

Product datasheet

Anti-Alpha-synuclein antibody ab21976

★★★★☆ [2 Abreviews](#) [3 References](#) [1 Image](#)

Overview

| | |
|----------------------------|-----------------------------------------------------------------------------------------|
| Product name | Anti-Alpha-synuclein antibody |
| Description | Sheep polyclonal to Alpha-synuclein |
| Host species | Sheep |
| Tested applications | Suitable for: IHC-P |
| Species reactivity | Reacts with: Human |
| Immunogen | Synthetic peptide corresponding to Human Alpha-synuclein. Sequence: PQEGILEDMPVDP |

 [Run BLAST with](#)

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General notes

This antibody achieves excellent staining of Lewy bodies in Parkinson's disease and Dementia with Lewy bodies disease tissue and gives excellent staining of glial inclusions in Multi System Atrophy tissue.

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.

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

Properties

| | |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle. |
| Purity | Whole antiserum |
| Purification notes | This product is supplied as filtered serum. |
| Primary antibody notes | This antibody achieves excellent staining of Lewy bodies in Parkinson's disease and Dementia with Lewy bodies disease tissue and gives excellent staining of glial inclusions in Multi System Atrophy tissue. |

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab21976 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 |
|-------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IHC-P | | 1/1000 - 1/4000. Antigen retrieval has been used in characterisation but may not be necessary. 1) Slide holder containing 1mM EDTA at pH 8 is boiled in a microwave (~2min). 2) Slides are placed in holder and boiled for a further 10 min with the microwave on low. 3) Slides allowed to cool before use. |

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.

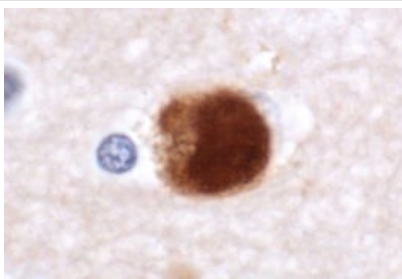
Hallmark lesions of neurodegenerative synucleinopathies contain alpha-synuclein that is modified by nitration of tyrosine residues and possibly by dityrosine cross-linking to generated stable oligomers.

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 (ab21976)

ab21976 staining Lewy body in Dementia with Lewy body disease tissue at 1/1000 dilution by Immunohistochemistry (FFPE-sections). Secondary antibody biotinylated Donkey and sheep followed by Vector ABC and DAB substrate.

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

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