

## **DATA SHEET**

<b>Product Name:</b>	Biotin Tau-441
<b>Catalog #:</b>	T-1114
<b>Source:</b>	Recombinant. A DNA sequence encoding the human tau-441 (2N4R isoform) sequence was expressed in E. coli and biotinylated on the C-terminus via BirA.
<b>Molecular Mass:</b>	47,904 Da
<b>Protein Purity:</b>	>90% by SDS-PAGE
<b>Counter Ion:</b>	50mM MES, pH 6.8, 100mM NaCl, and 0.5mM EGTA
<b>Supplied As:</b>	White lyophilized powder
<b>Resuspension:</b>	Resuspend in water at conc. of .1-1 mg/ml. Recommended to briefly centrifuge to ensure full resuspension of product.
<b>Storage:</b>	-20°C

**Description:** Tau is a family of major neuronal microtubule associated proteins that are found in the neurofibrillary tangles (NFT) in Alzheimer's disease. Tau promotes the assembly and maintains the structure of microtubules in neuronal cells<sup>1,2,3</sup>. An avi-tag was added to the C-terminus of the tau-441 sequence for in vivo biotinylation of the protein. Biotinylation was verified by ELISA and western blot. Biotinylated tau-441 can serve as a probe in many research applications including immunohistochemistry, localization studies<sup>4</sup>, and affinity assays<sup>5</sup>, without the need for further labeling or a specific antibody.

**References:**

1. Avila, J., et al., (2004) *Physiol Rev.*, *84*: 361
2. Goedert, M., (1993) *Trends Neurosci.*, *16*: 460
3. Mandelkow, E., et al., (1996) *Ann N Y Acad Sci.*, *777*: 96
4. Shivastava, A., et al., (2019) *EMBO J.*, *38*(3): e99871
5. Roberts, M., et al., (2020) *Acta Neuropathol Commun.*, *8*: 13

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