Preformed Fibrils

rPeptide R&D Starts Here

rPeptide is honored to have produced high-quality products for over 20 years. We strive to build a better future through innovation and the creation of products to address our customer's needs.

We are excited to share that we now offer Preformed Fibrils. Sourced from E. coli, the fibrilization of the offered proteins and peptides is verified by electron microscopy and a thioflavin assay.

Whether applied to in vivo or in vitro experiments, these preformed fibrils can be utilized to investigate the mechanisms underlying various neurological disorders.

We understand that fibril formation is a time-consuming process; rPeptide preformed fibrils allow you to skip this process while maintaining the standards and quality you know and trust.

Available now: Alpha-Synuclein, Beta-Amyloid (1-42), and Tau-441 Preformed Fibrils.

Alpha-Synuclein Preformed Fibrils

Alpha-synuclein appears to associate with other proteins that aggregate and is found in beta-amyloid plaques and neuritic tangles in Parkinson's Disease patients.[1]

Alpha-synuclein preformed fibrils are valuable for the study of Parkinson's Disease and Lewy Body Dementia. Preformed fibrils can be used for in vitro procedures such as those assessing fibril stability, drug design, aggregation, and treatment models. Applications for in vivo experiments include in vivo seeding experiments and preformed fibril injections. In vivo use of preformed fibrils can be advantageous, as they provide physiologically relevant levels of alpha-synuclein, as opposed to those obtained through viral-based or transgenic methods.

Catalog #	Product Name	Supplied As	Size	Price
ASF-1001-01	Alpha-Synuclein Preformed Fibrils	Liquid	100 µg	$450
ASF-1001-1	Alpha-Synuclein Preformed Fibrils	Liquid	500 µg	$1,350

Custom quantities available

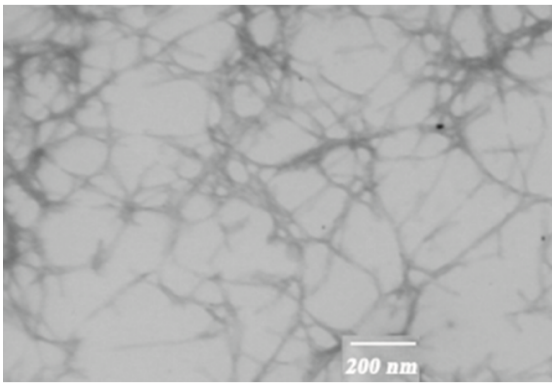

Figure 1: Transmission electron micrograph of rPeptide Alpha-Synuclein Preformed Fibrils (~200 nm).

References

1) Masliah, E. et. al., (2001) Proc. Natl. Acad. Sci., USA, 98: 12245 2) Yankner, BA, et. al., (1990) Science, 250: 279-282 3) Selkoe, D.J., (2001) Physiol. Rev, 81: 741-766 4) Stine, W.B. et. al., (2003) J. Biol. Chem, 278: 11612-11622 5) Paul A, Viswanathan et al. FEBS J. 2021 Feb 1. doi: 10.1111/febs.15741. Epub ahead of print. PMID: 33523571. 6) Wang P, Ye Y. Nat Commun. 2021 Jan 4;12(1):95. doi: 10.1038/s41467-020-20322-w. PMID: 33398028; PMCID: PMC7782792. 7) Veys L, et al. Front Aging Neurosci. 2021 Jan 15;12:614587. doi: 10.3389/fnagi.2020.614587. PMID: 33519421; PMCID: PMC7843377.

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Beta-Amyloid (1-42) Preformed Fibrils

Beta-amyloid is the major constituent of amyloid plaques in the brains of Alzheimer's patients and has been implicated in the disease.[2-4]

Similar to the alpha-synuclein fibrils, beta-amyloid preformed fibrils can be used for in vitro experiments studying fibril stability, drug design, aggregation, and treatment models. Applications for in vivo experiments include in vivo seeding experiments and preformed fibril injections.

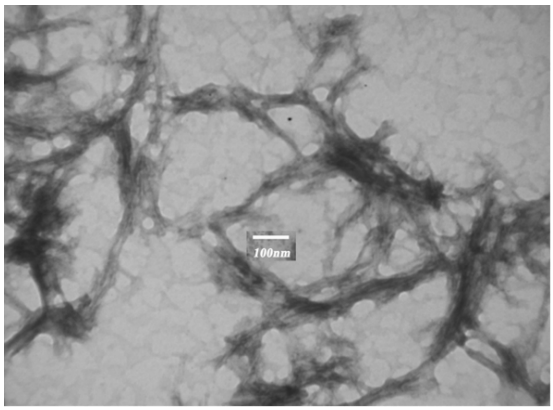

Figure 2: Transmission electron micrograph of rPeptide Beta-Amyloid 1-42 Preformed Fibrils at an intermediate magnification, showing a network of fibrils.

Catalog #	Product Name	Supplied As	Size	Price
AF-1002-1	Beta-Amyloid (1-42) Preformed Fibrils	Frozen Liquid	50 µg	$200
AF-1002-2	Beta-Amyloid (1-42) Preformed Fibrils	Frozen Liquid	100 µg	$350
AF-1002-3	Beta-Amyloid (1-42) Preformed Fibrils	Frozen Liquid	500 µg	$1,400

Custom quantities available

Tau-441 Preformed Fibrils

Tau is a major neuronal microtubule associated protein that is found in neurofibrillary tangles (NFTs) in the brains of Alzheimer's patients.

Tau-441 preformed fibrils can be used in the study of Alzheimer's Disease, Pick's Disease, and Progressive Supranuclear Palsy, among others. Tau-441 preformed fibrils can be used for in vitro studies of fibril formation and stability[5] and for in vivo studies on cellular uptake, cell viability, and pathway activation.[6] Preformed fibrils are also suitable for use in mouse models for studies involving memory, neuronal health, and seeding and prion-like spreading.[7]

Applied to either in vivo or in vitro experiments, these fibrils may be utilized to investigate the mechanism of various tauopathies. Tau-441 preformed fibrils may also be used in the study of Alzheimer's disease, Pick's disease, and Progressive Supranuclear Palsy among others.

Catalog #	Product Name	Supplied As	Size	Price
TF-1001-1	Tau-441 Preformed Fibrils	Frozen Liquid	50 µg	$225
TF-1001-2	Tau-441 Preformed Fibrils	Frozen Liquid	100 µg	$375
TF-1001-3	Tau-441 Preformed Fibrils	Frozen Liquid	500 µg	$1,500

Custom quantities available

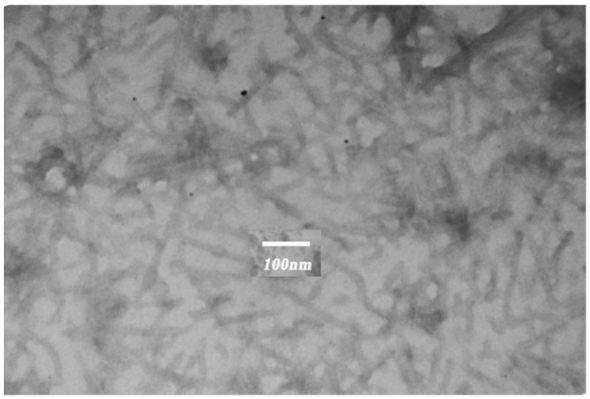

Figure 3: Transmission electron micrograph of rPeptide Tau 441 Preformed Fibrils (~200 nm).