

Synaptogyrin-3 (h): 293T Lysate: sc-176288

BACKGROUND

The synaptogyrin family of proteins are integral membrane proteins containing four transmembrane regions. Synaptogyrins are tyrosine-phosphorylated proteins with two neuronal (Synaptogyrins-1 and -3) and one ubiquitous (Synaptogyrin-2) isoform. Synaptophysin and Synaptogyrin represent the major constituents of synaptic vesicles. Synaptogyrin-1 is associated with presynaptic vesicles in neuronal cells. Synaptogyrin-2, also known as Cellugyrin, has a tyrosine phosphorylated C-terminal cytoplasmic tail and is involved in the regulation of membrane traffic in non-neuronal cells. Synaptogyrin-3 is expressed mainly in brain and placenta. The SYNGR4 gene encodes for the 234 amino acid protein Synaptogyrin-4.

REFERENCES

1. Belfort, G.M. and Kandror, K.V. 2003. Cellugyrin and Synaptogyrin facilitate targeting of synaptophysin to a ubiquitous synaptic vesicle-sized compartment in PC12 cells. *J. Biol. Chem.* 278: 47971-47978.
2. Belizaire, R., Komanduri, C., Wooten, K., Chen, M., Thaller, C. and Janz, R. 2004. Characterization of Synaptogyrin-3 as a new synaptic vesicle protein. *J. Comp. Neurol.* 470: 266-281.
3. Hitchcock, I.S., Genever, P.G. and Cahusac, P.M. 2004. Essential components for a glutamatergic synapse between Merkel cell and nerve terminal in rats. *Neurosci. Lett.* 362: 196-199.
4. Masliah, E., et al. 2004. Patterns of gene dysregulation in the frontal cortex of patients with HIV encephalitis. *J. Neuroimmunol.* 157: 163-175.
5. Belfort, G.M., Roberts, E.S., Langford, D., Everall, I., Crews, L., Adame, A., Rockenstein, E. and Fox, H.S. 2005. Cellugyrin induces biogenesis of synaptic-like microvesicles in PC-12 cells. *J. Biol. Chem.* 280: 7262-7272.
6. Witkovsky, P., Arango-Gonzalez, B., Haycock, J.W. and Kohler, K. 2005. Rat retinal dopaminergic neurons: differential maturation of somatodendritic and axonal compartments. *J. Comp. Neurol.* 481: 352-362.

CHROMOSOMAL LOCATION

Genetic locus: SYNGR3 (human) mapping to 16p13.3.

PRODUCT

Synaptogyrin-3 (h): 293T Lysate represents a lysate of human Synaptogyrin-3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Synaptogyrin-3 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Synaptogyrin-3 antibodies.

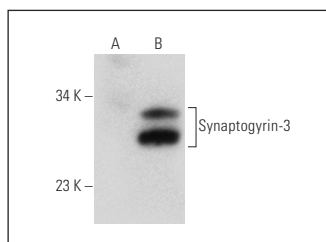
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Synaptogyrin-3 (E-11): sc-271046 is recommended as a positive control antibody for Western Blot analysis of enhanced human Synaptogyrin-3 expression in Synaptogyrin-3 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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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



Synaptogyrin-3 (E-11): sc-271046. Western blot analysis of Synaptogyrin-3 expression in non-transfected: sc-117752 (A) and human Synaptogyrin-3 transfected: sc-176288 (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.