

# COQ9 (P-14): sc-83393

## 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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## CHROMOSOMAL LOCATION

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

## SOURCE

COQ9 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of COQ9 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-83393 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

COQ9 (P-14) 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), 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.

COQ9 (P-14) is also recommended for detection of COQ9 in additional species, including equine.

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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.