Recombinant RAB20 protein (His tag)

Catalog Number	548381
Species	Human
Expression System	E. coli
Accession	Q9NX57
Molecular Weight	Predictes a molecular mass of 27.93 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 29 kDa band.

Product Information

Sequence Region	1-234
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-234 aa (Q9NX57) 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-20 (EC 3.6.5.2) fragment (amino acids 1-234) is a high-quality, soluble protein designed for structural and biochemical studies. This fragment encompasses the full-length protein and is optimized for stability, enabling researchers to investigate Rab-20's critical roles in intracellular membrane trafficking and phagosome maturation. Ras-related protein Rab-20 is a small GTPase that functions 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. Specifically, RAB20 is involved in apical endocytosis and recycling in polarized epithelial cells and plays a vital role in the maturation, acidification, and fusion of phagosomes with lysosomes during pathogen clearance, such as with Staphylococcus aureus and Mycobacterium tuberculosis. It localizes to the Golgi apparatus, cytoplasmic vesicles, and phagosome membranes, where it is recruited to pathogen-containing phagosomes, highlighting its importance in immune response and cellular trafficking pathways.