Recombinant ETFA protein (His tag)

Catalog Number	546770
Synonyms	Alpha-ETF
Species	Human
Expression System	E. coli
Accession	P13804
Molecular Weight	Predictes a molecular mass of 34.62 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 35 kDa band.

Product Information

Sequence Region	20-333
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 20-333 aa (P13804) 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 Alpha-ETF (Electron transfer flavoprotein subunit alpha, mitochondrial) fragment (residues 20-333) is a stable, soluble protein unit designed for structural and biochemical studies. This high-quality human-derived fragment facilitates research into mitochondrial electron transfer mechanisms and metabolic pathways. Electron transfer flavoprotein subunit alpha (ETFA) forms a heterodimeric complex that serves as a central electron acceptor in mitochondrial metabolism. It receives electrons from multiple dehydrogenases including acyl-CoA dehydrogenases, glutaryl-CoA dehydrogenase, and sarcosine dehydrogenase, then transfers them to the main respiratory chain via ETF-ubiquinone oxidoreductase. This protein is essential for normal mitochondrial fatty acid oxidation and amino acid metabolism, functioning within the mitochondrial matrix. Mutations in ETFA are associated with metabolic disorders, highlighting its critical role in cellular energy production and metabolic homeostasis.