Recombinant TBB5 protein (His tag)

Catalog Number	539720
Synonyms	Tubulin beta-5 chain
Species	Human
Expression System	E. coli
Accession	P07437
Molecular Weight	Predictes a molecular mass of 51.33 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 54 kDa band.

Product Information

Sequence Region	1-444
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-444 aa (P07437) 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 Human Tubulin beta-5 chain (TUBB) fragment (residues 1-444) is a high-purity protein designed for structural and biochemical studies. This fragment represents a stable, soluble unit of tubulin, ideal for investigating microtubule dynamics and cytoskeletal functions in vitro. Tubulin is the primary component of microtubules, cylindrical structures formed by alpha- and beta-tubulin heterodimers. These microtubules dynamically assemble through the addition of GTP-bound tubulin dimers at their growing ends, where a stabilizing cap exists. The intrinsic GTPase activity of alpha-tubulin hydrolyzes GTP to GDP in subunits below this cap, regulating microtubule stability and disassembly. As a key element of the cytoskeleton, tubulin is essential for cellular processes such as mitosis, intracellular transport, and cell shape maintenance. In human cells, tubulin beta-5 chain localizes to the cytoplasm and cytoskeleton, underscoring its fundamental role in cellular architecture and division.