

Product datasheet

Anti-Alpha-synuclein (phospho Y136) antibody ab131491

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Overview

Product name	Anti-Alpha-synuclein (phospho Y136) antibody
Description	Rabbit polyclonal to Alpha-synuclein (phospho Y136)
Host species	Rabbit
Specificity	ab131491 detects endogenous levels of alpha Synuclein only when phosphorylated at tyrosine 136. Due to 72.7% sequence homology ab131491 might react with Beta synuclein
Tested applications	Suitable for: WB, ICC/IF
Species reactivity	Reacts with: Mouse, Human
Immunogen	Synthetic peptide corresponding to Human Alpha-synuclein aa 100-200 (phospho Y136) conjugated to keyhole limpet haemocyanin. Synthetic peptide conjugated to KLH, surrounding phosphorylation site of Tyrosine 136 (Q-D-Y(p)-E-P) derived from Human alpha synuclein (NP_000336.1) Run BLAST with Expasy Run BLAST with NCBI
Positive control	Mouse brain tissue lysate
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, 0.88% Sodium chloride, 50% Glycerol (glycerin, glycerine) PBS is without Mg ²⁺ and Ca ²⁺

Purity	Immunogen affinity purified
Purification notes	ab131491 was purified by affinity-chromatography using an-epitope specific phosphopeptide. Non-phosphopeptide specific antibodies were removed by chromatography using non-phosphopeptide.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab131491 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. Predicted molecular weight: 14 kDa.
ICC/IF		1/100 - 1/200. (methanol fixed)

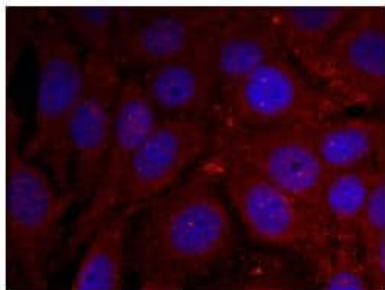
Target

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

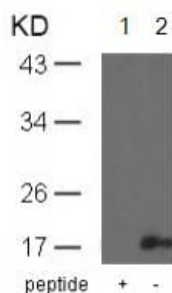
Cytoplasm, cytosol. Membrane. Nucleus. Cell junction, synapse. Secreted. Membrane-bound in dopaminergic neurons.

Images



Immunofluorescence analysis of methanol-fixed HeLa cells labelling alpha Synuclein using ab131491, at 1/100 dilution.

Immunocytochemistry/ Immunofluorescence - Anti-Alpha-synuclein (phospho Y136) antibody (ab131491)



All lanes : Anti-Alpha-synuclein (phospho Y136) antibody (ab131491) at 1/500 dilution

Lane 1 : Mouse brain tissue lysate

Lane 2 : Mouse brain tissue lysate with blocking peptide

Predicted band size: 14 kDa

Western blot - Anti-Alpha-synuclein (phospho Y136) antibody (ab131491)

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

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