# abcam

## Product datasheet

## Anti-alpha + beta Synuclein antibody [EP1646Y] - BSA and Azide free ab189217



重组 RabMAb

6 References 8 图像

#### 概述

Anti-alpha + beta Synuclein抗体[EP1646Y] - BSA and Azide free 产品名称

描述 兔单克隆抗体[EP1646Y] to alpha + beta Synuclein - BSA and Azide free

宿主 Rabbit

经测试应用 适用于: WB, ICC/IF, Flow Cyt (Intra)

不适用于: №

种属反应性 与反应: Mouse, Rat, Human

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

阳性对照 Fetal brain lysate, PC12 cells.

常规说明 ab189217 is the carrier-free version of ab51252.

> Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.

This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cellbased assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb patents**.

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#### 性能

形式 Liquid

**存放**说明 Shipped at 4°C. Store at +4°C. Do Not Freeze.

**存储溶液** pH: 7.2

Constituent: PBS

**无载体** 是

纯**度** Protein A purified

 克隆
 单克隆

 克隆编号
 EP1646Y

同种型 lgG

#### 应用

### The Abpromise guarantee Abpromise™承诺保证使用ab189217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		Use at an assay dependent concentration. Detects a band of approximately 18 kDa (predicted molecular weight: 14 kDa).
ICC/IF		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration. <u>ab199376</u> - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody.

应用说明 Is unsuitable for IP.

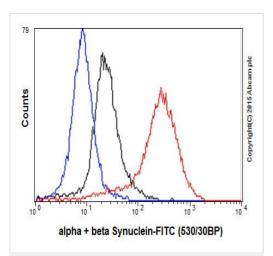
## 靶标

相关性 Synucleins are small soluble proteins expressed primarily in neural tissues and in certain tumors.

The family includes 3 known proteins, alpha synuclein, beta synuclein and gamma synuclein. All synucleins have in common a highly conserved alpha helical lipid binding motif with similarity to the class A2 lipid binding domains of the exchangeable apolipoproteins. The alpha and beta synuclein proteins are found primarily in brain tissue, where they are seen mainly in pre synaptic terminals. Alpha synuclein is believed to be a major component of Lewy bodies in Parkinson's disease. Mutations in alpha synuclein are associated with rare familial cases of early onset Parkinson's disease, Alzheimer's disease and several other neurodegenerative illnesses.

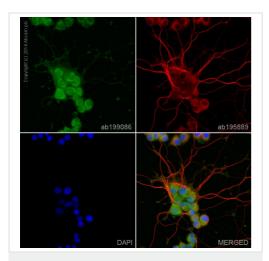
细胞定位 Cytoplasmic. Membrane bound in dopaminergic neurons. Also found in the nucleus.

#### 图片



Flow Cytometry (Intracellular) - Anti-alpha + beta Synuclein antibody [EP1646Y] - BSA and Azide free (ab189217)

Overlay histogram showing U87-MG cells fixed in 4% PFA and stained with purified <u>ab51252</u> at a dilution of 1 in 30 (red line). The secondary antibody used was FITC goat anti-rabbit at a dilution of 1 in 500. Rabbit monoclonal IgG was used as an isotype control (black line) and cells incubated in the absence of both primary and secondary antibody were used as a negative control (blue line). This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (<u>ab51252</u>).

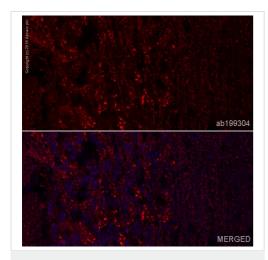


Immunocytochemistry/ Immunofluorescence - Antialpha + beta Synuclein antibody [EP1646Y] - BSA and Azide free (ab189217)

Clone EP1646Y (ab189217) has been successfully conjugated by Abcam. This image was generated using Anti-alpha + beta Synuclein antibody [EP1646Y] (Alexa Fluor® 488). Please refer to ab199086 for protocol details.

**ab199086** staining alpha+beta Synuclein in PC12 cells. The cells were fixed with 100% methanol (5min), permeabilized with 0.1% 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 **ab199086** at 1/50 dilution (shown in green) and **ab195889**, Mouse monoclonal to alpha Tubulin (Alexa Fluor<sup>®</sup> 594), at 2μg/ml (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-alpha + beta Synuclein antibody [EP1646Y] - BSA and Azide free (ab189217)

Clone EP1646Y (ab189217) has been successfully conjugated by Abcam. This image was generated using Anti-alpha + beta Synuclein antibody [EP1646Y] (Alexa Fluor® 647). Please refer to <a href="mailto:ab199304">ab199304</a> for protocol details.

IHC image of alpha + beta Synuclein staining in a section of formalin-fixed paraffin-embedded normal human cerebellum.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6) in a Dako Pascal pressure cooker using the standard factory-set regime. Non-specific protein-protein interactions were then blocked in TBS containing 0.025% (v/v) Triton X-100, 0.3M (w/v) glycine and 1% (w/v) BSA for 1h at room temperature. The section was then incubated overnight at +4°C in TBS containing 0.025% (v/v) Triton X-100 and 1% (w/v) BSA with ab199304 at 1/50 (shown in red). Nuclear DNA was labelled with DAPI (shown in blue). The section was then mounted using Fluoromount<sup>®</sup>.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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

ab51252 MERGED

DAPI -ve control 1 -ve control 2

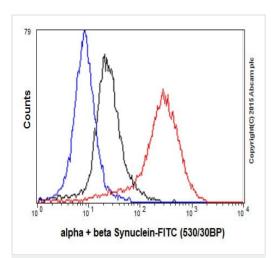
Immunocytochemistry/ Immunofluorescence - Antialpha + beta Synuclein antibody [EP1646Y] - BSA and Azide free (ab189217)

Immunocytochemistry/Immunofluorescence analysis of PC-12 cells labelling alpha + beta Synuclein with purified **ab51252** at 1/100. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, an Alexa Fluor<sup>®</sup> 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. **ab7291**, a mouse anti-tubulin (1/1000) and **ab150120**, an Alexa Fluor<sup>®</sup> 594-conjugated goat anti-mouse IgG (1/1000) were also used.

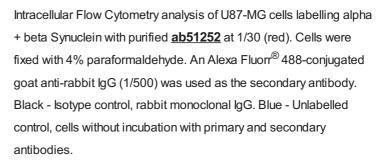
Control 1: primary antibody (1/100) and secondary antibody, **ab150120**, an Alexa Fluor<sup>®</sup> 594-conjugated goat anti-mouse lgG (1/1000).

Control 2: <u>ab7291</u> (1/1000) and secondary antibody, <u>ab150077</u>, an Alexa Fluor<sup>®</sup> 488-conjugated goat anti-rabbit lgG (1/1000).

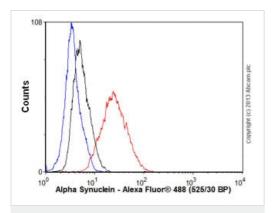
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab51252).



Flow Cytometry (Intracellular) - Anti-alpha + beta Synuclein antibody [EP1646Y] - BSA and Azide free (ab189217)



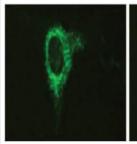
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab51252).

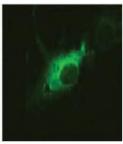


Flow Cytometry (Intracellular) - Anti-alpha + beta Synuclein antibody [EP1646Y] - BSA and Azide free (ab189217)

Overlay histogram showing SH-SY5Y cells stained with unpurified <a href="mailto:ab51252">ab51252</a> (red line). The cells were fixed with 4% paraformaldehyde (10 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 (unpurified <a href="mailto:ab51252">ab51252</a>, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluorr<sup>®</sup> 488 goat anti-rabbit lgG (H+L) (<a href="mailto:ab150077">ab150077</a>) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit lgG (monoclonal) (0.1µg/1x10<sup>6</sup> cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab51252).



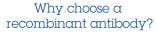


Immunocytochemistry/ Immunofluorescence - Antialpha + beta Synuclein antibody [EP1646Y] - BSA and Azide free (ab189217)

Image from Hejjaoui Met al. J Am Chem Soc. 2012 Mar 21;134(11):5196-210. Epub 2012 Mar 13. Fig 4.; DOI: 10.1021/ja210866j; February 16 2012 J. Am. Chem. Soc. 2012 134 (11) pp 5196?5210 with permission from the American Chemical Society.

Immunocytochemistry/Immunofluorescence analysis of rat primary hippocampal neurons, staining alpha + beta Synuclein with unpurified **ab51252**. Cells were fixed, permeabilized, and blocked with 10% donkey serum at room temperature. Cells were incubated with primary antibody (1/1000) at 4°C for 24 hours. A Cy2-conjugated donkey anti-rabbit lgG was used as the secondary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab51252).





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Success from the first experiment

Confirmed specificity



Ethical standards compliant Animal-free production

Anti-alpha + beta Synuclein antibody [EP1646Y] - BSA and Azide free (ab189217)

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

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