

## Product datasheet

# Anti-Alpha-synuclein antibody [4D6] - BSA and Azide free ab1903

★★★★☆ [4 Abreviews](#) [70 References](#) [2 Images](#)

### Overview

<b>Product name</b>	Anti-Alpha-synuclein antibody [4D6] - BSA and Azide free
<b>Description</b>	Mouse monoclonal [4D6] to Alpha-synuclein - BSA and Azide free
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P <b>Unsuitable for:</b> Flow Cyt or ICC
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant full length protein corresponding to Human Alpha-synuclein.
<b>General notes</b>	<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&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Purification notes</b>	Ammonium sulfate precipitated and dialyzed tissue culture supernatant.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	4D6
<b>Isotype</b>	IgG1

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab1903 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)	1/100 - 1/10000. Predicted molecular weight: 16 kDa.
IHC-P	★★★★☆ (1)	1/100 - 1/1000. Antigen retrieval is not essential but may optimise staining.

### Application notes

Is unsuitable for Flow Cyt or ICC.

## Target

### Function

May be involved in the regulation of dopamine release and transport. Induces fibrillization of microtubule-associated protein tau. Reduces neuronal responsiveness to various apoptotic stimuli, leading to a decreased caspase-3 activation.

### Tissue specificity

Expressed principally in brain but is also expressed in low concentrations in all tissues examined except in liver. Concentrated in presynaptic nerve terminals.

### Involvement in disease

Genetic alterations of SNCA resulting in aberrant polymerization into fibrils, are associated with several neurodegenerative diseases (synucleinopathies). SNCA fibrillar aggregates represent the major non A-beta component of Alzheimer disease amyloid plaque, and a major component of Lewy body inclusions. They are also found within Lewy body (LB)-like intraneuronal inclusions, glial inclusions and axonal spheroids in neurodegeneration with brain iron accumulation type 1. Parkinson disease 1  
Parkinson disease 4  
Dementia Lewy body

### Sequence similarities

Belongs to the synuclein family.

### Domain

The 'non A-beta component of Alzheimer disease amyloid plaque' domain (NAC domain) is involved in fibrils formation. The middle hydrophobic region forms the core of the filaments. The C-terminus may regulate aggregation and determine the diameter of the filaments.

### Post-translational modifications

Phosphorylated, predominantly on serine residues. Phosphorylation by CK1 appears to occur on residues distinct from the residue phosphorylated by other kinases. Phosphorylation of Ser-129 is selective and extensive in synucleinopathy lesions. In vitro, phosphorylation at Ser-129 promoted insoluble fibril formation. Phosphorylated on Tyr-125 by a PTK2B-dependent pathway upon osmotic stress.

Hallmark lesions of neurodegenerative synucleinopathies contain alpha-synuclein that is modified by nitration of tyrosine residues and possibly by dityrosine cross-linking to generated stable oligomers.

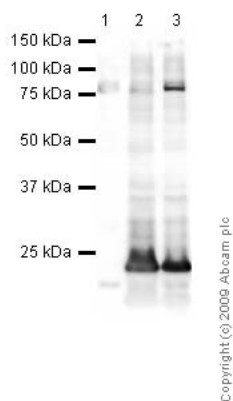
Ubiquitinated. The predominant conjugate is the diubiquitinated form.

Acetylation at Met-1 seems to be important for proper folding and native oligomeric structure.

### Cellular localization

Cytoplasm, cytosol. Membrane. Nucleus. Cell junction, synapse. Secreted. Membrane-bound in dopaminergic neurons.

## Images



Western blot - Anti-Alpha-synuclein antibody [4D6] - BSA and Azide free (ab1903)

**All lanes :** Anti-Alpha-synuclein antibody [4D6] - BSA and Azide free (ab1903) at 5 µg/ml

**Lane 1 :** A549 (Human lung adenocarcinoma epithelial cell line) Whole Cell Lysate

**Lane 2 :** SK N BE (Human neuroblastoma) Whole Cell Lysate

**Lane 3 :** SK N SH (Human neuroblastoma) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

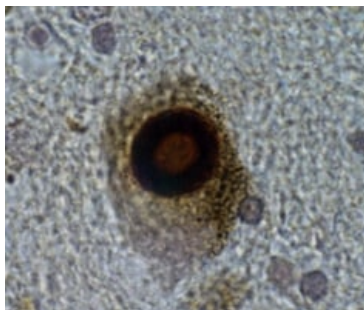
### Secondary

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

**Predicted band size:** 16 kDa

**Observed band size:** 16 kDa

**Additional bands at:** 18 kDa (possible post-translational modification), 80 kDa (possible post-translational modification)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Alpha-synuclein antibody [4D6] - BSA and Azide free (ab1903)

IHC-P using ab1903 showing lewy bodies in a human substantia nigra neuron(x400)

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