Recombinant RAB3A protein (His tag)

Catalog Number	546824
Species	Human
Expression System	E. coli
Accession	P20336
Molecular Weight	Predictes a molecular mass of 26.64 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	1-220
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-220 aa (P20336) 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-3A (EC 3.6.5.2) fragment (amino acids 1-220) is a high-purity, soluble protein designed for structural and biochemical studies. This fragment encompasses the full-length protein domain, offering a stable and functional unit ideal for investigating intracellular membrane trafficking, vesicle docking, and regulated exocytosis mechanisms. Ras-related protein Rab-3A (RAB3A) 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. It plays a central role in regulated exocytosis and secretion by recruiting effectors such as RIMS1, RIMS2, Rabphilin-3A, RPH3AL, and SYTL4 to facilitate vesicle docking at the plasma membrane. RAB3A is involved in insulin secretion, calcium-dependent lysosome exocytosis, plasma membrane repair, acrosome content secretion in sperm cells, and dopamine release. Subcellularly, it localizes to the cytoplasm, cytosol, lysosomes, secretory vesicles, axons, cell membrane (lipid-anchored on the cytoplasmic side), presynapse, and postsynapse, cycling between vesicle-associated and cytosolic forms depending on its nucleotide-bound state.