

**Anti-SLC18A3 Picoband Antibody**  
**Catalog # ABO10313****Specification**

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**Anti-SLC18A3 Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q16572</a>
Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Vesicular acetylcholine transporter(SLC18A3) detection. Tested with WB in Human;Mouse.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-SLC18A3 Picoband Antibody - Additional Information**

**Gene ID** 6572

**Other Names**

Vesicular acetylcholine transporter, VACHT, Solute carrier family 18 member 3, SLC18A3, VACHT

**Calculated MW**

56903 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human, Mouse<br>

**Subcellular Localization**

Membrane ; Multi-pass membrane protein .

**Tissue Specificity**

Peripheral and central cholinergic nervous systems. .

**Protein Name**

Vesicular acetylcholine transporter

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the N-terminus of human SLC18A3 (1-36aa MESAEPAGQARAAATKLSEAVGAALQEPRRQRRLLV), different from the related mouse and rat sequences by five amino acids.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins.

**Storage**

**At -20°C for one year. After reconstitution, 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-SLC18A3 Picoband Antibody - Protein Information**

**Name** SLC18A3

**Synonyms** VACHT

**Function**

Electrogenic antiporter that exchanges one cholinergic neurotransmitter, acetylcholine or choline, with two intravesicular protons across the membrane of synaptic vesicles. Uses the electrochemical proton gradient established by the V-type proton-pump ATPase to store neurotransmitters inside the vesicles prior to their release via exocytosis (By similarity) (PubMed: [20225888](http://www.uniprot.org/citations/20225888), PubMed: [8910293](http://www.uniprot.org/citations/8910293)). Determines cholinergic vesicular quantal size at presynaptic nerve terminals in developing neuro-muscular junctions with an impact on motor neuron differentiation and innervation pattern (By similarity). Part of forebrain cholinergic system, regulates hippocampal synapse transmissions that underlie spatial memory formation (By similarity). Can transport serotonin.

**Cellular Location**

Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250|UniProtKB:Q62666}; Multi-pass membrane protein

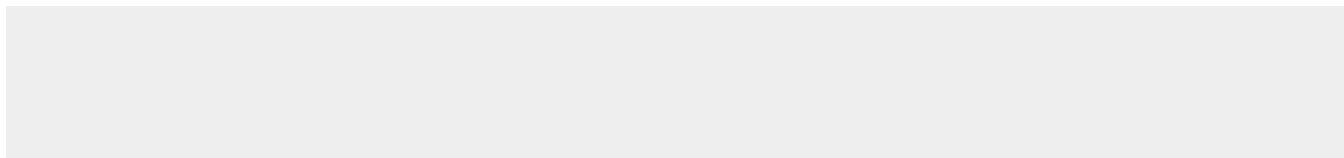
**Tissue Location**

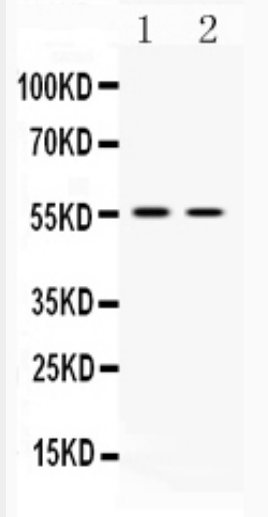
Peripheral and central cholinergic nervous systems.

**Anti-SLC18A3 Picoband 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 Cytometry](#)
- [Cell Culture](#)

**Anti-SLC18A3 Picoband Antibody - Images**



Western blot analysis of SLC18A3 expression in HELA whole cell lysates (lane 1) and HEPA whole cell lysates (lane 2). SLC18A3 at 55KD was detected using rabbit anti- SLC18A3 Antigen Affinity purified polyclonal antibody (Catalog # ABO10313) at 0.5  $\mu$ g/mL. The blot was developed using chemiluminescence (ECL) method .

#### **Anti-SLC18A3 Picoband Antibody - Background**

The Vesicular acetylcholine transporter (VACHT), also known as SLC18A3, is a neurotransmitter transporter which is responsible for loading acetylcholine (ACh) into secretory organelles in neurons making acetylcholine available for secretion. It is encoded by Solute carrier family 18, member 3 (SLC18A3) gene. This gene is a member of the vesicular amine transporter family. The encoded transmembrane protein transports acetylcholine into secretory vesicles for release into the extracellular space. Acetylcholine transport utilizes a proton gradient established by a vacuolar ATPase. This gene is located within the first intron of the choline acetyltransferase gene.