Recombinant RAP1B protein (His tag)

Catalog Number	547126
Synonyms	GTP-binding protein smg p21B
Species	Human
Expression System	E. coli
Accession	P61224
Molecular Weight	Predictes a molecular mass of 22.13 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	1-181
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-181 aa (P61224) 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 Rap-1b (EC 3.6.5.2) fragment (residues 1-181) is a high-purity, soluble protein designed for structural and biochemical studies. This fragment encompasses the full-length GTP-binding domain, offering researchers a stable and functional unit to investigate Rap-1b's role in cellular signaling, polarity, and endothelial barrier regulation. Ras-related protein Rap-1b is a GTP-binding protein with intrinsic GTPase activity, playing a critical role in endothelial cell polarity, vascular lumen formation, and the establishment of basal endothelial barrier function. It contributes to the localization of key proteins such as phosphorylated PRKCZ, PARD3, and TIAM1 at cell junctions, facilitating proper cellular architecture. Rap-1b localizes to the cell membrane, cytosol, and cell junctions, and its presence at junctions depends on KRIT1 and CDH5. It may shuttle between the plasma membrane and cytosol, highlighting its dynamic involvement in intracellular signaling pathways relevant to vascular biology and cell adhesion.