

Product datasheet

Anti-Alpha-synuclein (phospho Y125) antibody ab131466

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Overview

Product name	Anti-Alpha-synuclein (phospho Y125) antibody
Description	Rabbit polyclonal to Alpha-synuclein (phospho Y125)
Host species	Rabbit
Specificity	ab131466 detects alpha Synuclein only when phosphorylated at tyrosine 125.
Tested applications	Suitable for: WB, ICC/IF
Species reactivity	Reacts with: Mouse, Human
Immunogen	Synthetic peptide corresponding to Human Alpha-synuclein (phospho Y125) conjugated to keyhole limpet haemocyanin. Database link: NP_000336.1
Positive control	HeLa cells; extracts of C2C12 cells treated with anisomycin.
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 -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.88% Sodium chloride PBS is without Mg ²⁺ and Ca ²⁺ .
Purity	Immunogen affinity purified
Purification notes	ab131466 was purified by affinity- chromatography using epitope specific phosphopeptide. The

antibody against non phosphopeptide was removed by chromatography using non phosphopeptide corresponding to the phosphorylation site.

Clonality Polyclonal
Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab131466 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		1/500 - 1/1000. Detects a band of approximately 18 kDa (predicted molecular weight: 14 kDa).
ICC/IF		1/100 - 1/200.

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

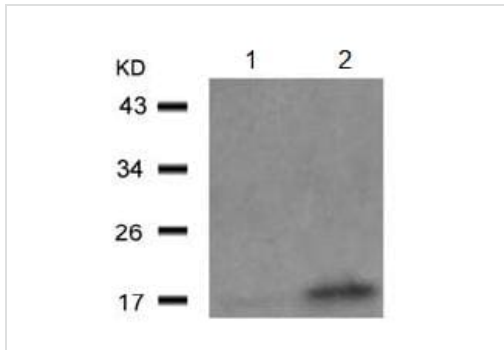
Sequence similarities Belongs to the synuclein family.

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

Images



Western blot - Anti-Alpha-synuclein (phospho Y125) antibody (ab131466)

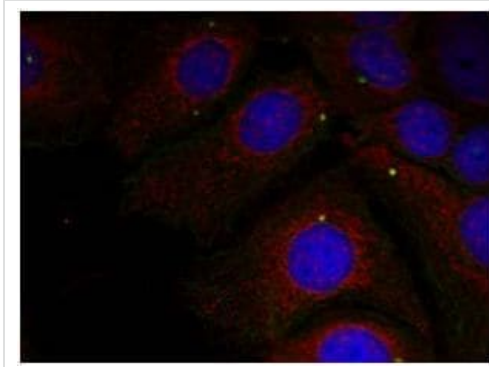
All lanes : Anti-Alpha-synuclein (phospho Y125) antibody (ab131466) at 1/500 dilution

Lane 1 : Extract from C2C12 cells, untreated

Lane 2 : Extract from C2C12 cells treated with Anisomycin

Predicted band size: 14 kDa

Observed band size: 18 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Alpha-synuclein (phospho Y125) antibody (ab131466)

Immunofluorescent analysis of alpha Synuclein (phospho Y125) in methanol fixed HeLa cells stained with ab131466 at a 1/100 dilution.

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