Recombinant TBB1 protein (His tag)

Catalog Number	533162
Synonyms	Beta-1-tubulin
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	P12456
Gene ID	181036
Molecular Weight	Predictes a molecular mass of 50.92 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 52 kDa band.

Product Information

Sequence Region	1-441
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-441 aa (P12456) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Tubulin beta-1 chain (Beta-1-tubulin) fragment from Caenororhabditis elegans, encompassing residues 1-441. This stable, soluble fragment is ideal for investigating microtubule dynamics and mechanosensory transduction mechanisms in structural and biochemical studies. Tubulin beta-1 chain, encoded by the mec-7 gene, is a key component of microtubules—cylindrical structures formed by alpha- and beta-tubulin heterodimers. It contributes to microtubule assembly through GTP-dependent dimer addition and exhibits GTPase activity. Notably, this protein is essential for mechanosensory transduction, specifically touch sensitivity, and is required for the formation of 15-protofilament microtubules. It localizes to the cytoplasm and cytoskeleton, underscoring its role in cellular structure and sensory functions.