# SY SY Synaptic Systems

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# VAChT

Cat.No. 139 105; Polyclonal Guinea pig antibody, 50 µg specific antibody (lyophilized)

## **Data Sheet**

Reconstitution/ Storage	50 $\mu$ g specific antibody, lyophilized. Affinity purified with the immunogen. Guinea pig serum albumin was added for stabilization. For reconstitution add 50 $\mu$ l H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 500 up to 1 : 1000 (AP staining) IP: yes ICC: 1 : 500 IHC: 1 : 200 up to 1 : 500 IHC-P/FFPE: 1 : 500
Immunogen	Recombinant protein corresponding to AA 475 to 530 from rat VAChT (UniProt Id: Q62666)
Reactivity	Reacts with: rat (Q62666), mouse (O35304). Other species not tested yet.
Specificity	Specific for VAChT.
matching control	139-1P
Remarks	This antibody is less sensitive compared to the rabbit antibody.VAChT aggregates after boiling, making it necessary to run SDS-PAGE only with non-boiled samples.

#### TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

The vesicular acetylcholine transporter VAChT is an integral membrane protein with 12 putative trans-membrane domains. VAChT and choline acetyltransferase (ChAT) are encoded by genes organized in a single gene locus, and coregulation of the two genes has been reported several times. VAChT translocates acetylcholine from the cytoplasm into synaptic vesicles where it stays until release. After release from the presynaptic nerve terminal acetylcholine is hydrolyzed by acetylcholine esterase. During Alzheimer's disease acetylcholine is one of the first neurotransmitters to be reduced.

## **Selected References SYSY Antibodies**

Neuregulin 1-ErbB module in C-bouton synapses on somatic motor neurons: molecular compartmentation and response to peripheral nerve injury.

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Neuregulin-1 is concentrated in the postsynaptic subsurface cistern of C-bouton inputs to a-motoneurons and altered during motoneuron diseases.

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The cholinergic locus: ChAT and VAChT genes. Mallet J, Houhou L, Pajak F, Oda Y, Cervini R, Bejanin S, Berrard S Journal of physiology, Paris (1998) 92(2): 145-7.

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