

Datasheet for ABIN5651245  
**SNCA Protein (full length)**

## 9 Images

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## Overview

Quantity:	100 µg
Target:	SNCA
Protein Characteristics:	full length
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	SDS-PAGE (SDS), Western Blotting (WB), In vitro Assay (in vitro), In vivo Studies (in vivo)

## Product Details

Sequence:	MDVFMKGLSK AKEGVVAAAE KTKQGVAEAA GKTKEGVLYV GSKTKEGVVH GVTTVAEKT EQVTNVGGAV VTGVTAVAQK TVEGAGNIAA ATGFVKKDQM GKGEEGYPQE GILEDMPVDP GSEAYEMPSE EGYQDYEPEA
Specificity:	~14.46 kDa
Purification:	Ion-exchange Purified
Biological Activity Comment:	Endogenous alpha-synuclein phosphorylation. 100 µM alpha synuclein protein monomer (SPR-323) seeded with 10 nM alpha synuclein protein PFF (SPR-324) in 25 µM Thioflavin T (PBS pH 7.4, 100 µl reaction volume) generated an increased fluorescence intensity after incubation at 37°C with shaking at 600 rpm for 24 hours. Fluorescence was measured by excitation at 450 nm and emission at 485 nm on a Molecular Devices Gemini XPS microplate reader.

## Target Details

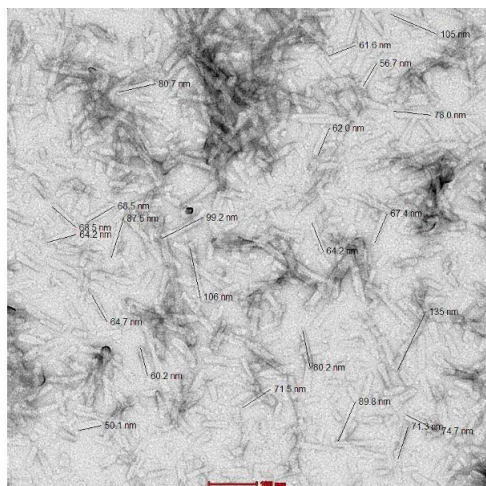
Target:	SNCA
Alternative Name:	Alpha Synuclein ( <a href="#">SNCA Products</a> )
Background:	Alpha-Synuclein (SNCA) is expressed predominantly in the brain, where it is concentrated in presynaptic nerve terminals (1). Alpha-synuclein is highly expressed in the mitochondria of the olfactory bulb, hippocampus, striatum and thalamus (2). Functionally, it has been shown to significantly interact with tubulin (3), and may serve as a potential microtubule-associated protein. It has also been found to be essential for normal development of the cognitive functions, inactivation may lead to impaired spatial learning and working memory (4). SNCA fibrillar aggregates represent the major non A-beta component of Alzheimers disease amyloid plaque, and a major component of Lewy body inclusions, and Parkinson's disease. 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 (5, 6).
Gene ID:	20617
NCBI Accession:	<a href="#">NP_001035916</a>
UniProt:	<a href="#">O55042</a>
Pathways:	<a href="#">Synaptic Membrane</a> , <a href="#">Regulation of G-Protein Coupled Receptor Protein Signaling</a> , <a href="#">Positive Regulation of Endopeptidase Activity</a> , <a href="#">Regulation of Carbohydrate Metabolic Process</a> , <a href="#">Platelet-derived growth Factor Receptor Signaling</a> , <a href="#">Negative Regulation of Transporter Activity</a> , <a href="#">Regulation of long-term Neuronal Synaptic Plasticity</a>

## Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	Certified >95% pure using SDS-PAGE analysis.
Restrictions:	For Research Use only

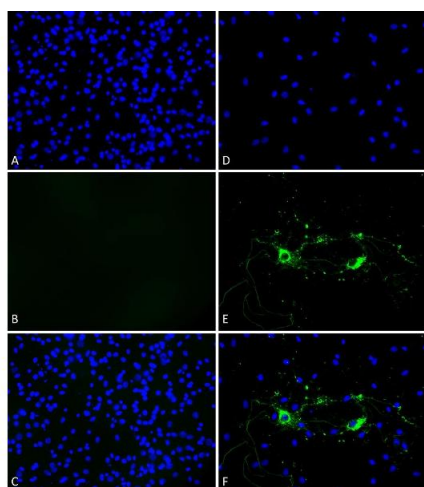
## Handling

Concentration:	Lot specific
Buffer:	PBS pH 7.4
Storage:	-80 °C



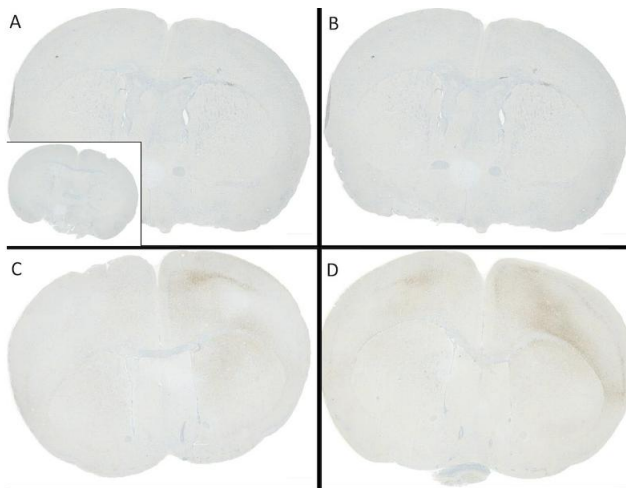
### Electron Microscopy

**Image 1.** TEM of Type 1 mouse alpha synuclein Pre-formed Fibrils (ABIN5651245, ABIN5651246 and ABIN5651247). Fibrils were sonicated and image was taken at 100kx magnification.



### Immunofluorescence

**Image 2.** Primary rat hippocampal neurons show lewy body inclusion formation and loss of cells when treated with Type 1 mouse Alpha Synuclein Protein Pre-formed Fibrils (ABIN5651245, ABIN5651246 and ABIN5651247) at 4  $\mu$ g/mL (D-F) on DVI2, but not when treated with a control (A-C). Tissue: Primary hippocampal neurons. Species: Sprague-Dawley rat. Fixation: 3 % formaldehyde from PFA for 20 min. Blocker: 1:1 PBS:LiCOR Odyssey Block (LiCOR, 927-40010) and 30 mL/mL of 0.1 % triton-X 100 for 30 min. Primary Antibody: Mouse anti-pSer129 Antibody (1:1000) and Rabbit anti-pSer129 (1:800) for 24 hours at 4 °C. Secondary Antibody: ATTO 546 Donkey Anti-Mouse (1:700) and ATTO 488 Donkey Anti-Rabbit (1:700) for 1 hour at RT (composite green). Counterstain: Hoechst (blue) nuclear stain at 1:3000 for 1 hour at RT. Localization: Lewy body inclusions. Magnification: 20x.



### Immunohistochemistry

**Image 3.** C57/BL6 mice were injected with sonicated recombinant mouse alpha synuclein monomers or fibrils at 8 weeks of age. Mice were unilaterally injected in the dorsal striatum (bregma AP + 0.2 mm, L +/1 2.0 mm, V - 3.0 mm) and sacrificed 30 days post-injection. (A) 1.25  $\mu$ L mouse alpha synuclein monomers (ABIN5651245, ABIN5651246 and ABIN5651247). (B) 2.5  $\mu$ L mouse alpha synuclein monomers (ABIN5651245, ABIN5651246 and ABIN5651247). (C) 2.5  $\mu$ g alpha synuclein PFFs (ABIN5651245, ABIN5651246 and ABIN5651247). (D) 5  $\mu$ g alpha synuclein PFFs (ABIN5651245, ABIN5651246 and ABIN5651247) Inset: PBS (negative control). Primary antibody: Anti-Alpha Synuclein pSer129 (SMC-600) at 1:10 000. Secondary antibody: anti-rabbit HRP. Mice injected with PFF displayed alpha synuclein staining in the striatum and cortex and contralateral to the injection site. Courtesy of: Porsolt.

Please check the [product details page](#) for more images. Overall 9 images are available for ABIN5651245.