

SREC (N-15): sc-11298

BACKGROUND

Scavenger receptors mediate the endocytosis and degradation of chemically modified low density lipoproteins (LDL), such as acetylated LDL (Ac-LDL) and oxidized LDL (Ox-LDL). The scavenger receptor expressed by endothelial cells (SREC) primarily binds Ac-LDL and aids in its degradation. However, it has been shown to bind other ligands such as Ox-LDL, which suggests that SREC has a binding specificity similar to the type I and II macrophage scavenger receptors. SREC is expressed in HUVEC, CAE, and CASM cell lines. It is characterized by an extracellular amino-terminal domain with five epidermal growth factor-like cysteine pattern signatures and an unusually long cytoplasmic carboxy-terminal domain. SREC is thought to be involved in the development of atherosclerosis as it mediates the recruitment, activation, and transformation of macrophages after endothelial cell injury.

REFERENCES

- Lerman, A., et al. 1991. Circulating and tissue endothelin immunoreactivity in advanced atherosclerosis. *N. Engl. J. Med.* 325: 997-1001.
- Adachi, H., et al. 1997. Expression cloning of a novel scavenger receptor from human endothelial cells. *J. Biol. Chem.* 272: 31217-31220.
- Yamada, Y., et al. 1998. Scavenger receptor family proteins: roles for atherosclerosis, host defence and disorders of the central nervous system. *Cell Mol. Life Sci.* 54: 628-640.
- Shirai, H., et al. 1999. Structure and function of type I and II macrophage scavenger receptors. *Mech. Ageing Dev.* 111: 107-121.
- Dhaliwal, B.S. and Steinbrecher, U.P., 1999. Scavenger receptors and oxidized low density lipoproteins. *Clin. Chim. Acta* 286: 191-205.
- Steinbrecher, U.P., 1999. Receptors for oxidized low density lipoprotein. *Biochim. Biophys. Acta* 1436: 279-298.

CHROMOSOMAL LOCATIONS

Genetic locus: SCARF1 (human) mapping to 17p13.3; Scarf1 (mouse) mapping to 11 B5.

SOURCE

SREC (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SREC 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-11298 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.

RESEARCH USE

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

APPLICATIONS

SREC (N-15) is recommended for detection of SREC 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).

SREC (N-15) is also recommended for detection of SREC in additional species, including equine.

Suitable for use as control antibody for SREC siRNA (h): sc-36561, SREC siRNA (m): sc-36562, SREC shRNA Plasmid (h): sc-36561-SH, SREC shRNA Plasmid (m): sc-36562-SH, SREC shRNA (h) Lentiviral Particles: sc-36561-V and SREC shRNA (m) Lentiviral Particles: sc-36562-V.

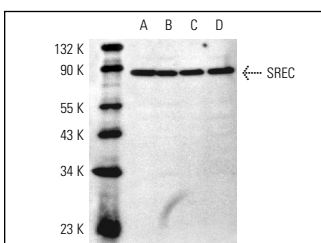
Molecular Weight of SREC: 86 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HUV-EC-C whole cell lysate or ECV304 cell lysate: sc-2269.

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



SREC (N-15): sc-11298. Western blot analysis of SREC expression in HeLa (A), HUV-EC-C (B), ECV304 (C) and A-431 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

- Biedro, R., et al. 2015. Oxidation by neutrophils-derived HOCl increases immunogenicity of proteins by converting them into ligands of several endocytic receptors involved in antigen uptake by dendritic cells and macrophages. *PLoS ONE* 10: e0123293.