Recombinant RB3GP protein (His tag)

Catalog Number	547328
Synonyms	RAB3 GTPase-activating protein 130 kDa subunit; Rab3-GAP p130; Rab3-GAP
Species	Human
Expression System	E. coli
Accession	Q15042
Molecular Weight	Predictes a molecular mass of 43.22 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 47 kDa band.

Product Information

Sequence Region	615-981
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 615-981 aa (Q15042) 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 RAB3GAP1 (615-981) Fragment is a high-quality protein product derived from the catalytic subunit of the Rab3 GTPase-activating protein complex. This 367-amino acid fragment has been selected for its stability and solubility, making it an ideal tool for structural studies, biochemical assays, and functional investigations of Rab protein regulation. The full-length Rab3 GTPase-activating protein catalytic subunit (RAB3GAP1) is a crucial regulatory component in intracellular trafficking and secretion processes. As part of the Rab3GAP complex with RAB3GAP2, it exhibits dual enzymatic activities: GTPase-activating protein (GAP) activity toward Rab3 subfamily members (RAB3A, RAB3B, RAB3C, RAB3D), RAB5A, and RAB43, converting them from active GTP-bound to inactive GDP-bound states, and guanine nucleotide exchange factor (GEF) activity toward RAB18, promoting its activation. This protein plays essential roles in regulated exocytosis of neurotransmitters and hormones, maintains endoplasmic reticulum structure, and supports RAB18 recruitment at Golgi and ER membranes. RAB3GAP1 is localized to cytoplasm, endoplasmic reticulum, and cis-Golgi network, and is critical for normal eye and brain development, participating in neurodevelopmental processes including proliferation, migration, and differentiation.