

Anti-Alpha-synuclein (phospho S129) antibody [MJF-R13 (8-8)] - BSA and Azide free ab209421

Recombinant RabMAb

2 Images

Overview

Product name	Anti-Alpha-synuclein (phospho S129) antibody [MJF-R13 (8-8)] - BSA and Azide free
Description	Rabbit monoclonal [MJF-R13 (8-8)] to Alpha-synuclein (phospho S129) - BSA and Azide free
Host species	Rabbit
Specificity	This antibody only detects alpha Synuclein phosphorylated on Ser129.
Tested applications	Suitable for: WB Unsuitable for: Flow Cyt, ICC/IF, IHC-P or IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to Human Alpha-synuclein (phospho S129).
Positive control	Recombinant alpha-synuclein, expressed in BL21 bacterial cells in the presence of Human Polo-Like Kinase 2; HEK whole cell lysates, stably-transfected with Polo-Like Kinase 2 and alpha Synuclein.
General notes	<p>ab209421 is the carrier-free version of ab168381.</p> <p>Alpha-synuclein was the first gene to be linked to Parkinson's disease (PD) and remains the most promising link to PD pathogenesis, where there is genetic evidence that it may play a causal role. In the brain, alpha-synuclein is concentrated in presynaptic nerve terminals. The deposition of the abundant presynaptic brain protein alpha-synuclein as fibrillary aggregates in neurons or glial cells is a hallmark lesion in a subset of neurodegenerative disorders. These disorders include Parkinson's disease (PD), dementia with Lewy bodies (DLB) and multiple system atrophy, collectively referred to as synucleinopathies. Parkinson's disease (PD) is a common neurodegenerative disorder characterized by the progressive accumulation in selected neurons of protein inclusions containing alpha-synuclein and ubiquitin.</p> <p>Recent studies also indicate that alpha-synuclein undergoes post-translational modification. Though the role of many of these modifications is still under investigation, phosphorylation at Serine 129 may affect alpha-synuclein aggregations and may also serve as marker of disease pathogenesis. With the advent of this phospho-specific Serine 129 antibody, The Michael J. Fox Foundation hopes to ensure that the putative role of this modification can be further examined by all researchers.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p>

This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb[®] patents**.

This antibody was developed with support from The Michael J. Fox Foundation.



Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	MJF-R13 (8-8)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab209421 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		Use at an assay dependent concentration. Predicted molecular weight: 14 kDa.

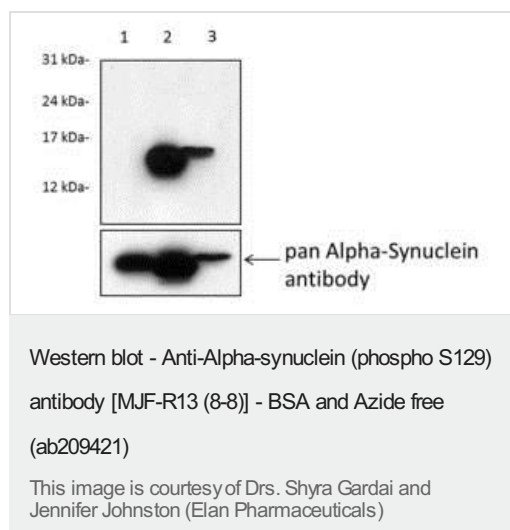
Application notes Is unsuitable for Flow Cyt, ICC/IF, IHC-P or IP.

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	<p>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.</p> <p>Parkinson disease 1</p> <p>Parkinson disease 4</p> <p>Dementia Lewy body</p>
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	<p>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.</p> <p>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.</p> <p>Ubiquitinated. The predominant conjugate is the diubiquitinated form.</p> <p>Acetylation at Met-1 seems to be important for proper folding and native oligomeric structure.</p>
Cellular localization	Cytoplasm, cytosol. Membrane. Nucleus. Cell junction, synapse. Secreted. Membrane-bound in dopaminergic neurons.

Images



All lanes : Anti-Alpha-synuclein (phospho S129) antibody [MJF-R13 (8-8)] ([ab168381](#)) at 1/1000 dilution

Lane 1 : Recombinant alpha Synuclein expressed in BL21 bacterial cells

Lane 2 : Recombinant alpha Synuclein expressed in BL21 bacterial cells, in the presence of Human Polo-Like Kinase 2

Lane 3 : HEK whole cell lysates, stably-transfected with Polo-Like Kinase 2 and alpha Synuclein

Predicted band size: 14 kDa

This data was developed using [ab168381](#), the same antibody clone in a different buffer formulation.

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

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

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