

## Product datasheet for **TA328856**

### Slc6a1 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)ERNMHQMTDGLDK, corresponding to amino acids residues 194-206 of rat GABA Transporter 1 . 2nd extracellular loop.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN <sub>3</sub> .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	solute carrier family 6 member 1
Database Link:	<a href="#">NP_077347</a> <a href="#">Entrez Gene 6529 Human</a> <a href="#">Entrez Gene 232333 Mouse</a> <a href="#">Entrez Gene 79212 Rat</a> <a href="#">P23978</a>



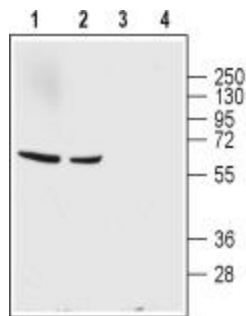
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**Background:**

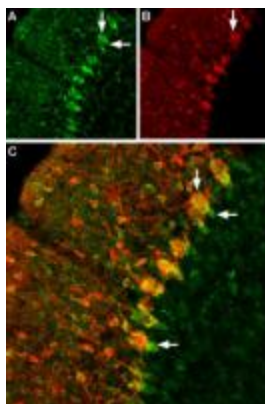
Gamma-aminobutyric acid (GABA) is the major inhibitory neurotransmitter in the mammalian central nervous system. Transmission via GABA can be halted by its reuptake through GABA transporters (GATs). These membrane proteins belong to the super family of slc6 genes which encode transporters responsible for the uptake of dopamine, serotonin, norepinephrine, glycine and GABA in a Na<sup>+</sup>-dependent manner. To date, four GATs have been identified: GAT-1, GAT-2, GAT-3 and BGT-1. Like all members of the slc6 family, they have twelve transmembrane domains and short intracellular N- and C-termini. GATs couple the transport of one GABA molecule to 2Na<sup>+</sup> ions and one Cl<sup>-</sup> ion<sup>3</sup>. GAT-1 activity can be regulated at the level of its plasma membrane expression which is in part regulated by its trafficking via phosphorylation of residues in intracellular loops. GAT-1 expression is restricted to the central nervous system, specifically to axon terminals, in the neocortex and in some astrocytic processes. GAT-1 may be implicated in various psychological and neurological disorders such as schizophrenia, epilepsy and cerebral ischemia<sup>1</sup>.

**Synonyms:**

GABATHG; GABATR; GABT1; GAT-1; GAT1

**Product images:**


Western blot analysis of rat (lanes 1 and 3) and mouse (lanes 2 and 4) brain lysates: 1, 2. Anti-GABA Transporter 1 (GAT-1) (extracellular) antibody, (1:200). 3, 4. Anti-GABA Transporter 1 (GAT-1) (extracellular) antibody, preincubated with the control peptide antigen.



Expression of GABA Transporter 1 (GAT-1) in rat cerebellum. Immunohistochemical staining of rat cerebellum using Anti-GABA Transporter 1 (GAT-1) (extracellular) antibody, (1:200). A. GAT-1 staining is shown in green. B. Neurons expressing gamma amino butyric acid (GABA) were labeled with mouse Anti-parvalbumin (red). C. Merge of the two images demonstrates partial colocalization (arrows). GAT-1 appears both in the soma of Purkinje cells (vertical arrows) and in the pinceau (horizontal arrows).