10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Alpha-synuclein (pY133) Antibody

Rabbit polyclonal antibody to Alpha-synuclein (pY133)
Catalog # AP60514

Specification

Anti-Alpha-synuclein (pY133) Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P37840
Other Accession	O55042
Reactivity	**Human, Mouse, Rat, Rabbit, Monkey, Pig, Bovine, SARS**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**14460**

Anti-Alpha-synuclein (pY133) Antibody - Additional Information

Gene ID 6622

Other Names
NACP; PARK1; Alpha-synuclein; Non-A beta component of AD amyloid; Non-A4 component of amyloid precursor; NACP

Target/Specificity
Recognizes endogenous levels of Alpha-synuclein (pY133) protein.

Dilution
WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200)
IHC~~1:100~500

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-Alpha-synuclein (pY133) 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:20798282, PubMed:26442590, PubMed:<a

href="http://www.uniprot.org/citations/28288128" target="_blank">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

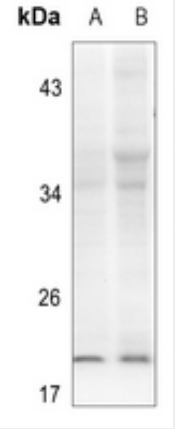
Anti-Alpha-synuclein (pY133) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

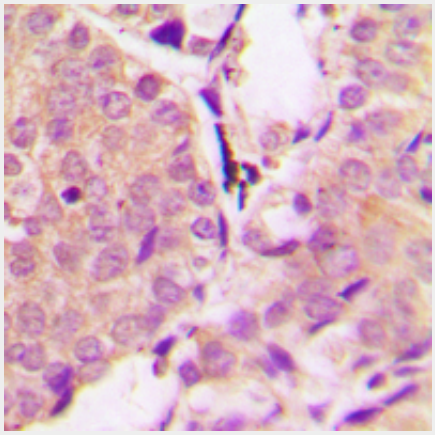
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Alpha-synuclein (pY133) Antibody - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Western blot analysis of Alpha-synuclein (pY133) expression in mouse brain (A), rat brain (B) whole cell lysates.



Immunohistochemical analysis of Alpha-synuclein (pY133) staining in human prostate cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Anti-Alpha-synuclein (pY133) Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human Alpha-synuclein (pY133). The exact sequence is proprietary.