Recombinant RAB1A protein (His tag)

Catalog Number	542476
Synonyms	YPT1-related protein
Species	Human
Expression System	E. coli
Accession	P62820
Molecular Weight	Predictes a molecular mass of 24.20 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	2-205
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 2-205 aa (P62820) 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 Ras-related protein Rab-1A (EC 3.6.5.2) fragment (amino acids 2-205) is a high-purity, soluble protein designed for structural and biochemical studies. This fragment encompasses the full-length functional domain, offering a stable and active form ideal for investigating intracellular membrane trafficking mechanisms. Ras-related protein Rab-1A is a small GTPase that acts as a master regulator of intracellular membrane trafficking, cycling between inactive GDP-bound and active GTP-bound states to control processes from vesicle formation to fusion. It plays critical roles in protein transport from the endoplasmic reticulum to the Golgi apparatus and cell surface, influencing hormone secretion, cell adhesion, migration, autophagosome assembly, and cellular defense against pathogens. The protein localizes to key cellular compartments, including the Golgi apparatus, endoplasmic reticulum, early endosomes, cytosol, and melanosomes, dynamically shifting between membrane-associated and cytosolic forms to coordinate vesicular transport and maintain cellular homeostasis.