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# Product Information

**Tubulin, GST-tagged, human recombinant, expressed in *E. coli* cells**

Catalog Number **SRP5148**
Storage Temperature –70 °C

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

## Product Description

Tubulinβ 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 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 α and β tubulin monomers. Studies revealed TUBB1 is the target of various antitubulin agents used in the treatment of cancer. Subsequent studies have also concluded TUBB1 mutations in clinical samples are rare and unlikely to contribute to drug resistance.[2]

Recombinant, full-length, human Tubulinβ (TUBB1) was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM_178014. Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~76 kDa

Purity: 70–95% (SDS-PAGE, see Figure 1)

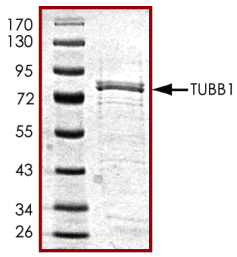
## Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

## Storage/Stability

The product ships on dry ice and storage at –70 °C is recommended. After opening, aliquot into smaller quantities and store at –70 °C. Avoid repeated handling and multiple freeze/thaw cycles.

**Figure 1.**
SDS-PAGE Gel of Typical Lot
70–95% (densitometry)




## 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, **37**(51), 17692-703 (1999).
2. Berrieman, H.K. et al., Do beta-tubulin mutations have a role in resistance to chemotherapy? Lancet Oncol., **5**(3), 158-64 (2004).

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