

Synaptogyrin-4 (F-11): sc-393912

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

- Belfort, G.M., et al. 2003. Cellugyrin and Synaptogyrin facilitate targeting of Synaptogyrin to a ubiquitous synaptic vesicle-sized compartment in PC-12 cells. *J. Biol. Chem.* 278: 47971-47978.
- Belizaire, R., et al. 2004. Characterization of Synaptogyrin-3 as a new synaptic vesicle protein. *J. Comp. Neurol.* 470: 266-281.
- 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.
- Maslah, E., et al. 2004. Patterns of gene dysregulation in the frontal cortex of patients with HIV encephalitis. *J. Neuroimmunol.* 157: 163-175.

CHROMOSOMAL LOCATION

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

SOURCE

Synaptogyrin-4 (F-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 210-233 at the C-terminus of Synaptogyrin-4 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Synaptogyrin-4 (F-11) is available conjugated to agarose (sc-393912 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393912 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393912 PE), fluorescein (sc-393912 FITC), Alexa Fluor® 488 (sc-393912 AF488), Alexa Fluor® 546 (sc-393912 AF546), Alexa Fluor® 594 (sc-393912 AF594) or Alexa Fluor® 647 (sc-393912 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393912 AF680) or Alexa Fluor® 790 (sc-393912 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393912 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

Synaptogyrin-4 (F-11) is recommended for detection of Synaptogyrin-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

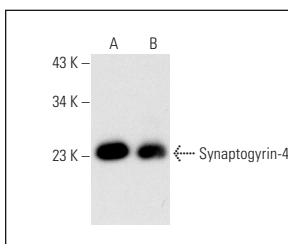
Molecular Weight of Synaptogyrin-4: 26 kDa.

Positive Controls: human testis extract: sc-363781, mouse testis extract: sc-2405 or rat testis extract: sc-2400.

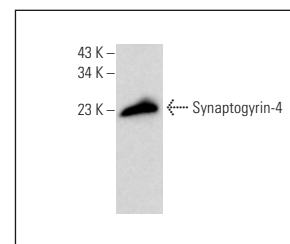
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Synaptogyrin-4 (F-11): sc-393912. Western blot analysis of Synaptogyrin-4 expression in rat testis (A) and mouse testis (B) tissue extracts.



Synaptogyrin-4 (F-11): sc-393912. Western blot analysis of Synaptogyrin-4 expression in human testis tissue extract.

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.

PROTOCOLS

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