SANTA CRUZ BIOTECHNOLOGY, INC.

Synaptogyrin-4 (M-18): sc-34973

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. The 26 kDa protein 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., et al. 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., et al. 2004. Characterization of Synaptogyrin-3 as a new synaptic vesicle protein. J. Comp. Neurol. 470: 266-281.
3. Hitchcock, I.S., et al. 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., et al. 2005. Cellugyrin induces biogenesis of synaptic-like microvesicles in PC12 cells. J. Biol. Chem. 280: 7262-7272.
6. Witkovsky, P., et al. 2005. Rat retinal dopaminergic neurons: differential maturation of somatodendritic and axonal compartments. J. Comp. Neurol. 481: 352-362.

CHROMOSOMAL LOCATION

Genetic locus: SYNGR4 (human) mapping to 19q13.33; Syngr4 (mouse) mapping to 7 B4.

SOURCE

Synaptogyrin-4 (M-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Synaptogyrin-4 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34973 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

Synaptogyrin-4 (M-18) is recommended for detection of Synaptogyrin-4 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

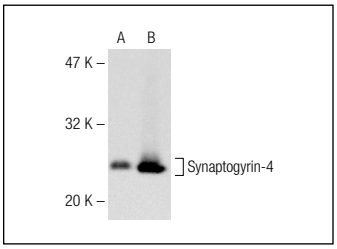
Synaptogyrin-4 (M-18) is also recommended for detection of Synaptogyrin-4 in additional species, including canine and porcine.

Suitable for use as control antibody for Synaptogyrin-4 siRNA (h): sc-45557, Synaptogyrin-4 siRNA (m): sc-45558, Synaptogyrin-4 shRNA Plasmid (h): sc-45557-SH, Synaptogyrin-4 shRNA Plasmid (m): sc-45558-SH, Synaptogyrin-4 shRNA (h) Lentiviral Particles: sc-45557-V and Synaptogyrin-4 shRNA (m) Lentiviral Particles: sc-45558-V.

Molecular Weight of Synaptogyrin-4: 26 kDa.

Positive Controls: mouse testis extract: sc-2405 or rat testis extract: sc-2400.

DATA



Synaptogyrin-4 (M-18): sc-34973. Western blot analysis of Synaptogyrin-4 expression in rat testis (**A**) and mouse testis (**B**) tissue extracts.

PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **Synaptogyrin-4 (F-11): sc-393912**, our highly recommended monoclonal alternative to Synaptogyrin-4 (M-18).