

Tau Protein

Active Mouse Recombinant Tau441 (2N4R), P301S
mutant Protein Pre-formed Fibrils
Catalog No. SPR-475



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Product Name

Tau Protein

Description

Active Mouse Recombinant Tau441 (2N4R), P301S mutant Protein Pre-formed Fibrils

Applications

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

Concentration

Lot/batch specific. See included datasheet.

Conjugates

No tag

Nature

Recombinant

Species

Mouse

Expression System

E. coli

Amino Acid Sequence

MADPRQEFDT MEDHAGDYTL LQDQEGDMDH GLKESPPQPP ADDGAEEP GS ETSDAKSTPT AEDVTAPLVD ERAPDKQAA
A QPHTEIPEGI TAE EAGIGDT PNQEDQAAGH VTQGRREGQA PDLGTS DWTR QQVSSMSGAP LLPQGLREAT CQPSGTRPE
D IEKSHPASEL LRRGPPQKEG WGQDRLGSEE EVDEDLTVDE SSQDSPPSQA SLTPGRAAPQ AGSGSVCGET ASVPLPTEG
SVPLPADFFS KVS AETQASQ PEGPGTG PME EGHEAAPEFT FHVEIKASTP KEQDLEGATV VGVPGEEQKA QTQG PSVGKG T
KEASLQEPG GKQPAAGLPG RPSVRPQLK ARVASKDRTG NDEKKAKTST PSCAKAPSHR PCLSPTRPTL GSSDPLIKPS SPAV
SPEPAT SPKHVSSVTP RNGSPGTKQM KLKGADGKTG AKIATPRGAA SPAQKGT SNA TRIPAKTTPS PKTPPGSGEP PKSGER
SGYS SPGSPGTPGS RSRTPSLPTP PTREPKKVAV VRTPPKSPSA SKSRLQTAPV PMPDLKNVRS KIGSTENLKH QPGGGKVQII
NKKLDLSNVQ SKCGSKDNIK HVPGGG SVQI VYKPV DLSKV TSKCGSLGNI HHKPGGGQVE VKSEKLDFKD RVQSKIGSLD NI
THVPGGGN KKIETHKLTF RENAKAKTDH GAEIVYKSPV VSGDTS PRHL SNVSSTGSID MVDSPQLATL ADEVSASLAK QGL

Purity

>95%

Protein Length

Full Length

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

-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

Mouse Recombinant Tau Protein (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SPR-475)

Certificate Of Analysis

Certified >95% pure using SDS-PAGE analysis.

Other Relevant Information

For best results, sonicate immediately prior to use.

Biological Description

Alternative Names

Active tau PFFs, active tau protein preformed fibrils, active tau aggregates, microtubule-associated protein tau, MAPT, MAP, microtubule-associated protein, Paired Helical Filament-Tau, Phf-Tau, Neurofibrillary Tangle Protein,

G Protein Beta1/Gamma2 Subunit-Interacting Factor 1, Isoform 4, tubulin-associated unit, mouse tau protein, P301S mutant tau, 2N4R tau, Tau441

Research Areas

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

Cellular Localization

Cytoplasm, Axolemma, Axolemma Plasma Membrane, Axon, Cell Body, Cell membrane, Cytoplasmic Ribonucleoprotein Granule, Cytoplasmic Side, Cytoskeleton, Cytosol, Dendrite, Growth cone, Microtubule, Micr

Gene ID

17762

Swiss Prot

P10637

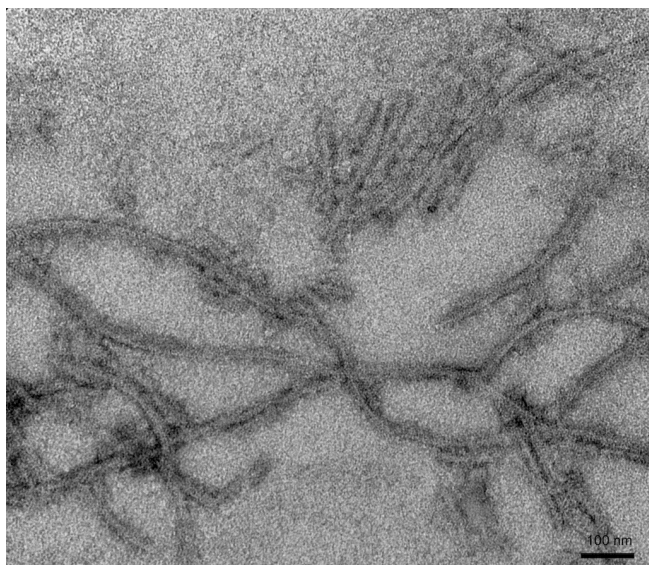
Scientific Background

Alzheimer's Disease (AD) is the most common neurodegenerative disease, affecting 10% of seniors over the age of 65 (1). It was named after Alois Alzheimer, a German scientist who discovered tangled bundles of fibrils where neurons had once been in the brain of a deceased patient in 1907 (2). 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 hyperphosphorylated tau fibrils (3). 2N4R, or Tau-441 is the full length tau protein. P301S is a mutation encoded by exon 10 (4) that impairs the ability of tau to assemble microtubules (5).

References

1. www.alz.org/alzheimers-dementia/facts-figures
2. Alzheimer, A. Über eine eigenartige Erkrankung der Hirnrinde. Allg. Z. Psychiatr. Psych.-Gerichtl. Med. 64, 146–148 (1907)
3. Matsumoto, G. et al. (2018). Int J Mol Sci. 19, 1497.
4. Goedert, M. and Spillantini, M. G. (2017). Mol Brain. 10:18.
5. Bugiani, O. et al. (1999). J Neuropathol Exp Neurol. 58(6):667-77.

Product Images



TEM of Mouse Tau441 (2N4R) P301S Preformed Fibrils (PFFs) (SPR-475)

Product Citations (1)

Other Citations

Exosomal tau with seeding activity is released from Alzheimer's disease synapses, and seeding potential is associated with amyloid beta.

Miyoshi, E. et al. (2021) Lab Invest. Online ahead of print.

PubMed ID: 34462532 **Applications:** Western Blot Control

Reviews

Based on validation through cited publications.



StressMarq Biosciences

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