

**COX5A Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP9154c****Specification**

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**COX5A Antibody (Center) - Product Information**

Application	WB, IHC-P, FC,E
Primary Accession	<a href="#">P20674</a>
Other Accession	<a href="#">P11240</a> , <a href="#">P12787</a> , <a href="#">P00426</a>
Reactivity	Human
Predicted	Bovine, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	16762
Antigen Region	46-73

**COX5A Antibody (Center) - 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 46-73 amino acids from the Central region of human COX5A.

**Dilution**

WB~~1:1000  
IHC-P~~1:50~100  
FC~~1:10~50

**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 (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**COX5A Antibody (Center) - 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**

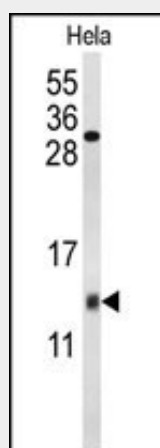
Mitochondrion inner membrane; Peripheral membrane protein; Matrix side

#### **COX5A Antibody (Center) - Protocols**

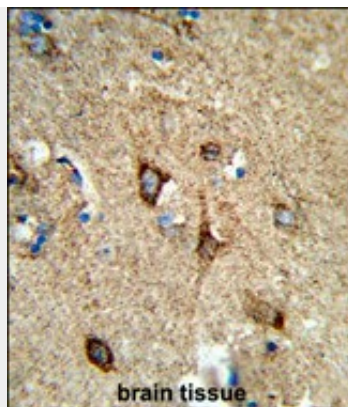
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

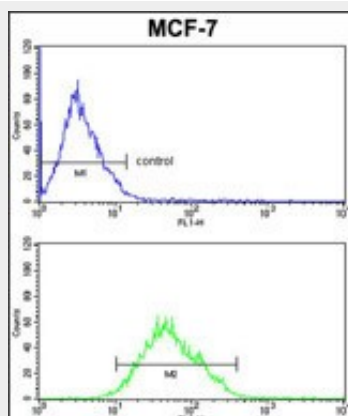
#### **COX5A Antibody (Center) - Images**



Western blot analysis of COX5A Antibody (Center) (Cat. #AP9154c) in HeLa cell line lysates (35ug/lane). COX5A (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human brain tissue reacted with COX5A Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



COX5A Antibody (Center) (Cat.#AP9154c) FC analysis of MCF-7 cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

### COX5A Antibody (Center) - Background

This is the heme A-containing chain of cytochrome c oxidase, the terminal oxidase in mitochondrial electron transport.

### COX5A Antibody (Center) - References

Colinge J., et.al., Submitted (OCT-2008) to UniProtKB.