Recombinant NDUS2 protein (His tag)

Catalog Number	541857
Synonyms	Complex I-49kD; CI-49kD; NADH-ubiquinone oxidoreductase 49 kDa subunit
Species	Human
Expression System	E. coli
Accession	O75306
Molecular Weight	Predictes a molecular mass of 50.58 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 52 kDa band.

Product Information

Sequence Region	36-463
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 36-463 aa (O75306) 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 NDUFS2 (36-463) is a high-purity, stable fragment of the human NADH dehydrogenase [ubiquinone] iron-sulfur protein 2, a core catalytic subunit of mitochondrial Complex I. This 428-amino acid fragment is optimized for solubility and structural integrity, making it ideal for in vitro studies of electron transport mechanisms, enzyme kinetics, and respiratory chain dysfunction. The full-length NDUFS2 protein is a core subunit of mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I), essential for catalyzing electron transfer from NADH to ubiquinone. It plays a critical role in cellular energy production, Complex I assembly, and is a redox-sensitive component in oxygen-sensing pathways—particularly in pulmonary vasculature for hypoxic response and in neural cell differentiation. Located on the matrix side of the mitochondrial inner membrane as a peripheral membrane protein, its dysfunction is linked to respiratory chain deficiencies, underscoring its importance in metabolic and physiological studies.