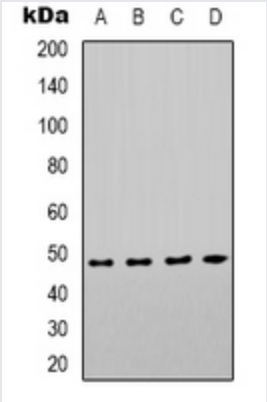
COX10 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	COX10, Polyclonal Antibody
Full Product Name	Anti-COX10 Antibody
Product Gene Name	anti-COX10 antibody
Product Synonym Names	Protoheme IX farnesyltransferase, mitochondrial; Heme O synthase
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Liquid in PBS, pH 7.3, 0.2% BSA, and 0.02% Sodium Azide.
Purity/Purification	The antibody was purified by affinity chromatography.
Specificity	Recognizes endogenous levels of COX10 protein.
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C for one year. Avoid freeze/thaw cycles.
Antibody/Peptide Pairs	COX10 peptide (MBS8243318) is used for blocking the activity of COX10 antibody (MBS8242999)
Molecular Weight	27,594 Da
OMIM	220110
3D Structure	ModBase 3D Structure for Q12887
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human COX10. The exact sequence is proprietary.
Applications Tested/Suitable for anti-COX10 antibody	Western Blot (WB), Immunoprecipitation (IP)
Application Notes for anti-COX10 antibody	Western Blot: (1/500 - 1/1000); Immunoprecipitation: (1/10 - 1/100)
Related Product Information for anti-COX10 antibody	MBS8242999 is an antibody targeting COX10. Reactive in Human, Mouse. Host: Rabbit. Rabbit polyclonal antibody to COX10
Other Notes	Small volumes of anti-COX10 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-COX10 antibody
Western blot analysis of COX10 expression in Hela (A), HEK293T (B), mouse kidney (C), mouse brain (D) whole cell lysates.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for COX10. It may not necessarily be applicable to this product.

NCBI GI #	292495084
NCBI GeneID	1352
NCBI Accession #	Q12887.3
UniProt Primary Accession #	Q12887
UniProt Secondary Accession #	O15334; Q969F7; B2R6U5; B4DJ50
UniProt Related Accession #	Q12887
NCBI Official Full Name	Protoheme IX farnesyltransferase, mitochondrial
NCBI Official Synonym Full Names	COX10 heme A:farnesyltransferase cytochrome c oxidase assembly factor
NCBI Official Symbol	COX10
UniProt Protein Name	Protoheme IX farnesyltransferase, mitochondrial
UniProt Synonym Protein Names	Heme O synthase
Protein Family	Probable protoheme IX farnesyltransferase
UniProt Gene Name	COX10
UniProt Entry Name	COX10_HUMAN
NCBI Protein Information	protoheme IX farnesyltransferase, mitochondrial
NCBI Summary for COX10	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. [provided by RefSeq, Jul 2008]

UniProt Comments for COX10	COX10: Converts protoheme IX and farnesyl diphosphate to heme O. Defects in COX10 are a cause of mitochondrial complex IV deficiency (MT-C4D); also known as cytochrome c oxidase deficiency. A disorder of the mitochondrial respiratory chain with heterogeneous clinical manifestations, ranging from isolated myopathy to severe multisystem disease affecting several tissues and organs. Features include hypertrophic cardiomyopathy, hepatomegaly and liver dysfunction, hypotonia, muscle weakness, excercise intolerance, developmental delay, delayed motor development and mental retardation. A subset of patients manifest Leigh syndrome. Defects in COX10 are a cause of Leigh syndrome (LS). LS is a severe neurological disorder characterized by bilaterally symmetrical necrotic lesions in subcortical brain regions. Belongs to the UbiA prenyltransferase family. Protein type: Membrane protein, integral; Membrane protein, multi-pass; Energy Metabolism - oxidative phosphorylation; Cofactor and Vitamin Metabolism - porphyrin and chlorophyll; EC 2.5.1.-; Transferase Chromosomal Location of Human Ortholog: 17p12 Cellular Component: integral to membrane; mitochondrial inner membrane; mitochondrion Molecular Function: cytochrome-c oxidase activity; farnesyltranstransferase activity; protoheme IX farnesyltransferase activity Biological Process: aerobic respiration; cellular respiration; heme a biosynthetic process; heme biosynthetic process; heme o biosynthetic process; mitochondrial electron transport, cytochrome c to oxygen; mitochondrial fission; porphyrin metabolic process; respiratory chain complex IV assembly Disease: Leigh Syndrome; Mitochondrial Complex Iv Deficiency
Research Articles on COX10	**1.** On the basis of its pivotal role in regulating cell death upon COX dysfunction, CerS6 might potentially represent a novel target for therapeutic intervention in mitochondrial diseases caused by COX dysfunction.
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