

Complexin-1 (h): 293T Lysate: sc-110107

BACKGROUND

Complexin 1 and Complexin 2, also designated Synaphin 1 and Synaphin 2, contain an α -helical middle domain of approximately 58 amino acids. Complexin 1 and Complexin 2 are expressed in presynaptic terminals of inhibitory and excitatory hippocampal neurons, respectively, and in cytoplasmic pools during early stages of development. Complexins promote SNARE (soluble N-ethylmaleimide-sensitive factor attachment protein receptors) precomplex formation by binding to synapxin with its α -helical domain. Complexins are important regulators of transmitter release at a late step in calcium dependent neurotransmitter release or immediately after the calcium-triggering step of fast synchronous transmitter release and preceding vesicle fusion. Neurons lacking complexins show reduced transmitter release efficiency due to decreased calcium sensitivity of the synaptic secretion process. Complexin 2 may play a role in only LTP (long term potentiation) following tetanic stimulation. A progressive loss of Complexin 2 occurs in the brains of mice carrying the Huntington disease mutation, an autosomal dominant neurodegenerative disorder. Changes in the neurotransmitter release might contribute to the motor, emotional and cognitive dysfunctions seen in these mice.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CPLX1 (human) mapping to 4p16.3.

PRODUCT

Complexin-1 (h): 293T Lysate represents a lysate of human Complexin-1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

Complexin-1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Complexin-1 antibodies. Recommended use: 10-20 μ l per lane.

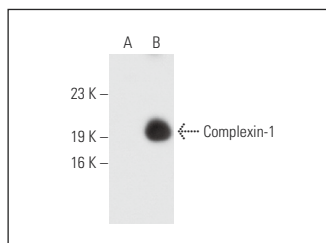
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Complexin-1/2 (D-9): sc-365152 is recommended as a positive control antibody for Western Blot analysis of enhanced human Complexin-1 expression in Complexin-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Complexin-1/2 (D-9): sc-365152. Western blot analysis of Complexin-1 expression in non-transfected: sc-117752 (A) and human Complexin-1 transfected: sc-110107 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.