



# Recombinant Protein Technical Manual

## Recombinant Human Tau-D Protein (His Tag)

RPES4697

### Product Data:

**Product SKU:** RPES4697

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** P10636-6

### Protein Information:

**Molecular Mass:** 15.4 kDa

**AP Molecular Mass:** 16 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 85 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Microtubule-Associated Protein Tau; Neurofibrillary Tangle Protein; Paired Helical Filament-Tau; PHF-Tau; MAPT; MAPTL; MTBT1; TAU

## Immunogen Information:

**Sequence:** Gln249-Gln381

## Background:

Microtubule-Associated Protein TAU is abundantly expressed in neurons of the central nervous system and less commonly expressed elsewhere, but is also expressed at very low levels in CNS astrocytes and oligodendrocytes. Tau interacts with tubulin to stabilize microtubules and promotes tubulin assembly into microtubules. The C-terminus of TAU binds axonal microtubules while the N-terminus binds neural plasma membrane components, suggesting that tau acts as a linker protein. When tau is defective, and no longer stabilize microtubules properly, it can result in dementias such as Alzheimer's disease and other tauopathies.