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Synaptojanin I Antibody
Purified mouse monoclonal antibody
Catalog # AN1178

Specification

Synaptojanin I Antibody - Product Information

Application	**IHC, WB**
Primary Accession	Q62910
Reactivity	**Rat**
Host	**Mouse**
Clonality	**monoclonal**
Isotype	**IgG1**
Calculated MW	**145 KDa**

Synaptojanin I Antibody - Additional Information

Gene ID	**85238**
Gene Name	**SYNJ1**

Other Names
Synaptojanin-1, Synaptic inositol 1, 5-trisphosphate 5-phosphatase 1, Synj1

Target/Specificity
Recombinant protein from the C-terminal region of rat synaptojanin 1.

Dilution
IHC~~1:100
WB~~ 1:1000

Format
Protein G purified culture supernatant.

Antibody Specificity
Specific for the ~145k synaptojanin I protein in Western blots of rat brain extracts. Immunolabeling blocked by preadsorption of antibody with the protein used to generate the antibody.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Synaptojanin I Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

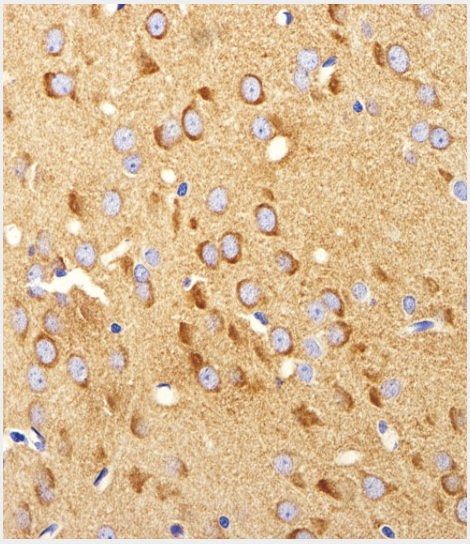
Shipping
Blue Ice

Synaptojanin I Antibody - Protocols

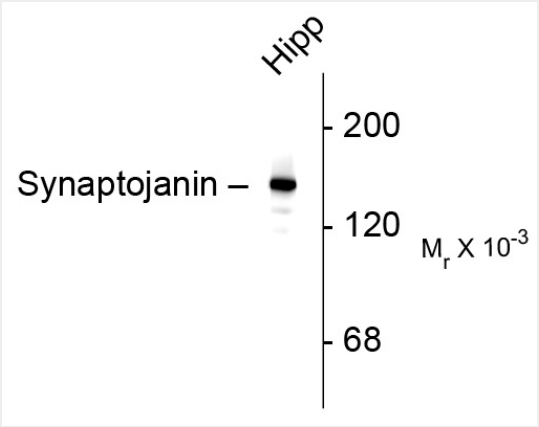
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Synaptojanin I Antibody - Images



Immunohistochemical analysis of paraffin-embedded R. brain section using Synaptojanin I Antibody (Cat#AN1178). AN1178 was diluted at 1:100 dilution. A peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~145k synaptojanin I protein.

Synaptojanin I Antibody - Background

Synaptojanin is a phosphatidylinositol phosphatase involved in clathrin-mediated endocytosis of synaptic vesicles. Synaptojanin 1 has two alternatively spliced isoforms; one that is ~ 145 kDA and is exclusively expressed in neurons, and the other ~ 170 kDa which is expressed in non-neuronal,

peripheral tissues (Ramjaun AR & McPherson PS, 1996). The gene which encodes Synaptojanin 1, SYNJ1, has been mapped to chromosome 21 thus making it a candidate for involvement in Down's syndrome (DS). It has recently been demonstrated that Ts65Dn mice (the most commonly used model of DS) have altered phosphatidylinositol-4,5-bisphosphate metabolism. This defect is rescued by restoring SYNJ1 to disomy in the Ts65Dn mice (Voronov SV et al., 2008).

Synaptojanin I Antibody - References

Tissue-specific alternative splicing generates two synaptojanin isoforms with differential membrane binding properties (1996). Ramjaun AR, McPherson PS. J Biol Chem. Oct 4;271(40):24856-61. Synaptojanin 1-linked phosphoinositide dyshomeostasis and cognitive deficits in mouse models of Down's syndrome (2008) .Voronov SV, Frere SG, Giovedi S, Pollina EA, Borel C, Zhang H, Schmidt C, Akeson EC, Wenk MR, Cimasoni L, Arancio O, Davisson MT, Antonarakis SE, Gardiner K, De Camilli P, Di Paolo G. Proc Natl Acad Sci U S A. Jul 8;105(27):9415-20.