



COX15 (A-14): sc-104854

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. COX15 (cytochrome c oxidase assembly protein COX15 homolog) is a 410 amino acid multi-pass mitochondrial membrane protein belonging to the COX15/ctaA family. Existing as two alternatively spliced isoforms, COX15 is predominantly expressed in tissues containing high rates of oxidative phosphorylation including brain, heart and muscle. COX15 defects are the cause of a neurodegenerative disorder known as Leigh syndrome and cytochrome c oxidase deficiency (COX deficiency).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: COX15 (human) mapping to 10q24.2; Cox15 (mouse) mapping to 19 C3.

SOURCE

COX15 (A-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of COX15 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-104854 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COX15 (A-14) is recommended for detection of COX15 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 other COX family members.

Suitable for use as control antibody for COX15 siRNA (h): sc-90524, COX15 siRNA (m): sc-142524, COX15 shRNA Plasmid (h): sc-90524-SH, COX15 shRNA Plasmid (m): sc-142524-SH, COX15 shRNA (h) Lentiviral Particles: sc-90524-V and COX15 shRNA (m) Lentiviral Particles: sc-142524-V.

Molecular Weight of COX15: 46 kDa.

Positive Controls: 293T whole cell lysate or Hep G2 cell lysate: sc-2227.

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 or our catalog for detailed protocols and support products.