

**COX7A1 Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP16006c****Specification**

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**COX7A1 Antibody (Center) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P24310</a>
Other Accession	<a href="#">NP_001855.1</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	10-38

**COX7A1 Antibody (Center) - Additional Information****Gene ID** 1346**Other Names**

Cytochrome c oxidase subunit 7A1, mitochondrial, Cytochrome c oxidase subunit VIIa-heart, Cytochrome c oxidase subunit VIIa-H, Cytochrome c oxidase subunit VIIa-muscle, Cytochrome c oxidase subunit VIIa-M, COX7A1, COX7AH

**Target/Specificity**

This COX7A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 10-38 amino acids from the Central region of human COX7A1.

**Dilution**

WB~~1:2000

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**

COX7A1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**COX7A1 Antibody (Center) - Protein Information****Name** COX7A1

## Synonyms COX7AH

**Function** Component of the mitochondrial respiratory complex IV (CIV, also named cytochrome c oxidase complex), the last enzyme in the mitochondrial electron transport chain which drives oxidative phosphorylation (By similarity). The CIV complex is the component of the respiratory chain that catalyzes the reduction of oxygen to water (By similarity). Acts as an assembly factor that specifically drives the homodimerization of CIV complexes, mediating the formation of mitochondrial respiratory supercomplexes (respirasomes) containing two CIV: supercomplexes with two molecules of CIV show improved activity (By similarity). Despite being highly expressed in brown adipose tissue, not required for thermogenesis (By similarity).

## Cellular Location

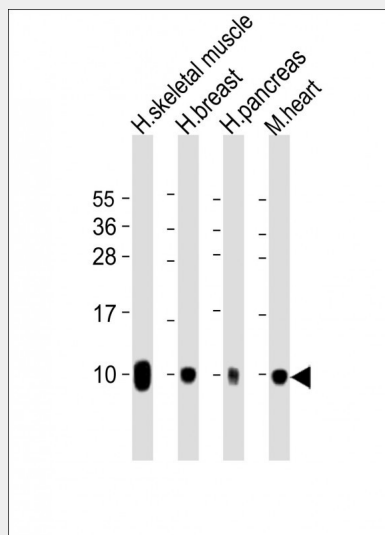
Mitochondrion inner membrane {ECO:0000250|UniProtKB:P07470}; Single-pass membrane protein {ECO:0000250|UniProtKB:P07470}

## COX7A1 Antibody (Center) - Protocols

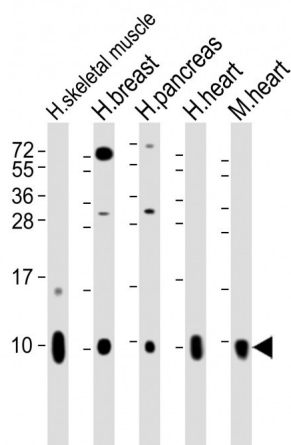
Provided below are standard protocols that you may find useful for product applications.

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

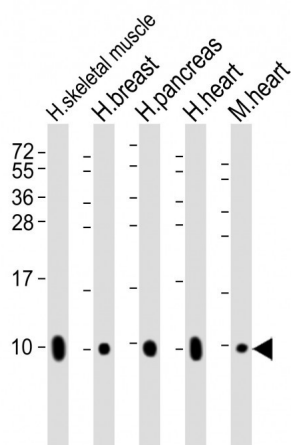
## COX7A1 Antibody (Center) - Images



All lanes : Anti-COX7A1 Antibody (Center) at 1:2000 dilution Lane 1: human skeletal muscle lysate Lane 2: human breast lysate Lane 3: human pancreas lysate Lane 4: mouse heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 9 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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### COX7A1 Antibody (Center) - Background

Cytochrome c oxidase (COX), the terminal component of the mitochondrial respiratory chain, catalyzes the electron transfer from reduced cytochrome c to oxygen. This component is a heteromeric complex consisting of 3 catalytic subunits encoded by mitochondrial genes and multiple structural subunits encoded by nuclear genes. The mitochondrially-encoded subunits function in electron transfer, and the nuclear-encoded subunits may function in the regulation and assembly of the complex. This nuclear gene

encodes polypeptide 1 (muscle isoform) of subunit VIIa and the polypeptide 1 is present only in muscle tissues. Other polypeptides of subunit VIIa are present in both muscle and nonmuscle tissues, and are encoded by different genes.

#### **COX7A1 Antibody (Center) - References**

Bailey, S.D., et al. Diabetes Care (2010) In press :  
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)  
Lazarou, M., et al. FEBS J. 276(22):6701-6713(2009)  
Ronn, T., et al. Diabetologia 51(7):1159-1168(2008)  
Grimwood, J., et al. Nature 428(6982):529-535(2004)