

Product datasheet for **TA336747**

alpha Synuclein (SNCA) Mouse Monoclonal Antibody [Clone ID: 24.8]

Product data:

Product Type:	Primary Antibodies
Clone Name:	24.8
Applications:	FC, WB
Recommended Dilution:	WB: 1:500-1:1500, FC: 1 ug per million cells, IF: , IHC: 1:200-1:500, IHC-F: , IHC-P: 1:200-1:500
Reactivity:	Human, Mouse
Host:	Mouse
Isotype:	IgG1, kappa
Clonality:	Monoclonal
Immunogen:	Nitrated human alpha-Synuclein [UniProt# P37840]
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	14 kDa
Gene Name:	synuclein alpha
Database Link:	NP_000336 Entrez Gene 20617 Mouse Entrez Gene 6622 Human P37840



[View online »](#)

Background:

alpha-Synuclein (SNCA, NACP or PARK-1) is a neuronal protein normally localized to presynaptic terminals and has been involved in processes such as dopamine biosynthesis, synaptic plasticity, and vesicle dynamics. SNCA-VAMP2 direct binding promotes SNARE complex assembly through a nonclassical chaperone activity and regulation of SNARE complex's assembly/disassembly is essential for efficient neurotransmission. CSP-alpha, a presynaptic protein also promotes SNARE complex assembly via formation of chaperone complex with heat shock cognate 70 (Hsc70) and small glutamine-rich protein SGT (CSP-alpha-Hsc70-SGT complex). Interestingly, the CSP-alpha-knockout mice depicted rapidly progressive neurodegeneration followed by premature death which was counteracted by transgenic expression of SNCA. Overexpressed SNCA indirectly inhibited SNARE-mediated exocytosis by sequestering arachidonic acid, which upregulates syntaxin and enhances its engagement with SNARE complex. Tight regulation of subcellular level and distribution of SNCA is indispensable for the intrinsic functions of neuronal cells and genetic alterations of SNCA resulting in aberrant polymerization into fibrils are associated with several neurodegenerative diseases (synucleinopathies) including Parkinson disease type -1 (PARK1) - 4 (PARK4) as well as dementia Lewy body (DLB).

Synonyms:

NACP; PARK1; PARK4; PD1

Note:

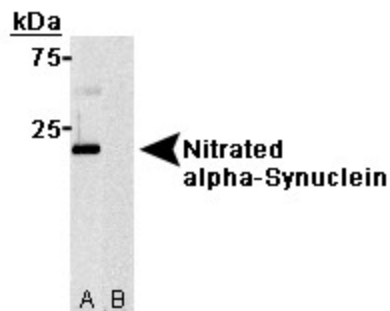
This alpha-Synuclein antibody is useful for for Flow Cytometry, Immunohistochemistry paraffin embedded sections and Western blot, where a band is seen at ~14 kDa. Immunohistochemistry-Frozen was reported in scientific literature. Use in Immunofluorescence was reported in the scientific literature (PMID: 22033456).

Protein Families:

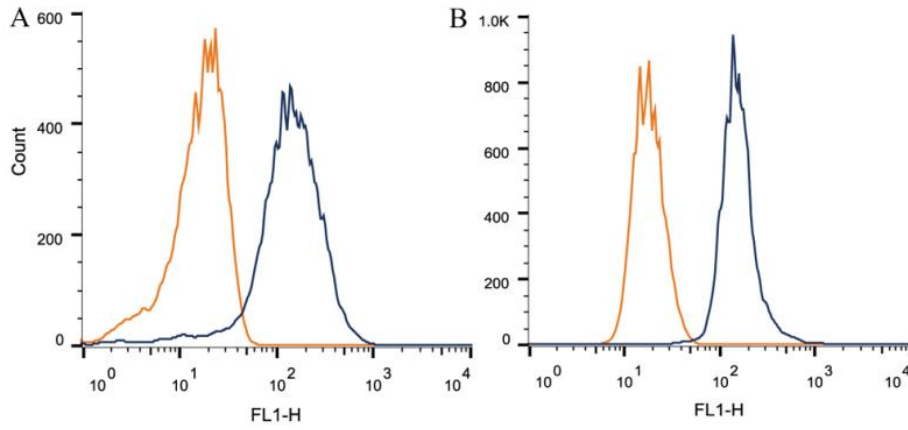
Druggable Genome

Protein Pathways:

Alzheimer's disease, Parkinson's disease

Product images:

Western Blot: alpha-Synuclein [Nitrate Tyr125, Nitrate Tyr133] Antibody (24.8) TA336747 - Western blot of (A) Nitrated alpha-Synuclein protein and (B) non-nitrated alpha-Synuclein protein.



Flow Cytometry: alpha-Synuclein [Nitrate Tyr125, Nitrate Tyr133] Antibody (24.8) TA336747 - Intracellular flow cytometric staining of 1 x 10⁶ CHO (A) and HeLa (B) cells using alpha-Synuclein [Nitrate Tyr125, Nitrate Tyr133] antibody (dark blue). Isotyp