

**Phospho-alpha Synuclein (S129) Antibody**  
**Rabbit mAb**  
**Catalog # AP90244****Specification**

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

Application	WB, IHC, ICC
Primary Accession	<a href="#">P37840</a>
Clonality	Monoclonal
<b>Other Names</b>	
Alpha-synuclein; NACP; non A-beta component of AD amyloid; PARK1; PARK4; PD1; SNCA;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	14460 Da

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

Dilution	WB~~1:1000 IHC~~1:100~500 ICC~~N/A
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Phospho-alpha Synuclein (S129)
Description	SNCA a member of the synuclein family. Abundantly expressed in the brain. Inhibits phospholipase D2 selectively. May integrate presynaptic signaling and membrane trafficking. Implicated in the pathogenesis of Parkinson's disease. A major component of amyloid plaques in the brains of patients with Alzheimer's disease. Two alternatively spliced isoforms transcripts have been identified.
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:&lt;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**

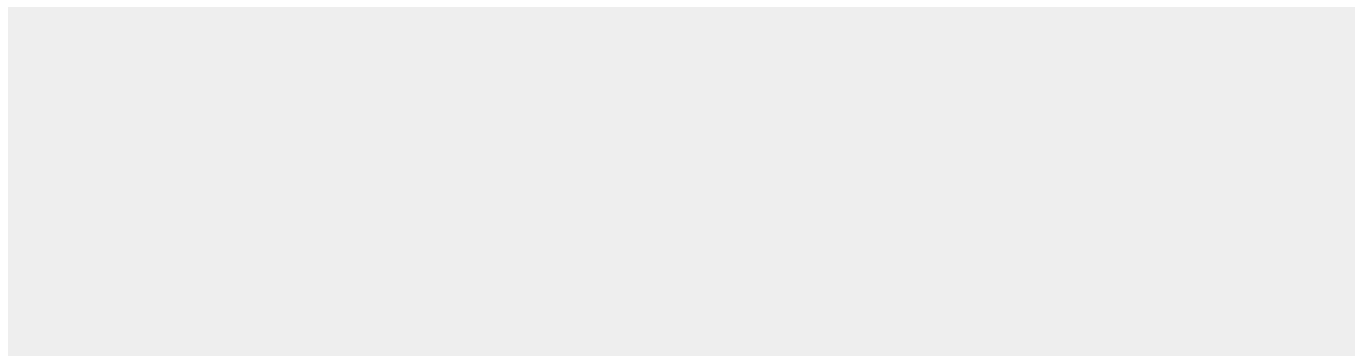
Highly expressed in presynaptic terminals in the central nervous system. Expressed principally in brain

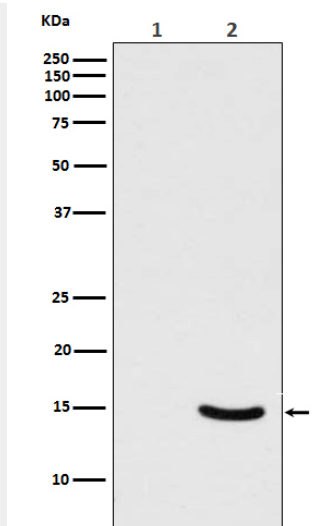
### **Phospho-alpha Synuclein (S129) Antibody - Protocols**

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 Phospho-alpha Synuclein (Ser129) expression in (1) 293T cell lysate; (2) 293T cell lysate transfected with Polo-Like Kinase 2 and alpha Synuclein.