

**Product Name: COX10 Rabbit Polyclonal Antibody****Catalog #: APRab09265**

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,ELISA
<b>Reactivity</b>	Human,Rat,Mouse
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,ELISA 1:5000-1:20000
<b>Molecular Weight</b>	49kDa

**Antigen Information**

<b>Gene Name</b>	COX10
<b>Alternative Names</b>	COX10; Protoheme IX farnesyltransferase; mitochondrial; Heme O synthase
<b>Gene ID</b>	1352.0
<b>SwissProt ID</b>	Q12887
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human COX10. AA range:98-147

**Background**

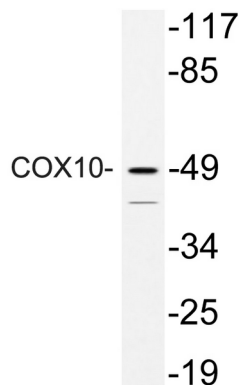
Cytochrome c oxidase (COX), the terminal component of the mitochondrial respiratory chain, catalyzes the electron transfer

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 a stop codon, results in a severe disease: Defects in COX10 are a cause of cytochrome c oxidase deficiency (COX deficiency) [MIM:220110]. COX deficiency is a clinically heterogeneous disorder. The clinical features are ranging from isolated myopathy to severe multisystem disease, with onset from infancy to adulthood. Defects in COX10 are a cause of Leigh syndrome (LS) [MIM:256000]. LS is a severe neurological disorder characterized by bilaterally symmetrical necrotic lesions in subcortical brain regions. function: Converts protoheme IX and farnesyl diphosphate to heme O. similarity: Belongs to the ubiA prenyltransferase family.

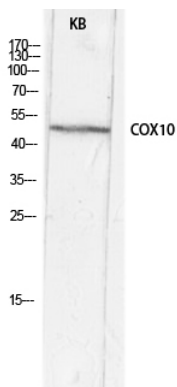
## Research Area

Oxidative phosphorylation; Porphyrin and chlorophyll metabolism;

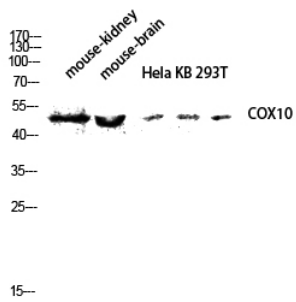
## Image Data



Western blot analysis of lysate from HeLa cells, using COX10 antibody.



Western blot analysis of KB lysis using COX10 antibody. Antibody was diluted at 1:1000



Western blot analysis of mouse-kidney mouse-brain HeLa KB 293T lysis using COX10 antibody. Antibody was diluted at 1:1000