Recombinant IFT57 protein (His tag)

Catalog Number	543753
Synonyms	Dermal papilla-derived protein 8; Estrogen-related receptor beta-like protein 1; HIP1-interacting protein; MHS4R2
Species	Human
Expression System	E. coli
Accession	Q9NWB7
Molecular Weight	Predictes a molecular mass of 24.19 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	235-429
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 235-429 aa (Q9NWB7) 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 IFT57 (Intraflagellar transport protein 57 homolog) Fragment (aa 235-429) is a 195-amino acid protein fragment engineered for high stability and solubility. This fragment supports research into cilia formation, hedgehog signaling, and apoptosis mechanisms, making it ideal for structural and biochemical studies. The full-length Intraflagellar transport protein 57 homolog (IFT57) is essential for cilia formation in humans and indirectly regulates sonic hedgehog signaling, which depends on functional cilia. It exhibits pro-apoptotic activity by interacting with HIP1 to recruit caspase-8 and initiate apoptosis. Additionally, IFT57 can bind to specific DNA sequences in caspase gene promoters, suggesting a potential role in transcriptional regulation, though this function requires further validation. The protein localizes to cell projections, particularly cilia, and concentrates within the ciliary inner segment, as well as the cytoplasm at the cilium basal body, highlighting its importance in cellular structure and signaling pathways.