

Phospho-alpha Synuclein (Ser129) Rabbit mAb

Catalog # AP78537

Product Information

Application WB, IHC-P, IF, ICC

Primary Accession
Reactivity
Human
Rabbit

Clonality Monoclonal Antibody

Isotype IgG

Conjugate Unconjugated

Immunogen A synthesized peptide derived from human Phospho-alpha Synuclein (S129)

Purification Affinity Chromatography

Calculated MW 14460

Additional Information

Gene ID 6622

Other Names SNCA

Dilution WB~~1/500-1/1000 IHC-P~~N/A IF~~1:50~200 ICC~~N/A

Format Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02%

sodium azide and 50% glycerol.

Storage Store at 4°C short term. Aliquot and store at -20°C long term. Avoid

freeze/thaw cycles.

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: <u>20798282</u>, PubMed: <u>26442590</u>, PubMed: <u>28288128</u>,

PubMed:<u>30404828</u>). Participates as a monomer in synaptic vesicle exocytosis by enhancing vesicle priming, fusion and dilation of exocytotic fusion pores (PubMed:<u>28288128</u>, PubMed:<u>30404828</u>). Mechanistically, acts by increasing

local Ca(2+) release from microdomains which is essential for the

enhancement of ATP-induced exocytosis (PubMed: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).

This chaperone activity is important to sustain normal SNARE-complex assembly during aging (PubMed:<u>20798282</u>). Also plays a role in the regulation of the dopamine neurotransmission by associating with the dopamine transporter (DAT1) and thereby modulating its activity (PubMed:<u>26442590</u>).

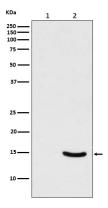
Cellular Location

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

Images



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