Recombinant EFHB protein (His tag)

Catalog Number	540753
Synonyms	Cilia- and flagella-associated protein 21
Species	Human
Expression System	E. coli
Accession	Q8N7U6
Molecular Weight	Predictes a molecular mass of 41.90 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 43 kDa band.

Product Information

Sequence Region	275-626
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 275-626 aa (Q8N7U6) 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 EFHB protein fragment (residues 275-626), encompassing the EF-hand 1 domain. This high-purity fragment is ideal for investigating calcium-sensing mechanisms and microtubule-associated functions in cilia and flagella, providing a targeted tool for functional studies. EFHB (EF-hand domain-containing family member B) is a microtubule inner protein essential for the structure and beating of motile cilia axonemes. It also functions as a cytosolic calcium sensor, regulating store-operated calcium entry (SOCE) by modulating STIM1-ORAI1 interactions, thereby influencing processes like NFAT translocation. The protein localizes to the cytoplasm, cytoskeleton, and specifically to the axonemes of cilia and flagella, highlighting its dual roles in cellular motility and calcium signaling pathways.