

COX17 (K-18): sc-27533



The Power to Question

BACKGROUND

The cytochrome c oxidase (COX) family of proteins function as the final electron donor in the respiratory chain to drive a proton gradient across the inner mitochondrial membrane, ultimately resulting in the production of water. The mammalian COX apoenzyme is a dimer, with each monomer consisting of 13 subunits, some of which are mitochondrial and some of which are nuclear. Cytochrome c oxidase 17 (COX17) is a nuclear gene encoding a mitochondrial copper chaperone protein necessary for proper COX apoenzyme-dependent mitochondrial respiration. COX17 is a highly conserved protein and influences the recruitment of copper ions to the mitochondria for delivery and incorporation into the COX apoenzyme.

CHROMOSOMAL LOCATION

Genetic locus: COX17 (human) mapping to 3q13.33; Cox17 (mouse) mapping to 16 B3.

SOURCE

COX17 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of COX17 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-27533 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

COX17 (K-18) is recommended for detection of COX17 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

COX17 (K-18) is also recommended for detection of COX17 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for COX17 siRNA (h): sc-105234, COX17 siRNA (m): sc-77380, COX17 shRNA Plasmid (h): sc-105234-SH, COX17 shRNA Plasmid (m): sc-77380-SH, COX17 shRNA (h) Lentiviral Particles: sc-105234-V and COX17 shRNA (m) Lentiviral Particles: sc-77380-V.

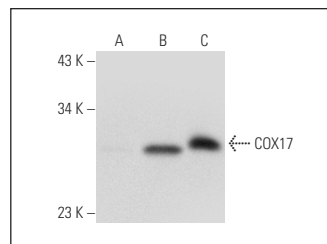
Molecular Weight of COX17: 8 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, COX17 (h): 293T Lysate: sc-111714 or HeLa whole cell lysate: sc-2200.

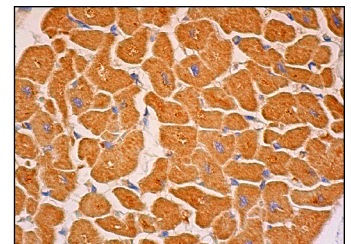
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



COX17 (K-18): sc-27533. Western blot analysis of COX17 expression in non-transfected 293T: sc-117752 (A), human COX17 transfected 293T: sc-111714 (B) and HeLa (C) whole cell lysates.



COX17 (K-18): sc-27533. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **COX17 (A-8): sc-393617** or **COX17 (F14): sc-100521**, our highly recommended monoclonal alternatives to COX17 (K-18).