

Complexin 4

Cat.No. 122 411; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg purified IgG, 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.
Applications	WB: 1 : 1000 (ECL detection) IP: not tested yet ICC: not tested yet IHC: 1 : 1000 up to 1 : 2000 IHC-P/FFPE: 1 : 200
Clone	171H8
Subtype	IgG1 (κ light chain)
Immunogen	Recombinant protein corresponding to AA 1 to 160 from mouse Complexin4 (UniProt Id: Q80WM3)
Reactivity	Reacts with: rat (D3ZM85), mouse (Q80WM3). Other species not tested yet.
Specificity	Specific for complexin 4, no cross reaction to other complexins. (K.O. verified)

**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 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 and 2. They have similar biochemical binding properties and are farnesylated at their C-terminus.

Selected References SYSY Antibodies

Functional roles of complexin in neurotransmitter release at ribbon synapses of mouse retinal bipolar neurons. Vaithianathan T, Henry D, Akmentin W, Matthews G

The Journal of neuroscience : the official journal of the Society for Neuroscience (2015) 35(9): 4065-70. **ICC**

The absence of Complexin 3 and Complexin 4 differentially impacts the ON and OFF pathways in mouse retina. Landgraf I, Mühlhans J, Dedek K, Reim K, Brandstätter JH, Ammermüller J

The European journal of neuroscience (2012) 36(4): 2470-81. **IHC**

Complexins facilitate neurotransmitter release at excitatory and inhibitory synapses in mammalian central nervous system.

Xue M, Stradomska A, Chen H, Brose N, Zhang W, Rosenmund C, Reim K

Proceedings of the National Academy of Sciences of the United States of America (2008) 105(22): 7875-80. **WB; KO verified;**

tested species: mouse

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.