

Product datasheet

Anti-Synaptophysin antibody [SY38] ab8049

★★★★★ [15 Abreviews](#) [199 References](#) [5 Images](#)

Overview

Product name	Anti-Synaptophysin antibody [SY38]
Description	Mouse monoclonal [SY38] to Synaptophysin
Host species	Mouse
Tested applications	Suitable for: WB, ICC/IF, IHC-Fr, Flow Cyt, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Hamster, Cow, Human
Immunogen	Full length native protein (purified) corresponding to Bovine Synaptophysin. Synaptophysin from presynaptic vesicles, prepared from bovine brain. Database link: P20488
Positive control	Adrenal pheochromocytoma and pancreatic islet cell neoplasm
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at +4°C.
Storage buffer	pH: 7.3 Preservative: 0.09% Sodium azide Constituents: 0.5% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	SY38
Isotype	IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab8049 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (2)	1/500. Detects a band of approximately 38 kDa (predicted molecular weight: 34 kDa).
ICC/IF	★★★★★ (2)	Use at an assay dependent concentration.
IHC-Fr	★★★★★ (1)	Use at an assay dependent concentration.
Flow Cyt	★★★★★ (1)	1/20. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
IHC-P	★★★★★ (6)	Use at an assay dependent concentration.

Target

Function

Possibly involved in structural functions as organizing other membrane components or in targeting the vesicles to the plasma membrane. Involved in the regulation of short-term and long-term synaptic plasticity.

Tissue specificity

Characteristic of a type of small (30-80 nm) neurosecretory vesicles, including presynaptic vesicles, but also vesicles of various neuroendocrine cells of both neuronal and epithelial phenotype.

Involvement in disease

Mental retardation, X-linked, SYP-related

Sequence similarities

Belongs to the synaptophysin/synaptobrevin family.
Contains 1 MARVEL domain.

Domain

The calcium-binding activity is thought to be localized in the cytoplasmic tail of the protein.

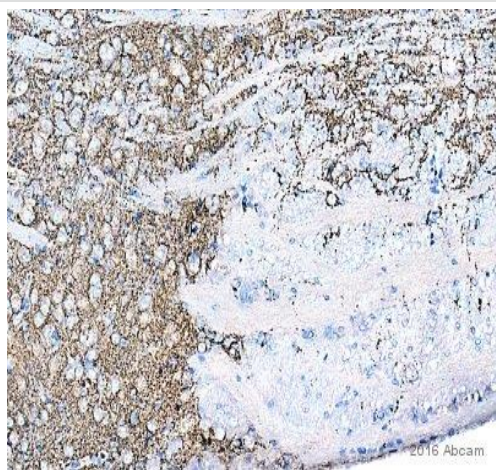
Post-translational modifications

Ubiquitinated; mediated by SIAH1 or SIAH2 and leading to its subsequent proteasomal degradation.

Cellular localization

Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane. Cell junction, synapse, synaptosome.

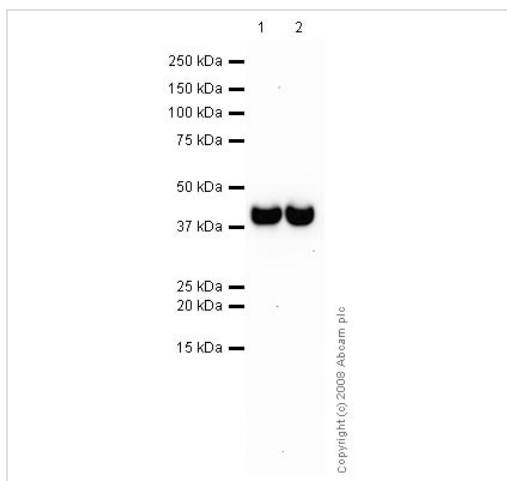
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synaptophysin antibody [SY38] (ab8049)

This image is courtesy of an Abreview provided by Carl Hobbs

ab8049 staining Synaptophysin in Mouse brain tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 2% BSA for 10 minutes at 21°C; antigen retrieval was by heat mediation in a citric acid. Samples were incubated with primary antibody (1/100) for 16 hours at 21°C. A Biotin-conjugated Goat anti-mouse IgG polyclonal (1/300) was used as the secondary antibody.



Western blot - Anti-Synaptophysin antibody [SY38] (ab8049)

All lanes : Anti-Synaptophysin antibody [SY38] (ab8049) at 1/500 dilution

Lane 1 : Human brain tissue lysate - total protein ([ab29466](#))

Lane 2 : Brain (Mouse) Tissue Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed at 1/3000 dilution

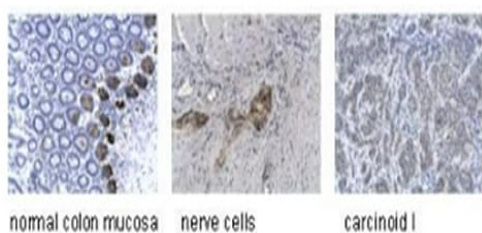
Predicted band size: 34 kDa

Observed band size: 38 kDa

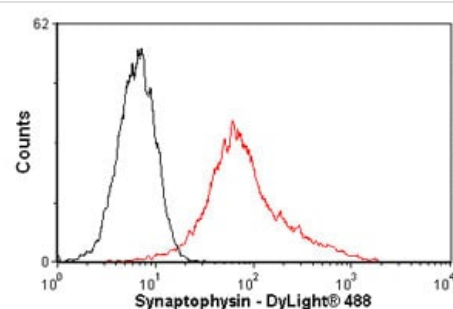


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synaptophysin antibody [SY38] (ab8049)

This image is courtesy of an Abreview provided by Carl Hobbs.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synaptophysin antibody [SY38] (ab8049)



Flow Cytometry - Anti-Synaptophysin antibody [SY38] (ab8049)

ab8049 staining MAFA in human colon tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 1% BSA for 10 minutes at 21°C; antigen retrieval was by heat mediation in citric acid. Samples were incubated with primary antibody (1/100 in TBS/BSA/azide) for 16 hours at 21°C. A Biotin-conjugated goat anti-mouse IgG polyclonal (1/300) was used as the secondary antibody.

The pictures show immunohistochemical staining of normal mucosa and neuroendocrine tumour of the small intestine. The antibody (ab8049) stains positive in a 1:10 dilution in nerve cells of the colon as well as some cells in normal colon mucosa and some neuroendocrine tumors of the digestive tract. Staining protocol: Mouse monoclonal to Synaptophysin (ab8049), diluted 1:10 in PBS plus BSA, 60 min at room temperature, secondary antibody: HRP solution with anti mouse polyclonal antibodies, 30min. DAB staining 10 min; Hematoxylin 30 sec.

These images were kindly supplied as part of the review submitted by Karin Birkenkamp-Demtroeder.

Overlay histogram showing PC12 cells stained with ab8049 (red line). The cells were fixed with methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab8049, 1/20 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a decreased

signal in PC12 cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween used under the same conditions.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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