

Complexin 1/2

Cat.No. 122-0P; control peptide, 100 µg peptide (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg peptide, lyophilized. For reconstitution add 100 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use. Control peptides should also be stored at -20°C when still lyophilized!
Immunogen	Synthetic peptide corresponding to AA 122 to 134 from human Complexin2 (UniProt Id: Q6PUV4)
Recommended dilution	Optimal concentrations should be determined by the end-user.
matching antibodies	122 002, 122 003, 122 004
Remarks	This control peptide consists of the synthetic peptide (KYLPGPLQDMFKK) 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 peptide 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

Complexins are enriched in neurons where they colocalize with syntaxin 1 and SNAP 25. In addition, complexin **2**, also referred to as **synaphin 1**, is expressed ubiquitously at low levels. Complexins bind weakly to syntaxin 1 alone and not at all to synaptobrevin and SNAP 25, but strongly to the SNAP receptor-core complex composed of these three molecules. They compete with α-SNAP for binding to the core complex but not with other interacting molecules, suggesting that complexins regulate the sequential interactions of α-SNAP and synaptotagmins with the SNAP receptor during exocytosis. In retinal ribbon synapses complexin 3 and complexin 4 functionally replace complexin **1 (synaphin 2)** and 2. They have similar biochemical binding properties and are farnesylated at their C-terminus.

Selected General References

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

Complexins: cytosolic proteins that regulate SNAP receptor function.
McMahon HT, Missler M, Li C, Südhof TC
Cell (1995) 83(1): 111-9.

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