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## Synaptotagmin 1 lumenal domain

Cat.No. 105 103BT; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

### **Data Sheet**

Reconstitution/ Storage	50 $\mu$ g specific antibody, lyophilized. Affinity purified with the immunogen, biotin- labeled Rabbit 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 : 1000 (AP staining) IP: not tested yet ICC: 1 : 100 up to 1 : 500 IHC: not tested yet IHC-P/FFPE: not tested yet
Label	biotin
Immunogen	Synthetic peptide corresponding to AA 1 to 8 from mouse Synaptotagmin1 (UniProt Id: P46096)
Reactivity	Reacts with: rat (P21707), mouse (P46096). Other species not tested yet. For unknown reasons antibodies raised against the luminal N-terminus of Synaptotagmin 1 show a strong preference for the rat protein.
Specificity	Specific for synaptotagmin 1, no cross-reactivity to synaptotagmin 2.
matching control	105-10P
Remarks	This antibody can be used for labeling of recycling synaptic vesicles by adding to living neurons or as a marker for exocytosis in isolated nerve terminals.

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

**Synaptotagmin 1** also known as **p65**, is an integral membrane glycoprotein of neuronal synaptic vesicles and secretory granules of neuroendocrine cells that is widely (but not ubiquitously) expressed in the central and peripheral nervous system. It has a variable N-terminal domain that is exposed to the lumen of the vesicle and a conserved cytoplasmic tail that contains two Ca<sup>2+</sup>-binding C2-domains. Ca<sup>2+</sup>-binding to synaptotagmin triggers exocytosis of synaptic vesicles, thus linking Ca<sup>2+</sup>-influx during depolarization to neurotransmitter release.

Lumenal antibodies were used in living neurons to label synaptic vesicles from the outside via endocytotic uptake.

#### **Selected General References**

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