Recombinant PHLP protein (His tag)

Catalog Number	542628
Synonyms	PHLP
Species	Human
Expression System	E. coli
Accession	Q13371
Molecular Weight	Predictes a molecular mass of 30.18 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 35 kDa band.

Product Information

Sequence Region	54-301
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 54-301 aa (Q13371) 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 Phosducin-like protein (PHLP) fragment (residues 54-301) is a high-quality, soluble protein designed for structural and biochemical studies. This 248-amino acid fragment represents a stable domain optimized for investigating PHLP's roles in hedgehog signaling, ciliary function, and G protein assembly regulation. Phosducin-like protein (PHLP), encoded by the PDCL gene in humans, acts as a positive regulator of hedgehog signaling and is essential for proper ciliary function. Isoform 1 functions as a co-chaperone for CCT in assembling heterotrimeric G protein complexes, facilitating both Gbeta-Ggamma and RGS-Gbeta5 heterodimer formation. In contrast, Isoform 2 negatively regulates G protein assembly by trapping preloaded G beta subunits within the CCT chaperonin. The protein localizes to cell projections, specifically cilia, highlighting its importance in cellular signaling and structural compartments. This recombinant fragment provides a valuable tool for studying these critical regulatory mechanisms.