

COX7b/7b2 (C-14): sc-109528

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. COX7b (cytochrome c oxidase subunit VIIb polypeptide) and COX7b2 (cytochrome c oxidase subunit VIIb polypeptide 2) are 80 and 81 amino acid proteins, respectively, which exist as components of the COX complex, playing an important role in electron transport. A rare polymorphism in the COX7b2 gene at codon 26 may be linked to nasopharyngeal carcinoma (NPC), the most common head and neck cancer in southern China.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: COX7B (human) mapping to Xq21.1, COX7B2 (human) mapping to 4p12; Cox7b (mouse) mapping to X D, Cox7b2 (mouse) mapping to 5 C3.1.

SOURCE

COX7b/7b2 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of COX7b of human origin.

STORAGE

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

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-109528 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COX7b/7b2 (C-14) is recommended for detection of COX7b and COX7b2 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 COX7 family members.

COX7b/7b2 (C-14) is also recommended for detection of COX7b and COX7b2 in additional species, including equine, canine, bovine and porcine.

Molecular Weight of COX7b/7b2: 9 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.