Recombinant CLPB protein (His tag)

Catalog Number	545893
Synonyms	Suppressor of potassium transport defect 3
Species	Human
Expression System	E. coli
Accession	Q9H078
Molecular Weight	Predictes a molecular mass of 52.73 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 57 kDa band.

Product Information

Sequence Region	262-707
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 262-707 aa (Q9H078) 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 CLPB (262-707) is a high-quality protein fragment of the mitochondrial disaggregase, specifically engineered for structural and biochemical studies. This 446-amino acid fragment represents a stable, soluble unit of CLPB that maintains key functional characteristics, making it ideal for investigating protein disaggregation mechanisms and mitochondrial protein homeostasis. The full-length CLPB protein, also known as mitochondrial disaggregase, functions as a regulatory ATPase with critical roles in mitochondrial protein quality control. It exhibits ATP-dependent protein disaggregase activity essential for maintaining the solubility of key mitochondrial proteins. CLPB is localized to the mitochondrial intermembrane space and participates in multiple cellular processes including secretion and protein trafficking. Beyond its disaggregase function, CLPB plays a significant role in mitochondrial-mediated antiviral innate immunity by activating RIG-I-mediated signal transduction and promoting production of IFNB1 and pro-inflammatory cytokine IL6. Additionally, it contributes to granulocyte differentiation, highlighting its importance in both cellular stress response and immune system function.