

# Synuclein- $\alpha$ (phospho Tyr125) Polyclonal Antibody

Catalog # AP68056

## Product Information

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Application	WB, IHC-P, IF, ICC, E
Primary Accession	<a href="#">P37840</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	14460

## Additional Information

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Gene ID	6622
Other Names	SNCA; NACP; PARK1; Alpha-synuclein; Non-A beta component of AD amyloid; Non-A4 component of amyloid precursor; NACP
Dilution	WB~~Immunohistochemistry: 1/100 - 1/300. ELISA: 1/20000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

## Protein Information

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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: <a href="#">20798282</a> , PubMed: <a href="#">26442590</a> , PubMed: <a href="#">28288128</a> , PubMed: <a href="#">30404828</a> ). Participates as a monomer in synaptic vesicle exocytosis by enhancing vesicle priming, fusion and dilation of exocytotic fusion pores (PubMed: <a href="#">28288128</a> , PubMed: <a href="#">30404828</a> ). Mechanistically, acts by increasing local Ca(2+) release from microdomains which is essential for the enhancement of ATP-induced exocytosis (PubMed: <a href="#">30404828</a> ). 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: <a href="#">20798282</a> ). This chaperone activity is important to sustain normal SNARE-complex assembly during aging (PubMed: <a href="#">20798282</a> ). 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}

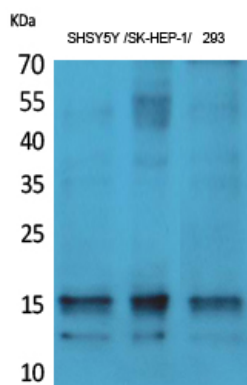
#### Tissue Location

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

## Background

Neuronal protein that plays several roles in synaptic activity such as regulation of synaptic vesicle trafficking and subsequent neurotransmitter release. 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](#)). 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](#)). Plays also a role in the regulation of the dopamine neurotransmission by associating with the dopamine transporter (DAT1) and thereby modulating its activity (PubMed:[26442590](#)).

## Images



Western Blot analysis of various cells using Phospho-Synuclein-α (Y125) Polyclonal Antibody

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