Recombinant MIEAP protein (His tag)

Catalog Number	543223
Synonyms	Spermatogenesis-associated protein 18
Species	Human
Expression System	E. coli
Accession	Q8TC71
Molecular Weight	Predictes a molecular mass of 24.16 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	294-492
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 294-492 aa (Q8TC71) 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 Mitochondria-eating Protein (SPATA18) Fragment (aa 294-492) – a high-quality, stable protein fragment designed for structural and functional studies. This 199-amino acid recombinant protein is ideal for investigating mitochondrial quality control mechanisms, including MALM and MIV processes, in a soluble and experimentally accessible format. The full-length Mitochondria-eating protein (SPATA18) is a key regulator of mitochondrial quality control in human cells, mediating both repair and degradation pathways for damaged mitochondria. It facilitates mitochondrial protein catabolism (MALM) by promoting hydrolase accumulation in the mitochondrial matrix and participates in mitochondrial degradation via vacuole-like structures (MIV) that engulf unhealthy organelles. SPATA18 localizes dynamically between the cytosol (under normal conditions) and mitochondrial compartments (outer membrane and matrix) during cellular stress, where it interacts with BNIP3 and BNIP3L to enable lysosomal protein translocation. Recent research indicates it may form molecular condensates within mitochondria to compartmentalize cardiolipin metabolism. The selected fragment (aa 294-492) represents a stable, soluble region optimized for biochemical and structural analysis of these critical mitochondrial maintenance functions.