




Product datasheet

Anti-Alpha-synuclein antibody ab190376

[1 References](#) [4 Images](#)

Overview

Product name	Anti-Alpha-synuclein antibody
Description	Chicken polyclonal to Alpha-synuclein
Host species	Chicken
Specificity	Due to high sequence homology ab190376 might react with Beta synuclein
Tested applications	Suitable for: ICC/IF, WB, IHC-P
Species reactivity	Reacts with: Rat Predicted to work with: Chimpanzee, Cynomolgus monkey, Rhesus monkey, Gorilla, Orangutan 
Immunogen	Recombinant full length protein corresponding to Human Alpha-synuclein aa 1 to the C-terminus. Epitope: amino acids 61-95. Database link: P37840  Run BLAST with  Run BLAST with
Positive control	IHC-P: Human and rat cerebellum tissue. WB: Rat brain crude extract. ICC/IF: Mixed rat neuronal cells.
General notes	<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. Do Not Freeze.
Storage buffer	Preservative: 0.0325% Sodium azide Constituents: 50% Glycerol (glycerin, glycerine), 49% PBS
Purity	IgY fraction
Clonality	Polyclonal

Isotype

IgY

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab190376 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/IF		1/1000.
WB		1/2000. Predicted molecular weight: 14 kDa.
IHC-P		1/3000 - 1/5000.

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.

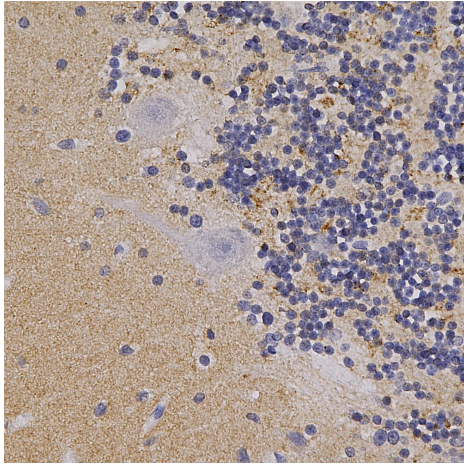
Ubiquitinated. The predominant conjugate is the diubiquitinated form.

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

Cellular localization

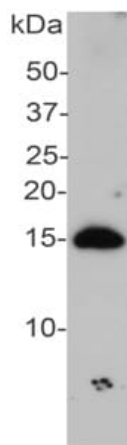
Cytoplasm, cytosol. Membrane. Nucleus. Cell junction, synapse. Secreted. Membrane-bound in dopaminergic neurons.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Alpha-synuclein antibody (ab190376)

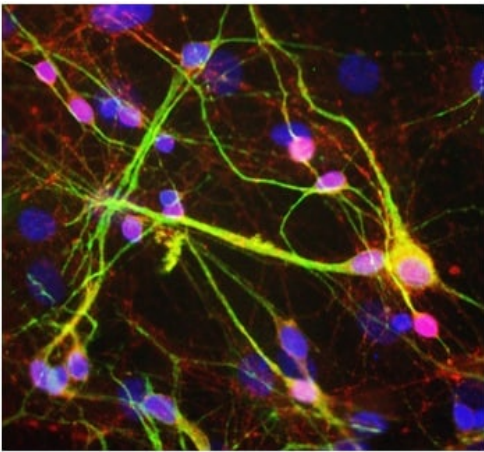
Chromogenic immunostaining of a formalin fixed paraffin embedded human cerebellum section with chicken pAb to α -synuclein, dilution 1/5000, detected in DAB (brown) following the ABC method. Hematoxylin (blue) was used as the counterstain. The α -synuclein protein is concentrated in synapses, in particular highlighting the glomeruli synapses in the granule layer and those on Purkinje dendrites in the molecular layer.



Western blot - Anti-Alpha-synuclein antibody (ab190376)

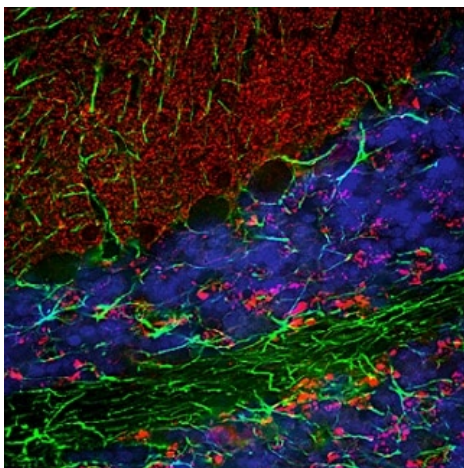
Anti-Alpha-synuclein antibody (ab190376) at 1/2000 dilution + Rat brain crude extract

Predicted band size: 14 kDa



Immunofluorescent analysis of Mixed rat neuron-glia cultures labeling alpha Synuclein with ab190376 at 1/1000 dilution (red) and monoclonal antibody to MAP2 (green); DNA (blue).

Immunocytochemistry/ Immunofluorescence - Anti-Alpha-synuclein antibody (ab190376)



Ab190376 staining alpha-synuclein in rat cerebellum tissue sections at 1/3000 dilution (red) and co-stained with rabbit polyclonal antibody to GFAP. DAPI was used as a nuclear counterstain.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Alpha-synuclein antibody (ab190376)

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