

Product datasheet

Anti-Synaptophysin antibody [SP11] ab16659

RabMAb

★★★★☆ 2 Abreviews 13 References 5 Images

Overview

Product name	Anti-Synaptophysin antibody [SP11]
Description	Rabbit monoclonal [SP11] to Synaptophysin
Host species	Rabbit
Tested applications	Suitable for: ICC, WB, IHC-P, IHC-Fr
Species reactivity	Reacts with: Rat, Human
Immunogen	Synthetic peptide within Human Synaptophysin aa 250 to the C-terminus. The exact sequence is proprietary. Database link: P08247
Epitope	C-terminus
Positive control	WB: Brain lysate. IHC-Fr: Human Pancreas tissue sections. ICC: Primary hippocampal rat neurons/glia cells. IHC: human neuroendocrine tumor and Human pancreas.
General notes	<p>This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.</p> <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 -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.50 Preservative: 0.1% Sodium azide Constituents: Tissue culture supernatant, Tris buffered saline, 1% BSA

Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	SP11
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab16659 in the following tested applications.

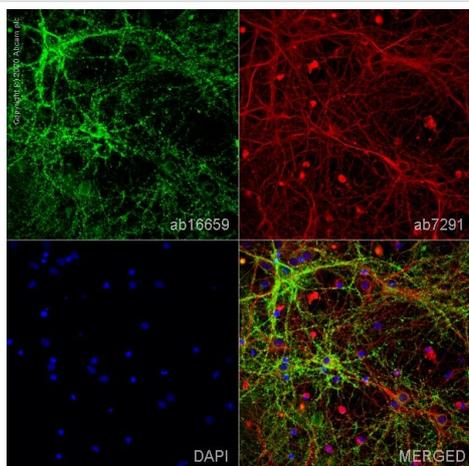
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC		Use a concentration of 5 µg/ml.
WB		1/200. Predicted molecular weight: 38 kDa.
IHC-P		1/200. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
IHC-Fr		1/200.

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

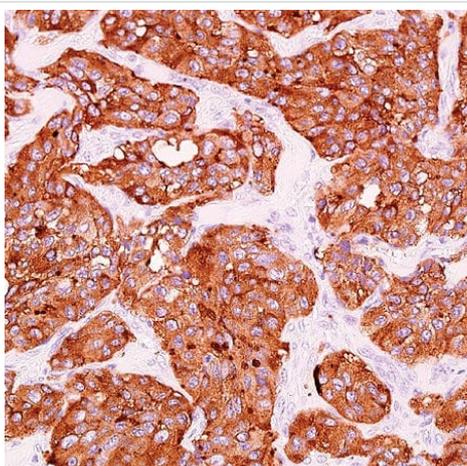


Immunocytochemistry - Anti-Synaptophysin antibody [SP11] (ab16659)

ab16659 staining Synaptophysin in primary hippocampal rat neurons/glia, (obtained from Neuromics, cat. no. PC35101), DIV14. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab16659 at 1µg/ml and [ab7291](#), Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with [ab150081](#), Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and [ab150120](#), Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

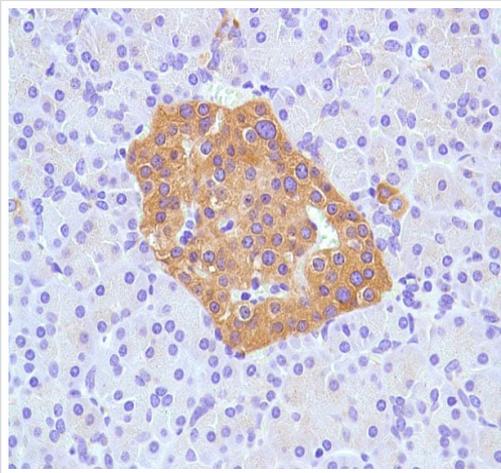
Also suitable in cells fixed with 4% paraformaldehyde (10 min).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



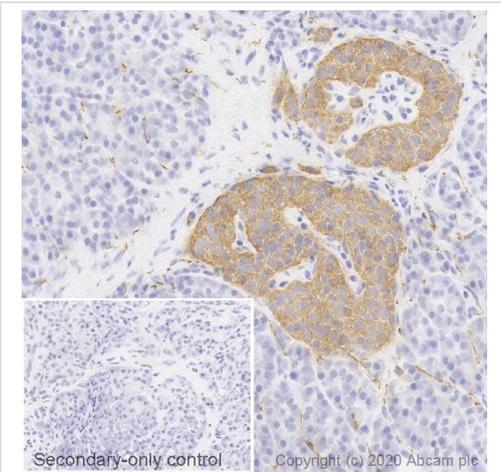
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synaptophysin antibody [SP11] (ab16659)

Immunohistochemical staining of human neuroendocrine tumor with ab16659.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synaptophysin antibody [SP11] (ab16659)

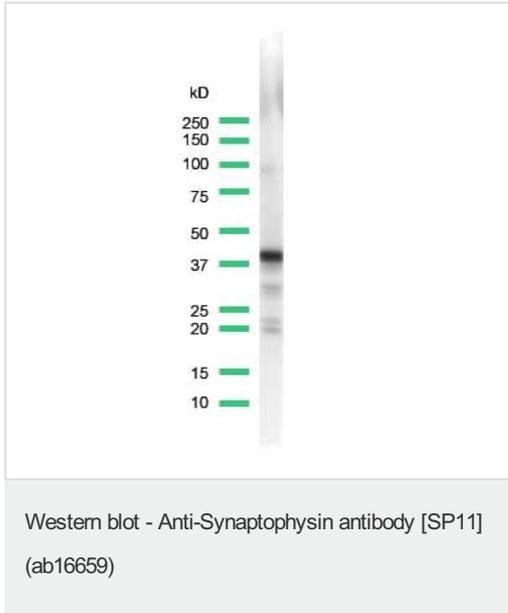
Immunohistochemical staining of human pancreas with ab16659.



Immunohistochemistry (Frozen sections) - Anti-Synaptophysin antibody [SP11] (ab16659)

IHC image of Synaptophysin staining in a section of frozen normal human pancreas performed on a Leica BOND™ system using the standard protocol. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab16659, 1/200 dilution, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Anti-Synaptophysin antibody [SP11] (ab16659) at 1/500 dilution + lysate prepared from brain

Predicted band size: 38 kDa

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