Recombinant CE295 protein (His tag)

Catalog Number	548187
Species	Human
Expression System	E. coli
Accession	Q9C0D2
Molecular Weight	Predictes a molecular mass of 21.95 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	1-169
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-169 aa (Q9C0D2) 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	Introducing the recombinant Centrosomal protein of 295 kDa (CEP295) fragment (amino acids 1-169), a highly stable and soluble unit derived from human CEP295. This fragment is ideal for structural studies, biochemical assays, and functional investigations into centriole biogenesis and microtubule dynamics, offering researchers a reliable tool for exploring key mechanisms in cell division and ciliogenesis. Centrosomal protein of 295 kDa (CEP295), encoded by the CEP295 gene in Homo sapiens, is a centriole-enriched microtubule-binding protein crucial for centriole biogenesis. It plays an essential role in generating the distal portion of new-born centrioles during the S/G2 phase of the cell cycle, following the formation of the initiating cartwheel structure. CEP295 is required for recruiting centriolar proteins such as POC1B, POC5, and CEP135 to the distal centriole and facilitates centriole-to-centrosome conversion during mitotic progression, though it is dispensable for cartwheel removal or centriole disengagement. Additionally, it binds to and stabilizes centriolar microtubules and may be involved in ciliogenesis. Subcellularly, CEP295 localizes to the cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole, and spindle, associating with converted centrioles in G1 phase and becoming enriched at newly formed daughter centrioles during S, G2, and early M phases. It colocalizes with proteins like SASS6, CEP250, CEP135, and CEP192, and associates with interphase microtubules and mitotic spindles, highlighting its integral role in cellular architecture and division.