

Alpha-synuclein Antibody (internal region)
Peptide-affinity purified goat antibody
Catalog # AF3845a**Specification**

Alpha-synuclein Antibody (internal region) - Product Information

Application	WB, E
Primary Accession	P37840
Other Accession	NP_009292.1 , NP_000336.1 , 6622 , 20617 (mouse), 29219 (rat)
Reactivity	Human, Mouse
Predicted	Rat, Pig, Dog
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	14460

Alpha-synuclein Antibody (internal region) - Additional Information**Gene ID** 6622**Other Names**

Alpha-synuclein, Non-A beta component of AD amyloid, Non-A4 component of amyloid precursor, NACP, SNCA, NACP, PARK1

Dilution

WB~~1:1000

E~~N/A

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Alpha-synuclein Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

Alpha-synuclein Antibody (internal region) - 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:30404828). 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). 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: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

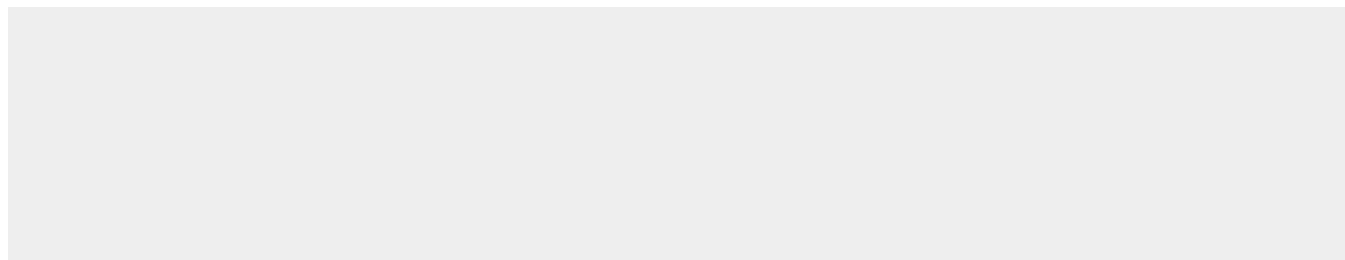
Highly expressed in presynaptic terminals in the central nervous system. Expressed principally in brain

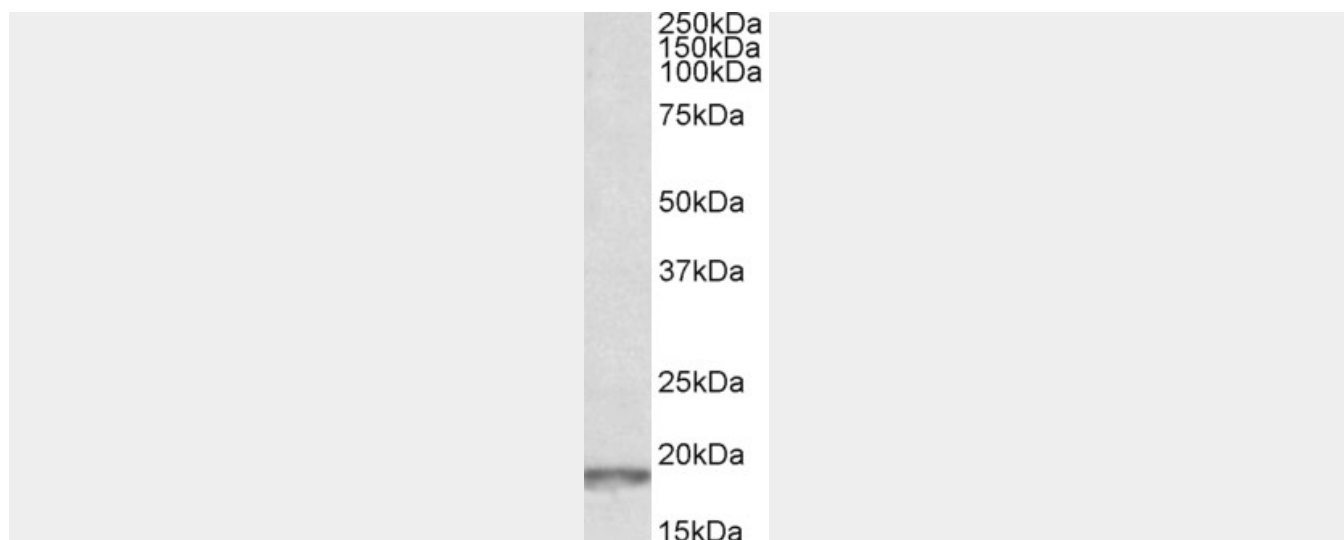
Alpha-synuclein Antibody (internal region) - Protocols

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](#)

Alpha-synuclein Antibody (internal region) - Images





AF3846a (0.1 µg/ml) staining of fetal Mouse Brain lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Alpha-synuclein Antibody (internal region) - Background

This antibody is expected to recognize both reported isoforms (NP_009292.1; NP_000336.1). Reported variants represent identical protein: NP_000336.1, NP_001139527.1, NP_001139526.1

Alpha-synuclein Antibody (internal region) - References

Mimicking phosphorylation at serine 87 inhibits the aggregation of human α -synuclein and protects against its toxicity in a rat model of Parkinson's disease. Oueslati A, Paleologou KE, Schneider BL, Aebischer P, Lashuel HA. J Neurosci. 2012 Feb 1;32(5):1536-44. PMID: 22302797