

Squalene synthetase (Y-17): sc-49758

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.

CHROMOSOMAL LOCATION

Genetic locus: FDFT1 (human) mapping to 8p23.1; Fdft1 (mouse) mapping to 14 D1.

SOURCE

Squalene synthetase (Y-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Squalene synthetase 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-49758 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Squalene synthetase (Y-17) is recommended for detection of Squalene synthetase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Squalene synthetase (Y-17) is also recommended for detection of Squalene synthetase in additional species, including equine and canine.

Suitable for use as control antibody for Squalene synthetase siRNA (h): sc-61610, Squalene synthetase siRNA (m): sc-61611, Squalene synthetase shRNA Plasmid (h): sc-61610-SH, Squalene synthetase shRNA Plasmid (m): sc-61611-SH, Squalene synthetase shRNA (h) Lentiviral Particles: sc-61610-V and Squalene synthetase shRNA (m) Lentiviral Particles: sc-61611-V.

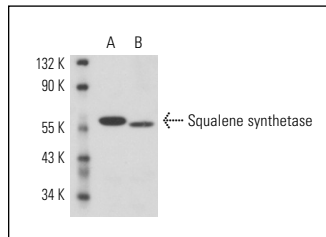
Molecular Weight of Squalene synthetase: 52 kDa.

Positive Controls: Squalene synthetase (h): 293T Lysate: sc-113914, rat liver extract: sc-2395 or mouse liver extract: sc-2256.

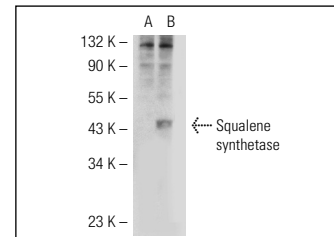
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Squalene synthetase (Y-17): sc-49758. Western blot analysis of Squalene synthetase expression in rat liver (A) and mouse liver (B) tissue extracts.



Squalene synthetase (Y-17): sc-49758. Western blot analysis of Squalene synthetase expression in non-transfected: sc-117752 (A) and human Squalene synthetase transfected: sc-113914 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Wang, Y., et al. 2008. The effect of 24S-hydroxycholesterol on cholesterol homeostasis in neurons: quantitative changes to the cortical neuron proteome. *J. Proteome Res.* 7: 1606-1614.

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.

MONOS
Satisfaction
Guaranteed

Try **Squalene synthetase (A-7): sc-271602** or **Squalene synthetase (C-10): sc-271143**, our highly recommended monoclonal alternatives to Squalene synthetase (Y-17).