MT-ND1 Protein, Lampetra fluviatilis (Cell-Free, His, SUMO)

Cat. No.:	HY-P702383
Synonyms:	NADH-ubiquinone oxidoreductase chain 1; NADH dehydrogenase subunit 1; MTND1, NADH1, ND1
Species:	Others
Source:	E. coli Cell-free
Accession:	O21069 (M1-M321)
Gene ID:	808818
Molecular Weight:	53.8 kDa

PROPERTIES

AA Sequence	M L V M L T S T L I L V L M V L L A V A F L T M V E R K T L G Y M Q L R K G P N V V G F M G L L Q P I A D G V K L F L K E P V W P T A A S P A L F I A A P I M A L T L A L S L W M F I P M P Q S I S T I N L T L L V I L A I S S L S V Y A S L G S G W A S N S K Y A L I G A L R A V A Q T I S Y E V S L G L I L L C L I I L T G G F S L Q A F I Y T Q E H T W F L L S S W P L A A M W F V S T L A E T N R T P F D L T E G E S E L V S G F N V E Y A G G P F A L F F L A E Y S N I L F M N T L T A I M F L G P L G P N N L N I L P I I N V M M K A T P L I I L F L W I R A S Y P R F R Y D Q L M H L M W K N F L P L N L A L F T L Q L S L A V S L G G A G V P Q M
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The MT-ND1 protein serves as a crucial core subunit within the mitochondrial membrane respiratory chain NADH dehydrogenase, commonly known as Complex I. As an integral component, MT-ND1 is considered part of the minimal

assembly necessary for the catalytic activity of Complex I. This complex plays a vital role in the electron transfer process from NADH to the respiratory chain. It is postulated that the immediate electron acceptor for MT-ND1 and the entire enzyme is ubiquinone, highlighting its significance in facilitating electron transport within the mitochondrial respiratory pathway (according to similarity-based inference). This information underscores the essential function of MT-ND1 in cellular respiration and energy production through mitochondrial processes.

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