secondary donkey anti-rabbit antibody 1:400(green). ABIN1841935 specifically labels glycinergic amacrine cells in the mouse retina with no unspecific labelling in other retinal layers. Nuclei are labelled with DAPI (blue).