

Synaptogyrin-2 (D-20): sc-34961

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.

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: SYNGR2 (human) mapping to 17q25.3; SyngR2 (mouse) mapping to 11 E2.

SOURCE

Synaptogyrin-2 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Synaptogyrin-2 of human 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-34961 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-2 (D-20) is recommended for detection of Synaptogyrin-2 of mouse, rat and 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).

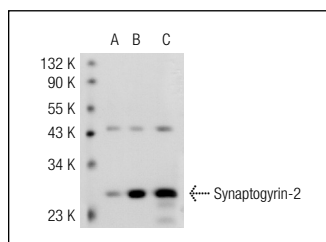
Synaptogyrin-2 (D-20) is also recommended for detection of Synaptogyrin-2 in additional species, including canine.

Suitable for use as control antibody for Synaptogyrin-2 siRNA (h): sc-45553 and Synaptogyrin-2 siRNA (m): sc-45554; and as shRNA Plasmid control antibody for Synaptogyrin-2 shRNA Plasmid (h): sc-45553-SH and Synaptogyrin-2 shRNA Plasmid (m): sc-45554-SH.

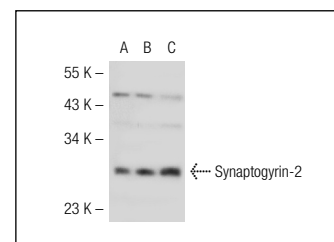
Molecular Weight of Synaptogyrin-2: 25 kDa.

Positive Controls: Synaptogyrin-2 (h): 293T Lysate: sc-113714, Jurkat whole cell lysate: sc-2204 or Synaptogyrin-2 (m): 293T Lysate: sc-126066.

DATA



Synaptogyrin-2 (D-20): sc-34961. Western blot analysis of Synaptogyrin-2 expression in non-transfected 293T: sc-117752 (A), human Synaptogyrin-2 transfected 293T: sc-113714 (B) and Jurkat (C) whole cell lysates.



Synaptogyrin-2 (D-20): sc-34961. Western blot analysis of Synaptogyrin-2 expression in non-transfected 293T: sc-117752 (A), mouse Synaptogyrin-2 transfected 293T: sc-126066 (B) and Jurkat (C) whole cell lysates.

PROTOCOLS

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



Try **Synaptogyrin-2 (5C3): sc-517053**, our highly recommended monoclonal alternative to Synaptogyrin-2 (D-20).