

SNCA / Alpha-Synuclein Antibody (C-Terminus)

Rabbit Polyclonal Antibody Catalog # ALS17124

Specification

SNCA / Alpha-Synuclein Antibody (C-Terminus) - Product Information

Application IHC, IF, WB
Primary Accession P37840
Other Accession 6622

Reactivity Human, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Calculated MW 14460

SNCA / Alpha-Synuclein Antibody (C-Terminus) - Additional Information

Gene ID 6622

Other Names

SNCA, Alpha-synuclein, PARK4, PD1, Synuclein alpha-140, NACP, PARK1

Target/Specificity

SNCA antibody is human, mouse and rat reactive. At least three isoforms of SNCA are known to exist.

Reconstitution & Storage

PBS, 0.02% sodium azide. Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions

SNCA / Alpha-Synuclein Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

SNCA / Alpha-Synuclein Antibody (C-Terminus) - 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:28288128, PubMed:30404828, PubMed:20798282, PubMed:26442590). Participates as a monomer in synaptic vesicle exocytosis by enhancing vesicle priming, fusion and dilation of exocytotic fusion pores (PubMed:28288128, PubMed:<a href="http://www.uniprot.org/citations/30404828"



target="_blank">30404828). Mechanistically, acts by increasing local Ca(2+) release from microdomains which is essential for the enhancement of ATP-induced exocytosis (PubMed:30404828). Acts also 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 / Alpha-Synuclein Antibody (C-Terminus) - Protocols

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

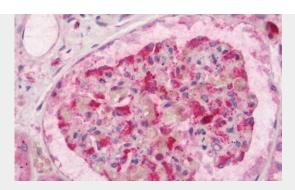
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SNCA / Alpha-Synuclein Antibody (C-Terminus) - Images

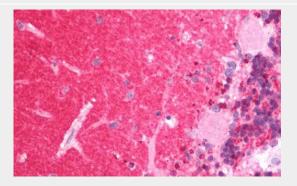


Immunohistochemistry of SNCA in rat brain tissue with SNCA antibody at 5 ug/ml.

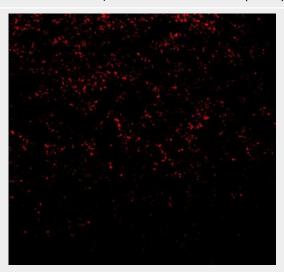




Human Kidney: Formalin-Fixed, Paraffin-Embedded (FFPE)

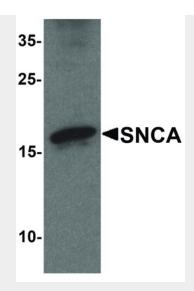


Human Brain, Cerebellum: Formalin-Fixed, Paraffin-Embedded (FFPE)



Immunofluorescence of SNCA in rat brain tissue with SNCA antibody at 20 ug/ml.





Western blot analysis of SNCA in mouse cerebellum tissue lysate with SNCA antibody at 1 ug/ml.

SNCA / Alpha-Synuclein Antibody (C-Terminus) - 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 / Alpha-Synuclein Antibody (C-Terminus) - 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). Ueda K.,et al.Biochem. Biophys. Res. Commun. 205:1366-1372(1994). Xia Y.,et al.Submitted (JAN-1996) to the EMBL/GenBank/DDBJ databases. Touchman J.W.,et al.Genome Res. 11:78-86(2001).