

Synaptotagmin 1/2 cytoplasmic tail

Cat.No. 105 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H ₂ 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: yes ICC: 1 : 500 up to 1 : 1000 IHC: 1 : 200 up to 1 : 500 IHC-P/FFPE: not tested yet ELISA: yes (see remarks)
Immunogen	Synthetic peptide corresponding to AA 120 to 131 from rat Synaptotagmin1 (UniProt Id: P21707)
Reactivity	Reacts with: human (P21579), rat (P21707), mouse (P46096), cow, chicken, goldfish, zebrafish. Other species not tested yet.
Specificity	Some cross-reactivity to synaptotagmin 2.
matching control	105-0P
Remarks	ELISA: Suitable as detector antibody for sandwich-ELISA with cat. no. 105 011 as capture antibodies (protocol for sandwich-ELISA).

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 Ca²⁺-binding C2-domains. Ca²⁺-binding to synaptotagmin triggers exocytosis of synaptic vesicles, thus linking Ca²⁺-influx during depolarization to neurotransmitter release. Luminal antibodies were used in living neurons to label synaptic vesicles from the outside via endocytotic uptake.

Selected References SYSY Antibodies

Riluzole attenuates the efficacy of glutamatergic transmission by interfering with the size of the readily releasable neurotransmitter pool.
Lazarevic V, Yang Y, Ivanova D, Fejtova A, Svenningsson P
Neuropharmacology (2018) : . **ICC; tested species: rat**

Selected General References

RAB3 and synaptotagmin: the yin and yang of synaptic membrane fusion.
Geppert M, Südhof TC
Annual review of neuroscience (1998) 21: 75-95.

The synaptic vesicle cycle: a cascade of protein-protein interactions.
Südhof TC
Nature (1995) 375(6533): 645-53.

Synaptic vesicles and exocytosis.
Jahn R, Südhof TC
Annual review of neuroscience (1994) 17: 219-46.

Synaptotagmin I: a major Ca²⁺ sensor for transmitter release at a central synapse.
Geppert M, Goda Y, Hammer RE, Li C, Rosahl TW, Stevens CF, Südhof TC
Cell (1994) 79(4): 717-27.

Synaptotagmin: a calcium sensor on the synaptic vesicle surface.
Brose N, Petrenko AG, Südhof TC, Jahn R
Science (New York, N.Y.) (1992) 256(5059): 1021-5.

Phospholipid binding by a synaptic vesicle protein homologous to the regulatory region of protein kinase C.
Perin MS, Fried VA, Mignery GA, Jahn R, Südhof TC
Nature (1990) 345(6272): 260-3.