

COQ5 (G-14): sc-246321

BACKGROUND

Coenzyme Q (CoQ), also referred to as ubiquinone, is a fat-soluble component of the electron transport chain that participates in aerobic cellular respiration within mitochondria and is essential for ATP-dependent energy production. CoQ consists of a hydrophobic isoprenoid tail, which anchors it to the membrane, and a quinone head group, which is responsible for the activity of CoQ in the respiratory chain. CoQ biosynthesis requires the formation of a multi-subunit enzyme complex, composed of COQ1 through COQ10, which is highly characterized in yeast. COQ5 (coenzyme Q5 homolog, methyltransferase) is a 327 amino acid mitochondrial protein that belongs to the methyltransferase superfamily and the UbiE family. Existing as two alternatively spliced isoforms, COQ5 converts DDMQH2 into DMQH2 and is involved in ubiquinone biosynthesis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: COQ5 (human) mapping to 12q24.31; Coq5 (mouse) mapping to 5 F.

SOURCE

COQ5 (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of COQ5 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-246321 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COQ5 (G-14) is recommended for detection of COQ5 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 COQ family members.

COQ5 (G-14) is also recommended for detection of COQ5 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for COQ5 siRNA (h): sc-96054, COQ5 siRNA (m): sc-142513, COQ5 shRNA Plasmid (h): sc-96054-SH, COQ5 shRNA Plasmid (m): sc-142513-SH, COQ5 shRNA (h) Lentiviral Particles: sc-96054-V and COQ5 shRNA (m) Lentiviral Particles: sc-142513-V.

Molecular Weight of COQ5 isoform 1/2: 37/28 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.

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.