

## Product datasheet for **EUD2751**

### SLC18A3 / VACHT Guinea Pig Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC
Recommended Dilution:	<b>Immunofluorescence.</b> <b>Immunohistochemistry on Frozen Sections.</b> <i>Working Dilution:</i> 1/5000-1/10,000 using FITC. <i>Incubation Time:</i> Overnight at 4°C. <i>Recommended Positive Control:</i> Frozen Sections of Rat small intestine.
Reactivity:	Mouse, Rat
Host:	Guinea Pig
Clonality:	Polyclonal
Immunogen:	Synthetic peptide from the C-terminal of Rat VACHT conjugated to BSA.
Specificity:	The antiserum against the vesicular acetylcholine transporter is a unique Immunohistochemical marker for cholinergic nerves, more specific than the commonly used acetylcholinesterase (AChE), since it does not react with postsynaptic neurons, and is more sensitive than choline acetyltransferase (ChAT). The antiserum recognizes VACHT both in the CNS and PNS of Rat and Mouse. Absorption with 10-100 µg immunogen per ml diluted antiserum abolishes staining.
Formulation:	State: Serum State: Lyophilized Undiluted Serum
Reconstitution Method:	Dissolve in 50-100 µl distilled water, and dilute further with 0.1M PBS with 1% BSA and 0.09% Sodium Azide
Conjugation:	Unconjugated
Storage:	Store lyophilized at 2-8°C for 6 months or at -20°C long term. After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Database Link:	<u><a href="#">O35304</a></u>



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**Background:**

Vesicular Acetylcholine Transporter (VACHT), (~70kD protein), belongs to the family of vesicular monoamine transporters (VMATs), which include VMAT1 and VMAT2 and the *C.elegans* putative ACh transporter *unc-17*. Members of this family function to concentrate neurotransmitters into synaptic vesicles through exchange of protons for neurotransmitters. VACHT is a functional transporter for the neurotransmitter acetylcholine (ACh). ACh is synthesized in the cytoplasm by choline acetyl transferase (ChAT) and transported by VACHT into synaptic vesicles where it is stored until released. After release from presynaptic nerve terminals ACh is hydrolyzed by extracellular ACh-esterases (AChE) to choline and acetate. VACHT mRNA is expressed in all known major cholinergic neurons in the central and peripheral nervous system. VACHT is abundantly expressed in the CNS and is mainly localized in small synaptic vesicles in cholinergic nerve terminals. VACHT provides a specific marker for cholinergic neurons for the study of cholinergic transmission in experimental models, in Alzheimer's disease and other nervous system disorders.

**Synonyms:**

VACHT, Vesicular acetylcholine transporter