

## Tomosyn 1/2

Cat.No. 183-0P; control protein, 100 µg protein (lyophilized)

### Data Sheet

Reconstitution/ Storage	100 µg protein, lyophilized. For reconstitution add 100 µl H <sub>2</sub> O to get a 1mg/ml solution in TBS. Then aliquot and store at -20°C until use.
Immunogen	Recombinant protein corresponding to AA 1031 to 1103 from rat Tomosyn1 (UniProt Id: Q9WU70)
Recommended dilution	Optimal concentrations should be determined by the end-user.
matching antibodies	183 003
Remarks	This control protein consists of the recombinant protein (aa 1031 - 1103 of rat tomosyn 1) that has been used for immunization. It has been tested in preadsorption experiments and blocks efficiently and specifically the corresponding signal in Western blots. The amount of protein needed for efficient blocking depends on the titer and on the affinity of the antibody to the antigen.

**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 General References

Tomosyn negatively regulates CAPS-dependent peptide release at *Caenorhabditis elegans* synapses.

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Two distinct genes drive expression of seven tomosyn isoforms in the mammalian brain, sharing a conserved structure with a unique variable domain.

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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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