Recombinant CLTRN protein (His tag)

Catalog Number	545989
Synonyms	Transmembrane protein 27
Species	Human
Expression System	E. coli
Accession	Q9HBJ8
Molecular Weight	Predictes a molecular mass of 16.05 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	15-141
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 15-141 aa (Q9HBJ8) 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	Introducing the recombinant Collectrin (Transmembrane protein 27) fragment (amino acids 15-141), a highly stable and soluble protein unit derived from Homo sapiens. This fragment is expertly designed for structural and biochemical studies, enabling researchers to explore the essential roles of Collectrin in amino acid transport regulation and SNARE complex function with precision and reliability. Collectrin, encoded by the CLTRN gene, is a critical regulator of amino acid transport, functioning as a binding partner for transporters SLC6A18 and SLC6A19 to modulate their cell surface trafficking and activity. It also contributes to the trafficking of SLC3A1 and SLC7A9 transporters to renal cortical cell membranes and acts as a regulator of SNARE complex function, which is vital for cellular processes such as vesicle fusion. Additionally, Collectrin stimulates beta cell replication, highlighting its importance in metabolic and renal physiology. This protein is localized to the cell membrane as a single-pass type I membrane protein, specifically found in the brush border membranes of proximal tubule cells in the kidney, where it colocalizes with SLC6A19 in the early proximal S1 tubule, underscoring its role in nutrient absorption and cellular regulation.