Recombinant FTM protein (His tag)

Catalog Number	540496
Synonyms	Nephrocystin-8; RPGR-interacting protein 1-like protein; RPGRIP1-like protein
Species	Human
Expression System	E. coli
Accession	Q68CZ1
Molecular Weight	Predictes a molecular mass of 29.52 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 35 kDa band.

Product Information

Sequence Region	208-440
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 208-440 aa (Q68CZ1) 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 Protein Fantom (RPGRIP1L) Fragment (208-440) is a high-quality, stable protein fragment designed for structural and biochemical research. This 233-amino acid segment offers a soluble and functional unit ideal for studying the role of Nephrocystin-8 in cellular signaling, ciliary function, and planar cell polarity. Protein Fantom, also known as Nephrocystin-8 or RPGR-interacting protein 1-like protein, is encoded by the RPGRIP1L gene in humans. It functions as a negative regulator of thromboxane A2 receptor (TBXA2R) signaling and is implicated in critical developmental processes, including programmed cell death, craniofacial and limb patterning, and left-right axis formation. The protein contributes to apical junction organization through a proposed NPHP1-4-8 module and supports planar cell polarity, such as in the cochlear sensory epithelium, potentially by stabilizing disheveled proteins. It also regulates proteasomal activity at the primary cilium, likely in association with PSDM2. While not strictly required for ciliogenesis, Protein Fantom localizes to the cytoplasm, ciliary basal body and axoneme, centrosome, and tight junctions, accumulating at basolateral tight junctions in confluent renal cells and at the ciliary transition zone, underscoring its multifaceted roles in cellular structure and signaling pathways.