


### Anti-Synaptophysin antibody [YE269] ab32127

敲除验证
重组
RabMAb

★★★★★
[36 Abreviews](#)
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#### 概述

|       |   |
|-------|---|
| 产品名称  | Anti-Synaptophysin抗体[YE269]   |
| 描述    | 兔单克隆抗体[YE269] to Synaptophysin  |
| 宿主    | Rabbit  |
| 经测试应用 | 适用于: WB, IHC-P, ICC/IF  |
| 种属反应性 | 与反应: Mouse, Rat, Human<br>预测可用于: Donkey, Cow    |
| 免疫原   | Synthetic peptide within Human Synaptophysin aa 250 to the C-terminus (C terminal). The exact sequence is proprietary. Residues in the cytoplasmic domain of human Synaptophysin.<br>Database link: <a href="#">P08247</a><br>(Peptide available as <a href="#">ab189853</a> )  |
| 阳性对照  | WB: PC-12 and HEK-293T cell lysates; Human fetal brain, mouse brain and rat brain lysates; Neurons from iPS cells lysate. ICC/IF: PC-12 cells; Human iPS cell derived neurons, primary mouse neurons/glia, DIV14 cells. IHC-P: Human pancreas, mouse cerebral cortex, rat cerebral cortex, medullablastoma, lung neuroendocrine tumor tissues; Sheep gut tissue.  |
| 常规说明  | <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> |

#### 性能

|      |   |
|------|---|
| 形式   | Liquid  |
| 存放说明 | Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.   |
| 存储溶液 | <p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p> |

|      |                    |
|------|--------------------|
| 纯度   | Protein A purified |
| 克隆   | 单克隆                |
| 克隆编号 | YE269              |
| 同种型  | IgG                |

应用

The Abpromise guarantee      **Abpromise™**承诺保证使用ab32127于以下的经测试应用

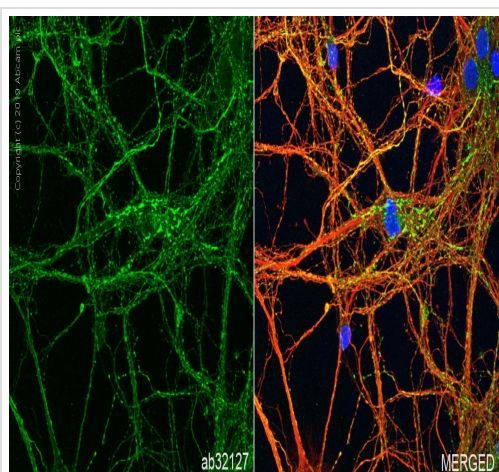
“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

| 应用     | Ab评论       | 说明  |
|--------|------------|---|
| WB     | ★★★★★ (7)  | 1/20000 - 1/100000. Detects a band of approximately 34 kDa (predicted molecular weight: 34 kDa).Can be blocked with <b>Synaptophysin peptide (ab189853)</b> . |
| IHC-P  | ★★★★★ (13) | 1/400 - 1/800. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.<br>See <b>IHC antigen retrieval protocols</b> .          |
| ICC/IF | ★★★★★ (3)  | Use a concentration of 0.1 µg/ml.   |

靶标

|       |  |
|-------|--|
| 功能    | 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. |
| 组织特异性 | 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.                 |
| 疾病相关  | Mental retardation, X-linked, SYP-related  |
| 序列相似性 | Belongs to the synaptophysin/synaptobrevin family.<br>Contains 1 MARVEL domain.  |
| 结构域   | The calcium-binding activity is thought to be localized in the cytoplasmic tail of the protein.  |
| 翻译后修饰 | Ubiquitinated; mediated by SIAH1 or SIAH2 and leading to its subsequent proteasomal degradation.   |
| 细胞定位  | Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane. Cell junction, synapse, synaptosome.  |

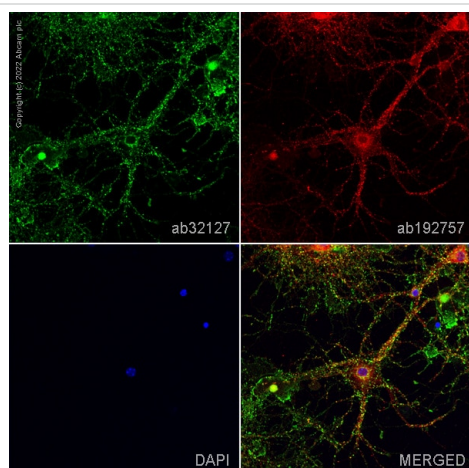
图片



Immunocytochemistry/ Immunofluorescence - Anti-Synaptophysin antibody [YE269] (ab32127)

Immunocytochemistry/ Immunofluorescence analysis of mouse primary neuron cells labeling Synaptophysin with purified ab32127 at 1/100 (2.7 µg/mL). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection.

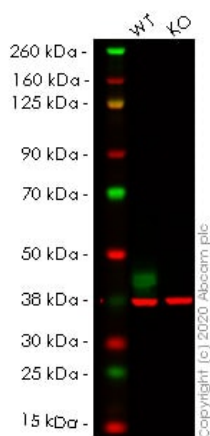


Immunocytochemistry/ Immunofluorescence - Anti-Synaptophysin antibody [YE269] (ab32127)

ab32127 staining Synaptophysin in primary mouse neurons/glia, DIV14 (prepared from E18 mouse hippocampal brain area, obtained from Transnetix Tissue by BrainBits, LLC, cat.no. C57EHP) cells. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Tween 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 ab32127 at 0.1 µg/ml and **ab192757**, Mouse mono Anti-PSD95 antibody [K28/43] - Synaptic Marker. 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 100% methanol (5 min).

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



Western blot - Anti-Synaptophysin antibody [YE269] (ab32127)

**All lanes :** Anti-Synaptophysin antibody [YE269] (ab32127) at 1/1000 dilution

**Lane 1 :** Wild-type HEK-293T cell lysate

**Lane 2 :** SYP knockout HEK-293T cell lysate

Lysates/proteins at 20 µg per lane.

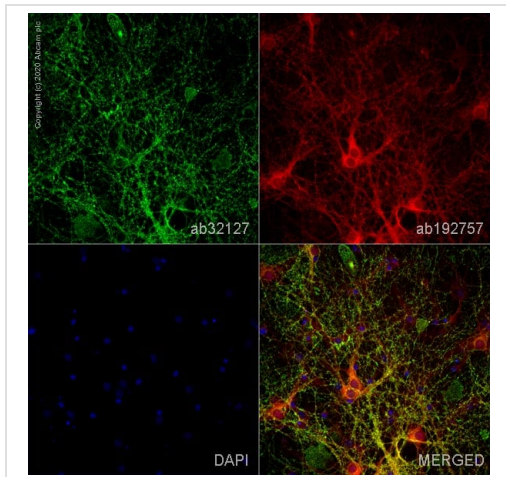
Performed under reducing conditions.

**Predicted band size:** 34 kDa

**Observed band size:** 38 kDa

**Lanes 1- 2:** Merged signal (red and green). Green - ab32127 observed at 38 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) observed at 37 kDa.

ab32127 was shown to react with Syp in wild-type HEK-293T cells in western blot. Loss of signal was observed when knockout cell line [ab255356](#) (knockout cell lysate [ab263862](#)) was used. Wild-type HEK-293T and SYP knockout HEK-293T cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab32127 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) overnight at 4°C at a 1 in 1000 dilution and a 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 20000 dilution for 1 hour at room temperature before imaging.

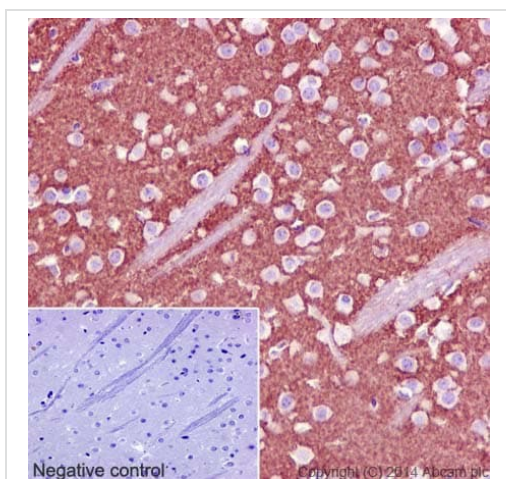


Immunocytochemistry/ Immunofluorescence - Anti-Synaptophysin antibody [YE269] (ab32127)

ab32127 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-Tween 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 ab32127 at 0.1µg/ml and **ab192757**, Mouse mono Anti-PSD95 antibody [K28/43] - Synaptic Marker. 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.

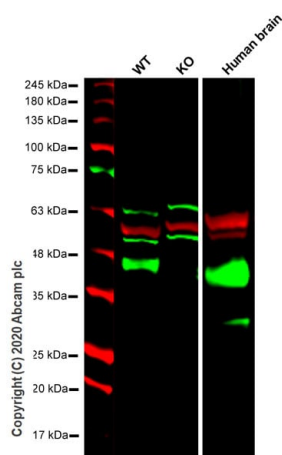


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synaptophysin antibody [YE269] (ab32127)

Immunohistochemical staining of paraffin embedded mouse cerebral cortex with purified ab32127 at a dilution of 1/400.

A pre-diluted HRP polymer for rabbit/mouse IgG was used as the secondary antibody and the sample was counterstained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0.

PBS was used instead of the primary antibody as the negative control, and is shown in the inset.



Western blot - Anti-Synaptophysin antibody [YE269]  
(ab32127)

**All lanes :** Anti-Synaptophysin antibody [YE269] (ab32127) 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

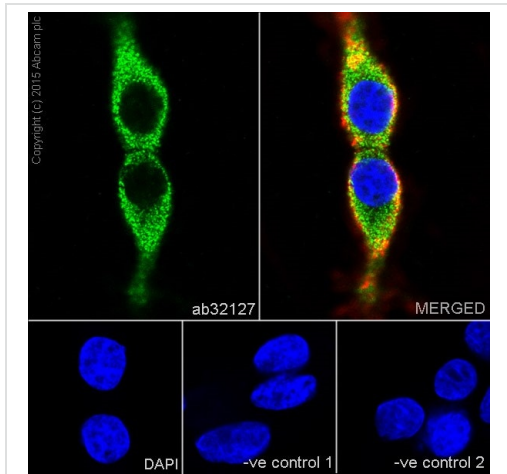
Performed under reducing conditions.

**Predicted band size:** 34 kDa

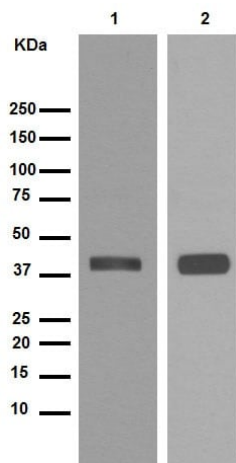
**Observed band size:** 38 kDa

**Lanes 1-3:** Merged signal (red and green). Green - ab32127 observed at 38 kDa. Red - loading control, **ab7291** observed at 50 kDa.

ab32127 Anti-Synaptophysin antibody [YE269] 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. ab32127 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.



Immunocytochemistry/ Immunofluorescence - Anti-Synaptophysin antibody [YE269] (ab32127)



Western blot - Anti-Synaptophysin antibody [YE269] (ab32127)

Immunofluorescent staining of PC-12 (rat adrenal gland pheochromocytoma cell line) cells (fixed in 4% PFA, permeabilized with 0.1% Triton X 100) using purified ab32127 at a dilution of 1/50.

An Alexa Fluor® 488 goat anti-rabbit antibody was used as the secondary at a dilution of 1/500 and the cells were counterstained with DAPI.

The negative control is shown in the bottom right hand panel - for the negative control, Alex Fluor® 594 goat anti-mouse was used at a dilution of 1/500.

**All lanes :** Anti-Synaptophysin antibody [YE269] (ab32127) at 1/100000 dilution (purified)

**Lane 1 :** Mouse brain

**Lane 2 :** Rat brain

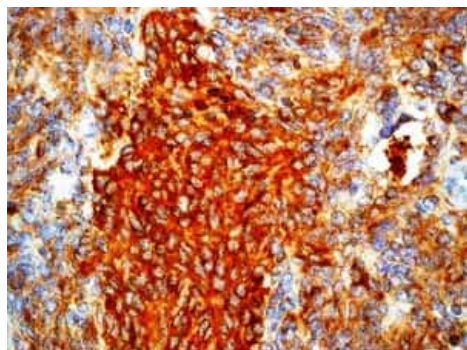
**Secondary**

**All lanes :** HRP goat anti-rabbit at 1/1000 dilution

**Predicted band size:** 34 kDa

**Observed band size:** 38 kDa

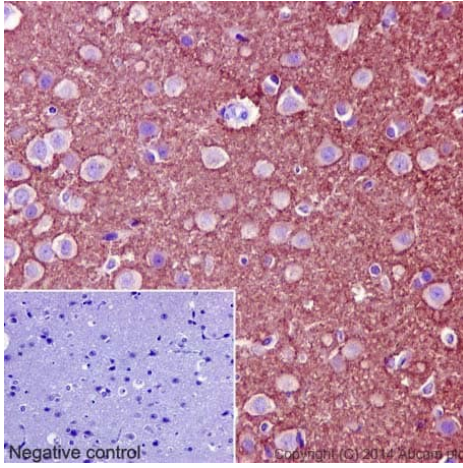
Blocking/Dilution buffer: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synaptophysin antibody [YE269] (ab32127)

Unpurified ab32127 showing positive staining in medulloblastoma tissue.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

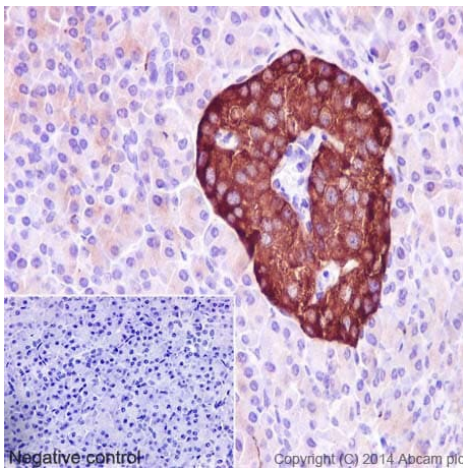


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synaptophysin antibody [YE269] (ab32127)

Immunohistochemical staining of paraffin embedded rat cerebral cortex with purified ab32127 at a dilution of 1/400.

A pre-diluted HRP polymer for rabbit/mouse IgG was used as the secondary antibody and the sample was counterstained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0.

PBS was used instead of the primary antibody as the negative control, and is shown in the inset.



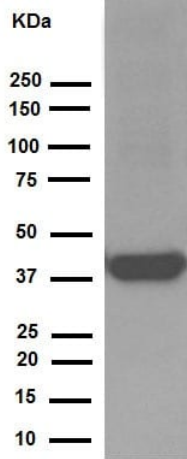
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synaptophysin antibody [YE269] (ab32127)

Immunohistochemical staining of paraffin embedded

human pancreas with purified ab32127 at a dilution of 1/400.

A pre-diluted HRP polymer for rabbit/mouse IgG was used as the secondary antibody and the sample was counterstained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0.

PBS was used instead of the primary antibody as the negative control, and is shown in the inset.



Western blot - Anti-Synaptophysin antibody [YE269] (ab32127)

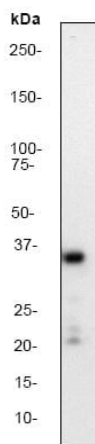
Anti-Synaptophysin antibody [YE269] (ab32127) at 1/100000 dilution (purified) + Human fetal brain at 20 µg

### Secondary

HRP goat anti-rabbit (H+L) at 1/1000 dilution

**Predicted band size:** 34 kDa

**Observed band size:** 38 kDa



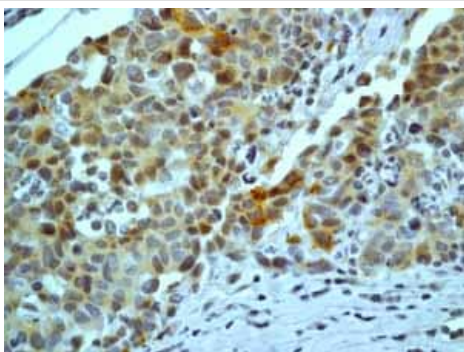
Western blot - Anti-Synaptophysin antibody [YE269] (ab32127)

Anti-Synaptophysin antibody [YE269] (ab32127) at 1/10000 dilution (unpurified) + PC-12 (rat adrenal gland pheochromocytoma cell line) cell lysate

**Predicted band size:** 34 kDa

**Observed band size:** 34 kDa

**Additional bands at:** 21 kDa, 22 kDa. We are unsure as to the identity of these extra bands.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Synaptophysin antibody [YE269] (ab32127)

Unpurified ab32127 showing positive staining in lung neuroendocrine tumor tissue.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

### 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 [YE269] (ab32127)

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