Recombinant MID49 protein (His tag)

Catalog Number	540954
Synonyms	Mitochondrial dynamics protein of 49 kDa; Mitochondrial elongation factor 2; Smith-Magenis syndrome chromosomal region candidate gene 7 protein
Species	Human
Expression System	E. coli
Accession	Q96C03
Molecular Weight	Predictes a molecular mass of 37.78 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	126-454
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 126-454 aa (Q96C03) 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 Mitochondrial dynamics protein MID49 (MIEF2) fragment (aa 126-454) is a high-purity protein preparation ideal for studying mitochondrial dynamics and fission mechanisms. This 329-amino acid fragment represents a stable, soluble domain computationally optimized for structural and functional analyses, enabling researchers to investigate the critical role of MID49 in mitochondrial organization without the challenges of full-length membrane protein expression. Mitochondrial dynamics protein MID49 is a key regulator of mitochondrial organization located on the mitochondrial outer membrane. This protein plays an essential role in mitochondrial fission by recruiting and associating with dynamin-related protein 1 (DNM1L) to the mitochondrial surface, functioning independently of the FIS1 and MFF fission proteins. MID49 regulates DNM1L GTPase activity and forms characteristic foci and rings around mitochondria, positioning it as a central player in maintaining mitochondrial morphology and function. Its involvement in mitochondrial dynamics makes it crucial for understanding cellular energy metabolism, apoptosis, and various mitochondrial-related disorders.