

Mouse Alpha Synuclein Monoclonal Antibody | anti-SNCA antibody

Alpha Synuclein Antibody, Clone 3C11

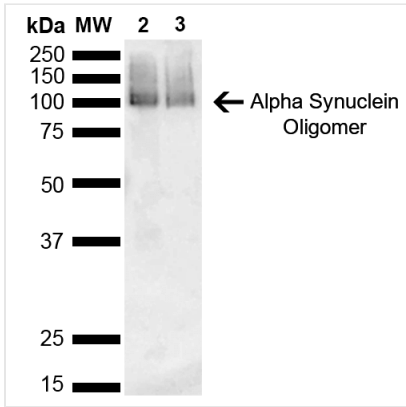
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA17810	Mouse	Human; Mouse; Rat	Western Blot, Dot Blot, Immunocytochemistry, Immunofluorescence, ELISA

PRODUCT SYNONYMS

Alpha Synuclein; Monoclonal Antibody; Alpha Synuclein Antibody; Clone 3C11; Mouse Anti-Human Alpha Synuclein Monoclonal IgG1; Non-A beta component of AD amyloid Antibody; Non-A4 component of amyloid precursor Antibody; NACP Antibody; SNCA Antibody; PARK1 Antibody; PARK 1 Antibody; alphaSYN Antibody; PARK 4 antibody; PARK4 antibody; Parkinson disease familial 1 antibody; Parkinson disease (autosomal dominant; Lewy body) 4 antibody; SYN antibody; anti-SNCA antibody

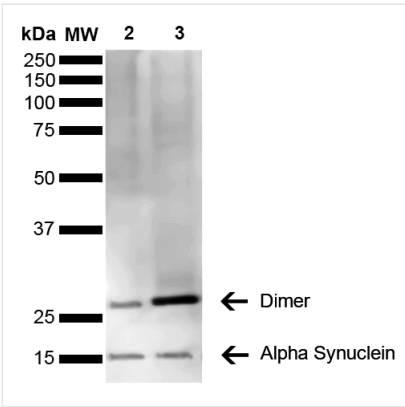
PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human; Mouse; Rat
Clonality	Monoclonal
Isotype	IgG1
Clone Number	3C11
Specificity	Binds within the 81-130 aa region of human alpha synuclein, determined using WB and ELISA with corresponding peptides. Detects ~14 kDa band corresponding to Alpha synuclein. Band at ~30 kDa is a dimer.
Purity/Purification	Protein G Purified
Form/Format	PBS pH 7.4, 50% glycerol, 0.09% Sodium Azide
Concentration	1 mg/ml (varies by lot)
Sequence Length	140
Applicable Applications for anti-SNCA antibody	WB (Western Blot), DB (Dot Blot), ICC (Immunocytochemistry), IF (Immunofluorescence), ELISA
Application Notes	WB: 1:1000 DB: 1:1000 ICC/IF: 1:100 ELISA: 1:1000 A 1:1000 dilution of SMC-530 was sufficient for detection of Alpha Synuclein in 15 ug of human brain cell lysate by ECL immunoblot analysis using goat anti-mouse IgG:HRP as the secondary antibody. Optimal dilutions for assays should be determined by the end user
Immunogen	Human alpha synuclein monomer
Cellular Localization	Cytoplasm; Cytosol; Membrane; Nucleus; Cell Junction; Synapse
Preparation and Storage	Store at -20 degree C; 1 year+; Avoid freeze/thaw cycle.



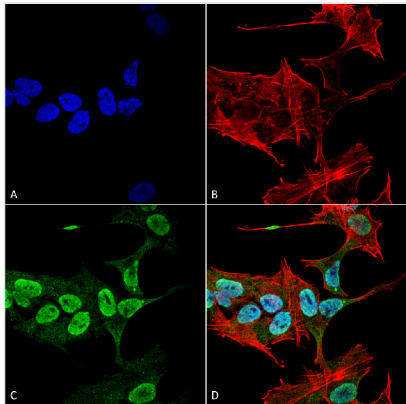
WB (Western Blot)

Western Blot analysis of Mouse, Rat Brain showing detection of 14 kDa Alpha Synuclein protein using Mouse Anti-Alpha Synuclein Monoclonal Antibody, Clone 3C11. Lane 1: Molecular Weight Ladder (MW). Lane 2: Mouse brain cell lysate. Lane 3: Rat brain cell lysate. Load: 15 ug. Block: 5% Skim Milk in 1X TBST. Primary Antibody: Mouse Anti-Alpha Synuclein Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Goat Anti-Mouse HRP:lgG at 1:3000 for 1 hour at RT. Color Development: ECL solution (Super Signal West Pico) for 5 min in RT. Predicted/Observed Size: 14 kDa. Other Band(s): ~30 kDa (dimer).



WB (Western Blot)

Western Blot analysis of Human Brain showing detection of 14 kDa Alpha Synuclein protein using Mouse Anti-Alpha Synuclein Monoclonal Antibody, Clone 3C11. Lane 1: Molecular Weight Ladder (MW). Lane 2: Parkinson brain cell lysate. Lane 3: Human brain cell lysate. Load: 15 ug. Block: 5% Skim Milk in 1X TBST. Primary Antibody: Mouse Anti-Alpha Synuclein Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Goat Anti-Mouse HRP:lgG at 1:3000 for 1 hour at RT. Color Development: ECL solution (Super Signal West Pico) for 5 min in RT. Predicted/Observed Size: 14 kDa. Other Band(s): 100 kDa (oligomer).



ICC (Immunocytochemistry)

Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Alpha Synuclein Monoclonal Antibody, Clone 3C11. Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-Alpha Synuclein Monoclonal Antibody at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:200 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000, 1:5000 for 60 min at RT, 5 min at RT. Localization: Cytoplasm: weak; Nucleus: Med. Magnification: 60X. (A) DAPI (blue) nuclear stain. (B) Phalloidin Texas Red F-Actin stain. (C) Alpha Synuclein Antibody. (D) Composite.

ADDITIONAL INFORMATION

Related Product Information for anti-SNCA antibody	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).
Product Categories/Family for anti-SNCA antibody	Antibodies; Neuroscience; Neurodegeneration; Alzheimer's Disease; Tangles & Tau; Neuroscience; Neurodegeneration; Parkinson's Disease; Synuclein

References	1. "Genetics Home Reference: SNCA". US National Library of Medicine. (2013). 2. Zhang L., et al. (2008) Brain Res. 1244: 40-52. 3. Alim M.A., et al. (2002) J Biol Chem. 277(3): 2112-2117. 4. Kokhan V.S., Afanasyeva M.A., Van'kin G. (2012) Behav. Brain. Res. 231(1): 226-230. 5. Spillantini M.G., et al. (1997) Nature. 388(6645): 839-840. 6. Mezey E., et al. (1998) Nat Med. 4(7): 755-757.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4507109
NCBI GeneID	6622
NCBI Accession #	NP_000336.1
NCBI GenBank Nucleotide #	NM_000345.3
UniProt Accession #	P37840; Q13701; Q4JHI3; Q6IAU6; A8K2A4
NCBI Official Full Name	alpha-synuclein isoform NACP140
NCBI Official Synonym Full Names	synuclein alpha
NCBI Official Symbol	SNCA
NCBI Official Synonym Symbols	PD1; NACP; PARK1; PARK4
NCBI Protein Information	alpha-synuclein
UniProt Protein Name	Alpha-synuclein
UniProt Gene Name	SNCA
UniProt Synonym Gene Names	NACP; PARK1; NACP

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.