

Anti-SLC18A3 Picoband Antibody

Catalog # ABO10313

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.

Additional Information

Gene ID	6572
Other Names	Vesicular acetylcholine transporter, VACHT, Solute carrier family 18 member 3, SLC18A3, VACHT
Calculated MW	56903
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. .
Source	Eukaryota
Protein Name	Vesicular acetylcholine transporter
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human SLC18A3 (1-36aa MESAEPAGQARAAATKLSEAVGAALQEPRRQRLVL), 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 r° Constitution, 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.

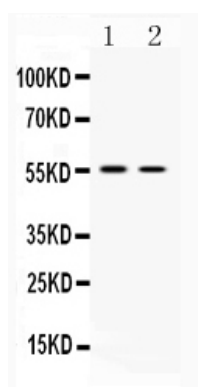
Protein Information

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 , PubMed: 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.

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.

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 .

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.