

## Product datasheet

# Anti-Alpha-synuclein (phospho Y125) antibody [EPR2179(2)] ab124955

Recombinant RabMAb

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### Overview

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<b>Product name</b>	Anti-Alpha-synuclein (phospho Y125) antibody [EPR2179(2)]
<b>Description</b>	Rabbit monoclonal [EPR2179(2)] to Alpha-synuclein (phospho Y125)
<b>Host species</b>	Rabbit
<b>Specificity</b>	This antibody only detects alpha Synuclein when phosphorylated at tyrosine 125.
<b>Tested applications</b>	<b>Suitable for:</b> WB <b>Unsuitable for:</b> Flow Cyt, IHC-P or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Does not react with:</b> Mouse, Rat
<b>Immunogen</b>	Synthetic peptide within Human Alpha-synuclein (phospho Y125). The exact sequence is proprietary.
<b>Positive control</b>	HeLa cell lysates treated with pervanadate.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant

<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR2179(2)
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab124955 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

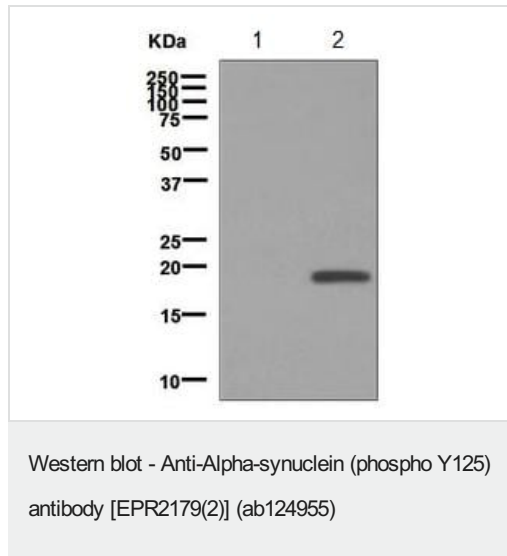
Application	Abreviews	Notes
WB		1/1000 - 1/10000. Detects a band of approximately 18 kDa (predicted molecular weight: 14 kDa).

**Application notes** Is unsuitable for Flow Cyt, IHC-P or IP.

## Target

<b>Function</b>	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.
<b>Tissue specificity</b>	Expressed principally in brain but is also expressed in low concentrations in all tissues examined except in liver. Concentrated in presynaptic nerve terminals.
<b>Involvement in disease</b>	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
<b>Sequence similarities</b>	Belongs to the synuclein family.
<b>Domain</b>	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.
<b>Post-translational modifications</b>	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.
<b>Cellular localization</b>	Cytoplasm, cytosol. Membrane. Nucleus. Cell junction, synapse. Secreted. Membrane-bound in

## Images



**All lanes :** Anti-Alpha-synuclein (phospho Y125) antibody [EPR2179(2)] (ab124955) at 1/1000 dilution

**Lane 1 :** HeLa cell lysates, untreated

**Lane 2 :** HeLa cell lysates, treated with pervanadate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes :** Goat anti-Rabbit HRP at 1/2000 dilution

**Predicted band size:** 14 kDa

Why choose a recombinant antibody?

- Research with confidence**  
Consistent and reproducible results
- Long-term and scalable supply**  
Recombinant technology
- Success from the first experiment**  
Confirmed specificity
- Ethical standards compliant**  
Animal-free production

Anti-Alpha-synuclein (phospho Y125) antibody [EPR2179(2)] (ab124955)

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

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