

Synaptotagmin 3

Cat.No. 105 033; 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: not tested yet IP: not tested yet ICC: 1 : 100 up to 1 : 500 IHC: not tested yet IHC-P/FFPE: not tested yet
Immunogen	Recombinant protein corresponding to AA 180 to 293 from human Synaptotagmin3 (UniProt Id: Q9BQG1)
Reactivity	Reacts with: human (Q9BQG1), rat (P40748), mouse (O35681). Other species not tested yet.
Specificity	Specific for synaptotagmin 3

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

Up to now at least 17 synaptotagmins have been identified. Like other proteins of this family **synaptotagmin 3** is composed of a vesicular, a transmembrane and two C2 domains. Synaptotagmin 3 is expressed in brain, where it localizes to synaptic plasma membranes, and also in non-neuronal cells. In pancreatic islet β-cells it is involved in Ca²⁺ triggered insulin secretion, and in basophilic leukemia mast cells (RBL-cells) in transport events to the perinuclear endocytic recycling compartment.

Selected General References

Synaptotagmin III is a critical factor for the formation of the perinuclear endocytic recycling compartment and determination of secretory granules size.

Grimberg E, Peng Z, Hammel I, Sagi-Eisenberg R
Journal of cell science (2003) 116(Pt 1): 145-54.

Synaptotagmin III/VII isoforms mediate Ca²⁺-induced insulin secretion in pancreatic islet beta -cells.

Gao Z, Reavey-Cantwell J, Young RA, Jegier P, Wolf BA

The Journal of biological chemistry (2000) 275(46): 36079-85.

The subcellular localizations of atypical synaptotagmins III and VI. Synaptotagmin III is enriched in synapses and synaptic plasma membranes but not in synaptic vesicles.

Butz S, Fernandez-Chacon R, Schmitz F, Jahn R, Südhof TC

The Journal of biological chemistry (1999) 274(26): 18290-6.

Ca(2+)-dependent and -independent activities of neural and non-neural synaptotagmins.

Li C, Ullrich B, Zhang JZ, Anderson RG, Brose N, Südhof TC

Nature (1995) 375(6532): 594-9.

A third synaptotagmin gene, Syt3, in the mouse.

Hilbush BS, Morgan JI

Proceedings of the National Academy of Sciences of the United States of America (1994) 91(17): 8195-9.