Recombinant RAB38 protein (His tag)

Catalog Number	540083
Synonyms	Melanoma antigen NY-MEL-1
Species	Human
Expression System	E. coli
Accession	P57729
Molecular Weight	Predictes a molecular mass of 25.37 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	1-211
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1-211 aa (P57729) 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-38 (RAB38) fragment (residues 1-211) is a high-purity protein designed for studying intracellular membrane trafficking, melanosome biogenesis, and phagosome maturation. This stable, soluble fragment is ideal for structural, biochemical, and functional assays in cell biology and immunology research. Ras-related protein Rab-38 (RAB38) 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 control vesicle formation, movement, tethering, and fusion. In humans, RAB38 plays critical roles in melanosomal transport and docking, including the proper sorting and peripheral distribution of melanogenic enzymes like TYRP1 in cooperation with ANKRD27 and VAMP7. It also contributes to melanin production and melanosome biogenesis, often working alongside RAB32 to traffic enzymes such as TYR and DCT/TYRP2. Additionally, RAB38 is involved in the maturation of phagosomes that engulf pathogens like Staphylococcus aureus and Mycobacterium tuberculosis, highlighting its importance in immune responses. Subcellularly, RAB38 localizes to the cell membrane, melanosome membrane, and phagosome membrane, where it is anchored via lipids on the cytoplasmic side. Its recruitment to phagosomes and membrane localization are facilitated by the BLOC-3 complex (comprising HPS1 and HPS4), underscoring its relevance in cellular trafficking and disease mechanisms.