## abcam

## Product datasheet

## Mouse/Rat SNCA Antibody Pair - BSA and Azide free ab253643

Recombinant RabMAb

## 2 Images

#### Overview

**Product name** Mouse/Rat SNCA Antibody Pair - BSA and Azide free

Assay type **ELISA** set

78 pg/ml - 5000 pg/ml Range

**Species reactivity** Reacts with: Mouse, Rat

**Product overview** Mouse/Rat SNCA Antibody Pair is a matched pair of unconjugated recombinant rabbit

monoclonal capture and detection antibodies used to quantify Mouse and Rat SNCA in

sandwich ELISAs and many other pair-based applications.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit **Notes** 

monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

The pair can be used in variety of assays and platforms including but not limited to:

Sandwich ELISA FRET/TR-FRET/HTRF

Meso Scale Discovery® (MSD®)

Bead-based assays

AlphaLISA®/AlphaScreen® DELFIA® immunoassays

Simoa<sup>®</sup> and Single Molecule Counting (SMC™) immunoassays

Our antibody pairs are supplied in a carrier-free format that is conjugation-ready:

Buffer free of BSA, sodium azide, and glycerol for higher conjugation efficiency.

Concentration of ~1 mg/ml as measured by the protein A280 method.

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.

We can label antibodies for you: get in touch today to discuss how we can help accelerate your assay development with custom conjugation services.

Pairs are screened in biological samples, including plasma and serum, to ensure specificity in complex samples.

## Please note:

The recommended antibody orientation is based on internal optimization in sandwich ELISA. Antibody orientation is assay dependent and needs to be optimized for each assay type.

The range provided for this antibody pair is based on initial sandwich ELISA validation data using recombinant protein. Performance and range of the antibody pair will depend on the specific characteristics of your assay, including standard protein selection.

We guarantee the product works in sandwich ELISA, but we do not guarantee the sensitivity or dynamic range of the antibodies in other assays.

## **Antibody properties:**

Capture antibody: recombinant rabbit monoclonal (unconjugated) – 100  $\mu g$  Detector antibody: recombinant rabbit monoclonal (unconjugated) - 100  $\mu g$ 

Concentration: ~1 mg/ml Storage buffer: 100% PBS

Form: Liquid Isotype: IgG

Recombinant monoclonal antibodies offer several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information see here.

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SMC is a registered trademark of Merck KGaA, Darmstadt, Germany.

**Tested applications** 

Suitable for: Sandwich ELISA

Platform

Reagents

## **Properties**

**Storage instructions** Store at +4°C. Please refer to protocols.

Carrier free Yes

Components	10 x 96 tests
Mouse SNCA Capture Antibody (unconjugated)	1 x 100µg
Mouse SNCA Detector Antibody (unconjugated)	1 x 100µg

#### **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**

 $\hbox{\it Cytoplasm, cytosol. Membrane. Nucleus. Cell junction, synapse. Secreted. Membrane-bound in}$ 

dopaminergic neurons.

#### **Applications**

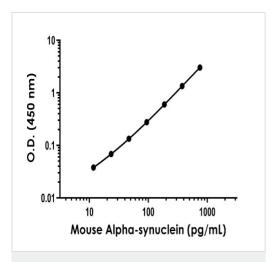
#### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab253643 in the following tested applications.

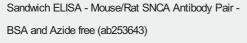
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

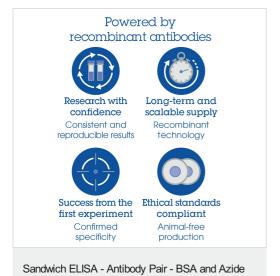
Application	Abreviews	Notes
Sandwich ELISA		Use at an assay dependent concentration.

### **Images**



Example of Mouse Alpha-synuclein standard curve. Background-subtracted data values (mean +/- SD) are graphed.





Free (ab253643)

To learn more about the advantages of recombinant antibodies see **here**.

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