

## Tubulin Beta (TUBB1) Protein

Full-length human recombinant protein expressed in E. coli cells

**Catalog # T92-50G**

Lot # W198-4

### Product Description

Recombinant full-length human Tubulin Beta (TUBB1) was expressed in E. coli cells using an N-terminal GST tag. The gene accession number is [NM\\_178014](#).

### Gene Aliases

M40, TUBB, TUBB5, MGC16435, MGC117247, OK/SW-cl.56

### Formulation

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.

### Storage and Stability

Store product at  $-70^{\circ}\text{C}$ . 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.

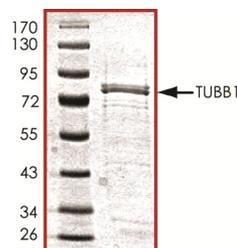
### Scientific Background

Tubulin Beta or TUBB1 protein is a major constituent of microtubules. TUBB1 interaction with microtubule-associated proteins (MAPs) such as tau is fundamental for microtubule structure and function (1). Previous work suggested that the "microtubule binding domain" of tau (composed of three or four imperfect 18-amino acid repeats, separated by 13- or 14-amino acid inter-repeat regions) can bind to the C-terminal ends of both alpha and beta tubulin monomers. Studies revealed that TUBB1 is the target of various antitubulin agents used in the treatment of cancer. Subsequent studies have also concluded that TUBB1 mutations in clinical samples are rare, and unlikely to contribute to drug resistance (2).

### References

1. Chau, M.F. et al: The microtubule-associated protein tau cross-links to two distinct sites on each alpha and beta tubulin monomer via separate domains". *Biochemistry*, 1999; **37** (51): 17692-703.
2. Berrieman, H.K. et al: Do beta-tubulin mutations have a role in resistance to chemotherapy?"*Lancet Oncol*, 2004; **5** (3): 158-64.

### Purity



The purity was determined to be **>80%** by densitometry. Approx. MW **76kDa**.

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Catalog Number	T92-50G
Specific Lot Number	W198-4
Purity	>80%
Concentration	0.2 µg/µl
Stability	1yr at $-70^{\circ}\text{C}$ from date of shipment
Storage & Shipping	Store product at $-70^{\circ}\text{C}$ . 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. Product shipped on dry ice.

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