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COX5A Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13154a

Specification

COX5A Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	P20674
Other Accession	NP_004246.2
Reactivity	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**16762**
Antigen Region	**27-55**

COX5A Antibody (N-term) - Additional Information

Gene ID 9377

Other Names
Cytochrome c oxidase subunit 5A, mitochondrial, Cytochrome c oxidase polypeptide Va, COX5A

Target/Specificity
This COX5A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 27-55 amino acids from the N-terminal region of human COX5A.

Dilution
WB~~1:1000

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
COX5A Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

COX5A Antibody (N-term) - Protein Information

Name COX5A

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.

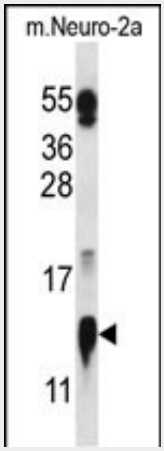
Cellular Location
Mitochondrion inner membrane; Peripheral membrane protein; Matrix side

COX5A 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

COX5A Antibody (N-term) - Images



COX5A Antibody (N-term) (Cat. #AP13154a) western blot analysis in mouse Neuro-2a cell line lysates (35ug/lane).This demonstrates the COX5A antibody detected the COX5A protein (arrow).

COX5A Antibody (N-term) - Background

Cytochrome c oxidase (COX) is the terminal enzyme of the mitochondrial respiratory chain. It is a multi-subunit enzyme complex that couples the transfer of electrons from cytochrome c to molecular oxygen and contributes to a proton electrochemical gradient across the inner mitochondrial membrane. The complex

consists of 13 mitochondrial- and nuclear-encoded subunits. The mitochondrially-encoded subunits perform the electron transfer of proton pumping activities. The functions of the nuclear-encoded subunits are unknown but they may play a role in the regulation and assembly of the complex. This gene encodes the nuclear-encoded subunit Va of the human mitochondrial respiratory chain enzyme. A pseudogene COX5AP1 has been found in chromosome 14q22. [provided by RefSeq].

COX5A Antibody (N-term) - References

Chen, Z.X., et al. Cell Death Differ. 17(3):408-420(2010)
Fornuskova, D., et al. Biochem. J. 428(3):363-374(2010)
Uddin, M., et al. BMC Evol. Biol. 8, 8 (2008) :
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