Synaptic Systems

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Tomosyn 1/2

Cat.No. 183 003; 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_2O 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 : 500 **IHC**: not tested yet **IHC-P/FFPE**: 1 : 500
Immunogen	Recombinant protein corresponding to AA 1031 to 1103 from rat Tomosyn1 (UniProt Id: Q9WU70)
Reactivity	Reacts with: human (Q5T5C0, Q9Y2K9), rat, mouse (Q8K400, Q5DQR4), cow. Other species not tested yet.
Specificity	Cross-reacts with tomosyn 2 due to sequence homology.
matching control	183-0P

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

SNARE proteins play crucial roles in vesicle transport by catalyzing membrane fusion events. Several proteins like the Munc 18s and **tomosyn 1** (syntaxin 1A binding protein 5) interact with the neuronal plasmalemma located SNARE protein syntaxin 1a and modulate neurotransmitter release at synaptic nerve terminals.
Tomosyn 1 contains a C-terminal synaptobrevin-like R-SNARE motif that can form a stable ternary complex with syntaxin 1A and SNAP 25.
Another isoform, **tomosyn 2** (syntaxin 1A binding protein 5 like), has also been described.

Selected References SYSY Antibodies

SNARE protein recycling by αSNAP and βSNAP supports synaptic vesicle priming.
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Selected General References

Tomosyn negatively regulates CAPS-dependent peptide release at Caenorhabditis elegans synapses.
Gracheva EO, Burdina AO, Touroutine D, Berthelot-Grosjean M, Parekh H, Richmond JE
The Journal of neuroscience : the official journal of the Society for Neuroscience (2007) 27(38): 10176-84.

Two distinct genes drive expression of seven tomosyn isoforms in the mammalian brain, sharing a conserved structure with a unique variable domain.
Groffen AJ, Jacobsen L, Schut D, Verhage M
Journal of neurochemistry (2005) 92(3): 554-68.

Structural basis for the inhibitory role of tomosyn in exocytosis.
Pobbati AV, Razeto A, Böddener M, Becker S, Fasshauer D
The Journal of biological chemistry (2004) 279(45): 47192-200.

Tomosyn inhibits priming of large dense-core vesicles in a calcium-dependent manner.
Yizhar O, Matti U, Melamed R, Hagalili Y, Bruns D, Rettig J, Ashery U
Proceedings of the National Academy of Sciences of the United States of America (2004) 101(8): 2578-83.

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Fujita Y, Shirataki H, Sakisaka T, Asakura T, Ohya T, Kotani H, Yokoyama S, Nishioka H, Matsuura Y, Mizoguchi A, Scheller RH, et al.
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