

# Squalene epoxidase (C-16): sc-49751

## BACKGROUND

Several proteins mediate the biosynthesis of cholesterol. The first specific step in the cholesterol biosynthetic pathway is the conversion of transfarnesyl-diphosphate to squalene, which is catalyzed by the endoplasmic reticulum membrane-associated enzyme squalene synthetase, also designated squalene synthase and farnesyl-diphosphate farnesyltransferase. Squalene synthetase is located at a branch point in the mevalonate pathway and is also involved in isoprenoid biosynthesis. Squalene epoxidase, also designated Squalene monooxygenase, is a multi-pass microsomal membrane-associated enzyme that catalyzes the first oxygenation step in sterol biosynthesis and most likely functions as one of the rate-limiting enzymes in this pathway. Squalene epoxidase may form a complex with squalene synthetase.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: SQLE (human) mapping to 8q24.13; Sqle (mouse) mapping to 15 D1.

## SOURCE

Squalene epoxidase (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Squalene epoxidase of human origin.

## RESEARCH USE

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

## 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-49751 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Squalene epoxidase (C-16) is recommended for detection of Squalene epoxidase 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).

Squalene epoxidase (C-16) is also recommended for detection of Squalene epoxidase in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Squalene epoxidase siRNA (h): sc-61608, Squalene epoxidase siRNA (m): sc-61609, Squalene epoxidase shRNA Plasmid (h): sc-61608-SH, Squalene epoxidase shRNA Plasmid (m): sc-61609-SH, Squalene epoxidase shRNA (h) Lentiviral Particles: sc-61608-V and Squalene epoxidase shRNA (m) Lentiviral Particles: sc-61609-V.

Molecular Weight of Squalene epoxidase: 55 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 Blotting 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.

## PROTOCOLS

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Try **Squalene epoxidase (H-6): sc-271651**, our highly recommended monoclonal alternative to Squalene epoxidase (C-16).