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MT-CO3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP19111a

Specification

MT-CO3 Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	P00414
Other Accession	YP_003024032.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**29951**
Antigen Region	**48-77**

MT-CO3 Antibody (N-term) - Additional Information

Gene ID 4514

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

Target/Specificity
This MT-CO3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 48-77 amino acids from the N-terminal region of human MT-CO3.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
MT-CO3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

MT-CO3 Antibody (N-term) - 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.

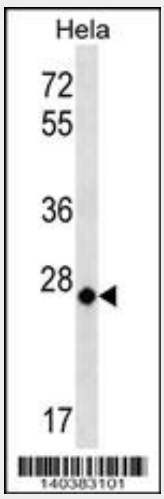
Cellular Location
Mitochondrion inner membrane; Multi-pass membrane protein

MT-CO3 Antibody (N-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MT-CO3 Antibody (N-term) - Images



MT-CO3 Antibody (N-term) (Cat. #AP19111a) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the MT-CO3 antibody detected the MT-CO3 protein (arrow).

MT-CO3 Antibody (N-term) - Background

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

MT-CO3 Antibody (N-term) - 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 :