Recombinant NDUF7 protein (His tag)

Catalog Number	540587
Synonyms	NADH dehydrogenase [ubiquinone] complex I, assembly factor 7; Protein midA homolog
Species	Human
Expression System	E. coli
Accession	Q7L592
Molecular Weight	Predictes a molecular mass of 45.90 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 46 kDa band.

Product Information

Sequence Region	47-441
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 47-441 aa (Q7L592) 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 NDUFAF7 (47-441) is a high-purity protein fragment of mitochondrial arginine methyltransferase, specifically designed for structural and biochemical studies. This stable, soluble construct encompasses the functional domain of Protein arginine methyltransferase NDUFAF7, enabling researchers to investigate complex I assembly mechanisms with exceptional reliability. NDUFAF7 is a mitochondrial arginine methyltransferase essential for the assembly and stability of NADH:ubiquinone oxidoreductase complex (complex I) in the mitochondrial electron transport chain. The enzyme catalyzes symmetric dimethylation of arginine 118 on the NDUFS2 subunit after its incorporation into complex I, thereby stabilizing early intermediate complexes during the assembly process. This post-translational modification is critical for proper complex I function, which plays a fundamental role in cellular energy production through oxidative phosphorylation. Located exclusively in mitochondria, NDUFAF7 represents a key regulatory factor in mitochondrial complex biogenesis and function, with implications for understanding mitochondrial disorders and energy metabolism pathways.