Recombinant IFT27 protein (His tag)

Catalog Number	548133
Synonyms	Putative GTP-binding protein RAY-like; Rab-like protein 4
Species	Human
Expression System	E. coli
Accession	Q9BW83
Molecular Weight	Predictes a molecular mass of 22.13 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	1-186
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1-186 aa (Q9BW83) 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 IFT27 (Intraflagellar transport protein 27 homolog) Fragment (aa 1-186) is a high-quality protein preparation ideal for studying ciliary function and intraflagellar transport mechanisms. This stable, soluble fragment represents a GTPase-like component of the IFT complex B, specifically engineered for structural and biochemical applications in cilia-related research. IFT27 is a small GTPase-like component of the intraflagellar transport (IFT) complex B that plays a critical role in ciliary function. It promotes the exit of the BBSome complex from cilia through interaction with ARL6, while preventing aggregation of GTP-free ARL6. The protein is essential for hedgehog signaling, male fertility, spermiogenesis, and sperm flagella formation, with important roles in kidney development and ureteric bud initiation. IFT27 localizes to cilia, cytoplasm, and specifically to sperm flagella, forming a subcomplex with IFT25 within the IFT complex B. Its function in intraflagellar transport is particularly significant in cilia-rich tissues such as kidney and testis.