Recombinant SCMC3 protein (His tag)

Catalog Number	545832
Synonyms	Mitochondrial ATP-Mg/Pi carrier protein 2; Short calcium-binding mitochondrial carrier protein 3; SCaMC-3; Solute carrier family 25 member 23
Species	Human
Expression System	E. coli
Accession	Q9BV35
Molecular Weight	Predictes a molecular mass of 16.49 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	65-188
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 65-188 aa (Q9BV35) 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	This recombinant protein product features a specific 124-amino acid fragment (residues 65-188) of the human Mitochondrial Adenyl Nucleotide Antiporter SLC25A23. It is engineered to include the EF-hand 2 and EF-hand 3 domains, making it an excellent tool for investigating calcium-binding properties and domain-specific functions in mitochondrial nucleotide transport and calcium regulation. The full-length SLC25A23 protein is an electroneutral antiporter located in the inner mitochondrial membrane, where it facilitates the transport of adenine nucleotides, such as ATP-magnesium and inorganic phosphate. It functions as a broad-specificity adenyl nucleotide antiporter, helping to regulate the mitochondrial matrix adenine nucleotide pool in response to cellular energy demands and indirectly influencing adenine nucleotide-dependent metabolic pathways. Additionally, SLC25A23 plays a role in mitochondrial calcium uptake and may transport trace amounts of other divalent metal cations complexed with ATP. This protein is critical for adapting to energetic changes and maintaining mitochondrial function, with implications in cellular metabolism and calcium signaling.