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SNCA Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21137a

Specification

SNCA Antibody (C-term) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	P37840
Reactivity	**Human**
Host	**Rabbit**
Clonality	**polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**14460**

SNCA Antibody (C-term) - Additional Information

Gene ID 6622

Other Names
Alpha-synuclein, Non-A beta component of AD amyloid, Non-A4 component of amyloid precursor, NACP, SNCA, NACP, PARK1

Target/Specificity
This SNCA antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 92-125 amino acids from the C-terminal region of human SNCA.

Dilution
WB~~1:1000
IHC-P~~1:25
FC~~1:25
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SNCA Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

SNCA Antibody (C-term) - Protein Information

Name SNCA

Synonyms NACP, PARK1

Function Neuronal protein that plays several roles in synaptic activity such as regulation of synaptic vesicle trafficking and subsequent neurotransmitter release (PubMed:20798282, PubMed:26442590, PubMed:28288128, PubMed:30404828). Participates as a monomer in synaptic vesicle exocytosis by enhancing vesicle priming, fusion and dilation of exocytotic fusion pores (PubMed:28288128, PubMed:30404828). Mechanistically, acts by increasing local Ca(2+) release from microdomains which is essential for the enhancement of ATP-induced exocytosis (PubMed:30404828). Also acts as a molecular chaperone in its multimeric membrane-bound state, assisting in the folding of synaptic fusion components called SNAREs (Soluble NSF Attachment Protein REceptors) at presynaptic plasma membrane in conjunction with cysteine string protein-alpha/DNAJC5 (PubMed:20798282). This chaperone activity is important to sustain normal SNARE-complex assembly during aging (PubMed:20798282). Also plays a role in the regulation of the dopamine neurotransmission by associating with the dopamine transporter (DAT1) and thereby modulating its activity (PubMed:26442590).

Cellular Location
Cytoplasm. Membrane Nucleus Synapse. Secreted. Cell projection, axon {ECO:0000250|UniProtKB:O55042}. Note=Membrane-bound in dopaminergic neurons (PubMed:15282274). Expressed and colocalized with SEPTIN4 in dopaminergic axon terminals, especially at the varicosities (By similarity). {ECO:0000250|UniProtKB:O55042, ECO:0000269|PubMed:15282274}

Tissue Location
Highly expressed in presynaptic terminals in the central nervous system. Expressed principally in brain

SNCA Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SNCA Antibody (C-term) - Images

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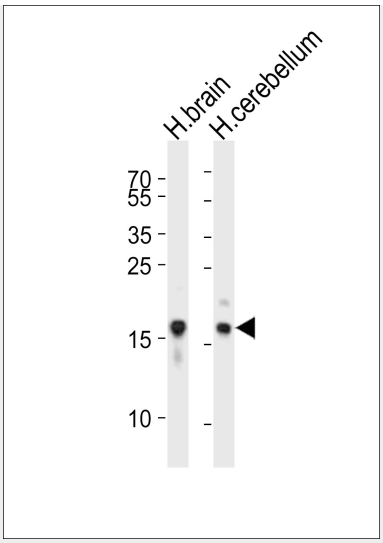
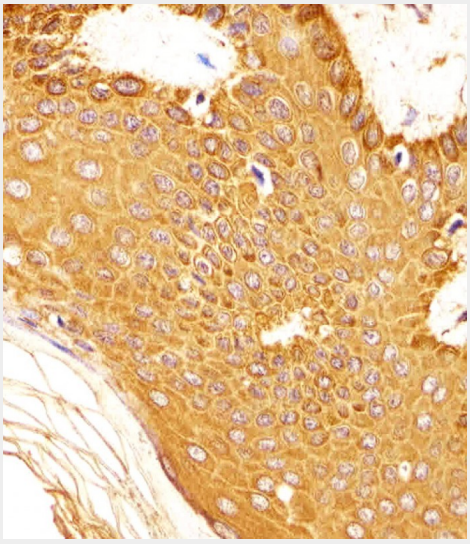


Western blot analysis of lysates from human brain, human cerebellum tissue lysatee (from left to right), using SNCA Antibody (C-term)(Cat. #AP21137a). AP21137a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.



AP21137a staining SNCA in Human skin tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

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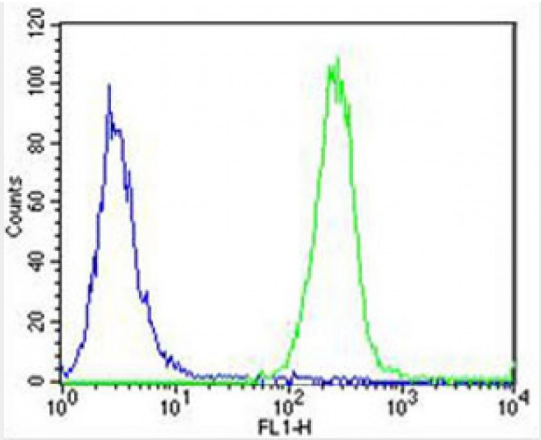

Overlay histogram showing SH-SY5Y cells stained with AP21137a (green line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP21137a, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (1583138) at 1/400 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

SNCA Antibody (C-term) - Background

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.

SNCA Antibody (C-term) - References

Ueda K.,et al.Proc. Natl. Acad. Sci. U.S.A. 90:11282-11286(1993).
Campion D.,et al.Genomics 26:254-257(1995).
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Touchman J.W.,et al.Genome Res. 11:78-86(2001).