

**SNCA / Alpha-Synuclein Antibody (aa1-140, clone 5C2)**  
**Mouse Monoclonal Antibody**  
**Catalog # ALS12539****Specification**

---

**SNCA / Alpha-Synuclein Antibody (aa1-140, clone 5C2) - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">P37840</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Calculated MW	<b>14kDa KDa</b>

**SNCA / Alpha-Synuclein Antibody (aa1-140, clone 5C2) - 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

**Target/Specificity**

NAC domain of alpha-synuclein (aa 61-95)

**Reconstitution & Storage**

Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

**Precautions**

SNCA / Alpha-Synuclein Antibody (aa1-140, clone 5C2) is for research use only and not for use in diagnostic or therapeutic procedures.

**SNCA / Alpha-Synuclein Antibody (aa1-140, clone 5C2) - 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](http://www.uniprot.org/citations/20798282), PubMed: [26442590](http://www.uniprot.org/citations/26442590), PubMed: [28288128](http://www.uniprot.org/citations/28288128), PubMed: [30404828](http://www.uniprot.org/citations/30404828)). Participates as a monomer in synaptic vesicle exocytosis by enhancing vesicle priming, fusion and dilation of exocytotic fusion pores (PubMed: [28288128](http://www.uniprot.org/citations/28288128), PubMed: [30404828](http://www.uniprot.org/citations/30404828)). Mechanistically, acts by increasing local Ca(2+) release from

microdomains which is essential for the enhancement of ATP-induced exocytosis (PubMed:<a href="http://www.uniprot.org/citations/30404828" target="\_blank">30404828</a>). 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:<a href="http://www.uniprot.org/citations/20798282" target="\_blank">20798282</a>). This chaperone activity is important to sustain normal SNARE-complex assembly during aging (PubMed:<a href="http://www.uniprot.org/citations/20798282" target="\_blank">20798282</a>). Also plays a role in the regulation of the dopamine neurotransmission by associating with the dopamine transporter (DAT1) and thereby modulating its activity (PubMed:<a href="http://www.uniprot.org/citations/26442590" target="\_blank">26442590</a>).

#### **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

#### **Volume**

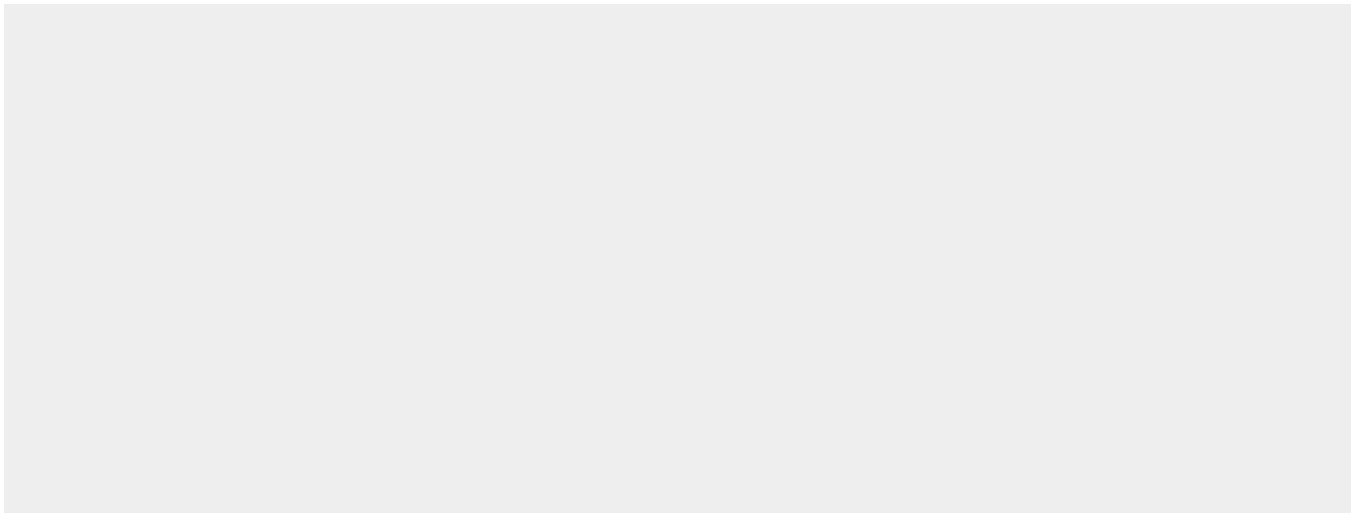
50 µl

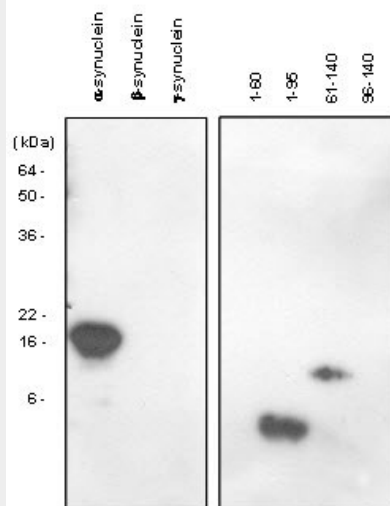
### **SNCA / Alpha-Synuclein Antibody (aa1-140, clone 5C2) - Protocols**

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](#)

### **SNCA / Alpha-Synuclein Antibody (aa1-140, clone 5C2) - Images**





The recombinant human synuclein family ( $\alpha$ -,  $\beta$ - and  $\gamma$ -) and  $\alpha$ -synuclein domains (1-60, 1-95, ...

### **SNCA / Alpha-Synuclein Antibody (aa1-140, clone 5C2) - Background**

May be involved in the regulation of dopamine release and transport. Induces fibrillization of microtubule-associated protein tau. Reduces neuronal responsiveness to various apoptotic stimuli, leading to a decreased caspase-3 activation.

### **SNCA / Alpha-Synuclein Antibody (aa1-140, clone 5C2) - References**

- Ueda K., et al. Proc. Natl. Acad. Sci. U.S.A. 90:11282-11286(1993).
- Campion D., et al. Genomics 26:254-257(1995).
- Ueda K., et al. Biochem. Biophys. Res. Commun. 205:1366-1372(1994).
- Xia Y., et al. Submitted (JAN-1996) to the EMBL/GenBank/DDBJ databases.
- Touchman J.W., et al. Genome Res. 11:78-86(2001).