

GABA transporter 3

Cat.No. 274 304; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For reconstitution add 100 µl H ₂ O, then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) (see remarks) IP: yes ICC: 1 : 500 IHC: 1 : 500 IHC-P/FFPE: 1 : 500
Immunogen	Synthetic peptide corresponding to AA 612 to 627 from mouse GABA transporter3 (UniProt Id: P31650)
Reactivity	Reacts with: rat (P31647), mouse (P31649). Other species not tested yet.
Specificity	Specific for GAT 3.
matching control	274-3P
Remarks	WB: GAT 3 aggregates after boiling, making it necessary to run SDS-PAGE with non-boiled samples.

TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

γ-aminobutyric acid (GABA) is a major inhibitory neurotransmitter. After the release of GABA from synaptic vesicles into the synaptic cleft during neurotransmission, **GABA transporters** (GATs) remove extracellular GABA by reuptake into the presynaptic terminal.

Three GABA transporters are described so far of which only GAT 1 and GAT 3 are expressed in the brain.

Selected References SYSY Antibodies

Astrocytes detect and upregulate transmission at inhibitory synapses of somatostatin interneurons onto pyramidal cells.

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Nature communications (2018) 9(1): 4254. **IHC; tested species: mouse**

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Tatsumi K, Isonishi A, Yamasaki M, Kawabe Y, Morita-Takemura S, Nakahara K, Terada Y, Shinjo T, Okuda H, Tanaka T, Wanaka A, et al.

Frontiers in neuroanatomy (2018) 12: 8. **IHC; tested species: mouse**

Selected General References

Substrate-mediated regulation of gamma-aminobutyric acid transporter 1 in rat brain.

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Neuropharmacology (2008) 54(2): 309-18.

Regulation of a gamma-aminobutyric acid transporter by reciprocal tyrosine and serine phosphorylation.

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Protein kinase C regulates the interaction between a GABA transporter and syntaxin 1A.

Beckman ML, Bernstein EM, Quick MW

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Ikegaki N, Saito N, Hashima M, Tanaka C

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Structure, function and brain localization of neurotransmitter transporters.

Jursky F, Tamura S, Tamura A, Mandiyan S, Nelson H, Nelson N

The Journal of experimental biology (1994) 196: 283-95.