

**Datasheet for 009-001-T81S****Tau-441 (50-391) protein****Overview**

|                      |                                                     |
|----------------------|-----------------------------------------------------|
| <b>Description:</b>  | Tau-441 (50-391) recombinant protein - 009-001-T81S |
| <b>Item No.:</b>     | 009-001-T81S                                        |
| <b>Size:</b>         | 20 µg                                               |
| <b>Origin:</b>       | Human                                               |
| <b>Expressed in:</b> | E. coli                                             |

**Product Details**

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>Background:</b>        | Tau-441 or Tau-F is a member of the Tau family of proteins which function to stabilize the microtubules by binding to them. Tau proteins are subject to phosphorylation and this phenomenon regulates the association of the Tau protein with the microtubules (1). Deposits of Alzheimer's disease AD-associated proteins, such as hyperphosphorylated Tau, as well as other shared misfolded proteins, such as, $\beta$ -amyloid precursor protein ( $\beta$ APP), ubiquitin, and various chaperones and protein kinases are thought to play a pathologic role in the cognitive decline and muscular failure. Malfunctioning of Tau proteins is associated with microtubules disintegration and collapsing of the neuronal transport system (2). Tau-441 Protein is ideal for investigators involved in Signaling Proteins, Tau Proteins, Invasion/Metastasis, Neurobiology, and p38 Pathway research. |
| <b>Synonyms:</b>          | Tau-F, (N2R4), Tau-4, MAPT, MSTD, PPND, DDPAC, MAPTL, MTBT1, MTBT2, FTDP-17, FLJ31424, MGC138549, Microtubule-associated protein tau                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Species of Origin:</b> | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Expressed in:</b>      | E. coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Type:</b>              | Recombinant Protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

**Target Details**

|                            |                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name:</b>          | MAPT                                                                                                                              |
| <b>Purity/Specificity:</b> | Recombinant human tag-free Tau-441 (50-391) was expressed in E. coli cells. The purity was determined to be >95% by densitometry. |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">UniProtKB - P10636-8</a></li></ul>                                            |

## Application Details

|                          |                                                                                                                                                                                                                                                                                                                        |
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| <b>Application Note:</b> | Tau-441 Protein is stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM PMSF, 25% glycerol. Tau-441 Protein is suitable for use in Western Blot and Kinase Assay. Expect a band approximately ~46kDa on specific lysates or tissues. Specific conditions for reactivity should be optimized by the end user. |
| <b>Assay Dilutions:</b>  | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                                                                                                                                                        |
| <b>WB:</b>               | User Optimized                                                                                                                                                                                                                                                                                                         |

## Formulation

|                        |                           |
|------------------------|---------------------------|
| <b>Physical State:</b> | Liquid (sterile filtered) |
| <b>Concentration:</b>  | 0.2 µg/µL                 |
| <b>Buffer:</b>         | See application note.     |

## Shipping & Handling

|                            |                                                                                                                                                                                                                                         |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Shipping Condition:</b> | Dry Ice                                                                                                                                                                                                                                 |
| <b>Storage Condition:</b>  | Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. |
| <b>Expiration:</b>         | Expiration date is one (1) year from date of receipt.                                                                                                                                                                                   |

## Disclaimer

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