Mouse Alpha Synuclein Monoclonal Antibody | anti-Snca antibody

Alpha Synuclein Antibody, Clone 4F1: FITC

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA104161	**Mouse**	**Human; Mouse; Rat**	**ELISA, Immunofluorescence, Immunocytochemistry, Immunohistochemistry, Dot Blot, Western Blot**

PRODUCT SYNONYMS

Alpha Synuclein; Monoclonal Antibody; Alpha Synuclein Antibody; Clone 4F1: FITC; Mouse Anti-Mouse Alpha Synuclein Monoclonal IgG1; Alpha Synuclein Antibody: FITC; 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	4F1
Specificity	Binds multiple linear epitopes within human alpha synuclein: 21-70 aa, 61-90 aa, and 101-140 aa, determined using Dot blot and ELISA with corresponding peptides. Detects ~14 kDa band corresponding to Alpha synuclein. Band at ~40 kDa is a trimer.
Purity/Purification	Protein G Purified
Concentration	1 mg/ml (varies by lot)
Sequence Length	140
Applicable Applications for anti-Snca antibody	ELISA, IF (Immunofluorescence), ICC (Immunocytochemistry), IHC (Immunohistochemistry), DB (Dot Blot), WB (Western Blot)
Target	Alpha Synuclein
Immunogen	Mouse alpha synuclein aggregate
Immunogen Species	Mouse
Cellular Localization	Cytoplasm; Cytosol; Membrane; Nucleus; Cell Junction; Synapse
Conjugate	FITC
Storage Buffer	PBS pH 7.4, 50% glycerol, 0.09% Sodium Azide
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.
Preparation and Storage	Store at -20 degree C.

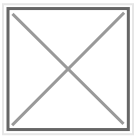
IMAGES



ICC (Immunocytochemistry)
Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Alpha Synuclein Monoclonal Antibody, Clone 4F1. Tissue: Primary hippocampal neurons treated with active Alpha Synuclein Protein Aggregate (SPR-322) at 4 ug/ml to induce fibrils. Species: Rat. Fixation: 4% paraformaldehyde. Primary Antibody: Mouse Anti-Alpha Synuclein Monoclonal Antibody at 1:200 for 24 hours at 4 degree C. Secondary Antibody: Goat Anti-Mouse Alexa Fluor 488 at 1:700 for 1 hour at RT. Counterstain: Guinea Pig Anti-NeuN (red) neuronal marker (Donkey Anti-Guinea Pig Alexa Fluor 647 1:700); DAPI (blue) nuclear stain at 1:6000, 1:3000 for 60 min at RT, 5 min at RT. Magnification: 20X. (A) DAPI (blue) nuclear stain. (B) NeuN neuronal marker (red). (C) Alpha Synuclein Antibody. (D) Composite.



WB (Western Blot)
Western Blot analysis of Human, Mouse, Rat Brain showing detection of 14 kDa Alpha Synuclein protein using Mouse Anti-Alpha Synuclein Monoclonal Antibody, Clone 4F1. Lane 1: Molecular Weight Ladder (MW). Lane 2: Mouse Brain cell lysate. Lane 3: Rat brain cell lysate. Lane 4: 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:IgG 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): ~40 kDa (trimer).



ICC (Immunocytochemistry)
Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Alpha Synuclein Monoclonal Antibody, Clone 4F1. 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: medium; Nucleus: strong. 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.

NCBI AND UNIPROT INFORMATION

NCBI GI #	109638747
NCBI GeneID	20617
NCBI Accession #	NP_001035916.1
NCBI GenBank Nucleotide #	NM_001042451.2
UniProt Accession #	O55042; Q3U130; Q9CXF8; Q9EQC3; Q9QUR3
Molecular Weight	12,345 Da

NCBI Official Full Name	alpha-synuclein
NCBI Official Synonym Full Names	synuclein, alpha
NCBI Official Symbol	Snca
NCBI Official Synonym Symbols	NACP; alphaSYN; alpha-Syn
NCBI Protein Information	alpha-synuclein
UniProt Protein Name	Alpha-synuclein
UniProt Gene Name	**Snca**
UniProt Synonym Gene Names	Syn; 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.

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Online datasheet: https://stage.aaabiotech.com/monoclonal/alpha-synuclein-antibody-clone-4f1-immunofluorescence-immunocytochemistry-immunohistochemistry-dot-blot-western-blot-elisa/104161