Recombinant CEP63 protein (His tag)

Catalog Number	548012
Synonyms	Cep63
Species	Human
Expression System	E. coli
Accession	Q96MT8
Molecular Weight	Predictes a molecular mass of 36.65 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	1-296
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-296 aa (Q96MT8) 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 Centrosomal Protein of 63 kDa (Cep63) Fragment (residues 1-296) is a highly stable and soluble protein unit designed for structural and biochemical studies. This fragment enables researchers to explore Cep63's essential roles in centriole duplication, spindle assembly, and DNA damage response, offering a reliable tool for advancing cellular and molecular biology research. Cep63, encoded by the CEP63 gene in Homo sapiens, is a centrosomal protein critical for normal spindle assembly and mother-centriole-dependent centriole duplication. It functions within a stepwise complex involving CEP152, CDK5RAP2, and WDR62 to recruit CDK2, facilitating centriole replication. Cep63 also recruits CDK1 to centrosomes and plays a key role in DNA damage response, where its removal from centrosomes following double-strand breaks leads to spindle assembly inactivation and mitotic delay. Additionally, it promotes FXR1 protein stabilization by inhibiting its ubiquitination. Subcellularly, Cep63 localizes to the cytoplasm, specifically at the centrosome, centriole, and centriolar satellite, forming a cohesive structure around parental centrioles that engages procentrioles. This protein is vital for understanding centrosome dynamics, cell division, and genomic stability.