

Tau-383 (0N4R) Wild-Type Pre- formed Fibrils



Discovery through Partnership | Excellence through Quality

Human Recombinant Tau-383 (0N4R) Wild-Type
Pre-formed Fibrils
Catalog No. SPR-510

distributed in the US/Canada by:

EAGLE BIOSCIENCES, INC.

20A NW Blvd, Suite 112 Nashua, NH 03063

Phone: 617-419-2019 FAX: 617-419-1110

www.EagleBio.com info@eaglebio.com



EAGLE
BIOSCIENCES

Product Name

Tau-383 (0N4R) Wild-Type Pre-formed Fibrils

Description

Human Recombinant Tau-383 (0N4R) Wild-Type Pre-formed Fibrils

Applications

WB, SDS PAGE, In vitro Assay

Concentration

Lot/batch specific. See included datasheet.

Conjugates

No tag

Nature

Recombinant

Species

Human

Expression System

E. coli

Amino Acid Sequence

MAEPRQEFVEMEDHAGTYGLGDRKDQGGYTMHQDQEGD TDAGLKAEEAGIGDTPSLEDEAAGHVTQARMVSKSKDGTGS
DDKKAKGADGKTKIATPRGAAPPQKQGQANATRIPAKTPPAPKTPPSSGEPKSGDRSGYSSPGSPGTPGSRSRTPSLTPPTR
EPKKVAVVRTPPKSPSSAKSRLQTAPVMPDLKKNVSKIGSTENLKHQPGGGKVQIIINKKLDLSNVQSKCGSKDNIKHVPGGGS
VQIVYKPVLDLSKVTSKCGSLGNIHHKPGGGQVEVKSEKLDKDFKDRVQSKIGSLDNITHVPGGGNKKIETHKLTFRENAKAKTDHG
AEIVYKSPVWVGDTSPRHLSNVSSSTGSIDMVDPQLATLADEVASLAKQGL

Purity

>95% as per SDS-PAGE, >80% as per A260/A280

Other Resources

Sonication Protocol

Protein Length

383 aa

Protein Size

40.007 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

10mM Hepes pH 7.4, 100mM NaCl

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 Tau-383 (0N4R) Wild-Type Pre-formed Fibrils (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SPR-510)

Certificate Of Analysis

Protein certified >95% pure on SDS-PAGE & > 80% on Nanodrop analysis. Low endotoxin <5 EU/mL @ 2mg/mL.

Other Relevant Information

Monomer source is catalog# SPR-509.

Biological Description

Alternative Names

Tau-D, Tau 383

Research Areas

Alzheimer's Disease, Neurodegeneration, Neuroscience, Tangles & Tau

Swiss Prot

P10636-6

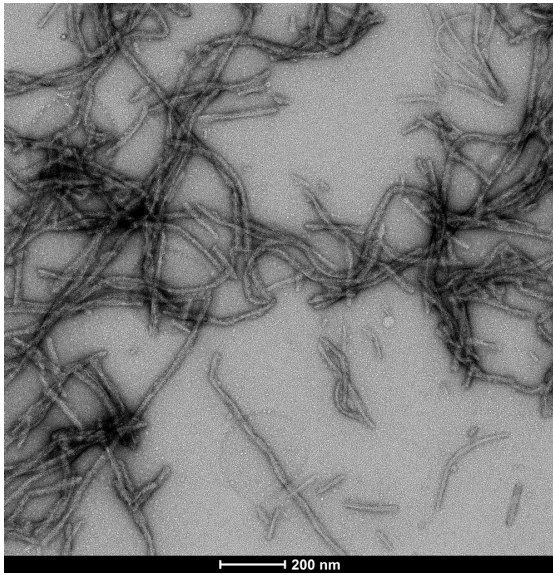
Scientific Background

Several tau isoforms, including 0N4R, are expressed in the human brain, and the existence of multiple human tauopathies with distinct fibril morphologies suggests different molecular conformers incorporating different isoforms may exist (1, 2). NMR data indicates that both 3R and 4R tau are incorporated into AD-tau seeded fibrils (3).

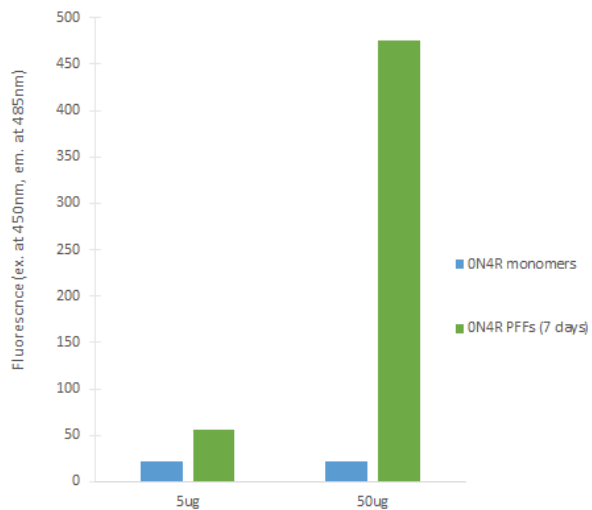
References

1. Goedert et al. 1989. Multiple isoforms of human microtubule-associated protein tau: sequences and localization in neurofibrillary tangles of Alzheimer's disease. *Neuron*. DOI: 10.1016/0896-6273(89)90210-9
 2. Goedert, Eisenberg and Crowther. 2017. Propagation of Tau Aggregates and Neurodegeneration. *Annual Review of Neuroscience*. DOI: 10.1146/annurev-neuro-072116-031153
 3. Dregni et al. 2022. Fluent molecular mixing of Tau isoforms in Alzheimer's disease neurofibrillary tangles. *Nature communications*. DOI: 10.1038/s41467-022-30585-0
-

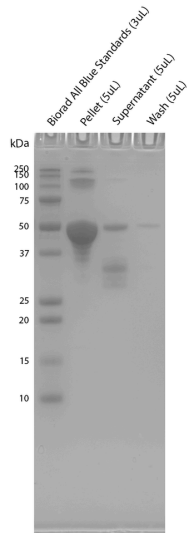
Product Images



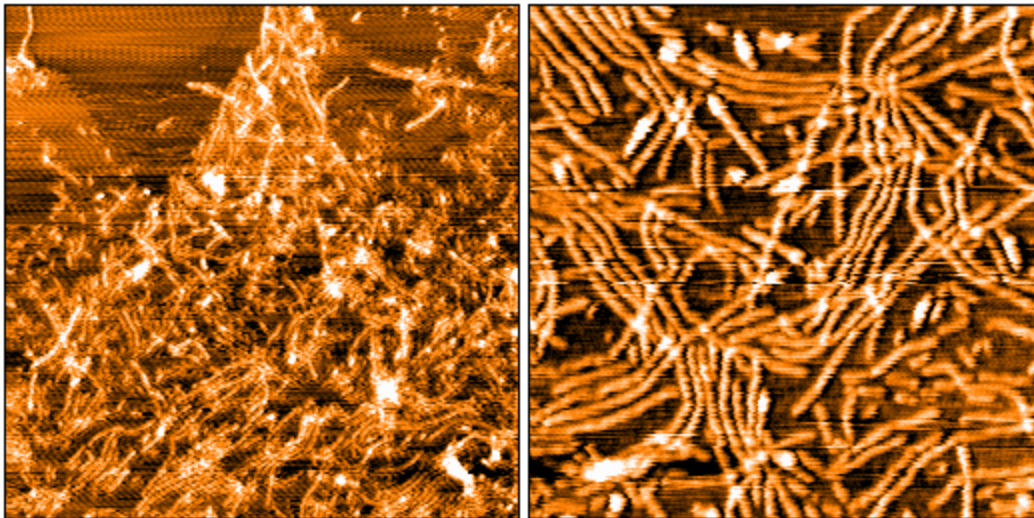
Representative TEM image of E. coli-expressed Tau 0N4R Pre-Formed Fibrils (PFFs), 200nm scale. Negative stain transmission electron microscopy images of SPR-510 acquired at 80 Kv on carbon coated 400 mesh copper grids using phosphotungstic acid and uranyl acetate stain.



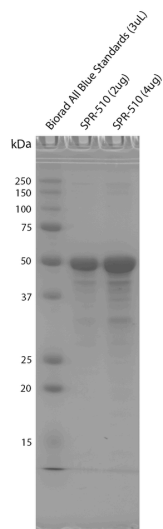
ThT-positive signal of human Tau-383 (0N4R) Pre-formed Fibrils (SPR-510) compared to monomers (SPR-509). Samples incubated with 25 uM ThT and read with an XPS Microplate Reader at 450nmex/485nmem.



Sedimentation assay on E. coli expressed hTau-383 (0N4R) PFFs. 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.



Atomic force microscopy analysis of 1 mg/mL fibrils diluted to 0.01 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 9nm.



SDS-PAGE analysis of purified E. coli expressed hTau-383 (0N4R) PFFs on a 12% Tris-Glycine gel. Note: fibril samples are prepared in denaturing conditions prior to running on the gel, and are not SDS-stable.

Product Citations

Reviews

There are no reviews yet.