

### Phospho-alpha Synuclein (Y125) Antibody

Rabbit mAb

Catalog # AP93275

## **Specification**

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

Application WB
Primary Accession P37840
Clonality Monoclonal

**Other Names** 

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

Dilution WB~~1:1000

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human

Phospho-alpha Synuclein (Y125)
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**

Description

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

 $href="http://www.uniprot.org/citations/20798282" target="\_blank">20798282</a>, PubMed:<a href="http://www.uniprot.org/citations/26442590" target="_blank">26442590</a>, PubMed:<a href="http://www.uniprot.org/citations/28288128" target="_blank">28288128</a>, PubMed:<a href="http://www.uniprot.org/citations/30404828" target="_blank">30404828</a>). Participates$ 





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>). 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="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 Cytomety
- Cell Culture

Phospho-alpha Synuclein (Y125) Antibody - Images