

Datasheet for ABIN968694

anti-Synaptophysin antibody (AA 205-306)**4** Images**3** Publications[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	Synaptophysin (SYP)
Binding Specificity:	AA 205-306
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Synaptophysin antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), BioImaging (BI)

Product Details

Immunogen:	Rat Synaptophysin aa. 205-306
Clone:	2-Synaptophysin
Isotype:	IgG1
Cross-Reactivity:	Human, Mouse (Murine)
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.4. 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.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

chromatography.

Target Details

Target:	Synaptophysin (SYP)
Alternative Name:	Synaptophysin (SYP Products)
Background:	<p>Synaptophysin is a major integral membrane glycoprotein that was isolated from the presynaptic vesicles of neurons. The structure of synaptophysin includes four transmembrane domains (TMD), an N-terminal glycosylation site, nine repeats of basic tetrapeptide motifs (GYGP), multiple collagenase sensitive sites (XGP), and several collagen-type tripeptides (GXX). Synaptophysin mRNA is expressed in nervous tissues, as well as many neuroendocrine tumor cell lines. In PC12 cells and brain synaptic vesicles, synaptophysin binds cholesterol, and cholesterol depletion blocks the biogenesis of synaptic-like microvesicles. In addition, synaptophysin binds dynamin in a Ca²⁺-dependent manner, and injection of peptides that disrupt this interaction decreases neurotransmitter release during high-frequency stimulation of squid neurons. This decrease in neurotransmitter release results from inhibition of synaptophysin-dependent vesicle retrieval. Thus, synaptophysin may have important roles in the biogenesis and recycling of synaptic vesicles. Synaptophysin is an integral membrane glycoprotein with a calculated molecular weight of 33 kD, but has been reported to be observed at 38-42 kD due to glycosylation. This antibody is routinely tested by western blot analysis.</p>
Molecular Weight:	38 kDa
Pathways:	Regulation of G-Protein Coupled Receptor Protein Signaling , Regulation of long-term Neuronal Synaptic Plasticity

Application Details

Comment:	Related Products: ABIN968545, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide

Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

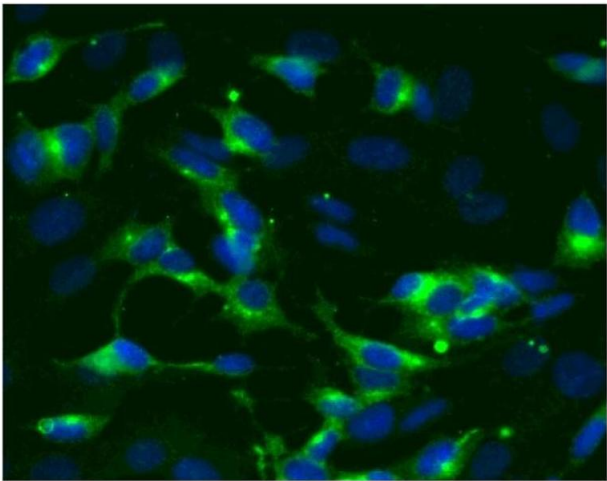
Product cited in:

Daly, Sugimori, Moreira, Ziff, Llinás: "Synaptophysin regulates clathrin-independent endocytosis of synaptic vesicles." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 97, Issue 11, pp. 6120-5, (2000) ([PubMed](#)).

Thiele, Hannah, Fahrenholz, Huttner: "Cholesterol binds to synaptophysin and is required for biogenesis of synaptic vesicles." in: **Nature cell biology**, Vol. 2, Issue 1, pp. 42-9, (2000) ([PubMed](#)).

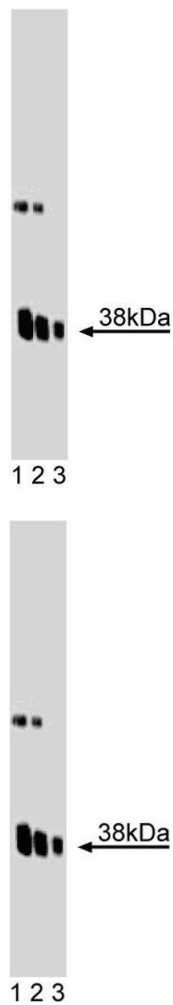
Leube, Kaiser, Seiter, Zimbelmann, Franke, Rehm, Knaus, Prior, Betz, Reinke: "Synaptophysin: molecular organization and mRNA expression as determined from cloned cDNA." in: **The EMBO journal**, Vol. 6, Issue 11, pp. 3261-8, (1988) ([PubMed](#)).

Images



Immunofluorescence

Image 1.



Western Blotting

Image 2. Western blot analysis of Synaptophysin on a rat cerebrum lysate. Lane 1: 1:25,000, lane 2: 1:50,000, lane 3: 1:100,000 dilution of the anti- synaptophysin antibody.

Western Blotting

Image 3.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN968694.