

## Product datasheet for **TA328878**

### Slc6a3 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	WB: 1:200-1:2000; FC: 1:50-1:600
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)DAHASNSSDGLGLND, corresponding to amino acids residues 191-205 of rat Dopamine Transporter. Extracellular, 2nd 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, 0.025% 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 3
Database Link:	<a href="#">NP_036826</a> <a href="#">Entrez Gene 13162 Mouse</a> <a href="#">Entrez Gene 24898 Rat</a> <a href="#">P23977</a>

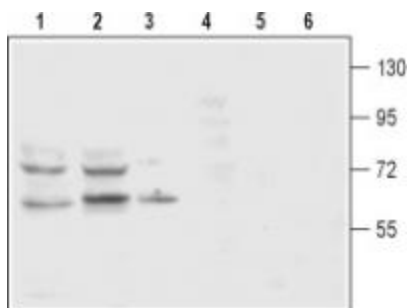
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**Background:**

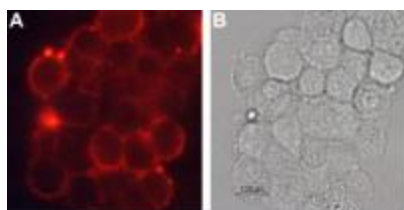
The Na<sup>+</sup>/Cl transporter family, SLC6, includes DAT a monoamine transporter, important for regulating extracellular levels of dopamine. It does so by uptaking dopamine from the synaptic cleft via the co-transport of Na<sup>+</sup> and Cl down their electrochemical gradient. The removal of dopamine by DAT remains the most important means to control the extracellular lifetime of the neurotransmitter, and notably the ending of dopaminergic neurotransmission. Transporters for serotonin, norepinephrine, GABA and glycine also belong to this family. These receptors have 12 transmembrane spanning domains and intracellular N- and C-terminal domains. DAT is also subjected to post translational modifications such phosphorylation, important for its regulation. Also, it possesses a large extracellular domain which undergoes N-glycosylation, important for the proper targeting of the transporter to the plasma membrane. DAT is expressed in dopaminergic cell bodies and terminals and can therefore serve as a marker for these neurons. DAT is also expressed in the retina, gastrointestinal tract, lung, kidney, pancreas and lymphocytes. DAT plays an important role in movement as well as reward, learning and memory. Its malfunction which leads to dopaminergic dysregulation has been associated with ADHD, schizophrenia, as well as Parkinson's disease. DAT is the main target for cocaine and amphetamine and methamphetamine psychostimulants, which mainly increase locomotor activities.

**Synonyms:**

DAT; DAT1

**Product images:**


Western blot analysis of rat (lanes 1 and 3) and mouse (lanes 2 and 4) brain membranes and rat pheochromocytoma PC12 (lanes 3 and 6) cell lysates: 1-3. Anti-Dopamine Transporter (DAT) (extracellular) antibody, (1:200). 4-6. Anti-Dopamine Transporter (DAT) (extracellular) antibody, preincubated with the control peptide antigen.



Expression of Dopamine Transporter (DAT) in live intact rat PC12 cells. Immunocytochemical staining of live intact rat pheochromocytoma PC12 cells. A. Cells stained with Anti-Dopamine Transporter (DAT) (extracellular) antibody, (1:100), followed by goat anti-rabbit-AlexaFluor-594 secondary antibody (red). B. Live view of the cells.