BACKGROUND

Cytochrome c oxidase (COX) functions as the terminal oxidase of the respiratory chain that uses cytochrome c as an electron donor to drive a proton gradient across the inner mitochondrial membrane. The mammalian COX apoenzyme is a heteromer consisting of three mitochondrial encoded catalytic subunits and several nuclear gene encoded structural subunits. COX contains two iron-coordination sites and two copper-coordination sites. Cytochrome c oxidase IV (COX4) is a nuclear-encoded subunit of COX that may play a role in regulating COX activity. COX4 is expressed ubiquitously in adult human tissue with the strongest levels of expression in the pancreas and moderate expression levels in heart, skeletal muscle and placenta.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: COX4I1 (human) mapping to 16q24.1; Cox4I1 (mouse) mapping to 8E1.

SOURCE

COX4 (4D11-B3-E8) is a mouse monoclonal antibody raised against COX4 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, 1% glycerol and < 0.1% stabilizer protein.

APPLICATIONS

COX4 (4D11-B3-E8) is recommended for detection of COX4 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

COX4 (4D11-B3-E8) is also recommended for detection of COX4 in additional species, including hamster, goat and monkey.

Suitable for use as control antibody for COX4 siRNA (h): sc-72074, COX4 siRNA (m): sc-72075, COX4 shRNA Plasmid (h): sc-72074-SH, COX4 shRNA Plasmid (m): sc-72075-SH, COX4 shRNA (h) Lentiviral Particles: sc-72074-V and COX4 shRNA (m) Lentiviral Particles: sc-72075-V.

Molecular Weight of COX4: 17 kDa.

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 for detailed protocols and support products.