

Product datasheet

Anti-Synaptophysin antibody [EP1098Y] ab52636

KO **VALIDATED** Recombinant RabMAb[®]

★★★★★ [10 Abreviews](#) [49 References](#) [6 Images](#)

Overview

Product name	Anti-Synaptophysin antibody [EP1098Y]
Description	Rabbit monoclonal [EP1098Y] to Synaptophysin
Host species	Rabbit
Tested applications	Suitable for: WB, Flow Cyt (Intra), ICC/IF Unsuitable for: IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human Synaptophysin aa 200-300. The exact sequence is proprietary.
Positive control	ICC/IF: PC12 cells. Flow Cyt (intra): PC12 cells. WB: Human, mouse and rat brain tissue lysates. HEK-293T cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1098Y

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab52636 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	★★★★★ (3)	1/1000 - 1/10000. Detects a band of approximately 38 kDa (predicted molecular weight: 34 kDa).
Flow Cyt (Intra)		1/20 - 1/100. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★★ (3)	1/250 - 1/500.

Application notes

Is unsuitable for IHC-P.

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.

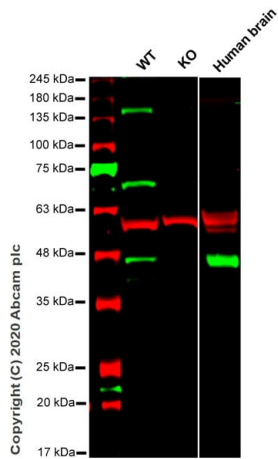
Post-translational modifications

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



Western blot - Anti-Synaptophysin antibody [EP1098Y] (ab52636)

All lanes : Anti-Synaptophysin antibody [EP1098Y] (ab52636) at 1/1000 dilution

Lane 1 : Wild-type HEK-293T cell lysate at 20 µg

Lane 2 : SYP knockout HEK-293T cell lysate at 20 µg

Lane 3 : Human brain tissue lysate

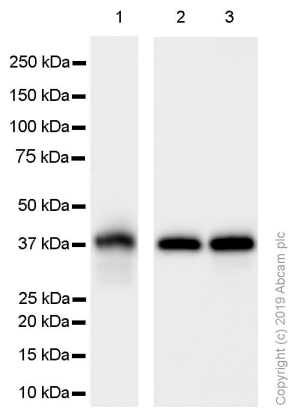
Performed under reducing conditions.

Predicted band size: 34 kDa

Observed band size: 38 kDa

Lanes 1-3: Merged signal (red and green). Green - ab52636 observed at 38 kDa. Red - loading control, **ab7291** observed at 50 kDa.

ab52636 Anti-Synaptophysin antibody [EP1098Y] was shown to specifically react with Synaptophysin in wild-type HEK293T cells. Loss of signal was observed when knockout cell line **ab267272** (knockout cell lysate **ab257060**) was used. Wild-type and Synaptophysin knockout samples were subjected to SDS-PAGE. ab52636 and Anti-alpha Tubulin antibody [DM1A] - Loading Control (**ab7291**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti- Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti- Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-Synaptophysin antibody
[EP1098Y] (ab52636)

All lanes : Anti-Synaptophysin antibody [EP1098Y] (ab52636) at 0.203 µg/ml

Lane 1 : Human brain tissue lysate

Lane 2 : Mouse brain tissue lysate

Lane 3 : Rat brain lysate tissue lysate

Lysates/proteins at 20 µg per lane.

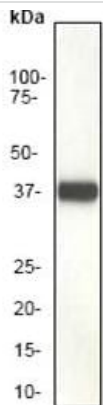
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 0.05 µg

Predicted band size: 34 kDa

Observed band size: 38 kDa

Blocking/Diluting buffer and concentration: 5% NFDm /TBST



Western blot - Anti-Synaptophysin antibody
[EP1098Y] (ab52636)

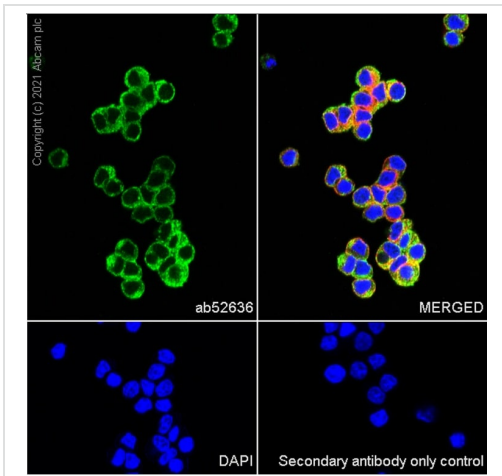
Anti-Synaptophysin antibody [EP1098Y] (ab52636) at 1/200000 dilution + Rat brain membrane

Secondary

Goat anti-rabbit HRP labeled at 1/2000 dilution

Predicted band size: 34 kDa

Observed band size: 38 kDa



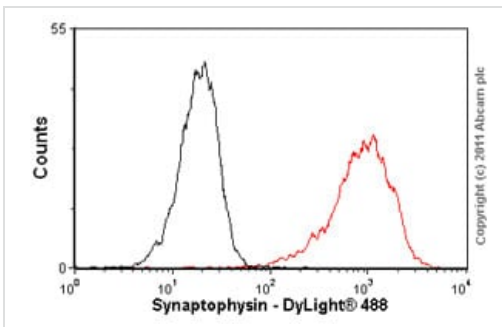
Immunocytochemistry/ Immunofluorescence - Anti-Synaptophysin antibody [EP1098Y] (ab52636)

Immunocytochemical analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized PC-12 (Rat adrenal gland pheochromocytoma) cells labeling Synaptophysin with ab52636 at 1/250 dilution followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green).

Confocal image showing cytoplasmic staining in PC-12 cell line.

The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) ([ab195889](#)) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-Synaptophysin antibody [EP1098Y] (ab52636)

Overlay histogram showing PC12 cells stained with ab52636 (red line). The cells were fixed with methanol (5 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab52636, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) ([ab96899](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit monoclonal IgG (0.5µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a slightly decreased signal in PC12 cells fixed with 4% paraformaldehyde (10 min) used under the same conditions. Please note that Abcam do not have data for use of this antibody on non-fixed cells. We welcome any customer feedback.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Synaptophysin antibody [EP1098Y] (ab52636)

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

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