

**Anti-GABA Transporter 1/GAT 1 Antibody**  
**Catalog # ABO11031****Specification****Anti-GABA Transporter 1/GAT 1 Antibody - Product Information**

Application	WB, IHC-P
Primary Accession	<a href="#">P30531</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Sodium- and chloride-dependent GABA transporter 1(SLC6A1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-GABA Transporter 1/GAT 1 Antibody - Additional Information**

**Gene ID** 6529

**Other Names**

Sodium- and chloride-dependent GABA transporter 1, GAT-1, Solute carrier family 6 member 1, SLC6A1, GABATR, GABT1, GAT1

**Calculated MW**

67074 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Rat, Human, Mouse , By Heat<br>Western blot, 0.1-0.5 µg/ml, Mouse, Rat, Human<br>

**Subcellular Localization**

Cell membrane; Multi-pass membrane protein. Membrane; Multi-pass membrane protein. Localized at the plasma membrane and in a subset of intracellular vesicles. Localized at the presynaptic terminals of interneurons (By similarity). .

**Protein Name**

Sodium- and chloride-dependent GABA transporter 1(GAT-1)

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human GABA Transporter 1(473-487aa WFYGVNRFYDNIQEM), identical to the related rat and mouse sequences.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Anti-GABA Transporter 1/GAT 1 Antibody - Protein Information**

**Name** SLC6A1

**Synonyms** GABATR, GABT1, GAT1

**Function**

Mediates transport of gamma-aminobutyric acid (GABA) together with sodium and chloride and is responsible for the reuptake of GABA from the synapse (PubMed:<a href="http://www.uniprot.org/citations/30132828" target="\_blank">30132828</a>). The translocation of GABA, however, may also occur in the reverse direction leading to the release of GABA (By similarity). The direction and magnitude of GABA transport is a consequence of the prevailing thermodynamic conditions, determined by membrane potential and the intracellular and extracellular concentrations of Na(+), Cl(-) and GABA (By similarity). Can also mediate sodium- and chloride-dependent transport of hypotaurine but to a much lower extent as compared to GABA (By similarity).

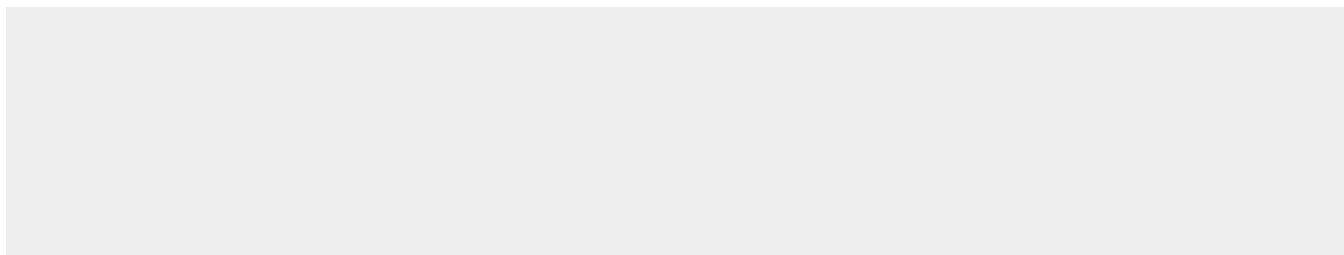
**Cellular Location**

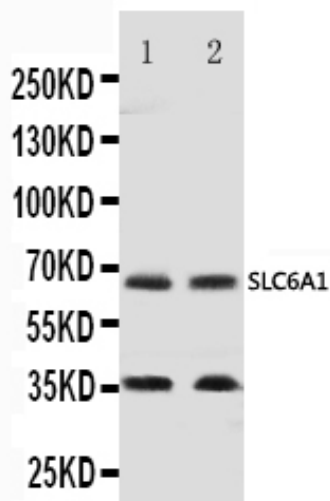
Cell membrane {ECO:0000250|UniProtKB:P23978}; Multi-pass membrane protein. Presynapse {ECO:0000250|UniProtKB:P31648}. Note=Localized at the presynaptic terminals of interneurons. {ECO:0000250|UniProtKB:P31648}

**Anti-GABA Transporter 1/GAT 1 Antibody - Protocols**

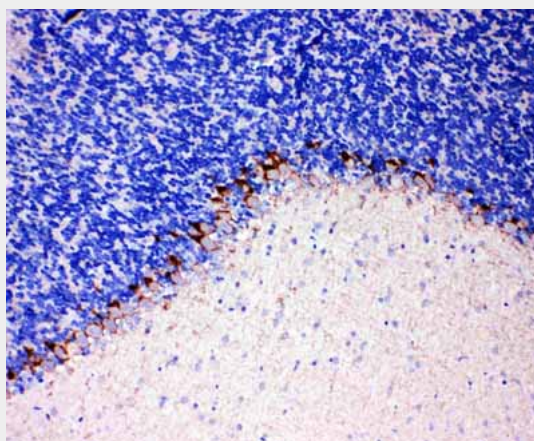
Provided below are standard protocols that you may find useful for product applications.

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

**Anti-GABA Transporter 1/GAT 1 Antibody - Images**



Anti-GABA Transporter 1/GAT 1 antibody, ABO11031, Western blotting  
Lane 1: Rat Brain Tissue Lysate  
Lane 2: Mouse Brain Tissue Lysate



Anti-GABA Transporter 1/GAT 1 antibody, ABO11031, IHC(P)  
IHC(P): Rat Brain Tissue

#### **Anti-GABA Transporter 1/GAT 1 Antibody - Background**

GABA transporter 1 (GAT1), also known as sodium- and chloride-dependent GABA transporter 1, is a protein that in humans is encoded by the SLC6A1 gene. GABA Transporter 1 uses Na<sup>+</sup> and Cl<sup>-</sup> to create a gradient, which removes or adds GABA to extracellular spaces in the cerebrum and cerebellum. The stoichiometry for GABA Transporter 1 is 2 Na<sup>+</sup>: 1 Cl<sup>-</sup>: 1 GABA. The activity of GAT1 is largely dependent on the presence of Na<sup>+</sup>, while Cl<sup>-</sup> assists by increasing the ability for GAT-1 to uptake GABA.