SREBP-1 (A-4): sc-365513

**BACKGROUND**

The low density lipoprotein (LDL) receptor mediates the endocytic uptake of cholesterol-carrying lipoproteins, thereby controlling cholesterol levels in cells and plasma. Transcription of the LDL receptor gene is controlled by a ten base pair sequence in the 5’ flanking region, designated sterol regulatory element 1 (SRE-1). When cellular sterol stores are depleted, the element is activated, the gene is transcribed and the cellular uptake of LDL increases. A set of SRE-binding proteins (SREBPs) have been identified, including two basic helix-loop-helix leucine zipper (bHLH-Zip) transcription factors, designated SREBP-1 and SREBP-2. SREBP-1 (also designated ADD1, for adipocyte determination and differentiation factor) is synthesized as a precursor that is attached to the nuclear envelope and endoplasmic reticulum. In sterol-depleted cells, the membrane-bound precursor is cleaved to generate a soluble NH2-terminal fragment that translocates to the nucleus to activate transcription. Sterols inhibit the cleavage of SREBP-1.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: SREBF1 (human) mapping to 17p11.2; Srebf1 (mouse) mapping to 11 B2.

**SOURCE**

SREBP-1 (A-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1119-1147 at the C-terminus of SREBP-1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SREBP-1 (A-4) is available conjugated to agarose (sc-365513 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365513 HRP), 200 µg/ml, for 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).

SREBP-1 (A-4) is recommended for detection of SREBP-1 p125 and p68 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SREBP-1 (A-4) is also recommended for detection of SREBP-1 p125 and p68 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for SREBP-1 siRNA (h): sc-36557, SREBP-1 siRNA (m): sc-36558, SREBP-1 siRNA (r): sc-156126, SREBP-1 shRNA Plasmid (h): sc-36557-SH, SREBP-1 shRNA Plasmid (m): sc-36558-SH, SREBP-1 shRNA Plasmid (r): sc-156126-SH, SREBP-1 shRNA (h) Lentiviral Particles: sc-36557-V, SREBP-1 shRNA (m) Lentiviral Particles: sc-36558-V and SREBP-1 shRNA (r) Lentiviral Particles: sc-156126-V.

Molecular Weight of mature SREBP-1 p68: 68 kDa.

Molecular Weight of SREBP-1 p125 precursor: 125 kDa.

Positive Controls: AN3 CA cell lysate: sc-24662, Neuro-2A whole cell lysate: sc-364185 or A549 cell lysate: sc-2413.

**DATA**

SREBP-1 (A-4): sc-365513. Western blot analysis of SREBP-1 expression in A549 (A), SK-BR-3 (B), AN3 CA (C), C2C12 (D), BC3H1 (E) and Neuro-2A (F) whole cell lysates.

SREBP-1 (A-4): sc-365513. Immunofluorescence staining of methylated fixed He La cells showing cytoplasmic and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing cytoplasmic and nuclear staining of glandular cells (B).

**SELECT PRODUCT CITATIONS**


**STORAGE**

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