Recombinant BIG3 protein (His tag)

Catalog Number	549778
Synonyms	ARFGEF family member 3
Species	Human
Expression System	E. coli
Accession	Q5TH69
Molecular Weight	Predictes a molecular mass of 35.99 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	1108-1414
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1108-1414 aa (Q5TH69) 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	This product is a recombinant protein fragment of Brefeldin A-inhibited guanine nucleotide-exchange protein 3 (ARFGEF3), spanning residues 1108-1414. Derived from Homo sapiens, this 307-amino acid fragment is engineered for stability and solubility, making it an ideal tool for structural studies and biochemical assays investigating its role in glucose homeostasis and hormone granule regulation. The full-length ARFGEF3 protein, encoded by the ARFGEF3 gene in humans, plays a critical role in systemic glucose homeostasis by negatively regulating insulin granule biogenesis in pancreatic beta cells and modulating glucagon granule production in alpha cells. Additionally, it inhibits the nuclear translocation of the transcriptional coregulator PHB2 and may enhance estrogen receptor alpha (ESR1) transcriptional activity in breast cancer cells. ARFGEF3 is localized primarily in the cytoplasm and on secretory vesicle membranes, where it functions as a single-pass membrane protein, underscoring its involvement in vesicular trafficking and cellular signaling pathways.