

COQ9 (H-154): sc-98627

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. COQ9 (coenzyme Q9 homolog) is a 318 amino acid protein that localizes to the mitochondrion and is involved in the synthesis of coenzyme Q. Multiple isoforms of COQ9 exist due to alternative splicing events. The gene encoding COQ9 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

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3. Johnson, A., Gin, P., Marbois, B.N., Hsieh, E.J., Wu, M., Barros, M.H., Clarke, C.F. and Tzagoloff, A. 2005. COQ9, a new gene required for the biosynthesis of coenzyme Q in *Saccharomyces cerevisiae*. *J. Biol. Chem.* 280: 31397-31404.
4. Molyneux, S., Lever, M., Florkowski, C. and George, P. 2007. Plasma total coenzyme Q9 (CoQ9) in the New Zealand population: reference interval and biological variation. *Clin. Chem.* 53: 802-803.
5. Sohail, R.S. and Forster, M.J. 2007. Coenzyme Q, oxidative stress and aging. *Mitochondrion* 7: S103-S111.
6. Imada, I., Sato, E.F., Kira, Y. and Inoue, M. 2008. Effect of CoQ homologues on reactive oxygen generation by mitochondria. *Biofactors* 32: 41-48.

CHROMOSOMAL LOCATION

Genetic locus: COQ9 (human) mapping to 16q21; Coq9 (mouse) mapping to 8 C5.

SOURCE

COQ9 (H-154) is a rabbit polyclonal antibody raised against amino acids 165-318 mapping at the C-terminus of COQ9 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

COQ9 (H-154) is recommended for detection of COQ9 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

COQ9 (H-154) is also recommended for detection of COQ9 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for COQ9 siRNA (h): sc-72977, COQ9 siRNA (m): sc-72978, COQ9 shRNA Plasmid (h): sc-72977-SH, COQ9 shRNA Plasmid (m): sc-72978-SH, COQ9 shRNA (h) Lentiviral Particles: sc-72977-V and COQ9 shRNA (m) Lentiviral Particles: sc-72978-V.

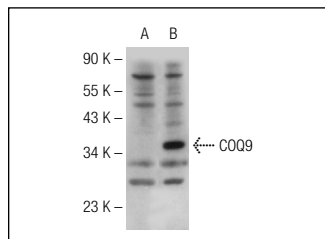
Molecular Weight of COQ9: 36 kDa.

Positive Controls: COQ9 (h2): 293T Lysate: sc-117027.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



COQ9 (H-154): sc-98627. Western blot analysis of COQ9 expression in non-transfected: sc-117752 (A) and human COQ9 transfected: sc-117027 (B) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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Try **COQ9 (G-4): sc-365073** or **COQ9 (E-3): sc-271892**, our highly recommended monoclonal alternatives to COQ9 (H-154).