

COX18 (L-15): sc-104162

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. COX18 (cytochrome c oxidase-assembly protein 18), also known as Cytochrome c oxidase assembly protein 18 is a 333 amino acid mitochondrial inner membrane protein that plays a role in the assembly of complex IV of the mitochondrial respiratory chain by catalyzing the insertion of the C-terminal tail of COX2 into the inner membrane. Deficiency of complex IV is a rare metabolic disorder that results in clinically heterogeneous symptoms ranging from isolated myopathy to severe multisystem disease. There are four isoforms of COX18 that are expressed as a result of alternative splicing events.

REFERENCES

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STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: COX18 (human) mapping to 4q13.3; Cox18 (mouse) mapping to 5 E1.

SOURCE

COX18 (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of COX18 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-104162 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COX18 (L-15) is recommended for detection of COX18 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); non cross-reactive with isoforms COX18-2, COX18-3 or COX18-4.

Suitable for use as control antibody for COX18 siRNA (h): sc-89246, COX18 siRNA (m): sc-105235, COX18 shRNA Plasmid (h): sc-89246-SH, COX18 shRNA Plasmid (m): sc-105235-SH, COX18 shRNA (h) Lentiviral Particles: sc-89246-V and COX18 shRNA (m) Lentiviral Particles: sc-105235-V.

Molecular Weight of COX18: 37 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.

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.