

**Phospho Alpha-synuclein (Tyr125) Antibody**  
**Catalog # ABV11950****Specification**

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**Phospho Alpha-synuclein (Tyr125) Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P37840</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Isotype	Rabbit IgG
Calculated MW	14460

**Phospho Alpha-synuclein (Tyr125) Antibody - Additional Information****Gene ID** 6622

Positive Control	WB; HeLa, mouse brain, rat brain lysate, IHC; human brain tissue
Application & Usage	WB; 1:500 - 1:2000, IHC; 1:50 - 1:200

**Other Names**

NACP; PARK1; Alpha-synuclein; Non-A beta component of AD amyloid; Non-A4 component of amyloid precursor; NACP

**Target/Specificity**

SNCA

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Handling**

The antibody solution should be gently mixed before use

**Reconstitution & Storage**

-20°C

**Background Descriptions****Precautions**

Phospho Alpha-synuclein (Tyr125) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Phospho Alpha-synuclein (Tyr125) Antibody - 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:<a href="http://www.uniprot.org/citations/28288128" target="\_blank">28288128</a>, PubMed:<a href="http://www.uniprot.org/citations/30404828" target="\_blank">30404828</a>, PubMed:<a href="http://www.uniprot.org/citations/20798282" target="\_blank">20798282</a>, PubMed:<a href="http://www.uniprot.org/citations/26442590" target="\_blank">26442590</a>). Participates as a monomer in synaptic vesicle exocytosis by enhancing vesicle priming, fusion and dilation of exocytotic fusion pores (PubMed:<a href="http://www.uniprot.org/citations/28288128" target="\_blank">28288128</a>, PubMed:<a href="http://www.uniprot.org/citations/30404828" target="\_blank">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="http://www.uniprot.org/citations/30404828" target="\_blank">30404828</a>). 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:<a href="http://www.uniprot.org/citations/20798282" target="\_blank">20798282</a>). This chaperone activity is important to sustain normal SNARE-complex assembly during aging (PubMed:<a href="http://www.uniprot.org/citations/20798282" target="\_blank">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:<a href="http://www.uniprot.org/citations/26442590" target="\_blank">26442590</a>).

**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}

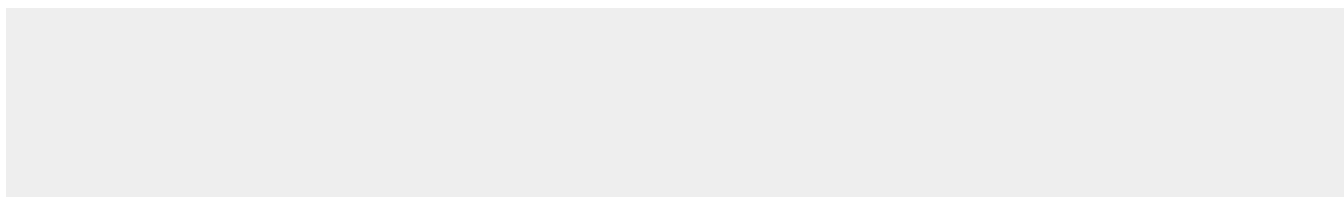
**Tissue Location**

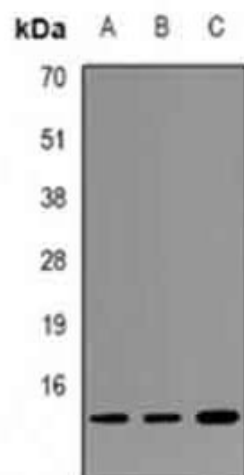
Highly expressed in presynaptic terminals in the central nervous system. Expressed principally in brain

**Phospho Alpha-synuclein (Tyr125) Antibody - Protocols**

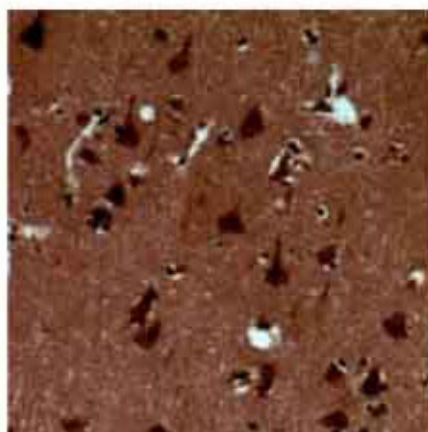
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Phospho Alpha-synuclein (Tyr125) Antibody - Images**



WB analysis of Alphasynuclein (pY125) expression in HeLa (A); mouse brain (B); rat brain (C) whole cell lysates



Immunohistochemical analysis of Alpha-synuclein (pY125) staining in human brain formalin fixed paraffin embedded tissue section.