

SR-B1 (M-180): sc-67099

BACKGROUND

The macrophage class A scavenger receptors (SR-A) type I and II mediate the uptake of modified low density lipoprotein (LDL), while the scavenger receptor class B type 1 (SR-B1) mediates the selective uptake of cholesterol and cholesterol esters (CE) from HDLs into cells. SREC, Ox-LDL-R1, SR-A and SR-B1 may all be involved in the early development of atherosclerosis. SR-B1, an integral membrane protein, acts as a receptor for various ligands, including apoptotic cells, cholesterol ester, phospholipids, lipoproteins and phosphatidyl-serine. SR-B1, which may be involved in phagocytosis of apoptotic cells, enables the movement of cholesterol between the cell surface and extracellular donors and acceptors. Although it is widely expressed, SR-B1 localizes primarily to cholesterol and sphingomyelin-enriched domains within the plasma membrane, called caveolae.

REFERENCES

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2. Scarselli, E., et al. 2002. The human scavenger receptor class B type 1 is a novel candidate receptor for the hepatitis C virus. *EMBO J.* 21: 5017-5025.
3. Morabia, A., et al. 2003. Association of extreme blood lipid profile phenotypic variation with 11 reverse cholesterol transport genes and 10 non-genetic cardiovascular disease risk factors. *Hum. Mol. Genet.* 12: 2733-2743.
4. Tai, E.S., et al. 2003. Polymorphisms at the SR-B1 locus are associated with lipoprotein levels in subjects with heterozygous familial hypercholesterolemia. *Clin. Genet.* 63: 53-58.
5. Bartosch, B., et al. 2003. Cell entry of hepatitis C virus requires a set of co-receptors that include the CD81 tetraspanin and the SR-B1 scavenger receptor. *J. Biol. Chem.* 278: 41624-41630.
6. Dorfman, S.E., et al. 2005. Dietary fatty acids and cholesterol differentially modulate HDL cholesterol metabolism in Golden-Syrian hamsters. *J. Nutr.* 135: 492-498.
7. Manna, P.R., et al. 2005. Molecular mechanisms of Insulin-like growth factor-I mediated regulation of the steroidogenic acute regulatory protein in mouse leydig cells. *Mol. Endocrinol.* 20: 362-378.

CHROMOSOMAL LOCATION

Genetic locus: SCARB1 (human) mapping to 12q24.31; Scarb1 (mouse) mapping to 5 G1.1.

SOURCE

SR-B1 (M-180) is a rabbit polyclonal antibody raised against amino acids 1-180 mapping at the N-terminus of SR-B1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SR-B1 (M-180) is recommended for detection of SR-B1 of mouse, rat and, to a lesser extent, 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).

Suitable for use as control antibody for SR-B1 siRNA (h): sc-44752, SR-B1 siRNA (m): sc-44753, SR-B1 shRNA Plasmid (h): sc-44752-SH, SR-B1 shRNA Plasmid (m): sc-44753-SH, SR-B1 shRNA (h) Lentiviral Particles: sc-44752-V and SR-B1 shRNA (m) Lentiviral Particles: sc-44753-V.

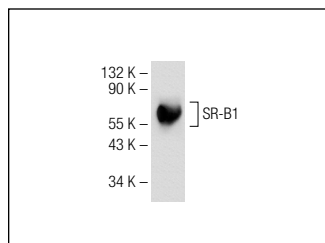
Molecular Weight of SR-B1: 82 kDa.

Positive Controls: mouse liver extract: sc-2256.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SR-B1 (M-180): sc-67099. Western blot analysis of SR-B1 expression in mouse liver tissue extract.

SELECT PRODUCT CITATIONS

1. Zhou, X., et al. 2008. Genetic deletion of low density lipoprotein receptor impairs sterol-induced mouse macrophage ABCA1 expression. A new SREBP1-dependent mechanism. *J. Biol. Chem.* 283: 2129-2138.

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.