Recombinant GCP5 protein (His tag)

Catalog Number	545752
Synonyms	GCP-5
Species	Human
Expression System	E. coli
Accession	Q96RT8
Molecular Weight	Predictes a molecular mass of 33.01 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	241-513
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 241-513 aa (Q96RT8) 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 Gamma-tubulin Complex Component 5 (GCP-5) Fragment (aa 241-513) is a high-quality protein product designed for structural and biochemical studies. This 273-amino acid fragment represents a stable and soluble region of GCP-5, making it ideal for investigating microtubule nucleation mechanisms and centrosome function in cellular division processes. Gamma-tubulin Complex Component 5 (GCP-5), encoded by the TUBGCP5 gene, is an essential component of the gamma-tubulin ring complex (gTuRC) that mediates microtubule nucleation. The gTuRC regulates the minus-end nucleation of alpha-beta tubulin heterodimers, which grow into microtubule protofilaments - a critical step in centrosome duplication and spindle formation during cell division. GCP-5 localizes to the cytoplasm, specifically within the cytoskeleton at the microtubule organizing center and centrosome, where it plays a fundamental role in establishing the microtubule network necessary for proper cellular architecture and mitotic processes.