

ARG24156 anti-alpha Synuclein antibody [3C11] (APC)

Package: 50 µg
Store at: -20°C

Summary

Product Description	APC-conjugated Mouse Monoclonal antibody [3C11] recognizes alpha Synuclein
Tested Reactivity	Hu, Ms, Rat
Tested Application	ELISA, ICC/IF, IHC-P, WB
Host	Mouse
Clonality	Monoclonal
Clone	3C11
Isotype	IgG1
Target Name	alpha Synuclein
Species	Human
Immunogen	Monomer of Human alpha synuclein
Conjugation	APC
Alternate Names	Non-A4 component of amyloid precursor; Alpha-synuclein; PARK4; PARK1; PD1; NACP; Non-A beta component of AD amyloid

Application Instructions

Application table	Application	Dilution
	ELISA	1:1000
	ICC/IF	1:100
	IHC-P	Assay-dependent
	WB	1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	~ 17 kDa	

Properties

Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS (pH 7.4), 50% Glycerol and 0.09% Sodium azide
Preservative	0.09% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	SNCA
Gene Full Name	synuclein, alpha (non A4 component of amyloid precursor)
Background	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. SNCA may serve to integrate presynaptic signaling and membrane trafficking. Defects in SNCA have been implicated in the pathogenesis of Parkinson disease. SNCA peptides are a major component of amyloid plaques in the brains of patients with Alzheimer's disease. Alternatively spliced transcripts encoding different isoforms have been identified for this gene. [provided by RefSeq, Feb 2016]
Function	Neuronal protein that plays several roles in synaptic activity such as regulation of synaptic vesicle trafficking and subsequent neurotransmitter release. Participates as a monomer in synaptic vesicle exocytosis by enhancing vesicle priming, fusion and dilation of exocytotic fusion pores (PubMed:28288128, PubMed:30404828). Mechanistically, acts by increasing local Ca(2+) release from microdomains which is essential for the enhancement of ATP-induced exocytosis (PubMed:30404828). Acts also 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). Plays also a role in the regulation of the dopamine neurotransmission by associating with the dopamine transporter (DAT1) and thereby modulating its activity (PubMed:26442590). [UniProt]
Highlight	Related products: anti-alpha Synuclein antibody [3C11]
Calculated Mw	14 kDa
PTM	Phosphorylated, predominantly on serine residues. Phosphorylation by CK1 appears to occur on residues distinct from the residue phosphorylated by other kinases. Phosphorylation of Ser-129 is selective and extensive in synucleinopathy lesions. In vitro, phosphorylation at Ser-129 promoted insoluble fibril formation. Phosphorylated on Tyr-125 by a PTK2B-dependent pathway upon osmotic stress. Hallmark lesions of neurodegenerative synucleinopathies contain alpha-synuclein that is modified by nitration of tyrosine residues and possibly by dityrosine cross-linking to generated stable oligomers. Ubiquitinated. The predominant conjugate is the diubiquitinated form (By similarity). Acetylation at Met-1 seems to be important for proper folding and native oligomeric structure. [UniProt]
Cellular Localization	Cytoplasm, cytosol. Membrane. Nucleus. Cell junction, synapse. Secreted. Note=Membrane-bound in dopaminergic neurons. [UniProt]