

Tau (K18) Delta K280 Mutant Recombinant Protein | Tau(K18) recombinant protein

Human Recombinant Tau (K18) Delta K280 Mutant Protein Pre-formed Fibrils

CATALOG # AAA254097	HOST E coli	APPLICATIONS SDS-Page, Western Blot
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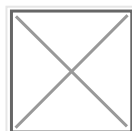
PRODUCT SYNONYMS

Tau (K18) Delta K280 Mutant; Human Recombinant Tau (K18) Delta K280 Mutant Protein Pre-formed Fibrils; Tau (K18) Delta K280 Mutant Pre-formed Fibrils; Tau PFFs; Tau PFF; Tau protein Pre-formed Fibrils; 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; MAPT DeltaK280; deltaK280 Tau; K18 delta K280 Tau; truncated deltaK280 Tau; Tau(K18) recombinant protein

PRODUCT SPECIFICATIONS

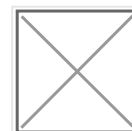
Host	E coli
Purity/Purification	>95%; Ion-exchange Purified
Form/Format	PBS pH 7.4
Concentration	Lot/batch specific. See included datasheet. (varies by lot)
Sequence	MSRLQTAPVP MPDLKNVSK IGSTENLKHQ PGGGKVQIN KLDLSNVQSK CGSKDNIKHV PGGGSVQIVY KPVDSLKVTS KCGSLGNIHH KPGGGQVEVK SEKLDKDRV QSKIGSLDNI THVPGGGNKK IETHKLTFRE
Sequence Length	Partial
Applicable Applications for Tau(K18) recombinant protein	Invitro Assay, SDS-PAGE, WB (Western Blot)
Species	Human
Conjugation	No Tag
Research Area	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, Microtubule Associated Complex, Neurofibrillary Tangle, Neuronal Cell Body, Nuclear Periphery, Nuclear Speck, Nucleus, Peripheral membrane protein, Plasma Membrane, Tubulin Complex
Certificate of Analysis	Certified >95% pure using SDS-PAGE analysis. Low endotoxin <5 EU/mL @ 2mg/mL.
Preparation and Storage	Store at -80 degree C

IMAGES



Application Data

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. Thioflavin T emission curves show increased fluorescence (correlated to tau aggregation) over time when tau monomers are combined with tau fibrils (AAA254097).



Application Data

TEM of Human K18K280 Deletion Tau Pre-formed Fibrils (PFFs) (AAA254097)

ADDITIONAL INFORMATION

Related Product Information for Tau(K18) recombinant protein	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). The deltaK280 mutation is associated with frontotemporal dementia and promotes fibrillization into paired helical filaments (PHFs) in the absence of heparin and other inducers (4). K18 is a truncated form of human tau containing only the 4 microtubule binding repeats (5).
Product Categories/Family for Tau(K18) recombinant protein	Proteins
References	1. www.alz.org/alzheimers-dementia/facts-figures2. 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.Von Bergen, M. et al. (2001). J Biol Chem. 276(51):48165-48174.5. Guo, J. and Lee, M.Y. (2013). FEBS Lett. 587(6): 717-723.

NCBI AND UNIPROT INFORMATION

NCBI GI #	294862258
NCBI GeneID	4137
NCBI Accession #	NP_001116538.2
NCBI GenBank Nucleotide #	NM_001123066.3
UniProt Accession #	P10636; P18518; Q14799; Q15549; Q15550; Q15551; Q1RMF6; Q53YB1; Q5CZI7; Q5XWF0; Q6QT54; Q9UDJ3
Molecular Weight	78,928 Da
NCBI Official Full Name	microtubule-associated protein tau isoform 6
NCBI Official Synonym Full Names	microtubule-associated protein tau
NCBI Official Symbol	MAPT
NCBI Official Synonym Symbols	TAU; MSTD; PPND; DDPAC; MAPTL; MTBT1; MTBT2; FTDP-17
NCBI Protein Information	microtubule-associated protein tau; PHF-tau; paired helical filament-tau; neurofibrillary tangle protein; microtubule-associated protein tau, isoform 4; G protein beta1/gamma2 subunit-interacting factor 1
UniProt Protein Name	Microtubule-associated protein tau
UniProt Gene Name	MAPT
UniProt Synonym Gene Names	MAPTL; MTBT1; TAU; PHF-tau
UniProt Entry Name	TAU_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.