Recombinant RAB5A protein (His tag)

Catalog Number	539831
Species	Human
Expression System	E. coli
Accession	P20339
Molecular Weight	Predictes a molecular mass of 22.03 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	1-184
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 1-184 aa (P20339) 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-5A (EC 3.6.5.2) fragment (residues 1-184) is a high-purity, stable protein designed for structural and biochemical studies. This soluble fragment retains key functional characteristics, making it an ideal tool for investigating intracellular membrane trafficking mechanisms. Ras-related protein Rab-5A is a small GTPase that serves as a critical regulator of intracellular membrane trafficking. It cycles between inactive GDP-bound and active GTP-bound states to coordinate vesicle formation, movement, tethering, and fusion. Specifically, RAB5A facilitates the fusion of plasma membranes with early endosomes, regulates filopodia extension, and is essential for exosomal release of proteins such as SDCBP, CD63, PDCD6IP, and syndecan. It also contributes to phagosome maturation during apoptosis. The protein localizes to multiple cellular compartments including the cell membrane, early endosomes, melanosomes, cytoplasmic vesicles, ruffles, phagosome membranes, and the cytosol, dynamically alternating between membrane-bound and cytosolic forms to execute its trafficking functions.