

Tau Protein

Human Recombinant Tau-352 (fetal 0N3R) Wild-Type Monomers
Catalog No. SPR-490



Discovery through Partnership | Excellence through Quality

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 Protein

Description

Human Recombinant Tau-352 (fetal 0N3R) Wild-Type Monomers

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

MAEPRQEFEVMEHDHAGTYGLGDRKDQGGYTMHQDQEGDTDAGLKAEEAGIGDTPSLEDEAAGHVTQARMVSKSKDGTGS
DDKKAKGADGKTKIATPRGAAPPQKQGANATRIPAKTPPAPKTPPSSGEPKSGDRSGYSSPGSPGTPGSRSRTPSLPTPPTTR
EPKKVAVVRTPPKSPSSAKSRLQTAPVPMPLKKNVSKIGSTENLKHQPGGGKVQIVYKPVDSLKVTSKCGSLGNIHKKGGG
QVEVKSEKLDKDRVQSKIGSLDNITHVPGGGNKKIETHKLTFRENAKAKTDHGAEIVYKSPVVSQDTSRPHLSNVSSKIDMV
DSPQLATLADEVASLAKQGL

Purity

>95%

Other Resources

Protein Length

Full Length (1-352 aa)

Field Of Use

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

Properties

Storage Buffer

10 mM HEPES pH 7.4, 100 mM 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 Tau352 (fetal 0N3R) Monomers (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SPR-490)

Certificate Of Analysis

Protein certified >95% pure on SDS-PAGE & Nanodrop analysis

Biological Description

Alternative Names

Tau aggregate, tau protein, microtubule-associated protein tau, MAPT, MAP, microtubule-associated protein, Truncated Tau Protein Aggregate, Paired Helical Filament-Tau, Phf-Tau, Neurofibrillary Tangle Protein, G Protein Beta1/Gamma2 Subunit-Interacting Factor 1, Isoform 2, tubulin-associated unit, 95-amino acid tau protein fragment, Truncated Tau



Research Areas

Alzheimer's Disease, Axon Markers, Cell Markers, Cell Signaling, Cytoskeleton, Microtubules, MT Associated Proteins, Neurodegeneration, Neuron Markers, Neuroscience, Tangles & Tau

Cellular Localization

Axolemma, Axolemma Plasma Membrane, Axon, Cell Body, Cell membrane, Cytoplasm, Cytoplasmic Ribonucleoprotein Granule, Cytoplasmic Side, Cytoskeleton, Cytosol, Dendrite, Growth cone, Microtubule, Microtubule Associated Complex, Neurofibrillary Tangle, Neuronal Cell Body, Nuclear Periphery, Nuclear Speck, Nucleus, Peripheral membrane protein, Plasma Membrane, Tubulin Complex

Accession Number

NP_058525.1


Gene ID

4137


Swiss Prot

P10636-2

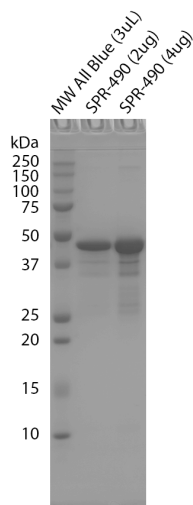
Scientific Background

Alzheimer's Disease (AD) is the most common neurodegenerative disease, affecting 10% of seniors over the age of 65 (1). Tau (tubulin-associated unit) is normally located in the axons of neurons where it stabilizes microtubules. Tauopathies such as AD are characterized by neurofibrillary tangles containing paired helical filaments (PHFs). Brain-specific tau isoforms vary in the number of N-terminal inserts and C-terminal repeat domains due to alternative splicing of exons; only the shortest isoform of tau, 0N3R, is expressed in the fetal brain during neurogenesis (2). Three-repeat (3R) isoforms have been shown to be more prone than four-repeat (4R) isoforms to form oligomers in vitro (3). The β -sheet core of Tau 0N3R fibrillized using heparin differs from all other tau fibril structures known to date (4). 

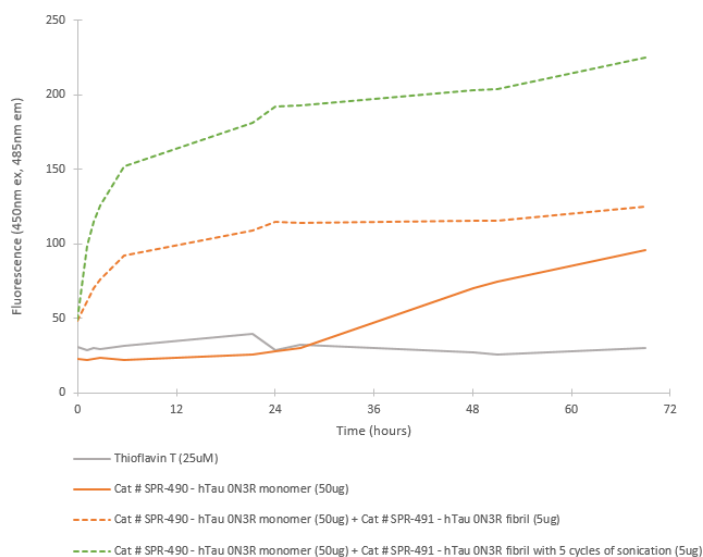
References

1. www.alz.org/alzheimers-dementia/facts-figures.
2. Goedert et al. Multiple isoforms of human microtubule-associated protein tau: Sequences and localization in neurofibrillary tangles of Alzheimer's disease. *Neuron*. 1989;3(4):519-526.
3. Shahpasand-Kroner et al. Three-repeat and four-repeat tau isoforms for different oligomers. *Prot. Sci.* 2021;doi: 10.1002/pro4257.
4. Dregni, et al. Inclusion of the C-Terminal Domain in the β -Sheet Core of Heparin-Fibrillized Three-Repeat Tau Protein Revealed by Solid-State Nuclear Magnetic Resonance Spectroscopy. *JACS*. 2021. <https://doi.org/10.1021/jacs.1c03314>. 

Product Images



Tris-glycine SDS-PAGE (12%) of Fetal Tau 0N3R monomers. MW ladder = Precision Plus Protein All Blue pre-stained standards.



Fibril formation activity of Fetal Tau 0N3R monomers in ThT seeding assay. Monomers readily form fibrils upon the addition of heparin or when seeded by 0N3R pre-formed fibrils. DTT was added to each well to control disulfide bonding during fibril formation.

Product Citations (0)

Currently there are no citations for this product.

Reviews

There are no reviews yet.

