Recombinant RAB32 protein (His tag)

Catalog Number	547277
Species	Human
Expression System	E. coli
Accession	Q13637
Molecular Weight	Predictes a molecular mass of 26.52 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Sequence Region	2-225
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 2-225 aa (Q13637) 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-32 (EC 3.6.5.2) fragment (residues 2-225) is a high-purity, stable protein designed for structural and biochemical studies. This fragment encompasses the complete functional domain of Rab-32, enabling research into its critical roles in intracellular membrane trafficking, mitochondrial dynamics, phagosome maturation, and melanosome biogenesis. Ras-related protein Rab-32 is a small GTPase that acts as a key regulator of intracellular membrane trafficking, cycling between inactive GDP-bound and active GTP-bound states to coordinate vesicle formation, movement, tethering, and fusion. It localizes to multiple subcellular compartments, including the mitochondrion outer membrane, phagosomes, and melanosomes, where it functions as an A-kinase anchoring protein to tether protein kinase A to mitochondria, synchronizes mitochondrial fission, promotes phagosome maturation during pathogen clearance (e.g., Staphylococcus aureus and Mycobacterium tuberculosis), and regulates melanin production by facilitating the trafficking of melanogenic enzymes like TYR, TYRP1, and DCT/TYRP2. Rab-32 also interacts with RAB38 and stimulates RAB10 phosphorylation by LRRK2, underscoring its broad significance in cellular processes and disease research.