

Technical Data Sheet

Purified Mouse Anti-Synaptojanin 1**Product Information**

Material Number:	612248
Size:	50 µg
Concentration:	250 µg/ml
Clone:	26/Synaptojanin
Immunogen:	Rat Synaptojanin 1 aa. 1145-1259
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Mouse
Target MW:	140-145 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Phosphoinositide turnover is a mechanism of intracellular signaling that involves phosphorylation of the inositol ring to produce signaling molecules that include phosphoinositol (PI)-3-P, PI-3,4-P₂, PI-3,4,5-P₃, PI-4-P, and PI-4,5-P₂. These molecules function in many signaling pathways to regulate events at cell membranes, such as endocytosis, exocytosis, and cell morphology. Synaptojanin 1 is a phosphoinositide phosphatase that selectively cleaves the 3-, 4-, and 5- phosphates from PIs. Two splice variants of synaptojanin 1 include a 145 kDa form that is found in adult brain, and a 170 kDa that is widely expressed in non-neuronal cells. The 145 kDa form contains a Sac1 domain that has phosphoinositide phosphatase activity, a second phosphatase domain that has only PI-5 phosphatase activity (PI-5), and a proline-rich SH3-binding domain. The 170 kDa form contains these domains, as well as a second SH3-binding consensus sequence. Synaptojanin binds many proteins implicated in endocytosis, including amphiphysins and endophilin. Thus, synaptojanin 1 may regulate endocytosis through modification of the interactions between SH3-domain proteins and PIs.



Western blot analysis of Synaptojanin 1 on a rat cerebrum lysate. Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the mouse anti-Synaptojanin 1 antibody.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

Application Notes**Application**

Western blot	Routinely Tested
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Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

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Suggested Companion Products

Catalog Number	Name	Size	Clone
611463	Rat Cerebrum Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmlingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Cestra G, Castagnoli L, Dente L. The SH3 domains of endophilin and amphiphysin bind to the proline-rich region of synaptotagmin 1 at distinct sites that display an unconventional binding specificity. *J Biol Chem.* 1999; 274(45):32001-32007.(Biology)

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