Recombinant FTMT protein (His tag)

Catalog Number	538489
Species	Human
Expression System	E. coli
Accession	Q8N4E7
Molecular Weight	Predictes a molecular mass of 22.44 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	63-242
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 63-242 aa (Q8N4E7) 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 Ferritin, mitochondrial (EC 1.16.3.1) Fragment (residues 63-242) is a high-purity protein designed for studying iron metabolism and homeostasis. This 180-amino acid fragment fully encompasses the critical Ferritin-like diiron domain, making it an ideal tool for investigating domain-specific functions in oxidation and iron storage mechanisms. Ferritin, mitochondrial, encoded by the FTMT gene in Homo sapiens, plays a vital role in cellular iron management. It catalyzes the oxidation of ferrous iron (II) to ferric iron (III) and stores iron in a soluble, non-toxic, and readily available form, which is crucial for maintaining iron homeostasis. This protein is localized within the mitochondrion, where it facilitates iron uptake in its ferrous state and deposits it as ferric hydroxides after oxidation, thereby preventing iron-induced toxicity and ensuring a regulated iron supply for mitochondrial functions.