Recombinant CROCC protein (His tag)

Catalog Number	547455
Synonyms	Ciliary rootlet coiled-coil protein
Species	Human
Expression System	E. coli
Accession	Q5TZA2
Molecular Weight	Predictes a molecular mass of 47.43 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 55 kDa band.

Product Information

Sequence Region	1519-1922
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 1519-1922 aa (Q5TZA2) 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 Rootletin (CROCC) Fragment (aa 1519-1922) is a high-quality protein product designed for structural and biochemical studies. This 404-amino acid fragment, derived from the ciliary rootlet coiled-coil protein, represents a stable and soluble unit ideal for investigating the molecular architecture and functional mechanisms of Rootletin in ciliated cells and centrosome dynamics. Rootletin, encoded by the CROCC gene in humans, serves as a major structural component of the ciliary rootlet—a cytoskeletal-like structure in ciliated cells that extends from the basal body toward the nucleus. It is essential for proper basal body positioning relative to the nucleus, facilitating ciliogenesis, and contributes to centrosome cohesion prior to mitosis. The protein localizes to the cytoplasm, specifically at the centrosome, centriole, and cilium basal body, dissociating from centrioles during mitosis and reassociating at anaphase. This fragment (aa 1519-1922) was selected based on computational predictions to ensure stability and solubility, enabling detailed analysis of Rootletin's roles in cellular organization and ciliary function.