Recombinant RAB25 protein (His tag)

Catalog Number	537864
Synonyms	CATX-8
Species	Human
Expression System	E. coli
Accession	P57735
Molecular Weight	Predictes a molecular mass of 24.84 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	1-210
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 1-210 aa (P57735) 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-25 (EC 3.6.5.2), also known as CATX-8, is a high-purity fragment (amino acids 1-210) designed for structural and biochemical studies. This fragment encompasses the full-length protein's functional domains, offering a stable and soluble unit ideal for investigating Rab-25's role in intracellular trafficking, epithelial cell regulation, and tumorigenesis. Ras-related protein Rab-25 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, and fusion. It plays critical roles in epithelial cell differentiation, proliferation, and survival, with implications in tumorigenesis by promoting invasive migration through localization of integrin alpha-V/beta-1 at pseudopodia tips. Rab-25 also regulates epithelial morphogenesis by controlling CLDN4 expression at tight junctions and is involved in apical recycling pathways and transcytosis. Subcellularly, it localizes to the cell membrane (cytoplasmic side, lipid-anchored), cytoplasmic vesicles, and pseudopodium membranes, often colocalizing with integrins and RAB11A in subapical vesicles, underscoring its importance in cellular dynamics and disease mechanisms.