Recombinant FRDA protein (His tag)

Catalog Number	534624
Synonyms	Fxn
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q9TY03
Gene ID	174002
Molecular Weight	Predictes a molecular mass of 17.37 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 18 kDa band.

Product Information

Sequence Region	1-136
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 1-136 aa (Q9TY03) 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 Frataxin, mitochondrial (Fxn) fragment (residues 1-136) from Caenorhabditis elegans, engineered for stability and solubility. This fragment supports research into iron-sulfur cluster assembly, heme biosynthesis, and mitochondrial iron metabolism. Full-length Frataxin (encoded by the frh-1 gene) is a mitochondrial protein that promotes heme biosynthesis and iron-sulfur cluster assembly by delivering Fe^{2+} to relevant pathway proteins. It also contributes to cellular protection against iron-induced oxidative stress by catalyzing the oxidation of Fe^{2+} to Fe^{3+} and can store iron as ferrihydrite through oligomerization. Its mitochondrial localization underscores its critical role in cellular iron homeostasis and energy metabolism.