

MT-CO3 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP19111a**Specification**

MT-CO3 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [P00414](#)**MT-CO3 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 4514**Other Names**

Cytochrome c oxidase subunit 3, Cytochrome c oxidase polypeptide III, MT-CO3, COIII, COXIII, MTCO3

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.

MT-CO3 Antibody (N-term) Blocking Peptide - Protein Information**Name** MT-CO3**Synonyms** COIII, COXIII, MTCO3**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.

Cellular Location

Mitochondrion inner membrane; Multi-pass membrane protein

MT-CO3 Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

MT-CO3 Antibody (N-term) Blocking Peptide - Images**MT-CO3 Antibody (N-term) Blocking Peptide - Background**

Subunits I, II and III form the functional core of the enzyme complex.

MT-CO3 Antibody (N-term) Blocking Peptide - References

Andrews, R.M., et al. Nat. Genet. 23 (2), 147 (1999) :Anderson, S., et al. Nature 290(5806):457-465(1981)Submitted (08-JUL-2009) National Center for Biotechnology Information, NIH, Bethesda, MD 20894, USA :Kogelnik, A.M., et al. Submitted (24-AUG-2006) Mitomap.org, Center for Molecular and Mitochondrial Medicine and Genetics (MAMMAG) University of California, University of California, Irvine, Irvine, CA 92697-3940, USA :Kogelnik, A.M., et al. Submitted (18-APR-1997) Center for Molecular Medicine, Emory University School of Medicine, 1462 Clifton Road, Suite 420, Atlanta, GA 30322, USA :