Recombinant RGRF1 protein (His tag)

Catalog Number	540282
Synonyms	Ras-GRF1; Guanine nucleotide-releasing protein; GNRP; Ras-specific nucleotide exchange factor CDC25
Species	Human
Expression System	E. coli
Accession	Q13972
Molecular Weight	Predictes a molecular mass of 39.62 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	947-1273
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 947-1273 aa (Q13972) 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 fragment of the human Ras-specific guanine nucleotide-releasing factor 1 (Ras-GRF1), encompassing amino acids 947-1273. This fragment is specifically engineered to include the complete Ras-GEF domain, making it an ideal reagent for studying Ras activation mechanisms and nucleotide exchange in controlled experimental settings. Ras-GRF1, encoded by the gene RASGRF1 in Homo sapiens, functions as a guanine nucleotide exchange factor (GEF) that promotes the exchange of Ras-bound GDP for GTP. This activity is critical for activating Ras signaling pathways, which regulate key cellular processes such as proliferation, differentiation, and survival. The provided fragment, containing the Ras-GEF domain, allows focused investigation into the molecular basis of nucleotide exchange and Ras activation without interference from other regulatory regions of the full-length protein.