

alpha Synuclein Rabbit mAb

Catalog # AP75067

Product Information

Application WB, IHC-P, IP
Primary Accession P37840
Reactivity Human, Rat
Rabbit

Clonality Monoclonal Antibody

Calculated MW 14460

Additional Information

Gene ID 6622

Other Names SNCA

Dilution WB~~1/500-1/1000 IHC-P~~N/A IP~~N/A

Format 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and

0.05% BSA.

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, PubMed:26442590, PubMed:28288128,

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: 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: <u>26442590</u>).

Cellular Location Cytoplasm. Membrane Nucleus Synapse. Secreted. Cell projection, axon

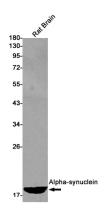
{ECO:0000250 | UniProtKB:O55042}. Note=Membrane-bound in dopaminergic

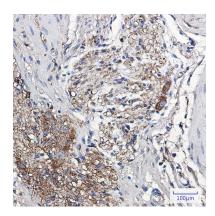
neurons (PubMed:15282274). Expressed and colocalized with SEPTIN4 in dopaminergic axon terminals, especially at the varicosities (By similarity). {ECO:0000250|UniProtKB:055042, ECO:0000269|PubMed:15282274}

Tissue Location

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

Images





Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.