

# COX10 (D-19): sc-54061

## BACKGROUND

Cytochrome c oxidase (COX) localizes to the mitochondrial inner membrane and is the terminal enzyme in the electron transfer chain, functioning as a transmembrane proton pump that builds an electrochemical gradient with chemical energy from the reduction of O<sub>2</sub>. The COX subunit 10 or COX10 (also known as heme A: farnesyltransferase or Heme O synthase) is a multi-pass transmembrane protein encoded by a nuclear gene. COX10 was originally identified in yeast and its structure is conserved from *E. coli* to human. COX10 is responsible for catalyzing the first step in the biosynthesis of heme A: the conversion of protoheme (heme B) to heme O by the addition of a farnesyl group. As a result, COX10 is necessary for the expression of a functional COX. A mutation in the gene encoding COX10 may result in COX deficiency in humans.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: COX10 (human) mapping to 17p12; Cox10 (mouse) mapping to 11 B3.

## SOURCE

COX10 (D-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of COX10 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-54061 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

COX10 (D-19) is recommended for detection of COX10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

COX10 (D-19) is also recommended for detection of COX10 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for COX10 siRNA (h): sc-72303, COX10 siRNA (m): sc-72304, COX10 shRNA Plasmid (h): sc-72303-SH, COX10 shRNA Plasmid (m): sc-72304-SH, COX10 shRNA (h) Lentiviral Particles: sc-72303-V and COX10 shRNA (m) Lentiviral Particles: sc-72304-V.

Molecular Weight of COX10: 51 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.