

Mimitin (C-17): sc-50097

BACKGROUND

The Myc family represents nuclear transcription factors that contribute significantly to cellular proliferation, differentiation, apoptosis and transformation. The Myc family of cellular oncogenes includes c-Myc, N-Myc, L-Myc, S-Myc and B-Myc. Myc-induced mitochondrial protein (MMTN), also designated Mimitin, localizes exclusively to the mitochondrion. Mimitin belongs to the complex I NDUFA12 subunit family of proteins and is highly expressed in esophageal squamous cell carcinoma (ESCC) cells. Mimitin plays an important role in Myc-dependent cell proliferation. It is a direct transcriptional target of c-Myc, which mediates gene repression by inhibiting the DNA binding protein Miz-1 and inhibiting cell growth. However, Mimitin expression in ESCC has no effect on the histopathological stage or grade of the cancer.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NDUFA12L (human) mapping to 5q12.1; Ndufa12l (mouse) mapping to 13 D2.1.

SOURCE

Mimitin (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Mimitin 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-50097 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Mimitin (C-17) is recommended for detection of Mimitin (Myc-induced mitochondrial protein) 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).

Mimitin (C-17) is also recommended for detection of Mimitin (Myc-induced mitochondrial protein) in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for Mimitin siRNA (h): sc-61044, Mimitin siRNA (m): sc-61045, Mimitin shRNA Plasmid (h): sc-61044-SH, Mimitin shRNA Plasmid (m): sc-61045-SH, Mimitin shRNA (h) Lentiviral Particles: sc-61044-V and Mimitin shRNA (m) Lentiviral Particles: sc-61045-V.

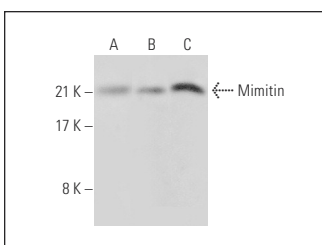
Molecular Weight of Mimitin: 20 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Y79 cell lysate: sc-2240 or NIH/3T3 whole cell lysate: sc-2210.

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



Mimitin (C-17): sc-50097. Western blot analysis of Mimitin expression in Hep G2 (A), Y79 (B) and NIH/3T3 (C) whole cell lysates.

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.