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## Produktinformation



Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# Alpha Synuclein Pre-formed Fibrils: Biotinylated (C- terminus)



Discovery through Partnership | Excellence through Quality

Human Recombinant Alpha Synuclein Pre-formed Fibrils: Biotinylated (C-terminus)  
Catalog No. SPR-508

## Product Name

Alpha Synuclein Pre-formed Fibrils: Biotinylated (C-terminus)

## Description

Human Recombinant Alpha Synuclein Pre-formed Fibrils: Biotinylated (C-terminus)

## Applications

WB, SDS PAGE, In vitro Assay, In vivo Assay

## Concentration

2 mg/ml or 5 mg/ml

## Conjugates

C-terminal 15 amino acid tag: biotinylated

## Nature

Recombinant

## Species

Human

## Expression System

E. coli

## Amino Acid Sequence

MDVFMKGLSKAKEGVVAAAETKQGVAAEAGKTKEGVLYVGSKTKEGVVH GVATVAEKTKEQVTNVGGAVVTGVTAVAQ  
KTVEGAGSIAAATGFVKKDQL GKNEEGAPQEGILEDMPVDPDNEAYEMPSEEGYQDYEP EAGLNDIFEAQK IEWHE

## Purity

> 95% based on SDS-PAGE and nanodrop analysis.

## Other Resources

Sonication Protocol

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**Protein Length**

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155 aa

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**Protein Size**

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16.27 kDa

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**Field Of Use**

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Not for use in humans. Not for use in diagnostics or therapeutics. For in vitro research use only.

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**Properties**

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**Storage Buffer**

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PBS pH 7.4

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**Storage Temperature**

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-80°C

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**Shipping Temperature**

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

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**Purification**

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Ion-exchange Purified

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**Cite This Product**

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Human Recombinant Alpha Synuclein Pre-formed Fibrils: Biotinylated (C-terminus) (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SPR-508)

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**Certificate Of Analysis**

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Protein certified > 95% pure via SDS-PAGE and nanodrop analysis. Low endotoxin (< 5 EU/mL) at 2 mg/mL.

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**Other Relevant Information**

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For best results, sonicate immediately prior to use. Refer to the Neurodegenerative Protein Handling Instructions on our website, or the product datasheet for further information.

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**Biological Description**

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**Alternative Names**

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Alpha synuclein, Alpha-synuclein pre-formed fibril, Alpha synuclein protein PFF, Alpha synuclein PFF, Alpha-synuclein protein, Non-A beta component of AD amyloid protein, Non-A4 component of amyloid precursor

protein, NACP protein, SNCA protein, NACP protein, PARK1 protein, SYN protein, Parkinson disease familial 1 Protein

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## Research Areas

Alzheimer's Disease, Neurodegeneration, Neuroscience, Parkinson's Disease, Synuclein, Tangles & Tau, Multiple System Atrophy

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## Swiss Prot

P37840

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## Scientific Background

A 15 amino acid tag on the C-terminal tail of Alpha Synuclein facilitates site-specific covalent biotinylation (1). Biotinylation of purified alpha synuclein allows for many biological applications, such as monitoring and detection using streptavidin-based conjugates (1, 2, 3). Our biotinylated monomers are also used to generate pre-formed fibrils in-vitro.

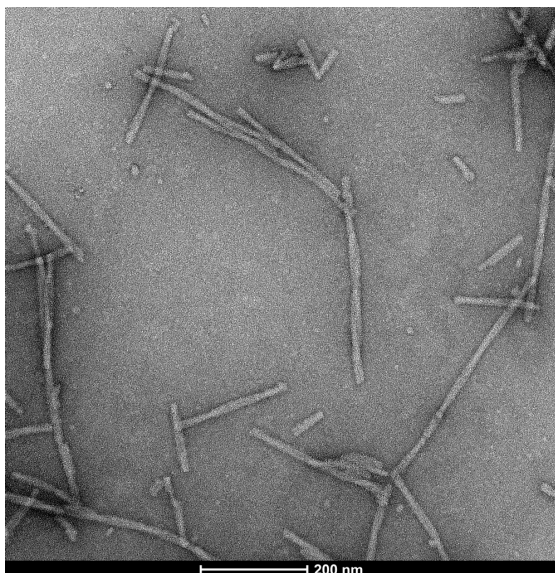
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## References

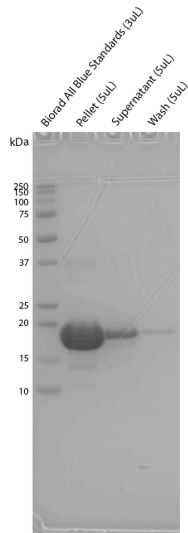
1. Fairhead & Howarth. 2015. Site-specific biotinylation of purified proteins using BirA. *Methods in Molecular Biology*. DOI: 10.1007/978-1-4939-2272-7\_12
2. Hallacli et al. 2022. The Parkinson's disease protein alpha synuclein is a modulator of Processing-bodies and mRNA stability. *Cell*. DOI: 10.1016/j.cell.2022.05.008
3. Li et al. 2019. Naturally occurring antibodies isolated from PD patients inhibit synuclein seeding in vitro and recognize Lewy pathology. *Acta neuropathologica*. DOI: 10.1007/s00401-019-01974-5.

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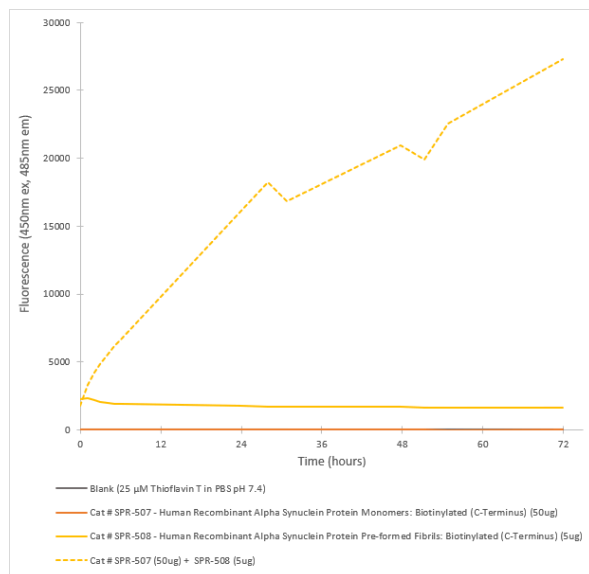
## Product Images



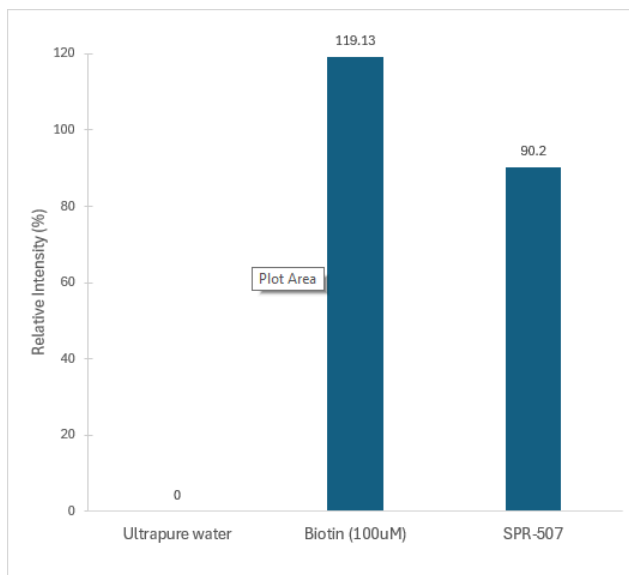
Representative TEM image of Alpha Synuclein Pre-formed Fibrils: Biotinylated (C-Terminus), 200nm scale. Negative stain transmission electron microscopy images of SPR-508 acquired at 80 Kv on carbon coated 400 mesh copper grids using phosphotungstic acid and uranyl acetate stain.



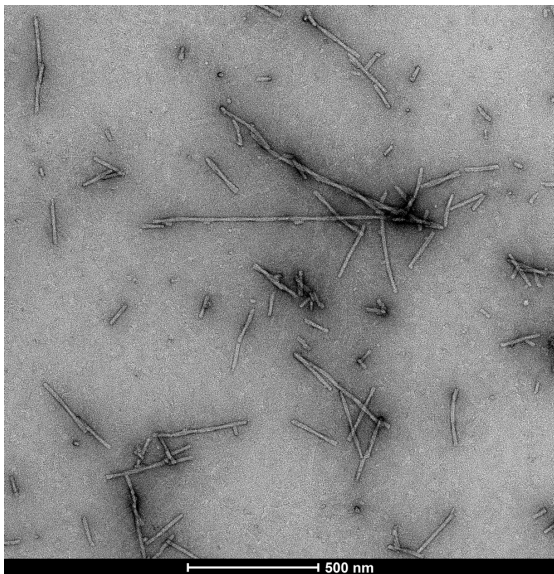
Sedimentation assay on Alpha Synuclein Pre-formed Fibrils: Biotinylated (C-Terminus). Samples were spun down at 15,000 x g, washed, and then spun down again. Fibril samples are prepared in denaturing conditions prior to running on the gel. SDS-PAGE analysis on a 12% Bis-Tris gel shows that the majority of the fibril is insoluble.



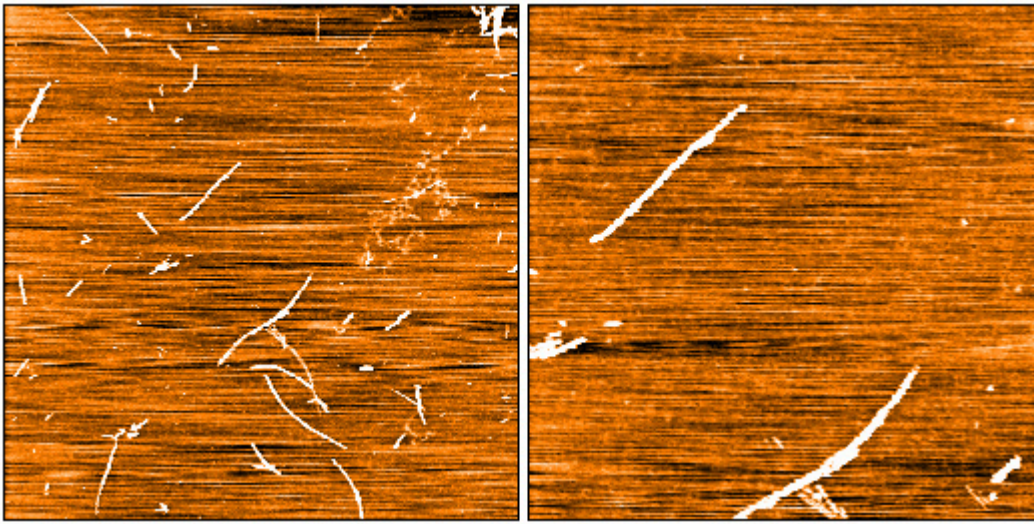
In vitro seeding activity of Alpha Synuclein Pre-formed Fibrils: Biotinylated (C-Terminus) in ThT assay. Alpha Synuclein Pre-formed Fibrils: Biotinylated (C-Terminus) (SPR-508) seed fibril formation of Alpha Synuclein Monomers: Biotinylated (C-Terminus) (SPR-507) over 72 hours. Reactions (100uL) shaken at 600 rpm in Greiner-Bio 96 Well Non-Binding Cell Culture Microplates, Black (Greiner-Bio Catalog #655900) at 37°C in the presence of 25 uM ThT and read with an XPS Microplate Reader set at 450nmex/485nmem.



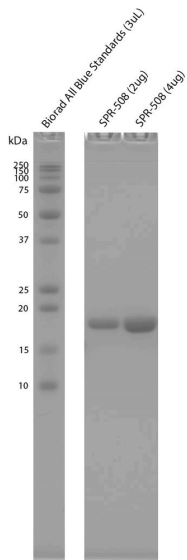
Biotinylation assay on purified Alpha Synuclein Monomers: Biotinylated (C-Terminus). The assay is performed on 123uM of alpha synuclein monomers post-biotinylation (SPR-507), with 100uM of biotin as a positive control & ultrapure water as a negative control. Absorbance is measured at 500nm, and results are converted to % of biotinylation.



Representative TEM image of Alpha Synuclein Pre-formed Fibrils: Biotinylated (C-Terminus), 500nm scale. Negative stain transmission electron microscopy images of SPR-508 acquired at 80 Kv on carbon coated 400 mesh copper grids using phosphotungstic acid and uranyl acetate stain.



Atomic force microscopy analysis of 2 mg/mL SPR-508 diluted to 0.04 mg/mL with dH<sub>2</sub>O mounted on freshly cleaved mica, washed, dried and analyzed with tapping mode. Representative images are 5 x 5 µm x-y (left) and 2 x 2 µm x-y (right), both with a Z-range set at 5nm.



SDS-PAGE analysis of Alpha Synuclein Pre-formed Fibrils: Biotinylated (C-Terminus) on a 12% Bis-Tris gel. Fibril samples are prepared in denaturing conditions prior to running on the gel.

## Product Citations

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## Reviews

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There are no reviews yet.