Recombinant RGF1B protein (His tag)

Catalog Number	547229
Synonyms	GPI gamma-4
Species	Human
Expression System	E. coli
Accession	Q0VAM2
Molecular Weight	Predictes a molecular mass of 57.02 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 58 kDa band.

Product Information

Sequence Region	1-473
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 1-473 aa (Q0VAM2) 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 recombinant protein product features a 473-amino acid fragment of Ras-GEF domain-containing family member 1B (GPI gamma-4), encompassing key functional domains including the N-terminal Ras-GEF and Ras-GEF domains. It serves as an essential tool for investigating the specific guanine nucleotide exchange factor activity of RASGEF1B, particularly its activation of RAP2A, in cellular signaling studies. Ras-GEF domain-containing family member 1B (RASGEF1B) is a guanine nucleotide exchange factor (GEF) with demonstrated specificity for RAP2A, as shown in vitro studies, without activating other Ras family proteins. This protein localizes to early and late endosomes and may shuttle between these compartments, with additional presence at the midbody during telophase, indicating roles in endosomal trafficking and cell division processes. The full-length protein's targeted activation of RAP2A highlights its importance in regulating specific small GTPase pathways involved in intracellular signaling and membrane dynamics.