

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

Anti-SLC18A3 Picoband Antibody - Product Information

Application	WB
Primary Accession	Q16572
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

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 Na₂HPO₄, 0.05mg Na₃.

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 (PubMed:8910293, PubMed:20225888) (By similarity). 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

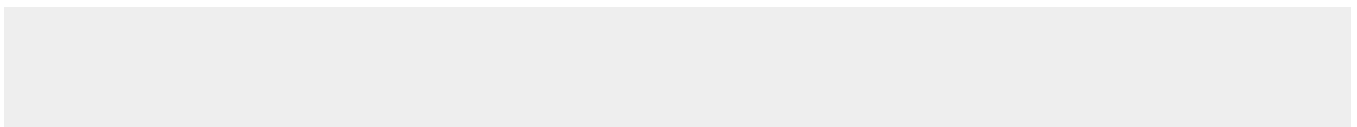
Tissue Location

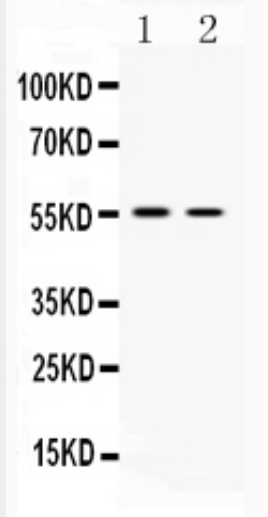
Peripheral and central cholinergic nervous systems.

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 μ 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.