

COX6c (N-11): sc-87055

BACKGROUND

Cytochrome c oxidase subunit VIc (COX6c), also designated oxidative phosphorylation (OxPhos) complex IV, subunit VIc, is one of the structural subunits of the mitochondrial respiratory chain encoded by nuclear genes. Cytochrome c oxidase is a hetero-oligomeric enzyme composed of 13 subunits localized to the mitochondrial inner membrane and is the terminal enzyme complex of the electron transport chain. Complex IV catalyzes the reduction of molecular oxygen to water. The energy released is used to transport protons across the mitochondrial inner membrane. The resulting electrochemical gradient is necessary for the synthesis of ATP. Complex IV contains 13 polypeptides; COX1, COX2 and COX3 (MTCO1-3) make up the catalytic core and are encoded by mtDNA while subunits IV, Va, Vb, VIa, VIb, VIc, VIIa, VIIb, VIIC and VIII are nuclear-encoded. The nuclear-encoded subunits function in the regulation and assembly of the complex. The human COX6c protein shares 77% sequence identity with mouse COX6c. Studies indicate that the COX6c gene is upregulated in prostate cancer cells. The human COX6c gene maps to chromosome 8q22.2; a pseudogene, COX6CP1 has been found on chromosome 16p12.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: COX6C (human) mapping to 8q22.2.

SOURCE

COX6c (N-11) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of COX6c 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-87055 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COX6c (N-11) is recommended for detection of COX6c of 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).

Suitable for use as control antibody for COX6c siRNA (h): sc-72172, COX6c shRNA Plasmid (h): sc-72172-SH and COX6c shRNA (h) Lentiviral Particles: sc-72172-V.

Molecular Weight of COX6c: 9 kDa.

Positive Controls: human heart extract: sc-363763 or IMR-32 cell lysate: sc-2409.

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.