

Product datasheet for **TA328797**

Slc18a3 Rabbit Polyclonal Antibody

Product data:

| | |
|------------------------|---|
| Product Type: | Primary Antibodies |
| Applications: | WB |
| Recommended Dilution: | WB: 1:200-1:2000 |
| Reactivity: | Mouse, Rat |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Immunogen: | Peptide (C)DAVRLREVQKDGGE, corresponding to amino acid residues 495-509 of rat vesicular acetylcholine transporter. Cytoplasmic, C-terminus. |
| 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 ₃ . |
| 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 18 member A3 |
| Database Link: | NP_113851 Entrez Gene 20508 Mouse Entrez Gene 60422 Rat Q62666 |



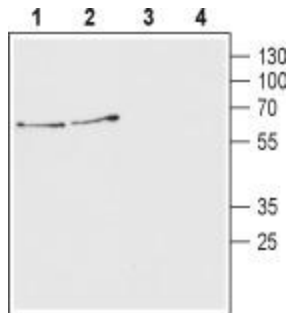
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Background:

In cholinergic neurons, acetylcholine is synthesized from choline and acetyl-coenzyme A (acetyl-CoA). Vesicular acetylcholine transporter (VACHT) transports acetylcholine from the cytoplasm to the lumen of synaptic vesicles where following depolarization, acetylcholine is released in the synaptic cleft and activates muscarinic and nicotinic receptors located on postsynaptic membranes. Acetylcholine released in the synaptic cleft is rapidly hydrolyzed into choline and acetate. Since choline is not de novo synthesized and thereby only made available through diet uptake, choline is recycled back into the cells in order to regenerate acetylcholine. VACHT is a member of the SLC18 family of transporters. It has 12 membrane spanning domains, with extracellular N- and C-terminal tails. The transporter exchanges cytoplasmic acetylcholine for two vesicular protons. VACHT is a selective marker of cholinergic neurons and could be used therefore to determine the loss of cholinergic neurons in Alzheimer's or Alzheimer's related disease. VACHT knockout mice die after birth. They display a lack of stimulated release of acetylcholine and an underdeveloped neuromuscular junction.

Synonyms:

MGC12716; VACHT

Product images:

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