Synaptotagmin 1/2 cytoplasmic tail

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

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**Reconstitution/Storage**

| 50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H2O 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**

React with: human (P21579), rat (P21707), mouse (P46096), cow, chicken, goldfish, zebrafish.
Other species not tested yet.

**Specificity**

Some cross-reactivity to synaptotagmin 2.

**Remarks**

ELISA: Suitable as detector antibody for sandwich-ELISA with cat. no. 105 011 as capture antibodies (protocol for sandwich-ELISA).

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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

The synaptic vesicle cycle: a cascade of protein-protein interactions.
Südhof TC

Synaptic vesicles and exocytosis.
Jahn R, Südhof TC

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

Synaptotagmin: a calcium sensor on the synaptic vesicle surface.
Brose N, Petrenko AG, Südhof TC, Jahn R

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

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**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.

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