

**Phospho-alpha Synuclein (Y125) Antibody**  
Rabbit mAb  
Catalog # AP93275

**Specification**

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**Phospho-alpha Synuclein (Y125) Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P37840</a>
Clonality	Monoclonal
<b>Other Names</b>	
Alpha synuclein; alphaSYN; NACP; PARK1; PARK4; Parkinson disease familial 1; SNCA; SYN; Synuclein alpha 140;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	14460 Da

**Phospho-alpha Synuclein (Y125) Antibody - Additional Information**

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Phospho-alpha Synuclein (Y125)
Description	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.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

**Phospho-alpha Synuclein (Y125) 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: [20798282](http://www.uniprot.org/citations/20798282), PubMed: [26442590](http://www.uniprot.org/citations/26442590), PubMed: [28288128](http://www.uniprot.org/citations/28288128), PubMed: [30404828](http://www.uniprot.org/citations/30404828)). 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 (Y125) 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 (Y125) Antibody - Images