DATA SHEET

Product Name:	Tau-383, S262A Mutant
Catalog #:	T-1016
Source:	Recombinant, in E. coli. No his-tag.
Molecular Mass:	39.99 kDa
Protein Purity:	>90% by SDS-PAGE
Counter Ion:	50mM MES, pH 6.8, 100 mM NaCl and 0.5 mM EGTA
Supplied As:	White lyophilized powder
Resuspension:	Resuspend in water at conc. of .1-1 mg/ml. Recommended to briefly centrifuge to ensure full resuspension of product.
Storage:	–20^{0}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[1,2,3]. The tau proteins are derived from alternative mRNA splice variants that originate from a single gene and result in mature proteins that vary in size from 352 to 441 amino acids (36.8 to 45.9 kDa). There are six tau isoforms that differ from one another in having three or four microtubule binding repeats (R) of 31-32 amino acids each, and two, one or zero amino terminal inserts (N) of 29 amino acids each[4]. While the fetal brain contains a single isoform of tau (tau-352) the adult brain has several isoforms all derived from a single gene by alternative mRNA splicing[5]. rPeptide provides all six major isoforms of tau as well as several mutations of the wild type proteins, in addition to labeled products or preformed fibrils of the tau-441 isoform.
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. Goedert, M., et al., (1989) Neuron., *3*: 519 5. Himmler, et al., (1989) Mol Cell Biol., *9*: 1381 6. Tai, C., et al., (2020) Neuron., *106(3)*: 421-437.e11 7. Nobuhara, C., et al., (2017) Am J Pathol., *187(6)*: 1399–1412

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