



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Alpha Synuclein pSer129 Pre- Formed Fibrils



Discovery through Partnership | Excellence through Quality

Human Recombinant Alpha Synuclein pSer129
Pre-formed Fibrils
Catalog No. SPR-521

Product Name

Alpha Synuclein pSer129 Pre-Formed Fibrils

Description

Human Recombinant Alpha Synuclein pSer129 Pre-formed Fibrils

Applications

WB, SDS-PAGE, In vivo assay, In vitro assay

Concentration

2 mg/ml or 5 mg/ml

Conjugates

No tag

Nature

Recombinant

Species

Human

Expression System

E. coli

Amino Acid Sequence

MDVFMKGLSK AKEGVAAAE KTKQGVAEAA GKTKEGVLYV GSKTKEGVVH GVATVAEKTQ EQVTNVGGAV VTGVTAV
AQK TVEGAGSIAA ATGFVKKDQL GKNEEGAPQE GILEDMPVDP DNEAYEMPSE EGYQDYEPEA

Purity

>95%

Other Resources

Sonication Protocol

Protein Length

140 AA

Protein Size

~14.46 kDa

Field Of Use

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

Properties

Storage Buffer

PBS pH 7.4

Storage Temperature

-80°C

Shipping Temperature

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

Purification

Ion-exchange Purified

Cite This Product

Human Recombinant Alpha Synuclein pSer129 Pre-Formed Fibrils (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SPR-521)

Certificate Of Analysis

Protein certified >95% pure using SDS-PAGE analysis. Low endotoxin <5 EU/mL @ 2mg/mL.

Other Relevant Information

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. For corresponding monomers, see Catalog# SPR-520. The unphosphorylated construct is Catalog# SPR-322.

Biological Description

Alternative Names

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

Research Areas

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

Swiss Prot

P37840

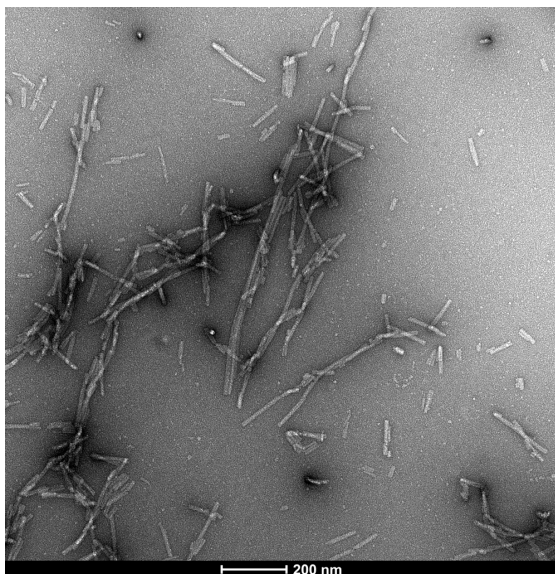
Scientific Background

Serine 129 is the C-terminal serine characteristic to mammalian alpha synuclein, with this serine being determined to be a major phosphorylation site (1). Lewy Bodies in Parkinson's Disease (PD) and other related synucleinopathies are comprised of alpha synuclein phosphorylated at serine 129 and this phosphorylation may contribute to an increased propensity to aggregate (2). Due to phosphorylation at serine 129 being one of the most abundant PTMs, several studies reported on the PTM as a potential biomarker (3). Our Alpha Synuclein Ser129 Pre-Formed Fibrils are generated in-vitro from purified phosphorylated monomer and phosphorylation is confirmed with our anti-ASYN pS129 monoclonal antibody (Catalog# SMC-600).

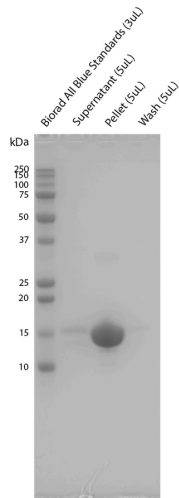
References

1. Okochi et al. 2000. Constitutive phosphorylation of the Parkinson's Disease Associated α -Synuclein. *The Journal of Biological Chemistry*. DOI: 10.1074/jbc.275.1.390
2. Fujiwara et al. 2002. α -Synuclein is phosphorylated in synucleinopathy lesions. *Nature Cell Biology*. DOI: 10.1038/ncb748
3. Magalhaes and Lashuel. 2002. Opportunities and challenges of alpha-synuclein as a potential biomarker for Parkinson's disease and other synucleinopathies. *Npj Parkinsons Disease*. DOI: 10.1038/s41531-022-00357-0

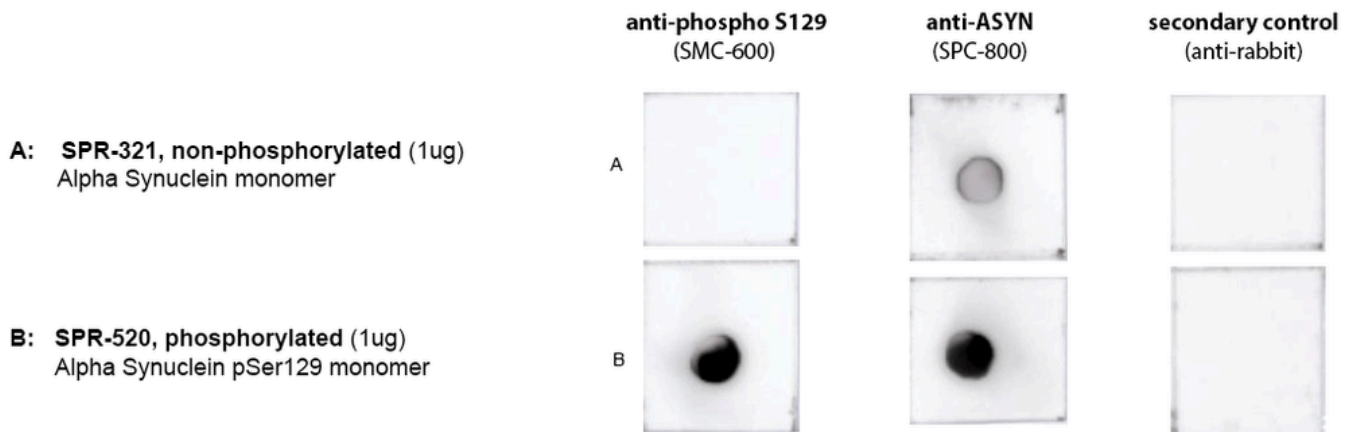
Product Images



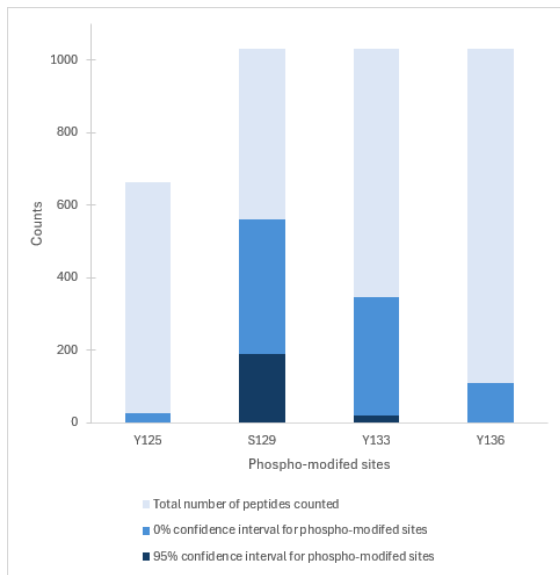
Representative TEM image of Human Recombinant Alpha Synuclein pSer129 Pre-Formed Fibrils (SPR-521), 200nm scale. Negative stain transmission electron microscopy images of SPR-521 acquired at 80 Kv on carbon coated 400 mesh copper grids using phosphotungstic acid and uranyl acetate stain.



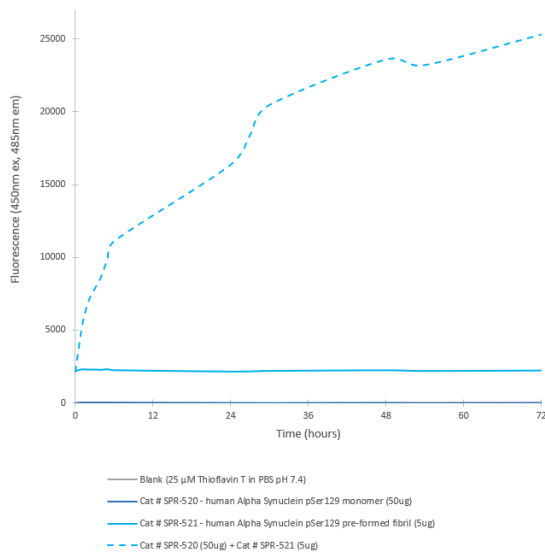
Sedimentation assay on Human Recombinant Alpha Synuclein pSer129 Pre-Formed Fibrils (SPR-521). Samples were spun down at 15,000 x g, washed, and then spun down again. Fibril samples are prepared in denaturing conditions prior to running on the gel. SDS-PAGE analysis on a 12% Bis-Tris gel shows that the majority of the fibril is insoluble.



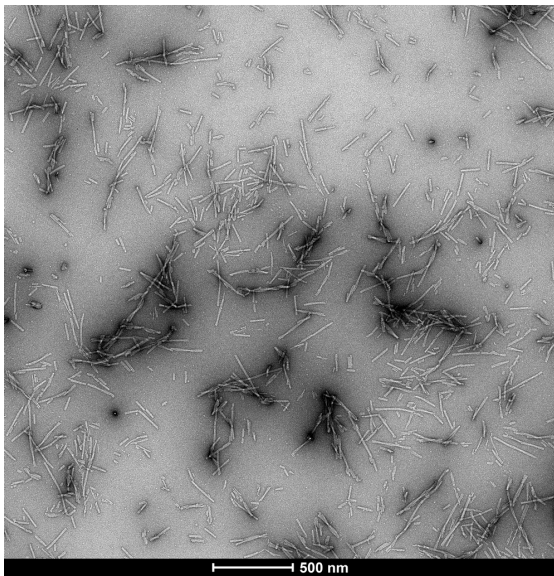
Dot Blot of purified Human Recombinant Alpha Synuclein pSer129 Monomers (starting material for SPR-521) using Stressmarq's SMC-600 (anti-ASYN pS129) and SPC-800 (anti-ASYN) confirming phosphorylation in SPR-520, compared to SPR-321. Protein was blotted on nitrocellulose, incubated with 1:1000 primary antibodies and/or 1:4000 secondary antibodies. Secondary control is goat-anti rabbit:HRP. Exposed 1 second.



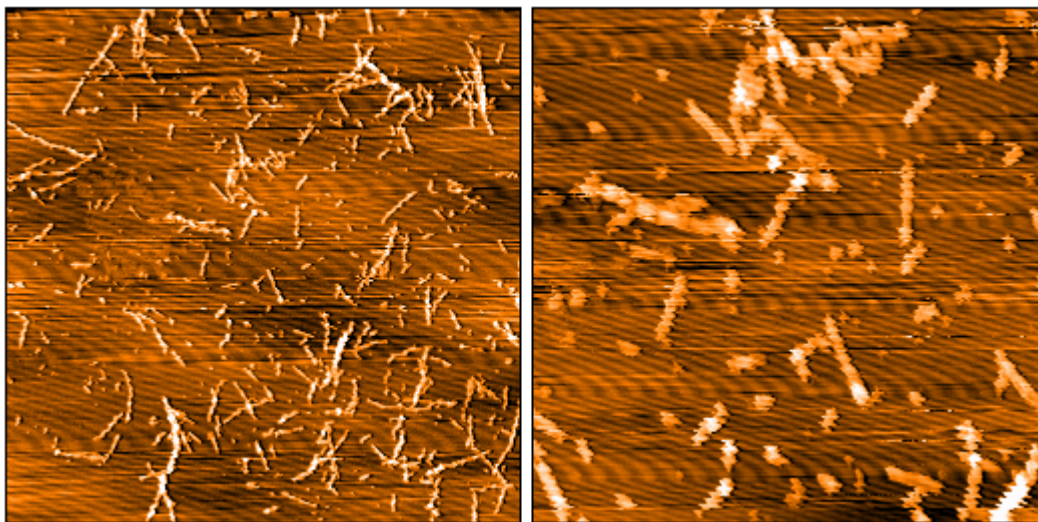
Modified/total phosphorylation PTM spectrum counts of 4 sites on human alpha synuclein pSer129 monomers (starting material for SPR-521) as determined by mass spectrometry (ScaffoldPTM, localization probability = 100% at both 0% and 95% min. localization). Trypsin/CNBr digestion was used to accurately determine the presence of phosphorylation at and around S129. Note that total counts may include longer peptides where phosphorylation may be more difficult to detect, and most phospho-modified sites that were detected are at S129.



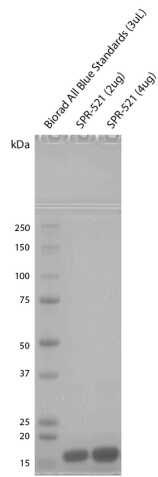
In vitro seeding activity of Human Recombinant Alpha Synuclein pSer129 Pre-Formed Fibrils (SPR-521) in ThT assay. Alpha Synuclein pSer129 Pre-Formed Fibrils seed fibril formation of Alpha Synuclein pSer129 (SPR-520) over 72 hours. Reactions (100uL) shaken at 600 rpm in Greiner-Bio 96 Well Non-Binding Cell Culture Microplates, Black (Greiner-Bio Catalog #655900) at 37°C in the presence of 25 μM ThT and read with an XPS Microplate Reader set at 450nmex/485nmem.



Representative TEM image of Human Recombinant Alpha Synuclein pSer129 Pre-Formed Fibrils (SPR-521), 500nm scale. Negative stain transmission electron microscopy images of SPR-521 acquired at 80 Kv on carbon coated 400 mesh copper grids using phosphotungstic acid and uranyl acetate stain.



Atomic force microscopy analysis of Alpha Synuclein pSer129 Pre-Formed Fibrils (SPR-521) diluted to 0.02 mg/mL with dH₂O 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 17nm.



SDS-PAGE analysis of purified Human Recombinant Alpha Synuclein pSer129 Pre-Formed Fibrils (SPR-521) on a 5-12% gradient Bis-Tris gel. NOTE fibrils are prepared in denaturing conditions before running on the gel.

Product Citations

Reviews

There are no reviews yet.