

**Phospho-alpha Synuclein (S129) Antibody**  
**Rabbit mAb**  
**Catalog # AP90365****Specification****Phospho-alpha Synuclein (S129) Antibody - Product Information**

Application	WB, ICC
Primary Accession	<a href="#">P37840</a>
Reactivity	Rat
Clonality	Monoclonal

**Other Names**

NACP; Non-A beta component of AD amyloid; Non-A4 component of amyloid precursor; SYN; SYUA; alpha-synuclein; PARK1; PARK4; PD1; SNCA;

Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	14460 Da

**Phospho-alpha Synuclein (S129) Antibody - Additional Information**

Dilution	WB~~1:1000 ICC~~N/A
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Phospho-alpha Synuclein (S129)
Description	Alpha-synuclein is a member of the synuclein family, which also includes beta- and gamma-synuclein. Synucleins are abundantly expressed in the brain and alpha- and beta-synuclein inhibit phospholipase D2 selectively.
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 (S129) 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/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/28288128" target="\_blank">28288128</a>, PubMed:<a href="http://www.uniprot.org/citations/28288128" target="\_blank">28288128</a>)

[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:[28288128](http://www.uniprot.org/citations/28288128), PubMed:[30404828](http://www.uniprot.org/citations/30404828)). Mechanistically, acts by increasing local Ca(2+) release from microdomains which is essential for the enhancement of ATP-induced exocytosis (PubMed:[30404828](http://www.uniprot.org/citations/30404828)). 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:[20798282](http://www.uniprot.org/citations/20798282)). This chaperone activity is important to sustain normal SNARE-complex assembly during aging (PubMed:[20798282](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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

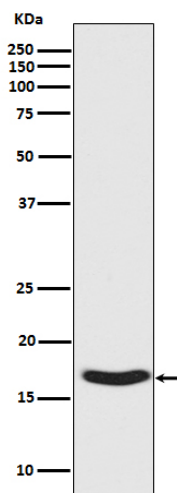
### Phospho-alpha Synuclein (S129) Antibody - Protocols

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 (S129) Antibody - Images





Western blot analysis of Synuclein phosphorylation expression in Human fetal brain lysate.