

Recombinant Human COX10 cell lysate

Cat. No. COX10-387HCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species	Human
Description	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.
Size	100 ul
Storage Buffer	1X Sample Buffer (50 mM Tris-HCl, 2% SDS, 10% glycerol, 300 mM 2-mercaptoethanol, 0.01% Bromophenol blue)
Applications	Western Blot;

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GENE INFORMATION

Gene Name	COX10 COX10 homolog, cytochrome c oxidase assembly protein, heme A: farnesyltransferase (yeast) [Homo sapiens]
Official Symbol	COX10
Synonyms	COX10; COX10 homolog, cytochrome c oxidase assembly protein, heme A: farnesyltransferase (yeast); COX10 (yeast) homolog, cytochrome c oxidase assembly protein (heme A: farnesyltransferase); protoheme IX farnesyltransferase, mitochondrial; heme O synthase; heme A: farnesyltransferase; cytochrome c oxidase subunit X; cytochrome c oxidase assembly protein;
Gene ID	1352
mRNA Refseq	NM_001303
Protein Refseq	NP_001294
MIM	602125
UniProt ID	Q12887
Chromosome Location	17p12
Pathway	Cytochrome c oxidase, organism-specific biosystem; Cytochrome c oxidase, conserved biosystem; Metabolic pathways, organism-specific biosystem; Oxidative phosphorylation, organism-specific biosystem; Oxidative phosphorylation, conserved biosystem; Porphyrin and chlorophyll metabolism, organism-specific biosystem; Porphyrin and chlorophyll metabolism, conserved biosystem;

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Function

contributes_to cytochrome-c oxidase activity; farnesyltranstransferase activity;
protoheme IX farnesyltransferase activity; transferase activity;

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