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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	P30531
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
Western blot, 0.1-0.5 µg/ml, Mouse, Rat, Human

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 Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

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 r˚Constitution, 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:30132828). 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 Cytomety
- Cell Culture

Anti-GABA Transporter 1/GAT 1 Antibody - Images

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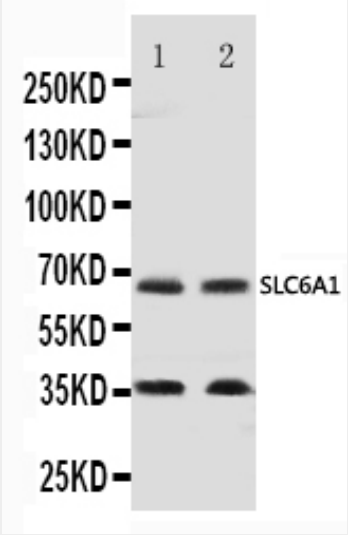
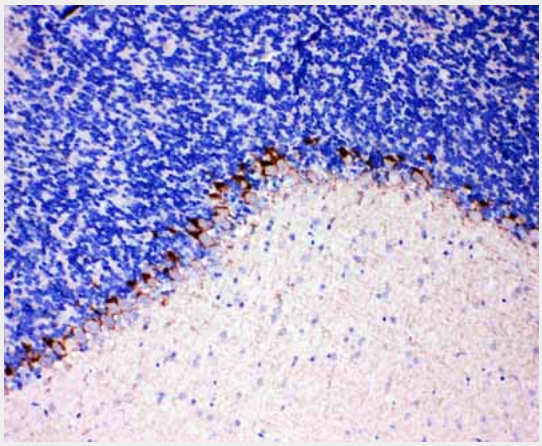


Anti-GABA Transporter 1/GAT 1 antibody, ABO11031, Western blottingLane 1: Rat Brain Tissue LysateLane 2: Mouse Brain Tissue Lysate



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+ and Cl- 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+: 1 Cl-: 1 GABA. The activity of GAT1 is largely dependent on the presence of Na+, while Cl- assists by increasing the ability for GAT-1 to uptake GABA.