Recombinant CCZ1 protein (His tag)

Catalog Number	548946
Species	Human
Expression System	E. coli
Accession	P86791
Molecular Weight	Predictes a molecular mass of 57.39 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 60 kDa band.

Product Information

Sequence Region	2-482
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 2-482 aa (P86791) 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 CCZ1 (Vacuolar fusion protein CCZ1 homolog) fragment (residues 2-482) is a high-quality protein designed for structural and biochemical studies. This 481-amino acid fragment represents a stable, soluble unit of the protein, ideal for investigating its role as a guanine exchange factor (GEF) for RAB7 in lysosomal membrane dynamics. The full-length Vacuolar fusion protein CCZ1 homolog, encoded by the CCZ1 gene in Homo sapiens, functions as a guanine exchange factor (GEF) in concert with MON1A. It activates RAB7 by promoting the exchange of GDP to GTP, converting RAB7 from an inactive to an active GTP-bound state, which is critical for processes such as endosomal maturation and lysosomal fusion. This protein is localized to the lysosome membrane, underscoring its importance in membrane trafficking and organelle dynamics. The provided fragment encompasses the entire functional domain (residues 2-482), enabling detailed analysis of its GEF activity and interactions.