

Truncated Tau Fragment (AA297-391)(dGAE) Recombinant Protein | dGAE recombinant protein

Human Recombinant Truncated Tau Fragment (AA297-391)(dGAE) Protein Pre-formed Fibrils

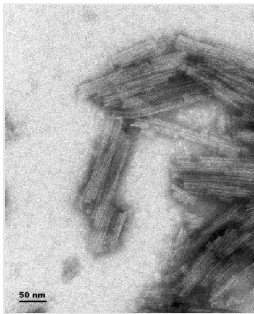
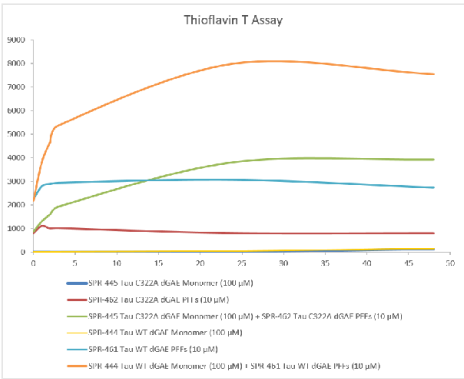
CATALOG # AAA254091	HOST E coli	APPLICATIONS SDS-Page, Western Blot
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PRODUCT SYNONYMS

Truncated Tau Fragment (AA297-391)(dGAE); Human Recombinant Truncated Tau Fragment (AA297-391)(dGAE) Protein Pre-formed Fibrils; Tau Truncated Fragment (AA297-391)(dGAE) Pre-formed Fibrils; Tau aggregate; Tau PFFs; Tau PFF; Tau protein 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 Protein; dGAE recombinant protein

PRODUCT SPECIFICATIONS

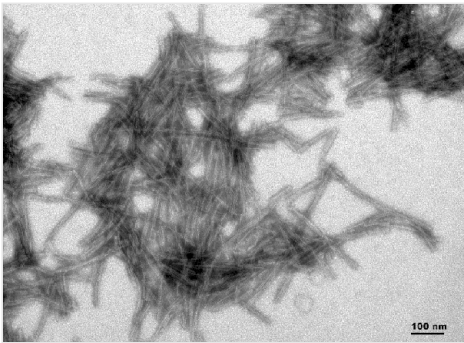
Host	E coli
Purity/Purification	>95%; Ion-exchange Purified
Form/Format	10mM PB pH7.4, 10mM DTT
Concentration	Lot/batch specific. See included datasheet. (varies by lot)
Sequence Length	Fragment
Applicable Applications for dGAE recombinant protein	Invitro Assay, SDS-PAGE, WB (Western Blot)
Species	Human
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
Biological Activity	Thioflavin T emission curves show increased fluorescence (correlated to tau aggregation) over time when truncated tau fragment (AA297-391)(dGAE) monomer is combined with truncated tau fragment (AA297-391)(dGAE) Pre-formed Fibrils.
Certificate of Analysis	Certified >95% pure using SDS-PAGE analysis. Low endotoxin <5 EU/mL @ 2mg/mL.
Other Relevant Information	For best results, sonicate immediately prior to use. Refer to the Neurodegenerative Protein Handling Instructions on our website, or on the product datasheet for further information.
Preparation and Storage	Store at -80 degree C



Application Data
TEM of Active Human Recombinant Truncated Tau Fragment (AA297-391)(dGAE) Protein Pre-formed Fibrils (Type1)

Application Data

Thioflavin T is a fluorescent dye that binds to β -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 truncated tau fragment (AA297-391)(dGAE) monomer is combined with truncated tau fragment (AA297-391)(dGAE) pre-formed fibrils (Type1).



Application Data

TEM of Active Human Recombinant Truncated Tau Fragment (AA297-391)(dGAE) Protein Pre-formed Fibrils (Type1) (AAA254091)

ADDITIONAL INFORMATION

Related Product Information for dGAE 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 paired helical filaments (PHFs). A truncated 95-amino acid fragment corresponding to residues 297-391 of full-length tau has been shown to assemble into PHF-like fibrils in vitro in the absence of additives or templates (3). This fragment has been found in the core of PHFs from AD brains and forms filaments that closely resemble PHFs isolated from AD brains (3).
Product Categories/Family for dGAE 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. Al-Hilaly, Y.K. et al. Alzheimer's Disease-like Paired Helical Filament Assembly from Truncated Tau Protein Is Independent of Disulfide Crosslinking. J. Mol. Biol. 429(23):3650-3665 (2017)

NCBI AND UNIPROT INFORMATION

NCBI GI #	6754638
NCBI GeneID	4137
NCBI Accession #	NP_005901.2
NCBI GenBank Nucleotide #	NM_005910.5
UniProt Accession #	P10636; P18518; Q14799; Q15549; Q15550; Q15551; Q1RMF6; Q53YB1; Q5CZ17; Q5XWFO; Q6QT54; Q9UDJ3

Molecular Weight	80,941 Da
NCBI Official Full Name	microtubule-associated protein tau isoform 2
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; PPP1R103
NCBI Protein Information	microtubule-associated protein tau; PHF-tau; paired helical filament-tau; neurofibrillary tangle protein; microtubule-associated protein tau, isoform 4; protein phosphatase 1, regulatory subunit 103; 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.

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Online datasheet: <https://stage.aaabiotech.com/mapt-recombinant-protein-e-coli-invitro-assay-sds-page-wb-western-blot/254091>