Recombinant CFA45 protein (His tag)

Catalog Number	548502
Synonyms	Coiled-coil domain-containing protein 19; Nasopharyngeal epithelium-specific protein 1
Species	Human
Expression System	E. coli
Accession	Q9UL16
Molecular Weight	Predictes a molecular mass of 32.57 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 40 kDa band.

Product Information

Sequence Region	82-336
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 82-336 aa (Q9UL16) 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 CFAP45 Protein Fragment (aa 82-336) - A highly stable and soluble fragment of Cilia- and Flagella-Associated Protein 45, specifically designed for structural and biochemical studies of ciliary function and dynein-mediated motility mechanisms. CFAP45 is a microtubule inner protein essential for the structural integrity and function of dynein-decorated doublet microtubules in cilia and flagella axonemes. This protein plays a critical role in motile cilia beating by functioning as an AMP-binding protein that facilitates dynein ATPase-dependent ciliary and flagellar movement through adenine nucleotide homeostasis. CFAP45 may serve as an AMP donor to AK8, thereby promoting ADP production and supporting the energy requirements for ciliary motility. The protein localizes specifically to the cytoplasm, cytoskeleton, and axonemes of both cilia and flagella, with particular enrichment in the proximal region of respiratory cilia, highlighting its importance in respiratory function and cellular motility processes.