

SREBP-2 (C-6): sc-271615

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 10 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 and SREBP-2 have been shown to have the same specificity for SRE-1 *in vitro* and to activate the transcription of reporter genes containing SRE-1 in the same way.

REFERENCES

1. Brown, M.S., et al. 1986. A receptor-mediated pathway for cholesterol homeostasis. *Science* 232: 34-47.
2. Smith, J.R., et al. 1990. Identification of nucleotides responsible for enhancer activity of sterol regulatory element in low density lipoprotein receptor gene. *J. Biol. Chem.* 265: 2306-2310.

CHROMOSOMAL LOCATION

Genetic locus: SREBF2 (human) mapping to 22q13.2; Srebf2 (mouse) mapping to 15 E1.

SOURCE

SREBP-2 (C-6) is a mouse monoclonal antibody raised against amino acids 812-975 of SREBP-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SREBP-2 (C-6) is recommended for detection of SREBP-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for SREBP-2 siRNA (h): sc-36559, SREBP-2 siRNA (m): sc-36560, SREBP-2 shRNA Plasmid (h): sc-36559-SH, SREBP-2 shRNA Plasmid (m): sc-36560-SH, SREBP-2 shRNA (h) Lentiviral Particles: sc-36559-V and SREBP-2 shRNA (m) Lentiviral Particles: sc-36560-V.

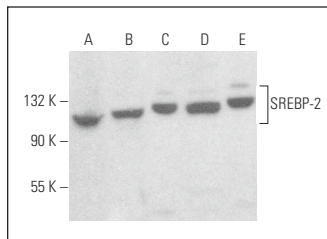
Molecular Weight of SREBP-2: 68/125 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, MOLT-4 cell lysate: sc-2233 or Ramos cell lysate: sc-2216.

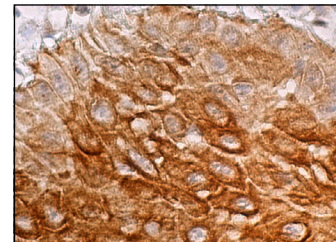
STORAGE

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

DATA



SREBP-2 (C-6): sc-271615. Western blot analysis of SREBP-2 expression in MOLT-4 (A), RAW 264.7 (B), Ramos (C), HeLa (D) and IMR-32 (E) whole cell lysates.



SREBP-2 (C-6): sc-271615. Immunoperoxidase staining of formalin fixed, paraffin-embedded human oral mucosa tissue showing cytoplasmic staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

1. Liu, J., et al. 2018. Mammalian target of rapamycin complex 1 activation disrupts the low-density lipoprotein receptor pathway: a novel mechanism for extracellular matrix accumulation in human peritoneal mesothelial cells. *Am. J. Nephrol.* 48: 357-368.
2. Liu, J., et al. 2019. Rapamycin inhibits peritoneal fibrosis by modifying lipid homeostasis in the peritoneum. *Am. J. Transl. Res.* 11: 1473-1485.
3. Chandra, A., et al. 2021. Inhibition of microRNA-128-3p attenuates hypercholesterolemia in mouse model. *Life Sci.* 264: 118633.
5. Bhat, N., et al. 2022. Dyrk1b promotes hepatic lipogenesis by bypassing canonical Insulin signaling and directly activating mTORC2 in mice. *J. Clin. Invest.* 132: e153724.
6. Rajesh, Y., et al. 2022. Dissecting the balance between metabolic and oncogenic functions of astrocyte-elevated gene-1/metadherin. *Hepatol. Commun.* 6: 561-575.
7. Andrades, E., et al. 2023. Loss of dyskerin facilitates the acquisition of metastatic traits by altering the mevalonate pathway. *Life Sci. Alliance* 6: e202201692.
8. Silva, V., et al. 2023. Thermoneutrality or standard temperature: is there an ideal housing temperature to study the antisteatotic effects of green tea in obese mice? *J. Nutr. Biochem.* 120: 109411.

RESEARCH USE

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



See **SREBP-2 (1C6): sc-13552** for SREBP-2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.