

**COX10 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP10714b****Specification**

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**COX10 Antibody (C-term) - Product Information**

|                   |                             |
|-------------------|-----------------------------|
| Application       | FC, IHC-P, WB,E             |
| Primary Accession | <a href="#">Q12887</a>      |
| Other Accession   | <a href="#">NP_001294.2</a> |
| Reactivity        | Human                       |
| Host              | Rabbit                      |
| Clonality         | Polyclonal                  |
| Isotype           | Rabbit IgG                  |
| Calculated MW     | 48910                       |
| Antigen Region    | 383-410                     |

**COX10 Antibody (C-term) - Additional Information****Gene ID** 1352**Other Names**

Protoheme IX farnesyltransferase, mitochondrial, 251-, Heme O synthase, COX10

**Target/Specificity**

This COX10 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 383-410 amino acids from the C-terminal region of human COX10.

**Dilution**

FC~~1:10~50

IHC-P~~1:50~100

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**

COX10 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**COX10 Antibody (C-term) - Protein Information****Name** COX10

**Function** Converts protoheme IX and farnesyl diphosphate to heme O.

**Cellular Location**

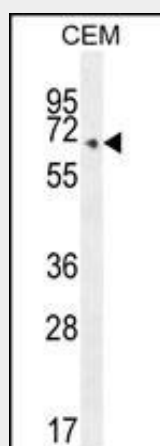
Mitochondrion membrane; Multi-pass membrane protein

**COX10 Antibody (C-term) - Protocols**

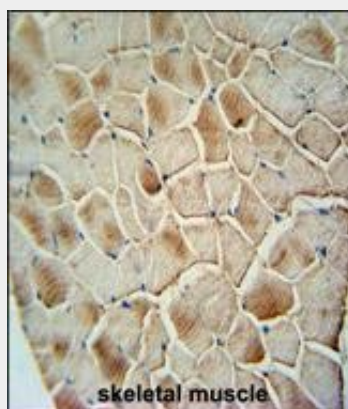
Provided below are standard protocols that you may find useful for product applications.

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

**COX10 Antibody (C-term) - Images**

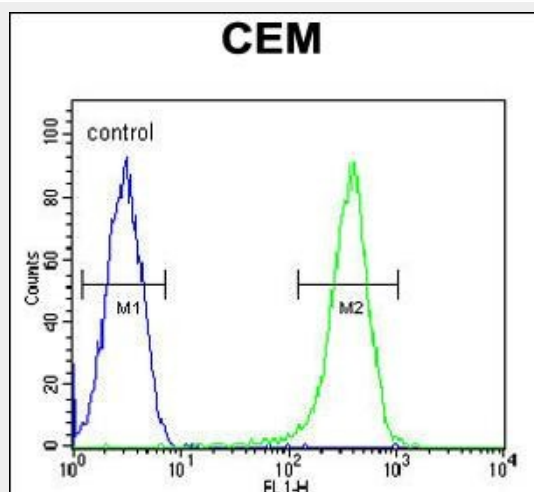


COX10 Antibody (C-term) (Cat. #AP10714b) western blot analysis in CEM cell line lysates (35ug/lane). This demonstrates the COX10 antibody detected the COX10 protein (arrow).



COX10 antibody (C-term) (Cat. #AP10714b) immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the COX10 antibody (C-term) for

immunohistochemistry. Clinical relevance has not been evaluated.



COX10 Antibody (C-term) (Cat. #AP10714b) flow cytometric analysis of CEM cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

#### **COX10 Antibody (C-term) - 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 heme A:farnesyltransferase, which is not a structural subunit but required for the expression of functional COX and functions in the maturation of the heme A prosthetic group of COX. This protein is predicted to contain 7-9 transmembrane domains localized in the mitochondrial inner membrane. A gene mutation, which results in the substitution of a lysine for an asparagine (N204K), is identified to be responsible for cytochrome c oxidase deficiency. In addition, this gene is disrupted in patients with CMT1A (Charcot-Marie-Tooth type 1A) duplication and with HNPP (hereditary neuropathy with liability to pressure palsies) deletion.

#### **COX10 Antibody (C-term) - References**

- Chen, Z., et al. *Oncogene* 29(30):4362-4368(2010)
- Vitali, M., et al. *J Neural Transm* 116(12):1635-1641(2009)
- Dassa, E.P., et al. *EMBO Mol Med* 1(1):30-36(2009)
- Veluthakal, R., et al. *Diabetes* 56(1):204-210(2007)
- Coenen, M.J., et al. *Ann. Neurol.* 56(4):560-564(2004)