StressMarq Biosciences INC.

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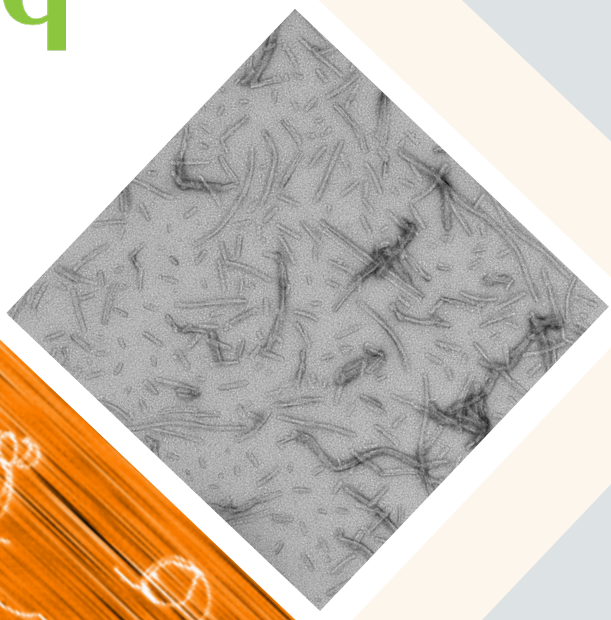
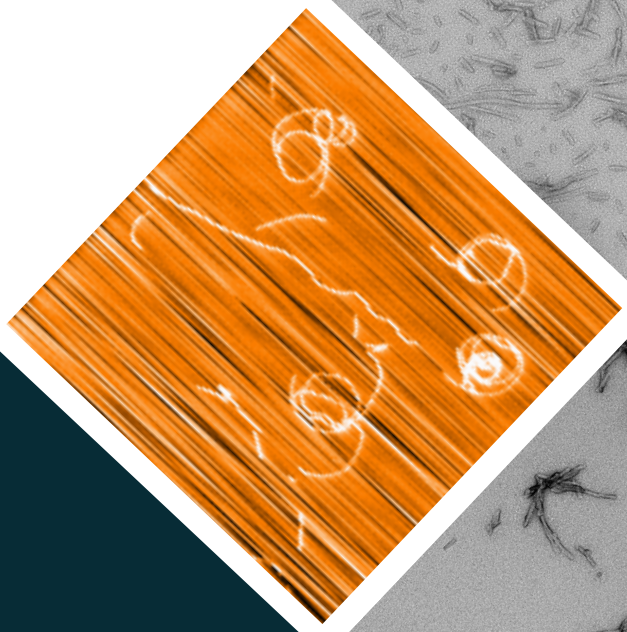
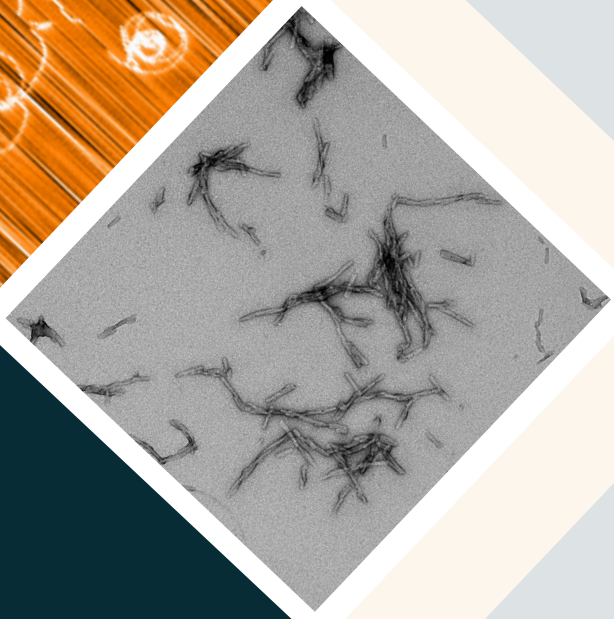






Tau

Pre-formed Fibrils | Oligomers | Monomers | Antibodies

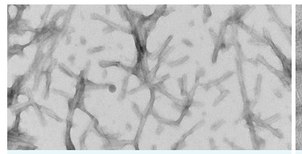
Tau
Protein Citations

stressmarq.com/tau

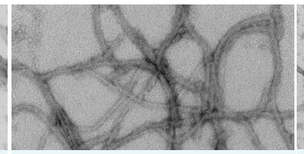
Pre-formed Fibrils | Oligomers | Monomers

Tools for Neurodegenerative Disease Research

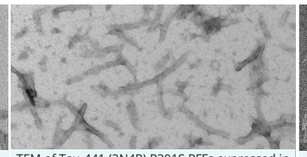
StressMarq manufactures an extensive range of tau pre-formed fibrils (PFFs), oligomers, monomers, and antibodies, empowering the study of tau aggregation in neurodegenerative diseases including Alzheimer's. Active tau PFFs act as seeding agents, recruiting tau monomers and facilitating their assembly into larger fibrillar structures, mimicking the pathological tau aggregates observed in Alzheimer's disease and other tauopathies characterized by the deposition of abnormal tau protein in the brain.



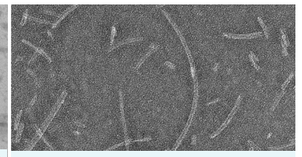
TEM of Tau-441 (2N4R) P301S PFFs (cat#SPR-329)



TEM of Tau (K18) P301L PFFs (cat#SPR-330)

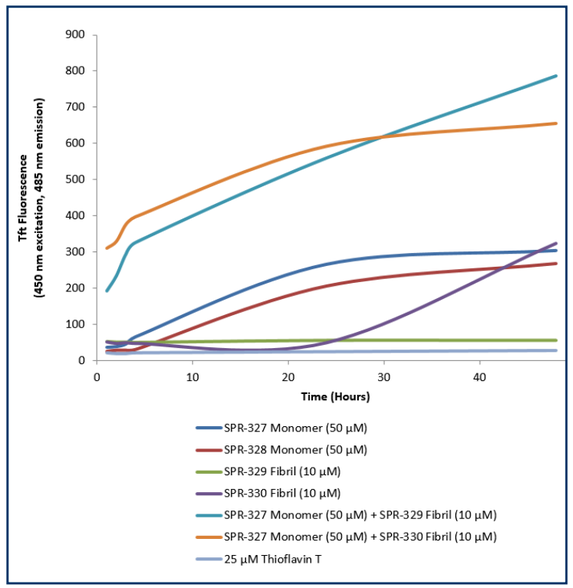


TEM of Tau-441 (2N4R) P301S PFFs expressed in Baculovirus/Sf9 (cat#SPR-471)



TEM of Tau-352 (fetal 0N3R) PFFs (cat#SPR-491)

Tau Fibrils Seed Aggregation, Induce Toxicity and Pathology



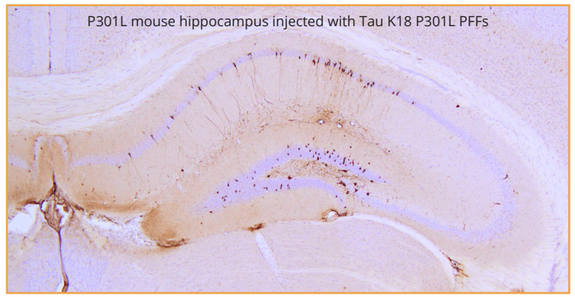
Tau Seeding Assay. Thioflavin T is a fluorescent dye that binds to beta sheet-rich structures such as those in tau fibrils. Upon binding, the emission spectrum of the dye experiences a red-shift, and increased fluorescence intensity. Emission curves show increased fluorescence (correlated to tau aggregation) when Tau PFFs (catalog#SPR-329) are combined with Tau Monomers (catalog#SPR-327). The PFFs seed the formation of new fibrils from a pool of monomers.

Immunohistochemistry. Tau (K18) P301L mutant PFFs (catalog#SPR-330) were injected into P301L mouse brains, where they seeded tau pathology at injection site within nine weeks.

Tau (pSer202/pThr205) Antibody (AT8) shows tangle-like inclusions in the hippocampus.

Negative control - injected with non-Tg brainstem homogenate

Experiments performed at reMYND N.V.



P301L mouse hippocampus injected with Tau K18 P301L PFFs

Pre-formed Fibrils | Oligomers | Monomers

Tau Pre-formed Fibrils (PFFs) & Monomers

Product Description	Pre-formed Fibrils Catalog#	Monomers Catalog#
Human Tau-352 (fetal 0N3R) Wild-Type	SPR-491	SPR-490
Human Tau-381 (1N3R) Wild-Type ***NEW!***	SPR-514	SPR-513
Human Tau-383 (0N4R) Wild-Type ***NEW!***	SPR-510	SPR-509
Human Tau-412 (1N4R) Wild-Type ***NEW!***	SPR-512	SPR-511
Human Tau-441 (2N4R) Wild-Type	SPR-480	SPR-479
Human Tau-441 (2N4R) Wild-Type (*Baculovirus/Sf9*) ***NEW!***	SPR-498*	SPR-496
Human Tau-441 (2N4R) P301S Mutant	SPR-329	SPR-327
Human Tau-441 (2N4R) P301S Mutant: ATTO 488	SPR-329-A488	-
Human Tau-441 (2N4R) P301S Mutant (*Baculovirus/Sf9*)	SPR-471*	SPR-473
Human Tau-441 (2N4R) P301S Mutant (CHO) ***NEW!***	SPR-516*	SPR-515
Human Tau-441 (2N4R) P301S Mutant Filaments	SPR-463	-
Mouse Tau-430 (2N4R) P290S Mutant	SPR-475	SPR-474
Human Tau dGAE Truncated Fragment (AA297-391)	SPR-461	SPR-444
Human Tau dGAE, C322A (AA297-391)	SPR-462	SPR-445
Human Tau dGAE (AA297-331) AD-mimic (Baculovirus/Sf9) ***NEW!***	SPR-502*	-
Human Tau dGAE (AA297-331) ***NEW!***	-	SPR-501
Human Tau (K18) P301L Mutant	SPR-330	SPR-328
Human Tau (K18) ΔK280 Mutant	SPR-477	SPR-476

these PFFs are fibrillized in the absence of heparin

Tau & Alpha Synuclein Co-Polymer Fibrils

Product Description	Catalog #
Human Tau-441 (2N4R) & Alpha Synuclein Co-Polymer Fibrils	SPR-495
Human Tau-352 (fetal 0N3R) & Alpha Synuclein Co-Polymer Fibrils	SPR-494

Tau Oligomers ***Coming Soon!***

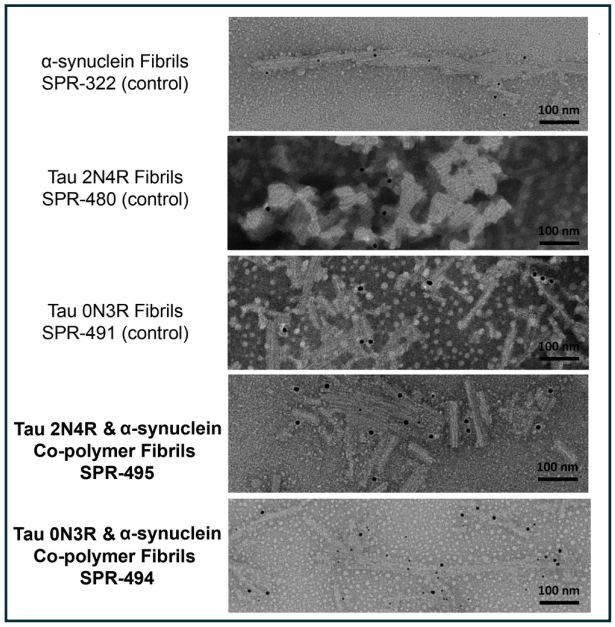
Product Description	Catalog #
Human Tau-441 (2N4R) Wild-Type Oligomers (*Baculovirus/Sf9*) ***COMING SOON!***	SPR-497

stressmarq.com/tau | 1.250.294.9065 | info@stressmarq.com

StressMarq Biosciences INC.

Tau & Alpha Synuclein Co-Polymer Fibrils

StressMarq's co-polymer fibrils are developed by co-incubating Tau and Alpha Synuclein monomers together to form **fibrils that contain both tau and alpha synuclein proteins within a single fibril**. These co-polymer fibrils have been demonstrated to seed fibril formation of both tau monomers and of a mixture of tau and alpha synuclein monomers.



Immuno-TEM of Tau & Alpha Synuclein Co-Polymer Fibrils. 6nm (asyn) and 12nm (tau) signals only appear together in the same fibril strand for the co-polymer fibril samples, and no antibody cross reactivity is observed in control alpha synuclein or tau fibrils. Antibodies: Anti-aSyn (cat#SMC-532) and Anti-Tau (cat#SPC-802); Secondaries: 6nm Colloidal Gold conjugated Goat Anti-Mouse and 12nm Colloidal Gold conjugated Goat Anti-Rabbit.

About Co-Polymer Fibrils

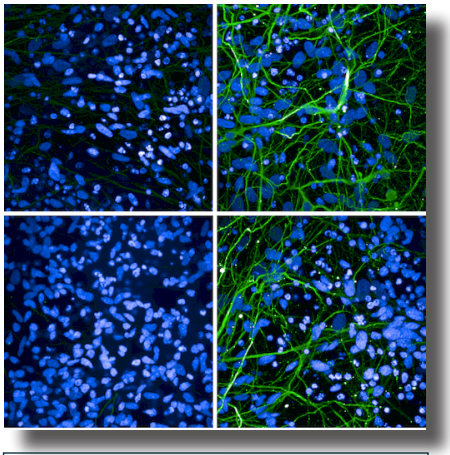
Tau and alpha synuclein polymerize into amyloid fibrils to form filamentous inclusions in neurodegenerative diseases such as Alzheimer's and Parkinson's disease. Tau has been shown to interact with alpha synuclein *in vitro* (2), with synergistic cross-seeding between tau and alpha synuclein resulting in polymerization of each other into fibrillary amyloid lesions in neuronal cultures and *in vivo* (3,4). ***Recombinant tau and alpha synuclein co-polymer fibrils have demonstrated a more widespread transmission of induced pathology in a rodent model of tauopathies compared to tau or alpha synuclein fibrils alone*** (5). These co-polymer fibrils have also shown enhanced alpha synuclein aggregation *in vitro*, and more severe alpha synuclein pathology and Parkinson's disease-like symptoms in mice (6).

Please inquire or see website for references.

Product Description	Catalog#
Human Tau-441 (2N4R) & Alpha Synuclein Co-Polymer Fibrils	SPR-495
Human Tau-352 (fetal 0N3R) & Alpha Synuclein Co-Polymer Fibrils	SPR-494

Tau Antibodies

Target	Clone	Host	Applications	Reactivity	Catalog #
Tau (pThr217)	15B7	Mouse	WB	Hu, Ms, Rt	SMC-615
Tau (pSer202/pThr205)	AH36	Rabbit	WB, ICC/IF, ELISA	Hu	SMC-601
Tau (AA297-391) (dGAE)	Polyclonal	Rabbit	WB	Hu, Ms, Rt	SPC-806
Tau	3D4	Mouse	WB, ICC/IF, ELISA	Hu, Ms, Rt	SMC-608
Tau	1D5	Mouse	WB, ICC/IF, ELISA	Hu, Ms, Rt	SMC-607
Tau	Polyclonal	Rabbit	WB, IHC	Hu, Ms	SPC-801
Tau	Polyclonal	Rabbit	WB, IHC	Hu, Ms	SPC-802



Immunocytochemistry using Tau (pSer202/pThr205) Antibody (catalog# SMC-601). (L) = negative control, (R) = iPSC-derived neurons with P301L MAPT mutation