



## Synonym

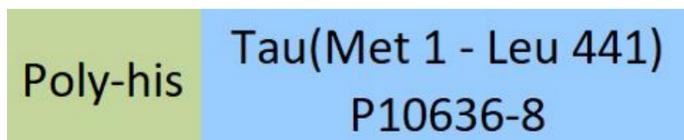
DDPAC,FTDP-17,MAPT,MSTD,MTBT1,Tau,PHF-tau,TAU

## Source

Human Tau-441 GSK-3beta-phosphorylated protein, His Tag(TAU-H5147) is expressed from E. coli cells. It contains AA Met 1 - Leu 441 (Accession # [P10636-8](#)).

Predicted N-terminus: Met

## Molecular Characterization



This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 47.9 kDa. The protein migrates as 45-65 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE).

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## Purity

>90% as determined by SDS-PAGE.

## Formulation

Supplied as 0.2 µm filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

## Shipping

*This product is supplied and shipped with dry ice, please inquire the shipping cost.*

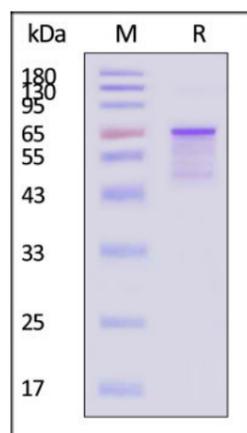
## Storage

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 12 months under sterile conditions.

## SDS-PAGE



Human Tau-441 GSK-3beta-phosphorylated protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Bioactivity-ELISA

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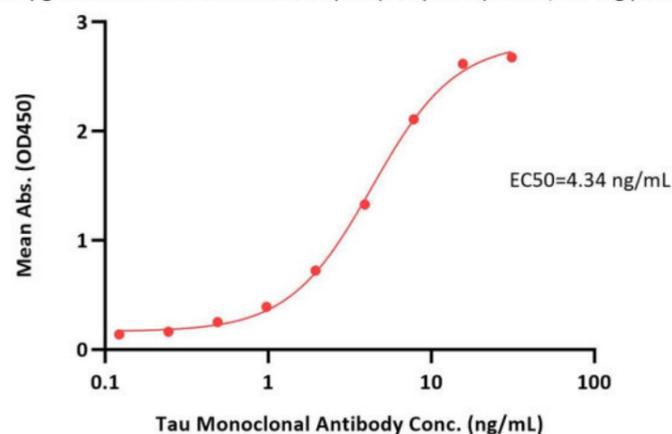
# Human Tau-441 GSK-3beta-phosphorylated protein, His Tag

Catalog # TAU-H5147

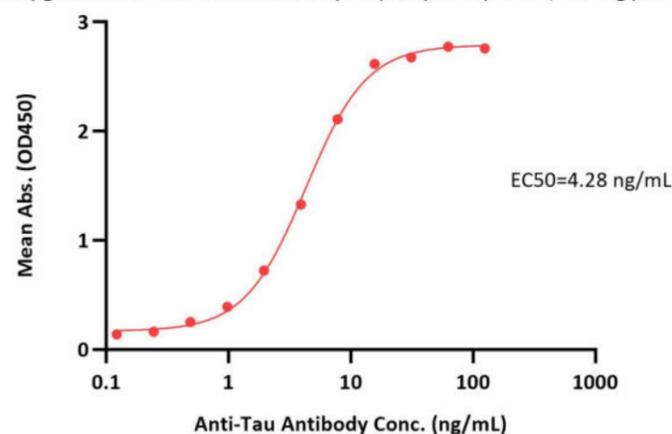


BIOSYSTEMS  
**Acro**

Human Tau-441 GSK-3beta-phosphorylated protein, His Tag ELISA  
0.1 µg of Human Tau-441 GSK-3beta-phosphorylated protein, His Tag per well



Human Tau-441 GSK-3beta-phosphorylated protein, His Tag ELISA  
0.1 µg of Human Tau-441 GSK-3beta-phosphorylated protein, His Tag per well



Immobilized Human Tau-441 GSK-3beta-phosphorylated protein, His Tag (Cat. No. TAU-H5147) at 1 µg/mL (100 µL/well) can bind Anti-Phospho-Tau (Thr181) Monoclonal Antibody, Mouse IgG with a linear range of 1-31 ng/mL (QC tested).

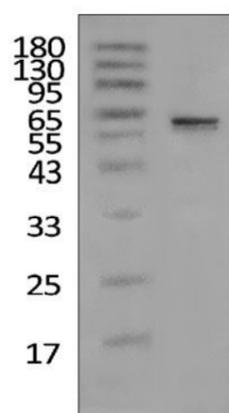
Immobilized Human Tau-441 GSK-3beta-phosphorylated protein, His Tag (Cat. No. TAU-H5147) at 1 µg/mL (100 µL/well) can bind Anti-Tau Antibody with a linear range of 0.1-8 ng/mL (Routinely tested).

## Mass Spectrometry

Accession	MW [kDa]	Modifications	Position	Abundances
P10636-8	78.9	phospho	T30	
P10636-8	78.9	phospho	T69	1646436
P10636-8	78.9	phospho	T181	3306908
P10636-8	78.9	phospho	T212	6375377
P10636-8	78.9	phospho	S289	1223443
P10636-8	78.9	phospho	S305	3141761
P10636-8	78.9	phospho	S396	31326272
P10636-8	78.9	phospho	S413	1333573

Mass spectrometry reveals 8 phosphorylation sites on E.coli expressed Human Tau-441 GSK-3beta-phosphorylated protein, His Tag (Cat. No. TAU-H5147) as shown on the modified phosphorylation PTM spectrum. The protein sequence coverage was 40% (Routinely tested).

## Western Blot



Western blot was performed by loading Human Tau-441 GSK-3beta-phosphorylated protein, His Tag (Cat. No. TAU-H5147): 400ng, and it was electrophoresed using NuPAGE™ 12% Bis-Tris Protein Gel. Human Tau 441 GSK-3beta-phosphorylated protein, His Tag (Cat. No. TAU-H5147) were

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# Human Tau-441 GSK-3beta-phosphorylated protein, His Tag

Catalog # TAU-H5147



BIOSYSTEMS  
**Acro**

transferred onto a pvdF membrane by Tanon Trans-Blot. Anti-Phospho-Tau (Thr181) Monoclonal Antibody is primary antibody (1 µg/mL) and (MFC) Peroxidase Affini Pure Goat Anti-Mouse IgG, Fcγ Fragment Specific (minXHu, Bov, HrSrProt (1:1500)) is second antibody detected by chemiluminescence with using the iBright 1500 (Chemiluminescent detection was performed using BeyoECL Plus).

## Background

Tau is a microtubule-associated protein, which encodes by the MAPT gene that located on chromosome 17q21. Tau Promotes microtubule assembly and stability, and might be involved in the establishment and maintenance of neuronal polarity. Hyperphosphorylation of the tau protein (tau inclusions, pTau) can result in the self-assembly of tangles of paired helical filaments and straight filaments, which are involved in the pathogenesis of Alzheimer's disease, frontotemporal dementia, and other tauopathies.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.

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