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siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Alpha Synuclein Protein

StressMarq Biosciences INC.
Discovery through Partnership | Excellence through Quality

Human Recombinant Alpha Synuclein Protein Monomers (Type 1)
Catalog No. SPR-321

Product Name

Alpha Synuclein Protein

Description

Human Recombinant Alpha Synuclein Protein Monomers (Type 1)

Applications

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

Concentration

Lot/batch specific. See included datasheet.

Conjugates

No tag

Nature

Recombinant

Species

Human

Expression System

E. coli

Amino Acid Sequence

MDVFMKGLSK AKEGVVAAAE KTKQGVAEAA GKTKEGVLYV GSKTKEGVVH GVATVAEKTK EQVTNVGGAV VTGVTAV AQK TVEGAGSIAA ATGFVKKDQL GKNEEGAPQE GILEDMPVDP DNEAYEMPSE EGYQDYEPEA

Purity

>95%

Protein Length

Full Length

Biological Activity

100 µM alpha synuclein protein monomer (SPR-321) seeded with 10 uM alpha synuclein PFFs (SPR-322) in 25 µM Thioflavin T (PBS pH 7.4, 100 µl reaction volume) generated a fluorescence intensity of 13,000 Relative Fluorescence Units after incubation at 37°C with shaking at 600 rpm. Fluorescence was measured by excitation at 450 nm and emission at 485 nm on a Molecular Devices Gemini XPS microplate reader.

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

-80ºC

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 Protein (StressMarq Biosciences, Canada, Cat # SPR-321)

Certificate Of Analysis

Certified >95% pure using SDS-PAGE analysis.

Biological Description

Alternative Names

Alpha synuclein monomer, Alpha-synuclein monomer, Alpha synuclein protein monomer, Alpha synuclein monomer, 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, Alpha synuclein monomers, SYN protein, Parkinson's disease familial 1 Protein

Research Areas

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

Cellular Localization

Cytoplasm, Membrane, Nucleus

Accession Number

NP_000336.1

Gene ID

6622

Swiss Prot

P37840

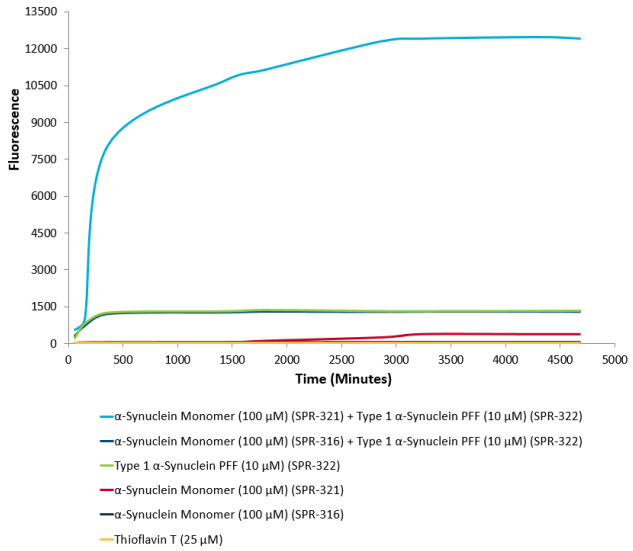
Scientific Background

Alpha-Synuclein (SNCA) is expressed predominantly in the brain, where it is concentrated in presynaptic nerve terminals (1). Alpha-synuclein is highly expressed in the mitochondria of the olfactory bulb, hippocampus, striatum and thalamus (2). Functionally, it has been shown to significantly interact with tubulin (3), and may serve as a potential microtubule-associated protein. It has also been found to be essential for normal development of the cognitive functions; inactivation may lead to impaired spatial learning and working memory (4). SNCA fibrillar aggregates represent the major non A-beta component of Alzheimers disease amyloid plaque, and a major component of Lewy body inclusions, and Parkinson's disease. Parkinson's disease (PD) is a common neurodegenerative disorder characterized by the progressive accumulation in selected neurons of protein inclusions containing alpha-synuclein and ubiquitin (5, 6).

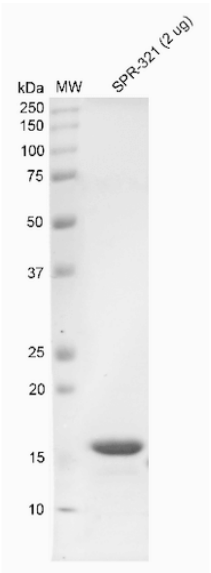
References

1. “Genetics Home Reference: SNCA”. US National Library of Medicine. (2013).
2. Zhang L., et al. (2008) Brain Res. 1244: 40-52.
3. Alim M.A., et al. (2002) J Biol Chem. 277(3): 2112-2117.
4. Kokhan V.S., Afanasyeva M.A., Van'kin G. (2012) Behav. Brain. Res. 231(1): 226-230.
5. Spillantini M.G., et al. (1997) Nature. 388(6645): 839-840.
6. Mezey E., et al. (1998) Nat Med. 4(7): 755-757.

Product Images



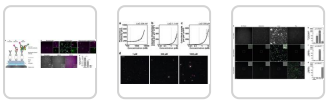
Type 1 alpha synuclein pre-formed fibrils (SPR-322) seed the formation of new alpha synuclein fibrils from the pool of alpha synuclein monomers (SPR-321). Thioflavin T is a fluorescent dye that binds to beta sheet-rich structures, such as those in alpha synuclein fibrils. Upon binding, the emission spectrum of the dye experiences a red-shift, and increased fluorescence intensity. Thioflavin T emission curves show increased fluorescence (correlated to alpha synuclein protein aggregation) over time when 10 nM of Type 1 alpha synuclein pre-formed fibrils (SPR-322) is combined with 100 µM of alpha synuclein monomer (SPR-321), as compared to when 10 nM of Type 1 alpha synuclein pre-formed fibrils (SPR-322) is combined with 100 µM of alpha Synuclein monomer (SPR-316). Thioflavin T ex = 450 nm, em = 485 nm.



SDS-PAGE of ~14 kDa Human Recombinant Alpha Synuclein Protein Monomer (SPR-321). Lane 1: Molecular Weight Ladder (MW). Lane 2: Alpha Synuclein Protein Monomer (2 µg) (SPR-321).

Product Citations

94/100 | 2 CITATIONS | 3 IMAGES



Two-color coincidence single-molecule pull-down for the specific detection of disease-associated protein a
Saleeb Rebecca S., Leighton Craig, ..., Horrocks Mathew H.

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Article Snippet
"**PrePrint:** Unless otherwise stated, recombinant protein generated in-house was applied at 10 nM concentration for 20 min, commercially sourced **α-syn monomer**, oligomer and fibrils (**Stressmarq**, **SPR-321**, SPR-484 and SPR-322) were applied at 25 nM concentration supplemented with 1% bovine serum albumin, conditioned media was applied neat for 20 min and CSF applied neat for 24 hours at RT." *More*... | Share Article

Figure Legend
"... b Demonstrative composite STAPull images for 45 **nM α-syn** monomer (left), 5 nM α-syn aggregates (center), or ..." *More*...

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Figure Legend

Reviews

Based on validation through cited publications.

★★★★★

StressMarq Biosciences
January 25, 2021: