Recombinant NDUS8 protein (His tag)

Catalog Number	534583
Synonyms	Complex I-23kD; CI-23kD; NADH-ubiquinone oxidoreductase 23 kDa subunit
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q22619
Gene ID	176023
Molecular Weight	Predictes a molecular mass of 21.84 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	36-212
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 36-212 aa (Q22619) 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 fragment of the Caenorhabditis elegans Probable NADH dehydrogenase [ubiquinone] iron-sulfur protein 8 (Complex I-23kD), spanning residues 36-212. This 177-amino acid fragment contains both 4Fe-4S ferredoxin-type domains, making it an essential tool for studying electron transfer mechanisms in mitochondrial complex I function. The full-length protein serves as a core subunit of mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I), which catalyzes electron transfer from NADH to ubiquinone in the respiratory chain. As an essential component of the minimal catalytic assembly, this iron-sulfur protein plays a critical role in cellular energy production through oxidative phosphorylation. The protein is localized to the mitochondrion, where it participates in the fundamental process of aerobic respiration, making it crucial for understanding mitochondrial function and energy metabolism.