Recombinant TBA2 protein (His tag)

Catalog Number	532646
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	P34690
Gene ID	173167
Molecular Weight	Predictes a molecular mass of 51.57 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 54 kDa band.

Product Information

Sequence Region	1-448
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-448 aa (P34690) 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 alpha-2 chain (EC 3.6.5.-) fragment from Caenorhabditis elegans, encompassing residues 1-448, provides a stable and soluble unit ideal for structural studies, biochemical assays, and investigations into microtubule dynamics and cellular wound response mechanisms. Tubulin alpha-2 chain, encoded by the tba-2 gene in Caenorhabditis elegans, is a key structural component of microtubules, forming heterodimers with beta-tubulin to assemble linear protofilaments. Microtubules polymerize through the addition of GTP-bound tubulin dimers, with alpha-tubulin's GTPase activity facilitating the transition to GDP-bound states in the microtubule lattice. This protein is localized to the cytoplasm and cytoskeleton and plays critical roles in maintaining the dynamic behavior of non-centrosomal microtubules in the epidermal syncytium. It is involved in redistributing the microtubule end-binding protein EB1/ebp-2 following wounding and modulates the expression of antimicrobial peptides, such as nlp-29, in response to injury or fungal infection, highlighting its importance in cellular defense and structural integrity.