

# Recombinant Human SNCA Protein

**Cat. No.** SNCA-02H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Human Recombinant Alpha Synuclein Oligomers (Dopamine HCL Stabilized) without tag was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Description</b>      | 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. |
| <b>Purity</b>           | > 95% pure using SDS-PAGE analysis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Applications</b>     | WB, SDS-PAGE, In vivo assay, In vitro assay                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Storage</b>          | At -80 centigrade.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Storage Buffer</b>   | PBS, pH 7.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Shipping</b>         | Dry Ice.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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Shipping note: Product will be shipped separately from other products purchased in the same order.

## GENE INFORMATION

**Gene Name** SNCA synuclein alpha [ Homo sapiens (human) ]

**Official Symbol** SNCA

**Synonyms** SNCA; synuclein alpha; PD1; NACP; PARK1; PARK4; alpha-synuclein; I+/- synuclein; non A-beta component of AD amyloid; synuclein alpha-140; synuclein, alpha (non A4 component of amyloid precursor); truncated alpha synuclein

**Gene ID** 6622

**mRNA Refseq** NM\_000345

**Protein Refseq** NP\_000336

**MIM** 163890

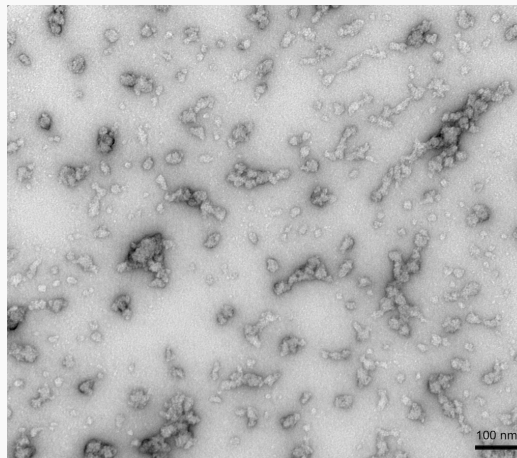
**UniProt ID** P37840

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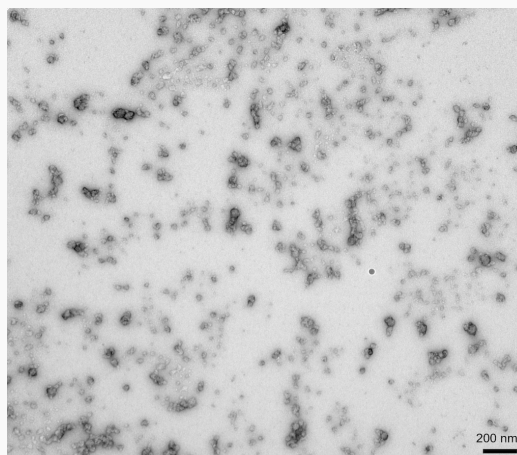
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Synuclein Oligomers  
(Dopamine HCL  
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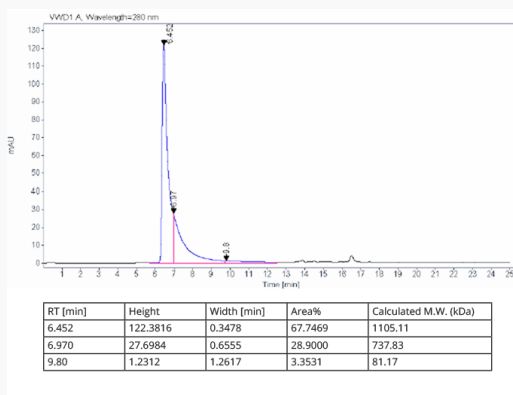


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### HPLC of Alpha Synuclein Protein Oligomers ran down a size exclusion column.



Wavelength: 280 nm.

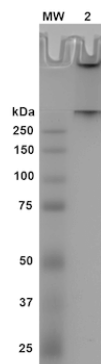
### Evaluation of a-syn toxicity on primary mouse cortical neurons.

Lactate dehydrogenase (LDH) is a soluble enzyme present in the cytosol that is released upon cell death. Toxicity was assessed with an LDH assay and displayed as % of vehicle control (VC). Data are presented as bar graphs and standard deviation. For statistical analysis One-way ANOVA followed by Bonferroni post-hoc test (vs VC) was used. \*\*\*  $p < 0.001$ . Treatment with dopamine-stabilized oligomers was accompanied by a significant increase of LDH release.

### Evaluation of a-syn toxicity on primary mouse cortical neurons.

Mitochondrial dehydrogenase activity, which reduces yellow MTT to dark blue formazan crystals, is a reaction that is catalyzed in living cells. Cell viability was assessed with an MTT assay and displayed as % of vehicle control (VC). Data are presented as bar graphs and standard deviation. For statistical analysis One-way ANOVA followed by Bonferroni post-hoc test (vs VC) was used. \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Both types of PFFs led to a decrease of viability of approximately 25% independent of sonication. Dopamine-stabilized oligomers led to the strongest decrease of viability.

**Coomassie gel stain  
of human dopamine-  
stabilized alpha  
synuclein oligomers.**



Load: 2  $\mu$ g

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