

Synaptojanin 1 (26): sc-136087

BACKGROUND

The inositol polyphosphate 5-phosphatases selectively remove the phosphate from the 5-position of various phosphatidylinositols, which generate second messengers in response to extracellular signals. Synaptojanins are characterized by an N-terminal SAC1-like sequence, a central 5-phosphate domain, and a unique C-terminal sequence and have been shown to use phosphatidylinositol 4,5-bisphosphate as a substrate. Synaptojanins exist as two isoforms, Synaptojanin 1 and 2, which differ in the C-terminal domain, and each isoform has multiple variants produced by alternative splicing. Synaptojanin 1 is expressed as two major forms: the shorter is found in brain while the longer is expressed in peripheral tissues. Eight splice variants of Synaptojanin 2 have been detected, including a brain specific isoform. Synaptojanins are thought to participate in the endocytosis of synaptic vesicles and the regulation of the actin cytoskeleton.

REFERENCES

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- Haffner, C., et al. 2000. Direct interaction of the 170 kDa isoform of Synaptojanin 1 with clathrin and with the clathrin adaptor AP-2. *Curr. Biol.* 10: 471-474.

CHROMOSOMAL LOCATION

Genetic locus: Synj1 (mouse) mapping to 16 C3.3.

SOURCE

Synaptojanin 1 (26) is a mouse monoclonal antibody raised against amino acids 1145-1259 of Synaptojanin 1 of rat origin.

PRODUCT

Each vial contains 50 µg IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

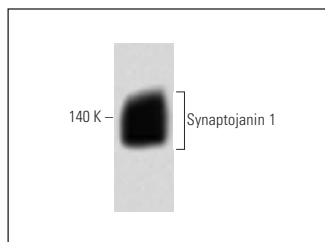
Synaptojanin 1 (26) is recommended for detection of Synaptojanin 1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Synaptojanin 1 siRNA (m): sc-153973, Synaptojanin 1 shRNA Plasmid (m): sc-153973-SH and Synaptojanin 1 shRNA (m) Lentiviral Particles: sc-153973-V.

Molecular Weight of Synaptojanin 1: 145/170 kDa.

Positive Controls: rat brain extract: sc-2392, rat cerebrum tissue extract or EOC 20 whole cell lysate: sc-364187.

DATA



Synaptojanin 1 (26): sc-136087. Western blot analysis of Synaptojanin 1 expression in rat cerebrum 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. Not for resale.

PROTOCOLS

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