

**SLC18A3 Antibody (Center) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP14010c****Specification**

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**SLC18A3 Antibody (Center) Blocking peptide - Product Information**Primary Accession [Q16572](#)**SLC18A3 Antibody (Center) Blocking peptide - Additional Information****Gene ID** 6572**Other Names**

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

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody AP14010c was selected from the Center region of SLC18A3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**SLC18A3 Antibody (Center) Blocking peptide - 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:<a href="http://www.uniprot.org/citations/8910293" target="\_blank">8910293</a>, PubMed:<a href="http://www.uniprot.org/citations/20225888" target="\_blank">20225888</a>) (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.

**SLC18A3 Antibody (Center) Blocking peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

**SLC18A3 Antibody (Center) Blocking peptide - Images****SLC18A3 Antibody (Center) Blocking peptide - Background**

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.

**SLC18A3 Antibody (Center) Blocking peptide - References**

Khare, P., et al. J. Neurochem. 115(4):984-993(2010) Harrington, A.M., et al. Cell Tissue Res. 341(1):33-48(2010) Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :Chapuis, J., et al. Mol. Psychiatry 14(11):1004-1016(2009) Khare, P., et al. Biochemistry 48(38):8965-8975(2009)