

NDUA4 Blocking Peptide (C-term)
Synthetic peptide
Catalog # BP20519b**Specification**

NDUA4 Blocking Peptide (C-term) - Product InformationPrimary Accession [O00483](#)**NDUA4 Blocking Peptide (C-term) - Additional Information**

Gene ID 4697

Other Names

Cytochrome c oxidase subunit NDUF44, Complex I-MLRQ, CI-MLRQ, NADH-ubiquinone oxidoreductase MLRQ subunit, NDUF44

Target/Specificity

The synthetic peptide sequence is selected from aa 66-80 of Human NDUF44

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

NDUA4 Blocking Peptide (C-term) - Protein Information

Name NDUF44

Function

Component of the cytochrome c oxidase, the last enzyme in the mitochondrial electron transport chain which drives oxidative phosphorylation. The respiratory chain contains 3 multisubunit complexes succinate dehydrogenase (complex II, CII), ubiquinol- cytochrome c oxidoreductase (cytochrome b-c1 complex, complex III, CIII) and cytochrome c oxidase (complex IV, CIV), that cooperate to transfer electrons derived from NADH and succinate to molecular oxygen, creating an electrochemical gradient over the inner membrane that drives transmembrane transport and the ATP synthase. Cytochrome c oxidase is the component of the respiratory chain that catalyzes the reduction of oxygen to water. Electrons originating from reduced cytochrome c in the intermembrane space (IMS) are transferred via the dinuclear copper A center (CU(A)) of subunit 2 and heme A of subunit 1 to the active site in subunit 1, a binuclear center (BNC) formed by heme A3 and copper B (CU(B)). The BNC reduces molecular oxygen to 2 water molecules using 4 electrons from cytochrome c in the IMS and 4 protons from the mitochondrial matrix (PubMed:22902835). NDUF44 is required for complex IV maintenance (PubMed:22902835).

href="http://www.uniprot.org/citations/22902835" target="_blank">22902835).

Cellular Location

Mitochondrion inner membrane; Single-pass membrane protein

NDUA4 Blocking Peptide (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

NDUA4 Blocking Peptide (C-term) - Images**NDUA4 Blocking Peptide (C-term) - Background**

Accessory subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I), that is believed to be not involved in catalysis. Complex I functions in the transfer of electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone.

NDUA4 Blocking Peptide (C-term) - References

Kim J.W., et al. Biochem. Mol. Biol. Int. 43:669-675(1997).
Kanagarajah D., et al. Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
Ebert L., et al. Submitted (MAY-2004) to the EMBL/GenBank/DDBJ databases.
Halleck A., et al. Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Scherer S.W., et al. Science 300:767-772(2003).